Handle with
EXTREME CARE
This volume is **BRITTLE**
and ***cannot be repaired***
- Photocopy only if necessary
GERSTEIN SCIENCE INFORMATION CENTRE


Digitized by the Internet Archive
in 2009 with funding from
University of Toronto

http://www.archive.org/details/1902britishmedic01brit

P
MED
B

THE

British Medical Journal

JOURNAL OF THE BRITISH MEDICAL ASSOCIATION

INCLUDING

AN EPITOME OF CURRENT MEDICAL LITERATURE.

EDITED FOR THE ASSOCIATION BY

DAWSON WILLIAMS, M.D.,

ASSISTED BY

CHARLES LOUIS TAYLOR.

6349 6
18 5

VOLUME I FOR 1902.

JANUARY TO JUNE.

London:

PRINTED AND PUBLISHED BY THE BRITISH MEDICAL ASSOCIATION AT THEIR OFFICE 429, STRAND.

MCMII.

R
31
B93
1902
v.1
cop.2

INDEX TO VOLUME I FOR 1902.

A.

Abbe, R., oöphorectomy for mammary cancer, 159
Abbott, J. T, the operative treatment of bunions, 1537
Abdomen, gunshot wound of, laparotomy, death, 268; failure of closure of walls of, 352; choice of an anaesthetic in operations on, 568; tumour of wall of, 1084; the quiescent period in the course of acute affections of, 1085
Abdominal belts, 1343
——— organs in pleural cavity, 17
——— section for solid ovarian tumour, 896
——— wall, the curative effects of the *x* rays on callous sinuses of the, 1337
Aberdeen, correspondence from, 424
Abortion, incomplete, case of acute septicaemia following treated by antistreptococcus serum, 78; incomplete, the curette in, 519
Abscess, in the neck with signs of vagus irritation, 267; pulmonary, case of, 333; tuberculous, hydrogen peroxide in the treatment of, 448, 756; intraperitoneal of the appendix, treatment of, 455; hepatic, treatment of, 458; of brain, 515; ovarian, rupture of, 717; mammary, is infection of the uterus a cause of? 894; cerebellar, with sudden paralysis of the respiratory centre, 963; tropical, of the liver, 1210
"Absent treatment," a cure by, 940
Abuse, a Poor-law, in Scotland, 1242
Académie de Médecine de Paris, review of work in, 1901; cure of cancer of the lung, ib.; the vice-presidency of, 254; the prophylactic and therapeutic indications in phthisis founded on a knowledge of the nidus, 422; "arrhenal" in consumption, 804; resolution in favour of prophylactic serum injections in diphtheria, 997
Academy of Medicine, the Belgian and a conference for the unification of formulae, 1458
——— New York, and the exclusion of tuberculous immigrants from the United States, 479
——— Royal, the medical aspects of, 1168
——— ——— Royal of Medicine in Ireland, Section of Medicine, disseminated sclerosis, 19; hemichorea and parotitis complicating a case of diabetes, ib.; glycosuria and insanity, ib.; unilateral fatty degeneration of the heart, 20; cases, 1145; perforated gastric ulcer, ib.
——— Royal of Medicine in Ireland, Section of Obstetrics, a case of Caesarean section, 204; ovarian cystomata, 205
——— Royal of Medicine in Ireland, Section of Pathology, the etiology of vaccinia, 393; disease of vertebrae and humerus, 394; genito-urinary tuberculosis, 964; tumour of spinal cord, ib.; fracture of both bones of forearm, ib.; Colles's fracture, 965; diseased vertebrae, 1269; case of continued fever due to the bacillus enteritidis of Gaertner, 1270; sarcomatous osteo-chondroma of femur removed by disarticulation at hip, ib.; adenoma of breast, ib.
——— Royal of Medicine in Ireland, Section of Surgery, living exhibits, 334; surgical treatment of chronic synovitis, ib.; pylorectomy, 335; swallowing of metallic denture successfully treated by the internal administration of cotton wool, 774; treatment of senile hypertrophy of the prostate, ib.; suprapubic prostatectomy, ib.; cases, 1029; ligation of the external iliac artery for ilio-femoral aneurysm and other tumours, ib.
Accidents, industrial, the prevention of, 1485
Accounts, payment of by public authorities, 373
Acetonuria and fat, 1361
Acetylene gas for a hospital, 311
Achard, C., L'Examen Clinique des Fonctions Rénales par l'Elimination Provoquée, *rev.*, 722
Acland, T. D., modern methods of vaccination, 144; vaccination and common sense, 1009; age-incidence of small-pox amongst the vaccinated and unvaccinated, 1510
Acne rosacea, treatment of, 632
Act, Employers' Liability, and coachmen, 1002
——— a medical for Canada, 1558
——— Notification, prosecution under, 369, 1002; unqualified practice and, 537
——— Registration of Births and Deaths, offences against the, 119
——— the Vaccination, 1898, the working of in Liverpool, 484; difficulties under, 550, 617, 680; the working of, 752
Actinomycosis of tongue, 394
Acts, the Vaccination, amendment of, 598; Dr. Bond on, 668 (735)
Adair, T. McC., stethoscope for injection of normal saline solution, 1091
Adam, James, suprarenal extract as a haemostatic, 142
——— John, medical diagnosis and modern discoveries, 499
Adami, J. G., on cancer, 838; the use of the term "blastoma," 1380
Adamkiewicz, Professor, and the Austrian Chamber of Deputies, 285
Adams, E. W., Professor Osler's tribute to Sir Thomas Browne, 427
Addinsell, A. W., a case of premature senility of the uterus, 1205; on sterility, 1309
Addresses, introductory, a protest, 54
Addyman, F. T., Practical *x*-Ray Work, *rev.*, 401
Adenoma of uterus, 1146; of prostate, 1274
Adenomata, prostatic, removal of, 1321
Adirondack, the cottage sanatorium at, 992
Adkins, G., typhoid fever and flies, 312
Adrenal remains, the occurrence of pelvic tumours arising in, 80
Adrenalin, information as to, 1252; in haematuria, 1340, as an adjunct to the light treatment of lupus, 1533
——— chloride solution in ophthalmic practice, 707; in ophthalmic, nasal, and aural surgery, 1142
Adults, notching the soft palate for post-nasal obstruction in 962
Advertisement, studies in, 1289
Advertisements, testimonials as, 369, 628; of health lectures, 491; a protest as to, 1320
Advertising, medical, 243, 627, 809, 934, 1061, 1313, 1383, 1583; the unauthorized of medical practitioners, 751; hypnotics in the lay newspapers, 934
——— medium the legislative chamber as a, 285; the temperature chart as a, 933
Advisory Board. *See* Board
Age-distribution in London, 664
——— incidence of small pox, 1452, 1510, 1582, 1620
Agglutinins, the presence and formation of in the blood, 821
Agreements, partnership, 809
Air, use of a bag pervious to in ether anaesthesia, 124, 398; of operating rooms, 940
——— passages, the upper, the principles of local treatment in, 58, 99, 112
Aitchison, J., the Worshipful Company of Spectacle Makers, 746
Alabone, E. W., the treatment of consumption: a disclaimer, 59
——— M. A., the treatment of consumption, 301
Alaska, arctic diseases of, 1109
Albuminuria, splenic enlargement with, 514
Alcoholism, "cures" for, 291, 355, 401, 469, 606, 1370; and venereal disease among troops in the Philippines, 933
Alexander, S., placenta praevia, 1144
Alginoid of iron, 723
Allan, W. A., a congenital malformation, 1106
Allchin, W. H., the nature and treatment of obesity, 273; A Manual of Medicine, *rev.*, 969
Alliance, Friendly Societies Medical, conference of, 994
Allingham, H. W., "What's What," 485; The Diagnosis and Treatment of Diseases of the Rectum, *rev.*, 1089
——— W., The Diagnosis and Treatment of Diseases of the Rectum, *rev.*, 1089
Allwood, J. A., ruptured tubal pregnancy, 172; extraordinary displacement of the gravid uterus, ib.
Alopecia areata, moniliform hairs associated with, 812, 883; complete baldness from, 884
Altitudes, high, the effect of, 1044
Ambulance for crippled school children, 1190
——— arrangements for the Coronation, 1429
——— surgeon, a female, 1249
"Amenities of debate" antivivisectionist, 599, 605
America, United States of. *See* United States
Amnion, development of, 1338
Anaemia, pernicious, case of, 298, 1208; treatment of, 312; senile, associated with gouty rheumatoid arthritis and dyspepsia, 394; splenic, and Hodgkin's disease, 710; fatal, presenting some unusual blood changes, 1159; the infective lesions of the tongue, stomach, and intestine in 25 cases of, 1270; the oedema of, 1464
Anaesthesia, ether, use of a bag pervious to air in, 124, 398
Anaesthetic, choice of an in abdominal operations, 568; choice of in phthisis, 1588
Anaesthetics, choice of for epileptics, 183; instruction in, 1046
Anaesthetist and operator, 20
Analysis, quantitative of starch and sugar, 696
Analyst, an American, the little bill of, 751
Anastomosis, intestinal, 335
Anatomy of tuberculosis, 592
Anderson, A. R., removal of a nail from the right bronchus of a child aged 2½ years, 894
——— Mrs. E. G., is the lady doctor a failure? 558
——— Dr. J. H., death of, 1005
——— R. B., subscriptions to fund for wife and family of, 94. (*See also* Fund)
Andrew, J. G., the treatment of hip-joint disease in children, 352
Andrewes, F. W., a new method of extracting tetanus toxin from certain solid viscera of the human body, 965
Aneurysm of the aorta, ligature of the carotid for, 392; traumatic, treatment of by proximal ligature, 641; ilio-femoral, ligation of the external iliac artery for, 1029; arterio-venous, the treatment of, 1133, 1166
Angina, Vincent's, 1085
Angioma of the globe, 660
Animals, living, experiments on, 1369
Ankle-joint, primary sarcoma of the synovial membrane of, 1210
Ankylosis, bony, of jaws, 1147
Ankylostoma duodenale, the causal relationship between "ground-itch" or "pani-ghao" and the presence of the larvae of in the soil, 150, 224, 807, 1310
Annable, Mrs. M. J., an inheritance of crime, 1561
Annual Charities Register and Digest, *rev.*, 722
——— British Sanatoria, *rev.*, 1091
Anning, G. P., carcinoma of pylorus in a young man, 1149
"Anopheles," breeding places of, 173; absence of in Barbadoes, 200; and malaria in India, 1168
Antipyrin, three cases of cerebro-spinal fever treated with 1262
Antitobacco legislation in the Isle of Man, 925
Antitoxin, diphtheria, tetanus and, 104; eruptions, from, 386; severe case of diphtheria treated by on the seventh day, 452; free supply of in New York State, 873, 1517; the use of at Colchester, 912; sudden syncope occurring after the injection of, 1025, 1178; regulation of sale of, 1228
Antivaccination Bill. *See* Bill
——— experiment, an, 915
Antivaccinist tactics on public Boards, 293, 979
Antivaccinists and vaccination in Glasgow, 991; in South-West London, ib.
Antivenene, Calmette's, snake-bite treated by, recovery, 202
Antivisection methods, 1561, 1576
Antivivisectionism in the United States, 703
Antivivisectionist "amenities of debate," 599, 605, 682

Antivivisectionists, Sir F. Treves and the, 1042
Antrum, maxillary, 35 cases of chronic suppuration of the, 945; maxillary, chronic suppuration of, 1120, 1179
Antwerp, the dermatological hospital at, 1107
Anus, congenital stricture of, 19; imperforate, three cases of, 266; artificial following strangulation of a ventral hernia successfully treated by resection of small intestine and implantation of the ileum into the caecum, 1402; artificial and subsequent short-circuiting of bowel, 1474; artificial, enterectomy contrasted with, 1595
Aorta, ligature of the carotid for aneurysm of, 392
Apoplexy, during labour, case of, 76; with hemiplegia, hemianaesthesia, and hemianopia, 1027
Apothecaries' Society of London, pass lists, 119, 243, 563, 871, 935, 1126, 1384, 1658; the Gillson scholarship of, 475; instruction in anaesthetics, 1247
Appeal, an, 1281
Appendicitis, two cases of, 313; and its treatment, 315, 427; with localized inflammation, 455; relapsing, 590; case of, 660; in British Columbia, 1629
Appendix vermiformis, two cases of recovery after operation for diffuse peritonitis from perforation of the, 325; treatment of intraperitoneal abscess of the, 455; intestinal obstruction due to a band passing from mesentery to, 510; in femoral hernial sac, 1148; some phases of inflammation of the, 1589; perforation of the within a hernial sac, resection of the caecum and ileo-caecal junction, recovery, 1601
Appointment, medical, to the isolation hospital of urban district council, 873
Appointments, club, 305, 369; Poor-law, 373; public, qualifications for, 629; vacant on transfer of practice, 809
Arabia, cholera in, 857
Arachnoid, drainage of in acute meningitis, 1148
Archduke Carl Theodore of Bavaria performs four thousandth operation for cataract, 1658
Argentina, the plague in, 1239
Arizona, legislation against tuberculosis in, 188
Armies, the prevention of enteric fever in, 116, 237, 386, 426, 487, 643, 665, 1380, 1514
Armit, H. W., a summary and analysis of recent observations and theories as to the processes of infection and protection in the organism, 784, 844, 918, 988, 1058, 1243
Armour's soluble beef, 341
Armstrong, H., the infantile mortality from tuberculous meningitis and tabes mesenterica, 1024
Army, British, promotions and appointments in medical service of, 59, 118, 932, 1059, 1123, 1183, 1312, 1382; promotions and appointments in medical reserve of, 59, 242, 368, 430, 490, 626, 750, 932, 1059, 1244, 1486, 1624; ophthalmic work in the, 133; undermanning of the medical service of, 177, 489, 689, 1000, 1243, 1584; the reorganization of the medical service of, 221, 299, 304, 437; the headquarters staff of the medical service of, 362, 470, 490; dearth of candidates, 491; the estimates for 1902-3, 561; employment of retired medical officers, 626; the Court and the medical service of the, 687, 999; the new medical warrant for, 787, 813, 855, 992, 1002, 1244, 1456; rank on retirement, 1001; the medical service of as a career, 1223
—— French, the prevention of consumption in, 106; medical statistics of, 750
—— Indian, promotions and appointments in medical service of, 59, 118, 177, 242, 304, 368, 626, 690, 869, 932, 1000, 1059, 1123, 1183, 1244, 1312, 1382, 1456, 1516, 1624; the pay of the medical service of, 368, 626; the new director-general of the medical service of, 424; successful candidates for the medical service of, 491; Scientific Memoirs by Medical Officers of the, *rev.*, 663; furlough pay in, 751; the question of fees in, ib.; pay of lieutenant-colonels in the medical service of, 1183; list of examiners for medical service of, 1382; annual dinner of medical service of, 1585
—— Nursing Service Reserve, note on, 690
—— Prussian, Jewish medical officers in, 434
—— Russian, the medical service of, 1184
—— United States, in the Philippines, adulterated drugs for, 280; medals of honour in, 734; the surgeon-general of the, 1184; the medical school of, ib.; the nursing corps of, 1632
Arnaud, F. L., on obsessions, 1294
Arrhenal" in consumption, 804; description of, 1343
Arrow poisons, 1106
Arsenic in the hair of beri-beri patients from Penang, 329, 425; a find of in America, 846
Arteries, internal carotid, tortuosity of both, 76, 332, 893
Artery, cardiac, ligature of the for aneurysm of the aorta, 392; lingual, a method of securing in excision of the tongue through the mouth, 454; superior mesenteric, intestinal obstruction due to embolus of a branch of the, 963; external iliac, ligation of for ilio-femoral aneurysm and other tumours, 1029; internal carotid, tortuosity of, 1602
Arthritis, rheumatoid, an experimental production of the osteo-arthritic type of, 79; gouty rheumatoid, senile anaemia associated with, 394; of the knee, 715; septic, of the knee, the "open" method of treating, 1523
Arthropathy, of shoulder-joint in a case of syringomyelia, 271; symmetrical, in congenital spinal degeneration, 272; in a case of pulmonary bronchiectasis, 1085
Articles of Association, proposed, of the British Medical Association, 1298, 1643
Asquith, W. W., Long Fox memorial, 1619
Asbestos houses, 90
Aschoff, L., Kursus der pathologischen Histologie mit einem mikroskopischen Atlas, *rev.*, 275
Asch's operation for deviations of the nasal septum, 948
Ascites, a case of, 436; chyliform, 590; in a child, 864
Ash, A. E., intussusception occurring as a complication of enteric fever, 1083
Asia, cholera in, 1045
Asphyxia, the state of the vascular system after death by, 832
Aspinall, F. B., on electrical shock, 599
Asquith, W. W., Long Fox memorial, 1619
Assam, sanitary report of, 308
Assistant, public vaccination by, 562
—— unqualified, remuneration of, 431
Assistants, untrustworthy, 809
Association, the After-care, annual meeting of, 607
—— American, for the Advancement of Science, formation of Section of Experimental Medicine and Physiology in, 305
—— American Medico-Psychological, programme of annual meeting of, 752
—— British Child Study, annual report of, 565
—— British Dental, annual meeting of, 1386
—— British Laryngological, Rhinological, and Otological, meeting of, 147, 1274
ASSOCIATION, BRITISH MEDICAL, list of books presented to library of, 278, 1286; programme of Manchester meeting, 420, 790, 801, 1502, 1565; and the Midwives Bill, 481; the reconstitution of the, 686, 748, 1452; annual exhibition of, 862, 1448, 1506, 1575; financial statement for the year 1901, 1055; the reorganization of, 1287, 1297, 1493; notice of special business of, 1297, 1373, 1445, 1501, 1579, 1651; proposed articles of association of, 1298, 1643; proposed by-laws of, 1302, 1648; the constitution of the, 1380; the annual meeting of at Manchester, Section of Ethics, ib.; the annual meeting at Manchester, reduced fares, 1428; leading article on the annual meeting at Manchester, 1555; the reconstitution of, 1563; extraordinary general meeting of, 1633
—— council, proceedings of, 230, 1053; pamphlets issued by on small-pox, 411; memorandum of on the Midwives Bill, 1173; report of a Committee of on preliminary education, 1351
—— Parliamentary Bills Committee, proceedings of, 232, 1056; the army medical service, 233, 1057; the Public Health Acts and Vaccination Subcommittee, 233; medical aid companies and proposed legislation, ib.; the registration of midwives, ib.; Public Health Bill, ib.; report of subcommittee of on Mr. Brodrick's scheme, ib.; report of subcommittee of on the new medical warrant, 992; the Midwives Bill, 1056; medical and sanitary science in India, 1057; Irish Poor-law Officers' Superannuation Bill, ib.
—— Reorganization Committee, report of, 1297, 1452, 1512, 1621
—— Scientific Grants Committee, reports to, 449, 1461, 1464, 1469
—— Aberdeen, Banff and Kincardine Branch, confirmation of minutes, 1654; new members, ib.; Branch representatives, ib.; increased direct representation on General Medical Council, ib.; joint meeting with Northern Counties of Scotland Branch, ib.; golf match, ib.; excursion, ib.; dinner, ib.
ASSOCIATION, BRITISH MEDICAL, Bath and Bristol Branch, confirmation of minutes, 360, 864, 1447; new members, 360, 620, 1447; communications, 360, 1178, 1447; contract medical practice, 360; discussion, 620; morphine in uraemia, 864; ascites in a child, ib.; hepatopexy, ib.; specimens, etc., ib.; the late Drs. Long and Bonville Fox, 1178; annual meeting of, 1447, 1655; induction of new president, 1655; report of Council, ib.; election of officers, ib.; vote of thanks, ib.; annual dinner, ib.
—— Birmingham and Midland Counties Branch, confirmation of minutes, 172, 864; election of members, 172; papers, ib.; new members, 591; perforated gastric ulcer, ib.; nephrectomy, ib.; nephrolithotomy for renal and ureteral calculi, ib.; functional word deafness, 592; colon catarrh and muco-membranous colitis, ib.; nomination of officers for 1902-1903, 864; sarcoma of ovary, 865; popliteal and gluteal bursae, ib.; sarcoma of fibula, ib.; modification of Scarpa's shoe, ib.; rectal carcinoma and the prolongation of life by colotomy, ib.; phthisis and sanatoria, ib.
—— Border Counties Branch, confirmation of minutes, 235, 926; votes of condolence, 235, 926; next meeting, 235; new members, 235, 926; papers, 235, 926; dinner, 235, 926; Epsom College, 926; apology for non-attendance, ib.
—— Brisbane and Queensland Branch, annual meeting, 235; election of officers, ib.; retiring president's address, ib.; reports of treasurer and council, ib.
—— British Guiana Branch, extraordinary general meetings of, 235; confirmation of minutes, 685; president's address, ib.; vote of thanks, 685, 1376; the by-laws of the, 685
—— Dorset and West Hants Branch, annual meeting, 1375; vote of thanks to retiring president, ib.; votes of condolence, ib.; Branch council, ib.; representation on Association Council and Parliamentary Bills Committee, ib.; new members, ib.; Tuberculosis Committee, ib.; summer meeting, ib.; address, ib.; communications, ib.; luncheon and dinner, ib.
—— Dublin Branch, annual meeting, 421; report of council, ib.; election of officers, ib.; vote of thanks to the retiring president, ib.; presidential address, 422; vote of thanks to the honorary secretary and treasurer, ib.; medical aid associations, ib.
—— Dundee and District Branch, conjoint meeting of with Edinburgh Branch, 618, 1447 (*which see*); annual meeting of, 1446; presentation of reports, ib; election of officers, ib.; constitution of General Medical Council, ib.; School Board medical officers, ib.; Midwives Bill, 1447; new members, ib.
—— East Anglian Branch, new members, 1052; annual general meeting, ib.; general meeting, ib.; discussion, ib.; papers, ib.; afternoon tea, ib.; wage limit in club practice, 1374
—— Edinburgh (Lothians and Fife) Branch, conjoint meeting of with the Perthshire, Stirling, Kinross and Clackmannan, and Dundee and District Branches, 618, 1447; museum and clinical meeting, 618; demonstration of apparatus, 619; special meeting of, 620; new members, ib.; donation to Smyth of Arranmore fund, ib.; dinner, 620, 1447; and the Midwives Bill, 678; communications, 1447; museum, ib.; card specimens, ib.; series of specimens illustrating some of the affections of the heart, ib.; tea, ib.; annual meeting, 1653; new members, ib.; honorary secretary's report, ib.; treasurer's report, ib.; election of officers, ib.; vote of thanks, ib.; direct representation on the General Medical Council, ib.
—— Glasgow and West of Scotland Branch, the reform of the General Medical Council, 620
—— Gloucestershire Branch, Volkmann's contraction, 1052; papers, 1053
—— Hong Kong and China Branch, annual meeting, 483; election of officers, ib.; communications, ib.; dengue fever, ib.; vote of thanks, ib.
—— Jamaica Branch, representative on the council, 172;

ruptured tubal pregnancy, ib.; infantile paralysis, ib.; extraordinary displacement of the gravid uterus, ib.

ASSOCIATION, BRITISH MEDICAL, Lancashire and Cheshire Branch, State vaccination by private practitioners, 946; the Manchester Maternity Hospital and the Association, 1651; reply to pamphlet, 1652

——— Malta and Mediterranean Branch, confirmation of minutes, 1650; communications, ib.; resignation of the honorary secretary, ib.; election of honorary secretary, ib.; auditing of accounts, ib.

——— Metropolitan Counties Branch, the jubilee of, 1440; annual meeting, 1653; confirmation of minutes, ib.; report of council, ib.; treasurer's report, ib.; election of officers, ib.; votes of thanks, ib.; installation of the president, ib.; annual dinner, ib.

——— Metropolitan Counties Branch, North London District, difficulties in the diagnosis of chest diseases, 514; annual meeting of, 1309; confirmation of minutes, ib.; election of officers, ib.; sterility, ib.; cases, 1310; votes of thanks, ib.

——— Metropolitan Counties Branch, South London District, annual meeting, 1374; confirmation of minutes, ib.; election of officers, ib.; votes of thanks, ib.; communications, ib.

——— Metropolitan Counties Branch, West London District, confirmation of minutes, 108, 926, 1508; papers, 108, 1508; cases, 108, 926; specimens, 108; vote of thanks, 108, 926, 1509; tea, 108, 926, 1509; election of officers, 1508

——— Midland Branch, annual meeting, 1655; report of council, ib.; allocation of fund ib.; votes of thanks, ib.; election of officers, ib.; communications, ib.; the reorganization of the Branch, ib.

——— North of England Branch, the honorary secretary, 1375; representative on central council, ib.; an old member, ib.; new members, ib.; specimens, ib.; removal of Meckel's diverticulum, ib.; operation on mouth for malignant disease, ib.; suprapubic lithotomy, ib.; dinner and vote of thanks, ib.

——— North of Ireland Branch, confirmation of minutes, 298, 1119; new members, 298, 1119; operative treatment of hernia in children, 298; spina bifida, ib.; diseased lungs, ib.; plague, ib.; laparotomy performed twice on the same patient, ib.; pernicious anaemia, ib.; communications, 1119

——— North-Wales Branch, sick clubs and medical aid associations, 905; new members, 907; Epsom College, ib.; Professor Alfred Hughes memorial at Corris, ib.; proposed excursion to North Wales at the annual meeting, ib.; communications, ib.; demonstration, ib.

——— Northern Counties of Scotland Branch, conjoint meeting with Aberdeen, Banff, and Kincardine Branch, 1654 (*which see*); annual meeting, ib.; confirmation of minutes, ib.; new members, ib.; election of officers, ib.; next meeting, ib.

——— Perthshire Branch, confirmation of minutes, 482; new members, ib.; rupture of heart, ib.; palpation of pregnant uterus, ib.; torsion of caecum, ib.; rupture of urethra, ib.; exhibit, ib.; conjoint meeting of with Edinburgh Branch, 618 (*which see*)

——— Southern Branch, Isle of Wight District, confirmation of minutes, 360, 1119; election of president-elect, 360; new members, 360, 1119; communications, 360; next meeting, ib.; accounts, 1119; the William Smyth memorial fund, ib.; Epsom College, ib.; election of officers, ib.; presidential address, ib.; paper, ib.

——— Southern Branch, South-East Hants Districts, confirmation of minutes, 1374; new member, ib.; annual report, ib.; election of officers, ib.

——— South Eastern Branch, East Kent District, confirmation of minutes, 926, 1508; chairman of annual meeting, 805; representatives of the Branch upon the Council of the Association, ib.; attendance at meetings, ib.; peripheral neuritis, ib.; broad lines of treatment, ib.; variola or varicella? ib.; vote of thanks, 927; discussion on contract practice, 1482; annual meeting, 1508; accounts, ib.; election of honorary secretary, ib.; future meetings in September and in March, 1903, ib.; empyema and its relation to pneumonia, ib.; annual dinner, ib.

ASSOCIATION, BRITISH MEDICAL, South Eastern Branch, East Surrey District, confirmation of minutes, 996, 1241; next meeting, 996, 1241; the late Dr. Hetley, J.P., 996; election of officers, ib.; papers, ib.; demonstration of photo-therapy, ib., dinner, 996, 1241; communications, 1241; exhibit of instruments, ib.

——— South Eastern Branch, East Sussex District, confirmation of minutes, 865, 1507; resignation of secretary, 865; communications, ib.; dinner, 865, 1508; place of next meeting, 1507; Midwives Bill, ib.; physiognomy, ib.; insular sclerosis, ib.; hydatid of the liver, ib.; volvulus of caecum, 1508

——— South Eastern Branch, West Kent District, confirmation of minutes, 1052; next meeting, ib.; papers, ib.; vote of thanks, ib.

——— South Eastern Branch, West Sussex District, confirmation of minutes, 51, 865; next place of meeting, 51; cases, etc., ib.; papers, ib.; dinner, 52, 865; communications, 865

——— South Indian Branch, the treatment of hepatic abscess, 438

——— South Midland Branch, annual meeting, 1654; luncheon, ib.; minutes and report of committee of management, ib.; new members, ib.; committee of management, ib.; annual meeting, ib.; State vaccination by private practitioners, ib.; pathological specimens, ib.; the Kettering Medical Aid Association, ib.; president's address, ib.; the open-air treatment of consumption, ib.; pemphigus foliaceus, 1655; votes of thanks, ib.

——— South Wales and Monmouthshire Branch, new members, 1375; sanatoria for consumptives, ib.; communications, ib.

——— South-Western Branch, confirmation of minutes, 235, 996, 1653; the prevention of consumption, 235; communications 235, 996; new members, 235, 997; the late Dr. Wm. Smyth, 996; annual meeting, 1653; president's address, ib.; election of a vice-president, ib.; report of Branch Council, ib.; election of officers, 1654; visits of inspection, ib.; annual dinner, ib.

——— Staffordshire Branch, special general meeting of as to lead poisoning in the potteries, 685; the condition of the gums in leadworkers, 775; catalepsy, ib.; specimens, 776; confirmation of minutes, 800; new members, ib.; alteration of the dates of the annual meeting and the third general meeting, ib.; operation for suppurative otitis and mastoid disease, 1147; bony ankylosis of jaws, ib.; excision of upper jaw, ib.; excision of lower jaw, ib.; Halsted's operation for mammary cancer, 1148; cancer of colon, ib.; gastro-enterostomy for ulceration of pylorus, ib.; renal calculus, ib.; drainage of arachnoid in acute meningitis, ib.; fracture of olecranon, ib.; paper, ib.

——— Stirling, Kinross, and Clackmannan Branch, conjoint meeting of with the Edinburgh Branch, 618 (*which see*); annual meeting of, 1503; new member, ib.; financial report, ib.; alteration of by-law, ib.; election of officers, ib.; presidential address, ib.; tea, ib.

——— Sydney and New South Wales Branch, confirmation of minutes, 172, 298, 483, 1448, 1655; alteration of article, 172; communications, 172, 298, 483, 1656; new members, 483, 1448, 1655; Australian Natives' Association, 907; annual meeting, 1448; scrutineers, ib.; report of council and statement of accounts, ib.; president's address, ib.; Branch representatives at annual meeting, ib.; demonstration ib.; election of officers, ib.; vote of thanks, ib.; recognition of as a public body, 1656

——— Victorian Branch, annual meeting of, 927

——— West Somerset Branch, confirmation of minutes, 997; communications, ib.; tea, ib.; vote of thanks, ib.

——— Worcestershire and Hertfordshire Branch annual meeting, 1656; election of officers, ib., new members, ib., communications, ib.

——— Yorkshire Branch, gastric ulcer, 500; relapsing appendicitis, ib.; talipes varus, ib.; partial gastrectomy, 591; extroversion of bladder, ib.; the light treatment of lupus, ib.; ringworm of the eyelids, ib.; president's address, ib.; blistering in syphilis of the brain and spinal cord, 668; sporadic cretinism, ib.; cure [illegible] of the rectum, ib.; belladonna in broncho-pneumonia, ib.; intranasal treatment in asthma, ib.

Association, of Asylum Works, annual meeting of, 1367

——— British Medical Temperance, manifesto by, 170; annual meeting of, 1317

——— Canadian Medical Protective, formation of, 288

——— Cottage Nurses' annual conference of, 1631

——— Durham University Medical Graduates', dinner of, 1432

——— a French Canadian Medical, formation of, 277

——— of Honorary Surgeons of St. John Ambulance Brigade, formation and objects of, 1132

——— International Medical Press, the Prince of Monaco and, 104; conference of, 988

——— the Irish Medical and the Irish Poor-law medical service, 31, 41, 357

——— Irish Medical Schools' and Graduates', dinner of, 731

——— Manchester and Salford Sanitary, and the ventilation of schools, 629; fiftieth anniversary of foundation of, 873, report of, 1629

——— Medical Missionary, annual meeting of, 1066

——— of Military Surgeons of the United States, objects, etc., of, 368; delegate to annual meeting of, 1231

——— National, for the Prevention of Consumption and other Forms of Tuberculosis, annual meeting of, 741

——— of New York Nurses, formation of, 754

——— for the Oral Instruction of the Deaf and Dumb, report of, 1586

——— Poor-law Medical Officers', meeting of Council of, 1501

——— of Registered Medical Women, meeting of, 25, 208, 1152, 1245; and the registration of midwives, 650

——— Scottish Poor-law Medical Officers', annual meeting of, 105; and the medical officership of Kilfinichen and Kilvicheon, 366

——— Volunteer Medical, annual dinner of, 978; correspondence with War Office on the Volunteer Medical Service, 1001, 1312; the ambulance challenge shield of, 1313, 1316

——— Workhouse Infirmary Nursing and the qualification of nurses, 692

Assurance. *See* Insurance

Asthma, intranasal treatment in, 968; literature of, 1460

Asylum, Dorset County, private patients in, 182

——— Down District and the pathological study of insanity, 937

——— Royal, Edinburgh [illegible]; [illegible] tendent [illegible] of [illegible]

Asylums, dysentery in, 25, 506, 487, 604; Scottish the laboratory of, 856; Central Sick, Cleveland Street, and the light treatment of lupus, 983

Ataxia, acutely developed, in tabes, 714

Atelectasis, probable congenital, 168

Atlas of Medicine and Surgery, the New Sydenham Society's Clinical, 1180

Atmospheric transparency, 42

Atresia vaginae, 1252

Atrophy, progressive muscular, peroneal type of, 21; idiopathic muscular, 1685

Atropine, the indiscriminate use of in eye diseases, 207; death from poisoning by, 1540

Attendance, medical, on families of soldiers in South Africa, 62

Atthill, L., the registration of students, 1513

Auckland, New Zealand, for phthisical patients, 1660

Auricle, accidental removal of by midwifery forceps and successful application of artificial auricle, 14; left, "horizontal" dilatation of the, 1211; left, dilatation and thrombosis of, ib.

Australasia, increased prevalence of cancer in, 856

Australia, the spitting nuisance in, 182; hospitals in, 549; prevention of consumption in, 1228

Austria, the Chambers of Deputies of and Professor Adamkiewicz, 285; the medical profession in, 300; the prevention of consumption in, 786; medical students in universities of, 983

Autobiographies of mental and nervous disorders by patients, 793

Axford, Staff Surgeon W. G., the Gilbert and Ellice Islanders, 624

B.
Bacillus, the typhoid, isolation of, 703; enteritidis, of Gaertner, case of continued fever due to, 1270; coli, etc., note on media for distinguishing, 1473
Bacteriology, of a case of rapidly-spreading gangrene, 203; of schools, 980
Badge, the red, of vaccination, 349
Bag, pervious to air, use of in ether anaesthesia, 124, 398
Bailey, J. H., the dangers of the loving cup, 376
——— P. J., asylum dysentery, 397
——— R. C., results of swallowing strong hydrochloric acid, 511
——— Mr. T. C., death of, 1005
Bainbridge, F. A., the formation of lymph by the liver, 1459
Baker, S. J., arresting secretion of milk, 123
Bakers, bad, new and old, the fate of, 120
Baldness, complete, from alopecia areata, 884
Baldwin, F. B. J., ectopic gestation, rupture, operation, recovery, 1145
——— G. P., remarkable fecundity, 940
Ball, C. A., preparation of sterilized catgut, 58
—— C. B., the reorganization of the Army Medical Service, 437
—— J. B., A Handbook of Diseases of the Nose and Pharynx, *rev.*, 400
Ballance, C. A., the regeneration of peripheral nerves, 511, 657
Ballantyne, J. W., maternities and pre-maternities, 65; Manual of Antenatal Pathology and Hygiene, the Fetus, *rev.*, 721; the problem of the premature infant, 1196, 1214, 1227
Bampton, A. H., the medical profession and inhabited house duty, 1243
Banana malted food, 844
Bankrupt, the professional status of a, 751
Banks, Sir W. M., a brief history of the operations practised for cancer of the breast, 5; mammary cancer, 273; on cancer, 717; loose cartilaginous bodies in knee-joint, 1274; partial removal of thyroid gland, ib.; adenoma of prostate, ib.
Barbadoes, the absence of "Anopheles" in, 200; malarial and filarial diseases in, 1472
Barbier, H., Sémiologie Pratique des Poumons et de la Plèvre, *rev.*, 780
Barbour, J. M., a pocket sputum flask, 465
Barcelona, a new hospital in, 614
Bardswell, N. D., on the effects of forced feeding in cases of pulmonary tuberculosis and in normal individuals, 449
Barker, A. E., thorough operations in cancer of the breast, 174; excision of caecum, 271; excision of transverse colon, ib.; some cases of chronic non-malignant gastric ulcer, 316; a short note on the surgical use of subcutaneous injections of carbohydrates in exhausting diseases, 770; cerebellar abscess with sudden paralysis of the respiratory centre, 663, enterectomy contrasted with artificial anus, 1595
Barling, G., appendicitis with localized suppuration, 455; nephrectomy, 591; nephrolithotomy for renal and ureteral calculi, ib.
Barlow, H. C., a case of tumour of the cerebral cortex, 586
——— Sir T., inheritance of recurrent attacks of jaundice and of abdominal crises with hepato-splenomegaly, 1337
Barnard, H. L., intestinal obstruction due to gall stones, 80; coxa vara traumatica, with skiagraph, insidious onset, 271; facial paralysis, 394; the simulation of acute peritonitis by pleuro-pneumonic diseases, 954; parietal meningocele or cephalhydrocele, 1084; multiple chondromata or osteomata with synostoses of the lower epiphyses of both ulnae and fibulae, ib.; tumour of abdominal wall, ib.
Barnes, Dr. T. L., death of, 623
Barnett, H. N., two cases of bubonic plague occurring on board ship, 1333
——— Captain K. B., treatment of phimosis, 64; [illegible]; Culex larvae [illegible] the hypodermic [illegible], 1114
——— [illegible]
Canon, S. A., children's country holidays, 1059
Barrack school children, 1043
Barrett, A. E., treatment of nocturnal enuresis 939
[illegible], Lieutenant H. P. W., malaria treated [illegible] hypodermic injection of quinine, 201; gunshot wound of abdomen, laparotomy, [illegible], 200
Barry, the coronation celebration at, 1286
Barton, G. H., the causation of death during the administration of chloroform, 1058
Bastian, H. C., the so-called cancer body, 425; Studies in Heterogenesis, *rev.*, 904; the evidence for heterogenesis, 998, 1057
Bately, J., the General Medical Council and the National Medical Aid Company, 58
Bateman, A. G., the treatment of consumption, 113
Bath, a simple form of used in the treatment of enteric fever, 89; portable vapour, explosion in a, 1124
Baths, electrically-heated paraffin, 279; public swimming, bacterial investigations of the water of, 897
Batten, F. E., the regeneration of peripheral nerves, 657
——— G. B., a form of light splinting, 1154
Bearer company or field ambulance? 625
Beatson, G. T., case of excision of clavicle for a round-celled sarcoma, 128; on cancer, 656
Beaver, H. A., oöphorectomy in the treatment of cancer of the breast, 266
Beddard, A. P., Hay's reaction for bile salts, 702
Bed-rest, a, 844
Beer poisoning, arsenical, at the Halifax Union Poor-law Hospital, 1400
Beeton's (Mrs.) Cookery Book, *rev.*, 843
Beevor, Sir H., probable congenital atelectasis. ib.
Behring, E. v., the treatment of bovine tuberculosis. 79; Diphtheria, *rev.*, 597; and the Nobel prize, 735; publishes book on his investigations on tuberculosis, 1110
Belfast, collapse of a mill at, 246; laying of foundation stone of new medical institute for, 983; correspondence from, 1509; inquiry by the Local Government Board in the Union Workhouse and Infirmary at, ib.; small-pox and typhoid fever in, ib.
Belgium, proposed commission on tuberculosis in, 309; the prevention of consumption in, 786
Bell, C. B., the "Society of Public Analysts," 560
—— J. A., disappearance of lipoma during the emaciation of cancer, 1588
—— W. B., appendicitis, 660
Belladonna in broncho-pneumonia, 968
Bellows, Mr. J., death of, 1172
Belts, abdominal, 1343
Bennett, W. E., modification of Scarpa's shoe, 865
Bentley, C. A., on the causal relationship between "ground itch" or "pari-ghao" and the presence of the larvae of ankylostoma duodenale in the soil, 190, 224, 1310
Bequests, 103, 309, 310, 302, 456, 493, 691, 810, 866, 1114, 1135, 1278, 1317, 1462, 1518
Bergey, D. H., The Principles of Hygiene, *rev.*, 518
Bergmann, Professor E. v., gets title of "privy councillor," 353; congratulations to, 423
Beri-beri, arsenic in the hair of patients from Penang suffering from, 329, 425; books on, 1400
Berkeley, C., rupture of ovarian abscess, 717
Berkley, H. J., A Treatise on Mental Diseases, *rev.*, 518
Berlin, correspondence from, 108, 366, 423, 526, 685, 805, 865, 1579; accident to Professor Virchow, 108; male and female nurses in male wards, ib.; the disposition to consumption, the factors which produce immunity, ib.; the "open kitchen" for invalids in, 288; Christian Science, 360; charges against hospitals, ib.; the Emperor and Christian Science, 423; exhibition of medical appliances, ib.; the Congress of Internal Medicine, ib.; Professor von Bergmann, ib.; the lung sanatoria for the people, ib.; the summer-day sanatoria, ib.; professional earnings of doctors in, 494; a defence of the administration of the national hospitals, 556; jubilees and death, 557; workmen's dinner carts, ib.; official expert opinions in the law courts, 685; a new organization against tuberculosis, 686; a lady club doctor, ib.; pollution of water in the neighbourhood of, 805; organization of ambulance work, 865; lectures to district health officers, ib.; cremation of plague and cholera corpses, ib.; the exhibition of medical appliances, 1579
Bernard, L., the clinical application of cryoscopy, 732
Berne, Captain J. G., notes on lightning stroke in South Africa, 108
Bernhardt's Sensibilitätsstorung, 717
Bernheim, S., La Médication Ergotée, etc., *rev.*, 590
Berry, G. A., the treatment of cystoid cicatrix following cataract extraction, 133
——— Mr. H. T., death of, 1243
Bevan, A., urticaria pigmentosa, 1085
Bickersteth, R. A., gastric ulcer, 659
Biddendon maids, the, 850
Bidwell, L. A., the treatment of intestinal obstruction from malignant diseases, 122
Bigelow, Jacob, appreciation of, 850
Bile ducts, surgical treatment of obstruction of by concretions, 836
Bile salts, Hay's reaction for, 702
Bilharzia haematobia, paper on, 1086; the blood in cases affected with, 1137
Bill, the Antivaccination, provisions of, 411
—— Burgh Police and Public Health (Scotland), provisions of, 794
—— the Cremation, third reading of, 1539
—— Cruelty to Animals, a new, 1553
—— the Inebriates Act Amendment (Scotland), leading article on, 728
—— the London Water, leading article on, 348; introduction of, 354; objections to, 472; list of members to whom it has been committed, 795; the Joint Committee and, 1167, 1291
—— the Midwives, 1902, leading article on, 408, 468, 537, 1163; text of, 416; correspondence on, 477, 858, 1513, 1622; proposed amendments to, 481, 614; and the General Medical Council, 520; discussion on in the House of Commons, 545; the Dublin school and, 615; and the Standing Committee on Law in the House of Commons, 675, 723; the Edinburgh Branch of the British Medical Association and, 678; and the Royal College of Physicians of Ireland, 725; Mr. J. H. Johnstone and the General Medical Council, 725; progress of, 730; memorandum of Council of British Medical Association on, 1173; and the Obstetrical Society of London, 1237; and the Birmingham and District Medical Practitioners' Union, 1368; deputation to Home Secretary on, 1427, 1438; Dr. W. J. Sinclair on, 1450, 1582; the debate on the report stage of, 1480; the amended, 1441; the debate on the third reading of, 1550; debate on second reading of in the House of Lords, 1611, 1626
—— Tasmanian Midwifery Nurses, provisions of, 615
—— United States Public Health, objects of, 753
Biltong, the composition and nutritive value of, 880
Binet, M., the prophylactic and therapeutic indications in phthisis founded on a knowledge of the nidus, 422
Biographies, medical, in city and county gazetteers, 562
Biological test for blood, 825
——— problems, the statistical study of, 1291
Biology, the relation of to medicine, 1292
"Biometrika," a new quarterly journal for the statistical study of biology, 1291
Birmingham, consultants and the working classes at, 1057
Birt, Major C., enteric fever in the inoculated, 75; three cases of non-tuberculous, rapidly fatal, lung necrosis, necropsies, 392; on the treatment of traumatic aneurysm by proximal ligature, 941
—— G., scarlet fever at seaside resorts, a suggestion, 1514
Bishop, E. S., multilocular ovarian cystoma, 876
Bishops' licence, the, midwives and, 55
Bisshopp, F., volvulus of caecum, 1508
Black, W. T., The Fish River Bush, South Africa, and its Wild Animals, *rev.*, 1605
Blacker, A. B., on cancer, 719
Blackman, Mrs., death of, 48
Blackwater fever, *See* Fever haemoglobinuric
Bladder, "stammering," treatment of, 261; extroversion of, 591; carcinoma of the, resection of the growth and part of the bladder wall, recovery, 711; cystotomy for single non-tuberculous ulcer of, 771; the application of lithotrity to stone in in the canine species, 1023
Bland-Sutton, J., tubal gestation, 396; Tumours, Innocent and Malignant, *rev.*, 839
Blastoma (on the use of the term), 1380, 1514
Bleeding, fatal, into posterior mediastinum, 902
Blenkarne, W. L. H., an unusual attachment of the umbilical cord, 142
Blinding of the retina from exposure of the eyes when watching eclipse of the sun, 130
Blistering in syphilis of the brain and spinal cord, 978
Bloch, I., Der Ursprung der Syphilis, *rev.*, 1033
Blood, note on a method of quantitatively estimating the phagocytic power of the leucocytes of, 73; human, flagellate organisms in, 205; extravasation of under Colles's fascia simulating urinary extravasation, 390; the presence and formation of agglutinins in the, 821; biological test for, 825; the diagnostic value of changes in the, 827; the condition of in, 920; the, in books on the examination of the, 920; the, in cases affected with filariasis and bilharzia haematobia, 1137; fatal anaemia presenting some unusual changes in, 1139; coagulating power of in plague, 1143, 1310
Blumfeld, J., rigidity under chloroform, 696

Blyth, A. W., prevention of small-pox in London, 457
Board, Advisory, for Army Medical Services, the secretaryship of, 795
——— Army Nursing, the matron-in-chief of, 911
——— the Local Government, the circular of on vaccine lymph supply, 222, 229; and the notification of small-pox, 350; and the supervision of small-pox "contacts," 539; and vaccination in factories and workshops, 550; and vaccination of several cases from one tube, 693; and modification of diet in workhouses, etc., at the coronation, 1066
——— Metropolitan Asylums, report of Statistical Committee of on small-pox, 165; and cremation in death from small-pox, 669; and the sanitary administration of the metropolis, 791
——— School, for London, the medical officership of, 280, 374
Bodington, Dr. G., the originator of the modern treatment of pulmonary consumption, 447
——— Dr G. F., obituary notice of, 1453
Boers, the, and enteric fever, 98
Bohm, A. A., A Textbook of Histology, *rev.*, 339
Bokenham, T. J., high frequency currents in phthisis: a disclaimer, 301
"Bollettino Bibliografico delle Pubblicazioni Mediche Italiane," note on, 519
Bombay, sanitary report of, 308
Bond, C. K., measles in second attack and German measles, differential diagnosis, 142
——— F. T., on the Vaccination Acts, 668 (735)
Bone, frontal, indentation of in difficult labour, 812
——— marrow and other leucocyte-forming tissues, the reactions of in infections, 456; the in a case of suppuration and haemorrhage from the knee-joint, 1538, 1538
Bones, pelvic, movement of during symphysiotomy, 203
Bonney, V., abdominal tumour, 717
Bookkeeping, 1458
Books, on the examination of the blood, 939; for examination, ib.
Boracic acid, poisoning by, 12
Bordeaux, the antirabic treatment at, 1586
Borderland of quackery, the, 1548, 1608
Bosanquet, W. C., Quain's Dictionary of Medicine, *rev.*, 337
Bose, K. C., cocaine intoxication and its demoralizing effects, 1020
Boston, U.S.A., the spitting nuisance in, 411
Bottini, Professor, the jubilee of, 1292
Bottles (free), 798
Boughton, Gabriel, the legend of, 1558
Bourget, P., Monographies Cliniques sur les Questions Nouvelles, *rev.*, 840
Boutflower family the and the Royal Salford Hospital, 439
Bowel, short circuiting of in artificial anus, 1474
Bowlby, A., ethmoidal mucocele, 1084
Bowles, R. L., the practical treatment of functional vasomotor disturbances, 969
Box, C. R., some points in connexion with ulceration of the stomach and duodenum, 320
Boy, aged 2 years, vesical calculus (250 grains) in, suprapubic operation, recovery, 16; involuntary defaecation in a, 123; carcinoma of sigmoid flexure in a, 308; hemiplegia in a, 1146
Boycott of the consumptive, 308
Boyd, S., oöphorectomy in cancer of the breast, 110; inoperable cancer, 395
Bradford, J. R., the relation of biology to medicine, 1292
Bradshaw, T. R., the physics of the mitral regurgitant murmur, 335; two cases of spinal cord disease consequent on syphilis, 569; the reconstitution of the Association, 686; dullness and flatness, 1242
Brain, bullet wound of the motor region of the, bullet retained, successful extraction, 138; removal of a tumour from the, 269; the human, structure of the cortex of, 351; abscess of, 515; a case of tumour of the cortex of the, 586; blistering in syphilis of the, 968; adhesion of skin to in traumatic epilepsy, 1257
"Brain," index to, 471
Brains better than bets or beer, 409
Bramwell, B., on chloroma, 453; tabes with acutely developed ataxia, 714; consolidation of lung, ib.
——— E., neuralgia paresthetica (Barnhardt's Sensibilitätsstorung), 713
——— W., a case of local hyperidrosis, 1264
Brand, G. H., the treatment of puerperal eclampsia, 509; pemphigus foliaceus in an infant, 1401
Branson, G. J., chronic otitis media followed by suppurative bursitis, 332
Brasch, R., Die anorganischen Salze im menschlichen Organismus, *rev.*, 1478
Braxy, note on, 1108
Bread and the Budget, 979
Breast, the operations practised for cancer of the, 5; oöphorectomy in treatment of cancer of the, 10, 22, 35, 110, 159, 266; retrogression in carcinoma of, 16; thorough operations in cancer of the, 110, 174, 240, 273, 284; two cases of inoperable scirrhus of treated by oöphorectomy, results, 508; treatment of a case of schirrhus of recurrent five years in a patient aged 93, ib.; 46 cases of cancer of, 1200, 1209; the operation for removal of malignant disease of, 1203; lymphangitis of, 1214; adenoma of, 1270
Bredin, J. N., obstinate hiccough, 124
Brieger, L., arrow poisons, 1106
Brierley, J. B., the reconstitution report, 1452, 1621
Briggs, H., the uterine curette and curettage in gynaecological and obstetrical surgery, 206
Bristol, correspondence from, 237, 745; the Queen Victoria Jubilee Home at, 237; cottage homes at, 746; infant mortality in the slums of, 1229
British Columbia, appendicitis in, 1629
——— Guiana, report of Surgeon-General of, 493
Broadbent, Sir W. H., on epilepsy, 1
Broca, A., The Surgical Anatomy and Operative Surgery of the Middle Ear, *rev.*, 781
Brodie, Lieutenant-Colonel J. F., appeal for family of, 1281, 1456, 1516, 1585
Bromidia, poisoning by, 1124
Bronchiectasis, pulmonary, arthropathy in a case of, 1085
Broncho-pneumonia, belladonna in, 968
Bronchorrhoea, fetid, treated by prolonged oxygen inhalation, 509
Bronchus, right, of a child, aged 2½ years, removal of a nail from the, 894
Bronner, A., intranasal treatment in asthma, 968; nasal suppuration, 1030; bilateral congenital microphthalmos, 1540
Brook, W. F., a new method of dealing with the peritoneum in operating for radical cure of umbilical and inguinal or femoral hernia, 505, 808
Brothers, the Scottish, 915
Brouardel, P., La Lutte contre le Tuberculoses, *rev.*, 1545
Brown, A. S., Madeira and the Canary Islands, *rev.*, 464
——— E., The Case for Vaccination, *rev.*, 779
——— E. V., the local treatment of diphtheria, 658; a danger of lachrymal styles, 710
——— H., aluminium vaccination shield, 723
——— Major H. H., the prevention of malaria in Hong Kong, 121
——— W. H., head injury, 206
Browne, H. L., contract medical attendance on sick clubs, 1017
——— Sir T., the skull of, 413, 427
Bruce, A., A Topographical Atlas of the Spinal Cord, *rev.*, 1276
——— Colonel D., asylum dysentery, 397
——— G. A., delivery in a case of Robert's double obliquely contracted pelvis, 390
——— W., medical disputes and the lay press, 1061
Bruce Porter, H. E., subcutaneous injection of normal saline solution in a case of severe haematemesis, recovery, 770
Bruck, L., on Australian hospitals, 540
Brügelmann, W., Das Asthma, sein Wesen und seine Behandlung, *rev.*, 780
Brühl, G., Atlas und Grundriss der Ohrenheilkunde, *rev.*, 782
Bruising, external, rupture of the jejunum from direct violence without, 507
Brunton, Sir T. L., the nature and treatment of obesity, 272; On Disorders of Assimilation, Digestion, etc., *rev.*, 461; feeding in gastric ulcer, 497; on a model sanatorium for consumptives, 1398, 1610; on leprosy, 1475
Bryant, T., an analysis of 46 cases of cancer of the breast which have been operated upon and survived the operation from 5 to 32 years, with remarks upon the treatment of recurrent growths, including the disease of the second breast, operative and otherwise, 1200, 1209
Brydon, J., case of apoplexy during labour, 70
Buchanan, Major A., Malarial Fevers and Malarial Parasites in India, *rev.*, 843; mosquitos and malaria, 1167
——— L., vascular sarcomata, 1266
——— R. J. M., malaria acquired in England, 205; mammary cancer, 273; gastric ulcer, 659
Buchner, Professor H., death of, 917
Buckingham Palace, sanitary works at, 1188
Buda-Pesth, the Pasteur Institute at, 331
Budget, the, bread and, 979
Buhrer, C., Le Climat de Montreux, *rev.*, 464
Buist, R. C., symphysiotomy in domestic and hospital practice, 1029
Bulb, the suctorial, in "Culex," 197
Bulkley, L. D., Eczema, with an Analysis of Eight Thousand Cases of the Disease, *rev.*, 88
Bull, S. A., a simple form of bath used in the treatment of enteric fever, 89
Bullar, J. F., the Worshipful Company of Spectacle Makers, 747
Bullet wound of the motor region of the brain, bullet retained, successful extraction, 138; of stomach, 1026
Bulloch, W., hydroa gestationis due to staphylococcus albus, 73; the transmission of haemolysin from parent to offspring, 203
Burdett's Hospitals and Charities, 1902, *rev.*, 778
Burdon-Sanderson, Sir J., becomes honorary member of Danish Royal Society of Sciences, 917
Bureau of information for medical practitioners in New York, 66; of information for medical practitioners in Paris, 141; International Tuberculosis, organization of, 424; de Statistique de l'Administration des Services Sanitaires d'Egypte, quinquennial statement of, 993; a permanent United States census, 753
Burgess, J. J., unilateral fatty degeneration of the heart, 20
Burggraeve, Dr. A., death of, 303
Burgh Police and Public Health (Scotland) Bill *See* Bill
Burial of infants as stillborn, 118
——— grounds, drainage of, 1005
Burn, x ray, 695
Burnett, Dr. C. H., death of, 489
Burns, J., brains better than bets or beer, 409
——— N. O'D. tetanus treated with antitetanus serum and morphine, deaths, 654
Burridge, A. F., on vaccination, 1111
Bursa patellae, haemorrhage into the, 1082
Bursitis, suppurative, following chronic otitis media, 332
Burton Port, proposed Smyth memorial at, 94, 215
Burton, L. L., keloid following vaccination, 1265
Bury, J. S., a case of complete and temporary paralysis of the limbs in a child, probably a case of recovery from the initial stage of acute anterior poliomyelitis, 1258
Bush, J. P., hepatopexy, 864
"Business methods" in tropical hygiene, 353
Butlin, H. T., oöphorectomy in the treatment of cancer of the breast, 10
Byers, J. W., laparotomy performed twice on the same patient, 208
By-laws, proposed, of the British Medical Association, 1362, 1648
Bynoe, C. A., the case of, 1160, 1124, 1184, 1245, 1313, 1489

C.

Cabinet, an emergency, for India and the Colonies, 60
Cabins for naval officers, 1312
Cabot, F., The Student's Manual of Venereal Diseases, *rev.*, 1033
Cacace, E., the bacteriology of schools, 980
Cacodylates, the relative inefficacy of as therapeutic agents, 712
Caecum, excision of, 271; torsion of, 482; volvulus of, 1108; resection of the, 1001
Caesarean section, case of, 204; successful, for homicidal wounds of uterus, 850
——— sections, three in one patient, 413; twice in one patient, 516; two cases of, 967
Caird, F. M., A Surgical Handbook, *rev.*, 906; gastro-enterostomy for pyloric stenosis, 1208
——— J. K., gift by to Dundee Royal Infirmary, 1267
Cairns, P. T., case of hereditary paramyoclonus multiplex, 654
Caisson disease. *See* Disease
Calcium chloride, treatment of haemophilia with, 1141
Calculi, renal and ureteral, nephrolithotomy for, 591; renal, total suppression of urine due to the obstruction of both ureters by, 703, 811
Calculus, suprapubic (250 grains), in a boy aged 2 years, suprapubic operation, recovery, 16; renal, 1148; uric acid, Widal's reaction in a case with, 1401
Calcutta, cocainism in, 1020, 1041
Calf lymph. *See* Lymph
Calfrigerator, an aluminium, 90

Calkins, G. N., The Protozoa, *rev.*, 904
Calmette's antivenene. *See* Antivenene
Calwell, W., case of dilated stomach ending fatally in tetany, 1603
Cambric, surgical, 598
Cambridge, municipal bacteriologist at, 120
Cameron, Sir C. A., the disinfection of new clothes, 386
——— R. W., the diazo-reaction, 1453
——— S., tortuosity of internal carotid arteries, 893
Campaign, the antimosquito in Sierra Leone, 982
Campbell, A. J., case of acute exophthalmic goitre, 642
——— A. W., medullated nerve fibres of cerebral cortex, 1148
——— C., intratracheal injections in phthisis, 471; the use of the seton, 806; case of double dislocation of the sternal ends of both clavicles backwards, 1082; the technique of the intratracheal "direct" method of treatment of phthisis, 1399, 1619
——— H., the influence of nasal obstruction upon the development of the teeth and palate, 1401
——— H. J., belladonna in broncho-pneumonia, 968
——— R., operative treatment of hernia in children, 298; spina bifida, ib.
——— W. A., Dissection Outlines and Index for Students, *rev.*, 277
Camps, the concentration, 98; the refuge in South Africa, 175; the concentration, Scottish nurses for, 245; the concentration in South Africa, Blue Book on, 475; the concentration, in South Africa, report by committee of ladies on, 548; the refugee, the working of, 849; the concentration, instruction in elementary hygiene in, 1311
Canada, Christian Science and the law in, 32; the prevention of consumption in, 106, 1175; the dealing with small-pox in, 474; the proposed medical council for, 914; medical women in, 1061; female inebriates in, 1249; tuberculosis research in, 1386; a Medical Act for, 1538
Cancer. *See* Carcinoma
——— body, the so-called, 425
Canine species, the application of litholapaxy or lithotrity to stone in the bladder in, 1023
Canney, L., the abolition of enteric in armies, 1381
Cannulae for empyema, 844
Cantlie, J., the medical service of the Royal Navy, 429; the naval and military medical services compared, 1182
Canvassing medical aid societies, 352
Cape Colony, leprosy in, 1337, 1475; the medical inspectorship at, 1363
—— of Good Hope, the plague in, 32, 107, 171, 229, 405, 479, 614, 679, 742, 786, 858, 922, 1038, 1114, 1174, 1239, 1308, 1369, 1424, 1617
Carbohydrates, the subcutaneous injection of in exhausting diseases, 770
Carbonic acid gas in the destruction of rats on shipboard, 295
Carcinoma of the breast, the operations practised for, 5; of the breast, oöphorectomy for, 10, 22, 35, 110, 150, 266; of the breast, retrogression in, 16; and malaria, 16, 77, 538, 710; the diagnosis and disappearance of, 54; violets and, 55; of the breast, thorough operations in, 110, 174, 240, 273, 284; a possible predisposing cause of, 133; the endowment of research for, 158; in South Australia, 162; a scheme of organized research in, 228, 480, 795; of the lung, cure of case of, 236; recurrent, treated with the Roentgen rays, 265, 285; research on, 284; the x rays in, 335; atrophic of tongue, scirrhosis, 394; inoperable, discussion on at the West London Medico-Chirurgical Society, 394; of sigmoid flexure in a boy, 398; successful culture of parasite of, 600; and older drinkers, 631; discussion on at the Chelsea Clinical Society, 655, 717, 837; [illegible], 747; of the bladder, resection of [illegible] and part of the bladder wall, [illegible] research on in America, 731; [illegible] in Germany, 805, 873; and [illegible] 1120; in Holland, 852; [illegible] in Australasia, 856; the [illegible] tuberculosis of [illegible]: an international [illegible] study of, 916; the scheme of the Royal Colleges as to research in, 931, 1051; diet in, 931; of rectum, 968; the cause of, 1008; subscriptions in aid of research in, 1109, 1190; mammary, Halsted's operation for, 1148; of colon, ib.; of the pylorus in a young man, 1149; of the breast, 46 cases of, 1200, 1269; cranks and, 1252; donations for the treatment and investigation of, 1399; a gall stone simulating, 1536; secondary, of the eye, 1539; cytolitic milk for, 1582; disappearance of lipoma during the emaciation of, 1588
Cardiac. *See* Heart
Cardiff, proposed by-law against spitting in, 746
Carless, A., epithelioma of epiglottis and back of tongue, 967
Carnegie, Mr., and the endowment of research in America, 286, 854
——— Trust. *See* Trust
Carotid. *See* Artery
Carr, J. W., a case of congenital morbus cordis with extreme clubbing of fingers and toes, 1085
Carriages, doctors', at funerals, 1658
Carruthers, S.W., glucose in urine of low specific gravity, 1474
Carr-White, Captain P., hypodermic injections of quinine in malaria, 1112
Carter, A. H., functional word deafness, 592
——— Mr. D'A. B., death of, 488
——— Captain J. E., cancer, its cause, 1008
——— W., the pain of piles, 20; Graves's disease, 205
"Carthage," the Red Cross ship, 246
Cartilages, semilunar, fracture of, 877
Cartilaginous bodies (loose) in knee joint, 1274
Carwardine, T., early extrauterine pregnancy, 67; mode of origin of certain cysts of the neck, 963; Elementary Bandaging and Surgical Dressing, *rev.*, 1090
Cascara evacuant, 1480
Caselli, Studi Anatomici e Sperimentali sulla Fisiopatalogia della Glandola Pituitaria (Hypophosis cerebri), *rev.*, 26
Cassal, C. E., the "Society of Public Analysts," 560
Cassel, Sir E., donation from for consumptive sanatorium, 104, 158
Cassirer, R., Die vasomotorisch tropischen Neurosen, *rev.*, 462
Castaigne, J., L'Examen Clinique des Fonctions Rénales par l'Elimination Provoquée, *rev.*, 722
Cat, cirrhosis of the liver in a, 876, 940
Catalepsy, two cases of, 775
Cataract extraction, the treatment of cystoid cicatrix following, 333
Cater, J., case of spontaneous craniotomy, 1207
Catgut, sterilized, preparation of, 58, 176
Cathcart, Mrs., the case of, 1228
——— C. W., drainage in empyema, 18; a method of securing the lingual artery in excision of the tongue through the mouth, 454; A Surgical Handbook, *rev.*, 906
Catheterism of the tube or perforation of the uterus? 1361
Catheterization, sudden death during, 962
Cats and small-pox, 551
Cattaneo, C., Terapia della Malattie dell Infanzia, *rev.*, 1216
Cattle, the diagnostic value of tuberculin for, 980
Cattle, C. H., the relation between human and bovine tuberculosis, 443
Cautley, E., congenital stenosis of the pylorus, 1340
Cayley, W., dinner to, 163; a case of phlegmonous gastritis due to streptococcus infection, 202
Census, the, and the birth-rate, 281; of consumptives in New York, 288; returns of, 755; returns of for Lancashire, 1034
Centenarian practitioner, a, 314
Central Criminal Court. *See* Court
——— London Railway. *See* Railway
——— Provinces of India, sanitary report of, 308
Cephalhydrocele or parietal meningocele, 1084
Cerebellum, developmental faults in, 1140
Cerebro spinal fever. *See* Fever
Certificates of death and unqualified practitioners, 38; School Board and Scottish parochial medical officers, 118; of death, coroners and, 431; of unregistered practitioners, ib.; club, 491; of death, 752, 800
Certification of the cause of death, 1490
Ceylon, medical practice in, 176, 601, 1383; enteric fever among prisoners of war in, 679
Chalfont St. Peter, opening of convalescent home for epileptics at, 1306; donations for Hampshire epileptics at, 1458
Chamber of Deputies, the French, medical members of, 1445
Chamberlen family, the, 1430
Channell, Mr. Justice, on the case of Mr. C. A. Bynoe, 1480
Chantemesse, A., Les Processus Généraux, *rev.*, 200
Chapels, hospital, 728
Chapin, J. B., A Compendium of Insanity, *rev.*, 518
Chapman, Mr. H. C., obituary notice of, 1005
——— J. E., the effects of forced feeding in cases of pulmonary tuberculosis and in normal individuals, 449
Characters, acquired, transmission of, 312
Charges, medical, 305; for repetition of medicines, 1458
Charles, N., three Caesarean sections in one patient, 413
Chauffard, A., Comptes Rendus du XIIIme Congrès International de Médecine, *rev.*, 843
Chaumier, inert lymph and revaccination, 31
Cheatle, A. H., Descriptive Catalogue of the Museum of the Sixth International Otological Congress, *rev.*, 782; ear disease in school children, 978
Cheek, endothelioma of, 1087
Chemist, physician and, 305
Chemists, sale of vaccine by, 618; vaccination by, 753; and prescriptions, 1184; as opticians, 1245
Cherry, T., the etiology of typhoid fever, 1227
Chest, difficulties in the diagnosis of diseases of, 514
Cheyne, W. W., "What's What," 428; tuberculous disease of the testis, 1088; injections of paraffin for cosmetic purposes, 1338
Chicago, lady doctors at, 287; institute for infectious diseases in, 309; tobacco hearts in school children at, 630; the prevention of small-pox in, 914; new hospital for, 1190; a medical centre in, 1248; suicide in, 1563; correspondence from, 1618; "office" practice and specialism, ib.; medical schools in, ib.; a new hospital, ib.; suicide and influenza, ib.
Chicken-pox, the notification of, 120, 1048; and small-pox, 124, 229, 356, 425, 484, 550, 617
Child, of, 9, hairball in the stomach of successfully removed, 147; premature, weighing 2 lb. survival of, sequel, 654; ascites in a, 864; aged 2½ years, removal of a nail from the right bronchus of, 894; complete and temporary paralysis of the limbs in a, 1258; myxoedema in mother and, 1261; premature, weighing less than 2 lb., survival of, 1264; newly born female, menstruation in with convulsions, 1536; defective, home for, 1660
Childbirth, complete obliteration of the vagina, with superinvolution of the uterus following, 78
Childhood, pregnancy in, 142
Children, treatment of laryngeal growths in, 59; pauper, the Earl of Crewe on, 222; operative treatment of hernia in, 298; the treatment of hip-joint disease in, 352, 426, 572, 559, 623; school, at Chicago, tobacco hearts in, 630; the treatment of external tuberculosis in, 789, 931; school, ear disease in, 978; barrack school, 1043; country holidays for, 1059; poor, country holidays for and the spread of small-pox, 1105; crippled school, ambulance for, 1190; a few years old, new principle of curing club-foot in, 1524
Childs, C., the prevention of enteric fever in armies, 237, 1514; the difficulties of preventing enteric fever in warfare, 643
Chilton, Mr. R. H., obituary notice of, 1004
China, the first expedition to, 625
Chittenden, R. H., Studies in Physiological Chemistry, *rev.*, 1480
Chloroform, is it more dangerous than ether? 140; decomposition of in presence of heat, 183; administered by unqualified dentists, death from, 369, 562; rigidity under, 696, 756; the causation of death during the administration of, 817, 885, 951, 975, 1058, 1120, 1242; death under at Swansea, 1317
Chloroma, cases of, 453; a case of with pathological report and some notes descriptive of the disease, 1072
Chlorosis, intracranial thrombosis as the cause of double optic neuritis in cases of, 320, 333
Cholera, in Arabia, 857; in Hong Kong, 983; in Asia, 1045; Dr. Ruffer's work against, 1560
Chondromata, multiple, or osteomata, with synostoses of the lower epiphyses of both ulnae and fibulae, 1084
Chondro sternal junction, an abnormal bony mass at the first, 271
Chorea, trional in, 267 the treatment of by large doses of Fowler's solution, 961
Chorio-epithelioma with multiple metastases, 82
Choroid and retina, symmetrical concentric folds of in four cases of unusually high myopia, 720
Christie, Margaret M. T., a case of puerperal septicaemia of two days' duration following the delivery of a microcephalic monster treated with antistreptococcus serum: re-

covery, and a case of puerperal septicaemia of four days' duration treated with antistreptococcus serum: death, 1208
Christian Science and the law in Canada, 32; in Germany, 360, 423, 810; a verdict on, 740
Christophers, S. R., Royal Society: Reports to the Malaria Commission, *rev.*, 841
Christopherson, J. B., single non-tuberculous ulcer of bladder, suprapubic cystotomy, cure, 771
Church, A., Nervous and Mental Diseases, *rev.*, 906
Churton, T., blistering in syphilis of the brain and spinal cord, 968
Cicatrix, cystoid, following cataract extraction, treatment of, 332
Cider drinkers and cancer, 631
Cigarette, the, and the depopulation problem, 981
Cigarettes, schoolboys and, 1045
Cinnamon in the treatment of influenza, 756
Cirrhosis of the liver in a cat, 876, 940
Cistern, a new welted water, 598
City, a without doctors, 1360
—— roofs, sun playrooms on, 793
Civilization, effect of on the red man, 473
Clamp, a liver, 1278
Clark, H. E., anatomical plates, 366
Clarke, A. B., the case of Mr. C. A. Bynoe, 1245
—— F. H., the light treatment of lupus from a patient's point of view, 102
—— H. R., case of prolonged lactation, 1143
—— J. J., abnormal curvature of the spine determined by shortening of the left rectus abdominis muscle, 271
Classics, the in preliminary examinations, 425, 485, 621, 686
Clavicle, excision of for round-celled sarcoma, 128; excision of, 720
Clavicles, simultaneous fracture of both, 773; double dislocation backwards of the sternal ends of both, 1082
Clayton, E. G., are safety matches poisonous? 1320
—— F. A., sulphurous dioxide gas in the destruction of rats on shipboard, 294
Clergy, the, as dispensers of pills, 940
Climate and Baths of Great Britain, *rev.*, 1542
Clippingdale, S. D., clay and gravel soils of London, 23
Clothes, new, the disinfection of, 386
Clouston, T., annual report of on Royal Edinburgh Asylum, 683
Club, appointments, contests for, 1658
—— Edinburgh Royal Infirmary Residents', annual meeting of, 1497
—— London Hospital Medical, annual meeting of, 122
—— practice, wage limit in, 1374
—— system, the, 280
—— work's, 600
Clubbing extreme, of fingers and toes in a case of congenital morbus cordis, 1085
Club-foot, severe, in children a few years old, a new method of treating, 1524
Clubs for women and children, 740; private medical, 920, 995; sick, contract medical attendance on, 1017
Clymer, Dr. M., death of, 1243
Clyne, the medical officer of, 664
Coachmen and the Employers' Liability Act, 1002
Coca leaf the, 1605
Cocaine, abuse of in Kentucky, 1369
—— habit, the, in America, 834
—— intoxication and its demoralizing effects, 1020, 1041
Cochin China, institute of colonial medicine for, 1561
Cochrane, J. M., diagnosis of small-pox and chicken-pox, 617
Cockade, the, 1588
Cockle, W. P., suspected rupture of the lung from violence without further injury, 1333
Cod-liver oil with hypophosphates, creosoted emulsion of, 28
Coffee bean, the husk of the, in malarial fevers, 1360
Coffey, E. R., malignant small-pox, fatal within six hours, 1263
Cohen, S. S., A System of Physiologic Therapeutics, *rev.*, 662
Coimbra, ordinance against spitting in public places in, 151
Colchester, use of diphtheria antitoxin at, 912
Colchicine salicylate, 465
Colegrove, F. W., Memory, an Inductive Study, *rev.*, 519
Coleman, J. B., tumour of spinal cord, 964
—— Dr. J. M., death of, 1185
Coleridge, Hon. S., antivivisectionist amenities of debate, 599, 605, 682; *v.* Macdonald, 1561, 1576
Coles, A. C., the blood in cases affected with filariasis and bilharzia haematobia, 1137
—— R. A., relapse of vaccination, 632
Colitis, mucous, treatment of, 436: muco-membranous and colon catarrh, 592; lumbar colotomy for, 1337
College, Anderson's Medical, Glasgow, distribution of prizes, etc., at, 935
—— the Harvard bequest for the investigation of chronic diseases at, 493
—— King's London, and the University of London, 1627
—— the Livingstone, commemoration day at, 1386
—— Medical Staff, plans as to, 1561
—— of Medicine for Chinese, Hong Kong note on, 1428
—— the Owens, jubilee celebration of, 726; new public health laboratories of, 1427; and a new University for Manchester, 1433
—— Royal Medical Benevolent, Epsom, bequest to, 103; the France annuities at, 366; annual general meeting of, 1442
—— Royal of Physicians of Edinburgh and the clinical teaching of insanity, 216: quarterly meeting of, 432, 1246; the Harveian festival of, 1614
—— Royal of Physicians of Ireland and the Midwives Bill, 615; admission to licences at, 1247
—— Royal of Physicians of London, lectures at, 226; comitia of, 492, 809, 1126, 1246
—— Royal, of Surgeons of Edinburgh, pass lists, 1384
—— Royal of Surgeons of England, lectures at, 225; quarterly court of, 243; meeting of council of, 492, 809, 1002, 1247, 1583; pass lists, 628, 693, 1383, 1457; the November Primary Fellowship Examination of, 748: the election to the Council of, 1294, 1314, 1363, 1433, 1490
—— Royal of Surgeons in Ireland, the by-laws of, 57, 116, 240; statistics of Final Fellowship Examination of, 560; pass lists, 563; election of examiners, 1126, 1247, 1376, 1517; annual dinner of, 1293; election of officers of, 1457; the Barker Anatomical Prize, 1517
—— Rush Medical, Chicago, and women students, 493
—— Trinity, Dublin. *See* University of Dublin
—— University, Bristol, annual report of, 237; Colston, dinner of, ib.
—— University, Liverpool, chemical physiology at, 729; the Hartley botanical laboratories at, 1241
—— University, London, subscriptions to funds of, 983: appeal for funds for, 1035; and the University of London, 1164; meeting at Mansion House in aid of funds of, 1233; conversazione, 1628
—— University of South Wales and Monmouthshire, the principalship of, 172; and the prevention of tuberculosis, 746
—— Yorkshire, and the Victoria University, 290
—— and Polyclinic, Medical Graduates, annual general meeting of, 797; festival dinner of, 1486
Colleges, medical, in the United States, 280
—— Royal, etc. *See* Conjoint Board
Colles's fascia, extravasation of blood under simulating urinary extravasation, 390
—— fracture. *See* Fracture
Collier, J. S., Tagliacotian operation, 1088
—— W., a warning, 1252
Collingwood, Staff-Surgeon G. T., the suctorial bulb in "Culex," 197
Collis, E. L., club practice, 1174
Colloid degeneration of the conjunctiva, 1540
Colon, transverse, excision of, 271; catarrh of, and muco-membranous colitis, 592; cancer of, 1148; descending, intussusception of in an infant, 1334
Colonial medical service, the, 55, 184: the organization of, 343, 347
Colonies for consumptives in South Africa, 1562
Colotomy, lumbar, for colitis, 1337
Colwell, J. K., the "Society of Public Analysts," 560
Colyer, J. F., Diseases and Injuries of the Teeth, *rev.*, 906
Comba, D., treatment of influenza, 1151
Combes, Dr. J. L. E., note on, 1433
Commission, the Indian Plague, report of, 1093, 1155, 1218, 1279, 1288
—— the New Orleans Mosquito, report of, 475
—— on the relation of the mosquito to yellow fever, 1363
—— Royal, on Arsenical Poisoning, meeting of, 673, 1003, 1248, 1584, 1658
Commission, Royal, on Sewage Disposal, new member of, 1231
—— Royal, on Tuberculosis, assistants for experimental work of, 973
—— Scientific, to Study Sleeping Sickness in Uganda, members of, 1296; grant to, 1363
Commissions from tradespeople to the medical profession, 871
Committee of British Association on Health in Schools, members of, 999
—— Mr. Brodrick's, the report of, 47, 105: correspondence on, 221, 299, 304
—— the Joint, on the London Water Bill, 1167, 1291
—— on Schedule A. of Pharmacy Act, meeting of, 62
—— Standing, on Law and the Midwives Bill, 675, 723
Common sense, vaccination and, 1009
Companies, medical aid, and the action of the General Medical Council, 165; insurance, and medical opinion, 212, 680
Company of Fruiterers and profitable fruit growing, 412
—— the London and North Western Railway and the evasion of liability to rehouse, 371
—— the National Medical Aid and the General Medical Council, ■
—— Prudential Assurance medical referees of, 1460
—— of Spectacle Makers, the examination for the diploma of, 687, 746, 869; and eyesight specialists, 1497
Concretions, surgical treatment of obstruction of the common bile duct by, 836
Conference, International, of the Medical Press, meeting of, 988
—— International, on Syphilis, date, place of meeting, etc., of, 810
—— Manchester and Salford Sanitary, meeting of, 1112; presidential address, ib.: scientific work of the, ib.: light and sanitation, ib.: women inspectors and sanitary reform, 1113; notification of preventable disease, ib.: the housing question, ib.: prevention and cure of consumption, ib: concluding communications, ib.
Confetti, dangerous, 1171
Congress, American, on Tuberculosis, date, place of meeting, etc., of, 309, 494
—— of Anatomists, in France, opening of, 873
—— Australasian, Medical, meeting of, 856; the water supply and drainage of Melbourne, ib.: the tubercle bacillus in milk, ib.; lunatic asylums, ib.: pseudo-tuberculosis of sheep, ib.: the increased prevalence of cancer, ib.: future meetings, ib.
—— on Dependent and Delinquent Children, date, place of meeting, etc., of, 000
—— Egyptian, of Medicine, date, place of meeting, etc., of, 434: excursions, etc. of, 1431
—— of French Alienists and Neurologists, date, place of meeting, etc., of, 874
—— French, of Medicine, date, place of meeting, and subjects of discussion at, 212, 417, 1006
—— of French Physicians of America, meeting of, 874
—— German, Balneological, date, place of meeting, etc., of, 181
—— German, of Internal Medicine, date, place of meeting, etc., of, 423, 474: the parasitology of cancerous growths (v. Leyden, Naunyn), 1049; infection and glycogen reaction of leucocytes (Kammer, Ehrlich), ib.: Charcot's crystals (Gumprecht), ib.: uric acid (Klemperer), ib.; clinical haemometry (Sahli), ib.; the pathology of the kidney (Rosenfeld), ib.: the renal functions (Straus), 1050; the pathogenesis of gastric ulcer (Schmidt), ib.: gastric ulcer and cancer of the stomach (Hirschfeld), ib: the effect of mechanical and thermal influence on the circulation and tone of the vessels (Pick), ib.: is there an acute dilatation of the heart? (Hoffmann), ib.: light therapeutics (Bie, v. Jaksch, Quincke), 1099: the light treatment of lupus erythematosus (Hollander), ib.; diagnosis and treatment of gastric ulcer (Ewald, Fleiner), ib.: healed gastric ulcers (Rumpel), 1100: aortic aneurysm (Ziemssen), 1162; treatment of hemiplegia (Lazarus), ib.: the cumulative action of digitalis preparations (Fraenkel), ib.: multiple trophoneurotic gangrene of the skin (Mueller), ib.
—— German Public Health, date, place of meeting, etc., of, 753
—— of German Scientists and Medical Practitioners, date, place of meeting, etc., of, 434, 1068

Congress, German Surgical, date, place of meeting, etc., of, 474; meeting of, 907; president's address, ib.; first dressing of wounds on the battlefield (v. Bruns, Bertelsmann, v. Bergmann, Küttner, Majeński, Perthes, König, Kortewag, Ziemssen, Scholze, Trendelenburg, Hildebrandt) ib; the treatment of fractures (Voelker, Lane, König, Trendelenburg, Pfeil-Schneider, Korte, Henler, Lauenstein, Pehlange. Bier, Bardenheuer, Kocher, Schade), 908; amputation stumps, etc. (Houssel, König, Bunge, Bier, Sultan), ib.; the etiology of cancer (Gussenbauer, V. Kahlden, Petersen, v. Mikulicz, Hochenegg, Krönlein, Lengemann, Noske, Doyen, Schüller, Israel, Kocher, 908, 985; peritonitis and perityphlitis (Körte, Rehn, Sprengel, Sonnenburg, Roux, Doyen, Friedrich), 985; abdominal surgery (Riedel, v. Eiselsberg, Helferich, Sprengel, Bunge Franke, Kocher, Payr, Ehrhardt, Prutz, Reerink), 985; ulcer of the stomach (Petersen, Heidenhain, Krönlein, v. Eiselsberg, Bunge, Körte, Kuster, Hahn, Rehn, Kocher), 986; renal surgery (Kümmell, Strauss, Hildebrand, Loewenhardt, Pels-Leusden, Langemak, Küster, König), ib.; cereoral surgery (Rehn, Thiem, Sänger, v. Bramann, Hahn, v. Bergmann, Kümmell), 987; laryngeal surgery (Gluck), ib.; acute thyroiditis (De Quervain, Krönlein), ib.; antistreptococcus serum (Tavel, Brunner), ib., plastic surgery of the bile duct (Kehr), ib.; humero-scapular periarthritis (Küster), ib.; magic lantern demonstrations and cinematographic pictures, ib.

——— Intercolonial Medical, the new president of, 52, 230

——— International on Assistance for the Insane, date, place of meeting, etc., of, 1066

——— International Dermatological, postponement of, 494

——— International of Electricity in Medicine, date, place of meeting, etc., of, 920

——— International of Gynaecology and Obstetrics, date, place of meeting, etc., of, 370

——— International of Hydrology, date, place of meeting, etc., of, 181

——— International Medical, the presidency of the National Committee for Great Britain and Ireland at, 296; deliverers of special addresses at, 475; arrangements of, 733; applications for membership of, 854; subjects of discussion at, 1173; prize offered by, 1174

——— International for Original Medical and Surgical Investigations, formation of, 475

——— International for the Prophylaxis of Syphilis and Venereal Diseases, date, place of meeting, etc., of, 912

——— International Sanitary, date, place of meeting and subjects of discussion at, 178

——— International for the Welfare and Protection of Children, arrangements as to, 914; [illegible] subjects of discussion at, 1174; the King and Princess Louise (Duchess of Argyll) become patrons of, 1386

——— International, on Workmen's Accident and Insurance, meeting of, 1013

——— Italian Hydrological, date, place of meeting, etc., of, 434

——— Italian Medical Press, objects, etc., of, 246

——— of Medical Students at Liége, 245, 540

——— of Midwives at Genoa, 1458

——— Pan-Hellenic Medical, date, place of meeting, etc., of, 874

——— of the Pirogoff Society, a lady president of, 712

——— Russian, of Scientific and Medical Practitioners, meeting of, 307

——— of Russian Surgeons, meeting of, 374

——— of the Sanitary Institute, date, place of meeting, etc., of, 246

——— Scandinavian Medical, date, place of meeting, and subjects of discussion at, 1631

——— Sicilian Medical, date, place of meeting, etc., of, [illegible]

Conjoint Board in England and the General Medical Council (see also), 172, 225, pass lists, 563, 1061, 1187; [illegible] 921, [illegible]

——— Board in Ireland, pass lists, 306, 1126, 1186, 1247

——— Board in Scotland, pass lists, 371, 935, 1126, 1384

Conjunctiva, diphtheria of the, 720; tuberculosis of the, 1077; colloid degeneration of the, 1540

Conjunctivitis, membranous, 720

Consolidation of lung, 714

Constants and official formulæ, 494

Consultants and the working classes at Birmingham, 1057

Consultations with homoeopaths, 1002

Consumption. *See* Tuberculosis

Consumptive, boycott of the, 308

Consumptives, colony for in Philadelphia, 153; census of in New York, 288; a model sanatorium for, 1398; colonies for in South Africa, 1562; seaside homes for, 1658

"Contacts," small-pox, the supervision of, 539

Contract medical attendance on sick clubs, 1017, 1039

——— medical practice, 49, 165, 280, 551, 600, 679, 738, 798, 920, 994, 1052, 1114, 1174, 1235, 1368, 1482; the policy of "thorough" in, 50; one shilling a member a year, ib.; charges for drugs, ib.; clubs and friendly societies, ib.; the advertisement of an industrial assurance company, ib.; a West End Club, 165; examination of candidates' certificates in illness, 155; the evil and its remedy, 330; the Teversal colleries, 679; attempted imposition by the Post Office, 740; clubs for women and children, ib.; free bottles, 798; private medical clubs, 920, 995; a request for information, 995; sick club and medical aid associations, 1052; the club vacancy at Holmfirth, 1114; club practice, 1174; competition and underselling, ib.; the organization of medical contract work at Stockport, 1235; the effect of the medical benefit system on the prosperity of clubs, 1236; "overlapping," ib.; remedy for club abuse, ib.; at Birmingham, 1368; discussion on at the East Kent District of the South-Eastern Branch, 1482; medical aid in Wandsworth, 1484

Contracts, midwifery, 752

Convictions for manslaughter, 1245

Convulsions with menstruation in a newly-bo n female child, 1536

Cook, A. R., carcinoma and malaria, 710

Cooke, J. G., a case of transposition of viscera, 352

Cookery in an early stage of civilization, 1353

——— Book, the A 1, *rev.*, 843

"Coolie-itch." *See* "Ground-itch."

Cooper, F. R., local treatment of diphtheria, 658, 659

——— H. M., case of infective endocarditis treated with antistreptococcus serum, 1138

Cope, A. E., modern methods of vaccination, 269

Copeman, S. M., modern methods of vaccination, 269

Corbet, R., the statistics of the small-pox hospital for the Orsett and Grays District, 1173

Corby, H., examinations and the Royal Army Medical Corps, 352

Cord, inguinal, dermoid cyst of, 1539

——— spinal, two cases of disease of consequent on syphilis, 569; tumour of the pons, associated with degeneration of the posterior columns of the, 706; tumour of the, 964; blistering in syphilis of the, 968; developmental faults in, 1149

——— umbilical, hernia into the, 77; an unusual attachment of, 142; velamentous insertion of the, 773; development of, 1338

Cornea, Mooren's ulcer of the, 661; opacity of in newborn infants, 868; leprous ulcer of, 1540

Corner, E. M., is chloroform more dangerous than ether? 140; endothelioma of lip and submaxillary gland, 1087

Cornish, S., the seton in migrane and allied affections, 1025

Coronation, modification of diet in workhouses, etc., at, 1176; ambulance arrangements for the, 1459; the army medical arrangements for, 1539; caution against throwing about lighted matches at, 1563

Coroners, censures by, 119; and certificates of death, 431; and hospital officers, 1245

Coronerships of London and Surrey, the vacant, 1302

Corps, the new Army, the medical service of, 606, 624

——— Royal Army Medical, promotions and appointments in, 59, 118, 177, 242, 305, [illegible], 430, 490, 561, 626, 750, 869, 933, 1000, 1059, 1123, 1183, 1243, 1312, 1382, 1466, 1624; the proposed examinations, 60, 352; the reorganization of, 178; changes of station, 242, 750, 1001, 1312, 1624; changes in designation in, 430; the training of privates in, 491; insufficient pay in the, 620, retaliation, 691; the financial aspects of the, 691; the new warrant for, 787, 813, 855, 992, 1243; the medical service of compared with that of the Royal Navy, 1121, 1182; the new regulations for admission to, 1166, 1180; the Government of India and medical officers of on leave, 1231; appointment of examiners for, 1382, 1516; in India, 1493; annual dinner of, 1[illegible]4; the pay of in India, 1624

Corps, Royal Army Medical (Militia), promotions and appointments in, 561, 1000, 1382, 1516, 1624; the future of the, 1516

——— Royal Army Medical (Volunteers), promomotions and appointments in, 430, 561, 690, 870, 1000, 1123, 1313, 1382, 1516; the London companies of, 626; in Manchester, 1428

Correction, a, 1462

Corsica, prophylaxis of malaria in, 981

Cortex, human cerebral, the structure of the, 351

Corthorn, Alice M., inoculation in the incubation stage of plague, 198; the coagulating power of the blood in plague, 1143

Cos, Hippocrates's plane tree in, 1546; excavations in, 1630

Cotman, H. H., case of omental cyst communicating with the stomach following influenza, 1267

——— Mr. J. S. E., obituary notice of, 1454

Cotton, raw, small-pox conveyed by, 687

——— wool, swallowing of metallic denture successfully treated by the internal administration of, 774

Council, General Medical. *See* Medical

County Council of London, annual report of medical officer of, 169, 211; and the evasion of liability to rehouse, 371; and the London Water Bill, 472; the chairmanship, etc., of, 693; and experiments on disinfection, 792; and the rating of metropolitan hospitals, 795

——— Councils and consumption sanatoria, 174

Coupland, S., modern methods of vaccination, 269

Court, the, and the medical service of the army, 687, 999

——— Central Criminal, the dangers of the, 38

——— the atmosphere of, 1045

Cousins, J. W., congenital cysts of the tongue, 502

Couvelaire, A., Etudes Anatomiques sur les Grossesses Tubaires, *rev.*, 661

Coventry, the Public Medical Service of, 1285

Coward, F. A., the potato as a source of urticaria, 184

Cowie, W., the reform of the vaccination system, 119

Cox, A., the R. B. Anderson fund, 94, 295, 466, 534

Coxa vara traumatica, with skiagraph, insidious onset, 271

Coyon, A., Le Rhumatisme Articulaire Aigu, *rev.*, 20

Craig, C. F., The Estivo-Autumnal (Remittent) Malarial Fevers, *rev.*, 847

——— J., case of continued fever due to the bacillus enteritidis of Gaertner, 1270

Craniotomy, spontaneous, case of, 1207

Cranks and cancer, 1252

Craven, R. M., vaccinated or unvaccinated, 746

Crawford, D., adenomatous growths of prostate, 1148

Crawshaw, S., the annual meeting at Manchester, Section of Ethics, 1380

Crean, Surgeon-Captain T. J., gets Victoria Cross, 430; dinner to, 795, 1220

Cremation in mid-air, 494; in cases of death from small-pox, 667

Cremations at Mount Auburn cemetery, 46

Crendiropoulo, M., a contribution to the study of the presence and formation of agglutinins in the blood, 821

Cretinism, sporadic, 968; partial, two cases of which developed swelling of the thyroid on cessation of the treatment by thyroid extract, 1143; sporadic, in which a relapse occurred owing to omission of thyroid extract, 1259

Crewe, Lord. *See* Earl

Cribb, C. H., the "Society of Public Analysts," 560

Cricket arrangements for the annual meeting at Manchester, 931

Crime, an inheritance of, 1561

Criminal, the physical and moral insensibility of, 853

Crises, gastric, treatment of, 1131

Crocker, J., finances of the General Medical Council, 1513

Croft, E. O., tuberculosis of the cervix uteri, 502; placenta duplex, 1146

Croly, H. G., fracture of both bones of forearm, 964; ligation of the external iliac artery for ilio femoral aneurysm and other tumours, 1023

Crook-hank Pacha, decoration of, 743, 916

——— F. G., total suppression of urine due to the obstruction of both ureters by renal calculi, 811; ping pong tenosynovitis, 1083

Crouch, H. C., is chloroform more dangerous than ether? 149
Cruelty to Animals Bill. *See* Bill
Cryer, M. H., Studies on the Internal Anatomy of the Face, *rev.*, 277
Cryoscopy, the clinical application of, 732
Cuba, a sanitary reformation in, 100; training schools for nurses in, 543
"Culex," the suctorial bulb in, 197; larvae of devouring each other, 835
Cullingworth, C. J., A Short Manual for Monthly Nurses, *rev.*, 904
Cumberland, the case of epileptics and imbeciles in, 412
Cummins, Major H. A., case of Raynaud's disease, 392
Cure, a by "absent treatment," 940
"Cures" for alcoholism, 291, 355, 401, 469, 606, 1370
Cureton, E., carriage lamp, 1131
Curette, the uterine, in gynaecological and obstetrical surgery, 206; the, in endometritis and incomplete abortion, 519
Curettage in gynaecological and obstetrical surgery, 206
Currents, high frequency, the therapeutic employment of, 91; in phthisis, 301
Curvature, spinal. *See* Spine
Curwen, E., epidemic catarrhal jaundice, 75
Cushny, A. E., A Textbook of Pharmacology and Therapeutics, *rev.*, 595
Cut-throat, a remarkable case of with recovery, 1336
Cyst, dermoid ovarian, expulsion of per vaginam during labour, 204; dermoid, of the ovary, 395; pseudo-intraligamentary, 896; ovarian, complicating pregnancy at full term, 1209; omental communicating with the stomach following on injury, 1267; "chyle," of mesentery, 1539; dermoid of inguinal cord, ib.
Cystoma, multilocular ovarian, 806
Cystomata, ovarian, 205
Cystoscopy, suprapubic, 772
Cystotomy for single non-tuberculous ulcer of bladder, 771
Cysts, congenital, of the tongue, 502; certain, of the neck, mode of origin of, 663
Cyto-diagnosis in pleural effusions, 1268

D.

Da Costa, J. M., Medical Diagnosis with Special Reference to Practical Medecine, *rev.*, 906.
Dalton, N., ataxic paraplegia, 272
Daniels, C. W., infantile mortality among the native races in the tropics, 1030
Darlington, contract medical practice at, 994
"D'Arsonvalisation," 91
Davidoff, M. v., A Textbook of Histology, *rev.*, 332
Davidson, J. McK., awarded gold medal, etc., from Paris Exhibition, 494; on the *x* rays, 1190
——— Major J. S., carcinoma and malaria, 77
——— S., enteric fever in infants, 1144
Davies, Lieutenant-Colonel A. M., A Handbook of Hygiene, *rev.*, 517
——— D. S., plague exclusion and control, 207; precautions against plague in home ports, 1114
——— J. (Bath), a case of ascites, 436
——— J. (Maesteg) death of, 1185
——— S., chicken-pox and small-pox, 425
——— W. T., failure of closure of abdominal walls, 352
Dawson, B., three obscure cases of intrathoracic disease, 967
——— W. R., glycosuria and insanity, 19
Day, J. M., the incubation stage of varicella, 1537
Deafness of middle-ear origin, the treatment of, 639, 929, 999
Deane, Lieutenant-Colonel A., the Colonial Medical Service, 184
Deanesly, E., operation for suppurative otitis and mastoid disease, 1147; bony ankylosis of jaws, ib.; excision of upper jaw, ib.; excision of lower jaw, ib.; Halsted's operation for mammary cancer, 1148; cancer of colon, ib.; gastro-enterostomy for ulceration of pylorus, ib.; renal calculus, ib.; drainage of arachnoid in acute meningitis, ib.; fracture of olecranon, ib.
Death, from pressure of a pregnant uterus upon a horseshoe kidney, 142; from chloroform administered by unqualified dentists, 360, 562; intrauterine from superatrophy of the chorionic villi, 390; the causation of during the administration of chloroform, 817, 885, 951, 975, 1058, 1120, 1242; by asphyxia and cardiac failure, state of the vascular system after, 832; sudden, during catheterization, 962; new list of causes of, 1062; under chloroform at Swansea, 1317; certification of the cause of, 1490; from atropine poisoning, 1540
Deaths in the profession abroad, 117, 241, 370, 489, 565, 623, 689, 750, 863, 932, 1005, 1186, 1243, 1317, 1385, 1455, 1657; from small-pox, classification of in the Registrar-General's reports, 1429, 1560
Decoration, volunteer medical officers', 561
Defaecation, involuntary, in a boy, 123
De Fleury, M., The Criminal Mind, *rev.*, 1154
Degrees, honorary, at Scottish universities, 628
Delbet, P., Traité de Chirurgie, Clinique et Opératoire, *rev.*, 1090
Delegation and Tammany, 559
De Lisle, F., carbonic acid gas in the destruction of rats on shipboard, 295
Delivery in a case of Robert's double obliquely contracted pelvis, 390
Delpeuch, A., La Goutte et le Rhumatisme, *rev.*, 26
De Meric, H., Syphilis and other Venereal Diseases, *rev.*, 1033; Dictionary of Medical Terms, *rev.*, 1545; Dictionnaire des Termes de Médecine, *rev.*, ib.
Dengue fever. *See* Fever
Denison, C., Devitalized Air Toxaemia a Prime Cause of Tuberculosis, *rev.*, 781
Dentistry, qualified to practise, 1383
——— case, an uncommon, 1002
Dentists, unqualified, death from chloroform administered by, 369, 562
Denture metallic, swallowing of successfully treated by the internal administration of cotton wool, 774
Depopulation problem, the cigarette and, 681
Deputation to the General Medical Council on defective preliminary general education, 1405, 1422, 1425, 1435; to the Home Secretary on the Midwives Bill, 1427, 1438
Derby, the annual report of the medical officer of, 671
Derbyshire, the prevention of consumption in, 1175
Dercum, hemianaesthesia, 1562
Deserter, a medical from the Russian Navy, 374
Despard, Rev. F. F., infant mortality in the Bristol slums, 1229
Desquamation, supposed infectivity of in scarlatina, 777
De Tunzelmann, C. W., Wireless Telegraphy, *rev.*, 971
Development and growth, delayed, 1084
Dhingra, sanitation in India, 930
Diabetes, hemichorea and parotitis complicating a case of, 19; potatoes as an article of diet in, 160; restriction of diet in, 389, 1242; eucalyptus in the treatment of, 1295
Diagnosis, a case for, 496, 567; medical, and modern discoveries, 1599; of chest diseases, difficulties of, 514; the diazo-reaction as a method of in clinical medicine, 1261
Diagnostic value of the variations in the leucocytes and other blood changes in typhoid and malarial remittent fever respectively, 827
Diaphragm, rupture of, 17
Diazo-reaction, the as a method of diagnosis in clinical medicine, 1261, 1453
Dickinson, W. L., lymphadenoma with growths in the skin, 716
Dictionaries, medical, 1543
Didama, H. D., the Keeley cure, 1370
Diet, restriction of in diabetes, 389, 1242; of the labouring classes in Edinburgh, 411; and cancer, 931; vegetable, therapeutic value of, 1311
Dietetics, the teaching of, 123
Dieting of pauper lunatics in Scotland, 1231
Digitalis, untoward effects of the administration of, 1068
Dilatation, acute paralytic, of stomach, 716; "horizontal" of the left auricle, 1211
Dimsdale, Sir J. C. *See* Lord Mayor
Dinner, South African civil surgeons', 1496; the King's to the poor, 1586
Diphtheria, post-scarlatinal, and rhinorrhoea and otorrhoea, 55, 113; the increase of, 238, 302, 365, 426; clinical versus bacteriological aspects of, 300; severe case of treated by antitoxin on the seventh day, 452; the local treatment of, 658; of the conjunctiva, 720; the Académie de Médecine de Paris and prophylactic serum injections in, 997; the notification of at Fenny Stratford, 1586
——— antitoxin. *See* Antitoxin
Diplomas, bogus, in America, 1044
Director-General, the and the War Office Council, 1382
Directory (The City of London), *rev.*, 1154
Disclaimer, a, 373, 428
Discoveries, modern, medical diagnosis and, 499
"Discovery," the, precautions against scurvy on, 342
Disease, dissemination of by telephone, 1249; the registration of, 1294
——— caisson, case of, 625; observations on and its prevention, 1018, 1190
——— foot-and-mouth, intravenous injections in, 122; immunization against, 805
——— the "fourth" from an evolutionary standpoint, 56; the "fourth," 300, 364, 420, 568
——— Graves's, case of, 205
——— Hodgkin's and splenic anaemia, 719
——— intrathoracic three obscure cases of, 907
——— Raynaud's, case of, 392
Diseases, infectious, isolation hospitals for, 972; contagious, in the Philippines, 1231; malarial and filarial, in Barbadoes, 1472; industrial, prevention of, 1485
Disfranchisements, penal, of the medical profession in Ireland, 1452
Disinfection, of new clothes, 386; the London County Council and experiments on, 792
Disinfector, an emergency, 1666
Dislocation, of the ulna, 78; of the navicular, 271; double, of the sternal ends of both clavicles backward, 1082
Dispatches from South Africa, 242, 1001, 1123, 1585; from West Africa, Somaliland, and Uganda, 1059
Dispensers, unqualified, 62, 184, 632
Displacement, congenital, of hip and elevation of scapula, 53
Disputes, medical, in the lay press, 871, 1061
Distance walked after division of the great vessels of one side of the neck, 332
District of Columbia, regulation of the sale of virus and antitoxin in, 1228
Diver, E. W., Consumption, its Causation, Prevention, and treatment, *rev.*, 781
Diverticulum, Meckel's, removal of, 1375
Divining for water and its consequences, 793
Doctor, how to be happy though a, 1371, 1620
Doctor's indignation, 120
Doctors and midwives, 121; midwives, and nurses, 369; professional earnings of in Berlin, 494; puffing of in lay newspapers, 933; a city without, 1360; the carriages of at funerals, 1658
Dods, L. F., a warning, 496
Doflein, F., Die Protozoen als Parasiten und Krankheitserreger, *rev.*, 210
Donald, A., oöphorectomy for breast cancer, 22; folliculoma ovarii malignum, 274; tubal mole, ib.; extirpation of uterus for polypi, 1146
Donations, 608, 874, 1135, 1232, 1276, 1317, 1399, 1458, 1518
Donovan, Dr. D. D., the superannuation allowance of, 1124
Doodica and Radica, 465
Doran, A., pregnancy after removal of both ovaries for cystic tumour, 1476
Dore, S. E., further remarks on Finsen's light and *x*-ray treatment in lupus and rodent ulcer, 1324
Dorland, W. A. N., Modern Obstetrics, General and Operative, *rev.*, 903; The American Illustrated Medical Dictionary, *rev.*, 1544
Dormiol, 1278
Douche, the nasal as a prophylactic, 1251
Dowler, H. M., hypodermic injections of quinine in malaria, 1114; quinine in blackwater fever, 1334
Downie, J. W., treatment of laryngeal growths in children, 59; on the subcutaneous injection of paraffin for the removal of deformities of the nose, 1078
Doyle, C., The War in South Africa, its Cause and Conduct, *rev.*, 277
——— J. P., disease of vertebrae and humerus, 394
Drage, L., the Midwives Bill 1902, 1513, 1623
Drainage in empyema, 18; and feeding, chronic nephritis treated by, 697; of burial grounds, 1065; of the arachnoid in acute meningitis, 1148
——— tubes, Southey's capillary, 784; case of empyema with three retained, 1084
Drake-Brockman, Major H. E., an emergency cabinet for India and the Colonies, 90
Draper, J. W., absence of thumbs, 1570
Dreschfeld, J., Hodgkin's disease and splenic anaemia, 719
Drew, D., bullet wound of the motor region of the brain, bullet retained, successful extraction, 138; note on the operation for removal of malignant disease of the breast, 1203; a case of artificial anus following strangulation of a ventral hernia successfully treated by resection of small intestine and implantation of the ileum into the caecum, 1474
Drink, sale of to savages, 1006

Drinking water. *See* Water
Drugs, adulterated for the United States Army in the Philippines, 280; in the tropics, 876
Drummond, W. B., The Child, its Nature and Nurture, *rev.*, 1216
Dry rot, treatment of, 629
Duane, A., A Dictionary of Medicine and the Allied Sciences, *rev.*, 1544
Dublin, the prevention of consumption in, 898, 1487; correspondence from, 1376
Dufferin Hospitals. *See* Hospitals.
Duffin, Mr. R. J., appeal for family of, 479 (*See also* Fund)
Duke of Connaught lays foundation stone of new building of Charing Cross Hospital, 1628
Duke, A., the curette in endometritis and incomplete abortion, 519
Dulberg, J., an international language of science, 560
Dullness and flatness, 1242
Dunglison, R., A Dictionary of Medical Science, *rev.*, 1544
Dunham, E. K., Normal Histology, *rev.*, 339
Dunkirk, the plague at, 1617
Dunlop, G. H. M., on chloroma, 453; a case of chloroma, with pathological report and some notes descriptive of the disease, 1072
——, J. C., appointed inspector of inebriate reformatories in Scotland, 983
Dunn, Dr. T. E., death of, 863
Dunne, A. B., enteric fever in South Africa, its cause and prevention, 622
—— J. J., case of ovarian tumour complicating advanced pregnancy, 836
Dunning, L. H., treatment of wound of portal vein, 41
Duodenal pressure obstruction, 22
Duodeno-choledochotomy for retained gall stones at the duodenal end of the common bile duct, 1596
Duodenum, some points in connexion with ulceration of, 320
Dupré, A., A Short Manual of Inorganic Chemistry, *rev.*, 970
Durham, the prevention of consumption in, 1617
Dusting, of wounds in action with antiseptic powders, 56
Dutton, T., hygiene of the merchant service, 376
Duty, the inhabited house, and the medical profession, 1243
Duxhurst, statistics of the industrial farm colony at, 160
Dyke, Sir W. Hart, the Worshipful Company of Spectacle Makers, 687
Dysentery, in asylums, 25, 397, 487, 604; treatment of by rectal injections, 199; investigation of in India, 1369
Dysmenorrhœa, membranous, 274; clinical lecture on, 1193
Dyspepsia, senile anæmia associated with, 394

E.

Ear, disease of in school children, 978
—— surgery, a strange problem of, 161
Earl of Crewe, on pauper children, 222
—— of Kimberley, death of, 978
—— of Rosebery, the, and the Chancellorship of London University, 1042
East, W. N., the physical and moral insensibility of the criminal, 853
East Africa, observations during a residence of eighteen months in, 199
Eastern counties, epileptic and mentally deficient paupers in, 163
Eastwood, A. E., the occurrence of pelvic tumours arising in adrenal remains, 80
Eccles, Mr. J. H., obituary notice of, 623
—— W. M'A., inoperable cancer, 394; anatomy, physiology and pathology of the imperfectly descended testis, 503, 570; Hernia, its Etiology, Symptoms, and Treatment, *rev.*, 906
Eclampsia, puerperal, the treatment of, 71, 509, 774, 1208; thyroid extract in, 1214
Eclipse of the sun, blinding of the retina through exposure of the eyes when watching, 130
Eczema, chronic, treatment of, 387
Eddowes, A., treatment of chronic eczema, 387; lead oleate of zinc, 939
Edge, F., the air of operating rooms, 940
Edgeworth, F. H., involuntary defæcation in a boy, 123; morphine in uræmia, 864
Edinburgh, correspondence from, 108, 745, 805, 866; the Royal Infirmary, 108, 745; the recent election of a direct representative on the General Medical Council, 108; the number of medical students at the University, 109; the health of, ib.; Queen Victoria's Jubilee Institute (Scottish Branch), ib.; legacies to medical charities in, 310; proposed notification of small-pox in, 358; notification of measles in, 373; diet of the labouring classes in, 411; municipal pathology in, 472; small-pox in, 408; influenza in, 629; and psychiatry, 666; bacteriological examinations for, 805; the town council and the examination of bacteriological products, 866, 983; the town council and the notification of measles, 866; remarkably low death-rate, ib.; the cattle market and slaughterhouse, ib.; the death-rate of, 1501; epidemic of measles in, 1560; the Harveian festival at, 1614
Edleston, R. S. C., case of bullet wound of stomach, 1026
Edmunds, J., processes of infection and protection, 929, 1179
Edridge-Green, F. W., the visual purple of the retina, 334
Education, preliminary general, report of a Committee of the Council of the British Medical Association on, 1351, 1355; preliminary general the General Medical Council and, 1405, 1422, 1425, 1435; in English schools, 1450, 1512; military and medical "antecedent," 1555
Edwardes, E. J., A Concise History of Small-pox and Vaccination in Europe, *rev.*, 1032; modified small-pox and Thomson's theory, 1512
Edwards, Dr. W. T., dinner to, 362
Egypt, the plague in, 32, 171, 229, 344, 405, 479, 552, 614, 679, 742, 744, 858, 922, 974, 1038, 1114, 1174, 1239, 1308, 1424, 1487, 1617; sanitary officers for, 568; correspondence from, 620, 744; the season, in, 620; the weather in, ib.; the health of visitors, ib.; Nile fever, ib.; enteric fever, 744; malaria, ib.; the barrage, ib.; pellegra as a cause of mental disease in, 852
Eichhorst, H., A Textbook of the Practice of Medicine, *rev.*, 151
Elder, W., removal of a tumour from the brain, 269
Eldridge, Dr. S., death of, 241
Electric shock, discussion on at the Institution of Electrical Engineers, 598
Elephantiasis, and molluscum fibrosum, 757, 791; extreme, of the lower limb, 1115
Elixir of glycerophosphate of calcium and sodium, 1343
Elliot-Blake, H., the French law on midwives, 477
Elliott, W. E. L., on the casual relationship between "ground-itch" or "pani-ghao" and the presence of the larvæ of ankylostoma duodenale in the soil, 807
Ellis, H., Studies in the Psychology of Sex, *rev.*, 340 (464); The Criminal, *rev.* 1154
Emaciation of cancer, disappearance of lipoma during, 1588
Emanuel, J. G., endothelioma of stomach, 1086
Embley, E. H., the causation of death during the administration of chloroform, 817, 885, 951, 975
Embolus of a branch of the superior mesenteric artery, intestinal obstruction due to, 963
Embryotomy, case of, 516
Emphysema, traumatic, of the eyelids, 653; traumatic of the lower eyelid, 1025
Employers and sick workmen, 177
Employers' Liability Act. *See* Act
Empyema, drainage in, 18; set of trocars and cannulæ for, 844; case of with three retained drainage tubes, 1084; and its relation to pneumonia, 1508
Encephalocele and spina bifida, excision of, 139
"Encyclopædia Britannica" up to date, 1108; vaccination and, 1320; the second volume of the, 1358; and cancer, 1453; the new volume of the, *rev.*, 1004
Endocarditis, malignant, with Widal's reaction, 715; malignant, 805, 1028; infective, treated with antistreptococcus serum, 1138
Endometritis, the curette in, 519
Endothelioma, of orbit, 333; of salivary glands, 1086; of the stomach, ib.; of lip and submaxillary gland, 1087
Endotheliomata, of the soft palate and of the mesentery, 1087; of the cheek and lip, ib.
Enfield, the Board of Guardians of and anti-vaccinist tactics, 293
Engel, H., Technik des Ersten Verbandes, *rev.*, 841
England, malaria acquired in, 205; and Wales, the vital statistics of, 222, 243; diagnosis of malaria from the standpoint of the medical practitioner in, 1212, 1247
England, W. J., Dental Surgery, *rev.*, 906
English, S., extravasation of blood under Colles's fascia simulating urinary extravasation, 390
Enterectomy contrasted with artificial anus, 1595
Enuresis in females, the treatment of, 72, 509, 1025; nocturnal, the treatment of, 696, 756; the treatment of, 876
Enzymes, splenic, 590
Epiglottis, epithelioma of, 967
Epilepsy, Sir W. H. Broadbent on, 1; and genius, 301; traumatic, with adhesion of skin to brain, treated by insertion of gold foil, 1257
Epileptics, choice of anæsthetics for, 183; care of in Cumberland, 412; convalescent home for, 1306; sane, in workhouses, 1498
Epithelioma of epiglottis and back of tongue, 967; complicating lupus erythematosus treated by scraping, and healed by the *x* rays, 1080
Erskine, A. M., the increase of typhoid and diphtheria, 302
—— J., accidental removal of auricle by midwifery forceps, and successful application of artificial auricle, 14
Erythromelagia or sclerodactyly, 1088
Eskridge, Dr. J. T., death of, 488
Essex, small-pox in, 167, 406, 617, 743, 1238, 1489
Etches, W. R., advanced tuberculous disease of the mesentery without symptoms, 711
Ether, is chloroform more dangerous than? 149
—— anæsthesia. *See* Anæsthesia
Ethics, medical, 369; medical, instruction in, 601
Etiology, of vaccinia, 393; of leprosy in the Soudan, 1336
Etiquette, medical, 119, 305, 431, 933, 1002, 1124, 1245, 1458, 1583
Eucalyptus in the treatment of diabetes, 1295
Eurich, F. W., the anatomy of tuberculosis, 592
Evans, J., Mooren's ulcer of the cornea, 661
Evatt, Surgeon-General G., bearer company or field ambulance? 625; the drinking water supply of troops in the field, 867; appointed principal medical officer of Second Army Corps at Salisbury, 1503
Eve, F. C., case of pulmonary abscess, 333; on cancer, 838
Ewart, W., post-scarlatinal diphtheria and rhinorrhœa and otorrhœa, 113; major dilatation of the left auricle, 271; senile anæmia associated with gouty rheumatoid arthritis and dyspepsia, 394; case of tabes dorsalis, ib.; chronic nephritis treated by drainage and feeding, 967; malignant endocarditis, 1028; "horizontal" dilatation of the left auricle, 1211; palpable systolic intercostal pulsation in a case of mitral stenosis, with dilatation and thrombosis of the left auricle, ib.
Examination, books for, 939
Examinations for the Royal Army Medical Corps, 60, 352; preliminary, the classics in, 425, 485, 621, 686
Excision of spina bifida and encephalocele, 139; of cæcum, 271; of transverse colon, ib.; of hip, use of Thiersch's grafts in, 394; of upper jaw, 1147; of lower jaw, ib.
Excreta, enteric, sterilization of, 115, 176; typhoid, disposal of, 1218 1584
Exercises, the McCoy physical system of, 1230
Exophthalmos, extreme, in exophthalmic goitre, 205
Expectation, rational, of life, 554
Expedition, the British Antarctic, 342
Experiments on living animals, 1369
Explosion in a portable vapour bath, 1124
Extravasation of blood under Colles's fascia simulating urinary extravasation, 390
Extroversion of bladder, 591
Eye, hysterical paralysis of all the muscles of except the internal recti, 205; the indiscriminate use of atropine in diseases of the, 267; secondary carcinoma of the, 1539
—— irrigators, 278, 341
—— speculum, a, 1218
Eyelid, ringworm of the, 333, 501; lower, traumatic emphysema of the, 1025
Eyelids, traumatic emphysema of the, 653
Eyes, blinding of the retina from exposure of when watching the eclipse of the sun, 130; a report of nine cases in which Haab's magnet was used for the extraction of foreign bodies from the, 131; a method of examining the anterior chamber of, 143

F.

Face, sarcoma of, 1331
Factories and workshops, the prevention of consumption in, 106; vaccination in, 550
Factory girls' country holiday. *See* Fund
Fagge, C. H., The Pocket Gray or Anatomists' Vade Mecum, *rev.*, 277
Fairbairn, J. S., pseudo-intraligamentary cyst, 806; fibroid tumour of ovary, 1213

Falkiner, N. M., the registration of disease, 1294
Farmer, G., case of hypertrichosis localis, 711
Farquharson, R., the report of Mr Brodrick's Committee, 47, 105
Farrar, R., absence of thumbs, 1400
Fat, acetonuria and, 1301
Fawcett, J., "chyle" cyst of mesentery, 1539
Fecundity, the laws of, 669; remarkable, 940
Fee, for treating Colles's fracture, 431, 491; for examination of sputum, 627; for a lost prescription, 691; for fracture of forearm, 1062
Feeding, forced, in pulmonary tuberculosis, 449; in gastric ulcer, 427; and drainage, chronic nephritis treated by, 967
Fees, medical, life insurance and, 52, 115, 183, 240, 301; for private vaccination, 127; lunacy, 243; at assizes, 395; midwifery, 568; the question of in India, 751; of medical witnesses, 809, 1490; for vaccination of servants, 872; vaccination and certificates, 934; for medical examination of tramps, 1004; for vaccination, 1055, 1490; for fractures, 1055; at inquests, 1124, 1194; vaccination, a scheme to recover, 1308; medical, 1490; for certifying pauper lunatics, district medical officers and, 1517; medical, at assizes and quarter sessions, 1556; medical, the official receiver and, 1583; medical and the county courts, 1630
Fehling, diagnostic help in gynaecology, 1029
Felt hat making, its processes and hygiene, 377
Female ambulance surgeon, a, 1249
Females, the treatment of enuresis in, 72, 509, 1025
Femur, traumatic separation of the epiphysis of the head of demonstrated by skiagraphy, 271; sarcomatous enchondroma of removed by disarticulation at hip, 1270
Fenger, Dr. C., obituary notice of, 931
Fenny Stratford, the urban council of and fees for notification of diphtheria, 1586
Fentem, T., the seton in migraine and allied affections, 587
Fenton, J. S., a Poor-law abuse, 808
Fenwick, E. H., the treatment of severe "stammering" bladder and urethra, 261; suprapubic cystoscopy, 772
——— Surgeon-Captain P. C., portable folding stretcher for use with mounted infantry, 464
——— W. S., tetany of gastric origin, death on the first attack, 587
Ferdinands, G., notes on adrenalin chloride solution in ophthalmic practice, 707; adrenalin, the active principle of the suprarenal gland, 1252
Féré, C., The Pathology of the Emotions, *rev.*, 340
Ferguson, G. B., a visit to some American hospitals, 185, 221; recurrent carcinoma treated with the Roentgen rays, 265, 285; the treatment of chronic malarial fever by subcutaneous injections of quinine bihydrobromate, 439; elected Fellow of the Royal College of Surgeons of England, 977; some cases in general surgery, 1521
——— J. M., the "fourth disease," 365
Fergusson, W., how to be happy though a doctor, 1371
Fernie, W. T., Kitchen Physic, *rev.*, 1342; index and table of contents, 1588
Ferraby, G. A., venereal warts, 756
Festival, the Edinburgh Harveian, 1614
Fetus, can it cry in the uterus? 540
Fever, the prevention of in St. Lucia, 101
——— cerebro-spinal, three cases of treated with antipyrin, 1262
——— continued, due to the bacillus enteritidis of Gaertner, 1270
——— dengue, paper on, 483
——— enteric, in the inoculated, 75; a simple form of bath used in the treatment of, 89; the Boers and, 98; the prevention of in armies, 116, 237, 386, 426, 487, 643, 665, 1381, 1514; in Switzerland, 122; the increase of, 258, 592, 765, 426; and flies, 312; in South Africa, cause and prevention, 381, 622, 867; airborne, 383, 811; water breakers and, 625; the difficulties of prevention of in warfare, 643; among prisoners of war in, 679; a new diagnostic point in, 704; army reports on, 106; syphilis in connexion with fatal cases of, in South Africa, 812; recent knowledge as to, 876; in an infant 4½ months old, 961; in Folkestone, 1036; intussusception occurring as a complication of 1083; the prevention of in moving columns, 1104; in infants, 1131, 1144; the last epidemic of in South Africa, 1167, 1172; conveyance of, 1102; the etiology of, 1227; information on, 1251; case of, perforation, recovery, 1266; case of with perforation during relapse, death, 1334; in Belfast, 1500; disposal of excreta of, 1518, 1584; localized peritonitis in, laparotomy, recovery, 1600
Fever, haemoglobinuric, Dr. Moffat on, 195, 688; quinine in, 1334
——— hay, treatment of, 542
——— malarial, in St. Lucia, 193; the study of, 374; chronic, the treatment of by subcutaneous injections of quinine bihydrobromate, 439
——— puerperal, antistreptococcus serum in, 1207
——— "remittent" or "Pretoria," so called, 384
——— rheumatic, hyperpyrexia in, followed by tetanic convulsions and temporary labio-glosso-pharyngeal paralysis, recovery, 391
——— scarlet and German measles, the diagnosis between, 631; supposed infectivity of desquamation in, 777; and measles, mixed infection, 893; and isolation hospitals, 898; at seaside resorts, a suggestion, 1514
——— yellow, the diagnosis of, 200, 366; Havana free from, 254; the prevention of in Havana, 916; and the mosquito, commission on the relation between, 1363
Fevers, typhoid and malarial remittent, diagnostic value of the variations in the leucocytes and other blood changes in, 827; malarial, the husk of the coffee bean in, 1360
Fibroids, uterine, 396
Fibroma of uterus, 895
Fibromyoma, soft, weighing 53 lb., hysterectomy for, 70; of uterus, 274
Fibrosarcoma of tail of pancreas, 457
Field ambulance or bearer company? 925
——— force in South Africa, mortality returns of for 1901, 167
Field, Dr. E. A., presentation to, 1066
Fifty years ago, a farewell retrospect, 697
Filaria Demarquaii, notes on, 196
Filariasis, human, in Trinidad, 189; the condition of the blood in, 831, 1137
Fink, treatment of hay fever, 542
Finlay, D. W., two cases of perityphlitis, commonly called appendicitis, 313; the classics in preliminary examinations, 621
Finny, J. M., disseminated sclerosis, 19; cases illustrating the aid of the Roentgen rays in the diagnosis of intrathoracic tumours, 633
Finsbury, small-pox in, 478
Finsen's light. *See* Light
Fischer, G., Le Diagnostic Précoce de la Tuberculose Pulmonaire, *rev.*, 780
——— H., Vade Mecum d'Obstétrique et Gynécologie des Medecins-praticiens, *rev.*, 993
——— L., Infant Feeding in Relation to Health and Disease, *rev.*, 1216
Fish hypothesis of leprosy, as applied in Kashmir, 1080
Fisher, T., two cases of congenital disease of the left side of the heart, 639; ascites in a child, 864
Fistula, vesico-vaginal, cured by a method believed to be new, 1204
Fistulae, vesico-vaginal, surgical treatment of, 1204
Fitzgerald, E. D., relapse of vaccination, 932
Flagellate organisms in human blood, 205
Flanelette, dangers of, 694, 1008
Flatness and dullness, 1242
Flemming, P., "What's What, 485
——— L. A., regeneration of peripheral nerves, 512
Flies, typhoid fever and, 312
Fog, the campaign against, 1431
Foley, C. N., epidemic jaundice, 622
Folkestone, enteric fever in, 1036
Folliculoma ovarii malignum, 274
Food, pure, legislation as to in America, 1065; in an early stage of civilization, 1353
——— preservatives, 1149
Foods, tinned, the age of, 748; for infants and invalids, 1218
Foot and mouth disease. *See* Disease
Footner, J. B., hydatid of the liver, 1507
Forceps, soft cervix volsella, 28; an intrauterine three-bladed vulsellum, 783; bacteriological, 1155; gall-stone, removal of foreign bodies by, 1062
Forearm, fracture of both bones of, 964
Foreign bodies, nine cases in which Haab's magnet was used for the extraction of from the eye, 131; in the windpipe, 1400; removal of by gall-stone forceps, 1602
——— body in oesophagus, 951; oesophagotomy for, 1335
Formulae, official, constants and, 494
Forsythe v. Law, 605, 626
Fort, Mr. P. R., death of, 689
Foscote, the twin sisters of, 915
Fothergill, E. R., a note on picric acid and on potassium bromide, 1062
——— W. E., folliculoma ovarii malignum, 274; membranous dysmenorrhoea, 274
Foulerton, A. G. R., a case of pneumococcus gastritis, 202; a case of tuberculosis in the sheep, 965
Fournier, Professor, appointed Commander of the Legion of Honour, 230
Fowler, E. S. G., case of typhoid fever with perforation during relapse, death, 1334
Fowler's solution. *See* Liquor arsenicalis
Fox, Dr. B. B., obituary notice of, 931
——— Dr. E. Long, obituary notice of, 861; the late, 1437; memorial to, 1619
——— G. H., Photographic Atlas of Diseases of the Skin, *rev.*, 82
——— R. H., powdered malt extract as a nutrient, 895
Fox hounds, rabies in, 299
Fracture, compound, of the tibia, the superjacent tissues being riddled with suppurating gummata, 272; simultaneous, of both clavicles, 772; of fifth cervical vertebra, with fatal bleeding into posterior mediastinum, 902; of both bones of forearm, 964; Colles's, case of, 965; of olecranon, 1148
France, inoculation in in the eighteenth century, 42; the prophylaxis of venereal disease in, 164; law against personation in, 182; the earnings of the medical profession in, ib.; the hygienic spittoon question in, 223; the question of depopulation in, 423; the law as to midwives in, 477; the new Public Health Law in, 543; the crusade against syphilis in, 679; hygienic reforms in the schools of, 722; new law as to conscripts disposed to tubercle, 1061; medical students in, 905; medical graduation of foreigners in, 1503
Franchise, public vaccination and the, 121
Francis, L. A., the treatment of puerperal eclampsia, 71
Frank the theory of neuron retraction, 541
Franklin, Lieutenant-Colonel D. F., the prevention of enteric fever in armies, 116
Franta, J., Kystes Hydatiques pendant la Grossesse, l'Accouchement, et les Suites de Couches, *rev.*, 992
Fraser, A., local treatment of diphtheria, 659
——— T. R., the relative inefficacy of cacodylates as therapeutic agents, 712
Freeman, Major E. C., three cases of cerebro-spinal fever treated with antipyrin, 1262; The Sanitation of British Troops in India, *rev.*, 1341
——— W. T., a case of generalized vaccinia, 500
Freer, A., phthisis and sanitation, 805
Fremantle, F. E., South African civil surgeons, 931
Frenkel's treatment of ataxia, 937
Frew, W., menstruation in a newly born female child with convulsions, 1536
Freyberger, L., The Pocket Formulary for the Treatment of Disease in Children, *rev.*, 670
Freyer, P. J., total extirpation of the prostate for radical cure of enlargement of that organ, 249; the operation of for chronic hypertrophy of the prostate, 1551
Froussard, P., Contribution à l'Etude de l'Entero-colite Mucomembraneuse, *rev.*, 461
Fruit-growing, profitable, 412
Funchal, the medical school at, 541
Fund, Anderson, R. B., subscriptions to, 84, 205, 461, 534, 805; closing of, 742; disposal of proceeds of, 1235
——— British Medical Benevolent, annual meeting of subscribers of, 400
——— the Dublin, subscriptions to, 534, 610, 682, 756, 870
——— Duke of Abercorn's for Relief of Sick and Wounded Officers, report of, 1306
——— Hospital Saturday, annual report of, 1180
——— King Edward VII Coronation National for Nurses in Ireland, 146
——— King Edward's Hospital, offices, etc., of, 62; annual meeting of, 694
——— London Factory Girls' Country Holiday, note on and appeal for, 1084
——— a national hospital, 1452, 1495
——— Prince of Wales's Hospital, annual meeting of, 48
——— R.A.M.C. memorial, proposed formation of, 1362
——— Royal Medical Benevolent of Ireland, annual meeting of, 1424
——— Royal National Pension for Nurses, annual meeting of, 1130
——— the William Smyth, 32, 53, 94, 154, 215, 280, 406, 600, 786, 1118, 1249
——— the Y, acknowledgement as to, 1060, 1123, 1184, 1244, 1313, 1382, 1456, 1516, 1585
Funerals, doctors' carriages at, 1658
Furneaux, W. S., Elementary Practical Hygiene, *rev.*, 518

G.

Gabe, Dr. J. B., presentation to, 1016
Gadow, H., Amphibia and Reptiles, *rev.*, 905
Gairdner, Sir W. T., the classics in preliminary examinations, 425; the treatment of pneumonia, 1107
Galbraith, Anna M., The Four Epochs of a Woman's Life, *rev.*, 1033
Galen, L., Hospital Sketches, *rev.*, 843
Gall bladder, hydatids of the, 1273; a case of removal of, 1598
—— stone, a simulating cancer, 1536
—— stones, intestinal obstruction due to, 80, 335; retained at the duodenal end of the common bile duct, duodeno-choledochotomy for, 1596
Galloway, J., on cancer, 655; signs on the skin of certain common diseases, 1069
Gallwey, Sir T. G., appointed principal medical officer in India, 104
Gamgee, A., the Croonian lecture of the Royal Society, 737
——— L. P., gastro-enterostomy, case of, 21
Gangrene, rapidly spreading, bacteriology of a case of, 203; spontaneous of both lower limbs in a man aged 36, 1140
Gardiner, C. F., The Care of the Consumptive, *rev.*, 781
Gardner, F. G., relapse of vaccination, 568
——— W. T., diagnosis of a tooth in the lung and verification, 835
Garland, A. L., rectal serumtherapy, 1068
Garman, W., the causation of death during the administration of chloroform, 1120
Gastrectomy, partial, 591
Gastritis, phlegmonous, due to streptococcus infection, 202
Gastro-enterostomy, case of, 18, 21; for ulceration of pylorus, 1148; for pyloric stenosis, 1268
Gautier, "arrhenal" in consumption, 804
Gaylord, H., Kursus der pathologischen Histologie mit einem mikroskopischen Atlas, *rev.*, 275
——— H. R., on cancer, 837
Gazetteers, city and county, medical biographies in, 562
Geddings, H. D., sulphur dioxide as a germicidal agent, 692
Gemmel, A. B., anaesthetist and operator, 20
Gemmell, J. E., solid ovarian tumours, 1147
General Medical Council. *See* Medical
Genius, epilepsy and, 301
Genu valgum, Mr. C. A. Morton on, 1527
Geoghegan, Mr. G., the inquest on, 1124
Geologist, a medical, 732
Gerber, P. H., Entstehung und Verhutung der Ohrenleitungen, *rev.*, 400
Germany, sanatorium for consumptives of limited means in, 48, 423; homoeopathy in, 212; treatment of inebriety in, 289; Christian Science in, 360, 423, 810; quacks in, 734; increased mortality from cancer in, 805, 873; a scientific tour to health resorts in, 810; overcrowding of the medical profession in, 1170
Gestation, tubal, with rupture and haemorrhage into the peritoneal cavity, 70; full-time intact extraperitoneal, successfully removed after five years' retention, 204; ruptured tubal, 274; tubal, 396, 897; ectopic, rupture, operation, recovery, 1145; primary ovarian, 1477
Gibbes, H., a new diagnostic point in typhoid fever, 704
Gibson, Miss, on the scarcity of nurses, the cause and the cure, 672
——— G. A., Textbook of Medicine, *rev.*, 150; the Morison lectures on the clinical features of sensory disturbances, 215, 296, 358
Gick, T., superannuation of Poor-law medical officers in Ireland, 487
Giffen, G. H., Students' Manual of Medical Jurisprudence and Public Health, *rev.*, 402
Gilbert, E. G., the emancipation of the general practitioner, 238
Gilbert and Ellice islanders, the, 624
Gilchrist, A. W., transmission of acquired characters, 312
Giles, A. E., Menstruation and its Disorders, *rev.*, 903
——— Brigade-Surgeon-Lieutenant-Colonel P. B., the new designations for the Volunteer Medical Staff Corps, 859
Gilford, H., delayed growth and development, 1084; ateleiosis, 1476
Gill, R. F., a plea for the more continuous treatment of gastric ulcer, 653
Gilmour, Surgeon R. T., malaria on the Zam best and Shire, 624
Giraffe, traumatic bone disease in the, 424
Girgenti Inebriate Reformatory, report of, 1169
Given, J. C. M., suprarenal extract in gastro intestinal haemorrhage, 452
Gladstone, R. J., case of sarcoma of the face 1331
Glamorgan, small-pox in, 174, 299, 406
Gland, suprarenal. *See* Suprarenal
Glasgow, correspondence from, 109; Christmas and New Year meetings at the infirmaries, *ib.*; Western Infirmary, annual report, *ib.*; the medical staff and the management of the Western Infirmary, 110; small-pox in, 406, 498, 551, 680, 798; the public health department of, 525, 555; census returns and the housing of the poor, 558; the football disaster at, 911; vaccination and antivaccinists in, 991; the prevention of consumption at, 1285
Glaucoma, the relation of to thrombosis of retinal veins, with notes of cases, 132
Gleason, E. B., Essentials of Diseases of the Nose and Throat, *rev.*, 400
Glibert, D., Les Filatures de Lin., etc., *rev.*, 1361
Globe, angioma of the, 660
Glover, J. G., Mr. J. H. Johnstone and the General Medical Council, 725
Glucose in urine of low specific gravity, 1474
Glycosuria and insanity, 19
Glynn, E. E., bacterial investigations of the water of public swimming baths, 897; the human stomach, 1149
Goa, the medical school at, 541
Godlee, R. J., the regeneration of peripheral nerves, 657; tropical abscess of the liver, 1210
Goitre, exophthalmic, extreme exophthalmos in, 205; acute exophthalmic, case of, 642; the geographical distribution of, 980
Golding-Bird, C. H., lumbar colotomy for colitis, 1337
Golf match, Manchester, 1902, 1121, 1631
——— tournament, the annual medical, 1252, 1520
Goodall, E. W., asylum dysentery, 397, 487; sudden syncope occurring after the injection of antitoxin in cases of diphtheria, 1178
Goodbody, F. W., the effects of forced feeding in cases of pulmonary tuberculosis and in normal individuals, 449; low proteid metabolism, 589
Gordon, T. E., pylorectomy, 335
——— W., posture and heart murmurs, 636
Gorham, F. P., A Laboratory Course in Bacteriology, *rev.*, 517
Gottstein, G., Technik und Klinik der Oesophagoscopie, *rev.*, 1089
Gouget, A., L'Insuffisance Hépatique, *rev.*, 460
Gould, A. P., on cancer, 718
——— G. M., An Illustrated Dictionary of Medicine, Biology, and Allied Sciences, *rev.*, 1543; The Students' Medical Dictionary, *rev.*, *ib.*; A Pocket Medical Dictionary, *rev.*, 1544
Gowers, Sir W., Epilepsy and other Chronic Convulsive Diseases, *rev.*, 27; myasthenia and ophthalmoplegia, 1253; further remarks on myasthenia, 1325
Graduation, medical, of foreigners in France, 1503
Grafts, Thiersch's, use of in excision of hip, 394
Grandparent, liability of, 752
Grant, Sir J., the secret of a long life, 506
Graves's disease. *See* Disease.
Gray, H. M., treatment of acute peritonitis, 1265
——— St. G., malarial fever in St. Lucia, 193; the diagnosis of yellow fever, 200, 366; the malaria parasite, 1121
Great Yarmouth, the Board of Guardians of and their medical officer, 564
Greece, leprosy in, 810
Green, Guy *v.*, 870
——— A. S., notes of cases illustrating the use of adrenalin chloride in ophthalmic, aural, and nasal surgery, 1142
——— W. E., epidemic catarrhal jaundice, 77
Greene, C. L., The Medical Examination for Life Assurance and its Associated Clinical Methods, etc., *rev.*, 460
Greenhow, H. M., medical men as witnesses, 1002
Greenwood, M., vaccination administration, 115; amendment of lunacy laws, 304
——— Dr. M., son., death of, 1317
Gregory, W. H., case of puerperal eclampsia, 1208; absence of teeth, 1660
Griffith, A. H., fronto-ethmoidal mucocele, 720
——— T. W., a case of hereditary localized oedema proving fatal by laryngeal obstruction, 1170
Griffiths, L. M., an offer, 1192
Grimes, Dr. R. B., death of, 749
Grimsdale, T. B., the preparation of the hands for surgical operations, 516
Grimshaw, J., reflections on ophthalmic work in the army, 133
Gripper, W., inert lymph and revaccination, 1176
Grogono, W. A., a remarkable case of cut throat with recovery, 1336
Gross prize. *See* Prize
"Ground-itch" and the presence of the larvae of ankylostoma duodenale in the soil, the relationship between, 190, 224, 807, 1310; micro-organisms isolated from the lesions of, 587
Groves, E. W. H., some new appliances for uterine medication, 782
——— Mr. J. W., death of, 1455
Growth and development, delayed, 1084
Grünbaum, A. S., antivivisectionist amenities of debate, 599, 605; note on media for distinguishing B. coli, B. typhosus, and related species, 1473
——— O. F. F., suprarenal extract in haemophilia, 200; endotheliomata of cheek and lip, 1087; cytolitic milk for cancer, 1582
Guam, segregation of lepers in, 1432
Guimbail, W. D. H., La Therapeutique par les Agents Physiques, *rev.*, 662
Guiteras, J., the diagnosis of yellow fever, 366
Gulland, G. L., the condition of the blood in filariasis, 831; cyto-diagnosis in pleural effusions, 1268
Gums, condition of in leadworkers, 775
Gunshot injury, suicide from, 1132
——— wound, old, of head, surgical notes on, 143; of abdomen, laparotomy, death, 208
Gunson, C. H., hydrogen peroxide in the treatment of lupus vulgaris and tuberculous abscess, 448
Guy *v.* Green, 870
Gwynn, Dr. E., obituary notice of, 302
Gynaecology, diagnostic help in, 1029
Györy, T. v., Morbus Hungaricus, *rev.*, 461

H.

Haab's magnet. *See* Magnet
Habit, the patent medicine, 915
Haddon, J., the teaching of dietetics, 123; therapeutic value of vegetable diet, 1311
Hadley, W. J., total suppression of urine due to acute nephritis, 1144
Haematemesis, intravenous injection of normal saline solution in a severe case of, recovery, 770
Haematuria, adrenalin in, 1340
Haemoglobinuric fever. *See* Fever
Haemolysins, transmission of from parent to offspring, 203
Haemophilia, suprarenal extract in, 200, 266, 302; the thermo-cautery *v.* suprarenal extract as a haemostatic in, 587; treated with calcium chloride, 1141; the knee-joints from a case of, 1273
Haemorrhage into the peritoneal cavity in ruptured tubal gestation, 70; gastro-intestinal, suprarenal extract in, 452; into the bursa patellae, 1082; from the knee-joint, the bone marrow in, 1538
Haemostatic, suprarenal extract as a, 142, 654; the thermo-cautery *v.* suprarenal extract as a in haemophilia, 587
Haffkine, W. M., the term "haffkinine," 928
"Haffkinine" (the term), 928
Hagey cure, the, 492
Hair of beri-beri patients from Penang, arsenic in, 329, 425
Hairball in the stomach of a child of 9 successfully removed, 147
Hairs, superfluous, treatment of, 311, 695, 939, 1068; moniliform associated with alopecia areata, 812, 883
Hake, H. W., A Short Manual of Inorganic Chemistry, *rev.*, 970
Halban, J., Topographie des Weiblichen Ureters mit besondere Berucksichtigung der pathologischen Zustande und der gynäkologischen Operationen, *rev.*, 901
Halbreich, S., a remarkable case of cut throat with recovery, 1336
Halifax, the Poor law infirmary at, 103; arsenical beer poisoning at the union Poor-law hospital at, 1400
Hall, A., light treatment of lupus, 591; sporadic cretinism, 918; case of sporadic cretinism in which a relapse occurred owing to omission of thyroid extract, 1259
——— I. W., the relation of purin bodies to certain metabolic disorders, 1461
——— J. B., perforation of the appendix within a hernial sac, resection of the caecum and ileo-caecal junction, recovery, 1601
——— W. W., the treatment of hip-joint disease in children, 624
Hall-Edwards J., colonies for consumptives in South Africa, 1562
Halliburton, W. D., Handbook of Physiology, *rev.*, 34, the November Primary F.R.C.S. examination, 548; the composition and nutritive value of bullock, 880; The Essentials of Chemical Physiology, *rev.*, 1480

Halstead, G. E., peripheral neuritis, 926
Halsted's operation for mammary cancer, 1148
Hammam r'Hra as a health resort, 1520
Hamilton, D. G., university degrees for veterinary surgeons, 424; on braxy, 1108
——— G., mammary cancer, 273
Handle for the mounted curved needle, 218
Hands, preparation of for surgical operations, 516
Handyside, Dr. and Mrs., presentation to, 1249
Hansen, C., disease amongst the Laos of Further India, 351
——— G. A., on leprosy, 1475
Hardenberg, E. J. F., asylum dysentery, 397
Hardman, W., recurrent phlyctenular ophthalmia, 1068
Harelip with cleft nose, 1083
Harley, V., low proteid metabolism, 589
Harman, L., a vaccination case, 783
——— N. B., the pathological characters of veld sore, 966
Harmer, W., arthropathy of shoulder-joint in a case of syringomyelia, 271
Harmsworth, A. C., Motors and Motor Driving, *rev.*, 1545
Harnett, C. J., empyema and its relation to pneumonia, 1508
Harold, J., Quain's Dictionary of Medicine, *rev.*, 337
Harris, St. G. E., relapse of vaccination, 632
——— T., stethoscopes, 22
Harrison, J. McK., two cases of acute intestinal obstruction successfully treated with quicksilver, 1023
——— R., thorough operations in cancer of the breast, 174; the application of litholapaxy or lithotrity to stone in the bladder in the canine species, 1023
Harrisson, D., abscess of brain, 515
Hart, D. B., a case of full-time intact extraperitoneal gestation successfully removed after five years' retention, 204; the curative effect of the *x* rays on callous sinuses of the abdominal wall, 1330; development of the amnion and cord, 1338
Hartmann, H., Chirurgie Gastro-intestinale, *rev.*, 840
Harvey, Surgeon-General R., the late, 180: memorial to, 475, 928
Haslam, W. F., diffuse symmetrical scleroderma, 308
Haslett, W. H., the William Smyth fund, 53
Hatfield, M. P., The Acute Contagious Diseases of Childhood, *rev.*, 1216
Hat-making (felt) its processes and hygiene, 337
Haultain, F. W. N., abdominal hysterectomy for uterine inversion, 57: expulsion of dermoid ovarian cyst per vaginam during labour, 204
Hauser, O., Grundriss der Kinderheilkunde mit besonderer Beruchsichtigung der Diatetik, *rev.*, 1217
Havana, free from yellow fever, 254: the health of, 854; tuberculosis in, 916, 1238; the prevention of yellow fever in, ib.
Havell, C. G., registration of nurses, 763
Hawkins-Ambler, G. A., thorough operations in cancer of the breast, 240; symptomatology of shock, 376
Hawthorne, C. O., on intracranial thrombosis as the cause of double optic neuritis in cases of chlorosis, 326, 333; cirrhosis of liver in a cat, 940
Hay fever. *See* Fever
Hay's reaction for bile salts, 702
Hayward, T. E., the construction and use of life tables, 161; the comparability of our national life tables, 295
Hazell's Annual, *rev.*, 27
Head, surgical notes on an old gunshot wound of the, 143; enlargement of veins of, 1088
Head, H., the Goulstonian lectures on certain mental changes that accompany visceral disease, 108
Health in schools, 999
Healy, Dr. W., death of, 1385
Heart, unilateral fatty degeneration of the, 20; case of rupture of, 453; pain in the, 513; two cases of congenital disease of the left side of, 639; state of the vascular system after death by failure of, 832; case of congenital disease of with extreme clubbing of fingers and toes, 1085
——— murmurs, posture and, 636
Heat, decomposition of chloroform in presence of, 183
Heath, C., A Manual of Minor Surgery and Bandaging for the Use of House-Surgeons, Dressers, and Junior Practitioners, *rev.*, 85; Society for the Relief of Widows and Orphans of Medical Men, 175; ligature of the carotid for aneurysm of the aorta, 392; haemorrhage into the bursa patellae, 1082
Heaton, G., perforated gastric ulcer, 591
Heaven, J. C., post-scarlatinal diptheria and rhinorrhoea and otorrhoea, 55; the increase of diphtheria and typhoid, 365
Hebra, Dr. H. R. v., death of, 1065
Hedin, splenic enzymes, 590
Heim, M., Die nervose Schlafosigheit, ihre Ursachen, und ihre Behandlung, *rev.*, 463
Hellier, J. B., ruptured tubal gestation, 274
Helme, A., adbominal section for solid ovarian tumour, 896
Hemianaesthesia, 1562
Hemichorea, complicating a case of diabetes, 17
Hemiplegia, in a boy, 1146; cases in which it was the chief symptom, 1335
Henderson, C. R., Introduction to the Study of the Dependent, Defective, and Delinquent Classes, etc., *rev.*, 1153
——— Lieutenant-Colonel W. H., trional in chorea, 267
Henry, A. J., loss of life by lightning in the United States, 1171
——— J. P., recurrent phlyctenular opthalmia, 1132
Henshaw, W. H., cricket arrangements for the annual meeting at Manchester, 931
Hepatic. *See* Liver
Hepatopexy, case of, 864
Hepato splenomegaly in attacks of jaundice, etc., 1337
Hepburn, M. L., caisson disease, 1179; case of non-development of the large intestine and the greater part of the ileum, 1264
Herbert, Major H. H., colloid degeneration of the conjunctiva, 1540
Herbert Fry's Royal Guide to London Charities, *rev.*, 723
Herman, G. E., the treatment of puerperal eclampsia, 774; on dysmenorrhoea, 1193
Hermaphroditism, sex detected at an ovariotomy, 541
Hernia, into the umbilical cord, 77; operative treatment of in children, 268; Littre's, case of, 332; a new method of dealing with the peritoneum in the radical cure of, 505, 687, 808; operations for, 1274; ventral, successfully treated by resection of small intestine and implantation of the ileum into the caecum, 1402
Hero, a true, of medicine, 40: a nameless medical, of the Franco Prussian war, 539
Heron, G. A., on leprosy, 1476
Heroin and terpin, 28
Herpes zoster, origin of "zoster" in, 930
Herringham, W. P., the classics in preliminary examinations, 485
Hertoghe, E., Die Rolle der Schilddruse bei Stillstand und Hemmung des Wachstums und der Entwicklung und der chronische gutartige Hypothyroidismus, *rev.*, 26
Heterogenesis, the evidence for, 998, 1057
Hewlett, R. T., on cancer, 837
Heywood, C., local treatment of diphtheria, 659
Hiau-kau, report of London Mission Hospital and Leper Asylum at, 1006
Hiccough, obstinate, 124
Hichens, P. S., the open-air treatment in general hospitals, 302
Hickman, Major J., revaccination in German schools, 124
Hicks, Mr. A. B., death of, 1317
Higginson, C. J., Food and Drugs, *rev.*, 970
Highlands and Islands of Scotland, medical officers in the, 654, 1003, 1189, 1248, 1314: lady parish medical officers in, 874, 937
Hill, E., horse sickness in South Africa, 999
Hillier, A., on leprosy, 1476
Hills, Mr. T. H., obituary notice of, 117
——— Dr. W. C., obituary notice of, 488
Hime, M. C., Schoolboys' Special Immorality, *rev.*, 211
Hind, Dr. W., presentation to, 732
Hingston, Sir W., presentation of portrait to, 414
Hip, displacement of, 53; use of Thiersch's grafts in excision of, 304; sarcomatous osteochondroma of femur removed by disarticulation at, 1270
Hip-joint, treatment of disease of in children, 352, 426, 472, 559, 623
Hippocrates, the lecture theatre of, 1546 (1632)
History, medical, the study of, 670, 1362
Hobhouse, E., insular sclerosis, 1507
Hoblyn, R. D., A Dictionary of Terms used in Medicine and the Allied Sciences, *rev.*, 1544
Hoche, A., Handbuch der gerichtlichen Psychiatrie, *rev.*, 461
Hodgkin's disease. *See* Disease
Hodgson, J. F., rupture of diaphragm, abdominal organs in pleural cavity, 17
Hoffmeister, W., decoration of, 112
Hofmeister, F., Verhandlungen der k. *rev.*, 841
Holbeach, condemnation of work wards in workhouse infirmary at, 373
Holiday engagement, a, 1185
Holidays, country, for children, 1050: for factory girls, 1084; country, for poor children and the spread of small-pox, 1105; Irish dispensary doctors', 1494
Holland, cancer in, 852
Holland, Hon. S., the registration of nurses, 558
——— T., duration of pregnancy, 659
Hollander, B., The Mental Functions of the Brain, *rev.*, 89
Holloway Prison. *See* Prison
Holman, C., the Royal Medical Benevolent College, France annuities, 366
Holmes, E. W., Outlines of Anatomy, *rev.*, 1277
——— N. W., hydroa gestationis due to staphylococcus albus, 73
Holt, L. E., The Care and Feeding of Children, *rev.*, 1217
Home, convalescent, for epileptics, 1306; a nursing, 1490
——— the Mary Wardell Convalescent, annual report of, 1248
Homoeopathists, vaccination upheld by, 678; consultations with, 1002
Homoeopathy, in Germany, 212; prohibition of in Japan, 493
Hong Kong, the prevention of malaria in, 121; the plague in, 470, 1114, 1174, 1239, 1369, 1424, 1580, 1617; precautions against plague in, 669, 745; correspondence from, 745, 1377, 1580; communicable diseases in, 745; cholera in, 983; report on sanitary condition of with reference to bubonic plague, 1377; heavy rainfall in, 1580
Hooker, Sir J. D., note on, 1433
Hope, E. W., amendment of the Vaccination Acts, 598
Horder, T. G., Southey's capillary drainage tubes, 784; the constitution of the British Medical Association, 1380
Horne, A., case of Caesarean section, 204
——— W. J., Descriptive Catalogue of the Museum of the Sixth International Otological Congress, *rev.*, 782
Horrocks, P., sarcoma of ovary, 717
——— W. H., An Introduction to the Bacteriological Examination of Water, *rev.*, 516
Horse sickness in South Africa, 999
Hoskin *v.* Wallace, 369
Hospital, acetylene gas for a, 311
——— the Bolingbroke, new wing for, 121
——— Brisbane, annual report of, 1293
——— Bristol General, half-yearly meeting of governors of, 745
——— Charing Cross, distribution of prizes at medical school of, 1404; laying foundation stone of new buildings at, 1628
——— Chesterfield, opening of medical wards in, 1004
——— for Children, the Belgrave, appointment of sanitary officers for, 412
——— for Children and Women, Bristol, annual meeting of, 745
——— Christ's, arbitration award as to site of, 608
——— City of London, for Mental Diseases, Dartford, report of, 1180
——— for Consumption, Mount Vernon, Hampstead, the open-air treatment of consumption at, 223, 691; laying of foundation stone of sanatorium in connexion with, 1230
——— for Consumption and Diseases of the Chest, Brompton, disclaimer from medical committee of, 373
Hospital, David Lewis Northern, Liverpool, annual meeting, 236; resignation of Mr. C. Puzey, ib.; Finsen installation, 237; completion of new buildings, ib.; general description, etc., of, 737
——— Devonshire, Buxton, annual report of, 366
——— for Diseases of the Chest, City of London, festival dinner of, 1518
——— "Dreadnought," Greenwich, open-air treatment of tuberculosis at, 152
——— French, London, annual dinner of, 1100
——— Guy's, the fund or the renovation of, 159; lectures at, 854; annual report of, 1293
——— Hanley, Stoke, and Fenton for Infectious Diseases, additional premises for, 752
——— Haslar, prizes, etc., at, 1625
——— isolation, of urban district council, medical appointment to, 873
——— Italian, ball in aid of funds of, 1250
——— Kashmir Mission, annual report of, 1512

Hospital, the Leper of St. James the Less, note on, 607
——— Llanelly, report of, 1509
——— the London, opening of new operating department at, 1305
——— Merthyr General, new children's ward, for, 1249
——— National, for Consumption for Ireland, annual meeting of, 741; meeting in aid of funds of, 1432
——— National for the Paralysed and Epileptic, the election of the Board of Management of, 104, 154, 158, 289
——— New, for Women, annual meeting of, 671
——— Newport, annual meeting of subscribers to, 362
——— Northern Liverpool, *See* Hospital David Lewis
——— officer, unregistered, 1490
——— Royal Dental of London, annual meeting of governors, 754; entertainment in aid of funds of, 1190
——— Royal Edinburgh for Sick Children, appointments at, 873
——— Royal, National for Consumotion, Ventnor, annual meeting of, 741
——— Royal Orthopaedic, annual meeting of, 1004
——— Royal, Portsmouth, proposed rebuilding of, 1047
——— Royal, Salford, and the Boutflower family, 439
——— Royal Sea-Bathing, Margate, conditions of admittance to, 732, 747
——— St. Bartholomew's and the site of Christ's Hospital, 608; statement as to removal of, 1231
——— St. Mark's, for Fistula, annual dinner of, 1130
——— St. Thomas's, changes in staff at, 310
——— Sir Patrick Dun's, the physicianship of, 693
——— Samaritan (Free) for Women, Dr. Shaw-Mackenzie and the honorary physicianship of, 1173
——— ships for the Royal Navy, 608
——— small-pox, attendance of Poor-law medical officers at, 493
——— South Devon and East Cornwall, the clinical laboratory of, 373
——— Stanley, Liverpool, annual report of, 693
——— Sunday, the Metropolitan, 1495, 1510
——— Torbay, the dispute at, 1116
——— a trolley, 90
——— University College, the charge of the light department at, 373
——— West London, dinner of past and present students of, 1498
——— Westminster, post-graduate course at, 874
Hospitals, some American, a visit to, 185, 221; the sanitation of, 422; general and pulmonary consumption, 445, 468; infectious, remuneration of medical officers of, 493, 504; rate-supported, the medical staff of, 493; treatment of incipient insanity in, 512, 552, 706; Australian, 547; Franciscan, in the United States, 705; metropolitan, the rating of, 705; extra-metropolitan, the spread of small pox from, 797; infectious diseases, 972; small-pox, and the spread of infection, 1130; coroners and officers of, 1245; cottage, and medical officers' deputies, 1520; in London and provinces proposed presentation of portraits of King and Queen to, 1658
——— the Dufferin for India, 64
——— Imperial Yeomanry, closing of, 181, 226
——— the Yeomanry. *See* Hospitals, Imperial
House of Commons, influenza in, 604; health in the, 792
——— of Lords, the, and vaccine legislation, 536; the Midwives Bill in, 1611, 1626
——— of Representatives at Washington, medicine cheat for, 1504
Housing of the working classes, 1290
——— question, the debate on, 218; of London, 601, 611
Houston, T., the oedema of anaemia, 1464
Hovenden, G., treatment of nocturnal enuresis, 750
Hovis foods, 1218
Howden, R., Gray's Anatomy, Descriptive and Surgical, *rev.*, 276
Howell, Captain H. A. L., snake-bite treated with Calmette's antivenene, recovery, 702
——— W. H., A Textbook of Physiology, *rev.*, 1479
Howie, A., distance walked after division of the great vessels on one side of the neck, 332
Hoysted, C. G., case of inversion of the uterus, 1206
Huber, C., Laboratory Work in Histology, *rev.*, 339
Hudson, Dr. J. S., presentation to, 374
Hughes, Professor A., the memorial to, 103, 854, 1498, 1616; A Manual of Practical Anatomy, *rev.*, 1277
Hull, infant mortality in, 539
Hume, E. H., note on media for distinguishing B. coli, B. typhosus, and related species, 1473
Humerus and vertebrae, disease of, 394
Humphrey, J., Pharmacopedia, *rev.*, 596
Hunt, E. G., on catalepsy, 775
Hunter, Surgeon-General Sir G., obituary notice of, 748
——— W., the infective lesions of the tongue, stomach, and intestine in 25 cases of anaemia, 1276
Husk, the, of the coffee bean in malarial fevers, 1360
Hutchinson, J., the New Sydenham Society's Clinical Atlas of Medicine and Surgery, 1180; leprosy in Cape Colony and Natal, 1337
——— J., jun., the direct introduction of purgatives into the intestine during operations for septic peritonitis, 77; traumatic separation of the epiphysis of the head of the femur demonstrated by skiagraphy, 271
Hutchison, R., the nature and treatment of obesity, 272; chyliform ascites, 590
Hutton, S. K., case of perforating wound of the stomach, laparotomy, recovery, 1266
Hutton-Dixon cure, the, 355
Hydatid of the liver, 1507
Hydatids of the gall bladder, 1273
Hyde, J. N., A Practical Treatise on Diseases of the Skin, *rev.*, 88
Hydroa gestationis due to staphylococcus albus, 73
Hydrochloric acid, strong, the results of swallowing, 511
Hydrogen peroxide in the treatment of lupus vulgaris and tuberculous abscess, 448, 756
Hydrophobia, Pasteur treatment of in Mexico, 333
Hygiene, in the Madrid schools, 71; of the merchant service, 225, 376; railway, in Italy, 268; tropical, "business methods" in, 353; in French schools, 733; in New Zealand, 1189; elementary, instruction in in concentration camps, 1311; in Johannesburg, 1630
Hyperidrosis, local, case of, 1264
Hyperpyrexia in rheumatic fever, 391
Hypertrichosis localis, case of, 711
Hypertrophy, senile, of prostate, treatment of, 774
Hypnotics, advertising of in lay newspapers, 934
Hyslop, J. H., the wants of psychical research, 287
Hysterectomy, abdominal for uterine inversion, 57; for a soft fibromyoma, weighing 53 lb., 70; supravaginal myoma of uterus removed by, 661; paravaginal, 1147

I.

Ice creams, 1388
Ileum, non-development of greater part of, 1264
Illness of partner, 751
Imbeciles, care of in Cumberland, 412
Immunity, observations and theories on, 784, 844, 918, 929, 988, 1058, 1179, 1243
Impostor, alleged, 632
Ince, J., the report of the Reorganization Committee, 1512
Income-tax, deductions, etc., from, 63, 1131, 1251; assessments under, 183, 248, 311, 809, 1192; books on, 184; returns as to, 696, 1388; assistants and, 1008
Index, a neurological, 471
India, the plague in, 32, 107, 171, 229, 297, 344, 405, 423, 479, 552, 614, 679, 742, 786, 858, 922, 974, 1037, 1114, 1174, 1239, 1308, 1368, 1379, 1424, 1487, 1617; the first director-general of the telegraph department in, 40; the Dufferin hospitals in, 64; the principal medical officer in, 104; correspondence from, 173, 423, 928, 1178; antimalarial measures in, 173; conference on the prevention of malaria in, 224, 279; typhoid and water supply, 424; training of midwives in, 493; civil sanitation in, 847, 910; the Robert Harvey memorial fund, 928; the septic tank in, ib.; plague officers for the medical service in, ib.; "Anopheles" and malaria in, 1168; the Government of and R.A.M.C. officers on leave, 1231; plague sanitation in, 1288; poppy cultivation in, 1761; the medical service in, 1379; new laboratories for Calcutta, ib.; the Royal Army Medical Corps in, 1493; cancer in, 1625
Indignation, doctor's, 120
Inebriate, the male, 225, 1386
Inebriates, treatment of in Germany, 289; the maintenance of, 873; licensed *v.* unlicensed retreats for, 1100; female, in Canada, 1249; a new retreat for, 1408
Inebriety, treatment of in Victoria, 629
Infancy, acute pyelitis in, 1338
Infant, 4½ months old, enteric fever in a, 961; premature, the problem of, 1196, 1214, 1227; weighing 2 lb. 5 oz., 1208; ileo-caecal intussusception with retrograde intussusception of the descending colon in an, operation, recovery, 1334; pemphigus foliaceus in an, 1401; suffering from ophthalmia neonatorum, gonorrhoeal synovitis in an, ib.; and mother, mumps in, 1537
Infants, burial of as "stillborn," 118; league against mortality of in Paris, 374; protection of in Spain, 494; mortality of in Hull, 539; of the State, 727; newborn, opacity of the cornea in, 868; enteric fever in, 1131, 1144; mortality of in the Bristol slums, 1229
Infection and protection in the organism, processes of, 784, 844, 918, 929, 988, 1058, 1179, 1243
Infections, the reactions of bone marrow and other leucocyte-forming tissues in, 456
Infirmary, the Cardiff, the honorary physicianship of, 173; changes in staff of, 434; annual report of, 752
——— Co. Antrim, recognition of under nursing order, 1231
——— Glasgow Western, annual report of, 109; the medical staff and the management of, 110
——— Gloucester, proposed enlargement of, 121
——— Leicester, the sanitary condition of, 163
——— Macclesfield, the junior house-surgeoncy at, 42, 164
——— Northampton General, the open-air treatment at, 302
——— Royal, Aberdeen, the finances of, 424
——— Royal, Dundee, donation to for treatment of cancer, 1232
——— Royal, Edinburgh, annual report of, 108; bequests to, 309; the pathologist at, 353; the managers and resident physicians and surgeons of, 745; electrical room for skin department in, 826; annual gathering of nurses of, 874
——— Royal, Manchester, the rebuilding of, 121
——— Royal, Newcastle-on-Tyne, the finances of, 686; gift of Finsen light apparatus to, ib.; the new building of, ib.; case of small-pox at, 1173
Inflammation of the appendix, some phases of, 1589
Influenza, the epidemic of, 538; the treatment of, 586, 1131; in the House of Commons, 604; in Edinburgh, 629; the value of quinine as a prophylactic in, 696, 940; cinnamon in the treatment of, 756
Inheritance, theories of, 15, 53, 114, 312; of crime, 1501
Injection, subcutaneous, of normal saline solution in a severe case of haematemesis, recovery, 776
Injections, intravenous, in foot-and-mouth disease, 122; rectal, treatment of dysentery by, 109; of quinine in malaria, 201, 793; subcutaneous, of quinine bihydromate in chronic malarial fever, 439; intratracheal in phthisis, 471, 756, 980, 1019; subcutaneous, of carbohydrates in exhausting diseases, 770
Inkson, Captain E. T., complimentary dinner to, 424, 629
Inoculated, enteric fever in the, 75
Inoculation, of small-pox at Oxford in 1774, 40; of small-pox in France in the eighteenth century, 42; in the incubation stage of plague, 198, 765; antirabic, in Portugal, 494; antityphoid in the case of the 5th Battalion Manchester Regiment in South Africa, 866
Inoculations, antirabic, in New York, 1295
Inquest, without necropsy, 1245
Insanity, glycosuria and, 10; the Royal College of Surgeons of Edinburgh and the clinical teaching of, 216; incipient, treatment of in hospitals, 512, 600, 666; puerperal, 579, 646; the pathological study of, 937
Insomnia, cures for, 1044
Inspectors, lay and medical problems, 283; sanitary, and general practitioners, 1485
Instruments, some new gynaecological, 206
Institute of Actuaries and vaccination, 1111
——— of Chemistry of Great Britain and Ireland, annual general meeting of, 731

Institute, the Drouet, 1583
——— International Psychological, formation of sections for study in, 734
——— Jenner, of Preventive Medicine and the supply of vaccination lymph, 432
——— Queen Victoria's Jubilee for Nurses, annual report of Scottish Branch of, 109; "at home" at Bristol in aid of, 121
——— the Sanitary, prevention of small-pox in London, 457; the Coronation dinner of, 1439
——— the Senckenberg, to be transformed into a university, 1433
——— the Usher of Public Health, Edinburgh, presented to Edinburgh University, 1496; description of, 1010
Institutes, Pasteur, statistics as to, 1067
Institution, Liverpool Medical, the pain of piles, 20; anaesthetist and operator, ib.; cases, 21, 1274; flagellate organisms in human blood, 205; hysterical paralysis of all the eye muscles except the internal recti, ib.; extreme exophthalmos and exophthalmic goitre, ib.; Graue's disease, ib.; malaria acquired in England, ib.; the uterine curette and curretage in gynaecological and obstetrical surgery, 206; officers, etc., of 208; mammary cancer, 273, 284; gall stones with chronic intestinal obstruction, 334; intestinal anastomosis, 335; the physics of the mitral regurgitant murmur, ib.; the x rays in cancer, ib.; abscess of brain, 515; Caesarean section twice, embryotomy once in the same patient, 516; x-ray and light treatment of lupus and rodent ulcer, ib.; the preparation of the hands for surgical operations, ib.; the duration of pregnancy, 659; gastric ulcer, ib.; appendicitis, 660; cerebro spinal rhinorrhoea, ib.; the relation of mental symptoms to bodily disease, ib.; bacterial investigations of the water of public swimming baths, 897; specimens, ib; Caesarean section, 967; the sanatorium treatment of phthisis, ib.; infantile spastic paralysis, ib.; warty growth of larynx, 1148; adenomatous growth of prostate, ib.; rodent ulcer treated by x rays, ib.; vermiform appendix in femoral hernial sac, ib.; medullated nerve fibres of cerebral cortex, ib.; developmental faults in spinal cord, cerebellum, and pons, 1149; the human stomach, ib.; tenotomy of tendo Achillis, 1273; operations for hernia, 1274; loose cartilaginous bodies in knee-joint, ib.; partial removal of thyroid gland, ib.; adenoma of prostrate, ib.
——— Royal, Prince of Wales becomes patron of, 629; lectures at, 754; reports of, 1189
Insurance companies. *See* Companies
——— life, accident, etc., note on, 567; against small-pox, 607; sickness in Italy, 1249
Intemperance, legislation for in New York, 122
Intestine, the direct introduction of purgatives into during operations for septic peritonitis, 77, 452; small, case of intussusception of 37 feet of, 895; large, non-development of, 1264; infective lesions of in anaemia, 1270
Intestines, stretching the sphincter ani in paralysis of, 559
Introducing a successor, 60
Intussusception, of 37 feet of small intestine, case of, 895; occurring as a complication of enteric fever, 1083; ileo-caecal, with retrograde intussusception of the descending colon colon in an infant, operation, recovery, 1334
Inversion, uterine, abdominal hysterectomy for, 57; of uterus, case of, 1206
Ireland, the Poor-law medical service of, 31, 41, 357, 427, 487, 621; superannuation of Poor-law medical officers in, 487; penal disfranchisements of the medical profession in, 1452
Isenthal, A. W., Practical Radiography, *rev.*, 401
Isle of Man, juvenile smoking in the, 246; anti-tobacco legislation in, 925
——— of Wight, public vaccination in, 1292
Isolation of the typhoid bacillus, 703; of patients, 1004
Isphagula, the seeds of, 695
Israel, J., Chirurgische Klinik der Nierenkrankheiten, *rev.*, 722
——— O., Elemente der pathologisch-anatomischen Diagnose, *rev.*, 86
Italy, the antimalarial campaign in, 224; industrial diseases in, 226; railway hygiene in, 268; Poor-law medical officers in, 288; competition for model sanatorium in, 494; the prevention of consumption in, 786; physical culture in, 1170; foreign practitioners in, 1171; sickness assurance in, 1249; the sweet girl graduate in, ib.
Izal, intratracheal injections of in phthisis, 471

J.

Jackson, Dr. M., presentation to, 1006
Jackson, Dr. W. M. M., presentation to, 94
Jaeger, H., Die Cerebrospinalmeningitis als Heeressenche, *rev.*, 597
Jaffrey, F., torsion of the testicle, 1339
James, Mr. W. D., obituary notice of, 1656
Jameson, H. L., pearls and parasites, 672
Jamieson, W. A., lupus treated by light, 18; the x rays in rodent ulcer, ib.; the employment of adrenalin as an adjunct to the light treatment of lupus, 1535
Japan, prohibition of homoeopathy in, 493
Jardine, R., survival of a child weighing 2 lb., sequel, 654; velamentous insertion of cord, 773; opacity of the cornea in newborn infants, 868
Jaundice, epidemic catarrhal, 75, 77, 622; obstructive, the surgical treatment of from an experience of over 200 cases, 125, 147; inheritance of recurrent attacks of, 1337
Jaw, upper, excision of, 1147; lower, excision of, ib.
Jaws, bony ankylosis of, 1147
Jeaffreson, G. E., the open-air treatment of consumption, 174
Jeans, Surgeon T. T., water breakers and enteric, 625
Jejunostomy, the operation of, 1599
Jejunum, rupture of the from direct violence without external bruising, 507
Jellett, H., A Short Practice of Midwifery, *rev.*, 903; A Short Practice of Midwifery for Nurses, *rev.*, 904
Jenner Institute. *See* Institute
Jennings, O., On the Cure of the Morphia Habit without Suffering, *rev.*, 596
Jensen, C. J. G., By-laws as to House Drainage and Sanitary Fittings Made by the London County Council, *rev.*, 87
Jephson, Rev. W. F., infant mortality in the Bristol slums, 1229
Jessop, W. H. H., membranous conjunctivitis, 720
Jewish medical officers in the Prussian army, 434
Jews, cancer among, 681, 747
Johannesburg, hygiene in, 1630
Johnson, J., treatment of poisoned wounds, 811
——— J. R., vaccination and the Encyclopædia Britannica, 1320
——— Surgeon-Major M., death of, 303
——— R., endothelioma of salivary glands, 1086; treatment of tuberculous disease of knee-joint, 1088
Johnston, Captain C. A., hypodermic injections of quinine in malaria, 703
——— G. J., swallowing of metallic denture successfully treated by the internal administration of cotton wool, 774
Johnstone, Mr. A. A. W., death of, 749
——— J. H., and the General Medical Council, 725
——— R. J., extravasation of blood under Colles's fascia simulating urinary extravasation, 390
Jones, E. H., the relations of glaucoma to thrombosis of retinal veins, with notes of some cases, 132
——— Herbert, fixity of tenure of medical officers of health, 1031
——— Hugh, contract practice in North Wales, 49
——— Hugh E., eye irrigators, 278
——— R. (Claybury), on puerperal insanity, 579, 646
——— R. (Liverpool), treatment of hip-joint disease in children, 559; infantile spastic paralysis, 967
——— Dr. W. B., presentation to, 246
Jordan, J. F., myoma of uterus removed by supravaginal hysterectomy, 661
Joukovsky, Rachitisme en Russie, *rev.*, 1216
Jourdin, C., Le Diagnostic Précoce de la Tuberculose Pulmonaire, *rev.*, 780
Journal of Obstetrics and Gynaecology of the British Empire, the first number of, 104
Joyce, Rixon v., 430
——— R. D., pince-nez in ophthalmic practice, 710
Jubilee, a triple, 1562
Justices of Surrey, Quelch v., 1109, 1187, 1314
Juvara, the technique of lumbar puncture, 704

K.

Kaffir therapeutics, 893
Kaisir-i-Hind medal. *See* Medal
Kalteyer, F. J., Modern Medicine, *rev.*, 151
Kaposi, Dr. M., obituary notice of, 688
Kashmir, the spread of leprosy and an examination of the fish hypothesis of leprosy as applied to, 1080
Kay, Dr. W. T., death of, 810
Kaye, J. R., scarlet fever: how far do statistics prove or disprove the utility of isolation hospitals? 898
Keay, J. H., The Medical Treatment of Gall Stone, *rev.*, 1278
Keeley cure, the, 291, 1370
Keetley, C. B., the nature and treatment of obesity, 272; use of Thiersch's grafts in excision of hip, 394; inoperable cancer, 395
Kehr, H., Introduction to the Differential Diagnosis of the Separate Forms of Gall-stone Disease, *rev.*, 1277
Keighley, the guardians of and vaccination, 352
Keith, A., A Manual of Practical Anatomy, *rev.*, 276, 1277; anatomical plates, 427; Human Embryology and Morphology, *rev.*, 1276
——— G. S., restriction of diet and diabetes, 389; treatment of influenza, 586; foreign bodies in the windpipe, 1400
Kelf, H. D., weight charts, 783
Kellock, T. H., actinomycosis of the tongue, 394
Kelly, H. A., methods of incising, searching, and suturing the kidney, 256
Keloid following vaccination, 1265
Kelsey, E. W., diseases of Arctic Alaska, 1109
Kemp, W. R., snake bite treated with large doses of strychnine, recovery, 201
Keng, Hon. Dr. L. B., arrival of, 1458
Kennedy, R., regeneration of peripheral nerves, 512
Kentucky, abuse of cocaine in, 1369
Keratodermia, congenital symmetrical, and leprosy, 194
Kernig's phenomenon, case of, 1025
Kerr, Dr. J., presentation to, 937
——— J. B., intestinal obstruction due to a band passing from appendix to mesentery, 510
——— J. M. M., separation of the placenta, 81
Kerschbaumer, F., Malaria, ihr Wesen ihre Entstehung und Verhutung, *rev.*, 842
Key, Professor A., obituary notice of, 117
Kidd, P., arthropathy in a case of pulmonary bronchiectasis, 1085
Kidney, horseshoe, death from pressure of a pregnant uterus on, 142; movable, ten cases of, 255; methods of incising, searching, and suturing the, 256; movable, medical treatment of, 1295
King, the, and the crusade against consumption, 33; the, and research on cancer, 480; the illness of, 1557; the dinner of to the poor, 1586
King, A. F. A., A Manual of Obstetrics, *rev.*, 903
——— Lieutenant-Colonel W. G., inoculation and the incubation stage of plague, 365
Kinneir, F. W. E., the thermo-cautery in supra-renal extract as a haemostatic in haemophilia, 587
Kirby, E. D., violets and cancer, 55
Kirkpatrick, T. P., genito-urinary tuberculosis, 904
Kitchen, the "open" for invalids in Berlin, 288
Kitchens, municipal, in Nantes, 280
Klein, E., supposed case of haemorrhagic small-pox, 1478
Knaggs, R. L., symmetrical concentric folds of choroid and retina in four cases of unusually high myopia, 720
Knee, arthritis of the, 715; sarcoma of the synovial membrane of the, 1210; the "open" method of treating arthritis of, 1523
Knee joint, treatment of tuberculous disease of, 1088; loose cartilaginous bodies in, 1274; internal derangement of the, 1511, 1579, 1513, the bone marrow in a case of suppuration and haemorrhage from the, 1538
Knee joints, the, from a case of haemophilia 1273
Kneippism in Russia, 734
Knopf, S. A., the tuberculosis problem in the United States, 1176
Knott, J., Colles's fracture, 92
Kobert, H. U., Das Weibermerblut in mikrokristellographischer Hinsicht, *rev.*, 1479
Kocher, T., Chirurgische Operationslehre, *rev.*, 1000
Kölliker, Professor R., awarded gold medal, 1503
Koettlitz, M., dislocation of the ulna, 78; an obscure case of momentary attack of unconsciousness, 1588
——— R., the British Antarctic expedition, 344
Krabbel, hermaphroditism, sex detected at an ovariotomy, 541
Krafft-Ebing, R., v., Psychopathia Sexualis, *rev.*, 330
Kraske's method, excision of rectum by, 18
Kruse, cancer and malaria, 538
Kübler, P., Geschichte der Pocken und der Impfung, *rev.*, 779
Kussmaul, Professor A., death of, 1455

Kyle, D. H., enuresis in females, 1025
Kynsey, Sir W. R., on leprosy, 1475

L.

Laboratory, the Government, the work of, 156; a pathological, in Manila, 434; Cardiff and County Public Health, annual report of, 732; of the Scottish asylums, 856
Labour, case of apoplexy during, 76; expulsion of dermoid ovarian cyst per vaginam during labour, 204; suppression of urine after, 716; difficult, indentation of frontal bone in, 812
Labouring classes in Edinburgh, diet of, 411
Lachnanthes cure of consumption, 101, 113
Lactation, prolonged case of, 1143
Læbare medal, *See* Medal
Lady doctor, the, is she a failure? 287, 558
—— parish medical officers in the Highlands, 174, 937
Laffan, T., penal disfranchisements of the medical profession in Ireland, 1452
Lake, H. D., effect of civilization on the red man, 473
Lambeth, small-pox in, 293
Lambkin, Lieutenant-Colonel F. J., syphilis in connexion with fatal cases of enteric in South Africa, 812; an aseptic syringe, 1342
Lamp, a carriage, 1131
Lancashire, new asylum for, 121; census returns for, 1034
Lancashire, G. H., the therapeutic employment of *x* rays, 1328
Landau, L., Beiträge zur Gynäkologie und Geburtschilfte. *rev.*, 903
Landouzy, Professor, inaugural clinical lecture at the Laënnec Hospital, 422
Lane, Dr. L. C., death of, 689
—— W. A., the physiognomy of the race, 1507
Lang, W., an eye speculum, 1218
Langley, J. N., the regeneration of peripheral nerves, 656; Practical Histology, *rev.*, 1403
Language, an international, of science, 340, 418, 480, 560
Lankester, E. R., on a convenient terminology for the various stages of the malaria parasite, 652
Laos of Further India, disease amongst the, 351
Laparotomy, for gunshot wound of abdomen, death, 268; performed twice on the same patient, 298; in perforating wound of the stomach, 1266; for localized peritonitis in enteric fever, 1600
Larkin, F. C., cerebro-spinal rhinorrhœa, 660
Larvæ of ankylostoma duodenale, relationship between the presence of in the soil and "ground-itch" or "pani-ghao," 190, 224, 807, 1310; of Culex devouring each other, 835
Laryngeal growths in children, treatment of, 59
Larynx, external operation on the, 657, 941; warty growths of, 1148
Laslett, E. E., case of tumours of the pons associated with degeneration in the posterior columns of the spinal cord, 706
Lassar-Cohn, An Introduction to Modern Scientific Chemistry, *rev.*, 840
Latin at the University of London, 349
Latter, Dr. C., obituary notice of, 429
Laurance, L., the Worshipful Company of Spectacle Makers, 869
Laurence, S. M., mosquitos attracted by sound, 64
Lauric, J., three cases of imperforate rectum and anus, 266
Law, Forsythe *v.*, 605, 626
—— S. H., acute otitis media, implication of lateral sinus, operation, ligature of internal jugular vein, recovery,
—— W. F., the case of, 1119, 1221; subscriptions to fund of, 1287, 1424, 1501, 1577
Lawrence, T. W. P., endothelioma of salivary gland,
Lawrie, D., peroneal type of progressive muscular
—— Lauder, and Colonel E., the causation of death during the administration of chloro
1241
Lea, Major J. A., typhoid fever in South Africa and its prevention, 867
Leach, H., The Ship Captain's Medical Guide, *rev.*, 519
Lead poisoning in the Potteries,
LEADING ARTICLES.—The King and the crusade
Medical
Council and the Diploma
of
Tuberculosis and
Vaccination in London, 1561; localization in the cerebral motor cortex, ib.; the work of the Government laboratory, 156; the treatment of pyrexia, 157; vaccine lymph supply, 217; the debate on the housing question, 218; muscular tonus and the reflexes, ib.; the Committee on Workhouse Nursing, 219; the census and the birth-rate, 281; physiology in the London University, 282; "successful" and "efficient" vaccination, ib.; the disruption of Victoria University, 345; an international language of science, 346; the organization of the Colonial Medical Service, 347; the London University matriculation, 407; the Midwives Bill 1902, 408, 498, 1163; brains, beer, and recreation, 409; the special session of the General Medical Council, 467, 435; general hospitals and consumptive patients, 468; catchpenny "cures" for alcoholism, 469; the governance of health departments in Scotland, 435; the House of Lords and vaccine legislation, 436; the second reading of the Midwives Bill, 437; the housing of London, 601; instruction in medical ethics, ib.; asylum dysentery, 604; the War Office and army sanitation, 665; Edinburgh and psychiatry, 666; small-pox hospital accommodation, 667; infants of the State, 727; hospital chapels, 728; the Inebriates Act Amendment (Scotland) Bill, ib.; chemical physiology at University College, Liverpool, 729; the new army medical warrant, 787; the General Medical Council and "medical aid," 788; the treatment of external tuberculosis in children, 789; civil sanitation in India, 847; heroic obstetric surgery, 848; placentophagy and placental opotherapy, 909; the Mosaic code in its sanitary aspects, ib.; the causation of death during the administration of chloroform, 975; the functions of the placenta, 976; syphilis in Africa and Asia, 977; contract medical attendance, 1039; vaccination literature, 1040; tuberculosis in infancy and childhood, ib.; cocainism in Calcutta, 1041; licensed *v.* unlicensed inebriate retreats, 1101; post-vaccinal tetanus, 1102; the prevention of enteric fever in moving columns, 1104; University College and the University of London, 1164; fixity of tenure for sanitary officers, 1165; arterio-venous aneurysm, 1166; the army medical service as a career, 1223; the University of London as a teaching institution, 1224; the coming meeting of the General Medical Council, 1225; the reorganization of the Association, 1287; plague and sanitation in India, 1288; studies in advertisement, 1289; housing of the working classes, 1290; the preliminary education of medical students, 1355; the sale of pernicious literature, 1356; the influence of previous vaccination in cases of small-pox, 1357; the defective standard of preliminary general education, 1425; the finances of the General Medical Council, 1426; the amended Midwives Bill, 1491; problems concerning the serumtherapeutics of plague, 1492; the annual meeting at Manchester, 1555; military and medical "antecedent" education, ib.; medical fees at assizes and quarter sessions, 1556; cancer in India, 1625; the philosophy of Herbert Spencer, ib.; the Midwives Bill in the House of Lords, 1626
Leadworkers, condition of the gums in, 775
League, a French against infant mortality, 374; of Mercy, reception of at Marlborough House, 1431
Leak, H., the Duffin fund, 479, 534, 610, 682, 756, 876
Leake, Colonel, G. D. N., the prevention of enteric fever in armies, 386
Lealean, Lieutenant P. S., bilharzia haematobia, 1086
Lecture, the Croonian of the Royal Society, on haemoglobin, by Dr. A. Gamgee, 737; the Cavendish on some phases of inflammation of the appendix, by Sir F. Treves, 1589
—— Agency Date Book. *rev.*, 1247
Lectures, the Cantor, subject and date of, 181; the Morison, on the clinical features of sensory disturbances, 215, 299, 358; health, advertisement of, 491; the Hunterian, on the anatomy, physiology and pathology of the imperfectly descended testis, 503, 570; before the Royal College of Surgeons of London, *rev.*, 109
Le Dentu, A., Traité de Chirurgie, Clinique et Operatoire, *rev.*, 1030
——, E., Le Cancer du Sein, *rev.*, 1080
Leeds, correspondence from, 208
Lees, Dr. B., malignant endocarditis, 1028
Legat, R. E., intratracheal injections in phthisis,
Leggatt, Dr. R. S., death of, 117
Legislation, medical, in New Zealand, 1352
Lehmann, K. B., Atlas and Principles of Bacteriology and Textbook of Special Bacterial Diagnosis, *rev.*, 275
Leicester, the guardians of and vaccination, 668
Leighton, G. R., The Life History of British Serpents, *rev.*, 904
Leishman, Major W. B., note on a method of quantitatively estimating the phagocytic power of the leucocytes of the blood, 73
Lemco Cookery Book, *rev.*, 464
Leper Hospital. *See* Hospital
Lepers, a national colony for in America, 753; a colony for in the Philippines, 854; segregation of in Guam, 1432
Leprosy, and congenital symmetrical keratodermia, 194; in the United States, 374, 1362; in Madeira, 413; in Greece, 810; in New South Wales, 1047; the spread of and an examination of the fish hypothesis of leprosy as applied to Kashmir, 1080; in the Soudan, Cape Colony, and Natal, 1336, 1337, 1475; the etiology of, 1432
Le Roy, L., cure of cancer of the lung, 236
Leslie, R. M., difficulties in the diagnosis of chest diseases, 514
Leucocytes of the blood, note on a method of quantitatively estimating the phagocytic power of the, 73; the diagnostic value of the variations in, 827
Leukaemia, splenic, and phthisis combined in the same patient, 1136
Levurine, 1343
Lewers, A. H. N., primary tuberculosis of the cervix simulating cancer, 896
Lewi, M. J., treatment of hip-joint disease in children, 472
Lewis, H. K., Supplementary Catalogue, *rev.*, 1005
Lexicon of Medicine and the Allied Sciences (the New Sydenham Society's), *rev.*, 1544
Leyden, E. v., micro-organisms of cancer, 865; the seventieth birthday of, 865, 1036
Leyfield (Hayden) cure, the, 355
Library, of the British Medical Association, list of books presented to, 278, 1286; a military, 1319
Liebreich, O., poisoning by boracic acid, 123
Liesching, C. E., case of Littre's hernia, 332
Life, long, the secret of a, 506; natural expectation of, 554
—— insurance and medical fees, 52, 115, 183, 240, 301
—— tables, the construction and use of, 161; our national, the comparability of, 295
Ligature, proximal treatment of traumatic aneurysm by, 641
Light, lupus treated by, 18, 591; the present position of lupus treated by, 44; ultra-violet, an experiment with, 705; Finsen's, in lupus and rodent ulcer, 1324
—— treatment, the, in Spain, 161; in Vienna, 153, 754; of lupus from a patient's point of view, 162; of lupus and rodent ulcer, 516; of lupus, 1388; of lupus, adrenalin as an adjunct to, 1535
Lightning, loss of life by in the United States, 1171
—— stroke in South Africa, notes on, 198
Lillie, C. F., treatment of dysentery by rectal injections, 199
Limbeck, R. R. v., The Clinical Pathology of the Blood, *rev.*, 1342
Limbs, both lower, in a man aged 36, spontaneous gangrene of, 1140; complete and temporary paralysis of in a child, 1258
Lindley, Hon. L. H., decoration of, 1100
Lindsay, J., indentation of frontal bone in difficult labour, 812
Lip, pigmentation (blue line) of, 967; endothelioma of, 1087; lower, mixed tumour of, ib.
Lipoma of median nerve, 1538; disappearance of during the emaciation of cancer, 1588
Lippincott's Medical Dictionary, *rev.*, 1544
Liquor arsenicalis, the treatment of chorea by large doses of, 901
LITERARY NOTES, 43, 171, 216, 296, 359, 418, 480, 554, 615, 684, 742, 798, 860, 923, 995, 1038, 1117, 1176, 1230, 1307, 1369, 1443, 1485, 1578, 1616; Professor J. F. W. Ross on the Indian medicine man and his work, 43; Dr. H. Barnes on the ravages of small-pox before Jenner's discovery, 171; Thomas Brown on the efficacy of electricity (1823), 216; Dr. W. J. Smith on the country doctors of the Border, 297; Dr. W. H. Drummond on the Canadian country doctor, 359; an international language of science, 418, 480; Dr. W. Findlay on the "vis medicatrix Naturæ," 419; the memoirs of Baron von Pollnitz, ib.; sonnet by Ronsard, 555, 617; Dr. J. Finlayson on the "classics" of pathological anatomy, 555; old prints on plague, 616; Sir H. Thompson on the "Unknown God"? ib.; Dr. F. T. Bond on small-pox, ib.; M. Brieux and the improvement of the moral

condition of France, ib.; Horace Walpole and James's powder, 743; Professor Adami on the medical profession in the eighteenth and twentieth centuries, ib; the early history of medicine in Rhode Island, 798; Ronsard on Rabelais, 799; Professor Loeb's discoveries, 860; Bassi as the founder of parasitic disease, ib.; Mr. J. A. Gibson on Sir E. Cassel's gift to the King, 923; Sir S. Wilks on the origin of Fahrenheit's thermometer, 923, 1443; Miss M. F. Johnston on hospital nurses, 924, 1177, 1443; Dr. L. M. Griffiths on the Bristol hot wells, 995; reminiscences of Professor A. H. Smith, 1117; the medical friends of Mr. Cecil Rhodes, 1177; Sir Wemyss Reid on William Black's visit to the United States, 1239; meditations of an autograph collector, 1240; Dr. C. J. F. Major on the acquisition of horns by males, 1307; Professor Roswell Park on student life in the Middle Ages, ib; Dr. W. S. Taylor on Laënnec, 1308; Miss L. M. Rae on the hospital trained nurse, 1444; Mr. T. H. S. Escott on Delane, ib.; the Duke of Wellington as a correspondent, 1488; Dr. Byers on leprosy in Ireland, ib.; was Napoleon epileptic? 1578; a Gaelic medical manuscript, ib.; Dr. A. More on Christian Science, Medicine, and Occultism, 1616

Literature, pernicious, the sale of, 1356

Lithgow, J., excision of spina bifida and encephalocele, 139

Litholapaxy in stone in the bladder in the canine species, 1023

Lithotrity in stone in the bladder in the canine species, 1023

Little, E. M., late rickets, 394

"Little Folks," the readers of and the endowment of a ward in the North-Eastern Hospital for Children, 1318

Littlejohn, H., on the notification of chicken-pox, 356

Littre's hernia, case of, 332

Liver, extrauterine placenta implanted on, 286; treatment of abscess of, 458; cirrhosis of in a cat, 876, 940; tropical abscess of the, 1210; formation of lymph by, 1469; hydatid of the, 1507

——— clamp, a, 1278

Liverpool, correspondence from, 236, 361, 484, 806, 1241; small-pox in, 293; the proposed university for, 361, 849; report of the medical officer of health on the working of the Vaccination Act, 1898, 484; munificent gift for medical research in, 608; medical officer's report on small-pox, 806, 859; the Hospital for Chronic Disease in Children, ib.; bequests to charities in, 810; the Hartley Botanical laboratories, University College, 1241

Livingston, J. L., rupture of the jejunum from direct violence without external bruising, 507

Lloyd, J., popliteal and gluteal bursae, 865; sarcoma of fibula, ib.

Localization in the cerebral motor cortex, 155

Lockhart, Hon. T. S., presentation of address to, 1428

Lockwood, C. B., sarcoma of the synovial membrane of the knee, 1210

——— G. R., A Manual of the Practice of Medicine, *rev.*, 906

Lockyer, C., chorio-epithelioma with multiple metastases, 82

Locomotor ataxia. *See* Tabes

Lodge, Middlesex Hospital, installation meeting of, 1380

Lodge, P. G., A Short History of the Society of Apothecaries of London, with an Account of the Apothecaries' Hall of Ireland, *rev.*, 663

Loewenthal, N., La Cellule et les Tissus, *rev.*, 338

Lofton, L., the negro as a surgical subject, 832

London, clay and gravel soils of, 23; small-pox in, 42, 107, 220, 478, 551, 743, 990, 1238, 1489; prevention of small-pox in, 457; the housing of, 601, 611; age distribution in, 664; overcrowding in, 753; a new sanatorium for, 1220; post-graduate clinical study in, 1291; future University centres in, 1496

——— County Council. *See* County

——— and North-Western Railway Company. *See* Company

——— Water Bill. *See* Bill

Lord Mayor of London, the, on Metropolitan Hospital Sunday, 1495, 1510

Loudoun, Dr. J., death of, 689

Loughnan, R. A., New Zealand: Notes on its Geography, Statistics, Land System, Scenery, Sport, and the Maori Race, *rev.*, 28

Love, R. J., enteric fever in an infant 4½ months old, 961

Lovell, Sir F., the mission of, 101, 1220, 1499

Lovett, Mr. S. R., death of, 370

Loving cup, the dangers of the, 376

Low, F. H., inoperable cancer, 595

——— G. C., the prevention of fever in St. Lucia, 101; malarial fever in St. Lucia, 193; notes on filaria Demarquaii, 196; the absence of "Anopheles" in Barbadoes, 200; malarial and filarial diseases in Barbadoes, 1472

Lowe, G. M., the use of the *x* rays in medicine and surgery, 149

Lucas, A., the knee-joints from a case of haemophilia, 1273

Lühe, M., Ergenbisse der neueren Sporozoenforschung, *rev.*, 210

Luff, A. P., the nature and treatment of obesity, 273

Lumbar puncture, the technique of, 704

Lunacy in Scotland, 50

——— laws, amendment of, 364

——— legislation, 1359

Lunatics, pauper, in Scotland, the dieting of, 1481

Lund, H., local treatment of diphtheria, 659

Lung, case of cancer of the, 230; three cases of non-tuberculous, rapidly fatal necrosis of, necropsies, 392; consolidation of, 714; diagnosis of tooth in and verification, 835; non-tuberculous necrosis of, 1179; suspected rupture of from violence without further injury, 1339

Lungs, diseased, 298; tuberculin as a remedy in tuberculosis of the, 1389

Luning, A., Atlas und Grundriss der orthopaedischen Chirurgie für Studierende und Aerzte, *rev.*, 782

Lupus, treated by light, 18, 516, 591, 1388; the present position of the light treatment of, 44; light treatment of from a patient's point of view, 162; vulgaris, hydrogen peroxide in the treatment of, 448, 756; erythematosus, complicated by epithelioma treated by scraping and healed by the *x* rays, 1080; Finsen's light and *x*-ray treatment in, 1324; adrenalin as an adjunct in the light treatment of, 1535

Lyell, J., palpation of pregnant uterus, 482

Lymph, inert vaccine and revaccination, 31, 36, 56; of the National Vaccine Establishment, 56; government calf, the supply of to the profession generally, 120, 179, 307; vaccine, the supply of, 217, 222, 229; the Jenner Institute and the supply of, 432; formation of by the liver, 1469

Lymphadenoma, with growths in the skin, 716; case of, 1146

Lymphangiectasis of filarial origin, the operative treatment of, 188; Mr. Whitehead's cases of, 757

Lymphangitis mammae, 1214

Lymphangioma, congenital, terminating in lymphosarcoma, 1210

Lymphosarcoma, congenital lymphangioma terminating in, 1210

M.

Maberly, F. H., a method of examining the anterior chamber, 143

Macalister, C. J., the sanatorium treatment of phthisis, 967

MacBride, E. W., An Elementary Textbook of Zoology, *rev.*, 905

——— P., Diseases of the Throat, Nose, and Ear, *rev.*, 399; treatment of deafness of middle-ear origin, 929

McCall, Eva, rheumatic joint pains, chorea, rheumatic nodules, endocarditis occurring in succession, 389

MacCallan, A. F., a report of nine cases in which Haab's magnet was used for the extraction of foreign bodies from the eye, 131

McCallin, W., Introduction to Medical Jurisprudence, *rev.*, 401

McCann, F. J., case of vesico-vaginal fistula cured by a method believed to be new, with remarks on the surgical treatment of vesico-vaginal fistulae, 1201

McCarthy, Dr. B., a hero of medicine, 40

McClellan, G., Anatomy in its Relation to Art, *rev.*, 277

MacCormac, Sir W., the estate of, 344; memorial to, 672

McCoy, Sir F., the physical exercises of, 1210

McCrindle, J. R. R., oesophagotomy for a foreign body, 1335

Macdonald, Coleridge P., 1561, 1576

——— Dr. A., obituary notice of, 241

——— Dr. D., presentation to, 1006

MacDonogh, D., suprarenal extract as a haemostatic, 654

McDougall, M., hernia into the umbilical cord, 77

Macevoy, H. J., the "fourth disease," 360

McFadyean, J., human and bovine tuberculosis, 235

McGachen, F. W. D., private medical clubs, 1380

McGavin, L. H., multiple osteoma, 80; bilateral cervical ribs and an abnormal bony mass at the first chondro-sternal junction, 271; carcinoma of the bladder, resection of the growth and part of the bladder wall, recovery, 711

Macgregor, Dr. A., obituary notice of, 1004

——— Dr. G. R. S., death of, 1005

Machenhauer, perforation of uterus or catheterism of tube? 1361

MacIlwaine, S. W., theories of inheritance, 53 myxoedema in mother and child, 1261

Mackay, W. A., localized peritonitis in enteric fever with marked symptoms of onset, laparotomy, recovery, 1600

McKee, A. B., contract practice, the evil and its remedy, 330

McKenzie, J., foreign body in oesophagus, 951

McKerron, R. G., suppression of urine after labour, 710

McKinlay, Fleet-Surgeon A., caisson disease, 695

McKinley, President, the physician of, 434; bills for attendance on, 917, 1172

MacLennan, A., handle for the mounted curved needle, 1218

McLeod, Colonel, asylum dysentery, 397

McLiesh, J., diseased lungs, 208

Macmorran, A. H. M., observations on caisson disease and its prevention, 1018

Macnamara, N. C., the reorganization of the army medical service, 200

Macnaughton-Jones, H., critical analysis of some gynaecological methods, 208

McReddie, G. D., cancer and meat eating, 1120

Mactier, H. C., the indiscriminate use of atropine in eye diseases, 267

McWeeney, E. W., etiology of vaccinia, 393

MacWilliam, J. W., observations on the state of the vascular system after death by asphyxia and by cardiac failure, 832

Madagascar, the plague in, 1369

Madden, F. C., hysterectomy for a soft fibromyoma weighing 73 lb., 70

——— Dr. T. M., obituary notice of, 1127

Madeira, leprosy in, 413

Madras, medical and sanitary reports of for 1900, 924

Madrid, hygiene in the schools of, 71

Madsen, S., medical treatment of movable kidney, 1295

Magennis, E., the pince-nez in ophthalmic practice, 1082

Magistrates, medical, 683, 1006, 109, 1586, 1658

Magnet, Haab's, nine cases of extraction of foreign bodies from the eye with, 131; results obtained by, 230

Maguire, R., a disclaimer, 428

Mahon, R. B., Irish Poor-law medical officers, 487

Mair, R., the treatment of pyrexia, 773

Maitland, Lieutenant-Colonel J., the operative treatment of lymphangiectasis of filarial origin, 188; treatment of hepatic abscess, 458

Majnoni, R., Manuale del Massagia, *rev.*, 663

Major, H., presidential address to Yorkshire Branch, 501

Malaria and carcinoma, 16, 77, 538, 710; the prevention of in Hong Kong, 121; measures against in India, 173, 224, 279; treated by the hypodermic injection of quinine, 201, 393, 1113; acquired in England, 205; the campaign against in Italy, 224; on the Zambesi and Shire, 624; tetanic convulsions in, 625; a convenient terminology for the various stages of the parasite of, 682; and the Italian Society for the Study of Malaria, 850; prophylaxis of in Corsica, 981; Dr. Manson on the prevention of, 1046; and mosquitos, 1107; the parasite of, 1121; and "Anopheles" in India, 1168; diagnosis of from the standpoint of the medical practitioner in England, 1212, 1227

Malarial fever. *See* Fever

Malcolm, J. B., fibrosarcoma of tail of pancreas, 457

——— W. S., traumatic emphysema of the lower eyelid, 1025

Malet, H., tuberculous meningitis, 776

Malignant disease, treatment of intestinal obstruction from, 322; operation for removal of the breast in, 1203

Malins, E., Porro's operation, 22

Malpractice, a safeguard against, 588

Malt extract, powdered, as a nutrient, 835

Malta, mosquitos at, 1460

Mamma and Mammary. *See* Breast

Man, trypanosoma in, 42, 100, 164; aged 36, spontaneus gangrene of both lower limbs in a, 1140; young, carcinoma of pylorus in a, 1149
Manchester, the medical officership of the School Board of, 1109; the Royal Army Medical Corps (Volunteers) in, 1428
——— Regiment, results of antityphoid inoculation in the 5th Battalion of, 866
Manchuria, the plague in, 479
Manifesto, a medical temperance, 170
Manila, a pathological laboratory in, 434
Manley, Mr. J., obituary notice of, 370
Mann, H. E., the age of tinned foods, 748
Mansell, H. R., survival of a premature child weighing 18 oz., 773
Manslaughter, convictions for, 1245
Manson, P., asylum dysentery, 397; the prevention of malaria, 1046; diagnosis of malaria from the standpoint of the medical practitioner in England, 1212, 1227; on leprosy, 1475
——— Mr. P. T., obituary notice of, 749; the funeral of, 1498
Marie, A., La Rage, *rev.*, 86
Marlborough House, reception of League of Mercy at, 1431
Marnes, a statue to Pasteur in, 609
Marriott, Dr. P. W., death of, 488
Marsden, R. W., local treatment of diphtheria, 659
Marseilles, instruction in tropical diseases at medical school of, 1172
Marsh, F., carcinoma of sigmoid flexure in a boy, 398
Marshall, J. J. de Z., the organization of the Volunteer Medical Service, 241
——— J. N., tubal gestation with rupture and haemorrhage into the peritoneal cavity, 70
Martin, A. M., removal of Meckel's diverticulum, 1375; operation on mouth for malignant disease, ib.
——— C., pyonephrosis, 398
——— E. W., case of fatal anaemia presenting some unusual blood changes, 1139
——— W., Chemistry and Physics, *rev.*, 971
Martindale, Mr. W., death of, 370; memorial to, 937
——— W. H., the influence of phosphorus on organic substances in pills, 578; portable urine-testing apparatus, 783; a bacteriological forceps, 1155
Martin-Leake, Captain A., gets Victoria Cross, 1226, 1244
Martinez Molina prize. *See* Prize
Mason, H., a possible predisposing cause of cancer, 139
Massachusetts, vaccination legislation in, 936
Massey, G. B., An International System of Electro-Therapeutics, *rev.*, 970
Mastoid diseases, operation for, 1147
Matches, safety, are they poisonous? 1106, 1320; lighted, caution against throwing about at the Coronation, 1503
Maternities and pre-maternities, 65
Matthews, C., Manual of Alcoholic Fermentation and the Allied Industries, *rev.*, 1034
Mattison, J. B., the morphine habit, 124
Maude, A., the supply of government calf lymph to the profession generally, 179; Widal's reaction in a case with uric acid calculus, 1401
Mauritius, the plague in, 32, 107, 171, 229, 297, 344, 405, 479, 552, 614, 679, 742, 786, 858, 922, 1038, 1114
Maus, Major L. M., contagious diseases in the Philippines, 1231
Maxwell, J. P., case of complete obliteration of the vagina with superinvolution of the uterus following childbirth, 78
Mayet, L., the geographical distribution of goitre, 980
Meachen, G. N., rhubarb and urticaria, 1068
Measles in second attack and German measles, differential diagnosis, 142; notification of, 373; 455, 866; German, and scarlet fever, the diagnosis between, 631; and scarlet fever, mixed infection, 893; epidemic of in Edinburgh, 1360
Meat eating, cancer and, 807, 1170
Meath Home for Epileptics, annual report of, 754
Medal, Kaisar-i-Hind, award of, 60
——— the Lætare, award of, 917
Media for distinguishing B. coli, B. typhosus, and related species, note on, 1473
Mediastinum, posterior, fatal bleeding into, 962
Medical aid companies. *See* Companies
——— communications to the lay press, 60
——— Council General, the Glasgow Southern Medical Society and, 24, 1424; and the Conjoint Board in England, 34, 95, 116, 176, 522; and the National Medical Aid Company, 58; the action of and medical aid companies, 165; the representative of the University of Dublin on, 373; leading article on the special session of the, 467, 535; extraordinary session of, 520; new members, ib.; president's address, 520, 1344; the Midwives Bill, 520, 534, 1347, 1422; report by the special committee on the curriculum, 522, 621; election to a vacancy on the Executive Committee, 534; vote of thanks, ib.; the minutes of, 597, 722, 1350; the Glasgow and South Western Branch of the British Medical Association and, 620; Mr. J. H. Johnstone and, 725; the finances of, 735; and "medical aid," 788; the "Times" on, 913; the coming meeting of the, 1225; notes on meeting of, 1343, 1403; Business Committee, 1345; statistical tables, ib.; the Apothecaries Society of London, 1346; dental business, 1347; reports of Committees, ib.; preliminary general education, 1347, 1405, 1422, 1425, 1435; disciplinary cases, 1317; results of professional examinations, ib.; the case of Dr. Tyndale Watson, 1404; medical aid societies, the case of Mr. Rendall, 1405; application for registration, ib.; the deputation from the British Medical Association, 1405, 1422, 1425, 1435; the case of Mr. William Park, 1405; reappointment of Committees, 1406; report of the Financial Relations Committee, ib.; discussion of the report of the Financial Relations Committee, 1408; reappointment of Financial Relations Committee, 1413; report of Finance Committee on Income and Expenditure, 1414; visitation of examinations, 1416; the prevention of personation, ib.; the registrar, 1417; visitation and inspection of examinations, ib.; Executive Committee, 1418; Penal Cases Committee, 1419; Public Health Committee, ib.; report of the Personation Committee, 1420; the diploma in Public Health, 1421; preliminary examinations in Scotland, 1422; report of the Pharmacopœia Committee, ib.; the employment of unqualified pharmaceutical assistants by medical men, 1424; vote of thanks to the president, ib; the finances of, 1426, 1513; the constitution of, 1446
"Medical Directory," the deletion of names from, 184
——— men, as witnesses, 1490, 1494, 1622
——— officers, county, in Scotland, and private practice, 102; in Scotland and consulting practice, 1385
——— officers, district, and their deputies, 753; as members of rural district councils and county councils, 873; and fees for certifying pauper lunatics, 1517
——— officers of health, in Scotland, salaries of, 57, 115; and private practitioners, 601; notification by, 692; the relation of to their professional colleagues, 870; fixity of tenure of, 1031, 1165; appointment of, 1189
——— officers of infectious hospitals, remuneration of, 493, 564
——— officers, parochial, Scottish, School Board certificates and, 118; in the Highlands, 1003, 1189, 1248; in Scotland, 1314
——— officers, Poor-law, in Ireland, 31, 41, 357, 427, 487, 621; in Italy, 288; Scottish, 366, 492, 692; in Ireland, superannuation of, 487; attendance of at small-pox hospital, 493; and their pauper patients, 602; duties of, 1517
——— opinion, insurance companies and, 212, 680
——— research. *See* Research
"——— Times and Hospital Gazette," the editor of and "What's What," 485
Medicine, household, in ancient Rome, 39; a true hero of, 40; tropical, in Portugal, 181, 216, 414; study of the history of, 670, 1362; the endowment of in America, 673; clinical, the diazo-reaction as a method of diagnosis in, 1261; relation of biology to, 1292; the romance of, 1494
——— chest for the House of Representatives at Washington, 1564
Medicines, proprietary, the puffing of, 691; patent, formulae of, 726
Meissen, R., Beiträge zur Kentniss der Lungentuberculose, *rev.*, 780
Melbourne, correspondence from, 927, 1377; difficulty of the Women's Hospital, 927, 1377; the Fever Hospital, 927, 1377; the prevention of consumption, 927; the administration of asylums for the insane, *ib.*; the prevention of plague, ib.; "cures" for inebriety, ib.; the inter-State Congress, ib.; the Victoria Branch of the British Medical Association, ib.; death of Dr. Snowball, 1377; the dearth and the price of food, *ib.*; the health of, 1631
Membrane, synovial, of the ankle-joint, primary sarcoma of the, 1210; synovial of the knee, sarcoma of, ib.
Men, tailed, 29
Mendes, A. P., Études de Clinique Chirurgicale, *rev.*, 1089
Meningitis, tuberculous, 776; tuberculous, infantile mortality from, 1024; acute, drainage of arachnoid in, 1148; cerebro-spinal, notes on, 1380; posterior basal, the meningococcus in a case of cerebral tumour simulating, 1539
Meningocele or cephalhydrocele, 1084
Meningococcus, the, in a case of cerebral tumour simulating posterior basal meningitis, 1539
Menues, F., Ueber die Mischinfektion bei die chronischen Lungentuberkulose, *rev.*, 209
Menstruation in a newly-born female child with convulsions, 1536
Mental changes that accompany visceral disease, 168
——— disease, pellagra as a cause of in Egypt, 852
——— disorders, autobiographies of by patients, 793
——— symptoms, relation of to bodily disease, 660
"Mentioned in Despatches," 1455
Mentone, the human remains found in the grottoes at, 1170
Meralgia paresthetica, 713
Merchant service, hygiene of the, 225, 376
Mercier, C. A., theories of inheritance, 15; Psychology, Normal and Morbid, *rev.*, 88; A Textbook of Insanity, *rev.*, 1153
Mercurialism, trades subject to, 939
Mesentery, intestinal obstruction due to a band passing from appendix to, 510; advanced tuberculous disease of without symptoms, 711; endotheliomata of, 1086; "chyle" cyst of, 1539
Metabolic disorders, the relation of purin bodies to, 1461
Metastases, multiple, chorio-epithelioma with 82
Metric system, the, in America, 880
Mexico, Pasteur treatment of hydrophobia in, 333; ancient, sorcery, medicine, and surgery in, 1161
Michigan, the dealing with small-pox in, 474
Microphthalmus, bilateral congenital, 1540
Micro-organisms, isolated from the lesions of ground itch, 587; of cancer, 865
Middlesex, a small-pox hospital for, 1359
Middleton, Dr. W. D., death of, 1185
Midelton, W. J., hydrogen peroxide in the treatment of lupus vulgaris and tuberculous abscess, 756; treatment of gastric crises, 1131
Midwifery contracts. *See* Contracts
——— engagements, 870, 934
——— practice, unqualified, 60
Midwives and the bishops' licence, 55; and doctors, 121; doctors, and nurses, 369; registration of, 436; in New York, 473, 1006; the French law as to, 477; the course of study for, ib.; the training of in India, 493; unqualified practice by, 562; the relation of medical practitioners to, 1245
——— Bill. *See* Bill
Migraine, and allied affections, the seton in, 587, 901, 1025
Miles, A., gastro-enterostomy, 18; intestinal obstruction due to tuberculous peritonitis, ib.; excision of rectum by Kraske's method, ib.
——— T., removal of a tumour from the brain, 269
Militia, promotions and appointments in medical service of, 59; the new titles in the medical service of, 471, 491
Milk, arresting secretion of, 123; should it be boiled? 440; cytolitic, for cancer, 1582
——— dispensaries, 853
Mill, collapse of a at Belfast, 246
Millard, C. K., the "fourth disease," 426; the diagnosis between scarlet fever and German measles, 631; supposed infectivity of desquamation in scarlatina, 777
Miller, W. R., Hausa Notes, *rev.*, 519
Milligan, W., suprarenal extract as a haemostatic in haemophilia, 266
Mills, Major R. I., x ray injuries, 1520
Milner, E. T., local treatment of diphtheria, 659
Milward, F. Y., rectal carcinoma and the prolongation of life by colotomy, 865
Mirabeau, painless parturition in tabes, 540
Missionaries, medical, 494
Missouri, a State sanatorium for, 398
Mistletoe on oak trees, 568
Mitchell, A. B., ileo-cæcal intussusception with retrograde intussusception of the descending colon in an infant, operation, recovery, 1334
——— W., spontaneous gangrene of both lower limbs in a man aged 36, 1140
Mitral constriction (early), 1339
Modlin, I. G., ovarian cyst complicating pregnancy at full term, 1089

Moffat, J. G., rigidity under chloroform, 756
——— R. U., blackwater fever, 195, 688
Moir, Lieutenant-Colonel W., obituary notice of, 1065
Mole, tubal, 274
Molluscum fibrosum and elephantiasis, 757, 791
Molokai, alleged maladministration at, 314
Monckton, F. A., restriction of diet in diabetes, 1242
Money, pauper patients dying possessed of, 1517
Monro, D., congenital deficiency of certain phalanges, 1026
Monsarrat, K., mammary cancer, 273; developmental faults in spinal cord, cerebellum, and pons, 1149
Montgomery, F. H., A Practical Treatise on Diseases of the Skin, *rev.*, 88
——— W. P., duodenal pressure obstruction, 22
Monti, A., The Fundamental Data of Modern Pathology, *rev.*, 209
Montreal, small-pox and vaccination at, 1500
Moore, A., the isolation of the typhoid bacillus, 703
——— Sir J. W., the treatment of pneumonia, 1107
——— Dr. M. M., presentation to, 1065
Mooren's ulcer. *See* Ulcer
Moorhead, T. G., tortuosity of internal carotid arteries, 332
Morgan, D., *x*-ray and light treatment of lupus and rodent ulcer, 516
Morison, A., enlargement of veins of head, 1088; early mitral constriction, 1139
Moritz, E., Ueber Lebensprognosen, *rev.*, 1001
Morkowitin, A., a substitute for symphysiotomy, 41
Morley, A.S., malignant endocarditis, 1028
Morphine, tetanus treated by, 654; in uraemia, 864
——— habit, the, 124; alleged increase in the, 473
Morphinomania, induced, an action for damages for, 605, 626
Morris, H., inoperable cancer, 395
——— M., further remarks on Finsen's light and *x*-ray treatment in lupus and rodent ulcer, 1324
Mortality, infantile, from tuberculous meningitis and tabes mesenterica, 1024; infantile among the native races in the tropics, 1030
——— returns of the field force in South Africa for 1901, 167
Mortimer, J. D. E., choice of an anaesthetic in abdominal operations, 568; Tendencies to Consumption: How to Counteract Them, *rev.*, 781
——— W. G., History of Coca, "the Divine Plant" of the Incas, *rev.*, 1605
Morton, C. A., the direct introduction of purgatives into the intestine during operations for septic peritonitis, 77; two cases of recovery after operation for diffuse peritonitis from perforation of the appendix, 325; stretching the anal sphincter in paralysis of the intestines, 559; on genu valgum, 1527
Mosaic code, the, in its sanitary aspects, 909
Moscow, the scheme for foundation of a medical institute at, 874; amalgamation of medical societies in, 1296
Mosquito net, the, in the tropics, 851
Mosquitos attracted by sound, 64; local study of the breeding places of, 224; and rheumatism, 474; extermination of in New Jersey, 752, 1354; the campaign against in Sierra Leone, 982; and malaria, 1107; and yellow fever, 1363; in Malta, 1460
Mossé, the value of potatoes as an article of diet in diabetes, 160
Mother, and child, myxoedema in, 1261; and infant, mumps in, 1537
Motor region of the brain, bullet wound of the, bullet retained, successful extraction, 138
Mott, F. W., dysentery in asylums, 25, 398; the degeneration of peripheral nerves, 157
Moullin, C. W. M., excision of gastric ulcer, 658
Mount Auburn Cemetery, cremations at, 467
Mouth, a method of securing the lingual artery in excision of the tongue through the, 454
Moynihan, B. G. A., Diseases of the Stomach and their Surgical Treatment, *rev.*, 85; partial nephrectomy, 206, 263; the operation of jejunostomy with a report of two cases, 1509
Mucocele, fronto-ethmoidal, 720; ethmoidal, 1084
Mudge, C. P., a Textbook of Zoology, *rev.*, 905
Muir, Surgeon-General H. S., an acknowledgement, 1060, 1123, 1184, 1244, 1313, 1382, 1456, 1516, 1585
——— R., the reactions of the bone marrow and other leucocyte-forming tissues in, 456
Muir, W. L., Scottish Poor-law medical officers, 366
——— Dr. W. S., death of, 1065
Muirhead, C., the Causes of Death amongst the Assured in the Scottish Widows' Fund and Life Assurance Society from 1874 to 1894 inclusive, *rev.*, 1090
Mullin, Dr. J. F. L., death of, 565
Mummy case, the, 1046
Mundé, Dr. P. F., death of, 565
Munro, J. R., case of acute septicaemia following incomplete abortion, treated by antistreptococcus serum, recovery, 78
Murchison, A., parochial medical officers in the Highlands, 1189
Murdoch, A., absence of thumbs, 1252
Murmur, mitral regurgitant, the physics of the, 335
Murmurs, heart, posture and, 636
Murphy, J. B., awarded Lætare medal, 917
——— S. F., annual report of the medical officers of the administrative county of London, 169, 211; supposed case of haemorrhagic small-pox, 1478
Murray, H. M., Quain's Dictionary of Medicine, *rev.*, 337
——— R. M., spontaneous rupture of uterus, 80
——— R. W., intestinal anastomosis, 335
——— W., Rough Notes on Remedies, *rev.*, 1545
Murrell, W., pernicious anaemia, 1208
Muscular tonus and the reflexes, 218
Muzzling order, reimposition of, 434, 1386, 1518
Myasthenia, and ophthalmoplegia, 1253; further remarks on, 1323
Myers, travelling studentship. *See* University of Birmingham,
Myoma of uterus removed by supravaginal hysterectomy, 661
Myopia, unusually high, symmetrical concentric folds of choroid and retina in four cases of, 720
Mythology and teratology, 671
Myxoedema in mother and child, 1261

N.

Naevus pigmentosus et verrucosus, 1027
Nagpur, the conference on malaria at, 224, 279
Nail, removal of from the right bronchus of a child aged 2½ years, 894
Nantes, municipal kitchens in, 289
Napoleon's Russian campaign, some medical aspects of, 552
Nash, J. T. C., the "fourth" disease from an evolutionary standpoint, 56; micro-organisms isolated from the lesions of ground itch, 587
——— Surgeon-General W., obituary notice of, 241; memorial to, 690, 751, 809, 870, 933, 1060, 1123, 1184, 1313, 1382, 1456, 1516, 1586
Natal, medical regulations in, 691; leprosy in, 1337, 1475
National Vaccine Establishment, the lymph of, 56
——— Medical Aid Company. *See* Company
Naval Brigade, the Western, in South Africa, 625
Navicular, dislocation of, 271
Navy, the American, health of, 242
——— the Japanese, the medical service of, 933
——— Royal, successful candidates for medical service of, 59; promotions and appointments in medical service of, 59, 118, 177, 242, 305, 368, 430, 490, 625, 690, 750, 869, 932, 1000, 1059, 1123, 1183, 1243, 1312, 1382, 1515, 1623; the rank of fleet-surgeon, 60; the "Statistical Report of the Health of," 226, 303; nursing staff reserve for, 242; the medical service of, 369, 429; the estimates for for the year 1902-3, 489; promotion in the medical service of, 491; hospital ships for, 608; professional papers by medical officers of, 624; the medical service of in 1790 and after, 974; new regulations for the entry of candidates for commissions for, 993, 1060, 1123, 1182, 1455; the medical service of compared with that of the Royal Army Medical Corps, 1121, 1182, 1381; old and new rates of pay in the medical service of compared, 1182; cabins for officers of the, 1312
——— Russian, a medical deserter from, 374
——— United States, the surgeon-general of, 118, 1632; medical operations in, 751; proposed medical school for, 1563
Neck, abscess in the, with signs of vagus irritation, 267; distance walked after division of the great vessels on one side of the, 332; mode of origin of certain cysts of the, 903
Necropsy, inquest without, 1245
Necrosis, non-tuberculous, of lung, 992, 1179
Needle, mounted curved, handle for, 1218
Negro, the, as a surgical subject, 852
Nell, Dr. R., death of, 1005
Nemesis, the, of the placebo, 286
Nephrectomy, partial, 206, 263; case of, 591
Nephritis, chronic, treated by drainage and feeding, 967; acute, total suppression of urine due to, 1143
Nephrolithotomy for renal and ureteral calculi, 591
Nepveu, G., trypanosoma in man, 164
Nerve, median, lipoma of, 1538
——— fibres, medullated, of cerebral cortex, 1149
Nerves, peripheral, the regeneration of, 511, 656
Nervous system, books on the physiology of the, 1087
Netley, distribution of prizes at the medical school at, 367
Neumann, R. O., Atlas and Principles of Bacteriology and Textbook of Special Bacteriological Diagnosis, *rev.*, 275
Neuritis, double optic, in cases of chlorosis, intracranial thrombosis as cause of, 326, 333; peripheral, 926
Neuron retraction, the theory of, 541
Neve, E. F., on the spread of leprosy and an examination of the fish hypothesis of leprosy as applied to Kashmir, 1080
Newbigging, T. D., stimulation of the skin in phthisis, 568
Newbolt, G. P., operations for hernia, 1274
Newcastle-upon-Tyne, correspondence from, 52, 686; Royal Infirmary, old and new, 52; Dr. Thomas Beattie, ib.; lying-in hospitul, 52, 686; Earl Grey and national physique, 52; the finances, etc., of the Royal Infirmary, 686; Hospital for Diseases of Women, ib.; proposed sanatorium for, 858
New Jersey, the extermination of mosquitos in, 752, 1354
——— Orleans, report of Commission on Mosquitos in, 475
——— South Wales, sanatorium for consumptives in, 167; leprosy in, 1047
——— York, suppression of quackery in, 48; a bureau of information for medical practitioners in, 66; legislation for intemperance in, 122; a psychiatric institute in, 162; census of consumptives in, 288; venereal diseases in, 208, 913; increase of vaccinating staff in, 434; midwives in, 473, 1006; osteopathy in, 491; antiseptic shaving in, 693; a new lying-in hospital for, ib.; sun playrooms on roofs of, 703; free supply of antitoxin in the State of, 873, 1517; centralization of asylum management in, 874; vaccination in, 1117; antirabic inoculations in, 1295; the spitting nuisance in, 1586
——— Zealand, hygiene in, 1189; medical legislation in, 1352
Newsholme, A., age-incidence of small-pox amongst the vaccinated and unvaccinated, 1511, 1020
Newspapers, lay, puffing of doctors in, 933; advertising hypnotics in, 934; lay, sensational surgery in, 1400
Nice, Queen Victoria Memorial Hospital at, 936
Nichol, R. S., case of prolonged lactation, 1143
Nichols, J. B., Histology and Pathology, a Manual for Students and Practitioners, *rev.*, 339
Nicholson, F., case of pulmonary abscess, 333
——— O., thyroid extract in puerperal eclampsia, 1214
Nickerson, Rev. D., The Origin of Thought, *rev.*, 189
Nicoll, J. H., spina bifida, its operative treatment among out-patients, 1332
Nodding spasm, 394
Non-combatant, a medical, 987
Noorden, C. V., Sammlung klinischer Abhandlungen ueber Pathologie und Therapie der Stoffwechsel und Ernährungsstörungen, *rev.*, 721
Norfolk, the prevention of consumption in, 1285
Norman, R. H., relapse of vaccination, 568
North Wales, contract practice in, 40
——— Western Provinces of India, sanitary report of, 308
Northrup, W. P., sun playrooms on city roofs, 793
Northumberland, proposed sanatorium for, 858
Norway, vivisection legislation in, 000
Norwich, formation of a Medical Practitioners' Association and Public Medical Service in, 737
Nose, ulceration of, of uncertain origin, 967; suppuration of the, 1030; the subcutaneous injection of paraffin for the removal of deformities of the, 1078; cleft, harelip with, 1003; and anterior nares, congenital absence of, 1085

Nothnagel's Encyclopædia of Practical Medicine, *rev.*, 779
Notification of chicken-pox, 120, 1048; compulsory of tuberculosis in America, 168 of measles, 373, 455, 866; by medical officers of health, 692; by principal and assistant, 1003; compulsory of phthisis, 1043; voluntary of consumption, 1118
——— Act. *See* Act
Nottingham, the prevention of tuberculosis at, 359, 1175, 1487; a public bacteriologist for, 1003
Nourse, W. E. C., the increase of typhoid and diphtheria, 238
Nova et vetera, 29, 214, 552, 799, 974, 1161, 1222, 1353, 1444, 1615
Nuisance, the sample, 915
Nurse, illness of, 628
Nurses, Scottish, for the concentration camps, 245; the registration of, 363, 558, 621, 659, 1362, 1366, 1441, 1622; doctors and midwives, 369; training schools for in Cuba, 543; American army, strike of, 851; a training school for in Turkey, 916
Nursing, workhouse, the Committee on, 219, 692; in workhouse infirmaries, 672
Nuttall, G. H. F., progress report upon the biological test for blood as applied to over 500 bloods from various sources together with a preliminary note upon the method for measuring the degree of reaction, 825; Studies in Relation to Malaria, *rev.*, 841
——— Miss Z., sorcery, medicine and surgery in ancient Mexico, 1161

O.

Oak trees, mistletoe on, 568
Obersteiner, H., Functionelle und organischen Nervenkrankheiten, *rev.*, 463
Obesity, the nature and treatment of, 272
Obsessions, from a medico-psychological standpoint, 1294
Obstetric, surgery, heroic, 848
Obstruction, intestinal, due to tuberculous peritonitis, 18; duodenal pressure, 22; intestinal due to gall stones, 80, 335; intestinal, from malignant diseases, treatment of, 322; intestinal due to a band passing from appendix to mesentery, 510; of the common bile duct by concretions surgical treatment of, 836; nasal and nasopharyngeal, influence of upon the development of the teeth and palate, 949, 1401; post-nasal, in adults notching the soft palate for, 962; intestinal due to embolus of a branch of the superior mesentericartery, 963; acute intestinal, two cases of successfully treated with quicksilver, 1023; laryngeal, hereditary localized oedema proving fatal by, 1470; intestinal, case of, 1474
Oedema, chronic, 304; of anaemia, 1464; hereditary localized proving fatal by laryngeal obstruction, 1470
Oesophagotomy for foreign body, 1335
Oesophagus, foreign body in, 951
Offer, an, 1192
Offspring, transmission of haemolysins from parent to, 203
Ogden, J. B., Clinical Examination of the Urine and Urinary Diagnosis, *rev.*, 276
Ogle, C., case of infective endocarditis treated with antistreptococcus serum, 1138
——— J. G., enteric fever in infants, 1131
Ohio, the prevention of tuberculosis in, 66
Oldfield, J., The Penalty of Death or the Problem of Capital Punishment, *rev.*, 401; diet and cancer, 931
Oleate of zinc (bad), 939
Olecranon, fracture of, 1148
Oliver, J., intrauterine death from super-atrophy of the chorionic villi, 390
Oophorectomy in the treatment of cancer of the breast, 10, 22, 35, 110, 159, 266; two cases of inoperable scirrhus of the breast treated by, 508
Opacity of the cornea in newborn infants, 868
Operating rooms, air of, 940
Operation, illegal, penal servitude for, 1124
Operator and anaesthetist, 20
Ophthalmia, recurrent phlyctenular, 1058, 1172; neonatorum, gonorrhoeal as novitis in an infant suffering from, 1491
Ophthalmic practice, adrenalin chloride solution in, 707; pince-nez in, 710
——— work in the army, reflections on, 1581
Ophthalmology, courses on in Vienna, 1192
Ophthalmoplegia and myasthenia, 1253
Opium, sale of to savages, 1026
——— smoking, restriction of in the United States, 1581

Oppenheim, H., Diseases of the Nervous System, *rev.*, 463; Lehrbuch der Nervenkrankheiten, *rev.*, 906
Oppenheimer, C., Ferments and their Actions, *rev.*, 1478
——— H., chronic enlargement of the testicle, 567
Opticians, chemists and, 1245
Optimism and reality, 175
Orbit, endothelioma of, 333
Ord, G. W., ureteral spasm, 68
——— Dr. W. M., obituary notice of, 1315
Organism, processes of infection and protection in the, 784, 844, 918, 929, 988, 1058, 1179, 1243
Orr, J., Handbook of Public Health, *rev.*, 517
Orsett and Grays, statistics of the small-pox hospital at, 1173
O'Shaugnessy, Sir W. B., appreciation of, 40
Osler, Professor W., and the skull of Sir T. Browne, 413, 427; Principles and Practice of Medicine, *rev.*, 905; and the perils of paradox, 1360
Osteoma, multiple, 80
Osteomata, multiple or chondromata with synostosis of the lower epiphyses of both ulnae and fibulae, 1084
Osteopathy in New York, 491
O'Sullivan, Professor, mural tablet to, 1515
Oswego, organization of Physicians' Protection Association in, 154
Otitis, media, implication of lateral sinus, operation, ligature of internal jugular vein, recovery, 17; chronic, followed by suppurative bursitis, 332; suppurative, double temporal disease from, 773; suppurative, operation for, 1147
Otorrhoea and rhinorrhoea and scarlatinal diphtheria, 55, 113
Oudh, sanitary report of, 308
Ovaries, pregnancy after removal of both for cystic tumour, 1476
Ovariotomy, sex in a hermaphrodite, detected at, 541; fatal uraemia after, 1147
Ovary, expulsion of dermoid cyst of per vaginam during labour, 204; malignant folliculoma of, 274; dermoid cyst of the, 395; sarcoma of, 717, 865; fibroid tumour of, 121
Overcrowding, in London, 753; in the Swansea valley, 1047
Owen, A. D., Kaffir therapeutics, 893
——— D., local treatment of diphtheria, 659
——— E., thorough operations in cancer of the breast, 110; traumatic rupture of prostatic urethra, 394; fracture of fifth cervical vertebra in a haemophilic with fatal bleeding into posterior mediastinum, 962
——— I., "horizontal" dilatation of the left auricle, 1211
Oxford and the inoculation of small-pox in 1774, 40
Oxygen, fetid bronchorrhoea treated by prolonged inhalation of, 509

P.

Pacific, supply of arms, etc., to natives of United States possessions in, 777
Page, H. W., arthritis of the knee, 715
——— J. P., abscess in the neck with signs of vagus irritation, 267
Pain, cardiac, 513
Paine, A., an experimental production of the osteo arthritic type of rheumatoid arthritis, 79; malignant endocarditis, 895
Palate, influence of nasal and naso-pharyngeal obstruction on the development of, 949, 1401; soft, notching the in post-nasal obstruction in adults, 962; soft, endotheliomata of, 1086
Palmer, F. S., urticaria acuta, 893; rhubarb and urticaria, 1132
——— Margaret D., Lessons on Massage, *rev.*, 667
Palpation of pregnant uterus, 482
Palsy, bilateral facial, 271
Pamphlets, puffing, the plague of, 1245
Pancreas, fibrosarcoma of tail of, 457
"Pani-ghao." *See* "Ground-itch."
Paper, a sanitary, 784
Papilloma, recurrent of vagina, 274
Paradox, the perils of, 1360
Paraffin, the subcutaneous injection of for the removal of deformities of the nose, 1078; injection of for cosmetic purposes, 1139
Paralysis, hysterical, of all the eye muscles except the internal recti, 205; old standing of the upper root of the brachial plexus (Erb-Duchenne type) new method of treating, 271; facial, 304; of the intestines, stretching the sphincter ani in, 550; acute ascending, 772; sudden, of the respiratory centre in cerebellar abscess, 963; infantile spastic, 967; complete and temporary of the limbs in a child, 1258
Parametritis, encysted serous, 1340
Paramore, R., the case of Dr. W. T. Law, 1119
Paramyoclonus multiplex, hereditary case of, 654
Paraplegia, ataxic, 272
Parasite, malarial. *See* Malaria
Parasites, pearls and, 672
Parent, transmission of haemolysins to offspring from, 203
Paris, proposed medical information bureau in, 141; correspondence from, 236, 422, 804, 997, 1376; the League for the Defence of Human Life, 236, 422; League against Infant Mortality in, 374; Commission to study the question of depopulation in France, 422; alleged increase in the morphine habit in, 473; inaugural lecture of Professor Gilbert, 804; the celebration of the centenary of the "internat," 805, 1376; new law as to conscripts disposed to tubercle, ib.; milk dispensaries in, 853; "exeats" to relieve overcrowding in the hospitals of, 998; federation of French Societies for the Prevention of Tuberculosis, ib.; proposed sanatorium for hospital nurses, ib.; formation of a committee to help medical students left destitute by the Martinique disaster, ib.; commemoration medal for Professor Brouardel, ib.
Park, R., A Treatise on Surgery, *rev.*, 840
Parker, G., splenic leukaemia and phthisis combined in the same patient, 1136
——— R., mammary cancer, 273; traumatic epilepsy with adhesion of skin to brain treated by insertion of gold foil, 1257; internal derangement of the knee-joint, 1379
——— W. R., county councils and consumption sanatoria, 174
Parkhill, Dr. C., death of, 488
PARLIAMENT.—The coming session of, 95; the opening of, 227; the debate on the address, ib.; the ballot for private Bills, ib.; nursing in workhouses, ib.; the small-pox epidemic, ib.; the Midwives Bill, 227, 290, 354, 434, 476, 543, 609, 674, 735, 795, 1434, 1499, 1564; the introduction of Bills, 227; vaccination, 289, 1363; the cure of cancer, 290; the Cremation Bill, 290, 544, 984, 1048, 1110, 1232, 1500, 1564, 1632; glycerinated calf lymph, 290; telephones and doctors, ib.; the Royal Army Medical Corps and the new Warrant, 290, 354, 544; small-pox returns, 353; the Vaccination Bill, 354; small-pox and revaccination, ib.; the Licensing Bill, 354, 917; The London Water Bill, 354; the General Medical Council and Medical Aid Associations, ib.; tubercle among Post Office employés, ib.; the Commission on Tuberculosis, 354, 476; the supply of vaccine lymph, 415; small-pox huts at Aldershot, ib.; unqualified assistants and the sale of poisons, ib.; Irish dispensary medical officers and their substitutes, ib.; inoculation for enteric fever, ib.; the Commission on Enteric Fever and Dysentery, ib.; the Plumbers Registration Bill, 415, 796, 1232; the inspection of army medical stores, 475; vaccination and monkeys, 476, 917; the Royal Army Medical Corps orderlies 476; typhoid fever among troops in South Africa, 476, 674, 736; preservatives in food, 476; vaccination statistics, 476, 917; the Vaccination Act (1898) Amendment Bill, ib.; food adulteration, ib.; the report of Mr. Brodrick's Committee, ib.; small-pox and infection, 544; certificates of exemption from vaccination, ib.; War Office factories and small pox, ib.; the medical service of the navy, ib.; the Public Health Bill, 476, 1048, 1110; army nurses and war medals, ib.; medical witnesses and fees, 610; vaccination and revaccination, ib.; the influenza, ib.; lead in the pottery trade, ib.; death from vaccination, ib.; army estimates, 610, 974, 796; the examination of recruits for the Imperial Yeomanry, 674; children in workhouses, ib.; small-pox in Bethnal Green, ib.; the Dartford Small-pox Hospital 736; glanders, ib.; the sanitary condition of the House, ib.; vaccination in public offices, ib.; the prevention of cancer, ib.; special sanitary officers in South Africa, 796; school children and vaccination, ib.; the medical staff of refugee camps, ib.; colonels of the R.A.M.C., ib.; the Local Government (Scotland) Amendment Bill (No. 2), 917; surgical instruments in Indian hospitals, ib.; the cost of the small-pox epidemic, ib.; the supply of glycerinated calf lymph, ib.; the Budget, 984; rural postmen and medical certificates, ib.; the results of antityphoid inoculation, ib.; plague in the Punjab, ib.; the kilt as a medical appliance, ib.; the Local Authorities Officers' Super

annuation Bill, ib; the ventilation of the House of Commons, ib.; the small-pox hospital ships, ib.; the atmosphere of the house, 1048; Admiralty and vaccination, ib.; the Poor-Law Superannuation (Ireland) Bill, ib.; the butter standard, ib.; soldiers' guards beds, 1110; Poor-law children and ophthalmia and ringworm, ib.; sickness on training ship "Impregnable," ib.; the Poor-law Officers Superannuation (Scotland) Bill, ib.; army medical service, ib.; Highland parochial medical officers, ib.; retired officers, R.A.M.C., re-employed, 1172; cancer in India, ib.; butter and the Margarine Act, ib.; enteric fever in South Africa and its prevention, ib.; the Education Bill, ib.; the new rules of procedure, 1232; the new butter standard, ib.; the military hospital at Vryburg, ib.; the medical officer of health for Caithness, ib.; guard room beds, ib.; milk-blended butter, ib.; a riverside small-pox hospital, ib.; the sanitary condition of the Houses of Parliament, 1296; the speed of motor cars, ib.; enteric fever at St. Helena, ib.; the conscientious objector, 1364; barrack schools, ib.; rabies and the muzzling order, ib.; swine fever and foot and mouth disease, ib.; milk and butter, ib.; uncertified deaths in Scotland, ib.; the Home Office vote, 1433; lead poisoning, ib.; the work of the Home Office, 1434; vivisection, ib.; the conscientious objector to vaccination, ib.; corporal punishment on the "Britannia," ib.; the Hospitals (Contribution) Bill, 1434, 1632; uncertified deaths, 1500; epileptics in workhouses, ib.; the Cruelty to Animals Bill, 1500, 1632; the temperature in elementary schools, 1500; the sanitation of reformatories, 1564; the sanitation of factories and workshops, ib.; Scotch parochial medical officers and their holidays, ib.; vaccination exemption certificates, ib.; the conscientious objector in Scotland, ib.; the Midwives Bill in the Lords, 1032; gratuities to wounded and disabled officers, ib.

Parnell, G. C., the treatment of enuresis in females, 72

Parotitis, complicating a case of diabetes, 19

Parry, T. W., the attitude of the thoughtful club member to the medical profession, 49

Parson, L. D., case of intussusception of 37 feet of small intestine, 895

Parsons, J. A., transposition of viscera, 1008

Partner, deceased, value of share of, 177; illness of, 751

Partnership action, a, 369
——— agreement, 800
——— deed, interpretation of, 1383
——— terms, 1583

Parturition, painless, in tabes, 540

Pasteur, the statue to in Marnes, 609
——— Institute. *See* Institute
——— treatment of hydrophobia in Mexico, 333

Patella, haemorrhage into the bursa of, 1082

Patent medicines. *See* Medicines

Patenting surgical instruments, 1002

Paterson, H. S., dermoid cyst of the inguinal cord, 1539

Pathology, municipal in Edinburgh, 472; of tuberculosis, 592; of uric acid, 1660

Patients, private, becoming paupers, 245; already under other medical care, visits to, 325; autobiographies of mental and nervous disorders by, 793; presents from, 794; touting for, 933

Patmore, T. D., simultaneous fracture of both clavicles, 773

Paton, E. P., hairball in the stomach of a child of 9 successfully removed, 147; two cases of inoperable scirrhus of the breast treated by oöphorectomy, results, 508

Pattin, H. C., the administrative control of the tuberculous diseases, 1394

Paul, A., age-incidence of small-pox, 1452, 1582
—— F. T., two cases of rare orbital tumour, 700

Pauper patients dying possessed of money, 1317

Paupers, epileptic and mentally deficient, 163; private patients becoming, 245

Payne, J. F., on cancer, 838

Peachey, G. C., Midwives and the bishops' licence, 55; chicken-pox and small-pox, 484

Peacocke, G., hemichorea and parotitis complicating a case of diabetes, 19

Pearce, Rev. E. H., Annals of Christ's Hospital, *rev.*, 27

Pearls and parasites, 672

Pearse, J., oöphorectomy in mammary carcinoma, 16

Pearson, C. Y., preparation of sterilized catgut, 176

Peile, W. H., sudden death during catheterization, necropsy, 662

Pellagra, as a cause of mental disease in Egypt, 852; in South Tyrol, 931

Pelvis, Robert's double obliquely contracted, delivery in a case of, 390

Pembrey, M. S., Hay's reaction for bile salts, 700

Pemphigus foliaceus in an infant, 1401

Penal servitude for illegal operation, 1124

Penang, arsenic in the hair of beri-beri patients from, 320, 425

Penis, tuberculous disease of, 18

Peraire, Petite Chirurgie de Jamain, *rev.*, 85

Perforation, in typhoid fever during relapse, 1334; of uterus, or catheterism of tube? 1361; of the appendix within a hernial sac, 1601

Perils, the, of paradox, 1300

Perineum, lateral incision of the, 436

Peritoneal cavity, haemorrhage into from ruptured tubal gestation, 70

Peritoneum, a new method of dealing with in operating for radical cure of hernia, 505, 687, 808

Peritonitis, tuberculous, intestinal obstruction due to, 18; septic, the direct introduction of purgatives into intestine during operations for, 77, 452; diffuse, from perforation of the appendix, two cases of recovery after operation for, 325; acute, the simulation of by pleuro-pneumonic diseases, 904; acute, treatment of, 1265; localized, in enteric fever, laparotomy for, 1600

Perityphlitis. *See* Appendicitis

Perkins, G. S., the matriculation examination of the University of London

Pernet, G., leprosy and congenital symmetrical keratodermia, 194; rhubarb and urticaria, 1068; congenital multiple sarcomata of the skin, 1087

Perry, A., enteric fever among prisoners of war in Ceylon, 679

"Personal purity" as the grand prophylactic, 1168

Personation, the law against in France, 182

Persons, unregistered, treatment by, 752

Peters, E. A., treatment of a case of scirrhus recurrent five years in a patient aged 93, improvement, 508

Petersen, A., Beiträge zur pathologischen Anatomie der graviden Tube, *rev.*, 662

Petrolatum, liquid, ■

Pettenkofer, Professor v., memorial to, 735

Pfeiffer, I., an antivaccination experiment, 915

Phagocytic power of the leucocytes of the blood, note on a method of quantitatively estimating, 73

Phalanges, congenital deficiency of, 1026

Pharmacopoeias, new, 982

Phear, A. G., the bone marrow in a case of suppuration and haemorrhage from the knee-joint, 1538

Philadelphia, colony for consumptives in, 152

Philip, R. W., the treatment of pulmonary tuberculosis, 1580

Philippines, annual report of the chief surgeon at, 353; compulsory vaccination in, 370; war against rats in the, 534; strike of American army nurses in, 851; a leper colony for, 854; venereal disease and alcoholism among the troops in, 933; surra in the, 937; contagious diseases in the, 1231

Philipson, Sir G. H., the report of the Special Curriculum Committee, 621

Phimosis, treatment of, 64

Phipps, Lieutenant G. C., hyperpyrexia in rheumatic fever, followed by tetanic convulsions and labio-glosso-pharyngeal paralysis, recovery, 391

Phosphorus, the influence of on organic substances in pills, 578

Phthisis. *See* Tuberculosis, pulmonary

Physical culture in America, 1250

Physician and chemist, 305

Physiognomy, the, of the race, 1507

Pick, T. P., Gray's Anatomy, Descriptive and Surgical, *rev.*, 276

Pickthorn, Staff-Surgeon G. B., the first China expedition, 625

Picric acid, note on, 1602

Pigg, T. S., Clinical Pathology and Practical Morbid Histology, *rev.*, 275

Pigment, an undescribed purple, in urine, 590; a brown, in urine, ib.

Pigmentation (blue line) of lip, 967

Piles, the pain of, 20

Pills, the influence of phosphorus on organic substances in, 578; the clergy as dispensers of, 940

Pince-nez in ophthalmic practice, 710, 1682

Pine fibre for bedding, etc., 465

Ping-pong teno-synovitis, 1083

Pipeclay and phthisis, 1319

Pitt, G. N., malignant endocarditis, 1028

Placebo, the nemesis of the, 286

Placenta, separation of the, 81; extrauterine, implanted on liver, 286; the functions of the, 976; praevia, case of, 1144; duplex, 1146

Placentophagy and placental opotherapy, 909

Plague, rat destruction on shipboard in relation to the prevention of, 30; in India, 32, 107, 171, 229, 297, 344, 405, 479, 552, 614, 679, 742, 786, 858, 922, 974, 1037, 1114, 1174, 1239, 1308, 1368, 1424, 1487, 1617; in Egypt, 32, 171, 229, 344, 405, 479, 552, 614, 679, 742, 744, 858, 922, 974, 1038, 1114, 1174, 1239, 1308, 1424, 1487, 1617; in Cape of Good Hope, 32, 107, 171, 229, 405, 479, 614, 679, 742, 786, 858, 922, 1038, 1114, 1174, 1239, 1308, 1369, 1424, 1617; in Mauritius, 32, 107, 171, 229, 297, 344, 405, 479, 552, 614, 679, 742, 786, 858, 922, 1038, 1114; in Sydney, 52, 236, 614, 857, 927, 1038, 1114, 1174, 1239; inoculation in the incubation stage of, 128, 365; exclusion and control of, 207; in the United States, 229; bubonic, two cases of, 298; the Sultan and the, 414; in Hong Kong, 479, 1114, 1174, 1239, 1369, 1424, 1617; in Manchuria, 479; in Shanghai, 552; precautions against in Hong Kong, 619; the diffusion of in Sydney, 857; at Port Elizabeth, 1038; report of the Indian Commission on, 1093, 1155, 1218; precautions against in home ports, 1114; coagulating power of the blood in, 1143, 1310; in Argentina, 1239; bubonic, two cases of occurring on board ship, 1333; in Madagascar, 1360; problems concerning the serumtherapeutics of, 1492; in Dunkirk, France, 1617

Plates, anatomical, 336, 427

Pleuro-pneumonic diseases, the simulation of acute peritonitis by, 904

Plexus, brachial, new method of treating old-standing paralysis of the upper root of the, 271

Plimmer, H. G., appointed member of German Cancer Investigation Committee, 164; mammary cancer, 273, 284

Pneumococcus gastritis, case of, 267

Pneumonia, the treatment of, 1107; the relation of empyema to, 1508

Poisoning, by boracic acid, 123; by bromidia, 1124; by atropine, death from, 1540

Poisons, arrow, 1106; the sale of, 1386

Poland, J., A Retrospect of Surgery during the last Century, *rev.*, 85

Police orphanages, medical remuneration and, 1583

Pollock, J., mixed scarlet fever and measles infection, 893

Polypi, extirpation of uterus for, 1146

Pons, tumour of the, associated with degeneration in the posterior columns of the spinal cord, 706; developmental faults in, 1149

Poole, D., how to be happy though a doctor, 1020
——— Dr. W., death of, 181

Poor Law, an abuse of the, 808
——— medical service, the Irish, 31, 41, 357, 427

Pope, F. M., delegation and Tammany, 559

Poppy cultivation in India, 1361

Porritt, N., life insurance and medical fees, 301

Porro's operation, case of, 22

Port Elizabeth, the plague at, 1038

Porter, A. E., food preservatives, 1140
——— C. (Leith), sudden syncope occurring after the injection of antitoxin in cases of diphtheria, 1178; case of enteric fever, perforation (?), recovery, 1266
——— C. (Shrewsbury), felt hat making, its processes and hygiene, 377
——— F., is infection of the uterus a cause of mammary abscess, 894
——— Deputy Inspector-General J., the dusting of wounds in action with antiseptic powders, 56; the Western Naval Brigade, South Africa, 625

Portugal, the prevention of consumption in, 106, 1278; tropical medicine in, 181, 216, 414; antirabic inoculations in, 494

Post-graduate clinical study in London, 1291

Post Office, the, and contract practice, 740

Posture and heart murmurs, 630

Potassium bromide, note on, 1602

Potato, the, as a source of urticaria, 184

Potatoes as an article of diet in diabetes, 160

Potter, B., nodding spasm, 394

Potteries, lead poisoning in the, 685

Potts, C. S., Nervous and Mental Diseases; a Manual for Students and Practitioners, *rev.*, 516

Powders, antiseptic, dusting of wounds in action with, 56

Powell, A., airborne infection in typhoid, 811; hypodermic injections of quinine in malaria, 1113

Powell, A. F. M., vaccination of several cases from one tube, 693
——— W. M., Saunders's Pocket Medical Formulary, *rev.*, 596
Power, D'A., on cancer, 837
——— W. H., elected Fellow of the Royal College of Surgeons of England, 977
Poynton, F. J., an experimental production of the osteo-arthritic type of rheumatoid arthritis, 79; malignant endocarditis, 895; two cases of partial cretinism which developed swelling of the thyroid on cessation of treatment by thyroid extract, 1143
Practice, medical, in Ceylon, 176; unqualified, and the Notification Act, 537; unqualified, by midwives, 562
Practice, value of a, 60; sale of a, 369; transfer of, 628
Practitioner, the general, the emancipation of, 175, 238; the medical, in England, diagnosis of malaria from the standpoint of, 1212; the oldest, in the United States, 1278
Practitioners, unqualified, and death certificates, 38; unregistered, certificates of, 431; private, medical officers of health and, 601; private, State vaccination by, 748, 869; medical, the unauthorized, advertising of, 731; general, and sanitary inspectors, 1385
Pregnancy, early extrauterine, 67; in childhood, 142; ruptured tubal, 172; duration of, 659; advanced, ovarian tumour complicating, 836; at full term, ovarian cyst complicating, 1209; after removal of both ovaries for cystic tumour, 1476
Prematernities and maternities, 65
Prepuce, prevention of slipping of, 1460
Prescriptions, chemists and, 1184
Presents from patients, 794
Press, the lay, medical communications to, 50; and the medical profession, 305; small-pox and, 410; the lay, medical disputes in, 871, 1061
"Pretoria" fever. *See* Fever
Price, Radcliffe *v.*, 794
——— W., treatment of phimosis, 64; treatment of acne rosacea, 632; the Trixophyton truss, ib.
Prickett, M., an infant weighing 2 lb. 5 oz., 1208
Prideaux, W. R. B., the spitting nuisance in the Elizabethan era, 1515
Prince of Monaco, the, and the International Medical Press Association, 164
——— physician, a chance for, 164
——— of Wales, installation of as Chancellor of the University of Wales, 1235
Princess Christian lays foundation stone of new sanatorium for London, 1230
——— Sophie Bamba Dhuleep Singh as a medical student, 287, 493
Prison, Holloway, the governorship and medical officership of, 1433
Prize essays, 940
——— the Gross, award of, 310
——— Martinez Molina, award of, 466
Profession, the medical, the attitude of the thoughtful club member to, 49; the medical members of the, 103; the medical in France, earnings of, 182; the medical in the fourteenth century, 214; the medical, the lay press and, 305; the medical, commissions of tradespeople to, 871; the medical, in Russia, 895; the medical, overcrowding of in Germany, 1170; the medical, and inhabited house duty, 1243; the medical, in Ireland, penal disfranchisements of, 1452
Propert, Mr. J. C., obituary notice of, 688
Prosecution under the Notification Act, 369, 1066
Prostate, total extirpation of for radical cure of enlargement of that organ, 249, 769; enlarged, treatment and morbid anatomy of, 764; treatment of senile hypertrophy of the, 774; adenomatous growths of, 1148; adenoma of, 1274, 1321; chronic hypertrophy of, Freyer's operation, recovery, 1322
Prostatectomy, suprapubic, 774
Protection and infection in the organism, processes of, 784, 844, 918, 929, 988, 1058, 1179, 1251
Proteid metabolism, low, 589
Prudential Assurance Company. *See* Company
Prussic acid, effect of fumes of, 1251
Prytherch, J. R., school attendance and pulmonary consumption, 930
PUBLIC HEALTH.—Health of English and Scotch towns, 61, 120, 178, 244, 306, 373, 433, 493, 563, 628, 688, 748, 806, 869, 930, 1001, 1062, 1128, 1187, 1248, 1314, 1384, 1457, 1517, 1584; vital statistics of London, 178, 936; vital statistics of England and Wales, 222, 243; English urban mortality, 243, 871, 1063; zymotic mortality in London, 306, 1128; the death-rates of metropolitan boroughs during 1901, 372; the Registrar-General's quarterly return, 433, 1247; vital statistics of Ireland, 433, 1187; the report of the Registrar-General for Scotland, 1128; health of Irish towns, 1187; the annual report of the Registrar-General for England and Wales, 1384
Public health law, the new, in France, 543
Puerperal fever. *See* Fever
Puffing of proprietary medidines, 691; of doctors in lay newspapers, 933
Pugh, J. W., four case of rodent ulcer treated by *x* rays, 882
Pulsation, palpable systolic intercostal, in a case of mitral stenosis, 1211
Pulse, Joseph Struthius and his studies of the, 1222
Puncture, lumbar, the technique of, 794
Punjab, sanitary report of, 708
Purdy, C. W., Practical Urine Analysis and Urinary Diagnosis, *rev.*, 276
——— Surgeon-Captain J. S., observations on veld sores, 1264
Purgatin, 1278
Purgatives, the direct introduction of into the intestine during operations for septic peritonitis, 77, 452
Purin bodies, the relation of to certain metabolic disorders, 1461
Purple, the visual, of the retina, 334
Pye, W., Elementary Bandaging and Surgical Dressing, *rev.*, 1090
Pyelitis, acute, in infancy, 1338
Pye-Smith, P. H., Textbook of Medicine, *rev.*, 905
——— R. J., partial gastrectomy, 591; extroversion of bladder, ib.
Pylorectomy, case of, 335
Pylorus, removal of, 19; gastro-enterostomy for ulceration of, 1148; carcinoma of in a young man, 1149; congenital stenosis of, 1340
Pyonephrosis, case of, 398
Pyorrhoea alveolaris, 696
Pyrexia, the treatment of, 157, 773
Pythorn, tuberculosis in a, 1539

Q.

Quackery, suppression of in New York, 48; the borderland of, 1548, 1608
Quacks in Germany, 734
Quain's Dictionary of Medicine, *rev.*, 337
Qualifications, medical, in the service lists 562
Quebec, a vaccination order in, 309
Queen of Holland, the, the illness of, 1043; honours for medical attendants on, 1499
Quelch *v.* the Justices of Surrey, 1160, 1187, 1314
Quicksilver, two cases of acute intestinal obstruction successfully treated with, 1023
Quiescent period, the, in the course of acute abdominal affections, 1085
Quill, Lieutenant-Colonel, R. H., airborne typhoid, 383, 811
Quiller, H. H., "What's What," 184, 486
Quinine, malaria, treated by the hypodermic injection of, 201, 793, 1113; bihydrobromate, subcutaneous injections of in chronic malarial fever, 439; the value of as a prophylactic in influenza, 696, 940; in blackwater fever, 1334

R.

Rabies in foxhounds, 299
Radcliffe *v.* Price, 794
Radica, and Doodica, 465; progress of, 980
Railway, Central London, vibration on, 478
Ramsay, Dr. D., death of, 303
Rankin, G., the open-air treatment of tuberculosis, 152
Ransom, W. B., should milk be boiled? 440
Rat destruction on shipboard, in relation to plague prevention, 30
Rating of metropolitan hospitals, 795
Rats, the destruction of, 224, 294; war against in the Philippines, 434
Rattray, A. M. T., treatment of incontinence of urine, 874
Ravogli, A., the care of cases of ringworm, 288
Ravy, N., Cæsarean section twice and embryotomy once in the same patient, 516; the relation of mental symptoms to bodily disease, 1580
Rawnsley, Canon H. D., Smyth memorial at Burton Port, 94, 215
Ray, H., local treatment of diphtheria, 659
Raymond, J. H., Human Physiology, prepared with Special Reference to Students of Medicine, *rev.*, 1479
Raynaud's disease. *See* Disease
Reality and optimism, 175
Rebuschini, E., La Malattie del Sangue, *rev.*, 969
Recruiting, observations on, 624
Rectum, excision of by Kraske's method, 18; imperforate, three cases of, 266; carcinoma of, 968; serumtherapy of, 1068
Red man, effect of civilization on the, 473
Reeves, H. A., displacement of hip and elevation of scapula, 53
Referees, medical to the Prudential Assurance Company, 1460
Reference, books of, 1033
Reflexes, muscular tonus and the, 218
Refraction, books on, 1660
Regaud, electrically heated paraffin baths, 279
Regeneration of peripheral nerves, 511
Registers, the Medical and Dentists for 1902, 849
Registration of nurses, 363, 558, 621, 659, 1362, 1366, 1441, 1622; of midwives, 436; of disease, 1294; of students, 1513
——— of Births and Deaths Act. *See* Act
Regnier, L. R., La Mechanotherapie, Application du Mouvement à la Cure des Maladies, *rev.*, 663
Rehouse, the evasion of the liability to, 371
Rehousing, standing orders as to, 670
Reid, G. A., the rationale of vaccination, 102; theories of inheritance, 114
Reinke, F., Grundzüge der allgemeinen Anatomie zur Vorbereitung auf das Studium der Medizin nach biologischen Gesichtspunkten bearbeitet, *rev.*, 277
Reinprecht, natural symphysiotomy, 733
Remuneration, medical, and police orphanages, 1583
Rendle, A. C., mammary cancer, 273; warty growth of larynx, 1148
Rendu, Dr. H., obituary notice of, 1185
Renton, J. C., the treatment of external tuberculosis in children, 930
Rentoul, R. R., income tax, 184; registration of midwives, 436; the course of study for midwives, 477; the reconstitution of the Association, 748; the Midwives Bill, 858, 1622
Report of Mr. Brodrick's Committee, 47, 105, 227, 299, 304; of the Statistical Committee of the Metropolitan Asylums Board on small-pox, 165; annual of the medical officer of the Administrative County of London, 169, 211; of the Subcommittee of the Parliamentary Bills Committee of the British Medical Association on Mr. Brodrick's scheme, 233; by the Special Committee of the General Medical Council on the curriculum, 522, 621; of Subcommittee of the Parliamentary Bills Committee of the British Medical Association on the new medical warrant, 993; of the Indian Plague Commission, 1093, 1155, 1218, 1279, 1288; of the Registrar-General for Scotland, 1128; of Committee appointed to prepare new articles of association and by-laws, 1207, 1452, 1512, 1621; of a Committee of the Council of the British Medical Association on preliminary general education, 1351; annual of the Registrar-General for England and Wales, 1384; of the chief inspector of factories, 1485
Reports, and Transactions, *rev.*, 971, 1091, 1217, 1342; to the Scientific Grants Committee of the British Medical Association, 449, 1461, 1464, 1469; Hospital, *rev.*, 1605
Reports, false, 1383
Research on cancer, 228, 284, 731, 921, 1051, 1109, 1190; psychical, the wants of, 287; medical, endowment of in America, 777; army medical, 1310
Respiratory centre, sudden paralysis of in cerebellar abscess, 903
Retina, blinding of the from exposure of the eyes when watching the eclipse of the sun, 130; the visual purple of the, 334; and choroid, symmetrical concentric folds of in four cases of unusually high myopia, 720
Reunion, an obstetrical and gynæcological, 982, 1458
Revaccination, inert lymph and, 31, 36, 46; in German schools, 124
Rheumatic fever. *See* Fever
——— joint pains, chorea, rheumatic nodules, endocarditis occurring in succession, 389
Rheumatism, 782
Rheumatism, mosquitos and, 474; articular, infantile form of with chronic enlargement of the spleen, liver, and lymphatic glands, 966
Rhinorrhœa and otorrhœa and scarlatinal diphtheria, 55, 113; cerebro-spinal, 660
Rhode Island, compulsory vaccination in, 694

Rhondda, isolation hospital for, 746; health of the district of for 1901, 1509
Rhubarb and urticaria, 1068, 1132
Rhys, D. L., case of empyema with three retained drainage tubes, 1084
Ribs, bilateral, 271
Rice, W. R., the Coventry Public Medical Service, 1285
Richer, P., L'Art et la Médecine, *rev.*, 1541
Rickets, late, 394
Riddell, J. S., ten cases of movable kidney, 255
Rideal, S., Sewage and the Bacterial Purification of Sewage, *rev.*, 971; Water and its Purification, *rev.*, ib.
Rigidity under chloroform, 696, 756
Riley, H. M., "cures" for alcoholism, 1371
Ringworm, the care of cases of, 288; of the eyelid, 333, 501; treatment of, 376
Ritchie, J., acute pyelitis in infancy, 1338
——— Dr. R. P., obituary notice of, 488
Riviera, medical practice in the, 939
Riviere, C., the meningococcus in a case of cerebral tumour simulating posterior basal meningitis, 1539
Rixon *v.* Joyce, 430
Robert, Dr, death of, 1005
Robert's double obliquely contracted pelvis, delivery in a case of, 390
Roberts, Mr. C., obituary notice of, 180
——— C., total extirpation of the prostate for radical cure of enlargement of that organ, 769
——— C. H., Outlines of Gynaecological Pathology and Morbid Anatomy, *rev.*, 210
——— D. L., fatal uraemia after ovariotomy, 1147
——— H., The Book of Old-fashioned Flowers, *rev.*, 403
——— Leslie, arsenic in the hair of beri beri patients, 425
Robertson, A., general hospitals and pulmonary consumption, 445
——— G. W., pregnancy in childhood, 142
Robin, A., the prophylactic and therapeutic indications in phthisis founded on a knowledge of the nidus, 422; the patent medicine habit, 915
Robinson, E. L., case of rupture of urethra with separation of pelvic bones and injury to sacral nerves, 268
——— H. B., duodeno-choledochotomy for retained gall stones at the duodenal end of the common bile duct, 1506
——— M. K., variola or varicella? 926
Robson, A. W. M., Diseases of the Stomach and and their Surgical Treatment, *rev.*, 85; thorough operations in cancer of the breast, 110; the surgical treatment of obstructive jaundice from an experience of over 200 cases, 125, 147; radical treatment of chronic intestinal tuberculosis, 145; the regeneration of peripheral nerves, 657; surgical treatment of obstruction of the common bile duct by concretions, 836; a series of cases of fracture of the semilunar cartilages of the knee, together with other cases of operation for loose cartilage, 877; primary ovarian gestation, 1477
——— F. W. H., the increase of typhoid and diphtheria, 426
Roche, A., The Imperial Health Manual, *rev.*, 517
Rockliffe, W. C., secondary carcinoma of the eye, 1539; leprous ulcer of cornea, 1540; deaths from atropine poisoning, ib.
Rockwell, W. H., Chemistry and Physics, *rev.*, 971
Roddick, Dr. T. G., chosen Dean of Faculty of Medicine of McGill University, 353
Rodermund, "personal purity" as the grand prophylactic, 1168
Rodocanachi, A. J., two cases in which the activity of phthisis was excited by operations for local tuberculosis, 141
Roentgen rays, the, in rodent ulcer, 18, 516, 882, 1148; use of in medicine and surgery, 149; recurrent carcinoma treated with, 265, 285; in cancer, 335; in scirrhus of the breast, 508; the, in the diagnosis of intrathoracic tumours, 633; burn from, 695; epithelioma complicating lupus erythematosus treated by scraping and healed by the, 1080; Mr. Mackenzie Davidson on, 1100; in lupus and rodent ulcer, 1344; the therapeutic employment of, 1328; the curative effect of on callous sinuses of the abdominal wall, 1330; injuries from, 1520
Rogers, L., Report on an Experimental Investigation of the Methods of Inoculation against Rinderpest, *rev.*, 86; the diagnostic value of the variations in the leucocytes and other blood changes in typhoid and malarial remittent fevers respectively, 827
Rolleston, H. D., asylum dysentery, 797; splenic enlargement with albuminuria, 514; pigmentation (blue line) of lip, 967; epitheliomata of the cheek and lip, 1087
Rome, ancient, household medicine in, 39; the sanitary condition of, 474
Rooth, J., case of naevus pigmentosus et verrucosus, 1027
Rose, H. C., vaccination instruments, 1343
Rosenau, M. J., the destruction of rats, 224
Rosenfeld, G., Der Einfluss des Alkohols auf den Organismus, *rev.*, 596
Ross, J. C., cinnamon in the treatment of influenza, 756
——— Major R., flagellate organisms in human blood, 205; arsenic in the hair of beri-beri patients from Penang, 329; Mosquito Brigades and How to Organize Them, *rev.*, 841; appointed to Jenner Institute, 1109; resigns appointment at Jenner-Institute, 1632
Rost, Captain E. R., the culture of the parasite of cancer, 609
Routh, A., dermoid cyst of ovary, 395; uterine fibroids, 396; tubal gestation, 897
Rowlands, R. P., tortuosity of both internal carotid arteries, 76
Rowstron, N. F., the causation of death during the administration of chloroform, 1059
Royal Ark Mariners' Lodge, opening of, 1000
Ruata, C., Pulmonary Tuberculosis, *rev.*, 780
Rubra, H. H., use of a bag pervious to air in ether anaesthesia, 124
Rudolf, R. D., Observations on Blood Pressure, *rev.*, 1478
Ruffer, M. A., a contribution to the study of the presence and formation of agglutinins in the blood, 821; the work of against cholera, 1360
Ruge, R., Einführung in das Studium der Malariakrankheiten mit besonderer Berücksichtigung der Technik, *rev.*, 842
Rundle, H., encysted serous parametritis, 1340; adrenalin in haematuria, ib.
Runge, M., Lehrbuch der Gynäkologie, *rev.*, 902
Rupture, of the diaphragm, 17; spontaneous, of uterus, 80; of urethra, with separation of pelvic bones and injury to sacral nerves, 268; traumatic, of prostatic urethra, 394; of heart, 453; of urethra, 482; of the jejunum from direct violence without external bruising, 507; suspected, of lung from violence without further injury, 1333
Russell, Dr. (of Brooklyn) and vivisection, 734
——— J. S. R., idiopathic muscular atrophy, 1688
——— Hon. R., on atmospheric transparency, 42
Russia, some medical aspects of Napoleon's campaign in, 552; Kneippism in, 734; the medical profession in, 895
Ryall, C., inoperable cancer, 395

S.

Sachs, R., Die Gicht-Therapie in Karlsbad., *rev.*, 464
Sacs, lachrymal, removal of, 18
St. George, G. L., two cases of spina bifida treated successfully, one by injection of Morton's fluid, and the other by excision, 1537
St. Louis, tetanus and diphtheria antitoxin in, 104
St. Lucia, the prevention of fever in, 101; malarial fever in, 193
St. Luke's Medical Lodge of Instruction, formation of, 121; meeting of, 246
St. Pancras, small-pox in, 680
Salaries of medical officers of health in Scotland, 57
Saline solution, normal, subcutaneous injection of in a severe case of haematemesis, recovery, 770
Salinger, J. L., Modern Medicine, *rev.*, 151
Salivary glands, endothelioma of, 1086
Saloquinine, 782
Sample nuisance, the, 915, 1192
Samways, D. W., the diagnosis and disappearance of cancer, 54; the prevention of tuberculosis, 239
Sanatoria for consumptives, county councils and, 174; for consumptives, 1375; cost of erection of, 1460
Sanatorium for consumptives of limited means in Germany, 48; the King's, 158, 1433; model, competition for in Italy, 494; treatment of phthisis in, 967; new for London, laying of foundation stone of, 1230; a model for consumptives, 1398; Sir Lauder Brunton's model, 1581, 1619
——— National for Consumptives, Bournemouth, report of, 1371
Sandars, C., the notification of chicken-pox, 356
Sandstein, A., movements of the pelvic bones during symphysiotomy, 203
Sandwith, F. M., pellagra as a cause of mental disease in Egypt, 1600
San Francisco and the dissemination of disease by telephones, 1249
Sanitary officers, fixity of tenure for, 1165
Sansom, A. E., malignant endocarditis, 1028
Saranac, the sanatorium for consumption at, 410
Sarcoma, round-celled, excision of clavicle for, 128; of ovary, 717, 865; primary, of the synovial membrane of the ankle-joint, 1210; of the synovial membrane of the knee, ib.; of face, 1551
Sarcomata, congenital multiple of the skin, 1087; vascular, 1265
Saundby, R., Birmingham consultants and the working classes, 1057
Saunders, E. H., efficient vaccination, 1248
Sauton, D., La Lèprose, *rev.*, 88
Savage, T. S., sarcoma of ovary, 865
Savages, sale of opium and drink to, 1006
Savill, T. D., erythromelalgia or sclerodactyly, 1028
Saward, A. H. M., sudden syncope occurring after the injection of antitoxin in cases of diphtheria, 1025
Sawyer, Sir J., Contributions to Practical Medicine, *rev.*, 1545
Scannell, P. J., vesical calculus (259 grains) in a boy aged 2 years, suprapubic operation, recovery, 16
Scapula, elevation of, 53
Scarlatina. *See* Fever, scar t
Scarlet fever. *See* Fever
Schaefer, E. A., Directions for Class Work in Practical Physiology, *rev.*, 1403
Schaffer, K., Anatomisch klinische Vorträge aus dem Gebiete der Nervenpathologie, *rev.*, 462
Schaper, Vorträge über Syphilis, Gonorrhoe, und deren Folgekrankheiten, *rev.*, 1032
Schleif, W., Materia Medica, Therapeutics, Medical Pharmacy, Prescription Writing, and Medical Latin, *rev.*, 595
Schmidt, A., Die Faeces des Menschen in normalin und krankhaften Zustande, etc., *rev.*, 276
Schölberg, H. A., an undescribed purple pigment in urine, 590
Schofield, A. T., untoward effects of digitalis administration, 1068
School, Army Medical. *See* Netley
——— attendance and pulmonary consumption, 930
——— of Instruction, Volunteer Ambulance, annual dinner of, 1184
——— of Physic, Trinity College, Dublin, the clinical duties at, 752
——— a training, for nurses in Turkey, 916
——— of Tropical Medicine, Liverpool, annual report of, 1045; expedition of on trypansoma, 1631
——— of Tropical Medicine, London, students at, 1109
Schoolboys and cigarettes, 1045
Schools, German, revaccination in, 124; ventilation of, 629; French, hygienic reform in, 733; the bacteriology of, 980; the British Association and health in, 999; intermediate, of Wales, 1252; English, education in, 1450, 1512
Schott, the nature and treatment of obesity, 272
Schröder, G., Ueber die Meschinfektion bei die chronischen Lungentuberkulose, *rev.*, 209
Schrötter, L. v., Erkrankungen der Gefasse, *rev.*, 1089
Schulthess, W., Atlas und Grundriss der orthopaedischen Chirurgie für Studierende und Aerzte, *rev.*, 782
Scirrhus, or atrophic cancer of tongue, 334; in operable, of the breast, two cases of treated, by oöphorectomy, 508; treatment of a case of recurrent five years in a patient, aged 93, ib.
Sclerodactyly or, erythromelagia, 1088
Sclerodermia, diffuse symmetrical, 398
Sclerosis, disseminated, 19; insular, 1507
Scotland, lunacy in, 50; salaries of medical officers of health in, 57, 115; county medical officers in and private practice, 102; Poor-law medical officers in, 366, 492, 602; the governance of public health departments in, 535; small-pox in, 617, 1051; vaccination in, 1188, 1314, 1385; dieting of pauper lunatics in, 1211; a Poor-law abuse in, 1242; parochial medical officers in, 1314; county medical officers in and consulting practice, 1385
Scott, S. G., endothelioma of lip and submaxillary gland, 1087
Scraping, epithelioma complicating lupus erythematosus treated by, 1080

Scurvy, precautions against on the "Discovery," 352
Sears, A. E., acute paralytic dilatation of stomach, 716
Seaside homes for consumptives, 1658
——— resorts, scarlet fever at, a suggestion, 1514
Sedgefield, Lieutenant-Colonel A. R. W., death of, 749
Seifert, O., Recepttaschenbuch für Kinderkrankheiten, *rev.*, 1217
Seiffer, W., Spinales Sensibiltätsschema für die Segmentdiagnose der Ruckenmarkskrankheiten, etc., *rev.*, 463
Seitz, C., Kurzgefastes Lehrbuch der Kinderheilkunde, *rev.*, 1216
Seligmann, C. G., endotheliomata of the soft palate and of the mesentery, 1086
Semmelweis, the memorial to, 735
Semon, Sir F., the principles of local treatment in the upper air passages, 58, 112; the matriculation examination of the University of London, 1449
Senility, premature, of the uterus, 1205
Senn, N., Practical Surgery for the General Practitioner, *rev.*, 840
Septicaemia, acute, following incomplete abortion, treated by antistreptococcus serum, recovery, 78; two cases of treated by antistreptococcus serum, 1208
Septum, nasal, Asch's operation for deviations of, 948
Serum, a new treatment of tuberculosis by, 664
——— antistreptococcus, case of acute septicaemia following incomplete abortion, treated by, recovery, 78; infective endocarditis treated with, 1138; in puerperal fever, 1207; in puerperal septicaemia, 1208
——— antitetanus, tetanus treated by, 654
Serumtherapy, rectal, 1068
Service lists, medical qualifications in, 562
Seton, the, in migraine and allied affections, 587, 961, 1025; the use of the, 806
Sewer, when is it not a sewer? 60
Sewill, H., Dental Surgery, *rev.*, 906
——— J. S., Dental Surgery, *rev.*, 906; chronic suppuration of the maxillary antrum, 1120
Seytre, P., La Fièvre des Tuberculeux et son Traitement, *rev.*, 781
Shadwell, A., the Encyclopædia Britannica, 1453
Shah of Persia, the physician to, 117, 1190
Shanghai, small-pox in, 552
Sharp, G., a nameless medical hero of the Franco-Prussian war, 539
Shattock, S. G., mixed tumour of the lower lip, 1087; tuberculosis in a python, 1539
Shaving, antiseptic, in New York, 693
Shaw, H. B., inheritance of recurrent attacks of jaundice and of abdominal crises with hepato-splenomegaly, 1337
——— T. C., asylum dysentery, 397
Shaw-Mackenzie, J., and the honorary physicianship of the Samaritan (Free) Hospital for Women, 1173
Sheen, A., the supply of Government calf lymph to the profession generally, 307
Sheep, a case of tuberculosis in the, 965
Sheild, A. M., external operation on the larynx, 657, 941; on cancer, 618
Shepherd, T. W., survival of a premature child weighing under 2 lb., 1264
Sherrington, C. S., regeneration of peripheral nerves, 511
Shipboard, rat destruction on in relation to plague prevention, 30; two cases of bubonic plague occurring on, 1337
Shipley, A. E., Studies in Relation to Malaria, *rev.*, 841; An Elementary Textbook of Zoology, *rev.*, 905
Shock, symptomatology of, 248, 376; to the system, 350
Shoulder-joint, arthropathy of in a case of syringomyelia, 27
Shultz, P., Compendium des Physiologie des Menschen, *rev.*, 338
Shuttleworth, F., condition of the gums in lead-workers, 775
Sibbald, Sir J., treatment of incipient insanity in hospitals, 512
Sierra Leone, the antimosquito campaign in, 982
Sigmoid flexure, carcinoma of in a boy, 308
Simmons, A. T., Experimental Hygiene, *rev.*, 517
Simpson, W. G., spray for spraying infected rooms, 1588
Simons, Dr. C. E. G., death of, 565
Sinclair, T., laparotomy performed twice on the same patient, 298
——— W. J., paravaginal hysterectomy, 1147; the Midwives Bill 1902, 1450, 1582
Sinuses, callous, of the abdominal wall, curative effect of *x* rays on, 1330
Skerritt, E. M., cardiac pain, 513; Long Fox memorial, 1619
Skiagraph, of coxa vara traumatica, 271; of traumatic separation of the epiphysis of the head of the femur, ib.
Skin, stimulation of in phthisis, 568; lymphadenoma with growths in the, 716; the human, as a commercial product, 851; signs of certain common diseases on the, 1069; congenital multiple sarcomata of, 1087; adhesion of to brain in traumatic epilepsy, 1257
——— grafting, regimental, 262
——— stretching, therapeutic, 645
Skirts, long, legislation against, 188
Skull, the, of Sir T. Browne, 413, 427
Skutsch, F., Geburtshilfliche Operationslehre für Studirende und Aerzte, *rev.*, 211
Slander, an action for, 870
Slaughter, Inspector-General, C. H., death of, 368; the late, 489
Sleeping sickness alleged curative serum for, 374; the study of in Uganda, 1296, 1363
Smale, M., Diseases and Injuries of the Teeth, *rev.*, 906
Smallhorn, Mr. T., death of, 623
Small-pox, its Prevention and Treatment, *rev.*, 28; the inoculation of in Oxford in, 1774, 40; inoculation of in France in the eighteenth century, 42; in London, 42, 107, 229, 478, 551, 743, 990, 1238; and chicken-pox, 124, 229, 356, 425, 484, 551, 617; and vaccination in London, 155, 1489; the epidemic of, 165, 229, 293, 359, 406, 477, 550, 617, 680, 743, 797, 859, 990, 1050, 1173, 1238, 1275, 1368, 1489; in Essex, 167, 229, 406, 617, 743, 1238, 1489; in Glamorgan, 174, 279, 406; the control of "contacts," 293, 990; in Lambeth, 293; in Liverpool, 293, 806; in South Wales, 362, 406, 680, 1238, 1285, 1489; in Glasgow, 406, 478, 551, 680, 798, 991; airborne infection and, 410; the diagnosis of, ib.; and the press, ib.; and vaccination, 411, 493; in the United States, 434, 1249; prevention of in London, 457; how it is dealt with in America, 474; in Edinburgh, 478; in Finsbury, ib.; isolation and removal of patients suffering from, 493; in Swansea, 551, 991; cats and, 551; insurance against, 607; municipal staffs and, 617; proposed caravan hospital, ib.; in Scotland, 617, 1051; hospital accommodation for, 667; cremation in death from, 667; in St. Pancras, 680; conveyed by raw cotton, 687; the spread of from the extra-metropolitan hospitals, 797; concealment of, 797, 859; the prevention of in Chicago, 914; age distribution of mortality from, 1050, 1131; country holidays for poor children and the spread of, 1105; removal of patients suffering from, 1160, 1187, 1314; at Orsett and Grays, 1173; in the Royal Infirmary, Newcastle-on-Tyne, ib.; in Surrey, 1238, 1489; malignant, fatal within six hours, 1263; classification of deaths from in the Registrar-General's reports, 1429, 1560; age-incidence of, 1452, 1510, 1582, 1629; haemorrhagic, supposed case of, 1478; in Belfast, 1509; and vaccination in Montreal, ib.; modified and Thomson's theory, 1512, 1622
Smeeton, C. W., survival of a premature child weighing 18 oz., 773
Smith, F. J., Society of Licentiates and Members of the London Royal Colleges, 622; lymphadenoma, 1146; hemiplegia in a boy, ib.
——— G. M., tortuosity of internal carotid, 1602
——— H., lateral incision of the perineum, 436
——— J. W., excision of clavicle, 720
——— N., internal derangement of the knee-joint, 1311, 1513
——— P., What's What, 484
——— P. G., Hints and Suggestions as to the Planning of Poor-law Buildings, *rev.*, 87
——— R. W. I., gonorrhoeal synovitis in an infant suffering from ophthalmia neonatorum, 1401
——— S., a warning, 811
——— Sir T., on women as surgeons, 671
——— T. R., case of intestinal obstruction, artificial anus, subsequent short-circuiting of bowel, 1474
Smoking, juvenile, in the Isle of Man, 246
Smyth, Mrs. G. M., letter of thanks from, 1445
——— Lieutenant-Colonel J., chronic hypertrophy of the prostate, Freyer's operation, recovery, 1322
——— Dr. W., the fund for the family of, 32, 53, 94, 154, 215, 280, 406, 600; verses in praise of, 40; proposed monument to, 94, 215; grant to family of from Royal Bounty Fund, 154
Snake bite, treated with large doses of quinine, recovery, 201; treated with Calmette's antivenene, recovery, 702
Snell, S., blinding of the retina from exposure of the eyes when watching the eclipse of the sun, 130; endothelioma of the orbit, 333; ringworm of the eyelid, 333, 591
Snow, H., inoperable cancer, 395; cranks and cancer, 1252; the use of the term "blastoma," 1514
Snowball, Dr. W., death of, 1377
Soaps, medicated, 1218
Societies, canvassing medical aid, 352
Society of Anaesthetists, is chloroform more dangerous than ether? 149; meeting of, 1212
——— Antivivisection. *See* Society, National
——— of Apothecaries. *See* Apothecaries
——— Balneological and Climatological, British, meeting of, 22, 1031; annual dinner of, 1518
——— the Childhood, annual meeting of, 981
——— Clinical, Chelsea, cancer, its nature, origin, and general principles of treatment, 655, 717, 837; annual dinner of, 1386
——— Clinical, Ipswich, officers, etc., of, 208
——— Clinical, of London, radical treatment of chronic intestinal tuberculosis, 145; hair ball in the stomach of a child of 9 successfully removed, 147; bilateral facial palsy, 271; dislocation of the navicular, ib.; bilateral cervical ribs and an abnormal bony mass at the first chondro-sternal junction, ib.; abnormal curvature of the spine determined by shortening of the left rectus abdominis muscle, ib.; arthropathy of shoulder-joint in a case of syringomyelia, ib.; new method of treating old-standing paralysis of the upper root of the brachial plexus (Erb-Duchenne type), ib.; coxa vara traumatica with skiagraph, insidious onset, ib.; traumatic separation of the epiphysis of the head of the femur demonstrated by skiagraphy, ib.; major dilatation of the left auricle, ib.; excision of the caecum, ib.; excision of transverse colon, ib.; compound fracture of the tibia, the superjacent tissues being riddled with suppurating gummata, 272; ataxic paraplegia, ib.; congenital spinal degeneration with symmetrical arthropathy, ib.; appendicitis with localized suppuration, 455; treatment of intraperitoneal abscess of the appendix, ib.; cases, 589; arthritis of the knee, 715; malignant endocarditis giving Widal's reaction, ib.; acute paralytic dilatation of the stomach, 716; lymphadenoma with growths in the skin, ib.; mode of origin of certain cysts of the neck, 963; intestinal obstruction due to embolus of a branch of the superior mesenteric artery, ib.; cerebellar abscess with sudden paralysis of the respiratory centre, ib.; the simulation of acute peritonitis by pleuro-pneumonic diseases, 964; parietal meningocele or cephalhydrocele, 1084; multiple chondromata or osteomata with synostoses of the lower epiphysis of both ulnae and fibulae, ib.; tumour of abdominal wall, ib.; delayed growth and development, ib.; ethmoidal mucocele, ib.; congenital absence of nose and anterior nares, 1085; probable congenital atelectasis, ib.; excision of the right wrist for tuberculous disease by a posterior median incision, ib.; a case of congenital morbus cordis with extreme clubbing of fingers and toes, ib.; arthropathy in a case of pulmonary bronchiectasis, ib.; urticaria pigmentosa, ib.; chancreform ulcer of the tonsil or Vincent's angina, ib.; congenital lymphangioma terminating in lymphosarcoma, 1210; primary sarcoma of the synovial membrane of the ankle-joint, ib.; sarcoma of the synovial membrane of the knee, ib.; "horizontal" deviation of the left auricle, 1211; palpable systolic intercostal pulsation in a case of mitral stenosis with dilatation and thrombosis of the left auricle, ib.; inheritance of recurrent attacks of jaundice and of abdominal crises with hepato-splenomegaly, 1337; lumbar colotomy for colitis, ib.; general meeting of, 1371
——— Clinical, of Manchester, meeting of, 84; the local treatment of diphtheria, 658; cases, 805; fibroma uteri, ib.; multilocular ovarian cystoma, 806; abdominal section for solid ovarian tumour, ib.
——— Clinical, Newcastle-on-Tyne, meeting of, [illegible]
——— Coroners of England and Wales annual meeting of, 1407
——— Dermatological, of Great Britain and Ireland, meeting of, 337, 503, 1275
——— Dermatological, of London, meeting of, 1140
——— Electro Therapeutic, British, officers, etc., of, 182; meeting of, 516
——— Epidemiological, meeting of, 25; asylum dysentery, 397; the supposed infectivity of

desquamation in scarlatina, 777; infantile mortality among native races in the tropics, 1030; small-pox hospitals and the spread of infection, 1150; supposed case of haemorrhagic small-pox, 1478
Society, Gynaecological British, annual dinner of, 373; meeting of, 1031, 1214, 1604
——— Harveian, of London, meeting of, 24, 82, 592, 776, 879; annual meeting and list of officers, 274; practical treatment of functional vasomotor disturbances, 989; erythromelalgia or sclerodactyly, 1088; enlargement of veins of head, ib.; tuberculous disease of the testis, ib.; idiopathic muscular atrophy, ib.; Tagliacotian operation, ib.; treatment of tuberculous disease of knee-joint, ib.; paper, ib.; lymphadenoma, 1146; hemiplegia in a boy, ib.; cases, ib.; injections of paraffin for cosmetic purposes, 1339; early mitral constriction, ib.; torsion of the testicle, ib.; congenital stenosis of the pylorus, 1340
——— Hunterian meeting of, 22; officers, etc., of, 504
——— Incorporated, of Medical Officers of health, plague exclusion and control, 207; scarlet fever and isolation hospitals, 898; fixity of tenure of medical officers of health, 1031
——— Italian for the Study of Malaria, annual meeting of, 850
——— Laryngological of London, meeting of, 83, 208, 1215, 1603
——— of Licentiates and Members of the London Royal Colleges, the petition of, 106, 622, 916
——— the Life Saving, annual report of, 1318
——— Medical, Birkenhead, and the voluntary notification of consumption, 1118; meeting of 1276
——— Medical, Cardiff, meeting of, 208
——— Medical, Continental Anglo-American, proposed luncheon of, 874
——— Medical of the County of New York, report of Committee of on venereal diseases, 913
——— Medical, Folkestone, annual meeting, and list of officers of, 246; meeting of, 907
——— Medical, Ghent, honorary fellowships of, 609
——— Medical, Glasgow Southern, and the General Medical Council, 24; scheduled poisons, 147; meeting of, 270, 839, 901, 1480
——— of Medical History, French, formation of, 289; officers, etc., of, 434
——— Medical, of London, observations on the surgical treatment of obstructive jaundice resulting from an experience of over 200 operations, 147; discussion on the nature and treatment of obesity, 272; traumatic rupture of prostatic urethra, 394; senile anaemia associated with gouty rheumatoid arthritis and dyspepsia, ib.; case of tabes dorsalis, ib.; use of Thiersch's grafts in excision of hip, ib.; late rickets, ib.; chronic oedema, ib.; actinomycosis of the tongue, ib.; case of nodding spasm, ib.; schirrus or atrophic cancer of tongue, ib.; facial paralysis, ib.; cardiac pain, 513; splenic enlargement with albuminuria, 514; external operation on the larynx, 657; excision of gastric ulcer, 658; annual dinner of, 973; discuss on on the treatment of puerperal eclampsia, 774; infantile form of articular rheumatism with chronic enlargement of the spleen, liver, and lymphatic glands, 966; chronic nephritis treated by drainage and feeding, 967; three obscure cases of intrathoracic disease, ib.; epithelioma of glottis and back of tongue, ib.; pigmentation (blue line) of the lip, ib.; ulceration of the nose of uncertain origin, ib.; the quiescent period in the course of acute abdominal affections, 1085; bilharzia haematobia, 1086; diagnosis of malaria from the standpoint of the medical practitioner in England, 1212; election of officers and council of for 1902-3, ib.; the conversazione of, 1363
——— Medical, Manchester, duodenal pressure obstruction, 22; oophorectomy for breast cancer, ib.; stethoscopes, ib.; Hodgkin's disease and splenic anaemia, 719; fronto-ethmoidal mucocele, 720; excision of clavicle, ib.; meeting of, 839, 1032
——— Medical, Midland, gastro-enterostomy, 21; peroneal type of progressive muscular atrophy, ib.; Porro's operation, 22; specimens, ib.; diffuse symmetrical scleroderma, 398; carcinoma of sigmoid flexure in a boy, ib.; pyonephrosis, ib.; papers, 398, 661; angioma of the globe, 660; Mooren's ulcer of the cornea, 661; myoma of uterus removed by supravaginal hysterectomy, ib; meeting of, 901
Society, of Medical Officers of Health. *See* Society Incorporated
——— of Medical Phonographers, the examination of, 246, 929
——— Medical, Protection, London and Counties, offices of, 62; annual general meeting of, 1221
——— Medical, Rochdale and District, meeting of, 900, 1276
——— Medical, Russian, celebrates one hundredth anniversary of birth of founder of, 1249
——— Medical Sickness and Accident, meeting of Executive Committee of, 122, 434, 754, 924, 1250; annual meeting of, 1365
——— Medical, Torquay, meeting of, 207
——— Medical, Ulster, meeting of, 149, 721, 1032, 1215, 1604
——— Medical, Wigan, annual meeting and list of officers, 594
——— Medical and Surgical, Cork, some recent gynaecological methods, 208
——— Medico-Chirurgical Bradford, meeting of, 84, 336, 1152
——— Medico-Chirurgical, Bristol, meeting of, 148
——— Medico-Chirurgical, Edinburgh, drainage in empyema, 18; lupus treated by light, ib.; the *x* rays in rodent ulcer, ib.; gastro-enterostomy, ib.; intestinal obstruction due to tuberculous peritonitis, ib.; excision of rectum by Kraske's method, ib.; removal of lachrymal sacs, ib.; tuberculous disease of penis, ib; congenital stricture of anus, 19; treatment of wry-neck by the open operation, ib.; removal of pylorus, ib.; cases, 19, 270, 455, 715, 1269; card specimens, 19, 715; removal of tumour of the brain, 269; chloroma, 453; a method of securing the lingual artery in excision of the tongue through the mouth, 454; the notification of measles, 455; the treatment of incipient insanity in hospitals, 512; the relative inefficacy of cacodylates as therapeutic agents, 712; meralgia paraesthetica (Bernhardt's Sensibilitätsstörung), 713; tabes with acutely-developed ataxia, 714; consolidation of lung, ib.; gastro-enterostomy for pyloric stenosis, 1268; cyto-diagnosis in pleural effusions, ib.
——— Medico-Chirurgical, Leeds and West Riding, some new gynaecological instruments, 266; partial nephrectomy, ib.; head injury, ib.; specimens and cases, 266, 398, 592; fractures of semilunar cartilage of the knee joint 398; advantages of a bag pervious to air in ether anaesthesia, ib.; the pathology of tuberculosis, 592; the anatomy of tuberculosis, ib.; tuberculosis of the cervix uteri, ib.; nasal suppuration, 1030; enophthalmus and exophthalmos in the same subject, ib.; angeioneurotic oedema, ib.; carcinoma of the pylorus in a young man, 1149; food preservatives, ib.; annual meeting and election of officers, 1150
——— Medico-Chirurgical, Mirfield and District, annual dinner of, 293
——— Medico-Chirurgical, Nottingham, meeting of, 83, 149, 336, 661, 1032, 1275
——— Medico Chirurgical, Sheffield, meeting of, 22, 336, 1152
——— Medico-Chirurgical, West London, meeting of, 84, 899, 1275; discussion on inoperable cancer, 394; annual dinner of, 566
——— Medico-Legal, constitution and officers, etc., of, 983
——— National, Antivivisection, annual meeting of, 1170
——— National Health, distribution of prizes at, 1386
——— Obstetrical, Edinburgh, spontaneous rupture of uterus, 80; separation of the placenta, 81; movements in the pelvic bones during symphysiotomy, 203; a case of full-time intact extraperitoneal gestation successfully removed after five years' retention, 204; expulsion of dermoid ovarian cyst per vaginam during labour, ib.; symphysiotomy in domestic and hospital practice, 1020; diagnostic help in gynaecology, ib.; specimens, 1029, 1214, 1337; the problem of the premature infant, 1214; thyroid extract in puerperal eclampsia, ib.; the development of the amnion and cord, 1338; acute pyelitis in infancy, ib.
——— Obstetrical, of London, chorio-epithelioma with pulmonary metastases, 82; other communications, ib.; dermoid cyst of the ovary, 395; uterine fibroids, 396; tubal gestation, ib.; reports, ib.; annual address, ib.; votes of thanks, ib.; alteration of by-laws, ib.; election of officers, ib.; suppression of urine after labour, 710; sarcoma of ovary, 717; abdominal tumour, ib; rupture of ovarian abscess, ib.; orbital tumour in a fetus, ib.; lithopaedion, ib.; primary tuberculosis of the cervix simulating cancer, 895; pseudo-intraligamentary cyst, ib.; tubal gestation, 896; fibroid tumour of ovary, 1213; lymphangitis mammae, 1214; specimens, 1214, 1477; and the Midwives Bill, 1237; pregnancy after removal of both ovaries for cystic tumour, 1476; primary ovarian gestation, 1477
Society, Obstetrical and Gynaecological, North of England, election of officers, 278; folliculoma ovarii malignum, ib.; membranous dysmenorrhoea, ib.; ruptured tubal gestation, ib.; tubal mole, ib.; fibromyoma of uterus, ib.; recurrent papilloma of vagina, ib.; meeting of, 900, 1275; adenoma of uterus, 1146; extirpation of uterus for polypi, ib.; placenta duplex, ib.; paravaginal hysterectomy, 1147; solid ovarian tumours, ib.; fatal uraemia after ovariotomy, ib.
——— Ophthalmological, of the United Kingdom, intracranial thrombosis as the cause of double optic neuritis in chlorosis, 333; the treatment of cystoid cicatrix following cataract extraction, ib.; endothelioma of orbit, ib.; ringworm of the eyelid, ib.; the visual purple of the retina, 334; card specimens, 334, 720, 1540; symmetrical concentric folds of choroid and retina in four cases of unusually high myopia, 720; membranous conjunctivitis, ib.; diphtheria of the conjunctiva, ib.; meeting of, 1151; secondary carcinoma of the eye, 1539; leprous ulcer of cornea, 1540; death from atropine poisoning, ib.; bilateral congenital microphthalmos, ib.; colloid degeneration of the conjunctiva, ib.; dinner of, 1562
——— Orthopaedic, British, meeting of, 148, 504
——— Pathological, of London, an experimental production of the osteo-arthritic type of rheumatoid arthritis, 79; the occurrence of pelvic tumours arising in adrenal remains, 80; multiple osteoma, ib.; intestinal obstruction due to gall stones, ib.; card specimens, 80, 457, 1088; a case of phlegmonous gastritis due to streptococcus infection, 202; a case of pneumococcus gastritis, ib.; the bacteriology of a case of rapidly spreading gangrene, 203; the transmission of haemolysins from parent to offspring, ib.; laboratory meetings of, 334, 721, 1147; the reactions of the bone marrow and other leucocyte-forming tissues in infections, 456; fibro-sarcoma of tail of pancreas, 457; low proteid metabolism, 580; chyliform ascites, 500; splenic enzymes, ib.; an undescribed purple pigment in urine, ib.; a brown pigment in urine, ib.; a case of tuberculosis in the sheep, 965; a new method of extracting tetanus toxin from certain solid viscera of the human body, ib.; the pathological characters of veld sore, 966; endothelioma of salivary glands, 1086; endothelioma of the soft palate and of the mesentery, ib; endothelioma of stomach, ib.; endotheliomata of the cheek and lip, 1087; endothelioma of lip and submaxillary gland, ib.; mixed tumour of the lower lip, ib.; congenital multiple sarcomata of the skin, ib.; pancreatic tumour, ib.; the infective lesions of the tongue, stomach, and intestine in anaemia (twenty-five cases), 1270; the knee-joints from a case of haemophilia, 1273; hydatids of the gall bladder, ib.; election of officers, ib.; the bone marrow in a case of suppuration and haemorrhage from the knee-joint, 1538; lipoma of the median nerve, ib.; "chyle" cyst of mesentery, 1539; dermoid cyst of the inguinal cord, ib.; the meningococcus in a case of cerebral tumour simulating posterior basal meningitis, ib.; tuberculosis in a python, ib.
——— Pathological, of Manchester, meeting of, 84, 205, 660, 899, 1088, 1275
——— Pharmaceutical, British, annual dinner of 1386
——— for the Prevention of Venereal Diseases (German), formation of, 1619
——— of Public Analysts" the, 560
——— for the Relief of Widows and Orphans of Medical Men, appeal for, 175; quarterly meetings of court of directors of, 182, 974; annual meeting of, 1368
——— Royal, candidates for election at, 1172, conversazione of, 1226, 1501; new Fellows of, 1501
——— Royal Agricultural, and human and bovine tuberculosis, 1228
——— Royal Medical, Edinburgh, annual dinner of, 672
——— Royal Medical and Chirurgical, discussion on modern methods of vaccination and their scientific basis, 144, 260; ligature of the carotid for aneurysm of the sorta, 392; dis-

cussion on the regeneration of peripheral nerves, 511, 656; the dinner of, 542; notice as to annual meeting of, 561; annual meeting, 588; report of Council, ib.; election of officers, and Council, ib.; presidential address and vote of thanks, 589; surgical treatment of obstruction of the common bile duct by concretions, 836; malignant endocarditis, 895, 1028; cases of cancer of the breast which survived operations from 5 to 32 years, 1209; tropical abscess of the liver, 1210; etiology of leprosy in the Soudan, 1336; leprosy in Cape Colony and Natal, 1337; leprosy in the Soudan, in Cape Colony and in Natal, 1475; ateleiosis, 1476
Society, Royal Zoological of Ireland, annual meeting of, 374; the new lion house of, 1376
——— for the State Registration of Trained Nurses, formation of, 1441
——— for the Study of Diseases in Children, meeting of, 337, 593, 899, 1231
——— for the Suppression of the Opium Trade in India, and poppy cultivation in India, 1361
——— Union of University College, London, foundation day oration at, 1496
——— Victoria Mutual Assurance and the signature of death certificates, 695
Soil, the relationship between the larvae of ankylostoma duodenale in and "ground-itch" or "pani-ghao," 190, 224, 807, 1310
Soils, clay and gravel, of London, 25
Soldiers in South Africa, attendance on families of, 62
Sollmann, T., A Textbook of Pharmacology and Some Allied Sciences, *rev.*, 595
Somaliland, dispatches from, 1059
Somers, A., severe case of diphtheria treated by antitoxin on the seventh day, 452
Sommer, G., Die Prinzipien der Säuglingsernährung, *rev.*, 1216
——— R., Diagnostik der Geisteskrankheiten für Praktische, Aerzte, und Studirende, *rev.*, 518
Sommerville, D., clinical *v.* bacteriological aspects of diphtheria, 390
Soudan, etiology of leprosy in the, 1336, 1475
Sound, mosquitos attracted by, 64
South Africa, medical attendance on families of soldiers in, 62; the refugee camps in, 98, 175; mortality returns of the field force in in 1901, 167; notes on lightning stroke in, 198; dispatches from, 242, 1001, 1123; medical practice in, 309; typhoid fever in, its cause and prevention, 381, 621, 867; Blue Book on concentration camps in, 475; a colonial medical service for, [illegible]; syphilis in connexion with fatal cases of enteric in, 812; horse sickness in, 999; the last epidemic of enteric in, 1167, 1172; colonies for consumptives in, 1362
——— Australia, cancer in, 162
——— Tyrol, pellagra in, 931
——— Wales, correspondence from, 173, 299, 362, 746, 1448, 1509, 1617; small pox in, 362, 680, 1238, 1285, 1449, 1617; the prevention of consumption in, 992, 1118, 1175; coronation commemoration at Cardiff and the Seamen's Hospital, 1448; Welsh University officers, 1449; hydrophobia and rabies in, ib.; Llandilo Hospital, 1509; health of the Rhondda district for 1901, ib.; the compulsory removal of small-pox patients, 1617; sanatoria for tuberculous patients, 1618
——— West London, antivaccinists in, 991
Southam, the Board of Guardians of and antivaccinist tactics, 979
Southam, F. A., a case of removal of the gall bladder, 1598
Southampton, the prevention of tuberculosis at, 359
Southport, proceedings against unqualified medical practitioners at, 537
——— the prevention of consumption in, 106; the land treatment in, 181; proposed national institute of hygiene in, 181; protection of infants in, 494
Spasm, ureteral, 6
Spectacles, eyesight, and the Spectacle Makers Company, 1247
Speculum, an eye, 1276
Spencer, Herbert, the philosophy of, 1625; the last words of, 1628
——— W. G., scirrhus or atrophic cancer of tongue, 394; excision of the right wrist for tuberculous disease by a posterior median incision, 1085; congenital lymphangioma of tongue, 1215; [illegible] 1216
Spender, J. K., fifty years ago, a farewell retrospect, 697
Sphincter ani, stretching of in paralysis of the intestines, 567
Spicer, W. T. H., a report of nine cases in which Haab's magnet was used for the extraction of foreign bodies from the eye, 131
Spiller, hemianaesthesia, 1562
Spina bifida, and encephalocele, excision of, 130; case of, 298; its operative treatment among out-patients, 1532; two cases of treated successfully, one by the injection of Morton's fluid and the other by excision, 1537
Spinal cord. *See* Cord
Spine, abnormal curvature of the determined by shortening of the left rectus abdominis muscle, 271; congenital degeneration of with symmetrical arthropathy, 272; a plea for the adoption of a more accurate and scientific method in the investigation and treatment of lateral curvature of the, 1332
Spitta, E. J., the bacteriology of a case of rapidly spreading gangrene, 203
Spitting nuisance, the, 151, 182, 411, 739, 746, 1006, 1515, 1586
Spittoon, the hygienic, in France, 223
Spitzly, J. H., carcinoma and malaria, 16
Spleen, movable, 350; enlargement of with albuminuria, 514
Splinting, light, a form of, 1154
Spray for spraying infected rooms, 1588
Sputum flask, a pocket, 465
Squire, B., ringworm, 376; case of complete baldness from alopecia areata, 884
"Stammering" bladder and urethra, treatment of, 261
Standing orders as to rehousing, 670
Stanley, A., on diphtheria antitoxin eruptions, 386
Stansfield, F. W., asylum dysentery, 397
Staphylococcus albus, hydroa gestationis due to, 73
Starch and sugar, quantitative analysis of, 696
Starling, E. H., on future university centres in London, 1496
Statement, a loose, 1229
Statistical study of biological problems, 129
Stedman, F. O., on dengue fever, 483
Steeda, Dr. B. H., presentation to, 1490
Steffen, A., Zur pathologischen Anatomie der kindlichen Alters, *rev.*, 1217
Stenhouse, E., Experimental Hygiene, *rev.*, 517
Stenosis, mitral, palpable systolic intercostal pulsation in a case of, 1211; congenital, of the pylorus, 1340
Stephens, J. W. W., on blackwater fever, 688
Stephenson, S., diphtheria of conjunctiva, 720; tuberculosis of the conjunctiva, 1077
Sterilization of enteric excreta, 115, 176
Sternberg, Surgeon-General, the retirement of, 1433
——— M., Acromegaly, *rev.*, 86
Stethoscope for injection of normal saline saline solutions, 1091
Stethoscopes, paper on, 22
Steven, J. L., Lectures on Clinical Medicine, *rev.*, 461
Stevens, B. C., a liver clamp, 1278
——— W. M., case of total suppression of urine due to the destruction of both ureters by renal calculi, 708
——— W. S., cause of variations in vaccine fever, 1051
Stevenson, E., hysterical paralysis of all the eye muscles except the internal recti, 295; extreme exophthalmos in exophthalmic goitre, ib.; Haab's magnet, 239
——— ——— Surgeon-Captain T., the new designation for the Volunteer Medical Staff Corps, 747
Stewart, A., golf match, Manchester, 1099, 1121
——— J. P., new method of treating old-standing paralysis of the upper root of the brachial plexus (Erb-Duchenne type), 271; the regeneration of the peripheral nerves, 511, 657
——— R. W. G., generalized vaccinia, 1602
——— W. A., case of perforating gastric ulcer, 510
Stiles, H. J., tuberculous disease of penis, 18; congenital stricture of anus, 19; treatment of wry-neck by the open operation, ib.; mammary cancer, 273, 284
"Stillborn," the burial of infants as, 118
Stimson, L. A., A Practical Treatise on Fractures and Dislocations, *rev.*, 840
Stirling, R., torsion of caecum, 483; rupture of urethra, ib.
——— W., Outlines of Practical Physiology, *rev.*, 1403
Stock, W. F. K., the "Society of Public Analysts," 500
Stockport, organization of medical contract work at, 1235
Stoddart, F. W., the Continuous Sewage Filter, *rev.*, 971
Stohr, P., Textbook of Histology, including the Microscopic Technic, *rev.*, 339
Stomach of a child of 9, hairball successfully removed from, 147; some points in connexion with ulceration of the, 320; acute paralytic dilatation of, 716; bullet wound of, 1026; endothelioma of, 1086; the human, 1149; laparotomy in perforating wound of, 1266; case of omental cyst communicating with, following injury, 1267; infective lesions of in anaemia, 1270; dilated, ending fatally in tetany, 1603
Stone in the bladder in the canine species, the application of litholopaxy and lithotrity in, 1023
Stoney, R., observations during a residence of 18 months in East Africa and Uganda, 199
Storry, F. W., Volkmann's contraction, 1052
Stowers, J. H., the "Medical Directory," 184
Strachan, B., the notification of chicken-pox, 356
Strange, Dr. A., obituary notice of, 1454
Strasburger, J., Die Faeces des Menschen in normalen und krankhaften Zustande, etc., *rev.*, 276
Strauss, H., Die chronischen Nierenentzundungen in ihrer Einwirkung auf die Bludflussigkeit und deren Behandlung, *rev.*, 970
Strenbo extract of meat, 341
Streptococcus infection, phlegmonous gastritis due to, 202
Stretcher, portable folding, for use with mounted infantry, 464
Stricture, congenital, of anus, 19
Strike of American army nurses, 851
Strümpell, A., A Textbook of Medicine, *rev.*, 906
Struthius, Joseph, and his studies of the pulse, 1222
Strychnine, snake-bite treated with large doses of, recovery, 201
Stuart, Dr. C., death of, 688
Students, medical, in France, 906; registration of, 153
Sturgis, F. R., Sexual Debility in Man, *rev.*, 341; The Student's Manual of Venereal Diseases, *rev.*, 1033
Styles, lachrymal, a danger of, 710
Submaxillary gland, endothelioma of, 1087
Successor, introducing a, 60
Süring, R., effects of high altitudes, 1045
Sugar, and starch, quantitative analysis of, 696; substitutes for, 1171
Suicide in the United States, 566; from gunshot injury, 1132
Sullivan County, New York, boycott of the consumptive in, 308
Sulphur dioxide as a germicidal agent, 692
Sulphurous dioxide gas in the destruction of rats on shipboard, 294
Sultan, the, and the plague, 414
Sultan, G., Atlas und Grundriss der Unterliebsbruche, *rev.*, 840
Sun, blinding of the retina from exposure of the eyes when watching the eclipse of the 130
——— playrooms on city roofs, 793
Superannuation of Poor-law medical officers in Ireland, 487
Supino, R., Chemica Clinica, *rev.*, 970
Suppuration, chronic, of the maxillary antrum, 35 cases of, 945; nasal, 1030; chronic, of the maxillary antrum, 1120, 1179; from the knee-joint, the bone marrow in, 1538
Suprarenal gland, extract of as a haemostatic, 142, 954; extract of in haemophilia, 200, 266, 302; extract of in gastro-intestinal haemorrhage, 452; the thermo-cautery *v.* extract of as a haemostatic in haemophilia, 587
Surgeons, veterinary, university education of, 434; and their Wonderful Discoveries, *rev.*, 461; war, in the field, 552; civil, in military employ, 626; women as, 671; civil, at home, 870; South African civil, dinner to, 931; civil, the new warrant and, 933, 1060
Surgery, sensational, in lay newspapers, 1490; general, some cases in, 1521
Surra in the Philippines, 937
Surrey, small-pox in, 1238, 1489
Swan, R. H. J., tortuosity of both internal carotid arteries, 76
——— R. L., surgical treatment of chronic synovitis, 334
Swansea, small-pox in, 362, 551, 991, 1617
——— ——— valley, overcrowding in, 1047; death under chloroform at, 1317
Sweetman, Dr. M. L., death of, 117
Swimming baths. *See* Baths
Switzerland, typhoid in, 1627
Sydney, correspondence from, 62, 230, 483, 927, 1122, 1618, plague in, 62, 230, 744, 927, 1048, 1114, 1122, 1299, 1457, 1618; the proposed Australian Medical Association, 483; vital statistics of, ib.; ambulance work in, ib.; plague and rats, 484, diffusion of plague in, 857; leprosy, 928; population statistics, ib.; the Australian Natives Association, 1177, 1618, a warning,

1377; government support of hospitals, 1618; vital statistics, ib.
Syers, H. W., the diazo-reaction as a method of diagnosis in clinical medicine, 1261
Sykes, W., cancer and meat eating, 807; origin of "zoster" in herpes zoster, 930; the coagulating power of the blood in plague, 1310
Sym, W. G., removal of lachrymal sacs, 18
Symphysiotomy, a substitute for, 41; movements of the pelvic bones during, 203; natural, 733; in domestic and hospital practice, 1029
Symptomatology of shock, 248
Syncope, sudden, occurring after the injection of antitoxin in cases of diphtheria, 1025, 1178
Synovitis, gonorrhoeal, in an infant suffering from ophthalmia neonatorum, 1401
Syphilis, two cases of spinal cord disease consequent on, 569; the crusade against in France, 679; in connexion with fatal cases of in South Africa, 812; of the brain and spinal cord, blistering in, 968; in Africa and Asia, 976
Syphilitics, vaccination of, 939
Syringe, an aseptic, 1342
Syringomyelia, arthropathy of the shoulder-joint in a case of, 271

T.

Tabes dorsalis, case of, 394; painless parturition in, 540; with acutely developed ataxia, 714; the treatment of, 876; Frenkel's treatment of, 939
——— mesenterica, infantile mortality from, 1024
Tabloids, 28
"Tacquari" cure, the, 401, 606
Tagliacotian operation, the, 1088
Talipes varus, case of, 590
Tammany, delegation and, 559
Tandler, J., Topographie des weiblischen Ureters mit besondere Berucksichtigung der pathologischen Zustande und der gynäkologischen Operationen, *rev.*, 901
Tatham, J. F. W., on cancer, 655
Taunus, gift by Baroness Rothschild for sanatorium for consumptives in, 799
Taylor, A., The Sanitary Inspector's Handbook, *rev.*, 87
——— E. H., suprapubic prostatectomy, 774
——— F., A Manual of the Practice of Medicine, *rev.*, 151
——— G. G. S., the *x* rays in cancer, 335; case of epithelioma complicating lupus erythematosus treated by scraping and healed by the *x* rays, 1080
——— H. P., a Poor-law abuse in Scotland, 1242
——— J., appendicitis and its treatment, 315
——— J. M., Manual of the Diseases of Children, *rev.*, 1217
——— J. W., the treatment of enuresis in females, 509
——— S., bilateral facial palsy, 271
Teeth, influence of nasal and naso-pharyngeal obstruction on the development of, 949, 1401; absence of, 1660
Teissier, J., Les Albuminuries Curables *rev.*, 722
Telephone "Directory," medical names in, 118
Telephones, London, 284; dissemination of disease by, 1249
Temperature chart, the, as an advertising medium, 933
Temporal disease, double, from suppurative otitis, 773
Tendo Achillis, ruptured, ambulatory treatment of, 137; tenotomy of, 1273
Teno-synovitis, ping-pong, 1062
Tenotomy of tendo Achillis, 1273
Tents, gelatine-coated laminaria, 782
Teratology and mythology, 671
Terminology, a convenient, for the various stages of the malaria parasite, 652
Terpin and heroin, 1
Terrier, F., Petite Chirurgie de Jamain, *rev.*, 85; Chirurgie du Foie et des Voies Urinaires, *rev.*, 1277
Testicle. *See* Testis
Testimonials as advertisements, 360, 628
Testis, the imperfectly descended, anatomy, physiology, and pathology of, 503, 570; chronic enlargement of, 567; undescended, and commissions in the army, 1008; tuberculous disease of the, 1088; torsion of the, 1339
Tetanus and diphtheria antitoxin, 104; following vaccination, 285, 1102; treated with antitetanus serum and morphine, death, 654
——— toxin, a new method of extracting from certain solid viscera of the human body, 965
Tetany of gastric origin, death in the first attack, 5; dilated stomach ending fatally in, 100
Teversal collieries, the, and contract practice, 679
Theobald, F. V., A Monograph of the Culicidae or Mosquitos, *rev.*, 841
Therapeutics, Kaffir, 893
Thermo-cautery, the, *v.* suprarenal extract as a haemostatic in haemophilia, 587
Thermometer, an improved clinical, 1155
Thicle, F. H., a brown pigment in urine, 590
Thiersch's grafts. *See* Grafts
Thin, G., on leprosy, 1475
Thingoe, the Board of Guardians of and their medical officer, 283
Thomas, J. L., ambulatory treatment of a ruptured tendo Achillis, 137; a new method of dealing with the peritoneum in operating for radical cure of umbilical and inguinal or femoral hernia, 687
——— W. T., suprarenal extract in haemophilia, 302; vermiform appendix in femoral hernial sac, 1148; tenotomy of tendo Achillis, 1273
Thompson, C. J. S., Poison Romance and Poison Mysteries, *rev.*, 462
——— J. A., the treatment of leprosy, 1047
Thomson, A., removal of pylorus, 19
——— E. M., rupture of heart, 453
——— Major G. S., A Treatise on Plague, *rev.*, 596
——— J. (Bombay), A Treatise on Plague, *rev.*, 596
——— J. (Edinburgh), acute pyelitis in infancy, 1338
——— St C., epithelioma of epiglottis and back of tongue, 967; ulceration of the nose of uncertain origin, ib.; chancriform ulcer of the tonsil or Vincent's angina, 1085
——— Sir W., prostatic adenomata, 1321
——— W. Hammam r'Ihra as a health resort, 1512
——— W. (Annahilt), fund for family of, 1554
Thomson's theory, modified small-pox and, 1512, 1622
Thorburn, W., regeneration of peripheral nerves, 512
Thorne, J. M., notching the soft palate for post-nasal obstruction in adults, 962
Thornton, B., treatment of hip-joint disease in children, 426; the Royal Sea-Bathing Hospital, Margate, 747
——— E. T. Q., Kimpton's Pocket Formulary, *rev.*, 970; Dosebook and Manual of Prescription Writing, ib.
"Thorough" the policy of in club practice, 50
Thresh, J. C., Water and Water Supplies, *rev.*, 87; small-pox in Essex, 406; airborne infection and small-pox, 410; A Simple Method of Water Analysis, *rev.*, 517; small-pox hospitals and the spread of infection, 1150; an emergency disinfector, 1608
Thrombosis, of retinal veins, the relation of glaucoma to, 132; intracranial, as the cause of double optic neuritis in cases of chlorosis, 326, 333
Thumbs, absence of, 1252, 1460, 1520
Thyroglandin (Stanford), 723
Thyroid gland, two cases of partial cretinism which developed swelling of on cessation of treatment by extract of, 1143; extract of in puerperal eclampsia, 1214; case of sporadic cretinism in which a relapse occurred owing to omission to extract of, 1259; partial removal of, 1274
Tibia, compound fracture of the, the superjacent tissues being infiltrated with suppurating gummata, 271
Tilley, H., Purulent Nasal Discharges their Diagnosis and Treatment, *rev.*, 400; some observations on 35 cases of chronic suppuration of the maxillary antrum, 945, 1179
"Times," the, on the General Medical Council, 913
Timothy, P. V., private medical clubs, 995
Tisdale, J. J., State vaccination by private practitioners, 869
Tobacco, the consumption of, 992
——— hearts in Chicago, school children, 630
Tobin, R. F., treatment of senile hypertrophy of the prostate, 774; perforated gastric ulcer, 1145
Toller, Dr. S. G., obituary notice of, 564
Tomb, Dr. J., death of, 749
Tongue, actinomycosis of, 394; atrophic cancer of or scirrhus, 394; excision of the through the mouth, a method of securing the lingual artery in, 454; congenital cysts of the, 502; epithelioma of back of, 967; infective lesions of in anaemia, 1270
Tonkin, T. J., etiology of leprosy in the Soudan, 1336
Tonsil, chancriform ulcer of, 1085
Tooth in lung, diagnosis of and verification, 835
Torbay Hospital. *See* Hospital
Torsion of caecum, 482; of the testicle, 1339
Tortuosity of both internal carotid arteries, 70, 332, 893; of internal carotid, 1602
Tottington, barrack school children at, 1043
Touting for patients, 933
Tract, a medical, by John Wesley, 799
Tracy, Dr. J. J., obituary notice of, 110
Tradespeople, commissions from to the medical profession, 871
Transactions and Reports, *rev.*, 371, 1091, 1217, 1342
Transposition of viscera, case of, 352, 1008
Transvaal, medical practice in, 309
Trautmann, Dr. F., death of, 1317
Treatment, by unregistered persons, 752; broad lines of, 926
Trevelyan, E. F., the pathology of tuberculosis, 592
Treves, Sir F., Surgical Applied Anatomy, *rev.*, 85; and the antivivisectionists, 1042; the romance of medicine, 1494; some phases of inflammation of the appendix, 1589
Trevor-Jones, E. J., removal of foreign bodies by gall-stone forceps, 1602
Triboulet, H., Le Rhumatisme Articulaire Aigu *rev.*, 26
Triferrin, 1278
Trinidad, human filariasis in, 189
Trional in chorea, 267
Triplets, in one Fallopian tube, 43; in the United States, 610; long-lived, 854
Tripod, a human, 1106
Trocars for empyema, 844
Troops, in the field, the drinking water supply of, 867
Tropics, medical service in the, 496, the mosquito net in the, 851; drugs in the, 876; infantile mortality among the native races in the, 1030
Trotter, A. P., on electrical shock, 599
Trudeau, E. L., the Saranac laboratory, 418
Truss, the Trexophyton, 28, 832
Trust, the Carnegie, payments from, 163; and Edinburgh University, 693; meeting of executive committee of, 1296
Trypanosoma in man, 42, 100, 164
Tubby, A. H., new method of treating old-standing paralysis of the upper root of the brachial plexus (Erb-Duchenne type), 271; the quiescent period in the course of acute abdominal affections, 1085
Tube, Fallopian, triplets in one, 43; catheterism of or perforation of uterus? 1301
Tuberculin, the diagnostic value of for cattle, 980; as a remedy in tuberculosis of the lungs, 1389
Tuberculins and tuberculosis, 97
Tuberculosis, the King and the crusade against, 33; the prevention of, 48, 106, 167, 239, 358, 418, 479, 552, 679, 741, 746, 786, 858, 991, 1118, 1175, 1238, 1285, 1487, 1017; the treatment of, a disclaimer, 50, 301; the campaign against in America, 66, 100, 188, 786, 1175; bovine, the treatment of, 79; and tuberculins, 97; the lachnanthes cure of, 101, 113, 301; the factors which produce immunity to, 108; local, two cases in which the activity of phthisis was excited by operations for, 141; chronic intestinal, radical treatment of, 145; open-air treatment of, 152, 174, 223, 302, 991; compulsory notification of in America, 168; notification of, 350, 1043; pulmonary, the prophylactic and therapeutic indications in founded on a knowledge of the nidus, 422; human and bovine, the relation between, 443, 858, 1228; pulmonary, general hospitals and, 445, 468; pulmonary, the origin of the modern treatment of, 447; pulmonary, forced feeding in, 449; pulmonary, intratracheal injections in, 471, 756, 920, 1019; pulmonary, stimulation of the skin in, 568; the pathology of, 592; the anatomy of, ib.; of the cervix uteri, ib.; a new serum treatment for, 604; advanced of the mesentery without symptoms, 711; external, treatment of in children, 789, 930; "arrhenal" in, 804; in Havana, 910; pulmonary, school attendance and, 930; genito-urinary, 964; in the sheep, a case of, 965; pulmonary sanatorium treatment of, 967; in infancy and childhood, 1040; of the conjunctiva, 1077; voluntary notification of, 1118; pulmonary, and splenic leukaemia combined in the same patient, 1136; pulmonary, and pipe-clay, 1139; research as to in Canada, 1286; of the lungs, tuberculin as a remedy in, 1389; pulmonary, the technique of the intratracheal "method of treatment of, 1399; in a python,

1530; pulmonary, choice of an anaesthetic in, 1568
Tuberculous diseases, the administrative control of, 1394
Tuckey, T. P., the medical profession in the fourteenth century, 214
Tuholske, extrauterine placenta implanted on liver, 286
Tumour, removal of from the brain, 269; of the cerebral cortex, 586; rare orbital, two cases of, 706; of the pons associated with degeneration in the posterior columns of the spinal cord, ib.; abdominal, 717; ovarian, complicating advanced pregnancy, 836; solid ovarian, abdominal section for, 896; of spinal cord, 964; of abdominal wall, 1084; mixed, of the lower lip, 1087; pancreatic, ib.; fibroid, of ovary, 1213; cystic, pregnancy after removal of both ovaries for, 1476; cerebral, simulating posterior basal meningitis, the meningococcus in, 1539
Tumours, pelvic, arising in adrenal remains, the occurrence of, 80; intrathoracic, the Roentgen rays in the diagnosis of, 633; solid ovarian, 1147
Tunis, antirabic treatment in, 1630
Tupper, Sir C., appreciation of, 1431
Turkey, a training school for nurses in, 916
Turner, D., an experiment with ultra-violet light, 705; non-tuberculous lung necrosis, 1179
——— G., typhoid fever in South Africa, its cause and prevention, 381; primary sarcoma of the synovial membrane of the ankle-joint, 1210
——— G. R., dislocation of the navicular, 271
——— J., the structure of the human cerebral cortex, 351
——— R., the treatment of chorea by large doses of Fowler's solution, 961
——— W., set of trocars and cannulae for empyema, 844
——— W. A., the regeneration of peripheral nerves, 657
Tweed, Mr. J. J., death of, 62
Tweedie, Mrs. A., Mexico as I Saw it, *rev.*, 541
Tweedy, H., ovarian cystomata, 205
Twin-sisters, the, of Foscote, 915
Twins, xiphopagous, the separation of, 465, 508, 980; record beating in separation of, 1360
Tyndale, W., so-called "remittent" or "Pretoria" fever, 784
Typhoid bacillus. *See* Bacillus
——— fever. *See* Fever enteric
Tyson cure, the, 402
——— W. J., broad lines of treatment, 926; intestinal obstruction due to embolus of a branch of the superior mesenteric artery, 963
Tytler, P., case of perforating wound of the stomach, laparotomy, recovery, 1266

U.

Uganda, observations during 18 months' residence in, 197; dispatches from, 1059; the study of sleeping sickness in, 1206, 1363
Ulcer, rodent, the *x* rays in, 18, 516, 882, 1148; gastric, the causation of, 159; chronic, non-malignant gastric, some cases of, 316; gastric, feeding in, 497; perforating gastric, case of, 710, 891, 1145; rodent, *x*-ray and light treatment of, 516; gastric, treated by excision, 590, 628; gastric, a plea for more continuous treatment of, 663; gastric, operation for, 659; Mooren's of the cornea, 661; single non tuberculous of bladder, cystotomy for, 771; chancriform of the tonsil, 1085; rodent, Finsen's light and *x*-ray treatment in, 1124; leprous, of cornea, 1549
Ulceration of the stomach and duodenum, some points in connexion with, 120; of the nose of uncertain origin, 967; of pylorus, gastro enterostomy for, 1148
Ulna, dislocation of the, 78
Umbilical cord. *See* Cord
Uncon——— an obscure case of momentary attacks of, 1588, 1589
Union, Birmingham and District Medical Practitioners', and contract practice, 49, 551; and the Midwives Bill, 1568
——— Bradford and West Riding Medico-Ethical, dinner of, 900
——— County of Durham Medical, meeting of, 900
——— Medical Defence, annual meeting, 1081
——— Midland Med——l, work of, 980
United States of America, the campaign against tuberculosis in, 65, 106, 188, 786, 1175; public authorities in and vaccination, 161; compulsory notification of tuberculosis in, 168; legislation against long skirts in, 188; the plague in, 229; medical colleges in, 280; the Health Service in, 309; leprosy in the, 374, 1362; the spitting nuisance in, 411; federation of Medical Boards in the, 413; the regulation of vivisection in, 434; small-pox in, 434, 1249; exclusion of tuberculous immigrants from, 479; compulsory vaccination in, 542; suicide in, 566; triplets in the, 610; restriction of opium smoking in, 623; the endowment of medicine in, 673; antivisectionism in, 703; Franciscan hospitals in, 705; cancer research in, 731; a Public Health Bill for, 753; a permanent census bureau for, ib.; a national leper colony in, ib.; endowment of medical research in, 777; the supply of arms, etc., to natives of Pacific possessions of, ib.; the cocaine habit in, 834; house-to-house vaccination in, 846; an arsenic find in, ib.; the investigation of vaccination in, 873; the delivery of dead bodies from prisons, etc., in, 874; the metric system in the, 880; the spitting nuisance in, 1006; bogus diplomas in, 1044; pure food legislation in, 1065; loss of life by lightning in, 1171; physical culture in, 1256; the oldest practitioner in the, 1278; registration of nurses in, 1362
Universities, Scottish, honorary degrees at, 628
University of Aberdeen, the extension scheme of, 103; the lord rectorship of, 424; honorary degrees at, 628; the agricultural department of and the diagnostic value of tuberculin for cattle, 980; the parliamentary candidates for, 983; graduation ceremony at, 1002
——— of Birmingham, the Myers travelling studentship at, 163; pass lists, 306, 1003, 1061
——— of Buda-Pesth, the assistantship to the chair of children's diseases at, 735
——— of Cambridge, degrees, 60, 243, 371, 491, 628, 693, 1186, 1246, 1456, 1516; news from, 243, 306, 431, 1313, 1456; additional examination in pathology, 243; Balfour studentship, 306; honorary degrees, ib.; research scholarships, 431; Third M.B. Examination, 431, 693; electors to professorships, ib; appointments, 693; examiners, 1186, 1456; pass lists, 1186, 1583, 1657; allocation of buildings at, 1231; new regulations for third examination for M.B., 1246; examinations for medical and surgical degrees, 1383; reader in chemical physiology, 1450; honorary degrees, ib.
——— of Columbia, the chair of children's diseases in, 1296
——— of Dublin, conferring of degrees at, 60, 432, 1126; the chair of physiology at, 162, pass lists, 1058
——— of Durham, graduation ceremony, 1125; pass lists, 1125, 1186
——— of Edinburgh, number of medical students at, 100; annual report of, 110; examiners, 628; honorary degrees, 693; and the Carnegie trust, ib; chair of bacteriology for, 866; pass lists, 871, 934, 1125; the new chair of public health in, 1365; and the Usher Institute of Public Health, 1496, 1610
——— of Glasgow, pass lists, 934; graduation ceremony, 1125
——— of Göttingen, and women students, 1580
——— Harvard, donation to medical school of, 874; the professorship of dermatology at, 916
——— Johns Hopkins, celebration of twenty-fifty anniversary of foundation of, 735
——— Laval, Quebec, jubilee of, 1249
——— of Leipzig, bequest to, 691
——— of London, gift for scientific apparatus for, 38; pass lists, 60, 432, 491, 1456; meeting of Senate of, 119, 220, 371, 752, 1105, 1245, 1517; research and teaching in advanced physiology in, 213, 282; the election of members of Senate of, 226; meeting of convocation of, 243, 1246; meeting of faculty of medicine of, 306, 1517; Latin at, 349; the matriculation examination of 407, 431, 562, 1358, 1428, 1449, 1512, 1621; preliminary and intermediate teaching at, 492; the physiological laboratories at, 730, 1105, 1307; the Chancellorship of, 978, 1032, 1109; the Senate of and the death of Lord Kimberley, 1109; and University College, 1164; as a teaching institution, 1224; presentation day at, 1234; a mace for, 1296; the M.B. and B.S. examinations of, 1621; and King's College, 1627
——— McGill, the deanship of, 353; medical students at, 1006
——— of Oxford, the medical school of, 911; medical and surgical examinations, 1061; Radcliffe travelling fellowship, 1456; the early universities and medicine at, 1025; pass lists, 1657
——— of Paris, the professorship of therapeutics in the medical faculty of, 236
——— Royal, of Ireland, examiners at, 432; pass lists, 1186, 1246; election to Senate of, 1230; meeting of Senate of, 1313
University of St. Andrews, honorary degrees at, 628
——— of Sydney, the professorship of pathology at, 236
——— Victoria, and the proposed new University for Liverpool, 178; and Yorkshire College, 299; the disruption of, 345, 432, 1495; degree ceremony at, 871; pass lists, ib
——— of Vienna, the professorship of children's diseases in, 309; the professorship of psychiatry at, 343; lectures and students at, 1098
——— of Wales, the Chancellorship of, 173; installation of Prince of Wales as Chancellor of, 1235
——— of Warsaw, students at, 769
Uraemia, morphine in, 864; fatal, after ovariotomy, 1147
Ureters, obstruction of both by renal calculi, total suppression of urine due to, 708, 811
Urethra, "stammering," treatment of, 261; rupture of, with separation of pelvic bones and injury to sacral nerves, 268; prostatic, traumatic rupture of, 394; rupture of, 482
Uric acid, the pathology of, 1660
Urine, an undescribed purple pigment in, 590; a brown pigment in, ib.; total suppression of due to the obstruction of both ureters by renal calculi, 708, 811; suppression of after labour, 716; total suppression of due to acute nephritis, 1144; of low specific gravity, glucose in, 1474
——— incontinence of. *See* Enuresis
——— testing apparatus, 783
Urotropine, pronunciation of, 939
Urticaria, the potato as a source of, 184; acuta, case of, 893; rhubarb and, 1068, 1132; pigmentosa, 1085
Uterus, abdominal hysterectomy for inversion of, 57; superinvolution of and complete obliteration of the vagina following childbirth, 78; spontaneous rupture of, 80; pregnant, death from pressure of on a horseshoe kidney, 142; gravid, extraordinary displacement of, 172; fibromyoma of, 274; fibroids of, 396; pregnant, palpation of, 483; can a fetus cry in the? 540; tuberculosis of the cervix of, 592; myoma of removed by supravaginal hysterectomy, 661; homicidal wounds of, successful Caesarean section, 850; is infection of a cause of mammary abscess? 894; fibroma of, 895; primary tuberculosis of the cervix of simulating cancer, 896; adenoma of, 1146; extirpation of for polypi, ib.; a case of premature senility of, 1205; case of inversion of, 1206; perforation of or catheterism of tube? 1361

V.

Vaccinated or unvaccinated, 746
Vaccination, the rationale of, 102; public, a warning, 120; public, and the franchise, 121; modern methods of and their scientific basis, 144, 269; American public authorities and, 161; correspondence on, 179, 307; aseptic, 245; at the patient's house, 245, 373; at a factory, 245; circulars as to public authorities, ib.; successful, grants for, 246, 493, 679, 810, 1129, 1130, 1249, 1518; "successful" and "efficient," 282; tetanus following, 285; at Emsworth, 307; the red badge of, 349; the Keighley guardians and, 352; compulsory, 359; compulsory in the Philippines, 370; and small-pox, 411, 493; two fatal cases of illness attributed to, 477; compulsory in America, 542, 694; in factories and workshops, 551; public, by an assistant, 562; relapse of, 568, 632, 696; choice of place for, 629; one mark, ib.; the Leicester guardians and, 668; upheld by homoeopathists, 678; of several cases from one tube, 693; State, by private practitioners, 746, 860; by chemists, 753; house-to-house in America, 846; neglect of, 850; the investigation of in the United States, 873; legislation as to in Massachusetts, 936; of syphilities, 939; and antivaccinists in Glasgow, 991; and common sense, 1009; the Institute of Actuaries and, 1111; in New York, 1117; public, information as to, 1129, 1188; in Scotland, 1188, 1314, 1385; efficient, 1248; keloid following, 1265; public, in the Isle of Wight, 1292; and the "Encyclopedia Britannica," 1320; previous, the influence of in cases of small-pox, 1357; and small pox at Montreal, 1360
——— Act, 1898. *See* Act
——— administration, 115, 176, 359
——— boom, the, 373
——— case, a, 783
——— creed, 230
——— instruments, 1343, 1457

Vaccination literature, 1040
——— order in Quebec, 309
——— shield, an aluminium, 723
——— system, the reform of, 119
Vaccinator, an aseptic, 1217
Vaccinators under contract, instructions to, 245
Vaccine, sale of by chemists, 618
——— fever, cause of variations in, 1031
Vaccinia, etiology of, 393; generalized, a case of, 509, 1002
Vagina, complete obliteration of with super-involution of the uterus following childbirth, 78; recurrent papilloma of, 274; atresia of, 1252
Vagus abscess in the neck with signs of irritation of, 207
Vale, F. P., Histology and Pathology, a Manual for Students and Practitioners, *rev.*, 339
Vanderstraaten, V. C. J., the lay press and the medical profession, 305
Van Goorkoom, W. J., Over Malaria en Muckieten, *rev.*, 842
Van Ijzeren, the causation of gastric ulcer, 159
Varicella, or variola? 926; the incubation stage of, 1537
Variola or varicella? 926
Variot, M. G., milk dispensaries in Paris, 853
Varis, S. M., Digest of Human Physiology, *rev.*, 1479
Vasomotor disturbances (functional), practical treatment of, 969
Vascular system, state of the after death by asphyxia and by cardiac failure, 832
Vecki, V. G., The Pathology and Treatment of Sexual Impotence, *rev.*, 340
Vegetable diet, therapeutic value of, 1311
Vegetarian, the stages of a, 1559
Vein, portal, treatment of wound of, 41
Veins, retinal, the relation of glaucoma to thrombosis of, 132; of head, enlargement of, 1088
Veld sore, the pathological characters of, 966
——— sores, observations on, 1264
Velpeau and the triumph of work, 1444
Venereal disease, the prophylaxis of in France, 164; in New York, 298, 913; among the troops in the Philippines, 933
Venice, sanitation in in the fifteenth century, 792
Ventilation of schools, 629
Verdict, a, on Christian science, 740
Vermiform appendix. *See* Appendix
Verneau, on the human remains found in the grottoes at Mentone, 1170
Vertebrae and humerus, disease of, 394
Verworn, M., Allgemeine Physiologie, *rev.*, 338; Das Neuron in Anatomie und Physiologie, *rev.*, 462
Vesey, T. A., pernicious anaemia, 298
Vibration on the Central London Railway, 478
Vicars, F., case of fetid bronchorrhoea treated by prolonged oxygen inhalation, 509
Victoria, treatment of inebriety in, 629
Victoria Cross, award of, 430, 1226, 1244
Vienna, the light treatment in, 153, 754; courses in ophthalmology in, 1192; proposed History of Medicine Club at, 1658
Villi, chorionic, intrauterine death from superatrophy of, 390
Vincent, G.A., observations of human filariasis in Trinidad, W.I., 189
——— R., lymphangitis mammae, 1214
Vincent's angina, 1085
Vinrace, D., The War against Consumption, *rev.*, 781
Violets and cancer, 55
Virchow, Professor, accident to, 104, 168; the health of, 226, 352, 360, 414, 543, 795, 1231, 1296, 1563
Virus, regulation of sale of, 1228
Viscera, case of transposition of, 352, 1008; certain solid of the human body, a new method of extracting tetanus toxin from, 965
Visits to patients already under medical care, 305
Vivisection, the regulation of in the United States, 434; legislation as to in Norway, 600; Dr. Russell of Brooklyn and, 734
Volkmann's contraction, 1052
Volunteer Infantry Brigades, promotions and appointments in medical staff of, 870, 932, 1313; bearer companies in, 1001, 1059, 1123, 1313, 1456, 1516, 1624
——— Medical Staff Corps, promotions and appointments in, 60, 178, 242, 368; the new titles of, 471, 496, 559, 691, 747, 751; the War Office and, 1001
——— Rifles, promotions and appointments in medical staff of, 690, 750, 870, 933, 1000, 1059, 1123, 1244, 1313, 1382, 1450, 1516, 1624
Volunteer Royal Engineers, promotions and appointments in medical staff of, 690, 750, 870, 1000, 1313, 1510
——— Royal Garrison Artillery, promotions and appointments in medical staff of, 690, 870, 1000, 1059, 1184, 1244, 1313, 1382, 1456, 1585
Volunteers, promotions and appointments in medical service of, 59, 118, 177, 242, 305, 368, 430, 491, 561, 626; the organization of the medical service of, 241, 304, 366; the new titles of the medical service of, 471, 450, 691, 747, 751
Volvulus of caecum, 1508

W.

Wage-limit, the, in club practice, 1374
Waldheim, M. v., Die Serum—Bakterientoxin—und Organ-präparate, *rev.*, 596
Waldo, H., multiple warts, 695; apoplexy, with hemiplegia, hemianaesthesia, and hemianopia, 1027; case in which hemiplegia was the chief symptom, 1335
Wales, intermediate schools of, 1252
Walker, A., rodent ulcer treated by *x*-rays, 1148
——— H. J., atresia vaginae, 1252
——— J. C., the pathology of uric acid, 1660
——— J. S., *x*-ray burns, 695
——— Dr. W. L. W., memorial to, 937
Wallace, Hoskin v., 369
——— A., Caesarean section, 967
——— C. E., the treatment of haemophilia by calcium chloride, 1141
——— C. S., the direct introduction of purgatives into the intestine during operations for septic peritonitis, 432; the treatment and morbid anatomy of enlarged prostate, 764
——— R. W., presentation to, 1458
Wallis, E. W., health in schools, 999
——— F. C., compound fracture of the tibia, the superjacent tissues being infiltrated with suppurating gummata, 272; treatment of intraperitoneal abscess of the appendix, 455
Walls, W. K., fibroma uteri, 895
Walsh, D., death from pressure of a pregnant uterus on a horseshoe kidney, 142; monili form hairs associated with alopecia areata, 812, 883
Walter, W., fibromyoma of uterus, 274; recurrent papilloma of vagina, ib.; adenoma of uterus, 1146
Walters, A. R., statistics of the Duxhurst Industrial Farm Colony, 160
Wandsworth, medical aid in, 1484
War, Franco-Prussian, a nameless medical hero of the, 539; the treatment of wounds in, 624; in South Africa, voluntary medical aid during, 1358
——— Office, the and army sanitation, 665; and the volunteer medical service, 1001; the Director General and the council of, 1382
Warfare, the difficulties of preventing enteric fever in, 643
Ward, H. S., Practical Radiography, *rev.*, 401
Warden, A. A., the treatment of appendicitis, 427
Waring, H. J., a new method of extracting tetanus toxin from certain solid viscera of the human body, 965; lipoma of median nerve, 1538
Warning, a, 496, 811, 1252
Warrant, the new army medical, 787, 813, 855, 933, 992, 1002, 1060, 1123, 1244
Warrington, W. B., developmental faults in spinal cord, cerebellum, and pons, 1149
Warts, multiple, 695; venereal, 756
Warwickshire, the county council of and compulsory vaccination, 359
Washbourn, J. W., asylum dysentery, 397; death of, 1027
Washington, Mr. Carnegie and the endowment of research in, 286; a proposed psychophysical laboratory at, 1420
Waste paper, basket for the, 695
Water of public swimming baths, bacterial investigations of, 897
——— divining and its consequences, 793
——— supply (drinking) of troops in the field, 867
Watkins-Pitchford, W., pancreatic tumour, 1087
Watson, Inspector-General A., obituary notice of, 1127
——— C., the treatment of deafness of middle-ear origin, 699, 999; Encyclopaedia Medica, *rev.*, 970
——— C. G., South African civil surgeons, 931
——— E. J. M., cases illustrating the aid of the Roentgen rays in the diagnosis of thoracic tumours, 633
——— T. A., case of harelip with cleft nose, 1083
Watson, Captain T. E., the seton in migraine, 961
Watt, Surgeon J. G., traumatic emphysema of the eyelids, 653
——— T. M., the constitution of the British Medical Association, 1452
Wearne, W., difficulties under the Vaccination Act, 617
Weaver, J. J., the "fourth disease," 364
Webber, Major-General C. E., on electrical shock, 598
Weber, F. P., infantile form of articular rheumatism, with chronic enlargement of the spleen, liver, and lymphatic glands, 966; malignant endocarditis, 1028
Weeks, C. C., the emancipation of the general practitioner, 237
Weight charts, 783
Weil, the theory of neuron retraction, 341
Weller, C. J., mistletoe on oak trees, 568
Wertheim, movable spleen, 350
Wesley, John, a medical tract by, 799
West Africa, dispatches from, 1050
——— African Colonies, formation of medical staff for, 343, 347; the medical services for, 869
——— Australia, contract practice in, 49
——— Indies, commission to study volcanic eruptions in, 136
Westcott, Surgeon W. G., tetanic convulsions in malaria, 625
Weymouth, the prevention of consumption at, 418
What's What, *rev.*, 27 (184); correspondence on, 428, 484, 465
White, A. H., case of continued fever due to the bacillus enteritidis of Gaertner, 1270
——— C. P., the use of the term "blastoma," 1514
——— E., Pharmacopoeia, *rev.*, 596
——— F., double temporal disease from suppurative otitis, 772
——— H., mumps in mother and infant, 1537
——— S., gastric ulcer, 500; relapsing appendicitis, ib.; talipes varus, ib.; carcinoma of rectum, 968
——— Dr. T., death of, 429
——— W. H., Textbook of Pharmacology and Therapeutics, *rev.*, 594; malignant endocarditis with Widal's reaction, 715; lumbar colotomy for colitis, 1337
Whitehead, A. L., influence of nasal and naso-pharyngeal obstruction on the development of the teeth and palate, 949
——— W., cases of lymphangiectasis with enormous growth of cutaneous and subcutaneous structures, 757; on elephantiasis, 1115; the "open" method of treating exceptional cases of septic arthritis of the knee, 1523
Whitelocke, A., case of naevus pigmentosus et verrucosus, 1027
Whitla, W., A Dictionary of Treatment, *rev.*, 595
Whitman, R., A Treatise on Orthopaedic Surgery, *rev.*, 782
Widal's reaction, malignant endocarditis with, 715; in a case with uric acid calculus, 1401
Wilkins, Colonel J. S., instruction in elementary hygiene in concentration camps, 1311
Wilkinson, W. C., tuberculin as a remedy in tuberculosis of the lungs, 1389
Wilks, Sir S., life insurance and medical fees, 52
Williams, Mr. F. E., obituary notice of, 181
——— F. H., The Roentgen Rays in Medicine and Surgery, *rev.*, 460
——— J. R., relapse of vaccination, 626
——— Mary H., notes on cerebro spinal meningitis, 138
——— P. W., Diseases of the Upper Respiratory Tract, *rev.*, 300
——— Fleet-Surgeon T. E. S., on recruiting, 624
——— W. R., oöphorectomy in cancer of the breast, 111; cancer among Jews, 747
Williamson, J. R., Kernig's phenomenon, 1025
——— O. K., a case of fatal anaemia presenting some unusual blood changes, 1150
Willis, J. D., the club system, 980
Willoughby, E., Hygiene for Students, *rev.*, 1241
Wilson, A. C., gall stones with chronic intestinal obstruction, 335
——— Lieutenant-Colonel C. R., surgical notes of an old gunshot wound of the head, 143
——— D., jun., antistreptococcus serum in puerperal fever, 1207
——— G. F., the prevention of enteric fever in armies, 426
——— J., an aseptic vaccinator, 1217
——— R. H., cirrhosis of the liver in a cat, 876
——— S. W., the Royal College of Surgeons in Ireland, 57, 116, 240, 560
Winchester, the prevention of consumption at, 582
Windpipe, foreign bodies in the, 1400

Windscheid, F., Pathologie und Therapie der Erkrankungen des peripherischen Nervensystems, *rev.*, 463
Windsor Castle, sanitary improvements at, 226
Wines, sugarless table, 597
Wingate, Dr. D., death of, 370
Wise, A. T. T., the origin of the modern treatment of pulmonary consumption, 447
Witnesses, medical, in court, 431; medical men as, 1490, 1494, 1622
Wolf, C. G. Z., A Laboratory Handbook of Urine Analysis and Physiological Chemistry, *rev.*, 1403
Women, are they a failure as doctors? 287; as surgeons, 671; public work for, 1006; medical, in Canada, 1061
Wood, Miss C. J., the registration of nurses, 621
——— F., Sanitary Engineering, a Practical Manual of Town Drainage and Sewage and Refuse Disposal, *rev.*, 1342
——— Dr. F. C., presentation to, 1490
——— H. C., Therapeutics, its Principles and Practice, *rev.*, 595
——— H. C., jun., Therapeutics, its Principles and Practice, *rev.*, 595
——— Dr. J., celebrates his 101st birthday, 314
——— Colonel O. G., sterilization of enteric excreta, 115; death of, 118; obituary notice of, 179
Woodhead, G. S., modern methods of vaccination, 144
Woodman, T., suprapubic lithotomy, 1375
Woodyatt, J. F., arsenical beer poisoning at the Halifax Union Poor-law Hospital, 1400
Worcestershire, the prevention of tuberculosis in, 679
Workhouses, nursing in infirmaries of, 672; sane epileptics in, 1498; reports on inmates of, 1518
Workmen, sick, employers and, 177
Wound, of portal vein, treatment of, 41; perforating, of stomach, laparotomy for, 1266
Wounds, the dusting of in action with antiseptic powders, 56; in war, the treatment of, 624; poisoned, treatment of, 811; homicidal, of uterus, successful Caesarean section, 830
Wright, A. E., results of antityphoid inoculation in the 5th Battalion, Manchester Regiment, in South Africa, 866
——— C. J., some new gynaecological instruments, 208
——— G. A., a National Hospital Fund, 1452
——— J., profitable fruit growing for cottagers and small holders of land, 412
Wrist, right, excision of for tuberculous disease by a posterior median incision, 1085
Wry-neck, treatment of by the open operation, 19
Wykesmith, Mr. W., obituary notice of, 428
Wynter, E. W., congenital spinal degeneration with symmetrical arthropathy, 272; chronic oedema, 394; congenital absence of nose and anterior nares, 1085

X.

X rays. *See* Roentgen

Y.

Y. Fund. *See* Fund
Yarmouth (Norfolk). *See* Great Yarmouth
Yearbook of Pharmacy for 1901, *rev.*, 596
Yellow fever. *See* Fever
Yeo, I. B., the nature and treatment of obesity, 272
Yeomanry, Imperial, promotions and appointments in medical service of, 59, 118, 242, 305, 368, 430, 491, 561, 626, 690, 750, 870, 932, 1000, 1059, 1123, 1183, 1244, 1456, 1516, 1624; invaliding in the, 668; in South Africa, 690, 1183, 1244, 1456, 1624
Yonge, E.S., the treatment of Asch's operation of deviations of the nasal septum, 948
Young, A., a plea for the adoption of a more accurate and scientific method in the investigation and treatment of lateral curvature of the spine with description of a simple form of gauge, 1332
——— A. H., Studies in Anatomy from the Anatomical Department of Owens College, Manchester, *rev.*, 1277
——— E. P., small-pox and chicken-pox, 124
——— Martin, angioma of globe, 660
——— Dr. Meredith, recognition of services of, 120; small-pox conveyed by raw cotton, 687
——— T. E., On Centenarians and the Duration of the Human Race, *rev.*, 1090
——— T. M., on leprosy, 1476
——— W. McG., advantages of a bag pervious to air in ether-giving, 398
Younge, Lieutenant-Colonel G. H., sterilization of enteric excreta, 176
Ystalyfera, small-pox at, 174, 279

Z.

Zeller, G. A., therapeutic skin sketching, 645
Ziemssen, Professor v., death of, 226
Zink, C. H., on cancer, 837
"Zoster," origin of in herpes zoster, 930

INDEX TO THE EPITOME FOR VOLUME I FOR 1902.

The Figures in this Index refer to the Number of the Paragraph NOT the Page.

A.

Abadie, iodo-ether in exophthalmic goitre, 349
Abdomen, recurrent fibro-sarcoma of wall of, 327
Abdominal cavity, foreign bodies accidentally left in the, 358
——— surgery, the importance of testing the functional capacity of the kidneys in, 6
——— wound. *See* Wound
Abel, the behaviour of epinephrin to Fehling's solution and other characteristics of this substance, 34
Abortion, treatment of, 232; placenta retained ten weeks, no sepsis, 247
Abortions, repeated, treatment of, 72
Abscess, stitch, prevention of, 86; of uterus, 191; hepatic, interlobar empyema consecutive to, 226; rhinogenous frontal, 320
Abscesses, appendicular, leucocytosis in the diagnosis of, 339
Acetanilid, poisoning by, 77
Acromegaly, without hypophyseal enlargement, 45; treatment of with pituitary bodies, 207
Adeno-carcinoma, primary, of Fallopian tube, 8
Adrenal remains, ovarian tumour arising in, 71
Adrenalin in intestinal haemorrhage of typhoid fever, 330
Agglutination, experiments on, 16
Agurin, 398
Ahrens, fetal inclusion in ascending mesocolon, 205
Air, entry of into the veins of the puerperal uterus, 160
Albarran, perineal prostatectomy, 4
Albert, ephemeral mania or transitory insanity, 371
Alberto, hepatic asystoly in heart disease, 239
Alboferin, 266
Albumen, preparations of, 315
Albuminuria, cyclical, 63; emulsion, 81
Alcohol in tuberculosis, 346; disinfection of hands with, 355
Alessandrini, transplantation of tendons in paralytic deformities, 305
Allaria, acute articular rheumatism of contagious nature, 17
Allan, treatment of cutaneous epitheliomata, 163
Alopecia areata, treatment of by *x* rays, 130
Alterthum, tuberculosis of the cervix uteri, 192
Amann, inversion of uterus and cervix from fibroid, 394
Amberg, amoebic dysentery in children, 211
Ammonia-ichthyol in skin diseases, 13
Amputation, precarpal, 244
Anaemia, severe, gastro-intestinal origin of, 100; enteritis with, caused by uncinaria duodenalis, 222
Anaesthesia, manual reduction of luxation without, 410
Anaesthesin, 422
Analgesia, tropococaine, 179; spinal with tropococaine, 294
Anatomy, pathological, of paralysis agitans, 183
Aneurysm, the gelatine treatment of, 363; of the arch of the aorta, direct surgical intervention in, 372
Aneurysms, aortic, the pupillary chances in, 48
Angioma and cancer, 334
Animal organism, the occurrence of arsenic in the, 256
Ankylosis of the patella, magnesium foil in the treatment of, 275
"Anopheles" in a region from which malaria has disappeared, 31
Antityphoid extract, Jez's, 108
Anus, and rectum, implantation of transverse colon into, 200; vestibularis congenital, 204; vestibularis congenital, delivery, 328
Aorta, abdominal, ligature of, 242; direct surgical intervention in aneurysm of the arch of, 372
Appelbaum, examination of the blood in phthisis, 135
Appendicitis, treatment of, 21; lead colic and, 136; and neurosis, 240; the blood in, 366
Approximation, intestinal, mechanical *v.* suture methods of, 157
Arloing, the inoculability of herbivora by human tuberculosis, 43; the influence of medicine on the diphtheria bacillus and its toxin, 167
Arrhenal, therapeutic uses of, 264
Arsenic, the occurrence of in the animal organism, 256
Arterial tension, potassium nitrate and nitrite, in chronic increase of, 421
Arteries, carotid, ligature of for malignant growths, 156; suture of, 288; the properties of walls of, 370
Artery, superior mesenteric, ileus from embolism of, 50
Aspirin in children's diseases, 42
Asthma, treatment of, 317; bronchial, the pathogenesis of, 423
Asystoly, hepatic, in heart disease, 239
Atelectasis pulmonis, 239
Atmokausis, castration by, 237
Atoxyl, 381
Atresia vaginae, removal of ovaries for, 87

B.

Babinski, the pupillary changes in aortic aneurysms, 48
Bacilli, virulent diphtheria, in simple rhinitis, 350; of tubercle, the value of the microscopic demonstration of, 382
Bacillus, the typhoid, intracellular constituents of, 79; of diphtheria and its toxin, influence of mucidine on, 167
Backman, intestinal putrefaction, 275
Bacteria, the pathology of, 15
Bacteriological investigations on syphilis, 300
Bacteriology of normal lungs, 44; of dysentery, 150; of the venereal soft sore, 383
Bacterium coli, hypopyon keratitis due to, 300
Bacteriuria, typhoid, urotropin in, 370
Balneotherapy in skin diseases, 120
Balzer, oil of cade baths in psoriasis, 76
Bandaging the lower limbs in the treatment of cardiac oedema, 331
Bang, the light treatment, 27
Banti's disease. *See* Disease
Bar, pseudo-cornual pregnancy, diagnostic difficulties, 344
Bardeleben, v., congenital anus, vestibularis, delivery, 328
Bath, cold, treatment of febrile delirium tremens by, 94
Baths, hot, in the treatment of meningitis, 252
Batsère, tuberculous ulcer of the stomach, 153
Battez, gonorrhoeal pelvi-peritonitis in the male, 214
Baumgart, vesicular mole and bilateral ovarian cyst, 88
Bayliss, the causation of the so-called "peripheral reflex secretion" of the pancreas, 111
Bendix, unequal growth of twins, 15
Benedict, jaundice in pregnancy, 34

Copies of the Index to the Epitome, with Title-page, for binding in separate form can be had on application to the Office, 429, Strand, W.C.

Bensen, sulphuretted hydrogen in rheumatic heart disease, 265
Berger, inguino-interstitial hernia, 101
Bernard, lead colic and appendicitis, 136
Berndt, extirpation of long bones in osteomyelitis, 387
Besson, pseudo-epilepsy and pseudo-appendicitis, 47
Bial, diagnosis of pentosuria, 408
Bickel, the relations between the freezing point of blood and nervous disturbances, 14
Bicycle, the, in its relation to medicine, 32
Bidder, abortive treatment of boils, 419
Biedert, treatment of appendicitis, 21
Biggs, tuberculin test in tuberculosis of the bones and joints, 197
Binet, treatment of phthisis, 278
Binzel, hernia into the fossa duodeno-jejunalis, 340
Birth, laceration of child's perineum at, 277
Bismutose, 180
Bial, the diazo-reaction in pulmonary tuberculosis 65
Bladder, operative treatment of ectopia of, 245; diabetes insipidus and paralysis of the, 336
Blanc, the anaemic form of gastric carcinoma, 354
Blavot, treatment of meningitis by hot baths and lumbar puncture, 252
Blood, the relations between the freezing point of and nervous disturbances, 14; forensic importance of the freezing point of in death from drowning, 78; examination of the in phthisis, 135; the in variola, 182; drawn, glycolysis in, 299; the in appendicitis, 366
—— pressure, high in renal disease, treatment of, 58
Blue light. *See* Light
Bodies, intracellular. *See* Intracellular
Boils, abortive treatment of, 419
Boissard, small-pox and pregnancy, 144
Bones, tuberculin test in tuberculosis of 197; long, extirpation of in osteomyelitis, 387
Boni, bacteriology of normal lungs, 44
Borzeky, ileus from embolism of the superior mesenteric artery, 50
Bose, diseases of sporozoic origin, 209
Bouchacourt, the placenta in therapeutics, 146
Boulud, destruction by the pancreas of a substance which hinders glycolysis, 64
Boursier, exophthalmic goitre, yielding of abdominal wound after hysterectomy, 375
Bouveret, bilocular stomach with extreme tension of the cardiac pouch, 337
Bowel, condition of the proximal segment of in intestinal stenosis 357
Brain, tumours of localized by means of the Roentgen rays, 171; changes in in a fatal case of concussion, 403
Brat, glucon, 127
Braunschweig, combined empyema of the cavities of the face, 5
Breitenfeld, complete absence of uterus and vagina, functional urethra, 289
Brewers' yeast, the use of in therapeutics, 2
Brin, grafting the divided ureter, 67
Brion, paratyphoid infection, 404
Bristow, ligature of the carotid arteries for malignant growths, 156
Bromeigon, 194
Bronchitis, chronic, affections of the lymphatic channels of the lungs in, 267
Brouha, the action of the serum of cancer patients on yeasts, 223
Brown, poisoning by acetanilid, 77
Bruce, a new trypanosoma, 237; operative treatment of typhoid perforation, 412
Brunsgaard, acute dermatitis exfoliativa, 322
Brunton, potassium nitrate and nitrite in chronic increase of arterial tension, 421
Budin, localized oedema in puerperal infection, 1
Bull, microcephaly, 227
Bullet wounds, modern, 47
Burzi, injections of perchloride of mercury in [illegible] fever
Buttermilk as an infant's food, 206

Cackovic, jejunostomy and duodenostomy,
Caesarean section and symphysiotomy,
Cancer. *See* Carcinoma
Cappelletti, chloretone, 128
Carbolic acid, stricture of vagina from, 290
Carbon monoxide poisoning and its nervous sequelae, 295
Carbonate of creosote in pneumonia, 12
Carcinoma, etiological theories of, 30; a symptom of, 46; of the skin, structure, growth, and histogenesis of, 60; the pathology of, 149; primary, of the Fallopian tube, 162; micrococci in, 184; primary, of vagina, 203; action of the serum of patients suffering from on yeasts, 223; oesophageal, lingual varices in, 241; the cause of, 253; the use of the *x* ray in, 274; the parasitic bodies in, 281; primary, of vagina, 293; etiology of, 333; angioma and, 334; gastric, the anaemic form of, 354; of stomach, etc., and secondary cancer of ovaries, 376
Cardiac. *See* Heart
Carle, the treatment of chronic blenorrhagic prostatitis, 35
Carrara, forensic importance of the freezing point of blood in death from drowning, 78
Carter, treatment of high blood pressure in renal disease, 58
Caspar, the importance of testing the functional capacities of the kidneys in abdominal surgery, 6
"Castration" by atmokausis, 233
Cavities of the face, combined empyema of, 5
Cells, transformation of, 400
Cellulitis, pelvic, after labour, 325
Centenarian, retained pessary in a, 378
Cerebellum, surgery of the, 119
Cerebro-spinal cavity, injection of antitetanus serum into, 74
—— fluid, in meningitis, 114; character of in mental diseases, 186
Cerny, the occurrence of arsenic in the animal organism, 256
Chambrelent, diabetes in pregnancy, large fetus, 123
Champetier de Ribes, intestinal obstruction in labour, fatal perforation, 264
Chancre, primary, treatment of, 75
Child, laceration of perineum of at birth, 277; ovarian tumour in a, 414
Childbed, sudden death in, 175
Childhood, experimental researches on tuberculosis in, 132
Children, aspirin in diseases of, 42; influence of formic aldehyde on the metabolism of, 61; of alcoholic parents, tuberculosis in, 83; amoebic dysentery in, 211
Chloretone, 128
Cholangitis and experimental cholecystitis, 133
Cholycystitis, experimental, and cholangitis, 133
Cholecystotomy, ideal, and ovariotomy, 248
Cholelithiasis, silver nitrate in, 395
Chorea, treatment of by lumbar puncture, 59; serumtherapy in, 147; gravidarum, 246
Christer-Nilsson, heart disease in pregnancy, labour, and the puerperium, 392
Chyluria, nocturnal, in pregnancy, 301
Clark, natural method of draining the peritoneal cavity, 137
Claudication, intermittent, 369
Clausse, codeine in states of melancholia, 397
Clopat, quadruplets, 415
Club-foot, treatment of, 228
Codeine in states of melancholia, 397
Coe, ureteral surgery, 356
Coelioscopy, 152
Coleman, adrenalin in intestinal haemorrhage in typhoid fever, 330
Colic, lead, and appendicitis, 136
Collins, treatment of syphilis of the nervous system, 380
Collon, iodo-ether in exophthalmic goitre, 340
Colon, transverse, implantation of into rectum and anus, 200
Colpo-hysterectomy, anterior, treatment of uterine inversion by, 7
Coma, diabetic, urotropin in, 270
Concussion, fatal, changes in the brain in, 403
Condamin, the vomiting of pregnancy, 121; ovarian pregnancy, 202; new growth in the uterine stump after subtotal hysterectomy,
Contraction, hysterical, of the gravid uterus,
Contusion, lesions of the stomach due to, 284
Corns, treatment of, 173
Corpus callosum, diagnosis of tumours of, 225
Cramer, ovulation albuminuria, 81
Croftan, causes and treatment of diabetes mellitus, 119
Crurin in gonorrhoea, 121
Cryoscopy of hydrocele fluid, 97
Curette, treatment of cystitis by, 36
Curschmann, leucocytosis in the diagnosis of appendicular abscesses, 130
Curtis, immunization in hay fever, 234
Cuthbertson, hydrastis canadensis in goitre, 263
Cyst, bilateral ovarian, 88; of pancreas, 201
Cystitis, treatment of by the curette, 36
Cystoscopy, suprapubic, 172
Cysts, secondary hydatid, of the peritoneum, 158; echinococcus, of uterus, 326

D.

Dabout, meningeal forms of typhoid fever, 321
Da Costa, jun., the blood in appendicitis, 366
Dairy produce, hygiene of, 196
Dalmasso, the passage of pathogenic germs and their toxins through the broken skin, 96
D'Ancona, injection of antitetanus serum into the cerebro-spinal cavity, 74
Dangers, possible, in the use of lysol, 396
Daniel, intestinal obstruction in labour, fatal perforation, 261
Death, from drowning, forensic importance of the freezing point of blood in, 78; sudden, in childbed, 175
Deciduoma malignum, primary, of labium and vagina, 105
Decortication of the lung, pneumectomy, 84
Deformities, paralytic, transplantation of tendons in, 305
Degeneration, granular, of the erythrocyte, 113
Delagenière, surgical pneumothorax, 140
Delirium tremens, febrile, by the cold bath, 94
Delivery, in congenital anus vestibularis, 328
De Luca, treatment of asthma, 317; the pathogenesis of bronchial asthma, 423
Demelin, hysterectomy for infection from putrid fetus, 177
Denucé, "pulled elbow," 229
Depage, gastrostomy, 306
De Quervain, implantation of the transverse colon into rectum and anus, 200
De Renzi, medicinal treatment of tuberculosis, 417
Dermatalgic crises, epilepsy with, 212
Dermatitis exfoliativa, acute, 322
Dextrocardia, congenital, 405
Diabetes, insipidus, due to syphilis, 20; discussion on at the Pathological Society of Philadelphia, 95; insipidus and mellitus, the relation between, 116; in pregnancy, large fetus, 123; with pancreatic lesions, 269; mellitus, degeneration of the islands of Langerhans of the pancreas in, 300; mellitus, causes and treatment of, 310; insipidus and paralysis of the bladder, 336
Diazo-reaction, the, in pulmonary tuberculosis, 65
Diet, vegetable, therapeutic value of, 314
Dieudonné, experimental researches on tuberculosis in childhood, 132
Dilution experiments in diagnosing renal function, 353
Dimetroff, orthoform in secondary syphilis, 348
Dionin, clinical uses of, 230
Dionisio, the light cure in ozaena, 207
Diphtheria, phrenic paralysis following, 115; prophylactic treatment of, 332
Dirner, painful conditions mistaken for tubal pregnancy,
Disease, Banti's, note on, 210
Disinfectant for the hands, formalin as a, 213
Disinfection, against mosquitos with formaldehyde and sulphur dioxide, 40; of hands with alcohol, 355
"Dislocation" of goitre, 230
Disodic methyl arsenite. *See* Arrhenal
Diverticulum, Meckel's and patulous urachus, 130; volvulus of and hernia, 190
Dog bite, conjunctival tuberculosis following, 224
Doléris, latent haemorrhage in pregnancy, 270
Dor, nucleinate of iron, 420
Dosage, toxic, in the treatment of some nervous diseases, 181
Doyen, micrococci in cancer, 184
Drainage, uterine, extrauterine pregnancy after treatment for sterility by, 345
Draining the peritoneal cavity, natural method of, 137
Dreier, placenta praevia, 70
Drowning, forensic importance of the freezing point of blood in death from, 78
Drugs which produce tissue waste, 280
Dry joint, the versus glycerinated virus in vaccination, 198
Dubois, the character of the cerebro-spinal fluid in mental diseases, 186

Duodenostomy and jejunostomy, 155
Duplant, interlobar empyema consecutive to hepatic abscess, 226
Dupuy, treatment of lupus by potassium permanganate, 218
Durand, the use of brewers' yeast in therapeutics, 235
Durlacher, decapitated fetus and rupture of uterus, 73
Duval, the etiology of acute dysentery, 254
Dysentery, the sequelae of, 99; the bacteriology of, 150; amoebic, in children, 211; acute, the etiology of, 254
Dystocia, from dropsical foetus, 122; in stricture of vagina from carbolic acid, 290
Dzierjgowski, inherited immunity, 208

E.

Ectopia vesicae, operative treatment of, 245
Eczema, gastric disorders and, 18
Edel, cyclical albuminuria, 63
Edsall, general metabolism of diabetes, 95
Effusion, the tuberculin reaction in convalescents from pleurisy with, 335
Ehret, experimental cholecystitis and cholangitis, 133
Ehrlich, silver nitrate in cholelithiasis, 395
Elbow "pulled," 229
Electric currents, high-frequency, treatment of haemorrhoids by, 341
Electrolysis, treatment of urethral stricture by, 389
Elis, heart disease in pregnancy, labour, and the puerperium, 391
Embolism of the superior mesenteric artery, ileus from, 50; puerperal, 53
Embolus, pulmonary, after surgical operations, 286
Emmet, racemose sarcoma of cervix uteri, 292
Emphysema, subcutaneous, produced by labour pains, 24
Empyema, combined, of the cavities of the face, 5; interlobar, consecutive to hepatic abscess, 226
Encephalitis, acute haemorrhagic, the etiology of, 98
Enderlen, use of omentum to repair gall bladder, 51
Endocarditis, acute or infective, the nature and diagnosis of, 270
Enteritis with anaemia caused by uncinaria duodenalis, 222
Epilepsy with dermatalgic crises, 212
Epinephrin, the behaviour of to Fehling's solution and other characteristics of this substance, 34
Epistaxis, recurrent, with multiple teleangiectasis of skin, 62
Epitheliomata, cutaneous, the treatment of, 163
Erythrocyte, granular degeneration of the, 113
Etiology, of acute haemorrhagic encephalitis, 98; of tabes dorsalis, 117; of acute dysentery, 254; of cancer, 333; of acute haemorrhagic pancreatitis, 368
Exostosis, pelvic, face presentation, facial paralysis, 38
Expectoration, albuminous, following thoracocentesis, 283

F.

Face, combined empyema of the cavities of the, 5
—— presentation, facial paralysis, 38
Fallopian tube. *See* Tube
Falvis, bilateral sympathectomy for glaucoma, 411
Farreras, serumtherapy in chorea, 147
Fedorn, treatment of the primary chancre, 75
Feeding of infants, curdled milk in, 57
Fehling's solution, the behaviour of epinephrin to, 34
Feldmann, osteomalacia and sarcoma, 342
Fenger, is tuberculous peritonitis to be treated surgically? 102
Fenomenoff, retained pessary in a centenarian, 378
Féré, epilepsy with dermatalgic crises, 212
Ferraris, neuritis of tuberculous origin, 82
Fetal inclusion in ascending mesocolon, 205
Fetus, decapitated, and rupture of uterus, 73; dropsical, dystocia from, 122; large, in diabetes in pregnancy, 123; putrid, hysterectomy for infection from, 177; hydrocephalus, in rupture of uterus, 249; papyraceus and twin pregnancy, 260; dropsical, 416
Fever in the puerperium, lumbricus and, 105
—— enteric, sudden onset of, 3; in the tropics and its treatment by quinine, 316; meningeal forms of, 321; adrenalin in intestinal haemorrhage in, 330; and acute rheumatism, coexistence of, 352; pain in the toes during convalescence from, 386; operative treatment of perforation in, 412
—— hay, immunization in, 234
—— malarial, light as a factor in the etiology of, 187
—— puerperal, injections of perchloride of mercury in, 361
Fibroid, inversion of uterus and cervix from, 364
Fibrosarcoma, recurrent, of abdominal wall, 327
Fielder, the dry point versus glycerinated virus in vaccination, 198
Fissure, anal, treatment of, 171
Fistula, entero-vaginal (sigmoid flexure), 217; tubo-ovarian, 325
Flexner, pathology of diabetes, 95; snake poisons, 282
Flockemann, oöphorin tablets for artificial menopause, 142
Fontan, suture of wound of the heart, 23
Food, infant's, buttermilk as, 206
Foreign bodies accidentally left in the abdominal cavity, 358
—— body in the stomach, 69
Formaldehyde, disinfection against mosquitos with, 40
Formalin as a disinfectant for the hands, 213
Formic aldehyde, influence of upon the metabolism of children, 61
Fornaca, bandaging the lower limbs in the treatment of cardiac oedema, 331
Fossa, duodeno-jejunalis hernia into the, 340
Fractures, the treatment of, 324
Franck, hetol in phthisis, 110
Frank, mechanical versus suture methods of intestinal approximation, 157
Franque, v., metritis dissecans, abscess of uterus, 191
Frazier, tuberculin test in tuberculosis of the bones and joints, 107; division of the sensory root of the trigeminus, 307
Frederick, simultaneous rupture of double tubal pregnancy, 125; Meckel's diverticulum and patulous urachus, 139; entero-vaginal fistula (sigmoid flexure), 217
Freeland, treatment of corns, 173
Freezing point of blood and nervous disturbances, the relations between, 14; in death from drowning, forensic importance of, 78
Frucht, Soxhlet's nutrient sugar, 109
Fuchs, alboferin, 266; urotropin in typhoid bacteriuria, 379
Fürst, puro, 104
Fundus, changes in the in general diseases, 185

G.

Gabritschewsky, prophylactic treatment of diphtheria, 332
Gall bladder, use of omentum to repair, 51
Gangrene, puerperal, 25
Gastric. *See* Stomach
Gastro-enterostomy, repeated, 287
Gastro-intestinal origin of severe anaemia, 100
Gastrostomy, case of, 306
Gautier, therapeutic uses of arrhenal or disodic methyl arsenite, 264
Gayet, treatment of uterine inversion by anterior colpo-hysterectomy, 7
Gelatine, subcutaneous injection of for haemoptysis, 56; injections of in melaena neonatorum, 111; treatment of aneurysm with, 303
Genu recurvatum, cases of, 388
Germs, pathogenic and their toxins, passage of through the broken skin, 96
Gestation, ectopic, pregnancy in uterus bicornis taken for, 201
Gladstone, operative treatment of obturator hernia, 189
Glasses, misuse of, 347
Glaucoma, bilateral sympathectomy for, 411
Gluton, 127
Glycolysis, destruction by the pancreas of a substance which hinders, 64; in drawn blood, 299
Goitre, "dislocation" of, 250; hydrastis canadensis in, 263; exophthalmic, iodo-ether in, 349; exophthalmic, pathogenesis of, 367; exophthalmic, yielding of abdominal wound after hysterectomy, 375
Gonococcus, the differential diagnosis of the, 351
Gonorrhoea, crurin in, 131; of the prostate, 231
Grafting the divided ureter, 67
Grandi, genu recurvatum, 388
Grober, statistics of pleurisy in Jena, 303
Grönc, pelvic exostosis, face presentation, facial paralysis, 38
Growth, new, in the uterine stump after subtotal hysterectomy, 359
Guillermin, hysterical contraction of the gravid uterus, 101
Gums, haemorrhage from during pregnancy, 91
Gunn, pain in the toes during convalescence from typhoid fever, 386
Gussenbauer, treatment of anal fissure, 174

H.

Haasler, the sequelae of dysentery, 99
Haeckel, pelvic cellulitis after labour, tubo-ovarian fistula, 325
Haemoptysis, subcutaneous injections of gelatine for, 56
Haemorrhage in placenta membranacea, 50; from gums during pregnancy, 91; latent, in pregnancy, 276; intestinal, in typhoid fever, adrenalin in, 330
Haemorrhoids, treatment of by high-frequency electric currents, 341
Hagemeyer, puerperal gangrene, 25
Hair, the Roentgen rays in diseases of, 28
Halsted, etiology of acute haemorrhagic pancreatitis, 368
Hammelbacher, subcutaneous injections of gelatine for haemoptysis, 56
Hands, formalin as a disinfectant for the, 213; disinfection of with alcohol, 355
Hannecart, primary cancer of the Fallopian tube, 162
Harrison, experiments on agglutination, 16
Hartmann, jejunostomy and duodenostomy, 155
Harvard, report of the committee of the medical school of on the etiology of cancer, 333
Hauser, changes in the brain in a fatal case of concussion, 403
Hay fever. *See* Fever
Heart, suture of wound of the, 23; the "fatty," so-called, 33; the causation of hypertrophy of by nephritis, 80; stab wound of the, 118; hepatic asystoly in disease of, 239; sulphuretted hydrogen in rheumatic disease of, 205; disease of in pregnancy, labour, and the puerperium, 392
Heilat, chronic otitis media and its treatment, 68
Heller, tuberculous infection, 401
Herbivora, the inoculability of by human tuberculosis, 43
Hernia, inguino-interstitial, 101; radical cure of without opening the peritoneal cavity, 158; obturator, operative treatment of, 189; volvulus of Meckel's diverticulum and, 190; into the fossa duodeno-jejunalis, 340
Herpes zoster, clinical and histological investigation of, 318
Herzfeld, rhinogenous frontal abscess, 350
Hetol in phthisis, 110
Hirsch, C., the so-called "fatty heart," 33
—— G., v., therapeutic effects of spermine, 93
Hirschmann, therapeutic effects of spermine, 93
Hodara, ammonia-ichthyol in skin diseases, 13
Holle, agurin, 308
Holtschmidt gelatine injections in melaena neonatorum, 111
Holtz, misuse of glasses, 347
Holzknecht, treatment of alopecia areata by x rays, 130
Hoppe, roborat and other albumen preparations, 315
Hubbard, small-pox and its treatment, 230; suture of arteries, 288
Huddleston, tetanus and vaccine virus, 100
Hübscher, magnesium foil in the treatment of ankylosis of the patella, 275
Hurdon, primary adeno-carcinoma of Fallopian tube, 8.
Hydrastis canadensis in goitre, 263
Hydrocele fluid, cryoscopy of, 97

Hydrogen, sulphuretted, in rheumatic heart disease, 265
Hydrorrhoea gravidarum, 143
Hygiene of dairy produce, 196
Hypophyseal enlargement, acromegaly without, 45
Hypopyon keratitis due to bacterium coli, 390
Hysterectomy, colibacillary infection after, 37; for infection from putrid fetus, 177; subtotal, new growth in the uterine stump after, 259; yielding of abdominal wound after, 375; wound and repair of ureter in, 377

I.

Ileus, from embolism of the superior mesenteric artery, 50
Illyés, v., dilution experiments of diagnosing renal function, 353
Imbault, tuberculosis in the children of alcoholic parents, 83
Immunity, inherited, 298; experiments on, 402
Immunization in hay fever, 234
Infant, the newborn, the toilet of, 259; pyodermatosis transmitted to, 312
Infants, curdled milk in the feeding of, 57; newborn, perforation of intestine in, 124; buttermilk as food for, 206
Infection, colibacillary, after hysterectomy, 37; of the peritoneum from the intestine, 112; puerperal, localized oedema in, 176; from putrid fetus, hysterectomy for, 177; tuberculous, 401; paratyphoid, 404
Inoculability of herbivora by human tuberculosis, 43
Inoculation against malaria, 10
Insanity, adolescent, varieties of, 301; transitory or ephemeral mania, 371
Intestine, infection of from the peritoneum, 112; small, extensive resection of, 120; perforation of in newborn infants, 124
Intracellular bodies of malignant tumours, 267
Intussusception, chronic, 66
Inversion, uterine, treatment of by anterior colpo-hysterectomy, 7; of uterus and cervix from fibroid, 394
Iodo-ether in exophthalmic goitre, 349
Iodoline, 364
Islands of Langerhans of the pancreas, degeneration of in diabetes mellitus, 300
Israel, acromegaly without hypophyseal enlargement, 45

J.

Jaboulay, cyst of pancreas, 401
Jackson, treatment of ringworm, 148
Jacobi, crurin in gonorrhoea, 131
Jaundice in pregnancy, 343
Jeannin, hysterectomy for infection from putrid fetus, 177
Jejunostomy and duodenostomy, 155
Jemma, treatment of chorea by lumbar puncture, 62
Jena, statistics of pleurisy in, 303
Jez's antityphoid extract, 108
Johnston, modern bullet wounds, 49
Joints, tuberculin test in tuberculosis of the, 197
Jordan, iodoline, 364
Joseph, bacteriological investigations in syphilis, 309
Joslin, degeneration of the islands of Langerhans of the pancreas in diabetes mellitus, 300
Josserand, hystero-saturnine paralysis of the radial nerve, 406
Jusli, use of omentum to repair gall bladder, 1
Justus, the action of mercury on syphilitic tissues, 55

K.

Kaiser, treatment of phthisis with blue light, 282
Katzenelson, limb-tree bark pessary retained 24 years, 314
Kayser, paratyphoid infection, 404
Kelling, coelioscopy, 152
Kelly, the nature and diagnosis of acute or infective endocarditis, 270
Kernig's sign in sciatica, 407
Kidney, transplantation of, 243
Kidneys, the importance of testing the functional capacity of in abdominal surgery, 6; twenty years of surgery of the, 22; treatment of high blood pressure in disease of, 58; dilution experiments in diagnosing the function of, 353
King, light as a factor in the etiology of malarial fever, 187
Kionka, a new valerian preparation, 11
Köhler, the treatment of pyrexia in phthisis, 29
Kövesi, dilution experiments in diagnosing renal function, 353
Kolamenkin, acute gonorrhoeal peritonitis, 311
Kraske, suprapubic cystoscopy, 172
Kraurosis vulvae, lichen ruber and, 393
Krauss, toxic dosage in the treatment of some nervous diseases, 181
Krevet, removal of ovaries for double uterus and atresia vaginae, 87
Kronlein, twenty years of renal surgery, 22
Kruse, the bacteriology of dysentery, 150
Kuh, treatment of acromegaly with pituitary bodies, 207
Kuhn, inoculation against malaria, 10; the relation between diabetes insipidus and mellitus, 116
Kuttner, therapeutic value of vegetable diet, 314

L.

Labbé, tuberculosis of the tonsil, 170
Labium, primary deciduoma malignum of, 105
Labour, subcutaneous emphysema caused by pains of, 24; impeded by ovarian tumour, 26; intestinal, obstruction in, fatal perforation, 261; pelvic cellulitis after, 325; heart disease in, 392
Labours, premature, treatment of, 72
Laceration of child's perineum at birth, 277
Landau, aspirin in children's diseases, 42
Langstein, shaken rennet milk, 221
Launay, chorea gravidarum, 246
Lauwers, extensive resection of small intestine, 120
Lead colic. *See* Colic
Le Dosseur, carbon monoxide poisoning and its nervous sequelae, 295
Le Francois, lingual varices, in oesophageal cancer, 241
Lépine, destruction by the pancreas of a substance which hinders glycolysis, 64
Leprosy affecting the penis, 272
Leser, a symptom of cancer, 46
Lesions, traumatic, of subclavian vessels, 409
Leucocytosis in the diagnosis of appendicular abscesses 339
Levy-Sirugue, tuberculosis of the tonsil, 170
Lichen, fetus papyraceus and twin pregnancy, 393
Lichen ruber and kraurosis vulvae, 393
Liebrecht, a new valerian preparation, 11
Life assurance and syphilis, 338
Ligature of the carotid arteries for malignant growths, 156; of abdominal aorta, 242
Light as a factor in the etiology of malarial fever, 45; blue, treatment of phthisis by, 202
——— treatment, the, 27; in ozaena, 297
Limbs, lower, bandaging of in the treatment of cardiac oedema, 221
Lime-tree bark pessary retained twenty-five years, 313
Linck, possible dangers in the use of lysol, 300
Litten, changes in the fundus in general disease, 185
Liver, wounds of the, 85; early intervention in cases of injury of, 103
Lobe, left prefrontal, localization of mental faculties in, 304
Loeffler, hygiene of dairy produce, 196
Logucki, parachlorphenol and menthosol in laryngeal phthisis, 178
Lomer, treatment of repeated abortions and premature labours, 144
London, invasion intestinalis, 168
Lop, pyodermatosis transmitted to infant, 312
Lowenberg, double ovariotomy in pregnancy, pedicle twisted, 30
Lubarsch, the value of the microscopic demonstration of tubercle bacilli, 182; transformation of cells, 400
Lucas-Championnière, treatment of club-foot, 228
Lucchi, congenital dextrocardia, 405
Lumbricus and fever in the puerperium, 106
Lung, decortication of, pneumectomy, 84; affections of the lymphatic channels of the in bronchitis, 268
Lungs, normal, bacteriology of, 44; atelectasis of the, 238
Lupus, erythematosus, the x rays in, 145; treatment of by potassium permanganate, 218
Luxations, manual reduction of without anaesthesia, 410
Lymphatic channels of the lungs, affections of in bronchitis, 268
Lysol, possible dangers in the use of, 396

M.

Macfadyen, intracellular constituents of the typhoid bacillus, 79
Mackenrodt, wound and repair of ureter in hysterectomy, 377
McKenzie, phrenic paralysis following diphtheria, 115
MacWilliam, the properties of the walls of arteries and veins, 370
Magnesium foil in the treatment of ankylosis of the patella, 275
Magri, Kernig's sign in sciatica, 407
Maire, simultaneous pregnancy in bicornute uterus, 193
Malaria, inoculation against, 10; "Anopheles" in a region from which it has disappeared, 31; nervous disturbances due to, 302
Malarial fever. *See* Fever
Male, gonorrhoeal pelvi-peritonitis in the, 214
Malignant growths, ligature of the carotid arteries for, 156; the x rays in, 258
Manasse, bismutose, 180
Mancini, the gelatine treatment of aneurysm, 363
Mania, ephemeral, or transitory insanity, 371
Marchese, the treatment of cystitis by the curette, 36
Marchetti, cryoscopy of hydrocele fluid, 97
Marcon-Mutzner, the cerebro-spinal fluid in meningitis, 114
Markl, Jez's antityphoid extract, 108
Marshall, the urine in diabetes, 95; the mode of action of narcotics, 105
Martin, symphysiotomy and Caesarean section, 54; secondary hydatid cysts of the peritoneum, 158; typhoid fever in the tropics and its treatment by quinine, 316
Masselon, varieties of adolescent insanity, 301
Matas, traumatic lesions of subclavian vessels, 409
Matthes, the effects of syphilis, 337
Matvieff, vesicular mole in tubal gestation sac, 144
Mayer, urotropin in diabetic coma, 279
Mayet, the causation of cardiac hypertrophy by nephritis, 80
Maylard, prevention of stitch abscess, 86
Mayoud, the treatment of thrush, 418
Meckel's diverticulum. *See* Diverticulum
Medicine, the bicycle in its relation to, 32
Meinert, nocturnal chyluria in pregnancy, 391
Melaena neonatorum, gelatine injections in, 62
Melancholia, codeine in states of, 197
Mendel, thymus glands in rickets, 162
Meningitis, the cerebro-spinal fluid in, 114; treatment of by hot baths and lumbar puncture, 252
Menopause, artificial, oöphorin tablets for, 142
Mental diseases, character of the cerebro-spinal fluid in, 180
——— faculties, localization of in left prefrontal lobe, 304
Menthosol in laryngeal phthisis, 178
Morcadé, wounds of the liver, 85; early intervention in cases of injury of the, 103
Mercury, action of on syphilitic tissues, 55
Mesocolon, ascending, fetal inclusion in, 205
Metabolism of children, influence of formic aldehyde upon, 61
Metritis dissecans, 191
Metzler, strychnine elimination after nephrectomy, 208
Meyer, puerperal psychoses, 164
Meynet, gastric disorders and eczema, 88
Microcephaly, case of, 227
Micrococcl in cancer, 184
Microscopic demonstration of tubercle bacilli, value of, 182

Milk, curdled, in the feeding of infants, 57
Mills, brain tumour localized by means of the Roentgen rays, 171
Mircoli, alcohol in tuberculosis, 346
Mitchell, Weir, snake poisons, 282
Moeller, the early diagnosis of tuberculosis, 134
Mole, vesicular, 88; vesicular, in tubal gestation sac, 329
Morestin, precarpal amputation, 244
Morris, ligature of abdominal aorta, 242
Morton, the x rays in malignant growths, 258
Mosquitos, disinfection against with formaldehyde sulphur dioxide, 40
Moty, tetanus and quinine injections, 251
Mucidine, influence of on the diphtheria bacillus and its toxin, 167
Mueller, hydrorrhoea gravidarum, 143
Mundé, malignant polypus (sarcoma) in elderly subject, 89
Muscles, primary tuberculosis of the, 257
Myeloma, multiple, 1
Myiasis intestinalis, 168

N.

Nakanishi, the pathology of bacteria, 15
Narcotics, the mode of action of, 195
Neisser, staphylotoxin, 365
Nephrectomy, strychnine elimination after, 208
Nephritis, the causation of cardiac hypertrophy by, 80; and pregnancy, 416
Nerve, radial, hystero-saturnine paralysis of, 400
—— centres, syphilis of the, 285
Nervous diseases, toxic dosage in the treatment of, 181
—— disturbances, and the freezing point of blood, the relations between, 14; due to malaria, 302
—— sequelae of carbon monoxide poisoning, 295
—— system, treatment of syphilis of the, 380
Neugebauer, spinal analgesia with tropococaine, 294
Neumann, virulent diphtheria bacilli in simple rhinitis, 350
Neuritis of tuberculous origin, 82
Neurosis and appendicitis, 240
Newman, treatment of urethral stricture by electrolysis, 389
Nitrate of silver. *See* Silver
Noble, formalin as a disinfectant for the hands, 213
Noorden, v., anaesthesin, 422
Nucleinate of iron, 420
Nutrient preparations, some new, 92

O.

Obstruction, intestinal, in labour, fatal perforation, 261
Obturator hernia. *See* Hernia
Oedema, localized, in puerperal infection, 176; cardiac, bandaging of lower limbs in the treatment of, 331
Oesophagus, an artificial, 219; treatment of fibrous stricture of by hypodermic injections of thiosinamin, 362
Oil of cade baths in psoriasis, 76
Omentum, use of to repair gall bladder, 51
Oöphorin tablets for artificial menopause, 142
Operations, surgical, pulmonary embolism after, 286
Opie, diabetes with pancreatic lesions, 269; causes and varieties of chronic interstitial pancreatitis, 384
Opitz, dystocia from dropsical fetus, 122; nephritis and pregnancy, dropsical fetus, 416
Oppenheimer, pulmonary embolus after surgical operations, 286
Orthoform in secondary syphilis, 348
Osler, recurrent epistaxis with multiple telangiectasis of skin, 62; intermittent claudication, 369
Osteomalacia and sarcoma, 342
Osteomyelitis, extirpation of long bones in, 387
Osteotabes infantum and rickets, 166
Otitis media, chronic, and its treatment, 68
Ovaries, removal of for double uterus and atresia vaginae, 87; secondary cancer of, 276
Ovariotomy, double, in pregnancy, uterus twisted, 143; and ideal cholecystomy, 242
Ovum, one, triplets from, 310

P.

Pain in the toes during convalescence from typhoid fever, 386
Pancreas, destruction of by a substance which hinders glycolysis, 64; the causation of the so-called, "peripheral reflex secretion" of the, 151; cyst of, 201; diabetes, with lesions of the, 269; degeneration of the islands of Langerhans of in diabetes mellitus, 300
Pancreatitis, acute haemorrhagic, etiology of, 368; chronic interstitial, causes and varieties of, 384
Pansini, the etiology of tabes dorsalis, 117
Parachlorphenol in laryngeal phthisis, 178
Paralysis, facial in face presentation, 38; phrenic, following diphtheria, 115, in whooping-cough, 168; agitans, the pathological anatomy of, 183; of the bladder and diabetes insipidus, 336; in pertussis, 385; hystero-saturnine, of the radial nerve, 400
Parascandolo, the treatment of cystitis by the curette, 35
Parasitic bodies, the, in cancer, 281
Paratyphoid infection, 404
Parents, alcoholic, tuberculosis in children of, 83
Park, the nature of the cancerous process, 30
Patel, condition of the proximal segment of the bowel in intestinal stenosis, 357
Patella, magnesium foil in the treatment of ankylosis of the, 275
Pathogenesis, and treatment of sitophobia, 2; of exophthalmic goitre, 367; of bronchial asthma, 423
Pathology, of bacteria, 15; of carcinoma, 149
Pavy, glycolysis in drawn blood, 299
Pel, coexistence of acute rheumatism and typhoid fever, 352
Pelvi-peritonitis, gonorrhoeal, in the male, 214
Pelvis, female, removal of wandering spleen in, 309
Penis, leprosy affecting the, 272
Pentosuria, diagnosis of, 408
Pepper, granular degeneration of the erythrocyte, 113
Perchloride of mercury, injections of in puerperal fever, 361
Perforation, of intestine in newborn infants, 124; fatal, in intestinal obstruction in labour, 261; typhoid, operative treatment of, 412
Perineum, child's, laceration of at birth, 277
Peritoneal cavity, natural method of draining, 137; radical cure of hernia without opening the, 138
Peritoneum, the infection of from the intestine, 112; secondary hydatid cysts of the, 158
Peritonitis, tuberculous, is it to be treated surgically? 102; acute gonorrhoeal, 311
Perret, perforation of intestine in newborn infants, 124
Pertussis, paralysis in, 385
Perutz, gastro-intestinal origin of severe anaemia, 100
Pessary, lime-tree bark, retained 22 years, 213; retained, in a centenarian, 270; ring, strangulation of the uterus in a, 413
Petersen, structure, growth, and histogenesis of carcinoma of the skin, 60
Peterson, removal of wandering spleen in female pelvis, 309; recurrent fibrosarcoma of abdominal wall, 307
Petruschky, tuberculin in phthisis, 120
Phelps, localization of the mental faculties in the left prefrontal lobe, 304
Philipowicz, repeated extrauterine pregnancy, 360
Phthisis. *See* Tuberculosis, pulmonary
Pick, ovarian tumour arising in adrenal remains, 71
Picone, decortication of lung, pneumectomy, 84
Pinatel, lesions of the stomach due to contusion, 284
Pincus, "castration" by atmokausis, 233
Piollet, surgery of the cerebellum, 119
Piorkowski, bacteriological investigations on syphilis, 399
Pisani, treatment of haemorrhoids by high-frequency electric currents, 341
Pischinger, subcutaneous injections of gelatine for haemoptysis, 50
Pituitary bodies, treatment of acromegaly with, 207
Placenta, praevia, case of, 70; membranacea, haemorrhage in, 90; the, in therapeutics, 146; retention of ten weeks in abortion, no sepsis, 247
Placzek, atelectasis pulmonis, 238
Plantard, primary tuberculosis of the muscles, 257
Pleurisy, statistics of in Jena, 303; with effusion, the tuberculin reaction in convalescents from, 337
Pneumectomy in decortication of lung, 84
Pneumonia, carbonate of creosote in, 52
Pneumothorax, surgical, 140
Pochl, therapeutic effects of spermine, 52
Poisoning, by acetanilid, 77; by carbon monoxide, nervous sequelae of, 295
Poisons, snake, 282
Polypus, malignant (sarcoma) in elderly subject, 89
Posner, diabetes insipidus and paralysis of the bladder, 336
Porter, cornual pregnancy, rupture in the fourth month, 107
Potassium nitrate and nitrite in chronic arterial tension, 421
—— permanganate, treatment of lupus by, 218
Poullet, radical cure of hernia without opening the peritoneal cavity, 138
Pregnancy, tubal, partial conditions mistaken for, 2; double ovariotomy in, pedicle twisted, 143; simultaneous tubal and uterine, 144; haemorrhage from gums during, 144; cornual, rupture in the fourth month, 107; the vomiting of, 122; diabetes in, large fetus, 122; double tubal, simultaneous rupture of, 125; small-pox and, 144; simultaneous, in bicornate uterus, 193; ovarian, 202; interstitial rupture of, recovery, 215; twin, and fetus papyraceus, 260; latent, haemorrhage in, 270; in uterus bicornis, taken for ectopic gestation, 291; jaundice in, 343; pseudo-corneal, diagnostic difficulties, 344; extrauterine after treatment for sterility by uterine drainage, 345; repeated extrauterine, 360; nocturnal chyluria in, 391; heart disease in, 392; nephritis and, 410
Prentiss, lumbricus and fever in the puerperium, 106
Preparations, some new, 92
Priendlsberger, "dislocation" of goitre, 230
Prostate, gonorrhoea of the, 231
Prostatectomy, perineal, 4
Prostatitis, chronic blenorrhagic, treatment of, 35
Pruritus vulvae, surgical treatment of, 188; its cause and treatment, 210
Pseudo-appendicitis and pseudo-epilepsy, 47
—— epilepsy and pseudo-appendicitis, 47
Psoriasis, oil of cade baths in, 76; and vaccination, 271
Psychoses, puerperal, 104
Puerperal fever. *See* Fever
Puerperium, lumbricus and fever in the, 106; heart disease in, 392
"Pulled elbow," 229
Puncture, lumbar, treatment of chorea by, 59; in the treatment of meningitis, 252
Pupillary chancre in aortic aneurysms, 48
Puro, 164
Pus, the, in variola, 182
Putnam, diagnosis of tumours of the corpus callosum, 225
Putrefaction, intestinal, 273
Pyo-dermatosis transmitted to infant, 312
Pyrexia, in phthisis, treatment of, 20

Q.

Quadflieg, chronic intussusception, 66
Quadruplets, case of, 415
Quénu, gastro-enterostomy, 287
Quinine, injections of in tetanus, 251; treatment of typhoid fever by in the tropics, 316

R.

Rebuschini, the bicycle in its relation to medicine, 32
Rectum and anus, implantation of transverse colon into, 200

Reduction, manual, of luxations, without anaesthesia, 410
Reiprecht, haemorrhage in placenta membranacea, 90
Reisman, albuminous expectoration following thoracocentesis, 283
Renal. *See* Kidney
Rennet, milk, shaken, 221
Resection, extensive, of small intestine, 120
Rheumatism, acute articular, of a contagious nature, 17; acute and typhoid fever, coexistence of, 352
Rhinitis, simple, virulent diphtheria bacilli in, 350
Rhinophyma, treatment of, 308
Ribbert, pathology of carcinoma, 149
Rickets, thymus gland in, 165; osteotabes infantum and, 166
Ringworm, treatment of, 148
Riva-Rocci, the toilet of the newborn infant, 259
Robelin, leprosy affecting the penis, 272
Robin treatment of phthisis, 278
Roborat and other albumen preparations, 315
Roentgen rays, the, in diseases of the hair, 28; treatment of alopecia areata by, 130; in lupus erythematosus, 145; brain tumour localized by means of, 171; in malignant growths, 258; the use of in cancer, 274
Roger, the pus and blood in variola, 182
Roloff, manual reduction of luxations without anaesthesia, 410
Romani, the tuberculin reaction in convalescents from pleurisy with effusion, 333
Rosenau, disinfection against mosquitos with formaldehyde and sulphur dioxide, 40; the dry point versus glycerinated virus in vaccination, 198
Rosenbaum, angioma and cancer, 334
Rosenheim, influence of formic aldehyde upon the metabolism of children, 61
Rossi, the treatment of fractures, 024
Roux, syphilis of the nerve centres, 285
Rowland, intracellular constituents of the typhoid bacillus, 79
Royster, laceration of child's perineum at birth, 277
Ruata, sitophobia, its pathogenesis and treatment, 2
Rudaux, rupture of uterus, hydrocephalic fetus, 249
Rupture, simultaneous, of double tubal pregnancy, 125; of the uterus, 141; of the uterus, the surgery of, 159; of interstitial pregnancy, operation, recovery, 215; of uterus, hydrocephalic fetus, 249
Rusch, treatment of rhinophyma, 308

S.

Sac, tubal gestation, vesicular mole in, 329
Sadowski, primary cancer of vagina, 293
Salant, strychnine elimination after nephrectomy, 208
Salomonsen, syphilis and life assurance, 338
Salvant, treatment of febrile delirium tremens by the cold bath, 94
Sanfelice, the intracellular bodies of malignant tumours, 267
Sarcoma, racemose, of cervix uteri, 202; and osteomalacia, 342
Schachner, foreign bodies accidentally left in the abdominal cavity, 358
Schäfer, sudden death in childbed, 175
Schaeffer, disinfection of hands with alcohol, 355
Schaudinn, the cause of cancer, 253
Schauman, neurosis and appendicitis, 240
Scherer, dionin, 230
Schiff, the Roentgen rays in diseases of the hair, 28
Schild, atoxyl, 381
Schlangenhaufer, cancer of stomach, etc., secondary cancer of ovaries, 376
Schon, ovarian tumour in a child, 414
Schottländer, [illegible] in children, 42
Schuller, the parasitic bodies in cancer, [illegible]
Schüppel, nervous disturbance due to malaria, [illegible]
Schwarz, tropococaine analgesia, 179
Sciatica, Kernig's sign in, 407
Seeligmann, pruritus vulvae, its cause and treatment, 216
Sellheim, treatment of abortion, 232
Semon, labour impeded by ovarian tumour, 26
Senator, Banti's disease, 210
Sengler, entrance of air into the veins of the puerperal uterus, 17
Sequelae of dysentery, 99
Sergent, "Anopheles" in a region from which malaria had disappeared, 31
Serum, antitetanus, injection of into the cerebrospinal cavity, 74; of cancer patients, action of on yeast, 223
Serumtherapy in chorea, 147
Siau, glycolysis in drawn blood, 299
Siegert, curdled milk in the feeding of infants, 57
Siegfried, the therapeutic value of silicate salts, 296
Silberstein, bromeizon, 194
Silicate salts, the therapeutic value of, 296
Silver nitrate in cholelithiasis, 395
Simon, lichen ruber and kraurosis vulvae, 393
Simonini, paralysis in pertussis, 385
Sitophobia, its pathogenesis and treatment, 2
Skin, ammonia-ichthyol in diseases of, 13; structure, growth, and histogenesis of carcinoma of, 60; multiple teleangiectasis of in recurrent epistaxis, 62; broken, passage of pathogenic germs and their toxins through the, 96; balneotherapy in diseases of the, 129
Small-pox, and pregnancy, 144; and its treatment, 250
Smith, L., rupture of interstitial pregnancy, operation, recovery, 245
——— T. C., haemorrhage from gums during pregnancy, 91
Snake poisons, 222
Soulier, drugs which produce tissue waste, 280
Soxhlet's nutrient sugar, 109
Spasm of the cardiac orifice of the stomach, 255
Spermine, therapeutic effects of, 93
Spiegel, an artificial oesophagus, 219
Spiller, division of the sensory root of the trigeminus, 307
Spleen, wandering, in female pelvis, removal of, 309
Sporozoic origin, diseases of, 200
Sprengel, treatment of "surgical" tuberculosis, 41
Stab wound. *See* Wound
Staphylotoxin, 365
Starling, the causation of the so-called "peripheral reflex secretion" of the pancreas, 151
Stenosis, intestinal, condition of the proximal segment of the bowel in, 357
Sterility, extrauterine pregnancy after treatment by uterine drainage for, 345
Stitch abscess. *See* Abscess
Stolz, experimental cholecystitis and cholangitis, 133
Stomach, disorders of and eczema, 18; foreign body in the, 69; tuberculous ulcer of the, 153; spasm of the cardiac orifice of the, 255; lesions of the due to contusion 284; bilocular, with extreme tension of the cardiac pouch, 337; cancer of, 376
Sträussler, the etiology of acute haemorrhagic encephalitis, 98
Strangulation of the uterus in a ring pessary, 413
Strassmann, ovariotomy and ideal chocystotomy, 248
Stricture, fibrous, of the oesophagus, treatment of by hypodermic injections of thiosinamin 362; urethral, treatment of by electrolysis 389
Strychnine, elimination of after nephrectomy, 208
Stutzer, conjunctival tuberculosis following a dog bite, 224
Subbotin, operative treatment of ectopia vesicae 295
Sublamin, 220
Sugar, Soxhlet's nutrient, 109
Sulphur dioxide, disinfection against mosquitos with, 40
Surgery renal, twenty years of, 22; of the cerebellum, 110; of rupture of the uterus, 159; ureteral, 356
Surgical, intervention, direct, in a case of aneurysm of the arch of the aorta, 372
Suture, of wound of the heart, 23; of arteries, 288
Sykaff, vesicular mole in tubal gestation sac, 129
Sympathectomy, bilateral, for glaucoma, 411
Symphysiotomy and Caesarean section, 54
Syphilis, diabetes insipidus due to, 20; of the nerve centres, 285; the effects of, 323; and life assurance, 338; secondary, orthoform in, 348; of the nervous system, treatment of, 180; bacteriological investigations on, 399
Syphilitic tissues, the action of mercury on, 55
Székely, subcutaneous emphysema produced by labour pains, 24

T.

Tabes dorsalis, the etiology of, 117
Tarsorrhaphy, internal, 374
Tavel, the infection of the intestine from the peritoneum, 112; surgical treatment of pruritus vulvae, 188
Taxeira de Mattos, buttermilk as an infant's food, 206
Taylor, volvulus of Meckel's diverticulum and hernia, 190
Tedeschi, pathogenesis of exophthalmic goitre, 367
Teleangiectasis, multiple, of skin in recurrent epistaxis, 62
Teleky, treatment of fibrous stricture of the oesophagus by hypodermic injections of thiosinamin, 362
Tendons, transplantation of in paralytic dermatitis, 305
Terson, internal tarsorrhaphy, 374
Tetanus, and vaccine virus, 199; and quinine injections, 251
Therapeutics, the use of brewers' yeast in, 235
Thiosinamin, treatment of fibrous stricture of the oesophagus by hypodermic injections of, 362
Thoracocentesis, albuminous expectoration following, 283
Thrush, the treatment of, 418
Thymus gland in rickets, 165
Tissier, abortion, placenta retained ten weeks, no sepsis, 247
Tissue, drugs which produce waste of, 280
Törngren, the surgery of rupture of the uterus, 159
Toes, pain in the during convalescence from typhoid fever, 386
Toilet of the newborn infant, 259
Tonsil, tuberculosis of the, 170
Tonsillitis, follicular, 19
Toth, pregnancy in uterus bicornis, taken for ectopic gestation, 291; echinococcus cysts of uterus, 326
Toxins of pathogenic terms, passage of through the broken skin, 96
Transformation of cells, 400
Transplantation, of kidney, 243; of tendons in paralytic deformities, 305
Trigeminus, division of the sensory root of the, 307
Triplets from one ovum, 310
Tropics, treatment of typhoid fever by quinine in, 316
Tropococaine, analgesia from, 179; spinal analgesia with, 294
Trypanosoma, a new, 237
Tube, Fallopian, primary adeno-carcinoma of, 8; primary cancer of the, 162
Tuberculin in phthisis, 126
——— reaction in convalescents from pleurisy with effusion, 335
——— test in tuberculosis of the bones and joints, 197
Tuberculosis, pulmonary, treatment of pyrexia in, 20; "surgical" treatment of, 41; human, inoculability of herbivora by, 43; pulmonary, the diazo-reaction in, 65; in the children of alcoholic parents, 83; pulmonary, hetol in, 110; pulmonary, tuberculin in, 126; in childhood, experimental researches on, 132; the early diagnosis of, 134; pulmonary, examination of the blood in, 135; of the tonsil, 170; laryngeal, parachlorphenol and menthosol in, 178; of the cervix uteri, 192; of the bones and joints, tuberculin test in, 197; conjunctival, following a dog bite, 224; primary of the muscles, 257; pulmonary, treatment of by blue light, 262; treatment of based on an investigation of its soil, 278; alcohol in, 346; medicinal treatment of, 417
Tuberculous infection, 401
——— origin of neuritis, 82
Tuffier, foreign body in the stomach, 69; direct surgical intervention in a case of aneurysm of the arch of the aorta, 372
Tumour, ovarian, labour impeded by, 26; ovarian, arising in adrenal remains, 71; of brain, localized by means of the Roentgen rays, 171; ovarian, in a child, 414
Tumours of the corpus callosum, diagnosis of, 226; malignant, the intracellular bodies of, 267
Tunnicliffe, influence of formic aldehyde upon the metabolism of children, 61
Twins, unequal growth of, 164
Typhoid fever. *See* Fever, enteric

U.

Ulcer, tuberculous, of the stomach, 153
Ulcers, varicose, and varicose veins, 373
Ullmann, transplantation of kidney, 243
Uncinaria duodenalis, enteritis with anaemia caused by, 229

Urachus, patulous, Meckel's diverticulum and, 139
Ureter, divided, grafting the, 67; surgery of the, 356; wound and repair of in hysterectomy, 377
Urethra, functional, in absence of uterus and vagina, 289
Urotropin in diabetic coma, 279; in typhoid bacteriuria, 379
Uterus, treatment of inversion of by anterior colpo-hysterectomy, 7; ruptured, and decapitated fetus, 73; double, removal of ovaries for, 87; rupture of the, 141; the surgery of rupture of the, 159; puerperal, entry of air into the veins of, 160; gravid, hysterical contraction of the, 161; abscess of, 191; tuberculosis of the cervix of, 192; bicornute, simultaneous pregnancy in, 193; rupture of, hydrocephalic fetus, 249; complete absence of, 289; bicornis, pregnancy in taken for ectopic gestation, 291; racemose sarcoma of cervix of, 292; echinococcus cysts of, 326; new growth in the stump of after subtotal hysterectomy, 359; inversion of from fibroid, 394; strangulation of in a ring pessary, 413

V.

Vaccination, the dry point versus glycerinated virus in, 198; psoriasis and, 271
Vaccine virus. *See* Virus
Vagina, removal of ovaries for atresia of, 87; primary deciduoma malignum of, 105; primary cancer of, 203; complete absence of, 289; stricture of from carbolic acid, 290; primary cancer of, 293
Valentin, paralysis in whooping-cough, 168
Valerian preparation, a new, 11
Van Harlingen, herpes zoster, 318
Vanderpoel, gonorrhoea of the prostate, 231
Varices, lingual, in oesophageal cancer, 241
Variola, the pus and blood in, 182
Vaughan, stab wound of the heart, 118
Vautrin, colibacillary infection after hysterectomy, 37
Vedder, etiology of acute dysentery, 254
Vegetable diet, therapeutic value of, 314
Veins, the properties of the walls of, 370; varicose, and varicose ulcers, 373
Venereal soft sore, bacteriology of, 383
Vessels, subclavian, traumatic lesions of, 409
Videbeck, the diazo reaction in pulmonary tuberculosis, 65
Virus, glycerinated, versus the dry point in vaccination, 198; vaccine, tetanus and, 199
Voigt, puerperal embolism, 53
Volvulus of Meckel's diverticulum and hernia, 190
Vomiting of pregnancy, 121
Vulva, surgical treatment of pruritus of, 188; pruritus of, its cause and treatment, 216; lichen ruber and kraurosis of, 393

W.

Walbaum, the pathological anatomy of paralysis agitans, 183
Walker, experiments on immunity, 402
Walla, triplets from one ovum, 310
Walls of arteries and veins, the properties of, 370
Watanabe, affections of the lymphatic channels of the lungs in bronchitis, 268
Weber, carbonate of creosote in pneumonia, 12
Wechsberg, staphylotoxin, 365
Wehle, primary deciduoma malignum of labium and vagina, 105
Weinstein, psoriasis and vaccination, 271
Weissbein, some new nutrient preparations, 92
Wenzel, varicose veins and varicose ulcers, 373
Westheimer, follicular tonsillitis, 19
Weyner, balneotherapy in skin diseases, 129
White, granular degeneration of the erythrocyte, 113
Whooping-cough, paralysis in, 168
Wieland, multiple myeloma, 1
Wiener, rupture of the uterus, 141; strangulation of uterus in a ring pessary, 413
Wildbolz, the differential diagnosis of the gonococcus, 351
Williams, primary cancer of vagina, 203; diagnosis of tumours of the corpus callosum, 225; the use of the *x* ray in cancer, 274
Woods, the *x* rays in lupus erythematosus, 145
Wormser, sudden onset of typhoid fever, 3
Wound, of the heart, suture of, 23; stab, of the heart, 118; abdominal, yielding of after hysterectomy, 375; and repair of ureter in hysterectomy, 377
Wounds of the liver, 85
Wright, degeneration of the islands of Langerhans of the pancreas in diabetes mellitus, 300
Wylie, extrauterine pregnancy after treatment for sterility by uterine drainage, 345
Wyss, twenty years of renal surgery, 22

Y.

Yates, enteritis with anaemia caused by uncinaria duodenalis, 222
Yeast, brewers', the use of in therapeutics, 235
Yeasts, action of the serum of cancer patients on, 223

Z.

Zander, congenital anus vestibularis, abortion, 204
Zangemeister, stricture of vagina from carbolic acid, dystocia, 290
Zeissl, v., diabetes insipidus due to syphilis, 20; bacteriology of the venereal soft sore, 383
Ziegler, osteotabes infantum and rickets, 166
Zur Nedden, hypopyon keratitis due to bacterium coli, 390

ILLUSTRATIONS.

PAGE

A Brief History of the Operations Practised for Cancer of the Breast, Sir W. Banks (Five Figures) 6, 8, 9
Accidental Removal of Auricle by Midwifery Forceps, and Successful Application of Artificial Auricle, Mr. James Erskine (Three Figures) 14
Rupture of the Diaphragm, Abdominal Organs in Pleural Cavity, Mr. J. F. Hodgson 17
Soft Cervix Volsella Forceps, Dr. R. Wise 28
The Trexophyton Truss 28
Triplets in One Fallopian Tube 43
The Present Position of the Light Treatment of Lupus (Four Figures) 44, 45
Early Extrauterine Pregnancy, Mr. T. Carwardine (Three Figures)... 68, 69
Hysterectomy for a Soft Fibromyoma weighing 23 lb., Mr. F. C. Madden 70
A Suggestion for the Treatment of Enuresis in Females, Mr. G. C. Parnell... 72
Tortuosity of Both Internal Carotid Arteries, Messrs. R. P. Rowlands and R. H. J. Swan (Two Figures) 76
A Simple Form of Bath Used in the Treatment of Enteric Fever, Dr. S. A. Ball (Two Figures) 89
Aluminium Calfrigerator 90
The Therapeutic Employment of High Frequency Currents ("D'Arsonvalization") 92
Case of Excision of Clavicle for a round-celled Sarcoma, Dr. G. T. Beatson (Four Figures) 128, 129
Ambulatory treatment of a ruptured Tendo Achillis, Mr. J. Lynn Thomas 137
Surgical Notes on an old Gunshot Wound of the Head, Lieutenant R. C. Wilson 143
Roof Shelter at the "Dreadnought" Hospital, Greenwich... 152
The Suctorial Bulb in "Culex," Staff-Surgeon G. T. Collingwood ... 197
Plan of Rooms for Research and Teaching in Advanced Physiology in the University of London 213
Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ, Mr. P. J. Freyer (Five Figures) 250, 251, 252, 254
Methods of Incising, Searching, and Suturing the Kidney, Dr. H. A. Kelly (Six Figures) 257, 258, 259, 260
Partial Nephrectomy, with Three Illustrative Cases, Mr. B. G. A. Moynihan (Six Figures) 263, 264, 265
Apparatus for the Destruction of Rats on Board Ship by Carbonic Acid Gas 295
Felt Hat Making, its Processes and Hygiene, Dr. C. Porter (Five Figures) 379, 380
Portable Folding Stretcher for Use with Mounted Infantry, (Surgeon-Captain P. C. Fenwick (Two Figures) 464, 465
Remarks on Congenital Cysts of the Tongue, Dr. J. Ward Cousins ... 503
Anatomy, Physiology, and Pathology of the Imperfectly-descended Testis, Mr. W. McAdam Eccles (Twelve Figures) 504, 571, 572, 573, 574, 575, 577
A New Method of Dealing with the Peritoneum in Operating for Radical Cure of Umbilical or Inguinal and Femoral Hernia, Mr. W. F. Brook (Eight Figures) 505, 506
Case of Intestinal Obstruction due to a Band passing from Appendix to Mesentery, Dr. J. B. Kerr 510
The Curette in Endometritis and Incomplete Abortion, Dr. A. Duke (Three Figures) 519
Cases illustrating the Aid of the Roentgen Rays in the Diagnosis of Intrathoracic Tumours, Drs. J. M. Finny and E. J. M. Watson (Four Figures) 633, 634
Posture and Heart Murmurs, Dr. W. Gordon (Twelve Figures) 636, 637, 638, 639
Two Cases of Congenital Disease of the Left Side of the Heart, Dr. T. Fisher (Two Figures) 640, 641
The Swiss Kitchen Cart (*Cuisine Roulante*) (Two Figures) 645
Dr. Leigh Canney's Apparatus for the Rapid Boiling of Water ... 645
The Isolation of the Typhoid Bacillus, Dr. A. Moore 703
Tumours of the Pons Associated with Degeneration in the Posterior Columns of the Cord, Dr. E. E. Laslett 707
Case of Hypertrichosis Localis, Mr. G. Farmer 711
Aluminium Vaccination Shield, Dr. Haydon Brown 723
Ground-floor Plan of David Lewis Northern Hospital, Liverpool ... 737
Cases of Lymphangiectasis with Enormous Overgrowth of Cutaneous and Subcutaneous Structures, Mr. W. Whitehead (Thirteen Figures and Coloured Plate) ... 757, 758, 759, 760, 761, 762, 763
Treatment and Morbid Anatomy of Enlarged Prostate, Mr. C. S. Wallace (Nine Figures) 764, 765, 766, 767, 768
Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ, Mr. C. Roberts (Two Figures) 769
Suprapubic Cystotomy, Mr. E. Hurry Fenwick (Two Figures) ... 772
Catalepsy, Dr. E. G. Hunt (Two Figures) 776
An Intrauterine Three-bladed Vullsellum Forceps, Dr. E. W. H. Groves 783
Vaccination Case, Dr. L. Harman 783
The Whitworth Hall, Owens College, Manchester 801
The Medical School, Owens College, Manchester... 802

PAGE

The Causation of Death during the Administration of Chloroform, Dr. E. H. Embley (Two Figures and Fourteen Tracings) 819, 820, 886, 887, 888, 889, 890, 891, 892, 952, 953, 954, 955, 956, 957, 958
Biological Test for Blood, Dr. G. H. F. Nuttall 827
Set of Trocars and Cannulae for Empyema, Mr. W. Turner ... 844
A Bed-Rest... 844
Observations and Theories as to the Processes of Infection and Protection in the Organism, Mr. H. W. Armit (Seven Figures) 845, 846, 918, 919, 920
Portrait of Dr. E. Long Fox 861
Four Cases of Rodent Ulcer treated by *X* Rays, Dr. J. W. Pugh (Four Figures) 882, 883
Five Cases of Moniliform Hair associated with Alopecia Areata, Dr. D. Walsh 884
Case of Complete Baldness from Alopecia Areata, Mr. Balmanno Squire 885
Removal of a Nail from the Right Bronchus of a Child aged 2½ years, Mr. A. R. Anderson 895
A Series of Cases of External Operations on the Larynx, Mr. A. M. Sheild (Three Figures) 941, 944
The Treatment by Asch's Operation of Deviations of the Nasal Septum, Dr. E. S. Yonge (Two Figures) 949
Case of Congenital Deffciency of Certain Phalanges, Mr. D. Monro (Two Figures) 1026
Cases of Naevus Pigmentosus et Verrucosus, Mr. A. Whitelocke ... 1027
A Case of Chloroma, with pathological report and some Notes descriptive of the Disease, Mr. G. H. Melville Dunlop (Six Figures) 1073, 1075
Tuberculosis of the Conjunctiva, Mr. S. Stephenson (Two Figures) 1077, 1078
The Subcutaneous Injection of Paraffin for the Removal of Deformities of the Nose, Mr. Walker Downie (Four Figures) 1079
Case of Epithelioma Complicating Lupus Erythematosus Treated by Scraping and Healed by the *X* Rays. Dr. G. G. Stopford Taylor (Four Figures) 1081
Cases of Harelip with Cleft Nose. Mr. T. A. Watson 1083
Stethoscope for Injection of Normal Saline Solution, Dr. Adair (Two Figures) 1092
Elephantiesis of the Leg, Mr. W. Whitehead 1115
Case of Fatal Anaemia presenting some unusual blood changes, Messrs. O. K. Williamson and E. W. Martin 1139
An Improved Clinical Thermometer 1155
Bacteriological Forceps 1155
Case of Vesico-vaginal Fistula cured by a method believed to be new, Dr. F. J. McCann (Three Figures) 1204
An Antiseptic Vaccinator, Dr. J. Wilson 1217
A Handle for Mounted Curved Needle, Mr. A. MacLennan ... 1218
An Eye Speculum, Mr. W. Lang 1218
Myasthenia and Ophthalmoplegia, Sir. W. R. Gowers (Three Figures) 1255
Traumatic Epilepsy, with Adhesion of Skin to Brain, Treated by Insertion of Gold Foil, Mr. Rushton Parker (Two Figures) ... 1257
Case of Sporadic Cretinism in which a Relapse Occurred owing to Omission of Thyroid Extract, Mr. Arthur Hale (Three Figures) ... 1260
Keloid following Vacciuation, Dr. L. L. Burton 1265
A Liver Clamp, Mr. B. C. Stevens (Two Figures) 1278
Plan of New Operating Department at London Hospital 1306
Portrait of Dr. W. Miller Ord 1315
Further Remarks on Finsen's Light and *X*-ray Treatment in Lupus and Rodent Ulcer. Mr. Malcolm Morris and Mr. S. E. Dore (Four Figures) 1326, 1327
Case of Sarcoma of the Face, Dr. R. J. Gladstone (Two Figures) ... 1331
Skoliosometer, Mr. A. Young 1332
A Model Sanatorium for Consumptives, Sir Lauder Brunton. (Two Figures) 1398
Media for Distinguishing B. Coli, B. Typhosus, and Related Species, Drs. A. S. Grünbaum and E. H. Hume 1473
A New Principle of Curing Club-foot in Severe Cases in Children a Few Years Old, Dr. Alexander Ogston (Eleven Figures) 1524, 1525, 1526
Genu Valgum, Mr. C. A. Morton (Five Diagrams and Twelve Figures), 1528, 1529, 1530, 1531
Spina Bifida, Its Operative Treatment among Out-patients, Mr. J. H. Nicoll (Six Figures) 1533, 1534
Hippocrates's Plane Tree in the Island of Cos (Two Figures) 1546, 1547
The Quadrangle, Owens College 1566
The Whitworth Hall, Owens College 1567
Histological Laboratory, Owens College 1568
Manchester Royal Infirmary 1569
Some Phases of Inflammation of the Appendix, Sir F. Treves (Four Figures) 1591, 1593, 1594
Duodeno choledochotomy for Retained Gall Stones at the Duodenal End of the Common Bile Duct, Mr. H. B. Robinson ... 1598
The Operation of Jejunostomy, Mr. B. G. A. Moynihan (Two Figures) 1600
An Emergency Disinfector, Dr. J. C. Thresh (Two Figures) ... 1606
The John Usher Institute of Public Health of the University of Edinburgh (Three Figures) 1610, 1611
Alfred Hughes Memorial (Two Figures)... 1616

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

BRITISH MEDICAL JOURNAL:

BEING THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

LONDON: SATURDAY, JANUARY 4, 1902.

A Lecture
ON
EPILEPSY.

Delivered at the Medical Graduates' College and Polyclinic.

BY SIR WILLIAM H. BROADBENT, BART., M.D., F.R.S.,

Physician-in-Ordinary to His Majesty the King and to His Royal Highness the Prince of Wales; Consulting Physician to St. Mary's Hospital, London.

EPILEPSY is a disease of which we know extremely little definitely, and with certainty nothing at all. We are up to a certain point agreed as to what cases are to be included under the term; we have much real and trustworthy knowledge as to the etiology of the disease; but its pathology is largely conjectural, and its treatment mainly empirical.

SYMPTOMS.

Epilepsy is characterised by recurrent attacks of general convulsion, attended with or preceded by loss of consciousness, usually sudden. This sudden loss of consciousness is perhaps the most constant feature of an epileptic fit. The convulsions vary in character, intensity, and duration, and may in *petit mal* be represented only by fixation of the eyes and features, with, perhaps, dilatation of the pupils, or by slight twitching of some of the facial muscles or of the fingers.

In true epilepsy these recurrent convulsions constitute the disease. The patient in the intervals enjoys such health as is natural to his constitution, and there are no symptoms suggestive of any affection of the nervous system. When we can refer the convulsions to a definite lesion of the cranial bones, or of the membranes or cortex of the brain, we are only too glad to remove the case from the category of epilepsy.

In a typical attack there is at the onset a peculiar cry, ending, when I have heard it, in a long expiratory groan, sudden pallor, loss of consciousness, and general tonic spasm of all the muscles, of which the groan is an expression. With the loss of consciousness is a headlong fall, sometimes in a constant direction in each attack, to one or other side, backwards or forwards, or preceded by certain movements, as, for instance, by a pirouette of three turns in a case in which I saw several fits, sometimes determined by the position in which the patient happens to be at the moment. The rigidity may last till the face becomes livid. It is followed by clonic spasms, usually at first one-sided, the face being distorted, the mouth drawn towards the convulsed side, the head and eyes jerked by a succession of spasms in the same direction, the jaw champing and froth issuing from the mouth, which may be bloody, from the tongue, also in convulsive motion, being caught between the teeth. Respiration is now laboured, noisy and stertorous, sometimes exhibiting the nasal stertor to which attention was originally called by Dr. Bowles. The countenance becomes purple and swollen, and the conjunctivæ injected. Similar clonic convulsions affect the other side, and the fit terminates in a series of synchronous general muscular spasms, the limbs being in an extended position. Minute petechiæ may be left behind as a result of the intense congestion. The urine is often passed and sometimes the fæces, at what period of the attack I do not know. The convulsions, as they subside, leave the patient in a profound stupor, at first amounting to coma, gradually shading off into sleep, from which the patient wakes up usually aching and sore from the muscular exertion, sometimes headachy, confused, and stupid; sometimes much as after a night's rest and with no recollection of the attack.

After *petit mal*, which may consist merely of a momentary suspension of consciousness, with fixation of the features and staring eyes, there is no coma, but there may be maniacal excitement of extreme violence. Homicide has not infrequently been committed in paroxysms of epileptic mania.

There may be variations in any part of the picture without any special significance attaching to the character of the fit. The severity of the case is estimated rather by the frequency than by the violence of the attacks, more especially as regards the effects on the mental faculties.

The epileptic fit is often preceded or initiated by what has been called an aura, an odour, a flash of red or coloured light, a subjective noise, a sensation in the epigastrium or in one of the limbs travelling towards the heart; a comparison of the sensation to a breath of wind suggested the name of aura. The starting-point of the aura has been supposed to indicate the part of the brain in which the initial disturbance occurs. An epileptic fit may come on at any period of the twenty-four hours, and may seem to be determined by a great variety of circumstances. A favourite time for the occurrence of attacks is in the night, especially towards morning, and again soon after rising. A patient may suffer from nocturnal epilepsy for years without knowing it, and when a case first comes under investigation it is always important to inquire if the patient has been subject to bad dreams, has ever wet the bed, or has found the bedclothes or himself on the floor. There are cases in which the seizures take place at no other time. It is important to note that they rarely come on during exertion or excitement. This has a practical, as well as, perhaps, a theoretical bearing. We need not forbid epileptics to take exercise or to ride, or even to cycle in moderation. In this conclusion I am glad to have the concurrence of my friend, Dr. Buzzard.

CAUSATION.

In the causation of epilepsy the most important element is undoubtedly an inherent tendency in the nervous system. Epilepsy runs in families with other neuroses. It is common in idiots and often associated with a low type of nervous organisation, intellectual and moral, and with a misshapen head or some bodily defect or deformity.

This inherent tendency or predisposition is for the most part congenital, but it varies greatly in degree. In some cases it is so powerful that the attacks occur early in life, and in spite of every care and of the most favourable conditions; in others they take place only under the influence of some violent exciting cause, or when the general health has run down or the nervous system has been exposed to some deteriorating influence such as alcoholic excess, immoderate smoking, or sexual abuse. If we are to call by the name of epilepsy those cases in which recurrent attacks of convulsions are distinctly due to an obvious peripheral irritation ceasing on its removal, we must admit that epilepsy may exist without any inherent tendency in the nervous system properly speaking, other than such as may be generated by peripheral irritation. On the other hand, it is possible that a predisposition may lurk in the nerve centres, and never be brought out in the course of a long life.

I am not sure that sufficient importance has been assigned to the sensory nerves in the causation of epilepsy. It is more and more recognised that the sensory side of the nervous system is the dominant one. Sensory impressions are the initial nervous operations, all motor actions are in response to afferent impressions, and the sensations to which they give rise constitute the primary basis of all intellectual processes. We look upon the brain and nerve centres as the structures in which nerve force or energy is generated: but whatever

may be the nature of nerve force, it must be formed and liberated in the sensory nerve endings, or, rather, beginnings. The impulse here originated, which travels to the spinal cord and brain, and starts reflex action or is transmuted into a sensation, is as much a manifestation of nerve energy as the impulse which, coming down from the spinal cord, excites muscular action.

Nothing can be more clearly established by experience than the relation between painful dentition and convulsions in childhood. Convulsions which have been going on for hours may at once cease when the tense and painful gums are incised. Gastro-intestinal derangement, again, is a frequent cause of infantile convulsions. Cases also are related in which the expulsion of a tapeworm or of long round worms has been followed by the cessation of convulsions.

It is a generally accepted view that the sense of buoyant health or its opposite—a feeling of unaccountable depression—is dependent upon the impressions transmitted to the nerve centres from the great viscera, and it is reasonable to infer that since peripheral irritation, such as the instances just given, can give rise to recurrent convulsions, a persistent visceral derangement may possibly be a cause of epilepsy.

It is, perhaps, worth while referring to the remarkable fact that an epileptic fit can sometimes be averted, and even an incipient Jacksonian convulsion arrested, by a tight band bound round the wrist or arm. If a peripheral impression can produce such an effect in the way of inhibition, it may be inferred that impressions of another kind and degree are capable of generating a tendency.

While the tendency to epilepsy must be looked upon as chiefly inherited, it is not very commonly manifested in infancy or childhood. Cases occur in which the disease appears to be established by infantile convulsions, but infantile convulsions must not be regarded as constituting an epileptic tendency, since they may happen to children entirely free from neurotic inheritance, and who never subsequently suffer from nervous affections.

When infantile convulsions are followed by epilepsy it is probable that the brain has been damaged.

A noteworthy point in the clinical history of epilepsy is the frequency with which the fits begin to occur at puberty or during adolescence. So close is the association between epilepsy and this period of life, that when the first attack is much deferred and takes place in the adult, we look for some contributory cause which has brought out the latent inherited tendency, or suspect that we are dealing not with epilepsy as such, but with some morbid condition of which epileptiform convulsions are among the symptoms, syphilis in the young adult, cardio-vascular derangement, or degeneration after middle age. It is not necessary to dwell on the various causes of nervous stress and excitement incident to early adolescence.

When epileptiform convulsions set in suddenly and frequently at any period of life peripheral irritation of some kind may be suspected. One such instance in my experience was a necrosed terminal phalanx, the fits, previously frequent and violent, ceasing when the bone was removed. Another was a piece of glass embedded in the wrist in close relation with the median nerve; pressure on the spot at once brought on a convulsion.

PATHOLOGY.

In the absence of definite knowledge as to the causation of epilepsy, we fall back upon every kind of speculation and consideration which may throw light upon the problem which the disease presents. If we only knew completely and exactly what takes place in the nervous system when a convulsion occurs, we should have gained a step towards the comprehension of a disease, the most prominent feature of which is recurrent convulsions, though not perhaps any great advance since a convulsion is not the first, possibly not even the most important, element in an epileptic attack.

A convulsion is the result of an excessive and disorderly liberation of nerve energy, as an ordinary purposive action is the result of a duly limited and orderly nervous discharge. This nerve force is generated in and by nerve cells or by reaction between the cells and the intercellular plasma; in any case, it is through the cells and their axons that the energy is conveyed to the muscles.

We do not know the precise nature of this force, but it can only be a transformation of forms of energy with which we are more familiar, and everything points to a chemical change of the nature of oxidation as its source. From the fact, indeed, that oxygen seems to be absolutely necessary to the functional activity of the cerebral cortex, it would almost seem that here the oxidation was direct, but such is not the case in the same degree in the grey substance of the spinal cord.

Another point which we may infer with regard to nerve force is that it must be characterised rather by intensity than by quantity; its electrical analogue will be the spark of static electricity rather than the galvanic current. The chemist cannot point with confidence to the products of oxidation of the nervous structures and estimate the amount of waste they have undergone from the exercise of their functional activity, as he can in the case of muscle. Another consideration pointing in the same direction is that there must be some quantitative as well as qualitative relation between the chemical process by which nerve force is set free and the substances by which this process is influenced. It is not simply by its presence in the blood that hydrocyanic acid at once arrests the evolution of nerve force in the vital centres of the medulla, or that morphine more gradually suspends the functional activity of the cortex, and ultimately of the lower centres. A fatal dose of prussic acid being equally distributed in the blood, only an incalculably minute proportion can be carried to the medulla; and in whatever way it interferes with the chemical changes by means of which the nerve force is evolved, it affords a means of estimating the amount of chemical change and of showing that quantitatively considered it must be extremely small.

From whatever point of view the evolution of nerve energy is considered, the conclusion suggested is that in the grey matter there is accumulated a substance of an explosive character, ready to liberate energy not by gradual combustion like coal, but by a sudden readjustment of chemical affinities, as in the case of nitro-glycerine.

The passage of an electric spark through a mixture of oxygen and hydrogen will give rise to a violent explosion. The gradual burning of like volumes of one gas in the other will liberate an equal amount of energy, but gradually. An explosive compound such as nitro-glycerine may be said to consist of carbon, hydrogen, and oxygen in explosive proportions, held apart by combinations into which nitrogen enters, which defeat their natural affinities. Let any condition be applied which destroys this restraint—flame in the case of gunpowder, percussion in the case of gun-cotton—and the normal affinities assert themselves with explosive violence. A piece of gun-cotton will burn harmlessly on the open hand; fired by a percussion cap it would blow the hand to pieces.

A convulsion, then, represents an explosion of nerve matter that is, a more or less general discharge of the explosive material accumulated in the grey substance of the cortex of the cerebrum or cerebellum or of the central ganglia. A question which at once arises is how such discharge is determined; and here experiment gives us the usually contradictory suggestions, while clinically it occurs under the most diverse conditions.

Convulsions attend death from loss of blood and from suffocation; we may have them at the invasion of almost any of the acute specific fevers, and they are common in disease of the kidneys; they may mark the onset of acute inflammatory affections of the brain, or occur at almost any period during their course, or as part of the final symptoms. Convulsions, again, may be excited by peripheral irritation—as in teething of children already referred to. It is difficult to draw trustworthy inferences from such diverse premisses, and there is not time for any such discussion as might serve to establish even provisional explanations. It may be stated, however, that the experimental methods by which convulsions are induced have in common arrest, more or less sudden, of the cerebral circulation. It will be remembered that Hughlings Jackson attributed convulsions to spasm of the cortical arterioles; and I may, perhaps, add that for many years I have held the view that uræmic convulsions are due to stoppage of the circulation in the cortical capillaries and not to the direct action of any poison.

There remain the definite indications of Jacksonian epilepsy

and of the experiments of Hitzig and Ferrier. There can be no question that electrical stimulation of the cerebral cortex and of various subcortical grey centres can excite muscular actions, local and general, and nothing is better established than the causation of convulsive movements of a part by a lesion of a cortical centre. A local convulsion traceable to such a lesion may also become generalised with loss of consciousness.

The explanation of epilepsy to which the foregoing considerations lead up is that the explosive material in the cortical grey matter or other important collections of grey substance is unstable, and goes off too easily. It is this inherent instability—the liability to explosion without adequate exciting cause, perhaps even spontaneously—which characterises epilepsy and distinguishes the epileptic convulsions from convulsions determined by some violent external cause.

It is sometimes assumed that a convulsion exhausts the explosible matter in the nerve centres, and Dr. Hughlings Jackson has spoken of the coma which follows an epileptic seizure as paralysis from such exhaustion. This view seems to me to be disproved by the status epilepticus where one convulsion succeeds another for many hours with intervals of unconsciousness.

The periodical recurrence of the fits at almost regular intervals, irrespective of any apparent provocation, is suggestive of accumulation of the explosive nerve substance up to an amount beyond the control of the normal inhibitory influence. It might be, on the one hand, defective constitution of the nervous material, or, on the other hand, imperfect inhibitory control.

Mostly it is an inferior quality of nerve substance which is formed, and the instability is evidently a result of malnutrition. It is conceivable, however, that it may not be the formation of a low grade of nerve substance, but of too sensitive a type of explosive material. Possibly in this we have some sort of explanation of the undoubted fact that men of genius—military, literary, and scientific—have been epileptics.

Night and Early Morning Attack.

It has already been mentioned that the fits of epilepsy are extremely liable to come on during the night or in the early morning or soon after rising. This is highly suggestive of cardio-vascular conditions as among the influences by which the time of an outbreak is determined. It is at about 4 A.M. that the temperature of the body is lowest, during sleep the circulation seems to run down and the vascular pressure to fall. In cyclic albuminuria, which is most common in adolescents, it is the change from the recumbent to the erect position (with perhaps exposure of the skin) that determines the appearance of albumen in the urine, and if such change of posture can so far affect the circulation in the kidneys, it may influence in an even greater degree the circulation in the brain. This fact is at any rate evidence of the lowered tone of the cardio-vascular system during sleep.

Prognosis.

The prognosis in a case of epilepsy turns mainly on the question how far it is due to a tendency inherent in the nervous system, how far to causes outside the nervous system which might either generate or aggravate the tendency, or, the tendency being there, provoke attacks.

Heredity will enter very powerfully into the consideration. It is not necessary, however, in order to come to an unfavourable conclusion, that there should be a family history of epilepsy. Insanity, alcoholism, marked eccentricity, vice, perhaps even hysteria or migraine in parents or near relations, may be evidence of hereditary instability.

If, with the liability to recurrent attacks of convulsion, there are other evidences of a low type of nervous organisation, such as idiocy or weakness of intellect, or moral depravity; if there is any faulty construction of the cranium, if the head is too large or too small, or if there is the expression which we recognise and call epileptic, there is practically no chance of the cessation of the attacks.

If, again, the fits have begun in childhood, or at or soon after puberty, and have recurred regularly and frequently, whether or not there have been other injurious influences at work, it may be concluded that an inherent tendency to instability exists.

If, on the other hand, the patient has the look of bodily and mental vigour, if some serious exciting cause has preceded each attack, if the fits have not begun till late in the period of adolescence or till adult age has been reached, it may be presumed that the inherent tendency to epilepsy is not strong, and that it may possibly be held in abeyance.

Very important indications also may be furnished by the state of the circulation. Prolonged observation has convinced me that the tension of the pulse is unduly low in epileptics. This low tension pulse I have come to consider as a characteristic of the disease. It is a part of the general sluggishness of the organic operations like the pallor which is common and the dull complexion and flabby skin. Whether the deficient arterial pressure is a cause of the malnutrition of the nervous centres, or a mere consequence, its significance is the same and it is an unfavourable prognostic indication. A pulse of unduly high tension for the age of the patient, on the contrary, is a ground for hope of recovery. More than twenty years ago a boy, the son of an army medical officer, who had had to leave the navy on account of epileptic fits, was brought to me. He had a high-tension pulse and exhibited no signs of bodily or mental weakness. I ventured to give a favourable opinion as to his future, and when a year or two had passed without a fit, his father's influence secured permission to enter the army. I met this patient accidentally last year in excellent health. He had only had one attack after he joined the army: this was during one of the Afghan campaigns under circumstances of great fatigue and privations and it did not interfere with the discharge of his duties.

Treatment.

In all cases the epileptic should have an open-air life as far as possible, and should be provided with employment in which he can take an interest and occupy his time. Nothing could be more satisfactory than the experience of the Epileptic Colony, near Chalfont, and in the much larger establishments in Germany and America.

Exercise of almost every kind may be permitted. Attacks rarely come on during exertion, and I have not hesitated to allow patients to ride. I am not quite so confident with regard to cycling, though I have never heard of an accident attributable to a fit, and I should only permit of swimming under competent supervision. The fear with respect to games is not of an attack at the time but during the reaction afterwards and especially next morning.

A very important question is whether an epileptic boy or girl should be allowed to go to school. Unless the fits were frequent I should answer in the affirmative, particularly as regards boys. The grounds on which hesitation would arise would be the effects on other children of witnessing a fit and the dread of its being known that the child was an epileptic. Both considerations would apply more seriously to the case of a girl; it would tell more against her in after-life, and girls are more susceptible to violent nervous impressions than boys.

Epileptic children and young people should be very carefully dieted, but not, so far as my opinion goes, on any particular or peculiar principle. The food must be adjusted to the digestion of the individual, the object to be held in view being to keep the general health at its best. Overfeeding should be strictly avoided, and the evening meal should always be light. It must be borne in mind that constipation or flatulence may bring on a fit, and the wholesome neglect of trifling derangements of the digestion to be recommended in healthy adolescents is not permissible when dealing with such as are subject to epilepsy. No stimulants should be allowed. It is doubtful whether they are ever of any service; and there is always the danger that the unstable nervous organisation may fall under the influence of alcohol.

The first point to be determined will be how far the case is one in which the inherited tendency is dominant and in which palliation only is to be looked for, or whether a hope of complete recovery may be entertained. But even in the most hopeless cases we should study the general constitutional conditions and the functional efficiency of the different organs. Exciting causes should as far as possible be identified. In

one constipation may be found to determine an attack, in another imprudence in diet, indigestible food, heavy or late meals. The menstrual period may be attended with attacks before, during, or after, even when quite normal; still more when menstruation is irregular or attended with severe pain is it liable to provoke fits.

The treatment of epilepsy, for the most part, resolves itself into the routine administration of bromides, just as the mere discovery of a cardiac murmur is too often the signal for giving digitalis or strophanthus. Whether the attacks are severe or slight, attended with violent convulsion or consisting of a momentary suspension of consciousness, whether the intervals are long or short, the rule is to give bromides. The potassium bromide is the most efficacious but it is depressing, and ammonium, sodium, and of late years strontium bromide, are had recourse to, singly, or more frequently in combination. It is not to be denied that the bromides have a marked influence in reducing the frequency and violence of the attacks, or that this is a great gain to the sufferer, but in no disease is it more true than in epilepsy that to relieve symptoms is not necessarily to cure the disease; and the question arises whether the relief of symptoms, the diminished frequency and mitigated violence of the fits, may not in many instances be too dearly purchased. That such is the case is distinctly my opinion. An almost more important consideration even than the depressing effect on the sufferers themselves is that the ready routine method of dealing with epilepsy interferes most seriously with the study of individual cases.

We are familiar with the bromide rash, and an attempt is commonly made to obviate its eruption by arsenic. Less conspicuous and attracting less attention, though infinitely more important, is the lowered tone of the nervous system, the loss of energy and of memory, the lessened efficiency, the depression of spirits and impaired enjoyment of life. I have seen patients reduced to a condition of practical dementia by long-continued dosing with bromides, and when the attacks have ceased it has seemed to be because the nerve centres had no longer energy sufficient for an attack. Julius Cæsar and Napoleon are said to have been epileptics; I am quite certain they would not have won their battles or left such a mark in the world's history if they had been energetically treated by bromides. It may be added that large doses of bromides have been found experimentally to affect unfavourably the dendrons and gemmules of the cortical cells.

A very important question is here suggested: What is the ultimate effect of postponing the fits? One view is that each attack predisposes to others, diminishes the resistance to the outlet of nervous energy along certain channels, tends to the establishment of a habit. Some sort of support is lent to this view by cases in which the fits tend to occur in groups or series; but there can be nothing of the kind in cases in which a single attack takes place at long intervals, say of months, and, according to my judgment, a general survey of the disease indicates not so much a liability to the outburst of nerve energy from deficient resistance along certain paths as to the formation of an unstable nerve substance by malnutrition. What we have to aim at is not to dull the sensitiveness of the nerve centres, but to increase their vigour and stability.

The idea on which I base my practice in regard to the treatment of epilepsy is that the use of the bromides is to diminish the frequency and severity of the fits, while the cure of the disease, the removal of the instability of the nervous system, is to be sought by other means. Occasionally the instability of the explosible nerve substance may be due to some visceral irritation, especially perhaps ovarian, and protection from this by the diminished sensitiveness to external impressions which is produced by the bromides may allow the nerve centres to regain their equilibrium, or give time for the subsidence or removal of the disturbing influence. It is also possible that if a brain had not originally any considerable inherent epileptic tendency, but had acquired the liability from some of the varied influences which lower the nervous tone, the prevention of the fits might afford time for the repair of the injury done by the adverse conditions. But for the most part there will be functional derangements or states of imperfect nutrition which may be dealt with in the intervals. I think there is a possibility of more harm being done by the bromides in the intervals by a deteriorating influence on the brain than the mere postponement of the attacks would be worth.

The rules, then, which I lay down for myself are somewhat as follows:

In what I call long-distance epilepsies, in which the intervals between the fits are six weeks or over, I do not give bromides regularly and continuously unless there is some other indication for their employment, such as sleeplessness or excitement. If the attacks recur punctually at definite intervals I should try to avert them by a short course of bromides when they were due. In any case, if the patient has premonitory symptoms which he recognises, he should be instructed to take bromides as soon as they come on. If, again, he is aware that an attack is liable to follow any special incident in his life, exertion, excitement, worry, such social events as a concert, theatre going, or dinner party, he may try to baulk it by bromides.

When the fits are frequent, and especially when it is clear that the bromides exercise a restraining influence, they must be given in such amount as may be found necessary and at such hours as may be suggested by the time at which the fits are liable to occur. In particular a dose will be given at bedtime when the attacks come on in the night or early morning. Even here, however, the time gained between the fits should as far as possible be turned to profit. We should not rest content with the diminution of the attacks, but should endeavour to discover and remove the underlying cause.

It appears to me that there is an opening for fruitful inquiry in those cases in which the attacks are nocturnal, and again in those in which they occur soon after rising. Clearly here there is cardio-vascular instability which reacts upon the nervous instability, and it would seem to be a reasonable anticipation that by moderating the running down of the vascular tone which takes place during the night the liability to attacks would be diminished. This is a course of observation which can only be carried out by the family medical man or by the resident officers of an institution. A teacup of hot and strong beef-tea might be given at bedtime, or a glass of hot milk. In the case of morning attacks this might be taken immediately on waking, and at this time cayenne or pepper might be added to the beef-tea, or perhaps a little spirit or ammonia or something pungent to the milk. I should infinitely prefer food to drugs; but, food failing, a dose of digitalis or other cardio-vascular tonic at night; in the morning, perhaps, nitroglycerine might be given.

In seeking to apply remedial measures, as distinct from the prevention of the fits, we must first inquire carefully into the patient's habits and mode of life, and put a stop to anything which is adverse to health, or especially which may exhaust the nervous system. Irregular meals, late hours, sedentary habits, self-indulgence of every kind, especially such as is vicious. Discipline is of the greatest value. The genuine epileptic is usually deficient in will power, and needs the outside help which is comprised in the term discipline. But I need not dwell on these general measures, though they are of great importance.

We must next ascertain whether there are any persistent functional derangements, and a thorough physical examination of the chest and abdomen ought to be made. Constipation must not be permitted, still less loose and irregular action of the bowels. Indigestion, especially when associated with flatulence, must be corrected. All abdominal uneasiness must be looked upon with suspicion, as must any irregular distribution of the gases in the stomach and intestines, or general distension of the intestinal canal. The urine will of course be examined, and not merely for albumen or sugar, but as affording evidence as to the general condition of the patient.

Disorders of menstruation may play an important part in epilepsy. It does not follow that because the fits in any given case occur chiefly at the menstrual period, which is otherwise normal, the epilepsy is of ovarian or uterine origin, but, on the other hand, ovarian irritation or dysmenorrhœa or other derangement may be responsible for attacks taking place at any time. I cannot of course go into the treatment required by this class of cases.

There remains the question whether anything can be done to improve the stability of the nervous centres by such remedies as are known to be of service when the nervous tone has been impaired, or when the functional activity of the brain has been disturbed by conditions of the circulation.

I have already stated that in epilepsy generally the pulse is small and the arterial tension low. Exceptions occur, and in my experience, when a young epileptic has a pulse of unduly high tension, the prognosis is favourable. The tension can be brought down by care in diet, and by eliminants. In post-hemiplegic epilepsy, again, when the pressure within the arterial system, which has resulted in the rupture of a cerebral vessel, persists, the frequency of the fits can be materially reduced—I think I have seen them kept off altogether—by keeping down the pulse tension, which can best be effected by mild mercurial aperients.

For the generally lowered vitality of epileptics I have given phosphorus and the hypophosphites, or arsenic with strychnine or quinine, and sometimes iron. I am disposed to think that the arsenic, which is often given at the same time with the bromides to prevent the rash, may sometimes have a considerable share in the production of good results. I cannot say definitely that I have seen cures, because in consulting-room practice we cannot follow up patients who recover, but I have seen many instances of remarkable improvement, the fits becoming less frequent and severe month by month. A satisfactory feature of such treatment has been the increased sense of well-being and enjoyment of life which has attended it, the improvement of the memory, and generally increased intellectual efficiency. This has been particularly noteworthy when bromides which had been taken for some time were left off.

Epilepsy will repay further study. Jacksonian convulsions have been differentiated from true epilepsy: the recurrent convulsions caused by local or general thickening of the cranial bones of traumatic or idiopathic origin ought to form a distinct category, and I think that further distinctions will be established, so that we shall speak of the epilepsies rather than of epilepsy. The different forms will then have each its own treatment. It is because my thoughts have moved in this direction that I have brought the subject before you.

A BRIEF HISTORY OF THE OPERATIONS PRACTISED FOR CANCER OF THE BREAST.

BY SIR WILLIAM M. BANKS, LL.D., F.R.C.S.,

Surgeon to the Liverpool Royal Infirmary.

IN this present age we consider that we live very fast, but, if we turn to the books and newspapers of the beginning of last century, we shall find that our ancestors a hundred years ago believed that they lived at a very rapid pace, while our descendants at the end of this century (when there will be Saturday to Monday cheap excursions to Mars) will look with pitying amazement on the poor old things who vegetated their lives away in 1901. But it must be admitted that the acute rush of life of the present day has come with rather startling suddenness upon us. It is essentially the product of the railway, the telegraph, and the telephone, and, as such, it has occurred during the lifetime of men who are not so far past middle age. So that plenty of us are capable of judging whether this very rapid advance has in every respect been a salutary one. For it must always be remembered that in all Nature the principle of slow growth and long life, of rapid life and speedy extinction prevails. This rule holds good with regard to a man's reputation. Formerly a surgeon took time over his work and thought about it and made sure that it was sound and would stand the test of trial by his brethren. After that fashion worked Syme and Simpson, Christison and Bennett, Graves, Stokes, Paget, Lister, Murchison, Wilks and all those men who have been the real makers of modern medicine. For they and their fellows of the same stamp planned the structure and laid its foundations, being ignorant of the meaning of self advertisement and solely intent upon the production of sound and true work. It is a question whether the same fine spirit is animating us now, for praise seems accorded only to the most recent and most obtrusive discoverer, whose discoveries are at the end of six months too often relegated to limbo.

It is due to this state of feeling that there has arisen a complete revulsion from the condition of matters which prevailed in our profession down to the beginning of the 18th century. Till that period a blind and unreasoning worship of the doctrines of the great men of the past was universal. This veneration, moreover, was of the most bigoted and intolerant kind. One cannot obtain a better glimpse of it than by reading the life of Ambroise Paré, and seeing how he was tormented by Gourmelen, the Dean of the Faculty of Medicine. As Mr. Stephen Paget in his life of Paré says, referring to a book on surgery published by Gourmelen, "This book is an idiotic appeal to authority and tradition; the very thing that Paracelsus would have liked to burn. The rest of Paré's answer to Gourmelen is no less emphatic, showing the wonderful vigour and spirit of his old age. He appeals once and for ever from tradition to experience; he will show this *petit maistre*, this ass, what it really means to be a surgeon." The unfortunate thing is that the pendulum has swung so far in the opposite direction that it is the man who appeals to experience who is now considered the ass. The idea is that there is no time to attend to persons who mildly plead long experience as a reason why they should be heard. Nothing is worthy of consideration if it is more than eighteen months old. To use the vulgar phrase of the day it is not "up to date," which phrase is too often synonymous with crude and hurried and superficial. When a man takes to critical moralising people say at once that he is a grumbler. I admit the soft impeachment, and what I venture very gently to grumble at is a leading article in the BRITISH MEDICAL JOURNAL for November 16th, 1901, entitled Operations for Gastric Ulcer. A paragraph runs thus:

> Twenty years ago, and even more recently, it was considered, in operating upon the breast, for example, that the whole malignant growth should be removed, the incision being made at a short distance from the margin of the tumour in supposed healthy tissue. The researches of Stiles, Heidenhain, and Rotter, and the operation of Halsted founded upon them, have entirely revolutionised that procedure. It is now accepted that, however small the primary growth may be, it is essential that the whole breast, the lymphatic vessels draining the breast, the chains of glands into which the vessels pour, should all be taken away. So the modern and the ancient operations may be contrasted. In the latter the tumour itself was excised, and, as an extreme measure, the glands, if felt to be enlarged, were removed through a separate incision; in the former the tumour, the whole of the breast in which it lies, the whole of the lymphatic system, vessels, and glands accessible, are mercilessly cleared away by patient dissection. Of the improved results that have followed this wide removal all surgeons are, we believe, convinced.

It must be obvious that there can be only one interpretation of this paragraph—namely, that until Dr. Halsted brought out his operation, founded upon the microscopic researches of the three other gentlemen mentioned, there had been no improvement whatever upon the old method of removing the growth by incisions made at a short distance from its margin through supposedly healthy tissue. I cannot but notice the perseverance with which this statement is being constantly reiterated, for in the BRITISH MEDICAL JOURNAL (April, 1900) I thought I had produced sufficient evidence of its extreme unfairness. But here it crops up again, Stiles and Heidenhain being now reinforced by one Rotter. So I am a second time compelled, greatly against my own inclination, to review the position.

It has occurred to me, however, that to look back and see what the surgeons of old thought and did in the matter of cancer of the breast might have some little interest from the antiquarian point of view. Hildanus, in 1646, in his *Observationes Chirurgicæ*, writes a letter to his friend Dr. Andreas Weickius upon the Excision of Tumours of the Axillæ and the Removal of the Breasts. Under the former head he makes some most sensible remarks:

> But before everything we must carefully make out whether the tumour can be shifted and moved from one point to another, and whether it can be radically excised. For the operation will be fruitless if any part of the tumour, however minute—nay, even the membranes in which tumours of this sort are usually enveloped—be left behind. For the disease sprouts up again, and becomes more malignant than ever, while there is no hope that we can remove what remains behind by cauterising.

Here is reproduced a drawing of the peculiar forceps and knife figured in Hildanus's work.

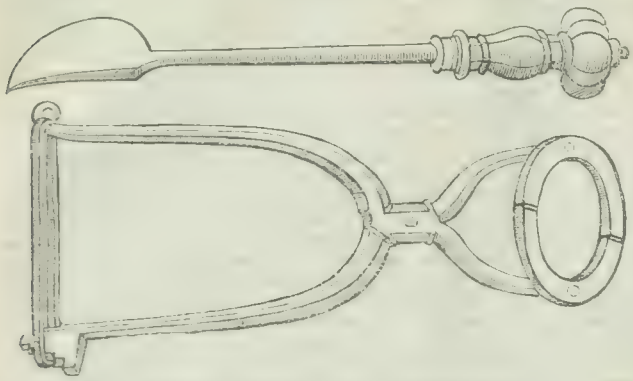


Fig. 1.—Hildanus. Figura forcipis et cultelli separatorii.

In the year 1706 the well-known Conrad Sprengell translated into English the *Chirurgica Curiosa* of M. G. Permannus, who was Chief Chirurgeon of the City of Breslau, in Germany, and of the Hospitals of St. Job and All Saints. He dedicated his book to the Emperor Leopold, and it is really worth a minute's reading to notice what a splendid thing a dedication was in those days. After about a page of titles of the Emperor it runs thus:

Most Illustrious Sir: I humbly implore your Imperial Majestie's most gracious pardon, that a person of no greater figure in your vast dominions than myself, though one of your most dutiful and loyal subjects, should presume to prostrate myself at the feet of your Imperial Majesty, and humbly present this book to your Royal Hands; but since all lesser things seek the protection of greater; that rivulets run with that design to the ocean, and small fires ascending the Superior Regions, direct their heat and flame towards the sun: Why should I fear in this little Offering to displease the greatest of Monarchs, the Sun of our State Meridian; whose Magnific and Generous Soul never despises the more minute endeavours of his meanest subjects for the public good: under which encouragement I humbly beg your Imperial Majestie's gracious acceptance of this work, which with great labour and industry I have compiled for the common benefit of the Universe, and I shall esteem that signal condescension in your Imperial Majesty as the greatest honour that could be conferred upon me.

To some of the junior members of the profession, who may not have had time to look into old books, it may be interesting to see how a distinguished surgeon addressed a great monarch in times of old. But it must be remembered that the elaborately submissive manner in which he does so did not at that time imply anything degrading; it was the accepted manner of addressing the great ones of the earth. Surgeon Permannus writes as follows:

Now we will proceed to the cure of a cancer by manual operation, in which divers methods are prescribed for the performance of it. Selingen recommends the old way of thrusting two crooked needles and silk through it crosswise, and leaving the ends hanging out of the cancer, to pull up the breast with them. For my part I never used such a tedious method, but have had more commiseration for my patients, as this city of Breslaw can testify, where I have cut nine cancers out of women's breasts from the foundation very successfully, and yet never used this way [illegible] needles could be thrust through the breast, which is a prodigious pain to the patient, and the ends of the strings ty'd together to put the hands into I have cut off the breast in half the time only with my hand. Some there are that use books instead of needles, and others a particular kind of a bag, in which they enclose the whole breast, and tye it about it where the place is sound, thinking they have done an extraordinary matter, but I still approving the way that has constantly succeeded in my practice, shall proceed to direct you in it. When your patient has been sufficiently prepared for [illegible] by the advice of an able physician, and you have all things [illegible] a table by you, place your patient on a chair towards [illegible] and hands close and fast to his body about the [illegible] and it necessary, tye a silk string twice round the breast [illegible] as hard as the patient can suffer it; to which strike [illegible] two other strings, tying them together on a knot, to draw the breast towards them; but this is only to be done when you think [illegible] hold the breast firm enough with your hand. Then take a crooked knife [illegible] your right hand, and cut towards the right arm, if you [illegible] breast; and, on the contrary, if it be the left, and [illegible] able cut out all you find hard or knotty [illegible] can, while your assistant in the meantime [illegible] that you may see the bottom and feel any [illegible] behind it in order to extirpate it, or touch it two or three times [illegible] iron.

Let us now pass on to 1740, when that splendid old surgeon, [illegible] Surgeon of Guy's Hospital, wrote his *Treatise on the Operations of Surgery*. He held that in extirpating the scirrhus, if it were small, a longitudinal incision would dilate sufficiently for the operation, but, if too large to be dissected out in that manner, an oval piece of skin was to be cut through first, the size of which was to be proportioned to that of the tumours; for example, if the swelling were 5 inches long and 3 broad, the oval piece of skin cut away was to be nearly of the same length, and about an inch and a-half in breadth. In taking off the whole breast, the skin might be very much preserved by making the wound of it a great deal less than the basis of the breast, which should be carefully cleared away from the pectoral muscle. When the disease was attended with knots in the armpit, no service could be done by amputation unless the knots were taken away, for there was no sort of dependence to be laid on them subsiding by the discharge of the wound of the breast. The possibility of extirpating these knots without wounding the great vessels was very much questioned by surgeons, but he had done it when they had not laid backwards and deep.

Coming to 1745, to Heister's wonderful book on surgery, he mentions the method of raising the breast by cords passed crucially across its base, and I have reproduced his two pictures illustrating the method. He mentions also the practice of some surgeons who used a thing closely resembling a large carving fork to pull up the breast, while Bidlow thrust through it an instrument very like a small sword. Helvetius, he says, used an instrument like a gigantic tuning fork, with movable sides, which was shoved up on the breast, and the sides screwed together. All these were for the purpose of dragging the breast well away from the thoracic wall. In 1778 William Hunter was lecturing, and I possess a beautiful copy of manuscript notes of his lectures by a certain T. Cowley. Nothing better could be written than this:

Amputation of the breast is an easy operation but a doubtful remedy.



Fig. 2.—Heister. Method of removing breast.



Fig. 3.—Heister. Introduction of cords to pull up breast.

The little success attending it deters the patient, wherefore it ought not to be undertaken without great probability of cure, as we run the risque of a general prejudice against the operation, which may so affright others that they will not run the hasard, tho' their disease may be really curable.

Hunter directs the surgeon to sit down before the patient, to take the breast into one hand and pull it down to make the skin tense that it may be cut more easily, and then, if the tumour be small, he need only make a longitudinal incision and dissect it out, but otherwise he is to make a semicircular one on the upper part, and dissect away all the indurated part from above downwards, finishing the operation below. If any indurated part be found left he must then dig it out, and, if the hæmorrhage be violent, take up the vessels with a needle. In the next place, if there be any indurated glands in the axilla, an incision must be carried upwards from the other wound, and they must be extirpated either with the knife or ligature.[1]

When I graduated in 1864 matters seem to have come to their worst point, for the teaching was that a narrow, elliptical bit of skin, which should include the nipple, was all that was to be removed, wherever the tumour might be situated. The breast and tumour being then removed the infected skin was replaced. It was a simple job, easily done and easily recovered from, but so absolutely hopeless from a curative point of view that a large number of men recommended their patients not to submit to it, and I believe that they were right. People lived longer when they were not touched than when they were operated upon imperfectly. If the axillary glands were affected then that was a bar to all operation. Even the removal of a mass of tuberculous glands from the axilla I have seen denounced by one of the best surgeons of the day. A few years afterwards in 1867 Mr. Moore of the Middlesex Hospital, whose experience of cancer in that charity was great, wrote what is now an almost historic paper on "Inadequate Operations in Cancer," which set a great many minds thinking, inasmuch as it was a revolt against constituted authority. It made me think too, so that I became deeply interested in the question. Moore's paper was one of the proper stamp, written out of the fulness of experience, and not an advertisement for practice, from which experience should ultimately come. During the following ten years after Moore's protest great progress was made. Lister and Bryant and Annandale and Heath attacked secondary glandular growths in a manner at once persevering and bold, and demonstrated that all that was required for their safe removal was careful, patient dissection. Among English-speaking surgeons Samuel Gross of Philadelphia was the next who made a notable move in favour of the true removal of breast cancers, and to him much is due for the earnestness and enthusiasm with which he pushed his cause, as will be remembered by all those who, like myself, had the privilege of being his friend.

Coming to my personal share in this matter of the surgery of the breast, I feel it a very painful thing that, on my own part and for the credit of those who have worked on the same lines, I should be compelled a second time in this JOURNAL to defend the work we have done, and to expose the very persistent attempts that have recently been made to ignore our work and to hand over to Dr. Halsted the entire credit thereof. I believe I must have now removed the mamma freely and cleared out the axilla about 300 times, and in the JOURNAL for April 2nd, 1900, will be found the history of about 175 of the patients, so far as I could trace them.

There was also given a list of the last 60 cases I had done with reference to the mortality. I can supplement that by 20 more to-day. So that I can point to 80 consecutive cases of extensive operation, and there has been only one death among them. My first communication was to the Lancashire and Cheshire Branch of the British Medical Association in 1877. It was made about a patient on whom I had performed what may be termed the complete operation, and she was well after about three years. That woman lived for about twenty years, and died, when near 70, without recurrence of cancer anywhere. This paper was termed A Plea for a more free Removal of Cancerous Growths. In it I said:

I can point to several cases of hard scirrhus of the breast in which the whole mamma has been removed which have now remained well for years. There is no mystery about this; all that is required is to take the precaution to cut freely through sound textures. But this is exactly what surgeons will not do. I have over and over again watched a surgeon remove a breast, and have seen him make his incisions so as to include a little elliptical bit of skin containing the nipple, after which he would proceed to scoop out the breast so as to get nice flaps, which fell easily together and covered in the wound. He never considered that in the brawny dotted skin over the [illegible] germs of the disease, and that the [illegible] was to leave plenty of skin; one of the [illegible] which cancer cells make their way, I can [illegible] majority of operations for cancer which I ha[illegible] —the cancer has not been removed root and [illegible] has been carefully looked at after the excitement o[illegible] over, there has generally been found some spot whe[illegible] that a bit more had been taken away. Not long ago I [illegible] some old illuminated manuscripts. Among other pict[illegible] inflicted upon the faithful there was one in which a [illegible] represented with a great crooked knife mangling the body of a [illegible] female. He had slashed off one breast, the former site of which was represented by a great bleeding chasm, while with one hand he was clutching the remaining organ, and with the other was preparing with one sweep to lop it off also. I could not help wishing [illegible] this picture to hang up in the students' room at our [illegible] *in terrorem*, but as my idea of what most amputations of the [illegible] ought to be; not a niggling half-and-half digging out of [illegible] tumour, but a radical sweeping away of the whole mamma, skin and [illegible] I have a very strong notion that it would not be a bad plan [illegible] removing a breast, always to clear out the axillary glands, whether we can find anything wrong with them or not, and I mean to try it. At present we only remove the glands when we can distinctly feel the [illegible] enlarged, and that frequently through a great deal of fat and a t[illegible] skin. How do we know they are not already infected? And the [illegible] patient disappears, and does not return till the axilla is full, a[illegible] great vessels are so mixed up with the disease that we despair [illegible] being able to clear everything out, and so leave her alone. [illegible] abusing the lay mind of the unreasonable dread of operation the p[illegible] will come to regard an operation for cancer in the same light as th[illegible] an operation for stone or for cataract—a bad job at the best, they say, but still with a prospect of ultimate cure. They will come [illegible] when their cancers are small and request us to remove them, and, [illegible] could only extirpate them freely, what might we not expect? Has ever imagined what the results would be if all cancers were thoroughly excised when they were no bigger than peas?

These words were written nearly a quarter of a century ago, and I assert that they contain the principles upon which the present operations for cancer are based—principles which existed, therefore, long before Dr. Halsted wrote a word on the subject. I proceeded at once to put my views as to the axillary glands into practice, and in August, 1882, I read a paper before the British Medical Association at Worcester on Free Removal of Mammary Cancer with Extirpation of the Axillary Glands as a Necessary Accompaniment, and I gave the results of 46 cases. I said:

In the present paper a principal object is to advocate the removal of the axillary glands as well as the breast in all cases, whether we can feel the enlarged or not; in fact, to make the clearing out of the axilla a necessary part of the operation for removal of the breast. I have been quietly practising this for three or four years, having been driven to the conclusion that it was the right thing to do by discovering that even in those cases where certain glands could be distinctly felt to be enlarged when the axilla was opened small ones also were discovered which, although most palpably affected, were quite incapable of being made out from the outside.

Five years passed on, during which I worked on the lines mentioned, and in 1887 I read a paper to the Harveian Society of London, entitled Extirpation of the Axillary Glands, a necessary accompaniment of Removal of the Breast for Cancer, with details of 82 cases. In addition to the points I had urged in my previous papers, I added some others which had struck me.

Having cleared out the breast, I do not cut it adrift, but leave it suspended by its upper and outer end. I next open the axilla, and in so doing carry away a continuous mass of tissue upwards from the mamma, with the object of including in it all the lymphatic vessels going from the heart to the glands. This is an important step, and should never be neglected. Is it necessary to divide the pectoralis major? Very [illegible] I think. I imagine that out of my 82 recorded cases it was not [illegible] than two or three times. If the floor of the axilla has been wide [illegible] and if the arm is properly drawn up, you can feel with your finger quite well up to the clavicle and pinch or pull down glands from the very top of the cavity. Dividing the pectoral muscle adds somewhat to the tediousness of the operation, but that is all.

At the meeting a number of distinguished London surgeons honoured me with their presence, at which I was very much pleased, but, when the discussion on my paper came on, I found to my grievous disappointment that, with a single exception, they denounced it as one man. I can prove this by a reference to the *International Journal of Medical Sciences* (1888) in which is a very important paper by Mr. Samuel Cross, in which he said:

In the remarks on Banks's paper at the Harveian Society in the spring of 1887, in which that surgeon reported 82 cases of [illegible] breast along with the axillary contents, Bryant [illegible] whether the complete operation afforded better [illegible] plete; and Butlin, Pick, and Cripps held that cl[illegible] every case was neither necessary or judicious, al[illegible] that the skin should be freely removed. Owen was [illegible] gave cordial support to the procedure urged by Banks, the prevailing

opinion being that the operation was attended with an excessive mortality, and did not lessen the risk of recurrence. Mr. Thomas Smith, by the way, thought that the patients lived longest who had never been operated upon, and that it was a question for consideration whether a local excretion of cancer did not render patients less liable to constitutional disease.

It need hardly be said that after this very disappointing reception I returned to Liverpool much downcast. But I felt certain that the principles I had been advocating were sound, and so, far from giving them up, I pushed them still further. I had noticed the great liability of the cancerous material to invade the skin and subcutaneous tissues, coming in small nodules (which I have long demonstrated to students under the name of "small shot") at variable distances from the cicatrix. Both Gross and myself had long previously urged the removal of the fascia covering the pectoralis major, so I now proceeded to do this more carefully than ever, and to remove a wider area of skin. To gain some covering, however, for the great bare area, I began to loosen the skin and fat in the immediate neighbourhood by the process of undercutting it. Finally Thiersch's skin grafting came in, and has proved very valuable.

I wrote nothing about the matter for thirteen years, but continued operating upon the same lines until 1900, when in the Lettsomian Lectures I published my experiences and views regarding the whole question of cancer of the breast.

Concerning the proceeding which I have all along advocated, there is nothing mysterious, nor for one moment do I claim any originality for it, for others have done it as well as I. All the merit I claim is that I have been consistent in its use, and have shown, by a large number of collected cases, what its value as a means of cure really is. The first point is to abandon all formal incisions—angular, triangular, or multiangular. Draw a circular "ring fence" with a knife outside the apparent limits of the mamma if the tumour is central, and if it is lateral the "ring fence" should bulge well beyond the tumour. Then slip the blade on the flat beneath the skin for about 2 inches and undercut it all round. Let the skin be well pulled back at successive points by an assistant, and where the undercutting stops there the removal begins, so that one gets a long way beyond the rough limits of the mamma proper. Then remove the mamma and its contained tumour. One great advantage of the undercutting (which I began on an extensive scale in 1877 to get skin to replace the large areas thereof, which I began to remove) is that one can get the fascia off the muscle as far inwards as the sternum, down to the ribs and almost up to the clavicle. This careful removal of the pectoral fascia was one of the points dwelt upon by Dr. Gross and myself very many years ago, and, if properly done, does away with all necessity for removing the great pectoral muscle. The axilla should now be opened by an incision just under the edge of the great pectoral, and the upper end of the mamma with the whole contents of the cavity (as far as they can be held together) carried away in one mass. The importance of this lies in the fact that recurrence in the axilla takes place, for the most part, not in glands that are left behind, but in fragments of lymphatic vessels. I am convinced of this. The clearing out of the axilla requires patience. A dissecting tool, two long strong pairs of dissecting forceps, and a pair of curved probe-pointed scissors are all that is wanted. We are recommended, in the directions for Halsted's operation, to use the "sharpest possible knife" for this purpose. My recommendation is not to put any knives at all into the axilla: neither the sharpest nor the bluntest possible. With the tools mentioned, by a combined process of teasing out and snipping, the space can be cleared of everything it contains and the digitations of the serratus magnus stripped of their covering. If there should be felt any suspicion that the very top of the axilla has not been reached, then the pectoralis major can be divided as far as is necessary to enable this to be done. Its fibres can be pulled together by buried sutures of catgut. As for the great area denuded of cover, it is wonderful how a covering can be drawn together by strong wire sutures, if only the undercutting has been sufficiently free. Thiersch grafting, either done at once or subsequently, will fill up the rest of the gap.

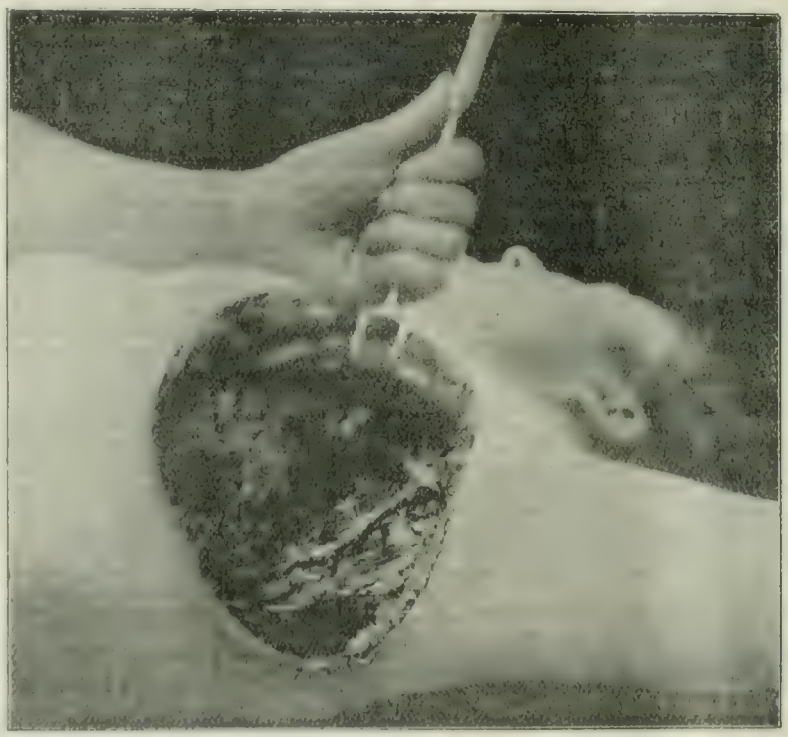


Fig. 4.—Clearing the axilla.

In the JOURNAL of December 8th, 1898, is a very elaborate description of Halsted's operation. It contains fifteen paragraphs, with very minute details, down to the grasping of the tumour with the left hand and the scrupulous dissection of axilla with "the sharpest possible knife." The only points of difference between this operation and that which I have just described which are in any way fundamental consist in the removal of the sternal part of the pectoralis major and the division of the pectoralis minor with reflection of that muscle. This is described as necessary for the complete removal of the glands in the axilla. Now, from this view I beg to express my absolute dissent. It is not necessary. If the arm be well manipulated and the great pectoral well pulled upwards and inwards, the very topmost point of the axilla can be cleaned out: and if the surgeon feels any doubt on the matter, division and subsequent suture of the great pectoral is all that is needed. But Dr. Halsted goes further than this, and in the *Transactions of the American Surgical Association* relates that he now almost invariably cleans out the supraclavicular region, and that our rule ought to be, "Operate on the neck in every case." For this purpose, however, he does not divide the clavicle as he did five or six years ago; but if it were very desirable to remove the supraclavicular contents in one piece with the axillary contents and breast, one need not hesitate. He considers the neck involvement is no more serious than the axillary, and that the neck can be cleaned out just as thoroughly as the axilla. He believes that in the near future we shall remove the mediastinal contents at some of our primary operations. At this rate we shall no doubt

after a few years have from him a proposition to remove the bronchial glands as well. As Mr. Edmund Owen once said, parodying the French general's criticism on the charge of the Light Brigade "*C'est magnifique, mais ce n'est pas la chirurgie.*" Now, concerning the statement that clearing out the neck glands runs on all-fours with clearing out the axillary ones, I quite deny that it does so, inasmuch as I have not a single case in which a patient has lived any time after having the neck glands removed. No man in this country has had more experience of the pathology of cancer than Mr. Plimmer, and he stated to me that he had never known anybody live long after distinct invasion of the supraclavicular glands. If the neck is to be cleared out as a routine performance, let us consider what will happen to a big-breasted, fat woman, with a weak heart. There will be a serious job to start with in the mere removal of the breast and tumour: then comes the digging out of the axilla, next the division of the clavicle in a bad case, and finally a delicate dissection among the great vessels at the root of the neck. I venture to prophesy that, if this procedure is adopted, there will be a great many more people die from it than will ever be saved from cancer—only their deaths will never be heard of in journals. The powers of endurance of the human body have a limit after all.

With regard to the work of Stiles and Heidenhain (that of Rotter I do not know), I desire to record my respect for these gentlemen, and to express my admiration for their work. That work, however, relates chiefly to the microscopic anatomy of the breast and neighbouring parts, and as anatomical research is worthy of all praise. But I do not wish to detract, and I do not detract, from the value of that work, when I deny that it has any bearing upon the practical doings of the surgeon. We do not operate with microscopes. Let anyone examine the wonderful collection of dissections of the lymphatics in the Musée Orfila at Paris, and he will see at once that everything that can aid him in practical surgery is there displayed. That the intervals between the macroscopic lymphatic vessels there shown were filled with microscopic ones was very evident, and it remained for Stiles and Heidenhain to demonstrate their presence. But that made no difference in the manner in which the neck and axilla had to be cleaned out surgically. It is the same procedure now that it was before they wrote a word about the microscopic lymphatics. Then where does this work come in practically? It might do so if it were asserted that after free removal of the skin, fat, and superpectoral fascia, the disease returned frequently in the great pectoral muscle or the tissues between it and the small one. But here, while willingly acknowledging the labours of Stiles and Heidenhain in their own line, I must assert my right, on the ground of a long practical experience, to insist emphatically that it does not return in these sites; and I again call to my aid the unrivalled experience of Mr. Plimmer at the Cancer Hospital, who quite coincides in this view.

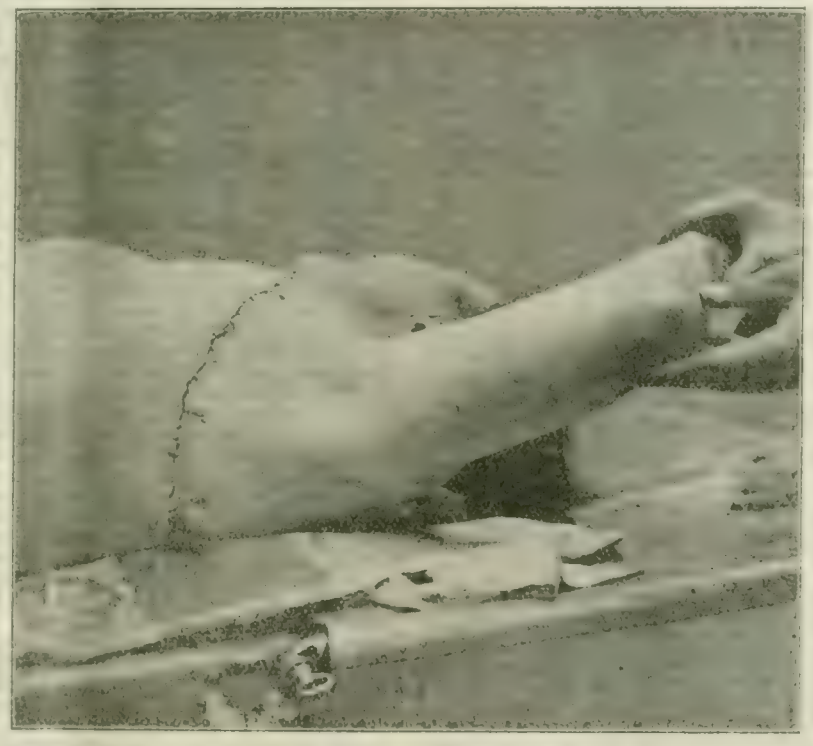


Fig. 5.—The denuded area covered.

Having now made several strong statements it behoves me to show that at all events these statements contain the views of other persons besides myself. The best way will be to cite the opinions of a man whose practical and literary knowledge of the subject of cancer will not, I think, be questioned by any surgeon, namely, Dr. Coley, of New York. He has written the articles on cancer in the *Twentieth Century Practice of Medicine* and in the *Reference Handbook of the Medical Sciences*, and I take the liberty of quoting from them:

> While many who advocate the extensive operation prefer to credit their conversion to the histological researches of Heidenhain, we must in fairness acknowledge that this great change has been largely due to the earlier clinical works and the superior results of Moore, Banks, and Gross. Banks's statistics are the largest and most complete yet published.

After giving a very careful analysis of the statistics, he says:

> This shows the great importance of following up the patients for long periods of time, and makes the statistics of Banks by far the most important data we now possess upon which to base a true estimate of the curative value of surgical treatment of cancer of the breast. They certainly justify his conclusion that the plan of taking percentages in small numbers of cases ought to be abolished, and, furthermore, that the three-year-cure system, too, must be abolished, if people are to be instructed early. . . . I have not yet been convinced of the wisdom or value of removal of the supraclavicular glands in operations for cancer of the breast. Statistics . . . . . which . . . equal . . . . . go to show that . . . . . without this step. In order to obtain better results I think it far more important to remove wider areas of skin and more of the adjacent fat, for we find that recurrence takes place in the skin or fat a hundred times to one in the pectoral muscles.

To conclude I personally am strongly of opinion that for the most part operations for cancer generally have gone about as far as they are likely to do good. As yet the breast is the organ where the best results have been obtained. The operations on the upper jaw, the testicle, and the stomach have hitherto been utterly disastrous as regards preventing the return of the disease, and to say that there are entirely "new lines" still to be discovered upon which new operations are to be founded is what I will not believe. The rectum and the great intestine have yielded, next to the breast, the best hopes of cure, but if the true histories of all the cases of cancer of the tongue of any size and moment, were capable of being told, they would constitute a very sad volume in surgery. I believe that the real advance is to be obtained by surgical teachers everywhere impressing upon their pupils the paramount necessity for recognising the earliest possible appearances of cancer, in the hope that this view may ultimately reach the public and induce them to seek medical help early in place of waiting, as they too often do now, lest their malady is past praying for. I repeat again the words I said in 1877: "Have you ever imagined what the results would be if all cancers were thoroughly excised when they were no bigger than peas?" But if this happy consummation is to be reached it will not be by performing tremendous operations upon practically hopeless cases. I have heard it argued that such cases should be done, even if there was a hundred-to-one chance for the patient. I entirely refuse

to subscribe to this doctrine. It is obvious that, for one who recovers, ninety-nine perish from the operation or from speedy return of the disease. The learning of the disasters to these ninety-nine probably affects the minds of several hundreds of friends and relations who hear about their unhappy fate. When a woman who knows all this discovers a lump in her breast, the unfortunate ends of persons whom she has known or heard about occur to her, and so frighten her that she conceals her complaint until she cannot do so any longer, and when she sees a surgeon it is too late for him to do any good. The operation is prejudiced in the eyes of the public, and for the one person in a hundred who escapes by some desperate operation, there are many who lose their lives by being terrified out of an early operation, which alone could have saved them. So I venture to recall once more the wise words of William Hunter, that the operation ought not to be undertaken without great probability of cure, as we run the risk of a general prejudice against the operation, which may so affright others that they will not run the hazard, though their disease may be really curable.

NOTE AND REFERENCE.

[1] As illustrating William Hunter's quaint ways of speech, the following is his valedictory address at the end of the session: "Now, gentlemen, I have finished ye course and wish you all the success in ye world. It has given me a great deal of pleasure to attend to a number of gentlemen, who have made it their study from ye beginning to apply with assiduity to what was going on. Whatever you may think of it, I am always studying your good, and it is this alone which induces me to give lectures. I have now finished twenty years of lectures, and however, as I presume I am still approved of, I propose twenty years more to begin next October, and, after this is over, I propose to settle in ye world and take me a wife."

[2] *Tumours of the Breast*, 1880.

A Clinical Lecture

ON

OÖPHORECTOMY IN THE TREATMENT

OF

CANCER OF THE BREAST.

Delivered at St. Bartholomew's Hospital, Wednesday, November 20th, 1901.

By H. T. BUTLIN, D.C.L., F.R.C.S.,
Surgeon to St. Bartholomew's Hospital.

GENTLEMEN,—I have for some time past had it in my mind to lecture on the removal of the ovaries for malignant disease of the breast. I thought I would do so somewhat later in this year or in 1902, but one or two circumstances which have arisen lead me to lecture on it almost before I am prepared to do so. However, the only want in the preparation is that I shall not be able to tell you the story quite so concisely as I might have done if I had had a longer time to put it together. As to the facts and opinions they are not likely to be altered in another three months.

In the first place, some of you may remember a woman whom I showed in consultation some months ago, who was suffering from slight recurrence, not very severe, after amputation of the breast and removal of the glands. The recurrence was scattered, and was not convenient for local operation. She was about 40 years of age, still menstruating, and she had no apparent disease of bone or viscera. I brought her down to consultation, and placed before my colleagues the question of removal of the ovaries and tubes in accordance with the treatment which has been employed from time to time for several years past. Various opinions were expressed but nobody was hopeful of the success of the operation. Still, many of my colleagues thought it was a proper case on which to try the experiment, and, generally speaking, we agreed that the operation should be practised in that case. My colleague, Mr. Lockwood, removed the ovaries and tubes. I have just heard the end of that case, and I will tell it to you presently.

Then a lady came to me last week. I operated upon her and her sister within a few months of each other for cancer of the breast, and she came to ask me (not for herself, but for some other lady whom I have never seen, and who had been operated on by another surgeon), whether I thought it would be a good thing that her ovaries should be removed in order to prevent the recurrence of the disease, of which there is, as yet, no sign. I told her I was going to lecture on the question shortly. She wished to know whether the lecture would be published, and, if so, where, as she would like to read it, because she would like to know my opinion on the subject. Regarding her friend, I advised her for the moment not to have anything done. I tell you that because it shows that the matter has now become lay property, and people are beginning to talk of removal of the ovaries in certain cases of cancer of the breast.

At the time I showed my case at consultation I suppose everybody had in mind that the female organs of generation are related to each other, related, that is, in such a way that, for instance, when a woman is menstruating, a tumour of the breast, such as a cyst or a mammary glandular tumour, is said, and I daresay with truth, to get larger for the time being. And it is well known that during menstruation the breasts are apt to become painful and enlarged. So the relation between the ovaries and the breasts is a matter which is admitted by medical people, and is believed by women in all classes of society. But in May, 1896, Dr. George Beatson, of Glasgow, who is attached to the Cancer Hospital there, read a paper before the Edinburgh Medico-Chirurgical Society on the Treatment of Inoperable Cases of Carcinoma of the Mamma: Suggestions for a New Method of Treatment: with Illustrative Cases. Dr. Beatson gave an account of two women to the Society, both of whom he showed. They had been treated by his new method, and eleven months after operation one of them appeared to be perfectly well of an absolutely inoperable condition of cancer.

Before I speak of the cases and of other cases in which the operation and thyroid treatment have been employed, I would like to draw your attention for a moment to his theory. The theory was not a mere general idea that the breast exercises a sort of influence on the generative organs, but he had certain definite views with regard to the nature of cancer of the breast which differed very considerably from those which hold the field at the present time. (I speak of the parasitic origin of cancer, which many people believe in, although it has not yet been proved.) Dr. Beatson considered that cancer of the breast is due to proliferation of the epithelium of the breast. It is a "local proliferation of epithelium," and he said when the cells had proliferated and increased in number, and could not escape from the acini or make their way from the ducts, they gradually swarmed out into the surrounding tissues, and produced the microscopic structure of cancer. He said there was no parasitic character about the disorder, and no special parasite had been seen, because there is no parasite in cancer of the breast. Taking this view of the nature of cancer, and believing it to be a mere proliferation and overflow, so to speak, of the epithelium of the breast, he began to consider what might control or alter this proliferation. I may tell you that this matter was before his mind for many years before he performed his operation. He remembered that in ordinary lactation there is a similar proliferation of epithelium, and the epithelium, as soon as it is formed, instead of filling up the acini and then overflowing into the surrounding connective tissue, undergoes rapid fatty degeneration and is passed away as milk, and so no harm comes to the woman, and he remembered that at such times women do not menstruate. So he thought, if a woman has local proliferation of epithelium of the breast not during the period of lactation, and we suppress the action of the ovaries, it seems possible that we might induce a fatty degeneration in this proliferating and swarming epithelium which might spoil it, so that it would be no longer harmful to the individual. So he proposed to himself that he would, some time or other, if he could find a suitable case, take out the ovaries and tubes, so as to be quite sure that no ovarian tissue was left. That is, in effect, Dr. Beatson's theory; and it is well, before you perform or talk about this operation, that you should know what was in his mind. I wondered, until I read his paper—which is a very good one indeed—what had first led him to perform the operation of oöphorectomy for cancer of the breast. I found it was the result of long study and of speculative thought, and not a mere matter of chance. He considered the matter for a number of years, and worked up a good deal of information in

connection with it before he thought of putting it into practice. This is what Dr. Beatson says:

We must look in the female to the ovaries as the seat of the exciting cause of carcinoma, certainly of the mamma, in all probability of the female generative organs generally, and possibly of the rest of the body.

So that he carried his idea of the influence of the ovaries on cancer over a much larger and wider area than the mere connection with cancer of the breast. In another place he says:

To recapitulate, I would urge the following points: (1) That there seems evidence of the ovaries and testicle having control in the human body over local proliferations of epithelium. (2) That the removal of the tubes and ovaries has an effect on the local proliferation of epithelium which occurs in carcinoma of the mamma, and helps on the tendency carcinoma naturally has to fatty degeneration.

You know that in carcinoma of the breast particularly a section of the carcinoma exhibits quantities of little yellowish points. Those are points of fatty degeneration.

(3) That this effect is best seen in cases of carcinoma in young people, a class of case where local removal of the disease is often unsatisfactory.

I may say that this paper created a very considerable amount of interest in Edinburgh, and a discussion took place, in which a number of distinguished surgeons and pathologists took part. I do not know that Dr. Beatson's theories would have produced such an effect had it not been that he showed a woman, 33 years of age, who had been the subject of an operation for cancer of the breast, and in whom the disease had recurred to such an extent and in such a form that any further local operation was out of the question. He had then performed his operation of öophorectomy, and had treated her at the same time with thyroid extract. At the end of eleven months he was able to show her before the Medico-Chirurgical Society at Edinburgh, apparently quite cured of her disease. The nodules had softened, and become gradually smaller, and withered away, the woman completely regaining her health. You can imagine the pleasure he experienced at showing the success of his first operation, founded upon theories which were totally his own, and which never, so far as I have been able to discover, had been suggested by anybody else before that time. Dr. Beatson came to London in the course of 1897, and delivered an address of very much the same kind at a meeting of the British Gynæcological Society. Again a discussion took place and various opinions were expressed, for the most part not very favourable to his method of treatment.

In the course of 1897 a discussion arose in the BRITISH MEDICAL JOURNAL on what one might term objections on theory. Of course when a theory, a new practice dependent on that theory, is proposed for a serious disease like cancer of the breast, there are sure to be people who object, on theory alone. And the first objection of consequence was made by Mr. Roger Williams,[1] who at one time had been Registrar at the Middlesex Hospital, where there are cancer wards, and who had taken a great interest in cancer and had written a great deal about it, and a great deal which was very good. He pointed out that Sir Spencer Wells in his book on *Ovarian Tumours* had drawn attention to the occurrence of cancer after operations in which both ovaries had been removed. So far from those women being less liable to cancer than other women, they were found to be infinitely more liable to it, and the proportion of them who suffered from cancer of various parts of the body was extraordinary. But Mr. Roger Williams had not studied Dr. Beatson's paper carefully enough, because Dr. Beatson had already dealt with that point in his paper. Dr. Beatson replied, yes, that is perfectly true, but considering that in some of these women cancer occurred within a few weeks of removal of ovaries, and in many within a few months, in most of them within a year, it is only reasonable to believe that the ovaries which were removed were themselves the seat of some primary cancerous change. There were some who took one side in the discussion and others who took the other side. Mr. Malcolm,[2] of the Samaritan Hospital for Women, took the side of Dr. Beatson, and Mr. Whiteford[3] took the side of Mr. Roger Williams. I do not know that much came of the continuance of the discussion, because nobody threw much fresh light upon it. But other real objections on theory were found in course of time. In the first place, it soon became apparent that the operation was not successful in all cases. More than that, in the majority of cases little or no effect was produced; and in a good many of those cases in which some effect, and sometimes a great effect, was produced the effect was very transient. Then, again, it was very quickly discovered that the removal of the ovaries had no effect at all upon cancer of the uterus,[4] and yet one would certainly have thought it ought to have quite as much as it would have on cancer of the breast. Again, Dr. Beatson suggested that the operation would be likely to be most useful in young people, that is to say, women under 30 or between 30 and 35, but it soon became apparent that these were not the best subjects for the operation of oöphorectomy and the administration of thyroid extract. It was then suggested that it should be used for women of 40 to 50 years of age who were still menstruating and who had no visceral or bone disease, so far as could be ascertained. In 1897 there appeared a very good paper by Mr. Stanley Boyd, Surgeon to the Charing Cross Hospital, who has been the chief advocate for the treatment by oöphorectomy here in London. Mr. Stanley Boyd drew attention to a class of cases which had been mentioned in Dr. Beatson's paper, cases of women in whom carcinoma seems to stop and sometimes to get well. Let me give you an instance.

I operated upon a lady some years ago for an ulcerated cancer of the breast, around which were several small nodules. I pointed out to her medical man that the case was a very bad one so far as prognosis was concerned. In about a year I performed a second operation for nodules which were scattered beyond the scar, in the surrounding tissues. She made a very good recovery from each operation. Then these nodules recurred in greater number, and were more threatening than they had been before. I saw her two or three times, and she seemed to be getting weaker and weaker, and I felt that in a few months she would die. I met her family doctor about two years afterwards, and I said: "Oh, I am glad to see you: I want to know when Miss W. died." He said, "She is not dead at all." I said, "Well, she must be in a very miserable condition." "No," he said, "she goes to the theatre and to dinner parties, and she is very well." I said, "What has become of those nodules?" He said, "Well, sometimes they are smaller, sometimes they seem larger, and sometimes they disappear. But, however that may be, she has no ulcerating places now, and she is in very good condition." Within three or four months from that time I was summoned to see the poor lady, and found her with the disease rapidly spreading. It had become suddenly active, and many of the nodules had ulcerated, and within a few weeks from that time she was dead. But the disease for a long time seemed to be arrested in her, and one had cause to hope that she might overcome it.

But the best case of this kind is one which was published by Mr. Pearce Gould, also of the Middlesex Hospital. He brought the patient before the Clinical Society of London several years ago. She was operated upon for cancer of the breast on several occasions; the disease recurred and affected many parts of the body, including almost certainly the right lung and the left femur. It seemed sure that she could not live long, when, without any particular reason and without any special treatment, she suddenly began to get a little better, and then gradually better and better, until at last every trace of cancer and every lump about her disappeared, and the woman appeared to have practically recovered from the disease.

At the discussion on Mr. Gould's paper Mr. Bowlby mentioned a case of a similar kind which had been under the care of Mr. Willett, and the same disappearance of the disease had taken place. Now, Mr. Boyd might, of course, have used these cases against Dr. Beatson's practice, and he might have said: "Dr. Beatson, in his first case, happened upon one of these instances in which a woman would have spontaneously recovered of the disease if she had been left alone, and if Dr. Beatson had not been rash enough to remove her ovaries and treat her with thyroid extract, she would have got well without anything being done." But, instead of taking that view, Mr. Stanley Boyd took a different, and I think a very sensible and interesting, view. He said it seems evident that in these two women some change of constitution took place, which rendered them no longer liable to the progress of the disease, and, more than that, which enabled them to withstand it, to thrust back, so to speak, the invasion, and finally to throw off the disease completely.

And it seems to me, he said, very likely indeed that Dr. Beatson, by the removal of the ovaries, was able to produce in his patient a condition of constitution similar to that which naturally or unnaturally occurred in these two women under the care of Mr. Pearce Gould and Mr. Willett. At that time he had not performed the operation more than three or four times, and he mentioned that there was decided improvement in certain of the cases which had been under his care, and he thought it was worth while to go on with the operation.

I next come to my own experience. I have been so much consulted on questions of cancer for a good many years past that I believe I rank in this town as more or less of a cancer specialist, and naturally I am obliged to keep myself acquainted with every new suggestion for treatment, even to the outward application of violets for the cure of internal cancer. I am asked about them incessantly. This very week a lady brings out a paper from her pocket and says, "Have you seen this?" "Oh yes, I have seen it; you mean the cure of cancer by violets, Lady Margaret Marsham" who has been cured of cancer inside the throat by the application of violets outside?" That is what is called an authenticated case. However, I must confess that, for various reasons, perhaps chiefly the failure of many of the early cases, I did not follow, during the first two years, the treatment by oöphorectomy of cancer of the breast, as diligently as I ought to have done, until the matter was brought home to me forcibly, and perhaps not altogether pleasantly, by hearing that the operation had been performed on one of my own patients, and with perfect success. In 1890 I operated upon a woman in this hospital who came from the neighbourhood of Reading. I removed her breast and axillary glands by the old operation. In the course of a year or two the disease came back, and she was sent up to the hospital here, and I showed her at the consultations. My colleagues and I were agreed that the case was beyond the reach of further operation, and she went home, and I supposed she went home to die. But I received one day a letter to tell me that she had been operated upon by, I think, Dr. Walker, of Reading, who had removed her ovaries and tubes, with the result that this patient, whom I regarded as absolutely incurable, and had been supported by my colleagues in that belief, was cured of her cancer. I received a letter from the doctor or somebody else, asking me to see this woman, and saying she was going to be shown in London. I was sorry I was not able to see her, I think I was out of town for my holiday about that date. Presently I will tell you what further happened, but for the moment I am to consider it in the course of my story as a case cured by the operation of oöphorectomy, a case cured by somebody else, not with my sanction or even with my knowledge, but one of my cases which I had said could not be cured. Naturally then I began to take more interest in the matter. I had never performed the operation myself, but I spoke to people about it and put the matter before some of my patients, but few of them seemed inclined to undergo the operation. If I was asked about it in private practice I said, "Yes, if you like to have it done, do so by all means, but I would rather you would get somebody else to do it."

There were various papers in 1898 by people who practised the operation and without very great success, and in 1899 again Mr. Stanley Boyd wrote in favour of it, and he read a very good paper at the meeting of the British Medical Association at Ipswich in 1900.[9] In that he put together 41 cases in which the operation had been performed. He showed how much benefit some of these women appeared to have derived from this operation of oöphorectomy. I think Dr. Beatson himself at that time was not so hopeful of his own operation, and I believe it was largely in consequence of Mr. Boyd's paper that my colleagues and I advised that woman in the winter to have the ovaries removed, and Mr. Lockwood performed the operation. We began to think it was a thing which we ought to try, but we wished to try it in the hospital, where microscopical examination could be made and full notes taken, and the case followed afterwards. This year the matter was again discussed at the meeting of the British Medical Association at Cheltenham, where Dr. Beatson read a paper upon it,[10] and there is another paper by Dr. Herman.[10] Both of these papers you will find in the JOURNAL in October. They are both worth looking at, but I must confess I am surprised at their hopeful tone. Dr. Beatson begins by giving an account of another case in which he performed the operation, and from the moment of the operation the patient began to improve, and rapidly got better. Her symptoms disappeared, and the lumps and tumours gradually went away. At the end of six months she was going on so well that he thought she would soon be quite cured. He says the doctor who was present spoke of it in a way which showed he was greatly impressed, and in one of his letters he made use of the expression, "this seems like a romance." Then Dr. Beatson went on to say that, seeing the support he had received from various people, and how well they had spoken of it—Mr. Stanley Boyd, Dr. Herman, Mr. Eve, Mr. Watson Cheyne, and Mr. Lockwood had all spoken favourably of it—he felt justified in pushing the matter, and actually put before the meeting—he would not answer the question himself, but propounded it in the form of an inquiry—whether the time had not arrived when oöphorectomy and the administration of thyroid extract should be practised at the same time as amputation of the breast, or (and this is the important point) in the place of it. Well, the tone of his paper, and the questions which are being asked every now and again by people outside our profession, led me to look much more closely into the matter than I had ever done before. I met Mr. Lockwood, and said to him, "I see you have been speaking in favour of Dr. Beatson's treatment of cancer of the breast by oöphorectomy." He said, "No, I do not remember that, except in regard to the woman at the consultation, and then I said that we ought to give it a trial." I said, "Have you done it often?" He said, "No, only in that case." I said, "I have a letter here from the doctor. He says, 'Oöphorectomy gave no relief at all, though I think the growth was a little slower for the first month or so after the return from the hospital. Secondary nodules appeared,'" etc. In fact, she got worse and worse until she died. Then I looked to see what Mr. Eve had said upon it, and I found in 1899 that he had published an account of a case in which he had performed the operation. For five or six months the woman was better, but after that she became worse and died in about a year.[11] Then I looked to see what Mr. Watson Cheyne had said. I found he had performed the operation on two young women, women, that is, aged between 30 and 35, who were supposed to be the best subjects for the operation. Both those women appeared to have been improved for a short time, but then they became rapidly worse and died. He expressed his great disappointment at the result of the treatment, and said:

> The result of these two cases, which were typical cases in young women (33 and 34) where the ovaries were still active, and where therefore their removal, if of advantage, should have produced the most marked results, is extremely discouraging, and I doubt if it is worth while going on with the procedure.[12]

At that very meeting of the Clinical Society Mr. Stiles, of Edinburgh, who was present at the reading of Mr. Beatson's first paper, mentioned that Dr. Beatson's first patient was growing rapidly worse. These are his words:

> Unfortunately in no instance had the patient been completely and permanently rid of the disease by removal of the ovaries. Only a few days back Dr. Beatson gave him (Mr. Stiles) an opportunity of again seeing his first patient, in whom for several months all trace of the disease had disappeared. Recently, however, the disease had again become manifest, and Dr. Beatson intended to publish a further note of the case at an early date. In the Edinburgh Royal Infirmary Dr. Beatson's treatment had been carried out by more than one surgeon, with the result that in some cases the disease had been temporarily arrested, while in others it had been uninfluenced.[13]

At the same time there appeared a short article or annotation in the BRITISH MEDICAL JOURNAL[14] upon these results, saying:

> Experience thus appears to prove that the operation influences cancer of the breast favourably but not permanently. Even when improvement is long maintained, allowance must be made, as Mr. Marmaduke Sheild has remarked, for the vagaries of recurrent cancer, the recent discussion at the Royal Medical and Chirurgical Society throwing much light on this important fact. We suspect, therefore, that oophorectomy for the relief of inoperable cancer of the breast is a practice which will fall into disuse.

In the BRITISH MEDICAL JOURNAL is a letter from Dr. Daniel McNicol to say that the patient mentioned in Dr. Beatson's last paper died on September 30th of this year. The last date given by Dr. Beatson was April 28th, only six months after the operation. From that moment she had ceased to improve, and "from that date till September 30th,

1901, her existence was simply a long drawn out, painful, and living death."[15]

Of Dr. Herman's cases, I would only say that Case I appears at present to be one of the best on record. Of Case VII, of which he speaks as relieved by the operation, it is the opinion of those best fitted to judge of the result that, with the exception of having been relieved of dysmenorrhœa, she has not been in the least degree relieved so far as the malignant disease is concerned.

With regard to my own cured case, that is to say, the one which was operated upon at Reading. When three years ago Mr. Maxwell was following up all my cases he said:

> I have come across a very curious case of a woman who died in the hospital at Reading. You removed her breast and the axillary glands and afterwards she had an operation performed on the abdomen. The question has arisen whether the operation on the abdomen was for malignant disease, and whether the primary disease in her case might not have been malignant disease of the ovary and not of the breast.

I said, "I can tell you about that case. It is a case which was cured by oöphorectomy." The house-surgeon had discovered the mark where the oöphorectomy was performed, but he had not known why the operation had been performed; he thought it was probably performed for tumour of the abdomen. The disease recurred just as it was before, but with much greater severity, and she died in February, 1898. That patient, who had been reported to be cured, died of cancer just as if she had never been operated upon.

In looking up Mr. Stanley Boyd's last paper I noticed these things. He is not inclined himself to give the operation up at present. He finds that a beneficial effect is produced in a certain number of women, but he admits that most of the patients suffered from recurrence of the disease, or from recrudescence of it, if you like, within seven to twelve months after the oöphorectomy. He finds that the results are limited. Still, they are such as, in his opinion, justify the continuance of the experiment. I do not think he would go so far as to replace an ordinary amputation of the breast and removal of the glands by the operation of oöphorectomy. Now, of course it may be suggested to any of you, or it may occur to any of you, to say, "Well, after all, a great many of the local operations for cancer of the breast are not successful. The patient has a return of her cancerous disease, and dies of it. Under those circumstances we may as well practise one operation as another, and it may just as well be the operation of oöphorectomy as one of the large operations on the breast."

In order that the issues may be clearly placed before you I have thought them out, and I would like to point out to you the objects of the local operation for cancer of the breast. Take a woman who is suffering from a small cancer of the breast, with no affection of the glands, and there is a reasonable hope that, by a considerable operation, you may cure that patient in so far as she will not have cancer again. She is just as much cured as a patient who has had pneumonia. She may remain ten, fifteen, or twenty years without any cancer, and may die of some other disease. Again, take a woman who has cancer of the breast, with enlarged axillary glands. These you take away by a sufficient operation. The disease recurs *in situ*. That means failure of your operation up to a certain point. But, after all, she may be much less miserable, and may die a much less painful death than if the operation had never been performed. An example of that is the following:

Some years ago a lady was brought to me with a very bad cancer of the breast. She had very full breasts, and the whole breast was infiltrated with cancer. She had been under a quack for six or eight months before I saw her, and her breast had become very hot, and hard and heavy. I pointed out that the prognosis was as bad as it could be. But on the other hand, as she suffered so much pain and was anxious to have something done, I amputated her breast. In the course of a few months the disease recurred in the form of numbers of nodules all about the breast region and in the other breast, which in the course of time became equally heavy and painful as the breast which had been removed. She absolutely begged me to remove the other breast on account of the pain she suffered in it: so that the operation was successful to that extent in her. I was much impressed by this. Again, several years ago, I was discussing removal of the breast of a lady with an old gentleman whose wife and sister-in-law had died, both of them from cancer of the breast. One of these ladies had been treated by operation and the other had not. One of the brothers was present, and he said, "What is the good of an operation if the cancer is to come back again as it did in my aunt?" The father said, "My dear boy, the difference in the death of those two women was enormous. The one who had no operation suffered grievously, whereas the patient on whom the operation was performed died a very much less miserable death."

Then, again, there are certain cases in which no recurrence takes place *in situ*. You remove the breasts and the axillary glands with perfect success so far that there is no local recurrence, and the disease occurs in some other part of the body. But there is no ulcerated mass, and the patient dies in much less misery. You may see such a case as this here every now and again. There is a little old woman who comes from one of the neighbouring workhouses, for whom I performed Halsted's operation four or five years ago. She has no recurrence *in situ*, but above the clavicle she has a large mass of glands which are not ulcerated. You may watch her gradually getting paler and thinner and feebler, and the perspiration breaks out upon her on the least exertion; but she can be kept in perfect comfort by the injection of a dose of morphine from time to time.

So, too, I have often operated on women who, within a year or two, have died of cancer of the liver or another internal organ. In such cases the pain and distress are trivial compared with the pain and distress of an open cancer.

So we have really three objects in our operations for cancer of the breast:

First, the hope which we can hold out to a goodly number of women nowadays that operation may be quite successful.

Secondly, that if the disease still kills the patient, it may do so by occurring in some distant organ, and with much less pain and suffering.

Thirdly, that if it recurs *in situ* in the form of nodules, the patients generally suffer far less than if no operation had been performed. We are asked to replace that by an operation for removal of the ovaries and the administration of thyroid extract. You are sure to be asked what the effect of this operation is. You can only reply that, so far as you know, there is no single case of cure, such cure as you get by local operation, by means of oöphorectomy. I do not know of a single case in which a patient can be claimed to have been cured by oöphorectomy,

Secondly, when the disease comes back again, as it generally does within six months to a year, and sometimes much more quickly, it does so exactly in the same form and with all the same trouble as were present at the time of the operation, and the patient grows slowly worse and dies. The manner of her death and the distress of it are not in the least changed by the operation of oöphorectomy.

Lastly, you have to admit that a very large number of women on whom oöphorectomy has been performed and who have been soaked in thyroid extract have not received the smallest benefit in the world. I am ready to admit that the operation of oöphorectomy, with the administration of thyroid extract, has for the most part been employed in very bad cases of cancer, very bad cases indeed, where the disease has recurred, and where there have been numbers of cancerous nodules scattered about the body. And the advocates of oöphorectomy may fairly say: "Let us have cases such as you operate upon with success by the local method."

I admit that if we are to come to a definite opinion as to whether this operation can cure any woman of cancer of the breast, it must be by applying the practice in, say, 20 or 25 cases of women who have cancer of the breast to a very limited extent and without any obvious extension to the lymphatic glands. If that number of patients can be found willing to take the risk I would not blame the surgeon who would perform oöphorectomy in such a series of cases; but personally I have not the courage or the faith to do it myself.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1897, i, 1514. [2] *Ibid.*, 1897, ii, 185, 435, 1375. [3] *Ibid.*, 1897, ii, 117, 250. [4] *Ibid.*, 1897, ii, 890. [5] *Transactions*, [illegible]. [6] *Sunday Times*, November 17th, 1901. [7] BRITISH MEDICAL [illegible], i, 257. [8] *Ibid.*, 1900, ii, 1161. [9] *Ibid.*, 1901, ii, 1145. [10] *Ibid.*, 1901, ii, 1150. [11] *Clinical Society's Transactions*, p. 210. [12] BRITISH MEDICAL JOURNAL, 1898, i, 1194. [13] *Ibid.*, 1898, i, 1075. [14] *Ibid.*, 1898, i, 1221.

ACCIDENTAL REMOVAL OF AURICLE BY MIDWIFERY FORCEPS, AND SUCCESSFUL APPLICATION OF ARTIFICIAL AURICLE.

By JAMES ERSKINE, M.A., M.B.,
Late Lecturer on Aural Surgery, Anderson's College, Glasgow.

I AM induced to publish a note of this case by the extreme rarity of the occurrence of the accident. It is the only case of such injury of the auricle that I have seen in the course of twenty years practice of aural surgery. The practitioner who attended the delivery has kindly supplied me with the particulars of the circumstances and course of the labour:



Fig. 1.—Remaining parts of right auricle.

The presentation was a normal first position. The labour was very protracted and lingering. The woman was very atonic, no progress being made after many hours of irritating and exhausting but slight pains. Chloroform having been administered, the instruments were applied at the brim, the forceps used being a modification of Barnes's of medium length. After long and strong pulling, the forceps slipped without the slightest warning, and on reapplication the child was delivered without further incident. The case all through was extremely difficult.

The little boy was brought to me by his father about two years ago for advice as to an artificial auricle. I found that nearly the whole of the right auricle had been removed. As will be observed from the photograph (Fig. 1), the tragus alone remained along with part of the antihelix bounding the concha inferiorly and posteriorly, extending superiorly to meet a small remnant of the helix and its crest above the orifice of the external meatus, and enclosing a depression corresponding to the situation of the cymba conchæ. The fenestra of the blade of the forceps had caught the auricle behind and below and had torn

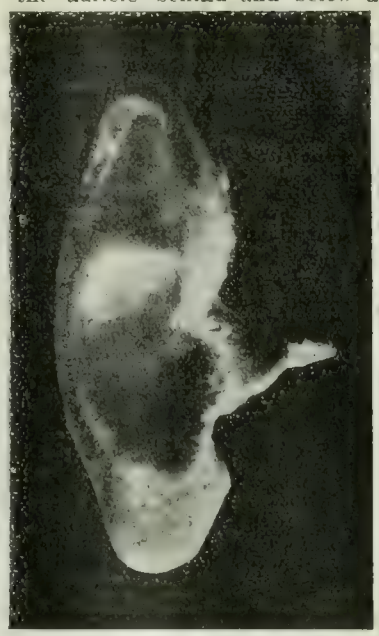


Fig. 2. Artificial auricle with process for meatus.

it away close to its place of attachment to the temporal bone. No attempt was made to reapply the auricle by means of



Fig. 3.—Artificial auricle in position.

sutures. The external meatus and tympanic membrane were found on examination to be quite normal, and the hearing was ascertained to be unaffected.

Mr. D. R. Cameron, L.D.S., has been successful in making a very satisfactory artificial ear, which the boy has been using for the last two years. A plaster cast was first made of the left, or normal, ear, and also of the remains of the right auricle. An artificial right ear was then modelled in wax, conforming to the left as far as possible, and finally made of Vela rubber vulcanised. The artificial auricle is kept in position mainly by the insertion of the process (photograph, Fig. 2), into the external meatus of which it is a cast. For the admission of air it is perforated right through. The application of seccotine has been found quite sufficient for the necessary adhesion of the internal surface of the artificial auricle to the corresponding parts remaining. Fig. 3 shows the artificial auricle *in situ* from the side.

The boy's father has devoted much attention to the pigmentation of the auricle, and has succeeded very well in copying the colouring of the normal ear.

THEORIES OF INHERITANCE.

By CHARLES MERCIER, M.B., F.R.C.S.,

Lecturer on Neurology and Insanity, Westminster Hospital Medical School.

It is questionable whether the ignorance of medical practitioners upon this subject is so great as Dr. Archdall Reid supposes. Certainly if they are unacquainted with his views, they have wilfully neglected the very ample opportunities with which he has furnished them.

Such names as Hunter, Virchow, Huxley, Devay, Hodgkins, Paget, and Bastian remind us that after all there may be medical men who are not wholly ignorant of the subject, and although they have written for the most part with hesitation and diffidence, it is not certain that cocksureness is the sole criterion of mastery of a subject. There are, in fact, statements in Dr. Reid's own paper which, if he were not so sure of them, I should think were open to doubt. Dr. Reid repeats in his paper, as he has repeated many times before, that acquired characters are not transmissible, and as to their transmissibility says, "It is unbelievable that this can be true." That such transmission is unbelievable to Dr. Reid we have copious evidence to show: but the statement cannot be accepted as universally true unless Dr. Reid can show that believers are as non-existent as, according to his account, are instances of transmission of acquired character. But this is certainly not the case. Plenty of people have believed in the transmission of acquired characters, and plenty of people believe in it still. And, moreover, a thing is not necessarily untrue because some people, or even most people, find it unbelievable. Were it so it would be untrue that the earth goes round the sun, that there are antipodes, and that a railway journey of thirty miles an hour could be performed without the death of the passengers. "What is the machinery," says Dr. Reid, "by which this magical process is carried out? We know of none. On the face of it, therefore, the transmission of acquirements appears wildly incredible." By a parity of reasoning the fall of a stone is wildly incredible, for we are equally ignorant of the machinery by which this magical fall is effected. We know of none.

"The human body," says Dr. Reid, "is compounded of billions of cells, but a future individual springs from only one of them, a germ. The other cells—the somatic cells afford shelter and nutrition to the germs, but there is not a tittle of evidence that they do more. They are specialised for their several functions, just as the germ is specialised for reproduction." This is indeed a new doctrine. It has usually been considered that the power of the germ to develop into a new individual lies in the total absence of specialisation. It is because it is general in the widest sense, because its direct descendants are capable of specialisation in every normal direction, that it is a germ and can develop into an individual in the likeness of its parent. If a cell is specialised, some have hitherto believed, it can produce only specialised offspring like itself.

"Were acquired characters transmissible," says Dr. Reid, "the child of an old man ought to be clearly distinguishable from the child of a man 40 or 50 years younger. In fact, the children of the aged should be born aged. But no medical man is able to distinguish the child of an aged couple from the offspring of a boy or girl who have (*sic*) barely reached puberty." In this declaration there seem to me to be several fallacies. If acquired characters are transmissible, a child begotten in the old age of the father, which is, I think, what Dr. Reid means by the child of an old man, ought to be different in some respects from the child begotten in the boyhood of the father. This I think we should all grant; but it does not at all follow that the difference should be clearly distinguishable. As a matter of fact, there are differences between offspring begotten in the old age and offspring begotten in the extreme youth of the parents, and although these differences are not always so pronounced as to be "clearly distinguishable," yet in extreme cases the difference is clear enough. Children begotten in the extreme youth of the parents are commonly physically puny and shortlived; children begotten in the extreme old age of the parents are commonly deficient in intelligence. This is a considerable difference, but it is not a clearly distinguishable difference.

What Dr. Reid means by the child of the aged being born aged I do not clearly understand. Does he mean that the aged child should, when it is born, have already lived as many years as its father? Or does he mean that it should be born with grey hair, arcus senilis, presbyopia, and other signs of age? If the former is his meaning, I think that he misapprehends the problem that he is dealing with. If the latter, he misapprehends the position of his opponents. I am not concerned to champion the inheritance of acquired characters, a task for which my knowledge of the subject is not adequate, but when dogmatic assertions are somewhat importunately thrust upon us, we may be allowed to examine them, and the grounds upon which they rest. Is Dr. Reid not acquainted with the doctrine of inheritance at corresponding ages, and with the acceleration and retardation of the appearance of a quality in successive generations, and is he prepared to say that the tissue changes characteristic of old age do not appear earlier in offspring begotten late in the life of the father than in offspring begotten early in the life of the father? The difference, if any, produced in a single generation would probably be so small as to be inappreciable, especially having regard to the normal variation in the time of life at which these changes appear, and to their gradual onset, which makes exact estimate of their time of occurrence impracticable; but all these considerations go to show what an extremely complex problem we have here to deal with, and how very unsafe it is to dogmatise upon it.

The doctrine of the non-transmission of acquired characters is, in my opinion, wrongly entitled. What the upholders of this doctrine really advocate is not the non-transmission of acquired characters, but the non-acquirement of transmitted characters, which is as different from the former doctrine as a horse-chestnut is from a chestnut horse. Even Dr. Reid admits the influence of use and disuse in increasing and diminishing, respectively, the size and development of a part. These effects, in a single individual, he calls acquirements, and says that they are not transmissible. But if we point to the increase in size of, for instance, the great toe, and the diminution in size of the little toe, as examples of the accumulation by inheritance of the effects of use and disuse, then we are pitied for our ignorance, and told that individuals whose organisations varied spontaneously in the direction of a larger hallux and a smaller fifth toe have been naturally selected, while those who varied in the opposite direction, or did not advance as their predecessors, have been eliminated. By the adoption of this mode of reasoning it is easy to "break down" the "hundreds, if not thousands, of instances" in which the transmission of acquired characters has been alleged.

Dr. Reid's attitude of tolerant but contemptuous superiority towards Darwin's doctrine of pangenesis is a very familiar one. I have passed through it myself, and have witnessed it in scores of others; but I am old enough to have witnessed also the effect that ten, fifteen, or twenty years of experience and meditation have upon this attitude; and among my own contemporaries I know few who do not now, as I do, blush at the remembrance of the crude condemnation that they for-

merly passed upon the doctrine of the greatest biologist that the world has ever seen.

With Dr. Reid's dictum that all theories of heredity are in essence theories of evolution, I should not be disposed to quarrel; but if we are to accept it *in toto*, then the transmission of acquired peculiarities, that is to say, the modification of the germ by the influence of the soma stands upon the same footing as the modification of the individual by outside influences, such as climate. Now we know that individuals are directly modified by changes of environment. Dogs in Guinea become fox-like, and cease to bark: differences of food and climate seriously affect the fleece of sheep, as every woolgrower knows; seed wheat grown in one country and sown in another often changes its character, and many similar occurrences are known. So that upon this ground there is nothing improbable in the modification of the germ by the soma.

As I have said before, I do not pretend to speak as an expert upon this subject, but it does not need an expert knowledge of facts to detect fallacies in an argument, and I submit the non-transmissibility of acquired character is by no means such a dead certainty as Dr. Reid would have us believe. If it is to be accepted it must be in evidence different from any that has hitherto been submitted.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

RETROGRESSION IN MAMMARY CARCINOMA.

THE communication from Dr. McNicol in the BRITISH MEDICAL JOURNAL of November 9th, 1901, on the subject of carcinoma of the mamma and oöphorectomy prompts me to record a case at present under my care.

This patient, now aged 44, was operated upon for scirrhus of the right breast in August, 1898. In October, 1900, she consulted me. I then found recurrence in the shape of a row of angry nodules below the inner end of the right clavicle; the patient had also an uncontrollable paroxysmal cough, apparently dependent upon involvement of the mediastinal glands: cachexia was marked. The question of oöphorectomy was entertained, but the general state of health was considered to negative it. I considered the patient's expectation of life at that time to be about three months, but it has already extended to more than a year.

The early nodules have increased in size and at one time seemed on the point of ulcerating; numerous nodules of varying size have appeared under the skin of the abdomen and chest: there are enlarged glands in the axilla and neck; there is evident mediastinal involvement, shown by dilatation of the pupil and aphonia: the cough is severe, and there is now "currant-jelly" expectoration.

During the last few weeks, while the asthenia has not abated there has been a marked change in other manifestations of the disease. The first nodules, which had commenced to excoriate, have completely disappeared, others have disappeared or have diminished much in size; the enlargement of glands is less marked; the aphonia, which was almost complete, has ameliorated.

Evidently in this and similar cases some "influence" is at work tending to hold the disease in abeyance. If we could only understand the nature and genesis of this cancer might be robbed of its horrors. Dr. Beatson considers the "influence" associated with the function of the ovaries. In my case menstruation, previously regular, has ceased since May: but it would be hazardous to say that the abatement of the disease is to be associated with this fact.

Trowbridge. JAMES PEARSE, M.D.

CARCINOMA AND MALARIA.

IN connection with the paragraph on Carcinoma and Malaria in the BRITISH MEDICAL JOURNAL of November 2nd, 1901 (p. 1307), the following observations made by me during a sojourn of eight years in Dutch Guiana (Surinam), where I was attached to the Military and Colonial Hospital, which contained about 500 beds, may be of interest:

Many of the patients were inoculated with malaria, and malaria in all its varieties was the disease that presented itself principally for treatment. But various malignant forms of disease were not at all uncommon.

I remember excising the whole tongue of an escaped Cabyle convict for carcinoma. Another case that comes vividly before my mind is that of a Jew, about 50 years of age, born and bred in the colony, who suffered from a very rapidly-growing carcinoma of the glands of one side of the neck. These were excised, but the growth rapidly reappeared, and the patient succumbed soon afterwards, the new growth having attained the size of a large orange and bleeding profusely.

A case of melanotic sarcoma of the external auditory meatus in a coloured man from Nickerie (close to the confines of Dutch and British Guiana) came to hospital for treatment, but was deemed inoperable; the patient died soon afterwards.

A case of carcinoma of the tongue occurred in a Chinaman, with fatal result. The patient had been living in the colony for many years, and was a storekeeper's assistant.

I operated on several cases of carcinoma of the breast in Creole women who had lived all their lives in the colony. Another case that I well remember was a case of malignant disease of the bladder in a coloured man who had been born in Paramaribo, the principal town of the colony. He was a prison warder about 40 years of age.

I operated on several cases of epithelioma of the lip and penis in coloured people who had been resident all their lives in Surinam, and had been inoculated over and over again with malaria. It was also reported to me from trustworthy sources that a former principal medical officer of the hospital, who had spent the greater part of his life in Surinam, went to Europe to be operated upon for carcinoma ventriculi. He died in Europe.

I think that, taking the cases cited above, of which I remember the details very distinctly, there can be very little antagonism between malaria and carcinoma.

JOHN H. SPITZLY,
Gracechurch Street, E.C. Late Surgeon-Major, Dutch West Indies.

VESICAL CALCULUS (259 GRAINS) IN A BOY AGED TWO YEARS: SUPRAPUBIC OPERATION: RECOVERY.

DR. MANSEL SYMPSON'S case[1] made me think mine might be of interest.

In March, 1900, N. D., an anæmic boy, 2 years old, was brought to me for "fits." He had had them since he was 10 months old, several in a day, short and accompanied by screaming; his bowels caused pain when acting, often bled, and sometimes "came down." Treatment during that time led to no improvement, though he had been "operated on" (circumcision). This is briefly the mother's story.

He had a "fit" in my presence. It was a paroxysm of intense pain, followed by complete relief. On examining the child the size of the penis struck me. It was large enough for a child of five. The abdomen was very tender. In reply to questions, the mother said that there was no pain on micturition, no blood in the water at any time, no interruption of stream, or any noticeable frequency of micturition. He resented jolting or rocking, walked but little, and cautiously; usually he went on all-fours, slept on his face and hands always, and from the time when he could assume the position always went on his knees and elbows when having a motion, or to pass water.

It was the character of the pain and the enlargement of the penis that determined my questions. Having no sound of proper size to hand I put the child under chloroform. Between a finger in the rectum and a hand above the pubes, a hard substance of some size could be felt. It was quite close to the rectal finger, but in trying to ascertain its size it slipped away as if released from an attachment. There was blood in the next water passed. I gave my diagnosis, and placed the case in the hands of Mr. Littlewood, Leeds Infirmary, who on March 9th removed, by the suprapubic method, a smooth oval uric acid stone, 259 grains in weight. He made a grand recovery, putting on flesh rapidly, and sleeping well. He has so far had no reminder of his illness.

Selby, Yorks. PATRICK J. SCANNELL, M.B.

[1] BRITISH MEDICAL JOURNAL, October 19th, 1901, p. 1160.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

OLDHAM INFIRMARY.

RUPTURE OF THE DIAPHRAGM: ABDOMINAL ORGANS IN PLEURAL CAVITY.

(By J. F. HODGSON, M.B., Ch.B.Vict., late Senior House-Surgeon to the Infirmary.)

THE accompanying illustration shows some rather unusual injuries sustained by a man admitted to the Oldham Infirmary under Mr. Fawsitt on July 31st, 1901. The man was engaged in pulling down an old building, when one of the walls collapsed, burying him beneath the *débris*. He lived two hours after admission. The chest walls were very emphysematous and bruised. Both pleural cavities contained a large quantity of blood. On the left side the lower seven ribs were fractured, some in more than one place: the fourth and fifth ribs were widely separated from each other and the structures between them torn through. The left lung was collapsed.



A, stomach, etc., in pleural cavity. B, diaphragm.

On the right side the lower eight ribs were fractured, the lower five in front of the angles, the others behind the angles. The sharp ends projected into the pleural cavity. The right lung was badly lacerated and collapsed. The diaphragm was torn on the left side, so that the stomach, together with a portion of the small intestines and some omentum, had been forced through the rent into the left pleural cavity. There was a large amount of blood in the abdominal cavity. The liver and spleen were lacerated in several places. The spine was fractured in two places—at the seventh and eighth dorsal and the third lumbar vertebræ.

ADELAIDE HOSPITAL, DUBLIN.

ACUTE OTITIS MEDIA: IMPLICATION OF LATERAL SINUS: OPERATION: LIGATURE OF INTERNAL JUGULAR VEIN: RECOVERY.

(Reported by S. HORACE LAW, M.D., F.R.C.S.I., Throat Surgeon to the Hospital.)

THE interest of this case centres mainly round the short history and rapid onset of dangerous symptoms, with the complete relief afforded by the operation and the subsequent uninterrupted recovery.

History.—R. T., male, aged 19, was admitted to the hospital on February 25th, 1901, under the care of Dr. Beatty, complaining of having felt unwell since February 22nd, and having had some slight pain in the right ear for some days previously but no discharge. His symptoms before admission consisted principally of headache, vomiting after food, constipation, and pain in front of the left shoulder.

State on Admission.—His temperature was 102.6° and his pulse 136. There was some cough with slight expectoration, and some albumen in his urine. The temperature rapidly fell, and remained normal till March 7th, when it again rose, and he complained of soreness in his neck and some headache. I first saw him on March 11th, and diagnosed acute otitis media, and saw some granulations in the external auditory meatus of the right side: there were no mastoid symptoms, but there were swelling and tenderness in the course of the internal jugular vein, and the patient seemed very ill indeed. Up to this time he had not had much pain, and no rigors except one said to have occurred before admission. On March 13th there was a little cough and some frothy expectoration, his condition otherwise remaining much the same. On March 14th his condition was more serious: there was some cough, with a little rusty sputum. A whitlow developed on his index finger, and at 10 A.M. he had a severe rigor, with a temperature of 105.8°, all pointing to a spreading septic infection. As he was getting rapidly worse and becoming comatose, a consultation was held and operation decided upon, the diagnosis being acute otitis media, with partial or complete septic thrombosis of the lateral sinus.

Operation.—Performed on March 14th. Patient having been anæsthetised, and the side of the head and neck cleaned as far as possible, I made the first incision opposite the cricoid cartilage, and tied the internal jugular vein with two ligatures one inch apart. I then proceeded to the operation on the ear, and made the usual incision behind the ear, from which there was free hæmorrhage, and opened the mastoid antrum after the method of Schwartze. A small amount of pus was found in the mastoid cells and antrum, and the bone in the antral region felt soft.

I next proceeded to work down to the lateral sinus, using a full-sized gouge to enlarge backwards my opening for the antral operation. The moment the groove of the lateral sinus was opened pus flowed out, perhaps half a drachm in amount. I then laid bare the wall of the sinus for about an inch of its length, and found it covered with granulations and a dark slough on the upper part of the exposed portion. The sinus pulsated freely, and did not seem to be completely thrombosed, so I omitted to open it and decided to do nothing more. The ends of the upper incision were brought together with a few stitches and the cavity in the bone plugged; the jugular vein was cut across between the two ligatures, and the lower wound sewn up. The condition of the patient under the anæsthetic was not all that could be desired, and he required oxygen nearly the whole time.

Progress.—After the operation the temperature went up and down for ten days and finally came down, his condition improving meanwhile. He was allowed up one month after the operation, the upper wound having nearly granulated up, and the lower one having long since completely closed.

Bacteriological Examination of the pus from the lower wound gave diplococci as its principal contents.

REMARKS.

As will be seen from the above, the diagnosis was substantially correct, the sinus was inflamed and covered with granulations, so that one may safely say that the internal coat could not have remained normal, and therefore a partial septic thrombosis was certain, which is entirely borne out by the fact of the presence of the rusty sputum and cough, and by the occurrence of an abscess which afterwards formed on one of his toes. The path of infection seems to have extended backwards through the antrum, though there were no antral symptoms to help the diagnosis. There is now (April 20th) no discharge from the ear, and the drum has nearly regained its normal appearance: whispering voice is heard at about two yards on the side affected.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor T. R. FRASER, M.D., President, in the Chair.

Wednesday, December 18th, 1901.

DRAINAGE IN EMPYEMA.

MR. C. W. CATHCART showed a boy, aged 15, who had had double pneumonia in January, 1900. About the sixteenth day 25 ounces of pus were aspirated from the left pleural cavity. On the eighteenth day Mr. Cathcart aspirated about the same quantity of pus from the right pleural cavity, and three hours later, under local anæsthesia and a whiff of ether, excised a portion of rib and drained the left side. Four days later 36 ounces of pus were aspirated from the right side, and in three days—that is, a week after the left side—he drained the right pleural cavity in a similar manner. The patient was out-of-doors with both wounds healed on March 13th. His health now—that is, nearly two years after the operations—was excellent. Expansion on both sides was quite satisfactory. The pus contained a pure culture of the pneumococcus. The factors aiding this satisfactory result were the youth and previously good health of the patient, the exclusion by careful precautions of any organisms other than the pneumococcus, and the vigorous and frequent use of inflation by the patient. A great deal of trouble was taken in trying to get Mr. Duncan's siphon arrangement to act in keeping up negative pressure in the pleural cavity; but, while it drew off the pus, it failed in its primary object of producing a *vis a fronte*.

LUPUS TREATED BY LIGHT.

Dr. ALLAN JAMIESON showed a case of lupus vulgaris treated at the London Hospital with the Finsen rays. Mr. L., aged 28; healthy, if somewhat pale. When a child he struck his chin against a table, and in the bruised area lupus developed. It was treated in many ways by Dr. Jamieson, and while the upper part of the patch became transformed into a smooth scar, in July, 1900, there was a lupus area two inches long by one vertical under the chin. In September he was treated by Dr. Sequeira for five weeks, and left London considerably improved, but the disease recurred rapidly, and in July, 1901, was as bad as before. Between then and October he had fifty-five exposures, and now there was a smooth white surface, in which no nodules could be discovered by the diascope.

THE *X* RAYS IN RODENT ULCER.

Dr. ALLAN JAMIESON also showed a case of rodent ulcer treated partly with the *x* rays, and apparently cured. Mrs. B., aged 41, a strong healthy woman. Three years ago a small pimple appeared on the left side of her forehead, and as it itched it was scratched. It gradually grew larger, became raw and scabbed. Then another patch developed nearer the centre of the forehead, and when she was admitted to the Royal Infirmary under Dr. Jamieson's care there were two contiguous areas of rodent ulcer, each fully as large as a florin, with red granular centres and distinct rolled margin. They were treated for three weeks with the *x* rays, and some islets of epithelium showed themselves in the diseased surface. The whole was then freely scraped and cauterised with chromic acid fused to a bead on a probe. It was dressed with zinc ichthyol salve muslin till healed. In the middle of November the treatment by the rays was resumed, and the hem like margin which still persisted melted away under influence, assisted by gentle scraping on two occasions, on the latter with the addition of the application of nitric acid to one or two points. There was now no scar, but a smooth line normal skin hardly distinguishable from that in its neighbourhood.

GASTRO-ENTEROSTOMY.

Mr. MILES showed a woman, aged 42, after operation (gastro-enterostomy) performed for severe hæmatemesis. There was a previous history of dyspepsia and dilatation of the stomach, but none of the ordinary signs of gastric ulcer. The hæmatemesis was urgent, the patient blanched, cold, and almost pulseless, and with signs of "air-hunger." A densely-indurated ulcer about the size of a five-shilling piece was found close to the pylorus. It extended to the lesser curvature, and fully two-thirds of the way to the greater curvature. Invagination was impossible without risk of occlusion of the pyloric orifice. The condition of the patient did not justify excision. A posterior gastro-enterostomy was done, and 2 pints of saline fluid introduced into the peritoneal cavity. In two days recovery began and progressed satisfactorily. The wound was dressed on the ninth day. She was out of bed on the twenty-first day, and left hospital on the twenty-ninth day. She was now well.

INTESTINAL OBSTRUCTION DUE TO TUBERCULOUS PERITONITIS.

Mr. MILES also showed a boy of 16 after operation for subsequent intestinal obstruction due to tuberculous peritonitis; treated by drainage. After a picnic he had pains, sickness, vomiting, and irregular action of the bowels. After a week of this he resumed work for three days, when sudden pain caused him to come into Leith Hospital. On opening the abdomen a fibrous band was found constricting the small intestine to the right of the umbilicus. The whole of the peritoneum was covered with tuberculous nodules. There was little fluid. The stitches were removed on the tenth day. Five weeks after the operation the temperature began to rise and continued irregular for several days; then pain, cough, and friction, followed by effusion. Aspiration, then excision of a portion of rib with exploration of pleural space was done. In four months from the beginning of his illness he was discharged well, and for three years had enjoyed excellent health.

EXCISION OF RECTUM BY KRASKE'S METHOD.

Mr. MILES also showed a labourer, aged 52, after excision of the rectum by Kraske's method. There was a tight stricture an inch and a-half from the anus which admitted only the tip of the finger. The rectum was attached anteriorly to the prostate gland. At the operation the rectum was exposed and isolated, clamped above the tumour, and cut across. The peritoneum was opened in cleaning the bowel, but was subsequently stitched with silk. The patient's recovery was only interrupted on the fortieth day by retention of urine. The catheter relieved it, and it did not recur. He had gained 1 stone 6 lbs. since he got up. He had not complete control of the bowels, but was aware when the bowels were about to move, and so long as the motions were solid he could keep himself comfortable and clean.

REMOVAL OF LACHRYMAL SACS.

Dr. W. G. SYM exhibited a man, aged 67, from whom he had removed both lachrymal sacs on account of chronic severe dacryocystitis. On each side there had for long been a fistula, and he had had much annoyance from watering and discharge, with occasional acute attacks of dacryocystitis. Finding impervious strictures, Dr. Sym decided to remove the sacs, and since the operation the patient had enjoyed perfect freedom from all the former annoyance. He also had had cataract of the left eye. Before extracting this Dr. Sym had had a cultivation taken from the conjunctival secretion at the time of the operation on the sac, which showed large quantities of pyogenic organisms. One month later the conjunctivæ appeared normal and gave a sterile reaction; the lens was then extracted, and the eye healed up quickly and soundly. The danger of extraction in presence of the former condition of the sac was pointed out.

TUBERCULOUS DISEASE OF PENIS.

Mr. STILES showed a boy, aged 6½ years, after operation for recurrent tubercle and stricture following amputation of the penis for tuberculous disease of the glans. The patient presented himself at hospital in July last with enlargement and deeply excavated ulceration of the glans penis involving the meatus. The glands in the groin were only slightly enlarged. As local treatment produced no benefit the penis was amputated. The boy returned to hospital three weeks ago with an aggravated stricture the result of recurrence of the tubercle in the stump. Mr. Stiles excised the tuberculous and cicatricial tissues around the stump, split the scrotum, and reamputated the penis at its root. The corpus spongiosum was dissected back as far as the perineum and the part in front of the bulb removed; the bulb itself was then divided longitudinally on its ventral surface and the edges united to the posterior part

of the perineal wound about 1½ inch in front of the anus. The remainder of the wound was closed and infiltration of urine prevented by the introduction of a catheter into the bladder and the use of Mr. Cathcart's "Sprengel pump." Mr. Stiles pointed out that it would be desirable to remove the testicles, but thought that this should not be done until a few years after puberty. As regarded the cause of the condition, it should be mentioned that the boy had been circumcised when a child but that the glans and prepuce did not become diseased until three years later.

CONGENITAL STRICTURE OF ANUS.

Mr. STILES also showed a child, aged fourteen months, after operation for congenital stricture of the anus. The stricture only admitted a No. 6 catheter. The usual operation was done, namely, the removal of skin around the orifice along with separation of the mucous membrane and the suturing of it to the edges of the skin wound. The interest of the case lay in the fact that five plum stones and one shirt button were removed from the rectum.

TREATMENT OF WRY-NECK BY THE OPEN OPERATION.

Mr. STILES also exhibited four cases showing the results of treatment of congenital wry-neck by the "open operation." The patients had all been operated upon 12 to 18 months ago. In each of them a very satisfactory result was obtained. Mr. Stiles drew attention to the importance of dividing all the clavicular as well as the sternal fibres of the muscle, in addition to all the fascial bands in front of the depressor muscles of the hyoid bone and the outer part of the internal jugular vein. He preferred a transverse to a vertical incision, as the former gave better access to the deeper structures and the resulting cicatrix was less evident. In Mr. Stiles's opinion, it was quite necessary to excise the lower two-thirds of the sterno-mastoid muscle as recommended by Mikulicz. If the simple open division were done thoroughly, a perfectly satisfactory result was obtained without the subsequent use of any apparatus or gymnastic exercises.

REMOVAL OF PYLORUS.

Mr. ALEXIS THOMSON showed a patient the pyloric portion of whose stomach he had removed for cancer 3½ years before. The patient, a woman, aged 49, had suffered from stomach symptoms for nine months. There was a freely-movable tumour above and to the right of the umbilicus. There was no free HCl in the gastric contents. The pyloric portion of the stomach was incised by Kocher's method. The tumour, which was as large as an adult fist, was found to be a columnar epithelioma, projecting into the interior of the stomach, but not causing obstruction of the pylorus. Enlarged glands were removed from both curvatures, which were found to be free from cancerous infection. The patient had since gained 4 stone in weight, and continued to enjoy perfect health.

CASE.

Mr. CAIRD showed a patient after operation for high shoulder due to osseous plate developed between the scapulæ and vertebral spines.

CARD SPECIMENS.

Card specimens were shown by Mr. MILES and by Mr. CAIRD.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

MEDICAL SECTION.

WALTER SMITH, M.D., in the Chair.

Friday, December 13th, 1901.

DISSEMINATED SCLEROSIS.

DR. FINNY exhibited a girl, aged 22, with all the typical symptoms of disseminated sclerosis. Four years ago she became completely paralysed as to motion in arms and legs, with loss of control over the bladder and rectum, and with the formation of large bedsores on sacrum and nates. No cause could be found for her illness. She was a patient for fifteen months in Co. Roscommon Hospital, under Dr. Blakeney, and left it so far recovered as to be in much the state as at present. Having called attention to the rarity and peculiarity of this invasion of the disease, and commented on the variability of its course and progress, and the difficulties such variability produced in the diagnosis of disseminated sclerosis in its earlier stage, Dr. Finny pointed out the signs which were typically demonstrable on the patient, taking them *seriatim* and in the order of their prominence. (1) Paraplegia.—She was just able to stand and walk a few steps with help, but her gait was that of spastic paraplegia, and yet the legs presented no spasms on handling or on flexion and extension. The ankle clonus and knee-jerks were very exaggerated, and Babinski's sign of dorsal reflex in the right foot was present. The wrist and elbow reflexes were also exaggerated. Sensation was normal. (2) The bladder and rectum were fairly well under control, though there was often a delay in micturition, and if active aperients were taken the bowels might move involuntarily. (3) The tremors.—These were absent as the patient lay in bed, both the head, shoulders, and crown jerked about in coarse tremors when an effort to perform any voluntary act was made—"intentional tremors," such as putting out the tongue, drinking out of a cup, etc. (4) Speech. This was slow, deliberate, and syllabic—"scanning or staccato"—without slurring or fibrillary tremors of lips or tongue. (5) The eyes.—Mr. Swanzy's examination was to the effect that there was "nystagmus, V $\frac{6}{9}$ in each eye. The field of vision much contracted, and the outer two-thirds of each optic disc was pale, pointing to partial atrophy." There was no optic neuritis, retinitis, or choked disc. (6) A notable complacency with her sad lot and a cheerful contentment with her surroundings, a feature laid stress on by Gowers as very characteristic of disseminated sclerosis, more commonly met with in females. Mention was then made of the following organic nervous diseases which might more or less closely simulate one or more of the salient features of disseminated sclerosis:—Paralysis agitans, general paralysis, mercurial tremors, syphilitic diseases, ataxic paraplegia, intracranial tumours, especially of the cerebellum, and transverse myelitis, and although the subject of diagnosis was not entered upon or discussed, a warning was entered as to risk of confounding it with hysteria, not when all the typical symptoms were present, as in Dr. Finny's case, but when they were ill-defined and varied in extent and gravity under the influence of time.

HEMICHOREA AND PAROTITIS COMPLICATING A CASE OF DIABETES.

DR. GEORGE PEACOCKE read a paper on this subject:

The patient, a man aged 64, was admitted to the Adelaide Hospital on April 29th, 1901, suffering from diabetes. He presented the usual symptoms—loss of flesh, great thirst, and polyuria. The quantity of urine passed in the twenty-four hours varied from 3 to 5 pints, and quantitative analysis gave 2.7 ozs. of sugar on May 2nd; somewhat less on subsequent occasions. He continued very drowsy throughout his illness; at times the condition almost approached coma, and he died on May 28th, just four weeks after admission. On May 4th he developed left-sided hemichorea, which resisted treatment with hyoscine, bromides, and chloral. Arsenic in 10-minim doses was given, and 20 grs. of trional at night. Improvement rapidly followed, and all the chorea symptoms disappeared on May 13th.

The value of trional in chorea had been alluded to in the *Medical Annual* for 1900, and also in the BRITISH MEDICAL JOURNAL for November 2nd, 1901. The writer had also used it with success in the case of a girl aged 11, who was admitted to the Adelaide Hospital in January, 1901. It was suggested that the cause of the chorea in the present case was the action of some poison due to the diabetes circulating in the blood and acting on the nerve cells controlling the motor apparatus. The second complication, parotitis, first made its appearance on May 11th. At first it gave rise to little trouble, but on May 16th there was some elevation of temperature, and the parotid gland became painful and tender. The fever continued until the patient's death, but never reached a higher point than 101.6°. The cause of the parotitis was quite obscure, and though a similar condition had been described in a variety of diseases and injuries of the abdominal organs so far its occurrence in the course of diabetes had not been recorded.

DR. WALTER SMITH, MR. H. G. CROLY, and DR. PARSONS discussed the paper.

GLYCOSURIA AND INSANITY.

DR. DAWSON read a paper on this subject. Cases of glycosuria associated with insanity were of two classes—those in which the insanity was secondary and those in which the glycosuria was secondary, the first being rare. He had had one case of the first class at Farnham House, that of a woman who had suffered for many years from polyuria and recurrent

melancholia, with general delicacy, the melancholia being of the type described as characteristic of diabetic insanity. She had been admitted for a severe attack, and, sugar being present in the urine, was put on diabetic diet. The sugar and the mental symptoms disappeared, and she was discharged recovered in about two months. The diet had since been persisted in, and she had remained unusually well for about a year. Two other cases were then briefly described which probably belonged to the second class. In one depression dated from an attack of influenza; in the other, the melancholia was a second attack, the first following an injury to the head. Both had glycosuria, for which they were treated and recovered, so far as the acute attack was concerned. In four more cases glycosuria had been present on a few occasions only, and had not been treated, the forms of mental disease being respectively paranoia with depressing delusions, subacute mania with a tendency to stupor, acute mania with stupor and unpleasant delusions, and acute confusion. In all but one of the seven cases a prominent characteristic was mental discomfort, and, when it could be tried, there was high blood pressure during the acute stage. Five had made good recoveries, and one was in a fair way to do so, the paranoia being of course incurable. In true diabetic insanity the mental symptoms were due to cerebral malnutrition. The glycosuria when merely symptomatic was probably purely alimentary, and dependent on a failure of sugar assimilation which had been observed to be especially frequent in melancholia. Glycosuria did not appear to be necessarily of bad prognostic import in insanity.

Dr. Walter Smith asked if glycosuria was more common among the insane than the sane? Savage had found it in not more than 3 per cent. in the patients at Bethlem Hospital; this differed from the experience of the Vienna physician, who found that 12 per cent. of the insane suffered from glycosuria. He would also like to know from Dr. Dawson if glycosuria gave rise to any special form of insanity. He was under the impression that it was associated more with melancholia than exaltation. When glycosuria did occur in the insane, was it characterised by any special symptom, such as slight polyuria?

Dr. Leeper asked what was the relationship between glycosuria and insanity? Of the admissions under his care in Swift's Hospital 3 per cent. suffered from glycosuria. They presented none of the classic symptoms of diabetes, except the presence of sugar. The Hindus suffered greatly, every family had lost some member through diabetes; on the other hand the phlegmatic Chinese escaped; of 15,000 persons examined not one suffered from it.

Dr. Hayes also spoke.

Dr. Dawson, in reply, stated that he looked on glycosuria as uncommon in the insane; these were the first cases he had. The more common forms were melancholia and senile dementia. In all his cases he found high blood pressure. Special senses were seldom affected in diabetes mellitus. They did not understand tendon reflexes.

Unilateral Fatty Degeneration of the Heart.

Mr. J. J. Burgess exhibited a specimen of unilateral fatty degeneration of the heart, taken from a man aged 35. The left ventricle was normal, but the walls of the right were almost wholly fatty tissue. Until the moment of death the man made no complaint. The pericardium was distended with blood, fluid and clotted. The ventricles were covered with lymph, which was readily peeled off and had a fluffy appearance. The auricles were normal. The aorta was atheromatous. The specimen was taken from the body of a poorly-nourished man, aged 35, a labourer out of employment. From the evidence at the inquest he did not complain of being unwell until the fatal seizure came on. He was noticed by some people to fall suddenly with his shoulder resting against a wall, and then drop to the ground. The people did what they could to revive him but when the ambulance arrived he was so evidently dead that they took him to the Morgue. Both lungs were emphysematous, with a large amount of muco-pus in the blanched system, but exhibited nowhere cicatrices nor consolidation. The pericardium was distended, on opening which somewhat over a pint of fluid blood and clots exuded, both ventricles especially. The surfaces of the right ventricle were covered by recent lymph, which at the time could easily be detected, and presented that fluffy appearance which could be faintly seen in the specimen. Before removing the heart Mr. Burgess sought for the source of the hæmorrhage, but without result, nor could he find it afterwards. On opening the heart it would be noticed that the valves were in no way affected, the entire ante-wall of the right ventricle was principally composed of fat, there was almost a total absence of muscular fibre; this was very striking on comparing it with the left ventricle, which was fairly normal. Both coronary arteries were permeable. In the right ventricle was a clot formed at time of death. Both auricles presented nothing abnormal. The aorta showed considerable evidence of atheroma. Although Mr. Burgess had not been able to demonstrate the source of the hæmorrhage, he thought the cause of death was obvious. During an attack of acute pericarditis, associated with a previously diseased heart, a bleeding occurring was sufficient, although small in amount, to cause by its presence fatal portilysis. On consulting the literature on the subject, he found that hæmo-pericardium was produced by two sets of causes, the most common being the rupture of the left ventricle of an aneurysm or of some vessel into its sac. The second in which during the course of pericarditis of cancerous or tuberculous origin a bloody serum was exuded into the sac, and a similar effusion also in some cases of scurvy and purpura. In his case there was no trace of malignant disease or tuberculosis, but it owed its interest as one of acute pericarditis with the very uncommon complication of a true hæmorrhage, probably from capillary vessels which, although comparatively small, was sufficient on account of the diseased condition of the myocardium to cause sudden death.

Dr. Finny doubted Mr. Burgess's statement that the change in the ventricle was due to fat. He suggested a new growth of some description as more probable. He was of opinion that a histological examination should be made of the heart before the case was published in the *Transactions*.

LIVERPOOL MEDICAL INSTITUTION.

Edgar A. Browne, F.R.C.S.E., President, in the Chair.

Thursday, December 19th, 1901.

The Pain of Piles.

Dr. Wm. Carter read a note on a speedy method of relieving the pain of piles. A suddenly-protruded pile which caused extreme pain, the intensity of which was not diminished by a prolonged external use of several much-praised remedies, was almost immediately and permanently relieved by a single application of 10 c.cm. of cocaine to 20 c.cm. of menthol in oil of theobroma. These were made into a cone, which was rubbed over the part.

Anæsthetist and Operator.

Dr. A. Burns Gemmel read a paper entitled Anæsthetist and Operator, in which he stated that charges had been made against those engaged in the administration of anæsthetics of "want of knowledge and want of care," and that surgeons at the same time objected to anæsthetists claiming to be "supreme in their own place," and maintained that the surgeon should be master over the management of the anæsthetic as over every other detail of the operation. Medical men engaged in the administration of anæsthetics were divided into (1) those under direction and bound to obey orders, such as the medical student and the house-surgeon, and (2) those who, recognising the great responsibility of the work, undertook it, and therefore ought not to be interfered with in any way in the performance of their duty. The duties of anæsthetist and operator were briefly considered, and it was evident that each ought to give his whole attention to his own work. In the event of a fatality, each for his own work was accountable to (1) his conscience, (2) the relatives and friends, (3) the coroner and jury. Friends and relatives knew that the surgeon came to operate, and in the event of disaster from the anæsthetic would blame the anæsthetist. Young surgeons did not administer to the extent they did before the special anæsthetist came into existence, and the older surgeons had ceased to administer. Seeing numerous cases merely as an operator did not give experience of anæsthesia, and therefore the surgeon, old or young, had no right to

dictate to the administrator. The special anæsthetist was available only for hospital patients and the richer portion of the community, consequently the greater part of this work was undertaken by the general practitioner, who fully recognised his responsibility, and any attempt to deprive him of this responsibility and lay it on the operator would tend to make him less careful and therefore less skilful. Dr. Burns Gemmel was always ready to do whatever the operator wished if it could be done with safety, but strongly objected to the assumption of the right to "dictate" by the operator. He who did the work must bear the responsibility, and he who bore the responsibility must be allowed to do his work without interference.

Dr. H. BRIGGS said the reader of the paper might have saved himself a great deal of trouble, and avoided the useless discussion which was to follow by pointing out who was to be supreme authority, or "captain of the ship," if not the operating surgeon.

Dr. WILLIAM ALEXANDER said that in the coroner's court the responsibility for the anæsthetic was distinctly thrown upon the operating surgeon. The patient selected his surgeon, left himself in his hands, and looked upon the anæsthetist as an assistant to the operator. In cases where the family doctor administered, he had to bear the brunt of the disagreeable things said or thought by the relatives, and so interposed between them and the surgeon, but even then the case was considered by them as a fatality in the practice of the operator. As a general rule the preliminary arrangements for the administration were agreed upon between the surgeon and the anæsthetist, but if there were any difference of opinion, the surgeon should carry the day. In the present day, patients often thought more of the danger of the anæsthetic than of the operation, and if this fear continued probably it might arrive at such a pitch that the patient would select his favourite anæsthetist first, and leave him to call in the surgeon as the junior. Until that occurred the surgeon should lead the way. The surgeon would incur a grave responsibility if he asked the anæsthetist to give more anæsthetic when the latter declared it would be dangerous to give more. In all cases anæsthetist and surgeon should stand shoulder to shoulder, bearing the responsibility together, and standing up for each other.

Mr. F. T. PAUL thought the responsibility in regard to all preparatory treatment must generally rest between the practitioner and surgeon. The choice of the anæsthetic in certain cases must lie with the surgeon. Responsibility in fatal cases would vary with the circumstances. When the death was entirely due to the anæsthetic, the anæsthetist was naturally responsible: when entirely due to the operation, the surgeon; but in Liverpool it was customary to hold the surgeon responsible to the public. Practically friction between the surgeon and the anæsthetist was unknown in Liverpool, and very little give-and-take would render any such contingency impossible.

Dr. F. W. BAILEY was convinced that operator and administrator must work together, dependently and not independently; they must co-operate. In cases of doubt or gravity in the course of the administration they courted an opinion and none was better able to give it than the operating surgeon. Operator and anæsthetist were likened to a tandem team, each doing his share of the work, dependently and to the best of his ability.

Sir W. M. BANKS said that after hearing the paper he was only the more strongly confirmed in the view that in the conducting of an operation there must be some one person in supreme command and that person must be the surgeon. The surgeon's position was compared to that of a general: a defeat was associated with the name of the general, however much it might have been caused by the fault of a subordinate. In the case of a death from an anæsthetic it was the surgeon who had to bear the brunt of the odium, because his name was generally more widely known to the public than that of the anæsthetist. As regarded legal responsibility, the Liverpool coroner had stated that he regarded the surgeon as answerable for all that occurred during the progress of an operation. With reference to the preliminary arrangements, it was important to note that the surgeon had almost invariably seen the patient before the operation, and necessarily knew something about his position, while the anæsthetist (unless the medical attendant) saw him for the first time. If a patient during an operation were dying of hæmorrhage, the anæsthetist might logically say that that was none of his business; but if the patient were dying, say, from some vomited matter sticking in his larynx, dare the surgeon say he was not concerned with that and refuse to do a tracheotomy? Were an equal dual control established, difficulties of a very serious character might occur. So far, maintaining these opinion as he had always done, he had never on any occasion had any difference of opinion with the anæsthetist, but he felt certain that but for his supervision he would not have seen 2 deaths out of some 11,000 or 12,000 cases, but more likely 20. So far from producing harmony at an operation, Dr. Burns Gemmel's views would tend to produce discord and a sense of mutual distrust between operator and anæsthetist. But, after all, the whole discussion was purely an academical one.

Drs. and Messrs. DAMAR HARRISSON, G. G. HAMILTON, T. R. BRADSHAW, G. NEWBOLT, A. GRÜNBAUM, NATHAN RAW, and W. BARK also spoke; and Dr. BURNS GEMMEL replied.

CASES.

Mr. BICKERTON showed a patient with melanotic sarcoma of the conjunctiva.—Mr. ROBERT JONES related (1) five cases of fracture of the fifth metatarsal bone due to direct violence. Although no reference to this fracture was found in the textbooks he thought that the lesion was common. Radiographs of each case were shown, and the fracture was found to be almost at the identical spot in each case, just below the base of the fifth metatarsal bone. The injury in each case was due to the body weight acting upon the foot when in the position of equino-varus, and was evidently due to a cross-breaking strain, the bone yielding close to the very strong ligaments which bind the metatarsal base to its surroundings. The symptoms of the fracture were pain over the site, a little swelling, no crepitus, and pain on attempting to invert the foot. (2) A series of cases of coxa vara, illustrating the bilateral infantile type, and contrasting it with the changes in the neck usually present in extreme rickets. He also showed the adolescent type, which in one instance was very extreme, the rounded head being enlarged, its lowest portion reaching ½-inch below the acetabulum. The skiagraph distinctly explained the very marked limitation in movement, which gave the patient great pain. It presented a very rare appearance. The head of each femur was opposite the acetabulum, and the neck formed an acute angle to the shaft. The trochanters were not thickened. Three and a-half inches from the top of the trochanter the lower border of the femoral head on the left side was within ½-inch of the shaft. Part of the rounded head was excavated out of the acetabulum towards the femoral shaft. The neck was irregular, and somewhat narrowed in contact with the head. The upper border of the left neck measured 5⅛ inches, the lower ½-inch. On the right side the head practically touched the shaft 4½ inches from the top of the trochanter. The superior border of the neck was 4⅜ inches in length, the lower 1¼ inch. The same kind of irregularity was noted, and the neck was very thinned towards the femoral head. The head seemed also to be levered out of the joint. The etiology and treatment were discussed.

MIDLAND MEDICAL SOCIETY.

ARTHUR OAKES, M.D., President, in the Chair.

Wednesday, December 11th, 1901.

GASTRO-ENTEROSTOMY.

MR. GAMGEE showed a man, aged 39, upon whom he had performed the operation of gastro-enterostomy.

In the autumn of 1900 the patient began to have pain after food, and to vomit occasionally. The symptoms increased severely, and in August, 1901, he was vomiting a quart or more of frothy fluid every two or three days, and his stomach was enormously dilated. He was operated upon on September 6th, 1901, and it was found that there was a stricture of the pylorus, due to a puckered-up scar on its anterior surface. An anterior gastro-enterostomy was done, a Murphy's button being used. The symptoms were immediately and completely relieved, and, since being operated upon, the patient's weight had increased 2st. 4½lb.

PERONEAL TYPE OF PROGRESSIVE MUSCULAR ATROPHY.

Dr. DUNCAN LAWRIE showed a boy, aged 7 years, suffering from the peroneal type of progressive muscular atrophy. There was no hereditary history, and none of the patient's six brothers and sisters were affected with symptoms of nerve disease. He had had no infectious illness before the commencement of the atrophy.

The main features were: (1) a slowly progressive atrophy of the muscles of the leg, beginning at the age of eighteen months, and gradually leading to double talipes equino varus: (2) the appearance of atrophy of the hand muscles after an interval of [illegible] two years ago—resulting in co[illegible] muscles of the hand, which showed [illegible] interosseous paralysis: (3) loss of [illegible] and less below knees: no other [illegible] extension of the atrophy in all the [illegible] first affected muscles: (5) diminution and final loss of faradic irritability in the affected muscles: (6) the plantar reflexes were represented by movements of thigh muscles, and the knee-jerks were absent.

The talipes equino-varus had been treated by tenotomy of

three different occasions, beginning at the age of 3 years. In August, 1900, the exhibitor had done a tarsectomy on the right side, and with the help of boots fitted with inside irons the patient was still able to walk fairly well.

PORRO'S OPERATION.

Dr. MALINS showed a specimen of a pregnant uterus with attached tumour, removed by Porro's operation. The patient, aged 42, had had five children and five miscarriages, the last in 1896.

A tumour was found on the right side of the cervix projecting against the brim of the pelvis and into Douglas's space; semi-elastic, not movable; it was thought to be ovarian. There was little pain or discomfort. The patient was admitted and the abdomen opened, when the tumour was found to be a myoma on the right side of the cervix under the peritoneum, irregularly rounded, some 4½ ins. by 3½ ins. With the prospect of ultimate difficulties at term it was decided to remove the uterus and tumour together. This was done by securing the blood supply in the usual way and cutting through the lower part of the cervix. The patient made an excellent recovery.

The tumour presented all the appearances of a myoma. The fœtus was in the left oblique diameter, occipito-posterior. Cases of subperitoneal myomata in this situation were very rare, and necessarily dangerous in pregnancy.

SPECIMENS.

Dr. THOMAS WILSON showed (1) a fœtus, and a uterus with a fibroid the size of a fœtal head, which had grown from the posterior wall of the cervix downwards between the peritoneum on the front of Douglas's pouch and the posterior wall of the vagina; the specimens were removed by total puerperal hysterectomy from a patient, aged 42, on the seventh day after her third labour began; the fœtus weighed 9lb., and was beginning to be macerated; (2) a left glandular ovarian cyst, removed from a patient, aged 19, at the fifth month of her first pregnancy; the cyst was placed in the left upper abdomen, and at first sight simulated hydronephrosis.—Mr. A. LUCAS showed (1) a hydatid cyst, removed from the pectoralis minor of a girl, aged 20; (2) a large epulis, removed by operation.

MANCHESTER MEDICAL SOCIETY.

A. H. YOUNG, M.B., F.R.C.S., President, in the Chair.

Wednesday, December 4th, 1901.

DUODENAL PRESSURE OBSTRUCTION.

MR. MONTGOMERY made a communication on a case of acute duodenal pressure obstruction.

The patient, a boy, aged 15, whose previous health had always been good, was seized with an attack of acute gastro-intestinal catarrh probably caused by ice-cream. The diarrhœa ceased after twenty-four hours, but the vomiting continued in excessively large quantities. Forty-eight hours after the onset of symptoms a laparotomy was performed. The dilated stomach filled the whole abdominal cavity. After emptying the stomach and turning it upwards it was found that the duodenum was extremely dilated as far as the point where it was crossed by the superior mesenteric fold. The small intestines were collapsed and pushed down into the pelvis. When these were raised, after the emptying of the stomach, the duodenal contents passed onwards and the obstruction seemed relieved. The boy died a few hours later and the diagnosis was confirmed by the necropsy.

The bearings of this and other cases on so-called acute idiopathic dilatation of the stomach were discussed and the lines of treatment suggested.

OÖPHORECTOMY FOR BREAST CANCER.

Dr. DONALD read notes of a case of oöphorectomy for cancer of the breast, and showed the patient. She was sent to St. Mary's Hospital, Manchester, by Dr. J. Hepworth, of Eccles, on June 22nd, 1900. She was 46 years of age and had not passed the menopause. The left breast was transformed into a hard mass firmly fixed to the chest wall and to the skin. The growth extended into the axilla. Double oöphorectomy was performed on June 23rd. Thyroid treatment was commenced a week before the operation, and was continued as soon as convalescence was complete. On November 12th the patient was readmitted. The breast was much smaller and softer, and was quite mobile except at one small spot. The mass in the axilla could not be felt. On November 14th the breast with the axillary glands and a portion of the pectoralis major muscle was excised. In April two small nodules were found in the scar and were excised. On September 4th some hard masses were found in the supraclavicular region. At the time of reporting the patient's condition was much better than when she was first seen—an interval of nearly eighteen months. She had gained weight and had no pain. The nodules in the scar and in the glands above the clavicle were increasing.

STETHOSCOPES.

Dr. THOMAS HARRIS read a paper on different varieties of stethoscopes, and showed a large collection of different kinds of ancient and modern type. He referred to the history of the invention of the ordinary monaural stethoscope, and showed the various phases through which it had passed since 1816. He also gave the history of the invention of the binaural stethoscope, and showed various forms of that instrument. His conclusions were that the attempt to invent a universal stethoscope, either of the monaural or binaural type, which would suit everyone, would be sure to be fraught with failure, that what suited one man's ear did not suit another, the consideration of the comfort with which an instrument could be used was much more important than any other detail in the shape of the instrument; that more depended upon the physician than upon the instrument he used; that immediate auscultation was too much neglected, and was very valuable in many cases. Dr. Harris also referred to a series of experiments he had made which showed that in the ordinary monaural stethoscope the chief conduction took place through the wood, and not through the air column. A perfectly solid stethoscope cut either in the direction or across the grain of the wood was a very perfect conductor of sound, both of heart and breath sounds.

HUNTERIAN SOCIETY.—A pathological evening of this Society was held on Wednesday, November 27th, 1901, Dr. DUNDAS GRANT, President, in the chair.—Mr. W. H. KELSON showed a tumour he had removed from the inside of a man's nose. It was of slow growth, had its point of origin in the vestibule, and blocked the left side of the nose and produced deformity. It was about the size of a bantam's egg, and was composed chiefly of fibrous tissue.—Dr. FRED. J. SMITH showed: (1) The organs of a woman, aged 29, showing (*a*) miliary tubercle in both lungs spreading from old caseous foci in each apex, (*b*) carcinoma of the pyloric end of the stomach for which (*c*) a most successful gastro-duodenostomy had been performed by Mrs. Scharlieb some months before death, (*d*) the right ureter ending in a blind extremity some two inches below the kidney, which (*e*) was represented merely by a small cyst about the size of a pigeon's egg; (2) a case of fæcal herniated protuberances on the colon which exhibited externally a series of small knob-like protrusions seen to be small hernia-like extensions on the mucous membrane, each filled with a small mass of hardened fæces. Dr. Smith remarked that the condition was common in lesser degrees, but he had never seen such an extreme example; he thought it was caused by habits of chronic constipation, and was at the bottom of the difficulties of treating many such cases; (3) the suprarenal organs of a case of Addison's disease; (4) a case of meningitis of the spinal cord, and drew attention to the way in which the formalin method of preservation showed all the natural colour of the specimen; (5) a case of numerous gall stones of all shapes and sizes removed from the body of an old lady who had never complained of colic or other symptoms of them.—Mr. CLEMENT LUCAS showed a specimen of tuberculous epiphysitis destroying the ankle-joint, and tuberculous synovitis of the knee in the same extremity, amputated from a boy aged 2 years:

The patient was admitted into Guy's Hospital under his care on February 27th, 1901, for abscess on ankle. This was opened by an incision made just above and behind the external malleolus of the right ankle; a quantity of pus escaped; the abscess cavity was found to extend as far as exterior of ankle-joint, but the joint itself was not involved. Bare bone was exposed. This operation was on March 1st. On March 15th the abscess was granulating up. Patient was found to be suffering from right pleuro-pneumonia, having a high temperature of 102.3°. On March 20th an empyema was found in lower part of right pleural cavity. The sixth rib was resected and a counter opening made in eighth intercostal spaces, and drainage tube put in. On May 21st it was noticed that his right ankle was hot and inflamed; it was locally anæsthetised, and an incision made over the external malleolus; a little pus escaped. On June 4th the patient was taken home by his mother contrary to the advice of hospital surgeon. The empyema tubes had been taken out. Patient was running a high temperature and appeared to be wasting. The patient was readmitted on August 16th for unhealed wound over outer malleolus. Whilst home the patient had had a cough, the ankle discharging constantly, the amount of discharge varying. On August 20th patient was operated on; an incision was made on inner side of leg just above internal malleolus. The periosteum was turned aside and the bone was chiselled away until a cavity in the interior of the tibia was reached, which was then thoroughly soused out. A probe could be easily passed from the external wound to the internal. The patient continued running a high temperature, so on September 3rd an incision was made over inner side of internal malleolus and the wound scraped out; some broken-down bone and pus re

moved. The sinus was dressed with sulphur and glycerine. On September 17th it was observed that when patient was dressed with sulphur his temperature fell, but when dressed with other dressing it went up to 100° and over. On September 20th, as all suppuration had ceased, decalcified bone was put into sinus on inner side. On October 3rd old empyema was found to be discharging. On October 11th the sinus in ankle was again opened and scraped out; two sinuses could be defined on going into the bone, and one going in front of the bone. These were packed with iodoform emulsion. The old empyema wound was then opened and found to extend down to the rib; it was scraped out and dressed with iodoform emulsion. On October 18th the empyema seemed to be granulating up. Second empyema scar had a small pustule from which a small quantity of pus was evacuated: fomentations were put on. About this time the knee of the right leg was seen to be swollen; it was strapped with Scott's ointment, and at first subsided; it shortly, however, became as large as before. On November 10th a fluctuating swelling appeared on the inner side of the tendo Achillis. The patient's knee was somewhat larger. On November 14th patient's leg was amputated high up the thigh. The lower end of the tibia and the astragalus could be crumbled up by the fingers, the joint having been destroyed. On examining the knee-joint fringes had grown in from the synovial membrane on to the cartilage and was thickened in places. On November 20th patient seemed better in himself; his temperature was lower.

The specimen exhibited showed a large cavity at the lower end of the tibia which by ulceration had destroyed the epiphysis and directly communicated with the ankle-joint. Granulation tissue filled the cavity in the bone and the greater part of the ankle-joint. The astragalus was not completely denuded of cartilage, but the bone was softened, and, where absorbed, the cartilage readily peeled off. The knee showed the early changes of tuberculous disease of the synovial membrane. The pouch beneath the quadriceps extensor was filled with granulations and the cartilage of both condyles had been worked upon by the growing fringes of synovial membrane which were everywhere adherent and causing absorption of the subjacent cartilage. The ligamentum mucosum was also thickened and absorption of cartilage had taken place around its attachment to the intercondyloid patch. As there was progressive tuberculous disease of the lung and a discharging empyema Mr. Lucas amputated the useless limb to lessen the drain on the child's constitution.—Dr. W. A. MILLIGAN showed a specimen of kidneys from a case of chronic granular nephritis in a boy aged 7 years.

For six months prior to seeking advice it was noted that the patient was passing a considerably larger amount of urine than formerly; also that he was having difficulty in reading his music notes. On examination in December, 1889, patient was found to be very pale and thin, complaining of headache and tired feeling. Urine albuminous, pale, specific gravity 1012. Head hypertrophied, œdema of discs. Things gradually got worse, patient developing abdominal symptoms, gastric pain, constipation, foul tongue, epistaxis, and hæmorrhages under skin also noted. Cramps, especially in legs, very marked symptom. Then the heart developed double mitral murmur, the pulse became irregular, large quantities of urine passed of low specific gravity and albuminous. Things went from bad to worse, till finally death occurred in July, or six months after patient was first examined. Prior to death anuria developed and very marked œdema, gradually spreading all over body. *Post mortem*: Kidneys only examined; found both very small, right practically gone. Irregular on surface, with adherent capsule typically granular. Right pelvis much dilated, but no obstruction present, probably, therefore, due to atony of Goodhart.

—Dr. DAVID ROSS showed a specimen of carcinoma of the pancreas. Dr. Ross had removed from the patient some chyleform ascitic fluid. This had been milky and opalescent in appearance, but contained no fat. The occurrence of such ascites did not appear to point to any particular pathological condition, but was always of grave moment.—Dr. GLOVER LYON showed (1) an aortic aneurysm with secondary dissecting sac which had burst into the trachea in the left cervical region. (2) By permission of Dr. VINCENT HARRIS, a small fusiform aneurysm in a pulmonary cavity from a case of phthisis. This aneurysm was unruptured, but the patient had died of hæmoptysis. (3) By permission of Sir HUGH BEEVOR, a lung with extensive gangrene and several large cavities.—Dr. PRICE, who had prepared the last three specimens by the formalin method, described the process.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY. At a meeting held on December 19th, 1901, the following specimens were exhibited:—Mr. R. FAVELL: Series of uterine fibromyomata (*b*); diseases of Fallopian tubes (*b*); parovarian cyst (*b*).—Dr. T. H. MORTON: Blood cysts from uterus (*b*); tubal ectopic gestation (*b*); intestine strangulated by band (*b*); intestine strangulated by loop (*b*).—Mr. R. J. PYE-SMITH: Pyloric stomach excised for malignant disease (*a*) and (*b*).—Mr. E. J. SCORAH: Sarcoma of small intestine (*a*); carcinoma of small intestine (*a*); cirrhotic kidneys (*b*).—Mr. S. SNELL: Encapsuled sarcoma of orbit (*a*) and (*b*); epithelioma of cornea (*b*); tubercle of iris (*a*); endothelioma of orbit (*a*); sarcoma of choroid recurring in orbit—(1) section of eyeball; (2) growth from orbit; (3) bony walls of orbit exfoliated after chloride of zinc; (4) microscopical sections of tumours. A large collection (about seventy) of mounted sections of eyes.—Dr. G. WILKINSON: Hydatid of lower end of femur (*b*).—Dr. ARTHUR HALL: Typhoid ulcers (*b*); mucous casts, intestine (*b*); brain thrombotic softening (*b*); aortic aneurysm (*b*); heart—fatty degeneration (*a*); liver—acute yellow atrophy (*a*); kidney fatty degeneration (*a*); heart—amyloid degeneration (*a*) (*a*=microscopic; *b*=macroscopic).—Specimens illustrating various features of tuberculosis were demonstrated by Drs. ROBERTSON, HECTOR, and ARTHUR HALL. These included cultures of B. tuberculosis, streptothrix, and actinomyces; microscopical specimens of tuberculosis of cow's udder, horse's lung, guinea-pig's glands, various human organs, lupus nodules, urine, etc.; specimens illustrating experimental tuberculosis in animals; a large collection of specimens illustrating tuberculosis of different organs, both human and animal.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting held on December 18th, 1901, Dr. J. G. DOUGLAS KERR (Bath), President, in the chair, Dr. CLIPPINGDALE read a paper on the clay and gravel soils of London and the relative advantages of dwelling upon them. The paper was illustrated by a geological map of London and by diagrams of sections drawn through the Thames basin, showing that the soil nearest the river bed was invariably gravel, while the districts further away were clay. Tables were also shown giving the height, elevation, soil, density of population, and death-rate of every sanitary area of London. These statistics, the author contended, proved that living on clay was not so injurious to health as was commonly supposed, and that as all the hills around London were of clay, they resembled a clay table basin, which, if turned upside down, became immediately drained of water poured upon it, whereas the greater mortality was clearly shown by the tables to be connected with the low-lying and level districts where the soil was generally gravel. Density of population and the class and occupation of the inhabitants were also acknowledged by the author as important factors in determining the death-rate, but did not, in his opinion, fully account for the marked difference between the mortality upon clay hills and gravel levels. The omission from the Registrar-General's returns of statistics with regard to rheumatism was regretted, as this disease was well known to be influenced by soil. In conclusion it was pointed out that the important thing was to live upon a hill—if a hill could be found of gravel all the better—but there were no hills of gravel in or near London, and the statistics he had brought forward proved, he contended, that the healthiest places in London were those on the clay hills surrounding it. Dr. SYMES THOMPSON pointed out that as far as London was concerned the surface of the clay generally sloped towards the river, and that the gravel lying upon the clay was often water-logged: but that even in the London basin the relative humidity was greater and rheumatic affections more prevalent on cold impervious clays than on gravel. Dr. GROVES (Carisbrooke) said the experience of a wider district in which various formations were at the surface would scarcely support Dr. Clippingdale's conclusions. His experience of London taught him that the overcrowded conditions which obtained in certain districts were responsible for high mortality rather than the nature of the soil, and the wonder was the mortality was not greater. Dr. LUFF congratulated Dr. Clippingdale on the courage he had shown in coming forward as a champion of clay soil, but he ventured to differ from the deductions he had drawn from the figures given in his paper. He (Dr. Luff) quite conceded that elevation was the important desideratum, the nature of the soil must come second, for elevation meant the draining away of the surface water. On the other hand, he was constantly meeting with undoubted cases of rheumatism and rheumathoid arthritis which could be traced to dwelling on a clay soil, and which, when the patient could leave that soil, became very much ameliorated or even cured. Dr. HARRY CAMPBELL said that in comparing the healthiness of the gravel and clay districts of London one must not forget how extraordinarily well drained

London as a whole was, and the fact that wide areas were rendered impermeable to rain by being covered with houses and pavements. The low mortality of the clay eminences might be partly accounted for by the fact that they were sought after by the more wealthy residents who could command the best sanitary conditions. He did not, however, doubt that on the whole gravel was more healthy than clay. Dr. FORTESCUE FOX held that a clear case had been made out for the salubrity of clay soils if well situated and well drained. But it was impossible to believe that they possessed the advantages of porous soils, and undoubtedly being damp and cold they favoured mist and fog. A certain class of chronic ailments were peculiarly sensitive to such soils, and this fact alone marked them out clinically and might form a basis of classification. Dr. EWART was able to agree with almost all the views which had been expressed. Their apparent divergence was explained away by the fact that the generally accepted statement as to climate would not be applied to London, which was exceptional not only as a town, but also as a geographical and as a geological district. Its own clay area besides being artificially protected by impermeable layers was admirably drained by its water courses and by its sewers, and was everywhere on the slope, and moreover was limited north and south by elevated ridges of a different formation. Clay regions had a damp and cold atmosphere, because they usually consist of extensive plateaux without natural drainage. On the other hand, the London gravel, instead of being a highly aërated soil conducive to warmth and dryness of air, was in its lower strata soaking in water, and therefore less healthy than it was generally supposed to be. The discussion was continued by Drs. SOLLY (Harrogate), THOMPSON (Buxton), LEONARD WILLIAMS, SANSOM, and the PRESIDENT.

GLASGOW SOUTHERN MEDICAL SOCIETY.—A special meeting was held on December 19th, 1901, Dr. JOHN STEWART, President, in the chair, for the purpose of considering what action should be taken regarding the General Medical Council. In introducing the business Dr. Stewart said the idea they fondly cherished that the General Medical Council was a body having the interests of the medical practitioners at heart, anxious to listen to grievances, had proved a pleasant dream from which they had had a rude awakening. He recalled the fact that the medical practitioners of Glasgow and the West of Scotland had occasion to approach the General Medical Council, and sent to London a deputation in support of a memorial. At the same time and on the same subject the Southern Medical Society forwarded to the Council a petition signed by the office bearers. It was now a matter of history that the memorial was not accepted; the deputation was not received, while the petition from the Society was not even acknowledged. They were therefore forced to the conclusion that the General Medical Council as presently constituted was not in sympathy with their work as general practitioners. Further, their attention had been particularly drawn to the manner in which the General Medical Council discharged its judicial functions. The only penal power it possessed was in connection with a charge of infamous conduct in a professional respect, and in this capacity many had come to regard the Council with absolute distrust. They had seen it in the exercise of its function frame an indictment the terms of which betrayed either complete ignorance of the laws or a deliberate ignoring of the laws. They had known it issue an indictment which made a grave charge of illegal conduct against the accused, namely, that of employing another to commit an illegal act; and they had seen it sustain the charge on facts which to the unbiassed mind did not bear out the indictment, much less substantiate a charge of infamous conduct. They noted that though in support of the charge of infamous conduct the Council furnished particulars in an indictment to which they gave publicity, yet in considering the charge they ignored particulars and made a test by facts which had little or no relation to the terms of the indictment. They believed, therefore, that the General Medical Council were not impartial judges, and that in questions which ought to be decided by legal methods they were influenced by sentiment and prejudice. Need they wonder, then, that many accused parties, though conscious of their innocence, should feel that for their own safety it was better to appear before the tribunal with "bated breaths and whispering humbleness," and express regret. It was their duty, however, to protest strongly against the action of the Council in so humiliating men of staunch integrity and of holding up the profession in that part of the country to public ridicule and scorn. It was unanimously held that the General Medical Council was not a legislative body, that it had no power to make or alter laws; but a moment's consideration would show that the unrestricted power it possessed—and of which it took the fullest advantage—of defining what was infamous conduct, made it a very powerful legislative body indeed. It had only to say "Do this, or we will adjudge you guilty of infamous conduct;" "Don't do that, or by the power committed to us under such-and-such sections of the Medical Acts we will erase your name from the *Register*." Surely no body of men should possess such absolute power. Certainly not any body whose fairmindedness was open to doubt. From these considerations—from its unsympathetic attitude towards the medical profession, from its prejudiced administration of its judicious functions, from its arrogant assumption of legislative powers, from its apparent laxity regarding its administrative functions and from many other considerations—from sins of omission as well as from sins of commission—the medical profession had ceased to repose that confidence in the General Medical Council which as the governing body of medical education and registration it ought to command. Reform was needed and they believed that in the first place reformation should be in the direction of (1) a great increase in the number of direct representatives and (2) a complete withdrawal of the penal powers of the Council, or at least a more restricted definition of the same. The present time was opportune to petition Parliament. It would not be difficult to show that the profession ought to be more liberally represented on the Council and many of them believed that we should ask that erasure from the *Register* should be relegated to the courts of law. The President then invited discussion on the subject, in which many took part, and at the close the following resolution was moved and adopted, namely:

That the Council of the Glasgow Southern Medical Society be empowered to take steps to draw up a memorial for presentation to the members of Parliament and to Parliament itself seeking support for an increase in the direct representation to, and restriction of the penal powers of, the General Medical Council; and that other medical societies be invited to co operate in the matter.

HARVEIAN SOCIETY OF LONDON.—At a meeting held on Thursday, December 19th, 1901, Dr. H. A. CALEY, Vice-President, in the chair, Dr. E. CAUTLEY showed a case of infantile scurvy simulating acute epiphysitis.

The patient, a female, was born on December 13th, 1900, and came under observation on December 2nd, 1901. She was the fourth child. Two had died in infancy from diarrhœa. She was fed on cow's milk and barley water during the first two months of life and since then on condensed milk and barley water, with the addition of "Brighton biscuits" at the age of 5 months. The history of the dietary was not very reliable. The left arm and shoulder had been swollen for two weeks; the child was pale, ill, and cried when moved or touched. Four teeth were cut, and the two upper lateral incisors showed signs of eruption; the lower gums were normal, but the upper gums round the teeth were swollen and dusky-red in colour. There was extensive swelling of the left shoulder, extending half-way down the upper arm; the swelling seemed to be in front of the joint and under the periosteum of the humerus. There were moderate signs of rickets; beaded ribs and enlargement of the epiphyses, especially of the knees, which were much swollen above the condyles, and very tender. Exploration of the shoulder confirmed the diagnosis of scurvy, pure blood being obtained. In the course of two days the swelling extended down to the elbow. The child made a satisfactory recovery under antiscorbutic diet, without drugs, but still presented considerable thickening of the left humerus, especially of the lower half. Pyrexia was slight and irregular.

Dr. G. A. SUTHERLAND suggested the possibility of fracture secondary to the scorbutic condition, causing the thickening of the lower part of the humerus. He recommended that a skiagraph should be taken. The fact that the upper arm still showed considerable immobility was to some extent in favour of this suggestion. The CHAIRMAN remarked on the rarity of the condition simulating an epiphysitis in the upper arm and on the vertical extent of the thickening. He thought that a series of skiagraphs in such cases would prove of interest. Dr. CAUTLEY, in reply, pointed out that at first the swelling only extended as low as the middle of the humerus, and that in the course of two days it extended down to the lower epiphysis. The gradual extension downwards was not

in favour of fracture, and there did not appear to be any bending of the bone. He pointed out that the thickening was most marked in the lower half of the humerus by reason of absorption taking place from above downwards, the blood last effused being the last to be reabsorbed.—Mr. F. JAFFREY showed a child, aged 10 weeks, with craniotabes. When first seen, a month previously, the child was suffering from congenital syphilis, and, on examining the skull, he was found to have craniotabes, which practically affected all the bones of the vertex but was best marked on either side of the lambdoid suture. The child was at once weaned, and put on grey powders and small doses of cod-liver oil. Mr. Jaffrey made a few remarks on the causes of craniotabes, and said that the best marked cases he had seen were in subjects of congenital syphilis, though he had seen the condition not uncommon in rickets. Dr. L. GUTHRIE pointed out that many cases improved very rapidly, even as rapidly as the one brought before the Society. He believed in the association of the affection with congenital syphilis, but had seen cases in ill-developed infants, independently of either congenital syphilis or rickets. Dr. E. CAUTLEY thought it important to have a clear understanding what was meant by the term "craniotabes." He considered that there were several varieties of the affection. One he regarded as due to delayed development. The bones of the vertex were sometimes not ossified at birth, and remained membranous for some weeks. This was especially the case in premature infants, but occurred also in infants born at full time. He thought the present case was one of delayed ossification. To a second variety he gave the name "the parieto-occipital type." It was characterised by softening along the sutures, mainly the lambdoid suture. This, he said, was extremely common in infants brought upon condensed milk, and especially so when the infant was kept in close badly-ventilated rooms. Consequently it was found most often in the early months of the year. He ascribed it to a deficiency of the lime salts in the food. The textbook type, that in which scattered isolated spots of softening were found, he regarded as extremely rare, and he had never seen a case during life and verified *post mortem*. He had also seen very extensive craniotabes associated with congenital cerebral defects and with congenital hydrocephalus. He was extremely sceptical as to any etiological association with congenital syphilis, beyond the general malnutrition so often present in this disease. Dr. W. EWART discussed the tendency to primary atrophy of the tissues in connection with congenital syphilis, and suggested that the presence of an analogous process in other bones would be confirmatory of the view that the disease was a cause of craniotabes. Dr. G. A. SUTHERLAND thought the question was not yet settled, and that the book-type of the affection was not very rare, especially in the parieto-occipital region. He believed those cases to be due to congenital syphilis when the patches were circular with surrounding ossified bone. As to the mode of production he thought that in some cases absorption took place from the outer surface of the bone. The CHAIRMAN suggested that in view of the possibility of a connection with congenital syphilis it might be advisable to treat all such cases with mercurial preparations. Mr. JAFFREY shortly replied.

EPIDEMIOLOGICAL SOCIETY.—At a meeting on December 13th, 1901, Dr. PATRICK MANSON, C.M.G., President, in the chair, Dr. F. W. MOTT read a paper on dysentery in asylums, a disease the prevalence of which in the London County asylums, especially that at Claybury, had led to an inquiry on behalf of the Board by Dr. Durham and himself, who presented their report in May, 1900. It was marked by a febrile onset and inflammatory lesions of the large intestine, and tended to occur in outbreaks, in which the old and infirm suffered most, but no age was exempt, and even the attendants and officials were attacked. Though often designated by such names as "ulcerative colitis," "zymotic diarrhœa," etc., it was, in his opinion and in that of Dr. Manson, simply dysentery, as described by Sydenham and familiar to Indian and army surgeons to-day. It presented several distinct types, from severe attacks ending fatally in a few days to mild, non-febrile, atypical forms, which, unrecognised, tended to spread the infection. The symptoms common to all, but in very varying degree and duration, were fever, tenesmus, and loose stools with blood and mucus. The initial fever might persist till death, or subside after a few days; the disease might assume an intermittent type, or blood and mucus might be absent though the characteristic lesions of dysentery were found after death. Epileptic and paralytic patients often died in a fit, and pneumonia was a frequent cause of death. In the acute inflammatory type there was swelling of the lining mucous membrane of the whole of the large and of the lower part of the small intestine, where in the early stage, the engorged villi gave to the surface the appearance of a crimson Turkey carpet, followed by the ashen grey of exudation and necrosis: otherwise the *post-mortem* phenomena of no two cases were alike, and all might be met with in other diseases. Leucocytes abounded in the stools, but were present in normal numbers in the blood: bacteria of many kinds were met with, but, except perhaps certain cocci, none were certainly specific, though they might acquire a more virulent character: the B. coli, at any rate, did not play any important part. In chronic cases the colon might become enormously dilated, especially when attacks recurred. Dr. Claye Shaw's hypothesis of a neurotic origin was wholly unsupported by evidence: no amount of degeneration of the nerve centres sufficed *per se* to cause dysentery, which if it were so should be met with among paralytics in all asylums; and in some severe and fatal cases the splanchnic nerves were perfectly healthy. There was absolutely no difference between sporadic cases in the sane and the insane. The disease was undoubtedly communicated from the sick to the sound chiefly, if not solely, through the medium of the evacuations. As with cholera and enteric fever, it was impossible to avoid soiling of the clothes and bedding, or of the hands of the attendants, and those who knew the difficulties of dealing with the insane and their filthy ways would understand how hard it was to prevent the spread of the disease to other occupants of the ward. The constant transfer of patients from one asylum to another contributed to the dissemination of the infection, and it could not be denied that in some instances there had been culpable irregularities in administration, as pouring excreta down slop sinks, which the patients would use as handbasins, washing soiled linen in baths, and the like. Irritant food might be a possible means of inducing a recrudescence of a latent infection, but there was no evidence that unsound food could originate the disease, and the water supply of the asylums could not be impeached. In some asylums the drains and sanitary arrangements had been very defective, but there had been no greater incidence of the disease in these than in others, and there was no doubt that stricter observance of notification, isolation of all cases, avoidance of overcrowding, and of the transfer of patients suffering from chronic or latent forms of the disease, disinfection, and the precautions practised in the treatment of enteric fever, would have the effect of greatly diminishing the prevalence of dysentery in asylums, if not of eradicating it altogether. The discussion of the paper was deferred to the January meeting.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting held on December 3rd, 1901, the PRESIDENT (Mrs. Boyd, M.D.) in the chair, Miss COCK, M.D., showed a case of alcoholic cirrhosis of the liver in a female child of 6. Brandy had been given in considerable quantity daily from the age of 4 months to 22 months, and later smaller quantities of port wine. There was marked deterioration of general health, with anæmia, and moderate enlargement of liver and spleen. Ascites had been present. There was no history of syphilis.—Mrs. KEITH, L.R.C.P. and S., and Miss KEITH, L.R.C.P. and S., showed a case of arrest of growth. The patient, an intelligent girl of 16, was only 43½ inches in height. At birth (full term) she weighed 6½ lbs. She was fourth in a family of eight, the other seven being well grown. From 8 to 10 she had been anæmic and weakly, and the arrested growth dated from that time. The limbs were well formed, and the whole body was that of a well-proportioned child of 7 or 8, and without signs of rickets. No signs of puberty were present. There was no enlargement of the abdominal organs.—Miss THORNE, M.D., read a short paper on revaccination, comparison of results obtained from Government lymph and commercial lymph. She gave statistics which clearly showed that the lymph supplied by the Local Government Board was infinitely superior in quality to any

lymph she could obtain commercially. Miss Thorne was of opinion that the irritable papule often obtained after the use of commercial lymph was of some slight protective value, but that in parallel cases, revaccinated with Government lymph, good vesicles were obtained. After revaccinating some hundreds of the members of the female staff at the General Post Office—a well vaccinated body, as all members are revaccinated on their entrance to the G.P.O.—she was inclined to think that good vesicles should be obtained in cases which have not been revaccinated for 6 to 8 years. Miss Thorne urged that one of the two plans suggested in the BRITISH MEDICAL JOURNAL for the better supply of lymph to the general practitioner should be adopted: (1) That the Local Government Board should largely increase the department for the supply of lymph for the use of all practitioners who desired it; or (2) that Government inspection of the various commercial firms should be introduced.—Mrs. GARRETT ANDERSON, M.D., read an appreciation of the life of Sir James Paget.

OPHTHALMOLOGICAL SOCIETY.—Mr. G. W. Roll writes: In the case I showed on December 12th, 1901, at the last meeting of the Ophthalmological Society, your report in the BRITISH MEDICAL JOURNAL of December 21st states that the eye was struck with a piece of iron. This is incorrect. I stated that the injury was inflicted with a piece of steel. The presence of the foreign body was proved by the skiagraph, for which I am indebted to Mr. Mackenzie Davidson. This was such an essential part of the case that mention should have been made of it in your abstract report.

REVIEWS.

MEDICINE.

M. DELPEUCH'S manual on *Gout and Rheumatism*[1] is one of a series dealing exclusively with the history of disease. The present volume traces the medical history of gout and rheumatism from the earliest times down to the end of the seventeenth century, when the writings of Baillon and Sydenham established distinct differences between the two complaints. The author pleads for the study of medical history on the following grounds amongst others. Such a study is of interest in tracing the gradual evolution of knowledge and opinion up to its modern standard. An acquaintance with the writings of the elders will explain how many fallacies were once adopted and subsequently rejected, and knowledge thus gained may prevent the resuscitation and publication of such errors by modern writers. There seems weighty reason in this last, and it is well worthy the consideration of would-be authors now and in the future. In the course of time, too, it appears that discoveries by others are appropriated by, or wrongly attributed to, writers who have no claim to them. In restoring these discoveries to their proper sources, the student of medical history may act the part of "a great rectifier of saddles" so ably played by Bentley in other fields. Even in treatment the author claims that benefit may be gained by such a study, as it would seem that the use of colchicum in gout was once abandoned and forgotten, and its revival was mainly brought about from a perusal of the works of the older writers. Granting all that the author claims for the study of medical histories, it is still to be feared that his book will have attractions for the few rather than the many. Were our lives as long as in the days of Hilpa and Shalum, then a knowledge of the history of each disease might, perhaps, be expected of every medical man. In our present shorter span, however, the practical advantages to be gained by the mastering of such lengthy tomes on history alone are too problematical for the average individual to essay them. Where time and inclination for such study exist, Dr. Delpeuch would seem a trustworthy guide to his subject. He gives lengthy passages direct from the works he cites, and has not trusted merely to second-hand quotations. His work is pleasantly got up and is written with the grace of style for which his countrymen are so famous.

A febrile polyarthritis may, it is probable, be due to any one of many different specific causes or any combination of them. To differentiate its various forms a study of the etiology of individual cases is one of the earlier steps to be followed by experimental evidence based on synthetical research. MM. TRIBOULET and COYON, in their small book on *Acute Articular Rheumatism*,[2] have not only collated the facts, but have added important results obtained from their own investigations. They divide the cases of febrile polyarthritis into two main categories—simple acute rheumatism, in which, they hold, no microbic infection can be traced and without visceral complications; and infective acute articular rheumatism having microbial accompaniments and complications. Indeed, they look upon these complications, such as endocarditis, pericarditis, pleurisy, and chorea, as due to a secondary infection occurring in the course of a febrile polyarthritis with certain bacteria of which they recognise three kinds. These, which are to be found in the blood and in certain viscera, are the bacillus of Achalme, diplococci, and sometimes staphylococci. Their own work chiefly relates to the diplococcus, which, they hold, having its nidus in the gastro-intestinal tract, passes into the blood and gives rise to a general septicæmic state and in particular to what is known as rheumatic endocarditis.

Dr. SPIEGELBERG has collected together and translated into German[3] a series of papers on The Part played by the Thyroid in Arrested and Retarded Growth and Development, and on Chronic Benign Hyperthyroidism, originally published by Dr. HERTOGHE of Antwerp in the *Bulletin de l'Académie Royale de Belgique*. The symptoms of myxœdema are so marked and so well recognised at present that a typical case presents little difficulty in diagnosis; but, as the author points out, there are several conditions associated with thyroid insufficiency which often escape detection. Early diagnosis in such cases is doubtless of high importance, and the book serves a most useful purpose by directing attention to them. The ordinary forms of infantile and adult myxœdema are well described and admirably illustrated, and on these parts comment is unnecessary. Dr. Hertoghe's investigations of the symptoms of various forms of thyroid insufficiency which may or may not lead eventually to myxœdema are original and highly suggestive. He lays great weight on the condition of the thyroid in cases of retarded or stationary development. The course of several such cases is given, with excellent photographs showing the improvement under treatment with thyroid extract. The backward development so commonly observed in cases of adenoids is regarded as being frequently due to the association of thyroid insufficiency, and the author states that administration of the extract produces rapid amelioration of the symptoms. The various manifestations of the condition known as infantilism, including the form known as Lorrain's type, are briefly described. The author considers that in women, menorrhagia is an important and generally an early indication of thyroid insufficiency. The association of gall stones and myxœdema, first described by Buschau, is regarded as not infrequent, and several cases are quoted which have come under his own observation. Some at least of the conditions which the author ascribes to thyroid insufficiency offer no grounds for believing this hypothesis: as instances which we would select from amongst others are varicose veins and spermatorrhœa, both of which are stated without sufficient evidence to have this association. Apart from a few points such as these, there is much that is interesting and suggestive in these papers.

After reading Dr. CASELLI'S posthumous work[4] on the pituitary gland it is easy to understand why Dr. Tamburini should have felt it incumbent upon him to edit it. It would, in fact, have been a great loss if the good fruit of two years of arduous and excellent work had been left unreaped. Starting with the anatomy of the hypophysis, Dr. Caselli's researches lead him to conclude that the so-called nervous lobe does not contain any true nervous elements. With regard to the con-

[1] *La Goutte et le Rhumatisme.* Par Armand Delpeuch. Paris: O. Carré et C. Naud. 1900. (Demy 8vo, pp. 680. Fr. 20.)

[2] *Le Rhumatisme Articulaire Aigu* (Acute Articular Rheumatism). Par les Drs. H. Triboulet et A. Coyon (Actualités Médicales). Paris: J. B. Baillière et Fils. 1900. (Crown 8vo, pp. 96. Fr. 1·50).

[3] *Die Rolle der Schilddrüse bei Stillstand und Hemmung des Wachsthums und der Entwicklung und der chronische gutartige Hyperthyreoidismus.* Von Dr E. Hertoghe. Translated into German by Dr. J. H. Spiegelberg. Munich: J. F. Lehmann. 1900. (Demy 8vo, pp. 69. M. 2.)

[4] *Studi Anatomici e Sperimentali sulla Fisiopatologia della Glandola Pituitaria (Hypophysis Cerebri)* [Anatomical and Experimental Studies on the Physiopathology of the Pituitary Gland]. Per Dr. Caselli. Rome: S. Caldesini. (Demy 8vo, pp. 228.)

flicting figures as to the weight of the gland, he found that the maximum weight was not observed in unusual encephalic development but in those of average size. Much time and many experiments were devoted to the elucidation of the relation between the thyroid, parathyroid, and pituitary, and his conclusion was that no true relation of compensation exists between them. In the ordinary way the secretions of the non-excretory glands pass into the blood and neutralise or reinforce each other as the case may be, the absence or increased functional activity of any one necessarily disturbing the general equilibrium. In acromegaly, which is causally associated with changes in the pituitary body, the sequence of events is probably first hyperfunction, causing increased osseous development, and then hypofunction resulting in cachexia, some of the hurtful products of the non-excretory glands not being neutralised. Pituitary organotherapy is still on its trial as regards acromegaly, but in some cases of mental depression the author found pituitary tabloids decidedly beneficial. In bad cases, unrelieved by other means, resection of the hypophysis might, he thinks, be tried. The book throughout shows evident traces of accurate investigation and strenuous work.

THE BLUECOAT SCHOOL.

CHRIST'S HOSPITAL, better known as the Bluecoat School, is on the point of beginning a new chapter in its long and useful career, and it is fitting that its *Annals*[1] until the present time should now be told. Mr. PEARCE is particularly well qualified for the task, an old "Blue" and a Grecian he was formerly an assistant master in the school and is now vicar of the neighbouring church from which the institution takes its name. He is therefore thoroughly imbued with the *genius loci*, he is acquainted with the traditional lore of the school, and he has had access to the voluminous and carefully preserved minutes of the Courts and Committees by which the institution has been governed since it was first established in October, 1552, in the buildings of the Franciscan monks or the Grey Friars as they were commonly called. The book will be welcome to every "Old Blue," it is interesting to everyone who loves London topography and it will be of great value to future historians of the City, for it is a record of buildings and of a charity which have preserved many of the features of Tudor London into the twentieth century. From an early period the Governors of Christ's Hospital seem to have been careful in all matters connected with the health of the children under their charge. Robert Balthrop, Serjeant-Surgeon to Queen Elizabeth, and Surgeon to St. Bartholomew's Hospital, was appointed Surgeon immediately upon the foundation of the charity, with Henry Brown as his subordinate—Balthrop with a retaining fee of £13 6s. 8d., and Brown with £4 per annum, large sums of money at a time when the "Gramer Schoole Mayster" received £15, and the usher £10. The Governors not only paid for medical advice, but they asked for it and accepted it when it was given. Thus, in 1684, when the doctor and the apothecary were consulted as to the advisability of modifying the diet so that boiled rice might be given as a useful alternative for cheese they were able to say that "it hath pleased God to bless the children of this house with a great deal of health,' there being then only three children in the sick ward out of 350. After the plague in 1603 the Court of Governors decided

> that there shall be paid to William Martin, surgeon to this house, as benevolence for his great pains taken with the children of this house that hath been visited with plague, the sum of three pounds

Whilst during the great outbreak in 1665 it is said that

> during all this time of sickness and mortality the staff of the school had been resident and careful in the discharge of their several offices and places and had therein been exercised with extraordinary pains and trouble about the poor children of this hospital. And God had given such a blessing to these endeavours that all this time of sickness not more than 32 children of the number of 260 in the house are dead of all diseases.

A physical examination of the children presented for admission to the school was made as early as 1739, and to prevent the possibility of fraud by the substitution of the strong for the weakly the Committee ordered that the surgeon and apothecary should not only

> sign a note of such examination but tie a string about their necks with a seal of wax affixed at the end thereof, which the children are to wear til they are taken into this hospital or sent into the country.

These extracts and many others which could be given especially as to the varying relations of the Bluecoat School to its neighbour St. Bartholomew's Hospital will show that the annals of Christ's Hospital contain much to interest medical readers. Mr. Pearce has done his work well, but he has not always consulted the latest authorities, as is evidenced in his mention of Thomas Hayne, of whom a good account exists in the *Dictionary of National Biography*. The illustrations throughout are well rendered, they are taken partly from prints of the old buildings and partly from photographs of the present school. The index is excellent.

[1] *Annals of Christ's Hospital.* By the Rev. E. H. Pearce, M.A. London: Methuen and Co. 1901. (Demy 8vo, pp. 334. Illustrated. 7s. 6d.

EPILEPSY AND OTHER CHRONIC CONVULSIVE DISEASES. By Sir WILLIAM R. GOWERS, M.D., F.R.C.P., F.R.S. Second edition. London: J. and A. Churchill. (Demy 8vo, pp. 344, 10s. 6d.)

AFTER an interval of twenty years, Sir WILLIAM GOWERS has given us a second edition of the most important monograph on epilepsy in the English language. This is not only completely revised, but it contains numerous additions, while many parts have been rewritten. The work, we feel, is not so widely read as it deserves to be, but those at any rate who remember Sir William Gowers's out-patient clinics at the National Hospital will not need to be told how stimulating is his teaching on the subject of that most interesting and most dreadful disease. In regard to this second edition, it is not too much to say that it represents the instruction gained, by one possessed of marvellously acute observation and great powers of reasoning, from the study of many thousands of cases of epilepsy. The statistical basis on which the conclusions relating to the general facts of the disease are founded relates to no fewer than three thousand cases.

If in this edition of the book, as in the former, its tone in regard to the value of the medicinal treatment at present available is more optimistic than the majority of British neurologists could allow themselves to adopt, yet this at any rate may be claimed as an accentuation of a quality the reflex effect of which on the unfortunate subjects of the disease must be on the whole beneficial. The part of the work which seems ripest for further development is that dealing with the attacks of so-called hystero-epilepsy, and the evolution may probably be in the direction of a closer pathological association of these attacks with *petit mal*. This book, which in many particulars is probably among the best of the large amount of good work published by Sir William Gowers, shows in strong relief how much may be known about a condition of disease before the climax of full and co-ordinated knowledge is reached. It is to be hoped that he himself may enter into the enjoyment of the logical completion of his own labours.

NOTES ON BOOKS.

Hazell's Annual[1] has perhaps suffered by comparison with *Whitaker's Almanack*. As a matter of fact the two volumes are not rivals, but complements the one of the other. The *Almanack* is a directory: the *Annual* rightly describes itself as "a cyclopædic record of men and topics of the day." It is difficult to criticise a work of this kind, but the *Annual* has stood the test of experience, as it is now in its seventeenth year. One good feature of the volume is the summaries of events in the various departments of activity, and we have endeavoured to test these by reading the "medical summary, 1901." The result is very creditable to the editor, Mr. W. Palmer, B.A.Lond., as the essay, though brief, is well balanced. There should have been, we think, cross-references under "Malaria" and "Mosquito" as well as under "Plague." The biographical notices are not a strong feature of the book. The names, chiefly literary or political, are chosen rather haphazard. But this is the only fault which we have to find with a very able and useful compilation.

What's What[2] is a most amazing volume. If the reader

[1] London: Hazell, Watson, and Viney, Limited. 1902. Cr. 8vo, pp. 732. 3s. 6d. (net).

[2] London: Sonnenschein and Co. 1902. (Cr. 8vo, pp. 1228). 6s. (net).

will imagine all the paragraphs which have filled up odd corners in any evening paper for a year thrown together in alphabetical order he will get some idea of it. Or if he will suppose a person of average information sitting down to write a series of short essays on all sorts of subjects on the spur of the moment he may form some conception of its many absurdities. But he will not be prepared for the curious self-involvement which leads the editor, Mr. Harry Quilter, to supply a portrait of himself as a frontispiece, and a coloured picture of the seaside place where the idea of compiling the book—if it can be called a book—first arose, nor for the exceruciatingly bad taste of a story about Mr. Quilter's aunt, nor for the deplorable want of *savoir faire* in Appendix B headed "London Medical Men." We offer the gentlemen whose names are mentioned in this appendix our respectful condolences.

A lady publisher has issued a pamphlet entitled *Small-pox: Its Prevention, Treatment, and History*,[1] intended for popular use. It discusses symptoms, diagnosis, nursing, treatment, and so forth. As stated in the preface the book is to be regarded only as a compilation, and on the subject of vaccination the compilation seems to us a very long way from a success, even though, perhaps as an afterthought, and to help to balance things, there is a kind of appendix giving some opinions in favour of vaccination, in addition to those contained in the body of the pamphlet.

We have received from the Minister for Lands a copy of an album-shaped volume entitled *New Zealand: Notes on its Geography, Statistics, Land System, Scenery, Sport, and the Maori Race*, by R. A. Loughnan. Its object is to give some idea of how the New Zealand community stands after ten years of the legislation for which the colony has become famous; and, secondly, to give a bird's eye view of the land itself. The geographical and statistical information is founded upon the latest official returns, and the author believes that his book will convince the world of the reasonableness of the methods of the social legislation which have found favour in New Zealand. However this may be, there can be no doubt that the descriptions of the scenery and the illustrations of the New Zealand alpine country will tend to fulfil another purpose of the book, which is to attract visitors in search of fine scenery or sport.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Liquid Petrolatum. This sample, submitted by Messrs. Parke, Davis and Co. (111, Queen Victoria Street, E.C.) is a colourless liquid petroleum obtained by the fractional distillation of crude petroleum oil. We find it differs from the pharmacopœial preparation in possessing a slightly lower relative density; it is very similar to parolein. We have tested it and found it free from acid and from sulphur compounds. It is intended to be used chiefly as a solvent for medicaments such as menthol and cocaine, the solution being applied as a spray by means of an atomiser. It presents some advantages over the official article for use in this way, as it is less viscous.

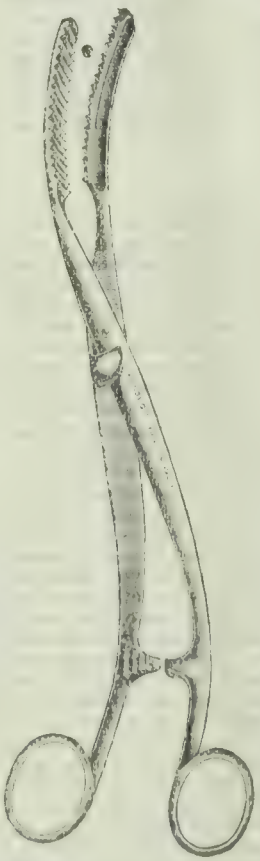
Creosoted Emulsion of Cod-Liver Oil with Hypophosphites. Creosoted emulsion of cod-liver oil with hypophosphites of calcium and sodium, prepared by Messrs. Parke, Davis and Co., is stated to contain the following proportions of active constituents in each fluid ounce: Cod-liver oil, 2 fluid drachms; calcium hyphohosphite, 3 grains; sodium hypophosphite, 2 grains; beechwood creosote, 1 per cent. (about 5 minims). The emulsion is palatable, and has good keeping properties. It is supplied in 8-ounce and 16 ounce bottles.

Terpin and Heroin. A sample of tablets of terpin and heroin as also been received from the same firm. Each is stated to contain 2 grains of terpin hydrate, and one-fiftieth of a grain of heroin. They are coated with chocolate and easily disintegrate in water.

Tabloids.—Samples of "tabloid ergotin and strychnine and "tabloid" galbanum compound, have been sent by Messrs. Burroughs, Wellcome and Co. Each of the former contains 3 grains of ergotin (ext. ergotæ, *B. P.*), and one-thirtieth of a grain of strychnine sulphate. They are sugar coated. The latter correspond to the official compound pill of galbanum, and each is equivalent to 4 grains. Both the above disintegrate readily in water.

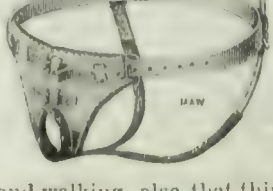
[1] *Small-pox: Its Prevention, Treatment, and History.* Price 6d., pp. 82. London: Florence White, Fleet Lane.

MEDICAL AND SURGICAL APPLIANCES.



Soft Cervix Volsella Forceps.—Dr. Robert Wise (London) sends a description of a "soft cervix volsella," devised by him, and recently exhibited to the Obstetrical Society. It is specially made for the soft dilated cervix in abortions, premature or full-time labours, or soft, dilated, diseased cervix. The blades are long and broad That inserted into the os uteri has, as shown in the accompanying drawing, a slightly convex, horizontally grooved, and blunted serrated surface, which fits accurately into the slightly concave corresponding surface of the other blade, thus obtaining a long, broad, and firm grip of the cervix without laceration. The posterior surface of the closed instrument is smooth and polished, so that it slides along the back or side wall of the vagina easily. The anterior surface of the blade inside the cervix has a longitudinal groove along its whole length, which can be used to guide the finger or curette into the uterus. The lock of the volsella is modern, and the blades can be separated entirely and made aseptic. There is a clip at the handles which can be fastened at varying degrees of tightness. The handles curve towards the perineum, so as to be out of the way of the operating finger or curette. The whole instrument is very light, and, if left hanging, does not tear the cervix by its weight. These forceps are made by Arnold and Sons, West Smithfield.

The Trexophyton Truss.—We have received from Colonel J. D. Day, R.A.M.C., a specimen of a truss which he has designed and used with satisfaction in cases of hernia among the troops in South Africa. As seen in the accompanying illustration, it consists of two triangular pads united at their apices, and kept in apposition along the upper half of their inner borders by two transverse straps, leaving a circular interval for the penis and scrotum. From the outer angle of each pad a strap proceeds round the waist and fastens in front, while a divided perineal fastening proceeds from the apices of the pads to the lateral aspects of the waistbelt behind. Accompanying the truss is a report on its use and advantages: it is stated that it simply encases the hernia and dispenses with springs pressing on the side, and obviates pressure on the back, which impedes kneeling, jumping, and walking, also that thirty ruptured men performed gymnastic exercises wearing the truss, and were examined by twenty medical officers. We have tested the intrument and



find ourselves in agreement with the statement that it is comfortable to wear, and we also think it likely to prove a suitable support in a certain number of cases of herniæ not large and not difficult to retain. We do not, however, think that there is any likelihood of this or any other similar support displacing the spring truss in the treatment of herniæ other than those we have named. Attempts to exercise any considerable pressure with this type of truss must of necessity expend most of their force laterally and in the perineum; this is recognised in the case of the MocMain truss, which is similar in principle. The instrument is well made and finished. It is manufactured by Messrs. Maw and Son, and can be obtained at Messrs. Dinnefords and Co., 180, New Bond Street.

NOVA ET VETERA.

"TAILED MEN."

TAILED men, if they can be said to exist, are interesting subjects for discussion, because they may help to point out our genetic connection with bruteland, and more particularly, of course, with the apes and monkeys. It is probable that all human tails have been the results of developmental errors, and one can hardly imagine a region better fitted for an accidental inclusion of, or an extrusion of, a small part of blastodermic tissue. They occur just at the terminal point of the flexible notochord and vertebral column, and at all such terminal points, terminal alike to the blood and lymph and nervous channels, Nature is very apt to hesitate about the manner of her mouldings, and an extra toe or finger, or the want of one, may be apparent about the foot or hand, and as far as the coccygeal vertebræ are concerned it is scarcely considered abnormal when there is one vertebra too many or one too few. Remembering these gradations and abnormalities, it is not difficult to go a little further and understand how an occasional human tail may come about. But such a departure is, nevertheless, very uncommon, and excites much comment when it occurs.

Quite the latest tail is described in the BRITISH MEDICAL JOURNAL of August 24th, 1901, amongst "Science Notes." The tail consisted of nothing but areolar tissue and fat, with vessels and nerves and a few muscle fibres, but the important point to notice is that there was no trace of anything like the vertebral column or of notochordal tissue. It was mobile, and when it was removed at the age of six months was of the length of 7 cm.

Marshall, in speaking of tails, says that quite a developed tail has in rare and anomalous cases been discovered in the human races. He considered that he was speaking of an anomaly.

In *L'Anthropologie*, Tome vii, No. 5, there is a very detailed account of an encounter with a tailed man. M. Paul d'Enjoy, travelling in the Indo-Chinese region in 1890, captured a member of the Moï race who had "a caudal appendage." He is said to have climbed a tree after the fashion of a monkey, to have conversed with M. d'Enjoy and his companions, and to have "swaggered in his savage pride." The general intelligence of the Moïs seems to be of a low order. Pipes, beads, etc., found in their huts (made of dried leaves) were believed to have been purloined from neighbouring races. M. d'Enjoy describes all the Moïs that he has seen as having very accentuated ankle bones. The neighbouring nations treat them as brutes and destroy them. *Nature*, in commenting upon this description, observed that it must be treated with respect, but hoped that it would not be long before these tailed men were carefully described by a trained scientific observer. It is now more than ten years since this so-called tailed race was described, and apparently no corroboration of the universality of a caudal appendage amongst these men has been forthcoming.

Quite the lowest races of mankind are so peculiarly bestial in their appearance and in their habits, that it is quite possible that a "variation" of the ape race may have sometimes been mistaken for a human being, and it is impossible to forget what might be the hybrid result of perverted sexual instinct if the very lowest races of mankind and the higher orders of the anthropoid apes were existing together for long generations. Such perversion producing mules, if it would do so, would in no way affect the story of evolution.

Dr. Watson, in 1899, at one of the New York Medical Societies, appears to have actually shown a child with a caudal appendage about 2½ inches long. This tail seems to have sprung from the tip of the coccyx, while the tail described by Dr. Harrison in the BRITISH MEDICAL JOURNAL for August 24th, 1901, is stated to have sprung from the middle of the body, below the coccyx. The tail described by Dr. Watson also contained neither bone nor cartilage.

Many of the descriptions of tailed humanity and savage life are hundreds of years old. Some two thousand years ago and more Hanno sailed along the western coasts of Africa in the course of a naval expedition which was to extend the colonies of Carthage. Certain of the sailors landed upon an unknown island and captured three female manlike creatures, and saw many other animals of the kind. Hanno described them as of a peculiar race of savages: but his description, considered in the light of further research, marks them as having been some form of anthropoid ape.

We might reasonably expect that some of the stories about the "pigmies" would elucidate the mystery and rarity of the tailed man. Mr. Albert B. Lloyd has lately given a detailed account of adventures in the Great Pigmy Forest, and, so far as the dwarfs were concerned, he had plenty of opportunity of noticing whether they had any tails amongst them. He mentions nothing of the kind, although they were all either nude or wore only a tiny strip of bark cloth.

Bartels, who in a classical article on the subject of tails in the human subject (*Archiv für Anthropologie*, Bd. xv, 1884) collected the accounts of all known cases and authenticated reports of tails in man, shows that references to it extended as far back as Pliny. It is curious to note that while modern observers have regarded the condition as a stigma of degeneracy and defective development, some people of olden times regarded it as a high distinction, and even as a mark of divine descent. Thus, in the case of the Ranas, or rulers of Poorbunder, a Rajpoot tribe of India, who traced their descent from the monkey-god Hanuman, it is recorded that they alleged in confirmation of their claim "the elongation of the spine of their princes, who bore the epithet 'Pooncheria' on the long-tailed Ranas of Saurashtra" (James Tod's *Annals and Antiquities of Rajast'han*, London, 1829). Bartels also cites the instance of a certain community of tailed men in Turkestan, who were held in the utmost contempt by the other people, and were therefore condemned to constant inbreeding by intermarriage. The tail was in this case considered as a curse, in that it hindered the possessor from sitting properly on horseback. Some "tails" are appendages of skin containing subcutaneous fat, others are teratomata or tumours accompanying spina bifida and the like. Schäffer, who has recently and thoroughly investigated the subject, believes that most, if not all, "true tails" arise from amniotic adhesions. These are usually "soft tails." A few contain a prolongation of the coccygeal vertebræ.

There is no description of a human skeleton, whether we are dealing with prehistoric or with modern man, with more than five coccygeal vertebræ. One finds an occasional added rib, or metatarsal or metacarpal bone, and marked variation is discovered in another "terminable point," the xiphoid cartilage, where, as in birds, it is represented by the so-called breast bone: but in spite of all the talk and comment about the human tail, the coccygeal vertebræ appear to vary only by deduction and not by addition. There may be five vertebræ, more usually four or three. Even in his own class there may be more than forty coccygeal vertebræ, and in his own order, as in the case of the spider monkeys, there may be as many as thirty-three. That there has been no human skeleton discoverable with more than five coccygeal vertebræ is a very striking fact, and it leaves a huge gap dividing us from our possible simian ancestry.

Having considered the usually large number of coccygeal vertebræ belonging to creatures in man's own class and order, we must carefully note, on the other hand, that even amongst mammals—for instance, in the case of some monkeys and bats—there are even fewer than in man. Some bats are more bereft of tails than is man: they have but two vertebræ in their coccyx. If, therefore, the want of a tail means advance, we must give precedence to bats. Looking fairly into the tale

of descent, we must also acknowledge that bats and some monkeys and men have always held this same coccygeal precedence, just as the other species have always held what may be called their coccygeal points of degradation. Contemporaneously, as far back as actual observation goes, here advanced, here degraded, has the coccyx of man and of apes and of general bruteland existed, and, as far as each species is concerned, it has not varied to any appreciable degree. What man's coccyx was like before his remains were discoverable is mere conjecture, and the same remark may be applied to the coccygeal vertebræ of other animals.

The spinal skeletons of such creatures as have existed previously to prehistoric mammal record, and which have gone on through the ages, and are still to be found, retain their special skeletal characters of species. Use, disuse, and altered surroundings will not of themselves account for the persistence of those characters of the human or general vertebral column which have existed ever since the skeleton has been examined. An occasional true tail reversion would be a reasonable expectation if the human family has really branched off from an anthropoid or ape ancestry; but the converse observation is the correct one, for a tail is no tail without a vertebral or notochordal support.

It appears almost as if all so-called human tails that have been scientifically examined might be placed in the same category of anomalies or abnormalities wherein we should put the odd tags of skin and areolar tissue that may develop from any other part of the body. Every surgeon in the course of his life must have seen such a developmental error; some of them almost partake of the nature of misplaced or added organs, and may be classed with the supernumerary ears, breasts, nipples, etc. Dr. Harrison's tailed infant had hairs upon the surface of its caudal appendage, and supernumerary fingers have often nails, but neither fact helps us to work out our descent.

For the present, in this twentieth century, it seems wiser to regard the older stories about tailed men as being mythical, and to regard the trained observations and examinations of the more recent anomalies as pointing to nothing more tail-like than do similar anomalies which occur with greater frequency in various other parts of the body. They may be simple developmental errors with a special halo of romance about them on account of their position.

NOTE.—Dr. P. S. Abraham, at a recent meeting of the Dermatological Society of Great Britain, showed a most remarkable-looking appendage growing from, and near the root of, the penis of an adult man. This appendage was longer than any "tail" that has been described by a scientific observer. It appeared to be about 4 inches long, and was probably composed of cornified epithelial structure, with areolar and vascular tissues. Its basal portion was soft to the feel, and it apparently contained no erectile tissue. Dr. Abraham does not appear to have yet described its actual structure. This appendage has been removed.

RAT DESTRUCTION ON SHIPBOARD IN RELATION TO PLAGUE PREVENTION.

[*From the British Delegate to the Ottoman Board of Health.*]

THE danger of the spread of plague from one port to another by infected rats on board ship is now very widely recognised, and in most countries regulations of some kind exist encouraging or requiring port authorities to take appropriate measures to meet this danger. The regulations in different countries appear to vary widely in regard to the amount of compulsion they entail upon port authorities and shipowners, but to resemble each other very closely in the details of the methods employed to get rid of rats from an infected or suspected ship. It will be useful to briefly discuss this latter aspect of the question first.

Up to the present no quite satisfactory method of destroying rats on a ship without completely discharging her cargo appears to be known. The gas almost invariably employed for this purpose is sulphurous acid, and it is generally believed that many articles of a general cargo would be spoilt if subjected to the action of this gas. Its bleaching action in the presence of moisture, for example, is well known, and bales of coloured cloth or other stuffs would be extremely likely to be spoilt in the disinfecting process unless it were quite possible to ensure the complete absence of moisture. In like manner, it is believed that many articles of food, such as grain, coffee, etc., would be seriously damaged by the action of sulphurous acid gas. Against this general belief, however, is to be set the statement that ships containing mixed cargoes have been disinfected by this gas without any damage being done to such apparently susceptible articles as tea, flour, sugar, coffee, and rice. This statement is made in a pamphlet issued by the Clayton Fire-Extinguishing and Ventilating Company, Limited, who undertake, by means of a special apparatus, the destruction of rats on shipboard by sulphurous acid gas. It is endorsed by the BRITISH MEDICAL JOURNAL in brief notices of the method in the issues of April 27th and May 11th of the present year.

The question is one of very great importance to health authorities and to the shipping world. For, if it can be demonstrated that a loaded ship can, cheaply and without risk to cargo, have its rats destroyed, shipowners will no doubt much more readily submit their ships to the process than to one involving complete emptying of the ship. The destruction of rats will probably be much more frequently practised on ships in those countries where it is not compulsory, while in those countries in which it is compulsory the substitution of a method which does not involve emptying the ship for one which does may mean a vast saving of time and money for the ship. It is much to be hoped, therefore, that this question may shortly be settled, as at present both shipowners and health authorities are loth to subject cargoes to a process involving possible damage and resultant claims for compensation.

Should it be ultimately proved that cargoes may be safely exposed to the action of sulphurous acid, it has still to be shown that the gas can be cheaply and safely introduced into all the interstices of a loaded vessel, so as to destroy all the rats on board. In an empty vessel it is easy to fill the hold with the gas, by burning sulphur, either in braziers or spread on a layer of earth at the bottom of the hold. But in a loaded ship the difficulty is obvious. At present the only means of meeting the difficulty, that I am aware of, is that practised by the Clayton Company above referred to; that is to say, by leading a pipe to the bottom of the hold and pumping the gas in, while at the same time an exhaust pipe at the top of the hold draws out the air which the gas replaces. But this method is at present a very costly one—scarcely less costly, perhaps, than emptying and reloading a ship.

As alternations to sulphurous acid, carbonic acid and carbonic oxide have been suggested. The great risk of either to human life is obvious, and there appear to be other practical difficulties in the way of their use. The claims of carbonic acid have been strongly urged in Constantinople, largely in consequence of an incident which occurred two years ago on board a ship sailing from the East to Trieste. The cargo of this ship contained a quantity of wine which fermented on the voyage, and the resulting carbonic acid given off is said to have killed a large number of rats in the hold of the vessel. Practical objections to the use of this gas have been raised on the grounds that it would require "mountains" of marble and "oceans" of hydrochloric acid to produce enough carbonic acid to fill a ship's hold. This objection would be less plausible in the case of a hold full of cargo, but then again the practical difficulty arises of the introduction of the gas, cheaply and certainly, into all the interstices of a loaded hold.

For the present, then, it is generally admitted that a ship must be unloaded before any process of rat destruction can be practised. I have discussed the question at some length, because the principle is of the greatest importance where rat destruction is compulsorily enforced upon ships arriving from plague-infected ports. In countries such as England, where there is no compulsion and ships are only encouraged to take the opportunity of their holds being empty to have their rats destroyed the principle is of little importance. But the case is different here, where it is proposed to enforce the measure of rat destruction upon all ships from contaminated ports that have not already undergone it and provided themselves with a certificate to that effect. This is the most important feature of a new set of regulations upon rat destruction

recently drawn up and passed by the Ottoman Board of Health.

These regulations are not as yet formally accepted either by the Porte or the Powers, and should they be accepted they will not be put into practice until a fixed interval after their acceptance and publication so as to give shipping timely warning. As originally drafted they were very much more stringent, but even in their present form they are very much more stringent than similar regulations elsewhere. The following are the principal points in the new code: Ships from a contaminated port which arrive from Constantinople without a certificate that they have had their rats destroyed at the port of departure or *en route*, will be sent to a lazaret (15 or 20 miles away) to have their rats destroyed. As this will involve emptying the cargo into lighters and reloading after the rat destruction before the ship can come into this port, the process will involve a vast loss of time and money to the ship. Ships from contaminated ports, also, even if they have such a certificate, will not be allowed to come up to the quays in Constantinople, but will have to operate at the buoys in the middle of the harbour. Ships, on the other hand, from non-contaminated ports will be allowed to operate in the port with or without a certificate of rat destruction; but even such ships, if they have called at a contaminated port any time within four months, will not be allowed to come up to the quays unless they are provided with a certificate of rat destruction. Ships coming to the quays will have to be at least a metre away from the quay wall: at night they will remove their ladders and gangways, and all ropes must be provided with funnel-shaped pieces of metal, or fans of bristles to prevent rats passing along them. So long as Constantinople is a contaminated port, a ship leaving it for another Ottoman port will be compelled to go to the lazaret to have its rats destroyed if it has lain at the quays here.

These are some of the principal rules in the new code as accepted by the Ottoman Board of Health. Should they come into force the time interval granted between their publication and their execution will allow shipping companies to take warning and instruct their captains to obtain the necessary certificates in order to avoid the above heavy penalties. But it is still possible that either the Porte or the Powers, or both, will not accept the regulations without modification.

INERT LYMPH AND REVACCINATION.

WE have received a long and interesting letter from Dr. Chaumier of Paris. After referring to recent correspondence in the BRITISH MEDICAL JOURNAL as to the publication of results obtained from the vaccines of different makers and the question of State monopoly or State supervision of vaccine production, Dr. Chaumier proceeds as follows:

"We are confronted, therefore, with three causes of inert vaccine:

"1. Defective virulence *ab origine*.
"2. Spontaneous loss of virulence after a short time.
"3. Loss of virulence as the result of too free dilution.

"Now for the remedies. It is indispensable in the first place that directors of vaccine institutes should test their glycerinated lymph. This test may be applied on the rabbit, the calf, or the child. The only real test is that on the child, because a vaccine that takes very well in the animal may fail in the child.

"Since vaccine, when first gathered, always contains a large number of micro-organisms, possibly pathogenic, it must be allowed to stand for some time in order to allow of the destruction of the greater part of these organisms.

"Vaccine a month old and free from injurious organisms must be inoculated by means of incisions of sufficient length and well separated, so that the vaccinal vesicles may run a separate course at the site of each incision. The evolution of the vesicle must be inspected daily, and it is on the third or fourth day (not the eighth) that one can form an opinion as to the value of the vaccine.

"If we make an incision one centimetre in length, the vesicles should be present at the end of the third day in such abundance as to look like a single vesicle with straight edges following the line of incision. If the margins are irregular or dentated the vaccine is not of the first quality. If along the incision there are only one, two, or three isolated vesicles which do not become confluent for a day or two the vaccine is not active enough for use. When vaccine remains in stock for several months it is the duty of the director to test it from time to time, eliminating on each occasion all vaccine which shows itself inactive.

"By following this procedure the institutes will furnish vaccinators only with active lymph, which will invariably give satisfactory results, that is 100 per cent. for vaccinations, and 80 per cent., at least, for revaccinations.

"Loss of activity as the result of too free dilution is the least important, because it can be made a rule never to mix with the pulp more than the quantity of glycerine absolutely necessary to render it fluid, and to allow of its introduction into tubes. Glycerinated pulp ought always to be thick, and in no case should the proportion be exceeded of four parts of glycerine to one of pulp gathered by the curette without forceps, that is to say, not already diluted with blood serum.

"If all vaccine institutes follow the method which I have just described they will never supply vaccinators with inert lymph, though they may now and again find themselves in possession of inert lymph, and they may even have a run of bad luck in this direction.

"What, then, is the remedy? There are several, but I will limit myself to one—namely, never vaccinate the calf with fresh lymph, but use vaccine which has been in stock for two, three or four months, the perfect virulence whereof has been ascertained by previous tests. If in spite of this precaution the desired result is not obtained recourse should be had to an institute which is furnishing an active lymph and a series of calves vaccinated with this lymph after having tried it on a child. No attempt should be made to start the series with lymph of one's own preparation until one is sure that the bad period is at an end.

"The obligation to have occasional recourse to another institute is a strong argument against the proposed State monopoly, because should the State vaccine become inert it would perforce have to find an institute in a position to supply it with active lymph to start afresh with, and if the institutes in Europe were restricted to a few State institutes it might very well happen that they were all suffering from the same defect at the same time.

"What would seem particularly desirable is the establishment of a closer relationship between all vaccine institutes in Europe, or even of the whole world, so that they may come to each other's assistance. I have endeavoured to establish some such intercommunication, and I am pleased to say that my appeal has been favourably received by a certain number of institutes in England, Germany, Austria, Russia, Spain, Portugal, Switzerland, and France. I hope ultimately to succeed in forming a sort of syndicate of vaccine institutes. When I have attained that object the problem will have found its solution, and in the event of a lack of virulence the institutes will know where to put their hands on the supply of active pulp or lymph which they require."

THE IRISH POOR-LAW MEDICAL SERVICE.

WE have received from the Council of the Irish Medical Association the following circular letters, copies of which have been sent to Irish members of Parliament:

Royal College of Surgeons, Dublin.
23rd day of December, 1901.

Dear Sir,—The sensational death of Dr. Smyth, of Burton Port, a member of the Irish Poor-law medical service, also of this Association, whose heroic death in the discharge of his duty to the poor of his district has aroused public sympathy, induces the Association once more to direct the attention of Parliamentary representatives of Ireland to the many disadvantages under which the officers of the service have for so many years laboured. They hope that the subject of Poor-law reform may engage, at the earliest possible moment, the earnest attention of our Legislature.

It is beyond all doubt or contention that the Irish Poor-law medical service is insufficiently paid; that the pittance, varying between £33 and £80 per annum, still given to medical officers in many unions, bears no relationship to the areas of the dispensary districts, nor to the population contained therein, nor to the number of persons entitled to gratuitous attendance.

The Association now approaches you, not alone with the view of enlisting your sympathy and interest in the welfare of its members, many of whom in the past have rendered up their lives in the same heroic manner as Dr. Smyth has done, but with the object of directing your attention to the following facts of great and vital importance to the health and, it may be added, the prosperity of the people of Ireland:

(*a*) The prevention and control of epidemics in Ireland are duties for the due performance of which the public are almost wholly dependent upon the Poor-law medical officer. The rate at which this official is paid (in most cases about £5 per annum) for this all-important office connected with the public health is wholly inadequate to insure its efficient discharge, and is almost ludicrous when compared with similar salaries paid to English medical officers for less difficult duties of a similar character.

(*b*) The great cost of advanced medical education and its consequent increase in value, with little or no prospect of an adequate return, is one of the causes of the yearly emigration of the best, ablest, and more healthily ambitious of our young Irish doctors, who carry with them to our colonies, or to foreign lands, those abilities which might be of such service to their fellow-countrymen at home.

This is a serious matter affecting the health and welfare of the public, and may become more acute if redress of these grievances is longer withheld.

It cannot be expected that able medical men will continue in the future to enter a service where there is no hope of advancement, and where no facilities are given for the study of those new subjects in connection with medical science which are yearly becoming of more and more interest and utility in the alleviation of the sufferings of mankind, especially when they are offered, as an inducement, a less wage than is given to a tradesman or a skilled mechanic.

The Irish Medical Association could mention, if necessary, many disabilities and hardships under which its members have at all times struggled to discharge their duty to the poor. Suffice it to say, that no thinking person can approach the subject of Poor-law reform in Ireland without being driven to the conclusion that our grievances are real, and that their redress must mean an enormous advantage to the sick poor.

With these facts before you we venture to solicit your co-operation by either yourself introducing a measure of necessary reform or in furthering legislation to that end.

We call upon you to provide, for your own poor, sick, and dying fellow countrymen, a physician of the very best skill and ability; not one rendered incompetent by age or bodily infirmity. Not one whose declining years are soured and embittered by the thought that he must leave those dependent on him, unprovided for, when death overtakes him in this service of danger, hardship, and distress to which the Poor-law medical officer has devoted his life. He must at all times be prepared to face disease and death; and it is not unreasonable to ask, that those who are responsible should ensure that he be physically able to meet it as nobly as Dr. Smyth has done.

The yearly stream of emigration from our shores, the yearly increase of our insane population are subjects that must alarm our social reformers and all interested in the welfare of Ireland. The housing of the very poor, the sanitary education of the bulk of our people are also matters which should be dealt with by the Legislature in its responsibilities for the betterment of our country.

These weighty matters should, in the opinion of the Irish Medical Association, find a place in any measure dealing with the reform of the Poor-law system of Ireland.

Richard R. Leeper, F.R.C.S.I.,
Honorary Secretary.

THE PLAGUE.

Prevalence of the Disease.

India.

The plague returns for the weeks ending November 30th and December 7th, 1901, show 7,961 and 8,878 deaths from the disease respectively. Compared with the corresponding week in December, 1900, when the deaths from plague numbered 1,989, the present mortality shows a large increase.

In the Bombay Presidency, during the weeks ending November 30th and December 7th, 1901, the plague deaths numbered 5,655 and 5,939. In the city of Bombay the deaths from plague during the weeks in question were 187 and 151 respectively, indicating that in the metropolis of the Presidency the disease is declining. It is satisfactory, also, to note that the total mortality statistics for the city were during the first week of December, 1901, a good deal below the mean of the corresponding period of the past five years.

In Poona there has been a slight decline in the plague epidemic, but there is still a considerable number of cases in the city: on December 11th, 1901, 41 cases of plague and 35 deaths from disease occurred; and on December 12th, 1901, 50 cases and 41 deaths. During the present epidemic in Poona, 59 inoculated persons had been attacked by plague, of which number only 6 died—a very decided testimony in favour of inoculation. The effects of inoculation are reported to bestow a further period of immunity than has hitherto been believed.

During the weeks ending November 30th and December 7th, 1901, the mortality from plague in the undermentioned places has been as follows: Punjab, 1,046 and 1,680; Mysore State, 459 and 407; Kashmir, 218 and 146; Madras Presidency, 104 and 125; Bengal, 164 and 205; the North-West Provinces and Oudh, 64 and 68; Calcutta, 21 and 30. Plague has spread from the Sialkote district across the Punjab border, and many villages have been attacked on the Jammu side.

Egypt.

During the week ending December 8th, 1901, no case of plague and no death from the disease were reported throughout Egypt. During the week ending December 15th, 1901, the Director-General of the Sanitary Department received report of one case of plague only throughout Egypt; it occurred in the person of a native of Zefta, isolated on December 7th, 1901.

The last death from plague in Egypt occurred on November 29th, 1901, at Zefta.

Cape of Good Hope.

During the week ending December 14th, 1901, no cases of plague or death from the disease were reported in either the Cape Peninsula or at Port Elizabeth.

At Mossel Bay 1 case of plague was reported; a suspicious case of illness which occurred at Ladysmith during the week ending December 7th, 1901, proved to be plague.

During the week ending December 21st, 1901, no plague was reported from the Cape Peninsula, but at Port Elizabeth two natives developed the disease; no further cases occurred at Mossel Bay. No deaths from plague occurred anywhere during the week in Cape Colony.

Mauritius.

During the week ending December 26th, 1901, 38 fresh cases of plague occurred in Mauritus, and 23 deaths from the disease.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

The response to the appeal of the Belfast Committee has been very generous; kind and sympathetic letters have been received from all parts of the kingdom, and both the profession and the lay public have subscribed in a manner that well accords with the season's promptings.

The total amount acknowledged to the local press up to December 30th, 1901, is £1,110 8s. 1d. This is quite exclusive of the sum raised in Dublin and in Londonderry. The list will be closed at an early date.

Subscriptions may be sent to Dr. William Calwell, 1, College Square North, Belfast; Mr. Robert Campbell, 21, Great Victoria Street, Belfast (Honorary Secretaries); or to Mr. Henry S. Woods, The Bank Buildings, Belfast (Honorary Treasurer).

Christian Science and the Law in Canada.—The death of a child while under the treatment of a Christian Scientist for diphtheria formed some months ago the subject of an inquiry by a coroner's court in Toronto. The jury brought in a verdict condemning Christian Science and declaring that the child's father had been culpably negligent in not having provided medical attendance. As a result of this verdict a charge of manslaughter was brought against the father. The case recently came up for trial before Chief Justice Falconbridge at the Court of Assizes in Toronto, and resulted in a verdict of guilty. The judge, in charging the jury, held that although an adult might use his judgment about dispensing with medical attendance, it was different in the case of a child. Here the law drew the line and stepped in for the child's protection. As there was no question as to the good intentions and sincerity of the accused in this case, he was dismissed without further punishment. It is to be hoped that this pronouncement from the bench may have a salutary effect, but we cannot help thinking that a term of imprisonment, however brief, would have pointed the moral of the judge's remarks in a manner that would have brought them home even to the intelligence of the Christian Scientists.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 4TH, 1902.

THE KING AND THE CRUSADE AGAINST CONSUMPTION.

His Majesty King Edward the Seventh throughout the long period during which he bore the title of Prince of Wales was unremitting in his efforts to do all that in him lay towards the solution of the most pressing of all social problems, the betterment of the conditions in which the people live and have their being. It is a signal proof of the King's practical insight that, at a time when leading statesmen treated such matters as outside the sphere of practical politics, he showed himself fully alive to the vital importance to the State of the question of the public health. His Majesty has also long been in advance of many of those who are now his responsible advisers in recognising that it is to medical science that we must look for the solution of problems which so closely concern the well-being of the nation and the future of the race. In opening the International Congress of Hygiene and Demography held in London in 1891, the Prince of Wales, as he then was, urged with great force that for the highest prosperity of a nation it is necessary that everything possible should be done for the promotion and maintenance of the national health. The King had before then shown the deep interest which he takes in what Carlyle called "the condition of the people question," by serving on the Royal Commission on the Dwellings of the Poor. One factor injuriously affecting the public health to which his attention was thus specially called was overcrowding, and this brought him face to face with the terrible disease which to so large an extent springs from overcrowding. Hence, when a movement to combat the "white plague" was started, it was natural that he should put himself at its head. It will be remembered that on his invitation a meeting was held at Marlborough House on December 20th, 1898, the outcome of which was the formation of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. His Majesty showed on that occasion that he had personally studied the means both of preventing and of curing tuberculosis. He expressed the deepest interest in the whole question, and promised to do everything in his power to further the cause which the promoters of the National Association had at heart. At the Congress held in London last summer His Majesty again manifested his sympathy with the objects of the crusade in which he was one of the first to take the cross, and of which, till his accession to the throne made such a position impossible, he was an active leader.

The King, however, who is nothing if not practical, is not content to play the passive though important part of a Patron. He has quite recently found an opportunity of showing his sympathy with the movement against tuberculosis in a highly practical manner, and he has taken advantage of it with a readiness which shows how anxious he is to promote any plan likely to make for the good of his people. As the notice printed in our advertisement columns states, a large sum of money—we understand about £200,000—has been placed at His Majesty's disposal for charitable or utilitarian purposes by a philanthropist who for the present does not wish his name to be made public. This money, by the King's direction, is to be devoted to the erection of a sanatorium for tuberculous patients in England. For the carrying out of this purpose His Majesty has appointed an Advisory Committee consisting of Sir William Broadbent, Sir Richard Douglas Powell, Sir Francis Laking, Sir Felix Semon, Sir Hermann Weber, and Dr. C. Theodore Williams, with Dr. Horton-Smith and Dr. John Broadbent as Honorary Secretaries. The sanatorium is intended to accommodate 100 patients, 50 male and 50 female. Of the total number of beds 88 will be reserved for persons who can pay only a small amount towards the cost of treatment, while 12 will be set apart for well-to-do sufferers. The sanatorium is to be built on a suitable site in extensive and well-wooded grounds; each patient will have a separate room, and the accommodation will be in every respect thoroughly comfortable; the sanitary arrangements will be in accordance with the teachings of the most advanced hygiene, and abundant provision will be made for recreation and exercise. The institution will also be fully equipped with all requirements for scientific research. In a word, it is the wish of the King that his sanatorium should be as perfect as possible in every detail. In order that no means of attaining this object may be omitted, His Majesty has approved the expenditure of £800 in prizes to be given for the best essays and plans for the construction of a model sanatorium. Three prizes of £500, £200, and £100 respectively will be awarded, provided the essays come up to the requisite standard of excellence. The competition is open to medical men of all nationalities. Full particulars as to the conditions will be found in the advertisement.

We have much pleasure in announcing this decision of the King, for no better way of utilising the splendid gift of the anonymous benefactor could possibly have been found. Nor could the giver have found a more enlightened and sagacious dispenser of his bounty than King Edward. The practical spirit in which His Majesty has dealt with the matter affords the surest guarantee that the scheme will be carried to a completely successful issue. The sanatorium will go some way towards meeting what is, to our mind, the most urgent need in the matter of the treatment of tuberculosis. It will provide accommodation for a considerable number of sufferers of the class who most need help, not only for their own sake but for the safety of the public. The utterly poor are already provided for to some extent, and as municipal authorities come more and more to recognise the duty which they

owe to the community, accommodation for them will be gradually increased. The rich can take care of themselves. But for the "genteel poor"—the badly-paid clerk, the curate without private means, the struggling dressmaker—there is at present little or no provision. It is to be hoped, therefore, that the foundation of such a sanatorium as that with which the King has identified himself will lead to the establishment of others on similar lines.

The nation is to be congratulated on having a ruler who so happily combines zeal for the welfare of his people with practical sagacity in its achievement.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

I.

THE controversy raised between the General Medical Council and the two Royal Colleges, which together constitute the Conjoint Board in England, is one of far-reaching importance, and a recognition of this led the Council at its last session, during which several inconclusive debates took place, to appoint a special committee consisting of three members of the English Branch Council (including the representatives of the two Colleges), two members of the Scottish, and two of the Irish Branch Councils to report to a special meeting of the Council to be held in February. This report, no doubt, will gather up the threads of the question, but, if precedent be followed, it will not be made public until after the special session commences, and it therefore seems desirable to consider the present position of the matter with such light as may be obtainable from previous discussions and documents already published.

In the first place, it must be recognised that the controversy now involves more than the question which has arisen between the English Colleges and the Council. For the Council has been emphatically informed that the Royal University of Ireland held itself at liberty to act upon similar lines, so far as independence of the rulings of the Council was concerned, and the representative of the Royal College of Physicians in Ireland stated that but for his efforts other Irish bodies would have done likewise. There are not wanting indications that Scottish licensing bodies also might adopt a similar course.

The Medical Act of 1858 instituted the Council under the title of the General Council of Medical Education and Registration of the United Kingdom, and frequent allusions occur in it to medical "study." Thus the various licensing bodies are required to inform it as to the particulars of study required for their diplomas, and the word "study" occurs in the clause which prescribes that the Council may represent to the Privy Council that the regulations of a particular body do not give a guarantee of the possession of the requisite skill and knowledge; the Privy Council may act upon this representation and order that the diploma shall not be registered. It is therefore obvious that the Act contemplated that the General Medical Council should concern itself, not only with examination, but also with the studies which lead up to examination. Much of its most useful work in the past has in fact been in this direction. Careful examination, however, of the wording of the Act, and of the various published opinions obtained by the Council as well as by the Royal Colleges from their legal advisers on its interpretation, leads to the conclusion that no actual binding powers were therein conferred upon the Council, and that it has no means of enforcing its recommendations short of the strong measure of a report to the Privy Council that the departure from them involves *per se* the absolute condemnation of the diploma as not affording a sufficient guarantee of the possession of requisite knowledge.

Whilst it is true that an Act of Parliament must be interpreted according to its strict letter, and not according to what may be believed to have been the intention of those who promoted it, and of the Legislature which enacted it, yet in such a case as this, where both parties to the controversy must be assumed to be equally desirous of ensuring a high standard of knowledge and skill in the members of the medical profession, it appears fair to ask what may be considered to be a reasonable interpretation of the intentions of the Act. It would seem that the Council was intended to be at the very least a standing conference, under the authority of statute, upon which every licensing body should be represented; and to this end, as fresh bodies have been given the right of conferring registrable qualifications, so also have they been given representation upon the Council. What becomes of the idea of conference and a common meeting ground, if the bodies represented approach it in the spirit that each will stand to the last letter on its legal rights as expressed in its charters? This has not been the spirit shown in the past. Are we to suppose that when the various changes which have been advocated and adopted with the result of the material improvement in medical education which has resulted from the efforts of the Council, each and every body in accepting them has got just precisely and exactly what it would have itself chosen? That, unless we are altogether mistaken, is what the representative of the College of Physicians would have us believe—that his body at all events has only adopted in the past the recommendations of the Council because it entirely approved them. He further contended that his College had, as it were, a trust to administer in the carrying out of all that its charter empowered it to do.

We are anxious not to misrepresent Dr. Norman Moore's position, but if this is his contention it must be pointed out that a clear fallacy underlies it. It is not correct to maintain that abstinence from the full exercise of a legal right abrogates that right, though it may do so in such a question as a right of way undisputed for twenty years. If, in deference to the wish of a neighbour, you refrain from cutting away vertically the branches of a tree which overhangs your ground, you do not thereby lose your right to do so; you do but make a concession which, if the nuisance becomes too great, can be rescinded.

Other bodies of equal importance and even greater antiquity, such as the University of Oxford, have not taken a stand upon considerations of the like nature, but have always met the wishes of the Council, in some instances at inconvenience to themselves, presumably accepting them as the desire of the only body through which the whole number of licensing bodies can express their views. Hence, as we have more than once declared, this abso-

lutely uncompromising stand upon legal rights is deeply to be deplored, and is, we venture to think, in no way essential to the dignity of the bodies who assume it.

Further, it may be observed that from the first no other licensing body has assumed quite such an attitude as that now taken up by the English Colleges, and that it is only after these Colleges have for several years asserted and reasserted this position that other bodies are beginning to express plainly and emphatically that, in the exercise of what they consider to be the right of self-defence, they may follow the example set them. This attitude is, perhaps, not very public spirited, but in the present state of medical education and registration in the United Kingdom it is very natural.

The friction between the Council and the English Colleges may be said to date from the time when a complaint was made on behalf of the Irish licensing bodies that the English Conjoint Board was recognising for the first year of medical study attendance on chemistry, physics, or biology at places and under conditions which did not meet an ordinary conception of medical study. As, for example, a boy might remain at his school for an additional year after passing his preliminary examination in Arts, and, by working at those subjects there, might count this as a year of medical study, whereby in effect the medical curriculum proper was reduced to four years. The General Medical Council at first took the view that the English Conjoint Board had been too comprehensive in the list of bodies recognised by it for the purpose. After some little controversy the Council took its stand upon the position that it could not recognise study at places other than medical schools and universities as qualifying for admission to the *Students' Register* unless those places were approved by the Council itself.

At this stage the action of the Royal Colleges gave the matter the serious complexion which it now wears. The registration of students is not prescribed by any statute: it was devised by the Council in order to have a record of the commencement of a student's career, and, in a measure, to control it. Although for a time Trinity College, Dublin, did not require it, it has now been adopted by the great majority of licensing bodies as convenient and beneficial, and is by them required of candidates for their qualifications. At the same time it enables the General Medical Council to keep watch over the preliminary examinations, and to see that an adequate standard of general education is maintained amongst those seeking admission to the medical profession. It still is not, however, made an absolute requirement by every licensing body; for instance, although students at the University of Oxford are advised to enter themselves upon the *Students' Register*, and in practice do so, this is not a *sine quâ non* for obtaining its medical degree. But in this case the first year subjects are taken out at the University itself, so that the purposes of students' registration are sufficiently safeguarded.

The Conjoint Board met the decision of the Council to maintain a control over the selection of places at which the first year of the medical curriculum could be conducted by announcing that it would cease to require a certificate of students' registration from candidates for its diplomas. By such a step the control of the nature and extent of preliminary education passes away, from the Council, so far as the candidates for the English Conjoint diploma are concerned—and they constitute at present a very large number—and with it there passes away all possibility of securing anything approaching to natural uniformity in its standard. In justice to the Royal Colleges it should be added that, for the present at all events, they adopt the Council's list of preliminary examinations. But it does not follow that they will always do so, nor does it follow that others will do so, and hence a serious blow is struck at the agreement which has hitherto been maintained upon this subject of preliminary education. In fact, it is not too much to say that the logical outcome of a steady pursuance of this line of policy, the absolute stand upon legal rights, if adopted by the other licensing bodies, is that the General Medical Council, the only meeting ground of the various bodies, must cease to concern itself with matters of education, and must depart from the useful lines which it has hitherto pursued in accord with its full statutory title.

OÖPHORECTOMY IN THE TREATMENT OF CANCER IN THE BREAST.

MR. BUTLIN, in his lecture reported in our columns this week, again draws attention to a matter which has for some time occupied the serious attention of those who are interested in the treatment of cancer, and especially cancer of the breast. Many who read Mr. Butlin's admirable summary will be inclined to follow his lead at once, but others will rise from its consideration with a feeling that, whether Dr. Beatson prove, ultimately, to be in the right or in the wrong, the advisability of performing the operation of oöphorectomy as part of the treatment of cancer of the breast cannot at once be definitely either affirmed or denied.

To those who have followed the controversy from its beginning one thing is perfectly evident. Dr. Beatson has acted in perfect good faith. He makes no claim that the treatment advocated by him is to replace all other methods of treatment, or that it will or can be efficacious, except in certain cases and under certain conditions. Whilst he writes with all the ardour of an enthusiast he propounds his thesis and defends his position with the utmost candour and the greatest fairness. It is apparently because Mr. Butlin fully appreciates this attitude in the author that he merely "damns with faint praise" the results obtained by this method; for there can be little doubt that he has but little belief in its value.

It is somewhat difficult to gather from the recent utterances of those who have given treatment by oöphorectomy and thyroid extract a trial what the opinions are they reveal or conceal, but there can be no doubt in the minds of those who weigh the evidence offered that different observers have at different times had very different stories to tell, and that the story told has in each case been coloured and moulded by time and circumstance.

Mr. Stanley Boyd appears to be convinced of the value of oöphorectomy in cases of cancer of the breast that come on before the menopause. He takes the stand, also taken by Dr. Beatson, that, as a palliative method merely, its value may be very great, and that with the results already

obtained before us, we are justified in continuing to perform this operation; but he admits that "a great deal more work, and perhaps very difficult work, will be necessary to determine its powers, and its mode and range of action."

A most encouraging fact brought out by the observations and conclusions of the various surgeons who have contributed to this discussion is that, with or without reason assigned, certain cases of cancer appear to have recovered, or at any rate the cancerous process has been checked if not brought to a standstill. It has long been recognised that in slowly-growing scirrhous cancer, the central portion of the tumour almost invariably presents degenerative changes, that the epithelial cells are undergoing fatty and atrophic changes, whilst the connective tissue or fibrous stroma is becoming increased in quantity and more fully developed in type. It has also been noticed that in old patients the cancerous growth is almost invariably of a more chronic character than in younger adults attacked by the disease. Dr. Beatson's theory that there is a definite relationship between the active ovaries and the breast in disease as well as in health is the basis of his confidence in one part of the treatment, and it is because he assumes that the nutrition of the breast is modified by the removal of the ovaries before the menopause that he hopes for the atrophy of the cancerous growth.

Mr. Stanley Boyd thinks that it is conceivable that the internal secretion of the ovaries may from time to time vary, and that only when it has varied in some unknown way does it favour the growth of the cancer. Is it necessary that this secretion should act in any way other than on the nutrition of the breast? If the nutrition of the part be cut off, may not the new tissues of the abnormal growth be influenced as they are in old age, and the growth of the tumour checked or its tissues undergo actual degeneration? This is all theory, but it is worthy of careful consideration in connection with clinical facts. In any case a ray of sunshine comes in with all these records of improvement in cases of cancer of the breast, and even in more generalised cases, and whether the new method now advocated stands the test of further experience or not, it will have given hope to some few from whom at one time hope had hidden its face.

It appears to be assumed that Dr. Beatson's theory can hold good only on the assumption that the origin or cause of cancer is not of parasitic nature. Such a view will not commend itself to all pathologists. Whatever may be the cause of the curious want of balance that arises between the epithelial and connective tissues, the fact must not be lost sight of that parasites may (though this is not, of course, at all necessary) be one of the exciting causes. With cell proliferation the parasites may be carried in and go on dividing with the dividing cells, though of course the process of cell proliferation when once started may continue for a certain number of generations without further intervention of the initial and exciting cause.

The second part of Dr. Beatson's plan of treatment is from many points of view almost as interesting, from its suggestiveness, as oöphorectomy itself. It has long been maintained that in cancer there is a disturbance of the balance between the connective tissue and the epithelial tissues—an upsetting of the equilibrium—as a result of which there is an invasion of the lymph spaces of the connective tissue by epithelial cells, which under some special stimulation or alteration in nutrition, divide, rapidly distend the spaces, and cause around them a secondary proliferation of connective tissue. Dr. Beatson, by the use of thyroid extract, wishes apparently to stimulate the endothelium of the lymph spaces before the invasion of the epithelial cells, and so to render them more active and capable of repelling such invasion. Such a theory is extremely fascinating, and, of course, accords well with the altered nutrition theory.

It must be observed that, so far as present observations go, the treatment by oöphorectomy can claim to have an influence on cancer of the breast only, whilst the treatment by thyroid extract, if it be of value at all, should be useful in all cases of cancer, though the best results would naturally be expected in those cases and in those parts on which both influences can be brought to bear.

For some time to come we anticipate that few surgeons will be willing to rely upon these methods of treatment alone, but in advanced and inoperable cases the results recorded by Dr. Beatson and by Mr. Stanley Boyd—especially in cases treated before the menopause—certainly justify the hope that temporary relief, and even comparatively painless death, may be the outcome of such treatment.

LYMPH SUPPLIES AND REVACCINATION.

The question whether a given local result of revaccination may be regarded as evidence that the person revaccinated has thereby fully renewed his protection against small-pox was briefly dealt with in the British Medical Journal of November 16th, 1901 (p. 1487), and may now be more fully considered, as it frequently presents difficulty, owing to the existence of several elements of uncertainty which do not arise in the case of primary vaccination.

For example, in adults who have been previously (but not very remotely) efficiently revaccinated, it is a common experience for a fresh vaccination to produce at the site of inoculation either a mere transient papule which presents no features that can be pronounced characteristic of vaccination, or else to give no result whatever. In other words, such persons for a longer or shorter period after successful revaccination remain immune to vaccinia. It may even happen, though rarely, that adults whose last successful vaccination took place in infancy will show a similar want of result, no matter how often and how thoroughly they are revaccinated. This want of susceptibility, when met with, is all the more striking if it should happen to occur side by side with exceptional cases of another class—individuals who, although comparatively recently revaccinated with the production of vesiculation and other manifestations of vaccinia, will again and again react to subsequent revaccination "taking every time," if one may so put it. It is in these cases rather than those in which revaccination has failed that the vaccinee is apt to be apprehensive that the operation is capable of affording him little, if any, protection against small-pox.

That this apprehension derives no support from experience is, however, shown by the uniform im-

munity from small-pox possessed by revaccinated persons who work in small-pox hospitals. Moreover, the ready response of certain individuals to vaccinia has long been known. Jenner himself pointed out that the human body "is again and again susceptible of the infectious matter of cow-pox;" and he gave instances in which the cow-pox was thus taken twice or thrice by persons who could not be variolated either by inoculation or by exposure. And several observations on record show that a large proportion of persons, unmistakably scarred by previous small-pox, may react typically to vaccination, although it cannot be believed that anything like the same proportion would be susceptible to a second attack of small-pox.

Another circumstance which may occasion difficulty in interpreting the result of a revaccination is that, although as a general rule local reaction will occur earlier than in the case of primary vaccination, in certain instances it is found to be delayed, with the result that revaccination may be prematurely declared a failure. This would seem more common in these days of calf lymph than formerly.

If there were a measure of the potency of calf lymph comparable, for instance, to "units" of diphtheria antitoxin, and if a minimum standard in terms of this measure could be officially required in the case of all calf lymph sold in this country, the vaccinator might without much hesitation attribute particular revaccination failures or uncertain results to such exceptional conditions of the individual as those above referred to. Unfortunately, however, no precise measure is available in our present state of knowledge. The potency of lymph is apt to be judged by the lymph manufacturer from the fact of its having been found capable of producing typical vaccine vesicles on the calf—a circumstance which does not necessarily imply corresponding ability to produce typical vaccinia in the human subject. Moreover, it is well known that a stock of lymph, which was originally satisfactory both as regards the human subject and the calf, may, in circumstances little understood, decrease in potency through being kept over long. There is reason to suspect that lymph manufacturers are not always as ready as they might be to confirm the efficiency of their stocks immediately before issue, and to destroy any about which doubt may arise.

It may, perhaps, have been due to this circumstance—though we have no special knowledge on the point—that in a recent instance unreliable lymph, coming from a "well-known firm," to which we referred in our leading article of November 16th—and possibly from other sources as well—was issued on an extensive scale, with the result, as our correspondence has testified, of causing to many members of the profession not merely much trouble and annoyance, but also a general feeling of insecurity in view of small-pox prevalence. While we are not prepared to say that such occurrences can always be avoided by suitable precautions, we believe that in ordinary circumstances the risk can be reduced to a minimum by the exercise of sufficient care, and we have already stated our view that, in the case of lymph manufactured by private firms in this country, steps should be taken to obtain such additional security as Government inspection or supervision is capable of supplying. A substantial safeguard would be furnished if lymph manufacturers made it a rule to issue no lymph on a large scale until satisfactory reports had been obtained in a limited number of (preferably primary) cases, and we should imagine that this proceeding would present no insuperable difficulty even in times of stress due to epidemic small-pox. We are confident that for this purpose medical practitioners would be willing to comply with any reasonable requests by vendors of lymph for information as to their results.

The importance of preventing the sale of unsatisfactory lymph is, however, so great that though there seems good reason to hope that the occasion may not now arise, we should be prepared to give publicity to instances which may in future be brought to our notice, in which it is found that a particular lymph, when carefully used, for vaccination or revaccination, in a plurality of cases has proved unreliable: either through failures or because the results have appeared abnormal. But in view of the possibility of such a necessity arising, it is absolutely essential that medical practitioners should keep an exact record of particulars with regard to each case vaccinated or revaccinated, comprising date of vaccination, source and series of lymph used, number of insertions made, date on which the arm was examined, and the appearance, particularly in respect of vesiculation, which it then presented. Without a series of data of this kind it is hardly possible, for reasons above indicated, to determine with reasonable probability whether or not the lymph has been at fault.

We are unable to gather from the correspondence which we have received on the subject whether one and the same lymph has been found in certain cases inactive and in other instances has been followed by undue inflammation of the vaccinated arm. It has always been recognised that, case for case, revaccination is liable to be attended by greater local disturbance than primary vaccination, so that "bad arms," to which some of our correspondents have referred, may be no more abundant at the present time than was to be anticipated in view of the very large number of revaccinations which are taking place. It must be remembered, too, that a large proportion of persons revaccinated during an epidemic are obliged to continue their occupation, and as a consequence to use the vaccinated arm freely. In such cases it is not very uncommon for considerable œdema to appear towards the end of the week in the tissues of the dependent forearm and hand. As a rule, this subsides quickly, and gives no more than a few days discomfort; only occasionally is the result more severe.

There would be ground for suspecting the lymph *per se* if, as a matter of fact, a series of primary as well as secondary cases, vaccinated with one and the same lymph under aseptic conditions, were found to yield each the same proportion of undue inflammation. No instance of undue inflammation common to primary and secondary cases has, however, to our knowledge, been brought to notice in the course of the large amount of vaccination which has been lately practised all over the country. It would be a great advantage to know of a certain method for obviating in the adult the risk of a "bad arm," short of keeping the limb perfectly at rest from the time when the operation is performed until the vaccination has run its course—a plan which is unfortunately seldom practicable. Those who

have most reason to complain of inconvenience from re-vaccination, however, would probably be easily reconciled if they were familiar with the manifestations of small-pox among the unprotected.

THE UNIVERSITY OF LONDON.

We published last week the formal announcement that the Senate of the University of London had gratefully accepted a gift of £2,000 from Mr. Walter Palmer, M.P., for the purpose of providing scientific apparatus for the proposed course of lectures in advanced physiology. It will, we do not doubt, be interesting to many readers, and especially to London students present and past, to have some particulars of the scheme for which Mr. Palmer's generous gift is intended to provide the necessary funds. We learn that at the invitation of the Board of Studies in Physiology a list of about twenty recognised teachers has been formed, each of whom has expressed his willingness to give a course of not fewer than eight lectures on a branch of physiology with which he is directly cognisant. It is intended that the courses should be as far as possible demonstrative and descriptive of current research. We believe that rooms appropriate for these courses could be provided at the University buildings at South Kensington, and that they could be so arranged and fitted as to be suitable for demonstrations. It is to provide for the necessary fittings and apparatus that Mr. Walter Palmer has come forward with his offer of £2,000, which will be sufficient to ensure an adequate trial of the scheme. The lectures will be open without fee to students of the University of London, and the arrangements will be carried out under the direction of a special committee consisting of the House (Finance) Committee of the Senate, Sir Michael Foster, K.C.B., M.P., Professor Farmer, Dr. Rose Bradford, Professor Halliburton, Dr. Waller, and Mr. Walter Palmer, M.P. Taken along with the report of the Faculty of Medicine on the concentration of preliminary medical studies published in the British Medical Journal of December 21st, 1901, p. 1837, this scheme for higher instruction in physiology is most interesting evidence of the tendency which appears to be increasing towards the establishment of a better understanding among the medical schools in London, and a concentration of effort on the task of raising it to the position which it ought to hold as a centre of medical and scientific education. The consensus of the leading physiologists in all departments of that great science and of all the schools in London to contribute their best knowledge to the teaching power of the University is gratifying evidence of this, and it is clear that this scheme of lectures in advanced physiology, so far from impeding, will help forward any larger scheme of university teaching which may come into operation during the next few years. The limited scope of the scheme, designed, as we understand it to be, to meet the wants of undergraduates seeking honours in physiology, will not bring it into competition with the present working of the physiological departments of the schools, nor will it stand in the way of readjustment of such teaching in the future by concentration: on the contrary, it ought to contribute towards this end by giving a practical demonstration of the value of combined and unanimous effort by all the teachers of physiology in London. At the last meeting of the Senate a partial answer was given to the question, Where are the undergraduates? which "A Recognised Teacher" asked in our columns last June, for it was decided to form a register of internal students. Any student who has matriculated at the University, and who is pursuing an approved course of study in a school of the University or under one of its recognised teachers, can now be entered on this register. Another important decision was apparently arrived at by the Senate at its last meeting, although no mention is made of it in the official repert in the University *Gazette* issued on December 21st, 1901. It has been stated in the newspapers that regulations were approved for the admission of students and graduates of other universities to enter as internal students, and also as candidates for the higher degrees of the University of London. Such applications, we gather, have already been entertained and approved from students or graduates of Aberdeen, Cambridge, Melbourne, Sydney, and Leipzig. Information is not vouchsafed as to whether this very radical change in the policy of the University of London, as the present generation has known it, applies to the case of medical students. For example, it would be interesting to know whether Bachelors of Medicine of the universities named will be eligible for the degree of M.D.London without previous acquaintance with the perils of the Preliminary Scientific and the Intermediate M.B. Examination. Full information on this very important matter ought, we submit, to be given officially without delay.

THE DANGERS OF THE CENTRAL CRIMINAL COURT.

We observe with regret, though not altogether with surprise, that Mr. Justice Bigham was seriously indisposed after presiding recently at the Central Criminal Court, and that his illness was attributed to the bad atmosphere of that pest-house. Mr. Justice Bigham is the third judge who has within the last year or so been taken seriously ill after presiding over prolonged trials in this court. The Lord Chief Justice, after the trial of Bennett, the Yarmouth murderer, which lasted six days last February, was compelled to take to his bed, and was for some time somewhat seriously indisposed. Mr. Justice Wills also suffered from serious indisposition after presiding at a somewhat prolonged trial in the same court, and now Mr. Justice Bigham has been laid up after another long and anxious case. The facts as to the impurity of the atmosphere quickly brought about in this court whenever any case exciting public interest is being heard are admitted, and it might be supposed that the illness of three judges, indicating as it no doubt does the indisposition of many other persons of less distinction whose business takes them to the court, would have at once led to some remedy being found. As a matter of fact, the court is condemned and is to be pulled down, and the plans for new courts are in existence, but owing to some causes into which we need not attempt to go, the delay continues, although both the City of London and the Home Office recognise the necessity for clearing the site and erecting new buildings. It is said that another year must elapse before the demolition can take place. Now, it is evident that when the building is being pulled down, and during the time which must elapse before the new court is completed, some other place must be provided for the sittings of the Central Criminal Court. This being so, we think it reasonable to ask why the temporary arrangements which must then be made are not at once brought into use? It is clear that the authorities must have in view some existing building which could be used for the purpose, and we have heard the Guildhall suggested. Whether this be the most suitable building in the City we are not prepared to say, but that there must be some building in view is obvious, and we think that the greatest city of the Empire ought not to permit the present state of things, by which the health of suitors, witnesses, advocates, and judges is endangered, and the course of justice in the greatest criminal court in the country is obstructed, any longer to continue.

UNQUALIFIED PRACTITIONERS AND DEATH CERTIFICATES.

The evidence brought before Mr. Troutbeck, the coroner for the City of Westminster, in respect of the death of Miss Harris, as reported in the *Morning Advertiser* on

December 31st, 1901, is illustrative of certain defects in the present system of registration of deaths which have been commented upon time after time in the BRITISH MEDICAL JOURNAL. It appeared from the report that Miss Harris, a sister of the late Sir Augustus Harris, carried on business, under the name of Madame Auguste, in Wellington Street, Strand, as a theatrical costumier. According to the evidence of Dr. G. A. Hamerton, who made a *post-mortem* examination, death was due to heart failure from cerebral hæmorrhage accelerated by intemperance. Although cirrhosis of the liver and exhaustion were factors in the case, he would not have given a certificate to that effect, as there was the condition of the heart and brain to be taken into account. Miss Harris had been attended by an unqualified person named Stanley, who seems to have carried on medical practice in the Drury Lane district for some time. On the death of Miss Harris, this unqualified attendant gave to the district registrar, written upon a half-sheet of notepaper, a certificate as follows: "I hereby certify that I attended Miss Patience Glossop Harris, aged 44, of 27, Wellington Street, Strand, and that she died on December 26th, 1901, to the best of my knowledge, from cirrhosis of the liver and exhaustion. (Signed) W. Stanley, 1, Portsmouth Street, W.C." Upon the strength of this certificate, the registrar, Mr. Cox, registered the death, and issued the necessary order for burial. Dr. Hamerton, the district police surgeon, however, who had been hastily summoned on the day of the death to see Miss Harris, finding her dead, and hearing that no qualified practitioner had attended her, communicated with the coroner, with the result that an inquest was ordered. The fact that the registrar, who was called to give evidence and to produce the certificate, justified his action by the instructions given to him by the Registrar-General appears to have caused the coroner considerable surprise. He pointed out with natural warmth the dangers to the public which such a procedure entails. We are not, however, so surprised at the action of the registrar, as it is unfortunately the usual plan adopted for many years, but we share the coroner's indignation that such a course should be permitted or justified by a Government authority. It is true that the Registrar-General both in the past and the present refuses to allow that the procedure entails the acceptance as a "certificate of death" of an unqualified person's written statement as to the cause of death. His contention is that such written statement is merely "information," and that such deaths are registered as uncertified. This seems to us a technical evasion of the real issue, which is that bodies are buried upon such certificates, and that by such loose methods of procedure the concealment of crime may be facilitated, and one of the objects of the Registration Acts frustrated. In this case no suspicion of criminality arises, but it illustrates another evil of this laxness, inasmuch as the accuracy of the vital statistics of the nation is destroyed. We agree thoroughly with the rider adopted by the coroner's jury in this case, to the effect that the attention of the Registrar-General should be called to the lax way in which the certificates of unregistered medical men are accepted. We may point out that the attention of the Registrar-General has been called to this matter by the British Medical Association, the Coroners Society, and the Medical Defence Union long since, but apparently without effect, judging by the case upon which we base this comment. The Parliamentary Committee over which Sir W. Foster, M.P., presided in 1893, recommended that "uncertified deaths should, as a class, cease to exist, and that means should be devised whereby a medical certificate should be obtained in any case not certified by a registered medical practitioner in attendance." The committee based this important recommendation upon the fact that "it is a most important duty of society to guard its members against foul play," and that "it should be made impossible for any person to disappear from his place in the community without any satisfactory evidence being obtained of the cause of his disappearance." With the present system, to quote again from the report of the Committee, "there appears to be nothing to prevent a fictitious cause of death being assigned in case of a person who has been got rid of by foul play, and for a burial certificate to be issued upon registration of such information. In short, the existing procedure plays into the hands of the criminal classes."[1] We can add nothing to this condemnation of such a pernicious system, and can only continue to bring its dangers before the profession and the public, in the hope that either by fresh legislation or by amended regulations issued by the Registrar-General, the registration of an uncertified death, with subsequent burial, shall be made an absolute impossibility.

HOUSEHOLD MEDICINE IN ANCIENT ROME.

WE have recently been reminded of the fact, perhaps not known to the examination-ridden schoolboy of the present day, that Cato the Censor studied Greek in his old age. Perhaps he did this for the same reason that moved Dr. Johnson to learn Dutch in his twelfth or thirteenth lustre, as a test of the integrity of his intellectual faculties. At any rate, it may be assumed with tolerable certainty that he did not do so in order that he might read the writings of the Greek physicians. He was a fine old Tory, and looked upon Greek art and literature with the contempt that Squire Western would have felt for French kickshaws. But Greek medicine was to Cato something infinitely worse—it was an unclean and poisonous thing, and in the coming of Greek physicians to Rome he saw a danger to the commonweal. Yet he himself practised the art of healing according to his lights, and in his *De Re Rustica* he has left us a record of his methods. Pliny, the author of the *Historia Naturalis*, says that for six centuries Rome was without physicians, though, as he adds, not without physic. The head of the house was himself the family doctor, and Cato with his strong sense and hard headedness may probably be taken as the representative of the best household medicine known to Romans in the brave days of old. He physicked his two wives, his son and his daughter-in-law, his slaves, his cattle and himself for more than half a century, and had, as may be guessed, very positive opinions on diseases and their treatment. His system of therapeutics was as simple as that of Sangrado, only he used cabbage instead of water. This homely vegetable was to Cato a veritable panacea. Given internally or applied outwardly it was *ad omnes res salubre*. It cured constipation and dysentery, headache and lumbago, retention and incontinence of urine, pains in the liver and affections of the heart, colic, toothache, gout, deafness, insomnia, ophthalmia, gangrene, abscesses and nasal polypi. It was as efficacious in consumption as lacnanthes, as potent in cancer as violet leaves. In short, Cato might have anticipated a famous epitaph, and said of his remedy, *Nihil quod tetigit non curavit*. But as in the case of other equally simple-looking remedies of the present day, the secret of the therapeutic virtue of cabbage lay in the mode of its administration. Cato, however, unlike our modern dealers in infallible specifics, makes no mystery of his cabbage cure. He gives full details. For instance, are you afflicted with colic? Take a cabbage; after letting it simmer well in boiling water, strain thoroughly, season with salt, cumin seed, oil and wheat flour; then put it on the fire again, let it simmer for a time, take it off, and let it cool; take this potion every morning, and during the course of the treatment let your principal food be cabbage. Dean Ramsay tells a story of a Scotch farmer who at a tenants' dinner was asked by a duchess to take

[1] First and Second Reports from the Select Committee on Death Certification, 1893, Page X.

cabbage, and excused himself with the delicate insinuation "Disna your Grace find it a verra windy vegetable?" Cato must have learnt this particular property of cabbage by experience, and his use of the vegetable as a remedy for colic would seem to entitle him to be regarded, if not exactly as a pioneer of homœopathy, at least as having an *anima naturaliter Hahnemannica*. In surgery cabbage was the sovran'st thing on earth for bruises, ulcers, abscesses, fistulæ, and dislocations. A paste made of cabbage introduced into the rectum through a reed was warranted to heal a fistula: an injection of cabbage water mixed with wine restored hearing to the deaf; a decoction of cabbage inhaled at intervals during three days made polypi fall out of the nose, and destroyed the roots of the disease. Cato probably knew nothing about "necrosing ethmoiditis," but the most devastating rhinological Attila of our day could not have been more successful in dealing with the nose. It is, we think, a proof of Cato's greatness that, enthusiastic as he is in praise of cabbage, he admits that it sometimes failed to reduce a dislocation. In such a case recourse must be had to a combination of local with constitutional treatment. A fresh reed four or five feet in length must be split down the middle and held by two men over the injured limb, the patient himself the while chanting the following words: *Daries, dardaries, astataries, dissunapiter*. These exercises were continued till the two parts of the reed united, when they were to be cut in pieces and made into a bandage for the dislocated broken limb. The cure was to be completed by the daily repetition of one of the following formulæ: *Huat, hanat huat ista pista sista, domiabo. damnaustra*, or *Huat haut haut ista sis tar sis ardannabon dunnaustra*. Both are doubtless equally efficacious, but we should be inclined to put our trust in the former on account of the comforting vigour of the last word. As we have ventured to hold Cato up as an example to a certain type of operators, we may perhaps be allowed to say that his "constitutional" treatment reminds us of the equally futile formulæ with which not so many years ago practioners of "pure" physic or surgery used to attempt to conjure away local conditions rather than call in the aid of the despised specialist.

A TRUE HERO OF MEDICINE.

THE heroic death of Dr. William Smyth, which has excited the admiration of the whole country, has naturally moved more than one poet to pay him "the meed of a melodious tear." A fortnight ago we quoted some extracts from a poem in his praise which appeared in the *Westminster Gazette*. This week we have much pleasure in publishing a sonnet on the same inspiring theme by one who holds a high place among contemporary poets:

A YEAR OF CROWNS.

In Memory of Major W. Dr. William Smyth, who died of his heroic effort to [illegible] succour the typhus-smitten people of Arranmore.

From forth the New Year's solemn opening door
Came Peace uncrowned but angels issuing
Crowns for the unremembered seem to bring—
The dead whom sorrowful Home should see no more.
A crown for him who sent from shore to shore
The whisper of his voice on airy wing.
A crown for him we hail Great Britain's King,
And lo! for her we love—the Koh-i-noor.

But brighter than the angel forms that came
I saw one steer across an Irish sound,
A boat from Arranmore's plague smitten strand,
A hero known to God, unknown to fame.
Death smote him as his crazy keel touched land,
But all the host of heaven his soul was crowned.

H. D. RAWNSLEY

As we have already pointed out, the glory of Dr. Smyth's death somewhat blinded men to the heroism of Dr. Brendon McCarthy, who, with a like devotion, risked his life in fighting the epidemic in Arranmore. Dr. David Hadden, of Wexford, has written to the *Irish Times*, suggesting that if Dr. McCarthy's conduct were properly brought to the notice of the Lord Lieutenant of Ireland, his Excellency might bring his name before His Majesty for some civil honour, in recognition of the services which he rendered to suffering humanity. Dr. Brendon McCarthy is a man whom the King might well delight to honour, and we cordially commend Dr. Hadden's suggestion to the proper authorities.

A MEDICAL DIRECTOR-GENERAL OF INDIAN TELEGRAPHS.

How many people, we wonder, know that the first Director-General of the Indian Telegraph Department was an officer of the Indian Medical Service? Such is the fact. The officer was Sir William Brooke O'Shaughnessy (afterwards by Royal license O'Shaughnessy-Brooke) who entered the Bengal Medical Service of the H.E.I. Company as assistant surgeon in 1833. For the following account of his career we are indebted to the *Indian Medical Gazette*. Born at Limerick in 1809, he was educated at Edinburgh University, where he graduated M.D. in 1830. After receiving his appointment in "John Company's" service, he was for some time physician to Sir Charles Theophilus, afterwards Lord, Metcalfe. In 1848, after fifteen years service, he became Surgeon and Surgeon-Major in 1861. He had been for many years Professor of Chemistry in the Medical College, Calcutta, and wrote largely on chemical and medical subjects, but devoted his attention chiefly to the electric telegraph. Even so early as 1839 he published in India a pamphlet on the subject, but little attention was paid to his views till the advent of the "great proconsul," Lord Dalhousie, in 1847. With the insight which distinguished that great man, Lord Dalhousie saw and believed in the future of electricity, and Dr. O'Shaughnessy was employed by him to lay down in Calcutta an experimental line of telegraphs. Its success was so great that the directors in 1852 sanctioned the immediate construction of lines of telegraphs connecting Calcutta, Agra, Bombay, Peshawar, and Madras. O'Shaughnessy was appointed Director-General of Telegraphs, and went to England to collect men and material. He returned to India and commenced work in November, 1853, and such was his energy that the line between Calcutta and Agra, a distance of 800 miles, was in full working by March, 1854, and in February, 1855, before the outbreak of the Mutiny which was to demonstrate its great value, telegraph lines had been completed for over 3,000 miles, connecting Calcutta directly with Agra, Bombay and Madras. O'Shaughnessy was knighted for his services in November, 1856, and after five years' further work in India, retired from the service in 1861. He had early in life been elected a Fellow of the Royal Society. He died at Southsea in January, 1889. O'Shaughnessy was the author of numerous pamphlets and contributions to the Royal Society and other scientific bodies. Among his more purely medical works may be mentioned his *Manual of Chemistry* (Calcutta, 1841), *The Bengal Dispensatory* (London, 1842), *The Bengal Pharmacopœia* (Calcutta, 1844), and a translation of Lugol's *Essay on the Effects of Iodine in Scrofulous Diseases*.

OXFORD AND THE INOCULATION OF SMALL-POX IN 1774.

THE following reference to the practice of inoculation for small-pox by the University of Oxford will be read with interest by those who recall descriptions of the ravages of the disease in the various Colleges throughout the seventeenth and eighteenth centuries. Readers of Anthony Wood's *Life and Times* will remember the numerous entries of distinguished Fellows and promising scholars who "died of the small-pox and was buried in the College Chapel, the same day, and at night, funeral solemnised the next." It was usual in the case of infectious disease to

inter the body at once and to read the burial service on such subsequent day as was convenient. Yet the following notice was issued in 1774:

Whereas attempts have been made to inoculate persons for the small-pox within the University and City of Oxford, to the great terror of the inhabitants, we, the Vice-Chancellor and Mayor of the said University and City, do hereby will and command that, for the future, no attempt of this kind be made, nor inoculation practised within the said University and City. And likewise we do hereby give notice that if any person or persons shall henceforth inoculate in private houses, or shall take into their respective houses patients under inoculation, or shall let or make use of any houses within the said University and City to inoculate patients therein, such person or persons offending in any or either of those cases will be prosecuted as the law directs. Given under our hands

THO. FOTHERGILL, Vice-Chancellor
SAM. CULLEY, Mayor.

The edict appears to have been met with defiance, for a few weeks later the following notice appears in the *Oxford Chronicle*: "Mr. Sutton, who has just returned from France, intends to inoculate in Oxford and its neighbourhood this winter, notwithstanding any attempt to impede his practice." It is difficult nowadays to realise the intense consternation which the mere mention of the small-pox produced in the minds of our ancestors. The slightest rumour of its presence in any locality was deemed a pernicious libel, and was judged worthy of the most authoritative contradiction. Thus, the surgeons of Wallingford advertised their protest against the rumour that it had broken out in their town. Again, on June 24th, 1775: "The minister, churchwarden, overseer, and principal inhabitants of Chipping Norton do hereby certify that the small-pox is not in the said town, and that those belonging to it who have had this disorder were, before they became infectious, removed to the pest house, and are now quite recovered." The vicar and inhabitants of Watlington also certify to the freedom of their parish from infection. At the same time, as is shown by the edict of the Vice-Chancellor and Mayor, the practice of inoculation was viewed in many quarters with disgust and incredulity. But hosts of doctors, some of whom seem to have been little removed from quacks, opened houses for the reception of patients. Mr. Sampson, of Begbroke, "who has inoculated near two thousand without the loss of a single patient, inoculated his third company for this season;" Mr. Bristow, of Begbroke, "receives a succession of patients for inoculation at his house at Jericho, near this city (of Oxford), where they are carried through the disease with the utmost safety by his approved and most successful method."

A SUBSTITUTE FOR SYMPHYSIOTOMY

DR. A. MORKOWITIN, of the surgical clinic of the University of Tomsk, Siberia, proposes, in a communication recently forwarded to us, to substitute for symphysiotomy section of the os pubis itself. The older operation has, he urges, two disadvantages. Hæmorrhage is sometimes severe from injury to the venous plexures near the symphysis, and lameness is a frequent result of symphysiotomy. Morkowitin performed his new operation on the dead body. The parts having been shaved and made aseptic, the subject is placed in the lithotomy position. A horizontal incision two inches in length is made through the skin along the upper border of the pubes, presumably on the left side, beginning at the symphysis and passing outwards. A second incision is then made, beginning at the middle point of the first and passing downwards, for about two inches along the outer border of the labium majus. A double flap is thus formed which is dissected up on each side so as to lay bare the os pubis. The rest of the operation is performed after the usual methods in bone surgery. The periosteum is detached anteriorly but not quite up to the symphysis, so as to spare the articulation and the muscular attachments in its vicinity. Then the periosteum on the posterior aspect of the os pubis is detached, as in resection of a rib. The bone is then divided with a chain saw. This completes the operation. The abundant connective tissue allows of a free separation of the sawed ends of the bone, and there is no fear of damaging the venous plexuses, which are in jeopardy when the symphysis is cut through. The skin wound is united with sutures after delivery, and a drain inserted in its lower angle if there be doubt about asepticity. The articulation is not spoilt, and the subperiosteal division of the bone allows of a good callus. Morkowitin goes so far as to say that in an emergency the operation can be done quickly under local anæsthesia by cocaine. We have not yet heard of this operation being performed on the live subject.

THE IRISH POOR-LAW MEDICAL SERVICE.

WE print elsewhere a copy of a circular letter addressed to Irish members of Parliament by the Honorary Secretary of the Irish Medical Association, on the subject of Irish dispensary medical officers' grievances. Taking for his text the heroic devotion to duty and tragic death of Dr. William Smyth, of Burton Port, he calls the attention of Irish legislators to the importance of the duties discharged by the Poor-law medical officers and the inadequacy of their remuneration. With all this we heartily concur, and over and over again the same views have been expressed in the BRITISH MEDICAL JOURNAL. He then says: "With these facts before you, we venture to solicit your co-operation, by either yourself introducing a measure of necessary reform or in furthering legislation to that end." This is all very well, but, we may ask, what Irish member of Parliament is going to originate a measure of reform when those who are suffering from the existing conditions cannot make up their minds what they want or indeed whether they want anything at all? A somewhat instructive comment upon this appeal is supplied by the fact that within a few weeks of Dr. Smyth's death the vacancy in Burton Port was filled without difficulty, notwithstanding that the salary is only £110 per annum, that the district is of the poorest, and that the last three occupants of the post are said to have died of typhus fever, which appears to be endemic there. The guardians added £10 a year to provide the doctor with a boat, not because such extra salary was necessary to secure an applicant, but as a sort of charitable dole. In the face of facts like these, what member of Parliament, what Minister of the Crown could, with any prospect of success, introduce legislation to compel Boards of Guardians to pay their medical officers more than they themselves value their own services at? The Irish Poor-law medical service is perhaps the hardest worked and worst paid branch of the public service in the empire, but who have the members of that service to blame but themselves for allowing guardians to sweat them? If they are content to be sweated, as the competition for every vacant post indicates, who can have any power to help them? The Irish Medical Association adopted the right course when it took steps to limit the supply by warning intending candidates. Let it persevere, for it is the only way in which the position of the service can or will be improved. Hitherto, there has been no solidarity among members of the profession in Ireland, and until there is, until they stand shoulder to shoulder as men knowing their rights, and determined to have them, we question if they will find many members of Parliament quixotic enough to champion their cause.

TREATMENT OF WOUND OF PORTAL VEIN.

DR. L. H. DUNNING, of Indianapolis, relates a misadventure which will be remarkable in the history of the surgery of the gall bladder.[1] He met it with the most laudable

[1] *American Gyn. and Obstet. Journal*, October, 1901, p. 365.

promptness. He operated upon a woman aged 40, subject to periodical attacks of gall-stone colic with intermittent jaundice, chills, and fever. He found a single soft stone in the common duct; the gall bladder was normal and con no stone. There were many adhesions, and in separating them the operator lacerated the portal vein and profuse hæmorrhage occurred. An unsuccessful attempt was made to close the opening in the vein by sutures. Finally the anterior part of the vein around the opening was picked up with the operator's thumb and finger and a ligature applied. This effectually closed the hole and stopped the bleeding. The soft stone in the common duct was crushed. The patient recovered and was cured of gall-stone colic. Fortune decidedly favoured the bold in this case.

THE MACCLESFIELD INFIRMARY.

It is satisfactory to be able to report that the unfortunate difficulty at the Macclesfield Infirmary seems to be in a fair way towards settlement. The junior house-surgeon, Miss Annabella Murdoch Clark, has resigned. This termination was practically the only one possible under the circumstances, and it is to be regretted that she did not sooner take the course she has now adopted. There can be no doubt that her action greatly embarrassed the governors, whose sympathy was entirely with her throughout, and put them in a very difficult position. The local press clearly recognised what was necessary, for the *Macclesfield Courier and Herald* on December 28th, 1901, stated that "Either Miss Clark must resign or be dismissed." The lady chose the former alternative, and sent in her resignation on that day. A special meeting of the governors was called hurriedly for Monday, when the resignation was accepted, and after some discussion it was decided that the governors should subscribe among themselves, and present Miss Clark with a testimonial of £100. It was also settled that advertisements should be issued at once for a successor, and if we understand the proceedings of the governors' meeting, that the honorary staff be asked to select, if possible, three out of applicants for the choice of the governors. Notice of motion was given to make this the standing custom. There can be no doubt that the honorary medical staff are right in claiming to select and recommend for election by the governors that candidate for the office of house-surgeon who appears to them best qualified to discharge the duties of that office. This duty or privilege is possessed in nearly all similar institutions.

TRYPANOSOMA IN MAN.

Major Ronald Ross, F.R.S., has forwarded to us a copy of the following telegram to the Liverpool School of Tropical Medicine from Dr. Everett Dutton, its representative at Bathurst, British Gambia, West Africa: "Trypanosoma European peculiar symptoms. Dutton." From this Major Ross infers that Dr. Dutton has discovered trypanosomes in a European in British Gambia. Further particulars of this discovery will be awaited with much interest. Species of the genus trypanosoma are the cause of two most important diseases in lower animals, the dreaded fly disease in South Africa amongst domesticated animals, and the fatal Indian horse disease, "surra." The species which produces "surra" is probably distinct from that which causes the South African fly-disease. Trypanosomes abound in rats, both in England and the tropics, without causing any symptoms, and the same trypanosome that is so fatal to some of the domesticated animals in South Africa appears to be harmless to the wild animals of the country. As far as we are aware, Dr. Dutton's discovery, if his telegram has been rightly interpreted, is the first recorded case of any trypanosome being found in man, and the fact that it causes symptoms is of great importance. The discovery, it is to be hoped, may lead to further information as to the causes of the unhealthiness of the West Coast of Africa.

INOCULATION IN FRANCE IN THE EIGHTEENTH CENTURY.

The *Revue Scientifique* in a recent issue gives extracts from Bachaumont's secret memoirs relating to Condamine's efforts to establish the inoculation of small-pox in France during the middle of the eighteenth century. In 1763 the Parliament authorised the Faculties of Medicine and Theology (!) to report on the subject. "As to the Faculty of Theology, its being a novelty is enough to condemn it"—that is, inoculation. Voltaire, Rousseau, and even the Court did not disdain the subject, but the most resolute defender of inoculation was the eccentric Dr. Lauraguais. The Faculty of Medicine neither condemned nor approved it, but voted for its "toleration." Condamine's great argument was that over 30,000 persons died of small-pox each year in France, and many more were blinded or otherwise showed its effects, whereas inoculation caused 100 deaths yearly, "supposing one accident in 300 inoculations." Despite a check in 1765, when the Duchesse de Boufflers, inoculated two years before, had small-pox, the practice of inoculation steadily extended, and in 1772 Louis XVI was inoculated; but soon afterwards Jenner's observations began.

We understand that the statements which have been made to the effect that the Royal Commission on Tuberculosis is about to issue an interim report are incorrect. The experiments are proceeding, but there is no present intention of issuing a report.

The annual meeting of the British Gynæcological Society will be held at 20, Hanover Square, on Thursday, January 9th, at 8 P.M., when the President will deliver his valedictory address.

Small-pox in London.—The number of cases of small-pox under treatment in the hospitals of the Metropolitan Asylums Board on Saturday, December 14th, 1901, was 507. On Saturday, December 21st, the number had risen to 538, and on Saturday, December 28th, to 665. Since then the number of cases under treatment has increased, and at midnight on December 31st, 1901—January 1st, 1902, it was 725. On Tuesday December 31st, there were 42 new admissions, the highest number received in one day during the present epidemic.

At a recent meeting of the Royal Meteorological Society the Hon. Rollo Russell read a paper entitled Further Observations and Conclusions in relation to Atmospheric Transparency, founded on daily observations on the clearness of the atmosphere made for some years past at Haslemere, Surrey. He found that haze and fog were commonly caused by the mixture of currents at different temperatures. These currents might be local or general, high or low. Thick haze or fog not dependent on differing currents was rare, but differing currents frequently came into contact without producing haze or fog, and fairly clear weather under opposite currents was not uncommon. A fog was, as a rule, evidence of the existence in the neighbourhood of a conflict of currents, and prevalent fog or haze commonly signified that a different wind exists at a high level from that on the surface or at a slight elevation. The production of fog or haze by mixing currents depended chiefly on differences in their temperature. Broadly-extended westerly winds, with westerly upper currents, whether dry or nearly saturated, were the clearest. Easterly and north winds were the most hazy, owing to the ordinary upper current from the west being seldom displaced by them, and to the mixture of these masses of air of different temperatures. When, as an exception, east and north winds were clear, it may be presumed without direct evidence that the upper current coincides with them in direction. In winter, therefore, unusual clearness in these winds often signified a long spell of frost.

TRIPLETS IN ONE FALLOPIAN TUBE.

THE progress made in the study of diseases of women is a striking feature in the annals of medicine during the fourth quarter of the nineteenth century. The advance of general pathology enabled the gynæcologist to work at his speciality in a scientific manner hitherto unfamiliar to him. The introduction of antiseptic and aseptic methods and the establishment of abdominal surgery, all but tabooed before 1860, allowed him to turn his knowledge to practical account. The advance of gynæcology is marked with special clearness as respects one subject, extrauterine pregnancy, which links it intimately to obstetrics.

Between the days, far from prehistoric, when Parry made so much out of so little, and the year just ended, which has witnessed the publication of Dr. Couvelaire's work,[1] where a mass of pathological records is arranged so as to be comprehensible, the literature of ectopic gestation has grown very bulky. British, Continental, and American authorities have all taken an active share in advancing our knowledge of this condition. Many lives have been saved by prompt and judicious interference, and improvements in the technical details of operations at different stages are yet in progress. On the other hand, some leading authorities find that the hæmatocele, indicating early arrest of a tubal pregnancy, is not as a rule fatal, and tends to slow but sure absorption.

Turning to the question of simple knowledge of the subject, it is interesting to find that the common tubal pregnancy may recur in the opposite or even in the same tube, or may be associated with a normal uterine pregnancy; indeed Straus has collected 32 cases of the latter condition. Simultaneous pregnancy in each tube is not unknown. Several French and Italian writers have collected and classified a considerable number of these varieties of tubal gestation.

A case has recently occurred the report of which would have been received with scepticism before the days when the wide variations of tubal pregnancy were unknown. It will be published, we are informed, in *American Medicine* for January 4th, and is by Dr. Wilmer Krusen, of Jefferson Medical College, Philadelphia. The patient was 34 years old, and had been several times pregnant, repeatedly miscarrying; one abortion was followed by an attack of pelvic inflammation. Two years after the last normal pregnancy and six weeks after the last period, the patient was seized with symptoms of acute internal hæmorrhage; they recurred with distinct fever, and Dr. Krusen operated. The peritoneal cavity was full of dark clot, and in the first handful which he extracted the operator detected part of a ruptured tubal sac and three perfectly well-developed fœtuses, all in the second month of gestation. They are represented in the accompanying illustration. The seat of the pregnancy was seem, in one tubal sac. This was removed with ease after division of its pedicle. Unfortunately the patient was in a state of collapse, whilst inflammatory changes were not absent, and though intravenous transfusion and flushing of the peritoneum were practised she did not survive the third day. No necropsy was permitted. Dr. Krusen quotes one other instance of triplet tubal pregnancy, also a triple unilateral ectopic gestation, but in this case there were twins in a tubo-uterine sac on the right side; whilst the third fœtus lay in the fimbriated end of the right tube: that is to say, in an ampullary sac. In Krusen's case there was an ampullary sac alone, and it held all three fœtuses.



entirely limited to the right tube, the rupture did not involve the corresponding cornu of the uterus, so that there was no question of cornual uterine or tubo-uterine pregnancy. The left tube was inflamed and adherent, but intact. Thus the three fœtuses had developed, it would

[1] *Etudes Anatomo-pathologiques sur les Grossesses Tubaires.* Paris: Steinheil. 1901.

LITERARY NOTES.

DR. SAM. J. J. KIRBY, of Fressingfield, Suffolk, writes: Adverting to the case of bifid tongue published in the BRITISH MEDICAL JOURNAL of October 19th, 1891, I am indebted to my friend and patient, Rev. Canon Raven, D.D., Vicar of Fressingfield, for the subjoined note. Archbishop Sancroft was born, lived some time, and was buried in this parish. Wharton, when Chaplain to the Archbishop, lived at Ufford, the name of the Archbishop's house, still existing. The Archbishop's tomb is in a good state of preservation, and just immediately outside the church, on the south side. Canon Raven's note is as follows:

In the Lambeth Library is a MS. copied by Dr. Birch from a Life of Henry Wharton, written by his own hand. This manuscript was given by Dr. Birch to Archbishop Secker, as testified by a note at the beginning in the Archbishop's hand "Given me by Dr. Birch, his own handwriting." It is dated by Dr. Birch, March, 1747-8. The original is probably lost. Dr. Birch's copy does not contain the bilingual passage, which appears in the *Philosophical Transactions* for 1748, p. 232, in a short paper written by a doctor of medicine named Mortimer. The extract referred by Dr. Mortimer to Wharton's MS. autobiography, runs as follows: "Mihi quidem ex utero materno exeunti duplex erat lingua, utraque ejusdem figuræ ac magnitudinis: inferiorem exscindendam esse clamàrunt mulieres obstetrices: verum id noluit mater puerpera. Pietati ejus obsecundavit fortuna. Lingua enim inferior paulatim emarcuit, et in exiguam pisoque haud majorem linguulam, quæ hodiernum manet, contracta est. Lingua interim superior ad justam crevit magnitudinem, quamplurimis longis profundisque sulcis distincta, an vulneribus laniata, dicam: quæ parallelo situ posita una cum linguâ creverunt, neque unquam coitura esse videntur."

See D'Oyly's *Life of Archbishop Sancroft*, to whom Wharton was chaplain, II, 103, 104.

Wharton was born at Worstead, Norfolk, November 9th, 1664, and died at Canterbury, March 5th, 1694-5. He is buried in Westminster Abbey.

In a lecture delivered at the opening of the winter session of Toronto University Medical Faculty and reported in the *Canadian Journal of Medicine and Surgery* for November, Professor J. F. W. Ross gave an interesting account of The Indian Medicine Man and His Work. He went very fully into the ceremonies which attended the different years, the graduation of members of the Mide Wiwin, or Grand Medical Lodge and Medical College, and discussed its rites, its teachers, and its objects. Graduation was divided into four degrees, a year elapsing between each. Besides the Mide there were, he said, the Wabeno, or Men of the Dawn, and the Jessakios or Jugglers. The symbolical and mystical features of the various degrees, the positions of the sacred posts and the decorations of the lodges, which were square in form, and situated east and west, together with the distinguishing marks worn on the face by the Mide of the various years, and the sacred objects used, were illustrated. It was also demonstrated that there were duly certified female practitioners among the aborigines. Specimens of the "parchments" issued by the Grand Lodge to graduates were exhibited. Dr. Ross gave the aborigines credit for possessing a considerable knowledge of the more important organs of the human body and their functions, and related instances of remarkable success in surgery, the treatment of wounds, etc.: an illustration of a skull was thrown on the screen to demonstrate that the art of trephining was understood and practised. In medicine, too, the aborigines of the American Continent possessed considerable skill. In the treatment of fever they used the "cold pack," and representations of the "sweat bath" showed that they also used this method to assist in giving freedom and vigour to the mind and suppleness to the muscles.

THE PRESENT POSITION OF THE LIGHT TREATMENT OF LUPUS.

ON August 12th, 1901, a new light institute was opened in Copenhagen. It is a handsome stone building, situated close to Dr. Finsen's laboratory and residence. To it his "lupus clinic" has been removed from the original wooden building in the grounds of the State hospital. In the various rooms of the new hospital, which are large, airy, and bright, 200 patients are treated daily.

Institutions for administering the light treatment have now been opened in Athens and St. Petersburg (mainly through the influence of the Queen of Greece and the Dowager Empress of Russia respectively), and the treatment is being carried out at the present time, among other places, in London, Manchester, Hamburg, Cologne, Munich, Vienna, Buda-Pesth, Paris, Cairo, New York, Baltimore, and Washington.

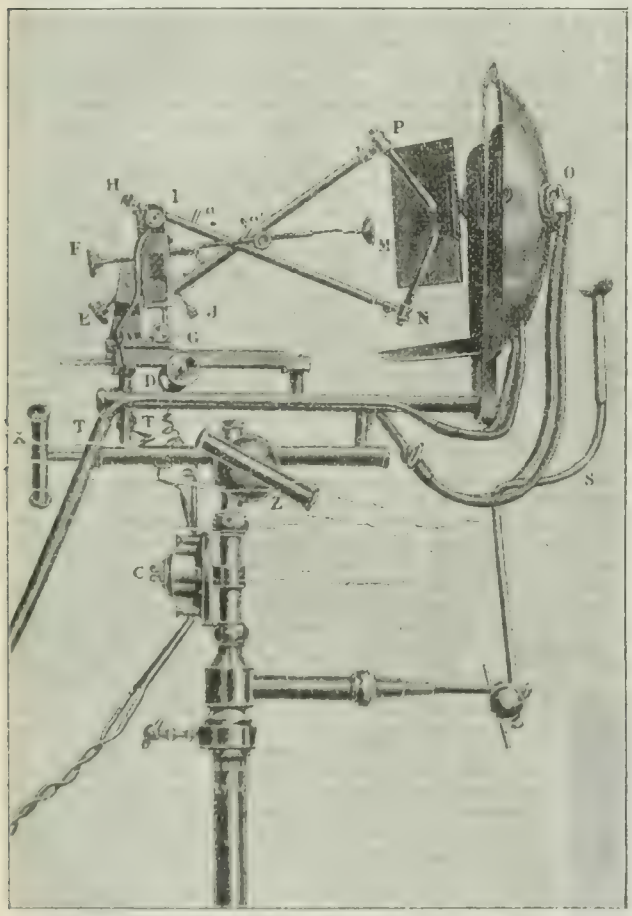


Fig. 1.—The Lortet-Genoud Lamp (from *Physical Therapeutics*).

THERAPEUTIC VALUE OF THE TREATMENT.

The opinion of experts as to the therapeutic value of the treatment may be estimated fairly accurately from the facts brought forward in the discussion in the Section of Dermatology at Cheltenham.[1] At the London Hospital, where the treatment is carried out by Dr. J. H. Sequeira, under the direction of Dr. Stephen Mackenzie, there have been 40 complete cures out of 214 cases of lupus (with improvement in all the others), giving about 18.5 per cent. of recoveries; Mr. Malcolm Morris has had 8 cures out of 36 cases (although 6 cases were unsatisfactory or unsuccessful), giving about 22 per cent. of recoveries; Dr. Noiré, who has been working under the direction of Dr. Sabouraud at the Saint-Louis Hospital in Paris, has had 5 cures (all in cases of localised lupus and each by five exposures) out of 20 cases giving a proportion of 25 per cent. of recoveries, while in 12 of the others there was marked improvement; and of 456 of Professor Finsen's cases 130 are known to have remained free from recurrence for intervals varying from one to five years after the treatment was discontinued.

[1] BRITISH MEDICAL JOURNAL, September 28th, 1901, p. 849.

ITS DRAWBACKS AND LIMITATIONS.

It is, perhaps, rather too much to say of the light treatment, with Dr. Sabouraud at the Cheltenham meeting, that there is "no other method that can compare with it." Yet it is probably not too much to say that the method even in its present stage of development, though not infallible, is the best means of treating lupus now available.

The main drawbacks of Finsen's original method of treatment are its cost and especially the time which it requires. Although his first apparatus, a hollow biconvex lens, filled with sulphate of copper solution and mounted on a pedestal, was inexpensive enough, it could be used only with a liberal supply of bright sunshine, which in northern latitudes cannot be depended on. In practice, therefore, it was found that as the source of the active chemical rays the electric arc light was all but indispensable, and this necessarily involved a considerable expense. The prime cost of a Finsen lamp is roughly about £100 and the cost of working it in this country for a year is about £500 or about two shillings for each patient per hour. Speaking generally, it is only large hospitals that can face such an outlay with equanimity. But in addition to the cost of installation and maintenance, the expense of carrying out the treatment is also high, inasmuch as the undivided attention of a specially trained nurse is needed for each patient. The duration of the treatment is of still greater importance, chiefly in regard to the patient, but also in regard to the staff. Each sitting lasts an hour and a quarter on, it may be, two or three hundred different days or even more. Thus the course of treatment for the patient means a substantial slice out of his life and the individual sitting for the nurse means an hour of constant strain of attention and a large amount of muscular fatigue. Among the poor, therefore, only those who have work in the

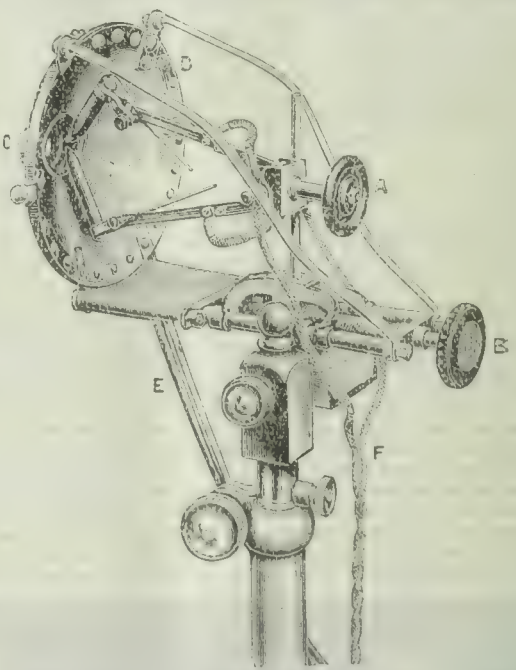


Fig. 2.—Lamp used at the London Hospital: A, screw for approximating and separating the carbon electrodes of the arc; B, screw for approximating the electrodes to the compressor, C; D, metal screen or shield, on the water jacket type, perforated for the compressor; E, india-rubber tubes circulating water to both the screen and the compressor; F, flexible insulated wires bringing a 12-ampère current to the arc.

neighbourhood of an institution or who have special means of support can avail themselves of the treatment, even when it is provided free. The limitations of the method are well known: hitherto it has been applied with distinct success to plane surfaces alone, therefore the mucous membranes have not yet been treated by it to any considerable extent, and it is too slow in its action for some cases, as an area only half an inch in diameter can be treated in one day. The disease, therefore, may be extending in one direction while it is being checked in another. For lupus other than that of the face (where an unsightly scar is so much undesired) and even for early localised lupus of the face it is contended that other methods are preferable, because, while giving almost as good results they are practically free from expense, and absorb much less time.



Fig. 3.—Lamp used at the London Hospital.

A movement is, however, in progress in the direction of removing these drawbacks, which promises a wider applicability of the method.

Indications for Improvement.

The electric arc lamp gives off both many heat rays, which for the purpose of the treatment are useless or even harmful, and many chemical rays—more in proportion than are contained in sunlight—which alone are valuable for the purpose. In the process of filtering the electric light through columns of cold water and layers of blue solutions to get rid of the heat rays, and in the process of converging and concentrating the remaining chemical rays, there is much waste of therapeutic energy. There are, however, two ways at least of meeting this scarcity of effective chemical rays: One is to bring the source of light—the electric arc—closer to the patient, so that fewer of the divergent chemical rays are lost; the other is to obtain an arc light richer in chemical rays than that obtained with the ordinary carbon poles; as the arc light is richer in violet and ultra-violet rays proportionally to its total energy than sunlight, so it is desired to obtain a light relatively richer in chemical rays than the ordinary arc light. Within the last year lamps have been introduced fulfilling both these requirements.

The Lortet-Genoud Lamp and its Modifications.

The objects of this lamp, which illustrates the first principle, an account of which was communicated by its inventors to the *Acaaémie des Sciences* in February, 1901, are



Fig. 4.—Lamp used at the London Hospital.

twofold: to obtain the chemical rays near their source before dispersion, and to protect from the heat rays. It consists (as will be seen from Fig. 1) of two carbon electrodes mounted on a stage, in front of which is a metal screen or shield, consisting of a water jacket in the shape of a basin having a central aperture, in which is fitted what is practically a Finsen compressor; also, of course, on the water jacket type. The patient's face is firmly pressed, by his own effort, to the outer surface of the compressor, so that the skin is within an inch of the arc light. The stage is mounted on a pedestal, and by means of a series of joints the whole lamp can be adjusted to any angle so as to fit the configuration of the patient's face and his posture.

Of this lamp several modifications have already appeared

(three of which—by Dr. Sequeira, Dr. Hedley,[2] and Dr. Stopford Taylor[3]—have been referred to lately in the columns of the British Medical Journal) for each of which slight improvements in point of detail are claimed. That now in use at the London Hospital, which was constructed by Mr. T. J. Smith, its Chief Engineer, has been patented by the hospital, and is represented in Figs. 2, 3, and 4, for which we are indebted to Dr. Sequeira. It is an improvement on the Lortet-Genoud lamp in that its pedestal and other mechanical parts are stronger in construction and more conveniently arranged, and that there is only one water circulation system. The metal screen (D), which is hollow for the circulation of cold water and nickel-plated so that it can be sterilised, is in the shape of a truncated cone, and the blunt apex of the funnel is formed by the compressor (C) and the interior of the screen and the cavity of the compressor are continuous. By using dark spectacles, the skin which is actually under treatment may be inspected through it from its inner surface. The lenses of the compressor are, of course, of quartz, so that the chemical rays are not intercepted, and the light is cooled by water circulating in its interior The actual connection of the tubes (E) with the screen and compressor are not shown in Fig. 2, but they are represented in Figs. 1, 3, and 4. In Fig. 2, A is the screw working metal rods arranged on the scissors principle which carry the carbon electrodes. During the sitting a nurse is required to work this screw, so that although the positive electrode is being burned away they may be kept at their proper distance for giving a suitable arc of light; this adjustment is required six or seven times during the sitting. (In the lamp described by Dr. Stopford Taylor in the British Medical Journal of September 28th, 1901, p. 907, this approximation is obtained automatically.) The screw B moves the frame carrying the arc, so that it may be advanced to a suitable proximity to the compresser; the distance is usually about an inch, if too near the risk of burning the patient's skin arises. The current from the main is carried by the wires F to the electrodes, and it is kept constant at 12 ampères by means of a resistance system and an ampèrmeter. As the patient himself presses his face against the compressor in order to render the skin bloodless there is need for a firm pedestal such as this lamp affords, and the system of joints shown in the figure (a feature of the London Hospital modification) gives a universal movement which allows the lamp to be adapted to the patient (not of necessity the patient to the lamp, as with the Finsen apparatus), as is shown in Figs. 3 and 4, one result of which is that the patient may always be in a comfortable posture. The type of the lamp is that of the stage lamp or a small searchlight of 1,500 candle power, as compared with 30,000 of the Finsen lamp.

The surface of skin affected by this lamp in each sitting is 1½ square inch—that is, thirty-six times as great as that by the Finsen method. The duration of the sitting is fifteen minutes, or one-fifth of the time necessary with the older method. The apparatus, costing about £20, is some five times cheaper to buy, and, using 12 instead of 90 ampères of current, three times cheaper to work. Of course only one patient can be treated by one lamp at the same time, while with the Finsen apparatus four are simultaneously treated, but each of the four telescopes can supply only one patient and requires one nurse. It has been said that the curative effect of the Lortet-Genoud lamp does not go quite so deeply as that of the Finsen lamp, but the more general opinion is that the absolute effect is as good, or even better—indeed, certain cases have been met with, it is stated, at the London Hospital, which, on account of the thickness of the skin, excessive pigmentation or other circumstance, were not amenable to the chemical rays obtained from the Finsen lamp, but gave a satisfactory reaction with the new lamp. At that hospital, at any rate, some of the large Finsen lamps are shortly to be discarded in favour of the new one which is made by Messrs. Marshall and Woods, of 2, Gray's Inn Road, W.C.

In a thesis presented by M. Lepont to the Faculty of Medicine of Paris for the M.D degree in July, 1901, on the treatment of lupus of the face by light, some results are recorded which were obtained with the Lortet Genoud lamp by Dr. Pautrier in Dr. Leredde's clinic. Seven cases of facial lupus are referred to, the first being that of a woman, aged 40, who developed the disease twenty-five years previously. For ten years it went untreated; then for three years it was treated at the Saint-Louis Hospital in Paris by scarification once a week. Under this treatment a slight improvement was manifest. During the next four years she received similar treatment three times a month with considerable benefit until recrudescence of the malady occurred. Whereupon she underwent treatment by the galvano-cautery three times a week for a year. After this she remained for two years without treatment until May 31st, when the Lortet-Genoud lamp was applied. At that time there was an area of lupus as large as the palm of the hand on the right side of the face. After ten sittings of fifteen minutes each had been given, about two-thirds of the area had cicatrised, leaving a bar on the upper and lower edges, each of which, although not then cured, was improving.

In the six succeeding cases the disease had first been treated by the Finsen method and subsequently with the Lortet-Genoud lamp. A woman, aged 32, had had for five years pain in and difficulty of breathing through the nose which became swollen, and eventually displayed lupoid disease that extended on the upper lip. She had been treated with ointments of resorcin, salicylic acid, creosote, etc., but never by scarification or cauterisation; the case was therefore practically untreated. She was then submitted to twenty-five *séances* with the Finsen apparatus, and with an interval to nine sittings with the Lortet-Genoud lamp. The reaction with the latter was more powerful, while it commenced a little later than when the Finsen lamp was used. Without any definite cicatrix having been obtained marked improvement resulted.

Another case was that of a woman who had suffered from a patch of lupus on the nose and another on the margin of the ear for about a year and had had no treatment of importance. After twenty-three *séances* with the Finsen lamp a very considerable improvement was visible, indeed the disease was nearly cured, but the nose retained a violet hue. She then received treatment with the Lortet-Genoud lamp on four occasions, each of fifteen minutes duration, and after eight days the colour of the nose had become absolutely normal. The author states that it is difficult to believe that a better result could have been obtained with any other method, and the pain, as is the rule, was absolutely *nil*.

The conclusions drawn from the other cases, whether the disease were localised or extensive, appear to be that while great improvement resulted from treatment with the Finsen lamp, the Lortet-Genoud lamp (which always produced a more energetic reaction) more rapidly brought about a cure or the degree of improvement obtained.

The Kjeldsen Lamp.

An illustration of the second principle of improvement is afforded by the lamp of the Danish engineer, Mr. Jacob Kjeldsen. He has met the difficulty of obtaining a high available energy of chemical rays from the total energy expended in the arc light by a method which has received the approbation of Professor Finsen. His lamp must be called an arc light, but it differs from the ordinary arc light in having one only of its poles a rod of carbon, the other being metallic mercury. The mercury is volatilised inside a chamber, and, the light evolved from the vapour of mercury being extremely rich in chemical rays, it is claimed that its bactericidal power is exerted in one-fortieth of the time required by the ordinary arc light with the same consumption of electricity. By this principle a light is obtained, although feeble in luminosity, much richer in the required chemical rays, and therefore cheaper to produce.

Dr. Bang's Lamp.

Similarly, Dr. Sophus Bang, Director of the Laboratory of the Light Institute at Copenhagen, acting on the principle that the spectrum of iron is extraordinarily rich in violet and ultra-violet rays, has constructed a lamp in which iron electrodes replace the carbon electrodes, and in which the electrodes themselves may be energetically cooled by water, either by having them hollow so that it may flow through them, or by having them suspended in a vessel containing water. In an account of his invention published in the *Deutsche medicinische Wochenschrift* for September 26th, 1901, p. 681, he states that he has been able to produce a lamp for local application with a compressing apparatus and a supporting mechanism, the whole not much larger than an ordinary tablespoon, which may be applied *in toto* to the skin, and costing, it is stated, about £3. While the light from an ordinary arc lamp can kill cultures of staphylococcus pyogenes aureus in four and a-half minutes, the light from his new lamp, using the same strength of current and similar conditions of experiment, can kill them in a little less than four seconds, thus giving a bactericidal power sixty times stronger than that of the ordinary arc light. It is stated that with his apparatus in both healthy and lupoid skins, a marked light erythema of many days duration may be produced with 5 ampères of current over an area 4 inches square in five or even in three minutes and as strong as that hitherto obtainable with 60 ampères of current in seventy-five minutes.

Economic Result of the New Principles.

By the Lortet-Genoud lamp the cost of the treatment has

[2] British Medical Journal, 1901, vol. ii, p. 621 (Illustrated).
[3] *Ibid.*, 1901, vol. ii, p. 907 (Illustrated).

been reduced from about 2s. in this country to about 2d. an hour per patient; and by the Bang lamp, which can be connected with any electric light installation, the first cost of the apparatus, if the accounts can be substantiated, has been reduced from £100 to £3. With the London Hospital lamp it has been found that by using electrodes made of copper and an alloy instead of carbon the time of sitting may be still further reduced to seven minutes and, as a matter of fact, experiments are being made with the object of fitting the new lamps that are in process of construction with metal electrodes. If the lamp of Dr. Bang reaches up to the expectations held out it will be practicable not only for every hospital but even for every medical practitioner to possess one, or even for one to be used at home by a private person. Whether his lamp approaches as near as may be at the present time to the ideal or not or whether it will prove a commercial success or not, it is at any rate, in the opinion of Professor Finsen, a move in the right direction. And it is not improbable that the final verdict as to what the principles enunciated by Professor Finsen are capable of, in their new and perhaps still undiscovered applications, is not yet possible.

THE REPORT OF MR. BRODRICK'S COMMITTEE.

By ROBERT FARQUHARSON, M.D.,
M.P. for West Aberdeenshire.

I.

I AM not a thick-and-thin supporter of Mr. Brodrick's scheme, nor do I damn it with or without faint praise, because the more I look at it the more I am convinced that in its conception and its somewhat confusing details it is fundamentally and radically wrong.

Far better results might have been attained by a wide development of the *status quo ante*, including better pay, position, and authority for the Director-General, and more liberal remuneration for the medical officer, with increased numbers and facilities for private and professional leave, and, if possible, some betterment of his relations to his social environment. Out of these simple materials I believe that a Warrant might have been constructed, which would have inspired confidence instead of suspicion, and, by maintaining the traditions of the service, would have rendered unnecessary the drastic changes which disturb the sentiment of many old-fashioned people like myself.

Coming now to details, I entirely agree with those critics who point out that under the new dispensation a very serious blow will be struck at the prestige and power of the Director-General. It is true that he is now to be a member of the Army Board, and that is a distinct gain; and Paragraph 18 of the Committee's report would seem to show that in some administrative respects he is to be supreme. But in spite of this, it will be difficult to convince the military medical mind that he is to be anything more than the mere head of an Advisory Board, whose opinion he must take, and whose consent he must obtain before he can say or do anything definite. In the days of his supreme and undivided authority, when his word was law and there was practically no appeal from his decision, all his best qualities were brought out, and a really strong man was usually found to be equal to the occasion. But now his responsibility is to be weakened and diluted, the very points on which immediate advice or decision are most urgently needed must now be talked over with his advisers, who only meet once a fortnight; and not only will he be regarded as merely the mouthpiece of others, but I can foresee a copious crop of delays and worries, and friction from the deliberations of the body over which he is to preside.

Here let me say quite definitely and decidedly that I entirely fail to see the necessity for the infusion of the civilian element into our future military medical deliberations. Their counsel and advice may be of the highest occasional value, and the surgical skill of the surgeons who went out to South Africa was highly appreciated by the army doctors and their patients; but to make them supreme over military arrangements, of which they can practically know nothing, to let them supersede old and experienced officers in hospital inspection, and, above all, to enable them to interfere in any way with the treatment of the sick, is to place a strain upon ordinary human nature which assuredly it cannot bear. If it is really necessary to have such a Board, would it not be better to compose it solely of experienced army surgeons, who have served or are serving, so as to give the Director-General a body of advisers something like what he has now on a smaller scale, or more elaborately after the pattern of the India Council, on whose advice the Secretary of State partly relies?

But it is claimed for the Advisory Board that it is representative, and yet it is quite clear that it is not representative enough. Sir W. Thomson has very properly demanded more seats for the various corporations and medical schools of the United Kingdom, and other protests will soon follow. And if this were granted what would be the inevitable result? A huge unwieldy body representing varied and occasionally conflicting interests, where Irish grievances will jostle Scottish rights, and where the predominant partner, England, may expect to have an occasional look in; where Guy's will contend with Bart's, where promotion may be hoped for by canvassing and international interest, and where at least so much debating facility may be attained as to make this newly-constituted body a serious rival as a variety entertainment to the House of Commons or the General Medical Council.

I can quite understand the necessity for some very definite alteration in our present system, if it can be shown that it has worked badly in the past, and given rise to confusion and failure at home and abroad. But although I have heard and read most of the severe criticisms on the medical conduct of the war, I have seen no successful attempt to disparage the services of the late Director-General. He has been most unfairly pitched overboard, to help the labouring Government ship over the waves of popular clamour; but it is on record that he pointed out early and often the dangerous undermanning of his department, and predicted disaster from it, and his dispositions and arrangements for the medical campaign have never, so far as I know, been called in question. Nor have I ever heard that any of his predecessors have failed in the successful discharge of their duty; and therefore I think I am entitled to say that no real case has been made out for the absolute break-up of a system which, considering some remediable limitations, has worked so well and smoothly in the past.

Now this new Warrant, for I suppose we shall some day see it appear in official form, is the bait by which the best and most finished article turned out of our medical schools is to be caught. Let us be under no illusions on this point. The men who take most advantage of their training, pass high on the honours list, and hold resident appointments, naturally have professional ambitions, and will look out for opportunities of gratifying them. They wish to become hospital physicians and surgeons, or to conduct general practices in the country where they can enjoy a good social position and vary the responsibility of practice by sport or other kinds of outdoor enjoyment, or they may get Colonial appointments or go into a public health career, where a fair income is the reward of interesting and responsible work.

Now what has an army life to offer in competition for this? An assured income undoubtedly, or at least partially assured, for dotted along nearly the entire course of his professional career grim ordeals stand in his way which he must face or retire into private life, and let intending candidates specially note that instead of the old and unrestricted right to retire on £1 a day after twenty years, the attainment of this period of service is marked by the stern necessity of passing a qualifying examination for promotion in ten different subjects, including law, history, and a bewildering mass of details which will rack the brains of the examinee, and test the ingenuity of the crammer, to whom he will necessarily fly for relief. Never forget the wise words of Dr. Clifford Allbutt, who, speaking out of the fulness of experience, tells us that the sponge-like faculty of rapidly saturating the brain with miscellaneous knowledge, to be squeezed out at examination times, is not possessed equally by all, and is lessened or even lost as time goes on. After twenty years hard service in all parts of the world, where few, if any, facilities are provided for professional improvement, the military medical officer is to be called on to submit to a test

which might make a professor of hygiene shiver in his shoes; and failure to satisfy the cravings of a possibly captious or priggish examiner means the wreck of his career, for he is without delay bundled out of the service, stamped with the brand of failure, and with an insufficient lump sum to solace his declining years.

But, if he struggles through all these tight places, I hardly think that his prospects are specially bright. As a rule, he will have very little professional work to do, and it will require long periods of study leave—which, by the way, are barely, if at all, defined in the report—to rub off the rust which, in spite of all his best efforts, must gradually accumulate. Even the moderate amount of medicine and surgery which comes in his way is to be rigorously and perhaps not too sympathetically criticised by a mixed Board, partly composed of smart young civilians, who will sit in judgment on what may be called his old-fashioned treatment, and perhaps a black mark placed against his name, under that detestable system of un-English espionage known as a confidential report. And even when he has attained the goal of his ambition and been promoted to administrative rank, the Advisory Board will again stand in his way, and will, if I read the report aright, take from him the responsible duty on which his position and authority depend, and reduce him to act as a head clerk, registering with official monotony the decisions of his superiors.

As an offset to all these worries and anxieties we can no longer place the social advantages formerly enjoyed by the army doctor. The regimental system was out of gear with the conditions of modern warfare and had to go, but with it went the pleasant family life, enjoyed by doctor and his purely military colleagues alike, and it is unhappily too evident that there is friction and bad feeling between these two branches of the service which used to work harmoniously together. The poor doctor has now no assured position at mess or elsewhere, he is persistently blackballed at the military clubs, and his future increase of pay and the definite rank so unanimously granted will only, I fear, make matters worse, and for these there is, unfortunately, no official remedy.

But there is a brighter side to the picture. A fixed income with definite duties and a liberal retirement, opportunities of seeing the world apart from the anxieties and responsibilities of private practice, coupled with the possible chance of decoration and distinction, should attract fairly good men short of the very best: and here let me say that the alleged need for these changes has not arisen from the necessity of getting a much higher stamp of men than those who are now serving and have served. All really competent military critics have praised in the highest terms the skill, devotion, and bravery of the medical staff in South Africa; and I do not think that we can ever expect their professional attainments to be higher than those of the general practitioners, who so justly enjoy the confidence of their patients, who are prepared to treat practically and successfully the ordinary class of cases met with in professional life, and who know when it is necessary to summon specially trained skill to aid them in the higher emergencies.

(To be continued.)

THE PREVENTION OF CONSUMPTION.

German Sanatorium for Consumptives of Limited Means. The Nassau Sanatorium Association for Consumptives at Wiesbaden has in November last opened a new sanatorium at which the cost is such as not to exclude patients of limited means. The establishment is situated on the southern declivity of the Taunus, between Naurod and Niedernhausen, one mile from the railway station of Niedernhausen, and about four miles from Wiesbaden. The site is about 930 feet above sea level, amidst beautiful woods, with a wide view over the plains of the Rhine and Main, and sheltered by wooded heights on the north, west, and east. Patients of both sexes are admitted, and unsuitable cases are as far as possible excluded by a preliminary medical examination. The prices are from 4 to 5 marks a day, inclusive of medical advice, baths, douches, etc.; but medicine, wine, any special attendance, and washing must be separately paid for. A small charge is likewise made on admission to cover the cost of thermometer, charts, disinfection of linen, sputum flask, and carriage between the sanatorium and railway station. There is, doubtless, a demand for more sanatorium accommodation for patients of very limited means, both on the Continent and in England, and the opening of the Naurod establishment is a step in the right direction.

PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

The distribution meeting of the Council of the above Fund was held on December 21st, 1901, at York House; His Royal Highness the Prince of Wales occupying the chair. Eighteen members were present.

Mr. J. G. Craggs, in the absence of Lord Rothschild, presented the financial statement, according to which the Fund had received during the year from all sources £53,026 9s. 11d., exclusive sums for the Coronation gift, and of certain reversionary legacies, not yet available, among which was one of £23,000 from the late Mr. B. C. Hirsch. The proposed awards to the hospitals would absorb all the sums collected this year without entrenching on reserve.

Mr. H. C. Smith presented the report of the Executive and the Hospitals Distribution Committees. The total receipts up to December 16th, 1901, had again shown an increase, amounting to about £3,000 over those of last year. For 1898 the receipts were £39,272; for 1899, £48,536; for 1900, £51,549; and for 1901, £52,769; including corresponding periods. The League of Mercy had this year contributed £7,000, being an increase of £1,000 on last year. The sum recommended for division among hospitals was £50,000, being £1,000 more than last year, together with £1,000 given by the London Parochial Charity for convalescent homes. The trustees of the Frank James Memorial Home have offered to the Fund the gift of the home at Cowes, supplemented by a most generous endowment by Mr. Arthur and Mr. William James of £10,000. The Visiting Committee had visited 85 hospitals and the Distribution Committee recommended awards to 79. Of the 6 left out, 1 is an excellent institution not in need of assistance this year; the other 5 required either reconstruction or rebuilding. The Committee recommend this year the reopening of 34 beds now closed for want of funds, making a total of 321 beds reopened and maintained by this Fund since its commencement in 1897. Last year the attention of the Committee was directed to the objections, hygienic and general, which apply to a requirement enforced by some hospitals whereby the in-patients have to provide certain articles for themselves, such as a supply of tea, sugar and butter, changes of personal linen, washing, etc. In cases in which the hospitals have seen their way to abolish these requirements in return for the comparatively small extra grants given by this Fund, the Committee have again recommended such grants to be given; but in view of the fact that very great objection has been raised in certain of the larger hospitals to the abolition of these requirements, further steps in this direction have not been recommended at present.

The Prince of Wales, in responding to a vote of thanks for presiding, said that it was both a great honour and a great pleasure to him that the King should have nominated him his successor as President of his Fund for the hospitals of London, which was inaugurated by His Majesty, and which after January 1st would be known as King Edward's Hospital Fund for London. It was unnecessary for him to say that he should take and did take as keen and great an interest in the undertaking as His Majesty himself had done and still did.

We regret to have to record the death of Mrs. Blackman, who acted as Secretary of the Ladies' Committee during the annual meeting of the Association at Portsmouth in 1899. She was the wife of Dr. J. G. Blackman, of Portsmouth.

The Suppression of Quackery in New York.—The Medical Association of Greater New York recently appointed a Committee of five to submit a plan of action for the repression of quackery throughout the State. When the plan is ready it will be presented to the different medical societies.

CONTRACT MEDICAL PRACTICE.

BIRMINGHAM AND DISTRICT GENERAL MEDICAL PRACTITIONERS UNION.

DR. E. D. KIRBY, 106, Hagley Road, Edgbaston, Birmingham, Honorary Secretary of the above Union, writes:

SIR,—The interest that is at present shown on all sides in the question of contract practice persuades me that the accompanying form may be of more general use than that for which it was originally designed. The Council of this Union during the past year has received statistics of club practice from certain of its members. These figures, though only small, have been sufficient to show that enormous differences exist between various societies in the rate per patient that is paid to medical men. Several factors are found to explain this, of which the rate paid per head appears to be only of minor importance. The others are: (1) (and most important) the average age of the members; (2) occupation of members: (3) whether there is one medical man or many on the staff of the institution. In the latter case the rate of pay is not so good as in the former, on account of the relative ease of access, for the nearer the patient is to his doctor, the oftener the doctor's advice is sought.

It is, therefore, unfair as well as unwise to ask all clubs to pay the same annual rate per caput to their medical attendants. Even if 5s. per head was the stipulated rate, many clubs would not pay at this figure, no not at 10s. per head, while others would pay well. It is the idea of the Council that each club should be asked to pay such a rate per head as will give a fee of 2s. 6d. a visit, and 1s. 6d. for consultation to the medical man, and allow a margin of some 20 per cent. for error. The only way this can be done is for the medical staffs of Friendly Societies to take statistics for themselves: nobody else can do it for them, and this is what will be done during this year by a large proportion of the men in this union who do contract work. It is in the hope that other local medical associations will take the matter up that I write this, and I shall be pleased to give further information to any officials of such associations should they desire it.

Name of Society .....

.....

Rate of Payment per Head.....

Month.	Visits.	Consultations and Medicine.	Salary. £	s.	d.
January ...					
February ...					
March					
April					
May					
June					
July					
August					
September ...					
October ...					
November ...					
December ...					
Total ..					

One-third of Salary to be set aside for Visits.....

Two-thirds for Consultations and Medicine.....

Rate of Payment per item (Consultation and Medicine).....

Rate of Payment per Visit.....

Signed.....

WEST AUSTRALIA.

WE have received from DR. T. G. DAVY, of Fremantle, President of the West Australian Branch of the British Medical Association, a letter in which he states that a conflict has arisen at Fremantle with regard to clubs. The clubs threaten to create an institute, and the arguments and threats used are of the usual kind. Dr. Davy further informs us that a special local committee, of which he is the organising secretary, has been formed, and that the profession is quite unanimous. This information will, we have no doubt, be noted by any medical men in this country who might be approached by the promoters of the proposed club institute in Fremantle.

THE ATTITUDE OF THE THOUGHTFUL CLUB MEMBER TO THE MEDICAL PROFESSION.

DR. T. WILSON PARRY (Youlgreave) writes: A few days ago I received a letter from a working man in this village, a bachelor, who keeps house with another bachelor who was at that time ill. The letter interested me exceedingly, as it showed me that the thoughtful working man could, when actuated by the right spirit, exactly sum up the relationship between a conscientious medical man and his club patient. I may mention that I said nothing to either of the men about the doctor being in any way insufficiently remunerated for his services, so the letter came, in a particularly striking manner, to bear witness to the point in question. I had found it necessary for my case to employ hot antiseptic fomentations every two hours, medicine to be given every four hours, and some ointment as well to be applied for another purpose. The bachelor friend of the patient had evidently been quietly observing not only the time and trouble that had to be devoted to the proper management of the case, but that very definite expense entailed on the doctor himself in attending to the case in a right and proper manner. Here is a copy of his letter:

December 17th, 1901.

Dear Sir,—Do your level best for S—, and I will see that you have proper remuneration from him. I think it preposterous for club people to have your best professional services for a paltry 3s. per year. I have had it in my mind for some time to discuss the question at the Lodge.—Very sincerely yours, W. G. C.

The spontaneity and sense of justice of this letter were particularly pleasing to me, and I hail it as a good omen for the profession that halcyon days are evidently coming when the members of a sick club will take a pride and pleasure in paying their medical officer an adequate remuneration for his services, in the same way as he, in his turn, takes both a human and scientific pride and pleasure in doing his best for the club patient committed to his care without letting the thought of "money" influence the field of treatment whatsoever. But alas, Sir, Utopia is not yet!

CONTRACT PRACTICE IN NORTH WALES.

DR. HUGH JONES (Caerffynon, Dolgelly, North Wales) writes on behalf of his colleagues to call attention to a dispute between the medical practitioners of Dolgelly and the Friendly Societies of the town. He states:

In the past all the Friendly Societies have been attended by one firm at the rate of 3s. 6d. per member per annum. During the past year the Societies have had a movement on foot to alter their rules so as to allow each individual member to choose his own medical attendant, of whom there are five in the town. In the face of these proposed new conditions the medical men met in friendly conference, and decided that 5s. annually per member would be a fair remuneration, and an intimation to this effect was sent to the different Societies. The latter, however, have unanimously rejected these terms as being exorbitant, and I regret to say that they have found a medical man willing to accept their offer at a rate which all five resident practitioners have refused.

We trust that the statement in the concluding sentence of Dr. Hugh Jones's communication may turn out to be erroneous, or that if the medical man referred to has entered into some preliminary understanding with the Dolgelly Friendly Societies he will reconsider his position. If he persists in accepting the terms offered his conduct can only tend to support the contention of the Societies that 5s. a year is an "exorbitant rate; it is difficult to understand how any medical man who has candidly considered the matter can really entertain this opinion. The point has been very frankly discussed in the BRITISH MEDICAL JOURNAL by Dr. Alban Moxon (November 23rd, p. 1542) and others, and it is now abundantly clear that such a rate as 3s. 6d. is unremunerative, and that the Friendly Societies by offering such a rate seek to become dependent on the charity of the medical profession, and thus violate the main principle of their constitution. Apart from this it seems to us deplorable that any medical man should, after being, as we understand, made acquainted with all the circumstances, have deliberately set the recognised opinion of his medical brethren in the locality at defiance.

TRADES AND FRIENDLY SOCIETIES AND THEIR DOCTORS.

UNDER this heading a letter recently appeared in the *Sunday Chronicle*. The writer draws attention to the irony involved in the present relations between Friendly Societies and their doctors. He points out that the former are vehemently opposing the granting to their doctors that which was their own *raison d'être*—namely, a living wage. He shows the difference between medical practice now and at the time when club rates came into existence. The best remedy for the evil, in the opinion of the writer, is the abolition of the contract system, the payment for work actually done, and allowing club members to choose their own doctors, the clubs paying an increased sick allowance to the members. There can be no doubt that the contract system has become a bane to the profession, and few would regret its abolition. This result will probably gradually come about in the future, as the profession becomes more united, if the various clubs and Friendly Societies do not show themselves more amenable to reason than they have hitherto done. The contract system is in many ways an advantage to Friendly Societies, but it would have been better for the medical profession if it had never gained its present proportions. In the course of time, however, it has become so deeply rooted in our midst that it is not likely to be easily shaken: and to work for its reform rather than its abolition may be the more politic course to adopt.

THE POLICY OF "THOROUGH."

J. D. writes: I believe I was the first to suggest what is now styled a policy of "Thorough" as to contract practice, for when you inserted a letter of mine on the subject in the BRITISH MEDICAL JOURNAL of March 30th, 1901, you implied that the proposal was novel by heading my communication "Can Contract Practice be Abolished?" I therefore welcome your article in the JOURNAL of December 21st, 1901, as a step in the right direction. I firmly believe that club practice does to the medical profession more harm, moral and material, than any other of the abuses of which we are the victims, and the sooner we see the end of it the better for us. I quite agree with you that thrift among the working classes is to be encouraged, but I do not see why it should be encouraged at the expense of the medical profession as a section of the community. What is wanted in the place of club practice is an arrangement between the Friendly Societies and their members, whereby the former undertake to pay all doctors' bills incurred by the latter with whomsoever they please, or to supply them with sufficient funds for the purpose. Of course there would have to be well-defined rules and restrictions to guard against abuse and imposition, but there should be no insurmountable difficulty on that score. In the meantime your suggestion that the adherents of the policy of "Thorough" should study the question in all its details and formulate some plan is a very wise one, and for that purpose I should like to see the formation of a society for the abolition of contract medical practice. Such a society I would gladly join and work for to the best of my ability.

ONE SHILLING A MEMBER A YEAR!

CADET asks our advice under the following circumstances: He is the medical officer to a section of the Sons of Temperance. This Society admits members from the age of 1 year up to 16. There are no sick benefits during life, but a sum is payable at death, and the members are entitled to medical attendance during illness. They pay 1d. a week, and the medical officer receives 1s. annually per member. No "touting" or advertisement of any kind, he says, is carried on by the society. He further states that he has sent in his resignation, but is promised a higher rate of remuneration, probably 2s. a member, if he will retain the post. He wishes to know if he is in any way affected by the recent decision of the General Medical Council.

**** If our correspondent is correct in believing that there is no "touting" or advertisement of any kind, the recent decision would not affect him. He will do well, however, to adhere to his resolution to resign the appointment. Even if paid 2s. per member, the rate of remuneration is absurd. No one could possibly get any profit out of such payment if he conscientiously performed the duties he had contracted to discharge.

CHARGES FOR DRUGS.

C. B., who admits that as a general practitioner in London he has small experience of clubs, writes to suggest that the abuse of clubs might be checked were a small charge made for each bottle of medicine supplied. I would, he writes, suggest the sum of 6d., or perhaps in very poor districts of 4d. The patient spends much more than this on beer every two or three days. Under such an arrangement I feel sure that the club doctor would find his attendances less numerous—of this I once had experience myself in a small way—and further, the drug bill would no longer be a charge on the somewhat slender contract receipts. In places where there are hospitals the club patient would still obtain his [illegible] desires, even as at the present time in London, [illegible] by their apathy foster this grossest of hospital [illegible]. When actually ill and requiring a certificate the patient would go to his club doctor, would have more respect for the latter's opinion as to [illegible] and would, I believe, willingly pay the 6d. for his three [illegible] medicine.

CLUBS AND FRIENDLY SOCIETIES.

[illegible] writes to express satisfaction with the decision of [illegible] Council in the matter of the National Medical Aid [illegible] and continues as follows:—"What about clubs and [illegible] are they not practically medical aid societies? Do [illegible] members? A person cannot become a member of [illegible] without contributing to the surgeon's fund, and therefore [illegible] patient. The small fee paid annually for medical attendance is held out as special inducement for people to join the membership, and the skill of the lodge surgeon set forth in glowing terms. In the majority of friendly societies the secretary makes it one of his duties to canvass his friends or others in the district to become members, and thus touts for patients. Of course it is true members are not compelled to accept the services of the society surgeon, but they must pay into the fund for him, and if they call in another doctor they must pay him out of their own pocket as the society won't. How do surgeons obtain these appointments? Do representatives of the societies call upon them and invite them to become their medical officers? In some cases this is so, but in a very large proportion of cases the surgeon enlists the services of his friends to canvass the members, even going the length of shunting the medical officer in charge of the lodge. As to clubs, the man who goes his rounds collecting the weekly payments extols the merits of his employer, and solicits the patronage of the people in his district. The above picture is no invention, but one experienced in England and Scotland."

THE ADVERTISEMENT OF AN INDUSTRIAL ASSURANCE COMPANY.

A CORRESPONDENT calls our attention to an advertisement which appeared in a recent issue of the *Birmingham Daily Post* for a duly qualified medical officer to a local registered industrial assurance society. We would advise any medical man who may think of answering this advertisement to make careful inquiry as to the mode in which the society is conducting its business, and as to the reasons for advertising, having regard to the recent action of the General Medical Council in connection with the National Medical Aid Company, Limited.

LUNACY IN SCOTLAND.

THE forty-third annual report of the General Board of Commissioners in Lunacy for Scotland consists of 18 sections and 4 appendices.

NUMBER OF INSANE PERSONS.

On January 1st, 1901, there were 15,899 insane persons in Scotland, of whom 2,395 were maintained from private sources, 13,458 by parochial rates, and 46 at the expense of the State. Since 1858 the number of lunatics under the jurisdiction of the Board has shown a total increase of 10,075, or 173 per cent. The increase of the population during the same period has been 42 per cent. The proportion of pauper lunatics per 100,000 of population shows an almost steady increase since 1858, and at the beginning of this year attained its highest figure of 308, as against the next highest—304, which was attained last year. During the last 27 years the proportion of private patients to population remains practically the same. The whole number of voluntary patients admitted into asylums in 1900 was 84. The Commissioners continue to be of opinion that it is a useful provision of the law which permits persons who desire to place themselves under care in an asylum to do so in a way which is not attended with troublesome or disagreeable formalities.

RESULTS OF TREATMENT.

The following tabular statement shows the percentages of recoveries for the quinquenniads 1890-94 and 1895-99, and for 1900.

Classes of Establishments.	Recoveries per Cent. of Admissions.		
	1890-1894.	1895-1899.	1900.
In Royal and District Asylums ..	39	37	38
In Private Asylums	38	38	44
In Parochial Asylums	43	42	60
In Lunatic Wards of Poorhouses ..	7	5	4

The number of private patients discharged unrecovered was 131, which is 2 below the average of the five years 1895-99. The number of pauper patients discharged unrecovered was 387, being 15 below the average for the five years 1895-99; 170 private patients (25 more than the average of the previous five years) and 958 pauper patients (139 above the average of the previous five years) died in establishments during 1900.

During the year 24 licences were granted by the Board for establishments. The whole number of escapes during the year was 190, lower than the average of the last ten years. Section 5 reports the present condition of establishments for the insane. Only three private asylums exist in Scotland; 124 private lunatics were provided for in private dwellings with the sanction of the Board, and 2,669 pauper lunatics. The results from this form of treatment have been "wonderfully beneficial," and have ended "in not a few cases in com-

plete recovery." There is a want of accommodation for the poorer class of private patients.

GENERAL PARALYSIS.

Section 10 gives the deaths from general paralysis of the insane. The figures show that, beyond a slight increase in the percentage of those who died from general paralysis after a residence in asylums of under one year, and a diminished record of deaths from that cause of patients who had been resident for over five years, no noteworthy change had taken place between the earlier and the later period. The thirty-eighth annual report showed that "patients seldom, or perhaps in true cases never, recover from it, and, once placed in an asylum, they, speaking broadly, remain there till death takes place. In some cases the malady may not appear or may not be definitely recognised till after admission; but on the whole it may be said that the number of deaths from general paralysis is the same as the number of those who were labouring under it or who bore its seeds on admission." Of the patients who died of general paralysis, 77 per cent. had been resident for less than two years, and 91 per cent. for less than three years. The statistics show the rareness of the occurrence of general paralysis among female private patients, and the fact that a larger proportion of females coming from large towns are affected with it than of males drawn from rural districts. This seems to indicate that the greater prevalence of this disease among the male sex does not necessarily prove a greater inherent liability of that sex to the disease, but merely points to the fact that the male sex is much more exposed to the injurious social influences which cause it. "It is to be regretted," the report says, "that we are unable to make any use of the returns of the Registrar-General in connection with the examination of the statistics of this characteristic disease, as the figures relating to it are tabulated under the heading 'Insanity, General Paralysis,' and the inclusion of the indeterminate word 'insanity' opens a wide door to the admission under the heading of deaths which are due to other causes than general paralysis of the insane."

THE PATHOLOGICAL LABORATORY.

Section 11 deals with the work of the pathological laboratory of the Scottish asylums. That has already been fully reported in the BRITISH MEDICAL JOURNAL.

DIETARIES.

Section 12 is on dietaries in asylums, regarding which inquiry was being made during 1900. Dr. J. C. Dunlop has furnished the Commissioners with a report on the dietary of pauper lunatics in Scottish asylums, and this will be published as a supplement to the main report.

COST.

Section 13 discusses the cost per patient in district asylums of land, building, food, clothing, management, etc. This in 1888-89 was £34 6s. 2d., while in 1899-1900 it had risen to £41 4s. 4d. The assessments on counties and burghs per head of patients is given from 1880 to 1900. During 1899-1900, 12,901 pauper lunatics were treated and relieved at a cost of £326,116. There has been a very considerable rise in the cost per patient in institutions since the Lunacy Act of 1857. This has been partly due to such causes as increased price of food, and also to the fact that Royal asylums, which in the earlier years maintained pauper lunatics at rates involving loss, raised the rates from time to time. The expenditure rose until 1874-79, whence it fell until the year 1895-96, when a rise, which still continues, is again shown. The general average rate of maintenance of pauper lunatics in establishments is shown to be 1s. 4¾d. a day, which is ½d. above that for the previous year.

CONCLUDING SECTIONS.

Dangerous lunatics, alien lunatics, lunatics under judicial factors, and circular letters on various points are the subject matter of the concluding sections of the report.

THE Italian Hospital in Queen Square has received an anonymous promise of £500 in "grateful recognition of Italy's friendship to England, especially during the present war."

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 15th day of January, at 2 o'clock in the afternoon.

Dec. 19th, 1901. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on January 15th, April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at the Infirmary, Whitehaven, on Friday afternoon, January 17th. Members intending to read papers, show cases, etc., and gentlemen desirous of joining the Branch, are requested to communicate as early as possible with the Honorary Secretary, W. F. FARQUHARSON, M.D., Garlands, Carlisle.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—A meeting of this District will be held at the Station Hotel, Sandown, on Friday, January 24th, at 3.45 P.M. Members intending to read papers, or show cases, etc., and gentlemen desirous of joining the Branch, are requested to communicate as early as possible with the Honorary Secretary, G. BENINGTON WOOD, M.B., Newlands, Sandown.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Athenæum, George Street, Plymouth, on Tuesday, January 14th. The chair will be taken at 3 P.M. by the President, Mr. G. Thom. Luncheon will be provided at Risdon's Restaurant, 38, George Street, from 1.30 to 2.30 P.M., and tea will be served at the same place after the meeting.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

THE first meeting of the season was held at Arundel on December 10th, 1901, Dr. EUSTACE in the chair. Nine members were present.

Confirmation of Minutes.—The minutes of the Worthing meeting were read and confirmed.

Next Place of Meeting.—It was decided to hold a meeting conjointly with the East Sussex District at Brighton in March, Mr. Simpson (Worthing) in the chair.

Cases, etc.—Dr. HINDS showed a neuroma taken from the radial nerve of a man suffering from Addison's disease.

Papers.—Dr. CALEY (London) read a paper on inflammatory disease in the region of the diaphragm, dwelling more especially on the difficulties in diagnosis.—Dr. EUSTACE (Arundel) read a paper on the treatment of heart disease. Dr. LAPTHORN (Littlehampton) read a paper on a case of retention of urine

in an infant caused by a rapidly-growing sarcoma in the region of the neck of the bladder, and on two abdominal cases.

Dinner.—After the meeting five members dined together.

SPECIAL CORRESPONDENCE.

SYDNEY.

A Case of Bubonic Plague.—The New President of the Intercolonial Medical Congress.

A CASE of a suspicious nature was reported in the middle of November to the Board of Health, and after careful bacteriological examination it has been proved to be one of true bubonic plague. The patient, a youth aged 17, was engaged at work in a produce store in the city; when taken ill he was visited by a medical man, who recommended his removal to the Prince Alfred Hospital. There he was visited by an expert from the Board of Health, who ordered his removal to the Quarantine Hospital. Meanwhile some serum was taken from the enlarged gland in the right groin, and cultures obtained from it were proved to be those of the bacillus pestis. No bacilli were obtained from the blood. The patient is now convalescent, and no other case has been reported up to the time of writing. The Health Department of the City Municipal Council is actively co-operating with the Board of Health in a crusade upon rats, and the rat-catching staff of the City Council has been reorganised. It is somewhat remarkable that so far no rats infected with the plague have been discovered.

The Executive Committee of the Sixth Intercolonial Medical Congress to meet at Hobart, Tasmania, in February next, has elected the Hon. Dr. Gamaliel Henry Butler as President, in succession to the late Dr. R. S. Bright, who died recently.

NEWCASTLE-UPON-TYNE.

Royal Infirmary: Old and New.—Dr. Thomas Beattie.—Lying-in Hospital.—Earl Grey and National Physique.

THE enormous increase in the population on both banks of Tyneside is making considerable demands upon the in-patient capabilities of the Royal Infirmary. The wards are constantly overfull. In consequence of the large number—especially of women—waiting for admission patients are obliged to leave the hospital earlier during their convalescence than the physicians and surgeons consider advisable. The new infirmary proceeds apace. There was some delay a few months ago, but recently there have been signs of greater activity. The large area of ground is now surrounded by a well-built wall: the lodge has been built, and is inhabited by the clerk of the works, who is thus always on the spot. It will be fully three years yet before the building is completed, providing that no trade disputes arise to check ordinary progress. If there is one need that is felt to be more pressing than another it is house accommodation for the infirmary nurses. A special block is being built on the new infirmary ground on the Leazes for the nurses. From a health point of view the site selected has much to commend it, facing, as the infirmary will, the pretty Leazes Park and Gardens.

Much sympathy is felt by colleagues and infirmary students for Dr. Thomas Beattie, who has been obliged by ill-health to go to Switzerland, and relinquish work for a few months. It is gratifying to know that the best hopes are entertained of his complete recovery. The best wishes of friends and students accompany him into his temporary retirement. In his absence from Newcastle his pathological work at the infirmary will be discharged by Dr. Robert A. Dolan, Assistant Physician, and one of the Lecturers on Physiology at the College of Medicine, aided by Dr. James Muirhead, Senior House-Physician, while his out-patient work will be undertaken by Dr. Hardcastle, the Medical Registrar.

Shortly after Dr. Nesham's death a movement was set on foot to erect a memorial to this much respected practitioner and esteemed Lecturer on Midwifery at the College of Medicine. A sum of upwards of £1,300 was realised. With this several important improvements and additions are being made to the Lying-in Hospital. The interior of the building has been considerably changed. A new wing has been built at the back, on the upper storey of which is a ward to contain 8 beds; this will give a total of 15 or 16 beds. One of the present small wards is being converted into a "delivery" room. The hospital, on account of structural alterations, has had to be closed for the last three months, but it is expected that the wards will be again ready for patients towards the end of January. The alterations that are being made will bring the hospital up to date, replete as it will be with every convenience not only for the patients, but for the instruction of medical students in practical midwifery.

Attention was directed in the BRITISH MEDICAL JOURNAL of December 28th, 1901, to the systematic weighing and measuring of our school population as a means of assessing from the physical point of view our national progress or deterioration. Northumberland and Newcastle-on-Tyne, where Earl Grey is held in high repute, have taken the matter up. Already a provisional Committee has been formed composed of his lordship, Mr. W. A. Watson-Armstrong, Mr. Plummer, M.P.; Professor T. Oliver, M.D.; Principal Garney of the College of of Science; Mr. Logan, Head Master of the Newcastle Grammar School, and others whose programme of action it is to be hoped will be announced on an early occasion.

CORRESPONDENCE.

LIFE INSURANCE AND MEDICAL FEES.

SIR,—I have read with much interest the letter of Dr. Selfe Bennett on the subject of fees. It seems that insurance offices are conducted in a purely commercial spirit and on a money-making basis, whilst the old principles of insurance have altogether departed. Having often talked over the subject with some distinguished actuaries, they have said that it is no part of the duty of the office to pay the medical fee for any life proposed. In the original insurance societies a number of persons, generally of moderate means, subscribed small sums annually to form a deposit to be used for the families of those members who died. Any new member proposed was obliged to bring certificates of good health from his medical attendant, whom he no doubt paid. The cost to the society was mostly of a clerical kind, except that of the medical man who examined the certificates, and, if necessary, the proposed life. All the premiums paid by members belonged to the society, and as it was found that money was accumulating, the surplus was divided every few years amongst the insurers.

When it became clear to speculators and financiers that such a mutual insurance association was working at a profit, they thought they might exploit it as a profitable business. So they started insurance offices for their own benefit; leased a large house, sent out advertisements speaking of the advantages of joining the new office, paid agents to tout, and gave good fees to solicitors and others for procuring them business. If the scheme answered, good profits were made, and these went into the hands of its promoters; large fees were given to directors and other officials, and the medical attendant of any new life was paid a fee for his report. This, as I have before said, was declared by the actuary of a large office to be against all principle, as it ought to be paid by the "life." He said the same of agencies and other methods used to gain custom. It is evident that if a mutual insurance society is working for itself it possesses all the profits. At the present time these to an enormous amount go into the hands of those who exploit an institution founded on the basis of thrift and for the advantage of those who formed it. Now, since the whole business of insurance has become a commercial concern and all its true principles have gone, the medical man has little else to do than offer himself to the office who makes with him the best terms.

I have in my mind the case of an office which sought for custom by giving the doctor a double fee; it did not last long. In another case an old-established office which paid the insurers a good bonus every five years was stimulated by the practice of the time to enlarge its premises, to begin to advertise largely, and employ agents throughout the country.

It soon increased its business threefold, but at the next division of profits the bonus was a small one: all the profits had gone out of the hands of those who supplied the means into those of the officials. Another case I think of is that of an insurance company which has its agents in every small town and village of England, and which advertises its capital as consisting of millions. Who has gathered the fruits? There are men now living in wealth and affluence upon the proceeds of the institution; but what of the mass of poor people who supplied the means of enriching them? When one thinks of the old-fashioned mutual insurance intended for the benefit of its members, and now how speculators can make use of it to put the proceeds into their own pockets, there apparently exists a great social scandal, and a remedy ought to be found. Whatever common sense or justice dictates, I am told that financially the system is quite correct.—I am, etc.,

Hampstead, N.W., Dec. 23rd, 1901. SAMUEL WILKS.

SIR,—I read with much interest the letter of Dr. Selfe Bennett on the above subject in the BRITISH MEDICAL JOURNAL of December 21st, 1901, and it was refreshing to learn that there are still a few members of the medical profession who refuse to have their brains picked by insurance companies without due recognition of the fact.

Why cannot all medical men combine to protect their own interests in these cases? They have not the excuse that they are acting in the cause of charity or philanthropy; they are merely swelling the funds of insurance companies at their own expense by taking small fees.

We all know that the insurance companies offer small fees because they know they can always find plenty of men to accept them. Why should this continue? The examination of a person for life insurance is practically a consultation between the examiner and the company. The insurance companies are dependent for their very existence on medical advice. Of course, there are many glaring cases of illness which do not require any skilled medical knowledge to recognise; but what about the other numerous and important class of cases which cannot be recognised without careful examination—such cases as early phthisis, Bright's disease, forms of heart disease, diabetes, and numerous others which will occur to everyone? Where would the insurance companies be in all these cases without the knowledge derived from the brains of their medical examiners; and not only from their brains, but from their special knowledge in many cases?

I remember the case of a gentleman, aged 35, a patient of mine whom I had attended twice for delirium tremens, a successful business man, a pillar of his chapel, a composer of hymn tunes and words which were regularly sung, a model father and husband, a most temperate man in everything except—in this fact, and this was at long intervals. Nobody but his wife and myself knew from what he suffered. One day, not very long after the second attack of delirium tremens, and when "Richard was himself again," I was asked by an insurance company to examine him, as he wished to increase his policy. I wrote the company stating that my fee was 21s., and that I mentioned this fact *before* the examination as I had found it was no use to do so afterwards. They refused to pay more than 10s. 6d., which I declined. To cut a long story short, this gentleman was examined by somebody else who knew nothing about the "skeleton in the cupboard." He was passed, and cut his throat within two years in another attack of delirium tremens. Surely a minimum fee of one guinea is small enough for these rich companies to pay their medical examiner in every case.—I am, etc.,

December 30th, 1901. FAIRPLAY.

THE WILLIAM SMYTH FUND.

SIR,—On the 18th inst. the members of the Thames Valley Branch of the Association, on the suggestion of the Secretary, Dr. Langdon Down, and myself voted five guineas to the fund for the widow and orphans of the late Dr. Smyth.

I was directed to ask you to be good enough to publish the fact in the hope that it may lead to similar action on the part of each Branch of the Association.

If ever there were an occasion when Christian charity and duty were almost synonymous terms it is this: and if there be little community of belief in the profession on questions of medical ethics or politics there can only be one opinion amongst us respecting the conduct of the late Dr. Smyth; who by sacrificing his life without any thought of recognition or reward has shed an enduring lustre upon our profession.

I know well the desolate and poverty-stricken district in which he practised, and it is impossible for any man with the utmost ability and industry to earn more than a bare living for for himself and family.

We who practise under more favourable conditions must not forget a brother practitioner who with the same hopes and aspirations as ourselves calmly laid down his life in the performance of a stern duty and thereby enhanced the traditions of a profession the history of which is not wanting in examples of unostentatious heroism.—I am, etc.,

Sunbury-on-Thames, Dec. 23rd, 1901. W. HANDFIELD HASLETT.

THEORIES OF INHERITANCE.

SIR,—This question is of such fundamental importance in practical medicine that we are all indebted to Dr. Reid for attempting to bring it to a clear issue, and this issue is surely simple enough.

Having condemned all theories and theory-makers past, present, and future, Dr. Reid formulates a dogma founded on what he considers fact, but what I venture to call theory. It is no doubt a fact that reproduction rests with the sperm and germ cells, but when Dr. Reid goes on to state that these cells are in some way sheltered from influences which are known to be capable of affecting the functions of the somatic cells, he plunges into theory, and begs the whole question. According to his own showing, he is here opposing his opinion to the practically unanimous experience of the medical profession, and one is therefore not surprised that his dogma of the intransmissibility of acquired characters does not meet with the acceptance Dr. Reid so peremptorily claims for it.

Dr. Reid is not fond of detail, so he brushes aside such a question as the existence of a "syphilitic heredity." The case on the strength of which I asserted a syphilitic heredity was certainly not a mere *post hoc*. The two children of a father who had suffered, many years before marriage, from syphilis, showed a very definite set of pathological conditions, including rickets and epilepsy. One of them was shown to two of the best-known consultants in London, each of whom, quite independently of the other, ascribed the condition of the child to the previous disease of the father. At the same time, it was practically certain that there had been no transmission of the syphilitic virus. The inference was that the old disease had affected the sperm cells, as well as the somatic cells, of the parent, so as to produce a faulty heredity in the children which I called syphilitic.

Dr. Reid says medical men do not study heredity. Theoretically, no doubt, they no not, but practically they must either study it every day of their lives, or go about with their eyes shut. Does any practical man believe that an alcoholic of twenty years' standing is likely to beget healthy children, or that tuberculosis on both sides is incapable of affecting the heredity of the offspring? Dr. Reid, I know, attempts to draw a line between the effects of disease and the other influences of environment, but on what ground I fail to see. Finally, will Dr. Reid say whether the intransmissibility of acquired characters is not opposed to the generally accepted principles of evolution? The modifying effects of environment on living things are acquired characters: their accumulation is one of the factors in the process of evolution. Does Dr. Reid maintain that the environment begins to work afresh on each succeeding generation? I see no alternative if we are to accept his dogma.

I venture to predict that the profession generally will adhere to their practically unanimous belief on this subject, and that they will accept Professor Adami's paper as probably the most scientific and practical utterance yet delivered.—I am, etc.,

Redhill, Surrey, Dec. 29th, 1901. S. W. MACILWAINE.

CONGENITAL DISPLACEMENT OF HIP AND ELEVATION OF SCAPULA.

SIR,—In the BRITISH MEDICAL JOURNAL of December 7th, page 1658, Mr. Llewellyn Phillips describes and figures an interesting case of so-called congenital dislocation of the left

hip. He states that the patient, a female, was elderly, and had "well-marked scoliosis and kyphosis." As the subject was sent for dissection it may be very difficult to get a history, but as these spinal changes are extremely rare in cases of hip misplacement—lumbar lordosis being the rule—may it not be that the hip and spinal changes were due to a common cause—either tuberculous or osteo-arthritic? and, if the former, it might prove to be a case of dry coxitis, as the acetabulum looks like that which is termed a "wandering" one. The displacement appears to have been partial, and not of the usual form of congenital hip misplacement. Mr. Phillips does not state if the capsule was hour-glass shaped, a common condition in old cases of this description. The great changes in the head and neck of the femur, and the eburnation seem to indicate pathological changes, primary or secondary. In true co-natal misplacements I much prefer the term used at page 292 of my *Bodily Deformities*—namely, congenital malposition of the hip—as it does not commit one to any view of the cause or causes, whether fœtal, maternal, or mixed. Obliquity of the pelvis, lateral or antero-posterior, is common in these cases.

At page 1810 in the JOURNAL of December 21st Mr. Robert Jones of Liverpool, in showing two cases of congenital elevation of the scapula, says that the condition was described by Sprengel in 1890. At page 40 of my work above-named will be found the figure of a girl with this deformity. I described it as "defective development of left scapula which is much smaller and on a much higher level than the right. Also slight lateral secondary curvature." My book was published in 1885, and the case was observed a few years before. A sketch of the same case is in Mr. Keetley's recent work towards its end. It will thus be seen that I first drew professional attention to the subject and described its salient features, and that, as a matter of fact, Sprengel did not write about it till 1891, and before him McBurney and Sands, of America, wrote concerning it in 1888. Why English speaking and writing surgeons should persist in giving credit to foreign surgeons for what their own countrymen did long before is a puzzle, especially as attention was recently drawn to this subject in a report to the medical papers of a paper I read last year at the British Orthopædic Society on Congenital Deficiencies of the Skeleton. It is just the same with the bloodless reposition of the hip which is wrongly attributed to Lorenz. I have recently drawn attention to this in a contemporary, and did so previously at the British Orthopædic Society some time since, so that it may not be too much to hope that tardy justice will be done in these matters.—I am, etc.,

Grosvenor Street, W., Dec. 21st, 1901. H. A. REEVES.

INTRODUCTORY ADDRESSES: A PROTEST.

SIR,—It is of paramount necessity to arrest the stream of optimistic platitudes flowing so glibly from the mouths of consulting physicians and surgeons in their *ex cathedrâ* addresses.

This "bunkum" for so it must be called—is painfully misleading to those of the audience not "behind the scenes," and especially to the parent, whose hard-earned savings are given gladly enough in the vain and mistaken notion that his "boy" is to belong to a dignified profession, the practice of which is to assure him a comfortable competency and an esteemed social position,

Who are these men whose statements are so much at variance with the bitter experience of the general practitioner, and why do they make no mention of the hardships and heart-breaking worries which enter so overwhelmingly into the daily routine of the man who is dependent for his living on his work? What of the grinding struggle for existence which precludes all hope of a retiring modest competence in his old age?

Truly, it is time that the profession ceased to be voiced by members who have evidently not the faintest comprehension of the harrowing life of the "general practitioner," whether he be in London or the provinces, in town or country. Do *they* know by practical experience what it is to be surrounded by the "penny-a-week" club; by the "sixpenny" dispensary; the "diploma'd" midwife; the life-insurance club (doctor thrown in!); the tabloid and self-medicating craze, fostered by the "prescribing chemist"; the various and too often incongruous so-called charitable institutions, many of them under "religious" auspices (whose Boards earn cheap reputations for philanthropy at the expense of the medical staff attached); the effect of the huge general and special hospitals upon the humble "G. P.", competing as they do with one another, so that they may proudly issue yearly records of so many thousands of in-patients and out-patients: the Medical Aid Associations and the "Friendly" (surely misnamed from the medical man's point of view, "sweated" by them as he is) "Societies"?

To these embarrassments one might also add the type of "consultant" or "specialist" whose "private nursing home" is as the spider's web to the fly, when the confiding family doctor, until warned by experience, trustfully submits his patient to its expensive portals. Then, knowing the fearfully overcrowded condition of the profession itself (for so it is, despite recent statistics and paper-reasoning to the contrary); the diminished amount of illness, the lower death-rate, how can they promulgate such erroneous statements as to there being "special advantages in entering the medical profession at the present"; or "no profession could hold out so quick a return on the outlay that students were obliged to make"; or, "rarely had the prospect been brighter than at the present time."[1]

Soberly speaking, the medical profession, from the general practitioners' view, has never been in so bad a condition as at present, never offered so poor a return for capital and brains.

No! If an address on "the future of the medical profession" be given, let the truth be told. To parents, say: "By all means let your 'boys' join our 'Army of Martyrs,' but do they hope to acquire wealth, or is it from innate love for and a wish to practise what we assert to be the noblest and most ennobling of professions?" Tell the would-be student at once and for ever to dismiss from his mind all hopes of ease, wealth, and distinction as accessible goals. Let him learn that to become a "doctor" renunciation of self-esteem, of worldly comforts, and social pleasures must of necessity be a *sine quâ non*: and that the "oil of joy" which must in future lubricate his wheels of life must come from his unswerving love for the work before him, and in self-abnegation, humbly imitating his Divine forerunner—the "Great Physician and Healer."

Then—possessing not these qualifications, these attributes—let the student seek other paths, lest he too readily despairing of success, and dissatisfied with results, degrade himself and disgrace his former noble aspirations. Nearly twenty years have passed since we, the writers, colleagues now in general practice, "entered." Surely time enough for experience. Neither of us has "looked back." Wherefore these words are not dictated by failure, nor are they from the gall-dipped pens of discontented men. All is well—thank God!—with Lares and Penates and with the work we love. Truly there are "ups and downs," times of pressure and of slackness, yet we can still acclaim the profession, of which we are but humble units as *facile princeps* among all professions.

But should these lines be judged harsh or unweighed, they are not so intended, but issued merely as a timely warning to parent or student from two general practitioners, as a nauseous but necessary draught to prevent indigestion after the diet of honey provided by our friends the prosperous and roseate-viewed consulting physicians and surgeons.—We are, etc.,

EST MODUS IN REBUS.

THE DIAGNOSIS AND DISAPPEARANCE OF CANCER.

SIR,—The article under the heading "The Latest 'Cure' for Cancer," in the BRITISH MEDICAL JOURNAL of November 23rd, points out "the capricious course which disease undoubtedly cancerous may run," resulting in apparent cure from inadequate causes. Ten years ago, when house-physician to Dr. Goodhart at Guy's Hospital, I saw a case apparently illustrating this point. An elderly woman was dying in Mary Ward from what was diagnosed as cancer of the stomach. There was frequent vomiting of blood in small quantities. Egress from the stomach was prevented by what was supposed from the feel to be a tumour in the pyloric region, and

[1] BRITISH MEDICAL JOURNAL, October 5th, 1901.

the gastric contents required to be siphoned off daily. There was marked cancerous cachexia, and death was imminent. One day the woman complained that she felt very low, and asked if I would give her a tonic. I prescribed a mixture containing nux vomica, dilute nitro-hydrochloric acid and gentian, well known at Guy's as mist. acidi co. The patient at once rapidly improved, and was discharged in about a fortnight. I saw her several months after still in fair health, when she visited the hospital for some purpose. I have often wondered if the diagnosis was inaccurate, or whether the cancer was "capricious."—I am, etc.,

Mentone. D. W. SAMWAYS.

VIOLETS AND CANCER.

SIR,—In the BRITISH MEDICAL JOURNAL of December 7th there is a leaderette on this subject, which at present is so much agitating the public mind, that I think might well be amplified. Culpepper you say has no direct reference to violets for the cure of cancer, but if you will refer to a much older work you will find that these plants were regularly used for the cure of this disease. "The whole work of that famous chirurgian, Maister John Vigo," in a translation printed at London by Thomas East in 1586, contains on page 69 directions how to cure cancer. "The third (entention) is by purgation of the mattier antecedent." The following is the prescription for the purgation:

R—Of the codder of sene (senna)	āā ℥j
Of epitheneum	
Of the confection of hameth	℥j
Of julcb	āā ℥ij
Of violets	
Of roses by infusion	
Of buglosse	

Mingle them. To be given in the morning.

After the purgation the fourth intention follows, "which is to take away the matter conjunct." The following prescription is used:

R—Of the oyle of roses omphacine ...	āā ℥ij
Of the oyle of violets	
Of unguentum rosarum	āā ℥x
Of unguentum populeon	
Of the juice of plantaine	āā ℥ss
,, ,, nighshade	
Of the decoction of mallowes	
,, ,, ,, violets	
,, ,, ,, holihock	āā li.j = 1lb.
Of the seeds of quinces	
Of psillium sodden according to arte...	
Of calves tallow	℥iv
Of the marrow of calves legges... ...	
,, ,, an oxe legge	āā ℥j
Of duckes grece	
Of oyle of camomile	

Let them boyle all until the consumption of the juyce and decoction, etc. "This cerote is very good in this case." Nevertheless, Maister John Vigo does not neglect incision and extirpation, as he goes on to say, and after that the use of an "hot yron," and he uses again the decoction of violets for the falling of the escharre caused by the yron.

In the same number of the JOURNAL there is also a plea for the study of the history of medicine by Dr. Lloyd Owen, whose address I well remember. It is an interesting commentary on his letter that if we only knew a little more of our medical history we should be better able to set at rest the doubts of our patients as to the merits of some new "cure," by telling them that it was only an old idea revived, which had already been tried and exploded.—I am, etc.,

Birmingham. E. D. KIRBY.

THE COLONIAL MEDICAL SERVICE.

SIR,—In the BRITISH MEDICAL JOURNAL of September 21st, p. 837, another letter appears from "Veritas" regarding the medical services under the Foreign and Colonial Offices. There is not the slightest doubt that the time has now arrived for putting officers in these departments of the public services on a proper footing as regards pay and position.

In my letter of July 31st, appearing in the JOURNAL of August 24th, to which "Veritas" makes allusion, I did omit to suggest pension for widows of officers. I am glad he has called attention to this matter. If the widows of medical officers in the Royal Navy, I.M.S., and the R.A.M.C. are entitled to pensions, why not the widows of medical officers serving in Africa under the Crown?

Our *confrères* in the House would be doing the medical services in East and West Africa a great service by taking up the matter and representing our grievances. A good class of medical man is an absolute necessity in an extremely unhealthy climate, and such men may come but will not stay unless sufficient inducement is offered them. The Government is in a position to offer these advantages.—I am, etc.,

MEDICAL OFFICER.

MIDWIVES AND THE BISHOPS' LICENCE.

SIR,—The letter of Dr. Lloyd-Roberts[1] upon the subject of the ecclesiastical powers of licensing medical practitioners and midwives is extremely interesting, as pointing to the existence of records of these transactions in the diocese of St. Asaph. But it is erroneous to suppose "that down to the passing of the Medical Act of 1858 bishops licensed physicians, surgeons, and midwives," ..... and that, as the said Act "makes no mention of repealing any former Act, consequently it is a fair inference that the law under which such licences were effected is still extant."

By the Act 3, Henry VIII, the bishops were given powers of licensing physicians and surgeons, but by 14, 15, Henry VIII, their powers, as far as physic at least were concerned, were repealed in favour of the College of Physicians. They claimed and continued to license in surgery until 1715, when their claim was successfully resisted by the United Company of Barber-Surgeons, and finally relinquished.

As to the licensing of midwives, no evidence is known to exist of any statute granting such power to the bishops; but it is on record that in the time of James I they were invested with such powers by Royal Command. Bishop Bonner is supposed to be the first who granted a licence to midwives, and it was he who drew up the form of licence, an example of which is appended. The exact date at which the bishops ceased to license is undetermined, but such were granted as late as the middle of the eighteenth century.

MIDWIFE'S LICENCE.

——, by Divine Permission, Bishop of ——, To our well-beloved in Christ, ——, of the parish of ——, in the County of ——, and our Diocese of ——, send Greeting in our Lord everlasting: Whereas we understand by good testimony and credible certificates that you the said —— —— are apt and able, cunning and expert, to use and exercise the office, business and function of a midwife. We therefore by virtue of Our Power Ordinary and Episcopal, Do admit and give you power to use and exercise the said office, business, and function of a midwife in and through our Diocese and Jurisdiction of ——, with the best care and diligence you may or can in this behalf, indifferently both to poor and rich, as also to perform and accomplish all things about the same, according to your oath thereupon given you upon the Holy Evangelists, as far as God will give you Grace and enable you.

In witness whereof we have caused the Seal of our Chancellor to be affixed to these presents this —— day of —— in the year of our Lord, One thousand seven hundred and ——, and in the —— year of our Translation.

I have purposely withheld all mention of the Act 25, Henry VIII, whereby the Archbishop of Canterbury was given the power of granting degrees in medicine and the other faculties—known as the M.D. Lambeth or Cantuar. This power was exercised and has been maintained from that time to the present, the only difference being that such honorary degrees conferred since the Medical Act of 1858 cannot—as is mentioned in that Act—be registered, and consequently do not of themselves entitle the holder to practise his profession.—I am, etc.,

Brightwalton, Wantage. GEORGE C. PRACHEY.

POST-SCARLATINAL DIPHTHERIA AND RHINORRHŒA AND OTORRHŒA.

SIR,—The thanks of the profession are due to Dr. Egerton H. Williams for his important and interesting paper on the above subject, published in the BRITISH MEDICAL JOURNAL of December 21st, in which he emphasises the importance in the production of post-scarlatinal diphtheria of cases of nose or ear discharge containing diphtheria bacilli. Most of Dr. Williams's patients, in whose noses or ears such bacilli were found, showed no symptoms save some discharge, the dangerous nature of which would have escaped recognition without bacteriological examination.

[1] BRITISH MEDICAL JOURNAL, November 16th, 1901, p. 1507.

It is a fact, well brought out by his Table V, that the nose frequently contains diphtheria bacilli without symptoms other than local discharge: in this instance, in 57 out of 141 cases examined, and in 36 out of the 57 they were present on admission. This confirms the experience of Dr. D. S. Davies and myself in the Public Health Laboratory at Bristol; we have found these "carrier" nose cases extremely common, and not infrequently the cause of faucial diphtheria. Ever since 1895 we have been alive to this fact, as may be gathered from the annual reports of the medical officer of health for Bristol, a paper published by me in *Public Health* in 1896, and another paper in the same journal for December, 1901. The conditions found to exist in a localised hospital area are exactly those found in this large city and the country round, and I fully endorse the last conclusion arrived at by Dr. Williams, namely:

That these discharges, unassociated with sore throats or symptoms, and therefore easily overlooked, may be the cause of the often unaccountable outbreaks, and the persistence of the disease, among school children.

I ventured on a like conclusion in my 1896 paper, and I am convinced that in these "carrier" cases, nose or other, lies the real cause of the persistence and increase of diphtheria, and that drain or other effluvia are merely predisposing causes preparing the soil for the growth of the diphtheria bacillus, but not themselves causing the disease. Viewing the disease in this light, the importance of bacteriologically examining the noses as well as the throats of school children or other contacts when diphtheria is prevalent becomes apparent; as also does the necessity of examining cultures from both nose and throat of all cases of diphtheria before declaring them free from infection, for we have found the number of throat cases in which the nose is latently affected to be large.

In my experience very many practitioners have not yet recognised that diphtheria bacilli can exist in noses or ears with little, if any, symptom save some discharge, nor that some of these cases can, and do, give serious faucial diphtheria to others. Until these facts are generally realised, and acted upon, I do not think any real control over the spread of diphtheria will be attained. How these healthy "carrier" cases are to be dealt with on a large scale is a matter for serious consideration.

This letter is already over-long, or I should like to have said a word or two with regard to the other conclusions which Dr. Williams draws; speaking generally, I believe them to be perfectly justified.—I am, etc.,

Clifton, Bristol, Dec. 23rd, 1901. JOHN C. HEAVEN, D.P.H.

"FOURTH DISEASE" FROM AN EVOLUTIONARY STANDPOINT.

SIR,—In practical experience certain diseases tend to merge into one another and present types of a puzzling nature. I feel that a correct grasp of the teachings of medical science is attained only when we realise that hard-and-fast lines of distinction between disease processes cannot always be drawn. Schemes of classification, though convenient and useful, are not strictly scientific. True scientific instinct should bear in mind the perturbing influences of evolutionary factors in disease. When we know sufficient of these evolutionary factors to be able to allow for them, we shall, I think, be in a better position to understand the vagaries of disease processes, and perhaps account more satisfactorily than now for the so-called "hybrids" which are a source of difficulty and contention.

On clinical, bacteriological, and epidemiological grounds, I record my conviction that there is a closer relation between even such apparently distinct clinical entities as scarlet fever and diphtheria than would at present be admitted. I think there is some evidence that these diseases (generally quite distinct, occasionally not so) are possibly due to the same germ under different evolutionary conditions. Possibly symbiotic relationship with different kinds of bacteria forms one of the principal evolutionary factors determining the varied infective disease processes of a pathogenic organism. Factors affecting the soil (the tissues of infected individuals) must necessarily have a distinct influence on specificity.

To quote a case in point: M. B., admitted October 11th, 1901, with typical symptoms of scarlet fever; no membrane visible on fauces but a certain kind of lividity noticed, associated in my mind with the possible presence of the Klebs-Loeffler bacillus. This, with the knowledge that the child was attending a school where a few cases of diphtheria (but none of scarlet fever) had occurred led me to isolate the patient. A fortnight later membrane was found on the tonsils, and a bacteriological examination revealed typical diphtheria bacilli. (Bacteriologically, a fortnight earlier, no unequivocal diphtheria bacilli were found, but forms I designate as "evolutionary").

Those who make regular bacteriological examinations of scarlet-fever throats will agree with me that Hoffman's bacillus and streptococci are frequently met with. Gordon's work on the streptococcus conglomeratus of scarlet fever[1] is of interest in this connection. Pure cultures of this organism are stated by Gordon to show sometimes forms indistinguishable from the diphtheria bacillus. This fact, if nothing more, is extremely suggestive.

Those interested in this idea of evolution in disease and disease germs will find further reference to it in the *Medical Press and Circular*, May 8th, 1901. and the *Journal of State Medicine*, December, 1901.—I am, etc.,

Southend-on-Sea, Dec. 23rd, 1901. J. T. C. NASH.

THE DUSTING OF WOUNDS IN ACTION WITH ANTISEPTIC POWDERS.

SIR,—With reference to the interesting remarks of Mr. Watson Cheyne and others on the use of antiseptic powders for dusting wounds in the field, permit me to state that their use is not a new departure. The Principal Medical Officer of Sir Gerald Graham's Field Force in the Eastern Soudan in 1885 issued iodoform powder for this purpose to all medical officers of units. As surgeon of a Royal Marine Battalion I invariably used it in action throughout that campaign. As Senior Medical Officer of the Naval Brigade, present at the various actions of the Boer war from Belmont to Belfast, I had wounds at the time they were sustained dusted with iodoform, and latterly, when that fell short, with creoline, which answered equally well.

While the battle of Magersfontein was going on, I saw on the field there Colonel Hartley, V.C., C.M.G., and the Cape Medical Staff Corps under his command, dusting recent wounds with antiseptic powder, evidently part of their ordinary equipment.—I am, etc.,

JAMES PORTER,
Deputy Inspector-General R.N.

Leigh, near Worcester, Dec. 24th, 1901.

THE LYMPH OF THE NATIONAL VACCINE ESTABLISHMENT.

SIR,—In my opinion all public vaccinators should tender their best thanks to the officials of the National Vaccine Establishment for the prompt reply to requests for lymph, and also to the excellent quality of that sent. I have vaccinated 98 children this year with one failure. No doubt in 1899 the lymph did fail, but I now attribute it to one cause. No one knew exactly the right dilution of calf lymph and glycerine; now the exact proportion has been ascertained, consequently very few or no failures are recorded.—I am, etc.,

December 22nd, 1901. A PUBLIC VACCINATOR.

INERT LYMPH AND REVACCINATION.

SIR,—The question of revaccination is undoubtedly a particularly important one at the present time, as also in the near future. Do the majority of us really know what constitutes efficient revaccination? I doubt it. Much of the uncertainty, as it exists now, is, unfortunately for us, and possibly more than that for our patients, due to the supply of a weak lymph from some sources.

Several other practitioners have told me that they found, like myself, as soon as there was an increased demand for lymph during the early part of October the quality of lymph from their usual source distinctly deteriorated, and this from more than one source; and that case after case gave but very poor results; most often no reaction.

On the other hand having obtained lymph from other sources one soon found the difference. Some cases which showed distinct papular conditions but no true vesiculation when again vaccinated did give good vesicles. It is, of course, practically impossible to have a standard of efficient revac-

[1] Medical Officer's Report, Local Government Board, 1900.

cination. As compared with primary vaccination, everyone has probably met with a family of, say four, adults none of whom had been revaccinated and all of whom are treated with the same tube of lymph: they will probably all show varying degrees of reaction.

Though there has been much attenuated lymph in the market there is now and was then to be obtained what the purveyor describes as reinforced lymph. My own experience and that of others is that much of such "brands" are unnecessarily active or that it is not free from impurities, for with every precaution of asepticism many bad arms have occurred, reminding one too much of the condition often obtaining in the days of humanised lymph and non-aseptic methods, the which has undoubtedly brought vaccination into much disfavour among the uninstructed. And why is it that the public is so uninstructed as to the merits and advantages of vaccination, while the antivaccinationists place their views so clearly before them? One would much like to know as soon as possible the truth as regards the incidence and death-rate of the vaccinated and efficiently revaccinated also, compared with the unvaccinated, during this recent outbreak in London. We ourselves know our statistics as to Gloucester, Sheffield, and such places, but the public are forgetful, and require information up to date.

An official of a sanitary authority told me that, though he had been revaccinated as an example to others, yet as an individual his convictions were against it, because he knew so much more clearly the "anti" than the "pro" side of the question.

Dr. Chichester Preston's idea that the activity of lymph should be in some way guaranteed is most important, although it is probably impossible to standardise it.—I am, etc.,

Wallington, Surrey. WALTER GRIPPER.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

SIR,—On February 25th, 1901, I made personal application to the Registrar of the Royal College of Surgeons in Ireland for a copy of their by-laws, for the purpose of ascertaining did these in any way bear upon the following provision in the Charters of 1844 and 1885:

> And the Examiners, or any number of them declared by the by-law to be competent to transact business as a Court of Examiners, shall in the presence of the President, or, in his absence, of the Vice-President and two or more Members of the Council, examine.....any candidate for a Fellowship.

Upon that occasion I was informed the by-laws were being printed.

On July 10th I wrote to the Secretary of Council of the College, and was informed that when the by-laws were printed I could have a copy.

Again, on November 21st, I wrote in reference to the delay, and was informed that, acting upon the advice of their solicitor, the Council declined to give me a copy of the by-laws.

Having regard to the penal powers over its licentiates possessed by the corporate surgical body concerned, and to the dangerous principle now laid down by the President, Vice-President, and Council of the Royal College of Surgeons in Ireland, that they can withhold their by-laws from a licentiate on the ground of legal expediency, I beg space to lay this case before the profession, through your valued JOURNAL.—I am, etc.,

Dublin, Dec. 17th. S. WESLEY WILSON.

"ABDOMINAL HYSTERECTOMY FOR UTERINE INVERSION."

SIR,—Under the above erroneous and anomalous heading you have been good enough to comment upon an operation I performed for the reduction of chronic uterine inversion, and at the same time draw attention to a similar operation performed by Professor Brennan and published in the *Revue Médicale du Canada*, Montreal, of August last year.

In the first place I should like to draw attention to the fact that as I merely reduced the displacement by uterine incision without removing the organ I called the operation "hysterotomy" not "hysterectomy," as it has been designated by the author of the paragraph in the BRITISH MEDICAL JOURNAL.

Though to a certain extent similar in so far as the abdominal route has been chosen by both of us, the operations are essentially different in detail as one would naturally expect from the very different conditions under which we operated. In Dr. Brennan's case the reduction was performed within a short period of confinement before the uterus had time to assume that tonic retracted state which forms the greatest barrier to its reduction, and which in my case was complete, nine months having elapsed since the inversion had occurred.

Dr. Brennan was able, after a posterior incision through what he calls the "constricting ring," which extended through the cervix into the vagina, to reduce the displacement by dragging the fundus forcibly up by means of volsella. In my case there was no constricting ring formed by the cervix, reduction was prevented by the inelasticity of the retracted uterus as a whole. The space between the anterior and posterior uterine walls was represented by a mere slit which grasped the Fallopian tubes tightly and into which one finger could only be pushed a short distance with difficulty. It was thus necessary to continue the incision through a great extent of the posterior uterine wall as it showed itself through the slit when the fundus was pushed up from the vagina below. By means of this long uterine incision the inversion was enabled to be reduced by gentle pressure from below without any forcible dragging, and without laceration of its peritoneal aspect by volsella as must occur when they are used for this purpose.

I may further add that the uterine incision in my operation does not involve the vaginal roof and intravaginal cervix as in Dr. Brennan's, and must therefore be considered essentially different in this respect likewise. Doubtless the two operations were conceived in a similar spirit, but varying conditions necessitated different procedures. In Dr. Brennan's case the constricting ring of the cervix seemed to require merely to be snipped through to permit of subsequent reduction. In my case the cervix offered no obstruction to reduction, and a similar cervical and vaginal incision to Dr. Brennan's would have been unnecessary and useless: therefore, a long incision through the posterior uterine wall was made, and reposition easily effected. As the operations are thus so essentially different, chronological priority can be of no account. In this connection I may add that my operation was performed two months later than Dr. Brennan's, of which, however, I had no knowledge until the publication of my paper in the JOURNAL a year afterwards.—I am, etc.,

Edinburgh, Dec. 22nd, 1901. F. W. N. HAULTAIN.

*** "Hysterectomy" was a slip of the pen for "hysterotomy." We described Dr. Brennan's operation as "somewhat similar" to Dr. Haultain's. Dr. Haultain admits that it is "to a certain extent similar" and rightly indicates the points of difference between the two procedures. The last sentence in the paragraph expressly states that Dr. Haultain's case was "essentially chronic" whilst Dr. Brennan's cases were as "essentially recent."

SALARIES OF MEDICAL OFFICERS OF HEALTH IN SCOTLAND.

SIR,—Anyone referring to Churchill's *Medical Directory* will see that the salaries paid to medical officers of health in Scotland compare very unfavourably with those obtaining in areas of a like population and extent south of the border.

Some time ago I applied to my sanitary authority for an increase of salary, and was told they could not grant this, as the salary already received by me compared favourably with those paid in other burghs in Scotland.

A list of these showed that there were some towns of 5,000 inhabitants, or thereby, in which the medical officer of health's salary was £10, and in some instances as low as £5, per annum. Another of 9,000 inhabitants was marked at £17 17s., and another burgh with which I am well acquainted, having a population of nearly 60,000, containing within its bounds much wealth in the form of great public works employing thousands of hands, many institutions, including a university, and miles of residential district inhabited by the upper and middle classes, paid its medical officer of health up to the commencement of this year, with the most reckless munificence, £25 per annum as medical officer of health, and £25 as police surgeon. In another, a county town of about 25,000 inhabitants, the salary was only £20.

In counties things are not much better. Few county

medical officers receive as much as £400 a year, and still fewer are anything near £500. District medical officers average about £5, and, as a rule, have to find their own travelling expenses.

So far as I know, this is the only public service in which there is no such thing as an old-age pension.

Add to this the unreasonable nature of many sanitary authorities in the lesser districts, in their active opposition or masterly inactivity in matters of sanitary reform, too often due to local and personal interests—and we may say that the only consolation left to the Scottish medical officer of health is security of tenure—a thing as yet denied to his brother of the Poor-law Medical Service.

Now, sir, the Public Health (Scotland) Act of 1897 throws much additional work on medical officers, and the Local Government Board have been looking after that matter with great promptitude, but they do not seem to have inquired if the salaries are suitable to present duties. If it is worth while for men, after a liberal general and professional education, to add to their curriculum a special course of study, followed by stiff examinations for the necessary qualification in public health; if it is worth while to safeguard the public health in times of epidemic and at all other times: if it is worth while to appoint medical officers to superintend these matters; surely then, it is worth the while of sanitary authorities both great and small to pay to those who have undergone a special course of instruction to fit themselves for these important and responsible duties, a salary somewhat above the level of what is often scarcely the amount of an errand boy's wage.—I am, etc.,

December 18th. M.O.H.

THE PRINCIPLES OF LOCAL TREATMENT IN DISEASES OF THE UPPER AIR PASSAGES.

SIR,—Eight weeks ago you published *in extenso* a couple of lectures of a critical nature upon the treatment of the throat and nose, and much of the matter being of a controversial character, it was hoped and expected that a valuable correspondence in your columns would follow. Unfortunately for those really interested in the subject and looking forward to a serious exchange of views, the discussion opened badly, Mr. Arbuthnot Lane stepping aside after putting on the gloves, and Mr. Lennox Browne beating the air through mistaking the identity and nationality of "Dr. X." Much of what has followed has seemed to onlookers to be somewhat forced and barren.

It was obvious on reading the second letter of the series that personalities were not to be wanting in the correspondence; but that the main surgical question was to fall into the background, and that during the later stages of the controversy a letter from one of the protagonists (Mr. Lennox Browne) was to be occupied wholly with personal matter, and that of old date, was scarcely to be foreseen.

The latest development concerns an irrelevant matter—namely, the episode which occupied the Pathological Society on December 19th, 1893. Mr. Lennox Browne manages to handle it, in his letter of December 28th, 1901, in such a way as to produce an unpleasant impression in the minds of some of your readers who enjoy a fair give-and-take in argument. Sir Felix Semon on December 14th says: "It was ..... an indignant protest I endeavoured to raise ..... against his (Mr. Lennox Browne's) method of argument ..... I wished to submit our grounds of complaint to the Society. The President, however, refused to let me take that course ....."

Mr. Lennox Browne on December 28th finds himself "forced to trouble you with one more letter because Sir Felix Semon's rendering of the incident of the Pathological Society is so entirely at variance with published reports as to demand correction." Mr. Lennox Browne then proceeds to furnish evidence that a lengthy discussion did take place in a full meeting of the Society. Now, it is difficult to believe that anyone was more fully aware than Mr. Lennox Browne that Dr. Semon's "grounds of complaint" in 1893 referred not to a scientific interpretation of observed facts, but to the personal conduct of a writer (Mr. Lennox Browne) in Burnett's *System* in misrepresenting the views of two members of the Pathological Society, Dr. Semon and Mr. Shattock. Exactly in what those grounds of complaint consisted may be very clearly understood by reference to the *New York Medical Journal* for June 2nd, 1894, which contains an article setting forth in detail the literary inconsistencies against which Sir Felix Semon desired so strongly to protest.

Whatever interpretation we may please to take in reading the report of the meeting which was published in the BRITISH MEDICAL JOURNAL and the *Lancet* in 1893, it is common knowledge that the President of the Pathological Society did not permit Dr. Semon to press his point. If documentary evidence of contemporary date must be called to prove this, we have only to consult the letter written by the one best able to judge, namely, Mr. Lennox Browne himself, published in the *New York Medical Journal* of August 4th, 1894. He says there, "As regards Dr. Semon, when he brought his grievances before the Pathological Society of London, the strong personal element with which his communication was charged was rigorously excluded from consideration by the President at the time."

It is then Mr. Lennox Browne himself who furnishes us with the necessary proof that Sir Felix Semon is correct in now saying that permission to submit his "grounds of complaint" was refused him by the President.

Will this satisfy Mr. Lennox Browne, or must we have further confusion of issues? I venture, Sir, to think that the effective answer to this query lies in your hands, and that you will be rendering a service in bringing this controversy to a close.

The correspondence has already succeeded in diverting the attention of the medical public away from the topic of real interest, namely, the question of operative intemperance. The discussion has, in the main, been occupied with a show of hands, which may indeed be interesting, but which does not conduce to the advancement of the science of surgery. In the original lectures there is matter of real value, and I cannot but think that your readers will gain more by the reperusal of Sir Felix Semon's contentions than by following any further a correspondence which has passed into personal channels.—I am, etc.,

London, Dec. 29th, 1901. ERNEST WAGGETT.

THE GENERAL MEDICAL COUNCIL AND THE NATIONAL MEDICAL AID COMPANY.

SIR,—In your report of recent proceedings before the General Medical Council concerning a certain Medical Aid Society and their medical officer in Yarmouth, "Dr. Bately of Gorleston" is mentioned as being associated with the Society for that part of the borough.

Please allow me to state I am not in any way, or ever have been, connected with the Society named in your report.—I am, etc.,

Gorleston, Dec. 23rd, 1901. JOHN BATELY, M.D., etc.

PREPARATION OF STERILISED CATGUT.

SIR, I am glad to see, by the BRITISH MEDICAL JOURNAL of December 21st, 1901, that the method of preparing sterilised catgut, to which I ventured to draw attention in a short note in the JOURNAL of November 16th, has attracted the interest of such a distinguished surgeon as Professor C. Yelverton Pearson. With regard to his suggestions as to the occasional brittleness of formalin gut, there appear to be other more important factors than those to which he has alluded.

1. The raw gut as supplied by the manufacturers contains occasional strands which are so brittle that they are unfitted for any form of preparation.

2. The winding of the gut, previous to boiling, on a plate of glass, no matter how smooth the edges have been ground, tends to weaken it by the contraction which ensues during boiling, as the gut is tightly strained over a sharp angle. If, however, it is evenly wound over a glass reel of large diameter, such as I have suggested, the strain is distributed evenly over the entire length of the gut. The reel also has this advantage, that being made of heavy glass its weight prevents it from being lifted out of the solution when the gut is being removed for use.

3. Washing after soaking in formalin is only of use to get rid of gross dirt; it cannot affect the brittleness, as the subsequent boiling must dissipate all traces of formalin. If the gut is thoroughly sound and strong to commence with any

subsequent brittleness is due to using formalin stronger than 5 per cent., to leaving in formalin more than twenty-four hours for No. 0, or to using too strong alcohol and too little glycerine for storing.

Professor Pearson seems to consider that I wind the gut too tightly and too closely. I consider this advisable, as it prevents the gut from swelling excessively when boiled.—I am, etc.,

Sir Patrick Dun's Hospital, Dec. 22nd, 1901. C. ARTHUR BALL.

THE TREATMENT OF LARYNGEAL GROWTHS IN CHILDREN.

SIR,—Following the publication of my letter in the BRITISH MEDICAL JOURNAL of November 16th, 1901, I invited Dr. Hunter Mackenzie to come to Glasgow, and said that I should endeavour, if he gave me a few days notice, to collect as many cases as possible, in which I had performed cricothyrotomy for the removal of intralaryngeal growths in children. I did so, as I felt it would be much more satisfactory to discuss methods of treatment and results in the presence of the patient operated upon than to describe them in correspondence. Dr. Hunter Mackenzie, however, while thanking me, replied that he would be very glad to accept my invitation, but that he preferred to postpone his visit until this correspondence was closed. For these reasons, I do not intend to trespass further on your space beyond this letter.

Of the cases of thyrotomy published by me in 1896, and referred to in this correspondence, 5 were children varying in age from 1 year and 11 months to 10 years, all suffering from "laryngeal growths;" 3 had numerous papillomatous growths, 1 had chronic hypertrophic laryngitis with irregular outgrowths, and 1 had mucous polypus.

When I stated that in one case only had a repetition of the operation been resorted to, I was in error, and am obliged to Dr. Mackenzie for his correction; for a second thyrotomy, I find, was performed in my third case—a child aged 4 years. This was performed three months subsequent to the primary operation, after which no further recurrence of the growths took place.

The appearance of a small "warty" growth on the epiglottis in another case twelve months after thyrotomy was not of the nature of a recurrence in the sense referred to by Dr. Mackenzie, and its removal was readily effected by the galvanocautery applied through the mouth.

I have never seen the operation of thyrotomy performed for the removal of laryngeal growths in children, followed by either chronic stenoses of the larynx, pneumonia, or death. "Permanent alteration or other injury to the voice," when present after removal of laryngeal growths by thyrotomy, is, in my opinion, more likely to be the result of permanent structural changes caused by the chronic inflammatory process than a direct consequence of the operation.—I am, etc.,

Glasgow, Dec. 14th, 1901. WALKER DOWNIE.

*** This correspondence must now cease.

THE TREATMENT OF CONSUMPTION: A DISCLAIMER.

SIR,—Having seen in the BRITISH MEDICAL JOURNAL of December 28th, 1901, a paper on a treatment of consumption written by M. Anslow Alabone, and your editorial remarks thereon, I wish to state it was written entirely without my sanction or knowledge.

I know nothing whatever of my son's treatment, and he little more of mine; his statement, therefore, that he has been conversant with my treatment for many years is not only misleading but perfectly inaccurate, although, as he observes, he has seen many cases of phthisis which were deemed hopeless recover under my treatment, but which were not under his "individual" professional care.

I could point out many errors in your criticism of my treatment, and it is hardly fair to ignore the numbers of cases of authenticated cure, but as an act of justice might I ask you to defer further judgment till my own treatment—and not that of my son's—has been fully tested, which will short y be the case?

Trusting you will give this the same publicity as you have given to your article.—I am, etc.,

Highbury Quadrant, N., Jan. 1st. EDW. W. ALABONE.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE session of special instruction at the Royal Naval Hospital, Haslar, terminated on December 21st, 1901, when the following surgeons received appointments to His Majesty's ships. Prizes were awarded to Surgeons A. T. Gailleton, M.B. (silver medal and books), and T. B. Shaw, M.B. (microscope).

Surgeons in Order of Seniority.

	Marks.		Marks.
T. B. Shaw, M.B.	6,014	G. S. Davidge	5,[illegible]
A. T. Gailleton, M.B.	5,731	P. T. Nicholls	4,[illegible]

P. L. Crosbie (entered under special Admiralty regulation).

The following appointments have been [illegible] TOPHER PEARSON, M.A., M.D., Fleet Surgeon [illegible] and JOHN STODDART, M.A., Surgeons, to the *Orion*; NICHOLLS, Surgeon, to the *Vivid*, additional, January [illegible] Surgeon, to the *Duke of Wellington*, additional, January [illegible] Surgeon, to the *Pembroke*, additional, January 2[illegible]: EDWARD O. B. CALBERY, Surgeon, to the *Seal*, undated: ROBERT HUGHES, Surgeon, to the *Moorhen*, undated: J. MACDONALD, Surgeon, to the *Jackal*, January 1st: T. F. O'KEEFFE, Surgeon, to the *Arrogant*, January 1st.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL A. F. PRESTON has resumed the post of P.M.O. in Ireland, on being relieved at the War Office by Surgeon-General W. Taylor, the newly-appointed Director-General.

ROYAL ARMY MEDICAL CORPS.

MAJOR J. McM. BOLSTER retires on retired pay, December 21st. He was appointed Surgeon, March 6th, 1880, and Surgeon-Major twelve years thereafter.

Quartermaster and Honorary Lieutenant B. GOATER, having completed ten years service, is granted the honorary rank of Captain, December 23rd.

Lieutenant-Colonel T. P. WOODHOUSE, and Civil Surgeons M. CLEARY, F. L. DICKSON, D. RITCHIE, and J. KEENAN are on passage home from South Africa.

The following have arrived home: Major B. M. SKINNER, Major F. A. SAW, Quartermaster W. N. ARCHIBALD, Captain C. O'C. HOLMES, Civil Surgeons W. A. DENSHA, G. PHILLIPS, W. A. SUMMELS, A. RUTHERFORD, B. K. GOLDSMITH, C. F. ACKLADE, F. J. HATHAWAY, W. GRAHAM, C. V. FLEWITT.

Civil Surgeon J. KELSO REID, who was severely wounded during the fighting at Tweefontein on December 25th, 1901, has since died.

The progress report states that the condition of Civil Surgeon WILLIAM JONES, suffering from enteric fever at Kroonstad, is grave December 26th.

Civil Surgeon WRIGHT, taken prisoner at Tweefontein, has been released.

Civil Surgeon F. F. MCCABE, reported in the BRITISH MEDICAL JOURNAL of December 14th, 1901, as missing, has *rejoined*.

Lieutenant JAMES STUART TWIGG, M.B., was killed in the recent fighting near Clanwilliam, South Africa. He was appointed Lieutenant, April 25th, 1900, and went to South Africa in June of the same year.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR S. H. MOORE and Surgeon-Captain C. E. R. BUCKNILL, having resigned their Volunteer commissions, cease to belong to the Army Medical Reserve of Officers, December 21st, 1901.

MILITIA MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT J. DAVIES is promoted to be Surgeon-Captain, November 23rd, 1901.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL P. MULLANE, M.D., Bengal Establishment, is permitted to retire from the service from November 1st, 1901.

IMPERIAL YEOMANRY.

EDWARD STEWART, late Surgeon, Middlesex Imperial Yeomanry, is appointed Surgeon-Captain in the Sussex Imperial Yeomanry, December 5th.

Private G. D. LAING is appointed Medical Officer 5th Battalion, with the temporary rank of Captain, April 9th, 1901. [This notification is substituted for that which appeared in the *Gazette* of September 3rd, 1901.] The following notification, which appeared in the *Gazette* of [illegible] cancelled: Private G. D. Laing, 5th Battalion, to be Medical Officer, with the temporary rank of Captain, April 9th, 1901.

Messrs. ARTHUR H. L. STEWART and FREDERICK A. F. BARNARDO, M.B., are appointed Surgeon-Lieutenants in the 2nd County of London Imperial Yeomanry, November 22nd, 1901.

THE VOLUNTEERS.

SURGEON-LIEUTENANT-COLONEL R. GOODING, M.D., 2nd Kent Artillery, resigns his commission, retaining his rank and uniform, December 14th, 1901.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps respectively specified: HARRY E. HEWITT, M.B., 1st Kent Artillery, December 21st, 1901: CECIL H. LEAF, M.B., [illegible] December 9th, 1901: HERBERT SHIPTON, 2nd [illegible] shire Regiment (Sherwood Foresters), December [illegible] BEARD, 4th (Stirlingshire) Volunteer Battalion Argyll and Sutherland Highlanders, December 21st, 1901: ARTHUR S. GREEN, M.B., 1st Volunteer Battalion the Lancashire Regiment, December 5th, 1901.

Surgeon-Lieutenant M. J. EUSTACE, M.D., 2nd Gloucestershire (Bristol) Engineers, retires under paragraph 118, Volunteer Regulations, December 21st, 1901.

Brigade-Surgeon-Lieutenant-Colonel W. J. FLEETWOOD, M.D., 4th Volunteer Battalion King's Liverpool Regiment, resigns his commission, December 21st, 1901; he retains his rank and uniform, and vacates at the same time his appointment as Senior Medical officer to the Mersey Volunteer Infantry Brigade.

Surgeon-Major W. D'O. GRANGE, M.D., Third (Dumfries) Volunteer Battalion King's Own Scottish Borderers, resigns his commission, retaining his rank and uniform, December 21st, 1901.

Surgeon-Lieutenant W.T. BROOKS, M.B., 1st (Oxford University) Volunteer Battalion Oxfordshire Light Infantry, is promoted to be Surgeon-Captain, December 21st, 1901.

Surgeon-Captain A. KINSEY-MORGAN, 1st Dorsetshire Artillery (Southern Division Royal Garrison Artillery), is promoted to be Surgeon-Major, December 25th, 1901.

Surgeon-Lieutenant F. W. W. WHYTE, 2nd Volunteer Battalion the Northumberland Fusiliers, resigns his commission, December 25th, 1901.

VOLUNTEER MEDICAL STAFF CORPS.

MESSRS. WALTER R. N. SMITHARD, M.B., and CLAUDE W. S. SABERTON, M.B., are appointed Surgeon-Lieutenants in the Manchester Companies, December 21st, 1901.

Surgeon-Lieutenant M. TAYLOR, M.B., the Woolwich Companies, is borne as supernumerary whilst serving with the R.A.M.C. in South Africa, December 4th, 1901.

THE KAISER-I-HIND MEDAL.

IN the list of Birthday Honours published in the BRITISH MEDICAL JOURNAL of November 16th, 1901, the name of Captain J. N. MacLeod, M.A., M.B., F.R.C.S.E., of the Indian Medical Service, who received the Kaiser-i-Hind silver medal, was accidentally omitted. The honour was conferred upon Captain MacLeod for work in connection with an epidemic of plague last spring in Rajputana.

THE RANK OF FLEET SURGEON.

A FLEET SURGEON writes to draw attention to the anomalous position of the fleet surgeons who rank "after" lieutenant-colonel. Under this rule a fleet surgeon, no matter of what seniority, would seem to be junior to a lieutenant-colonel, R.A.M.C. Our correspondent believes that the Director-General of the Royal Navy Medical Service, an officer who has the good of the service at heart, and who has during his term of office done so much for the department, will, when his attention is drawn to it, cause the apparent injustice to be remedied.

THE PROPOSED EXAMINATIONS.

FUNK writes, somewhat ironically, from South Africa: Kindly tell me whether, under this new scheme, majors who have served during the war and been mentioned in dispatches for special recognition will still be required, for promotion to lieutenant-colonel, to pass on the subjects on which commended under officials who have never left, say, Aldershot, or themselves have been a day in the field? Also name the textbooks on the various subjects of examination, those particularly which may for choice be picked up on the African veld? I passed a garrison class in military law for promotion to major, and am therefore supposed to know enough for any branch except the R.A.M.C., in which I am apparently expected to know as much as a judge-advocate-general. I should also like to know whether under this grand scheme starvation during a siege counts for anything: or if I am expected to detail the military medical arrangements of savage as well as civilized nations? Unless the Ordnance Store Departments tell me, how am I to know the number of bedpans per ward in the German or Japanese armies?

J.M.S.—We are not in a position to supply the information.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL COMMUNICATIONS TO THE LAY PRESS.

We have been requested to state that the letter published in the *Pall Mall Gazette* and *Morning Post*, signed by the surgeon to the Roentgen Ray Department of the London Skin Hospital, was written without the knowledge of the rest of the medical staff, and for it the writer takes sole responsibility.

UNQUALIFIED MIDWIFERY PRACTICE.

At the Hammersmith Coroner's Court on December 20th, 1901, Mr. Luxmoore held an inquest on the body of the newly-born child of [illegible]. From the reports in the *West London Observer* [illegible] that the mother was attended by a "pupil" of [illegible] Home, who on her arrival found the child dead, [illegible], and that the midwife who followed the pupil tied [illegible]. The coroner observed: "In any case where the child is [illegible] to be left as it is .... You destroyed the evidence, [illegible] kind I should advise you to leave things alone [illegible]. Dr. Barnes gave evidence that he found the [illegible] and that at first he saw no apparent cause of [illegible] that the child was born suddenly, [illegible] fatally into a vessel whilst micturi[illegible] was due to suffocation owing to the [illegible] drawn up into its lungs the co[illegible]. [illegible] *mortem* examination con[illegible] one and been present at the time the mi[illegible] de Hall. The midwife who tied the cord [illegible] child dead, described herself as "old [illegible]" ing a certificate from Miss Heatley. It does not appear that Miss Heatley either attended the case or gave evidence at the inquest, but we are informed that she is at the head of a private midwifery training institution called St. Clements Home, and that she sends out midwives and pupils to attend midwifery cases in the district, and issues certificates of competency to them. We offer no comment.

VALUE OF PRACTICE.

J. S.—A correspondent asks what would be the usual price paid for a share in an old established practice, that is, one year, or a year and a half, or two years' purchase? He also enquires in what proportion the expenses of the practice would be paid by the partners?

*** We are advised that such a practice would probably be worth at least a year and a half's purchase. The expenses of the practice would be paid in proportion to the shares of the partners. The usual way is to deduct the expenses first, and then divide the profits according to the shares.

INTRODUCING A SUCCESSOR.

A CORRESPONDENT asks if there is any objection: (1) To a practitioner introducing his successor personally to *bonâ fide* patients, although he may not happen to be attending them at the time. (2) To introducing his successor by sending him to such patients with his visiting card, having written thereon "To introduce Dr. ———."

*** A practitioner may always give a personal introduction to *bonâ fide* patients, but to send cards round as suggested is open to objection. If they are only sent to *bonâ fide* patients, no harm is done, but a practitioner should bear in mind that he is not justified in sending a card in any case where he would scruple to make a personal call.

BLANK; E. R. D.; L.R.C.P. and S Edin.—It is customary as a matter of courtesy to employ the title of "Dr." when addressing an M.B. of a university, except within the precincts of that university. Whether it is wise for a person who does not possess the degree of M.D. to assume the title of "Dr." or not because he is a medical man and commonly addressed as "Dr." by his patients, is a question which must be decided by each man for himself, having regard to the by-laws of the college to which he belongs.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At the congregation on December 12th, 1901, the following degrees were conferred:

M.D.—E. L. Evans, M.A., Trinity; J. G. Forbes, B.A., D.P.H., Christ's.

UNIVERSITY OF LONDON.

B.S. EXAMINATION FOR HONOURS.—The following candidates have satisfied the Examiners in the subjects undernoted:

Surgery.—First Class: F. B. Carter, M.D., University College; A. Edmunds, B.Sc. (scholarship and gold medal), King's College; T. C. Savage (gold medal), University College. Second Class: C. A. S. Ridout, St. Bartholomew's Hospital; R. P. Williams, King's College; W. H. McMullen, King's College. Third Class: E. L. Lilley, Charing Cross Hospital.

UNIVERSITY OF DUBLIN.

At the winter commencements, Michaelmas Term, held on Thursday, December 19th, 1901, in the Theatre of Trinity College, the following degrees in Medicine, Surgery, and Midwifery were conferred by the University Caput in the presence of the Senate:

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetricâ.—R. H. Atkins, H. Crossle, J. R. Collins (*B. Ch. stip. cond.*), S. J. Cullum, J. H. Douglass, E. D. Edwards, W. F. Erskine, M. J. Gibson, R. E. Hallahan, A. L. Hoops, A. E. B. Jones, K. W. Jones, C. S. Miller, G. F. White.

Doctores in Medicinâ.—C. K. Bushe, J. J. Crawford, G. Fitzgibbon, W. S. Haughton, J. W. Hillier, T. D. Homan, H. E. Littledale (*stip. cond.*), T. P. M'Kell, H. H. Orr, M. J. Smith, J. Tichborne, G. F. White.

THE LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.

A STUART MILL Scholarship, of the value of £30 a year for four years, will be awarded in May. The holder of the Scholarship is required to take his entire medical course at the school, and to enter into a legal agreement to practise in India under the Countess of Dufferin's Fund on the completion of her course of study. Applications should be in the hands of the Secretary of the School, 8, Hunter Street, W.C., by February 1st.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

WHEN IS A SEWER NOT A SEWER?

For the consolidation into one Act of the Public Health Act 1875 and the numerous Public Health Acts which have been passed since, certain alterations, the necessity for which time

has shown, must be made in the original Acts. Not the least important of these is the vexed question of what is a drain and what is a sewer? or, as the President of the Local Government Board put it jocularly the other day, "When is a sewer not a sewer?"

The answer to the conundrum seems to be at present the same as that given by the Archbishop to the question as to what is the difference between a certain conceited young man and a donkey? For nobody seems to know. A very important decision in an appeal case was given by Justices Wills and Wright on December 4th, 1893.[1] This was a case in the borough of Halifax in which a drain carrying sewage from three houses ran underneath all three, and subsequently discharged into the main sewer. The drain served only for these three houses, and could only be reached from within these houses, which all belonged to the same owner. Notwithstanding these circumstances the two learned judges arrived at the opinion that the drain was not a "drain" as defined in the Public Health Act 1875, but a sewer; that it was therefore vested in the sanitary authority, and that they, and not the owner of the houses, must keep it in repair.

Mr. Justice Wright remarked in stating his agreement with the decision arrived at by his colleague:

There is an apparent absurdity in holding that this really private drain under three houses (two of them only are in question) vests in the local authority as a sewer. The absurdity is in both directions; first of all, it seems absurd to take away what is really part of a man's house, and authorise the local authority to come in whenever they like, and do what they think necessary and reasonable there. And it is an absurdity also in the other way, in making the local authority liable for the cost of making good and keeping in repair what is really private property, which the owner of the house himself ought to put in good repair and keep in repair.

For the time this seemed to settle the whole question, to the great joy of the owners of insanitary property; and if this were all, and if it had been settled by appeal to the highest Court, it would simply have confirmed Mr. Bumble's opinion "that the law was a' hass." But although this decision has never been set aside, it has been astonishingly got round in other cases. For instance, in giving his decision in July, 1897, on a case where action had been taken, not under the Public Health Act, 1875, as in the case just mentioned, but under the Public Health Amendment Act, 1890,[2] Mr. Justice Cave reviewed the whole question in the following words:

By the Public Health Acts of 1848 and 1875 all sewers were vested in the local authority, and a sewer was practically described to be a drain dealing with the drainage of more than one house. It was found, however, that that extreme generality led to some difficulty; and one difficulty was that where a man built two houses upon his own land, and made a drain which took the joint sewage of the two houses into a sewer, that drain, within the language of the Act of 1875, became a sewer, and consequently vested in the local authority, and the local authority had to repair it. That difficulty was got over by holding that the enactment did not apply to a drain taking the drainage of two houses, but being within what was called the same curtilage; and consequently that, although it appeared to be within the words of the general law, it was not so, and that the drain, at all events until it came out into public property—property which is no longer private, so that the world at large can drain into it—could not be said to be a sewer at all, and, consequently, was not within the general terms of the enactment vesting sewers in the local authority.

The Judge then pointed out that this question of curtilage (which one would almost have thought ought to have been applicable in the Halifax case)—but which, as it was not before him, and as the case he was dealing with was under a different enactment, it was unnecessary for him to re-decide applied where houses belonged to one owner, but a difficulty arose where the houses belonged to different owners, and it was to meet this difficulty, he held, where

it was considered hard, and undoubtedly was hard, that the public should have to pay for what was to all intents and purposes a private drain, because the public were unable to connect their sewers to that drain and yet nevertheless they had to pay for it.

To meet that difficulty Section XIX of the Act of 1890 was passed, enabling the authority to apportion the cost of repairing a private drain used by two or more owners. This involves, of course, the difficult question of what is a private drain. In a previous case,[3] about a year earlier, Lord Chief Justice Russell laid it down that

a drain now, by the combined operation of Section IV of the Public Health Act, 1875, and Section XIX of the Act of 1890, for the purposes of this latter section, and for those purposes only, includes (1) a drain used for the drainage of one building only; (2) a drain used for the drainage of premises within the same curtilage; and (3) a drain used for the drainage of more than one building. The section therefore applies to two or more houses belonging to different owners connected with a public sewer by a single private drain, whether within the same curtilage or not.

In his judgment on the same case Mr. Justice Wills pointed out that the provision in the Amendment Act was not unreasonable. He said:

A drain of this character is generally an economical substitute for separate drains from each of the houses served by it to the public sewer. As a general rule, no public use can be made of such a drain; and there does not seem any reason in the nature of things why the owners of houses so drained should, by reason of the mere fact that two or more of them use the same private drain, escape the burden which would fall upon them if each house ran its drain direct into the public sewer.

He then hinted that the scheme was neither complete nor logical, for that if two or more houses constituted like those in the case he was deciding

belonged to one owner, this section would not apply, and yet there is no reason or policy which can be urged in support of such distinctive treatment.

Can anything be more absurd than that a man may lay a drain to two houses—underneath them if he will—and that the sanitary authority shall be responsible for its repair, while if he sells one of the two houses to someone else, the same drain, provided always it is not usable by the owners of other properties, becomes repairable by the owners?

[1] Travis v. Utley, L.R., 1894; 1 Q.B., 238; 70 L.T.; (N.S.) 242; 58 J.P., 85.
[2] Seal v. Merthyr Tydvil, 61, J.P., 551.
[3] Bradford v. Mayor of Eastbourne (2 Q.B., 205; 60 J.P., 501).

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,540 births and 4,233 deaths were registered during the week ending Saturday, December 21st, 1901. The annual rate of mortality in these towns, which had declined from 21.3 to 18.5 per 1,000 in the four preceding weeks, rose again to 19.3. The rates in the several towns ranged from 14.3 in Portsmouth, 15.1 in Croydon, 15.9 in Halifax, 16.3 in Norwich, and 16.4 in Hull to 22.1 in Liverpool, in Manchester, and in Salford, 22.2 in Gateshead, and 32.6 in Oldham. In the thirty-two large provincial towns the mean death-rate was 19.6 per 1,000, and exceeded by 0.9 the rate recorded in London, which was 18.7 per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.0 per 1,000; in London this death-rate was equal to 2.1 per 1,000, while it averaged 2.0 in the thirty-two large provincial towns, among which the highest zymotic death-rates were 3.1 in Bolton, 4.2 in Salford, 4.6 in Oldham and in Preston, and 4.9 in Blackburn. Measles caused a death-rate of 1.0 in Plymouth, 1.4 in Norwich and in Manchester, 1.5 in Oldham, 2.3 in Preston, 2.5 in Halifax, and 3.3 in Blackburn; whooping-cough of 1.1 in Burnley and in Sunderland, and 1.2 in Bolton and in Salford; "fever" of 1.2 in Salford; and diarrhœa of 1.1 in Burnley. The death-rate from scarlet fever did not exceed 1.0 per 1,000 in any of the thirty-three large towns. The 76 deaths from diphtheria in these towns included 34 in London, 8 in Liverpool, 3 in Croydon, 3 in Cardiff, 3 in Leicester, 3 in Manchester, and 3 in Salford. Twenty-four fatal cases of small-pox were registered last week in London, but not one in any other of the thirty-three towns. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday, December 21st, 1901, was 538, against numbers increasing from 172 to 506 at the end of the nine preceding weeks: 161 new cases were admitted during the week, against 123, 170, and 134 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 3,278, 3,241, and 3,111 on the three preceding Saturdays, had further declined to 3,033 on December 21st; 247 new cases were admitted during the week, against 320, 376, and 332 in the three preceding weeks.

In thirty-three of the largest English towns, including London, 4,565 births and 4,628 deaths were registered during the week ending Saturday last, December 28th, 1901. The annual rate of mortality in these towns, which had been 18.5 and 19.3 per 1,000 in the two preceding weeks, further rose last week to 21.1 per 1,000. The rates in the several towns ranged from 14.3 in Derby, 17.2 in Norwich, 17.4 in Halifax, and 18.1 in Bradford to 23.5 in Birmingham, 24.2 in Salford, 25.3 in Huddersfield, 26.3 in Burnley, and 29.3 in Manchester. In the thirty-two large provincial towns the mean death-rate was 21.4 per 1,000, and exceeded by 0.8 the rate recorded in London, which was 20.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.2 per 1,000; in London this death-rate was equal to 2.1 per 1,000, while it averaged 2.3 in the thirty-two provincial towns, among which the highest zymotic death-rates were 4.0 in Leeds, 4.7 in Norwich, 4.8 in Blackburn, and 6.0 in Preston. Measles caused a death-rate of 1.8 in Sheffield and in Sunderland, 1.9 in Salford and in Oldham, 2.2 in Huddersfield, 2.4 in Manchester, 3.3 in Norwich, and 6.5 in Preston; and whooping-cough of 1.1 in Liverpool and in Burnley, and 2.2 in Leeds. In none of the thirty-three towns did the death-rate from either scarlet fever, "fever," or diarrhœa reach 1.0 per 1,000. The 71 deaths from diphtheria in these towns included 28 in London, 7 in Burnley, 5 in Birmingham, 4 in Birkenhead, 4 in Liverpool, and 4 in Sheffield. Twenty-five deaths from small-pox were registered in London and 2 in West Ham, but not one in any other of the thirty-three large towns. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 474, 500, and 538 at the end of the three preceding weeks, had further risen to 605 on Saturday, December 28th, 1901: 295 new cases were admitted during the week, against 170, 144, and 161 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital Saturday last was 3,137, against 3,241, 3,188, and 3,033 on the three preceding Saturdays: 203 new cases were admitted during the week, against 327, 331, and 320 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, December 21st, 893 births and 584 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.5 and 20.7 per 1,000 in the two preceding weeks, further rose to 21.5 per 1,000, and was 2.2 in excess of the mean rate during the same period in the

thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.4 in Leith and 17.4 in Paisley to 27.7 in Dundee and 30.5 in Perth. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Glasgow and Dundee. The 329 deaths registered in Glasgow included 22 from measles, 2 from scarlet fever, 7 from whooping-cough, 6 from "fever," and 7 from diarrhœa. Seven deaths from measles, 2 from diphtheria, and 5 from diarrhœa were recorded in Dundee; and 2 from diarrhœa in Aberdeen and in Greenock.

During the week ending Saturday last, December 28th, 1001, 820 births and 720 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.5, 20.7, and 21.5 per 1,000 in the three preceding weeks, further increased last week to 22.6 per 1,000, and was 1.5 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 14.1 in Leith and 17.4 in Perth, to 24.2 in Dundee and 24.8 in Glasgow. The zymotic death-rate in these towns averaged 2.7 per 1,000, the highest rates being recorded in Dundee and Greenock. The 365 deaths registered in Glasgow included 22 from measles, 4 from scarlet fever 6 from whooping-cough, 3 from "fever," and 15 from diarrhœa. Two fatal cases of diarrhœa were recorded in Edinburgh. Ten deaths from measles, 4 from diarrhœa, and 2 from diphtheria occurred in Dundee; 3 from diphtheria and 2 from diarrhœa in Aberdeen; and 4 from measles and 2 from scarlet fever in Greenock.

MEDICAL NEWS.

THE offices of the London and Counties Medical Protection Society, Limited, have been removed to 31, Craven Street, Strand, W.C.

AN open scholarship in Natural Science, of the value of £50, at Sidney Sussex College, Cambridge, has been gained by Mr. A. J. May, of Epsom College.

WE are informed that the first general meeting of the British Electro-Therapeutical Society will be held on Friday, January 10th, at the house of the Medical Society, 11, Chandos Street, Cavendish Square, W., at 8.30 P.M., to receive the report of the Provisional Committee.

WE are requested to state that the Harben Lectures of the Royal Institute of Public Health will be given in King's College, London, on Monday, Tuesday, and Wednesday, January 13th, 14th, and 15th, at 5 P.M., by Dr. Max Gruber, Professor of Hygiene, and Director of the Hygienic Institute in the University of Vienna. The subject of the lectures, which will be given in English, is the Anti-bodies of the Blood. Persons interested are invited to attend.

UNQUALIFIED DISPENSERS.—Messrs. P. Morison and Son, S.S.C., Edinburgh, write "to give an emphatic denial to the statements in 'Scrutator's' letter [in the BRITISH MEDICAL JOURNAL of December 28th], which inter that the Council [of the Pharmaceutical Society] and the Registrar do not administer the law impartially. Let 'Scrutator' send the Registrar or us evidence justifying the prosecution of any member of the Pharmaceutical Society or his unqualified assistant for a breach of the law, and we undertake that, in the interests of the public, proceedings will be taken against the offender."

MEDICAL ATTENDANCE ON THE FAMILIES OF SOLDIERS IN SOUTH AFRICA.—Surgeon-Major J. J. de Z. Marshall, 3rd Volunteer Battalion East Surrey Regiment, has received a communication from the Secretary of State for War stating that he has received a representation of the zealous and kindly manner in which he has given freely medical aid and treatment to the wives and children of soldiers serving in South Africa, and to men invalided from the seat of war who have resided in the neighbourhood of Teddington. Mr. Brodrick expressed his warm appreciation of, and sincere thanks for, the valuable services rendered by Surgeon-Major de Z. Marshall, and for the untiring care with which he has attended to the wants of those who have received medical treatment at his hands.

KING EDWARD'S HOSPITAL FUND FOR LONDON.—His Majesty the King has expressed his desire that as he was so much identified both with the creation and the success of the Prince of Wales's Fund for London, and as he continues to take a great interest in it, its name should be changed to that of "King Edward's Hospital Fund for London." Effect has accordingly been given to His Majesty's wish. The managers of the Fund have, owing to the increase of the work of administration and the increase of staff thereby made necessary, been obliged to take permanent offices at 81, Cheapside, E.C. As this double alteration of name and address may easily lead to confusion, we think it well to call attention to the fact that all remittances and communications intended for what has hitherto been known as the "Prince of Wales's Hospital Fund for London" should in future be sent to the "King Edward's Hospital Fund for London" at the address given above.

THE Committee appointed by the Lord President of the Council to consider what alteration may be expedient in Schedule A of the Pharmacy Act, 1868, has recently held several meetings under the presidency of its Chairman, Sir Herbert Maxwell, M.P., and has heard evidence from coroners and from representatives of agricultural and trade organisations.

MEDICAL VACANCIES.

The following vacancies are announced:

BARNSTAPLE NORTH DEVON INFIRMARY.—House Surgeon. Salary, £80 per annum, with board, residence, and washing. Applications to the Honorary Secretary.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to be sent to the Secretary.

BUXTON: DEVONSHIRE HOSPITAL.—(1) House-Surgeon. Salary, £100 per annum. (2) Assistant House Surgeon. Salary, £50 per annum. Furnished apartments, board and lodging provided in each case. Applications to the Secretary by January 25th.

CHATHAM: MEDWAY UNION.—Resident Medical Officer for the Workhouse and Schools, between 25 and 40 years of age. Furnished apartments and attendance provided. Salary, £150 per annum, and additional fees. Applications, on forms provided, to be sent to the Clerk, 23, High Street, Chatham, by January 6th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Second House-Physician. Appointment for six months. Salary, at the rate of £30 per annum, with board, washing, and residence. Applications to the Secretary by January 8th.

COLCHESTER: ESSEX AND COLCHESTER HOSPITAL.—Assistant House-Surgeon; male, unmarried. Appointment for six months, but renewable, and eligible for senior post should vacancy occur. Salary at the rate of £5 per annum, with board, lodging, and washing. Applications to the Secretary by January 10th.

DOUGLAS: NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon; unmarried. Salary, £82 per annum, with board and washing. Applications to the Honorary Secretary, 25, Athol Street, Douglas, Isle of Man, by January 25th.

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £140 per annum, rising to £160, with board, laundry, and attendance. Applications to the Medical Superintendent, Durham County Asylum, Winterton, Ferryhill.

EDINBURGH ROYAL INFIRMARY.—Pathologist. Salary, £100 per annum. Applications to Mr. W. S. Caw, Treasurer and Clerk, by January 31st.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Junior Resident Medical Officer and Registrar. Salary, £50 per annum, with board and washing. Applications to the Committee of Management by January 18th.

GLASGOW ROYAL INFIRMARY.—Superintendent, must be registered medical practitioner, and not exceed 45 years of age. Salary, £500 per annum, with board, house coals, and light. Applications to the Secretary by January 15th.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum, with board, residence, and laundry. Applications to the Secretary.

HAMPSTEAD HOSPITAL.—Resident Medical Officer. Appointment for six months, but eligible for re-election. Salary at the rate of £120 per annum, with rooms, coals, and gas. Applications to the Secretary at the Hospital, Parliament Hill, N.W., by January 16th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. Salary, £450 per annum, with partially furnished house etc. Applications, endorsed "Application for Medical Superintendent," to be sent to the Clerk to the Visiting Committee, County Hall, Brecon, by February 28th.

LANCASHIRE COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, with board, lodging, and washing. Applications to the Medical Superintendent, Winwick, Newton-le-Willows, by January 20th.

LEICESTER INFIRMARY.—Clinical Clerk. Appointment for six months. Honorarium, 3 guineas, with board, apartments, and washing. Applications to the Secretary, 24, Friar Lane, Leicester.

LURGAN UNION.—Female Resident Medical Officer for the Workhouse and Fever Hospital. Salary, £80 per annum, with apartments, laundry, and rations. Applications to be sent to the Clerk of the Union by January 9th.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £70 per annum, with board and residence. Applications to the House Committee by January 16th.

MULLINGAR DISTRICT ASYLUM.—Female Junior Assistant Medical Officer; unmarried, and not more than 32 years of age. Salary, £100 per annum, with board, furnished apartments, attendance, and laundry. Applications to the Resident Medical Superintendent by January 7th.

SALOP COUNTY COUNCIL.—Medical Officer of Health, between 35 and 50 years of age. Salary, £750 per annum. Applications to the Clerk, Shirehall, Shrewsbury, by January 13th.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon; unmarried. Appointment for six months. Honorarium at the rate of £80 per annum, with residence, board, and washing. Applications to the Secretary, 24, King Street, Southport, by January 4th.

STOCKTON-ON-TEES: STOCKTON AND THORNARY HOSPITAL.—House-Surgeon, non-resident, not exceeding 30 years of age. Salary, £250 per annum. Applications to the Secretary by January 7th.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by January 8th.

TOTTENHAM HOSPITAL, N.—House-Surgeon. Salary, £60 per annum, with board, residence, and laundry. Applications to the Joint Committee by January 13th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—House-Surgeon. Appointment for six months. Honorarium, £25, with board and lodging. Applications to the Secretary by January 11th.

WATERFORD DISTRICT ASYLUM.—Assistant Medical Officer; unmarried, and not exceed ing 30 years of age. Salary, £100 per annum, with furnished apartments, board, washing, and attendance. Applications to the Resident Medical Superintendent by January 6th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Two Honorary Assistant Surgeons. Applications to the House Governor by January 9th.

WORCESTER COUNTY AND CITY ASYLUM, Powick.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £140 per annum, rising to £160, and all found. Applications to the Medical Superintendent by January 11th.

MEDICAL APPOINTMENTS.

BANNERMAN, W., M.B., C.M.Edin., appointed Medical Officer for the Skidburn District of the Clitheroe Union, *vice* A. N. Clemenger, L.S.A., resigned.

BREWER, D., M.R.C.S.Eng., L.R.C.P. Lond., appointed an Assistant Medical Officer in the hospitals service of the Metropolitan Asylums Board.

CAMPBELL, Kenneth, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer to the Parish Council of Kilmore and Kilbride.

CHRONNELL, J., M.R.C.S.Eng., L.R.C.P.I., appointed Medical Officer of Health for the Hindley Urban District.

FERRIER, David, M.B., Ch.B.Edin., appointed House-Surgeon to the Salisbury Infirmary.

FORBES J. Graham, M.A., M.D., D.P.H., appointed Medical Officer to the Gold Coast Anglo-French Boundary Commission, West Africa.

GEDGE, A. S., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Fifth District of the Devizes Union.

GOADBY, Kenneth W., L.D.S.Eng., D.P.H.Camb., appointed Bacteriologist and Lecturer on Bacteriology to the National Dental Hospital.

HALL, J. N., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Mayfield District of the Uckfield Union.

KELYNACK T. N., M.D., M.R.C.P., appointed Assistant Physician to the Mount Vernon Hospital for Consumption and Diseases of the Chest, Hampstead and Northwood.

LACK, H. Lambert, M.D.Lond., F.R.C.S., appointed Aural Surgeon to the London Hospital.

MOORE, W. C., M.B., B.C.Camb., appointed Medical Officer of Health for the Stow-on-the-Wold Urban District, *vice* C. A. Corke, F.F.P.S.Glasg., L.R.C.P.Edin.

NIVEN, R., M.B., B.Ch.Glasg., D.P.H.Camb., appointed an Assistant Medical Officer in the hospitals service of the Metropolitan Asylums Board.

PARSONS, J. A., M.D., appointed Medical Officer for the Clipsham District of the Stamford Union, *vice* J. R. Scott, M.R.C.S., L.R.C.P.Lond., resigned.

PRESTON, L. L., M.B., B.S.Durh., appointed Medical Officer of Health for the St. Helen's Urban District, Isle of Wight, *vice* A. Woodward, M.R.C.S.Eng., resigned.

PURDON, J. A., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Pinchbeck District of the Spalding Union, *vice* G. Halcock, M.R.C.S.Eng., L.R.C.P.Lond., resigned.

REDPATH, Wm., M.R.C.S.Eng., L.R.C.P., appointed Medical Officer of Health to the Wooderidge Urban District Council, *vice* G. C. Edwardes-Ker, L.R.C.P.Lond., M.R.C.S.Eng.

RIDOUT, C. A. S., M.B., B.S.Lond., M.R.C.S., L.R.C.P., appointed House-Surgeon to the North Staffordshire General Infirmary and Eye Hospital, Stoke-on-Trent.

SHANNON, W. J., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed District Medical Officer of the Boyle Swade Union, *vice* A. Argo, M.B., C.M.Aberd.

SMITH, Edwin Charles Temple, M.B., Ch.B., R.U.I., M.R.C.S.Eng., L.R.C.P.Lond., appointed an Honorary Surgeon to the General Hospital, and to be Medical Officer of the Children's Hospital, Charters Towers, Queensland.

SMITH Oswald, M.B., B.S.Edin., appointed House Physician to the Salisbury Infirmary.

SPENCER, A. R., M.B., M.R.C.S., L.R.C.P., appointed an Assistant Medical Officer in the hospitals service of the Metropolitan Asylums Board.

STEVENS, Thomas George, M.D.Lond., F.R.C.S.Eng., M.R.C.P.Lond., appointed Obstetric Tutor to St. Mary's Hospital.

TAYLOR, M. R., M.R.C.S., L.R.C.P.Lond., appointed District Medical Officer of the Holston Union, *vice* B. C. Kenoal, M.R.C.S.Eng.

VERLEY, Reginald Charles, M.B., Ch.B.Edin., M.R.C.S.Eng., L.R.C.P.Lond., B.Sc., appointed Resident Medical Officer to the St. Marylebone Dispensary, Welbeck Street, W.

WARE, G. S., M.B., B.S.Durh., appointed District Medical Officer of the Barnstaple Union, *vice* J. W. L. Ware, L.R.C.P.Lond., M.R.C.S. resigned.

WINTER, W. H. T., M.R.C.S., appointed Medical Referee under the Workmen's Compensation Acts for the Wolverhampton County Court District of Circuit No. 25.

DAIRY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Dr. Poynton and Dr. Paine: The Experimental Production of the Osteo-arthritic Variety of Rheumatoid Arthritis. Dr. A. E. Eastwood: On the Occurrence of Suprarenal Rest Tumours in the Pelvis. Mr. L. H. McGavin: Multiple Osteomata. Mr. H. L. Barnard: Specimens of Intestinal Obstruction from Gall Stones. Dr. Fairbairn: Renal Tumour. Dr. Fennell: Congenital Malformation of Heart. Card specimen by Dr. Thursfield.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 P.M.—Demonstration of Cases of Interest.

FRIDAY.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, W.C., 8 P.M.—Dr. D. S. Davies: Plague Exclusion and Control.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith Road, W., 8.30 P.M.—Adjourned Discussion on Mr T. Atkinson's Paper on the Small-pox Epidemic; Dr. Leonard Dobson on Glycerinated Calf Lymph.

Laryngological Society of London, 20, Hanover Square, 4.30 P.M., Annual Meeting. 5 P.M., Ordinary Meeting.—Cases and specimens will be shown by Dr. Bronner, Dr. Scanes Spicer, Dr. Horne, Dr. Thorne, Dr. Sharman, Dr. Milligan, and Dr. St Clair Thomson.

British Laryngological, Rhinological, and Otological Association, 11, Chandos Street, W., 4 P.M.—Cases will be shown and papers read by Mr. Claud Woakes, Dr. Wyatt Wingrave, Mr. Atwood Thorne, Mr. Lennox Browne, Mr. Mayo Collier, and others.

Clinical Society of London, 20, Hanover Square W., 8.30 P.M.—Mr. A. W. Mayo Robson: The Radical Treatment of Chronic Tuberculosis of the Intestines. Mr. E. Percy Paton: A Case of Hairball removed from the Stomach of a Child of Nine years. Mr. H. W. Page: Two Cases of Arthritis of the Knee and Leg, with an Investigation into the Pathogenesis, by Dr. Alex. Paine, and Dr. F. J. Poynton.

POST-GRADUATE COURSES and LECTURES.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 P.M.—Pathological Demonstration.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 P.M. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, out.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

DEATH.

SHAW.—On December 31st, 1901, at the residence of her parents (Dr. and Mrs. Mermon) Dada Pole, Hull, Amy Gertrude, aged 31, beloved wife of J. Custance Shaw, M.R.C.S., L.R.C.P.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C.

ORIGINAL ARTICLES and LETTERS intended for publication in the BRITISH MEDICAL JOURNAL should be addressed to the Editor, 1, Agar Street, Strand, W.C.

ADVERTISEMENTS, Subscriptions, and Business Communications should be addressed to the Manager, 1, Agar Street, Strand, W.C.

CORRESPONDENTS will please write their communications on one side of the paper only, and authenticate them with their names and addresses, not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

B. asks what is the best and safest way of arresting the secretion of milk in a case where it is not desirable for the mother to nurse.

DR. JOSEPH MCFARLAND (Professor of Pathology and Bacteriology, Medico-Chirurgical College, Philadelphia, U.S.A.) desires to obtain information as to any cases of tetanus which may have followed vaccination.

VALENCIA asks for suggestions as to treatment of a man, aged 25, who has been suffering from trichocephalus dispar for four months. The only symptom of which he complains is a distressing itching at the anus, and frequently, even whilst at his work, the worms (two or three) are ejected from the anus. The complaint has not yielded to santonin, thymol, injections of quassia, or alum, nor to suppositories of thymol and alum and the use of magnesium sulphate. The oil of male fern has been of no use.

ANTITYPHOID INOCULATION.

SCEPTIC writes: The husband of a patient of mine wishes to know if his wife should be inoculated with antityphoid vaccine before accompanying him to India. Is this advisable in view of the fact that so many authorities have of late expressed doubts as to the benefits to be derived by means of this serum? Have any ill-effects been known to follow the operation?

INVOLUNTARY DEFÆCATION IN A BOY.

M.D. writes: An intelligent bright, healthy boy, aged 11 years, is constantly in the habit of passing motions in his trousers, sometimes quite healthy motions. He appears to feel the disgrace of it, and says that he does not know how it happens. Is there any disease of any kind indicated by this habit, and, if so, what is it?

ANSWERS.

THE correspondent who forwarded a page from the *Australasian* (published at Melbourne) is informed that the name does not appear upon the *Medical Register* for 1901. He may also consult the BRITISH MEDICAL JOURNAL of November 16th, 1901, p. 1511.

URETERAL SPASM.

DR. GEORGE W. ORD (Richmond) writes: In answer to "A. B." in the BRITISH MEDICAL JOURNAL of November 16th, 1901, may I suggest the use of glycerine in doses of 3jss with an equal quantity of water? I have given it again and again in a case of renal colic due to calculus, and always with the happiest results, the pain disappearing in from twenty minutes to half an hour, and not recurring.

INCOME TAX

THE Income-Tax Repayment Agency, of 6, Chichester Road, Paddington, London, W., writes: As our advice and opinion have been at various times at your request given in the BRITISH MEDICAL JOURNAL to inquirers on income-tax, you will perhaps allow us to correct the inaccuracies in the JOURNAL of December 21st, 1901, under the heading "Income-Tax Abatements, etc." In the list of deductions said by "Sordello" to be permissible are many which would not be allowed; for instance, life insurance premiums, accident and sickness insurance, good debts of the preceding years return remaining unpaid, *locum tenens*, employers' liability. In fact, we have some doubts as to whether the writer knows how to make out his accounts for an income-tax return. It is, however, when he proceeds to give advice that we would warn your readers. First, he says, when a man starts practice, and sets up, his estimate of taxation may be returned as "x," or professional exemption, or unknown. The Act very distinctly states that the profits must be estimated on the basis of the profits made during the time the person has been in business. Secondly, "Sordello" says that when one joins a large firm or practice his return is that of his share *plus* private means, if any. In no case should a return be made of private means, otherwise the declarant would be taxed twice over. Thirdly, "Sordello" advises a person who follows on to make a deduction of one-third of the previous average (three years) for depreciation until he has realised the yearly value of his level best. Should any person follow this advice he will find himself liable to a prosecution in

the Court of King's Bench, and mulct in a fine of £50 and treble the duty thus evaded.

HONESTY writes: I would strongly advise "C. P. C." to appeal to the Commissioners. I have been allowed two-thirds rent of house and surgery, but have been forced to come to the conclusion that surveyors of income tax either purposely or through ignorance try to make us pay more than is right. My experience of the Commissioners has been satisfactory.

*** About 75 per cent. of actual cost of driving expenses may be deducted by a medical practitioner for income-tax purposes. He must not deduct the whole, as his carriage is not employed solely for business purposes. If £250 represents the above proportion of actual expenses it may properly be deducted.

TREATMENT OF PHIMOSIS.

DR. W. PRICE (Coonoor, India) writes in reply to "Eucaine" (who asked on September 7th, 1901) if slitting the foreskin and mucous membrane to the base of the glans did not give sufficiently good results) that the mucous membrane is alone at fault and alone needs incision. He withdraws the foreskin as far as possible, and with a pointed bistoury transfixes a double fold of the skin and mucous membrane and cuts out; he then draws the tissues back again and cuts through mucous membrane alone until the glans is freely exposed. He next puts in three horse-hair sutures, one joining the apex of the skin cut with the apex of the mucous membrane and the others joining mucous membrane to mucous membrane. The operation he has performed without any anæsthetic and with but little pain, and the patient, he has found, may go out a little on the following day.

CAPTAIN H. B. BARNETT, R.A.M.C. (Jubbulpore) writes: The operation suggested by "Eucaine" is quite practicable: indeed, in military practice it is seldom done in any other way. Fifteen minutes before, a small plug of wool, saturated with a 10 per cent. solution of cocaine is injected under the prepuce, and a few minims should be injected into the substance of the prepuce immediately before the operation at three or four points. After slitting the prepuce, the skin and mucous membrane should be approximated accurately by sutures. Carbolic oil lint is the best dressing. The patient may go about a little next day. Potassium bromide should be given for two or three evenings. A bistoury on a director is the best for the dorsal incision, and very sharp scissors for the flaps round the glans.

LETTERS, NOTES, Etc.

A CORRECTION.

MR. HUGH G. MCKINNEY, of St. Bartholomew's Hospital, who was described in the Contents of the BRITISH MEDICAL JOURNAL of December 28th, 1901, as "M.R.C.S.," writes to say that he is not yet a Member of the Royal College of Surgeons.

MOSQUITOS ATTRACTED BY SOUNDS.

DR. S. M. LAURENCE (Port of Spain, Trinidad) writes: Under the above heading I notice you quote in the BRITISH MEDICAL JOURNAL of October 12th, at the instance of Major Ross, the observation of a Jamaican correspondent on the effect of certain sounds in attracting mosquitos, remarking at the same time that, so far as you are aware, the observation was new. The fact of the case, however, is that it has been known long ago, but like many a bit of information about so common an enemy it has been passed over. Reading your paragraph carried me back in thoughts to the days of childhood, when with others I often amused myself at dusk by attracting and killing mosquitos, which seemed to be much more numerous then than now. We would vie with each other in hitting off the note that would prove the most attractive to these pests, and thus secure us the greatest slaughter. As far as my memory serves me, the sound that was most in favour was a continuous "oo" pitched in a medium key, and then suddenly changed to a lower "ah," drawn out in the same way. Most vivid is the recollection of the sudden rise in the volume of their noise, and the equally sudden attack on the face as they promptly answered the invitation. This ruse was often had recourse to not only for amusement, but also to seek to put a stop to their unwelcome attentions. While referring to something that attracts mosquitos, I may mention a couple of experiments which I made relative to the effect of the eucalyptus in repelling them. In endeavouring to answer the questions whether the eucalyptus tree kept away mosquitos or the leaves falling into the pools prevented the development of the larvæ, I tied up a bunch of fresh leaves in a dark corner, and exposed an infusion of leaves to mosquitos. The presence of the leaves made no difference, for they even settled on them, while they laid on the infusion, and the eggs developed as in ordinary water. This would seem to support Celli's view that eucalyptus trees have no special value in keeping away mosquitos.

THE DUFFERIN HOSPITALS FOR INDIA.

FAIRPLAY writes: Will you permit me a few lines in the BRITISH MEDICAL JOURNAL to contradict a statement made by "M.D. Into Dufferin Service" against Indian-trained medical women in your issue of November 30th? To say "that the reason for the non-success of the Dufferin Hospitals among purdah women is largely to be found in the fact that Indian-trained medical women are not capable of undertaking serious surgical work" is a sweeping assertion unjustifiable of the said women or their work, and an entirely mistaken reason which is given for non-success among the "purdah" class. If the said "M.D." had a wider experience of Dufferin work and a better knowledge of the social conditions of the "purdah" class, she would see that the "non-success" (by which I suppose she means the proportionately small attendance of "purdah" women as compared to that of the other classes) exists because of the prejudice of these women to hospitals, which being public institutions it is considered a breach of "purdah" to enter; besides, it is thought a disgrace by high-caste women to be treated at a charitable institution. I have been connected with the largest Dufferin Hospital in India, as well as one of the smallest, and I feel I can venture an opinion regarding the prejudice of the "purdah" class to attend a public institution where all classes of women are admitted; but this prejudice is being overcome, and if "M.D. late Dufferin Service" will take the trouble to look up a few of the annual Dufferin reports she would see that the yearly returns of the attendance of "purdah" women are not on the decrease, but on the increase, although the progress is slow; so that this can hardly be called "non-success." It will take years and perhaps generations to overcome the prejudices of the "purdah" class, and besides the present equipment of a large number of the Dufferin Hospitals crippled by poor finances does not enable "the Indian-trained medical women" attached to them to do what they would like for the said "purdah" class, and in the meantime we must be content with slow progress.

LETTERS, COMMUNICATIONS, ETC., have been received from

B Dr. C. A. Ball, Dublin; Mr. E. C. Barnes, London; J. E. Bates, M.B., London; Mr. H. N. Barnett, Knock; Mr. L. Browne, London; Dr. J. Bately, Gorleston; Mr. J. N. Bredin, Maidstone; Dr. B.; B.L.F.; Dr. J. B. Brierley, Manchester; Mr. W. Berry, Wigan; Blister; Mr. T. H. Brocklehurst, Weymouth. C Dr. E. Cautley, London; J. G. Cooke, M.B., Londonderry; Mr. W. H. Clarke, Macclesfield; Commander H. W. Colomb, R.N., Hull; W. Cowie, M.B., Charlton; Carcinoma; G. E. J. Crallan, M.B. Bournemouth. D Dr. T. G. Davy, Fremantle, W.A.; Dr. A. Davidson, Singapore; Dr. C. Dukes, Rugby; D.; Disappointed; Dr. L. C. Dobson, London; Lieutenant-Colonel A. Deane, Belfast. E Messrs. Evans, Lescher and Webb, London; E. F.; Dr. Ewald, Berlin; Messrs. Eyre and Spottiswoode, London. F Mr. W. T. Freeman, Reading; Fairplay Dr. H. M. Fletcher, London. G Mr. J. Good, Stockport; Dr. J. Galloway, London. H Mr. J. S. Harris, Birchington; Dr. F. W. N. Haultain, Edinburgh; Dr. J. Hamilton, M.B., Aberdeen; Dr. W. H. Hewlett, Sunbury-on-Thames; Mr. D. Hadden, Wexford Dr. A. E. H. C. Hallen, London; Mr. H. Hilliard, London; Mr. J. C. Heaven, Clifton; Mr. W. J. Hepburn, Dublin; Mr. J. Hutchinson, Jun., London. I I.M.S.; Dr. J. Ince, Swanley. J H. Jones, M.B., Dolgelly; J.D.; Dr. G. P. Johnson, Stoke-on-Trent; J. T. W.; J. F.; R. J. Johnstone, M.B., Belfast. K Dr. E. D. Kirby, Birmingham. L Dr. J. Lawrie, Glasgow; Dr. E. T. Larkam, Manchester; Long Service; Sir F. Lovell, C.M.G., Bombay; Dr. J. B. Littlejohn, Chicago; Dr. T. G. Lyon, London. M Medicus; Dr H. J. Macevoy, London; Mr. J. J. de Z. Marshall, London; Mr. H. W. Mason, Longford; A. Murchison, M.B., Uig; Dr. F. H. Maberly, Rushbrooke; M.D.; Mr. S. W. Macilwaine, Redhill; M. L.; M.R.C.S.; Mr. H. G. McKinney, London; L. D. Mackay, M.B., Knaresborough; Messrs. P. Morison and Son, Edinburgh; W. J. McCardie, M.B., Birmingham; Mr. J. H. Marsh, Macclesfield; Mr. C. A. Morton, Clifton; Dr. G. N. Meachen, London; Member B.M.A. N Major W. B. Nisbet, London; Dr. J. T. C. Nash, Southend-on-Sea; T. D. Newbiggin, M.B., Abington; Messrs. F. Newbery and Sons, London; Mr. W. J. C. Nourse, London. O One of the Crucified; Mr. G. W. Ord, Richmond, Surrey. P Mr. R. D. Patterson, Caledon; Public Vaccinator; Patents; T. W. Parry, M.B., Youlgreave; Philanthropist; Dr. C. Parsons, London. R Mr. H. A. Reeves, London; Mr. E. L. Robinson, Guernsey; G. W. Roll, M.B., London; Dr. R. R. Rentoul, Liverpool, G. W. Robertson, M.B., Cathcart; R. J. S.; Mr. C. F. Rudd, Statham. S E. A. Saunders, M.B., London; Mr. J. F. Steedman, London; A. Somers, M.B., Selby; Mr. R. Stoney, Masindi, Uganda; J. Stevenson, M.B., Redditch; Mr. J. Startin, London; Dr. S. Sunderland, London; Sceptic; Scotus; Mr. E. Smith, London; W. A. Stewart, M.B., Oldham; Mr. C. G. Stuart-Menteath, London; C. H. Saunders, M.B., Southampton; Mr. W. Shaw, Halifax; Messrs. E. Shaw and Co., Manchester; Messrs. W. B. Saunders and Co., London. T F. W. Taylor, M.B., Blackburn; Tubercle; Dr. E. D. Tomlinson, Folkestone; J. Thomarson, M.B., London. W A. Wauchope, M.B., Glasgow; Sir S. Wilks, Bart., London; Mr. A. R. Walters, Reigate; Dr. D. Walsh, London; Mr. A. W. Wigmore, London; G. B. Wood, M.B., Sandown. L of W.; Mr. A. Walker, Liverpool; C. S. Wallace, M.B., London; Dr. T. J. Wood, Bradford; Mr. C. Williams, London; E. B. Waggett, M.B., London. Y Mr. W. J. Young, Cambridge Mr. E. P. Young, London.

BOOKS, ETC., RECEIVED.

Beiträge zur Gynäkologie und Geburtshilfe. Festschrift Professor Dr. Leopold Landau gelegentlich seines 25 jährigen Docenter-Jubiläums gewidmet von ehemaligen und jetzigen Assistenten und Schülern. Berlin: A. Hirschwald. 1901.

The Healing of Nerves. By C. A. Ballance, M.S., F.R.C.S., and P. Stewart, M.A., M.D., M.R.C.P. London: Macmillan and Co. 1901. 12s. 6d.

Beiträge zur Ernährung im Kindesalter. Von Dr. M. Rubner. Berlin: A. Hirschwald. 1902. M. 2.

Typhoid Fever and Typhus Fever. By Dr. H. Curschmann. Edited by W. Osler, M.D. Authorised Translation under Editorial supervision of A. Stengel, M.D. London: W. B. Saunders and Co. 1902.

Atlas der pathologischen Histologie des Nervensystems. Redigirt von Dr. V. Babes. Lief. 8. Berlin: A. Hirschwald. 1902. M. 12.

Year-Book of Pharmacy, 1901. London: J. and A. Churchill. 1901.

A Monograph of the Culicidæ or Mosquitos. By F. V. Theobald, M.A., F.E.S. In Three Volumes. London: Longmans, Green and Co. 1901.

Profitable Fruit-Growing. By J. Wright, V.M.H., F.R.H.S. Sixth Edition. London: W. H. and L. Collingridge. 1901. 1s.

The "Festering Sore" in South Africa as viewed by a Surgeon; and The "Cry of the Children" as he hears it. By J. Shaw, M.D. London: John Bale, Sons and Danielsson. 1901. 6d.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	0	1	0
Each additional line	...	...	...	0	0	6
A whole column	...	...	...	1	17	6
A page	...	...	...	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

A Lecture
ON
MATERNITIES AND PRE-MATERNITIES.

Delivered in the Royal Maternity and Simpson Memorial Hospital, Edinburgh, November 6th, 1901.

BY J. W. BALLANTYNE, M.D., F.R.C.P.E., F.R.S.EDIN.,
Lecturer on Midwifery and Diseases of Women and Children, Medical College for Women, Edinburgh.

GENTLEMEN,—The building in which we are now assembled is a maternity hospital, and a maternity hospital may be defined as a hospital with two patients in one bed. In this respect it differs from all other hospitals. To be quite exact, I ought perhaps to say that it is a hospital with one patient in each bed and one in the cot attached to each bed—one patient in the large bed and one in the adjacent cot. What would be a sign of overcrowding and an anomaly in another hospital is (or ought to be) the normal in the maternity. But let me at once add, although it is with reluctance that I do so, that all maternities do not come up to the high standard of the definition given above: rather, let me say, each maternity does not always and entirely come up to this standard, although all no doubt aim at it, and rejoice when they attain to it. So there are exceptions—there are maternities *and* maternities. Each maternity hospital in its time passes through different phases: each is not always in the two-patients-to-one-bed stage. Let us look briefly at some of these exceptions—at some of these stages.

MATERNITIES, IDEAL AND OTHER.

1. There is first of all, and saddest of all, and most abnormal of all, the maternity with no patients in its beds. Such a maternity hospital, such a stage in the history of a maternity hospital is a disgrace. What would be the very best state for, say, a small-pox hospital or a plague hospital, is the very worst for a maternity hospital. A maternity without mothers is a contradiction in terms, and a maternity without infants and mothers is a disgrace and a public scandal—a scandal which I am sure the medical staff of every maternity hospital is determined to prevent at any cost. What does such an empty maternity mean? It means puerperal fever, and we now know that puerperal fever means sepsis, and sepsis of the worst sort; and also, let us rejoice in the qualification, sepsis which is avoidable and to be avoided. There are no two periods in life so fatally acted upon by septic organisms and septic toxins as the period of the puerperium and that of the newborn infant. The puerperal woman and the neonatal infant must be saved from the attacks of all pyogenic microbes, else the maternity becomes the abode of death instead of the home of life. That both mother and infant can be saved from all such microbic onslaughts is happily true, it is being done every day; so that now it is the exception to find any maternity passing even temporarily through the stage of tenantless beds.

2. Then there is the maternity hospital with one patient in each bed. Here there is no little bundle of life in the cot or crib which stands so suggestively at the side of the bed. There is a sad silence in such a hospital, a silence which does not betoken peaceful satisfaction, but unconsidered bereavement, for one of the saddest features of the silence is that it is sometimes participated in by the mothers who have not always been looking joyfully forward to the happiness that follows the birth pangs. The illegitimate infant that comes dead into the world is not always mourned for with loud crying. Silence in the maternity wards is silence out of place; it is an ectopic silence; in these wards noise is normal. The maternity physician does not apologise for a noise in the wards when he is showing the hospital to visitors and possibly benefactors; but he is not anxious to have any visitors at all when there are not many babies to be seen and heard. The maternity with a high infantile mortality is an anomaly; it is an instance of the persistence of a type which used to be common, but which is now rare and likely to become much rarer. It is a relic of past obstetrical theories and practice. In it the rule of interference is to consider the mother and not the infant; in it craniotomy upon the living fœtus is common and is preferred to induction of premature labour, symphysiotomy, or Cæsarean section.; and in it fœtal life is not highly esteemed, if, indeed, it is considered at all. After all, such a maternity does not achieve the result aimed at, for although it has a very high fœtal death-rate it has not a very low maternal mortality. In fact the maternal death-rate is rather high, so high as to suggest unpleasant reflections. There is something wrong about the treatment that ignores the life of the fœtus; the mother stands first, that is true, but the fœtus stands second and not nowhere.

3. Then, again, there is the maternity where there are more babies than mothers in the wards; this is the hospital with, so to say, three patients to one bed, or, more correctly, with two occupied cots for each occupied bed. There is plenty of crying to be heard within its walls; but the crying is not that of the lusty infant and it does not intermit with the complete satisfaction of digestive wants. The two cots to each bed do not, I need hardly say, contain twins. The second cot contains a motherless child, and its cry is very like a wail. This is the maternity, where *post-partum* hæmorrhage is common, and where there is reason to believe that the third stage is mismanaged. Labours are allowed to drag in the first and second stages, and are hurried through the third. It is forgotten that the third stage is a stage, and not an isolated act; it is forgotten also that being the third stage it has a relation to the other two stages, and must be treated in accordance with the character of these. It is not always a good thing to squeeze a placenta quickly out of an exhausted uterus, especially if bits of membrane and fragments of placenta are left behind. The maternal mortality from hæmorrhage is high, and the maternal mortality from sepsis is not low, for hæmorrhage predisposes to sepsis, and has other sequelæ, which even if they do not add to the mortality certainly increase the morbidity. Further, the excess of infants is apparent and not real; and, again, although the infants may leave the maternity alive they do not many of them survive the first month of life, for the care they are likely to receive outside is but little.

4. Finally, there is—or ought to be—the ideal maternity, where each bed has its cot, and each its occupant; where the mothers are not lacking, and where the infants are many and intermittently noisy. There is a brightness and a healthy bustle in its wards, and even the unmarried mothers do not look upon their offspring without a smile of affection, and in that smile may be the germ of a better life that will yet be apparent. "Temperatures" are rarely to be seen upon the clinical charts in such a hospital, and the medical staff is proud of the statistics of its hospital, but is not boastfully proud, knowing only too well that in all such happy results and freedom from mortality there is a sort of *quid divinum* which takes its place alongside aseptic precautions and the like. But, apart from the *quid divinum* (which cannot be defined) let us consider for a few minutes what means are to be taken to bring about so greatly to be desired a result.

In the first place, sepsis must be kept out of such a hospital, It is the enemy most to be feared. I cannot in this lecture discuss at length all the possible avenues by which septic infection may gain entrance to the maternity hospital; but it will be well if you remember that the germs of this dread disease may enter with the patient, or may be brought in by the doctors, the students, or the nurses; neither can I describe all the measures which we now take to prevent the entrance of sepsis or to destroy it when it has entered, but I may refer to some of them.

[Allusion was here made to antiseptics and to aseptic midwifery.]

In the second place, there must be a feeling of respect for fœtal and infantile life in such a maternity hospital. In considering operative interference, the results *quâ* the unborn infant must be kept clearly in view. It must be definitely resolved by the physicians on duty that only in the direst necessity is the life of the fœtus to be sacrificed for that of the mother. It will be objected that this is utopian, and I admit that it is so in many maternities as now existing, but I wish to point out that it would cease to become utopian if the first requisite of the ideal hospital were attained. If, in other words, sepsis were really banished from the wards, many of the operations which give a chance to the child with danger to the mother would cease to be dangerous to the mother,

and would still give no worse chance to the child. So we come back to our first means, namely, the prevention of sepsis.

In the third place, in the ideal maternity there must be a feeling of respect for the natural and physiological powers and capacities of the uterus to overcome difficulties, and to bring the infant safely to the light. I suppose most obstetricians sooner or later find out how valuable an ally the uterus can be in completing a labour or in assisting an instrumental delivery. It is an easy thing to empty a uterus which is showing its activity in regular and strong contractions, but it is one of the most difficult of tasks to do so when it is not. You will some day experience this for yourselves when you are trying to induce premature labour. "Empty the uterus" is a frequent answer given by students up for the oral examination in the university or the college. It is easily said, but to do it *hoc opus, hic labor est*. In the ideal maternity, therefore, it will not be the boast of the house doctors and visiting physicians that they deliver the difficult cases, but that they so conserve, and encourage, and utilise the uterine efforts that these are effectual in bringing the birth to a successful termination. I do not deny that delays are often dangerous, but I insist that sometimes haste is criminal. And, after all, is it not our old enemy, sepsis, that gives such an element of danger to obstetrical delay?

But (and now we are face to face with a real difficulty in the management and perfecting of our ideal maternity) the patients who seek our services in a lying-in hospital are often septic, or diseased, or weak, and consequently liable to infection before they come into the labour room. With our greatest care we may be helpless to protect them from sepsis and hæmorrhage; and, further, if they are infected or diseased, they at once become sources of danger to the others. This brings me to the matter of the "pre-maternity."

Maternities and Pre-maternities.

Surely there can be no doubt that a patient who has passed through a morbid pregnancy will be more liable to a bad labour than one in whom the changes of the wonderful gestation period have been accomplished in a physiological fashion. Surely, even when the pregnancy has been fairly normal, some preparation for the fast approaching labour and puerperium would not be amiss. Pregnancy is a great strain upon the resources, anatomical and physiological, of the body, and labour is a crowning test of a woman's strength, yet in too many cases the parturient patient comes to the birth with little or no preparation at all. I suppose no athlete would think of entering for the mile race if he did not intend to train for it. You would not, I believe, give much for his chances of taking the tape with him if he did not prepare for his great effort. Yet, in the present state of our hospital accommodation there is no provision made for preparation for parturition. It is by special permission and as a special favour that a pregnant woman who is suffering from some of the many complications of pregnancy gains admittance to our maternities and general hospitals, and for the patient whose pregnancy is proceeding apparently normally but who has to earn her daily bread there is no provision at all. The diseased pregnant woman ought to have a right to hospital attention and care, both for her own sake and for that of her infant; it ought not to be a matter of favour that she gains entrance to a maternity. There ought to be a ward attached to every maternity for the treatment of the diseases of pregnancy. If the ward grows into a pavilion closely connected with but not simply a department of the maternity, I do not think there will be anything but success for the innovation. The vital statistics of the maternity will not be unaffected by the contiguous pre-maternity. There will be an immediate and gratifying improvement in its returns both for mothers and for infants. In the process of time the maternity will find that it has, so to say, done a good thing for itself in associating itself with a pre-maternity; there will still be occasional deaths, both fœtal and maternal, but the truly avoidable mortality will be avoided in a much more thorough manner than is now possible.

It is some years since Dr. Macvie of Chirnside wrote to me about a case of a woman with serious vomiting in pregnancy, who could get little or no attention or proper treatment at her own home. If she could have afforded it she might have gone into one of the many nursing homes which abound in our city, but there was no hospital to which she could as her right and not as a quite exceptional privilege gain admission. It took some time for the idea which my friend Macvie had put into my head to take root and bear fruit, but ultimately, in the beginning of April of the present year, I published in the British Medical Journal my "Plea for a Pro-Maternity Hospital," in which such cases as that above referred to might be investigated scientifically and perhaps successfully treated. Since the "plea" appeared in print I have seen no reason to change any of my views regarding its necessity; but at the request of several friendly critics I have adopted in place of the hybrid "pro-maternity" the more correct term "pre-maternity." As one of the results due in some measure at least to the publication of the plea, an "anonymous donor" has given a sum of money to this Maternity Hospital for the endowment of a bed for the study and treatment of the diseases of pregnancy. The bed is to be called the "Hamilton Bed"; it was opened informally but effectively on November 1st; and it now contains an occupant suffering from hyperemesis and hydramnios. Here, then, is a beginning—albeit, a small one—of the pre-maternity hospital. May it flourish, and have imitators!

I need scarcely point out the advantages of further study of all the phenomena, normal as well as pathological, of pregnancy; I need not point out the necessity for the maternity to have a pre-maternity attached to it if it is to have a small mortality both among mothers and infants; and I need not particularise the benefits that must inevitably flow from the protection of the life that is before birth and the health that immediately follows it. From it, I may say without hyperbole, nationality prosperity, imperial expansion, home happiness, and individual worth all proceed. Finally, it cannot be ill-pleasing to the Ruler of the Universe that we should be anxious for the welfare of young lives, and care for those that are with young. With the establishment of pre-maternities in our land there will be less and less need for us ever to quote (save for the sake of its beauty) Milton's *Epitaph on the Marchioness of Winchester*. Do you remember how the lines read:

> And now with second hope she goes
> And calls Lucina to her throes:
> But whether by mischance or blame
> Atropos for Lucina came;
> And with remorseless cruelty
> Spoil'd at once both fruit and tree.

A Bureau of Information for Medical Practitioners. The Council of the New York State Medical Association has decided to establish, at its editorial and business offices in Madison Avenue, Manhattan, New York, a Bureau of Information for the benefit of its members. It will be the business of this Bureau to furnish the most accurate information obtainable relative to the price and quality of any article required for medical, surgical, or general use. Its province includes drugs, surgical instruments, library, office furnishings, carriages, and house equipment. The Council does not desire, however, that the Bureau of Information shall act as purchaser, or handle moneys in the fulfilment of its functions. No commission or other remuneration of any character will be accepted by the Bureau for its labours, either from seller or purchaser. The Bureau, we gather, is intended to strengthen the position of the *New York State Journal of Medicine* by giving the members of the Association of which it is the organ the advantages of a central office where they may obtain "accurate data as to new and approved commercial products, together with the best obtainable quotations."

The Campaign against Tuberculosis in America.—One hundred and fifty physicians, sanitarians, and business men of Ohio have united to form a Society to be called the Ohio Society for the Prevention of Tuberculosis. The Society will carry out an educational propaganda, a feature of which will be lectures in large shops, before teachers' meetings, and other public gatherings all over the State. The Society will also aid in the establishment of a hospital for the treatment of all consumptives whose cases are regarded as curable, and also in the establishment of hospitals for consumptives in all the larger cities of the State.

A Clinical Lecture
ON
EARLY EXTRAUTERINE PREGNANCY.

Delivered at the Bristol Royal Infirmary, November 15th, 1901.

BY THOMAS CARWARDINE, M.S., F.R.C.S.,
Assistant Surgeon to the Infirmary.

GENTLEMEN,—A few years hence some of you will be at the bedside of a woman in the prime of life who is the victim of a physiological tragedy. Pale and collapsed, the young wife—or, maybe, mother—is rapidly dying before your very eyes. All the husband can tell you is that she missed a "period," which was unusual, a week or two afterwards some irregular bleeding occurred, and abdominal pain suddenly ensued. Yes! she is dying; and you will say to yourself, What is the matter with her? what can be done for her? Gentlemen, there is but one answer, one only. She is bleeding; tie at the bleeding point!

I need not make any apology for bringing before your notice two cases of extrauterine gestation which you have recently seen in the wards. For nearly a thousand years the condition has been known, and healthy women have bleached and died. For twenty years the condition has been treated with a success which has no parallel in surgery. Yet there are still men who hope and wait—only to bury. "Do not you think it would be better to wait for further symptoms?" is said: and the next symptoms are the last!

In considering the subject before us, let us go back to the Graafian follicle which impressed us so forcibly when first we studied it in sections of the ovary of a cat. You will remember there was the follicle itself, and within it the tiny egg or ovum. With regard to the former it may be stated, in passing, that the well-known ovarian cyst arises from it by a morbid process. With regard to the contained egg, however, there is a destiny which concerns us. From the unfertilised egg there may arise products suggestive of abortive attempts at development—dermoids, containing teeth, hairs, and the like; and in one case a skeleton was found in a dermoid of the ovary. The fertilised ovum on the other hand, the oösperm, becomes an individual element, having nucleated red blood corpuscles, capable of intrinsic development, and of an existence at first as a dependent embryo and later as an independent child. It is a parasite travelling from the peritoneum to the outer world. If in its journey it can get enough to live upon, it grows and develops, usually spending nine months in the uterine incubation chamber. If it meets with an accident it dies, bleeding takes place in and around it, and it becomes a "mole."

We may congratulate ourselves that in a primitive condition we made a naturally safe journey, with adequate nourishment on the way, and are now alive to tell the tale. But it is sometimes otherwise, and the destiny of ova is the destiny of men. There may be a hitch on the line, and "extrauterine gestation" then continues at the stopping place. Adequately nourished, the parasitic oösperm grows; starved, it dies. If it grows there comes a time when it bursts its bounds, often causing the death of the host—"ruptured" extrauterine pregnancy. If it dies it may remain as a "mole," or be absorbed, or be expelled as a tubal "abortion."

OVARIAN PREGNANCY.

The egg is not of necessity fertilised in the uterus or Fallopian tube, for the spermatozoa can swim against the stream of cilia and wave of peristalsis; and they have been found at the fimbriated extremity of the tube, and in bitches upon the ovary itself. We now know that they have even entered the Graafian follicle of a woman's ovary, because in some cases the oösperm has remained in the ovary and developed into an embryo; and there are about a score of well-authenticated cases to prove this. The recent specimen obtained by Professor Kouwer and described by Mdlle. v. Tussenbroek, not only proved the fact of ovarian pregnancy, but, moreover, that the embryo is complete in itself, the syncytium (the cells covering the chorionic villi) included; and that in its entirety it was quite distinct from the surrounding follicle. Other cases have been recently described by Croft, Gilford, and Anning and Littlewood.

TUBAL PREGNANCY.

With the foregoing exception, the cases of extrauterine gestation with which we have to deal are primarily tubal. Why the ovum becomes engrafted upon the tube is but little little known, and inflammation of the tube is not the potent factor it was formerly supposed to be. Certain it is that in some cases the cause is a mechanical obstruction, such as a myoma, a polypus, or a kink in the tube produced by adhesions. But this will not explain all cases.

Many variations and combinations are possible. Twins have been found in the same tube. Several cases are on record of an extrauterine fœtus on one side and the corpus luteum in the ovary of the opposite side, suggesting that external migration of the ovum may be a possible cause of ectopic pregnancy. Occasionally both tubes have been found gravid, of which I have seen an example, the tube of one side containing a mole or dead fœtus and the other showing a viable embryo. Over 60 cases are on record in which the extrauterine gestation has been recurrent, in 1 case in the tube previously affected, and in about half that number of cases simultaneous intrauterine and extrauterine pregnancies have been recorded. Pregnancy has even occurred in an ovarian cyst which communicated with the Fallopian tube.

When the ovum is grafted upon the wall of the Fallopian tube the attachment tends to become very intimate; and when by the growth of the fœtus with its containing amniotic sac the parts are unduly stretched and rupture, the chorionic or placental attachments hold on till the last, even to the full term of gestation. If, by accident, the attachment be injured, bleeding takes place and a tubal mole remains, or a tubal abortion takes place into the pelvic peritoneum. The proportion of tubal abortion to tubal rupture is 1 in 4 (Sutton). Pelvic "hæmatocele" is commonly the result of tubal pregnancy. The abdominal ostium remains patent: and, though traces of the fœtus or chorion may not be seen on a casual examination, a corpus luteum of pregnancy will be found in the ovary. The blood tumour becomes defined, the bounding clot becomes laminated and vascularised, and it contracts adhesions to surrounding parts, including omentum and intestine. As a result of fresh bleeding, particularly about the time when a "period" would in the ordinary course of events be due or as a result of injury, this first boundary gives way. The patient has sudden abdominal pain, becomes collapsed, remains in bed a few days, and perhaps gradually improves for a time. The fact is that a larger blood tumour has suddenly formed, which again becomes walled in by a soft friable capsule of organising coagulum. It is a blood tumour in connection with a tubal artery, resembling in all respects a circumscribed traumatic aneurysm. It may become diffuse at any time and end fatally; but, like a traumatic aneurysm, it often does so in stages at weekly intervals, or at the time of the monthly hyperæmia.

CASE I.—Mrs. P., aged 28, a healthy-looking mother of three children, the last five years ago, had for some time pain and tenderness on the left side on coitus, though not severe. Her last period was three weeks ago, two days over time. It lasted fourteen days, and she passed a fair amount of clots, which she had never done previously except on one occasion three years ago. About seventeen days ago she had an acute attack of pain in the hypogastric region. A week later she had another attack of hypogastric pain; and Dr. Barber, with whom I subsequently saw the patient in consultation, found a distinct swelling in the left pouch of Douglas, which was extremely tender. A week ago she had another similar attack of pain—"it made her sweat, it was so bad." A tense, semi-fluctuating swelling was then detected in the left pouch of Douglas four or five times larger than before. During the illness there were no rigors and no temperature. On examination, the uterus was found extremely depressed, pushed forwards and fixed, and the fundus could not be felt above the pubes. The cervix was large, soft, and the os patulous. On the left side and passing gradually on to the uterus was a large, tense, cystic swelling, which could be felt *per rectum* bulging most distinctly behind and to the left of the uterus. There was a tense cystic sensation, both directly and bimanually to above Poupart's ligament, and no inflammatory thickening around. There was no change in the breasts.

Operation.—Median coeliotomy was performed, and there was no free blood in the peritoneal cavity. The body of the uterus was felt enlarged and fixed, and the appendages on the right side matted. The left side of the pouch of Douglas was occupied by a tense tumour filling the whole space, passing imperceptibly on to the uterus, and almost so on to the left iliac fossa. At the extreme left a loop of small intestine was adherent, also a long tag of the omentum which presented old blood staining for three-quarters of an inch at its termination (Figs. 1 and 2). The gut and omentum were liberated and an attempt made to deliver the mass. In doing so it easily burst by a long rent, much old fluid blood escaped, and a quantity of clot was removed by the hand from the shaggy cavity

remaining. The wall of the cavity was by some force and manipulation brought up to the wound, and its broad stump transfixed and ligatured in three sections. The ligature nearest the fundus cut through the thick tissue like cheese, and the cut surface bled rather freely; it had to be secured by separate suturing. The redundant capsule was then cut away. The ovary, in the hinder part of the mass removed, contained a large thick-walled corpus luteum of pregnancy with remains of clot therein, and there was an old contracted corpus luteum close by. The Fallopian tube was perfectly intact, unruptured, and not much larger than normal. The ostium was of good size. The fimbriæ were exposed in the wall of what remained of a cystic cavity a little beyond them (Fig. 2). The patient made a rapid recovery.



Fig. 1.—Showing the tumour on the left of the uterus (U), with adherent omentum above. (1) Corpus luteum of pregnancy; (2) old corpus luteum.

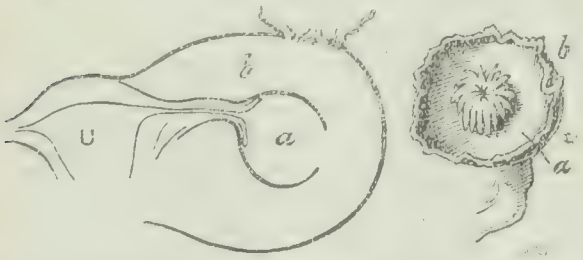


Fig. 2.—The same seen in section; U, uterus; a, inner cavity; b, outer cavity.

This case appears to have been one of tubal abortion; and you will note this important fact, that at first a small blood cyst must have formed round the ostium of the tube; then this ruptured, and a larger blood cyst formed without it. The staining of the adherent omentum showed that a fresh peritoneal outburst was imminent. Moreover, the case shows that an anterior vaginal operation would not have been suitable, for omentum and small intestine would have remained adherent to the vault of the cavity, which, being composed of vascularised blood clot of a friable nature, was a source of considerable bleeding at the time of operation.

Let us now consider what happens when the ovum contracts a firm attachment to the tube, which suffices later for the nutrition of the embryo through the medium of the placenta. For many of the facts in this connection we are indebted to Mr. J. W. Taylor, whose Ingleby Lectures for 1898 are a singularly clear collection of accurate observations and interpretations. It may be stated that with a living fœtus the placenta always remains attached to the tube; where the placenta is, there is the tube, or what remains of it. Where the living fœtus is, there is the amnion surrounding it.

The fœtus may pass in one of four primary directions: into the pelvis, by direct abortion or by rupture of the outer third of the tube; into the ventral abdomen, by rupture of the tube; into the mesometrium or broad ligament, by gradual giving way of the lower part of the tube; and into the uterus, by passage through the uterine ostium. These are the primary displacements, and, if we add to them the secondary displacements, we get such a table as the following:

	Primary.	*Secondary.*
1. Ampulla	... tubo-pelvic	... tubo-abdominal
2. Isthmus	... tubo-abdominal tubo-pelvic tubo-ligamentary	... tubo-abdominal ... retroperitoneal abdominal properitoneal abdominal
3. Interstitial	... tubo-abdominal tubo-uterine	

As I wish you to become impressed with the importance of early tubal pregnancy, we may dismiss those cases of advanced ectopic gestation in which you will have more opportunity of confirming your opinion by prolonged observation and by consultation. But the early cases will demand your own personal skill in detection and responsibility in treatment.

Early tubal pregnancy may be said to comprise cases up to the fourth month, before which time rupture usually takes place. The earlier cases, those during the first six weeks, are characterised by suddenness of onset, often an absence of palpable signs, and gravity of the issue. The rupture commonly takes place at the uterine end of the tube into the peritoneum. It has been known to occur within three weeks of impregnation, and, unrecognised, usually causes death in from eight hours to two days. It is not likely that premonitory signs will have been recognised, for the detection of an early enlarged tube behind the uterus of a healthy female is more a matter of good luck than of good fortune. But there are, as a rule, three prominent facts: A history—that of an unusual delay in menstruation in a married woman, followed by an irregular bleeding of some sort a week or two later; a symptom—that of sudden acute abdominal pain and tenderness, with sickness and collapse; a sign—that of internal hæmorrhage. It may be long since the birth of the last child, or the woman may never have been pregnant before; it has even occurred as the result of a single coitus. But, given the above three facts, the diagnosis becomes almost a certainty. The first two facts speak for themselves: but what is almost pathognomonic is their association with the third fact, that of internal hæmorrhage. This being the chief difficulty, how can we recognise it? Shock is common to it, and a number of other conditions, but the aspect and the pulse are the true clues to progressing anæmia. The pallor of the perfectly conscious patient strikes you at once. The lips, gums, and conjunctivæ are almost as white as the surrounding skin, and there is an absence of the natural blush of the ears and tinge in the cheeks. The finger nails appear white throughout, and after pressing upon them there is no return of colour. Obviously there is sudden anæmia. Now take the cold clammy hand and feel the pulse, which is never full and bounding as in inflammatory affections. The tension is low. The artery expands with a little jump, and as quickly subsides again. Soon the pulse becomes smaller, then running in character, and finally gives an occasional flicker before it ceases to be felt entirely. Take out your watch and quietly count the pulse every ten minutes, and record its rate as it uniformly quickens; and, having in the first place diagnosed sudden anæmia, the pulse-rate is sufficient to tell you that the anæmia is progressing. Given these facts in a married woman whose uterus is not particularly enlarged, they are sufficient to warrant immediate operation—aye! they demand it.

But it is necessary to satisfy oneself of the probable absence of other conditions which may give similar indications. Gastric hæmorrhage and perforated gastric ulcer may simulate the condition very closely. But in the gastric condition the patient is usually a chronic dyspeptic with epigastric pain, and the anæmia is usually a chronic circumstance. I lay stress on this differential diagnosis, because in ruptured extrauterine pregnancy the liver dulness may disappear, as in a case of Mr. Jessop's referred to by Mr. Mayo Robson, and in one which I have myself seen. Such a sign is apt to give undue importance to the suggestion of possible gastric origin. In peritonitis from perforations of the intestine, in the various forms of colic, in strangulation, and in tumours with twisted pedicles, we have sudden pain and collapse, often with a rapidly increasing pulse rate; but there is an absence of that marked sudden anæmia of certain parts which characterises the fully-conscious patient suffering from internal hæmorrhage. With a small uterus accidental intrauterine hæmorrhage is out of the question; difficulty can only arise when there are coincident pregnancies in womb and tube.

In later cases—those from six weeks to three or four months—the tendency to severe internal hæmorrhage may not be at first so sudden. There are often stages before the fatal outburst. A new and important factor enables a more certain diagnosis to be arrived at, namely, the presence of a well-marked tumour behind and to one side of the uterus, and the recognition of its nature will enable an early operation to be performed before free hæmorrhage takes place into the abdominal cavity, the signs of which would be those already described. If there be delay from any cause, grave sudden anæmia may ensue at any moment.

CASE II.—I was urgently sent for by Dr. Colman one afternoon to see a patient whom he thought to be suffering from internal hæmorrhage from ectopic pregnancy. She was 35 years of age, had been married five or six years, had no children, but had a miscarriage three or four years ago. She had been perfectly regular till two months ago, when the period did not appear. Three weeks ago she felt a very sudden pain in the stomach when turning out a bedroom; she fainted and went to bed and the pain continued for a week. Two weeks ago she had another attack, but worse. She passed "one clot and very red blood and one piece of flesh." Three days ago she had another attack in the afternoon "with a feeling like wind and fainty and sweaty." The pain has lasted ever since, coming and going severely "like labour pains." The bleeding has continued ever since: "every time the pain comes on it causes the bleeding." To-day there have been three such pains. The urine has been drawn off by catheter the last day or two.

When admitted she was very anæmic. The legs were drawn up. The pulse was 140, of low tension. There was no secretion in the breasts. The uterus was very low, the cervix slightly soft and patulous. Behind the uterus and separable from it posteriorly, and more marked towards the left side, was a soft bulging swelling, slightly tender, and not boggy. It projected conspicuously into the rectum, pushing the uterus forwards, but the fundus was not made out bimanually on account of tenderness. Cœliotomy was performed soon after admission, and a large quantity of liquid blood escaped with some clots from the abdominal cavity. The left side of the pelvis was roofed over and contained a subglobular swelling which was broken down with the hand, and a three to three and-a-half months fœtus extracted with the cord and placenta. The fœtus was about 4 inches long. The sac was a very thick one indeed, and a temporary clamp was put on its wide expanded stump, while the numerous clots were removed; but the abdomen was not washed out. On subsequent examination of the pedicle, though seen on the left side, it was found to be attached to the right side of the uterus, passing behind and above it. It had two sections, which were separately ligatured with Staffordshire knots: the upper containing ovarian vessels of considerable size descending from above, and the lower passing directly from the uterine fundus. The left ovary and tube formed part of the wall of the sac; the tube, slightly distended and convoluted, formed a hydrosalpinx over the ovary. These were left behind, the ovary feeling large and shaggy from involvement in the wall of the sac. The patient became pulseless during the operation, which was rapidly performed. She was transfused under the left breast, a large jugful of saline fluid was injected into the rectum, mxxxv of strychnine were injected hypodermically, and before she left the operation theatre the pulse had become again perceptible. In the evening the pulse was 160; next day it was 140. The patient left convalescent at the end of five weeks, having been delayed by an attack of left lobar pneumonia commencing at the end of the first week, for which Dr. Shaw kindly saw the patient with me.

The conditions are represented in Fig. 3. The advantages of giving large injections of strychnine in shock of all kinds is now well known, and has been emphasised by the surgeons of Leeds in particular. I was impressed some years ago of its value by an accidental overdose of two syringefuls in mistake for ether to a dying patient. You will observe (Fig. 3)



Fig. 3.—Tubal gestation, with rupture: U, uterus; R, right pregnant tube; L, left tube (hydrosalpinx); × ×, sites of ligation.

that the pregnant right tube must have passed across to the left side and become fixed there. It was not a case of fertilisation through the left tube, because it was a closed hydrosalpinx. To such a transposition of a pregnant tube there is a distinct tendency. Had the bleeding not taken place, and the placental attachment had remained secure, the fœtus might have escaped into the abdomen in its membranes and lived to term as a tubo-abdominal pregnancy—a condition in which Taylor has demonstrated the persistence of a very attenuated amniotic sac around the child.

Now in a case such as this of later rupture of the pregnant tube, we have the characteristics of the early rupture with the addition of the presence of a tumour. Therefore, given those characteristics, we have only to clinch the diagnosis by our judgment of the nature of the tumour, felt distinct from a uterus not enlarged to a marked extent. It would be unwise to pass a uterine sound in such a case. If the parts are too tender for a satisfactory examination, it would be wiser to examine under an anæsthetic with all gentleness, lest a tube be ruptured by the force used. The fundus of the uterus should be distinctly mapped out at the onset, and an estimate formed of the size of the womb. Then we have to determine the exact state of the vaginal vault to the touch, and lastly, the state of the lower abdomen above the pubes.

Now in inflammatory states of the broad ligament, besides the probable history of recent labour or miscarriage, the vaginal vault has a very characteristic feel. I have seen tubal pregnancy mistaken for pelvic cellulitis. In this condition the depressed vaginal vault has a "boggy" feel—it can be indented with the finger, and a subsequent hollow remains for a time. Moreover, the swelling gradually shelves off from the uterus itself. If, with the finger in the vagina, an attempt be made to shift the mucous membrane laterally over the deeper parts, it will be found to be impossible, owing to the inflammatory infiltration. In tubal pregnancy, and in extra-uterine tumours, the finger can usually be inserted into an angle between uterus and tumour. In cystic collections there is usually an elastic feel, not a bogginess. In an ovarian cyst the elasticity is firm; in the case of a blood tumour of tubal pregnancy it is softer and less circumscribed in character. In these cases also, a careful examination of the fornix with the finger reveals that the mucous membrane is laterally movable over the deeper parts from absence of inflammatory infiltration.

Another point of interest is that in large vascular tumours and in tubal pregnancy a well-marked pulsating isolated vessel can be felt crossing the vaginal vault transversly on that side. Many conditions such as a myoma or a pyosalpinx will have a corresponding history. An ovarian cyst with a twisted pedicle closely simulates a pregnant tube which is giving way; less the signs of rapidly-progressing anæmia and perhaps increasing size of the tumour. If we now turn to the condition above the pubes we shall often find a lateral dulness there, gradually increasing in extent. It may give way to a resonant note on deeper percussion, and, as Mayo Robson has pointed out, on turning the patient on her side the dulness slowly gives place to resonance. But as I have found this last sign present in the case of an adherent ovarian cyst with twisted pedicle, it is probably not to be relied on. With marked sudden anæmia the diagnosis of tubal pregnancy becomes much simplified.

Having diagnosed early extrauterine pregnancy, what are you to do? Are you to wait with folded arms till the flood gates are opened and the abdomen is deluged with blood? Or in the vain hopes of a successful operation for a possible abdominal pregnancy with a healthy child? For suppuration of the sac? For chronic invalidism? For the discharge of fœtal bones by the bladder, as has occurred in over a dozen cases? When surgery can now save over 95 per cent. of cases there can be only one possible answer. Adding the statistics of several large groups of operations together, I find that of 279 cases operated upon, 269 recovered and 10 died—a mortality of 3.6 per cent. Clearly, operation for tubal pregnancy is as safe as delay is dangerous, and to diagnose tubal pregnancy is a just demand for that treatment which gives the patient the best possible chances—early operation. And if the diagnosis of ruptured tubal pregnancy be doubtful, a very small exploratory incision will be sufficient to make it certain. Indeed, the peritoneum may not have to be opened of necessity, for any blood beneath it is usually apparent the[illegible]

An old law to punish boys under 15 years of age who are caught smoking cigarettes or tobacco in any form is to be revived and again enforced in Cincinnati.

TUBAL GESTATION WITH RUPTURE AND HÆMORRHAGE INTO THE PERITONEAL CAVITY.

BY J. N. MARSHALL, M.D.GLASG.,
Rothesay.

ON August 31st I was asked to see a married woman, aged 26. She had the appearance of a person who had suffered a severe hæmorrhage. She was blanched and quite pulseless. The skin was cool and moist, and there had been recent vomiting. She complained loudly of pain in the lower part of the abdomen.

History.—She believed herself to be pregnant, but there having been several slight discharges of blood, she thought she might be going to miscarry. She had had three children naturally, the youngest 3 years of age, and at this, the last, confinement there had been some difficulty with the placenta. A year ago and nine months ago respectively, she had miscarried at about three months, and on one occasion at any rate, aid was required to remove the products of gestation. On July 7th—that is, seven and a-half weeks ago—there was a natural menstrual period. A fortnight ago there was a slight fainting attack, with pain and some discharge of blood from the vagina, but the symptoms passed off after resting. The same symptoms recurred a week ago, but again passed off, though she did not feel quite right. There was some sickness similar to what she had had in former pregnancies.

Present Attack.—This began with a faint a few hours before I was called to see her. The abdomen was protuberant and tender, but neither tense nor resistant. The tenderness seemed greater on the right side. The temperature was 99.2°; the pulse could not be felt at the wrist. Vaginal examination showed the os to be patulous, and nearer the left than the right side of the pelvis. The fornices appeared shallow, but no defined swelling could be made out. The examination caused some pain, and the finger was stained with gummous blood. Morphine (gr. $\frac{1}{4}$) was given, and arrangements were made to have the patient removed to the Cottage Hospital. This was done with some difficulty in the afternoon, the slightest movement causing an access of pain. In the evening the pulse was slightly better, and the pain was less severe, but the abdomen was more protuberant.

Diagnosis and Treatment.—Dr. Hall and Dr. Lawson now saw the patient with me. They concurred in the diagnosis of tubal gestation with hæmorrhage. Morphine (gr. $\frac{1}{2}$) in suppository was given at night, and the patient was prepared for operation. On the following day there was some improvement in the general condition, but the abdomen remained swollen and tender, and there were intermittent pains. An enema of soap and water failed to move the bowels. Drs. Hall and Lawson again saw the patient with me, and afterwards kindly assisted with the operation.

Operation.—On opening the abdomen in the middle line fluid blood at once issued forth, and later on a quantity of dark clot. The right ovary and tube were brought up into the wound, but were found natural. On searching for the left tube the fingers entered a mass of dark blood clot, from which, however, an enlarged tube with ovary was easily extricated. After ligaturing the broad ligament the ovary and tube were removed. The latter had, quite near its fimbriated extremity, a small sac about the size of a pigeon's egg, ruptured in its whole length towards the free border of the broad ligament. The clot was then cleared out as thoroughly as possible from the cavity of the abdomen, principally by means of the hand. It was not found practicable to remove it entirely, however. A small part of the clot showed signs of organisation, but there was no adventitious membrane, and there were no adhesions to the bowel or pelvic walls. The embryo was not found. The amount of blood and clot removed was about sufficient to fill a pint measure. The abdominal cavity was irrigated with hot saline solution, and then closed without drainage.

After-History. There was considerable collapse after the operation, but the injection of saline solution into the areolar tissue under the breasts and also into the rectum seemed to do good. After the collapse had passed off the patient did not have a bad symptom. For a few days the urine contained a small quantity of albumen, probably caused by the absorption of blood clot. On the third day after the operation a complete cast of the uterus, along with a small quantity of blood, was discharged from the vagina. On the eighth day the wound was dressed and found to be soundly healed. On the twenty-eighth day there was a natural menstrual period, and thereafter the patient went to a convalescent home.

REMARKS.—The right tube was thought to be the one involved, from the greater tenderness on that side of the abdomen, and from the fact of the os being nearer the left side of the pelvis. It was not so, however, and it seems probable that the lessened space between the os and the pelvic wall was due to bulging of the soft parts by blood in the peritoneal cavity.

HYSTERECTOMY FOR A SOFT FIBROMYOMA WEIGHING 53 LBS.

BY FRANK COLE MADDEN, M.B., B.S., F.R.C.S.,
Professor of Surgery, Egyptian Government School of Medicine; Senior Surgeon to Kasr-el-Aini Hospital, Cairo.

EGYPTIAN women appear to have a special capacity for carrying enormous abdominal tumours without apparent discomfort, tumours which in a European woman must have produced most distressing pressure symptoms, and, indeed, would never have been allowed to attain such dimensions without seeking surgical intervention.

History.—The patient was an unmarried Egyptian woman, aged 18, whose principal trouble was that she had had amenorrhœa for the last two years. For six months prior to this she had lost a considerable quantity of blood at each menstruation. When menstruation stopped, a small swelling appeared low down on the right side of the pelvis, and gradually increased in size, until on admission to hospital it seemed to more than occupy the whole abdominal cavity (*vide* figure). There were no special symptoms during the enlargement of the abdomen, but in the last few months the patient had become somewhat emaciated. She could not lie on her back for any length of time, but was quite comfortable lying on her side or sitting up nursing the tumour like a great pumpkin between her knees.



State on Examination.—The abdomen was enormously distended, but the skin had evidently been stretched very gradually, as there were very few lineæ albicantes, and the skin was not tense and shiny as occurs in more rapid distensions such as ascites. The superficial veins on the upper half of the abdomen were much dilated, and the umbilicus was pushed downwards and protruded. The surface of the swelling was everywhere quite smooth, and distinct fluctuation was felt from side to side, being more marked low down in the loins, which were much overhung by the lateral parts of the tumour. The whole swelling was dull on percussion, and an aspirating needle had been inserted in the middle line before admission to hospital, but no fluid was withdrawn. The greatest circumference of the abdomen was 49½ inches (125 cm.); the circumference at the level of the umbilicus was 43½ inches (111 cm.). The distance from the ensiform cartilage to the umbilicus was 15¾ inches (40 cm.), and from the umbilicus to the pubes 7½ inches (19 cm.). On vaginal examination there was found considerable prolapse of the vaginal walls, the fornices were obliterated, and the cervix of the uterus was felt quite low down. The ovaries could not be felt, and it could not be definitely made out whether the tumour moved with the uterus or not, as the mass was altogether too large to manipulate. The most probable diagnosis seemed to be an ovarian cyst, with a thick wall of multilocular cysts around one large central cavity. Dr. Sandwith, under whose care

the patient was admitted asked me to examine her with him, and we decided upon abdominal section.

Operation.—Two hours before operation a rectal injection of a pint and a-half of normal saline solution was given, and was well retained. The urine was drawn off two hours before and again after the saline had been given. The head and shoulders were well raised on pillows and chloroform administered in this position. A median incision about three inches long was made below the umbilicus, and a fleshy, muscular looking tumour, which at first sight was very like a much over-distended pregnant uterus, was partially exposed. Being loth to abandon our diagnosis of ovarian cyst, a search was made for fluid with a trocar and cannula, but without success; the tumour was quite soft, but perfectly solid, and only a small quantity of dark blood escaped. It now became evident that it would be impossible to remove the tumour through the present incision. This was enlarged upwards nearly to the ensiform cartilage until the upper limit of the tumour could be reached. Little whorls of muscular fibres were seen on the surface of the fleshy mass, and to the upper part many dilated veins, like large drainage tubes, ran down from the omentum. One particularly large bunch came from the greater curvature of the stomach on to the dome of the tumour. With great care all these veins and the few fine adhesions in which they ran were divided between ligatures and another thick band of attachment to the transverse mesocolon similarly treated. The tumour was now free above, and was lifted out of the abdomen in my arms, steadied as it rested upon the front of the pubes, while an examination was made of its lower attachments. It was obviously of the uterus, its lower end surrounded by greatly dilated veins running in the broad ligaments on each side. The ovaries were quite healthy. These veins were divided between clamps, the cervix which was thus isolated, was quite small, and was cut across and the tumour removed. The veins were then ligatured with thick silk, and the raw surfaces of the stumps of the cervix sutured across and a cap of peritoneum sutured over the stump. The cut peritoneal surfaces of the broad ligaments were closed with continuous silk sutures over the ligatures. The peritoneal cavity was then washed out with normal saline solution, and during the irrigation a splendid view of all the abdominal viscera was obtained. We were able to *see* that the ureters were intact as they could be traced in their whole length. All the fossæ on the under surface of the liver were particularly well seen, in fact it was like a mannikin preparation. Eighteen abdominal sutures were required to close the incision, and before the last was tied the peritoneal cavity was moderately distended with normal saline solution, which thus kept up a certain amount of fluid pressure in place of the tumour which had been removed. The patient was not much collapsed after the operation, which was completed in just over an hour, and my best thanks are due to Dr. Francis Badir and to my students for their skilful assistance.

Progress.—The patient had a good night, slept well, and had no thirst, a good sign generally found in my experience when intraperitoneal injections or normal saline injections have been employed. Two days after operation the temperature reached 101° F., and she had pain in the left side, due to dry pleurisy. Similar signs appeared on the right side the next day, and continued for nearly a week before they cleared up. She had no other bad symptom, but on the third day she complained of thirst, which was relieved by a rectal injection of normal saline solution. The abdominal wound healed perfectly by first intention, and the sutures were removed thirty days after operation. Three weeks after operation a collection of dark brown purulent fluid was found at the lower end of the abdominal incision, and was evacuated by inserting a director. A tube was placed in the cavity, which was entirely extraperitoneal. Now, six weeks after operation, the patient is quite well, and is undergoing a course of fattening diet before being discharged from hospital.

Examination of the Tumour.—The tumour after removal weighed 53 lbs. (24 kilos). It was a soft fibromyoma of the uterus, and even now gave a perfect sense of fluctuation. It had grown apparently from the anterior wall. Curled round the base of the tumour was a sausage-shaped mass of the same soft fibromyomatous tissue, resembling a dilated Fallopian tube. Dr. Symmers reports that the cervical canal ran for an inch and a-half into the uterine cavity, which was normal in size and shape. There was a lot of soft cavernous tissue in the anterior part of the tumour, forming irregular cavities of various sizes, filled with thick mucoid material. The bulk of the tumour was of soft fibrous and muscular tissue, and was not very vascular. Microscopically the section consisted of unstriped muscle fibres, with a great deal of loose fibrous tissue, in which were some large granular and degenerating cells. In certain parts of the section there were open spaces filled with mucoid material.

The main points of interest in the case are the size and weight of the tumour, the fact that it was quite solid and yet gave such perfect fluctuation, the absence of pressure symptoms and urgent respiratory obstruction, and the good general condition of the patient before operation. In all cases of severe abdominal operations I am in the habit of almost filling the peritoneal cavity with normal saline solution before closing the abdominal incision, as described above, with most satisfactory results.

HYGIENE IN MADRID SCHOOLS.—Dr. Roberto Arcas, a member of the Municipal Council of Madrid, has proposed that spittoons containing disinfectant fluids should be placed in the public schools. He has also proposed that the Medical Inspector of Schools should pay a monthly visit to each school, and report on the health of each child, with special reference to infectious diseases. He further suggested that a dentist should visit the schools every month. The Madrid municipality, which must be enlightened beyond the average of our own local authorities, adopted all the recommendations of Dr. Arcas.

THE TREATMENT OF PUERPERAL ECLAMPSIA.

By LOUIS A. FRANCIS, M.R.C.S., L.R.C.P.,
Uxbridge.

I NOTICE in the BRITISH MEDICAL JOURNAL of September 21st, 1901, a case of puerperal eclampsia successfully treated by morphine injections. In these days of antiseptics and improved nursing eclampsia has taken the place of puerperal fever as the chief thing the general practitioner has to fear in his midwifery practice. The following is a brief record of 5 cases, 2 of which were fatal:

CASE I was reported in the JOURNAL of July 16th, 1898, and only the main features need be mentioned. The patient, a multipara, was delivered without difficulty of a full-time child on May 29th, 1898. Persistent vomiting came on soon afterwards. The first convulsion occurred nine hours after delivery—at 7 A.M. on May 30th; six more occurred during the next twelve hours, with complete insensibility in the intervals. She had two injections of morphine, gr. ½ the first hour and gr. ¼ the second, each combined with pilocarpin gr. ¼. After several hours, awoke sensible, and eventually recovered. The urine was found loaded with albumen during the day.

CASE II.—The patient was a primipara, aged under 16. On June 16th, 1898, at the onset of labour at full time, she had several convulsions from 8 to 11 A.M.; they were frequent, but not violent; the os was dilated to the size of a shilling. In conjunction with Dr. Miller of Iver, a hypodermic injection of morphine gr. ¼ was given at 11 A.M.; then, under chloroform, the os was dilated with the fingers, a foot brought down, and delivery effected, the child being stillborn. The "woman" made a good recovery.

CASE III.—A young, full-blooded woman was expecting her first confinement in October, 1899. On August 19th she came complaining of severe headache and swelling (œdema) of legs, hands, and face. The urine was found nearly solid with albumen on boiling. The same night vomiting came on, and on August 20th, at 7 A.M., the first convulsion occurred. Five more attacks occurred during the next three hours; the patient was unconscious and cyanosed in the intervals. There was no sign of labour. At 10 A.M. she was given an injection of morphine gr. ⅓. In spite of this four more convulsions visited her during the next two hours and a-half, so at 12.30 she was given a second injection of morphine gr. ⅓, with pilocarpin gr. ¼. Three much milder convulsions followed, the last at 2 P.M., making thirteen in all, after which there were no more. Owing to the continued cyanosis, however, and the pulse being full and strong, 8 ounces of blood were drawn off by venesection at 4 P.M. During the evening the cyanosis wore off, and the patient seemed to be regaining consciousness; she was fed by rectal injections. At 2 A.M. on August 21st, with hardly any warning, a stillborn seven months fœtus was ejected. The patient recovered consciousness, spoke rationally to those around her, and was able to take nourishment well without vomiting. But cough and shortness of breath came on; at 8 P.M. she was found to have acute bronchitis, and she died early next morning.

About this time my partner, Dr. Davidson, had a case of eclampsia at the sixth month. Premature labour was induced and the patient recovered. The uterus was also emptied as rapidly as possible in the following instance, but I think it was a forlorn hope.

CASE IV.—A primipara, aged 20, eight months pregnant, had one prolonged "fit" at 9 A.M. on June 11th, 1901; it lasted a quarter of an hour with scarcely any intermission, and when it passed on the patient had ptosis of the left eyelid, the face was cyanosed, the pulse poor, and dark brown vomit flowing from mouth, the urine (examined later) was loaded with albumen. The os admitted one finger. The woman could not be roused to answer questions. An hour later, with the help of Dr. Davidson, she was placed under chloroform and digital dilatation resorted to. At length a stillborn fœtus was delivered by forceps. At 3 P.M. the patient was able, with much difficulty, to swallow a little liquid nourishment, but she never recovered consciousness sufficiently to speak coherently and died at midnight.

CASE V.—On August 3rd, 1901, a primipara, seven months pregnant, had four convulsions in two hours (4 to 6 A.M.). They were not so violent as in the previous cases, the face was not markedly cyanosed, and the patient, though hardly conscious, was able to swallow liquids, including the chloral (grs. xij every four hours) which I gave her. The case was evidently a mild one, and she had no further attacks. There was no sign of labour. The urine was loaded with albumen. She was treated with laxatives, diaphoretics, and milk diet during the next few days, and the albumen diminished to some extent. On August 9th, six days after the eclampsia, she was confined easily of a stillborn child, which from the appearances had been dead since August 3rd. The woman made a good recovery and there was no albumen on August 23rd.

I think Case III would have recovered had it not been for the bronchitis. Case IV was hopeless from the first, and was possibly apoplectic in nature.

The premonitory symptoms in all the cases were more or less vomiting and headache, which, however, were not considered by the patients to be anything unusual.

The most important question seems to be that of inducing labour in cases of eclampsia, where the attacks occur in the absence of symptoms of labour, and it would be well if obstetricians would give us some guidance on this point. In severe cases I should be inclined, *ceteris paribus*, to inject morphine at first, but to bring on labour if the convulsions were not quickly subdued.

A SUGGESTION FOR THE TREATMENT OF ENURESIS IN FEMALES.

By G. C. PARNELL, M.R.C.S.,
Surgeon to the Home and Infirmary for Sick Children, Lower Sydenham, S.E.

No apology, I consider, is required to introduce any treatment that may be of service in cases of enuresis. All practitioners meet with them in their practices, and sorry cases they are as a rule both to patients and doctors. The treatment I wish to make the following remarks upon is not original, but owing to many cases that I have had at my command as surgeon to the Home and Infirmary for Sick Children, Lower Sydenham, and thanks to my colleagues engaged in the out-patient department for sending them to me, I have been able thoroughly to test its utility. It is the application of a strong solution of silver nitrate to the neck of the bladder and urethra. It is curious to note that no mention is made of it by West, Eustace Smith, or Goodhart in their standard works on diseases of children. In Holmes's *Surgery* is found the following: "Sir Henry Thompson says that in obstinate cases the application of a solution of nitrate of silver (gr. x ad ℥i) to the neck of the bladder may be beneficial." One case is recorded by Dr. Day in his book of this treatment, and this led me to apply the remedy to my first case.

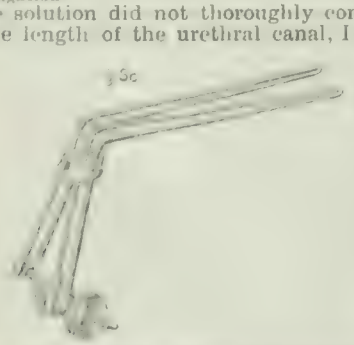
Case I.—The patient, a healthy girl, aged 18, suffered by day and night since she was 8 years of age, and in consequence was unable to obtain a situation in any capacity. Her mother informed me she had been under many doctors, and from hospital to hospital, so that for me to suggest any of the usual remedies with any hope of success would have been useless. I therefore applied, by means of a probe armed with cotton-wool, a solution of silver nitrate (gr. xxx ad ℥j) to the urethral canal, allowing it to remain in for about 60 seconds. To my surprise, during the three following days there was no incontinence. I repeated the application on the fourth day, and again at the end of a week. A year afterwards she informed me that she was engaged in a large business house in London, and had not been troubled with her complaint since the first time of the so-called operation.

It might be said that this was a case of hysteria, cured by the shock of examination and the moral treatment, but there was no evidence to support that theory, as she was in every other respect a healthy girl, and most anxious to get cured.

Case II.—A very neglected child, aged 9, of a poor family in Penge, had suffered both by day and night since she was 2 years old. She was able, after two applications, to hold her water during the time she remained in the Home. No other treatment was ordered, except that no liquids were given after 5 P.M., and she was taken out of bed at 10. A few months afterwards I called upon the parents, who informed me that the bad habit returned the day after she arrived home, and had continued ever since, and my offer to take the child in again met with a flat refusal.

Case III.—A child, aged 14 years, had been troubled by day only since 4 years of age. This girl had been under treatment for one month at the Victoria Hospital, as an out-patient at Great Ormond Street Hospital and at Guy's Hospital. After applications on December 8th and 15th 1899, she was able to hold her water during her stay in the Home up to January 21st, 1900, and also during a month while she was at the Whittuck Convalescent Home at Broadstairs, which is attached to the Home at Lower Sydenham. Calling on her parents two months after she had returned home, I was informed she had had occasional relapses. I found, however, that no precautions had been taken to guard against them, in fact, she would be sent out for four or five hours at a time to carry a basket of washing through the streets, where there was no possibility of relieving herself. It is a recognised fact that many of these cases do improve when they are admitted into a hospital, and relapse when the care bestowed upon them is removed: still, as the treatment of this case was not complicated by any drugs, and she had daily incontinence for a fortnight in the Home prior to the applications, I think it is a fair inference to assume that the treatment was, to say the least, worthy of further investigation.

Fearing the solution did not thoroughly come in contact with the whole length of the urethral canal, I had made for



me a small dilator after the pattern of Mr. Hopkin Walter's dilator, with this exception, that the blades are straight. With this instrument the urethra can be easily dilated, the child being held by a nurse in the lithotomy position.

No oil or ointment should be used, but the blades moistened with distilled or sterilised water. After the urine has ceased to flow a little ointment is smeared over the hymen and labiæ, and a probe, well armed with cotton wool and saturated with the solution, is passed between the blades and withdrawn two or three times. The instrument is then removed, and again inserted at right angles to that at which it was first introduced, the urethra dilated, and the swab applied so as to ensure that the whole of the canal comes in contact with the solution. By this method there is but little pain, and seldom is chloroform required. In children I prefer not to give it, as it does away with a factor of the treatment, namely, the moral lesson. For those above 15 years of age the lateral position can be used, but it is not so convenient. About twenty-four hours in bed is all that is afterwards required, and up to the present time no retention, cystitis, or other troubles have occurred. At the end of the third and seventh days applications are made, using solutions of 40 and 50 grs. to the ounce respectively. I will not tabulate all the cases that have been under my care, but will mention two more only to show how far this treatment is useful.

Case IV.—A girl, aged 9, sent to me from an orphan asylum with diurnal and nocturnal incontinence since 3 years of age, who had been in the Home for two months previously, under the care of one of my colleagues and discharged, was again admitted by his request on hearing that I was giving this treatment a trial. During the first month after readmission no treatment was ordered, except that no liquids were allowed after tea, and the child was taken out of bed at 10 P.M. During this time only five nights were passed without incontinence. After two applications following dilatation there was no incontinence for twenty-nine days and nights. She then passed water in bed during one night, owing to the fact that, escaping the nurse's observation, she went into the lavatory and drank freely of water. She was sent to our Broadstairs Home for a month, and whilst there had no incontinence. After her return to the asylum, the matron informed me that she had had occasional relapses, but these may possibly be attributed to neglect of small precautions, in the same way as the poor girl who had to walk long distances carrying the washing.

Case V.—The last case was a pupil teacher, aged 18, who consulted me for nocturnal incontinence since the age of 9. Her mishaps occurred at intervals of never less than a fortnight, and every night during the whole time of her catamenial periods. Her father suffered with incontinence up to 16, and an aunt during her childhood. The patient attributed it in her own case to having had measles, scarlatina, and diphtheria in one year. After three dilatations and applications of the silver nitrate solutions she was for four months able to retain her water with only a few mishaps, for which she could always account: for example, one night she took a quantity of oatmeal porridge for a bad toothache, another night some gruel for a bad cold. One of her periods passed over without any incontinence, and during the other three periods she passed water unconsciously for one night only. I made one more application, and for three months after that there has only been one mishap during one of her periods. This case is still under observation.

It must be noted that, with the exception of ordinary nursing precautions, I have not complicated the treatment by the administration of drugs, and the cases upon which I have tried it have been for the most part of the worst type. It is, therefore, fair to assume that with cases in which the complaint is not so marked, especially if aided by belladonna, iron, ergot, etc., according to the requirements of each individual case, success would be greater. There is one great advantage, namely, that the doctor is doing something, and so prevents the relatives from trying one remedy after another, and consulting one doctor after another in the hope of finding a prescription that may be of some good. The older the case the better chance is there of success. It need not be said that this treatment is only applicable to cases of pure incontinence, and not to those due to *petit mal*.

I am unprepared to state a theory to account for this result, but there certainly is a mechanical action caused by the slightly swollen condition of the mucous membrane of the urethra after treatment. This was well exemplified in a confirmed case of an idiot who had a dry bed for a few nights only after each application of the solution; that was as long only as the swelling persisted. In my opinion the real value is the breaking down of the bad habit for a week or longer period.

The dilator is not expensive, and makes an excellent clamp for circumcisions. Messrs. Down Brothers have made for me some fine Lallemand's porte caustique catheters, as it is my intention to try a similar treatment upon boys, and to publish the results at some later date.

HYDROA GESTATIONIS DUE TO STAPHYLOCOCCUS ALBUS.

BY

NATHANIEL W. HOLMES, L.R.C.P., L.R.C.S., L.M.Edin., late Government Medical Officer, Australia.

and

W. BULLOCH, M.D., Bacteriologist to the London Hospital.

THE following case is of interest owing to its occurrence at three consecutive confinements, and to the infrequency that one comes in contact with such cases, also the etiology as revealed by bacteriological examination by Dr. Bulloch.

Mrs. O., aged 26 years, was confined of her third child on October 28th, 1901, the following day she complained of severe itching in the palms of the hands and soles of the feet, extending up the forearms and generally over the whole body. There was redness of the palms of the hands and soles of the feet, and a thick elevated papular and confluent rash the size of peas with hardened bases on the backs of the hands, wrists, and on the flexor and extensor parts of the forearms, also on the knees. The rash on the thighs, chest, back, and other parts of the body was either isolated, confluent and semicircular, or clustered in round patches the size of a florin. Temperature normal. She informed me (N. W. H.) that she had suffered from the same thing at each of her two previous confinements and was most anxious to know what could be the cause of it.

The following day, October 29th, bullæ formed upon the wrists and forearms from the size of a pea to that of walnuts, fresh ones occurring daily here and there over the body and legs. Upon inquiry I could obtain no evidence pointing to syphilis in the family, and as the case resembled pemphigus (for which she was treated at a skin hospital for three or four months after the first confinement) some interesting cases of which were reported by Mr. Buxton Shillitoe,[1] and Drs. Hadley and Bulloch,[2] in which a diplococcus was found, I sought to investigate it further. At the age of 13 years she had a very bad poisoned foot and leg due to an injury to the sole of the right foot by a brass rivet from her boot, which has left a scar on the anterior surface of the leg, and about the same time she had diphtheria.

November 6th.—The pimples appeared on the chin and sides of the face, followed by numerous bullæ daily.

November 8th.—By the kind co-operation of Dr. Bulloch a bacteriological examination was made of the fluid from some recent bullæ, and a pure culture of staphylococcus albus was found.

November 12th.—Fresh bullæ appeared on the forearms, and on the 14th some became pustular, brown scars being generally left behind.

The patient improved daily, and the infant, which continued taking the mother's milk from birth, was quite free from any rash. The treatment consisted in the local application of lot. picis liq., internally a saline mixture with liq. arsenicalis, and latterly sulphur tablets only were prescribed. There has been no return of the disease for the past six months, and it will be interesting to note if there should be any recurrence.

REFERENCES.

[1] *Lancet*, November 26th, 1898, p. 1397. [2] *Lancet*, May 6th, 1899, p. 1219.

NOTE ON A METHOD OF QUANTITATIVELY ESTIMATING THE PHAGOCYTIC POWER OF THE LEUCOCYTES OF THE BLOOD.

BY MAJOR W. B. LEISHMAN, M.B., C.M., R.A.M.C.,
Assistant Professor of Pathology, Army Medical School, Netley.
(From the Pathological Laboratory, Netley.)

THE question as to the relative value of the parts played by the fluid constituents and the cellular elements of the blood respectively in combating an attempted invasion of the system by pathogenic micro-organisms is still the subject of much experiment and discussion. I have thought therefore that the following preliminary note on a method of approximately estimating *in vitro* the part played by the leucocytes in this struggle for mastery may be of interest.

In the recent work which Professor Wright and others in this laboratory have been doing in the estimation of the bactericidal power of the fluids of the blood, a striking feature has been the extremely feeble power that these fluid constituents possess for the destruction of the common staphylococcus pyogenes, the spirillum of cholera, the micrococcus of Malta fever, and the bacilli of anthrax and plague, in comparison with that displayed for the bacillus of typhoid. Even when imitating the conditions of life as closely as possible *in vitro* with regard to temperature, anaërobiosis, the use of fresh blood serum as a diluting medium for the culture employed, etc., the results have proved almost completely negative; in other words, the blood fluids alone cannot be shown by experiments *in vitro* to have more than a trace of bactericidal power against these organisms. In the methods referred to the leucocytes have mostly been excluded by clotting or centrifugalisation and the clear serum or plasma used, so that the part played by these corpuscles, if any, has not been taken into account. The well-known phagocytic power of these white cells, though universally acknowledged, is allotted a very different value by the French and German schools respectively, and the method described below seems to promise a possible means of elucidating some of the many difficulties in determining the share taken by these phagocytes, especially if used as a supplement to an estimation of the bactericidal power of the blood fluids such as that of Professor Wright.[1] In any case the method has, I think, a certain value in the ease with which, *in vitro*, beautiful examples of phagocytosis may be demonstrated to and carried out by a class without the necessity for employing animals such as the frog, guinea-pig, or rabbit.

While the power of phagocytosis (the ingestion of living or dead germs or of particles of inorganic matter) is possessed in common by all the white cells of the blood except, with very rare exceptions, by the lymphocytes; the polynuclear or fine-grained eosinophilous cells are endowed to the greatest extent, and I have, partly on this account, partly because of their preponderating number, confined myself to determining their absorptive capacity, leaving out of account that possessed by the mononuclears and coarse-grained eosinophiles.

Briefly, the method aims at enumerating the number of bacilli or cocci phagocyted within a definite time by the polynuclear cells of the blood under examination, obtaining an average of these values, and comparing the result with that of a control blood, preferably that of the observer, put up under identical conditions.

An emulsion of a portion of an agar culture of the germ whose action is being investigated is first made in a few drops of normal salt solution in a watch glass. Even distribution of the germs is ensured by assiduous stirring with a platinum loop or needle, at intervals of a few minutes, until the emulsion presents an even turbidity. A well-marked but not too dense opacity is aimed at, and the culture used should be a fresh one. A well-polished microscope slide and a couple of perfectly clean cover glasses are prepared. A measured volume of blood is now to be added to and mixed with an equal volume of the emulsion of germs. This may conveniently be done by means of a small capillary pipette, fitted with an india-rubber teat and having a mark near the point corresponding to the desired volume. A little practice enables one to judge of the volume necessary to spread itself out in a thin even film between cover glass and slide; it is, approximately, 5 c.mm. A small drop of blood is obtained in the usual way by means of a needle prick, and one volume, or 5 c.mm., is at once taken up by the pipette and allowed to run slightly up to the tube so as to admit an air bubble to serve as an index; the pipette is then dipped in the emulsion of germs, and a similar volume (5 c.mm.) admitted. Both volumes are now blown out into a clean watch glass or on to a slide, and the blood and emulsion well mixed by stirring and drawing in and out of the pipette. One volume of the mixture is now taken up in the pipette and gently blown out on one end of the prepared slide and at once covered by a cover glass, very gentle pressure with the forceps being used, if necessary, to ensure the film spreading evenly to the whole circumference of the circle. A precisely similar preparation is then made of the control blood from the observer's finger, the drop being placed and covered at the opposite end of the same glass slide. The slide is now placed in a moist chamber, and left in an incubator at 37° C. for half an hour. As a moist chamber a Petri dish with a few layers of damp filter paper at the bottom may be used, the slide being placed in it, resting on a couple of wooden matches. The vapour condenses on the under surface of the slide and the walls of the dish, but not on the upper surface of the slide, which remains dry. A small amount of drying takes place at the edge of the cover glass, but the blood under it remains liquid for hours, and the phagocytes, by reason of the temperature and the close apposition of the two glass surfaces, have every facility for

locomotion and the exercise of their phagocytic power on the surrounding germs.

At the end of half an hour, a period arbitrarily selected, the slide is removed and prepared for staining. The cover glasses will be found firmly adherent to the slide by reason of the drying round their edges, but they are easily loosened by a little normal salt solution applied round the edge by a platinum loop and in a few seconds the connection will be sufficiently softened to permit of their removal. This is done by gently pushing the cover glass to the edge of the slide by the point of a pair of forceps, then grasping it with the forceps and sliding it completely away, precisely as in the well-known method of making blood films by means of two cover glasses. In this way films are left both on the slide and on the cover glass, either of which is available for staining; of the two the slide has the advantage that both the experimental and the control film can be stained by one operation. Care must be taken in making these films to avoid undue force or jerking when sliding the cover glass off the slide, else a proportion of leucocytes, charged frequently to the bursting point with phagocyted germs, will be ruptured, and rendered useless for subsequent examination.

The films are now rapidly dried by replacing them in the incubator for a minute, and stained for microscopical examination. For this purpose I make use of the combined fixing and staining solution recently described by me,[2] which presents the advantages of being rapid and simple in application and of staining the ingested germs so sharply and clearly that there is little difficulty in enumerating those contained in each phagocyte. Even with such a minute organism as the micrococcus melitensis beautiful examples of phagocytosis may be obtained. Little difficulty is experienced in counting the individuals ingested by a particular polynuclear cell up to the number of 50; beyond this figure, however, the results can only be given approximately, and the experiment had better be repeated with a more dilute emulsion, or the period of contact curtailed. Any other staining method may, of course, be used, provided always the definition of the phagocyted germs is sharp enough to permit of their being readily counted.

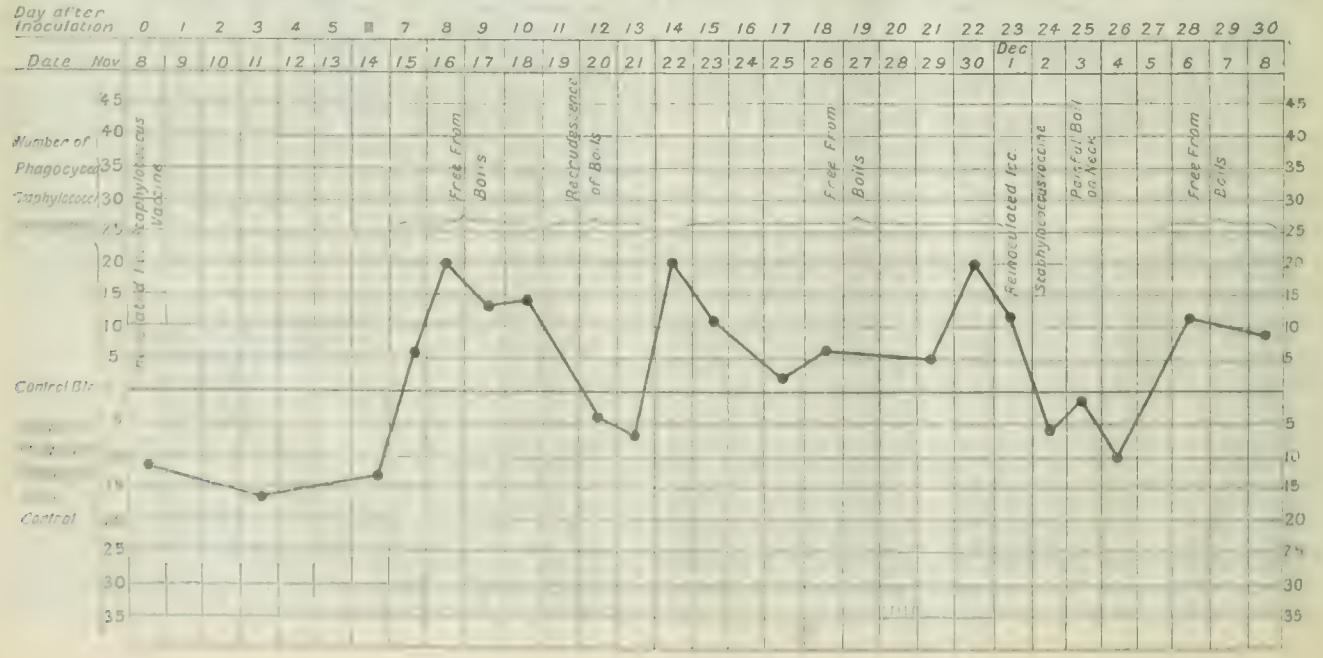
If the combined fixing and staining solution is used, the times laid down in my note on that subject may be considerably shortened owing probably to the prolonged heating or to the dilution of the blood by the normal salt solution. A few drops of the stain are left on the film for 10 to 15 seconds, by which time fixing will be complete. Double this quantity of distilled water is now added and gently mixed with the alcoholic staining fluid. The film will be found sufficiently stained in a couple of minutes and is then soaked in distilled water for 1 to 2 minutes (according to the density of the film), dried in the air without heat, and examined with the oil immersion lens. A census of the number of germs contained in a certain number of polynuclear leucocytes is now made. As a rule 20 cells are counted in each film, and they should be taken as they come in view, only those which are manifestly broken being neglected. Most of the work which I have done has been with staphylococcus pyogenes and B. typhosus, but anthrax and other bacilli can be enumerated with equal facility.

The method is obviously very far removed from being an ideal one, the dilution of the blood with salt solution, the variation in the number and possibly in the virulence of the germs introduced, and, perhaps, the variations in the phagocytic power of the observer's blood from day to day, are a few of the more obvious objections, but the results which I have so far obtained have proved surprisingly regular, while the identical conditions to which the blood under examination and the control blood are submitted at least partially annul the effects of variations due to differences in the numbers and virulence of the germs.

It is not my intention here to enlarge upon the results which I have so far obtained: but, by way of example, I will conclude by describing a case of chronic furunculosis which was recently treated by inoculation with staphylococcus vaccine, already used by Professor Wright with beneficial results in several cases,[3 4] in which I have made a series of phagocytic estimations.

S. P., aged 34, has suffered from small painful boils at the nape of his neck for a year past, otherwise in very good health. On November 8th, 1901, he received 1 c.cm. of staphylococcus vaccine hypodermically. A census of his leucocytes, taken before inoculation, showed polynuclears 53 per cent., mononuclears and lymphocytes 45 per cent., eosinophiles 1 per cent., basophiles 1 per cent. Estimations of the bactericidal power of his blood were made by Dr. Wright before and after inoculation, but in neither case was there any appreciable bactericidal action on staphylococci. Similarly, the agglutinating power of his serum for staphylococci was very low and unaltered by the inoculation.

The results of the phagocytic estimations may be more readily followed by reference to the accompanying chart, in which the average number of staphylococci phagocyted by the patient's leucocytes in half an hour is contrasted with that of the control blood—my own. The principle of the chart is that the daily figure of the phagocytic power of the control blood is taken as zero, and the difference between



this figure and that of the blood under examination is shown above or below this line, according to the numerical excess or deficiency in the average of germs phagocyted by each leucocyte.

It is too early to be able to say whether the temporary benefit which followed the inoculation is likely to be permanent; but the point which I wish to bring out is that the patient's phagocytic power, as gauged by the control blood, has varied in direct proportion to the amelioration of his symptoms.

Prior to the date of inoculation I made several examinations of his blood, and found its phagocytic power always lower than the control, but these have not been entered in the chart, as no exact numerical count was made on these occasions. For six days after inoculation it will be noted that his phagocytic power remained considerably lower than the control: during this time he was still having fresh crops of small boils and pimples on his neck. From the seventh to the tenth day he was free from boils, for the first time for many weeks, and a corresponding rise is seen in his curve. From the eleventh to the thirteenth day a few fresh pimples appeared, which gave him less annoyance than those he usually suffered from, and a similar outcrop occurred towards the end of the period of observation. On both these occasions a drop will be noted in his curve below the level of the control blood.

Without insisting on the uniformity or importance of the phagocytic estimation in this case, which has only been selected as an example of the method, the results appear sufficiently striking to warrant the hope that it may be of service in the investigation of immunity when combined with an estimation of the bactericidal power of the blood fluids.

Since the above note was written I have had the opportunity of examining the phagocytic reaction in another case which was treated eight months ago by Dr. Wright with injections of staphylococcus vaccine for boils from which the patient had suffered for eight years, and in whose case a permanent cure appears to have been effected. The phagocytic power of the polynuclears was found to be markedly greater than that of the control blood when tested with the strain of staphylococcus, which was originally isolated from one of his boils, and from which the vaccine used in his case was prepared, while the reaction was slightly higher than the control when tested with another variety of staphylococcus.

REFERENCES.

[1] *Lancet*, December 1st, 1900, March 2nd, 1901, and June 1st, 1901. [2] BRITISH MEDICAL JOURNAL, September 21st, 1901. [3] *Lancet*, June 1st, 1901. [4] Proceedings of the Pathological Society, *Lancet*, March 23rd, 1901.

EPIDEMIC CATARRHAL JAUNDICE.

BY ELIOT CURWEN, M.B., B.C.CANTAB.,
Late Physician to the Pekin Hospital.

IN view of the present epidemic outbreak of jaundice in Derbyshire, so well described by Drs. Peck and Kershaw, the following brief notes of the first cases in similar epidemics in Pekin and Tientsin during the winters of 1898-9 and 1899-1900 may not be without interest. I have notes of only 44 of the cases seen during the first two months of the epidemic, which, beginning towards the end of October, 1898, lasted well into the spring of the next year; the following winter the epidemic returned, and presented the same features as in the previous year.

The first case seen was on October 22nd, and for some months after this few days passed without one, two, or three patients coming to the hospital for treatment. Their ages varied from 17 to 60, and seven times as many men as women applied for treatment. The attack from which one of my students suffered was typical of the series.

On October 27th and 28th he told me he felt weak and lethargic. On the evening of the second day he returned to his home feeling sleepy, ate two pears, had pain in the abdomen, and felt sick. At night he was very hot, complained of severe pain in his temples, and his conjunctivæ were, he said, suffused. During the next two days his temperature kept up between 102° and 102.4°. He felt very weak and ill, and the pain in his temples continued. The administration of calomel (gr.iij) resulted in five dark green motions. On November 1st his temperature was down to 96° in the morning, and the conjunctivæ were slightly yellow for the first time; he was still very weak, and had a pulse of 60; there was no tenderness over the liver, or any abdominal discomfort; the tongue was slightly furred. The colour of the conjunctivæ became more marked by November 4th, when he began to complain of itching of the skin; from this date his symptoms gradually improved; ten days later, however, the conjunc-[illegible]

Most of the patients complained of great weakness and of some shortness of breath; there was generally anorexia, a feeling of abdominal distension, and nausea, and constipation with pale motions was the rule; in 4 cases definite abdominal pain was complained of, but from only 3 did I hear of actual vomiting; diarrhœa occasionally occurred. Another prominent symptom, noted in two-thirds of the cases, was pain in the temples, and this in some cases was described as very severe; it was often accompanied by drowsiness, and in 2 cases by vertigo. More than two-thirds of the patients told me that for the first few days of illness, varying from one to fourteen, they suffered from some degree of fever with shivering, and that as a rule the icteric tint of the conjunctivæ was first noticed the day, or the day after, the fever disappeared. In 5 cases the colour of the conjunctivæ was noted as deep, but in the majority of cases it was a pale straw or lemon colour, and not dark enough to be noticed in the yellow skins of the Chinese; the length of time it lasted was very variable. Only 4 patients complained of pruritus. In 2 cases the liver was noted as slightly enlarged and tender; no albumen was found in any urine examined, but Martin's and Gmelin's reactions were obtained in each case. The pulse was rapid—from 80 to 128—in each patient, with the exception of the case narrated above. One man, aged 60, whose fever had lasted ten days, told me that about the time his conjunctivæ became yellow he began to suffer from pains in the muscles of the right arm and in his two ulnar bones: the muscles and bones were still tender on deep pressure when I first saw him five days later.

The affection cannot be very infectious, for I never saw two patients from the same house, and one of my servants who was attacked did not communicate the disease to the other men who slept on the same brick bed; only one patient told me that he had neighbours suffering from the complaint. Some of my patients were severely ill for some days, and, on account of their high fever, weakness, and headache, were thought by their friends to be suffering from typhus fever: others, on the other hand, were affected so slightly that the febrile symptoms, if they existed, passed unnoticed, and they did not know there was anything the matter with them till I handed them a looking glass and told them to look at their eyes.

ENTERIC FEVER IN THE INOCULATED.

BY MAJOR C. BIRT, R.A.M.C.,
Harrismith, South Africa.

THE mortality of 947 uninoculated individuals who have suffered from enteric fever in Harrismith, South Africa, from September, 1900, to September, 1901, has been 14.25 per cent. There were 135 deaths among them.

During the same period 263 persons who had been inoculated with typhoid vaccine, for the most part 6 to 18 months previously, contracted this disease. Eighteen of these cases proved fatal. This is equivalent to a death-rate of 6.8 per cent.

The tabulated results of an analysis of 317 charts of the not inoculated and of 151 charts of the inoculated are given below.

	Uninoculated.	Inoculated.
Mortality	14.25 per cent.	6.8 per cent.
Average duration of pyrexia	28 days	15 days
Average maximum temperature recorded	103.7°	102.6°
Percentage of cases in which relapses occurred	24.0 per cent.	6.0 per cent.
Percentage of cases with constipation	[illegible]	[illegible]
In cases with diarrhœa, average maximum number of evacuations per diem	[illegible]	[illegible]

The unmodified fever has been of severe type. *Post-mortem* examinations have been made in 65 of those who have succumbed. Death was due to toxæmia in 40 per cent., to pneumonia in 26 per cent., to perforation in 14 per cent., to exhaustion, etc., in 20 per cent.

In all the fatal inoculated cases an interval of eight or more months had elapsed between vaccination and the onset of the illness. In eight necropsies the cause of death was found to be toxæmia in 4, pneumonia in 3, perforation in 1.

It should be remembered that immunity against enteric is not readily established in some. I have before me the charts of a man who had not been inoculated, but who suffered from a 13-day attack of enteric fever in October, 1900. He was fit for duty early in November. At the end of February, 1901, he was again seized with a virulent form of the fever, and sank 26 days later from exhaustion. He suffered from delirium and diarrhœa throughout. After death, the intestinal ulcers were few in number and of no great depth or area.

TORTUOSITY OF BOTH INTERNAL CAROTID ARTERIES.

By

R. P. ROWLANDS, F.R.C.S., and R. H. J. SWAN, M.B., B.S.Lond.

Demonstrators of Anatomy, Guy's Hospital.

With reference to the case published in the British Medical Journal of November 23rd, 1901, by Dr. Edington under the above heading, we forward the following notes of another case at present under our notice:

During the course of ordinary dissection in Guy's Hospital Medical School of the body of a female, aged 94, who is certified as having died from chronic nephritis, the internal carotid artery of either side was found to have a marked S-shaped bend in its course upwards. On the right side the common carotid artery bifurcated at the upper border of the

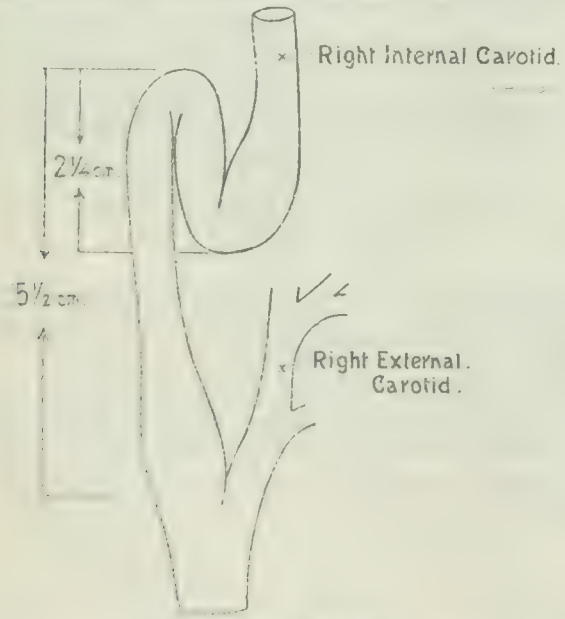


Diagram 1. Actual size.

thyroid cartilage, the commencement of the internal carotid showing a fusiform dilatation. Passing upwards in the carotid sheath to a point 5.5 cm. above its origin, the internal carotid suddenly turned forwards and inwards and then directly downwards for 2.25 cm., when it again turned forwards, inwards, and upwards to the carotid canal in petrous portion of the temporal bone. The second bend on the right side was distinctly sacculated, and the arterial wall was here very thin. The portion of the artery passing from the bend to the carotid canal was larger than normal.

On the left side there was an almost exactly similar bend in the internal carotid commencing 6 cm. above the bifurcation of the common carotid artery, with a maximum measurement between the convexities of each U-shaped piece of 2.5 cm. Just before the flexure on this side the artery was dilated and thin-walled (Diagram 2). The left external carotid of this side was also slightly tortuous. The flexures of each side lay beneath the external carotids, their posterior and inner surfaces lying on the rectus capitis anticus muscle, and, by examination by the finger in the pharynx, could be easily felt immediately behind the posterior pillar of the fauces. The arteries of the body generally are atheromatous, some presenting calcareous plaques in their wall, a few of which were present in the common carotid of each side. The external iliac arteries were tortuous, being curved internally so as to pass down on either side into the true pelvis; the left external iliac artery measured 14 cm.

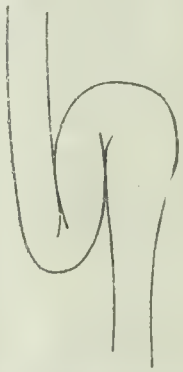


Diagram 2.—The flexure in the left internal carotid. Actual size

It seems probable that the tortuosity in this case is due to sacculation of the vessel-wall consequent upon the arteritis and increased arterial pressure of the chronic nephritis, the increased length of the artery thus caused giving place to tortuosity, but the tortuosity is peculiar in its marked symmetry.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE OF APOPLEXY DURING LABOUR.

On November 15th, 1901, at 3 P.M., I was called to attend Mrs. J., a strong healthy primipara, aged 35. The pains were coming on regularly, the os was just beginning to dilate, and the parts were soft, relaxed, and moist. By 6 P.M. the os was fully dilated, the membranes ruptured, and the head, presenting in the first position, was making satisfactory progress in the pelvis. The pains were distinctly propulsive, but the straining was by no means excessive. She was in excellent spirits, although considerably annoyed with flatulence in the stomach and twinges of headache, which she said were not severe. Suddenly she exclaimed that her head was very bad, and that she could not get breath. She did not reply to my questions, and on going to the bedside I found her perfectly unconscious, in fact in a state of profound coma. The face was flushed, the pupils widely dilated, and the limbs limp and impassive; but the respiration, the pulse, and the temperature were still nearly normal. The uterine contractions went on, but there was no action of the accessory muscles, and the head receded away up from the brim. No time was lost in applying the forceps and effecting delivery, but this brought no abatement of the untoward symptoms. The respiration became stertorous and frequently obstructed, the pulse rapid, irregular, and weak, the temperature fluctuated from subnormal to 105°, and she died twelve hours after the seizure. There was no appearance of œdema, twitchings, convulsions, or other characteristics of eclampsia. No *post-*

mortem examination was made, but the nature of the lesion is unmistakable. This formidable complication of labour is happily of rare occurrence. My field of research is very limited, but it would appear that not many cases have been recorded: and in my own practice, with an experience of over 4,000 confinements, this is the first instance that I have met with.

Hawick. JAMES BRYDON, M.D.

THE DIRECT INTRODUCTION OF PURGATIVES INTO THE INTESTINE DURING OPERATION FOR SEPTIC PERITONITIS.

WITH regard to Mr. Marmaduke Sheild's interesting note on this subject,[1] I may mention that the same idea occurred to me, and that, probably like many other surgeons, I have used the plan when operating on cases in which the chief danger lay in the distended and paralysed condition of the intestines. I used a simple solution of half an ounce of magnesium sulphate in water, and inserted it into the small intestine high up. A couple of fine silk stitches applied after the cannula is withdrawn will prevent any chance of extravasation. The idea is obviously a rational one, and must have occurred to many, and my chief reason for writing now is to suggest that the aperient should be injected into the small intestine rather than the large. The trouble lies often in the distended condition of the former, a turpentine enema alone will relieve the large intestine. It is very improbable that an aperient injected into the cæcum, as Mr. Sheild advises, can relieve the distension of the small gut. I would also suggest the use of a fair-sized trocar and cannula instead of a small syringe, as by the former the intestine can be largely emptied of gas, etc., before injecting the saline solution. Mr. Sheild, however, only refers to cases of perforative appendicitis, and his statement that striking results followed in every one is most important. So far as my own experience goes I can only say that the plan seems worthy of further trial.

J. HUTCHINSON, jun., F.R.C.S.

Cavendish Square, W.

MR. MARMADUKE SHEILD, in his paper in the BRITISH MEDICAL JOURNAL of December 28th, 1901, writes of the injection of saline purgatives into the bowel during operations for septic peritonitis as if it were a new method. For some years it has been practised by some of the American surgeons,[2] and is referred to by Abbe in his article on Peritonitis in the *International Text-book of Surgery* recently published. The injection is made usually into the small intestine. Mr. Maylard, of Glasgow, has also advocated[3] its use combined with evacuation of the intestinal contents. I have tried the method in one case of operation for general purulent peritonitis, and in this case I injected ʒij of sulphate of magnesia, dissolved in a little water, into the jejunum, by means of an exploring syringe, and closed the puncture with a Lembert suture. The patient (a child of 8) was desperately bad at the time of operation and did not live many hours after, but a copious action of the bowels began on the operation table, and continued for some time after the operation was over. The distension of the intestines was so great that I had to allow them to escape from the peritoneal cavity before flushing with saline solution, and I had to evacuate as much of the contents of the small intestines as I could through an incision in the bowel (which was afterwards sutured) before I could return them. The peritonitis in this case was not due to appendicitis.

Bristol. CHARLES A. MORTON, F.R.C.S.

CARCINOMA AND MALARIA.

IT is with interest I remark the note in the BRITISH MEDICAL JOURNAL of November 2nd relating to the incompatibility of carcinoma and malaria. In my thesis for promotion forwarded to the War Office in 1898, I remarked on this subject, giving the relative prevalence of these diseases in several countries and drawing attention to their apparent incompatibility.

[1] BRITISH MEDICAL JOURNAL, December 28th, 1901, p. 1864.

[2] McCosh, *Annals of Surgery*, 1827, vol. xxv, p. 601; Weir, *Annals of Surgery*, 1897, vol. xxvi, p. 236.

[3] BRITISH MEDICAL JOURNAL, 1899, vol. i, p. 843.

It may be taken as a general law that where malaria is prevalent cancer is rare. There are, however, exceptions to this rule. In the Faroe Islands and Iceland, for example, malaria is practically unknown, but so also is cancer. Again, in the central plateau of Arabia there is no malaria and cancer is almost unknown.[1] I could give other examples if necessary, but the above will suffice. It is quite possible that in these cases the primary causes of both diseases are absent.

But we have another general law with reference to cancer. Like scarlet fever it becomes less frequent as the tropics are approached.

Its incidence in respect to race is also interesting. For instance, as we have seen, it is practically unknown in Iceland and the Faroe Islands, but the same race in Denmark probably suffers more from cancer than any other people in the world. The negro race is another interesting example. The negroes of the West Coast may be said to be free from cancer, while it attacks the same race in America with increasing frequency.[2]

It is remarkable that cancer is now most prevalent along the banks of rivers which run through clay soil, and that these were the regions previously most affected with malaria. Has the one disease displaced the other?

It is a very large subject, so that I will here only give the conclusions I arrived at in a fairly exhaustive study of the disease:

1. Cancer seems to be a disease of locality rather than of race, and is probably due to a micro-organism.
2. It does not appear to be prevalent in warm regions.
3. A large malarial mortality is associated with a low cancer death-rate.
4. There is no evidence to connect it with food nor with excessive consumption of meat.
5. It is a disease of cold climates, and it would appear to be most fatal in damp, cold countries associated with a clay soil, along the banks of rivers which are liable to overflow.

I have just heard of a case of death from cancer of the stomach in a European, who was stated to have suffered from frequent attacks of malarial fever. It would perhaps be advisable to collect data on the subject before inoculating cases with the protozoon of tertian fever.

J. S. DAVIDSON, M.B.,
Major, R.A.M.C.

Secunderabad, India.

EPIDEMIC CATARRHAL JAUNDICE.

I HAVE read the paper by Dr. Herbert Peck, of Chesterfield, on epidemic catarrhal jaundice with much interest, as it reminded me of a similar experience we had in this locality during the latter part of 1895. In about six months I had between 30 and 40 well-marked cases of jaundice and between 80 and 90 with similar symptoms but not jaundiced, although the urine was very dark and the motions putty-coloured. The symptoms in each case were as described by Dr. Peck. I thought they were of an epidemic character but not peculiar to the place, not connected with locality, but due to a common cause then existing in the country, and, as influenza was prevalent, considered it a manifestation of this disease. I thought this probable, because at least 4 of the cases were visitors who had only arrived the day before and one the same day. We know from experience the tendency of each epidemic of influenza to vary in its manifestations. In one the nervous system will suffer most, in another the throat symptoms predominate, in yet others the chest, heart, or gastric symptoms come to the front; then why may not hepatic follow in due course? I only throw this out as a suggestion.

Sandown, Isle of Wight. W. E. GREEN.

HERNIA INTO THE UMBILICAL CORD.

As a sequel to Dr. Kennedy's two cases of hernia into the umbilical cord, described in the BRITISH MEDICAL JOURNAL of December 14th, 1901, a case I attended when a student is perhaps worthy of record, both on account of the rarity of the deformity and the absence—as Dr. Kennedy pointed out—of any method of treatment in the commonly-read textbooks.

On October 14th, 1898, I attended the birth of a puny male child of only 8 months gestation. There was an extraordinary condition about the umbilical cord, which had a headed appear-

[1] Palgrave, [illegible]

[2] *Surgical Peculiarities of the American Negro.* Rudolph Mabas.

ance and contained three tumours. The two smaller ones were about 3 inches in diameter and full of Wharton's jelly. The third swelling, about 4 inches in diameter, was an enormous hernial sac, in places semitransparent, and in other places quite hard, feeling just like nasal cartilage. The ring through which the hernia protruded could easily be made out, and admitted the tip of the little finger. The hernia was reduced with much difficulty owing to the fact that the abdominal cavity was very small and the hernial protrusion relatively very large: the cord tied with thread as near the child's body as possible, and then cut. Most unfortunately, due more to the cartilage in the cord, and the very great intra-abdominal tension than to any carelessness in tying it, the ligature slipped, and the hernia at once came out, the small intestine and most of the large intestine lying exposed on the child's belly. For a very long time I tried to get these back into the abdomen, but without success; the abdominal cavity was really too small to contain them.

I wrapped up the intestines in salalembroth gauze and reported the case to my superiors at the hospital, who considered it hopeless. I again attempted to get the protruded intestines back, but could not do so. The intestines having grown outside the abdominal cavity had, I suppose, hypertrophied, and the abdominal cavity itself, not having its accustomed contents, had not properly developed.

The intestines were carefully washed and wrapped in an antiseptic gauze. The child died four days later from collapse, there being no trace of a suppurative peritonitis.

Southampton. M. MCDOUGALL, M.R.C.S., L.R.C.P.

DISLOCATION OF THE ULNA.

I WAS called to see a lady who had fallen from her bicycle. I found that she had sustained an external dislocation of the elbow-joint, which I had never before seen or heard of. The radius was in place, and the arm was flexed. Behind the radius and external, so far as the whole arm was concerned, was the ulna, and there was no fracture of any kind. It was easily reduced on extending the forearm and manipulating the ulna in order to push it back over the radius internally, when it immediately slipped into place, and directly afterwards my patient was able to flex and extend the elbow.

Dover. MAURICE KOETTLITZ, L.R.C.P., etc.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BOLTON INFIRMARY.

CASE OF ACUTE SEPTICÆMIA FOLLOWING INCOMPLETE ABORTION TREATED BY ANTISTREPTOCOCCUS SERUM: RECOVERY.

By J. RAMSAY MUNRO, M.B., Ch.B.Edin., Junior House-Surgeon, Bolton Infirmary.

F. R., aged 33, unmarried, was admitted on October 26th with varicose ulcers of the left leg.

On November 1st, 4.15 A.M., she had a copious discharge of blood from the vagina. She acknowledged that she had missed one menstrual period, and that she might have been pregnant. An eight weeks fœtus was expelled an hour later but the abortion was incomplete, membranes and placenta being still retained. Ergotin and digitalis were administered hypodermically but nothing more was expelled. At 11 A.M. the contents of the uterus were removed by the finger aided by the curette, and an intrauterine douche was given.

On November 2nd the temperature rose in the evening to 100°; the pulse was 80. There was no abdominal pain or tenderness. A simple enema was given, and also pulv. jalap. co. grs. 60 and hydrarg. subch. grs. v. Free purgation resulted, and on November 3rd the temperature dropped to 99° and the pulse to 68.

On November 4th, at 10 A.M., she had a severe rigor. The temperature rose to 103° and the pulse to 100. She was flushed, and complained of abdominal pain. There was marked tenderness in the right iliac region at the side of the uterus. There was little or no vaginal discharge. The uterus was carefully examined and found to be absolutely empty. There was some degree of heat and tenderness in the right lateral fornix. An intrauterine douche was given, and vaginal douches were ordered every four hours. She was given liq. hydrarg. perch. ℥j every two hours, and liq. strychnin. ♏ij every hour, also brandy, ℥ss, in milk, and myosin albumen every two hours.

On November 4th, 2 P.M., the temperature was 103.6° and the pulse 104. After that it gradually fell until 11 P.M., when it was 101.2°, then it rose again to 103°. Another intrauterine douche was given, but the temperature remained between 102° and 103°.

On November 5th, at 2 P.M., 10 c.cm. of antistreptococcus serum were injected into the subcutaneous tissue of the anterior abdominal wall. The temperature was still maintained. Six hours later she was seized with acute cutting pain in the abdomen. She lay in bed with the legs drawn up; the abdominal muscles were tense, and respiration shallow and purely costal. The abdomen was hard and tense but rounded. The pain was strictly localised round the spot where the serum had been injected. An area about 3.8 cm. was tender, red, and slightly raised, evidently an acute cellulitis due to the irritation of the serum. Morphine relieved the pain, and linseed poultices were applied to soothe the inflamed part. Immediately the temperature began to fall, and in five hours it had reached 98.6° and the pulse was 76.

On November 6th, at 10 A.M., as the temperature had reached 100°, 9 c.cm. of serum were injected. For this second injection one of the breasts was prepared by applying hot fomentations to dilate the vessels and so aid the more rapid absorption of the serum. The injection was made in four different places under the breast, and hot fomentations applied an hour after the injection. As regards the temperature, the result was exactly the same as on the previous day; it continued to rise for five hours until it reached 101°; pulse 96; then it steadily dropped again to normal. There was no cellulitis nor any pain. After this the recovery was uneventful. Some slight fibrous deposit could still be felt in the lateral fornix when the patient was discharged on November 21st.

REMARKS.—In this case the pain due to the first injection into the subcutaneous tissue of the abdomen might have masked any pain due to peritonitis, so I venture to suggest that in cases where there are symptoms of peritonitis, or where there is a possibility of peritonitis coming on, the injection of antistreptococcus serum should be away from the abdomen. A second suggestion I offer is that to prevent any cellulitis from the irritation of so large a dose as 10 c.cm. it be injected in several places. Also, to aid the rapid absorption, that the seat of the injection be prepared beforehand by causing a localised dilatation of vessels by moist heat or some other means. I feel certain that the reduction in temperature was due in this case, although other medication was not stopped, almost if not entirely to the antistreptococcus serum, as it definitely followed on both occasions within a very few hours after the injection.

CHANGPOO MISSION HOSPITAL, AMOY, CHINA.

CASE OF COMPLETE OBLITERATION OF THE VAGINA WITH SUPER-INVOLUTION OF THE UTERUS FOLLOWING CHILDBIRTH.

(Reported by J. PRESTON MAXWELL, M.B., B.S., F.R.C.S., Surgeon to the Hospital.)

History.—Kiam, aged 23, was confined of her first child in October, 1898. The labour was prolonged, apparently by reason of primary uterine inertia and the head appears to have been on the perineum three days. At the close of that time her friends applied to the Changpoo Mission Hospital, ten miles distant, but owing to illness the doctor in charge at that time could not go. He, however, gave them some chloral which procured sleep, and shortly after the child was born without assistance, but dead. No more was heard of the patient till she came to me at the Changpoo Hospital on May 8th, 1899. She then told me the following story: After her confinement she rested for about five days and then went about her work as usual. Although occasionally suffering a

little pain nothing abnormal was noticed by her until her husband found that penetration was impossible. For this cause and also because she had not menstruated since her confinement she came to hospital.

State on Examination.—In common with all Chinese women she had only a hair or two about the genitals. The labia were well formed, the clitoris normal, but the opening of the urethra was markedly patulous. The perineum appeared to have been split for about ½ in. from the free margin, but otherwise was normal. From the free edge of the perineum to the free margin of the vestibule there extended a pink, fleshy surface, there being no trace of vaginal orifice or of fossa navicularis. *Per rectum* the uterus could be felt in its normal situation, freely movable, the cervix pointing downwards and slightly forwards, and cleft on its posterior aspect. There was not a trace of present or past inflammation in the broad ligaments, and the appendages appeared natural: but the uterus and cervix were evidently small. With the aid of a bladder sound the thickness between the rectum and bladder was measured roughly and appeared to be about ¾ in. +. The measurements of the pelvis were natural.

Operation.—Three days after admission she was placed under chloroform, and I made a transverse incision across the pink fleshy mass described above. With the aid of a sound in the bladder and one in the rectum, these organs were separated with care by means of the knife and fingers till the cervix was reached. The tissues both in front and behind the cervix were freed, and posteriorly I got into the wall of the rectum, but did not perforate it. There was but little bleeding. The cavity thus made was packed with iodoform gauze, the gauze being carried well in front and behind the cervix. The uterus and cervix measured about 1½ in. together, and the cervix was multiparous and cleft backwards. A uterine sound entered about ½ in., and could not be persuaded to go further. The appendages appeared normal, and there were no adhesions in the pelvis. No trace of vagina was found during the whole operation.

After-History.—On the same night she had three severe attacks of hæmorrhage, the blood coming from the bowel high up. It only ceased on the removal of all the vaginal plugging, which was not renewed till the following day. Two days after a small aperture formed up behind the cervix and a round worm appeared in the newly-formed vagina. But this fistula closed in forty-eight hours. The further history was uneventful. In a month's time she went home with a vagina lined with epithelium, but requiring daily dilatation. The uterus was as before and a sound would not enter the cervix above ½ inch. Two months after I saw her again. There had been no sign of menstruation, although the woman was in first-rate health, and the vagina, although tending to close, was kept open by the passage of a bougie once or twice a week. Uterus as before; no increase in size.

REMARKS.—Partial occlusion of the vagina after protracted labour is not uncommon in China, but such a condition as described above is extremely uncommon, and I have not been able to find another record of it. The closure was so perfect that had it not been for the certain history and the evidence afforded by the cleft and hardened cervix I should have taken it to be a congenital case. As to the final result, I fear it is hopeless. A kind of vagina may be kept open by perseverance, but the chances of her bearing another child may be put out of account. This case is a good instance of how quietly trouble of this kind may proceed. The woman is undoubtedly as sensitive as most women, and yet she had no idea, as far as I can learn, that this trouble was going on. It also raises a very interesting point. Was the superinvolution of the uterus secondary to or consecutive with the obliteration of the vagina? I am inclined to think the latter, and I think it quite possible the obliteration may in this case have extended to the cavity of the uterus itself.

PREVENTION OF BOVINE TUBERCULOSIS.—According to a Reuter's telegram from Stockholm, Professor Behring stated in a recent lecture that he had experimentally demonstrated the possibility of immunising cattle against tuberculosis by inoculation on the plan of the Pasteur method. He added that he intended to apply the Nobel Prize, recently awarded to him, in carrying out treatment on these lines.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

W. WATSON CHEYNE, F.R.S., President, in the Chair.

Tuesday, January 7th, 1902.

AN EXPERIMENTAL PRODUCTION OF THE OSTEO-ARTHRITIC TYPE OF RHEUMATOID ARTHRITIS.

DR. F. J. POYNTON and DR. ALEXANDER PAINE contributed a communication on this subject. The authors brought forward the results of an experimental investigation with a diplococcus isolated after death from the knee-joint of a man aged 67, who had suffered from chronic arthritis. The cause of death had been carbolic acid taken by misadventure while engaged in his employment. Several joints were found much damaged by the arthritis, and the changes were such as are usually associated with the rheumatoid arthritis of later life. Thus the fluid in the joint was almost clear, and was scanty in amount. There was a small foreign body formed probably by the organisation of inflammatory exudation. The cartilages were eroded and the bones eburnated. The synovial membrane was much thickened. A diplococcus was demonstrated in the unincubated and incubated synovial membrane, and was isolated and grown on blood agar. Injected intravenously into two rabbits, arthritis resulted in both instances, without either valvulitis or suppuration in the viscera. One rabbit was killed upon the fifteenth day. No erosion of cartilage or alteration in the bones forming the joints was found. The other developed a monarthritis of the right knee, with wasting of the muscles of the thigh and leg. The animal was killed in the tenth week, and the specimen was shown to the Society. The exudation was scanty and clear and sterile, the cartilages were ulcerated in some places, and in others had lost their gloss. The articular surfaces of the bones were slightly flattened, in places ulcerated, and their edges much thickened and lipped. The muscular atrophy was quite definite. The joint capsule and peri-articular tissues were but little thickened, but the crucial ligaments had lost their lustre and were swollen and opaque. A condition of osteo-arthritis had therefore resulted from the intravenous inoculation of a diplococcus isolated from a case of rheumatoid arthritis. This type of arthritis the authors had not observed hitherto as a result of inoculation with the diplococcus rheumaticus. They pointed out that other investigators had isolated micro-organisms from the exudations in rheumatoid arthritis, for example Max Schüller, Bannatyne, Wohlmann and Blaxall, Chauffard and Raymond had isolated bacilli; von Dungern and Schneider a minute diplococcus. They emphasised the fact that the monarthritis in their investigation had been the result of an intravenous inoculation, and not of a direct injection into the joint, and summarised their conclusions as follows: (1) A diplococcus was present in the synovial membrane of the knee-joint of a man aged 67, several of whose joints showed the chronic destructive changes of one type of rheumatoid arthritis; (2) this diplococcus had been isolated and cultivated; (3) intravenous inoculation into rabbits had upon two occasions produced arthritis without cardiac lesions; (4) the organism had been isolated from the joint exudations; (5) in one instance an osteo-arthritis had resulted which was non-suppurative, and which differed in the character of the changes from that which they had hitherto observed in experiments with the diplococcus of rheumatic fever; (6) they considered this diplococcus to be the cause of the arthritis both in the case from which it was isolated and in the rabbit. Cultures of the diplococcus were demonstrated and sections showing it *in situ* in unincubated and incubated fragments of the synovial membrane. The diplococcus rheumaticus was also demonstrated in the synovial membrane from a case of early rheumatic arthritis. Macroscopic specimens of the arthritic changes were also shown, with pipettes containing the fluid removed from the affected joints.

The PRESIDENT remarked upon the interesting fact that, though the coccus had been injected intravenously, the only part involved was the knee-joint.

Dr. A. E. GARROD did not consider that the lesions of osteo-arthritis characterised a single disease only, but pro-

bably occurred in more than one; the articular changes in hæmophilia and tabes pointed to this, and, though the micro-organism used had produced an arthritis, it did not necessarily follow that this corresponded to the common disease in the human subject. Other micro-organisms might do the same.

Dr. J. H. DRYSDALE criticised the fact that the observation rested as yet upon a single experiment.

Mr. S. G. SHATTOCK inquired whether the history of the patient who furnished the micrococcus had been thoroughly worked out; had the case been one originally of acute rheumatism, and was the organism a mitigated diplococcus rheumaticus? In regard to the morbid anatomy of the experimental lesion, the fibrillation and cell-proliferation of the articular cartilage were not satisfactorily present, though there was a certain degree of articular lipping.

Mr. W. G. SPENCER also inquired as to the antecedent history of the patient and suggested the possibility of the arthritis having been gonorrhœal.

Drs. POYNTON and PAINE, in reply, did not deny that there might be different causes and types of rheumatoid arthritis; they recorded their experiment for what it was worth. The history of the patient it had been impossible to obtain, as death occurred from carbolic acid poisoning. There was no evidence, however, after death of other disease. The coccus did not correspond in form with that of gonorrhœa, and it grew, moreover, on ordinary media without difficulty, so that this possibility might be ignored.

THE OCCURRENCE OF PELVIC TUMOURS ARISING IN ADRENAL REMAINS.

Dr. A. E. EASTWOOD read a paper on the occurrence in the pelvis of malignant tumours originating from suprarenal remnants. He exhibited a tumour removed from a patient of Dr. Champneys's, which the speaker believed to be in many respects unique. It was a large, encapsuled, malignant growth, which had expanded the layers of the broad ligament and closely enveloped the corpus uteri. Microscopically it presented characters typical of a suprarenal origin. The cells were of epithelial type, contained clear yellowish globules, and in some places dark brown pigment, were grouped by fibrous tissue trabeculæ in a manner suggesting the outer cortical layers of the normal suprarenal, and closely invested the circulatory channels. The vessels and adjacent tissue contained colloid-looking material not unlike that found in adenomata of the thyroid. Taking the microscopic features collectively they could not be accounted for by any recognised type of uterine sarcoma or endothelioma, by the tumours of Wolffian origin described by Recklinghausen, or by the "mixed" congenital tumours of Wilms. As all the microscopic characters of the present case were closely comparable with those of authenticated suprarenal rest tumours occurring in other situations, the diagnosis of origin from aberrant suprarenal tissue was justifiable. In point of situation the nearest recorded parallels were a small adenomatous tumour of suprarenal type found by Marchand in the broad ligament of an adult and a large malignant suprarenal tumour of Chiari occupying the male pelvis is proved to have been primary in that situation. In further support of his diagnosis, the speaker showed two other cases of tumour of the suprarenal type growing in close connection with the kidney and presenting a strong resemblance histologically to the first case. He then referred to the bearing of aberrant suprarenal tumours upon questions of normal and morbid histology and adversely criticised at length the applicability to this class of tumour of Ribbert's theory of "displacement" and of the less liability to malignant proliferation of a group of cells constituting an "organic whole."

Mr. J. H. TARGETT had not encountered any similarly-placed tumour of this class. Adrenal remnants in the broad ligament he could not regard as common. He had never seen any in the adult, but only in stillborn infants, and in them very seldom; neither were they common under the capsule of the kidney.

Mr. S. G. SHATTOCK held with the author that theories in regard to malignant tumours were of use only as working hypotheses which might lead to investigation, and Ribbert's theory he did not class as of any particular value. As bearing on it he referred to Dr. Lack's experiment in which peritoneal and uterine carcinoma followed upon exposure, incision, and scraping of the ovary in a rabbit. He viewed the result as a coincidence, the animal having been, in his opinion, the subject of a primary uterine carcinoma. Here the cell tension was fully removed from the ovarian cells dislocated into the peritoneum, but Dr. Lack had not as yet published any repetition of the experiment; and the experiments conducted by the speaker (Mr. Shattock) had been all negative. Some of these consisted in injecting intraperitoneally scrapings of the ovary suspended in salt solution, others in subcutaneous injections of similar suspensions, whilst in others the testicle was scraped and used as the material for injection. These results were in correspondence with those of Lubarsch and others, where minute fragments of normal tissues were injected into the venous system without leading to the production of tumours.

Dr. EASTWOOD, in reply to Mr. TARGETT, stated that systematic and minute examination of the broad ligament in infants had shown (as stated by German authors) that adrenal remnants occurred in the broad ligament very frequently.

MULTIPLE OSTEOMA.

Mr. L. H. MCGAVIN exhibited a knee-joint, the bones of which were the seats of many osteomata. The unusual feature in the case was the coexistence of a chondro-sarcoma growing from the ribs.

INTESTINAL OBSTRUCTION DUE TO GALL STONES.

Mr. H. L. BARNARD reported three examples of the above. In one case the calculus was considerably smaller than is usual. In all the obstruction lay in the small intestine. Osler had overstated its frequency. In 351 cases of intestinal obstruction searched by the author, 6 only had been due to gall stones; that is, 58.5 per cent. The occurrence was confined to old women; the calculus escaped by ulceration into the duodenum, and the site of the obstruction was at or near the ileo-cæcal valve. The actual obstruction was due (as had been pointed out by others) to spasm below the calculus, the intestine becoming dilated above; the spasm might relax after death. There was no jaundice and no colic.

CARD SPECIMENS.

Dr. J. S. FAIRBAIRN: Adrenal tumour in kidney; Dr. C. H. FENNELL: Malformation of heart; Dr. H. THURSFIELD: Malformation of heart.

EDINBURGH OBSTETRICAL SOCIETY.

JAMES RITCHIE, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, December 11th, 1901.

SPONTANEOUS RUPTURE OF UTERUS.

Dr. R. MILNE MURRAY read a paper entitled a Case of Spontaneous Rupture of an Apparently Normal Uterus at the Commencement of Labour. The various conditions under which uterine rupture occurred were first reviewed under the headings of traumatic and spontaneous. In the latter it was assumed that the immediate determining cause was the contraction of the uterus, but associated with some abnormality of the passage or the fœtus. In regard to the passage there might be a rigid os or a contracted pelvis, and in regard to the passenger, a hydrocephalic head or a malpresentation. Thanks to the classic work of Bandl, the profession was familiar with the mechanism by which the process occurred. Given an obstacle to the dilatation of the os, the lower uterine segment became thinned out, while the upper segment gathered itself into a cap on the upper pole of the uterine mass. The strain increased till the thinned-out part gave way not far from the junction of the two segments, and the tear so produced tended to run across the long uterine axis, though the general direction of the tear might be altered by the splitting produced by the escape of the uterine contents. Thus the developed tear might run obliquely or directly upwards. A contracted pelvis might determine the position of the rupture by the grinding of some portion of the thinning segment between the fœtal head and some ridge of the bony pelvis. The rupture might thus begin in the contused area, might be transverse at first, and end vertically or obliquely. A prominent point of a malpresentation might determine the site of rupture. Spontaneous rupture might occur in certain

cases without any process such as that described by Bandl. There might be no abnormal obstruction to the escape of the contents, the labour might only have begun, and the tear might have no special relation to the lower segment, thought it might, by extension, involve it too. Those cases of interstitial pregnancy came under this group. In most cases rupture occurred at the fifth or sixth month, but they might go on to full time and rupture with the first labour pain. Paul Bar and R. Mercier recorded one of the most interesting cases. A patient menstruated on October 8th, and on July 10th following the uterus ruptured without apparent cause. Laparotomy was done, but the patient died. The pregnancy had involved the right tube, and the sac had grown into the uterine cavity and produced a tubo uterine pregnancy. Spontaneous rupture might occur in certain abnormal conditions such as bicornuous uterus, myomatous uterus, and in the uterus which had been the subject of a Cæsarean operation. Lastly there was a very small number of cases on record in which rupture had occurred at the beginning of labour in a uterus of normal conformation. Such cases had been recorded by Ingerslev, Hofmeier, and A. R. Simpson. In the first two cases nothing abnormal could be found in the uterus, neither grossly nor histologically. In A. R. Simpson's case the muscular fibre showed signs of fatty degeneration. The case now to be related belonged to this group.

Early on July 22nd, 1901, Dr. Murray was asked to go to Stirling to see a case of rupture of the uterus which had occurred during the night. A woman, aged 27, 5-para, seen at 2.30 A.M. on the date named, was seized with severe pain on the left side of the abdomen at 11.30 the previous night. The seat of the pain was at a spot half-way between the umbilicus and the left anterior superior iliac spine. She thought the pain was due to castor oil. The fœtal heart could not be heard. There was a tense abdominal tumour deflected to the left side, and there were no uterine contractions sufficient to account for the pain. *Per vaginam* there was no sign of any presenting part, the finger could not be passed through the os, and the cervix was not drawn up. Morphine ½ gr. was given, and repeated at 3 A.M. By 3.30 the pain had extended over the whole tumour, was more severe, and the patient was continually crying out. The cervix remained unchanged. Temperature 96° F., pulse 104. At 4 A.M. the fœtal parts could be felt with unusual distinctness at the upper end of the tumour. At 8 A.M. the patient was removed to the Royal Infirmary. At 10.20 A.M. Dr. Murray saw her in a state of profound collapse, the abdomen barrel-shaped, extremely tense and painful. Obviously the fœtus was in the peritoneal cavity, or else in a very thin sac. The cervix was only partially taken up, and the finger could be easily passed into its channel. Beyond the internal os the finger passed into an empty cavity, that of the uterus, and in the left side a rent could be felt through which the finger entered the cavity of the abdomen. Through this could be felt the edge of the placenta, and a little beyond the head of the fœtus could be made out. Pulse, 120; temperature, 96°. Operation gave the only chance in her desperate condition. On making the incision an enormous quantity of blood and liquor amnii escaped. The uterus was firmly retracted, its contents entirely in the abdominal cavity, and a tear extending from a point about an inch behind the left Fallopian tube downwards and forwards along the border of the uterus to the vaginal roof. Near the lower end of the rent the line of laceration turned somewhat sharply towards the front, and involved the left upper region of the bladder. There was an alarming amount of hæmorrhage, both from the tear in the uterus as well as from the proximal end of the torn uterine artery. A ligature applied near the neck of the uterus to check this would have included at least half the bladder. It was therefore resolved to remove the uterus. The ovarian arteries were tied, the bladder was dissected off, the right uterine artery ligatured, but there was difficulty in securing the left uterine artery. Indeed, several large vessels had to be secured in separate ligatures. The rent in the bladder was repaired by several fine catgut stitches, the peritoneal edges by silk. The stump of the cervix was left open as a drain. Up to this stage the operation had occupied rather more than an hour, most of the time having been spent in securing the various bleeding points connected with the left uterine artery. The pulse was flagging, and it was resolved to dispense with an abdominal toilette. This might seem hazardous, but one had confidence in the capacity of the peritoneum to deal with such matters, and the sequel gave ample justification. Through and through silk worm gut sutures closed the abdominal incision. A copious hot saline enema containing an ounce of brandy was given before the patient was removed from the table. One-sixtieth of a grain of strychnine was administered hypodermically. The temperature was 97° F. and the pulse 135. At 12 noon the pulse had gained somewhat in quality, and she had recovered consciousness. At 5 P.M. 16 ounces of urine were drawn off, evidence that the function of the bladder had been established. Temperature 99°, pulse 120. Next morning at 8 A.M. the temperature was normal, and from that progress was satisfactory and practically uneventful till the twelfth. On the thirteenth temperature rose to 102.6° F., next day 104° F., and on the sixteenth day 105°. This latter was accompanied by a severe rigor, and a few hours later a copious purulent discharge escaped from the vagina. This was followed by an immediate fall of temperature to 99.4°. Next day the temperature was normal and there was a soft boggy swelling in the left lateral fornix, which on pressure sent out a stream of thin sanious pus through the cervix. Probably there may have been some defect in the sterilisation of the ligatures used in tying the last of the branches of the left uterine artery. The resulting abscess was entirely extraperitoneal. Recovery was steady afterwards; the patient was discharged on September 14th, and was now well. As in A. R. Simpson's case, the accident happened at the very beginning of labour at full term, the cervix high, flaccid, and undilated, no serious external hæmorrhage, the child had entirely escaped through the rent (not the placenta as in Simpson's case). In neither was the tube involved. In Simpson's case the tear was found to run precisely along the left side of the uterus immediately in front of the broad ligament, from the level of the os internum till within half an inch of the Fallopian tube, where it turned somewhat abruptly forward and upward along the anterior wall, and terminated almost at the mesial line, about an inch below the fundus. In Dr. Murray's case the rent extended from a point about an inch behind the left tube down the left border as far as the amputated surface. Beyond this it extended to the junction of the cervix and vagina. The tear in the bladder was not easily explained. The bladder was abnormally high up, occupying almost three-fifths of the anterior surface of the retracted uterus. The damage done to the bladder might have been caused by the manipulation necessary to withdraw the uterus through the incision, but this was less likely as the wound was free and the withdrawal quite easy. No explanation could be given as to why this uterus ruptured. It had no abnormality, was not myomatous, there was no sign of a double horn, nor other peculiarity. Yet there must have been some obscure change in the quality of the uterine muscle, for apart from this the accident was inconceivable. Details were given of the past menstrual and maternal history of the patient, but these gave no light on the accident. It was apparently simply a case of spontaneous rupture in an apparently normal uterus. Some points of interest of a general nature were in conclusion alluded to: (1) The results of such cases as this justified the performance of laparotomy where indicated in even extreme degrees of exhaustion and collapse. In this case the rupture had occurred at least nine hours before the operation, which operation was begun with a subnormal temperature and a scarcely perceptible pulse. (2) If in any such case one found a similar difficulty in securing the torns ends of the uterine artery, one should try and save time and hæmorrhage by tying the internal iliac. This part of the operation took more time than all the rest. (3) It seemed right to leave the cervical stump unsutured. It left an exit for the abscess that unhappily developed in the second week. In any case where there was a risk of subperitoneal oozing, the open canal would provide an easy means of drainage. (4) The anatomical peculiarity of the bladder was well worth keeping in mind. It were well in all such cases to determine the exact upper limit of the bladder before applying the elastic or other ligature. (5) Lastly, as to the "toilette of the peritoneum." Fifteen or twenty years ago this almost seemed the most important part of the whole operation. Now we knew that the peritoneum was in no way incommoded by the presence of considerable quantities of blood or the non-septic contents of any abdominal tumour, and that the time spent in trying to remove them was wasted, while the mechanical disturbance produced by the procedure was harmful in a high degree. The peritoneum was capable of absorbing immense quantities of the gelatinous substance found in ovarian cystomata. In the case now reported the closed abdomen contained much blood, both fluid and coagulated, a considerable amount of liquor amnii, and a very obvious amount of meconium since the whole abdominal viscera were stained by it, and finally vernix caseosa. So long then as we were not dealing with septic material, the less we disturbed the peritoneum the better. When the matter was septic the conditions were very different. Then the resources of our art must be exhausted to prevents its entrance into the cavity, and if these failed us its removal by direct or indirect means must be secured at all costs.

The paper was discussed by the PRESIDENT, Professor A. R. SIMPSON, Drs. BERRY HART and J. HAIG FERGUSON; and Dr. MILNE MURRAY replied.

SEPARATION OF THE PLACENTA.

Dr. J. M. MUNRO KERR (Glasgow) read a paper entitled the separation of the placenta with special reference to the information derived regarding the mechanism from cases of conservative Cæsarean section. He had had eight cases of Cæsarean section in which all the mothers made excellent recoveries, and all the children, except one, were extracted

alive. He submitted the following conclusions: 1. Retraction alone does not bring about separation of the placenta. 2. During contraction the walls of the uterus become separated. 3. There are two distinct divisions of the third stage—separation and expulsion of the placenta. 4. The separation occurs by contraction, and possibly also by recoil. 5. The separation may occur at the edges or more centrally. 6. Blood as a natural consequence is effused into the areas of separation. 7. The placenta bulges inwards during a contraction, and remains so to some extent during relaxation.

Drs. BERRY HART, R. C. BUIST, R. MILNE MURRAY, W. FORDYCE, MCVIE (Chirnside), and the PRESIDENT spoke; and Dr. MUNRO KERR replied.

OBSTETRICAL SOCIETY OF LONDON.

PETER HORROCKS, M.D., President, in the Chair.

Wednesday, January 1st, 1902.

CHORIO-EPITHELIOMA WITH PULMONARY METASTASES.

DR. CUTHBERT LOCKYER read a paper on a case of chorio-epithelioma with pulmonary metastases in which the evidence of an abortion lay in the fact that the patient lost blood freely four months before admission, the loss continuing until the case was sent to hospital.

The patient was aged 42. She had given birth to seven children. The last confinement took place three and a-half years before admission into the Samaritan Hospital. Three abortions are recorded, the last being thirteen years before the patient was sent to the above hospital. She was admitted with evident uterine enlargement, and in a condition which prohibited operative interference. The uterus was perforated by a new growth in its walls, and secondary deposits were found in the lungs. He described the pathological characters of the primary and secondary growths.

Pathological proof of the occurrence of chorio-epithelioma following immediately on the removal of hydatidiform mole was given by the author, who concluded his paper by giving a lantern demonstration on the close association between vesicular mole and chorio-epithelioma.

The PRESIDENT remarked that it was quite impossible to prove definitely whether these malignant growths were of maternal or of fœtal origin. Even if it could be shown that they were developed from the outer epithelial layer of the villi of the chorion, that would not settle the question, because it was still disputed whether that layer was maternal or fœtal. It was for this reason that he had named his own specimen, shown at this Society some months ago, "deciduoma malignum," the name given by Sänger, who first described it. He could not help leaning to the view that it was fœtal in origin, and he did not see how those who believed in its maternal origin could get over the fact that it so often followed upon hydatidiform mole. The point raised by Dr. Lockyer that there were two sorts—one without syncytial elements, probably maternal in origin, to which the term deciduoma malignum would be appropriate; and one with syncytial elements of fœtal origin, for which the term chorio-epithelioma would be better applied, was no doubt very important. But it had to be proved. Could, for instance, Dr. Lockyer say that in all cases of this malignant growth which had followed vesicular mole, there had been syncytial elements? In every instance of this malignant growth it was very desirable thoroughly to investigate the question of a recent pregnancy, miscarriage, or parturition. In his own case this had been very difficult to ascertain. The patient was 48 years of age, and had had a child two or three years previously. The growth was typical, and contained syncytial elements.

Mr. ALBAN DORAN stated that when the patient was admitted into his wards she was too ill for any operation. At first sight sloughing fibroid seemed probable, but on further examination extensive malignant disease was evident. It was remarkable that she lived so long. Dr. Lockyer was to be congratulated on his excellent report of the pathology of this case. Many similar cases must have been overlooked or misinterpreted.

Dr. HERBERT SPENCER said that while he agreed with the main views of the author, he thought it would for the present be better to use the term deciduoma malignum until we knew a little more about the pathogenesis of the disease. There was no doubt that two distinct classes of growth had been described under this name. But Klebs, who was he thought the first pathologist to investigate the disease, had hesitated whether to describe it as a cancer or a sarcoma, and the late Dr. Kanthack had stated his decided opinion that his (Dr. Spencer's) case, which showed large masses of typical syncytium, was a sarcoma. He thought, therefore, it was a little premature to style it a chorio-epithelioma, though personally he was inclined to regard the syncytial growth as of that nature.

In reply, Dr. LOCKYER stated that the patient's history afforded no proof of a period of amenorrhœa prior to the onset of hæmorrhage, which began suddenly in June and continued until November, 1900. He thought that the syncytial masses were of chorionic origin, and if a chorionic villus is entirely fœtal, it follows that any neoplasm arising therefrom must likewise be of fœtal origin. He adopted this nomenclature of chorio-epithelioma for his specimen, believing that the syncytial envelope of a chorionic villus is an epiblastic fœtal structure. The term syncytial carcinoma would be equally applicable in the case of these new growths.

OTHER COMMUNICATIONS.

Dr. THOMAS WILSON (Birmingham) read a short communication on a fœtal case of primary pneumococcus meningitis simulating puerperal eclampsia, in which there was 1.5 per cent. of sugar in the urine, but only a cloud of albumen. The clinical history and *post-mortem* appearances were described. The paper was discussed by the PRESIDENT, Dr. AMAND ROUTH, Dr. HERBERT SPENCER, and Mr. W. S. HANDLEY.—The Report of the Pathological Committee upon the specimen shown by Lieutenant-Colonel Sturmer, I.M.S., of parasitic cysts in the pelvic connective tissue was read.—Dr. A. H. N. LEWERS showed two specimens of cancer of the body of the uterus removed by abdominal panhysterectomy. A discussion followed in which the PRESIDENT, Dr. J. F. MCCANN, Dr. AMAND ROUTH, and Dr. HERBERT SPENCER took part.

HARVEIAN SOCIETY OF LONDON.—At a meeting held on January 2nd, Dr. D. B. LEES, the President, being in the chair, Mr. A. D. REID showed a girl, aged 8 years, with congenital shortening of the right lower extremity.

She was the third child, and the labour was normal and easy. There was no family history of importance and no history of injury. The shortening was noticed soon after birth. The present measurements from the anterior superior iliac spine to the internal malleolus showed ½ inch shortening of the right side. The shortening was in the thigh. The tip of the great trochanter was on both sides in its normal relation to Nélaton's line. There was no wasting of the limb and no limitation of movement, no disability, and there had never been any pain. Some compensatory lateral curvature of the spine had resulted.

Skiagraphs showed that the neck of the right femur was set at a much less obtuse angle to the shaft than on the left side, thus accounting for the shortening.—Mr. F. JAFFREY showed a boy, aged 7 years, whom he had trephined for doubtful cerebral disease.

The boy had been admitted into the Belgrave Hospital for Children on July 29th, 1901, under the care of Dr. Cautley, having been taken ill suddenly three days before with severe headache and screaming. There was a doubtful history of a blow on the head. The weather was very hot, but nothing in the history definitely suggested heat stroke. On admission the boy was drowsy, irritable, stupid, and took little interest in anything. The head was a little retracted, and the knee-jerks were exaggerated. There was no optic neuritis and no evidence of ear disease. On August 1st he developed severe convulsions, which were most marked in the arm, leg, and face on the right side. The eyes were staring and consciousness was abolished. On the following morning the skull was trephined over the middle of the Rolandic area. On dividing the dura mater it was seen that pulsation was absent and a considerable quantity of cerebro-spinal fluid escaped. A grooved director was passed under the dura mater in all directions, and while the fluid was escaping the brain began to pulsate again. Mr. Jaffrey did not explore the brain. A drainage tube was inserted and kept in for three days. The fits ceased, but the boy made little progress for a fortnight, after which he improved so rapidly that at the beginning of September he was on the point of leaving the hospital when he had another attack of convulsions and again became unconscious. He remained in this condition for three or four days and then recovered.

Since then he had had no further attack, but the parents said his memory was bad, and until this week he did not voluntarily use his right arm, but always his left. Dr. CAUTLEY stated that on admission the boy seemed rather intensely stupid than really ill. The headache was not localised, and there were no definite signs of cerebral abscess, tumour, meningitis, or heat stroke. When the fits developed he had suggested operation with a view to relieving pressure. The localisation of the fits more on the right side decided the site for operation, and he had suggested at the time that the case might possibly be due to a latent abscess. There appeared little doubt that the operation was of very great benefit, and probably of vital importance. He could not suggest what was the exact nature of the cerebral mischief, and the recurrence of the attack a month later, with subsequent immunity, made the case still more puzzling. Dr. W. EWART thought that the causation of the symptoms

by excessive intracranial pressure had been demonstrated by the operation itself and by the relief which followed. The fact that on their second occurrence the same symptoms, presumably due to the same cause, disappeared spontaneously, suggested the view that transient effusions might be thrown out within the meninges and soon reabsorbed again, as this had been shown to occur in the pericardium, the pleura, and the peritoneum. Alarming, but not necessarily fatal, symptoms might thus be set up in susceptible subjects; but some of the worst forms of effusion, and that formerly known as "serous apoplexy" might not be recovered from without surgical relief.—Mr. E. W. ROUGHTON showed (1) a boy, aged 5 years, who ruptured a congenital hydronephrosis by a fall; he removed the kidney; the specimen showed congenital stenosis of the ureter at its origin from the dilated renal pelvis; (2) a man with partial rupture of the brachial plexus; an exploratory operation had shown that the seventh and eighth cervical nerves had been torn out of the intervertebral foramina; (3) a case of internal derangement of the knee-joint; a loose transverse (inter-semilunar) ligament had been removed by operation with a successful result.—Dr. L. GUTHRIE showed a man, aged 24, who complained of difficulty in walking for twelve years, and now exhibited the following symptoms of Friedreich's disease: ataxic reeling gait, unsteadiness on standing (especially with closed eyes), absence of knee-jerks, laboured, slurred, and indistinct speech, nystagmus on external deviation of the eyes, clumsiness and over-action in use of the upper extremities, antero-posterior kyphosis of dorsal vertebræ with lumbar lordosis.

His discs were normal, muscular development and power good, choreic movements and lightning pains absent, sensation unaffected, intelligence unimpaired. There was no family history of the disease, nor of any other nervous affection, and no parental consanguinity. His personal history was peculiar. In August, 1889, he fell from a bicycle, and a few days later from a swinging gate, but appeared to have suffered only trifling injuries. A month later he complained of frontal headache, and rapidly lost the use of arms, legs, and speech, and feeding was difficult on account of spasmodic closure of the jaws. There were also twitching of the eyelids, mouth and hands, and jerking movements of the whole body and head, but no loss of consciousness and no sphincter trouble. Dr. W. T. Newton, under whose care he was, thought the symptoms strongly resembled those of chorea. In November, 1889, he was admitted into St. Bartholomew's Hospital under the care of Sir Dyce Duckworth when the only symptoms noted were weakness of the legs, spastic gait, loss of knee jerks, tenderness of the cervical and dorsal vertebræ, drawling monotonous voice, and a faint systolic mitral *bruit*.

His condition had therefore not appreciably changed for twelve years. The apparent onset of the disease might have been an attack of genuine chorea, but Friedreich's disease was not uncommonly mistaken for chorea. It was, however, most unusual for the choreic movements in Friedreich's disease to subside as in the present case.—Mr. JAFFREY showed a woman, aged 58, with multiple tumours on the forearm. Several small swellings were noticed fourteen months ago and caused so much pain that she could not do her work as a charwoman.

There was no history of syphilis but a strong family history of phthisis. On the outer side of the upper part of the right forearm were several small, very hard, prominent, subcutaneous tumours, variable in size, moveable on the subjacent tissues and under the skin. The induration diminished under potassium iodide. One of the tumours had been removed for microscopical examination.

The diagnosis, he thought, lay between gummata, fibromata and sarcomata. Bazin's disease had been suggested. The cases were discussed by the PRESIDENT, Dr. EWART, Mr. BOYD JOLL, Dr. L. GUTHRIE, Dr. C. S. JAFFÉ, Mr. F. JAFFREY and Dr. CAUTLEY.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting held on December 6th, 1901, Mr. E. CRESSWELL BABER, President, in the chair, Dr. FURNISS POTTER showed a case of perforation of the left faucial pillar, undoubtedly due to some ulcerative process and not congenital.—Dr. JOBSON HORNE exhibited some specimens of ulceration of the larynx in cases of Hodgkin's and allied diseases, and raised the question whether the local ulcer was the site of entrance of the infecting agent.—Mr. L. LAWRENCE showed a case of tuberculous rhinitis in a man, aged 35, treated by exposure to Rœntgen rays. The case had considerably improved, but was not yet cured.—Dr. G. C. CATHCART showed a case of complete loss of the internal framework of the nose in a girl aged 22, and inquired whether it was a suitable case for the subcutaneous injection of paraffin with the object of improving the shape of the nose. Dr. SCANES SPICER thought it was a suitable case, and described the technique he had employed in a case of his own. Dr. CATHCART also showed a case of mal-development of the first and second branchial clefts.—Mr. E. WAGGETT showed: (1) A case of epithelioma of the epiglottis in a middle-aged man involving the cervical glands, operative measures were thought inadvisable; (2) a case of cicatricial stenosis of the pharynx in a young woman, the sequel of a cut throat inflicted eighteen months previously; difficulty of deglutition and respiration were present, and he proposed to perform laryngo fissure.—Mr. P. DE SANTI showed a case of paralysis of the left vocal cord, probably of specific origin, in a man aged 42.—Mr. W. H. KELSON showed a case and specimen of fibroma of the nasal vestibule.—Dr. WYATT WINGRAVE showed a case of sublingual dermoid cyst in a girl, aged 17.—Mr. C. A. PARKER showed a case of tuberculous larynx with fixation of the left cord.—Dr. CLIFFORD BEALE thought there was not absolute fixation, and expressed an opinion that there was seldom more than impairment of movement in such cases.—Dr. STCLAIR THOMSON showed a case of regrowth of malignant disease in a man, aged 52, after partial removal by laryngo-fissure.—Mr. E. W. ROUGHTON showed (1) a case of complete paralysis of the right vocal cord in a man, aged 33, the subject of phthisis. The paralysis was thought to be due to the pressure of deep-seated tuberculous glands involving the recurrent laryngeal nerves. (2) A case of hoarseness in a child, aged 1 year and 10 months, in which there was considerable difficulty in obtaining a view of the larynx.—Dr. H. LAMBERT LACK showed a case of laryngeal growth in a man, aged 37, the subject of syphilis, for diagnosis.—Dr. FURNISS POTTER showed a case of swelling of the left side of the nose for diagnosis. Opinions were divided as to whether it was syphilis or tubercle.—Mr. C. A. PARKER showed a case of stenosis of the pharynx in a woman, aged 37, which was said to be connected with an abscess in the neck when she was 10 years old. The epiglottis was bound down to the posterior wall of the pharynx, leaving an opening not bigger than a threepenny piece.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on December 18th, 1901, Mr. E. C. KINGDON, President, in the chair, Dr. HANDFORD read notes on a case of right hemiplegia from thrombosis of cerebral veins occurring in a young woman, aged 25, some three weeks after removal of double pyosalpinx. Death occurred three days after first onset. At the necropsy a firm old grey adherent clot was found in the superior longitudinal sinus and hard, black clots in the left cerebral veins. There were no clots in the arteries, hæmorrhage in the substance of the brain, nor excess of fluid in the subarachnoid space. The fact of the walls of the superior longitudinal sinus being so fixed that alteration of its calibre did not occur as in other veins, that the veins took an ascending course, and that the blood current in them was extremely slow, all favoured the formation of clot in that position, and when in addition the cerebral veins were involved the condition was usually fatal. The PRESIDENT and Drs. RANSOM and PESKETT discussed the subject, and Dr. HANDFORD replied.—Dr. FULTON read a short paper on the Treatment of Epidemic Diarrhœa in Infants. He advocated clearing out the contents of the alimentary tract, withholding all food for a time, then giving small feeds of white of egg beaten up with equal amount of water till convalescent; minute doses of tincture of opium and acetate of lead in certain cases, and as preventive treatment the efficient sterilisation of milk during an epidemic.—Dr. W. B. RANSOM read a paper entitled Should Milk be Boiled? He first pointed out how easily milk became a vehicle of disease, even when coming from a healthy cow it was frequently much contaminated by pollution from the milker's hands, byre in which the cow was milked, dust of all kinds which settled on the surface of exposed milk which must occur in its transit, and when left for hours in some possibly insanitary place before its final consumption. It had frequently been shown that many zymotic diseases were traceable to the use of unboiled milk that ten minutes boiling would destroy hurtful bacilli, that the nutritional value of boiled milk was equal to that of raw milk, and its rate of digestion practically the same. Dr. Ransom advocated the municipal dis-

tribution of sterilised milk during epidemic diarrhœa. The papers of Drs. RANSOM and FULTON were discussed together as running on similar lines, and were discussed by the PRESIDENT, Drs. HANDFORD, HUNTER, PESKETT, and HOGARTH, to which Drs. RANSOM and FULTON replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.—At a meeting on Wednesday, December 11th, Mr. COLLIER, President, in the chair, Dr. MOORE made a communication on hepatic cirrhosis. —Mr. MONTGOMERY presented a communication on epithelioma originating in the deep male urethra. Three cases were mentioned, and in two of these the specimen and sections were shown. One case has already been reported.[1] In the second the growth began in the penile urethra, and the complete operation with removal of the inguinal glands was carried out. In the third case (under the care of a colleague, Mr Wright), in which the growth first affected the bulbous urethra, suprapubic cystotomy was performed.—Mr. J. B. WOLSTENHOLME exhibited preparations from two cases of botryomycosis in horses: (1) Colonies of botryomyces in the form of granules found in the pus, case of chronic abscesses of thigh; (2) section from a large fibroma of spermatic cord, after castration, showing colonies of organisms, surrounded by new granulation tissue.—Dr. BURY and Dr. MOORE described a tumour from the cervical region of the cord.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on December 17th, 1901, Mr. P. MIALL in the chair, the following cases and specimens were shown: Dr. T. JASON WOOD: (1) Specimens of bony outgrowth from the third cervical vertebra, with cast of neck; (2) calculus removed from common bile duct; (3) patient operated on fifteen months before for chronic empyema, by extensive removal of ribs and pleura; there was no deformity of the spine.—Mr. C. F. M. ALTHORP: (1) Uterus removed for procidentia; (2) ovarian abscess; (3) two growths from large intestine.—Mr. J. B. HALL: (1) Double pyosalpinx; (2) ovarian tumour; (3) calculus removed from ureter after a previous nephrectomy; (4) sections of an umbilical polypus.—Mr. W. HORROCKS: Renal calculus.—Dr. T. JASON WOOD read notes on two cases of renal calculus, in both of which the nephrotomy was performed with success.

The first case was a pretty straightforward one of renal calculus, and the diagnosis presented no great difficulties; the second was different, and on the symptoms alone (the pain) the trouble might have been referable to the gall bladder or to the appendix. The albumen and the urinary deposit directed attention to the kidney as the affected organ. It was rather remarkable that the stones, which were very rough on the surface, should not have caused hæmaturia.

The paper was discussed by Drs. HORROCKS, MERCER, GOYDER, HALL and RHODES, and Dr. WOOD replied.—Dr. WILLIAM MITCHELL read notes on a case of spontaneous gangrene of both lower extremities in a man, aged 36.

A vague history of syphilis was obtained from the patient, and evidence of it was seen in his wife in the shape of a ham-coloured macular eruption on face, arms and chest during the puerperal period. The baby had "snuffles." The patient had been addicted to taking frequent alcoholic "pick-me-ups" during the day for a number of years, but had never been given to inebriety. During the last two years he had had a number of vague illnesses diagnosed as influenza, and on one of these occasions had a slight attack of pleurisy with a persistent elevation of temperature of half a degree lasting for several weeks. The circulatory system, kidneys and digestive organs, appeared to be normal. There was present fine tremor of hands and tongue, otherwise the nervous system showed no sign of disease. The present illness commenced on January 17th, 1901, with severe pain in the ball of the little toe on the left side, extending along the sole of the foot, and a little distance up the back of the leg. The knee jerks were normal, and there was no excessive tenderness on deep pressure over the calf muscle. Tactile sensation was diminished over the little toe only. Pressure over the sole of the foot caused severe pain. A diagnosis was made of rheumatism affecting the ligamentous structures of the foot, but no improvement resulted from appropriate treatment. He was sent to a watering place and was under the care of two medical men there, who treated him with local hot-air baths, and allowed a generous supply of alcohol. The hot-air baths caused excruciating pain in the limb, the muscles of which wasted very much. The patient himself got very weak and ill. He was then seen by a consulting physician with Dr. Mitchell, and a diagnosis of peripheral neuritis was arrived at. All alcohol and tobacco were cut off, but the patient still got worse, and about the middle of May gangrene of the left foot in. As no pulse could be detected lower than the common femoral, amputation was performed 7 inches above the centre of the knee joint by the modified circular method. Nearly all the vessels cut through were thrombosed, and there was very little bleeding. Shock was slight. Before the operation the pulse was 120 and temperature 102° to 104°. In three days the pulse had fallen to 75 and the temperature to 97.4°. On the fifth day after the amputation gangrene became evident in the right foot, in which there had been vague pains for two or three days. No pulse could be felt in the popliteal space. Amputation was performed the same day, 6 inches above the centre of the knee-joint. The shock was much greater than on the first occasion. The vessels were thrombosed, and little blood was lost. In five weeks the stumps were healed, and the patient was sitting up in a chair. In ten weeks he went to the seaside, and in the course of nine weeks had gained 2 stones in weight. On his return he felt better, and slept and ate better than he had done for years. Since a week after the second operation he had taken no alcohol, and had given up the use of tobacco.

Before the gangrene set in no symptoms of arterial disease were recognised as such by any of the medical men who saw him. On examination of the amputated limbs, however, marked atheroma of the intima of all the main arteries was found in association with extensive calcareous degeneration of the media. These conditions were demonstrated by microscopic sections and by photomicrographs. Drs. CAMPBELL, MANTLE, and HORROCKS discussed the case: and Dr. MITCHELL replied.—Dr. J. H. BELL gave a short account of a famous Bradford surgeon, William Garnett, to whom Mr. (afterwards Sir) Humphrey Davy was at one time assistant.

[1] *Medical Chronicle*, June, 1901.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on January 3rd, Mr. ALFD. COOPER, President, in the chair, the adjourned discussion on Mr. T. R. ATKINSON'S paper on the small-pox epidemic was opened by Dr. LEONARD DOBSON with a paper on glycerinated calf lymph.—Dr. EDDOWES drew attention to the importance of the care of the vaccinated arm, and Dr. CLIPPINGDALE commented on the especial necessity of this on the part of those practising among the poor, including public vaccinators.— Dr. REECE spoke on the Government requirements in public vaccination with regard to the area of vaccination, the inspection and treatment of the arm after vaccination, and the inquiry into deaths following vaccination.— Dr. GARRY SIMPSON related his experience with regard to revaccination, and drew attention to the necessity of extreme care in the details of the act of vaccination itself, as well as in the after-care of the arm.—Dr. BEVAN spoke on the importance of using an active and trustworthy vaccine lymph.—Dr. CHAMBERS pointed out that the degree of protection conferred by vaccination depended to a great extent upon the number of insertions, and that the term vaccination without a statement as to the number of insertions was vague, and rendered statistics illusory.—Dr. BUTLER spoke on the difficulty in defining what constituted efficient revaccination. —At the close of the meeting a proposal was carried with reference to the advisability of the exercise of Government control over the manufacture and sale of vaccine lymph.

CLINICAL SOCIETY OF MANCHESTER.—A meeting of this Society was held on December 17th, 1901 (Mr. HERBERT LUND in the chair), in the new department of the Manchester and Salford Hospital for Skin Diseases, which was opened last spring, for treatment by the use of the Finsen light apparatus and the Roentgen rays.—Dr. H. G. BROOKE explained the theory and methods of the two treatments, and afterwards showed the Finsen and Lortet lamps and the Roentgen-ray installations at work. All were in constant employment, and twenty patients were thus treated each hour. A large number of patients were present to show the progress of the treatment in the different stages. The Finsen light and *x* rays both gave excellent results in lupus vulgaris, lupus erythematosus, especially in limited foci. He was not satisfied that the Lortet lamp, though of great service and much more rapid, was as thorough in its action as the Finsen instrument. The *x* rays had been used with very good effect also in rodent ulcer, varicose ulcers, old sycosis, and in acne indurata, with 10 to 12 inch tubes at a minimum distance of 8 inches from the patient, with sittings every second day. There had been no dermatitis. The rays had also acted beneficially in the treatment of lupus of the palate and gums and interior nares. A demonstration was also given of the D'Arsonval-Oudin high-frequency currents.

ERRATUM.—In the report of Dr. W. Carter's paper on the Pain of Piles in the BRITISH MEDICAL JOURNAL of January 4th, p. 20, col. 2, the proportion of cocaine and menthol in oil of theobroma should have been given as 10 *per cent.* and 20 *per cent.* and not as printed.

REVIEWS.

SURGERY.

In the preparation for separate publication of the Hunterian lectures delivered at the Royal College of Surgeons of England in 1900,[1] which presented a review of the progress made by gastric surgery within the last few years, Mr. Mayo Robson has been fortunate in obtaining the co-operation of Mr. Moynihan, who has given special attention to both the clinical and to the scientific aspects of the subject. The result is a work on *Diseases of the Stomach and their Surgical Treatment* which is certain to command attention. The most important section, taking up rather more than one-third of its pages, is that devoted to the subject of gastric ulcer and its complications. This is a valuable addition to the English literature of the surgery of the abdomen, and claims the careful consideration of both physicians and surgeons. Most readers, we think, accepting as beyond doubt the importance and, indeed, the imperative necessity of surgical intervention in the treatment of severe and acute complications such as profuse gastric hæmorrhage and perforation, will seek in this volume for the most recent evidence in favour of gastro-enterectomy, which, as is well known, is regarded by Mr. Mayo Robson as the most reliable operation in cases of uncomplicated gastric ulcer. The reduction, within a very short period of active work of the mortality of operations for simple gastric ulcer from 25 to 5 per cent., has led both authors to insist on the importance of submitting to surgical treatment those cases in which medical treatment has failed to effect a cure in a reasonable time, or has been followed by relapse. It may be questioned whether this claim for more frequent surgical intervention in cases of simple gastric ulcer is so well established by the authors as to meet with wide assent. Gastro-enterostomy, though a relatively safe operation, is uncertain in its results, and in many cases of malignant disease has done harm rather than good. The main argument in this book seems to be that the mortality of gastric ulcer, if left to itself, is much greater than that of the operation performed with a view to its probable cure. We write "if left to itself," as the authors allow that the medical treatment of gastric ulcer, if properly carried out and for a sufficient length of time, is usually successful. There can be no doubt that, as in many cases by medical treatment so by gastro-enterostomy, very great relief may be effected, but that this operation effects a radical and enduring cure still remains to be proved. In a large proportion of 59 cases briefly recorded by the authors and left to the reader to analyse for himself, the operation was performed since the beginning of 1901, and in some of these within a few weeks before the issue of the volume. Included in this list is one case in which gastro-enterostomy failed to prevent fatal perforation. Among the remaining chapters in this book allusion may be made to those on dilatation of the stomach and gastric fistula as being full of interest and instruction. There is a full and well-illustrated section on operations upon the stomach. The illustrations, particularly those of pathological specimens, are clear and good, and the authors have good reason for expressing their grateful acknowledgments to Dr. W. MacGregor Young for his assistance in this respect.

The new edition of *Surgical Applied Anatomy*[2] bears on the title page the names of Sir Frederick Treves and Dr. A. Keith. Though the volume is packed with valuable information, the authors still succeed in "making dry bones live." Many additional illustrations have been added in this edition, and it is stated in the preface that the text has been carefully revised, nevertheless the size of the book has been but little increased, and therefore it continues to retain its compact and handy form. It is obviously intended for the use of the senior student; but to the practitioner who wishes to revise, in a pleasant and useful way, his knowledge of anatomy, this compact volume should prove invaluable. The descriptions are terse and clear, the arrangement excellent, the majority of the figures serve their purpose extremely well, and there are but few points to which objection can be taken. It is, however, unfortunate that some of the old figures have been retained, and that occasionally the descriptions and the illustrations do not agree. In one case—that of the description of the relations of the heart and great vessels—the authors have themselves thought it necessary to call attention to a discrepancy of this kind, but other instances are not wanting: for example, it is stated that a "skiagram of the kidney is obscured by the shadows of the last rib and the transverse processes of the two upper lumbar vertebræ"; inferentially therefore, and in fact all three processes of bone are behind the organ, but the illustrations show a distinct space between the second transverse process and the kidney on the right side, and between both transverse processes and the kidney on the left side. Again, it is stated that the upper epiphysis of the ulna is a mere shell of bone, but the specimen which has been utilised as an illustration does not substantiate the statement. Further, some of the figures are not correct representations of anatomical facts; certainly the superior hæmorrhoidal artery is not distributed on the inner surface of the rectum in the manner indicated in Fig. 49: nor is the lowest point of the fixed portion of the male urethra situated beneath the suspensory ligament as indicated in Fig. 52. The vertical fissure which is represented in the lower part of the occipital bone at birth in Fig. 4 may exist in some cases, but it is not common in the form represented: and it is regrettable, in connection with the formation of meningoceles in this region, that no mention is made of Kerckringe's bone, which occupies the middle of the posterior part of the foramen magnum. The statement that the arm loses its support from the thorax when the acromion process is broken behind the acromio-clavicular joint is scarcely correct, and the assertion that the cavity of the sterno-clavicular joint is V-shaped is misleading. The defects, however, are comparatively few, and are pointed out mainly in the hope that they may be corrected in the next edition. There is no doubt that the book will receive a cordial welcome from those for whom it is intended.

In selecting for his oration to the Hunterian Society so large a subject as *A Retrospect of Surgery during the Past Century*,[3] Mr. Poland undertook a task necessitating much labour and literary gifts of a special character. The task was carried out with complete success, and the author has shown how the vast changes in both the theory and the methods of surgical work since the death of John Hunter have in their development been influenced by the progress of scientific research.

Senior practitioners who, when students in the pre-antiseptic era, derived much help and useful instruction from the first edition of Mr. Christopher Heath's *Manual of Minor Surgery*,[4] will experience satisfaction in learning that, notwithstanding the transient nature of most professional literature of this kind, and in spite of the revolutionary changes that have taken place in surgical work during the past forty years, the new edition maintains the position of the book as a reliable manual for the house-surgeon and the junior practitioner. The author, who has entrusted the preparation of the present edition to Mr. Bilton Pollard, has, if we may judge from the able manner in which this revision has been carried out, good grounds for anticipating a continued career of usefulness for this excellent guide.

The *Petite Chirurgie de Jamain*,[5] which during many years

[1] *Diseases of the Stomach and their Surgical Treatment.* By A. W. Mayo Robson, F.R.C.S., Senior Surgeon to the Leeds General Infirmary, etc.; and B. G. A. Moynihan, M.S. Lond., F.R.C.S., Assistant Surgeon, Leeds General Infirmary. London: Baillière, Tindall, and Cox. 1901. Demy 8vo, pp. 320, 64 illustrations. 15s.)

[2] *Surgical Applied Anatomy.* By Sir F. Treves, K.C.V.O., C.B., F.R.C.S., and A. Keith, M.D., F.R.C.S. New Edition. London: Cassell and Co. 1901. (Fcap. 8vo, pp. 571, 80 illustrations. 9s.)

[3] *A Retrospect of Surgery during the Past Century*, being the Hunterian Oration of the Hunterian Society, 1901. By John Poland, F.R.C.S., Surgeon to the City Orthopædic Hospital; Senior Surgeon to the Miller Hospital. London: Smith, Elder, and Co. 1901. (Demy 8vo, pp. 102. 5s.)

[4] *A Manual of Minor Surgery and Bandaging for the Use of House Surgeons, Dressers, and Junior Practitioners.* By Christopher Heath, F.R.C.S., LL.D., Consulting Surgeon to University College Hospital. Twelfth Edition, edited by Bilton Pollard, F.R.C.S., Surgeon to University College Hospital. London: J. and A. Churchill. 1901. (Fcap. 8vo, pp. 420; 195 illustrations. 6s. 6d.)

[5] *Petite Chirurgie de Jamain.* Par F. Terrier, Professeur à la Faculté de Médecine de Paris; et M. Lemaire, Ex-Assistant de Consultations Chirurgicales. Huitième Edition. Paris: Octave Doin. 1901. (Crown 8vo, pp. 1002, 574 illustrations. Fr. 8.)

had done good service as a *vade mecum* for junior practitioners and students, has recently been radically revised by Professor Terrier and M. Peraire, who in their efforts to adapt the contents to modern requirements, and to present the latest developments of practical surgery, have made a new book, which, however, it is claimed, preserves the characters of simplicity and lucidity to which former and now obsolete editions owed much of their success. The claim appears to be well founded.

MEDICINE.

Before 1886 the subjects of acromegaly were mostly classed with "giants" and other freaks although glimmerings of a possibly definite pathology were perceived as long ago as 1822 by Alibert and in 1839 by Magendie. In 1869 Verga described in Italy the *post-mortem* examination of a case in which he found a large tumour that had taken the place of the pituitary body. But it was not until 1886 when Pierre Marie published a paper on a condition mainly characterised by great enlargement of the extremities which he called acromegaly that it came clearly into the scope of scientific medicine. Dr. Atkinson has translated for the New Sydenham Society a very good monograph by Dr. Maximilian Sternberg[6] in which the clinical facts arranged under their different systems, the pathological anatomy, the course of the malady, and its ordinary terminations are lucidly set forth with a masterly summary of its supposed etiology, its pathogeny, and its diagnosis. The book is nearly all fact, and although this may possibly may make it rather hard reading, yet its real value is much increased thereby. Perhaps the most interesting parts for the general readers are those dealing with the theories of origin of the condition, and its relation to other morbid states. At first by Magendie attributed vaguely to a "nervous condition," and later by Freund and others ascribed to heredity, in time it came to be associated by Klebs and others with the presence of a persistent and enlarged thymus; but this was soon found to be no constant feature, and then Marie formulated the view that it was a general dystrophy depending on disease of the pituitary body, as myxœdema was associated with the thyroid. But inasmuch as disease of the hypophysis may occur without acromegaly, it is not improbable that a more remote and less conspicuous cause may be the real one, and the pituitary changes merely a link in the chain. Dr. Sternberg's very complete bibliography is conveniently supplemented with a list of the cases that have been recorded since his monograph was published.

Dr. Roux has written a preface for Dr. Marie's small work on *Rabies*[7] which contains a historical introduction and a series of chapters on the symptoms of the disease in man and its recognition in the latter, the pathological anatomy of rabies, the virus of the disease, and the exaltation and attenuation of virulence. The experimental diagnosis of rabies is next described. Then follows an account of its etiology and pathogenesis, and the prophylactic measures employed on the Continent. The next chapter—and this is perhaps the most valuable in the book—describes the methods of immunisation. Finally the statistics of the incidence of rabies in Paris are given and, for comparison, those of the other antirabic institutes. The book is written by one who is a complete master of his subject, and will repay perusal.

The second edition of Professor Israel's book upon elements of diagnosis[8] from the point of view of pathological anatomy well deserves the success which the first edition has won. The keynote of the work is struck at the beginning, when the author says "Beginners are only too often inclined to begin with diagnosis, because they so often see that their teacher is able to make a diagnosis at first sight; but they forget that the teacher has gone through the indispensable process of induction, but much more quickly than is possible for a beginner." It is in order to induce and enable the student to endeavour to diagnose any disease from a knowledge of the pathology and morbid anatomy of that disease that the work has been written, and in the hands of a student who will try to think for himself it will be extremely useful.

Important as the epidemic diseases of man may be to the community, the epizootic diseases of the domestic animals are hardly less so, and of the latter rinderpest must be given a prominent place. For example, in 1861-63 at Nagpur, India, no fewer than 60,000 cattle and 68,000 buffaloes died of the disease, and in the recent outbreak in South Africa the epizootic spread at the rate of twenty miles a day, carrying off from 90 to 95 per cent. of the cattle of whole districts. The amount of suffering entailed upon a pastoral people by such an outbreak can readily be imagined. Modern research on rinderpest may be said to date from the visit of Koch to South Africa which, although the specific microbe is unknown, resulted in his bile method of preventive inoculation against the disease. This consists in the injection into the dewlap of 10 c.cm. of the bile of an infected animal at the sixth to the eighth day of the disease, necessitating the slaughter of 3 to 7 per cent. of the herds in order to provide the bile. Immunity results in about six to ten days after inoculation, and lasts for about four months. Very valuable results were obtained by this method, upwards of 70,000 animals out of 100,000 being saved in Basutoland, but it has the disadvantage that in certain instances the inoculations seem to produce the disease. To obviate this Edington devised the glycerine-bile method; the bile being mixed with glycerine, whereby its infective properties are destroyed, but the immunising ones are retained, while by the subsequent inoculation of small quantities of virulent blood a strong and lasting immunity may be induced. A third method, also employed by Koch, for inducing protection is the injection of the blood serum (50 to 100 c.cm.) of an animal which has recently recovered from an attack of rinderpest. The immunity so produced is, however, transient, and in order to prolong it exposure in an infected herd or smearing with the discharges has been adopted, or "salting," as it is termed, but this modification is not a very safe one, a loss of 22 per cent. sometimes occurring. The serum may also be employed for curative purposes, 100 to 120 c.cm. for a dose, but must be used as soon as the temperature rises and before other symptoms have appeared. The irregular results obtained by exposing animals to natural infection after inoculating them with serum led to the introduction, by Turner and Kolle, of yet another mode of protective inoculation, the "serum-simultaneous method." In this a small dose of virulent blood is injected at the same time as the protective serum, by which 90 per cent. of the animals suffer from a more or less severe attack of the disease, with a loss however, of but 1½ per cent., while the non-reacting ones are also rendered immune for several months. The serum employed is an "intensive" one, prepared by inoculating salted animals with increasing doses of virulent blood, until 1,000 c.cm. have been given at once. In consequence of the number of cases in which only a very slight or no reaction is obtained, this method has been further modified by Hutcheon, who advised that the blood should be given forty-eight hours before the serum, and as soon as the temperature rises another large dose of serum (reinoculation method). All these methods have been submitted by Mr. Leonard Rogers,[9] I.M.S., to the careful test of experiment at the Muktesar Laboratory, under the modified conditions prevailing in India both in the plains and in the hills, and the results are presented by him in a report, from which the following conclusions may be gathered: The methods which afford passive or short immunity without infection cause no fever with consequent loss of milk or danger of abortion, and are evidently particularly suitable in the case of dairy animals threatened by infection, from which it is desired to protect them for a limited period until the danger is past without interfering with the milk supply. These

[6] *Acromegaly.* By Dr. Maximilian Sternberg, Privat-docent in the University of Vienna. Translated from the New Sydenham Society by F. R. B. Atkinson, M.D., C.M. London: New Sydenham Society. (Demy 8vo, [illegible] subscription to the New Sydenham Society [illegible] H. K. Lewis, 136, Gower Street, London, W.C.

[illegible] Par Dr. A. Marie. Paris: Masson et Cie. and [illegible] Fr. 2.50.)

[illegible] Professor Oskar Israel [illegible] Demy 8vo, pp. [illegible] M[illegible]

[9] *Report on an Experimental Investigation of the Methods of Inoculation against Rinderpest.* From the Imperial Bacteriological Laboratory, Muktesar, India, 1900. By Leonard Rogers, M.D., M.R.C.P., B.S., F.R.C.S., I.M.S. Calcutta. 1900.

are the Koch's bile method and the use of serum alone; the latter gives the most rapid immunity with the least inconvenience, and is to be preferred, but if serum is not available then the bile method may be employed. In nearly every other instance than that of a dairy herd methods which produce lengthy immunity are to be preferred; and since infection will almost certainly be present in the herd the question of infection is of little importance, and the choice will be determined by the proportion of animals that can be protected for a long period with the least danger and greatest rapidity. The "serum-simultaneous" method and its "reinoculation" modification best fulfil these conditions, the former being the simpler, requiring but one inoculation, the latter, however, inducing reaction, and therefore more lasting immunity, on a larger percentage of animals. Should sufficient serum not be available, recourse must be had to the glycerine-bile method of Edington. The glycerinated bile, which may be kept for long periods, cannot be used until a lapse of eight days after preparation, and in order to obviate this delay a filtered bile was prepared at Muktesar, the bile being passed through a porcelain filter. This filtered bile was found to be equally as efficacious as the glycerinated, and being available immediately after filtration, may be employed until the glycerinated bile is ready for use.

PUBLIC HEALTH.

WE are very glad to see, by the issue of Mr. GORDON SMITH'S *Hints and Suggestions as to the Planning of Poor-law Buildings*,[10] that the country is not to lose the invaluable services which he has so long rendered as architect to the Local Government Board, services which have never received adequate official acknowledgment. All Poor-law administrators will welcome this work as providing them with the information necessary for them in the erection of buildings for the indoor poor under their care. The work, as we should expect from the author, is thoroughly practical, and now he is "unmuzzled" he expresses his opinion very plainly, he has, to quote his own words, "directed attention to the imperative need for strict economy and simplicity, without prejudice to efficiency, in the arrangement and construction of all the several classes of buildings referred to, irrespective of the fads and fancies of enthusiasts." Specially good is that part of the work dealing with children's cottage homes. The plan of a children's hospital given in Diagram XI is admirably adapted for a colony where there are three or four hundred children. To members of county councils and guardians the chapters on imbeciles and epileptics are most interesting, as showing "which way the wind is blowing" in certain official quarters. It is true that Mr. Gordon Smith speaks only of "the possible statutory exclusion of imbeciles and epileptics from workhouses," but we most earnestly trust that in the coming session of Parliament the possible will become the actual, and we shall be spared such a scandal as was stated to have occurred recently in a Lancashire workhouse, where no fewer than sixteen imbeciles had to sleep on the floor on account of the overcrowded condition of the wards. Mr. Gordon Smith contends, rightly as we believe, that accommodation for those suffering from mental disease must in future be provided on altogether different lines to the present asylums, many of which are more like town halls than hospitals, and we also cordially endorse his condemnation of the four rows of beds in dormitories for the insane. He has done good service in drawing attention to the fact that these dormitories of three and four rows of beds are erected with the concurrence of the Home Office and the Commissioners in Lunacy, while the Local Government Board "definitely refuses approval of plans for any new buildings intended for sane paupers and pauper imbeciles and epileptics alike where it is proposed to make the dormitories and wards of a width to hold more than two beds." The Local Government Board are right, and if Mr. Gordon Smith's ideas are adopted we feel sure that an enormous sum will be saved to the ratepayers. It would be well if in the next edition of his work the author would deal fully with the spray system of bathing patients and discuss the advisability of providing water closets without any woodwork whatever as is now usual in the United States. We can most heartily recommend the work as one that should be on the shelves of every county and poor-law administrator in the country—it is a veritable councillor and guardian's *vade mecum*.

Dr. THRESH'S book on *Water and Water Supplies*,[11] the first edition of which was favourably reviewed in our columns, has run through two editions in five years: and in the recently-issued third edition the value of the work is enhanced by the addition of two capital chapters on the protection of water supplies. Dr. Thresh advocates the maintenance of a protected zone around the areas from which water supplies are immediately collected. It is surprising that at the present day something more is not done in this direction. The difficulties of course are very great, but the issue is one of vital importance to the community, and anything which will guarantee the general freedom of large communities from waterborne disease will warrant considerable expense. On pages 196 and 197 a table exemplifying the erroneous conclusions which may be deduced from "a too great dependence upon analytical data" has been introduced. In several of the instances given, however, the erroneous conclusions seem to have been formed rather from a wrong interpretation of the analytical data, and certainly the opinion of the analysts upon four out of the first five of the waters given in the table are not such as would meet with general acceptance by authorities on the subject. As Dr. Thresh and others have pointed out, the results of chemical analysis should always be interpreted in the light afforded by a searching examination of the source of the sample, and, failing that, the standard of purity should be very high, in order to justify the opinion that water may be safely used for drinking purposes. The work has taken a prominent place in public health literature, for it is accurate, clearly expressed, and well arranged, and, above all, it bears the imprint, in every chapter, of Dr. Thresh's wide practical experience of the matters with which he deals.

The new series of By-laws framed by the London County Council, and which received the sanction of the Local Government Board in June, 1901, will have the very important effect of establishing a uniform code of regulations on the subject of house drainage and sanitary fittings throughout the metropolis (exclusive of the City), and this fact will be welcomed by those who have had to face the confusion which has arisen in the past from the circumstance that the sanitary requirements in one district often varied materially from those of its neighbours. In their annotation of these *By-laws*,[12] Mr. JENSEN and ANOTHER have indicated the best and most practical method of giving effect to them. The annotations are thoroughly sound, and this little work will be found useful not only by officers and members of the metropolitan borough councils, but by builders, architects, and surveyors generally, who will do well to consult it, so as to safeguard themselves against unintentional infringement of certain of these by-laws, the meaning of which is sometimes a little obscure.

The third edition of Mr. TAYLOR'S *Sanitary Inspector's Handbook*[13] is doubtless an improvement upon the last, more particularly as the new material added tends to remove the drawback to which we alluded in a review of the last edition, namely, that the work did not thoroughly cover the field of knowledge which is expected of a sanitary inspector. The measurement of cubic space is still very inadequately dealt with, the subject of offensive trades and trade nuisances is almost ignored, and no mention is made throughout the work of the means of distinguishing the flesh, liver, tongue, etc., of the horse from the corresponding parts of the ox. The list of important omissions could easily be extended. Although exception may be taken to a few statements the

[10] *Hints and Suggestions as to the Planning of Poor-law Buildings.* By Percival Gordon Smith. London: Knight and Co. 1901. (Roy. 8vo, pp. 100. 11 illustrations. 9s.)

[11] *Water and Water Supplies.* By J. C. Thresh, M.D., D.Sc., Medical Officer of Health to the Essex County Council. Third Edition, revised and enlarged. London: Rebman, Limited. 1901. (Crown 8vo, pp. 544. 7s. 6d.)

[12] *By-laws as to House Drainage and Sanitary Fittings made by the London County Council.* Annotated by Gerard J. G. Jensen, C.E., and Another. London: The Sanitary Publishing Co., Ltd. 1901. (Demy 8vo, pp. 140, 100 illustrations. 7s. 6d.)

[13] *The Sanitary Inspector's Handbook.* By Albert Taylor, Sanitary Inspector of the City of Westminster. Third edition. London: H. K. Lewis. 1901. (Cr. 8vo, pp. 408. 6s.)

book abounds with practical information of a sound and reliable nature, and it will serve as a useful handbook to a candidate preparing for examination for a sanitary inspector's certificate; but owing to the uneven treatment of the subject he will have to supplement his reading by matter which might (and which ought to) have been included in the present work.

DISEASES OF THE SKIN.

DR. DOM SAUTON, physician and Benedictine monk, has devoted some ten years to the study of leprosy in its native haunts in various parts of the world. The result is an extremely readable and interesting book.[14] In the historical portion Dr. Sauton supports the view that in mediæval times many diseases were included under the term leprosy, and chief among them syphilis. This gave rise to the popular idea as to the great contagiousness of leprosy. To the closing of the leper houses is attributed the epidemic outbreak of syphilis at the end of the fifteenth century. This opinion does not accord with that held by the supporters of the importation of syphilis by the followers of Columbus. Nevertheless, it is an explanation which is worth considering. Geographical distribution is next considered, and this portion of the book is fully illustrated by photographs of lepers and leper settlements, including a view of the Molokai settlement, the scene of Father Damien's devoted labours. The subject of etiology is very thoroughly handled, instances of contagion being given at length. The conclusion arrived at is that leprosy is contagious, and that heredity in the true sense can be neglected in accounting for the spread of the disease. That leprosy is contagious cannot be doubted, but it is a question of soil as well as seed. The bacteriology, pathology, clinical aspects, and treatment are all exhaustively dealt with in a fair-minded and philosophical way, the effect of the whole being to make the task of reading the book a pleasurable one. Everyone will not agree at all points with the author: his classification of the course of the disease, for instance, may not find favour with many, but his broad view that leprosy must, like syphilis, be looked at as a generalised infection, is the right one. There is an interesting chapter on the author's projected sanatorium for lepers, which has raised the ire and opposition of the authorities and inhabitants of Neufchâteau in the Vosges. The absence of a full index is a drawback which should be remedied in a future edition.

The third edition of Dr. DUNCAN BULKLEY'S *Eczema and its Management* has been entirely rewritten, and appears under the title *Eczema, with an Analysis of Eight Thousand Cases of the Disease*.[15] It is really a monograph on eczema, a disease of perennial interest to the medical practitioner. Dr. Bulkley has brought together within its pages the results of his experience, and the reader will find much that is of interest and value. The subject is first dealt with on general lines, and then the forms and localisations of eczema are discussed. The chapters on treatment and diet and hygiene are specially good, as they contain many sensible remarks on the management of a complaint surrounded by many difficulties. Dr. Bulkley's views on the absorption of milk directly into the circulation without undergoing preliminary digestion in the stomach must be left to the experimental physiologist to decide. His plan is to give milk, pure and alone, and at the body temperature, one hour before the coming meal. The results have, he states, been highly satisfactory.

The object of Dr. GEORGE FOX'S *Photographic Atlas of Diseases of the Skin*[16] is to give a pictorial survey of these diseases. The first six parts are now before us, each with five plates, several of which represent two cases of the same disease. These include acne vulgaris, psoriasis, syphilis, pemphigus, lupus vulgaris, and so forth. Of interest at the present moment are the two photographs of variola. It may be said at once that these coloured photographs are very good, and that as far as the letterpress is concerned the general considerations on the treatment of skin diseases are clear, sensible, and to the point. They will well repay careful perusal, for they are stimulating. The other parts of the text touching on various conditions are lucid, treatment being specially dealt with. He has the courage of his opinions, and when he thinks an idea absurd, however respectable or popular it may be, he says so. His views are usually very much to the point and based on common sense. One criticism may be permitted. Dr. G. H. Fox says that sycosis is always non-parasitic, and quite distinct from ringworm of the beard, sometimes called sycosis parasitaria. The fact is both forms are in a broad sense parasitic, one arising from cocci and the other from a fungus. The better way would be to call the one coccogenic sycosis, and the other hyphogenic sycosis.

The fifth edition of Dr. NEVINS HYDE'S *Treatise on Diseases of the Skin* has been so recently reviewed in these pages (BRITISH MEDICAL JOURNAL, January 5th, 1901, p. 25) that there is little to be said about the sixth.[17] It is practically the same book. It is again stated that in England, chiefly, the term prurigo is applied with more or less looseness to the prurigo mitis of Willan. The authors limit its use to the prurigo of Hebra. English dermatologists use the term in its proper sense. The prurigo of Willan and of Hebra are the same disease. The harvest-bug is not an insect, but an acarus, and therefore one of the *Arachnida*.

PSYCHOLOGY.

IN saying that Dr. MERCIER'S *Psychology, Normal and Morbid*[18] is a useful and interesting book, marked throughout by clearness of exposition, we pay it so high a compliment that a somewhat critical review of its details becomes obligatory. It is based on the sound and important principle that the study of insanity, in order to be fruitful, should be founded on a careful appreciation of normal psychical processes, and the author is at his best in those chapters in which he applies his psychological theories to the explanation of mental disease. He is particularly good in his treatment of delusion. Describing a delusion as "the transfer of a concept from one category of belief to another without recourse to experience," he shows how suggestive and valuable his previous analysis of the various forms of belief can prove for the explanation of delusions, the estimation of the degree to which the patient's mind is affected and of the chances of recovery. The normal psychology, which occupies the greater part of the book, is an excellent introduction to the subject, contains many original suggestions, and is full of illustrative examples, which are not only amusing but apposite. This is certainly a recommendation if the book is intended for the general reader. But if the author writes for alienists, who are assumed to possess some acquaintance with psychology to begin with, and if he writes with the primary object of opening out a new field for the science of insanity, it is questionable whether such a very important and difficult project might not have been better served by a more condensed statement of his psychological views, justifying only what is new, supporting the rest by reference to standard authorities, and keeping constantly in the foreground the practical applicability of his data to the problems of insanity. Alienists are already too much given to treating psychology as a reflective relaxation for their leisure hours; if they are to make it a serious business, to find in it the guiding principles of clinical research, they need, and ought to benefit by, the stimulus of stronger fare. Of the more technical portions of the book, the lengthy chapter on reasoning deserves notice. The author is indeed a courageous man to endeavour once again to disentangle the inconclusiveness which invests Mill's doctrine of the syllogism and clogs the ponderous prolixity of its perspicuous common-sense. The theory of reasoning which Dr. Mercier works out would have possessed more

[14] *La Lépre* [Leprosy]. Par le Dr. Dom Sauton. Paris: C. Naud. 1901. (Royal 8vo, pp. 496, with maps, plates, and 60 illustrations. Frs. 22.)

[15] *Eczema, with an Analysis of Eight Thousand Cases of the Disease.* By L. Duncan Bulkley, A.M., M.D. Third Edition. New York and London: G. P. Putnam's Sons. 1901. (Crown 8vo, pp. 368. 12s. 6d.)

[16] *Photographic Atlas of the Diseases of the Skin.* By George Henry Fox, A.M., M.D. Parts I to XII. New York, Philadelphia, and London: J. B. Lippincott Co. 1900-1. (Roy. 4to, pp. 204; 60 coloured plates, 6s. each part.)

[17] *A Practical Treatise on Diseases of the Skin.* By James Nevins Hyde, A.M., M.D., and Frank Hugh Montgomery, M.D., of Chicago. Sixth edition. London: Henry Kimpton. 1901. (Roy. 8vo, 107 engravings and 27 plates, pp. 828. 28s.)

[18] *Psychology, Normal and Morbid.* By C. A. Mercier, M.B., M.R.C.P., F.R.C.S. London: Swan Sonnenschein and Co. 1901. (Demy 8vo, pp. 418. 14s.).

value if developed fully into a logical treatise, and made to include a really comprehensive survey of the work of recent logicians. There is scarcely room for it in a book on psychology. Close as the connection is between logic and psychology, he is hardly wise in his protest against the accepted custom of treating the two as separate sciences. There is surely a recognisable and important difference between the work of the logician who deals with the validity of processes of thought in general and the theories of knowledge on which that validity is based, and the work of the psychologist who treats thoughts as mental processes occurring as phenomena in the individual mind. In dealing with logic as a subordinate branch of psychology there is a danger of placing the latter in a false and damaging position by making it arrogate to itself claims which are outside its proper sphere. Dr. Mercier appears to have fallen into this indiscretion in his treatment of abstract thought, his explanation of duration and extension, and his discussion of the relation of phenomena to noumena. To whatever philosophical school he belongs, he surely must admit that the very complex metaphysical problems these terms involve cannot fairly be dismissed by the scanty and somewhat empirical considerations which he puts forward. Subjects on the border line between ethics and psychology it was clearly impossible to avoid. Free-will is discussed well from the ordinary common-sense point of view, and in so far as that matter is a subject for speculation to the general reader; and the author's applications of his views on volition, attention, and free-will to insanity are excellent. His method of handling pleasure and pain does not impress one as being equally good. It seems a pity that when entering upon the field of moral science Dr. Mercier has not embodied in the present work a thorough discussion of those difficult problems of responsibility with which, from his facilities for observation and his accuracy and clearness of exposition, he is exceptionally able to deal. He might have given us, for example, a really powerful treatise on moral insanity and criminal responsibility, and helped us to discriminate somewhat more clearly between normal and pathological responsible and irresponsible aberrations from an ethical standard.

Dr. Hollander describes his mission as "the revival of phrenology," and tells us that his book on *The Mental Functions of the Brain*[19] "aims at clearing up the mystery of the fundamental psychical functions and their localisation in the brain." "It is the first work on the subject," he adds, "since the dawn of modern scientific research." He has expended much labour in collecting and systematising a large number of records of cerebral lesions found in patients who exhibited clinically various psychical abnormalities, a task which appears to have carried him very far afield, for, as he characteristically tells us, "even with the author's knowledge of languages the search was no easy one." However, he feels that his research has justified him in attempting to localise melancholia, kleptomania, violent mania, religious mania, nymphomania, and many other psychological processes, though he surely cannot expect that his arguments will convince any reader who does not start with a strong bias in favour of his general position. Cannot Dr. Hollander understand that the unpleasantly assertive and combative tone which pervades the whole book is not only not likely to make converts, but is extremely likely to repel many people who otherwise might possibly give him a patient hearing? Possibly a more enlightened examination of the external aspect of a man's skull might, as the author urges, give us new insight into the man's psychical capacities; but if Dr. Hollander wishes to advance the cause of phrenology, he would do well to adopt a more conciliatory tone and to write a more scientific spirit.

Under the misleadingly abstruse title *The Origin of Thought*[20] the Rev. D. Nickerson writes in a very light and popular manner for readers who are not expected to possess any previous knowledge of the subject. Theories of knowledge, processes of thought, various psychological and ethical concepts are dealt with in turn in the same elementary and discursive fashion which obviously afforded a very congenial pastime for Mr. Nickerson and on that account it is to be hoped may find sympathetic readers. Perhaps some may be attracted by the frequent introduction into the subject of scriptural illustrations. The book can hardly be recommended on scientific grounds, even as a popular exposition.

[19] *The Mental Functions of the Brain.* By Bernard Hollander, M.D., M.R.C.S., L.R.C.P. London: Grant Richards. 1901. (Demy 8vo, pp. 512.; 37 illustrations. 21s.)

[20] *The Origin of Thought.* By Rev. D. Nickerson, M.A. London: Kegan Paul, Trench, Trübner and Co. 1901. (Crown 8vo. pp. 400. 6s.)

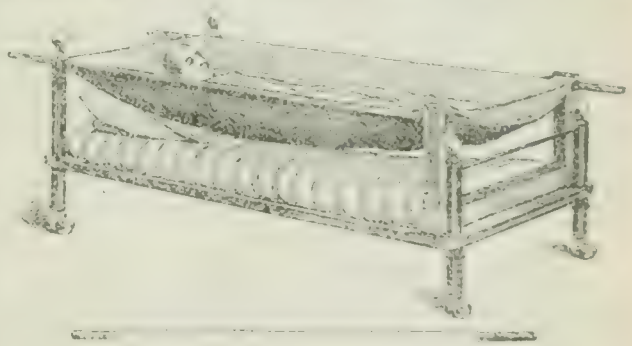
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A SIMPLE FORM OF BATH USED IN THE TREATMENT OF ENTERIC FEVER.

By Stanley Arthur Bull, M.D.Lond., F.R.C.S., L.R.C.P.,
Surgeon to the Coromandel Hospital, Auckland, New Zealand.

The treatment of typhoid fever by cold or cool baths is of acknowledged utility, and the following is a description of a simplified method which I have devised of employing the method, obviating the lifting of the patient required by other methods.

Bath.—A piece of mackintosh sheeting 8 feet by 4 feet is taken: the sides are looped to receive stretcher poles; the latter should be at least 8 feet long and 1½ inch in diameter. In order to apply the bath, for example, in the case



of a patient with enteric fever lying on his back in the centre of an ordinary hospital bed, the patient is gently semirotated so that he lies, say, on his left side and near the edge of the bed; the mackintosh sheeting, half rolled up, is introduced under him in the same way as a draw sheet; he is now moved again on to his back, and thus lies in the centre of the sheeting. The stretcher poles are now run through the looped sides of the sheeting, and secured to the ends of the bed, if rounded, by a simple sling, if square they rest on them. If the head and foot of the bed are not raised, a simple support of wood for the stretcher poles to rest on is all that is necessary. A pillow is now introduced under the patient's head, beneath the mackintosh, and the sheeting at the foot is secured by a safety pin. The bath is now ready, and water of the required temperature can be introduced, in sufficient quantity if necessary to cover the patient's body entirely.

When the bath is over one of the stretcher poles is drawn out, and the water allowed to flow into a receptacle at the side of the bed; this it does very readily if the bed be slightly tilted. The second stretcher pole is now drawn out, and the

mackintosh sheeting removed in the reverse way to that in which it was placed beneath the patient.

This form of bath, which has been in use at the Coromandel Hospital for several years, is thoroughly efficient, and possesses the following advantages: Cheapness, simplicity of construction; it can be applied by one person, though two are preferable; is not regarded by the patient or his friends with the same suspicion as a movable metal bath (a valuable point in private practice); can be applied to any form of bed; is very portable; and it can be used with very slight movement of the patient (simply by one semirotation of the body before the bath, and a second after it).

Report on 76 Cases of Enteric Fever.

These cases all occurred at Coromandel, New Zealand, where enteric fever attains a malignancy which, in a considerable experience of the disease, both in England and New Zealand, I have never seen equalled.

For convenience of description the cases are divided into four classes. The first and third classes show the mortality with expectant treatment, no skilled nursing and bad hygienic surroundings. The second series had willing but untrained nurses, improved surroundings, and were treated with intestinal antiseptics, sponging and wet packing. The fourth had skilled and untiring nurses, a new hospital, and were treated, the mild cases by salol and the severe (those which would almost certainly have proved fatal, with the nursing and treatment of Classes 1, 2, and 3) with baths. Of the cases in this class 9 came under this category. By a severe case I mean one with a temperature above 104° for at least a week, a pulse above 120, delirium, distended abdomen, with or without hæmorrhage or marked pulmonary trouble.

Class 1, 1885-1896, cases 10, deaths 5, average stay in hospital of recovering cases twenty-nine, and of fatal cases twelve days. Mortality, 50 per cent.

Class 2, 1895-1898, cases 37, deaths 6, average stay in hospital of recovering cases thirty-four, and of fatal cases eleven days. Mortality 16.6 per cent.

Class 3. Cases treated in private practice 1896-1898. Cases 10, deaths 5. Mortality 50 per cent. As several doubtful cases and several of which I have no detailed recollection, which all recovered, have been excluded the true mortality in this class would be about 25 per cent.

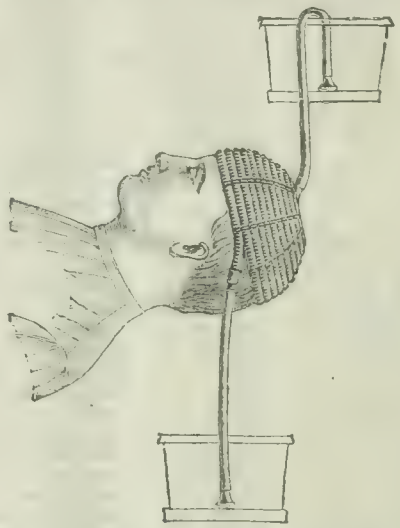
Class 4, 1899-1901. Cases 19. Average stay in hospital forty-nine days. Bath treatment of all severe cases. Mortality nil. The mild cases without albumen in the urine were treated with salol (grs. viij) every four hours, which produced intense diaphoresis and consequent fall of temperature. The severe had from one to three baths in the twenty-four hours according to the pyrexia. These baths ranged from 70° to 90° Fahr. and lasted from fifteen to fifty minutes according to the effect on the pyrexia, the temperature being taken in the mouth every five to ten minutes. The number of baths given to a single case ranged from two to eighty according to the severity and persistence of the pyrexia.

In conclusion I have to acknowledge the great help rendered by Dr. Cheesman, and by Sisters M. G. and A., of the Sisters of Mercy.

MEDICAL AND SURGICAL APPLIANCES.

Asbestos Houses.—Some samples of Calmon's asbestos slates have recently been brought under our notice, and as the result of certain tests to which we have subjected them, it is possible to conceive their value for a variety of purposes, such as barracks, hospitals, huts, etc. The stock sizes in which these slates are sold appear to be sheets of 40 inches square, having varying thicknesses of ⅛, ¼, and ½ inch. The sheets are also made in four colours, white, slate grey, red, and green. The material has a very low heat-conducting power, so small that paper placed on one side merely scorched, although two large Bunsen flames were in close contact with the other side for two hours. It further possesses a remarkable rigidity and resistance against mechanical influences, neither splitting nor cracking when sawn, bored, or nailed. It is reported that a house containing six rooms, specially constructed of these slates or sheets, was taken by Count Waldersee to China during the recent expedition. This house was ultimately destroyed in a large conflagration which occurred owing to the interior fittings catching fire as the result of a large burning log crashing through it, but before this happened the asbestos sheet had entirely resisted the action of the flames. Any hut or building constructed of this material might easily have its framework made of iron or wood, to which the asbestos is readily attachable by means of clamps. The fact of asbestos being so low a heat and cold conductor marks it as being eminently suited for huts, barracks, etc., either as a lining or for actual wall construction. Such buildings would in a great measure resist any climatic changes in winter or summer; the material is quite waterproof and impervious to insects. We would much like to see a trial given to this material by the War Office, as it is strong, durable, and comparatively economical. For hospital huts it seems very suitable, as lending itself readily to disinfection efforts.

Aluminium Calfrigerator.—We have received a sample of an aluminium coil cap for applying continuous heat or cold to the head, to which the makers have given the name "calfrigerator." The apparatus is on the principle of the Leiter's coil, and water at the desired temperature is kept in circulation by siphonage. It has the advantage over coils of rubber and of pewter in being lighter, and therefore more easily tolerated by the patient, the aluminium being also a good conductor and very flexible the desired heat or cold appear to be uniformly and satisfactorily applied. The coils are made up in various shapes for adaptation to other parts of the body—chest, abdomen, eye, neck, etc. We think that this application should prove of much use for the purposes for which it is designed; one small improvement which suggests itself is the addition of a bulb on the rubber tubing to start the siphonage. We are informed that the coils can be obtained from Messrs. S. Maw Son and Sons at moderate prices.



An Emergency Cabinet for India and the Colonies.—Major H. E. DRAKE-BROCKMAN, I.M.S., has devised a cabinet suitable for surgeons who are unavoidably isolated. It consists of two parts, each being in the form of a portable chest of drawers, which when placed in wooden cases can either be carried by bearers or slung on the back of some pack animal. The cabinets, which are made of mahogany or teak, when placed together form a suitable piece of furniture in a consulting room. In each of the individual drawers all the instruments and apparatus necessary for a certain type of operation are collected; for example, all the instruments relating to uterine diagnosis are in one drawer. Another drawer is allotted to drugs, all of which are in tabloid form, and they include those needed for antiseptic lotions. In the same drawer is the latest pattern of hypodermic syringe, with antitoxins and antivenene. Arrangements can be made for having whatever type of instruments the purchaser prefers included in the cabinet. The Barnes-Simpson midwifery forceps and the Jessop ophthalmoscope are among those originally selected by Major Drake-Brockman. All the instruments have metal handles to facilitate sterilisation, and they are all of the latest pattern. The cabinet has been constructed by Messrs. Burgoyne, Burbidges, and Co., from whom all particulars regarding cost, etc., may be ascertained.

A TROLLEY HOSPITAL. A mobile hospital—a trolley car with all the appliances of a depôt for the sick—will, it is said, eventually be one of the features of Baltimore. The idea originated with Dr. C. Hampson Jones, Assistant Health Commissioner, who believes that it will prove a practical and valuable adjunct to the hospital service. The scheme is have the hospital car ever in readiness for a call; that it be given the right of way, and its passage over the route be facilitated in every manner by other traffic.

THE THERAPEUTIC EMPLOYMENT OF HIGH FREQUENCY CURRENTS ("D'ARSONVALISATION").

THE electrical treatment of disease by currents of great frequency and high potential has not hitherto attracted much attention in this country, but in France where, for some years past, it has gradually been establishing itself in favour, it is now widely popular, and is credited with very considerable powers as a curative agent in various disorders, as the following notes of French observations will show:

PHYSIOLOGICAL ACTION.

In 1891 Tesla, and after him Elihu Thompson, published in America certain researches and discoveries made in connection with the high-frequency electrical currents which the previous experiments of Hertz had succeeded in producing. Most of our present knowledge, however, on the subject of their physiological actions and therapeutic value is due to the brilliant investigations of Professor d'Arsonval of Paris, the earliest of which were contemporaneous with those of Tesla. In a paper communicated to the Société de Biologie as long ago as May of 1891, d'Arsonval described the effects—as he had observed them—of this form of electricity on the human organism. He specially called attention to the fact that currents of high frequency acted powerfully upon respiratory combustion, and that their passage through man was therefore attended with an increase in the quantity of oxygen absorbed and of carbonic acid given off. He found that motor and sensory nerves were insensible to electrical excitations or undulations, which attain a frequency of twenty to thirty millions a second.

Hertz has clearly demonstrated that rapid undulatory electric discharges permeate the ether in the same way as waves of light or sound, and just as the optic and auditory nerves are respectively capable of appreciation of light or sound waves only within certain limitations, so, according to d'Arsonval, the efferent and afferent nerves concerned with movement and general sensibility are similarly restricted in regard to their appreciation of waves of electricity. Though there is a complete absence of all evident response on the part either of muscular fibres or of motor or sensory nerves to the action of these high-frequency currents, they seem to exert a powerful influence upon the vasomotor system, causing a primary fall and subsequent increase of arterial tension. It is further said of them that they give rise to marked assimilative and nutritive changes in the body, with increased heat production and activity of the skin; cause a loss of bodily weight during the period of their application; produce a diminution in the excretion of uric acid and an increase of urea, until the relationship between the two is frequently reduced to 1 in 40; and promote natural sleep and appetite.

The elimination of waste products and other general benefits asserted to accrue from their use are similar to those obtained from vigorous muscular exercise, but without the accompanying fatigue. This form of electricity constitutes, says d'Arsonval, "a medicament of the cell and a powerful modifier of general nutrition which it increases and at the same time regulates." He is confirmed in this opinion by Coignet who says "high frequency currents are capable of strongly affecting the human organism without interfering with general sensibility":—by Apostoli and Berlioz, who say "these currents have a powerful influence on nutritive activity and, to this extent, they constitute a medication of the highest order in a large number of functional disorders ensuing upon imperfection or perversion of nutrition":—by Jacoby, who says "alternating currents of high frequency exert a powerful action on every living organised body that is submitted to their influence. They act powerfully on diseases caused by, or attended with, feeble nutrition":—by Hedley, who says "speaking generally, its effect in suitable cases is to improve the general nutrition, condition, and 'tone' of the body; to restore appetite, sleep and digestion; to induce an increasing energy and capacity for work": and by others from whose works space limits prohibit quotation.

The effect upon the vasomotor system is quoted as the chief of several reasons for believing that these currents actually pass through the tissues, but it is admitted that this is not proved. It has been shown that in copper wire, for instance, they have a tendency to flow over the surface, and by some it is supposed that in the human body they do no more. Assuming, however, that they do penetrate the tissues, the body would then become an electrolytic conductor, the component parts of which would be modified by the "decompositions, recompositions and liberation effects,—the constant changes between molecule and molecule"—which are of necessity associated with the passage of a current through any kind of electrolyte. It is thus conceivable that if high frequency currents permeate the body more completely than any other known form of electricity,—and no less than this is claimed for them,—they may be capable of influencing the various processes of metabolism in a more far reaching way than has hitherto been accomplished by other forms of therapeutic procedure. It is, however, necessary to bear in mind that to be able to so charge the body with electricity that sparks may be painlessly produced at any part of its surface by the mere act of touch, or that vacuum tubes may be spontaneously illuminated when brought within a short distance of the patient, is to produce a striking series of phenomena which are both novel and mysterious, and which, by their suggestive action on neurotic patients, may probably account for some part at least of the superiority which it is alleged this method possesses over other forms of general electrisation.

In addition to their general effects, these currents are also reputed to be valuable if applied locally. When made to pass *sous forme d'étincelle* to some portion of the bodily surface, they do not produce pain, but a comfortable sensation of warmth is immediately experienced in the part touched, this being followed by local hyperæmia, and analgesia—which often persists for half an hour after the application is withdrawn.

It is stated by some observers that in many cases the best results are attained by a combination of general and local treatment.

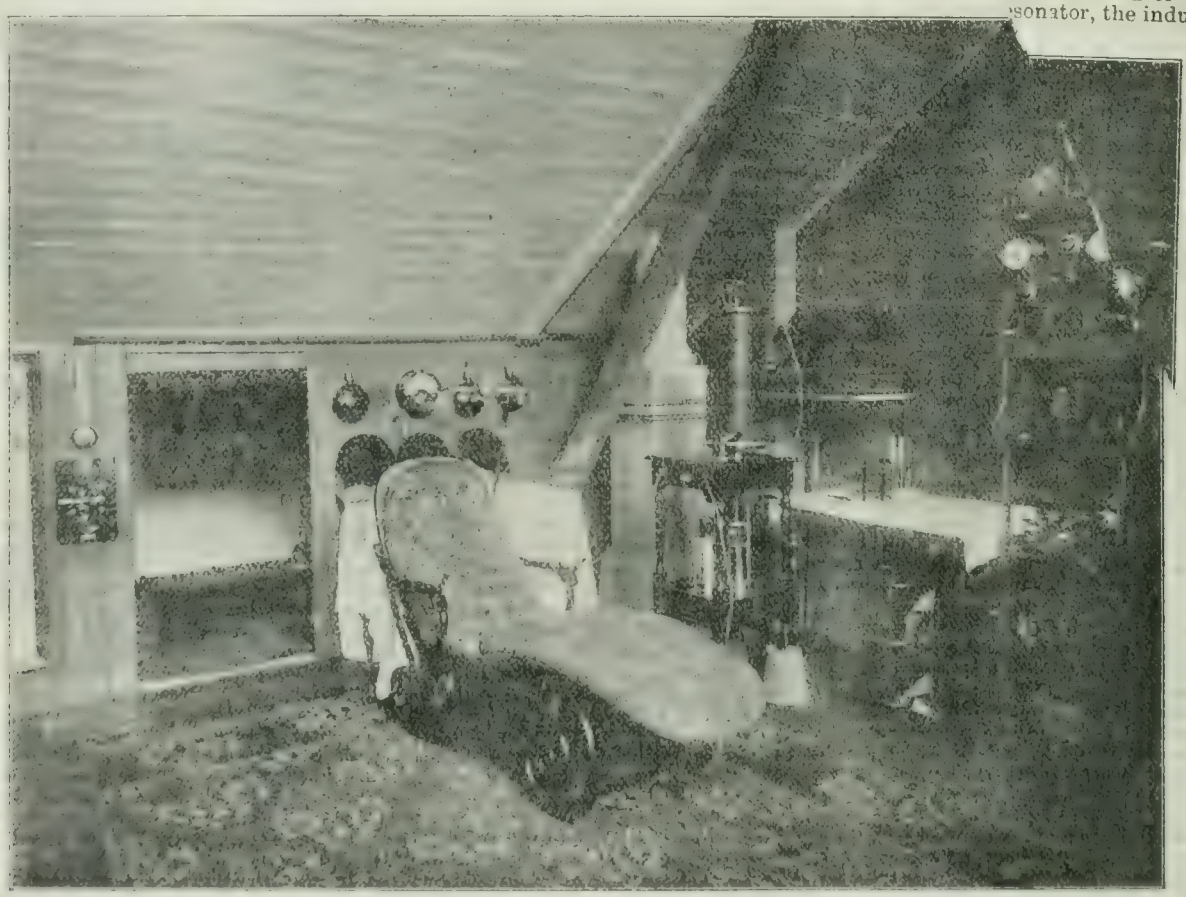
D'Arsonval has also maintained that high frequency currents can under special conditions, as the result of electrolytic processes, attenuate certain toxins, and modify the growth and behaviour of various micro-organisms. His experiments in this connection, carried on in association with Dr. Charrin, have been repeated by Phisalix, Bonome, Viola, and others, but the investigations are still too recent and too few to warrant definite conclusions. Nevertheless, d'Arsonval, who is firmly persuaded of the value and accuracy of these experiments, looks upon the effects which he has been able to produce on micro-organisms and their toxins as eminently important from the therapeutic point of view. In summing up the results of certain experiments on streptococcus and diphtheria toxins, he expresses the hope that, as it has been demonstrated that these toxins are enormously attenuated by high frequency currents, it may be possible to treat them directly in the human body; and that this hope is further stimulated by the further fact which he believes he has discovered, that after electrisation the toxins become converted into immunising substances or true vaccines, which increase the resisting power of animals injected with them.

In their broad outlines these are the main assertions concerning this new method of electric medication. It is obviously possessed of certain features of promise, which it is to be hoped will not be *ab initio* ruined by over-enthusiasm on the part of those who make use of it. The apparatus has been recently introduced at several hospitals and at some British watering places; and in the best interests not only of this electrical process itself, but of scientific progress as well, we trust that both in public institutions and in private practice it will be used with discretion and with a due appreciation of its limitations as well as of its possibilities.

"AUTO-CONDENSATION" INSTALLATION AT HARROGATE.

These comments on d'Arsonvalisation have been prompted by a paper read before a recent meeting at Harrogate of the Yorkshire Branch of the Association by Dr. Hinsley Walker. We are indebted to him for the accompanying photograph of the d'Arsonval installation at the Royal Baths, Harrogate, and for the following description of the apparatus installed by Mr. Alfred E. Dean: "The apparatus consists of several portions;

the initial source of power is the dynamo machine generating constant electricity, which is stored by the secondary battery of accumulators of the usual commercial form. This ensures a steady supply to the transforming machines, which in turn supply the patient with these phenomenal currents. The current from the accumulators is taken to the switchboard at the terminals on the lower part of the board. On entering the board it is conducted to the several parts and shunted to the measuring instruments thereon, the voltmeter indicating the initial E.M.F., and the ammeter the intensity of the current passing. The current afterwards is conducted to the primary windings of the high potential transformer, and returns to the switchboard, where the mechanism of the interruptor makes and breaks the primary charge of electricity. The passage of current in the primary windings induces magnetism in the core or bundle of wires which it (the primary) surrounds. The core in its turn induces a current in the fine



Installation at Harrogate Baths (auto-condensation).

secondary turns of wire which surround the primary coil; at each break or interruption the induced current finds itself cut off, and discharges itself at the terminals of the coil. If the charge in the primary is of sufficient intensity, the resulting spark in the secondary will leap from terminal to terminal in the air. This same spark obtained from Leclanché's would need some 50,000 joined up in series. This potential is then enormous—50,000 volts or more. Such a potential is not necessary to overcome the resistance of the skin, but high potential currents are needed. The currents at the terminals of the coil are, by reason of their potential and low frequency, very dangerous. They are therefore conducted to suitably-constituted Leyden jars on the lower part of the resonator and joined to the internal armatures. The charge of current on the inner surface induces a similar charge on the outer surface, and it is this outer charge which is conducted to the patient.

"It is a well known phenomenon that the thin coating of a Leyden jar is so small, and so rapidly charged that it rapidly discharges in air or to anything near it the superabundance of electricity thrown upon the greater voltage charge. Hence we get a series of oscillatory discharges from one to the other, and at the enormous rate of 1,000,000 (one million) per second, hence their name of high frequency. D'Arsonval puts the figures at two or three million oscillations per second, but considering impedence and other losses one million is a safe figure. The frequency is estimated by the harmonic product of the worn 'resonator' given by Oudin, the inventor of this form of machine. Speaking of the resonator, the induced oscillatory currents are made to circulate in two helices of wire of considerable capacity relatively. This causes a fall of potential but allows the electricity to transform itself into intensity or volume. These helices are used together or separately according to the current desired. In this way we get an intensely revulsive stream of electricity, or an attenuated soft spray, but as in each case they emanate from a common source, namely, the external armature of the condensors, they have always the phenomenal frequency of the discharging jars. These oscillatory currents are conducted to the couch or electrodes, and in passing are conducted over a milliammeter or hot wire instrument. This instrument consists of a fine platino-iridium wire, which offers high resistance to the current, and as the current persists the wire heats, expands, and moves the mechanism of the ammeter. The indications

are then 'calories' caused by resistance of the wire to the currents interpreted in amperes.

"The couch is a piece of furniture with a cane seat. Underneath the cane seat and back is a sheet of insulating material; underneath this insulation is a sheet of metal, in two halves for sake of convenience, and coupled together with heavy copper wire. On the top of the couch are cushions filled with insulating material, preferably rubber shavings. On the arms of the couch are two handles connected together, which in turn are coupled to one pole of the resonator. The other pole is attached to the metallic plate underneath the couch. The patient lying on the couch is in reality only in direct connection with one pole of the resonator. Here again the Leyden jar process goes on. The plate being one armature and the patient the other there is therefore an oscillatory movement of electricity going on between patient and plate, the patient in turn being charged and discharged with positive and negative electricity. The frequency is virtually the same at the couch as at the Leyden jars; if there is any appreciable loss it is in quantity, not in frequency."

Auto-conduction.

The method here described is that known as auto-condensation. A second method by which the high frequency currents may be used is that of auto-conduction. In this the patient is enclosed in a large solenoid which takes the place of the couch, and is connected to the resonator in the same way. The currents are discharged from every part of the solenoid with no portion of which the patient comes in contact; he is thus "immersed in electricity," and currents of great intensity are induced in the tissues of his body.

Bipolar Method.

The currents may also be applied by the bipolar method, one end of the small solenoid being connected to a large foot electrode, the other end to an electrode held by the patient; or both electrodes may be held, one in either hand.

Therapeutic Applications.

Dr. Hinsley Walker's paper deals with a variety of cases which were subjected to treatment at Harrogate during the first six weeks after the d'Arsonval apparatus was added to the therapeutic armamentarium of the Royal Baths. In that time the applications numbered upwards of 1,000, and, as this gives an average of about 30 applications for each working day, it indicates that the new method of treatment must have been invoked with generous liberality, and perhaps without as much care in the selection of suitable cases as will doubtless be exercised at Harrogate when the first novelty of "great potential and high frequency" wears off.

The most striking results have been achieved in connection with hæmorrhoids. "Two applications," said Dr. Hinsley Walker, "apparently cured an acute case." "Another case of long standing, with bunches of piles protruding, bleeding frequently, and painful anal fissure, has, after daily applications for four weeks, shown distinct and, indeed, almost complete recovery." "Another case, but in this instance advanced in years, where the hæmorrhoids were of old standing, with a large quantity of hypertrophied tissue and partial collapse of the lower bowel, has been treated for three weeks daily. At each sitting the application was administered at first locally for five minutes by a rectal electrode, and subsequently for five minutes by a general application, the patient reclining on the couch. The bleeding from the piles has quite ceased; the hypertrophic tissue is shrivelled, and the piles are now represented merely by slightly thickened folds of the mucous membrane." Those results are not so striking, but are corroborative of Doumer's experience at Lille in 1898, when he reported permanent cure in 9 cases, each one of which was associated with a fissure. Five or six applications, he states, were sufficient to cure the bulk of his series, and even the most obstinate did not require more than ten of from three to six minutes duration each.

Dr. Walker next calls attention to a case of phthisis with the apices of both lungs affected, which had been subjected to daily administrations for three weeks, with the result that "there has been a gain of 2 lbs. in weight, and though formerly unable to attend to her house duties at all she now feels well enough to do so to a certain extent." This is a very guarded and indefinite statement, which, so far as it goes, indicates no greater improvement than is met with every day after a similar length of treatment by more ancient and better understood methods. The reference made to Mr. Chisholm Williams's cases does not strengthen the evidence, because that gentleman's paper, contributed to the British Medical Journal of October 13th, 1901, though dealing somewhat fully with generalisations, was inconclusive from want of detail. His results seem "too good to be true," and in any case require the justification of more elaborate clinical records. They are thus summarised by Mr. Williams under the heading of "Effectiveness":

> Of 43 cases 42 put on weight, lost all symptoms except in a few where a slight cough and a few bacilli may be found occasionally. Physical signs generally remain long after the patient is at his maximum weight (for height). One case was only treated four weeks, gained 3½ lbs., then in the fourth week had, through his own carelessness, pneumonia; he recovered, but with the loss of his 3½ lbs. Some patients are not amenable to any form of treatment.

Doumer, Oudin, Rivière, Baedeker, Gandil, and others have recorded their experience of this treatment of phthisis; all claim to have achieved encouraging results, but confess that the time has not yet arrived for assuming that, in any case, anything more has been accomplished than a marked improvement. Rivière states the argument in favour of high frequency currents and the probable method of their therapeutic activity in the following sentences:

> High frequency currents exercise a certain curative action upon tuberculosis. The microbe cannot resist the repeated application of these currents, its reproductive power and the virulence of its toxins becomes attenuated, a fact which had already been proved by the laboratory experiments of Professor d'Arsonval. It appears that, at the same time, the human organism under the influence of these currents gets stronger, its enemy the microbe grows weaker. The acceleration that these currents bring to the circulation of the blood and lymph favour osmotic action. This allows the organism to eliminate the refuse and the toxins that invade and infect it. Thus cleaned, the organism is in good condition to struggle against the microbe. It is also probable that under the influence of this form of electrisation the beneficial action of the phagocytes increases in activity. It thus appears evident that in these conditions the attacked organism recovers its strength and, aided by the phagocytes, finally prevails against the bacillus, whose vitality the electric concussions have already imperilled. It is therefore sufficient to place the patient in the best conditions of food and hygiene to avoid the return of the disease.

Anæmia is another disease quoted by Dr. Walker as having benefited from d'Arsonvalisation, but inasmuch as the three cases to which he refers were simultaneously treated with iron internally, it is difficult to assess what part, if any, the electricity played in the cure. The cases of chronic rheumatism to which he applied the process proved rebellious, and yielded no definite results, but other observers, and notably Baudet, Apostoli, and Soulages, have found more or less marked improvement in the various forms of arthritis. Dr. Walker refers to diabetes as another disorder in which amelioration and ultimate cure may be expected, but does not mention any cases as having occurred within his own experience. Other writers have, however, supplied clinical evidence in support of this view. Vietti has recorded four cases in which the sugar totally disappeared, and d'Arsonval himself in June, 1896, reported to the Société de Biologie two cases which were sufficiently striking. In one, after six weeks treatment, the sugar diminished from 622 to 186 parts, and the volume of urine from 11 or 12 litres to 7 or 8 litres. In the other the sugar diminished from 144 to 57 parts, and all the other symptoms correspondingly improved.

For local treatment various forms of monopolar electrodes are used. From these, when held sufficiently near the spot to be treated, the high frequency current (*effluve*) leaps to the patient, and produces a pleasant sensation of a moist warm breeze playing over the part. Eczema, psoriasis, rodent ulcer, tertiary syphilides, strumous ulcers, and other superficial maladies of the skin have been treated with varying degrees of success.

It will thus be seen that this new form of electrical medication has already been applied over a wide field of disease; and while it seems to be proved that it possesses a distinct influence on nutritional activity, and that already good results have been obtained, it is only too certain that, like many other electrical methods, this most recent one may suffer, and much of the good it is capable of be neutralised, by a too ready publication of phenomenal cures and a too blind acceptance of statements which will not stand the search-

light of scientific accuracy. While its tentative use in cases associated with perverted metabolism seems warranted, it must not be looked upon as a panacea for every evil, nor even as a remedy which in nutritional cases will prove unfailingly successful.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

THE BELFAST FUND.

OWING to the very generous and prompt response to the appeal of the Belfast Committee, it has been decided to close the list. Full acknowledgment of all sums received have been made daily in the local press, and the amount now reaches the very gratifying total of £1,163 18s. 7d. This is quite exclusive of the sums raised in Dublin and Londonderry. The following donations have been received from medical men outside Ireland and are now acknowledged with thanks; contributions from laymen and Irish doctors are not included. As many of the contributors remained anonymous, it is difficult to avoid mistakes and omissions; one of the Secretaries, Dr. Calwell, 1, College Square North, Belfast, will be glad to receive notification of any error.

	£	s.	d.
Dr. John Hall, Brighton	3	3	0
Dr. P. Fred. Baston, Wimbledon	1	1	0
Dr. S. Stronge, East Dulwich	1	1	0
Dr. Bryson, Derby	1	1	0
Dr. J. H. Teacher, Glasgow	1	1	0
Dr. N. Macvicar, Peebles	1	0	0
Dr. H. N. Mongomerie, Penzance	0	10	6
Dr. D. McKenzie, Leytonstone	0	5	0
Dr. Thomas Proctor, Carnforth	1	0	0
Surgeon-Major R. B. Scott, Bath		10	6
Dr. G Hart. Measham	1	1	0
Dr. A. Perigal, New Barnet	1	1	0
Surgeon-General H. Cayley, Weybridge	1	1	0
Dr. K. Bryce Smyth, Gloucester	1	1	0
Dr. Charles Forsythe, Southend-on Sea		5	0
Dr. G. K. Pitcairn, Lancashire	1	0	0
Dr. Pritchard, London	1	0	0
Dr. H. Michie, Nottingham		5	0
Dr. Ch. [illegible] London	1	0	0
Dr. A[illegible] Cheadle	1	1	0
Dr. [illegible]	1	1	0
Dr. J. A Robertson, Glasgow	2	0	0
Surgeon C. Beverley, [illegible]	1	1	0
[illegible] acknowledged	1	0	0
[illegible]		5	0
[illegible] O. W. Rennie, H.M.S. Resolu	1	1	0
Dr. H. J. Hutchinson, Pioneer	1	1	0
Dr. H. S. Gabbett, Eastbourne	1	1	0
[illegible]son J. H. Anderson, H.M. Dockyard [illegible]	1	1	0
[illegible]		10	6
[illegible]		10	6
[illegible] Streatham, [illegible]	1	1	0
[illegible]	2	2	0
[illegible] Townsend, H.M. [illegible]	1	1	0
[illegible]	1	1	0
[illegible]	1	1	0
[illegible]	1	1	0
[illegible]	1	1	0
[illegible]	2	2	0
[illegible]	1	1	0
[illegible]		5	0
Dr. J. N. Moody, Surrey	1	1	0

	£	s.	d.
Dr. Edw. Kough, Gloucester	1	1	0
Dr. P. M. Deas, Exeter	5	5	0
Dr. R. E. Lord, Colwyn Bay, England	1	1	0
K.	0	10	6
Dr. Thos. Smith, London	5	0	0
M.D., Edinburgh	0	10	0
Dr. Selby, Kent	1	1	0
Dr. Mark Sharman, Ricksmansworth	1	0	0
Professor Arthur Barker, London	5	5	0
Mr. H. W. Page, F.R.C.S., London	5	5	0
Mr. John Langton, F.R.C.S., London	5	5	0
Professor G. Barling, F.R.C.S., Birmingham	3	3	0
Dr. Grayling, Forest Hill, London	1	0	0
Dr. H. H. Davis, Sunderland	0	10	6
R. D. P., London	5	0	0
Dr. Charles Orton, Florence	1	0	0
Dr. C. D. B. Hale, London	2	2	0
Dr. Dawson, Lancaster	5	5	0
Lieutenant-Colonel O'Neill, Rome	5	0	0
Dr. Gubbin, Bristol	0	10	6
Dr. B. Rice, Leamington	1	1	0
Dr. W. B. Russell, Colwyn Bay	1	1	0
Surgeon-Major B. Rendall, England	1	1	0
Dr. Hunter, Edinburgh	1	1	0
Dr. Joseph Griffiths, Carnforth	1	1	0
Dr T. W. Smith, London	1	1	0
Lady Inspectors of Factories		5	0
Dr. Duke, Rugby	1	1	0
Dr. M. Byers, Isle of Wight	1	0	0
Dr. Haslip, London	1	1	0
Dr. R. S. Ferguson, Willshire	1	1	0
Dr. Pope, Hereford	0	10	6
Ulster Men in London, per Dr A. Brown	9	0	0
Dr. S. Nockolds, Isle of Wight	0	10	6
Dr. C. W. Chapman, London	1	1	0
Dr. Eleanor Hudson, Birmingham	1	0	0
Dr, do Havilland Hall, London	1	1	0
Dr. Dawson Williams, London	1	1	0
Dr. C. B. Humphries, Blandford	2	2	0
Dr. John W. Leitch, Glasgow	1	1	0
Dr Bentham, West Hampstead	0	5	0
Surgeon-General, Hants	0	10	0

SMYTH MEMORIAL AT BURTON PORT.

SIR,—I venture to head this letter with the above words, for it seems to me that it would be very fitting to place somewhere in the little village on the Atlantic seaboard, in which the heroic Dr. Smyth worked for nineteen years, some simple memorial of him, of his deed and death at the call of duty. Such a memorial might fitly take the form of a monolith of the Irish standing-stone type, into which could be sunk a medallion of bronze wrought by an able sculptor, and under the medallion could be incised a simple inscription, ending with such words as "Greater love hath no man than this, that he lay down his life for his friends."

The stone should if possible be of the native rock, but, if this is not procurable or workable, the best stone I know of is the grey-green volcanic ash of our Cumberland or Westmorland hills. It is, as far as weather goes, everlasting. It is more permanent than granite, and is beautiful in colour.

The two memorials that have been lately placed—one to the memory of John Ruskin at Friar's Crag here, one to Mr. James Cropper in the Abbot's Park at Kendal—are examples of the monument I dare to propose as suitable. If any of your readers will join me I will take the matter in hand. The cost would not exceed £100.—I am, etc,

Crosthwaite Vicarage, Keswick, Jan. 7th. H. D. RAWNSLEY.

P.S.—I venture to suggest that the name of the heroic helper and associate of Dr. Smyth should be included in the dedicatory inscription.

THE LATE R. B. ANDERSON FUND.

MR. WALTER MONNINGTON, 7, Fig Tree Court, Temple, E.C., Honorary Secretary of this fund, requests us to state that, owing to several requests and conditional promises of subscriptions, the Committee has resolved to keep this fund open till the last day of February next, instead of closing it on January 8th, as previously announced.

Donations for the late R. B. Anderson Fund may be sent to the Manager, Union Bank of London, Chancery Lane, London, and will be duly acknowledged.

DR. ALFRED COX (Cotfield House, Gateshead) writes: I shall be obliged if you will publish the enclosed list of those who have been kind enough to respond to my appeal on behalf of the fund for the benefit of the wife and family of the late R. B. Anderson, F.R.C.S. There are still thousands of medical men who know of the circumstances of this case, and who ought to feel it a privilege to send a few shillings to the fund. The attitude of the men who are supposed to take an interest in medical politics is very disappointing. How any one of them can refrain from adding his mite in memory of the man who sacrificed everything in defending the honour and interests of the profession is a mystery to me. Let me implore them before this fund is closed to do a little for the credit of the profession in this matter.

	£	s.	d.
Lord Lister		0	0
Dr. W. Llewellyn, Stamford Hill	1	0	0
Dr. J. L. Speirs, Gateshead	1	1	0
Dr. W. F. Brook, Fareham	1	1	0
Dr. Arthur C. Roper, Exeter	1	1	0
Dr. Evershed, Pinner's Hall, Great Winchester Street, E.C.	0	10	6
Dr. J. W. Papillon, Brent Knoll, Somerset	0	5	0
Dr. L. McNabb, South Shields	0	10	6
Dr. C. T. B. Maisey, Cheltham Hill Road, Manchester	1	1	0
L. A. B.	1	1	0
Dr. John Brown, Bacup	0	10	6
Dr S. Moore, Holbeck, Leeds	0	10	0
Per *The General Practitioner*:			
Mr. George Brown, M.R.C.S., Islington	1	1	0
Mrs. George Brown	0	10	6
G. H. Broadbent, M.R.C.S., Manchester	2	2	0
Dr. R. Wilkinson, Upper Norwood, S.E.	0	10	0
Dr Basil W. Walker, Dawson Place, Bayswater	0	7	6
A. Cosgrave, M.R.C.S., Bolton le-Moors	0	5	0
L.R.C.P., Sheffield	0	2	6

DR. W. M. M. JACKSON, on resigning the post of R.M.O. at the Westmorland Consumptive Sanatorium, was presented by the patients, as a mark of their esteem and in recognition of the attention they had received from him, with a handsome silver-mounted walking stick, suitably engraved.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 11TH, 1902.

THE COMING SESSION.

THE coming of the session is already exciting much speculation as to the character of the Government legislation and the chances it will offer to private members to push their particular Bills on to the Statute Book. In estimating the chances of any private Bill the general conditions of the session must be taken into consideration. Although this year the Houses are called together early—on January 16th—it will be a session in which the time for actual parliamentary work will not be proportionately long. The early meeting will necessitate a longer vacation at Easter, which falls early this year, and then, after the Whitsuntide recess is over, the Coronation and its associated festivities will encroach on the time for parliamentary labour. The ten weeks before Easter will be the time for the most effective work of the session, and if the seven or eight Wednesdays were sure to be at the disposal of private members for their Bills, there would be a good prospect for those successful in the ballot.

The ballot for Bills to be introduced by private members in contradistinction to Bills introduced by the Government takes place on one of the early days of the session. The members desirous of introducing Bills put their names down on a list, and then the 300 to 400 names are put into a box, and they are drawn in succession. The half-dozen or ten names first drawn get the choice of the Wednesdays before Whitsuntide on which to secure the second readings of their Bills. A Bill which does not secure a second reading before Whitsuntide has little or no chance of passing unless favoured by the Government and consequently "starred," or passed by the consent of all parties in the House. To secure a good place in the ballot, members now combine, and a dozen or more put their names down for a particular Bill, and the one drawing an early number gives notice of the Bill, introduces it, and has charge of it for the session. The Irish members combine in this way, and as they number eighty-two and all act together, they nearly always secure for Irish Bills a good share of the coveted places. Allowing for the accidents of the ballot, it nearly always requires a dozen or more members to combine to give a Bill the chance of a good place. Even a more numerous combination often fails to win one of the first dozen numbers. Even when an early number is drawn, and one of the Wednesdays before Easter chosen, the exigencies of Government business may interven, and the unhappy member may see an almost certain chance destroyed by his selected day being ruthlessly taken by the Government.

This coming session will very likely produce much disappointment of this kind, as the question of the reform of procedure is to be taken early, and the financial needs of the Government, in consequence of the continuance of the war, will necessitate the early introduction of supplementary estimates and other financial business.

The Midwives Bill, like other private members' Bills will have to run the gauntlet of the ballot. Judging from the correspondence about this measure in newspapers of all shades of opinion, the Bill seems to have entered on a more serious phase as a parliamentary proposal. The public seems to have got the idea that some legislation is necessary, and the dangers of the legislative measure proposed are perhaps not very obvious to the non-professional mind. Under these circumstances a strong effort will be made this session to get a good place for the Bill, and a dozen or more members will ballot for it. There are plenty of other Bills whose promoters are already at work asking members to ballot for them. The Pure Beer Bill of last year is sure to have a host of supporters, the Mines (Eight Hours) Bill and other Bills connected with the mining industry, will be balloted for by a large number of the representatives of mining constituencies. The deceased wife's sister will once more have her devoted supporters. The Women's Disabilities Removal Bill will have many friends, and the Protestant party will go to the ballot-box in strength to get a good place for their Bills for checking ritualistic practices in the Church. The Temperance party will have measures too, and these, with the Irish Bills, Housing, Old Age Pensions, and Rating Bills, will afford a wide choice for fickle fortune when the drawing takes place probably on Monday week. There is one measure of interest to the medical profession which is being pushed forward with some energy, namely, the Local Authorities Superannuation Bill. It is now brought forward as an adoptive Bill to be taken up or not, as local authorities may decide, and in this form it will probably have a better chance of passing into law.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

II.

THE General Medical Council, as to two-thirds of its members, consists of representatives of licensing bodies, all of which are represented upon it. It contains five members nominated by the Privy Council, whose function it may be presumed is to "see fair," and five direct representatives of the profession. It might have been supposed that the dicta of a body thus constituted might be safely accepted as, in a measure at all events, binding upon all; but if each constituent body takes its stand upon its chartered rights, and roundly alleges that it will not in practice refrain from acting independently upon these to the last iota, then the conference is at an end, and it is difficult to see what purpose is served by sending a representative to it. It is another question, too large to enter upon now; but if this is to be the attitude, and if the General Medical

Council is to be shorn of its authority over medical education, then a far smaller body of a different constitution would be able to carry out its work, other than educational, more rapidly, with more economy, and without any loss of efficiency. We can only hope that the destructive effect of this rigid stand upon legal rights will be recognised before community of action between the licensing bodies is quite demolished. If it is not, we shall drift back towards the old state of things, when each body was a law unto itself, and the realisation of the idea of a one portal of entrance to the profession, whether in form or in practical effect, may well seem farther off than ever.

But in the meanwhile it remains to consider the various proposals which have been made for ending the present unsatisfactory state of things. These will no doubt be fully considered by the Committee which is to report to the special meeting of the General Medical Council, although Dr. MacAlister held the view that the Committee could do little good, and that the matter if left to drift would, as time went on, settle itself, since students' registration, notwithstanding the defection of these two bodies, still remains a desirable thing.

Sir Christopher Nixon's motion, had it been carried, would have relegated chemistry, physics, and biology to the position of indispensable preliminary subjects, an examination in which should, like the Arts examination, precede registration as a medical student, so that the curriculum at a medical school would consist of an unbroken period of four years after this. There was much to commend this proposal. It would have placed these subjects in name where they already in some cases are in effect, where indeed, in the opinion of some of the members of the Council, the Conjoint Board has practically placed them, and had a conciliatory spirit been displayed by the representatives of the two Royal Colleges it seems possible that it might have been adopted, though perhaps not by a unanimous vote. Without dwelling upon the fact that it would have been a virtual surrender of the position thus far maintained by the Council, it may have seemed to some members of that body that a far more important consideration was that it left untouched the refusal of the Royal Colleges to hold themselves in the smallest degree bound by the views of other bodies, and that the whole difficulty might easily come up again with regard to this proposed preliminary scientific examination, the nature and scope of which the Colleges might claim to be wholly their own affair. It left untouched also the fact that students' registration having been for the present abandoned by the Royal Colleges it did not follow that it would be resumed under the proposed new order of things, and so it left untouched all that in this way bears upon preliminary education in Arts. Had students' registration been prescribed by law the motion would have had more finality; as it was, it dealt only with something which after all is optional.

Other proposals grouped themselves round an appeal to the Privy Council as being in effect an arbitrator under the Act. The suggestion that the Privy Council should be simply asked to define the relations of the Council to the licensing bodies involves the assumption that it would consent to give an interpretation of the wording of the Act, in other words a legal opinion. But it might not improbably declare this to be outside its functions as defined by the Act. The only other way in which the opinion of the Privy Council could be obtained would be to appeal to it under Sections XXIII and XXIV of the Medical Act, 1858, on the ground that the diplomas conferred were insufficient, and should not be registered. That the appeal would be good in form appears to be proved by the fact that both these clauses expressly mention study as well as examination. But it can hardly be seriously contended that in net result the double diploma of the Conjoint Board in England is an inferior qualification. The issue then could hardly be raised in this way except by mutual consent, by, in fact, something comparable to a friendly suit, and the Colleges have thus far shown no willingness to present the matter in that form. And here again the concurrence of the Privy Council, its consent to lend itself to such a friendly suit, is a *sine quâ non*. It would be open to the Privy Council to leave on one side the general issue and confining itself to its statutory duty, to reply simply that the departure from the prescribed conditions was not wide enough to render the double diploma insufficient evidence of the possession of the requisite knowledge and skill, and did not justify so extreme a measure as its non-recognition. The only precedent is the case of the Apothecaries' Hall of Dublin, in which the Privy Council, whilst not going so far as to expunge its qualification, did act as a *deus ex machinâ* and imposed certain conditions; but with regard to that body it was possible at the time to present much stronger arguments than could fairly be urged in the present case. Hence an appeal to the Privy Council is not devoid of risk to the prestige of the General Medical Council, and the risk is so material that it is pretty certainly undesirable to incur it unless in the form of a friendly suit. If indeed the Privy Council were to take a course somewhat similar to that which it adopted in the case of the Apothecaries' Hall of Dublin, and itself revise the list recognised by the Colleges, this would only be a partial endorsement of the action taken by the General Medical Council, which is in a better position to judge of the data upon which the inclusion or exclusion of particular institutions is proper than any other body can be.

If the compromise suggested in Sir Christopher Nixon's motion, namely, that there should be a medical curriculum of four years dating from the passing of a recognised preliminary scientific examination, is to be taken as finally rejected by both parties, then there would appear to be only one other alternative. This would be for the General Medical Council to go to Parliament for a Bill to render students' registration compulsory. But it would have been much easier to do this before the existing friction had arisen. In their present spirit the two Colleges might either oppose such a Bill, or might seek so to amend it as to leave untouched the particular rights upon which they stand. Moreover, it must be remembered that the General Medical Council has so far scored no success in pushing on its Disciplinary Bill, notwithstanding that it is a non-contentious measure which has the full assent of all of the great corporations. What prospect would there be of its carrying a measure which lacked that unanimous support? The more closely the position is examined the plainer does it appear that the two English Colleges have it in their power to gravely imperil, if not to wreck, all prospect of com-

munity of action amongst the licensing bodies. If they do so they will incur a grave responsibility, and may initiate a competition in a downward direction. Somewhat too much controversial use has perhaps been made on several occasions of words which at least indicate that it was thought in London that the five years curriculum, as at first interpreted, had led to a falling off in the number of students offering themselves for the examinations of the Conjoint Board. But it appears doubtful whether these two circumstances were related as cause and effect, and were not merely coincident in point of time, as the returns issued from year to year in our columns show that there has been an actual falling off in the total number of medical students.[1] This is very considerable in London, but is partly, and only partly, compensated by an increase in the number of medical students at the various provincial schools. Thus it would appear that the relaxation effected by an easier interpretation of the first year of medical study has not had the expected effect of keeping up the London entries, but that some wider causes, the nature of which we have endeavoured to indicate in several articles recently published, are in operation.

To sum the matter up: It is pretty clear that each and all of the licensing bodies have, from the legal standpoint, a free hand, and that no requirement can be imposed upon any one of them without its consent so long as it refrains from any step which would make a strong case for an application that its diploma be not recognised. But a curriculum is hardly to be measured with mathematical exactitude, and it is obvious that much practical deterioration in it might take place without giving absolute cause for so strong a measure as non-recognition. Hence it is eminently desirable that the different bodies should come to an agreement between themselves, as hitherto, and hold themselves bound by the general opinion. But, so far, the two Royal Colleges appear to stand alone, and no word of support has been heard from the representatives of any other body, nor—with the doubtful exception of Sir John Williams, who spoke on the side issue of Sir C. Nixon's motion—from any of the independent members of the Council. This should surely make the Colleges pause and reconsider the position before they destroy all consensus between the licensing bodies, a step which cannot for a moment be held to be in the true interests of medical education.

Although the special committee was appointed primarily to report upon the disputed issue, it is, we believe, its intention to include in its report a review of the regulations of the other licensing bodies, which will probably reveal differences of practice more or less material. But however that may be, we would appeal to the Fellows of the College of Physicians and to the Council of the College of Surgeons to look carefully into the present position with an open mind, setting on one side all considerations other than the general advancement of medical education as unworthy of their traditions.

[1] The figures for two quinquenniads have been summarised and analysed in the report of the Faculty of Medicine of the University of London, published in the BRITISH MEDICAL JOURNAL of December 21st, 1901, p. 1837.

TUBERCULOSIS AND TUBERCULINS.

PROBABLY no one has forgotten the excitement caused ten years ago by the announcement of Koch's discovery that a remedy could be prepared from cultivations of the tubercle bacillus under the use of which tuberculous lesions healed rapidly; nor, unfortunately, will the effect soon pass away of the reaction caused when the good effects were found to fall in most cases short of a cure, and especially where, as in lupus, even prolonged treatment seemed powerless to prevent relapses. It may be that Koch, or at least some of his fellow countrymen, were blameworthy for "booming" the discovery, to use an expressive Americanism, for all it was worth; but the disappointment was, at least in part, due to the way in which the remedy was applied, in spite of Koch's protests, to the most unsuitable cases; and, admitting its comparative failure, it was one of the most notable therapeutic experiments ever undertaken in the history of medicine. It is perhaps as well that there should be no general desire to resume trials of this and of similar remedies, for there can be little doubt that until their mode of production has got far beyond its present imperfect stage, the use of these preparations ought to be restricted to those who clearly understand the nature of the materials with which they are working. Koch himself has never abandoned his research, but in the midst of many other duties has only been able to attend at intervals to investigations which are very complicated and demand a great sacrifice of time.

It may be remembered that in 1897[1] Koch published a paper upon new tuberculin preparations which contained a record of his work in this direction up to that time. His object had been to obtain a substance which would confer immunity, and he pointed out that of the preparations hitherto employed for this purpose some seemed only to possess the power of antagonising the poison formed by the bacteria as in the case of the tetanus antitoxin, while others (for example, those used to prevent cholera and enteric) rapidly killed the organisms but did not protect against the poison produced by them. The ideal immunising agent would obviously be one which protects against both dangers. Experiments made by injecting tubercle bacilli under the skin into the abdominal cavity or into the circulation seemed in some cases to cause immunity, but invariably set up local inflammation and often tuberculosis. He was therefore led to try the glycerine extract which formed the preparation well known under the name of tuberculin, and which has proved of the greatest utility as a means of diagnosing the presence of tuberculosis in cattle. This substance seems to have no power of destroying tubercle bacilli, and for this reason failed to effect a complete cure. He then attempted to extract the tubercle bacilli with a 10 per cent. normal soda solution. This preparation, having an alkaline reaction, was called for short TA. It was a clear, slightly opalescent fluid containing a few tubercle bacilli, but these were always dead. Unfortunately, experiments with it showed that it invariably caused abscesses at the seat of injection, while if filtered through porcelain it appeared to act exactly like the old tuberculin. He therefore made a new start, and having dried and powdered a pure culture

[1] *Deut. med. Woch.*, No. 14, 1897.

of tubercle bacilli in an agate mortar with an agate pestle, he mixed the resulting fine dust with distilled water, and centrifugalised it by means of a very powerful centrifuge revolving 4,000 times a minute for from half to three quarters of an hour. The result was to divide the fluid into two layers: the upper, a clear but slightly opalescent fluid, contained no tubercle bacilli, was removed by decanting, and called TO. The thick slimy sediment was again dried, powdered in the mortar, mixed with distilled water, centrifugalised, and the clear fluid decanted off, this process being repeated again and again till the whole of the culture was taken up. This preparation is what is known as new tuberculin or tuberculin R., and it seems to consist of those constituents of the tubercle bacilli which are not soluble in glycerine. This TR. was proved to possess distinct immunising properties, and its curative effects were demonstrated on tuberculous animals. It has now been before the profession for some years, but does not seem to have been much employed, although there is good evidence that it possesses the properties claimed for it by its discoverer.[2]

In a recent article[3] Koch has told us the story of his subsequent proceedings. The observations of Arloing and Courmont upon the agglutination of tubercle bacilli as a means of early diagnosis in phthisis had attracted his attention and led him to make a series of investigations originally designed to perfect this method. As he found the test fluid prepared according to Arloing and Courmont's method to be very unstable and uncertain in its results, he set about inventing one which should be free from these objections, and ultimately succeeded in doing so by a procedure very similar to that employed for making tuberculin R.; that is to say, by rubbing up 0.1 gram of powdered culture of tubercle bacilli with a hundred parts of solution of carbolic acid and common salt (0.5 per cent. carbolic acid with 0.85 per cent. of sodium chloride), which was then centrifugalised for six minutes, the clear fluid decanted off and diluted up to 1 in 1,000 with the same solution. He found this fluid acted very well as an agglutination test fluid, but his experiments with it served to convince him that as a diagnostic means agglutination is very uncertain and far inferior to tuberculin injections. Experiments upon animals proved that by injecting gradually increasing small doses of this fluid he was able to raise greatly the agglutinative power of the serum of their blood. This increase in the agglutinative power seemed to correspond with a gradually-acquired immunity, as these animals were proved to be protected against artificial infection with tubercle bacilli. He therefore suggests that this means should be employed as a supplement to other methods for the treatment of phthisis, especially for those in advanced stages who might be deemed otherwise incurable. He recommends that the agglutinating power of the serum of the patient should be determined according to a scale which he gives, and the injections commenced with a dose equalling 0.0025 milligramme, and increased every second or third day until a marked reaction occurs with a rise of 1.5° to 2° C. in the body temperature. The agglutinating power should then be again determined, and after an interval of six or eight days larger doses injected, and in this way the dose gradually increased up to 20 mg., or in special cases 30 mg. He urges that the dose should never be diminished, but should either be repeated or increased, as otherwise the agglutinating power will very rapidly fall and the ground won be lost again. In using large doses he advises that they should be divided and injected into two different places so as to favour absorption, and when the agglutinating power does not seem to be increasing as could be wished, he injects the preparation into the veins, using for this purpose a specially-prepared fluid, from which by careful centrifugalisation all suspended matter has been completely removed; but the dose must be considerably smaller than that injected under the skin, the usual proportion being about one-tenth.

Koch has had the opportunity of trying this remedy on seventy-four cases of phthisis, and has found the result to be increase of appetite, gain of body weight, disappearance of night sweats, diminution of crepitations and sputa, with in some cases complete disappearance of the last; further, under its influence, temperature has fallen in spite of the temporary reactions produced by the injections, and after the treatment has been continued for some time the fever has disappeared, so that fever is no longer regarded as a contraindication, as it was with the old tuberculin. He thinks the injections ought to be continued for at least six months, but when large doses have been reached, and the reactions become slight, they may be given every two to four weeks, and in the intervals the patients can be permitted to go about. The treatment must be maintained until all tubercle bacilli have disappeared from the sputa. Koch declines to express any positive opinion as to the ultimate results of the treatment, in view of the short period that has elapsed since it was commenced. He complains, also, of the difficulty experienced in keeping these patients under observation and treatment for a sufficient length of time.

This account is well worthy of the attention of the profession as a record of the steps by which a man of genius is attempting to solve the problem of the cure of tuberculosis. Though the goal may be still a long way off, and these experiments may again prove a failure, it is work of a kind which deserves to receive the greatest possible acknowledgment from the medical profession as the only body able to appreciate its true value.

[2] two cases reported by Dr. Saundby in the British Medical Journal of December 28th, 1901, p. 1879.

[3] Deut. med. Woch., No. 48, 1901.

THE CONCENTRATION CAMPS.

As some misapprehension appears still to exist as to the administration of the refugee camps in South Africa, it might be well to repeat that the medical arrangements of these camps are in civil charge. We learn, through the courtesy of the P.M.O., South Africa, that in Natal the camps had to be opened by Surgeon-General Clery, as the civil authorities could not do so in the first instance, but they were afterwards handed over to the latter. In the Transvaal the charge has always been civil, and in the Orange River Colony the camps have also been under civil administration, but the latter asked for some military medical officers to assist in executive work, as the civil *personnel* was not sufficiently numerous. The last Blue Book showed very clearly that the Colonial Office at home

and the civil authorities in South Africa had been aroused to recognise their responsibilities in the matter, and it is a little difficult to understand why the Secretary of State for War a couple of months ago put himself forward as the apologist for the administration of the camps. The first Blue Book on these camps (Cd. 819) presented to both Houses of Parliament by command of His Majesty, November, 1901, appears to have been compiled in South Africa in response to a request which the Secretary of State for War made to Lord Kitchener on March 18th, 1901, in the following terms: "Please send by next mail a dispatch giving full report on refugee camps in Cape Colony as well as Orange River Colony and Transvaal." The first report in the volume is made by Dr. George Turner, Medical Officer of Health, Transvaal, to Major-General J. G. Maxwell, Military Governor, Pretoria, and was transmitted by him to the Commander-in-Chief, South Africa. An extract from Army Orders, South Africa, March 7th, 1901, sets out that "the Military Governor, Pretoria, and the Deputy Adminstrator, Orange River Colony, will be responsible for the formation and maintenance of burgher refugee camps. In the Transvaal such camps will be administered by civilian superintendents, under the general management of Major Goodwin, Railway Pioneer Regiment....General officers commanding and commandants are responsible only for the external protection of these camps, and will afford the superintendents as much assistance as possible." Lord Kitchener forwarded to the Under-Secretary of State for War reports on the camps in the Transvaal on March 22nd, 1901, on those in the Orange River Colony and Natal on March 29th, 1901, and on those in Cape Colony on May 10th, 1901. The volume contains a series of subsequent reports forwarded at various dates down to September 20th, 1901, by Lord Kitchener to the War Office. Many of the reports thus forwarded by the Commander-in-Chief in South Africa were from civilian officials, but the Colonial Office and the Administrator (Lord Milner) make their appearance in this connection only in the second Blue Book (Cd. 853), from which it appears that at the end of September, 1901, some correspondence took place as to sending out matrons and as to shifting certain refugees to make room for others, but attention appears first to have been given by Mr. Chamberlain and Lord Milner to the prevention of the high mortality then prevailing on November 8th, 1901. The facts as to the divided control of the camps and the circumstance that the medical arrangements were under the civil administration, must have been known to Mr. Brodrick before Parliament was prorogued, and it seems a most remarkable circumstance that he did not make the position clear.

THE BOERS AND ENTERIC FEVER.

THE great epidemic of enteric fever which occurred in the army at and about Bloemfontein early in 1900 was followed by a serious prevalence among the more scattered forces in South Africa at the end of that year and the beginning of 1901, and the official returns for the last two months appear to indicate that the disease is again making its presence felt. The number of deaths from disease in the Field Force, South Africa, which had been 142 in September and 136 in October, rose in November to 236 and in December to 351. The causes of death are not indicated in the returns, but, relying upon previous experience, it will be safe to assume that a very large proportion of the deaths—probably about 80 per cent.—have been caused by enteric fever. There has all along been good reason to believe that the Boer forces have not suffered to anything like the same extent from this scourge of South Africa, and a piece of evidence on this head is found in a very interesting article in the current number of *Blackwood*. The writer does not give his name, but he states that he is of British nationality, and before the war was a district surgeon under the late Transvaal Government. He was ordered to join the local commando as medical officer, and from early in October, 1899, until February, 1900, he was, with the exception of three weeks, with the Boer forces engaged in the unsuccessful siege of Mafeking. The force, he states, at first numbered 6,000 or 7,000, but later—about the middle of November—it was reduced to 2,000 by the departure of Cronje for Kimberley. After stating that the Boer wounded preferred to be treated in their waggons or tents in the laager rather than go to the hospital organised by a German lady, Mrs. Weiss, M.D., he continues as follows: "The health of the laager was wonderfully good. It would seem to an army medical man almost incredible, but it is nevertheless true that in my laager on the Lower Malopo we never had a definite case of enteric, and we were encamped on one spot without moving for two months, and then only moved twenty or thirty yards farther down, the reason of the move being to enable the waggons to be drawn closer together for purposes of defence. In the new spot the laager remained certainly for another three or four months. The oxen (several hundred of them) are fastened at night in the middle of the circle of waggons and tents, and the horses also, thus converting the whole space into a manure-heap, through which after a few nights no one would think of walking. In the warm weather the manure contained myriads of maggots, which in due time became myriads of flies. The flies have often been described, as they were just as bad in Natal; but to give some idea of their numbers, I may mention that once whilst sipping a glass of claret I counted fifteen flies on my lips—all these flies and all this filth and yet no enteric! Of course, the Boers now and then made efforts to clean up a little, but the centre of the laager was not often passable on foot; also our water supply was not of the best. We got all our water from the Malopo, a muddy little ditch 6 to 10 feet wide in most places, which had already passed through the upper (Zeerust) laager and also through Mafeking, naturally receiving a certain amount of sewage in its course through the town. There were 2 deaths (not in my laager) that I know of reported as 'fever' which might have been enteric but were, I believe, generally considered to be malarial; at any rate, granting that all deaths from sickness (about 8 or 10 at the outside) round Mafeking during the siege were from enteric, even then any will confess that they were wonderfully few." How this comparative immunity is to be accounted for is not clear. It has been suggested that the majority of Boers have suffered from enteric fever in childhood, an age at which the disease is, as a rule, milder than in adult life, and the official accounts of the habits of the Boer women in the refugee camps certainly lend some colour to the opinion. On the other hand, it would appear that the Boers are not much in the habit of drinking water, and that their usual beverage is coffee. The boiling of the water for making the coffee may be thought of as a reason why enteric fever has been comparatively rare among them.

LOCAL TREATMENT IN THE UPPER AIR PASSAGES.

THERE are certain regions of the body which for no obvious reason are frequent battle grounds for controversialists. It is mostly one of the natural orifices of the body that is the centre of disturbance, and the conflict, as a rule, rages the more fiercely the narrower the field in which it is fought. Within the past few months several illustrations of this general proposition have been given in the BRITISH MEDICAL JOURNAL. Whether these controversies tend on the whole to edification may perhaps be doubted; but until philosophy has softened the manners of men, they must be looked upon as regrettable incidents in the victorious march to the conquest of truth. The light of science may be "dry," but there is too often an undue proportion of heat rays in its composition. Hence scientific men

as a class are, like poets, a *genus irritabile*, apt to regard anything in the nature of criticism or contradiction as a crime calling for the vengeance of heaven on the offender. Their outbursts of wrath are, however, merely "nerve discharges," and must not be taken too seriously. Debate is the crucible which tests ideas offered as new truths. But when a controversy sinks from the criticism of facts and opinions to purely personal matters, it ceases to be instructive or interesting, and the time for applying the closure has arrived. In the controversy on the principles of local treatment in the upper air passages which has recently been going on in the BRITISH MEDICAL JOURNAL furious Frank and fiery Hun have shouted in their sulphurous canopy, and many "swashing blows" have been exchanged. But the battle has unquestionably made for righteousness. In the concluding letter published in this week's JOURNAL Sir Felix Semon sums up the results of the discussion, and we think he may fairly be congratulated on having rendered a real service not only to medicine but to the medical profession. There has been no serious attempt to dispute the principles enunciated in his lectures or to defend the abuses of local treatment to which he pointed. There is, indeed, ample evidence to show that his plain speaking has already done much good, and the public opinion of the profession which he has helped to form may be trusted to place an effective check on operative intemperance in the future. The Alexanders of rhinology who have been the principal offenders in this direction, and who, not content with their own chosen province, have invaded the throat and ear and shown a disposition to annex more distant territories, will, it may be hoped, learn to repress their lust of conquest within proper limits. They may also cease to see all things in the nose as the philosopher Malebranche saw everything in God. A man of one idea is always apt to be led away into excess, and if his idea takes the form of an irresistible impulse to make every nose which he sees "physiologically adequate," he may become a danger to those who come under his hands. Had Sir Felix Semon done nothing more than expose the abuses into which the concentration of the mind on one point may lead a perfectly honest practitioner he would have deserved the thanks of the profession. But he has done much more than this. He has uttered a powerful note of warning against the gravest danger which besets specialism: that of severance from the trunk of the great tree of medicine of which all specialities are branches. In this age of ever-increasing specialization it cannot be too frequently or too emphatically repeated that, if the branch is to retain its vitality unimpaired, it must keep itself in the most intimate organic union with the parent stem. Isolation from the great body of their profession tends to foster in specialists absurdities such as those which have been referred to; while, on the other hand, medicine loses many facts and observations which, gathered into the sum of knowledge and grouped in their proper relationship with the results of workers in other fields, would be of priceless value. Specialism divorced from general medicine is barren or produces monstrosities; united thereto, it is the fruitful parent of progress. We hope Sir Felix Semon's warning will be taken to heart, for as the facts set forth in his lectures show, we are in some danger of retrograding to the system of unlimited and independent specialization which darkened medical counsel in ancient Egypt.

TRYPANOSOMA IN MAN.

WE mentioned last week that a telegram had been received by the Liverpool School of Tropical Medicine from Dr. Everett Dutton, its representative at Bathurst, British Gambia, West Africa, making reference to the discovery in man of a trypanosome, a genus of parasite hitherto supposed to be confined to the lower animals. Species or varieties of this genus produces the fatal "fly disease" of domestic animals in South Africa, and the "surra" of horses in India, but the parasite occurs in rats without producing symptoms. Major Ross, F.R.S., informs us that a letter and preparation have since been received from Dr. Dutton as to the case of trypanosome in a European. The preparation, we are informed, reveals typical trypanosoma, few in number. The account of the case shows that the patient had been suffering from a form of relapsing fever, with peculiar œdema of eyelids and puffiness of the face, œdema of legs, general weakness, abnormal frequency of pulse and respiration, and enlarged spleen. There was no organic lesion of the heart and kidneys, and no malarial parasites were found after repeated examination. The relapsing fever recalls that of horses suffering from trypanosome infection. It is not yet certain whether the parasite approximates to T. Brucii or to T. Lewisi.

A SANITARY REFORMATION IN CUBA.

GENERAL LEONARD WOOD, the Military Governor of Cuba, in a recent interview with the representative of an American newspaper, made the following interesting statement as to the sanitary reformation that has been effected under his direction in Cuba, an island which has been pest-ridden for centuries: "One of the greatest achievements of the government of intervention is the very marked reduction in the mortality of the island, and especially in the city of Havana. First in importance in this connection is the almost absolute eradication of yellow fever, which formerly played so important a part in making Cuba's cities places to which capital and people feared to go. Investigations leading to the discovery of the part played by the mosquito in the transmission of yellow fever were made with Cuban funds, under the direction of the military government, on the lines indicated by it. As a result of these investigations Cuba has been practically free from yellow fever during the past year. The few cases which occurred were readily controlled, and the disease did not spread. A systematic vaccination of the entire people is being carried on from month to month, while a campaign against glanders, which has been very prevalent throughout the island, has been brought to a successful conclusion, the Government reimbursing the owners of afflicted animals to the extent of 50 per cent. of the estimated value. This plan elicited the hearty co-operation of the people with the Government, thereby making possible the results accomplished. The medical authorities are now devoting themselves to the control of tuberculosis, and are preparing a sanatorium near Havana for that purpose. All hospitals are fitted with wards for the treatment of tuberculous patients, and the campaign against this disease is being carried on in a thoroughly effective manner. The result of our work has demonstrated that the island is a healthy and safe residence for Anglo-Saxons. They are able to work in Cuba." A large part of the credit for this sanitary reformation is due to Major W. C. Gorgas, Surgeon, United States Army, who is the Chief Sanitary Officer of Havana. In a private letter to Major Ronald Ross, from which that gentleman has kindly given us permission to make extracts, Major Gorgas says: "The work here has been much more successful than I had hoped when we started. There seemed to me very little prospect for accomplishing much when we commenced in February of 1901; but, as you will see from our reports, our results have been most positive. For the first time since the English occupation, 1762, we have had an October free from yellow fever, and malaria decreased more than one-half. Mr. Le Prince, directly in charge of mosquito work, estimates that mosquitos have been decreased 90 per cent. by the work, as compared with this time last year. Of course this is a difficult statement to substantiate; it is a matter so much of individual opinion. But I have convinced myself that they have been very greatly decreased. My own quarters

on the bay front, where they have always been very bad, have had none practically for the last six months; and I know many other localities where similar positive statements can be made. But this is certain, that last October we had 74 deaths from yellow fever, this year no deaths and no cases; and from malaria fever, last year 25 deaths, this year 19. This, I am convinced, is entirely due to the mosquito work. The disappearance of yellow fever, however, I think is almost altogether due to the killing of infected mosquitos at the infected point. We do this by burning pyrethrum powder in the infected house and all the neighbouring houses. It has been extremely gratifying to see how promptly the focus of infection is stamped out in this way; and it has been likewise surprising to me. I knew that some mosquitos must escape from the most careful mosquito hunt: but we have apparently entirely controlled the disease this year by this method, when the conditions were exceedingly favourable for its spread. It must be that there are only a few infected mosquitos in each individual case, and that they remain pretty close to the point of infection. And this probably is rendered greater, if we consider that it takes a mosquito fifteen or twenty days after biting, before he himself is able to transmit the disease. If fifty mosquitos bite a yellow fever patient, it seems to me quite probable, from natural causes, that only four or five would survive the eighteen or nineteen days required to render them dangerous." Governor Wood, who be it always remembered was originally a medical officer of the United States army, and his energetic and enlightened chief sanitary officer, Major Gorgas, are to be congratulated on the great work they have done, not only for Cuba but for the whole commercial world, in the short time the island has been under American government.

THE PREVENTION OF FEVER IN ST. LUCIA.

DR. GEORGE LOW, Craggs Scholar, London School of Medicine, who has been working lately at the extermination of filarial disease in Barbadoes, W. I., by the suppression of *Culex* mosquitos, has lately proceeded, at the request of the authorities, to the island of St. Lucia, where a malignant fever, possibly yellow fever, has broken out. Early last year Dr. Low endeavoured to institute certain experiments in St. Lucia on the destruction of *Anopheles*, but owing to want of funds was unable to carry out the measures the necessity for which the recent outbreaks has so abundantly demonstrated. It is gratifying that, though late in the day, the authorities are at last moving.

SIR FRANCIS LOVELL'S MISSION TO INDIA AND THE TROPICS.

REFERENCE was made in the BRITISH MEDICAL JOURNAL some time ago to the mission which Sir Francis Lovell has undertaken with the object of arousing the interest of the medical profession and the public in the East to the work of the London School of Tropical Medicine. That his mission is likely to bear fruit may be inferred from the report of a meeting of the medical profession of Bombay held in the Sir Cowasjee Jehangir Hall of the Bombay University on November 28th. Lieutenant-Colonel Dimmock, I.M.S., Principal of the Grant Medical College, presided. There was a large attendance—upwards of 100—of members of the medical profession. The professors of the Grant Medical College and several lady medical practitioners were present. Sir Francis Lovell addressed the meeting, giving an account of the work already done by the School, and calling attention to the urgent need of help for its further development. A debate followed, and on the motion of Dr. Temulji B. Nariman, seconded by the Hon. Sir Bhalchandra Krishna, a resolution was adopted expressing approval of the good work done by the London School of Tropical Medicine, and recording its full sympathy with the object of Sir Francis Lovell's mission in connection therewith. The meeting further commended the object of the mission to the generous support of the Indian public, hoped that it might receive substantial aid from the Government of India, the provincial Governments, and, if possible, from municipalities, and recommended that public subscriptions should be invited in Bombay.

THE "LACHNANTHES CURE" OF CONSUMPTION.

IN the BRITISH MEDICAL JOURNAL of January 4th there appeared a letter from Mr. Edwin W. Alabone which was received too late to allow of any editorial comment being made on it in the same number. Mr. Alabone states that the communication entitled "The Treatment and Cure of Tuberculosis Pulmonis, and the Use of the Compound Comminutor in this Disease," published in the JOURNAL of December 28th, 1901, was written entirely without his sanction or knowledge. As Mr. Anslow Alabone expressly took the whole responsibility on himself, the paternal disclaimer of having "sanctioned" the production may be accepted. It is more difficult, however, to accept the statement that the communication was written without Mr. Alabone's knowledge unless we are to believe that he has not read the correspondence which for months past has been going on in the *Times*, and in which he himself has taken a prominent part. In the *Times* of November 13th there appeared a letter from Mr. Anslow Alabone in which he stated that he was sending an article on "this"—to wit, his father's—"method of treatment" to the BRITISH MEDICAL JOURNAL. Mr. Anslow Alabone allowed a sufficient interval of time to elapse before giving effect to the intention which he had announced to have enabled his father to take steps to prevent its execution, or to repudiate the communication beforehand. The question whether the son was or was not conversant with his father's treatment for many years the Messrs. Alabone may be allowed to settle between themselves. Here, again, however, it is not easy to reconcile Mr. Alabone's denial of his son's knowledge of his treatment with the admission which he makes in the very same sentence that Mr. Anslow Alabone has seen many cases of phthisis which were deemed hopeless recover under that treatment. Mr. Alabone's letter indeed reveals a curious situation. He denies that his son has been conversant with his treatment for many years; we are therefore driven to infer that, as Mr. Alabone senior does not read his son's letters to the press, Mr. Alabone, junior, does not read his father's books. In the preface, dated 1901, to what purports to be the thirty-sixth edition of "*The Cure of Consumption*, by Edwin W. Alabone, M.D.Phil., D.Sc., F.R.M.S., ex-M.R.C.S.Eng.," the author says: "I have endeavoured to express myself in as explicit a manner as possible, *the treatment is most fully explained*," etc. (the italics are ours). Further on we read: "The treatment is being adopted by a great many physicians both at home and abroad, and they unanimously report," etc. It is clear, therefore, that if these statements are accurate, Mr. Anslow Alabone is in the singular position of not being conversant with a method of treatment which is "most fully explained" in a book intended, as may be gathered from the preface, for the public, and which is practised "by a great many physicians at home and abroad." Is Mr. Anslow Alabone alone of all the world denied the privilege of reading his father's writings? Or does his father think so meanly of his son's intelligence that he considers him incapable of understanding a treatment which is "most fully explained" in language divested, for the benefit of the lay reader, as much as possible of technical terms? Mr. Alabone's letter in fact places him in a dilemma. Either he keeps his treatment secret or he does not. If he keeps it secret, what ground has he for his complaint that medical men will not try it? If he has made it public, how is it that his own son, who has had the privilege of seeing many cases "deemed

hopeless recover under" it, "knows little" about it? Mr. Alabone's position seems to us intelligible only on the assumption that he is endeavouring to create the impression that "beyond these voices" there is some secret spring of healing knowledge of which he is the tutelary deity. We have already expressed the opinion that the true inwardness of the Alabonian mystery is that there is nothing particular in it. But suggestion has in many cases a therapeutic virtue greater than that of lachnanthes; and we have no difficulty in believing that the "comminutor" described by Mr. Alabone *fils*, which Mr. Alabone *pere* says he uses "with great success," is an instrument of high suggestive potency. That foolish-compounded clay, man, does not need to be deceived, for he is always ready to deceive himself.

COUNTY MEDICAL OFFICERS IN SCOTLAND AND PRIVATE PRACTICE.

When, following upon the Local Government Act of 1889, an annual sum of £15 000 was placed at the disposal of the Secretary for Scotland for distribution amongst local authorities in aid of the salaries of medical officers and sanitary inspectors, the central authority, the Board of Supervision, laid down as one of the conditions of participation in the grant that county medical officers should be debarred from practice. In 1893, however, Sir George Trevelyan, then Secretary for Scotland, yielding to local pressure, cancelled this condition. Against this course the British Medical Journal at the time registered a vigorous protest. Happily most of the county appointments had already been made, and most of the county medical officers were, in terms of their appointment, debarred from private practice. Indeed, the greater progress which would seem to have been made in the sanitation of rural districts in Scotland, as compared with rural districts in England and burghal districts in Scotland, in the course of the last ten years, is in large measure to be attributed to the system of whole-time appointments in operation in rural districts in Scotland. A letter has just been addressed by the Secretary for Scotland to the Local Government Board for Scotland, in which Lord Balfour of Burleigh intimates that he "has always held the view, and after the experience of the last seven years is now fully convinced that in the best interests of sanitary administration county medical officers should not be allowed to engage in general private practice, so that they may be enabled to devote their whole energies to the special and important public duties which they undertake to perform." Such a pronouncement forms a most important contribution to the discussion of the question as to whether medical officers of health should be debarred from private practice. Lord Balfour suggests that in the event of county councils being unable to secure the services of an efficient medical officer, debarred from private practice, at a salary which they might be reasonably expected to pay, they should consider the expediency of combining with an adjoining county or counties. In accordance with Lord Balfour's directions, the Local Government Board for Scotland has intimated to county councils that (1) where after this date a county council appoints a medical officer with permission to engage in general practice, no share of the grant will be allowed; and (2) that in any future case of a county medical officer being permitted to engage in consulting practice, no share of the grant will be allowed unless the Secretary for Scotland is satisfied that the circumstances are exceptional and justify the relaxation of the general rule.

THE *RATIONALE* OF VACCINATION.

The *Monthly Review* for January contains an article by Dr. G. Archdall Reid on the *Rationale* of Vaccination. As might be expected, he revels in discussion of the nature of immunity from infectious disease, and in the end, indeed, leaves himself perhaps too little space to apply fully his own view to the special subject of his paper. Microbic diseases he would divide roughly into two classes. In one the microbes produce no toxins, or toxins so feeble that the phagocytes are able to disregard them and at once to digest the invading bacilli, there thus being a direct and often prolonged contest between invader and defender, as in tuberculosis and leprosy. Recovery in such cases does not confer immunity. In the other group the contest between the attacking microbes and the defending phagocytes is indirect, being carried on by the weapons of toxins wielded by the former and antitoxins by the latter. A phagocyte kills a microbe by taking it into its own substance and digesting it. Digestion implies a digestive substance, but in some diseases, as in diphtheria, the microbes begin to perish and disintegrate before the phagocytes reach them, and Dr. Reid presumes that they are destroyed by the same digestive substance secreted by the phagocytes, so that "when an animal is recovering from diseases in which toxins are abundant, or when repeated doses of toxin are injected into him, there must be present in his blood, and in his serum when drawn off, first, the digestive substance, and, secondly, toxins in all stages of digestion." In short, acquired immunity is, he argues, due to habituation to the toxins of a disease, there being present in the blood toxins in all stages of attenuation and "up that graduated scale the cells of the animal react till complete immunity is attained." He then passes on to consider the fact that the microbes of some diseases are capable of infecting more than one species of animal, and that under the differing conditions there is difference in the virulence of their toxins. Rabies, very deadly in dogs, is still more quickly fatal if passed through a series of rabbits, while the reverse is the result of passing it through a series of monkeys. A hundred years ago, in England, small-pox prevailed among human beings, cow-pox among cattle, and horse-pox among horses. Jenner thought that cow-pox was a very mild variety of small-pox, and repeated experiments have amply confirmed his view. Dr. Reid holds that vaccinia is small-pox so much attenuated that it does not spread through the atmosphere, while its microbes remain localised at the place of introduction into the human body. Their weakened toxins, however, enter the system and produce general immunity. But, just as mild attacks of a disease give less complete and lasting immunity than severe attacks, so vaccinia is less protective than virulent small-pox. Hence the need for the local disease being introduced in considerable quantity, and hence also the need for renewal of the protection. "Jenner was in advance of his time. His discovery was empirical. None the less, it is the most important, as it was the first, of that great series of discoveries which shall keep the names of his successors, Pasteur and Lister, green and famous when the names of lesser men, princes, statesmen, and warriors are forgotten." Dr. Reid also classifies zymotic diseases roughly as "waterborne," "earthborne," and "airborne." Still, speaking roughly, the microbes of the two former are comparatively large and heavy, while those of the airborne diseases are, he assumes, exceedingly minute. Sanitation has immensely reduced waterborne diseases, like enteric and cholera: it has diminished earthborne diseases, like tuberculosis; but it has failed against airborne diseases, like whooping-cough, chicken-pox, measles, influenza, and small-pox. As to isolation, that is not possible against airborne diseases where all are susceptible, but only where many are immune. In the absence of a protective like vaccination, isolation of small-pox would be useless, as having in itself no power of controlling the disease. Against measles and whooping-cough immunity is acquired by attack, and where the disease seizes the young the adult population is protected, so that there is no national disaster in England from measles and whooping-cough, as

has been the case in the past on the banks of the Amazon and in Astoria and in the Fiji Islands, or is at present the case as regards whooping-cough in New Guinea. So, in past centuries, small-pox devastated populations newly exposed to it. In Mexico, Prescott described the epidemic as "sweeping over the land like fire over the prairies, smiting down prince and peasant, and leaving its path strewn with the dead bodies of the natives, who (in the strong language of a contemporary) perished in heaps like cattle stricken with murrain." In 1841 Mr. Catlin wrote of the United States: "Thirty millions of white men are now scuffling for the goods and luxuries of life over the bones and ashes of twelve millions of red men, six millions of whom have fallen victims to small-pox." Such is a short outline of Dr. Reid's interesting and timely article, and for the rest we refer our readers to the pages of the *Monthly Review*.

THE UNIVERSITY OF ABERDEEN.

ON January 3rd at a meeting of the General Committee of the Aberdeen University Extension Scheme it was announced by the Treasurer that a sum of £29,942 had been subscribed by the public, including a subscription of £3,000 from a private donor. The sum of £2,500 was the amount required to be subscribed by December 31st to earn a similar sum from Lord Strathcona, who has now sent a cheque for the amount. The result which has been obtained is one on which the University is sincerely to be congratulated. The sense of gratitude towards Lord Strathcona and Mr. Mitchell is deep, but while thinking of their princely donations and of the magnificent gift of Mr. Cooper, the debt which the University owes to the energy of its own officials and the great help which the Lord Provost of Aberdeen has unfailingly given to the advancement of the scheme must not be forgotten. The co-operation of the town and the University is an important fact, and one which is not likely to be forgotten. It is hoped that the disposal of the large sum in the hands of the University will be regulated in a manner which will earn the respect not only of academic critics but also of business men.

ROYAL MEDICAL BENEVOLENT COLLEGE.

WE learn with pleasure that under the will of the late Mr. France, Consulting Ophthalmic Surgeon to Guy's Hospital, a sum of money has been placed at the disposal of the Council of Epsom College to provide pensions for aged and necessitous members of the medical profession. The election is vested in the Council of the College for the time being, following the regulations the donor formulated in the case of the ten Female Scholarships at the Royal Asylum of St. Anne's Schools which he purchased and presented to the College. Mr. France was a warm supporter of the institution from its initiation and for many years was a most regular attendant at the meetings of the Council. By leaving the election of the pensioners under this second benefaction in the hands of the Council the testator emphasised the confidence derived from his personal experience in the care with which the recipients of these great boons are selected by the governing body. The Council at their last sitting determined to found pensions of £30 a year to be called the "France Pensionerships." The first election to these pensions will take place at the meeting of the Council on April 2nd.

THE ALFRED HUGHES MEMORIAL.

A SUM of £1,800, including £1,000 given by Mrs. Hughes, has been collected for the Alfred Hughes Memorial, and is to be handed over in a few days to the Council of the Cardiff Medical School: (1) To provide an "Alfred Hughes Memorial Medal," to be awarded annually in the class of anatomy at the College; and (2) to endow the anatomical museum of the College. The medal, which will be designed by Mr. Goscombe John, A.R.A., is to be awarded for the first time in June next. The endowment of the anatomical museum, which will in future be known as the "Alfred Hughes Anatomical Museum," will enable the Council to keep up to date the collection which owes its origin to a gift of money from Professor Hughes on leaving Cardiff. The Chairman (Dr. W. T. Edwards), the Secretaries (Messrs. J. Lynn Thomas, F.R.C.S., C.B., D. W. Evans, and J. Austin Jenkins, B.A.), and the Committee are to be congratulated upon having established so suitable a memorial of the late Professor Hughes and of his connection with the Cardiff Medical School.

THE HALIFAX POOR-LAW INFIRMARY.

IN the BRITISH MEDICAL JOURNAL of December 14th, 1901, we drew attention to what a local contemporary had called a "state of unrest" among the officials of the Halifax Union hospital, which had culminated in the resignation of the matron, the assistant matron, and five charge nurses. We surmised that the difficulty might be due, in part at least, to want of experience and consideration on the part of the Infirmary Committee of the guardians. We have recently been favoured with a cutting from the *Halifax Guardian*, containing a report of a recent meeting of the Board of Guardians, and are now asked to express a further opinion with the new data before us, or, as our correspondent puts it, to show the other side of the question. The other side is presented to us in a very long statement made by the chairman. This we have carefully read, but cannot gather very much enlightenment from it. The chairman stated that the nurses had nothing to complain of, and appeared to consider that their resignation was merely an expression of sympathy with their matron. We have no means of judging the actual cause of the friction at this infirmary; but past experience of Poor-law hospitals leads to the belief that when such difficulties arise they are in large part due to imperfect acquaintance on the part of committees of guardians with the details of hospital management, on which they would do well to permit themselves to be advised by their expert assistants, medical and nursing. The chairman appears to admit that mistakes might have been made, and, while it must be a matter of regret that the hospital has lost the services of a highly capable matron, we can only hope that the committee may have learnt wisdom, and that it may be more fortunate in the future in dealing with its officials. The infirmary itself is a fine building, and does great credit to the public spirit of the town to which it belongs, and with good administration it will, we trust, in the future be of utmost service to the sick poor.

THE NUMBERS OF THE PROFESSION.

THE numerical summary of the numbers of the medical profession which is prefixed to the edition of Churchill's *Medical Directory* for 1902 contains some interesting information. It appears that the net increase in the number of names as compared with 1901 is 434. By comparing this total with that given in previous issues of the *Directory*, it is seen that this increase, though small, has affected the number of practitioners residing in the United Kingdom, those in naval and military employ, and those resident in the Colonies or foreign countries. The total increase in the United Kingdom during the last five years has been 1,350, among those resident abroad 182, and among those in naval and military employ 365: the increase in the last category has taken place chiefly during the last three years, as might have been anticipated. In the United Kingdom the increase as compared with last year has been greatest in Scotland, where it has amounted to 2.13 per cent.; next comes Wales with 1.54 per cent., next London with 1.30 per cent., then the rest of England with 0.84, while Ireland

shows an increase of 0.46 per cent. only. These percentage increases are in all cases less than those recorded last year. The average increase on all the names in the *Directory* is 1.19 per cent. in 1902 as compared with 1.98 per cent. in 1901.

TETANUS AND DIPHTHERIA ANTITOXIN.

REFERENCE was made in the BRITISH MEDICAL JOURNAL a few weeks ago to several cases of tetanus which had occurred in St. Louis as the result of the use of antitoxin for diphtheria. A Commission consisting of Drs. B. Meade Bolton, C. Fisch, and E. C. Walden was appointed to investigate the matter. The results of their report, which was recently issued, may be summarised as follows. The diphtheria antitoxin prepared by the Health Department of the City of St. Louis, and dated September 30th, and some of the serum dated August 24th, was the cause of the recent deaths from tetanus in the cases where this antitoxin was used. This antitoxin was sterile, but contained the toxin of the tetanus bacillus in considerable amount. From the facts before them the Commissioners were forced to conclude that the diphtheria antitoxin prepared by the City Health Department was issued before it was possible to have obtained results from the absolutely necessary tests. Had these tests been performed, the results upon animals would have been such that the serum would not have been dispensed, and the cases of tetanus could not have resulted.

THE *JOURNAL OF OBSTETRICS AND GYNÆCOLOGY OF THE BRITISH EMPIRE.*

THE first number of the new *Journal of Obstetrics and Gynæcology* is now before us, and we can heartily congratulate all concerned in its production both on its appearance and its contents. The aim of our new contemporary is to make it "a complete and impartial record of British work, an exponent of British obstetrical and gynæcological practice, and a summary of contemporary thought and achievement in obstetrics and gynæcology throughout the world." The contents include original communications by the President of the Obstetrical Society of London, Dr. Horrocks, Dr. C. J. Cullingworth, Dr. Berry Hart, Professor W. J. Sinclair, and Professor Murdoch Cameron. Dr. Arnold W. W. Lea contributes a "critical essay" on anæsthesia by subarachnoid injections of cocaine in the lumbar region: its use in gynæcology and obstetrics. In addition to a detailed review of current obstetrical and gynæcological literature, there are reports of societies and reviews of recent books. The illustrations are admirably executed, and the only improvement we could wish for is a somewhat less lurid cover. In the first number of a new journal one looks for signs of promise rather than fulfilment, but this one has sprung, like Minerva from the head of Jupiter, full armed and ripe in vigorous life. We wish it a long career of ever-growing usefulness.

THE NEW P.M.O. INDIA.

COLONEL SIR T. J. GALLWEY, K.C.M.G., C.B., Principal Medical Officer of the Home District, has been selected for appointment as Principal Medical Officer in India, with the rank of Surgeon-General, in succession to Surgeon-General W. Taylor, appointed Director-General of the Army Medical Service. Sir Thomas Gallwey has seen much service during the twenty-eight years since he joined as surgeon. He received the medal and clasp for the Afghan war in 1879, and subsequently was employed on many occasions in Egypt; he served in the Egyptian war of 1882, and was present at the battle of Tel-el-Kebir; next, he served with the Nile expedition 1884-85, when he took part in the operations of the desert column on its return to Korti, and was promoted Surgeon-Major; again, in 1896 he served with the Dongola expeditionary force under Sir Herbert Kitchener, and he was again mentioned in dispatches and created C.B. In the operations of 1897-98 he was the Principal Medical Officer of the Egyptian army, and was present at the battles of Atbara and the relief of Khartoum; he was again mentioned in dispatches and promoted to be Colonel. His recent admirable work as Principal Medical Officer in Natal during the operations under Sir Redvers Buller has been fully described in our pages, and is no doubt fresh in everyone's memory.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

A GENERAL meeting of the governors of the National Hospital for the Paralysed and Epileptic was held on Thursday, January 9th, in order to elect a president and ten ordinary members of the Board of Management. The Committee of Selection submitted to the governors the names of the following gentlemen:—Mr. Ernest De La Rue, Mr. Melvill Green, Mr. Frederick Orridge Macmillan, Sir Alexander Mackenzie, K.C.S.I.; Sir John Rahere Paget, Bart; Mr. John Danvers Power, M. Arnold Royle, C.B.; Mr. Edgar Speyer, Rev. Prebendary Henry Wace, D.D.; and Mr. James Wigan. The medical staff elected as their two representatives on the Board Sir Felix Semon and Dr. Ormerod. No better representatives could have been chosen than the two members of the staff who served on the Reconstruction Committee, and advocated the rights of their brethren with such power and success. The names of two other gentlemen were proposed in place of two of those nominated by the Committee of Selection, but on being put to the vote the Committee's list was carried by 30 votes to 16. A poll was, however, demanded and the result of this, it was stated, could not be announced before the 23rd inst. The names on the Committee's list are such as to command respect and the result of the poll will we trust be to confirm its selection. Mr. Arnold Royle is a member of the medical profession, while Sir John Rahere Paget is the eldest son of Sir James Paget, Prebendary Wace, was for many years Chairman of the Committee of King's College Hospital, and Mr. Melvill Green was the Chairman of the Reconstruction Committee which drew up the new code of rules for the National Hospital, and the other gentlemen have all had considerable experience in hospital administration.

THE fact—which we did not feel ourselves at liberty to mention last week—has now been officially announced that the donor of the large sum of money which has been placed at the disposal of the King, and which His Majesty has decided to use for the foundation of a sanatorium for consumptives, is Sir Ernest Cassel, K.C.M.G., a well-known financier.

THE accident to Professor Virchow, as to which our Berlin correspondent gives some particulars in another column, will cause universal regret. We are glad to learn from private advices that the eminent patient himself takes a cheerful view, and we trust that he may shortly be restored to his wonted health and activity.

THE annual general meeting of the Harveian Society of London will be held at the Stafford House, Tichborne Street, Edgware Road, W., on Thursday, January 16th, at 8 P.M. The President, Dr. D. B. Lees, will deliver an address and the officers for the year will be elected. The meeting will be followed by a *conversazione*, at which will be shown illustrations of colour photography, and a collection of British butterflies and moths by Mr. H. C. Phillips.

A course of four lectures on Immunity from Disease will be delivered at Gresham College, Basinghall Street, E.C., by Dr. E. Symes Thompson, Gresham Professor of Medicine, on January 21st, 22nd, 23rd, and 24th, at 6 P.M. on each day.

THE REPORT OF MR. BRODRICK'S COMMITTEE.

By ROBERT FARQUHARSON, M.D.,
M.P. for West Aberdeenshire.

II.

LET me next draw attention to one or two points in the report in which more information is needed. First regarding the specialist appointments. These are to be given on the strength of an examination in which 70 per cent. of marks have been obtained. But does this indicate more than the capacity to assimilate and reproduce the contents of some popular textbook, and is no evidence of further training to be required? And when the captain or major is labelled with the qualification to treat the eye or the skin, or to pull teeth or inspect drains, how is this exceptional skill to be maintained in full working order in the absence of opportunities for its practical use. And is this superior guild of practitioner to condescend to ordinary work in the intervals of special, or are they to be kept in reserve to be turned loose upon hospitals and stations in occasional need of their help?

I am next rather perplexed at the suggestion in Paragraph 3 that a military hospital and medical staff college should be constituted without delay. It seems to me that the early lessons of discipline and *esprit de corps* can be perfectly well learnt at Netley, where candidates will have the additional advantage of seeing chronic cases of wounds and tropical diseases which are sent there from abroad, and the idea of a military hospital must be founded on the delusion that there is any essential difference between the diseases of civil and military life. Under the short service system, the army doctor has to keep in health and to treat young, picked, sound men, free of course from degenerative changes and subject largely to enthetic disease, the most serious developments of which are held over until he retires into private life, and to various acute disorders affecting the chest and throat, acute rheumatism and occasionally the exanthemata, and these, with attendance on the women and children of the station, will partially meet the suggestive, though at this stage slightly obscure, exception made in Paragraph 4 of my friend, Professor Ogston's, very practical protest.

I must confess also to feeling much surprise that any experienced army surgeon should have authorised the suggestion to treat soldiers as out-patients. Any student of human nature in general and of Tommy Atkins in particular should, I think, have foreseen the complications and difficulties to which this must give rise.

Finally, and perhaps this ought to have come first. I do not quite understand the machinery by which a prospective candidate obtains his nomination, nor do I like the system as much as the old competition, at once the rule and the glory of our English life, which places practically every career and opportunity within the reach of all competent people. It seems to me like taking a step backwards to substitute for the open door free to all, and the earlier passage through which was creditable to the student and his school, a plan by which the young fellows who can attain the favourable notice of their deans are to be shoved ahead of those more retiring or less attractive people, who have been unable to press to the front in the crowd of a big university or hospital.

If Government apologists were asked their reasons for immersing prospective candidates in this hotch-potch of civil and military ingredients, I presume their answer would be that they hoped in this way to get into sympathetic touch with the medical schools, and persuade good men to join the service. I should indeed be rejoiced if I thought this were likely to come about. My impression is that the newly-fledged practitioner is pretty wide-awake and capable of taking care of himself, and that unless the terms offered seem to be fairly satisfactory he will not be persuaded to go against his better judgment even by the advice of his teachers; and I hope I am not too cynical when I hint that he may look with some suspicion on the persuasions of the Advisory Board, who after all must be regarded as the paid official defenders of a system which they themselves have helped to create.

Let me add that as these recommendations have to be worked into practical shape by this ubiquitous and all-embracing Board, is it safe for qualified medical men to take the shilling before they know definitely what their future conditions of service are to be?

It is an old story to tell once more why the Army Medical Department has fallen away from its old position of popularity, but perhaps it may not be entirely useless to sum up the reasons under some brief heads:

1. The want of consistency and stability in official dealings with the Department, the perpetual shuffling of warrants and regulations, cutting off privileges, taking away with one hand what was given with the other, until the unfortunate surgeon half-way through his career sees retrospective force given to new conditions which break those on the strength of which he joined, and casts his eye over a blank and monotonous future.

2. The various social drawbacks to which I have already referred, and which are considered highly important by some of my most experienced correspondents.

3. The treatment of the late Director-General. The Secretary of State may have thought it spirited and prudent to make a scapegoat of some one, and to choose the line of least resistance along which effective remonstrance was unlikely to travel. But I hope that he was undeceived by the dinner at which the leaders of the medical profession assembled to do honour to Dr. Jameson, and to protest against his scurvy supersession without the decoration invariably awarded to his predecessors; and he got and took the opportunity of giving a conclusive reply to the accusations of those who tried to make out that he and his department were responsible for the medical confusion during the latter part of the war.

4. The imperfect and grudging recognition of the services of the medical staff. All competent observers, including foreign *attachés*, admitted their skill and devotion, and the success that attended their efforts, until military exigency, which could have neither been foreseen nor avoided, brought about pressure and difficulty which were inherent to the necessities of the hour; and although grave and admitted mistakes were made by those in high military authority, official inquiry was restricted to the poor doctors, as though they were the only people to blame. And when the President of the College of Physicians and his colleagues in their calm judicial summing-up exposed the difficulties of the situation, and the devoted way in which they had been met by those in medical control, we all remember what happened. The report was called a whitewashing one; the insinuation was freely made that a set of highminded professional men were sent out for the express purpose of screening defects, and absolving officials from blame, and weakly yielding to popular clamour. The authorities of the War Office have never, in my hearing at least, said a single word of cordial appreciation of the services of the distinguished body of men who, at great personal inconvenience and some risk, went out to South Africa to do their work. Further comment on all this is unnecessary, but these things have made a deep impression on the minds of the medical profession, and will not be soon forgotten.

SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual meeting of the Scottish Poor-law Medical Officers' Association will be held at the St. Enoch Station Hotel, Glasgow, on Friday, January 17th, at 5 P.M., when the report of the Committee will be presented and office-bearers elected.

The report states that the Bill of the Association to amend the Local Government (Scotland) Act was again introduced into Parliament last year, and read a first time, but did not reach a second reading. During the absence of Mr. Cross, M.P., Mr. J. Cathcart Wason, M.P., took charge of the Bill, and presented to Parliament the petition, to which over 200 members of the Scottish Poor-law Medical Officers' Association had attached their names. Mr. Wason also drew up and presented to Lord Balfour of Burleigh, the Scottish Secretary, a petition signed by the majority of Scottish members of Parliament from both sides of the House, setting out that Scottish medical officers only asked that they should enjoy the same fixity of tenure as their

brethren in England and Ireland. Unfortunately, Lord Balfour's reply was to the effect that after due consideration he did not see his way to ask the Government to grant special facilities for the passing of the Bill through Parliament.

A deputation of the Committee of the Association accompanied by Mr. Cross, M.P., had an interview with the Scottish Local Government Board in regard to the question of lunacy fees and vaccination. The information the Committee were able to produce appeared to come as a surprise to the Local Government Board, which appeared to be quite unaware of the great variety of methods adopted by the parish councils as to the payment, and in some cases, non-payment of fees under the Lunacy and Vaccination Acts. The decision of the Local Government Board was to the effect that it had nothing to do with remuneration under the Lunacy Act and no power to regulate it; that under the Vaccination Act the minimum fees were fixed by statute, but that the parish councils had power to increase the fees. In view of this decision in regard to lunacy the Committee asked power to send a deputation to the Board of Lunacy in order to bring the matter under its notice.

The report states further that considerable correspondence has again been carried on with members in the Highlands and islands. A suggestion has been made that the position ought to be brought before the General Medical Council: and, in view of the fact that, at the recent election of a direct representative for Scotland, all the candidates expressed themselves as favourable to the endeavour to get a more secure tenure of office, the Committee asks powers to approach the General Medical Council, either by deputation or petition.

The Treasurer's report shows a satisfactory balance in hand. The subscription to the Association is 5s., and the Secretary is Dr. W. L. Muir, 1, Seton Terrace, Glasgow.

THE PREVENTION OF CONSUMPTION.

Factories and Workshops.

The National Association for the Prevention of Consumption and other forms of Tuberculosis has issued to various employers' associations a very important letter on the subject of the proper ventilation of factories and workplaces. In this letter it is pointed out that if sufficient fresh air is supplied to the workers there will be a great reduction in the [illegible] of all kinds of lung diseases, and especially of consumption; the general health of the workpeople will also be [illegible] and their power of work greatly enhanced, which means a saving to the employer. In support of these contentions reference is made to the improvement in the health of the army and navy which followed the more [illegible] of barrack rooms and ships, and to the [illegible] of improved ventilation in the weaving [illegible]. An appendix gives particulars of the report of the Home Office Committee in 1896-97 on the health conditions of humidified cotton-weaving sheds, which led to the Cotton Cloth Factories Act of 1897, and to the great improvement effected by this Act as shown in the reports of H.M. Inspector under the Act.

Canada.

A number of medical practitioners in Montreal are making [illegible] for tuberculous patients [illegible] an alarming increase in the [illegible] in the province of Quebec [illegible] to meet the [illegible] promised by a [illegible] will erect the building. [illegible] is building a sanatorium [illegible] is nearing [illegible] patients from [illegible]. The Association will also undertake [illegible] additional patients before the close of [illegible].

United States.

Maryland.—The Maryland State Board of Health is about [illegible] with the object of having the question brought before the State Legislature. It is hoped that the legislative body will authorise the Governor to appoint a Commission to study the means of dealing most effectively with the disease. It is said to be possible that the State may this winter begin the treatment of incipient cases of consumption in public sanatoria.

Texas.—An ordinance has been introduced in the city of Austin, Texas, making expectoration on the sidewalk, or, as we should say, pavement, an offence punishable by a fine.

Michigan.—A similar prohibition has been issued by the authorities of the Grand Rapids, Michigan, where the local Board of Health are taking vigorous measures for the prevention of tuberculosis.

Colorado.—A sanatorium has recently been established near Denver, where the open-air treatment is carried out fully, there being no house at all for any of the inmates. Each patient has a roomy tent, which cannot be too tightly closed, plenty of warm day and night clothing, and a small stove in which a fire can be lighted in extreme weather.

Spain and Portugal.

Dr. Francisco Moliner, a member of the Spanish Chamber of Deputies, has recently introduced a Bill providing for the establishment of State sanatoria for all the poor consumptives of Spain. For this purpose a sum of 5,000,000 pesetas is to be earmarked in the Budget every year. The Queen Regent has given orders that 20,000 pesetas be given in furtherance of Dr. Moliner's propaganda for the erection of sanatoria. In Portugal the aid of the Church has been invoked in the campaign against tuberculosis. *A Medicina Contemporanea* of Lisbon announces that on the initiative of the *Liga contra a tuberculose* a circular has been issued to the bishops of all the dioceses in Portugal, asking them to include instruction in hygiene, especially in regard to tuberculosis, in the course of education in ecclesiastical seminaries. All the prelates at once expressed their willingness to do this, and already several competent lecturers have been appointed.

The French Army.

Dr. Lachaud, as representing the Hygiene Commission in the French Chamber of Deputies, recently succeeded in getting a project of law for the prevention of tuberculosis in the army declared a matter of urgency. The scheme provides for the foundation of military sanatoria for the treatment of tuberculous soldiers. As a preliminary step a competition is to be invited by the Minister of War for a plan of a model sanatorium. A committee consisting of nine members, with the Minister of War as President, is to act as a jury for the selection of a plan. The Committee will be composed of civilians and military officers, the civilian element forming two-thirds, and the military one-third of the body. It may be added that the Minister of War has given orders that spittoons lined with zinc are to be placed in all barracks. Each room is to be provided with at least two, and similar receptacles are to be placed on each landing of staircases, and in all guardrooms, etc.

THE LONDON LICENTIATES AND MEMBERS SOCIETY.

A meeting of the Committee appointed by the above Society was held on December 30th, 1901, to consider the form of the petition to be presented to the Royal Colleges. After considerable discussion it was decided to offer the following as a provisional draft of such petition, leaving the final determination of the wording to a general meeting of the Society to be held at 4 P.M. on Wednesday, January 22nd, 1902, at 20, Hanover Square.

Petition.

Whereas it is becoming increasingly important to medical practitioners to have a right to call and style themselves "Dr.":

[illegible] and that in the practice of their profession, [illegible] and style themselves "Dr.," they do labour [illegible] in comparison with the graduates of the [illegible] and the provinces of England, and also [illegible] certain of the examining bodies: [illegible] that they have gone through a course [illegible] and thorough as that laid [illegible] and have passed examina- [illegible] ces to those through which [illegible] have passed: [illegible] that it is to the interest of the

whole medical profession that the Royal College of Physicians, London, and the Royal College of Surgeons, England, should continue to attract students to the metropolitan schools:

And, whereas your Petitioners think that the Royal Colleges can only continue so to attract students to the London schools by removing the above-mentioned disabilities,

Your Petitioners would therefore pray:

(1) That the Royal Colleges would approach the governing body of the new University of London or some other British university with a view to obtain for the Licentiates and Members the privilege to offer themselves as candidates for the Final Examination for a degree in medicine, or

(2) On the other hand, that the Royal Colleges would take some other and independent step to remove the disabilities under which their Petitioners labour.

And your Petitioners would ever pray, etc.

SMALL-POX IN LONDON.

THE increase of small-pox in London is well manifested by the number of cases admitted into the hospitals of the Metropolitan Asylums Board during recent weeks. These were during the last four weeks as follows:

Week Ending—	Admitted.	Under Treatment.
December 14th, 1901	134	506
,, 21st	161	538
,, 28th	255	665
January 4th, 1902	261	754

The total number under treatment at midnight on January 7th-8th was 833. These cases are coming from a wide area in London, but at the present moment especially from Stepney, which includes the former district of Whitechapel.

The age distribution of the deaths from small-pox is interesting. Of 54 deaths of vaccinated persons at all ages in the four weeks ending January 4th, only two were under 20 years of age. One of these that under 1 year of age—the Registrar-General tells us was not vaccinated until after infection by small-pox, the other was between 5 and 20 years of age. Of 30 unvaccinated persons who died, 25 were under 20 years of age, and of these 3 were under 1 year and 9 were from 1 to 5 years of age. A diagram in the Annual Report of the Medical Officer of Health of the Administrative County of London for the year 1900 shows that the mean curve of deaths in London in sixty years reached its maximum in May, and that in January and February the curve was not greatly below that of May. If the behaviour of small-pox in 1902 does not differ widely from the mean of those sixty years we may learn in the next two months the extent to which small-pox will prevail in the present year. It will be interesting to observe to what extent the behaviour of small-pox when conveyed from person to person differs from that of small-pox when due in large degree to the presence of small-pox hospitals.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

FOR the week ending December 14th, 1901, 7,797 deaths from plague occurred throughout India. This number shows a decrease of 1,081 compared with the previous week; during the corresponding week of 1900, 2,107 only were reported. The principal figures are: Bombay Districts 4,735, against 5,989 in the previous week; the Punjab 1,085, against 1,687.

In Bengal plague has shown lately a tendency to increase, the number of deaths during a period of three weeks ending December 14th stand at 164, 205, and 291 respectively. In Bombay city the number of plague deaths has remained between 140 and 200 for several weeks, the actual number during the week ending December 14th being 144. In Calcutta the number of deaths from plague during the weeks ending December 7th and 14th respectively were 30 and 24; in the Madras Presidency 125 and 223; in the N.W. Provinces and Oudh 68 and 228. In the last-mentioned district, plague has been most severe in the Ballia and Allahabad districts, and in the cities of Allahabad and Janupur.

In Poona, General Burnett, at a meeting of plague volunteers on December 17th, congratulated them on the decrease of plague in the cantonments. Over 6,000 persons have been inoculated during 1901 in Poona, of which number 5 persons only contracted plague.

CAPE OF GOOD HOPE.

In Cape Colony for the week ending December 28th plague was reported only from Mossel Bay, where 1 European developed the disease and 1 coloured person died of the disease.

MAURITIUS.

During the week ending January 2nd, 34 fresh cases of plague were reported in Mauritus, and 23 persons died of the disease.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 15th day of January, at 2 o'clock in the afternoon.

The following Committees will also meet:—

Tuesday, January 14th.—2.0 P.M. Premises and Library Committee (Committee Room No. 1)—3.0 P.M. Public Health and Vaccination Subcommittee (Committee Room No. 2).—3.30 P.M. General Practitioners and Ethical Committee (Committee Room No. 1).—4.0 P.M. Parliamentary Bills Committee (Council Room and Library).—5.0 P.M. Preliminary Education Committee (Small Library). *Wednesday, January 15th*—10.0 A.M. Journal and Finance Committee.

Jan. 7th, 1902. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on January 15th, April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual meeting of this Branch will be held on Thursday, January 30th, at 4.30 P.M., in the Royal College of Physicians of Ireland, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and other business transacted. The President-elect, Mr. C. B. Ball, F.R.C.S.I., will deliver the annual address. In the evening the annual dinner will be held in the College at 7.30 P.M. Members wishing to bring forward resolutions at the meeting or to be present at the dinner should communicate with the Honorary Secretary, JAMES CRAIG, M.D., F.R.C.P.I., 35, York Street, Dublin.

NORTH OF IRELAND BRANCH.—The winter meeting of this Branch will be held on Thursday, January 23rd, at 12 noon, in Belfast. Any member desiring to read papers, propose new members, or bring any other business before the meeting should communicate, on or before Wednesday, January 15th, with the Honorary Secretary, WILLIAM CALWELL, M.D., 1, College Square North, Belfast.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—A meeting of this District will be held at the Station Hotel, Sandown, on Friday, January 24th, at 3.45 P.M. Members intending to read papers, or show cases, etc., and gentlemen desirous of joining the Branch, are requested to communicate as early as possible with the Honorary Secretary, G. BENINGTON WOOD, M.B., Newlands, Sandown.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Athenæum, George Street, Plymouth, on Tuesday, January 14th. The chair will be taken at 3 P.M. by the President, Mr. G. Thom. Luncheon will be provided at Risdon's Restaurant, 38, George Street, from 1.30 to 2.30 P.M., and tea will be served at the same place after the meeting.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held in the Board Room, Whitehaven Infirmary, on Friday, January 17th, at 2.15 P.M. The Council will meet at 3 P.M. Order of business: Minutes of last meeting. Election of new members of Branch. Dr. Arnott (Brampton) will read a paper on Suprapubic Cystotomy for Vesical Calculus in a man aged 46, with specimen. Dr. Powers (Gosforth) will read notes on a few Rectal Cases. Dr. Crerar (Maryport) will read notes [illegible] on Inhalation. Dinner will be served at the Grand [illegible] at 5.30 P.M.: price of dinner, 5s. (exclusive of wine). [illegible] to dine are requested to notify Dr. Mathews, 6, Scotch Street, Whitehaven, by January 15th at latest.—W. F. FARQUHARSON, M.D., Garlands, Carlisle, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.

A MEETING of this Branch was held at the Cancer Hospital (by kind permission of the staff) on December 17th, 1901.

Confirmation of Minutes.—The minutes of the election meeting were read and confirmed.

Paper.—Dr. PURCELL read a paper on Why we Operate for Cancer. He laid great stress on early operations, pointing out that the lymph vessels were not so liable to be affected. He also advocated removing as much of the tissue as possible in order to prevent contagion through the lacteal system.—Mr. JESSETT, in opening the discussion, complimented Dr. Purcell on the practical aspect of the paper, and further explained some points in support of early operation. He said Dr. Purcell could lay claim to be the pioneer operator in this country of vaginal hysterectomy.—Mr. BRINDLEY JAMES said he was sorry Dr. Purcell had not alluded to various treatments by light, as the lay public so dreaded the knife that anything in the form of treatment without the knife was especially interesting to general practitioners.—Dr. DUTTON, who confined his remarks to cancer of the stomach, gave it as his opinion that physicians and general practitioners did not call in the aid of the surgeon early enough. Whenever medical treatment and dieting entirely failed, and the patient still suffered from a dull, aching pain after meals, with gradual loss of weight, an exploratory operation should be advised.

Cases.—Mr. LEAF showed two cases of rodent ulcer successfully treated by formalin.

Specimens.—A number of specimens were shown. Dr. PURCELL and Mr. JESSETT demonstrated the important points in each.

Votes of Thanks.—Hearty votes of thanks were unanimously passed to the staff, hospital committee, house-surgeons, and the Vice President.

Tea.—The members were invited to afternoon tea.

SPECIAL CORRESPONDENCE.

BERLIN.

Accident to Professor Virchow.—Male and Female Nurses in Male Wards.—The Disposition to Consumption: The Factors which Produce Immunity.

PROFESSOR VIRCHOW has met with an accident which, though not by any means dangerous, yet will probably keep him in bed for some time. On January 4th, while descending from an electric car, he slipped and fell, sustaining an uncomplicated fracture of the neck of the left femur. For a few moments he was unconscious, but quickly recovered; he was taken home in a cab, and carried upstairs to the door of his flat. Professor Koerte was called by telephone, and took charge of the case. It is stated, on good authority, that Professor Virchow himself, though suffering considerable pain, is perfectly [illegible] and hopes to make an uninterrupted and speedy recovery.

[illegible] Christmas a meeting of distinguished [illegible] and hospital surgeons and physicians took place in Berlin for the purpose of discussing questions connected with sick nursing, and especially whether female nurses should be employed in male wards. Amongst those present were the directors of the Berlin Charité Hospital, Bergmann and Moller, Ewald and Krause of the Augusta Hospital, A. Fraenkel and Koerte from the Urban Hospital, Kraske and Schmidtmann from the Moabit Hospital, Fürbringer and Hahn from the Friedrichshain Hospital, Schweninger from the Elisabeth Hospital, Israel from the Jewish Hospital, Lennhartz from the Eppendorp Hospital in Hamburg, Trendelenburg and Curschmann from the Leipzig Hospital, Professors v. Bergmann, v. Leyden, Senator, Gerhardt, Koenig, Brieger, and many others. Opinion was unanimously in favour of female nurses (*Schwestern*). Several speakers maintained that the male patients had been much better nursed and cared for since the introduction of female nursing. The sick required more than mere bodily care, and there could be no doubt that the general tone in the male wards had greatly improved through the influence of the sisters. Nevertheless, male nursing could not be entirely dispensed with, especially in the surgical wards, for the sisters should not be required to lend aid repugnant to their moral sense. There was a clause to this effect in the contracts which the great German hospitals had entered into with the chief nursing orders, and the meeting was of opinion that such a clause should be a recognised principle for the future, and should be conscientiously adhered to.

The turn of the year has been marked by two medical "events" of exceptional interest—namely, a paper by Professor Ehrlich (Frankfort) on the factors which produce immunity, read before the Society for Internal Medicine, and Dr. W. A. Freund's address on thorax anomalies in phthisis and emphysema, delivered at a meeting of the Berlin Medical Society. Both subjects evoked animated discussions—in fact, the debate on Dr. Freund's address was continued through a second meeting, and has not even now come to a close. Dr. Freund's researches are valuable chiefly as throwing a light on phthisis caused from imperfect ventilation of the lung apices, and as giving a scientific basis to what is known as "the consumptive habit" or "disposition"—a branch of the subject which has been neglected by bacteriologists. Ehrlich's paper, which bore the title of The Lateral-chain Theory and Its Opponents, was a long and most able defence of his chemical theories as applied to cells, against Gruber's attacks. The subject is a very complicated one, and can hardly be dealt with in a few words. Its essence is Ehrlich's application of the "lateral-chain" theory, familiar in organic chemistry, to the chemical dynamics of the body cell.

EDINBURGH.

The Royal Infirmary.—The Recent Election of a Direct Representative to the General Medical Council.—The Number of Medical Students at the University.—The Health of Edinburgh.

Queen Victoria's Jubilee Institute (Scottish Branch).

AT a meeting of the managers of the Royal Infirmary on December 30th, 1901, the Rev. Robert Henderson, M.A., late minister of the United Free Church at Inellan, was unanimously elected chaplain to the institution. There were 46 candidates for the appointment. The new chaplain comes with high credentials from competent persons. At the annual meeting of the Court of Contributors on January 6th, the following were elected as the representatives on the Board of Management for the ensuing year: Dr. Claud Muirhead, Sir Andrew Macdonald, Mr. Patrick Blair, W.S., Colonel A. B. McHardy, C.B., Miss A. C. Imlach, and Miss Louisa Stevenson. The annual report stated that the total number of patients treated during the year ending October 1st, 1901, was 9,552—3,492 medical and 5,444 surgical. The percentage of deaths to cases treated was 7.6 against 8.0 last year. If deaths occurring within forty-eight hours of admission were deducted, the percentage would be reduced to 5.9, or 0.2 more than the preceding year's rate. There had been 33,238 outpatients. The income was £33,552 14s. 8d. The ordinary expenditure was £50,044. The entire ordinary expenditure during the year per average occupied bed was £71 1s. 9d. The Convalescent House income had failed to meet the expenditure during the past year by the sum of £1,732 5s. 3d.

It may be observed that in the recent election of a direct representative for Scotland 1,682 members of the medical profession out of a constituency of 4,157 did not record their vote. Of these, the voting papers of 250 were returned through the post-office as not found, marked "dead," or were received after the date fixed for the close of the poll. Of those returned as not found, it would appear that a certain number are on service in South Africa. It is difficult to explain why 1,432 did not take the trouble to vote. It does not say much for the interest which these elections arouse.

It was actually asked during the progress of the election, and by a member of the profession, "What is the General Medical Council? Who are its members? Where does it meet? What does it do? What interest is it to me?" Twenty-eight votes were rejected through informality. Some had put crosses instead of initials opposite the name they wished to vote for, some had signed their names at the top instead of in the space at the foot, and some had not signed at all. The voting paper itself, by the way, is by no means immaculate. That, we understand, is the fault of the Privy Council. "I vote for the person in the above list against whose name my initials are placed. Signed ——." One naturally presumes one is to write one's ordinary signature. But further down the "Directions to the Voter" set forth that "The voter must write his initials against the name of the person for whom he votes, and must subscribe in full his name." Which, then, is he to do to render his vote valid? Sign or subscribe in full his name?

The following is the number of medical students in Edinburgh University in the various years of study, during the past six sessions at November 30th, in each session:

Session.	1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	Total.
1896-1897	218	223	202	239	279	1,161
1897-1898	205	208	228	193	333	1,167
1898-1899	187	211	212	211	329	1,150
1899-1900	221	176	213	207	319	1,136
1900-1901	237	192	187	203	275	1,094
1901-1902	220	209	191	223	296	1,139

Comparing the last two years, it thus appears that the increase or decrease in each year stands thus:

	1st Year.	2nd Year.	3rd Year.	4th Year	5th Year.	Total.
Increase or Decrease	−17	+17	+4	+20	+21	+45

Though there is an increase of 45 during the current session as against last session, the average total during these six sessions is 1141.16, so that the total for the present session is only 2.16 below the average. It would have been interesting in this connection to have known the number of students who have applied for payment of fees, or have had their fees paid, by the Carnegie Trust; but the official figures are not yet available. The figures that have appeared in some newspapers are more or less vague guesses. In the Faculty of Science the numbers during the last five sessions are:

Session.	1st Year.	2nd Year.	3rd Year.	Total.
1897-1898	48	39	33	120
1898-1899	58	28	33	119
1899-1900	61	32	33	126
1900-1901	61	31	44	136
1901-1902	60	31	43	134

The total deaths registered during 1901 in Edinburgh numbered 5,587, giving a death-rate of 17.57 per 1,000 of the estimated population. Diseases of the chest accounted for 1,517 deaths; 545 were due to phthisis pulmonalis and 243 to other forms of tuberculous disease. Zymotic diseases caused 601 deaths, whooping-cough headed the list with 281 deaths, while measles was second with 172 deaths, diphtheria third with 56, erysipelas 38, enteric fever 31, scarlet fever 27, typhus fever 2. Erysipelas, by the way, is now to be notified and a fee paid by the municipal authorities, while measles is not now to be paid for. During the year 7,053 cases of infectious disease were notified. Measles was first with 5,384 cases (for which the city had to pay £673 in notification fees), scarlet fever 892, diphtheria 542, enteric fever 216, typhus 13, small-pox 6. The year 1900 showed the largest number of cases of diphtheria during the past twenty-one years; there were 483. The year 1901 with 542 cases again exceeds the record by 59 cases. The deaths during 1900 were 52, and during 1901 they were 56. The percentage of deaths to cases during 1900 was 10.0, and during 1901 it was 10.3. Though the number of cases increases the death-rate continues to keep low. Of the 542 cases during 1901 no fewer than 398 were treated in the city hospital.

The thirteenth annual report of Queen Victoria's Jubilee Institute for Nurses, Scottish Branch, has been issued. Reference is first made to the death of Queen Victoria, who founded the institute with £70,000 of the Women's 1887 Jubilee Offering. Queen Alexandra has succeeded Queen Victoria as patron of the institute. Her Majesty inaugurated her connection with the institute by a reception of Queen's nurses at Marlborough House on July 3rd, 1901, when 777 nurses were present from all parts of the United Kingdom, of whom 169 went from Scotland. On October 31st, 1901, the Scottish Council was responsible for 51 nurses and probationers, most of whom were under training. During the year 27 nurses had, on the completion of their training, been engaged from the Home by local committees. Seventeen candidates entered the Training Home for the required month of probation before receiving hospital training; of these, 2 failed. Thirty-one probationers, who had received hospital training, entered the Home for six months district training; of these, 2 proved unsuitable. Of the 31, 11 had received two years general hospital training by arrangement of the institute. Twenty-eight nurses completed their full training as Queen's nurses in Edinburgh. There are now 224 Queen's nurses in Scotland working under 144 affiliated branches, of which 22 are under two county associations. During the year, in Edinburgh and Leith there were 4,656 cases on the books, and 92,788 visits were paid by the nurses. The year's income was £2,645 19s. 4d. and the expenditure £3,106 8s. 6d., giving an excess of expenditure over revenue of £460 9s. 2d. Funds are urgently needed to avoid trenching on capital.

GLASGOW.

Christmas and New Year Meetings at the Infirmaries: Western Infirmary Annual Report.—The Medical Staff and the Management of the Western Infirmary.

In connection with the usual Christmas and New Year festivities, the various hospitals are not forgotten, and public meetings have been held at which the work and the requirements of these institutions were explained. At the Royal Infirmary the Lord Provost was present, and gave an interesting address on the importance of the work of the nurses and the doctors in relation to the public health of the city. At the Victoria Infirmary a new wing was opened by Mr. Cameron Corbet, M.P. At the Western Infirmary the Chairman of the Managers spoke of the rapid progress of the infirmary, and the important work they had in view. All these infirmaries and others for special diseases are maintained by voluntary contributions, but every year the contributions fall short, and the managers had to draw on the capital account to a disappointing extent. From the annual report of the Western Infirmary just issued it appeared that although the subscriptions for the year increased, there had been also an increased expenditure, and the deficit which had to be made up from capital account was about £9,000. With a large new dispensary building in view, and with the necessity for new wards in the near future, it was clear that the annual expenditure must go on increasing, and increased liberality on the part of the public would be necessary. Owing to the rapid growth of the city the Western Infirmary was no longer on the outskirts, but was surrounded by a large industrial population, so that the number of accidents treated showed a marked increase during recent years, and the outdoor patients under treatment during the past year numbered 18,252, an increase of more than 1,000 in one year. The number of in-

door patients for the past year was 5,329, an increase of nearly 500 on the previous year, but in spite of this increased turnover there was a constant large number of patients waiting for admission to the wards. The electric light installation for the treatment of lupus, recently given to the infirmary by the Exhibitors Club, was producing good results.

At the present time, when the relations of the medical staffs of infirmaries to the Boards of Management are attracting attention, it is interesting to learn that the managers of the Western Infirmary have taken an important step in the right direction. The subject has been under the consideration of the managers for some considerable time, and at a recent meeting of the Board, when the annual rearrangement of the various committees was being made, the following resolution was passed:

That the senior members consisting of the visiting physicians and visiting surgeons, the [illegible] diseases of women, and the pathologist be appointed an Advisory Committee for the current year in order that the Board of Managers may obtain their opinion on matters that may arise from time to time, and may be referred to them by the Board for consideration and report.

The members of the staff are ineligible for election on the Board of Management, but the above arrangement will permit of their opinion receiving some official recognition.

CORRESPONDENCE.

THOROUGH OPERATIONS IN CANCER OF THE BREAST.

SIR,—With pleasure and profit I always read what Sir William Banks writes; and so, no doubt, do many others who do not consider it even a duty to wade through much that you have to publish of dull details, of unedifying personalities, or of bare *réclame*. I often wonder where Sir William got his fresh and breezy style. He could not have brought it all from Scotland. Not improbably he has acquired a good deal of it whilst exercising himself on those Wallasey links on the wind-swept tongue of land between the estuaries of the Mersey and the Dee. His article in the BRITISH MEDICAL JOURNAL of January 4th is in his usual happy style. In it he alludes to a great night which we had with him in 1887 at the Harveian Society, when I had the honour of occupying the Presidential chair. The subject for discussion was the more thorough operative treatment of cancer of the breast; and, knowing that Banks held advanced and peculiar views thereon, I asked the Secretaries to invite him to come and provoke a full and free discussion. Needless to say, he introduced the subject in a most delightful manner, but his views received only poor and scanty support. They were too advanced and aggressive. But though they were "peculiar" then, every practical surgeon holds them now. Thus it has been in surgery as it has been said to be in economics and politics, "What Lancashire thinks to-day England will think to-morrow!"

Mr. William Banks needs no champion; but having the reconnection of that pleasant night at the Harveian Society [illegible] I expected to come now and stand in front of him with an inky pen. Those who heard that address and those who read it subsequently should have no need to steam across the Atlantic Ocean, or even the North Sea, in search of the man who has been the chief pioneer in the [illegible] of cancer of the breast. But it is becoming the custom not to quote any surgeon living in the British Isles if some foreigner can be named in [illegible]

[illegible] of the thorough treatment of mammary cancer I would like to make two or three practical [illegible] surgeon as nothing [illegible] [illegible] [illegible]

dorsal pain and curvature began. She died in the forty-sixth month. This woman probably gained nearly three years of useful and comfortable life as the result of the oöphorectomy, and she had a good two years of hopeful life.

Dr. Herman's first case lost all sign of growth in six months; she continued well in August, 1901—fifty-three months after the oöphorectomy.

My own first case, operated on in December, 1896, appears to be quite well now, five years after oöphorectomy. Her health and strength are excellent.

Mr. Waterhouse recently told me that his first case remains free from obvious disease, twenty-eight months after oöphorectomy.

The above are included in Part I of my table, published in the BRITISH MEDICAL JOURNAL of October 20th, 1900. A few others are living comfortably, some disease being suspected or obvious, but apparently controlled or slowed by some effect of the oöphorectomy, the most promising being one of Mr. Cheyne's cases, thirty months after oöphorectomy—performed, by the way, after the unfavourable expression of opinion which Mr. Butlin quotes. With regard to Mr. Eve's case and remarks I cannot find them in the *Clinical Society's Transactions* (1900, p. 210). He certainly has operated since.

Within the last few days Mr. McAdam Eccles told me that the patient he mentioned at Colchester (not included in my table) remains free from disease, fifteen months after oöphorectomy.

Mr. Butlin may think that the chance of obtaining even such results as these is too uncertain to justify him in recommending the treatment; but I am sure that intelligent women to whom the case is put fairly and squarely, will often decide to take the chance, such as it is.

As Mr. Butlin infers from my last paper, I am not prepared to substitute oöphorectomy for amputation of the breast, etc., in the treatment of ordinary scirrhus. Whatever the percentage may ultimately prove to be, a large number of cases of cancer of the breast have not been favourably influenced by oöphorectomy, and we are as yet unable to select with any certainty, *cæteris paribus*, the cases which will be benefited. It may be that early cases will be affected in larger number than late cases, but I have seen nothing to lead me to suppose that this will be the case. The addition of double oöphorectomy to the ordinary operation stands on a different footing. I have, however, practised it only in bad cases.

The fact is that our knowledge of this subject is almost *nil*. From the few cases which I collected in 1900 I made some practical deductions and put them forward with caution. The clearest was that when the menopause was long past, there was little ground for anticipating success. Yet, as I write, a pamphlet by Dr. Abbe, of New York, tells me of a marked success which he has obtained in a woman aged 70! It is perhaps conceivable even that something other than the oöphorectomy causes any improvement which may occur! It is too early to do more than to experiment (the patient understanding and consenting), observe, and draw tentative conclusions. It is, I think, too late simply to tell the sad history of the treatment of the failures.

I shall be grateful to any surgeon who will send me a sufficient account of cases he has treated by oöphorectomy to enable me to fill up a table similar to that published in the BRITISH MEDICAL JOURNAL of October 20th, 1900. I need hardly say that all cases, whatever the result, are desired.—I am, etc.,

Harley Street, W. Jan. 7th. STANLEY BOYD.

SIR,—In his interesting lecture on Oöphorectomy for the Treatment of Cancer of the Breast—in the BRITISH MEDICAL JOURNAL of January 4th—Mr. Butlin refers to the fact that I had specially called attention to the great frequency of the occurrence of cancer after the removal of both ovaries, and had urged this as an objection to Dr. Beatson's procedure. The cogency of this objection I still maintain: and I have no doubt it will soon be generally admitted, that this is the only scientific fact worth remembering, elicited by the controversy on this experiment.

Mr. Butlin then goes on to say:

> But Mr. Roger Williams had not studied Dr. Beatson's paper carefully enough; because Dr. Beatson had already dealt with that point in his paper.

Now, with regard to the first of these statements, will you allow me to emphatically deny the soft impeachment? Long before Dr. Beatson's pronouncement was made, I was well aware that an operation of this kind was already shadowed in the womb of time; and might soon be manifested. Thus, in my work on *Diseases of the Breast*, published in 1804, I said, referring to the influence of castration on the mammæ:

> The truth seems to be that when the essential sexual organs are removed early in life, before the secondary sexual characters have become thoroughly well established, the latter subsequently abort: whereas, when the removal of these organs is deferred until the secondary sexual characters have become well established, then the latter generally persist, provided that the patient is still in the prime of sexual life. Under these circumstances, Schwinzinger's suggestion that castration should be practised to bring about atrophy of the mammæ in order to prevent the development of cancer, or its recurrence after operation, can hardly be taken seriously.

This passage was penned in 1890, many years before Dr. Beatson's publication (1896), and, to the best of my belief, it is the earliest allusion to the subject in the English language. I was thus keenly alive to the potentialities of Dr. Beatson's experiment; and I was probably one of the earliest in this country to read, mark, learn, and inwardly digest his publication.

As regards Mr. Butlin's second statement, that Dr. Beatson had answered my objection to his method of treatment by anticipation, there is not the slightest justification for it. The statement, that the ovaries removed in the cases referred to were already cancerous, is a gratuitous assumption, without a scrap of evidence in its favour.

Against such an assertion I brought forward the following weighty evidence: (1) During the operation of ovariotomy, and at the examination of the tumours after their removal, no signs of malignant disease were detected. (2) Malignant disease of the ovaries is comparatively rare, very much rarer than it would be if the foregoing explanation were correct. My analysis of 13,824 primary tumours at metropolitan hospitals shows that only 6.3 per cent. of all ovarian tumours are malignant: whereas the percentage of malignant tumours occurring after ovariotomy for cystomata of the ovary amounts to no less than 36. I considered—and still consider—that these data put Dr. Beatson's empty assertion quite out of court.

If, however, further evidence as to the correctness of my views on this matter were required, plenty is forthcoming.

Ovariotomy is not the only abdominal operation after which malignant disease often develops. A large number of cases have now been recorded, showing the development of malignant disease after supravaginal amputation of the uterus by laparotomy—for myoma. Schenk has reported 18 instances of this kind, Schauta 11, Sänger 8, and Savor 5, and many others are on record. The cervical stump is the usual seat of the disease under these circumstances; but it may occur anywhere in the track of the operation wound, or in quite remote parts of the body. In these cases the ovaries also had been extirpated.

Quite a considerable number of cases have now been published of the development of cancer, often of the mammæ, after double castration for various morbid conditions.

Dr. Bantock lately mentioned a case in his experience in which this happened after oöphorectomy for uterine myomata.

Dr. Butler-Smythe has met with cancer of the cervix uteri in a patient both of whose ovaries had been extirpated for cystomata eighteen years and a-half previously.

Dr. H. Spencer has known sarcoma uteri develop many years after the removal of both ovaries for myoma uteri.

Dr. Herman has seen cancer of the cervix uteri supervene three years after the extirpation of both ovaries for dysmenorrhœa.

Abel has met with two cases of malignant uterine disease supervening after double oöphorectomy for myoma uteri.

Mr. Morison has this year related two cases of mammary cancer supervening some years after extirpation of the ovaries; and Mr. B. Jessett not long ago had to amputate the cancerous breast of a patient whose ovaries he had removed several years previously for a non-malignant affection.

Other cases of this kind by Dr. W. Playfair and Dr. Blacker I have previously referred to.[1]

[1] BRITISH MEDICAL JOURNAL, vol. ii., 1900, p. 1471.

Of like import is the interesting series of cases reported by Neugebauer, illustrating the proneness to malignant disease of persons with rudimentary, badly-developed, or absent ovaries.

In conclusion, it strikes me as being very remarkable that, of the several hundred cases of oöphorectomy for cancer that have now been done, not a single definitive cure can be instanced.

On the whole, it seems to me tolerably certain that removal of the ovaries tends to favour, rather than to prevent, the development of cancer; and, therefore, that this craze for oöphorectomy is a horrible mistake.—I am, etc.,

Clifton, Bristol, Jan. 4th W. ROGER WILLIAMS.

THE PRINCIPLES OF LOCAL TREATMENT IN DISEASES OF THE UPPER AIR PASSAGES.

SIR,—The chief results of the discussion which has followed the publication of my lectures on The Principles of Local Treatment in Diseases of the Upper Air Passages appear to me the following:

(1) The discussion has enabled the profession to form an opinion of its own on the justice or otherwise of my statements.

(2) It has shown that the views I expressed are shared by a number of distinguished specialists in all parts of the country.

(3) It has produced an open revolt of the otologists against the pretensions of the modern rhinologist.

(4) It has shown that there is no scientific defence of the treatment by "breathing exercises" in cases of genuine adenoids.

(5) It has not brought forward one single sound scientific argument against the principles advanced in my lectures.

Of these results, I consider the first the most important one. The development of laryngology, rhinology, and otology has within the last ten or twelve years almost exclusively taken place in special journals and special societies, not only in this country, but practically everywhere. That this system [illegible] important advantages, I am the last to deny. The specialist who publishes his experiences in a journal devoted to his speciality thereby secures a much larger and more international circle of expert readers than if his publication had appeared in a general medical journal. Amongst the advantages of a special society are the following: it usually, though unfortunately not always, produces a certain *esprit de corps*; it enables its members to make the personal acquaintances of fellow specialists, and facilitates a direct exchange of opinion between them; it gives the opportunity of eliciting in doubtful and difficult cases the views and advice of a large number of experts; and, above all, it preserves to science the records of numerous interesting cases which, without its existence, would be in all probability simply lost. These advantages are so great and so obvious that they induced me some ten years ago to act myself as prime mover in the foundation of a special society—namely, the Laryngological Society of London.

[illegible] merely, then, I neither disregarded nor underrated the [illegible] may outweigh all the advantages of [illegible] journals and gatherings: [illegible] duality! No truer words were [illegible] at master, Virchow, in the [illegible] opening of the Berlin Medical [illegible] he said: "Amongst us [illegible] ts, and it would be useless [illegible] any rate fruitless to oppose this development, but I think I ought to say here that I hope to be sure of the consent of [illegible] I say, that no specimity can flourish [illegible] from the general body of [illegible] and benefit [illegible] took from the [illegible] to keep up with other [illegible] help one another and thereby preserve [illegible] even if it should not be necessary [illegible] that unity on which our position rests [illegible] I may well say, also with regard to the [illegible]

[illegible] which Virchow so justly [illegible] when the rules of our new Society were framed that no set papers should be read, but only cases be shown at its meetings. By the insertion of this clause I hoped (1) to preserve to the general medical societies laryngological and rhinological contributions of more than purely specialistic interest; (2) to keep alive the interest of the bulk of the profession in the scientific progress of laryngology and rhinology: and (3) to keep us specialists in actual touch with general medicine.

I much regret having to confess that my hopes have been but very imperfectly realised. It is an incontestable fact that for the last ten or twelve years very, very few laryngological or rhinological papers of general interest have been read before general medical societies in London, and that the number of more important laryngological and rhinological papers published in English general medical journals has very seriously diminished.

The consequences of such, however unintentional, isolation of a speciality do not, of course, become conspicuous at once: but after a time they make themselves inevitably felt. The profession loses what little interest it had in the development of the special branch and the specialists themselves, whilst insensibly losing touch with general medicine, become more and more apt to have their judgment warped by their mental concentration on one idea. From one or a few casual observations the more enthusiastic or fanatical ones amongst them construe a theory which soon they persuade themselves to be a fact. On that unsafe and unsound basis fresh—even more exaggerated—theories are built; and within a few months, or at most years, fantastical doctrines are evolved, which are preached with a dogmatism and an amount of self-assertion more than sufficient to make outsiders believe that some really great truth had been discovered which must be accepted as gospel. What else are the various excesses I combated in my lectures than concrete illustrations of the reality of the chain of events I have just sketched?—The profession has now had an opportunity such as, owing to the voluntary isolation of laryngology and rhinology, it has not had for a good many years to form an opinion of its own on these matters, and I have good reason to believe that it has welcomed this opportunity.

(2) A most valuable feature of the discussion has been the generous support given to my views by specialists in various parts of the country. This has shown that the statements made in my lectures were not the impressions of a single, possibly prejudiced, individual, but that I have merely expressed in words what others have long felt. The controversy has indeed developed into a pitched battle between the moderate and the radical sections of specialists, and has justified what I said in my first lecture—namely, that the ever-growing feeling against local over-activity in this territory of medicine was "shared by no one more strongly than by the large moderate section of laryngologists and rhinologists, who from the nature of their calling have probably more opportunity to see what is going on than the profession at large, and who resent it the more keenly as their whole speciality is held responsible for the excessive activity of the radical section."

(3) Most important in this connection is what I have called the "revolt of the otologists against the pretensions of the modern rhinologist."

Personally I see in this feature one of the most material gains resulting from the discussion. That the pretensions of the modern rhinologist with regard to the influence of minor degrees of obstruction of the nose upon affections of the pharynx, larynx, and lower air passages are unfounded and untenable, I hope I have shown sufficiently clearly in my lectures, but as I am not an aurist myself, expert support upon the otological part of my contentions was most desirable, and I am very glad that it has been so amply and so positively forthcoming. Whilst thanking every one of the aurists who have supported my contention that it was "unintelligible how a slight degree of obstruction of the nose proper, particularly when one-sided, could be believed to exercise the disastrous influence upon the ventilation of the middle ear which I so often saw ascribed to it," I feel I do no injustice by more particularly drawing attention once more to the important letter of Dr. McBride which was published in the BRITISH MEDICAL JOURNAL of December 14th, 1901. Personally, I have always had a very strong impression when patients came to ask my opinion as to whether removal of a

spur from the septum, or a similar intranasal operation was likely to have a beneficial effect upon what was evidently labyrinthine disease, that the enthusiastic rhinologists who had recommended such operation must have a "most elementary knowledge as to the diagnosis and prognosis of ear disease." But it will be useful to the profession, as it was to me, to know that this impression is shared by an otologist whose competence to speak in this matter nobody will deny. It is also not a little remarkable in this connection that the carefully scheduled challenge of Dr. McBride to those who put their trust in attacking the nasal passages for the relief of deafness has received no reply. The profession will now be able to judge whether his fear "that we must conclude that a vast amount of nasal operating has been done with no result, and that we may consider without injustice that those who are thus advocates for the cure of otherwise incurable diseases have no case" is justified or not.

Before concluding, however, this part of my summary I wish to state once more, to avoid all possible misunderstanding, that by opposing the pretensions of some modern rhinologists, nothing could be further from my intention than to belittle the achievements of modern rhinology. The progress of our science with regard to nasal diseases has within the course of the last fifteen years indeed been very remarkable. We have learnt that a certain number of reflex neuroses *may* be of nasal origin; our operative technique in nasal diseases has been considerably improved: the histology and pathology of new growths in the nose have been revised, and to a certain extent reformed: we have had valuable information with regard to nasal tuberculosis, to nasal diphtheria, to the micro-organisms met with in the nose under normal and pathological conditions, and to the escape of cerebro-spinal fluid through the nose; and, above all, our knowledge with regard to the pathology, diagnosis, and treatment of affections of the accessory cavities of the nose has been very materially increased. All these and similar achievements are certainly greatly to be respected, and I yield to nobody in gladly appreciating them; but they do not, in my deliberate opinion, justify in the least the ambitious claims of the modern rhinologist concerning the overwhelming importance of nasal disease, and its often exaggerated influence upon affections of the throat and ear.

(4) There is nothing further to be said about the question of "breathing exercises" in cases of genuine adenoids. Scientific objections to this form of treatment, and courteous requests for an explanation of its supposed mode of action have remained equally unheeded; and everybody must now form his own opinion on the original attack upon operative interference in cases of adenoids and on the method which it was proposed should be substituted for it.

(5) A letter was published in the JOURNAL of December 28th, 1901, expressing disappointment at the personalities into which the discussion had degenerated, and with this feeling I entirely agree. Considering that my lectures embodied almost exclusively the results of my own personal experience, that I touched upon so great a variety of topics, and that concerning most of these topics opinions differ considerably, one might fairly have expected an interesting dicussion in which my views would be combated by equally good or better reasons. As a matter of fact, however, a curious medley of artillery has been brought to open fire upon my contentions: unproven theories, unfounded charges of inaccuracy, ill-applied quotations, personal aggressiveness, would-be smartness, pretensions to superior knowledge; in short, everything except sound scientific arguments. Nevertheless, I feel sure the discussion has not been in vain. For the very nature of the opposition must have shown the readers of the JOURNAL that the dogmatic assertions of the radical section rest on no more solid basis than on the *ipse dixit* of each of its self-constituted representatives, and that they collapse the moment that they are seriously gone into. This, I venture to think, is one of the most important fruits of the discussion.

I refrain from entering upon minor questions of operative details, or upon matters which are alien to the subject of my lectures.

But I should like in conclusion to say a word with regard to the future. No doubt my lectures, and the discussion which followed them, have shown that at present a state of things exists with regard to operative intemperance equally undesirable in the interests of the profession and of the public. The remedy in my opinion lies in a return to closer touch between the specialists and the general profession. Room enough will remain for special societies, and for their exercising a beneficial function, if matters of exclusively technical and specialistic interest continue to be treated in them; but what we require is to bring the fruits of our labours more frequently before the profession at large in general societies and in general medical publications, to receive the stimulating criticism of those not exclusively engaged in one narrow sphere of work, to be reminded that there are other things to consider than exclusively local conditions, and to preserve, to speak in Virchow's words, "that unity upon which our position rests intrinsically, and, I may well say, also with regard to the outside world."—I am, etc.,

Wimpole St., W., Jan. 3rd. FELIX SEMON.

*** This discussion is now closed.

POST-SCARLATINAL DIPHTHERIA AND RHINORRHŒA AND OTORRHŒA.

SIR,—The propagation of diphtheria by "carrier subjects," apparently free from the disease, which has been proved by Dr. Egerton H. Williams's observations,[1] and by those of Dr. J. C. Heaven,[2] tends to confirm the view that after an attack the infection often survives for a considerable period, probably in the upper air passages. This entails the necessity for practical measures of prevention. For both sets of subjects prolonged isolation and periodical bacteriological examinations have been wisely recommended. But in the presence of actual diphtheria there is an earlier duty to which too much prominence cannot be given, and which I venture to urge once more, as it is still not receiving sufficient attention—that of systematic endeavours to exclude or to correct infection of the upper aërial tract. For some years I have made it a rule to resort from the first and throughout the period of observation, to local treatment of the nasal cavities by means of a few drops of lightly carbolised olive oil (1%) introduced twice daily into the nostrils with the head well thrown back, not as a germicide, but as a mechanical protecting and cleansing agent; and I have subsequently adopted the same precaution in all affections (including scarlet fever, measles, whooping cough, mumps, etc.) capable of infecting the mucous membrane in its upward extension. As a local treatment this practice has been manifestly beneficial and always harmless, but additional evidence is needed to prove that it adequately fulfils the purpose of local sanitation, and in that doubt I venture to appeal to the larger experience of others. A great step might be made towards the limitation of diphtheria if those who have worked with the same object and those with considerable opportunities for observation would publish their results, and put us in possession of the best means of securing, if possible in all cases, an efficient disinfection of the nasopharynx and upper nasal cavities, and of lessening the contagiousness of cases whilst reducing perhaps considerably their term of isolation.—I am, etc.,

London, W., Jan. 4th. WM. EWART.

THE TREATMENT OF CONSUMPTION.

SIR,—Mr. M. Anslow Alabone, as a registered practitioner, owes an explanation of his conduct to the profession. It will be remembered that a series of letters have appeared in the *Times* emanating from the supporters of Mr. Edwin Alabone, eulogising his special treatment of consumption, and making an attack upon certain very honourable and learned members of the medical profession. The attack was based upon the theory that registered practitioners had, for reasons of their own, neglected the wondrous cure by lachnanthes, and had thereby actually prevented the public suffering from consumption from reaping its benefits. Into this correspondence entered Mr. M. Anslow Alabone, a registered practitioner; and on October 23rd, 1901, he wrote a letter to the *Times* in answer to Dr. Pollock. In this letter he stated as follows: "I may, however, say that the treatment"—that is, the so-called Alabone treatment—"is being carried out by more than one medical man. I could mention fifty besides myself who have the best results with it: and Dr. Pollock may be inter-

[1] BRITISH MEDICAL JOURNAL, December 21st, 1901.
[2] *Ibid*, January 4th, 1902.

...ested, perhaps surprised, to know that even one of his colleagues at the [illegible] Hospital has recommended patients to undergo this special method. As I have mentioned before, I am preparing a paper, which I intend sending to the medical press as early as possible." On December 28th, 1901, there duly appeared in the BRITISH MEDICAL JOURNAL a long and descriptive article by Mr. M. Anslow Alabone, in which it was stated that the writer had not intended to "bring before the profession this method of treatment until I had had sufficient cases of cure under my immediate care." He then goes on to state with reference to the treatment by lachnanthes: "I use it, having been naturally conversant with my father's treatment for many years, and seeing the number of cases he quotes as cured." After reading this paper, one naturally concluded that the mystery attached to this special treatment, so well advertised for years, had at last been cleared up; but the letter from Mr. M. Anslow Alabone's father, published in the JOURNAL of January 4th, makes it more mysterious than ever.

In this communication Mr. E. Alabone absolutely repudiates his son's alleged knowledge of the "treatment," stating that he knows nothing whatever of his son's treatment, and that his son knows little more of his; that his son's statement that he has been conversant with the father's treatment for many years is not only "misleading, but perfectly inaccurate."

After such a statement as this one cannot but wonder that the "treatment" should ever have raised any discussion in [illegible] such a paper as the *Times*. A qualified member of the profession sends a paper to the leading medical journal to illustrate a particular method of curing consumption, which has been advertised for years by his father. He does this with the view of throwing light upon a method which has not previously been brought before the medical world, and which, according to the statements of certain lay supporters of the said remedy, has been boycotted by reason of patronage by [illegible] practitioners with a few exceptions. The paper is published, and doubtless read by many, so that the [illegible] might if possible be used for the benefit of [illegible] humanity. Now we find, according to Mr. Alabone's father, that the writer of the paper in one respect has made a misleading and perfectly inaccurate statement, and practically that he knows little or nothing about the special treatment which he has occupied so much space in the JOURNAL to describe.

I venture to think that a more awkward and peculiar occurrence has never arisen in the history of medical literature. Valuable space has been taken up to describe a treatment which, according to the special designer of the treatment, is not as described. I am, etc.

Queen Anne Street, W., Jan. 5th. A. GEORGE BATEMAN.

THEORIES OF INHERITANCE.

Dr. [illegible] says: "Having condemned all theories and many matters past, present, and future, Dr. Reid formulates [illegible] as matters fact, but what I venture to call theory. Well, take my theory. Every man, for example, acquires [illegible] before. It is essential for my opponents that each of these acquirements, these changes in [illegible], the liver, the [illegible], the limbs, tends so to affect the germ cells that the acquirement is reproduced as an inborn character by the children. I reply that this assertion is [illegible] incredible. For it is opposed to the [illegible] common experience, and [illegible] for twenty years biologists have ransacked the past and animal worlds for evidence no instance of such transmission has yet been found. The [illegible] is apparent. In the absence of all evidence I refuse to accept the apparently incredible dogmas of [illegible] people.

Dr. MacIlwaine asks, "Does any practical man believe that an [illegible] of twenty years' standing is likely to beget healthy children, if that intemperance on both sides is unqualified [illegible] of the contrary?" I do not [illegible] I ought to be dismissed as a practical man, but I am guilty of [illegible] opinion. The fact is, I have perused a large body of [illegible]. If Dr. M[illegible] can controvert it [illegible] Inheritance of Acquired Characters, Chapman and Hall, 1896. Alcoholism [illegible] Society, [illegible]

I shall be infinitely surprised. A Research Committee of the Society for the Study of Inebriety, after devoting nearly two years to the examination, has lately published a report endorsing my conclusions. My critic asks, "Will Dr. Reid say whether the intransmissibility of acquired characters is not opposed to the generally accepted principles of evolution?" Most certainly I will. The vast majority of biologists declare that the belief in the transmission of acquirements is the merest superstition. I should feel grateful if Dr. MacIlwaine explained the process of reasoning which led him and two well-known London consultants to attribute epilepsy and rickets in the children to syphilis in the father. I have seen syphilitic parents whose children were not epileptic and rickety, and epileptic and rickety children whose parents were not syphilitic.

May I suggest to Dr. Mercier that if he proves the transmission of even one of all the trillions of acquirements in the world his advocacy will gain a good deal in effectiveness? He will perhaps pardon me if I say that the situation appears a little absurd. His side assert that changes in the limbs, head, etc., tend so to affect offspring subsequently born that these changes are reproduced by them. I reply that this is incredible. Dr. Mercier retorts that a thing is not incredible just because I say it is. He is quite right, but it happens that I gave other reasons. He adds that I am a contemptuous and cocksure person. Again he is right, but he should consider the extreme temptation such letters as his expose me to. They are quite common in my experience. He is scornful of the idea that the germ cells are specialized for reproduction. Well, but from the germ cell of a whale springs another whale, from the germ cell of a mouse another mouse. If this is not specialization I am sure I do not know what is. Dr. Mercier asserts that the children of very young people are frequently puny, and of old people stupid. Will he favour us with his evidence? Even were it proved that the children of very youthful parents are puny the difference might very well arise, not from germinal peculiarities, not through heredity, but merely from the immaturity of the apparatus by which the embryo is sheltered and nourished.

He asks "whether I am acquainted with the doctrine of inheritance at corresponding ages," etc. Certainly I am. I have met with any amount of vague, if vehement assertions, but with not an iota of proof. Dr. Mercier himself says that the change is inappreciable in a generation. In other words he has no means of knowing whether it occurs, and his assertion is founded, not on observation, but on the merest guess work.

Surely a profession "practically unanimous," the members of which must either study heredity "every day of their lives or go about with their eyes shut" is able from the vast stores of its experience to furnish evidence in support of its belief. By all means let us have the evidence if it exists, but in the names of common sense and logic let it be of a quality different from that with which we have been so much afflicted in the past, that A. B., who broke his finger, had for offspring C. D., who was born with a crooked finger; or E. F., who saw a puppy dog's tail amputated and was extremely horrified, had for offspring G. H., who was born entirely tailless; or those other instances equally deplorable because so infinitely vague and unprovable, of which Dr. Mercier has furnished some flagrant examples. The necessary data available to the profession is so immense and so intimately known to us all that evidence—clear, positive, and decisive—should be readily obtainable.

Meanwhile, with that cocksureness and contemptuousness which Dr. Mercier so feelingly denounces, I must continue to lament the professional neglect of the study of heredity. The subject is peculiarly our own; it is a branch—and by far the most important branch—of physiology. But in no medical school in the world is systematic instruction given in it. Dealt with by biologists merely as a matter of abstract science, the discussion of heredity has shaken the thought of the civilised world, and for ever altered man's outlook on Nature. Practical problems, of equal or greater importance, await solution at our hands. Ours is doubtless a noble profession, but not as yet do we hold that position in the world of thought and practical politics which should be ours by right. But when medical men in all seriousness turn to the

study of heredity it will be different; and the medical school which first adopts systematic instruction in heredity, and insists that that instruction shall be founded on evidence first, evidence next, and evidence last, will infallibly become the intellectual centre of the world.—I am, etc.,

Southsea, Jan. 7th. G. ARCHDALL REID.

*** We cannot give further space to this correspondence.

STERILISATION OF ENTERIC EXCRETA.

SIR,—In the BRITISH MEDICAL JOURNAL of September 21st is a letter from Lieutenant-Colonel Younge, R.A.M.C., on the Sterilisation of Enteric Stools, taking exception—and rightly I think to the method of incinerating enteric excreta by mixing them with straw, as described by Lieutenant-Colonel A. Duncan, I.M.S., and describing the boiling process in use in a large number of hospitals in South Africa. The process is, however, to my mind a very unpleasant one, and incineration is both pleasanter and, I think, more satisfactory. When sawdust can be readily procured, as in the hills in India, there is no difficulty in incinerating all the excreta without any special apparatus. But in places such as the Orange River Colony sawdust is a rare commodity and at the present time not procurable. The procedure in No. 3 General Hospital, Kroonstad, is at once simple and effectual. The stools are emptied into buckets containing two parts of fine coal dust and one part of fine ashes from the kitchen and thoroughly absorbed by the combination. The urine is similarly treated, only the proportions are reversed—namely, two parts of fine ashes to one of coal dust. The excreta thus buried, as it were, burn readily in a simple incinerator with a longish flue and strong draught. No residue save some harmless cinders, which can be utilised for mixing with fresh excreta, is left. At first a tray was employed in which the mixed excreta and ashes were baked, and then when reduced to dryness turned into the furnace, but this was afterwards found to be totally unnecessary, as the mass was sufficiently inflammable to burn when emptied direct into the furnace.—I am, etc.,

OSWALD G. WOOD, M.D.,
Colonel R.A.M.C., P.M.O. No. 3 General Hospital.

Kroonstad, O.R.C.

LIFE INSURANCE AND MEDICAL FEES.

SIR,—The correspondence initiated by Dr. Selfe Bennett on this subject must be of interest to many of your readers. The disproportion between the money value of professional services to an insurance company and the fees paid for them can best be appreciated by noting the fact that the protection afforded by the medical examiners in a single case will at times save the company from a loss equivalent to or in excess of the salary or fees paid to the medical referee for a whole year's work. Surely, considering the rapid growth of accumulated funds, of which insurance companies make such proud boast, the medical examiner, on whose skill and integrity financial success in insurance business is almost entirely due, should be treated in a more equitable and liberal manner.

The company to which Sir Samuel Wilks probably refers has recently added work to their medical referees that will occupy ten or fifteen minutes extra time in each case, yet the fee is not increased. In a circular letter sent by the managers of the Prudential Company last week to the medical referees announcing an addition to their work the following paragraph occurs:

> We need hardly add that we attach the greatest importance to these reports, and recognise the valuable protection afforded by the efficient way in which the examinations are made by our medical referees.

The medical referees will doubtless welcome these kindly remarks, but a more practical manner of showing the appreciation of their work would be more in accordance with justice in a company whose funds are rapidly approaching £50,000,000.—I am, etc.,

January, 7th. MEM. BRIT. MED. ASSOC.

SALARIES OF MEDICAL OFFICERS OF HEALTH IN SCOTLAND.

SIR,—This is a dark and neglected subject that calls loudly for the light of publicity. Hitherto medical officers of health in Scotland have borne their wrongs with wonderful, not to say exemplary, patience. Stung by a sense of injustice, individuals here and there fighting for their own hand have appealed for redress both to their sanitary authorities and to the Local Government Board. Such appeals have generally been without effect, and it is plain that the time has now come for strenuous and united action. Not a year passes but some new Act of Parliament and some new regulation of the Local Government Board lays fresh burdens on the backs of the medical officers. Their duties become even more onerous; their salaries (pittancies for the most part) remain stationary. Any further tame submission to such glaring injustice can only come of a craven and cowardly spirit, and I hail the letter of "M.O.H." in the BRITISH MEDICAL JOURNAL of January 4th as a welcome sign that a body of underpaid public servants, of whom I am a humble unit, are at last to waken up to a sense of what they owe no wit less to the public than to themselves.

It is of the highest importance in the interests of the State that only men of superior attainments and men of experience and standing in the profession should be appointed as medical officers of health. The whole trend of our recent public health legislation is in the direction of exacting higher and higher qualifications from those who aspire to public health appointments. Now, mark the irony of the situation. There are medical officers of health in Scotland who must devote their whole time to the work—men of the highest attainments, graduates not in medicine alone but in arts and science as well, with years of professional experience behind them—who are expected to live on salaries ranging from £300 to £350 per annum. Few men without private means can afford the luxury of accepting such appointments, or, if they do, it is difficult to see how they can exist and at the same time keep up an appearance that will command (to say nothing at all of their social position as gentlemen) some modicum of respect among the general members of the profession with whom their work brings them into so intimate relationship. The public health service, be it remembered, unlike the medical services of the army and navy, is not organised on any definite lines. There is no natural progression from lower to higher paid positions. There is only chaos. There are no pensions—not even the bauble of a title to smooth the pillow of old age and poverty. As if it were not enough that for the salary of a second or third-rate clerk the county medical officer should act for his county (it may be a combination of two or three counties) and all the districts thereof, he is often expected to do the work of any or all of the burghs that may require his services without additional remuneration. It might be thought that further than this the sweating process could not go, but there are *saxpenny* county councils who know better, and exact of their medical officers the duty of analysing waters and examining their policemen, so saving the fees that should go by rights to the public analyst and the general practitioner.

It is clearly not the fault of the Legislature that Scottish medical officers of health should be inadequately paid. Section xv of the Public Health (Scotland) Act of 1897 is most explicit on the subject, setting forth, as it does, in express terms that the medical officer must have *a proper salary or remuneration on account of his employment*. As a further incentive to local authorities to properly remunerate their sanitary officials, the Treasury pays a definite proportion of their salaries, amounting to very nearly one-half. How comes it that this important proviso of Section xv of the Act is systematically ignored? Surely, by no sophistry can it be contended that £1 is a proper salary for a burgh of over 1,000 inhabitants, or £20 for one of 25,000, or £300 for a whole-time appointment as county and district medical officer, with extraneous duties thrust in: or £350 for a combination of two or three counties, together with their six or seven districts. Unless something is done to improve the salaries of medical officers of health in Scotland, the service there will cease to attract any but men of an inferior stamp, and few men of ability will think the taking of a public health diploma a game worth the candle.—I am, etc.,

January 6th. PUBLIC HEALTH.

VACCINATION ADMINISTRATION.

SIR,—According to a report in the *Times* of January 6th, Sir J. Crichton-Browne, at a meeting of the Sanitary

Inspectors' Association at Carpenter's Hall, said that the "conscience clause" introduced into the Vaccination Act of 1898 had not had the disastrous effect which some (himself among the number) had feared it would have.

I do not know what may be the general opinion of those who have to do with the working of the Vaccination Acts throughout the country, but, speaking with regard to public vaccination in the metropolis, I have no doubt that the conscience clause has had a distinctly pernicious effect. The majority of the antivaccinists openly defy the law by refusing to apply to magistrates for a certificate of exemption, and they practically do so with impunity, as the Boards of Guardians try all they can to hamper the vaccination officer in the performance of his duties. From my own experience I should say that the conscience clause, without being productive of a particle of good, has done much harm, and should be omitted in any further legislation. Sir J. Crichton-Browne further advises that greater obstacles should be put in the way of obtaining certificates of exemption by demanding reasonable objections from applicants, and charging fees for the certificates when granted. Such a procedure, in my opinion, would be productive of great mischief. If such certificates are allowed they must be given to every applicant, or more friction would be sure to arise than where vaccination is compulsory. It would be a better system to abolish direct compulsion altogether and rely on indirect, as by refusing admission to all the public services, schools, etc., to unvaccinated persons.

As to the transference of the powers under the Vaccination Acts from the guardians to the county and borough councils, such an arrangement would be an improvement on the present system: but as the latter bodies are frequently dominated by antivaccinists, it would be better to place the control of public vaccination entirely under some State department such as the Local Government Board, where popular prejudice, except through Parliament, would be powerless to interfere.—I am, etc.,

Hackney Road, E.C., Jan. 7th. M. GREENWOOD.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

SIR,—I am utterly dumbfounded to see the attitude adopted by the Royal Colleges in London towards the General Medical Council. The lowering of the standard is serious for present Members; the position they hold in comparison with their University brethren is bad enough; but if the Colleges alter the curriculum at their own sweet will men will be more reluctant than ever to admit any connection with those bodies. It will be the means of bringing many undesirables into the profession.

If the London University, in addition to honours degree, will grant a degree similar to the provincial universities, there would be no use for the Colleges at all; the fine premises and embankment buildings would be a grand acquisition to the University. The L.S.A. could continue its useful work for those men whose circumstances prevented them taking the degree till some future time.—I am, etc.,

M.R.C.S., L.R.C.P.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

In the JOURNAL of January 4th you [illegible] above heading a letter [illegible] ing, [illegible] ...any [illegible] ...ge applied for a copy of [illegible] ...ed the following reply, under date [illegible]

[illegible] CHARLES C[illegible]

I admit I am now mystified by the action of the College, for how can the President, Vice-President, and Council logically refuse, "by advice of their solicitor," by-laws which according to their own statement they do not possess? It was on February 25th of last year when I first applied to the Registrar for the said by-laws.—I am, etc.,

Dublin, Jan. 8th. S. WESLEY WILSON.

THE PREVENTION OF ENTERIC FEVER IN ARMIES.

SIR,—If Dr. Leigh Canney can devise a plan by which troops marching against an enemy can be supplied with sufficient sterilised "cold" drinking water, he will have justly earned the gratitude of the civilised world.

He claims that the terrible epidemic of typhoid amongst the troops marching to Pretoria might have been prevented. Will he come to the practical point, and tell us how, for instance, on the almost continuous march of the Fourteenth Brigade from Jacobsdal to Paardeberg (approximately thirty miles) he would have supplied that brigade with sufficient "approved water"?

The march began about 7 P.M., and lasted to about 5 P.M. the following day. The only halt of any duration was one for breakfast (about 9 A.M.), and even this was brief. After the arrival of the brigade at Paardeberg how would he have supplied the many small groups detached from the main body for "outpost duty," with "approved water"? How does he propose to supply "scouts" with "approved water," as well as cavalry and mounted infantry?

That the thirst of the men at all times, but especially during a hot and trying march, is abnormally great has long been recognised. That they will satisfy this thirst at all hazards, even at the risk of disobeying the direct command of their superior officers, I have myself been a witness.

In conclusion, I would ask Dr. Leigh Canney if, by his system, he guarantees in a tropical or subtropical climate to supply "cold" water at all? To expect "Tommy" to have anything but a "cold" drink when he himself is "hot" is to expect too much.—I am, etc.,

DENHAM F. FRANKLIN, D.P.H.,
Cambridge Hospital, Aldershot. Lieutenant-Colonel, R.A.M.C.

OBITUARY.

JAMES J. TRACY, M.B., B.Ch., B.A.O.(R.U.I.),

Physician, Mercy Hospital, Cork.

THE medical profession in Cork has suffered a great loss by the death, at the early age of 38, of Dr. James J. Tracy, which occurred at his residence in Cork, on December 26th, 1901. His health had for some time caused anxiety to his friends, but no one thought the end so near.

He graduated in 1890 in the Royal University, Ireland, after a distinguished career in Queen's College, Cork, after which he practised for a short period in England. On returning to Cork he was appointed to the medical staff of the Mercy Hospital, first as Surgeon, but later he resigned this appointment for that of Physician. His medical skill was of a high order, and much appreciated by his colleagues and patients. His powers of diagnosis were quite exceptional, and his treatment of difficult cases showed a highly-trained and cultured intelligence. A meeting of the medical staff of the Mercy Hospital held on December 30th passed the following resolution:

That we wish to place on record our sense of the irreparable loss the medical staff of the Hospital have sustained by the death of our esteemed colleague, Dr. J[illegible]

He was honorary treasurer of the Cork Medical and Surgical Society for [illegible], and piloted the finances of that Society through a most critical period in a manner that [illegible] admiration and confidence of the members, and this Society at a specially-convened meeting held on December 30th passed the following resolution:

That the Cork Medical and Surgical Society, have learned with [illegible] the untimely death of our able and valued ex-Treasurer for many years, and who [illegible] to the interests of this Society, as well [illegible]ly

Although in failing health, his keen interest in the matters relating to his profession never flagged. He was present and joined in the discussions at a recent meeting of the Medical Society. Dr. Tracy was unmarried. The funeral took place on Saturday, December 28th, 1901, the large attendance of his colleagues and general public testifying to the esteem in which he was held.

Dr. Philip G. Lee (Cork) writes: I have had the pleasure of the closest intimacy with the late Dr. Tracy. Death has removed one whose opinion in matters regarding the professional side of our work I highly valued, but to my mind his great business capabilities were most clearly shown in the field of medical politics.

During the greater part of the now well-nigh historic "battle of the clubs" in Cork, he was my assistant in the secretaryship of the profession. He felt the great importance of this movement, and threw himself into the work with a will and earnestness. His clear mind showed him prepared for all the chances of the struggle, and without exception the course he advocated on the various points turned out the only proper one to pursue.

He had an emphatic manner, and in his honesty of purpose spared neither friend nor foe. When the acute phase of this contest had passed, he set himself to prepare rules for a medical benefit association, through which the patients of that class could return to the profession, and very successful has his scheme been. The medical officers have security, while the patients have all the benefits accruing from a benefit society. He lived to see the success of his work. The Committee of the Medical Benefit Society passed the following resolution on Friday, December 27th:

That we, the Committee of the Cork Medical Benefit Association, have heard with profound regret of the death of our esteemed colleague, Dr. James J. Tracy, who was one of the principal founders of our Association, and always took the greatest interest in its working, and we recognise that in him our Association has sustained an irreparable loss.

A fearless, upright practitioner, who ever did his duty according to his conscience, forgetful of all personal matters in fulfilling that sense of duty, is a loss to the profession, not alone in his immediate vicinity, but to the whole medical profession. Dr. Tracy will long be missed by his colleagues in Cork, and perhaps more especially by the writer.

THOMAS HYDE HILLS, J.P., M.R.C.S.ENG., L.R.C.P.LOND., Cambridge.

THE death of Mr. Hyde Hills took place at Cambridge on Thursday, January 2nd, at the age of 50. His last illness was due to a sudden and rapidly-fatal attack of tetanus, the cause of which was very obscure. He was in full work on the last day of 1901. On New Year's Day trismus set in, and by midnight his condition was hopeless.

Mr. Hyde Hills studied at St. George's Hospital, and started work in Cambridge in 1876, where he succeeded Mr. Bumpsted in an influential university and family practice. In addition to his professional work his chief interest lay in municipal affairs; he was Mayor in 1894, and was for several years Chairman of the Public Health Committee. In this capacity he did much to improve the health of the town, being a pioneer in the establishment of an efficient sanatorium; he also took a prominent part in the local crusade against tuberculosis.

The recent epidemic of diphtheria gave him the opportunity of impressing on the town the importance of thorough bacteriological investigations, and his last success was to create the post of Bacteriologist to the Public Health Department of the Town Council.

He was a man of strong individuality, and both his professional and public life were characterised by energy and thoroughness. He thought no trouble too great, and he will be missed by many, not only as their medical adviser, but as their staunch and untiring friend.

PROFESSOR AXEL KEY, Stockholm.

IT is with great regret that we have to announce the death of Professor Axel Key, one of the foremost members of the medical profession of Sweden. Born in 1832, he began his medical studies in the University of Lund in 1848. In 1852 he was admitted a Licentiate of Medicine, and for the two following years he was Assistant Surgeon in the Serafinen Lazaret at Stockholm. In 1865 he went to Germany to pursue his studies in a wider field. He worked at histology under Max Schultze, at Bonn, and at pathological anatomy under Virchow in Berlin. On his return to Sweden he took his doctor's degree at Lund, and soon afterwards he was appointed to the Chair of Pathological Anatomy in the Caroline Institute at Stockholm. In 1869 he became Editor in Chief of the *Nordiskt medicinskt Arkiv*. In 1897 he retired from active professional life. His name was well known throughout the scientific world by his researches, made in conjunction with Retzius, on the finer structure of the nervous system. He was also the author of papers on the morbid anatomy of the heart and vessels, on inflammation of the cornea, etc. Professor Axel Key was also a zealous advocate of reform in school hygiene.

WE regret to announce the death of Dr. M. LESSLIE SWEETMAN, one of the leading surgeons of Toronto, who recently succumbed to septicæmia. Born in 1859, Dr. Sweetman graduated M.D. in the University of Victoria College in 1881. After much post graduate work in Europe and in the United States, he became Surgeon to the General Hospital, St. Michael's Hospital, and the House of Providence, Toronto. The *Canadian Practitioner* says it is believed that for some years he did more major operations than any other surgeon in Canada. He was a general surgeon, but devoted most of his attention to abdominal and gynæcological surgery. He had been Professor of Surgery in the Ontario Women's Medical College for thirteen years, and Associate Professor of Surgery in the Medical Faculty of the University of Toronto since 1897. While amputating a gangrenous arm he received a very slight wound on the tip of his finger, and, in spite of precautious taken to prevent infection, in a day or two slight symptoms of septicæmia developed. After a period of improvement he was suddenly seized with convulsions, which ended in death at the early age of 42.

WE regret to have to record the death of Dr. R. S. LEGGATT, which occurred at West Folkstone on December 15th, 1901, at the advanced age of 82. He received his medical education at St. Bartholomews's Hospital and obtained the diploma of M.R.C.S. in 1841 and L.S.A. in 1842. He succeeded to an extensive country practice at Eastry, near Barham, of which his father had been the incumbent for forty-four years. He himself continued to be one of the most respected of the professional men in that district for no less than fifty years, until about ten years ago, when he retired from his practice there. He was genial and courteous, of the type of the fine old English gentleman, and he gained immense popularity with all classes, even as Medical Officer of the Poor-law Infirmary at Eastry. He was accustomed to ride to hounds in his day and took a keen interest in out-door sport generally. The sorrow which pervades the hearts of the poor of the neighbourhood is felt to be his highest eulogium.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Edmond Destrée, Professor of Clinical Medicine in the University of Brussels, author of numerous contributions to medical literature, aged 43; Dr. Emerenciano Roig y Bofill, sometime President of the Royal Academy of Medicine and Surgery of Barcelona; Dr. G. Chiarleoni, Professor of Obstetrics in the University of Palermo, and author of numerous contributions to the literature of his speciality, aged 55; and Dr. Fr. Melendez y Herrara, Professor of Topographical Anatomy in the Medical Faculty of Cadiz.

ACCORDING to the *New York Medical Journal* Dr. M. Elezarian Randolph, formerly in practice in New York, has been appointed personal physician to the Shah of Persia. Dr. Randolph is an Oriental by parentage and also, it is stated, by birth. He was well known and popular in medical circles in New York.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: EDWARD W. LUTHER, Fleet Surgeon, to the *Majestic*, December 31st; JOHN R. MUIR, M.B., Surgeon, to the *Vivid*, for dental duties, December 31st; JOHN M. H. CONWAY, Surgeon, to the *Jupiter*, December 31st; WALTER B. MAURICE, Surgeon, to Haslar Hospital, December 31st; HENRY C. ADAMS, Surgeon, to the *Resolution*, December 31st: MATHEW L. M. VAUDIN, M.B., Surgeon, to the *Explorer*, January 21st: WILLIAM JACKSON, M.B., Surgeon, to the *Wildfire* for the *Immortalité* and Naval Barracks, January 21st; HARRY SPICER, Surgeon, to Bermuda Hospital, January 1st; WILLIAM H. THOMPSON, Surgeon, to the *St. George*, January 1st; ROBERT W. C. HALL, Surgeon, to the *Grasshopper*, January 1st; WILLIAM BASTIAN, Surgeon, to the *Hyacinth*, January 2nd; JOHN LOWNEY, Staff Surgeon, and WILLIAM L. MARTIN, Surgeon, to the *Irresistible*, February 4th; GEORGE M. O. RICHARDS, Surgeon, lent to assist the Army Medical Board in examination of R.M. candidates at the Medical Hall, Victoria Embankment, January 7th to 10th.

ARMY MEDICAL SERVICE.

LIEUTENANT-CODONEL A. KEOGH, M.D., C.B., R.A.M.C., is appointed Deputy Director-General, and to have the temporary rank of Surgeon-General [illegible] Surgeon-General H. S. MUIR, M.D., C.B., whose [illegible] appointment has expired, January 1st. He was [illegible] Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900; and Brigade-Surgeon-Lieutenant-Colonel, November 29th, 1900. He went to South Africa in the latter part of 1900, and remained there till March, 1901, having had charge of a general hospital. In September last he was appointed to the Home District.

ROYAL ARMY MEDICAL CORPS.

TEMPORARY MAJOR C. STONHAM, C.M.G., Surgeon-Captain Middlesex Imperial Yeomanry, is granted, on relinquishing the appointment of Officer in Command and Chief Surgeon Imperial Yeomanry Field Hospital, the honorary rank of Major in the Army, with permission to wear the [illegible] dated 1901.

The following have been discharged to duty from hospital [illegible] Lieutenant-Colonel F. W. TREVOR, Captain H. A. [illegible] Lieutenant J. CONWAY; Civil-Surgeons J. C. OSBORNE, J. [illegible] H. S. CALLUM, T. PARKER, A. GOULE, A. GRAHAM, M. [illegible] D. RITCHIE, J. KEENAN, G. H. BECK-HARVIE, A. F. [illegible] and E. WALKER; and Lieutenants M. H. [illegible] of the Medical Staff Corps.

[illegible] to suffer amputation of the right leg at [illegible] Harrismith, December 30th, 1901, but is now (January 3rd) [illegible]

The following are on passage home: Lieutenant-Colonel R. H. S. [illegible] Colonel T. P. WOODHOUSE, Major R. I. POWER; Captains [illegible] BAKER, E. C. BAILEY, J. M. CRAWFORD, J. H. [illegible] RICHMOND, W. SUTCLIFFE. Returning invalided: Lieutenant [illegible]

[illegible] E. JONES, attached R.A.M.C., who has been dangerously [illegible] January 4th) out of danger.

[illegible] Captain CREAN, Imperial Light Horse, is now (January 2nd) [illegible]

[illegible] ARCHIBALD GILLESPIE WOOD, M.D., C.B., died at Kroonstad on [illegible] His commissions were antedated [illegible] Surgeon-Major March 30th, [illegible] Lieutenant-Colonel March 31st, 1885, and made Brevet-Colonel [illegible], 1897. He was in the Nile Expedition of 1884-85, and was present at the battle of Tel-el-Kebir (medal with clasp, Khedive's star), and was mentioned in despatches on the Nile in 1885 as [illegible]; and in the South African War, 1899-1900, was Principal Medical Officer of the General Hospital; afterwards [illegible] Lieutenant-Colonel [illegible] died at Cheltenham [illegible] entered the service as Assistant Surgeon-Major, [illegible] Surgeon-Major, [illegible] Lieutenant-Colonel October 11th, [illegible] retired May 31st, 1897.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL A. T. L. PATCH, M.B., Madras Establishment, [illegible] was [illegible] Honorary Major.

IMPERIAL YEOMANRY.

The [illegible] Honorary Major.

THE VOLUNTEERS.

THE undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains from the dates specified: C. L. FRASER, 1st Berwick-on-Tweed Artillery, January 4th; A. A. S. SKIRVING, M.B., C.M.G., 1st Midlothian Artillery, January 4th; A. R. WILSON, M.B., 1st Volunteer Battalion the Cheshire Regiment, January 4th; J. N. PATTERSON, 1st Volunteer Battalion the South Lancashire Regiment, August 28th, 1901; P. J. EDMONDS, M.B., 26th Middlesex (Cyclist) Rifles, January 4th.

Surgeon-Captain M. MACKENZIE, the Highland Artillery, is promoted to be Surgeon-Major, January 4th.

Supernumerary Surgeon-Lieutenant W. M. TAYLOR, M.B., 1st Midlothian Artillery, is appointed Surgeon-Lieutenant on the establishment, November 30th, 1901.

Surgeon-Captain P. H. WATSON, 1st Newcastle-on-Tyne Artillery, and Surgeon-Lieutenant S. FERGUSON, M.B., 7th (Clackmannan and Kinross) Volunteer Battalion Argyll and Sutherland Highlanders, have resigned their commissions, January 4th.

THE SURGEON-GENERAL OF THE UNITED STATES NAVY.

THE present term of Medical Director William K. Van Reypen as Surgeon-General of the United States Navy expired on December 18th, and on December 9th he was nominated by President Roosevelt for another term of duty as Surgeon-General. He was entitled to retire on December 26th, as he then completed forty years of service, and, by reason of his reappointment, he was enabled to retire with the rank and pay of a senior rear-admiral.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE BURIAL OF INFANTS AS "STILLBORN."

A FURTHER illustration of the laxity of the administration of the law as to registration is afforded by a case which occurred recently at Normanton. It was reported in the *Sheffield Independent* on January 1st. A woman, attended by a midwife, "aged and very deaf," and by a neighbour, gave birth to a living child. Three hours later it was found to be dead. Two days later the midwife told her husband, described as "an infirm old man," to make out a certificate stating that the child was stillborn, and sign the same with her name and that of the neighbour, who, however, denied all knowledge of the document. She then took the body to the cemetery, but the curator "refused to inter it without a doctor's certificate," the father having been there the previous day and stated that the child had lived two hours. She then tried to get a certificate from a medical man, but failed, and finally informed the police. An inquest was held, and the medical evidence was to the effect that *post-mortem* examination showed that death was due to asphyxia and pulmonary collapse. The jury found a verdict in accordance with the medical evidence, and expressed strong disapproval of the action of the midwife in presenting a false certificate for burial, and recommended the coroner to severely reprimand her, and to caution her against such practices in future. The jury really took a very lenient view, moved thereto, no doubt, by the age and infirmities of the midwife; but the incident should be noted by the Registrar-General, who has, we hope, ere this received a communication from the coroner.

MEDICAL NAMES IN THE TELEPHONE *DIRECTORY*.

A CORRESPONDENT draws our attention to the name of a medical practitioner in the National Telephone Company's *Directory*, which is followed by the words "Specialist (Throat and Ear)," and comments upon it as "a distressful circumstance" and as "a broad advertisement."

*** The telephone *Directory* is a new publication, and probably few of us have thought seriously of the best way in which to describe ourselves in this list. Many honoured members of the medical profession are described as "Consulting Physician," "Consulting Surgeon," "Physician," "Surgeon," or "Aural Surgeon," while others adopt what seems to us to be the better way of merely putting "M.D.," "F.R.C.S.," or "M.R.C.S.," as the case may be after their names.

SCOTTISH PAROCHIAL MEDICAL OFFICERS AND SCHOOL BOARD CERTIFICATES.

A. M. (writing from the Highlands of Scotland) states that the clerk to a School Board refused to take a certificate in which he (the doctor) stated that "A. is suffering from [illegible] and will not be able to attend school for two or three months," and wrote, "I am requested by the Board to return to you this certificate as indefinite, and it cannot be accepted by H.M.'s Inspector as valid. Certificates in future must be [illegible] evidence, or else the matter will require to be reported. The [illegible] or public purposes sent and paid for by the parents and [illegible] Unless a proper certificate is entered for this child the [illegible] will be prosecuted." A. M. asks for an opinion as to whether the "soul and conscience" must be used.

*** We have examined the Education (Scotland) Act, 1872, and amending Acts, also the Education Code, and have failed to find any reference to "soul and conscience," and in our opinion the words "soul and conscience" are not necessary. We are also well aware that certificates are [illegible] to School Boards by medical men without these words being used, but that there may be no doubt in the matter we would suggest that our correspondent should write to the Secretary, Scottish Education Department, Dover House, London. In granting a [illegible] the "soul and conscience" must be used, see [illegible], 30 and 31 Vict. Cap. 71, and Schedule D, as the [illegible] statutory form, but as we are not aware that the Education Act lays down any statutory form, [illegible] we

consider the words are not necessary in an ordinary medical certificate granted to a School Board. We regret to observe the threatening style adopted by the clerk of the School Board to the parochial medical officer. This style unfortunately is too often adopted towards medical officers in the Highlands of Scotland, and it is not to be wondered at that medical men are unwilling to accept appointments in the Highlands. We do not know whether A. M has any appointment under the School Board, if not we question if he can be compelled to grant certificates at their will.

OFFENCES AGAINST THE REGISTRATION OF BIRTHS AND DEATHS ACT.

A CORRESPONDENT asks whether it is legally necessary to register births in this country. He states that he knows of numerous instances in which parents have omitted to register the births of their children in order to evade the Vaccination Acts. He has reported several to the superintendent-registrar of the district, but no steps have been taken to punish the offenders, and he believes that the practice is largely followed at the present time.

*** By 37-38 Vict., c. 88, it is enacted that every child born in England must be registered within six weeks of the birth. The onus of seeing to this is first thrown on the parents, but failing them, on the person having charge of the child, or even the occupier of the house in which the child was born, provided he was aware of the fact. The penalty for breach of this duty is very inefficient. If the child is not registered within the six weeks, then the registrar may summon those responsible to come to his office and give him the necessary information respecting the birth, and on their failing to comply with this summons they become liable to a penalty of 40s. But it is obvious that in populous districts unless the registrar be directly informed many births will necessarily be overlooked. This, as our correspondent points, constitutes a very real danger to the public, not only by hampering the carrying out of the Vaccination Acts, but by undermining an important guarantee of the public safety.

CORONERS' CENSURES.

PHILANTHROPIST asks whether, in the event of the patient dying, and an inquest being held, the coroner could censure or lecture him if he declined to go to a night call without being paid his fee.

*** A coroner would not be justified in censuring a medical practitioner under these circumstances, but it is within his power to censure for any conduct he may personally disprove of.

MEDICAL ETIQUETTE.

R. J. S.—We think it would be better to have a list of charges, which could be shown to such inquirers, hung up in the surgery.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

ANNUAL REPORT.

Numbers in Attendance.—During the past year the total number of matriculated students (including 272 women) was 2,929, being an increase of 155 on the number for last year. Of this number, 900 (including 248 women) were enrolled in the Faculty of Arts, 107 (including 4 women) in the Faculty of Science, 1,403 (including 4 women) in the Faculty of Medicine. Of the students of medicine, 623, or fully 44 per cent., belonged to Scotland; 323, or fully 23 per cent., were from England and Wales; 117 from Ireland, 77 from India, 234, or nearly 17 per cent., from British Colonies; and 29 from foreign countries.

Degrees Conferred: General Council, etc.—The following degrees were conferred during 1901: Master of Arts (M.A.), 126 (including 29 women); Bachelor of Science (B.Sc.), 28; Doctor of Science (D.Sc.), 10; Bachelor of Medicine and Master in Surgery (M.B., C.M.), 15; Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), 180 (including 8 women); Doctor of Medicine (M.D.), 61. The General Council of the University now numbers 9,010. The special University certificate in diseases of tropical climates was conferred on 5 candidates.

Value of Fellowships, Scholarships, etc.—The total annual value of the University fellowships, scholarships, bursaries, and prizes now amounts to about £17,920, namely: In the Faculty of Arts, £10,480: in the Faculty of Science, £1,500: in the Faculty of Medicine, £3,600. In addition, a sum of upwards of £600, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

Benefactions.—It is stated that students had largely taken advantage of Mr. Andrew Carnegie's gift in Edinburgh as elsewhere, although the regulation requiring the University preliminary to be passed by intending beneficiaries has told against any marked increase so far in the number of first-year students. There is reason to believe that an increase in the numbers attending certain honours and practical classes may be due to the operation of the fund in enabling students to take out a larger number of courses than they could otherwise have taken. In regard to the second main purpose of the benefaction (equipment), a detailed statement of the requirements of the University is being prepared by the Senatus and University Court for submission to the Carnegie Trustees. Among other benefactions worthy of special notice are a fund of about £218 subscribed for the foundation and endowment of a prize in the Faculty of Medicine for women students, in memory of the late Miss J. Dorothy Gilfillan, M.B., Ch.B., and a contribution of £132 to the fund by Mr. Samuel Gilfillan, London, to enable the fund to yield an annual prize of £10.

Changes in the Staff.—Among the changes in University office-bearers have been the appointment of Professor A. R. Simpson as Dean of the Faculty of Medicine, in room of Professor T. R. Fraser, resigned: the appointment of Dr. J. M. Beattie, as Lecturer in Pathological Bacteriology, in room of Dr. David Welsh, resigned.

Institute and Laboratory.—The report refers to the John Usher Institute of Public Health, due to the munificence of Sir John Usher, of Norton, which is approaching completion, and is expected to be ready for occupation by May 1st. The Institute will afford much ampler accommodation for the Public Health Department of the University than it has previously possessed, and will provide a full laboratory training in the branches of study required by medical officers of health. The Hughes-Bennett Laboratory was a much-needed addition to the department of physiology, due to the generosity of Mrs. Harriet G. Cox, daughter of the late Professor Hughes Bennett.

Minor Changes.—The examinations in Forensic Medicine and Public Health for degrees in Medicine and Surgery are being transferred from the Third to the Fourth (Final) Professional Examination. The examination papers in the various Faculties will henceforth be published separately, instead of as hitherto in the University Calendar.

UNIVERSITY OF LONDON.

THE *London University Gazette* for January 4th, contains further particulars of the business transacted at the meeting of the Senate on December 18th, 1901 (see BRITISH MEDICAL JOURNAL, December 28th, 1901, p. 1885).

Faculties.

Arrangements were made for the revision in the month of January in each year of the lists of members of the Faculties of the University, and for the appointment of committees of the Senate and of the Faculties for this purpose.

Boards of Studies.

It was resolved that in future the expenses of the Boards of Studies should not be paid by the University, but that any typewriting, printing, or postage required by the Boards, and considered reasonable by the Principal, should be undertaken in the office of the University.

Admission of Internal Students.

Regulations were adopted for the admission of undergraduates of, or persons who have passed the examination required for a degree in, other universities as internal students and candidates for higher degrees; but these regulations do not apply to degrees in medicine and surgery.

Election of Examiners.

The examiners for the year commencing July 1st, 1902, will be appointed on April 30th. Vacancies exist for one examiner in obstetric medicine and one in forensic medicine. Application must be made to the Principal not later that Saturday, February 1st.

Matriculation.

The number of candidates who have entered for the January matriculation, 1902, is 1,638, which represents an increase of about 100 on the entry for January, 1901.

Academic Registrar.

The Academic Registrar gives notice that on and after Thursday, January 9th, he will attend at the University on Thursday evenings from 5 to 7 P.M. and from 8 to 10 P.M. for the convenience of teachers and others who desire to see him on business.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART II.—The following candidates pass in:

Anatomy.—H. Bennett, Manchester; J. Cree, Belfast; T. L. A. Jones, Cardiff; P. J. Martin, St. Bartholomew's Hospital; E. Renouf, Royal Free Hospital.

Physiology.—J. Cree, Belfast; E. P. J. Dawes, Birmingham; A. G. C. Findlay, University College Hospital; E. Renouf, Royal Free Hospital; F. A. K. Stuart, St. Mary's Hospital; T. R. Waltenberg, Manchester.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REFORM OF THE VACCINATION SYSTEM.

DR. W. COWIE (Little Heath, Old Charlton), Honorary Secretary of the Woolwich, Plumstead, and Charlton Medical Union, writes that, at a meeting of the Union held on December 18th, 1901, the following resolution was unanimously agreed to:

That vaccination should be dealt with as a sanitary question affecting the welfare of the community, on similar lines to those now in force for the notification of infectious disease; and that it is derogatory and injurious to compel a medical man by law to do an unprofessional act, namely, to call at the houses of his fellow practitioners' patients and offer professional service. The members of this Union therefore respectfully submit:

1. That vaccination should be placed under the control of the sanitary authority and be removed from the category of Poor-law relief.

2. That the operation and certification of successful public vaccination according to the legal standard should be open to all registered medical practitioners, and that the authorised fee should be payable to such medical practitioners by the sanitary authority in all cases where the legal standard was complied with.

HEALTH OF ENGLISH TOWNS.

THE Registrar-General's weekly returns will, from the beginning of this year, contai[illegible] of the seventy-five towns in England and Wa[illegible] had a population of over [illegible] These towns in the middle of [illegible] s liable to correction when the [illegible] In these seventy-five large [illegible] ered during the week ending Saturday last [illegible] of mortality being 20.1 per 1,000. The rates [illegible] from 5.6 in Handsworth, 9.7 in Grimsby, [illegible] Coventry, 11.2 in West Hartlepool [illegible] n Leyton, to 24.2 in Southampton, [illegible] n Norwich, 26.4 in Sunderland, 27.3 in Me[illegible]ith. In London the death-rate was [illegible] he mean rate in the seventy-four other [illegible]te in these seventy-five towns averaged [illegible] 4.2 in Hanley, 4.5 in South Shields, [illegible] Tees, [illegible] in Aston Manor, and 7.5 in [illegible] 8 in Norwich, 3.0 in South [illegible] 6.5 in Rotherham; scarlet fever [illegible] Wednesbury, 1.7 in Middlesbrough, and [illegible]gh, and 1.2 in St. Helens 2.1 [illegible] 1.1 in Stockton-on-Tees; "fever" 1.2 [illegible] 1.2 in Rochdale, and 2.0 in of [illegible] Tynemouth. Twenty-eight fatal cases [illegible] 1 in West Ham, and 1 in Eas[illegible]ther of the seventy-five towns. The numbe[illegible]nder treatment in the Metropolitan Asylu[illegible] were 656, 658, and 666 at the end of the three preceding weeks; [illegible] on Saturday last; 261 new cases were admitted [illegible] week, against 134, 161, and 225 in the three prece[illegible]let fever cases in these hospitals and [illegible] on Saturday, January 4th, was 2,087, against [illegible] were admitted [illegible] against 231, 247, and 263 in the three preceding weeks.

[illegible] OF SCOTCH TOWNS.

DURING the we[illegible] January 4th [illegible] births and 750 deaths were re[illegible] principal Scotch towns. The [illegible] which had been 20.7, 21.5, and [illegible] further increased last week to 23.2 [illegible] the mean rate during the [illegible] towns. Among these Scot[illegible] Edinburgh [illegible] The [illegible] rate in these [illegible] rates being recorded in Paisley [illegible] included [illegible]h, 5 from "fe[illegible] were recorded in [illegible] and 4 of diarrhœa in Dundee: 2 of [illegible] and 2 of measles and 2 of scarlet [illegible]

NOTIFICATION OF CHICKEN-POX

It [illegible] the Local Government [illegible] x to the [illegible] cells, top [illegible] polis, to [illegible] constitute an "emergency within [illegible] of the Public Health (London) Act [illegible]

of [illegible] cted to take the [illegible] as provided by [illegible] metropolis and to the [illegible]

[illegible]TION.

Wher[illegible] heading [illegible] a recent number gives a re[illegible] of [illegible] for [illegible] [illegible] [illegible]

other members of the profession, first, owing to the fact that these last have to pay for the lymph, a minor matter in itself, while the public vaccinator has any quantity supplied gratuitously; and secondly, that because the vaccine obtained in the outside market, which alone is available to the general practitioner, is variable in quality and from unknown sources. We do not all want to become public vaccinators, but we demand that which countries like Germany and Switzerland can do, and that is, supply a national lymph which is as pure and potent as can be made, and which shall be available either by purchase or by any fair and reasonable restrictions to every registered medical practitioner. The least, however, that should be insisted on at present is that the private patients of all practitioners, whether public vaccinators or not, should be treated alike.

PUBLIC VACCINATION AND THE FRANCHISE.

MACHATTIE asks: Is it the case that anyone being vaccinated by a public vaccinator is "a person receiving relief from the rates," and so being *in forma* a pauper and disfranchised?

*** Section XXVI of the Vaccination Act, 1867, reads as follows: "It is hereby declared that the vaccination, or the surgical or medical assistance incident to the vaccination of any person in a Union or parish, heretofore or hereafter performed or rendered by a public vaccinator, shall not be considered to be parochial relief, alms, or charitable allowance to such person or his parent, and no such person or his parent shall by reason thereof be deprived of any right or privilege, or be subject to any disability or disqualification."

DOCTORS AND MIDWIVES.

P.L.M.—It is impossible to lay down any rigid rule as to what a medical man should do when requested to attend a case of this description. He ought, of course, to make all reasonable inquiry from the applicant, and if this happens to be the husband of the patient he has every opportunity to do so. We would refer our correspondent to the article headed Doctors and Midwives, published in the BRITISH MEDICAL JOURNAL of December 28th, 1901, p. 1873.

INDIA AND THE COLONIES.

HONG KONG.

THE PREVENTION OF MALARIA.—Major H. H. Brown, R.A.M.C., Acting P.M.O. Hong Kong, writes: On page 684 of the BRITISH MEDICAL JOURNAL of September 14th, under the heading on Prevention of Malaria, Hong Kong, the effect of cutting down the undergrowth for 300 yards round the sanatorium is shown in such a misleading and favourable light, that I take the liberty of forwarding the actual results of this long-continued and thorough experiment. The undergrowth was carefully and continuously cleared, over 100 men were kept there doing practically nothing else, and 3 grains of quinine were given to each man daily. The result was:

1901. Month.	Average Strength of Detachment.	Admissions for Malarial Fevers.	Remarks.
April	106	None	
May	125	1	Very severe. No previous admission.
June	100	5	Also 2 dysentery.
July	101	3	Also 3 debility and 3 rheumatism of malarial origin; 4 diarrhœa, 3 dysentery.
August ...	98	8	2 invalided.
September ...	103	10	1 died of malignant malaria.
Oct. to 16th...	100	31	2 probable invalids. The place was evacuated on October 14th.

One British and 1 native officer also were attacked (in September and October), the former very severely—he will probably be invalided; also 5 native followers and 2 Chinese servants, not shown in the above, contracted fever in September; 1 of the latter died. Not only did the detachments while at the sanatorium contract fever, but a high rate of sickness continued among these men after they had been relieved. For example, on September 2nd, 1901, the 98 men of the 5th Infantry Hyderabad Contingent were relieved by the 22nd Bombay Infantry, and during September 37 of them were admitted to hospital for fever; of these, 3 were invalided and 3 more will probably be invalided. British troops have not been stationed there as stated on p. 684; 2 British privates were placed in charge of the buildings as caretakers and they both contracted fever. The cause of the unhealthiness of the sanatorium and of the houses in the immediate vicinity lies, I feel sure, in the fact that they are situated about 1,000 feet above sea level, at the top of a long valley containing swamps and dense tropical vegetation. Several of these houses have been pulled down on account of fever and the remainder cannot be let. A few hundred yards away from the up draught from this valley the houses are perfectly healthy. Similar instances may be found in Indian hill stations of houses uninhabitable on account of fever at elevations over 6,000 feet when situated at the head of valleys running down to the Terai country, whereas a short distance, a few hundred yards away, the houses not swept by this up-draught are immune from fever. Professor Parke long ago pointed out the unhealthiness of valleys, and I am convinced no amount of jungle cutting in the immediate vicinity of houses situated in them will in tropical countries be of any appreciable advantage on account of the strong currents of air that rush up those natural funnels. I write this because I think if the investigations into the means of preventing or avoiding malaria are to end in success, facts are all-important.

HOSPITAL AND DISPENSARY MANAGEMENT.

MANCHESTER ROYAL INFIRMARY.

AT a recent meeting of the Board of Management of the Manchester Royal Infirmary the following resolution adopted at a meeting of the Infirmary House Committee was confirmed: "The Medical Board desire to express their grave concern at the long-continued delay in carrying out the scheme for rebuilding the infirmary. They feel that it is nothing less than a public scandal that Manchester should have no better hospital accommodation, and they urge the Infirmary Board without further loss of time to carry out some scheme which will provide adequately for the needs of this great centre of population and education. The Infirmary Committee concur in the above resolution by the Medical Board at their special meeting of the 12th inst., with regard to the urgency of the question of rebuilding the infirmary, and can assure them that the question is receiving the most anxious consideration of the special Committee appointed to obtain plans for a new building, and that everything is being done which in their judgment can be done to bring the matter to a speedy conclusion."

GLOUCESTER INFIRMARY: PROPOSED ENLARGEMENT.

AT a special meeting of the governors of the Gloucester Infirmary, held recently, proposals and plans were submitted for certain additions and alterations, the chief of which was to build a nurses' home in three sections. The chairman (Colonel Curtis Hayward) pointed out that thirty years ago a nursing staff of only 11 was found sufficient; now they required 65, for 40 of whom, on an average, sleeping room had to be found. Temporary provision had been made for their accommodation, but the time had arrived when something of a permanent nature must be done. The estimated cost was £6 000, which, however, did not include lighting, heating, or furniture. After a long discussion, it was unanimously resolved that the proposals of the architect (Mr. Walker) should be carried out as soon as possible, and that an appeal should be made to the county and city and the public generally for the necessary funds, which are estimated at £10,000.

NEW WING OF THE BOLINGBROKE HOSPITAL.

A NEW out-patient department comprising a waiting hall, consulting rooms, a Roentgen-ray room and offices forming the Victoria Wing of the Bolingbroke Hospital was formally opened by Mr. Thomas Bryant, Surgeon to the King, last month. The hospital is partly for contributing patients and partly free in regard to the treatment of accidents. Among others who took part in the proceedings were Canon Erskine Clarke, the founder of the hospital, Sir Henry Burdett, and Mr. Hennesley, Chairman of the Metropolitan Asylums Board.

MEDICAL NEWS.

THE LIGHT TREATMENT IN SPAIN.—The Queen Regent of Spain has given 10,000 pesetas towards the installation of an Institute of Phototherapy in Madrid, for the establishment of which Dr. Farinos has been for some years striving.

THE St. Luke's Medical Lodge of Instruction has been formed by the now numerous medical masonic lodges for the use of medical masons. Meetings will be held at the Criterion on the first and third Monday in each month from October to May inclusive, at 8.45 P.M. The first meeting will take place on January 20th. There is an entrance fee of five shillings, but no annual subscription, each member paying sixpence at each meeting that he attends. Any medical Masons who may not belong to a medical lodge may join by applying to Mr. George Rowell, 6, Cavendish Place, W.

THE Lady Mayoress of Bristol held an "At Home" on January 4th, when Lady Lucy Hicks-Beach spoke on behalf of the Queen Victoria Jubilee Institution for Nurses, proposing the formation of a women's memorial fund in Bristol in its aid. The suggestion made was that the City should be regularly canvassed from house to house for subscriptions, leaflets containing information distributed, and collecting cards provided. The meeting approved of the proposal and formed itself into an organising committee to carry out the details.

NEW ASYLUM FOR LANCASHIRE.—The new asylum at Winwick, near Warrington, erected by the Lancashire Asylums Board for the reception of 1,000 males and 1,000 females, with accommodation for 200 attendants, was informally opened last week, and was taken into use on Monday last. Dr. J. F. Gemmel, lately Senior Assistant Medical Officer, Lancaster Asylum, has been appointed Medical Superintendent of the new asylum. The cost, including site and equipment, has been about £200 a bed.

LEGISLATION FOR INTEMPERANCE IN NEW YORK.—During the last session of the New York State Legislature a Bill was presented advocating the foundation of a sanatorium where inebriates, alcoholic or other, may receive care and treatment. The application for admission must be made voluntarily by the patient, by a member of his family, or by specially authorised officers of the law. The term of commitment is to be for not less than five years.

THE annual meeting of the London Hospital Medical Club was held at the Café Royal, Regent Street, on December 31st, 1901. Dr. Albert S. Morton, of Putney, occupied the chair, and was supported by Drs. Sansom, Herman, Openshaw, and others. Dr. Morton, in proposing the toast of "The King," pointed out that His Majesty had peculiarly honoured the medical profession by accepting the honorary diplomas of F.R.C.P. and F.R.C.S., and that he had a deep knowledge of the facts as to tuberculosis and cancer. The members voted a sum of 10 guineas to the fund for the benefit of the family of the late Dr. William Smyth, who so heroically sacrificed his life.

INTRAVENOUS INJECTIONS IN FOOT-AND-MOUTH DISEASE.—Various conflicting rumours concerning the efficacy of endovenous injection of corrosive sublimate in foot-and-mouth disease have been current in Italy. A short time ago Professor Baccelli was asked in Parliament to give some actual statistics of the results obtained. This he did not do, though he spoke in general terms of its efficacy. Last week a special meeting of the Piedmontese Veterinary Association was held to consider the subject. A resolution was passed unanimously condemning the treatment. The method was declared to be useless, and in many cases injurious by the exacerbation both of the fever and of the local symptoms, and also by the production of mercurial poisoning. Such a sweeping condemnation by experts seems to foreshadow the abandonment of a method which seemed to promise much.

THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held on December 27th, 1901, at 429, Strand, London, W.C. There were present: Dr. de Havilland Hall (in the chair), Dr. J. B. Ball, Dr. Frederick S. Palmer, Dr. Walter Smith, Dr. StClair B. Shadwell, Mr. F. S. Edwards, Dr. F. J. Allan, and Dr. W. Knowsley Sibley. The accounts presented showed that the number of new members secured by the Society through the autumn was appreciably greater than that in the corresponding portion of last year, while the number lost through death and lapse was rather under the average. The claim account had been moderate for the [illegible] year, but there was reason to fear that several additions had recently been made to the list of those who require the continuous sick pay allowed by the Society to those permanently incapacitated from professional work. [illegible] information on application to Mr. F. Adams, Secretary, Medical Sickness and Accident Society, 33, [illegible], W.C.

TYPHOID IN SWITZERLAND.—A correspondent sends us an extract from a recent issue of the Geneva newspapers stating that an epidemic of typhus, by which no doubt [illegible] itself this summer in Brieg and that many persons of all classes of the community were attacked, the fact of it [illegible] was kept secret, so as not to cause too great an injury to the hotel industry. The outbreak is declared to have been due to carelessness in the drains of the [illegible] part of the town, and especially to the condition of the [illegible] where the cases of typhus [illegible] were found. It is [illegible] that a certain number of persons who had been seriously ill prepared to leave the Chalet on the [illegible] where they had been residing, and to reside at Valais, a small village on the other side of the valley. As our correspondent points out, though a small [illegible] from the town, it is [illegible] much used as a [illegible] by persons travelling over the Simplon Pass. From [illegible] to other [illegible] Besides that [illegible] of the outbreak [illegible] and [illegible] of the whole of the locality, and it has been said that several who are in the habit of spending their holidays there will in future hesitate to do so.

MEDICAL VACANCIES.

The following vacancies are announced:

BELFAST: MATER INFIRMORUM HOSPITAL.—(1) Resident Physician. (2) Resident Surgeon. Appointment for six months. Salary, at the rate of £40 per annum each and all found. Applications to the Honorary Secretary, 17, Crumlin Road, Belfast.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; unmarried. Salary, £150 per annum, with £30 per annum for cab hire, and furnished rooms, etc. Applications to the Secretary by January 20th.

BIRMINGHAM GENERAL HOSPITAL.—(1) Three posts of House Physician. Appointment for six months, but eligible for re-election. (2) House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with residence, board, and washing in each case. Applications to the House Governor by February 1st.

BOOTLE BOROUGH HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer; unmarried. Salary, £120 per annum, with board, washing, and apartments. Applications, endorsed "Resident Medical Superintendent," to be sent to the Chairman of the Hospital Subcommittee, Town Hall, Bootle, by January 15th.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to be sent to the Secretary.

BUXTON: DEVONSHIRE HOSPITAL.—(1) House-Surgeon. Salary, £100 per annum. (2) Assistant House Surgeon. Salary, £50 per annum. Furnished apartments, board and lodging provided in each case. Applications to the Secretary by January 25th.

CHARING CROSS HOSPITAL.—Third Anæsthetist. Applications to be addressed to the Medical Committee by January 20th.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon; unmarried. Salary, £80 per annum, with board and apartments. Applications to H. T. Carrington, Esq., Honorary Secretary and Treasurer, by January 21st.

DERBYSHIRE ROYAL INFIRMARY.—Assistant House-Surgeon. Appointment for six months. Salary, £30, with board, residence, and washing. Applications to the Secretary by January 17th.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Chairman of the Medical Committee by January 28th.

DONCASTER BOROUGH, Blaby-with-Hexthorpe and Wheatley.—Medical Officer of Health, with charge of the Infectious and Small-pox Hospitals. Salary combined, £350 per annum. Applications, endorsed "Medical Officer," to be addressed "Selection Committee," 1, Priory Place, Doncaster, by January 23rd.

DOUGLAS: NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon; unmarried. Salary, £82 per annum, with board and washing. Applications to the Honorary Secretary, 25, Athol Street, Douglas, Isle of Man, by January 28th.

DUNEDIN, NEW ZEALAND: SEACLIFFE LUNATIC ASYLUM.—Assistant Medical Officer; unmarried, and between 23 and 30 years of age. Salary, £250 per annum, with board, lodging, and washing. Applications to the Agent-General for New Zealand, 13, Victoria Street, London, S.W.

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £140 per annum, rising to £160, with board, laundry, and attendance. Applications to the Medical Superintendent, Durham County Asylum, Winterton, Ferryhill.

EDINBURGH ROYAL INFIRMARY.—Pathologist. Salary, £400 per annum. Applications to Mr. W. S. Caw, Treasurer and Clerk, by January 31st.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Junior Resident Medical Officer and Registrar. Salary, £50 per annum, with board and washing. Applications to the Committee of Management by January 13th.

GLASGOW ROYAL INFIRMARY.—Superintendent, must be registered medical practitioner, and not exceed 45 years of age. Salary, £500 per annum, with board, house coals, and light. Applications to the Secretary by January 15th.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum, with board, residence, and laundry. Applications to the Secretary.

HAMPSTEAD HOSPITAL.—Resident Medical Officer. Appointment for six months, but eligible for re-election. Salary at the rate of £120 per annum, with rooms, coals, and gas. Applications to the Secretary at the Hospital, Parliament Hill, N.W., by January 16th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon; unmarried. Appointment for six months. Salary, £20, washing allowance (£2 10s.), with board and residence. Applications, on forms provided, to be sent to the Secretary by January 20th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. £[illegible] per annum, with partially furnished house etc. Applications, [illegible] for Medical Superintendent," to be sent to the Clerk to the [illegible] County Hall, Brecon, by February 28th.

LANCASHIRE COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, with board, lodging, and washing. Applications to the Medical Superintendent, Winwick, Newton-le-Willows, by January 20th.

LONDON HOSPITAL, Whitechapel, E.—Assistant Director of the Pathological Institute. Salary, £200 per annum. Applications to the House Governor by February 1st.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £70 per annum, with board and residence. Applications to the House Committee by January

NORFOLK COUNTY ASYLUM, Thorpe, Norwich. Junior Assistant Medical Officer for [illegible] Division; unmarried and under 30 years of age. Salary begins at £120 per [illegible] board, lodging, and washing. Applications to the Medical Superintendent.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF [illegible] AND: Assistant Bacteriologist in the Research Laboratories, [illegible] per annum. Applications to the Secretary, [illegible] W.C.

ROYAL HOSPITAL FOR INCURABLES, Putney Heath.—Medical Officer. Salary, [illegible] ns to the Secretary, 106, Queen Victoria Street, E.C., by

ST. ANDREWS UNIVERSITY.—Additional Examiners for graduation in Physiology [illegible] Secretary by January 31st.

[illegible] HOSPITAL.—Assistant Surgeon; must be F.R.C.S.Eng. Appli-

[illegible] Medical Officer of Health, between 35 and 50 years of age. [illegible] per annum. Applications to the Clerk, Shirehall, Shrewsbury, by

[illegible] HOSPITAL, N.—House-Surgeon. Salary, £50 per annum, with board, [illegible] by January 15th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident House-Surgeon. Salary, [illegible] Applications to the [illegible] West Bromwich.

[illegible] Resident Medical Officer, [illegible] furnished apartments, coals, [illegible] to be sent to the Clerk to the [illegible] Whitechapel, N.E., by January 11th.

[illegible] Surgeon. Salary, £80 per annum, with [illegible] ns to the Secretary by January 18th.

MEDICAL APPOINTMENTS.

[illegible] Daniel [illegible], Sydney, M.B., C.M.Edin., appointed Surgeon to the [illegible] and District.

[illegible] Medical Officer of the Fifth District of the [illegible] appointed.

BISSELL, F. E., L.R.C.P., L.R.C.S.Edin., appointed District Medical Officer of the Dore Union.

BOON, J. G., L.R.C.P., L.R.C.S.I., appointed Certifying Factory Surgeon for the Borough of Wenlock, County Salop.

BREWS, Richard V., L.R.C.P., L.R.C.S.I., appointed District Medical Officer of the Woolwich Union, *vice* W. J. Vance, L.R.C.P.Edin., L.R.C.S.I., resigned.

BROWN, A. Tennyson, M.B., C.M.Aberd., appointed Medical Officer of Health to the Horsury Urban District Council, *vice* B. Kemp, M.R.C.S.Eng., resigned.

COLLINGWOOD, Frederick W., L.R.C.P.Lond., M.R.C.S., appointed Anæsthetist to the Samaritan Free Hospital.

COLLINSON, Harold, M.B., M.R.C.S., L.R.C.P., appointed Resident Surgical Officer to the General Infirmary, Leeds.

CRIPPS, Harrison, F.R.C.S.Eng., appointed Surgeon to St. Bartholomew's Hospital, *vice* Alfred Willett, F.R.C.S., resigned.

CUTHBERT, Wm. H., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Frinton-on-Sea Urban District.

DAKIN, T. B., M.R.C.S., L.R.C.P.Lond., appointed Certifying Factory Surgeon for the Ulceby District of Lincolnshire.

DENYER, Stanley Edward, C.M.G., M.A., M.D., B.C.Cantab., appointed Assistant Demonstrator of Anatomy in the University of Cambridge (Lent Term).

EDEN, W. A., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of the Eighth District of the Bodmin Union, *vice* H. W. Haydon, M.R.C.S.Eng. L.R.C.P.Lond., resigned.

HARRIS Arthur B., M.B., Ch.B.Oxon., appointed Medical Officer of Health for the Loughton Urban District.

HIND, Wheelton, M.D.Lond., F.R.C.S., appointed Honorary Senior Surgeon to the North Staffordshire Infirmary and Eye Hospital, Stoke-on-Trent, *vice* W. D. Spanton, F.R.C.S.

KINMONT, P., M.B., F.R.C.S.E., appointed Senior House-Surgeon to the County Hospital, Lincoln, *vice* E. T. Woodbridge, M.R.C.S., resigned.

MUDD, Frank Burnand, M.R.C.S., L.R.C.P., appointed Honorary Anæsthetist to the Throat Hospital, Golden Square, W.

O'CONNOR, J. E., M.B., B.Ch.R.U.I., appointed Medical Officer of Health for the combined Districts of Leicestershire, Rutland, and Warwick.

OWEN, Edmund, F.R.C.S., appointed Consulting Surgeon and Surgeon-in Chief to the French Hospital and Dispensary, *vice* Sir William Mac Cormac, deceased.

PARDOE, John, M.B., M.R.C.S., appointed Surgical Assistant to St. Peter's Hospital, Covent Garden.

ROBB, William, M.B., C.M.Glasg., appointed Medical Officer of Health for the Irthlingborough Urban District.

ROGERS, Francis C., F.R.C.S., L.R.C.P.Edin., appointed Medical Officer of Health for the Erith Urban District.

SPANTON, W. D., F.R.C.S., appointed Consulting Surgeon to the North Staffordshire Infirmary and Eye Hospital, Stoke-on-Trent.

DAIRY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Mr. Mayo Robson: Observations on the Surgical Treatment of Obstructive Jaundice, resulting from an experience of over 200 operations.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 P.M. —Adjourned discussion on Modern Methods of Vaccination and their Scientific Basis, to be opened by Dr. T. D. Acland, and taken part in by Dr. Greenwood, Dr. Sidney Coupland, Dr. Eddowes, Dr. Louis Parkes, Mr H. A. Stonham, Dr. Albert E. Cope, Dr. J. Loane, Professor Sims Woodhead. Dr. Copeman will illustrate his remarks by lantern slides to be shown on Zeiss's epidiascope. (This will be the first public demonstration of the epidiascope.)

WEDNESDAY.

Royal Meteorological Society, Institution of Civil Engineers, Great George Street, Westminster, 7.45 P.M.—Annual general meeting.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.

THURSDAY.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8 P.M.—Annual general meeting. Election of officers. President's address. Annual conversazione.

FRIDAY.

Society for the Study of Disease in Children, Evelina Hospital, 5.30 P.M.—Cases by Mr. A. H. Tubby, Mr. J. Jackson Clarke, Mr. Walter Edmunds, Dr. George Carpenter, and Mr. F. C. Abbott. Papers:—Dr. Lewis Marshall (Nottingham): A Case of Thyroid Dislocation of the Hip in a Child. Dr. W. A. Milligan: A Note on a Case of Chronic Granular Nephritis in a Child aged 7 years.

POST-GRADUATE COURSES and LECTURES.

Charing Cross Hospital, Thursday, 4 P.M.—Demonstration of Surgical Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 P.M. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 P.M. Lecture on Muscular Atrophy.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 P.M. as follows:—Monday: Surgical Emergencies. Tuesday: Traumatic Neurasthenia. Wednesday: Lantern Demonstrations on Hernia. Thursday: Conjunctival Diseases. Friday: Diagnosis of Disease of Spinal Cord, illustrated by Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BARNETT BENTLIF.—On January 8th, at 7, David Place, Jersey, the wife of P. Barnett-Bentliff, M.R.C.S., of a son.

DONOVAN.—At Warwick, on December 21st, 1901, the wife of Lieutenant-Colonel H. L. Donovan, Royal Army Medical Corps (R.P.), of a son.

FARQUHARSON.—At Garlands, Carlisle, on December 30th, 1901, the wife of William F. Farquharson, M.D., of a son.

DEATHS.

COWIE.—At Ronnecord, Branksome Park, Bournemouth, on January 7th, Katharine Scott Forbes Cowie, wife of C. A. Cowie, M.D., aged 30.

FURNISS.—On January 8th, at 396, Ecclesall Road, Sheffield, John (Ian) Henry Furniss, M.B., C.M., in his 35th year, suddenly.

MACDONALD.—At Kirkoswald, Cumberland, on January 6th, Alexander Macdonald, L.R.C.P., L.R.C.S., aged 51.

WOOD.—At Kroonstad, Orange River Colony, South Africa, on January 3rd, Lieutenant-Colonel Oswald G. Wood, M.D., C.B., Royal Army Medical Corps.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those respecting the Publication, delivery of the JOURNAL, etc., should be addressed to the Manager, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE "L.O.S." OF LONDON.

DR. G. H. BROADBENT (Manchester), writes: Will you kindly allow me to call the attention of the President of the Obstetrical Society of London, and Dr. Humphreys, who lectures to midwives for the examination of the O.S.L. to the following advertisement which appeared on page xxi. January 1st, 1902, of the *Medical Press and Circular*, and simply asking them if they will reply to my query put on former occasions. "Whether they do or do not approve of midwives styling and signing themselves as 'L.O.S.,' and whether the Obstetrical Society has taken any steps, as indicated by Dr. Percy Boulton some months ago, to discountenence the practice:—

> "NURSE wanted immediately, with L.O.S. Diploma, for four months in East London parish. Good pay and bonus offered. Address, Nurse Lilian, 9, Green Street, Bethnal Green."

ANSWERS.

INVOLUNTARY DEFÆCATION IN A BOY.

DR. F. H. EDGEWORTH (Clifton, Bristol) writes: In regard to the query of "M.D." in the BRITISH MEDICAL JOURNAL of January 4th, I may say that an apparently exactly similar case, aged 14, recently under my care, was cured by syr. hypophos. co. 3j thrice a day. There was no evidence of any mental or nerve disease or defect in the sphincter ani or rectum, and I could only assume it to be a phenomenon of the same nature as the involuntary micturition of children.

ARRESTING SECRETION OF MILK.

DR. SLADE J. BAKER (Abingdon) recommends "B." to try the effects of belladonna. I have used it, he writes, in very many cases since 1867 without a single failure. I apply the extract for 1 inch round the nipple twice a day for three days and then resort to belladonna liniment; I at the same time give small doses of potassium nitrate, magnesium sulphate, and aromatic spirits of ammonia. I have used this remedy for one breast while the patient has continued to nurse with the other. Before 1857 I had several cases of abscess of the breasts. Colchicum has been recommended internally as it has been stated that milch cows become dry if they eat the meadow saffron.

LETTERS, NOTES, Etc.

THE TEACHING OF DIETETICS.

DR. J. HADDON (Hawick) writes to express the opinion that the General Medical Council should require every medical school to have a lecturer on dietetics. Though the subject is still in its infancy, he thinks that what is known should be told to everyone who enters the profession, as he believes that unless it is more studied the profession will suffer, since the public are beginning to learn some of the value of diet in health as well as in disease.

POISONING BY BORACIC ACID.

DR. OSCAR LIEBREICH (Pharmacologisches Institut, Berlin) writes: Under the heading "Poisoning by Boracic Acid" there appeared in the EPITOME of the BRITISH MEDICAL JOURNAL, December 7th, 1901, par. 401, an abridged account of several cases reported by G. F. Rinehart (*Therapeutic Gazette*, Philadelphia, No. 10). Unfortunately the abridged account leaves out some very important data, so that it is impossible for the reader to form a correct opinion of the cases.

Mr. Rinehart had two cases: the first, a man aged 38, with urethritis posterior, was given 5-gr. doses of boracic acid by the mouth every four hours; the second, a man of 50, received a similar dose by the mouth every four hours, and also had his bladder washed out daily with a concentrated solution of boracic acid. In both cases serious after-effects were observed.

I would here remark that the first and second cases are more alike in character than would appear from the account in the EPITOME. For the original article states that in the first case also the bladder was washed out periodically with a concentrated solution of boracic acid. Now, it has never been denied that washing out body cavities and the

bladde[illegible] doses of boracic acid in cases like the above. t[illegible]al condition, may entail [illegible]d that a concentrated [illegible]n, and that one or two litres [illegible]grams, that is, about two ounces [illegible]er, which thus has occasion to [illegible]vid than is ever given by [illegible]grs given per os every [illegible]y that they cannot be [illegible] effects observed.

[illegible]er speaks of two fatal cases of H. Wood; but it omits the statefirst two—there was washing out bar abscess in one case and a in the EPITOME also omits "They (boracic acids and animal system," and, further, ormous doses depressed the spinal se, in the shape of subcutaneous

[illegible]statement in my pamphlet hill, London, 1899), namely, ng from the internal use of e customary for the preserves. But I have never denied ties may cause dangerous considering these symptoms with, the doses used in the prelead us to discard substances saltpetre, which even in weak solutions may nts in the treatment of wounds.

THE [illegible] AIR IN ETHER ANAESTHESIA.

DR. [illegible] writes: Dr. MacGregor Young's modi- Cyanosis sufficient to be a danly caused by the administrator of anæsthesia with a small gives rise to spasmodic coughloroform drop bottle for my putting a few drops on a piece By this simple means it vapour to reach the an by a sprinkling on a and fall. Most surgeons, inary case to be ready in expectation. Dr. Young's utes; the "suspicious re air being mixed with the to think that a similar result in the bag at all. The rubber bag and be kept quite close the anæsthetist person but with a little hot antiseptic between each administra-

DR. J. N. HURDIN (Sutton, Surrey) writes: When medical attendant of Hiccough from the going on for several with caffeine suppositories with the result that an Ether and iced cracked result of indiscretion.

[illegible] pupil must quarter [illegible] for subsequent examination, etc.

[illegible] is curious some curious facts may be brought to light, and [illegible]

tion whether chicken-pox ought not to be notified in future. I believe it ought. I have purposely omitted mentioning confluent small-pox, but my remarks apply to simple or modified small-pox and chicken-pox.

THE MORPHINE HABIT.

DR. J. B. MATTISON, Medical Director of the Brooklyn Home for Narcotic Inebriates, offers a prize of £80 for the best paper on the subject: "Does the Habitual Subdermic Use of Morphine cause Organic Disease? If so, what?" The competition is to be open for two years from December 1st, 1901, to all medical practitioners, and essays may be written in any language. The award will be made by a committee consisting of Dr. T. D. Crothers, of Hartford, Connecticut, editor of the *Journal of Inebriety*, as chairman; Dr. J. M. Van Cott, Professor of Pathology, Long Island College Hospital, Brooklyn, and Dr. Wharton Sinkler, Neurologist to the State Asylum for the Chronic Insane, Philadelphia. All papers to be in the hands of the Chairman, on or before December 1st, 1902. They will become the property of the American Association for the Study and Cure of Inebriety, and will be published in such journals as the Committee may select.

LETTERS, COMMUNICATIONS, ETC., have been received from [illegible] Mr. F. [illegible] (London); Messrs. Arnold and Sons, London; Alpha; **B** H. A. [illegible]; Mr. F. [illegible] (London); Messrs. Arnold and Sons, London; Alpha; **B** H. A. [illegible]

Observations

ON

THE SURGICAL TREATMENT OF OBSTRUCTIVE JAUNDICE FROM AN EXPERIENCE OF OVER 200 CASES.

Read before the Medical Society of London, January 13th, 1902.

BY A. W. MAYO ROBSON, F.R.C.S.,

Senior Surgeon to the General Infirmary at Leeds; Emeritus Professor of Surgery in the Yorkshire College of the Victoria University.

MY recent operative experience in cases of chronic obstructive jaundice, especially in those associated with gall stones and with chronic pancreatitis, has led me to take a more hopeful attitude in considering the treatment of deeply jaundiced patients from a surgical standpoint; and it is with a view to the expression of my views that I have ventured to respond to the kind invitation of the Council of the Medical Society by giving this paper to-night.

In expressing an opinion that the surgeon has as a rule no business with these cases until the symptoms are well marked, I think it should also be distinctly recognised, not only that no patient should be allowed to die of obstructive jaundice without the question of surgical interference being considered, but also that the question of surgical treatment should be raised at a time when operation may be undertaken, if called for, with a reasonable probability of success.

It has been my unfortunate experience to have to give an opinion on a very large number of such cases at a time when any active interference was out of the question, and when the only interest in the case was the question of diagnosis; and this must have been the experience of many of my surgical brethren.

DIAGNOSIS.

In all chronic jaundice cases the first and often the most difficult question is that of diagnosis, for if we can come to a definite conclusion regarding the cause of the obstruction, the proper treatment to adopt can usually be readily decided on.

The following causes must be taken into consideration:

1. Common duct cholelithiasis.
2. Chronic pancreatitis.
3. Simple stricture of the common bile duct.
4. Inflammatory adhesions causing pressure on or stenosis of the hepatic or of the common bile ducts.
5. Hydatid disease of the liver pressing on or discharging into the bile ducts.
6. Gummata implicating the ducts.
7. Chronic catarrh of the bile ducts.
8. Cancer of the common bile duct.
9. Cancer of the head of the pancreas.
10. Cancer of the liver associated with jaundice either due to catarrh or dressure.
11. Cirrhosis of liver.
12. Other rare causes such as aneurysm of the hepatic artery or of the aorta, and other tumours of the liver, gall bladder, pylorus, kidney, or intestine pressing on or occluding the common bile duct.

It will be at once seen that surgery holds out a good prospect of cure in the first 5 causes enumerated; that medical treatment alone is advisable for causes 6 and 7, and that in the remainder, with certain exceptions, relief only can be hoped for either from medical or surgical treatment.

Although one could easily spend an hour or more in discussing the diagnosis of the various causes, I think it will be more advantageous if I simply mention one or two points that I have found useful in guiding me to a conclusion as to whether the case is suitable for an exploratory operation or not.

A painless onset of chronic jaundice must always give rise to the suspicion either of chronic catarrh dependent on cancer of the liver or of occlusion of the hepatic or common bile duct by growth, and, if this be associated with distension of the gall bladder and rapid loss of weight and strength, cancer of the head of the pancreas will probably be found.

On the other hand, the history of an attack of pain in the upper abdomen, followed within twenty-four or thirty-six hours by jaundice, and preceded by so-called "spasms," either recently or at some remote period, is strongly suggestive of cholelithiasis. In the latter case, the jaundice will probably be less intense than in the former, and an intermittent fever with chills and sweats will probably either be present or have been noticed at some stage of the illness.

Enlargement of the liver is much more common in obstruction due to cancer than in that from gall stones, though it may be present in either; in cancer, however, nodules or irregular bosses may be discovered, and in gall stones an elongation of the right lobe of the liver, which is apt to be mistaken for a distended gall bladder, can often be felt.

The presence of ascites is suggestive of malignant disease, but in one case on which I operated, although there was a fair amount of fluid in the abdomen, I could find no sign of cancer, though there was cirrhosis of the liver due to biliary stagnation from the presence of a gall stone in the common duct for three years. I therefore persevered with the operation, and, after removing the obstruction, stitched up the omentum to the parietes in order to establish a collateral circulation. The patient, a man of 56, is now well. This is, however, an exceptional case, and as a rule the presence of ascites negatives any radical operation on the bile ducts.

In the early stages, difficulties will arise that time will clear up; for instance, the jaundice of gall stones is rarely continuously the same, but increases or diminishes from time to time, whereas the jaundice of obstruction due to growth steadily increases or tends to become absolute, especially in cancer of the bile duct or the head of the pancreas.

The element of time alone is of importance in diagnosis, for jaundice with malignant disease runs a very short course, whereas jaundice from gall stones or some simple cause may go on for several years.

It must not be forgotten that gall stones and cancer frequently coexist, and in the case of cancer of the gall bladder gall stones are nearly always present, and the combined disease may form a tumour before the onset of jaundice, though some degree of jaundice usually supervenes early in the disease.

Fat in the motions and glycosuria, with very rapid wasting, are suggestive of pancreatic trouble.

Ague-like symptoms more frequently accompany gall stones in the common duct than malignant disease of the ducts or of the head of the pancreas, but several cases that have come under my notice show that this rule is subject to exceptions.

After the abdomen is opened the discovery of adhesions in the neighbourhood of the gall bladder, and a contracted gall bladder, are strongly suggestive of gall stones, though I have found ulcer of the pylorus producing adhesions to the gall bladder, and at the same time setting up pancreatitis, and then, by pressure of the swollen pancreas on the common duct, setting up jaundice.

If no gall stones be found, but the head of the pancreas be swollen and harder than normal, the surgeon should not too hastily condemn the patient as the subject of cancer of the head of the pancreas, for the swelling may be a chronic pancreatitis, and may be curable by cholecystotomy, as I have proved in a considerable number of cases. Nor does the presence of enlarged glands warrant a gloomy prognosis, for it is quite common to find discrete glands in common-duct cholelithiasis and in chronic pancreatitis, though if the glands be fused together and infiltrating the neighbouring tissues, the outlook is far from good.

A rigid right rectus abdominis and tenderness 1 inch above and to the right of the umbilicus is as suggestive of gall stone trouble as is McBurney's tender point of appendicitis.

The appearance and feel of a tumour composed of matted omentum and the viscera adjacent to an inflamed gall bladder are often very deceptive, and in two at least of my earlier cases, after exploring such a mass with a hollow needle I closed the abdomen and gave a gloomy prognosis, which was proved to be wrong by the patients steadily improving and completely recovering. Before seriously interfering with the adhesions, and thus being committed to the following out of a dangerous and futile operation, it is desirable to raise the abdominal wall and carefully examine the liver and adjoining parts so as to be assured of the absence of secondary nodules of cancer.

If in doubt, it is better carefully to detach the omentum covering the gall bladder itself, when it may fortunately turn out that the viscus is full of gall stones and pus, as in Cases LVI

and LVII to be mentioned later, in both of which inoperable cancer had been diagnosed and a gloomy prognosis given, but in which cure by operation was effected, and the patients are now well; or even if, as often happens in this region, cancer be discovered and proves to be local, a radical operation may be undertaken with good prospect of success, as in a case where, three years ago, I removed from a middle-aged gentleman a wedge of liver and the gall bladder affected with carcinoma, and he remains in excellent health to-day; and in another case, where in a woman aged 56 I excised the gall bladder, the pylorus, and a portion of the liver, the patient being now well on in the second year after operation, in good health.

If, however, secondary nodules be seen or felt in the liver or omentum, the diagnosis of irremovable disease will be at once arrived at and the abdomen closed without delay.

A hæmorrhagic condition is common in cases of chronic jaundice, especially if due to cancer of the head of the pancreas or to interstitial pancreatitis. If not excessive, this can be corrected by chloride of calcium, or possibly suprarenal extract or gelatine; but, if severe, it will undoubtedly seriously add to the risks of operation.

If a patient at or past middle age has heart disease or albuminuria, operation should not be lightly entertained, and such cases have, as a rule, to be content with the relief that can be given by medical treatment.

TREATMENT.

The second question, as to treatment, depends on the diagnosis:

1. If the diagnosis be doubtful an exploratory operation is advisable, providing the general condition of the patient renders it probable that such a procedure *per se* apart from what is to follow will not hasten death.

2. If malignant disease be positively diagnosed operation can, with some few exceptions where it is possible to completely remove it, do little good, or at the best can probably only prolong life for a short time.

3. If gall stones, or, in fact, any of the first five enumerated causes be diagnosed, operation is decidedly advisable if the patient be at all in a condition to bear it.

1. *When the Diagnosis is Doubtful.*

It will be convenient to consider these three conditions [illegible] and best of all the question of operating for the purpose of clearing up the diagnosis, with a view to at once closing the abdomen if unfavourable conditions be found, or, if favourable, performing whatever operation may be necessary at the time in order to bring about relief or attempt a cure.

The uncertainty as to the cause of the obstruction in many cases of jaundice is what makes this class of cases of such extreme interest both to the physician and surgeon; and although [illegible] experience will frequently enable a diagnosis to be arrived at by instinct as it were, yet mistakes will be made and patients condemned when prolongation of life or even permanent cure by operation proves that the most skilful [illegible] may err.

The following brief abstract of cases condemned as hopeless but afterwards operated on, demonstrates my meaning better than a multiplicity of words. The numbers, where [illegible] refer to those of the cases in my notebook.

[illegible] good recovery; well in [illegible]

[illegible] gall bladder [illegible]

No. 253.—Man, aged 39. Gall stones, seizures for five years, and discovery of concretions in motions. Operation, September 22nd, 1898. Gall bladder and liver infiltrated with what appeared to be cancer, though nodules not large enough to be felt through abdominal walls. Some gall stones felt deeply in bile passages. Thought to be useless to attempt complete operation. Patient recovered, lost his jaundice, gained weight, had no further recurrence of pain, and was reported to be quite well May 24th, 1899. This case I cannot explain, as there was every appearance of cancer of the liver.

No ....—Man, aged 51, said by eminent London physicians to be suffering from cancer of liver and to be incurable. Jaundice intense for nine months: great loss of flesh: very little pain and no ague-like attacks. The only suggestive symptoms were the history of intermittent pains in the upper abdomen some years previously, and a tender point at the usual spot 1 inch above and to the right of the umbilicus, which enabled me to diagnose gall stones in the common duct and to advise operation. Operation, September 21st, 1901. Six large gall stones removed from common duct by choledochotomy. Good recovery. A letter in November stated that he had gained 1 stone 11 lbs., that he had completely lost his jaundice, and was quite well.

All these cases go to support the first proposition, that if the diagnosis be doubtful and the patient be at all in a condition to bear operation, exploratory laparotomy should be performed, for not only may a removable cause of the jaundice be discovered, but it may fortunately happen that even if the disease appear to be incurable on exposure, the operation *per se* may have some hitherto unexplained influence leading to recovery, as in 2 of the cases mentioned and in others that I have seen.

Were it necessary I could very considerably amplify this list of operations in doubtful cases leading to a complete and perfect cure of patients pronounced by experienced and careful observers as hopeless, and in many of the cases the patients had been especially warned by their advisers on no account to consult a surgeon lest he should be tempted to interfere.

The class of cases which I described before the London Polyclinic as chronic pancreatitis demonstrates how unwise it is to give a too gloomy prognosis even in cases apparently malignant, for it is to be borne in mind that the hardness of the head of the pancreas in chronic pancreatitis may resemble in touch that of cancer, and it is only by the subsequent course of events after the operation for jaundice that the true nature of the disease is made manifest by the complete recovery of the patient. Moreover, even in some tumours of the gall bladder inflammatory may closely resemble malignant growth in almost every particular save the one, that after operation the inflammatory swelling tends to disappear and the malignant to increase.

2. *In Malignant Disease.*

The second proposition as to operating in the presence of a positive diagnosis of malignant disease, so far as such a diagnosis can be positive. There are clearly in my mind two classes of cases in which operation can do no good:

(1) Primary cancer of the liver, characterised by irregular enlargement of the organ, with the usual general signs of malignant disease; and

(2) Cancer of the head of the pancreas after middle life, characterised by the entire absence of pain at the onset of jaundice, an absence of the history of gall-stone attacks, an extremely rapid loss of weight and strength, and the presence of an enlargement of the gall bladder, and usually some enlargement of the liver.

In the former disease the growth is too diffuse for removal, and in the latter my experience is that the disease is absolutely irremovable, and that drainage of the gall bladder, even if successfully accomplished, does not prolong life materially; and this is borne out by Dr. Hale White's observations published in *Guy's Hospital Reports*, and in the series of operations collected by Dr. Takayasu of Osaka. In younger patients the question of operation should, however, always be seriously considered, as malignant disease of the pancreas is not common until middle age or later, and chronic pancreatitis may be the cause of the jaundice, and is curable by drainage of the gall bladder.

The following cases show that in forms of cancer other than those mentioned, relief or even apparent cure, may result from operation.

[illegible] Pain over gall-bladder region for a year; [illegible] jaundice. Operation, November 27th, 1897. [illegible] ing part of right lobe of liver, which was [illegible] Recovery and out of doors in six [illegible] following year.

[illegible] seven years gall-stone attacks. Infective

cholangitis. Loss of 4 st. in weight. Jaundice. Operation, June 27th, 1899. Tumour of liver adjoining gall bladder excised by wedge-shaped incision. Fundus of gall bladder removed. Cholelithotrity and cholecystenterostomy. Complete and perfect recovery. Patient in excellent health at present time, two and a-half years after operation. Microscope showed disease removed to be cancer.

No. ....—Woman, aged 65. History of pain and tumour associated with jaundice. Great loss of flesh and strength. Operation, August 15th, 1900. Mass of growth discovered in liver, gall bladder, and pylorus. Cholecystectomy, pylorectomy, and partial hepatectomy performed. Good recovery. Patient well, and in good health now.

3. *In Gall Stones, etc.*

As regards the third proposition—that if gall stones or any of the first five causes of jaundice enumerated in the opening of my paper be diagnosed, operation is urgently demanded, if the patient be in a fit condition to withstand any operative interference.

I find that I have operated on 212 patients suffering from obstructive jaundice dependent on one or other of the causes mentioned; of these, 183 recovered, showing a mortality of 13.6 per cent.; 60 were the subjects of malignant disease either of the liver, bile ducts, or pancreas, and of these 46 recovered from operation and lived for various periods, some of them being well at the present time, thus showing a mortality of 23.3 per cent. In support of the third proposition, 152 out of the 212 cases were operated on for obstruction dependent on gall stones in the common duct or on other non-malignant causes, with 135 recoveries. Many of these patients were extremely ill at the time, and operation was only undertaken as a *dernier ressort*: but none of these almost moribund cases have been left ont of the list, which shows a mortality of 9.8 per cent., an experience which will, I trust, justify my assertion that these cases may be operated on with a very reasonable prospect of success, and that as a rule they demand surgical treatment, and at an earlier stage than has hitherto been granted; for it must be borne in mind that nearly every recovery is a life saved, since in the greater number of cases of obstructive jaundice, whether arising from gall stones, hydatid disease, chronic pancreatitis, or stricture or adhesions obliterating the lumen of the bile ducts, death after more or less prolonged suffering is the usual termination.

To give even a brief abstract of every case is quite impracticable in the limited time at my disposal; but many of my cases can be found in my work on *Diseases of the Gall Bladder and Bile Ducts* (second edition), and others on chronic pancreatitis have been published in the BRITISH MEDICAL JOURNAL and the *Lancet*. I must therefore content myself by giving an abstract of a few of my cases, promising that a record of the whole shall ultimately be furnished:

CASE ....—Lady, aged 54; resided in India for eighteen years. Characteristic gall-stone seizures with jaundice for two years. Loss of flesh and invalidism. Operation, August 22nd, 1900. Choledochotomy and removal of five stones from common duct. Complete recovery, and patient now well.

CASE ....—Lady, aged 57. Several attacks of gall-stone colic in course of years; jaundice a month. Painful and tender tumour. Operation, June 5th, 1901. Choledochotomy, with removal of an oval concretion from common duct, and cholecystectomy for removal of calculus gall bladder containing one stone. Complete recovery. Patient now well.

CASE ....—Lady, aged 55. Jaundice and dilated stomach, associated with vomiting and painful indigestion. Operation, May 5th, 1901. Gall stones found in common duct and removed by choledochotomy. Pylorus stenosed and treated at same time by pyloroplasty. Complete recovery; loss of all abdominal symptoms. Quite well at present time.

CASE ....—Man, aged 60. Great loss of flesh for four years, and painful indigestion. Painless onset of jaundice six months previously. Great loss of flesh. Some enlargement of liver, but none of gall bladder; no nodules to be felt. Exploratory operation advised, but declined. Two years later he saw me again, and was then reduced to an extreme degree of atrophy and feebleness. Liver enlarged, but not nodular. Deep jaundice, varying in degree. Slight ascites. Operation, October 21st, 1901. Cirrhosis of liver, with ascites, and one gall stone found in common duct. Choledochotomy, and at the same time fixation of omentum to abdominal wall. Good recovery; loss of jaundice; gain in weight and strength. Now well.

CASE ....—Woman, aged 36. Painful attacks for fifteen months, associated with jaundice, which had been continuous for some months. Operation, March 29th, 1900. Cholecystotomy and removal of several concretions from gall bladder and cystic duct. Large stone in common duct crushed between finger and thumb and removed by gall-stone scoop. Complete recovery. Patient now well.

Other cases could be given, of cure by cholecystotomy and manipulating the stones backward into the cystic duct and gall bladder, and thence removing them; of duodeno-choledochotomy, or opening the duct through the duodenum; of adhesions binding down the common duct; of stricture of the common duct treated by cholecyst-enterostomy; of chronic pancreatitis treated by cholecystotomy, and of hydatid disease discharging into the bile ducts and treated by cholecystotomy and hepatotomy, but I will only give examples of three conditions.

No. 161.—Man, aged 44. Six years history of swelling over liver, one year's history of attacks resembling gall stones [illegible] and jaundice. Operation, January [illegible] changing into bile ducts. Hepatotomy and cholecystotomy. Good recovery and ultimately complete restoration to health.

No. [illegible]—Woman, aged [illegible]. Jaundice for [illegible] attacks resembling gall-stone colic for [illegible] years; no tumour; [illegible]. Operation, May 8th, 1899. Dense adhesions between pylorus, gall bladder and liver broken down; gall bladder shrunken and common duct found strictured by adhesions which were all detached. No gall stones found. Complete recovery. Jaundice disappeared before patient returned home. Complete recovery.

No. 286.—Woman, aged 51. Attacks resembling gall stones for 3 years. Jaundice continuous for 14 weeks. Great loss of flesh. [illegible] uria. Operation, October 23rd, 1899. Fifteen gall stones removed from gall bladder; large mass, hard and nodular, in head of pancreas. Cholecyst-enterostomy. Complete recovery, and patient now in good health. The tumour of the pancreas was a chronic pancreatitis.

It would be tedious to give further cases, but these will serve as examples of operation for the various causes of obstructive jaundice not dependent on malignant disease.

A careful study of the causes of mortality in the whole series of cases shows the two greatest dangers to be hæmorrhage and shock, and the two next serious causes exhaustion and sepsis, the accidental causes of death, heart disease, syncope, kidney disease, apoplexy, and other accidents being such as may follow any operation in patients so extremely ill as all cases of obstructive jaundice must be.

The study of the non-successful cases is perhaps the most instructive, and from them we can derive lessons that will, I feel sure, tend to diminish the mortality very considerably. This is already occurring materially in my own practice, for the statistics of the cases up to December, 1899, show the mortality as 16.4 per cent., whereas those since January 1st, 1900, though equally serious, have only had a mortality of 14.2 per cent, but in the choledochotomies the difference is as 14.5 to 7.4 per cent. To what is this difference due?

First, I think to increased experience; and, as a consequence, a greater accuracy in diagnosis and a better selection of cases.

Secondly, to knowing when to stop in a case where, after exploration, it is manifest that neither cure nor even material relief can result from operation.

Thirdly, to improved technique in operating, and in the preliminary and subsequent treatment of cases operated on; and

Fourthly, to increased practice enabling the operations to be accomplished in little over half the time they once required.

In the heroic employment of calcium chloride we have a very efficient means of modifying the coagulating power of the blood, but to be efficient it must be administered for at least two days before operation, and along with nutrient enemata for three or four days or longer if necessary afterwards. Adhesions should be ligatured where possible, and all bleeding points both in the parietes and inside the abdomen should be clamped and ligatured; or if that be impracticable owing to general oozing, pressure by means of sterilised gauze affords a useful and safe means of hæmostasis.

In preventing shock, the envelopment of the patient in a suit of cotton wool, operating on a heated table, administering 10 minims of liq. strychninæ *B.P.* before beginning the operation, and giving a large normal saline enema with or without brandy half an hour before operating and immediately after, and repeating it if necessary, we have very efficient means of treatment. But quite as important as any of these measures, or perhaps even of greater importance, is the cultivation of the habit of operating expeditiously, for it stands to reason that, in any patient so ill as chronic jaundice cases always are, every minute's prolongation of manipulations in the abdomen and of anæsthetisation is adding to the risk, and I know that it is often possible to perform even a choledochotomy in half to three-quarters of an hour. Even in the most complicated cases the operation ought not to occupy much longer than an hour, though I have heard of these operations occupying three or four hours. A simple exploratory operation should occupy only ten or fifteen minutes, and should involve little risk of shock.

Exhaustion and heart failure are best combated by rectal

alimentation, by judicious mouth feeding as soon as the anæsthetic sickness has ceased, and by the use of small doses of strychnine administered subcutaneously, when called for by nervous depression or heart failure. A rigid all-round asepsis, the employment of gauze drainage where necessary, and the careful removal of the infected bile as it flows from the ducts, give one security from sepsis.

I have purposely said nothing of the operative technique of choledochotomy, as the subject is already a sufficiently large one for discussion; and I thought more profit would result from a limitation of my paper to the question of surgical treatment of obstructive jaundice as a whole.

CASE OF EXCISION OF CLAVICLE FOR A ROUND-CELLED SARCOMA.

By GEORGE THOMAS BEATSON, B.A.CANTAB., M.D.EDIN.,
Surgeon to the Glasgow Western Infirmary and the Glasgow Cancer Hospital.

DURING the past two years I have had under my care a considerable number of primary tumours of bone, the majority of which have been malignant and of the type known as sarcomata. Of the bones involved some were those usually attacked, such as the humerus, femur, and tibia, while there were others, such as the ulna, scapula, and clavicle, that are less commonly the seat of these new growths.

Injury in a certain number of the cases was associated with the appearance of the tumour, but in others no such cause could be traced. As bearing on this point one of my cases was of special interest. It was that of a sarcoma of the femur occurring in a male aged 65, who had suffered from an ununited fracture of that bone twenty-six years previously. The fracture had been successfully wired by Lord Lister in the Edinburgh Royal Infirmary about twenty-five years ago. Looking to the very general view that sarcomata hold a double relation to fracture—namely, that they both cause it and also result from it—I was prepared to find that the new growth had originated in the line of fracture. Examination, however of the specimen after amputation showed that this was not the case. The tumour was situated in the lower fragment of the old ununited fracture, the line of union of which was distinct and easily made out, and was perfectly firm.

The case to which I wish specially to draw attention in the present paper is one of sarcoma of the clavicle. Apart from the fact that this bone is very rarely attacked by such growths, there are other points about the case that justify its being put on record.

[illegible] patient, A. M., was a girl, aged 16, who was sent by the late [illegible] to be under my care at the Glasgow Cancer [illegible] was admitted there on September [illegible]th, 1900. Of a fair [illegible] general appearance was that of good health, although [illegible] of a swelling of about seven [illegible] inches in front of the neck, which was accompanied by [illegible] and [illegible] to cause for the appear[illegible] and it [illegible] the child at first as a small movable [illegible] which [illegible] to very few symptoms. At [illegible] the [illegible] up the side of the head, [illegible] but [illegible] [illegible] the case of the growth and [illegible] to be relative.

[illegible] of the left side of the neck showed [illegible] [illegible] attachment to the sternum, or the [illegible] [illegible] the case of an inflammatory [illegible] [illegible] large vessels were seen [illegible] [illegible] from the outer [illegible] [illegible] and reached close up to [illegible] [illegible] to the level of the [illegible] [illegible] covered over the [illegible] [illegible] elastic consistence and [illegible] [illegible] [illegible]

fibrous tissue. A portion of it examined under the microscope showed it to be sarcomatous, and to be of the small round-celled variety.

Progress.—The after-progress of the case was uneventful. The patient made an excellent recovery, and went home on November 25th with the wound soundly healed. Fig. 2 was taken before she left the hospital. She continued to enjoy very good health, but six months after the operation she was again sent to see me by Dr. Black, because of some pain and fulness in the neighbourhood of the scar. Examination of the part showed great hyperæsthesia of the skin, but beyond an indefinite hardness (possibly cicatricial) under the border of the trapezius no tumour could be felt. I thought it prudent, however, to examine the part more thoroughly.

Second Operation.—On May 18th of last year, the patient being under chloroform, I raised a flap of skin and exposed the edge of the trapezius muscle. Under it were found some small glands. These, along with some surrounding fat, were removed. Microscopic examination of them showed that they contained a dense accumulation of small cells, in some respects resembling the cells of a small round-celled sarcoma. At the same time the general appearance of the cells, and the absence of general infiltration of the glands, were more suggestive of an inflammatory process, and the continued good health of the patient, and the satisfactory local condition of the wound, are confirmatory of this view.

The good range of movement that exists in the left arm was



Fig. 2.

noted before she left the hospital on the first occasion, that is, within two months of the operation. Although the tip of the affected shoulder had fallen downwards, inwards and forwards, and was three-quarters of an inch nearer the middle line than the other shoulder, the patient could by a jerking and throwing-up motion touch the top of the head. She could also extend the hand anteriorly to the same extent as on the sound side, and she could also pass it behind her back with ease, but with the arm extended from the side she could not raise the hand above the level of the shoulder. On patient's second return to hospital there was, however, a still further improvement in all the movements; and, indeed, they seemed nearly as perfect as those of the sound arm. This state of matters is, I find, in keeping with what has been observed in the cases of removal of the clavicle recorded by Mott, Travers, and Jessett.

Microscopic Examination of Tumour.

The chief point of interest, however, in my case lies in the microscopic sections of the tumour, and I should like here to acknowledge my indebtedness to Dr. Ernest Fortune, Assistant Surgeon to the hospital, for his careful and skilful preparation of these and of the photomicrographs illustrating this paper. The sections reveal masses of small round cells,

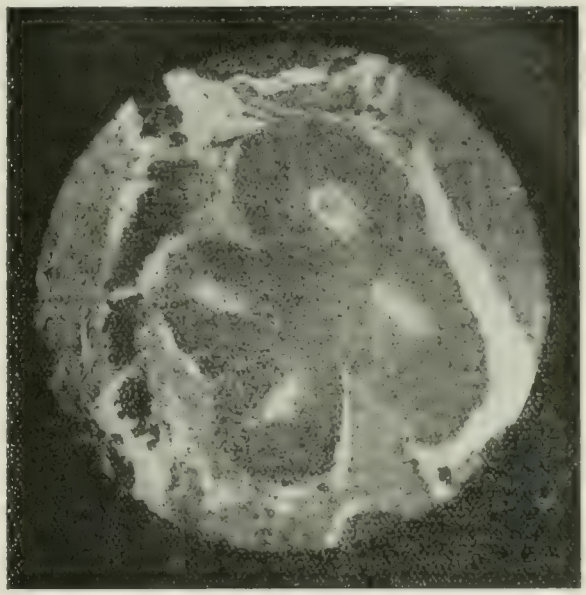


Fig. 3.—Low power.

with a well-marked connective tissue stroma. In addition there is present the very striking and peculiar feature that in each group of cells, and generally in the centre of it, there are present one or more well-marked blood vessels around which the cells are arranged in a concentric manner (Fig. 3, low power). This arrangement of the cells, and the very

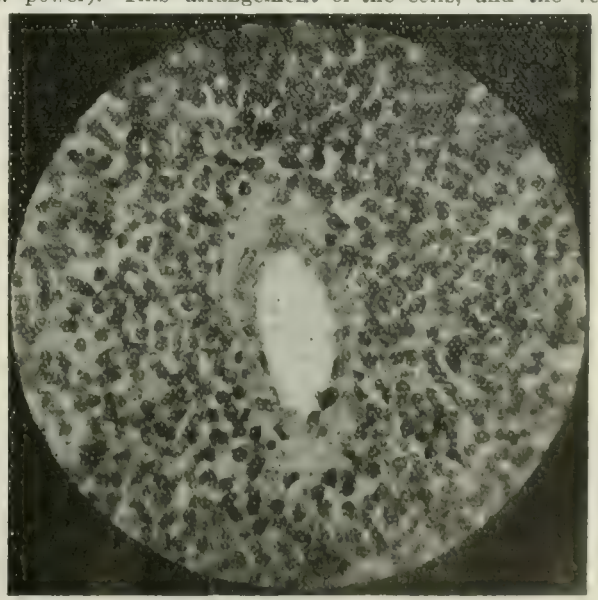


Fig. 4. High power.

constant relationship of the vessels to them suggest that they have arisen from some portion of the vessel wall, probably the tunica adventitia or its vessels. If so, then the tumour should be classed under the "angio-sarcomata," a group first described by Kolaczek and so named by him. Histologically, their characteristic is that they are made up

of round-celled masses surrounding blood vessels. We know that a very general feature of all sarcomata is that their cell proliferation is very active in the immediate vicinity of the blood vessels in them, and some pathologists go the length of asserting that all forms of sarcomata originate in the blood vessels. This is probably too sweeping an assertion, and is not supported by facts: but there is undoubtedly a variety of sarcoma characterised by masses of round cells, which are grouped round blood vessels and spring from their adventitia or outer coat. The present tumour in every way corresponds to this description, and the origin of the cells is manifestly from the adventitia, for the sections show that the endothelium of the vessels is in the present case quite unaffected (Fig. 4, high power). This last distinguishes it clearly from the group of endothelial sarcomata, which have their starting point in the coats of the endothelium. Seeing that in the present case the cells are arranged in the form of groups around the blood vessels, which thus occupy the centre of the cell masses, it is easy to see that the section of such a tumour would present an alveolar structure, and to some extent that appearance is present in this case (see Fig. 3). The angio-sarcomata are occasionally pigmented, and are often the seat of degenerations, such as the hyaline, and, when this latter attacks the coats of the vessels in such tumours, we get the cylindroma of Billroth, the feature of which is the occurrence of a number of clear spaces in the sections. No such changes were anywhere observed in the present case, nor were any blood cysts or hæmorrhages present in the tumour, notwithstanding all its vascularity." This [illegible] to the very complete development of the vessels, many of which present well-defined walls, and are quite [illegible] spaces that serve as blood vessels in the [illegible] of sarcomata.

What [illegible], then, may have been the starting point of the [illegible] to have had its beginning in a cell or [illegible] of a blood vessel, and to have developed a type [illegible] from its vascularity, has been deemed worthy of a [illegible] designation—namely, angio-sarcomatous.

The [illegible] of the case will be of interest, for while [illegible] a very general opinion that metastasis in the [illegible] is uncommon, unless when pigmented, there [illegible] as regards local recurrence. Senn [illegible] that it is very rapid after excision, while [illegible] the habit of saying that it is uncommon, and that [illegible] benign. So far the present case supports the latter view, for two years have elapsed since the operation, and, I know that the patient [illegible] that there have been no signs either [illegible] of metastasis. I confess that the very [illegible] that the tumour presented at the time of [illegible] me apprehensive of an early reappearance of the growth either locally or elsewhere.

ON BLINDING OF THE RETINA FROM EXPOSURE OF THE EYES WHEN WATCHING THE ECLIPSE OF THE SUN.[1]

By SIMEON SNELL, F.R.C.S.Edin.

Ophthalmic [illegible] and Professor of Ophthalmology, [illegible], Sheffield.

Mr. C. J. E. [illegible] came to me on May 30th, 1901, and stated that he [illegible] watching the eclipse of the sun [illegible] He was [illegible] for a short [illegible] At first [illegible] when he was looking at his head, but only the body and legs; in the same way, if he looked at a person's chest he saw the head and legs only. Potassium iodide in a mixture was prescribed and coloured protective glasses were ordered.

The central blurr became fainter and gradually decreased in area, and on June 8th direct vision = $\frac{6}{9}$ each eye. June 22nd: He says that the blurr has disappeared since about the 12th, leaving in its place the disc which is referred to later on. July 5th: Vision = $\frac{6}{9}$ each eye. November 7th: Says he is perfectly well. The patient has written the following account for me:

The total time the eyes were exposed to the sun would be about one hour, in periods of from two to ten minutes. That the glasses did not provide a sufficient protection for the eyes is proved, I think, by the fact that when they were first directed to the sun (every time the sun was looked at) nothing but a glare was visible. By steadily watching the sun the glare vanished in a few seconds, and the eclipse was plainly seen. No further inconvenience would then be noticed during that observation. The vision was found to be defective immediately after the first observation, but no notice was taken of it, as it was thought to be merely temporary, like going out of the dark into a brightly-lighted room. When the eyes were closed I saw a bluish disc about the size of the apparent disc of the sun; this would fade out after a few seconds, and, I think, come on again without opening my eyes in the meantime. This lasted for twenty-four hours after the eclipse. Not the slightest pain was felt. The effect was well marked when I looked at a straight line, from about the ordinary reading distance; there was a break of about one-eighth of an inch in the line. In reading, also, part of the line was blotted out. Straight lines were in no way distorted. Throughout my life my eyes have been of average strength, and I have never worn spectacles of any kind. During the last quarter of an hour the ruby and blue glasses were put together, as then the sun was very bright. Twice the eyes were turned upwards to the sun without any glass, but only for a second or two.

June 19th, 1901. Mr. B. says, the only thing he notices now is that he thinks his eyes are more affected by glare than formerly. For instance, after looking at the sun or electric light he does not think the eyes recover themselves as quickly as they previously did. He says he could not for some days after the original injury take a reading of the thermometer or barometer. A week after, when reading a Fortin barometer, as the vernier approached the top of the half-inch column of mercury he noticed a grey disc exactly between the top of the mercury and the vernier. He read the barometer at about 10 or 12 inches distance, and he calculates that the size of the spot was 0.026 inch in diameter (about two-thirds of a millimetre). This he observed with each eye, and just the same size. He does not think the size of this disc in any way altered up to six or nine months after the eclipse, merely growing fainter. Practically his eyes are all right now, but a careful search to-day allowed him to discover a very faint trace of this same disc, which would otherwise not have been noticeable. It is unmistakably less. On account of its faintness and tendency to disappear altogether he finds it difficult to measure it accurately. After a number of observations he concludes the spot has now a diameter of 0.014 inch, or about half what it was previously.

June 23rd. No ophthalmic alterations are visible in either eye. For the sake of making the examination complete the right pupil was dilated with a mydriatic.

Several instances have been recorded of injury inflicted by the direct effect of sunlight on the eye. Dr. Mackay, in the *Ophthalmic Review* for 1894,[2] collected probably the whole number which had been published up to that time. I have observed two cases in addition to the one which I record here, in each of which one eye only was affected. One was the case of a youth aged 17, who was looking at the heavens through a powerful telescope, and in shifting the instrument he received the full blaze of the sun directly in the right eye which he was using. The immediate effect, he said, was as if the sight was "gone," and when I saw him seven weeks later he had still a "black dot" before the eye, which he described as being a little [illegible] the size of a pin's head. V. 1.5D. = $\frac{6}{9}$. As

[1] [illegible] and in the Section of Ophthalmology at the Annual Meeting of the British Medical Association, held at Sheffield, July, 1901.

far as I know the "dot" in this case was permanent. The patient asserted that in looking at a line he observed the portion looked at to be thicker (metamorphopsia). This phenomenon has been observed in a few of the recorded cases. It was absent in the case I now relate. Many years ago a case came under my notice of a girl[3] who suffered from retinitis in consequence of receiving the sun, on a hot summer's day, full on her eye from a reflector which a boy passing her was using. The eye recovered well.

The instance related here is of interest as both eyes were affected, and the patient, an unusually intelligent man and an excellent observer, has been able to give a good account of his case. Here the ophthalmoscopic signs were practically *nil*; in some of the cases recorded fine changes have been noted at the macula, whilst in others similar indefinite alterations to those referred to in my present case have been observed; in others again no abnormal appearances have been mentioned. The prognosis appears to be favourable in these cases, vision, for practical purposes, being restored, but in many a scotoma, more or less distinct, has been left permanently. The cases illustrate the utter uselessness of the "glasses" too frequently used in observing eclipses.

REFERENCES.

[1] On Blinding of the Retina by Direct Sunlight. [2] *Ophthalmic Review*, 1884, p. 72. [3] *Ibid.*, 1883, p. 141.

A REPORT OF NINE CASES IN WHICH HAAB'S MAGNET WAS USED FOR THE EXTRACTION OF FOREIGN BODIES FROM THE EYE.

BY

W. T. HOLMES SPICER, F.R.C.S., Ophthalmic Surgeon, St. Bartholomew's Hospital; Surgeon, Royal London Ophthalmic Hospital, Moorfields.

and A. F. MACCALLAN, F.R.C.S., Senior House-Surgeon, Royal London Ophthalmic Hospital, Moorfields.

THE cases reported here were under the care of Mr. Holmes Spicer at the Moorfields Eye Hospital. Our thanks are due to Mr. Mackenzie Davidson for his valuable help in localising the foreign bodies for us before operation.

Two of the cases resulted in recovery with almost perfect vision, $\frac{6}{6}$ with correcting glasses; one with vision of $\frac{6}{12}$, although at the time of admission there was iritis with hypopyon; two others had vision of $\frac{6}{18}$, with a possibility of further improvement by needling of opaque lens capsule; all these had perfect projection. In two other cases the eyes were in a condition of acute inflammation at the time of the operation, and in one case so much destruction had been produced by the large size of the piece of steel that the prospect of saving the eye was from the beginning hopeless. These eyes were lost.

CASE I.—T. T., aged 27. On May 23rd, 1900, the left globe was penetrated by a chip of steel from a lathe. He had had very little pain or inconvenience since the accident. When seen at Moorfields on July 1st he was found to have a corneal scar and a traumatic cataract. The pupil was dilated under atropine, and the eye was fairly quiet. No red reflex was obtained from the fundus. V.L. = hand movements. A foreign body was localised by the aid of *x* rays in the vitreous, 1.3 cm. behind the centre of the cornea.

On July 4th the extraction of the foreign body was attempted. The patient's head being put on a level with, and at a distance of a few feet from, Haab's magnet, the electric current was switched on gradually. At the same time the patient's eye was approached to the terminal, and he at once experienced pain. The foreign body was seen to come forward through the lens, and to take up a position on the lower pupillary border of the iris.

The patient, who had previously been sitting on a stool in front of the magnet, was transferred to the operating table. At this point the foreign body disappeared from view. An incision was made with a keratome at the lowest part of the corneo-scleral ring. The curved terminal of the horseshoe magnet was introduced into the anterior chamber. The foreign body was drawn over the pupillary border of the iris and removed. Some lens matter was evacuated with a curette; a little infiltrated vitreous was also removed.

On the patient's discharge, July 15th, the eye was quite quiet, and the remainder of the lens matter was becoming absorbed.

On December 10th Dr. Edgar Stephenson, of Liverpool, under whose care the patient originally was, most kindly sent us a note as to his condition. The pupil was quite clear; the lens matter was all absorbed, but there were some capsular remains in the periphery. V. c. sph. + 11 D. = $\frac{6}{9}$; V. c. sph. + 15 D. = J. 1. The patient has been back at work for some months, and has had no trouble of any kind with his eye. Size of F.B. = 6.5 mm. × 2 mm. × 1 mm.

CASE II.—W. N., aged 16. On March 16th, 1900, a piece of steel flew into the patient's left eye from a chisel. He was found to have a scar at the outer part of the cornea, a hypopyon, and iritis. Both cornea and lens had been wounded; there was a dull red fundus reflex only; projection was good. V. = hand movements. On March 20th the hypopyon had disappeared. The foreign body was localised in the vitreous, 1.2 cm. behind the centre of the cornea and 4 mm. to temporal side. A few days later the patient was introduced to Haab's magnet, and the foreign body was withdrawn—without further wound of the lens—into the anterior chamber, through the lower periphery of the iris. Probably it came through the zonule. A section was made with a keratome, and on inserting a curved terminal of the horse-shoe magnet, the foreign body adhered to it and was removed.

When the patient was seen eight months later the condition was as follows: An anterior synechia at the site of the corneal wound, an active pupil, and some anterior and posterior capsular opacity of the lens. After correction of hypermetropia patient could read $\frac{6}{12}$ partly. The patient now follows his trade of carpenter with ease.

CASE III.—W. R., aged 28. A piece of steel penetrated left globe four weeks previous to admission. He had attended another ophthalmic hospital where a small magnet had been tried unsuccessfully and where excision had been recommended. When seen, December 20th, 1899, there was a corneal wound to the inner side, and a nebula just above the centre of the cornea: there were also definite signs of iritis. The lens was clear; there were vitreous opacities, V.L. = fingers at 4 feet. The tension was diminished. On introducing the patient to Haab's magnet, the foreign body was drawn just over the pupillary border of the iris, but fell back again. Owing to faiure of the current the small magnet could not be used, and further operation was deferred. Later, the patient was *x*-rayed, and the foreign body localised at the back of the vitreous. Haab's magnet being applied (January 13th, 1900) the foreign body was drawn into the anterior chamber. After a corneal section had been made with a keratome, the small magnet withdrew the particle. Some lens matter was curetted; it was also necessary to perform a small iridectomy. The patient was seen on January 20th of this year. He was found to have a thick capsular membrane, through which the details of the fundus could not be seen. Projection was perfect. V.L. c. sph. + 10 = $\frac{6}{60}$. Field good.

CASE IV.—A. P., aged 23. Came to the out-patient department April 4th, 1900, complaining that a piece of steel had struck his right eye. He thought that nothing remained in it. He said that the fragment was $\frac{1}{8}$ inch long, and had been found on the ground after the accident. On examination there was found to be slight conjunctival injection, a vertical wound in the outer hemisphere of the cornea, and some iritis. The lens was becoming opaque. V.R. = hand movements. The tension was diminished. He was treated as an out-patient until April 7th. In the interval he was *x*-rayed and the foreign body was localised in the vitreous, probably close to the retina. He was admitted to the hospital, and Haab's magnet being applied, the foreign body was drawn into the anterior chamber. The patient was then anæsthetised; with a Graefe knife a section was made upwards, and the foreign body was extracted with ease by the small magnet. Some lens matter escaped, and some was evacuated with a curette. Iris prolapsing a small iridectomy was done. The patient was seen January 20th, 1901. A shrunken, calcareous capsule was found to be present, which almost entirely blocked the pupil. On either side was seen a faint red fundus reflex. V. R. c. sph + 10 = $\frac{6}{60}$. Size of F. B. = 5.5 mm. × 3 mm. × 2 mm.

CASE V.—W. B., aged 42, first came to the hospital on September 9th, 1897, having been struck in his left eye with a piece of steel from a tool ten weeks before. There was then a scar on the cornea, the lower part of the lens was opaque; no details of the fundus of the eye could be seen. The eye remained quiet while he was watched for a period of three months; no operation was thought advisable, as there was no evidence of the presence of a foreign body in the eye, and he ceased to attend. He returned to the hospital in September, 1899. On examination the eye was quiet; the lens was partly opaque; a red reflex was obtained from the upper part of the fundus, but no foreign body was seen. On November 3rd the foreign body was localised by the aid of *x* rays in the globe, situated on a horizontal plane running 1 mm. below the lower margin of the cornea, and 7 mm. back from the plane of the centre of the cornea, almost in the middle line. On November 5th the condition of the eye was as follows: Some general conjunctivitis; no visible wound; pupil irregular but active; lens opaque; no red fundus reflex.

On introducing the patient to Haab's magnet the foreign body was drawn into the anterior chamber, and removed by the small magnet, after a corneo-scleral section had been made. The patient was discharged at the end of a week, with the eye in a perfectly quiescent condition. On December 19th he was readmitted. The pupil was irregular, but fairly active. The lens had absorbed, and a dense capsular membrane in the pupillary area remained. No details of the fundus could be seen.

V. L. c. sph. + 10 = $\frac{6}{18}$. T. = normal. Projection good. The capsule was needled, and a good central opening made.

The patient continued to attend as an out-patient till February 10th, when his vision c. sph. + 13 D. = $\frac{6}{9}$.

CASE VI.—W. M., aged 24, came to the hospital on October 25th, 1899. He had been struck that morning by a piece of steel in the right eye; he did not know how large it was, nor what became of it.

There was general injection of the globe; the cornea was dull all over: there was a wound extending from just above the middle of the cornea downwards and inwards to the edge. There was no anterior chamber, the aqueous still leaking away from the wound, through which the iris was freely prolapsed. The lens was wounded and was becoming opaque. Vision of the wounded eye amounted to perception of light only. The tension was markedly diminished, being about equivalent to T. − 3.

On bringing up the patient to Haab's magnet, he complained of intense pain; the cornea became conical, as if pushed forwards by something within. On bringing the eye close to the pole of the magnet, the whole globe was seen to be considerably drawn forwards out of the orbit; the movement was visible to everyone around, and was certainly not less than $\frac{1}{8}$ inch. On examining the eye, a shining piece of metal could be seen in the anterior chamber.

The small magnet was then applied between the lips of the corneal wound, but the piece of metal was too large to extract. The wound was

somewhat enlarged, and the piece of metal removed after some manipulation with the small magnet. Size of F. B. 15 × 5 mm.

Three days later the anterior chamber was reformed and the blood for the most part absorbed, but the iris was entangled in the wound in its whole length.

On November 11th the eye was still injected and irritable: the iris was entangled in the wound; there was bare perception of light, and the projection was not good. There was no keratitis punctata. The tension of the eye was normal.

[illegible] damage by the very large piece of [illegible] to make any further attempt to save the eye. Accordingly the [illegible] the sclerotic were eviscerated and a glass globe was inserted. He was discharged on November 21st.

CASE VII.—C. G., aged 25, was admitted two days after the penetration of a piece of steel into his left eye. He had much conjunctival discharge; the cornea was hazy, and there was a small central wound. There was marked iritis. The foreign body was removed on the same day by Haab's magnet by way of the [illegible]. On the following day, the inflammation having become [illegible] the edges of the wound were touched with the galvano-[illegible] appeared likely to become a source of danger to its fellow and [illegible] operation was accordingly performed a [illegible] ary.

[illegible] B [illegible] mm. × 1.5 mm.

[illegible] S., when [illegible] was struck in the left eye by a chip of [illegible] a hammer [illegible] teen days before coming to the hospital. [illegible] conjunctival injection. In the upper [illegible] scleral margin was a wound in which [illegible] was clear. There was much hæmorrhage [illegible].

[illegible] the conjunctiva a small swelling could be [illegible]. The [illegible] was taken localised the foreign body in the region of [illegible] deep. On the day after his admission, May [illegible] was applied to the globe without causing any pa[illegible] outer canthus the patient experienced pain at [illegible] a bulged forward. The conjunctiva was divided [illegible] swelling, and extraction with the small [illegible] success. On again applying Haab's magnet [illegible] seen the lips of the conjunctival wound and [illegible].

[illegible] on May 21st, V.L. = $\frac{6}{9}$, when the [illegible] by vitreous hæmorrhages; iris still [illegible] wound. The patient was seen on February 23rd, 1901, when V. was found to be $\frac{6}{9}$ partly. There was a large [illegible] pigmentary of the fundus. In this case the foreign body must have passed through the cornea sclera ring, the ciliary body, [illegible], the scar in which is still evident. Size of [illegible].

[illegible] in the right eye by a piece of steel on April 2nd; he came to the hospital on the following day. There was [illegible] through the upper part of a wound in the cornea; the lens was opaque; the pupil was dilated [illegible]. Pain was at once experienced, and the foreign body appeared in the middle of the anterior chamber, having apparently travelled up from the lower part of the [illegible] dropped into the [illegible] magnet was again applied, [illegible] wound. A small prolapse of iris was cut off. Some lens matter and a band of vitreous [illegible] On the following day a hypopyon was found to be present; this disappeared under treatment by [illegible].

[illegible] there was intense chemosis of the conjunctiva contained turbid fluid; the tension of the globe was increased. A curette evacuation of broken up lens matter and lymph was performed, and the anterior chamber was washed out with [illegible]. As [illegible] advisable to remove the eye; [illegible].

The above cases may be epitomised as follows:

CASE I.—The lens was opaque previous to operation; it has now entirely absorbed. A correcting sphere brings the [illegible] up to [illegible].

[illegible] These are anterior and posterior capsular opacities which were present previous to operation. They do not appear to be [illegible] [illegible] to be noted that there was considerable inflammation, iritis, and hypopyon at the [illegible] operation. The foreign body was drawn through the [illegible] further injury to the lens.

[illegible] The lens was [illegible] in the withdrawal of the foreign body [illegible] leaving a capsular membrane. A [illegible] The projection is good.

[illegible] The lens which was wounded previous to operation has become absorbed, leaving a thickened capsule. V. after correction [illegible] perfect.

In the two last mentioned cases it will be a matter for [illegible] operation as to whether or not the removal of the [illegible] is attempted. In most cases at any rate this does not appear to be [illegible] [illegible] In the other case the capsule is [illegible] and is adherent to the iris. Here [illegible] operation.

[illegible] The lens was opaque previous to operation. It has [illegible] leaving a dense capsular membrane. V. [illegible] perfect. A [illegible] y needling some weeks afterwards, and vision with a correcting glass was eventually $\frac{6}{9}$.

CASES VI AND VII.—In both these cases the eyes were in a state of acute inflammation at the time of operation. The injured eyes were excised a few days after the foreign bodies were extracted.

CASE VIII.—This case differs from the others in that the foreign body was removed from a position external to the globe after having passed through cornea, iris, vitreous, and sclerotic. V. at present time is $\frac{6}{9}$.

CASE IX.—Considerable injury was inflicted upon the eye in this case during the passage of the foreign body through the vitreous and lens into the anterior chamber; and, again, the extraction through the corneal wound caused considerable damage to iris and cornea. It is not to be wondered at, therefore, that the resulting inflammatory condition demanded excision.

A few general conclusions that we have arrived at as to the extraction of foreign bodies may be mentioned as follows:

1. When the patient is brought up to the magnet it is the rule for severe pain to be experienced by him if a magnetisable particle is present in the globe. Haab's magnet is therefore of valuable diagnostic service in determining the presence or absence of a magnetisable particle.

2. Localisation by the *x* rays is extremely important. By their means it is possible sometimes to avoid injury to a clear lens in the extraction of a foreign body, and entanglement in the iris can be avoided if its precise situation is known. Nevertheless, if some delay is unavoidable before the *x* rays can be applied, we advise in certain cases immediate extraction of the foreign body by Haab's magnet without precise localisation; for example (1) in which there is considerable inflammation; (2) in which there is a recent traumatic cataract. In each of these cases there is considerable danger in delay.

3. If there is a recent wound we attempt to remove the foreign body through it, using Haab's magnet alone. If this wound has firmly healed it is necessary to make an opening for its exit. This may be either corneal, in which case the foreign body is withdrawn by Haab's magnet; or peripheral, in which case we usually employ the small magnet for the removal of the foreign body from the anterior chamber after it has been brought forward by Haab's magnet. The latter method is the one we generally adopt.

4. In all cases it is most essential that entanglement of the particle in the iris and ciliary body should be avoided. By bringing the patient up to the magnet gradually from a distance, and by increasing the strength of the current up to the maximum slowly, this is to a certain extent guarded against. The idea of this manœuvre is to prevent the particle from rushing forwards from its posterior position and burying itself in the iris.

THE RELATION OF GLAUCOMA TO THROMBOSIS OF RETINAL VEINS, WITH NOTES OF CASES.

BY E. HARRIES JONES, M.B., C.M.EDIN., M.R.C.S.ENG., L.R.C.P.LOND.,

Honorary Ophthalmic Surgeon, Northampton General Infirmary; late Resident Surgical Officer, Birmingham and Midland Eye Hospital.

THE relation of glaucoma to diseases of the retinal vessels has long been a subject of discussion to ophthalmologists. Several papers have appeared from time to time recording cases showing this relation, notably that of Wehrli,[1] which deals almost entirely with glaucoma following albuminuric retinitis. The following notes illustrate the fact that glaucoma may occur as a sequel to [illegible] thrombosis of the central retinal vein, associated with [illegible], but without albuminuric retinitis. Curiously enough, Michel, who was one of the first to describe the [illegible] due to thrombosis, stated "that the intraocular tension during the course of this affection is never increased." Glaucoma, however, is a well-known, though rare, complication of so-called hæmorrhagic retinitis.

[illegible] copper dresser, admitted as out-patient to [illegible]. Complaint: Gradual loss of [illegible] 1900. No history of sudden [illegible]. Typical picture of thrombosis of

central vein, disc hyperæmic, veins tortuous, stream in them broken up. Scattered hæmorrhages of dark colour throughout fundus. Right eye always weak, disc slightly pale. R.V. $\frac{6}{18}$, not improved by glasses. L.V. Hand movements. Urine, specific gravity 1020, no albumen, blood, or sugar; no cardiac hypertrophy, very slight thickening of radial arterial wall. Dark glasses were ordered, and a mixture of potassium iodide and iron prescribed. The patient made periodical visits to the hospital, but very little change occurred in the fundus.

On October 8th, however (that is about six weeks after onset), it was noted that the left eye was in a condition of acute glaucoma, with tension + 2, cornea very hazy, very marked conjunctival and ciliary injection, small hæmorrhages on surface and in the substance of the iris, fundus not visible, vision = perception of light only. Admitted as in-patient same day, and kept under eserine, but no improvement taking place, and the eye being painful, excision was advised, but this the patient refused to have done. He was discharged November 5th, being then fairly free from pain. On March 25th, 1901, the eye was nearly quiet, pupil semi-dilated, absolute glaucoma, no perception of light, lens becoming opaque. Tension markedly raised.

CASE II.—Mrs. M. A. P., aged 66, came as out-patient August 31st, 1900. Complaint: Sudden loss of sight of left eye the day before. On examination marked thrombosis of central vein was found, with some swelling of disc and œdema of retina, but no albuminuric retinitis; urine, specific gravity 1018, no albumen, blood, or sugar; very slight thickening of arterial walls. Right eye, fundus normal. R. V. $\frac{6}{6}$. L. V. hand movements only. She was treated as above, and on October 16th she also developed acute glaucoma in left eye. Tension + 1, much dilatation of episcleral veins and a few hæmorrhages on the iris. V = perception of light only. The patient was admitted and treated in hospital for about a month, but no improvement took place; the eye gradually quieted down but no vision remained.

CASE III.—T. D., aged 59, came as out-patient August 14th, 1900. Complaint: Sudden failure of sight of left eye ten days ago. Ophthalmoscopic examination revealed marked thrombosis of central vein, swollen disc, hæmorrhages, especially abundant near disc, around which were a few white areas (?) resulting from hæmorrhages. There was no trace of macular degeneration or any other appearance of albuminuric retinitis. Right eye: Retinal veins dilated, and in places crossed and partly obstructed by rigid arteries; disc healthy, full vision; urine, specific gravity 1015, albumen a trace, no sugar; arterial walls thickened and some hypertrophy of left heart. The usual remedies were administered until October 24th, 1900, when he was admitted into hospital with left acute glaucoma (with a history of onset three days previously), the pupil being semidilated and cornea very hazy. Tension + 1, hæmorrhages on surface of iris very marked. L.V. perception of sight. Practically no improvement took place under eserine, and he was discharged from hospital on December 10th. On March 19th, 1901, he complained of increasing dimness in right eye, and on examination the disc was found to be cupped, the field being very contracted on the nasal side, R.V. = $\frac{6}{18}$. He was at once admitted and iridectomy was performed. When discharged a fortnight later R.V. was = $\frac{6}{6}$, c. − 2 cyl. ax. 90°. L.V. = Perception of light.

CASE IV.—Mrs. C. P., aged 59, came to hospital on January 19th, 1895, complaining of dimness of right eye, which had lasted a week. Examination of fundus disclosed fairly marked thrombosis of retinal vein, with some thickening of retinal arteries. Urine: Specific gravity 1010, no albumen, blood, or sugar. R. V. = $\frac{6}{9}$, c. + 2.

June 15th, 1901.—R. V. = $\frac{6}{6}$, c. + 2, hæmorrhages nearly all cleared up. She did not come to hospital again until October 30th of same year, when it was noticed that the right disc was cupped. R.V. = Perception of light only; no hæmorrhages in fundus. On November 16th right iridectomy was performed. The left eye up to this time had remained good, and L. V. was $\frac{6}{6}$, c. + 2.5. She came again to the hospital in March, 1900, complaining of dimness in left eye. L. V. $\frac{6}{6}$, c. + 2.5 disc cupped slightly. Left iridectomy was done at once, and this apparently checked the glaucoma, for her vision on July 31st, 1050, was $\frac{6}{6}$, c. + 2.5, cyl. ax 180°.

It will be observed that the glaucoma in the last case was distinctly chronic, whereas in the others it was acute, and that in the first three cases glaucoma followed the retinal condition in about six weeks, but did not appear in Case IV for over nine months. The occurrence of glaucoma in the eye unaffected with thrombosis in Cases III and IV is remarkable, suggesting a possible causal relation between the two conditions. The presence of hæmorrhages on the surface and in the substance of the iris showed that the arterio-sclerosis was not limited to the retinal vessels, but also affected the ciliary arteries, this latter circumstance, of course, being a strong contraindication to performing iridectomy, seeing that extensive intraocular hæmorrhage is so likely to occur under these conditions.

The clinical significance of this complication in cases of thrombosis naturally lies chiefly in the direction of prognosis, which is really not at all bad in many cases of simple thrombosis, the patients often retaining some useful vision after the re-establishment of the circulation and the absorption of hæmorrhages.

The occurrence of acute glaucoma as a sequel, however, renders the prognosis extremely grave, since these cases, owing to the condition of the vessels, are such that an iridectomy does not afford much promise of success.

My thanks are due to the honorary staff of the Birmingham and Midland Eye Hospital for permission to publish notes of these cases.

REFERENCE.

1 *Archives of Ophthalmology*, March, 1900.

REFLECTIONS ON OPHTHALMIC WORK IN THE ARMY.

BY JOHN GRIMSHAW, M.D.LOND., M.R.C.S.ENG., ETC.,
Aldershot.

IT is with pleasure that I read the annotation on spectacled soldiers which appeared in the BRITISH MEDICAL JOURNAL of September 21st, 1901. As there are various points in it which have occupied my special attention for a considerable time under favourable conditions for examining into and forming some opinions on this important question, it may prove of interest if I describe briefly my experience, and in a general way record a few impressions on the subject of defective vision in soldiers as it has appealed to me.

For over eighteen months, as civil surgeon attached to the Cambridge Hospital, Aldershot, I have had charge of the ophthalmic work of this hospital, and, as a part of my duties connected therewith, it has fallen to my lot to examine and report upon for the medical officer in charge all cases of defective vision reporting sick at this hospital. This process includes all cases sent to hospital from the various inspection rooms in South Camp for eye examination and report. Further, I reported on all soldiers admitted into the Cambridge Hospital who were invalided home from South Africa on account of eye trouble of one kind or another. This represents only a small portion of my ophthalmic work in hospital and camp, but time does not allow me to deal with my entire ophthalmic experience here in anything like a comprehensive and exact manner.

After some time, when I fell into the routine work of the military medical system, I recognised the great importance of this subject of defective vision in its relation to voluntary enlistment, and to the efficacy of the man as a fighting unit after enlistment. For the last twelve months, therefore, I have kept complete copies of my reports, and it has been my aim to make each report minutely and accurately represent the true state of the eye examined. I worked out the refraction of each eye by retinoscopy after application of homatropine cum cocaine, and afterwards checked the results, and the ability of the soldier to answer correctly, by examination with test types and trial lenses. All other methods of routine eye examination were used by me in every case, so that I could conscientiously say, on occasion, "no cause for defective vision can be found."

It is only those, perhaps, who have like myself seen the wearying and nerve-shattering effects of the "scrimshanker's" importunity upon the responsible medical officer, who can realise the value of this moral support when appealed to in the hour of trial, "Are you sure there is nothing wrong with this man's eyes, Mr. ——?"

The amount of material I have had at my disposal can be judged by the following extract: "The work carried out by the R.A.M.C. at Aldershot since the war commenced has been enormous, but it has been accomplished with remarkable success. Some idea of this can be gathered from the fact that during the year 1900 over 10,000 patients passed through the wards of the Cambridge Hospital alone, and over 3,000 of these were sick and wounded from South Africa."

I find that in the last twelve months I have written some 250 reports of the kind described on cases of defective vision for the medical officer in charge of the Cambridge Hospital. These reports, I may add, are forwarded by this officer to the principal medical officer attached to the invaliding documents of those patients whom I have recommended for discharge on account of visual disabilities.

The cases of ametropia were:

Hypermetropia	+ 3 D. and under (small error of + 1 disregarded)	= 71	
"	Over + 3 D.	= 17	
	Total of hypermetropia ...		88*
	* Of these 88 cases 12 had more or less marked astigmatism.		
Myopia	− 3 D. and under (small error of − 1 disregarded) ...	= 16	
"	Over − 3 D.	= 15	
	Total of myopia		31†
	† Of these 31 cases 10 had astigmatism.		
Mixed Astigmatism		= 17	
	Total cases of ametropia	=	136
Presbyopia		= 12	
	Total		148

Among non-refractive or complicating morbid conditions were: (1) Leukoma (common). (2) Sequelæ of old iritis (common—namely, anterior synechiæ, anterior capsular opacities with more or less occlusion of pupil, posterior synechiæ—including cases of total posterior synechiæ with exclusion of pupil, followed by softening and shrinking of globe and complete loss of sight. The majority of the latter iritic class, and all the destruction of globe cases, were in soldiers invalided home from South Africa. (3) Cataracts (rare). (4) Vitreous opacities (common). (5) Fundus changes (rare) including optic neuritis, several of which according to medical history sheet followed enteric in South Africa; choroiditis and choroidal hæmorrhages; ruptured choroid: detached retina, including a remarkable case caused by lightning stroke, a description of which was read by Major Yarr before the Ophthalmological Society.

I would here like to draw attention to the number of cases sent to me diagnosed "conjunctivitis" which were really cases of iritis, and to the frequency with which I see sequelæ of neglected cases of iritis in synechiæ, etc., as above described. On several occasions I have just been in time to prevent dire consequences of mistaken diagnosis or inefficient treatment, by frequent applications of atropine. Moreover, I have reason to believe that an error of refraction (especially astigmatism and hypermetropia) is liable to lead to a mistaken diagnosis of optic neuritis. For example I will quote a case at present in my wards. Sergt. P., invalided home from South Africa suffering from defective vision, the result of optic neuritis following an attack of enteric (medical history sheet). Retinoscopy reveals simple myopic astigmatism in each eye, but no signs of optic neuritis or other morbid change in fundus or elsewhere. On examination with test-lenses—

R.V. [illegible] 1 D. cyl. axis vert. = [illegible].

L.V. do.

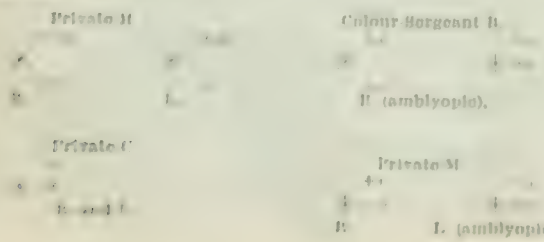
To help me to avoid certain pitfalls of eye work on entering general practice, I regularly carried a little box in my vest pocket containing discs of atropine (for iritis), cocaine (for corneal ulcers, etc.), eserine (for glaucoma), and homatropine (for retinoscopy and fundus examination). To my box I have added fluorescein discs (for corneal ulcers). The benefits which have accrued to patient and self by the adoption of such aids to memory afford me sufficient excuse for mentioning my little device.

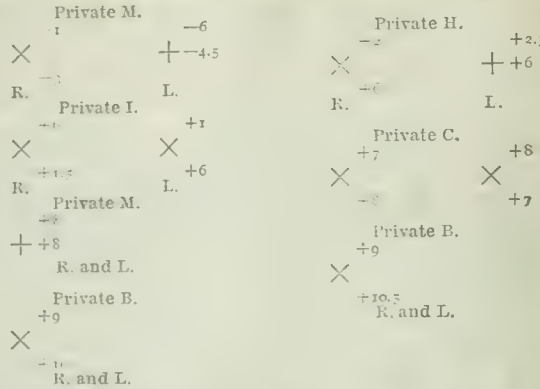
To all R.A.M.C. medical officers I would urge the invaluable help of retinoscopy in army ophthalmic work. It is indispensable, nothing can replace it as an objective visual test.

I may say that many of the cases reporting sick were ordered to do so by their musketry instructor for defective vision. "Trial by fire" is a very excellent test by many ways best one for the soldier, and it [illegible] conventional rule of thumb visual tests to correct manifest defective vision into total manifest.

We have [illegible] neglect of the medical examiner (or [illegible] to conform with War Office regulations, or the [illegible] of the visual tests to serve as an effective barrier to the enlistment [illegible] defective from ametropia [illegible] in permitting a large [illegible] to pass who are unfit for it through visual defects, whether of a nature to be corrected by glasses or not.

I [illegible] medical examination of recruits unsatisfactory [illegible] at any rate, inefficiently performed. [illegible] cases of ametropia selected from [illegible] would seem to point to an answer in the affirmative.





I have asked such men how they managed to pass the V. tests, and they have replied in the following fashion: "I was never examined"; "I tipped the recruiting sergeant"; "I rushed through with the crowd"; "I guessed (?) them somehow"; "I never did count the dots" (though examined). Confronted with cases of the quality and quantity here recorded, and by such explanatory statements made by men in the regular army, I am able to sympathise with Lord Kitchener in his strictures passed upon the physical unfitness of the Imperial Yeomanry and the troubles in which they involved him and his staff in South Africa.

With reference to the remark, "I tipped the recruiting sergeant," I may state that the recruiting sergeant receives 2s. 6d. for each recruit. The addition of another 2s. 6d. as a dole from the anxious would-be Thos. Atkins, would surely make recruiting a lucrative and desirable form of occupation.

It will be seen, therefore, that it is to the recruiting sergeant's advantage that the maximum number of his candidates be accepted by the medical examiner.

The tricks of the trade are well known and understood by the experienced officer. For example, the test dot card is held up before the candidate by the medical examiner, whilst the assistant covers an eye. It does not require a vivid imagination to understand the ease with which the number of dots can be conveyed by the assistant to the subject by a series of secret taps.

There are other tricks of legerdemain practised in the attempts to impose upon the examining surgeon, which are worthy almost of a "Maskelyne." Even actual impersonation of the proposed recruit is not unknown. But I am afraid there is carelessness on the part of the medical examiner of recruits, and even criminal neglect on the part of him who rises superior to the test-dot card, and credulously asks the recruit, "Are you all right?" The present army system must not be altogether exonerated from blame in the matter.

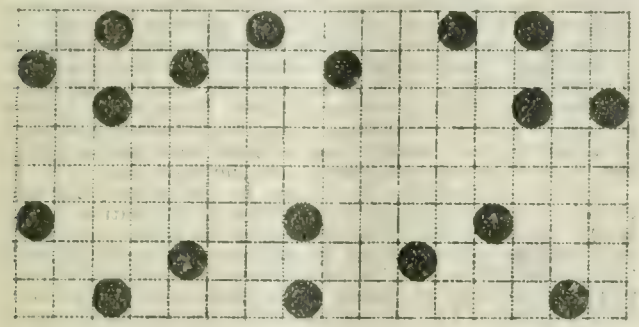
First, in these days of recruiting difficulties it is to be feared that medical examiners believe that the quality of recruits must be subsidiary to quantity, and that the adoption of the principle of "let 'em all come" would be acceptable to the recruiting authorities.

Secondly, these responsible examinations as now arranged often fall upon civilian doctors or raw R.A.M.C. lieutenants, who can scarcely be blamed for carrying their responsibility so lightly, if through ignorance or inexperience they do not realise the immediate or far-reaching results of carelessness of their recruiting acts—a carelessness which will involve financial loss to the State by enforced discharge of semi-trained men from the service, and possibly disastrous losses on the field of action through imperfect shooting, picketing, or scouting.

The best way, I think, to prevent such "unfortunate occurrences" in the examination of recruits would be to appoint consultative Boards of experienced R.A.M.C. officers specially skilled in the detection of disqualifying disabilities to examine recruits before final admission into the ranks; such a Board to have, on eye matters at least, an expert skilled by specialism in the visual disqualifications of recruits, to whom all doubtful eye cases might be referred for report.

Some such system would certainly have to be organised, if the BRITISH MEDICAL JOURNAL's suggestion of enlarging the meshes of the recruiting net were to be adopted, for the ophthalmic expert would have to answer, amongst other questions, whether the fish caught were worth the curing? But at this stage we are confronted with the question of specialism by officers of the R.A.M.C., a question large and important, the discussion of which does not come within the range of these reflections. I need only say that such specialism is not only very desirable, but absolutely necessary if the multitudinous duties of the R.A.M.C. officers are to be performed in anything like an efficient and satisfactory manner.

2. Are the visual tests sufficiently stringent? These V. tests by means of the test-dot card are as follows:



A recruit for the regular army must be able to count these dots at a distance of 10 feet. Each eye must be examined separately.

These tests would pass a recruit for the regular army with V. = $\frac{6}{18}$ and reject one as unfit with V. below $\frac{6}{24}$. This means that a degree of 1.75 myopia (each eye) would be accepted. For the militia, volunteers, and the departmental corps, V. acuity represented by test-dot card held at 5 feet instead of 10 feet is demanded. Such a difference appears somewhat inconsistent when so many irregular troops are at present engaged on active service in South Africa.

It will be seen that the test will not exclude a hypermetrope whose compensatory accommodation is unstable enough to break down by the least constitutional debility; and, as a matter of fact, I have many records in my notes of: "I first noticed my eyes bad after enteric."

In consideration of this question it must be remembered that in shooting, the eye has to be accommodated in rapid succession between the fore and back sights of the rifle and the target. Even simple errors of refraction of +2 D. to +3 D. or −1.5 D. will render this difficult.

This test-dot card was introduced by Professor Longmore in 1860, and was based by him on the work of German oculists. No fresh edition of the test has been published by the War Office since 1870, when the then distance of 15 feet was reduced to 10 feet, a modification which was demanded by the exigencies of recruiting. The test is a rough and ready one, and is very suitable for recruits who are unable to read. It assumes that because a man can count dots at a distance of 10 feet (which I would note is a totally different thing from seeing them with any sharpness of definition) he can see a bullseye 3 feet diameter at 600 yards with sufficient precision to enable him to shoot at it with reasonable chances of success. And in this assumption there are surely possible fallacies. From test-dots to targets, from 10 feet to 600 yards, from counting dots to shooting bulls, are surely distances to leap which resemble somewhat impassable gulfs. For be it observed, soldiers do not in active warfare shoot at white bulls or blackgrounds; they shoot at men, often only part of a man, and at men also who may be indistinguishable in colour from the ground on which they stand or lie. Moreover, it is undoubtedly true that the use of guns of such long range and precision in modern warfare demand keener visual acuity in the soldier than was formerly the case. Most of the shooting, I am told, in the Boer war has approximated closely to ranges of 1,000 and 2,000 yards, and even accurate shooting at shorter ranges is vastly more important now than it used to be in the old days of the bayonet.

For Lord Roberts has said that the bayonet is an obsolete weapon of attack, and has been replaced in modern warfare by rifle fire within a zone of 200 to 600 yards, and that in future battles will, *cæteris paribus*, be won by armies which possess the best and straightest shots at this distance. From Sir Redvers Buller we get the opinion that superiority of the Boers over us in this wearisome South Africa campaign is largely because of his superior distant vision.

Everyone, therefore, must admit the desirability for each recruit of the regular army to have the raw material of visual acuity in him for the making of an efficient fighting unit, which, *par excellence*, means a first-class shot and a sharp eyed scout. These visual tests are insufficiently stringent to serve in barring men from entering the army who do not possess that excellent vision necessitated by these two all-important functions of the modern efficient soldier: and my experience goes to prove that men in the army are waking up to the importance of good vision, as seen by their anxiety to have defects corrected by glasses (or otherwise). Officers have consulted me respecting their eyesight preparatory to going through their course of musketry at Hythe, who have had errors of refraction as low as — 1.25 D. and — 1.5 D. myopia.

A few days ago Lieutenant P., R.H.A., consulted me about his eyes. He had recently returned from South Africa, and when there his attention was drawn to his defective distant vision, and the need for its correction. Correction (after retinoscopy) gave:

R. V. = $\frac{6}{18}$ $\bar{c}$ − 1 cyl. axis 60° = $\frac{6}{6}$.

L. V. = $\frac{6}{6}$ $\bar{c}$ − 0.25 cyl. axis vert. 1 = $\frac{6}{6}$.

Sergeant P. (case previously recorded), who has been a first-class shot and instructor of musketry, is anxious to remain in the army, but is greatly concerned about his defective distant vision. Yet examination and correction shows only − 1 D. axis vert. 1 = $\frac{6}{6}$; without correction V = $\frac{6}{12}$.

Private X., H.L.I., one of the crack shots firing for his company at Bisley this year, consulted me for epiphora some weeks before the competition. He said that the watering of his eyes affected his shooting. I was able by operation to relieve his epiphora and to make his shooting more satisfactory to him.

All these cases could count their "dots" at 10 feet with ease.

Telescopic sights are now used by the artillery, and recently efforts have been made to perfect rifle fire by some such aid. All guns, small and large, are made to fire with maximum accuracy at all ranges; yet correct shooting is still dependent upon good vision, and but little attention is paid to this subject. It still seems as if the question of whether a man is of certain height or chest measurement, or whether he has varicose veins, overshadows the most important question of all, Can he see well?

By way of digression, I may state that it is somewhat astonishing and perplexing to learn from soldiers who have returned from the front the frequency with which kopjes were targets and not Boers. "Fighting all day, Sir, and never saw a Boer." "Yes, Sir, we simply blazed away at the hills on the chance of hitting a Boer or two." Such remarks as these I have often heard from our invalided South Africans, and they have compelled one to ask oneself the question whether in these days of smokeless powder and in the clear atmosphere of the veldt, the eyes of our "absent-minded beggar" were not a little to blame in his failure to spot the Boer, although cunningly entrenched.

Everyone also will, I presume, admit the necessity for the prompt discharge from the army of the man who, through ametropia (if this must remain uncorrected) or organic lesion has ceased to be an efficient soldier. Unfortunately, these visual tests cut both ways in their application, for "whatever visual disorder a N.C.O. or soldier serving in the ranks may happen to contract, so long as he is left with acuteness of vision equal to that for which recruits are tested, he must be regarded as visually qualified for military duties." Moreover, as will be seen later, the test imposed upon men who have suffered impairment of vision of one eye is more stringent in case of discharge than on entrance. It follows, therefore, that if the visual tests are ineffective in barring men with unsuitable vision, they will serve even in a greater degree to keep such undesirables in the army, unless spectacles are allowed to correct the ametropes, and the men are willing to wear them.

The advice given in my report to the Invaliding Board respecting discharge of soldiers has not always perhaps coincided with the regulation visual requirements, and when there has been a proved discrepancy between them, I cannot blame the able and responsible President of the Board, if thus placed between the "devil" of the dots and the "deep sea" of my report, he has felt bound, when evidence could be gained, to rely on the regulation standard of efficiency.

Some 80 cases, I find, of defective vision through ametropia, have been invalided from the Cambridge Hospital alone during the last twelve months. Ophthalmic surgeons may be interested in comparing these figures with the 136 cases I have recorded.

A reference to the figures given will remind the reader of these remarks, that in many of my refraction cases the error was more marked in one eye than the other; similarly, also, in cases of organic lesion. One of the questions I have frequently had to answer is, Should this man shoot from his left shoulder? For impaired visual power or total loss of vision of one eye, if the other eye be efficient, is not held to be a cause of unfitness for further military service, and under musketry regulations permission is granted (under medical certificate) to fire from the left shoulder. I may say I have no faith in the left or one-eyed soldier; I have invariably found him a dissatisfied nuisance, as well as an inefficient soldier with a perfect mania for reporting sick. Such one-eyed men are attracted by a hospital like a moth by a bright light. I know one such soldier, with one eye excised, who, much to his disgust, had failed to get his discharge. For months subsequently his life was spent in tap-room, guard-room, prison, or hospital, until finally he was sent to me from our restraint ward (where he had been detained for delirium tremens) for a report on his solitary eye. He got his report and his discharge. And in certain walks of the army—I should really say rides, for I specially refer to drivers and artillery or cavalry men—I willingly recommend such for discharge, as, in my opinion, binocular vision is essential for the safe performance of their duties.

One of the twenty South African invalids I have glassed was a one-eyed astigmatic myope, Driver G., A.S.C., left eye excised in South Africa:

$$R. \times \begin{matrix} -4 \\ -2 \end{matrix}$$

I did not ask this soldier whether he could count dots or not.

For over twelve months I have made a point of embodying in my report the results of my attempted correction of errors of refraction, and of stating whether spectacles would remedy the defect and convert the man once more into an efficient soldier. I purposely use the words "attempted correction" and this must be read in connection with my previous remark "and the ability of the soldier to answer questions." For the "scrimshanker" is somewhat of a curio. He is apt to [illegible] trial lenses with grave suspicion, and all the [illegible] will not increase his manifest [illegible] himself threatened by the snares of the [illegible]. A small residuum of my [illegible] "scrimshankers," but a majority of [illegible] I believe, exaggerated [illegible] large.

This statement may astonish the civilian reader, but it will not perturb the army medical. He knows full well the unpopularity of the [illegible], and the avidity with which a [illegible] upon which to [illegible]. My experience is that [illegible] will not make an [illegible] under existing conditions of service and freed by the wide "open door" of exit. (*Vide* [illegible]

[illegible] Africa towards [illegible] were anxious for [illegible] to be made with what [illegible] the necessity of [illegible] one's [illegible] After the [illegible] letters P. I. (proposed invalid) had been [illegible]

Among my [illegible] Africa cases was a Cambridge [illegible] undergraduate who was enlisted in the civil [illegible] and obtained his discharge when the [illegible] was over. He was [illegible] hypermetropia. Visual acuity was represented by $\frac{6}{18}$. I discharged him from hospital as a malingerer, but he was at once returned on my hands; so I was tempted to enter into an unholy compact with the "Evil One" and to promise him his discharge if before leaving hospital he would tell me the truth. The result was agreeable to me (V = $\frac{6}{9}$) and likewise to him, namely, discharge by the Invaliding Board. Be it not understood by my professional brethren that I spun a yarn worthy of the hero of *The Tadpole of an Archangel*; no, I simply quoted the report of an ophthalmic surgeon consulted by my friend (with evil intent) when on sick furlough following his return from South Africa, who had diagnosed hyperæsthesia of the retina, and had ordered large blue goggles of the strength +0.75 D. In my glassing operations and in my attempts to place these army optical matters on a somewhat different footing, I have invariably had the hearty support and sympathetic co-operation of the medical officer in charge of the Cambridge Hospital. Up to date we have secured from the War Office the payment for spectacles of South African ametropes invalided on account of defective vision. At present, however, men remaining in the service must buy their own glasses. But any day I am expecting, as a result of further application, to have this arrangement altered, and Tommy I feel sure will welcome his gift of spectacles with eyes wider open than they now are.

The use of spectacles by soldiers in the ranks is not sanctioned (or prohibited) by any published regulation in the army. Each case must be decided on its own merits by the commanding officer (and, so far as I have been able to ascertain, by him alone), and to this officer my ophthalmic report respecting the use of glasses in suitable cases has therefore been forwarded by the medical officer in charge for his inspection and report.

My experience is that the commanding officer's decision whether the man will be retained though spectacled will be governed largely by common-sense considerations. "Is the man anxious to remain in the service?" "What are his duties?" "Is he worth keeping?" "Can I rely upon that man on picket or sentry-go?" "Will a pair of broken or lost glasses possibly involve me in a 'regrettable incident' when on active service?"

There doubtless does exist in our army a strong prejudice against spectacled soldiers, and this prejudice, it must be admitted, is under present conditions of service but a reasonable one. Some objections, of course, that can be raised against soldiers in the regular army wearing glasses are these. The want of present means of replacing them when injured or broken in many stations where English troops are employed. (These difficulties would prove almost insuperable when on active service out of Europe.) The interference with their utility by dust, rain, etc., specially felt by mounted troopers. But these objections to spectacles may easily be exaggerated. A larged number of irregulars engaged in South Africa wear spectacles, and I am told by returned soldiers that these men are extremely careful of their glasses, realising that their lives, perhaps, depend on them.

That glasses do not prevent a man becoming a good shot, likewise the prevalence of their need amongst men for shooting, is seen in the fact that some 25 per cent. of our crack marksmen at Bisley wear spectacles. At present in our regular army the regulations regarding musketry instruction provide that "short-sighted men may when firing wear glasses"; but no soldier is allowed to wear spectacles on parade without the official consent of his commanding officer. Only this last week the following case was sent to me for examination and report: Gunner S., R.H.A., failed to count dots on re-examination before being drafted to India: R. and L. V. $\frac{6}{9}$. Retinoscopy revealed simple myopic astigmatism.

R. V. $\frac{6}{9}$.—2.5 cyl. axis 30° } = $\frac{6}{9}$ (partly)
L. V. $\frac{6}{9}$ " " }

I recommended that he be allowed to remain in the service and to wear spectacles regularly. The man bore a good character, and was [illegible] to proceed to India. Under these conditions the commanding officer without hesitation consented to the man's wearing glasses and to his despatch to India.

My experience has led me to believe that there are a large number of ametropes in the army who ought to be "glassed"

and are not, but who would gladly avail themselves of artificial visual aid if they knew that "Lieutenant" A. or "Captain" B. was sufficiently a "doctor" to know how to examine their eyes, and if the War Office were willing to pay for the spectacles.

Army authorities are at present faced by two sets of difficulties. (1) Greater demand for good vision in our men by modern conditions of warfare; (2) the old, old recruiting difficulties which I have stated led in 1870 to the visual tests being lowered. These difficulties will probably be overcome by a compromise.

Though unlearned in English or Continental literature on these important subjects, I venture to make the following suggestions:

1. Do not admit more ametropes by still further lowering visual tests unless prepared to correct their vision.

2. The examination of such ametropes by ophthalmic experts (civilian or military), and their vision and correction to be recorded on their medical history sheets. Such action would be necessary not only to treat the "scrimshanking and discharge" stages of a soldier's *folie circulaire*, but to render easy the replacement of broken or lost glasses.

3. Opticians to be officially appointed whose duty it would be to keep an exact record of glasses supplied, to check the regimental data.

4. The distribution of recruits according to their sight to branches of service not necessitating keen vision or otherwise. If the visual tests were lowered, it would be of paramount importance to separate the "hewers of wood and drawers of water" from the soldier who proposes to become a good rifleman, cavalry man, or artillerist.

5. To support discipline, and to lessen the responsibility of medical officers by inflicting summary punishment—by court-martial and under the certificate of the ophthalmic surgeon—on soldiers afflicted with *folie circulaire* of above type.

6. To encourage the correction of ametropia by granting spectacles to soldiers free of cost. I never could understand why free spectacles were given to South African invalids conditional on their discharge from the army. I should have thought that a non-discharge was a more rational condition. The War Office grant artificial teeth to men who are likely to become efficient soldiers and who are willing to remain in the army. Why not spectacles?

7. Official encouragement to R.A.M.C. officers to specially qualify themselves in ophthalmic work, such special qualification to be rewarded with corresponding increase of pay.

8. The appointment of civilian consultants in certain military centres or districts to co-operate with the R.A.M.C. officers as occasion demanded or rendered desirable.

9. Special arrangements to be made whereby spectacles lost or broken can be replaced, and for ensuring suitable glasses being always available on occasions of need. This applies specially to men abroad or on active service.

Respecting the recent proposals made for reform of R.A.M.C., my remarks on "specialism" by medical officers of this corps were written before publication of these proposals. I have long advocated this and a closer union of the civil and military branches of our profession. Twelve months ago a special department of the "ear, nose, and throat" was established at my request at the Cambridge Hospital. I have charge of this, and am taking notes for publication of "reflections" on this work in the army.

AMBULATORY TREATMENT OF A RUPTURED TENDO ACHILLIS.*

BY J. LYNN THOMAS, C.B., F.R.C.S.,
Surgeon to the Cardiff Infirmary, etc.; late Senior Surgeon to the Welsh Hospital in South Africa.

A PERSONAL REMINISCENCE OF THE SOUTH AFRICAN CAMPAIGN.

WHILST proceeding to South Africa in advance of the Welsh Hospital, on board the R.M.S. *Tantallon Castle*, I had the misfortune to rupture my right tendo Achillis on March 14th, 1900, when hopping on tip-toe during physical drill before breakfast. By a wise provision—unappreciated by the writer until his accident—the hopping stage of the drill is not reached until an amount of strength is used up, which prevents one doing the hop after the fashion of a *première danseuse*. Unfortunately for me, I got on deck when the hopping stage of the drill had been reached, and I joined in, fresh and vigorous, when at the first turn round the deck the breaking strain of the tendon was reached with unexpected suddenness, which rendered the foot utterly helpless. I felt my heel drop on the boards, accompanied by a loud sound like the snap of a broken 'cello string, and followed by a sudden dull pain and a disagreeable warmth near the heel. Whether the sound was conveyed through the bones, the air, or both, I cannot decide, but the sound was to me very loud indeed. On examination, there was the usual deep gap, admitting easily the ball of my thumb, which is seen after tenotomy of the tendo Achillis.

The steward brought me a bucketful of seawater—the traveller's panacea for strains and sprains—into which I plunged my maimed limb, while I experienced a melancholy awakening of the surgical traditions of treatment of similar lesions. The first picture which greatly worried me was that of the stereotyped extended foot in a slipper with pointed toe, and a heel-strap attached to a collar, fixed to the thigh above the bent knee; it presents itself in surgical textbooks of many countries with a persistence that for the moment quite haunted me, for, being a civilian surgeon *en route* to a great war where plantigrade progression would probably be a necessity, I concluded that such treatment was fundamentally wrong. The next and more modern picture was that of a leg and foot in plaster-of-paris, with its owner using a pair of walking-sticks, which would effectually doom him to a rest in Capetown; this method of treatment was also unacceptable to me; whilst the last picture of all was introduced to me by a brother surgeon on board in the up-to-date fashion: "Let me cut down and tie the ends together; it is the very best possible method." I must confess I did not fully appreciate the value of the advice, for I immedietely thought of all sorts of possible pyogenic tragedies.

I decided very soon to lay aside the usual methods of treatment, my guiding principle being *che va piano va sano, che va sano va lentano*. The treatment I adopted until I arrived in Capetown was massage of the leg night and morning, and the application of cold-water bandages. I managed to hobble along fairly well by rotating outwards the whole of my lower limb, and using my adductors to advance the foot. By this method one can with care use the foot as an inanimate prop without extending or flexing the ankle-joint. After arriving in Capetown, and trying a variety of splints for restraining ankle movements, I hit upon the splint which is represented in the diagram, and which I got from Mayer and Meltzer's



local branch. It is an aluminium spatula moulded to the shape of the bend of the ankle; it was pushed into a very thick indiarubber tubing, which acted not only as padding, but also kept the splint in its place by preventing the aluminium moving downwards under the boot lace. It is necessary for the comfort of the patient to carry out the details illustrated in the diagram, one of these being that the boot lace should be placed right round the lower part of the

* Read before the South Wales and Monmouthshire Branch of the British Medical Association at Merthyr Tydfil.

splint, because I found that if the boot lace was all in front of the splint the pressure on the back of the foot became intolerable (the dotted lines = bootlace behind the splint); massage was also kept up. The advantages of such a splint are its simplicity and its efficiency, the patient being allowed to walk about without any fear of the ankle getting accidentally flexed to a degree which would disturb the provisional callus. At the end of May my late esteemed colleague, Professor Tom Jones, advised me to do without the splint. The splint answered the purpose for which it was intended: it permitted me to go and see the surgical cases at the hospitals near Capetown, and also to proceed to Bloemfontein, the only drawback being that two callosites formed, one on the instep, and the other on the lower part of the leg, where the ends of the splint checked accidental movements. The above treatment resulted in a very excellent union of the tendon, for I have been able to do my usual amount of walking and dancing without the slightest inconvenience for the last twelve months.

The Value of Roentgen Photographs in Ruptured Tendons.

By means of Roentgen photographs I have been able to measure the distance between the broken ends of the tendon as well as to observe the gradual conversion of the temporary transparent callus into the opacity of the permanent one, which apparently coincides in its resistance to the passage of x rays with that of normal tendon. At the present time my right tendo Achillis is 1 cm. thicker and wider than the left, and will, I hope, continue to be so, for I think that Nature in cases treated in the above manner provides a greater amount of uniting material than she would have done if the ruptured tendon had either been sutured or the leg encased in a splint for any length of time. I have treated two cases of tenotomy of the tendo Achillis since my return home in the same manner as I treated myself, and the result has been very satisfactory. Tendons vary very much in form and size in different individuals, and the character of the tendons undoubtedly sometimes determines the nature of an accident. My own tendons are very long and thin.

I had a case at the infirmary at the beginning of last summer where a woman was playing with some children in a field and in trying to save herself from falling forward [illegible] attachment of the tendo Achillis to the [illegible] carrying up a big piece of the bone, which had to be [illegible] and fixed by sutures. In her case the tendons were short and very thick.

I think that treatment by early massage and walking in cases of ruptured tendo Achillis brings about a stronger union [illegible] by immediate suturing or the fixation of the limb by splints, because the call to provide sufficient [illegible] the ruptured ends of tendons is much greater during movement in the dependent position than it is [illegible] or in a fixed position. The great [illegible] in the quantity of reparative material in the two conditions is well shown by study of human and veterinary [illegible] of broken bones and tendons.

Two Additional Signs of Ruptured Tendo Achillis.

In addition to the ordinary symptoms of ruptured tendo Achillis [illegible] I think that the [illegible] are noted. The first is the obvious one of [illegible] of the part involved. The [illegible] tendon, and skin with sub[illegible] Roentgen tubes of suit[illegible] by this [illegible] characters of [illegible] Achillis are [illegible] defined, sharp [illegible] tendon the [illegible] outline and fibrillated in appearance.

[illegible] lower part, and [illegible] by surface markings of extravasated blood after a few days of the injury, which bear special characteristic forms according to the particular lesion existing. In (1) the bruises are most intense along the lower borders of the two malleoli, and later on become general around the ankle; in (2) it is most intense in the neighbourhood of the inner malleolus; in (3) it becomes most intense between the tibial malleolus and the os calcis, whilst later on it is evident on the outer aspect of the tendo Achillis: in (4) there is usually seen bilateral discoloration on each side of the tendo Achillis, and their upper limits become connected by a broad band of mixed colours giving an ∩ shape to the bruise; whilst (5) shows bilateral discoloration on each side of the tendo Achillis running downwards below both malleoli, and is joined at the level of the malleoli or the seat of the ruptured tendon, by a transverse band, thus giving to the bruise its characteristic H shape, which I think is pathognomonic of a breach in the tendo Achillis. When we see two symmetrical "black eyes," without indication of the cause, we generally conclude it is due to a blow or injury to the bridge of the nose; likewise I think an H-shaped bruise at the heel is due to rupture or division of the tendo Achillis.

BULLET WOUND OF THE MOTOR REGION OF THE BRAIN: BULLET RETAINED: SUCCESSFUL EXTRACTION.

By DOUGLAS DREW, B.S., M.D., F.R.C.S.Eng.,
Late Surgeon to the Imperial Yeomanry Hospital, Pretoria; Surgeon to the North-Eastern Hospital for Children, Hackney.

The velocity of the modern small-bore bullet accounts for comparative infrequency of their lodgment in the body. When this does occur it is due either to an extreme range or to the bullet being a ricochet, and having thus lost a considerable proportion of its initial velocity. These remarks do not apply to the expanding variety, which have been so frequently used during the present war, and which often fragment on impact.

In wounds of the head—a class of wound which undoubtedly forms a large percentage of those killed outright in an engagement the bullet usually passes, as in other regions, completely through the skull, causing more or less extensive fissuring of the bones. If we exclude these cases which are killed outright, and take into consideration the conditions described above, it will be seen that the number of cases of retention of the bullet in the skull is actually very small.

In considering the treatment of such cases the first question that arises, where the bullet is causing symptoms rendering its removal desirable, is, Can its removal be successfully effected? This depends on the position it occupies. Undoubtedly, when the bullet lies in the base of the skull, its removal may be impossible, so that this still further reduces the number of successful extractions. For these reasons it appears desirable to place the following case on record:

Lieutenant —— arrived at the Imperial Yeomanry Hospital, Pretoria, August 5th, 1901, having been wounded in action five days previously.

History.—The wound of entrance was situated over the anterior part of the right parietal region, about two inches from the middle line; it was an irregular slit in the scalp three-quarters of an inch long, and gaping to the extent of one third of an inch. A small quantity of blood-stained [illegible] escaped. Behind the wound was a large oval tense swelling [illegible] and some irregularity of the bone could be detected. [illegible] interval of five days before the patient came under my [illegible] had been dressed antiseptically. When the patient [illegible] th his elbows on his knees, having just fired his [illegible] but not rendered completely unconscious. [illegible] ere frontal headache was complained of; [illegible] clear; the pulse was 50, regular, full, and [illegible] low, [illegible] ebbing, and irregular; temperature [illegible] ly dilated, and reacted but slug[illegible] s of the upper part of the left [illegible] outh was completely paralysed, [illegible] was also completely paralysed, except [illegible] at the elbow. There was a subjective [illegible] arm and hand, and blunting of tactile [illegible]

The head was at once shaved and disinfected, and skia[illegible] o taken with exposures of fourteen and sixteen minutes [illegible] posterior views; unfortunately [illegible] to the position of the bullet. In [illegible] I decided not to delay the opera[illegible] to the risk of the symptoms of [illegible] nd, while removing the embedded [illegible] , to enlarge the wound in the hope of finding the bullet. In this I was successful, had I failed, I should have relieved the

existing compression, and could have waited without much anxiety until further skiagraphs localising the bullet had been prepared, when I should have performed a second operation for its removal.

Operation.—The whole area of damage was exposed by turning down a large flap, beginning in front at the margin of the hair and ending posteriorly about 2 inches above and behind the mastoid. The fracture proved to be of the gutter variety—glancing impact; a number of fragments of the outer table were adherent to the flap, and a small quantity of blood clot and broken-down brain substance was found beneath the flap; on removing this, the outer table was seen to be splintered at the anterior part, while posteriorly the whole thickness of the bone had been ploughed up. The splintered fragments were removed and a large rent in the dura through which protruded brain substance was exposed, in which splinters were embedded. It was during the removal of the splinters that I touched metal, and on seizing this I withdrew the bullet; the projectile, which was embedded vertically, was split open from end to end, and a portion of the mantle was turned backwards and projected near the surface of the brain, and it was this projecting piece which I had touched. After careful exploration to ensure that all embedded fragments of bone had been removed, the wound was closely sutured and dressing applied. There was considerable shock during the operation, but this rapidly passed off.

After-History.—The convalescence was most satisfactory: at no time were there any symptoms to cause anxiety. The headache subsided within twenty-four hours, as also did the facial paralysis. On the fourth day the power of flexion at the elbow had returned; three days later the wrist could be extended, and on the eighth day flexion at the wrist was possible, then followed extension and flexion of the fingers, the movements of the thumb being the last to return. On the fourteenth day the stitches were removed and the wound was healed. The patient was kept in bed for three weeks; at the end of this period all but the finer movements of the hand could be performed but they required constderable effort. When I last saw the patient early in October the improvement was marked, the grip of the left hand was strong, and the execution of the more delicate and complex movements of the hand had to a great extent recovered.

EXCISION OF SPINA BIFIDA AND ENCEPHALOCELE.

By JOHN LITHGOW, M.D.,
Cleland, Lanarkshire.

WITHIN the last few years the old method of treatment of spina bifida and encephalocele by injection of Morton's fluid has been almost discarded for the newer, and certainly more surgical, treatment by excision. There have now been no doubt a considerable number excised, but the few cases published, and the meagre information given as to the details of the operation, suggest that it has only met with a limited degree of success. Even the newer textbook dismiss the discussion of the treatment of these cysts by excision with the statement that such has been attempted and the bare suggestion that it may be feasible.

The following cases occurring and treated in general practice may therefore be of some interest:

CASE I.

In the month of November, 1893, my attention was directed by my assistant to a tumour on the back of a child which he had delivered a few days previous. The child was a male, well developed, and except for the tumour seemed in perfect health. The tumour, situated in the lumbar region, was about the size of a small hen's egg; the skin over it was healthy though thin, and it was sparsely covered with hairs at the base, while the attachment to the spine was narrow. The tumour was diagnosed as spina bifida of the meningocele variety and as there appeared to be no urgency it was supported with collodion and wadding.

When two and a-half months old he had, as described by the mother, slight convulsive seizures which passed off after administration of calomel; there was never any trouble with the tumour, the skin covering it retaining its healthy conditions. I advised the parents to take him to the Glasgow Royal Infirmary in order to have something done to it in the way of operative treatment, and when three and a-half months old he was taken to that institution when the surgeon offered to inject Morton's fluid. Owing to the unfavourable prognosis given the parents refused to have this done, and the child was brought home with them. Shortly after this he had a a sharp attack of whooping cough, and so great was the tension on the sac during the spasms that there was great danger of it giving way. The parents then gave their consent to me to try anything I choose in the way of operation, but it was not till the child was fully ten months old that I considered him free enough from the whooping-cough to attempt the removal of the tumour by excision.

Operation.—Dr. Wotherspoon gave chloroform. After disinfecting the skin well over the tumour I marked out and dissected two flaps as follows: Commencing the incision from a point over the spine, about half-an-inch above the insertion of the tumour, it was carried over the side of the tumour near its base to a similar point over the spine, about half an inch below it. This was done on both sides, and the flaps dissected well clear of the base. By this means I was able to thoroughly lay bare all round the insertion of the tumour into the spine. Owing to the almost membranous state of the more prominent part of the cyst, great care had to be taken not to open into the cavity. When the base was thoroughly laid bare a pair of phimosis forceps, the jaws of which had been previously guarded, was passed with a blade on either side. The tumour was now pierced at its apex, and while it was slowly emptying itself the screw of the forceps was sent home, keeping the blades pressed towards the spine as much as possible. Further escape of the cerebro-spinal fluid was thus prevented by the phimoses forceps, which now acted as an effectual clamp. Using catgut I stitched with continuous suture and small catches that part of the pedicle which was between the [illegible] and the spine; when satisfied it was watertight I cut with curved scissors close to the clamp all the membranes which lay on the top of it. The clamp was now removed, the stump washed, and the flaps brought over and stitched. In bringing the flaps together the stitches were made to include the stump lying underneath them, thus forming a much stronger buttress than would otherwise have been the case. During the operation no trace of any nerve substance was seen in the sac, which was composed of skin and membranes distended with fluid, which communicated with the spinal canal by an opening in the vertebræ, into which the tip of the finger easily fitted. There were no after-effects from the operation, and no after-treatment in connection with it, the child in a few days making a perfect recovery. The operation was done in a collier's house of one apartment, with no assistance save that of the chloroformist. A short time after the operation this family left the district, returning at the beginning of this year, when I found the boy had talipes equino-varus. My partner, Dr. Robertson, cut the tendo Achillis, with a satisfactory result.

Since operating on the above case I have delivered three children (two of them cousins) afflicted with spinæ bifidæ. These three were almost identical: the opening was in the lower lumbar region, involving more than one vertebra; the covering of the tumour, which had a broad base, was like mucous membrane, and was eroded from birth. Owing to the soft nature of the covering, and the fact of the most of it being involved in the erosion, I though they could stand nothing in the way of operation. All three died of convulsions within a few days of birth.

CASE II.

On August 27th, 1901, my *locum tenens* asked me to see a child he had delivered during that day. I found the child had an enormous tumour arising from the back of the head. The tumour was almost the size of the child's head, was slightly translucent at the apex, had a narrow attachment at the occipital region. This attachment was felt to contain between the skin something more than fluid. The whole tumour was covered with healthy skin. Diagnosis of encephalocele was made, and permission obtained to excise it.

Operation.—On September 8th, when the child was 12 days old, Dr. Robertson administered chloroform, and I proceeded to remove the growth. The details of the operation were the same as on excising the spina bifida. Flaps were dissected from the sides of the tumour; these flaps were well retracted all round, phimosis forceps clamping the attachment. I unfortunately removed the tumour before I stitched the pedicle; this made it much more difficult to do, as the brain substance on the pedicle collapsing between the jaws of the forceps, tended to throw them off: they could not therefore be utilised in steadying the part. After satisfying myself that there was no leakage, I stitched the flaps together, including the stump. The child was so much collapsed after the operation that we did not expect it to revive: however, on a rectal injection of brandy being given, the collapsed condition passed off. There was no trouble with the wound afterwards, healing took place by first intention, and all dressings were removed on the twelfth day, the scar and adjacent tissue being firm and normal. On the fourteenth day after the operation, when all danger was considered to be past, the child unfortunately had some convulsive seizures, and died.

In this case, owing to the difficulty in handling the child, and the fear of ulceration or accidental rupture, the operation had to be performed at an exceedingly tender age, and no hope was entertained that it would survive the initial stage of collapse. On the third and fourth days the mother reported that it had slight convulsions: after this, till the fatal seizure, there was no indication of brain disturbance. Owing to the rapidity with which the operation was performed, no time was spent in minutely examining the relations of the parts at the base of the skull: but an opening about the size of the point of the finger communicated with the interior. The tumour was lined throughout with brain substance. The whole was distended with fluid. This operation was also carried out in a collier's house of one apartment, and with no assistance save the chloroformist.

A POSSIBLE PREDISPOSING CAUSE OF CANCER.

By HAROLD MASON, M.B.LOND.,
Chairman of the Health Committee of the Borough of Leamington.

THAT cancer and malignant diseases generally have been for some time past on the increase is, I believe, an undisputed fact, the reason for it being one which has not yet been conclusively determined, and the investigation is naturally surrounded by a great many difficulties. The increase has become more marked during about the last sixty years.

I have collected from the death returns of the registrar upwards of 400 cases occurring in the Leamington district,

spreading over a period of fifteen years, and have analysed them in several ways. In the first table they are arranged according to the systems and organs which were primarily first attacked:

	Male.	Female.	Total.
Alimentary:			
Lips ...	—	—	—
Jaws and Face...	5	1	6
[illegible]	6	2	8
[illegible]agus	12	6	18
[illegible]ch	28	33	61
Liver ...	18	36	54
Pancreas	5	3	8
[illegible]	17	28	45
Rectum	19	18	37
Totals ..	110	127	237
Circu[illegible]			
[illegible] ...	1	1	1
[illegible]			
Pleura ...	—	1	1
Lung	1	1	2
Larynx	2	1	3
Totals ..	3	3	6
[illegible]			
[illegible]ary	—	57	57
[illegible]atic	4	7	11
[illegible]	1	0	1
Totals ...	5	64	69
Urinary:			
Kidney...	5	6	11
Bladder	7	3	10
Totals ...	12	9	21
[illegible]			
Prostate	1	0	1
Testicle	1	0	1
Vulva ...	—	1	1
Ovary ...	0	5	5
Uterus ...	0	51	51
Totals ...	2	57	59
Organs not stated	8	17	25
Tegumentary, etc.			
Leg ...	4	2	6
Pelvis ...	—	1	1
Eye ...	—	1	1
Totals	4	5	9

Grand Total, 427

From [illegible] it is evident that the alimentary system accounts for [illegible] per cent., the generative organs for [illegible] per cent., also that if those cases affecting only the alimentary system and the generative organs are deducted, the liability of [illegible] remains about the same.

The [illegible] gives the ages in periods of ten years at which deaths have occurred:

	Male.	Female.	Total.
[illegible]	—	—	—
[illegible]	—	1	1
[illegible]	1	1	2
[illegible]	1	2	3
[illegible]	2	4	6
[illegible]	6	11	17
[illegible]	11	20	31
[illegible]	20	31	51
[illegible]	31	39	70
[illegible]	41	69	110
[illegible]	47	74	121
[illegible]	33	58	91
[illegible]	—	4	4

This table shows [illegible] people in which cancer [illegible] that the greatest liability occurs ten years earlier, and persists for ten years longer, in the female than in the male.

The next analysis refers to the residences of those dying from cancer, which is too lengthy for this paper. The following facts, however, may be gathered from it:

1. That out of these 427 cases deaths from cancer occurring twice in the same house is noted but seven times, and in one of these the patient only moved into that house a few days prior to her death.

2. It is, however, very common for it to occur in houses in the same row and on the same side of the street. The more striking examples I have tabulated, using a letter and figure for a street index, giving the actual numbers in the street:

Street Index.	Numbers of Houses in which Cancer has occurred.
A_1	14. 16.
B_5	10. 18.
B_{13}	39. —. 43. also 17. 19.
B_{15}	40. —. 44.
C_2	2. 4. 6.
C_7	[illegible]. —. —. 11 23
C_8	50. —. 54.
C_9	12. 14. ..... 22. 24. —. —. 30.
C_{14}	6. 8.
C_{16}	33. 35.
C_{18}	29. 30. —. 32.
C_{19}	2. —. 6. ..... 42. —. 46.
D_1	1. 3. —. 7. —. 11.
D_4	5. —. 9.
G_3	48. —. 50.
G_8	18. —. —. 24. —. 28. 30.
H_2	14. 16.
L_2	21. —. —. 27. —. 31. —. —. —. 39.
N_3	14. 16.
O_1	4. 6. 8.
P_6	36. —. —. 42.
Q_2	31. —. —. —. 39.
R_6	72. —. 76.
R_1	38. 40.
R_{13}	55. —. 59.
T_7	5. 6.
U_1	3. —. 7.
U_1	3. —. 5.

The dashes represent houses in which deaths from cancer have not occurred during the last fifteen years.

These are only a few of the most striking, but sufficient for showing that the frequency with which two or more houses adjacent to each other are cancer houses, is probably not accidental or mere coincidence, but that there is some determining cause in common.

Out of the 427 cases 44 died in public institutions. Their previous residences I have not been able to obtain, and deducting 7 in which cancer has occurred twice, there remain 376 dwellings in which it has occurred, and of these I now give an analysis:

1. I find that 66, or 17.5 per cent., of these houses are the end houses of rows, or corner houses of streets.

2. That 178 are above the annual rental of £20, and 198 are below that value.

Now in this town there are approximately 2,263 houses of the former, and 3,793 of the latter value. This gives a percentage of 7.8 of the better class to 5.2 of the poorer.

There are also a good many streets in which deaths from cancer are conspicuous by their absence, as the next table will show:

A[illegible] has 40 houses in which cancer has not occurred during the last 15 years.

[illegible]	[illegible]	[illegible]	[illegible]
B_1 ,, 28	[illegible]	,,	,,
C_1 ,, 35	[illegible]	,,	,,
C_{21} ,, 62*	[illegible]	[illegible]	,,
C_{22} ,, 40	[illegible]	[illegible]	,,
D_2 ,, 8	[illegible]	[illegible]	,,
E_1 ,, 47	[illegible]	[illegible]	,,
E_2 ,, 26	[illegible]	[illegible]	,,
[illegible] 40	[illegible]	[illegible]	,,
H_7 ,, 21	[illegible]	[illegible]	,,
I_{20} ,, 24	[illegible]	[illegible]	,,
N_8 ,, 28	[illegible]	[illegible]	,,
P_8 ,, 22	[illegible]	[illegible]	,,
S_{10} ,, 22	[illegible]	[illegible]	,,
V_6 ,, 26	[illegible]	[illegible]	,,

* Including 2 courts.

With the exception of [illegible] and [illegible] all the houses are under £20 per annum.

The distribution of cancer is singularly patchy, some districts having very few, while in others it appears in large groups. There is one particular district with a population of [illegible] in which cancer has occurred in four houses in these fifteen years. All these houses are well built, above the annual rental of £[illegible], and situated on a stiff clay ground.

As regards the nature of the ground upon which the cancer-houses abound the following table will show that:

Gravel...	...	...	... is the foundation or subsoil of about			125
Sandstone	...	...	...	,,	,,	,, 57
Loose soil, made up, etc.,				,,	,,	,, 3
Clay	...	...	...	,,	,,	,, [illegible]
Unascertained	...	...	...	,,	,,	,, 105

As regards the drainage of the various houses in which cancer has terminated fatally, I regret I have been unable to obtain returns for the first half of the period (of these 427 cases), but I have collected drainage statistics for the last 175 cases, and I find that defective drainage has been reported at the office of the sanitary authority in 45, which gives a percentage of 25.7; a very large proportion, considering that it is the exception rather than the rule to call upon the services of the sanitary inspector, particularly in the larger and better class houses, as these occupants usually call in their own sanitary engineer, and so no record comes to the notice of the Health Department. Out of these 175 cases, deducting 1 in which a case has occurred twice, I find that 117 of these houses are upwards of thirty years old and 57 are less than thirty years old, that is 67 per cent. of these cases occurred in the older houses. All these observations seem to point to the conclusion that whatever the ultimate cause may be, cancer will be found to be due to some germ whose habitat is a sewage-contaminated subsoil, and that its entrance into the organism is through one of the mucous-membrane-lined apertures of the body. If this be admitted then all the following statements will be readily accounted for:

1. That the cancer death-rate has increased during the last sixty years—a time synchronous with the development and extension of the watercloset system of drainage, bearing in mind that the first style of the w.c. system was simply unglazed drain-pipes, laid end to end, sometimes joined with clay and sometimes without. I have even seen in old cancer houses drains made up of one brick laid flat, with two placed edgeways, and covered with slate running beneath the dwelling-house.

2. That the infection of the alimentary system is as high as 55 per cent. For in those houses in which the drains are in such a faulty condition as to contaminate the subsoil, the food, which is often kept in the cellars, would be the first to become infected by any germ that might be existing in the subsoil, considering there is always an upward current of air out of the subsoil into any building upon which it is built.

3. That people over 40 years of age are more subject to it, as they become more confined to their dwelling as age advances.

4. That females are more subject to it than males, possibly on account of their domestic duties keeping them longer exposed to any poisonous influences that may thus arise. (Even the shape of the female garments would favour infection of the generative organs.)

5. That consecutive houses in the same street are found often to be cancer houses. As many of these houses were built at the same time and have a common drain and if it has been badly laid or for any reason it becomes faulty the subsoil of several houses may become sewage contaminated. (A great many of the cancer houses enumerated in this paper have been found to have old disused cesspools, old contaminated wells, or decayed brick sewers lying forgotten in the soil beneath the house).

6. That a large percentage of these cancer houses (17 per cent.) are end houses of rows, corner houses of streets, or houses on either side of court entrances, as these are places where any defect in a drain would be most likely to be severely affected by sewage.

7. That the older houses are more subject to become cancerous than the modern ones, as the drains in the earlier days were not laid with the care they now are, that glazed pipes were not known and brick drains were often used and the drains were often run under the dwellings, which would after a time decay, become leaky, and thus contaminate the subsoil.

8. That the houses which are built on a porous subsoil, such as sandstone, gravel, etc., are more likely to become cancerous than those built on clay, though the latter in time will become saturated with sewage matter.

For a great amount of the statistical information I have to thank the registrar, the medical officer of health, and sanitary inspectors for their courtesy in giving me every facility in the above investigations.

TWO CASES IN WHICH THE ACTIVITY OF PHTHISIS WAS EXCITED BY OPERATIONS FOR LOCAL TUBERCULOSIS.

BY A. J. RODOCANACHI, F.R.C.S.Eng.,
Honorary Surgeon, Ancoats Hospital, Manchester.

THAT phthisis may be rendered active, or general tuberculosis excited by an operation upon strictly localised tuberculous disease, such, for example, as fistula in ano, is a fact well known but not, perhaps, sufficiently insisted upon. The two cases here reported illustrate this danger in a striking fashion.

The first case was that of a man, aged 40, who presented himself with extensive disease of the metatarso-phalangeal joint. He had previously suffered from some strumous disease about the lower jaw but this was now healed. He also suffered from cough but there were no physical signs of phthisis in the chest. He was admitted an in-patient, and treatment was directed towards improving his general and local condition. He was then sent to a convalescent hospital, and on his return, being then in much better health but still unable to walk owing to the painful condition of the toe, an operation was undertaken on May 21st, and the diseased bone freely gouged away. Subsequently the toe became gangrenous and separated. The resulting wound granulated healthily. In spite of the local improvement the cough became much worse, signs of rapidly spreading phthisis appeared, and he died exhausted on July 15th, 1901.

The second case was that of a man, aged 22. He had a large mass of glands in the right groin and a smaller mass in the left. He also suffered from cough, but the sputum was examined for tubercle bacilli with negative results. There were, however, present physical signs of apical phthisis. An attempt was made in the first place to reduce the glands by potassium iodide liniment, together with rest and general measures of increasing nutrition. As, however, it became evident that suppuration had commenced in the glands, it was decided to excise them. This was done on September 13th, 1901. The smaller mass on the left side was easily dissected out, and the wound healed subsequently by first intention. On the right side operation was rendered difficult by the old adhesions present, and in the course of the dissection several large veins were wounded. Three days later the temperature rose, and subsequently remained at 102° to 103° F. A temporary improvement was brought about by the injection of antistreptococcus serum, and the wound appeared to granulate healthily. On the other hand, the disease in the chest made rapid progress, and vomiting also setting in, the patient died exhausted on October 8th. Shortly before death an examination of the sputum showed the presence of tubercle bacilli.

The question naturally arises whether the treatment adopted was the best for the patients, and whether the operations were justifiable. It was with some reluctance and at the special desire of the patients that I was induced to operate. Had they been in a station of life which would have permitted them to spend several months in idleness at a healthy seaside place no operation would have been undertaken; but as each patient was the breadwinner of a poor family I felt justified in attempting a cure by radical means, even at some risk, knowing that the local condition prevented him from attempting any work, and that a refusal would have condemned the patient to a lingering death in either a poor cottage or a city workhouse.

PROPOSED MEDICAL INFORMATION BUREAU IN PARIS.—The Council of the Paris Faculty of Medicine has under consideration a proposal to establish within the precincts of the Faculty an information bureau for the benefit of medical visitors, native and foreign, to the French capital. All necessary information as to lectures and courses of instruction, public and private, hours of hospital attendance, etc., will be supplied by an official on the premises, and the foreign visitor will even be able to obtain a list of any fellow countrymen who may be resident in Paris. The suggestion is due to Dr. Blondel, Secretary-General of the International Association of the Medical Press.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

MEASLES, IN SECOND ATTACK, AND GERMAN MEASLES: DIFFERENTIAL DIAGNOSIS.

CHILDREN who have had measles are more liable than is generally known to second or even third attacks of the disease. These second attacks may, and frequently do, present grouped symptoms which resemble those described as constituting the disease known as German measles (rötheln). It is probable that an erroneous diagnosis of the latter disease has been made in such cases. Scarlet fever, measles, and German measles, in the wide limits of clinical variance under which they may each appear, constitute a group presenting much diagnostic difficulty. The recently-proposed addition to the group by Dr. Dukes, of Rugby, of an affection designated by him "fourth disease," would not seem to minimise such difficulty. The multiplication of diseases is to be deprecated; and it is at least useful, prior to making diagnosis of rötheln in cases resembling that disease, in the first place, carefully to exclude the possibility of morbilli in second attack.

During the last six winters measles has been prevalent amongst the children in this district. Many of these children have been attended by me in both the primary and the second attack. And I have repeatedly been struck by the resemblance of the symptoms in these second attacks to the published descriptions of rötheln, from which, however, they can be distinguished. They are invariably attended by fever, less in degree than in primary attack, but more extended and higher in range than rötheln, which has by some observers even been described as afebrile. There is absence of the marked tenderness of the enlarged posterior cervical glands, considered by many to be of diagnostic importance in rötheln; and the bluish-white spots of Filatow or Koplik may occasionally be discerned upon the buccal mucous membrane. These spots are said never to occur in rötheln. Further, there has been no epidemic spread of the disease. Even in cases where the disease has appeared simultaneously in two members of the family it has not affected the other children who have previously had measles.

The aspect of these second attacks may in its general features be described as in mild replica of the primary attack, suggesting that the severity had been modified by previous attack.

London, W. C. KNOX BOND, M.R.C.S., L.R.C.P., D.P.H.

PREGNANCY IN CHILDHOOD.

Although in tropical climates and specially amongst the black races premature pregnancies are not infrequently met with, it is fortunate that cases of pregnancy are rare occurrences among European children. Such a case, however, occurred recently in my practice, and a few notes of it may not be found uninteresting.

At the end of September, 1901, I was consulted about B. J., a Colonial girl, age 13 years, who had menstruated four times. I found her to be about seven months pregnant, and on examination to be of poor development and of infantile pelvic contraction, and was in a very anæmic condition. An examination was made to determine whether she could safely be allowed to go to full term. The external and internal pelvic dimensions were found, however, to be such as would not interfere with labour, and, attention being paid to the patient's general health, gestation was, of course, allowed to proceed.

On November 11th and 12th, 1901, patient had irregular pains which lasted altogether twenty-four hours, but these passed off into false labour pains. Labour commenced at 6 P.M. on November 23rd. At 9 P.M. the cervix was well dilated and at 11 P.M. the child was born. A loss of blood of about 4 drachms was all that was lost at the time. The vulvar aperture was specially small, but the perineum was saved by my making lateral incisions in the vulva. The third stage of labour was natural, and the puerperium in every way satisfactory. The child, a female, was well proportioned, and weighed at birth exactly 7½ lbs. I have rarely seen a primipara enjoy an easier labour, and I have never seen one look forward to the happy realisation of motherhood with greater satisfaction.

G. WHITESIDE ROBERTSON, M.A.Edin., M.B., C.M.Edin.
Cathcart, Cape Colony.

DEATH FROM PRESSURE OF A PREGNANT UTERUS UPON A HORSE-SHOE KIDNEY.

THE pathological facts revealed at the coroner's courts are often full of scientific interest, although for various reasons they may reach the ears neither of the public nor of the medical profession. It may be worth while to publish a short note of an interesting pathological condition revealed in the course of an inquiry held by the City of London Coroner a few weeks since. The deceased was a young unmarried woman who died suddenly in the street. A *post-mortem* examination revealed the fact that she was several months advanced in pregnancy, and that the enlarged uterus had come into contact with a horse-shoe shaped kidney situated low down in the abdominal cavity. Pressure had practically disorganised the kidney, and the sudden death appeared to have been due to resulting uræmia. This occurrence is probably unique, and certainly deserves a place in the literature of the horse-shoe kidney.

Perhaps I may add that in performing the *post-mortem* examinations at the Birmingham Workhouse Infirmary some years ago the horse-shoe kidney was found more frequently than one would have expected from the usual account of the rarity of the condition.

London, W. DAVID WALSH.

AN UNUSUAL ATTACHMENT OF THE UMBILICAL CORD.

WITH reference to the communication[1] entitled, An Unusual Case of Hæmorrhage during Parturition, I find, on looking through my obstetrical notebook, that I had a similar case on July 13th, 1877, in which the umbilical cord was attached to the membranes, and not directly to the placenta. This condition must surely be very rare, as the above-mentioned is the only one which has come under my own personal notice during an extended and wide-spreading midwifery practice of over thirty years.

Worthing. W. L'HEUREUX BLENKARNE, L.S.A., M.R.C.S.

SUPRARENAL EXTRACT AS A HÆMOSTATIC.

DR. SOLTAU FENWICK'S note in the BRITISH MEDICAL JOURNAL of November 30th, 1901, on the value of suprarenal extract in gastric bleeding is of interest. Where melæna is the sole symptom or hæmatemesis is not severe, the extract given by the mouth may succeed. But one objection to this mode of administration, as he hints and as I have already pointed out,[2] is the risk of producing vomiting, much in the same way as zinc sulph. acts, and thereby aggravating the bleeding. If bleeding is profuse, the remedy is not likely to get at the gastric mucosa, and therefore will fail. Both these points were illustrated by a severe case of hæmatemesis recently under my care.

The patient was a stout, ruddy girl, aged 21, who had had an old history of stomach disorder, but who had recently been in rude health; she first complained to me of discomfort a few hours before the first hæmorrhage, and within twelve hours vomited about three pints of blood. She was too collapsed for immediate operation, and had frequent attacks of faintness. Several suprarenal tabloids ground into powder were twice given and each time rejected with a quantity of blood. Calcium chloride gr. xx in an ounce of hazeline was injected into the rectum; and then 10 grains of suprarenal extract powdered and mixed with water were also injected and repeated every two hours, later every four hours. There was no further hæmorrhage. A small quantity of saline was injected under the skin; nothing was given by the mouth.

Intravenous injection, as recommended by Professor Schäfer, would be the ideal method in such a case; but by the time it had been got ready a rectal injection would probably have acted, as where there has been great loss of blood the rectum takes up fluids very rapidly.

[1] BRITISH MEDICAL JOURNAL, December 14th, 1901.
[2] *Glasgow Hospital Reports*, 1900.

Other uses of suprarenal may be mentioned. In dissections, especially under infiltration anæsthesia, a swab soaked in the extract and applied for a few minutes blanches the part, gives a view unobscured by blood, and renders a speedier operation possible. Again, the extract may be used to increase and prolong the anæsthesia effected by freezing with ethyl chloride. If, for example, a swab of 20 per cent. cocaine solution, followed by one of suprarenal extract, be applied to a rodent ulcer, and the part be then frozen, a comfortable time will be got for dissecting out the ulcer bloodlessly and painlessly. I have removed part of the ala of the nose in this way, and the same method is useful for tooth extraction. Where a number of teeth close together have to be removed, one must be careful not to cause severe laceration of the gum. The gum, being hard, is apt to break away *en masse*. Where teeth are very firm or have large roots, this method of anæsthesia is not very efficient; but I have taken as many as twenty teeth in one patient in this way, taking only three to six at one time.

Hamilton, N.B. JAMES ADAM, M.D.

A METHOD OF EXAMINING THE ANTERIOR CHAMBER.

MAY I draw attention to the following method of examining the anterior chamber, which I have not before seen described? The patient is placed in a chair with a low sloping back; the head is tilted back and inclined to one side, so that the inner canthus lies at the bottom of the depression formed by the bridge of the nose, the supraorbital ridge, and the cheek. A pool of normal saline solution is dropped into this depression, and the patient is directed to rotate the eye inwards; if the amount of fluid be sufficient to submerge the cornea—and this can generally be accomplished—it will be found that the observer can see transversely through the cornea, as clearly as he can in an antero-posterior direction; in fact, the inner canthus can be seen looking transversely across the cornea through the double layer of it thus interposed.

Rushbrooke, co. Cork. F. HYDE MABERLY, M.D.Dub.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

NO. 12 GENERAL HOSPITAL, SPRINGFONTEIN.

SURGICAL NOTES OF AN OLD GUNSHOT WOUND OF HEAD.

(By Lieutenant R. C. WILSON, R.A.M.C.)

[Communicated by the Director-General of the Army Medical Department.]

History.—L. B., aged 21, was admitted to the General Hospital No. 12 with an old gunshot wound of the skull on the left side. He stated that he had been wounded at Colenso on December 15th, 1899, at a range of about 500 yards. Paralysis of the right face, arm, and leg followed, and he was unable to speak. The bladder and rectum were not affected. He thinks he was in hospital at Pietermaritzburg about two months, but his recollection of the whole period is most hazy. He was sent home to Netley (but had no recollection of going there), where he was trephined.

Present Condition.—An entrance wound, quite healed, is at a point in front of the left ear, which can be found by erecting a perpendicular to "Reid's base line," three-quarters of an inch from the external meatus, upwards for an inch and three-quarters. The exit wound is at the end of the same line produced upwards, 4 inches from Reid's base line. The circular wound of the skull produced by the trephine can be felt, but there is no pulsation of the brain (see figure). There is a small discharging sinus over the exit wound, and through it dead bone can be detected by the probe. He says this sinus broke out after leaving Netley, and it has been discharging and partially healing "off and on" ever since. Full power has returned to the arm and leg. The right side of the face is slightly drawn downwards. The lower jaw is about half an inch to the right of the middle line, so that the teeth do not quite approximate. The soft palate is somewhat baggy, but not more so on one side than the other, and the uvula hangs in the centre. The tongue, when protruded, describes a semicircle to the right side of the teeth. The angle of the mouth on the right side is slightly drawn inwards. Speech has returned but in a characteristic manner—clear, distinct, and slow. If he gets excited the words are not formed properly, though he knows what he wants to say: or, at times, he mixes up words and syllables in a manner unintelligible to the listener, being at the same time conscious of his mistakes. Memory is defective: (*a*) in names of places which are not very familiar to him; and (*b*) regarding events which have happened since his wound, though he recollects everything before that occurrence. He finds that when sent on an errand he forgets all about it before reaching the destination, but later, by hours or days, it may come back to his mind. Sometimes he fails to identify familiar objects, for example, he may pass the mustard when a comrade asks him to pass the salt. He states that he used to write and spell very well before he was injured. He now spells fairly, but in writing he mixes up letters or omits some; at the same time he is aware of such mistakes and endeavours to correct them, as they generally occur in the less familiar words. He is liable to make mistakes in arithmetic, and when counting money he has to do so very slowly. Reading is very slow but is correct. Sight is good and taste is normal. The knee-jerks are normal; ankle clonus is not obtained; the plantar reflexes are normal.



A, old trephine flap; B, incision made to remove the dead bone; C, exit wound; D, entrance wound.

Operation.—He was operated upon by Major Loughead, R.A.M.C. An incision was made over the old trephine wound, and two pieces of loose dead bone were removed. The wound was closed by suture and healed primarily. Three weeks after the operation all the brain functions were much improved; the writing was much better; the tongue, when protruded, did not go to one side so much as before. He was able to talk and read much faster, and memory was also improving.

MEDICAL GRADUATION IN RUSSIA.—At the State examinations for licence to practise medicine recently held in Moscow, 264 candidates presented themselves. Of these 240 were men, all of whom passed, 46 of them *cum laude*. Twenty-four were women holding foreign diplomas. At Kieff, of 112 candidates, 99 were successful. Of these 97 were men, 16 of whom passed *cum laude*, and 2 were women. At Charkoff 114 passed, 19 of them with honours. Among them were 12 women holding foreign diplomas. Of the successful candidates 45 were Jews. At Kasan there were 109 candidates, of whom 108 (92 men and 16 women) were successful. Of the men close on one-half passed with honours. The one candidate who did not pass retired owing to illness. What will probably most strike the English reader about these figures is the extraordinary high rate of passes in these examinations. Kieff appears to be the only place where candidates were plucked, and there the proportion of those "referred to their studies" was only about 10 per cent. Do Russian examiners temper justice too largely with mercy? Or are Russian students industrious and intelligent beyond other children of men?

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

F. W. Pavy, M.D., F.R.C.P., LL.D., F.R.S., President, in the Chair.

Tuesday, January 14th, 1902.

Discussion on Modern Methods of Vaccination and their Scientific Basis.

Professor Sims Woodhead, in resuming the discussion introduced by Dr. Copeman, on December 10th, 1901,[1] corroborated Dr. Copeman's observations on the action of glycerine on vaccine lymph, and on micro-organisms. The non-sporing organisms, with a few exceptions, were almost entirely eliminated by a 50 per cent. solution of glycerine; even in such a resistant form as the pyogenes aureus a large number were eliminated, sometimes 5 per 1,000 alone being left. The spore-bearing organisms were comparatively unaffected. Thus some indication as to the nature of the vaccine organisms was given. The organisms present in lymph were chiefly skin organisms and non-sporing, and hence were amenable to glycerinisation. Allusion was made to the effect of glycerinisation on the activity of the lymph and the opinion was expressed that no weakening occurred in a term of 3 or 4 weeks. After a longer time weakening probably did, to a slight extent, occur, but the deterioration was more likely due to under-glycerinisation than to over-glycerinisation. When organisms that grew best at the body temperature were in excess glycerinisation had a more active influence. The local effect of vaccine had been considered of late by many to be greater than formerly, but this was probably due to imperfect glycerinisation, the greater part of the local effect being always due to extraneous organisms.

Dr. T. D. Acland, said that whilst acting as medical officer to the Royal Commission on Vaccination he had had an unusual opportunity of seeing the methods of vaccination practised throughout the country and of forming an opinion as to the manner in which the operation was carried out and the cause and extent of vaccinal injuries. In the course of the same inquiry he had been brought intimately into relation with the Medical Department of the Local Government Board, and was able to appreciate the manner in which its officers carried out the difficult and often thankless task of maintaining efficient vaccination. There could be no question that the country owed much to Dr. Copeman for his researches into the origin and purity of vaccine lymph, and for his share in the establishment of an institute able to supply calf lymph on a scale quite impossible a few years ago. Dr. Acland hoped that the Government would take steps to establish a laboratory on a far larger scale than at present, so that all practitioners in the kingdom might be able to obtain lymph from a laboratory fitted with every requisite for perfect work, unfettered by economies necessary in an establishment run solely for trade purposes. He thought that it would be well also were all supplies of vaccine lymph placed under Government control, and expressed regret that there should be two "Jenner Institutes" in this country—the one formerly known as the "British Institute of Preventive Medicine" in Chelsea, where the National Vaccine Establishment was temporarily situated, the other the Jenner Institute for calf lymph in Battersea, to which the name by priority belonged. It was inevitable that confusion should arise between the two establishments, and it had arisen.

The Nature and Origin of Vaccine Lymph.

Vaccination, although it was the first protective inoculation practised on a large scale throughout the whole civilised world, had in all things except the extent of its use, been outstripped in the scientific details of its technique by many of its successors in the department of protective inoculations as now practised. The practical question now was whether a protective virus could be obtained from bovine animals by the inoculation of existing lymph, or of the virus of inoculated small-pox, which differed in many important particulars from the natural or exanthematous form. It would seem that Dr. Copeman, by transmitting small-pox through the monkey and by inoculating bovines with the virus so obtained, had produced a lymph which was of a similar, and possibly of the same, nature as that which would be obtained from cows who had accidentally contracted local pocks from a milker suffering from inoculated small-pox. Lymph derived from such a source, and definitely derived from small-pox, seemed to be capable of producing "vaccinia" in man, whilst it had lost its power of transmitting small-pox. Whether this lymph was identical with what was called vaccine lymph could only be decided by further experiment. The lymph now in use, whatever its origin, was not merely an attenuated small-pox virus, since if this were the case, some amongst the many millions of vaccinated children would develop small-pox instead of vaccinia. Dr. Acland was not aware that any such case had been recorded. The generalised eruption which in rare instances followed vaccination was generalised vaccinia, not variola.

The Preparation of Lymph.

Glycerine had long been used to dilute the lymph and to serve as a medium for triturating the lymph products obtained from the calf, but no experiments were made previous to Dr. Copeman's to show that the treatment by glycerine was capable of producing a sterile lymph, that was, a lymph freed from all extraneous organisms. Dr. Copeman's researches had at any rate shown that lymph freed from all organisms capable of cultivation on ordinary media did not lose its specific property. This answered the question which had been raised whether erysipelas was a stage in the evolution of inoculated cow-pox.

Standardising Lymph.

The standardisation of vaccine lymph had hitherto presented practically insuperable difficulties. It was possible that the facts demonstrated by Drs. Calmette and Guérin[2] might enable this difficulty to be overcome. They had shown that the rabbit was susceptible to the vaccine virus, and consequently the potency of any particular batch of lymph might readily be tried before it was sent out. The method had been tested successfully for two years at Lille, with the great advantage that it was found possible to eliminate inert batches of lymph prepared for vaccination.

The Actual Methods of Vaccination.

Vaccination as practised was open to two main objections: (1) That the necessity for causing a local sore created a point of great vulnerability to the individual vaccinated, and formed a possible starting point for various inflammatory complications. (2.) That it created a certain amount of opposition, since in the homes of the poor a vaccinated child imposed a burden on the often over-worked mother which was hardly realised by those who had no practical acquaintance with the facts; the gain to the community was impersonal and remote, while the sick child was a present and very real source of anxiety and difficulty.

The necessity for producing a local pock seemed to depend upon the fact that so far all efforts to isolate and cultivate a "vaccinia" organism *in vitro* had failed, so that the only practicable method of administering vaccine lymph medicinally was to create a local pock of a certain area, arrived at by experience, and to leave the production of the immunising bodies to take place in the person of the individual vaccinated.

The Production of an Antitoxin in the Body by Local Inoculation (Vaccination).

Dr. Acland recognised two views as to the means whereby protection was attained by vaccination: (*a*) "That by the local inoculation a body, presumably an organism, is introduced into the tissues, which by its multiplication after absorption produces the desired antitoxins." According to this hypothesis, the number or extent of superficial vesiculations was immaterial, if only sufficient of the original virus was introduced at the point of inoculation to overcome the resistance of the individual. Dr. Acland knew of no evidence corroborative of this hypothesis; on the contrary, such evidence as there was went to show that (*b*) under ordinary circumstances a given area of vesiculation was necessary, and that the immunising effect of vaccination bore a more or less definite relation to the area of the vesicles. This would follow

[1] British Medical Journal, December 14th, 1901, p. 1736.

[2] Annales de l'Institut Pasteur, 1901, vol. xv, p. 161.

if it were a fact, as now generally supposed, that the area of vesiculation bore a direct relation to the amount of antitoxin produced. From these considerations several important questions—practical, therapeutical, and political—arose: 1. Why was it necessary to produce on the arm of a newly-born infant the same number of vesicles as on a fully-grown man? It might be urged as a matter of clinical experience that infants required a larger dose of vaccine lymph as of other remedial substances, such as arsenic and belladonna, because their tissues were more active, they were more susceptible to the infection of small-pox, and the changes (increase) in their body weights had no parallel in the adult, all of which circumstances necessitated a proportionately larger reserve of the immunising material if the dose was to be effective. 2. How was it that different standards of efficient vaccination were permitted? Ought there not to be an irreducible minimum below which no certificate of successful vaccination should be given? If satisfactory immunity—a variable quantity for every individual—could only be procured by a certain standard of vaccination, it was surely desirable that there should be a uniform certificate of successful or efficient vaccination. At present it was mainly those vaccinated by the public vaccinator who were efficiently protected according to the official standard. Those vaccinated in private might have one, two, three, or four vesicles, according to the conscience of the operator or the insistence of the mother. The medical profession ought to endeavour to create a public opinion in favour of a really efficient standand of vaccination, and not give its tacit approval to its performance as a piece of therapeutic ritual which had had to be got over as cheaply as possible. 3. Did the number or area of scars really give any indication as to the efficiency of protection? This was a most difficult question, but fortunately one to which a great deal of attention had been directed, notably by Dr. Coupland, whose work was a model of thoroughness, and by Dr. Barry, whose report on the small-pox epidemic at Sheffield was well known. It would appear from the figures given in the report of the Royal Commission on Vaccination, 1896, that in nearly 7,000 cases the mortality was 6.2 amongst those with one mark and 3.2 amongst those with four. These figures emphasised the fact that a minimal standard of efficient vaccination was much required if the community was to take full advantage of the protection of vaccination against small-pox. Vaccinia or immunity to subsequent vaccination had been produced by many experimenters without the formation of snperficial vesicles both in man and animals. Burekhart vaccinated six children whose mothers had been successfully vaccinated whilst pregnant. The operation was unsuccessful in all of them. Kellock vaccinated 38 women in various stages of pregnancy, and found that the infants resisted vaccination directly as the stage of pregnancy at which the mother was vaccinated. In 21 cases the children of women who were vaccinated during the latter half of pregnancy proved insusceptible of vaccination, whilst in 14, whose mothers were vaccinated before the seventh month, vaccination was successfully performed, Small-pox contracted by a mother before her confinement might be transmitted to the fœtus, and a child whose mother had contracted small-pox during the third week before delivery might prove insusceptible to vaccination. Straus and Beclard, Chauveau and Ménard had also made experiments which confirmed these clinical observations, since they had found that the serum of calves taken during the height of vaccinia produced a measure of immunity in other animals of the same species; when injected intravenously the serum injections acted at once, whilst immunity was not secured in the calf by vaccination before the eleventh or twelfth day or in the pig two days earlier. This date, according to Cory, was approximately the period after vaccination at which immunity began to be secured in man. The time varied very much in different individuals of the same species, in man probably the receptivity to successful vaccination diminished gradually during the second week and became extinct before the fourth. Dr. Acland had recorded a case of vaccinia generalised by auto-inoculation in which the pocks continued to develop for four weeks certainly. Such evidence tended to show (1) That the serum of a vaccinated animal was capable of modifying and possibly destroying the susceptibility of another animal of the same species to vaccination; (2) that it was not essential for the immune animal to have been actually vaccinated in order that it might be rendered refractive against further inoculations of the same virus, and (3) that whereas serum injections had a rapidly immunising power, vaccination was a comparatively slow process, a fact which had an important bearing on the question as to whether it served any useful purpose to vaccinate an individual who had already been exposed to the infection of small-pox. Dr. Acland then referred to the attempts which had been made to treat variola by the antitoxin of vaccinia. Kinyoun[3] had recorded two cases of variola treated with serum taken from a calf vaccinated four weeks previously. The observations were inconclusive. Each case received 15 c.cm. of serum followed later by 20 c.cm. more. One case died in seventy-two hours. In 1896 MM. Beclard, Chauveau, and Ménard had recorded[4] observations made on seventeen cases of variola of all ages treated by subcutaneous injections of serum taken from a vaccinated calf. In one case no less than a litre and a-half was injected without causing any local or general disturbance, and the patient recovered. These cases had been alluded to by Dr. Copeman in his Milroy lectures, but in a later communication the same observers had given an account of further experiments on the immunising power of the blood of man and animals after vaccination against the vaccinal or variolous injections, and they came to the definite conclusion that not only did the serum of a vaccinated calf taken on the fourteenth day after inoculation possess certain powers both in the direction of conferring immunity and assisting the cure in the body, but that it also acted on vaccine lymph in the test tube, rendering it inert. They also concluded that the serum of convalescents from variola had the same destructive power over the vaccinal virus. All these experiments seemed to indicate the general truth of Jenner's hypothesis, and to supply the scientific basis which was lacking from his empirical practice—a practice which, although empirical, had stood the test of time and of rigid experimental test. They also served to indicate the direction in which the advance must be made. Dr. Copeman had made it possible to obtain from the calf a supply of antitoxin directly derived from variola; might it not be that this would afford a means of combatting variola itself? It might well be asked that Dr. Copeman, should he be willing, should be granted the opportunity of testing the applicability of the scientific facts by utilising them for the treatment of variola. Dr. Acland then gave notice of a resolution to the following effect:

That Government should supply all practitioners with glycerinated lymph; that all imported lymph should be examined, and all manufactories of lymph inspected.

Professor HAGGIUS (Geneva) acknowledged the debt conferred on universal medical science by Jenner, and also later by Dr. Copeman. In 1892, when in Switzerland, there was difficulty in procuring good calf lymph; he transmitted variola in eight instances to a calf, later to six other calves, and eventually with success to children. Professor Chauveau attacked these experiments on the ground of accidental inoculation with vaccinia in laboratories, but this source of fallacy was eliminated by transmitting the inoculated small-pox from calf to calf before inoculating it on children. In Munich and Stettin small-pox had been transmitted to calves, the inoculations being performed apart from vaccine establishments. The results on the children were quite good, there being no generalised eruption. Allusion was made to glycerinated lymph and to powdered dry lymph, the one being successful the other not. The collection of calf lymph was now conducted under better conditions than formerly, thus diminishing from the first the number of extraneous organisms. It was hoped that in a short time vaccination would become compulsory in Switzerland.

The discussion was adjourned.

CLINICAL SOCIETY OF LONDON.

HOWARD MARSH, F.R.C.S., President, in the Chair.

Friday, January 10th, 1902.

RADICAL TREATMENT OF CHRONIC INTESTINAL TUBERCULOSIS. MR. MAYO ROBSON (Leeds) read a paper in which he said that whatever might be their views as to the treatment of acute

[3] *Philadelphia Medical News*, February 2nd, 1895.
[4] *Annales d'Institut Pasteur*, 1896, vol x, p. 1.

intestinal ulceration, surgical treatment was generally advisable in chronic intestinal tuberculosis. He related 7 cases (1 male, 6 female) in which he had operated with only one death, and remarked that while in Cases 1 and 7 the adhesions to adjoining parts were very intimate, in the other cases the affected part of the bowel was quite free, thus rendering operative measures easy and simple. In Cases 1, 2, 3, and 5 his decalcified bone bobbin was employed as a temporary splint over which to apply sutures, a method which he had described on numerous occasions, and which he still employed and advocated as being simple and efficient. The physiological rest to the diseased parts secured by short-circuiting, as in Case 3, and by colotomy in Case 6, seemed to answer so well, that where the radical operation of excision involved serious difficulties or the patient was not in a condition to bear it, he would not hesitate in future to be content with similar procedures, and then to trust to general treatment and hygienic surroundings to assist in the cure. If in the future operative treatment should be thought advisable in acute cases he anticipated that short-circuiting the diseased area would be found to be the more useful procedure, as it was the easier and safer method to pursue, but experience alone would show whether his suggestions would prove of as much service in acute as they were in chronic cases. It was interesting to note that in Cases 1 and 7, where there were tuberculous nodules in the peritoneum, where in fact there was tuberculous peritonitis coexistent with the bowel disease, the mere exploratory operation had not cured or even arrested the tuberculous process, but that the radical operation of removing the principal focus of disease, or as in Case 3, the short-circuiting and so setting at rest the diseased bowel, was in all three cases effectual in putting a stop to the tuberculous peritonitis, and, so far as one could see without the parts being exposed, in curing the more diffuse disease. All surgeons at present must have had the experience of curing tuberculous peritonitis by simple abdominal section, with or without drainage, and probably many of them had also experienced disappointment in other cases where the effusion had returned after a longer or shorter interval. He suggested that the explanation of these recurrent cases lay in the fact that the original focus of disease in the ovaries, Fallopian tubes, or bowel had not been removed and had again been the starting point for a further diffusion of the tubercle throughout the peritoneal cavity. If that were the correct explanation the remedy was quite clear—namely, that wherever the original disease might be, it should be removed if that were possible without adding seriously to the risk of operation.

Dr. Sidney Martin inquired what were the early symptoms upon which a sound diagnosis might be based and the surgeon's help sought. Had tuberculin been used in any of the cases?

Mr. Clutterbuck Symonds remarked that all the cases that had been described were instances of obstruction, for which the operation was done, rather than to cure the ulceration. He recalled the case of a woman, aged 25, with all the symptoms of tuberculous appendicitis in a mild degree, for which the appendix had been removed. This was followed by faecal fistula in the right groin. The caecum was excised, and the [illegible] ascending colon. This was an example of complication of the ileum and ileocaecal valve, though the [illegible] Eventually the patient had [illegible] and peritonitis. He also mentioned [illegible] of possible [illegible] of the intestine in man. One [illegible] for twenty years [illegible] symptoms of occasional pain and [illegible] On exposure a part of the small intestine was found greatly dilated and was excised, end-to-end suture being followed by recovery. Another man with similar symptoms, but desperately ill, was only short-circuited. Another patient made a good recovery after excision. When an operation was done for general peritonitis it was most important to remove the focus of the tuberculosis whenever possible, and it was important for this purpose that surgeons should see the case as early as possible. In one case of [illegible] tubercle of the rectum he had performed colotomy, and kept out the bowel from the artificial opening to the anus, and the patient recovered. Afterwards the patient, when away from London, would have the artificial anus closed, and died.

Mr. Watson Cheyne said that the paper dealt with two points, namely the treatment of ulceration of the intestine, and the search in operations for tuberculous peritonitis for the focus of that disease with a view to its removal. He had seen cases of chronic dysentery treated and cured by colotomy, the ulceration subsequently healing. He mentioned the case of an infant with stricture of the bowel associated with extensive tuberculous peritonitis. He had short-circuited the intestine, and after a year found the child in blooming health. As to the advisability of removal of the focus of the disease, however, he was less assured. So much in such cases depended on the state of the patient and of the abdomen, but certainly the affected area should be removed if it were possible. But a person with diffused peritonitis could not stand the search for the focus of the disease, especially if adhesions were broken down.

Dr. Newton Pitt said that practically the cases treated by operation were those of obstruction. Was it well to interfere when there was a matted caseous tumour in the abdomen? The attempt to deal with such a tumour in two cases within his recollection was decidedly disastrous. The caseous masses were so rotten that operation rather hastened than arrested the fatal termination. Cases where symptoms of obstruction were not present did better, he thought, without surgical interference. Those cases mentioned in the paper which received benefit were always cases of obstruction.

Mr. Barker had removed caseating masses from around the cæcum in a small girl, with recovery, though the patient was so ill that she nearly died on the table. Formerly he had operated when the intestines were matted together, and had regretted it, as fæcal fistulæ were apt to form, with fatal results. This had made him cautious in cases of dry caseous masses. But in cases complicated with fluid in the peritoneum operation was justifiable, as recovery usually ensued. Why this difference existed he did not know. He believed there was now a fair number of recorded cases of tuberculous disease of the appendix but the condition was rare. As to the removal of intestine obviously infected with tubercle, the exact quantity to be removed was a difficult question. He cited a case in which the lower part of the ileum, the cæcum, the ascending, transverse, and descending colon were successively removed in five or six operations as the disease spread, and the ileum was finally anastomosed with the sigmoid flexure, the patient recovering health and strength. As to the time of operation, he would wait, as Mr. Robson had done, until the case was in a quiescent state.

Mr. Keetley said that the cases mentioned in the paper were divisible into three classes—(1) those with a tumour, usually glandular; (2) cases of tuberculous appendicitis; (3) cases of diffuse tuberculous peritonitis. And from whichever of these three points of view one operated he should always bear in mind the two other aspects of the case. He mentioned a case in which he had removed glands from the inner side of the ascending colon, together with a bag of broken-down pus, with complete recovery. The glands of the mesocolon indicated fairly well the locality of the focus of the tuberculous disease. Only when there was obstruction of the intestine was it necessary to interfere with the bowel. Everyone who had dealt with these patients must have been struck with their capacity for standing severe operations of short circuiting and excision of intestine; it was far greater than that exhibited by people in good health who might meet with accidents to the abdomen.

Dr. Norman Dalton alluded to the case of a girl, aged 12, with symptoms of apparent appendicitis. The peritoneum was opened and found to be thickly studded with tubercle; and recovery ensued.

Dr. Percy Kidd thought it extremely difficult to diagnose tuberculous disease of the bowel at an early stage. Most of the cases had pulmonary disease as well as tubercle of the intestine. He should expect to find multiple ulcers in the bowel rather than solitary ones. The appendix was frequently affected with tuberculosis, as he could aver from observations in the *post-mortem* room.

Dr. Newton Pitt said that in cases of appendicitis coming under operation it was rare to find that the cause was tuberculosis; and he asked Mr. Robson what was the number of such cases which he had removed. In the *post-mortem* room it was not rare to find that in cases of tubercle of the intestine the ulceration had spread to the appendix.

Mr. MAYO ROBSON, in reply, said that 5 of his 300 cases of operation for recurring appendicitis were tuberculous. Two or three only of the cases he had quoted in his paper were operated on for obstruction. He had relied on the following symptoms for diagnostic purposes, namely, loss of flesh, night sweats, diarrhœa, and abdominal pain. He did not think operation benefited the cases with matted tubercle, as they afterwards failed to recover. The focus of the trouble could usually be reached in cases of disease accompanied by fluid; and it should always be removed when possible. In some of the desperate cases where no radical interference was possible, the mere drainage of the peritoneum in the simplest manner possible often greatly relieved the patient.

HAIR-BALL IN THE STOMACH OF A CHILD OF NINE SUCCESSFULLY REMOVED.

Dr. E. PERCY PATON described this case.

The patient was an intelligent girl, aged 9, in whom a lump was accidentally found in the epigastric region. As she was known to have eaten hair and other similar substances since she was three years old, and had only been broken of the habit recently, a hair-ball was diagnosed. There were no gastric symptoms. On opening the stomach a mass, consisting chiefly of the child's own hair, seven inches long, weighing seven and a quarter ounces, and having the general shape of the stomach, was extracted. The child recovered without a bad symptom.

The PRESIDENT considered that the case was a very rare one.

Mr. MAYO ROBSON said he had never removed a hair-ball, but he had taken 9 large nails, 50 tin tacks, 40 garden nails, and needles, from the stomach of a girl who objected to going to school. She had since grown up and was quite well.

Dr. PATON added that the doctor who had diagnosed the hair-ball, did so because, whilst the case was still under observation, his cat had vomited a small hair-ball.

MEDICAL SOCIETY OF LONDON.

W. H. ALLCHIN, M.D., F.R.C.P., President, in the Chair.

Monday, January 13th, 1902.

OBSERVATIONS ON THE SURGICAL TREATMENT OF OBSTRUCTIVE JAUNDICE, RESULTING FROM AN EXPERIENCE OF OVER 200 OPERATIONS.

MR. MAYO ROBSON read a paper on this subject, which is published at p. 125.

Mr. JOHN H. MORGAN alluded to the definiteness of diagnosis which had preceded the operations in the cases described, and to the hope held out in apparently hopeless cases. In all operations on the abdomen there was great need for celerity with the object of minimising shock; the details of the operative measures adopted in the cases would be of interest.

Mr. F. EVE concurred in the advisability of operating on all doubtful cases, and alluded to the chronic pancreatitis which was present in some—in two of his own experience. He had never been able to manipulate gall stones from the common duct into the gall bladder.

Mr. A. E. BARKER had himself been agreeably surprised by the disappearance of apparently cancerous masses after an unfavourable prognosis had been given. The necessity for celerity, for the keeping of the patients warm, and for making preparations beforehand to eliminate the causes of delay were most important, while the transfusion of saline fluids was a valuable aid.

Mr. W. G. SPENCER emphasised the need for not too rapidly forming a diagnosis of malignant disease. Cancer of the head of the pancreas, without pain, was very rapid in its course. But there were possibly cases due to the local irritation of the gall stone which were less rapid. He alluded to a case in which jaudice and ascites were due to gummata in the liver. Rupture of gall stones into the duodenum occurred at a rather early stage.

Mr. JONATHAN HUTCHINSON, jun., suggested that rapidity in abdominal operations was perhaps less important than had been maintained. The best results in gynæcological cases were often after deliberate operations, and shock was not greater in the slower operations of suture after resection of the intestine, or even not so great, as in the rapid operations in which Murphy's button was used. It was, however, possible that the worst cases were treated by the latter method. He asked if stitching the omentum to the anterior abdominal wall, in preventing ascites, was of unquestionable value. He doubted if cancer of the liver was often amenable to operation.

Dr. VOELCKER referred to the differential diagnosis of the causes of jaundice which the paper had shown to be possible. He asked what dose of calcium chloride had been given with the object of restraining hæmorrhage after operation.

Mr. MAYO ROBSON, in reply, said he had given latterly 30 grs. of calcium chloride three times a day for two days before operation, and 60 grs. by enema immediately before operation, and three times a day for three or four days after it. Drachm doses had been given by the mouth without ill-effect. In cases of ulceration of gall stones into the duodenum, the jaundice was due to catarrh, and in them there was usually no pain. From his experience of 24 cases he held that operation was of no material benefit in cancer of the head of the pancreas, while the mortality of the operation was about 50 per cent. Rapidity of operating was much less important in the lower abdomen, for there was much less shock as a rule in those cases.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—At a meeting held on January 10th, Dr. JOHN MACINTYRE, F.R.S.E., President, in the chair, Dr. WYATT WINGRAVE exhibited a young man, aged 18, who had been the subject of (unilateral) acute cellulitis of the larynx, believed to be due to a foreign body.—Mr. LENNOX BROWNE exhibited a female patient, aged 14, the daughter of a medical practitioner, who had been the subject of adenoids, and in whom deafness, almost inarticulate speech, mental hebetude, and chorea were prominent symptoms. After removal of the adenoids the patient, with the consent of Dr. Ferrier, had undergone breathing and movement exercises, which had led in two months to the doubling of her vital capacity, increase of her chest girth, cure of her chorea, and very marked improvement in her speech and intellect.—Dr. CULVER JAMES showed a female patient, aged 18, suffering from aphonia, with loss of speech. The Fellows present confirmed the functional nature of the trouble.—Mr. MAYO COLLIER exhibited a female child, aged 9, the subject of defective speech, associated with defective hearing, almost to the extent of deaf-mutism, in whom great improvement in both directions had followed the removal of a large mass of impacted cerumen which had probably accumulated and been undetected in consequence of a curious abnormality in the direction of the meatus.—Mr. LENNOX BROWNE exhibited five patients, the subjects of lingual varix, one of whom was a medical practitioner, and the other four had been sent to him by hospital colleagues as examples in patients at present attending the out-patient department, a point emphasised by the PRESIDENT.—Mr. MAYO COLLIER referred to an extreme case of paroxysmal dyspnœa, the sole reason for which appeared to be lingual varix. Treatment by galvano-cautery had resulted in a remission which had now lasted three years.—Mr. ATWOOD THORNE exhibited a patient with deafness associated with nasal stenosis and hyperostosis at the isthmus of the external auditory meatus. Remarks were made by the PRESIDENT, Mr. MAYO COLLIER, and Dr. WYATT WINGRAVE.—Mr. CHICHELE NOURSE showed a case for opinion, which, having many signs of a malignant growth of the left vocal cord, had so improved under biniodide of mercury as to suggest its being a gumma.—Mr. LENNOX BROWNE read notes (1) of two cases of acute ulcerative tonsillitis, which had been followed by orchitis, with an acute pustular inflammation of the skin of the penis and scrotum; (2) of a case of posterior tongue-tie, with hypertrophy of the lingual tonsil, occurring in a female Board school teacher, aged 23; (3) a case of tuberculosis, in which, bacilli being numerously present, the patient showed continuous gain of body weight during four years of observation. Dr. WINGRAVE made remarks.

GLASGOW SOUTHERN MEDICAL SOCIETY.—At a meeting held on December 26th, 1901, Dr. JOHN STEWART, President, in the chair, the subject suggested for discussion was What are Scheduled Poisons? In view of recent proceedings of the General Medical Council, great interest in the question was manifested, and attention was drawn by various members to the dubiety existing in many minds as to the drugs regarded as poisonous within the meaning of the Pharmacy Acts. After a lengthy discussion it was resolved to appoint a com-

mittee to inquire what drugs were included under the terms "scheduled poisons," and especially those described in the Acts as "poisonous vegetable alkaloids and their salts." Drs. J. Stewart, Forrester, Russell. Robertson, Young, Fraser Orr. and Wauchope were elected to form the Committee, with power to add to their number. and were instructed to report the result of their investigations to a future meeting of the Society. The meeting then proceeded to consider the recent edict of the General Medical Council with reference to the keeping of open shops or medical halls and unqualified drug assistants. After some discussion, it was unanimously resolved to protest against the terms of the edict as a Society. The Council of the Society was instructed to draw up a protest for presentation to the General Medical Council at its next meeting. The ninth meeting of the session and the first of the new year was held on January 9th, Dr. JOHN STEWART, President. in the chair. The meeting took the form of a smoking concert, supper, and *conversazione*. There was a good attendance of members and friends. Supper was served at 9 o'clock, at the conclusion of which an adjournment was made to another room, where a pleasant evening was spent in song and story.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on January 9th. Dr. BARCLAY J. BARON in the chair, Mr. C. H. Rudge was elected on the Library Committee in the place of Mr. L. M. Griffiths, resigned. A cordial vote of thanks was passed to Mr. Griffiths for having acted as librarian for so many years.—Mr. F. W. CROSSMAN showed a patient with a loud aortic *bruit*; Dr. T. FISHER, Dr. P. W. WILLIAMS, Dr. E. J. CAVE, Dr. H. E. STACK, Dr. MICHELL CLARKE, Dr. A. J. HARRISON, and Dr. NEWMAN NEILD spoke on the condition.—Mr. G. MUNRO SMITH showed the following specimens:—(*a*) concretion from horse's intestine; (*b*) renal calculi; (*c*) tonsillar calculus; (*d*) necrosis of clavicle (patient also shown).—Mr. HANDCOCKE WATHEN showed a series of concretions from horses' intestines; Mr. ROGER WILLIAMS, Dr. E. J. CAVE, Dr. T. FISHER, Dr. E. MARKHAM SKERRITT, Dr. K. WILLS, Dr. P. W. WILLIAMS, and Dr. SHINGLETON SMITH discussed the specimens.—Dr. H. E. STACK showed a specimen of aneurysm of the internal carotid artery at the base of the brain from a girl, aged 22.—Dr. T. FISHER showed specimens of acute tuberculosis of the lungs following tuberculous peritonitis.—Dr. F. H. EDGEWORTH read a paper on transient renal hæmorrhage due to chill; Dr. K. WILLS, Mr. R. WILLIAMS, Dr. P. W. WILLIAMS, Mr. J. TAYLOR, Dr. SHINGLETON SMITH, Dr. H. E. STACK, Dr. MICHELL CLARKE, Dr. MARKHAM SKERRITT, and Dr. A. J. HARRISON remarked on the paper. Dr. J. OBERY SYMES read a paper on some urinary infections, with special reference to their treatment by urotropin; Mr. T. CARWARDINE, Dr. T. FISHER, Dr. NEWMAN NEILD, Dr. E. J. CAVE, Dr. H. E. STACK, Dr. F. H. EDGEWORTH, and Dr. A. J. HARRISON spoke on the paper.—Dr. D. S. DAVIES gave a short report on a recent case of black small-pox in Bristol.

BRITISH ORTHOPÆDIC SOCIETY.—At a meeting held at the National Orthopædic Hospital on December 14th, 1901, Mr. NOBLE SMITH in the chair, Mr. MUIRHEAD LITTLE exhibited: (1) A case of Pott's disease of the spine in which there was [illegible] operation; (2) a case of severe genu valgum, and photographs of a case of late or continued rickets. Mr. CHISHOLM WILLIAMS showed a case of congenital abnormality of the heads of the radii, which prevented movement of pronation and supination.—Mr. NOBLE SMITH opened a discussion on the treatment of congenital displacement of the hip-joints. With regard to diagnosis, the affection had to be [illegible] from traumatic, paralytic, and spontaneous [illegible] some cases of coxitis, rachitic lordosis, coxa vara, and even bow legs; but he thought that the only affection which could be, as a rule, mistaken for this displacement by those having as much experience of it as the members of that Society was coxa vara, and that the only certain way of forming a diagnosis was by means of the [illegible]. He thought he was expressing the opinion of the majority of the members of the Society in saying that the favourable operation of snapping out the impeded [illegible] and bringing down the head of the femur into such [illegible] by a wound which obviously opened up the joint was not satisfactory, even if it were justifiable. After such an operation cases were known sometimes to relapse, ankylosis had occasionally followed, and some deaths had taken place. These operations had been chiefly tried by Continental surgeons, and he thought that the results did not warrant the procedure. Good results from treatment by continued extension of the affected limbs, a plan of treatment advocated and practised years ago by Pravaz, and carried out most carefully by Buckminster Brown, and subsequently by William Adams, had been recorded. Then there was the more forcible method of Paci, which had also been successful to a certain extent. If it might be said of all these plans that relapses sometimes occurred, it must yet be acknowledged that the results were better than if the sufferers had remained without any treatment whatever. More recently a bloodless operation had been carried out with which mention of Lorenz was chiefly associated. This consisted, as they knew, in forced extension, then flexion, rotation and abduction of the femur, with an endeavour to replace the head of the bone into its socket or at least into the place or neighbourhood of the socket. Then fixing the limb by plaster-of-paris bandages in a strongly abducted position so as to make the head of the bone press firmly towards the pelvis with the intention of its forming by pressure a place for itself. He had seen good results from this practice, but he doubted if it had any advantages over simple extension by means of a long Liston splint, as used for a fractured thigh-bone. The perineal band drew the pelvis upwards, and the limb was drawn down and fixed to the splint in the ordinary way. He found that the head of the bone could either be brought down at once, or it might take several weeks before it would reach the natural position. After a certain period weights with a pulley could be substituted for the splint or used alternately. In some cases there was so much twist in the neck of the femur, that when the head of the bone was placed in its normal position the feet would point inwards, and upon placing the feet straight forwards the head of the femur would be dislocated anteriorly. This condition might necessitate osteotomy of the femur. Some lateral pressure could be applied to the hip by a metal band after the bone had descended, but such lateral pressure should be applied with great caution in the case of girls because one might easily compress the pelvic cavity, and as girls were more often affected by this displacement than boys, a serious narrowing of the pelvis might ensue. This caution applied especially to Lorenz's bloodless method, for lateral pressure was a material part of his procedure. In many cases, especially in the older children, the reduction of the deformity was impeded by contraction of muscles, especially the adductors and tensor vaginæ femoris. All these contracted muscles might have to be divided or stretched before the reduction could be completed, and it was always desirable to ensure free abduction of the limbs. After keeping the head of the femur in its approved position for a few months it would be found that the joint was becoming fixed in such position that was to say, the tendency to rise upwards towards the crest of the ilium was lessened It probably would require at least six or eight months to get sufficient firmness to resist a moderate pressure upwards, but it would be very unwise to allow a child to walk about with its body weight on this joint under eighteen months or two years. This did not, however, involve so long a period of absolute recumbency. The patient might after the first six months or so get about on crutches, with a raised sole on the sound limb, if only one joint was affected, or to ride on a tricycle or rocking-horse if both joints were deformed. In some cases it had been found that a fold of the capsule would be interposed between the head of the bone and the acetabulum, and under such circumstances there would be some tendency to relapse, but firm lateral pressure would probably in time overcome this obstruction. An American surgeon, Bradford of Boston, had stated that if at the end of a month the head of the femur did not seem sufficiently firm in its natural position an operation was necessary, but Mr. Noble Smith did not think the time sufficient for a fair trial. He exhibited a number of skiagraphs and ordinary photographs showing different patients and the stages of treatment. These photographs and the notes of his cases showed very good results,

with very little tendency to relapse. By such safe and comparatively simple procedures patients were ultimately able to walk about with little or no difficulty, and the very disfiguring deformity, the waddling gait and severe lordosis, which occurred when no treatment was carried out, were generally after such methods much reduced or quite absent.

SOCIETY OF ANÆSTHETISTS.—At a meeting held on December 9th, 1901, Mr. WALTER TYRRELL, President, in the chair, a paper by Mr. H. C. CROUCH and Mr. E. M. CORNER entitled Is Chloroform more dangerous than Ether? Consideration of Respiratory Troubles following Operations during Twelve Months at a large General Hospital, was read by Mr. Crouch. On account of the largely divergent views held by anæsthetists on the occurrence of these complications after ether, the authors determined to examine every case which had had an anæsthetic in St. Thomas's Hospital, to ascertain if ether was responsible for lung troubles at all, and if it was, how it compared with chloroform. In order that the evidence might be first hand, they undertook the examination of every case themselves, and where they found signs they got a physician to make an independent examination, and they included in their lists only patients in whom chest symptoms accompanied by fever arose within twenty-four hours. In all, just over 3,000 cases were examined; 2,400 of these had ether and 600 chloroform. None of the latter, though they included many mouth cases, had any lung trouble, though 10 of the former did, one of these died. On analysing these 10 cases, it was found that it occurred at all ages in persons whose lung condition had been and was distinctly good, whereas there was no case in a patient with a previous history of winter cough. The patients were all apparently in good general condition, and gave no trouble to the anæsthetist; they did not become cyanosed or secrete an excessive amount of mucus, neither did they require an unusual amount of ether. They were all trunk cases except one case of extensive varicose veins, and the operation in every case lasted a long time. Seven out of the ten occurred in the summer; the respiratory complication was usually bronchitis, but three of them were broncho-pneumonia. The authors considered that this after-effect was due to the ether primarily, secondarily to the exposure and the tight bandaging after the operation. It was also a question whether the previous administration of an unduly large amount of gas had not some share in it. It was recommended (by the authors) that chloroform be given in all cases where the operation involved the tight bandaging of the trunk, or where the operation was prolonged. Where ether was given a loosely-folded towel should be placed over the patient's mouth and nose until he was in a ward with an equable temperature. A somewhat lengthy discussion followed. Mr. ALBAN DORAN said that, taken as a whole, he was not favourably impressed with ether in contradistinction to chloroform, and he regarded it as prejudicial in long operations. For long operations upon women with large abdominal tumours he preferred chloroform. Mr. CARTER BRAINE thought that even in so small a percentage of respiratory troubles following the 2,400 cases of ether administration quoted that there must have been other influences at work besides ether to account for it. He did not consider that the previous administration of nitrous oxide would make any difference. Dr. BROMFIELD objected to a comparison of the present figures with those in a book obtained under different conditions. Such a comparison was not a sufficient ground for asking anæsthetists to consider seriously whether they should banish ether throughout in favour of chloroform. Dr. PROBYN WILLIAMS quoted instances of bronchitis following the exposure of patients during and after operations: he preferred in long operations to change from ether to A.C.E. rather than to chloroform. He did not think that because troubles sometimes followed long administrations of ether, that one should fly at once to chloroform. Dr. DUDLEY BUXTON considered that much of the trouble following the protracted use of ether was due to the practice of using an excessive quantity of the drug for maintaining anæsthesia after it had once been induced. He was very much opposed to tight bandaging after the employment of ether. Many of the sins attributed to ether were the sins of the etherists and not of the ether itself. Dr. ROMBELL (of Leeds) had seen several cases of ether bronchitis due, he believed, to either excessive administration or to undue exposure of the patient. Dr. Rombell explained the precautions that he now took in his own new surgical home to prevent the liability of patients becoming unduly chilled during or after operation. Dr. FLUX thought that it was the interference with the ordinary conditions of respiration, quite apart from the addition of ether into the case, that was the cause of very much of the discomfort following ether. Since he had been using his open stopcock he found that there was no occasion to interfere with a patient's natural supply of fresh air at all. Mr. GRANT MORRIS was opposed to the idea of having a one-anæsthetic man, he thought that every one should pick his case whether for ether or chloroform. The PRESIDENT did not believe in pneumonia being caused by ether pure and simple: he believed that it was due to germs sucked down the trachea, or to some other cause. As to the preliminary administration of gas, he did not believe that however blue one made a patient with gas that it had anything to do with the symptoms under discussion. He never changed to chloroform unless there was some special reason for it, that reason was generally a swelling of the air passages causing obstruction. Mr. CROUCH and Mr. CORNER having replied, on the motion of the PRESIDENT they were heartily thanked for their paper.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on January 1st, Mr. E. C. KINGDON, President, in the chair: Dr. LOWE (Lincoln), read a paper on the use of *x* rays in medicine and surgery. He used the current from the city main at 230-volt pressure—controlled by two of Cox's electrolytic breaks coupled in series, with a current of from 9 to 11 ampères and at a distance of from 14 to 24 inches of the anode from the plate, he got excellent negatives in from 5 to 30 seconds—the prints exhibited were on the Otto paper, showing perfect proportion and exquisite detail. Dr. Lowe laid great stress on the importance of a uniform method of work—the anode always being plumb over the part to be radiographed—and both sides symmetrically exhibited so that the surgeon could interpret the results correctly. In medicine he had found the rays useful in the diagnosis of hæmatoma, aneurysm, enlargements of the heart, spleen and liver, as well as in kidney and bladder calculi. He had frequently observed splenic enlargement amongst the so-called dyspeptic clerks and other employees working in the large foundries on the banks of the Witham, where the subsoil was a wet sand overlying a thick bed of peat. The author described a case of lupus vulgaris (that had been previously scraped) now quite healed after about seventeen applications of the *x* rays at a distance of 6 inches from the part, the rest of the face being protected by a metal mask. After describing and comparing with each other the Finsen ultra-violet rays, the Becquerel rays and the *x* rays, Dr. Lowe showed that all radio-active agencies had at least one property in common, namely, their power of ionising the air, that was, of rendering the air a conductor of electricity, as shown by the gold-leaf electroscope. Lord Kelvin had demonstrated that a bar of iron loaded with positive electricity and insulated by paraffin wax, could be discharged, or de-electrified, by the *x* rays, and the author put forward the probable theory that this property, acting on a limited area of skin and subjacent tissues when the tube was brought within a few inches from the surface, was the cause of dermatitis and other therapeutic results, by acting on the trophic nerves of the parts. *X*-ray workers were, he stated, daily meeting with remarkable effects which when collected and formulated would revolutionise certain branches of therapeutics.—At the conclusion of Dr. Lowe's address the PRESIDENT, Drs. BOLTON, JACOB and CATTLE, and Mr. ANDERSON, Mr. BLANDY and Mr. SIMPSON spoke on the subject; and Dr. LOWE replied.

ULSTER MEDICAL SOCIETY.—The third meeting of the session was held in the Museum, Belfast, on January 10th, Professor WHITLA, President, in the chair.—Dr. CALWELL showed: (1) A case of paralysis of the left hypoglossal nerve, with concomitant paralysis in other parts; (2) a case of peculiar congenital dystrophy of the hands and feet, showing itself in hyperkeratosis of palms and soles, distorted nails, and recurrent bullæ on the inner side of each ankle.—Mr. MITCHELL read brief notes of a case in which 6 feet of small intestine were successfully resected, and of a case of success-

ful laparotomy for intussusception in a young infant.—Dr. McCAW showed a case of birth hemiplegia in a child aged 5, and described the onset of the symptoms.—On the motion of Professor REDFERN, seconded by Dr. McFARLAND, the recommendation of the Council that the Society accept with hearty thanks the generous offer of the President, Dr. Whitla, to build and equip a medical institute for the Society, was passed with acclamation.—On the motion of Dr. DEMPSEY, seconded by Professor LINDSAY, the acceptance of a site in College Square, with 50 feet frontage, was passed unanimously. —Drs. J. Fulton, O. M. Praeger, Stanley B. Coats (all of Belfast), and Dr. Arch. Dunlop (Holywood) were elected new members.—A large committee, consisting of the Council and several members, were appointed to revise the laws of the Society.

REVIEWS.

TEXTBOOKS OF MEDICINE.

In the preface to the *Textbook of Medicine*[1] which he has edited, Dr. GIBSON has expressed the difficulty met with in coming to a decision as to the inclusion or not in such a work of a discussion on the principles of general pathology and a description of skin diseases. We are glad to see that both subjects have been included, for, far from diminishing the practical usefulness of the book, the addition will enhance its value considerably. The introduction dealing with "The General Pathology of Disease" is subdivided into a discussion on the reactions of the body and its tissues, and upon the pathology of bacterial infection. Under the former heading the late Professor Kanthack attacked the use of the term "chronic inflammation": nothing can be more bewildering to the student of medicine than to study the phenomena of acute inflammation and then try to apply the conceptions he has formed to the processes said to represent "chronic inflammation." It would almost be better, as has been suggested, to discard the term "acute inflammation" in many cases—for example, in acute nephritis, and apply some such term as [illegible] or a synonym to express the changes brought about in various toxic conditions. It might be objected that for the ordinary student in medicine the various problems raised in the discussion on the pathology of bacterial infection are at present based so much upon hypothesis that they would be more suitable for a special treatise on the subject than for a textbook of medicine. We do not share this view, but rather welcome the plan of appealing to the fresh critical mind of the medical student. This attitude adopted by other contributors to these two volumes is, indeed, a most wholesome feature for a textbook which is to approach near to the ideal of a [illegible] work should not only instruct in the discoveries already made, but be suggestive in the regions in which research is still needed. No one can read the introduction to that work without feeling the stimulating and magnetic influence of such a teacher as the late Professor Kanthack. The first section deals with general diseases including the acute specific. The reader is accustomed to the older works on medicine will be struck on more than one occasion by evidence of the modern tendency to give a description of symptoms sometimes almost without plan, sometimes on a plan based on [illegible] physiological grounds. The older method of grouping clinical symptoms appears to be going out of fashion. It seems almost as though it were thought best that we should learn at the bedside in discussing the various ways in which typhoid fever, tuberculosis of the lungs or peritoneum, and pneumonia present themselves in their earlier stages, when a correct clinical examination would settle the question conclusively, students must still be taught the art of clinical diagnosis. [illegible] institute is not always to be found, and apart from this it is evident that, if the tendency we speak of were carried to its logical conclusion much valuable training would be lost, and the physician of the future would be little better than a highly trained bacteriologist. We thus arrive at the one point in which we have to find fault with the work. [illegible] and London: Young J

which are tending to teach the student to rely too much on aids to diagnosis by bacteriological and chemical means. Drs. Affleck and Ker contribute many of the articles on the acute infective diseases, and have written very careful descriptions. As indicated above, we do not agree with them as to the confusion likely to arise from an elaborate discussion of the various clinical types of typhoid fever. Sir John Moore describes influenza, and does not hesitate to follow the older description of the varieties of influenza, and even discusses reported cases. According to the latter writer, desquamation occurs in scarlet fever on the side of the neck and on the chest on the sixth or even ninth day. May not an earlier powdering be visible on the face as early as the second or third day? Dr. Hector Mackenzie's contributions on syphilis and tuberculosis are most complete; but in discussing the occurrence of cancerous and tuberculous lesions at the same time, Dr. Mackenzie does not say whether the latter are active or not. The subject of malaria is treated by Dr. Manson, and a very full account is given of the various stages of the development of the plasmodium malariæ in its intracorporeal and extracorporeal existence. Dr. Manson also deals with the various animal parasites and gives many illustrations. Diseases caused by chemical substances are discussed by Dr. Thomas Oliver, and we would call especial attention to the article on saturnine and arsenical and alcoholic poisoning. Dr. Sidney Martin deals with the diseases of the upper alimentary tract, and gives a concise and useful account of the various methods of examination of the stomach contents. Practitioners will be very grateful for Dr. Martin's careful account of the treatment of the various functional disorders of the stomach. Dr. Hawkins strongly advises that excision of the appendix should be recommended to a patient after the subsidence of the first attack. Dr. Hale White discusses disorders of the liver, and nothing could be more satisfactory than the directness with which he approaches such difficult subjects as jaundice and the ascites of cirrhosis of the liver. Dr. Lockhart Gillespie's article on peritoneal disease, with an elaborate table of analysis, closes the first volume. In the second volume Dr. Ralph Stockman gives prominence to the possibility of scurvy being due to microbic infection of meat, the putridity of the latter causing the destruction of the antiscorbutic element. No reference is made to the acute form of leukæmia. The editor himself contributes to the study of the heart, and many teachers will be grateful to him for pointing out the frequent occurrence of tricuspid regurgitation in cases of heart disease, and to what a large extent the clinical picture of heart disease in its final stages depends upon this complication. Malignant endocarditis is not discussed separately, but treated as a form of acute endocarditis, and we are disposed to agree that the classification of endocarditis proposed by Dr. Gibson is an advance upon the older one. Dr. R. W. Philip describes the affections of the trachea and bronchi, and despite the fact of the difficulty of diagnosis between capillary bronchitis and broncho-pneumonia, prefers to discuss these as two separate maladies. Diseases of the pleura and mediastinum are described by Dr. V. D. Harris; no mention is made in the latter affection of the curious attitude sometimes assumed by the patient that is, of leaning forward whilst propped up in bed, and sometimes of lying prone when sleeping in the recumbent position. Dr. J. R. Bradford gives a full description of the variations met with in the urine in disease. In the discussion on Bright's disease cogent reasons are given for the exclusion of the granular kidney from the list of conditions met with in that affection. Nephritis is considered quite apart from Bright's disease, the latter term being used in its original sense to describe cases of dropsy accompanied by albuminuria, though albuminoid disease is not included, and though Dr. Bradford allows that there may be Bright's disease without dropsy, as for instance in those cases of small white kidney described by himself as occurring in young subjects, and accompanied by symptoms of acute uræmia. The subject of renal disease is a very difficult one, and we cannot but be grateful to Dr. Bradford for his efforts to establish a more constant agreement between the actual clinical aspect of [illegible] of renal disease and the appearances found in the kidney *post mortem*. The ninth section is devoted to the study of diseases of the integumentary system, and we con-

gratulate Dr. Allan Jameson on his successful attempt to compress the immense accumulation of facts in reference to diseases of the skin within reasonable compass. A little expansion of the article dealing with the various forms of pigmentation and their diagnosis from one another would be desirable. Of all the sections in this textbook none is fuller and more satisfactory than that dealing with diseases of the nervous system. Dr. Bruce has given a good account of diseases of the nerves, and his descriptions are accompanied by most elaborate plans of the connection of the cranial nerves with the periphery and their nuclei. Diseases of the spinal cord are discussed by Sir William Gowers and Dr. James Taylor, and diseases of the brain by Drs. Mott and J. Risien Russell. The former writer enforces the association of syphilitic infection with the development not only of tabes dorsalis but general paralysis. Dr. Aldren Turner follows with a most satisfactory account of the various functional disturbances of the nervous system, and to Dr. Colman has fallen the difficult subject of aphasia and other disorders of speech. The second volume concludes with an account by the editor of Raynaud's disease and erythromelalgia, and an interesting description is given by Dr. Mott of hysterical manifestations. Sir Lauder Brunton prefers to look upon exophthalmic goitre as a disease of the nervous system, and does not give prominence to the views of Greenfield and others that the malady may be dependent upon excessive action on the part of the thyroid gland or its adnexa. A careful perusal of this textbook leaves the conviction that the medical world is the richer by its publication. No more satisfactory treatise of medicine could be put in the hands of a capable medical student. The standard is no doubt high, and some students will find the vision of a two-volume system of medicine disquieting, but the editor has endeavoured to supply, with the help of his able coadjutors, a complete, and at the same time suggestive, textbook for the use of practitioners as well as of students, and we gladly take the opportunity of saying that he has succeeded.

There can be no stronger evidence that Dr. FREDERICK TAYLOR'S *Practice of Medicine*[2] has been tried and not found wanting than the fact that within twelve years it has gone through six editions. The widespread appreciation it has met with is further borne witness to by the translation of the last edition into Italian. Of the present edition, it may be safely said that it fully maintains the credit of its predecessors. It contains a few more pages of letterpress than the others, and this is mostly occupied with a more extended description of such diseases as malaria, plague, and disorders of the blood in which recent investigations have led to increased knowledge. Of the new diseases introduced into the text, their description is, so far as it goes, correct; but to present the reader with an account of such a condition as erythromelalgia within the compass of ten lines is, perhaps, to leave a good deal to the imagination. It may be open to question how far it is helpful nowadays to group diseases into sections, but there are many who approve this plan of arrangement. To some such it will appear doubtful whether acute rheumatism has any more right to be grouped with infectious diseases than malignant endocarditis, pneumonia, phthisis, or rheumatoid arthritis. It is specially remarkable that the author has not included pneumonia, because in the chapter devoted to it he declares his full belief in the specific theory: "Pneumonia," he says, "is indeed a specific infectious disease, with the primary seat of infection in the lung." The high merits of this textbook are too well known to need any description, but as it is likely long to remain a standard work, and to go through many more editions we may, even at the risk of appearing hypercritical, make a few suggestions for the author's consideration. In the first place we would suggest that the account of influenza is meagre, and that the distribution of the rash in scarlet fever might be more particularly described. In the chapter on diseases of the heart more attention might be given to the combinations of murmurs most frequently met with; and more might have been made of the description of arterial degeneration. In some instances the discussion of prognosis might be expanded or supplied where it is omitted, as in locomotor ataxia, syphilis, malaria, and gastritis. The paragraphs on treatment are well up to date, but the statement that venesection is not generally desirable in apoplexy is perhaps too sweeping; conversely, the assertion that sprue is generally cured by an absolutely milk diet may be found too sanguine. These criticisms are not offered in any spirit of fault finding, but are merely suggestions for the possible improvement in detail of a work which, taken as a whole, is admirably suited for students and practitioners, and reflects much credit, not only on its author's knowledge, which might, perhaps be taken for granted, but also on his judgment, which is a rarer quality.

[2] *A Manual of the Practice of Medicine.* By Frederick Taylor, M.D., F.R.C.P. Sixth Edition. London: J. and A. Churchill. 1901. (Demy 8vo, pp. 1,028. 37 illustrations. 16s.)

The title of the book of Drs. SALINGER and KALTEYER, *Modern Medicine*,[3] is a little misleading, for it almost leads us to expect a treatise more or less critical on the more modern views held in medicine. The perusal of a few pages, however, soon shows that the authors have aimed at producing a one-volume textbook of medicine. The section on physical examination of the heart is good, but it does not seem well to describe as the authors do a "palpable murmur;" "friction fremitus" or "thrill" are quite adequate, and do not lead to confusion. The hæmoglobinometers of Gowers and Dare are mentioned, and an elaborate illustration is given of the latter, but the methods of use, and advantages or disadvantages of each are not discussed. Here, as in many places, we are struck by the fact that the book partakes very much of the character of a medical dictionary rather than a systematic treatise. In the preparation of stained films by Ehrlich's method it is conceded that very often the methyl green fails to give sharp definition of the nuclei, the method advocated by the authors on page 143 to obviate this is a very excellent one. We note that in the description of Gunzberg's test no mention is made of the necessity for heating. Turning to the more systematic description of diseases, those dealing with heart disease, pleurisy, and the blood diseases are well done; but, throughout, the book is quite inadequate in the discussion of treatment. It is always disappointing to find a textbook of medicine which does not give an account of dementia paralytica; it is so in this case, though the authors refer to "tabes of the brain."

Dr. ESHNER is heartily to be congratulated upon the authorised translation of Professor Eichhorst's *Practice of Medicine*,[4] for the language throughout is terse and intelligible. The first volume deals with the circulatory, respiratory, digestive and genito-urinary systems, and with diseases of the spinal cord and peripheral nerves, the second volume with the disorders of the brain, muscles, skin, spleen, and blood, and with the infectious diseases. Sixty-six useful pages are devoted to affections of the skin, and there is a section which deals with spermatorrhœa. The disadvantage of such additions is that undue compression of other parts of the book has been necessary; diseases of the pancreas, for instance, being dismissed in a page. The classification of the infectious diseases is happy in being clinical rather than strictly pathological. The description of all the diseases is clear and reliable, the morbid anatomy discussed sufficiently for a clinical work, and treatment is sensibly given, a few drugs which personal experience has proved useful being indicated with their doses. It comes, however, as somewhat of a shock in these days of operation to find such conservative opinions as the following: "Operative treatment for serous pleurisy is indicated only when the effusion is so extensive from the outset that death from suffocation is threatened.....or when no diminution in the effusion can be recognised after the lapse of four weeks." Or, again, "Most cases (of appendicitis) pursue a favourable course with internal treatment." It is only fair to say that in places Dr. Eshner has added footnotes advocating more radical views.

[3] *Modern Medicine.* By Julius L. Salinger, M.D., and Frederick J. Kalteyer, M.D. London: W. B. Saunders and Co. 1901. (Demy 8vo, pp. 801; 8 coloured plates; 17s.).

[4] *A Textbook of the Practice of Medicine.* By Hermann Eichhorst. Authorised translation. Edited by A. A. Eshner, M.D., of Philadelphia. 2 vols. London and Philadelphia: W. B. Saunders and Co. (Crown 8vo, pp. 1,218; 169 illustrations. 26s.)

THE Municipal Council of Coimbra has issued an ordinance forbidding spitting in public places under penalty of a fine.



Roof shelter at the "Dreadnought" Hospital, Greenwich.

THE OPEN AIR TREATMENT OF TUBERCULOSIS.

THE "DREADNOUGHT" HOSPITAL, GREENWICH.

By Guthrie Rankin, M.D., Physician to the Hospital.

The wide interest which within recent years has been aroused by the treatment of phthisis and other tuberculous affections by the open-air method first introduced by Brehmer at Görbersdorf, has opened up a large question as to the extent to which it may be made available in large hospitals. There are reasons to fear that so far as private enterprise is concerned the number of homes established all over the country for the application of this method of cure to those who can afford to pay for it is in some risk of being overdone; but for the poor, from whom come the majority of tuberculous cases, spring, the facilities for treatment are still quite inadequate.

Should the results justify the institution in large hospitals and infirmaries of open-air wards, the time will no doubt soon come when the benefits to be derived from this system of management will be available for a large number of patients who at present can only be accommodated in the general wards, where they fail to obtain all the advantages derivable from rest and food, because of the lack of sufficiency of fresh air.

Attempts are now being made in several metropolitan and provincial hospitals to establish phthisis wards with attached facilities for treatment in the open air, and we propose, from time to time, to call attention to the results that are accruing from this laudable endeavour to bring the latest curative method within the reach of those who most require it. It is obvious that the more successfully this greatest of all our human scourges can be dealt with the better must it be for the future vigour of the race, and, from the economic point of view, the cheaper must it ultimately prove for all our great medical charities.

The Governing Board of the *Dreadnought* Hospital at Greenwich agreed in the autumn of 1900 to tentatively apply Brehmer's methods to a limited number of cases of phthisis. The hospital is built with flat roofs and a suitable space on the most accessible part was chosen for the accommodation of cases. One large and two small movable shelters were erected, the former capable of accommodating ten patients and each of the latter one. They are placed so as to face west-south-west, and are open in front from top to bottom. They are provided with blinds which can be raised or lowered as required; these serve to keep out the rain in wet weather, and are useful as sunshades in summer. Four small wards, each with accommodation for three patients, have been furnished on the top floor of the hospital, and from them there is easy access to the roof by a short flight of stairs. In these wards the windows and ventilators are pinned open to their fullest extent, and not allowed to be shut day or night. The patients occupy the shelters from early morning till sunset, and are all kept in

the recumbent position from 7 to 9 A.M., from 1 to 3 P.M., and from 5 P.M. till bedtime. Those who are sufficiently well are compelled to take suitable exercise in the intervals between those hours, but in all cases where there is pyrexia the patients are kept continually lying down till it subsides. They are very liberally fed, and have one ounce of cod-liver oil daily whenever the digestion is strong enough to deal with it. Guaiacol is given in five-minim doses night and morning, and by inhalation at midday. No other drug is used unless in cases where cough is troublesome, when heroin in doses of $\frac{1}{12}$ gr. is resorted to.

The shelters were first occupied on October 30th, 1900, and during the year ending October 30th, 1901, 45 patients were admitted; 11 of these still remain under treatment, leaving a balance of 34 cases which have been dealt with. There have been 6 deaths: 5 occurred in patients in an advanced stage of disease, with both lungs involved, when the treatment was begun. The sixth died suddenly of hæmoptysis, and he, too, was an unfavourable case; because, though only one lung was implicated, his larynx was also the seat of tuberculous mischief. The results, as applied to the remaining 28 cases, will be most readily appreciated from a glance at the following table, which represents their condition at the time of their discharge:

	Worse.	*In Statu Quo.*	Improved.	Greatly Improved.
Number of patients	4	10	6	8
Average loss or gain in weight	$-4\frac{1}{2}$ lbs	$-\frac{1}{4}$ lb.	$-4\frac{1}{4}$ lbs.	$+9\frac{1}{4}$ lbs.
Average duration of treatment	10 weeks	9 weeks	$12\frac{1}{2}$ weeks	$10\frac{1}{2}$ weeks.

In regard to this table it is to be observed:

1. That of the cases enumerated under "worse" one patient remained under treatment only seven days.

2. That of those classified under "improved" one suffered from tuberculosis of the right wrist. When well enough he was removed to the surgical side, and the joint was excised. He was readmitted after the operation wound was healed, and his total residence amounted to twenty-eight weeks.

3. That those classified as "greatly improved" all left the hospital without adventitious sounds in either lung.

4. That 11 of the series were discharged at their own request because they felt quite well, and were impatient to return to work. Longer residence on the part of some of those would doubtless have resulted in a higher percentage of "improved" and "greatly improved" cases.

Unfortunately there has been no means of following up the cases to ascertain whether, or for how long, the improvement was maintained. The patients are seamen, and after leaving the *Dreadnought* they either go back to sea or return home, many of them to foreign countries; so that there is little chance, except occasionally, of ever knowing the after-history. In 14 of the cases both lungs were involved, in 15 the right only, in 5 the left. Of the 20 cases in which the disease was limited to one lung, it was restricted to the upper lobe in 13. Three cases were complicated by the presence of laryngitis, one each by tuberculous disease of the wrist, tuberculous disease of the knee, enlargement of the cervical glands, caries of a rib, and middle-ear disease. The average age of the 34 patients was 32 years and 3 months, thus coming within the limits of the quinquennium during which the Registrar-General's statistics prove phthisis to be most fatal to males.

During the twelve months to which these statistics refer there were 10 deaths in the other wards from phthisis, bringing up the total number of deaths in the whole hospital to 16. This high mortality-ratio is explained by the fact that in the large majority of cases which the hospitals of the Seamen's Society are called upon to treat the disease is already far advanced before the patients come under observation, and their general health is frequently undermined by the hardships of their lives and the irregularity of their habits.

Comparing the death-rate with that of the previous two years from October to October, the following results are brought out:

	Number of Cases.	Deaths.	Percentage of Mortality.
1898-1899	95	22	23.15 per cent.
1899-1900	106	39	36.8 per cent.
1900-1901	85	16	18.8 per cent.

There is thus a significant diminution in the death-rate as compared with previous years, and since the open-air method could not be expected sensibly to affect the returns within the first three months of its inauguration, there are reasonable grounds for anticipating a still higher percentage of improvement in future years. What, however, is of even greater importance than the diminished mortality, and more convincing as an evidence of curative efficacy, is the large proportion of cases in which a marked amelioration had been established at the date of their discharge.

The temperature charts, on admission and discharge, are copied from the ward record of one of the "Greatly improved" patients.

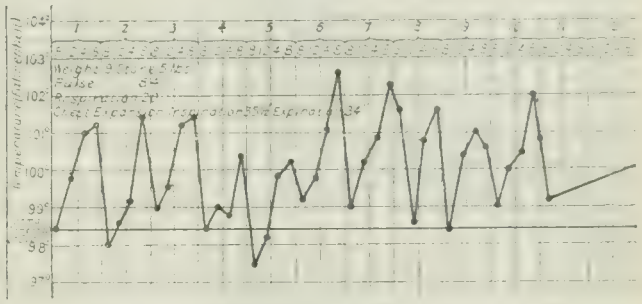


Chart 1.—On admission.

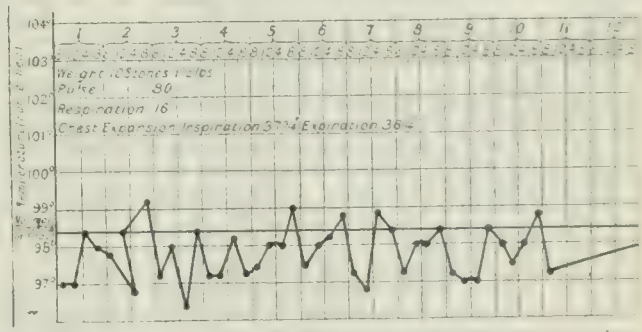


Chart 2.—On discharge.

THE LIGHT TREATMENT IN VIENNA.—An institute for the application of the light treatment has been established in Vienna. At a recent meeting of the Medical Society of that city Professor Lang announced that, in conjunction with a number of medical practitioners and philanthropists, he had founded an institute on the model of that of Professor Finsen at Copenhagen. The institute would be to a certain extent under the control of the municipality. Among the founders is the Emperor, who has contributed 10,000 crowns. Professor Lang's communication was received with much satisfaction.

A COLONY FOR PHILADELPHIA CONSUMPTIVES.—The Pennsylvania State Legislature has appropriated a sum of £20,000 to the Free Hospital for Poor Consumptives of Philadelphia, for the furnishing of hospital buildings at White Haven, to be used exclusively for the treatment of patients in the incipient stages of tuberculosis. To Dr. J. F. Flick, according to *American Medicine*, is due the credit of initiating this work. At present an old barn serves as a sanatorium, in which 17 patients are being treated. Work on the hospital to accommodate 200 patients will be begun at an early date.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

THE general meeting of governors and members of the National Hospital for the Paralysed and Epileptic, directed to be held by the "Transitional Rule" passed at the special general meeting held in December, 1901, took place on January 9th in the hospital. The attendance was not large, the greatest number present at any time during the hour and a-half occupied in the business being 52. The most important item on the agenda was the election of ten ordinary members of the Board of Management. After Lord Dudley had been elected Chairman of the meeting and President of the hospital, Mr. BISCHOFFSHEIM proposed, and Dr. GRIFFITHS seconded, that the following should be elected members of the Board of Management: Sir Alexander Mackenzie, Sir John Rahere Paget, Rev. Prebendary Henry Wace, and Messrs. Ernest De la Rue, Melvill Green, Frederick Orridge Macmillan, John Danvers Power, Arnold Royle, Edgar Speyer, and James Wigan.

Mr. H. H. NELSON proposed the names of Mr. F. C. Capel and Mr. J. Pearman. He said they were asked to turn the old Board of Management away and have nothing more to do with them. It savoured to him of carrying their differences too far. That meeting was not called to execute the vengeance of the victorious medical staff upon those they had conquered. They were asked to oust those in office and replace them by those who had not shown any interest in the hospital before the present controversy.

The CHAIRMAN suggested that Mr. Nelson should refrain from disparaging the proposed candidates.

Mr. NELSON proceeded with his remarks on the candidates, several of the audience however expressing dissatisfaction with his views.

Mr. C. F. CAMPBELL seconded the proposition.

Mr. NETTLEFOLD supported Mr. Nelson, and said that the subscribers might not like this apparently off-hand way of dealing with the old Board of Management.

The question was raised whether *ex-officio* governors were entitled to vote. The right to do this turned on the point whether the meeting was held under the new rules of the hospital. Mr. BOWER, the solicitor to the hospital, said that in his judgment *ex-officio* governors were not entitled to vote.

The CHAIRMAN said that it seemed to him a question of realising the general position, and a common-sense interpretation of the spirit of the rules. It appeared to him nonsensical to give the right of voting to the medical staff with one hand and with the other hand to postpone their exercise of that privilege for two years. It should rather be the effort of all to secure that the commencement of the present year should be the commencement of a new and happier era in the history of that hospital.

Mr. POWER said that *ex-officio* governors could vote at that meeting. The intention of the rules was clear, and if there was any ambiguity the intention should be followed, and not merely the argumentative meaning which might be attached to the words themselves.

Mr. WALFORD said that as practical men they should not quibble over unessential matters, but should proceed to vote.

The CHAIRMAN then put it to the meeting whether *ex-officio* governors should vote, and this was carried by 20 votes against 6.

The CHAIRMAN then put the name of each candidate to the meeting and the following is the number of votes recorded: Rev. Prebendary Henry Wace, 34; Ernest De la Rue, 33; Melvill Green, 32; Frederick Orridge Macmillan, 32; Sir Alexander Mackenzie, 31; John Danvers Power, 31; James Wigan, 30; Sir John Rahere Paget, 28; Arnold Royle, 28; Edgar Speyer, 28; Mr. F. C. Capel, 17; and Mr. J. Pearman, 17.

Mr. NELSON demanded a poll, and the CHAIRMAN announced that a poll would accordingly take place, and the result would be declared on January 23rd.

The proceedings ended with a cordial vote of thanks to the Chairman.

A PHYSICIANS' PROTECTIVE ASSOCIATION has been organised in Chicago, New York, with the object of protecting its members against being imposed upon.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

BELFAST COMMITTEE APPEAL.

IN addition to list in the BRITISH MEDICAL JOURNAL of January 11th, the following contributions are gratefully acknowledged. In some cases no indication of the profession has been given, but the Committee think it well to assume that all the amounts as below are from members of the medical profession. The appeal has been withdrawn locally but the list is still open for any final contributions, which may be sent to Wm. Calwell, M.D., or Robert Campbell, F.R.C.S., Honorary Secretaries, or to the Honorary Treasurer, Henry S. Woods, The Bank Buildings, Belfast.

	£	s.	d.
Dr. George Pernet and Mrs. Pernet, Gloucester Place, London	1	1	0
Dr. Chas. J. Trotter, Holmfirth	1	1	0
Dr. Shepperd Boyd, Harrogate	1	1	0
Dr. J. Edge Partington, Braintree, Essex	1	1	0
Dr. J. Mitchell Wilson, Doncaster	1	1	0
Dr. E. Carter, Finch Lane, London	1	1	0
Dr. Adam Brown, Hyndhope, Selkirk	5	0	0
Dr. Chas. Everard, Cawthorpe	1	1	0
Dr. W. A. Satchell, J.P., Ealing, W.	1	1	0
Dr. Henry Stear, Saffron Walden	1	1	0
Dr. Richard Heath, St. Leonards-on-Sea	1	1	0
Dr. David Allen, St. Leonards-on-Sea	1	1	0
F. H. C., per Dr. Brice Smith, Gloucester ...	1	1	0
Dr. J. Esdale Molson, Chelmsford	2	2	0
M.B., London...	0	10	0
Dr. Hood, Blairgowrie ...	1	0	0
Dr. Morris F. Davey, Abergavenny	2	2	0
Dr. F. Ormerod, Workington	1	1	0
Dr. A. Balfour Graham, Leven, Fife	0	10	6
Dr. E. C. Cripps, Cirencester	0	10	0
Dr. Adam Fulton, Old Basford	0	10	0
Dr. T. K. Hamilton, Adelaide	1	1	0
Dr. J. Selwyn Cowley, Upton-on-Severn	1	1	0
The London Hospital Club, per Dr. G. E. Herman ...	10	10	0
Dr. J. Thomarson, Bowes Park, London ...	0	10	0
Dr. Wm. Greaves Hall, Sheffield	1	0	0
Surgeon-General Stewart, Lymington	0	10	0
Dr. C. Grey-Edwards, Beaumaris	0	10	6
Dr. Ironside, Campbell House, London, N.W. ...	1	1	0
Lieutenant-Colonel P. Durrell Pank, I.M.S., Southsea	0	10	0
Dr. A. E. Porter, Leeds ...	1	1	0
Dr. George Black, Abergavenny Asylum ...	1	1	0
Dr. L. D Agnew, Bishop Stortford	1	1	0
Dr. C. K. Millard, Leicester	0	10	6
Major S. Glenn Allen, R.A.M.C. Malta	1	1	0
Dr. O. R. M'Mullen, Hertford	1	0	0
Dr. Hughes R. Davies, Regent's Park Road, London	0	10	6
Per Dr. E. J. Hutchings, Highbury, Southboro' ...	7	1	7
Dr. W. Taylor Morgan ...	0	10	6
Dr. E. B. Pennell, Kirby, Notts	1	1	0
Dr. Arthur Whitelegge, London	2	2	0
Dr. Challoner Clay, Wilts...	1	0	0
Per Dr. Newton Pitt, London (supplementary)	0	2	6
Joyce and Brett, Cranbrook, Kent	1	1	0
Mr. John H. Morgan, Grosvenor St., London...	2	2	0
H. E. M. Kinnerley, Oswestry	0	10	6
Dr. Saml. Mitchell, Carnarvon	1	1	0
Dr. E. P Henderson, I.C.S., Kensington Gardens, London	0	10	0
Dr. F. St. Geo. Mivart, Kensington...	2	2	0
Dr. J. S. Sergeant, Bradford	1	1	0
Dr. A. R. Johnston, St. Olive's Infirmary, London	1	0	0
Dr. C. G Higginson and Miss Higginson, Edgbaston, Birmingham ...	5	0	0
Collected by Dr. Wm. Hamilton Allen, Stanmore, Middlesex	111	1	0
Collected by Dr. Robert E. Lord, Colwyn Bay ...	7	12	6
Dr. James Hewitson, Durham	1	1	0
Sir W. R. Brown, Trowbridge (per Dr. Pearso)...	2	2	0
Dr. Hugill, Balham, S.W...	0	10	6
Dr. Prance, Plympton ...	0	10	6
Dr. Burroughs, Weston-super-Mare	0	10	6
Dr. A. Lewis M'Millan, Glasgow	0	5	0
Dr. Thos. Corbitt, Droitwich	1	1	0
Dr. T. M. Rooke, Bournemouth	1	1	0
Dr. Edwd. Somers, Pendleton	1	1	0
Dr. E. M. Emtage, Holsworthy	0	5	0
Dr. Violet A. Penrose Coghill, University of Birmingham	1	0	0

CORRECTIONS. Contributions acknowledged as collected by Dr. Stewart, Carlisle, should have read as collected by Dr. Stewart Lockie, Carlisle. The contribution from Dr. Dawson, Lancaster, should have been £5, and not as printed.

GRANT FROM THE ROYAL BOUNTY FUND.

Mr. Arthur Balfour has made a grant of £200 from the Royal Bounty Fund to the family of Dr. William Smyth, whose heroic death in the attempt to save the fever-stricken people of Arammore has been several times referred to in the BRITISH MEDICAL JOURNAL. The announcement will be received with general satisfaction, for surely never could there have been a case in which the Royal Bounty Fund could have been put to a worthier use.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 18TH, 1902.

SMALL-POX AND VACCINATION IN LONDON.

THE speedy publication of the small-pox statistics of the Metropolitan Asylums Board, while providing interesting material for consideration, does not tell us the facts as to all the cases admitted during the year, for the figures which the table contains give account only of the cases which have been completed—that is, those who have died, and,we presume, those who have been discharged from the hospitals as recovered. This may perhaps account for the fact that persons whose vaccination was doubtful have had a higher case mortality than the unvaccinated. The figures upon which the rates are calculated are small—namely, 63 in the former class and 194 in the latter class, and this may have contributed to the result. Consideration of the age distribution of the cases does not help us, for the patients whose vaccination was doubtful contained a smaller proportion of children at the early ages when fatality is high than the unvaccinated patients. The vaccinated, as usual, had a lower case mortality than the unvaccinated, the figures being respectively 14.21 and 50.52 per cent. It would, we think, have been wiser to have waited a few weeks and to have then given the results of a larger number of cases. It is, however, satisfactory that records are being kept at the hospital ships and we trust these will be maintained on uniform lines in the shore hospitals which will be shortly opened, so that the whole may be combined and the facts as to the entire epidemic ascertained. We note that no mention is made of the question whether any of the patients had been revaccinated, and we think that this point should be fully stated. Probably there were no cases, and if so this fact should have been published, especially the interval between the revaccination and the attack of small-pox. If any cases did occur the details should have been given, for Parliament must at no distant date consider whether the law should not be amended so as to provide for the revaccination of the community, and the fullest information is wanted on the subject. The age distribution of the cases is especially interesting. Among the unvaccinated, 161 out of 194 at all ages were under the age of 20 years, and 95 of the 161 were under 10 years of age. On the other hand, among 760 vaccinated, only 161 were under 20 years of age, and only 12 under 10 years of age.

Among the interesting statements made in the report is that 21 persons who were employed on disinfecting work were admitted, and most of them were servants of borough councils. We shall hope to learn later by which councils these persons were employed. The list of officials attacked does not, however, end here, for it includes two sanitary inspectors, two dustmen, one medical officer of an infirmary, a person who assisted in removing a small-pox case from an infirmary, and another who scrubbed the ward from which a patient had been removed. It is certainly necessary that public authorities should consider how far their staff is protected against small-pox, and we trust the publication of this report will lead to attention being directed to this matter.

Small-pox shows every tendency at the present time to spread. The number of cases is increasing, and already some 2,000 persons in London have been attacked. We learn from South Wales of a local outbreak a few miles from Swansea, due to infection received from a girl who had come from Bethnal Green. The prospect in that locality is not very promising, for there is no hospital to which those who are attacked can be removed, and, it is very possible that the absence of this provision will cost the district dear.

It is stated that the girl who caused the outbreak was attended by "a medical student," and it is said that the true nature of her illness was not recognised. As was stated in the BRITISH MEDICAL JOURNAL of January 11th, p. 120, the Local Government Board has addressed to London sanitary authorities a letter recommending that chicken-pox should be added to the list of notifiable diseases; and, if this course is adopted, the danger of small-pox being overlooked will be diminished.

LOCALIZATION IN THE MOTOR CEREBRAL CORTEX.

EVER since the classical experiments of Fritsch and Hitzig and those of Ferrier, the localization of the representation of the movements of different parts of the body in the cerebral cortex has been of very great interest not only from the scientific importance of exploring what was formerly a wilderness, but also for the practical advantage which a knowledge of this part entails.

The latest addition to our knowledge is the important and laborious work of Professor Sherrington and Dr. Grünbaum, who gave an address on Localization in the "Motor" Cerebral Cortex at the Pathological Society on December 17th, 1901, an account of which appeared in the BRITISH MEDICAL JOURNAL on December 28th.

These experimenters devoted their attention to animals nearest to man, and they used for this purpose no fewer than ten chimpanzees, besides one orang and one gorilla. The importance of the observations lay in the fact that, though numerous experiments have been made on the common monkeys, the result of one experiment had previously alone been published on the highest or anthropoid apes—namely, that by Beevor and Horsley on the orang.

The last two observers found that the chief difference between the results obtained by stimulating the cortex of the macacque monkey and that of the orang were: (1) A difference in the vertical arrangement of the representation of the different segments, especially in the case of the lower limb; (2) the interruption of the excitable areas by spaces from which no effect could be obtained; (3) the

comparatively small part of the cortex which was excitable, and the relatively much fewer results obtained from the ascending parietal gyrus, which was found to be practically wholly inexcitable in its upper third; (4) the limitation of the movement to one segment when any point was stimulated in the cortex; (5) the absence of border centres producing movements in the arm and face; (6) the absence of epilepsy.

These results were obtained on the observation of one animal only, and the exhaustive work of Professor Sherrington and Dr. Grünbaum, though it in the main confirms the above observations, has some points of difference. The order of the movements given is the same in the two sets of observations, with the addition by the latter observers of movements of the anus and vagina represented near the middle line of the hemisphere, of movements of the chest and abdomen placed between those of the hip and shoulder, and of those of the neck between those of the thumb and face. Sherrington and Grünbaum agree with their predecessors in finding a frontal area, excitation of which gave conjugate deviation of the eyes to the opposite side. This was separated from the area yielding the other movements by an intervening space of so-called inexcitable cortex; and although the previous observers did not make out an unbroken line of excitable cortex in the precentral convolution, a glance at their original drawing[1] shows that the interval between the excitable parts along the fissure of Rolando does not exceed 2 millimetres. With regard to the third point, although the former observers recognised that in the ascending parietal only four movements were represented, Sherrington and Grünbaum have failed to elicit any movements, and they have confirmed their opinion, that the ascending parietal is inexcitable, by the crucial test of ablation experiments. The question of the limitation of the movement, obtained on stimulation, to one segment, and the absence of border centres, is not mentioned; it is probable therefore that the two sets of observations are in accord. The two most important points which Sherrington and Grünbaum have brought out are the representation of the movements of the chest and abdomen between those of the hip and shoulder, and those of the neck between those of the face and thumb, and the non-excitability of the ascending parietal gyrus.

These experiments on the anthropoid apes are of the greatest importance to localization, for as the configuration of the brains of these animals resembles the brain of man rather than that of the ordinary monkeys, it is highly probable that the representation in their excitable cortex is more like that of man than of the lower monkeys, or, in other words, that the arrangement in the anthropoid apes and in man is very similar. Hence it is reasonable to suppose that the ascending parietal gyrus in man is not excitable.

The net result of these experiments is, first, that our knowledge of the representation of the movements of the different segments of the body, and how they are arranged in the excitable part of the cortex, is made more exact, and secondly, the localisation of tumours in the excitable area in man is made more certain, and their removal is consequently facilitated.

[1] *Phil. Trans.*, 1890, B, Fig. 1, Plate 11.

To give an instance of the evolution of cerebral localization we may take the representation of the lower limb; in the macacque monkey it was found by Ferrier to extend along the upper parts of the ascending frontal and parietal convolutions parallel to the middle line; in the orang it was found by Horsley and Beevor only in the ascending frontal convolution, and in a direction at right angles to the middle line: and lastly, Sherrington and Grünbaum have found in the anthropoids generally that no movements of any parts whatever can be obtained by stimulating the ascending parietal convolution. From the practical side, these experiments on the motor cortex, whether by stimulation or by ablation, have been the means by which tumours, which twenty years ago it would have been thought impossible to treat, have been localized and removed, and the teaching of the latest experiments of Sherrington and Grünbaum is that in cases where the symptoms point to a tumour in the motor area, the tumour should be looked for in the ascending frontal rather than in the ascending parietal convolution.

THE WORK OF THE GOVERNMENT LABORATORY.

THE report of the Principal Chemist to the Government for the year ending March, 1901, which was issued a short time ago, is a precise and official document stating bald facts in technical language. The thoughtful reader will, however, find in it many points of interest, many most suggestive sidelights. The tastes of a people have recorded themselves automatically in its figures; the moral effects of commercial competition are not less indelibly written in its statistics. It affords, in fact, an analysis of two widespread and to some extent independent human weaknesses that of mankind in general for certain luxuries and that of the purveying portion thereof for adulteration. The Government Laboratory is chiefly concerned to regulate the standard of purity of dutiable goods and in food, and Professor Thorpe's report shows what a valuable part it plays in guarding the public health. Thus, of 1,084 samples of herb, botanic, and ginger beers analysed no fewer than 386 contained proof spirit in excess of the legal limit of 2 per cent.; 13 of these contained 6 per cent. or more, and one the really large amount of 9.8 per cent. As some compensation it was found that 598 out of 3,828 samples of finished beer had been tampered with, either by dilution or by the illegal addition of sugar. If these conditions continue to increase the temperance advocate of the future may find some difficulty in deciding under which flag to rank himself.

Many and ingenious are the means adopted by manufacturers to defraud the revenue, and the officials of the laboratory are accordingly called upon to do much interesting detective work. Legal proceedings were taken in 350 cases during the year, and penalties amounting to £3,766 were imposed. The two chief dutiable luxuries are alcohol and tobacco, and one or two of the devices by which these have been franked may be quoted. The rate of duty on spirit contained in medicinal tinctures is, in certain British Colonies, much less than that on alcohol admittedly intended for ordinary consumption; until the Board of Inland Revenue intervened considerable quanti-

ties of such tinctures were exported in which the amount of colouring or flavouring material was too slight to prevent them from being used as beverages. With regard to tobacco it appears that the mysterious process of "manufacturing" this "sovran herbe" entails the addition of water and of olive and essential oils. The manufacturers were naturally alive to the commercial advantage of selling water at the price of tobacco, but the smoking public will be gratified to learn that successive acts of legislation have reduced the maximum allowance of moisture in manufactured tobacco to 30 per cent. As soon as this limit had been enforced, the Government analysts noticed that the percentage of oil in tobacco began to rise, and it became necessary in August, 1900, to pass an Act limiting the amount of this adulterant to 4 per cent.

Thus far the honours are with the laboratory; it remains, however, to be seen whether the resources of the manufacturers have come to an end. Tentative efforts appear to have been made with liquorice, glycerine, salicylic acid, and sand, but the chief profit seems to have accrued to the revenue by way of fines. The magnitude of the interests involved appears from the statement that the amount of tobacco consumed per head has just doubled during the last fifty years, and that the total home consumption in the year ending March 31st, 1901, exceeded 83 million pounds. Export figures show that the increase is largely in the number of cigarettes smoked; they are exported to eight times the extent of six years ago. We learn, also, that six and a-half times as many British-made cigars were exported in 1901 as in 1895; it is possible that a large proportion of these went to cheer, and it is to be hoped to mitigate, the hard lot of our troops in South Africa.

The statistics relative to imported milk and butter, samples of which are examined for the Board of Agriculture, are of interest from another point of view. They illustrate the connivance, or at least acquiescence, of the public in certain forms of adulteration. Thus we find that while only 15 out of 1,374 samples of imported butter were reported as adulterated, no fewer than 375 contained colouring substances, introduced no doubt to gratify the æsthetic instincts of the popular eye. The popular ear is similarly gratified by the fact that a large proportion of the condensed milk imported from Holland and the bulk of that coming from France are dubbed Swiss; no sample of condensed milk examined during the year was actually of Swiss origin. Reverting to the question of butter it is to be noted that of the 1,374 samples already referred to 452 contained boric preservative; it is interesting to learn that while this was present in 97 per cent. of Belgian, 72 per cent. of French and 38 per cent. of Dutch butter, it was only detected in 1 per cent. of samples from Norway, 2 per cent. each from Denmark and Canada. Russia also has a good record, but illegal adulteration was very frequent in German butter. These differences no doubt indicate the skill of the methods followed in the butter factories, for well-made butter will keep sweet long after butter carelessly made has become uneatably rancid.

Many further suggestive items of information may be derived from the summary of the 260,000 odd analyses undertaken on behalf of the public during the year in question. Thus we learn that tea which has been rejected at Custom House may be "denatured" by the addition of lime and asafœtida, and used for the manufacture of caffeine. The Government Laboratory is also a court of appeal for all those who doubt the decisions of public analysts. And here and there we meet examples of audacity which might make a manufacturer of wooden nutmegs or Egyptian antiquities envious. One instance must suffice. A sample of pemmican was analysed on behalf of the Committee of the National Antarctic Expedition. It was supposed to be quite free from moisture, and to contain 60 per cent. of ox lard, with a highly nutritive base; on examination it was found to contain 8 per cent. of moisture and 38 per cent. of starch, while the total amount of fat present was only 19.6 per cent.

THE TREATMENT OF PYREXIA.

PYREXIA is, of course, only a symptom, but at the same time one which is probably capable of doing a large amount of harm if allowed to continue for any length of time. Diseases attacking normal people are accompanied by certain temperatures which run a fairly typical course, and so enable us to speak of certain types with a fair amount of accuracy; and on the whole it is probably usually better for a patient to have an illness like pneumonia with a typical temperature than with one which is atypical: for the latter in most cases either denotes a modification in the type of the disease, or shows that the patient is not in such a condition as to react in the typical way to the infection—a very different thing from saying that a high temperature is in itself favourable.

It is generally admitted in this country that pyrexia should be controlled (1) when it reaches an undue height, or (2) when, although only moderate, it is likely to last over a long period of time, both of which conditions are well instanced in the diseases pneumonia and typhoid fever: but with regard to the methods of reducing the temperature, antipyretic measures are on the whole probably more favoured than drugs.

It may therefore be well to give attention to a recent essay by Professor Jendrassik, in which he discusses at length the question whether it is advisable to treat by active measures the pyrexia of acute specific fevers and other conditions and the modes by which the treatment should be carried out.

Jendrassik[1] first refers to the differences of opinion which exist as to the advisability of active treatment of fever, and points out fallacies in results obtained from statistics, especially when the latter are collected from cases of typhoid fever, which is the disease so often chosen for this purpose. He thinks that statistics are probably more valuable when obtained from cases of pneumonia, since fatal issues are more likely to depend directly upon the disease than is the case in typhoid, in which so many accidents, such as hæmorrhage and perforation, may arise. A brief review of the experimental work on the subject is given, and although some results appear to show that general infection may be retarded by a high temperature, it has not been clearly demonstrated that a febrile temperature has any definite effect upon the life of the microbes. Moreover, an artificial raising of the temperature in animals

[1] *Revue de Méd.*, November, 1901.

cannot be quite fairly compared with the natural pyrexia of disease.

Jendrassik next refers to those who consider a high temperature as being a beneficial reaction of the organism, and he notes those cases of typhoid and pneumonia in which the temperature is not high but which often prove very fatal, as being quoted as instances in favour of the beneficial action of temperature. Certainly, however, as he points out, these cases must be considered as different types of the disease, possibly depending upon some modifications of the organisms which produce it, and it is manifestly unscientific to work backwards from these and suppose that had the temperature been higher life might have been saved. Had the temperature been higher we should have been dealing with a different and possibly a more favourable type of the disease, but that is quite a different matter from looking upon the temperature as a separate factor when it is merely a guide to the primary condition.

Jendrassik, from clinical experience, concludes that active treatment of pyrexia is beneficial to the patient, and in describing the methods by which good results can best be obtained he gives drugs the first place. Those he chiefly relies upon are antipyrin, phenacetin, and in some conditions aspirin; and, briefly, his advice is to give adequate doses at regular intervals so as to keep the fever down more or less continuously.

He criticises unfavourably the method of giving drugs now and again just when the temperature has risen above a certain point, for he considers the irregular fluctuations so produced as harmful rather than beneficial to the patient. As for the depressing effects of these drugs, he thinks they have been very much exaggerated.

While acknowledging the refreshing and tonic effect of baths, the author does not consider them a good means of lowering the pyrexia, chiefly on account of their intermittent influence, and also the fatigue of the patient which is apt to be produced. Jendrassik's paper, to which the reader is referred for fuller particulars, gives a very interesting summary of the ideas held on this important subject.

There are naturally many drawbacks to bathing the patients, apart from the temporary result produced, but in very many cases an excellent result is obtained by sponging, and the intermittence of these methods can, if necessary, be overcome by using an ice cradle, which is often of such great service in typhoid fever. Although spasmodic reductions of temperature may be of doubtful value, a large number of people would still hesitate to give antipyretic drugs such as phenacetin and antipyrin continuously for any length of time when the patient is in an exhausted condition.

THE ENDOWMENT OF RESEARCH ON CANCER.

SIR ERNEST CASSEL'S splendid benefaction, which is to be partly applied to the furtherance of scientific research, has naturally led to the expression of a hope in various quarters that a generous donor may come forward to help in the struggle against cancer. It has been stated in the public press that a scheme has been framed under the joint auspices of the Royal Colleges of Physicians and Surgeons for the prosecution of research on the subject. We are informed that it is not the fact that a scheme of any kind has yet been framed, although it is true that the matter has been under consideration. The great difficulty in the way is the want of money. It is estimated that a capital sum of at least £100,000 would be required to ensure that the work could be carried out without interruption. If this sum can be procured it is proposed to invest it, the income being administered under an advisory Board appointed by the two Colleges. The income would be applied to the following purposes: (1) To increase and to equip thoroughly laboratories to be devoted exclusively to cancer research in which recommended investigators can work free of charge. (2) To endow a directorship of research in any central laboratory which it may be deemed advisable to establish. (3) To grant (*a*) honoraria to investigators working under the director, according to the value of their work as estimated by him; or (*b*) to establish and endow paid assistantships or research scholarships, if that course be deemed advisable. (4) To make grants, renewable on recommendation from year to year, to investigators who are working at cancer research within the United Kingdom, or in any part of the British dominions beyond the seas. Much good work has already been done in the laboratories of this country, notably by Dr. William Russell of Edinburgh, Mr. Plimmer at St. Mary's, and Mr. A. G. R. Foulerton, who is in charge of the special laboratories connected with the cancer department of the Middlesex Hospital. The Cancer Hospital has also for many years had a pathological department in which experimental research has been carried on, and the Committee has under consideration a scheme for greatly enlarging their laboratories. Cancer indeed forms a subject of research in all pathological laboratories. But everywhere the work is hindered by want of money, and by want of co-operation among the workers. What is needed is that the work should be organised into a combined and systematic effort. If, therefore, the pious founder is forthcoming, we hope that he will not scatter his benefaction among various medical schools, but will give it all for the prosecution of continuous research under the direction of the Royal Colleges.

THE KING'S SANATORIUM.

WE think it well to call attention to an intimation made in our advertisement columns as to the competition for the prizes offered in connection with the sanatorium to the foundation of which the King has decided to apply Sir Ernest Cassel's gift of £200,000. The competition is not open to architects, but only to medical men, who may or may not, as they think fit, avail themselves of the collaboration of an architect. The prizes are offered for the best essays containing the description of an ideal sanatorium; working drawings are not required, but only such outline plans as may be necessary to illustrate the text of the essay. The plans should be on the scale of 32 feet to an inch, and should be bound up with the essay. No further detailed instructions will be given, as it is desired not to fetter the ideas of intending competitors. It is particularly requested that all communications relating to the proposed sanatorium be addressed not to individual members of the Advisory Committee, but to one of the Honorary Secretaries, Dr. P. Horton-Smith, or Dr. John Broadbent.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

AS is stated elsewhere, Sir John Rahere Paget, Bart., Sir Alexander Mackenzie, K.C.S.I., Rev. Prebendary Henry Wace, D.D., Mr. Arnold Royle, C.B., and Messrs. Ernest De La Rue, Melvill Green, Frederick Orridge Macmillan, John Danvers Power, Edgar Speyer, and James Wigan were, at a meeting of governors held on January 9th, elected to be the members of the new Board of Management of the National Hospital for the Paralysed and Epileptic. The names of two members of the old Board, Messrs. Frank C. Capel and John Pearman, were put for-

ward, but they were not elected by the meeting. A ballot was, however, demanded by their supporters, and the final result will depend on the votes sent in by the whole body of governors. A powerful appeal, signed by Sir T. Henry Farquhar, Sir Thomas Smith, Lady Russell Reynolds, Sir James Crichton-Browne, Mr. H. L. Bischoffsheim and Miss Agnes Keyser, has been issued to the governors, pointing out that the only hope of putting an end to the troubles from which the hospital has suffered so long lies in the frank acceptance of the arbitrator's award. By quotations from Sir Edward Fry's report, it is shown that in the opinion of the Committee of Inquiry, which was adopted by the governors, not only was the supervision of the old Board inadequate, but that on its members rests the responsibility of the friction with the medical staff, which was at the root of the difficulty. Neither Mr. Capel nor Mr. Pearman has, it is stated, given any indication of disapproval of the proceedings of the old Board, which were so unequivocally condemned by Sir Edward Fry's Committee. Provision has been made for the preservation of continuity of management by the reappointment of all the paid officers of the hospital with the exception of the Secretary-Director, whose office has been abolished. From this point of view, therefore, there is no necessity for the services of any members of the old Board, and from every other their presence on the new Board is undesirable. We are, indeed, strongly of opinion that their election would imperil the success of the reform in the management of the hospital, which has been accomplished after so prolonged a struggle. The new era on which the hospital is about to enter should begin with a clean slate and an entirely new Board of Management.

GUY'S HOSPITAL.

THE sum of £64,000 has been subscribed towards the £180,000 required for the renovation and rebuilding of Guy's Hospital. The announcement of this substantial contribution towards the capital sum asked for was made by Mr. Cosmo Bonsor, the Treasurer of the hospital, to the meeting summoned by the Lord Mayor of London at the Mansion House on January 15th. The Lord Mayor made an eloquent appeal on behalf of Guy's Hospital. After stating that the assured income of the hospital was £35,000 per annum, that the estimated ordinary annual expenditure after the renovation of the hospital was £60,000, and that therefore £25,000 was left over to be provided annually, he said a duty lay upon the citizens of London to see that the work of the hospital did not suffer for want of financial assistance. Mr. Cosmo Bonsor had a pleasant task in reading the preliminary list of principal donations to the Renovation and Building Fund, which was headed by the sum of £20,000 from the late Mr. H. M. Raphael. Mr. Pierpoint Morgan has promised £5,000 when £100,000 has been subscribed. Mr. Bonsor read a very convincing letter from Mr. A. J. Balfour, urging that on the success of the efforts now made to collect funds depended in no small measure the future value of the work which it will be in the power of Guy's Hospital to perform in the service of humanity and of science. Mr. Balfour ended his letter by remarking that he did not think that any difficulty should be found in providing the money when it was remembered that the work of the institution had now for nearly two hundred years not only alleviated the sufferings of the poor, but contributed its full share to those marvellous advances in the science of healing and in nursing by which the whole community, irrespective of class, so largely benefited.

OOPHORECTOMY FOR MAMMARY CANCER.

DR. ROBERT ABBE has reported in the *New York Medical Journal*,[1] his experience of seven cases of "inoperable" cancer of the breast from whom he removed the ovaries, a procedure, as is well known, first suggested and put into practice by Dr. Beatson of Glasgow. The first case was that of a woman, aged 42, whose breast and axillary glands had been removed ten months previously. At the time of the oöphorectomy there was both local recurrence and also a growth in the opposite breast, the size of a hen's egg. The patient was still menstruating. The ovaries were apparently normal and of full size. Within a week changes in the cancerous nodules were noted, and at the end of eight weeks every vestige of cancer that had been felt was gone. The same satisfactory state of affairs existed at the time the case was reported, four months after the oöphorectomy, and the signs of a pleurisy with effusion, probably due to extension of the disease to the pleural membrane, were subsiding. The second case was reported three and a-half months after the same procedure; the patient was 70 years of age, and the breast had been removed by Dr. Abbe two years before for "typical cancer." The ovaries were atrophied, but apparently normal. Again, at the end of a week a cancerous ulcer at the site of the old scar showed retrograde changes. At eight weeks the ulcer was healed, and nodules of growth in the neighbourhood had grown paler and flatter. At the time of the report the nodules were still present, and had recently showed less rapid progress, but were still slowly wasting. The five other cases were not related in detail by Dr. Abbe, but a further report was promised later. In these five cases the results had not been so remarkable as in the first two, and all were of too recent a date to furnish any useful criticism on the method of treatment. Dr. Abbe considers that the results hitherto reported justify the offering of this resort to patients "beyond hope from other methods." At the time of writing he had not before him Dr. Beatson's proposal to extend the treatment to earlier cases, but from the sentence above quoted he would apparently not favour such an extension. It is to be noted that he did not combine the oöphorectomy with the administration of thyroid extract as Dr. Beatson has done, nor did he simultaneously remove as much as possible of the local disease as has been the practice of other surgeons. Where either of these additions to the oöphorectomy are undertaken it is questionable whether the results should be accepted as evidence in favour of the oöphorectomy. Observations such as those of Dr. Abbe's are those by which the value of the procedure must be ultimately judged.

[1] *New York Medical Journal*, August 3rd, 1901.

THE CAUSATION OF GASTRIC ULCER.

ANOTHER attempt to settle this problem has been made recently by Dr. Van Ijzeren, a Dutch physician, who claims to have produced ulcers of the stomach presenting all the characteristics which they have in man—that is to say, unity, chronicity, and localisation near the pylorus. These results are said to follow division of the pneumogastric nerves in rabbits below the diaphragm. Slight paresis was followed by more or less permanent contracture of the muscular wall of the stomach, and at the end of two or three weeks in about half the cases an ulcer formed which was generally single, showed no tendency to heal, and occupied the pyloric region in the neighbourhood of the lesser curvature. An examination of the stomach contents after death did not show the presence of any notable or constant hyperacidity. By incising the muscular layer in a direction parallel to the axis of the pylorus the formation of an ulcer could as a rule be prevented (eleven times out of twelve), and the operation of gastro-enterostomy was also successful as a prophylactic, but less constantly. Both these operations caused the contracture of the stomach to disappear to a great extent. Dr. Van Ijzeren therefore attributes the production of the ulcer to the muscular spasm, which he believes acts by obliterating the vessels, thereby causing necrosis of the

mucous membrane. He regards the spasm as a reflex produced by the passage of food through the duodenum and thence into the intestine, of which he thinks an indirect proof is afforded by the good results of gastro-enterostomy. The anomaly of contracture following division of a peripheral nerve is explained by the fact that the nerve fibres going to the gastric musculosa pass through ganglionic cells, so that the vagus nerve plays the part of a secondary neuron. It is of course true that gastro-pyloric spasm has often been observed in the subjects of gastric ulcer. The author recommends the operation which in his experience answered best in preventing the occurrence of his experimental ulcers—namely, an incision parallel to the pyloric axis through the muscular fibres of the pylorus, stopping at the muscularis mucosæ.

SOME STATISTICS AND A MORAL.

WE are indebted to Dr. A. R. Walters, of Reigate, Medical Officer to the Duxhurst Industrial Farm Colony, for a copy of his first report on the treatment of inebriety there. The institution consists of a series of cottages, six patients living in each, under the charge of a nurse. The inmates do the ordinary work of the institution, together with embroidery, weaving, farming, gardening, etc., according to the capacities of each. Every patient is obliged to remain a year under treatment. The patients are drawn from the lower middle class, with a few from a lower and from a higher social grade. The home has now been opened for five years, and the facts given refer to the 241 patients who have been under treatment during that time. Of the 241 patients, 55 are eliminated from the reckoning for reasons enumerated under the headings "dead," "insane," "doubtful," "absconded," "incorrigible," or "removed for ill-health." The remaining 186 are classified in two tables, 110 of these being counted as successes and 76 as failures. No patient is classed among the succesful cases unless she has remained cured for eighteen months. No statement of the number who have remained cured from one to five years is given. The tables are founded on such facts about the patients as would be entered in a casebook upon their arrival, and the cases are tabulated according to the approximate ages of the patients, previous duration, and form of alcoholism, and kind of inebriety, family history, alleged cause of the disease, and a few other conditions generally, supposed to bear directly or remotely on the progress of the diseases. The tables have a very interesting negative value, since it would seem that, as far as results go, nothing is to be deduced from the above facts, and probably any other set of facts noted about the patients would have proved as much or as little. This is satisfactory, inasmuch as it clears the way for observations in new directions. There is, however, apparently one exception to the above statements to which Dr. Walters draws attention, namely: That a larger proportion of "inebriate family histories" are to be noted amongst the failures than amongst the successes. The precise meaning of "inebriate family history" is not stated, but, as "companionship" is enumerated elsewhere, it is to be presumed that an unfavourable environment in the matter of up-bringing is to be excluded from the category. The most suggestive table is that regarding the cause to which the origin of the inebriety is assigned. In 61 out of 186 cases no cause or origin is assigned, leaving 125 in which the origin was assigned to reasons which may roughly be divided into three classes: (1) Bad health, 42; (2) other depressing events or influences, 47; and (3) companionship, 36. A fairly equal proportion of successes and failures is reported in respect of all the subdivisions of these. About these cases it would be exceedingly interesting to know whether the originating factors remained after the onset of the inebriate habit, during treatment, or after discharge. It is quite conceivable that a year's rest and treatment should remove such conditions as "depression," "illness," "uterine disease," or "overwork," and so conduce to cure: but there remain the cases not cured in this way. Why, amongst eight wives whose cruel husbands were the exciting cause of their inebriety, should four have been cured and four not cured? Did, for instance, the four successful cases lose their husbands, convert them to kindness, or become stronger to put up with them? In short, did every patient go back to the same conditions from which she came, or to easier or more difficult ones? And with what result? Did every patient equally respond to or resist whatever treatment was given? Did the treatment include an attempt to deal with the special origin or cause of the disease? Such data precisely followed up would be of much interest in their bearing on results; but as the facts at present stand hardly any conjectures can be made as to how or why the successes succeeded or the failures failed. Dr. Walters is evidently not over-sanguine, since he considers that "a percentage of 45 per cent. of successful cases, as against 31.5 of unsuccessful cases, is a satisfactory result." The great number of "origins" presumably associated with nervous disorder suggest a fruitful field for further research.

THE VALUE OF POTATOES AS AN ARTICLE OF DIET IN DIABETES.

THE treatment of diabetes has undergone a very marked revolution within the last twenty years, for not only is it no longer contended that carbohydrate foods are unassimilable in this disease, but it is admitted that they are indispensable articles of diet. At the same time we have learned that diabetic patients present individual differences in the quantity of carbohydrates which they can take with advantage, and that the various forms of starch and sugar are tolerated in different degrees. For example, it is known that inulin and lævulose are better borne than ordinary starch and grape sugar, a quality which apparently depends upon differences of molecular constitution the physiological relations of which are at present unknown. Another example is milk, which, although containing a considerable quantity of lactose, may be taken by most diabetics in small quantities and in certain forms of arthritic diabetes suits so well that the skim-milk cure at one time had a considerable popularity. The value of potatoes as a substitute for bread has been noted by Dujardin-Beaumetz, Kuelz, Saundby, and others, but their use has been advocated in small quantities only, generally of about half a pound daily, that is to the extent of five or six hundred grains of sugar-forming carbohydrates. It has been recognised that potatoes in such limited quantities can be assimilated by many patients and cause less glycosuria than an equivalent quantity of bread, by which is meant a quantity of bread containing an equal quantity of starch. M. Mossé, in a recent communication to the French Academy of Medicine, goes further than this and recommends the use of potatoes to the amount of two or three pounds daily. He gives a number of cases to show that as compared with an equivalent quantity of bread their ingestion is followed by diminution of glycosuria, polyuria and thirst, with marked improvement of the general health, healing of surgical wounds, etc. In only one out of the twenty cases recorded by him was the result unfavourable, but almost all were examples of so-called "arthritic diabetes" in elderly persons of much the same type as those for whom the milk cure has been recommended. In one case of *diabète maigre* where figures are given the influence of potatoes was relatively good as compared with bread, but was still attended by the passage of large quantities of glucose; in the only other recorded case of this type we are told that the result was favourable, but no details are given. There is another point in considering these results which must not be overlooked; that is, that instead of instituting a comparison between strict diet and strict diet plus so much added carbohydrate in

the form of potatoes, M. Mossé invariably starts with a diet containing 400 grams (about 13 ounces) of bread and compares the urine excreted upon this diet with that upon an equivalent amount of potato, the proportion which he takes to be equivalent being three of potato to one of bread. Now bread is admittedly injurious to the majority of diabetic patients, and would be excluded by most physicians, so that it seems very probable that had he interposed a short interval of strict diet after the use of bread he would have been able to show even better results from the use of potatoes. Nevertheless, the fact remains that according to M. Mossé many cases of arthritic diabetes can take a quantity of potato equivalent to about 3,000 grains of starch without eliminating more than 500 or 600 grains of glucose, and this does not appear to have been due to defective assimilation, as only traces of carbohydrate could be found in the fæces of the two cases in which this point was determined. It would have been less difficult and more convincing had he noted in each case the effect of the diet upon the body weight, as where so large a quantity of carbohydrate appears to have been assimilated there should be distinct evidence of a return to normal weight. M. Mossé is somewhat of an enthusiast, and regards the potato diet as something more than an assimilable starchy food, claiming for it a distinctly curative effect, which he attributes to the considerable quantity of alkaline salts, chiefly salts of potassium, contained in those vegetables. It is only fair to add that he does not recommend their indiscriminate employment in all cases of diabetes; he thinks that they should be given with caution, and the result upon the urine watched by frequent analyses. Subject to this very necessary condition, we trust further trials will be made by giving potatoes more freely than has been usual, but still in definite quantities, to patients who have arrived at such a stage in their treatment that they can be permitted to take a certain amount of carbohydrate food, but are unable to tolerate bread.

THE CONSTRUCTION AND USE OF LIFE TABLES.

BETWEEN a third and a fourth of the first number of Vol. ii of the *Journal of Hygiene* is occupied by a discussion of the construction and use of life tables from a public health point of view, from the competent pen of Dr. T. E. Hayward. We draw special attention to this valuable article, as a considerable number of medical officers of health are likely soon to occupy their scant leisure in preparing local life tables based on the local experience of the districts whose health interests they safeguard for the decennium 1891-1900. For these Dr. Hayward's full and accurate description of the methods that should be employed will be of great service. His description is based on the assumption that the reader has no mathematical attainments beyond a knowledge of the ordinary rules of arithmetic and the use of logarithms; and although its detail requires careful study to be understood, they can be followed by all who set themselves to this task. The method described by Dr. Hayward is that known as the "analytical," involving a mathematical process known as "interpolation. To explain this, Dr. Hayward gives a necessarily technical description of "finite differences," which probably most medical men will take as read. A most valuable part of this paper is the description of a modification of Dr. Farr's "short" method of life-table construction. The differences between the expectation of life obtained by the extended and by this modified short method are so slight that many will be tempted to adopt it, and can do so without any material sacrifice of accuracy. The difference between the expectations of life obtained by the two methods is at nearly all ages in the second places of decimals. There is a third alternative, the discussion of which is purposely omitted by Dr. Hayward, reference being made to other writings—namely, to adopt a graphic method of interpolation. This was the method adopted by Milne in his original Carlisle life table. The method of interpolation employed by Milne was for long years a mystery, until Mr. George King, F.I.A., in the *Journal of the Institute of Actuaries* for October, 1883, proved that Milne had employed a graphic method, and clearly explained the method of construction. The graphic method has been growing in favour among actuaries, and is now generally employed by them. It is simpler, more elegant, and equally accurate with the analytical method, having regard to the imperfect character of the data on which a life-table is based. But whether the analytical or the graphic method of construction is adopted, Dr. Hayward's article may be consulted and studied in order to secure accuracy in arrangement of the data for building up a life-table.

A STRANGE PROBLEM OF EAR SURGERY.

A CHICAGO surgeon recently devised a procedure by which he hoped to transplant a healthy human ear, presumably to take the place of one destroyed by disease. But no opportunity of performing the operation presenting itself, he advertised for two subjects who should be willing to have their ears amputated for and in consideration of the sum of 300 dollars (£60). Two persons at once came forward. But then a difficulty presented itself—the law. Inquiring of legal oracles, the surgeon was told by a judge that if he removed a healthy ear from a human head, even with the consent of the person to whom the ear and the head belonged, he would be guilty of "mayhem." As everyone may not know what "mayhem" is, we quote the definition thereof given in *Blackstone's Commentaries*. In that classical work (Book I, Chapter I) it is said: "A man's limbs, by which for the present we only understand those members which may be useful to him in fight, and the loss of which alone amounts to *mayhem* by the Common Law, are also the gift of the wise Creator to enable him to protect himself from external injuries in a state of nature." Another legal authority, a State Attorney, informed the surgeon that the removal of one or more ears in the manner and under the conditions aforesaid did not constitute any crime known to the law. If Blackstone's definition quoted above is to be taken as supplying the solution of this legal problem, we have no hesitation in saying that we agree with the minor prophet rather than with the judge. An ear may conceivably be useful to a man's opponent in a fight as supplying a convenient means of steadying the head for punishment, but to himself, especially if it is prominent, it scarcely affords protection against external injuries either in a state of nature or otherwise. We unfortunately do not know how the matter ended. Probably the surgeon decided that it would be better for his own comfort not to supply the lawyers with so interesting a case for argument.

AMERICAN PUBLIC AUTHORITIES AND VACCINATION.

THE Boston Board of Health has passed the following order: "Whereas, small-pox has been prevalent to some extent in the city of Boston, and still continues to exist, although the number of cases has much decreased, owing largely to the voluntary vaccination of the great majority of the inhabitants; and, Whereas, it is necessary for the speedy extirpation of the disease, that all persons not protected by vaccination or revaccination should be vaccinated; and, Whereas, in the opinion of this Board, the public health and safety require the vaccination or revaccination of all the inhabitants of Boston; Therefore, be it ordered that all the inhabitants of this city who have not been successfully vaccinated since January 1, 1897, be vaccinated or revaccinated forthwith." There is no place for the conscientious objector in the "hub of the universe." If, as the prophetic soul of Mr. Stead foresees, we are destined to be absorbed into the United States, the loss of our independence will at least be mitigated by the

sense that we shall at the same time be independent of the faddist and the fanatic in matters of the public health.

CANCER IN SOUTH AUSTRALIA.

ACCORDING to the *Australasian Medical Gazette* a deputation waited upon the Government of South Australia a short time ago to represent the necessity of providing a suitable building for the reception and treatment of cancer patients. At present the sole refuge for such patients is the Home for Incurables, and as the accommodation there is limited, while the disease is said to be more prevalent than it used to be, the majority of applicants die in their own homes amid surroundings of great discomfort and distress before their turn comes for admission. It is understood that the Government proposes to make an advance, to be covered by funds expected by the Charity Commissioners, for the erection of a cancer ward in the grounds of the Adelaide Hospital. From the latest returns of the Registrar-General it appears that the number of deaths from cancer in South Australia last year was the largest ever recorded, and the rate of mortality had been steadily rising for the last sixteen years for which the figures are given. In 1885 the rate per 1,000 of population was 0.32, and in 1900 it was 0.59.

THE LIGHT TREATMENT OF LUPUS FROM A PATIENT'S POINT OF VIEW.

IN the *Glasgow Medical Journal* for December, 1901, Dr. F. H. Clarke, of Dumfries, publishes a letter from a patient of his who has suffered from lupus vulgaris of the cheek for eighteen years, and had gone to Denmark to seek a cure from the light treatment at its source. At the time of writing (July 23rd, 1901) she had been at Copenhagen for seven or eight weeks. She describes the working of the Lys Institut as follows: "Professor Finsen takes nothing to do with the actual working of the institution. Four doctors are in daily attendance, each being on duty so many hours. Dr. Forchammer is chief, is considered to be very clever, and, from personal experience, I can say is very kind; indeed they all are. The treatment is given by the matron, who has under her forty nurses. Each patient must go to the doctor's room at least once a week; some go daily—it depends upon the burning that is required. I am a weekly patient. At present there are 130 patients under treatment daily. All who apply are admitted, and there is no selection of cases. The *séances* go on from 7.30 A.M. to 7.30 P.M., each lasting one hour and a quarter, and twenty patients are treated at a time. The patients come from every part of the world, and their ages range from 10 months to 60 years. Just now it is principally sun treatment that is given, but lamp treatment is best; it is so much stronger than the sun. I don't have sun; I once had it, and never wish to have it again. Of course you must understand that to be made better you are in the first place made a great deal worse. At present I have an exceedingly sore face, badly blistered from burning, and quite as bad as any you ever gave me. Four nurses are kept dressing wounds all day at the tables, and are careful to the most minute detail." Not long ago, in an article which appeared in the *Westminster Gazette*, a writer, appealing for help for the Light Department of the London Hospital, allowed himself to be carried away by his enthusiasm so far as to say twice over with all the emphasis of italics that by means of the treatment lupus "can be cured with certainty and without pain." As regards the "certainty," the writer, if he has really seen the method at work, as he professes to have done, has doubtless by this time repented of having spoken in his haste. As regards its painlessness, he may learn something from the following remarks of Dr. Clarke's patient: "One wish in the hearts of most of us here is that those who write of the delightful painless cure had only three hours under a lamp; their description would be considerably modified. In some cases the pain is not so great as in others—an old lady on the next couch to me was actually asleep the other day when under treatment, while I was almost kicking with the pain of it. The pain varies greatly, and the 'almost unbearable' is not always experienced. I was fourteen times under the lamp, then fourteen days off till my cheek healed. Some patients never require to be off treatment at all." As to results, from what she saw, the patient holds that light is "a cure for lupus vulgaris." Her own case had, however, proved stubborn owing to the depth to which the process extended. She is not prepared to speak so confidently about lupus erythematosus, though in many cases the results were excellent.

THE CHAIR OF PHYSIOLOGY IN TRINITY COLLEGE, DUBLIN.

THE President and Fellows of the Royal College of Physicians of Ireland at a special meeting held on Friday, January 10th, elected Dr. W. H. Thompson, Dunville Professor of Physiology, Queen's College, Belfast, to the Chair of Institutes of Medicine (Physiology and Histology) rendered vacant by the resignation of Professor J. M. Purser. The election has received the approval of the Board of Trinity College. Not the least important part of the duties connected with this professorship in the past has been that of Clinical Physician to Sir Patrick Dun's Hospital. It is understood, however, that Professor Thompson will devote himself entirely to the work in connection with the teaching, etc., of physiology and histology, so that it will be necessary for the College of Physicians to take advantage of the powers they possess, and appoint a physician who will undertake the clinical duties in Sir Patrick Dun's Hospital. The appointment of Dr. Thompson to the Chair in Trinity College will accordingly create a vacancy in the Physiological department of Queen's College, Belfast. For this post there will doubtless be numerous candidates, and although the final selection rests with His Excellency the Lord Lieutenant of Ireland, the first nomination of the President of the Queen's College will doubtless be chosen.

A PSYCHIATRIC INSTITUTE IN NEW YORK.

THE Pathological Institute of the New York State Hospitals for the Insane, provided by the State Commission in Lunacy, is being thoroughly reorganised. Original research in the various sciences bearing on the subject of insanity will be carried out as before but, in addition, the Institute will be utilised for the provision of special instruction to physicians on the staffs of the hospitals for the insane, and to young men about to take up lunacy as a special line of work in clinical psychiatry as well as in methods of scientific research. For this purpose the institution is to be connected with one of the asylums on Ward's Island, until a reception hospital for the insane can be established in Manhattan. The Commission in Lunacy has selected the following gentlemen representing the Universities, Colleges, and Asylums of the State of New York to be members of an Advisory Board, whose duty it shall be to assist the new Director, who will shortly be appointed: J. McKeen Cattell, Professor of Psychology, Columbia University; James Ewing, Professor of Pathology, Medical Department of Cornell University; Christian A. Herter, Professor of Pathological Chemistry, Bellevue and University Medical College; Hermon C. Bumpus, Assistant to the President of the American Museum of Natural History, to represent the department of general biology; Henry Hun, Professor of the Diseases of the Nervous System, Albany Medical College, to represent neurology and general clinical medicine; Dr. Charles W. Pilgrim, Superintendent of the

Hudson River State Hospital, at Poughkeepsie, and Dr A. E. Macdonald, Superintendent of the Manhattan State Hospital East, to represent the State hospitals; Dr. Frederick Peterson, President of the Lunacy Commission, a member *ex-officio*.

MYERS TRAVELLING STUDENTSHIP, BIRMINGHAM.

IN memory of his son, Dr. Walter Myers, who died of yellow fever when making an investigation of that disease for the Liverpool School of Tropical Medicine, Mr. Myers, of Birmingham, has founded and endowed a travelling studentship in the University of Birmingham. Holders of this studentship, which will be awarded early in October in each year, must possess the degrees in medicine and surgery of the University of Birmingham. They must also possess the degree of B Sc. which must have been obtained either at the University of Birmingham or London or at one of the Universities of Oxford or Cambridge should such degree be obtainable at either of those universities. They must study for a year at one of certain Universities in Germany, and any papers that they may publish must appear under the name of the Walter Myers Studentship. The studentship, which will be of the value of £150, will only be awarded should a candidate of sufficient promise present himself. It will not be awarded as the result of an examination but by the vote of a Committee consisting of the Dean of the Medical Faculty, the Professor of Pathology, the Professor of Chemistry, and the External Examiner in Pathology, the last named to be the Chairman of the Committee. The subjects in which the student may pursue investigations are pathology or clinical medicine, combined with pathological research. The studentship may be prolonged over a second year, but at a diminished stipend.

EPILEPTIC AND MENTALLY DEFICIENT PAUPERS.

WE learn from the recently issued report[1] of the Eastern District Poor-law Conference that the subject of how best to deal with the pauper epileptics, idiots, imbeciles, and feeble-minded of the Eastern Counties has been carefully considered by its Executive Committee. From returns obtained from the various unions in Essex, Norfolk, and Suffolk, it would appear that the total number chargeable to the parishes was 1,312 (262 epileptics, 155 idiots, 505 imbeciles, and 390 feeble-minded), and that of these, 106 (32 epileptics, 16 idiots, 20 imbeciles, and 38 feeble-minded) appeared capable of being benefited by special treatment. The Committee recommended that an asylum for epileptics (capable of accommodating 200 inmates) should be provided for the three counties, preferably near Ipswich: that for idiots and imbeciles of the pauper and unimprovable class a special asylum should be provided near Colchester, arrangements being made with Essex Hall Asylum for the training of improvable pauper cases; while for feeble-minded girls, and less urgently for feeble-minded boys, small industrial homes, such as the one already established at Ipswich, were necessary, separate homes being required for improvable and for unimprovable cases respectively. A Government grant in aid of 3s. or 4s. a week in the case of each epileptic, idiot, imbecile, and feeble-minded patient in an approved institution, and power of detention (under magisterial authority) for a limited period of persons of feeble mind, are other points advocated. A long and interesting discussion followed the presentation of this report.

THE CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND.

A MEETING of the Executive Committee of the Carnegie Trust was held in Edinburgh on January 13th, when the Secretary and Treasurer submitted their reports for the period ending December 31st, 1901, showing that fees have been paid by the Trust for 2,441 students, amounting to £22,941 16s. 6d. It was arranged to hold the annual meeting of the Trustees in London, at which the first report of the Executive will be submitted. This report will probably be made public after the meeting of the Trustees.

THE SANITARY CONDITION OF THE LEICESTER INFIRMARY.

IT may be remembered that in a recent issue we referred to a meeting of governors of the above institution at which reports from the architect and Professor Corfield, pointing out grave structural and sanitary defects in the building, were considered. As a result, these reports were referred to a joint Committee of the Weekly Board and medical staff. The *Leicester Daily Post* of January 15th contains an account of the quarterly meeting of governors, at which the report of the above Committee was considered. In this several recommendations were made as to how the requirements of the institution might be met, of which the principal were: (1) Separate accommodation for isolation cases: (2) new sanitary blocks in most wards: (3) new kitchen arrangements; (4) cross ventilation lobbies in several parts; (5) a new and separate building for the out-patient department; (6) a new and separate building for the accommodation of nurses: (7) new floors to several wards; and (8) considerable changes in drainage arrangements. The Mayor of Leicester (Alderman E. Wood) then announced that he was in a position to pay the cost of the block now in course of erection, containing operation theatre, surgery, and administrative offices, amounting to near £12,000, out of a fund raised by his predecessor, and called the Queen Victoria Memorial Fund. Continuing, he made a most sympathetic speech, recognising the value of the institution to the town and the responsibility of the inhabitants for its being kept in a thoroughly efficient condition. He pledged himself to do all in his power to raise the sum required, which appeared to be nearly £50,000, and concluded by moving the following resolution:

> That the recommendation of the Joint Committee be approved and adopted, and that the extensions and improvements at the infirmary as there recommended be carried out in their urgency as soon as the funds can be raised for the purpose, and that a meeting of the citizens of the Town and County of Leicester be called forthwith for the purpose of organising an effort to raise the necessary funds for carrying on the work, and that the Lord Lieutenant of the County be invited to preside over the meeting.

We congratulate the governors of the infirmary on their decision, and have no doubt that the efforts of the Mayor and his coadjutors will be crowned with success, for such a flourishing and wealthy city as Leicester will naturally wish to lead rather than lag behind in a matter which so intimately affects the welfare of its large artisan population.

DR. WILLIAM CAYLEY.

AT the Prince's Restaurant, Piccadilly, on January 9th, a most successful dinner was given to Dr. William Cayley, Senior Physician to the Middlesex Hospital, by a large number of his former house-physicians and clinical clerks, on the occasion of his retiring from that hospital, with which he has been actively connected for thirty-five years. The toast of "The Guest of the Evening" was very eloquently proposed by the Chairman, Mr. E. A. Fardon, who, after some apposite remarks by Mr. J. Bland-Sutton, presented Dr. Cayley, on behalf of those present, as well as many who were prevented from attending, including several practising abroad, with a beautiful loving cup suitably inscribed. On Dr. Cayley rising to reply, the enthusiasm was unbounded, and it was some minutes before he could obtain a hearing, at the conclusion of which the loving cup was filled and passed round.

[1] Eastern District Poor-law Conference. Report of Ninth Annual Meeting, November, 1901. P. S. King and Sons, Orchard House, Westminster. 1s.

THE MACCLESFIELD INFIRMARY.

THE unfortunate dispute between the governors and the honorary medical staff at the Macclesfield Infirmary seems at length to be satisfactorily settled, but at a recent meeting of the governors a further attempt was made to create material for future contention, which was happily over-ruled by the good sense of the majority. According to a report in the *Cheshire Daily Echo*, after an animated discussion among the governors present at the ordinary monthly meeting, the following resolution was carried:

> That when a vacancy occurs it shall be advertised at least twice in the recognised medical journals, and the applications for the vacancy submitted to the honorary medical staff, with a request that they carefully consider the same, and if possible select at least three suitable candidates from which the governors shall appoint.

This is as it should be, but an attempt was made to add to this resolution a condition "that the governors shall retain the power of adding any candidate duly qualified to the list selected by the honorary staff, but that in the event of such an addition being made, the honorary medical staff shall be conferred with as to the suitability of the additional candidate." Such a condition would have left occasions for further difficulties in the future. The additional candidate would have been in nearly all cases one whose claims had been rejected by the staff, and conferences between the latter and the governors on the subject could hardly have failed to produce more or less bitterness of feeling, tending to cause friction in the management of the institution. It is satisfactory, therefore, to find that this apple of discord has been rejected, and as we believe a suitable candidate has come forward for the vacancy, there is every reason to believe that the valuable work so long carried on by the Macclesfield Infirmary will now continue without let or hindrance, and that nothing will occur in the future to interfere with the friendly relations that should subsist between the governors and medical staff of this institution.

THE PROPHYLAXIS OF VENEREAL DISEASE.

THE French Minister of the Interior has appointed a commission to study the various questions relative to the prophylaxis of syphilis and venereal diseases, and to make an inquiry into the frequency of those affections, into the institutions for their treatment now in existence in France, and into the best means, legislative or administrative, of preventing the spread of such diseases. The following are the members of the Commission: Professor Fournier (President); Dr. Auffret, Director of the Sanitary Service of the Navy; Dr. Batzer, Physician to the St. Louis Hospital, Paris; Dr. Barthélemy, M. Berenger, and Dr. Borne, members of the Chamber of Deputies; Professor Brouardel; M. Bruman; Dr. Descouts, Physician to the Paris Dispensary; Dr. Dieu, Director of the Sanitary Service of the Army; M. Honorat, of the Prefecture of Police; Professor Landouzy; Dr. Le Pileur, Physician to the St. Lazare Prison; M. Lépine, Prefect of Police; M. Mercier; M. Henry Monod, Director of the General Administration of Public Assistance and Hygiene; M. Mourier, Director of the Assistance Publique in Paris; Professor Pinard; Professor Pozzi, member of the Senate; Professor Proust, Inspector-General of Sanitary Services; Dr. Rendu; and Dr. Roux, Assistant Director of the Pasteur Institute.

A CHANCE FOR A PRINCE-PHYSICIAN.

IN an Italian paper, *La Tribuna*, there recently appeared the following advertisement: "A young lady of noble family, aged 30, of refined education, having an income of 2,000 lire, wishes to get married. The suitor may be broken in fortune, but it is absolutely essential that he should have a loving heart and the title of prince. A medical man preferred." This remarkable advertisement has every appearance of being genuine. The lady lives at Padua, and it may be conjectured that having a limited income and indifferent health, she is looking for deliverance from medical bills in matrimony. To find a husband who could minister to her bodily ailments, and at the same time give her the social advantages of the title of "Princess" might well be the dream of a mature maiden's heart. She is to be commended for her practical common sense in distinctly formulating her conditions before entering on negotiations. The difficulty is to find a man who fulfils them. Princes are as plentiful as blackberries in some parts of the Continent, but the princely physician is still a *rara avis*. Princes, indeed, have had little taste for medicine since the days of Henry VIII, who, according to his admirer, Froude, was the best physician in his realm; and Peter the Great of Russia, who was fond of bleeding and bandaging his lieges and extracting their teeth on occasion. There are, we believe, at present in Europe only two princes who are doctors, both of whom belong to the House of Wittelsbach. These are the Duke Karl Theodor of Bavaria, and Prince Ludwig Ferdinand. The former is an ophthalmologist of no mean skill, and only the other day was elected on his professional merits an honorary member of the Belgian Academy of Medicine. They have established on their estates in the Tyrol hospitals of which they themselves are the medical officers. Both these princes, however, are married. Our own gracious sovereign, who is a Fellow of both Royal Colleges, is also ineligible for the same reason. We fear, therefore, that the fair maid of Padua will sigh for her prince-physician in vain.

TRYPANOSOMA IN MAN.

WE have received a reprint of an article by M. le Dr. G. Nepveu, "Sur un Trypanosome dans le Sang de l'Homme." The paper was read on December 24th, 1898, and published in the *Comptes-Rendus des séances de la Société de Biologie*. Dr. Nepveu describes clearly the trypanosomes he found in the blood of several persons in Algeria in 1890 and subsequent years. In his cases they were associated with malaria parasites, and therefore any symptoms due to the new parasite were masked. The article has not attracted the general attention it deserved, but clearly establishes the priority of his discovery. Dr. Dutton's observation on the Gambia of a trypanosome in man indicates that these parasites may have a wide geographical distribution in Africa.

INTERNATIONAL MEDICAL PRESS ASSOCIATION.

BY the courtesy of the editors of the *Lancet*, we learn that the Prince of Monaco, who has distinguished himself in the field of scientific research, takes the greatest interest in the scientific press, and has offered every facility and extensive hospitality to those who are striving to establish an International Association of the Medical Press. This invitation has been accepted, and the delegates of the various national associations of the medical press are now called upon to meet at Monte Carlo on April 3rd next. The two main points to be discussed are the protection of literary property and the statutes of the International Association of the Medical Press.

MR. H. G. PLIMMER has been placed on the Cancer Investigation Committee recently appointed by the German Government. Mr. Plimmer, who is Lecturer on Pathology and Bacteriology at St. Mary's Hospital, has for several years pursued researches on the etiology and pathology of cancer which have been published in the *Journal of Pathology and Bacteriology* (1893), and of the *Académie des Sciences* (1893), the *Comptes-Rendus de la Société de Biologie* (1893), the *Proceedings of the Royal Society*, the *Practitioner* (1899), and the *Centralblatt für Bakteriologie* (1899).

MEDICAL AID COMPANIES AND THE ACTION OF THE GENERAL MEDICAL COUNCIL.

PROPOSED LEGISLATION.

SOON after the decision of the General Medical Council in the matter of Mr. Robert Rendall, M.B.Edin., a medical officer of a medical aid company, paragraphs appeared in the daily press stating that the decision of the Council was to be challenged, and that an attempt would be made to obtain special legislation. The following paragraph from the *Morning Post* of December 31st, 1901, may be taken as an example:

Doctors and the Medical Council.

The recent action of the General Medical Council in the case of Dr. Rendall, of Yarmouth, is to be vigorously contested by the Friendly Societies. A Bill will be promoted in Parliament to protect the doctors who are now professionally engaged for the various Medical Aid Societies, and a speeial clause of the measure will make it libellous for the Medical Council to describe as "infamous" conduct on the part of any qualified man that which is merely a breach of professional etiquette. Dr. Rendall has been held to be guilty of "infamous conduct in a professional respect" for having been indirectly connected with a society which the Medical Council states canvasses for patients.

The following letters which were recently received by a medical officer of the National Medical Aid Company have been forwarded to us. The first letter affords some indication of the scheme which the company has in view: the second letter closely resembles one which was published in the BRITISH MEDICAL JOURNAL of December 28th, 1901, p. 1879:

The National Medical Aid Company, Limited,
Registered Offices, 80 and 80A, Fleet Street, London, E.C.,
January 1st, 1902.

Dear Sir,—For your information I beg to enclose copy of a letter which has been sent to each of our district agents; this letter is self-explanatory; you will observe therefrom that it has been despatched for the purpose of safeguarding your own interests, and of placing you altogether outside possible unpleasantness with the General Medical Council. I may at the same time inform you that it is not the intention either of the National Medical Aid Company, or indeed of the other societies, to submit tamely to what we conceive to be a gross injustice, not only to medical practitioners connected with Medical Aid Associations, but also towards the hundreds of thousands of poor people who, being unable to pay the ordinary medical fees, are able to avail themselves of medical advice and medicine under no other circumstances or conditions.

The object aimed at is to promote a Bill in Parliament, and we have not the faintest doubt as to a successful issue, which would make it impossible for the General Medical Council to erase from the *Medical Register* the name of a practitioner, and adjudge him guilty of "infamous conduct in a professional respect," simply because he holds an appointment such as you hold in connection with this company.

It is not necessary at this juncture to acquaint you with all that is being done, but I am enclosing you copy of a few press extracts in order that you may see that steps are now being taken towards the attainment of the object mentioned above, and as soon as Parliament opens there is little doubt that the grievances under which holders of medical aid appointments are suffering, and the rank injustice which the decision of the Medical Council inevitably inflicts upon the poor people of this country, will be put right.

I might just add that we have had the opinion of the counsel engaged in the case, Mr. Lawson Walton, K.C., M.P., and Mr. Charles Mathews, and it is to the effect that no doctor acting for the Company would run the slightest risk by retaining his position under the conditions referred to in the enclosed letter to our district agents.

By order of the Board,
E. T. HARWOOD, Secretary.

The National Medical Aid Company, Limited,
Registered Offices, 80 and 80A, Fleet Street, London,. E.C.,
December 3rd, 1901.

Dear Sir,—In view of the decision arrived at by the General Medical Council on the 29th ult., and in which a medical officer of this company was concerned, we have most reluctantly to inform you that not only must there be no canvassing done, as already intimated in our letter of September 22nd, 1899, but henceforth there must be no new members accepted, even by recommendations.

We need hardly say that it is with the greatest regret that we have to take this step, but it is imperative in the interests of the very large number of doctors acting for us—nearly 800—who will by this means be at once placed in a position of perfect security from any possible unpleasantness on account of their connection with a Medical Aid Association.

We should be glad if you would kindly communicate this decision at once to every collector in your district working Medical Aid, and give the assurance contained herein to any medical officer writing to you on the subject.

It cannot be too clearly understood that the sole charge in the case referred to, and upon which the General Medical Council was asked to give a decision, was in connection with canvassing and that alone.

By order of the Board,
A. HENRI, W. LONG, } Managing Directors.
E. T. HARWOOD, Secretary.

The press extracts referred to in the first letter include a paragraph from the *Daily News* of December 31st, 1901, almost identical with that quoted above from the *Morning Post*, but with the additional statement that the information was circulated by the Press Association; and an extract from the *Morning Leader*, also of December 31st, 1901, expressing satisfaction that the action indicated above was to be taken.

CONTRACT MEDICAL PRACTICE.

A WEST-END CLUB.

A. B. writes: Living in the Far East, the echo of "the battle of the clubs" reaches one but faintly, so I was deeply impressed on my return the other day to learn the following particulars, though they may be painfully familiar to the home brethren. It appears that connected with the parish of one of the West-end churches there is a woman's club of about 240 members; each member pays the club "doctor" a penny a week, and is entitled for this sum to receive as many visits and consultations as she requires, together with medicine. In addition, there are some eight or ten ladies on the committee of the club who, for 2s. 6d. a year, are also entitled to medical attendance and medicine. The club doctor is also required to examine any candidate for admission to the club gratis, at the request of the committee. When any member of the club dies every remaining member has to subscribe 6d. to defray the funeral expenses, so that the undertaker is infinitely better off than the doctor. After hearing all this, I was not surprised to learn that three fully-qualified men competed for this valuable "appointment."

EXAMINATION OF CANDIDATES: CERTIFICATES IN ILLNESS.

INDECISION writes: The subject of "club practice" is now engaging the attention of many medical men and occupies considerable space in the BRITISH MEDICAL JOURNAL, and, although I have carefully read the correspondence, I have not yet found my case met. I am surgeon for works in an isolated locality, with a population of about 1,100. The workmen pay a certain sum weekly for medical services and medicine for themselves and families. Many of these men belong to a Friendly Society. Presently I act for two societies, and have now been asked to associate myself with a third, but have meanwhile declined. My predecessor did the work for these two societies gratuitously, for the reasons (1) that they were newly-formed during his residence here, and the funds were necessarily low, (2) that the men already paid for his services in the works. When he offered to do the work of the societies without remuneration it was on the understanding that when the funds increased a charge might be made. This was the position when I came three years ago, and it continues. I have not access to the books of the societies, and am unable to ascertain whether the societies are able to pay the doctor anything. The extra duties attaching to these societies are examining candidates for admission, and signing lines during sickness. These are the only services I am not paid for. Is it reasonable to expect men who already pay for a doctor's services to pay him a second time for the same services? The examination of candidates (usually a very cursory one) occupies some time, however, and the filling in of benefit lines occasions at times considerable annoyance. It is very probable that there are many others in a like position, and I shall be glad to learn how they meet the difficulty.

THE EPIDEMIC OF SMALL-POX.

REPORT OF THE STATISTICAL COMMITTEE OF THE METROPOLITAN ASYLUMS BOARD.

AT the meeting of the Metropolitan Asylums Board on January 11th the Statistical Committee presented a report upon completed cases of small-pox treated in the Board's hospitals during the year 1901. This document is an interim report, and a fuller statement will be issued later. The value of the statistics is diminished by the fact that in the preparation of the table reproduced below many cases recently admitted have been included because the cases have been completed by death, whereas the contemporary cases, which it is expected will nearly all ultimately recover, have not been included, and will not be dealt with statistically until they have been discharged.

Prevalence.

The Committee states that towards the end of January, 1901, 5 cases were admitted into the Board's hospitals, and 1 in the middle of February; but during March, April, and up to May 29th not a single case occurred. On the last-mentioned date a patient was admitted from Islington, on June 10th

Table giving particulars of 1,017 cases of Small-pox treated in the Managers' Hospitals to Recovery or Death during the year 1901, their Condition in Relation to Vaccination, and the Mortality per cent.

Age.	Vaccinated.			Doubtful.			Unvaccinated.			Total Cases and Deaths.		
	Cases.	Deaths.	Mortality per Cent.	Cases.	Deaths.	Mortality per Cent.	Cases.	Deaths.	Mortality per Cent.	Cases.	Deaths	Mortality per Cent.
Under 1	—	—	—	—	—	—	17	15	88.24	17	15	88.24
1 to 5	1	—	—	2	2	100.00	44	24	54.55	47	26	55.32
5—10	11	—	—	4	4	100.00	34	13	38.24	49	17	34.69
10—15	42	1	2.38	3	1	33.33	41	14	34.15	86	16	18.60
15—20	107	2	1.87	3	—	—	25	13	52.00	135	15	11.11
Total under 20	161	3	1.86	12	7	58.83	161	79	49.07	334	89	26.65
20—25	132	13	9.85	8	3	37.50	9	4	44.44	149	20	13.42
25—30	141	15	10.64	5	4	80.00	10	5	50.00	156	24	15.38
30—35	96	17	17.71	8	4	50.00	3	3	100.00	107	24	22.43
35—40	76	22	28.95	5	3	60.00	3	2	66.67	84	27	32.14
40—50	102	27	26.47	14	12	85.71	6	5	83.33	122	44	36.07
50—60	42	8	19.05	5	3	60.00	1	—	—	48	11	22.92
60—70	10	3	30.00	3	2	66.67	1	—	—	14	5	35.71
70—80	—	—	—	3	3	100.00	—	—	—	3	3	100.00
Total between 20 and 80	599	105	17.53	51	34	66.67	33	19	57.58	683	158	23.13
Grand total	760	108	14.21	63	41	65.08	194	98	50.52	1,017	247	24.29

1 from Whitechapel, on June 29th 1 from Hackney, and on June 28th and 29th 1 on each day from Wandsworth. During the month of July and up to August 21st single cases occurred in various parts of London. From August 22nd and onwards, however, the disease appears to have obtained a hold in the parishes of St. Marylebone and St. Pancras. Subsequently cases occurred in every one of the thirty-one Poor-law parishes and unions comprising the Metropolitan Asylums District.

Mortality.

The gross mortality shown in the table is 24.29 per cent., but this is undoubtedly higher than it will be when all the cases admitted during 1901 have been completed.

Vaccination.

With reference to vaccination, the cases were divided into three classes: (1) "Vaccinated"—that is, cases having visible cicatrices; (2) "doubtful," including (*a*) cases stated to have been vaccinated, but bearing no visible evidence thereof; and (*b*) cases in which no statement was made, but in which the eruption prevented any reliable observation as to cicatrices; and (3) "unvaccinated"—that is, cases admittedly unvaccinated, or bearing no marks of the operation, and as to which no statement was made.

With regard to age the Committee points out that under 10 there were only 12 vaccinated cases and no death; 6 doubtful cases, all of whom died; and 95 unvaccinated cases, of whom 52 died—a percentage of 54.74. Under 20 there were 161 vaccinated cases, of whom 3 died—a percentage of 1.86; 12 doubtful cases, of whom 7 died—a percentage of 58.33; and 161 unvaccinated cases, of whom 79 died—a percentage of 49.07. The Committee further points out that there appears to be a distinct diminution in the protective power afforded by primary vaccination after the age of 20 years. The death-rate rising from 1.86 in vaccinated cases between 20 and 25 years of age to 28.95 in cases between 35 and 40.

Small-pox in Public Officials.

The Committee states that amongst the patients admitted during the year there were no fewer than 21 who were employed on disinfecting work (of whom one died), most of them being servants of borough councils. Not one of these persons had been revaccinated since infancy. There were also admitted 2 sanitary inspectors, 2 dustmen, 1 undertaker (who died), and 1 medical officer of an infirmary; and 3 other persons, one of whom assisted in removing a small-pox case from an infirmary, one scrubbed the ward from which a small-pox patient had been removed, and one made beds in the lodging house in which cases had occurred. All these persons, it is pointed out, ought to have been protected by revaccination.

Against this attention is drawn to the experience of the managers at their small-pox hospitals and in the ambulance service for many years past, in both of which services revaccination is always performed on engagement. Of 2,198 persons employed at the small-pox hospitals between 1884 and 1900 inclusive, in which period 17,900 small pox cases were received into the hospitals, only 17 persons contracted small-pox, of whom 13 were not revaccinated until after they had joined the ship, and 4 were workmen who escaped medical observation.

During the past year a very large number of new staff have joined the ship and the Gore Farm Hospital, but not one case of small-pox has occurred. Not one of the staff of the hospital ships has ever died of small-pox, and not one has even suffered from the disease for the past eight years. From the year 1881 to the end of 1901 there have been employed in the ambulance service of the Board 1,282 persons. Four of these persons contracted small-pox, of whom one escaped vaccination when appointed, he died; one was unsuccessfully revaccinated on joining the service, and the operation was not repeated, she died; the two others had been revaccinated and recovered.

Prospects.

Sir V. B. Kennett-Barrington, the Chairman of the Committee, stated that the steady increase in the number of cases and the fact that the patients came from every parish in the metropolitan area justified the Board in the measure they were taking to cope with the disease. The Board now treated nearly all small-pox cases in London, while in the former large epidemic it only treated about one-third. The Board now had two strong weapons, which formerly it did not possess—the one was the notification of disease, and the other the ambulance service, which he believed was the finest in the world.

Sir E. Galsworthy feared that the epidemic would not cease very soon; nothing short of revaccination would stop it, and the sooner the public realised this the better.

Inactive Vaccine.

Sir V. B. Kennett-Barrington said that one great danger to the public was the supply of inactive vaccine, since it gave a false sense of security; either the Government ought to supply vaccine, or the different groups of parishes and Unions should combine and have stables and calves. The authorities should be in a position to supply lymph to medical men, and not be dependent upon vaccine imported from Germany, Switzerland, or other countries. The report was adopted and entered on the minutes.

Cost of the Epidemic.

In reply to a question, Mr. J. T. Helby stated that in consequence of the outbreak of small-pox the Board had been committed to an expenditure of between £250,000 and £300,000 to date. He expected that the rate would be in-

creased at least 1d. for the next half-year, and another penny for the following half-year.

ESSEX.

We regret to learn that a considerable number of cases of small-pox have recently occurred in Essex. From January 1st to January 11th cases were reported to the Essex County Council from the following districts: Orsett, 18 cases; Romford 18; Barking, 2; Rochford, 1; Chelmsford, 1; Malden 1; and Walthamstow, 7; making a total of 48 cases.

THE MORTALITY RETURNS OF THE FIELD FORCE IN SOUTH AFRICA FOR 1901.

THE publication of the official table of casualties in the Field Force, South Africa, for the month of December, 1901, enables us to present a summary of the statistics of death from disease during the year 1901, and to contrast these with the corresponding statistics for ten months of the preceding year.

The following table, compiled from the official returns issued by the War Office at first weekly, then fortnightly, and, for the last fifteen months monthly shows the number of officers, non-commissioned officers and men who died from disease in the months stated, as well as those invalided home. The latter category includes those invalided for wounds as well as those invalided for disease.

TABLE I.—*Showing Deaths from Disease and Invaliding Field Force, South Africa.*

(Officers, Non-commissioned Officers, and Men.)

Month.	Died of Disease.		Invalids Sent Home.	
	1900.	1901.	1900.	1901.
January	—	668	—	2,174
February	167*	582	649*	1,558
March	645	418	2,328	3,000
April	753	388	1,444†	2,318
May	1,080	486	4,343	2,024
June	1,174	370	7,695	3,207
July	641	190	5,873	1,130
August	386	181	3,397	1,387
September	540	142	3,141	1,980
October	367	136	2,877	2,171
November	459	230	2,600	3,242
December	456	351	1,524	1,456
Totals	6,668	4,088	35,867	25,726

* Two weeks only—namely, weeks ending February 17th and 24th.
† Three weeks only; number for week ending April 28th not available.

In the following monthly statistics comparing 1900 with 1901, it has been assumed as approximately correct, that the field force in South Africa has been maintained at 200,000; arrivals from England taking the place of the dead and invalided. On this basis we arrive at the following table, which necessarily can only be regarded as approximately accurate. The rates are annual rates for each month, and they deal only with deaths from disease.

TABLE II.—*Annual Death-rates from Disease for Each Month of 1901 and Ten Months of 1900 in the Field Force of South Africa.*

(Officers, Non-commissioned Officers, and Men.)

	1900.	1901.	Percentage Reduction in 1901.
January	—	36	
February	—	35	
March	35	25	29 per cent.
April	46	23	50 ,,
May	63	29	52 ,,
June	59	22	63 ,,
July	41	11	73 ,,
August	26	11	58 ,,
September	27	8	71 ,,
October	22	8	64 ,,
November	27	14	48 ,,
December	27	21	22 ,,

There is a gratifying decline in the death-rate from disease. The percentage decline, which was 29 per cent. in March, gradually increased to 73 per cent. in July. In August it was 58 per cent. lower than the corresponding rate in August of 1900, in September it was 71 per cent. lower, in October 64 per cent. lower, while in November and December it was 48 and 22 per cent., respectively, lower than in the corresponding months of 1900. The death-rates are still, however, abnormally high, and we cannot refrain from repeating our continued advocacy of the views frequently expounded in these columns. More continuous and assiduous attention to army hygiene will be required if the high mortality from disease which has occurred during the last two years among our troops in South Africa is not to be repeated in future campaigns, or, even though to a less extent, during the continuance of the present war. During 1901 only 664 deaths from wounds occurred in the army, not including those killed in action, while 4,088 officers and men died from disease. Could any better evidence be adduced of the skill of our surgeons and of the relative neglect of hygiene by the authorities?

TABLE III.—*Showing Numbers Killed, Died of Wounds or Disease, and Invalided Home. Distinguishing Officers and Non-commissioned Officers and Men. 1901.*

—	Killed in Action.	Died from Wounds.	Died of Disease.	Invalided Home.
Officers	145	64	162	1,047
Non-commissioned officers and men...	1,528	600	3,986	24,699
Total ...	1,673	664	4,088	25,726

The proportion which the number of officers bears to that of men is not stated, but it will be observed that whereas for every officer killed in action 11 non-commissioned officers and men (nearly) met their death in that way, and that whereas for every death for wounds among officers 9 deaths only from wounds occurred among non-commissioned officers and men, there have been 40 deaths (nearly) from disease among men for every officer who had died of disease.

After making every allowance for the way in which throughout the war officers have exposed themselves more freely to wounds than men, the difference is so striking as to compel the conclusion that the men, in part through ignorance and carelessness, in part through being compelled to camp under less favourable conditions than officers, suffer in a higher proportion from disease. This ought to be in a large measure preventable. The facts indicate that the sanitary portions of the work of the army medical officer are much more important than his purely surgical and medical work. Whether a certain proportion of the members of the Royal Army Medical Corps should be specially set aside for sanitary work or whether all should be trained as though this were their chief work is a debatable question. There is much to be said on both sides. Army medical officers already receive excellent sanitary training, but they are hemmed in by restrictions which prevent them from carrying out reforms. They have insufficient administrative control, and it is not surprising therefore that they should sometimes be inclined to lay greater stress on their medical and surgical than on their sanitary work. The force of circumstances has compelled them to do so in the present campaign. It is easy to draft a large number of competent physicians and surgeons into the army during a war; it is not so easy to supply competent army sanitarians at short notice.

THE PREVENTION OF CONSUMPTION.

A SANATORIUM IN NEW SOUTH WALES.

THE Committee of the Queen Victoria Home for Consumption has carried out the intention indicated in the letter of our special correspondent in Sydney, published in the BRITISH MEDICAL JOURNAL of November 22nd, 1901, and has purchased the property at King's Tableland, on the Blue Mountains in New South Wales, for the purpose of erecting a sanatorium for the open-air treatment of pulmonary tuberculosis. The institute will at first provide accommodation for ten or fifteen patients. The *Australasian Medical Gazette*

understands that it is the intention of the Committee shortly to appoint a resident medical director to the institution, at a salary of about £300 per annum. This is not a very large salary, but it is thought that some medical man, himself a sufferer from pulmonary tuberculosis in an early stage, or in delicate health otherwise, may be willing to take the appointment. Private practice will not be allowed. Further particulars may be obtained from the Honorary Secretary, Dr. Cecil Purser, Lewisham, N.S.W.

Compulsory Notification in America.

A Bill has been introduced into the City Council of St. Louis making compulsory the notification to the health authorities of all cases of undoubted pulmonary tuberculosis. Examination of the sputum for diagnostic purposes will be made, at the request of the medical practitioner in attendance, by the Board of Health officials. It is provided that, after notification of a case the Health Commissioner shall give, through the medical attendant, such printed instructions in relation to the sanitary management of the patient and his surroundings as may seem best calculated to prevent the spread of the disease. The apartments occupied by a consumptive are to be regularly cleaned and disinfected, but a placard is not to be placed on the house. The penalty for failing to notify a case is a fine of not less than £10 or more than £50.

CERTAIN MENTAL CHANGES THAT ACCOMPANY VISCERAL DISEASE.

THIS is the title of the Goulstonian Lectures delivered by Dr. Henry Head before the Royal College of Physicians of London last year. The text is published in the current number of *Brain*.

Grave mental disturbance may arise in connection with visceral disease, and in several different ways. One of these concerns a group of changes in consciousness associated with the reflected pain of visceral disease, and with accompanying tenderness of the superficial coverings of the body in definite areas. This group of changes in consciousness is the subject of the lectures.

The cases made use of were those of patients of the usual hospital class, who were suffering either from pulmonary (phthisis) or cardiac disease. All patients are stated to have been excluded who had been insane, or who had any hereditary taint of insanity or epilepsy, or were suffering from any form of nervous disorder; also all Hebrews, because of their tendency to functional neuroses.

Of the group of mental states in question the constituents are:

A sense of ill being, which comes in paroxysms without overt cause, and drives the patient from companionship in search of solitude or of a comparatively obscure place, or to huddle under bed covering, hiding the face from view, weeping or desiring to weep, and often dumb to questioning; dislikes music, haunted by vague idea of impending evil, and in some cases visualising the distant home as dull, dirty, disordered, and cheerless. Such attacks may be short: the ebb and flow of frequently recurring seizures may run through several days, or some of the states may recur at longer intervals.

A mood of exaltation, accompanied by a feeling of physical power; sudden feelings of being able to do, and then attempts to do, far beyond the physical strength.

Suspicion that their nearest relatives and friends when talking together, are speaking ill of them saying, for example, that these are lazy, idle, worthless, or shamming; with further development.

Hallucinations.—(*a*) Visual, chiefly imperfect, indefinite, draped figures, black, white, or grey; (*b*) hallucinations of hearing, which are never of articulate voices, and usually occur at night; (*c*) hallucinations of smell.

Changes of Attention and Memory.

On the subject of the causes underlying the above mental phenomena, the conclusions are that these latter are not accounted for by fever, loss of weight, and vascular disturbance, or anæmia, and that the only factor invariably present is reflected visceral pain; whereas local pain—for example, of pleurisy or burn—is not usually associated with these mental phenomena. But predisponent factors also exist in sex, menstruation, fever, anæmia, rapid loss of weight.

Carrying out the conclusions into particulars, it is further taken that underlying the depressed mood is reflected visceral pain with its superficial tenderness. To the feeling of physical exaltation several modes of origin are assigned. The state of suspicion is believed to take origin directly out of the state of depression—the depressed mood—with the latter's sense of impending ill and sense of physical worthlessness. Further conclusions are that underlying the hallucinations is headache of the reflected visceral type, to accomplish which *rôle* the pain must have one or more of certain attributes, and acts more effectively when the vital resistance is lowered, or when concomitant reflected visceral pain is referred to the trunk. The changes in attention and memory produced in some of the same cases are assigned a more complex causation. The final conclusion is that the above mental states have been classed under the name hysteria; the lectures seek to relate them to their proper position. Thus far a brief summary of the chief contents.

This prepares for the short commentary we now proceed to make on the relations and broad aspects of the mental phenomena thus summarised.

The expressed intention has been to exclude every kind of case connecting with others the case group dealt with in the lectures. Many a side-light on the position and nature of the latter is thus extinguished. If made otherwise than temporarily, this isolation of the group of cases would not be after Nature, and would tend to obscure the view of the natural continuity of a series of clinical and pathological states and of their natural gradation. Omission of all the kinds of cases intended would be difficult to accomplish, so defective and unreliable is the obtainable personal and family history in many hospital cases. Moreover, such exclusion, if effected, would carry with it that of most of the patients who exhibit similar symptoms. But if, by application of such process of comparative exclusion as is possible, the cases may quite rightly be dissociated from others for the temporary purpose of special study; it is desirable, when this study is concluded, to replace the exemplars in their appropriate place and relations in the clinical and pathological fields.

To give to the mental states in question their due position and relations in nosology, and to set them for view in proper mental perspective, is a task which each would do in accordance with the teachings of his experience and observation, and in what immediately follows the lines are indicated on which these teachings lead us.

Among the departures from normal and fairly-developed mental activities there is a large group assemblage of reductions closely connected with the visceral system and functions. In all the members of this major group the due subordination and inter-relation of higher and lower in nervous hierarchy is disordered, with tendency to more or less reversal. The sympathetic nervous system and visceral supply and connection with cerebro-spinal system are partly concerned.

Processes of decentralisation occur, differing in degree and kind in each clinical subgroup of the major group assemblage to which we refer. In each subgroup and in different degrees and ways, the higher consciousness is impaired; the so called regulating, controlling, directive, or adaptive functions are weakened and disordered. The visceral elements in consciousness gain a corresponding enhancement, freedom of play, and undue effect.

In this large clinical field is much that has usually been treated under a variety of headings. Among the constituent parts is that consisting of a host of cases of various forms of so-called physical disease, with accompanying, and for the most part temporary, mental symptoms.

As compelled by the limits of space, we pass by a considerable number of the more important of the other subgroups; nevertheless, a few words may be added here on several points—for example, the hallucinations of hearing sounds, never as articulate voices, may compare with some entotic disturbances, chiefly of nocturnal occurrence, and sometimes occurring with fear or its physical manifestation; obsession-like. And, again, the hallucinations of sight of the special

varieties described are, in part, sometimes analogous to ordinary hypnagogic hallucinations, occurring at the transition between waking and sleeping states. The usual accompaniments of sweating, heart throb, and goose skin: the often coincident emotional depression, and the dark or black hallucinations with fear or its physical manifestations, are, partly at least, of sympathetic and visceral nerve origin; and remind one of the similar accompaniments of many ordinary obsessions.

Some of the lecturer's cases exemplify comparatively simple and brief departures from the usual standard of mental health for the individual patient concerned, and link with the more severe ones, and with phenomena pertaining to the several clinical subgroups referred to above.

The tendency in the lectures to emphasise distinctions drawn between the mental phenomena described and congeneric conditions in insanity, may be liable to convey an impression not wholly accurate. From examples, cases may be selected to form a series of every degree and kind between those described and those of manifest insanity: and symptoms of the former are often observed in the prodromic and other early phases—or even sometimes in the later—of attacks of mental disease.

The influence of fever, as favouring the production of the mental changes, is limited in the lectures to the production of decrease of vital resistance and to the causing of widespread generalisation of any reflected pain that may be present. We would prefer to add to these, and especially to add the direct effect of the associated state of toxæmia, and this last indeed as being important; although in production of the phenomena, in the cases concerned, no part is assigned in the lectures to toxic states—to toxæmia in its wide sense.

The facts and discussions are presented in a very interesting manner in the lectures, and their greatest merit is to emphasise more strongly the influence of reflected visceral pain, a subject on which the distinguished lecturer's work is well known to neurologists.

THE ANNUAL REPORT OF THE MEDICAL OFFICER OF THE ADMINISTRATIVE COUNTY OF LONDON.[1]

I.

VITAL STATISTICS.

APART from its high value as a record of sanitary administration, the annual report of the medical officer of health of the County of London is among the most important sanitary publications of each year. It gives not only such a view of the various causes of mortality as can be obtained from the annual summary of the Registrar-General, but also a statement of the incidence of the chief infectious diseases which cannot be obtained elsewhere.

Population.

The quinquennial census enumeration enables a more correct estimation of population to be obtained. Thus based on the enumerations in 1891 and 1896, the population for 1900, the year under report, was 4,611,264, but the recent enumeration in 1901 shows that there has been a diminished rate of increase in the population between 1896 and 1901, and that the estimated population for 1900 is only 4,526,700. The decreasing rate of increase of the population of London has special interest. The decennial increase reached its maximum of 21.3 per cent. in the ten years ending in 1851, declining to 10.4 per cent. in 1881-91 and to 7.4 per cent. in 1891-1901. The decline in the rate of increase, as pointed out in special articles in the BRITISH MEDICAL JOURNAL on the recent census, is caused by the overstepping of population beyond the county boundaries.

Age Distribution of Population.

The effect of the lowered birth-rate on the age distribution of the population is shown in the table on pp. 1 and 2. Thus, while the proportion of male children under 5 years of age in 1861, 1871, and 1881 respectively only varied from 1,383 to 1,385 out of 10,000 males at all ages, it declined to 1,157 in 1901. Similarly among female children under 5 the proportion varied from 1,212 to 1,230 at the three earlier census enumerations, declining to 1,034 in 1901. These differences have an important bearing not only on the total death-rate of the population but also on problems of provision of school accommodation and the like.

Marriages.

The marriage-rate in London was 20.6 per 1,000 living in 1851-6, 20.3 in the next decennium. It declined to 17.0 in 1894, rose to 18.1 in 1896 and 18.9 in 1898, becoming 18.0 again in 1900.

Births.

The birth-rate, which reached a maximum of 35.4 per 1,000 in 1871-80, has declined steadily, reaching its lowest in 1900, when it was only 29.1 per 1,000. An attempt is made in a separate table to give a more accurate statement of the birth-rate in terms of the number of females aged 15-45 years. Stated in this way, the birth-rate in 1900 varied from 4.5 per 100 females aged 15-45 in St. Martin-in-the-Fields, 5.5 in Hampstead, and 5.9 in Kensington to 16.0 in Mile End and Poplar, 19.6 in St.-George-in-the-East, and 19.8 in St. Luke. Clearly, however, this method of statement exaggerates the differences in birth-rate which distinguish districts of high and low social position. The true difference between Hampstead and Poplar is nothing like so great as these figures represent, as would be manifest if the small minority of the births which are illegitimate be ignored, and the number of legitimate births in each were stated in terms of the number of *married women* aged 15-45 years.

Deaths.

The death-rate of London in 1900 corrected for age and sex distribution of population was 20.4 per 1,000, the only towns with a population over 200,000 with a lower death-rate being Bristol, Bradford, and West Ham. London is, however, rather a province of houses than a single town, and we are therefore furnished with the death-rate of each of its sanitary areas similarly corrected. Thus the corrected death-rate for the administrative county of London being 19.8, it varies from 13.1 in Hampstead, 14.2 in Stoke Newington, and 14.5 in Lee and Lewisham to 17.4 in Kensington, 17.6 in Paddington, 19.7 in Chelsea, 25.0 in Bermondsey, 27.9 in Holborn, 28.7 in Limehouse, and 30.1 in St. George Southwark.

"Life-Capital."

By the use of the method first described by Dr. Tatham, it is found that comparing the decennium 1891-1900 with the decennium 1881-90, there has been in London a mean annual saving of 3,664 lives, representing a mean annual saving of 118,483 years of "life-capital."

Infantile Mortality.

In 1900 it was 158 per 1,000 births, varying from 100 in Hampstead, 107 in St. George Hanover Square, and 108 in Stoke Newington, to 209 in St. George Southwark, 228 in Limehouse, and 240 in Holborn.

Small-pox.

The number of cases notified in 1900 was only 86 as compared with 2,815 in 1893. Mr. Shirley Murphy gives reasons for anticipating that "greater prevalence of small-pox in London than that in recent years may be expected for some time to come." The year 1838 was probably "the crest of a great epidemic wave previous to the wave which culminated in 1871." Since the latter year a like interval of thirty-three years approaches completion, and the events of 1900 and 1901 suggest increase of infectivity, giving the disease increased ability to spread. Whether the more favourable circumstances of the population as regards isolation of small-pox patients outside London will materially diminish the epidemic wave remains to be seen.

Diagram VI gives a most interesting comparison of the number of deaths from small-pox, measles, and whooping-cough respectively at ages 0-5, 5-20, and 20 and upwards per cent. of deaths at all ages from the same causes in the last six decades of the nineteenth century. The steady diminution in the proportion of small-pox deaths at ages under 5 in each successive period comes out very clearly, while the slight increase in the proportion at ages under 5 in 1891-1900 shows

[1] *Ninth Annual Report of the Medical Officer of Health of the Administrative County of London, 1900.* P. S. King and Son. Price 3s. 6d.

the effect of increasing neglect of vaccination. The steadily-uniform proportion which deaths from measles and whooping-cough at ages under 5 bear to the deaths from the same disease at all ages in successive decennia forms a striking contrast to the small-pox experience. The diagram undoubtedly represents the substantial truth. It is, however, open to objection on the ground that with a diminishing birth-rate the proportion of children under 5 has declined, and this may partially account for the lower proportion of small-pox deaths at these ages. Although the unwavering figures for measles and whooping-cough partially rebut this view, it might be well to make a correction for age-distribution which would eliminate this possible though slight source of error.

It is significant that the number of children in London not finally accounted for in the vaccination returns has steadily increased from 5.7 per cent. of births in 1881 to 18.4 in 1892 and 33.0 per cent in 1898.

Measles.

The death-rate from this disease remains remarkably steady when the trend of the curve for a long series of years is examined. In the ten years 1890-99 it averaged 0.62 per 1,000 of population as compared with 0.37 in Paris, 0.27 in Copenhagen, 0.62 in St. Petersburg, 0.19 in Berlin, and 0.56 in Vienna. These differences are remarkable, and might, if carefully examined, throw some light on the causation of this intractable disease.

Scarlet Fever.

The international statistics of this disease given in Mr. Shirley Murphy's report show that the mild type of and low mortality from scarlet fever are not universal. In St. Petersburg in 1900 the death-rate from scarlet fever was 0.59, in Berlin 0.33, as compared with 0.08 per 1,000 in London. The relation between prevalence and fatality is strikingly shown in Diagram X. The general conclusion appears to be that when the disease is most prevalent it is least fatal. This is especially true for seasonal prevalence. In the most recent years both prevalence and fatality have declined. The effect of the summer holidays in diminishing the prevalence of scarlet fever is clearly shown in Diagram XI. Thus, comparing the four weeks preceding holiday influence *A* (28th to 31st) with the four weeks of holiday influence *B* (32nd to 35th) and the four weeks following those of holiday influence *C*, the result is as follows:

Increase or Decrease per Cent. of Notified Cases over Period A.

	At Ages c[illegible]	[illegible]	13 and Upwards.
Period B ...	[illegible]	[illegible]	— 9.9
Period C ...	[illegible]	[illegible]	+ 44.5

On the assumption that school influence bore an important part in the differences shown in the above table it is not surprising that ages above and below those of school attendance were also affected by home infection.

Diphtheria.

For diphtheria the same influence is shown. Thus:

Increase or Decrease per cent. of Notified Cases over Period A.

	At Ages 0—3.	5—12.	13 and upwards.
Period B ...	[illegible]	[illegible]	[illegible]
Period C ...	[illegible]	[illegible]	[illegible]

In London the peak of the great epidemic wave of diphtheria was reached in 1893. Since then there has been a steady fall, the death-rate having declined from 0.74 per 1,000 in that year to 0.34 in in 1900. This result might be regarded as due to diminished case-fatality, the result of treatment by antitoxin. The case-fatality declined from 24.3 to 12.8, nearly one-half, while the death-rate declined rather more than one-half. It is probable, however, that we have here to deal with the passing of the epidemic cycle showing itself in diminished fatality as well as diminished prevalence, and not solely with improved therapeutics.

Whooping Cough,

unlike measles, shows a distinct tendency to be less fatal. In 1851-60 the metropolitan death-rate from this disease averaged 0.88 per 1,000, while in the last decade the highest death-rate was 0.68 in 1891 and the lowest 0.38 in 1899. In all the foreign cities with which comparison is made the death-rate from this disease is much lower than that of London.

Enteric Fever.

The prevalence of this disease showed great variations in different sanitary districts of London. As a rule the poorest districts had most of it. In some, as in St. George Southwark and Rotherhithe, it was evidently epidemic. In a special appendix to the report is Dr. Hamer's account of the epidemics in Lambeth and Southwark, to which some particulars were published in the JOURNAL last year. The Lambeth cases had been previously attributed to infection from semi-public mangles, but as pointed out in this report this hypothesis leaves a considerable balance of cases without explanation, and it is *a priori* improbable that the mangling of washed linen would leave infection on the mangle capable of being conveyed to a considerable amount of linen subsequently put through the same mangle.

Diarrhœa

caused a much smaller death-rate in London than in most provincial towns, 0.79 per 1,000 living, as compared with 1.05 in Leeds, 1.52 in Sheffield. On the other hand, Bradford had a death-rate from diarrhœa of only 0.29 per 1,000. This apparently low death-rate in Bradford is in part due to its low birth-rate, implying a small proportion of infantile population.

We have by no means exhausted the contents of the statistical part of this report. There is no other report like it. It is simply invaluable as a convenient summary of both sickness and mortality statistics; and apart from its practical bearings, forms an indispensable book of reference on vital statistics.

(To be continued.)

A MEDICAL TEMPERANCE MANIFESTO.

THE Council of the British Medical Temperance Association has, as we learn from the *Medical Temperance Review* for January, after consultation and in conjunction with the American Medical Temperance Association and the Association of German-speaking Medical Men, agreed to issue an international manifesto, to be signed only by those who not only believe it but carry it into practice logically by totally abstaining from alcoholic beverages. The document declares that in view of the terrible evils which have resulted from the consumption of alcohol, evils which in many parts of the world are rapidly increasing, the signatories feel it to be their duty to speak plainly of the nature of alcohol, and of the injury to the individual and the danger to the community which arises from the prevalent use of intoxicating liquors as beverages. They think it ought to be known by all that:

1. Experiments have demonstrated that even a small quantity of alcoholic liquor, either immediately or after a short time, prevents perfect mental action and interferes with the functions of the cells and tissues of the body, impairing self-control by producing progressive paralysis of the judgment of the will; and having other markedly injurious effects. Hence alcohol must be regarded as a poison, and ought not to be classed among foods.

2. Observation establishes the fact that a moderate use of alcoholic liquors, continued over a number of years, produces a gradual deterioration of the tissues of the body, and hastens the changes which old age brings, thus increasing the average liability to disease (especially to infectious disease), and shortening the duration of life.

3. Total abstainers, other conditions being similar, can perform more work, possess greater powers of endurance, have on the average less sickness, and recover more quickly than non-abstainers, especially from infectious disease, whilst they altogether escape diseases specially caused by alcohol.

4. All the bodily functions of man, as of every other animal, are best performed in the absence of alcohol, and any supposed experience to the contrary is founded on delusion, a result of the action of alcohol on the nerve centres.

5. Further, alcohol tends to produce in the offspring of drinkers an unstable nervous system, lowering them mentally, morally, and physically. Thus deterioration of the race threatens us, and this is likely to be greatly accelerated by the alarming increase of drinking among women, who have hitherto been little addicted to this vice. Since the mothers of the coming generation are thus involved, the importance and danger of [illegible] cannot be exaggerated.

They conclude that seeing that the common use of alcoholic beverages is always and everywhere followed, sooner

or later, by moral, physical, and social results of a most serious and threatening character, and that it is the cause, direct or indirect, of a very large proportion of the poverty, suffering, vice, crime, lunacy, disease and death, not only in the case of those who take such beverages but in the case of others who are unavoidably associated with them, they feel compelled to urge the general adoption of total abstinence from all intoxicating liquors as beverages, as the surest, simplest, and quickest method of removing the evils which necessarily result from their use. They believe that by this means an era of health, happiness, and prosperity would be inaugurated and many of the social problems of the present age would be solved.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

IN Bombay the number of deaths from plague during the week ending December 21st, 1001, amounted to 175. This is a considerable increase upon the previous week, when the numbers stood at 144. The disease seems to be generally diffused throughout the city. During the month of December in the city of Bombay 740 persons died of plague out of 1,049 attacked. Irrespective of the metropolis, the parts of the Bombay Presidency most seriously affected by plague during December were—Satara district, where 7,267 cases occurred, and 5,362 persons died of the disease; in Belgaum there were 5,672 cases and 4,282 deaths from plague; in Dharwar 5,293 cases and 3,896 deaths; and in Kolhapur 4,554 cases and 3,140 deaths.

In the Punjab during the week ending December 21st, the number of plague cases was 2,503, of which number 1,573 persons died during the same period. This is a considerable decrease upon the previous week, when the number of cases and deaths from plague amounted to 2,876 and 1,612 respectively.

In Calcutta plague is not serious: during the four weeks ending December 21st, 91 cases of plague only were reported in the city; but it is significant of the virulence of plague that during the same period 90 persons died of the disease.

In Karachi the plague figures reported during the week ending December 21st show 65 cases, and 50 deaths from the disease.

EGYPT.

During the week ending December 22nd, 1901, the Director-General, Sanitary Department, reported that no fresh case of plague had occurred in Egypt. During the week ending December 29th, 7 cases of plague and 3 deaths from the disease were notified in Egypt. At Ziftah 1 case and 1 death had occurred during the week from plague, and at Tantah 6 cases of plague were reported, and 2 deaths from the disease. This is the first time plague has been reported from Tantah. During the week ending January 5th, 1902, the number of plague cases reported throughout all Egypt amounted to 9, and the deaths from the disease to 6. Five of the deaths took place out of hospital. All the cases and deaths occurred at Tantah. The Director-General regrets to have to report the fact that plague has broken out at Tantah. The narrowness of the lanes and streets, and the overcrowding of the central parts of the town, make sanitary measures extremely difficult to carry out with celerity. These difficulties are, however, being rapidly overcome by the energetic measures instituted by Graham Bey and the staff under his direction.

CAPE OF GOOD HOPE.

During the week ending January 4th, 2 fresh cases of plague were reported in Cape Colony. One case occurred in the Cape Peninsula, and the second case was that of a private in the 2nd Dragoons at Green Point Camp, Capetown. At Port Elizabeth there were no fresh cases during the week, but two persons died of the disease.

MAURITIUS.

For the week ending January 9th, 37 fresh cases of plague were reported and 22 deaths from the disease.

LITERARY NOTES.

AN interesting article on the open-air treatment of consumption, with illustrations of the New Liverpool Sanatorium and Mount Vernon Hospital at Hampstead, appears in the *Graphic* of January 11th.

We have received the first number of the *Rivista di Ortopedia e Terapia Fisica*, which is to be published every two months, under the editorship of Dr. Attilio Curci, Director of the Orthopædic Institute in that city. The journal contains papers on tendinous fixation in paralytic joints, by Dr. Gaetano Sangiorgi; an account of a new operative procedure for the cure of inveterate equino-varus by the Editor, and reports of societies and abstracts from current literature bearing on orthopædic surgery.

Dr. Frederick Peterson, of New York City, offers a prize of 200 dollars (£40) for the best original unpublished contribution to the pathology and treatment of epilepsy. Originality is the main condition. All manuscripts should be submitted in English. The prize is open to universal competition. Each essay must be accompanied by a sealed envelope, containing the name and address of the author and bearing upon the outside a motto or device, which is to be inscribed also upon the essay. All papers received will be submitted to a committee consisting of three members of the New York Neurological Society, and the award will be made upon its recommendation at the annual meeting of the Board of Managers of the Craig Colony, October 14th, 1902. Manuscripts should be sent to Dr. Frederick Peterson, 4, West Fiftieth Street, New York City, on or before September 30th, 1902. The successful essay becomes the property of the Craig Colony, and will be published in its medical reports.

Dr. Barnes, of Carlisle, has kindly called our attention to a striking illustration of the ravages of small-pox before Jenner's discovery. On the outside of Kirkbride Church, an old Border church near the Solway, under the east window is the following inscription:

Near this place lie interr'd a Son and five Daughters, the issue of the Rev'd Lancelot Thompson, Curate of Kirkbride, and Margaret, his Wife, who all died of the smallpox, within the space of three weeks, in ye year of our Lord, 1746.

Their names, ages, and time of their death as follows:

Mary, aged 12 years 0 months, died		June 24th.
Jane, aged 4 years 2 months,		July 6th.
Margaret, 10 years 3 months,		July 4th.
William, 8 years 5 months,		July 12th.
Anne, 6 years 7 months,	both	July 15th.
Abigail, 1 year 7 months,	died	

Stop Reader here, to drop a tear
And feel a parent's woe:
Yet own God just and flesh but dust
For vain is all below.

At the Norwich Hospital is preserved the skull of Sir Thomas Browne, the famous Norwich physician, and the author of *Religio Medici*. Professor Osler, of the Johns Hopkins University, has just sent a casket of crystal glass, with mountings, which is henceforth to contain the skull. The casket, which is a choice work of art, has been manufactured by the Goldsmiths Company, London.

We have received from Herr Gustav Fischer of Berlin and Jena a circular announcing that "the *Centralblatt für Bakteriology (sic) Parasitenkunde u. Infectionskrankheiten*, read in all civilised countries, will appear in changed and greatly enlarged form from January 1st, 1902. The paper has set itself the task of publishing reports on appertaining lectures of scientific societies of all countries quicker and to a greater extent than before, under the column 'Original Reports from Scientific Societies.' These reports of brief form, which should always have to be sent to the co-signatory Dr. Uhlworm, if possible immediately after every meeting, can be published in German, English, or French, and the fee will be the same as for reports and original compositions, M. 55 pro printed sheet." There can be no doubt as to the meaning of this announcement, which will doubtless interest some readers of the BRITISH MEDICAL JOURNAL; but the style is remarkable. Why will our German friends lay to their soul the flattering unction that they can write the English language by the light of Nature? Herr Fischer could surely have got some one to the manner born to revise the laborious but not altogether successful efforts of his clerk.

The *York Courant* (now the *Yorkshire Herald*) is imitating the example set by the *Times* by reproducing interesting paragraphs from issues of dates long past. The editor has kindly sent us the following extract from the *Courant* of 1742:

March 8th.—Influenza is not the "new" epidemic which many supposed it to be when it prevailed to such an extent in this part of the country a year or two ago. Read this: "By private letters from Rome we have a very melancholy Account of the surprising Progress an Epidemical Distemper called the Influenza makes there; that in one day 500 persons were carried to their Grave by it; that scarce a Noble Family in that City had not lost some person; and that Hearses, Coffins, and the Host carrying to the Sick were to be met with in all the streets. They observe that this distemper began in Saxony last September, had visited Venice, Genoa, Milan, and Florence, in the latter it still continued; that it had reached the city of Naples, but had not made much Havoc; that the Venetians had begun a Land Quarantine; and that it was expected the Sea Coasts of other Countries would do the same. Though not in itself a plague, the Physicians of those parts reckon it a Forerunner."

The *Publishers' Circular* gives the number of new books on medicine, surgery, and cognate subjects published in 1901 as 169, and that of new editions as 68. The corresponding numbers for 1900 were 192 and 74.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

Meetings of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

Dublin Branch.—The annual meeting of this Branch will be held on Thursday, January 30th, at 4.30 P.M., in the Royal College of Physicians of Ireland, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and other business transacted. The President-elect, Mr. C. B. Ball, F.R.C.S.I., will deliver the annual address. In the evening the annual dinner will be held in the College at 7.30 P.M. Members wishing to bring forward resolutions at the meeting or to be present at the dinner should communicate with the Honorary Secretary, James Craig, M.D., F.R.C.P.I., 35, York Street, Dublin.

North of Ireland Branch.—The winter meeting of this Branch will be held on Thursday, January 23rd, at 12 noon, in Belfast.—William Calwell, M.D., 1, College Square North, Belfast, Honorary Secretary.

Southern Branch: Isle of Wight District.—A meeting of this District will be held at the [illegible] Hotel, Sandown, on Friday, January [illegible] Members intending to read papers, or show cases, etc., and [illegible] Members of joining the Branch, are requested to communicate as early as possible with the Honorary Secretary, G. Bennington Wood, M.B., Newlands, Sandown.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The fourth ordinary meeting of the session 1901-2 was held in the Birmingham Medical Institute on January 9th; Dr. E. Malins, the President, being in the chair. Forty-seven members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Election of Members.—The following members of the Association were elected members of the Branch—namely: D. V. M. Adams, M.B., Workhouse Infirmary, Birmingham; George Bryce, 299, Wheeler Street, Birmingham; H. Jessop, Workhouse Infirmary, Birmingham; G. H. Tomlinson, M.B., [illegible]th Wood.

Papers.—Dr. Foxwell read a paper entitled Some Points in the Prognosis and Treatment of Dilated Hearts. In the discussion which followed, Mr. Alfred Fryer, Dr. Saundby, Dr. Stacey Wilson, and Mr. R. A. Newton took part; and Dr. Foxwell replied.—Dr. Potts read a paper on the auto-[illegible]ntoxication of pregnancy under the following headings: Auto-intoxication as a cause of disease; disturbances of the alimentary system during pregnancy; eclampsia; the administration of thyroid extract during pregnancy. Remarks were made by Dr. Thomas Wilson and the President; and Dr. Potts replied.

SYDNEY AND NEW SOUTH WALES BRANCH.

A meeting of this Branch was held at the Royal Society's Room, Sydney, on October 18th, 1901; Dr. Foreman, President, in the chair. There were present thirty-five members and one visitor.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Alteration of Article.—The President stated that the next business was the confirmation of the resolution altering Article of Association 27, which had been passed at a special meeting of the Branch held on September 20th, 1901. The resolution

That in Article 27, line 14, the words after the word "be" be omitted with a view to the insertion of the words "be appointed by the Council,

was then put to the meeting and carried unanimously.

Communications.—Dr. Clubbe showed a child, aged 15 months, from whom he had removed a renal sarcoma weighing 2 lbs. Dr. Clubbe exhibited a ruptured kidney that he had removed from a boy aged 7 years. Drs. Binnie, Jamieson, and Crago discussed the case; and Dr. Clubbe replied.—Dr. Jamieson read a paper on some cases illustrating the widespread infectivity of the pneumococcus of Fraenkel. A discussion ensued, in which Drs. Kirkland, Rennie, and Sinclair Gillies took part; Dr. Jamieson replied.—Dr. Sinclair Gillies read a paper on two cases of laryngeal paralysis accompanying mitral stenosis, with exhibits. Dr. Hankins made some remarks upon the case.—Dr. Jamieson exhibited a placenta showing the effects of syphilis.—Dr. Worrall exhibited a crochet hook which he had removed from the peritoneal cavity. Drs. Caleb Terry and Foreman made some remarks upon the exhibit.—Dr. Hankins gave a demonstration of a phonating apparatus he had arranged for a patient on whom he had done a total extirpation of the larynx.

JAMAICA BRANCH.

An ordinary meeting of this Branch was held at the Public Hospital on July 31st, 1901; Dr. Allwood in the chair.

Representative on the Council.—Dr. R. G. S. Bell was elected representative to Council.

Ruptured Tubal Pregnancy.—Dr. Allwood reported a case of ruptured tubal pregnancy, in which an operation was performed. The patient made a good recovery (specimen shown). Dr. Allwood stated that ectopic pregnancies were not uncommon in Jamaica: he had seen eight cases during the last three years. Three ruptured between the second and third month, four went on to full term, and one was discovered at the *post-mortem* examination on a woman who was brought up to the hospital moribund, and died an hour or so after admission. Six were operated on, four through the abdomen and two through the vagina. One died.

Infantile Paralysis.—Dr. Da Costa reported three cases of infantile paralysis in one family.

Extraordinary Displacement of the Gravid Uterus.—Dr. Allwood reported the following case:—A young primipara stated that she was straining at stool when she felt her "body come down." On examination a large perineal tumour was found over which the perineal skin was tightly stretched like a thin membrane. The vulva was œdematous, and the cervix uteri, also œdematous, protruded through the lower part, while the upper part was occupied by a prolapsed portion of bladder. There was prolapse of the rectum, and the anus was widely distended by the fundus uteri, which, covered by the anterior wall of the rectum, protruded through it. The uterus had therefore prolapsed, and, describing more than half a circle, occupied a horizontal position parallel with the plane of the perineum. The patient was chloroformed and the uterus replaced with great difficulty, the hand having to pass up into the rectum to carry the fundus uteri over the sacral promontory. In order to keep it in place the vagina and rectum had to be packed with lint and the legs tied together. When reduction was effected it was found that she was about four months pregnant. She did not abort. The interest in this case seemed to the author to lie as much in the small amount of force necessary to produce such a condition as in the condition itself.

SPECIAL CORRESPONDENCE.

INDIA.

Antimalarial Measures: Breeding Places of Anopheles in Different Districts, Deccan, Lower Bengal: Issue of Circulars.

DURING the last two years numerous observations have been made in India on the distribution of *Anopheles* and their breeding places which are of value in preparing the way for active measures being taken to reduce the prevalence of the disease. Owing to the very varying nature of the climate of different parts of this vast peninsula, careful and continuous observations of this kind are necessary to enable the most suitable measures to be undertaken in each place. Thus it has recently been shown by the observations of different observers that the breeding places may vary considerably in separate provinces.

In the Northern Deccan fever cases increase throughout the rainy season, and reach their maximum at the end of the rains, and the same seasonal prevalence is seen in Lower Bengal. In the former place the breeding places were found to be ditches and small hollows containing water during the rainy season, as well as in a few artificial cement ponds in gardens (as has also been found to be the case in the North-West Provinces). At the close of the rains the smaller streams, which had been thoroughly flushed during the rains, were added to the above, and, as these dried up, the breeding places were limited to pools in the half-dried beds of the rivers, while towards the end of the hot weather even the rivers had dried up, and no breeding places could be found, this being the season of least fever prevalence, although the occurrence of several cases in the native regiment at this season showed that relapsing cases remained to carry on the infection till the following rains. The pools along the small and large streams will be the most difficult factor to deal with here, although much may doubtless be accomplished by filling the numerous small rainy season breeding grounds. The absence of breeding grounds in the hot weather is also a very favourable circumstance. In Lower Bengal a somewhat different distribution has been noted, the chief point being the presence of innumerable tanks, which were absent in the Deccan area which was investigated. Around Calcutta the tanks were found to contain very large numbers of *Anopheles* larvæ throughout the hot weather, when malarial fevers were at their minimum, and when the other breeding places were dried up. With the onset of the rains the numbers in the tanks very rapidly diminished, apparently owing to the renewed activity of the large numbers of fish in these tanks after the dormant state in which they remain during the hot, dry weather. As the small pools, widely distributed in uneven ground, fill up with the rains they become breeding places, which could comparatively easily be dealt with. In addition to these the earth-drains at the sides of the roads form very important sources of *Anopheles*, especially if they contain grass to protect the larvæ from the force of the current; they are particularly difficult to deal with on account of the great obstacles to the effective use of culicicides, which are liable to be washed away by the first shower of rain, while the extent of such drains in a large town with its suburbs, such as Calcutta, is several hundred miles. The importance of such drains, and also the innumerable pools at the edges of Bengal rivers as breeding grounds for *Anopheles* may account for the fact which has recently been pointed out, that the most unhealthy fever years in Lower Bengal are those in which frequent breaks in the rains occur, or in which the rainy season ends at an unusually early date, for under these circumstances these drains and pools are not regularly flushed out, and will emit much larger numbers of *Anopheles*. These facts, together with the refuge for the mosquitos furnished by the tanks which allow them to continue breeding extensively throughout the hot season, when in other places all their pools are dried up, evidently greatly increases the difficulty of dealing with malaria in Lower Bengal by other means than the time-honoured methods of drainage and quinine. It is well to recognise these difficulties lest the failure of measures which ignore them should discredit all attempts to profit by the recent great increase of our knowledge of the infectiousness of malaria. Still much can be done even in Bengal by filling up all small pools before and during the rainy season, and levelling and clearing out the roadside drains so as to render them less favourable breeding grounds.

More than a year ago a circular giving information on the mosquito theory of malaria and the practical measures which are based on it, was issued by the Sanitary Commissioner of Madras, and similar steps are now being taken in other provinces to instruct the municipal commissioners on the subject, but what is most wanted is funds to enable the necessary measures to be carried out, for towns which have to carry on both administration, road repairing, and sanitation on a rate of about one shilling a head of population a year have not much money to spare for an energetic and continuous campaign against the prolific mosquito.

SOUTH WALES.

The University College of South Wales and Monmouthshire, Cardiff.—The University of Wales.—Cardiff Infirmary.—Small-pox in Glamorgan.

THE post of Principal to University College, Cardiff, left vacant by the greatly-lamented death of Professor Viriamu Jones, F.R.S., was filled in December last by the election by the College Council of Mr. E. H. Griffiths, M.A., F.R.S., Fellow of Sidney Sussex College, Cambridge. The new Principal, who began his duties at the commencement of the Lent term, was given a public reception on January 9th in the Park Hall, Cardiff. The hall, the largest in South Wales, was completely filled. The President of the College, Mr. Alfred Thomas, M.P., was in the chair, and was supported by the Mayor of Cardiff and other members of the Corporation, Dr. Isambard Owen, and the College staff. The proceedings were of an enthusiastic nature. In an able speech the new Principal enunciated many of the lines of his future educational policy. One of the most important of his new duties will be to raise funds for new College buildings. At the present time University College consists of a central main building (originally the old infirmary of the town), the upper floor of which is given up to the medical school, and of a number of more or less temporary and unsightly buildings, together with a number of dwelling houses. With a wise foresight the Cardiff Corporation acquired some years ago Cathays Park, in the centre of Cardiff, and arranged to erect there the chief municipal and other buildings of the town. The new town-hall and law courts are in course of construction, and sites have been marked out for a new College, for the intermediate schools for boys, and for other important buildings. The site for the College consists of five acres, and was given free of charge by the Corporation to the College. The Corporation of the town has always rendered great help to the College, and, as the Mayor pointed out at the reception to the Principal, has given in money or land to the value of £37,300. The Principal, in his address, computed that for the proper endowment of the College, and for the erection of the new buildings, at least a quarter of a million would be required.

A special meeting of the University Court of the University of Wales was held on January 10th. Dr. Isambard Owen (Senior Deputy-Chancellor) presided. The Prince of Wales was unanimously elected Chancellor of the University in succession to His Majesty the King. A letter was received from His Majesty in which he thanked the Court for their address to him, and graciously accepted the title of protector of the University. Invitations to hold the installation ceremony in the respective towns were received from Cardiff, Swansea, Aberystwith, and Bangor. The decision was left for a subsequent meeting.

Dr. Charles T. Vachell, on resigning his portion as Honorary Physician to the Cardiff Infirmary, has been unanimously elected Consulting Physician. Dr. C. T. Vachell has been intimately connected with the institution since 1870, when he was appointed house surgeon, an office which he held for four years. He became subsequently medical officer to out-patients for five years, surgeon for four years, and physician for the last fifteen years. His connection with the infirmary covers a period of twenty-eight years. The vacancy thus caused will no doubt be filled by the appointment of Dr. Herbert Vachell, the present Senior Assistant Physician.

An outbreak of small-pox, which at present remains localised, has broken out at Ystalyfera, a few miles from Swansea, in the extreme western part of the county. The outbreak can be very clearly traced to a girl who brought the infection from London. On December 15th, 1901, this patient, a draper's assistant, was taken ill at her place of employment in the Bethnal Green area. She was seen by a medical student who failed to diagnose the condition. A rash appeared on December 17th, but she was allowed to mix with people, and to travel down a few days later, reaching Ystalyfera on December 23rd. Two girls who occupied the same room were subsequently removed to the hospital suffering from small-pox. For the next few days following December 23rd the patient was brought into contact with a large number of people. She was not seen by a medical man for some time, and the diagnosis of small-pox was only made on January 3rd, 1902. Up to January 10th 9 cases have been notified, while several suspicious cases are under observation. All the cases so far can be directly traced to the London one. There are a large number of contacts who are being specially watched. At present the outbreak is confined to Ystalyfera, though much anxiety is felt in Swansea and the neighbourhood. A large number of vaccinations and revaccinations have been made. There is no small-pox isolation hospital in the district, and the patients are at present isolated in their homes, but arrangements are made to put up a temporary hospital as soon as possible. In the administrative county of Glamorgan small-pox has given very little trouble. Thus, in 1897, there were 7 cases, with 1 death; in 1898, 4 cases, no deaths; in 1899, 5 cases, no deaths; in 1900, 4 cases, 1 death.

CORRESPONDENCE.

COUNTY COUNCILS AND CONSUMPTION SANATORIA.

SIR,—The accompanying very important letter from the Local Government Board, showing how any county council may contribute to a consumption sanatorium, has been handed to me by the Clerk of the Westmorland County Council for publication in the BRITISH MEDICAL JOURNAL. The method is as follows:

1. Under the Isolation Hospitals Act, 1893, the county council should constitute the entire county (including all its urban and rural districts) into a "hospital district" for the specific purpose of providing hospital accommodation for consumptive patients.

2. Under Section XXVI of the Isolation Hospitals Act, 1893 (and with the approval of the Local Government Board), the county council should apply the expression "infectious disease" to consumption strictly for the purposes of that Act.

3. Under section III of the Isolation Hospitals Act, 1901, the hospital committee, constituted by the county council, should enter into an agreement with the sanatorium committee for the reception into their institution of consumptive patients from the county in return for a contribution which Sections XXI and XXII of the Isolation Hospitals Act, 1893, empower the county council to make. I am, etc.,

WM. RUSHTON PARKER, M.D.
Hon. Sec., Westmorland Consumption Sanatorium.

Kendal, Jan. 13th.

Local Government Board, Whitehall, S.W.,
January 9th, 1902.

Sir, I am directed by the Local Government Board to your letter relative to the proposal of the Westmorland County Council to [illegible] Hospitals Act, [illegible] for Consumptive [illegible] into that institution of consumptive persons from the county.

In reply I am to point out that an agreement under the section referred to can only be entered into by a Hospital Committee constituted by the County Council [illegible] and that [illegible] hospital purposes [illegible] cordingly [illegible] Act the Board propose [illegible] the Interpretation Act, 1889, the term [illegible] as if the Council were a local authority [illegible] for the Act.

If the County Council were to constitute a hospital district under the Isolation Hospitals Act, 1893, and [illegible] for the purpose of providing hospital accommodation for consumptive patients, and [illegible] order under Section XXVI of the Act (which would require the Board's approval), applying the expression "infectious disease" to consumption or phthisis strictly for the purposes of that Act, it would apparently be practicable for the Committee of such Hospital District to enter into such an agreement under Section III of the Act of 1901 as is indicated in your letter, and the County Council would be able, under Sections XXI and XXII of the Act of 1893 to contribute.

I am, Sir,
H. C. MONRO,
Assistant Secretary.

The Clerk of the Westmorland County Council.

OPEN-AIR TREATMENT OF CONSUMPTION.

SIR,—It would be wise to pause and to consider whether the money now being provided for sanatoria to cure, could not be more advantageously spent to prevent, by producing over large areas the hygienic conditions under which tuberculous diseases slowly and surely die out.

Dr. Lubbock, of Norwich, who taught an active outdoor life, open windows in dormitories, beef steaks, and porter, has done much good for those who have condescended to learn of a provincial Englishman.—I am, etc.,

Framlingham, Jan. 12th. GEO. E. JEAFFRESON.

THOROUGH OPERATIONS IN CANCER OF THE BREAST.

SIR,—I think the authors of such (and other) papers as those On the Curability of Malignant Tumours of the Breast by Adequate Operations,[1] and The Value of Early Operations in Morbid Growths[2] would read with some surprise the claims for originality that are now being advanced relative to mammary cancer. At all events, I amongst others fail to discover in what important respects the views contained in the papers mentioned differ from those more recently put forward, so far as treatment is concerned, by Mr. Stiles, Heidenhain and Halsted, and others following them.

From my personal knowledge and observation of the late Dr. Sam. Gross's work, which extended over many years, I have no hesitation in saying that he was running on parallel lines with Sir William Banks five-and-twenty years ago, as the latter depicts in his paper in the BRITISH MEDICAL JOURNAL of January 4th, in revolutionising the operation for mammary cancer. In justice to the memory of an old friend and progressive surgeon who was deeply interested in the views that he and my former colleague, Banks, held in common upon the subject, and who, if he had been alive, would have been the first to ask for consistency, at all events in broadcast statements, I ask your permission to publish this.—I am, etc.,

The Athenæum, S.W., Jan. 11th. REGINALD HARRISON.

SIR,—I have just read Sir William Banks's charmingly fresh essay on operative treatment of cancer of the breast, and agree with it in its every detail. I think, however, that he speaks too regretfully of the amount of influence which his views and teaching have had on this branch of surgery generally. I believe, on the contrary, that this influence has been incalculable, and gladly acknowledge it in my own case, and have seen its effect on many others. From a tabulated list of between one and two hundred consecutive cases of my own now before me, in which I have excised the breast, I see how fully his ideas have influenced myself, and with how much benefit to my patients as to prolongation of life. I see noted under the heading Mode of Operation, that the character of these operations since 1882 has exactly followed his lines, therefore long before we had heard Dr. Halsted's views, and has consistently followed them ever since. The very wide removal of skin and fat, breast, fascia, and all the axillary fat and glands in one continuous mass has been a matter of principle and detail in all these cases since 1882 just as he taught then and now.

The history of his work offers an excellent example of what is too often forgotten nowadays, namely, that careful and patient clinical observation often goes a long way ahead of microscopical study; in other words, that the cultivation of the powers of clinical observation at the bedside and in the operating theatre, and the subsequent following up of cases, are too much neglected. The microscopical researches of

[1] Dr. Sam. Gross, *American Practitioner*, 1881.
[2] Professor S. D. Gross, vol. i, *Trans. American Surg. Assoc.*, 1880.

Stiles, Heidenhain, and others as to the mode of extension of cancer from the primary nodule are doubtless of value. But they only confirm conclusions already arrived at by Banks and other surgeons, and have hardly influenced their practice at all.

Sir W. Banks's observations and essays have not been thrown away, though many of us regret that the principles laid down by him have been credited to another, who has only differed from him in advocating an extension of the cutting part of the operation in directions which I, for one, agree with Sir W. Banks in thinking highly objectionable.—I am, etc.,

Harley Street, W., Jan. 10th. ARTHUR E. BARKER.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

SIR,—In the autumn of 1900 you were good enough to allow me to call the attention of the younger metropolitan members of the profession to the advantages offered by the above Society. The result was that last year we enrolled thirty-five new members. May I venture again to trespass on your kindness in order to point out that any qualified medical man residing within twenty miles of Charing Cross can be proposed as a member? The annual subscription is 2 guineas payable for twenty-five years, but any annual subscriber may become a life member within ten years of his election by making up his subscription to 25 guineas if he shall have been under 30 years of age, to 30 guineas if he shall have been under 40 years of age, and to 35 guineas if he shall have been over 40 years of age at the time of his election as a member of the Society. For the especial benefit of young members I may point out that a member under 30 years of age at the time of his election can compound for a single payment of 20 guineas, under 40 for 25 guineas, and over 40 for 30 guineas, thereby becoming a life member, and his widow at once becoming eligible for a grant should her circumstances unfortunately justify it. The secretary is Mr. J. B. Blackett, 11, Chandos Street, Cavendish Square.—I am, etc.,

January 13th. CHRISTOPHER HEATH, President.

OPTIMISM AND REALITY.

SIR,—I, with "Est Modus in Rebus," do not wish to decry the profession which has been kind to me, and which I love, and to which I hope I am faithful. But with them I protest against the "optimistic platitudes" of the introductory addresses, because they are untrue and misleading, being given by those who have little or no knowledge of general practice, or of those whose hard lot is to apply the principles, so glibly taught, to the bulk of humanity.

I suppose the great and good Boerhaave gave introductory addresses, for he said "the poor were his best patients, for God was their paymaster," but Boerhaave left his daughter two millions of florins when he died.

I am considered prosperous, and certainly do not envy any of my colleagues. I pay my assistant £4 a week, and keep two horses and a groom, then there is rent and surgery expenses, and I have also to allow interest on £1,000 expended on medical education, and £1,000 paid for the practice, which would bring in £100 a year in safer investments, and so find my working expenses nearly reach £700 a year. And now how do I obtain my income? If I hire a cab to do a country visit four miles away (our scale here is 1s. a mile, and 2s. 6d. visit and medicine), the cab fare is 1s. a mile out, and 6d. a mile back, that is 6s., and I have to tip the driver 6d. If I have a clerk in to assist at the books he charges 2s. 6d. an hour. I go to a midwifery case in the country, am detained nine hours (it happened last week) and get a guinea.

I give an anæsthetic for the dentist to extract a tooth, he gets 10s. 6d. and I get 5s. I examine insurance cases for half-a-guinea, and have to ask the proposer at least twenty-one questions and answer twenty-eight more, and in women thirty-six—then having weighed and measured, have to write a report. Now they want us to analyse the urine which, if sent away, will cost 10s. 6d. and postage.

I attend innumerable club patients of course, but at a higher rate than my neighbours, and one just person who had gastric ulcer, being ashamed at taking so much medicine, said if I gave a prescription they would get the medicine at the chemists—they are charged 1s. 6d. a bottle; how glad I should be to get a shilling a bottle!

I attend many reservists families for the honour and glory of old England. What beautiful collections they have. Large gold pieces mounted elaborately as brooches, pom-pom shells as inkstands, and Mauser cartridges cunningly wrought into knives and tobacco stoppers.

Now, I ask, Is it right, this underselling of livery-stable keepers, of clerks, and of chemists? Is it charity, this wholesale pauperisation of the working classes? Besides voluntary hospitals in almost every town, there are Poor-law infirmaries, there are isolation hospitals—where, besides other infectious diseases, perversity, ignorance and carelessness are fostered at the expense of the ratepayers. To wit, those who have neglected free vaccination through one of the above causes have their follies condoned by free treatment at the expense of the community.

Words, idle words, and of writing there is no end; but I have faith that thought, through words, tends to produce action. So I say, with Queen Katherine:

> Heaven is above all yet; there sits a judge
> That no king can corrupt.

—I am, etc.,

Clubland. DOCTOR BUTTS.

THE EMANCIPATION OF THE GENERAL PRACTITIONER.

SIR,—The signs of the times point to the emancipation of the general practitioner. I humbly submit that the emancipation of the general practitioner lies in his evolving himself into the pure physician or the pure surgeon. The essential weakness of the general practitioner (and the very term smacks of inferiority) lies in his being a Jack of all trades and master of none. By the public he is looked upon as a worthy person whose opinion may be taken in small things and paid for accordingly. In great things—and unavoidably so under present circumstances—his opinion is not taken, but recourse is had to the consultants, to whom the general practitioner acts as a feeder merely. It is impossible for one man to become in the widest sense proficient in medicine and surgery. Let every man therefore on entering into practice take up pure medicine or pure surgery or one of the recognised special branches. In this way each man would become proficient to the best of his ability, his *locus standi* would be improved, and consequently his value in the public estimation would be increased. In exceptional cases there would still remain an appeal to the intellectual giants who people the consulting world. This system means the disappearance of the family doctor, and a good thing too for everybody concerned. An eminent physician now living once described the life of a general practitioner as a "dog's life," and in nine cases out of ten this description is true, all gush to the contrary notwithstanding.—I am, etc.,

January 13th. JACK OF ALL TRADES.

THE REFUGEE CAMPS IN SOUTH AFRICA.

SIR,—In the article in the BRITISH MEDICAL JOURNAL of November 9th, 1901, on the high mortality among children in the concentration camps, one reason seems to have been overlooked, and that is the general ignorance of nursing in its simplest form. Speaking generally, without reference to the camps, the lowest class of whites is little better than the Kaffir as regards the care of the sick. Their idea of comfort is lower than the lowest standard among our poor at home. Being robust and unaccustomed to anything else, they do not feel the discomfort that is so patent to the immigrant; and they unsympathetically expose their sick children when hypersensitive to cold, and persist in giving ordinary food although a child goes on vomiting and purging.

The extreme and sudden variations of temperature so characteristic of South Africa are also to be borne in mind, and the impossibility of maintaining an even temperature by artificial means, when fuel is scarce, and the only stove that for cooking, placed perhaps in a tumbledown shed that serves for a kitchen. People accustomed to such conditions only laugh, and make no attempt to do anything that seems to them an uncalled-for innovation.

The epidemic of measles this year has been severe and the mortality high in this particular district—chiefly from

neglected pneumonia and entero-colitis, as might be expected. The last big epidemic of measles was about fourteen years ago I think.—I am, etc.,

Cape Colony, Dec. 5th, 1901. M.B., C.M.

PREPARATION OF STERILISED CATGUT.

SIR,—There are a few points in the letter of Mr. C. Arthur Ball, published in the BRITISH MEDICAL JOURNAL of January 4th, to which I wish to reply:

1. I quite agree with his first statement, namely, that some of the raw gut supplied is not satisfactory, and consequently should be carefully tested before preparation.

2. The winding of the gut on glass plates with ground edges does not tend to weaken it if it is wound on loosely enough. If the gut is put on tightly in the first instance, reels would certainly be preferable; but personally I do not care to subject the gut to severe strain during the process of preparation. My chief objection to the method described by Mr. Ball may be only theoretical, namely, that if the successive turns of the gut were closely approximated, it would be likely to prevent the perfect penetration of its substance by the formalin solution.

3. With the third statement: "Washing after soaking in formalin is only of use to get rid of gross dirt," and that "it cannot affect the brittleness," I cannot agree. My experience has led me to believe that if any appreciable amount of formalin is left in the gut at the time of boiling it is almost certain to result in brittleness. If this were not the case I don't see why boiling in the formalin solution might not be employed.

4. Finally, while I employ glycerine in the preserving solution in order to keep the gut pliable, I do not think that brittleness will result from preservation in alcohol alone.—I am, etc.,

Queen's College, Cork, Jan. 6th. C. YELVERTON PEARSON.

VACCINATION ADMINISTRATION.

SIR,—Speaking as a country practitioner for my own district, I know that the conscience clause has distinctly diminished the number of children vaccinated. I agree with Dr. Greenwood that in the present state of the law it is not only futile, but extremely injudicious, to put any further obstacles in the way of parents obtaining certificates of exemption. There is one point, however, which I have not seen mentioned in this connection. When applying for a certificate of exemption, the parent is required to produce a certificate of the child's birth. This he obtains from the registrar of births by paying a fee of 2s. 7d. It is consequently to the interest of the registrar to inquire whether a parent registering the birth of his child wishes to obtain an exemption, and to point out to him how this may be done. I have very good reasons for knowing that this procedure has been and is being carried out.

Surely it would be better that the applicant should, for the purpose of obtaining his exemption, be allowed to obtain a copy of the registration of his child's birth free of charge.—I am, etc.,

January 14th. COUNTRY PRACTITIONER.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

SIR,—Unlike "M.R.C.S. and L.R.C.P.," I am not surprised at the action of the Royal Colleges in England, since each may well have a powerful leverage, bringing nearer some much needed advance towards the long-talked-of panacea—the one portal system.

Why are properly constituted, legally established, qualifying body that is [illegible] in medicine cannot of itself grant a medical degree—a mystery wrought only by the [illegible] subverting medical interests to legal [illegible] ages. All the more improper when we remember that [illegible] all of these, who turn out physicians and surgeons to grapple with disease and rescue human life from suffering or premature death have surely been granted a graver, greater and grander privilege than would be given by their licentiates merely calling themselves doctors of medicine etc. But when the writer coolly leaves out the other section of London licentiates of the Apothecaries Company, equally able with themselves and more in need of some change of title—for it is well known that their curriculum and examinations are closely alike, and the undergraduates or graduates of the one body are often the graduates of the other—then, indeed, I am dumbfounded. When "The London Licentiates and Members Society" was in process of formation, I never dreamed that the "pots" would not call in the "kettles" to assist them in a common labour for the unification of medical titles in an upward direction befitting the importance of their serious calling.

The L.S.A. is as well trained under the same teachers as his fellow the M.R.C.S. and L.R.C.P. He passes no less difficult examinations, and is often the recipient of the conjoint titles later. And, anyway, his letters-title are not so high-sounding, although he is a parallel man, otherwise *a fortiori* the greater reason why I am dumbfounded: that the promoters of these schemes should have been so short-sighted as to leave out so great an element of strength as this championship of the licentiates of the ancient Society before-named would be, is surely a great blunder. Further, the magnitude of the task can scarcely yet be realised. Doubts, dangers, difficulties have scarcely had time to develop; but the time will come when they will understand how much of strength can lie in unity. Half a century rolls away with a very small result in such an enterprise; time is far too precious for us to waste it in bickerings and jealousies. The only policy which can command universal admiration is the widest and most generous possible under the circumstances of the case. Let them remember that before anything of value is achieved many of us will have passed into the realms of shadows.—I am, etc.,

January 11th. F.R.C.S.I.

STERILISATION OF ENTERIC EXCRETA.

SIR,—In the BRITISH MEDICAL JOURNAL of January 11th a letter appeared under the above heading from the late Colonel Oswald Wood, R.A.M.C., in which he referred to the process of sterilising enteric excreta by boiling as "a very unpleasant one." My experience on this point, however, differs from that of the late Colonel Wood, as I found sterilisation by boiling productive of little, if any, unpleasantness. If occasionally a disagreeable odour was detected this could at once be stopped by having a small amount of chloride of lime sprinkled over the contents of the steriliser.

When in India I tried the process of incineration of enteric excretions mixed with sawdust, but the attempt had to be discontinued as it was found impossible to completely burn the wet sawdust in any incinerator that could be extemporised. On the whole, therefore, I have a decided preference for sterilisation by boiling, as it is quite as effective, less expensive, and more rapid and convenient than incineration.—I am, etc.,

G. H. YOUNGE, F.R.C.S.I.
Wimbledon, Jan. 14th. Lieutenant-Colonel, R.A.M.C. (Retired).

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL PRACTICE IN CEYLON.

L.M. & S. writes to call attention to the unsatisfactory conditions of medical practice in Ceylon. He states that the number of persons without any proper medical training who pose as practising medicine by European methods is bringing Western medicine into disrepute. The local ordinances, which disqualify such persons from issuing a certificate of death, are, he states, evaded. He thinks that the Ceylon Branch of the British Medical Association might take steps in the matter.

"*" While entirely sympathising with our correspondent's dissatisfaction we must point out that according to the information at our disposal the conditions of medical practice, which he describes, are those permitted by the laws of the colony. There are no Medical Acts for the control of medical practice; there is no schedule of qualifications entitling to practise, and anyone may practise with or without a diploma: there is no method of registration of qualified medical men; there are no special provisions for examining into complaints or charges against medical practitioners—ged to be guilty of infamous conduct in a professional sense; and death certificates may be given by other than regularly qualified medical practitioners, namely, by a registrar, police officer or headman, or a superintendent, or an inquirer into deaths. It would appear that, as in India, there would be unsurmountable difficulty in preserving qualifications which would not exclude from practice the *moderates* or native practitioners, and the country at present would not tolerate this. But some method of registration of all qualified medical

men is possible; and if the Ceylon Branch of the British Medical Association would formulate some plan to this end the Council of the Association would, we do not doubt, give the matter its most careful consideration.

EMPLOYERS AND SICK WORKMEN.

ALPHA writes: An employer is anxious to know what is the matter with a workman in his employ who is under the care of a medical man. What is the right and proper course for him to adopt? Has the medical man in attendance upon the man a right to feel aggrieved if the employer should send another medical man (not his own doctor) to see the case and report upon it, the medical attendant of the patient not being invited to be present?

*** The employer should (unless the workman is suffering from accident occurring during his employment) obtain the workman's consent before sending another doctor to see him and should arrange an interview between the doctor sent and the one already in attendance. There would be a just ground for complaint if any medical man went to see a patient under the care of another without obtaining the consent of the latter, or giving him a chance of being present.

FEES FOR PRIVATE VACCINATION.

A CORRESPONDENT asks for information on the following points:—(1) Does the fee for private vaccination include the visit for inspection a week later? (2) Where a successful result is obtained after one or more failures, should more than one fee be charged? (3) Where a successful result is not obtained, even after three trials, should more than one visit be charged for?

*** (1) This is a matter for arrangement. If the visit of inspection is not charged for, then the fee for vaccination must be higher. (2) Where the result has been unsuccessful, and the vaccination requires to be repeated, a reduced fee might be charged. (3) Where no successful result is obtained the visits should be charged for, unless the fee for the vaccination is made to include them.

VALUE OF SHARE OF DECEASED PARTNER.

A CORRESPONDENT inquires whether in the case of the death of a partner the value of his share should be calculated on a different basis (1) where it is purchased by the surviving partner, (2) where it is purchased by an outsider.

*** Unless a special arrangement has been made in the deed of partnership that on the death of one the survivor should be allowed to purchase the deceased's share at a special valuation, it can be sold to the highest bidder, whether the surviving partner, or an outsider.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE UNDERMANNING OF THE ARMY MEDICAL SERVICE.

THE following is the distribution of medical officers employed on the Active or Reserve Lists, according to the *Army List* for January:

Distribution in January Army List.

Ranks.	Home.	South Africa.	Other Foreign Stations.	Not Posted.	Total.	Remarks. Seconded.	Remarks. Reserve of Officers.
Surgeon-Generals ...	5	1	2	—	8	—	—
Colonels	10	6	10	1	27	4	—
Lieutenant-Colonels...	59	62	85	3	209	6	23
Majors	38	135	114	3	290	3	4
Captains	23	87	111	5	226	9	4
Lieutenants	24	144	64	1	233	2	—
Total...	159	435	386	13	993	24	31

The total works out 5 fewer than in December, with the following changes in distribution: There are 22 fewer at home, chiefly captains and lieutenants, who have gone to South Africa, where there is a total increase of 17; there are 2 fewer at other foreign stations, and 2 more unposted. There is an increase of 1 in the seconded list, and a decrease of 1 in the reserve of officers employed; deducting the total in these categories, the effective active total is 938.

Excluding the Director-General, the rank of surgeon-general is 2 short of the establishment. The total number of retired medical officers employed is 97; 2 are serving in South Africa; 2 officers of the Militia Medical Staff Corps are also serving in that country. Adding these figures together, we find the following are employed:

Active and Reserve Army	993
Retired Army...	92
Retired Ind'an Army...	2
Militia Medical Staff and Corps	5
	1,092

In addition, a very large number—running into many hundreds—of civil surgeons are employed at home and abroad, the latter almost wholly in South Africa.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: ALFRED PATTERSON, Fleet Surgeon, to the *Vivid* for Devonport Dockyard, January 30th; JEROME BARRY, Staff-Surgeon, to Haslar Hospital, temporarily, January 11th; ARTHUR H. PRICHARD and JOHN T. DUDDING, Surgeon, to the *Antelope*, January 7th; WILLIAM S. LIGHTFOOT, Fleet Surgeon to the *Eagle*, January 10th; RICHARD MILLER, Staff Surgeon, January 10th; EVERARD H. SAUNDERS, Fleet-Surgeon, to the *Vivid*, for Keyham Naval Barracks, January 20th; JOHN DUDLEY, Fleet Surgeon, to the *Lion*, January 30th; ALEXANDER MACLEAN, Staff Surgeon to the *Collingwood*, January 13th; GEORGE T. BISHOP, Surgeon, to Haslar Hospital, January 13th; GEORGE M. O. RICHARDS, Surgeon, to the *Irresistible*, February 4th; JOHN JENKINS, Staff Surgeon, to the *Andromache*, January 14th.

ROYAL ARMY MEDICAL CORPS.

COLONEL J. H. MOORE retires on retired pay on account of ill-health, January 15th. His commissions are thus dated: Assistant-Surgeon, April 1st, 1867; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1879; Brigade-Surgeon, April 26th, 1893; and Surgeon-Colonel, June 13th, 1898. He served in the Ashanti war in 1873-4, including the defence of the Hospital at Foomanah (medal and clasp); he was also in the Afghan war in 1878-9, and was at the occupation of Kandahar and Khelat-i-Ghilzai and at the actions of Ahmed Khel and Urzoo; he was mentioned in despatches, and received the medal with clasp.

The following are on passage home: Captain S. H. WITHERS, Major D. R. HAMILTON, Civil Surgeons F. K. KERR, M. RUST, R. W. MULLOCH, W. F. C. McC. MORROGH. Returning invalided: Captain J. W. JENNINGS, Captain E. T. INKSON, Captain A. F. HEATON, Quartermaster T. F. BRAKE, Civil Surgeons H. A. LOESER, J. W. GREENWOOD, MACAULAY, ROBERTS, and BRODRICK.

The undermentioned officers have been discharged to duty from hospital in South Africa: Major D. R. HAMILTON, Captain C. B. MARTIN, Lieutenant W. J. P. ADYE-CURRAN, Civil Surgeon G. S. COLLIN.

Civil Surgeon GODFREY FORREST REID, M.D., of The Bungalow, Bethlehem, Orange River Colony, who was shot while on duty at Tweefontein Camp on Christmas morning, died on December 27th, 1901.

Lieutenant-Colonel J. OSBURNE retires on retired pay, January 11th. He was appointed Surgeon February 5th, 1881; Surgeon-Major, February 5th, 1893; and Lieutenant-Colonel, July 20th, 1901. He was in the Egyptian war in 1882, including the battle of Tel-el-Kebir (medal with clasp, and Khedive's star), and in the Soudan campaign in 1885) when he was present in the engagement at the Tofrek zereba (two clasps).

Sergeant-Majors JOHN GILLMAN and THOMAS F. COPE are appointed Quartermasters, with the honorary rank of Lieutenant, to complete the establishment, January 11th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL E. BOVILL, M.D., Bengal Establishment, retires from the service from November 9th, 1901. He was appointed Assistant Surgeon October 1st, 1872, and became Brigade-Surgeon-Lieutenant Colonel August 19th, 1898. He served with the Dufla expedition in 1874-5.

The undermentioned Lieutenant-Colonels are granted the temporary rank of Colonel while officiating on the administrative medical staff of the Indian army, from the dates specified: G. D. BOURKE, November 21st; E. A. MAPLETON, November 21st; C. H. SWAYNE, D.S.O., November 23rd, 1901.

Section D, No. 52, Native Field Hospital, Secunderabad; Section D, No. 68, Native Field Hospital, Bombay; No. 3 Field Medical Store Depôt, and a native field hospital of 200 beds are being mobilised in India for the Mahsud force.

An examination for 17 appointments in the Indian Medical Service will be held in London on February 10th and following days. Copies of regulations for the examination, etc., may be obtained from the Military Secretary, India Office, to whom applications for admission to the examination, with the necessary certificates, should be sent not later than January 27th.

THE VOLUNTEERS.

SURGEON-LIEUTENANT T. CARWARDINE, M.B., 2nd Gloucester (Bristol) Engineer, resigns his commission, January 11th.

Surgeon-Major G. ROBINSON, 1st West Riding of Yorkshire (Sheffield) Engineers, is promoted to be Surgeon-Lieutenant-Colonel, January 11th.

Surgeon-Lieutenant D. K. MUIR, 2nd Volunteer Battalion Northumberland Fusiliers, is promoted to be Surgeon-Captain, January 11th.

Surgeon-Captain R. L. BATTERBURY, M.D., 2nd (Hertford) Volunteer Battalion the Bedford Regiment, resigns his commission, retaining his rank and uniform, January 11th.

Mr. JOHN W. DAVIES is reappointed Surgeon-Captain in the 3rd Volunteer Battalion the South Wales Borderers, January 11th.

Surgeon-Lieutenant J. W. LOGIE, M.B., 3rd (Blythswood) Volunteer Battalion the Highland Light Infantry, is promoted to be Surgeon-Captain, January 11th.

VOLUNTEER MEDICAL STAFF CORPS.

QUARTERMASTER W. GARDNER, the Leeds Company, is granted the honorary rank of Captain, January 11th.

REORGANISATION OF THE R.A.M.C.

A CORRESPONDENT writes: I entirely agree with your correspondent that "India is the crux" in army medical reform. Prolonged Indian service on inadequate pay is a crucial point. Observe how shiftingly the "Committee" in their recommendations deals with the Indian pay problem: there is only to be increase of pay up to the rank of captain, yet the seniors are equally badly treated financially; they are paid bare grade pay without staff or charge pay such as all other branches of the service receive in India. The Indian Government must recognise its responsibilities in giving effect to Royal Warrants. Sir Frederick Treves, whose unselfish work on behalf of the R.A.M.C. we much appreciate, says in a letter, "On the subject of pay I am not competent to speak." As he is on the Advisory Board I would beg of him to study that subject in its Indian aspects, and have no hesitation in saying it will open his eyes to the fact that "India is the crux."

UNIVERSITIES AND COLLEGES.

VICTORIA UNIVERSITY.

A SPECIAL meeting of the Court of the Victoria University was held on January 16th at Owens College under the presidency of Earl Spencer, Chancellor of the University, with the object of considering the report of a committee, appointed on June 29th, 1901, in regard to the possible changes arising out of the proposal of a special university for Liverpool. It was pointed out in the report that the question for decision must be whether (a) the three Colleges, of Manchester, Liverpool, and Leeds, "were to remain as constituent colleges" of the Victoria University; or whether "[illegible] be a separate university in Liverpool and a 'university in Manchester without liability to admit or to remain in association with any other college,' and also a 'university established having its seat in Leeds.'" The adoption of the report was moved by Principal Hopkinson and seconded by Principal Bodington. Sir William Holdsworth proposed to refer back the report of the committee for further consideration on the ground that there was a third alternative, for Liverpool to have a University of its own and Manchester one with federated colleges. This was negatived by a decided majority. After amendments proposing that the University charter should be preserved intact, and that three separate universities should be federated for certain purposes had been respectively negatived and withdrawn, the report was adopted. Mr. Alfred Neild then moved and Sir E. Lawrence seconded a resolution "that the course (*b*) of having three separate universities should be followed, and after Lord Herries had spoken in favour of the three colleges remaining constituents of the University, and the Chairman, as Chancellor of the University, had pointed out the disadvantages of single college universities chiefly due to financial reasons, Mr. Neild's resolution was carried by a majority, and the appointment of a committee to consider the terms and conditions on which it should be carried into effect was agreed to.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

AN INTERNATIONAL SANITARY CONGRESS IN HAVANA.

An International Sanitary Congress will be held in Havana on February 15th, 1902, and following days. According to the *New York Medical Record* this is a sequel to the Pan-American Medical Congress held in the same city last February, and was decided upon then on the recommendation of Dr. Wilde, of the Argentine Republic, and Surgeon-General Wyman, of the United States Marine Hospital Service. Twenty-five Governments, including the Danish, Dutch, French, and English West Indies, and the Dominion of Canada, have been invited to take part, each sending three delegates a physician, an engineer, and a commercial representative. The questions to be considered by the Congress are:

[illegible] cholera, yellow fever, [illegible] fever, diphtheria, leprosy, and tuberculosis.

[illegible] to be taken in order to prevent [illegible] event their trans[illegible]

[illegible] of preventing the occurrence

6. In case quarantine is accepted as one of the most efficacious means at present known for preventing the introduction of contagious diseases among men and animals, to determine its duration and conditions as regards each of these affections, in order to interfere as little as possible with commercial intercourse.

7. Means of examination of men and animals and of inspection of baggage and goods when infection is suspected.

8. Transmissibility of diseases by means of cargoes and suitable measures of disinfection.

The languages recognised for purposes of discussion will be Spanish, Portuguese, French, and English. The President of the Organisng Committee is Dr. Juan Santos Fernandez, and the Secretary is Dr. Tomas V. Coronado, both of Havana.

HEALTH OF ENGLISH TOWNS.

IN seventy-five of the largest English towns, including London, 9,422 births and 5,183 deaths were registered during the week ending Saturday last, January 11th. The annual rate of mortality in these towns, which had been 20.1 per 1,000 in the preceding week, declined last week to 18.3 per 1,000. The rates in the several towns ranged from 5.5 in Hornsey, 9.3 in Wallasey, 9.5 in West Ham, 10.3 in King's Norton, 10.7 in Northampton, 10.8 in Walthamstow, 11.0 in Smethwick, 11.6 in Barrow-in-Furness, and 12.2 in Handsworth, to 22.6 in Reading, 23.3 in Rotherham, 23.6 in Bootle, 25.2 in Preston, 26.3 in Rhondda, and 28.8 in Wigan. In London the death-rate was 18.6 per 1,000, and exceeded by 0.5 the mean rate in the seventy-four other large towns, which was 18.1 per 1,000. The zymotic death-rate in these seventy-five towns averaged 1.7 per 1,000; in London this death-rate was equal to 1.9 per 1,000, while it averaged 1.6 per 1,000 in the seventy-four other large towns, among which the highest zymotic death-rates were 3.2 in Birmingham and in Grimsby, 3.3 in Aston Manor and Salford and York, 3.4 in Middlesbrough, 6.1 in Great Yarmouth, 8.3 in Preston, and 9.3 in Rotherham. Measles caused a death-rate of 1.0 in South Shields, 1.2 in Sheffield, 1.6 in Grimsby, 2.0 in Aston Manor and in York, 4.9 in Great Yarmouth, 6.9 in Preston, and 9.3 in Rotherham; scarlet fever of 1.1 in Wolverhampton, 1.2 in St. Helens, and 2.2 in Middlesbrough; diphtheria of 1.5 in Cardiff, and 1.7 in Hanley; whooping-cough of 1.0 in East Ham and 1.3 in Rhondda; "fever" of 1.4 in Birkenhead, and 1.8 in Smethwick; and diarrhœa of 1.1 in Wolverhampton, and 1.8 in Bury. Forty-five deaths from small-pox occurred in London, 4 in West Ham, and 2 in East Ham, but not one in any other of the large towns. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 506, 538, and 666 at the end of the three preceding weeks, had further risen to 872 on Saturday last; 305 new cases were admitted during the week, against 161, 229, and 261 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital at the end of the week was 2,864, against 3,033 and 3,137 on the two preceding Saturdays; 250 new cases were admitted during the week, against 247, 263, and 313 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 11th, 1,012 births and 633 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.5, 22.6 and 23.2 per 1,000 in the three preceding weeks, declined again last week to 19.6, but was 1.3 above the mean rate during the same period in the seventy-five large English towns. Among these Scotch towns the death-rates ranged from 16.9 in Perth, and 16.0 in Paisley to 20.5 in Glasgow, and 21.7 in Greenock. The zymotic death-rate in these towns averaged 1.7 per 1,000, the highest rates being recorded in Glasgow and Greenock. The 306 deaths registered in Glasgow included 19 from measles, 2 from whooping-cough, 2 from "fever," and 11 from diarrhœa. Two fatal cases of whooping-cough were recorded in Edinburgh; 4 from measles in Dundee; 2 from scarlet fever in Greenock; and 3 from diarrhœa in Aberdeen, and 2 in Paisley.

VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1901.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarised the vital statistics of the cities and boroughs in the county of London, based upon the Registrar-General's returns for the fourth, or autumn, quarter of the year 1901. The mortality figures relate to the deaths of persons actually belonging to the various metropolitan boroughs, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various boroughs in which the deceased persons had previously resided.

The 31,712 births registered in London during the three months ending December last were equal to an annual rate of 28.0 per 1,000 of the population, estimated at 4,543,757 persons in the middle of last year; this rate was 0.9 per 1,000 above that recorded in the corresponding period of the previous year; but was 1.4 below the average rate in the corresponding quarters of the ten preceding years. The birth-rates in the various boroughs ranged from 14.8 in the City of London, 16.2 in the City of Westminster, 17.0 in Hampstead, 19.1 in Kensington, and 19.3 in Stoke Newington to 34.2 in Bermondsey, 34.3 in Bethnal Green, 34.4 in Poplar, 35.3 in Shoreditch, and 37.4 in Finsbury.

The [illegible] deaths of persons belonging to London, registered during the quarter ending December last, were equal to an annual rate of 17.0 per 1,000 [illegible] and 16.3 in the corresponding periods of the three [illegible] mean death-rate in the ten preceding fourth quarters was [illegible]. The lowest death rates last quarter in the various metropolitan boroughs were 11.0 in Hampstead, 12.9 in Stoke Newington, [illegible] ham, 14.2 in Wandsworth, and 14.4 in Paddington, [illegible] in Bethnal Green, 22.1 in Stepney and [illegible] 23.0 in Holborn, and 29.2 in Finsbury. [illegible] 2,017 deaths resulted from the principal [illegible] the diseases in London; of these, 102 were referred to small-pox, 340 to measles, 160 to scarlet fever, 448 to diphtheria, 165 to whooping-

Analysis of the Vital Statistics of the Cities and Boroughs in the County of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1901.

CITIES AND BOROUGHS.	Estimated Population middle of 1901.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœal Diseases.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,543,757	31,712	20,245	28.0	17.9	1.79	2,017	192	540	160	448	165	—	144	2	366	2,002	152
Paddington	144,154	805	517	22.4	14.4	1.25	45	—	1	5	22	1	—	1	—	8	38	130
Kensington	176,787	843	779	19.1	17.7	2.40	106	1	68	7	9	4	—	3	—	14	60	168
Hammersmith ...	112,619	705	526	25.1	18.7	2.77	78	13	35	4	7	4	—	2	—	13	46	167
Fulham	138,426	1,139	564	33.1	16.3	2.05	70	3	14	2	22	4	—	4	1	20	53	137
Chelsea	73,879	416	297	22.6	16.1	0.53	10	1	—	1	2	2	—	1	—	3	31	154
City of Westminster ...	182,502	739	757	16.2	16.6	1.36	62	15	132	—	4	—	—	5	—	6	92	131
St. Marylebone ...	133,000	965	524	29.1	15.8	0.84	28	2	1	8	9	—	—	—	—	8	63	94
Hampstead	82,287	348	226	17.0	11.0	0.59	12	1	—	3	4	—	—	1	—	3	19	109
St. Pancras	235,297	1,562	1,105	26.6	18.8	2.11	123	21	22	7	45	7	—	8	—	13	120	134
Islington	335,325	2,263	1,484	27.1	17.8	2.62	219	6	102	11	49	5	—	18	—	28	144	148
Stoke Newington ...	51,328	250	165	19.3	12.9	0.95	12	2	—	—	6	1	—	2	—	1	16	136
Hackney	219,780	1,476	878	26.5	16.0	1.35	74	4	2	11	29	4	—	8	—	16	95	131
Holborn	59,205	407	340	27.6	23.0	3.38	50	29	3	1	7	3	—	2	—	5	53	155
Finsbury	101,263	943	585	37.4	23.2	2.59	65	7	16	7	11	9	—	3	—	12	44	165
City of London ...	26,627	98	129	14.8	19.4	1.05	7	2	—	1	2	—	—	1	—	1	16	204
Shoreditch	118,554	983	674	33.4	22.8	2.24	66	5	23	4	10	6	—	1	—	17	74	217
Bethnal Green	129,700	1,108	707	34.3	21.9	2.25	73	1	27	7	20	5	—	8	—	5	66	196
Stepney	208,884	2,647	1,650	35.5	22.1	1.89	141	22	18	10	27	26	—	9	—	29	164	194
Poplar	168,857	1,447	848	34.4	20.1	2.30	97	10	16	3	23	14	—	9	—	22	80	159
Southwark	206,219	1,714	1,103	33.3	21.5	1.87	96	13	15	19	17	5	—	4	—	23	135	165
Bermondsey	130,348	1,110	719	34.2	22.1	1.63	53	14	2	13	7	4	—	5	—	8	69	180
Lambeth	302,466	2,153	1,387	28.5	18.4	1.86	140	3	51	12	16	17	—	9	—	32	140	145
Battersea	169,364	1,179	733	27.9	17.4	2.27	96	2	50	2	6	8	—	11	—	17	71	159
Wandsworth	233,043	1,498	827	25.7	14.2	1.28	75	3	18	4	23	6	—	6	1	14	74	141
Camberwell	259,807	1,787	1,081	27.6	16.7	1.46	94	7	3	11	40	11	—	7	—	15	100	131
Deptford	110,732	816	433	29.6	15.7	1.46	40	1	1	3	14	4	—	3	—	14	32	143
Greenwich	96,188	675	351	28.2	14.6	0.76	18	3	1	—	6	1	—	3	—	4	25	135
Lewisham	128,423	782	430	24.4	13.4	1.31	42	—	5	3	8	12	—	6	—	8	31	106
Woolwich	117,619	849	426	29.0	14.5	0.85	25	1	7	1	3	2	—	4	—	7	55	130

cough, 144 to enteric fever, 2 to simple continued fever, and 366 to diarrhœa. These 2,017 deaths were equal to an annual rate of 1.79 per 1,000, against an average of 2.13 in the corresponding periods of the ten preceding years. In the fourth quarters of the three preceding years the rates had been 1.70, 1.96, and 1.53 respectively. The lowest zymotic death-rates last quarter were 0.53 in Chelsea, 0.59 in Hampstead, 0.76 in Greenwich, 0.84 in St. Marylebone, 0.85 in Stoke Newington, 0.85 in Woolwich, and 1.05 in the City of London, and the highest rates 2.30 in Poplar, 2.40 in Kensington, 2.50 in Finsbury, 2.62 in Islington, 2.77 in Hammersmith, and 3.38 in Holborn. Of the 192 fatal cases of small-pox, 29 belonged to Holborn, 22 to Stepney, 21 to St. Pancras, 15 to the City of Westminster, and 14 to Bermondsey; measles showed the highest proportional fatality in Kensington, Hammersmith, Islington, Shoreditch, Bethnal Green, and Battersea; scarlet fever in St. Marylebone, Hackney, Finsbury, Bethnal Green, Southwark, and Bermondsey; diphtheria in Paddington, Fulham, St. Pancras, Islington, Bethnal Green and Camberwell; whooping-cough in Holborn, Finsbury, Shoreditch, Stepney, Poplar, Lambeth, and Lewisham; "fever" in Islington, Bethnal Green, Poplar, Battersea, and Lewisham; and diarrhœa in Fulham, Finsbury, Shoreditch, Poplar, and Deptford.

During the fourth quarter of the year 2,002 deaths from phthisis were registered, equal to an annual rate of 1.76 per 1,000, against 1.77, 2.07, and 1.58 in the corresponding quarters of the three preceding years. Among the various metropolitan boroughs the lowest phthisis death-rates last quarter were recorded in Paddington, Hampstead, Stoke Newington, Deptford, Greenwich, and Lewisham; and the highest rates in Holborn, City of London, Shoreditch, Stepney, Southwark, and Bermondsey.

Infant mortality, measured by the proportion of deaths under one year of age to registered births, was equal to 152 per 1,000 last quarter, against 137, 150, and 154 in the corresponding quarters of the three preceding years. The rates of infant mortality during the quarter under notice were lowest in Paddington, St. Marylebone, Hampstead, Lewisham, and Woolwich; while the highest rates were recorded in Kensington, City of London, Shoreditch, Bethnal Green, Stepney, and Bermondsey.

VACCINATION.

The Supply of Government Calf Lymph to the Profession Generally.

DR. ARTHUR MAUDE (Public Vaccinator, Fourth Division, Sevenoaks Union), writes: In the BRITISH MEDICAL JOURNAL of January 11th, p. 120, it is stated that at a meeting of the West London Medico-Chirurgical Society a public vaccinator replied, in answer to a question, that the calf lymph supplied to public vaccinators was used by those officials to vaccinate their private and paying patients. I may point out that every tube of lymph issued to public vaccinators has to be accounted for, both in the vaccinator's register and in the form of return which gives the results of every insertion of lymph used, and that all tubes not used have to be sent back to the Local Government Board within one week. It is thus impossible for any public vaccinator to employ the National Vaccine Establishment lymph on persons not entered in their registers.

The writer of the letter, "R. B.," further states that "the public vaccinator has any quantity supplied gratuitously." If "R. B." will take the trouble to ascertain the conditions of supply of the National Vaccine Establishment lymph to public vaccinators and the very strict account which has to be made of it, he will learn that this statement is entirely false.

The Reform of the Vaccination System.

FAIRPLAY writes: I am very glad to see in last week's issue of the BRITISH MEDICAL JOURNAL that some of the profession are making a combined effort to effect an alteration in the conditions which now prevail in the administration of the Vaccination Act. There has been recently a mild small-pox panic in my neighbourhood, and a consequent rush of the public to be revaccinated, and persons, who are perfectly well able to afford a fee of 2s. 6d. to 3s. 6d., have informed me of their intention of applying to the public vaccinator to have this little operation performed, as then they can have it done for nothing, and, moreover, it will be done with "Government lymph"; implying, of course, it must be something superior to that used by the ordinary practitioner. It is within my knowledge that some of the better classes, who would never have thought of doing such a thing a few years ago, are now sending their servants to the public vaccinator. I will not enter into the question of the public vaccinator calling at the houses of his fellow practitioners' patients, but it appears to me to contain all the elements of a daily increasing source of irritation, for a much better class of artisan and others are now unhesitatingly submitting their children to this official.

OBITUARY.

COLONEL OSWALD GILLESPIE WOOD, M.D.ED., C.B.,

Royal Army Medical Corps.

COLONEL OSWALD GILLESPIE WOOD, M.D., C.B., whose death at Kroonstad on January 3rd was briefly mentioned in our last issue, was in charge of No. 3 General Hospital at Kroonstad during the earlier part of the war, and was recently Principal Medical Officer at Kroonstad. We have received from Mr. Archibald Young, M.B., late Civilian Surgeon to No. 3 General Hospital, and late Senior Assistant in Surgery and Demonstrator of Operative Surgery, University of Glasgow, a tribute to his memory, from which we extract the following:

"During my sojourn in South Africa as Civilian Surgeon, from January, 1900, to February, 1901, I was thrown, for the greater part of the time, into close contact, officially and personally, with Colonel Wood, inasmuch as the greater part of my work was carried out as a member of the staff of No. 3 General Hospital.

"From November, 1899, to May, 1900, this unit was stationed at Rondebosch, near Cape Town. In May the hospital was split into two sections, the advance portion, under the command of Lieutenant-Colonel A. Keogh, proceeding north, with all its requisite equipment, to Springfontein (in the southern part of Orange River Colony), while, a week or two later, the second portion, with headquarters, received orders to proceed north still further to Kroonstad, which had just fallen. At the base (Rondebosch) Colonel Wood's hospital was a matter of great pride to him and to all concerned with it. I have but to mention that the Secretary and Registrar to the hospital during this period was Major (later Lieutenant-Colonel) A. Keogh, whose organising abilities and untiring zeal have since been rightly recognised at headquarters, to secure myself from all risk of exaggeration when I say that No. 3 General Hospital at Rondebosch was admirable in conception, ideal in situation, and marvellously organised.

"Later on, at Kroonstad, though the well-nigh 1,000 miles from the sea rendered the efficiency of a large general hospital—especially in the earlier months, when the railway line was broken north and south of us day after day—difficult to maintain, it was often a source of wonder to us how 'the old man,' as we affectionately termed him, managed to procure supplies of scarce commodities and to make good deficiencies. On our first arrival we were confronted by a situation only too vividly painted at the time, in all its grim horror, by Mr. Burdett-Coutts. Dutch Church, Kroonstad Hotel, Grand Hotel, Town Hall, Russian-Dutch Hospital were all overflowing with enteric and dysentery of the worst type, and supplies, as well as medical arrangements, were sadly wanting. It was a situation sufficiently grave and bewildering to test the ingenuity and resource of any one. I remember still how Colonel Wood applied himself to his task, how he seemed to enjoy the actual solution of the problem, and how, in a very few days, more than a mere semblance of order was restored where all had been previously confusion. In virtue of his position as the administrative head of a large military medical unit his chief business was that of general oversight; but the various members of the staff, myself included, realised how remarkably he was able to grasp the whole details of the clinical life of the hospital, and to take a scientific interest in individual work and special cases.

"One has heard so much of ill-feeling between officers of the Royal Army Medical Corps in South Africa and civilian surgeons, that it is a pleasure to me to state publicly how notable an exception was No. 3 General Hospital. At mess all mixed freely; there was no 'aloofness.' Of course, there were worries and little explosions such as are inseparable from everyday life and routine, but these were insignificant and transient. With us civilian surgeons it was a matter of common remark that for the good spirit, the *esprit de corps*, pervading the hospital Colonel Wood was in great measure responsible; his ready tact, his own restless energy, and his simple, frank, gentlemanliness reacting on all around.

"A Scotsman by birth, a student of Edinburgh, a contemporary and old friend of not a few who are more than mere names to me, in this city, as in Edinburgh, he was to me 'a brither Scot,' a kindly friend. His faith in his Alma Mater was unalterable. Himself an Edinburgh graduate, his father before him, to Edinburgh his sons also should go, he used to say. While at Rondebosch we had a visit from his old friend and teacher, Mr. Chiene, and I well remember the gratification with which the Colonel showed the 'points' of his hospital to his old chief. He used often to picture the time when 'the present war' being over, he might retire, and, in his beloved Edinburgh devote his later years to the supervision of his sons' educational development. In a letter which I have but now received, a letter written on December 12th last, in reply to a note of sympathy with him on the death of his wife early in October at Kroonstad, he again puts this wish into words:

"My one prayer is that the end may not be far off, and that I may be able to get home. I feel I cannot live out my usefulness in life [illegible] I keep for the future, I shall be able to [illegible] Wood returned [illegible] surgeon, with no [illegible] me [illegible]

"Within three weeks of penning these words he had gone to join his beloved wife in the great beyond. I have before me an earlier letter, written at the beginning of January of last year, from Kroonstad, to cheer me when convalescing from enteric at Charlestown, Natal, and speaking of a colleague and friend whose death, on New Year's Day, 1901, had just cast a gloom over the camp. On January 3rd, just a year later, he himself is struck off the list, and the memories of No. 3 are, to us all, shorn of their most notable figure. To a very wide circle of brother officers, junior colleagues, as well as many casual acquaintances, the name of Oswald G. Wood will long persist an ever-green memory.

"It may add weight to this to say that the writer did not always see eye to eye with Colonel Wood, and, in fact, as the result of a certain 'difference' in the routine of hospital work, severed his connection with No. 3, at the beginning of November, 1900, to proceed to Krugersdorp. In spite of all, however, the writer has had many tangible proofs of the friendly feeling extended to himself by Colonel Wood, and the true nobility of character of the latter could be no more clearly demonstrated than by the fact that the writer possesses no more valuable or generous testimony regarding his surgical work in South Africa than that contained in a note from his late commanding officer and friend, Colonel Oswald Wood."

THE LATE SURGEON-GENERAL HARVEY.

The *Gazette of India* for December 7th contained the following notification:

His Excellency the Governor-General in Council has received with much regret intelligence of the death at Simla, on 1st inst., of Surgeon-General Robert Harvey, M.D., C.B., D.S.O., F.R.C.P., I.M.S. (Bengal), the Director-General of the India Medical Service and Sanitary Commissioner with the Government of India. Surgeon-General Harvey had only just returned from furlough to resume the duties of the Director-Generalship, a post to which he was first appointed in February, 1898, after an honourable service extending over thirty years. By his death, towards the close of a long and distinguished career, the Government of India lose a valued public servant and trusted adviser.

We take from the *Civil and Military Gazette*, Lahore, of December 8th, the following reference to his last illness and death:

He returned from eight months' leave, necessitated by illness in the spring of the present year, and had been working as few others could work for just eight days, when at the end of seven hours' unbroken application at his desk (and it may be added as characteristic, an eight hours' fast) he was seized with the first symptoms of his fatal malady. Next day (26th) he was confined to bed, from which he only rose again to be carried to hospital, where, after four days of suffering, he expired on Sunday morning, December 1st. The bright and memorable aspects of this tragic end to a career marked by extraordinary many-sided talents and success, were the magnificent pluck he displayed in facing the issue, of which he was not long in doubt, and the devotion he inspired in his medical attendants, one of whom never left his bedside day or night, save for the briefest intervals, to be replaced by another. If it certainly cannot be said of him that he was happy on the occasion of his death, it must be recorded that he never flinched for one moment from the ordeal and the final summons. After a private service at the Boileauganj Church on Monday morning, his body was cremated, in accordance with his expressed desire, and on the following day the last mortal remains were carried to the cemetery and interred with military honours, the coffin and urn being carried to the last resting-place by six members of the service he served, and loved, and adorned.

Surgeon-General Harvey became officiating Professor of Midwifery at the Medical College, Calcutta, in 1880, and was appointed professor in 1882. He held this office till March, 1900, and a friend who had long been associated with him in work writes as follows of this side of his work: "As a lecturer, Surgeon-General Harvey was characterised for imparting a maximum of instruction in a minimum of words, and a forcible delivery secured to many a practitioner a solid grounding in the special subjects of midwifery and diseases of women. In these subjects he commanded a large practice while in Calcutta, and was a universal consultant, and his services to the Eden Hospital rank high in his long and successful career. As a physician he was looked upon more as a friend than a doctor, and as an administrator he was held in high esteem." The same friend adds: "He emphatically owed nearly all, if not all, his success and his honours to his many-sided ability and his consuming energy. He certainly was never a dull placeman and bureaucrat, but turned to the work in hand, whether as soldier-surgeon in his regiment in peace or war, or as the skilful operating surgeon and consultant, or as the administrative head of his service, with an ardent interest that only seemed to grow with the lapse of years. With all the engrossing business of such a life, he was a scholar as regards general and professional literature, and his amazing memory for men and events, even the most trifling, including precedents and regulations, was one of the chief elements of his power as an administrator. He was intensely interested in the service, in its past and its future,

in which he was a firm believer, and his kindly sympathy and encouragement was always at the service of its members."

CHARLES ROBERTS, F.R.C.S.,

Formerly Secretary of the Anthropometrical Committee of the British Association.

THE death at Tunbridge Wells, on New Year's Eve, of Mr. Charles Roberts, F.R.C.S., will be regretted by a large circle of personal friends. Mr. Roberts, who qualified in 1859, and became a Fellow of the Royal College of Surgeons in 1871, was a distinguished student of St. George's Hospital, and assisted the late Mr. Gray in the preparation of the first edition of his famous *Anatomy*. A Yorkshireman, he commenced his professional life as House-Surgeon to the Yorkshire County Hospital, and subsequently became Surgeon to the County Prison. At a later period he became Assistant Surgeon to the Victoria Hospital for Children (London), and practised as a consulting surgeon in Curzon Street, Mayfair.

Mr. Roberts, who was possessed of independent means, devoted a large part of his time to scientific studies, particularly in anthropology and natural history. He was the Secretary of the Anthropometrical Committee of the British Association, and for some years edited the *Selborne Society's Magazine*. He also took great interest in scientific methods of education, urging especially the systematic cultivation of the faculty of observation and the promotion of physical training. During his residence in London he was a well known and popular member of the Savile Club.

Mr. Roberts married somewhat late in life, and after his marriage moved from London to Eastbourne, where he resided until shortly before his death, and where he gave a cordial welcome to his many old friends. For several years past Mr. Roberts had been in delicate health, but his condition was not such as to cause serious anxiety until the close of 1900. From that time his sufferings were often severe, but were borne with the patience and even temper which always characterised him.

Mr. Roberts's high character and personal qualities endeared him to his friends to a singular degree, and in many circles his spare, ascetic figure and alert intelligent face will be sadly missed. He was a man of that unassuming scholarly type which is now rarer in our ranks than was the case in former days.

FRANCIS E. WILLIAMS, L.R.C.P.&S.EDIN., L.F.P.S.GLAS.,

Wrexham.

DR. FRANK E. WILLIAMS, of Wrexham, and formerly of Pulford, died of typhoid fever on Christmas morning, after an illness of only eight days. The medical practitioners of Wrexham and district were deeply grieved by his unexpected death, and we owe to Dr. Drinkwater, of Wrexham, the following notes:

Frank Williams died of typhoid fever, caught from a case which he was attending at a small place eight miles distant, near his former home. He had been in poor health for some time, yet in spite of this he had ridden out on his bicycle, often twice a day, to see this particular patient. On several days he went before breakfast, and again late at night, specially to see this patient, doing the rest of his work in his carriage in the middle of the day. His patient has recovered, but he himself has succumbed. This is only one instance of his devotion to his work, which was conspicuously manifest where the poor was concerned. He was much devoted to children, and I have heard of him sitting up all night nursing the child of a poor neighbour, quite oblivious of his own wants, or even his needs. No wonder that he gained the affection of the parishoners at Pulford, where he had practised for five or six years.

He was buried at Pulford, his old home, and where his father had been the Rector for thirty years or more, and the little village church was crowded to overflowing by people who came to pay their last sad offices to one whom they had loved so well. Frank Williams qualified rather late in life, at the age of 29, and had been nine years in practice at the time of his death. As a boy he was educated at Rossall School. His medical education was commenced as a pupil of Chester Infirmary, where he studied two years. He then went to Edinburgh University, where he took honours in several classes, afterwards removing to one of the London schools. He went to Edinburgh again, and finally to Glasgow. After qualifying he acted as assistant first at Exeter, and then at or near Ascot. Seven years ago he settled in practice at his native village, and two years ago entered into partnership with Dr. Llewelyn Williams, of Wrexham. He was of an extremely retiring and modest disposition, and one was in consequence a long time in getting to know him. The better he was known, however, the more he was liked, and he was just becoming popular in Wrexham when the hand of Providence removed him from our midst. His powers of diagnosis were of a high order, and proved only too accurate in his own case, for on the first day of his illness he told his relatives that "he had typhoid and lung trouble, which would be fatal probably before Christmas Day."

WE regret to announce the death of Dr. WORDSWORTH POOLE, C.M.G., Physician to the British Legation at Pekin. The cause of death was typhoid fever, of which three other cases, two of them fatal, have recently occurred in the Legation. Dr. Wordsworth Poole studied at Cambridge and at Guy's Hospital; he graduated M.B., B.C. at Cambridge in 1894. After having served as medical officer in the British Central Africa Protectorate from January 5th, 1895, to December, 1897, Dr. Poole was seconded for service in West Africa as Principal Medical Officer of the West African Field Force. For his services in that capacity he received the C.M.G. on January 1st, 1900. A few months before this he had been appointed to the post of Legation Physician at Pekin, and the admirable work which he did in the following summer during the Boxer outbreak received warm acknowledgment from Sir Claude Macdonald in his report on the siege of the Legations.

MEDICAL NEWS.

DR. SAMUEL RIDEAL commenced a course of Cantor Lectures on the purification and sterilisation of water, before the Society of Arts, on Monday evening last. Subsequent lectures will be delivered on January 20th, 27th, and February 3rd, at 8 P.M.

TROPICAL MEDICINE IN PORTUGAL.—In the speech from the throne delivered at the recent opening of the present session of the Portuguese Cortes it was announced that among the measures to be submitted to the Legislature was a scheme for the teaching of tropical medicine.

PROPOSED NATIONAL INSTITUTE OF HYGIENE IN SPAIN.—A movement is on foot for the establishment of a National Institute of Hygiene in Spain. The State has offered a site for the building, and it is hoped that sufficient funds will be raised by public subscription. Among the promoters of the scheme are the Marquis de Urquijo, Dr. Pulido, Director of the Public Health Department, Professor Cajal, Constantino Rodriguez, and other men of light and leading in Spain.

IMPERIAL YEOMANRY HOSPITALS.—The Imperial Yeomanry Hospitals were finally closed at the end of 1901 when the hospital at Elandsfontein was closed. Colonel Kilkelly, C.M.G., who has acted as Principal Medical Officer of this hospital, and Dr. Richmond, together with the other members of the staff, are now on their way home.

INTERNATIONAL CONGRESS OF HYDROLOGY.—The International Congress of Hydrology will be held at Grenoble in the early part of October, 1902. The place of meeting being situated in the neighbourhood of numerous health resorts (Aix-les-Bains, Uriage, etc.) those who attend will have exceptional opportunities of practically studying questions of climatology and hydrotherapy. All communications should be addressed to the Secretary-General, Dr. Fernand Berlioz, Ecole de Medecine, Grenoble (Isère).

GERMAN BALNEOLOGICAL CONGRESS. — The twenty-third annual meeting of the German Balneological Congress will be held this year at Stuttgart from March 7th to 11th, under the presidency of Professor Oscar Liebreich. All communications should be addressed to Geheimer Sanitatsrath, Dr. Brock, Melchiorstrasse, 18, Berlin, S.O.

A LAW against personation was gazetted in France on December 25th, 1901. It is stated by the *Times* correspondent to be directed against personation at University and Civil Service examinations. The penalties are terms of imprisonment varying from one month to three years, and fines of from 100 to 10,000 francs.

THE EARNINGS OF THE MEDICAL PROFESSION IN FRANCE.—From a statement recently made by a responsible French writer, M. Chaillysset, it appears that in Paris there are 2,600 doctors. Of these, 40 earn from £8,000 to £12,000 a year, 50 earn £4,000 a year, 50 from £2,000 to £4,000, 200 from £1,200 to £2,000, 200 from £800 to £1,200, whilst 1,700 earn on an average £145. In the whole of France there are 16,000 practitioners whose average professional earnings are less than £120 a year, and this amount does not represent nett but gross earnings.

THE SPITTING NUISANCE IN AUSTRALIA.—The Municipal Council of Bathurst, New South Wales, has passed a by-law to the effect that no person shall spit on the footpaths or streets in the borough. Any person offending against the by-law will be liable to a penalty not exceeding £5. Following the example of the City Council, the North Sydney Municipal Authorities have passed a by-law enforcing the penalty of a fine of £1 for spitting on the footwalks in the borough. The Board of Public Health in Melbourne finds it impossible under the present Health Act to prevent spitting on the footpaths. An amendment of the law is required to secure the desired reform.

PRIVATE PATIENTS AT DORSET COUNTY ASYLUM.—At a special meeting of the County Council for Dorset, on January 8th, the proposal of the Visiting Committee to build, at a cost of about £40,000, a detached house for one hundred private patients, was unanimously approved, and the plans, which have been prepared by the architect, Mr. G. T. Hine, gave satisfaction. Dorsetshire was the first county in England to take advantage of Section CCLV of the Lunacy Act, 1890, by providing accommodation for private patients in connection with the County Institution, and the results of this further development of the private side of the institution will be followed with interest.

THE BRITISH ELECTRO-THERAPEUTIC SOCIETY was constituted at a meeting held on January 10th at 11, Chandos Street, London, W., with the following officers: *President*: Dr. W. S. Hedley. *Vice-Presidents*: Drs. Lewis Jones and H. B. Turney. *Council*: Drs. Barry Blacker, Wilfrid Harris, George Herschell, Sep[illegible]mberland, Hugh Walsham, William Armstrong, J. Allan Jamieson Barr, Hall Edwards, Robert Jones, and [illegible]ly, with power to add to their number. *Honorary Treasurer*: Dr. H. M. McClure. *Honorary London Treasurer*: Charles Williams, F.R.C.S.E. The annual subscription is one guinea, and there will be eight meetings in the year. A journal will be established quarterly. Medical men desirous of joining are asked to send their names to the Honorary Secretary, 20, Bedford Square, W.C.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The quarterly Court of the Directors of the Society was held on January 8th; the President, Mr. Christopher Heath, being in the chair. Two new members were elected; the deaths of four reported, and that of Mr. J. R. Upton, an honorary member, who for many years had kindly given his professional services to the Society. The election of a member was declared void. A fresh application for grants was received from a widow aged 74, and relief at the rate of £30 per annum granted. It was resolved to distribute £1,282 among the fifty-two widows, 13 orphans, and the four recipients from the Additional Fund now receiving half-yearly grants. The Committee present, £165, had been given on December 18th, 1901. The expenses of the quarter were £77 7s. 6d.

MEDICAL VACANCIES.

[illegible]

BIRMINGHAM GENERAL HOSPITAL.—(1) Three posts of House-Physician. Appointment for six months, but eligible for re-election. (2) House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with residence, board, and washing in each case. Applications to the House Governor by February 1st.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon; not exceeding 30 years of age. Salary, £80 per annum, with furnished apartments, board, and attendance. Applications, endorsed "Junior House-Surgeon," to be sent to the Honorary Secretary, Mr. W. W. Cannon, 20, Mawdsley Street, Bolton, by February 12th.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to be sent to the Secretary.

BRISTOL GENERAL HOSPITAL.—(1) Surgeon; (2) Assistant Surgeon. Applications to the Secretary by January 25th.

BRISTOL ROYAL INFIRMARY.—Casualty Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 4th.

BUXTON: DEVONSHIRE HOSPITAL.—(1) House-Surgeon. Salary, £100 per annum. (2) Assistant House Surgeon. Salary, £50 per annum. Furnished apartments, board and lodging provided in each case. Applications to the Secretary by January 25th.

CHARING CROSS HOSPITAL.—Third Anæsthetist. Applications to be addressed to the Medical Committee by January 2 1th.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon; unmarried. Salary, £80 per annum, with board and apartments. Applications to H. T. Carrington, Esq., Honorary Secretary and Treasurer, by January 21st.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Chairman of the Medical Committee by January 28th.

DONCASTER BOROUGH, Blaby-with-Hexthorpe and Wheatley.—Medical Officer of Health, with charge of the Infectious and Small-pox Hospitals. Salary combined, £350 per annum. Applications, endorsed "Medical Officer," to be addressed "Selection Committee," 1, Priory Place, Doncaster by January 23rd.

DOUGLAS: NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon; unmarried. Salary, £82 per annum, with board and washing. Applications to the Honorary Secretary, 25, Athol Street, Douglas, Isle of Man, by January 28th.

DUBLIN: ROYAL UNIVERSITY OF IRELAND.—Extern Examiners in Surgery, Midwifery, Pathology, and Ophthalmology. Applications to the Secretary by January 23rd.

EASTERN DISPENSARY, Leman Street, E.—Resident Medical Officer. Salary, £140 per annum, with furnished residence, coals, and attendance. Applications to the Secretary by January 28th.

EDINBURGH ROYAL INFIRMARY.—Pathologist. Salary, £400 per annum. Applications to Mr. W. S. Caw, Treasurer and Clerk, by January 31st.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon unmarried. Appointment for six months. Salary, £20, washing allowance (£2 10s.), with board and residence. Applications, on forms provided, to be sent to the Secretary by January 28th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. Salary, £350 per annum, with partially furnished house, etc. Applications, endorsed "Application for Medical Superintendent," to be sent to the Clerk to the Visiting Committee, County Hall, Brecon, by February 28th.

LANCASHIRE COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, with board, lodging, and washing. Applications to the Medical Superintendent, Winwick, Newton-le-Willows, by January 20th.

LONDON HOSPITAL, Whitechapel, E.—Assistant Director of the Pathological Institute. Salary, £200 per annum. Applications to the House Governor by February 1st.

LONDON LOCK HOSPITAL.—House-Surgeon to the Female Hospital. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary, Harrow Road, by January 24th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Pathologist. Applications to the Secretary, Mr. H. Teague, 88, Barton Arcade, Manchester, by January 31st.

MORPETH: NORTHUMBERLAND COUNTY ASYLUM.—Clinical Assistant. Board and residence provided. Applications to Dr. McDowall.

MOUNT VERNON HOSPITAL FOR CONSUMPTION, Hampstead and Northwood.—Senior Resident Medical Officer. Honorarium, £100. Applications to the Secretary by January 31st.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—House-Surgeon. Appointment for six months. Salary at the rate of £80 per annum, with board, residence, and laundry allowance. Applications to the Secretary, at the City office, 27, Clement's Lane, Lombard Street, E.C., by February 3rd.

ROYAL HOSPITAL FOR INCURABLES, Putney Heath.—Medical Officer. Salary, £125 per annum. Applications to the Secretary, 109, Queen Victoria Street, E.C., by January 21st.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—House-Surgeon for Branch Hospital, Royal Victoria and Albert Docks E. Salary £50 per annum, with board and residence. Applications to the Secretary by January 25th.

ST. ANDREWS UNIVERSITY.—Additional Examiners for graduation, in Physiology and [illegible] Applications to the Secretary by January 21st.

SHEFFIELD ROYAL INFIRMARY.—Senior Assistant House-Surgeon. Salary, £80 per annum. Junior Assistant House-Surgeon. Salary, £70 per annum. Board, lodging, and washing in each case. Applications, endorsed "Application for post of Senior or Junior Assistant House-Surgeon," to be sent to the Secretary by January 21st.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon. Applications to the Secretary by January 27th.

WESTERN GENERAL DISPENSARY.—Honorary Surgeon. Applications to the Secretary, 1, Wimpole Street, W., by January 28th.

WHITECHAPEL INFIRMARY.—House-Surgeon. Salary, £100 per annum, with board, washing, and apartments. Applications to the Secretary by February 1st.

MEDICAL APPOINTMENTS.

[illegible] A. MURRAY, L.R.C.S.I., appointed Government Medical Officer and Vaccinator, Dondra, Matara.

[illegible] H. C. [illegible], appointed District Medical Officer of the Staines [illegible], C.M.Edin.

[illegible] C. H. [illegible], appointed Medical Officer of the Rothbury Union.

[illegible] E. MORGAN, Esq., L.S.A., appointed Certifying Factory Surgeon for the [illegible].

[illegible] A. [illegible], M.B., C.M., appointed Medical Officer of Health for the [illegible], vice [illegible] Kemp, M.R.C.S., L.S.A., resigned.

[illegible] H. [illegible], M.R.C.S.Eng., appointed Examining Medical [illegible], and to the Alfred Boyan Memorial Home for Men, Women, and Children, [illegible].

[illegible] M.B., B.C.Camb., appointed District Medical Officer of the Barnsley [illegible].

[illegible], M.R.C.S., L.R.C.P., appointed Assistant Surgeon to the [illegible].

[illegible] M. [illegible], appointed District Medical Officer of the Peterborough [illegible], M.B., C.M.Edin., resigned.

CUTFIELD, A., B.A.Cantab., M.R.C.S.Eng., appointed Certifying Factory Surgeon for the Urban District of Ross and the Rural Districts of Ross and Whitchurch, county Hereford.

D'AMICO, C. de P., M.D.Malta, M.R.C.S.Eng., L.R.C.P.Lond., appointed an Assistant Medical Officer in the Hospital Service of the Metropolitan Asylums Board.

DICKMAN, Henry George, M.B., C.M.Edin., appointed Medical Officer of Health for the Diss Urban District Council, Norfolk, and Medical Officer and Public Vaccinator to the No. 5 District (Diss) of the Depwade Union, Norfolk.

DOVE, W. B., M.B., B.C.Camb., appointed District Medical Officer of the Hendon Union, *vice* J. K. B. Dove, M.B., B.S.Lond., resigned.

FLEMING, G., M.B., C.M.Edin., appointed District Medical Officer of the Marthley Union.

GRAHAM, A. W., M.B.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the District of Beaconsfield and Dalrymple, Tasmania.

GREENWOOD, T. P., L.R.C.P.Edin., M.R.C.S.Eng., appointed Certifying Factory Surgeon for the Stamford District of Lincolnshire and the Easton-on-the-Hill District of Northampton.

HAMILTON, Laudor, M.B., Ch.B.Aberd., appointed Resident House Physician at Chester General Infirmary.

HEMSTED, R. H., M.R.C.S., L.R.C.P.Lond., appointed Certifying Factory Surgeon for the Rural Districts of Whitchurch and Kingsclere, county Hants.

HEWER, C. M., F.R.C.S.Eng., appointed Certifying Factory Surgeon for the Tarporley District of Cheshire.

HOSFORD, R.B., M.B., B.S.R.U.I., appointed District Medical Officer of the Bradfield Union, *vice* R. Cox, M.D.St.And.

LALL, C. C., M.B., B.Ch.Edin., appointed an Assistant Medical Officer in the Hospital service of the Metropolitan Asylums Board.

MCCANN, Frederick J., M.D.Edin., F.R.C.S.Eng., M.R.C.P.Lond., appointed Physician to In-patients at the Samaritan Free Hospital for Women, London.

MACINDOE, J. G., M.B., C.M.Edin., appointed Medical Officer of the Workhouse of the Torrington Union, *vice* W. C. Burt, M.R.C.S., L.R.C.P.Lond., resigned.

MACKIRDY, W., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Stilton District of the Peterborough Union, *vice* E. B. Young, M.B., C.M.Edin., resigned.

MELLISH, J. S., M.R.C.S., L.R.C.P.Lond., appointed District Medical Officer of the Tetbury Union, *vice* G. W. W. Ashdown, M.D.Edin., resigned.

MUIR, W. C. O., M.B., Ch.M.Glasg., appointed Officer of Health for the shire of Alberton, Victoria.

PENFOLD, Thos. C., M.B., C.M.Edin., appointed Medical Officer of Health for the Hexham Rural District.

PLOWMAN, T. A. S., M.R.C.S., L.R.C.P.Lond., appointed District Medical Officer of the Taunton Union, *vice* W. F. L. Green, M.R.C.S.Eng., resigned.

STEWART, G. I. T., M.B., M.S.Aberd., appointed Assistant Medical Officer to the Brentford Union Infirmary, *vice* E. B. Parrett, M.R.C.S., L.R.C.P.Lond., resigned.

STEWART, J. E. F., M.B., Ch.M.Glasg., appointed Officer of Health to the Bayswater Local Board of Health, West Australia.

TERRY, Henry G., M.R.C.S., F.R.C.S.E., appointed Surgeon to the Royal United Hospital, Bath, *vice* R. J. H. Scott, resigned.

THACKRAY, C., M.R.C.S., L.R.C.P.Lond., appointed Third Assistant Medical Officer of the Bethnal Green Infirmary.

WALLACE, Robert F. S., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health for the Skegness Urban District.

A CORRECTION.—Dr. J. F. Gemmel has been appointed Medical Superintendent of the Whittingham Asylum, Preston, Lancashire, and not as stated in the JOURNAL of January 11th, p. 121.

DAIRY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Dr. W. Cayley: A case of Phlegmonous Gastritis due to Streptococcus Infection. Mr. Alexander G. R. Foulerton: A case of Pneumococcus Gastritis with General Infection. Mr. Harold Spitta: The Bacteriology of a case of Rapidly-spreading Gangrene. Dr. Bulloch: The Transmission of Hæmolysins from Ascendants to Descendants.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., 8.30 P.M.—Mr. L. A. Bidwell: Cases of Empyema of the Gall Bladder. Dr. J. Barry Ball: Remarks on the Clinical Diagnosis of Diphtheria in relation to treatment.

WEDNESDAY.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 P.M.—Dr. Arnold Chaplin: The Treatment of Pleuritic Effusion.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 5 P.M.

FRIDAY.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Discussion on Dysentery in Asylums, to be opened by Dr. F. W. Mott. Discussion on the Relation of the Dysentery of Asylums to that of South Africa, to be opened by Dr. J. W. Washbourn.

Clinical Society of London, 20, Hanover Square, W., 8 P.M.—Exhibition of Clinical Cases, followed by discussion. Patients will be in attendance from 3 P.M. to 9 P.M.

POST-GRADUATE COURSES and LECTURES.

Charing Cross Hospital, Thursday, 4 P.M.—Dermatological Demonstration.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 P.M. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, throat.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 P.M. Lecture on Intracranial Tumours.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 P.M. as follows:—Monday: Surgical Emergencies. Tuesday: Plaster-of-Paris Splints. Wednesday: Lantern Demonstrations on Hernia. Thursday: Surgical Emergencies. Friday: Diagnosis of Disease of Spinal Cord, illustrated by Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGE.

MCCLINTOCK—DANIELL.—On Wednesday, January 8th, at the Parish Church, Stanmore, Middlesex, by the Rev. W. Elliot, M.A., Prebendary of Hereford and Rector, assisted by the Rev. S. Bernard, M.A., Rector of the Parish, John McClintock, L.R.C.P.&S., etc., elder son of the late Dr. John Robert McClintock, of Church Stretton, Shropshire, to Frances Emily Gwendoline, widow of the late William Daniell, Barrister-at-law of the Inner Temple, and elder daughter of Francis Lewis, of Seaforth, Liverpool, and late of Ty-du, Monmouth.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, advertisements, delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager [illegible].

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS forwarded to the OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

U. A. asks what kinds of wine may be taken by a gouty person with least risk of suffering from acidity.

RUSTICUS asks for suggestions as to treatment of the following case: A young lady has had two patches on the chin which have existed for some years. They scab over and apparently nearly heal, and then become angry, "weep," and again scab over; the patches look like eczema rubrum, but there is apparently some parasitic infection of the true skin. Various antiparasitic remedies have availed nothing.

CHOICE OF ANÆSTHETICS FOR EPILEPTICS.

RUSTICUS asks: What anæsthetic would be the best to give a boy aged 14 subject to epilepsy, for extraction of teeth? or for any other purpose?

*** Nitrous oxide and oxygen constitute the best anæsthetic for brief operations. For prolonged operations this mixture may be supplemented by ether or the A.C.E. solution. Special knowledge and skill are required for such patients, although with care and the avoidance of any asphyxial complications epileptics take anæsthetics well.

OBTURATOR FOR PERFORATION OF SOFT PALATE.

PHARYNX asks whether it would be possible to fit an obturator into a perforation of the soft palate, situated low down about the base of the uvula? A dental plate is not practicable in this situation.

*** There is a special form of appliance which might possibly be available in such a case in which the obturator (of pliable vulcanised rubber) is carried back from a dental plate by means of a thin flat arm of gold. This arm is attached by means of a hinge, so as to follow the movements of the soft palate. Cannot the perforation be closed by operative measures?

ANSWERS.

S.E.—The Income Tax Repayment Agency, of 6, Chichester Road, Paddington, informs us that there is no doubt that a Poor-law medical officer should be assessed on his profits under Schedule E. They should not be returned for assessment under Schedule D. The only thing which our correspondent can now do is to claim a refund of the tax paid under Schedule D in excess.

LIFE ASSURANCE COMPANIES AND MEDICAL FEES.

WE have received a letter from a correspondent complaining that an American office offered only half a guinea for the examination of applicants for policies of £300 and under. We have repeatedly pointed out that it is not fair to expect medical men to give a full report for inadequate fees, and that it is to the interest of assurance companies to get the hearty co-operation of their examiners. We are not, however, in a position to publish, as our correspondent suggests, a black list of those companies which pay less than a guinea fee.

DECOMPOSITION OF CHLOROFORM IN PRESENCE OF HEAT.

T. W. R.—Chloroform when evaporated in the presence of a naked flame, such as that of illuminating gas, coal fire, or oil lamps, undergoes decomposition with the formation of intensely irritating acid fumes. These fumes, according to Professor Ramsay, are due to the formation of phosgene gas or carbonyl chloride. This gas is not only inconvenient and irritating to the eyes and throat, but has actually caused several deaths from bronchitis. These fatalities have occurred among patients and nurses assisting at operations. In damp atmospheres fumes of hydrochloric acid also result from decomposition of chloroform by a naked flame and give rise to dangerous bronchial irritation. It is undoubtedly the fact that when prolonged operations have to be performed or when several are carried out consecutively, as in a hospital theatre, the illumination by naked flames and the heating by open fires renders the use of chloroform distinctly dangerous alike to patients and the surgical staff.

LETTERS, NOTES, Etc.

The Medical Directory.

Dr J. H. Stowers, Harley Street, W., writes: Your interesting observations in the British Medical Journal of January 11th are founded upon the assumption that the publishers of the *Medical Directory* are accurate in the figures they print. I am aware that they are largely dependent upon the returns made by individual members of the profession in response to the circular letter sent out every year during the month of August. Hitherto I have understood that if a reply is not sent an asterisk is placed against the name in the list, indicating that the publishers are not responsible for accuracy, etc. On January 5th I forwarded a postal order for a copy of the new issue, and expressed my surprise and pain that my father's name had been omitted for the first time since a *Medical Directory* had been published in London, he being in the 84th year of his age. I enclose a copy of the reply received, which I cannot regard as altogether satisfactory. I admit that my father did not make a return as requested, but there are doubtless many others who equally omitted to do so. It is, therefore, impossible to say how many other names have been also unwarrantably deleted from the *Medical Directory* of 1902.

[*Copy.*]

The Medical Directory,
7, Great Marlborough Street,
London, W.,
January 6th, 1902.

Dear Sir.—Enclosed please find receipt. In reply to your letter respecting the omission of the name of Mr. Nowell Stowers, we very much regret that this should cause you any annoyance. Our clerk was looking out for some economies of space, and noticed that no return had been received from Mr. Stowers for two years, and concluded that he would not wish the entry repeated. We shall, of course, be pleased to reinsert the name, etc., now that we know that the entry is appreciated.—We are, yours faithfully,

The Editors.

To Dr. J. H. Stowers.

"What's What."

Mr Harry Quilter, Manchester Square, W., writes: My attention has been called to a most malignant and incorrect notice of *What's What* in the British Medical Journal, in which every assertion is misrepresented, and the majority absolutely false. This book is in no sense such as is described by your reviewer. It is not written, as your review implies, by one person, but by fifty-six writers, many of them men of eminence in their several high position in the literary, official, or professional world, and the articles have not been written, as you state, on the spur of the moment, nor do they bear any resemblance to the paragraphs which fill up odd corners in any evening paper. On the contrary, the subjects are chosen deliberately, and comprise almost all classes of information which are of practical interest and service to the public. Sir, for the accuracy of your critic. As to his fairness and [illegible] doubt is equally impossible. For to suppress every feature which lends distinction and originality to a book, to give no hint of its real aim, contents or usefulness, and to confine remark to a few general statements unsubstantiated by any shred of proof, is not [illegible] to Mr Well-aptly remarked but lately (in reference to a previous of his last book), "assassination." The truth can be put in a sentence. Medical etiquette has been offended, and the medical journal stabs the offender with a literary lancet.

*** Mr. Harry Quilter solicited an expression of opinion on his publication, and not being satisfied with the result, sends in a review of it by himself. We did not say that Mr. Quilter had violated medical etiquette, about which we assumed that he knew nothing, but that he had shown bad taste and want of *savoir faire*.

Income Tax.

Dr R. R. Rentoul (Liverpool) writes to recommend members of the profession to [illegible] of two pamphlets, the one entitled *Income Tax Relief*, by Alfred Chapman of the Income Tax Relief Association, Westminster Square, London, W., and the other, *Income Tax on Clergymen and Ministers*, by [illegible] Income Tax Adjustment Agency, Limited, 17, Chancery Lane, London, E.C. The price of the first is 1s. 6d., and of the latter 2s. 6d. *Income Tax Relief* price 1s. 6d., by post 1s. 8d. Specially designed for the use of small traders, but [illegible] agency that it is also employed by medical men [illegible]

[illegible] writes: The [illegible] may be more suited to [illegible] than [illegible] But as many doctors [illegible] the end of the present [illegible] the Medical Defence Union [illegible] consolidated. [illegible] Medical Defence Union [illegible] letter in [illegible] the complaint upon which the doctors were prosecuted.

The Potato as a Source of Urticaria.

Dr. Fraser A[illegible] [illegible] lately I have had [illegible] with [illegible] the potato [illegible] the essence of putrefaction from the [illegible] case why the [illegible] small arising therefrom as long as the potato remains hot after being boiled? If this is so, then a very grave danger exists to both life and health.

The Colonial Medical Service.

Lieutenant-Colonel A. Deane, M.D., I.M.S.Ret. (Belfast) writes: In your issue of January 4th there is a letter under the above heading, signed "Medical Officer," in which the following paragraph appears: "If the widows of medical officers of the Royal Navy, I.M.S., and the R.A.M.C., are entitled to pensions, why not the widows of medical officers serving in Africa under the Crown?" This is incorrect, at any rate as far as the I.M.S. is concerned, for the widows of its officers get no pension from the Crown. The pension they get is that subscribed for by the officers themselves. The Crown gives nothing.

LETTERS, COMMUNICATIONS, Etc., have been received from

A J. A. Allwood, M.B., Kingston, W. I.; A. W. L.; Dr. H. E. Armstrong, Newcastle-on-Tyne; Mr M. A. Alabone, London. **B** Mr. A. E. Barker, London; Dr. H. T. Bulstrode, London; Messrs. Bass Bros. and Stevenson, London; Mr. K. B. Baghot-Delabere, Hinckley; Mr. H. L. Browne, West Bromwich; Mr. J. P. Bush, C.M.G., Clifton; Dr. G. H. Brand, Northampton; B. M. Bone, M.B., Marske-by-the-Sea; Dr. W. Bain, Harrogate; C. Berkeley, M.B., London; Mr. L. A. Bidwell, London. **C** Dr. A. J. Campbell, Duns; Mr. M. M. Coyle, Cashel; Country Practitioner; Camestres; E. H. Collens, M.B., Hereford; Dr. A. Callender, M.B., Leith; Mr. H. Child, Reading Dr. A. Cooper, London; Mr. W. H. Clarke, Macclesfield; Mrs. Colby, London. **D** Messrs. Dawbarn and Ward, London; Davis's Feather Mills, Limited, Manager of, London; Dr. C. Dukes, Rugby; Dissatisfied; Dr. H. Drinkwater, Wrexham; Dr. G. H. M. Dunlop, Edinburgh. **E** Dr. W. R. Etches, Warlingham; Mr. T. A. Evans, London. **F** Fairplay; F.R.C.S.I.; Mr. A. G. R. Foulerton, London; Surgeon-Captain P. O. Fenwick, M.B., East London, S.A.; Dr. G. Ferdinands, Aberdeen. **G** E. H. Gibbon, M.B., South Shields; Dr. T. Gray, Acton, Ont.; J. Grimshaw, M.B., Aldershot; J. F. Gemmell, M.B., Lancaster; G. P. **H** Mr. C. G. Hoysted, Swanley Junction; Mr. R. Harrison, London; Dr. S. Halbreich, Bridgend; Mr. C. Heath, London; Dr. G. Hirsch, St. Petersburg; Dr. A. E. Harris, London. **I** Indecision; In Arduis Fidelis. **J** Mr. H. R. J. Jackson, Leeds; H. Jones, M.B., Dolgelly; Mr. G. E. Jeaffreson, Framlingham; Dr. F. W. Jollye, Alresford; Jack of All Trades; Mr. E. Johnstone, London. **K** Dr. G. S. Keith, Edinburgh. **L** Dr. C. F. Lillie, San Remo; Lex; Liverpool Medical Institution, Secretary of, Liverpool; Mr. F. Lace, Bath. **M** A. A. Martin, M.B., Howick, Natal; M.B., C.M.; Dr. A. M. McAldowie, Stoke-on-Trent; Dr. P. W. Macdonald, Dorchester; Mr. A. Maude, Westerham; T. G. Moorhead, M.B., Dublin; Mr. H. May, Birmingham; H. P. Motteram, M.B., Smethwick; Mr. J. D. Marshall, London; Dr. R. Maclaren, Carlisle; J. T. J. Morrison, M.B., Birmingham. **N** Dr. G. Nepeun, Marseilles. **O** Oculus; S. I. Oddie, M.B., Croxley Green; Mr. G. H. Oliver, Bradford; Dr. J. Oliver, London. **P** Messrs. L. Paechtner and Co., London; Mr. F. P. Philp, London; Pharynx; F. Porter, M.B., Comrie; Dr. W. R. Parker, Kendal; Mr. S. H. Perry, Spalding; Dr. W. L. Pethybridge, Plymouth; Mr. W. H. Peile, London. **Q** Query. **R** Rusticus; Mr. A. W. M. Robson, Leeds; Dr. W. B. Ransom, Nottingham; R. W. L.; Dr. T. W. Reid, Canterbury; Dr. F. Robson, Hayward's Heath. **S** Senior Physician; Sordello; Scot; Scrutator; Strenbo Company, Manager of, Manchester; Dr. T. Schott, Frankfort-on-Maine; Mr. S. Shonthell, London; Dr. J. H. Stowers, London; Mr. W. R. H. Stewart, London. **T** J. H. Thornton, M.B., Hove; Mr. H. Tapson, Hastings; Mr. W. Tyndale, Pretoria; Dr. J. W. Taylor, Birmingham; J. H. Targett, M.B., London; Mr. F. Twort, Camberley. **U** Dr. A. R. Urquhart, Perth. **W** Mr. J. D. Willis, Manchester; Dr. F. Willcocks, London; Dr. R. R. Wade, Tunbridge Wells. Dr. R. C. A. Windle, Birmingham; Mr. C. Williams, London; A. Wauchope, M.B., Glasgow. Dr. W. B. Warrington, Liverpool; Mr. H. S. Woods, Belfast. **Y** A. Young, M.B., Glasgow; etc.

BOOKS, Etc., RECEIVED.

"First Aid" to the Injured and Sick. By F. J. Warwick, B.A., M.B., M.R.C.S., L.S.A. and A. C. Tunstall, M.D., F.R.C.S. Second edition. Bristol: John Wright and Co. 1901. 2s. 6d.

Elementary Bandaging and Surgical Dressing. By the late Walter Pye, F.R.C.S. Revised by T. Carwardine, M.S., F.R.C.S. Ninth edition. Bristol: John Wright and Co., 1901. 2s.

Atlas der Krankheiten der Nase. Von Dr. F. H. Gerber. Liefg. 2. Berlin: S. Karger. London: Williams and Norgate. 1902. 6s.

The London Manual for 1902. Edited by R. Donald. London: Edward Lloyd. 1902. 1s. 6d.

The Edinburgh Medical Journal. Edited by G. A. Gibson, M.D., F.R.C.P. Vol. x. London and Edinburgh: Young J. Pentland. 1901.

Le Cancer du Sein. Etude Clinique, Statistique. Par Dr A. Le Dentu. Paris: J. B. Baillière et Fils. 1901. Fr. 3.50.

Wireless Telegraphy. By W. de Tunzelmann. London: "Knowledge" Office. 1902. 1s. 6d.

The Bradshaw Lecture on Prognosis in Relation to Disease of the Nervous System. By J. S. Barry, M.D., F.R.C.P. Manchester: Sherratt and Hughes. 2s.

Leitfaden zur klinischen Untersuchung des Blutes. Von Dr. C. S. Engel. Zweite Auflage. Berlin: A. Hirschwald. 1902. M.5.

Quain's Dictionary of Medicine. Third edition. Edited by H. M. Murray, M.D., F.R.C.P., assisted by J. Harold, M.B., B.Ch., B.A.O., and W. C. Bosanquet, M.A., M.D. London: Longmans, Green, and Co. 1902. 21s.

The Imperial Health Manual. Edited by A. Roche, M.R.C.P.I. Second edition. London: Bailliere, Tindall and Cox. 1902. 2s.

Poison Romance and Poison Mysteries. By C. J. S. Thompson, F.R.Hist.S. New edition. London: The Scientific Press. 2s. 6d.

Beitrag zum derzeitigen Stande der Abwasserreinigungsfrage. Von Dr. Dunbar und Dr. K. Thumm. Munich und Berlin: R. Oldenbourg. 1902. M.4.

*** Unpriced books: the publishers are requested to state the selling price.

Scale of Charges for Advertisements in the British Medical Journal.

Eight lines and under	...	...	...	£0 4 0
Each additional line	...	...	...	0 0 6
A whole column	...	...	...	1 17 6
A page	...	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Notes
on
A VISIT TO SOME AMERICAN HOSPITALS.

Read before the Gloucestershire Branch of the British Medical Association, December 17th, 1901.

By G. B. FERGUSON, M.D., B.Ch.,
Senior Surgeon to the Cheltenham Hospital, and President of the Association.

After the annual meeting I was glad to escape for a quiet week on the Atlantic, though the first night was not productive of repose, for we most unfortunately ran down and sank a large steam collier, causing thereby a loss of seven lives.

My object in visiting America was not wholly, as you may imagine, to inspect hospitals, though I did spend nine or ten mornings in that way. My primary object was to visit some relatives, to see with my own eyes a few of the great sights and cities of America and Canada, and to study in my own way the people and the institutions of America. Incidentally I did manage to make some few medical and surgical observations as well, and it is these that I will now endeavour to recall. As regards medical education the Americans and Canadians are not behindhand. With them you must now pass a B.A. examination or its equivalent before you are allowed to begin your medical studies, which last for a minimum period of four years. Dressers and clinical clerks are not to be found in America: their places are taken by the resident staff of the different hospitals, though these have medical superintendents also, and the teaching given by us to clerks and dressers is there given in special classes and by special instructors. In America there is much subdivision, and specialisms are numerous, and I was pleased to see in all the hospitals a special room for haematology.

If there are 21 medical portals with us, there are nearly 30 in the States as against 1 in Germany. Germany has 20 medical schools, we have about 35, and the United States 156. Can we wonder that in the States there is 1 doctor to every 600 inhabitants, whereas in Britain there is 1 to 1,100? In Russia there is only 1 to 8,500. I may remind those who have not looked into American matters, that although all the States are under the Congress and Senate, and the latter is really responsible to the Supreme Court, The States are practically independent. They may not tax one another's products or make separate treaties, and they cannot secede from the Union: but in other matters they may do just what they please. They make their own laws regarding divorce, for instance, and they may, as in the State of Maine, exclude alcoholic beverages altogether. Marriage with a deceased wife's sister is legal, I believe, in all of them, and they may and do make the most diverse laws regarding medical matters and regulations of health. In Pennsylvania you are requested not to spit in the cars. In New York you are reminded that the fine is £100 or a year's imprisonment, or both. The medical colleges and degrees are many, and the values vary much. I ascertained that the highest estimation is accorded to the degrees of the University of Pennsylvania, of the Johns Hopkins University, Baltimore, where you must be a B.A. before you can begin as a medical student, and of the College of Physicians and Surgeons of New York.

Next comes Harvard, and the rest—though many are very excellent—are distinctly of less account. The resident medical officers of the American hospitals are mostly selected by competition, and go on duty for two years. They are changed about a good deal to give them varied experience. One told me that he had had the subordinate care of the insane for three months: then for three months he was in the female medical wards, and for six months in the men's medical ward; after that he served three months in the ambulance department and six months in the surgical wards, and when I met him he was doing his three months in the receiving department. An excellent turn of experience. I am sure you will all allow, when it is remembered that he had also acted as a pathological assistant, and had attended his classes in bacteriology and haematology. Indeed, the residents are practically assistant physicians and surgeons *pro tem.*, and I have never seen the surgeons assisted by anyone else. As I expected, the American hospitals have a character of their own. New York has between one and two hundred, and Philadelphia, the third city of America, has forty-six. Each of the American hospitals has a definite district and itself sends for the invalids and accident cases of its district. Thus in most of the American hospitals you can see the ambulance waggons and the ready-harnessed horses, as at a fire-engine station. Many of the hospitals, however, now use motor carriages only.

Philadelphia.

Some of the hospitals are very beautiful. Many of the wealthy have aided them with large sums; Mr. Lankenau, for instance, of Philadelphia, who not very long ago gave £200,000 to the German Hospital of that town, thus making it the best in Philadelphia. All the passages of the German Hospital are of tesselated pavement, the flooring of the wards is of painted wood, and the walls and ceilings are painted white and varnished like our Cheltenham operating room. Dr. Deaver's beautiful operating theatre at the German Hospital has a tesselated floor, walls of white tiling, a painted and varnished ceiling, and the seats for students are of white marble. Even while an operation is in progress, an attendant comes in and swabs away the mess. The operating table is of brass and glass, and has the arrangement common in America of a ledge all round it to catch fluids, which are conducted into a bucket. Adjoining the theatre are the instrument room and the surgeons' baths and lavatory. These last are always found in America, and the surgeons commonly take baths before an operation and shower baths afterwards. They dress in canvas boots, linen pants and coat, all sterilized, and wear a gauze nightcap; and surgeons and nurses are similarly attired, and all wear long sterilized indiarubber gloves. I saw operations done when the temperature of the air was 85°. This occasioned perspiration, and it was the duty of one of the nurses to wipe the faces at short intervals with a swab. This was done in a friendly way, and commonly elicited smiles from both persons. The nurses, I observed, were treated with much deference and were not called nurse. "Miss C., may I trouble you for another ligature?" was the mode in which they were addressed. At the German Hospital of Philadelphia I took the nurses for nuns, and was surprised to hear that they belonged to a Lutheran sisterhood. The anæsthetic was always ether, poured liberally into a simple cone of lint covered with waterproofing, and I saw no struggling. Chloride of ethyl had been tried and abandoned. Children were given the ether on simple lint. The great character of the American hospitals is the worship of asepsis, which I have never seen so consistently and completely carried out anywhere else.

Dr. Deaver does an appendix operation on an average every day. Such cases seem to be very common in America. His mortality is 10 per cent. for acute cases and ½ per cent. for quiescent ones. In America I was assured that acute cases, medically treated had a mortality of 50 per cent. I did not see Dr. Deaver operate on an appendix case, though his wards were full of them, but I saw him remove a breast and a thyroid gland (mostly) and do a perineorrhaphy. He is ambidextrous, uses few instruments, makes great use of Wells's forceps, ties vessels with catgut, sews up continuously with silk, does not drain, uses only boiled distilled water to wash the wound, and dresses with plain sterilised gauze. He is a rapid and dexterous surgeon and it was a pleasure to see him at work. He makes no little cuts, I was told, in removing an appendix, but just cuts it off flush with a curved pair of scissors and then closes the hole with two layers of Lembert sutures; and his reputation in Philadelphia is second to none.

But the German Hospital is no better practically than the Pennsylvanian, when I saw Dr. Le Conte remove the whole diaphysis of the tibia. I also saw in his wards two cases of gunshot wounds of the abdomen. In both cases all the intestines had been turned out, and two wounds were found and sutured in the one case and three in the other, and both patients were doing well. Could anything show better that

the principles of asepsis are thoroughly understood and practised in America? In fact, the result of my wanderings in different countries goes to show that there is now very little to choose between them in a surgical sense. All are wide-awake, and striving keenly to the goal of complete success, and all are aseptic more or less. Each ward in Philadelphia —and the same is true elsewhere—has its little dispensary and gas kitchen; and I was surprised to see how few and simple the drugs and mixtures were. Everywhere one saw Basham's mixture.[1] In the American hospitals was to be seen none of the radiant polypharmacy of the great American manufacturing chemists, which is, indeed, much more *en evidence* in Britain than in America. There was a simplicity and directness in the American hospital prescriptions which told of strength and knowledge. The bath was the great treatment in typhoid; and I was told that anyone who would withhold serum in diphtheria might expect an early summons before the magistrate. Where I expected much I received nothing. I expected all kinds of novelties in the treatment of fractures, and saw none; no ingenious swings or novel splints or anything new. I actually saw fractures of the thigh treated by sandbags and a pulley, and fractures of the tibia and fibula in the old-fashioned wooden fracture boxes. Indeed, the main idea regarding the treatment of fractures seemed to be common splints for a few days and then plaster-of-paris. American ingenuity seems to have tired of splints, and to be exercising itself rather in the direction of perfect asepsis and ingenious suturing. Of course they had had many insolation cases, which were treated in outdoor double tents, constantly watered without and watered around, and the treatment was cold douching and ice externally, and iced water internally, with intravenous injections of normal saline fluid for the worst cases. I would dwell on the last as a truly valuable treatment, diluting, as it does, the inspissated blood.

Montreal.

The General Hospital at Montreal is old but efficient, but the Victoria Hospital there is new and thoroughly up to date. The pathological department, under the care of Professor Adami, who himself kindly showed me round, is second to none. There I saw a *post-mortem* room with no odour of decomposition. Each body, brought and removed by a lift, is kept in its own refrigerating chamber till it can be dealt with, and so decomposition is arrested. We have really much to learn from the Canadians and Americans as to the best arrangements of a dead house.

Baltimore.

I much enjoyed my visit to the Johns Hopkins Hospital, Baltimore, the scene of Osler's, Halsted's, and Kelly's work, though none of those notabilities were there then. It is almost outside the town, is built on a hill, and is a brick building of some architectural pretension, with its pinnacles at either end and its dome in the middle. The dome marks the octagonal central hall from which the passages radiate. In the hall stands one of the most beautiful statues I have ever seen in a hospital, a copy, 10 feet high, of Thorwaldsen's Christ, with its open arms and its touching legend, "Come unto me all ye that are weary, etc." It were tedious to describe minutely the Johns Hopkins Hospital, though I may mention that fresh air is there admitted by apertures in the walls and the fouler air is sucked out through apertures under every bed. Here there were wards of circular and other shapes, though the conclusion arrived at was that the old oblong form was best.

Though I did not see Dr. Halsted operating, I saw his methods carried out by Drs. Finney and Follis. Their cleansing of the skin is French concentrated solution of [illegible] first, then concentrated solution of [illegible] itself, then sublimate lotion, and finally sterilized distilled water. They use a peculiar haemostatic forceps, with narrow points. I brought some home with me and sew up with silver wire, passed subcutaneously from side to side, never transfixing the skin. They also wear indiarubber gloves, but the greatest novelty to me was silver foil for the dressing next the skin. The foil and its enshrouding paper are both sterilized, and many layers of both are used. Then comes a plain gauze dressing, and that is all. I have brought back with me some of these gloves and this foil for my colleagues to make trial of, and with them Halsted's needle-holder, which he uses for all his suturing. Of course the silver foil forms antiseptic silver salts—natural itrols and citrols as it were—with the serum. A German surgeon once recommended a pure silver plate—which is more flexible than lead—to go next to the wound, and I had even made the same suggestion, but I first saw it carried out in a very practical way at Baltimore. Radical cure of hernia (Bassini's operation and Halsted's suture) was the chief operation seen by me at Baltimore.

New York.

I finally came to New York, and there I began with the great, though scarcely modern, Belle Vue Hospital, the hospital of Austin Flint, Sayre, Keyes, and Noyes. It has one great recommendation, it lies on the bank of the East River, and the convalescents can wander down to the brink, to enjoy alike the fresh breeze and the busy scene; hence the name Belle Vue. There I was so fortunate as to meet Professor Alexander, who knew friends of mine, and whose one thought was to be kind, helpful, and hospitable. He said that Callender, Savory, Marsh, Reginald Harrison, and many others had shown him so much kindness in England that it always gladdened him to make some return to wandering Englishmen; and certainly he did it in my case. I was much interested in seeing him do perineal section for recurrent stricture. First a whalebone guide; then a small catheter over it, then perineal section on the catheter, then Otis's urethrotome dilator was used, dividing the upper wall of the urethra, which was then dilated, and finally a No. 20 rubber catheter was passed perineally into the bladder and left there. I was so pleased with Otis's instrument after seeing its practical use that I brought one home with me for the hospital. Dr. Alexander made a great point of dividing the upper wall of the stricture. At his request I assisted him at something still more interesting, namely, perineal prostatectomy. According to Dr. Alexander, difficult urination in elderly men is usually not so much from middle as from lateral prostatic overgrowth. For this condition he does an ingenious operation. He opens the membranous and dilates the prostatic urethra, and then works from the inside of the prostatic portion. He has discovered a natural line of cleavage in the lateral lobes of the prostate, and this he is able to get into from the prostatic urethra. He separates the abnormal lateral growth with his finger, and completes the operation by twisting it out with forceps. He works above the prostatic veins, and far below the upper surface of the gland, and so hæmorrhage and peritonitis are both alike prevented. If the middle lobe projects—it did not in the case I saw—it is dealt with similarly, and finally a big catheter is tied in perineally. As the lateral cavity contracts it pulls wide open the prostatic urethra, and the membranous portion is not injuriously interfered with. The case I saw operated on did very well. Dr. Alexander's operation is much less serious than that of Albarran of the Hôpital Necker, Paris, described in the British Medical Journal of November 30th. In the latter operation the rectum and prostate are separated; the posterior capsule of the prostate is divided mesially; the lateral lobes are then removed piecemeal, and the central lobe is enucleated by the finger passed—after Dr. Alexander's plan—through an incision into the membranous urethra. Though a formidable operation, Albarran has recently narrated 16 consecutive successful cases—a very promising result when we remember the 12 to 15 per cent. mortality of suprapubic prostatectomy. Dr. Alexander does not believe in Bottini's burnings, and assured me that castration and vasectomy were seldom of real and lasting service in prostatic hypertrophy. It was a great privilege to be allowed to feel every stage of Dr. Alexander's operation, and I was duly dressed and disinfected with that end in view. The disinfection at the Belle Vue is thorough, first ether soap, then chloride of lime powder, then sodium carbonate solution, which causes evolution of chlorine, and then 1 in 2,000 sublimate lotion. I am sure it is thorough, as my hands smelt of chlorine all the rest of the day and even next day. Asepsis without antisepsis is of small avail.

Opposite to the well-named Belle Vue Hospital is the great pile of the Cornell University School of Medicine, where the great dissecting room at the top of the house is 60 yards by 20, the finest room of the kind ever seen by me. Throughout the whole building, with its many lecture rooms and departments,

cleanliness reigns supreme, as represented by white tiled walls and tesselated floors, while you go up and down as quickly as you can wish in the lifts. There are four classes of 80 each working in the Cornell building, the freshmen, the sophomores, the juniors and seniors, to use the American mode of designating first, second, third, and fourth year men. There is also a polyclinic in the same building, with rooms for examining every class of malady, and I was struck to see well nigh a dozen ophthalmoscopic dark rooms for students. I will venture to add that the Cornell student of medicine enjoys privileges unsurpassed by medical students in any part of the world.

Although New York is the second largest city in the world, it has only three degree-granting medical schools: that of the University of New York (to which is affiliated the Belle Vue Medical College); that of the College of Physicians and Surgeons of the City of New York (the Columbia University of the City of New York Medical Department) and that of the Cornell University; though the head-quarters of this last are 300 miles away, at Ithaca.

The Presbyterian Hospital of New York, with its 360 beds, is very beautiful and very modern. Originally founded by the Presbyterians, its proud motto is "Open to all, irrespective of creed, nationality, and colour." What can I say of it that does not apply to the others? Nothing, unless that being like them, it is more perfect and more sumptuous than some, with more walls and doors of marble and all its passages with tesselated floors. The tesselated flooring of America is neither granolithic nor terazzo, but it is of small square blocks of marble laid in cement, and patterns and ornamentation are readily supplied by different colours of marble. Whether it is the best flooring or not remains to be seen, and experiments are being made to prove this matter: but in respect of its popularity there can be no two opinions, as I was interested to see the same flooring in the most recent restaurants and even in the churches. Like all the American hospitals and unlike the beautiful Boucicaut Hospital of Paris, the floors of the wards are of painted and varnished wood, or of parquetry, and no cracks were visible between the boards. In the Boucicaut of Paris and in many of the best private hospitals of France and Germany even the ward floors are of terazzo. In the Presbyterian Hospital and in most of the New York hospitals the drug cabinet is in the middle of the ward and the head nurse sits near it at her table which is adorned with flowers.

In all American hospitals the sterilizers of clothing and dressings are of vast size, and look like great brass boilers. They are usually supplied with steam from the basement, and are used at a pressure of two atmospheres for at least twenty minutes. All water for all purposes is sterilized and filtered, and the same is the case at the best hotels. The basement story at the Presbyterian, with its great boilers, ventilating machinery, automatic pumps, dynamos, and driving engines, reminded one of the engine-room of a great steamer. The chief engineer is an important official in all large American hospitals. American nurses never sleep in rooms adjoining the wards, but some distance off, and therefore never think of sleeping when on duty. Soiled utensils are cleansed by powerful upward jets of water, preparatory to chemical disinfection with carbolic soap and corrosive sublimate.

I was told of a clergyman who distrusted the cleansing power of the upward jet, and, bending over it, asked the assistant superintendent of the Presbyterian Hospital to turn it gently on. Quite accidentally it was turned full on, and a jet that would have reached the ceiling fairly lifted the reverend gentleman off the floor. On his return to *terra firma*, and after drying his face and head, he told the assistant superintendent that he should never again distrust their cleansing arrangements.

In all American hospitals are paying wards. Where several patients occupy the same ward the charge is £3 per week: for strictly private rooms it is from £5 to £8 a week. This includes everything but the doctor's private charges, and the patients may select any member of the staff to attend them. Women nurses are the most numerous, though male orderlies are also kept for the bedpan and urinal work of men. Otherwise men are attended by women nurses. The male orderlies get £4 a month: the wage, I may add, of sailors and stokers on an ocean liner. The whole flat roof of the "Presbyterian" is used as a "solarium," and hammocks, seats, and couches were all about. After 7 P.M. the roof belongs to the nurses. They play games there, and no male person is allowed to interfere or even look on. I asked one of the surgeons what they did. He replied that he did not know, but that they enjoyed it very much.

The solar and Finsen treatments for lupus have both been tried at the Presbyterian, and both abandoned as longer and no better—so they say there—than scraping and caustic. At the hospital named, as at St. Bartholomew's, there are no admission tickets and disease and poverty are the only credentials for admission. Out-patients come at 1 P.M., and the doors are closed at 3 P.M. The patients are quickly sorted and then prescribed for in the fourteen rooms that surround the central waiting room, and whether the case is medical, surgical, gynaecological, nervous, of ear, throat, or eye, or children's malady, venereal, or disease of the skin, there is the specialist in attendance, knowing all about his own work, and nothing, perhaps, about any one else's, and the applicants of the day are quickly seen and sent off with their medicines. The American is always in a hurry, even at a hospital, and even there must not be kept long waiting. The means of all the patients are carefully gone into by the superintendents. The well-to-do are refused altogether, and those who may fairly be expected to pay something are there and then called on to do so.

Dr. Blake, of the Roosevelt Hospital, kindly sent me a telephone invitation, and accordingly I spent a long and interesting morning at the hospital named, which was founded by an uncle of the new President of the United States. Dr. Blake's operation for fractured patella is excellent, and I shall certainly try it. It is very simple: open and wash out the joint, and then with catgut sew together the torn capsule and the torn periosteum. Riding of the fragments is thoroughly prevented. Then followed a subcutaneous suture of the skin, an ordinary dressing, and a plaster casing. In Bassini's operation for hernia the only peculiarity lay in two stitches of the internal ring, the stitches passing over the cord. At the Roosevelt Hospital they attach much value to these stitches, as strengthening a weak part and telling against recurrence. Dr. Blake's operation for umbilical hernia is a large one. He sweeps away a large oval of skin, 12 ins. by 8 ins., the hernial protrusion occupying the centre. Then he separates the peritoneum from the muscles, and stitches the peritoneum together. Then he lays one flap of muscles on top of the other, the overlapping extending to 4 or 5 inches, and stitches them together on both sides, interposing thus a double muscular layer to oppose a hernial reproduction. The operation seemed formidable, but Dr. Blake assured me that all his cases—twelve in number—had recovered and were so far radical cures.

I spent another morning at the palatial St. Luke's Hospital, perhaps more aseptic than any, where the back of the chief operating room is a huge semicircular cupboard, with everything ready for use—swabs, gauze, bandages, catgut, tubes, and catheters, and all in hermetically-sealed sterilized bottles and tubes. Sterilized distilled water and normal saline solution were in large glass flasks, stoppered with cotton-wool, and tied over with mackintosh. So particular are they there and in many other hospitals in America that even an assistant surgeon of the hospital may not enter the operating space unless he, too, is cleansed and dressed, and you are warned by a notice in some hospitals not even to touch the brass bar that separates the aseptic from the septic.

At St. Luke's I saw the internal jugular vein accidentally wounded—or a small branch torn off—and air sucked in and the patient apparently die; but he did not die. Strychnine subcutaneously, and artificial respiration and oxygen, which was there all ready, brought him round, and he made a good recovery, though at one time I could see the froth issuing from the vein. There was no tying the puncture, though packing with iodoform gauze arrested the haemorrhage admirably.

The sum of all the matter is, notwithstanding the accident just narrated, that the Americans are careful, painstaking, and successful rather than quick and showy surgeons. They make more use than most of scissors both for separating and dividing, and they are really the premier aseptists of the

world. I met about a dozen well-known surgeons of New York at dinner on the night of my departure, and you may be sure I was called on to tell them what I thought of them. I told them very much what these pages have been telling, and did not disguise my admiration of their hospitals, and of their perfectly thought out system of asepsis. They were pleased, for the Americans are not insensible to the commendation of an Englishman, a commendation that is well deserved, and always accorded to them by the British surgeons who visit America, but not often, so they complained, by German surgeons. They scouted the idea of their having learnt aseptic principles from the Germans, and unanimously gave the whole credit of their present arrangements and of their surprising perfection to one man only and to one pioneer hospital alone, and the date was five or six years ago, and that man's name is McBurney, and that hospital is the Roosevelt.

My connection with the British Medical Association was not, I am pleased to say, discovered in Baltimore and Philadelphia, though it was soon found out in Montreal and in New York. But I had no reason to complain, and the farewell dinner I have referred to was a very genial and brotherly function. After dinner I was by a delicate attention put next to Dr. Symm, the President of the New York State Medical Association, and you may be sure that he spoke and spoke well, and I in return said the pleasantest things that I could think of, and we spent a very friendly evening.

I did not retire without what was most kindly meant, though incongruously styled "a last stirrup cup," and then and directly afterwards embarked on the great ss. *Celtic*, on which most of the foregoing description was written. My advice to others is to do as I did. A visit to America is in many ways a great eye-opener. The American hospitals are second to none, and will, I venture to say, surprise, as much as they will delight and instruct, many British physicians and surgeons. Nowhere else have I looked on such a scene as New York by night. See the Americans at home, and you will see some of the cleverest men and handsomest women in the world. Be just and friendly and cordial with the men of America, and you will find that they are only waiting for an excuse to extend the hand of true and lasting friendship. I only met one American who was a pro-Boer, and he knew nothing about the matter and acknowledged it, and was converted in ten minutes. "*Grattez un Russe*," said Napoleon very rudely, "*et vous trouverez un Tartare!*" "*Grattez un Américain*," say I, "*et vous trouverez un Anglais!*"

NOTE.

[1] Dr. Basham's mixture is: Liq. ammon. acetat. 3j; acid acetic dil. mxviij; tr. ferri perchlor. mxv. Aqua ad 1 oz. Ter vel quater in die sumendi.

LEGISLATION AGAINST TUBERCULOSIS IN AMERICA.—The Governor of Arizona intends, according to the *Journal of the American Medical Association*, to recommend the creation, under legislative authority, of a Territorial Board of Health, investing its officers with full power to quarantine and segregate persons coming into the territory afflicted with consumption, precisely on the lines of the power of the Boards of Health of the various States in quarantining against any dangerous contagious disease. The Governor will further recommend that a law be passed prohibiting consumptive persons from living in hotels and boarding houses with healthy people, and requiring them to live upon the desert in such places or sanatoriums as shall be provided, and in such localities where the possibility of contagion will be as greatly reduced as circumstances permit.

LEGISLATION AGAINST LONG SKIRTS.—It is stated by *American Medicine* that an ordinance against long skirts will be introduced by one of the members of the Bayonne, New Jersey, Board of Health. He proposes that it shall be made a misdemeanour for a woman to wear gowns that sweep the street, on the ground that in this way she may be the means of spreading disease. In Pottsville the Board of Health has issued an order against the wearing of long skirts in the streets. Boards may order, but will women obey? And if they will not, how are they to be made to do so? We fear the Boards of Health of Bayonne and Pottsville have a lively time before them.

Series of Original Communications ON SOME TROPICAL DISEASES.

THE OPERATIVE TREATMENT OF LYMPHANGIECTASIS OF FILARIAL ORIGIN.

BY LIEUTENANT-COLONEL J. MAITLAND, M.D., I.M.S.,
Professor of Surgery, Madras Medical College.

IN the year 1889 a young man came under my care suffering from lymphangiectasis of the glands of the groin, and, on examining his blood, it was found to contain filariae. He suffered from frequent and severe attacks of pain, and fever, so much so that he was unable to follow any occupation, and he begged for something to be done to relieve him. In considering his case it occurred to me that the parasites might possibly be lodged within the diseased glands themselves, and that, if this were the case, removal of the latter might afford the patient relief from further trouble. The patient readily fell in with this suggestion, and decided to undergo operation. The mass of diseased lymphatic tissue was removed, and the operation was followed by entire cessation of the attacks of fever and pain.

The practical value of this operation has since then been fully established by the results obtained in a number of similar operations performed in Madras by other surgeons besides myself. The mass of tissue removed in the first case was unfortunately lost before there was an opportunity of examining it, so that it is impossible to say whether any filariae were lodged within it or not. However, in a similar case met with at a subsequent period, the glands that were removed were found to contain several parasites, both male and female.

As these facts have already been recorded in the *Indian Medical Gazette* as well as in the BRITISH MEDICAL JOURNAL, I would not have brought them forward at the present time but for the fact that such operations are still condemned in some of the textbooks and in other writings. Even so late as the last meeting of the British Medical Association, one of the speakers in the Section of Tropical Medicine went so far as to state that "he considered removal of lymphatic glands from the groin an unscientific treatment for filariasis." In their *Manual of Surgical Treatment*, Messrs. Watson Cheyne and Burghard emphatically condemn all operations for the removal of lymphangiectasis. In speaking of lymphatic varix they say excision of the varicose trunks is not at all to be recommended, and in treating of lymphadenocele they say the inguinal masses must on no account be excised or incised. Other authors also have condemned these operations, Manson alone admitting their justifiability under certain circumstances. It is needless to say that the above-mentioned work has at the present time a very wide reputation, and any emphatic pronouncement by its authors is certain to carry considerable weight, and in this instance is likely to restrain surgeons from attempting to carry out operations of the nature indicated by the title of this paper. Under these circumstances I think it imperative to draw attention to the fact that during the last ten years a great number of these operations have been performed in Madras and that no unfavourable results have followed, but, on the contrary, in many cases very marked benefit has resulted to the patient, and in some instances a complete cure has been obtained.

The objections that have been raised against operations for the removal of lymphatic varices and lymphadenoceles are of three kinds. In the first place, it is said that such operations are unscientific in principle, as only a portion of the varix is removed and the obstruction to the circulation of lymph still persists. Secondly, according to the authors of the *Manual of Surgical Treatment*, the operation is frequently followed by lymph ecchymosis or a lymphatic fistula forms and can never be closed. Thirdly, it is asserted that such operations are very liable to result in septic infection or erysipelas.

The answer to the first of these objections is twofold. In the first place, in spite of the theoretical objections that have

been raised against the *rationale* of the operation, practice has proved that it is often successful in relieving the patient from the distressing symptoms which so frequently accompany the disease—that is to say, the periodical attacks of fever and pain. The following brief notes of three cases speak for themselves in regard to this point:

CASE I.—Mr. ——, a European, was attacked in the middle of February, 1897, with fever, accompanied by pain and swelling of the glands in the right groin, the attack lasting three or four days. Similar attacks followed about once every week, and in six weeks he had seven attacks. In consequence of these frequently-recurring seizures he was prevented from attending to his business, and begged urgently for something to be done to relieve him. The lymphatic glands in the right groin were found to be enlarged, forming a soft, collapsible mass having all the characters of a filarial lymphatic varix. An operation was performed, and the entire mass removed under chloroform. Since that time, a period of four years, the patient has never had any trouble of any kind.

CASE II.—A Hindu, aged 24, was admitted into hospital on February 19th, 1880, for a tumour in the right femoral region. The disease had been in existence for eight years, during which time he had suffered from periodical attacks of fever accompanied by pain and swelling in the femoral region. On examination he was found to have a large lymphatic varix in the right femoral region, and the blood contained large numbers of embryo filariae. The great frequency of the attacks, which sometimes recurred only after five days interval, rendered the patient's life miserable as well as useless, and he was ready to submit to any treatment that promised relief. A month after admission to hospital chloroform was administered and the tumour removed. The wound healed satisfactorily, and the patient was discharged from hospital a month after operation. Two years and a half later he wrote to me as follows: "It is beyond description to write of the benefits of the operation. Before this to draw a bucket of water, to walk a mile and return, to stand for more than fifteen minutes was impossible. The benefit of the operation is such as to make me undertake an enterprising life." This satisfactory result was maintained for nine years, during which time he was "healthy and active and able to earn his bread." At the expiry of this period of time he was unfortunately attacked with a disease of a similar nature in the left groin, and later on symptoms appeared which pointed to the site of lymphatic obstruction being seated high up in the intra-abdominal vessels. Putting aside this fresh attack of disease, there can be no question as to the benefit derived from operation in this case. Nine years of health and comfort were added to the patient's life, and during the whole of that time he was able to earn a livelihood.

CASE III.—A European, aged 16, was admitted into hospital on August 6th, 1894. The patient stated that he had noticed swellings in his groins for a month previous to the date of admission, and had suffered from attacks of fever. On examination a large lymphatic varix was found in the right groin, and a smaller one in the left groin. The blood was examined, and found to contain filariae. In addition to the inconvenience caused by the attacks of fever, the patient was suffering considerable mental anxiety owing to his knowledge of the nature of the disease, and he begged to have the swellings removed and the worms taken away if possible. Accordingly, a few days later chloroform was administered, and the varix in the right groin removed. On dissection of the tumour after removal it was found to contain one male and two female filariae. Healing of the wound was somewhat delayed by suppuration, but the patient was discharged quite well a month after the operation. Since the patient left hospital he has kept good health. The small varix in the left groin has not increased in size nor given rise to any trouble. During the month that the patient remained in hospital after operation no filariae could be found in the blood. Since that time there has been no opportunity of examining his blood.

These three cases in themselves furnish a complete answer to the first objection. A further answer lies in the fact that these varices are often quite local; the upper or more central portion of the lymphatic system not being implicated. This was the condition of things present in the first and third of the cases related above. In connexion with this question it is important to bear in mind that the object held in view in these operations is not so much the excision of the varix itself, as the removal along with it of the filarial worms themselves.

The second of the objections that have been raised against these operations is the probability of their being followed by lymphorrhagia or by the establishment of a lymphatic fistula. This is certainly not the experience of surgeons in Madras. I have never seen such a result myself, nor have I ever heard of its occurring in the practice of any of my colleagues.

The third objection raised against the operation is that such cases are prone to be attacked by septic inflammation or by erysipelas. Here again the experience of Madras is completely at variance with the dictum of the authors of the work alluded to above. I have never seen or heard of a fatality from one of these operations. In a few cases that I have seen, where a large number of ligatures were required, suppuration took place in the wound; but no further trouble ensued. If pressure is applied over the wound the lymphatic channels become rapidly sealed, and no more oozing of fluid takes place than would occur from any other wound. Therefore it is not evident, on theoretical grounds alone, why such wounds should be more liable to infection than others.

The point that I desire especially to emphasize is that the object of these operations is, not to restore the circulation of lymph, but to relieve the patient from the sufferings entailed by the constantly recurring attacks of pain and serious constitutional disturbance. That this result is achieved in a number of cases has been proved by experience, and it is for this reason that I desire to press the advantages of the operation. No theoretical objections can carry any weight in the face of the favourable experience gained by those who have operated in these cases.

The explanation of the pathology of the periodical attacks of pain and fever is still obscure. Manson's original theory that they were due to abortion on the part of the female parasite and consequent plugging of a number of lymph channels, is the most feasible explanation that has hitherto been put forward. Whether this be the correct explanation or not, there can be no doubt that the parasites themselves are, in some way or other, the cause of the inflammatory attacks. Hence the first principle of preventive treatment in such cases should be to endeavour, if possible, to remove the parasites. Judging from the fact that in some cases no parasites have been found in the mass of tissue removed at the operation, it is possible that the success of the latter may be due to other causes than the mere removal of the worms themselves. Assuming that the attacks of inflammation are coincident with, and due to, abortion of the female worm, the removal of those vessels by which the extruded ova are carried prevents further damage to the tissues beyond. Moreover, it is extremely probable that the stasis of lymph which follows ligature of the vessels results in the death of the parasites.

OBSERVATIONS ON HUMAN FILARIASIS IN TRINIDAD, W.I.

BY GEORGE A. VINCENT, M.B., B.CH.EDIN.,
Trinidad Medical Service.

FILARIASIS, on account of its interesting analogy to malaria and the recent additions to our knowledge of the life-history of the parasite, has become a subject of practical importance, attracting the attention of many observers in the tropics. The following is a record of the conditions associated with its prevalence in Trinidad. The population of the Colony is composed of a very heterogeneous group of people, more than a third of whom are East Indian immigrants, the remainder comprising the descendants of the original African slaves and Caribs, and representatives of almost every nationality. In addition there is constant immigration from the neighbouring Colonies, which makes it difficult to decide in what way filariasis was first introduced, whether originally by the African slaves or as a recent importation from the other West Indian islands.

INCIDENCE OF FILARIASIS AND FILARIAL DISEASES.

The following table gives the result of the examination of 500 cases taken indiscriminately from among the patients at the Colonial Hospital, Port of Spain, the St. Ann's Lunatic Asylum, and from private sources:

Race.	Number Examined.	Number with Filaria.	Percentage with Filaria.	Number with Elephantoid Disease.	Percentage with Elephantoid Disease.
Blacks ...	323	16	4.9	21	6.5
White ...	55	6	10.9	8	14.5
East Indians	122	3	2.4	4	3.2
—	500	25 (or 5 %)	—	33 (or 6.6 %)	—

In the above table the term "blacks" is meant to comprise all those of negro descent, and although the number of them infected (16) included two recent settlers from Barbadoes, it probably represents the true incidence of filariasis in the case of the black population. The percentage of infection in the case of the whites appears remarkably high, and is no doubt due to the fact that the majority of those examined were

natives of Barbadoes and Demarara, where it has been shown [1] that the white population is highly infected with filaria. It is, nevertheless, true that the whites in Trinidad are in no way exempt from the danger of infection, and with them the result (14.5 per cent. elephantoid disease) appears to be a very serious matter. The East Indians form the chief labourers on the sugar cane estates, and to a tendency on their part always to live by themselves in small villages away from the other classes must be attributed their slight infection with filaria.

The blood films were all collected between 8 P.M. and 11 P.M., and with one exception, in which filaria Demarquaii was found, all the infected cases proved to be filaria nocturna. The chief forms of filarial disease observed were (in the order of frequency) elephantiasis of the leg, elephantiasis of the vulva, chyluria, filarial lymphangitis, and elephantiasis of scrotum and penis. Of the 25 cases infected with filaria 3 (or 12 per cent.) were the subjects of well-marked elephantiasis, while of 475 uninfected cases 30 (or 6.3 per cent.) gave evidence of elephantoid disease.

METAMORPHOSIS OF FILARIA IN MOSQUITOS.

A number of experiments were undertaken to estimate to what extent the observations made in other tropical countries on the metamorphosis of filaria in mosquitos coincide with the conditions in Trinidad. The species of mosquitos employed were *Culex fatigans*, *Culex taeniatus*, and *Anopheles albimanus*.

Culex Fatigans.—A small brown mosquito described by Giles [2] as closely resembling *Culex pipiens*, and by Low [3] as occurring in St. Lucia and Barbadoes, is the common house pest here during the rainy season. It breeds freely in all collections of water about the dwelling house, and bites voraciously at night. Specimens were bred out and fed on a highly-filariated patient. In about 9 per cent. of those fed, the metamorphosis of the filaria embryo took place in the muscle of the thorax in the manner described by Bancroft, James, Low, and others, working with *Culex ciliaris* and other species. About the tenth day the embryos were fully one-twentieth of an inch in length, and when teased out of the thoracic muscles exhibited active wriggling movements. The final stage of the metamorphosis was reached between the sixteenth and the nineteenth day, the fully-developed embryo appearing shortly after in the tissues of the head and proboscis. Although special attention was devoted to the point, in no case was the final stage reached earlier than the sixteenth day, in spite of the fact that the mosquitos were kept in a room, the temperature of which was never lower than 76° F., and often for the greater part of the day, was about 85° F. (August). It would appear, therefore, that a high temperature alone is not sufficient to accelerate the metamorphosis to such an extent that the final stage can be reached in seven or eight days, as Manson first announced, though a lowering of temperature may considerably retard the process. One must look to other factors for the explanation of the variability in the time taken by different species, and it will possibly be found in the fact that some species in highly filariated localities have acquired in an exceptional degree the capacity for acting as intermediary hosts. By storing the mosquitos in dry mosquito-net cages, and feeding them on ripe bananas, it was possible to keep some of them alive as long as seventy days. Many examined on the fortieth and forty-fifth days after infection with filaria still contained numerous fully-developed embryos in the proboscis and head tissues, and it is evident that Grassi's and Noé's [4] statements that *Anopheles* rid themselves of the fully developed embryos when made to feed on fruit cannot hold good for *Culex fatigans*, for by this time most, if not all, of the embryos would have been voided.

Culex taeniatus, a smaller blackish mosquito with silvery spots on the body and striped legs, is very common all the year round, is a rapid breeder and a nocturnal and diurnal feeder. Many specimens were bred out and fed on a filariated subject, but investigation soon proved that either this species of *Culex* is not an efficient host for filaria, or that it is impossible to supply them, while in captivity, with the conditions necessary to the complete metamorphosis. The metamorphosis took place more slowly than with *Culex fatigans*, and although fed on the same patient, a much smaller number of embryos migrated from the stomach to the thorax. Of those that reached the thoracic muscle several became sessile and underwent no further change; others developed slowly up to the sixth day, after which no further changes took place, and by the eighth day disintegration and absorption began, while many specimens examined from the tenth to twelfth day showed no signs of embryos. The plan was tried of giving a second, and in some cases a third, feed of filariated blood on the third or fourth day, but the result did not appear to be affected in any way, no filaria embryos reaching the final stage.

Anopheles albimanus, a large black insect with snow-white rings on legs, occurs in the highly malarious districts and in swampy localities outside of the city of Port of Spain. In these localities it sometimes greatly outnumbered the commoner species of *Culex*, and as it proved to be an efficient host for filaria it probably forms an important factor in the spread of filariasis in these districts. Great difficulty was experienced in getting them to breed in captivity and it was found impossible to keep them alive more than fourteen days. The specimens bred out and fed on a filariated subject showed the metamorphosis taking place more rapidly than in *Culex fatigans*, the stage reached by the tenth day corresponding to that of the twelfth day with *Culex*. As none lived beyond the twelfth day after feeding it is not possible to say definitely when the final stage is reached, but judging from the size of the embryo and its active movements it is likely that the fully metaphorphosed filaria reaches the proboscis shortly after the twelfth day. A second feed of filariated blood did not seem to improve the condition of the *Anopheles*, those receiving it dying about the same time as the others.

PROPHYLAXIS.

That filariasis is transmitted through mosquito bites admits of little doubt, whatever may be the other means by which infection may be carried, and protection from infection practically means protection from mosquitos. It may be possible to rid a locality of *Anopheles*, which require special conditions for breeding, but this is not so easy a matter in the case of the *Culices*, which breed readily in any collection of water. Much may be done even in the case of *Culex* by protecting all stored water and frequently emptying all collections of water so as not to allow sufficient time for the larvae to mature.

Meanwhile the only safeguard is to be found in the habitual use of mosquito nets, especially when in the neighbourhood of known filariated individuals. If a malarial subject is a source of danger to those around him, a filariated individual is doubly so, for in his case the carriers of infection are drawn from the ranks of a very common speces of mosquito, as well as from the rarer species to which we owe malaria.

REFERENCES.

[1] *Journal of Tropical Medicine*, August, 1898. [2] *Handbook of the Gnats or Mosquitos.* [3] BRITISH MEDICAL JOURNAL, June 1st, 1901. [4] *Ibid.*, November 3rd, 1900.

ON THE CAUSAL RELATIONSHIP BETWEEN "GROUND-ITCH," OR "PANI-GHAO," AND THE PRESENCE OF THE LARVAE OF THE ANKYLOSTOMA DUODENALE IN THE SOIL.

BY CHARLES A. BENTLEY, M.B., C.M.EDIN.,

Medical Officer to the Empire of India and Ceylon Tea Company, Limited, Borjulie, Tezpur, Assam.

IN the *Journal of Tropical Medicine* for March 1st, 1901, an article appeared under the heading "Water-itch; or Sore feet of Coolies," describing a disease with which all tea garden medical officers in Assam, Cachar and Sylhet, are familar. Apparently a similar affection is very prevalent on the sugar plantations of the West Indies; for in the annual report, by the Surgeon-General of Trinidad, for the year 1900, it is mentioned that "ground-itch is very prevalent during the rainy season on the sugar plantations, amongst the East Indian labourers." It is further remarked in this report, that although the disease is not a serious one, it is a matter of great

importance to the planters, on account of the number of labourers it incapacitates from work.

The disease has been defined by Dr. Dalgetty (Sylhet), one of the writers referred to, as: "A superficial vesicular dermatitis, which occurs epidemically among the coolies working on tea gardens during the wet months of the year, which solely attacks the feet, and which has a considerable resemblance to ordinary scabies." In place of this definition, I substitute one which I think is perhaps more suited to the condition.

DEFINITIONS.

Ground-itch (synonyms: pani-ghao, water-itch, water-pox, water-sores, sore feet of coolies) is an affection of the skin confined entirely to the lower extremities, and probably always associated with the presence of the larvae of the ankylostoma duodenale in the soil of the affected areas: endemic in Assam and the West Indies, and possibly present in other parts of the tropics; characterised by its periodical epidemic appearance in the infected areas, coincident with the onset of the rainy season; with typical lesion consisting in a primary erythema, followed by a vesicular eruption which frequently becomes pustular, and in severe cases may result in obstinate ulceration or even in gangrene.

PREVALENCE.

In Assam the disease is almost universally known by the name "pani-ghao" (literally, water-sore), a term which has been applied to it probably because it only occurs during the seasonal rains when the earth is saturated with moisture. On tea gardens, where the disease has once appeared, it becomes a yearly recurring epidemic. Sporadic cases may occur as early as May, but the general outbreak does not usually appear until a month or six weeks later, and does not disappear until about the end of October, when the ground has become comparatively dry again. People of all classes are liable to contract the disease, although it is rare for a European to be attacked.

The disease may generally be said to attack the different individuals in a community with a frequency directly proportionate to their exposure to the source of infection. All observations point to the earth as being the infecting medium, and faecal contamination of the soil as being the most active agency in the propagation of the disease, which in over 90 per cent. of cases is contracted in the immediate neighbourhood of the coolie lines, as the collection of coolie houses is termed.

It is a well-known fact that the Indian coolie is not very particular in regard to the disposal of human refuse. He will not adopt any proper conservancy system, and latrines, if erected on tea gardens, are never used by the labour force. The coolie walks but a few yards from his dwelling in order to relieve himself. In this way the cultivated areas for some distance round the lines in most tea gardens is constantly being contaminated with faecal matter. The coolies themselves recognise that this accumulation of filth is the cause of the disease, and as far as possible they try to avoid exposure to infection by shirking work in the parts of the garden in close proximity to the lines. When obliged to walk over the infected soil they almost invariably protect their feet by wearing "kurrams," a kind of wooden sandal.

In this part of Assam the disease appears chiefly among the labourers who are engaged in hoeing; it affects the strong and healthy quite as frequently as the weakly and anaemic. Cases occurring among hoeing people almost always show the eruption on the instep and ankle. This is no doubt due to the nature of their work, which necessitates their remaining near the same spot for a considerable time, and ensures that their feet are in contact with the soil, while a constant shower of moist earth falls from the hoe upon their feet and ankles. Of the total cases 75 per cent. occur among men. This is explained by the fact that during the time when the disease is prevalent, the strong men are engaged in hoeing while the more weakly men, the women, and children are at work plucking.

Among pluckers, the disease is very much more frequently seen on weakly individuals and those whose caste customs forbid a high standard of personal cleanliness. Among this class of coolie the lesion is almost always confined to the underside of the foot or to the clefts between the toes, and can generally be traced to neglect to wear kurrams, or to want of sufficient care in cleansing the feet after return from work. Want of cleanliness may certainly be regarded as a strongly predisposing cause of infection, and this fact rather than any inherent susceptibility must be looked upon as the reason why anaemic and debilitated coolies so frequently suffer from the disease. The reason that so few robust plucking people are subject to the affection is no doubt to be sought in the almost universal adoption of kurrams by the better coolies, combined with careful washing of the feet immediately on leaving work. The weakly coolie is always dirty and negligent in matters of this kind. He often eats his food without washing his hands, and it is probably quite exceptional for him to wash his feet at night.

SYMPTOMS.

The first symptom is an intense itching and burning at the spot where afterwards the eruption appears. This is sometimes so distressing as to cause the sufferer to rub his feet on the ground or some other hard rough suface in order to obtain relief. A faint papular eruption may be distinguished at this time, although sometimes a slight erythema is all that can be detected. This may occur within a few hours of infection, or may be deferred for twenty-four hours.

Later, usually about the second day, a distinctly vesicular eruption appears, which may be confined to the skin between the toes, or be found under the arch of the foot, or as in a large number of cases be chiefly seen in isolated patches over the dorsum of the foot, reaching sometimes several inches above the ankle. Apparently the affection is confined entirely to the lower extremities, no cases having been reported as occurring on any other part of the body, except as the result of experiment.

If early treatment is adopted the disease may be aborted, the vesicles drying up, and the patient becoming fit for work again in two or three days; more frequently the vesicles become pustules, or they burst, discharging a watery fluid, and then becoming open sores. If pustules have formed, unless they are speedily opened, the process may extend, the pus appearing to burrow under the surrounding healthy skin, and so forming large bullae. In this way an area of several square inches may be denuded of skin.

In a large number of cases very severe inflammation occurs associated with acute pain and great swelling, preventing the sufferer from walking; sometimes also extensive ulceration or even sloughing or gangrene takes place.

ETIOLOGY.

As previous observers have pointed out, this disease is one of great importance to the employer of coolie labour: for during the seasonal epidemic more than 5 per cent. of a labour force may be temporarily invalided by its attacks.

Until recently nothing was known as to the cause of the affection, although various suggestions have been made from time to time. Dr. Seheult (Trinidad) has stated that the condition is probably due to some chemical irritant present in the soil, either natural or due to manure used in cultivation. Dr. Dalgetty (South Sylhet), led astray by the superficial resemblance which the lesions of the disease bear to ordinary scabies, has described an acarus as the cause. His article in the *Journal of Tropical Medicine* was mainly devoted to an account of the anatomical characters and life-history of this mite, which certainly occurs as an accidental infection of neglected water-sores, and may almost constantly be found in the scab or crust round the edges of any untreated ulcer in this part of India.

I have been familiar with this disease in its clinical aspects for the past three years, have frequently met with it in tea-garden practice both in Cachar and Assam; but until this present season I have had no opportunities for investigating the nature of the condition.

I had been engaged in investigatory work for some two months before my attention was called to Dr. Dalgetty's article. After reading it, I felt greatly surprised that my observations appeared to be entirely at variance with those recorded by him. As a result, I repeated my experiments and observations, in order to satisfy myself as to their accuracy.

A few simple experiments served to show conclusively that the condition, although possessing a superficial resemblanc

to scabies, is in no sense an analogous disease. Dr. Dalgetty's methods of investigation are open to sources of grave error: thus he says: "If care be taken to evacuate the pustule completely, and to remove at the same time any crust that may happen to surround the spot, then in a certain percentage of cases the ova of an acarus may be seen." He adds that he has frequently found living acari in this way, which is hardly surprising, seeing that they may be found by the score on any dry dead animal matter which is exposed to the air. If, however, he does not find the mite in this way, "he lays the pus or crust aside for a day or two, covered up and moistened with sterilised water, but not covered with a cover slip."

It naturally follows that very soon some mite in search of food finds its way to the specimen put aside for future inspection. I first found the acarus on the scab taken from an old water-sore, but on the same day I was fortunate to come across a colony of the same acari feasting upon the body of an *Anopheles* mosquito that I had put aside on a slide about a week before. Since then I have found the mite on all sorts of decaying animal matter, such as dry faecal matter, dead flies, etc., and recently I bred about a hundred of them for experimental purposes upon the dead body of an ankylostoma.

It may here be remarked that the acarus described by Dr. Dalgetty seems to prefer dry to moist surroundings, and certainly it appears to breed very much more readily in the former.

In order to prove, however, whether or not the mite could produce the lesions of the disease, the following experiments were tried:

No. 1.—A small quantity of soil was taken from a known infected area to some sterile tubes, and after being moistened was applied to the [illegible] was kept in contact with the skin for a period of [illegible] water sores followed. The soil [illegible] been utilised, as well as the unused portion, was then carefully examined with the microscope, but no sign of any acari could be found.

This experiment showed that the cause of the disease must be sought for in the soil from areas near the coolie lines. This soil, as has already been mentioned, is contaminated with faecal matter in a very marked degree. Careful microscopic examination of samples of the soil from different areas was undertaken. The following list of living objects which were found present in these samples were noted down for future reference:

(a) Rhabditis larvae of the ankylostoma duodenale (recognised by [illegible] special cultures of larvae) were present in great [illegible].

(b) Muscle leeches.

(c) Muscle earth worms recognised by their setae.

(d) [illegible]

(e) Several species of infusoriae, both amoeboid and ciliated.

(f) The spores and hyphae of several microscopic fungi.

(g) Bacteria [illegible] and micrococci.

While making these observations several further experiments were performed in order to show whether or not some chemical irritant in the soil might be regarded as the cause of the condition under consideration.

[illegible] A small portion of the same earth that was obtained [illegible] proved to contain the cause of [illegible] [illegible] [illegible]

this is a simple explanation of the fact that water-sores are never seen during the dry season. At this time the ground is hard, and on tea gardens, owing to pruning and other processes of cultivation, is also denuded of the vegetation which affords protection from the rays of the sun during the rains.

The result is that the embryo ankylostoma—which hatches out from the ova within the first two or three days after they have been expelled from the host, in the faeces—perishes almost immediately.

The very rare occurrence of the disease among the rural population is explained by the different methods adopted in the bushes for the disposal of human filth. It appears probable that the acuteness of the inflammation attending an attack of ground-itch is largely governed by the nature of the organisms which accompany or follow the larval ankylostoma in its passage through the skin. That this entry through the epidermis can and does occur has been recently demonstrated by Dr. Looss and Professor Sandwith, of Cairo; but I believe that I am the first to identify this entry of the parasite as the cause of the distinct and well-known skin affection so prevalent in this and other parts of the world.

TREATMENT AND PROPHYLAXIS.

In the papular and early vesicular stage of the disease, the application of a strong solution of salicylic acid in collodion or methylated spirit will cause the eruption to dry up, and so cut short the attack of the disease to one or two days. If, however, pus has formed, the only treatment of any service is the opening up and disinfection of the pustules with pure carbolic acid, silver nitrate, or nitric acid, and the after-treatment of the sore as an ordinary ulcer. In cases attended with great swelling, inflammation, and a tendency towards the formation of sloughs, free skin incisions and the use of hot antiseptic foot baths are indicated.

The adoption of a proper conservancy system would probably entirely prevent the occurrence of the disease, but to anyone familiar with the habits and prejudices of the Indian coolie this solution of the question appears beyond the bounds of possibility.

The wearing of shoes or some kind of protection to the feet is known to be an almost certain preventive of the disease, and the frequent application of tar to the feet of those engaged in working in infected areas is a procedure of proved value. It is probable that the application of sulphur, or some strong disinfecting agent, to the soil in the neighbourhood of the lines may prove to be of use in destroying the parasite and so preventing the disease.

I have to thank Dr. P. K. Mitra, my assistant, for considerable help in carrying out the various experiments described.

MALARIAL FEVER IN ST. LUCIA, W.I.

BY

ST. GEORGE GRAY, B.A., M.B., B.Ch.Univ. Dubl., Colonial Assistant Surgeon, St. Lucia.

and

GEORGE C. LOW, M.A., M.B., C.M.Edin., Craggs Scholar, London School of Tropical Medicine; St. Lucia.

DURING the months of January, February, and March, malarial fevers are more prevalent in St. Lucia than at other times of the year. To see to what extent such infections might exist, the blood of as many native patients as possible visiting the Castries and district dispensaries for treatment, during a period extending from January 14th, to April 4th, 1901, was examined. In that time 1,005 persons suffering from various diseases presented themselves. As it was impossible to examine the whole of this number in the limited time at our disposal, a special selection was made, namely, cases complaining of fever, those with febrile symptoms, and as many children as possible. All the films were examined wet, immediately after pricking the finger, and out of 230 cases the large number of 137 were found to be infected with one form or other of malarial parasites. None of these patients had been treated with quinine. Keeping in view the observations of Koch in New Guinea, and Stevens and Christophers in West Africa, as to the high percentage of children infected, and as to the immunity gained by the adult native of those parts, these points were specially investigated. The result of our observations, which are seen in the subjoined table, show that as far as the natives of this island are concerned, there is a considerable difference as regards the conditions in the aboriginals of New Guinea and West Africa.

Although children under 2 years of age are very susceptible, yet in the blood of many no parasites were found, and in all infected with malarial parasites there were very definite clinical symptoms of malarial fever, the mothers in nearly every instance bringing the children to the dispensary to be treated for those symptoms.

On the other hand, where such signs were absent or where there was no previous history of fever no parasites could be found. Dr. Nicholls has noted that this same condition exists in the native children of Dominica.

As age advances the percentage of infections still remains high, and there does not seem to be any very marked immunity attained. Between the ages of 2 and 9 more than half the cases are found to be infected, and a similar condition exists in cases between 10 and 20 years. Adults are also susceptible to the disease, and generally suffer very severely, many of the cases developing pernicious symptoms with great rapidity. In 50 people over 21 years of age, more than half were found to have parasites in their blood.

This point is interesting because it shows that the West Indian negro differs from his African ancestors in his susceptibility to malarial fever. Why this is so is difficult, perhaps, to explain. It is a well-known fact that natives, when brought to a new part of the tropics from their original home, suffer severely from the fever of the district; but then the West Indian is not a recent importation; he has lived now for a considerable time in those islands, and has become thoroughly acclimatised to the climate and customs of his new home.

One must remember, however, that he is no longer a savage; he is semi-civilised, wears clothes, and more or less lives the same life as the white residents. Further, in the West Indian the question of a mixed race must always be considered. In St. Lucia there is a very large coloured population, varying greatly in degree, the result of interbreeding between white and black; many of the cases treated at the dispensaries were of this mixed class.

The following table shows the results of the blood examinations (*a*) according to the age of the subjects and (*b*) according to the nature of the parasites found:

	Children under 2 years.	Children 2—9 years.	10—20 years.	21 years and over.	Total.	
Number of cases seen at dispensary ...	37	124	[illegible]	544	[illegible]	
Number of cases examined	40	71	[illegible]	[illegible]	[illegible]	
Number of cases infected	22	47	[illegible]	21	137	
Malignant parasites alone	14	32	24	19	89	109
,, ,, with crescents	2	5	7	6	20	
Benign tertian parasites	3	1	5	3	12	
Quartan parasites	—	1	1	—	2	
Double infections	2	5	—	1	[illegible]	
Pigmented leucocytes alone	1	4	1	2	8	
Not infected	27	25	22	15	[illegible]	

* Malignant and benign tertian.

From this table it will be seen that the very large majority of the cases of malarial fever in St. Lucia are of the malignant type, the aestivo-autumnal fever of the Italians. Many of the cases showed large numbers of parasites in the peripheral blood, while others had very few. The usual type of the fever was quotidian, and the non-pigmented and pigmented quotidian parasites described by Italian pathologists were both found. Some cases exhibited the tertian type; the parasites in those were non-pigmented and were apparently similar to the quotidian ones.

Crescents are by no means so rare as appears to be the case in Africa: out of the 109 cases in which malignant parasites were found they were seen in 20 instances, generally associated with the small ring-shaped parasites and with many pigmented leucocytes. The parasites of benign tertian fever were found 12 times, most of these cases were double, with two generations of parasites, and many gametes were present.

Quartan fever appears to be very rare, only 2 cases having been met with. Double infections were met with 6 times, the

combination consisting of malignant and benign tertian parasites. In 8 cases pigmented leucocytes alone were obtained, showing that the patients had recently been suffering from malarial fever.

In the malignant cases the symptoms varied greatly in severity, 8 showing pernicious complications. Two of those were moribund when brought to the dispensary, and both died within a few hours after being seen. One collapsed exhibiting the algid type of the disease, the other in a state of complete coma. Both received hypodermic injections of quinine as soon as the examination of the blood showed the nature of the case, but the disease was too far advanced for this to be of any use. The after-history of the remaining 6 is unknown, as the patients refused to go to hospital and returned to their homes in the country. No cases of hyperpyrexia were seen.

Many of those infected, especially the children, had intestinal parasites as well, the resulting anaemia being very great. In many in whose blood no malarial parasites were found, bad feeding and worms were alone responsible for the anaemia.

Wherever possible the neighbourhood of the dwelling-houses of people suffering from malarial fever was explored with a view to finding the breeding places of *Anopheles*, and in every case such search was successful. The common *Anopheles* of St. Lucia is the *Anopheles albipes* (Theobald), easily recognised by its spotted wings and its characteristic white hind tarsi. It is not a domestic mosquito, never having been found in dwelling-houses during the day; it probably hides in mango trees, bushes, or cane fields in the vicinity. Though never seen in a state of nature by day, insects imprisoned in test tubes will bite readily at any time.

The larvae are found in large numbers in all the valleys and low-lying parts of the island. As a rule one river descends through each valley, and at this season of the year, when there is little water in them, the surf beating on the shore completely blocks up their mouths. As a result a stagnant lagoon is formed behind this barrier, and in those larvae were found in tremendous numbers. The villages of the island are situated on the seashore at the mouths of those valleys—generally within a few yards of the rivers—so the prevalence of the malarial fever in them is easily explained. Round the town of Castries the conditions are different. The Castries River comes down behind the town and opens into the harbour, but, except in the rainy season, it is very sluggish, and numerous small backwaters covered with vegetation exist along its banks; in those the mosquito deposits her eggs and the larvae develop. Unfortunately native houses are crowded along its bank, and the cases of fever from Castries examined at the dispensary mostly all came from this infected area.

Anopheles larvae were also found in a small river course to the north of the town, in an open drain in the immediate vicinity of the town, and in pools of stagnant water adjacent to the Botanical Gardens. The mountainous parts of the island are more or less free from larvae, though in January, 1901, they were found at a height of nearly 800 feet at the back of Morne Fortune, one of the hills behind the town of Castries. This species of mosquito was also found in Dominica, close to the town of Roseau, breeding in an irrigated cane-field, and also in a backwater of the main river near those areas malarial fever existed. Amongst a series of mosquitoes sent by Mr. Lefroy from Antigua *A. albipes* was never present so it is extremely probable that it is the common mosquito of most of the West Indian Islands.

It is more or less evident from the close relationship existing between this species of mosquito and the malarial fevers of the place that it is one of the insects that spreads the disease. In order to determine this point a number of experiments were conducted by feeding them on crescent-infected blood, but owing to the great difficulty experienced in keeping them alive in captivity, only a very limited number of experiments were made. Though fed on sugar and different fruits, most of the insects died within 3 days after feeding. In one exceptional instance, forty-eight hours after its meal of blood four zygotes were found, but in those others which had fed on an indifferent case of crescents nothing was found. Benign tertian and quartan cases were not available when there was a stock of mosquitos, so no experiments with them were made.

The prevention of malaria in the town of Castries resolves itself into a system of better drainage and sanitary improvement. The river in its course through the town ought to have its banks walled in so as to prevent sluggish accumulation of water, as was done with such beneficial results with the Tiber in Rome, and some of the smaller infected places could quite easily be drained. For Europeans residence on the slopes of the hills overlooking the town is indicated. The officers, the troops, and other people living on the Morne very rarely suffer from fever, and though cases do occur, especially amongst the soldiers, it is probable that they were infected in the town. For people compelled to live in the town, especially in the parts near the river, the mosquito net is always indicated. The question of the valleys and other malarious parts of the island is more difficult. The mouths of the rivers could be periodically opened during the dry season to prevent as much as possible the formation of the stagnant lagoons, but as regards the swamps found in the flat parts at the north and south of the island only an extensive system of drainage would suffice.

LEPROSY AND CONGENITAL SYMMETRICAL KERATODERMIA.

BY GEORGE PERNET, M.R.C.S.ENG., L.R.C.P.LOND.,
Pathologist to the Hospital for Diseases of the Skin, Blackfriars.

WRITERS on leprosy now and again refer in a general way to the case of a leper mentioned by Gilbert White in his *Natural History of Selborne*. For instance, Dr. George Bidie, C.I.E.,[1] Surgeon-General to the Government of Madras, touches on it in passing, stating that, in his opinion, "it is doubtful if the case was one of true leprosy." I think it can be definitely said that the case was certainly not one of leprosy. Here is White's[2] description:

> There was in this village several years ago a miserable pauper who from his birth was afflicted with a leprosy, as far as we are aware, of a singular kind, since it affected only the palms of his hands and the soles of his feet. This scaly eruption usually broke out twice in the year—at the spring and fall, and, by peeling away, left the skin so thin and tender that neither his hands nor feet were able to perform their functions, so that the poor object was half his time on crutches, incapable of employ, and languishing in a tiresome state of indolence and inactivity. His habit was lean, lank, and cadaverous. In this sad plight he dragged on a miserable existence, a burden to himself and his parish, which was obliged to support him till he was relieved by death at more than 30 years of age. The good women, who love to account for every defect in children by the doctrine of longing, said that his mother felt a great propensity for oysters which she was unable to gratify, and that the black rough scurf on his hands and feet were the shells of that fish. We knew his parents, neither of which were lepers; his father in particular lived to be far advanced in years.

That White meant the true leprosy is shown by the subsequent remarks he makes on that disease in the course of his letter.

The case comes into the category of symmetrical congenital thickenings of the palms and soles, which have been variously designated: tylosis palmae et plantae, kératodermie (and acrokératodermie) symétrique des extrêmités congénitale et héréditaire, keratoma palmare et plantare hereditarium, ichthyosis palmaris et plantaris, etc. The hereditary nature of the affection is a striking feature. The parents of White's case were not affected, and apparently the patient had no descendants with the complaint; the qualification *hereditarium* must therefore, in this instance, be omitted. The fact mentioned by White that the eruption usually broke out twice a year, at the spring and fall—is interesting. Azua has recorded an intermittent case of the kind, in which every year about April the palmar epidermis became raised by turbid fluid, probably of sweat origin, leading to desquamation *en masse*, the nails being also shed; from June to November the hands were normal, but in the latter month they again became congested, with a fresh development of the hyperkeratosis.[3] In a case of Radcliffe Crocker's blisters formed on the palms every autumn, the whole of the epidermis becoming loosened and peeling off, leaving the skin thin and tender.[4]

It is extremely interesting to note that a similar condition namely, hereditary palmar and plantar keratodermia—is frequent in the island of Meleda (Dalmatia), and that such

cases were also at first taken for leprosy. Ehlers[5] and Neumann,[6] who investigated the matter, found it was not leprosy but the symmetrical affection aforementioned.

That such a confusion should have existed is another proof of the view that a variety of skin affections were in years gone by included under leprosy. But that is another story.

Leprosy—that is, leprous nodules and infiltrations of the soles and palms—is rare, and, involving the latter areas alone, unheard of. Rille[7] has recently described leprous lesions of the soles, but the patient suffered from nodular leprosy elsewhere (face, limbs) before the soles became involved.

BIBLIOGRAPHY.

[1] Papers relating to the Treatment of Leprosy in India from 1887-95. Calcutta. 1896. P. 27. [2] *Natural History of Selborne.* By Gilbert White. Letter xxxvii, dated Selborne, January 8th, 1778. (Barrington Series). [3] Azua, Un Cas de Kératodermie Symétrique Congénitale et Héréditaire. *Journ. des Mal. Cut. et Syph.* 1892. P. 101. Cited by Dubreuilh in *La Pratique Dermatologique.* Vol. ii. 1901. P. 934. [4] H. Radcliffe Crocker. *Diseases of Skin.* Second edition. 1893. P. 365. [5] Ehlers, Mal de Meleda. *Ann de Derm.* 1897. P. 657. Cited by Dubreuilh in *op. cit. supra.* P. 936. [6] Neumann, Ueber Keratoma hereditarium (Mal de Meleda). *Arch. für Derm. u. Syph.* xlii, 1898. P. 163. Cited by Dubreuilh, *loc. cit. supra.* [7] Rille, Ein Fall von Lepra tuberosa mit Lokalisation an den Fusssohlen. *Lepra* (Bibliotheca Internat.) Vol. ii. Fasc. i. P. 7, with plate and fig.

BLACKWATER FEVER.

BY R. U. MOFFAT, C.M.G., M.B.,

Principal Medical Officer, Uganda Protectorate.

IN the BRITISH MEDICAL JOURNAL of September 14th, 1901, Surgeon-Major Kleine publishes, on behalf of Dr. Koch, an interesting series of cases of blackwater fever. He considers that the history of these cases favours Dr. Koch's theory that the haemoglobinuria which at times complicates malaria is generally if not always due to the action of quinine on corpuscles damaged by malaria. From my point of view the detailed history of these patients is defective, for there is not sufficient information given as to how they spent the time immediately preceding the haemoglobinuric attack. In 8 out of 15 cases (namely, Nos. 2, 3, 7, 8, 9, 10, 12, 14) this point is incidentally mentioned—it is either stated definitely or it can be assumed from the context that the patients had not been in bed until the onset of the haemoglobinuria. In the remaining 7 cases nothing is said definitely on the subject, though the context might lead us to suppose that they were similarly circumstanced. Surgeon-Major Kleine further quotes the fact that in the 19 cases reported in German East Africa during 1899 and 1900, "almost always it was expressly remarked that the temperature was not febrile when the remedy was taken." In these cases, therefore, we can safely assume that the patients were probably up and about, although the administration of quinine shows that at the time some prodromal symptoms or feelings of malaria must have existed. I would point out in passing that this only illustrates a very common occurrence, and one which frequently leads to error in diagnosis. This is that the temperature very often remains normal, or even subnormal, at a time when the patient's symptoms and the state of his blood would point to the fact that a malarial attack has already begun.

It may be observed that every one of these cases of both series, in which the previous history is given, favours the view which I expressed in the *Journal of Tropical Medicine*, April 15th, 1901, namely, that blackwater fever is due to a chill acting at a certain stage of the development of the parasite, in a patient predisposed by acute or chronic malarial infection. I offered a conjecture—which may or may not be right—as to the manner in which the chill acted.

In my opinion the important point is the practical one, that with malarial patients, especially those who have been much exposed to infection, the most scrupulous care should be taken to avoid chill during the apyretic stages. Acting on this assumption, an old malarial patient should get to bed directly he feels the first symptoms of a malarial attack, even though the temperature be yet normal, or only very little above normal. Similarly, after an attack he should be kept in bed until the temperature has been normal for at least twenty-four hours. This simple rule would, I am firmly convinced, prevent many, if not all, cases of haemoglobinuria, and yet, how many patients in the tropics would submit to such discipline? Personally, in dealing with myself and my patients, I make this a standing rule to be broken only in circumstances of extreme urgency, and it has never been my lot to see a case of blackwater fever develop when a malarial attack was treated in this manner. This in spite of the fact that during the past ten years I have, I suppose, administered as much quinine as Dr. Koch has ever done in his life. How does Dr. Koch explain an experience of this kind?

The whole theory of the influence of quinine in causing haemoglobinuria rests on the fact that in the majority of cases there is a history of quinine having been taken; but this fact proves nothing if we remember that in tropical countries practically everybody takes quinine. To him who dwells in the tropics the slightest feeling of *malaise*, or being out of sorts, at once suggests the idea of fever, and he takes quinine. It is not, therefore, a matter for surprise that in so many cases of blackwater fever there is a history of quinine. It might be urged just as logically that quinine is the cause of every other disease occurring in the tropics, in which the prodromata in any way resemble those of malaria. Take influenza, for instance. If this occurred much in tropical countries the doctor would invariably find, when he was called in, that the patient had taken quinine under the idea that he had fever. If pneumonia followed it could be stated just as logically that it was due to the fact that quinine had been taken.

Dr. Koch apparently doubts the authenticity of all cases of blackwater fever in which there is no history of previous quinine administration. I may observe that I myself once suffered from the disease when I had had no quinine for two months, and among Indian sepoys I have had similar cases in which quinine could be absolutely excluded. Further, I know of 2 cases which occurred among aborigines under a skilled observer, and in these there was no possibility of a quinine history. The suggestion which Surgeon-Major Kleine quotes from Stephens to the effect that these aboriginal cases are not haemoglobinuria at all, but are probably due to bilharzia, does not say much for the latter's opinion of the intelligence of the ordinary medical observer. Personally, I have seen both diseases, and I fail to see how any practical man could, with the exercise of care, confuse the two.

The fact that blackwater fever as a rule only occurs in those who have suffered a good deal from malaria, or in those who have been exposed to chronic infection, is readily explainable by my hypothesis. It is well known that in early attacks the system reacts much more strongly than in later ones. The temperature, headache, and general disturbance are much greater, and in consequence the patient is forced to give in. He is new to the disease, and treats himself more rationally as an invalid. Later on, when he has suffered often, his system appears to acquire a certain toleration, and the symptoms and onset are more insidious. For hours before he may be conscious of nothing but a feeling of *malaise* and slight chilliness, although the attack has really begun. The result is that he continues to expose himself to chill at the very stage when it is most dangerous for him to do so. Added to this, his blood is weakened by previous attacks, and this factor supplies the predisposition which I, like Professor Koch, consider essential.

Another interesting point is brought out by Surgeon-Major Kleine's series of cases. Whatever may be the exciting cause of the haemoglobinuria, in my experience the cases which are more apt to prove fatal are those in which no quinine has been given before its onset. In examining Surgeon-Major Kleine's cases we find that only one out of the fifteen proved fatal. In this one there had been four previous attacks of blackwater fever, said to have been brought on by quinine. In consequence, the patient when under treatment for the last time was dosed with methylene blue. As he did not improve he was given 0.3 g. of quinine. Haemoglobinuria supervened and the patient died. It should be observed that though his previous haemoglobinuric attacks were said to have been caused by previous quinine treatment, yet the patient recovered. In my opinion his chances of recovery in his last attack would have been greater, whether haemoglobinuria had supervened or not, if he had been treated with large doses of quinine instead of methylene blue.

Everyone, even Professor Koch, admits that in quinine we have the only reliable and potent antidote to malarial fever. This being the case, its administration is a matter of vital

importance. Professor Koch's theory is apt to frighten the inexperienced, especially among the laity, and they will be inclined to use the drug too sparingly. It is only right that they should know that in other hands quinine has not produced such alarming results as Professor Koch attributes to it. Supposing that it is true that quinine does cause haemoglobinuria, there is no doubt that it cures thousands of patients of malaria for every one that it kills by producing haemoglobinuria. Anything, then, that tends to make people shy of taking it in sufficient doses will result in severer attacks of malaria accompanied by a heavier death-rate. I speak of what I know, and I can affirm from personal experience that Professor Koch's theory has done incalculable harm in those parts of tropical Africa known to me.

NOTES ON FILARIA DEMARQUAII.

By GEORGE C. LOW, M.A., M.B., C.M.,
Craggs Scholar London School of Tropical Medicine; St. Vincent, W.I.

THE history of filaria Demarquaii dates back to 1895, when Dr. Manson discovered its embryonic forms in slides of blood sent from St. Vincent by Dr. Newsam, and again later in slides sent from St. Lucia by Dr. Galgey.

Two years after this,[1] out of a number of blood slides of aboriginal Indians sent from British Guiana by Dr. Ozzard, the same authority found two apparently new species of embryonic filariae, one with a blunt tail, the other with a sharp, and provisionally named them filaria Ozzardi. Daniels in 1897[2] found that those latter parasites were very common amongst the Indians in the interior of British Guiana, and in 1898 at a necropsy of an Indian found the parental forms of the blunt-tailed filaria.[3] In the following year he discovered the mature forms of the sharp-tailed filaria, finding that it was longer and broader than the former, and resembled filaria Bancrofti in some respects.[4]

Galgey in St. Lucia in 1899 found two parental forms of filaria Demarquaii at a necropsy of a native of that island, describing them as being found in the upper part of the mesentery.[5] He sent one to Ozzard in British Guiana for identification, who found that the worm was a female measuring 2⅜ inches long, but owing to imperfections on the specimen, nothing of a definite nature could be made out.

Manson, on comparing the parental forms of the blunt-tailed British Guiana filaria with adult forms of filaria perstans from Africa, found that they were identical, as were also the embryos, and there is very little doubt that after a comparative study of living and stained embryonic specimens of filaria Demarquaii from St. Lucia, Dominica, and St. Vincent, the sharp-tailed British Guiana embryos are identical with the latter parasite. Specimens of infected blood from those different places when prepared in the same way, namely by washing out the haemoglobin of thick films with water and then staining with haemalum without fixing, show the parasites very well, and after seeing living specimens of each the identity in measurement and other details appears undoubted.

THE EMBRYOS OF FILARIA DEMARQUAII.

The embryos of filaria Demarquaii are very small, but they may be detected, even with low powers of the microscope, in the peripheral blood by day as well as by night. At first their movements are especially active, and they do not remain long in one place as in the case of filaria nocturna, but freely wriggle about over the slide.

After they have been withdrawn either naturally or after passing them by suction, they become stretched out and can be measured in detail. They measure on an average 0·290 mm. long by 0·006 mm. broad; stained specimens being smaller owing to shrinkage, and also showing more transparency to length.

With high powers in fresh specimens no sheath is visible, but they gradually become less active in movement in the blood-film. The cephalic extremity consists of a rather pointed rostrum, not rounded as in the case of filaria nocturna, and much more difficult to see, and of a minute spine which is alternately pushed out and retracted. A V spot exists 0·052 mm. from the head, the angle being more obtuse than in nocturna: on account of its small size it is rather difficult to make out. In some specimens there seems to be an indication of a tail spot, but of this I am not certain. The centre of the body is occupied by a core of cells, which become granular as death takes place, and those in dried specimens take on the various stains readily.

In stained specimens no trace of V or tail spot is to be seen, but some haemalum prepared specimens show a break in the continuity of the cells a little anterior to the position of the V spot, similar to that seen in the case of filaria nocturna.

PREVALENCE.

St. Lucia.—Out of a total of 472 persons examined from all parts of the island, 23, or 4·87 per cent., were found to be infected with embryos of filaria Demarquaii, but a detailed examination of the special districts infected brought out the interesting fact that the parasite was very limited in its distribution; 16 of the 23 cases came from Gros Islet, a native village in the north part of the island, situated on sandy soil on the sea coast, with swampy ground and scrub bush around it. Of the other 7 infected cases, 2 had lived in Gros Islet, 1 near it, another at Monchy, also a village on the north coast, while the remaining 3 had never been in that part of the island, having lived in or about Castries, the main town, Soufriere, the second town of the island, and Vieux Fort, a village at the south of the island, always gave negative results. This sharp limitation of the parasite in St. Lucia is very interesting, showing that the infection is chiefly, if not always, got in the country: and, further, that one village may have it while another has not, though they somewhat closely resemble each other, as is the case with Gros Islet and Vieux Fort.

Dominica.—Only 160 cases were examined, and of those 2 alone exhibited embryos of filaria Demarquaii; one a man from Batalie, a small village near the sea coast at the mouth of a valley, and the other a policeman who had lived all over the island: the latter had been a soldier in Sierra Leone in his youth, but the former had never been out of the island. No cases were found in Roseau, the chief town of Dominica. This, again, points to a localised sphere of infection, and, had time permitted the examination of further cases from Batalie, more from that area would probably have been found infected.

Barbadoes.—Filaria Demarquaii does not exist in this island 600 examinations from all parts of the island giving negative results, a fact already mentioned in a paper read at the British Medical Association meeting at Cheltenham last summer on the malarial and filarial diseases of that island.

British Guiana.—Ozzard and Daniels[2] have shown that the small sharp-tailed and blunt-tailed filariae of British Guiana are not got on the coast of that colony, but only in aboriginal Indians and others living in the interior, and the latter also pointed out that as many as 58.3 per cent. of those people were infected with one or other of those two parasites, the blunt-tailed predominating over the sharp-tailed. In British Guiana 163 pure-blooded Indians were examined by me in different parts of the interior, and out of this number 105, or 64.4 per cent., a slightly higher figure than that of Daniels, were found to be infected with filaria perstans or Demarquaii. Double infections were found in 38, perstans alone in 56 instances, and Demarquaii alone in 11, giving 49 cases of the latter out of 163 Indians examined, or 30.01 per cent. This gives relatively a much higher percentage than St. Lucia and Dominica, but the general population of the whole island, including the towns, was considered in those cases, whereas in British Guiana only the specially-infected area was taken into account, the statistics of Georgetown and other parts of the coast cleared of bush which do not contain this parasite being omitted. The predominant physical feature for the occurrence of this parasite in British Guiana would seem to be the presence of forest and bush that is, uncleared land. Georgetown and the cultivated strip of land along the coast is free, whereas on the Waini river, in the bush close to the sea, 9 out of 15 Warau Indians living there were found to be infected. Conversely at Wismar, in the interior sixty miles up the Demerara river, where the forest has been cleared for a con-

siderable extent to make room for a railway and other buildings in connection with a route to the gold fields, 25 people, Creoles and others, who had been living here for periods of two to ten years, on examination all gave negative results. As already stated by Daniels, negroes and others after living in appropriate parts of the interior are quite liable to infection, and this was confirmed by the fact of 3 out of 5 pure-blooded negroes who lived in the forest of the Pomeroon river being infected.

St. Vincent.—The conditions and prevalence of the parasite here resemble that in St. Lucia, cases not being found in people living permanently in Kingstown, the chief town of the island, but only in some country villages and districts. In Calliaqua, a village situated on the coast on sandy soil, with swampy ground between it and the sea, scrubby bush and swamps at its sides, and a background of rising hills, 8 out of 30 people, or 26.6 per cent., were found to be infected.

PATHOLOGY.

The presence of the parental and embryonic forms of filaria Demarquaii seems to give rise to no pathological effects or clinical symptoms, the diagnosis being made only by an examination of the blood. As the habitat of the parent is in the loose connective tissue of the peritoneum, with perhaps the exception of setting up some slight local inflammation on its death, it cannot do much harm, as it does not implicate important structures, as in the case of filaria nocturna. Through the kindness of the doctors in the Colonial hospital of Georgetown, Demerara, a necropsy of an Indian, who had during life a few sharp-tailed embryos in his blood, was obtained; though a prolonged search of some hours was made the parental forms were not found.

It may be noted here in regard to the question of relationship between filaria perstans and sleeping sickness, that though the parasite, as has been shown above, abounds in the interior of British Guiana no cases of this disease were seen and the Indians were unaware of its existence. Mr. Perkins, acting commissioner of gold mines, who has travelled extensively in the interior, informed me that he had never seen or heard of such cases amongst the Indians.

THE INTERMEDIATE HOST.

On the analogy of the different species of filariae whose life-history has been completely worked out, namely, filaria nocturna, filiaria immitis and filaria recondita, filaria Demarquaii must also possess an intermediate host to allow of the further development and growth of the embryos and their reintroduction into man. While in St. Lucia I found by direct infection experiments on mosquitos reared from larvae, *Culex fatigans*, *Stegomyia fasciata*, *Culex taeniatus*, and *Anopheles albipes*, to be inefficient as intermediate hosts for this parasite[7] and lately in British Guiana several other insects, mosquitos and others were examined in an Indian settlement on the Pomeroon river in the interior of British Guiana with negative results, 71 per cent. of the inhabitants being infected with sharp or blunt-tailed parasites. The blood-sucking insects were caught when they came to feed at night, as it was impossible to rear all those from larvae. The commonest night feeder there was a small chocolate brown mosquito with palps as long as its proboscis, not, however, resembling an *Anopheles*; it may represent a new genus altogether. Over 30 of these were dissected, but with the exception of a few dead embryos in the semi-digested stomach blood of one, none were seen in any of the other tissues, thus showing them to be inefficient. A large yellow mosquito resembling an *aëdes* was another fairly common form, and it gave similar results to the former, in two instances dead and degenerated blunt and sharp-tailed embryos being seen in the stomach blood. Many other mosquitos of the rarer genera frequented the huts and fed readily on the inmates; but though nothing was found in those dissected, yet the numbers were much too small positively to exclude them. Twelve fleas (*Pulex irritans*) and many chiggers (*Pulex penetrans*) from infected cases were examined but nothing was ever noted in them.

Though these observations were all negative some blood-sucking insect must nevertheless act as an intermediate host, and from the facts stated above, in reference to the sharply-defined country or forest areas in which persons infected by the parasite occur, it is very likely that it is an insect or insects with a similarly restricted distribution possibly only occurring at certain seasons of the year.

REFERENCES.

1 BRITISH MEDICAL JOURNAL, December 28th, 1899. 2 *British Guiana Med. Annual*, 1897. 3 BRITISH MEDICAL JOURNAL, April 26th, 1898. 4 *Ibid.*, June 17th, 1899. 5 *St. Lucia, Colonial Report*, 1899. 6 *British Guiana Med. Annual*, 1897. 7 BRITISH MEDICAL JOURNAL, June 29th, 1901

THE SUCTORIAL BULB IN "CULEX."

BY G. TREVOR COLLINGWOOD,
Staff Surgeon R.N.

IN the following article is given a short description of the œsophageal or suctorial bulb and the apparently loose connection of its tubular part with the basal end of the epipharynx or suctorial tube in the head of *Culex*, female.

The figures are from slides. Fig. 1 shows the position of the oesophageal bulb (*i*) beneath the so-called occiput in the head of a female *Culex*. The fine-ringed salivary duct passing from the basal sac-like dilatation of the fine central canal or groove of the poison stylet or hypopharynx can also be seen. The ordinary mouth parts have been cut off short.

The bulb if carefully separated out from a fresh specimen under a hand microscope, and then put under a cover glass with glycerine and subjected to gentle pressure will frequently divide into three parts, as shown in Fig. 2. It is therefore apparently an organ with three sides. Under a high power the edges of each piece will be seen to be striated whilst the central parts are quite plain.



Fig. 1.—*a*, labium, lower lip; *b*, hypopharynx (small piece only seen); *m*, central canal; *c*, epipharynx; *d*, labium, upper lip; *e*, antenna; *f*, basal support of antenna; *g*, basal dilatation of epipharynx; *h*, tubular part of bulb; *i*, bulb oesophageal; *j*, sac-like dilatation of hypopharynx, *k*, ringed salivary duct; *l*, maxillary palpi. The mandibles and maxillae are not shown; the compound eyes have been smashed up in the preparation.

Fig. 2.—Three plates into which the bulb separates.

In front the bulb is tubular, and is adjacent to, though apparently not structurally continuous with, the expanded basal end of the epipharynx (suctorial tube) which in this position is peculiarly constructed, and also apparently fringed as if to act as a sort of strainer. The delicately-fringed appearance of the bulb behind is apparently not

caused by its being torn away from any other structure. It is always present in fresh specimens. Its function I do not know.

I believe the function of this bulb has not been definitely settled: still its position and structure would lead one to suppose that it was suctorial. In Bermuda I frequently caught specimens that had just fed, and mounting them quickly, found blood corpuscles in the epipharynx, but I never found any in the bulb itself.

This bulb is also present in the head of the male *Culex*, but is perhaps not quite so well developed. In the male the hypopharynx lies on the sheath or labium, and more or less coalesces with it, especially at the pointed distal part between the lateral labellae. The mandibles and maxillae are practically absent. The fine central canal or groove in the hypopharynx terminates, as in the female, in a small sac at its basal end, from which runs a fine-ringed salivary duct. It would therefore, I think, be very interesting to know the minute anatomy of those few male species that are credited with the power of biting and sucking blood, for if the same arrangement of the mouth parts exists in them as in the male specimens (*Culex*) that I have examined, I should not think that they could possibly perform the operation satisfactorily.

NOTES ON LIGHTNING-STROKE IN SOUTH AFRICA.

By CAPTAIN J. G. BERNE, R.A.M.C.,
Eastern Transvaal.

THE frequency with which men and animals have been struck by lightning in South Africa is in my experience remarkable. Thunderstorms are frequent and very violent during the wet or summer months in South Africa November to April—and it may be taken as a general rule that the more mountainous the country the more frequent and severe the lightning. For instance, the districts of Wepener and Rouxville in the Free State, skirting the borders of Basutoland, are the scenes of very frequent thunderstorms; and in the Transvaal, the Wakkerstroom and Piet Retief districts, which lie close to the Swaziland border, are subject to the same atmospheric disturbances. Natal, a very mountainous colony, is notorious for its thunderstorms.

During General Plumer's operations in the neighbourhood of Wepener in September, 1901, a tent was struck by lightning and four men out of six were injured. These men were seen by me shortly after the accident. They were sleeping in the tent with their feet towards the centre pole, and it appeared that the lightning struck the tent and passed down the wooden pole. In two cases the current seemed to have passed along the legs of the men, and to have passed out about the buttocks, causing severe burning of the superficial tissues. In the third case, the man described the injury as like a severe blow on the head, and complained of a severe headache. A circular wound was found at the occiput about the size of a florin, with a burnt track half an inch wide leading down towards the neck as far as the termination of the hair. The fourth case was slight, and beyond a feeling of an electric shock, the man was quite well. These three cases presented [illegible] of shock, and there was extensive burning of the underclothing. I am unable to give details of the further progress of the men, as they were transferred to the civil hospital at Mafeting, in Basutoland, two days later.

A point which I wish to bring to notice is the peculiar smell which is always present when lightning is at all severe; it was very marked in two instances when I came into the tent, not the smell of burnt clothes or charred flesh, but a smell like [illegible] sulphuric acid.

The following are the notes of a case which occurred in the Eastern Transvaal.

On the evening of November 17th a patrol of about 500 men were returning to camp after a night march, when between 5 and 6 P.M. the worst thunderstorm which I have seen in South Africa broke over our heads. Fortunately for us, it was accompanied by a tropical downpour of rain, which must have saved a good many of us from being struck. In this storm, one officer and two men were badly hit, and several of us experienced slight shocks. Lieutenant-Colonel Porter, R.A.M.C., describes his symptoms and experiences during the storm as follows:

I saw the flash of lightning coming towards me rather high up; it then seemed to me to come straight down over my head. The flash was rather circular in shape and pink in colour. I received a blow on the top of the head, just as if I had been struck by a mallet. I was knocked forward on my horse, and at that time my horse gave a jump forward, and he no doubt received the shock. For several days I had pain all over the scalp and down the back of my neck: pains were severe and neuralgic in character.

A number of men were struck quite close to me, one of whom was carrying a log of wood on his right shoulder. The wood was split, and he was knocked from his horse. He was found to be afterwards suffering from paralysis of the right side, almost complete (both sensory and motor); next day he had somewhat recovered, and had slight power of grip in hand.

Sensation was gradually returning when I saw him last, and power of movement—arm and leg—had slightly improved. All the other men who received the shock recovered in a few hours. Prior to the flash there had been heavy rain for about two hours, and at the time we were struck the horses were over their hoofs in water. Had the ground been dry at the time, I think in all probability we would have had some fatal cases amongst those struck.

The slighter cases are of interest in the fact that some of us, including myself, had a distinct sensation of a most peculiar taste in the mouth. In my own case I cannot describe it better than that of the inhalation of burning sulphur.

Probably in the first instance the fact that the men who were struck in the tent were dry, and in the second instance all the men were thoroughly soaked, may help to explain the difference in the individual cases. The potential force of the electric current, of course, varies in different cases, and this may also account for the differences in results observed.

INOCULATION IN THE INCUBATION STAGE OF PLAGUE.

By ALICE M. CORTHORN, M.B., B.S.,
Special Medical Officer on Plague Duty, General Plague Hospital, Poona.

IN reference to Major Bannerman's article and letter on inoculation in the incubation stage of plague, I think the following 4 cases which came under my notice in the epidemic of 1900 in this city may be of interest.

The first two cases occurred among the police force, which, in the epidemic of 1899 suffered very severely from the disease, having 147 attacks with 109 deaths.

In the epidemic of 1900 the district superintendent determined to have recourse to inoculation, and practically the whole force submitted to the operation. Seven cases with 6 deaths occurred among the non-inoculated before the completion of the operations, and 7 cases with 2 deaths only among the inoculated. Two of these were inoculated, if not with plague upon them, at a very late stage of incubation.

CASE I.—N. T., aged 25, police constable, inoculated October 3rd, 1900, was admitted into hospital October 9th with a history of six days fever and large fluctuating bubo in the right femoral region, which was opened the day after admission. He had slight fever for three days after admission, but was never acutely ill. He was discharged October 29th.

CASE II.—D. B., aged 36, police constable, inoculated October 16th, 1900. At this time dead rats were being found in Shanvat Wada. He was admitted into hospital with plague October 20th, with a history of four days fever and a bubo in the right femoral region. He had six days fever after admission and albuminuria to ½ for the same period, but was never delirious. The bubo suppurated with extensive sloughing, and his convalescence was slow. He was discharged cured December 17th, 1900.

CASE III.—M. T., Maratha, aged 30, was the hospital carpenter. He at first refused inoculation, but on October 3rd brought his wife suffering from plague into the hospital, and asked me the following day to inoculate him. This was done on October 5th. On the same day he also brought in his sister from the same address, also suffering from plague. On October 7th he was himself attacked, and had a very mild attack, with no delirium, and only a trace of albumen. He had a right femoral bubo which suppurated, but healed rapidly. He was discharged cured October 23rd. His wife and sister both had very severe attacks, with prolonged fever, delirium, and badly sloughing buboes, but eventually recovered. He said that six people lived in his house, all uninoculated except himself. No. 1, his mother, died; Nos. 2 and 3, his wife and sister, had severe plague and recovered; No. 4, himself, was inoculated in the incubation stage, and had a mild attack; Nos. 5 and 6 escaped. In the house on the right-hand side, 5 uninoculated persons died of plague, and in that on the left-hand side 1 died of plague.

CASE IV.—R. H., aged 30, shoemaker, was one of the most interesting of the series, but I have unfortunately mislaid the notes, and can only give a general account. 1447, Sonkrawar Peter, where he resided, includes a number of single-room dwellings opening into a small court, of which the total population was about 60 people. The first case of plague here occurred in a woman who aborted and died on September 7th, 1900, in the room next to R. H.'s, from which it was divided by a canvas partition only. On September 10th, 1900, R. H., with five others, were inoculated. Plague continued to occur among the non-inoculated inhabitants

of the tenement, no fewer than twenty of whom died before the history was closed. R. H. was admitted to hospital on September 14th, with a history of three days fever. He had one day's fever in the hospital with no delirium and no albumen. The bubo, a small one in the right groin, suppurated but healed quickly, and he was ready for discharge on October 2nd, 1900.

CASE V.—One other case, S. M., from the David Sassoon Hospital, was said to have been inoculated there on October 3rd, 1900, plague having appeared among the hospital servants. She was admitted on October 5th with a history of two days fever. She was very ill, with a temperature of 103° to 104°, restless and delirious, with constant vomiting, and died on October 6th, within twenty-four hours of admission.

Thus it will be seen of 5 cases who were living in highly infected centres at the time of inoculation, and who probably had plague on them, in at least 2 cases where inoculated there was one death only, that is, a recovery-rate of 80 per cent.

THE TREATMENT OF DYSENTERY BY RECTAL INJECTIONS.

BY CECIL F. LILLIE, M.A., M.D.CANTAB.,
Late Civil Surgeon to H.M. Field Force, S. Africa.

THIS form of treatment does not appear to be very warmly supported. I have tried it myself in several cases in South Africa and found it most useful.

The method I employed was as follows: I used an apparatus composed of a soft œsophageal catheter, attached by a piece of glass tubing to some soft rubber tubing about 3 feet in length: to this was fixed a large glass funnel. The patient was placed on his left side and the hips drawn over to the edge of the bed. The knees being flexed, the end of the catheter, smeared with vaseline, was introduced into the rectum with the greatest care, the patient being directed to strain meanwhile. Cocaine was used for the anus if required. The catheter was introduced about 4 inches without using any force. The patient then being placed gently on his face, the hips well raised on pillows, and the head and shoulders placed low, the warm lotion was introduced without any difficulty into the bowel. The apparatus was previously filled with lotion, and a clamp applied so as to avoid injecting air into the bowel. By raising or lowering the funnel the rate of injecting the solution was readily regulated. Small quantities only were allowed to run in slowly at a time—an ounce or so every few seconds. The enema was retained if possible for a few minutes. I gave these injections usually two or three times a day. It is an important point to give them often enough. I generally used boracic acid—10 grs. to the ounce—sometimes other antiseptics.

Using injections in this way, I never found them displeasing to the patients; several in fact expressed a wish to have them repeated. The pain often felt at first was soon overcome by allowing only a small quantity of the solution to pass into the bowel slowly at one time. The bulk of the enema was never less than a pint and a-half. Smaller ones are useless.

The value of injections in chronic cases is well known. In mild acute cases I found them uniformly successful. The stools were diminished in frequency and became faeculent and semisolid within three days. Relapses were uncommon. In the malignant cases, occurring generally in epidemics, the use of injections is somewhat doubtful, but it is difficult to get hold of these cases early enough to hope for good results. Unfortunately the process is so rapid that when they come under treatment there is already much destruction of tissue, and a satisfactory cure is impossible. In severe cases, however, injections are not useless: one case showed this very well. The patient was very ill on admission. He was passing horribly offensive stools which contained sloughs and a good deal of blood. He died some nine days after admission from hepatic abscess. Rectal injections of boracic acid had been given regularly, and the stools were reduced in number to two a day; the blood disappeared from them, and they ceased to be offensive. At the necropsy twenty to forty dysenteric ulcers were found; they were all looking healthy, and presented signs of healing. There were no sloughs, their bases were smooth, and the edges were spreading over the raw surfaces. The liver was full of large abscesses. In this case the condition of the ulcers bore striking testimony to the usefulness of the injections.

The objections raised to this form of treatment are that it is dangerous and often impracticable. The danger of causing perforation by giving injections only applies in those cases where the bowel is extensively and deeply ulcerated. However, in such a condition it is too late to expect much good to come from any treatment. Such cases are obviously hopeless, and their clinical appearance is a sufficient safeguard from a rash use of injections. It is before this last stage of the disease is reached that good may be expected from them.

With regard to perforation in dysentery, I found that out of 2,711 cases whose records I examined perforation had only occurred five times. In these, too, the perforations were small and surrounded by dense adhesions which completely shut them off from the peritoneal cavity. In all the cases I examined *post mortem* myself I noticed marked thickening of the bowel generally, and more especially at the seat of ulceration. Injections are said to be impracticable owing to the pain caused by forcing apart the walls of the inflamed gut. By administering the injections with due care I think this can be largely avoided.

The saline treatment of dysentery acts, I believe, on the same principle as this. In both cases the bowel is flushed out and the toxic substances removed, and with them the griping and tenesmus which they induce. Injections possess the advantage of introducing the fluid for this flushing from without instead of draining it from the patient's already weakened system. Another advantage is that antiseptics can be directly applied to the focus of the disease.

In addition to injections the patient must of course be kept absolutely at rest in bed and fluid nourishment given in small quantities at frequent intervals. Milk diluted is best. Chicken broth is often useful. Stimulants are generally required.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OBSERVATIONS DURING A RESIDENCE OF EIGHTEEN MONTHS IN EAST AFRICA AND UGANDA.

SINCE my arrival in Africa on April 27th, 1900, the following methods of treating such tropical diseases as I have come across, having been found very successful by me, may be of use to others.

In malarial fever, with dry brown tongue and constant vomiting, with a temperature of 104° or more, I have not withheld quinine until the pyrexia has abated, as is taught, but, instead of giving it by the mouth to be vomited up again, I find that three or four 5-grain tabloids, with two of phenacetin, greased with vaseline, and inserted into the rectum, brings the fever quickly under control. I have noticed in those places where I have been stationed, the *Anopheles* type of mosquito has been conspicuous by its absence, and to bear out the theory that this noxious insect is the vehicle for conveying the malarial parasite to man, I have been unable to discover one case of malarial infection directly traceable to these districts.

Dysentery.—I have so far found that powdered ipecacuanha ℥j, with laudanum ♏xx to xxv, mixed with water ℥ij, and injected into the rectum, works wonders, one to three such injections I have found sufficient, my patients' diet being rice water and albumen water. Native cooking pots are made of copper, tinned over very indifferently. This tin quickly wears off, and dysenteric symptoms may be produced by copper oxide poisoning. Iron pots are the safest and I have banished all native utensils made of copper from my kitchen.

Ulcers from Chiggers.—I saw a vast number of these and on my arrival at Samu was told that iodoform ointment was the treatment. It does not, however, remove the cause. Caustics such as carbolic acid to kill the ova are required. Toes infiltrated with the eggs invariable ulcerated down to the base and then dropped off. The best treatment I found was that which I have used for carbuncle, guinea worm ulcers, etc., namely, hypodermic injections of mercury biniode or perchloride all round the infected zone.

Chiggers in Houses.—Of these pests I have had bitter per-

sonal experience. My boy has taken as many as ten out of my feet of a morning and three or four from my fingers; they do not confine themselves to the feet, but are found fixed in all parts of the body. I have removed four one evening from the abdomen and two from the thigh. The best treatment to adopt after extracting a chigger in order to prevent a nasty little ulcer forming is to swab out the cavity with a little carbolic acid applied by means of a small piece of wool wound round the end of a match cut into a point. The method in vogue to banish chiggers from a house adopted by the residents in Uganda is to smear the floor over with a layer of cow dung. The missionaries here inform me that they put down a fresh layer every ten days. My house now is quite free, and the means I have adopted I can recommend. (1) See that no natives enter your house suffering from chiggers: (2) have the floors well swept daily; (3) see that there are no dark corners: (4) once a week or fortnight sprinkle mats and blankets with spirits of turpentine—a very effective antidote against a great variety of insects.

The Castor-oil Tree attracts a small black fly which the natives say gives fever. I relieved myself from much suffering by having all those within the vicinity of my house cut down.

RALPH STONEY.
Masindi. Medical Officer, Uganda.

A NOTE ON THE DIAGNOSIS OF YELLOW FEVER.

I HAVE been able to confirm the observations of Christophers and Stephens as to the increase in the number of large mononucleated leucocytes in malarial fever, and would suggest that if a similar increase does not take place in yellow fever, we possess in this circumstance a valuable means of differential diagnosis in doubtful cases.

Within the last week I have had an opportunity of testing this particular point, for a few cases of yellow fever have occurred among the white troops of the garrison stationed here. Through the courtesy of the officers of the R.A.M.C., Majors Will and Bent, I was enabled to take blood films in three cases. In the first of these the patient had had large doses of quinine, as the case had been diagnosed as malarial fever until the occurrence of black vomit. In my examination I included many doubtful leucocytes among the large mononucleated, hoping to establish a diagnosis of malarial fever, but I could not bring the percentage higher than 11 per cent. In the other 2 cases the percentages of large mononucleated leucocytes were 7.66 and 8.33. Neither of these two patients had had quinine, and a very careful examination of both fresh and dried and stained preparations of their blood failed to reveal any malaria parasites or pigmented leucocytes. All 3 cases terminated fatally. They were typical cases of yellow fever as described in the textbooks, and I do not think there could be the slightest doubt as to the diagnosis.

In my malarial cases the lowest percentage of large mononucleated leucocytes that I have as yet observed was 19, while in some it has gone as high as 36.

I conclude that in yellow fever there is a slight increase in the number of large mononucleated leucocytes, but that this increase is by no means so great as

Before these cases occurred here I had written to Havana for information on this point, and received a reply from Major Gorgas, the chief sanitary officer of that city, in which he stated that such an increase in the number of large mononucleated leucocytes had not as yet been observed in cases of yellow fever, but that the subject would be investigated, and that he would let me know the results of the investigation.

If this [illegible] be confirmed by others an important point in the differential diagnosis of yellow fever and malaria will have been established.

Of course it would be rash to make a sweeping assertion that the difficulties of the question of diagnosis had been solved by the examination of three cases, so I hope that others who have more opportunities than I have of seeing yellow fever will follow up the subject, and be able to confirm or refute what I have said.

ST. GEORGE GRAY, M.B., B.Ch.Dubl.,
Colonial Assistant Surgeon, St. Lucia.

THE ABSENCE OF *ANOPHELES* IN BARBADOES, W.I.

IN a paper on Malarial and Filarial Diseases in Barbadoes, W.I., read at the meeting of the British Medical Association at Cheltenham, 1901, I pointed out that mosquitos of the genus *Anopheles* were not found in that island, and gave a description of a swamp situated at Worthing, a place three miles south of Bridgetown, stating as probable that, from its close similarity to infested swamps in other islands, *Anopheles* larvae might be able to exist in it. On revisiting Barbadoes, after an absence of two months, a careful search of this swamp and the other collections of water at different parts of the island was again made, the examination giving the same negative results as before.

When leaving Barbadoes for St. Vincent, one of the adjacent islands, a plentiful supply of water was collected from the Worthing swamp and taken to St. Vincent to determine if there was anything prejudicial in the composition of this water to the life and growth of *Anopheles* larvae. The result of the experiment proves that there is not, as larvae of *Anopheles albipes*, the common West Indian *Anopheles*, taken from a swamp at Calbaqua, three miles from Kingstown, the chief town of the island, live perfectly well in it, and develop and mature satisfactorily.

This indicates that it will be a very serious thing for Barbadoes if by any chance *Anopheles* mosquitos are ever introduced into the Worthing swamp; but as this place is three miles distant from the small harbour of Bridgetown and the shipping in the bay opposite it, there is not much danger of such a calamity.

GEORGE C. LOW, M.A., M.B., C.M.,
Craggs Scholar, London School of Tropical Medicine.

SUPRARENAL EXTRACT IN HAEMOPHILIA.

DURING the last twelve months two or three cases of alleged successful treatment of haemophilia with suprarenal extract have been recorded. Mr. Thomas[1] states that I assume that Immerman's theory is correct, and from his concluding remarks, "the immediate action of the remedy on this patient should encourage a resort to it, notwithstanding any theory as to the pathology of haemophilia," leads one to suppose that I disapprove of its use. This is far from being the case.[2] I wrote:

> If we accept the theory that congenital hypoplasia of the vessel walls is associated with haemophilia, we should not expect that in that pathological condition suprarenal extract would be followed by satisfactory results. In no single instance in which this condition has been treated with the drug have I been able to satisfy myself that benefit has accrued.

My reason for referring to the theory was to explain observed facts, namely, the inefficiency in the treatment in the half-dozen cases which had come under my observation.

For some years its trial has been recommended in all cases of capillary oozing when it is possible to reach the bleeding surface with the preparation. The following advantages are claimed for it: It is the most powerful vasoconstrictor known; it acts in very dilute solutions: its constricting effect is not followed by a reactionary dilatation; it does not kill tissue, and therefore does not necessitate the formation of an increased quantity of new material, and thus lengthen the period of healing.

Recently the disinclination which one has to use suprarenal gland when tablets alone were available, tablets which not rarely contained micro-organisms, has been removed by a standard sterile solution of the crystalline body, named adrenalin by its isolator Takamine, having been put on the market. Recognising that there was a danger of a new preparation falling into disuse if its limits of action were not defined, it seemed to me advisable to record my observations on haemophilics, anticipating, it is true, the reports of a few exceptions. However, my, possibly biassed, mind is not satisfied that the cases reported by Dr. Mackenzie[3] and Mr. Thomas[1] are conclusive.

It would materially assist one in arriving at a definite decision as to the value of the preparation in haemophilia if all cases treated with the drug, with or without success, were

[1] BRITISH MEDICAL JOURNAL, November 23rd, 1901.
[2] *Ibid.*, November 3rd, 1900.
[3] *Ibid.*, April 27th, 1901.

recorded. Observers agree with Bates's[4] statement, "the suprarenal extract, when it controls haemorrhage locally or by internal admininistration, does so in less than a minute." This must be borne in mind when attributing the arrest of bleeding to the haemostatic influence of the drug.

The internal administration of the extract in cases of haematemesis was suggested by me two and a half years ago,[5] and was accompanied by the *rationale* of the treatment: more recently I was able to record[6] its successful result, which Dr. Soltau Fenwick[7] has been so good as to confirm.

The *rationale* of the internal administration of the drug to control external haemorrhage and haemoptysis is to me a mystery. Kenworthy,[7] however, has recorded 14 cases of haemoptysis always followed by good results, haemorrhage ceasing within five minutes of administration of the drug.

O. F. F. GRÜNBAUM, M.B.

Henrietta Street, W.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MILITARY STATIONARY HOSPITAL, ORANGE RIVER.

MALARIA TREATED BY THE HYPODERMIC INJECTION OF QUININE.

(Reported by H. P. W. BARROW, Lieut. R.A.M.C.)

A. McE., aged 29, a man who had never lived in tropical or malarial countries before 1901, was sent to Komati Poort on duty in March, 1901. After residing there a little over two months he developed malaria of a severe type. He was transferred to a hospital ship, and remained in hospital until the end of June, being continually under treatment during this period. He was treated with quinine in solution in powders in conjunction with arsenic, and with Warburg's tincture, with little or no effect on the fever.

On arrival at this station in the beginning of July he presented the typical appearance of an old malarial subject. The cachexia was very marked, the spleen enlarged, and the edge of the liver palpable beneath the ribs. He had malarial attacks, the type of fever being regularly quartan.

Treatment by means of quinine in solution was commenced at once, and found to have no effect at all on his fever, and at the same time caused some digestive trouble. The treatment was then changed to quinine in effervescence, and this had likewise no effect on the attacks, but the digestive disturbance was relieved. I determined to try the effects of the hypodermic injection of quinine as described by Ferguson, of Cheltenham. Up to this time the attacks had been occurring regularly and undiminished. The first injection was given on July 27th, two injections were given the following day, and so on, until the patient had six injections in one day.

On July 30th he had another ague attack, and then remained quite well until August 7th, when he had another typical attack. The injections were therefore commenced again, but six injections were given on three successive days. From that date to this (over two months and a-half) he has had no further attacks of fever, and has wonderfully improved both in appearance and colour. He has lost the cachectic look and is putting on weight, and is eating and sleeping well; he is now being treated with tonics and a generous diet. It will be noticed that from the date of the first injection the periodicity of the fever was upset, and from that date recovery may be stated to have taken place. Ferguson's method is as follows:

Dissolve bihydrobromate of quinine in distilled water (1 in 6) by heat. Carefully sterilise the hypodermic syringe, and inject 20 minims of the solution into a carefully asepticised arm at blood heat; the best seat for inoculation I found was the upper arm, both for the convenience of the patient and the operator.

The only practical points I found out in carrying out this method were:

1. That the most convenient method of keeping the solution was in a test tube, previously carefully sterilised, as it is thus possible to heat up the solution to blood heat before injection, without transferring the solution from one vessel to another. A plug of cotton wool can be kept in the test tube, and this can be singed before removing, thus preventing the inoculation of germs into the solution during manipulation.

2. That alternating the arm injected, and sometimes if necessary injecting between the scapulae, prevents any feeling of bruising and soreness which otherwise might be set up.

Manson in his work describes an intermuscular rather than hypodermic injection of quinine, and states that very often abscesses arise from this treatment. In this case the injections were all given hypodermically without any bad results.

[4] *Medical Record*, February 9th, 1901.
[5] *Proc. Phys. Soc.*, March, 1899.
[6] BRITISH MEDICAL JOURNAL, November 30th, 1901.
[7] *Medical Record*, March 16th, 1901.

PINETOWN HOSPITAL, SOUTH AFRICA.

SNAKE-BITE TREATED WITH LARGE DOSES OF STRYCHNINE: RECOVERY.

(By W. ROUS KEMP, B.A.Camb., L.S.A.Lond., Civil Surgeon.)

History.—A Kaffir boy, aged 19 years, whilst sleeping in his tent had his right hand bitten by a puff adder at 1 A.M. on December 24th, 1900. He walked a distance of four miles to the hospital, carrying the snake with him, arriving at 7 A.M.

Condition on Admission.—The right arm was very much swollen, the swelling reaching as far as the point of the shoulder. The snake wound, which was situated at the inner border of the right hand, 2 inches from the wrist-joint, showed distinctly the marks of four fangs of a snake-bite. His pulse was regular (high tension) and 81 per minute. The temperature was normal. The boy could talk rationally and did not complain of being in any pain, but of stiffness in the elbow-joint and that the injured limb felt very heavy, so that he was obliged to support it with the other hand.

After-History and Treatment.—December 25th: Twelve hours after the poisonous venom had entered the system the boy became very drowsy, the swelling of the arm had increased, spreading up over the right shoulder and the region of the pectoral muscles on that side of the chest; the whole limb felt very tense, the pulse could not be felt in that limb; at the left wrist the pulse was feeble, 112 per minute, respirations 18. Numerous small punctures were made through the skin over the whole region of the poisoned limb, and hot lead acetate and boric fomentations frequently applied. Stimulants were freely given, together with the following mixture: ℞ ammon. carb. gr. iv, tr. nuc. vom. ♏x, every three hours. He gradually became more drowsy during the day: the pulse was very feeble, 132: the temperature 96.4°. In the evening his medicine was changed to ℞ liq. strychninæ ♏x, tr. digitalis ♏x, ac. nit. hydrochloric. dil. ♏x every three hours. On December 26th, at 9 A.M., he was pulseless, the extremities very cold, the urine scanty and high coloured. The bowels were opened by a simple enema. Heart beats 124, respirations 44 per minute, temperature 95.8°. His face, chest, and extremities felt quite cold, although he stated that he felt very warm and continually threw the blankets off his body. Hot bottles were placed at his feet and the sides of the chest, and hot brandy and water given internally, in addition to liq. strychninæ ♏v hypodermically. At 7 P.M. there was great improvement and the extremities were warm. The throat was swollen and he had difficulty in swallowing liquids. He had a very good night. The temperature was 98°, pulse 114 and respirations 28 per minute. The pulse on the injured side could now be felt, as the swelling of the forearm had subsided considerably. He was now able to move the fingers and wrist of the right hand slightly. On December 28th he complained of pain over both eyeballs; the tension was normal. The strychnine and digitalis mixture was stopped. During the last three weeks of convalescence he complained of shooting pains in the forehead. His temperature rose every evening to 99.8°—100° F., being normal in the mornings. There were no signs of chest complications. The evening temperature did not reach normal until the twenty-ninth day.

REMARKS.—No treatment was commenced until six hours after the bite. The great swelling of the bitten limb, the constant complaint of feeling hot, although the extremities to the touch felt cold, the rise of evening temperature during convalescence, the treatment by large doses of strychnine,

together with plenty of stimulants, are the most important points of interest in the case. Six hours having elapsed after he was bitten by the snake before he came to hospital, Calmette's "antivenene" was not used, the printed instructions accompanying this antidote limiting its use to periods within four hours of the bite.

STATION HOSPITAL, KHANDALLA, INDIA.

NOTES OF A CASE OF SNAKE-BITE TREATED WITH CALMETTE'S ANTIVENENE: RECOVERY.

(By H. A. L. HOWELL, Captain R.A.M.C.)

SHORTLY before 4 P.M. on November 17th, 1901, Lance-corporal G., Royal Scots, was bitten on the right forefinger by a snake. He did not think the snake was poisonous, and it was only after some persuasion that he could be induced to come to hospital. In the meantime a comrade had tied a handkerchief tightly around his forearm.

At the hospital, Assistant-Surgeon Raymond, I.S.M.D., tied a tight ligature round the finger, scarified the wound, and applied a strong solution of calcium chloride. On my arrival I found the patient apparently quite well and not at all alarmed. As I could get no definite information as to the nature of the snake, I injected into the patient's flank at 4.30 P.M. 3 c.cm. of Calmette's serum, and sent for the snake, which was the property of one of the men in the barracks. The snake was brought to me just before 6 P.M., and I found it to be a cobra about 3½ feet long, of the [illegible] variety, what the natives I believe called a "Brahmini cobra". I [illegible] injected 7 c.cm. of Calmette's serum into the other flank. The patient thus received altogether one full dose of the serum. The ligature was now removed from the finger, which was swollen and very painful.

Up to half an hour after the bite the patient, a healthy and powerful man, [illegible] no abnormal symptoms; pulse, respirations, pupils, temperature, and general appearance—all were normal. His pulse and respirations began to increase in frequency; and the pulse became very compressible, but was quite regular. After the first injection of [illegible] was 99° F., pulse full, high tension, regular, 88, and respirations greatly increased in frequency, 24. He now became very drowsy, and could be roused when the second injection of serum was given. At this time his respirations were 28, and remained so until an hour later 24, and they remained at 24 until [illegible] when they lessened in frequency to 20. Respirations at [illegible] during the two following days, were 18 on the fourth day, and have since then been normal.

The pulse, until 7 P.M., increased to 90, remained so for two hours, gradually lessened in frequency until 1.30 A.M. next morning, when it was 78. The poison therefore does not appear to have had any effect on the pulse-rate. It had, however, a most noticeable effect on the character of the pulse. This varied from hour to hour in a remarkable manner, the pulse at one time full and incompressible, at another small and compressible, and then again becoming [illegible] and appeared of the same tension at any two successive observations. It was, however, always regular.



[illegible] to the patient's lips became blue, and a [illegible] not [illegible] maintained normal throughout, and the reflexes were unaffected.

On the second day he complained of a swimming in the head when he sat up in bed. He was kept in bed for three days after the bite, and when he got up he found himself very weak in the legs. This weakness lasted for about a week. He had complete loss of sensation in the bitten finger, in the part terminal to the site of the puncture, for some days, and this still persists on the side of the finger on which the bite occurred. The fingernail also shows some signs of loosening. The urine was not affected in any way: it was examined every time he passed any for four days after the bite and was always found to be normal. The injection of Calmette's serum gave rise to no local reaction and caused no pain. It did not affect the temperature, but was followed in half an hour by perspiration, which was very profuse four hours after the injection.

REMARKS.—Cobra venom, when compared with that of the viperine snakes, is comparatively slow in its action. In the case noted there were no symptoms half an hour after the bite. It may be that the application of the ligatures and of the calcium chloride retarded the action of the poison; or perhaps only a small dose was injected. The symptoms in this case pointing to the action of the poison were, I think, the marked increase in the frequency of the respirations, the variations in tension of the pulse, the drowsiness, the slight lividity of the face and lips, and the weakness of the legs. All these symptoms are consistent with the theory that cobra venom is a nerve poison. Captain G. Lamb, I.M.S., has recently shown that the action of viperine snake venom is a direct one, immediately affecting the coagulability of the blood, producing death by an arterial thrombosis, most marked in the pulmonary arteries, and that cobra poison acts in a different way, for it has no action on blood coagulation.[1] With regard to the use of Calmette's serum in this case, I think the serum saved the man's life. It would have been better if the full dose had been given at the start, and not divided into two injections. The injection is followed by no unpleasant effects, and should be used in all cases of snake-bite at once; not only when the snake is known to be poisonous, but in all cases where there is any doubt as to whether the snake is poisonous or not. The serum used in this case was fresh, having been prepared at Lille in July, 1901.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

W. WATSON CHEYNE, F.R.S., President, in the Chair.

Tuesday, January 21st, 1902.

A CASE OF PHLEGMONOUS GASTRITIS DUE TO STREPTOCOCCUS INFECTION.

DR. W. CAYLEY recounted the case of a woman, aged 26, who was admitted to the Middlesex Hospital suffering from abdominal pain, tympanites, and collapse; temperature 104.6°. No diagnosis as to the cause of the peritonitis was made. At the necropsy the wall of the stomach was much thickened and the submucous coat infiltrated with pus. Bacteriological examination of the exudation showed bacillus coli communis associated with streptococcus. Several examples of phlegmonic gastritis had been placed on record. For the production of the condition there were probably needed an infective micro-organism and some condition of impaired nutrition of the stomach itself, whereby its epithelium was rendered less resistant. The lesion had been known to follow injuries of the viscus, the effects of poisons. In a few cases recovery appeared to have taken place. Possibly the virulent micro-organism in the case reported came from some disease of the teeth, though this matter had not been inquired into.

A CASE OF PNEUMOCOCCUS GASTRITIS.

MR. ALEXANDER G. R. FOULERTON reported a case which was admitted into the Middlesex Hospital under the care of Dr. Pasteur, in which the symptoms were those of a septicæmia, with petechial haemorrhages in the skin. At the examination after death there were found numerous petechial haemorrhages into the subcutaneous tissue, "mulberry spots" on the face and neck, petechial haemorrhages on the epicardium and in the substance of the liver and kidneys, and an acute fibrinous exudation extending over the surface of the stomach. Cultures of diplococcus pneumoniae were obtained (1) from the exudation on the lining of the stomach, (2) from one of the mulberry spots on the face, and (3) from an interstitial haemorrhage into the right lung. Microscopic

[1] The Action of Snake Venom on the Coagulability of the Blood, by Captain G. Lamb, I.M.S., *Bombay Medical and Physical Society's Journal*, October, 1901.

sections of the wall of the stomach showed the formation of an exudation membrane, with an extensive necrosis of the glandular layer. The only similar case previously recorded was that of Dieulafoy, who had described a case of pneumococcus ulceration of the stomach at, however, a later stage than that now shown.

Mr. S. G. SHATTOCK recalled one case of phlegmonous gastritis following gastrostomy which had been recorded at the Society by Mr. Silcock. The oedema of the gastric wall, especially of the submucous coat, was a very marked feature.

Dr. A. G. AULD thought that the necrosis of the mucosa in Mr. Foulerton's case was best explained by a mixed infection.

Dr. F. W. ANDREWES remarked that as the diplococcus pneumoniae produced a fibrinous exudate regularly in the lung, there was no *a priori* reason why it might not be sufficient in itself to lead to an exudate from the surface of a mucous membrane.

Dr. H. D. ROLLESTON observed that some of the intestinal lesions met with in association with pneumonia might be attributed to a toxic condition rather than direct infection—such, for example, as ulceration of the colon or duodenal ulcer.

THE BACTERIOLOGY OF A CASE OF RAPIDLY-SPREADING GANGRENE.

Dr. E. J. SPITTA read a paper on the above case, recently in St. George's Hospital. It was unaccompanied with emphysema. The wound resulted from a lift accident, was very much contaminated with dirt, and was of an extensive nature, including a fracture of the four outer metacarpal bones and the lower third of the radius. From the pus he isolated in a pure state a square-ended, non-sporing, gas-producing, capsulated anaërobic bacillus, which on inoculation proved highly virulent to guinea-pigs, death resulting in fifteen hours. He was able to recover the organism from the subcutaneous, pleural, and peritoneal fluids, and also in pure culture from the heart blood of the animals inoculated. It was a strict anaërobe, grew well at 37° C., though more slowly at 21° C. Most of the ordinary laboratory media proved suitable for its cultivation, especially those containing glucose and traces of sodium formate. Both sugars and carbohydrates were fermented, and in the former tubes gas-production was always very excessive. In glucose formate bouillon growth was always very rapid, a dense turbidity, with a thick ropy sediment, being found in addition to much gas formation. On potato the organism formed a transparent, almost invisible, film, but in milk and on gelatine at 21° C. no growth was ever obtained. On solidified serum the bacillus grew well, forming, as on agar, small, discrete, circular, non-liquefying colonies of a greyish colour, about three quarters of a millimetre or so in diameter. The organism never stained well by the method of Gram, and seemed always very prone to decolorise in small dots. Considering its pathogenicity and certain of its cultural characteristics, Dr. Spitta suggested its resemblance to Welch's bacillus aërogenes capsulatus, though clinically the marked absence of emphysema was not in accordance with typical cases of infection with Welch's organism. In conclusion, he commented on the extreme difficulty he had experienced in preserving the vitality of the organism for more than a few generations outside the body, and remarked that he believed that this had been the experience of others.

Dr. W. BULLOCH had seen many cases of wound infection in which such an organism occurred: he had found the microbe very difficult to obtain in pure culture. It was probably the same as that described by Welch.

THE TRANSMISSION OF HAEMOLYSINS FROM PARENT TO OFFSPRING.

Dr. W. BULLOCH communicated the results of some experiments he had made on the above question. The haemolysins were produced by inoculating rabbits with the blood corpuscles of the ox. Under these conditions the serum of the rabbit had the power to dissolve the blood corpuscles of the ox. The haemolysin which brought about this lytic action was due to the coalition of two substances—an immune body produced as a result of the inoculation, and a complement normally present in the blood. The experiments were made to determine how these substances behaved in the body of immune parents, and as a confirmation of Ehrlich's results it was found that an immune male did not propagate immunity to his offspring a by normal female. An immune female, however, propagated the haemolytic properties of her blood serum to the fetus. Further, the milk in its native condition was not haemolytic, although Dr. Bulloch had found that when fresh normal serum was added to the milk it manifested powerful haemolytic properties showing that the immune body—a substance which was essentially foreign to the organism of the mother—was excreted with the milk, whereas the complement, a normal product of the serum, was retained within the body of the mother. Hitherto he had not been able to demonstrate the possibility of immunising a normal rabbit by suckling an immune haemolytic female.

In answer to Dr. AULD, he said he regarded the immune body introduced with the milk into the animal suckling as the substance that united with the complement in the young animal.

EDINBURGH OBSTETRICAL SOCIETY.

JAMES RITCHIE, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, January 8th, 1902.

MOVEMENTS OF THE PELVIC BONES DURING SYMPHYSIOTOMY.

A PAPER by Dr. A. SANDSTEIN (Skye), entitled The Movements of the Pelvic Bones during the Operation of Symphysiotomy, and the True Function of the Section of the Pubic Symphysis, was read by the SECRETARY. The movements of the innominate bones were: (1) Rotation on a vertical axis passing through the sacro-iliac joint, which carried the pubes apart and "unlocked" the sacrum from its socket in the innominate bones. It was the dangerous movement, increased those diameters lying more or less transversely; increased the true conjugate usually in a minor degree, sometimes depending on the shape of the brim in a major degree, sometimes not at all, and might even lessen it. Its real cause was the disproportion between the fetal skull and the pelvic brim, but above all, the necessity for expansion of the interval between the innominate bones which formed the socket for the sacrum and was narrower behind, in order that this narrower part might glide over the sacrum, which was wider anteriorly, and so allow the second movement to occur, and to increase the true conjugate sufficiently to allow the fetal skull to pass the brim. (2) Rotation on a transverse horizontal axis passing through both sacro-iliac joints, carried the pubes downwards, existed in the pelvis before division of the symphysis, was even then capable of increasing the true conjugate, but only to a certain extent, as the wedge shape of the sacrum, which was wider anteriorly, would not allow the correspondingly wedge-shaped interval between the ossa innominata to glide over it more than to a certain extent. It was much more evident after section of the pubic symphysis, and increased the true conjugate usually in a major degree, sometimes in a minor degree, sometimes was the only factor in its increase, and was associated with and increased by the third movement that occurred—namely: (3) Rotation of each innominate bone on its own long axis extending from the sacro-iliac joint horizontally forwards. This caused the ilia to become more erect or vertical, and the ischia and pubic bones to be carried more apart, while at the same time each pubes dipped just as the point of a hook did if it were similarly rotated on the long axis of its handle. Thus by the dipping of the pubes it increased the second movement in its effect. It was caused by the downward direction of the parturient powers and the upward direction of the opposition power, the attachment of the muscles and the ligaments to the iliac crests and upper margin of the pubes. Thus the true significance of the division of the symphysis pubis in symphysiotomy came to be not that it permitted pubic separation, but pubic descent. The practical results of the author's investigations were stated as follows: (1) Since 6 cm. of pubic separation is all that we can allow to occur, and since each cm. of pubic separation increases the true conjugate by 1.67 mm., the utmost amount of increase of the true conjugate we can aim at is 1 cm., or ⅜-inch. Therefore the cases must be strictly limited to those in which by an addition of ⅜-inch to the true conjugate we can with safety to the mother deliver a living child by Nature alone or aided by forceps or version. Symphysiotomy should

therefore never be performed unless there is a true conjugate of at least 2½ inches. (2) The child must be living. (3) Walcher's position must be used, and as far as possible maintained, together with support to the sides of the pelvis. (4) But it is necessary in some cases to counteract unequal movement on the two sides of the pelvis. In order to prevent this a symmetrical movement, a departure from Walcher's position, is necessary. He found that in all his cases by flexing the thigh of the abdomen on the non-moving side, and using the bent up knee of that leg as a lever, and abducting it forcibly outwards and downwards, that side could always be made to take on its fair share of the movement and to move equally with the other side, the relative projection of the pubes into the brim was prevented, and the rupture of the ligaments on the other side avoided or delayed. (5) The knife used to sever the symphysis should be a broad-bladed one, otherwise there will be difficulty with the division of the symphysis pubis. (6) Division of the subpubic ligament should not be aimed at, although the symphysis must be completely divided. By retaining the subpubic ligament, or at any rate not dividing it by the knife, it offers some resistance to the pubic separation, and if left untorn prevents the extension of the wound down into the vulva, just as the hem of a handkerchief prevents the linen from tearing. (7) Ossification of the cartilage does not occur. It is important to localize the joint. If the joint is missed there is great delay in cutting the union of the bones, but also the detached end of the pubic bone necroses, and a fistula is the result. The joint is not always in the middle line. (8) Finally, looking at the number of deaths from sepsis, and to the frequency of localized sepsis, rigid asepsis is necessary for the operator. And since so many fatalities from sepsis occur in patients with a previous foul vaginal discharge, the existence of such foul discharge should be looked upon as a contraindication to the operation.

The paper was discussed by Professor A. R. SIMPSON, Drs. D. BERRY HART, and J. W. BALLANTYNE, and by the PRESIDENT.

A CASE OF FULL-TIME INTACT EXTRAPERITONEAL GESTATION SUCCESSFULLY REMOVED AFTER FIVE YEARS' RETENTION.

Dr. D. BERRY HART read a paper on this subject. The case gave a very clear history of retained extrauterine gestation, and the physical signs were those of an extraperitoneal cyst reaching up to the navel. On operation the cyst was opened and the bones shown removed. They were in a very perfect state of preservation. Nothing additional was found except a thick grumous fluid. There was some flesh on one side of the legs and on the scalp. The sac opening was stitched to the abdominal wound, and the sac itself stuffed with iodoform gauze. The posterior peritoneum had been lifted up as Taylor has described.

Professor SIMPSON, Dr. J. W. BALLANTYNE, and Dr. HAULTAIN discussed the paper; and Dr. HART replied.

EXPULSION OF DERMOID OVARIAN CYST "PER VAGINAM" DURING LABOUR.

Dr. HAULTAIN read a paper on this subject. In this case labour was obstructed by a soft pelvic tumour. The second stage had lasted twelve hours. An attempt was made to extract the child by forceps. As the result of strong traction a swelling appeared through the vulva, which subsequently became detached, and proved to be a dermoid cyst, as corroborated by microscopic examination. The cavity was plugged with gauze, and the patient made an uneventful recovery. There was a record of four similar cases of expulsion per vaginam, three of these by Luschka, Lomer, and Berry were tabulated by Playfair in a paper read before the [illegible] of London, while the fourth was reported by [illegible]. In each of these, as in the case now reported, forceps were used in delivery. Four of the five mothers recovered, but with the exception of the case Dr. Haultain now described, all the children were born dead. Six cases were recorded of expulsion of ovarian tumours per anum. In four of these the result was fatal to the mother. In one the expulsion was completed by unaided uterine action. The main feature of practical importance in the consideration of these cases was the question of the management of labour if obstructed by similar impacted pelvic tumours. The complication was rare—once in 4,000 cases—but if left alone meant a mortality of 50 per cent. The recognised modes of management might be summarized thus: (1) Postural reposition of the tumour into the abdomen. (2) Dragging the child past the obstruction with forceps; (*a*) without diminishing the size of the tumours; (*b*) after disintegration of the tumour by puncture or free incision. (3) Removal of tumour by vagina. (4) Caesarean section and ovariotomy. McKerron's classical monograph on the obstruction of labour by ovarian tumours in the pelvis was quoted. It showed reposition, 41 cases and 5 deaths; artificial delivery alone, 49 cases and 24 deaths; artificial delivery with disintegration of tumour, 33 cases and 4 deaths; Caesarean section, 10 cases and 8 deaths; vaginal ovariotomy, 3 cases and no deaths. From these figures it appeared that forcible delivery by dragging the child past the obstruction was a mode of procedure of such danger to the mother that it should never be attempted. The better methods of gynaecological surgery ought to lessen the mortality of Caesarean section and of disintegration of the tumour. Reposition involved slighter risks, and therefore offered the chief mode of treatment before operative measures were so readily undertaken. Reposition and simple disintegration offered almost equal success. The cause of death in both methods seemed to be mainly due to peritonitis set up by injury to the tumour. Therefore early removal seemed indicated. The best result was obtained by (1) vaginal ovariotomy before delivery; (2) ovariotomy as soon as possible after delivery, either after reposition or disintegration of the growth before expulsion of the child. The first was a safe and ready method. Abdominal ovariotomy appeared to be in no way specially dangerous during the puerperium. When the conditions admitted of vaginal ovariotomy being satisfactorily attempted, Dr. Haultain was inclined to advise that method of procedure even in preference to simple reposition. Should reposition have been successfully done, subsequent removal of the tumour within 24 hours seemed a method to be recommended if the surroundings admitted of efficient operation.

The paper was discussed by Professor SIMPSON, Dr. MCKERRON, and Dr. J. W. BALLANTYNE; and Dr. HAULTAIN replied.

SPECIMENS.

Specimens were shown by Drs. N. T. BREWIS and D. BERRY HART.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

W. J. SMYLY, M.D., President, in the Chair.

Friday, December 20th, 1901.

A CASE OF CAESAREAN SECTION.

DR. A. HORNE read a paper on this subject, and exhibited the patient. The following were the notes of the case:—

MRS. T, aged 23. Second pregnancy. Was admitted into the National Maternity Hospital, at 11.30 A.M., on Sunday, July 21st, 1901. She was born in the north, and was considered a weakly child in her early years. She was reared in a chair, as she had not the use of her legs, until she was five years old. First labour, October, 1898, took place in the Rotunda Hospital. Patient was in labour some ten hours, when, after a prolonged instrumental delivery, a dead fetus was extracted. Her last menstruation was on October 22nd, 1900. At 6 A.M. on Sunday, July 21st, the membranes ruptured. At 10 A.M. she was visited by Dr. Elizabeth Massey, who diagnosed a highly contracted pelvis, and had the patient at once removed to hospital. Dr. Horne saw her at noon. Examination: The patient was small, delicately built. Height, 4 ft. 4 ins. Measurement from crest of ilium to sole of foot 29 ins.; from symphysis pubis to umbilicus, 6¾ ins.; from ensiform cartilage to umbilicus, 9 ins.; from left anterior spine to umbilicus, 9 ins.; from right anterior spine to umbilicus, 9 ins.; from anterior superior spine to other in front, 12½ ins.; around pelvis at head of anterior spine, 32½ ins.; from symphysis pubis 2 × 1 to middle of spine, 11 ins.

Internal.—From promontory of sacrum to lower angle of symphysis pubis, 2¾ ins. The cervix was dilated to about the size of a florin, the head of the child could be felt above the brim. On external palpation it was movable. Back of fetus to the left. The heart sounds were audible immediately below the level of the umbilicus, and to the left about 140 beats to the minute. Dr. Horne at once telephoned to the Rotunda, and had to thank Dr. Heard for having supplied him with the particulars of her previous delivery, and as the measurement of the pelvis corresponded with Dr. Horne's own he decided on performing Caesarean section, the mother having previously expressed the desire that her child should be born alive.

Operation.—At 3.30 P.M., the patient was placed under chloroform by Dr. M[illegible], when ether was substituted, assisted by Dr. Barry. An abdominal incision was made, extending from 3 inches above the umbilicus to 2 inches of the symphysis pubis. The uterus was delivered through the ab-

dominal wound, which was temporarily united behind it. An incision was made through the uterine wall, commencing high up at the fundus, but avoiding the lower uterine segment. The placenta was in front, and was rapidly cut through. Bleeding was at once profuse. The child was seized by the buttocks and extracted; the head followed without any difficulty. The infant, a female, at once cried out. The assistant's hand grasped the uterine edges until Dr. Horne applied an elastic ligature. The placenta was detached without difficulty. The uterus contracted well, hot sterilised towels being applied; the wounded surfaces were brought together by means of six deep sutures and four superficial silk sutures. The abdomen was closed likewise, using silk for the deep sutures and silkworm gut for the superficial. The operation lasted forty minutes, the patient leaving the table in good condition: pulse 105. The child, a healthy girl, weighed 7 lbs. The progress of the case was most satisfactory. Pain was experienced for only some four hours after operation, which was relieved by one-sixth of a grain of morphine hypodermically. Thirty hours after delivery she was given 5 grs. of calomel; during that night she vomited on four occasions what was described as dark, bilious-looking matter. The bowels were moved by an enema of soap and water, to which a teaspoonful of common salt was added. The further convalescence was uneventful. The mother was able to suckle her child. She sat up on the twenty-first day, and left the hospital on the thirtieth day after operation.

Dr. Horne said the three important questions he had to decide on his first visit were, first, should he allow the labour to proceed, with the object of giving Nature a chance of so moulding the head that he might eventually deliver by means of forceps or symphysiotomy? secondly, should he perform a Porro's operation? or, finally, a Caesarean operation? He chose the latter for two reasons—namely, the mother was most anxious a living child should be born, and knowing the result of her previous labour, besides the most important condition that there had been no examination previous to her admission to hospital. The important points of the case were in connection with the uterine incision, whether one should adopt what was known as the classical anterior incision, or longitudinal, or the transverse incision as recommended by Fritsch. Recent authorities, notably Schroeder, were much in favour of the latter. Dr. Horne said he would not discuss the Caesarean operation in its relations to other operations, such as symphysiotomy, craniotomy, and the Porro's operation, as the time at his disposal was too limited. They could not, however, shut their eyes to the fact that the Caesarean operation was gradually being restored to a position not unlike that of ovariotomy, so that they could speak with confidence, as a rule, to a favourable results. The dangers attending the Caesarean operation ought not to be as great as, certainly not greater than, an ovariotomy, but students must be more fully instructed in the recognition of degrees of pelvic obstruction, so that it would not be necessary for the obstetrician to learn through delay, or through failure with forceps, version, or craniotomy, that a Caesarean section was demanded. He should not touch on eclampsia, placenta praevia, prolapsed cord, etc., on the light of these forming the most recent indications for Caesarean section. In the performance of Caesarean section their motto should be: Operate early; delay is fatal.

Drs. ALFRED SMITH, GLEN, and W. J. SMYLY took part in the discussion; and Dr. HORNE replied.

OVARIAN CYSTOMATA.

Dr. HASTINGS TWEEDY exhibited two ovarian cystomata:

During the examination of the patient prior to operation he had no difficulty in detecting the presence of the smaller tumour, but he failed to recognise the larger, though it extended to the umbilicus, and the patient was deeply anaesthetized. He advised an operation. When the patient was on the operating table and deeply anaesthetized she was again examined, but with no more satisfaction than at first. On opening the abdomen a great gush of ascitic fluid came, and he found a large cyst extending to the umbilicus, and all around a "bread and butter" mass, which he looked on as indicative of cancer. Pulling down the peritoneum he found cancerous masses connected with the loops of the intestines. The patient made an afebrile and uneventful recovery. On the Saturday after the operation she talked of going home, but in the evening of the day she was in a state of collapse, with shallow breathing, and she was pale and sallow in appearance. She got an enema and was better in the morning; she was fed for a time by enemata and quickly rallied, going home from the hospital on December 19th, 1901.

The tumours were cancerous, with a considerable amount of fibrous tissue.

Remarks were made by Drs. GLEN, and W. J. SMYLY; and Dr. TWEEDY replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.—At a meeting on January 15th, Mr. COLLIER, President, in the chair, Dr. DONALD mentioned a case of unruptured tubal pregnancy and showed the specimen.—Dr. DONALD and Dr. FOTHERGILL showed microscopic sections from a case of folliculoma ovarii malignum and made a short communication.—Dr. MOORE described changes in the pancreas observed in diabetes mellitus, and showed specimens.—Dr. PREBBLE exhibited salivary and other calculi.—Mr. WOLSTENHOLME exhibited sections of a large aneurysm and thrombus of a branch of the anterior mesenteric artery from a young horse, the condition having been produced by the irritation set up wandering nematodes—immature sclerostomata equina (strongylus armatus). A number of specimens of the parasite taken from the lesion were shown.

LIVERPOOL MEDICAL INSTITUTION.

RUSHTON PARKER, B.S., F.R.C.S., President, in the Chair.

Thursday, January 16th, 1902.

FLAGELLATE ORGANISMS IN HUMAN BLOOD.

MAJOR R. ROSS stated that Dr. Dutton, of the Liverpool School of Tropical Medicine, had just found trypanosomata in human blood. Dr. Laveran had previously written, asking for details of a case in a lady, reported to the Institution by Dr. Barron in 1895, of "flagellated protozoa in the blood." Further details of this case would be welcome if any member then present could supply them.

Dr. BRIGGS said the patient in question had no fever, and in his opinion Dr. Barron's organisms did not resemble Dr. Dutton's specimens.

HYSTERICAL PARALYSIS OF ALL THE EYE MUSCLES EXCEPT THE INTERNAL RECTI.

Mr. EDGAR STEVENSON showed a girl, aged 15, with almost complete palsy of the external ocular muscles. There was marked convergence of the eyes on any attempt to raise the head, or to move the eyes. Considerable improvement, had resulted from four applications of a high frequency current, the patient now having binocular distant vision.

EXTREME EXOPHTHALMOS IN EXOPHTHALMIC GOÎTRE.

Mr. STEVENSON also showed a girl, aged 25, from whom the right lobe of the thyroid gland had been removed four years ago. The general symptoms had improved greatly, but the exophthalmos had steadily increased to quite an unusual degree. The corneae were unaffected and her vision normal.

Mr. SHEARS said excision of part of the thyroid gland had produced no improvement in the exophthalmos, and asked what the present position of thyroidectomy in these cases was. It was remarkable that vision and the mobility of the eyeballs were normal, for the stretching of the optic nerve and external muscles must be extreme.

Mr. R. J. HAMILTON noted the perfect closure of the lids in this case, and drew attention to the unsatisfactory results of operative treatment for goitre when marked exophthalmos was present.

GRAVES'S DISEASE.

Dr. CARTER narrated a case of Graves's disease in a young gentleman, in which cure resulted, he believed from the exhibition of diluted hydrofluoric and hydriodic acids. Dr. Carter also mentioned two cases in which partial thyroidectomy was performed; in one death followed in a few days, in the other four years after the operation; the symptoms were apparently unchanged.

Dr. LOGAN had seen a case of Graves's disease practically cured by a prolonged course of potassium bromide and arsenic. He had seen two marked cases in one family.

Dr. HILL ABRAM had seen marked improvement follow partial thyroidectomy, and in Mr. Stevenson's case the general symptoms were notably less than at the time the patient was under observation at the infirmary. Certainly in no other way was such a speedy relief got from the most dangerous symptoms.

MALARIA ACQUIRED IN ENGLAND.

Dr. BUCHANAN described a case with recurrent attacks of fever, in which there was no leucocytosis, and in which one or two of the red cells contained a non-pigmented haematozoon. The patient had never been out of England, but had been freely bitten by mosquitos in Kent.

Major Ross thought the diagnosis of malaria correct.

Dr. CARTER said a former house-physician, the late Dr. Henry Welch, had typical ague in 1880 after a few weeks'

residence near Lancaster in early autumn, just after the valley of the Lune had been flooded.

Dr. BUCHANAN replied.

THE UTERINE CURETTE AND CURETTAGE IN GYNAECOLOGICAL AND OBSTETRICAL SURGERY.

Dr. BRIGGS read a paper mainly founded on a consideration of the question, Is the modern estimate of the value of the curette, as shown by its frequent use, amply justified by known results? The results thereof were classified as (1) curative, (2) modifying, (3) exploratory. After reviewing the tests applied to these results the most satisfactory effects of curettage was obtained in the treatment of the uterus, sometime after abortion, by the removal of small pieces of chorion; subsequent microscopical investigation for detection of villi should be systematically carried out, otherwise many such cases were described as cures of endometritis. The best use of the curette was indicated by its inventor, Récamier, in 1850; much of the recent practice of curettage belonged to its abuse, which had run parallel with its increased safety. The dull-curette of Gaillard Thomas was advocated by its inventor in the treatment of uterine "fungosities," an "omnibus" title for most affections of the endometrium known about the mid-period in the history of the curette. Since Nélaton, in 1853, followed by Savage, Routh, Olshausen, Bischoff, Matthews Duncan, and Herman (1880) had described cases of chronic hyperplasia, diffuse or polypoid, of the endometrium, many attempts had been made to differentiate glandular, interstitial, and mixed types of endometritis (Hunter Robb, 1896). Who could, even to-day, separate clinically, endometritis, adenoma, and adenocarcinoma at a period when treatment or diagnosis by the curette was most important? The results of curettage in this particular were discouraging. Dr. Briggs thought the estimate of the results of curettage, modifying or exploratory, depended on the whole more upon dilatation of the cervix to digital size and the use of the finger than upon the mere and otherwise imperfect scraping of the uterus by the curette. A description of the metal dilators used at the Hospital for Women, Liverpool, since 1888 was given; each dilator was made over four sizes of the English catheter scale in the first 1½ inch from the point. Dr. Briggs then discussed the results obtained in the treatment of metrorrhagia, and showed sections of the endometrium from cases in which a classification might be attempted, but only on incomplete pathological evidence. He alluded to the thickening of the endometrium associated with uterine fibroids, and showed that removal of the fibroid, where justifiable, was the only reliable means of arresting the endometrial thickening. Hence such thickening was probably inflammatory in origin. He then mentioned several obstinate cases of metrorrhagia; in one Mr. Murray Cairns, the medical attendant, and the patient, aged 40, both pleaded for removal of the uterus, and the operation was eventually carried out. Some of the other cases had had the uterus curetted three times by different doctors; one was apparently cured by turpentine gauze intrauterine packs. He maintained that collective investigation after the operation of curettage was required to disseminate doubts as to its present position in minor gynaecological, and especially in obstetrical, surgery.

Dr. MACFIE CAMPBELL generally used the loop curette or Donald's flushing instrument. Preferably he curetted first, and then washed out; débris was removed with antiseptic gauze, and the uterus packed with the same. His best results were in removal of placental remains in abortion cases; in cases of metrorrhagia he had often been disappointed.

Dr. JOHN E. GEMMELL regarded the finger as the best curette for diagnostic and obstetric purposes, preceded by dilatation of the cervix. He considered, however, that the curette had its place when used intelligently; it was important to carefully weigh the evidence for the true causation of the local condition. Microscopical examination of the tissue removed was most important, especially when considered in conjunction with the feeling imparted to the curette during the operation.

Mr. HAWKINS-AMBLER said endometritis was a sufficiently defined condition, and the obstacles in the way of cure after curettage lay in the tendency of doctors and patients to look upon the operation as the end rather than the beginning of treatment. He felt that the finger, although the best curette in post-abortion cases, was not always effectual except in very early cases. The differential diagnosis between adenoma and adeno-carcinoma was not possible in many cases from the examination of mere curettings.

Drs. DAVIES, A. C. WILSON, and STOOKES also spoke; and Dr. BRIGGS replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

A. G. BARRS, M.D., F.R.C.P., in the Chair.

Friday, January 10th, 1902.

SOME NEW GYNÆCOLOGICAL INSTRUMENTS.

MR. C. J. WRIGHT showed (1) a new form of urethral speculum, which he had found useful in examination and removal of caruncle of female urethra. It was made on the principle of the duckbill vaginal speculum, and was more convenient and less painful to the patient than the bivalve or ordinary vulcanite form. (2) A pair of locking angular forceps useful in the examination of and application of mops and tampons to the cervix uteri through the speculum. (3) A metal box opening with a spring, which could be opened and shut with one hand, for administration of chloroform by the practitioner in attendance on labour—a ready means, economising the chloroform, and preventing its diffusion into the room when shut, preserving a portion inside ready for immediate and intermittent use, and discontinued at a moment's notice. Mr. Wright thought it superior to a box devised by Dr. Orchard, Ashby de la Zouche, which required two hands when doctor and nurse were fully occupied.

PARTIAL NEPHRECTOMY.

Mr. MOYNIHAN read a paper on three cases of partial nephrectomy. In the first case a solitary cyst of the lower pole of the right kidney was excised, in the second an inflammatory myxo-sarcoma of the lower half of the right kidney, and in the third a solitary cyst in the transverse band of a horseshoe kidney. All three patients recovered. In the second case the naked-eye appearance suggested tubercle. A portion of the pelvis of the kidney was also removed, the wound left being closed by a continuous catgut suture. In all the cases a wedge of kidney substance was removed and the wound left closed by interrupted catgut sutures. Reference was made to the records of similar cases.

Dr. MAULE SMITH, Mr. W. H. BROWN, Mr. H. LITTLEWOOD, Dr. JASON WOOD, and the PRESIDENT took part in the discussion; and Mr. MOYNIHAN replied.

HEAD INJURY.

Mr. W. H. BROWN read notes of two cases of severe head injury in which complete recovery ensued.

Dr. EURICH, Dr. STEWART, Dr. STEVEN, Mr. WHITEHEAD, Dr. TREVELYAN, and the PRESIDENT took part in the discussion; and Mr. BROWN replied.

SPECIMENS AND CASES.

Dr. A. J. POLLARD: (*a*) Hydatidiform mole; (*b*) abnormal fetus, 6 months old, without anus or signs of sex.—Dr. ALLAN: (*a*) Gouty kidney, (*b*) amyloid liver, (*c*) tumour of suprarenal body, (*d*) tumour of thyroid body, (*e*) aneurysm of aortic arch, (*f*) stricture of œsophagus, (*g*) necrosis of femur, (*h*) fracture of humerus.—Dr. BARRS: (*a*) Extensive cutaneous naevus, with vascular hyperplasia of the upper limb. (*b*) A specimen of rapidly fatal cirrhosis of the liver. (*c*) A gall bladder from a case of perforative cholecystitis. There was ulceration and a small perforation on the under surface of the gall bladder, setting up a general peritonitis. Both common duct and gall bladder were packed with stones. (*d*) Specimens with drawings from a case of Henoch's purpura. There was a large retroperitoneal haemorrhage, probably originating in the suprarenal capsule, and involving the tissues round the right kidney. Extensive haemorrhages into the renal parenchyma. Small haemorrhages into the heart and lungs, more extensively beneath the mucous membrane of the intestines. The symptoms during life were vomiting, abdominal pain, slight joint symptoms, and extensive purpura.—Mr. W. H. BROWN (with Mr. J. PICKLES): (*a*) Perforating gastric ulcer: excised; (*b*) tumour of testis.

Dr. TREVELYAN: (*a*) A case of early locomotor ataxia with aortic disease, in a man aged 50. Seven years ago this patient had a haemoptysis, and there was evidence of some old and quiescent disease at the left apex. (*b*) A case of locomotor ataxia in a man aged 30, in which a marked ataxia was improving under Frenkel's exercise treatment. The ataxia was only of a few months standing. (*c*) A specimen of urine containing numerous tubercle bacilli from a woman aged 25, who suffered from a slight intermittent haematuria and a multiple joint affection. The latter was also supposed to be of a tuberculous nature.—Mr. CONSTABLE HAYES: Case of choroido retinitis with optic atrophy in a boy aged 8 years.—Mr. LITTLE-

WOOD: (*a*) Cystic kidney removed by abdominal nephrectomy. (*b*) (with Dr. GRIFFITH): Patient with gastro-enterostomy for dilated stomach, secondary to duodenal ulcer.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting held on January 10th, Mr. A. WYNTER BLYTH, President, in the chair, Dr. D. S. DAVIES (M.O.H., of Bristol) read a paper on Plague Exclusion and Control. The mortality among rats during epidemics of plague had, he said, long been a matter of common observation, but it was only within the last few years that, the identity of the diseases having been proved bacteriologically, the agency of rats in the spread of the disease had been established on a scientific basis. It had never been so ably stated as by Dr. Koch at the Congress on Tuberculosis, whose words, which he quoted in full, were a condemnation of the old practice of treating all pestilences alike by quarantine, disinfection and general sanitary measures instead of on the lines indicated by the special etiology of each. The notion that personal intercourse was the chief factor was still held and acted on in official circles, with little if any success. But in every epidemic it had been shown that rats were the active agents, and that with their extermination the plague disappeared, personal infection, save in the pneumonic form of the disease, playing a very small part. It was high time, said Dr. Koch, that this view, now accepted by all epidemiologists, should be generally known and acted on, as it had been with brilliant success at Sydney, since otherwise no sanitary precautions, inoculations, etc., were of any real avail. This, said Dr. Davies, had been proved indisputably by Dr. Ashburton Thompson, at Sydney, where the fact that the 289 cases were distributed among 276 houses showed that direct infection was an unimportant factor. A plague contact was a person who had been exposed to infection by plague rats, not by others suffering from the disease. The regulations of the Local Government Board of November, 1896, with regard to isolation of patients were good enough so far as they went, but wholly ignored the danger from rats, especially in cargoes of grain or cotton seed. That of April, 1901, recognised the danger, and advised precautions to be taken, but only when plague had appeared on board, and even then was not compulsory. In Bristol they had already kept a list of infected ports based on that of the U.S.A. Marine Service, but retaining the names for three or four months longer, since ports were taken off the American list so soon as cases ceased to be reported. All ships from such ports were declared suspect, though the crew might be quite free from the disease, which was often confined to the rats, and communicated by them to the labourers engaged in unloading the cargo. Thousands of infected rats were thus carried from port to port, whereas, if an international agreement could be brought about, like that among the Australian colonies, that all rats must be destroyed at the port of departure while the vessel was empty, and no ship allowed to enter another port without production of a certificate to that effect, the further spread of plague would be prevented. The Bristol Chamber of Commerce had carried at the Nottingham meeting of the Associated Chambers of Commerce a resolution to that effect, which had been sent to the Board of Trade and the Shipowners' Association, and similar recommendations by the British Medical Association and the Society of Medical Officers of Health and Port Sanitary Authorities had been forwarded to the Local Government Board, but at present the rats could be attacked at the ports of arrival only. If plague were once introduced the measures to be adopted were: (*a*) Provision for the isolation of the sick; (*b*) the quarantine of persons who had been in contact with infected rats; (*c*) protective inoculation of those associating with the sick or on infected premises; (*d*) the exclusion of rats from dwelling houses by putting old sewers and drains, yard paving, and basements into thorough repair; (*e*) the extermination, so far as possible, of all rats in docks and warehouses; and (*f*) the cleansing of "verminous persons."—Dr. ASHBURTON THOMPSON (Sydney) insisted on the necessity of international action for the destruction of all rats on vessels from infected ports, whether any of the crew had been attacked or not. The Indian Government attached most importance to infected persons, but the Australian to rats as the chief agents in the spread of the plague, and in this they were fully justified by the results, while all the the efforts of the former had proved futile. Whatever might be the difficulties encountered in dealing with crowded insanitary cities in Asia, that which had been accomplished in Australian would be equally practicable in European towns.—Dr. FARRAR (Special Plague Officer with the Indian Government) maintained that the natives of India were cleaner in their persons than the working classes in this country, and that their greater susceptibility to the plague was chiefly owing to their going barefoot and wearing toe-rings, since infection took place mostly through abrasions of the skin. Among men buboes were inguinal, but the women who swept the floors with their hands had them in the axillae. On board ship the barefooted lascars should be treated as contacts, though European seamen need not be so, and dead rats should not be handled until they had been plunged into strong solutions of sublimate or carbolic acid to destroy the fleas.—Dr. HERBERT WILLIAMS (Port of London) had found burning sulphur uncertain, and compressed SO_2 so unequally diffusible that rats in cages within 6 feet of the cylinders were sometimes found alive after fumigation. Better though not unfailing results had been obtained by means of the Clayton apparatus, by which SO_2 was forced by a fan through pipes into the holds. The total extermination of rats in a port was impracticable, though he understood that in Odessa over a million had recently been killed. The isolation of vessels in port was a matter of great difficulty, and with every precaution rats might be landed in cargo.—Dr. HOPE (Liverpool) dwelt on the difficulty of dealing with vessels of 4,000 or 5,000 tons, the rats passing from one hold to another during the fumigation, but he had found the Clayton apparatus very satisfactory. Port sanitary authorities should be empowered to detain rat-infested ships. He could not ignore general sanitary measures when he considered the class of persons who were first attacked in Oporto and Glasgow, and he believed in the communication of the diseases from such persons by means of fleas.—Dr. WALFORD (Cardiff) had seen but two cases of plague, one contracted in Cardiff, the other elsewhere; both men had been unloading grain, and the former admitted to having handled dead rats, which were proved by bacteriological examination to have died of plague: in his case the buboes were axillary. He, too, had been very successful with the Clayton apparatus, but was well satisfied with the work of professional rat-catchers.—Dr. HOWARD JONES (Newport, Mon.) and others having continued the discussion; Dr. DAVIES replied briefly.

TORQUAY MEDICAL SOCIETY.—At a meeting held on December 19th, 1901, Dr. POWELL, President, in the chair, Mr. GOUGH demonstrated Soxhlet's apparatus for the sterilization of milk.—Mr. EALES showed a case of amyotrophic paralysis of the right shoulder muscles following a slight injury to the elbow.—Dr. MAKEIG JONES showed an easy way for removing urethral calculi by means of a loop of piano wire.—Dr. POWELL gave a presidential address on Some Aspects of Modern Medicine, in which he urged the importance of circumspection in accepting as final some of the latest views on the bacterial origin of certain diseases. While acknowledging that the bacillus was present in most cases of phthisis it was not the only factor, but heredity also was of great importance, and while keeping our minds open to the researches of modern science we should still hold fast to the old and tried clinical methods, which were far from being exhausted. Many cases clinically were tuberculous, but bacteriologically were not so. As regarded sanatoria, while their educational discipline ought to do good, still to stamp out phthisis he should go to the homes of working men, and make them pleasanter, sweeter, and healthier, and their workshops the same. He deplored the modern flooding of our breakfast tables with new remedies, the details of, and the cures (?) wrought by, which arrived by shoals, and carried away many minds from the safer paths of reason and reflection. Although to the lay user of them they often brought their own reward, yet having regard to the credulity of mankind it was not likely that such a state of things would ever come to an end. Still, the profession had risen, and was still rising, in public estimation, and there was a deep and steady current that made for improvement in their art, their culture, and in their position.

CORK MEDICAL AND SURGICAL SOCIETY.—At a meeting held on January 13th, Dr. T. G. ATKINS, President, in the chair, Dr. MACNAUGHTON-JONES delivered an address on the critical analysis of some recent gynaecological methods. Having discussed the conditions essential for an ideal asepsis, the most recent methods of preparing the patient, especially those adopted by Professors Sanger and Bumm at Prague and Halle respectively were described. The advantage of collaetin as a dressing and of bronze, aluminium wire or celloidinzwirm as non-absorbable materials for skin closure were shown. The conditions under which preference should be given to myomectomy over panhysterectomy, and the question of removal of the ovaries were discussed, as well as the indications for the abdominal over the vaginal route in the operation for myoma. Among recent methods for hysterectomy, those adopted by Zweifel with his forcipressure clamp, and Bumm with Kocher's forceps, were demonstrated. A differentiation of the advantages of the Alexander-Adams, Olshausen's, ventrisuspension and ventrifixation modes of dealing with retrodeviations was entered into as affecting the child-bearing period of life. The advantage of performing vaginal ovariotomy for cystoma was questioned, and the choice of abdominal and vaginal coeliotomy in diseases of the adnexa, as influenced by bisection of the uterus, was considered, with the conditions or complications which gave to colpotomy the preference over vaginal coeliotomy. The justification for an occasional danger in the performance of conservative operations on the adnexa was discussed; and finally the four vital points in relation to hysterectomy for carcinoma were touched upon, namely, early panhysterectomy, the demarcation between operable and inoperable cases, the best operation when disease had extended outside the uterus (Wertheim's operation was here described), and, lastly, the alternatives to operation. The lecture closed with a retrospect of the position of gynaecology at present as compared with that of twenty-two years ago, when Dr. Macnaughton-Jones had performed the first successful case of ovariotomy in a Cork hospital. All the matters touched on in the lecture were illustrated by specimens bearing on the questions raised.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting held on January 7th, the PRESIDENT (Mrs. Boyd M.D.) in the chair, Miss MEAKIN, M.B., B.S., read a paper on the Feeding of Patients suffering from Enteric Fever, with a criticism on an article in the *Lancet* of November 2nd, 1901, entitled Milk or Whey in Enteric Fever?—the object of which was to condemn milk entirely as a food for enteric fever cases, and to point out an efficient substitute in the form of whey. It was shown that each case must be treated on its own merits, and that it was unsound to lay down any routine course of feeding. Undoubtedly, whey was of much use and a great stand-by, but since so many cases did well on milk, whey should only be regarded as a useful alternative. Owing to the difficulty of isolating the bacillus typhosus from the stools of enteric patients, it did not appear that the contents of the intestine were a great breeding ground for the bacillus, a point on which the writer of the article referred to laid great stress. The bacillus typhosus multiplied chiefly in the various glands, and their number was independent of the food given to the patient. In no case suitably diluted should there be much nitrogenous refuse to serve as a breeding ground for the bacillus typhosus. Miss STONEY, M.D., B.S., showed a dissection of a fetus presenting the following abnormalities. A large spina bifida, extending from the eighth dorsal to the third sacral vertebra (meningo-myelocele variety); double talipes equino-varus. The tight ligaments on the inner side of the foot were shown, and the rotation inwards at the transverse tarsal joint. The patellae were noted to look outwards instead of forwards, as if the femora had never rotated. All muscles supplied by the great sciatic nerves were atrophied. The tensor vaginae was absent on both sides; so also the superficial part of gluteus maximus on the left, and the whole gluteus maximus on the right. This was thought to be very rare, and was not even mentioned as a variety in *Quain's Anatomy*. Parts of the serratus magnus were also absent. Accessory muscles present were sternalis on each side, humeral head to biceps cubiti, and a slip from latissimus dorsi to pectoralis major.

CARDIFF MEDICAL SOCIETY.—At a meeting held on January 2nd, Dr. D. R. PATERSON, President, in the chair, Dr. COOK showed a case of congenital malformation of the glans penis, in which the corpus spongiosum was apparently absent.—Dr. TIDSWELL showed a case of microcephalus.—Dr. MACLEAN showed a specimen of sarcoma vaginae; the growth was removed from a woman, aged 35, who was in labour, the growth obstructing the labour; there had been no recurrence for eighteen months. The microscope showed spindle-celled sarcoma.—Dr. ELDON PRATT read a paper on Chorea: a few Remarks on its Treatment by Arsenic. Having insisted on the necessity of rest in all cases, Dr. Pratt quoted 12 cases which had been variously treated by arsenic, most tending to large dosage. The best results had been obtained when large doses of 10 to 15 minims of liq. arsenicalis thrice daily had been given; 2 of the cases quoted treated thus were practically cured of their chorea at the end of a week. A discussion followed, in which most of the members took part.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting, held on January 9th, the following office-bearers, members of Council and Committees were elected:—*President:* Mr. Rushton Parker; *Vice-Presidents:* Dr. Edward Adam, Dr. J. M. Hunt, Dr. John E. Gemmell and Dr. Permewan; *Honorary Treasurer:* Dr. Briggs; *Honorary General Secretary:* Dr. J. K. Logan; *Honorary Secretary to Ordinary Meetings:* Dr. J. Hill Abram: *Honorary Librarian:* Dr. Leslie Roberts; *Council:* Dr. James Barr, Dr. R. J. M. Buchanan, Mr. G. A. Hawkins-Ambler, Dr. W. Macvie, Dr. E. Nicholson, Dr. J. Lloyd Roberts, Mr. Edgar Browne, Dr. W. M. Cairns, Mr. D. Douglas-Crawford, Dr. Ernest Nevins, Professor Sherrington, and Dr. Warrington; *Pathological and Microscopical Committee:* Professor Boyce, Mr. R. A. Bickersteth, Dr. R. J. M. Buchanan, Mr. D. Douglas-Crawford, Dr. John Hay, Dr. Macalister, Mr. Monsarrat, Mr. Newbolt, Professor Sherrington, and Dr. Warrington; *Journal Committee:* The Honorary Secretary Ordinary Meetings, the Honorary Secretary Pathological Section, Dr. Barendt, Mr. F. C. Larkin, Mr. Newbolt, Professor Paterson, Mr. W. Thelwall Thomas, Dr. Arthur J. Wallace, Dr. Permewan; *Auditors:* Dr. J. Lloyd Roberts and Dr. Dawson.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting held on January 10th, Mr. CRESSWELL BABER, President, in the chair, Dr. A. BRONNER (Bradford) showed a specimen of a pedunculated angioma of the larynx in a man aged 63.—Dr. SCANES SPICER showed: (1) A case of saddle nose successfully treated by subcutaneous injections of paraffin; (2) a case of multiple suppurative sinusitis and polypoid disease of the nose; (3) a case of bony thickening over, and polypoid within, the right frontal sinus in a man aged 40.—Dr. W. MILLIGAN (Manchester) showed a specimen of lipoma of the pharynx; also a microscopic section of a fibro-sarcoma of the right vocal cord in a male 61 years of age; and some *x*-ray photographs of (1) a plate of teeth lodged in the larynx, (2) a rubber tube in the maxillary antrum, and (3) the Eustachian catheter in the frontal sinus.—Dr. H. SHERMAN showed specimens of papilloma of the tonsil and of the posterior pillar of the fauces.—Mr. ATTWOOD THORNE showed a self-looping nasal polypus snare.—Dr. JOBSON HORNE exhibited a case of nasal obstruction in a woman 24 years old.—Dr. S. SNELL showed a case of herpes of the palate.—Dr. J. DONELAN related a case of syphilitic laryngitis in a man aged 52.—Mr. P. DE SANTI showed a case of very extensive destruction of the interior of the nose due to tuberculous ulceration in a woman 51 years of age.—Dr. F. W. BENNETT showed a case of ulceration of the nasal septum.—Dr. J. DUNDAS GRANT showed a case of new growth on the tonsil in a woman aged 32.

IPSWICH CLINICAL SOCIETY.—The annual meeting was held at the East Suffolk Hospital on January 9th, when the retiring President, Mr. J. F. C. HOSSACK, read a paper on quackery and charlatanism in their relation to modern medicine. The following officers were then elected by ballot: President, G. Vincent, M.D.; Vice-President, J. F. C. Hossack, F.R.C.S. Edin.; Honorary Secretary, W. Alex. Gibb, M.D. Council: H. H. Brown, M.D., F.R.C.S., Branford Edwards, M.R.C.S., L.R.C.P., C. K. Mosely, M.R.C.S., L.R.C.P., J. Staddon, M.R.C.S., L.R.C.P., Fowler Ward, B.A., M.B., A. Paterson, M.B.

REVIEWS.

SOME RECENT WORKS ON PATHOLOGY.

PROFESSOR CHANTEMESSE'S volume on *General Pathological Processes*[1] is the first instalment of what promises to be the most extensive and complete textbook of general and experimental pathology hitherto attempted. It deals with the natural history of disease, with physiological and pathological heredity, with atrophies, degenerations, and gangrenes. It is based upon the well-known Russian manual of Professor PODURYSSOTSKY, but has undergone considerable addition and extension during its conversion into French. Both authors belong to that brilliant group of investigators which was trained under the direction of Pasteur, and their work is naturally tinctured with the views of the modern French school of pathology. But the opinions expressed in it are by no means one-sided; they evidence the combination of extensive erudition with sound and mature judgment. The book is written in a style which is brilliant and often fascinating; in places, indeed, it is so epigrammatic as to be almost open to the charge of over-emphasis. The illustrations, most of which are coloured, are of exceptional artistic beauty; they are mainly semi-diagrammatic, and hence have a utility far beyond that attainable in a textbook, at any rate by photomicrography. It is interesting to note that the authors unhesitatingly affirm the inheritance of acquired characters physiologically and even more pathologically. On almost every page they pass from the enumeration of facts to the discussion of the great problems which lie at root of disease. The bibliographies are excellent, except in respect of the works of English authors, which are, indeed, rarely mentioned; thus there is no allusion to the many important papers of Mr. Edmunds on the thyroid gland. The spelling of the English proper names is eccentric, as is too often the case even in the best French scientific works. The second volume is to appear in 1902, and will treat of hypertrophies, tumours, regenerations, the pathology of the circulation, blood, and lymph, inflammation, and fever. If it fulfils the promise of its predecessor the treatise will have no superior thus far in any language.

Professor MONTI'S volume, which in its English dress bears the title of the *Fundamental Data of Modern Pathology*[2] consists practically of his prize thesis written in 1897 for the Royal Lombard Institution. The first chapter deals with the doctrine of cellular proliferation, and though Virchow's celebrated theory is acknowledged, Professor Monti shows considerable leaning to the heterodox opinions of Maggi and Altmann (p. 140). One of the important matters dealt with is the value of the observation of karyokinetic changes in the cells of a tissue removed for suspected malignant disease. Hansemann and Cornil both state that the karyokinetic changes seen in malignant tumours are irregular as compared with the normal mitoses seen in benign or inflammatory formations. Observations of this nature might be of great value in the examination of pleuritic effusions. The second chapter is devoted to the study of the influence of bacteria in the production of disease. Professor Monti maintains that Bassi ought to share the place of honour accorded to Pasteur and Koch, because of his much earlier work on "muscardine" or silkworm disease. Buchner's investigation into the nature of bacterio-protein is referred to, and reasons are advanced to explain the difficulty met with in the attempt to consider septicaemia and pyaemia, as both being due to invasion of the body by organisms, while in one only does abscess formation occur. According to Buchner, suppuration only occurs when the organisms die. Chapters III and IV are devoted to the comparison of the present doctrines of cell proliferation and pathogenic microbes with other doctrines, and Professor Monti pays a graceful tribute to those advocates of the theory of spontaneous generation, who by their opposition raised questions which tended to substantiate the accepted doctrine of to-day. The concluding chapters deal with the practical application of the above theories to the treatment of disease. We congratulate Professor Monti on the extremely interesting treatment of his subject in the earlier chapters of the book, and are grateful for his effort to place before the world the large share of work done by so many of his brilliant countrymen—names such as Morgagni and Bassi are indeed a great national heritage. Dr. EYRE is already known for his translations of Italian works, and we can but feel that the present work will redound to his credit.

The first volume of the tenth and revised edition of the well-known textbook of *General and Special Pathological Anatomy*, by Professor ZIEGLER[3] is suitably and happily dedicated to Rudolph Virchow as a tribute to him on his eigthieth birthday. On comparison with the last edition (1898) we find that this volume, which deals with general pathology, has not only undergone revision, but that the first three chapters are entirely new. As it now stands it is a complete and representative record of the position of pathology at the end of the nineteenth century, and as such it has probably no equal in any language. The new chapters are entitled (1) The Causes of Diseases, External and Internal; (2) The Propagation and Generalisation of Disease Processes in Organisms; (3) The Protective and Reparative Powers of the Human Body. These take the place of two chapters on (1) Health and Disease; (2) The Causes, Incidence, and Course of Diseases. That it was necessary to rewrite this portion of the book is obvious when we consider how the literature of these subjects and especially those which fall under the heading of the third chapter, has grown during the last three years. The chapters on inflammation and on tumours have undergone no such radical changes. For the present Professor Ziegler gives no countenance to the parasitic theory of the origin of true tumours, although he alters his definition from "tissue proliferations not produced by infection," to "tissue proliferations of apparently spontaneous origin and growth." He formulates no theory of origin applicable to all new growths, but divides the latter into four groups etiologically considered: (*a*) Tumours of congenital origin; (*b*) tumours following trauma; (*c*) tumours originating in granulation and scar tissue; (*d*) tumours which appear to owe their origin to unequal degenerative changes in their surroundings resulting in the absence or diminution of normal resistance to proliferation. Professor Ziegler sees in the multiplicity of circumstances under which tumours arise a proof that the cause is not one and the same for all. Many new and beautiful illustrations have been added to the section on vegetable parasites, and here as throughout the volume the analysis of the literature is brought down to the end of 1900. In the chapter on animal parasites the protozoa now take the first place, and an anticipation of many changes and additions in this part is fulfilled. The work of Schaudinn, Siedlecki, Lühe, and others has facilitated a classification of these organisms which was impossible at the beginning of 1898, and the later researches on the haemamoebae have added many new facts. The opinion already expressed that this work is a complete and representative record of the position of pathology at the present day is strictly accurate, and no further commendation than this appears to be called for.

The influence of mixed infection in pulmonary tuberculosis has in recent years been much discussed, and yet very little has been arrived at in the way of definite conclusions. This is possibly due to the fact that workers in this subject have generally investigated it either from its purely bacteriological or from its clinical aspect, and few have considered it from both points of view in individual cases. This is what Drs. SCHRÖDER and MENNES[4] have attempted with a considerable measure of success by a laborious and careful research in a

[1] *Les Processus Généraux.* [General Pathological Processes.] Par A. Chantemesse, Professor of Experimental and Comparative Pathology in the Medical Faculty of the University of Paris, Physician to the Hospitals of Paris; and W. W. Podurysotsky, Doyen and Professor of General Pathology in the Imperial Medical Faculty of Odessa. Paris: C. Naud. 1901. (Roy. 8vo, pp. 442, 162 illustrations.)

[2] *The Fundamental Data of Modern Pathology*, by Dr. Achille Monti, Professor of Pathological Anatomy, University of Pavia. Translated from the Italian by J. J. Eyre, M.R.C.P., L.R.C.S.I., D.P.H.Camb. London: The New Sydenham Society. 1900. (Demy 8vo, pp. 266). The annual subscription to the New Sydenham Society is £1 1s. Agent: Mr. H. K Lewis, 136, Gower Street, London, W.C.

[3] *Lehrbuch der allgemeinen und speciellen pathologischen Anatomie für Ärzte und Studierende.* Von Dr. E. Ziegler. Tenth and Revised Edition. Erster Band Allgemeine Pathologie. Jena: E. Fisher. 1901. (Roy. 8vo, pp. 798, 586 illustrations. M. 12.)

[4] *Ueber die Mischinfektion bei die chronischen Lungentuberkulose* [On Mixed Infection in Chronic Pulmonary Tuberculosis]. Von Dr. G. Schröder and Dr. F. Mennes. Bonn: Friederich Cohen. (Roy. 8vo, pp. 92. M. 2.)

long series of cases. The first chapter is a fairly complete summary of work done by others on this subject, and the authors' criticisms thereon are good. The varying results obtained by others in the examination of the blood of phthisical patients for micro-organisms are thought to be due either to the employment of insufficient aseptic precautions, or to the fact that the blood was taken in the last stages of the disease. As the authors point out, the death agony in phthisical patients may be so prolonged that general infection may take place even before death actually occurs. The results of *post-mortem* bacteriological examinations they also regard as valueless, as general dissemination so frequently occurs. The second chapter is devoted to a description of the method of investigation adopted. This is a modification of that employed by Kitasato, and consists in making cultures from sputum after very careful washing in sterilised salt solution. The organisms thus obtained were subsequently inoculated in rabbits. The cases selected were six patients in different stages of chronic pulmonary phthisis. In all, besides tubercle bacilli other organisms were present, chiefly streptococci and staphylococci. The virulence of the cocci was always low. The course of the disease and the height and character of the pyrexia did not appear to depend on either the number or variety of the micro-organisms. The authors make the interesting observation that the virulence of the staphylococci is increased by an addition of streptococci. They do not regard the presence of bacteria other than the tubercle bacillus as affecting either the course or the prognosis of a case of phthisis. Full details of the experiments are given and illustrated by temperature charts. The book is a valuable addition to the bacteriology of tuberculosis, and the authors are to be congratulated on the results of a laborious investigation.

Dr. DOFLEIN is a young naturalist of considerable ability, a pupil of Richard Hertwig, to whom he had dedicated his book on protozoa as parasites.[5] Dr. Doflein is known as the author of some valuable researches on protozoan fish parasites, and his present work is a detailed biological account of such protozoa as have been found to live a parasitic life, and in particular of those which are known or suspected to induce disease in man, lower animals, and plants. It is avowedly written from the zoological standpoint, but where the subject is of clinical interest a summary of the evidence connecting a particular organism with a definite disease is given, and the relations between the two are discussed. The zoological data are in general based upon the authoritative textbook of Arnold Lang, with, however, some classificatory modifications in accordance with the recent researches of Schaudin. The monograph of Mr. Savile Kent and the earlier writings of Professor Ray Lankester are freely referred to, but the author does not appear to be acquainted with the important contributions more recently made by the latter author to the the problems of protozoan classification. Still, in this respect the book is thorough and systematic, though much of it is necessarily of but slight interest to the medical man, who has probably but little curiosity as to the varieties of sporozoa which inhabit the intestine of the blackbeetle. But when Dr. Doflein discusses the protozoa which have been blamed for animal diseases, his opinions, evidently weighed with care, are of considerable value. Thus he states most explicitly that the zoologist cannot at present admit that anyone of the so-called cancer parasites is a protozoon. His account of the pathogenic amoebae, if clinically not so good as that of Behla, is more scientifically arranged, and the chapters on the sporozoa are compiled with much care. We miss, however, any reference to the recent remarkable work of Löwit on [illegible] in birds, while in the section on malaria [illegible] only done to the researches of Ross, whose papers [illegible] only studied at second hand. It is only fair to [illegible] Doflein's inability to get up all the literature of the subject to date, seeing that he was in the Munich State Library. The chapters on paludrine, the tsetse fly disease, and [illegible] are interesting and well up to date. The author [illegible] the suggestion that in the latter affection the amoebae merely convey the bacteria of the disease into the different organs after being allowed to reach the submucous layers of the intestines by the process of ulceration. On the whole, the work may be recommended as a valuable manual of reference to all interested in protozoan parasitology. It is excellently illustrated, and has four admirable indices as well as a full table of contents.

A series of papers by Dr. M. LÜHE on the sporozoa appeared in the *Centralblatt für Bakteriologie* of last year, and they are now issued in book form.[6] Their special purpose is to show the position of the malarial parasite in this class and to summarise later researches on its nearest relatives. The first part is occupied by a description of the cycle of development of the coccidia. In it the author carefully traces the researches which led to the discovery that the so-called eimeria represents only a stage in the coccidial cycle a view first propounded by Pfeiffer and proved correct by Schuberg and Schaudinn. Further progress was made by the detection of a sexual stage, the credit for which belongs largely to Labbé and Schaudinn, and the coccidium is now known to possess, first, a schizogonia stage as a result of which individuals of different sex are produced, and, secondly, a sporoblast stage the outcome of the union of these, the sporoblast giving origin to the sporozoit or young coccidium the inhabitant of the epithelial cell. In the second section of the book the literature of the malarial parasite is similarly analysed; credit is given to Manson for the inception of the mosquito-malaria theory, to Ross for the actual demonstration of the life-history of the parasite in the mosquito, and to Grassi for the discovery that the species *Anopheles* is that concerned in the transmission of the parasite to man. The stages in the life-history of the parasite are shown to correspond with those already detailed in the coccidia, and bear a marked resemblance thereto. In the third part other near relatives in the class are described, and the classification of the whole is discussed. The haemosporidia to which the malarial parasite belongs are closely connected with the gregarinae and amoebosporidia as well as with the coccidia. In all, when the individual has reached full development, a sporoblast is formed, and the individuals cease to exist as such; the name "telosporidia" has therefore been proposed for the subclass. In other sporozoa the sporoblast is formed within the mother-cell at an early stage, and quite independently of its further existence and growth; these together form the second subclass, or neosporidia. Throughout the book an exceedingly lucid style of exposition is maintained, and the author displays an exhaustive acquaintance with researches bearing on his subject. To those who desire acquaintance with modern researches on this important class of parasites the volume offers an opportunity of acquiring this, and escaping the perusal of a large number of scattered monographs.

[5] [illegible] of Diseases.] Von Dr. F. Doflein of Munich. Jena: Gustav Fischer. 1901. (Roy 8vo, pp. 588; 220 illustrations. M. 7.)

[6] [illegible] der Neueren Sporozoenforschung. [A Summary of Recent Researches on the Sporozoa.] Von Dr. M. Lühe. Jena: Gustav Fischer. 1902. (Roy 8vo, pp. [illegible] illustrations. M. 2 80.)

GYNAECOLOGY AND OBSTETRICS.

THE author of *Outlines of Gynaecological Pathology and Morbid Anatomy*[7] is a member of what is known, at least abroad, as the Samaritan School, which has produced a Spencer Wells and his assistants, who were among the pioneers and organisers of abdominal surgery. The archives of British medicine also contain the records of much work of admitted scientific value emanating from the Samaritan Hospital. This textbook specially demonstrates what good use of time and opportunities may be made by an industrious and competent member of the staff of that institution. Dr. HUBERT ROBERTS has also the advantage of past experience as a tutor at St. Bartholomew's Hospital. His work is highly original, and represents long and patient registration of the author's experience and of the recent labours of British and foreign authorities, well condensed, and well-written. In outward appearance it precisely resembles Greig Smith's treatise, and the text is printed in big type, very grateful to the eye of the *hand fido* student of any age, whilst the line headings in

[7] [illegible] and Morbid Anatomy. By C. Hubert Roberts, M.D., [illegible], M.R.C.P., Physician to the Samaritan Free Hospital for Women, Physician to Out-Patients Queen Charlotte's Lying-in Hospital. London: J. and A. Churchill. 1901. (Demy 8vo, pp. 354; 151 illustrations. 21s.)

clarendon type greatly facilitate reference. Dr. Hubert Roberts is an excellent draughtsman, so that he has been able to adorn his textbook with numerous original and highly-finished drawings. The plates also include the effigies of several familiar but ever-instructive specimens in London museums, repeatedly figured, but by less skilful artists, in older publications. A considerable number of specially valuable engravings from the works and papers of authorities have rightly been included. The teaching of the author appears to be sound; it is certainly the result of mature consideration of every aspect of his subject. He does not hold it essential to introduce the pathology of pessaries, nor does he teach that uterine fibroids are very deadly, whilst the names of French and German authors, so abundant in the pages of this work, refer to their opinions as recognised authorities on pathology, and not to their different methods of performing stock operations. There is also a total absence of long tables with small mortality. At the same time, the author does not neglect new ideas and current researches. He discusses deciduoma malignum at some length, and quite impartially; this subject is illustrated by six fine plates. On the same principle he concludes his work with a chapter on micro-organisms in relation to diseases of women, giving drawings of different varieties, and making notes of the recent views of Gaylord and other workers on the cancer parasite theory. No doubt the author has not met with much difficulty in making readable his chapters on malformations, inflammations, and new growths of the uterus and appendages, after much hard labour in collecting material. He has, however, like all his predecessors, been compelled to tackle subjects hard to make clear through a literary medium. In order to make his teaching easy he discusses that most tedious topic, uterine displacement, in a semi-tabular form, replete with subdivisions and subheadings; he might have profitably had recourse to a few diagrams to make his explanations yet more clear. Sterility, a subject of high importance to the practitioner, is treated in a similar manner, subdivisions of near and distant causes being carefully made out. A chapter is devoted to pelvic inflammation, in which the new teaching that pelvic peritonitis is much more frequent than parametritis, and that the former is in a great proportion of cases associated with disease of the Fallopian tubes is emphasised. Gonorrhoea in relation to pelvic inflammation is made the subject of a special chapter, and the reader is reminded that the disease really destroys the health of a larger number of women than does even the virus of syphilis. The volume has a good index, so that it will be useful for reference to those who wish for information about rare and recently distinguished morbid conditions such as physometra, pyometra, kraurosis and sarcoma of the vagina and uterus. Abundant references to recent memoirs on the less frequent diseases of the female genital tract are also given. The text has been fairly revised, but one or two clerical errors are to be detected, such as natural "case" of fibroids for "cure" and "dermoid" for "desmoid" growth of the abdominal wall, but neither occur in such a manner as to mislead the reader. In conclusion the author may be congratulated on having written a standard textbook which may be strongly recommended to teachers and to students.

Professor SKUTSCH's textbook of obstetric operations for students and practitioners[8] is a very complete and excellent treatise upon its subject. Few obstetricians will read it without profit. In some things the practice taught is not that followed in this country. The tendency is to more complicated and drastic methods than we adopt. The author describes the English perforators, the cephalotribe and the cranioclast, but he prefers the trephine perforator of Pajot to the English instrument, and holds that a three-bladed instrument invented by Auvard, which combines a gimlet to screw into the base of the skull with two blades to crush and hold, will oust both cephalotribe and cranioclast. We think the simpler instruments used in this country are better. Our remark as to the more drastic methods approved by our author applies especially to the pages on retroversion of the gravid uterus. There is no mention of the fact that 12 cases out of 13 will right themselves if the patient is kept in bed with the bladder empty. Methods of forcible reposition are described, and in the case of all attempts at repositions failing (cases which are rare in the practice of competent men), he suggests making a longitudinal incision through the posterior vaginal wall into Douglas's pouch, opening the uterus by an incision in its posterior wall, extracting the ovum, then sewing up the uterus and replacing it. He also recommends removal of the uterus by the vagina in extreme cases of *post-partum* haemorrhage. Professor Skutsch attaches much importance to position. When the head descends into the pelvis in a transverse position, his advice is that the woman should be made to lie upon the side towards which the occiput is turned. This, he teaches, will favour descent, and therefore rotation forward, of the occiput. In the dorso-posterior transverse position he tells his reader to bring down both feet, for thereby the back will more certainly be brought to the front. We have said enough to show that Professor Skutsch is one who thinks for himself. We thank him for a very valuable addition to obstetric literature.

[8] *Geburtshilfliche Operationslehre, für Studierende und Aerzte.* Von Dr. Felix Skutsch, A.O. Professor an der Universität Jena. Jena: Gustav Fischer. 1901. (Roy. 8vo, pp. 348. M. 8.)

NOTES ON BOOKS.

THE third edition of Mr. HIME's pamphlet, *Schoolboys' Special Immorality*,[9] is more than double the size of its predecessors, and the new matter added is all pertinent to the subject discussed. The section dealing with school arrangements, including the four new recommendations, remains an admirable one. Of the three new sections, that on the "instruction of the young in sexual knowledge" indicates that Mr. Hime holds it both impracticable and useless to attempt to explain such details to the young at any stage. On some other points—as in his absolute condemnation of corporal punishments in any shape or form in schools under any circumstances and for any offence—both his premisses and his logic are at least open to question. His "advice to the afflicted" is in many respects sound.

THE ANNUAL REPORT OF THE MEDICAL OFFICER OF THE ADMINISTRATIVE COUNTY OF LONDON.[10]

II.

(*Continued from page 170.*)

SANITARY ADMINISTRATION.

Dairies and Cowsheds.

THE first subject dealt with in the administrative section of Mr. Shirley Murphy's annual report for 1900 is dairies, cowsheds, and milkshops. The enforcement of the regulations relating to these was transferred on November 9th, 1900, from the County Council to the Metropolitan Borough Councils. Prior to this Dr. Klein examined for tubercle bacilli 97 samples of milk taken in London, but coming from the country, and 7 of these were found to contain them. The sanitary authorities of the districts from which the milk was derived were written to, in accordance with the recommendations of the Royal Commission on Tuberculosis, and asked if they would supply the Council with full information and veterinary reports regarding the condition of the cows, byres, etc., whence the milk came. Of the seven authorities, two sent reports of their sanitary inspectors, a third offered to obtain a veterinary surgeon's report at the Council's expense, a fourth had the cows examined by a veterinary surgeon, who found no evidence of tuberculous disease of the udder. This authority asked the County Council to repay the veterinary surgeon's fee! A letter was sent to 374 sanitary authorities in the home counties, asking them if they would supply full information and veterinary reports when tuberculous milk was found to be supplied in London from cows within their districts. To this request 64 authorities agreed without conditions, 12 agreed if the County Council would pay for the veterinary inspection; 4 replied in the negative. We cannot wonder then that the County Council resolved to ask the Board of Agriculture to

[9] *Schoolboys' Special Immorality.* By M. C. Hime, M.A., LL.D. Third edition. London: J. and A. Churchill. 1901. (Fcap. 8vo, pp. 116. 1s.)

[10] *Ninth Annual Report of the Medical Officer of Health of the Administrative County of London, 1900.* P. S. King and Son. Price 3s. 6d.

take steps to render the periodical examination of the udders of cows by veterinary surgeons obligatory throughout the country.

Removal of Manure, etc.

The difficulties experienced in securing the removal of horse manure and other offensive materials induced a conference of sanitary authorities in London to pass a resolution in favour of their being empowered, if they think fit, to employ a sufficient number of scavengers for collecting and removing the manure and other refuse matter from any stables and warehouses within their district at a charge to be fixed by the local authority.

Removal of House Refuse.

The same conference adopted a resolution affirming the desirability of abolishing fixed ashpits and providing movable receptacles in their place. The increase of flats, as well as general sanitary considerations, emphasizes the importance of a universal daily removal of house refuse.

Houses Let in Lodgings.

In regard to these, during 1900 a decision by a magistrate, upheld on appeal in the High Court, has great importance. The vestry of St. George-the-Martyr decided to register a block of artisans' dwellings under Section xciv of the Public Health (London) Act, and summoned the owner for not furnishing them with the particulars of the house after having received notice to do so. The block dwellings in question are entered by a front door which there is no means of locking. The entrance passage branches into two about the centre of the building, and there are two double-roomed tenements and one single-roomed tenement on each outer side of the passage. A similar arrangement is repeated on each floor. A separate family occupies each tenement. On behalf of the respondent it was contended that as the tenements were in separate sets, and the landlord did not reside on the premises, the building was not a lodging-house, and that the by-laws were not intended to apply to houses of this character, but to lodging-houses where people lived in common; and this opinion was upheld by the magistrate and on appeal. The decision, though not surprising, is unfortunate in the interest of the public health.

Various other subjects of sanitary interest are discussed in this part of Mr. Shirley Murphy's report, for which we must refer our readers to the report itself, which gives a useful *précis* of metropolitan sanitary administration.

[redacted] whether in the first article [redacted] JOURNAL of January 18th, page 169), [redacted] of the population of London, 1901 [redacted] 1891, inasmuch as the report on [redacted] the year [redacted] [redacted] inty of London is, how- [redacted] at this comparatively [redacted] enabling him to present [redacted] of health in other parts [redacted] of age [redacted] and [redacted]

INSURANCE COMPANIES AND MEDICAL OPINION.

A CORRESPONDENT, whom we will call X., informs us that on January [redacted]th at the request of the local manager of an insur- [redacted] and returned a confidential medical report form referring to a patient who had proposed to insure his life for £500. At the foot of the report was the printed statement, "A fee will be paid by the company." Our correspondent stated in his letter enclosing the report that his fee was one guinea, and the following correspondence [redacted]

[redacted] January 11th, 1902.

[redacted] for reference in this case, and enclosed please [redacted] nt of fee allowed by us to medical referees. [redacted] sign and return [redacted]

Yours truly,

[redacted]

Local Secretary.

To this I replied:

[redacted]

January 13th, 1902.

Dear Sir,—I have your letter of January 11th enclosing P.O. for 10s. 6d., which I herewith return.

My fee for confidential report, as I stated when forwarding it, is one guinea.

I am, yours faithfully,

X.

[redacted], Local Secretary.

[redacted] Insurance Company,

January 14th, 1902.

Dr. X., [redacted]

Dear Sir,—Your favour of the 13th inst. to hand. The fee appointed by our directors for a medical reference is 10s. 6d., and we have never paid more. We pay 21s. for medical examinations (except small cases, where the fee is 10s. 6d.) I return P.O. herewith.

I am, dear Sir,

Yours truly,

[redacted]

Local Manager.

January 15th, 1902.

Dear Sir,—On receipt of my letter enclosing confidential report on the above, and the statement that my fee for the same was a guinea, I think you should either have forwarded the fee or returned the report; and I submit that you had no right to retain the latter on behalf of your directors and then remit me half my stated fee.

It would save much trouble and be more straightforward if in future you stated the amount you were authorized to pay for a confidential report, instead of saying "A fee will be paid," etc., so that the referee could decline to furnish a report if he considered (as I do) the remuneration inadequate. I again return your 10s. 6d. postal order, which I decline to accept.

I intend to refer this correspondence (omitting name of proposer) to the editor of one of the medical journals for comment.

I am,

Yours faithfully,

X.

To the Local Manager,
[redacted] Insurance Company.

January 16th, 1902.

Dr. X., [redacted]

Dear Sir,—I am duly in receipt of your favour of the 15th inst., and, in reply, I have to inform you that this is the first time we have ever been asked for a larger fee than 10s. 6d. for a simple reference.

I now return P.O. 10s. 6d., with further half guinea, making 21s., and shall thank you to sign and forward receipt.

I am, dear Sir,

Yours truly,

[redacted]

Local Manager.

Jan. 16th, 1902.

Dear Sir,—I have your letter of yesterday's date, enclosing postal orders for one guinea, for which I send formal receipt.

I do not recollect ever being asked by any insurance company to furnish a confidential report for a less fee than a guinea.

I am, yours faithfully,

[redacted],

X.

Local Manager.

FRENCH CONGRESS OF MEDICINE.—The sixth meeting of the French Congress of Medicine will be held at Toulouse during the Easter holidays, 1902, under the presidency of Professor Lemoine, of Lille. The questions proposed for discussion are as follows: (1) Hepatic Insufficiency (to be introduced by Professors Charrin, of Paris, Ducamp of Montpellier, and van Eecke, of Ghent); (2) Convulsions in Children (to be introduced by Professors Moussous, of Bordeaux, and D'Espine, of Geneva); (3) Waste-Preventing Drugs (to be introduced by Professors Soulier, of Lyons, and Henrijean, of Liége).

HOMŒOPATHY IN GERMANY.—A petition was recently presented by the Baden Homœopathic Association to the Government asking for the establishment of chairs of homœopathic medicine in the universities of the Grand Duchy. The matter was referred to the medical faculties of the Universities of Heidelberg and Freiburg, which reported strongly against the propriety of granting the request. The Senate took the same view, and the Government thereupon intimated to the Homœopathic Association that it could not see its way to establish chairs, still less to permit the practice of homœopathy in hospitals used for purposes of medical education.

THE UNIVERSITY OF LONDON.

RESEARCH AND TEACHING IN ADVANCED PHYSIOLOGY IN LONDON.

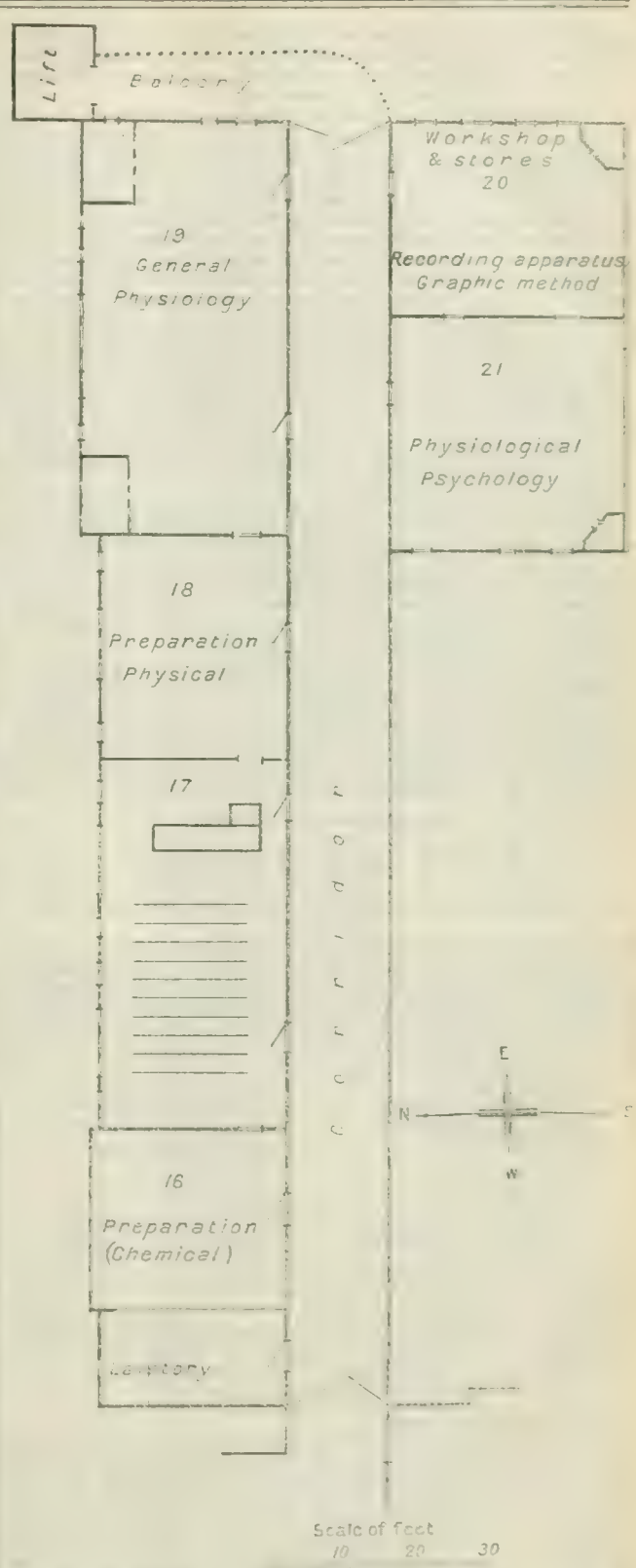
THREE weeks ago we were enabled to announce that arrangements had been made by the Board of Studies in Physiology and Experimental Psychology (No. xxv) of the University of London for courses of lectures and demonstrations in advanced physiology, and for the establishment in the buildings at South Kensington of laboratories to subserve these courses. The general principle of the scheme was approved by the Senate, and it will be remembered that Mr. Walter Palmer, M.P., promised to contribute the sum of £2,000 for the purpose of providing the scientific apparatus and appliances necessary. We learn that a further step has recently been taken and that the Senate has approved of a further report from the Board of Studies, the chairman of which is Dr. A. D. Waller, F.R.S.

The first panel of University Lecturers in Physiology and Experimental Psychology will be as follows:

W. M. Bayliss, M.A., D.Sc., Assistant Professor, University College, London.
J. R. Bradford, M.D., F.R.S., Professor-Superintendent of the Brown Institution.
T. G. Brodie, M.D., Director of the Laboratories of the Royal Colleges, London; Lecturer on Physiology, London School of Medicine for Women.
Sir T. Lauder Brunton, M.D., F.R.S., Physician to St. Bartholomew's Hospital.
G. A. Buckmaster, M.D., Lecturer on Physiology, St. George's Hospital.
W. R. Dunstan, F.R.S., Director of Research Laboratory, Imperial Institute.
J. S. Edkins, M.D., Lecturer on Physiology, St. Bartholomew's Hospital.
J. Bretland Farmer, F.R.S., Professor of Botany, Royal College of Science.
W. D. Halliburton, M.D., F.R.S., Professor of Physiology, King's College.
Leonard Hill, M.B., F.R.S., Lecturer on Physiology, London Hospital.
J. B. Leathes, M.D., Lecturer on Physiology, St. Thomas's Hospital.
W. M. McDougall, M.D., Professor of Physiological Psychology, University College.
B. Moore, M.A., Lecturer on Physiology, Charing Cross Hospital.
F. W. Mott, M.D., F.R.S., Pathologist to the London County Asylum.
M. S. Pembrey, M.D., Lecturer on Physiology, Guy's Hospital.
*W. H. Rivers, M.D., Lecturer on Physiological Psychology, Cambridge.
E. H. Starling, M.D., F.R.S., Professor of Physiology, University College.
*C. S. Sherrington, M.D., F.R.S., Professor of Physiology, University College, Liverpool.
A. D. Waller, M.D., F.R.S., Lecturer on Physiology, St. Mary's Hospital.
* Not recognised teachers of the University, but members of the Board.

Each course will consist of not less than eight lectures, or will extend over at least eight weeks, and attendance will be open without fee to students of the University and to other persons approved by the Principal. It is recognised to be essential to the success of such lectures that they should immediately proceed from laboratory work, and be in a large measure demonstrative of current research. It is therefore necessary that the university lecture room should be supplied by preparations and work-rooms in which current research will be actually prosecuted. It is hoped that from the outset the University lecturers and other physiologists may be able to prosecute research in these accessory rooms, and it is strongly felt that official recognition and provision for research is in several ways essential to success, first, as a corrective of a purely verbal and didactic type of lecture, and secondly, as being calculated to stimulate the intellectual interest of university lecturers and other students. Further, the working of the scheme will afford at a relatively small cost evidence on the point whether a larger scheme for the establishment of a central institute of physiology and experimental psychology will be practicable in the future. The scheme will have the additional advantage of providing the University with properly equipped space for honours examinations in physiology.

The rooms, which it is hoped will at once be available, are five in number. They are heated and fitted with the electric light, and are on the second floor of the University buildings at South Kensington, which is reached by a passenger lift. The accompanying rough plan shows their general disposition and dimensions. Room No. 17, intended to be used for the courses of lectures, is about 50 by 25 feet, and is well lighted from a north aspect; opening off this are, on the one side a chemical preparation room, No. 16, and on the other a physical preparation room, No. 18. Beyond the last-named room is a large room for general physiology, No. 19, which contains two dark rooms. The corridor opens on to a balcony



which gives access to a tower at an angle of the building, in which is a large lift communicating with the basement. There are in addition two other good rooms. One of these, No. 20,

it is proposed to use for recording apparatus and the graphic methods, and as a workshop and stores; while the other room, No. 21, will be devoted to physiological psychology. The total area available is about 6,000 square feet.

The natural subdivisions of physiology are thus explicitly recognised by the allocation of the rooms. With regard to experimental psychology it is felt that from the physiological standpoint it must be regarded as the elementary neurology of sensory organs, and from a more general standpoint as the basis of educational methods and practice. From the experimental point of view the instruments and methods used overlap to so large an extent with those employed in general physiology that the establishment of an independent psychological laboratory is not considered essential: but the room devoted to physiological psychology will, it is believed, prove of considerable value in connection with the physiological apparatus in the other rooms and with the lecture room.

It is proposed that the list of annual courses of lectures shall be prepared and advertised during the preceding year, and candidates for the honours school in physiology will be permitted to nominate any two subjects on the published list for the special practical examination. The provisional arrangements are as follows:

1902. The first course will be given by Dr. Leonard Hill, F.R.S., on the Circulation (this course will begin on May 13th at 5 P.M., and will be continued on subsequent Tuesdays). Dr. A. D. Waller, F.R.S., will give a double course (*a*) Signs of Life, (*b*) Animal Electricity. Professor E. H. Starling, F.R.S., will begin a course on the Sources of Animal Energies on October 14th, and Dr. M. S. Pembrey, a double course on (*a*) Heat, (*b*) Respiration, on October 15th.

The arrangements for 1903 are provisionally as follows: January, Professor W. D. Halliburton, F.R.S., on Proteids, and Professor W. M. MacDougall, M.D., on Sense Organs; May, Dr. G. A. Buckmaster, on the Blood; and Professor J. Bretland Farmer, F.R.S., on Vegetable Cytology; in October Dr. F. W. Mott, F.R.S., on the Central Nervous System, and Professor W. R. Dunstan, F.R.S., on a subject not yet announced.

NOVA ET VETERA.

THE MEDICAL PROFESSION IN THE FOURTEENTH CENTURY.

THE late meeting of the British Medical Association at Cheltenham and the account of the excursions to the neighbouring places of interest, call to my mind the fact that on the neighbouring Malvern Hills was written that remarkable poem named the *Vision of Piers the Ploughman*, composed by, it is supposed, a monk called Robert Langlande. As he says in the opening lines:

In a somer seson	In a summer season
Whan soft was the sonne	When warm was the sun,
A [illegible] forwenynge	And on a May morning
[illegible] Hills	On Malvern Hills
M[illegible]	A miracle happened to me
[illegible]	— I went to rest
Under a brood Bank	Under a broad bank,
And as I lay —	And as I lay —
And looked on the watres,	And looked on the waters
I slombred into a slepyng	I slumbered into a sleep
It swoyed so muryo	It sounded so pleasant

We as a profession have nothing to do with the generality of the poem; suffice it to say, that it is an exceeding bitter cry of the poor against the pride, cruelty, and grinding exactions of the nobles, and a swingeing satire against the ignorance, vices, and luxurious living of the clergy of all sorts, even Chaucer's country parson, who, according to him:

> Christe's love and his apostles twelve
> He taught, but first he followed it himself.

comes in for hard knocks.

We have only to do with his sayings for and against the medical profession of his day, and I am afraid, taking them on the whole, that his sayings are very much against and very little for the forefathers of our profession. The first thing worthy of note seems to me to be the very clear distinction there was in those days between the two main branches of the profession, namely, physician and surgeon, for they are several times mentioned, and in one place a second advice is called in, because the first was not thought skilful enough, thus:

Some liked nought this leche	Some liked not this physician
And lettres thei sente,	And letters they sent
If any surgein were the Segge	If any surgeon were the man,
That softer coued plastre	That softly could plaster.

Then is given as it were an answer to this letter:

There is a surgein in this Sege,	There is a surgeon in this man,
That softe can handle	That softly can use his hands
And moore of physic bi fer	That knows much more of physic
Oon frere Flaterere	One brother Flatterer
Is Physicien and Surgeon.	Is Physician and Surgeon.

The profession will notice that in those early days a combination of both branches was considered as an extra recommendation, and that specialists did not rank as highly as they do now.

This brother Flatterer, in spite of his high degrees, seems to have been but a sad fellow. When asked his name he gives it as Sire Penetrans-domos, and indeed "Peace," who opened the door for him, wanted to shut it again in his face, and accused him of making work for the midwives among his patients. Perhaps, however, the patient did want some change of treatment, for he had a plaster on him—

Fro lenten to lenten	From one lenten season to another.

And perhaps Dr. Penetrans-domos was right when he gave it as opinion

That is overlonge	That is over long,
I leve I shall amende it.	I will with your permission change it

The latter line a fine touch of sarcasm, a showing up, as it were, of the deprecatory cough of the old-time physician, who did not like to speak out.

It must be understood, of course, that the whole poem is an allegory, but an allegory loses all its point unless the types are true; and Langlande would not have made his physician a flatterer and worse unless some of the doctors of his day were such men.

Another amusing dig at the medical profession are the lines:

Lyf leeved that leech craft	Life believed that medical skill
Leete sholde elde	Would hinder old age
And dryven away deeth,	And drive away death
With dyes and drogges,	With diachylon and drugs
And elde auntred hym on lyf	And old age matched himself against life,
And at the last he hitte	And at last he hit
A Phisicien with a furred hood	A Physician with a furred hood
That he fel in a palsie	That he got a stroke of paralysis.
And there dyed that doctour	
Et three dayes after...	

The rest is plain. It is worth noting that the word "doctor" was used as a general term for a medical practitioner as early as 1362, and also the line where diachylon and drugs are evidently put for surgery and medicine.

Langlande also gives a long list of the diseases in his day, which he says:

Came out of the planetes.	Came out of the planets.

Of course an allusion to astrology, which had then as long after a close connection with medicine. He says "Kynde," that is "Nature."

Sent forth his forreyours	Sent with his scouts
Fevres and fluxes,	Fevers and dysenteries,
Coughs and cardiacles,	Coughs and heart diseases,
Crampes and toothaches,	Cramps and toothaches,
Rewmes and radegundes,	Colds and boils,
And roynous scabbes,	And peeling scabs,
Biles and botches,	Blisters and blotches,
And Brennynge agues,	And burning agues,
Frenesies and foul yvles,	Madness and foul running sores.

Then comes a fine bit of poetry, how Comfort, a knight, tried to rally his forces to meet all these diseases led by "Old Age," bearing the banner before Death; after whom came "Nature":

With many keene soores	With many bitter wounds
As pokkes and pestilences	As pox and pestilence.

Then comes another fine description of Death crushing under his chariot kings and knights, emperors and popes. There are many more allusions to our profession in the poem, but the above must suffice, and I hope that this short account of a little-read poem may add some interest to the Malvern Hills, which the visitors to Cheltenham doubtless saw often, and set them thinking of the far-off days, when the man who wrote it lived, and moved, and thought on them, often, as he says:

Mete-lees and monei loss,	Meatless and moneyless,
On Malverne hulles,	On Malvern Hills,
Musynge on this metals,	Pondering on this dream,
And my woy up yede.	As I wended my way.

Far Station, Cornwall. THOMAS P. TUCKEY.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

BELFAST COMMITTEE.

AT a meeting of the Belfast Committee, under the chairmanship of Sir James Henderson, Mr. Woods, honorary treasurer, submitted his report as follows: The total amount of subscriptions received up to December 31st, 1901, as acknowledged in the press, was £1,163 18s. 7d., and the additional subscriptions received from that date to January 16th inclusive amount to £250 0s. 1d., making a total of £1,413 18s. 8d. The expenses of the fund for advertising, stamps, and printing to same date amount to £85 11s. 9d., leaving a net balance of £1,328 6s. 11d. These accounts have been kindly audited free of charge by Craig, Gardner, and Co., and the cash at bank and in hand verified. Since the audit further subscriptions amounting to £21 19s. have been received, and the Belfast Banking Company are kindly allowing interest on the current balance. As the result of letters to the London press by a hospital nurse nearly £600 has been collected by Mrs. Henry Arthur Jones, Portland Place, London, and this amount will be amalgamated with the Belfast fund, making nearly £2,000 in all. There will be no further expenses except of a trifling character. It was understood that the combined fund from all sources would amount to £6,000.

It was explained that arrangements had been made to get all the money invested in the names of four trustees, namely, the Duke of Abercorn, Mr. John Herdman, D.L., Dr. H. Warnock (Donegal), and Mr. Thos. Myles, President R.C.S.Irel. A trust deed was being drawn up, the terms of which would be made public when completed. A subcommittee was appointed for the purposes of investigating the provisions of this trust deed, and was authorized, being fully satisfied as to the same in every respect to pay over the entire proceeds of the Belfast fund to the credit of the trustees appointed.

Resolutions of thanks were also passed to all who had so kindly assisted by collecting, more especially to Dr. Wm. Hamilton Allen, Middlesex; Miss Russell Geddis, "Hospital Nurse," who wrote the letters to the *Standard*; and Mrs. Henry A. Jones, London; also to the honorary officers of the fund.

The following subscriptions have been received since the last issue of the BRITISH MEDICAL JOURNAL from medical men outside Ireland. No further list will be inserted, and the Belfast fund may be regarded as closed:

	£	s.	d.
Dr. James Lee, Clacton-on-Sea	1	1	0
Dr. Alex. Hendry, Ballater, N.B.	1	1	0
The Watford Medical Society (per Dr. Herbert C. Hall to Dr. William Hamilton Allen)	2	2	0
Dr. Richard L. Rowth, Sibford Ferris, Banbury, and Dr. C. Burlingham	1	10	0
The Students' Medical School, Leeds, per James Ervine, Esq.	8	4	0
Collected by Dr. T. Elliott, Clanricarde House, Tunbridge Wells	27	1	0
Proprietors of the *Lancet*...	5	5	0
British Medical Association South-Western Branch, Torquay (per Dr. G. Young Eales)	5	5	0
Captain J. H. Power, R.A.M.C., Windsor ...	1	1	0
Surgeon G. Sichel, R.N. ...	1	1	0
Dr. William Hamilton Allen's total collections of Stanmore, Middlesex, amounted in all to ...	115	9	0
Per M. Chaplin, Croydon: Dr. J. Rutherford Adams and Dr. E. Lancelot Adams	5	5	0

THE SMYTH MEMORIAL AT BURTON PORT.

CANON H. D. RAWNSLEY (Crosthwaite Vicarage, Keswick), writes: Since writing I find that there is not any suitable public place for a memorial in the open air at Burton Port, no village green or market place. But Mrs. Smyth writes that such a bronze medallion as was suggested might be placed (with consent of the Erasmus Smyth Board) in the Burton Port School, which is now being erected, or (by leave of the authorities) in the church at Dungloe, whereby Dr. Smyth's body was laid to rest. The Burton Port School is close by the entrance gate to the late Dr. Smyth's house, and, as Dungloe Church is four miles away, it would seem to be very suitable to choose Burton Port School. Such a medallion will be a constant object lesson for the young Burton Port scholars in the worth of self-sacrifice. The Vicar of Dungloe will cordially assist us when the place of the memorial has been decided on. Meanwhile funds will be necessary, but instead of near £100 we shall only need £60. Will your readers help? I have thus far received promises of help from three of your readers.

THE MORISON LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

THE CLINICAL FEATURES OF SENSORY DISTURBANCES.

THE first lecture of the first series was given by Dr. George A. Gibson on Monday, January 20th, in the Hall of the Royal College of Physicians.

Historical.

The lecturer first gave a brief history of the subject, referring to the principal authors who had devoted their attention to these sensory affections of the heart, and indicated the main purport of their writings. In this way Hippocrates, Seneca, Mézeray, Clarendon, Lancisi, Dionis, and Hoffmann were rapidly passed in review.

He showed that until the seventh decade of the eighteenth century such facts as were recorded were merely fragments of observations. In this way one of the Hippocratic writers in the fifth century before the Christian era certainly mentioned the association of pains about the heart followed by sudden death. Several other authors, both lay and medical, were also referred to, whose observations came to a head in a very exact statement of fact by the great Italian pathologist Morgagni.

He then proceeded to show that the modern period began with the first formal presentation of the subject by the distinguished English physician Heberden, who in 1768 published an excellent description of angina pectoris, in which he described the cases of twenty patients. He then pointed out how Edward Jenner, who discovered the value of vaccination, had associated heart pain with changes in the nutrient arteries of the heart—a bit of observation corroborated by John Hunter; and concluded his historical sketch by showing how the clinical observation of the matter had been advanced by many important authors, such as Latham, Gairdner, Mackenzie, Balfour, and Morison, while the explanation of many of the symptoms had been rendered clear by the work of Lusana, Ross, Mackenzie, and Head.

Symptoms.

The lecturer proceeded, in the next place, to describe the general features of painful disorders of the heart, analysing the different forms of uneasy sensations which culminated frequently in the appalling consciousness of impending dissolution. He showed that these different symptoms were accompanied by objective phenomena, such as tenderness of the skin in the areas where pain was present; that there might be different varieties of alteration in the movements and sounds of the heart and in the fulness and pressure of the pulse; that the breathing might undergo very considerable modifications in its type: that the skin might be altered in colour, sometimes being deadly pale, at other times brightly flushed, while the amount of perspiration might be increased or diminished; and, lastly, that there might be great changes in the posture and countenance of the sufferer.

Classification.

The concluding portion of the lecture was devoted to a classification of the different varieties of angina pectoris, which might be easily recognised. The lecturer considered that the current classification into true and false angina pectoris was devoid of any scientific basis, but that cases of the affection naturally fell into two divisions, organic and inorganic. To the former division belonged all varieties depending upon obvious changes in the heart and great vessels within the chest, while under the latter fell several distinct types in which there were no definite structural alterations—for example, the toxic, including the effects of such chemical substances as alcohol, tea, tobacco, and uric acid, and such microbic influences as might be seen in influenza, malaria, and typhoid fever, and the neurotic, embracing the effects of reflex irritation, of spasm of the arteries, of nervous debility, and of hysteria.

THE CLINICAL TEACHING OF INSANITY.

An important meeting was held in the Library of the Royal College of Physicians of Edinburgh, on January 21st, to consider the defective provision for the clinical teaching of insanity and the desirability of providing a ward or wards in the Royal Infirmary, or elsewhere, for patients suffering from incipient insanity, or from ailments in which the advent of insanity was to be feared.

The President of the College, who was in the chair, briefly explained the object of the meeting and pointed out the urgent need for action in the interests of those suffering from the early, and it might be minor, forms of mental disease, and in the interests of the education of the medical profession in the wisest modes of dealing with those early stages of such diseases.

Sir John Sibbald explained that the raising of this important question at this time was in the first instance due to Dr. John MacPherson who had written on the subject in July, 1901. The provision made for the treatment of the insane was defective in one important respect, and there was a serious defect in the opportunity afforded to medical students of receiving practical instruction in mental disease. In both respects mental disease was placed at a disadvantage as compared with other diseases. Yet hospital treatment of such diseases was pre-eminently required. This hospital treatment could now only be got in lunatic asylums which were hedged round with statutory precautions and other impediments, so that only a small and special class could be received, and then only after the malady had become developed. Patients were only placed in an asylum as a last resort. A person who had once been in an asylum was looked upon as unreliable, and thus handicapped in the battle of life. Many persons suffering from incipient mental disease could not be provided for in asylums, yet a large number of such persons urgently required hospital treatment which was not available. Such wards should be available in the general hospital, and these should not be called insane wards, not that being patients in such wards implied insanity. An out-patient department might also be established. By such means much insanity might be prevented. Additional building was involved. That should be no obstacle. The question was closely bound up with medical education and the welfare of the community. Medical students never saw a patient in the early stages of mental disease. The work of Professor Griesinger, of Berlin, was spoken of. Sir Arthur Mitchell, in his 1871 Morison lecture, urged similar views, and when the present Royal Infirmary was being built he tried to get facilities provided. In 1869 at a meeting presided over by Professor Laycock, Dr. Sibbald advocated similar views and urged these on the Infirmary Board and the General Medical Council.

Dr. John MacPherson, Dr. Clouston, Sir Henry Littlejohn, Dr. Byrom Bramwell, Dr. Lewis Bruce, Dr. Tuke, Dr. George Robertson, and Sir Charles Pearson spoke, and an influential Committee was appointed to inquire into the matter and confer with the Board of Management of the Infirmary.

LITERARY NOTES.

With the New Year the *American Journal of the Medical Sciences* has largely increased the number of its pages. The total of 192 text pages in each number makes it the largest as it is one of the best of medical periodicals. Our contemporary is an honour to American medicine, and we wish it a continuance of its long and successful career.

[illegible] to the current number of the *New York Medical Journal* [illegible] an interesting review of the recently published biographies of Sir James Paget and Pasteur.

[illegible] are about to name one of their [illegible], M.D., of Dublin, in recognition of his [illegible] in a learned work of the title of [illegible] to the authorship of the *Imitation of Christ*. The book has just been translated into German by two townsmen of Kempen.

Messrs. Longman have in the press *Studies in Auditory and Visual Space Perception: Essays on Experimental Psychology*, by Dr. Max Meyer of Berlin.

Sir Walter Besant's autobiography is now in the press, and will be published shortly by Messrs. Hutchinson and Co. A preface will be contributed by Dr. Squire Sprigge, the accomplished subeditor of the *Lancet*.

Messrs. Smith, Elder and Co. will publish at the end of this month a work entitled *Lectures on Chemical Pathology in its Relation to Practical Medicine*, by Dr. C. A. Herter, Professor of Pathological Chemistry, University and Bellevue Medical Schools, New York. The book will be issued simultaneously in the United States by Messrs. Lea Brothers and Co. of Philadelphia.

Mr. Edward Clodd has written a monograph on Huxley, which Messrs. Blackwood are to publish in their Modern English Writers Series. It comprises five chapters, dealing with the Man, the Discoverer, the Interpreter, the Controversialist, and the Constructor.

Dr. William Russell announces in the January number of the *Scottish Medical and Surgical Journal* his resignation of the editorship of that periodical which he has held for five years.

According to the *Berliner Tagblatt*, *Privat-docent* Dr. Hermann Schone, a son of the General-Director of the Berlin Museum, who is engaged on behalf of the Berlin Academy of Sciences in cataloguing the medical manuscripts to be found in the libraries of Italy, has found in the library of Prince Trivulzio at Milan the Greek original of the fragment of Galen entitled *Sermo adversus Empiricos*, hitherto known only in a Latin translation. The text is further valuable from its containing an important fragment of Democritus.

The honour of being the historian of the "handy man" in the South African war has fallen to a medical officer, Surgeon T. T. Jeans, R.N. The title of his book, which is published by Messrs. Sampson Low, is *Naval Brigades in the South African War, 1899-1900*. Commander Charles N. Robinson contributes an introduction, and the work of the several brigades is recorded by officers who were attached to them. The writers, in addition to Surgeon Jeans himself, are Major Jones, R.M.L.I., Captain L. O. Wilson, Commander J. A. Fergusson, Lieutenant Black, and Fleet-Surgeon Lilly.

We are familiar with the claims made for electricity as a panacea at the present day. Such claims are by no means new. Many instances could be cited, but one must suffice for the present. In 1823 there was published at Albany in the State of New York a book written by Thomas Brown, and entitled *The Ethereal Physician or Medical Electricity Revived*, in which the author recommended "Franklinic electricity for paralysis, tic douloureux, epilepsy, chorea, and various other diseases," among which may be mentioned abscesses, "cramp convulsions," "felons" (whitlows), "St. Anthony's fire," consumption, quinsy, cold feet, sores, wounds, burns, sorains, and bruises. As an example of the efficacy of electricity Brown relates the following case:

> Betsy Brown, one of my daughters, was taken with a most severe pain in her breast, at 1 o'clock at night, on the 24th of November last. As she had long known of the benefit of electricity she got up and went to the machine; in two minutes by passing a few light shocks through her breast the pain was removed. She then returned to bed. In about half an hour the pain returned. She arose and had the same remedy again applied, which, in a few minutes, again removed the pain, of which she has had no return.

After this it is not surprising that he should have had the fullest faith in the virtues of the remedy which he appears to have persuaded himself that he had discovered. He says:

> I have not a doubt but that in time, as electricity becomes properly *managed* and *applied*, my assertions will be proved to be correct. For I *don't* write at random. I have well *considered* of what I write. I know the truth of what I say; and it is for the good of mankind I write, and it is no more than my duty to do so. I have often sympathized with my fellow creatures under their sufferings, and rejoice that I can now direct them to that medicine, which God has provided for their *relief*. Why, in his wisdom it should have been so little known before is not for me to say. Nor neither why I, who am not capable of treating a subject in a learned and methodical manner, should have been called to this work. All I have to do is to acquiesce in humility and thankfulness.

The Study of Tropical Medicine in Portugal. At the opening meeting of the Sociedade das Sciencas Medicas of Lisbon, Dr. Miguel Bombarda, editor of *A Medicina Contemporanea*, delivered an address in which he strongly urged the establishment of a school of Colonial Medicine on the lines of the schools for the study of tropical diseases in London and Liverpool. The medical authorities of the Portuguese navy have already under consideration a scheme for the provision of special instruction in Colonial hygiene and pathology in connection with the naval hospital.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 25TH, 1902.

VACCINE LYMPH SUPPLY.

PROFESSIONAL interest in the question of vaccine lymph supply continues unabated. The most recent indication of the importance attached to it is be found in the resolution of which Dr. Acland gave notice at the meeting of the Royal Medical and Chirurgical Society last week,[1] which is to the effect that Government should supply all practitioners with glycerinated calf lymph; that all imported lymph should be examined, and all manufactories of lymph inspected. This resolution is in general accord with the views advocated in our columns two months ago,[2] and in addition it covers a matter of much consequence to which we did not specifically refer—the examination of imported lymph. The three parts of the resolution converge on one object—that Government shall henceforth take up the administrative duty of making certain that vaccine lymph, most reliable as to activity and purity, shall always be available in sufficient quantity to meet every likely or reasonable demand.

With each of the three parts we are in most hearty accord. The propriety of Government's undertaking the duty proposed for it, indeed, is so obvious as to be open to dispute only by antivaccinationists. Subject to the conscience clause, the law lays on every parent the obligation of having his offspring vaccinated within six months of birth. Entrance to the army, to the public education service, to the postal service, and so forth, has for one of its essential preliminaries vaccination or revaccination. Humanised lymph, so long and so successfully used throughout the country, is now almost abandoned, and calf lymph has taken its place. For this important change of practice a very large measure of responsibility rests with the Government, and especially with the Local Government Board. That being so, it is quite clearly the duty of the Government to meet adequately the altered requirements of the case, and Dr. Acland's resolution definitely calls on it do so. It is hardly to be doubted that so clear-headed a man as Mr. Walter Long will see that he has no other course than to accept the situation.

We do not for a moment deny that when the subject comes to be tackled by the Board in detail, some difficulties may be encountered. In particular, the question may emerge whether, if Government lymph becomes universally available, private makers and importers of lymph will not practically disappear as such, and consideration may have to be given to resulting hardship to individuals. On the face of it this difficulty is not insurmountable, especially as increased Government production of lymph would need increased staff and appliances. Related to this, however, there is the question whether Government lymph should be distributed free, and whether a charge might not be necessary to prevent waste. The bearing of this on the survival of private makers of lymph is manifest.

Another question which may possibly require attention is that raised by Dr. Chaumier of Paris in a recent letter[3] in which he says "the obligation to have occasional recourse to another institute is a strong argument against the proposed State monopoly, because should the State vaccine become inert it would perforce have to find an institute in a position to supply it with active lymph to start afresh with, and if the institutes in Europe were restricted to a few State institutes, it might very well happen that they were all suffering from the same defect at the same time." The objection is ingenious, but can hardly be regarded as of much real weight. It need not be assumed that even if there were a State monopoly (which is not proposed, however the matter might work out), the State would have only one strain of lymph in use at any one time, and a concurrence of circumstances in which all the available lymphs in the civilized world would simultaneously be inert seems so exceedingly improbable as to be negligible.

Supply of Government lymph to all practitioners asking for it would bring us one step nearer to the achievement of a reform in vaccine administration which has been repeatedly advocated by the BRITISH MEDICAL JOURNAL. Where a medical man vaccinates up to the standard required by the Local Government Board, he ought to be regarded as a public vaccinator. Our correspondence columns since the present Vaccination Act came into force have amply shown how easily professional friction and difficulty can arise under the present system. The course recommended would, we believe, have three advantages. It would be a preventive of this friction, it would raise the standard of efficiency of vaccination over the country as a whole, and it would increase the numbers of the vaccinated. Nothing that can be urged in opposition to the proposal can weigh in the balance against these considerations in its favour.

There remains to be noted one additional reason for the Government's dealing immediately and effectively with the question of vaccine lymph supply. When there was the opportunity in the Bill of 1898 to place on parents the duty, subject to the conscience clause, of procuring the revaccination of their children of school age, Government failed to seize the occasion, and, still worse, it failed to implement its promise of subsequently dealing with the matter. One result is that pressure to revaccinate is now exercised mainly by small-pox itself. In presence of a threatened epidemic there is a rush for safety, and at other times revaccination is little resorted to. Obviously, under such a system, or want of system, there ought to be much elasticity in the arrangements for the supply of lymph, so that exceptional requirements may

[1] BRITISH MEDICAL JOURNAL, January 18th, p. 145.
[2] BRITISH MEDICAL JOURNAL, November 16th, 1901, p. 1487.
[3] BRITISH MEDICAL JOURNAL, January 4th, 1902, p. 31.

be properly met. It is no doubt to the want of this elasticity that recent complaints of inert lymph have been partly due, and it is the duty of the Government which failed to legislate for regular and systematic revaccination to provide such facilities as will best meet the spasmodic and intermittent demands for lymph which are bound to result from the present defective condition of the law.

It will be gratifying if the Royal Medical and Chirurgical Society, by adopting Dr. Acland's resolution, gives its very considerable influence to the support of a proposal so important for the protection of the public against the ravages of small-pox.

THE DEBATE ON THE HOUSING QUESTION.

The President of the Local Government Board resembles the late Lord Palmerston in one important respect. Like that great master of the art of putting off, he contrives to refuse what is asked for in so graceful and sympathetic a manner that one almost feels as if he had really granted the request he has most thoroughly shelved. The earnestness, however, with which the debate on the housing question was carried on was such that even the geniality of Mr. Long, and the conciliatoriness of the position he took up, only averted a defeat upon the address by the, for so powerful a Ministry, small majority of thirty votes—a number which the members of the Government who sit in the Lower House can at any time muster. Perhaps the debate is not to be looked upon as more than as a reconnaisance in force. One of the not least burly champions of of the malcontents, after delivering his not altogether ineffective blow, at once declared that as the division was equivalent to a vote of want of confidence in the Government, he should vote with them; though his arguments had tended all the other way. Possibly, had the vote gone according to the real sympathies of those who took part in the debate, Dr. Macnamara would have found himself in the inconvenient and not altogether enviable position of having to confess to His Majesty that he was unable to form a Ministry. From this trying ordeal he was saved by the votes of the Ministry and the party loyalty of its supporters.

The debate was, however, not without its value, although it elicited from the head of the Health Department little more than pleasant phrases and the usual cheap promise of a committee. We have so recently expressed our opinion upon this mode of evading the responsibility of acting, when the times are ripe for action, that we shall not repeat what was so lately said. Some of the matters asked for do not even need fresh legislation, but merely the fiat of the Local Government Board. It is within the power of the Board to extend the period of borrowing for housing purposes, but it will not, because it fears that it might be asked to do the same for other purposes—*videlicet* waterworks and seawalls. The argument in favour of the extension of time is based first on the immediately unremunerative nature of the undertakings, and secondly, on the somewhat permanent character of the structures in which the capital is to be invested. The first of these reasons does not, as a rule, apply to waterworks schemes, while the second can scarcely be applied, in its fullness, to seawalls.

In the face of excuses of this kind, it is hardly possible to avoid asking whether the real objection on the part of the chief and his department is not to the spending moneys at all by municipalities on the erection of dwellings. Much might be said in favour of such a contention. It might be urged, for instance, that the provision, at the public expense, of houses for indigent voters would introduce a new form of electoral impurity, not provided for in the Corrupt Practices Act. But if that be the real inwardness of the Governmental opposition to the demands of the municipalities, it would be far better to speak it out and not conceal it behind seawalls, or bury it in waterworks embankments. No one contends that the problem of rehousing is one easy of solution. What most of us ask for is that municipalities should have a little more encouragement and a little less interference in their attempts to grapple with it. The real solution of the difficulty is far more likely to be found by such judicious experiments by local authorities as the borough of Richmond and the city of Liverpool are earnestly trying, than by any number of amiable gentlemen brought together in a London committee-room. It is a case for the application of the maxim *solvitur ambulando*, and if the Government have not the will or the necessary knowledge to assist these infant efforts at walking, they can surely at least stand a little to the side and refrain from hindering the attempts at progression. The efforts may lack, to some extent, co-ordination, but they are at least earnest, and we believe, like all earnest efforts, *non sine numine*.

MUSCULAR TONUS AND THE REFLEXES.

That the science of neurology has been recast during the last twenty years is a truism. Every student is to-day familiar with the great series of anatomical and histological researches which has led to its fundamental reconstruction. But such researches are not the only way in which the subject is to be approached, and there is some danger that the brilliancy of the new light may divert attention from that of clinical and physiological observations which are no less essential in the study of the nervous system. Historically, indeed, the clinical method came first, and from the point of view of practical utility it has never been surpassed; there are, moreover, not a few branches of the subject in which the knowledge obtained by this means is still stimulatingly in advance of that afforded by anatomy and physiology. Clinical neurology has, indeed, made great strides of late, and, as Dr. Bury recently reminded us, has established many facts of diagnostic and prognostic value for which a theoretical explanation is still wanting.

In no department of neurology is the advance along these lines more remarkable than in that dealing with the problems of muscular tone and reflex action. Twenty years ago it seemed that the last word had been said on these subjects. The accepted views were clear, consistent, and logical; no further problems seemed to call for solution. To-day all this is changed. New facts have been elicited, first at the bedside and then in the laboratory, with which the old theories were incompatible, and the latter have been swept away by a torrent of new ideas and suggestions. A concrete example will serve to illustrate

this. It was for long believed that the so-called tendon reflexes were entirely dependent upon "centres" in the spinal cord upon which the cerebral cortex exerted a controlling or inhibitory influence. Section of the cord between the cortex and the centres would hence remove this control and lead to an exaggeration of the tendon reactions, a deduction which appeared to accord both with the results of observations upon man and experiments upon lower animals. The inadequacy of this theory became apparent, however, when Dr. Bastian showed that in man total transverse lesions of the cord above their centres led to abolition of the knee-jerks. From this observation two results at once follow: the nervous mechanisms controlling the tendon reactions must differ in their influence in animals and man, and probably in the latter comprise some part of the encephalon. It need hardly be said that such a modification of accepted opinions has cleared the ground for a large number of new researches and theories.

Investigations into the cognate subject of muscular tonus have derived a similar stimulus from the work mainly of Dr. Mott and Professor Sherrington. Finality has not yet been attained, nor as regards many points is there even general agreement, but a mass of new facts has been acquired which was ably summarised by Dr. J. Crocq in his report to the Congress of French Alienists and Neurologists at Limoges last August.[1] Among the most valuable and suggestive results are those which have been obtained by the comparative method, by collating the data of animal experiments with clinical observations in man. This line of investigation tends to prove that the question at issue is largely one of evolution; that there has been a functional evolution on lines parallel to those followed in the progressive development of nervous structures, and that the non-recognition of this fact has been at the root of many contradictory assertions and hypotheses. Taking the case of muscular tonus first, this is recognised to be the resultant of two factors—the inherent elasticity of muscular tissue, and the permanent excitation supplied by the nervous centres. Now if the cervical or upper dorsal region of the spinal cord be cut across in the frog no diminution of muscular tonus follows; in the dog or rabbit the tonus of the voluntary muscles is diminished and that of the sphincters increased, and these results are more marked in the monkey, while in man the exaggeration of sphincter tonus is accompanied by permanent and complete loss of that of the voluntary muscles.

It is thus evident that as the animal scale is ascended voluntary-muscle tonus is more and more influenced by impulses proceeding from the brain; the spinal "centres," apparently autonomous in the frog, are subservient to mesocephalic influences in the dog and rabbit, and still more so in man, their activity being inhibited by the cerebral cortex and increased by impulses coming from the grey matter of the ponto-cerebellar region. Sphincter tonus is, however, in all animals dependent solely upon less remote impulses; it does not apparently require the participation of cells above those of the lumbar cord, and indeed the experiments of Goltz—to which Dr. Crocq curiously enough pays no attention—show that it may in some circumstances be altogether independent of the central nervous system. Micturition and defaecation were virtually normal acts in the dog from which Goltz had removed the whole dorsal and lumbar cord.

Reflexes also, it is found, are subserved by fibre systems which increase in length and complexity as the animal ascends the scale of evolution. In the frog the reflexes are of the most elementary type; their impulses are centred in the cord, traverse short routes, and are inhibited by higher centres. In the rabbit and dog the tendon reactions are under similar control, but the cutaneous reflexes are connected by long axon systems with a principal centre in the mid-brain, and are to some extent under the influence of the cerebral cortex as well. In the monkey the long systems are of still more importance, the centres for the tendon phenomena being in the region of the basal ganglia and under the inhibitory influence of the cerebrum and the augmentor influence of the cerebellum, while those for the cutaneous reflexes are both basal and cortical. In man the long routes are of chief significance in this connection; the inhibitory centres for the tendon reactions being in the cerebral cortex, the augmentor centres being ponto-cerebellar and those for the cutaneous reflexes in the cortex cerebri.

As a rule it appears that feeble impressions travel mainly by the long, more powerful ones by the short routes. The reflex troubles following injury to the cerebrum and upper part of the spinal cord are in the animal series proportional in extent to the development of the pyramidal tract. It will be seen that there is a general agreement between the nervous elements subserving muscular tonus and those upon which reflex action depends, and it is hence common to see them affected together in disease. Loss of tendon reflexes is usually associated with hypotonus, exaggeration with hypertonus; but exceptions to this rule occur which are at the same time of physiological interest and clinical importance.

Much study has of late been devoted to certain special and in some cases newly discovered reflexes. Of these, that described by Babinski has attracted most attention. It was at first believed to be a modification of the plantar reflex implying extension of the digits instead of the customary flexion. Later research, however, tends to support the view that the extension of the great toe, which is the distinguishing character of the reflex, has nothing to do with the plantar reflex, but is a special movement connoting a disturbance or immature development of the pyramidal tract. In the vast majority of cases the cause is an organic disturbance, whence the sign is of considerable value in diagnosis. A great deal of work has been done, and is proceeding along the lines indicated. It is to be hoped that purely anatomical researches will not tempt English neurologists to neglect the continued cultivation of so fruitful a field.

[1] Reprinted in *Journal de Neurologie*, August 5th and 20th, 1901.

THE COMMITTEE ON WORKHOUSE NURSING.

THE appointment of a Departmental Committee to inquire into the question of the sick nursing in workhouse wards will be welcomed by all who wish to see thorough efficiency in what are practically our State hospitals. The magnitude of the interests concerned is shown by the fact that the number of beds for the sick in the London

Poor-law institutions alone is practically equal to the number of all the beds in the voluntary hospitals of England.

The last few years have seen an enormous improvement in the administration of the Poor-law infirmaries, and many of the good Boards throughout the country have infirmaries that can hold their own in comparison with the most modern hospitals both as regards construction and administration.

The difficulty of obtaining an adequate supply of trained nurses is one appertaining chiefly to the smaller workhouses. It is not surprising that the number of candidates for the position of nurse in the small workhouses is decidedly limited; some of the reasons why the demand exceeds the supply are not difficult to find. In the first place in many of the Poor-law institutions the number of nurses is inadequate to the work. There are still unions where one nurse is supposed to be able to attend to twenty, thirty, and even fifty cases. We have no hesitation in saying that it is impossible for one nurse to look after such a large number. Even if it be granted that many are old chronic cases, yet it must be remembered that this class requires a great amount of attention on account of the liability to bed sores and their inability to attend to themselves.

Not only is the number of nurses too few, but in many cases the salaries paid are inadequate. In the *Poor-Law Officers' Journal* of Saturday, January 18th, a Joint Committee advertises for an assistant nurse at a salary of £15 without uniform. We have no hesitation in saying that it is to be hoped the Committee will not have a single application for the post, for in this as in the other walks of life the labourer is worthy of her hire.

The bedroom accommodation provided for the nurses is also too often very poor. In one instance within our knowledge as many as half-a-dozen nurses have had to sleep in what was nothing better than an attic; in another the so-called bedroom was really a portion of a corridor boarded off. Competent women of the class who ought alone to be entrusted with the responsible duty of nursing the sick require and deserve reasonably good sleeping accommodation, and guardians must remember that public opinion on these matters has changed since the time when Mr. Bumble was monarch of all he surveyed. Again, there is often very great room for improvement in regard to the nurses' dietary. Nursing is hard work, and the worker requires good and varied food. In many of the workhouses the monotony of the dietary is a disgrace to those responsible for it. And monotony is not its only fault; in many cases the quantity is inadequate; in one instance breakfast and tea consisted of tea and bread and butter six days a week, one egg being allowed on Sunday. A complete change in the dietary resulted in a large reduction in the amount of sickness amongst the nurses.

Monotony is not confined to the dietary: it also applies to the work, especially in the small unions, and for this reason nurses should have a proper amount of holidays. We take it for granted that every decent union allows half a day a week and a whole day once a month, besides the usual two hours a day, but it is to the yearly holiday that we wish to refer. Nurses should certainly have three weeks' vacation so as to get a thorough change.

There is another grievance that has we are afraid caused a great deal of the friction in small workhouses, and that is the interference of untrained matrons with trained nurses. We are quite aware that in many instances the relations between the two are most amicable; in the majority of those cases it will be found that the matron is a sensible woman and does not take upon herself to meddle with that she does not understand. The old "one-block" workhouse is rapidly disappearing, and the pavilion is taking its place. There does not seem to be any good reason why in the proposed new order the master should not remain in his present position as the person in general charge of the institution, the matron in charge of the "house," and the superintendent nurse responsible for the sick wards.

THE UNIVERSITY OF LONDON.

AT the meeting of the Senate of the University of London on January 22nd it was formally announced that the Drapers' Company, believing that it would be for the good of higher education in London that University College should be incorporated by the University of London, and that for this purpose it was desirable to place the site, land, and buildings and endowments of the College at the complete disposal of the University, were willing in order to facilitate this object to make themselves responsible for the debt on University College to the extent of £30,000, provided that the Senate of the University and the Corporation of University College agree before September 28th, 1903, upon a scheme for the incorporation of the College in the University, such scheme to be approved by the Company. The Senate thanked the Drapers' Company, and appointed a committee to meet a similar committee to be appointed by University College to discuss the matter. Sir Michael Foster, K.C.B., the member for the University, stated that he was authorized to announce that an anonymous donor was prepared to give to University College £1,000 a year redeemable either by himself or his executors by payment of £30,000, the conditions attached to the gift being the same as in the case of the Drapers' Company. We understand that the authorities of University College, London, intend shortly to make an appeal to the public for additional endowment, and that a special Appeal Committee has been formed and an elaborate statement of the needs of the College has been drawn up. The relation of University College to the University as a teaching body is not very well defined, and the College may think that the increase of its endowment and the betterment of its equipment may materially improve its position in any negotiations which may take place. The site occupied by the present buildings of the College is quadrangular. At the present time the buildings consist of a central block facing west, with north and south wings at right angles. At present the southern wing is occupied by University College School for Boys, and we understand that the proposal now under consideration involves the removal of the school to some site further from the centre of London, and the erection of a west block coming up to the alignment of Gower Street. The scheme would involve also the readjustment of the existing allocation of buildings to the several faculties and departments, and apparently it is intended that provision for the teaching of advanced medical subjects should be made by the erection of new buildings immediately outside the College proper but adjoining it on the south side. We observe that the professors and teachers of physics, chemistry, and biology (botany and zoology) are already included in the Faculty of Science, and it is, we believe, proposed to make provision for these departments and also for anatomy in the existing buildings, that is to say, that the College should continue to have departments for teaching the preliminary and intermediate subjects of medical education within its

walls proper, while the rest of the Medical Faculty would be placed in a detached building. It seems a curious fate to overtake what was for many years the most successful and the most famous of the departments of the College. The Senate of the University has also resolved to allocate the grant of £10,000 a year to be made by the Technical Education Board of the London County Council to the foundation of two professorships and two assistantships in chemistry, to the organisation of the teaching of German by appointing two professors and three readers, in grants to two institutions in aid of the faculty of engineering, and to the remuneration of the regular teachers in the London School of Economics, who will be appointed by the University, reserving £800 a year pending negotiations with the County Council as to the establishment of a day training school. The report of the Faculty of Medicine as to the establishment in the near neighbourhood of the University of a school of preliminary and of intermediate medical studies was received. Their report was published in the BRITISH MEDICAL JOURNAL of December 21st, 1901, p. 1837. The scheme for establishing advanced courses of study in physiology in the University buildings was approved, and the sum of £400 was voted to meet the donation of £2,000 made by Mr. Walter Palmer, M.P., as already announced. In another page we give some particulars with regard to the mode in which this scheme is to be carried out.

THE REORGANIZATION OF THE ARMY MEDICAL SERVICE.

WE hope that the Secretary of State for War will soon be invited to say categorically when the new warrant reorganizing the medical service of the army will be promulgated. The document, we understand, is ready, and we have reason to believe that it embodies most of the alterations which we pointed out to be necessary. The idea of keeping lieutenants at home for the first four years of their service has been abandoned—in fact, all the officers of that rank have been ordered to hold themselves in readiness for foreign service at a moment's notice. The Mandarin-like principle of promotion by examination has also, we believe, been virtually abandoned. For promotion to the rank of captain officers will have to pass an examination in drill and general knowledge of their duties, but not in medical subjects. There will be only one examination in professional knowledge after entrance—namely, that for major—and this will include the subjects (administration, etc.) set down in the scheme for lieutenant-colonel. Failure in this examination will entail compulsory retirement on a gratuity, but as this will be after only nine to ten years' service, it cannot be seriously contended that it will ruin a man's career. From the rank of lieutenant-colonel upwards promotion is to be by strict selection. No officer is to be promoted to the rank of surgeon-general who is at present older than 57. This will exclude several valuable officers, among them Colonel Stevenson, C.B. We hope, however, that this distinguished officer will be given the option of retaining his chair at Netley. It is believed that the inspection of treatment in military hospitals by the Advisory Board will be abandoned. The pension of £1 a day after twenty years' service is assured. All the more objectionable features of the scheme have therefore been removed, while there remain three great improvements on previous warrants, namely, that the Director-General of the Service has a seat on the Army Board; that he will have the support of an Advisory Board, which, working directly under his control, will strengthen his hands, and that the scale of pay is generally raised. The only point which seems to be still left somewhat doubtful is the Indian pay. This, however, is a matter of vital importance, and we feel it our duty to warn Mr. Brodrick that unless the strictest guarantee is provided that the Indian Government will not be allowed to play fast and loose with this question, the new warrant will not be accepted by the profession. There must be no "understandings" which only lead to misunderstandings and dissatisfaction; there must be a definite engagement in black and white, to which the Indian Government must be compelled to adhere. We think the Subcommittee of the British Medical Association, whose report is published elsewhere, is to be congratulated on the result of its labours, and for ourselves we venture to claim a share in helping to create and direct the force of opinion in the service and in the profession which the War Office has at last been induced to take into account.

AN IMPRESSION OF AMERICAN HOSPITALS.

IN an article published on page 185, the President of the British Medical Association gives a brief account of the impressions which he derived from a recent visit to some American hospitals. America, a younger nation, is, in surgery as in commerce, full of amazing industry and vigour, and in all its work is inspired with the brisk, fresh enthusiasm of youth. It is therefore useful and profitable for us to hear, from one well qualified to judge and to appreciate the points, of the methods in routine use by the most distinguished surgeons of that country. The great character of the American hospitals is the worship of asepsis, which, Dr. Ferguson says, "I have never seen so consistently and completely carried out anywhere else." This completeness is, indeed, not a little surprising, and it is not an easy matter for an English surgeon to realize the rites and formalities practised by his American colleague. Surgeons, we are told, take baths before an operation, and they dress in canvas boots, linen pants and coat, all sterilized, and wear a gauze nightcap. Such elaborate preliminaries seem rather alarming. If, as is possible, the object of the personal toilet is to secure greater comfort during an operation, we can understand it, and may perhaps envy the surgeon, but we can hardly appreciate any belief in the necessity for manœuvres so elaborate. The sterilization of everything used in the operation is by heat: instruments are boiled; mops, towels, gloves, dressings, and bowls are rendered aseptic in a large sterilizer, supplied with steam at a pressure of two atmospheres. The hands are cleansed by one of the recognised methods, and rubber gloves are worn. We cannot doubt that for assistants, dressers, and nurses, the wearing of sterile rubber gloves is a practice that might be generally followed with advantage. The loss of tactile delicacy which is inevitable is said by those who are expert to be trivial: in any case it is of no consequence to the assistant, though the operator himself may feel clumsy and hampered in his movements. It was said recently that in the London hospitals[1] the practice of antisepsis is almost, if not altogether, universal. Both methods—asepsis and antisepsis—yield good results; but we are inclined to the belief that, adequately carried out, the aseptic method is the simpler, and in its results the more satisfactory. The difficulty in abiding by it in a London hospital is chiefly that there are so large a number of links in a chain, each one of which may be at fault. In an operation the surgeon, his house-surgeon, assistants, dressers, and nurses may, any one, by a slight lapse from perfect routine, be a source of disaster. In America, we gather, fewer persons are allowed a hand in an operation, and assistants are kept longer and become therefore more expert in help. Dr. Ferguson says: "The residents are practically assistant physicians and surgeons *pro tem.*, and I have never seen the surgeons assisted by any one else." The treatment of fractures, to which Dr. Ferguson briefly alludes, is surprisingly "old-fashioned." He saw fractures of the thigh treated by sandbags and a pulley, and fractures of the leg treated in wooden fracture boxes. The routine treatment is the application of splints

[1] Dr. R. N. Nesbitt, in the *Nineteenth Century and After*, October, 1901.

for a few days, followed by plaster-of-paris. That, we judge, is the general practice also in English hospitals. There is one feature of hospital experience which we are inclined to envy our more fortunate colleagues. The wealthy merchants of America have endowed with striking munificence the hospitals of their country. The gift of £200,000 by Mr. Lankenau to the German Hospital in Philadelphia is only one instance among many, and not the most conspicuous. Dr. Ferguson's address is full of matters of interest, and will be read by all engaged in surgical work with great pleasure. We may be permitted to express the hope that the President of the British Medical Association has in store many holidays which may prove as enjoyable to himself, and in the recounting of his experience as interesting and as profitable to us, as this one has been.

THE LOCAL GOVERNMENT BOARD'S CIRCULAR ON VACCINE LYMPH SUPPLY.

IT became our duty recently to call special attention to complaints from medical men that some vaccine lymph which had been supplied to them commercially was in many instances proving practically inert. In doing so we ventured to express the hope that the publicity given to the complaints would do very much to remove their cause. From a circular just issued by the Local Government Board, and published at page 229, it appears that our hope has been largely justified. The circular is addressed to Boards of Guardians, and, after stating that the supply from the Local Government Board to public vaccinators "is subject to limitation," it concludes by stating the Board "are glad to know that there is a considerable quantity of glycerinated calf lymph now available from other sources, and they have no reason for regarding such lymph as other than satisfactory." Even this negative approval is not likely to have been published without some preliminary inquiry, and it may be inferred that the lymph firms, or such of them as required cautioning, have taken care that their products should now be of such a character as to place them beyond reasonable criticism. So far as it goes that is very good, but it is not for one moment to be looked on as permanently meeting the requirements of the case. Needless to say, everything that skill and care can do will be done to make the Board's own output of lymph alike active and free from impurity; but even the considerable additions which the circular tells us have been made to the Board's establishment still leave it insufficient not merely to supply private practitioners, but to furnish enough material for all the revaccinations that public vaccinators may be asked to perform. The information contained in the circular seems to us, indeed, to strengthen one part of the case for the reform advocated by Dr. Acland, and discussed elsewhere in the BRITISH MEDICAL JOURNAL of to-day, though no doubt the Board's favourable opinion of other sources of lymph will do much to restore the confidence of medical men in the activity of the products obtainable from makers and vendors in London and throughout the country. All the same, the whole business of vaccine lymph production should be under Government examination and inspection, and this we have no hesitation in saying would be in the interests of the vendors and importers of lymph, as well of the public and the medical profession.

THE VITAL STATISTICS OF ENGLAND AND WALES.

IN another column (page 243) we are enabled, by the courtesy of the Registrar-General's office, to give the birth-rate, death-rate from all causes, from the seven chief infectious diseases, and the infantile mortality of England and Wales as a whole during the year 1901. These figures are valuable for reference and comparison by medical officers of health who are desirous of issuing their annual reports before the annual summary or the report for the fourth quarter of 1901 of the Registrar-General becomes available. We again draw attention to the increased number of towns for which death-rates are now published week by week in the weekly return of the Registrar-General. The number of towns for which these returns are made has been increased on several previous occasions; but the present increase from 33 to 75 is unexampled in magnitude and importance. The populations of the towns now included, omitting the metropolis, vary from 51,613 Great Yarmouth, 51,745 Stockton-on-Tees, and 52,046 Tynemouth to over half-a-million each in Manchester and Liverpool. If the statistics are utilized for their true purposes, that is, to compare the incidence of deaths from the chief epidemic diseases in different towns and to compare the individual experience of a town in a given week with its past experience, these weekly returns will be invaluable. The longer list of towns, however, increases the risk of invidious comparisons being made on the strength of statistics for a very limited period. Thus, in the week ending January 11th, Hornsey had an annual death-rate of 5.5 per 1,000, while York had a death-rate of 22.4 per 1,000; and although it would be absurd to base any comparison of the salubrity of these two districts on this single result, it may not impossibly be done in many like instances. There is a further point. Many of the towns now enumerated among the 75 appear to partake more of the character of suburbs of large towns than of independent and self-contained communities. They have the low death-rates which occur in such suburban communities with rapidly-growing populations; but this does not necessarily imply any higher standard of sanitation or general salubrity. Thus East Ham, Leyton, and Walthamstow, near London; Handsworth, near Birmingham, among others, probably come into this category. Here we may note an omission from the new tables which we regret, as it would give a slight clue to the cause of certain low death-rates. We refer to the birth-rates for the current week, which are not given, although the total births are stated. We should be happy to dispense with the useless "zymotic death-rate" given in Column 6, in return for a statement of the birth-rate for each week. At this point may we venture on another suggestion? For some time past a valuable new table has been given in each weekly return of the number of cases of infectious disease notified in each constituent borough of the administrative County of London during the week preceding that for which the weekly returns of deaths is made. This table is supplied by the Medical Officer of the administrative county of London. Would it not be practicable to arrange to publish it for the same week as is dealt with in the death statistics? The preceding suggestions are not made in a critical mood. We are most grateful for the larger amount of information now supplied by the General Register Office; and we believe that any suggestions for increasing the utility of the returns issued from this office will be received in a friendly spirit, and that every effort will be made to meet the needs and desires of medical officers of health and others who are deeply interested in these returns.

THE EARL OF CREWE ON PAUPER CHILDREN.

IT was our duty a few years ago to call the attention of the public to the condition of pauper children when reared in barrack schools, but having awakened public interest on the subject, it has been left to the State Children's Association to do the "spade work" on behalf of this class, without which, as we have been recently reminded by Lord Rosebery, no real reform or progress can be made. The last evidence of the Association's labour is a memorial addressed by Lord Crewe as its chairman to Mr. Long as President of the Local Government Board, pointing out that the system of rearing large numbers of children together

has been shown to be detrimental to their health, injurious to their intelligence, and unlikely to develop in them those habits of resourcefulness and initiative which are so necessary to young people who have to make their way in the world; and yet, adds his lordship, "during the last five years £48,000 have been spent in adding to the existing Metropolitan Poor-law schools, and to-day there is not one barrack school less than in 1896." This is a serious challenge, for, as the letter points out, "the fact of adding more buildings to the existing institutions practically re-establishes the barrack system, and prevents the guardians adopting other methods of rearing children; while, by increasing the cost per head, it puts an additional burden on the ratepayers." Concerning Sutton Schools and the order for their abolition, Lord Crewe has also some pertinent remarks to make. That order was issued on March 30th, 1898, and yet the monster school, with all its evils, remains as before; for only one out of the five unions concerned, that is Camberwell, has removed the children chargeable to it from the condemned schools. That Board has adopted the methods advocated by the State Children's Association. It has 560 children to provide for, and hired thirty houses in the parish, each to accommodate about 11 children. It thus provided for 328 of those chargeable, leaving 63 only at Sutton. It boarded-out 65, and the remaining 44 were placed in certified houses. The policy of the other four Boards has been very different and much more expensive. Woolwich has about 350 children to provide for, and has nearly completed a village community on Borstal Heath, consisting of blocks and cottages, at a cost of £77,000 for building alone. Greenwich has about 600 children to provide for, and has laid the foundation of a village community at Sidcup, consisting of blocks for 50 and 20 children respectively. The guardians estimate that the cost of the scheme will be £150,000 or £250 per child. Stepney has some 300 children to provide for and is building a village community at Stefford consisting of blocks and cottages at a cost for building and lighting alone at £37,079. St. Olave's has about 600 children to provide for, and is arranging to build two village communities at Shirley each to accommodate 300 children at a cost of £148,000. The disadvantages of these village communities are that the children are isolated from the ordinary life of their own class, and are enveloped by pauper association and influence. The artificial ready-made life inseparable from these communities seriously unfits the children for contending with the difficulties of real life, and the unavoidable display of buildings and appointments under pauperism is attractive to parents desirous of shirking their responsibilities. The remedy which Lord Crewe proposes is one that will commend itself to medical men—namely, first, careful inquiry into the social disease affecting the case, and then treatment of each individual by the remedy that is most likely to effect a cure. This has already been done by some Boards, and we are told that a strict investigation into the circumstance of each child apparently chargeable, has, in the experience of Lambeth and Whitechapel, as well as that of other Boards, proved how great may be the reduction in the number of children dependent on the rates. Another proof of the need for such investigation is furnished by the Edmonton Board, which has recently discovered that for some time children have been maintained in the Chase Farm Schools whose parents or relatives were well able to support them. Earl Crewe concludes his letter by urging that for "those children whose circumstances, after investigation, justify a claim for State support, I would repeat that boarding-out, training ships, small certified homes, emigration to Canada, and scattered homes, would afford pleasanter and better means of training, while at the same time that advancing expenditure on buildings whose advantages are increasingly doubtful, and whose initial cost alone threatens to be a serious burden on this and succeeding generations of ratepayers, would be checked."

THE OPEN-AIR TREATMENT AT HAMPSTEAD.

It was stated in the British Medical Journal some time ago that arrangements had been made for carrying out the open-air treatment at the Mount Vernon Hospital for Consumption, Hampstead. The hospital is said to be situated at a higher altitude than any other public building in London. The building has a south-westerly aspect, and the policy of the open window is carried out throughout the parts of the building tenanted by the patients. Even in wet weather the windows are not closed, but blinds are pulled down to keep out the rain. Except during meals patients who are not confined to bed sit out in the grounds or in balconies completely open to the air. The food is abundant, but the overfeeding, which is an essential feature of the system pursued at Nordrach and other foreign sanatoria, is not practised at Hampstead. The results are excellent. Although the relatively brief stay which the rules of the hospital allow in each case makes it impossible to effect an absolute cure, 70 per cent. of the patients are discharged "improved" or "much improved." The physicians of the Mount Vernon Hospital have been among the pioneers of the open-air treatment, some of them having as long as fifteen years ago advocated this method of dealing with phthisis, and having carried it out on a large scale for some years past. As one of the results of the success of their work, the committee of the hospital has determined to erect forthwith another on a larger scale at Northwood, near Pinner, the plans for which were submitted to, and approved by, the medical staff some months ago. The means of thus extending the good work of the North London Consumption Hospital have been provided by an anonymous benefactor, who has given more than £100,000 for this purpose. Of this philanthropist it may well be said that he has done good by stealth and has not exposed himself to the risk of blushing to find it fame.

THE HYGIENIC SPITTOON QUESTION IN FRANCE.

At a recent meeting of the Paris Académie de Médecine M. Périer presented a report on the utilisation of spittoons in the Gare du Nord. The Académie some time ago made an appeal to the railway companies of France to place spittoons in their stations so that persons who felt inclined to expectorate might do so without danger to their fellows. The Nord Company at once placed spittoons of the pattern recommended by the Académie in its Paris terminus, and engaged trained male nurses to look after them. The spittoons have been available for about a year, but they have been very little used. Some time ago the Académie drew up a code of recommendations for the prophylaxis of tuberculosis, in which naturally the question of expectoration occupied a prominent place. A receptacle of a convenient pattern, which could be carried in the pocket and used without exciting much attention, was recommended. It was expected that the issue of this sanitary charge—for such it was intended to be—would be followed by an immediate abatement of the spitting nuisance, and that the pocket spittoon would quickly come into general use. But alas! for the vanity of the sanitarian's hopes. Some time after the publication of the document referred to, a member of the Académie of an inquiring turn of mind made a tour of the instrument makers' and pharmacists' shops of Paris and asked for the spittoon. Not one of them had it in stock, nor did it appear that there had ever been any demand for it. It is to be feared that it will be long before the use of this elementary safeguard against tuberculosis is regarded by the public as anything more than a counsel of perfection. As we have said before, the matter is one which could most effectually be dealt with by ladies of the strong-minded type. A campaign against indiscriminate expectoration is one that may be commended to them as offering a fine field for the exercise of their qualities.

THE ETIOLOGY OF "COOLIE-ITCH."

THE paper by Dr. Bentley published at page 190 on the relationship of the embryo ankylostoma duodenale to the troublesome tropical skin disease known as coolie itch, would seem to give the solution of an etiological problem in tropical disease of no mean importance to the employers of native labour in many parts of the British Empire. It should be read in connection with the paper communicated by Dr. Sandwith of Cairo to the Section of Tropical Diseases of the last annual meeting of the British Medical Association,[1] in which he described the observations of Dr. Looss showing that the embryos in water when brought in contact with the skin entered the hair follicles. It will be interesting to follow the next step in the line of investigation so plainly indicated by the discoveries of Drs. Looss and Bentley—namely, the determination of the relationship of the presence of the embryo of the ankylostoma in the skin to the mature parasite in the small intestine. Does the embryo enter the skin, so to speak, accidentally, or does it enter intentionally and as the proper portal to the alimentary canal? If the latter should turn out to be the case, our ideas as to the way in which ankylostomiasis is acquired will have to be revised.

THE DESTRUCTION OF RATS.

DR. M. J. ROSENAU has made an experimental investigation to test the conclusions arrived at by Danysz that cultures of the B. typhi murium of Loeffler (known as "Danysz's virus") were efficient for the destruction of rats. A full account of Danysz's original experiments and methods of intensifying the virulence of the cultures was published in the *Annales de l'Institut Pasteur*, April, 1900, and in the BRITISH MEDICAL JOURNAL for May 19th, 1900, p. 1244. It was shown that the method of feeding rats upon these intensified cultures resulted in the disappearance of the rodents in the majority of instances, and as the younger rats were most susceptible, Danysz concluded that by systematically destroying the younger generations one or two years would suffice for their complete destruction. Similar results were reported from Lille, Hamburg, Copenhagen, and Tunis. Rosenau[2] gives the results of a number of experiments carried out with cultures obtained from the Pasteur Institute, and as these were conducted upon caged rats, the conditions were much more favourable for obtaining the best results than in Danysz's experiments, where the rats were free and could not be restricted as to food, etc. Rosenau definitely proves that if eaten in large amounts the cultures are fatal, though their virulence is unstable, especially on exposure to light and air. He shows, however, that doses short of fatal ones give immunity, and consequently rats so rendered immune may eat large amounts of the virulent cultures without harm. The infection caused in the rats has very slight power of propagation from rat to rat, and, to be of any practical use, the cultures must be so spread about as to be eaten by as many rats as possible. He concludes that "the virus may be used as one of the means to fight against rats, but is far from being a sure means of exterminating these rodents in a particular place." As he further points out, the cultures are harmless to man and domestic animals, and so have an advantage over chemical poisons; but as the ingestion of non-fatal or less virulent doses only produces immunity, they have this great disadvantage over chemical poisons. The immunity so produced is very positive, and lasts for several months, and in his experiments on 115 rats only 46 were killed, although the conditions for feeding and insuring ingestion were much more favourable for the fatal action of the virus than could possibly be the case in Danysz's experiments with rats in a free state. The method suggested by Dr. Apery, of Constantinople, of destroying rats in the hold of a ship by means of carbonic acid has recently been tested at Marseilles. Experiments made on two ships in the harbour of that city have been completely successful; in two hours all the rats in the holds were destroyed while the cargoes were in no way damaged.

[1] BRITISH MEDICAL JOURNAL, September 14th, 1901, p. 699.

[2] *An Investigation of a Pathogenic Micrococcus supposed to be Destructive to Rats.* By M. J. Rosenau, Director, Hygienic Laboratory, U.S. Marine Hospital Service. Washington: Published by the Government Printing Office, Washington, 1901. Bulletin No. 5, Hygienic Lab.

PREVENTION OF MALARIA IN INDIA.

A CONFERENCE on malaria was opened at Nagpur, Central Provinces, on December 30th, 1901, under the presidency of Colonel Scott-Reid, I.M.S., and was attended by delegates from various parts of India, including officers of the Indian Medical Service, and of the Royal Army Medical Corps by Drs. Christophers and Stephens of the Royal Society's Malaria Commission, by Mr. Aitken, of Bombay, and Dr. Arthur Powell, Police Surgeon of Bombay. The first day of the conference was occupied by demonstrations of the methods of observing the malaria parasite in benign tertian; the second was devoted mainly to examination of mosquitos and to the malaria parasite in quartan fever; the third day to the examination of the eggs and larvae of mosquitos, and of the parasite of malignant tertian. On the fourth day, January 2nd, visits were paid to *Anopheles* pools, and in the evening an address was given by the President, followed by a lantern demonstration by Major Buchanan, I.M.S. On Friday and Saturday, January 3rd and 4th, various papers were read on the recognition and prevention of malaria, and in the evening of Saturday a popular meeting was held in the Public Rooms, Nagpur, when Captain Lamb, I.M.S., read a paper on snake venoms, their physiological action and antidote. We hope to publish a further account of this interesting conference in a later issue.

THE ANTIMALARIA CAMPAIGN IN ITALY.

THE Italian Society for the Study of Malaria has published a brief report of its work during the past season, from which it appears that observation stations were established in the most malarious regions of the provinces of Udine, Verona, Vicenza, Padua, Milan, Cremona, Mantua, Ferrara, Ravenna, Pisa, Rome, Caserta, Foggia, Basilicata, Cosenza, Lecce, and Syracuse. Besides researches on the disease, the system of protection which has proved so effectual in Latium in the last three years was applied on the Roma-Orte, Roma-Tivoli, and Roma-Pisa railway lines in the neighbourhood of Foggia, and in Sicily and Sardinia. Protective measures were also employed at the most infected custom-house stations along the coast, and at the gates of Rome and in the districts of Rome and Grosseto the huts of the railway and other employees were protected. Mechanical protection was also used in the dwellings of agricultural labourers in the Roman Campagna over a wide zone of the deep valley of the Aniene, from Salone to the gates of Rome, on the Rustica, Cervelletta, Boccaleone and other estates; on the Pontine marsh, in the Ferrara, Verona, and the low-lying parts of the Milan districts and elsewhere. The results of these experiments show clearly that in all the protected zones cases of malaria are of exceptional occurrence; while in contiguous regions left unprotected for the purposes of "control" the prevalence of malaria continues unabated.

LOCAL STUDY OF MOSQUITO BREEDING-PLACES.

THE number of commissions, expeditions and individual workers engaged in investigating the conditions under which mosquitos breed and multiply, or in applying knowledge already gained to the problem of exterminating these pests or diminishing the evil effects which they produce, is now very large. Most of these enterprises have been undertaken with the view of preventing malaria, and more recently of yellow fever; but in some cases the more number of these insects, apart from the question of whether or

no they be bearers of the malarial parasite, is so serious a nuisance that cultivable land is not worked, or is worked under great disadvantages. This would seem to be the case in New Jersey, where the occurrence of great swarms along the coast lessens the value of shore property by many millions of dollars, while some localities further inland are rendered almost uninhabitable. We learn from *Science* that Professor John B. Smith, of Rutgers College, has recently been devoting much time to an inquiry on the spot, with the view of establishing the distribution of the various species in the State, their relative abundance, and the general character of their breeding places. It is intended to use the facts thus obtained as the basis of a report to the Legislature, which will be asked to vote money to carry on the work in a comprehensive manner, as it is believed that, with the co-operation of the State and municipal authorities, aided in some instances by individual efforts, the pest can be very materially reduced. Dr. C. W. Daniels, in a report on the distribution and breeding grounds of *Anopheles* in British Central Africa, presented to the Malaria Committee of the Royal Society, and issued recently in the fifth series of the reports to that Committee, has given a description of the main breeding places of the insects in that country. There they appear to be small valleys, in which small permanent springs keep the surrounding ground marshy and swampy throughout the year. From these they are washed in numbers by heavy rains into irrigation channels and other cuttings where the stream was slack. But Dr. Daniels states that "to a large extent not only each country and district, but even locality differs in details. The slope of the ground, its nature and permeability, will largely determine where water suitable for the breeding of these mosquitos will be found, and whilst in British Central Africa a porous, rocky, or sandy soil, and low-level subsoil water, prevents puddles being an important breeding ground except under exceptional circumstances, under other local conditions, even with similar meteorological factors they may be the leading ones." Dr. Daniels's observations refer to the five species of *Anopheles* occurring in British Central Africa, and when the large number of species of mosquitos is remembered the necessity for systematic local investigation in every mosquito-haunted country is evident.

THE HYGIENE OF THE MERCHANT SERVICE.

We regret to observe that the committee appointed by the Board of Trade to report upon certain matters affecting the British Merchant Service contains no representative of medicine or physiology. Of the three paragraphs of instruction to the Committee one is as follows: "2. The sufficiency or otherwise of the existing law and practice for securing proper food, accommodation, medical attention, and reasonable conditions of comfort and well-being for seamen on British merchant ships." We cannot help feeling that the Committee in its consideration of such points as sufficiency of diet and the provision of proper medical attention would be greatly strengthened if it contained a medical member. It is probably the intention of the Committee to take medical evidence, but this cannot possibly lead to as satisfactory a result as would be obtained if special medical and physiological knowledge and opinions were represented upon the Committee itself. We hope that the President of the Board of Trade will reconsider this point because it is most desirable that the recommendations of the Committee should at least approach finality: as it is we believe that a great deal of the discontent, which by deterring men from entering the mercantile marine is becoming a national danger, is due to defects in the regulations which might easily be remedied if the Committee was fully advised and informed as to the root of the evil, especially in respect to diets. The danger of cases of infectious or contagious disease being unrecognised or disregarded is also one which merits attention, and in view of outbreaks of small-pox or plague it is one which sooner or later must be considered and dealt with.

THE MALE INEBRIATE.

From a report recently presented by a special Committee of the Surrey Quarter Sessions General Purposes Committee and the Reformatories Committee of the County Council, appointed to inquire into the working of the Inebriates Act in connection with the commitment of inebriates from the county to the Royal Victoria Homes at Brentry, we gather that the Act has worked well with one exception—that an extremely small proportion of male inebriates have been committed to the Homes under the Act. The Committee was unable to decide to what causes the disproportion between male and female inmates was due, but they found that the absence of convictions of male persons was not peculiar to the county of Surrey. Apparently all that the Committee could suggest was that the male side of the Brentry Home should either be closed or converted to the use of the female inmates or that the subscribing county councils should be charged 6d. per day per male bed reserved. The reason for this state of things may be difficult to discover, but should not be impossible. It can certainly not be due to any lack of male inebriates of the loafing class corresponding to the class of women at present being committed to the homes. It is, however, conceivable that the magistrates may feel some reluctance to commit the person who is presumably, though not very probably, the "breadwinner" of a family. At any rate, it would seem that the work of the male worker (whenever he is disposed to put in a day's work) is, especially if of the skilled order, more in demand than the corresponding female worker's work; and this, together with the more regular conditions generally of the male worker's life, would tend to throw his alcoholism more into the periodic Saturday-till-Tuesday form. Deliberation and choice of time and place would therefore seem to be more the habit of the male than of the female alcoholic. The male alcoholic, it would appear, is less frequently arrested for making a disturbance in the streets than the female. This may, of course, be due to one of two causes quite external to himself—the tendency of the policeman to be looking the other way when a drunken and possibly powerful and violent man is anywhere in sight, or the inability of anybody concerned to put or keep the male drunkard out of his home when once he gets there. The special Committee laid its finger upon one weak spot in the execution of the law—the absence of any central registration of the cases which ought to come under the Act in the police-courts. For example, as things now stand, a London inebriate may be brought forty-two times before the fourteen London magistrates without actually coming under the Act in any one court if he carefully avoids conviction more than three times in any court. Here his apparently superior masculine faculty of calculation and deliberation may shield him from the arm of the law. Be this as it may, it is safe to conclude that if the evil example and influence of the woman drunkard is a danger and a scandal, the same must be true of the male drunkard—possibly more true—since his home circle is generally no smaller and his social circle generally wider than that of the female drunkard. It is to be hoped that some means will be found in order to administer the Act, which seems in its constitution to be in no way responsible for the present unsatisfactory condition of things.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following are the lecture arrangements for 1902: The Erasmus Wilson Lecturer, Mr. Charles Powell White, will deliver three lectures on Monday, February 10th, Wednesday[1] February 12th, and Friday, February 14th, on the

General Pathology of Tumours. Dr. T. G. Brodie, Arris and Gale Lecturer, will lecture on Monday, February 17th, Wednesday, February 19th, and Friday, February 21st, on the Pulmonary Circulation, more particularly in Relationship in Cardiac Activity. Professor W. McAdam Eccles will lecture on Monday, February 24th, Wednesday, February 26th, and Friday, February 28th, on the Imperfectly Descended Testis, its Anatomy, Physiology, and Pathology. Professor F. G. Parsons will lecture on Monday, March 3rd, Wednesday, March 5th, and Friday, March 8th, on The Blood Vessels of Mammals in Relation to those of Man. Professor C. Stewart, LL.D., F.R.S., will deliver a course of six lectures on Monday, March 10th, Wednesday, March 12th, Friday, March 14th, Monday, March 17th, Wednesday, March 19th, and Friday, March 21st, on Organs of Respiration. The lecture hour in all cases is 5 P.M. precisely.

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE following are the arrangements for the courses of lectures before the Royal College of Physicians of London: The Milroy Lectures, on "The Etiology of Typhoid Fever and its Prevention," will be given by Professor W. H. Corfield on February 20th, 25th, and 27th; the Goulstonian Lectures, on "Some Abnormal Psychical Conditions in Children," by Dr. G. F. Still on March 4th, 6th, and 11th; and the Lumleian Lectures on "The Comprehensive Study of Thoracic Phthisis," by Dr. F. T. Roberts, on March 13th, 18th, and 20th. The hour on all occasions will be 5 P.M.

SANITARY IMPROVEMENTS AT WINDSOR CASTLE.

CONSIDERABLE improvements, amounting to reconstruction, have been made in the sanitary arrangements of the southern part of Windsor Castle, recently occupied for a few days by their Majesties, by the officials of His Majesty's Office of Works, under the advice and supervision of Professor Corfield, their consulting sanitary adviser. The whole of the drains under the south towers, from Edward the Third's Tower to the Victoria Tower inclusive, have been done away with, so that there is now no drain under the buildings on that side of the Castle, and new watertight iron drains have been laid outside the buildings. Internal waterclosets and soil-pipes have been cleared away, ventilated lobbies formed in connexion with the waterclosets, new soil-pipes fixed outside the building, and the best improved appliances of all kinds fixed. Suitable disconnexion arrangements have been provided between the new drains of these towers and the Castle sewers, so that each of the towers is, in fact, so far as the drainage is concerned, a house in itself. Similar improvements, we are informed, will gradually be carried out throughout the rest of the Castle.

PROFESSOR VIRCHOW.

A STATEMENT has appeared in certain English newspapers to the effect that Professor Virchow's condition is causing anxiety. We are glad, therefore, to be in a position to state that although on Sunday last the venerable professor was somewhat weaker than his life-long friend and devoted physician, Professor Körte, could have wished, his condition is now perfectly satisfactory, and he is making good progress towards recovery.

DR. F. W. PAVY, F.R.S., has been chosen President of the National Committee for Great Britain and Ireland at the Fourteenth International Congress of Medicine to be held at Madrid in April, 1903. The late Sir William McCormac, Bart., K.C.B., filled this dignified post at former International Congresses.

WE regret to announce the death of Professor von Ziemssen, which occurred at Munich on Monday last. His name was well known as the Editor of the *Cyclopaedia of Medicine* which bears his name, and he was the author of many contributions to medical literature, notably on typhoid fever and the therapeutic use of electricity. Professor von Ziemssen was in his 73rd year.

WE are asked to state that a discussion on the Treatment of Inoperable Cancer will take place at the next meeting of the West London Medico-Chirurgical Society on Friday, February 7th, at 8.30 P.M., in the Society's rooms at the West London Hospital. Mr. Alfred Cooper, Mr. Stanley Boyd, Mr. Butlin, and Mr. Henry Morris will speak. The annual dinner will take place on Wednesday, February 20th, at 7.30 P.M., at Frascati's.

THE contest for the seat on the Senate of the University of London, rendered vacant by the resignation of Dr. Maclure, who was an Arts representative of Convocation, resulted in the return of Sir Joseph Walton, B.A., by 1,124 votes against 381 given to Mr. Easterbrook, M.A. Sir Joseph was recently knighted on his appointment as judge of the King's Bench Division; he was formerly Recorder of Wigan and Chairman of the General Council of the Bar. We gather from the appeal issued on his behalf that he is anxious to maintain equal access to all degrees and honours of the University to internal and external students alike.

THE *Statistical Report on the Health of the Navy* for the year 1900 has just been issued. In addition to the statistical tables it contains eight appendices, several of them of more than usual interest. We may mention in particular the Medical Notes on the Western Naval Brigade, South Africa, by Deputy Inspector-General J. Porter, and those on the Naval Brigade in North China by Staff-Surgeon Pickthorn. The paper on the Supply and Transport of Drinking Water for Naval Brigades, by Surgeon T. T. Jeans, reveals a somewhat primitive system, and his suggestions for its improvement appear well worthy of consideration.

INDUSTRIAL DISEASES IN ITALY.—A Commission has been appointed by the Italian Government to investigate the causes of industrial diseases in Italy and the means of preventing them. Among the members of the Commission are Professors Celli and Sanarelli. Members of Parliament; Dr. Alfonso Giordano and Professors Luigi Mangiagalli, Luigi Devoto, and Eugenio Rossoni.

CLOSING OF THE IMPERIAL YEOMANRY HOSPITALS.—The last of the Imperial Yeomanry Hospitals, the Elandsfontein branch, was closed on December 19th, 1901. At this hospital, which was opened on June 29th, 1901, 823 patients have been treated; at the Pretoria Hospital, which was opened on August 18th, 1900, and closed on September 31st, 1901, 5,227 in-patients and 1,095 out-patients have been under treatment; in the Chesham Home, a convalescent branch for officers, opened on May 1st, 1901, and closed on October 10th, 79 patients have been under care; besides these, 5,000 have been treated in connection with the Imperial Yeomanry Field Hospital and Bearer Company, 6,093 at Deelfontein, and 1,066 at the Base Hospital, Mackenzie's Farm, Maitland, giving a total of 19,183 patients treated since the first section of these hospitals was opened at Deelfontein on March 5th, 1900. At the last meeting of the Committee of the Imperial Yeomanry Hospitals it was resolved to issue at an early date a complete report showing details of the valuable services rendered by these hospitals to the sick and wounded, and further to devote the surplus funds to the Bisley Homes shortly to be opened for the orphans of those who have lost their lives during the campaign. Particulars of these proposed orphan homes may be obtained from Major-General the Hon. Herbert F. Eaton, of 43, Upper Grosvenor Street, W.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Opening of Parliament on Thursday, January 16th by the King and Queen was a great State function. The members of the House of Commons attended in good numbers, more than 400 being present, and there was no repetition of the unseemly scrimmage which last year gave a medical interest to the ceremony in the shape of broken ribs and other injuries. This year the Commons occupied the seats allotted to them, and only a few followed in the Speaker's procession to the bar to hear the King's Speech. In the Speech not much legislation was announced, the only measures mentioned of any medical interest were the London Water Bill and certain reforms in the Law of Lunacy, under which description it is not difficult to recognise the Bill which the Lord Chancellor has introduced more than once during the last few sessions. The general talk over the Speech in the Lobby reflected the outside opinion, that there would not be much legislation done this session, in view of the proposed changes in the rules of the House and the demands likely to be made by the Government on the time of Parliament for their financial proposals.

The Debate on the Address in answer to the King's Speech did not open with any great animation; indeed it almost collapsed on the first night, but Dr. Macnamara came to the rescue with his amendment on the housing question. This subject occupied the greater portion of Friday's sitting, and by more than one speaker the health aspects of overcrowding were strongly pressed on the attention of the Government. The Government promised some slight concessions and the appointment of a Committee to consider the extension of the period for the repayment of loans for housing purposes; but the House was not satisfied, and on a division the Government majority fell to 30, or less than a quarter of its full strength. On Monday the question of the mortality in the concentration camps in the Transvaal and Orange River Colony was referred to by the Colonial Secretary, and formed the most striking part of an impassioned speech by Mr. Dillon, but no new facts were brought out, and the House seemed on the whole satisfied with the steps that have been taken to lessen the death-rates in the future.

The Ballot for Private Bills, to be introduced by members in contradistinction to the Bills introduced by the Government, always excites much interest. On the opening day there was quite a long line of members waiting on the floor of the House to reach the table and put down their names for the ballot. No fewer than 260 names were registered on the first day, and on the second the number was increased to 348, or about 40 fewer than last year. Among the promoters of special measures the friends of the Midwives Bill were active, and among other subjects talked of were a Death Certification Bill, and some attempt on the part of Friendly Societies to protect the Medical Aid Associations from the recent action of the General Medical Council. The ballot was held on Monday soon after noon, and resulted in one great surprise at least. The Irish members, who have for years past been successful in drawing one or more of the first dozen places, this year approached no nearer than fortieth on the list. The first dozen places are the only ones of any value, and of these the first six only are likely to have a good chance of discussing and dividing on the second reading of a Bill. The Midwives Bill this time secured through Lord Cecil Manners the thirteenth place, an ominous number, which was afterwards improved by absences to the tenth place. The first place was drawn by Mr. Rutherford, who proposed to introduce the Deceased Wife's Sister Bill.

Nursing in Workhouses.—The President of the Local Government Board has appointed what may be called a departmental committee to consider the subject of the nursing of the sick poor in workhouses. The Parliamentary Secretary of the Board, Mr. Grant Lawson (Chairman), Mr. W. E. Knollys, C.B., the Chief Inspector, one of the assistant secretaries of the Board, Dr. Downes and Dr. Fuller, Poor-law Medical Inspectors, will form the Committee. Mr. R. H. A. G. Duff will be Secretary. The Committee will have to consider and report on the qualifications of nurses and probationers, the difficulty in obtaining an adequate supply of these officers, and the regulations necessary to define the respective duties of the master, matron, and of the superintendent-nurse. The BRITISH MEDICAL JOURNAL has for many years past watched over this question of nursing in workhouses, and the results of the deliberations of this Committee will be of great interest to all who have for many years been trying to place workhouse nursing on a satisfactory basis. The President of the Local Government Board has done well in appointing this Committee, which will, it is to be hoped, by adequate recommendations regulate once for all the nursing system under the Poor Law.

The Small-pox Epidemic.—Colonel Tuffnell called the attention of the President of the Local Government Board to the continued increase of small-pox on the Essex coast, near Purfleet, and asked what steps would be taken to remove the small-pox hospital ships now moored there. Mr. J. A. Pease also quoted the opinion of Dr. Thresh, the Medical Officer of Health, that the outbreak was due to the presence of the hospital ships. Mr. Long, in reply, said there was no dispute as to the fact that these small-pox hospitals must cause some infection. As regards the Essex outbreak, he had caused a medical inspector of the Board to communicate with the local authorities. The Metropolitan Asylums Board were doing everything in their power to provide the hospital accommodation necessary, and looking to the large number of cases he did not propose to interfere with the discretion of the managers to use the ships referred to, which had been moored in the Thames since 1885. It was impossible to select a place either for ships or hospitals which would not be in some degree exposed to the same drawbacks. Mr. Morgan asked whether the ships could not be moved down into the Sea Reach, where there was practically no population on either side of the river. Mr. Long said he could not answer definitely, but every possible trouble had been taken to find another mooring place. It was necessary to have easy communication with the shore, and at present there had been no new and suitable place suggested. Mr. Bartley interpolated a question as to whether the Government contemplated any new legislation in view of the epidemic, and the President of the Local Government Board replied that no legislation of any kind was necessary so far as he was aware.

The Midwives Bill is backed this year by Lord Cecil Manners (Melton Division of Leicestershire), Mr. Tatton Egerton (Knutsford, Cheshire), Mr. Schwann (Manchester), Mr. Parker Smith (Partick, Lanark), Sir John Tuke (Edinburgh and St. Andrews Universities), Sir Savile Crossley (Halifax), Mr. Eugene Watson (Clackmannan and Kinross), Mr. Tennant (Berwickshire), Mr. Heywood Johnstone (Horsham, Sussex). The Bill was exceptionally lucky, considering its place in the ballot, to secure so early a Wednesday as February 26th for its second reading, and its future progress depends to a large extent on whether the Government are obliged or not to take February 26th for their business. No trustworthy opinion on this point can be formed until it is seen what progress is made by the Government in the next two or three weeks.

The Introduction of Bills took place on Tuesday afternoon. The Deceased Wife's Sister Bill was put down by Mr. Rutherford for Wednesday, February 5th. Mr. Edwards, who had the second place, introduced a Bill for the amendment of the Local Government Act (1888) so far as it relates to Wales and Monmouthshire, and fixed the second reading for April 16th. The Miners Eight Hours Bill was put down by Mr. Jacoby for Wednesday, March 5th, and the Pure Beer Bill for Wednesday, April 23rd. General Laurie introduced again his Bill to extend the provisions of the Medical Acts, and put it down for second reading on Wednesday, February 12th. Sir John Batty Tuke introduced a Bill to amend the Inebriates (Scotland) Act, 1900, and fixed the second reading for March 12th.

A SCHEME OF ORGANIZED RESEARCH ON CANCER.

Reference was made in the last issue of the British Medical Journal to a scheme of cancer investigation proposed for the consideration of the London Colleges of Physicians and Surgeons. Although the scheme, of which we were able to indicate the main outlines, has not yet been formally adopted by the governing bodies of the Colleges, we are in a position to state that it has received the approval of several men who hold or have held high office in one or other of the Colleges and who are universally recognized as leaders of the profession. Among them are the President and Censors of the Royal College of Physicians, the President and Vice-Presidents of the Royal College of Surgeons, Lord Lister, Sir William Broadbent, Sir Richard Douglas Powell, Sir Thomas Smith, and Sir John Williams. It may therefore be taken that the scheme, if not yet as the scholastics would have said, *formaliter* accepted by the Colleges, is already *materialiter* in existence with their unofficial sanction.

The Draft Scheme.

By the courtesy of Mr. Henry Morris, to whom the initiative of the movement is largely due, we are enabled to give the following particulars as to the scheme. As was stated in the British Medical Journal of January 18th it is proposed to raise a fund:

1. To provide, equip, maintain, or endow laboratories to be devoted exclusively to cancer research.
2. To provide an honorarium for the Director of Cancer Research.
3. To provide paid assistants to the Director, and grants in aid of cancer researches, within the United Kingdom, or in any part of the British dominions beyond the seas.
4. To assist in the development of the Cancer Research Department of Middlesex Hospital and of any other hospital where a special cancer department may be provided.
5. To provide for the investigation of any method which may be suggested from time to time for the prevention, treatment or cure of cancer, and to arrange for the testing, under proper supervision, of any so-called remedy for cancer.
6. And generally to provide means for systematic investigation into the causes, prevention, and treatment of cancer.

There are to be five trustees in whose name all moneys are to be invested. The income derived from the fund will be paid to the account of a general committee consisting of (*a*) the five trustees if willing to serve; (*b*) the President and two Censors (for the time being) of the Royal College of Physicians of London; (*c*) the President and two Vice-Presidents of the Royal College of Surgeons of England; (*d*) the members of the Laboratories Committee of the Royal Colleges of Physicians and Surgeons; (*e*) one member to be nominated by the Local Government Board.

The General Committee will have control of the income of the fund, but before determining the precise methods to be adopted for encouraging and prosecuting researches or the amounts to be allocated for any specific purpose, the Committee will take counsel with an Advisory Board, consisting of the members of the Laboratories Committee, and of additional members nominated in equal numbers by the Royal College of Physicians and the Council of the Royal College of Surgeons. The points on which the Board is to advise the General Committee are as follows:

1. The assignment of funds for the erection or extension of laboratories or for the provision of apparatus or equipment in any existing laboratory in which researches in cancer treatment are or shall be pursued.
2. The allocation of funds for the salary of a Research Director, and his [illegible] and the payment of grants.
3. The [illegible] relating to the appointments of the Director and [illegible] and the conditions under which laboratory accommodation [illegible] Hall or elsewhere shall be provided for the Director.
4. The means to be adopted for encouraging investigations in other laboratories.
5. The means to be adopted for the provision of material from cancer cases.
6. The arrangements to be made for conducting clinical investigations [illegible] laboratory work.
7. The [illegible] and tabulation of topographical, dietetic and other statistics and information.
8. The establishment of a system of correspondence with foreign and colonial laboratories and workers.
9. And generally on any matters relating to scientific research in, or treatment of, cancer.

It is specially provided that the General Committee may make contribution towards the development of the Cancer Research Department of the Middlesex Hospital, or a similar department in any other hospital. Should the object of the fund be attained by the discovery of the cause and nature of cancer, and of an effective method of treatment, the trustees, with the consent of the Royal Colleges, will be empowered to use the fund either (*a*) for equipping with the necessities for such treatment such hospitals as they may select, or (*b*) for forwarding in similar manner research into other diseases.

Origin of the Movement.

To prevent misconception, a brief account of the genesis of the scheme may here be given. The idea of raising a fund to be used in testing such methods of treating cancer as seemed to promise solid results seems to have been ventilated in the *St. James's Gazette*. For this purpose it was, we understand, suggested that a capital sum of £250,000 should be raised, and a "Cancer Clinic" established somewhere in London. A representative of the *St. James's Gazette* submitted this proposal to Mr. Henry Morris, who expressed an opinion adverse thereto on the grounds, among others, that patients would naturally be unwilling to offer themselves as the subjects of clinical experiment, and that cases of cancer were already admitted into all general hospitals.

Mr. Morris further pointed out that the operative treatment of cancer had very greatly advanced in recent years, and that in his opinion the only immediate prospect of gaining new knowledge of any value was by laboratory research.

At that time there was reason to believe that a philanthropic millionaire was prepared to raise £150,000 for the furtherance of researches on cancer, and in this belief Mr. Morris brought the matter before the Special Finance Committee in connexion with the Laboratories Committee of the Royal Colleges of Physicians and Surgeons at a meeting held on October 23rd. At that meeting, which was attended by the Presidents of both Colleges and seven other members of the Committee, it was moved by Sir William Mac Cormac, seconded by Mr. Butlin, and carried unanimously:

> That we cordially approve of a proposal which has been made to raise a sum of money, the interest of which shall be devoted to the investigation of the causes, prevention, and treatment of cancer. We are of the opinion that under the control of a suitably-elected advisory committee an effective scheme could be drawn up, and that a convenient and suitable place for the investigations would be the laboratories belonging to the Royal Colleges.

The Financial Question.

The only difficulty now in the way is the want of money. As already stated in the Journal, it is estimated that a sum of not less than £100,000 will be required, but, although promises of contributions to the amount of several thousands of pounds have been received from various quarters, at present not even the nucleus of a fund is in existence. Until the money has actually been raised, it is improbable that the Colleges will officially accept the scheme. Both His Majesty the King and the Prince of Wales have expressed their sympathy with the movement, but there can of course be no hope of active Royal patronage until the scheme has been placed on a secure financial basis. Here, then, is a chance for a charitably disposed millionaire. There are not a few to whom the donation of the sum required would be like the giving of sixpence to a beggar, while the benefit to mankind would be incalculable. There is no object to which wealth could be better applied than the solution of the riddle for want of an answer to which many thousands of persons perish miserably every year in this country alone. It may be said that money cannot produce an Œdipus, but, at any rate, it can prepare the way for him, and make his task easier when he comes.

What is wanted, as already said, is organized, co-ordinated, and continuous effort; as things are there is much waste of power owing to want of co-operation among workers. The work, moreover, must be continuous, and it is for this that a capital fund sufficient to defray the expenses of prolonged research is necessary.

Beginnings of a General Movement.

It is only right to recall the fact that some excellent work of the kind has already been done in this country. A collective investigation on cancer of the breast was made under the auspices of the British Medical Association, the results of which were embodied in a report by Mr. Butlin published in the Journal of February 26th, 1887, p. 436. An elaborate investi-

gation as to the influence of locality on the prevalence of malignant disease has been conducted by a Committee of the Birmingham and Midland Counties Branch and much valuable information was collected which was published in the JOURNAL of April 1st, 1899, and September 29th, 1900. In other countries researches on cancer are being actively pursued. A large sum of money has been placed at the disposal of Professor Ehrlich for this purpose, and a German Cancer Committtee, presided over by Professor von Leyden, is now at work. A further grant of 4,000 marks has recently been made to it by the German Government, and it is proposed to establish a special institute for the study of cancer in the Charité Hospital, Berlin. A grant of 53,000 marks for the erection of wards providing accommodation for ten male and ten female patients with microscopic, chemical, and experimental laboratories has been made. A special laboratory for the study of cancer was founded a year or two ago in Buffalo under the auspices of New York State, and in it some good work has already been done under the direction of Professor Roswell Park. In France a league against cancer was started some years ago by Professor Duplay for the purpose of making researches on the subject, which are published in a special journal. All this serves to show that the time is ripe for the organization of a combined and continuous research. It is vain to look for State support of scientific research in this country. But we cannot think that with so many wealthy men looking out for worthy objects of benefaction, an enterprise which promises deliverance from the most terrible disease that afflicts mankind will be allowed to collapse for want of a sum which has been given for a single picture.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending December 21st, 1901, plague made a serious advance in the Bombay Presidency. The plague returns for all India for the week show 9,108 deaths against 7,797 in the week preceding, and 2,267 in the corresponding week of last year. In the city of Bombay the health returns are being anxiously watched for indications as to the course plague is likely to pursue. Towards the end of 1900 a short but extremely severe epidemic prevailed in the city of Bombay. The plague mortality shown in the most recent reports is considerably in excess of that recorded at the same time during 1900. The plague caused 180 deaths during the week ending December 28th, 1901, against 175 during the previous week.

The plague mortality figures for the week ending December 21st, 1901, are: Bombay Presidency 5,274, against 4,735 during the previous week; Punjab 1,914, against 1,685; Mysore State 533, against 104; Madras Districts 324, against 233; Bengal 327, against 291; North-West Provinces and Oudh 176 against 228.

In the Punjab Districts, the increase in plague is most marked in the Sialkot District, where the figures during the third week of December have nearly doubled those of the previous week.

For the first time in the history of the plague epidemic the Nabha State comes into the list of infected places, with 218 cases and 124 deaths.

EGYPT.

It is regrettable to have to record a continuance and something of a recrudescence of plague in Egypt. A telegram dated January 20th states that during the past fortnight 31 cases of plague and 25 deaths from the disease occurred in Egypt. The majority of the cases are reported from Tantah. The sanitary authorities have considerable difficulty with plague in this city, as the natives obstinately abstain from announcing cases of disease to the officials before death. The Egyptian Government need not take alarm over these cases of plague, for their Sanitary Department has dealt so efficiently with other outbreaks of plague from time to time that we look forward with confidence to the speedy arrest of the disease. Since the commencement of the present outbreak in Egypt there have been 241 cases of plague and 131 deaths from the disease.

CAPE OF GOOD HOPE.

At Port Elizabeth 1 case of plague was reported during the week ending January 11th, and 2 cases at Mossel Bay. At the latter place the persons attacked were Europeans. There were no deaths due to plague during the week in question, nor were any other cases of plague reported from any part of Cape Colony.

MAURITIUS.

During the week ending January 16th 27 cases of plague were reported in Mauritius, and 21 deaths from the disease.

UNITED STATES OF AMERICA.

Dr. W. H. Kellogg, in his report to the Board of Health of the city of San Francisco, gives details of the cases of plague which have come under his notice in that city. His report deals in detail with 51 cases of the disease, the last death having occurred as late as November 4th, 1901. The aspersions cast upon the medical men entrusted with the plague outbreak by the daily papers, and a medical journal in San Francisco, appear to be unwarranted.

The public health report of the city of Utah, Salt Lake City, for November 22nd, 1901, contains a notice of a recent death from plague in that city. The source of the infection is unknown.

THE EPIDEMIC OF SMALL-POX.

CIRCULARS BY THE LOCAL GOVERNMENT BOARD.

Supply of Lymph for Revaccination.

THE following circular, dated January 17th, 1902, has been issued by the Local Government Board in England to the clerks of Boards of Guardians:

Sir,—I am directed by the Local Government Board to state that the continuance of small-pox in London and its appearance in other parts of the country have led to a very sudden and considerable increase in the number of persons desiring to be revaccinated. There can be no doubt that this increase is largely due to the very common failure on the part of large numbers of the population to take the necessary precaution of revaccination at proper intervals.

The Board desire to draw attention to the fact that their statutory duty in regard to the supply of glycerinated calf lymph is limited to supplying it to public vaccinators, and for purposes of primary vaccination only. But in face of the outbreak of small-pox they have not limited themselves to this duty, but have, up to the present time, met the demands of public vaccinators for lymph for revaccination also. To enable them to do this the Board have made considerable additions to their establishment for the production of this lymph, and are now issuing to public vaccinators a quantity very much in excess of the normal supply.

It must, however, be understood that while the Board are desirous of complying with the applications for lymph for revaccination as far as practicable, the supply which they can produce is subject to limitation, and that they may find themselves unable to meet all the applications made to them for this purpose. In such circumstances, preference must be given to applications from places in which small-pox is known to exist. Public vaccinators in whose district small-pox is spreading should therefore state this fact in making applications for lymph.

The Board would be prepared to sanction any necessary expenditure incurred by the guardians of any Poor-law union who, for purposes of revaccination, may find that they have to supplement from other sources the supply of lymph obtained from the department.

They are glad to know that there is a considerable quantity of glycerinated calf lymph now available from other sources, and they have no reason for regarding such lymph as other than satisfactory.

Copies of this circular are enclosed, and I am to request that one may be given to each of the public vaccinators. Further copies will be supplied for this purpose if desired.

I am, Sir, your obedient servant,

S. B. PROVIS, Secretary.

Confusion with Chicken-Pox.—Results of Revaccination.

The Local Government Board have issued the following notice, dated January 18th, 1902, for the information of the public:

There is reason to believe that the spread of small-pox in London is very materially aided through the instrumentality of persons who, though not recognised as attacked by the disease, are nevertheless suffering from a modified form of it, and are conveying its infection to others.

The Local Government Board are advised that it is important that where persons, especially adults, develop what is supposed to be chicken-pox, no time should be lost before authoritative medical opinion is obtained as to the nature of the malady, and that as respects anyone brought into relation with a case which is regarded as one of chicken-pox steps should at once be taken to obtain or renew that protection against small-pox which is afforded by vaccination.

It is believed that many persons who have been recently revaccinated fail to submit themselves to medical inspection, as they should do, a few days after the operation, but assume from the appearance of the arm either that the operation has been successful, or that they are insusceptible to small-pox. These assumptions, however, are not always correct, and it is highly important that all who are revaccinated, especially during the prevalence of small-pox, should be inspected by a qualified medical man.

PREVALENCE.

London.—The number of cases of small-pox under treatment in the hospitals of the Metropolitan Asylums Board which had been 754 on Saturday, January 4th, rose to 876 on Saturday, January 11th, but on Saturday, January 18th, the number was practically the same, 877. In the interval, however, the number had risen to 917, the highest yet reported.

Essex.—Dr. J. C. Thresh, M.O.H. for the County, reports the notification of 113 cases in Essex between January 1st and January 18th. The greater number have occurred in the southern part of the county, especially in the Romford, Orsett, Grays, and East Ham districts.

THE LONDON COUNTY COUNCIL.

"Contacts" and "Suspects."

At the reassembling of the London County Council last Tuesday, a report was presented by Dr. G. J. Cooper, Chairman of the Public Health Committee, dealing with the action taken by the County Council in connexion with the prevalence of small-pox in London. The Council, having taken over the control of common lodging-houses from the police, have taken steps to detect and isolate cases of small-pox occurring among the inmates. Of 2,000 cases of small-pox in London since last August, 200 actually occurred among inmates of common lodging-houses,

chiefly in the Holborn and Westminster districts. In some cases the Council secured control of the infected lodging-houses, and kept the inmates in virtual quarantine. In some cases "contacts" and "suspects" have been provided with free quarters and food during the period of observation. Night inspections have been made, and in this way unrecognized cases of the disease have been discovered.

With a view to assisting the London sanitary authorities in limiting the spread of small-pox, the medical officer has made an arrangement with each of the borough medical officers under which the latter supply him daily with all particulars which they have been able to ascertain with regard to each case of small-pox occurring in their respective districts. This information is immediately manifolded, and copies are sent to all the medical officers of health in the county, so that each medical officer is at once put in possession of all available information as to cases occurring in other boroughs but affecting his district. The particulars state, *inter alia*, the place of occupation of the person attacked by the disease and the names and addresses of the persons who have come in contact with the case so far as they have been ascertained. As a person may be living in one borough and working in another, and as the people who have been in contact with him may be distributed in various boroughs, the utility and importance of the arrangement is obvious, and though the expense of manifolding the information is considerable, having amounted up to the present time to about £50, when the cases number 40 a day, it is necessary to produce and circulate 10,000 pages of typewritten matter per week.

Dr. Cooper, in presenting this report took exception to criticisms which had recently appeared in a contemporary condemning the apathetic attitude of the County Council in regard to measures for the restriction of small-pox, and while regretting the difficulty under which the metropolis labours in view of division of duties in respect of small-pox prevention among 29 Borough Councils, 30 Boards of Guardians, the Asylum Board, and the County Council, the Chairman of the Public Health Committee asserted that each of these bodies was doing its utmost to limit and stamp out the disease.

CITY OF LONDON.

Unprotected Children.

Dr. Collingridge's report for the four weeks ending December 14th, 1901, which has just been issued, states that one case of small-pox occurred on December 9th just within the confines of the City, on the borders of Holborn. He gives also the results of the inspection of the various schools; in the Ward schools 325 children were found insufficiently protected by vaccination, and the governing body was in each case supplied with the names and urged to induce the parents or guardians to have the children vaccinated or revaccinated, the result was most satisfactory. The returns of the vaccination officer showed that since the inspection 354 persons had been protected, the difference being accounted for by the inclusion in the latter figures of a few members of the staff and of a few children absent at the inspection. In the public elementary schools the results were much less satisfactory. The medical officer states that the action of the London School Board, in giving sanction for the inspection of children only after the consent of the parents had been obtained seemed to have acted as a suggestion that sanction should be refused; further some parents signed the objection without being aware of its purport, and this was especially the case with foreign parents, a large proportion of whom were unable to understand the document. The results of the inspection of the Board Schools were as follows: 1,941 children were present, 1,341 were inspected of whom 94 were found to be unprotected, but in the case of 600 children or nearly one-third, the parents were represented as objecting to inspection; of the 94 children found unprotected only 55 were subsequently protected by vaccination or revaccination.

A VACCINATION CREED.

The following vaccination creed is printed as a circular by the principal health officials in Chicago, and is hung up in lodging houses, waiting rooms, factories, etc., in the form of a placard. The placard and circular are reported to have been very helpful, both by inducing people to be vaccinated, and by evoking discussion of the *ex cathedra* statements of the creed. There is also published a supplement calling attention to the importance of the details in the second article, but we reprint the creed only.

A VACCINATION CREED.

We, the undernamed, hereby publicly profess our firm belief—based upon positive knowledge, gained through years of personal experience and study of small-pox and vaccination—

FIRST. That true Vaccination—repeated until it no longer "takes"—ALWAYS prevents small-pox. NOTHING ELSE DOES.

SECOND. That true Vaccination—that is, vaccination properly done on a CLEAN arm with PURE lymph and kept perfectly CLEAN and UNBROKEN afterwards—never did and NEVER WILL make a serious sore.

THIRD. That such a Vaccination leaves a characteristic scar, unlike that from any other cause, which is recognizable during life and is the ONLY conclusive evidence of a Successful Vaccination.

FOURTH. That no untoward results ever follow such Vaccination; on the other hand, thousands of lives are annually sacrificed through its neglect—a neglect begotten of WANT OF KNOWLEDGE.

ARTHUR R. REYNOLDS, M.D.,
Commissioner of Health,
CITY OF CHICAGO.

HEMAN SPALDING, M.D.,
Chief Medical Inspector,
DEPARTMENT OF HEALTH.
December, 1901.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

AT a meeting of the Council held in the Council Room of the Association, 429 Strand, W.C., on Wednesday, January 15th, 1902.

Present:

Dr. JOHN ROBERTS THOMSON, President of the Council, in the Chair.
Dr. GEORGE BAGOT FERGUSON, President.
Mr. WALTER WHITEHEAD, President-elect.
Mr. ANDREW CLARK, Treasurer.

Dr. EDGAR G. BARNES, Eye.
Dr. JAMES BARR, Liverpool.
Dr. J. BRASSEY BRIERLEY, Old Trafford.
Mr. LANGLEY BROWNE, West Bromwich.
Dr. R. C. BUIST, Dundee.
Mr. COLIN CAMPBELL, Saddleworth.
Dr. EDWARD J. CAVE, Bath.
Mr. JOHN WARD COUSINS, Portsmouth.
Dr. H. RADCLIFFE CROCKER, London.
Dr. GEORGE W. CROWE, Worcester.
Dr. P. MAURY DEAS, Exeter.
Dr. T. M. DOLAN, Halifax.
Dr. WILLIAM DYSON, Sheffield.
Mr. GEORGE EASTES, M.B., London.
Dr. WILLIAM ALFRED ELLISTON, Ipswich.
Professor DAVID W. FINLAY, Aberdeen.
Dr. EDWARD LAWRENCE FOX, Plymouth.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. ALFRED GODSON, Cheadle.
Dr. BRUCE GOFF, Bothwell.
Dr. MAJOR GREENWOOD, London.
Dr. JOSEPH GROVES, Carlsbrooke.
Surg.-Gen. J. B. HAMILTON, M.D., London.
Dr HENRY HANDFORD, Nottingham.
Dr. W. MORTON HARMAN, Winchester.
Mr. W. F. HASLAM, Birmingham.
Dr. T ARTHUR HELME, Manchester.
Dr. HOLMAN, London.
Mr. VICTOR HORSLEY, F.R.S., London.
Mr. T. R. JESSOP, Leeds.
Mr. EVAN JONES, Aberdare.
Mr. R. H. KINSEY, Bedford.
Dr. C. H. MILBURN, Hull.
Sir JOHN WILLIAM MOORE, M.D., Dublin.
Dr. C. G. DRUMMOND MORIER, London.
Mr. W. JONES MORRIS, Portmadoc.
Dr. JAMES MURPHY, Sunderland.
Dr. JAMES MURRAY, Inverness.
Surgeon-General T. F. O'DWYER, Ramsgate.
Mr. C. H. W. PARKINSON, Wimborne.
Dr. ROBERT W. PHILIP, Edinburgh.
Dr. H. H. PHILLIPS-CONN, Reading.
Dr. FRANK M. POPE, Leicester.
Dr. A. BROWN RITCHIE, Hulme.
Mr. H. BETHAM ROBINSON, M.S., London.
Dr. ROBERT SAUNDBY, LL.D, Birmingham.
Dr. ALFRED SHEEN, Cardiff.
Dr. G. E. SHUTTLEWORTH, Richmond.
Dr. E. MARKHAM SKERRITT, Clifton, Bristol.
Dr. R. SOMERVILLE, Galashiels.
Mr. W. D. SPANTON, Hanley.
Mr. HENRY STEAR, Saffron Walden.
Mr. C. S. TOMES, F.R.S., London.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.
Mr. E. B. WHITCOMBE, Birmingham.
Dr. W. L. WINTERBOTHAM, Bridgwater.
Mr. R. W. O. WITHERS, Shrewsbury.
Dr. S. WOODCOCK, Old Trafford.

The minutes of the last meeting having been printed and circulated, and no objections received, were taken as read and signed as correct.

Read letters of apology for non-attendance from Sir George Hare Philipson, Dr. Henry Barnes, Dr. R. W. Batten, Dr. T. Beattie, Dr. M. Beverley, Professor J. W. Byers, Mr. T. H. Cheatle, Dr. O. W. Daniels, Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Dr. W. A. Mackintosh, Dr. T. B. Moriarty, Dr. C. Parsons, Dr. R. Stirling, and Mr. D. Walshe.

The following representatives attended the Council for the first time, namely:—Mr. R. W. O. Withers, representing the Shropshire and Mid-Wales Branch (in the place of the late Mr. J. D. Harries), and Mr. W. D. Spanton, representing the Staffordshire Branch (in the place of the late Mr. Vincent Jackson), and were introduced to the Council.

Resolved: That the Council desires to express its sense of the great loss which it has suffered by the death of Mr. John D. Harries, of Shrewsbury. Mr. Harries had been a member of the British Medical Association for more than forty years, and during the greater part of that time had taken an active part in its public work. His Branch showed its high appreciation of his services by electing him President, and he represented it on the Central Council of the Association from 1888 to the time of his death. He was also for some years a member of the Parliamentary Bills Committee. In all these capacities he faithfully but unobtrusively did his duty both to his Branch and to the Association. He was a regular attendant at the meetings of the Council, and was held in the highest esteem by his colleagues. The Council desires further to express its sympathy with the surviving members of Mr. Harries's family in their irreparable bereavement.

Resolved: That the Council of the British Medical Association desires to express its deep regret at learning of the death of the late Mr. J. R. Upton, and their sympathy with Mrs. Upton and family on their great loss. Mr. Upton was identified with the work of the Association for twenty-seven years. It was only on January 17th, 1900, that the Council passed a resolution of regret upon his retirement from his duties as Solicitor to the Association and their cordial appreciation of his work.

The President of Council reported that the Treasurer, Mr. Andrew Clark, attended the funeral of Sir Wm. MacCormac as a representative of the Council of the Association.

Read acknowledgement from Sir Dighton Probyn for the Address to the King passed at the annual general meeting held at Cheltenham.

The consideration of communications from the Committee and Medical Staff of the Manchester Maternity Hospital was postponed to a future meeting.

Resolved: That an Address in Obstetrics be given at the Annual Meeting on Thursday, July 31st, at 12.30 P.M., and that Sectional meetings shall adjourn at that hour on that day.

Resolved: That Dr. W. J. Sinclair, Professor of Obstetrics in the Owens College, be invited to give the Address in Obstetrics.

The minutes of the Journal and Finance Committee were then considered.

Resolved: That the minutes of the Journal and Finance Committee be received.

Resolved: That the minutes of the Subcommittee on the "make-up" of the JOURNAL of December 9th, 1901, be received and adopted.

Resolved: That the accounts for the quarter ending December 31st last, amounting to £9,156 11s. 8d., be received and approved, and it be recommended that the Treasurer be empowered to pay those remaining unpaid, amounting to £2,661 5s. 2d.

Resolved: That the report of the Auditors for the quarter ending December 31st last be received.

Resolved: That the surplus, when the balance is struck, be used for the reduction of the mortgage.

The minutes of the General Practitioners and Ethical Committee were then considered.

Resolved: That the minutes of the General Practitioners and Ethical Committee be received, and approved as amended.

The minutes of the Premises and Library Committee were then considered.

Resolved: That the minutes of the Premises and Library Committee be received.

Resolved: That Messrs. Dent and Hellyer's estimate of £30 10s for releading the stairs of 2, Agar Street be accepted.

Resolved: That a sum of five guineas be given to the committee of property-holders for the purpose of opposing the proposed Tube railways, and that the General Secretary or Assistant Secretary represent the Association on the special subcommittee appointed by the committee of property-holders and report proceedings as occasion may arise.

Resolved: That the Library accounts for the quarter, amounting to £22 0s. 7d., be received, and the Treasurer be empowered to pay them.

The minutes of the Parliamentary Bills Committee of October 23rd, 1901, and January 14th, 1902, were then considered.

Resolved: That the minutes of the Parliamentary Bills Committee of October 23rd, 1901, and January 14th, 1902, be received and that the recommendations contained therein be approved.

The minutes of the Public Health and Vaccination Subcommittee were then considered.

Resolved: That the minutes of the Public Health and Vaccination Subcommittee be received.

Resolved: That copies of the report of the Subcommittee on the Army Medical Service be sent to the Secretary of State for War, the Commander-in-Chief, and the Director-General A.M.S., by the President of Council.

The minutes of the Preliminary General Education Committee were then considered.

Resolved: That the minutes of the Preliminary Education Committee be received.

Resolved: That it be an instruction to the Preliminary Education Committee to consider the advisability of including Greek, either as a compulsory or voluntary subject, in the Examination in Preliminary General Education required by the General Medical Council.

The minutes of the Crown Colonies and Protectorates Medical Service Committee of November 25th, 1901, were then considered.

Resolved: That the minutes of the Crown Colonies Protectorate Medical Service Committee be received, and the recommendations adopted.

Resolved: That 106 of the 107 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

An interim report forwarded by Dr. Dudley Buxton, Hon. Secretary to the Special Chloroform Committee appointed by minute of Council 5173, was then considered.

Moved by Mr. Victor Horsley, seconded by Mr. Eastes, and

Resolved: (1) That a Special Chloroform Committee be appointed to investigate methods of quantitatively determining the presence of chloroform in the air and the living body.

(2) The Special Chloroform Committee have power to co-opt two members, and to enter on an expenditure of £100.

(3) The Committee should be constituted as follows: Dr. Waller, Dr. Buxton, Dr. Barr, Dr. Sherrington, and Mr. Victor Horsley.

82, Mortimer Street, Cavendish Square, W.
December 21st, 1901.

Dear Sir,—I understand that you desire a brief statement of the work done by the Special Chloroform Committee appointed in July last for presentation to the Council.

I am desired by my Committee to furnish the enclosed, which gives a *résumé* of the Committee's work.

I am, dear Sir,
Your obedient servant,
DUDLEY W. BUXTON,
Hon. Secretary.

FRANCIS FOWKE, Esq.,
General Secretary, British Medical Association.

It will be remembered that at the meeting of the Council of the British Medical Association on July 10th a Special Chloroform Committee was appointed to investigate methods of quantitatively determining the presence of chloroform in the air and in the living body. The first meeting of this Committee was held in July, when Dr. Dudley Buxton, Mr. Victor Horsley, F.R.S., and Dr. A. D. Waller, F.R.S., were present. Dr. Waller was appointed Chairman, and Dr. Dudley Buxton, Secretary, and the Committee exercised its power of co-option by electing Professor Vernon Harcourt, F.R.S., of Oxford. At the second meeting of the Committee a scheme of work drawn up by the Chairman was discussed and finally adopted. It was decided to investigate the methods at present known whereby the amount of chloroform in the atmosphere in blood and tissues can be estimated, and at a meeting at Oxford, on November 23rd, Professor Vernon Harcourt's method was thus examined, and Professor Harcourt gave a demonstration. It was also decided that in order to obtain a continuous series of experiments it would be advisable to engage the assistance of a gentleman of experience in laboratory work, whose whole time should be devoted to the research under the direction of the Committee. The assistant selected was Mr. Wells, of St. Mary's Hospital, who since October 1st has been at work investigating and perfecting methods and apparatus. A monthly report of his work is furnished to the Committee, and he has been requested to proceed to Paris for a sufficient time to investigate the methods employed there. Those adopted by Professors Gréhant and Chauveau are among those accepted as best, and it was felt that they could be mastered most thoroughly by actual observation.

Resolved: That the same be received and entered on the minutes.

Resolved: That the Treasurer be empowered to pay the £100 voted by minute of Council 5173 to the Special Chloroform Committee.

The President of Council reported that the resolution passed in the Section of Ophthalmology (referred by the last meeting of the Council to the Parliamentary Bills Committee), had been referred back by the Parliamentary Bills Committee to the Council, namely:

Resolved: That the resolution passed in the Section of Ophthalmology be referred back to the Council, it not being competent for this Committee to appoint Special Committees consisting of members not on the Parliamentary Bills Committee.

SECTION OF OPHTHALMOLOGY.

Workmen's Compensation Act and Injury to Eyesight.—That it is of opinion that the just and friendly settlement of claims for injury to the eyes under the Workmen's Compensation Act, 1897, would be greatly facilitated by a knowledge of the condition of the eyesight of the injured person before the accident, and recommends that employers should adopt some simple plan whereby a record of the sight of each eye should be registered in the case of each workman in the wage-books, and that the matter be referred to a Committee to consider and report to the Council of the Association, the Committee to consist of Mr. T. H. [illegible] Mr. Simeon Snell (Sheffield), Dr. J. Tatham Thompson (Cardiff), Mr. Sydney Stephenson (London), and Mr. Hugh E. Jones, 10, Rodney Street, Liverpool, be appointed Secretary to the Committee.

Resolved: That the resolution from the Ophthalmological Section do lie on the table.

Read reply to the resolution of sympathy passed by the Council upon the death of the late Dr. J. W. Miller:

32, Springfield, Dundee,
November 1st, 1901.

[illegible] of my mother, I desire to thank the Council of the [illegible] Medical Association for their kind sympathy and for their [illegible] regret at the death of my father.

I have the honour to be, Sir,
Yours faithfully,
G. W. MILLER.

Resolved: That the same be received and entered on the minutes.

Read reply to the resolution of sympathy passed by the Council upon the death of the late Dr. E. H. Dickinson:

2, Grove Park, Liverpool,
November 2nd, 1901.

Dear Sir,—Will you convey to the Council of the British Medical Asso[illegible] I am [illegible] can value the expression of regard and [illegible] ed to me through you? [illegible] and the Council for the sympathy expressed for us in our great sorrow.

Believe me, yours truly,
J. Roberts Thomson, Esq. E. DICKINSON.

Resolved: That the same be received and entered on the minutes.

Read reply to the resolution of sympathy passed by the Council upon the death of the late Mr. T. Vincent Jackson:

Wolverhampton,
November 6th, 1901.

Dear Sir,—I beg to acknowledge receipt of your letter of the 30th ult., with copy of resolution [illegible] me of the esteem in which my husband was held [illegible] g that I appreciate most highly the [illegible] the British Medical [illegible] and I beg [illegible] resolution, [illegible] such expression of sympathy with myself.

Faithfully yours,
WINIFRED VINCENT JACKSON.

Resolved: That the same be received and entered on the minutes.

Read resolution passed in the Dermatological Section at the Annual meeting held in Cheltenham.

28, Wimpole Street, W.,
November 6th, 1901.

To the [illegible] ll of the [illegible]

[illegible] gical Section should meet not less frequently than [illegible]

I am, yours fai[illegible]
[illegible] BOWLES,
Hon. Sec., Section of Dermatology.

Resolved: That the same be received and entered on the minutes.

Read communication from from the British Guiana Branch, [illegible] matter by the Association regarding one of its By-laws as [illegible] g departmental matters being discussed at its meetings.

Resolved: That the British Guiana Branch be informed that its By-laws have never been forwarded to the Council of the Association for official confirmation, but that if the British Guiana Branch will furnish an official copy to the Council it will consider them.

Read communication from the Colonial Office, transmitting copy of a dispatch from His Majesty's Ambassador at Washington, forwarding a letter from the President of the Howard University regarding the qualification for admission to practise.

The Under Secretary of State.
Colonial Office, London, S.W.
[44454 1901]

Downing Street,
January 2nd, 1902.

Sir,—I am directed by Mr. Secretary Chamberlain to transmit to you, to be laid before the British Medical Association, the accompanying copy of a letter from the Foreign Office, respecting a representation made by the President of the Howard University, Washington, that the regulations at present in force in certain West Indian colonies, by which persons desiring to practise medicine in those islands are required to hold a degree conferred by some medical school in the United Kingdom, entail hardship on the coloured West Indian students at that University.

Mr. Chamberlain would be glad to be favoured with an expression of your Association's opinion on this subject

I am, Sir,
Your obedient servant,
C. P. LUCAS.

The General Secretary,
British Medical Association.

Resolved: That the communications forwarded by the Colonial Office be referred to the Crown Colonies and Protectorates Medical Service Committee.

Read communication from Dr. F. M. Rowland, regarding fees for examination of candidates for life insurance.

Resolved: That the communication from Dr. Rowland be referred to the Parliamentary Bills Committee.

The President of Council reported that a letter had been received from the General Secretary of the XIV Congrès International de Médecine, asking the Association to send a delegate to represent it at the Congress to be held in Madrid on April 23rd to 30th, 1903.

Resolved: That the President of the Association (Dr. Ferguson) be appointed delegate to represent the Association at the forthcoming International Congress of Medicine.

PARLIAMENTARY BILLS COMMITTEE.

A MEETING of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on Tuesday, January 14th, 1902.

Present:

Dr. J. ROBERTS THOMSON, President of Council, in the Chair.
Dr. S. WOODCOCK, Chairman.
Dr. G. B. FERGUSON, President.
Mr. WALTER WHITEHEAD, President-elect.
Mr. ANDREW CLARK, Treasurer.

Dr. T. R. BAILEY, Bilston.
Dr. JAMES BARR, Liverpool.
Dr. T. R. BRADSHAW, Liverpool.
Mr. GEORGE BROWN, London.
Dr. R. C. BUIST, Dundee.
Mr. COLIN CAMPBELL, Saddleworth.
Mr. JAMES CANTLIE, London.
Dr. W. A. CARLINE, Lincoln.
Mr. J. WARD COUSINS, Southsea.
Dr. ALFRED COX, Gateshead-on-Tyne.
Dr. P. M. DEAS, Exeter.
Dr. H. E. DENT, Malvern.
Mr. GEORGE EASTES, London.
Dr. BRUCE GOFF, Bothwell.
Dr. MAJOR GREENWOOD, London.
Dr. J. GROVES, Carlsbrooke.
Surgeon-General J. B. HAMILTON, London.
Dr. HOLMAN, London.
Mr. VICTOR HORSLEY, F.R.S., London.
Mr. EVAN JONES, Aberdare.
Dr. C. H. MILBURN, Hull.
Sir JOHN WM. MOORE, M.D., Dublin.
Mr. W. JONES MORRIS, Portmadoc.
Dr. J. MURPHY, Sunderland.
Dr. J. MURRAY, Inverness.
Dr. W. NEWMAN, Stamford.
Dr. D. A. O'SULLIVAN, London.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. F. M. POPE, Leicester.
Mr. C. R. STRATON, Wilton.
Dr. NORMAN WALKER, Edinburgh.
Dr. MARTINDALE WARD, Twickenham.
Dr. DAWSON WILLIAMS, London.
Mr. R. W. O. WITHERS, Shrewsbury.

The minutes of the last meeting having been printed and circulated and no objection received were taken as read and signed as correct.

On the motion of Dr. HOLMAN, the President of Council was requested to take the chair until the arrival of the Chairman, Dr. Woodcock.

Letters of apology for non-attendance were read from Dr. R. W. Batten, Dr. Bowles, Dr. R. W. Brogden, Dr. W. Douglas, Brigade-Surgeon-Lieutenant-Colonel Drake-Brockman, Dr. A. J. Harrison, Dr. Mackintosh, Dr. T. B. Moriarty, Dr. T. F. O'Dwyer, Dr. Saundby, Dr. G. E. Shuttleworth, and Dr. Stirling.

THE ARMY MEDICAL SERVICE.

Surgeon-General HAMILTON presented the report of the Subcommittee on the Reorganization of the Army Medical Service. He said that the report had been drafted with great care, and owing to the representative nature of the Subcommittee it was likely to be pretty accurate. There was reason to believe that some of the recommendations contained in the report would be adopted in the new warrant.

Dr. NORMAN WALKER moved the following resolution, which was seconded by Dr. BUIST, and carried:

That the Committee is of opinion that Scotland, which supplies many officers to the Service, is entitled to have a direct representative on the Advisory Board.

On the motion of Surgeon-General HAMILTON the report, with the proposed addition, was approved and directed to be sent to the Council.

THE PUBLIC HEALTH AND VACCINATION ACTS SUBCOMMITTEE.

Dr. GROVES, in moving the adoption of the report of the Public Health and Vaccination Subcommittee, said that the Subcommittee considered that the public vaccinator should be an officer rather than a person with whom Boards of Guardians made a contract. They also considered it desirable that the opinion of public vaccinators should be obtained as to the working of the Vaccination Act; after the receipt of such information the Subcommittee would be in a position to suggest what action the Association should take. The Subcommittee also recommended that the summary of the Medical Acts of the various Colonies and dependencies of the British Empire, which had been prepared from materials kindly supplied by the Secretary of State for the Colonies, should be sent to the Secretaries of the Branches of the Association in the various Colonies and dependencies, asking them for suggestions as to the reforms which they considered necessary.

In reply to a question from Dr. DIXEY as to whether the Subcommittee proposed to take any steps towards the introduction of a Bill into Parliament dealing with revaccination, Dr. GROVES said that that was one of the matters upon which the Subcommittee desired to have information from the public vaccinators of the country.

The report was adopted.

A pamphlet entitled The Lesson of a Hundred Years of Vaccination in Europe, 1796-1896, was submitted, and it was resolved:

That the pamphlet be printed and offered for sale at the cost of production, and that specimen copies be sent to public authorities.

MEDICAL AID COMPANIES AND PROPOSED LEGISLATION.

Dr. DAWSON WILLIAMS said that the letters on the supplementary agenda from the Medical Aid Company[1] had recently come into his hands. He thought that, as the company stated that it was their intention to apply to Parliament for fresh legislation, the Committee should be aware of the matter. He would suggest that the letters be referred to the Medical Acts Amendment Bill and Midwifery Nurses Bill Subcommittee.

The motion was seconded by Mr. VICTOR HORSLEY, and carried.

THE REGISTRATION OF MIDWIVES.

The question whether, in the event of a new Bill for the registration of midwives being presented to Parliament in the session 1902, and obtaining a favourable place in the ballot, steps should be taken to have the Bill of the British Medical Association introduced, was then fully discussed.

It was moved by Dr. COX, seconded by Mr. GEORGE BROWN:

That it be a recommendation from this Committee to the Council that the Medical Acts Amendment Bill Subcommittee shall be asked to reconsider their Midwifery Nurses Bill, and also to act as a Watching Committee on matters pertaining to their instructions, with power to call a special meeting of the Parliamentary Bills Committee if deemed necessary.

Whereupon the following amendment was moved by Dr. MILBURN and seconded by Mr. VICTOR HORSLEY:

That the Parliamentary Bills Committee recommends the Council to take such action as regards the introduction into Parliament of the Association's Midwives Bill as it may be advised by the Midwives Bill Subcommittee if an emergency arises.

[1] BRITISH MEDICAL JOURNAL, January 18th, 1902, page 165.

The amendment having been put from the Chair was carried by 17 for to 5 against, and on being put as a substantive motion was declared carried.

THE PUBLIC HEALTH BILL.

It was proposed by Dr. GROVES, seconded by Dr. H. E. DIXEY, and resolved:

That the Council be advised to assent to the reintroduction, in the coming session of Parliament, of the Public Health Bill.

REORGANIZATION OF THE ARMY MEDICAL SERVICE.

THE following is the report of the Subcommittee of the Parliamentary Bills Committee on the scheme of Mr. Brodrick's Committee for the reorganisation of the Army Medical Service. It was adopted by the Committee on January 14th, and approved by the Council of the Association on the following day.

1. The Subcommittee appointed by the Council of the British Medical Association to consider the proposals of the Committee nominated by the War Office to report on the reorganization of the Army Medical Service have considered, primarily, the broad question, whether the new scheme is calculated to improve the service, either as regards numbers or the efficiency of officers, as follows:

I.—Bearing of the Recommendations on the Supply of Candidates.

2.—They regret to report that, while in their opinion some of the recommendations may increase the supply of candidates, there are others, condemned by independent critics, which will deter a good class of candidates from coming forward for commissions.

Among the acceptable recommendations are those bearing on increase of pay proper, on charge pay, special pay, leave for study, and promotion to the higher ranks through some other means than mere seniority.

The proposals to which exception is taken are chiefly in connexion with what appears to be an unreasonable and unnecessary sequence of examinations, which shall not only determine advancement, but continuance in the service; and that failure to pass one of them, after eighteen years' service, may not only lead to loss of that service, but to forfeiture of pension.

3. They feel assured that young medical men who have just completed a long, expensive, and severe curriculum of study and examination will not face a lifetime of further examinations.

4. It is the proposed examinations and risks to pension which have called forth strong protests from some of the leaders of the medical profession, as well as the unanimous condemnation by present and past army medical officers whose opinions cannot be disregarded, and whose verdict is certain to strongly influence intending candidates for the Royal Army Medical Corps.

It must also be noted that no such examinations are considered necessary for officers of the Naval and Indian Medical Services.

II.—The Advisory Board.

5. The Subcommittee note that the formation of a mixed military and civil Advisory Board to control an important branch of the service is an innovation in the army, the effect of which on discipline and efficiency it is difficult to foresee.

6. They do not think the relation of the Board either to the Secretary of State for War or to the Director-General Army Medical Service is satisfactory. Its direct access to the Secretary of State on matters on which the members and the Director-General may disagree, cannot be conducive to the due authority and responsibility of the latter. They consider that all recommendations of the Board should reach the Secretary of State through the Director-General, who could attach his comments thereto.

7. Though appreciating the advantages of inspection, they do not think that it is consistent with the tradition of effectiveness which, in the opinion of the Subcommittee, has hitherto obtained in military hospitals, that visits "without notice" to military hospitals by members of the Board should be made, and believe that they would tend to lower the

status and authority of principal medical officers of army corps, or of districts, and of medical officers in charge of the hospitals: such visits would undermine confidence in officers and soldiers in the professional competency of their own medical officers, under whose medical care, nevertheless, they must remain whether at home or abroad, in quarters or in the field.

8. More especially do they deem that the proposal to report on treatment by members of the Board requires reconsideration: any interference with the treatment of patients in hospital they think ill-advised; it would be considered "unprofessional" in civil life, and would deter well-qualified medical men from accepting service under such humiliating conditions.

9. Such visits also seem incompatible with the decentralized authority to be conferred on an Army Corps in all its branches, and to conflict with the authority and responsibility, both of the General Officer in command of the Army Corps and of his Principal Medical Officer, who would necessarily be of high rank.

10. That the Committee are of opinion that Scotland, which supplies many officers to the service, is entitled to have a direct representative on the Advisory Board.

III.—Medical Services Auxiliary Forces.

11. The Subcommittee strongly urge that "the due provision for medical aid for the Auxiliary Forces, Militia, Yeomanry, and Volunteers" (Para. 20) should be speedily formulated and published for the criticism of those interested, before being put into operation.

IV. Examinations.

12. The Subcommittee see no need whatever for an examination before promotion to the rank of captain.

13. The option of retirement after three years' service would tend to dislocate administration, and would probably not be popular, because registration would involve seven years in the reserve, with a merely nominal retaining fee, and thereby heavily handicap any one engaging in or forming partnerships in civil practice.

14. The limited semi-attachment of lieutenants to military units (Para. 28) is chiefly a question of establishment and expense, as has been pointed out by successive Director-Generals ever since the unification of the department in 1873. It would prove an impossibility with the present establishment of officers, especially as the retention of lieutenants at home for four years would seriously dislocate the foreign service roster.

15. The Subcommittee consider that the only examination after admission should be for promotion to the rank of major, which should be made a test examination, embracing all that would qualify for subsequent promotion to the highest rank. Officers who fail after two chances might be retired on gratuity, but with no subsequent liability of recall to service.

16. During the six or eight years in the rank of major [illegible] opportunities would certainly be afforded of forming a [illegible] as to whether the officer should receive further promotion and should this be denied he should be so informed at [illegible] seven years service, and compulsorily retired after twenty years service on £1 a day. The knowledge that such selection would be exercised would be the best incentive to good work in the rank of major.

17. They consider that the proposed examination for lieutenant-colonel, together with the penalties attached to failure, should be wholly set aside; the similar examination, for the [illegible] rank of brigade surgeon, proved so vexatious, that [illegible] Commission, after due evidence, recommended it should be "dispensed with."

[illegible] accelerated promotion would probably be sufficiently [illegible] by rewards for distinguished conduct in the field or for special [illegible] in professional work, but without the ordeal of an examination.

V.—Pay and Pensions.

19. The Subcommittee consider no scale of pay which does not embrace India can possibly be accepted, because no less than between three and four hundred Army Medical Officers are constantly serving in that country. The Indian Government not having recognised the financial portions of successive medical Royal Warrants, no Warrant in future can be complete without the financial concurrence of that Government.

20. Pensions must be inviolate; otherwise all confidence will be destroyed and the service wrecked.

VI.—Leave for Study.

21. The Subcommittee suggest it is desirable that leave for study should be granted before each step of executive rank after that of captain.

VII.—Concluding Remarks.

22. Among other points in the Reorganisation Report which in the opinion of the Subcommittee requires careful reconsideration is the proposal to treat trivial cases in barracks (Para. 60-61). It has often been tried in the past history of the army, and has invariably been found subversive of discipline. It is not likely to be accepted by commanding officers.

23. Disappointment must be expressed that reference has not been made in the Report to one of the most serious evils of the service, namely, undermanning, which is largely responsible for its unpopularity. The intended increase in the establishment of the officers of the Royal Army Medical Corps should be publicly notified with as little delay as possible.

429, Strand, W.C.
December 12th, 1901.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual meeting of this Branch will be held on Thursday, January 30th, at 4.30 P.M., in the Royal College of Physicians of Ireland, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and other business transacted. The President-elect, Mr. C. B. Ball, F.R.C.S.I., will deliver the annual address. In the evening the annual dinner will be held in the College at 7.30 P.M. Members wishing to bring forward resolutions at the meeting or to be present at the dinner should communicate with the Honorary Secretary, JAMES CRAIG, M.D., F.R.C.P.I., 35, York Street, Dublin.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of the District will be held in the Court Room, at Guy's Hospital, on Thursday, January 30th, at 4.15 P.M. Dr. Bellingham Smith will read a paper on the Pain of the Menstrual Period. Cases of clinical interest from the wards of the hospital will be shown by some members of the staff.—MAURICE CRAIG, Bethlem Royal Hospital, S.E., Honorary District Secretary.

EDINBURGH (LOTHIANS AND FIFE) BRANCH.—The winter meeting of this Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, February 21st. The Museum will be open from 1 P.M. onwards. Clinical meeting in the large theatre at 1.30 P.M. Dinner in the Royal British Hotel at 6.30 P.M.; morning dress;

dinner ticket 5s. Members of the Branch desirous of exhibiting patients, pathological specimens, etc., and members of other Branches who propose to attend the meeting are requested to communicate with JAMES HODSDON, F.R.C.S.Edin., 6, Chester Street, Edinburgh, or NORMAN WALKER, M.D., 7, Manor Place, Edinburgh, not later than February 8th.

BATH AND BRISTOL BRANCH.—The third ordinary meeting of the session will be held at the Medical Library, University College, Bristol, on Wednesday, January 29th, at 7.30 P.M., Dr. G. C. Tayler, President. The following communications are expected: Dr. G. Parker: A Rare Complication of Leukaemia. Patient to be shown. Mr. H. Elwin Harris: Notes on a Case of Syphilis, probably Hereditary, in a patient aged 23, involving Septum Nasi, Epiglottis, and Left Knee-joint. Patient to be shown. Dr. A. Baillie McKee: Contract Practice: the Evil and its Remedy. Mr. F. H. Edgeworth: The Use of Morphine in Uraemia. Dr. T. Fisher: A Case of Ascites due to Thrombosis of Hepatic Vein. Mr. T. Carwardine: (1) Large Gall Stone from Cholecyst; (2) Secondary Sarcoma of Liver Three Years after Excision of Rectum; (3) Cancer of Ileo-caecal Valve, causing Intestinal Obstruction. Mr. J. Paul Bush, C.M.G.: Case of Hepatopexy (Monson's Operation), with subsequent history.—J. MICHELL CLARKE, Clifton; W. M. BEAUMONT, Bath, Honorary Secretaries.

SOUTH-WESTERN BRANCH.

A MEETING of this Branch was held at the Athenaeum, Plymouth, on Tuesday, January 14th, the President, Dr. G. THOM, in the chair, and thirty-two members.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The Prevention of Consumption.—Dr. R. CLAY, in a brief speech, moved the following resolution, which was seconded by Dr. W. WOOLLCOMBE and carried by 16 votes to 2 against—namely:

That the South-Western Branch, British Medical Association, do ask its Divisional members to co-operate with local members of the Devon and Cornwall Association for the prevention of consumption (affiliated to the N.A.P.C.), and with mayors, medical officers of health, chairmen of district councils, sanitary authorities, Boards of Guardians, district visitors, the clergy, veterinary surgeons, and others to form local sub-committees of the Association for the Prevention of Tuberculosis.

Communications.—Dr. MAKEIG JONES read a paper on amyotrophic paralysis following joint injuries.—Dr. H. MONTGOMERIE read notes of a case of hydatid tumour of the groin.—Dr. W. WOOLLCOMBE read a paper on enterectomy for malignant disease of the bowel, and illustrated his remarks with a clinical case.—Dr. BUSHNELL read a communication on the appointment of county medical officers of health, after which he moved the following resolution, which was seconded by Dr. MAKEIG JONES and carried:

That a deputation of the South-Western Branch of the British Medical Association wait upon the County Councils of Devon and Cornwall to recommend the appointment of county sanitary staffs.

—Mr. RUSSEL RENDLE showed a child the subject of cretinism which he had treated with thyroid gland tabloids with excellent results, and in the discussion which followed Drs. WEBBER, WOOLLCOMBE, and WALKER took part.—Dr. BUSHNELL showed pathological specimens of (*a*) pyosalpinx, (*b*) tuberculous salpingitis, (*c*) innocent and malignant pigmented warts.

New Members.—At a Council meeting held on January 14th, the President, Dr. G. THOM, in the chair, the following gentlemen were elected members of the Association and South-Western Branch: H. B. Palmer, L.R.C.P., L.R.C.S., Plymouth; E. Hunt, M.R.C.S., L.R.C.P., Newton Abbot; C. L. Lauder, M.B., B.S., M.R.C.S., L.R.C.P., Stoke, and the following members of the Association were elected to the membership of South-Western Branch: H. McD. Phillpotts, M.R.C.S., L.R.C.P., Torquay; A. W. Limont, M.B.Edin., Grampound Road.

BRITISH GUIANA BRANCH.

AN extraordinary general meeting was held, "on the requisition of fifteen members," at the Public Hospital, Georgetown, on November 28th, 1901, at 2.45 P.M., Dr. F. H. EDMONDS, President, in the chair. The meeting was called to discuss the motion standing in the name of Dr. Fowler, which was down on the agenda for the last annual meeting on the 31st October: and also to consider the advisability or otherwise of revising all the by-laws. The motion down for annual meeting in the name of Dr. Fowler was to reintroduce By-law 18, which reads as follows:

There shall not at any meeting of the Branch be discussed any questions affecting the conduct of the medical service of the colony of British Guiana, or of its individual officers.

This was cancelled at the annual meeting, 1899.—Notice convening the meeting having been read by the HONORARY SECRETARY, Dr. LAW proposed, seconded by Dr. A. T. OZZARD, that the standing rules be suspended.—Dr. DUNSCOMBE-HONIBALL was of opinion that it could not be done, and moved an amendment to that effect, which was seconded by Dr. L. J. VEENDAM.—After some discussion by various members present, the PRESIDENT ruled the motion out of order, and the meeting terminated.

ANOTHER extraordinary general meeting (at the request of fifteen members) was held at the Public Hospital, Georgetown, on December 19th, at 3 P.M., Dr. F. H. EDMONDS, President, in the chair; there was a large attendance of members.—The HONORARY SECRETARY having read the agenda on the voting calling the meeting, Dr. A. T. OZZARD gave a summary of what had occurred *in re* deletion of By-law 18 at the last annual and extraordinary general meeting held on November 28th last, and was of opinion that as certain sections and alterations of the present by-laws, not having had the official sanction of the General Council, that they should be revised and submitted to the General Council as early as possible, and made the following motion, namely:

That as certain sections and alterations of our present by-laws having not received the sanction of the General Council, according to By-law 20, that a meeting be held at any early date to reconsider all our by-laws, and that they be sent to the General Council for their approval.

—This led to a lively discussion by several of the members present, and was seconded by Dr. LAW and carried.

The meeting then terminated.

BORDER COUNTIES BRANCH.

A MEETING of this Branch was held at the Infirmary, Whitehaven, on January 17th, Dr. BLAIR (Jedburgh), President, in the chair. Sixteen members and one visitor were present.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the President.

Votes of Condolence.—Votes of condolence with the relatives of the late Dr. Connel (Peebles) and the late Dr. Macdonald (Kirkoswald) were carried unanimously.

Next Meeting.—It was decided to hold the next meeting of the Branch at Lockerbie on Friday, April 4th.

New Members.—Dr. C. W. Donald (Carlisle) and Dr. Agnes B. Sinclair (Carlisle) were elected members of the Branch.

Papers.—Dr. ARNOTT (Brampton) read notes of a case of suprapubic cystotomy for vesical calculus in a man aged 46, and showed the calculus: the history of the case was interesting, and the results of the operation very successful. The case was commented on by the PRESIDENT, and Drs. ORMROD, OGILVY-RAMSAY, CRERAR, and GRAHAM.—Dr. POWERS (Gosforth) read notes on some rectal cases; Drs. GRAHAM, OGILVY-RAMSAY, ORMROD, ARNOTT, CRERAR, and the PRESIDENT discussed the cases.—Dr. CRERAR (Maryport) read notes of some uses of oxygen inhalation, and related two cases in which he had used this treatment with success. An interesting discussion followed, in which the PRESIDENT, and Dr. MATHEWS, G. B. MURIEL, OGILVY-RAMSAY, POWERS, GRAHAM, ARNOTT, and ORMROD took part.

Dinner.—After the meeting the members dined together in the Grand Hotel, Whitehaven.

BRISBANE AND QUEENSLAND BRANCH.

THE annual meeting of the above Branch was held on December 6th, 1901, a large number of members being present.

Election of Officers.—The following were elected officers for 1902: *President:* Dr. P. Bancroft. *Vice-Presidents:* Dr. Hopkins and Dr. Taylor (*ex officio*). *Council:* Drs. Marks, Robertson, John Thomson, and Wield. *Curator of Library and Museum:* Dr. Hawkes. *Treasurer:* Dr. Sutton. *Auditors:* Drs. Culpin and Espie Dods. *Secretary:* Dr. A. B. Brockway.

Retiring President's Address.—Dr. TAYLOR, the retiring President, delivered an address upon the present position of the medical profession in Queensland, and it was resolved that a special meeting be held to discuss the points raised by him.

Reports of Treasurer and Council.—The Treasurer's report

showed that the finances of the Branch were in a satisfactory condition, and the Council's report that the Branch had experienced a very useful and interesting year.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Review of Work in 1901: Lucien Le Roy on the Cure of a Case of Cancer of the Lung: Appointment of Dr. Gilbert to the Chair of Therapeutics.—The Approaching Retirement of Professor Fournier.—The League for the Defence of Human Life.

At the first meeting of the Académie de Médecine in the present year the retiring President made a lengthy speech, passing in review all the important communications which had been made during the previous twelve months, the majority of which have been summarised in the British Medical Journal. M. Riche, the newly-elected President for 1902, then took the chair. M. Lancereaux is Vice-President for the current year.

A communication was read from Dr. Lucien Le Roy on the treatment of cancer, in which he states that the disease is curable by the internal administration of arsenic and quinine given simultaneously in therapeutic doses. Dr. Lucien Le Roy believes he has cured a case of cancer of the lung in a spinster, aged 57 years. The treatment adopted was as follows: (1) For ten days the patient received a daily dose of 50 cg. (about 10 grs.) of chlorhydro-sulphate of quinine[1] given at meals: and (2) every other day a hypodermic injection of 5 cg. of sodium cacodylate; the injection was made on the outer side of the thigh. Dr Lucien Le Roy will shortly publish a detailed description of the case.

Dr. A. Gilbert has been unanimously elected to the Professorship of Therapeutics in the Faculty of Medicine, rendered vacant by the appointment of Professor Landouzy to the Chair of Clinical Medicine. The Chair of Therapeutics was created in 1823, and has had many distinguished occupants, including Alibert, Trousseau, Gubler, Germain See, and Hayem. Professor Gilbert is only 43 years of age; he obtained his doctor's degree in 1886, his thesis being on "Cancer massif du foie"; in 1888 he was appointed Médecin des Hôpitaux, and in 1889 Professeur Agrégé. Professor Gilbert has done much original work on diseases of the liver, and has described as "simple hereditary cholemia" a hitherto unobserved collection of symptoms, and has discussed the treatment; he has also studied the value of organic extracts in therapeutics, more especially of extracts of liver, pancreas, ovary, stomach, and intestine.

Professor A. Fournier has been appointed Commander in the Order of the Legion of Honour. Professor Fournier, who for so many years has held his celebrated Clinic and Chair at the St. Louis Hospital, retires from his duties this spring, having reached the age limit; his numerous friends, pupils, and admirers will present him with a bronze medallion portrait of himself.

A League for the Defence of Human Life has just been founded, thanks to the happy initiative of the daily paper *Le Matin*. In a series of articles it had described the widespread system of adulteration of milk in this city, whereby this food, so essential for infants, the sick, and the aged, has been deprived of its cream and diluted with Seine water from the public fountains. The adulterators have, it appears, a systematic organisation with their own spies and police, false seals to close the cans after adulteration, etc. The subscription to the League will be small, two or three francs, so that the general public, the small consumers, may join and take an active interest in bringing the criminals to justice. The object of the League is to take in hand the defence of its members: any member may send a sample of milk to be analysed, and, should this prove to be adulterated, the League will undertake all the legal proceedings. Although the milk supply is the question which is chiefly occupying at the present moment the attention of the promoters of the League, their energies will also be directed later against all frauds in the supply of food and drink, including water. The President of the Republic, and the Presidents of the Senate and Chamber of Deputies, have given their patronage to the movement, which is supported by many eminent physicians, in addition to very large numbers of the general public in all classes of society, whose letters fill columns daily in *Le Matin* and *Le Français*, its evening edition. The campaign will be a difficult one, as of the 700,000 litres of milk consumed daily in Paris, 500,000 litres are brought from country districts. The remaining 200,000 litres are supplied by cowkeepers within the jurisdiction of the capital, and, thanks to strict inspection, the milk from these cows is free from tuberculous infection, and is but little adulterated.

[1] [illegible] Martindale and Westcott's *Extra Pharmacopœia*.

SYDNEY.

The New Professor of Pathology.—The New President of the Intercolonial Medical Congress.—The Bubonic Plague.

The Senate of the University at its last meeting elected Dr. David Welsh, the Senior Assistant to the Professor of Pathology in the University of Edinburgh, to be the first Professor of Pathology in Sydney. This appointment has given general satisfaction, and Dr. Welsh will be warmly welcomed on his arrival in Sydney to take up the duties of his chair in March next.

The Executive Committee of the Sixth Intercolonial Medical Congress, meeting at Hobart, Tasmania, in February next, has elected the Hon. Dr. G. H. Butler, Treasurer of the Congress, to be the President, in succession to the late Dr. R. S. Bright.

As I mentioned in my last letter, a mild case of bubonic plague occurred in a suburb of Sydney last month. This patient is now convalescent. Active steps were immediately taken by the Board of Health and the Sanitary Committee of the City Council to prevent any extension of the disease by a vigorous crusade against the rats and the fumigation of the sewers. Rats infected with the plague bacilli were discovered in the store in which the patient worked. No further outbreak occurred until December 10th, 1901, when another severe case was reported to the Board of Health from another suburb of Sydney. The patient was so seriously ill that his removal to the quarantine hospital was impracticable, and he died in the course of a few hours—about sixty hours after the first manifestation of symptoms. The serum removed from the bubo in the left groin contained the bacillus pestis, and an animal inoculated from the patient died in a very short time. The viscera and blood of this animal were teeming with the characteristic organisms. It has been ascertained since that this patient was at work in a store in which an active crusade against rats had been carried on, and that in the course of his work he had occasion to visit the store where the first patient is supposed to have received his infection. No further case has been reported up to date. The Board of Health has decided that in future "contacts" will not be removed from their homes to the quarantine station, but will be kept under medical surveillance until the incubation period of the disease has passed.

LIVERPOOL.

David Lewis Northern Hospital: Annual Meeting: Resignation of Mr. Chauncy Puzey: The Finsen Installation: Completion of the New Building, etc.

The proceedings at the annual meeting of the David Lewis Northern Hospital, on January 15th, were of more than usual interest. The report, which is the first issued since the completion of the new building, referred in terms of regret and sympathy to the loss of the Chairman, Mr. J. E. Sheppard, who had been a member of the committee for 22 years and chairman for 16 years, and died suddenly on Christmas morning, and also to the loss of Dr. E. H. Dickinson, whose death has been already noticed in the British Medical Journal.

Another announcement which has been received with sincere regret not only by those interested in the hospital but also by his numerous friends in the medical profession, was, that in accordance with the laws of the institution, Mr. Chauncy Puzey, F.R.C.S.Eng., has ceased to be a member of

the acting staff. Mr. Puzey has been surgeon to the hospital for 26 years, and the committee expressed their high appreciation of his valuable and self-sacrificing labours during this long period. He has been appointed consulting surgeon and also a member of the committee.

The Finsen apparatus for the treatment of lupus, which has been kindly provided by Mr. B. W. Levy, is stated to have been doing excellent work, and it has been necessary to install a second lamp. Mr. Levy has undertaken to bear the whole cost of working the apparatus for one year.

Since eight of the new wards were fully equipped four months ago there has been a considerable increase in the number of indoor patients, the average number of beds occupied was 167, against 123 in the preceding period. The increased work has, of course, involved a corresponding increase in expenditure, which has not been covered by increased support, and there is a balance of £4,425 due to the bankers. The institution has, however, always commanded the sympathy and support of the people of Liverpool, and it is believed that it is only necessary to make its usefulness and its necessities known in order to ensure adequate support. To this end the Committee hope to induce some exalted personage to perform the opening ceremony, and so draw the attention of the public to the institution and its splendid work.

BRISTOL.

Annual Report of University College.—University College Colston Dinner.—Queen Victoria Jubilee Home.

THE annual report of University College has been recently distributed. Satisfactory progress has marked the past year's work. In the Faculty of Arts and Sciences there has been an increase of 37 students and 172 class entries, while more students enter for complete courses than previously. No changes have taken place in the staff of lecturers on the medical side, the vacancy caused by the lamented death of Dr. Aust Lawrence not having been filled up. Mr. Newman Neild, M.B., has been appointed Honorary Assistant to the Professor of Physiology. The Clinical and Bacteriological Research Laboratory has been in working for over a year, and 89 specimens have been submitted for examination. The most important of these was for a suspected case of plague, the details of which have been already noticed in the BRITISH MEDICAL JOURNAL. The fact that a positive result was reported to the medical officer of health two days before a similar report was received from the Local Government Board was of material assistance and of the utmost importance; it may have been due to this fact and from the prompt measures taken that no case occurred. At the meeting of the governors held in November Mr. Philip J. Worsley, the Vice-Chairman, referred to the progress the College had made, and the importance of the work of investigation carried on by the staff, which acted as a valuable stimulant to the students. The Bishop of Hereford expressed the hope that the West of England University would soon be seen with its centre in Bristol.

The third annual University College Colston Society dinner will be held on February 5th at University College. Mr. R. B. Haldane, K.C., M.P., will be the guest of the evening and Sir Frederick Wills, M.P., is the President. Last year £400 was handed to the Treasurer of the College as the result of the appeal. The Lord Bishop of Bristol will be the President in 1903.

The Secretaries of the Queen Victoria Jubilee Convalescent Home stated that they have received from the Lord Mayor of Bristol £4,115 4s., the amount of donations to the Local Queen Victoria Memorial Fund, and £10,000 from Mr. Vaughan to endow ten free beds. The Queen's Memorial fund will allow the governors of the Home to free two additional beds, making them able to receive fourteen patients without payment, and reduce the charge for paying patients from 12s. to 10s. per week. During the year 1,017 patients have passed through the Home, and the benefit is shown by an average increase of 3 lbs. in weight.

LADY WANTAGE has given £1,000 to the Festival Dinner Fund of the Charing Cross Hospital Fund, in memory of the late Lord Wantage, who was the President of the hospital.

CORRESPONDENCE.

THE PREVENTION OF ENTERIC FEVER IN ARMIES.

SIR,—The extent to which outbreaks of enteric fever amongst soldiers on active service may be prevented is a matter about which much variety of opinion at present exists.

The idea that it is impossible in campaigns of any magnitude to prevent such outbreaks appears to prevail not only amongst civilians and military men, but also amongst members of the medical profession.

Speaking generally, the prevalence of enteric fever may undoubtedly be reduced in proportion to the completeness and effectiveness of the precautionary and preventive measures which are taken to exclude the possibility of infection.

This fact has been demonstrated in the history of the campaigns which have been carried on by this and other countries since the time when enteric fever was recognised and recorded as a distinct disease. The same lesson may be learnt from a study of the records of the mortality from enteric fever which has occurred amongst soldiers quartered at our foreign stations, as well as in the United Kingdom.

In civil life it has been shown in all parts of the globe that where sanitary precautions are neglected outbreaks of enteric fever are sure to occur sooner or later; and conversely where sanitation is carried out systematically and thoroughly the disease does not spread.

The causes from which epidemics of enteric fever arise in civil life are identical with those which operate amongst soldiers in warfare. So also the measures required for prevention of the disease are the same in kind, though they differ in degree and in methods of administration.

In war the agencies at work for the production and propagation of enteric fever are greatly intensified and increased, the means of prevention are far more difficult. For the age of the soldier is that in which man is especially susceptible to infection by this disease; the crowding in tents, huts, hospitals, etc., gives innumerable facilities for direct infection of the sound by the sick. The exigencies of war as at present conducted frequently bring the soldier into contact with polluted surroundings, polluted soil, air, water, and food, whilst the difficulties of obtaining sufficient supplies of pure water are often almost insuperable. The inveterate habit of the soldier of drinking water on every possible opportunity, quite regardless of its character, increases the chance of an epidemic to an almost incalculable extent.

The only additional factor required for the production of an epidemic is the introduction of the specific infection—the germs of enteric fever—in conjunction with certain seasonal and meteorological conditions.

It is obvious, therefore, that, with all these predispositions for an epidemic, no ordinary precautions and preventive measures will suffice for its prevention. The most important measures required for the prevention of enteric fever may be briefly summarized thus:

1. The prompt detection of infected cases, their separation from crowded tents, etc., the careful supervision of such cases, and the disinfection of their excreta.
2. The avoidance of already infected or polluted sites for camps.
3. The prevention of pollution of the soil, air, water, or food.
4. The shifting of camps after occupation for some time, and at once in case of outbreaks.
5. The provision of a sufficient supply of pure or purified water.
6. Prevention of the soldiers from drinking any water other than that which has been approved or provided for them.

Authorities differ with regard to the channels through which the infectious agents of enteric fever are most usually conveyed; but all will agree that if the preventive measures mentioned above were systematically and thoroughly carried out in campaigns, the epidemic outbreaks would be abolished. Provision to some extent is made in the army regulations for the execution of most of these measures.

The difficulties which obstruct their accomplishment, it must be admitted, are great and numerous, but there is

nothing to show that they are insuperable. One constant difficulty is the apparently great increase of transport involved. If the extraordinary, but necessary, precautions are to be observed more medical officers and trained orderlies, more materials and appliances for disinfection, and for the supply of pure water will be required, together with the requisite means for their transport.

To such an increase combatant officers will naturally object, unless convinced of its necessity. But this increase of transport will no doubt be counterbalanced by the prevention of disease and the consequent decrease of officials, attendants, materials, and transport which would otherwise be required for the care and treatment of the sick and dying. For it must be remembered that the measures taken for the prevention of enteric fever are effective—probably equally effective—in obviating the other diseases incident to warfare—for example, diarrhoea, dysentery, cholera, and pneumonia. With a complete and thoroughly effective system of sanitation in warfare, there should be less sickness and death from disease than in civil life.

For the construction of such a system, however, far more is required than the precautionary measures hitherto mentioned.

Of these requirements it is possible only to mention summarily:

(*a*) The education and training of soldiers of all ranks in the practice and elementary knowledge of hygiene, and in the formation of those habits by which infectious disease may be prevented.

(*b*) The due record and recognition of the suggestions and advice given by army medical officers with regard to sanitary requirements and measures.

(*c*) The re establishment of sanitary officers of army corps and divisions, and the systematic inspection and control of all sanitary arrangements by them and their assistants.

(*d*) Above all, the recognition by those in highest office of the fact that, so far as death and disablement of our fighting troops are concerned, "preventive medicine" is of far greater importance than surgery or medical treatment.—I am, etc.,

CHRISTOPHER CHILDS, M.D., D.P.H.

Manchester Square, W., Jan. 18th.

SIR,—The boiling or sterilizing of water for drinking purposes in the army at present in South Africa is grossly neglected, and is the exception rather than the rule, although it is apparent to everybody that enteric, there one of the most prevalent and most fatal of diseases, is chiefly waterborne. Therefore it is that I would hail with satisfaction the introduction of some such scheme as Dr. Canney's, which it cannot be denied is a step in the right direction, although perhaps it may not come up to the anticipation of some. It may not be possible to supply "approved" water to "scouts" and "outposts," nevertheless on the whole it will tend to diminish the incidence of enteric. Dr. Canney says that the water carts and water bottles could be filled with the boiled water, and that his apparatus, etc., could easily be carried by a mule or on horseback. "Scouts" and "outposts" very often cook their own food, making fires, and at the same time they might also boil their water and fill their water bottles with it. With regard to cavalry and mounted infantry, those I have seen with columns do not go very far, not for any great length of time, from their water carts and transport, except when reconnoitring, and I do not see why the mule or pack-horse should not keep pace with them. When they cannot get "approved" water let them boil the water themselves. I invariably drank only what had been boiled, and in my water bottle I carried cold coffee, which I always found sufficiently a "cold" drink.

Dr. Canney further says that the sterilized water can be cooled in six minutes and in urgent cases in two minutes, and I should say that a slightly warm drink allays thirst as readily as a "cold" drink.

A notable feature of Dr. Canney's scheme is the carriage of condensed soups and meat extracts, which I can personally testify are a ready means of relieving fatigue and very desirable "on the trek." Where the "approved" water cannot be obtained let the troops "boil" their water and fill their water bottles with it when they cook their food, and thus his scheme may be supplemented for detached units. It is most important to impress upon troops the necessity of drinking only what has been boiled, as they are very indifferent as to what they take. They will drink anything from "Modder" water to rum.

The experience of Mr. J. Lynn Thomas, C.B., F.R.C.S., as to the filtering and boiling of water whilst with the Welsh Hospital in South Africa, is only what I should expect, and I cordially agree with him when he says, in a recent issue of the BRITISH MEDICAL JOURNAL, that "if Dr. Canney's ideas about the water supply of the army could be carried out more lives would be saved than would be if the whole craft of laparotomists and dermatologists were to follow in the wake of an advancing army."

Rather than damp Dr. Canney's enthusiasm by throwing "cold water" upon his scheme, I would prefer to see it put to the practical test in the present campaign. Time will give the "cold" drink. If enteric should appreciably decrease, then he will have earned the gratitude of the British Army.—I am, etc.,

January 21st. C. S.

THE INCREASE OF TYPHOID AND DIPHTHERIA.

SIR,—The able and suggestive paper by Dr. Harold Mason, on a possible predisposing cause of cancer reminds us of two other diseases that have become prevalent during the last sixty years. One is diphtheria; the other is typhoid or enteric, both affecting parts of the alimentary tract. Sixty years ago, as I can testify, these names were not used as now, and the diseases themselves were not common, though I remember cases. At and before that date, waterclosets in houses were rare, and closets in the garden were universal. Now every small house has an indoor w.c. Wherever an indoor closet is connected with drains, the pipe is a conductor of foul gases into the house, checked only by valves, traps, siphons, or some contrivance of the sort. These valves, etc., are our security against the ingress of foul air, and very useful and valuable they are; but no contrivance of the kind is absolutely perfect. There will always be accidental leakages; and carelessness, want of water, defects, and temporary imperfect action, will occur. Partial clogging, also, even of well-laid drains, happens, especially at points of junction, and then the obstructed gases or liquids are apt to find out small leaks, which they would pass by if the run were free. Hence contamination, occasional or constant, of the air of the house, in addition to the contamination of subsoil where drains are faulty.

No doubt other causes have contributed to the increased frequency of typhoid and diphtheria; but, be this as it may, the coincidence in point of time of the augmented prevalence of certain diseases with our altered domestic arrangements, merits very careful attention. The first thing needed is to put the waterclosets more outside the houses. Double doors are but a poor protection, one door being often left open through carelessness. Houses with indoor closets are not infrequently refused by possible tenants or purchasers. The well-known fact that in towns increased down-draught at street gratings is always observable just when the morning fires are lighted, is a proof that leakage of foul air into houses really occurs; besides which we might ascertain it by obvious tests.—I am, etc.,

Torquay, Jan. 18th. W. E. C. NOURSE, F.R.C.S.

THE EMANCIPATION OF THE GENERAL PRACTITIONER.

SIR,—In a paper read to the Hunterian Society eighteen years ago I made the same suggestion for the improvement of the position of the general practitioner by the division of labour, as has been urged so forcibly in the BRITISH MEDICAL JOURNAL of January 18th by "Jack of all Trades," and I hope it will receive some consideration among your readers. There can be no doubt that the field of medicine, including surgery, obstetrics, hygiene, and all connected with them, is now far too wide and its details too complex to be grasped effectively by one mind. Still less can anyone in busy practice keep himself on a level with the advance of knowledge all over this wide area. But not only so. The very greatness of the field is a powerful hindrance to effective medical study or effective experience except in the commonest disorders. If

anyone in large practice will note for a few years how often cases of somewhat less common disorders come under his notice, he will be surprised to see how seldom it is. This would apply to a disease, for instance, no rarer than carbuncle. The experience obtained by the treatment of one or two cases of it is more than half lost before others occur. Now, it is clear that if one man did all the surgery at present distributed among four, he would be able to "keep his hand in" much better, and his experience would be much more continuous and instructive and his services more valuable; they would also be seen to be more highly valued by his neighbours, and competition with his professional brethren would be diminished. It is difficult to see why there should not be such a division of work wherever there is population enough to support six, perhaps even three, medical men.—I am, etc.,

Tunbridge Wells, Jan. 18th. EDWARD G. GILBERT.

SIR,—As a "general practitioner" I should like to say one or two words by way of reply to "Jack of all Trades."

First, I think his opinion of the position held by the family doctor to be quite erroneous.

Secondly, I think the passing away of the general practitioner not only an impossibility, but, if possible, a great misfortune to the public and the profession. Rather do I think that the emancipation of the general practitioner (if, indeed, any emancipation is necessary except from "some of our own household") lies in the perfecting of our higher medical education in all branches of medical work. The great opportunity for sound useful work in a general practice is simply enormous, and the widest possible range of medical and surgical knowledge is indeed requisite.

True, there will always be cases where we shall be only too anxious to avail ourselves of the "intellectual riches of Harley Street," and many of us could testify to the invigorating effects on our work after a consultation with an "intellectual giant." But, Sir, how is the ordinary work of a "family" to be done without the general medical practitioner? I am at present attending a case of *petit mal*, a confinement, and a quinsy in different members of one family. Would "Jack of all Trades" suggest a neurologist, an obstetrician, and a throat specialist in such a family?

And, again, with regard to our position as compared with specialists and consultants. I feel certain that, given a man careful and keen, he will be consulted by his patients on practically all matters medical, and with him rests very largely the decision as to the calling in of special aid; the point being, I think, that whilst we as general practitioners need not necessarily be always prepared to operate, etc., in every case, we should be able to differentiate (to take an illustrative case) between a bad bilious attack and acute glaucoma, and act accordingly.—I am, etc.,

Lewisham Park, S.E., Jan. 22nd. COURTENAY C. WEEKS.

SIR,—May I offer a few observations in reply to the letter in your issue of January 18th from "Jack of all Trades," in which he indicates and apparently prays for the emancipation or rather extinction of the general practitioner?

To force the new generation of medical practitioners into the practice of pure medicine, pure surgery, or pure specialism, would in my opinion be disastrous to the individual practitioner by limiting his experience, and also I believe that the splitting up of ordinary patients' every-day ailments between the three rivals would be most disastrous to the unhappy patient, to say nothing of the pecuniary problem of how a small country town would support the M.D., F.R.C.S., and specialist as well, when at present it only affords a decent living to a pretty hard-working general practitioner.

It is also my opinion, as well as that of other general practitioners whom I have consulted, that the position of the family doctor, hard though it often is, has its special compensations. Apart from the fact that he is looked upon not merely as the doctor but also the family friend, I find that the common sense of the British public recognises that the opinion and treatment of a man of reasonable ability and experience, who has often known the patient from birth, is more likely, save in very exceptional cases, to be successful than that of the consultant who sees the patient once or twice and then for a few minutes only. In the exceptional cases the consulting physician or operating surgeon will be as much desired by the family doctor as by the patient.

It may be classed as gush by some, but to many of us it is a compensation, when the worry and work of some specially anxious case is over, to find the cheque in payment accompanied by a few words of appreciation of the "services of kindness and skill which money alone cannot wipe out."—I am, etc.

January 20th. JACOBUS.

HAAB'S MAGNET.

SIR,—The publication of the paper by Messrs. Holmes Spicer and Maccallan will draw wide attention to the excellent results to be obtained in accidents to the eye by the use of Haab's magnet, and let us hope will induce a larger use of these instruments in this country.

Since the brilliant success of the authors' case (1) first impressed upon me the value of the large magnet as compared with the small hand instrument I have had a rather considerable experience, both experimental and practical, in its use, and I may, perhaps, be allowed to offer some suggestions.

In the first "general conclusion" at the end of their paper, the magnet is recommended to be used for diagnosing the presence or absence of a particle of metal. I am most strongly of opinion that this should never be attempted, as there would be very great danger of incurring the accident whose avoidance is very rightly insisted upon in conclusion (4), namely, the entanglement of the particle in the ciliary body and iris.

Unless the particle can be seen it should be accurately localized by the *x* rays or siderostat as used by Professor Hirschberg in Berlin, and if it be, as is usual, a very small piece of metal situated behind the lens and below the level of the pupil, it should be extracted through an opening in the sclerotic with the following precautions. (1) Make the opening in the sclerotic as near as possible to the particle, and about one and a-half time its estimated size. (2) Do not turn on the current till the patient's head is in position and the point of the magnet touching the sclerotic wound. (3) Rapidly increase the current to the maximum.

A large foreign body is best brought out through the anterior chamber, after a preliminary radial incision of the cornea.

The attitude of strained attention when holding the patient's head up to the magnet is sometimes very trying, especially in a long operation, and I have often wished it could be possible to pivot or sling the instrument over a couch, but I fear that its weight would necessitate very elaborate precautions, and I am not sure that I should myself care to have my own latest model, which weighs nearly one thousand pounds, suspended over my face.

The sphere of usefulness of Haab's magnet is not confined entirely to the eye, for I have successfully extracted needles from the foot and splinters of steel from the hand, and I am sure that it would prove a most valuable aid to general surgery in saving many a long dissection after an elusive needle.

I shall be very pleased to give any advice in my power as to construction, etc., to anyone who may, after the valuable paper by Messrs. Holmes Spicer and Maccallan, decide to instal one of these instruments.—I am, etc.,

EDGAR STEVENSON,
Honorary Surgeon Liverpool Eye and Ear Infirmary.

Liverpool, Jan. 10th.

THE PREVENTION OF TUBERCULOSIS.

SIR,—In the BRITISH MEDICAL JOURNAL of November 30th, 1901, occurs the following report:

At a meeting of the Council of the National Association for the Prevention of Consumption, held in London on November 11th, Dr. Nathan Raw brought forward the following resolution: "That in the light of our present knowledge the time has now come when the whole question of tuberculosis, including treatment of suitable cases in municipal sanatoria, should be undertaken by the municipal corporations and county councils throughout the country."

After full discussion the resolution was moved from the chair by Sir W. Broadbent, Bart., seconded by Mr. Malcolm Morris, and carried unanimously.

Before responding favourably to such a resolution as the above, it is to be hoped that the councils and corporations concerned will inquire carefully into the merits of the light

referred to, for it seems to me to have led astray the "wise men" of the National Association.

Laennec, Bennet, Douglas Powell, and many other experienced authorities have maintained that under ordinary conditions phthisis is not an infectious disease. Professor Straus, in his great work *La Tuberculose et Son Bacille*, 1895, wrote "L'air expiré par les phthisiques ne contient pas de bacilles de la tuberculose, ni d'autres bacilles," while Cornet, of Berlin, has shown that "the dust in streets obtained from places where consumptives were wont to spit might be neglected so far as any risk of tuberculous infection is concerned, and if the dust be harmless much more must the air be.

Has any one yet brought forward a single definite case of pulmonary tuberculosis having been undoubtedly acquired by propinquity of persons? Such, however, is the fear of contagion in the public mind, fostered by such resolutions as that of November 11th that, at the present time, twenty-nine of the chief hotels of Mentone are advertising in the Continental *Bradshaw* that they will not henceforth receive consumptives.

It matters little that they do so advertise, as but few consumptives now visit Mentone, unfortunately I think for themselves, but is not this sop of the hotel keepers a sign that the public are being alarmed far beyond what is necessary or warranted by any real knowledge we possess?

Well might the municipal corporations and county councils reply to the Council of the National Association for the Prevention of Consumption in the words of Straus "En matière de tuberculose, plus peut-être que pour toute autre maladie infectieuse, l'intervention du microbe n'est pas tout. Pour être efficace, cette intervention est subordonnée à des causes adjuvantes et prédisposantes multiples: la misère, les fatigues excessives, les chagrins, les privations, la sédentarité, l'alcoölisme, etc; certaines maladies aussi: la rugeole, la coqueluche, le rétrécissement de l'artère pulmonaire, le diabète," etc.

It would, I think, be very helpful to a large section of the medical profession and the public generally if the Council of the British Medical Association could arrange some method, whereby a more or less authoritative and unprejudiced statement could be issued, calculated to put the tubercle bacillus in its proper subordinate place with regard, at least, to phthisis, instead of allowing it to pose as the most terrifying of omnipotent microbes.—I am, etc.,

Mentone, Dec. 19th, 1901. D. W. SAMWAYS.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

SIR,—Continuing the correspondence which has taken place under the above heading in the BRITISH MEDICAL JOURNAL of January 4th and 11th, I beg to trespass further on your indulgence by requesting you to kindly insert the following copy of a letter directed by me to the Under-Secretary of State, Home Office, Whitehall, on January 17th, 1902:

[illegible] Council in with [illegible] of the College [illegible] etc., [illegible] [illegible] [illegible]

OBITUARY.

ALEXANDER MACDONALD, L.R.C.P., L.R.C.S.Edin.,

Kirkoswald, Cumberland.

We regret to have to record the death, at the age of 54, of Dr Macdonald, of Kirkoswald, Cumberland, on January 6th, after a short illness. We are indebted to Dr. Roderick Maclaren, of Carlisle, for the following appreciation of Dr. Macdonald's life and character:

"In Alexander Macdonald Cumberland has lost a practitioner of the best class. Settled for many years in a somewhat isolated district among the fort hills of the Pennine range he was the trusted adviser of the whole country side, welcome alike in the ploughman's cottage and the country house. He was a man who read much and thought much; kindly, industrious, and genial. Somewhat conservative in most things, especially in matters appertaining to surgery, he retained a faith in remedies new and old which was perhaps more common in a past generation than in this, yet never sufficient to blind him to the vast field of therapeutics which lies outside the *Pharmacopœia*. Perhaps what was most foreign to his nature was pretence of all sorts. Devoid of it himself he could not tolerate it in others. For ever setting his patients' good before all other considerations, anything that savoured of posing always moved him to sometimes amusing wrath. A practice which contained many country houses necessarily brought him into contact in various ways with consultants, and he scorned alike the eminent physician who diagnosed 'eczema of the stomach' and the not less eminent authority who wrote his letters in two colours of ink to emphasise the important parts. He was a frequent attender at the Branch meetings and it was one of the regrets of his life that he could not go to more. He was a terse but easy speaker, and was particularly at home when treating with good-humoured ridicule some proposition which seemed to savour of folly. The end came as a shock to his numerous friends. His appearance betokened nothing more than the normal changes which middle life brings—a three days' illness which presented no features of anxiety ended suddenly by a fall on his bedroom floor and death within a few minutes."

Surgeon-General WILLIAM NASH, M.D.

The many friends of the late Surgeon-General Nash will have learnt with deep regret of his death. He had been ill for a week; a chill was followed by acute pneumonia, to which he succumbed early on the morning of January 19th. Surgeon-General Nash, who was 62 years of age, entered the army as Assistant-Surgeon in 1873, he was promoted Surgeon-Major in 1876, Brigade-Surgeon in 1888, Surgeon-Colonel in 1893, and Surgeon-Major-General in 1896. He retired from the service in November, 1899. A friend writes as follows:—

"Surgeon-General Nash saw much active service. In the Afghan war of 1878-80 he was present with Sir Frederick Roberts at the Peiwar and occupation of the Shutergarden. Subsequently he was in Egypt in 1882. Before his retirement he held the appointment of Principal Medical Officer at Netley. During his whole service he was ever distinguished by his kindly courteousness and thorough devotion to duty. From officers and men alike he earned respect and affection. He was ever ready with his counsel to any junior officer who consulted him. His strikingly handsome and kindly features of themselves would bring comfort to the sick. A more courteous or kindly English gentleman never adorned the ranks of the Royal Army Medical Corps."

Dr. Stuart Eldridge, who died recently at Yokohama, was a member of the Central Sanitary Board of Japan, and a Vice-President of the Sei-I-Kwai, or Society for the Advancement of Medical Science in Japan. Born at Philadelphia in 1843, he entered the United States Army at the age of 17, and from 1864 to 1866 he acted on the staff of General Thomas as Adjutant-General. He was next appointed to the staff of General O. O. Howard at Washington. He was the first Librarian of the Agricultural Department of the United States Government, and did a vast amount of work in getting its collection of books and papers into order. During his residence at Washington, and while still on General Howard's staff, the young officer entered on the study of medicine, and obtained the degree of M.D. from the old Georgetown Faculty. He was immediately appointed Demonstrator of Anatomy in his College, a post which he continued to hold till he went to Japan as Secretary of a scientific mission under General Horace Capron. The party reached Yokohama in August, 1871. Dr. Eldridge was appointed by the Japanese Government Surgeon-General of the Kaitakushi, and was stationed at Hakodate. There he established a medical school and educated many Japanese; he also treated patients in a hospital attached to the school. He also published a magazine entitled *Kinsei-I-Seton* (Modern Medical Science), which was distributed among the medical practitioners in Hokkaido, and served to advance medical knowledge in the northern part of Japan. In 1875 Dr. Eldridge settled in practice in Yokohama, where he remained in active work till his death. He held many offices, including that of Director of the General Hospital of Yokohama. He was appointed a Member of the Central Sanitary Board by the Japanese Government in 1883. His services to the cause of medical and sanitary progress in Japan were recognised by the Emperor of Japan, who conferred on him the Fourth Order of Merit in 1897, and the Third Order of Merit not long before his death. Among Dr. Eldridge's contributions to medical literature were papers on Beri-Beri, on the Arrow Poison of the Ainos, on Echinococci in the Female Bladder, on the Occurrence of Internal Aneurysm in European Residents in Japan, on the Ubiquitous Microbe, on Plague, etc.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Le Baron, of Paris, founder of the Syndicate of Medical Practitioners of the Seine Department, aged 46; Dr. Hugo Pernice, sometime Professor of Obstetrics and Director of the Obstetric Clinic in the University of Greifswald, aged 72; and Dr. A. Gouguenheim, of the Lariboisière Hospital, in Paris, one of the pioneers of laryngology in France.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE ORGANIZATION OF THE VOLUNTEER MEDICAL SERVICE.

The following letter has been addressed to the Secretary of State for War by the Volunteer Medical Association:

Sir,—It having been notified to the Council of the Volunteer Medical Association that the Secretary of State for War "would be pleased to receive any proposition the Council desired to submit in reference to the Volunteer Medical Service, and that such proposition will be placed before the Advisory Board for its consideration," the Council has the honour to submit the following:

1. It is desirable that the Volunteer Medical Service should be assimilated to and affiliated with the Army Medical Service in the same way as the various volunteer corps are assimilated to and affiliated with their territorial units, the officers of such service retaining their present position in connexion with regiments or corps, with the exception of the brigade-surgeon, who should be on the staff of the brigade only.

2. A volunteer medical officer should be attached to the office of Director-General Army Medical Service as Staff Officer Volunteer Medical Service, and a representative of volunteers should have a seat on the Advisory Board for all matters affecting the Volunteer Medical Service.

3. As a rule, volunteer medical officers join the service later in life than other volunteers (probably about the age of 30), and with one or two small exceptions they are the only volunteers whose professional education gives them the technical knowledge and fits them at once to perform their duties: under these circumstances, it is suggested that the length of service for promotion should be as in the Royal Army Medical Corps, and not as in the Volunteer Service. This should apply to all branches of the Volunteer Medical Service.

4. The present titles are somewhat cumbersome, notably that of brigade-surgeon-lieutenant-colonel. These should be

brought into line with the regular service, up to and including the rank of colonel. Further, medical officers of departmental corps—Artillery, Engineers, Medical Staff Corps, etc.—should have equal chances of promotion with those of infantry.

5. Each regiment should be provided with proper equipment as laid down for the regular forces, and the medical officer should be instructed how and when to draw it on mobilization, and facilities should be given to enable medical officers to make themselves acquainted with its details and use. The attention of commanding officers should be drawn to the regulation placing two men per company—which it is desirable to retain, and these should be at the disposal of the medical officer—who should be responsible for their proper instruction as stretcher-bearers.

6. On mobilization, all the medical officers of a regiment except the senior, or one of the others nominated by him and approved by the commanding officer, shall be at the disposal of the senior medical officer of the command for hospital or other duty, and proper provision should be made for the equipment of field hospital and bearer companies, including transport.

7. The Council also ventures to call attention to the last paragraph in the Report of the Departmental Committee at the War Office of November, 1888, which was approved by the then Secretary of State for War. It says: "It came out in evidence that the medical officers of the volunteer force wish to be placed on precisely the same footing as other officers of the volunteers regarding the distribution of honours and rewards. We submit this for your favourable consideration."

I have the honour to be, Sir,
Your obedient servant,
JOHN J. DE Z. MARSHALL,
Hon. Sec.

Volunteer Medical Association,
20, Hanover Square, W.

NAVAL NURSING STAFF RESERVE.

WE understand that Inspector-General Henry C. Woods, M.D., M.V.O., K.H.P. (retired) late of the Royal Yacht, appointed to H.M.S. *President* in July last for service at the Admiralty, has been engaged in preparing a scheme for an increase of the nursing staff in H.M. ships and naval hospitals in time of war or of national emergency. It is now reported that with this view a reserve of naval nurses, male and female, is to be established. We await details of this new scheme for which provision will doubtless be made in the forthcoming naval estimates.

DISPATCHES FROM SOUTH AFRICA.

A despatch from Lord Kitchener, dated December 8th, 1901, is published in the London Gazette of Tuesday last. His Lordship relates in much detail the course of the operations of the troops under his command since the despatch of November 9th. At the close the following, among other names, are brought to special notice:

Lieutenant J. M. Sloan, for distinguished good service in the Army Medical Corps.

Lieutenant E. E. Fielding, for good service at Italia on September 20th.

Surgeon.—Civil Surgeon Mountt, good work and gallantry under fire with Colonel Crowe's column in Cape Colony.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon R. W. Williams has been placed on the retired list with the rank of Inspector of Hospitals and Surgeons, January 10th. He was appointed Surgeon, October 1st, 1885; and Fleet Surgeon, [illegible]. He was Surgeon of the *Philomel* when she was with the Naval Brigade during the Nile expedition (medal and clasp), Surgeon of the *Iris* during the Suez expedition in 1884, and Surgeon of the *Monarch* in the Egyptian war in 1885 (medal and clasp).

The following appointments have been made at the Admiralty:—ALEXANDER G. WILDEY, Staff Surgeon to the *Illustrious*, January 14th; TIMOTHY J. CROWLEY, Staff Surgeon to the *Revenge*, January 23rd.

ROYAL ARMY MEDICAL CORPS.

The undermentioned officers have been ordered to duty from the Hospital in South Africa: Captain [illegible] H. H. HEAD, W. H. OBLEIM, and E. BENNETT, Civil Surgeons D. KRUSHORN and M. [illegible].

The following are on passage home: Lieutenant-Colonel [illegible] Major E. J. WATTS, J. M. CRAWFORD, J. H. MARTIN, Captain [illegible] A. H. WATTS, J. M. CRAWFORD, J. H. MARTIN, Lieutenant [illegible] O. E. RICHMOND, W. [illegible] CLIFFE.

The progress report states that Quartermaster FURSHWATKIN was out of danger, January 15th.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN E. W. BARNES is promoted to be Surgeon-Major, January 22nd.

Surgeon-Captain W. B. COCKILL, 2nd Volunteer Battalion the Border Regiment, to be Surgeon-Captain, January 22nd.

INDIAN MEDICAL SERVICE.

THE retirement from the service of Lieutenant-Colonel E. BOVILL, M.D., Bengal Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

Lieutenant-Colonel M. P. KHAREGAT, Madras Establishment, has also retired from the service, from August 8th. He joined the department, October 2nd, 1880, and became Lieutenant-Colonel, October 2nd, 1900. He was with the Burmese expedition in 1886-7 (medal with clasp).

Captain A. E. H. PINCH, of the Bengal Establishment, who went on half-pay, December 17th, 1899, now retires from the service, which he entered as Lieutenant, July 29th, 1896.

IMPERIAL YEOMANRY.

MR. JOSEPH J. MACGREGOR, M.D., is appointed Surgeon-Lieutenant in the Essex Imperial Yeomanry, December 28th, 1901.

THE VOLUNTEERS.

MR. HENRY J. BAILEY, M.B., is appointed Surgeon-Lieutenant in the 2nd Cadet Battalion the King's Liverpool Regiment, January 1st.

Surgeon-Major W. S. CHEYNE, M.D., 2nd Volunteer Battalion the Gordon Highlanders, is promoted to be Surgeon-Lieutenant-Colonel, January 18th.

VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT D. J. MACKINTOSH, M.B., to be Lieutenant in the Glasgow Companies on appointment as Transport Officer, January 18th.

Mr. ROBERT RAMSEY to be Surgeon-Lieutenant in the Glasgow Companies, January 18th.

Quartermaster H. MARSH to be Lieutenant in the Manchester Companies on appointment as Transport Officer, January 18th.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Surgeon-General W. Taylor, M.D., C.B.	India	War Office.
,, A. F. Preston, M.B. ...	War Office ...	Ireland.
Lieutenant-Colonel J. Tidbury, M.D. ...	Winchester ...	Roy. Mil. Coll.
,, E. J. E. Risk	Portsmouth ...	South Africa.
Major L. Haywood, M.B.	Portland ...	Gosport.
,, R. N. Buist, M.B	Netley	South Africa.
,, H. T. Knaggs, M.B.	Chatham ...	,,
,, F. S. de Le Quesne, V.C.	Punjab	,,
,, W. L. Gray, M.B.	South Africa ...	Parkhurst.
,, C. W. Reilly	Cork	South Africa.
,, J. H. Nicholas (Reserve)	Gosport ...	Derby.
Captain G. B. Stanistreet, M.B.	Parkhurst ...	Southampton.
,, H. P. Johnson	Preston ...	South Africa.
,, W. G. Beyts	Chester... ...	,,
,, H. A. Stalkartt, M.B.	Edinburgh ...	Bengal.
,, H. A. Hinge	Aldershot ...	South Africa.
,, H. S. Thurston	Bengal	,,
,, H. W. K. Read	Thames Dist....	,,
,, W. A. Ward	Home District.	,,
Lieutenant A. A. Seeds, M.D.	Dublin	,,
,, W. M. McLoughlin	Aldershot ...	,,
,, A. R. C. Parsons	Malta	Crete.
,, J. B. Clarke	Leeds	Bengal.
,, H. Rogers, M.B....	Cork	Punjab.
,, W. Davies	Belfast	Bengal.
,, J. C. Hastings, M.B.	Salisbury Plu..	Bombay.

HEALTH OF THE AMERICAN NAVY.

Admission-rates and Death-rates.—The report of the Surgeon-General of the United States Navy states that the ratio of admissions per 1,000 of strength was for 1899, 783.03, and for 1900, 824.12, so that there was more sickness in the navy in 1900 than during the previous year. The total number of admissions for all causes was 18,936; of these 15,829 were for disease, and 3,107 for injury, giving a ratio per 1,000 of strength of 688.90 and 135.22 respectively. During the year there were 211 deaths; the death-rate per 1,000 of force being 8.88. The mortality-rate from all causes for 1899 was 7.35 per 1,000.

Diseases.—The admissions during the year included 1,699 cases of epidemic catarrh, 983 of malarial diseases, 963 of wounds, 902 of diarrhœal affections, 828 of rheumatic affections, 336 of dengue, 246 of alcoholism, 195 of dysentery, 175 of typhoid fever, 160 of measles, 132 of mumps, 128 of heat stroke, 117 of pulmonary tuberculosis, 100 of organic heart disease, 99 of pneumonia, 40 of nephritis, 37 of rubella, 10 of small-pox, 2 of yellow fever, and 1 of bubonic plague. Epidemic catarrh, which on almost every station and ship caused more admissions than any other infectious disease, was especially prevalent on the North Atlantic coast. Dysentery, while accounting for more admissions than in 1899, was the cause of but 5 deaths; of the 10 cases of small-pox reported 6 proved fatal.

China Expeditionary Force.—Among the special reports appended to that of the Surgeon-General there is one by Dr. George A. Lung, Surgeon, U.S.A., who gives a short history of the China relief expedition, in which this regiment of marines took part. The health of the American troops engaged in this expedition seems to have been fairly good, the most prevalent complaints having been diarrhœa and heat prostration. After reaching Pekin many new cases of fever appeared, but to no very troublesome degree; neuralgias were also common, especially sciatica.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ADVERTISING.

F.R.C.S.E. asks: Is it considered a breach of professional etiquette and a professional advertisement to have one's name and qualification advertised in the local papers before a course of ambulance lectures are given for the St. John Ambulance Association?

*** We frequently receive protests against advertisements of this kind, but nevertheless ambulance and health lectures with the names of the lecturers are commonly advertised in the columns of the newspapers, and even in a more objectionable way by posters and handbills. It is contended in support of these practices that it is the duty of the medical profession to take part in educating the public in such matters as are dealt with in these courses of lectures, and that to obtain an audience the lectures and lecturers must be advertised. It is maintained, on the other hand, that one effect of such lectures is to advertise the lecturer, and that their educational value is very small in comparison with the harm they do by affording opportunity for personal advertisement. We have no authority to decide the question; if the lectures are to be given they must probably be advertised, but we would advise our correspondent to take care that his name and qualifications are not unduly displayed. We think it is a pity that the Central Committee of the St. John Ambulance Association does not consider this question and adopt a form of advertisement which should be used uniformly throughout the country, by which the evils of the system might at least be reduced to a minimum.

LUNACY FEES.

CANTAB.—We are advised that a fee of five guineas and travelling expenses would be reasonable.

DISSATISFIED.—The fact that the patient is a pauper may rightly be fully allowed for, especially if the pension to which he is stated to be entitled be small. The minimum should be not less than a guinea and out-of-pocket expenses. A guinea and a-half would be a more suitable fee.

J. T. C.—We agree with our correspondent that to send out bills in the manner indicated is undesirable; to do so habitually would be open to serious objection.

LEX.—We think that under the circumstances stated our correspondent should give the prescriptions and the advice without extra charge.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DR. BARCLAY-SMITH has been reappointed Senior Demonstrator of Anatomy for a term of five years.

Professor T. H. Middleton has been elected Professor of Agriculture in the place of Dr Somerville.

Additional Examination in Pathology.—It is proposed to hold in June an additional examination in General Pathology and Pharmacology (Third M.B., Part I), for students who desire to come at once under the new regulations.

Degrees.—At a congregation on January 16th the following degrees were conferred:—*M.B.*: J. W. Rob, St. John's; K. R. Hay, Caius; E. G. Wales, Downing. *B.C.*: A. G. Bate, King's; E. I. Claxton, King's; A. H. Greg, Trinity; J. W. Rob, St. John's; J. Wharton, St. John's; R. Rolfe, Clare; H. M. Wilson, Trinity Hall; C. de L. Carey, Emmanuel; E. G. Wales, Downing; F. E. Wood, Downing; F. H. M. A. Beckett, Selwyn Hostel.

UNIVERSITY OF LONDON.

A MEETING of Convocation took place on January 20th, at the University, South Kensington. Sir E. H. Busk, Chairman, presided.

Election to the Senate.—The scrutineers of the ballot announced that Sir Joseph Walton, B.A., was elected a member of the Senate, having received 1,124 votes, against 381 recorded for Mr. James Easterbrook, M.A.

Metric System of Weights and Measures.—Mr. W. Pringle, B.A., moved: "That this House is of opinion that, in the interests of commerce, science, and education, legislation should be promptly undertaken to make compulsory in this kingdom, after a proper interval, the use of the metric system of weights and measures for all purposes." He said that the present system of weights and measures was not suited to the requirements of modern education and the daily needs of a busy age. The metric system was used by 483,000,000 of the civilised inhabitants of the world, and there was fear that our nation might soon stand absolutely alone in respect of this matter, an impossible condition in commercial relations, owing to the difficulty of trading with many countries. No single commercial body of any standing throughout the country had expressed itself unfavourably towards the change. Mr. H. Handford, B.A., seconded the proposal, which was approved by Sir P. Magnus. Sir A. Rollit, M.P., heartily supported the resolution. He said that at the next meeting of the Senate he would move that a degree in commerce should be established.

A Deputy Chairman.—Mr. R. M. Walmsley, D.Sc., moved: "That it is desirable that at the next ordinary meeting, to be held on May 13th, 1902, Convocation should elect a Deputy Chairman. Mr. Hinton, M.A., seconded the resolution, which was adopted.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Court was held on January 16th, 1902, Mr. H. G. Howse, President, in the chair.

Jacksonian Prize.—It was reported that no essay on the subject set for the past year—the Diagnosis and Treatment of Bullet Wounds of the Chest and Abdomen—had been received.

Hunterian Oration.—The President was appointed Hunterian Orator for 1903.

Board of Examiners.—The resignation of Mr. Page was accepted, and will take effect on the conclusion of the Pass Examination for the Membership to be held this month. The vacancy thus occasioned will be filled at the ordinary meeting of the Council in March, when two other vacancies will also be filled up. The two vacancies referred to are occasioned by the expiration on March 11th of the periods of office of Mr. W. J. Walsham and Sir William H. Bennett, K.C.V.O. Mr. Walsham is not applying for re-election, but Sir William Bennett is.

The Queen Victoria Jubilee Institute for Nurses.—Mr. Bryant was re-elected as the College representative on the Council of the Institute for the ensuing three years.

The late Sir William Mac Cormac.—A letter of December 27th, 1901, was read from the Secretary of the Medical Board of St. Luke's General Hospital, Ottawa, communicating a resolution adopted by the members of the medical staff of the hospital expressing regret at the death of Sir William Mac Cormac, and recording their appreciation of his efforts in the cause of science and the advancement of the best interests of the medical profession.

International Medical Congress in Madrid, 1903.—Mr. Edmund Owen was appointed the College delegate to this Congress.

Next Ordinary Meeting.—It was determined that the ordinary meeting of the Council in March should be held on Thursday the 20th.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, January, 1902.—The following candidates passed in:

Surgery.—J. W. W. Adamson (Section II), St. George's Hospital; A. G. H. Anthonisz (Section II), University College Hospital; A. H. Bell, Cork and Guy's Hospital; H. E. Darlington, Birmingham; A. Dewar, McGill and Westminster Hospital; F. M. Payne, (Section II), Royal Free Hospital.

Medicine.—J. W. W. Adamson (Section II), St. George's Hospital; A. A. E. Baptist, Calcutta; F. G. Bennett (Section I), Cambridge and University College Hospital; E. C. Curtis, Aberdeen and Charing Cross Hospital; C. J. Francis, Guy's Hospital; J. Hunter (Sections I and II), McGill and Westminster Hospital; W. Miles, Middlesex Hospital; R. Rees (Sections I and II), Cambridge and St. Mary's Hospital; H. Salomon, Manchester.

Forensic Medicine.—J. Hunter, McGill and Westminster Hospital; T. G. Miles, Guy's Hospital; R. Rees, Cambridge and St. Mary's Hospital; G. Roper, Cambridge; H. Salomon, Manchester.

Midwifery.—J. J. Anning, Leeds; F. G. H. Cooke, University College Hospital; F. I. M. Jupe, Cambridge; F. H. Maberly, Birmingham; E. J. Miller, King's College Hospital.

The qualifying diploma of the Society in Medicine, Surgery, and Midwifery was granted to J. W. W. Adamson, A. G. H. Anthonisz, A. A. E. Baptist, A. Dewar, C. J. Francis, F. M. Payne, and R. Rees.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS FOR ENGLAND AND WALES 1901.

As all medical officers of health are now required to complete their annual reports to the Local Government Board by the middle of February in each year, the following figures have been provisionally compiled for their convenience from the Quarterly Reports of the Registrar-General:

ENGLAND AND WALES, 1901.

Annual Birth-rates and Death-rates, and Rates from the Seven Chief Epidemic Diseases.

—	Annual Rates per 1,000 Living. Births.	Deaths from all Causes.	Deaths from Seven Chief Epidemic Diseases.	Infant Mortality—Annual Death-rate of Infants under 1 Year per 1,000 Births.
England and Wales ...	28.5	16.0	2.05	151
Rural England and Wales	27.2	15.7	1.55	138
33 great towns	30.0	18.6	2.68	165
67 smaller towns	29.9	17.1	2.44	1[illegible]

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1901.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE vital statistics of the thirty-three large towns which, till the commencement of this year, were dealt with in the Registrar-General's weekly returns are summarised in the accompanying table. During

Analysis of the Vital Statistics of Thirty-three of the Largest English Towns during the Fourth Quarter of 1901.

Towns.	Estimated Population middle of 1901. (Provisional).	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœal Diseases.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	11,463,026	88,184	53,696	30.9	18.6	2.02	5,788	199	1,459	593	993	630	638	1,276	162	1.1
32 Provincial Towns	6,919,269	56,472	32,310	32.7	18.7	2.16	3,749	7	917	433	540	464	481	907	167	1.7
London	4,543,757	31,712	20,786	28.0	18.3	1.81	2,039	192	542	160	453	166	157	369	153	0.3
West Ham	268,868	2,352	1,237	35.1	18.5	3.21	215	4	36	14	60	13	20	68	182	0.2
Croydon	134,665	830	444	24.6	13.2	0.99	33	—	14	1	8	1	2	7	127	—
Brighton	123,668	762	523	24.7	17.0	1.59	49	—	7	—	24	4	1	13	161	0.2
Portsmouth	189,907	1,319	763	27.9	16.1	1.48	70	—	1	6	26	5	19	13	102	0.8
Plymouth	107,974	700	456	26.0	16.9	1.41	38	1	4	—	6	6	8	13	117	0.4
Bristol	329,831	2,125	1,331	25.8	16.2	1.08	89	—	—	15	27	8	16	23	153	0.5
Cardiff	165,308	1,220	654	29.6	15.9	1.45	60	—	—	12	28	8	1	11	168	0.5
Swansea	94,618	682	390	28.9	16.5	1.44	34	—	—	4	9	3	5	13	179	2.1
Wolverhampton	94,467	690	385	29.3	16.3	1.87	44	—	7	4	5	5	7	16	159	0.5
Birmingham	523,284	4,068	2,785	31.2	20.7	2.40	312	1	62	76	22	52	31	68	190	3.0
Norwich	111,997	776	565	27.8	20.2	5.06	141	—	111	3	8	2	4	13	178	0.9
Leicester	212,498	1,482	829	28.0	15.6	1.94	103	—	15		26	29	7	26	159	1.9
Nottingham	240,400	1,608	1,021	26.8	17.0	1.12	67	—	8	1	7	5	19	27	162	0.6
Derby	106,076	713	362	27.0	13.7	0.77	20	—	—	4	2	2	6	6	135	—
Birkenhead	111,203	812	461	29.3	16.6	1.72	48	—	5	5	18	4	9	7	124	0.4
Liverpool	686,332	5,429	3,521	31.7	20.6	2.29	393	1	14	73	57	70	68	110	157	4.3
Bolton	168,748	1,130	734	26.9	17.4	1.97	83	—	1	24	10	15	14	19	157	0.3
Manchester	544,934	4,087	3,032	30.1	22.3	2.58	350	—	161	28	19	38	33	71	180	1.6
Salford	221,526	1,750	1,215	31.7	22.0	3.29	182	—	30	27	23	19	35	48	183	0.5
Oldham	137,382	903	746	26.4	21.8	2.69	92	—	50	9	4	4	5	20	172	—
Burnley	97,295	616	461	25.4	19.0	2.17	53	—	1	1	20	9	2	20	224	0.4
Blackburn	127,714	774	657	24.3	20.6	4.31	137	—	86	13	6	6	5	21	225	3.7
Preston	113,117	777	590	27.6	20.9	3.05	86	—	31	24	2	1	8	20	227	2.4
Huddersfield	94,998	572	366	22.5	15.5	1.26	30	—	15	—	1	1	7	6	117	1.1
Halifax	105,113	532	391	20.3	14.9	2.02	53	—	30	10	2	2	4	5	137	3.3
Bradford	280,161	1,540	1,114	22.0	15.9	1.03	73	—	8	8	6	7	22	22	162	0.7
Leeds	430,489	3,219	2,007	30.0	18.7	2.38	255	—	58	23	35	65	33	41	164	0.3
Sheffield	382,129	3,150	1,906	33.1	20.6	3.29	313	—	137	14	42	17	47	56	192	2.4
Hull	241,622	1,935	1,038	32.1	17.2	1.56	94	—	—	1	23	8	19	43	159	1.5
Sunderland	146,937	1,297	99	35.4	18.8	2.35	86	—	11	10	6	16	16	27	149	3.0
Gateshead	110,492	1,027	513	37.3	18.6	1.53	42	—	—	7	1	4	2	28	163	3.5
Newcastle-on-Tyne	215,516	1,635	1,143	30.4	21.3	1.93	104	—	14	16	7	35	6	26	175	1.6

the three months ending December last, 88,184 births were registered in these towns equal to an annual rate of 30.9 per 1,000 of their aggregate population, estimated at 11,423,026 persons in the middle of last year. In the corresponding quarters of the three preceding years the rates had been 29.0, 29.8, and 28.0 per 1,000 respectively. In London the birth-rate last quarter was 28.0 per 1,000, while it averaged 32.7 in the thirty-two large provincial towns, and ranged from 20.3 in Halifax, 22.0 in Bradford, 22.5 in Huddersfield, and 24.3 in Blackburn to 33.1 in Sheffield, [illegible] in Sunderland, and 37.3 in Gateshead.

During the quarter under notice 1,096 deaths were registered in the thirty-three towns, corresponding to an annual rate of 18.6 per 1,000, against 18.2, 21.2, and 17.7 in the fourth quarters of the three preceding years. In London the rate of mortality was 18.3 per 1,000, while it averaged 18.2 in the thirty-two large provincial towns, among which the lowest death-rates were 13.2 in Croydon, 13.7 in Derby, 14.9 in Halifax, 15.2 in Huddersfield, and 15.6 in Leicester; and the highest rates 20.9 in Preston, 21.3 in Newcastle, 21.8 in Oldham, 22.0 in Salford, and 22.3 in Sunderland.

The [illegible] deaths referred to the principal zymotic diseases in the thirty-three towns during the three months ending December last included 199 [illegible] from measles, 103 from scarlet fever, 993 from diphtheria, 630 from whooping-cough, 638 from "fever" (principally enteric), and 1,276 from diarrhœal diseases. Of the 199 fatal small-pox cases [illegible] belonged to London, 4 to West Ham, and 1 each to Plymouth, Birmingham, and Liverpool. The deaths from measles, which had been 1,080, 1,349, [illegible] again to 1,459 during the three months ending December last, and were equal to an annual rate of 0.51 per 1,000; in London the death-rate from this disease was 0.48 per 1,000, [illegible] in the thirty-two large provincial towns, among which measles was proportionally most fatal in Norwich, Manchester, Oldham, Blackburn, Preston, Halifax, and Sheffield. The deaths from scarlet fever, which had been 461, 461, and 451 in the three preceding quarters, further rose to 593 last quarter, and were equal to an annual rate of 0.21 per 1,000; in London the scarlet fever death-rate was only [illegible] among the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Birmingham, Liverpool, Bolton, Salford, Blackburn, and Preston. The fatal cases of diphtheria, which had been 661, 684, and 840, in the three preceding [illegible] months under notice, [illegible] were equal to an annual rate of 0.14 per 1,000. In London the death-rate from this disease was equal to 0.11, and averaged 0.28 in the thirty-two provincial towns, among which the highest proportional mortality from these diseases occurred in Portsmouth, Liverpool, Salford, Sheffield, and Sunderland. The 1,276 deaths from diarrhœal diseases were equal to an annual death-rate of 0.45 per 1,000; in London this death-rate was equal to 0.33, while it averaged 0.52 in the thirty-two large provincial towns, among which the highest diarrhœal death-rates were recorded in West Ham, Salford, Burnley, Sunderland, and Gateshead.

Infant mortality in the thirty-three towns, measured by the proportion of deaths of children under 1 year of age to registered births, was equal to 162 per 1,000 during the three months ending December last, against 159, 159, and 165 in the corresponding quarters of the three preceding years. In London the rate of infant mortality was equal to 153 per 1,000, while it averaged 167 in the thirty-two large provincial towns, and ranged from 102 in Portsmouth, 117 in Plymouth and in Huddersfield, 124 in Birkenhead, and 127 in Croydon, to 190 in Birmingham, 192 in Sheffield, 224 in Burnley, 225 in Blackburn, and 227 in Preston.

The causes of 607, or 1.1 per cent., of the deaths in the thirty-three towns during the three months under notice were not certified, either by a registered medical practitioner or by a coroner. The causes of all the deaths during the quarter were duly certified in Croydon, Derby, and Oldham, and only 1 death was uncertified in Brighton; the highest proportions of uncertified deaths were registered in Liverpool, Blackburn, Halifax, and Gateshead.

HEALTH OF ENGLISH TOWNS.

In seventy-five of the largest English towns, including London, 8,629 births and 5,025 deaths were registered during the week ending Saturday last, January 18th. The annual rate of mortality in these towns, which had been 20.1 and 18.3 per 1,000 in the two preceding weeks, further declined to 17.7 per 1,000 last week. Among these large towns the death-rates ranged from 4.8 in Hornsey, 8.0 in Derby, 9.2 in Smethwick, 10.3 in King's Norton, 10.7 in Birkenhead, and 10.8 in Walthamstow, to 24.0 in Wolverhampton and in West Hartlepool, 24.1 in Bolton, 24.2 in Stockton-on-Tees, 27.9 in St. Helens, and 31.8 in Merthyr Tydfil. In London the death-rate was 18.0 per 1,000, and exceeded by 0.4 per 1,000 the mean rate in the seventy-four other large towns, which was 17.6 per 1,000. The zymotic death-rate in the seventy-five towns averaged 1.0 per 1,000; in London this death-rate was equal to 0.9 per 1,000, while it averaged 1.7 in the seventy-four other towns, among which the highest zymotic death-rates were 3.7 in Rotherham, 3.8 in Handsworth, 4.0 in Great Yar-

mouth, 4.2 in Oldham, 5.2 in Merthyr Tydfil, 5.3 in Aston Manor, and 7.1 Stockton-on-Tees. Measles caused a death-rate of 1.8 in Preston, 2.0 in Great Yarmouth, in Stockton-on-Tees, and in South Shields, 2.2 in Merthyr Tydfil, 2.7 in Aston Manor, 2.8 in Stockport and in Rotherham, and 3.0 in Oldham; scarlet fever of 1.2 in Bolton, 1.3 in Aston Manor, 1.9 in Handsworth, and 2.4 in St. Helens; diphtheria of 2.5 in Hanley; and whooping-cough of 3.0 in Stockton-on-Tees. Fifty-five deaths from small-pox occurred in London, 3 in Tottenham, and 1 in Hornsey, but not one in any other of the seventy-five large towns. There were 877 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday, January 18th, against 666, 754, and 873 at the end of the three preceding weeks; 213 new cases were admitted during the week, against 226, 261, and 306 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 3,137, 2,987, and 2,864 on the three preceding Saturdays, had further declined to 2,760 at the end of last week; 288 new cases were admitted during the week, against 263, 313, and 250 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 18th, 017 births and 673 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.2 and 19.6 per 1,000 in the two preceding weeks, rose again last week to 20.8 per 1,000, and exceeded by 3.1 per 1,000 the mean rate during the same period in the seventy-five large English towns. The death-rates in these Scotch towns ranged from 14.1 in Perth, and 17.1 in Edinburgh to 23.1 in Paisley and 23.5 in Glasgow. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Dundee and Greenock. The 351 deaths registered in Glasgow included 20 from measles, 9 from whooping-cough, 2 from "fever," and 6 from diarrhoea. Two fatal cases of diphtheria and 3 of diarrhoea were recorded in Edinburgh; 2 of measles, 2 of diphtheria, and 4 of diarrhoea in Dundee; and 3 of scarlet fever in Greenock.

VACCINATION.

ASEPTIC VACCINATION.

M.B. asks: Where can the instructions issued by the Local Government Board for the aseptic performance of vaccination be procured?

*** We can perhaps best answer our correspondent's question by reprinting the third schedule of the Vaccination Order of October 18th, 1898, which may be of interest to others at the present time. It is as follows:

Instructions to Vaccinators Under Contract.

1. Except so far as any immediate danger of small-pox may require, the public vaccinator must vaccinate only subjects who are in good health. As regards infants, he must ascertain that there is not any febrile state, nor any irritation of the bowels, nor any unhealthy state of the skin, especially no chafing or eczema behind the ears, or in the groin, or elsewhere in the folds of the skin. He must not, except of necessity, vaccinate in cases where there has been recent exposure to the infection of diseases such as measles, scarlatina, or diphtheria, nor where erysipelas is prevailing in or about the place of residence.

2. A certificate of postponement must be given by the public vaccinator in the form prescribed by the Local Government Board or to the like effect—

(*a*) If in his opinion the child is not in a fit and proper state to be vaccinated; or

(*b*) If in his opinion the child cannot be safely vaccinated on account of the condition of the house in which it resides or because there is or has been a recent prevalence of infectious disease in the district; and in any such case the public vaccinator is required to forthwith give notice of such certificate to the medical officer of health for the district in the Form P. set out in the Fifth Schedule to this Order or to the like effect.

3. All public vaccinations are to be performed with glycerinated calf lymph, or with such other lymph as may be issued by the Local Government Board. If the parent or other person having the custody of a child requires that it shall be vaccinated with lymph issued by the Local Government Board, the vaccination must be performed with such lymph.

4. The public vaccinator must keep such record of the lymph he uses for vaccinating as will enable him always to identify the origin of the lymph used in each operation. He must not employ lymph supplied by any person who does not keep an exact record of its source.

5. The public vaccinator must keep in good condition the lancets or other instruments which he uses for vaccinating, and he must not use them for any other purpose whatever. When he vaccinates he must cleanse and sterilize his instrument after one operation before proceeding to another, and must always, when vaccinating, have with him the means of doing this. When once he has unsealed a tube of lymph he must never attempt to keep any part of its contents for the purposes of vaccination on a future occasion. Under no circumstances should the mouth be applied directly to the tube in which the lymph is contained for the purpose of expelling the lymph. In the case of ordinary capillary tubes an artificial blower may properly be used for this purpose.

6. Vaccination should at every stage be carried out with aseptic precautions. These should include: First, the cleansing of the surface of the skin before vaccination; secondly, the use of sterilized instruments; and thirdly, the protection of the vaccinated surface against extraneous infection both on the performance of the operation and on inspection of the results.

Advice as to the precautions to be taken in this respect until the scabs have fallen and the arm has healed should always be given to the person having the custody of the child.

7. In all ordinary cases of primary vaccination the public vaccinator must aim at producing four separate good-sized vesicles or groups of vesicles, not less than half an inch from one another. The total area of vesiculation resulting from the vaccination should not be less than half a square inch.

8. The public vaccinator must enter all cases in his register on the day when he vaccinates them, together with all particulars required in the register up to and including the column headed "Initials of person performing the vaccination." The results of the vaccination, which must be attested by the initials of the person who inspects the case, are to be entered upon the day of inspection. In cases of successful primary vaccination the public vaccinator must record the number of separate scarified areas, punctures, or groups of punctures made, and the number of separate normal vaccine vesicles or groups of vesicles which have been produced. In cases of revaccination he must register as "successful" only those cases in which either vesicles, normal or modified, or papules surrounded by areolae have resulted. When any operation (whether vaccination or revaccination) has to be repeated owing to want of success in the first instance it should be entered as a fresh case in the register.

VACCINATION AT THE PATIENT'S HOUSE.

F.R.C.S.—Under the Vaccination Order, 1898, the payment to the public vaccinator for successful primary vaccination or revaccination performed by him at the home of the person vaccinated must be not less than 5s., whereas the fee for a similar successful vaccination or revaccination at the public vaccinator's surgery or elsewhere than at the home of the person vaccinated is 2s. 6d. Nevertheless we think it unfortunate that any public vaccinator should act so as to produce an impression that he is taking advantage of his position.

VACCINATION AT A FACTORY.

VACCINATOR.—Under the existing Acts, when a public vaccinator performs vaccination at a factory, is he entitled to claim from the guardians at the rate of 5s. per head, or do these come in at the lower rate as though done at a surgery in contradistinction to the home?

*** The Local Government Board has expressed the opinion that a factory cannot be regarded as the home of the employees. Any fee chargeable would therefore be the fee for successful revaccination "elsewhere than at the home of the person vaccinated," with a minimum of 2s. 6d. A public vaccinator is not entitled to be paid a fee in respect of the revaccination of any person resident out of his district. This is important in dealing with factories.

CIRCULARS AND PUBLIC HEALTH AUTHORITIES.

R. H. S.—The circular is strictly in accord with the provisions of the Vaccination Act and Order. It is probable that the point made by our correspondent has escaped the attention of the medical officer of health. We think a friendly suggestion to him would in all probability have the desired effect.

THE ISOLATION AND REMOVAL OF SMALL-POX PATIENTS.

L.M.G., in view of the present epidemic of variola, asks for information on the following points, namely, (1) Under what conditions (if any) are small-pox patients allowed to remain in their own homes? (2) Are there any hospitals for paying patients? If so, where, and what are their approximate charges? (3) What steps should be taken to procure the immediate removal to hospital of (*a*) paying and (*b*) non-paying patients?

*** (1) The circumstances under which a person suffering from dangerous infections can be compulsorily removed to hospital are when he is without proper lodging and accommodation. (2) The only hospital near London at which paying patients suffering from small-pox are received is, so far as we know, the Small-pox Hospital, Clare Hall, South Mimms, High Barnet. As to charges application should be made to the Secretary, 30, Coleman Street, E.C. (3) A telegram to the hospital at South Mimms, or to the Metropolitan Asylums Board, Carmelite Street, Embankment, will secure an ambulance.

PRIVATE PATIENTS BECOMING PAUPERS.

B. M. B.—Our correspondent was himself instrumental in obtaining parochial relief for his patient from the relieving officer; as a consequence of this the patient became a pauper. The relieving officer was then only doing his duty to the guardians, and probably carrying out their instructions, by arranging for the Poor-law medical officer of the district to visit the patient in question and to report upon the case. This the latter was bound to do on receiving a proper order from the relieving officer, which it may be assumed was issued in the ordinary way.

SCOTTISH NURSES FOR CONCENTRATION CAMPS.—Ten nurses have been selected from various parts of Scotland by Miss Louisa Stevenson, on behalf of the Colonial Office, for service in the Orange River Colony concentration camps. They sail for South Africa from Southampton about January 31st in the hospital ship *Dunera*. Including those formerly sent out, the number selected in Scotland for South Africa is now forty-six.

A CONGRESS OF MEDICAL STUDENTS AT LIÉGE.—A Congress organised by the Association of Medical Students at Liége will be held on January 26th. The following questions are proposed for discussion: (1) The question of a special diploma for practitioners calling themselves specialists; (2) compulsory elementary clinical teaching of all so-called special branches for students; (3) uniformity of medical studies in Belgium universities; (4) a resolution in favour of the free practice of medicine for practitioners in different countries.

MEDICAL NEWS.

THE first Sicilian Medical Congress is to be held at Palermo next April.

PRESENTATION.—Mr. W. Black Jones, M.D., B.S.Lond., D.P.H., was on January 17th presented with a copy of the engraving, The Doctor, handsomely framed, by the nursing class in connexion with the Beulah (Breconshire) Centre of the St. John Ambulance Association.

SUCCESSFUL VACCINATION.—Mr. S. H. Rentzsch, M.R.C.S., L.R.C.P.Lond., Week St. Mary, has received the Government grant for the second time in succession for successful vaccination. Dr. Louis E. Delmege, Public Vaccinator of the Burton District of the Kendal Union, has been awarded the Government grant for efficient vaccination in his district for the second time in succession.

JUVENILE SMOKING IN THE ISLE OF MAN.—It is stated that at the next sitting of the Manx Legislature a Bill will be introduced providing that tobacconists selling tobacco to minors under 18 shall be liable to a fine not exceeding £10, or to imprisonment not exceeding one month, or to fine and imprisonment; while minors under 18 found smoking or otherwise using tobacco are subject to a fine not exceeding 40s., to imprisonment not exceeding seven days, or to be whipped.

FOLKESTONE MEDICAL SOCIETY.—The annual meeting of the Folkestone Medical Society was held on January 10th, by invitation of the President, Dr. Tyson. Twenty-two members were present. After the annual report had been adopted, Dr. Perry thanked Dr. Tyson for his services to the Society as its President during the past three years. Dr. Eastes was then unanimously elected President, Drs. Hackney and Tyson Vice-Presidents, and Dr. Sworder Honorary Secretary and Treasurer. A musical programme concluded the meeting.

THE SANITARY INSTITUTE.—The Sanitary Institute will hold a Congress at Manchester from September 9th to September 13th, 1902. Earl Egerton of Tatton will be the President of the Congress. Sir J. Crichton-Browne will preside over Section I (Sanitary Science and Preventive Medicine); Sir Alexander Binnie, M.Inst.C.E., over Section II (Engineering and Architecture); and Professor Sheridan Delépine over Section III (Physics, Chemistry, and Biology). Eight technical conferences will also be held in connexion with the Congress.

THE RED CROSS SHIP "CARTHAGE."—Dr. W. D. Arnold, of the United States Navy, in a letter to the *Oriental Medical Times*, gives an account of a visit to the British Red Cross Hospital Ship, *Carthage*, off Taku. The ship, a P. and O. liner, had been converted in three weeks, and the medical arrangements were in charge of Major Dawson, I.M.S. Dr. Arnold, who disclaims "Anglophilism," expresses a very favourable opinion of the way in which she had been adapted, and states that she was not "materially deficient in any particular compared with what hospital and ambulance ships" he had "had the opportunity to visit."

AN ITALIAN MEDICAL PRESS CONGRESS.—A National Congress of the Italian Medical Press is to be held in Rome this year during the Easter holidays under the presidency of Professor Durante, Senator of Italy. The object of the Congress, which is organised by the Italian Medical Press Association, is stated [illegible] to afford to all without distinction who help in the [illegible] of the Italian medical press an opportunity of [illegible] fraternizing, and discussing their moral and material [illegible]. Among the subjects to be discussed are the relations of the medical to the political press. Arrangements are to be made for periodical meetings of the Congress.

THE SOCIETY OF MEDICAL PHONOGRAPHERS.—This Society will hold its next annual shorthand examination early in May, 1902. [illegible] will be offered, each of the value of £5, one for [illegible] students and one for students of more than one year's standing. The competition will be open without entrance fee to any registered medical student in the United Kingdom who has not taken a first prize at one of the Society's previous competitions. It will be held simultaneously in London, Edinburgh, Dublin, and at any provincial medical centre in the United Kingdom at which not fewer than three candidates shall offer themselves. Intending candidates should send in their names as early as possible, and in any case before April 15th, to Dr. P. G. Griffith, Bonhams, Farnborough, Hants, who will supply a detailed prospectus of the examination.

WE are asked to state that the St. Luke's Lodge of Instruction held its first meeting on January 20th at the Criterion Restaurant. This lodge is the result of the work done by a Committee representing the various medical lodges of the metropolis which was appointed last session to consider the subject. The principal business of the evening was the passing of the by-laws, at the conclusion of which a vote of thanks to Brother Rowell, the Secretary of the original Committee, upon whom has fallen the brunt of the work in connection with the preliminary organization of the lodge, was received with acclamation, and ordered to be entered on the minutes. The St. Luke's Medical Lodge of Instruction proposes to meet each Monday in the month from October to May inclusive, with the exception of those falling in the Christmas vacation, Easter Monday, and Whit Monday. The Secretary is Brother Eyre, of Embankment Chambers, Villiers Street, W.C.

THE COLLAPSE OF A MILL AT BELFAST.—A very serious accident, involving considerable loss of life, occurred on January 20th at Belfast. The side wall of one of the four-storied buildings of the Smithfield Flax Shirting Company gave way during working hours. There was heavy machinery in each of the floors, and a large nnmber of operatives, chiefly girls, were buried in a huge mass of bricks, concrete, and machinery. Up to the present it is impossible to ascertain the exact cause and the number killed. Dr. M'Crea and Mr. Bright, from the Royal Victoria Hospital, and Dr. Ritchie, Shankill Road, were called at once, and gave all the aid possible. Nine cases were brought by the three Corporation ambulances to the Royal Victoria Hospital, but were found to be dead on arrival; eleven were admitted alive, of whom one died soon afterwards. Several of the remainder are most severely injured. The injuries are for the most part fractures of all kinds, contusions, scalp wounds, intense shock, and suffocation due to the breaking of a steam pipe; fortunately, the patients seemed to have escaped scalding. Few operations were possible, and the immediate treatment was directed to the marked condition of shock.

MEDICAL VACANCIES.

The following vacancies are announced:

BARNSTAPLE, NORTH DEVON INFIRMARY.—House-Surgeon. Salary, £80 per annum, with board, residence, and washing. Applications to the Honorary Secretary by January 31st.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Three posts of House Physician. Appointment for six months, but eligible for re-election. (2) House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with residence, board, and washing in each case. Applications to the House Governor by February 1st.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Surgical Officer. Salary, £60 per annum, with board, washing, and attendance. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by February 5th.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon; not exceeding 30 years of age. Salary, £80 per annum, with furnished apartments, board, and attendance. Applications, endorsed "Junior House-Surgeon," to be sent to the Honorary Secretary, Mr. W. W. Cannon, 20, Mawdsley Street, Bolton, by February 12th.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications to the Secretary.

BRECON INFIRMARY.—Resident House Surgeon; unmarried. Salary, £100 per annum, with furnished apartments, board, attendance, fire and gas. Applications to the Secretary, 6, Bulwark, Brecon, South Wales, by February 10th.

BRISTOL ROYAL INFIRMARY.—Casualty Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications [illegible] February 4th.

CENTRAL [illegible] MIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon [illegible] per annum, with board and residence. Applications [illegible]

CHI[illegible] Assistant Medical Officer; unmarried, and not [illegible] £100 per annum, with board, lodging, and washing [illegible] nacy Asylum, Chester, by February 12th.

COLCHE[illegible] ER HOSPITAL.—Assistant House-Surgeon [illegible] six months, but renewable. Salary at the rate [illegible] and washing. Applications to the Secretary [illegible]

DEVONPORT ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Appointment [illegible] at the rate of £40 per annum, with board, lodging, [illegible] to the Chairman of the Medical Committee by [illegible]

[illegible] MAN GENERAL HOSPITAL AND DISPENSARY.—[illegible] ical. Salary, £82 per annum, with board and washing [illegible] ary Secretary, 25, Athol Street, Douglas, Isle of Man.

[illegible] Assistant Medical Officer. Salary £140, rising [illegible] nonary, and attendance. Applications to the Medical [illegible] sylum, Winterton, Perryhill.

EASTERN DISPENSARY, Leman Street, E.—Resident Medical Officer. Salary, £140 per annum, with furnished residence, coals, and attendance. Applications to the Secretary by January 28th.

EDINBURGH ROYAL INFIRMARY.—Pathologist. Salary, £400 per annum. Applications to Mr. W. S. Caw, Treasurer and Clerk, by January 31st.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House Surgeon unmarried. Appointment for six months. Salary, £20, washing allowance (£2 10s.), with board and residence. Applications, on forms provided, to be sent to the Secretary by January 28th.

HULL: VICTORIA CHILDREN'S HOSPITAL.—Lady Assistant House-Surgeon. Salary, £40 per annum, with board and laundry. Applications to the Honorary Secretaries by January 31st.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House-Surgeon; unmarried. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by January 28th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. Salary, £450 per annum, with partially furnished house etc. Applications, endorsed "Application for Medical Superintendent," to be sent to the Clerk to the Visiting Committee, County Hall, Brecon, by February 28th.

LONDON HOSPITAL, Whitechapel, E.—Assistant Director of the Pathological Institute. Salary, £200 per annum. Applications to the House Governor by February 1st.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Pathologist. Applications to the Secretary, Mr. H. Teague, 38, Barton Arcade, Manchester, by January 31st.

MANCHESTER: MONSALL FEVER HOSPITAL.—Third Medical Assistant. Salary, £100 per annum, with board and lodging. Applications, endorsed "Appointment of Medical Assistant," to be addressed to the Chairman of the Sanitary Committee, Town Hall, Manchester, by February 1st.

METROPOLITAN ASYLUMS BOARD. Assistant Medical Officers at the Fever and Small-pox Hospitals; unmarried, and must not exceed 35 years of age. Salary, £160 for first year, £180 for second, and £200 for the third and subsequent years, with board, lodging, attendance, and washing. Applications on forms provided to be sent to the Clerk of the Metropolitan Asylums Board, Embankment, E.C.

MOUNT VERNON HOSPITAL FOR CONSUMPTION, Hampstead and Northwood.—Senior Resident Medical Officer. Honorarium, £100. Applications to the Secretary by January 31st.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—(1) Pathologist; (2) Senior Assistant to the Children's Out-patient Department; (3) Clinical Assistant. Candidates for (1) and (2) must be qualified medical women. Applications to the Secretary for (1) by January 28th, and for (2) and (3) by January 29th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—House-Surgeon. Appointment for six months. Salary at the rate of £80 per annum, with board, residence, and laundry allowance. Applications to the Secretary, at the City office, 27, Clement's Lane, Lombard Street, E.C., by February 3rd.

RAINHILL COUNTY ASYLUM.—Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary commences at £150 per annum, with prospect of annual increase of £25 to £240, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

SALFORD UNION.—Assistant Resident Medical Officer at the Union Infirmary, Hope, near Eccles. Salary, £150 per annum, with furnished apartments and attendance. Applications, endorsed "Assistant Medical Officer," to be sent to the Clerk to the Guardians, Union Offices, Eccles New Road, Salford, by January 28th.

ST. MARY'S HOSPITAL, Paddington, W.—Casualty Physician. Salary, £75 per annum. Applications to the Secretary by January 30th.

ST. OLAVE'S UNION.—Dentist for the Children's Home at Peckham. Salary, £30 per annum. Applications on forms provided to be sent to the Clerk, Union Offices, Tooley Street, S.E., by January 25th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer: unmarried and not more than 30 years of age. Salary to commence at £150 per annum, with board, lodging, and washing. Applications to Dr. Finch.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by February 5th.

WALSALL AND DISTRICT HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to Mr. E. J. Brookes, Chairman, Leicester Street, Walsall, by January 27th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £50 per annum, with board, lodging, washing, and attendance. Applications to Mr. F. F. Bache, Honorary Secretary, Churchill House, West Bromwich.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon. Applications to the Secretary by January 27th.

WESTMINSTER GENERAL DISPENSARY.—(1) Honorary Surgeon: (2) Resident Medical Officer. Salary at the rate of £120 per annum, with rooms, etc. Applications to be sent to the Secretary, 9, Gerrard Street, Soho, W., for (1) by January 28th, and for (2) January 31st.

WOLVERHAMPTON GENERAL HOSPITAL.—(1) Assistant House-Physician; (2) Assistant House-Surgeon. Appointments for six months. Honorarium at the rate of £75 per annum, with board, lodging, washing. Applications to the House Governor by February 10th.

WREXHAM INFIRMARY.—House-Surgeon. Salary, £100 per annum, with board, washing, etc. Applications to the Secretary by February 1st.

MEDICAL APPOINTMENTS.

ADAM, J. L., M.B., C.M. Aberd., appointed District Medical Officer of the Hartley Wintney Union, *vice* C. J. Denny, L.R.C.P.I., M.R.C.S., resigned.

BIDDARD, A. P., M.D., M.R.C.P., appointed Physician to the West London Hospital, *vice* F. G. D. Drewett, M.D., F.R.C.P., resigned.

BEEFSPORD, E. H., M.R.C.S., L.R.C.P. Lond., appointed Medical Superintendent of the Tooting Bec Asylum.

BLICK, Graham T. B., L.R.C.P. Lond., M.R.C.S., L.S.A., appointed Medical Officer in charge of Broome Hospital.

BROADBENT, Walter, M.A., M.D. Cantab., M.R.C.P. Lond., appointed Assistant Physician to the Sussex County Hospital.

BROWNLOW, Harry L., F.R.C.S. Eng., L.R.C.P., appointed Assistant Surgeon to the Royal United Hospital, Bath.

BUTLER, Frederick S., M.B. Melb., appointed District Medical Officer and Public Vaccinator for Lawler, West Australia.

CASTLE, R. F., M.B., B.C. Camb., appointed District Medical Officer of the Barnsley Union.

CHOLMELEY, W. F., F.R.C.S., appointed Honorary Assistant Surgeon to the Wolverhampton and South Staffordshire General Hospital.

CLARK, R. Veitch, M.A., B.Sc., M.B., Ch.B. Edin., appointed Assistant in the Physiological Department, Yorkshire College, Victoria University, Leeds.

COOPER, H. Spencer, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., appointed Medical Officer and Public Vaccinator for the Yaxley District of the Peterborough Union.

DEANE, E. W., M.B., Ch.B. Melb., appointed Officer of Health for the Borough of Carlisbrook, Victoria.

DENT, Howard, M.B. Durb., F.R.C.S. Eng., appointed Assistant Surgeon to the Wolverhampton and Staffordshire General Hospital.

DOUDNEY, Edwin, M.R.C.S. Eng., L.R.C.P. Edin., appointed Government Medical Officer and Vaccinator at Port Macquarie, New South Wales.

ERSKINE, A. M., M.B., D.P.H., appointed Medical Officer of Health to the Goole Urban District Council and Medical Superintendent of the Fever Hospital.

FETHERSTON, Richard H. J., M.D. Edin., L.R.C.S.I., appointed Certifying Factory Surgeon for the Metropolitan District of Melbourne.

FREEAR, A., M.R.C.S., L.R.C.P. Lond., appointed Resident Medical Officer to the Medway Union Workhouse.

GUEST, H. M., M.R.C.S., L.R.C.P. Lond., appointed District Medical Officer of the Alcham Union, *vice* B. D. Taplin, M.R.C.S. Eng., L.R.C.P. Edin., resigned.

GARRETT, P. G., M.B., B.S. Durb., appointed District Medical Officer for the Hinckley Union, *vice* W. S. Fulshaw, L.R.C.P., L.R.C.S. Edin.

JACKSON, Arthur M., M.D. Oxon., appointed Medical Superintendent of the Notts County Asylum.

LACE, Frederick, F.R.C.S., appointed Surgeon to the Royal United Hospital, Bath, *vice* F. K. Green, F.R.C.S., resigned.

LITTLEWOOD, J. O., M.R.C.S., L.R.C.P. Lond., D.P.H., appointed Visiting Medical Officer to the Nottinghamshire Sanatorium for Treatment of Consumption, Sherwood Forest.

LOVERGAN, Thos. J., M.R.C.P., L.R.C.S. Edin., appointed District Medical Officer and Public Vaccinator for Northampton, West Australia.

MANLY, Richard A. A., M.B. Melb., appointed Medical Officer of Health for the Shire of Lancefield, Victoria.

MATURIN, H., L.R.C.P. Edin., M.R.C.S. Eng., appointed Medical Officer of Health for the Hartley Wintney Rural District, *vice* C. J. Denny, L.R.C.P.I., M.R.C.S. Eng., resigned.

PERRY, S. H., M.D. Lond., appointed Medical Officer of Health to the Spalding Rural District Council.

PETHYBRIDGE, W. L., M.D., B.Sc. Lond., M.R.C.S., L.R.C.P., appointed Honorary Anæsthetist to the Royal Eye Infirmary, Plymouth.

RAY, John Howson, Ch.M. Vict., F.R.C.S. Eng., appointed Surgeon to the Manchester Children's Hospital, *vice* G. A. Wright, F.R.C.S. Eng., appointed Consulting Surgeon.

SPITTA, H. R. D., M.B., B.S. Durb., M.R.C.S., L.R.C.P., D.P.H. Camb., Assistant Lecturer on Bacteriology in St. George's Hospital Medical School, appointed Assistant Lecturer on Public Health.

THOMPSON, William Atkin, M.R.C.S. Eng., L.R.C.P. Lond., appointed House-Surgeon to the Rochdale Infirmary.

TWORT, F. W., M.R.C.S., L.R.C.P. Lond., appointed Assistant Bacteriologist to the London Hospital and Medical College.

WALLIS, C. Edward, M.R.C.S., L.R.C.P., L.D.S., appointed Dental Surgeon to Rochester House Asylum under the Metropolitan Asylums Board.

DAIRY FOR NEXT WEEK.

MONDAY.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 P.M.—Communications will be given by Mr. Ernest B. Dowsett, Mr. C. W. Glassington, Mr. F. W. Collingwood, Mr. E. Lloyd-Williams, and Dr. E. A. Peters.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Discussion on the Nature and Treatment of Obesity, to be opened by Sir Lauder Brunton.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 P.M.—Adjourned discussion on Modern Methods of Vaccination and their Scientific Basis. Speakers—Dr. Greenwood, Dr. Sidney Coupland, Dr. Louis Parkes, Dr. Eddowes, Mr. H. A. Stonham, Dr. Albert E. Cope, and Dr. J. Loane.

WEDNESDAY.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 P.M.—Business:—Dr. Ivor Murray: Note on Hayling Island. Mr. W. Armstrong on Adjuncts to Spa Treatment.

THURSDAY.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, London, W., 8.30 P.M.—Cases and specimens by Messrs. Keeling, Hickman, Roll, Ormond, Parsons, and Taylor. Papers—Dr. C. O. Hawthorne: On Intracranial Thrombosis as the Cause of Double Optic Neuritis in Chlorosis. Dr. G. C. Berry: (1) On so-called Muscular Asthenopia; (2) Note on the Treatment of Cystoid Cicatrix following Cataract Extraction. Mr. Simeon Snell: (1) Endothelioma of the Orbit occasioning a peculiar Varicosity of Vessels on the Surface of the Eyeball; (2) a case of Ringworm of the Eyelids in an Adult due to a Large-spored Trichophyton, probably of Animal Origin. Dr. F. L. Eldridge-Green: Some Observations on the Visual Purple.

POST GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 P.M.—Demonstration of Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 P.M.—Lectures on Torticollis.

Medical Graduates' College and Polyclinic, 22, Chenie Street, W.C.—Demonstrations will be given at 4 P.M. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, ear.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 P.M. Lecture on Paralysis of the Cranial Nerves.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 P.M. as follows: Monday: Surgical Emergencies. Tuesday: Plaster-of-Paris Splints. Wednesday: Lantern Demonstrations on Hernia. Thursday: Rectal Fistula. Friday: Preparation of Patients before an Anæsthetic.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CROSSWELL.—On December 10th 1901, at Grand Turks Turks Island, B.W. Indies, the wife of Dr. L. O. Cross well (nee Martha H. Stredwick (May)), Croydon, Government Medical Officer, of a son.

OVEREND.—On January 5th, at 49, Montgomery Terrace Road, Sheffield, the wife of Wilkinson Overend, B.A., M.B. Oxon, of a daughter.

WILLIAMS.—At Fishkill-on-Hudson, New York, U.S.A., on December 23rd, 1901, the wife of Geo. H. Williams, M.D., M.R.C.S. Eng., L.R.C.P. Edin., formerly of Warrington, Lancashire, of a son.

MARRIAGES.

DALE—NIXON.—On January 8th, at St. Saviour's Church, S.W., Cuthbert Bracey Dale, M.R.C.S., L.R.C.P., of 106, Bristol Road, Birmingham, to Winifreda, younger daughter of the late Lieutenant-Colonel A. J. Nixon, Rifle Brigade.

MURRAY—MACDONALD.—At Rubislaw Parish Church, Aberdeen, on January 9th, by the Rev. C. C. Macdonald, D.D., assisted by the Rev. Robert Thoms, B., William Murray, M.B., Ch.B. Edin., eldest son of James Murray, Glenburnie Park, to Mary D. M. Macdonald, elder daughter of the late D. A. Macdonald, Esq.

WALLWORK—ROYE.—On January 22nd, at Providence Congregational Church, by the Rev. W. H. Fothergill, James Wallwork, M.R.C.S. Eng., L.R.C.P. Lond., eldest son of Joseph Wallwork, M.P.S., of Tyldesley, to Agnes Marsh, elder daughter of Councillor Mark Roye, Kirkhill, Middleton. Address letters, etc., Cross hill Cottage, by Lochgelly, Fifeshire.

DEATH.

WINGATE.—At Easington, co. Durham, suddenly, aged 38 years, Donald Wingate, M.B., C.M., Medical Officer for Easington Union. Interment at Easington, Wednesday, January 22nd, at 3 o'clock. Friends please accept this intimation.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

[illegible] Editorial matters should be addressed to the Editor, 1, Agar [illegible] those concerning business matters, advertisements, non-[illegible], etc., should be addressed to the Manager, at the Office, 429, [illegible].

[illegible] and LETTERS *forwarded for publication are understood to be* [illegible] *unless the contrary be stated.*

[illegible] published in the BRITISH MEDICAL JOURNAL [illegible] the Manager, 429, Strand, W.C., on receipt of proof.

[illegible] of their communications should authenti-[illegible] necessarily for publication.

[illegible] ered are requested to look at the Notices to Correspondents [illegible].

[illegible] TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY [illegible] RETURNED.

[illegible] it is particularly requested that ALL letters on the editorial busi-[illegible] be addressed to the Editor at the Office of the JOURNAL, and not [illegible].

TELE[illegible] The telegraphic address of the EDITOR of the BRITISH [illegible] *London*. The telegraphic address of the MANAGER of the [illegible] JOURNAL is *Articulate, London*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

TREATMENT OF ANAEMIA.

R. asks for advice in the treatment of a schoolmistress, unmarried, aged [illegible], who has suffered from anaemia on and off for 15 years. When placed under treatment she quickly recovers, but on leaving off her medicine relapses usually in a week or two. She walks every day when able.

INCOME TAX.

DIS[illegible] my income to be £700 a year, £100 from [illegible] appointment, must I make my return for [illegible] £700 a year? As I find in the BRITISH MEDICAL [illegible] January 4th private income should not be given [illegible] having done so and paid, I appear to have [illegible].

*** We have referred the inquiry to the Income Tax Repayment Agency, 6, Chichester Road, Westbourne Square, W., and they state that our correspondent has probably paid tax twice over on the private income and possibly lost the abatement. The agency advises in such [illegible].

SENSATIONS OF COLD.

A [illegible] ces: A few times in my practice I remember that patients [illegible] ed of an unnatural feeling of cold over limited surfaces [illegible] and umbilical regions of the abdo[illegible] interscapular spaces of the back, which I could not account for. Having myself lately experienced this sensation in the above-mentioned abdominal regions, and not being able to [illegible] better physiologist than myself [illegible] explanation for solving this problem. In my case it recently [illegible] after I retired to rest, and [illegible]. My general health was as good as usual, and I was not conscious of any derangement internally.

THE PROPER APPLICATION OF ROUGHTON'S AND CLINE'S SPLINTS IN POTT'S FRACTURE.

[illegible] judge from the textbooks, [illegible] in Watson's Surgery (6th ed., p. 465) [illegible] the inside of the limb (*vide* Fig. 221). [illegible] to correct the outward dis-[illegible] Cline's splints are directed to [illegible] the foot-piece on the outside. In [illegible] Roughton's splint is applied to [illegible] in my opinion and experience is the [illegible] on p. 165) directs Cline's splints to be [illegible] that having the right-angled foot-piece on the outer side [illegible] of the foot. Would some of your readers express their [illegible].

ANSWERS.

J. F. (Blackburn) would find [illegible] on the subject he names in [illegible] vol. xxi. p. 401, and Allbutt's [illegible] works can be consulted in the library [illegible]. There is a valuable bibliography in [illegible].

LETTERS, NOTES, ETC.

In the relations of Dr. [illegible], recently deceased at [illegible] with Dr. C. R. H., [illegible] would be pleased to answer. It [illegible] would he please send it to [illegible].

BU[illegible]N (Winnipeg) [illegible] to the remarks of Mr. Hawkins-Ambler [illegible]ns (BRITISH MEDICAL [illegible] and pulseless. His face was a picture of shock, but his mind [illegible] clear, although he was apparently undergoing euthanasia. He inquired about the extent of his injuries, and directed most rationally measures for his relief. At the same time he was able to raise himself on his elbows and grasp one firmly with his hand. He lived a few hours and was conscious to within a short time of death. "Surgeon" believes that there is a decided contrast between such a case and an ordinary case of death from hæmorrhage.

LETTERS, COMMUNICATIONS, ETC., have been received from

A Dr. P. H. Abercrombie, London; Mr. H. W. Atkinson, Felixstowe; Association of Registered Medical Women, Secretary of, London; Dr. E. W. Adams, Sheffield. **B** Mr. R. Barnett, Dolgelly; Mr. W. L. H. Blenkarne, Worthing; Mr. E. Y. Brown, Manchester; Dr. F. D. Boyd, C.M.G., Edinburgh; Mr. H. N. Barnett, Knock; Mr. J. B. Bayfield, Great Yarmouth; Mr. A. B. Brockway, Brisbane; N. O'D. Burns, M.B., Ottery St. Mary; J. H. Bailey, M.B., Port Erin; Dr. G. T. Beatson, Glasgow; H. W. Barnard, M.B., Lancaster; Mr. L. A. Bidwell, London. **C** Mr. T. A. Clayton, Paris; R. P. Crosbie, M.B., Cork; Clyde; Dr. M. Craig, London; Mr. J. T. Clark, Perak; Cantab; Cardiff Medical Society, Secretary of, Cardiff; Dr. G. Carpenter, London; C. S. **D** D. M.; Mr. W. S. M. D'Urban, Exeter; Dr. L. Dobson, London; Mr. J. Davies, Newton, Mont.; Dr. T. Dilworth, Formoy; Dr. H. Davy, Exeter; Donegal; Dr. E. Deanesly, Wolverhampton; Dr. A. Duncan, London; Mr. L. E. Delmege, Burton. **E** Enquirer. **F** F.R.C.S.E.; Dr. W. F. Farquharson, Carlisle; F.R.C.S. **G** Dr. A. Greenwood, Crewe; Mr. O. F. F. G. Gulbaum, London; Dr. A. W. Gilchrist, Nice; Dr. R. F. Gill, London; Dr. E. G. Gilbert, Tunbridge Wells; P. G. Griffith, M.B., Farnborough; Dr. W. A. Gibb, Ipswich. **H** Mr. C. A. Hunt, London; Dr. G. R. Hall, Devonport; Mr. H. Hilliard, London; Messrs. Hickson, Ward, and Co., London; Mr. G. A. Hawkins-Ambler, Liverpool; Mr. T. Hoskin, London; Dr. S. Halbreich, Bridgend; H. E. T.; J. E. Holden, M.B., Preston; J. McK. Harrison, M.B., Ledbury. **I** Income Tax; I. V. R. C.; Inquirens. **J** Mr. H. E. Jones, Liverpool; Mr. W. M. Jones, Torquay; Dr. W. B. Jones, Llangammarch Wells; Jacobus; Dr. R. Jardine, Glasgow; Mr. R. D. Joyce, Dublin. **K** B. C. Kelly, M.B., Wells. **L** L. M. G.; A. Lawrie, M.B., Newmilns; Mr. R. R. W. Logan, Ashby de la Zouch; L. J. H.; Liverpool Medical Institution, Secretary of, Liverpool. **M** Dr. D. McKenzie, Leytonstone; G. J. Maguire, M.B., Richmond, Surrey; H. G. Maclagan, M.B., Melbourne; Mr. J. H. Mummery, London; M.O.H.; Dr. R. Main, London; Mr. H. May, Birmingham; Dr. J. D. Macdonogh, Bettws-y-Coed; Mr. E. D. Marriott, Nottingham; M.D.; Mr. J. McKay, London. **N** Mr. W. E. C. Nourse, Torquay. **O** Odourless Retentive Disinfecting Cloth Company, Managers of, London. **P** Dr. L. Pincus, Danzig; Dr. E. P. Philpots, Bournemouth; Dr. F. C. H. Piggott, Teignmouth; Dr. E. P. Paton, London. **R** Dr. C. Reguad, Lyons; Retired Man; Messrs. Rowntree and Co., York; Mr. W. H. Rowthorn, Rotherham; Dr. R. R. Rentoul, Liverpool; Mr. S. H. Rentzsch, Week St.-Mary; Dr. J. M. Rhodes, Didsbury; Dr. L. Roberts, Pontypridd; Rosacea. **S** E. G. Sworder, M.B., Folkestone; Dr. R. H. Shaw, Brighton; Dr. D. Somerville, London; Dr. E. Stevenson, Liverpool; Mr. W. Stevenson, Buxton; Dr. H. Snow, London; Stranger; E. J. Sidebotham, M.B., Manchester; Splint; Dr. R. G. C. Schröder, Alkmaar; C. Sanders, M.B., London; Dr. S. Sunderland, London; Mr. A. M. Sidney-Turner, Hove; S. Stephenson, M.B., London. **T** Dr. J. C. Thresh, London; F. W. Taylor, M.B., Blackburn; Mr. H. J. Taylor, Bolton; Dr. E. F. Trevelyan, Leeds; G. Turner, M.B., Pretoria. **V** Mr. V. C. J. Vanderstraaten, Beliatta, Ceylon; Veteran. **W** Dr. A. W. H. Walker, Harrogate; Dr. D. Walsh, London; Dr. B. Walker, Kirkby Stephen; Mr. W. E. Wyllys, Great Yarmouth; Dr. A. T. T. Wise, Montreux; Mr. C. Williams, Norwich; Mr. S. W. Wilson, Dublin; Dr. F. Willcocks, London; Dr. C. J. Whitby, Burgess Hill; Mr. C. C. Weeks, London. **Z** Zocco, Limited, Manager of, London; etc.

BOOKS, ETC., RECEIVED.

The War in South Africa: its Cause and Conduct. By A. Conan Doyle. London: Smith, Elder, and Co.; and George Newnes, Limited. 1902. 6d.

Recent Object Lessons in Penal Science. By A. R. Whiteway, M.A. London: Swan Sonnenschein, and Co. 1902. 3s. 6d.

Index for Surgical Records. By C. W. Cathcart, F.R.C.S. Edinburgh: A. and D. Padon.

Mosquito Brigades and How to Organise Them. By Ronald Ross, F.R.C.S., D.P.H., F.R.S. London: George Philip and Son, Liverpool: Philip, Son, and [illegible]. 1s.

[illegible]-manism. By E. H. Miles, M.A. London: Swan Sonnenschein, [illegible]. 1902.

[illegible] the foot-piece on the outside. In [illegible] Roughton's splint is applied to [illegible] in my opinion and experience is the [illegible] on p. 165) directs Cline's splints to be [illegible] that having the right-angled foot-piece on the outer side [illegible] of the foot. Would some of your readers express their [illegible].

[illegible] Victoria Regina et Imperatrix. By [illegible]. London: John Bale, [illegible]. 1902. 1s.

[illegible], Prevention, [illegible] W. Dixey, M.D., [illegible]. London: John Bale, [illegible].

[illegible] Par A. Cantex. [illegible].

The Medical Treatment of Gall Stones. By J. H. Keay, M.A., M.D., London: Rebman, Limited. 1902. 8s.

Human Embryology and Morphology. By A. Keith, M.D., F.R.C.S. London: Edward Arnold. 1902. 12s. 6d.

Cliniques Maladies du Système Nerveux, Hospice de la Salpêtrière. Par Professeur F. Raymond. Vols. III and IV. Paris: O. Dom. 1899-1901. Frs. 15 and Frs. 16.

On the Principles and Exact Conditions to be Observed in the Artificial Feeding of Infants; the Properties of Artificial Foods; and the Diseases which Arise from Faults of Diet in Early Life. By W. B. Cheadle, M.A., M.D., F.R.C.P. Fifth Edition. Edited by F. J. Poynton, M.D., M.R.C.P. London: Smith, Elder, and Co. 1902. 5s.

"First Aid" to Injured and Sick. By J. F. Sutherland, M.D. Twenty-Second Edition. London: Houlston and Sons. 3d.

Manual of Alcoholic Fermentation and the Allied Industries. By C. G. Matthews, F.I.C., F.C.S. London: Edward Arnold. 7s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	1 17 6
A page	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in [illegible].

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed [illegible] in initials or numbers.

A Clinical Lecture

ON A FURTHER SERIES OF CASES OF

TOTAL EXTIRPATION OF THE PROSTATE FOR RADICAL CURE OF ENLARGEMENT OF THAT ORGAN.

Delivered at the Medical Graduates' College and Polyclinic, January 15th, 1902.

By P. J. FREYER, M.A., M.D., M.Ch.,
Surgeon to St. Peter's Hospital, London.

In a lecture delivered by me in this College in June last, and published in the British Medical Journal of July 20th, 1901, I described a new and seemingly very formidable operation for radical cure of enlargement of the prostate, namely, total enucleation of the organ in its capsule, the urethra being left behind intact. I further gave full details of four cases in which I had successfully performed this operation, the ages of the patients ranging from 62 to 69 years, and the weights of the prostates from 2½ to 4¼ ounces. Two of these patients were present at the lecture, and told their own tales. The four are now in good health, and can retain and pass their urine naturally as well as ever they did. Two of them have resumed the active pursuit of their avocations, which they had abandoned owing to the pain and discomfort incident to catheter life; and two have regained their sexual powers, which had been lost through the debilitating influence of the disease.

I have now to invite your attention to the details of a further series of four cases in which I have undertaken this operation, the patients ranging from 65 to 76 years, and the prostates removed from 3 to 10¾ ounces.

Case v.—This gentleman, aged 75, on the advice of the late Dr. Cox, of Reading, and Dr. Philip, of Boulogne, came from France to consult me on September 2nd, 1901. About fourteen years ago, having for several months previously suffered from severe prostatic symptoms, he was advised to pass a catheter to empty his bladder nightly on going to bed. A severe attack of cystitis ensued, and since then he had never passed urine except through a catheter. After the cystitis passed off he got on fairly well with the aid of his catheter till about eight years ago, but since then he has had repeated attacks of cystitis with purulent urine. For the last few years he has had frequent attacks of haematuria, often very profuse, intense pain at times, great scalding in passing the catheter, which he has had to employ latterly every half-hour day and night. The urine was alkaline, contained much pus and blood, and was intensely offensive. He had much difficulty in passing a catheter at times, from 14 to 16 inches of the instrument being introduced before urine flowed, so that specially long catheters had to be employed. As Dr. Philip wrote:

> It was only his very fine constitution that enabled him at his age to survive a period of martyrdom which was increasing in severity.

I introduced a long coudée catheter, No. 9 English scale, with some difficulty, 14½ inches entering before urine flowed, and drew off 3 ounces of fetid urine, containing much pus and some blood. The prostate was felt enormously enlarged *per rectum*, but fairly soft and rather nodular. The kidneys were probably affected. The patient was in great agony, but cheerful and hopeful of relief from operation.

On September 6th, assisted by Mr. H. Frankling, Mr. C. Braine giving the anæsthetic, I performed total extirpation of the prostate. I commenced by passing a coudée catheter, and drew off 2 or 3 ounces of urine of a fearful stench. The bladder was washed out repeatedly with solution of permanganate of potash. It was then distended with 12 ounces of boracic lotion, and, the catheter being left in, suprapubic cystotomy was performed. On introducing my finger through the wound, I found the bladder almost filled by a rounded tumour (Fig. 1, AA' BB') the size of a cricket-ball, which at first I imagined to be an enormous "middle lobe" of the prostate; but, on closer examination, this was found to be composed of two outgrowths (Figs. 1 and 2, AB, A'B') of the lateral lobes projecting into the bladder, each the size of half a cricket-ball, with a deep vertical cleft between them, through which the catheter was felt passing into the bladder. A small phosphatic concretion, lying free in the bladder, was removed. The mucous membrane over the most prominent part of the right lobe was then snipped by scissors, the incision enlarged by the finger nail, and that portion of the lobe (Fig. 1, A'B') easily and rapidly detached from its mucous covering, which was pushed down off it. The prominent portion of the left lobe (Fig. 1, AB) was similarly dealt with, the whole mass (AA' BB') then lying bare of mucous membrane. Each half of this mass was then for convenience broken off by the finger along the line BB'), flush with the floor of the bladder, and withdrawn by lithotomy forceps through the suprapubic wound. Their lower portions were found to be quite gangrenous. The main body of the prostate (Figs. 1 and 2, BB' CC') was then attacked and enucleated in its capsule from the sheath and urethra, the finger working its way successively below, outside, above, and on the inner side of each lateral lobe, the lobes separating above by the giving way of the superior commissure, or "joining portion," and the urethra with its accompanying muscles being peeled off and pushed upwards beneath the pubic arch. The prostate was so large that it blocked the space between the pubic arch and rectum, so that the finger passed round it with some difficulty. Strong fibrous bands were met with at the sides and behind the triangular ligament, passing from the sheath to the capsule, which required some force to tear through. The main body of the prostate, now lying loose within its sheath, was tilted to the left beneath the urethra, and delivered into the bladder through the slit made in its mucous membrane in removing the portion of the left lobe (Fig. 1, A B) projecting into the bladder. A finger of one hand placed in the rectum steadied the prostate during the enucleation, and pushed it towards, and eventually into, the bladder. The prostate was then withdrawn from the bladder by lithotomy forceps. I would here remark that a very large prostate can be removed whole in this way, owing to the compressibility of the adenomatous tissue of which it is mainly composed. After removal of the prostate the urethra could be traced entire from the triangular ligament to the neck of the bladder surrounding the catheter. Between the finger in the rectum and that in the cavity whence the prostate had been removed only a thin partition, formed by the wall of the rectum and recto-vesical fascia, could be felt. There was very little bleeding, which was rapidly controlled by irrigation with hot boracic lotion, at the cessation of which the cavity left by removal of the prostate had practically disappeared, owing to the rapid contraction of the surrounding tissues. Not a shred of mucous membrane was removed, and no sutures were employed in the bladder. No scissors, forceps, or cutting instrument of any kind was employed in the enucleation of the prostate, which was entirely effected by the finger. A large drainage tube was inserted in the bladder, and the suprapubic wound sutured by silkworm gut. The usual dressings, and large pads of wool for absorption of the urine, were applied. The operation lasted half an hour, the patient being three-quarters of an hour under the anaesthetic. The patient stood the operation well, was not in the least collapsed after it, and on waking from the anaesthetic commenced to laugh and joke. In the evening he was quite happy, and not in the least depressed by the operation. The temperature never rose above 100° F., and remained normal after September 12th. The tube was removed in 48 hours, after which the bladder was irrigated daily. The sutures were removed on September 12th, when the abdominal wound was closed, except where the drainage tube had passed.

On October 7th, 6 ounces of urine were passed naturally by the urethra, after which the quantity discharged in this way gradually increased as the suprapubic wound closed.

On October 16th the patient went for a drive; the fistula had practically closed, and he could retain and pass from 12 to 15 ounces of clear healthy urine naturally. About this period I had the pleasure of showing him to his old friend and former medical adviser Dr. Selwyn Harvey, of South Kensington, who was much pleased at the result of the operation.

On October 29th, after the patient had micturated, I passed a catheter and found that there were only 2 drachms of clear acid urine remaining. I filled the bladder with boric lotion and found that it contained 19 ounces comfortably. The urine flowed when 6 inches of catheter were introduced, in contrast with 14½ inches before the operation. The patient, taking long walks of 4 or 5 miles daily, is now a strong and healthy man.

On November 3rd he returned to France and bore the journey well, but next day there was a leakage of urine by the fistula. This, however, gradually closed, and on December 2nd the patient wrote:

> I pass my urine quite well by the natural passage, and hold my water as long as I like. For instance, last night, from 11.30 P.M. till 8 this morning (8½ hours), and no urine by the fistula, so really it is a perfect success.

I pass round for your inspection this enormous prostate, which weighed 10¼ ozs., measuring 5½ inches antero-posteriorly and 3½ inches transversely; also two drawings (Figs. 1 and 2) showing its actual size and physical aspects as viewed from above and beneath respectively. It is divided into two lateral lobes by a deep furrow, in which the catheter lies, indicating the position occupied by the urethra, which, however, terminated in its inner orifice about an inch behind the transverse constriction (B, B'). It is further divided transversely by a deep circular groove (B, B') into two parts, a posterior portion (A A' B B') which projected into the bladder, and was covered by mucous membrane, and an anterior portion (B B' C C'), which lay outside the bladder, between the pubic arch and rectum, and was encased in the prostatic sheath formed by the recto-vesical fascia. You will observe that the growth is enveloped by a thin, dense, fibrous capsule, which is closely adherent to it. This is the true capsule of the prostate. This (Fig. 2, *a*) is one of the adenomata of which the enlarged prostate is mainly composed, and was detached (at B', Fig. 2) during the removal of the latter. These adenomata, which vary in size from that of a white currant to a greengage, possess separate capsules of their own.

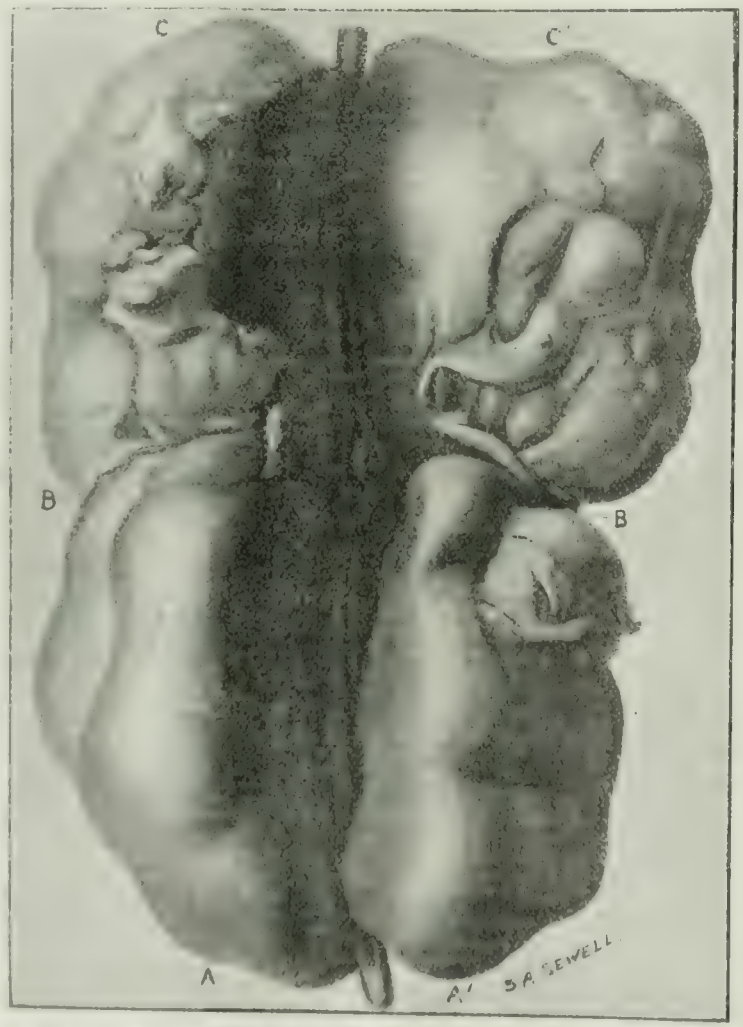


Fig. 1.—Showing upper aspect of enormous prostate, weighing 10¼ ounces, removed from patient, aged 76, exact size. The catheter indicates position occupied by urethra. Portion, A A' B B', lay in bladder; that, B B' C C', outside bladder, between pubic arch and rectum. C C', anterior aspect lying against triangular ligament.

CASE VI.—This gentleman, aged 76, was sent by Dr. James Frood, of Topsham, Devon, on September 4th. Had no prostatic trouble till 1888, when he got retention of urine, which was relieved by catheter. Between that period and 1898 he had an instrument passed occasionally; since then complete catheter life. Latterly he has had much pain, increased frequency of micturition, hæmaturia, and difficulty in passing the catheter, which he attributes mainly to a false passage having been made some years ago. For some months past he has had to keep the catheter in the bladder most of the night. Extremely feeble and worn from his sufferings; almost reduced to skin and bone. The urine contained much pus and blood, but was acid. A large stone was detected on sounding. The prostate was found *per rectum* much enlarged, but soft and elastic to the touch.

The patient was so extremely fragile that I did not consider he could survive any cutting operation, so on September 7th I performed litholapaxy, removing an extremely hard urate stone with oxalate nucleus, weighing 508 grs., in fifteen minutes. I hoped that this operation, in addition to removing the symptoms due to the stone, might possibly be followed by the power of voluntary micturition, as has frequently occurred in my practice in similar cases. As there was difficulty in passing the catheter a No. 12 coudée was tied in after the operation for two or three days. After removal of the catheter a little urine was passed naturally, and the quantity increased daily, so that by September 24th, when he was able to sit up and walk about his room, 5 or 6 ounces of urine passed in this way, the catheter being employed four times daily.

By October 6th the patient had vastly improved in his general health, his urine was normal, there was no pain, he could go for six or seven hours without using his catheter, and in the intervals could pass from 1½ to 2 ounces of urine naturally. I suggested to him that most men at his age would rest content with this comparative comfort, and would recoil from the risk of a further large operation. But he argued that he should never regain more than partial power over his bladder, that the prostatic enlargement would continue to increase, that there was always the danger of difficulty arising in passing the catheter, that catheter life was to him intolerable, and that at a later period he would be still less able to bear operation. Under these considerations he pressed for removal of the prostate, and said he was prepared to take the risk attaching thereto. In this course he was backed up by his wife and medical adviser, Dr. Frood, who knew his temperament, so I consented to undertake the operation.

On October 10th, Mr. W. Braine giving the anæsthetic and Mr. Frankling assisting me, I performed total extirpation of the prostate. On opening the bladder suprapubically, I

found projections of both lateral lobes in the bladder, each the size of a walnut. There was also a "middle lobe" (Fig. 3, C) the size of a plum, with a narrow neck, forming a short pedicle (Fig. 3, D). The catheter entered the bladder on the right of this pedicle. Introducing sharp-pointed scissors along my finger in the bladder, I snipped the mucous membrane at the apex of the "middle lobe," and then with my finger-nail stripped the mucous membrane off the tumour, which I found was projecting from and attached to the left lobe. I therefore continued the enucleation of the prostate on the left side without detaching the "middle lobe," stripping the left lobe in its capsule from the encasing sheath—gradually working with the finger below, outside, and above, and then internally, separating this lobe from the urethra. Finally, the finger was pushed forward beneath the prostate as far as the triangular ligament, from which the left lobe was shelled off. This lobe, now lying free, was pushed into the bladder by the finger in the rectum, which throughout the manipulations steadied the prostate and thus facilitated its enucleation. It was then delivered through the suprapubic wound. The right lobe was dealt with in the same way. It will be observed that in this case the lobes of the prostate during enucleation separated from each other along both the superior and inferior commissures, and were removed separately. The catheter, which was left in the bladder during the operation, was felt by the finger lying in the urethra whilst stripping the prostatic lobes off that canal, with the thickness of the urethral wall lying between. After the removal of the prostate the urethra could be traced entire, covering the catheter from the triangular ligament to its orifice in the bladder. There was considerable oozing of blood, which was, however, soon controlled by irrigation with hot boric lotion.

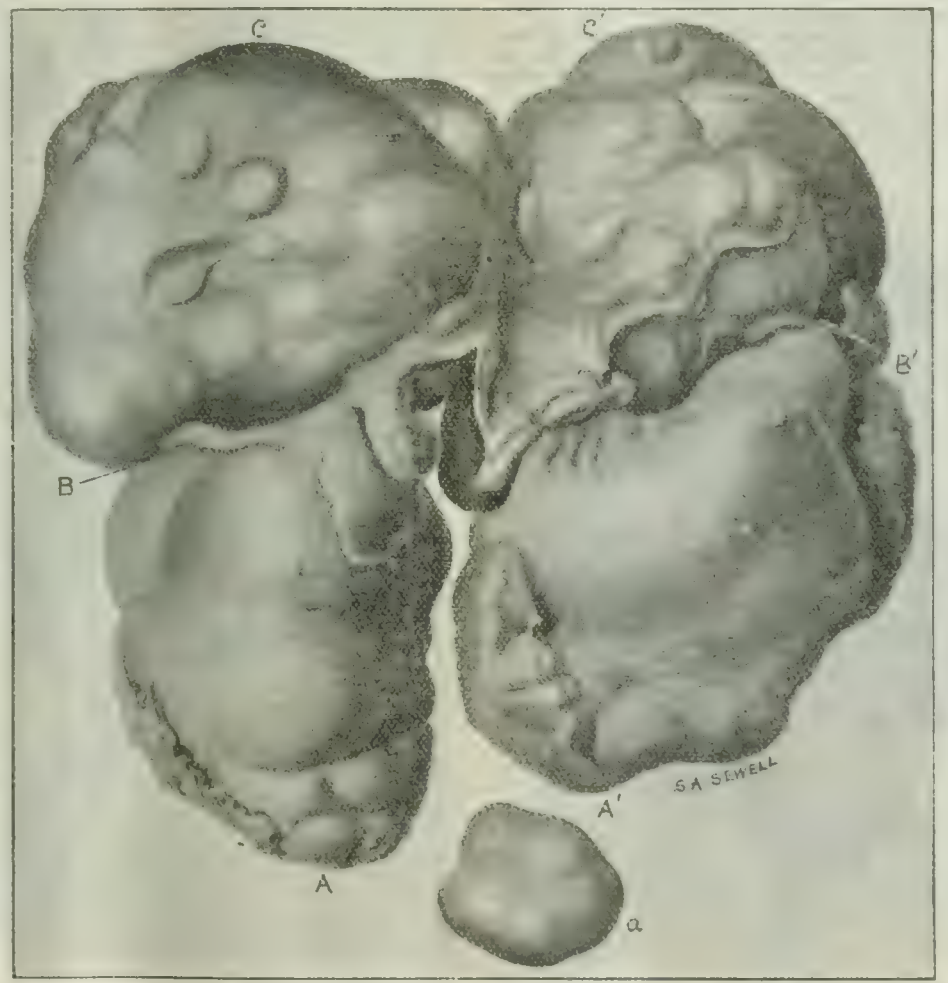


Fig. 2.—Showing under-aspect of same prostate as in Fig. 1. A B, A'B' growths from lateral lobes projecting into bladder. C B, C'B' prominences felt *per rectum*. *a*, adenoma detatched from prostate.

The bladder was drained through the suprapubic wound, and the after-treatment generally was the same as in the previous case. The patient was somewhat collapsed immediately after the operation, which lasted forty minutes, but he soon rallied and made satisfactory progress. He passed a little urine naturally on October 29th, after which date the quantity passed by the urethra increased daily. By November 8th the suprapubic wound had almost closed, most of the urine passed naturally, and the patient was sitting up several hours daily. The fistula was completely closed on November 14th, after which he could retain his urine from five to eight hours, and pass it naturally without the least trouble, and with as much force as at any period of his life. His urine was perfectly normal. The patient put on flesh rapidly, and when he left London for Devonshire on December 10th was hale and hearty, "stronger," as he wrote me, "considering his advanced age, than at any other period of his life." He travelled from London to Topsham, walked from the railway to his house (ten minutes walk), and retained his water for nine hours without inconvenience. Since then Dr. Frood writes:

> The operation has been a magnificent success. My hopes and anticipations from reading your lecture in the BRITISH MEDICAL JOURNAL have been fully realised.

The prostate (Fig. 3) which I show you weighed $3\frac{1}{2}$ ounces. The separate lobes are placed in apposition in their natural position, with a catheter lying in the site occupied by the urethra. Each lobe is enveloped in a thin fibrous capsule—the true prostatic capsule—within which are numerous adenomatous tumours. The so-called "middle lobe" (C) is in reality an outgrowth from the left lobe (A), forming a ball valve to the urethral orifice.

CASE VII.—This was a cabman, aged 70, who was admitted to St. Peter's Hospital on October 12th, 1901. He had suffered from prostatic symptoms for fifteen or sixteen years, and had employed a catheter for six or seven years. Some five years ago he injured himself in passing a metal catheter. This was followed by profuse haemorrhage into the bladder, and no urine would pass by the catheter. He was admitted to the Westminster Hospital, where suprapubic cystotomy was performed, and an enormous clot, distending the bladder, turned out. My friend, the late Mr. Thomas Bond, who operated, informed me that he found no stone, only enlargement of the prostate.

In March, 1897, he came to St. Peter's Hospital suffering from severe cystitis. Catheterism was then complete, and the prostate greatly enlarged *per rectum*. On sounding I

detected a soft phosphatic stone, which I successfully removed by litholapaxy on March 17th, the *débris* weighing 94 grs. The cystitis disappeared, and the patient kept fairly well for about a year, no urine, however, passing except through the catheter. In October, 1898, he again turned up with similar symptoms of stone, superadded to those of enlarged prostate. I again detected, and successfully removed by litholapaxy, a phosphatic stone, the *débris* of which weighed 84 grs. The patient remained free from cystitis for about a year, but subsequently came to the hospital from time to time suffering from cystitis and haematuria, but no stone was detected on sounding. He had been a hard drinker for years, was in broken health, and mentally depressed. Profuse and almost constant discharge of a glairy substance resembling prostatic fluid was a feature in his case, and to this he attributed his debility and depression of spirits.

On October 16th I cystoscoped him, and found that there was a large tumour corresponding to the left lobe of the prostate, projecting into the bladder, and a fringe on the right side of the urethral orifice. The prostate was enormously enlarged *per rectum*, particularly on the left side, but fairly soft and elastic to the touch.

On October 22nd I removed the prostate entire in its capsule (Fig. 4). On opening the bladder suprapubically I found that the prostatic enlargement was mainly confined to the left side, forming a large prominent tumour on the left of the urethral orifice, the size of a peach. There was a beaded fringe surmounting a collar, or projecting up rather, on the right of the orifice. The mucous membrane over the most prominent part of the tumour on the left was snipped by scissors, and then detached by the finger nail from that portion of the left lobe that projected into the bladder. The enucleation of the prostate out of its sheath was then continued by the finger point, the forefinger of the other hand being placed in the rectum, for the purpose of fixing the prostate and pushing it towards the bladder. The finger worked in succession beneath, outside, and above the left lobe, separating it from the sheath, and then inside, peeling it off the urethra, with its accompanying muscular and fibrous coat, which was pushed up out of the way towards the pubic arch, between the lobes, which during the manipulations separated from each other along the superior commissure. The finger through the same opening in the bladder worked round the right lobe and front of both lobes, peeling them off the triangular ligament. The prostate as a whole (Fig. 4) was then delivered into the bladder, and thence withdrawn by lithotomy forceps. Two adenomatous outgrowths (Fig. 4, C, C') were detached during the extraction, and removed through the same opening as the rest of the prostate, by passing the finger to the right beneath the urethra, and hooking them from beneath the mucous membrane.

After removal of the prostate the urethra was traced whole, covering the catheter from the triangular ligament to the neck of the bladder. The haemorrhage was slight and readily controlled by irrigation with hot lotion. A tube for drainage was placed in the suprapubic wound, and the after-treatment, generally, was the same as in the previous cases. An attack of bronchitis followed the operations, and was rather distressing for two or three days, after which the patient began to make favourable progress. The drainage tube was removed on thirty-six hours, after which he began immediately to pass

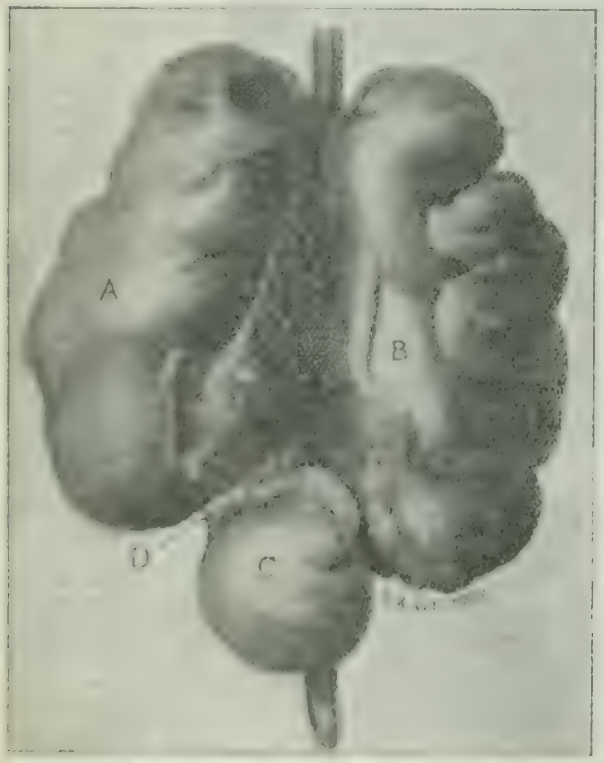


Fig. 3.—Prostate weighing 4½ ounces, removed from patient, aged 76; exact size. Catheter shows position occupied by urethra. A, B lateral lobes, C, so-called "middle lobe," being outgrowth from A.

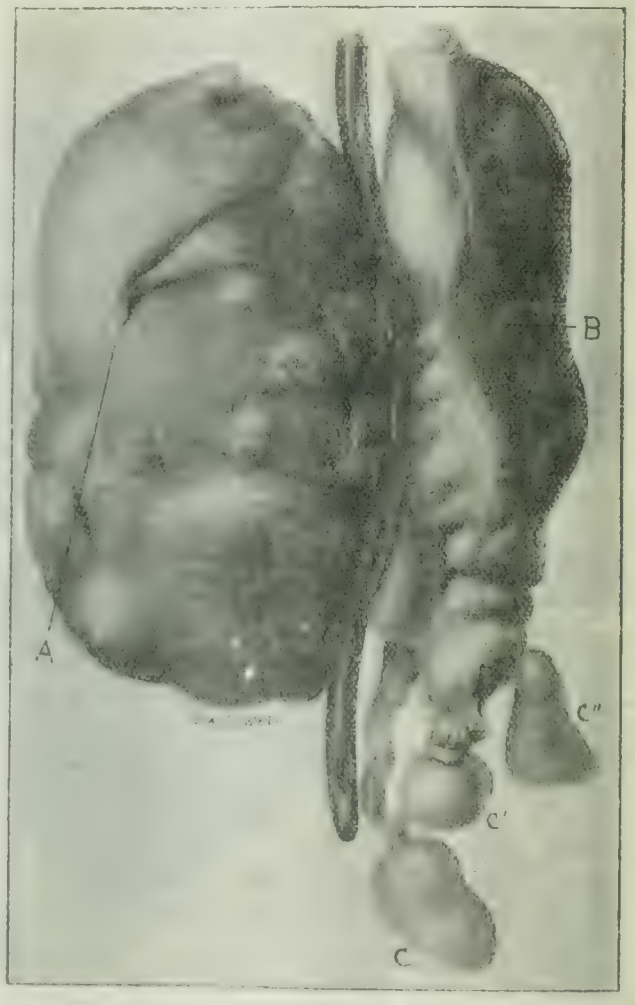


Fig. 4.—Large prostate, weighing 6 ounces, removed from patient, aged 70. A, left lobe enormously hypertrophied; B, right lobe, elongated, flattened, terminating in outgrowths C,C',C'' in the bladder. The catheter lies in position of urethra, which was very tortuous.

some urine naturally by the urethra. The quantity thus passed steadily increased daily, and this facilitated keeping the bladder clean. At the end of a week the patient was in excellent spirits, had a hearty appetite, and was in all respects progressing favourably. By the end of a fortnight the suprapubic wound had almost healed, most of the urine was passing naturally, and all anxiety about his recovery had ceased. Suddenly, on November 6th, with a normal temperature, he began to show signs of mental disturbance, suffering from the most extraordinary delusions. Next day acute and violent mania set in, and he had to be put under restraint. Morphine, chloral, and bromides were given in large doses to produce sleep. The patient refused all food, so that he had to be fed artificially. In spite of every care he began to get weaker, and died on November 13th, twenty-two days after the operation, the temperature remaining normal till the last day.

Only a limited necropsy was obtained. The suprapubic wound had practically closed. There was nothing abnormal about the bladder except that it was pear or funnel-shaped, instead of globular, the inner orifice of the urethra terminating at the triangular ligament. It would thus appear that after complete enucleation of the prostate, the prostatic urethra, deprived of its normal support, widens out in funnel fashion, and practically becomes part of the bladder cavity. It further demonstrates definitely that the true sphincter of the urethra (or bladder) is situated at the membranous portion of the urethra.

You will observe that the hypertrophy of this very large prostate (Fig. 4), weighing 6 ounces, is mainly confined to this rounded left lobe (A), the right lobe (B) being pressed out into an elongated, flattened, irregular mass, terminating at its bladder end in three barnacle-like offshoots (C, C', C''). These processes did not hang loosely into the bladder (as they sometimes do), as seen in the specimen. They were gathered together beneath the mucous membrane on the right side of the neck of the bladder, giving it a beaded appearance. The urethra lay in the deep furrow occupied by the catheter, and, as you can see, must have been very tortuous. The lobes are united along the posterior commissure, and the whole mass is enveloped in a thin, strong, fibrous capsule—the true capsule of the prostate.

I daresay you will have seen it somewhat persistently alleged in the medical press that the operation which I have described to you is anatomically impossible—that if the prostatic capsule were removed there must be extravation of the urine into the pelvis with fatal consequences; and that the prostatic urethra must necessarily be torn away if the whole prostate is removed. But no amount of theoretical objection can withstand the irresistible logic of facts such as I have placed before you. This incredulity has probably its origin, to a large extent, in the defective descriptions of the anatomy of the prostate contained in many of the textbooks in common use, which regard that organ as a single body with a canal tunnelled through it in the form of the urethra. I maintain that the human prostate, which in early fetal life is undoubtedly a double gland, preserves this dual character throughout life, and that, in reality, it consists of two distinct and separate encapsuled glandular bodies, or prostates, lying closely approximated on either side of the urethra, and adherent above and below that canal, like the segments of an orange; and that when in declining life the gland becomes adenomatous, it resolves itself more or less into its dual constituents, by the partial giving way of the adhesions along its upper and lower commissures, or "joining portions," thus facilitating its removal in its capsule, as a whole, or in two separate parts, the urethra being left behind intact.

There is also much confusion in the textbooks as to what constitutes the prostatic "capsule," some anatomists describing two distinct capsules—(1) a thin, strong, fibrous covering, closely adherent to the prostatic substance (this is the "true capsule," and that removed with the prostate in my operation); and (2) the fibrous casing outside this, containing the venous plexus, formed by the recto-vesical fascia, and called the "sheath" (which is left behind in my operation and prevents infiltration of urine). Others, again, do not draw any distinction between these two, but regard the whole as the prostatic capsule. To persons brought up in this latter school my operation must necessarily appear absurd.

To obviate misconception on these points, I have endeavoured in my previous lecture to describe as clearly as possible the anatomical features in accordance with which my operation is practicable, features which I learnt mainly from close examination of the morbid prostates removed in the operation. On looking more carefully into the literature of the subject I am glad to find that these views as to the structure and constitution of the normal prostate were anticipated and held many years ago by Sir Henry Thompson. To anyone desirous of comprehending the anatomical considerations on which my operation is based, I would recommend perusal of the masterly description of the anatomy of the prostate given in Part I of Sir Henry's work, *The Diseases of the Prostate*. Seeing that his descriptions of the anatomy of the prostate were based on careful dissections of a large number of prostates, I cannot conceive why they are practically ignored in most of the textbooks.

I now pass on to the eighth case, which presents some peculiarities, not the least interesting being that though in the removal of the prostate as a whole the urethra was undesignedly torn across at its junction with the bladder no untoward result ensued, the patient making a thorough recovery.

Case viii.—This patient, aged 65, had a history of prostatic symptoms for ten years, which during the last two years and a-half had become much aggravated. He had attended St. Peter's Hospital off and on since February, 1901, during which time he was twice sounded owing to severe pain, haematuria, and great frequency of micturition, but no stone was found. In spite of treatment his condition gradually grew worse, and early in November the frequency was very troublesome, seven or eight times by day and ten or twelve by night. The residual urine, which was acid but contained albumen, amounted to 6 ounces. and he bled easily on the introduction of the catheter. There was frequent involuntary discharge of prostatic fluid. The prostate was much enlarged *per rectum*, tense and elastic, globular, scarcely bilobed, and quite movable under the rectal wall. Cystoscopic examination showed an irregular bulging all round the neck of the bladder with a sessile "middle lobe."

On December 11th I opened the bladder suprapubically, and found a sessile prostatic mass the size of a plum projecting into the bladder below the urethral orifice. Snipping the mucous membrane over this, I rapidly detached the former from the prominent tumour by the finger nail, and then continued the enucleation of the prostate out of its sheath, passing my finger beneath, outside and above the left lobe, the adhesions between the capsule and sheath yielding more readily than in any of the previous operations. I continued the enucleation on the right side, and stripped the prostate off the triangular ligament in front. The prostate was now felt completely detached all round, and lying loose in its sheath, but with the catheter passing through its axis, showing that neither the upper nor the lower commissure had given way. Passing my finger along the upper surface I endeavoured to separate the lobes along the superior commissure in order to strip the prostate off the urethra, counter-pressure being made by the finger in the rectum, when the whole mass was suddenly propelled into the bladder, so that no trace of prostate could be felt *per rectum*. I then noticed that the catheter was covered by the urethra for about 2 inches from the triangular ligament, but that its inner end had been severed from the neck of the bladder. On examination of the prostate after removal through the suprapubic wound I found that it was entire, of the shape and size of a large pear (Fig. 5), and that it had been drawn off the urethra, which was severed at the neck of the bladder, just as a bead is drawn off a string. Not only the mucous membrane of the urethra, but also its muscular covering, had been left behind like a sleeve covering the catheter.

I pass round this specimen (Fig. 5), which is the enlarged prostate, as you can see, complete in all respects. The capsule is distinctly visible covering the whole mass, and continued inwards both in front and behind over the surface of the tunnel in which the catheter now lies, and through which the urethra passed. This tunnel, through which the forefinger can pass easily, is not circular, but vertically slit-like, extending nearly to the upper and lower surfaces of the prostate. On

opening this tunnel to its full limit in front (B) one can see that the lateral lobes are simply agglutinated together along the upper and lower commissures, and that by a little force the separately encapsuled lobes can be peeled from off each other along the middle line, thus affording proof positive that the anatomy of the prostate as already described by me—namely, that it consists of two encapsuled lobes applied face to face along the middle line, and adherent above and below

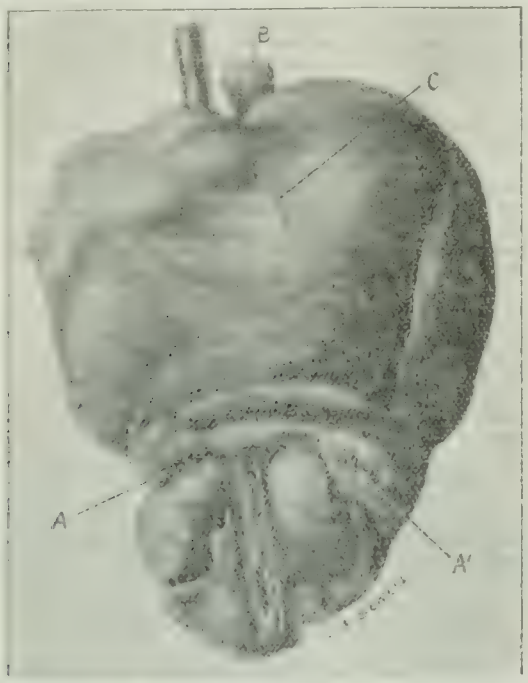


Fig. 1.—Large lateral prostate weighing 2 ounces, removed from patient aged 62. A, A, channels of dilated ejaculatory ducts which were torn off. B, posterior commissure. C, upper line of demarcation between the lateral lobes.

the urethra, which is folded in their embrace—is correct. There was somewhat more hæmorrhage than in the previous cases, but this was soon controlled by irrigation by hot lotion. The cavity in which the prostate lay rapidly contracted on the urethra. The catheter was withdrawn, and no attempt was made to unite the urethra to the neck of the bladder by sutures. A suprapubic drainage tube was inserted, and the after-treatment was the same as in the previous cases.

Though somewhat collapsed after the operation, the patient has made an uninterrupted recovery. He began to pass urine naturally on December 23rd, and the suprapubic wound was completely closed on January 5th, 1902. I have now the pleasure of meeting this gentleman in perfect health. He has no residual urine, a No. 15 catheter can be passed with ease, and he himself will tell you that he can retain and pass his urine naturally as well as he ever did in his life.

I have given full details of all the cases hitherto operated on by me, because through the general principles of enucleation of the prostate as a whole are the same in all cases, each presents some peculiarities of its own, as no two cases of enlargement of the prostate are exactly alike.

There is perhaps no expression which one hears and sees more constantly made use of in connection with prostatic cases than "atony of the bladder." The history of these eight cases goes far to prove I submit that no such condition exists even in the most advanced cases of the disease; and that even when complete catheterism has prevailed for many years, the bladder walls retain their expulsive power. Indeed, they are constantly making tiny abortive efforts to get rid of the urine which is merely kept back by the mechanical blockage of the passage by the enlarged prostate. And though in the early stages of the disease a so-called middle lobe may impede the flow, I am convinced that in the later stages the lateral pressure exerted on the canal is the main cause of the obstruction.

In the work by Sir Henry Thompson already referred to, he ably refutes the theory of the existence of a third or middle lobe in the normal prostate, as first propounded by Sir Everard Home, and generally accepted since his time. An examination of the prostates removed in these operations entirely bears out Sir Henry's contention, for where a so-called middle lobe exists it is found to be merely an outgrowth from one of the lateral lobes.

I venture to hold that the hopeful anticipations from total extirpation of the prostate that I ventured on in my previous lecture have been fully realised in my subsequent operations. We have now eight cases operated on, the ages varying from 62 to 76 years, all in broken health, and some of them almost in a dying condition before operation, with the prostates removed varying from $2\frac{1}{4}$ to $10\frac{3}{4}$ ounces. Seven of these have been completely successful in all respects. The remaining case had recovered from the operation, and was passing his urine naturally, when he was seized by acute mania, from which he died. Whilst recording the death in connection with the operation, it in no way militates against its performance. On the contrary, so far as the operation was concerned urine was passed naturally earlier, and convalescence set in more rapidly than in any of the other cases. Acute mania is an occurrence which, in my experience, is particularly prone to occur in aged males when suffering from advanced prostatic disease, and particularly when accompanied by profuse discharge of prostatic secretion, whether subjected to an operation of any kind, as also in connection with catheter life.

Though a large number of prostatic cases have come under my care during the period of about a year over which these eight operations have been spread, I have hitherto—the operation being on its trial—refrained from undertaking it except in the more advanced cases, in which life was simply intolerable with the aid of the catheter. The comparative absence of shock from so seemingly grave an operation in aged and broken-down patients is certainly remarkable. I attribute this to the rapidity with which the operation is carried out and the trifling haemorrhage attending it. We have beforehand a definite plan of campaign laid down—namely, to remove the whole prostate in its capsule, and nothing else. This is done by the finger alone, without the aid of cutting forceps, curved scissors, chisels, and cheese-cutters of kinds employed in the various forms of partial prostatectomy, by which, in addition to the salient portions of the prostate, portions of the bladder and prostatic sheath were frequently removed, thus opening up the prostatic plexus of veins and giving rise to profuse haemorrhage and septicaemia. It was these considerations, as well as the incomplete and temporary results obtained in a very large proportion of cases, that brought the operation of M'Gill and Belfield into disrepute, so that for several years it has been practically abandoned and replaced by castration and vasectomy.

PROFESSOR LANCEREAUX has been almost unanimously elected Vice-President of the Académie de Médecine in the room of Dr. Riche, who succeeds to the Presidency by right.

HAVANA FREE FROM YELLOW FEVER.—Major W. C. Gorgas, chief sanitary officer at Havana, in his report to Governor-General Wood for November, says: "During the month we have had no cases and no deaths from yellow fever. This can be said of no preceding November since 1762. Last year we had during this month, 214 cases and 54 deaths. This year the last case of yellow fever occurred on September 28th, that is, we have gone over two months without a single case or death belonging to Havana. I consider this a demonstration that Havana has at last been freed from the infection of yellow fever. It must be remembered that October and November are the months when yellow fever is rife in Havana, and that for the past century there has never been a day during these two months when there were not many cases in the city. This result I consider due to the system, introduced last February, of killing infected mosquitos in the neighbourhood of each point of infection as it developed."

Remarks
ON
TEN CASES OF MOVABLE KIDNEY.

Read before the Aberdeen, Banff, and Kincardine Branch of the British Medical Association.

By J. SCOTT RIDDELL, C.M., M.B., M.A.,
Surgeon and Lecturer on Clinical Surgery, Aberdeen Royal Infirmary.

Pathology.

Undue mobility of the kidney gives rise to symptoms which vary in their intensity in different individuals, being in some cases transient and tolerable, in others permanent and causative of chronic invalidism, while occasionally they become acute and alarming. In a proportion of cases the condition is accompanied by pathological changes in the kidney, to be explained on mechanical principles, for example, hydronephrosis, pyelitis, and haematuria. "Floating kidney" should be distinguished as a separate condition when the peritoneum is so arranged as to form a distinct mesonephron of such length as to allow the kidney considerable play. "Floating kidney" is congenital, and more common on the left side. Movable kidney, on the other hand, is an acquired condition, is usually found on the right side, and is eight to ten times more common in women than in men. All my cases have been in women, and nine of the ten have been right sided. If the male subject be attacked it is usually on the left side. It is most common between the ages of 25 and 50; Ebstein found it in 0.2 per cent. of necropsies. The causation of the condition is obscure. It occurs frequently in neurasthenic women who have borne many children, whose abdominal walls are lax, and in whom, along with general emaciation, the fatty capsule has diminished in thickness, leaving the organ room to move inside it. It must be stated, however, that a fair proportion of the patients are well nourished, and that mere loss of fat does not account adequately for increased mobility. Other alleged causes are pressure of the waist by corset, and enteroptosis where the displaced intestine pulls on the kidney. In the former condition downward pressure of the liver might assist its production and account for the greater frequency on the right side.

The kidney is naturally well fixed in the loin. Its tunica adiposa, which till the tenth year consists of fibrous tissue without fat in its meshes, dividing as it does to enclose the kidney, and firmly attached to peritoneum in front and loin posteriorly, forms a real ligamentum suspensorium renis. The renal vessels limit its outward and the mesocolon its inward movement, while the intra-abdominal pressure and the protection of the ribs all tend to prevent displacement. Granted that a limited displacement takes place by strain, trauma, external pressure or drag, its further extension can readily be understood. The first displacement, causing torsion of the renal veins or of the ureter, produces in the one case an enlargement and congestion of the kidney from strangulation, in the other a hydronephrosis, both of which conditions distend the fatty capsule and leave it loose and ill fitting when the kidney has come back to its normal size after reposition and rest in the recumbent position. Once started the excursion of the kidney rapidly increases, so that in old-standing cases the organ passes as far down as the sacro-iliac synchynodrosis, or even partly into the pelvis.

Many theories have been advanced to explain the greater frequency on the right side. It has been attributed to the downward pressure of the liver, the less resistance of the right mesocolon, and the greater length of the renal artery on the right side; but none of the theories are satisfactory, and it would be a waste of time to analyse them. It is equally difficult to explain the intimate relation between movable kidney and menstruation. The symptoms are undoubtedly aggravated during a period, and it is stated that increase in the size of the kidney has been noted at the same time.

Symptoms.

The symptoms range from mere discomfort - dragging pains in the side, with ovarian or testicular tenderness, and occasionally vesical frequency and irritation - to acute pain, febrile disturbance, pseudo-renal colic, vomiting, and collapse. These acute attacks are known as Dietl's crises. They were wrongly described as due to "incarceration of the kidney," whereas they are really caused by twisting of the renal vessels, and particularly of the vein, by rotation of the kidney. This also explains the haematuria often met with, and similar kinking or twisting of the ureter produces hydronephrosis, which, though transient, is sometimes sufficient to cause uraemic symptoms while it lasts.

That it is possible to mistake movable kidney for abdominal tumours—for example, tumours of omentum or mesentery for distended gall bladder or for malignant tumour of the pylorus or colon—is well known. Mistakes are generally due to imperfect examination. Where the gastric symptoms are very noticeable and the patient much emaciated and pulled down by constant pain and vomiting, it so closely resembles pyloric obstruction that allowance must be made for mistaken diagnosis. Where such symptoms exist examination for undue renal mobility should always be made; and it is noteworthy that in these cases rest in bed for two or three weeks produces an entire cessation of the gastric trouble. The gastric disturbance has been explained by Kendal Franks as due to kinking of the duodenum produced by the displaced kidney. I venture to think, however, that it may partly be due to nervous influences, when one remembers the close connexion between the renal and gastric plexuses. This explains also the neuralgic pains in side, back, ovaries, groin, and thigh which are complained of in movable kidney. When acute symptoms attend the displacement it may readily be mistaken for renal colic or for appendicitis, and this is specially the case if the abdominal wall be so rigid as to preclude proper palpation of the loin.

Diagnosis.

For examination the patient is placed on the back with legs drawn up and recti as far as possible relaxed. With one hand in Israel's line in front, and the other in the loin, one can usually displace and replace a movable kidney. Occasionally it is more easily done if the patient be placed on the sound side, with bent spine and thighs flexed on the abdomen. Palpation is the only method that can be trusted to; percussion gives no help. The amount of excursion of the kidney should be noted, also its size, and whether it is unduly tender, as in accompanying pyelitis. A hydronephrotic kidney is easily palpated. Franks's rule with regard to normal and abnormal movement of the kidney is worth quoting.

With the patient lying on the back, the surgeon, standing on the right side, places the four fingers of his left hand beneath the hollow of the loin below the twelfth rib. The thumb in front encircles the abdomen just below the costal arch, but without exercising any pressure. The patient is then directed to draw a full breath. Immediately before expiration the surgeon begins to grasp the loin, and follows the liver as it recedes up below the ribs. If with the right hand a kidney can be felt lying entirely below the grasp of the left hand, this organ is pathologically movable. If the right hand presses on this tumour, whilst the left hand relaxes its grasp gradually, the tumour can be felt to slip suddenly between the fingers and thumb, and to disappear upward. On the other hand, a kidney which descends so that only its lower half can be felt, but which moves back to its place on expiration, is physiologically movable.

Reference has already been made to the other complications—intermittent hydronephrosis, uraemia from twisting of ureter, and engorgement of the kidney with or without haematuria from torsion of the renal vein.

Treatment.

The palliative treatment of movable kidney is only fairly successful. Supporting bandages may yield a certain amount of relief, but the treatment of bad cases by large truss pads with strong springs gives as much pain and discomfort as the renal luxation. Operation should be advised only in those cases, however, where the discomfort is extreme or where complications exist. It is not more than 20 years since the first nephrorrhaphy or nephropexy was done by Hahn. Previous to that, nephrectomy was performed in bad cases. It is difficult to understand why this operation should have taken so long to develop when one finds the clinical symptoms and complications of movable kidney described as long ago as 1649 by Riolan, who writes:

Quamvis renes adipis glutine videantur tenaciter affixi lumbis, interdum tamen luxantur et antrorsum procumbunt, interdum in hypogastrium delabuntur, non sine vitae detrimento, etc.

Operation aims at fixing the kidney firmly in the loin.

This was not always secured by the early plans of suturing the adipose tissue, the fibrous capsule, or the kidney parenchyma to the lumbar muscle or aponeurosis. Many needlessly complicated plans have been advised. Tuffier's, Lane's, and others seem to me to come under this category.

A simple and satisfactory plan is to separate the kidney from its fatty capsule by free dissection with the finger, to irritate the fibrous capsule by scratching with a scalpel, to fix the lower part of the kidney by two sutures of catgut, silk, kangaroo tendon, or silkworm gut to the lumbar muscles and aponeurosis, and, most important of all, to insert alongside the kidney large drainage tubes or packs of gauze, which are left in for a week to produce aseptic inflammation and granulation. Alternatively, instead of sutures, bridles of gauze may be passed over the upper and lower poles of the kidney, and tied over gauze packing running alongside the kidney, the wound healing up by granulation. Excellent results have followed the first method in my hands, but I prefer the second, which I believe was first suggested by Senn. It certainly obviates the alleged risks of suture—namely, urinary infiltration, abscess of the kidney, and cirrhosis of the kidney.

The following ten cases of movable kidney have come under my care during the last three years:

CASE I.—*Right Movable Kidney: Marked Gastric Symptoms: Nephropexy: Cure.*

MRS. C., aged 50, multipara, was seen some two years ago. Her history was that for four years she had suffered from dragging pain in the side, and that recently she had been much troubled with vomiting. She was wasting rapidly, and had most of the symptoms of pyloric obstruction. She looked cachectic, and I at first suspected malignant disease. Examination showed a very movable kidney, which could be pushed down to the brim of the pelvis, had the characteristic tenderness of the kidney, and on reposition could be palpated bimanually. Operation was advised, and she came into the Northern Nursing Home for that purpose. The day's rest there improved her so much that she asked for a respite from operation. The symptoms returned immediately she began to get about, and she came back for nephropexy, which was absolutely successful in removing all the symptoms. I saw her recently, when she stated that she had been in perfect health ever since operation.

CASE II.—*Right Movable Kidney: Marked Gastric Symptoms: Nephropexy: Cure.*

MRS. C., aged about 60, was transferred to my ward in the infirmary by Dr. Lister, who had been sent to the infirmary for symptoms which pointed to malignant disease of the stomach. Dr. Lister discovered a movable kidney, and rest in bed removed the more troublesome symptoms, and prepared her for operation, which was done about eight months ago. The kidney, as in the first case, was found to be movable as far as the brim of the pelvis. When the patient left hospital all her symptoms had disappeared. I examined her the other day, and found the kidney immovable. She is still neurasthenic.

CASE III.—*Right Movable Kidney: Severe Haematuria: Disease of Kidney: Nephrectomy: Cure.*

A lady was seen in the country with her medical attendant, who had been treating her for haematuria, which was considerable in amount. He had examined the bladder for villous tumour, but found nothing, and as the haemorrhage persisted even with rest in bed and haemostatics, he asked me to see her. We found a right movable kidney of about normal size, tender on pressure. The pain which the patient complained of was in the right side, but it is well known that in movable kidney the pain may be referred to the opposite side, as Landau pointed out many years ago. The right movable kidney is sometimes associated with a left movable one. It was decided to fix the kidney if found healthy, and to remove it if there was evidence of disease. A nephrotomy was done, and as the upper part of the kidney was found to be much enlarged and to present the appearance of malignant disease, it was thought desirable to remove it. The patient made a perfect recovery.

CASE IV.—*Right Movable Kidney: Extreme Hydronephrosis: Nephrectomy: Cure.*

A young woman aged [illegible] was sent to Dr. Lister for movable kidney and wandering spleen. The latter symptom was not markedly "interfering," and as the patient's health [illegible] I was found that renal tissue was practically absent, there being [illegible] thin shell of it on the outside of what felt like a large cyst. It was decided to perform nephrectomy [illegible] was not in any way due to the increased weight of the kidney, but was, I think, the result of the hydronephrosis. There were [illegible] but never albuminuria in these cases. It sometimes forms an intermittent hydronephrosis of ectopic kidney.

CASE V.—*Movable Right Kidney: Neuralgia and Pleurodynia: Palliative Treatment.*

Miss M., aged about 30, consulted me about pain in the right side, which had been troubling her for several years, and had been ascribed to ovaritis or appendicitis. The right kidney was found to be very movable, and pressure on it caused the pain complained of. A supporting bandage was tried, but was of little use. The symptoms were not sufficient to justify operation. The pleurodynia and pain over the right shoulder I can attribute to the renal condition, and may be on a line with the pain felt there in hepatic disturbance.

CASE VI.—*Right Movable Kidney: Increased Frequency of Micturition: Pyelitis.*

MRS. W., aged 60, has for years suffered from pain on the right side, referred to the kidney region. She had some years ago haematuria, and consulted an Edinburgh surgeon, who was suspicious of renal calculus. With rest and care the condition much improved and the haematuria ceased. I found on examining her a mobile kidney, larger than usual and tender on deep pressure. Slight frequency of micturition is now complained of, there is no haematuria, and there is very little pus in the urine. With care her condition is tolerable, but any undue exertion causes dragging pain. It is possible that she may have a small renal calculus as well, though there is no evidence of it on skiagraphy, which Dr. Galloway carried through for me. Pyelitis does occur as a complication of movable kidney apart from renal calculus, and I am inclined to attribute it to that in her case. It is a case for operation, which is postponed for the present for family reasons.

CASE VII.—*Left Movable Kidney after Uretero-ureterostomy for Fibroma involving Ureter: Fibroma attached to Renal Vein found at Operation: Nephrectomy: Recovery.*

J. D., aged about 50, was operated on four years ago for retroperitoneal fibroma, which involved the left ureter. I had the privilege of assisting Professor Ogston at the operation. He found it necessary to remove over an inch of the ureter, the continuity of which was secured by uretero-ureterostomy, with a most satisfactory result. The case was an early and brilliant example of this operation. About a year ago she consulted me about pain on the left side, but as she was morbidly neurasthenic, and nothing objective could be made out, operation was disadvised. Recently she came back to my ward. She complained of agonising pain on the left side, for which she required opium. After several examinations I made out a distinctly movable kidney on the left side, movement being attended with great pain. A recurrence of the growth in the peritoneal scar or in the ureter was also thought of, and occasionally a hardish tumour could be felt in front of the kidney. The kidney was cut down on, and its pelvis was seen to be much dilated, and attached to it, and still more firmly to the renal vein, was found a fibroma. In attempting to separate the tumour from the vein the latter was wounded. As the patient's condition was not at all satisfactory under the anaesthetic, nephrectomy had to be performed as rapidly as possible. The old uretero-ureterostomy scar was palpated, and, as far as could be found out, there was no recurrence of the growth there. The patient made a good recovery, and the pain on the left side entirely disappeared. I am informed by Dr. Gordon that she died nearly a year after nephrectomy was performed from malignant disease of the pancreas.

CASE VIII.—*Right Movable Kidney: Nephropexy: Cure.*

MRS. H., aged 56, had renal pain and tenderness for some years. Latterly the pain had become aggravated, attended with frequency of micturition. Some days very little urine was passed. A right movable kidney could be easily made out. A daily examination of the quantity of urine passed showed an "intermittent hydronephrosis." The operation performed was very simple, the kidney being exposed, separated from its fatty capsule, and supported in the wound by bridles of gauze, while gauze packing was inserted on both sides of the organ. The first dressing was done in about a week's time, and at intervals thereafter. The result was an uneventful recovery and a perfect cure.

CASE IX.—*Right Movable Kidney: Nephropexy: Cure.*

MRS. W., aged 27, complained of similar pain, with occasional hydronephrosis, and was operated on in the same way with a perfect result, the right kidney becoming fixed to the loin by strong fibrous adhesions.

CASE X.—*Right Movable Kidney: Gastric Symptoms: Nephropexy: Cure.*

MRS. D., aged 25, was sent to me by Dr. Cowie, Turriff, with a diagnosis of right movable kidney. The excursion of the kidney was very considerable, and had caused great pain, attended with vomiting and general abdominal disturbance. A support had been worn for some time, but was found to be worse than useless. She was operated on in the same way as the last two cases, and with an equally good result.

An Address

ON

METHODS OF INCISING, SEARCHING, AND SUTURING THE KIDNEY.

Delivered before the New York State Medical Society.

BY HOWARD A. KELLY,

Professor of Gynecology, Johns Hopkins University, Baltimore.

MY studies for some years past, in operating upon numerous patients who have come to me with renal disease, have demonstrated the extreme importance of a more thorough knowledge of the anatomy of the kidney itself; and, having arrived at some definite conclusions upon this head, I take pleasure in presenting certain facts before you for the first time in a public address. I shall confine my attention to-day to the methods of incising, searching, and suturing the kidney where calculus is believed to be present.

The diagnosis of stone in the kidney has fortunately been so greatly simplified by the use of the *x* rays that with this agent we can now determine the presence or absence of stone in all cases with practical certainty. I recently delivered an address upon this subject before the American Gynecological Society

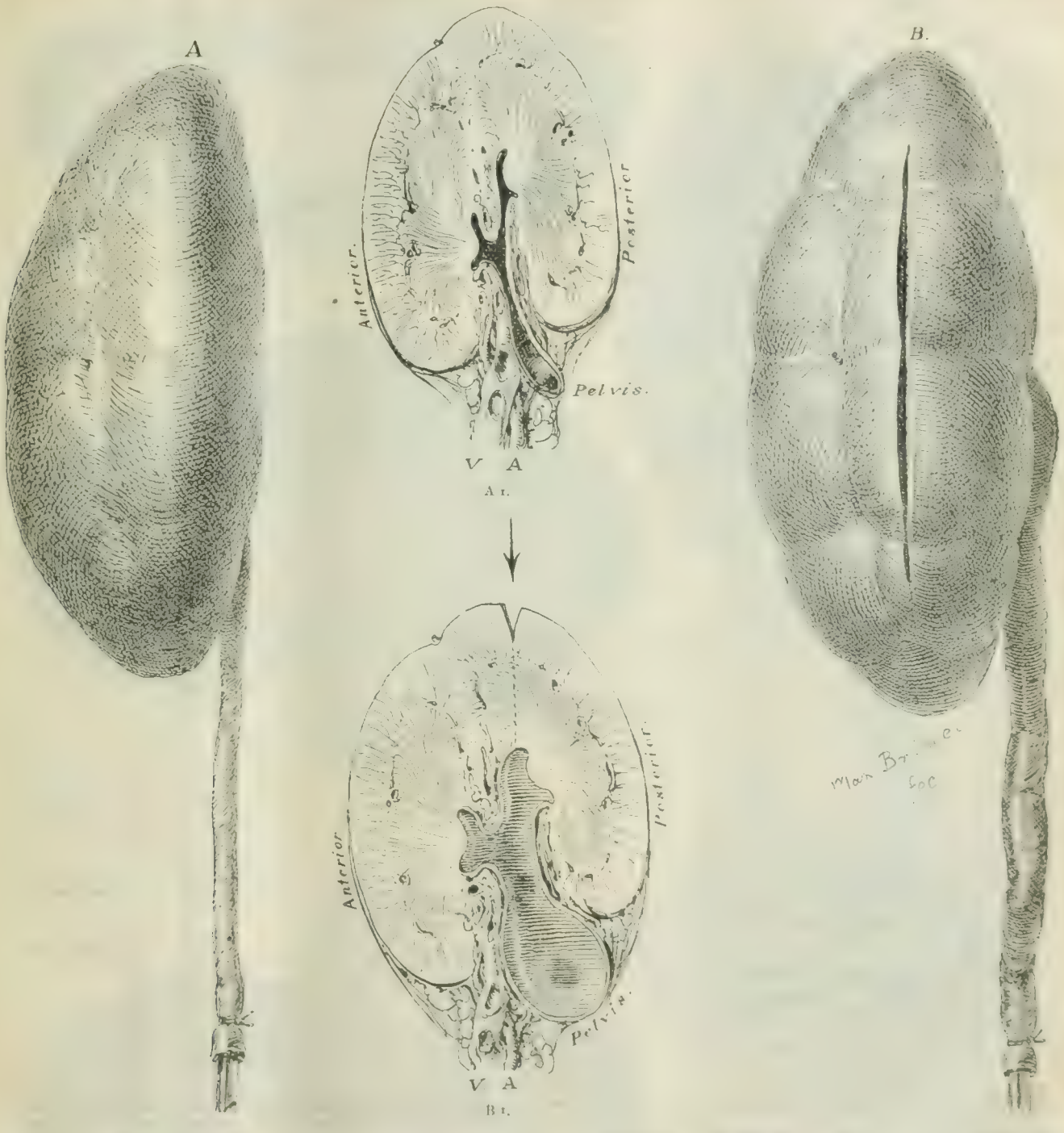
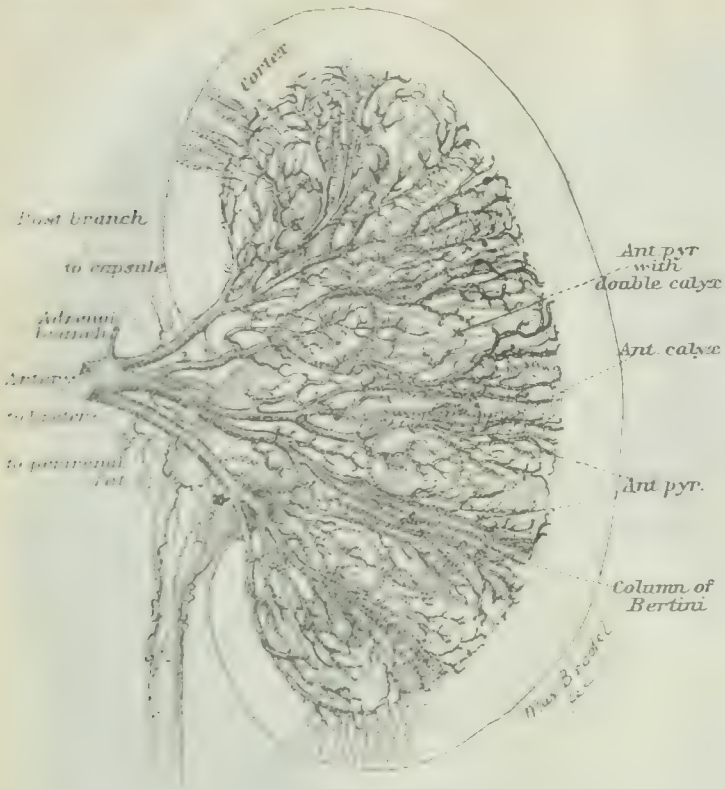
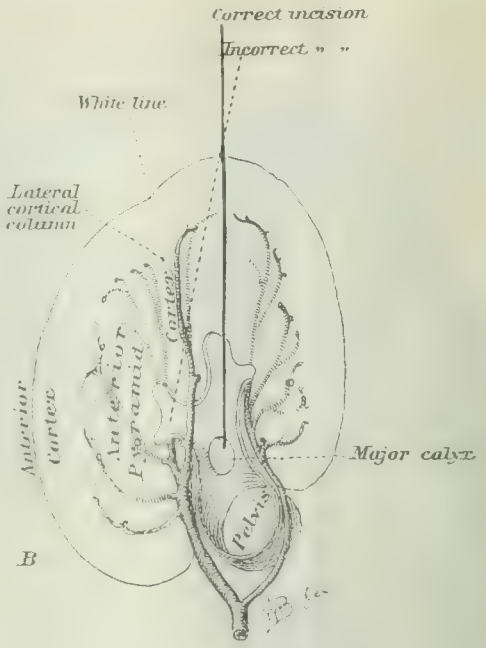
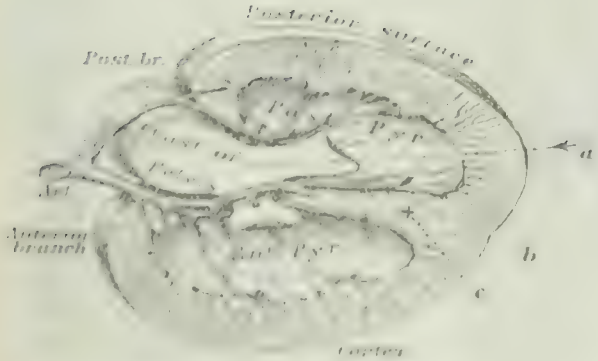


Fig. 1.—A shows a kidney viewed from the lateral border. The pelvis is in its normal state of collapse, as is shown also in the cross-section drawn above. The pelvis and infundibula are seen as a comparatively narrow slit in the centre of the organ. It is easy to see how difficult it is at times to direct the incision properly and not nip off the papillae of the posterior pyramids. B shows the same kidney with its pelvis in state of distension. The lobules are much more clearly visible, and the palpating hand feels with ease the various pockets of the pelvis as they fill themselves with the fluid, the diagram above demonstrating the other merits of this distension. It produces: (1) A theoretical reduction of the thickness of the parenchyma; (2) a separation of the two vascular systems of the kidney, facilitating considerably (3) the finding of the least vascular plane of the kidney; (4) a temporary reduction of the amount of blood in the kidney; as all the large veins are in immediate contact with the pelvis, it is readily seen that a distension of the pelvis must force the greater part of the venous blood out of the kidney; (5) a safeguard against cutting off the papillae of the posterior pyramids, enabling the surgeon to make his incision with the least amount of injury to the secreting structures.

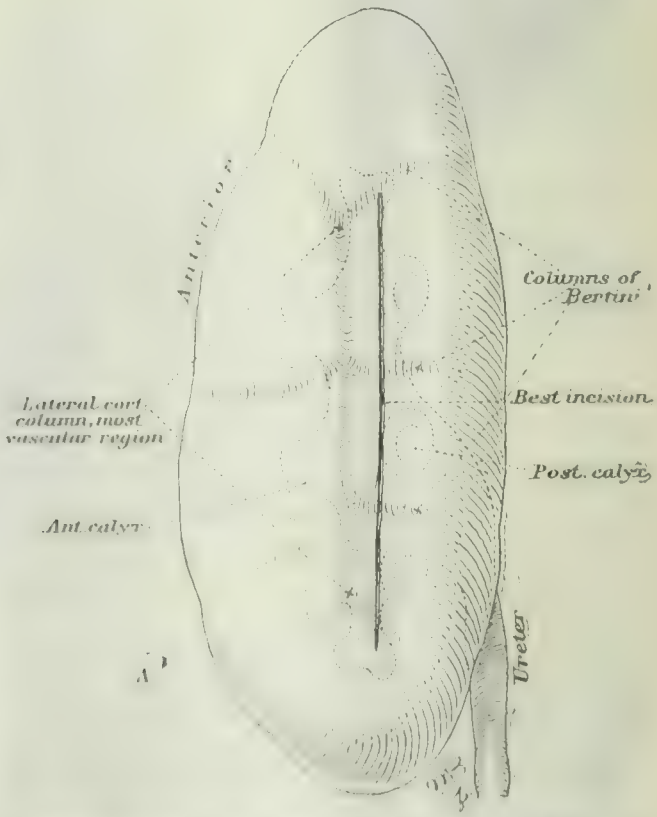


Anterior view of L.K.

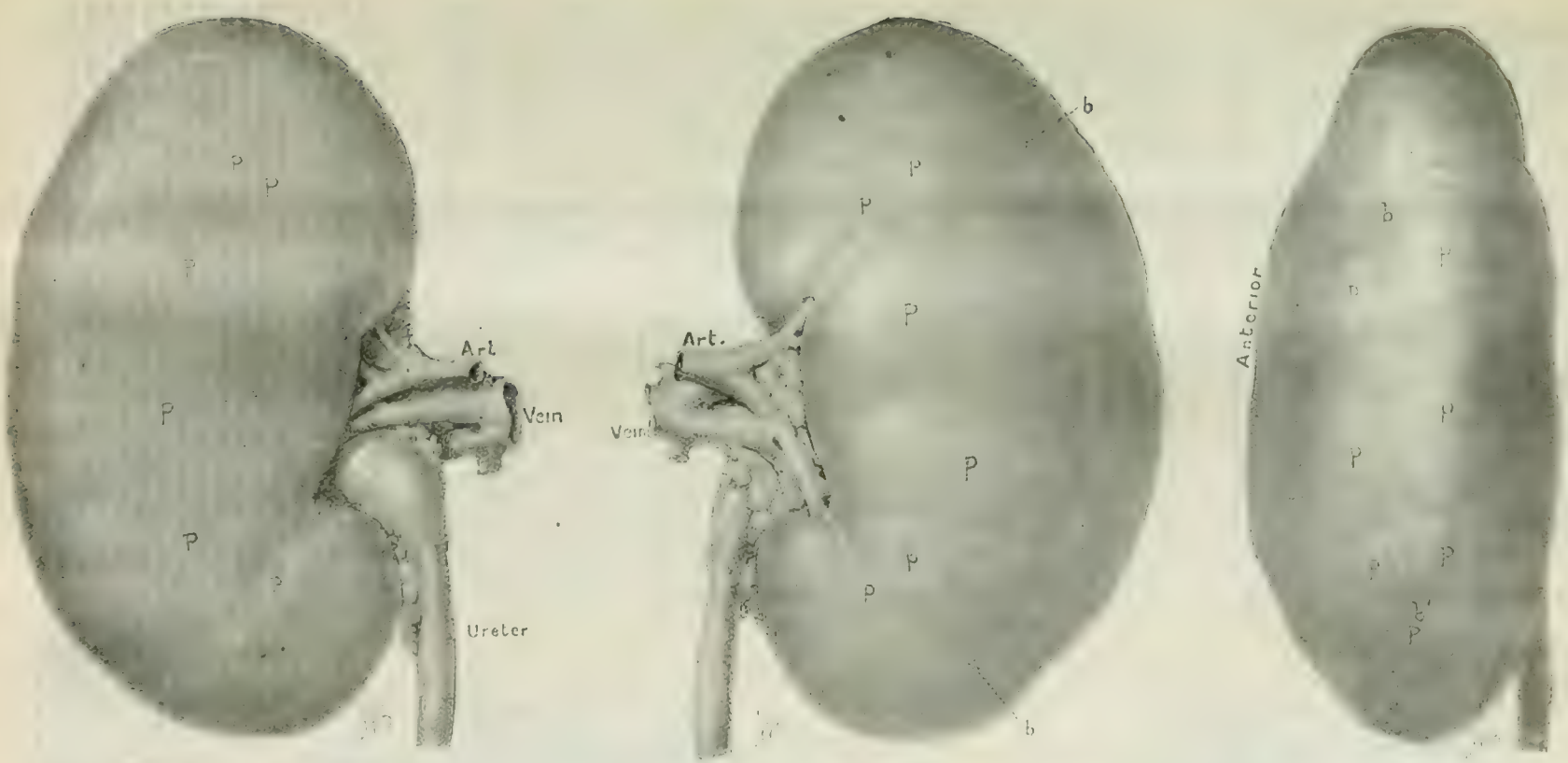




renal artery and the distribution of its branches ... The upper diagram represents ... soft kidney ... about ... posterior ... line and ... b shown ... of the ... section of ... in which the ... lower figure ... cia of the cortex ... the base of cavities.



...—Section and lateral view of a kidney indicating the method of determining ... the most advantageous incision through the parenchyma. ... is in all cases where the majority of ... passing anteriorly to the pelvis ... white line is in its usual position.



Normal kidney; A, posterior view. B, Anterior view. C, Lateral view.

Fig. 1.—The surface appearance of a normal kidney. The depressions mark the fetal lobulations, and if they are so faintas not to be visible, the stellate veins will indicate the lines which map out the lobules. All such lines represent especially vascular areas (see Fig. 2). The long line anterior and parallel to the lateral border b-b indicates the most vascular region of the kidney; P P P, etc., represent the positions of the papillæ. It will be seen that each of them is situated about in the centre of a pyramid or lobule.



Fig. 6. Instrument for Exploring the Kidney.



Fig. 1.—Method of approximating the two cut surfaces. A glance at Fig. 2 shows why simple uninterrupted sutures almost always tear because they are placed in the same plane with the large vessels, which form the strongest framework of the entire parenchyma. Fig. 1 also shows why cross-mattress sutures are best selected for uniting the two cut surfaces, because they pass at right angles or nearly so to the large vessels preventing effectively a tearing of kidney substance. They are passed through the parenchyma near the pelvis because most of the vessels coming to or departing from that region; *a*, right angles approximating pelvis; *b* can be dispensed with; *b* deep right angle mattress suture passing through as much as possible through cortical substance, avoiding the pyramids. They are best placed with a long straight three-cornered needle with blunt point in order to avoid injury to large vessels. The needle should not be thrust or forced through the kidney but its blunt point should be allowed to feel its way through the parenchyma, avoiding all structures that offer greater resistance than the safe cortical substance; *c*, is a second system of mattress sutures which may be dispensed with, if the first row of deep sutures produces the desired effect; *d*, is the usual suture of the capsule.

in Chicago, in which I brought together a series of cases in which I had determined the presence of stone in the kidney by passing a bougie up the ureter into the renal pelvis, having its tip coated with a highly polished but impressible wax surface. This interesting means of diagnosticating the presence of a stone is, however, far less certain than the *x* rays, and has therefore been very happily superseded by it; the wax tip remains, however, of value in cases of ureteral calculi where it may give certain knowledge both of the presence and of the exact position of the calculus.

I will now briefly discuss several practical points relating to the technique of the operation upon the kidney.

The Ureteral Catheter.

I find the ureteral catheter of value in many operations for renal calculi in two ways: In the first place, before the operation the catheter is passed up the ureter into the pelvis of the kidney, which is then thoroughly irrigated and washed out by letting water flow into it from a funnel, in this way distending the pelvis; the water then escapes down the ureter into the bladder, and out into a receptacle through a catheter introduced through the urethra; boracic acid or a weak carbolic acid solution may be run through the kidney in this way, washing away the pus, and rendering the surfaces relatively clean. The second use of the catheter is after washing out the pelvis to leave it *in situ*, and then to expose the kidney by the lumbar incision; before incising the kidney, however, fluid is forced rapidly into the renal pelvis, so as to distend the pelvis and cause the kidney to swell up, making prominent certain surface landmarks which serve as a guide for a correct incision into the organ. If the kidney is grasped in the full hand during the distension the exact position of the calices can be detected, as it alternately swells and collapses as the fluid is forced in. If one part is sacculated, or if the cortex is thinner at one point, this is also at once evident, and the incision is best made there. In normal kidneys this distension is almost imperceptible on the convex surface, but where calculi are present the antero-posterior diameter is sometimes increased 1.5 cm.

The lobules of the kidney are made prominent and the fibrous vascular septa between them are readily distinguished when the kidney is distended (Fig. 1, A and B). If the kidney is cut into in this distended state, there is less injury to the cortex, and the operator is at once made aware of the opening into the pelvis by the sudden gush of water. A small stone is sometimes washed out in this way, saving a painstaking search and further cutting. The irrigation of the pelvis of the kidney out through the incision by means of the renal catheter can be kept up as long as the catheter is left in and the wound remains open.

The use of the catheter to distend the kidney was first suggested to me by Mr. Broedel, to whose anatomical studies I am constantly indebted in this paper.

Site of Incision.

The question of maximum importance in the surgical treatment of renal calculi is the best position for the incision through the substance of the kidney into the calices and the pelvis. Operators often speak of making a *post-mortem* incision down the dorsum in order to lay it freely open, and so as to expose the renal pelvis. Mr. Broedel's researches have developed the important fact that the vascularization of most kidneys is provided by two arterial systems which are completely separated by the renal pelvis. There is a major system carrying three-fourths of the arterial blood providing for the anterior, and a part of the posterior half of the kidney, and a minor system carrying one fourth of the arterial blood providing for the remaining posterior portion (Fig. 2). The nearer the surgeon makes his incision in the line which divides these completely separated systems, the less blood is lost. If, however, he strikes the major vessels of either of these systems the haemorrhage may be frightful, even great enough to cost the patient's life.

The more a pelvis and the calices are distended the further are the two vascular systems separated. While in cases with normal undistended pelvis there is rarely more space than a few millimetres between the anterior and posterior vascular plane, quite the opposite occurs in distended pelves when the two vascular systems are not infrequently parted by as much as 2 cm. or even more.

Certain easily recognisable anatomical landmarks on the surface of the kidney afford a guide to this important relatively non-vascular zone sufficiently reliable for practical purposes. If the kidney is examined attentively it will always be found divided up into irregular areas (the bases of the pyramids) the size of the end of the thumb; these areas are bounded by lighter coloured lines which are often slightly depressed. These whitish lines represent the columns of Bertini, which extend up between the pyramids forming the framework which supports and carries the vessels. The white lines come together in a longitudinal white line on the anterior surface, which I propose to call Broedel's white line (Fig. 3, b—b').

When the white lines which divide the pyramids cannot be found easily, their position is often marked by little groups of stellate vessels.

The best place, then, to incise the kidney is down through the lateral portion of the posterior pyramids between the anterior and posterior vascular trees. The worst possible incision is the one which follows the course of or wounds largely the vascular column found in the cortical septa between the pyramids. In order, then, to make the incision correctly, one must cut parallel to Broedel's line and parallel to the posterior surface of the kidney, leaving about three-fifths of the kidney anterior and two-fifths posterior to the incision (Fig. 4, A). The cut must be extended in a parallel direction to the posterior surface and not angling towards the centre of the kidney, as one would naturally incline to do (Fig. 4, B).

Through such an incision, laying open the calices, both anterior and posterior systems of calices can be readily explored.

These rules hold good when the topographical anatomy of the kidney is normal or nearly normal. About two-thirds of all kidneys are constructed on these lines, and in all such cases the landmarks just given will prove a reliable guide.

Owing to irregularities of fetal development the circulation of the kidney may assume a more or less abnormal character. The effect of such abnormal arrangement upon the circulation along the lateral border may be such that the least vascular plane is shifted forward, so that it comes to lie in the plane of median section or may extend even into the anterior portion of the kidney. Conditions of this kind are as a rule recognised in two ways.

1. By the form of the kidney, which shows Broedel's longitudinal white line not on the anterior surface but further back, as well as by the bulging of the posterior surface of the kidney (which is much flattened in normal cases).

2. By the arrangement of the large arterial trunks at the hilum. If the palpating finger feels as many vessels entering the parenchyma anteriorly to the pelvis as posteriorly, this would be an indication for an incision through the middle of the lateral convex border. If there are even more vessels posteriorly to the pelvis than anteriorly (extremely rare), the least vascular plane would be found in the anterior third of the kidney.

To reiterate. The incision should pass parallel to the longitudinal white line, 1 cm. away from it and on the same side of the kidney where the palpating finger feels the lesser number of vessels, in the majority of cases on the posterior surface, but occasionally anteriorly.

Where the renal pelvis is not divided, after extracting the stone, I then explore the remaining calices with a little delicate steel curved handle attached to a blunt knife (Fig. 6), which at once reveals the presence of even a small stone by the grating sensation conveyed. When a stone is found the blunt curved handle may be pushed up into the calyx and the incision made down through the prominent part of the corresponding pyramid, and the stone extracted in this way through a small additional incision, in case it cannot be lifted out with forceps through the original incision. In place of one long incision laying open the entire pelvis of the kidney, Dr. Finney has recommended, and I have resorted to, two incisions into upper and lower poles separately, so as to spare the median portion of the kidney. Such a procedure of course is applicable only if we have to deal with a double pelvis, or if we are sure that an undivided pelvis is of simple formation and capacious; it is contraindicated where there is a pelvis of complex form with many pockets.

It is best, as a rule, not to try to remove a stone directly through the pelvis of the kidney without incising the renal tissue proper. I would resort to this plan only where the stone is known to be a small one, and there is no inflammation or oedema of the pelvis, and where the pelvis can be exposed, incised, and sutured without much difficulty.

Suturing the Kidney.

Where it is advisable to close the wound into the kidney we receive from Mr. Broedel's studies some valuable hints as to the best methods of suturing the kidney so as to close the pelvis and bring its surfaces into accurate apposition and prevent the further bleeding. (Fig. 5.) Three sets of sutures may be used to advantage, one of fine catgut placed between the calices including the fat and fibrous tissues without involving the mucous surfaces. By this means the pelvis is approximated.

The second series of sutures, the most valuable, as devised by Dr. Hunner and Mr. Broedel, are one or two series of mattress sutures introduced with a straight, slightly-blunted needle, extending through the entire substance of the kidney. These give a perfect and sufficient control over bleeding. Finally, for perfect accuracy the capsule may be closed by a continuous catgut suture.

CLINICAL OBSERVATIONS IN THE TREATMENT OF SEVERE "STAMMERING" BLADDER AND URETHRA.*

By E. HURRY FENWICK, F.R.C.S.,
Surgeon to the London Hospital.

All are familiar with the clinical picture of the young male patient who cannot urinate if any one is looking at him, but who has to retire, or even enter a watercloset before he can empty his bladder. Sir James Paget first drew marked attention to this form of obstruction to free urination, which he aptly termed "stammering of the bladder and urethra." He pointed out that it might be known by observing the exact parallelism between the difficulty of expelling urine and that of expelling the air in the ordinary speech stammering. His clinical pictures of the slight and severe grades of the trouble are graphic and worth quoting. Sir James says:

> The patient can often pass his urine without trouble, especially at customary times and places, and when he does so the stream is full and strong and he has nothing the matter with him. But he is in trouble if anyone is looking at him or if he is hurried, as at a railway station. At other times he suffers all the distress that he might have with a very bad urethral stricture. He cannot pass a drop of urine, or after a few drops there comes a painful check, and the more he strains the less he passes; and then complete retention may ensue and over-filling of the bladder.
>
> "I might add," says Sir James, "many more notes of seeming caprices of the stammering bladder and urethra; but it may suffice to say that nearly all the phenomena of stammering speech find in them a parallel. In both, alike, there is usually a history of the difficulty having been felt in early life; in both, alike, are observed the strong influences of habit and association of ideas; the effect of transient changes in the vigour of the nervous system; the need of a justly and yet almost unconsciously measured exercise of the will that it should be neither more nor less than enough; and the influence of distraction of mind. And equally in both classes of patient may be noticed the coincident general sensitiveness of the nervous system and the family relationship with persons who suffer various other forms of nervous disorder."

Subsequent writers upon this subject have rather tended to confuse the subject by including under the term of stammerer quite a variety of cases of difficult urination which do not rightly belong to the class.

It would be better to let the term "true stammering of the bladder and urethra" be confined to that class of patient, male or female, in which urination cannot be effected at will, although all the organs for the completion of the act are sound and anatomically perfect.

Let the term false stammering include those cases of prostatic inflammation or senile enlargement, or atony of

* Extract from a clinical lecture on Spasms of the Urinary Tract Musculature.

spinal origin, or of urethral stricture which suffer from so-called nervous stammering, but in whom there is a distinct change, a deviation from health which induces reflex irritation, setting up the inco-ordination in the muscles regulating the expulsive effort.

A.—TRUE URINARY STAMMERING.

The patients, as Sir James Paget says, usually notice a difficulty of passing water at will when they are young. Most of my cases have commenced stammering before or about the age of puberty. The trouble may remain slight and stationary, amounting only to "shyness" in micturition, but occasionally it increases after puberty, and in rare instances becomes severe. It is with this severe class that I wish to deal, for it seems to me that neither the nature of the disease nor the appreciation of the remote dangers of the obstruction, nor the common-sense treatment of that obstruction is rightly understood.

It is generally believed, if I may judge from an impression that the literature conveys, that the sphincter of the bladder does not relax as the detrusor contracts. This is not so.

Sir James Paget has expressed his belief that in cases of long-continued urinary stammering, some of which began in very early life, and some of which he had known for many years, he had seen no indication of any supervening disease; I join issue with this, for I am sure in severe cases that cysto-pyelitis does ensue.

Nor can I concur, if the case be of any severity, in the treatment first suggested by Sir James, of advising the patient "to try and educate himself to a calm control of his muscular power," and "on any occasion of failure to get what help he can from such mental tricks," as will induce a co-ordinated action of the muscles for urination. Nor is it wise, in my opinion, to always make the patient learn the use of the catheter, not only that he may thus relieve himself in case of absolute need, but that he may be free from the enervating dread of helpless retention.

In slight cases this advice may be judicious enough, but in severe examples it is hardly creditable to surgery to permit a functional disorder to continue until it induces a fatal organic disease, nor is it an evidence either of progressive or high-level surgery to fall back upon the catheter with its attendant discomforts and dangers without an operative effort to obtain permanent relief

Clinical Notes on a Severe Stammerer of the Bladder.

The real and practical question is, What causes the obstruction to urination, and how can it be remedied? The cause of the obstruction is often a tonic spasm of the compressor urethrae and the cure of the trouble is a longitudinal section of that muscle.

Some years ago I considered it was the muscle around the neck of the bladder, but now I know that this view is wrong; and that in many, if not in most, of the cases of urinary stammering it is the compressor urethrae—the "cut-off" muscle—which obstructs the free flow of urine. This can be proved by a very simple manœuvre. A *terminal* eyed catheter is passed until its eye rests in the membranous urethra. The patient is now told to urinate, which he does with facility before everyone through the catheter. If the spasm lay in the sphincter, no urine would of course flow through the prostatic urethra. Sometimes, while the eye of the catheter lies within the membranous section, it is energetically gripped by the compressor, and in some cases a distinct clonic spasm of that muscle will ensue, and the patient and the practitioner will feel the twitching of the fibres in the deep urethra. Moreover, I have proved that section of this muscle restores the patient to free and healthy urination if the bladder has not become atonied by neglect. Latterly I have merely tenotomized the compressor urethrae without opening the urethral tube, and the result has been the same.

It is interesting to note how the subsequent condition of the severed muscle will bear evidence to the truth of this statement. When the patient has quite recovered and finds himself able to urinate comfortably, he notices that there is always a "pull" upon the perineal scar just before urination, as if the muscle was still endeavouring to close the membranous urethral tube, but was unable to effect it because its circular action is deficient, being destroyed by the longitudinal scar of fibrous tissue left by the operation. Again, if the patient delays the call to urination and the bladder becomes stretched, positive pain will be evoked in the membranous urethra by an attempt at spasmodic contraction. It is, of course, to be understood that in stating this I have only been dealing with pure cases of stammering bladder in the young adult. Cases in which there have been neither sexual congress nor abuse. The other class of stammerers I will allude to immediately.

CASE I.—A gentleman, aged 21, studying medicine, was sent to me as a case of stone. He had the utmost difficulty in urinating. There was urgent and frequent desire to micturate, but no relief. When the bladder got very distended he was able to pass it with much straining. This occurred once in twenty-four hours. Acute spasms followed the evacuation of the bladder.

History.—Since the age of 2 he had trouble with micturition. Up to 13 there had been nocturnal incontinence and inability to retain water in the day when he desired to pass it. From the age of 17 increasing difficulty in micturition at will, though the desire to do so was incessant.

Operation.—On January 14th, the compressor urethrae was cleanly divided on a staff. The prostatic urethra was not touched. The bladder was drained seven days with a catheter. The result was good. At the end of nine months the urination remains perfect and painless.

CASE II.—E. P., aged 23, had had a gradual but increasing difficulty in urination for six years. He could not pass water at all if he were watched, and sometimes found it impossible even when alone, so that he had to wait hours. The period at which the bladder responded varied from three-quarters of a minute to eight hours.

Operation.—Tenotomy of the compressor urethrae was performed without opening the urethra. A catheter was tied in for two days. There was immediate great relief, and finally complete recovery.

What the cause is for the difficulty in urination in this class, and why sometimes the patient finds the act easily accomplished and at other times impossible, is not clear; the cause may be in the varying composition of the urine. But the expression of the reflex excitability can be annulled by division of the compressor urethrae.

B.—FALSE STAMMERING.

All are aware that spasm of the compressor urethrae is induced in a small percentage of cases by stricture of the urethra; also that free division of the stricture cures the spasm. It is perhaps unrealized that the relief often afforded by perineal section in deep-lying strictures with spasm is due not so much to drainage of the bladder as to division of an excitable compressor urethrae. I would go a step further and say that some of the misery of tuberculous ulceration of the bladder is induced by reflex spasm, and that probably much of the relief supposed to result from temporary perineal drainage for this disease is due to division of the compressor urethrae. And lastly, that some at least of those cases in which a digital exploration of the bladder is made and nothing is found, that the great relief afforded to the patient by the manœuvre is due to cutting through this excitable muscle.

I submit that in some of the cases of vesical irritability in women which are relieved by exploration of the bladder with the finger, the beneficial result is due to overstretching the sphincter muscle, the analogue of the male compressor urethrae.

A Fallacy.

It is no uncommon complaint of male patients with a history of prostatitis to complain of having "to wait" before they can urinate, and also of having a sense of obstruction to the stream when it is started. This "latent period" and sense of obstruction is due to inflammatory swelling of the neighbourhood of the urethral orifice of the bladder, and is in no way connected with true stammering, nor is it in any way benefited by section of the compressor urethrae. The same statement holds good in senile enlargement of the prostate.

REGIMENTAL SKIN-GRAFTING.—At Englewood, New Jersey, 56 members of the Second Regiment, New Jersey National Guard, recently gave from 2 to 4 square inches of skin to save the life of one of their number who was severely burned in a gas explosion. Dr. Currie, who is colonel of the regiment, operated upon 22 men on December 15th, 1901, removing portions of skin from their left arms, soaking them in normal salt solution, and transferring them to the body of the patient. When the operation was concluded, new skin had been grafted on the patient's arm, left chest, one side of the neck, and a portion of the head and face. The entire process took ten minutes less than four hours. Later skin was grafted in the same way on the patient's left side, part of the abdomen, and both legs.

PARTIAL NEPHRECTOMY,

With Three Illustrative Cases.

By B. G. A. MOYNIHAN, M.S., F.R.C.S.,
Assistant Surgeon, Leeds General Infirmary; Consulting Surgeon to the Skipton Hospital and to the Mirfield Memorial Hospital.

The tendency in all the operations of modern surgery is towards conservation whenever permissible and legitimate. Upon the kidney conservative operations have been but rarely performed. The importance of partial as compared with complete nephrectomy is illustrated by the experiments of Paoli, which show that if one-half of the kidney be excised, and after an interval the whole of the opposite kidney be removed, the half kidney remaining is adequate to the needs of the animal. Mr. Henry Morris relates the case of a patient from whom one kidney had been removed in Canada for tuberculous disease; one-third of the remaining kidney was subsequently excised by Mr. Morris. Five years afterwards the patient was seen, in very good health, and she was "earning her living as a working housekeeper." The performance of partial nephrectomy followed naturally upon the discovery that incisions might freely be made into the kidney substance, and that wounds so inflicted, for the purpose of extracting a calculus or exploring the kidney, healed with remarkable facility.

The notes of the following cases upon which I have operated illustrate the possibility of saving portions of the kidney in two forms of disease.

Case I.—*Solitary Cyst of the Kidney.*

[For the notes of this case and for his assistance at the operation I am indebted to Mr. F. T. Talbot.]

E. P., female, aged 42, was admitted to the Leeds Infirmary on October 17th, 1898, sent to me by Dr. B. W. Hogarth, of Morecambe.

History.—She complained of frequent attacks of pain in the body. The attacks closely resembled renal colic, lasted two or three hours, and were almost always accompanied by vomiting. Micturition was frequent, but painless.

Condition on Examination.—A tumour almost as large as a cricket-ball could be felt on the right side of the abdomen. The tumour was spherical, smooth, tense, fluctuating, and extremely movable. Its lateral range of movement was at least 6 inches, up and down movement about 4 inches. The kidney could be felt in the loin, but the attachment of the cyst to the kidney was doubtful.

Operation (October 28th, 1898).—The abdomen was opened through Langenbuch's incision and the tumour exposed. It was found to be a cyst of the lower pole of the right kidney. The difficulty in diagnosis was accounted for by the fact that when the kidney was fixed the tumour, being narrowly pedunculated, could be moved upwards and downwards and laterally with the pedicle as a hinge. The posterior layer of peritoneum was incised and the kidney drawn out of the wound. An attempt was made to dissect the cyst from the kidney, but this was difficult; the kidney tore and bleeding was free. It was therefore determined to remove that small portion of the kidney which bore the cyst. An assistant grasped the renal artery and vein, and two incisions were made enclosing a wedge-shaped portion of the kidney between them. This portion of the kidney with the cyst was removed. The kidney wound was stitched with six deeply-buried catgut sutures. There was no bleeding. As the kidney was unduly mobile, it was freely stripped before replacement. The posterior layer of peritoneum was stitched by a continuous catgut suture and the abdominal wound closed in the usual way.

After-History.—Recovery was entirely without incident. The highest temperature recorded was 99.2°, and the most rapid pulse 104. There was a trifling amount of blood in the urine for the first day. In September, 1901, Dr. Hogarth writes that he saw the patient occasionally as he passed her house, until twelve months ago, when she left Morecambe. She was in good health and free from any discomfort in the abdomen.

Report upon the Specimen by Mr. P. J. Cammidge.

Microscopically the substance of the kidney is quite normal, and there is no evidence of chronic nephritis to be seen. The tubules in the neighbourhood of the cyst are somewhat dilated, but this is not very marked, and the cells lining them appear to be quite healthy. The cyst wall is composed of fairly dense but highly cellular connective tissue which is somewhat sharply limited, although here and there a few irregular outgrowths are seen passing into the kidney substance around for a short distance. A few compressed and distorted tubules can be distinguished imbedded in the cyst wall at intervals, but they are not numerous. Internally the wall of the cyst is covered by a single row of flattened cells



Fig. 1.—Case I. Cyst and portion of kidney removed.

with large nuclei in many places; but in others only a shaggy layer of fibrous material is to be seen. At the periphery the cyst wall becomes merged into the capsule of the kidney, but even here the distorted remains of a few tubules can be distinguished.

Case II.—*Solitary Cyst in the Connecting Band of a Horseshoe Kidney.*

M. R., male, aged 36, sent to me by Dr. Bailey, of Horsforth, with a history of constant vomiting, pain after food, and loss of weight. Food could only be taken in small quantity, and all solids were rejected.

Condition on Examination.—A smooth, round movable swelling was felt above and a little to the right of the umbilicus. During respiration the vertical range of movement was approximately one inch. The stomach was much dilated. On inflation with CO_2 it descended two inches below the umbilicus. No waves of contraction were elicited. A diagnosis of pyloric tumour, possibly malignant, was made.

Operation.—The abdomen was opened by an incision to the right of the middle line, about five inches in length. On exposing the tumour it was found to be cystic in character, and to lie behind the peritoneum of the posterior abdominal wall. Crossing over the front of the cyst was the superior mesenteric artery close to its origin; behind the cyst lay the aorta and vena cava, and also the transverse third portion of the duodenum. The cyst was thin-walled, equal to a tangerine orange in size, tense, swollen, and unilocular. The peritoneum over it was incised and the cyst gently stripped. It was then found that on each side the cyst merged into a flat band about 1 inch in breadth and ½ inch in thickness, continuous with the lower poles of the kidneys. The condition clearly was one of horseshoe kidney, with a solitary cyst in the connecting band. The pelvis of each lateral kidney mass was then exposed in order to determine the exact position and course of the ureters. The ureters were symmetrical, and crossed the isthmus where it joined the kidney. In stripping the peritoneum off the kidney the ureters had been carried with it. The cyst was aspirated; on the left side it seemed to spring almost directly from the kidney, a very short portion of the connecting band intervening; on the right side there was fully ¾ inch of unaltered kidney substance in the band from which the cyst sprang. On each side a wedge of the kidney substance from which the cyst grew was removed and the edges of the wounds approximated by interrupted catgut sutures introduced with an intestinal needle. There were now two separate kidneys, each with a sutured wound at the lower pole. The

incision in the posterior layer of the peritoneum was stitched with a continuous catgut suture, and the abdominal wound closed in the usual way without sutures. The symptoms of pyloric obstruction were clearly due to the pressure of the tumour upon the duodenum. This pressure would be accentuated by reason of the position of the superior mesenteric artery across the front of the sac.

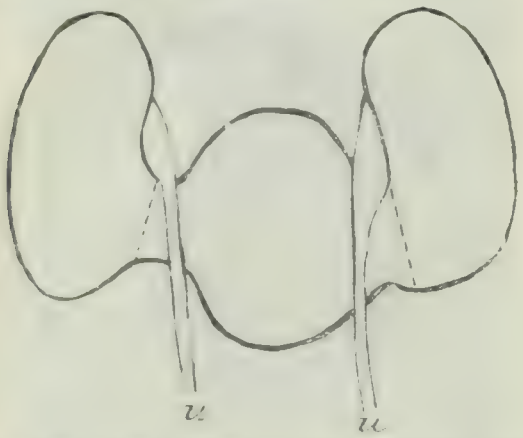


Fig. 2.—Case II. Horseshoe kidney, showing the kidneys united by a transverse band containing the cyst. U U, ureters. The dotted lines indicate the position of the incisions for removal of the cyst.

After-History.—The patient made a slow convalescence owing to the severity of an attack of pleurisy with effusion, beginning about fourteen days after the operation, probably tuberculous in character.

Report upon the Cyst and Contents by Dr. M. Smith, Pathological Curator, Leeds General Infirmary.

The cyst wall is composed [illegible] of fibrous tissue. In its substance can be seen [illegible]. The glomerular tufts in some places are [illegible] masses of fibrous tissue, in others by delicate [illegible] which are filled by a homogeneous material. [illegible] vessels are impervious, and



Fig. [illegible] from horseshoe kidney. On the right the [illegible] clearly seen. On the left it is shown as a [illegible]

[illegible] The nuclei of the cells [illegible] of the fluid [illegible] to the [illegible] fluid capacity; it is

Solitary cysts of the kidney are infrequent. A. von Brackel was able to collect the notes of only 22 cases, recorded between 1865 and 1899. The cysts occurred between the ages of 18 and 64, they developed generally in the cortex of the kidney, and were situated at the upper or lower pole, more commonly the latter. By all authors the sharp limitation of the cyst from the kidney substance is considered characteristic. The contents are clear, thin, pale yellow fluid, containing albumen and a large proportion of salts, and rarely urea. Of the 22 cases, 14 were females, 6 males, and in 2 no mention of sex is made. The cysts may be retention cysts, or possibly cystic developments in "rests" derived from the Wolffian or Müllerian ducts. The former explanation would seem the more likely.

Partial nephrectomy for cyst of the kidney has been performed by Kümmell, Bardenheuer, Zöge von Manteuffel, and Henry Morris. Kümmell's case was one of hydatid cyst. In Bardenheuer's case septic infection of the wound and kidney necessitated a complete nephrectomy five days after the first operation. All the patients recovered

CASE III.—*Myxo-sarcoma of the Lower Pole of the Right Kidney: Excision of Half the Kidney.*

Miss D., aged 21 years. Seen in consultation with Dr. Carlton Oldfield.

History.—She first consulted her medical man on August 30th, 1901, complaining of pain in the right side of the abdomen. She looked thin and ill, and was profoundly anaemic. The abdomen was examined and a tumour discovered. A careful examination into the history of the patient showed that there had been no frequency of micturition, no pain during, before, or after micturition. No alteration had been observed in the character of the urine. Pain in the body was the only complaint; it had begun slightly about a month previously; during the month a few pounds in weight had been lost. The patient was sent to bed and kept under frequent observation. The temperature was above normal on every occasion, varying from 100° to 101° in the morning, and from 102° to 103.5° in the evening. About 1½ pint of urine was passed in twenty-four hours. The urine was frequently examined, and nothing abnormal was ever discovered in it.

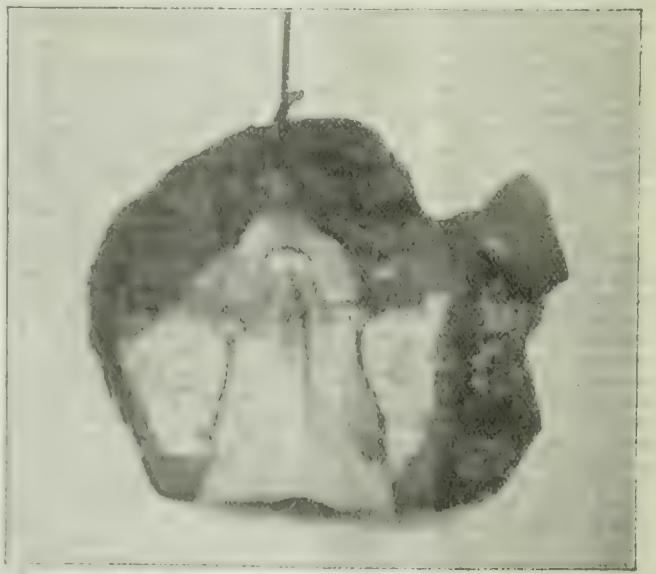


Fig. 4.—Case III. Myxosarcoma of kidney. The lower half of the kidney removed. The kidney has been split and opened. The hook by which it was suspended for the purpose of photography is in the line of cleavage. Healthy kidney is seen above the disease. The resemblance to tuberculous disease is apparent even in the photograph.

Condition on Examination.—A large, rounded, smooth mass, equal in size, as it seemed, to a cocoanut, was found. There was a limited range of movement on respiration. Renal ballotement was unmistakable. The abdomen elsewhere was normal. An area of resonance surrounded the tumour, and the fingers could be slipped in between it and the liver.

Operation.—The usual lumbar incision, subsequently prolonged into the lumbo-ilio-abdominal incision, was made, the kidney exposed, and an attempt made to strip it in order to deliver it through the wound. It was then found that the

tumour was very much smaller in size than had been anticipated—a not unusual experience in renal surgery. The kidney stripped readily in its upper half, the lower half to which the enlargement was confined, was stripped with the greatest difficulty, and then incompletely. The incision at this stage was enlarged, and the kidney, with much thickened capsule adherent at its lower border, was delivered. The condition was then found to be as follows: The upper half of the kidney was healthy in appearance and supple;

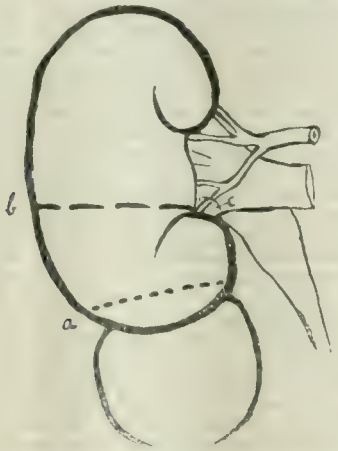


Fig. 5.—Case III. *a*, line of incision for removal of cyst. *b*, line of incision for removal of tuberculous disease. *c*, ligature applied to branch of renal artery.

the lower half was enlarged, tough with thickened capsule, but in places soft and friable, and beads of pus oozed out here and there. The pelvis of the kidney was healthy, and the ureter, which was subsequently dissected clean for 4 inches, was normal. It was clear that the disease, being limited to half the kidney, might be removed and the upper healthy portion of the organ left. The renal vessels were then grasped by the fingers of an assistant and I made two incisions, the from before backwards and upwards, the other from behind forwards and upwards into the kidney well beyond the disease. The incisions met in the centre of the kidney and enclosed a wedge of renal substance, above the disease, between them. The severed surfaces of the kidney were healthy. At the inner part of these incisions a small portion of the pelvis was removed with the lower end of the kidney. Through this opening a large probe explored and demonstrated the patency of the ureter. A branch of the renal artery and a large tributary of the renal vein were ligatured. A continuous Lembert stitch was then made to unite the cut edges of the pelvis and was continued on into the kidney substance so that, when the kidney wound was stitched up, a portion of this suture was buried. The edges of the kidney incision were then brought together by stout catgut interrupted sutures introduced with a large curved intestinal needle at intervals of about half an inch. On relaxing the pressure upon the renal vessels the wound remained dry. Some thickened masses of tissue, the result of a chronic sclerosing perinephritis, were carefully dissected out, the most tiresome dissection being carried out upon and around the vena cava. The kidney remnant was replaced, the incision in the parietes stitched up in tiers, and a drain of gauze left hanging from the posterior end of the wound. A photograph of the resected portion of the kidney (without the thickened capsule which was also removed) is reproduced (Fig. 6). It shows quite clearly the localised deposits and the healthy margin of kidney tissue.

After-History.—The patient recovered slowly from the operation. She is now (January, 1902) quite well. The urine is normal and the wound soundly healed.

Report upon the Specimen by Dr. W. M. Smith.

In the cortex is a growth about an inch long and half an inch in breadth at its widest part. It is of a pale colour. In its substance are a number of yellowish points. Throughout the other parts of the cortex, also are small deposits of this yellow material. The growths are not bounded by any zone of fibrous tissue, but at their periphery is a line of intense hyperaemia. The external surface of the cortex is very vascular. The capsule of the kidney is very thick, and contains a large amount of fat. Under the microscope the growth consists of elongated and rounded faintly staining cells. They have numerous long slender processes, which form felted network which extends throughout the whole kidney substance. This is apparently causing atrophy of the normal kidney



Fig. 6.—Showing the wedge removed from a kidney, and the interrupted catgut sutures.

structure. In the substance of the growth are numerous small vessels with very thin walls. There is a great infiltration of multinucleated leucocytes into the tumour, which at places almost obscure the tumour growth. The periphery of the cortex shows great haemorrhages, but in it can be seen the tumour cells. The growth appears to be of the nature of a myxosarcoma which is undergoing inflammatory change. To the naked eye the growth resembles very closely a localised tuberculous deposit undergoing caseation; this was the diagnosis made at the time of the operation. The treatment was based upon the diagnosis

RECURRENT CARCINOMA TREATED BY THE ROENTGEN RAYS.

By G. B. FERGUSON,

Senior Surgeon, Cheltenham Hospital; President, British Medical Association.

The salutary influence of the Roentgen rays on cancer is quite remarkable, and to judge from what I have already seen I will venture to predict that the day is not far distant when their use for diagnosis will be a small matter in comparison with their employment for the relief and arrest of cancerous and allied growths and ulcerations.

A few months ago a lady consulted me for a recurrent scirrhus growth, of the size of a hen's egg, on the manubrium of the sternum. The growth was fixed, and apparently growing from the bone. Below it was a hardened ulcerated surface about two inches square. Her left arm was greatly swelled, and extensive deposits could be felt in the axilla. She had been operated on for scirrhus mammae three years previously by an eminent Liverpool surgeon, who also saw the recurrence, but refused to attempt any further operation. Notwithstanding her entreaty, my advice was the same, as was also that of a well-known Birmingham surgeon, whom she also consulted.

After a good deal of palliative treatment, which I need not specify, and as she was steadily getting worse, I advised the use of the Roentgen rays. These were employed at the Cheltenham Hospital for twenty minutes on as many days. The treatment was somewhat pressed as she was obliged to leave Cheltenham a few weeks after its inception. After an absence of a month she has now returned in excellent health and spirits, for the sternal growth has completely disappeared, the ulcerated surface has healed, and her pain, which was considerable, has greatly lessened, being now confined to the arm alone, the swelling of which has much diminished.

There is still some deposit around the axillary vein, but, seeing what has already happened, I am hopeful that a further course (which is about to begin) of the "rays" will remove that also. A 12-inch spark coil was employed, and the distance of the tube from the body was from 8 to 10 inches. Notwithstanding a mask of mackintosh she became much "rays burnt" in the face, and she has lost both her eyebrows. But what are these drawbacks compared with what she has gained?

At the same time an intractable case of rodent ulcer of the face has been healed by the same treatment in the same institution. The first-mentioned case has been seen by several of my colleagues, all of whom unite in expressing their surprise and satisfaction. One of them saw the patient also just before the use of the rays.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OÖPHORECTOMY IN THE TREATMENT OF CANCER OF THE BREAST.

WHILST reading the account of the interesting cases related by Mr. Butlin, in which oöphorectomy had alleviated or cured malignant disease of the breast, I was struck by the frequency with which thyroid extract was employed in the treatment. It seemed to me that, perhaps, oöphorectomy was receiving more than its fair share of credit, especially as in my own experience thyroid gland has been the means of completely removing all evidence of cancer in an undoubted case of malignant disease of the uterus with secondary growths in the neighbouring viscera.

The case to which I refer occurred in my private practice, and from my rough notes I find that Mrs. C., aged 51, came under my care in July, 1900, having been under treatment in a nursing home off and on for the previous twelve months.

About two months before she came to me, Sir John Williams and Sir Francis Laking had in consultation decided that the case was one of malignant disease, and that it was too late to advise an operation.

Upon examination I found all the signs of advanced uterine cancer to be present. There was a hard mass between the uterus and rectum, which bled easily: the uterus was fixed and enlarged. From the peritoneal surface on the right side there was a hard irregular lump, measuring 5 by 4 inches, growing upwards. There was a nodular growth springing from the lower border of the right lobe of the liver, and an enlarged gland as big as a marble in the right groin. The patient was extremely emaciated, confined to bed, and suffering great pain. There were the usual pressure symptoms shown by the other pelvic organs, and occasionally a blood-stained discharge from the vagina.

The only indication was to allay pain and to render life endurable. Towards the end of November there was so much suffering that I asked Sir Francis Laking to see her again. We agreed that treatment must be directed wholly for the relief of pain, and that the case was rapidly nearing its end. A month longer seemed more than could be expected.

I now determined to try the effect of thyroid extract. Commencing with 5 grs. daily, the dose was quickly increased to [illegible] grs. with a result that was little short of marvellous. Convalescence began almost at once so that by the end of January the patient was up and free from pain. At this time the [illegible] were much reduced in size, and weight was [illegible]. When I last saw her in October she was quite well and was following an active life; nothing abnormal was to be felt in the pelvis.

I am, of course aware of the danger of arguing from the result obtained in a single case, but in this instance the improvement followed so quickly upon the employment of the remedy and was so striking, that in my own mind I have not the slightest doubt but it was entirely due to its use, and I am equally certain that thyroid extract should always be given a trial in this class of case before more heroic measures are adopted.

Claughton. H. ATWOOD BRAVER.

SUPRARENAL EXTRACT AS A HAEMOSTATIC IN HAEMOPHILIA.

IN the BRITISH MEDICAL JOURNAL of November 23rd Mr. W. Thelwall Thomas, writing upon the value of suprarenal extract as a haemostatic, remarks that Dr. F. Grünbaum doubts the efficacy of the drug in cases of haemophilia, assuming as he does that the condition is due to congenital hypoplasia of the muscular coats of the arteries. Quite recently I had an opportunity of testing the value of the drug in a case of severe haemorrhage following the removal of naso-pharyngeal adenoid vegetations in a boy, aged 10, who happened to be a haemophilic. The fact that the patient was a haemophilic was unknown to the parents and to myself. The operation was performed under chloroform anaesthesia and with a Gottstein's curette, the patient's head hanging over the end of the table. The amount of bleeding at the time of operation was comparatively slight, but about twenty hours after the operation the boy vomited several clots of blood of a peculiarly pale colour. Examination revealed a constant though slow oozing of a pale pinkish fluid from the naso-pharynx along the posterior pharyngeal wall. The nose was syringed with iced water and a hypodermic injection of ergotine given. The oozing, however, continued, and on the following day the naso-pharynx was packed with an iodoform gauze plug. Despite the tight packing the constant oozing continued, and the boy became pale and blanched. The plug was removed and another soaked in turpentine introduced, with, however, no better result. Finally a plug of gauze soaked in a solution of suprarenal extract was tightly packed into the naso-pharynx. No further haemorrhage ensued, and the patient made a good although somewhat slow recovery.

I think it right to record this case in the event of some *confrère* finding himself unexpectedly confronted with naso-pharyngeal haemorrhage in a patient who turns out to be a haemophilic.

Manchester. WILLIAM MILLIGAN.

THREE CASES OF IMPERFORATE ANUS AND RECTUM.

THE relative infrequency of congenital defects of the rectum and anus prompts me to report the following cases, which came under my observation and treatment in 1895.

Keating, quoting Ball, says: "In a joint collection of 66,654 deliveries in Vienna and Dublin Lying-in Hospitals there were only 3 cases of imperforate rectum."

CASE I.—I was called at 11 o'clock one night to see an infant (female), aged 24 hours, and on my arrival at the house found a midwife busy giving it injections of soap and water, but "still it could get no passage." There was a well-formed anus, and, on passing my finger three-quarters of an inch into it, I found a very dense membrane occluding the passage. I opened it by a crucial incision, much to the relief of the child, and instructed the mother and nurses how to keep it dilated by passing the finger, well oiled, into the part. I saw the child some time after, and it was doing well.

CASE II. In the second case, which was also a midwife's, there was a very fine and delicate membrane closing the external aperture of the anus. The child had been born the evening before, and no faeces had passed. The membrane was easily torn by a pair of dressing forceps, and the mother was instructed to keep it dilated.

CASE III. I was informed by the nurse that the child had been born sixteen hours before, and had no anus. On examining the perineum there was a well-marked raphé and considerable bulging when the child strained or cried, but no indication of an anus. Under chloroform, which was administered by Dr. A. G. Newell, I made an incision from the centre of the raphé to the coccyx, and felt the rectum bulging downwards. By a blunt dissection for an inch through cellular tissue I found the rectum ending in a blind pouch. Gently pulling it down, I incised it by transfixion antero-posteriorly, and sutured the end of the bowel to the skin. The sutures held, the child made a good recovery, and had full control over its motions.

The infants were all well nourished, and were doing well when I heard of them last.

JAMES LAURIE, M.B., C.M.,
Surgeon, Greenock Infirmary.

THE INDISCRIMINATE USE OF ATROPINE IN EYE DISEASES.

Having lately witnessed the dire results of instilling atropine into the eyes of two patients, one predisposed to, and the other suffering from glaucoma, I believe the notes of the cases, together with a recapitulation of the differential diagnosis between glaucoma and iritis will be of interest to the general body of medical practitioners.

Case I.—A woman, aged 30, found her sight defective, and was ordered by an ophthalmic surgeon to use atropine drops (gr. 2 to the oz.) twice a day for a week, to facilitate retinoscopic examination for glasses, as she was suffering from hypermetropic astigmatism at that time. At the end of the week she was examined retinoscopically for the glasses, but as the assistant who saw her could not get a satisfactory result he ordered her to continue with the drops for another week, although she complained that they caused pain. When seen again she was found to be suffering from double acute glaucoma. Iridectomy in the right eye was immediately performed for the relief of the condition, but the patient unfortunately developed a double cyclitis, and refused to have the left touched, with the result that now, some months later her R.V. is $\frac{6}{36}$; L.V. *nil.*, the cyclitis having disappeared.

Case II.—A man came under my notice, having had atropine instilled into his right eye for some eighteen days by his medical attendant for an inflammatory condition of that organ, which, instead of improving, rapidly became worse. He was found to be suffering from acute glaucoma, and in spite of appropriate medicinal treatment, it was deemed necessary to enucleate the eye to relieve pain, the vision then being *nil.*

Such results as these from the use of atropine as a cure-all (in which light, I regret to say, it appears to be regarded) have impressed upon me the necessity of warning general practitioners of the danger incurred by its indiscriminate use, and I therefore subjoin a short recapitulation of the differential points between acute glaucoma and iritis.

In acute glaucoma the pupil is larger than usual, and does not react to light; in iritis we find it smaller than usual, and also fixed.

On examining a case of acute glaucoma with the ophthalmoscope, a practice which should never be omitted, the media will be found to be hazy, and will give a greyish-green reflex; but in iritis it will be seen that there are small exudations in the media, and that the pupil's irregularity is due to these binding the iris to the lens. In acute glaucoma the tension, a point often missed, will be found increased; but in iritis it is normal.

In acute glaucoma the loss of vision is out of all proportion to the turbidity of the media, and is greatest on the nasal side; in iritis it is often not diminished except by photophobia, and if at all, the loss will be found to correspond to the amount of exudation present.

In acute glaucoma the cornea is generally almost insensitive to touch, whereas in iritis it is hypersensitive.

In acute glaucoma the transient obscurations of vision before the actual attack, as well as the colour rings seen round a flame at night—the latter being due to the diffuse haziness of the cornea—help to distinguish it from iritis, where the obscuration of vision is of a more permanent character, and the colour phenomenon is absent. The presence of vomiting with an inflamed eye is almost diagnostic of glaucoma, though it may occur in iritis; but in such cases confirmatory symptoms should always be sought, and on no account should atropine be used if there is the least suspicion of glaucoma.

In conclusion, I would warn all medical men to use atropine with the greatest care, and in all patients over 30 years of age—the predisposition to glaucoma increasing with age—to use it only in case of necessity, and then only if the patient can be kept under constant observation, any suspicious symptom at once indicating a discontinuance of the drug.

Wolverhampton. H. Carter Mactier, M.B., B.Ch.

TRIONAL IN CHOREA.

I can cordially endorse all that Dr. J. Noonan Meade reports in the British Medical Journal of November 2nd, 1901, in favour of trional in chorea. Last year, while on a visit to Poona, I was asked by Colonel Bull, I.M.S., the Staff Surgeon of that station, to see a case of very severe acute chorea which had resisted all treatment. The case was that of a very tall girl, aged 16, who had evidently outgrown her strength. When I saw the patient there were violent choreic movements of all the limbs, speech was affected, and there was considerable fever. Arsenic in large doses had failed, and other sedatives seemed to have no effect. I recommended trional. The drug was given in 10-gr. doses to begin with, three times a day. After a few doses there was marked improvement. The movements became less frequent and less violent. A dose of 20 grs. at bedtime was then substituted for the 10 grs. three times a day. Sound and refreshing sleep followed, and the patient became rapidly convalescent. She was sent to Simla for a change, whe she soon became strong and well, and has had no return of the chorea since.

W. Hume Henderson, F.R.C.S.I.,
Bombay. Lieutenant-Colonel I.M.S.

CASE OF ABSCESS IN THE NECK, WITH SIGNS OF VAGUS IRRITATION.

The following case owes its chief interest to the fact that it exhibits very markedly the symptoms and signs which may arise from irritation of the vagus.

The patient, R. J., a boy aged 13, was first seen by me on August 22nd, 1901, in conjunction with Dr. Thorpe. On August 14th he went to a swimming bath, and stopped in the water for several hours. On August 15th he had a sore throat, felt sick, and was feverish. His tonsils were enlarged, but there was no ulceration of the throat and no membrane. On August 16th he was too ill "to come out." His temperature was 101°, and the swelling of the tonsils had increased. On the same day a slight swelling was noticed on the left side of the neck, which was attributed to enlargement of glands secondary to tonsillitis. During the next four days his throat did not trouble him so much, but the swelling on the left side of the neck rapidly increased, and became very painful. Deep fluctuation could be felt, but an incision was not permitted.

On August 21st something seemed to burst in his throat, and he brought up a large quantity of blood and matter through his nose and mouth, and at the same time the swelling in his neck decreased very much in size. This seemed to afford him considerable relief, the temperature fell to normal, and his pulse, which had hitherto been rapid, dropped in frequency to about 80.

On the morning of August 22nd he suddenly commenced vomiting, and later in the day had a little diarrhœa, and became extremely collapsed. Ordinary remedies failed to stop the sickness. He was extremely restless, flinging his arms and legs about continually. His face was livid and his lips had a bluish tinge. His breathing was quite easy. The swelling in his neck had almost disappeared, but the skin was much wrinkled. He was retching every few minutes, and from time to time brought up a little bile-stained water. The heart was beating at the rate of 30 to the minute. Its action was perfectly regular. The beats were forcible, and the two heart sounds distinct and clear. There was not the least sign of any feeble beats between the others, or any murmur audible. The cardiac impulse was in the upper part of the fifth space just inside the nipple line. The cardiac dulness extended out to the level of the nipple. He was ordered tinct. belladonnae ♏ x every four hours, and a hypodermic injection of strychnine sulphate gr. $\frac{1}{30}$ was given thrice daily.

I saw him again twice on August 23rd, 1901. He seemed slightly better. The sickness was less violent, and the heart beats were 36 to the minute. He was still very restless in the morning, but towards night he became drowsy and inclined to sleep. In the evening the frequency of his heart beat had risen to 44, and he had only been sick three times during the day.

During the night he again became very restless, and was very anxious to get into another room. At about 5.30 A.M. on August 24th, 1901, he was left alone for a few minutes, and got out of bed and out of his room, but fell down in the passage outside in a state of collapse. He was carried back to bed. When Dr. Thorpe arrived he found that his heart was beating feebly (88), he was practically moribund, and died at about 6 A.M.

This case is unique in my experience, and, as there was no necropsy, I cannot prove conclusively that my explanation is the correct one; yet it seems to me that the symptoms and signs which the patient exhibited were just such as one would expect from irritation of the vagus.

Tollington Park, N. J. Basil Page, M.B.Lond.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

VICTORIA COTTAGE HOSPITAL, GUERNSEY.

CASE OF RUPTURE OF URETHRA, WITH SEPARATION OF PELVIC BONES AND INJURY TO SACRAL NERVES.

(Reported by E. LAURIE ROBINSON, M.R.C.S.Eng., Surgeon to the Hospital.)

J. P., aged 60, a native of Alderney, was admitted into the hospital on September 24th, 1900.

History.—He had always enjoyed good health, except that of late years he had suffered somewhat from asthma and rheumatism. On September 22nd, 1900, in Alderney, he was riding a cart horse bareback. The horse bolted with him, and after being jolted up and down several times, in consequence of the animal stopping suddenly, he was thrown about two feet up in the air and fell back again on the horse's neck. He suffered severe pain and felt very faint, and was helped down by some neighbours.

State on Examination.—At first there was not much to be seen, but on the following morning he was found to be suffering from extravasation of urine into the scrotum. Arrangements were made to send him as soon as possible to Guernsey, and he was admitted into the hospital about 1 A.M. on September 24th.

State on Admission.—He was suffering somewhat from shock, and from a sharp attack of bronchitis. He stated that he had not passed urine since the accident, and that he could not raise his right leg without great pain. His scrotum was found to be very swollen, distended, and discoloured. The pelvic bones were separated from each other to the extent of 2½ inches. The left bone was nearly in the middle line, but the right was displaced outwards fully 2½ inches. There were extensive bruises in the gluteal and lumbar regions, and a large haematoma over the sacrum. There was also a slight abrasion of the sphincter ani on the right side. He was put under an anaesthetic, and incisions were made into the scrotum and perineum, letting out about a pint and a-half of bloody urine. A catheter was passed into the bladder without any difficulty, and a drainage tube attached to it, the free end of which was placed in a receiver under the bed, containing a solution of carbolic acid. Sandbags were placed on either side of the body in order to support the pelvis. It was impossible to put a binder round the body on account of the bruising of the soft parts. It was soon discovered that in addition to his other injuries he had paralysis of the sphincter ani, resulting in absolute incontinence of faeces, and it was only through the ceaseless care and attention of the matron and nurses that he was saved from extensive bedsores, and his life preserved.

Operation.—After he had been in the hospital about a month I cut down upon the pubes, drilled the bones in two places, and wired them together. They united by first intention in spite of the fact that a few days after the operation urine was found to be coming through the lower part of the skin wound; this had to be opened, and cyanide gauze was stuffed into the wound. This extravasation was due to the separation of a slough from the right side of the urethra; up to that time by means of the catheter all extravasation had been prevented.

Progress.—He had several rigors, and also suffered from two alarming attacks of angina pectoris, and developed extensive phlebitis of the veins of the right leg. At the end of four months from the time of the accident the wounds were quite healed, and he was able to retain his water, but it was quite two months more before he regained control over the sphincter ani. At the end of the seventh month he was quite well except that he walked rather feebly. And now, just a year since the accident, he is able to take long walks without the help of crutches or sticks.

REMARKS.—I believe that such an accident must be very rare. Of course rupture of the urethra is common enough, but not separation of the pubic bones. I have no doubt that there was some laceration of the sacro-iliac joints, especially the right one, with injury to the sacral nerves, especially the fourth, causing the loss of control over the sphincter ani and partial paralysis of the lower extremities. He was most fortunate in that he never suffered from cystitis although the catheter was retained nearly four months.

STATIONARY HOSPITAL, ORANGE RIVER.

GUNSHOT WOUND OF ABDOMEN: LAPAROTOMY: DEATH.

(Reported by Lieutenant H. P. W. BARROW, R.A.M.C.)

A NATIVE scout was admitted into hospital on September 16th, 1901, suffering from a gunshot wound of the abdomen, inflicted by a Lee-Metford bullet at thirty yards range, seven hours and a-half before admission.

Condition on Admission.—He was in a state of great collapse, and complained of dull aching pain in the abdomen, more acute at the entrance and exit wounds. He passed normal urine and a little flatus and bloody faeces immediately after admission. The abdomen was hard and boardlike, especially over its lower half. The entrance wound was situated 2 inches to the left of the umbilicus on a line between it and the anterior superior iliac spine. It consisted of a very small hole, around which was a local area of dulness. Some haemorrhage had occurred from the wound. The exit wound was 1 inch below and 1 inch behind the right anterior superior iliac spine; the bullet had thus probably passed through that bone. It was very small in size, nearly the size of the entrance wound. The liver dulness was normal. Breathing was almost entirely thoracic. Shock was treated in the ordinary way, nothing being given by the mouth except ice to suck. Morphine gr. ⅓ was given that evening. On the next day shock had to a great extent passed off. On examination the liver dulness was found to be absent, and some gas escaping from the entrance wound. It was accordingly decided to operate.

Operation.—Median laparotomy was performed. Nothing abnormal was discovered until the peritoneum was cut down on, when it was seen to bulge into the wound. The peritoneum was carefully picked up and incised, when a quantity of foul gas escaped. The intestine was then carefully taken out, coil after coil, and seen to be very red and inflamed and covered with recent lymph. Two small holes were found in the small intestine, and these were covered by means of Lembert sutures. What was taken to be one of the appendices epiploicae was then discovered, but on careful examination was seen to be moving, so was caught hold of and was found to be about 1 foot of an ordinary tapeworm. The anaesthetist then said that the patient was getting collapsed, and so an opening was made in the posterior wall of the abdomen and a drainage tube inserted. The whole peritoneal cavity was well flushed out with lukewarm weak boric lotion and the anterior wound sewn up. The patient was then put to bed and rallied well from the operation, but sank and died fourteen hours after.

Necropsy.—The whole peritoneal cavity was red and inflamed, and the intestines covered with recent lymph. Three more small holes were found in the small intestine, and one large hole, 1 inch in diameter, found close to the ileo-caecal valve, and from it protruded the remains of the tapeworm.

REMARKS.—This condition of a living tapeworm in the peritoneal cavity is described in books as a sign of perforation of the intestine, but it was thought that a recorded case might be of interest. Another point of interest was that although the bullet was fired at short range, and passed through the bone, the size of the exit wound was nearly the same as that of entrance, although on *post-mortem* examination the ilium was found very much splintered. This might possibly be due to the thick muscular covering of the ilium at this spot.

RAILWAY HYGIENE IN ITALY.—A committee was appointed some time ago by the Italian Minister of the Interior to study the question of railway hygiene, and draft a scheme of legislation on the subject. The following are the points which are to be considered: (1) Ventilation, heating, furnishing, cleansing, and disinfection of rolling stock; (2) tuberculosis, cutaneous and infectious diseases, the transport of the sick; (3) hygiene of stations, offices, etc.; (4) medicine cases and surgical instruments, and dressings for emergencies.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

F. W. Pavy, M.D., LL.D., F.R.C.P., F.R.S., President, in the Chair.

Tuesday, January 28th, 1902.

Discussion on Modern Methods of Vaccination and their Scientific Basis.

Dr. Sidney Coupland, in resuming this discussion, referred to the great improvement that had supervened in modern vaccination methods, mainly as a result of the introduction of glycerinated lymph. The objects of recent improvements had been to obviate the risks of the process, and there had been the even greater advance in having vaccination performed at home and in raising the age of the children required to be vaccinated. The vaccinal injuries had been in the past, perhaps, too lightly considered by the profession. In the majority of cases with ill-effects it had not been the lymph which had been at fault. Large unsightly scars were unnecessary, and were often associated with inefficient vaccination. The scars from purified lymph were often small, and did not even present the size which was formerly supposed to be an essential index of good vaccination. Indeed, probably now the number of the scars was the best evidence of efficient protection. The question was probably one of dose, as in the case of antitoxin in cases of an infectious disease. The scars were numerically a permanent record of the dose. It was admitted that vaccination was a good prophylactic against small-pox. When small-pox invaded a house or other small community where all were equally exposed to infection, some escaped and others were attacked. Among those who had had small-pox previously personally-collected statistics showed that 1 in 20 were attacked a second time. But vaccination did not afford this degree of protection. If only vaccinated once in childhood, about 25 per cent. were liable to contract the disease when living in a small-pox atmosphere. Recently-vaccinated persons were much more powerfully protected than the more remote; about 1 in 7 contracted the disease. Revaccination properly performed conferred practically absolute and final immunity. In children under 10 vaccinated in infancy, liability was about 1 in 11 or 12; but 2 out of 3 of unvaccinated were likely to take the disease on being exposed to infection for the first time. These results, it was pointed out, were based on a relatively few cases—some three epidemics.

Dr. Albert E. Cope stated that he represented the body of public vaccinators and referred to his methods of vaccination. The arm in the case of infants, which had been washed by the mother, was first rubbed with a pledget of boric wool saturated in rectified spirit and then dried with a pledget of dry wool. For revaccination a 20 per cent. carbolic soap was used with which to wash the arm. The water was boiled, a pledget of wood wool was used to apply the soap, the excess was rapidly washed off with water or rectified spirit, and the arm was dried with a similar pledget. The instrument he had found most useful was a lancet made of platinum, hardened with iridium, so that it might be flame sterilised. The best ejector of the lymph from the tube was a solid rubber bulb with a funnel shaped perforation through which the tube was passed and the outer aperture closed by the thumb before compression. Lymph was placed on the arm and the skin was lightly scratched through it; the faintest trace of blood being drawn. An interval was allowed, until an erythematous reaction was visible, when a boric pad was applied and strapped on. This was allowed to remain for a week, then a powder of boric acid, zinc, and starch was applied under another boric pad. The most troublesome complication he had had was an eczema, occurring under the strapping, which subsided readily under the application of calamine lotion. Complications of any kind were very rare. Revaccination was obtainable at about 14 after good vaccination in infancy; it would be well to arrange for it to be done on children before leaving school, so that later it should not interfere with the daily work of adult life. This might well be made a Government regulation.

Dr. Blake asked what constituted a successful revaccination, referring to differences of result in different people on using lymph from the same tube? Also, what was meant by the statement that successful vaccination might occur several times within a few months in the same person?

Dr. Churchill asked if there was any age beyond which vaccination might safely be discarded. It was probable that persons of all ages were liable to contract the disease. It was a question whether the present epidemics of small-pox were really so effectively controlled by improved methods as in the earlier epidemics by rougher measures. It was possible that the more elaborate procedures acted as a deterrent against vaccination being universally had recourse to.

Dr. Bernard O'Connor asked whether a second or third revaccination was necessary; theoretically he had thought revaccination should be continued until it failed to produce any result.

Dr. Mivart alluded to a keloid condition which was sometimes associated with scars, and remarkably so in the practice of particular vaccinators.

Dr. Copeman, in reply, stated that glycerine had a gradual inhibitory effect on micro-organisms that were non-spore-bearing. The spore-bearing organisms at all likely to be present were of no pathogenic importance. The same dose or amount of vaccination was probably desirable in the child as in the adult. Probably a greater effect, however, relatively to the size of the individual was obtained in the adult. There was at present no efficient method of standardization of lymph—the only useful test was the clinical result. It was not possible as yet to afford the same degree of protection by injecting an antitoxic serum into the system. With the use of glycerinated lymph there was not the same destruction of skin tissue as even in what was considered perfect vaccination of years ago. It was essential that all persons should be revaccinated at least once in later life. If no effect had followed the use of lymph which subsequently was suspected of being inert an interval of at least a month should be allowed to elapse before revaccination, because a slight local immunity was produced even by inadequate vaccination. In recent methods there was probably no weakening of the lymph by mixing with glycerine as compared with the old arm-to-arm method, for it was believed that the microbes of vaccinia were contained in the epithelial cells which were removed in the pulp from the calf, while in vaccination from the human arm only the fluid from the loculi was taken.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor T. R. Fraser, M.D., President, in the Chair.

Wednesday, January 15th, 1902.

Removal of a Tumour from the Brain.

A paper entitled A successful Case of removal of Tumour from the Left Pre-frontal Lobe of the Brain, by Dr. W. Elder, Leith, and Mr. Miles, was read by the former. In spite of the advances made in cerebral surgery in recent years, a very small number of the successful operations had been performed for tumours. This was chiefly due to the fact that very few cerebral tumours, even if they could be accurately diagnosed and located, were removable. Starr had published a table of 1,100 cases of cerebral tumours reported by several well-known observers, which showed that only 7 per cent. were "probably removable." The difficulty in localizing cerebral tumours was still very great in spite of recent advances in the knowledge of cerebral anatomy and physiology. If situated in the Rolandic areas, in any of the speech centres, or in the occipital lobes, symptoms were produced which afforded great help in locating the tumour, but there were still many "latent" or "silent" regions of the brain, lesions in which gave rise to no symptoms, or to symptoms which were as yet not understood. The patient now to be described suffered from a tumour of one of those so-called "silent regions"—the left pre-frontal lobe; and his case illustrated the fact, which had been pointed out by several observers, that a tumour or other lesion in this region gave rise to a fairly definite group of symptoms. The pre-frontal lobe was looked upon as a silent region from the fact that experiments—such as those of Ferrier, Horsley, and others—failed to elicit any definite motor reaction when this part of the brain was electrically stimulated. Extirpation of the pre-frontal lobes in monkeys, however, gave rise to a train of symptoms which, as far as

they could be compared, closely resembled those exhibited by this patient, as well as by other reported cases. As those symptoms were produced by an interference with inhibition, with attention, and with judgement, which were probably the highest functions of the brain, rendering man pre-eminent among living creatures, it was very difficult to compare such symptoms with those manifested by the lower animals.

The patient, a lorryman, aged 42, was admitted to Leith Hospital on October 14th, 1901. He had been well till the month of May, 1901, when he began to suffer from pain in the back of the head, in the small of the back, and in the legs. Soon after the pain was referred to the left frontal region, and it subsequently remained localized to that part of the head. He had occasional attacks of vomiting of the cerebral type, without relation to food or other apparent cause. He continued at his work till September 12th, when his term of employment expired. For about a fortnight he was no worse; but then he became depressed, refused to leave his bed, and would not speak to his wife, sometimes refused to take his food although his appetite appeared to be normal. The subsequent history essentially consisted of gradually increasing symptoms pointing to interference with his higher inhibitory control—namely, loss or want of exercise of the power of inhibiting the organic reflexes; diminution of his sense of shame or modesty; loss or diminution of his faculty of sustained attention; diminution of fixation in memory; inability to contrast and compare, and therefore to form a proper judgement: latterly, symptoms pointing to slight involvement of motor fibres from the face and tongue areas of the cortex, as shown by dysarthria or slurring of speech. There was no aphasia. He had always enjoyed good health. Syphilis was denied. He had been married seventeen years, and his wife had had three miscarriages—at six, seven, and eight months respectively—and four living children. Three years before he had had "an abscess" opened over the right frontal region. Four years before this abscess formed he had received a blow on that region. There was no history of injury to the left side of the head. On the morning of October 13th he was stupid, could hardly be roused, breathing almost stertorous and tending towards the Cheyne-Stokes type, slight rigidity of arm. Later in the day difficulty of swallowing, breathing getting worse, a pr[illegible] over the left frontal eminence which was painful and pitted on pressure. There was no neuritis, but some blurring of the edges of the right disc, and some dilatation of veins in the fundus. At 10 P.M. on this day Mr. Miles operated. There was a small area of caries on the surface of the frontal eminence, affecting only the most superficial layer of the outer table. A firm nodular mass occupied the tip of the frontal lobe. It was circumscribed and had a thin covering of cortex over it. It was easily shelled out without any haemorrhage. The brain pulsated freely as soon as the tumour was removed, and the cavity in the frontal lobe was approximately filled by the brain matter bulging into it. A small strand of iodoform gauze was left as a drain. The tumour was 2 inches long, 1½ inch broad, and ½ inch thick. It was a syphiloma. Next day the patient knew he was in hospital, and recognised his wife. He made steady progress, and was out of bed on November 12th, and had continued well ever since.

Dr. Elder closed his paper with a discussion of the symptoms and reasons for diagnosis. The symptoms undoubtedly pointed to the cerebrum. The apparent want of control of the bladder and rectum was the only symptom that might have caused confusion. Careful inquiry, however, showed that the loss of control had a higher origin than the spinal cord, that as far as these functions were concerned, the man had been reduced to the animal condition as in advanced dementia. Dementia was excluded by the general condition and the short duration. The gradual onset of the symptoms and no history of distinct paralysis of motion or sensation, general or of the special senses, pointed to softening, if present, being in the frontal region. But cerebral thrombosis and embolism, with consequent softening, were rarely limited to this region, and were very much more common in the areas supplied by the middle cerebral and its terminal branches in the Sylvian fissure. Haemorrhage was excluded for the same reasons, though the rapid increase in the severity of the symptoms the day before operation might have been due to haemorrhage from a previously existing tumour. This rapid progress was thought to be due to congestion and oedema. Abscess was excluded by the history, the absence of fever and of leucocytosis. The symptoms pointing to tumour were the gradual onset and the apparent and steady increase and progress of the symptoms from the time that the patient gave up work about a month before admission. Slow and dull cerebration, depression of spirits, slow pulse, vomiting without apparent cause, were all suggestive of increased intracranial tension. The usual eye symptoms were absent, but the eye on the side of the lesion had been disorganized by small-pox many years before. A tumour was indicated. The slight paresis of the right arm, the paresis of the right side of the lower part of the face, with dysarthria in speaking, but no aphasia pointed to a lesion of the left side. The absence of aphasia showed that Broca's convolution was not affected. As there was much less affection of the arm than of the face the lesion producing this symptom was almost certainly in the centrum ovale subcortical to the lower part of the Rolandic areas. The swelling over the left frontal eminence pointed to the lesion being on the left side. The mental symptoms were not only confirmatory, but if they had been taken alone would have been sufficient to justify an operation over the left frontal region. These symptoms might all be considered as a loss or depression of the inhibitory power of the individual. Attention was largely an inhibitory process, and want of attention was a marked feature. Loss of power of forming judgement was closely allied. The time had come when they should discard the idea that the pre-frontal lobes were "silent regions." The left pre-frontal took a more prominent part in higher cerebration than the right. The best summary of the symptoms of pre-frontal tumours was that of Allen Starr. "The form of mental disturbance in lesions of the frontal region does not conform to any type of insanity. It is rather to be described as a loss of self-control and a subsequent change of character." Ferrier, Welt, Gilman Thompson, Griffith and Sheldon more or less confirmed this view.

The paper was discussed by Dr. BYROM BRAMWELL, Mr. COTTERILL, Dr. H. M. CHURCH, Dr. LOGAN TURNER, Dr. EDWIN BRAMWELL, and Dr. ALEXANDER BRUCE; and Dr. ELDER replied.

CASES.

Dr. BYROM BRAMWELL showed two cases of syringomyelia.—Mr. STILES showed (1) a boy after operation for punctured wound (spike of railing) of brachial artery opposite the origin of its superior profunda branch. While climbing a railing he was pulled down by another boy. A spike penetrated the arm close to the axilla. He was at once brought to the hospital, where he arrived in a fainting condition, with his clothes saturated with blood. There was a wound half an inch in length, transverse to the axis of the arm, and in the line of the upper part of the brachial; bleeding had ceased. There was no pulse at the wrist of the injured side: there was on the other side. On enlarging the wound it was found that the brachial was punctured opposite the origin of the superior profunda, and a clot projected from the orifice. A ligature was applied above and below the puncture, and a third to the superior profunda. The wounded part of the vessel, with the origin of the superior profunda, was resected between the ligatures. Some of the fibres of the coraco-brachialis were ruptured. The basilic vein and the nerves were uninjured. The case was of interest, as showing the importance of investigating punctured wounds in the neighbourhood of important vessels and nerves. (2) A girl after second operation (excision) for plexiform angioma of the scalp. The first operation consisted in the ligature of twelve vessels of the scalp, and the effect was almost entirely to obliterate the pulsation of the tumour. The second operation—excision of the tumour—was performed by reflecting it along with the scalp by means of a horseshoe incision encircling two thirds of its circumference. The dilated vessels were then dissected off the deep surface of the flap. An elastic tourniquet, placed round the circumference of the cranium, very effectively arrested the haemorrhage, which, however, was very copious on the removal of the tourniquet. The free bleeding from the cut edges of the scalp was arrested by the introduction of a series of interrupted and firmly-drawn mattress sutures, followed by the application of a firm compress dressing kept in position by an elastic bandage. The result was a complete cure of the aneurysmal condition. Without previous ligature of the vessels feeding the tumour, the excision would have been attended with grave risk from loss of blood.—Dr. ELDER showed a man with transposition of the viscera.—Dr. ALEXANDER BRUCE showed a patient with anterior poliomyelitis affecting the whole of the left upper extremity.—Dr. C. W. MACGILLIVRAY showed a case where there had been obstruction of the bowels in a child with suppurating tuberculous retroperitoneal glands. After operation recovery was complete.—Apparatus: Dr. LESLIE MACKENZIE showed a simple form of spray pump for disinfection.—Photographs: Dr. CHALMERS WATSON showed photographs from a case of cerebral thrombosis in a horse unconscious for twenty-four hours followed by complete recovery. Card specimens were shown by Mr STILES, Mr. J. W. COTTERILL, Dr. A. BRUCE, Dr. C. W. MACGILLIVRAY, and by Drs. GIBSON and STEWART MCDONALD.—Demonstration: Ramsay Smith's method of rapidly preparing histological specimens was demonstrated by Mr. CATHCART. The three features which specially deserved attention were: (1) The adaptation of the freezing method of cutting microscopical sections to tropical climates. This was attained by embedding the tissues in cork, and spraying ethyl chloride directly on the tissue. (2) The method of cutting, which consisted of a continuous raising of the screw with the left hand simultaneously with a rapid to-and-fro movement of the knife with the right, no attempt being made to adapt the screw at each cut. This was not only rapid, but gave exceedingly good sections, though the exact measurement of them was not attempted. (3) The method of permanently mounting sections of fresh tissues, which consisted in floating out the sections in from 2 to 4 per cent. formalin after being cut, floating on to a slide, staining with haematoxylin or eosin, dehydrating with absolute alcohol, and mounting in Canada balsam. Ramsay-Smith found that he "could cut sections at the rate of from 300 to 400 per minute, and prepare and complete a stained permanent preparation within six or seven minutes from receiving the fresh tissue from the body or the operating theatre."

GLASGOW SOUTHERN MEDICAL SOCIETY. A meeting was held on January 23rd, Dr. JOHN STEWART, President, in the chair.—Dr. R. H. PARRY showed the following group of surgical cases: (1) Case in which there had been rupture of the thoracic duct; (2) excision of stricture of urethra, and

immediate approximation of divided ends of urethra; (3) excision of tongue and half of lower jaw for carcinoma of floor of mouth; (4) excision of tuberculous glands from anterior and posterior triangles of neck through an incision in hairy scalp; (5) cerebral tumour (glioma sarcoma) removed by raising a large osteoplastic flap; (6) injury to fifth cervical nerve, paralysis of deltoid, biceps, brachialis anticus, and supinator longus muscles; (7) idiopathic dilatation of colon, in the treatment of which the ileum had been joined to the rectum; (8) rupture of gall bladder, escape of pus into peritoneal cavity, followed by diffuse purulent peritonitis; (9) idiopathic dilatation of stomach, and removal of large stricture of lower end of ileum; (10) cases illustrating the common errors in the diagnosis of lesions on the right side of the abdomen. At the close of the demonstration Dr. Stewart moved a hearty vote of thanks to Dr. Parry.

CLINICAL SOCIETY OF LONDON.

Howard Marsh, F.R.C.S., President, in the Chair.

Friday, January 24th, 1902.

Clinical Evening.

Bilateral Facial Palsy.

Dr. Seymour Taylor exhibited a boy, aged 15, who had never been able "to move his face."

There was no history of delivery by forceps, or of otorrhoea. There was almost complete bilateral facial palsy, so that the face was mask-like in its want of expression. The palpebral fissure was never completely closed; the mouth always more or less gaping. All labial and explosive consonants were pronounced by the aid of the tongue, so that "apple" was turned into "attle," "pear" into "tear," and so on. He had no other palsies. Probably the lesion was peripheral.

Dislocation of the Navicular.

Mr. G. Turner showed a farrier, aged 32, whose horse stumbled and fell, crushing his left foot, which was twisted inwards.

After the accident there was a prominent rounded swelling just below and in front of the internal malleolus, quite easy to reduce, but returning when the pressure was relaxed. Under the *x* rays with a screen the scaphoid was seen to be dislocated inwards. The foot was put up in a splint, but it was found impossible to keep the dislocation thoroughly reduced. The patient was walking with crutches in two weeks, and upon leaving hospital walked without crutches.

Bilateral Cervical Ribs and an Abnormal Bony Mass at the First Chondro-sternal Junction.

Mr. L. McGavin showed a woman, aged 18, the condition of whose neck was accidentally discovered six months ago. She had lately complained of slight pains in this region.

The skiagraph showed supernumerary ribs; that on the right side was short and straight, and ended over the centre of the first rib, springing from the transverse process of the seventh cervical vertebra; that on the left was curved, springing also from the same point, and ending much nearer to the inner end of the clavicle. There was also an indistinct nodular bony mass, apparently in connection with the transverse processes of the fourth and fifth cervical vertebrae.

Abnormal Curvature of the Spine Determined by Shortening of the Left Rectus Abdominis Muscle.

Mr. J. Jackson Clarke showed a girl, aged 10, who had a pronounced C-shaped total kyphosis, associated with slight dorsal scoliosis, the convexity being to the right.

The abnormal curves in the spine were fixed, not disappearing either when the patient lay down or when manual pressure was employed. The case was probably akin to the common form of wry-neck, due to contracture of one sterno-mastoid in infants. The treatment had been instrumental and gymnastic, and improvement had followed this stretching of the shortened rectus.

Arthropathy of Shoulder-joint in a Case of Syringomyelia.

Mr. W. Harmer showed a male, aged 20, a hawker, with injury to the left shoulder twelve months previously, followed by swelling (? ruptured muscle), which gradually subsided.

Eight months ago painless swelling of same joint, commenced suddenly without injury. There had been two months' grating "shifting of bone." No previous illness except varicella. No history of syphilis. Short, strongly built patient; voice always husky. No muscular wasting discovered. Grip in left hand a little weaker. Left shoulder-joint uniformly enlarged (18 inches × 15 rt.), painless. Movement free as high as the level of acromion process, but attended with marked grating and luxation. Head of humerus eroded (skiagraph), with laxity of ligaments. Not tender on pressure. Numerous painless ulcers on thumb and fingers of left hand, commencing as bullae. Complete thermo-anaesthesia from about fifth cervical to third lumbar spines, including arms. Tactile sense normal. Knee-jerks marked. No ankle clonus. No ocular changes.

New Method of Treating Old-standing Paralysis of the Upper Root of the Brachial Plexus (Erb-Duchenne Type).

Mr. A. H. Tubby and Dr. Purves Stewart exhibited a carman, aged 57.

As the result of a fall two years and three months ago on to his left shoulder and left side of the head, he had marked paralysis and atrophy about the left shoulder and upper arm, with total loss of electrical excitability in the deltoid, infraspinatus, biceps, brachialis anticus, and supinator longus of that side. The symptoms pointed to a paralysis of the upper root of the brachial plexus of the Erb-Duchenne type. Mr. Tubby, twenty months after the accident, with the object of restoring the power of flexion at the elbow, transferred part of the triceps and fixed it into the biceps. A month later an attempt was also made to restore power to the deltoid, by attaching to it the humoral part of the pectoralis major, and applying massage and the faradic current to the transplanted muscle. The result showed great improvement in the movements and utility of the limb. The electrical reactions of the transplanted muscles after the operation at first exhibited a total loss of excitability both to induction shocks and to the galvanic current. Three months after operation the galvanic excitability returned, and six months after faradic reaction could be demonstrated.

Coxa Vera Traumatica, with Skiagraph: Insidious Onset.

Mr. Harold L. Barnard showed a child who had come under his observation with the characteristic signs of coxa vara.

On questioning the mother he found that eighteen months before the child had complained of pain in the hip, and for three days had been unable to walk at all. Then he began to walk again, but the following year he commenced to limp. The signs were definitely those of coxa vara, namely, abduction was very much limited, internal rotation also very limited, while flexion and adduction were free. No pain was complained of in the joint or on movement. The treatment so far had been a Thomas's knee-splint to keep the weight off the hip-joint, the mother objecting to any operation. The child had suffered from blood spitting.

Traumatic Separation of the Epiphysis of the Head of the Femur Demonstrated by Skiagraphy.

Mr. J. Hutchinson, jun., in showing this patient, a lad, aged 17, said that the real nature of the case could not have been ascertained with certainty but for the aid of the Roentgen rays.

The patient, who had good muscular and osseous development, whilst struggling with some boys, fell on to the ground and when brought to the hospital was unable to walk, and complained of intense pain on passive movement of the right thigh, which was everted. There was no bruising, no abnormal fulness in Scarpa's triangle, no shortening. The Roentgen rays showed a separation of the femoral head at the epiphyseal line, the epiphysis remaining in the acetabulum, and being only in contact with the femoral neck to about half the normal extent. The limb was put up on a Liston's long splint, and almost perfect apposition was obtained.

Until the introduction of the *x* rays, positive evidence as to the occurrence of traumatic separation of this epiphysis was singularly scanty.

A Member stated that below the age of about 18 a child fractured the neck of the femur; but at 18 he could separate the epiphysis. He had seen 4 cases of this epiphyseal separation at Guy's Hospital during the last eighteen months, and they were all over 16 years of age.

Major Dilatation of the Left Auricle.

Dr. Ewart exhibited this case, which is to form the subject of a paper to be read before the Society.

Excision of the Caecum.

Mr. Arthur Barker showed a male, aged 30, who was operated on for acute intestinal obstruction in 1899.

The enormously distended and hypertrophied small intestine was first incised, and 5 pints of liquid faeces were evacuated. The cause of the obstruction was a hard growth round the ileo-caecal valve. The small gut, at about 2 feet from its termination, was therefore anastomosed laterally with the transverse colon. Six weeks later a fresh incision was made over the caecum, and the latter was excised with some inches of the ascending colon and ileum. Beyond the presence of a slight faecal fistula for some weeks, recovery was perfect. The patient was now in excellent health, without any evidence of recurrence two years and eight months after operation.

The growth was a typical carcinoma.[1]

Excision of Transverse Colon.

Mr. Arthur Barker also showed a woman, aged 58, who was operated on for carcinoma of the transverse colon and chronic obstruction in 1900.

She was suffering from diabetes, with 6.6 per cent. of sugar in the urine. About 4½ to 5 inches of the transverse colon were removed, and end-to-end anastomosis followed. The dressings remained untouched for ten days. On their removal a small faecal fistula was found, and discharged for some weeks with one of the suture threads, probably omental. Recovery was otherwise uneventful.

[1] *Clin. Soc. Trans.*, 1900, p. 20.

The growth was tyical carcinoma.[2] The patient had been in first-rate health ever since, and showed no evidence of recurrence.

COMPOUND FRACTURE OF THE TIBIA, THE SUPERJACENT TISSUES BEING RIDDLED WITH SUPPURATING GUMMATA.

Mr. F. C. WALLIS showed a man who was admitted with bad compound fracture of the right tibia.

Above and around were numerous sloughing suppurating gummata. There were many pigmented scars, and the skin of the part was thickened, infiltrated, and purple. The fractured ends of the tibia were freely exposed through the gaping skin wound. The fracture was placed in a back splint with a front piece, slung in a cradle, and exposed to view. The only application was iodoform powder. As the pus accumulated in the ulcers it was wiped out with wool, and fresh powder applied. Potassium iodide was given internally.

The leg had united very well, in quite good position, and the various gummata were nearly healed.

ATAXIC PARAPLEGIA.

Dr. NORMAN DALTON showed a man, aged 52, who contracted syphilis two years ago, and now had symptoms partly of locomotor ataxy and partly of lateral sclerosis in both legs. The eyes and the upper limbs were normal. He complained of "precipitate" micturition and defaecation.

CONGENITAL SPINAL DEGENERATION WITH SYMMETRICAL ARTHROPATHY.

Dr. W. ESSEX WYNTER showed a man, aged 17, pony driver in a coalpit, who was kicked over the left eye by a horse at 14.

His present condition was noticed two years ago, commencing without pain or any acute phase. Both hips were now completely fixed in a fully extended position, so that the patient was unable to sit up in bed or in a chair. There was some enlargement of the right trochanter. Manipulation caused no tenderness. Measurement from the anterior superior spine to the internal malleolus 33⅜ inches on either side. Both trochanters were below Nélaton's line. Bryant's line—left 2½, right 2⅝ inches. There was no wasting or loss of sensation or muscular power. Electrical reactions were normal; the reflexes were uniformly exaggerated. The patient walked by rotating the pelvis and spine.

After fourteen days' treatment by iodide of mercury there was some movement in the left hip.

MEDICAL SOCIETY OF LONDON.

W. H. ALLCHIN, M.D., F.R.C.P., President, in the Chair.

Monday, January 27th, 1902.

DISCUSSION ON THE NATURE AND TREATMENT OF OBESITY.

SIR LAUDER BRUNTON, in opening this discussion, alluded to the difficulty of deciding, in certain cases, whether a person were too stout or not, mere weight being an insufficient guide. The chemical constitution of fat was described; the precise form varied according to the food taken. Such fat as that of rape-seed oil might be deposited unchanged in the tissues, but as a rule each animal made its own fat. The sources of animal fat were then enumerated, both proteid and carbohydrate, and their nutritive value was estimated. The carbohydrates were a main source of heat, and the albuminates principally the means of tissue repair. The former tended to form fat much more than the latter. The personal factor in obesity was very important; obese persons often ate little and worked hard. The power of turning out work probably depended on the different enzymes in the body; for example, that contained in the thyroid gland which increased tissue waste and the body temperature. Ovarian extract had a similar influence in animals from which the reproductive glands had been removed. Obesity was, however, more generally due to changes in the bodily constitution; its principal causes were too much fat-producing food being taken and a diminished combustion. Obesity was either plethoric or anaemic: the latter was more frequent in women, and was associated with feebleness and inertness. To a certain extent in them obesity was probably due to the anaemia. Obesity after acute disease, such as influenza, was probably due to inability to take exercise, and the one reacted on the other. In order to break this vicious circle, where the heart was not strong enough to permit of exercise, massage and passive exercises were indicated. Oertel's treatment of exercise up graduated inclines was valuable subsequently to massage. Sandow's dumb-bells, Whitely's exercises, or the use of a punching-ball were good substitutes in town; special institutes were of value in ensuring these exercises being taken. But food should also be limited. Liquids and solids should be taken separately; liquids, for example, might be taken between meals, thus the quantity of food taken was limited. Those foods which formed fat readily, such as fatty and farinaceous foods and sugar, should be nearly but not quite cut off. The abolition of fat from the food had appeared to diminish mental activity; and an essential constituent of brain substance was fat. The diet for a fat man was a diabetic diet minus the fat. Banting's system was then described, and the Salisbury method referred to. Nervous symptoms sometimes seemed to result from eating too much meat, probably a toxic effect, but these were obviated by the plan of drinking much hot water between meals. Turkish and other baths were sometimes valuable helps. The taking of thyroid substance should be only under medical supervision. Many of the symptoms of exophthalmic goitre had been found to follow the taking of thyroid substance in excess.

Dr. BURNEY YEO divided cases of obesity into those difficult to treat (due to a vice of metabolism, as the anaemic and heredited cases) and those easy to treat (due to dietetic errors). In the latter case it was exceedingly important to begin the treatment early on the first indications of obesity. The anaemic obese, as in young women, were often disingenuous in regard to the amount of food taken, making treatment difficult. Limitation to an absolute milk diet was often a valuable auxiliary means after the method of Professor Debove of Paris, but in such case absolute bodily rest was necessary. The relation of the consumption of water to obesity was alluded to; the diminution of this solvent should not be too rigorous. Castration might induce obesity by the loss of sexual emotions which followed it. Thyroid, if used at all, should be limited to the obese who could not be made thinner by regulation of diet. Doubt had been thrown on the view that fat in the food could produce fatness, but this was an error. Alcohol was an important agent in maintaining obesity. The Salisbury method was risky in old people, producing as it did a cardiac enfeeblement.

Professor SCHOTT (Nauheim) described three different forms of fatty heart—extrinsic, intrinsic, and fatty degeneration—with which a degree of general obesity was always conjoined. It was difficult to say when obesity was beginning. One method of treatment was medicinal, by vigorous purgatives as by mineral waters; relief was by this method rapid. In young persons with normal blood and muscular system, it might be suitable, but it was always a risk, and should never be employed in elderly persons, as they lost weight too quickly and too much. They usually relapsed, when nothing more was to be done, and often a fatty degeneration of the heart was induced. Similarly, by the iodine treatment, by thyroid and ovarin, the loss was too rapid—patients at the same time lost nerve tissue and muscular tissue, which, as regarded the heart, could not be tolerated. The principal end should be to increase combustion, and this was best obtained by the method of exercises. First massage was to be begun, and diet at the same time restricted, and exercises should follow. Cool baths, especially with carbonic acid, were preferable to Turkish baths, tending, as the former did, to stimulate combustion. Restriction of liquids with the meals was very important. Treatment by milk diet was only effective by the absolute restriction of pabulum—a half-hunger cure. The treatment by dry rolls was a full hunger cure. It was necessary while losing fat to put on muscle and nervous power.

Dr. ROBERT HUTCHISON alluded especially to the causes of obesity. There were probably persons who were more economical machines, who produced less superfluous heat than other persons. Obese persons, however, had not been found as a matter of experiment to radiate out more heat than other persons, but it had been found that in such persons digestive processes were more facile. A desideratum was, therefore, some medicinal or other substance which would increase combustion. This effect, induced by thyroid, was, however, at the expense of the nitrogenous tissues, which involved a great strain on the renal excretory organs. Muscle could not be put on unless the muscles were being used.

Mr. C. B. KEETLEY referred to the association of obesity with irreducible hernia, and especially the umbilical hernia. In general surgery fat was often the most serious thing to

[2] *Med. Chir. Trans.*, 1901.

deal with, both in operation and diagnosis. The removal of pendulous fat by surgical operation was a possibility. After cases of obstruction in the digestive tract from corrosive poisons, emaciation was very rapid, although farinaceous and other fat-forming foods were largely taken.

Dr. Luff remarked that obesity could be much more satisfactorily treated by the general practitioner than by the so-called specialist. The importance of recognising whether obesity were inherited or acquired, with a corresponding difference in treatment, was emphasized. Restriction of diet to meat alone was in most cases dangerous, especially in the presence of renal or cardiac disease. A modified diet for obesity, often successful, was described. Hot water before meals was of great value, and plenty of it might be taken if between meals. Certain precautions were needed in the administration of thyroid substance.

The President alluded to the uncertainty in regard to the causative factors in obesity. Not a few individuals would get progressively fat on a very small amount of fat. On the other hand, many large eaters remained unusually spare. The associated mental states were also in great variety. The success of different forms of treatment or its absence also illustrated the same uncertainty. A hereditary tendency to vicious metabolism probably occurred in about 50 per cent. of the cases. The trophic influence of the nervous system was of importance, as in the condition of adiposis dolorosa contrasted with anorexia nervosum, so also in obesity.

Sir Lauder Brunton replied.

LIVERPOOL MEDICAL INSTITUTION.

Pathological and Microscopical Section.

Rushton Parker, F.R.C.S., President, in the Chair.

Thursday, January 23rd, 1902.

Mammary Cancer.

In resuming the adjourned discussion on Sir William Banks's paper on this subject,

Mr. Keith Monsarrat said he considered it probable that carcinoma originated from a variety of causes; there was certainly evidence to show that certain of the new growths at present grouped together as carcinomata were pathologically and etiologically distinct. He wished to discuss particularly the relation of carcinoma mammae and mastitis. The study of sections did not support, in his opinion, the theory of Ribbert that carcinomatous changes were primarily due to proliferation of the connective tissue; on the contrary, the invasion was from the side of the epithelial element. He further discussed the direct or indirect influence which the inflammatory process might possess on the incidence of carcinomatous proliferation; although he had been successful in isolating certain characteristic organisms from cancerous growths he had not hitherto produced by their inoculation new formations that could legitimately be called carcinomatous.

Dr. A. C. Rendle said that whereas the cell theory threw no light on the difference between malignant and non-malignant neoplasms, the germ theory had not explained the fact that secondary growths invariably copied the primary type; he did not, however, think it proper to deny the strong probability that the malignant properties of the cancer cell were due to the action of a parasite.

Mr. H. G. Plimmer (London) expressed his reasons for thinking that the parasitic theory afforded a reasonable explanation of epithelial cancer; he showed lantern slides illustrating the cell inclusions on the one hand, and also the organisms he had isolated from carcinomata and the epithelial overgrowth produced by their inoculation.

Mr. H. J. Stiles (Edinburgh) exhibited photomicrographs illustrating his view that the forms supposed to be parasites were derived from degenerations and dropsical changes in the nuclei.

Dr. R. Buchanan referred to the subject in relation to heredity on the one hand and the parasitic theory on the other. In view of the transmission of minute details of conformation and disposition from parent to offspring through the agency of the spermatozoon, he thought it a legitimate consideration that peculiarities of cell reproduction should also be transmitted, and that the characteristics of cell structure as seen in cancer growths might in some way be associated with stages in karyokinesis. He exhibited a specimen of tradescantia virginica showing various stages of cell division, and drew attention to the fact that nuclei of many cells at a similar stage presented structures closely resembling cancer bodies. He referred to the importance of the centrosome in cell division, and the possibility that cancer bodies might be of centrosomic origin and expressive of an exaggerated or abnormal condition of the centrosome. The question of hereditary transmission he considered applicable both to the developmental and parasitic theories; in the former as reproducing special peculiarities in the life-history of cells, in the latter as reproducing a soil susceptible in high degree to parasitic invasion. Referring to the parasitic theory in relation to the etiology of carcinoma, he stated that his endeavours to grow the so-called parasite had proved unsuccessful, and that he was not fully satisfied with the results of other observers in view of the grave possibilities of contamination and the lack of evidence that inoculations of organisms isolated from cancer had reproduced this disease. This might reasonably be due to differences in experimental technique. As an advocate of the belief that cancer would be ultimately proved of parasitic origin, Dr. Buchanan emphasized the desirability of working further afield, in the direction of comparative histology and pathology, in order to eliminate all source of error. Apart from the purely experimental method of procedure in the endeavour to isolate an organism from and reproduce cancer by inoculation of animal tissues with it, some consideration should be given to the circumstantial evidence in favour of the parasitic theory as offered by records of geographical distribution, the existence of cancer houses, and conditions of environment associated with the occurrence of the disease. Relative to this he did not accept the statement by Sir William M. Banks that cancer was more prevalent in people who indulged largely in flesh meat as an article of diet. On the other hand, he was of opinion that cancer was more closely associated with indulgence in raw vegetables as articles of diet. In his belief in the parasitic theory of cancer he ventured to suggest that the parasite most probably was introduced into the body through the medium of some lower form of animal life, which was in constant association with such vegetable growths as were used for food. On inquiry, in certain cases of cancer, he had noted that the houses in which the affected individuals resided were infested with snails to a remarkable degree, and in many cases the victims had been addicted to indulgence in salads as articles of diet.

Mr. George Hamilton showed a number of casts, drawings, and microscopical sections. He regarded chronic mastitis as a very serious disease, and was in the habit of incising breasts so affected at an early stage under a local anaesthetic and removing portions for examination. He had seen tuberculosis of the breast mistaken for carcinoma in two instances. He did not agree with some of Mr. Plimmer's views on the physiological properties of epithelium, and particularly the idea that it exercised universally a protective property against invasion; he looked upon experiments on animals by feeding with tuberculous material as evidence against such a conception.

The President drew attention to the claims of M. Doyen to have discovered a micrococcus the universal cause of new growths.

Sir William Banks, in his reply, referred to Mr. Plimmer's statement that the cell inclusions of carcinoma were peculiar to that disease, and were not found in normal tissues or in other morbid conditions. He showed a series of lantern slides illustrative of the development of carcinoma from breasts affected with chronic mastitis.

Newcastle-upon-Tyne Clinical Society.—At a meeting held on January 16th, Dr. Ogden, President, in the chair, Dr. Ranken Lyle showed a case with sequestration axillary mammae. In each axilla there was a mass the size of a kidney. The mass in the left axilla was rather larger than that in the right. The masses had a soft, solid, lobulated feel. The mass in the left axilla, being a little inflamed, was rather tender. There was no supernumerary nipple. The patient was suckling her third child. The history was that

after her second parturition she noticed a small lump about the size of a walnut in each axilla. On the third day after her last (third) parturition the lumps got much bigger. Dr. Lyle pointed out that there were some lobules separated from the breast near the sternum. He considered sequestration mammae to be commonest near the sternum or in the groin, while in the axilla they were rare. He recommended these masses to be excised, as he considered they would become larger and more inflamed if another pregnancy occurred.—Mr. W. G. RICHARDSON showed a specimen of molluscum fibrosum. The growth, which was the size of a child's head, had been removed from the region of the right elbow of a man, aged 50. The growth was covered with thickened dark-brown puckered skin. The man had had this thick skin all his life, and the growth for eleven months. Sections of the thick skin showed it to contain a large amount of fibrous tissue, while sections of the growth underlying it showed it to be spindle-celled sarcoma. The man recovered from the operation, and went back to the country, where he was a farmer. In four months he developed some lung trouble, with haemoptysis, and died. Mr. Richardson considered that he had died from secondary growths in the lung. He believed that the new growth in the skin was molluscum fibrosum. He referred to Mr. Alexis Thomson's book, in which cases of molluscum fibrosum were shown to be of the nature of false neuromata, the thickened skin being due to overgrowth of the endoneurium of the cutaneous nerves.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

ANNUAL MEETING HELD AT MANCHESTER.

Friday, January 17th, 1902.

S. BUCKLEY, M.D., President, in the Chair.

ELECTION OF OFFICERS.

THE following gentlemen were elected officebearers for the year 1902: *President:* S. Buckley, M.D., Manchester. *Vice-Presidents:* Arthur T. Helme, M.D., and D. Lloyd Roberts, M.D., Manchester; J. E. Burton, L.R.C.P., and E. T. Davies, M.D., Liverpool; T. Kilner Clark, M.D. (Huddersfield), and C. J. Wright, M.R.C.S., Leeds; G. H. West Jones, M.R.C.S., and J. W. Martin, M.D., Sheffield. *Council:* R. W. Beesley, M.D. (Bolton), A. Donald, M.D., W. E. Fothergill, M.D., Arnold W. W. Lea, M.D., W. Sawyers Scott, M.D., W. Japp Sinclair, M.D., and W. Walter, M.D., Manchester; W. Murray Cairns, M.B., J. Garner, M.D. (Preston), T. B. Grimsdale, M.B., J. Huskie, M.B. (Blundellsands), R. Thacker King, L.R.C.P. (West Kirby), J. Lambert, M.D. (Birkenhead), F. P. Bouverie McDonald, M.D. (New Brighton), and Llewellyn Morgan, M.D., Liverpool; T. C. Denby, M.D. (Bradford), J. B. Hellier, M.D., H. Littlewood, F.R.C.S., and H. Robson, L.R.C.P., Leeds; C. N. Gwynne, M.D., A. A. Payne, M.R.C.S., and Sinclair White, M.D., Sheffield. *Honorary Treasurer:* Richard Favell, M.R.C.S., Sheffield. *Honorary General Secretary:* E. Octavius Croft, M.D., Leeds. *Honorary Local Secretaries:* John Scott, M.D., Manchester; Arthur Wallace, M.D., Liverpool; Walter Thompson, F.R.C.S., Leeds; Sidney Barber, M.R.C.S., Sheffield.

FOLLICULOMA OVARII MALIGNUM.

Dr. A. DONALD and Dr. W. E. FOTHERGILL (Manchester) showed sections from a case of folliculoma ovarii malignum. The tumour, about the size of a cocoa-nut, was hard, solid, and nodular. It was removed from a single woman, aged 57. The clinical features of the case suggested malignancy. There were wasting, pain, and ascites. The section showed the growth to consist of alveoli filled with epithelial cells, and embedded in a fibrous stroma. The alveoli varied in size, and some of them contained one or more large cells presenting the characters of egg cells in various stages of development.

MEMBRANOUS DYSMENORRHOEA.

Dr. W. E. FOTHERGILL (Manchester) showed a series of sections of uterine casts from cases of membranous dysmenorrhoea. The casts were all seen to be composed of fibrin and leucocytes. Dr. Fothergill had examined many such casts, and had never found any composed of mucosa with a lined cavity such as were frequently described.

RUPTURED TUBAL GESTATION.

Dr. J. B. HELLIER (Leeds) showed an early ruptured tubal gestation.

The patient, aged 35, married eleven years, had one doubtful abortion some years ago. She did not suspect pregnancy, and menstruation was quite regular. While cycling she was seized with sudden abdominal pain and faintness. Internal haemorrhage was suspected, and abdominal section was performed. Much dark blood clot was found in the peritoneum. A very small tubal pregnancy had caused rupture of the right Fallopian tube, which was removed. The patient made a good recovery.

TUBAL MOLE.

Dr. A. DONALD (Manchester) exhibited two specimens of tubal mole. In each case the occurrence of haemorrhage at abouth the sixth week had destroyed the life of the ovum without leading to rupture of the tube. Each tube contained a mass of clot embedding an embryo surrounded by its amnion, but with no trace of liquor amnii. No blood or clot was found in the peritoneal cavity. In one case amenorrhoea for nearly two months had existed; in the other there had been no absence of the ordinary period. In both the bleeding was profuse and lasted for six weeks, and a well-defined tumour was felt on one side of the uterus. The tubes were removed by abdominal section in the first case, and by anterior vaginal section in the second. Both patients made good recovery.

FIBROMYOMA OF UTERUS.

Dr. W. WALTER (Manchester) showed a specimen of fibromyoma of the uterus removed from a single woman, aged 39, by abdominal hysterectomy.

The patient had suffered from pain and haemorrhage for some time, and during the last eight months was unable to follow her occupation at the mill. On January 14th abdominal section was performed, the broad ligaments tied and divided in the usual way, and the uterus removed by a wedge shaped incision just above the vaginal roof. The cervix was dilated from above downwards with a pair of Spencer Wells small forceps, and a narrow gauze drain passed down into the vagina. The ligatures were cut short and the peritoneum stitched over the stump, except at a small spot where the end of the gauze served as a drain. The abdominal wall was closed with silkworm sutures, buried catgut being also used for the muscle and fascia. The specimen removed, consisting of a submucous fibroid attached to the fundus and anterior wall of the uterus, was undergoing in some parts myxomatous degeneration and in other fatty degeneration.

The patient was so far progressing favourably; but, without including this case, Dr. Walter had just completed a series of 35 abdominal hysterectomies for myoma with 1 death.

RECURRENT PAPILLOMA OF VAGINA.

Dr. W. WALTER (Manchester) gave an account of a case of recurrent papilloma of the vagina.

The patient, aged 37 and unmarried, was admitted into St Mary's Hospital in August, 1898, complaining of bleeding from the vagina between the periods, which had continued off and on for several months. Her general condition was good. The uterus and other pelvic organs were healthy. Inside the vagina on the posterior wall was a small papilloma which bled readily. This was curetted, and the thermo-cautery applied freely. The microscopic character of the scrapings presented the appearance of a simple papilloma with no sign of malignancy. In November, 1898, the patient re entered the hospital, as the papilloma was commencing to recur. The cautery was again applied. The following year on two occasions a similar treatment was necessary. In 1900 the patient was re-admitted in June and December. The patches were larger in size than formerly, but still quite superficial, and free from any deep-seated attachment. The cautery was applied to the affected surface. Last year in March, July, October, and December, the patches had returned and were spreading upwards on the posterior and left wall. In December it was found that infiltration into the perivaginal tissue on the posterior and left side had occurred since her previous visit. As the vagina was extremely narrow, the perineum was divided and the part exposed to view. A patch of mucous membrane the size of a shilling with a raised and granulating surface, together with a small growth nearly as large as a filbert nut, was removed, and the vagina packed with gauze.

The microscopical appearance of the growth showed a fibrous and elastic tissue matrix containing a considerable number of cell nests.

HARVEIAN SOCIETY OF LONDON.—At the annual meeting held on January 16th, Dr. D. B. LEES, President, in the chair, the following gentlemen were unanimously elected officers for the year 1902:—*President:* Mr. W. Watson Cheyne. *Vice-Presidents:* Dr. H. A. Caley, Dr. F. W. Cock, Mr. J. Jackson Clarke, and Dr. L. Guthrie. *Treasurer:* Mr. Edmund Roughton. *Hon. Secretaries:* Dr. Edmund Cautley and Mr. Francis Jaffrey. *Council:* Dr. Edgar Bulleid, Dr. C. Buttar, Mr. H. S. Collier, Dr. A. Eddowes, Mr. Raymond Johnson, Dr. D. B. Lees, Dr. H. J. Macevoy, Mr. Hubert C. Phillips, Dr. Risien Russell, Mr. Sefton Sewill, Dr. G. A. Sutherland, Dr. James Taylor. The reports of the Council and the

Treasurer showed that the number of members exceeded 400, and that the Society had a balance of over £125. Votes of thanks to the President, the Treasurer (Mr. Edmund Roughton), and the Secretaries, especially the retiring Secretary (Mr. Hubert C. Phillips), for their valuable services during the year were carried and suitably acknowledged.—The President (Dr. D. B. Lees) delivered an address on the Heart of the Child. He drew attention to the importance of the subject, which he thought was much neglected. He gave some details of the method of physical examination in the case of children, and laid special stress on the importance of light percussion, and on the desirability of postponing auscultation until the size and strength of the heart had been carefully ascertained. The necessity for accurate determination of the size of the right auricle by percussion in the third and fourth right intercostal spaces in all acute pulmonary affections and in disease of the left heart was pointed out. The prevalent neglect of this part of physical examination deprived many patients of the relief from cardiac distress which a few leeches would promptly give them. Dilatation of the left auricle and ventricle was common in children who were out of health, but Dr. Poynton's observations proved that it was very unusual in children who were quite well for the cardiac dullness to extend beyond the nipple line. The frequency of dilatation only proved that its causes were many; probably the child's cardiac muscle was specially susceptible to toxins and poisons circulating in the blood. One of the most injurious causes was rheumatism, now ascertained to be due to diplococci in the muscles and fibrous tissues of the heart itself. The effect upon the child's future was often most disastrous, and the least symptom of rheumatism in a child called for the most careful daily examination of the heart by palpation and percussion. The cardiac inflammation in rheumatism might be successfully treated by salicylates, freely given, and the external application of an icebag (preceded by leeches, and with precautions against chill). The ventricular dilatation caused by toxaemia might require strychnine, and perhaps digitalis, but the dangerous dilatation which often followed diphtheria was best treated by the free administration of atropine hypodermically. A vote of thanks to the President for his interesting address was carried with acclamation.—On receiving the report of the election from the scrutineers (Dr. Symes Thompson and Dr. W. H. Blenkinsop) the President declared the result, and inducted the new President, Mr. W. Watson Cheyne, into the chair. Mr. Watson Cheyne briefly returned thanks for the honour conferred upon him, and declared the *conversazione* open.—A lantern demonstration was given by Mr. Frank Crosbie, showing a method of producing photographic transparencies in colour.—Mr. Noble Smith exhibited mutoscopic illustrations of abnormal gaits, etc., in various nervous diseases, and a collection of histological and other water colour drawings.—Mr. Hubert C. Phillips, exhibited a valuable collection of British lepidoptera, with original water colour drawings from Nature.—Music was provided by the string band of His Majesty's Royal Horse Guards (Blue), by permission of Colonel Lord Binning.

REVIEWS.

HANDBOOKS FOR THE CLINICAL LABORATORY.

Mr. Strangeways Pigg's *Clinical Pathology*[1] has already won so much popularity as to have reached a second edition. It is a small interleaved volume, dealing wholly with methods of investigation. The descriptions are clear and precise, and presented in tabulated sequence. The work is intended for students, and is not suited to advanced clinical pathology. Still, if every practitioner had the time to carry out the investigations mentioned he would be able to make or verify the diagnosis in numerous cases. The most successful part of the book is that which deals with morbid histology. In the sections on bacteriology there is a want of balance in the space devoted to equally important investigations. Urine analysis is briefly dismissed, as only a few quantitative methods are described; Pavy's method for the estimation of sugar is, we believe, generally considered to be better than Fehling's. The examination of vomit, gastric contents, and faeces might have found a place in such a book. The text is very free from errors, but the formula for Loeffler's serum is not correct.

The "course" of pathological histology furnished by Drs. Aschoff and Gaylord[2] is an excellent exposition of the subject, and covers the whole field of pathological histology in a manner that is ample for the education of the student. A brief statement of the subjects dealt with will make this evident. The work commences with a description of the methods of examining tissues in the fresh state, then follow the methods of fixation, of the embedding and cutting of the hardened textures, and the various methods of staining. In every case the formulae and technique are given in detail. The pathological histology of the various organs, including the bones, is next dealt with. If any criticism is to be made on this portion it is that hardly enough space is devoted to the blood and its parasites. The work is rendered still more complete by a full account of photomicrographic methods, and it is, moreover, well illustrated. But besides the "course" there is the microscopic atlas, which comprises a large number of excellent reproductions of photomicrographs. Of these, however, it may be said that whilst their artistic effect leaves nothing to be desired, they will not serve, in many cases, the purpose intended—that of making the student understand the structure of the object to be studied, and in this respect they do not equal the woodcuts so familiar in Ziegler's standard work. It is worth noting that for the three concluding plates the "three-colour" process has been adopted. The results are very satisfactory, except in the case of the plate showing the blood changes in different forms of leukaemia, etc.; obviously for high magnification the method is inferior (at present) to good chromo-lithography.

The new version of Lehmann and Neumann's *Atlas and Principles of Bacteriology* made by Dr. G. H. Weaver,[3] from the second enlarged and revised German edition, adheres more closely to the general character of the original than was the case in the translation of the former edition (published in 1897). The plates with very few exceptions (notably that representing a streak culture on agar of the B. typhi abdominalis and the corresponding illustration of the B. coli communis), are reproduced in a manner that reflects credit alike upon artist and chromo-lithographer. In the accompanying letterpress the authors insist upon the variability of bacteria in general, and define the essential observations—cultural, microscopical, and chemical—the sum total of which they rightly consider should form the basis of an opinion as to the identity of any given organism—a principle which, if rigidly and universally adhered to, would have the effect of removing from bacteriological literature many of the "new species" that have been added during recent years. They then describe the pathogenic bacteria on these lines, and follow them by an extremely useful collection of commonly occurring saprophytes. In such a mass of detail, it is not surprising that a few inaccuracies should occur, such as the statement that the bacillus enteritidis of Gaertner "coagulates milk," the B. pyocyaneus "is usually a strict aërobe," etc. These, however, are of small importance, and detract little from the value of the work, for which as a whole we have nothing but praise.

There are several excellent accounts of the chemistry of urine by English writers, but they are buried in the larger treatises of which they form part—notably the article on Urine, by F. Gowland Hopkins, in Schäfer's *Physiology*. It is regrettable that in a country where the study of the urine from the diagnostician's point of view has been so ardently pursued the inquirer must turn to the literature of other countries for up-to-date knowledge and information. We are not sure that he will find what he wants in either of the

[1] *Clinical Pathology and Practical Morbid Histology.* By T. Strangeways Pigg, M.A. Second Edition. London: Strangeways and Sons. 1901. (Cr. 8vo, pp. 107; 5 plates and 6 figures. 5s.)

[2] *Kursus der pathologischen Histologie, mit einem mikroscopischen Atlas.* [A Course of Pathological Histology, with a Microscopic Atlas]. Von Dr. L. Aschoff und Dr. H. Gaylord. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1900. (Roy. 8vo, pp. 360. 35 plates.

[3] *Atlas and Principles of Bacteriology, and Textbook of Special Bacteriological Diagnosis.* By Dr. K. B. Lehmann and Dr. R. O. Neumann. Edited by G. H. Weaver, M.D. London and Philadelphia: W. B. Saunders and Co. 1901. (Cr. 8vo, pp. 500, 69 coloured plates. 21s.)

books by American writers before us—Dr. Purdy's *Practical Urinalysis and Urinary Diagnosis*[4] or Dr. Ogden's *Clinical Examination of the Urine and Urinary Diagnosis*.[5] The writer of a treatise on the urine should combine the knowledge of the clinician with that of the physiologist, pathologist, and bacteriologist if his work is to be of uniform value. Hence, valuable as is the book of Dr. Purdy, its merits would have been enhanced had its author combined in himself these various qualifications, which it is obvious he does not. The want of accuracy in physical denomination and the extreme scantiness of the section dealing with bacteriological diagnosis are distinct blemishes, and the description of the microscopical characters of the various constituents of urinary deposits is disappointing. The sections dealing with the chemistry and clinical diagnosis touch a much higher level. The fifth edition embodies tables of quantitative results of centrifugal analysis, a method of analysis which has not yet come into general use in England. Dr. Ogden's book is on very similar lines, but we should suppose that he has paid more attention to the microscopy of urinary sediments and less to the general chemistry of urine than Dr. Purdy. Bacteriology in connexion with inflammatory disease of the urinary tract receives rather more attention, but the additional informations consists chiefly of the description of Gram's method of staining in connexion with gonorrhoeal discharges. Spectroscopic analysis, which receives practically no notice from Dr. Purdy, is mentioned slightly by Dr. Ogden, and two plates of absorption spectra from Neubauer and Vogel's work are added. A large portion of this book is devoted to diagnosis, the diseases of the urinary tract being taken seriatim, and the condition of the urine peculiar to each disease described. The last chapter is devoted to a brief summary of condition of the urine and its bearing on diagnosis in the general diseases or those affecting other organs.

The first part of an elaborate work on *The Faeces of Man in Normal and Pathological Conditions, with Special Reference to the Methods of Clinical Examination*,[6] by Professor Schmidt and Dr. Strasburger, is written by the first named. It deals in two subdivisions with the macroscopic and microscopic examination of the stools. Full descriptions are given of the methods adopted for the preparation of the stools for both purposes. Considerable difficulty is met with in establishing the standard of a normal stool; this can only be secured by giving a standard diet both to normal individuals and to those suffering from intestinal disturbance. To mark the stools of each twenty-four hours the authors recommend besides charcoal the use of carmine in powder, the amount given being 0.3 gram. The practical lesson is impressed that frequency of stools does not depend upon the rapidity with which food passes along the alimentary tract, but upon the stimulating effect of the faeces upon the rectum. Flesh-eating animals pass but one stool in several days, whilst those whose food is restricted to vegetables pass several stools in every twenty-four hours. Biedert and Cramer by their observations have shown that in artificial feeding probably an excess of food is given, and they have reduced the intake of food, and thereby the output of excreta, without materially interfering with development. Copious but infrequent passage of stools generally means some disturbance of the lower bowel, frequent and small stools of the small intestine. Clay-coloured stools are met with independently of jaundice—for example, when much fat is taken in the diet and when bilirubin is transformed into hydrobilirubin. Connective tissue elements of food occur in the stools in all disturbances of gastric secretion. In the second part of the volume elaborate details are given for the microscopic examination of the stools. Schmidt recognizes three forms of remnants of muscle fibres, one being quite rounded, and probably accounting for the "yellow bodies" described by Nothnagel as being formed of mucus.

By Charles W. Purdy, [illegible] 1900. (Demy [illegible]

By J. Bergen [illegible] and Philadelphia: W. B. Saunders and Co. 1902. [illegible] coloured plates, 9 uncoloured plates, 54 figures [illegible]

The methods of examination of the stools—a subject notoriously neglected by British practitioners—are most carefully described, and the volume may be heartily recommended to teachers of medicine.

ANATOMY.

Gray's Anatomy[7] has long been recognised as one of the best textbooks of anatomy in the English language, and the new edition is, in many respects, an advance upon its predecessors. The description of the bones is still one of the strongest sections of the book, but the section on embryology, and, to a lesser extent, the sections dealing with histology and the brain, have been greatly improved. The account of the heart and pericardium at last takes its proper place at the commencement of the description of the vascular system. The account of the development of the peritoneum has been considerably shortened, and it has been transferred, with advantage, to the section on embryology. Where so much is good and worthy of high praise, it may seem almost supererogatory to criticise at all, but there are still some points where improvements might be made. Many additional and valuable figures have been added, and some which were weak in the last edition have been strengthened and improved, but this cannot be said of all, for several are still very flat and wanting in distance, and therefore they are apt to mislead the student in his estimate of the relative positions of structures; others which have been drawn from bottled specimens are absolutely incorrect, for example, Fig. 222, which shows the *posterior border* of the levator ani passing obliquely downwards and backwards *in front* of the neck of the bladder. Then, again, though attention was drawn to this point in a review of the fourteenth edition, it is still stated that the posterior ligament of the elbow-joint is attached above the olecranon fossa. The descriptions of the salivary glands and ureter might be expanded with advantage, and it is scarcely correct to say that the latter structure enters the posterior false ligament of the bladder. The small sections on surgical anatomy are still unsatisfactory and the advisability of introducing them into a textbook of anatomy may be considered doubtful. They must of necessity be incomplete, the junior student rarely reads them, and when he does he gets but a vague and unsatisfactory idea of what is meant, and the senior student almost invariably uses a more detailed account of the relationship of anatomy to surgery. The deficiencies of the book are, however, very few, and it cannot be doubted that the fifteenth edition will do more than fulfil the hope of the editors, for it will not only retain but it will also increase the reputation that the book has enjoyed.

The first section of the *Manual of Practical Anatomy*,[8] designed and practically completed by the late Professor Hughes, has been ably edited by Dr. A. Keith, and it is a valuable addition to the existing works on practical anatomy. Perusal of the book shows how firmly Professor Hughes had grasped the important fact that simplicity of description is essential to successful teaching. The subject matter is well arranged, the landmarks of each area of dissection are illustrated by figures, the directions regarding the steps to be taken to expose the various structures are clear and precise, and a short but sufficiently complete account is given of each structure. To aid in the verification of muscular attachments numerous illustrations have been introduced from Holden's *Osteology*, and many of the ordinary dissections are illustrated by coloured drawings made from the dissections in the Alfred Hughes Collection in King's College. The student who uses the book will find his work made easy, one dissection leading him gradually to the next, and the whole giving him a satisfactory grasp of the positions and relations of the structures in that section of the body which he has dissected.

[illegible] *surgical*. Edited by T. Pickering Pick, F.R.C.S., Consulting [illegible] St. George's Hospital, H.M. Inspector of Anatomy in England and Wales, etc.; and Robert Howden, M.A., M.B., C.M. [illegible] in the University of Durham, etc. London: [illegible]. (Royal 8vo, pp. 1284, 772 illustrations, 32s.)

"A M[illegible] By the late Professor A. W. Hughes, M.B., M.C., F.R.C.S. [illegible] Edited and completed by A. Keith, M.D., F.R.C.S. Part I. [illegible] and A[illegible] Fifth edition, revised. 1901. (Demy 8vo, pp. 704, 38 plates, 116 illustrations, 10s. 6d.)

During the past fifteen years numerous observations have been made upon the structure, functions, and life-history of cells and cellular tissues, and Professor Reinke's book[9] on the *Essentials of General Anatomy*, looked at from a biological point of view as an introduction to the study of medicine, contains a most useful survey of the work which has been done in these directions. In some short introductory sections the theory of knowledge, the actuality of the external world, the objectivity of time and space, the causal connexion of events, matter, energy, and direction, and the design of the organism are shortly dealt with. Having disposed of these preliminary theoretical considerations, Professor Reinke proceeds to consider in detail the structure of cells, their cortical and medullary portions, the protoplasmic network and its contents, the microsomes, centrosomes, and spheres, the nucleus and its constituent parts, and the theories concerning the fundamental structural arrangements which must exist both in the cell body and in the nucleus, but which are not demonstrable with the means at present at our disposal. He then describes succinctly what is known regarding the capabilities of cells, their power of division, and he discusses the theories regarding the factors which are at work during the process of cleavage. Cellular motion, nutrition, and irritability receive adequate attention, and thereafter the germinal elements, impregnation, and heredity are sufficiently considered. The question of the first formation of cells is touched upon; the present knowledge of the signification of cell division, the self-differentiation of cells, the differentiation of different kinds of cells, the union of cells, adaptation to function, transplantation, and regeneration is summarized, and the more important theories concerning these still but little explained subjects are clearly stated. In short, Professor Reinke places before the readers of his book not only a very excellent epitome of the results of his own and other workers' observations upon the structure and capabilities of cells, but also an admirable summary of the more significant theories which are based upon those results.

Every one will be prepared to agree with Dr. McClellan that "an exhaustive knowledge of anatomy is not necessary for the art student;" but if any knowledge of anatomy is required it would appear to be essential that it should be accurate, and that the importance of each fact which is noted should be clearly displayed; therefore a book which deals with the subject without fully satisfying these requirements cannot be deemed to have accomplished all that is to be desired. Looked at from this point of view, the first part of Dr. McClellan's book on *Anatomy in its Relation to Art*,[10] which deals with the bones, muscles, and ligaments, cannot be considered a success. Many of the figures are weak, and some of them are far from being anatomically accurate. The text is also incomplete, and this not so much on account of the brevity of the statements, as from their want of point in connection with the object in view. The second part of the work, however—that which deals with the surface of the body in repose and action—is admirable, the figures are well posed, and the reproductions of the photographs are well executed. The idea of contrasting, on opposite pages, photographs of well-known statues and of living adults assuming similar positions is excellent, and the results obtained must be very valuable for teaching purposes, for, as the adult chosen is well developed and well proportioned, they serve to illustrate the points the artist thinks it necessary to exaggerate, and those he deems it advisable to modify for the object he has in view. They will repay careful study, and it is only to be regretted that the first part of the book does not reach the high standard of the second.

Dr. Campbell's small volume of *Dissection Outlines*,[11] will be of great use to the student of anatomy who wishes to study carefully all the details regarding the structures in each part he dissects, with the aid of Morris's *Treatise on Anatomy*. The instructions as regards dissection are sufficient, and the references are copious and well arranged.

The fact that the *Pocket Gray*[12] has reached its fifth edition is sufficient evidence that it meets a demand, and there is no doubt that it is used by students as a means of quickly revising knowledge which has been gained in the dissecting-room, and from larger textbooks. It is unfortunate, therefore, that as regards the nervous system the book is incomplete, and that many of the statements concerning this important system are misleading.

Much work has been devoted by Dr. Cryer to the preparation of his work on the *Internal Anatomy of the Face*.[13] He has made a great many sections, with the soft parts *in situ*, some of which have been figured by means of photography, and a number of facts of interest to all who have to deal with the mouth, nose, or air sinuses of the face are brought out. Some of the observations are original and suggestive, but the same measure of praise cannot be given to the book in its entirety, for it is not very well put together: information which it contains is not always to be found in the place where it might be expected, nor will the index always help. Here and there turns of expression are used which appear to imply a want of acquaintance with the literature of the subject, things long known being set out as if new discoveries, and a tendency to draw conclusions from an insufficient number of instances is also manifested. These blemishes are to be regretted, as with better marshalling of the valuable material the book might have been made much more useful. A point which the author's sections bring out clearly is the extreme variability, within certain limits, of the forms with which he is dealing. As he expresses it, "accepted descriptions are to be received only as general truths, and they cannot be depended upon or followed literally as a guide for the surgeon or dentist."

NOTES ON BOOKS.

We may in a few words wish well to Dr. Conan Doyle and Messrs. Smith Elder and Co. in their attempt to make the British case known to foreign readers in *The War in South Africa, its Cause and Conduct*.[14] In it the author gives some account of the early history of the Boers in South Africa, traces the history of the quarrel, the negotiations before the war, the early negotiations for peace with Mr. Kruger, the late negotiations with General Botha, the farm burning, and the concentration camps, examines the charges against British soldiers circulated in Europe, and finally sums up the whole matter in six pages of vigorous writing. The only criticism we have to offer is that the chapter on "the other side of the question" might perhaps be dropped. Our case is so strong that we can afford to avoid anything resembling recrimination. It is proposed to translate the pamphlet into all European languages, and to send a free copy to every deputy and to every newspaper on the Continent and in America. For this purpose subscriptions will be received by the author or the publishers. It is stated that the French, German, Scandinavian, Italian, and Dutch translations are well advanced, and will shortly be published; and that, should the funds permit the pamphlet will be translated into Welsh, Russian, and Spanish. Over a quarter of a million copies of the English edition have already been printed.

[9] *Grundzüge der allgemeinen Anatomie zur Vorbereitung auf das Studium der Medizin nach biologischen Gesichtspunkten bearbeitet.* Von Professor Dr. Friedrich Reinke, Prosektor am anatomischen Institut in Rostock. Mit 64 Abbildungen. Wiesbaden: J. F. Bergmann; Glasgow: F. Bauermeister. 1901. (Roy. 8vo, pp. 340. 7s. 9d.)

[10] *Anatomy in its Relation to Art.* By G. McClellan, M.D. Philadelphia and London: W. B. Saunders and Co. 1901. (Demy 4to, pp. 142, plates 125. 42s.)

[11] *Dissection Outlines and Index for Students.* By W. A. Campbell, B.S., M.D. Second Edition. London: J. and A. Churchill. 1901. (Demy 8vo, pp. 160. 3s.)

[12] *The Pocket Gray, or Anatomist's Vade-Mecum.* By the late Dr. Cotterell, F.R.C.S. Fifth edition, edited by C. H. Fagge, M.B., M.S., F.R.C.S. London: Baillière, Tindall, and Cox. 1901. (Fcap. 8vo, pp. 270. 3s. 6d.)

[13] *Studies on the Internal Anatomy of the Face.* By M. H. Cryer, M.D., D.D.S. Philadelphia: S. S. White Manufacturing Co. 1901. (Demy 8vo, pp. 171, figs. 141. Dol. 1.50.)

[14] London: 1902. Supplied through George Newnes, Limited. Cr. 8vo, pp. 156. 6d.

A French Canadian Medical Association.—An association of French-speaking medical practitioners in Canada is said to be in course of formation under the title of "Association des Médecins de Langue Française de l'Amérique du Nord."

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Presentations of Books, etc.

Presented by the AUTHORS:
Gould, G. M. American Yearbook of Medicine and Surgery. 2 vols. 1901.
Hartridge, G. The Refraction of the Eye. 10th Edition. 1900.
Hirschberg, J. Katalog der Bücher Sammlung (Ophthalmology). 1901.
Thompson, Sir Henry, Bart. Food and Feeding. 11th Edition. 1901.
———— Modern Cremation. 4th Edition. 1901.
Whitelegge, B. A. Report of H.M. Chief Inspector of Factories. 1900.

Presented by the SECRETARY OF STATE FOR INDIA IN COUNCIL:
Scientific Memoirs by Medical Officers of the Army in India. Vol. 12. 1901.

Presented by the MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD:
Dr. Bulstrode's Report on the Urban District of St. Helen's, Isle of Wight. 1901.
Dr. T. Thomson's Report on Holsworthy Urban District. 1901.

Presented by the SEI-I-KWAI MEDICAL SOCIETY OF JAPAN:
Several parts of Sei i-kwai Medical Journal, o.p. to complete series. 1897.

Presented by SIMPKINS, MARSHALL AND CO.:
Braithwaite's Retrospect of Medicine. Vol. to June, 1901.

Presented by the Editor of the BRITISH MEDICAL JOURNAL:
Bazy. Maladies des Voies Urinaires. III.
Cattaneo, C. Terapia delle Malattia dell Infanzia. 1901.
Caverhill, T. F. S. Self-aid in War. 1901.
Cohen, S. S. System of Physiologic Therapeutics. 2 vols. 1901.
Eichhorst. Textbook of Medicine. 2 vols. 1901.
Haig, A. Diet and Food. 3rd Edition. 1901.
Hall, de Havilland, and Tilley. Diseases of the Nose and Throat. 2nd Edition. 1901.
Hildebrand. Jahresbericht für Chirurgie. 1897.
McBride, P. Diseases of the Throat, Nose, and Ear. 3rd Edition. 1900.
Mott, F. W. Degeneration of the Neurone. 1900.
Mott and Durham. Colitis or Asylum Dysentery. 1900.
Newman, George. Some Notes on the Housing Question. 1901.
Tirard, N. Textbook of Medical Treatment. 1900.
Tubby, A. H. Intra-abdominal Suppuration. 1901.
Twentieth Century Practice of Medicine. Vol. 20. 1900.
Ziegler, E. Allgemeine Pathologie. 10 Auf. 1901.
And other volumes.

Transactions and Reports have been received from the following bodies:
American Association of Obstetricians and Gynecologists. Vol. 13. 1900.
American Climatological Association Transactions. Vol. 16. 1900.
American Laryngological Association Transactions. 1900.
American Pediatric Society Transactions. Vol. 12. 1900.
Association of Military Surgeons of the United States Transactions. Vol. [illegible] 1901.
Bristol University College Calendar. 1901-02.
Calcutta Health Report. 1900-01.
Cambridge University Calendar. 1901-02.
Cancer Investigations in Lunacy. 55th Report. 1901.
Liverpool University Calendar. 1901.
Dunedin University College of Medicine Calendar. 1901-02.
Glasgow Hospital Reports. Vol. 3. 1901.
Glasgow University Calendar. 1901-02.
Guy's Hospital Reports. Vol. 55. 1901.
Hong Kong Sanitary Department Report. 1900.
Hunter River Combined Sanitary District. Report of Medical Officer. 1900.
Johns Hopkins Hospital Reports. Vol. 9. 1901.
King's College Hospital Reports. Vol. 6.
London County Council. Report of the Public Control Department. 1901.
Malay Federated States. Medical Archives. 1901.
Malta Public Health Department Report. 1900.
Medical Society of the State of New York Transactions. 1901.
Metropolitan Asylums Board Report. 2 vols. 1900.
Middlesex Hospital. Report of Medical and Surgical Registrars. 1899.
Michigan State Board of Health Report. 19[illegible]
New Jersey [illegible] of Health 24th Report. 1900.
New Zealand [illegible] Calendar. 1901.
Ohio State Board of Health 14th Report. 1901.
Owens College Manchester Calendar. 1901-02.
Royal College of Surgeons of England Calendar. 1901.
St. George's Hospital Medical School Calendar. 1901-02.
St. Mary's Hospital Medical School Calendar. 1901-02.
St. Thomas's Hospital Reports. Vol. [illegible] 1900.
Glasgow Municipal Council Report. 1901.
Royal Medical Society Transactions. 1893-97.
Westminster Hospital Reports. Vols. 11 and 12. 1900-01.
Westminster Hospital Medical School Calendar. 1901-02.

BOOKS SOUGHT TO COMPLETE SERIES.

The Librarian will be glad to receive any of the following volumes which are needed to complete series in the Library:
American Climatological Transactions. Vols. 1, 4, 5, 6.
American [illegible] Association. Transactions. Vols. 5, 7, 8, and 11.
American Journal of the Medical Sciences. New series, vols. 4, 5, 14, 15, 18[illegible]; vol. 13, 1857; vol. 46, [illegible]
American [illegible]
American [illegible] Transactions. Vols. 1-6, 8-9.
American Medical [illegible]
American [illegible] part 2, 1881.
American [illegible] Any vols.
Analist. Vols. 1-24.
Annals of Surgery. Vols. 1-11; 13-16; and 26-27.
Archives Générales de Médecine. 1831-39 inclusive; 1846-1855 inclusive; 1857-64 inclusive; 1871.
Archives of Ophthalmology. Vols. 1-3, 6, 7, 14-21.
Archives of Otology. Vols. 1-7, and 20, 21, 22.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Laffan. 1879. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. 1891, January-July; 1892, January, September, and May, 1897.
———— für Bakteriologie. Bound volumes prior to 1899.
———— für klinische Medicin. 1880-1883; all 1888, 1891, No. 26; 1892, No. 17.
———— für medicinischen Wissenschaften. Vols. 1-19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10.
Congrès Internat. d'Obstétrique et de Gynécologie. 1, Bruxelles, 1892; 3, Amsterdam, 1890.
Connecticut State Board of Health Report. Vol. xi. 1887-8.
Denman. Midwifery. 1801.
Dermatological Congress. Paris, 1889; Vienna, 1892.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1-10, 13-28, 35-40.
Edinburgh Medical and Surgical Journal. Vols. 67-82. 1847-1855.
Edinburgh Obstetrical Society. Transactions. Vols. 5 and 22.
Fothergill. Midwifery. (Recent).
Gale. Surgery. 1563.
Glasgow Medical Journal. 1833-1853. Nos. 2, 5, 9, 10, 12, 13 1856-1858. And No. 4, vol. 2, 1870.
———— Pathological Society. Transactions. Vols. 1 and 2.
Hare. Therapeutics. Vols. 3-4.
Hunterian Transactions containing 76th Report.
Indian Census Report. 1888.
———— Medical Gazette. 1866-1884.
International Congress of Hygiene. Congresses 1 to 6.
International Ophthalmological Congress. Transactions of 5th, New York, 1876.
Johns Hopkins Hospital Bulletin. Vols. 1 10.
Journal of Laryngology. Vols. 1-9.
Lancet, 1850, vol. 2, pages 425-6, and August 23rd, 1851.
Larrey (J.). Mémoires de Chirurgie Militaire et Campagnes. Tomes 3, 4, 5. 1812-17.
Ophthalmic Review, January, 1882.
Pollatschek. Therapeutische Leistungen des Jahres. 1894, 1895, 1899, 1900.
Provincial Medical and Surgical Journal. 1840. Being the first 52 numbers before October 2nd, 1841
Recueil d'Ophtalmologie. 1891, Jan.-June; 1892, December.
Registrar-General's Annual Summary of Weekly Returns. 1866-73, 1876, 1880, 1887.
Revue Générale d'Ophtalmologie. Prior to 1888, and 1891-92.
Semaine Médicale. Prior to 1890, and title and index to year 1892.
South African Medical Journal. February, April, 1895. And Titles for vols. 3 and 4.
Starling. Physiology.
Turner (D). Art of Surgery. Vol. 2. 1725.
University College Hospital Reports. Before 1877 and 1892-93.
Virchow's Archiv. Any vols. prior to 151.
Wiener klinische Wochenschrift. Nos. 5 and 6. 1899. Titles 1892 and 1888.
Willcock. Laws of the Medical Profession. 1836

Applications for duplicates from medical societies forming libraries may be addressed to the Librarian, 429, Strand.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Eye Irrigators.—Dr. HUGH JONES (Rodney Street, Liverpool) writes: On November 2nd, 1901, the BRITISH MEDICAL JOURNAL contained a description of an eye irrigator by Dr. Ward Cousins, and since then an illustrated advertisement of the same has been running in the JOURNAL. If Dr. Ward Cousins will look at Weiss's catalogue, page 58, 1889, he will find an illustration of an irrigator designed by Mr. Edgar Browne similar in all essentials to the one described by him, and advertised by Allen and Hanburys. I believe Mr. Edgar Browne was the first to enunciate the principle of prolonged antiseptic irrigation in purulent ophthalmia and dacryocystitis. His first paper was read at the Belfast meeting of the British Medical Association in 1883, and the instrument referred to was exhibited at the same meeting. In 1893 Mr. Edgar Browne read a paper in Paris entitled "Traitement perfectionné de l'Ophthalmie Purulente." I state these facts without comment.

Electrically-heated Paraffin Baths.—We have received a communication from M. C. Regaud, *Professeur agrégé* of the Medical Faculty of Lyons, in reference to the electrical heating and regulation of paraffin baths, in which he makes special allusion to that form of bath described by Dr. R. H. Steen in the British Medical Journal (December 14th, 1901, p. 1733). It appears that M. Regaud, with the assistance of M. R. Fouilliaud, had devised and described, in 1900, a bath of essentially similar construction. But on extended experience of its use M. Regaud became convinced that it was susceptible of great improvement, and he has consequently materially modified its design and construction. An account of his new invention, which has been made by M. S. Maury, 6, Quai Claude Bernard, Lyons, will appear in the *Journal de l'Anatomie et de la Physiologie*.

THE MALARIA CONFERENCE AT NAGPUR, CENTRAL INDIA.

[From our Special Correspondent.]

Origin of the Conference.

This gathering, which is destined to have a most important influence on the campaign against malaria in India, had its origin in a desire to take advantage of the visit of the Royal Society's Malaria Commission to Nagpur to arrange a short laboratory course for the civil surgeons of the Central Provinces. The Government of India subsequently decided to send delegates from each province to discuss practical measures against malaria. An excellent little laboratory for the study of malaria had been in use at the central gaol for a long time by Major A. Buchanan, I.M.S., whose recent book on malaria is based on work done here, and the organisation of the present gathering is due to the same officer.

Laboratory Courses.

The first three days were devoted to a laboratory course for those who had not done much work on malaria, the preparation and staining of blood films, dissection of mosquitos, and characters of the different forms of malaria parasites being dealt with, the whole forming a most instructive series. Expeditions in search of *Anopheles* pools were also made, and some of the different species demonstrated.

Opening Meeting.

The second part of the programme opened with a public meeting in the Town Hall, when Colonel A. Scott-Reid gave a most interesting opening address, in which he traced the progress of our knowledge of malaria from the mist of the middle of the last century to the clear light of the present day. This was followed by a lantern demonstration of the different forms of the malarial parasites, temperature charts, etc., by Major A. Buchanan, which was much appreciated.

Malaria Without Parasites in the Peripheral Blood.

This meeting took place on the evening of January 2nd, and on the following morning the business proceedings of the Convention began with a paper on malaria without parasites in the peripheral blood by Drs. Stephens and Christophers, which was read by the former. It was mainly based on results already recorded in their reports in the proceedings of the Royal Society. They had found that cases showing the increased proportion of large mononuclear white corpuscles, which when beyond a certain degree they consider pathognomonic of malaria, occurred with fever clinically identical with malaria, but in which parasites could not be found in the blood after repeated search before quinine had been given. They also stated that in large numbers of cases of fever with chronically enlarged spleens examined in Calcutta, they had seldom found the malarial parasite in the peripheral blood, although pigment was sometimes obtained by means of spleen puncture. They raised the question as to the nature of these cases. An interesting debate ensued, in which instances of failure to find parasites in undoubted cases of malarial fever were narrated, while every speaker affirmed the malarious nature of the cases of chronic fever with large spleens. Instances, in which the patient had been followed throughout many months from the acute through the chronic stages and either parasites found quite late in the disease or melanotic pigment in the organs after death, were cited. The question of the nomenclature of malarial fevers was considered, and a vote in favour of the restoration of the term chronic malaria or malarial cachexia in the official nomenclature was eventually adopted.

The Diagnostic Value of Blood Changes.

At the afternoon meeting a paper was read by Captain Leonard Rogers on the diagnostic value of the blood changes, and especially of the differential leucocyte count, in continued and remittent fevers. This paper was based on an investigation of some 50 cases by means of both blood counts and serum tests, the main conclusions being that enteric fever is very common among natives in Calcutta, no class being immune from it, and that the increase of the lymphocytes in typhoid fever and of the large mononuclear corpuscles in malarial remittent fever is a very useful aid in the differential diagnosis of these fevers both from each other and from others liable to be accompanied by the so-called typhoid state, such as pneumonia, cerebro-spinal fever, etc. An excellent discussion followed, and resolutions affirming the frequency and importance of typhoid fever in natives of India were passed.

Classification of "Anopheles."

A paper on species was also read by Mr. Aitkin illustrating the difficulties of identification as applied to butterflies, and an important paper was read by Captain Glen Liston, entitled A Basis for the Classification of Indian *Anopheles*, in which a very simple and scientific scheme was given, which will greatly simplify the identification and limitation of species.

Practical Preventive Measures.

On the morning of January 4th papers on Practical Measures for the Prevention of Malaria in India were read by Major Roberts and Captain Birdwood, the former relating the efforts recently made with this object in Indore, and the latter discussing very fully the different measures of malaria prophylaxis, and submitting instructions for the guidance of local bodies in the malaria campaign. A very full discussion followed, in the course of which the applicability of the various measures to Indian conditions was thresned out, and eventually a Committee of the delegates from the different provinces, members of the Malaria Commission, and an experienced civil surgeon was appointed to draw up a comprehensive scheme. After two days hard work this was done, with, it is believed, very satisfactory results, and it is hoped that when it has been printed and distributed a great stimulus will be given to the practical application of the mosquito theory. This discussion having been carried over into the afternoon meeting, the following papers were then briefly discussed. The Relation of *Anopheles* to Malaria Endemicity, by Drs. Stephens and Christophers, read by the last named. It was suggested that the peculiar seasonal distribution of malaria and *Anopheles* in Calcutta, pointed out by Captain Rogers, might possibly be due to *Anopheles Rossii* not being capable of carrying malaria, while the much greater amount of malaria in the Duars nearer the Himalayas was associated with the greater frequency of other varieties of *Anopheles*, which can carry malaria. Thus a very important question was raised which it will require much more work to settle.

Flagella Fever.

Major A. Buchanan then made a communication entitled Flagella Fever, in which he brought forward further cases in support of the views recently published by him.[1] In the discussion which followed the value of the new facts recorded was acknowledged, but it was felt that more observation was required for their correct interpretation. This concluded a most interesting series of discussions, a paper on the Value of the Spleen Test as an Indication of the Prevalence of Malaria by Captain James having unfortunately to be taken as read owing to want of time.

Concluding Ceremonies.

It only remains to record that a most successful dinner was given by the members of the Indian Medical Service to the Chief Commissioner, the members of the Malaria Commission, and other guests on the evening of January 3rd, while on the following evening a public lecture on Snake Venoms and their Antidotes was given by Captain Lamb, I.M.S., which.

[1] *Indian Medical Gazette.*

together with other social functions, rounded off a most full and enjoyable week. A hope was very generally expressed that further meetings of a similar kind would be more frequent in the future.

CONTRACT MEDICAL PRACTICE.

THE CLUB SYSTEM.

Dr. J. D. WILLIS (West Gorton, Manchester) writes: Under the present club system both the working man and the medical man require protection. When the club system was started the working man was not in as good a position as he holds to-day. Now, he is better off generally, has the advantage of increased hospital accommodation and other kindred institutions. He is well organised into societies and clubs, as is shown by the hold they have got on our profession. Even the poorest of the working classes, who cannot afford to join a club, can have all requisite medical attention at the hospitals or from the parish doctor. If it is contended that such provision is not sufficient, then that is a matter for the local authorities, not the general practitioner. Thrift is encouraged, and the practical requirements of the working class community are sufficiently met by the wise and commendable system of insurance against sickness, accident, and death which is in vogue in the various clubs and societies. This system has the advantage, also, that it does not rob the club member of his much-prized spirit of independence. The clubs work on one of two lines.

1. Those which engage a medical man under the club system and expect the members to employ him.

2. Those which do not engage a doctor, but leave the member free to choose his own medical attendant and deal directly with him, that is, he pays the ordinary rate of general private practice.

The working man belonging to Class 1 does not deal directly with his medical man but does it through the agency of his club secretary or other official, who is paid to look after the interests of the members. This official, being a business man, naturally keen on economy, sees an opportunity of effecting considerable saving by lumping his members together and offering them to a medical man at so much a head per annum 2s. 6d. to 4s. That is the sum which the medical man gets out of the 20s. to 26s. a year paid by the club member. The disadvantages are apparent. The club undertakes the insurance at the expense of the medical man with resulting dissatisfaction on both sides.

Under Class 2 the advantages to patient and to medical men are apparent. The club undertakes the insurance but does not interfere with the rights of either member or doctor, with resulting confidence and satisfaction on both sides. The patient is not expected to pay till he is back at work.

What we have to decide is, which of these two classes is the better method for the mutual advantage of patient and practitioner? Half-way doings, such as the proposed 8s. a member, will not settle the matter. There will still be the struggle on the part of the practitioner to make both ends meet.

I submit that the only satisfactory way out of the present dilemma is to make a stand at the ordinary rate of pay in working class practice, and cease all further parleying with club representatives, for the following reasons:

The present system is largely a failure, for many club patients employ private practitioners. Working men admit that medical men are insufficiently remunerated. Club rates of pay have a depressing influence on private practice. Working men do not like to feel that they are objects of charity, for that is what the present rate of medical remuneration comes to.

The section of the community most requiring consideration is the general practitioner, for his expenses increase every year, whilst competition is keener: education is more costly, so are drugs, yet his remuneration is on the down grade, and will be so long as club rates of pay are allowed to influence it.

We cannot allow outsiders, who know nothing of the difficulties of medical practice, to have control of our business affairs. We must be free to make our own terms. Under this method club practice will be open to any medical man. The unity and good feeling which should exist amongst us will not be marred.

The present club system is the keenest form of competition we have to meet. It is unfair, and it sets a bad example to beginners. It gives a man an immediate start in life at the expense of his fellow-practitioners. It is not right that such a system should have the support of our Association.

We must enforce the wage, or income, limit. This is no new idea. Under the heading of rent it is the guide in the regulations for medical men as to what to charge in various localities. In a working-class practice the position or occupation of the patient is an indication as to what he can pay. This test is best applied by the private practitioner, who has some idea of the various rates of earnings. The hospitals have already adopted this method in the interest of the general practitioner.

I see no great difficulties to be overcome in effecting this reform. Certainly none as regards the working classes. As for medical men, the chief obstacle, I presume, is "vested interests"—poor things at the best.

Why should the club doctor fear to make this move? He may be sure that if he has gained the confidence of his patients in the past, they will stick to him in the future, and he will be in a position to render more valuable service. He will feel that he is an independent practitioner, and is not bound by harassing regulations as though he were a servant. General practitioners look to the British Medical Association to further the interests of the profession, but to parley with clubs is a suicidal policy.

MEDICAL UNION IN THE MIDLANDS.

THE Midland Medical Union is doing useful work in looking after the interests of its members, and has recently taken steps to vindicate the rights of the profession in the dispute connected with Taversal Colliery Club. It will be remembered that this matter was commented on in the BRITISH MEDICAL JOURNAL of November 16th, 1901. One of the Taversal Club surgeons was required to attend the wives of club members for half his usual fee, namely, 10s. 6d., and, on his refusal, he was dismissed. His successor stipulated with the club that if he accepted the post thus vacated the district of another club surgeon in the neighbourhood should also be given to him in addition to that of his predecessor. Although no complaint had hitherto been made against this officer, the club acceded to the request. The newly-elected surgeon then, we are informed, introduced a partner, and the two are now carrying on the work of the collieries. As this appointment was accepted with full knowledge of all the facts that led to the vacancy, the Midland Medical Union has decided to have no professional intercourse with these gentlemen. Under the circumstances it cannot be denied that the Midland Medical Union is fully justified in the course it has taken. If members of the medical profession are regardless of the common interest, it is hardly to be expected that their brethren will regard them otherwise than as black sheep, with whom they should have as little to do as possible. In matters of urgency the patient must not suffer for the fault of the medical attendant, and till the emergency is over the principle of broad humanity must dominate every other; but necessary assistance may be given with the least possible recognition of the offending practitioner.

THE FUND FOR THE FAMILY OF THE LATE DR WILLIAM SMYTH.

BELFAST COMMITTEE.

DR. CALWELL, honorary secretary, College Square North, Belfast, desires to acknowledge the following subscriptions:

	£	s.	d.
Dr. Patmore Sheehy, Totteridge, Herts	2	2	0
Dr. H. Bold Williams and Friend, Llandudno ...	2	12	6
Dr. Samuel Evans, Harwich, Essex	1	1	0
Dr. Garrod Thomas, Newport, Mon.	1	1	0

MEDICAL COLLEGES IN THE UNITED STATES.—According to *American Medicine*, statistics of the 155 medical schools in the United States show that in all but two a four years' course is compulsory. There were 26,147 students enrolled and 5,958 teachers in these colleges last July. The degree of M.D. was conferred on 5,444 students during the past year.

ADULTERATED DRUGS.—It is stated in the American papers that, of 12,500 bottles of quinine tablets (300 tablets to the bottle) recently furnished to the medical department of the United States Army in the Philippines, 12,227 bottles were returned to the contractors on account of adulteration. The contractors averred that the fault was not theirs, but that they had themselves been imposed upon. However this may be, it is not merely a commercial fraud, but a crime of a peculiarly mean and detestable kind which might have caused great loss of life. The perpetrators of such a crime deserve the severest penalty which the law can inflict.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 1st, 1902.

THE CENSUS AND THE BIRTH-RATE.

We must be content to have our interest in the results of the last decennial census satisfied by instalments. The publication of the first has shown that though the natural increase was less by 459,043 persons in England and Wales than if the excess of births over deaths had continued at the same rate as in the previous intercensal period, the rate at which the actual population had grown was slightly higher than was anticipated. The decennial increase was 12.17 as compared with 11.55, and the growth of the population of the United Kingdom was 9.9 as compared with 8.2. Though the national expansion has not during the last twenty years maintained its former elasticity, it has not fallen off in the last ten, and a broad margin remains before a stationary population is brought within a measurable distance.

One explanation of the reason why the increase was greater than had been anticipated is to be found in an increased amount of immigration, but the chief cause appears to have been a marked decrease in the outflow of the population by emigration. Though there are no means of ascertaining with accuracy how far it was due to the one or the other, the population was saved from loss by these combined causes to the extent of 601,449 persons. The figures on which this explanation is founded, as given in the preliminary census report, have already been commented on in these columns,[1] and these interesting changes are perhaps compensatory to the reduced pressure of the native population.

In England and Wales the birth-rate has been lower and the death-rate higher than any previously recorded. We were enabled last week, by the courtesy of the Registrar-General's Office, to announce that the annual birth-rate for 1901 was 28.5, and the annual death-rate 16. In each instance this is the lowest rate yet recorded, and it is satisfactory to note that during the past year the natural increase of the population must have proceeded at an enhanced rate. At the same time, the persistency with which the proportion of births continues to decrease year by year is a feature in these returns which cannot be disregarded. The decrease is still in progress. The rate was 29.3 in 1899, 28.9 in 1900, and 28.5 in 1901.

Although the popular interest in this remarkable social problem has slumbered since the publication of the census report, this evidence of a further diminution in the proportion the births bear to the general population is calculated to arouse attention once more. Medical men recognize its extent and understand its causes, but its effects, near and remote, are by no means readily appreciated. "Knowledge comes but wisdom lingers," and the medical profession has wisely maintained an attitude of reserve in the face of the modern curtailment of the number of the family.

The social philosopher—and every medical man becomes such in the exercise of his vocation—desires to know if the welfare of the individual, the family, and the nation is as secure with an annual birth-rate of 28 as with one of 36. We are not aware that any evidence has been forthcoming as to any material disadvantages attending the comparatively high fertility of twenty-five years ago, nor as to evidence of such drawbacks in those districts in which it still holds.

There is a consensus of medical opinion against the artificial restraints upon fertility which are advocated on philanthropic grounds to prevent the misfortune of high productiveness allied with poverty. They are still less acceptable when adopted by those who live in comfort, or in places like New Zealand[2] where there seems to be every inducement to be fruitful and multiply. In delayed marriage, restricted fertility, nursing infants by hand, the exchange of rural life for that of towns and similar phases of modern life, we are met with a group of symptoms which show an increasing worship of personal comfort as opposed to those habits of self-denial that minister to the general welfare. A saving is effected in inconvenience and expense in rearing seven children instead of nine in an equal population, by which means the prosperity of recent years has no doubt been augmented, but the family and the country are eventually impoverished by their absence, though their loss may be partially remedied by a larger influx of aliens or a check to emigration. When the birth-rate falls to 28, the limit of public danger is approached, as the death-rate will rise when increasing age mortality supervenes on the present smaller child mortality, and other contingencies will still farther narrow the available margin of natural increase.

The census shows a group of large manufacturing towns with birth-rates of 23 to 25 in which the increase of the population has fallen to 0.5 per cent. annually, and even to *nil* during the last ten years. On the other hand, the disturbing effect of the present war must not be left out of account. A considerable addition has been made in consequence to the portion of our manhood which is abstracted from domestic life, so that even the marriage-rate appears to have suffered, and there can be no doubt that the fall in the birth-rate has been accentuated from this cause from the second quarter of 1900 onwards, nor that it will continue through the ensuing year. At the same time, according to the experience of past wars, we may hope that after peace is made the birth-rate will be restored *in statu quo ante bellum*.

The story of the census is not nearly complete. The future instalments conveying the tabulated information as to ages, occupations, birthplaces, house accommodation,

[1] The Natural and Actual Increase of the Population of England and Wales. British Medical Journal, page 1564, June 22nd, 1901.

[2] *Lancet* on New Zealand, November 9th, 1901. Birth-rate 25.1 the lowest among the Colonies.

etc., will on this occasion contain these complete for the different counties separately, and will be taken in order of their industrial importance. The statistics for London have just been issued, and those for Lancashire will be the next to appear. The country must await these to find the answers to such questions as how much farther the proportion of childhood to the general population has fallen in the last ten years, and how much that of persons under 20 has diminished in the last twenty years, or whether the age disturbance has extended into those later periods of life in which mortality is high. So far our chief interest in the 1901 census turns on those altered conditions of migration to which the undiminished growth of the population is due, and it is satisfactory to note that the falling-off in the outflow has been shown in the direction of the United States rather than towards British Colonies.

PHYSIOLOGY IN THE LONDON UNIVERSITY.

The University of London is actually entering upon its fuller life. As has been so often proclaimed, it was newly reconstituted to be a university not only in title but in deed. Its scope is to include not merely the subsidiary educational function of examining candidates, but the greater educational duties of teaching students and of fostering research. We are delighted to note that it is making its entry upon these higher cares by instituting special courses in that one of the great natural sciences which stands nearest of all to the profession of medicine.

There are several reasons why physiology—itself at once both a pure science and a study of applied value in medical and surgical art—should thus be a case to which the new University early addresses itself as an organizer and helper. Even under the old state of things medicine and science formed a most important part of university work in London. Now that the University is to have students instead of mere candidates, need for provision of advanced courses in physiology must arise more and more in connection with the many *alumni* devoting themselves to science, and especially for those having medicine as their practical goal. This need has been wisely foreseen and generously met.

A dozen separate competing medical schools teach physiology in the metropolis. It is beyond just expectation that the resources of each individual school should be able to furnish advanced courses in a study such as physiology. This science, though so closely allied to medicine, is after all not medicine itself. To expect the individual medical college with all the claims upon it of subjects actually professional and, like human anatomy, easily compassed within medicine, to furnish special advanced courses in an expensive, rapidly-expanding, and partly-extrinsic study, is unreasonable. The University has felt this position. It has seen, moreover, that the situation, although unfavourable for individual fulfilment of the need, was favourable for its fulfilment by collective action. The great majority of the London medical schools have for a number of years past recognized that physiology has become, like physics and chemistry, a study too large and special for its systematic teaching to fall well within the province of clinicists, either medical or surgical. Hence there are teaching and working in London at the present moment a group of pure physiologists for number and distinction not inferior to, if indeed equalled by, those of any one of even the greatest single universities—for instance, either by Paris or Berlin. The presence of these eminent men in London could not, under the old system, guarantee university courses in higher physiology, but the new University is now to take advantage of their services for that end. They will, as was announced in some detail last week, give special courses of lectures in those branches of physiology to which in not a few cases they have by their own work contributed original discoveries. These advanced courses will be delivered at South Kensington, within the actual precincts of the University.

Recognising that in the teaching of natural science, especially in the higher teaching, its exposition is a vain thing if confined merely to the verbally didactic, a complete set of rooms has been allotted at South Kensington to provide in the University a laboratory for experiment and demonstration in connection with the lectures. The University has had the wisdom to recognize the need of this; and the liberality of a graduate, Mr. Walter Palmer, M.P., enables the new laboratory to be tentatively equipped for the early requirements of the work. A plan of the laboratory was published in the last issue of the British Medical Journal. It can be seen from that how the available space has been allotted.

The co-operation of a number of teachers eminent in various departments of their science will ensure that the nature of the investigation made and the teaching given shall have the breadth of treatment which should characterize all university work. The trend toward higher biological study thus given by the University is a boon both to the teacher and to the student. We believe it is no secret that the initiation of the scheme has been largely due to Dr. Waller, and the thanks of the profession and the public are deserved by all those who have combined to draft and execute the project. We know of no more practical step that the new University could have taken towards the promotion of university aims in the metropolis.

"SUCCESSFUL" AND "EFFICIENT" VACCINATION.

There is some confusion in the minds even of leading exponents of what may be called the "philosophy of vaccination" as to the meaning of the words "successful" and "efficient" when used to designate the character of that operation. It is not so generally recognized as it should be that "successful" vaccination is a matter of fact, whilst what is "efficient" vaccination is a question of opinion. If a person who has not been vaccinated before, or at least not for a considerable time, is operated on with such effect that a repetition of the operation does not produce a similar result, he may be regarded as "successfully" vaccinated, whatever may be the number or area of the vesicles obtained on the last occasion. It is this result only which the law, as embodied in the General Order of the Local Government Board of 1887, in which the word "successful" appears to have been first employed, contemplates, although the criterion suggested is not the repetition of the operation but the appearance and general character of the vesicles. "Suc-

cessful" vaccination simply indicates that the person who is the subject of it is, for a time at any rate, protected against small-pox. The questions how long he is protected or in what degree he is protected can only be answered by the light of experience, and the reply to them, however generally concordant it may be, must be to some extent dogmatic.

One of the speakers at the recent discussion on Dr. Copeman's paper at the Royal Medical and Chirurgical Society expressed the opinion that "there ought to be a fixed irreducible minimum below which no certificate of successful vaccination should be given." But how would this be consistent with the fact that a child vaccinated in only a single place may be so protected that the same result cannot be obtained again, and has, therefore, been "successfully" vaccinated? The truth is that, generally, the success of the vaccination is assumed as an inference, not from the number, but from the character of the vesicles; and this inference is, for practical purposes, the only one which is generally available. The criterion of the "efficiency" of vaccination, on the other hand, is, by general agreement, to be sought in the area of dermal tissue which is brought under the influence of vaccine, and is, apparently, a function of surface, so far as the patient is concerned. Its estimation on the basis of the number of the vesicles produced is, of course, founded only on the relation which the area of the actual number bears to that of the assumed standard, which, as laid down by the instructions of the Local Government Board, is half a square inch.

When we come to inquire how "efficient" vaccination is to be encouraged, we find ourselves in the face of difficulties which must not be overlooked when compulsion by legislation in all matters connected with vaccination is advocated. How, for instance, is it possible to insist that "efficient" vaccination should be made compulsory when the advocate of such a measure can be met by the retort that a single inoculation satisfies the requirements of the Vaccination Acts, provided only that it is, in the opinion of the medical practitioner by whom the operation is performed, characteristic? Still more so when the law has now recognized the claim of the "conscientious objector" not to be vaccinated at all!

One way in which the desideratum of "efficient" vaccination can be promoted is by leaving no doubt on the mind of the parent of the child who is satisfied with inefficient vaccination what it means and what his responsibility is in accepting it. For this purpose it is necessary that in the certificate of vaccination, which should be sent direct by the medical practitioner performing the operation to the vaccination officer, and a duplicate of which should be given to the parent, there should be a clear statement as to the nature of the operation for which the certificate is given in regard to (*a*) the number of vesicles obtained, (*b*) their character, and (*c*) their size. This statement might be accompanied by another indicating that, in the opinion of the operator, the protection given by the operation he has performed is "efficient" or "inefficient" as the case may be, and by a third statement, which should be a printed part of the certificate itself, of what, in the opinion of the Local Government Board, can alone be considered "efficient vaccination."

If a medical practitioner in giving such a certificate after vaccinating a child, say, in one place, chose to state that in his opinion the protection he had conferred by it was "efficient," he would be laying himself open to serious criticism, not only by the parent, but possibly by a more impressive tribunal. If, on the other hand, a parent chose to be satisfied with a certificate which distinctly informed him that, though the operation was so far "successful" that the child could not be at once vaccinated again with the same result, the protection granted by it might probably be only short-lived, it is difficult to see how any further pressure could be brought to bear on him, at any rate at the time. The proper occasion for doing so would clearly be when the child came again under the cognizance of the State, through the inquiries of the school attendance officer. It would be reasonable then to require that any child whose certificate of vaccination did not show that it had been "efficiently" vaccinated should be revaccinated before being admitted to the school. It will be contended that those who are engaged in the administration of education would oppose legislation on these lines, as tending to increase the difficulties already existing in securing the attendance of children at school. It may be so, but it is the work of those who can appreciate the enormous benefits which such a course as that indicated would confer both upon children and upon the community at large, to beat down such opposition; at any rate the State ought at least to make the offer of revaccination and urge its acceptance.

It is scarcely necessary to note that there are other factors which influence the "efficiency" of vaccination besides the area of inoculated surface, especially the efficiency of the lymph used. But all of them are practically eliminated by the rough and ready test of the size, number, and character of the vesicles. If these are satisfactory it may be safely assumed that the lymph was efficient and that other possible causes of inefficient vaccination may be disregarded.

LAY INSPECTORS AND MEDICAL PROBLEMS.

The circumstances connected with the admission of a casual into the workhouse of the Thingoe Board of Guardians, Bury St. Edmunds, are instructive. On Tuesday, January 7th, a man, aged 20, was admitted to the casual ward on a police order. Next morning he complained of feeling ill, was seen by the medical officer, and was admitted to the receiving ward. On Thursday morning he was again examined by the medical officer, who found no evidence of anything except bronchitis. On Friday morning a rash appeared, which was diagnosed as "malignant measles," and the patient was at once isolated. Next day this rash became vesicular, and on Sunday, after consultation with the medical officer of health, a diagnosis of small-pox was made. The facts briefly summarised above were brought before a recent meeting of the Thingoe Board of Guardians, at which Captain G. A. F. Hervey, Local Government Poor-law Inspector, attended. At this meeting the chairman questioned the medical officer of the workhouse as to the circumstances under which he passed the patient into the infirmary, and the latter explained that there being no eruption at the time he had no reason to suspect small-pox. The following colloquy then occurred:—The Chairman: You had not the slightest suspicion of small-pox? Medical Officer: None whatever. The Chairman: It would have been the first thing that would

have struck me. Local Government Board Inspector: It is most reprehensible on the doctor's part: he ought not to have sent that case into the infirmary: it does not matter what he was suffering from, he should have sent it at once to the isolation hospital, without running the risk of spreading infection.—It is with this remark of Captain Hervey, as reported in the local newspaper, that we are chiefly concerned. Both he and the Chairman are in the position of wise men after the event. They are, in another sense, in a condition of what Dr. Johnson would have called "compound ignorance," for they clearly have no knowledge of the fact that for seventy-two hours from the onset of the initial symptoms no doctor can, in the absence of collateral evidence as to exposure and infection, diagnose small-pox. He must wait until the eruption appears on the fourth day. Possibly there was some avoidable delay in diagnosis between the Friday and the Sunday, but isolation was begun as soon as the tentative diagnosis of malignant measles was made. Captain Hervey, furthermore, fell into a serious error in proposing that every casual who is ill shall be "sent at once to the isolation hospital." To suggest so absurd and unworkable a proposition shows that the Local Government Board was ill advised in not sending a medical inspector, who would have known what are and what are not the functions of an isolation hospital. There is a stage in most attacks of infectious diseases in which diagnosis is difficult, and may be impossible. At this stage suspicion may be aroused by the presence of marked premonitory symptoms, or may be lulled by their absence. The latter appears to have been the case in this instance. We quite agree as to the desirability of always admitting casuals into a probation-ward before mingling freely with other in-patients. The report of this case is not sufficiently detailed to enable us to say whether provision for this existed in this institution or not. At the least the case will serve to emphasize its importance. But for the Local Government Board's inspector to say that to send this patient into the infirmary "is most reprehensible," not only goes beyond the facts, but justifies us in using the same adjective to characterize his language. Captain Hervey's conduct is rendered even worse by the fact that his remarks, judging by the printed report of the proceedings, were made before the reports of the medical officer and the master had been read, which made it clear that the patient had been passed into the infirmary before any rash appeared. The inspector appears to have committed himself to an opinion before hearing the evidence. We hope that the attention of Captain Hervey's superiors will be drawn to his unwarrantable language, and that in future inquiries of the kind the Local Government Board will not only send inspectors who will hear the evidence before committing themselves to an expression of opinion, but also medical inspectors who are competent to form an opinion on a problem involving medical knowledge.

RESEARCH ON CANCER.

The special meeting of the Pathological Section of the Liverpool Medical Institution which was called together on January 23rd, to discuss Sir William Banks's paper on Mammary Cancer was worthy of the intrinsic importance of the subject, and of the interest with which the whole question of cancer is at present regarded by the medical profession and by the public at large. The members and visitors present numbered 112, an attendance probably unique in the history of the section, and two of the greatest authorities on the nature and pathology of cancer in this or any other country, Mr. H. G. Plimmer and Mr. H. J. Stiles, were present as visitors, and took a leading part in the debate. As might have been anticipated the chief topic of interest discussed was the nature of the so-called cancer body: whether it is in any sense the cause of the disease or whether its appearance is merely accidental—a non-essential event in the life of the cancer cell. Mr. Plimmer brought forward very persuasive arguments to show that the cancer body is the *vera causa* of cancer, of which the chief were its constant presence in this disease and in no other, its special localization in the growing parts of the tumours, the fact that it apparently possessed a highly organized structure, and the possibility of cultivating it outside the body. Mr. Stiles on the other hand maintained that the so-called cancer body is in reality merely a modified cell nucleus, and that all stages could be recognized between it and the unaltered nucleus. The apparent multiplication of the cancer bodies in artificial cultures, he considered, might be accounted for by the facility, well known to surgeons, with which epithelium can be got to grow when transplanted, and he thought that the fact admitted by Mr. Plimmer that cancer juice was the best culture medium, gave considerable support to this explanation. On one point Mr. Plimmer and Mr. Stiles were agreed, and their opinion will probably be endorsed by all who are competent to judge of the matter, and this is that pathologists have reached finality as regards the mere examination and classification of cancerous growths, that the microtome and the microscope have done all that they can do, and that further knowledge must be sought by way of experimental investigations. At the present moment, when proposals are on foot for the endowment of research in cancer, it is well that this should be borne in mind. It is scarcely conducive to our national pride to know that the superior facilities for this kind of investigation provided on the Continent have induced Mr. Plimmer, one of our chief workers on cancer, to place his services at the disposal of the German Government. There can be little doubt that in a wealthy country like our own whatever funds are needed for the investigation of cancer will ultimately be forthcoming. The subject is one which appeals not only to the altruistic feelings, but also in no small degree to the personal interest of the donor, since cancer is no respecter of wealth or station.

LONDON TELEPHONES.

Notwithstanding the fact that the Lord Mayor's motion in the House of Commons for an inquiry into the working and practical effect of the recent telephone agreement between the Post Office and the National Telephone Company, and for the postponement of further transactions or negotiations with the company until after such inquiry, was defeated after a debate which is noted elsewhere, there is ample evidence that the new agreement is regarded with much disapproval by large numbers of people, since the new rates, instead of effecting a reduction in the telephone expenditure in London, as had been anticipated, are actually increased, in some cases to as much as 70 per cent. The Post Office has not, in fact, set up the kind of competition with the company that was expected. Upon no class of the community does the change press more hardly than upon medical men. Each member of the profession in London who has a telephone has been accustomed to pay £10 or £12 for its use, the lesser rate ruling when he consented to a five years' agreement, the higher rate when he was unwilling to bind himself for more than a year. For these charges an unlimited service was provided. But, under the new agreement these privileges will be no longer possible. A subscriber may for the future adopt one of two courses. In the first place he may pay £5 a year, together with a penny for every message sent by him within the County of London, or twopence each for every message sent outside that area. An average of 4 messages a day costing one penny each would raise the annual bill (including the £5 already mentioned) to about £11 a year; or, with an average of 6 daily

messages to £14 a year; or to £17 a year for 8 such daily messages, and so on. On the other hand, a subscriber may, by paying an initial charge of £17 a year, obtain an unlimited service, such as is supplied to business houses. But surely if the company could give an unlimited supply for £10, it is unnecessary for the Post Office to charge £17 for the identical service. It is most desirable in the public interest that medical men should be subscribers, that they may be called quickly to urgent cases either in their private practices or in the hospitals to which they may be attached; but the new system will probably deter many from subscribing, or will deter subscribers from making full use of the wires. The proposed change will apparently not affect subscribers who are under contract for five years with the company until the expiry of those contracts: it will affect only those who reside in London, and is to operate for three years only, the Government having promised to subject the present rates to revision before 1905. In spite of all these qualifying circumstances, however, it appears to be the opinion of several competent judges that a real hardship to doctors is being created.

THE ROENTGEN RAYS IN CANCER.

Evidence of the beneficial effects of the Roentgen rays in certain forms of cancer or in certain stages of the disease is steadily accumulating. As to its healing efiects in rodent ulcer, Mr. Malcolm Morris, Dr. Sequeira, and others have testified in our own columns. A few weeks ago we published notes of cases in which the rays were used by Mr. C. R. C. Lyster with strikingly good results in cases of epithelial ulcers of the skin and mucous membrane, and of a case of recurrent cancer of the breast in which they were successfully employed by the same gentleman in conjunction with Mr. Bryant. This week we publish an interesting case of the same kind by the President of the British Medical Association, Dr. G. B. Ferguson, of Cheltenham, who also bears witness to the healing action of the rays in an otherwise intractable case of rodent ulcer. While congratulating all these gentlemen on their encouraging results, we may be allowed once more to express surprise that certain English newspapers should persistently announce under sensational headlines cases of an exactly similar kind from America, as if the treatment were unknown in this country. In this matter America is following the lead of Europe, and by a curious perversity of fate the real pioneers of the method in America are completely ignored in the press reports to which reference has been made, and the credit of the discovery is by implication given to men who are only following in what is now a well-beaten track.

TETANUS FOLLOWING VACCINATION.

Some cases of tetanus having occurred after vaccination in Camden, New Jersey, a Committee of the Camden Board of Health, consisting of Drs. H. H. Davis (President), Joel W. Fithian, and S. G. Bushey, was appointed to make an inquiry into the matter. Their report, which is dated November 29th, 1901, is published in full in the *St. Paul Medical Journal* for January. In it the Committee states that samples of all the different makes of vaccine employed in Camden have been tested for tetanus germs by the State Bacteriologist of New Jersey, and have been found pure and entirely free from tetanus germs; hence tetanus could not have been caused by the virus employed. The history of each case of tetanus was obtained from the practitioner in attendance, and in every instance it was found that vaccination had been performed in a correct and cleanly manner. The infection of tetanus resulted from neglect on the part of the patients to present themselves to the attending physicians, so that their vaccination could receive proper attention. One case of tetanus occurred from gunshot wound during the same period, in a boy who had not been vaccinated, a fact which the Committee regard as proving that the tetanus germs were in the atmosphere. In every case acute tetanus occurred in from three to four weeks after vaccination, whereas if the virus had been contaminated tetanus would have ensued within nine days after vaccination. A further proof of the purity of the virus is afforded in the reports of the physicians in Cooper Hospital, who tested on animals samples of all makes of vaccine employed in Camden. If the virus had been contaminated the animals would have developed tetanus, because of their extreme susceptibility to this disease. During the five weeks previous to the date of the report a very large number of people in Philadelphia were vaccinated with the same virus as that employed in Camden, and in not one of these cases did tetanus occur. The Committee thinks that the tetanus cases in Camden are to be explained by atmospheric and telluric conditions. There had been a long period of dry weather, with high winds, so that tetanus germs, which have their normal habitat in the earth, dust, dirt of stables, etc., were constantly distributed in the atmosphere. In all the cases it was found, on careful examination, that the wound had been exposed by the scab being knocked off or removed, or the arm had been injured and infection resulted: frequently children scratched the vaccinated area with their dirty fingers and nails, and thus infected the wound. It is given as the unanimous opinion of the Board of Health, as well as of its committee of experts, that tetanus, or any other infection, can never occur if the vaccination is properly protected from contact with the atmosphere, or with soiled clothing, bandages, etc.

THE LEGISLATIVE CHAMBER AS AN ADVERTISING MEDIUM.

That legislative chambers, and even our own "August Mother of Parliaments," are often used as media for self-advertisement is a fact which even the incurable optimism of Dr. Pangloss could not fail to recognize. The advertising politician, however, does not concern us here. But the use of the legislative chamber as a medium for the advertisement of new cures for consumption or cancer will probably strike most people in this country as a startling novelty. The following incident appears to show that some irreverent person has had the audacity to make such an attempt on the dignity of a foreign parliament. At a recent sitting of the Austrian Chamber of Deputies, Herr Winter complained that about a week previously a pamphlet bearing the name of Dr. Albert Adamkiewicz and entitled "Is Cancer Curable?" had been circulated among the Deputies. As this question was purely medical and as the speaker did not know how the pamphlet could be brought before the House, he asked the President how it came about that it had been distributed. Had he not known the honourable reputation of Professor Adamkiewicz, and his efforts to investigate and do everything possible for the relief of cancer he should have been disposed to think that the pamphlet was intended only for purposes of advertisement. The conclusion set forth in the pamphlet was that cancer was curable, and that the problem of the treatment of cancer might now be looked upon as solved. Herr Winter submitted, however, that the Chamber of Deputies could not be used even for the advertisement of a scientific discovery. The President replied that the pamphlet had been distributed without the knowledge of the staff of the House, and he therefore knew nothing of the matter. We take the facts as we find them in a Vienna medical journal. The statements may be inaccurate, and even if they are true, it would be unfair to hold Professor Adamkiewicz responsible for an error which may have been due to the commercial enterprise of a tradesman or the indiscretion of an over-zealous friend. It is to be hoped, however, that it may not become the custom to distribute touting circulars along with parliamentary

papers. The idea of an honourable member rising in his place and asking the Secretary of State for War whether his attention has been called to a new preparation of blood and iron, or a new food for concentrated babies, is too hideous to contemplate.

THE ENDOWMENT OF RESEARCH IN AMERICA.

The Carnegie Institution is the name of the Corporation recently endowed by Mr. Andrew Carnegie with 10,000,000 dollars. The fund is to be under the charge of a Board of Trustees, among whom are the President of the United States, Dr. J. S. Billings and Dr. S. Weir Mitchell. The purpose of the institution, as set forth by Mr. Carnegie himself, is to found in the city of Washington, in the spirit of Washington, an institution which, with the co-operation of institutions now or hereafter established there or elsewhere, shall, in the broadest and most liberal manner encourage investigation, research, and discovery: encourage the application of knowledge to the improvement of mankind: provide such buildings, laboratories, books, and apparatus as may be needed, and afford instruction of an advanced character to students, whenever and wherever found, inside or outside of schools, properly qualified to profit thereby. Among its definite aims are to promote original research: to conduct, endow, and assist investigation in any department of scientific literature or art, and to this end to co-operate with governments, universities, colleges, technical schools, learned societies, and individuals: to appoint committees of experts to direct special lines of research; to publish and distribute documents, to conduct lectures, and to hold meetings. The institution is further designed to enable such students as may find Washington the best point for their special studies, to avail themselves of such advantages as may be open to them in the museums, libraries, laboratories, observatory, meteorological, piscicultural, and forestry schools, and kindred institutions of the several departments of the Government; and to ensure the prompt publication and distribution of the results of scientific investigation. These and kindred objects may be attained by providing the necessary apparatus, by employing able teachers from various institutions in Washington and elsewhere, and by enabling men fitted for special work to devote themselves to it, through salaried followships or scholarships, or through salaries, with or without pensions in old age, or through aid in other forms to such men as continue their special work at seats of learning throughout the world.

THE NEMESIS OF THE PLACEBO.

A famous French physician of the Second Empire is said to have given the following prescription to a hypochondriac patient who worried him:

	Grams.
Aqua fon[illegible]	.. 100
Ill[illegible]	.. 40
[illegible]	10
Hydrogeni protoxyd	[illegible]
Nil alliud	1

One drop thrice daily. This elixir, it is said, cured a large number of neurotics about the Court and in Parisian society. But it got the doctor into trouble at last through the indiscretion of a pharmacist. A *grande dame de par le monde*, as Brantôme would have called her, who had taken it for years with blind faith and unfailing success and recommended it to her friends as an infallible remedy for most human ailments, in an evil hour allowed herself to give way to the curiosity which proved the ruin of Eve. Consumed with eagerness to know the secret of the composition of the wonderful panacea, she submitted the document containing the mysterious formula to all the initiated whom she came across. At last she found one who revealed the fatal secret. What explanation the physician attempted is not recorded, but there can be little doubt that the outraged lady explained her attitude in language more picturesque than polite. A more modern instance of the nemesis of the placebo occurred not many years ago to a well-known practitioner in this country. He had a patient, a neurotic lady, as exacting as such patients can often be. He had at one time given her some opium pills, to which she became too much attached, and he finally decided to give her no more. On the following Sunday evening while sitting at table after dinner he received an urgent letter either to come at once or to send some more of the pills. He sent the servant to the surgery for a pill box, and there and then rolled some pills from the crumbs on the table. He received a grateful letter of thanks stating that the pills had produced the much-desired sleep, and asking for the prescription; this he declined, and was much pleased with himself on the whole. But his gratification was diminished a few mornings later when at 2 A.M. he was roused from sleep to send another supply!

EXTRAUTERINE PLACENTA IMPLANTED ON LIVER.

The possibilities of extrauterine gestation seem to exceed the imagination of the deepest pathologist and the foresight of the boldest surgeon. Dr. Tuholske, Professor of Surgery, Washington University, St. Louis, has published a case of secondary abdominal pregnancy of unusual interest, in the December number of the *American Gynecological and Obstetrical Journal*, 1901, which we regret to hear is the last instalment of that enterprising medical serial which will be issued. The patient was a married woman, aged 39, of small stature and light weight, she had borne six children, the age of the youngest is not stated. Dr. Tuholske was called in to see her on May 10th, 1900, the period had ceased since January 6th, violent pain and collapse occurred in March, then the health failed and there was free muco-purulent discharge from the cervix. No evidence of any pelvic swelling could be detected, but there was a tumour in the upper part of the abdomen continuous with the liver. In the right lumbar region, reaching midway between the last rib and the crest of the ilium was a well-marked protuberance at first simulating a renal tumour. A *bruit* could be heard, and a few days later fetal movements were detected. An abdominal incision was made on May 16th, the pelvic viscera felt normal, without any sign of rupture. In manipulating the liver, which was very thick and engorged with venous blood, a retractor bruised it, causing profuse haemorrhage. A large tampon was necessary, and a big pad of gauze had to be placed between the parietes in front and the liver at the seat of disease behind. On the under surface of the right lobe of the liver, above the transverse fissure, appeared a convex protuberance of circular shape, not defined from the liver externally, pulsating and traversed by innumerable large veins and arteries. No fetus was seen, no further search was made, and Dr. Tuholske closed the cavity, and left the broad gauze tampon in place. Some of his assistants believed that there was a cavernous angioma of the liver and no pregnancy. The woman recovered from this exploration with her life, but not with her health. The fetal movements and heart sounds were clearly detected soon afterwards. Towards term dyspnoea became severe; the patient expected normal delivery. Tuholske made a lumbar nephrectomy incision, succeeded in finding a thin part of the sac, and extracted a living female child, weighing 6½ lbs. The enormous sac was firmly tamponed, the peritoneal cavity remained unopened thanks to adhesions. On changing the dressings twenty-four hours later and illuminating the cavity the placenta welled up like a lung inflated artificially, a "most gruesome" appearance, as the author remarks. The tampon was carefully reapplied. The patient died thirty-two hours after the

removal of the child. The parts were carefully examined, and the placenta was found to be implanted on the parietal peritoneum of the diaphragm as far forward as the attachment of the coronary ligament, on the liver from its upper border to the transverse fissure, down the diaphragm posteriorly, and, lastly, on the upper end of the kidney. Histological examination detected the primary placental site about a third of an inch above the dilated orifice of the right Fallopian tube. The uterus was enlarged, the body globular and soft, the left tube and ovary were the seat of inflammatory changes, and the right ovary bore a well-developed corpus luteum. The sac was not attached to any other viscera besides the liver and right kidney; the intestines were free and normal. The gynaecological interest of this case is great indeed, and the surgeon deserves great credit for his courage in battling with a bleeding placenta incorporated with the tissue of the liver.

IS THE LADY DOCTOR A FAILURE?

This question has recently been asked in America and in one important quarter at least has been answered in the affirmative. This is all the more remarkable, since America is not only the country which witnessed the new birth of the lady doctor in modern times, but that in which she has hitherto appeared most to flourish. Miss Elizabeth Blackwell, who was the first, graduated in 1849. Three years later there were six in Philadelphia. In 1889 there were 3,000 lady doctors in the United States; in 1896 there were 4,555, and now there are probably 6,000, some of whom have very lucrative practices. But these would seem to be the exception. From Chicago comes the news that Princess Bamha Dhuleep Singh, daughter of the late Maharajah Dhuleep Singh, and seventy other young women, who were studying medicine at the North-Western University, will have to seek another school. After thirty-two years' trial the trustees of the University have come to the conclusion that women are not a success as doctors. The school is to be abolished and the property sold. One of the trustees, Mr. Raymond, goes so far as to say that it is impossible to make a doctor of a woman. He adds: "We have run the Women's Medical School at a loss of £5,000 a year. Women cannot grasp chemical laboratory work or the intricacies of surgery. Fifteen years ago the graduating class of men and women signed a memorial saying that coeducation was a failure. Then we conducted the college exclusively for women, and it has been worse than a failure." It is scarcely surprising to hear that various female practitioners who have been interviewed vigorously denounced Mr. Raymond. One of them, Dr. Emilia Holmes Smith said: "The trouble was that the school did not have enough applications from women seriously considering entering the profession. They prefer to enter the coeducational school to obtain the same opportunities of acquiring knowledge and skill as men have. Besides, enough recognition was not given to graduates, they not being placed on the faculty when reason and opportunity offered." If the lady doctor is really a failure in America, the reason may be the simple economic one that the supply exceeds the demand. In this country, according to a writer in the *St. James's Gazette*, the lot of the medical woman seems to be comparatively happy. The same may, according to M. Lucien Descaves, be said of France. In the *Echo de Paris* he records the results of a kind of domiciliary visit recently made by a bold journalist to the eighty-five lady doctors practising in Paris. He asked each of them three questions: (1) Has the medical profession given you the satisfaction you hoped for from it? (2) If you had to begin life again, would you choose medicine as a career? (3) Would you advise a young girl to follow your example? Of the whole number only one admitted in her reply that she had been disappointed. All the others expressed themselves as thoroughly satisfied with their position; they stated that they loved their profession, which made them independent and useful, and felt in its exercise the joy of a fulfilled vocation. They all declared that they would advise young girls to do likewise, but one of them wisely uttered a note of warning against the danger of engendering "artificial vocations." Perhaps there has been too much of this in America. For the practice of medicine much more than the power of passing examinations is required. To the making of a successful doctor there must go qualities of head and heart that cannot be tested by examination. And all these are vain unless they are accompanied by physical vigour.

THE WANTS OF PSYCHICAL RESEARCH.

There appears in a recent number of the *Arena* (New York) an article upon the Wants of Psychical Research by Professor James H. Hyslop, of Columbia University, in which he makes a very earnest appeal for endowment to place investigation in this direction upon a thoroughly satisfactory footing. He is fully aware of the suspicion that may arise that the money will be wasted upon frauds, but no one can read his able article without being convinced of the necessity for organised scientific research, alike for the exposure of imposture as for the cure of insanity and the investigation of other psychological conditions. The accusation that funds will be used to subsidise mediums is disposed of by showing that while frauds are exposed, genuine mediums will tend to be self-supporting, and inquiries will be conducted of a far wider scope in the domain of insanity and secondary personality, in which direction, and with a view to testing the claims of spiritualism, the New York Pathological Institute and the Society for Psychical Research are severally conducting investigations. It is rightly insisted that the work must be in the hands of thoroughly expert psychologists and scientific men only, as the whole field is so easily open to abuse, and it is obvious that only such men can adequately deal with the phenomena of psychopathology, hypnotism, secondary personality, apparitions, telepathy, supernormal acquisition of knowledge, with the careful scientific handling that these and allied subjects require. Professor Hyslop believes that many cases of insanity are to be cured only by the psychological treatment of suggestion, and that an enormous field is thus opened, the investigation of which would be immensely aided by the establishment of a psychopathic hospital where all such cases could be collected and treated. Such a gathering together of many types of insanity and duplex consciousness would lead to the advancement of science and medicine both as to observation and treatment. The author, as a psychical researcher, excuses his advocacy of the study of insanity, holding that herein lies the clue of the whole subject. In alluding to apparitions of the dead and dying, he points out the difficulty of estimating the value of the attestations, which require an expert knowledge of psychology in selecting those of importance—a difficulty which would be considerably lessened if the means were forthcoming to have each case personally sifted scientifically, and the same applies to the alleged mediumistic phenomena. The importance too of studying the experiences of dying persons, which cannot be done without some means of organising the data, is insisted upon, since in some instances the results of psychical research points to their being of value. Professor Hyslop estimates at least one million dollars as a necessary endowment, 40,000 dollars a year being required to carry on the work for any length of time, urging that it would be better not to embark upon such work unless there was a prospect of continuing it in an adequate scientific manner. Among several ways in which it would be possible to arrange for the endowment it is suggested that the best would be to place the capital in the hands of a university as trustee, provided that security is taken to safeguard the funds from abuse. The Rev. Minot. J.

Savage, the Rev. R. Heber Newton, and the Hon. Lyman J. Gage (Secretary of the U.S. Treasury) are mentioned as provisional trustees, and Professor Hyslop is ready to enter into correspondence with persons interested in the proposal.

A CENSUS OF CONSUMPTIVES IN NEW YORK.

THE New York State Department of Health has recently issued to all medical practitioners in the State a blank form for the return of data concerning the prevalence of pulmonary tuberculous disease. The subheading of the blank is as follows: "Collective investigation through local Boards of Health for the purpose of securing a census and allied data of consumption in the State." The information asked for includes the age, sex, and initials of the sick, the initials being required to obviate duplicate reports: the town, village, or city in which the patient lives; his occupation and nationality; the duration of the disease: the source of infection, in case it can be traced or inferred; the family history as regards tuberculous disease; the condition of other members of the households as to present or recent infection; the sanitary condition of the surroundings; the character of the dwelling as to whether or not it is a tenement house; and what precautions, if any, have been taken to prevent the spread of the disease. A circular accompanying the form states that the department is seeking to ascertain as accurately as possible the number of tuberculous persons in the State and the conditions in which they live. All intention of instituting a personal registry of consumptives or a system of sanitary inspection or isolation is expressly disclaimed.

POOR-LAW MEDICAL OFFICERS IN ITALY.

A MEETING was recently held at Vercelli for the purpose of organizing an association of the Poor-law medical officers of Italy. The object of the association is the promotion of the interests of the Poor-law medical officers. The meeting was attended by representatives of that body in every part of Italy. Membership of the association is to be strictly confined to Poor-law medical officers, "because," say the promoters with a fine note of independence, "while professing respect and deference to our brethren in cities, our professors and masters, the defence of our interests, and the attainment of a better future, must be exclusively the work of those interested and of their harmonious action." The *medici condotti* of Italy who are in question are not strictly analogous to our Poor-law medical officers. They are engaged by the *communes* in country districts to minister to the poor, and besides suffering from the manifold grievances with which medical servants of local authorities in our own country are only too familiar, they are for the most part paid at a rate which not the humblest among us would accept.

A CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

AT the Ottawa meeting of the Canadian Medical Association, a committee was appointed to consider the advisability of forming a medical protective association, and to report at the Winnipeg meeting in 1901. The committee reported that they believed it to be in the interest of the medical profession of Canada that an association should be formed for the protection of such members of the medical profession as may become members, and who may be unjustly prosecuted for malpractice. The object of the association is to protect the members from prosecution where such action appears to the legal advisers of the organization, as well as to the committee in charge, to be unjust, harassing, or frivolous. The report was adopted, and the organization is now (according to the *Canada Lancet*) in good working order. The officers elected are:—President: Dr. R. W. Powell (Ottawa). Vice-President: Dr. Camarind (Sherbrooke). Secretary: Dr. F. W. McKinnon (Ottawa). Treasurer: Dr. J. A. Grant, jun. In case of action for malpractice against any member of the Association, if the executive decides that it is a proper case for defence, the matter will be carried through all the courts until a satisfactory decision is obtained, but under no circumstances will a compromise be made.

THE CARE OF CASES OF RINGWORM.

WHEN many remedies are recommended by different persons for the same disease, it is generally a proof that no remedy generally effective is known. Ringworm is a case in point. The fact appears to be that the fungus is easily destroyed by a considerable number of antiparasitic remedies, provided that it is still fairly superficial, and that it has not penetrated to the follicular depths. The number of easily-treated cases as ordinarily presented to the practitioner are, however, relatively few, and cases in which the disease is widely spread and deeply disseminated are well known to be difficult to treat. The latest remedies suggested for such cases are electrolysis, freezing, and the application of x rays, and there is no doubt that each one of these remedies studiously applied in suitable cases may ultimately effect a cure. Still the number of obstinate cases is large, and their cure is always a matter of time. Must the children during this period be isolated and be kept away from school? In Italy and France special schools are maintained for children with ringworm, and Mr. Malcolm Morris has advocated the establishment of similar schools in this country. Dr. A. Ravogli, however, in discussing this subject in the *New York Medical Journal* of June 29th, 1901, says that he has kept ringworm children in his ward together with children convalescent from other diseases, and in the course of many years has never known a case of tinea tonsurans arise. This is not merely the experience of Dr. A. Ravogli. Though it is a difficult thing to cure the disease in the follicular depths, yet to prevent the disease spreading to others simply requires method and intelligence. An intelligent school attendant could be trusted to see that the caps and brushes of the infected children were destroyed and replaced by cheap new material; and the medical officer, while applying suitable remedies for the ultimate cure of the deeper-seated portions of the disease, might depute to the same attendant the duty of applying two or three times a week a general disinfectant to the whole of the close-cropped scalp. By taking such precautions the risk of dissemination of the disease would be very greatly diminished, if not altogether abolished.

THE "OPEN KITCHEN" FOR INVALIDS AT BERLIN.

IN order to facilitate dietetic treatment for patients with scanty means an "open kitchen" has been founded by charitable persons at Berlin, and has already a year of useful existence behind it. Frau A. vom Rath, who describes the undertaking in the *Zeitschrift für diätetische und physikalische Therapie*, explains that the impulse to exert herself in the matter was derived from her own experience during a severe illness. She felt that her gradual recovery was due to the great care of her doctor in arranging the kind and quantity of food; at the same time, she experienced how much difficulty there might be in private houses, and even in families of considerable means, in obtaining the simplest articles of diet properly prepared for patients. Portions of food are to be obtained from the "open kitchen" by tickets, which are sold at a very low price, but some of the out-patient hospitals (policlinics) at Berlin buy a number of these tickets and distribute them gratuitously to needy patients; charitable individuals have likewise bought the tickets and distributed them to those in want. Besides the kitchen, larder, rooms for the cook, etc., the establishment possesses a large business room and two tables, where twenty to thirty convalescents, dyspeptics, diabetics, etc., can take their meals. Most important of all are, perhaps, the arrangements for

sending out food, so that patients receive it hot in their own homes. During the first year of its existence the kitchen provided thirty-six thousand portions of food. Establishments on the model of that in Berlin have apparently already been founded at Cassel, Posen, and Vienna, and are being planned out in many other places.

MUNICIPAL KITCHENS IN NANTES.

The United States Consul at Nantes, Mr. Joseph I. Brittain, has sent an interesting report to Washington of the manner in which the city of Nantes supplies food to the destitute. For several years that city has managed a system of municipal kitchens known as *Les Fourneaux Alimentaires Municipaux*, where persons who had no money could procure substantial meals by just presenting a ticket. It has erected recently a building having in connexion therewith a dormitory, with beds for the accommodation of about fifty persons, which are free for three nights, when the occupants are obliged to make room for others. The sick are sent to the hospital. During the stay each person receives two meal tickets a day, which are the only ones served—one at noon and the second in the evening, from 5 to 7.30.

A FRENCH SOCIETY OF MEDICAL HISTORY.

On January 29th a meeting of members of the medical profession in France interested in the study of the history of medicine was held within the precincts of the Paris Faculty of Medicine for the formal constitution of a Society of the History of Medicine. The moving spirits are Professor Raphael Blanchard and Dr. Albert Prieur, editor of the *France Médicale*, who are respectively president and general secretary of the Organising Committee. The purpose for which the new society has been founded is set forth in the first clause of its statutes, which is to the following effect: The French Society of the History of Medicine has for its object the study of the history of medicine and the allied sciences, considered from the multiple point of view of the evolution of doctrines and institutions, biography, bibliography, and documentary research. To this end it proposes to arrange for regular meetings of its members, to organize collective visits to the various places which have a historic character, and to use every effort with public authorities and private persons to safeguard as far as possible objects and documents connected with the medical history of France.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

The poll demanded by Mr. H. H. Nelson for the election by the governors of the National Hospital for the Paralysed and Epileptic of a new Board of Management was concluded on January 23rd by the counting of the votes at a meeting held at the hospital. The newly-elected President of the hospital, the Earl of Dudley, was in the chair. The result of the voting was that the ten gentlemen nominated by Mr. Bischoffsheim and Dr. Griffiths at the meeting of the governors and members of the hospital on January 9th were declared elected. About 300 voting papers had been sent in, and the following are the votes recorded for each of the ten successful candidates: The Rev. Dr. Wace, 243; Mr. E. de la Rue, 234; Mr. F. O. MacMillan, 202; Mr. E. Speyer, 202; Sir J. R. Paget, 198; Mr. Melvill Green, 192; Sir A. Mackenzie, 191; Mr. A. Royle, 191; Mr. J. Wigan, 191; Mr. J. Danvers Power, 190. The two unsuccessful candidates were Mr. J. Pearman with 169 votes and Mr. F. C. Capel with 168 votes. In acknowledging the vote of thanks to the Chair, proposed by Mr. Danvers Power and seconded by Sir Felix Semon, the Earl of Dudley expressed the hope that they had heard the last of any differences of opinion which might have occurred in the past and invited the new Board of Management, and its supporters and all the governors and well-wishers of the hospital to unite in promoting the prosperity of the hospital. At the first meeting of the new Board of Management held on January 28th, the Earl of Harrowby was elected Treasurer of the hospital, the Rev. Prebendary Wace, Chairman, and Mr. J. Danvers Power, Vice-Chairman. Sir Edward Fry and the members of his committee of inquiry were elected honorary life governors of the hospital. We congratulate the medical staff on the successful vindication of their just claims, and the hospital on having secured a Board of Management who may be trusted to work in harmony with the staff, and to carry on the administration in a spirit at once philanthropic and enlightened.

THE MEDICAL OFFICER TO THE LONDON SCHOOL BOARD.

The General Purposes Committee of the London School Board have recommended Dr. James Kerr, of Bradford, for the appointment as medical officer. In 1893 Dr. Kerr was appointed medical superintendent by the Bradford School Board. The appointment was at first experimental, but the excellent work done by Dr. Kerr soon aroused much interest and the importance of the office has continued steadily to increase. During his term he has prepared a series of reports dealing with most of the matters having a medical bearing on school life, including the general hygiene and ventilation of schools, the methods of preventing the introduction of infectious diseases, and their dissemination by schools, the vision of school children, the management of defective and epileptic children and physical training of children and pupil teachers.

THE TREATMENT OF INEBRIATES IN GERMANY.

The Psychiatric Association of Berlin has recently drawn up a scheme of reform for the treatment of inebriates. It declares that special institutions are necessary for the isolation of victims of the drink habit. These may be open like general hospitals, or closed after the manner of lunatic asylums. Only institutions adopting the principle of total abstinence should be permitted. The admission of inebriates into institutions may be voluntary at the request of the party concerned, or compulsory under such safeguards as are required in the case of admission to lunatic asylums. The necessary provisions should be laid down by the local authorities in conformity with existing municipal regulations. At the head of these special institutions should be physicians possessing special knowledge of mental and nervous diseases.

The Midwives Bill, which was introduced into the House of Commons, and read a first time on January 21st, has not been printed at the time we go to press, and the Government printers are unable to say when it will be ready.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Vaccination.—On Thursday in last week there was quite a little debate on the supply of Government lymph for vaccination. Mr. Bartley started it by a question as to whether private practitioners are now able to purchase Government lymph for those prepared to pay for vaccination, or whether they have to obtain lymph as they can, chiefly from abroad. Mr. Walter Long said the statutory duty of the Local Government Board as regards the supply of glycerinated calf lymph was

limited to supplying it to public vaccinators for the purpose of primary vaccination only, and their lymph establishment was formed with this object. Arrangements had, however, been made to extend the supply for the use of these officers in revaccination, and a very large amount had been supplied for that purpose. The organization of the establishment was not such as to supply private practitioners. Mr. Bartley pressed his point of a supply to private practitioners, and Mr. Long said it would be very serious to suggest or decide that medicine should be supplied gratis to private practitioners. When the supply gratis was repudiated, the President of the Local Government Board said there was no necessity for the supply, for he had satisfied himself that without doubt there was an ample supply available outside that supplied from the Government department. Some, no doubt, came from Paris, but there were other sources of supply, and there was an abundant supply of glycerinated calf lymph at the present time. Dr. Ambrose suggested that the lymph supplied from outside was inefficient, but Mr. Long said that on the contrary it was most efficient, the Government lymph might be much stronger, but the outside lymph was efficient. In answer to further questions as to the progress in London as regards vaccination and revaccination, Mr. Long said that he was not at present in a position to give any estimate of the number of vaccinations and revaccinations performed during the present epidemic. The returns for 1901 would be received in due course, but there was no record of revaccinations performed by private practitioners. He had reason to believe that there had been a very large number of vaccinations in the last few months in London and the neighbourhood. Since the beginning of September lymph had been issued to public vaccinators for 480,000 vaccinations; that was about 300,000 in excess of the normal supply for this period. A very considerable portion of the excess had been issued to the metropolis.

The Cure of Cancer. On Friday in last week Mr. Lee asked the First Lord of the Treasury whether he would consider the advisability of appointing a Royal Commission on Cancer on lines similar to that appointed to inquire into tuberculosis. Dr. Farquharson intervened at this point, and asked the First Lord whether his attention had been directed to a scheme formulated by leaders of the medical profession for the organization of research in cancer, and whether he would await the full development of this scheme before committing himself to the costly and dilatory process of a Royal Commission. Mr. Balfour said, in answer, that his attention had been called to the scheme referred to, but that he had no information as to the progress which this interesting experiment in organization was making. He wished it all success. As regards the first question, he entirely agreed as to the importance of this subject of investigation, but he confessed that his instinct was not in favour of attempting to deal with it by means of a Royal Commission. He did not think, as at present advised, that the cases of cancer and tuberculosis were at all parallel. He thought there was no parallel, and that the number of great scientific discoveries which had been made by Royal Commissions was probably very limited; and that it would be better to leave this subject in the hands of the medical profession of all countries, whose attention was, and had been for some years past, directed towards it. If those competent to speak for the medical profession took a different view, he had no doubt that view would be brought before the Government, and would receive full consideration. Mr. Lee then asked Mr. Balfour if he would consider whether a substantial Government grant could be made to assist the investigations, in view of the fact that there were no funds available for the purpose. The First Lord, in reply, said the question raised a very large issue, which he should not like to touch on at present. The amount of Government money given to experiments in this country was not very large. Whether it ought or ought not to be increased was certainly a question which he could not answer on the spur of the moment. It would require full consideration and consultation with his colleagues, and up to the present there had been no application for a grant.

The Cremation Bill.—This Bill which, it will be remembered, passed through the House of Lords last session, and was only stopped at the last stage in the Commons, has been again introduced in the Upper House by Lord Monkswell. The second reading in the Lords was agreed to on Monday without a division after a brief speech by Lord Monkswell.

The Glycerinated Calf Lymph supplied by the Local Government Board was the subject of quite a string of questions by Mr. Corrie Grant on Monday last. In his reply the President of the Local Government Board said that the lymph was derived from calves which had been vaccinated with lymph from other calves, and was not obtained by inoculating animals with small-pox. A pure culture of vaccinia could not be supplied in place of lymph and the strength of the virus could not be standardized so as to measure the dose administered. The Government could give no guarantee, but they used every effort to secure that their lymph should be free from undesirable organisms. He did not, as at present advised, propose to ask for power to control the lymph supplied from other sources.

Telephones and Doctors.—The whole of Monday's debate on the address was occupied by the amendment moved by the Lord Mayor demanding an inquiry into the agreements made respecting the working of telephones. The debate disclosed on both sides of the House great dissatisfaction with the arrangement between the Post Office and the National Telephone Company. Mr. Austen Chamberlain and Mr. Hanbury defended the Treasury and the Post Office, but most of the speeches on both sides were severely critical. In the course of the debate Sir Walter Foster, after putting the hardships which small traders suffered under the scheme, called special attention to the hard case of medical men. He read letters from practitioners complaining of the higher charges under the Post Office, amounting in one case quoted to more than 30 per cent. extra. He pointed out that most of the hospitals felt obliged to have the members of the staff on the telephone in order to provide for urgent calls, and that the heavy charges now made were really a tax on gratuitous and charitable work done for the community. The two millions voted on the application of Mr. Hanbury to obtain a healthy rivalry had led to an agreement which left the user of telephones worse off than previously. He finally pressed for a division on the amendment, which the proposer wished to withdraw, and the Government majority fell to 88.

The Midwives Bill. The promoters of this measure are in good hope of a great success this session. They have already begun to present petitions from the country in favour of the Bill. On Monday last Mr. Heywood Johnstone was to be seen below the gangway at the commencement of business with a sheaf of petitions, which he duly presented. They turned out to be two from Merton, one from Ingleborough, one from Finchampstead, and one from London. Whatever amount of public opinion they represent, be it great or small, they clearly show how active the promoters are, and as they have friends of the Bill in the Cabinet they have no doubt some grounds for hoping that their Bill will be debated on February 26th, when it has first place, and an extremely likely chance of getting the second reading, in spite of the motion for its rejection standing in the name of Mr. Griffith-Boscawen. So good is this chance considered to be, that the Irish Party, who are astute parliamentarians, have put down one of their Bills in the second place in the hope of coming on for discussion.

The Royal Army Medical Corps and the New Warrant.—In reply to a question on the paper in the name of Dr. Farquharson, Mr. Brodrick stated on Tuesday, that the Royal Warrant will shortly be published, and that the last examination for candidates for the R.A.M.C. was held in February, 1901, when twenty two appointments were offered and ten candidates competed.

"CURES" FOR ALCOHOLISM.

In consequence of a number of inquiries which have reached us with regard to the various "cures" for alcoholism practised in this country, we propose to give a series of brief sketches of those we have been able to hear of, beginning with those which consist in the administration of a secret drug. The oldest of these would seem to be the Keeley cure, which has been practised in England since 1892.

"The Keeley Cure."

Dr. Keeley was a native of New York State, and a graduate of Rush Medical College, Chicago. According to a pamphlet circulated by the Keeley Company, his discovery of "a new principle" in medical science began to attract public attention in 1880. He had made inebriety his life-study. "From childhood the subject fascinated him," and as a surgeon during the war of the Rebellion he began scientifically to study it "practically as other doctors study surgery." He compared the disease with malaria, and wrote "if the malarial disease is cured the paroxysms will cease for ever, and the same law is found to hold good with alcoholism." He came to the conclusion "that inebriety was a species of circular insanity—a recurrent mania," and he believed "this peculiar nervous disease to be curable if a specific treatment of it could be devised. He therefore determined to devote the remainder of his life if necessary to the discovery of a remedy which should eliminate from the system the poison of alcohol, break up the periodicity of the craving, and reconstruct, and restore the nervous tissues to their normal condition." He considered that the disease was the same in periodical as in "steady" drinkers, and that one could be as easily cured as the other. After several years of "patient silent investigation" he

"proved that the chloride of gold and sodium or the double chloride of gold would form the basis of a specific remedy which would effectually do this work. Knowing, however, that the chloride of gold in its natural state is a difficult agent to handle, and one which the patient cannot safely be trusted to use, he spent no less than seven years studying to find a menstruum or eliminant which should carry from the system the excess of gold."

His formula has always been kept a secret, for "it is more than a mere prescription, it is a complete system of cure." Dr. Keeley says that if the discovery were made common property it would surely result not only in "doing incalculable mischief in the hands of ignorant or unscrupulous persons," but in destroying the "influence and good name" of the remedy. It is stated elsewhere in the same pamphlet that the remedy is "harmless even if taken in large quantities," and that "it never has harmed or can harm even an infant." This secrecy, it was held, was more especially necessary on account of imitation cures, most of which were said by Dr. Keeley to be "stock jobbing concerns," all of which "either directly or indirectly, trade upon the reputation or accomplishments of Dr. Keeley." None of these imitators have any "specific knowledge of the disease," and the harm they are said to have done Dr. Keeley will be referred to again later on.

In 1880 Dr. Keeley opened an "Institute" for the treatment of alcoholism at Dwight. Being dissatisfied, however, with only 70 per cent. of successes, he closed it for two years in 1885. In 1887 he reopened it, "having added a hypodermic treatment and perfected the internal remedies." "Since that time the treatment has been a complete success." There are now Keeley "Institutes" in every State in the Union and in England, and in the *Banner of Gold* (the Keeley organ) for May, 1901, we read that "more than 300,000 have taken the Keeley cure, and of that number more than 17,000 are physicians." "The Keeley treatment," it was stated, "is administered only by regularly educated physicians, who have also taken a special course of study under Dr. Keeley." Inebriety is cured in about four weeks, and narcomania in six weeks. Patients are "freely given" intoxicating liquor until they prefer to do without it. A patient who is cured in a "Keeley Institute" is thenceforward known as a "Keeley graduate."

"The Keeley League is the most unique temperance organisation in the world. Its active membership is composed exclusively of 'graduates' of the Keeley Institute."

"Starting with the baker's dozen of patients under treatment, who, moved by a purpose that was almost an inspiration banded themselves together in the little blacksmith's shop at Dwight in 1891, it now numbers nearly 60,000 members."

Among the objects of this league, which are diverse, is the extension of the knowledge of the Keeley remedies, the establishment of State and auxiliary leagues, and "by medical, moral, and Christian methods, with the help of Almighty God, to discourage and annihilate the use of liquor as a beverage." Intoxicating liquor is presumably meant.

The introduction of the "cure" into this country dates from November 29th, 1892, when a public meeting was held in London under the chairmanship of the Rev. Canon Fleming. A Committee was appointed, consisting of several well-known men, two medical men being among their number. The object of the Committee was to inquire into and report on the results, but not the nature of Dr. Keeley's cure for inebriety. The treatment was first carried on by a Dr. de Wolf, described as a doctor of medicine of the New York Medical College, Professor of State Medicine and Public Hygiene in the Medical Department of the North-Western University, Chicago, and Medical Director of the Keeley Institute in London. The Committee have up to date issued eight annual reports, which are published together in pamphlet form. The pamphlet is entitled "Inebriety: its Treatment and Cure by Dr. Keeley's Method."

"Statement by Dr. Keeley and others. Annual report of a Committee appointed at a public meeting held at St. Michael's Schoolroom, Ebury Street, London, S.W., on November 29th, 1892. Chairman, the Rev. Canon Fleming, B.D., Chaplain-in-Ordinary to the Queen, Honorary Chaplain to H.R.H. the Prince of Wales; Honorary Chaplain to the Duke of Westminster, K.G., Canon Residentiary and Precentor of York, Vicar of St. Michael's, Chester Square, London."

In the first report, over two months and a-half after the public meeting mentioned above, the Committee state that they have interviewed twenty patients under treatment or recently cured. They also state that they have received letters and communications from physicians whose patients have been under treatment, but they do not state the nature of these communications. They received full explanations of the cases from the medical director of the Keeley Institute. They report that the cases were genuine cases of alcoholism, and that the patients all spoke warmly of the care and kindness they had received, and that the remedies used had in no case caused "pain, inconvenience, or affection of the sight." They do not explain how it was that any question of affection of the sight had arisen. They satisfied themselves that no patient had been put under any kind of restraint. As regards the chief question—the alcoholism—they report that "the patients all affirm positively that in periods varying from three to seven days they lost the crave for alcohol and ceased to take it." They also report that "In all cases the patients affirm that their health, mental power, and physical strength have improved greatly under treatment." A year later (1894) they report that "a number," they do not state what number, of the twenty cases previously seen appeared before them again. They were "deeply interested in" the patients' "personal testimony to the fact that they were all cured and that the old crave for drink had entirely left them while their moral will power to say 'No' had returned." Letters were received from the patients unable to appear, but the number of these is not stated. The conclusions come to by the Committee were that 18 out of the 20 patients had "stood firm."

In the third annual report it is stated that "much effort was made to bring before the Committee at the last annual meeting as many as possible of the 20 patients first seen two years ago." It is not stated what amount of success attended this effort, but "the final result is that 18 out of the 20 cases are cured and will now be so recorded in our register." A group of 11 cases are noted in connexion with this report. Apparently in every case these patients personally or by letter vouched for their own cure. None stated that they had not touched any alcohol but had remained total abstainers. 8 made statements with regard to the disappearance of the "desire," "crave," "inclination," or "temptation;" 3 stated nothing definite about their alcoholism. The time which had elapsed since treatment ranged from 7 months to 3 years and 5 months. In conjunction with the sixth annual report, a further group of 13 cases are given, and the letters of the writers published. Ten of these cures were vouched for by the patients themselves, and 3 by other persons. Eight refer to the disappearance of the "crave," or "desire," or "inclina-

tion." Five make the positive assertion that they have not touched alcohol or drugs. Three are indefinite in their statements. The times elapsed since treatment ranged from 18 months to 7 years. It is not made clear in the report whether this latter group includes some of or all in the former group or not.

In their fourth annual report the Committee begin to manifest a certain uneasiness with regard to the attitude of the medical profession towards the Keeley cure.

"They are fully aware that it is a standing rule in the medical profession that any man who discovers a remedy for a disease is expected to make it known, and sooner or later this is the case with everything that is for the good of humanity. But this decision does not fall within the province of the Committee which was formed in November, 1892, simply to watch the results of the treatment and to report impartially on them to the public."

In the sixth annual report the Committee's views become more definite:

"The medical profession, bound by their traditions, still withhold their approval from the Keeley treatment; but the Committee invite the medical profession to select any six of their body, who, with six others selected by the friends of the Keeley cure, shall investigate the whole history of its work in London since 1892, and every case that has passed through its hands.

"The Committee feel that they can make no fairer offer than this, and they will await the result with confidence.

"But if such invitation is not accepted, the Committee have a right to ask the public to disregard the opposition of the medical profession, so long as that opposition rests on a determination *not* to investigate the results of the treatment in the past six years in England. The Committee wish to assure the public that they have no pecuniary, etc."

It will be observed that the Committee do not offer to submit the remedy to analysis or test.

In the seventh annual report it is stated "possibly the time has arrived when an opportunity might be afforded to that class of inebriates who are unable to pay the fee at the Keeley Institute," and it is suggested that a syndicate should be formed for this purpose. The ordinary fees at the Keeley Institute appear to be from about £35 to £40 for a four weeks course of treatment. The treatment is commended for a second time to the notice of temperance reformers.

The medical profession would seem in the past two years to have relented, for in July, 1900, a letter from the secretary is published in conjunction with the eighth annual report, in which it is stated:

"[illegible] London, under the watchful eye of the very eminent Committee, who have devoted considerable time to its interests during the past nine years, has steadily progressed until it is recognised by the profession as the most suitable place for the treatment of such cases of alcohol and drug inebriety as cannot be properly cared for at home nor successfully treated by ordinary professional means. Many cases of grave opium addiction have by professional advice been committed to our care during the past year with the happiest results ..... We have also had the happy experience during the year of restoring to useful professional labour many medical gentlemen who had fallen into habits of drug [illegible]

The eighth annual report is about "the number of those treated from 3 to 6 years ago" and who remain cured. Their number is not stated nor their proportion to the whole number treated. The pamphlet contains a letter from the pen of General Neal Dow, a well-known temperance advocate in America, which was addressed to the editor of the *Temperance Chronicle*, C.E.T.S. In it he writes:

"[illegible] I read the formal platitudes about medical etiquette written by medical men who appear to be sane, I feel a contempt that I cannot easily describe. Here is a great profession, many of whose members themselves become drunkards and opium eaters, many of whose members thoughtlessly and wickedly prescribe alcohol and morphine, who recklessly and continually manufacture drunkards and opium eaters among our friends and relations, yet these men, instead of plucking the [illegible] lecture everybody upon the mote which they [illegible]

Later on we find it stated by the Medical Director:

"[illegible] professional etiquette and hygiene, the practice of the Keeley Institute is strictly limited to its own specialty ..... Similar [illegible] have been given almost without a single [illegible] and [illegible] favourable contrast with the results of [illegible] to general medical or ordinary hospital practice. Accidents are frequent [illegible]

[illegible] of the pretenders to the "Gold Cure," the same writer adds:

"[illegible] that the unprofessional advertising has [illegible] incidents to the lives and health of [illegible] to Dr. Keeley."

We are indebted to an article in the *Chicago News* for the latest intelligence about the Keeley cure in England. It is reprinted in the *Banner of Gold* for May, 1901. It is a "special London cable," and runs as follows:

"Plans for the Gold [illegible] British nobles to spread the Keeley remedy for inebriety. Canon James Fleming, Chaplain in Ordinary to King Edward, is forming a committee of peers and commons to spread knowledge of the Keeley Gold cure for drunkenness throughout the United Kingdom. Canon Fleming says that he will be able to report the names of his committee within the course of a few weeks. Its *personnel* will embrace not only members of the House of Lords and House of Commons, but also distinguished temperance advocates and humanitarians in private life."

Dr. Keeley died on February 22nd, 1900.

"THE HAGEY CURE."

The Hagey treatment hails from America, according to an article reprinted from the *Dundee Evening Telegraph*, January 3rd, 1900, and circulated by a "Hagey Institute," "the principle on which it is based was accidentally discovered by a Chicago physician, and was afterwards investigated by Dr. Hagey, a physician and chemist of the Rush Medical College, who in course of time developed what is known as the Hagey treatment. The first institution was established about ten years ago, and so patent was its success that the cure was taken up by a body of business men, and there are now seventy institutions in various parts of the United States, Hawaii, and Australia.

"the *rationale* of the cure is to treat drink craving as a disease like asthma or rheumatism, leaving out of sight its moral aspects. The effect of the cure is not only to engender a physical dislike and loathing of alcohol in any form, but to brace the will and restore the flagging nervous energies. It is a nerve tonic of a powerful nature."

The Hagey treatment does not claim to be philanthropic; it is a business affair. The terms are high, the fees being from 25 to 30 guineas for three weeks treatment. The agreement is "no cure, no pay." The Glasgow branch was opened in August, 1898. Since then 200 patients have been treated; 90 per cent. of cures are claimed.

"The patient is examined by a local medical man ere the cure is begun and again at the end of the period, as well as every week if desired. The treatment consists of hypodermic injections of a certain preparation several times a day, and of a tonic, a dose of which is swallowed every two hours."

Intoxicating liquors are allowed in the early stages of the treatment.

The patient so treated never wants to taste liquor again.

It [the drug] must only be administered by "skilled operators," who by watching the effect of the various doses on the patient can adjust it to special needs.

There are a matron, lady administrator, and visiting physicians.

Further particulars are given of the treatment in an article reprinted from the *Christian Leader* (May 10th, 1900) and circulated by the institute.

"Many public men in the medical and other professions have gradually been compelled to admit that this craving is a disease requiring to be stamped out of the human frame as much as the most insidious blood poisoning."

"Some noted American chemists and physicians have through a series of experiments for years found a remedy to kill the germs of this disease or alcoholic craving. It partakes of the nature of a scientific medicinal treatment which is injected into the blood by trained administrators, and a tonic taken inwardly. Thus it eradicates and cleanses the system of all alcoholic poison, and supplements the lack of that self-controlling will and energy so essential for the destruction of all craving for stimulants to weakened individuals."

For the "physical phases" of the disease, physical remedies, mental tonics, and good surroundings are recommended. The fact that the reason and the will are diseased is said to show

"the utter absurdity of trying to cure anyone effectually with nostrums without the patients' knowledge and will. Unless the will co-operates and is toned up, mere pick-me-ups and emetics are useless."

The drug used is of course a secret one, but "about the methods there is no secret. Apart from the tonics administered there is the injection which acts primarily upon the nerve centres, the very seat of the diseased will."

The injections are given four times a day.

Tobacco in any form is to be avoided for 15 minutes before and after injections.

Cigarette smoking is discouraged because the wrappers are usually drugged and made injurious. Baths should be taken often during treatment. Steam and Turkish baths are especially good if taken with care.

A change of underclothing three times a week during treatment is helpful.

The permanency of the cure depends upon the patient. He may contract his habit over again, and there is nothing in the treatment to prevent his doing so, but "the treatment strikes directly at the seat of the evil, and drives it from its stronghold."

The Institute has branches in Glasgow, Cardiff, Dublin, and London. The Secretary of one of these wrote to a correspondent as follows:

"of course we do not maintain that we can cure everyone, but out of the 700 or 800 patients who have passed through our treatment and given us a fair trial, we [the management] claim about 90 per cent. of cures."

(To be continued.)

THE Laval University, Montreal, will celebrate the fiftieth anniversary of its foundation on June 24th, 1902.

THE EPIDEMIC OF SMALL-POX.

Notification of Chicken-pox in London.

The London County Council at its meeting on January 28th made an order for the notification of chicken-pox, which was formally declared to be a matter of emergency, "owing to the prevalence of small-pox in London, and the fact that the failure in many cases to distinguish between chicken-pox and small-pox has led, and is leading, to the spread of the latter disease." The order was advertised on January 30th, comes into force one week later, and will remain in force for three months.

The Control of "Contacts."

The January number of the *West London Medical Journal* contains an interesting and thoughtful article by Dr. Reginald Dudfield, M.O.H. Paddington, entitled The Present Outbreak of Small-pox and the Outlook for 1902. He points out that within the past 30 years the public health service has developed to an undreamt-of extent, that the powers of local authorities have been much increased, and that during the earlier part of the period the vaccination laws were energetically administered. As a result, he argues, small-pox epidemics have diminished, but comparative immunity has had two evil effects—vaccination has been neglected, and medical men have become unfamiliar with small-pox. Modern travelling facilities, compulsory school attendance, the growth of large hotels and of steam laundries employing many hands, also help to give opportunity for recrudescence of the disease, and Dr. Dudfield thinks the outlook for 1902 not too bright. Regarding "contacts" he makes the following suggestion:

> At the present moment further powers to deal with these persons are being asked for. If all "contacts" are vaccinated as soon as the first case has been diagnosed, there should be little fear of further cases unless the first has been dealt with after much delay, or has been unrecognized until the occurrence of secondary cases..... The best results would probably be attained were it made possible to offer each "contact" the alternatives (with power to compel the adoption of one or other of them) of immediate vaccination with medical supervision, but no restriction on his movements after sufficient disinfection, or strict quarantine for a full fortnight, such quarantine to commence from the date of removal of the last case from all association with the "contact."

Lambeth.

In a report of the Council of the Borough of Lambeth, Dr. Priestley, M.O.H., has given an interesting account of an occurrence which, but for the measures promptly taken, might have led to a serious outbreak. On January 2nd he received notice that a man, C., residing in Lambeth had been in contact with infection in Maida Vale. It was found on inquiry that C. had died on December 3rd, 1901, and that his death had been attributed to septicaemia. There seemed, however, reason to conclude that the symptoms had been such as were not incompatible with malignant small-pox. This supposition was confirmed by subsequent events.

Altogether 30 persons were traced who had been in more or less intimate contact with the case; but the degree of exposure must have varied very greatly, as the list included not only members of the same family and inmates of the same house, but also persons who had attended the funeral, the gravediggers and the clergyman. In all, 11 cases of small-pox occurred among these 30 persons; and the facts as to the inmates of the house in which the original patient died are specially interesting. There were 10 persons in this house, and half of them caught small-pox. All the persons—3 in number—who occupied the same rooms as the patient caught the disease. Of the 3 children under 12 years of age in the house during the seven days that the patient was suffering from malignant small-pox, 2—aged 2 years and 8 years respectively—had been well vaccinated in infancy and escaped; 1, unvaccinated, caught the disease. Of the 7 persons over 12 years of age who resided in the house, 4 contracted the disease. Two of these had been revaccinated (thirteen and twenty-five years earlier respectively), and had very mild attacks. Of the 3 adults in the house who escaped infection one, aged 34, had been vaccinated in infancy; another, aged 48, had been revaccinated seven years ago; and the third, aged 51, had had small-pox seven years ago. Two of the persons who laid out the body, and two out of the four undertakers who placed the dead body in the coffin, caught small-pox, and one of these conveyed the disease to his wife, and to an unvaccinated child living near who was a frequent visitor to the house, and the playmate of two children in the house who were vaccinated and escaped the disease. Dr. Priestley states that the undertaker must have conveyed the infection to his wife and the child on his clothes, his hands, and on a pair of gloves which he wore when handling the dead body.

Dr. Priestley considers that "the facts speak for themselves in favour of vaccination and revaccination as a preventive against, or, at least, as a modifier of, small-pox."

Antivaccinist Tactics on Public Boards.

The methods employed by antivaccinists in their position as members of public bodies are pretty notorious. Not satisfied with refusing vaccination for themselves and their followers, they do all in their power to prevent others holding different views from availing themselves of this great prophylactic against small-pox. A striking instance of obstruction pure and simple comes to us from Enfield. According to the report of the *Enfield General Advertiser*, the public vaccinator in a courteous letter addressed to the Enfield guardians requested permission to vaccinate at the public schools the children of those parents who desired this operation. Up to the present such children had been compelled to come to his surgery in the evening, which often involved a tedious walk in inclement weather, and was particularly bad for their health at this time of year. Nothing could be more reasonable than such a request, and most public bodies having regard for the public interest would have at once acceded to it. Unfortunately the Enfield guardians include among their number some very uncompromising antivaccinists. One of them stated that as he had himself already been in Holloway Gaol for breaking the vaccination laws, he should certainly object to vaccination being introduced into the schools. Another said he was opposed to the public vaccinator going round and intimidating the teachers. He had heard of one of these officials vaccinating his own children, his wife, and anything he could vaccinate in order to get the fee. It is to be regretted that arguments of this kind were allowed to prevail, and that the reasonable request of the public vaccinator was finally refused by the Board. We do not know whether public vaccinators ever do charge the public for vaccinating their wives and children. Such a procedure, even if legal, is not likely to be regarded with favour by the public. As the Apostle Paul wrote, "All things are lawful unto me, but all things are not expedient; all things are lawful for me, but I will not be brought under the power of any" (1 Corinthians, vi, 12).

Liverpool.

Our Liverpool Correspondent writes: It is satisfactory to be able to state that up to the time of writing the epidemic of small-pox which has taken hold of London and some other centres of population in England has shown no signs of establishing itself in Liverpool. Although about 18 cases are at present being treated in the Liverpool city hospitals, the majority have arrived by sea from America, and nearly all the patients are cattlemen or have been associated with cattlemen. There is also one person who developed the disease shortly after his arrival from London, and another who developed it after his arrival from the Continent. In all the cases the source of the infection has been definitely traced. Every endeavour is being made by the health authorities to encourage vaccination and revaccination, and at least among the educated classes the practice is very general. All the small-pox cases in hospital are reported to be doing well.

Mirfield and District Medico-Chirurgical Society.—The seventh annual dinner of the Mirfield and District Medico-Chirurgical Society was held at the Masonic Hall, Mirfield, on January 21st, Dr. John Stewart (Babley), President, in the chair. Amongst those present were Professor W. Japp Sinclair (Manchester), Drs. Moynihan, Croft (Leeds), Bronner (Bradford), Clay, Oates-Halliwell, Halliwell, C. Mitchell (Dewsbury), Fairclough, Anderson, Sproulle, Brander, Milne (Hon. Sec.) (Mirfield), P. MacGregor, Crossland, Green, Bruzard (Huddersfield), Shaw, Crowther, Hodgson (Halifax), Stewart, Stuart (Babley), Patterson (Heckmondwike), Shaw, Pike (Liversedge), Griffith (Clockheaton), Mill (Ossett), etc. The dinner was preceded by an address by Dr. Japp Sinclair on Early Abortion in General Medical Practice.

THE DESTRUCTION OF RATS ON SHIP-BOARD.

SULPHUROUS DIOXIDE GAS.

IN the BRITISH MEDICAL JOURNAL of January 4th, 1902, p. 30, was published an interesting article by the British Delegate to the Ottoman Board of Health on this subject, with special reference to the proposed regulations of the new code of the Ottoman Board of Health. The code proposes that a ship arriving at Constantinople from a contaminated port, or which may have called at a contaminated port within four months, shall not be allowed to come to the quays unless it can produce a certificate that the rats on board have been destroyed at the port of departure, or *en route*, or until such destruction has been carried out at a lazarette about fifteen or twenty miles from the port of Constantinople. The Delegate pointed out that under the conditions at present in existence at Constantinople the destruction of the rats would involve the unloading of the ship, a very costly process, and observed that any method which would avoid this would mean a great saving not only of money but of time. He referred to the sulphurous dioxide gas process of the Clayton Fire Extinguishing and Ventilating Co., and expressed the opinion that the method was at present a very costly one, and some doubt also as to whether it could be applied to a mixed cargo without injury. Upon this subject we have received a long and interesting letter from Mr. F. A. Clayton, the inventor of the method which bears his name, whose attention appears first to have been called to the matter when acting as chairman of the Quarantine Committee of the Board of Health of the State of Lousiana.

We had the opportunity of witnessing the application of the process to a vessel lying in one of the London Docks last May, and it appeared not only that all rats and other vermin in the ship were killed, but also that the decorations of the saloon and cabins were uninjured. Further, so far as a cursory examination allowed a judgement to be formed, it seemed that sugar, flour, tea, and coffee were not damaged. Briefly stated, the process consists in driving sulphurous dioxide gas, produced by the combustion of sulphur in a special apparatus, into the lower part of the hold of the ship, which has been made as nearly airtight as possible, and extracting the air from the upper part until the whole of the air space of the vessel is permeated by the gas.

Mr. Clayton writes to us from Paris under date of January 14th as follows:

"The principal objection to destroying rats on ships having cargoes on board by the use of sulphur dioxide, which is generally accepted as the most efficient and cheapest agent, is the fear of damaging valuable merchandise in the process. The bleaching action of the gas on materials containing a certain amount of moisture is, of course, an established fact known to all, but it does not seem to be so well known that coloured cloths and other stuffs containing only the amount of moisture they absorb from the atmosphere, which is their condition when 'shipped in good order' on board a vessel, are absolutely unaffected by sulphur dioxide of a strength up to 20 per cent., even when exposed to its action for an extended period. Nor are articles of food, when dry, damaged in any degree by this gas, and it is a matter of fact, not theory, that 'such apparently susceptible articles as tea, flour, sugar, coffee, and rice' can be and have been kept on board ships, while these were being disinfected with sulphur dioxide, even when the pantries and storerooms where these provisions were lying in broken packages were kept filled with the gas for about twelve hours.

"During summer at the quarantine station on the Mississipi River below New Orleans all vessels except fruiters arriving from infected ports or ports where yellow fever *may* exist, even though the bill of health is clean, are detained and disinfected. The holds are filled with sulphur dioxide, which is retained in them for twenty four hours or over, without any discrimination between loaded and empty vessels, and no cargo is ever discharged previous to the fumigation.

"The records of the Board of Health of the State of Louisiana show that '196 vessels were detained in quarantine and disinfected in 1898, and 256 were similarly detained in 1899.' In another report of the same Board of Health, the following statement is made by the President.

The danger of damage being done in the process of disinfection is now practically *nil*, and does not need to be considered in connection with the system under which we operate.

The cargoes that are looked on as probable germ carriers, and that can be thoroughly disinfected on board ship without damage, consist of coffee, sugar, tobacco, woods, rubber, hides, bone, etc., and in some cases the vessels have baled, boxed, and other goods loaded in Europe and carried around by way of the West Indies and Central America, that naturally come in contact more or less with the articles taken on board at the dangerous points visited on the way.

. . . . . .

And I state as a fact that we can and do disinfect vessels and cargoes of this description at the Mississipi River Quarantine Station without discharging any of the goods, and without damage to ship or cargo.

"On March 12th last, Dr. J. N. Thomas, the resident physician at the above quarantine station, wrote to Dr. Collingridge, former Sanitary Officer for the Port of London, a letter in which the following appears:

.....It gives me pleasure to state that although we fumigate vessels with and without cargo, no claim for damage to cargo or effects of vessels has ever been made.

We fumigate vessels whose holds are filled with general cargo, forcing into the holds, where the cargo is stowed, sulphur dioxide gas of strength from 10 per cent. to 17 per cent., without the slightest damage. This gas is generally kept in the holds under battened down hatches for twenty-four hours, under our regulations, meanwhile the crew and passengers remain aboard their vessel without the slightest discomfort.

We have found this method of fumigation especially effective and valuable in fumigating coffee cargoes *in situ*, and I may add here that I have seen a 17 per cent. gas falling from the end of a galvanized iron pipe that was within 2 feet of the top layer of coffee sacks that were stowed directly under the hatch, without any damage whatever to coffee or covering.

For the killing of rats it has no equal among disinfecting agents, and to rid a ship from plague ports of those well-known carriers of that fearful disease, it is without a parallel.

"In London a number of steamers have been disinfected in the same way as at New Orleans (after being discharged, it is true), but their saloons, cabins, etc., have been filled with the gas without damage to upholstery, fittings, or stores. In the music saloon of one steamer so treated there were valuable oil paintings exposed to the gas without any resultant injury; officers left their clothes, etc., in their cabins and found them unharmed. Of course they were warned to remove anything which might be wet or damp before disinfection commenced.

"There are several lines of steamers running from Liverpool to New Orleans, carrying general cargo for that port, touching at West Indies and Central American ports on the way out. These vessels are always fumigated in the Mississipi River in the summer months, and the owners stated, in reply to an inquiry from the health officer of one of the principal English ports, that they had never had a claim for any damage resulting from disinfection.

"Samples of tea were taken from a parcel; some of these samples were left ten hours in the gas, others were withheld. All the samples were then submitted to experts, who could not distinguish one from the other. Sugar, flour, coffee, etc., were treated in the same way with the same results.

"Fresh fruits, vegetables, meats, and of course most liquids, are injured by the gas after a very short exposure, and it would be useless to attempt to fumigate a compartment containing such articles.

"As to the possibility of introducing the gas into all the interstices of a loaded vessel so as to destroy all the rats on board, it is merely necessary to cite the facts that the gas will penetrate to the centre of a bale of compressed cotton, as proved by the litmus paper test, that it has been shown to diffuse itself through a cargo of coffee in sacks, and that it destroys weevil in sacked grain, and reaches cockroaches, ants, bed bugs, etc., in their crevices, and that it will escape the mortar joints of a brick building under half an inch water pressure. Rats and all vermin seek to escape from the pungent gas as soon as they smell it, and its effects are slow enough to allow them to leave their hiding places before they succumb. This is not the case with carbonic acid gas of course, and serious trouble has frequently been caused by rats dying from its effects behind ceilings and panels, with quite offensive consequences.

"As 1 lb. of sulphur properly burned will give enough gas to saturate to the vermin killing point about 400 cubic feet of air, the statement is clearly erroneous that the method mentioned by the British delegate is scarcely less costly than emptying and reloading a ship. The cost of this operation runs into the hundreds of pounds, while the cost of disinfection by a proper apparatus to-day will not run far into the tens."

The Secretary of the Company in England (22, Craven

Street, London, W.C.) informs us that the company considers that a thorough saturation of about 3 per cent. is sufficient for the destruction of vermin, but that as a rule this is exceeded. The bacterial disinfection of a cargo is of course a different matter; and we are informed that Dr. Archinard, bacteriologist to the Lousiana State Board of Health, has found that, in a dry atmosphere, an exposure for six hours to a strength of 10 per cent. is required to destroy the infection of typhoid fever, diphtheria, and yellow fever. With regard to the cost, the Secretary states that at ports where the apparatus is fixed, the charge would probably be about £1 per 100 tons gross register; where the apparatus was the property of the ship company or Quarantine Board the cost, after the capital outlay, would be considerably less. We are further informed that the Pasteur Institute of Paris has carried out a series of experiments with the method, and that a report will shortly be issued.

We have also received from Messrs. Boake, Roberts, and Co. some particulars with regard to the use of sulphur dioxide gas, which they supply in cylinders containing 12, 20, and 70 ounces. The method is in principle to seal all access of outside air, and then to allow the sulphur dioxide gas to be discharged from the cylinders into the hold. We are informed that it has been successfully applied by the River Tyne Port Sanitary Authority as a means of clearing ships of rats, but we have not yet had an opportunity of witnessing its application.

Carbonic Acid Gas.

Dr. Frederick de Lisle writes to us from the Royal Colonial Institute in praise of the method of destroying rats by carbonic acid gas, briefly mentioned in the Journal of January 25th, 1902, p. 224. From experience of its use when acting as quarantine officer at the port of Napier, New Zealand, he claims the following advantages:

"Its efficacy, its cheapness, and the fact that it is not injurious to any kind of cargo, food stuff, or the nautical instruments. My method of producing the gas was by means of 'bogies' of the pattern shown: This was fed with charcoal, ignited, and flamed in the cabins and holds of the vessel, and the whole sealed down for from eight to twelve hours. The dotted line represents a false bottom on which the fuel rested, and was sufficiently high above the deck of the cabins or holds to prevent scorching.



"Exception may be taken to carbonic acid gas as a fumigator. Of course, it would have no direct effect on bacilli, cocci, *et hoc genus omne*, but in some diseases, more especially the bubonic plague, which requires a living host, it disposes of the rats and the fleas, and he 'takes my life who takes the means whereby I live.'"

THE COMPARABILITY OF OUR NATIONAL LIFE TABLES.

In a recent contribution in the *Journal of the Royal Statistical Society* (vol. lxiv, Part 4), Dr. T. E. Hayward draws attention to the unfortunate lack of complete comparability between the three most important life tables published in this country. These three life tables deal with the expectation of life in England and Wales as a whole, and were published under the names of Dr. Farr (experience of 1838-54), Dr. Ogle (experience of 1871-80), and Dr. Tatham (experience of 1881-90). The chief value of a series of such life tables "consists in comparing one with the other, so as to obtain in the most exact manner possible indications of progress or the reverse in the conditions favouring life and health." Hence it is "at least desirable that such comparison should not be in any degree invalidated by the fact of different methods having been used in their construction." In actual fact, however, while almost the same methods of construction appear to have been followed by Drs. Farr and Ogle, a different and improved method was used for the life table of 1881-90. This state of matters is unfortunate, in view of the importance of having comparable data, and of being able to place implicit confidence on those laboriously-compiled tables, by means of which at the end of each decennium hygienists and vital statisticians are accustomed to gauge the degree of improvement in the prospects of life at birth and at successive ages.

We do not quarrel with the improved methods employed in the construction of the national life table for 1881-90. The considerations, to be briefly mentioned, show that such improvements were imperatively required. We venture, however, to suggest that it would have been well had a clear and full description been given of the methods employed, and the lack of uniformity in methods, and therefore possibly in results, had been set forth. It is greatly to be hoped that when the next decennial supplement is issued by Dr. Tatham, he will be able to increase the high and increasing value of that important report by fulfilling this expectation. May we also suggest that in the interests of comparability the two older life tables should be recalculated by the improved method, and that we may thus be possessed of the full value obtainable from the priceless records of our General Register Office?

The necessity for recalculating the two earlier life tables is shown *inter alia* by the simple fact that the infantile mortality per 1,000 registered births was only 142 in 1881-90 as compared with 149 in 1871-80, whereas, on turning to the official life tables for the two periods, we inconsistently find that the number of survivors at the end of the first year of life out of a million born is greater in the earlier than in the later period! At the other extreme of life there is a similar inconsistency. The death-rates at ages 75 85 were higher in 1871-80 than in 1881-90, and yet the official life tables give the expectation of life after the age 75 as lower in the later than in the earlier periods.

In an appendix to his paper, Dr. Hayward has taken the trouble to recalculate the data for certain ages for each of the above life tables, and we are thus enabled to gauge the importance of the correction which is required. The calculation has been made by his shorter method of life-table construction; but as this method has recently been shown by him to give results almost completely identical with those obtained by the longer method used in the official life table for 1881-90, we may quote the following table, the first column of which is derived from Dr. Hayward's paper, and the second is calculated from the official tables:

Differences of the Expectation of Life in 1881-90 from that of 1871-80.

Age.	(*a*) According to Improved Method.	(*b*) According to Official Tables.
0	+ 2.62	+ 2.31
5	+ 1.60	+ 1.88
10	+ 1.34	+ 1.40
15	+ 1.21	+ 1.06
25	+ 0.89	+ 0.60
35	+ 0.47	+ 0.27
45	+ 0.21	− 0.01
55	+ 0.06	− 0.21
65	+ 0.06	− 0.24
75	+ 0.17	− 0.24
85	+ 0.31	− 0.27
95	+ 0.33	− 0.29

Thus according to the official tables there had been between 1871-80 and 1881-90 a deterioration in the prospects of life after the age of 45 years. The use of more accurate and strictly comparable methods of life-table construction shows that there has in fact been an improved expectation during the whole period of life, and that much of what has been written on this subject will need not only revision but actual reversal.

THE LATE R. B. ANDERSON FUND.

Dr. Alfred Cox (Cotfield House, Gateshead) writes: I shall be obliged if you will insert the following list of those who have been kind enough to respond to my appeal on behalf of the family of the late R. B. Anderson. As will have been seen from the announcement by the Honorary Secretary of the fund, subscriptions will be received up to the end of February, so that there is still time for those who have been thinking of subscribing to do so. The total sum received is still well

under £200, a sum quite inadequate for the needs of the family. While not wishing to make invidious comparisons, I cannot resist pointing to the very different result of the Smyth appeal. In that most deserving case money has simply poured in, while here in a case which ought to appeal specially and unmistakably to the feelings of the profession, and which could not be expected to get much help from the general public, repeated solicitations have only resulted in the beggarly sum before mentioned. I should like to bring to the notice of the members of medical unions and ethical societies the examples set by the Gateshead Medical Association. At its annual dinner, as the result of an appeal made by me, the sum of £22 was raised without difficulty. Could not this be done by other societies supposed to be interested specially in medical politics?

	£	s.	d.
Dr. R. S. Peart, North Shields	2	2	0
Dr S. Woodcock, Manchester	1	1	0
Dr. Parkinson, Wimborne	1	0	0
Dr. J. T. Thomarson, Bowes Park, London, N.	0	7	6
Dr. Allan, Lasswade	0	3	0
Per *The General Practitioner*:			
Dr. E. W. Adams, Sheffield	0	5	0
L.R.C.P. Sheffield (2nd donation)	0	2	6
S. E. L. Smith, Aston Manor, Birmingham	0	2	6
Collected at the Dinner of the Gateshead Medical Association:			
Rutherford Morison, F.R.C.S., Newcastle-on-Tyne	10	0	0
Dr. D. Drummond	2	0	0
Dr. J. H. Hunter, South Shields	1	1	0
Dr Diver, Shotley Bridge	1	1	0
Dr. Jaques, Gateshead	1	1	0
Dr. Durant, Gateshead	1	1	0
Dr. McKay, Pelaw	0	11	0
Professor T. Oliver, Newcastle-on-Tyne	0	10	0
Dr. Gilbert, Gateshead	0	10	0
Dr. Todd, Gateshead	0	10	0
Dr. Abraham, Gateshead	0	10	6
Dr. Davis, Low Fell	0	10	0
Dr. Anderson, Gateshead	0	10	0
Dr. Kapp, Gateshead	0	10	0
Dr. A. Cox, Gateshead (2nd donation)	0	9	0
Dr. Smith, Gateshead (2nd donation)	0	5	6
Dr. Dougall, Dunston-on-Tyne	0	5	0
Dr. A. Green, Gateshead	0	5	0
Dr. Robinson, Gateshead	0	5	0
Dr. Galloway, Low Fell	0	5	0
Dr. John Robert Williams, Penmaenmawr	1	1	0
Dr. H. Smith, Durham	1	1	0
Dr. S. Basham, Newcastle-on Tyne	0	10	6
"A Doctor's Wife," Brighton	0	10	0
E. Gooddy, F.R.C.S., Llandudno	0	5	0

THE MORISON LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

The Pathogeny and Pathology of Sensory Affections. The second of the Morison lectures was given in the College on January 22nd by Dr. George A. Gibson, Professor T. R. Fraser, the President of the College, being in the chair.

Sketch of Physiological Facts.

The lecturer began by giving a short sketch of the development of physiological knowledge in regard to the nervous control of the circulation beginning with the discovery of Weber that the action of the heart could be modified through the inhibitory nerve, referring to the work of Schiff, Schelske, von Bezold, Coats, Cyon, Schmiedeberg, and ending with the recent researches on the nervous connections of the heart that had been made by Gaskell, Heidenhain, Löwit, MacWilliam, Mills, Langley, Ramon y Cajal, Dogiel, Berkley, and Morison.

Course of Nervous Connexions.

He next proceeded to show the course of the nervous connexions of the heart, pointing out that the cardiac ganglia were part of the outlying sympathetic mechanism; that in the vagus there were both afferent and efferent paths of conduction, and that by means of the sympathetic system afferent as well as efferent impulses could be conveyed.

Scheme of Component Neurons.

The impulses from the heart towards the central nervous organs, and towards the heart from those centres, were to lessen the action of the heart, while those proceeding by the sympathetic system produced augmentation, the former being associated with dilatation of blood vessels, and the latter with their contraction. The difficulties in the experimental investigation of sensory tracts had rendered the study of afferent paths less productive than had been the case with the motor side; but there was sufficient physiological basis to explain the undoubted clinical symptoms of painful impressions being produced by means of impulses travelling between the spinal cord and the heart by way of the sympathetic system.

Causes of Afferent Impulses.

The various structural changes mentioned in the first lecture, interferences with the nourishment of the heart, or strain of its muscular walls might all be causes. The effect of certain poisons already specified, stimulation by causes acting reflexly, and complex nervous causes such as were summed up in the term nerve exhaustion and hysteria, were all shown to be causes of pain.

Explanation of Sensory Effects.

The explanation of the different sensory effects was lastly given. It was shown that from the time of Harvey the heart had been known to be in itself insensitive; but in certain conditions it might become sensitive, all the conditions already mentioned falling under this category. If in any way an instability of the afferent nerve mechanism were induced, an impulse might travel to the centres in the spinal cord and there be misinterpreted by the perceptive centres of the brain, seeing that ordinary sensory nerves, connected with the surface of the body, played a preponderating part, and the brain being educated to regard sensory stimuli as coming from them, was apt to refer any impressions reaching a given region of the spinal cord to that part of the surface of the body related to the segment affected. The lecturer concluded with a description of the different regions of the body to which the pain of cardiac disease was usually referred.

LITERARY NOTES.

Joseph Safar, of Vienna, has recently published the *Anatomia Ricardi Anglici* (*circa* 1242-52). The work, which is printed for the first time, is edited from a manuscript in the Hofbibliothek of Vienna by Ritter von Töply, M.D., *Privat-docent* of the History of Medicine in the University of that city. Dr. von Töply, who has made a special study of mediaeval anatomy, the results of which are embodied in his *Studien zur Geschichte der Anatomie im Mittelalter*, published in 1898, thinks the work of Richard the Englishman well worth rescuing from oblivion. He has contributed an introduction to the *Anatomia* in which he gives a short account of what is known about the works of the said Richard.

The Hugo Prize of 1,000 francs (£40) for the best work on a subject connected with the history of medicine published in French within the last five years has been awarded by the Académie de Médecine to Miss Mélanie Lipinska, M.D., of Warsaw, for her History of Female Practitioners of Medicine from Antiquity to the Present Day. In addition to the sum of money above mentioned, the prize carries with it the title of Lauréat de l'Académie de Médecine.

The January number of our useful contemporary, *Climate*, edited by Dr. C. F. Harford-Battersby, contains, among other interesting matters, two papers of special importance. One of these dealing with mosquito destruction is contributed by the editor, who proposes a practical method of sanitary reform. The other is by Major Ronald Ross, who suggests the organization of "mosquito brigades" for India.

Vaccination does not strike the ordinary mind as an inspiring subject for dramatic treatment. It was lately stated in the *Globe*, however, that some enthusiasts had got up a play bearing the unattractive title of "Vaccination: a Debate," which was to be acted in the Luton Town Hall. Whether it was actually produced we are unable to say, but, if it was, we imagine that one performance must have been enough. That the "debate" was of a serious character appears to be indicated by the fact that many of the speeches are said to contain some 2,000 words. "Comic relief" is said to be provided by an alderman, who makes the following sensible but hardly brilliant remark:

> Well, sir, I point to Gloucester as an example of what our opponents do when danger appears. They undergo vaccination, and I certainly do not blame them for taking such a step.

M. Brieux, whose play *Les Avariés* intended, we suppose on the Aristotelian principle to "purge the passions" by showing the deplorable effects of the "great" pox, is said to have written a companion piece on its "small" namesake. This kind of thing was to be expected, since Ibsen set the fashion of treating

pathological problems on the stage. But it opens up a dismal prospect to playgoers.

Sir John Williams, M.D., is the chairman of a Committee which is making arrangements to bring out another part (covering the letter E) of Chancellor Silvan Evans's *Dictionary of the Welsh Language*, the earlier instalments of which were issued with the financial assistance of the late Lady Llanover. It is estimated that about one-half the complete work will have been published when the end of E is reached.

We have received the first number of a new Spanish medical journal entitled *Medicina y Cirugia*, published at Barcelona. It is described in the editorial prospectus as "impregnated with a modern atmosphere," and as being produced "with the collaboration of enlightened and distinguished professors and practitioners, native and foreign." We may say that the first number of our new Spanish contemporary creates a very favourable impression.

A work entitled *Clinical Hematology*, by Dr. John C. DaCosta, jun., will shortly be published by Blakiston's Son and Co., of Philadelphia. It is described as a practical guide to the examination of the blood with reference to diagnosis, and will contain eight full-page coloured plates, three charts, and forty-eight other illustrations.

The January number of *Crampton's Magazine* contains a liberal proportion of fiction of the usual kind, with Parisian gossip, notes on the drama, and other light matter for the casual reader. Mr. G. Sidney Paternoster begins a series of Gutter Tragedies, which shows some of the darker phases of London life in the light of an uncompromising realism. Louis Wain contributes a paper on The Cat: To-day and To-morrow, which will interest all lovers of that graceful embodiment of the Epicurean philosophy. Mr. Wain foresees a brilliant future for the cat if man will take the trouble to assist its higher development. Says he:

> When we have strengthened the brain, we may look forward to many great changes. In one strain of cat already the brain is strong enough to sustain a tailless variant from the normal animal—the Manx, or as earlier writers will have it, the Cornwall cat. In another more completely distributed strain the brain has been strong enough to render permanent a great wealth of fur in the long-haired, or Persian and Angora, varieties. In the future we may look forward to still more remarkable creatures, grandly and beautifully made, of great size and intelligence, improving by stages, which improvement will be rendered permanent through a moral education strong enough to indelibly impress and cultivate the brain in the way it should go in good qualities. The cat will then have had given to it a power which man has not conceived possible, that is, the power to interbreed its remarkable qualities into its own wild kind, and through them gradually into all savage animal life. Thus will begin the conquest and reclaiming of the whole brute creation from the natural savagery of nature to the more benign dominion of man, and the perfecting of animal ideals and structure.

In the harmless necessary cat, therefore, we are invited to see not only the saviour of brute society but the reclamation of revolted beasts to a state of Paradisaic obedience to their "benign" master man. Pussy would probably prefer the assurance of a snug piece of the hearthrug and a liberal supply of milk, with occasional titbits of fish, to the destiny sketched out for her by Mr. Wain.

The Red Cross Society of Spain has applied to the United States War Department for information and photographic illustrations of the work of the Medical Department of the army during the war with Spain, in the Philippines and in China. The Society has undertaken the publication of a series of large volumes, elaborately illustrating the resources and operation of the medical departments of the various armies of the world, and it proposes to devote one volume to the humanitarian work performed in the armies of the United States and Spain during the late war. The photographs desired include representations of all arms of the service—cavalry, infantry, artillery, and hospital corps—on the march or in formation; also photographs of field and base hospitals, hospital ships, ambulances and facilities for transportation of wounded, first-aid work by the hospital corps, etc. The *Medical Record* says it is understood that the United States War Department is in possession of a considerable number of views of the above character, and will give every assistance to the Spanish authorities in the proposed work.

Owing to the death of Dr. Gouguenheim, the *Annales des Maladies de l'Oreille et du Larynx* will henceforth be issued under the direction of Dr. Lermoyez, Physician to the Paris Hospitals, and head of the oto-rhino-laryngological department of the Hôpital Saint-Antoine, and Dr. Sebileau, *Professeur agrégé* of the Paris Faculty, surgeon to the hospitals and head of the department for diseases of the throat, nose, and ear, of the Lariboisière Hospital.

A short history of the Society of Apothecaries of London has been written by Mr. Percy C. Lodge; it gives full information on historical points connected with the Hall of London as well as that of Ireland. The account of the Apothecaries' Hall, Blackfriars, is so far the fullest in existence. The book contains an interesting biography of Gidern de Laune, and a syllabus of information relating to examinations and courses of study, with a list of the officers and examiners.

In the December number of the *University of Durham College of Medicine* there appeared a poem entitled "The Auld Doctor," written by Dr. James W. Smith, of Ryton-on-Tyne, who is well known for his literary gifts. Many of our readers will doubtless be glad to have their attention called to the poem, from which we may be allowed to quote a few verses:

> Oh! ken ye our Doctor, he's a kindly auld man,
> There's no sic anither an' ye seek through the lan',
> An' his time's spent in daein a' the guid that he can,
> He's a kindly auld body the doctor.
>
> In the mornin' he'll set out to gan a' his roonds,
> An' in curin' sick folks, or in dressin' their wounds;
> His day, puir auld body, seems to be without bounds,
> He's a hard workin' man is the doctor.
>
> In the cauld winter nichts, in the snaw, wind, or rain,
> Ither folks may get rest, but the doctor gets nane;
> His wark, puir auld body, seems ne'er to be dune,
> Oh my heart is oft wae for the doctor!
>
> But who in distress is mair well than he,
> Or what sicht like his auld face sae pleasant to see,
> An' how many are joyful and glad that would be
> Unco wae were it no for the doctor.
>
> * * * * * *
>
> There's at times ye may think him a little bit rough,
> An' his manner may whiles be a wee stern and gruff;
> But his heart n'ertheless is made o' the richt stuff,
> He's a feelin' auld man is the doctor.

Mr. William S. M. D'Urban, Newport House, near Exeter, writes:

A medical friend has drawn my attention to a paragraph under the heading of "The First Cottage Hospital" in the British Medical Journal for December 28th, 1901 (p. 1877), in which you quote from a paper by Mr. Charles Williams on medical advertisements in Norwich newspapers. As there are several errors in connexion with some of my ancestors mentioned by Mr. Williams in his interesting paper, I trust you will kindly permit me to correct them in your valuable columns. Miss Gooch, who married Dr. John D'Urban, was named Elizabeth (after her mother, Elizabeth Brunsby, the wife of Benjamin Gooch) not Sarah as stated. It was her youngest son, Lieutenant-General Sir Benjamin D'Urban, G.C.B., who was Governor of the Cape of Good Hope 1834-6, and after whom the City of D'Urban in Natal was named, having been founded by a few British settlers during his government. In 1842 it was occupied by the insurgent Dutch Boers, and in June of that year my father, the late Lieutenant-General William James D'Urban, the second son of Sir Benjamin, at that time Major of the 25th King's Own Borderers, stationed at Capetown, was dispatched to Port Natal with a wing of his regiment to drive out the Dutch and relieve a detachment of the 27th Regiment which was beseiged in its entrenched camp in the neighbourhood. This duty was successfully accomplished. It may be interesting to some of your readers to know that a great-grandson of Sir Benjamin—Dr. Cecil Musgrave—is now practising at Cromer, Norfolk.

THE PLAGUE.

Prevalence of the Disease.

India.

The deaths from plague throughout all India during the week ending December 28th, 1901, and January 4th, numbered [illegible] and [illegible] respectively. In Bombay city, although the rise in plague mortality is not serious, the tendency is still to increase; during the week ending January 4th the number of plague deaths increased to 213 from 198 during the week ending December 28th. Still, these figures show that the disease is somewhat less prevalent than during the corresponding weeks of the previous year, when the deaths from plague numbered 222.

The principal centres affected by plague give the following number of deaths during the weeks ending December 28th and January 4th, respectively: Bombay districts, 2,814 and 4,305; Punjab, [illegible] and [illegible]; Bengal, 316 and 443; North-west Provinces and Oudh, 488 and [illegible]; Kashmir, 22 and 198; Madras Presidency, 418 and 501; Mysore State, 454 and 581. It will be observed that, except in Kashmir, there is an increase in every district. In Calcutta during the week ending January 4th, 22 persons died of plague, and in Hyderabad, 49. In Calcutta during the four weeks ending January 18th, the number of cases of plague amounted to 149, and the deaths from the disease to 136. In Poona the deaths from plague on January 8th and 9th numbered 51 and 40 respectively.

Mauritius.

During the week ending January 23rd 14 cases of plague were reported in Mauritius, and 7 deaths from the disease.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

[illegible] BRANCH: NORTH LONDON DISTRICT.—A meeting [illegible] be held in the Board room of the Hampstead Hospital, [illegible] W., on Wednesday, February 12th, at 4.30 P.M. [illegible] Dr. Murray Leslie will read a paper on [illegible] of Chest Diseases, with allusion to [illegible] and surgical staff of the Hospital will [illegible] in the wards. The District Committee will meet at [illegible] ART MCCAW, M.D., Coolard Lodge, East Finchley.

EDINBURGH (LOTHIANS AND FIFE) BRANCH.—The winter meeting of this [illegible] with other branches, will be held in the Royal [illegible] ary 21st. The Museum will be [illegible] eting in the large theatre at [illegible] tel at 6.30 P.M.; morning dress; [illegible] Members of the Branch desirous of exhibiting patients, [illegible] bers of other Branches who pro[illegible] the meeting are requested to communicate with JAMES HOBSON, F.R.C.S.Edin., 6, Chester Street, Edinburgh, or NORMAN WALKER, M.D., 7, Manor Place, Edinburgh, not later than February 8th.

NORTH OF IRELAND BRANCH.

THE winter meeting of this Branch was held at Belfast on January 23rd, Dr. J. SINGLETON DARLING, President, in the chair. Thirty-seven members were present.

Confirmation of Minutes.—The minutes of the autumn meeting were read and confirmed.

New Members.—The Council reported that Robert Boyd, M.B., R.U.I., Mount Pottinger; John Finlay Mitchell, L.R.C.P. and S.Edin., Bangor, and R. L. Bell, L.R.C.P. and S.Edin., Whitehouse, had been elected new members.

Operative Treatment of Hernia in Children.—Mr. ROBERT CAMPBELL read notes on the operative treatment of hernia in children; he strongly urged the advisability of operation [illegible] where the parents were in a position to have skilled attendant constantly with the child; [illegible] ped suppuration in his 42 cases; he preferred catgut in formalin; silk was not satisfactory, and he had noticed a brawny fullness around wounds where perchloride [illegible] been used. Mr. MITCHELL agreed with Mr. Campbell: he preferred not operating under one year; he sometimes used a Hamilton splint to keep the child quiet. Drs. GREENFIELD and TENNANT also spoke.

Spina Bifida.—Mr CAMPBELL showed a specimen from an infant seven days old, illustrating the anatomy of spina bifida, talipes equino-varus, and genu recurvatum. Dr. ST. GEORGE (Lisburn) showed two cases of spina bifida, both successfully treated—one in the lumbar region when seven days old, by the injection of Morton's fluid; and the other when two months old in the cervical region by excision. He said there was considerable shock with the injection; there was no paralysis, and as yet no trace of hydrocephalus. The PRESIDENT, Mr. MITCHELL, and Mr. R. CAMPBELL spoke, and all agreed that excision gave the best results.

Diseased Lungs.—Dr. MCLIESH showed two recent specimens of lungs; in one pair there was a collapsed lung, with the other densely infiltrated with tubercle; the clinical history was that of a sudden attack of dyspnoea six months before, with markedly displaced heart; the man improved and returned to work. After a second attack of dyspnoea shortly before death the heart was still found well over in the affected side, where it had returned as the man improved, and at the necropsy the collapsed lung was found bound down with extensive adhesions. The other pair of lungs showed a loculated empyema. Professor LORRAIN SMITH, Drs. CALWELL, DEMPSEY and the PRESIDENT spoke.

Plague.—Dr. NORMAN BARNETT (Knock) read notes of two cases of bubonic plague occurring on board ship. He described the methods adopted for isolation, and showed photographs and microscopic slides. One of the cases had an incubation stage of eighteen days; this supported the time adopted by the French Government, which was eighteen days, as against the ten days only required by the English authorities; there were no dead rats. Professor LORRAIN SMITH spoke.

Laparotomy Performed twice on the Same Patient.—Professor BYERS and Professor SINCLAIR read notes of a case of laparotomy twice successfully performed on the same patient for the same affection. Four years ago a gentleman suffered from an attack of colic, with the pain always referred to the sacrum; constipation soon became absolute; although aperients were taken, there was no vomiting and only slowly-increasing distension. Eight days after the onset of the symptoms Professor Sinclair opened the abdomen and found a volvulus of the sigmoid, which was of enormous size and turned once and a-quarter on itself. The intestine was promptly completely emptied, and the patient had an uninterrupted recovery. Quite recently exactly similar symptoms came on and exactly the same condition was found. Professor Sinclair operated four days after the onset, and this time considerably shortened the meso-colon to avoid a similar accident happening a third time, and the patient again made a rapid and interrupted recovery.

Pernicious Anaemia.—Dr. VESEY (Rostrevor) read notes of a case of pernicious anaemia treated successfully by the administration of the antistreptococcus serum by the mouth. The patient had resisted other forms of treatment, and began immediately to improve on the initiation of the new treatment. The paper was spoken to by Professor LORRAIN SMITH, Drs. GREENFIELD, FRASER, and HOUSTON.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of this Branch was held at the Royal Society's Rooms, Sydney, on November 29th, 1901; Dr. FOREMAN, President, in the chair. Forty-nine members were present, and three visitors.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communications. Dr. MILLS read a paper (for Dr. HINDER) on cases illustrating the surgical treatment of the gall bladder and bile ducts. The discussion on this paper was postponed on account of the absence of Dr. Hinder. Dr. FLYNN read a paper on a case of acromegaly. A discussion ensued, in which Drs. BENNET, MILLS, SINCLAIR, GILLIES, and FOREMAN took part; Dr. FLYNN replied.—Dr. W. J. S. MCKAY read some notes on a successful case of partial hepatectomy. Dr. CLELAND exhibited a specimen.

VENEREAL DISEASES IN NEW YORK. A committee of seven medical men appointed by the Medical Society of the County of New York, to investigate the prevalence of venereal diseases in that city, has reported that an exhaustive inquiry had convinced them that the number of individual cases of venereal disease occurring in New York city in one year could not fall short of a total of 225,000.

SPECIAL CORRESPONDENCE.

LEEDS.

The Yorkshire College and the Victoria University.

THE Victoria University is living its last days. Of its constituent colleges, Liverpool, fired by the success of Birmingham, has declared in favour of a Liverpool University; Manchester, a candidate for university honours twenty years ago, considers its claim to form a separate university now indisputable; and Yorkshire, in sheer self-defence, has made up its mind that it shall form the nucleus of a Yorkshire University. Of the wisdom of this disbanding of the Victoria University there is, we think, room for doubt. Liverpool, bounded on the one side by the sea and on the other by Manchester, will probably draw its undergraduates and most of its capital from a small, though densely populated, area. Manchester will threaten to become the university of the greater part of Lancashire. But the brightest prospect seems to lie before a Yorkshire University.

The attitude of the authorities of the Yorkshire College to the proposed dissolution of the Victoria University has, we think, been consistent. They have taken up the position of cautious assertion of their rights as partners in the existing University, unwilling to take any part in the separation, and on the other hand of enthusiastic declaration that if left alone they could and would do their best to establish a Yorkshire University on the soundest footing. They were not surprised at the attitude of the Liverpool College. The success which Birmingham achieved was too brilliant not to excite a spirit of emulation, and that spirit once aroused it was felt that the Victoria University was doomed. Since the affiliation of the Yorkshire College with the University it has been a loyal and ardent supporter of the best interests of the University. Indeed, the strenuous advocacy of the claims of the Victoria University as the legitimate qualifying body for medical students has been persistent. The dissolution of the University has been felt by the Yorkshire College undergraduates, therefore, as not a little ungracious.

At a meeting of the Governors of the Yorkshire College held on January 23rd, the university project for Yorkshire was fully discussed. The state of affairs is, briefly, this: In the federation of the Victoria University are three partners. The two chief partners—Manchester and Liverpool—have expressed a decided opinion that their best interests lie in a dissolution and the establishment of separate universities for each city. If the project even now were to fall through, the confidence of the public in the stability of the University has received so rude a shock that a feeling of unrest would be abroad. Therefore, while regretting the disruption, the governors believe that their duty lies in the support of a scheme for the formation of a Yorkshire University, having its centre in Leeds, and established in connexion with the Yorkshire College. Principal Bodington, in a lucid and temperate discussion of the situation, expressed his belief that Yorkshire was suited to the establishment of a university on a federal basis, and that one so established would not be exposed to the danger of instability. Such a university would have power to admit constituent colleges, and provision would doubtless be made for the affiliation of technical colleges. These colleges would thereby improve their status, and a scheme would be created that would excite the interest and enlist the sympathy of all the great Yorkshire towns.

The following resolution was passed unanimously:

The governors of the Yorkshire College retain the opinion expressed in their resolution of June 19th, 1901, that the dissolution of the Victoria University in favour of separate universities will be detrimental to the interests of education in the North of England, but having regard to the following resolution passed by the Court of Governors of University College, Liverpool—namely, "That while gratefully acknowledging the advantages that have accrued to University College, Liverpool, by the association with Victoria University, this Court is of opinion that a university should be established in the city of Liverpool, and will welcome a scheme for this object upon an adequate basis"; and to the following resolution passed by the Court of Governors of the Owens College, Manchester, namely, "That the time has arrived when steps should be taken to secure that there should be, as originally proposed by the Owens College, an independent University in Manchester"; and to the following resolution passed by the Court of the Victoria University, namely, "That there should be a separate university in Liverpool and a university in Manchester, without liability to admit or to remain in association with any other college, and also a university established having its seat in Leeds," they are of opinion that preparations for the establishment of a university for Yorkshire, based upon the existing Yorkshire College, with provisions for the admission of other constituent colleges, and for the affiliation of other suitable institutions, have become a necessity, and request the President of the College to take such steps as he may think desirable for the furtherance of this object. And that a copy of this resolution be sent to the Privy Council.

SOUTH WALES.

Small-Pox.—Rabies in Fox Hounds.

THE small outbreak of small-pox at Ystalyfera, recorded in the BRITISH MEDICAL JOURNAL of January 18th, has been kept well in hand, and, as no fresh cases beyond the original 9 had developed, it was hoped that the measures taken had effectively prevented any fresh developments. A tenth case was, however, notified on January 21st at Ystalyfera, and on January 22nd another case developed near Morriston in a woman who had returned home ill from Ystalyfera, where she had been in service. The remaining eight members of this family were promptly revaccinated, and so far no fresh cases at Morriston have been observed. Up to the present there have been no deaths and the original cases are convalescent. Most of the cases have been mild, but one was somewhat severe and of a confluent type. This small outbreak has been of great service in stimulating the various local bodies to take more interest in the prevention of small-pox and in the provision of suitable precautions in view of a possible epidemic. Most of these bodies at ordinary or at special meetings have considered the steps to be taken. The want of proper hospitals for cases of small-pox has been emphasized. On the whole the county of Glamorgan, in which these cases have occurred, is well supplied with isolation hospitals for ordinary fever cases, either built or in course of erection, but there are only about eight special small-pox hospitals, all of which are of the class of temporary hospitals. In Swansea the medical officer of health has issued a circular in which the prevalence of small-pox is pointed out and the need and value of revaccination insisted upon.

A case of rabies has occurred at Haverfordwest, in Pembrokeshire. The dog, a foxhound belonging to the Pembrokeshire Hunt, was purchased about ten weeks ago and added to the pack. On January 15th the animal attacked several children and some adults, several of whom had clothing torn and narrow escapes from being bitten. One boy, however, was knocked down and wounded on the forehead. The animal was secured, but was not at the time supposed to be suffering from rabies. The dog died, however, on the fifth day with marked signs of rabies, and the head was sent by the police on January 19th to the Board of Agriculture. The Board communicated to the local authorities confirming the diagnosis. The boy has left for Paris to be attended at the Pasteur Institute.

CORRESPONDENCE.

THE REORGANIZATION OF THE ARMY MEDICAL SERVICE.

SIR,—I take it for granted that your reference to the new warrant for the reorganization of the R.A.M.C. is derived from an authentic source; if so, I agree with you in thinking that the British Medical Association is to be congratulated on the efforts it has made to mitigate the errors into which Mr. Brodrick's Committee had fallen in their reorganization scheme. I am, however, far from thinking that a warrant such as you refer to will accomplish the desired purpose. You may recall to mind the fact that in the recommendations of the Association which were adopted on April 17th last it was stated that in the opinion of the Council "in order that our British and Indian soldiers may in time of peace and of war be kept in the best possible physical condition, that is, in health and fitness to perform their duty, it is necessary they should be under the care of a single medical service with

one portal of admission. There can be no doubt that the efficiency of such a service would be increased, especially surgical efficiency, by allowing the officers, in a proper proportion and for fixed periods, to be placed in charge of civil stations in India. Appointments of this kind would lead to increased emoluments, and give officers so disposed opportunities for distinguishing themselves in their profession such as it is often difficult to obtain in the ordinary work of military hospitals."

As far back as 1869 I had expressed a decided opinion as to the necessity that existed for an amalgamation of the British and Indian Medical Services, and in the year 1870 I was sent for on two occasions by the then Viceroy of India, Lord Northbrook, to confer with him on this subject. The scheme adopted by the Viceroy in Council in 1881 was strongly in favour of amalgamation of such a nature as not seriously to interfere with the officers of either service. The War Office, with certain modifications, adopted this scheme, and stated their belief that any difference between the home and Indian Governments could easily be remedied by the appointment of a Committee to remove apparent obstacles. It seems only possible by means of such an amalgamation to avoid friction between the administration of the services, and to overcome the perpetual removal of medical officers from one station in India to another, often entailing much expense, perpetual discomfort, and hopeless confusion to all concerned. Further than this, "no warrant in future can be complete without the financial concurrence of the Government of India."

Lastly, in the draft report of our Committee the following paragraph, in which I fully concur, was inserted, no reference having been made in the report issued by Mr. Brodrick's Committee "to one of the most serious evils of the service, namely, undermanning, which is largely responsible for its unpopularity.' Unless this defect is overcome there "is no prospect of improvement either in the number or quality of candidates for the R.A.M.C., without which a rehabilitation of the Army Medical Service is impracticable."—I am, etc.,

Grosvenor St., W., Jan. 27th. N. C. MACNAMARA.

THE "FOURTH DISEASE."

SIR,—I am glad to see that the question of the reality of this disease is being ventilated in your columns, and that two such competent authorities at least as Dr. Foord Caiger and Dr. Washbourn doubt its existence. I quite agree with the latter that until very clear proof of the existence of "fourth disease" is forthcoming, an assumption that there is an infectious disease closely resembling scarlatina but quite different from it is likely to result in considerable harm. I am quite of Dr. Killick Millard's way of thinking that if "fourth disease" exists, it must be looked for in those cases of "relapses" in scarlet-fever wards. So far as my knowledge goes, attacks of scarlet fever breaking out in patients [illegible] in a "scarlet ward" are either in the nature of true [illegible] that is, the patient is admitted with undoubted [illegible] peels, etc., and gets a second typical attack of scarlatina with desquamation; or, secondly, are primary attacks, that is, scarlatina affects a patient, with no evidence of scarlatina on admission, who has been placed in the ward because he is certified as suffering from such outside the [illegible] no evidence of other infectious disease [illegible] Incidentally, I may say that it is not infrequently impossible either to diagnose or negative mild scarlet fever (and this is a point to which I will return) on the third or fourth day of the disease or a little later at one particular time, that is, without waiting further developments.

Now, obviously, the only proof of "fourth disease" is that one or more patients in the ward who has, or have had, an uncomplicated attack of scarlet fever, should develop (if more than one then at about the same time or at clear intervals corresponding to the period of incubation given by Dr. Dukes) an illness with different symptoms and course to those of genuine scarlatina or epidemic roseola. In my limited experience I have never seen such; Dr. Caiger and Dr. Washbourn have not met with it. Have any other medical officers in fever hospitals seen it?

Before accepting this "fourth disease" we want good evidence: we want Dr. Dukes of 1901 (or 1902) to thoroughly upset the views of Dr. Dukes of 1894, for this is what Dr. Dukes of 1894 says:

> Finally, it has been suggested that the disease which has been now discussed under the name of roserash is, in reality, two diseases instead of one. In my own mind I have frequently raised this question, and have searched for cases in evidence; but I have signally *failed to establish one relevant fact* to sustain the hypothesis. It must be a remarkable coincidence, if such be true, that after so many years of close observation and investigation I am unable to record a single case pointing to this fact, although my opportunities for study have been largely amongst those of most susceptible ages. On the contrary, the *facts point the other way*, and it is perfectly manifest that the *two varieties are one and the same disease.*

(The italics are not in the original).

Now one can perfectly well understand that Dr. Dukes may alter his mind entirely with further knowledge; but one expects very good evidence—plenty of it I might perhaps say—before one is convinced that this "volte-face" is thoroughly justified.

I said just now that it is not infrequently impossible to diagnose scarlet fever, or to say definitely that it is not scarlet fever when one sees a suspicious case for the first time on the fourth or fifth day, or later; one must wait and watch the course. Moreover, it is notoriously an unreliable method to rely on negative evidence in excluding any disease, especially scarlet fever; and again the existence of mild scarlet fever seems either to be overlooked, or the mildness and evanescence of its symptoms forgotten. I am especially impressed by the last point on reading Dr. Watson Williams's article On Rubella, Scarlatina, and "Fourth Disease," in the BRITISH MEDICAL JOURNAL of December 21st, 1901, p. 1797.

I do not know what the rash was like in the cases of scarlatina resembling rubella (W., aged 10; baby, 1½ year; B., 6 years; D., 4 years) which he relates; but the notes given suggest scarlatina strongly, I should say. Four children are taken ill together; they all vomit to begin with; W. and B. have sore throats next; the rash where it is present appears on the second or third day; this is very unlike rubella. But that is not the point. Why is scarlatina excluded? Because none of the children were really ill, the fever was only slight, the pulse-rate low, some children had enlarged posterior cervical glands, there was no albuminuria. I say nothing of the rash, because it is not at all clear what it was like. Referring to Case 1, W., we are told "a bright scarlatinal rash all over chest, trunk, and legs appeared this morning," and further on Dr. Williams plumps for German measles (how desirable it is that we should stick to one name for this disease!) because in the cases the rash "showed a tendency to be discretely papular, spreading gradually down to the feet." "I cannot doubt that believers in 'fourth disease' would have diagnosed these cases as that complaint," says Dr. Williams. There is the danger! Unless we get this point settled, this will happen. Because a patient with mild scarlet fever has very little *malaise*, only a slight temperature, no rapid pulse, no strawberry tongue, no albuminuria, he may be labelled "fourth disease." Again, take such a case as Dr. Watson Williams's Case A. No. 23 P. That was not scarlet fever because "of the absence of albumen and of any pronounced *malaise*." But surely all the other features of the case strongly suggested it: and because the boy mixed freely with the others "after the fifth day" and did not communicate the disease, is very slight evidence to the contrary too. The more I see of scarlet fever the more I am convinced that especially among the better classes it is often a mild disease. I have an impression that it seems to be milder on the whole than it was ten, twenty years ago, judging from the literature. Moreover, I do not think it is very infectious especially after the first few days. If you get several cases in a family they generally break out near together, and they can be isolated in an ordinary house easily, in comparison with whooping-cough and measles for example. I quite believe, with Dr. Washbourn, that we probably isolate many cases for an unnecessarily long time. One of the points of distinction, according to Dr. Dukes, between "fourth disease" and scarlatina is the difference of incubation. Can any one with experience of infectious diseases say that this is of much help? In what percentage of cases does one even suspect the source of infection? And when we know the source, how often do we know the time when the disease is communicated? In practice, this distinction is almost valueless. The same might be said to apply to the duration of infectivity. Until we have more reliable data given us for differentiating

"fourth disease" from mild scarlatina I think we shall be wise in doubting its existence.—I am, etc.,

Brondesbury, N.W., Dec. 21st, 1901. H. J. Macevoy.

P.S.—At the end of Dr. Williams's article I have no doubt he means to say: "'Fourth disease' does not protect.....from rubella,....," etc.; and not "protects," etc.—H.J.M.

HIGH FREQUENCY CURRENTS IN PHTHISIS: A DISCLAIMER.

Sir,—I trust that you will afford me brief space for an indignant repudiation of certain sensational statements concerning the treatment of phthisis by currents of high frequency which have appeared in the columns of the daily press, and in which my name has been used, to my great annoyance and entirely without my knowledge or consent.

On January 23rd, as a matter of courtesy, I saw a representative of the *Daily Mail*, who called on me with an introduction from a well-known member of our profession and a personal friend, for the alleged purpose of reporting on the subject which had been dealt with in the Gresham lectures. I explained to him impersonally the *modus operandi* of the electrical treatment in question, allowing him to test for himself the physical properties of the current from an ordinary Oudin resonator, which stands in my room without any adjuncts of elaborate finish, mystery, or impressiveness, and is indeed in all its surroundings eloquent of makeshift arrangements and purely experimental use. I pointed out that I personally was interested in the matter from a purely scientific point of view, and had had an extremely short and small acquaintance with its alleged therapeutic effects.

Before consenting to afford him any information I had obtained his assurance that my name should not be used at all in connection with the matter, so that its use in the published paragraph is entirely unjustifiable, and a grave breach of confidence.

I have written a letter to the *Daily Mail* pointing out my extreme annoyance, and I feel confident that those who know me and my work will at once see how I have been made an unsuspecting victim to the peculiar "principles" of modern sensational journalism.—I am, etc.,

Devonshire Street, W., Jan. 28th. T. J. Bokenham.

THE TREATMENT OF CONSUMPTION.

Sir,—Seeing your editorial in the following issue of the British Medical Journal to the one containing a disclaimer from my father, Mr. E. W. Alabone, I did not think it necessary to reply myself: but finding it has put me to an undue amount of correspondence, I must ask your indulgence to publish this letter. I do not intend to enter into any private affairs, but merely to place facts before your readers.

I will first refer to my father's book. You have already mentioned two quotations: "The treatment is fully explained," and "the treatment is being adopted at home and abroad by a great many physicians," etc.

There are also two more quotations. I would like to refer to p. 164: "I take this opportunity of stating that the report of my having a 'secret remedy' is wholly and entirely without foundation. It is open to any physician to adopt my treatment in his own practice."....."I do not even wish my name to be mentioned in connexion therewith." On p. 304: "Scarcely a day passes but I receive visits or letters from medical men, to whom I give every detail of my treatment.....I challenge anyone to refute this."

My father's assistant, Dr. Henry J. Buck, in a letter to the *Times*, August 31st, writes: "The treatment.....contains *no secret remedy*." I would also point out that Colonel Trench has printed in his pamphlet to the Congress on Tuberculosis the case of the young student (my father) who cured himself by "*lachnanthes*" (also mentioned twice in his letters to the *Times*, September 10th, and a recent date) so therefore *the treatment* is quite plain, namely, lachnanthes.

Some years ago when a student, I used to make the preparations used by my father, and for this reason I mentioned in my article "that I had not such a high opinion of lachnanthes as some and I considered the chief 'instrument' of the treatment was inhaling." This statement is upheld by Dr. Henry Buck, my father's assistant, in his letter to the *Times*, September 10th, 1901; he says, "The term lachnanthes is most misleading, the drug is simply one of the remedies used in Dr. Alabone's system of inhaling," etc., and on September 20th, 1901, he says, "Allow me to reiterate that I particularly stated the term 'lachnanthes cure' was most misleading. I mentioned it was one of the remedies used," etc.

I would also point out that my father has sent me cases (in my early professional days) which were seen first and only by me and were entirely under my professional care. Now, may I ask would he do this if I "knew little of his treatment" as he asserts in his disclaimer?

I am fully aware of the fact that every practitioner from time to time alters prescriptions according to the times, as new drugs appear, etc.; but here we have a treatment which was successful so far back as the Seventies, and it was only two years ago that I left my father on account of the advice of many high and esteemed members of the profession I am proud to be a member of. I therefore take this opportunity *of stating that I am in no way professionally connected with my father, Mr. E. W. Alabone.*

And also that the treatment I explained *was* in its *essential* points identical with that which was taught me by my father, and which I learnt whilst living with him.

I close by leaving it with your readers to judge whether I am acting in good faith to my profession.—I am, etc.,

M. Anslow Alabone, L.R.C.P.E., etc.

Lower Seymour St., W., Jan. 27th.

P.S.—Had my article been inaccurate, seeing the philanthropical way in which Colonel Trench and my father are bringing notice on the treatment, one would have expected that a correction of any error would have been more to the point than the communication sent.

EPILEPSY AND GENIUS.

Sir,—In the interesting lecture by Sir William Broadbent, reported in the British Medical Journal of January 4th, it is stated "as an undoubted fact" that men of genius—military, literary, and scientific—have been epileptic.

This statement is frequently made, but there is little evidence of its accuracy. The names of Julius Caesar, Mahomet, Petrarch, and Napoleon are usually mentioned when the question is raised, but what trustworthy evidence is there that these personages really suffered from the recurring seizures that constitute true "idiopathic" epilepsy?

Sir William Broadbent has himself acutely pointed out that when "the first attack takes place in the adult" we look for "some contributory cause" or "suspect that we are dealing not with epilepsy as such, but with some morbid condition of which epileptiform convulsions are among the symptoms: syphilis in the young adult, cardio-vascular derangement, or degeneration after middle life."

Other seizures, such as those due to insolation, uraemia, or even the hysteria of fanaticism, have been in times past confused with true epilepsy, and it is not difficult to see how the tradition of "epileptic geniuses" has arisen. It may be that the persistence of this tradition, that true epilepsy is not incompatible with genius, is a contributory cause to the comparative neglect in hospital teaching of insistence on the tendency of epileptics to become insane, and on the frequency with which hysteria and other morbid mental phases are manifested in those epileptics who are not actually lunatics or dements.—I am, etc.,

January 27th. F. G. O.

LIFE INSURANCE AND MEDICAL FEES.

Sir,—As a comment upon the correspondence published in the British Medical Journal of January 25th, p. 214, the following resolution adopted by the Huddersfield Medical Society last year may be of interest:

That in the opinion of this Society private and confidential reports on patients should not be furnished to insurance companies for any fee under 1 guinea.

—I am, etc.,

Huddersfield, Jan. 28th. Norman Porritt.

Sir,—A few of your correspondents may not be aware that some of the larger companies are finding it more economical to themselves not only to cut down the fees for single

examinations, but also to make contracts with medical men for large numbers of examinations.

Recently I was offered such a contract, the terms of which were as follows: That I should be called upon to examine proposers at their own residences, within a prescribed radius, at any time of the day; that moderate travelling expenses would be allowed; that if I examined more than two cases per day I should receive additional remuneration; that I should attend the head office for about two hours every afternoon: and that the salary for this work should be £120 per annum.

On reckoning this up I found that for two examinations a day, say 600 a year, I should be receiving 4s. per examination, in addition to doing about two hours work at the head office daily! Needless to say, I declined the "appointment."

Such a post as the above may have some value to a general practitioner who is trying to work up a connexion, and the post was offered to me with this end in view.

To my certain knowledge there are men in practice who have contracts with large companies, and who make examinations (irrespective of the amount of insurance) for fees which work out at much less than 10s. 6d. an examination.

I leave it to others to comment on such a system of "sweating."—I am, etc.,

January 28th. D. S. O.

THE OPEN-AIR TREATMENT IN GENERAL HOSPITALS.

SIR,—I was much interested to read in a recent number of the BRITISH MEDICAL JOURNAL Dr. Guthrie Rankin's account of his open-air patients at the *Dreadnought* Hospital at Greenwich.

It would no doubt be best that all tuberculous patients should be treated at special sanatoria situated in the country, and it is to be hoped that the liberality of charitably-disposed people and the enlightened notions of town and county councils may some day render this possible.

In the meantime it is certainly right that general hospitals should do what they can to give their consumptive patients the benefit of the open-air treatment. Acting on this idea at the Northampton General Infirmary, we have recently set apart for the open-air treatment a ward capable of holding six male patients. It was not built for the purpose, and has no balconies, but it has a good aspect looking south and west, has a very fair window-space, and is on the outskirts of the town, where plenty of pure air can be obtained. We have only started the treatment a little over eight weeks, so that it would be premature to give any statistics of results, but for the encouragement of other general hospitals I should like to say that the progress of the patients has been most satisfactory. The gain in weight of our five patients has been:

No. 1 + 21½ lbs. in 7½ weeks.
" 2 + 18 lbs. in 5½ "
" 3 + 5½ lbs. in 2½ "
" 4 + 18½ lbs. in 5½ "
" 5 + 16 lbs. in 10 "

With the exception of the first case, which is a very early one, all the others are of moderate severity, two having considerable consolidation and excavation. The diet adopted is very much that of the patients in the open-air wards of the Brompton Hospital for Consumption: About 1 lb. of cooked meat a day, 4 ozs. of butter, 3 pints of milk, bread and potatoes *ad libitum*, and milk puddings.

As far as I can judge from Dr. Rankin's condensed tables, these gains of weight compare favourably with those of his patients. I do not know whether this is because our diet is more fattening or whether it is because here the patients are given to understand they must eat the food set before them or go.

Putting on flesh and fat is of course not everything in the recovery from consumption, but still it is a very important part of it, and I was surprised to see that the patients at the *Dreadnought* Hospital had not gained more. I am, etc.

P. S. HICHENS,
January 27th. Hon. Physician Northampton General Infirmary.

SUPRARENAL EXTRACT IN HAEMOPHILIA.

SIR,—All we know about haemophilia is that the unfortunate subjects of it are liable to haemorrhages exceedingly difficult to control and that the condition is congenital. Immerman's theory of "congenital hypoplasia of the vessel walls" advances matters no more than the popular idea that the patients have only one skin.

That suprarenal extract applied locally in the two cases reported by me[1] arrested the haemorrhage immediately there can be no doubt whatever, Dr. O. F. F. Grünbaum's experience in haemophilia notwithstanding.

Oliver and Schäfer,[2] Rolleston,[3] Bates,[4] Moore,[5] Kenworthy,[6] Solis Cohen,[7] and many others agree that suprarenal extract acts when administered *internally*. Knowing this, and also being aware that the local action of suprarenal soon pass off, and, further, not wishing to disturb the wounds, the administration of suprarenal was continued internally to keep up the effect. Suffice it that the patients recovered promptly.

Manometric tracings were not taken, but the bogie of renewed haemorrhage being likely to ensue on raising blood pressure did not alarm me so long as the site of haemorrhage was under efficient dressing. The surgeon often devotes his whole energies to raising blood pressure after severe haemorrhages, using cardiac stimulants, saline perfusion, etc.

I agree with Dr. Grünbaum as to the advantages of adrenalin in place of suprarenal extract, and particularly commend its use in solution with eucaine hypodermically in minor operations, the area injected becoming almost bloodless and the anaesthetic effect of the eucaine apparently increased.—I am, etc.,

Liverpool, Jan. 26th. W. THELWALL THOMAS.

THE INCREASE OF TYPHOID AND DIPHTHERIA.

SIR,—In our town diphtheria is at present epidemic, and the experience gained from it does not bear out Mr. Nourse's theory, as stated in his letter appearing in the BRITISH MEDICAL JOURNAL of January 25th as far as diphtheria is concerned. In a series of about 300 cases, roughly speaking over 90 per cent. of these occurred in houses in which there were no waterclosets in the house.

We must look for some other cause. It is a very common practice in Goole for the people to keep fowls and rabbits in their back yards. Dr. Cammidge has detected the diphtheria bacillus in a rabbit which I sent him recently. The particulars which we have obtained point very strongly to, at any rate, some connection between the keeping of domestic animals and the spread of diphtheria.—I am, etc.,

Goole, Jan. 27th. A. M. ERSKINE, M.B., D.P.H.

OBITUARY.

EDMUND GWYNN, M.D.,

Late Medical Officer of Health for Hampstead.

THE sudden death of Dr. Gwynn on January 27th, while travelling in Egypt, has caused a shock of surprise and sincere regret in Hampstead.

Dr. Gwynn commenced practice in Hampstead in 1873, and was appointed Medical Officer of Health in 1879, which office he retained for twenty-two years. At the end of 1895 he relinquished private practice in favour of his then partner, feeling, as he said at the time, that the anxious public duties connected with the rapidly extending parish of Hampstead were a sufficient tax upon his energies. The parish in due time became a borough, and Dr. Gwynn continued his public duties till his resignation last year.

Dr. Gwynn took a keen interest in his public health work, and was proud of the extremely low death-rate of his district, one of the lowest in the kingdom. He was the author of *Shakespeare and Sanitation*, *The Jerry Builder in Relation to the Dwellings of the Poor*, and other interesting pamphlets. In 1884 he made some valuable observations on the spread of small-pox in the neighbourhood of the then small-pox hospital of Hampstead, which eventually led in 1885 to the closing of that institution against the reception of small-pox patients. Dr. Gwynn read a paper on this subject before the

[1] BRITISH MEDICAL JOURNAL, November 23rd, 1901.
[2] *Journal of Physiology*, vol. xvii, 1895, p. 17.
[3] *Lancet*, March 30th, 1895.
[4] *Medical Record*, February 9th, 1901.
[5] *Ibid*, February 9th, 1901.
[6] *Ibid*, March 16th, 1901.
[7] *Therapeutic Gazette*, February, 1900.

Society of Medical Officers of Health. At the time of his death he was Vice-President and Treasurer of that Society, and had held the office of President. He was also President of the Hampstead Medical Society, where his interest in the work of his fellow medical men, and his tact and skill in presiding over their discussions, were highly appreciated.

One of the striking features of Dr. Gwynn's work as medical officer of health was that while most conscientious in the performance of his public duties, he always carried them out in a spirit of kindly courtesy and consideration for his brother practitioners. This was so strongly felt by them, that last year he was presented by them on his retirement with some pieces of plate and an illuminated address, an expression of appreciation and goodwill from his professional brethren which he highly valued.

In private life Dr. Gwynn was noted for his kindness and hospitality. He was only 61 years of age, and it was hoped that he would live for many years yet of honourable retirement after a busy and useful career, still retaining his interest in the work of his profession as President of the Hampstead Medical Society, and enjoying a peaceful home life varied by foreign travel, of which he was extremely fond. The deepest sympathy is felt for his widow and daughters in this unexpected and sudden bereavement.

We regret to announce the death of Surgeon-Major Metcalfe Johnson, which occurred at his residence in Lancaster on January 18th. He had almost reached the age of 79, but retained all his faculties unimpaired until within a few months of the end. He was born at Wisbech in Cambridgeshire in 1823, and after serving an apprenticeship of three years to Dr. Muriel of Ely, went to Guy's Hospital in 1843. He qualified M.R.C.S. and L.S.A. in 1846, and immediately went into practice in Lancaster. He was soon appointed Medical Officer to the Workhouse, and shortly afterwards Police Surgeon. In 1852 he was given a commission as Surgeon to the 1st Royal Lancashire Militia, being subsequently promoted Surgeon-Major, and placed in medical charge of the regular troops stationed in Lancaster. He was a frequent contributor to the medical press. In the *Lancet* appeared articles entitled Borderland, Sane or Insane; and in the *Medical Times* Hedonism and Cerebral and Ganglionic Disorders of Mentation. He also published in 1872 a little book on *Invalid Cookery*, which was favourably received. He held advanced opinions on sanitation and the notification of infectious disease, and thirty years ago urged that habitual drunkards ought to be treated as insane. Of fine physique he had a marked individuality, and took an original view of almost every subject that claimed his notice. His instincts were chiefly literary and philosophical, and he had a strong artistic tendency. Much of the routine work of general practice was distasteful to him. He was an honest, kindly, courteous gentleman, who never knowingly did wrong to any man, and the world is the poorer by his death.

We regret to have to record the death of Dr. David Ramsay, of Raunds, which occurred on January 6th, from blood poisoning contracted in the discharge of his professional duties. On December 7th, while opening an abscess in a patient's foot the knife slipped and cut his knuckle: axillary abscess supervened and later septic pneumonia, from which he died, in spite of the best advice and most skilful treatment. He was born at St. Petersburg in 1866, received his medical education and degrees in Glasgow, and commenced practice in Raunds thirteen years before his untimely death. A great sense of public loss is felt in the town and neighbourhood, and much sympathy with the bereaved relatives.

Dr. Adolphe Burggraeve, the oldest medical practitioner in Belgium, has just died at the age of 97. He took his degree in 1838, and was for many years Professor in the University of Ghent, and Surgeon-in-Chief to the Civil Hospital of that city. On his retirement he devoted all his energies to the propagation of a therapeutic system to which he gave the name "Dosimetric." He founded a little medical church, of which he was for some time the acknowledged head, but soon schisms arose, and his last days were darkened by controversies.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

STATISTICAL REPORT OF THE HEALTH OF THE NAVY, 1900.

This annual report is an improvement on the preceding one, of more public interest and professional value owing to the fuller remarks accompanying the statistical tables; further information, however, might advantageously be given regarding the diseases and injuries met with in the navy, and yet not be "a mere repetition of the information given in a more concise form in the tables."

The total force for 1900 averaged 95,830; in 1899, 89,190; in 1898, 82,830. Of the total force, 60.69 per cent. were between 15 and 25 years of age; 29.77 per cent. between 25 and 35; 7.96 per cent. between 35 and 45; and 1.57 per cent. 45 years and upwards.

The subsequent ratios quoted from these statistics are per 1,000, unless otherwise specified. The "case" ratio was 882.29, an increase of 2.66 over that of the preceding year.

Invaliding.—The ratio of invaliding from all stations was 35.83; of those finally invalided from the service 23 37; this is an increase of 3.64 over 1899. In connexion with this final invaliding (many invalids from abroad proving serviceable after arrival at home) a new statistical table is furnished, which indicates the several diseases and injuries on account of which these invalids were found unfit for further service, their ages, and length of service. Under the latter head it appears that one-fourth of the whole were under one year's service.

Deaths.—The death ratio was 7.27, that for the previous year 5.18. The death ratio from disease alone was 4.96, which was higher than for any year since 1886, when it was 5.04. The death ratio from accidents, injuries, and suicide was 2.31, and included 74 deaths from wounds in action, 60 by drowning, and 17 by suicide. The excess of invalidings and deaths was attributable to the naval operations in China and South Africa.

Plague.—Three deaths from this disease occurred on the East Indies station, namely, 2 lascars belonging to a ship at Bombay and a seedie boy at Aden.

Cerebro-spinal Fever.—In the total force 6 cases of this disease are recorded as occurring on the Home station: there, however, they are returned as cerebro-spinal meningitis, these two diseases being treated as identical in these statistics, such procedure supporting Professor Osler's opinion as to "the confusion likely to occur in the diagnosis of the several forms of meningitis." Information regarding these cases of so exceptional a fever in this country is again very scanty; it appears that 2 occurred at Bantry, 2 at Plymouth, 1 at Grimsby, and 1 at Campbletown; four ships contributed to the total, 5 deaths resulted; the patients were all under 19 years of age.

Enteric Fever.—The number of cases was 464; of deaths, 124; 98 were invalided from this cause, but only 2 were finally invalided from the service. Of the total cases, more than one-half occurred during the active operations in China and South Africa. On the Mediterranean station 11 cases occurred in the *Vulcan* in May and August. Subsequent bacteriological researches proved the fecal contamination of the drinking water in 2 of the ship tanks "undoubtedly," but other 5 were suspicious. All the tanks contained distilled water, and the source of the contamination was not discovered. The water tanks were cleaned, dried, and steamed for two hours; no further cases occurred. In South Africa and China also, evidence that the fever was waterborne, and to be guarded against by the use of pure water, is furnished by the reports from medical officers quoted in the remarks on these stations.

Dysentery.—The number of cases was 420, of deaths 27. The number invalided from this cause was 79, but only 2 were finally invalided from the service. Of the cases 60.9 per cent. occurred in China, and 24.7 per cent. in South Africa. Evidence of this disease also being waterborne, and prevented by the supply of pure water, is given in the medical returns for the siege and occupation of Tientsin, quoted in the remarks on the China station.

Venereal Diseases.—The ratios for these diseases show a slight decrease for the total force and the Home station. The

loss of service temporarily and permanently from these diseases was, however, very great, namely, 11,540 cases, 304,910 days loss of service: 149 final invalidings from the service: 4 deaths.

Poisons.—An interesting account of 44 cases of peripheral neuritis attributed to poisoning by lead, in a ship with a complement of 140, is given in the remarks for the North American and West Indies station. The affection was considered to be due to the scraping and chipping off old red-lead paint, and renewing the same in the ship's holds, storerooms, and lockers below the men's mess and berthing decks, on to which these painted holds, etc., opened. "The symptoms common to all were: (*a*) oedema of the eyelids; (*b*) high temperature (101° to 104°); (*c*) sensory and motor paralysis of varying degree." As lead was found "in marked quantity" in the urine, while there was no trace of arsenic discovered, the affection was considered lead poisoning. The crew were transferred to another ship for a time, and the cases speedily ceased.

Beri-beri for a second year affected the European crew of two vessels employed in the Persian Gulf; in 1899 6 cases were returned as affecting Europeans and 2 cases among the native crew. In 1900 30 cases occurred, but no native seamen were affected. At the Island of Ascension, on the contrary, the disease has affected Kroomen only, and on board two vessels on the same station Kroomen alone were affected; in all, 106 cases occurred on this station; of these, 94 were at Ascension, an increase of 42 over the previous year. The suggested causes—personal infection, unsound rice, place infection—all found supporters in the medical officers reporting on it, but the true case has yet to be discovered.

Diseases of the Respiratory System.—The vessels of the training service in home waters showed an increased ratio of 14.59 in cases, the average complements of the ships being 8,500: 79.78 per cent. of the total were cases of catarrh or common cold. The number invalided from all was 62, or 7.29 per 1,000, an increase of 2.1, as compared with the previous year. Among the causes of invaliding appear—pneumonia, 16; phthisis, 29; pleurisy, 5; in 1899 the numbers were respectively 2, 24, and 8. The deaths were 11—from pneumonia 8, from phthisis 3.

Wounds in Action.—The number wounded was—in China 360, in South Africa 18. The number finally invalided was 34, and the number who died 74.

The appendix to this statistical report in this second year of its remodelled rendering contains papers giving interesting professional information, including medical and surgical experiences with the naval brigades in China and South Africa.

We trust this annual naval medical report may become more and more interesting and valuable, as naval medical officers have great opportunities for original observation and research.

THE ORGANIZATION OF THE VOLUNTEER MEDICAL SERVICE.

VOLUNTEER SURGEON writes: The letter published in the BRITISH MEDICAL JOURNAL of January 25th from the Secretary of the Volunteer Medical Association, giving a copy of a letter addressed by that Association to the Secretary of State for War [illegible] request that he "would be pleased to receive any proposition the Council desired to submit in reference to the Volunteer Medical Service, and that such proposition will be placed before the Advisory Board for its consideration," is of much importance, since, if acquiesced in by the members of the Volunteer Medical Service, it will naturally be supposed to be the views of the members generally. I question if such is the case, and as one of the [illegible] I would like to point out my reasons for holding that opinion. I consider that, when it was decided to form an Advisory Board, the Volunteer Medical Department should have been fully represented on it; instead of that civilians were appointed, therefore it is not a suitable Board to consider the requirements of the Volunteer Medical Service. I even go further, and think that the Army Medical Corps is not the body satisfactorily to remedy the grievances of the Volunteer Medical Service. Is it the case that the services of many volunteer surgeons who volunteered to the front were declined while civilians were appointed? Is it the case that in filling up temporary vacancies in home stations civilians were appointed in preference to volunteer surgeons? There can be little doubt that the Army Medical Corps should be very grateful for services rendered in a national emergency to their department both by volunteer surgeons and by civilians; but gratitude is short-lived, and if the Volunteer Medical Service wish their department put on a satisfactory basis they must undertake the duty themselves. I can understand circumstances arising in which the interests of the Army Medical Corps and the Volunteer Medical Service would be diametrically opposed to one another. What is required is a National Army Medical Department; towards the formation of such a department I am sure the Volunteer Medical Service would be prepared to take an active part.

REORGANIZATION OF THE ARMY MEDICAL SERVICE.

SCOTUS writes: Although the scheme of the Committee has points to be commended, such as study leave, specialist appointments, etc., there are others which must give pause to intending candidates. Forced retirement after 9 or 18 years' service on paltry gratuities would be most iniquitous. What is a slight increase of pay in the junior ranks, capped with a gratuity of £1,000 after 9 years' service? or after 18 years, with £2,500? It would be a good bargain for the State to get 6 or 7 years' service abroad on such conditions at 9 years' service. The pay would scarcely be more than £300 a year, for allowances are always problematical, the gain to the State would probably be £2,000; at 18 years' service the gain similarly would be quite £4,000, with 14 years' foreign service extracted from the medical officer. There is no justification for those one-sided conditions. At present the haven of rest is £1 a day after 20 years, and no officer considers himself remunerated for risky services with less in prospect. The State cannot secure the best part of a man's life without paying for it. What young man would risk his career upon the "special sanction" of a Secretary of State? The idea is childish. Would it not be fairer, and to meet a variety of individual cases, to allow officers to retire on a pension of 10s. a day after 10 years' service, and an additional 1s. per diem for every additional year? This would enable those who have suffered in health to retire before 20 years' service. Frequent examinations appear a doubtful method of securing efficiency. The army, unlike the Indian medical officer, has few opportunities of maintaining professional efficiency.

*** The retirement after 10 years' service on a sliding scale pension, would, in the peculiar conditions of our foreign service, be impracticable; retirement through ill-health under 20 years' service should be met by liberal half-pay. In all these arrangements of retirement on pension or gratuity, neither the State nor the individual should be handicapped; yet the recommendations of the Committee handicap both.

E. F. writes: Will you kindly afford me space for two points in Mr. Brodrick's scheme that have not received notice? (1) In the existing Royal Warrant it is laid down that a lieutenant R.A.M.C. shall be promoted to the rank of captain on completion of three years' full-pay service. Under the scheme no lieutenant will obtain promotion until he has reached nearly four years' service, and if he should fail at the first examination for the step he will be well over four years before he gets it (paragraphs 29, 30, and 31). (2) Paragraph 46: "Promotion to the rank of lieutenant-colonel will be by selection from among those officers who have passed the qualifying examination, and have completed 20 years' service" .... So that although an officer may have passed the examination he is by no means certain of promotion, which is to be by selection from the group of successful majors. These two points deserve the fullest consideration by intending candidates. Mr. Fremantle is anxious to defend the scheme, but if he wishes it to be accepted both by present and future officers he must get its framers to modify it on lines that will make their prospects less nebulous and more just. Medical officers have had bitter experience of the interpretations placed on Royal Warrants, and require that their conditions of service shall be clearly set forth.

I.M.S. writes: That India is the crux of this problem there can be little doubt. I am of opinion that both of the medical services are relatively underpaid compared with other branches in India. The abolition of many of the administrative appointments during the last twenty years has greatly lessened the value of service in India. A writer in the *Pioneer* points out that a lieutenant-colonel I.M.S. in regimental employ gets Rs.56 a month less than an officer of corresponding rank in the R.A.M.C.; Rs.97, less than a lieutenant-colonel Staff Corps, second in command; and Rs.427.14 less than a Staff Corps commandant of infantry; while a commandant of native cavalry gets Rs.527.14 more.

*** We do not dispute these figures, which tell their own tale; but there must be comparatively few lieutenant-colonels I.M.S. drawing bare regimental pay.

SUSPICIOUS writes: The proposed examinations for captain and major might not be objected to if the officers felt assured they were being "fairly and squarely" with; but the examination for lieutenant-colonel is ridiculous and would not be submitted to with the penalties attached. It may be a subject of congratulation that the war has been got through somehow with the aid of civil surgeons; but those in touch with the service know that so soon as the war is ended, unless a substantial increase is made to the regular medical establishment, dozens of R.A.M.C. officers will leave the service the moment they get the chance. The duties, clerical and other, they are now called upon to perform could not be long endured, and would be intolerable in peace times.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: THOMAS C. MEIKLE, Surgeon, to the *Caledonia*, January 21st; JAMES G. FOWLER, Surgeon, to the *Excellent*, January 21st; GEORGE G. BORRETT, Surgeon, to the *Pylades*, additional, January 22nd; JOHN O'HEA, Surgeon, to the *Minerva*, January 22nd; LLEWELLYN LINDOP, Surgeon, to the *Camperdown*, January 22nd; REGINALD ST. G. S. BOND, Surgeon, to the *Assaye*, January 25th; AUGUSTUS J. LAURIE, Surgeon, to the *Highflyer*, additional, January 25th; RAMSEY M. RICHARDS, Surgeon, to the *Jason*, January 25th; Staff Surgeon RICHARD MILLER, to the *Liffey*, dated January 11th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT JOHN M. SLOAN is appointed a Companion of the Distinguished Service Order for devotion to duty at Brakenlaagte.

Lieutenant-Colonel C. H. SWAYNE, D.S.O., who is serving in the Bengal Command, is appointed to officiate as Principal Medical Officer, Meerut and Bundelkhund Districts, *vice* Colonel W. F. Burnett, appointed to officiate as Principal Medical Officer, Bengal Command.

Lieutenant-Colonel G. D. BOURKE, who is serving in the Punjab Command, is appointed to officiate as Principal Medical Officer, Mhow and Deesor District, *vice* Lieutenant-Colonel R. Blood, M.D., who is transferred to the home establishment.

Lieutenant-Colonel E. A. MAPLETON, M.B., who is serving in the Punjab, is directed to officiate as Principal Medical Officer, Poona District.

The following officers are on passage home: Lieutenant M. H. BARRINGTON, Major D. R. HAMILTON, Captain J. W. JENNINGS, Quartermaster R. O. ROBERTS, Civil Surgeons M. H. BIDDELL, H. A. LOESER, H. J. GODWIN, J. L. ALLEN, and R. S. MAXWELL. Returning invalided: Majors M. L. HEARN, and H. P. BIRCH.

The progress report states that Civil Surgeon L. PENN, who is ill from enteric fever at Norval's Pont shows no change, January 26th; and that the condition of Civil Surgeon BENSUSAN is critical, January 26th.

INDIAN MEDICAL SERVICE.

COLONEL B. FRANKLIN, C.I.E., Honorary Physician to the King, is promoted to be Surgeon-General, January 1st. From the same date he is appointed Director-General Indian Medical Service, to succeed the late Surgeon-General Harvey. Surgeon-General Franklin will reach the age of 60 in April, 1904, but will be eligible for an extension of his present appointment. Surgeon-General Franklin joined the department as Assistant-Surgeon April 1st, 1869. He was appointed a Companion of the Order of the Indian Empire in 1896, and Honorary Physician to the late Queen in 1898; he has, however, no war record in the Army Lists.

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN J. F. GORDON DILL, M.D., from Hampshire Imperial Yeomanry, to be Surgeon-Captain, Norfolk (King's Own) Imperial Yeomanry, January 25th.

THE VOLUNTEERS.

SURGEON-CAPTAIN A. ALLPORT, 1st City of London Artillery, resigns his commission, January 25th.

Mr. GEORGE H. RUTTER, M.B., is appointed Surgeon-Lieutenant in the 1st Worcestershire Artillery, January 25th.

Surgeon-Lieutenant-Colonel J. ATKINSON, 2nd Cheshire (Railway) Engineers, retires under Paragraph 111, Volunteer Regulations, retaining his rank and uniform, January 25th.

Surgeon-Lieutenant W. DOIG, M.D., 1st Roxburgh and Selkirk (Border) Rifles, is promoted to be Surgeon-Captain, January 25th.

Mr. ROBERT THORNTON, M.B., is appointed Surgeon-Lieutenant in the 1st (City of Dundee) Volunteer Battalion the Royal Highlanders (Black Watch), January 25th.

Surgeon-Lieutenant G. T. SINCLAIR, M.D., 7th (Clackmannan and Kinross) Volunteer Battalion the Argyll and Sutherland Highlanders, resigns his commission, January 25th.

Surgeon-Captain F. NORMAN, 4th Volunteer Battalion the Queen's (Royal West Surrey Regiment) resigns his commission, January 29th.

Surgeon-Lieutenant W. E. FOGGIE, M.B., 3rd (Dundee Highland) Volunteer Battalion the Black Watch (Royal Highlanders), is promoted to be Surgeon-Captain, January 29th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PHYSICIAN AND CHEMIST.

UNDER this title the *Essex Weekly News* of January 25th contains a report of a case which reveals a set of circumstances which are, we believe, quite exceptional. According to the report Mr. Arthur J. Ryan, physician and surgeon of Romford, sued Henry W. Whitelock, chemist, also of Romford, for £50, money lent. According to the plaintiff's statement, he had entered into partnership with the defendant, the arrangement being that the defendant should open a shop at Chadwell Heath, and that the plaintiff should have a surgery at the same place. It was in connexion with this proposal that he advanced the sum of £50 to the defendant. Mr. F. W. Smith, solicitor, Romford, gave evidence as to the proposed partnership between the plaintiff and defendant. Apparently no deed of partnership was executed, but the defendant said in his evidence that the partnership was wound up at the request of the plaintiff, and the business sold at a loss. The jury found for the plaintiff, and judgement was given for the full amount with costs, but the legal representative of the defendant stated that he would apply for a new trial.

MEDICAL CHARGES.

CLYDE writes that he has for a good many years been attending an old lady when ill without making any charge, as it was understood that his wife would be a beneficiary under her will. She has since died, and it was then found that nothing had been left to his wife. He thereupon sent in a bill to her executors for attendance during her last illness, charging a guinea a visit. He would like to know if that would be a just and fair charge under the circumstances.

*** If a guinea a visit would be a fair charge under ordinary circumstances our correspondent is entitled to make it. He cannot, however make an extra charge on account of his expectations having been deceived, or because on previous occasions he omitted to make any charge for his attendance.

L. J. H.—(1) The charge made was a reasonable one. (2) The data are not sufficient. The distance of the doctor's residence from that of his patient would have to be considered, and the usual scale of charges in the district. A special fee would properly be charged for consultations, and for extra length of visit. The usual fee charged for signing a lunacy certificate is one guinea. (3) We would refer our correspondent to the article headed Medical Etiquette, published in the BRITISH MEDICAL JOURNAL of November 2nd, 1901, p. 1381.

FEES AT ASSIZES.

J. D.—A correspondent writes that for giving evidence at a criminal case at the assizes he was recently allowed the following scale of fees: Attending magistrates meeting, £2 2s.; railway fare, 9s.; court of assizes, £1 1s.; and railway fare, 2s. 8d. The assize town was situate 27 miles from his residence, and he had to travel there and back three times. He claimed 3d. a mile for mileage, but was not allowed so much. He wishes to know whether he can demand that allowance.

*** The law lays down that not more than 3d. a mile shall be paid This is at the discretion of the court or the magistrate.

CLUB APPOINTMENTS.

ENQUIRER.—If the medical fees are paid by the working men there is nothing unreasonable in their wish to select their own medical man. B. should take no part in the movement to bring about a change, but if the men decided to appoint another medical man, it would not be contrary to medical ethics for B. to accept the appointment. If A. and B. were on friendly terms and unopposed, they might probably divide the appointment.

B.—If the Friendly Societies were to terminate their engagement with their present medical officer and publicly seek for a successor, it would be open for our correspondent to accept the post. But, till there is a definite vacancy, it would be unprofessional to enter into any negotiations with respect to an appointment held by a brother practitioner.

MEDICAL ETIQUETTE.

DR. ALEXANDER LAWRIE.—No doubt people who are in the wrong should apologize, but our experience is that they generally do not do so, but are all the more angry for being shown that they are wrong. We should advise our correspondent to regard the incident as closed.

J. G. B.—Under the exceptional circumstances our correspondent would, we think, be justified in putting an advertisement into the local papers to contradict the reports. He had better consult a solicitor as to its wording.

THE LAY PRESS AND THE MEDICAL PROFESSION.

DR. V. C. J. VANDERSTRAATEN complains of the Ceylon newspapers for commenting upon the fitness of a particular candidate for an important medical post in the island before the vacancy had been declared. He also objects to a paragraph in which a local medical man is mentioned as being in attendance upon a native of rank.

*** The former paragraph speaks of the approaching retirement of an official, and of the probability that another gentleman whose name is given will be appointed in his place. Such newspaper notes are not uncommon in this country; they are more or less well-founded attempts to forecast the action of the Government, and are not regarded as attempts to influence the Government in favour of the candidate named: in fact they are likely to do him more harm than good. Where the appointment is to be made by a popular body, such as a town council, the premature discussion of the claims of a particular candidate would be regarded as unfair. With regard to the second paragraph, it seems to be impossible to prevent the press giving information about the illness of prominent persons, but medical men should not be parties to or in any way promote the publication of their own names in connection with such cases.

VISITS TO PATIENTS ALREADY UNDER OTHER MEDICAL CARE.

L. F.—It is not clear that the medical man who visited the patient was aware of the fact that our correspondent was in attendance at the time, and it might be that he was never informed of this. If this assumption is correct, it would be premature to stamp his conduct as unprofessional.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The American Association for the Advancement of Science has sanctioned the formation of a Section of Experimental Medicine and Physiology. This was decided on at the annual meeting of the Association at Denver in August last. Thus, for the first time, medicine acquires a permanent place in the representative scientific organization of America.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DR. ALEX. HILL, Master of Downing, has been appointed a representative [illegible] Gordon College.

Balfour Studentship.—A Balfour Studentship in Biology, of the annual value of £150, will be vacant on March 25th. Candidates are to apply by February 15th to Mr. J. W. Clark, Cambridge, from whom the conditions may be obtained.

Honoris causâ.—The degree of Master of Arts, *honoris causâ*, has been conferred on Walter Ernest Dixon, M.D.Lond., Assistant to Professor Bradbury in the Department of Pharmacology.

UNIVERSITY OF LONDON.

FACULTY OF MEDICINE.

A MEETING of the Faculty of Medicine was held at the University Buildings on January 24th, Mr. Butlin, the Dean of the Faculty, being in the chair.

Admission of Junior Teachers to the Faculty.

A [illegible] received from the Senate, stating that, in accordance with a recommendation recently presented by the Faculty, a considerable increase had been made in the membership of the Faculty. The recommendation presented by the Faculty was as follows: That the Senate should admit to the Faculty of Medicine in accordance with its powers [illegible] Statute 60 (iii)—

"Advanced Medical Studies,

(a) [illegible] recognised, or provisionally recognised, as a teacher of [illegible] Advanced Medical Studies," and

(b) At least one recognised, or provisionally recognised, teacher in each of the "Preliminary Medical Studies" from each School of the [illegible] Faculty of Medicine.

It was reported that the Senate had carried out the [illegible] and that as a result the membership had been increased, and that as a result the additional members [illegible] pointed out that the additional members [illegible] junior teachers on the staff of the [illegible] would contribute to the future prosperity of the Medical [illegible] largely depended. At the same time, adequate [illegible] was given to the teachers of anatomy [illegible] preliminary sciences.

The Matriculation Examination.

A Committee appointed to consider the subject of [illegible] was received and adopted. In it the [illegible] unanimously passed to the effect "That no [illegible] satisfactory which does not permit a [illegible] action so as to meet the requirements [illegible] wide [illegible] of 'classical' or 'modern' side of second- [illegible] of its approval of the proposals for the conduct [illegible] to the Senate by the University's Advisory [illegible] students.

Honorary Secretary.

Dr. Lauriston Shaw was reappointed Honorary Secretary to the Faculty.

UNIVERSITY OF BIRMINGHAM.

MR. T. E. DYSON has passed Parts I and II of the examination for the Diploma in Public Health.

CONJOINT BOARD IN IRELAND.

FINAL PROFESSIONAL EXAMINATION.—Candidates have passed this examination as undermentioned:

[illegible] S. H. Curry, Haidée Aleen [illegible] T. Mulhall, J. J. Melhorney, [illegible] Potter, R. A. Ross, J. C. Ryan, [illegible]

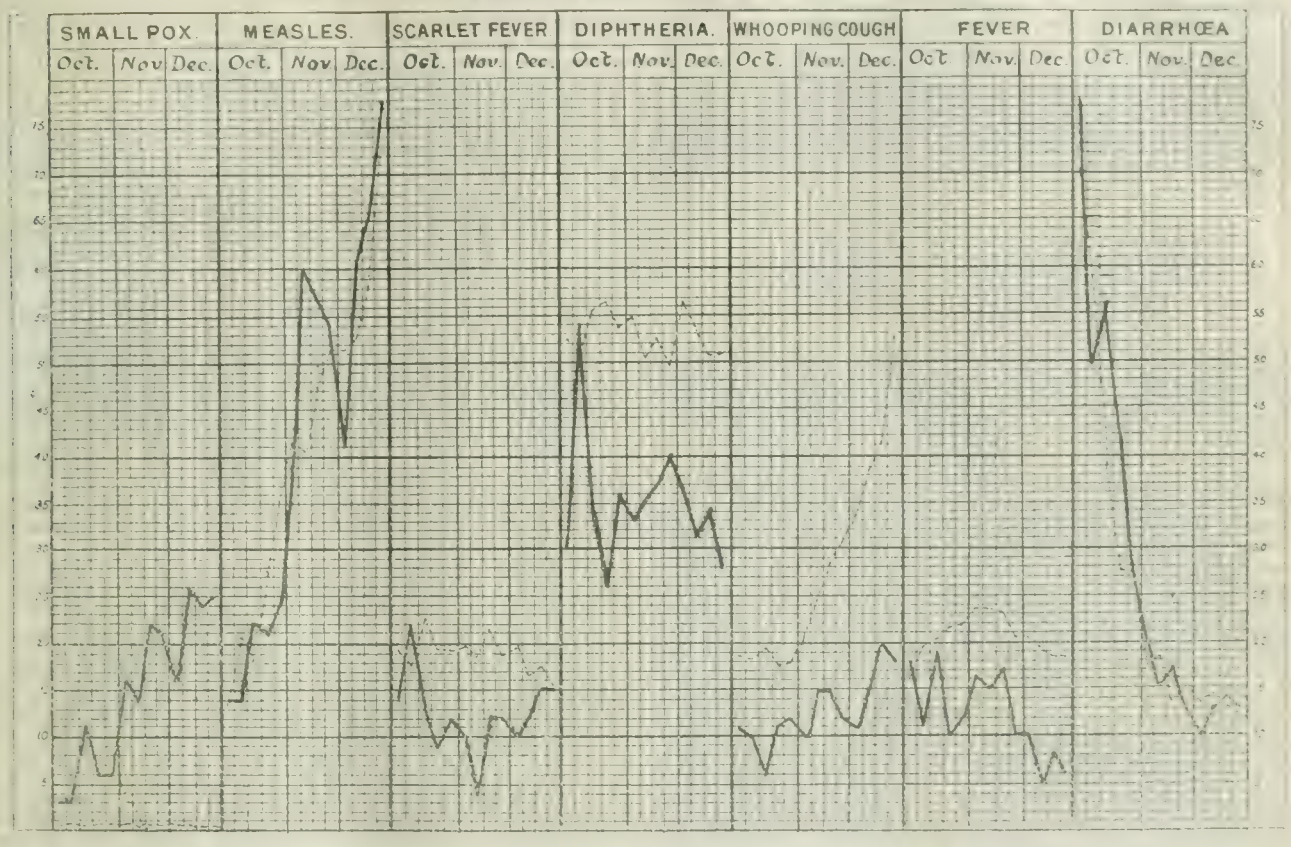
HOSPITAL AND DISPENSARY MANAGEMENT.

[illegible] HOSPITAL, BUXTON.

[illegible] Hospital at Buxton, presented to [illegible] Duke of Devon- [illegible] the provision of [illegible] had been ma- [illegible] expenditure of [illegible] under treat- [illegible] and there [illegible]

[illegible] [illegible] [illegible] [

Deaths from Zymotic Diseases in London during the Fourth Quarter of 1901.



Note.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years, 1891-1900.

during the three months under notice, but were 235 below the corrected average number. The highest proportional mortality from diphtheria last quarter was recorded in Paddington, Fulham, St. Pancras, Islington, Bethnal Green, and Camberwell. The number of patients under treatment for this disease in the Metropolitan Asylums Hospitals at the end of December was 1,369, against 1,084, 1,169, and 1,499 at the end of the three preceding quarters; 2,651 new cases were admitted during the quarter, against 1,726, 1,969, and 2,744 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 594, 609, and 240 in the three preceding quarters, further declined last quarter to 166, and were less than one-half of the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs, this disease was proportionally most fatal in Holborn, Finsbury, Shoreditch, Stepney, Poplar, Lambeth, and Lewisham.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 146, 74, and 171 in the three preceding quarters, declined again to 157 during last quarter, and were 109 below the corrected average number. Of these 171 deaths, 2 resulted from simple continued fever, and 109 from enteric fever, no death being attributed to typhus during the quarter. The "fever" death-rate was highest in Islington, Bethnal Green, Poplar, Battersea, and Lewisham metropolitan boroughs. The Metropolitan Asylums Hospitals contained 195 enteric fever patients at the end of December, against 161, 125, and 292 at the end of the three preceding quarters; 404 new cases were admitted during the quarter, against 329, 233, and 514 in the three preceding quarters.

Diarrhœal Diseases.—The 369 deaths from diarrhœal diseases registered in London during the three months ending December last showed a slight excess over the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs these diseases were proportionately most fatal in Fulham, Finsbury, Shoreditch, Poplar, and Deptford.

In conclusion it may be stated that the 2,030 deaths referred to the principal zymotic diseases in London last quarter were more than 16 per cent. below the corrected average number in the fourth quarters of the ten preceding years, 1891-1900. The lowest zymotic death-rates in the several metropolitan boroughs were recorded in Chelsea, St. Marylebone, Hampstead, Stoke Newington, the City of London, and Greenwich; and the highest rates in Kensington, Hammersmith, Islington, Holborn, Finsbury, and Poplar.

PRECAUTIONS AGAINST PLAGUE IN SCOTLAND.

The Scottish Local Government Board has issued a memorandum, dated January 21st, recounting the evidence derived from the Indian Plague Commission and from other sources in regard to the agency of rats in spreading plague, and urging precautions against their increase in any locality, against their importation by land or sea, and against their migration from one locality to another. The Board urge also that the discovery of any unusual mortality among rats should be the indication for prompt measures to protect human beings, and especially the need for the recognition of plague as a notifiable disease. Instructions are likewise given for the extermination of infected rats and for the bacteriological examination of material from both suspected rats and suspected persons.

VACCINATION AT EMSWORTH.

The little town of Emsworth, in Hampshire, has set a good example to more important places in the efforts which the leaders of public opinion in it have lately made to popularize vaccination. The movement has been started by Mr Lockhart Stephens, the medical officer of health for the district, who gave a public lecture before a large audience in the town hall, in which he described in forcible language what small-pox was a century ago, and what effect had been produced on it by the spread of vaccination. It was also very satisfactory to see that several of the members of the district council occupied seats on the platform, thus practically giving their support to the lecturer. It must be gratifying to Mr. Stephens and those who have supported him in this useful endeavour to educate the public in appreciating the importance of vaccination to know a great impetus has been given by it to the work of vaccination throughout the districts, large numbers of adults especially having been revaccinated. This example might well be followed in other places.

VACCINATION.

The Supply of Government Calf Lymph to the Profession Generally.

H. S. writes: My father and I have been public vaccinators for 25 years, and have always used this lymph in private and public practice alike, and are not aware of any check or objection of the Local Government Board to such practice.

Dr. A. Sheen (Cardiff) writes: Vaccine should be supplied to all public vaccinators for vaccination and revaccination in the public service but "I fail to see why private practitioners should be supplied with vaccine lymph at the country's expense, when there is an ample supply [illegible] that of the Local Government Board. Why should the cost of vaccine be dealt with the cost of vaccine for private vaccinations any more than for the cost of any other item in private practice?

THE BOYCOTT OF THE CONSUMPTIVE.

Sullivan County, New York, which has of late been much resorted to by tuberculous patients, is, according to the *Boston Medical and Surgical Journal*, making a vigorous effort to exclude such invalids from its borders. Twenty consumptives, stopping at Liberty, were recently arrested and fined 5 dols. each for expectorating in the streets, and in the town of Rockland an ordinance, similar to that lately adopted in Liberty, has been enacted, which imposes a penalty of 50 dols. on any one who conducts a boarding-house, hotel, sanatorium, or other place in which consumptives are received. The same penalty is imposed on any one who receives into his house or harbours any consumptive not an immediate relative of the family and dependent upon him for support, while a guest suffering from tuberculosis is not permitted to visit relatives or friends in the town even for a week.

INDIA AND THE COLONIES.

INDIAN SANITARY REPORTS.

A Fatal Year.

North-Western Provinces and Oudh, 1900.—While famine and pestilence raged in Central and Western India, these provinces covering the northern portion of the great Gangetic valley were comparatively exempt. The birth-rate of the year, though lower than that of 1899, exceeded the decennial average—40.34 against 39 40. The death-rate (31.13) was below the average. The death-rate of infants was 219.2 per 1,000, against 230.1. As compared with the preceding decade, there was an excess of cholera mortality, but a decrease of deaths caused by small-pox, fevers, bowel complaints, and injuries. The cholera epidemic was severe and widespread. The record of small-pox mortality (0.03 per 1,000) is the lowest which has been reached in these provinces. There was an outbreak of plague in and around the village of Man Aima in the Allahabad district and in some surrounding hamlets. Vigorous repressive measures were adopted, and the disease was stayed after 156 persons had been attacked, of whom 121 died. The Sanitary Board held seven meetings during the year, and the reports of this body and of the sanitary engineer indicate considerable activity in sanitary work. Most of the large towns of the province have been provided with water and drainage works; and under the encouragement of a very able and energetic lieutenant-governor, and the administration of a competent sanitary commissioner and willing staff, sanitary affairs are well managed. The report, drawn up by Lieutenant-Colonel S. J. Thomson, C.I.E., is commendably brief.

Punjab.—The recent census has revealed an increase of 7.58 per cent. in the population of the Punjab during the last decade. Reckoned on the basis of the 1901 census, the birth-rate of 1900 was 37.76 *per mille* and the death-rate 43 39. There was a considerable depression of the birth-rate, and increase of the death-rate as compared with the preceding year, the latter exceeding the former in 12 out of 31 districts. The death-rate of the preceding quinquennium was 30.5 per 1,000. The province was visited by famine, cholera and small-pox prevailed epidemically, and a heavy autumnal rainfall was followed by a heavy outbreak of malarious fever associated with an excess of bowel complaints which caused a death-rate of 33 37 per 1,000, and accounted for 70 per cent. of the mortality. The number of deaths registered from plague in the districts of Jullundar, Hoshiarpur, and Gurdaspur was 495. The districts most severely visited by famine were those in which the birth-rates were lowest and death-rates highest, and cholera raged in the famine relief camps. Bowel complaints were specially deadly in famine tracts. The sanitary administration of the Punjab is active. Large works for supplying water and removing sewage are being carried out in the larger towns, and a good deal of money is spent on conservancy and cleansing by municipalities and district Boards. A sanitary engineer has been appointed for the province. The Sanitary Board met twice and transacted some business by correspondence. The report, which is laudably brief, but sufficiently detailed for practical purposes, has been drawn up by Lieutenant-Colonel C. J. Bamber, I.M.S., Sanitary Commissioner.

Bombay.—The census of 1901 indicates a reduction of population during the decade 1891-1900 amounting to 1.7 per 1,000. The results of the recent numeration agree pretty closely with the estimate founded on registrations of births and deaths in regard to the total, but considerable discrepancies are revealed in the details pointing to defective registration. "The year under report was the most unhealthy in the recent history of the Presidency, and the vital statistics were affected to an enormous extent by the influences of widespread and very severe famine, superadded to those of plague. In the train of famine came cholera, dysentery, and diarrhoea, while the enfeebled condition of the people appears to have rendered them more than usually susceptible to fever, the mortality from which reached an appalling total." Thus does the administration summarize the character of this deadly year. The birth-rate was low—26 87 against a decennial mean of 35.32, and the death-rate excessive—70 07 against 35.32. Europeans and Eurasians as well as natives had higher rates. The famine districts were worst in respect of total mortality and loss of life caused by cholera, fever, and bowel complaints. There was a reduction of plague mortality from 96,596 to 33,196. Small-pox was in excess. The birth-rate of rural areas was more lowered than of urban. The urban death-rate was, however, higher than the rural. These circumstances are attributed to the influx of the famine-stricken into towns. Sanitary work was greatly disturbed by famine conditions, but the report of the Sanitary Board gives evidence of progress. The report of Major Crimmin, V.C., health officer of the Port of Bombay, indicates active and useful work. The general report has been drawn up by Lieutenant-Colonel J. W. Clarkson, Sanitary Commissioner. It has been greatly shortened, but the Government considers that further abbreviation is possible.

The Central Provinces.—The population of these provinces underwent a great abatement in consequence of the severe famine of 1897. Two healthy years caused some retrieval; but, in consequence of the failure of the monsoon rains of 1899, there was in 1900 a severe return of scarcity of food, coinciding unfortunately with a serious invasion of cholera, small-pox, and plague. The birth-rate, which was high in the two preceding years, fell to 31.9 and continued to decrease, contrary to the normal rule, towards the end of the year. The death-rate was 59 75—exceeded only, as compared with other provinces, by Berar and Bombay. It fell short of the rate of 1897, which was 69.34, and excluding the mortality caused by epidemics, the comparison is still more favourable. This is attributed by the administration to earlier and more efficient relief measures; for the conditions of the later were more grave than of the earlier year. The infant mortality amounted to 481 38 per 1,000. Death by plague amounted to 590; the disease was almost entirely limited to the Nagpur district. The cholera epidemic was the worst since 1869 and carried off 6.64 per 1,000 of population. Permanganating the water sources was largely resorted to, and is reported to have given good results. In consequence of a wet autumn, malarial fevers and bowel complaints were rife and deadly. The low physique of the people contributed to enhance the mortality, and bad food aided in aggravating intestinal disorders. The famine interfered with ordinary sanitary work; but Colonel A. Scott Reid's excellent report shows that it was by no means neglected, and a special report by the same officer gives a good account of special famine relief work.

Assam.—The report has been greatly abbreviated, and with appendices covers only 23 pages. The year, excepting a severe cholera epidemic, was a healthy one. The birth-rate was 34.96 and the death-rate 30.64 per 1,000. These figures are considered satisfactory by the Chief Commissioner. Registration seems to be improving except in the hill districts. The cholera mortality was 23,764, or 4.51 per 1,000 of population—a very heavy figure. In the district of Nowgong it reached 24.9. The death-rate among coolies in tea gardens was considerably lower than among the general population. Imported coolies suffered severely on steamers and in dépôts. This is attributed to their low physical condition caused by the famine in the districts whence they came. Cholera raged throughout India during 1900. The small-pox mortality was small, and credit is taken for efficient vaccination. The fever mortality was unusually low. The deadly disease known by the name of "kala-azar" is dying out. Only 9,012 deaths were returned as due to this cause, against 18,597 in 1897. The Sanitary Board met thrice. No large sanitary works have been undertaken in this province, which contains no large town, but attention is paid to water supplies, conservancy, and other

minor sanitary works. The report has been drawn up by Colonel C. W. Carr-Calthorpe, M.D., Sanitary Commissioner.

MEDICAL NEWS.

Captain R. J. Blackham, R.A.M.C., has been elected Worshipful Mark Master of Lodge "Worthy Apprentice" of Mark Master Masons, No. 193 E.C., Umballa, Punjab, India.

Professor Theodor Escherich, of Graz, has been appointed Ordinary Professor of Children's Diseases in the University of Vienna in the room of the late Professor Widerhofer.

The American Congress of Tuberculosis.—The third annual session of the American Congress of Tuberculosis will be held on May 14th, 15th, and 16th, 1902, in the city of New York, in conjunction with the Medico-Legal Society.

The Brompton Hospital for Consumption.—Owing to the closure of half the hospital for repairs, and the necessary conversion of the entertainment hall into a ward for patients, it is impossible to hold any lectures at the Brompton Hospital for Consumption, etc., until after Easter. The ensuing lectures will be advertised in due course.

Ventilation of Schools.—At a meeting of the Medical Officers of Schools Association, to be held at the house of the Medical Society, Chandos Street, London, W., on February 6th, at 4 p.m., a discussion on the Ventilation of School Buildings will be opened by Mr. W. M. Shaw, F.R.S., late Lecturer on Physics in the University of Cambridge.

Mr. Philip de Santi, F.R.C.S., Senior Assistant Surgeon and Surgeon to the Ear Department at Westminster Hospital, having been appointed Surgeon in charge of the Throat and Nose Department at this Hospital, has resigned the Assistant Surgeoncy, but still retains charge of the Ear Department.

Russian Congress of Scientists and Medical Practitioners.—The eleventh meeting of the Congress of Russian Scientists and Medical Practitioners was recently held in St. Petersburg under the honorary presidency of Prince Alexander of Oldenburg. Dr. Nikolai Menschulkin, Professor of Chemistry in the University of St. Petersburg, was chosen President of the Congress which was in session for ten days.

The Belgian Government has, it is stated, decided to appoint a Commission to inquire into the means of checking the spread of tuberculosis in Belgium. In addition to delegates of the public administrative departments directly concerned in the matter, the Commission will include a number of authorities on phthisis, hygiene, sickness assurance societies, workmen's dwellings, and other subjects having a direct bearing on the question.

Bequests to Hospitals.—Under the will of the late Mr. Thomas Whitfield of South Hampstead, a sum of £76,500 is bequeathed to various charities, among which are the London Hospital, Guy's Hospital, St. Bartholomew's Hospital, St. George's Hospital, St. Thomas's Hospital, St. Mary's Hospital, the Middlesex Hospital, the Royal Free Hospital, Charing Cross Hospital, Earlswood Asylum, the Cancer Hsspital, the Royal Hospital for Incurables, the North-Eastern Hospital for Children, and the Hospital for Consumption aud Diseases of the Chest.

Edinburgh Royal Infirmary.—At the meeting of the managers on January 27th, the following intimations were received: Legacy by the late Mr. J. A. Molleson, C.A. (residue of estate); legacy of £5,000 by the late Dr. D. McCosh, Bridge of Allan, per Mr. Thomas Hunter, W.S., Town Clerk of Edinburgh; legacy of £2,507 1s. 9d. by the late Miss Margaret Cunningham, Edinburgh; legacy by the late Miss Robina Wedderspoon, Haddington (residue of estate). Intimation was also made that the executors of the late Miss Martha Brown, of Lanfine and Waterhaughs, are to settle at Whitsuntide next the bequests of £5,000, £100, and £100 to the permanent capital of the infirmary, to the convalescent house, and to the Murray Keith fund for incurables respectively.

Bradford and West Riding Medico-Ethical Union.—A most successful dinner in connection with this Society was held at the Victoria Hotel, Bradford, on Wednesday, January 22nd, Dr. Goyder, the retiring President, in the chair. Seventy ladies and gentlemen were present. After the toast of "The King," proposed by the Chairman, had been received with musical honours, the toast of "The Union" was proposed by Dr. H. J. Campbell, and was responded to by the President (Dr. Dunlop) and the Secretaries (Drs. Metcalfe and Mitchell). A very excellent entertainment was then given by members of the Society, consisting of songs, recitations, and solos on the violincello.

An Institute for Infectious Diseases in Chicago.—The Memorial Institute for Infectious Diseases, founded in Chicago by Mr. and Mrs. Harold McCormick in memory of their son, John Rockefeller McCormick, who died a year ago of scarlet fever, was recently incorporated. The institution has been generously endowed, but for the present it will have no building of its own. At first the researches carried on in the Institute will be limited to scarlet fever, but the work will be carried on in some other institution. It is intended, however, to house the institution later in a building of its own, and to broaden the scope of its inquiry so as to include all diseases of an infectious nature.

A Vaccination Order in Quebec.—The Board of Health of the province of Quebec has decreed that any person who cannot show proof that he had been successfully vaccinated or has had small-pox within seven years, or who cannot establish that either he had been unsuccessfully vaccinated within six months, or that he had not been vaccinated because his health would not permit, will be liable to a fine of 5 dols., and an extra dollar for each day's delay in having the operation performed. A certificate of such vaccination must be furnished when required to the executive officer of municipal sanitary authority. Provision is made for free vaccination, and for penalties for false certificates.

The Fellows' dinner of the Royal Medical and Chirurgical Society will take place at the Hôtel Métropole on Wednesday, February 26th, at 7.30 p.m. The chair will be taken by the President, F. W. Pavy, M.D., LL.D., F.R.S., and among those who will be present are the President of the Royal College of Physicians (Sir William S. Church), the President of the General Medical Council (Sir William Turner), the Principal of the University of London (Professor Rücker), Dr. Conan Doyle, Mr. Ouless, R.A., Sir Michael Foster, K.C.B., M.P., the Director-General of the Navy (Sir Henry Norbury, K.C.B.), and the Director-General of the Army (Surgeon-General Taylor, C.B.).

Medical Practice in South Africa.—In the British Medical Journal of December 21st, 1901, a note was published to the effect that the Medical Council of Cape Colony had decided not to admit foreign subjects to practise in the Colony unless they belonged to a country in which the holders of British medical diplomas were accorded similar privileges. We learn from a Reuter's telegram, dated January 4th, that a proclamation has been issued applying the same principle to the Transvaal. This course of action appears to be reasonable and proper. The exact terms of the proclamations would be interesting to us if any correspondent would be so good as to forward them.

A United States Health Service.—A Bill has been introduced in the House and in the Senate at Washington by which it is proposed to change the name of the Marine Hospital Service to that of the United States Health Service. The Marine Hospital Service is already in fact a Public Health Service. In addition to its marine hospitals and relief stations, where some 56,000 seamen are treated annually, to it is entrusted the enforcement of quarantine regulations, domestic, insular, and in foreign ports; the management of epidemics, and the medical inspection of immigrants. It has imposed upon it by law the scientific investigation of all matters relating to the public health, and it publishes sanitary reports and statistics from every part of the world. The evolution outlined in the Bill is in conformity with resolutions passed by the American Medical Association and by the National Conference of State Boards of Health.

THE office of Assistant Obstetric Physician to St. Thomas's Hospital, rendered vacant by the recent promotion of Dr. Walter Tate, has been filled up by the appointment of Mr. John Shields Fairbairn, M.B.Oxon., F.R.C.S., M.R.C.P. Mr. Fairbain is succeeded in the office of Obstetric Tutor and Registrar by Mr. R. H. Bell, M.A., M.B., B.C.Cantab., a former student at St. Thomas's and now one of the assistant physicians at the Samaritan Free Hospital for Women.

LEGACIES TO EDINBURGH MEDICAL CHARITIES.—The late Mr. William Ford, sometime merchant in Leith, by his will dated March 10th, 1900, has bequeathed to the Royal Infirmary of Edinburgh, £4,000; to Leith Hospital, £4,000; to the Royal Edinburgh Hospital for Sick Children, £1,000; to the Queen Victoria's Jubilee Institute for Nurses (Scottish Branch), £1,000; and a balance to be applied in payment of the duty on these and other legacies. The late Mr. James Alexander Molleson, C.A., has bequeathed £2,000 to the Longmore Hospital for Incurables at Edinburgh; £1,000 to the Sick Children's Hospital; £1,000 to the Victoria Hospital for Consumptives; £1,000 to the Indigent Old Men's Society, Edinburgh; £100 to the Home for Cripple Children, Mansion House Road, Edinburgh; and the residue of his estate to the Royal Infirmary, Edinburgh.

THE CAUSE OF SUDDEN DEATH UNDER CHLOROFORM.—We are asked to state that Professor Martin, of Melbourne, at the meeting of the Society of Anaesthetists on Friday, February 7th, at 8.30 P.M., at 20, Hanover Square, will communicate an interesting paper on Experiments upon the Cause of Sudden Death under Chloroform, which will be illustrated by a lantern-slide demonstration. Dr. Embley, of Melbourne, has with Professor Martin been engaged for some time in investigating the effects produced by vagus stimulation during chloroform narcosis, and has arrived at results which we are informed are more in accord with clinical observations than have been some of the physiological researches undertaken upon this subject. All medical practitioners can, upon presentation of their visiting cards, gain admission to the meeting.

THE GROSS PRIZE.—The Philadelphia Academy of Surgery, as trustee of the Samuel D. Gross prize of one thousand dollars (£200) for original research in surgery have awarded the prize after six years' interval, to Dr. Robert H. M. Dawbarn, of New York City, for a treatise entitled, "The Treatment of Certain Malignant Growths by Excision of both External Carotids." On this subject Dr. Dawbarn has worked, as opportunity served, for seven years past. The essay when published will contain the histories with pathologists' report in each instance confirming diagnosis of malignancy, and specifying its variety, of forty carotid extirpations performed by the author himself; and as many additional cases by about a dozen other surgeons. At least two of these are members of the Philadelphia Academy of Surgery. By the terms of Dr. Gross's bequest the prize essay must be published in book form, and a copy thereof deposited in the Samuel D. Gross Library of the Philadelphia Academy of Surgery.

MEDICAL VACANCIES.

The following vacancies are announced:

[illegible] CHILDREN. Resident [illegible]nce. Applications [illegible] by [illegible]

[illegible] H., to be sent to the [illegible]ry Street, Bolton, by [illegible]

[illegible] unmarried. Salary, £100 [illegible] Salary, £100 per [illegible]m, with residence [illegible] for six months [illegible] Applications [illegible] February 21st.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary, £160 per annum, with board, lodging, and washing. Applications to Dr Lawrence, County Asylum, Chester, by February 12th.

COLCHESTER: ESSEX AND COLCHESTER HOSPITAL.—Assistant House-Surgeon (male); unmarried. Appointment for six months, but renewable. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 7th.

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £140, rising to £160 per annum, with board, laundry, and attendance. Applications to the Medical Superintendent, Durham County Asylum, Winterton, Ferryhill.

EASINGTON UNION AND RURAL DISTRICT COUNCIL.—Medical Officer for the Union Workhouse, and Medical Officer for the Easington Relief District, and Public Vaccinator for the Easington Vaccination District. Salary, £110, and usual vaccination fees. Candidate appointed will probably be elected Medical Officer of the District Infectious Diseases Hospital at a salary of £50 per annum. Applications, on forms provided, and endorsed "Application for Medical Officer, etc.," to be sent to the Clerk, Union Offices, Easington, Castle Eden, R.S.O., co. Durham, by February 13th.

HALIFAX ROYAL INFIRMARY.—House Surgeon; unmarried. Salary, £120 per annum, with residence, board, and washing. Applications to the Secretary by February 5th.

HASTINGS, ST. LEONARDS AND EAST SUSSEX HOSPITAL.—House-Surgeon (male) unmarried. Salary, £75 per annum, with residence, board, and washing. Applications to the Secretary by February 28th.

HULL: VICTORIA CHILDREN'S HOSPITAL.—(1) Lady House-Surgeon. Salary, £50 per annum. (2) Lady Assistant House-Surgeon. Salary, £40 per annum. Board and laundry provided in each case. Applications to the Honorary Secretaries by February 7th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. Salary, £450 per annum, with partially furnished house etc. Applications, endorsed "Application for Medical Superintendent," to be sent to the Clerk to the Visiting Committee, County Hall, Brecon, by February 28th.

KENT COUNTY ASYLUM, Barming Heath, Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising to £200, with furnished quarters, etc. Applications to Dr. F. P. Davies, Superintendent.

LANCASHIRE COUNTY ASYLUM, Winwick.—Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary commencing at £150 per annum, with prospect of annual increase of £25 to £200, and further increases according to promotion, with furnished apartments, board, attendance and washing. Applications to the Medical Superintendent.

LINCOLN COUNTY HOSPITAL.—Junior Male House Surgeon. Appointment for six months, but eligible for re-election. Honorarium, £25 for each six months, with board, residence, and washing. Applications to the Secretary by February 6th.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Two Senior Students to do Out-patient Dressings and Casualty Work. Board and residence free. Applications to the House-Surgeon.

MANCHESTER: ANCOATS HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum, with board, etc. Present House Physician candidate for the post, and if elected office of House Physician will be vacant at £80 per annum, with board. Applications to the Secretary by February 11th.

MANDALAY MUNICIPALITY.—Health Officer. Salary, Rs. 600, rising to Rs. 800 a month, by annual increments of Rs. 40. Applications to Mr. I. Calderaraí, Secretary of the Municipality, by March 24th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Female Resident Medical Officer for the Maternity Department. Appointment for six months. Applications to the Secretary by February 1st.

NEW SOUTH WALES: NEW SANATORIUM FOR PHTHISICAL PATIENTS OF THE POORER CLASSES, Blue Mountains.—Resident Medical Officer; unmarried. Salary, £300 per annum, with board and residence. Applications to Dr. Cecil Purser, Lewisham, Sydney, N.S.W.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—House Surgeon Appointment for six months. Salary at the rate of £80 per annum, with board, residence, and laundry allowance. Applications to the Secretary, at the City office, 27, Clement's Lane, Lombard Street, E.C., by February 3rd.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent.—Assistant House-Surgeon. Board, apartments, and washing provided, and honorarium of at least £25 at the end of six months. Applications to Mr. A. E. Boyce, Secretary and House Governor, by February 10th.

OXFORD: RADCLIFFE INFIRMARY.—House-Physician. Appointment for six months Salary at the rate of £80 per annum, with board and lodging. Applications to Mr. G. W. Farmer, 11, Beaumont Street, Oxford, before February 12th

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Surgeon to the Throat and Ear Department: must be F.R.C.S. Applications to the Secretary by February 8th.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Resident House Surgeon. Salary, £135 per annum, with board and residence. Applications to the House Governor by February 14th.

ROYAL DENTAL HOSPITAL FOR LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square, W.—Lecturer on Materia Medica in Relation to Dental Surgery. Applications to the Dean by February 15th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £60 per annum, with furnished apartments, board, and washing. Applications to the Acting Secretary by February 11th.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W.—Resident Medical Officer; unmarried. Salary, £105 per annum, with residence and attendance. Applications to the Hon. Secretary, Mr. H. F. Boddin, 23, Gordon Street, W.C., by February 6th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried and not more than 30 years of age. Salary to commence at £150 per annum with board, lodging, and washing. Applications to Dr. Finch, The Asylum, Salisbury.

SEAMEN'S HOSPITAL SOCIETY (DREADNOUGHT), Greenwich, S.E.—House-Surgeon for the Society's Branch Hospital, royal Victoria and Albert Docks. Salary, £50 per annum, with board and residence. Applications to the Secretary by February 3rd.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board [illegible] Applications to the Secretary by February 5th.

SUFFOLK COUNTY ASYLUM.—Second Assistant Medical Officer. Salary commencing at £[illegible], with board, lodging, laundry, and attendance. Applications to the Medical Superintendent, County Asylum, Melton, Suffolk.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £[illegible] with board lodging, washing, and attendance. Applications to Mr. [illegible] Honorary Secretary, Churchill House, West Bromwich.

WOLVERHAMPTON GENERAL HOSPITAL.—(1) Assistant House-Physician; (2) Assistant House-Surgeon. Appointments for six months. Honorarium at the rate of £[illegible] with board, lodging, washing. Applications to the House Governor by February 5th.

MEDICAL APPOINTMENTS.

BENNETT, James, M.R.C.S., L.R.C.P. Lond., appointed Public Vaccinator for the No. 2 [illegible] vice J. H. Gorrill, deceased.

[illegible] appointed District Medical Officer of the Thingoe [illegible] M.D. Toronto, L.S.A., resigned.

BANNISTER, W. J., M.B., appointed Junior House-Surgeon to the Macclesfield Infirmary.

CANT, Arthur, M.B., B.Ch. Brm., appointed Certifying Factory Surgeon for the Coleshill District of the County of Warwick.

CROWN, D., M.D., B.Ch. Dub., appointed Medical Officer for the Ulceby District of the [illegible]

CUNNINGHAM, J. P., L.R.C.P., M.R.C.S., appointed a House-Physician at the Bethlem Royal Hospital, S.E.

FISHER, Charles, M.B., B.S.Durh., M.R.C.S., L.R.C.P.Lond., appointed House-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, London.

FLETCHER, J. Howard, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health for the Ince Urban District, *vice* J. E. Parker, M.R.C.S.Eng., L.R.C.P.I., resigned.

FULLER, A. Le nard, M.R.C.S.Eng., L.R.C.P.Lond., appointed Anaesthetist to the Royal United Hospital, Bath.

LAUDDIE, A. K., M.B.Edin., etc., appointed House-Surgeon to the Wrexham Infirmary.

LITTLE, A. J., L.R.C.P.I., L.S.A., appointed District Medical Officer of the Uxbridge Union, *vice* M. Sharman, M.B., C.M.Glas.

MCGREGOR, J. M.D.Glas., appointed Medical Officer to the Kyle Union Poorhouse, *vice* George McKerrow M.B., C.M.Glas.

MACLENNAN, Alex., M.B., C.M., appointed an Extra Honorary Surgeon to the Royal Hospital for Sick Children, Glasgow.

MEIKLE, R. H., M.B., C.M.Glas. appointed District Medical Officer of the Darlington Union.

NICHOLSON, Balfour S., M.B., C.M.Glas., appointed Medical Officer for the Parish of Clackmannan, *vice* Dr. Dunlop.

PATCHETT, R., L.R.C.S.Edin. appointed District Medical Officer of the Clitheroe Union, *vice* R. Craven, M.B., C.M.Edin., resigned.

PRITCHETT, S. I., M.R.C.S., L.R.C.P.Lond., appointed a Medical Officer of Health for the City and Port of Rochester, and Medical Officer to the Rochester and Chatham Joint Isolation Hospital.

SAWYER, James E. H., M.B., M.A.Oxon., appointed a House-Physician at the Bethlem Royal Hospital, S.E.

SAYER, Thomas, M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Medical Officer at the Leeds Sanatorium for Consumptives at Gateforth.

SCOTT, R. J. H., F.R.C.S.E., appointed Consulting Surgeon to the Royal United Hospital, Bath.

STANSFIELD, H., M.B., Ch.B.Vict., appointed Medical Officer of Health for the Clayton Urban District, *vice* G. H. Oliver, L.R.C.P.Lond., M.R.C.S.Eng.

TURPIN, D. W. M., L.R.C.P.& S.I., L.M., appointed District Medical Officer and Public Vaccinator to the Alvaston Division of the Shardlow Union.

DAIRY FOR NEXT WEEK.

MONDAY.

Otological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 4.30 P.M.—Address by the President, Professor Urban Pritchard. Cases and Specimens will be shown by Mr. Arthur Cheatle, Mr. Lake, Mr. Lawrence, Dr. Macnaughton-Jones, Dr. Pegler, Dr. Tilley, Mr. Whitehead, Mr. Yearsley, Dr. Milligan, and Dr. Jobson Horne.

TUESDAY.

Pathological Society of London, King's College, W.C., 8 P.M.—Laboratory meeting: Exhibits by Dr. Norman Dalton, Dr. Whitfield, Dr. Hewlett, Dr. Daniels, Mr. Cheatle, and Dr. Hewlett for Professor Simpson.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Drs. Amand Routh, William Duncan, Mr. Bland-Sutton, and others. Annual meeting. The President (Dr. Horrocks) will deliver the annual address.

THURSDAY.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Dr. W. Ewart: Sclerodermia with Raynaud's Disease. Dr. Sidney P. Phillips: Epistaxis in Rheumatism.

Neurological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Annual meeting. Mr. H. W. Page: Presidential Address on Concussion of the Brain in some of its Surgical Aspects.

Roentgen Society, 20, Hanover Square, W., 8.30 P.M.—Mr. E. W. H. Shenton: On a System of Radiography.

FRIDAY.

Laryngological Society of London, 20, Hanover Square, 5 P.M.,—Cases and specimens will be shown by Dr. Lambert Lack, Mr. Richard Lake, Dr. F. W. Bennett, Mr. Atwood Thorne, Dr. L. H. Pegler, Mr. Waggett, Dr. H. J. Davis, and Dr. Donelan.

Society of Anaesthetists, 20, Hanover Square, W., 8.30 P.M.—Clinical evening.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.45 P.M.—Dr. R. E. Scholefield: Some Cases of Feigned or Functional Disease.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith Road, W., 8.30 P.M.—Discussion on the Treatment of Inoperable Cancer. Mr. Alfred Cooper, Mr. Stanley Boyd, Mr. H. T. Butlin, and Mr. Henry Morris will take part in the discussion.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 P.M.—Demonstration of Medical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 P.M.—Demonstration of Selected Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C. Demonstrations will be given at 4 P.M. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 P.M. Lecture on Varieties of Gait.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 P.M. as follows:—Monday: Surgical Emergencies. Tuesday: Uterine Haemorrhage. Wednesday: Lantern Demonstrations on Hernia. Thursday: Physical Diagnosis. Friday: Surgical Emergencies.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

COPEMAN.—On January 20th, at the Parade, Cowes, I.W., the wife of Alfred Heathcote Copeman, M.A., M.D., M.R.C.S., L.R.C.P., D.L., of a daughter.

MARRIAGE.

SMYTH—SMYTH.—On January 22nd, at Rutland Square Church, Dublin, by the Rev. J. H. Morton, M.A., of Belfast, James Smyth, M.B., Clapham Junction, London, son of J. Smyth, Esq., Limerick, to Marion Moore, daughter of M. Smyth, Esq., Kilkenny.

DEATHS.

GWYNN.—On January 27th, suddenly, on board the Nile steamer "Puritan," near Cairo, Edmund Gwynn M.D., of Ashdown House, Rosslyn Hill, N.W., late Medical Officer of Health for Hampstead. To be interred in the Hampstead Cemetery.

STOCKTON.—On January 25th, at King's Sutton near Banbury, Arnold Stockton, M.R.C.S., L.R.C.P., youngest son of the late James Stockton, aged 29.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SCLEROSIS wishes to know in what strength chloride of zinc may be safely injected into the tissues.

VACCINATION OF SYPHILITICS.

O. P. asks for advice on the following points:—(1) Is it advisable to vaccinate a syphilitic patient? (2) Is the syphilitic poison likely to destroy the action of the vaccine lymph introduced into the system? (3) Are persons suffering from syphilis more likely to contract any infectious disease than healthy persons, or less likely?

ACETYLENE GAS FOR A HOSPITAL.

MEDICAL OFFICER asks for information as to acetylene for an infectious hospital of 20 beds in four wards; about eighty lights would be required. What would be the cost of fitting up and expense of working, and can the gas be used for cooking?

*** The Acetylene Association was formed recently as a "company limited by guarantee, and not having a capital divided into shares" for the purpose of obtaining information as to the uses of acetylene gas and disseminating such information among its members. Further information can be obtained from the Secretary, Mr. Lacey Downes, at the temporary offices, 11, Ironmonger Lane, London, E.C.

PRESERVATION OF DIPHTHERIA ANTITOXIN.

W. A. C. (St. Luke's Hospital, Chemulpo, Corea) writes: I have not seen it stated how long antidiphtherial serum can retain its power. I have lately had a case of diphtheria in a Corean child, and the only serum I had to hand was bottled December 13th, 1899, by Messrs. Burroughs, Wellcome, and Co.—almost two years ago. I injected 10 c.cm. immediately, and gave another bottle to be taken by the mouth. The infection was pharyngeal but on the point of spreading to the larynx. The following day the membrane was much loosened, and another 10 c.cm. were given by the mouth and 10 c.cm. to be taken in the evening. On the third day there was only a small patch about an eighth of an inch in diameter left on the right tonsil. The patient was treated as an outpatient as we have no female ward in this hospital. I should like to hear if any of your readers have had good results from serum older than this was. It would be interesting to know how long the serum will retain its properties. This case also goes to show that the serum is almost or quite as effectual when swallowed as when injected.

ANSWERS.

H. E. T.—We are advised that a fair and moderate annual salary under the conditions mentioned would be from £180 to £200.

INCOME TAX.

DISSATISFIED.—When making a return of profits for assessment, private income is not to be mentioned.

T. R. A.—In making a return under Schedule D payments received from a union as district medical officer should not be included. If this has been done and a separate assessment has been made under Schedule E, then the double assessment should be discharged. The Income Tax Repayment Agency, 6, Chichester Road, W., advises in such matters.

E. K. is rightly assessed and has to pay on his proportion of the assess made upon his predecessor. If he has not made the amount, he should appeal under the 133rd Section.

*** We are informed that the price of the new edition of *Income Tax: How to get it Refunded*, is 2s. 2d., post free. It can be got from A. Chapman, 6, Chichester Road, Paddington, W.

TREATMENT FOR SUPERFLUOUS HAIRS.

W. asks for advice in regard to the treatment of hair growing on the upper lip of a girl, aged 15.

*** An answer to "L. D.," dealing with the subject of electrolysis for superfluous hairs, appeared in the BRITISH MEDICAL JOURNAL of January 12th, 1901, at p. 131. About five Leclanché cells are required,

with a galvanometer in circuit. About 2 to 2.5 milliampères of current are necessary. The needle, which should form the negative pole, may be of fine platinum wire, and should be made to enter the hair follicle.

Treatment of Anaemia.

T. C. writes, in reply to R. (British Medical Journal, January 25th, p. 246): It is hardly possible to offer any suggestion without knowing more about his case, but the following facts may, perchance, be useful to him: (1) Five years ago a branch post-office was established in a house near my own. It was occupied by a young man, his wife, and two girl clerks. I was struck by the rapidity with which they all, though quite healthy when they arrived, became very anaemic, especially the clerks, who were younger than the others. After a few months the clerks disappeared, and were replaced. Their successors became obviously anaemic, and were replaced. This having happened three or four times I mentioned the matter to the medical officer of health. A broken drain was found in the cellar. This was repaired; the new clerks have remained perfectly well, and the mistress, whose lips had become quite white, regained her colour in about a year. (2) Eighteen years ago a well-built man, a cabinet maker, took a house, the cellar of which he used as a workshop occasionally. In a corner of the cellar was a cracked iron pipe leading into the sewer. He tied a piece of rag over the broken pipe, renewing the rag or applying a piece of wood when necessary. This he did for 17 years. Meanwhile he married; his wife and two children were fragile and anaemic; he himself had at last "pernicious" anaemia: was first an out-patient and afterwards an in-patient at a hospital, without any permanent benefit, and a year ago he died. He had not mentioned the drain defect at the hospital; he had not been asked about such defects. In the light of the post-office case one may discern the probable cause of his "pernicious" disease.

LETTERS, NOTES, Etc.

Erratum.—In the second line of the description of the suctorial bulb in *Culex* in Staff Surgeon Collingwood's paper (British Medical Journal, January 25th, p. 197), for *d*, labium read *d*, labrum.

Typhoid Fever and Flies.

Dr. George Adkins, D.P.H. (Freshwater, Isle of Wight) writes: As the subject of the propagation of typhoid fever by the agency of flies is very much before the medical world at present, I feel it my duty to relate my rather unique experience of this subject, in addition to the part played by the ubiquitous bacillus coli commune.

In January, 1899, I sailed as surgeon on a ship from London bound to Table Bay with war material, a few passengers, and a crew of 62 hands. Nothing eventful in the way of illness occurred on the passage. We stayed at Capetown for seventeen days, then left with 500 [illegible] bound for Beira, which place we reached sixteen days later, after being detained at Port Elizabeth and East London. Two days after leaving Capetown I had a sharp attack of sickness and diarrhoea, with a temperature of 101° F. and the usual symptoms associated with pyrexia. I was quite well in three days. From that time onwards several of the crew and passengers had similar attacks until we arrived at Beira. During this time the number of flies on board increased [illegible] on extent, and at East London we were tied up to a steamer that had just landed 900 mules, so we took over her cargo of flies. Our vessel simply swarmed with them, thus for instance, any food left exposed for a moment at once became black with flies, and as the mules were so packed that their manure could not be removed it stood about [illegible] when we arrived at Beira. The discomfort from the flies, and the suffering endured by the crew in doing their work can better be imagined than described.

[illegible] after leaving the mules we were thrown overboard, the decks were [illegible] and whitewashed, but much of the stench and [illegible] remained, and by degrees every one on board, except the [illegible] was affected more or less with fever, sickness, and diarrhoea; one [illegible] engineer died in a delirium and was lost. These symptoms [illegible] me on every (I had three attacks) and approached in [illegible] those of typhoid fever, and when we arrived at Calcutta, [illegible] were taken to hospital with all the [illegible] four cases soon terminated fatally, two from [illegible] three others nearly died from [illegible] recovered after six weeks in bed. A post-[illegible] of the fatal cases gave all the morbid [illegible]

[illegible] sickness. We changed the water supply [illegible] the milk used was all tinned, [illegible] to the conclusion that the [illegible] us the poison from the [illegible] sickness, with complete re-[illegible] fully-developed germ of [illegible] fever.

Transmission of Acquired Characters.

Dr. A. W. [illegible] (Nice) writes: Although the discussion "Theories of [illegible] recently carried on in the pages of the British Medical [illegible] facts, which I intended to [illegible] remarkable that they [illegible] publication. Dr. Fremont, [illegible] the last few years devoted great attention to diseases of the stomach, has established a [illegible] which he called "gasterine." Basing his [illegible] the diseases of the dogs he keeps for [illegible] to serve the purpose [illegible] experiments, and [illegible] the [illegible] lower [illegible] and [illegible] the [illegible] It is [illegible] spite of [illegible] any [illegible] to [illegible] a fact easily explained by the [illegible] imposed on the duodenum and small intestine. "They even breed without difficulty," Dr. Frémont remarked to me in a recent conversation, "but my puppies are disappointing." "In what respect?" I asked. "In the very important matter for me," he continued, "that I get no 'gasterine' from them. Even the first litters offer some difficulty for my usual operation, since the intestine is enlarged and the stomach contracted. In subsequent litters these abnormal conditions become more and more marked, and the supply of 'gasterine' correspondingly diminished. I have now ceased to utilise the young of my 'opérés.'" This evidence is all the more interesting that it comes from an absolutely unprejudiced source; it was elicited in the course of general conversation, and Dr. Frémont subsequently remarked that he was not particularly interested in questions of heredity. I may add that in his own special branch of study his views bear great weight with so eminent an authority as Pavloff.

LETTERS, COMMUNICATIONS, Etc., have been received from

A Messrs. Arnold and Sons, London; A. M.; Mr. M. A. Alabone, London; Admiralty, Director-General of the Medical Department of, London; All time M.O.H.; Mr. T. McC. Adair, Belfast. **B** Mr. D. Biddle, Kingston-on Thames; Mr. J. G. Burgess, Upwell; Mr. J. B. Bayfield, Great Yarmouth; Dr. F. Bushnell, Plymouth; Mr. A. S. Barling, Lancaster; Mr. J. H. Bland, London; Mr. L. A. Bidwell, London; Dr. L. Buchanan, Glasgow; Mr. H. Brown, Surbiton Hill; J. M. Barbour, M.B., Wells, Somerset. **C** Dr. J. M. Clarke, Clifton; Dr. E. O. Croft, Leeds; Dr. E. Cautley, London; Mr. T. A. Cook, London; Mr. W. A. Carden, Chemulpo, Corea; Mr. J. M. Cuthbertson, Droitwich; Dr. C. H. Cattle, Nottingham; Dr. C. J. Cullingworth, London; A. Cox, M.B., Gateshead. **D** Mr. L. Downes, London; Dissatisfied; Dr. C. Dukes, Rugby; Dr. R. H. M. Dawbarn, New York; Mr. F. de Lisle, London; Dr. T. Dutton, London; Dr. L. Dobson, London; J. Donelan, M.B., London; D.S.O. **E** Messrs. Elder, Dempster, and Co., Bristol; Dr. J. Eyre, London; A. M. Erskine, M.B., Goole; Mr. R. S. C. Edleston, Stoke-on-Trent. **F** Mr. L. Fletcher, Hoxne; Dr. G. Flux, London; Mr. S. Forrest, Bury St. Edmunds; F. G. C. **G** G. C.; Mr. F. W. Galton, London; Mr. J. Garrett, London. **H** H. S.; Dr. C. O. Hawthorne, London; Dr. W. J. Horne, London; Dr. J. P. Henry, London; Mr. J. D. Harris, Exeter; G. E. Hale, M.B., Eton; W. Hardcastle M.B., Newcastle-on-Tyne; Mr. G. A. Hawkins-Ambler, Liverpool; P. S. Hichens, M.B., Northampton; Dr. C. G. Havell, Felixstowe; Dr. S. H. Habershon, London; F. G. Haworth, M.B., Darwen; Dr. H. Head, London. **I** I. V. R. C.; Indefatigable. **J** Dr. R. Jones, Woodford Bridge. **K** Mr. C. W. Krohne, London. **L** L.R.C.S.I. **M** Mr. W. H. Martindale, London; M.D.Lond.; Messrs. S. Maw, Son and Son, London; Dr. I. G. Modlin, Sunderland; Dr. L. J. Milne, Mirfield; Mr. R. Maples, Kingsclere; M.D., F.R.C.S.E.; Mr. N. C. Macnamara, Chorley Wood; Mr. H. May, Birmingham; Dr. W. Milligan, Manchester; Mr. J. D. Marshall, London; Mr. W. J. Midleton, Bournemouth; Dr. D. McKenzie, London; Dr. J. D. McCaw, London; Dr. J. Metcalfe, Bradford; K. W. Montsarrat, M.B., Liverpool; Medical Man; Medical Officer; Dr. T. Mitchell, Gorseinon. **N** Nottingham Medico-Chirurgical Society, The Secretary of, Nottingham; **O** One Perplexed. **P** Messrs. Potter and Clarke, London Dr. J. Pirie, Leamington; Mr. T. D. Fatmore, London; Dr. E. A. Peters, London; Dr. N. Porritt, Huddersfield; Prideaux's Pure Casein and Life Food Company, The Manager of, Motcombe. **R** O. L. Rhys, M.B., Cardiff; Rex; Major R. Ross, Liverpool; Mr. T. P. Roberts, St. Albans; Retired Medical Man. **S** Sulphur us; Messrs. Solport Brothers, London; Dr. J. O. Symes, Clifton; Dr. H. W. Syers, London; Dr. H. Smith, London; Dr. A. Sheen, Cardiff; Sclerosis; Sold; Sir J. Sawyer, Birmingham; Dr. J. A. Shaw Mackenzie, London; Dr. H. Sharman, London. **T** T. R. A.; J. W. Taylor, M.B., Bristol; T. C.; Mr. W. T. Thomas, Liverpool. **V** Mr. J. H. Vincent, London; Volunteer Surgeon. **W** Dr. B. T. Whitmore, New York; Mr. C. E. Wallis, London; Dr. F. Willcocks, London; A. Wauchope, M.B., Glasgow; Dr. A. E. White, Aldershot; W.; Mr. S. Walker, Middlesbrough; G. B. Wood, M.B., Sandown, Isle of Wight. **Y** A Young, M.B., Glasgow, etc.

BOOKS, Etc., RECEIVED.

A Surgical Handbook. By F. M. Caird, M.B., F.R.C.S.Eng., and C. W. Cathcart, M.B., F.R.C.S. Eleventh Edition. London: C. Griffin and Co. 1902. 8s. 6d.

Outlines of Practical Physiology. By W. Stirling, M.D., Sc.D. Fourth Edition. London: C. Griffin and Co. 1902. 15s.

Sanitary Engineering. By F. Wood, A.M.Inst.C.E., F.C.S. London: C. Griffin and Co. 1902. 8s. 6d.

A Systematic Treatise on Materia Medica and Therapeutics. By F. Ellingwood, M.D. London: Potter and Clarke. 1900.

The Journal of the Royal Agricultural Society of England. Vol. lxii. London: John Murray. 1901.

The Climate and Mineral Waters of Caledon, South Africa. By G. W. B. Daniell, M.R.C.S., L.R.C.P. London: John Bale, Sons, and Danielsson. 1902.

Speeches on Canadian Affairs. By Henry Howard Molyneux, Fourth Earl of Carnarvon. Edited by Sir Robert Herbert, G.C.B. London: John Murray. 1902. 7s. 6d.

Transactions of the Otological Society of the United Kingdom. Vol. II. Session 1900-1901. London: J. and A. Churchill. 1901. 10s.

Food and Drugs. By C. J. Higginson. Second Edition. London: Effingham Wilson. 1902. 3s. 6d.

The Harveian Oration delivered before the Royal College of Physicians of London on October 31th, 1901. By N. Moore, M.D. London: John Murray. 1901. 2s. 6d.

Lectures on Chemical Pathology. By C. A. Herter, M.D. London: Smith, Elder, and Co.; 1902. 7s. 6d.

. In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
Each additional line ...	...	...	...	0 0 6
A whole column	...	...	...	1 17 6
A page	...	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

A Clinical Lecture

ON

TWO CASES OF PERITYPHLITIS

(COMMONLY CALLED APPENDICITIS),

Delivered at the Aberdeen Royal Infirmary.

By DAVID W. FINLAY, B.A., M.D., LL.D., F.R.S.E.,

Regius Professor of Medicine in the University of Aberdeen; Physician and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary.

ALTHOUGH it is quite true that appendicitis, so called, is not a new disease, the impression that it is more frequently met with than it used to be—say twenty years ago—is probably a correct one; and it is certain that more is now known about it, and hence that its treatment is more successful.

The name has always seemed to me objectionable, partly because it is badly compounded (which, however, is not perhaps of great importance, although in nomenclature we are going steadily from bad to worse), and partly because it assumes too much.

Probably the increasing frequency with which acute troubles in the caecal region are dealt with surgically, and the demonstration thereby afforded that diseased conditions of the appendix are, in the great majority of cases, at the root of those troubles, has led to the coining of a new name. But many cases of inflammation in the right iliac fossa occur in which we have no proof that the appendix is at fault, however much we may suspect it; and in some others, even after operation for the evacuation of pus, the complicity of the appendix is only a matter of strong inference.

These points have their illustration in the following cases, to which the name "perityphlitis" seems to me the most appropriate.

CASE I.

F D., aged 39, a labourer, was admitted on September 7th, 1899. Three days before admission he was attacked by sharp pain in the lower part of the abdomen on the right side, on account of which he had to give up work and take to bed. On the following day he was seen by a medical man, who ordered fomentations to the seat of pain and a milk diet. He had no thirst then, or sickness; and his bowels, which acted slightly on the first day of his illness, had not moved since.

On admission, his temperature was 100° F., pulse 94, respirations 28. He lay on his back in bed with the right leg drawn up, although not continuously. He complained of but little discomfort, but his tongue was rather dry, and showed a thick yellowish-white coating with a brownish strip down the centre, the tip and edges being pretty clean. Tenderness on palpation in the right iliac region was present, and here there was a distinct swelling which was dull to percussion; there was no general abdominal distension. Urine was clear and dark-coloured, with a specific gravity of 1023, strongly acid, and free from abnormal constituents.

He was ordered liquid diet, with hot fomentations to the region of the caecum over an application on lint of an ointment consisting of equal parts of extract of belladonna and glycerine; barley water and ice for thirst, and half a grain of extract of opium in pill every four hours. Three days later there was no pain or tenderness; the tongue was still coated, but it had lost its brownish strip. Slight fullness remained over the caecal region, but no swelling was felt on light palpation, and the percussion note was resonant. Temperature was normal, and the bowels were still confined. An enema of olive oil, to be followed in two hours by a simple enema, was ordered for the next morning. On deep pressure there could be felt a tolerably firm, somewhat nodular mass, probably mainly faecal, which was not tender to touch. The bowels acted well after the enema above referred to, the motion being merely of a constipated kind. The tongue was still considerably coated. On September 13th the temperature was 96.8° F., the third day of a subnormal range; pulse 68, respiration 20. The patient now expressed himself as well and comfortable; the bowels acted freely, and the urine gave a well-marked reaction for indican. On the 15th he was ordered custard pudding; pain, tenderness, and swelling being all gone. The opium was reduced to one pill night and morning. On the 16th these also were discontinued, and the urine was found to be free from indican. His condition continued steadily to improve, the appetite being good and the tongue moist and clean. Constipation was the only matter now requiring treatment, and this readily gave way to an occasional simple enema. He was discharged convalescent on September 29th, just three weeks after admission.

CASE II.

D. C., a boy aged 14, employed as a billiard marker, was admitted into the Aberdeen Royal Infirmary on December 11th, 1899, complaining of pain in the abdomen, located chiefly in the right iliac region. His family history was unimportant, as also his previous history. As regards present illness he stated that he was playing in the street with some companions eight days before admission, that he fell in the course of their horse-play, with his abdomen resting against the kerbstone, and that while so placed one of his companions fell upon him. He felt no pain then, and continued quite well for a couple of days (that is, until December 8th), when towards evening he complained of pain in the lower part of the abdomen. Next morning the pain was worse, he felt sick, and vomited several times, and his appetite was gone. On the two following days pills were administered to him, which produced loose motions, and he remained pained and thirsty. Next day (December 9th) some improvement was noted, the pain being less troublesome; he was able to take a little food, and he got up. But later in the day he had a return of the pain, and he went back to bed. He had a restless night, and felt sick, but he did not vomit either then or during the following day (December 10th), when he was seen at his own home by the house-physician. He then complained much of pain and tenderness over the right side of the abdomen generally, but especially in the iliac region. He felt sick, and vomited some watery bile-stained fluid, and he stated that he was troubled with frequent calls to pass water, together with difficulty in passing it.

On admission half an hour later his temperature was found to be 100.4° F., pulse 104, respirations 40. He was observed to be a rather sparely nourished boy lying on his back or slightly inclined to the right with his legs drawn up, his face flushed, and with an expression of pain. Skin and lips were dry; tongue also dry and coated with a thin whitish fur on the dorsum. The abdomen, which was somewhat distended and everywhere tympanitic, showed very slight movement on respiration. The distension was chiefly marked over the lower and the right iliac portions of the abdomen, where there was also, in addition to the pain and tenderness before referred to, some sense of fullness and resistance on palpation. The lower border of hepatic dullness was found about a finger-breadth above the costal margin in the nipple line. There was nothing calling for remark in the respiratory or circulatory systems; and the urine, which had a specific gravity of 1024, acid reaction, and turbidity due to lithates, showed the presence of indican. The treatment ordered at this stage consisted of ten-minim doses of tincture of opium to be repeated as might be necessary, hot fomentations to the lower part of the abdomen, liquid diet (milk and beef tea) and two ounces of port wine. Next day, on account of vomiting he was ordered nutrient enemata. On the following morning it was noted that he had passed a rather restless night and had vomited twice. The abdomen was somewhat more distended and the pain rather less. On the whole he both looked and felt more comfortable. Temperature was 98° F, pulse 110 regular and of fair strength, respirations 33. There was now marked fullness in the right iliac iliac region, with impairment of resonance.

As it was obvious that surgical treatment would be required, the patient was transferred to the care of my colleague Dr. Scott Riddell, who operated on the following afternoon. A considerable abscess, shut off by adhesions from the general peritoneal cavity, was found in the neighbourhood of the caecum and appendix. Owing to the matting of adhesions the appendix could not be found. A quantity of very foul-smelling pus was evacuated, the cavity being then irrigated and drained by a large drainage tube passed deeply down into the pelvis. The lad's temperature after this was occasionally slightly raised during about a fortnight. Subsequently it remained practically normal, his convalescence was uninterrupted and he was discharged completely recovered in about seven weeks.

From the clinical point of view three classes of cases of perityphlitis appear to me to stand out prominently. Typical examples of two of these are found in the instances above narrated. No. 1 belongs to the class which prompts one to doubt whether the appendix is at fault, at least in the first instance, if at all. Adults are often the subjects; treatment by rest, careful dieting, and opium with hot fomentations seems to be all that is needed to bring about complete convalescence, the bowels being unloaded by enemata after the temperature has come down to the normal point. With attention to dieting for a prolonged period relapses are uncommon.

The class illustrated by Case II is more commonly met with in younger patients. I am inclined to think that the appendix is almost always the offending part here, although in many such the absolute proof is wanting. I can recall a similar case which was under my care several years ago where the usual symptoms, localised in the caecal region, were present, and where convalescence seemed to have been well established under the ordinary medicinal treatment. After a short period of convalescence, however, temperature again rose, and examination of the right iliac region enabled one to make out a return of swelling followed by fluctuation. The abscess which had formed was evacuated, and the appendix was found to be perforated, with its tip gangrenous. The removal of the appendix and the purulent collection resulted in complete recovery. The third variety of case is really a modification of Class II, in which, owing to the absence of limiting adhesions because a sudden perforation of the appendix has taken place, intense septic peritonitis is set up, which speedily extends to the whole peritoneal coat, and the duration of the patient's life, if he is not surgically treated, is then measured by hours. Young adolescents, particularly males, are the most frequent sufferers from this, which is often called the "fulminating" variety. I have seen no case of this kind recently to notes of which I might refer, but unfortunately such are not very uncommon in the experience of the general practitioner.

Detailed questions of pathology do not come within the scope of my present purpose, but it is remarkable in how many cases a faecal concretion is the cause of perforation of the appendix. A limited statistical inquiry which I made

some years ago showed its presence in 75 per cent. of the cases; and in many cases in which no concretion is found it is not unreasonable to suppose that it has become broken down in the collection of purulent fluid which has been formed, or has somehow escaped notice.

The etiological factors are still largely matters of conjecture, and so comparatively unimportant. The too keen cultivation of cycling and various forms of athletics; hurried bolting of food without sufficient mastication; and, what is much the same thing—deficient power of mastication owing to bad teeth, are all suggested as contributory causes; and it is impossible to say they are not. But as to the last mentioned it may be remarked that it would be odd if it had much to do with the question, as the disease is most apt to attack that class of the community which, as a rule, can boast of good teeth. One suggestive point, however, is that the perforative variety not infrequently follows immediately upon some exertion which puts a strain upon the abdominal muscles; and this brings it into line with what is often observed in the comparable case of perforation of a gastric ulcer.

But what is of paramount importance is the early recognition and prompt surgical dealing with the fulminating cases, if the patient is not to be allowed to succumb without an effort being made to save him. The other varieties referred to are not urgent—they can afford to wait until you have time to think all round them.

The points for diagnosis, as regards Classes I and II, come out in the cases above recorded. Regarding Class III (the "fulminating" variety), the most striking fact in typical cases is the extreme suddenness of onset. Together with this there is sharp abdominal pain, with tenderness and rigidity of abdominal muscles, also nausea or vomiting, and probably collapse. The pain may be localised to the region of the mischief, or it may not. Indeed, it must be said that pain as a means of localising abdominal disease is unreliable and sometimes deceptive. I have known of a case of disease of the appendix in which the pain was situated in the left iliac region not in the right.

It has always struck me as regards diseases affecting the hollow viscera of the abdomen, more than in the case of disease elsewhere in the body, that one seldom sees two cases of what must be called the same disease precisely alike. Perityphlitis is no exception; and I should like to refer here to a case which was in one of my wards a few years ago which illustrates the difficulties sometimes besetting the diagnosis, and also presents a point in the symptomatology which it may be helpful to keep in mind. It was that of a lad, aged 16, a painter by occupation, who had felt "out of sorts" three weeks before admission, and had complained of nausea and vomiting, with pain in the right iliac region; diarrhoea also had been present. He stated that near the window of his room at home there was the open trap of a sewer, from which foul smells emanated. He took to bed a fortnight before admission, and there was a suggestion of enteric fever up to this point. On admission the abdomen was not distended, but was somewhat rigid, generally tender, especially so, however, in the right iliac region and along the line of the ascending colon. There was some tenderness later in the right lumbar region (and it is to this point that I wish to direct special attention), but nothing abnormal could be felt either here or in front. On the day after admission he had a rigor, with rise of temperature to 104·8°, and similar rigors were repeated during several days, generally followed by sweating. The urine showed Ehrlich's reaction. He complained subsequently of pain in the epigastrium, right hypochondrium, and right shoulder, which he described as sharp and cutting, aggravated also by deep inspiration. The abdomen gradually became more full and tympanitic, and the liver dullness was found 2 inches below the costal margin. As it was evident that the patient was suffering from pyæmia from some unknown source, the probability, however, being that this would be found in the neighbourhood of the appendix, it was decided to have an exploratory operation performed. This was accordingly done, but nothing abnormal was detected either in the colon, cæcum, or region of the appendix. The liver came about three inches below the costal margin, but the organ otherwise seemed and felt normal. He did not rally from the operation, and died the following day. On *post-mortem* examination an abscess cavity containing several ounces of greenish-coloured pus with a faecal odour was found, extending from the cæcum to the right kidney. The appendix, which was turned up behind the cæcum with its tip perforated, was lying in the abscess cavity. The liver on section showed several pyaemic abscesses.

A case of this sort is especially instructive as showing that even with an exploration by the surgeon the source of the trouble may not be found owing to the unusual position occupied by the appendix. But the lumbar pain and tenderness which were complained of constituted a suggestion of disease behind the cæcum, to which sufficient importance was not attached when the symptomatology was considered.

Speaking generally of the more acute cases, if positive indications are wanting, I think you may conclude in nine cases out of ten for appendix trouble, at all events in the case of a boy of school age showing the general symptoms, when you can exclude injury and tubercle. And, by the way, it would be an interesting matter to speculate about in regard to my second case how far the abdominal injury had anything to do with his perityphlitic abscess. The knock which he got against the kerbstone would not have been likely of itself to have caused his trouble, but it may have been the determining factor which acted as "the last straw" in bringing about the abscess formation from which he ultimately suffered.

Concerning treatment, it may be said that cases belonging to Class I practically invariably recover under the method of treatment already described, and no operation seems either called for or justifiable. The necessity for operation in Class II is equally clear. Nature herself shows us that by efforts at spontaneous cure, in the pointing and discharge of pus either externally or into one of the hollow viscera; and, as to Class III, the propriety of operative interference is unquestionable. But even in these there is a time to operate and a time to refrain from operating. Other things must be considered besides the local conditions. Of these the most important, I think, are the state of the pulse and of the tongue, the amount of abdominal distension, and the presence of vomiting. We have all seen, or can imagine, cases where, having regard to these points, operation will not prolong but only shorten life, and tend to bring the use of surgical measures into disrepute.

Another difficult question to decide is what advice we are to give in the relapsing cases? Here I am on the side of the surgeons, most of whom, I think, are content to operate when one relapse has occurred (at least, if it be a serious one), after the relapse has passed off.

In connection with treatment I should like to add that in the simple class of cases, where there is much pain, the application of two or three leeches over the swelling may often give great relief. But whatever you do or forbear from doing, I would advise you never to have recourse to purgatives. It is quite true that men whose opinions are entitled to respect have recommended their employment, but I should prefer not to be treated in that way myself. Opium, not pushed too far, seems to me to be about the only useful drug in such cases as we have been considering, on account of its power to alleviate pain and check peristalsis of the bowels.

The matter of prognosis has been inferentially dealt with already. Put in the briefest form, I should say that cases of the first class to which I have referred always recover; those of the second class generally recover with operation unless the pus has broken through its adhesive bounds and infected the general peritoneal cavity, and those of the third class never recover without operation, and often not even then, owing largely to delay in summoning the surgeon.

A CENTENARIAN PRACTITIONER.—Dr. John Wood, believed to be the oldest practising physician in the world, according to the New York *Medical Record* celebrated his one hundred and first birthday at Colleyville, Kansas, on January 4th. When Kansas was admitted into Statehood he was a United States Commissioner, and the famous John Brown was twice brought before him, once charged with murder and once with harbouring fugitive slaves.

ALLEGED MALADMINISTRATION AT MOLOKAI.—According to *American Medicine* the lepers at Molokai have brought against the Hawaiian Board of Health a charge of neglect and misdemeanours in relation to their supply of food and water, and have asked for an investigation by a State Commission.

Remarks
ON
APPENDICITIS AND ITS TREATMENT.

By JAMES TAYLOR, F.R.C.S.,
Senior Surgeon, Chester General Infirmary; Consulting Surgeon, Wrexham Infirmary.

The classification of cases of appendicitis according to pathology gives us an infinite variety, such as catarrhal, purulent, ulcerative, infective, gangrenous, etc., but clinically, although these varieties may be to a certain extent identified, and in the future their identification will probably be of great value and importance, yet at present to my mind, a much simpler classification will be of more practical value, not based on the pathology of the disease but on its clinical features. For our purpose we may thus classify:

1. Simple acute appendicitis.
2. Fulminating appendicitis.
3. Chronic appendicitis.

I do not purpose saying anything about cases due to tubercle or malignant disease. They are not very common, and just now simply require recognition.

1. *Simple Acute Appendicitis.*

The important symptoms of this condition are: Pain, tenderness and rigidity. The pain often follows some error in diet, is usually at first referred to the umbilical region, less frequently to the epigastric region, but after a short time is generally confined to the right iliac fossa. At first it is paroxysmal in character, but when it becomes located in the iliac fossa it to a great extent loses its paroxysmal character and becomes constant. In many cases the pain radiates from the fossa in almost any direction, still, however, being most intense over the appendix. In a small number of cases the pain may be absent in the fossa, and present itself towards the right loin, towards the middle line from the umbilicus to the pubes. The onset of the pain is frequently absolutely sudden, coming on with an entire absence of any premonitory symptoms. The tenderness is one of the most characteristic features; it, in a typical case, is absolutely at McBurney's point. There is usually slight tenderness, more or less widely spread over the abdomen, but its concentration midway between the anterior superior spine and the umbilicus is most noticeable. The rigidity is confined to the lower right quadrant of the abdomen; this rigidity is one of the distinguishing marks between appendicitis and inflammatory trouble in the pelvis; in the latter there is an absence of this rigidity.

To these three main symptoms we must add vomiting, which often occurs during the early stage of the disease, and generally subsides rapidly, but may continue, along with nausea, throughout the attack. When the onset is denoted by a sudden attack of pain, this sudden pain is usually accompanied by vomiting. Tympanites to some extent is usually present.

In many cases the hip-joint is slightly flexed and the thigh fixed. There may be an entire absence of tumour in the iliac fossa, but generally there is fullness and hardness, varying from a slight resistance to a very decided hard mass, fixed, and with tolerably well-defined limits.

Accompanying these symptoms pyrexia is almost always present; the temperature is raised, and the pulse is a little quickened. The rapidity and the character of the pulse require much more careful watching than the temperature.

Let us now consider the terminations of such an attack:

1. Absolute and complete recovery. I see no reason to doubt this, although I do not think it is very common, but I can recall to mind cases occurring years ago—then called cases of typhlitis, or perityphlitis that I know have had no trouble since, and are now in perfect health.
2. Localised suppuration.
3. Apparent recovery, but having pain at times, or having a small swelling to be felt in the fossa.
4. Apparent recovery, but having one or more recurrences of the acute attack weeks or months afterwards.
5. A continued state of slightly-raised temperature, with tenderness, but with no other evidence of pus formation.

(The last three groups belong to the class of chronic cases.)

6. A sudden change for the worse, taking on the characters of a fulminating attack.

2. *Fulminating Appendicitis.*

This, as its name implies, is a violent explosion, a violent explosion of the most grave character. This outburst of violence may be the first symptom of the disease, or it may come on at any time during an attack of ordinary appendicitis, or during a recurrent attack.

The symptoms are the same as those of an ordinary acute attack, but of greater intensity, and with evidences of more profound constitutional disturbance. The initial pain is most intense, may be continuous, or it may absolutely cease. The tenderness is all over the abdomen, but more marked over the appendix. There is early tympanites, beginning in the umbilical region, and rapidly extending over the epigastric region. The face takes on an anxious expression, the skin becomes clammy, the pulse increases in frequency, becomes small and feeble; the temperature is not much guide, it may be below normal, or it may quickly rise up to 104° or 105°: vomiting is usually frequent and troublesome. The progress is rapid, going swiftly from bad to worse, and the usual termination is death.

3. *Chronic Appendicitis.*

In this class I should include all cases where after an acute attack there are any symptoms remaining that in any way can be referred to the appendix, such as occasional pains in the iliac fossa, accompanied or not with slight elevation of temperature; any remaining hardness in the fossa, after an acute attack, even without pain or tenderness; cases where there are occasional pains with some tenderness in the iliac fossa, but without any history of an acute attack; and especially all cases of recurrent appendicitis.

Treatment.

In an ordinary case of acute appendicitis, my opinion is that the best results are obtained by absolute and complete rest. I do not hesitate to give opium to restrain the pain and to keep the intestines quiet. Some authorities are against the giving of opium on the ground that it masks symptoms. That is not my view. The serious symptoms in such cases can be easily discovered, quite apart from the effects of the opium, and in addition to its effect in relieving the pain it has a soothing action on the nervous system which is of immense value. Unless the rectum is loaded, when I would give an enema of oil, I would leave the action of the bowels alone until all acute symptoms had subsided. As little food as possible should be given by the mouth, and rectal feeding should be especially avoided. In my opinion all interference with the rectum is bad. But what you will wish me to enter more fully into is the question of operative treatment.

In the *Transactions of the American Surgical Association for 1899*, Richardson says that from month to month and from year to year his opinions have changed on this point, and I am conscious of a tendency to change my opinions on some of these cases at the present time. I feel, at any rate, that my views and opinions require very careful consideration on my part.

There are certain cases that I think must without question be operated upon. They are:

1. *Fulminating attacks*, whether so from the beginning or becoming so during an ordinary attack. These cases, if left to themselves, are sure to die; they are very likely to die if operated on, but now and then one may be snatched from the very jaws of death. I look on these cases in the same light as I look upon a very bad case of strangulated hernia. You may save your patient by operation, you cannot save him without.
2. *Cases of chronic appendicitis* (except during an acute recurrence) should be operated on. In these cases (interval cases) the mortality is slight; and whatever else you may meet with, in the case where the appendix has been removed you will not afterwards meet with acute appendicitis. In these chronic cases an apparently healthy appendix may be found, but generally, if carefully examined, some evidence of ulceration will be seen. In the case of a lady whom I operated on, who had one or more attacks of acute trouble and since then had frequently pain in the iliac fossa, the appendix was ap-

parently perfectly healthy, but on gently passing a probe along its interior I found a place where the wall was very thin, and on opening it up found an ulcer. An appendix may be found thickened and undoubtedly inflamed: and there may be adhesions, dense or otherwise; or it may not be possible to find the appendix, but breaking down the adhesions appears to promote a cure. The appendix may lie in a localised abscess, and in such cases a minute perforation can generally be discovered, or the appendix may be gangrenous in a cavity containing pus.

Passing by, then, the cases where operation is clearly indicated, we approach the problem of operation or not during an acute attack. Up to the present time my opinion has been against operation at this time, and I have not yet changed it: but some recent cases of operation have given me cause for thought as to whether it would not be wiser to operate in such cases if the operation were done early. There was a girl in the infirmary some months ago suffering from acute appendicitis. She recovered somewhat, but not entirely; her temperature did not become normal, or, if it did, it did not remain normal. After some weeks of this slight pyrexia I operated and found no trace of pus, as I expected, but any amount of adhesions; these I broke down, but could not find the appendix. She recovered rapidly and perfectly after the operation. Would it not have been better to have operated during the acute attack in this case, when the adhesions would have been soft, easily broken down, and the appendix probably found? Now I do not feel sure that she may not have another attack at any time.

In the early part of last year I saw a young lady suffering from an ordinary attack of acute appendicitis. Instead of getting better she developed an abscess over the site of the appendix; this I opened widely, searched its interior, but could not find the appendix. I was careful not to break down any adhesions, as I did not want to infect the general peritoneal cavity. She made a good and rapid recovery; the wound closed, and she went about as usual. Six months afterwards all the old symptoms came back, and in the course of about a week a large abscess formed; this I opened through the cicatrix, giving exit to several ounces of very fetid pus. I again searched the interior of the cavity as carefully as I could, but could not trace the appendix. She has now again completely recovered, the wound remained open longer than before, but it is now soundly closed. She feels well and as strong as ever, but one can scarcely feel safe about her. Would it not have been better to have operated on her in the early days of the first attack, and removed the appendix?

A boy that I saw with Dr. Elliott and Dr. Foster of Barrow had a fulminating attack. The following are Dr. Foster's notes of the case, and it will be seen that, although he diagnosed appendicitis, there were really no symptoms that called for even a consideration of operation until the day of operation and death.

F. B., aged 12 years. October 5th, 1901. Went out after the hounds with [illegible] kfast; came in at 10 A.M., had a cup of tea and a bun. Eating almond toffee off and on all day. October 6th. Was found eating toffee in bed [illegible] en liquid. October 7th. His mother [illegible] plained of sickness and pain in [illegible] loose, containing currants and [illegible] ed bismuth, morphine and bella[illegible]g but toast-water and ice. [illegible] d, bowels not moved. Temperature [illegible] water given, hot poultices [illegible] complained of on right [illegible] perature and [illegible] containing [illegible] bowels moved naturally [illegible] Morphine and bella[illegible] dor[illegible] no motion, temperature and [illegible] another enema, brought [illegible] motion with more [illegible] pain much relieved. [illegible] off and on all day. Vomited again at 7 P.M., no pain, no [illegible] temperature [illegible] and pulse 80. October 8th [illegible] in early morning [illegible] 10 A.M. to give [illegible] ture 100.2°, pulse [illegible] [illegible] n to Chester and [illegible] and we agreed to [illegible] We [illegible] brought out Mr [illegible] and he operated. [illegible] had got up to 140, and at [illegible] The boy [illegible] on two hours and a half, and was [illegible] During the [illegible] time the pulse never got beyond 148 till the [illegible] that he was [illegible] on. On opening the peritoneal [illegible] a quantity of thin fetid [illegible] escaped. On bringing up the appendix from it adhesions an abscess was opened from which pus welled, quite different in character from the fluid in the general cavity. In the wall of the appendix I found a perforation, and in its cavity an almond kernel.

This was a case of apparently very mild acute appendicitis suddenly becoming fulminating. If the rule had been operate in all cases of appendicitis, the result might have been different.

Some time ago I saw a gentleman who had been suffering continued feverishness for months. He complained of pain at the epigastrium, this epigastric pain was of but some weeks standing, before then his pain had been vague both in position and duration. There was a distinct fullness at the epigastrium, so I cut down on it and opened an abscess. He improved somewhat, but very shortly became worse and died. A *post-mortem* examination showed that the abscess which I opened was only one of several in the liver. The appendix was found bound down by adhesions and full of pus: evidently the appendix was the starting-point of a fatal case of pyaemia.

There are at the present time two young women in the infirmary upon whom I have operated. The condition found in each of these cases makes it extremely probable that a recurrence would have taken place very shortly, and also that the recurrence would very possibly have soon become fulminating. I saw both these cases during the acute attack, and refrained from operating. One of them I saw with Dr. Mann, and I think she escaped very narrowly. I found at the operation that the appendix was in a mass of adhesions, and that the manipulation necessary separated the appendix from the proximal end along a line of circular ulceration; the cavity contained pus, and there was a fan-shaped ulcerating surface at the distal end.

The other patient I saw with Dr. Burlingham of Hawarden. At the operation I opened an abscess, and a faecal concretion escaped. I cut away a mass of adherent material in which was the ragged appendix and several small concretions.

I feel that both these cases ran a very grave risk of becoming fulminating. But as yet I hesitate. I still think if the operation were done after the first forty-eight hours during an acute attack that the mortality would be greater than it is by waiting for an interval.

A Clinical Lecture
ON
SOME CASES OF CHRONIC NON-MALIGNANT GASTRIC ULCER.

Delivered at University College Hospital, January 5th, 1902.

BY ARTHUR E. BARKER, F.R.C.S.,
Professor of Surgery at University College and Surgeon to University College Hospital.

GENTLEMEN, The last nine cases of non-malignant chronic disease of the stomach and duodenum which you have recently had an opportunity of seeing treated in my wards offer a good opportunity for the study of this affection in several aspects. I take, therefore, this occasion while they are fresh in our minds to draw your attention to them again and to point out some of the matters we may learn from them. Three of them are still here before you.

I cannot do better than review them in the reverse order of their occurrence. This will place before you first the simpler forms of ulceration, or, at least of inflammation of the stomach; next, the more severe forms of the same associated with sharp bleeding; thirdly, the results of cicatricial contraction due to chronic inflammation of the organ and, lastly, the most dangerous consequence of the latter, namely, perforation of the stomach.

You have had an opportunity of seeing that the treatment of these three groups has been quite different, as have also the results.

The group is made up as follows:

CASE I.—Chronic ulceration, moderate haematemesis. Convalescing.

CASE II.—Ulceration, obstinate vomiting, but no haematemesis. Convalescing.

CASE III.—Ulceration, moderate vomiting, sharp recurrent haematemesis. I performed gastro enterostomy on this patient since. Recovery perfectly uneventful.

CASE IV.—Ulceration, moderate vomiting, fatal recurrent haematemesis.

Case v.—Ulceration of duodenum, no vomiting of blood, severe recurrent bleeding by bowel, gastro-enterostomy. Cure.
Case vi.—Ulcer of pylorus, stenosis, gastro-enterostomy. Cure.
Case vii.—Ulcer of stomach, "hour-glass contraction," gastro-enterostomy. Cure.
Case viii.—Ulcer of stomach, perforation, operation. Recovery. Twenty-eight days later death from pulmonary embolism due to septic thrombosis of inferior iliac vein from ulceration in the vagina.
Case ix.—Ulcer, perforation, general peritonitis. Operation. Death from shock and persistence of peritonitis.

Cases i and ii represent an early and very common form of gastric disease such as you may often see treated in the out-patient department or the medical wards, rarely in the surgical. But I was asked by private friends to take the patients under my special care, and they are here in my beds. I do not regret this, as it enables me and you to group and contrast these non-malignant cases from their earliest and not very dangerous forms to their most terribly complicated varieties, the consequence of neglect.

Case i.

A delicate clerk, aged 16. Two years ago he was treated at another hospital for chronic diarrhoea, and four months ago for "gastritis," with frequent vomiting of thin very dark-brown material "like mud." For the last six weeks he has had much pain in the epigastrium and hypogastrium some ten minutes after food. There has lately been no vomiting. The bowels have been loose, but without blood in the motions. He has suffered latterly from headaches and has grown thinner, and complains much of flatulence. On admission he was of good colour; the stomach was somewhat dilated and "splashed." There was no tumour, but the gastric region was tender in front. On washing out the stomach it was found to take 2½ pints of fluid and to require many washings before Condy's fluid came away unaltered; but there was no blood or any offensive smell.

Here then was a clear history of "coffee ground" vomit and tenderness probably pointing to gastric ulcer. The treatment has been careful dieting with digestible fluid food, and in washing out the residuum every day, together with the administration of bismuth carbonate. Under this he is improving, but is still tender, and the splashing in the stomach continues. If there was an ulcer it now shows but little evidence of its presence, and is presumably healing.

Case ii.

A young woman of 18 has for the last eight months or so suffered from the following symptoms and extreme anaemia. She has lived in Sussex, and has had the ordinary food of the labouring classes, but this has not agreed with her. She began eight months ago to suffer pain in the epigastrium soon after meals, with vomiting of all that was swallowed. There was never any blood in the matters brought up, but there was much bile. Two months ago her troubles became so acute that her friends became alarmed, and I was asked to give her an order for the medical out-patient department. Here she was treated by Dr. Risien Russell for chronic dyspepsia, with a suspicion of gastric ulcer. Returning home with the usual remedies and directions as to diet, she did not appear to improve, and I was told soon after that her symptoms were causing much alarm to her friends, as well as suffering to herself. I therefore admitted her here, and asked Dr. Russell to see her.

You must remember, gentlemen, that the salvation of these cases in the future will lie rather in their early medical treatment and dietary than in surgical interference later on. But the unfortunate aspect of the question is this, that there are multitudes of persons suffering from chronic dyspepsia in whom it is impossible to say positively whether there is an ulcer present in the stomach or not. And they are so very numerous that it is beyond our power to admit them all to hospital, and keep them long enough under observation to determine this very obscure point. Yet without this they are usually living under conditions most unfavourable for their cure, for all the medicines in the world will not benefit them if their diet and habits of life are unsuitable. This is why we get so many advanced cases with the most serious results as regards bleeding, cicatricial contraction, and perforation.

On admission this patient was most anaemic, almost chlorotic. She had pain and vomiting an hour or two after food, but without bleeding. This latter, if present, is significant of gastric ulcer, but if absent does not negative the latter. Several of my cases in which I have operated for perforating ulcer of the stomach have never had any haematemesis from beginning to end. There was also tenderness in the epigastrium on the left side, but no dilatation. On washing out we found great gastric irritability, but the product did not show any marked change in the amount of hydrochloric acid. In brief we were left in doubt as to the actual change in the stomach walls, and could only suspect an ulcer from the irritability, pain, and tenderness.

The treatment has been the same as in Case i. Under it all the symptoms have greatly improved, and if there was an ulcer it has healed, or is healing. But we must keep this patient under treatment until we see that the stomach can digest painlessly such food as she is likely to get at home, and have trained her to diet herself properly. If this is not done she will relapse into her former condition, or perhaps worse, with all the dangers of haemorrhage, cicatricial contraction, or perforation.

These are the three chief dangers from chronic ulceration. You have seen that haemorrhage was a feature in Case i, but not to any serious extent. In Case ii it was absent, as indeed it is in many much more serious and even fatal cases. In neither were there any signs pointing to either contraction or perforation. Nevertheless, both had just the kind of trouble which, if neglected, terminates so often in either chronic disabling ill-health, or one or other of the dangerous complications mentioned.

Case iii.

This patient illustrates a more severe form of the same disease present for a much longer period, and productive of a much more alarming haemorrhage in spite of treatment both in and outside this hospital.

The patient, a domestic servant, gives a history of dyspepsia for many years. About three years ago this became aggravated, and she had vomiting of food with haematemesis. She improved after six months of treatment and went to work again. But about two years ago she suffered much in the same way, and brought up red blood. There was also pain between the shoulders and in the left hypochondriac region. Last June she was admitted into Dr. Roberts's ward with all these symptoms, and after a month of treatment was discharged relieved. She then went to Brighton, and returned to solid food, etc. She returned home in August, taking solids, but soon began to suffer with severe vomiting after meals and haematemesis. This lasted until December 30th, 1901. She vomited nearly every day, and the pain was as before. With peptonised diet she has improved, but she states that a fortnight ago she brought up blood again. She was admitted on December 31st anxious to obtain relief, if necessary by operation.

As you see, she looks fairly well and cheerful, and the abdomen looks normal. The only abnormality to be made out is great tenderness in the left hypochondrium under the rectus muscle, and here there is much resistance. There is no dilatation, and washings came away clear (since tinged with blood, as also the vomit). In view of these symptoms and history, we may infer that she has a gastric ulcer in front inclining to bleed frequently, and probably contracting adhesions to the abdominal wall. As the treatment for now nearly three years has not cured her, and she runs considerable risks both from haemorrhage and perforation, it is necessary to consider the propriety of operating on the stomach either to remove the ulcerating portion or to make a gastro-enterostomy to relieve the organ rapidly and regularly of ingesta and so help the ulcer to heal (see Note).

I will now relate another case of far more serious, indeed of actually fatal, haemorrhage from gastric ulcer, which some of you may have recently seen under my care in Ward 4. It has many features of interest, but none greater than the difficulty it presented in diagnosing the actual condition of things in the stomach and in deciding what do so.

Case iv.

M. R., aged 21, a housemaid, was admitted under the care of Dr. Poore. Two years ago she had an attack of haematemesis, but soon recovered under careful dieting. On March 2nd, 1901, she again felt ill and had a bad headache. The next day she brought up two mouthfuls of blood in the after-

noon, and at 10 P.M. half a basinful of blood. During all this time there was severe abdominal pain only partially relieved by the application of ice. On admission (March 6th) she was extremely blanched but well nourished. The pulse was 124, the temperature 100.6°, and the respirations 20. There was no distension or vomiting; bowels confined.

The pulse improved with nutrient enemata, and the next day the fever fell to 99°, rising again on March 8th to 101.4°. After this she was fed cautiously by the mouth with benefit. During the evening of March 9th patient vomited about half a pint of blood and became very restless. The pulse also became weaker. Morphine was given and a pint of normal saline solution by the rectum. On the morning of March 10th she became again very restless, and later the pain and tenderness in the epigastrium grew worse, but there was no distension. The liver dulness was lost along a strip about two or three inches from the edge of the sternum. The temperature was 101.4°, and the pulse 130; abdomen motionless. Dr. Sidney Martin now found an area of dullness at the base of the right lung and suspected diaphragmatic abscess. I was now asked to see the patient and agreed to operate, as we supposed that a perforation had taken place. On the operating table I found that the area of dullness over the right base was gone. On opening the abdomen we were uncertain as to the presence of gas. The stomach, which looked everywhere normal, was examined front and back, but no evidence of perforation or bleeding into the organ could be found. The duodenum, too, was normal. There was no sign of peritonitis or of abscess under the diaphragm on either side, though carefully sought. The abdomen was closed; there was very little shock from the short operation. The blood was very watery. There was no change next day, except a rise of temperature to 102.4°, and later 103°. As there was again dullness over the right base an aspirator needle was introduced, but nothing was found. Death occurred on March 12th at 4 P.M.

The *post-mortem* notes by the pathologist show no inflammation in the abdomen or chest. On opening the stomach nothing abnormal was found at first, and only after long search a pinhole opening into one of the vessels near the cardia was found to be the source of the haemorrhage. There was no other ulcer or abnormality on the inner or outer surface of the stomach, even over the pinhole ulcer. After the stomach had been hardened the latter was seen to be surrounded by a shallow erosion of the mucous membrane the size of a sixpenny bit. This was probably the source of the infection which caused the fever.

I will now recall to your mind a case which you have seen which illustrates the danger of chronic intermittent haemorrhage from an ulcer. And though the ulcer was probably in the upper part of the duodenum the moral is the same. Some of you will remember the operation and the return of the patient to show the excellent result.

Case v.

W. S., a railway clerk, was admitted on June 18th, 1901, from symptoms of duodenal ulcer. He had been previously admitted in April, 1901, for the same trouble under Dr. Poore. Six years ago he became ill, and in crossing the railway platform fainted, and soon after passed motions like tar. In November, 1900, he had influenza, and again had tarry motions and great pain in the epigastrium two hours after food. In February, 1901, he had a relapse with much of the same pain, and passed blood for fourteen days. The pain was always in the epigastrium and localised to the midline. It always came on two hours after taking food. He has never vomited blood. The appetite has been good, the bowels constipated.

On admission the patient complained of pain just below the ensiform cartilage. He was very tender here, and slightly so all over the epigastrium to deep palpation. There was no tumour to be felt. The tongue showed the most perfectly marked "annulus migrans," changing daily in form. His weight was 8 st. 9½ lbs., a great loss from his average. Otherwise he looked fairly well, but had been unable to do any work for seven months, in spite of careful dieting.

Regarding the case as one of undoubted duodenal ulcer, and at the patient's urgent request, as well as that of his medical attendants at home, I performed retrocolic gastro-enterostomy on July 27th, 1901, to divert the food from the stomach directly into the jejunum, and so give the ulcer in the duodenum rest. There was very little shock, but some regurgitation of brown fluid in small quantities troubled him on the second day; on the third day this was relieved by siphoning off about 15 ounces of bloody, bile-stained fluid in the morning, and again of 1½ ounce in the evening. Recovery was now perfect. The stitches were removed on the tenth day, and primary union was found. On July 21st, before operation, his weight had been 8 st. 2½ lbs., on July 27th 8 st. 8 lbs., and on leaving hospital 8 st. 10 lb. At the beginning of October you saw him here looking remarkably well, and weighing 10st. He said he had lost all his trouble, could eat anything in reason, and was returning to work.

These last two cases furnish a good example of the dangers and disabilities of acute and chronic haemorrhage from gastric and duodenal ulcers, and we may now turn to two others recently treated here of cicatricial contraction; both were fortunately cured by operation. The first shows the condition in its simpler form, the second in one of its worst aspects.

Case vi.

Mrs. B., aged 56, first noticed heaviness after taking food early in the year 1901, and about February that she was losing flesh and felt the cold more. These symptoms gradually increased, and palpitations were marked. There was great flatulence after food but never vomiting or melaena. In June she went to Dr. Clayton, of Belsize Park, who found a small tumour in the epigastrium, and at once dieted her. A week later no tumour could be found but at the end of June it was again present. The family history showed no trace of cancer. On admission, July 5th, 1901, the patient's weight was 8 st. 12 lbs., two years ago it was 10 st. 2 lbs. Two days after admission, in the same scales, her weight was 8 st. 10 lbs. The stomach was washed out and a test meal given, the product being analysed by our pathologist. No gross abnormalities were found in it. Great relief was felt after washings. The abdomen was very flaccid and slightly distended. One inch above the navel in the middle line an irregular nodular tumour, the size of a small walnut, was evident. It varied in distinctness and hardness during manipulation. It moved freely up and down for ¾ inch, less easily laterally. The percussion note over it was resonant. The stomach was a little enlarged: the general condition was good. The diagnosis was pyloric ulcer and pyloritis with stenosis.

Operation (July 18th, 1901).—A median incision was made above the navel. On exposing the pylorus it felt hard, and a little nodule the size of a pea was seen in it, of whitish colour, covered on its peritoneal aspect by a film of lymph. This nodule lay anteriorly in the pyloric ring, and a thickening extended from it all round the pylorus, so that the little finger invaginating the anterior wall of the stomach (Hahn) could not be passed through it. There were no enlarged glands in either omentum. Taking the condition to be one of pyloric ulcer and contraction, I at once did a typical retro-colic gastro-jejunostomy and closed the abdominal wound.

There was a good deal of pain in the area of operation on the second day, but otherwise nothing special to note. The stomach tube was first passed on the third day, and a little bilious fluid was removed with relief. Recovery was perfect in ten days, when the stitches were removed. She went to the country on August 6th, within three weeks of operation. During October she presented herself at hospital for examination. She looked and felt very well, having lost all her old symptoms.

Let us now consider another far more serious case of cicatricial contraction from gastric ulcer which I have lately operated on here. You have since seen the patient in excellent health with a gain since operation of about 4 st. in weight.

Case vii.

E. H., aged 48, was admitted on July 10th, 1901, in a very feeble condition and only weighing 5 st. 10 lbs., but suffering no pain. Above the navel was a perfectly healed scar from an operation by Mr. Stanley Boyd at Charing Cross Hospital just three weeks ago. There was no epigastric tenderness but some rigidity of the recti muscles which interfered with deep palpation. She had been sent to me by the kindness of Mr. Boyd when his hospital was closed. Six years ago the patient began

to have symptoms of gastric ulcer with pain and haematemesis. Three years later another attack followed also with bleeding. In September, 1900, she first noticed a tumour in the epigastrium, which she states was larger when the pain was most severe. There was much pain and flatulence from time to time and marked loss of strength and weight.

Mr. Boyd's Notes.

On admission to Charing Cross Hospital the patient was very thin and pale. The epigastrium was sunken, and here a swelling about the size of a small orange could be seen and felt; it was hard, smooth, moved with respiration, and was dull on percussion. The stomach was not dilated.

On June 10th, 1901, Mr. Boyd opened the abdomen in midline above the navel. In the wound and to the right of it lay a considerable tumour, involving the posterior surface and lesser curve of the stomach. The anterior wall, abnormally red, seemed stretched over the mass. The pylorus was free and normal. Two or three very obvious glands lay in the great omentum opposite the mass, and in the small omentum lay a low-lobed prominence springing from the thickened lesser curve. At first Mr. Boyd thought the tumour malignant, but in the left of the wound the stomach was densely adherent to the anterior abdominal wall and under surface of the liver over an area 1½ to 2 inches in diameter. This was obviously a simple matter. It encouraged the belief that the whole might be simple, and certainly accounted for a good deal of pain. Separation of the stomach was hardly begun before it was opened, the gap ultimately measuring three-quarters of an inch vertically. This was sutured in three layers with some difficulty, and the omentum was turned up and fixed to the lesser curve of the stomach so as to cover the sutured wound and to lie between the stomach and the raw surface of the liver and abdominal wall from which it had been dissected. Mr. Boyd hoped thus to re-establish the mobility of the stomach.

Before the stomach wound was closed a finger was passed towards the pylorus, which could not be reached through the narrow channel about as long as the finger, and only just admitting it. The wall was smooth and hard, and did not bleed.

The patient recovered well, but continued to suffer much pain. Believing that the stomach tumour was possibly "simple," and a gastro-jejunostomy being clearly indicated, Mr. Boyd transferred the woman to Mr. Barker's care when Charing Cross Hospital closed.

With so clear a history I prepared the patient at once for operation in the usual way, and by injecting hypodermically twice a day half a litre of normal saline solution with 5 per cent. of pure glucose.

Operation (July 11th, 1901).—The old scar was first opened up, and the opportunity offered to me, by the courtesy of Mr. Boyd, of seeing the condition of things within the abdomen produced by a gastrorrhaphy performed exactly three weeks before was peculiarly interesting. Such opportunities will occur probably but rarely, and it is therefore of the greatest importance to note the effects of such an operation as accurately as possible while its results are fresh.

As there had been an extensive glueing of the anterior wall of the stomach to the back of the right rectus and liver, found and separated at the first operation, and as gastrorrhaphy involves considerable handling of the abdominal contents, I expected to find that many fresh adhesions had formed. But I was agreeably surprised to see that the latter were very sparingly present. There were, to be sure, several bands running between the stomach and the abdominal wall, as well as others quite transparent uniting the organ with the liver and adjacent structures. But they were slender and those which it was necessary to divide gave no trouble from haemorrhage or otherwise. I was, of course, very careful not to put any strain upon the parts involved in Mr. Boyd's recent gastrorrhaphy, and, indeed, disturbed the anterior part of the organ as little as possible. The colon and omentum were therefore at once turned up, and I performed a retrocolic gastro-jejunostomy in the usual manner. The stomach where I reached its posterior surface appeared normal, but was contracted, and therefore hard to control and manipulate during suture. And when the anastomosis was finished I was much disturbed by the appearance presented by the afferent and efferent arm of the loop attached to the stomach. They seemed much too parallel for a proper emptying of the stomach into the efferent arm alone, and I was afraid of the formation of the well known *circulus vitiosus* which has been fatal in so many cases. I therefore at once performed a second anastomosis between the ascending and descending limb of the jejunal loop at about four inches in each from the point of anastomosis of the loop with the stomach. This occupied a further quarter of an hour, but when it was finished I felt much more easy about the result. The whole operation had taken an hour and ten minutes, and the patient's condition was good at the end.

So far, in all the gastro-enterostomies which I have done, whether acute or retrocolic, I have seen no evidence of the vicious circle. But in this case it seemed probable that without the second anastomosis it would come into being; and I thought it better to forestall such a disaster, even at the cost of prolonging the operation, rather than run the risk of having to do a second one, perhaps a week or ten days after, when the patient's powers were even lower than on the table; where, indeed, they were generally low enough.

After the operation there was a good deal of pain and sickness, but the latter was relieved by washing out the stomach. Recovery was rapid and uneventful. The patient left hospital on August 28th, with a weight of 7 st. 1 lbs., a gain of 19 lbs. in five weeks. When she returned in October some of you saw how well she looked, and how grateful she was for her relief after six years of suffering. Her weight was then taken here in the same scales, and was over 9 st.

The next two cases illustrate the great dangers of perforation. These may be met in some cases by an immediate operation, especially where the accident occurred while fasting, as in the first of the two. But in other cases no operation yet devised will save them when extravasation is wide-reaching, with one or more perforations, as in the second case.

Case viii.

L. F., aged 21, a housemaid, admitted March 7th, 1901, had had good health until three years before. From this on pain after food and sickness were complained of occasionally. On March 7th she was walking upstairs before breakfast when she suddenly felt pain in the abdomen and sickness. She then lay down, and later was able for her work but not for food. The diagnosis of perforated ulcer of the stomach was made by Dr. Guy Hollings, of Endsleigh Gardens, and she was sent a short distance to our hospital at 7 P.M.

On admission the pulse was 120 and the temperature 100°. The general condition was good, the tongue clean, the abdomen slightly distended, not moving but tender above the navel. There was no tenderness of the skin. There was resonance in front and in the left flank and over the front of liver for two inches above the costal margin. Axillary liver dulness was present.

Operation (March 7th, 9 P.M.)—A median incision was made above the navel. The stomach was adherent to the abdominal wall by old and recent lymph. There was a perforation the size of sixpence on the anterior wall low down shut off from the general peritoneum by adhesions. The stomach wall around the perforation was too soft to hold sutures. Ultimately by including a good deal of tissue the wall was inverted and the opening closed with silk. Cleansing with gauze mops and drainage by the apron method were performed as usual. The operation was well borne. The pulse fell from 160 to 112 after it, aided by our usual restoratives. For the first few days the patient's condition fluctuated, but then began to improve, and at the end of three weeks, when I went for a short holiday, seemed very satisfactory. Then the temperature was normal for two weeks or more. But on April 5th, that is, 28 days after the operation, she died suddenly with symptoms of pulmonary embolism. Our pathologist's report runs as follows: "Perforated Gastric Ulcer: Operation: Cure. Death from Pulmonary Embolism." As I was abroad at the time I asked for particulars and heard that all in the abdomen was satisfactory, but that the vagina was ulcerated, and the vaginal veins opening into iliac veins were thrombosed, and from this an embolism had broken off and lodged in the lungs.

Case ix.

Alice M., aged 28, admitted June 1st, 1901. There was a history of gastric ulcer for a long time. The patient was very feeble from her confinement ten weeks before. On May 27th she had severe haematemesis, and had been in bed since. On May 30th she had sudden violent pain in the abdomen and all symptoms of perforation.

On admission on June 1st, at 2 P.M., the pulse was 130, lips covered with sordes; the abdomen distended and motionless, hard, and tender to the right of the navel, and the liver dullness gone. I at once operated forty-five hours after perforation, evacuating a large quantity of glairy fluid from under the liver. The perforation was high up on the lesser curve, and was only closed with much difficulty. The abdomen was mopped out with gauze and drained with an apron. All efforts to maintain the patient's strength were in vain, and she died eighteen hours after operation of shock and peritonitis. The necropsy showed that the latter was general,

and that there was a long ulcer running across the lesser curvature, with a second perforation at its posterior end, which opened into the sac of the omentum.

Conclusion.

These 9 cases occurring before you within a short interval offer a good deal of food for reflection. The first related were comparatively simple, and under careful treatment ought to recover without operation. But it is impossible to say in any case of gastric ulcer whether some of the severe complications will not arise, and when they may be dangerous. Some of the most terrible, such as haemorrhage, come "like a bolt from the blue," without any warning; others, such as cicatricial contraction, are preceded by a long train of troublesome symptoms. All this must make us reflect whether surgical treatment ought not to be employed in a far larger proportion of cases where proper medical measures are not leading to a cure, than is at present the case. Operation, as you have seen, is only a desperate last resource, where perforation or haemorrhage is surely killing a patient, whereas, as you have also seen, recovery from operations for the other non-malignant conditions is the rule, if done before the patient is quite worn out.

So far, I am glad to say, all the operations I have done for non-malignant disease (without perforation) have been successful, and you have seen in some of the cases just related how completely they have relieved suffering and enabled the patients to blossom out into useful, active life again. The relief is perfectly marvellous often after years of suffering and inability to follow any avocation. I have recently had another in private, where a gentleman of 44 had been an invalid for a long time, and a great sufferer. A posterior gastro-jejunostomy has enabled him not only to return to his hard work after only a fortnight in bed, but also to enjoy social life, from which he had long been cut off.

I could have emphasised these points by a much larger number of cases operated on, but have preferred to confine myself to those which you have had an opportunity of studying for yourselves quite recently.

AN ADDRESS ON SOME POINTS IN CONNEXION WITH ULCERATION OF THE STOMACH AND DUODENUM.*

By C. R. BOX, M.D.Lond.,

Assistant Physician, St. Thomas's Hospital; Assistant Physician, London Fever Hospital.

My choice of ulceration of the stomach and duodenum as a subject on which to address you has been influenced by the great frequency with which such ulcerations occur; by the fact that the diagnosis of these ulcers is by no means so easy a matter as is commonly supposed: and by the serious complications which may occur in these affections, rendering their recognition and prompt treatment all-important.

It is impossible within the limits of a short paper to treat the subject of gastric and duodenal ulceration with exhaustive detail, so, with your permission, I propose to draw your attention to a few points which appear to be of practical importance.

First, with regard to the probable causation of these ulcers. In the current textbooks on medicine one finds a bewildering number of theories with but little actual evidence to support them. The ulceration is variously ascribed to arterial thrombosis, to embolism, and to vascular obstruction caused either by endarteritis or by simple spasm, all leading presumably to the formation of an infarct or of a haemorrhagic area, which is in turn digested by the gastric juice. Mechanical injuries are also invoked, such as a continued pressure due to occupation, as in shoemakers, or the constant wearing of tight belts or corsets, or actual blows upon the epigastrium. Or, again, a diminished alkalinity or the blood is supposed to lower the power of resistance of the gastric wall, and so lead to its digestion.

* Read at a meeting of the South London District of the Metropolitan Branch of the British Medical Association

Of late years one finds advocates of the theory of microbic infection of the lymphoid follicles of the stomach wall. This is certainly the mode of production to which I incline myself, and for the following reasons:

1. For any part of the intestinal tube below the duodenum the theory of the infective nature of ulceration is at once accepted. Typhoid, tuberculous, and dysenteric ulcerations are unanimously attributed to an infective cause. The same holds for ulcerative colitis and the destructive process in appendicitis.

2. The fact that it is not uncommon to find that ulcers both in the stomach and in the duodenum may be multiple, and not only multiple, but so placed—either exactly opposite or quite close to each other—that infection from one to the other may have easily occurred. When two ulcers are placed opposite to each other, it is said that close examination will often show that one is an older ulcer than the other. I have repeatedly met with these opposed ulcers *post mortem*, not only in the stomach but also in the duodenum.

3. The appearance of a recent acute ulcer at the time of operation for perforation is itself highly suggestive, and it was this appearance which first seriously directed my own attention to the microbic theory. Such an ulcer is always surrounded by a zone of highly oedematous and softened tissue of considerable extent. Stitches easily tear through the oedematous wall, and so considerable difficulty may be experienced in applying the sutures. Every surgeon who has had much experience of the suture of acute perforated ulcers recognises this oedematous condition.

Surrounding oedema is not present in every perforated ulcer, for there is a form of perforation which is conveniently termed "secondary" in contradistinction to the "primary" perforation of an acute ulcer.

By "secondary" perforation, we understand a perforation in the floor of an ulcer, due either to the rent of a thin peritoneal base, or the tearing of some old adhesions uniting such an ulcer to the surrounding structures. The perforation of a stomach in this way by disturbance of its adhesions or by tear of its peritoneal floor may be brought about by overdistension of the stomach by food, by taking copious draughts of fluid which weigh down the organ, or by some unwonted muscular exertion when the stomach is so distended.

An ulcer which has perforated in this manner, and not by active spread of an inflammatory process, need not present an area of surrounding oedema at all.

We must then somewhat modify our conceptions of the acute ulcer. Surrounding the round or oval and characteristically punched-out ulcer, containing, perhaps, a small necrotic slough, we must picture a large surrounding zone of oedema and softening, which can hardly be of other than inflammatory origin. Sometimes the recent ulcer so far departs from the textbook description that it actually has undermined edges like those of a recently-formed typhoid ulcer, an additional evidence of its formation by bacterial necrosis and sloughing.

What is true for the gastric ulcer, probably also holds for the common ulcer of the duodenum, nor do I believe it is necessary to assume that there is any essential difference in the origin of acute and chronic ulcers in these localities.

With regard to the embolic causation of gastric ulceration, the following points may be noted. It is difficult to produce ulceration this way experimentally; in those diseases in which embolisms of other viscera are most frequent, gastric ulceration is exceedingly rare; and when embolism of the stomach does take place, the embolus usually is produced by disease of one of the large arterial trunks in the neighbourhood of the stomach, such as, for instance, aneurysm of the coeliac axis. In the ordinary case of gastric ulcer one may search in vain for either the embolus or evidence of disease such as might give rise to an embolic process.

Superficial gastric ulceration is present in some cases of pyaemia, and gastric ulcer is sometimes met with in cases of mitral disease. In these cases the ulcers may possibly be of vascular origin.

The ordinary signs and symptoms of gastric and duodenal ulceration are too familiar to you to need any recapitulation on my part, so we may proceed at once to the consideration of two of the main signs, haematemesis and vomiting.

Haematemesis.

It is of often stated that gastric ulceration can only be positively diagnosed by the occurrence of haemorrhage in conjunction with other gastric symptoms. This is to a certain extent true, but there are many gastric ulcers which never make themselves known in this way, and in going over the accounts of cases of perforated ulcers of the stomach, it is very instructive to note in what a large percentage haematemesis never occurs. Indeed, beyond vague dyspeptic pains, the first obtrusive symptoms and signs are often those of the perforation itself.

Again in many cases of duodenal ulcer melaena is never noticed, and sometimes when it does occur, unassociated with haematemesis, the ulcer proves to be gastric after all.

My object, however, in referring to haematemesis is to draw your attention to the converse of the picture. There are cases in which haematemesis is associated with gastric pain and with vomiting, in which there is, nevertheless, no gastric ulcer at all. It is very important to recognise that such cases occur, particularly now that surgeons are claiming a larger share in the treatment of stomach complaints.

In the first place, haematemesis, together with epigastric tenderness and pain aggravated by the ingestion of food, may occur in certain cases of uraemia. The simulation of gastric ulcer by these cases is rendered the more complete by the facts that (*a*) such uraemic manifestations may occur in young women, and (*b*) that in some cases presenting such symptoms, albuminuria may be temporarily absent. I recorded two such cases in the *St. Thomas's Hospital Reports* five years ago, and since then have seen several others in which gastric ulcer was mimicked by renal disease, besides examining two similar cases, both in young women, *post mortem*.

A confident diagnosis of gastric ulcer, then, even in the presence of haematemesis, should never be made without careful, and if possible repeated, examinations of the urine, with the view to the detection of renal disease. This has been my own practice for some years past. The examination should not be limited to the detection of albuminuria, but a proper search should also be made for casts. It may be necessary to examine catheter specimens to avoid the fallacies dependent upon the presence of leucorrhoeal discharges.

In the second place—and what I mention now refers more particularly, but not exclusively, to male patients—it is necessary to bear in mind that the vomit which is brought up during gastric crises sometimes contains blood in traces, and occasionally in some quantity. This is important, for the possible occurrence of haematemesis in these cases is not even mentioned in many of the textbooks in ordinary use, although of course it is referred to by Gowers. I have recently seen two cases of locomotor ataxy in which during the crises haematemesis occurred; and here I may mention another in which, although there had never been haematemesis, yet the patient was so definite in his statement that his abdominal pain always came on two hours after a meal, that I was at first under the impression that he must have a duodenal or pyloric ulcer. The absent knee-jerks and pupils almost inactive to light revealed the true nature of the case in question.

Thirdly, there are those instances in which patients, usually young women with hysterical tendencies, simulate haematemesis. Cases of this sort are, unfortunately, not so very uncommon, and the simulation is often effected with such ingenuity, that, even though suspicion is aroused, it is very difficult to expose the fraud. The blood is often obtained by producing some lesion of a mucous surface, such as the mouth or vulva. Sometimes such patients also mix their urine with their vomit, and then the urinous odour, and the production of effervescence by the addition of sodium hypobromite as a test for urea, may expose the deception. In cases of this sort it is necessary to have the patient under close observation, and particularly to watch the actual act of vomiting, and to critically examine the vomited matters. This thorough observation can only be carried out in a hospital or similar institution, and even under these circumstances I have known a patient to come in for the second and even the third time before the fraud was discovered.

Fourthly, haematemesis occasionally occurs in connexion with mitral disease. Here, too, it may be associated with epigastric pain and tenderness, and with vomiting after food. The routine examination of the patient should lead to the discovery of the mitral lesion, and possibly some evidences of venous back pressure, such as enlarged and tender liver, some oedema of legs, albuminuria, etc.

Vomiting.

It is important in cases where gastric ulcer is suspected to bear in mind that ulcer is not the only cause of constant vomiting in young people. The causes which appear to be most frequently overlooked are the vomiting of early pregnancy, the vomiting of uraemia, and the vomiting of cerebral tumour which is not manifesting itself by paralyses. It is necessary to bear the first in mind and to be always on one's guard. With regard to the second, the routine examination of the urine, upon which I have already laid stress, should prevent mistake; and in dealing with obscure cases of vomiting from cerebral tumour, in most cases an ophthalmoscopic examination materially helps in arriving at the diagnosis. It will be gathered from what I have already said that even when the vomiting regularly occurs a short time after meals, and is accompanied by pain which is relieved by rejection of the stomach contents, it is not necessarily characteristic of gastric ulceration.

It has been stated that in cases of gastric ulcer, after perforation of the stomach vomiting ceases. I do not know where this statement originated, but I do know, from repeated observations, that it is incorrect. It is not at all uncommon for patients with perforated gastric ulcers to continue to vomit. Nor must we infer, because the normal area of gastric percussion resonance is still present, that perforation has not occurred. The obliteration of the area of stomach resonance would at first sight appear to be a sign of some value in the diagnosis, but the resonance usually persists, and not only may gas be seen bubbling out of the perforation during operative manipulations, but the perforated stomach has been found distended with gas at the necropsy.

I would next direct your attention to the changes which occur in the physical signs at the base of the left lung in some cases of perforated ulcer on the anterior wall of the stomach. After the perforation of an anterior gastric ulcer, the peritoneum of the greater sac is not always at once involved in a general peritonitis. Occasionally the abdominal pain to a certain extent subsides, and the more acute symptoms for a time pass off. In such cases a careful examination of the base of the left lung, in the axilla and posteriorly, may shed considerable light upon the progress of events. Also, after operation for an ulcer of the anterior stomach wall identical signs may be observed, when a residual abscess is forming around the spleen. The abnormal signs discovered in this situation under these circumstances are:

1. Considerable restriction of the respiratory movements of the left side of the chest.
2. Diminution or cessation of the action of the diaphragm on the same side, with immobility of the upper left quadrant of the abdomen.
3. More or less localised pain and tenderness in the lower left axillary region, and sometimes actual oedema and bulging in this situation.
4. The presence of percussion dullness, which extends upwards in the axilla for some distance, and also posteriorly as high or higher than the angle of the scapula.
5. Diminution of the vocal fremitus, with more or less suppression of the breath sounds, or in some cases the appearance of distant bronchial breathing, over the area of diminished percussion resonance.
6. Friction sounds with a respiratory or even a cardiac rhythm over the lower part of the same area.
7. A certain amount of upward displacement of the impulse of the heart.

In addition to these signs there is another which is known as the "diaphragm phenomenon," by which is understood a shallow depression which travels across the intercostal spaces of the left side as the diaphragm ascends and descends. This last sign I have not investigated myself and so cannot speak positively about.

The proper interpretation of these signs is an important matter. They do not necessarily indicate that there is any

collection in the pleural sac, but they are primarily the signs of a localised abdominal collection around the anterior and external surfaces of the spleen, which in some cases also extends between the left lobe of the liver and the diaphragm. These collections are in the greater sac of the peritoneum, and are localised below by inflammatory adhesion between the belly wall and the great omentum or stomach. Indeed, as was pointed out by Greig Smith, a resistant or even indurated line may sometimes be felt through the abdominal wall in the situation of the lower limit of the abscess cavity.

The localisation of these collections of pus in the situation mentioned is considerably aided by the presence of a well developed "costo-colic fold." This fold, you will remember, extends from the diaphragm opposite the tenth and eleventh ribs, to the splenic flexure of the colon, forming a sort of shelf, above which lies the spleen. This fold materially assists in preventing the downward extension of these perisplenic inflammatory exudations, particularly if the patient is, as so often is the case, lying in the supine position. There is then a natural well in this position, containing the spleen and a part of the stomach, and ready for the reception of any fluid which may trickle into it.

Often the collection in this locality consists partly of fluid and partly of gas which has escaped from the rent in the stomach. Then we have the condition which has received the self-contradictory and cumbrous appellation of left subphrenic pyo-pneumothorax. The relative positions of the fluid and the gas will vary with the position of the patient. In the dorsal position the resonant area, which may yield a coin-sound and impart an amphoric quality to the sounds of the heart, will be found anterior, whilst the dull area is posterior. If the patient be turned upon the right side, the resonance makes its appearance at the lower part of the axilla.

In conjunction with Mr. Cuthbert Wallace and Dr. Russell I have paid considerable attention to the diagnosis and treatmen of localized collections in this situation. We strongly deprecate the use of the exploring needle, for when this is used one is never certain of the exact locality of the collection. The proper method of exploration is by surgical incision, and resection of rib. By actual experiment we have found that resection of several inches of the sixth or seventh rib in the left axilla allows a thorough examination of the area involved. The pleural sac can thus be first examined, for it frequently in these cases becomes secondarily infected. If the pleural sac is still dry it can be accurately stitched off, before the diaphragm is incised to evacuate the subphrenic collection. Through the incision named a thorough examination of the external and anterior surfaces of the spleen can be made; the liver can be explored on its upper surface as far as the falciform ligament, and the left vault of the diaphragm also. It is also possible to drain by this route a collection of pus in the lesser sac of the peritoneum by tearing through or incising the gastro-splenic or the lieno-renal ligament.

Another position in which we may often find a localized collection in connection with gastric ulcer which has perforated is in the pelvis. It is but natural that after perforation some of the contents should gravitate to the lower part of the abdomen and the pelvis be thus infected. But it is not in every case apparently that the pelvis is directly involved in this manner. I have examined one case in which, apparently owing to a very badly-developed costo-colic fold, the perisplenic abscess has tracked down, within the peritoneum, along the course of the colon and been thus directed to the pelvis. A similar state of affairs is sometimes met with on the right side of the body, in connection with both gastric and duodenal perforation. In these cases the collection which has tracked down is sometimes situated between the lower surface of the liver and the head of the right kidney, this being one of the natural wells of the peritoneum and a favourite site for purulent collections.

There are, so to speak, certain natural highways in the belly for the spread of infection within the peritoneum. The ascending and descending portions of the colon, lying at the sides of the spine are two particularly important routes, and along these lines purulent infection may either ascend or descend. In conjunction with Dr. Russell, I drew attention to this important fact in a paper published in the *St. Thomas's Hospital Reports* for 1897.

It is therefore important in all cases of perforated ulcer, whether these have been operated on or not, to keep a careful watch upon the pelvis as well as upon the upper parts of the abdomen and the lung bases, and particularly to do this should the persistence of fever indicate that all is not going on well.

The localized collections I have mentioned are collections in the greater sac of the peritoneum. A general infection of the lesser sac is uncommon, as ulcers on the posterior wall of the stomach are usually, so to speak, "defended" by the formation of adhesions to the structures behind them and a partial obliteration of the lesser sac in this way. If this were not so the posterior collections should be more frequent than the anterior, as ulcer is more frequent on the posterior wall. As it is, however, perforation is much more frequent with the anterior ulcer. Recently I examined two cases in which, by secondary rupture due to tearing of old adhesions, the lesser sac had been infected in its whole extent. I do not, however, propose to discuss to-day the evidence of lesser sac infection, nor will I delay you with a consideration of the right subphrenic abscess in connection with disease of the stomach or duodenum.

In describing the localized collections I have mentioned, I do not wish it to be inferred that I advocate waiting in the ordinary case of perforation, in the hope that such a collection may form. On the contrary I believe that early operation is the proper method of treating all such cases.

In conclusion, then, we should particularly bear in mind the following points in the investigation of supposed gastric ulcer:

1. The patient's statement as to the occurrence of haematemesis should be received with due reserve, and corroborative particulars inquired for.

2. In doubtful cases it is necessary to see the vomited materials oneself if this be possible, and better still to observe or have observed the actual act of vomiting.

3. In all cases the urine examination should be a routine procedure. This examination should be thorough, and include the search for casts as well as for albumen. A single examination is often not enough.

4. The eyes should be always examined, particularly with a view to the presence of the normal light reflex, and the occurrence of changes in the fundus. Optic atrophy may put us on the track of locomotor ataxy; the presence of optic neuritis may reveal an unsuspected cerebral tumour, and the presence of neuro-retinitis may indicate renal disease.

5. An examination of the stomach contents for the presence of excess of free HCl should always where practicable be made. And if the first examination be negative a second should be undertaken before being positive as to its absence. Hyperacidity is a valuable although not absolutely constant sign of gastric ulceration.

6. Every patient in whom gastric ulcer is diagnosed should be looked upon as seriously ill. The disease is commonly treated much too lightly, considering its liability to such serious and fatal complications. I believe that prolonged rest in bed and proper dieting for some time is essential in all early cases.

THE TREATMENT OF INTESTINAL OBSTRUCTION FROM MALIGNANT DISEASE.

By LEONARD A. BIDWELL, F.R.C.S.,
Surgeon to the West London Hospital; Dean of the Post-graduate College.

In this paper I shall only briefly refer to cases produced by a growth in the lower part of the sigmoid or the rectum, since I wish to particularly draw attention to the treatment of obstruction in the ascending and transverse colon. Before doing so I should like to mention a few points which may be of use in diagnosing at what part of the intestinal tract the obstruction is situated. First with regard to the history. When the obstruction is situated in the rectum, or lower part of the sigmoid, the early symptoms have usually consisted in the passage of small tapelike motions, and the patient has suffered from intercurrent attacks of diarrhoea and constipation, together with the presence of blood and mucus in the

stools. In the case of an obstruction in the caecum the symptoms will be different; the patient will have motions of ordinary shape and volume, and there will be neither diarrhoea nor the passage of mucus, and very rarely any bleeding. With regard to the pain, although the symptoms of obstruction come on at an earlier date the lower the growth is situated, the pain is less acute when the growth is in the lower part of the large intestine than when it is at its commencement. With regard to the physical signs in obstruction of the rectum, a hugely-distended sigmoid can often be defined, and if the abdomen is not uniformly distended, the most prominent part will be the left iliac region. In obstruction near the caecum the distended portion will be situated more on the right side, and it is not uncommon to find the left side undistended, some small scybala alone being felt. In obstruction low down ballooning of the rectum will be often found. It has been mentioned that the pain is more acute the higher the obstruction, and the same holds good of the urgency of the vomiting. The difference in these symptoms is easily explained on account of the contents of the caecum being fluid, and therefore being able to pass through an obstruction to a very much later date than can the contents of the sigmoid.

In obstruction of the caecum it is very common to observe active peristaltic movements through the abdominal wall, and, indeed, the small intestine becomes greatly enlarged and its walls hypertrophied. This I shall refer to in describing some of the cases. The early symptoms in these cases usually consist only of slight griping pain after some error in diet, and the urgent symptoms may be delayed for a long time; indeed, in one of my cases the symptoms of chronic obstruction had existed for over eighteen months. The diagnosis of the position of an obstruction is important, since not only is an immediate operation more necessary the higher the obstruction is situated, but the site of the incision differs in the two cases. Moreover, in obstruction low down, the energetic use of enemata will very often relieve the acute symptoms, and so enable one to operate at a more favourable time. On the other hand, in obstruction of the caecum, enemata will have little or no effect, and nothing but operation will give relief.

In operations undertaken during acute obstruction there has been some discussion as to whether general anaesthesia is permissible while the patient is suffering from faecal vomiting, since several deaths on the table have occurred in consequence of such vomiting while under the influence of chloroform. I cannot, however, think it is right to inflict the severe pain and considerable shock of an abdominal section upon a patient who is already much weakened from the effects of obstruction, and, even though the skin be anaesthetised by cocaine, there is still severe pain on handling the mesentery, and the shock is very great. If, however, faecal vomiting is present, I prefer, before administering the anaesthetic, to pass a stomach tube and to wash out the stomach with warm water. After this, although a certain amount of faecal contents may run back into the stomach during the operation, it is unlikely that the organ will be sufficiently full to produce faecal vomiting. The lavage of the stomach does not usually produce any collapse, but, should it do so, an ounce of brandy should be given before commencing to give the anaesthetic; in some cases, too, I have given $\frac{1}{30}$ gr. of strychnine. Although ether has a more stimulating effect that chloroform, the latter is distinctly preferable in these cases, since there is less chance of coughing and the movements of the abdomen are much quieter. Nothing is so unpleasant when dealing with greatly-distended intestines as the convulsive cough and straining which sometimes occur during ether anaesthesia.

The ideal operation is one which gives immediate relief to the obstruction, and at the same time avoids an artificial anus. In cases where removal of the growth is impossible, this is effected by making an anastomosis between the lower end of the small intestine and the large intestine below the growth, and is possible in any case where the growth is situated higher up than the lower third of the sigmoid. In cases of carcinoma of the caecum, the anastomosis can be made between the ileum and the ascending colon, but when the obstruction affects the transverse or the descending colon the anastomosis must be made between the ileum and the sigmoid. In performing the operation, the use of Murphy's button should be avoided, since, although this appliance shortens the time taken over the operation, it has caused a fatal result in several cases. Personally I have never used anything but sutures, and I have adopted the method recommended by Halsted for lateral anastomosis.

I will now briefly describe the procedure in a case of obstruction: the abdomen is opened in the middle line, two fingers are introduced and the sigmoid explored to find whether it is dilated; if dilated, it is followed down with the finger until the obstruction is felt. If this is movable and situated in such a position as to be capable of being brought outside the abdomen, its removal should be attempted. If, on the other hand, it is too low down or fixed to surrounding parts, colotomy will be required. In either case, another incision should be made in the lower iliac region; in the case of a movable growth, it should be brought out through the second incision; in doing this, very great assistance is obtained by making use of the fingers of the other hand inserted into the abdomen through the median incision. When the growth and knuckle of the sigmoid have been prolapsed through the wound, the gut should be divided above the stricture, and a Paul's tube inserted and tied into the lower end of the descending colon. The sigmoid is then divided below the growth and a small Paul's tube tied in; a wedge-shaped piece of mesentery is now removed in which some enlarged glands will be found. The two portions of intestine, namely, the lower part of the ascending colon and the lower part of the sigmoid, are then united together with five or six silk sutures so as to bring a considerable amount of their serous surfaces into apposition, thus paving the way for the closing of the artificial anus.

If the growth be immovable, or too low down, colotomy is performed, and in the performance of this I should like just to refer to the method I devised for ensuring the prevention of any faeces passing on towards the rectum. After the peritoneum has been sutured to the skin in the ordinary way a portion of the sigmoid is prolapsed, and a hole is torn in the meso-sigmoid; the two edges of the skin nearly at the centre of the incision are then brought together within the rent of the meso-sigmoid, so that when the operation is completed the upper and lower openings of the bowel are separated by a bridge of skin about half an inch wide. Two stout silk ligatures are then passed through the hole in the meso-sigmoid, and an incision having been made into the loop above its centre, a Paul's glass is inserted and tied in with one of these ligatures. The lower end of the gut is also tightly ligatured with the other piece of silk. The loop of gut between this ligature and the part where the glass tube is tied in will slough away at the end of a few days, and the tube itself will fall off, leaving the two openings completely separated and flush with the incision.

If the sigmoid should be found to be empty it is best immediately to examine the caecum. In the very few cases in which the obstruction is situated in the small intestine the caecum, of course, will also be collapsed, and the ileum leading to it will be empty. In these cases it will be necessary to follow up the collapsed portion until the seat of the obstruction is reached. This is best done by bringing the contracted portion outside the abdomen, and returning it as soon as the growth has been reached and brought into view. When dealing with the small intestine, removal of the growth, followed by a primary end-to-end anastomosis, is the best treatment, the anastomosis being completed either with sutures or possibly with a Murphy's button. I have never personally removed a growth in the small intestine, but in several cases of acute obstruction leading to gangrene of the gut I have been obliged to do a primary resection, and in three of these the result was perfectly satisfactory. If the growth is situated in the caecum, it will at once be felt, and the small intestine will be greatly distended while its walls are considerably thickened. This thickening of the walls explains the evident peristaltic movements seen before opening the abdomen. If the caecum is freely movable and is not bound down by adhesions, it should be treated in the same way as the sigmoid, that is to say, it should be brought outside the abdomen after another incision has been made in the right iliac region, and the growth should be cut away after tubes have been tied in the ileum and the ascending colon.

The faecal fistula will be closed later by an anastomosis between the ileum and the ascending colon; or this anastomosis may be made at once, leaving the removal of the growth until the patient has recovered from the effects of the obstruction. This latter method I have followed in two cases, but I have reason to be dissatisfied with it, since, although the anastomosis was quite satisfactory and a complete relief to the obstruction was obtained, the growth contracted fresh adhesions, and their removal became more difficult and dangerous.

In a case on which I operated by the former method the result was very satisfactory. The growth in this case was situated in the transverse colon, and involved about 5 inches of gut. This was removed, and a Paul's tube tied in the transverse colon. All the faeces passed by this artificial anus for a month, when the abdomen was reopened and a lateral anastomosis effected between the lower end of the ileum and the sigmoid. As the artificial anus did not entirely close, another operation was undertaken to completely divide the ileum between the anastomosis and the caecum. This was quite satisfactory, and the patient is now, eleven months after the removal of the growth, in perfect health.

In another case, where acute obstruction was due to a growth in the sigmoid flexure, the growth was prolapsed through an incision in the left inguinal region, and was cut away after a Paul's tube had been tied in the upper end, and at the end of a month a Mikulicz's enterotome was inserted, one blade in each end of the gut, and tightened. The patient suffered no constitutional disturbance from the enterotome, which cut through the gut at the end of four days and was then removed, leaving an opening about 2 ins. long connecting the two portions. A fortnight later the mucous membrane at the margin of the wound was dissected up and invaginated with sutures, so closing the sigmoid. The skin was then freshened and united, healing by first intention. A small faecal fistula subsequently appeared but the result was ultimately satisfactory.

Such, then, is the treatment of a movable tumour. When, however, the growth is immovable, only palliative treatment is indicated; formerly, in cases of carcinoma of the caecum, it was the custom to open the ileum and form an artificial anus in the small intestine; in the same way, when the growth was situated in any portion of the large intestine between the caecum and the sigmoid, it was usual to form an artificial anus at the caecum. This, I believe, led to the very greatest distress; the intestinal contents at either of these points, being fluid, caused constant escape from the wound necessitating frequent changing of dressings and producing intense excoriation of the parts. In fact, many patients greatly regretted that the operation had been performed and would have preferred to have been allowed to die. The performance of an anastomosis, however, is open to none of these objections. It gives immediate relief, and causes no inconvenience or pain to the patient afterwards. In cases of acute obstruction it is perfectly safe, and relief of the bowels may be expected naturally within two or three hours after the operation. In order to obtain relief of the obstruction as quickly as possible, I believe it is advisable to make the anastomosis between the ileum and the sigmoid rather than into the ascending colon, especially since cutting off the intervening portion of the large intestine causes no inconvenience.

The anastomosis is performed in the following way: A loop of the ileum close to the caecum, and the contracted sigmoid are brought out of the wound. The loop of the ileum is so arranged that the current of the faeces will be directed towards the new opening and not away from it. The ileum is then clamped above and below the point it is intended to unite. This is best effected by making a small hole in the mesentery and passing through it a piece of thin rubber tubing; the rubber tubing, being lightly tied round the gut, prevents any faeces entering. It is unnecessary to clamp the sigmoid. The two portions of gut are now united by square mattress sutures involving the serous, muscular, and submucous coats. The posterior layer of sutures and those at the sides are all tied, the knots being within the [illegible]. An anterior layer of nine or ten square sutures are passed in a similar way but are not tied; these sutures are drawn [illegible] and an opening made, first in the contracted sigmoid and afterwards in the distended ileum. Any bleeding points are ligatured, and one or two points of suture are inserted to unite the mucous membranes. Care should be taken to make the openings in the gut of sufficient size; at least 2 inches in length should be allowed. The parts are then irrigated with sterilised normal saline solution, the retractors removed, and the anterior row of sutures pulled tight and tied, thus completing the anastomosis. In selecting the part of the ileum to be united, care must be taken to choose a piece which is at least 6 or 8 inches from the caecum, so that there may be no dragging on the anastomosis. If it be wished to unite the ileum to the ascending colon, the method is precisely similar, except that it is practically impossible to unite the ileum in such a way that the current of the faeces should be in the same direction in the afferent and efferent portions of the anastomosis; this is one objection to the method, and another is that the growth will still be irritated by the presence of faeces in its neighbourhood.

Another method of performing an anastomosis between the small and large intestine consists in a complete division of the ileum and the implantation of its proximal end into the colon. I have, however, preferred the lateral method as being much safer, since, should the anastomotic opening become occluded in any way, a certain safety valve is left. The great advantage of Halsted's method is that all the stitches are passed, and more than half are tied before the bowel is opened, and so the risk of any extravasation is minimized.

I will now briefly refer to 7 cases of intestinal obstruction which were treated by means other than colotomy.

CASE I.—A lady, aged 66, developed acute obstruction in consequence of malignant disease of the caecum. When I saw her the obstruction was complete, and the patient had been vomiting for twenty-four hours. I opened the abdomen on the same day (January 27th, 1898) by an incision in the right linea semilunaris. The ascending colon was collapsed, and the ileum very distended and congested, the caecum being invaded by a large growth which was quite fixed to the deep parts. A lateral anastomosis was then made between a loop of ileum and the ascending colon, the opening in each gut being about an inch and three-quarters long. The ileum was compressed by the fingers of an assistant while the bowel was being opened. There was very little shock, and flatus was passed per anum within six hours; the patient passed a large natural motion thirty-nine hours after the operation, and from this time recovery was rapid and uneventful, the bowels acting once daily. She had no further obstruction, and remained well for three months, when she gradually began to lose strength, and died at the end of May of the same year.

CASE II.—A man, aged 56, was admitted into the West London Hospital in October, 1897, on account of abdominal pain accompanied by vomiting. He had clay-coloured motions, and a pear-shaped swelling was felt in the region of the gall bladder. The small intestines were distended, and peristaltic movements could be seen and felt in them. The vomiting and distension disappeared by November 3rd, when he was discharged, the diagnosis having been that of adhesions from perihepatitis or from gall stones. Ever since then he had attacks of griping pains coming on from time to time, and he was readmitted in March, 1899, when the small intestine was greatly distended and the obstruction was practically complete. On April 20th the abdomen was opened in the right semilunar line, and a large growth was found invading the caecum, which, however, had not infiltrated the surrounding parts; the growth was movable, and there was only slight glandular enlargement. The small intestine above was enormously dilated and hypertrophied, being about four times the size of the large intestine. A lateral anastomosis was then made between the ileum and the ascending colon, the operation giving immediate relief, and the bowels acted on the second day after the operation without any aperient. The abdominal distension was relieved, and he did well until a second operation was undertaken for the removal of the growth, when it was found that the growth had contracted fresh adhesions, and part of the caecum had become gangrenous. The patient survived the removal of the growth one week only, but the ileocolostomy had been perfectly satisfactory.

CASE III.—A man, aged 35, was admitted into the West London Hospital in August, 1900, suffering from chronic obstruction. His symptoms consisted of pain and diarrhoea, alternating with constipation. He had also passed some blood and mucus; the motions, too, were small. The abdomen was distended, and an indistinct tumour could be felt in the left iliac region. On August 8th the abdomen was opened by an incision in the left semilunar line, the lower part of the sigmoid was found to be contracted, and at its upper end, there was a large growth, which was adherent to the deep parts, and could not be brought out of the wound. Enlarged glands were felt in the mesentery, and some secondary nodules on the adjacent intestine. Under these circumstances removal of the growth was out of the question, but as there was a fair amount of the sigmoid below the obstruction, an ileo-sigmoidostomy was performed. The patient made a perfect recovery. He was seen six months after the operation, and was losing strength, but was not suffering from any obstructive symptoms. He has been lost sight of.

CASE IV.—The patient was a man, aged 49, who was admitted into the West London Hospital on December 13th, 1900, with a tumour of the abdomen and obstruction. The patient had suffered from attacks of griping for two years, and during the previous year he had occasional vomiting, while the attacks of pain became more frequent, occurring about every hour. He had lost flesh during eight months. There had been no obstruction till within a few weeks, but there had been some distension after the griping pains.

Seven weeks before admission an abscess had formed in the abdominal wall, and had burst by three openings, through which faeces had been constantly discharged. The abdomen was opened, and a growth, about 5 inches long, was found invading the transverse colon. Fortunately there were no adhesions except to the abdominal wall, where the bowel had given way on the proximal side of the obstruction. The growth was prolapsed through the abdominal incision, and fixed there. Four days later the whole growth was cut away, a Paul's tube being tied into the colon. The patient did well, but of course all the faeces passed through the opening in the transverse colon, and, as they were liquid, produced a considerable amount of excoriation. On January 24th, 1901, the patient was again put under an anaesthetic, the abdomen opened in the middle line below the umbilicus, and an ileo-sigmoidostomy performed. He passed a motion naturally for the first time on January 30th, and from that date the greater part of the motions were passed by the rectum, but a considerable amount still passed by the colotomy wound. In order to close this the abdomen was reopened on February 7th, and the ileum between the anastomosis and the caecum was completely divided, the two ends being invaginated upon themselves and closed with sutures. After this operation the colotomy wound quickly contracted, nothing but a little mucus occasionally escaped. The patient regained health and weight, and returned to work. When seen at the end of October, 1901, his general condition was perfect.

CASE V.—A female, aged 29, whom I saw with Dr. A. R. Fegan, of Blackheath, had suffered with some difficulty with the bowels and abdominal pain for about six months. During the later few weeks she had one or two attacks of almost complete obstruction, which, however, had been relieved by hot fomentations, enemata, and opium. When I saw her the abdomen was greatly distended, and coils of small intestine could be seen through the abdominal wall, while at intervals waves of active peristaltic contraction could be seen passing along them. On account of the former attacks of obstruction an operation was recommended, which was performed in the Blackheath Cottage Hospital on April 4th, 1901. By this time, however, the obstruction had become complete, and the abdomen was uniformly distended. An incision was made in the left iliac region: the sigmoid was found to be collapsed, and on passing my hand across the abdomen a hard, fixed growth was found invading the caecum. The small intestine was greatly dilated, its walls being much thickened. A loop of the ileum was then found and attached to the sigmoid by lateral anastomosis. The patient had a copious action of the bowels on being put back to bed, and the abdominal distention subsided. She made a perfect recovery; the bowels acted twice a day, and she has had no further symptoms of obstruction, having been in good health ever since with the exception of an abscess which formed in the right iliac region in connection with her growth.

CASE VI.—A married woman, aged 33, was admitted into the West London Hospital, suffering from vomiting and obstruction. Her symptoms dated back for over nine months, and consisted of pain in the back and at the bottom of the stomach. For eight or nine days previous to admission the patient had vomited eight or nine times a day, and the pain had been very acute. She had lost flesh. The abdomen was considerably distended, and enlarged coils of small intestine with active peristaltic movements could be seen through the abdominal wall. An indistinct tumour was felt in the left iliac region. Several enemata were given, but were returned unchanged, and as the obstruction was practically complete, an operation was performed on July 18th, 1901. The patient was put under an anaesthetic, and the abdomen opened in the middle line below the umbilicus. The sigmoid was explored and found to be empty. In exploring the caecum a hard tumour was found involving its walls. An incision was made in the right linea semilunaris and an anastomosis made between the ileum and ascending colon. The patient made a good recovery; the bowels acted naturally two days after the operation and daily after this. There was no further vomiting and she took ordinary food, the growth being removed three weeks later; the ultimate result, however, was unsatisfactory.

CASE VII.—A married woman, aged 58, whom I saw with Dr. P. Vivian, of West Kensington, on July 19th, 1901, had suffered from abdominal pain and constipation for six months, and during the previous few weeks the pain had been acute. She had frequent vomiting, and the abdomen had become distended. A very large quantity of food was vomited at one time, and in the vomit was found debris of food taken some days before. She had had no action of the bowels for four days, and enemata were returned unchanged. The abdomen was very distended, and well-marked peristalsis was seen in the distended coils through the abdominal wall. On placing the hand over these they were felt to harden and become rigid tubes; no growth could be detected. Although immediate operation was indicated the patient refused until July 22nd, and during the interval had no relief to the obstruction or vomiting. She was put under ether, and an incision was made in the right semilunar line. The caecum was found to be distended and the sigmoid empty. On following up the distended large intestine a small contracted growth was found in the splenic flexure. A lateral anastomosis was then performed between the ileum and the sigmoid. On the following day the patient had a liquid motion and passed much flatus but still had some vomiting. She recovered from the operation, and all her symptoms were greatly improved.

To make the record of my cases of ileo-colostomy complete I should like to mention the first case in which I performed this operation. It was that of a man on whom I had performed transverse colotomy for supposed irremovable tumour of the transverse colon. The discomfort of the artificial anus in this position was so great that the patient demanded a further operation at any risk. An ileo-sigmoidostomy was performed, followed by an occlusion of gut as described in Case IV. The patient made a perfect recovery, the colotomy wound healing completely and the supposed tumour of the transverse colon disappearing. I saw him over three years after the operation in perfect health and doing his ordinary work as a carpenter. This case had considerable influence in deciding me to urge ileo-colostomy in every case of irremovable tumour of the large intestine.

Consideration of my cases will prove that the operation is a safe one, that it gives immediate relief to the obstruction, and that the patient's condition afterwards is in every way more desirable than after a colotomy. The number of cases, is small, but a series of 8 cases without a death is, I think, favourable in acute obstruction. One of the most interesting points in the history of these cases after the operation is that they do not suffer from diarrhoea, although at first sight the only portion of the large intestine available is that situated between the middle of the sigmoid and the rectum: I believe, however, that the sigmoid and descending colon above the anastomosis may act as a sort of reservoir for the faeces; in fact, in the two cases in which the operation was performed after complete division of the transverse colon, a small amount of faecal matter occasionally escaped from the old colotomy wound during the first few months after the operation. This could only have happened by faeces finding their way up the descending colon.

In surgery of the large intestine much of our work must still be considered on its trial, and many recommendations will depend on individual success; thus, although my results after ileo-colostomy have been invariably good, the results of removal of the growth in the two cases in which it was effected after the anastomosis were disappointing, and I should not again employ that method of treatment; but, as my cases have done well after primary removal followed by anastomosis, I am strongly in favour of this method. Another surgeon may have precisely opposite results, and so will recommend a contrary procedure, and until more cases have been published it will be difficult to arrive at a definite conclusion.

The important conclusion which I would draw from these cases is that colotomy should never be performed for any growth which is situated above the middle of the sigmoid flexure, and that an artificial anus formed in such a case should be only a temporary one left after the removal of the growth, and subsequently to be closed by ileo-sigmoidostomy.

TWO CASES OF RECOVERY AFTER OPERATION FOR DIFFUSE PERITONITIS FROM PERFORATION OF THE APPENDIX.*

BY CHARLES A. MORTON, F.R.C.S.,
Professor of Surgery in University College, Bristol; Surgeon to the Bristol General Hospital, and to the Hospital for Children and Women.

AT a meeting of the Bristol Medico-Chirurgical Society a few months ago I reported a case of recovery after operation for diffuse peritonitis from perforation of the appendix. Since then I have had two more cases of the kind, and these I propose to bring before your notice this evening.

In my previous paper I defined exactly what I meant by diffuse peritonitis. It is not a general peritonitis, but an infection far beyond the limits of an ordinary appendix abscess. Probably in all my three cases it was confined to the lower part of the abdomen. For its successful treatment early operation is of the greatest importance. But, as I have before pointed out, its signs are not always distinct from those of severe localised appendicitis, and this is one reason why I believe the safest course to adopt is to operate early in all severe cases of appendicitis. It is entirely a mistake to suppose because a patient's pulse is under 100, has temperature hardly raised, and his belly not distended and not generally rigid, that diffuse infection of the peritoneum is not present.

In the case which I recorded in April, 1901, the patient's pulse did not rise above 80, and the temperature did not reach 100°, and there was a complete absence of vomiting. Increasing abdominal distension and tenderness alone indicated the severity of the attack, but I must say I was not prepared to find as widespread an infection as I discovered at the operation. In the first case, which I am about to describe this evening, there was little doubt that a widespread infection of

* Read before the Bath and Bristol Branch of the British Medical Association.

the peritoneum was present; but in the second case, a few hours before operation, the patient's pulse was only 100, there was no rise of temperature, and the tenderness and rigidity of the abdomen were confined to the region of the appendix, and there was no distension at all. Yet the lower abdomen was full of pus. Severe pain and frequent vomiting were the prominent symptoms, but they are often very marked in well localized forms of appendicitis. When I operated there certainly was general rigidity of the belly wall, but at the time when I decided to advise operation as the safest course to adopt, six hours earlier, there was not.

The following is a description of my two last cases. They were both seen with Mr. F. E. Peake, and their successful termination is due to his recognition of the need for early surgical treatment.

CASE I.

History.—A woman, M. E. M., aged 26, was first seen by me with Mr. F. E. Peake at 5.30 on August 25th, 1901. She had been taken ill two days before with abdominal pain and vomiting. At first the pain was across the abdomen about the level of the umbilicus, and then spread to the right iliac region. Vomiting began early and persisted.

State on Examination.—She seemed in great pain, and her face was drawn and anxious. The lower two-thirds of the abdomen was distended [illegible] and the breathing was entirely thoracic. The pulse was [illegible]. There was no history of any previous attack. The [illegible] of the pain and vomiting, and the abdominal distension together with the absence of abdominal movement [illegible] ated a widespread infection, and immediate operation [illegible] ed. It was done as soon as she could be removed [illegible] hat evening).

[illegible] I divided the peritoneum almost an ounce of pus, [illegible] escaped, and then some very red and distended [illegible] I passed a sponge on holder into the pelvis, [illegible] n very offensive pus and lymph, and so did [illegible] lean the cavity. I allowed several coils of [illegible] ll intestine to protrude, and wrapped [illegible] The appendix was then seen hanging [illegible] ly detached from slight adhesions and [illegible] and was found to be very swollen and red, and in [illegible] ph, and a large perforation was noticed in it. I [illegible] ne coils of bowel within the abdomen, and left in [illegible] ontaining strands of iodoform gauze, and [illegible] und in the abdominal wall together around [illegible] as far as possible. She bore the operation very well. An examination of the appendix after removal revealed the presence of a large concretion and a perforated ulcer. She was a good deal better on the following day, August 26th.

Progress.—The abdominal pain and tenderness were much less, and when I saw her at 2.30 P.M. she had not been sick since the previous night. The distension persisted, though some flatus had been passed after one of [illegible] ed only by nutrient enemata, and [illegible] the turpentine enemata continued. On [illegible] the operation—she was frequently [illegible], however, no increase of the abdo- [illegible] did not exceed 112. She was [illegible] much the calomel and turpen- [illegible] ministered hypodermically every [illegible] a further administration of very [illegible] by a discharge of gas from the [illegible] when I saw her, the improve- [illegible] ed. The bowels then acted [illegible] ually subsided, and four days [illegible] e replaced by rubber ones. At [illegible] topped, as she was able to take a [illegible] mouth, and ten days later she was [illegible] her again for three weeks after this, [illegible] perficial line of granulations on the [illegible] has now left the hospital, but when I saw her last she still had a small patch of surface granulation.

CASE II.

[illegible] an, A. W., aged 21, seen with Mr. F. E. Peake [illegible]

[illegible] During the previous night he had [illegible] in the morning severe [illegible] were in the region of the [illegible] The vomiting occurred [illegible] and [illegible] the [illegible] but the [illegible] and his [illegible] tack [illegible] and [illegible] thirteen hours after the [illegible] antity of pus in the [illegible] in, but the [illegible] The perforated [illegible] peritoneum. I re- [illegible] and lower abdomen, and inserted [illegible] gauze wicks. He bore the opera- [illegible] I not [illegible] and enemata, but at last succeeded. With this paralytic condition of the bowel he had no return of abdominal pain or tenderness, and his pulse was not increased in frequency. After the bowels once began to act he made uninterrupted progress towards recovery. Rectal feeding alone was employed until the fourth day, when feeding by the mouth with peptonised milk in very small quantities at one time was commenced. Two days later he was taking ʒij hourly, and very soon after this light solid food. The glass drainage tubes were replaced by rubber ones on the fifth day, and these were removed a few days later. Only serum drained away at any time, but there was a moderate amount of this. The wound has now so nearly healed that there is only a small superficial patch of granulation tissue and no sinus, and he is able to get up.

Since operating on these two cases I have operated on a young man with a condition which was certainly not a well walled-in abscess, nor yet one of diffuse peritonitis. I operated thirty hours after the onset of an acute attack, and on lifting up the head of the caecum a collection of about a couple of ounces of pus escaped. The pus lay around a perforated appendix in a cavity on the inside of the caecum, which was not bounded by definite adhesions, but only by the proximity of surrounding coils. It had not extended into the pelvis. Before operation the whole abdomen was as rigid as a board and did not move with respiration. I think it is possible adhesions would have formed around the pus, but very probable that the pus would have become diffused over the lower abdomen and into the pelvis. I removed the appendix and sponged out the whole of the infected area, and drained with a large rubber tube. This was ten days ago, and the young man has made steady progress towards recovery since. Only serum ever came from the drainage tube, which was left out several days ago.

NOTE.—November 20th. Since this paper was read both this case and the previous one, A. W., have left the hospital—the former quite well, the latter, A. W., with a small patch of granulation tissue on the abdominal wall.

REFERENCE.

1 *Lancet*, April 20th, 1901.

ON INTRACRANIAL THROMBOSIS AS THE CAUSE OF DOUBLE OPTIC NEURITIS IN CASES OF CHLOROSIS.

BY C. O. HAWTHORNE, M.D., M.R.C.P.,

Physician to the Central London Ophthalmic Hospital; Assistant Physician to the North West London Hospital and to the Royal Hospital for Children and Women.

THE object of this communication is to support the suggestion that double optic neuritis occurring in patients the subjects of chlorosis is due to intracranial thrombosis. The evidence I have to submit, so far as my personal observation goes, consists of the facts of a single case, but these, if not absolutely conclusive, are at least highly significant, and certainly add weight to testimony having a similar direction and derived from other sources. The patient was a girl aged 17 years, distinctly, though not extremely, anaemic, and admitting some measure of menstrual irregularity. She was free from all evidence of disease in the thoracic and abdominal viscera, and ultimately made a complete recovery. In short, with the exception of two facts yet to be related, there was nothing to separate the case from the numerous examples of chlorosis seen by every practitioner. These two facts were diplopia and double optic neuritis. The double vision was of sudden and recent origin (fourteen days), and was found to depend on a paralysis of the external rectus muscle of the right eyeball. Visual acuity was normal, there was a slight degree of hypermetropia, and the ophthalmoscope revealed considerable optic neuritis in each fundus. Still later there were retinal changes in each macular region, with some depreciation of the visual power. After a few weeks treatment by rest and the administration of iron normal vision was regained, the optic neuritis subsided, and the ocular paralysis entirely disappeared.

The question now proposed to be raised is whether the occurrence of an ocular paralysis in association with double optic neuritis in a chlorotic girl, throws any light on the causation of the optic neuritis known to occur in a small but recognised proportion of patients free from all evidences of disease other than chlorosis. The proposition that it does so can scarcely be argued unless it first be admitted that the two

events—the ocular paralysis and the optic neuritis—were, if not certainly, at least in all probability, the results of a common cause. The theoretical possibility that they may have arisen from different causes must, perhaps, be allowed. But the balance of evidence inclines strongly in the opposite direction. Thus, they appeared at or about the same time, and they both declined together. There is one event—an intracranial thrombosis—competent to produce them. This event is, in the circumstances, a probable one. When a simple cause is adequate to explain the phenomena observed the *onus probandi* lies with those who affirm a more complex causation. In a case of admitted intracranial lesion, the occurrence of the two events now in question, so far from extending or complicating the diagnosis, would be referred without doubt to a common disturbing influence. It is reasonable to apply the same canons of interpretation to the case of chlorosis now under consideration, and to conclude that the ocular paralysis and the optic neuritis which were present took origin in a common cause. That cause, it is suggested, was a cerebral thrombosis. And from this conclusion it is proposed to argue that when optic neuritis—unattended by an ocular paralysis or other evidence of cerebral disturbance—occurs in chlorosis, it also is to be referred to a cerebral thrombosis.

Before presenting the evidence in favour of these propositions it may be observed that certain alternative suggested causes of the optic neuritis of chlorosis fail altogether to explain the present case unless upon the supposition that the optic neuritis and the ocular paralysis were due to different causes, which, it has already been submitted, is highly improbable. One of these suggestions—and, in consideration of its distinguished author, one to be received with every deference—is that the optic neuritis of chlorosis is due to the conjoined influence of hypermetropia and the abnormal state of the blood. Now even though it be allowed that these may cause optic neuritis, they can hardly explain the development of a unilateral ocular paralysis, sudden in appearance, and of temporary duration. Similarly, menstrual suppression—which, however, only existed in the present case in a very partial sense—offers no interpretation of the paralysis. The same is probably true of toxic material introduced from the intestine or other source into the blood. It may further be remarked that hypermetropia is a relatively common condition in young women, and that many chlorotic patients suffer from amenorrhoea, whilst optic neuritis in these patients is a very rare event. If any one of the above-mentioned views is correct, it follows, either that in different cases of chlorosis optic neuritis arises from different causes, or that in the present instance there was one cause for the paralysis and another for the neuritis. On the other hand it can be shown that intracranial thrombosis may occur in chlorosis, and that it is capable of producing both optic neuritis and a sixth nerve paralysis.

Thrombosis in Chlorosis.

That thrombosis is to be numbered among the possible complications of chlorosis is quite beyond doubt. It is, like optic neuritis, a rare and exceptional event, but it occurs with sufficient frequency to show that the disease includes, at least in a proportion of cases, some factor which tends to intravascular blood clotting. Professor W. H. Welch has collected 82 cases, and believes more could be gathered by "thorough overhauling of medical books and periodicals." No fewer than 78 out of the 82 were examples of venous thrombosis, and of these the cerebral sinuses were involved in 32 instances. "Chlorosis must be given," writes Professor Welch, "a leading place among the causes of spontaneous thrombosis of the cerebral veins and sinuses in women."

Optic Neuritis Produced by Thrombosis.

Now it is certain that double optic neuritis may be included among the symptoms of such thrombosis. Cases supporting this statement are attested by such authorities as Professor Clifford Allbutt, Sir Dyce Duckworth, Professor Osler, Dr. Buzzard, Dr. A. Brayton Ball, Dr. Lee Dickinson, and others. It is no doubt true that from some of the most extreme cases of cerebral thrombosis optic neuritis has been absent. But equally it is sometimes absent from cases of cerebral tumour. Yet no one, on account of these negative experiences, declines to admit tumour to a place among the causes of optic neuritis; and the evidence for thrombosis is hardly, if at all, less strong.

Again, it is not difficult to accept thrombosis of the cerebral veins or sinuses as an agent competent to cause an ocular paralysis. It may undoubtedly produce, as in some of the cases above alluded to, widespread motor disturbances, either convulsive or paralytic, on one or both sides of the body. And in some of the reported cases the paralysis has involved the ocular movements. Even apart from actual demonstration of this point, it is reasonable to conclude that, given a limited thrombosis, one of its effects may be paralysis within a limited area. It is fair also to point out that if such cases occur, it is not to be expected that *post-mortem* evidence will be available, for whilst extensive cerebral thrombosis often proves fatal, slight cases may readily make a complete, and possibly a rapid, recovery. Nor is it unreasonable to urge that the slighter cases may be accompanied by optic neuritis; for, as it is certain that the occurrence or non-occurrence of optic neuritis in cases of tumour is independent of the size of the tumour, so it is probable that in cases of thrombosis the development or otherwise of optic neuritis depends on some factor other than the extent of the thrombosed area. It has already been remarked that in some instances of extensive thrombosis there is no optic neuritis. The parallel with the conditions which obtain in cerebral tumours may possibly be completed by the development of neuritis when the thrombosis is of but limited extent. Neither the absence of *post-mortem* evidence, nor the suggestion that a limited thrombosis is unlikely to cause optic neuritis, can be regarded as fatal to the hypothesis that, in a case of chlorosis with double optic neuritis and an ocular paralysis, both of these events were due to a cerebral thrombosis.

The argument regarding the case now in question may therefore be briefly presented as follows: The simultaneous occurrence of the optic neuritis and the sixth nerve paralysis suggests a common origin; the nature and temporary duration of the two events makes it difficult to imagine any single cause capable of producing them other than an intracranial lesion; an intracranial thrombosis may certainly produce them; intracranial thrombosis is a recognized possibility in chlorosis: the patient is the subject of chlorosis; therefore it may be concluded with a considerable measure of confidence that both the optic neuritis and the sixth nerve paralysis were due to intracranial thrombosis.

From such a conclusion it is but a step to the proposition that thrombosis is probably the cause of optic neuritis when this occurs in chlorosis apart from other incidents having a possibly cerebral origin. The invitation to take that step is rendered more pressing when it is perceived that from cases of chlorosis with optic neuritis and severe cerebral disturbances proved by necropsy to be due to intracranial thrombosis, a series of cases of gradually diminishing severity can be traced downwards to the instances in which chlorosis is complicated by optic neuritis as the single event having thrombosis as a possible interpretation. At one extreme are fatal cases in which delirium, coma, hemiplegia, and double optic neuritis have been shown by necropsy to be associated with thrombosis of the intracranial veins and sinuses; following these are instances of less severe, though considerable, cerebral disturbance, with optic neuritis and evidences of thrombosis in the veins of the limbs or other parts of the body; these are succeeded by examples of chlorosis with headache more than usually extreme, more or less vomiting, and an ocular paralysis; next may be placed cases—like the one reported with this paper—in which the symptomatic disturbances other than those common in chlorosis are restricted to an ocular paralysis and double optic neuritis; and last of all are those in which the optic neuritis is the sole unusual event. Such a gradation is certainly an impressive one, and may reasonably be presented in support of the proposition that in these different groups we have to deal with different degrees of severity and extent of one and the same pathological process, and that the pathological event underlying them all is a thrombosis of the intracranial sinuses and veins.

A case in which retinitis in a chlorotic girl was present only in one eye may here be mentioned. It is quoted from Knies in Norris and Oliver's *System of Diseases of the Eye*, vol. iv., p. 535. The appearances were very similar to those seen in

albuminuric retinitis, and occasionally also in tumour: the condition lasted for more than six months and disappeared without leaving a trace of its existence. To believe that a monocular retinitis could be directly occasioned by a toxic or other abnormal state of the blood is certainly difficult, though not perhaps impossible. On the other hand, thrombosis may be advanced as a more probable explanation. In cases of tumour optic neuritis is now and again restricted to one eye, and a thrombus in a cerebral sinus or vein may conceivably act in a similar manner.

Optic Neuritis in Ear Disease.

Another source of evidence supporting the thesis here affirmed may be found in occasional experiences recorded by aural surgeons. Though it is held by some authorities that optic neuritis may be produced by suppurative disease of the middle ear without the occurrence of any intracranial complication, the discovery of this symptom in the course of a case of tympanic disease undoubtedly generally means a serious development within the skull. It may be due to abscess: it may depend on meningitis; or, again, it may be associated with sinus thrombosis. Certainly it is not always due to abscess, for many patients with middle-ear disease and optic neuritis make a complete recovery apart from the surgical measures which an abscess requires. The exclusion of meningitis cannot be so confidently asserted, at least in cases of recovery, because meningitis, more or less extensive, may obviously readily develop in any case of suppurative disease of the middle ear which has induced intracranial changes. But, subject to this qualification, there is a considerable body of evidence in favour of the view that thrombosis is the event to which the development of optic neuritis must be usually credited. Newton Pitt, in his Goulstonian Lectures (1890), analyses 57 fatal cases of ear disease and of the complications which led to death, and concludes that optic neuritis is more suggestive of sinus thrombosis than of abscess or meningitis. He says indeed that optic neuritis is rarely due to meningitis, and that it is infrequent in uncomplicated cases of abscess. Quite a number of cases of ear disease with optic neuritis are on record in which the removal of clot from the lateral sinus has been followed by disappearance of all the symptoms, and it has been observed in some of these that the neuritis was an early indication of cerebral developments, whereas meningitis is admitted to be a relatively late complication of sinus thrombosis. There are other cases in which the application of operative measures to the mastoid, without opening the skull, has been followed by subsidence of the optic neuritis, and though it cannot be affirmed positively that in these instances there was no meningitis, thrombosis is at least an equally probable explanation. Further, in some cases of middle-ear disease the optic neuritis has been associated with paralysis of some of the ocular muscular mechanisms. In one case, described by Marmaduke Sheild, there were early ocular symptoms which included optic neuritis and dilatation and fixation of one pupil. Operation was declined, and the necropsy showed septic thrombosis of the right lateral and cavernous sinuses with a meningitis of quite recent date. Clarence A. Veasey records a successful operation in a case of lateral sinus thrombosis in which the temperature was but little elevated, and in which there was optic neuritis, and, later, paralysis of the right external rectus muscle, the two last features becoming for a time more marked after operation. This last statement is especially when taken with the fact that the operation immediately relieved such symptoms as headache and vomiting, may be claimed as valuable evidence in favour of the suggestion that the neuritis and the ocular paralysis were the results of intracranial thrombosis. This conclusion is also supported by a case reported by Mayo Collier in July, 1901, at the British Laryngological Society. The patient was a young woman, the subject of tympanic disease, in whom there had developed optic neuritis and paralysis of each sixth nerve, these being the only evidences of intracranial mischief. A radical operation was performed on the mastoid and middle ear, but the skull was not opened. Yet three weeks after operation, though the neuritis and paralysis had not disappeared, no further signs of cerebral disturbance had developed, and in the course of the discussion on the case at least one parallel instance was described in which the patient made a complete recovery. Intracranial thrombosis offers itself as at least a possible explanation of all the facts of these cases. It is an admitted complication of middle-ear disease. It may undoubtedly produce optic neuritis. There is reason to believe that it may also cause various ocular paralyses. When these two events occur together in a case of tympanic disease it is surely reasonable to suggest thrombosis as probable under the circumstances, and competent as an explanation of the existing symptoms.

Thus it appears that chlorosis and middle-ear disease may each occasionally be complicated by intracranial thrombosis. In each of them, too, are found instances in which optic neuritis develops. With this there is sometimes an ocular paralysis. Thrombosis may explain these symptoms. It would be difficult to find any other cerebral event common to both chlorosis and disease of the ear which will explain them. But if thrombosis will explain the optic neuritis and ocular paralysis when these are associated, and if, as sometimes happens, the optic neuritis occurs apart from paralysis, is it not probable that here also the pathological cause is an intracranial thrombosis? The series of events found in the intracranial complications of middle-ear disease may in this way be presented to support the proposition that the optic neuritis of chlorosis is the result of thrombosis within the cranial cavity.

Optic Neuritis after Haemorrhage.

There is yet a third class of cases which may be mentioned in the discussion of the subject, namely, those in which optic neuritis develops after a considerable haemorrhage. Standing alone they appear as puzzles. But it seems worth considering whether the change in the quality of the blood, and the weakening effect on the heart produced by the haemorrhage, may not possibly lead to thrombosis in the cerebral veins and sinuses, where, for anatomical reasons, the blood current is naturally sluggish. In such cases, though the bulk of the blood is soon restored by absorption from the alimentary canal and the tissues, and by diminution of the excretion of water by the kidneys, the restoration of the corpuscles is a much slower process. Hence for some time the plasma is watery, and the corpuscles deficient (Coats)—a state of matters by no means unlike the conditions which exist in chlorosis. It can hardly be doubted that these conditions favour the occurrence of thrombosis, and as this may undoubtedly cause optic neuritis, it may at least be said that, as optic neuritis sometimes occurs after an acute haemorrhage, that is when thrombosis is a possibility, such an occurrence strengthens the argument for thrombosis as a cause of the optic neuritis recognised as an occasional event in chlorotic women.

Mechanism of Neuritis due to Thrombosis.

Concerning the manner in which thrombosis may be supposed to lead to such results as are here discussed, it is not necessary to assume that to produce optic neuritis a thrombus must be situated so as to mechanically interfere with the venous return from the eyeballs. A thrombus once formed is for all practical purposes a tumour, in the sense that it is a "foreign body" or "adventitious product" within the skull. And whatever conflict of opinion may yet exist regarding the manner in which cerebral tumours cause optic neuritis, it is certain that neither the size nor the position of the tumour is the determining factor. A thrombus in this respect doubtless behaves in the fashion set by other forms of "tumour." Again, it must be remembered that the formation of a thrombus may be followed by consequences which involve pathological changes in the nervous tissues themselves, such as haemorrhage, oedema, or softening; and that any one of these, if favourably situated, may readily interfere with the activity of the centre or trunk of one or other of the cranial nerves, and may, indeed, be a further agency in the production of optic neuritis. In short thrombosis, as a possible cause of cerebral symptoms, must be considered together with the changes in the nerve elements which it produces in its neighbourhood.

Treatment.

If these views are correct, certain practical conclusions in reference to treatment follow. The thrombosis which occurs in chlorosis is in all probability an aseptic process. One of the factors in its causation is doubtless a sluggish state of the circulation, due to cardiac weakness. The immediate risks

are (1) that the thrombus will grow over a larger area, and (2) that a portion will become detached and lead to embolism. To prevent the latter result, complete rest is imperative. But it is necessary to take steps to prevent the policy of rest reducing the vigour of the circulation to such an extent as to favour the extension of the thrombus. Hence it would seem wise, in cases of chlorosis accompanied by optic neuritis, to supplement the administration of iron by cardiac tonics, as digitalis and by diffusible stimulants, more particularly ammonia. When a passive thrombus has been fully formed, its tendency is not to detachment but to organization, and thus, as soon as the above measures have afforded a reasonable guarantee that further extension of the thrombus is improbable, complete rest should no longer be enforced. The indication now is to increase the vigour of those vital processes on which organization and practical removal of the thrombus depends. Among these is a reasonable amount of exercise, which, the fear of embolism having been reduced to a minimum, may now be safely and beneficially ordered and pursued.

NOTES AND REFERENCES.

The original cases of optic neuritis in chlorosis recorded by Sir William Gowers, together with a statement of his views regarding the influence of hypermetropia in association with the abnormal state of the blood as a factor in the causation of the neuritis, are to be found in his *Medical Ophthalmoscopy*, and in the BRITISH MEDICAL JOURNAL, 1881, vol. i. p. 706. A paper by Saundby and Eales, in which the influence of hypermetropia in the same direction is discussed, appeared in the *Ophthalmic Review*, September, 1882; see also Saundby in *Birmingham Medical Review*, November, 1885. Sir William Broadbent (*Trans. Ophthal. Society*, 1880-81, p. 108) has reported two cases of young women in whom optic neuritis was associated with amenorrhœa: one of these was fatal, and "the only morbid appearance in the brain was effusion into the ventricles." Cases of double optic neuritis with a similar *post-mortem* result are included in a paper by Williamson and Roberts (*Lancet*, 1900, vol. i. p. 1350). Examples of severe cerebral disturbance and optic neuritis in chlorosis with intracranial thrombosis on necropsy are recorded by Bristowe (*Clinical Lectures and Essays on Disease of the Nervous System*), Sir Dyce Duckworth (BRITISH MEDICAL JOURNAL, 1896, vol. i, p. 140), Lee Dickinson (*Clinical Society's Trans.*, 1896, vol. xxix p. 62), and A. Brayton Ball (*Trans. Assoc. of American Physicians*, 1889, vol. iv, p. 57). Cases with similar symptoms terminating in recovery have been reported by Bristowe (*loc. cit.*) and by Buzzard (BRITISH MEDICAL JOURNAL, 1896, vol. i, p. 150). Instances of fatal cerebral thrombosis without optic neuritis are noted by Sir R. Douglas Powell (*Lancet*, 1888, vol. ii, p. 1124), and by Stephen Mackenzie (*Practitioner*, February, 1898): see also Brayton Ball's collected cases. Professor Welch's article, in which the whole question of intracranial thrombosis in chlorosis is discussed, is in Clifford Allbutt's *System of Medicine*, vol vi. p. 200, and a list of published cases is given at p. 227. Clifford Allbutt himself deals with the question in vol. v, p. 508. Instances of double optic neuritis with more or less cerebral disturbance in patients with chlorosis are recorded by Wardrop Griffith (BRITISH MEDICAL JOURNAL, June 9th, 1898), Burton-Fanning (*ibid.*, 1894, vol. i, 1354), and Crawford Thomson (*ibid.*, 1073), the latter including a case in which there was diplopia. One of Lee Dickinson's patients, in addition to optic neuritis and hemiplegia, had a "varying squint," and in another there was inequality of the pupils. In one of Griffith's cases the patient was chlorotic, and had extreme neuro retinitis without any other evidence of intracranial lesion. While under treatment she fell on the ice and struck her head. Three weeks after this she became delirious, with febrile temperatures and dilated pupils. The necropsy showed a tumour of the occipital lobe, with some evidences of meningitis at the base of the brain—an illustration that chlorosis in association with double optic neuritis does not exclude cerebral tumour from the diagnosis. An instance of double optic neuritis and sixth nerve paralysis, practically identical with the one on which the present paper is founded, is reported by Diabella (quoted in *Lancet*, September 19th, 1896). Another is described by Sir William Gowers (*Transactions of the Ophthalmological Society*, 1880-81, p. 115); the symptoms in this instance included occipital pain and vomiting, and the diagnosis suggested was a transient localised meningitis. Several of the cases reported as instances of optic neuritis in chlorosis have also suffered from severe pain in the head and from vomiting. Burton-Fanning (*loc. cit.*) relates such a case, and suggests that the absence of fever, etc., excludes basal meningitis from the diagnosis; he proposes increased intracranial pressure from oedema of the brain as the probable cause. It may be suggested that thrombosis is adequate to explain all these facts. The rarity of sinus thrombosis as a condition producing severe symptoms may be judged from the fact that Byrom Bramwell (*Anæmia and Diseases of the Ductless Glands*, 1899) met with no example in an experience of 314 cases of chlorosis. The references to cases of middle-ear disease with ocular symptoms are as follows: Newton Pitt (BRITISH MEDICAL JOURNAL, 1800, vol. i, p. 642, *et seq.*); Marmaduke Sheild (*Archives of Otology*, 1892, p. 283); Whiting (*ibid.*, 1898, No. 6); Clarence A. Veasey (the *Ophthalmic Record*, June, 1899); Mayo Collier (*Transactions of the Laryngological and Otological Society of Great Britain*, July, 1901); Macewen (*Pyogenic Diseases of the Brain and Spinal Cord*); Barr (*Manual of Diseases of the Ear*, second edition): the last-named mentions paralysis, either of the third or sixth nerve, as a result of thrombosis of the cavernous sinus. With these references may be associated instances in which middle-ear disease was complicated by an ocular paralysis without optic neuritis. Two cases of this character have been recorded by Professor F. de Lapersonne (*Medical Review*, September, 1901, p. 623). A further reference of interest in connexion with the argument advanced in the present paper is an account of a case of enteric fever in which a unilateral third nerve paresis developed comparatively early, and the patient at a later date suffered from thrombosis of the right femoral vein. No other obvious cerebral disturbance accompanied the paresis, and lumbar puncture gave a clear fluid free from organisms. The possibility of a limited meningitis must of course be accepted, but in the circumstances thrombosis can hardly be denied a hearing. The case is recorded by Chas. P. Emerson in the *Johns Hopkins Hospital Reports* 1900, vol. viii, p. 397.

ARSENIC IN THE HAIR OF BERI-BERI PATIENTS FROM PENANG.

BY MAJOR RONALD ROSS, F.R.C.S., F.R.S.,
Liverpool School of Tropical Medicine.

SINCE Newall and Prytherch pointed out the similarity to beri-beri of the Chester cases of peripheral neuritis, and Reynolds demonstrated that the Manchester outbreak was due to chronic arsenical poisoning, the question whether many cases ascribed in the tropics to beri-beri may not be caused by arsenic has been much discussed. A little while ago Reynolds and myself published a case of so-called beri-beri from Sierra Leone, in the hair of which arsenic had been found by Dr. Dixon Mann.[1]

Recently I received twenty samples of hair from beri-beri patients, mostly Chinese, sent to me for analysis by Dr. Herbert Fry, of the Government General Hospital, Penang, a known beri-beri locality, and one sample from Dr. Dalgetty, of Adampur, South Sylhet, India. The samples were analysed by Professor Dixon Mann, and he has now reported that 6 out of the 20 samples from Penang contained arsenic, 2 yielded "more than a trace," 2 yielded "a trace," 2 yielded a "minute trace," and the rest yielded none at all. The case from Adampur was negative.

Dr. Dixon Mann adds, "In relation to arsenic the results are indefinite as regards its being a causal agent; only 6 cases out of 21 gave positive evidence. In all the cases the quantity of hair sent was quite sufficient to have yielded evidence of arsenic had it been present. The fact that arsenic was present in some cases is not without significance, however, and I suppose the question must for the present remain open." Certainly the result shows that some of the cases had been in contact with arsenic.

But after receiving the report, I detected a curious apparent relation between the presence of arsenic and the duration of the cases from Penang. Nearly all the positive cases were recent, and nearly all the negative cases were older. The following list gives the cases arranged in order of duration, according to some brief notes sent by Dr. Fry:

	Duration of Case.	Arsenic.
1	5 days	Minute trace
2	15 days	Trace
3	"	Trace
4	"	More than trace
5	"	None
6	20 days	Minute trace
7	"	None
8	1 month	"
9	"	"
10	"	"
11	2 months	"
12	"	"
13	"	"
14	"	"
15	"	"
16	3 months	"
17	"	"
18	5 months	More than trace
19	"	None
20	2 years	"

This result certainly augments the evidence in favour of the cases being arsenical, since it suggests that the arsenic was present only at a certain stage of the disease. But the relation may be only a coincidence.

I asked Professor Dixon Mann whether, even in undoubted cases of arsenical poisoning, arsenic is sure to be found in the hair. He replied that in very recent cases it might not have time to get there; while in old cases the arsenicated hair may be shed or cut away. Hence in a Chinaman's queue the arsenicated portion may occur some way down. Dr. Fry does not mention from what part he took his samples, and this may have much to do with the result. I suggest that samples should be taken from near the scalp and that the duration of the case and other details be carefully inquired into. My warm thanks are due to Drs. Fry and Dalgetty for the samples, and to Professor Dixon Mann for the time and trouble he has expended on the analysis.

The chances against five of the positive cases being found in the first six cases by mere coincidence have been calculated out for me by the Calculus of Probabilities and amount to 2,583 to 1. Hence the probability is very strong that the Penang beri-beri is arsenical, especially when we know that the people there largely work in tin manufactories and are brought closely into contact with arsenic.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, October 5th, 1901.

CONTRACT PRACTICE: THE EVIL AND ITS REMEDY.*

BY A. BAILLIE McKEE, M.B.,
Bristol.

IN every department of life reforms are called for if old abuses are to be remedied or new wants supplied. That which is good and sufficient for one generation may prove bad or inadequate for the next; and it is only fitting that we should pause occasionally amid the hurry of professional life to inquire whether a change in our methods of practice may not be desirable in view of the altered social conditions that everywhere surround us and the needs peculiar to our profession.

Nowhere is this social change more apparent than among the wage-earning class. The artizan now enjoys a degree of prosperity hitherto unknown. Combination has greatly increased his earnings; the purchasing power of money has grown enormously; education, a cheap press, and trade unionism have converted a large proportion of the class into shrewd and observant men of business. With a higher standard of comfort the requirements of the wage earner have increased and with them the demands on his medical attendant. The working-class patient is to-day more capable than formerly of appreciating careful treatment and of paying for it.

Yet such is the condition of our profession, such a lack of solidarity do we exhibit, so careless are we of each other's welfare, so engrossing are the calls upon our time, that we most of us seem content to let things drift, while the contract system of practice, by its gigantic growth, goes on dwarfing year by year the field of fair and legitimate competition. As a result our incomes suffer directly, and are indirectly affected by the fact that, as compared with contract rates, a lowered scale of fees must be regarded as remunerative. Thus there has arisen an ever-increasing tendency to the reduction of our earnings to a mere living wage. By supplying "medical benefits" the Friendly Societies have absorbed hundreds of thousands of well-to-do artizans, and in many cases their families; and the leakage is continued, in part owing to the attraction offered by the underpaid work of their medical officers. Other commercial concerns have followed suit. Medical men themselves, with incredible folly, have formed their private clubs, from which they cannot always without offence exclude the more prosperous mechanic or tradesman, till at present there is hardly a pothouse in the kingdom that does not shelter its working men's society, while the members thereof, drunk or sober, discuss among other things their doctor.

For such a state of things a drastic remedy is required. Palliative treatment will not avail. The entire question of contract practice must be reconsidered. Has it an adequate *raison d'être* at all? Is it not fraught with evil to our profession as a whole, to the public who take advantage of it, and to those medical men who engage in it?

Surely, as it affects our profession it is an unmitigated evil. It is degrading to our profession. Ask any merchant or respectable shopkeeper how this private penny-a-week traffic appears to him; or, if medical officer to a Friendly Society, inquire if he would be willing to accept a salary made up of pennies gathered from men of the same status as his own employés, and in return for it to submit his conduct to their judgment. Here, for example, is Section 2 of Rule XXIV, "Marquis of Worcester" Branch of the Ancient Order of Foresters.

Should a sick member be neglected by the medical officers, he shall give notice of the same in writing to the Secretary, who shall at once apply to the medical officers, and, if such charge of neglect appears to be well-founded, the Secretary shall give notice thereof in writing to the medical officers and bring the case before the Court, and all expenses incurred by such neglect (if proved) shall be chargeable to the medical officers and deducted from any salary which may be due to them at the time by the Court.

The doctrine of the right of trial by one's peers seems here to have been overlooked; but clearly some such rule was inevitable from the very nature of the compact. For the rest, a hostile few might, under this rule, cause a devoted medical officer an immense amount of worry, though actual neglect might be followed by no adequate punishment.

"But is not this a form of medical charity?" asks our hypothetical merchant. "Well, many of them are poor enough," is the somewhat lame reply; for, knowing, as you do, that the idea of charity has only recently been repudiated by the Friendly Societies, and with the knowledge you possess that never in the whole course of your experience did a club member regard himself as the recipient of your clandestine beneficence, you cannot honestly answer in the affirmative; whereupon most likely the shrewd merchant smiles; and you recollect uneasily that you had a project for raising the club subscription to 2d.!

That the contract system is of very doubtful benefit to that portion of the public whom it concerns, appears clear from a passage in a recent address: "We all know what club practice of the present day means. A list of stock mixtures is kept containing drugs which possess the common virtue of being cheap—magnesium sulphate, ammonium carbonate, potassium bromide, and sacch. ust. are useful in this particular. Sodium salicylate, bismuth, cinchona, and potassium iodide are seldom used.[1] To these observations it is unnecessary to add anything.

But how does contract practice react on the individuals engaged in it? Many years ago, on entering the surgery of a highly-esteemed colleague, I noticed that something had disturbed him. "Look at that," said he, pointing to a small heap of human hair lying upon his desk; "a clubber!" As I failed to grasp the situation, he explained that after an interview with a club patient who had accused him of neglect, he had proceeded to pull out the little heap of hair from his own head! The man, it is true, was of a somewhat bilious-nervous temperament; yet it might be of interest to investigate the relative degrees of baldness of those who do and those who do not indulge in contract work. This, no doubt, is an extreme and humorous instance of the worry inseparable from contracting away one's freedom of action: but a very little reflection will reveal numerous other grounds of objection to the system, and show how unfavourably it affects not only the individual medical man, but the public and our profession as a whole.

Contract practice has a great vogue, however. The oldest living members of our profession must have found the system in full swing on commencing practice, and it is not surprising that the younger generation should have acquiesced in it. For its existence no one can be said to be blameworthy, for its continuance everyone. There is a vast amount of discontent with their medical treatment among the recipients of so-called "medical benefits." These "benefits," however, form one limb of the three-legged stool on which the Friendly Societies repose, the other two being sick pay and burial money, and the societies cannot therefore well dispense with the services of a medical officer. On the other side, there is an apparently increasing number of medical men holding club appointments who would rejoice to be delivered from bondage if only their resignation could have the effect of disintegrating their clubs. On both sides there is plenty of discontent, and discontent is an indispensable preliminary to reform.

The remedy, however drastic it may appear to some at first sight, springs logically out of the nature of the institution it is sought to reform. And so accustomed are we in our daily work to base our practice on sound principles where these are attainable, and to abandon palliative measures where radical treatment is called for, that we enjoy by training an advantage over the general public in facing the possibility of an absolutely new departure. It is clear that all these institutions, Friendly Societies and the like, are nothing more or less than assurance companies worked on co-operative lines. They are

* Read before the Bath and [illegible] Branch of the British Medical Association.

as much commercial concerns as any of the co-operative stores which minister to the wants of our civil servants, army and navy, etc. They differ, however, from other assurance companies in not accepting all the risks which they are designed to meet. Two of them—sick pay and burial money they accept; the third—of medical attendance—is thrown upon their doctor. Clearly the true remedy for this state of things is the simple and logical one of declining to accept this risk, and demanding payment by fees for each item of work done. Contract practice would thus cease, and the necessity for appointing medical officers would cease with it, as each member of a society would in future be perfectly free to choose his own medical attendant.

As it is here the scheme appears to clash with vested interests, it is necessary to be more explicit. First of all, let me premise what cannot be matter of dispute—that fair and open competition is the best means of securing good work, and perhaps the only stimulus that will keep a man's energies fully alive, his knowledge adequate, and his methods modern. The limited monopoly enjoyed by the holder of a club appointment ought to be followed, one would say, by results even more disastrous than those which attended the old commercial monopolies long since swept away. In those days, if the product of the monopoly was inferior, the public could in the last resort refrain from purchasing it: but in the present instance the public cannot fully judge whether the article offered them is good or bad, or dispense with so vital a necessity as medical attendance. Again, how is the practitioner holding a scattered club to faithfully deal with two or three urgent cases or discharge his duty during epidemics or other periods of unusual pressure? He cannot do so. Again, success is sweet when it is well earned; but what satisfaction can possibly be derived from that pitiful kind of success which consists in enticing into a club the private patients of a professional brother? Turning away, however, from these ethical considerations, let me point out, by way of consolation, that the medical officers now holding such appointments would most probably benefit, first and chiefly, by the proposed reform. It is clear that if the medical officer be a *persona grata* to the members of his club, old liking and the law of habit will conspire to make the flock follow the old shepherd, with financial results of the most desirable kind. Moreover, with an increased income and perhaps less work, he recovers his lost freedom; he is his own man again, subject to no jurisdiction but the laws of his country and the rules of his profession. Above all, the fatal custom of regarding the club doctor as a suspect must cease with the new liberty enjoyed by each member of going elsewhere if dissatisfied. Gradually, no doubt, with the lapse of years, patients would tend to seek the medical man living nearest their own homes: but this is only what ought to be, as he is at present always their resort in emergencies. All this applies still more to the holder of a private club, the membership of which depends largely on attachment to and confidence in the club doctor.

Assuming, then, without further discussion, that this reform is devoutly to be wished, how may it be initiated?

In the first place, the Committee of the British Medical Association appointed to confer with representatives of the Friendly Societies, should be given a fresh mandate. They should be asked to point out to the societies that the rejection of the wage limit and repudiation of the idea of charity has made it impossible that the Association should approve of any of its members accepting in future the appointment of medical officer; to suggest that as each such appointment becomes vacant it should be allowed to lapse, and the medical aid department be reorganised on the basis of separate payments for each item of work done, members then being free to select their own medical attendant. With the initiation of the new order of things the projected "Conciliation Board" would be useless. The "wage limit" question, it is true, would still present itself, though with a new and improved complexion. In attending the member of a Friendly Society the fees charged would be those paid by any other patient of the same class; and should these fees be in excess of the rates allowed by the society, it would be the business of the society's officials to collect the excess from the member, and pay it over to the medical attendant when settling his account. This plan is not without precedent, it is that at present pursued, at least in some instances, by the National Deposit Friendly Society.

Secondly, any medical man having a large private club will know of some members who would be capable of managing it wisely. These he might meet; plainly inform them that difficulties have arisen which prevent his conducting the club on the old lines; that he can only accept fees in future: but that if they like to attempt to save the club, he will willingly place the list of members in their hands, leaving it altogether to their wisdom and prudence to form a fund for the payment of fees to such medical men as the individual members may severally choose to call in. During the transition period he might fairly undertake to be as lenient as possible in the matter of fees, and offer to advise on any point if consulted.

Thirdly, any body of medical men, being agreed as to the evils of contract practice, might invite representatives from their various clubs to meet and discuss the new departure, and might suggest the formation of a committee (which they would be prepared to advise if requested) for arranging a common fund and a suitable scale of payments.

Fourthly, the General Medical Council might be requested to intervene in cases where, in any locality, contrary to the expressed opinion of a two-thirds majority of the profession of the locality in favour of the abandonment of contract work, a club appointment had been accepted on the old lines. The intervention of the Council might be sought on the grounds that abuses, such as canvassing and neglect of wage limit, are almost inevitable on the old system; and mainly on the ground that club work, if it be not a form of medical charity, must certainly be a system of petty trading.

Lastly, the movement would be greatly furthered by free and full discussion on the part of various local medical societies, the Branches of the British Medical Association, and the medical press. Ultimately an authoritative statement in the public press would be desirable, both in the interests of the public and the profession itself.

As regards the cost of medical attendance on the new system, this question does not directly concern the profession except in so far as it may be necessary to show that the scheme is well within the reach of those who at present pay contract rates. The cost would probably not exceed twice the present average, or 8s. a head per annum. In many districts it might very well be less. This calculation assumes, however, that the abandonment of the contract system would at once be followed by a falling off in the number of slight cases now coming up for medical treatment.

There may be those who doubt the ability of the wage-earner to meet the increased demand on his pocket. Personally I have no doubt whatever on this point. It would not be a burden, and would be gladly acquiesced in if he could only realize by anticipation the vast improvement in his treatment that would inevitably follow the adoption of this reform.

It will need great, unceasing, and unselfish effort to bring the reform to pass. That which is right must, however, ultimately prevail. The forces of right harmonize and coalesce and mutually strengthen each other. Those of wrong are at variance each with each, and in the end mutually destructive

REFERENCE.
1 BRITISH MEDICAL JOURNAL, November 2nd, 1901, p. 1326.

THE BUDA-PESTH PASTEUR INSTITUTE.—During the year 1900 2,490 patients were admitted to the Pasteur Institute at Buda-Pesth for protective inoculation against hydrophobia. Of the patients 2,093 came from Hungary, 397 from neighbouring countries, Croatia, Roumania, Bosnia, and Galicia: 91.5 per cent. of those treated were bitten by rabid dogs, about 6 per cent. by rabid cats, the rest by other animals. The average duration of treatment was 18 days. Of the total number treated 0.28 per cent. contracted hydrophobia. The Servian Government has sent a commission to Buda-Pesth to study the methods and the installation of the Institute. In view of the importance of these inoculations the Hungarian Minister of Public Worship and Education has ordered the erection of a new institute, which will also be equipped for experimental pathology and therapeutics.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CHRONIC OTITIS MEDIA, FOLLOWED BY SUPPURATIVE BURSITIS.

C. M., aged 27, cycle manufacturer, had suppurative otitis media since about the age of 7 years. The right meatus was completely filled with granulations, from which there was a constant slight discharge of pus. He first came under observation in May, 1900, with an attack of appendicitis, when attention was directed to the ear and the possibility of its causal connection with the abdominal condition discussed. The appendicitis subsided with rest in bed and medical treatment. Mr. J. Furneaux Jordan, who saw the case with me, agreed that operative interference was unnecessary. The patient has since been free from any appendicular trouble except for occasional twinges of pain, apparently due to adhesions. There are no physical signs at the present time. With this exception his health has been remarkably good, even vigorous. There is no history of gonorrhoea, syphilis, rheumatism, gout, or tubercle.

In spite of admonitions as to the necessity for treating his ear, he did not again come under observation until March 15th, 1901, when he sought advice for an acute pain in the left shoulder, which had come on suddenly during the night of March 13th. There was no history of injury, and repeated and exhaustive investigation failed to discover any adequate cause for the condition, which was found to be due to an acute bursitis of the synovial sac lying between the subscapularis tendon and the lesser tuberosity of the humerus. At first the pain and swelling was strictly localised to the bursa and its immediate neighbourhood, but subsequently the whole shoulder became brawny and hard, the temperature was slightly raised (about 100° for several days), and the hand and forearm became œdematous. There being evidently some deep suppuration about the joint I consulted with Mr. Leedham-Green on March 27th, and he confirmed the diagnosis with an exploring needle, which drew off pus mixed with bursal fluid. His bacteriological examination showed staphylococci to be the organisms present.

On March 28th the abscess was freely opened and drained. During the whole fortnight, from the time of onset until the operation, the patient's general condition had been excellent; there was no evidence of generalised sepsis or constitutional disturbance.

After careful consideration of the case we came to the conclusion that the primary seat of the absorption was the middle-ear trouble, in spite of the absence of any other more usual sequelae.

The points in this case which appear to be most worthy of remark are—the unusual localization of the secondary mischief, the absence of ordinary "pyaemic" disturbances, and, chiefly, the importance of regarding chronic otitis media as a condition worthy of careful treatment, and not as one which the patient will "outgrow."

Edgbaston. GUY J. BRANSON, M.D., B.A.Lond.

A CASE OF TRANSPOSITION OF VISCERA.

As the condition is a rare one I desire to put on record the following case which has been under my care at the County Infirmary, Londonderry.

J. G., aged 15, an ill-developed very anæmic girl, came under my charge for a lateral curvature of the spine. On examination she was found to have the heart on the right side, the liver on the left, the spleen on the right. The organs were in their usual positions with regard to the ribs, and the condition has never given rise to inconvenience, and was quite unknown to the patient and her friends.

The spinal curve (dorsal) has its convexity to the left. She is right-handed; has always been good at calisthenic exercises, and, so far as I can learn, has been healthy until a few months ago, when the spinal curve was noticed.

Londonderry. JOHN GALWAY COOKE, M.B.

FAILURE OF CLOSURE OF ABDOMINAL WALLS.

AT 7 P.M. on November 30th, 1901, I was called to attend Mrs. S., who had been in labour since 12 A.M. The patient, a dwarfish multipara, had suffered from "convulsive fits," and some months ago had "fallen badly." She had worn a Hodge's ring pessary for a partial split of the perineum.

On examination a soft mass, about the size of a man's two fists, was found presenting, and above it two hands could be felt. The "waters had broken" three hours before. A foot was brought down, and during the next pain delivery was accomplished of a stillborn hermaphrodite fetus, the whole of whose abdominal wall was deficient, the liver and intestines being covered by a thin membrane, a funnel-shaped expansion from a short and flabby umbilical cord. The spine was much curved, with convexity to the right. In about twenty minutes a very large but otherwise apparently normal placenta was delivered.

My reason for reporting the case is that I was struck with the ease with which the protruding viscera might be mistaken for a tumour of another nature.

Llananno. W. T. DAVIES, M.R.C.S., L.R.C.P., L.S.A.

CASE OF LITTRE'S HERNIA.

IT was with much interest I read the account in the BRITISH MEDICAL JOURNAL given by Mr. T. Rudolph Smith, M.B., of a case of Littre's hernia, as it recalled a case I operated on many years ago brought in to me by Mr. Guiness, of Bampton. The patient was an old woman, who had been suffering from symptoms which pointed to a strangulated hernia. On examination I found a swelling in the right femoral region; on this I cut down, and finding a piece of omentum I removed it, taking this to be the cause of her symptoms. The patient, however, remained in a state of collapse, and died about twenty four hours afterwards. Thinking there might be something that I had overlooked, I made a *post-mortem* examination, and found tightly nipped in the right internal abdominal ring a portion of the small intestine about the size of the top of a tailor's thimble, which was much congested.

Tiverton. C. E. LIESCHING, M.R.C.S.

DISTANCE WALKED AFTER DIVISION OF THE GREAT VESSELS ON ONE SIDE OF NECK.

A WOMAN, aged 28, had her throat cut on November 30th, 1901. The external and internal carotid arteries and jugular vein were completely severed on the right side, at the level of the upper border of the thyroid cartilage, which was also completely divided.

The victim struggled out on the public road and back into the house, a total distance of 22 yards, before falling down dead. It may be useful to record the distance covered in this case, although it has been exceeded previously.

Westbury, Salop. A. HOWIE, M.B.

TORTUOSITY OF INTERNAL CAROTID ARTERIES.

IN the issues of the BRITISH MEDICAL JOURNAL for November 23rd, 1901, and January 11th, 1902, there appeared papers under the above heading. A tortuous condition of the internal carotid arteries appears to be of unusual occurrence in Glasgow and in London, but in the dissecting room of Trinity College, Dublin, where most of the subjects are of an advanced age, the condition is so common that I have for some time been accustomed to point it out when demonstrating. Since reading Dr. Edington's paper I have observed three marked cases, and have preserved drawings of one which appears to be almost identical with the case described by Dr. Rowlands and Dr. Swan. I have found the condition in each case bilateral, but usually more marked on the left side.

The tortuosity is, I believe, the result of atheroma or of arterio-sclerosis, and the internal carotid arteries present the twist in a marked degree because they are firmly fixed above in a bony canal. The part within the canal is unable to move, and thus the cervical portion in its inelastic state becomes twisted by the force of the blood current.

T. GILLMAN MOORHEAD, M.B.,
Chief Demonstrator of Anatomy, Trinity College, Dublin.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL INFIRMARY, HULL.

CASE OF PULMONARY ABSCESS.

(Under the care of Dr. Frank Nicholson, Physician to the Infirmary.)

[Reported by F. C. Eve, M.B.Cantab., M.R.C.P., House-Physician to the Infirmary.]

History and State on Examination.—The patient was a healthy young woman who had had several teeth extracted under ether 2½ years previously. Ten weeks later she coughed up a tooth with half a pint of blood. Ever since that time she had had a cough, but never before. The following symptoms also appeared and became steadily worse, namely, offensive expectoration, haemoptysis, night sweats, evening temperature, and loss of weight.

She had several times been in this infirmary during 1901 and 1900, with temporary benefit, but until near the end there were no physical signs whatever. It was thought that there might still be another tooth in her lungs, but careful examination by Mr. Howlett with an excellent *x*-ray apparatus failed to reveal anything. The sputum was repeatedly found free from tubercle bacilli, though crowded with a great variety of other organisms.

On her last admission (August 3rd, 1901) she was thin, the sputum was abundant, and the breath was very offensive. There were no physical signs except an apical systolic murmur, which was not considered valvular. The temperature was very irregular, ranging between 104° and 97°. The pulse was always above normal. On hanging her head over the bedside, she would spit up a drachm or two of very offensive purulent sputum.

Late in August, 1901, she at last developed some physical signs, namely, pain and a pleuritic rub at the right base behind. A week later there were indications of fluid, confirmed by aspirating a little pus.

Operation.—At the spot indicated by Dr. Frank Nicholson a piece of rib was resected, and a small ragged pulmonary abscess was discovered as large as a small tangerine orange with pleura adherent round it. To the finger the walls of ragged diseased lung substance felt very curious, and quite different to the ordinary empyema cavity. The temperature then dropped, and all went well for ten days, when there were several attacks of brisk haemorrhage by the mouth and wound. These stopped, and she was looking much better and fatter, and the discharge was ceasing, when she was suddenly carried off by a profuse haemoptysis three weeks after the operation.

Necropsy.—This showed that all the organs were perfectly healthy except the lower and middle lobes of the right lung, which were solid and rotten in patches. There was one large bronchiectatic tube leading straight from the right bronchus without diminution of calibre almost into the abscess cavity at the posterior base of the right lung. The abscess cavity was clean and had no lining membrane.

Remarks.—The condition looked a very favourable one for treatment by raising the foot of the bed 18 inches. This had been tried, but unfortunately only a day or two before the physical signs appeared and made operation possible. No trace of a tooth was found *post mortem*, so presumably a ten weeks lodgment of a tooth near the right bronchus had been sufficient to initiate a condition of bronchiectasis which had gradually extended till death two and a half years later.

Pasteur Treatment of Hydrophobia in Mexico.—The last *Boletin* of the Mexican National Board of Health reports that since the Pasteur treatment of hydrophobia was introduced in 1888, 4,000 persons have been treated. The total mortality has been only 3 per 1,000.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

David Little, M.D., F.R.C.S.E., President, in the Chair.

Thursday, January 30th, 1902.

Dr. C. O. Hawthorne read a paper on intracranial thrombosis as a cause of double optic neuritis in cases of chlorosis, which is published at page 326.

Sir William Gowers thought that the evidence of thrombosis in these cases of chlorosis was very small indeed.

Mr. Johnson Taylor asked Dr. Hawthorne how, if the cavernous sinus were thrombosed, it happened that there was no proptosis. He thought it more likely that it was due to some blood change.

Dr. James Taylor agreed with Sir William Gowers. Although the cavernous sinus might not be blocked, yet some of its tributaries might be, and this might account for the neuritis; but he thought that it was very difficult to see what caused it on both sides. Blocking of the arteries certainly did not cause it unless the embolus was septic.

Mr. Ernest Jones read notes of a case.

Dr. Hawthorne, in reply, said that some chlorotic patients died who suffered from optic neuritis, and in these there was nothing but thrombosis present to account for it. He thought that the block need not necessarily be in the cavernous sinus, but if it were he should expect proptosis.

The Treatment of Cystoid Cicatrix following Cataract Extraction.

Mr. G. A. Berry read a note on this subject. He said it was not always possible to prevent the formation of cystoid cicatrices after removal of cataract, and when they did occur they were a source of danger to the eye on account of the way they facilitated the entrance of micro-organisms. The author had found that it occurred in about 2 to 3 per cent. of cases operated upon. As a rule, the opening was very small, and could be seen readily if the conjunctiva were dissected up. For the treatment he preferred to dissect up the conjunctiva and turn it down as a flap, then with the cautery gently to burn the small opening, and at once replace the conjunctival flap. This always cured it, and he preferred this method to any other that had been introduced.

Endothelioma of Orbit.

Mr. Simeon Snell (Sheffield) related a case of endothelioma of the orbit, associated with a peculiar varicose condition of the vessels of the surface of the eyeball, occurring in a girl, aged 19. A marked feature was the varicose condition of the veins on the surface of the eyeball below, which had first been noticed about three months before the late of operation. There was also marked proptosis, the left eye being about a quarter of an inch in advance of the right. There was no oedema of the eyelids. The smooth surface of the tumour was felt in the floor of the orbit. Movements of the eyeball were normal except downwards, where there was was some limitation. Vision was ⅔. On October 28th, 1901, the entire tumour was removed through an incision in the lower lid, without interfering with the eyeball. It had only loose attachments; it reached to the back of the orbit close to the under surface of the eyeball, and along the front part of the optic nerve. It was encapsuled, and measured an inch and a quarter long and about half an inch thick. The eyeball had since resumed its normal appearance, the varicose condition of vessels had disappeared, and vision was ⅔. Mr. Treacher Collins examined the growth, and reported it to be an endothelioma.

Ringworm of the Eyelid.

Mr. Simeon Snell related a case of ringworm of the eyelid in an adult, due to a large spored trichophyton, probably of animal origin, occurring in a healthy agriculturist, aged 34. He was first seen on December 17th, 1901, with a large red patch on the right eyelid, which had commenced two weeks before as a rounded, brownish-red pimple on the skin near the outer canthus. It gradually increased in size, and now measured 2 inches by 1½ inch. It was oval in shape, with pus-

tular points and well-defined edges. It involved the outer half of the upper eyelid, reached to the temple, embraced the outer commissure and the outer corner of the lower eyelid. The affected eyelashes and hairs of the eyebrow had fallen out or were loose. The preauricular gland and gland beneath the jaw were involved. There were six other lesions on the right forearm and two on the left. In all the patches there was marked loss of hairs. The patient kept cows, and one had on the left side a white patch without any hair on it for about two months. The ringworm apparently commenced on the right arm and the eyelid became affected by contact, the man working with his bare arms. Under the application of yellow mercurial oxide ointment improvement soon commenced, and on January 30th the patches on the arms had practically disappeared, and the one on the eyelid was only distinguishable by its greater redness. Under the microscope a large spored fungus was found, probably megalosporon ectothrix. Cultures from the hairs removed from the cow were not successful.

The Visual Purple of the Retina.

Dr. F. W. Edridge-Green read a paper entitled Observations on the Visual Purple of the Retina. The expenses of the research were defrayed by a Government grant of £10. He undertook the investigation in order to ascertain whether he could obtain any objective evidence of the diffusion of the visual purple into the yellow spot of the retina. Many phenomena pointed to this conclusion, such as the fact that a perceptible interval elapsed before people were able to see with the yellow spot, and that a light might fall on the fovea without producing any sensation. His first experiments were made with the help of Mr. Treacher Collins. On examining the retina of a monkey, it was at once evident that the visual purple extended to the yellow spot, but the very deep yellow of the spot prevented them from saying with certainty that the colour altered on exposure to light. Mr. Treacher Collins and he had tried numerous chemicals in order to find out a substance which would fix the visual purple, but had not been successful. Nearly every chemical he used destroyed the purple. He then examined the eyes of two monkeys by himself, and tried to obtain an early view of the yellow spot of the retina through a microscope. It was at first red and then gradually bleached under the influence of light. He noticed a curious appearance in one retina; on examining the region just external to the yellow spot, he saw rose-coloured cones surrounded by one or more circles of colourless rods. His last observations were made with the help of Mr. Devereux Marshall. Two monkeys were kept in a dark room for 24 hours, and then Mr. Devereux Marshall excised their eyes under chloroform, the room being illuminated only by a ruby light. The retina having been arranged on a slide, was put on the stage of a microscope and viewed with a white light. The whole retina was bright crimson, but the brightest part of all was the yellow spot, and it could be seen that the visual purple was situated between and not in the cones in the rod-free district of the yellow spot. The visual purple in a few minutes bleached, leaving the yellow spot in its usual yellow colour. Dr. Edridge-Green expressed his great indebtedness to Mr. Treacher Collins and to Mr. Devereux Marshall and also to Professor Starling for the use of his laboratory and the very admirable dark room at University College.

Specimens.

Unusual refractive lens.—Mr. H. R. Mr G. W. Roll: A case of Mr. A. S. Ormond: A case of Mr. J. H. Mycopic sections of Mr. Inglis Taylor Mr. Angel Robert pupil.—Mr. R. Marcus Gunn: Pigment on inner surface of each cornea of recent origin.

Pathological Society of London. At a meeting of this Society held in the Pathological Laboratory at King's College on Tuesday, February 4th, Mr. W. Watson Cheyne, F.R.S., President, in the chair, the following demonstrations were given. Dr. Norman Dalton: Hyaline bodies in a syphilitic lesion; Dr. A. Whitfield: Pappenheim's stain for "plasma cells"; Dr. R. T. Hewlett: The non absorption of antitoxin by the stomach or rectum; Dr. Daniels: Avian filariae; Dr. Wilson: Arborescent growth in anthrax stab cultures.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Thomas Myles, P.R.C.S.I., President, in the Chair.

Friday, January 17th, 1902.

Living Exhibits.

Mr. Henry Gray Croly showed (1) Case of amputation at hip-joint; (2) case of ligation of external iliac artery for iliofemoral aneurysm; (3) patient showing result of excision of head of humerus for unreduced intracoracoid luxation.—Mr. R. F. Tobin showed (1) Patient, aged 80, from whom the prostate was removed by enucleation (with specimen); (2) case of excision of knee.—Mr. D. Kennedy showed remarkable case of deformity of legs, due to rickets.

Surgical Treatment of Chronic Synovitis.

Mr. R. L. Swan read a paper on this subject. In cases of primary tuberculous synovitis he recommended that the joint should be opened, the fluid evacuated, the synovial membrane irrigated, and then thoroughly sterilized with pure carbolic acid, again irrigated with sterilized water, and closed. With proper aseptic precautions he looked on the operation as the best treatment for chronic hydrops articuli of the knee. Rightly carried out, the operation placed the synovial membrane in a condition to return to its normal functional activity, and the patient got a useful limb. He illustrated his paper by the history of two successful cases. He had not found carbolic acid the dangerous bactericide that some said it was. He in no way wished to be understood as advocating the operation for disease of the joint complicated with disease of the osseous tissues or cartilage. The operation was intended to place the synovial membrane of the joint in a condition favourable for its recovery.

The President quite agreed with Mr. Swan that the proper treatment for such cases was opening the joint, and by so doing the pathological lesion would be made plain. In the majority of cases it consisted in pedunculated growths commencing from the alar ligaments. If on opening the joint, especially in children, he found the synovial membranes to be tuberculous, he recommended that they should be dissected out, a procedure which he believed led to recovery.

Mr. E. H. Taylor objected to section of the patella. It left two raw osseous surfaces apt to be infected by tubercle, if any there were. He preferred Kocher's method, the flap gave room enough to examine the joint. Free swabbing with strong carbolic acid devitalized the synovial membranes and the cartilage, and left them a prey to the tubercle bacilli in their vicinity. He looked on the method suggested as one not well calculated to give good results in hydrops articuli: the wound healed, but after a little time the limb became shorter and often flexed. There was not true ankylosis. He recommended that the hyaline cartilage should be shaved off the bone, and the raw osseous surfaces be joined, ensuring a sound limb.

Mr. H. G. Croly believed that many cases called for such treatment as Mr. Swan suggested; but he would not approve of dissecting out the membranes and slicing off the hyaline cartilage.

Mr. Tobin had tried the rest cure with hydrops articuli for months without getting any good results. He looked on the thick pulpy synovitis—Brodie's pulpy degeneration of the knee-joint as tuberculous synovitis, though in specimens submitted to microscopic examination no bacilli were found. The result of opening the joint and dissecting out the membranes was sometimes very good and at other times very bad. Long-continued effusion had stretched the ligaments, and they were unequal to the strain of active life. Favourable cases gave good results with movable joint, but the more uniformly good results were obtained by ankylosis following excision.

After remarks by Mr. Johnson and Mr. Haughton,

Mr. Lentaigne asked Mr. Swan to describe his method. He had been for years using strong carbolic acid (absolute phenol) in different cavities of the body, tuberculous joints, after erasion and after incision, and tuberculous sinus, etc., without seeing any evil effects from its use. As a student he

had frequently met cases of carbolic poisoning; now he never saw one, although much larger quantities of carbolic acid were employed. He ascribed this to the carbolic acid they now got being pure; the toxic action was probably due to some impurity. He swabbed out cavities with a very small sponge held in a sponge-holder, and well wetted with the liquefied carbolic acid, and he had had no reason to regret it in any case. Mr. Swan's operation might prevent the need for arthrectomy or excision.

Mr. Doyle said he would like to know how Mr. Swan applied the carbolic acid; applying it on a swab was a most dangerous method. In children he had had bad results from operative interference with the synovial membranes of the knee-joint. The results were good for a month or so, but in three or four years' time they were found to be greatly deformed. Kocher's method gave great facility for examining the joint. He found the *locus* of infection to be at the attachment of the crucial ligaments.

Mr. Swan said he did not deal with excision or erasion in his paper, as he had no concern with them. The object he had in view was to show the possibility of opening the joint, removing the fluid, and allowing the synovial membrane to return to its normal condition. Latterly he had not been in the habit of cutting through the patella, but he could not see the difference, as far as infection was concerned, between a cut in hard and one in soft tissues. Puncturing was perfectly safe if carried out aseptically. The subcrureus bursa was not mentioned by him simply because it communicated with the synovial sac, and in all operations on the joint must be dealt with. This was not the case with the bursa under the patellar ligament, consequently he referred to it. He could not agree with Mr. Tobin that portions of cartilage and bone were readily removed during the subsequent attempts at passive motion. He cleaned out the joint with an aseptic loofah, and applied the carbolic acid with a stick. He was not wedded to carbolic acid; any equally powerful bactericide would answer quite as well.

Pylorectomy.

Mr. Gordon reported a successful case.

The patient, aged 43, was admitted to the Adelaide Hospital for an abdominal tumour, and on April 2nd, 1901, Mr. Gordon performed the first step in a Roux operation. The patient made a good recovery, with little or no shock. Twenty-five days afterwards the operation was completed by the removal of the pylorus and about half of the stomach. The intestinal and gastric wounds were sutured with silk, a gauze drain was left in the area of operation, and the wound closed. The operation occupied one hour and three-quarters. The growth was found to be a columnar-celled cancer. For some days the patient remained in a precarious condition; temperature, 102° F.; pulse 160. At the end of a week the food was increased in amount, and the patient made a good and quick recovery.

Mr. Gordon afterwards considered the legitimacy of the operation of pylorectomy, and concluded that in a favourable subject Roux's operation was called for.

The President congratulated Dr. Gordon on the first successful pylorectomy performed in Dublin. The difficulty of diagnosing tumours of the stomach was very great. In one of his cases he cut down on the viscus with the intent of doing a pylorectomy, but found so much thickening of the gastric walls with what he and his friends thought was cancer that he returned the stomach unopened to the abdomen, and the woman was to-day, after some years, alive and well.

The discussion was continued by Mr. Swan, Mr. E. H. Taylor, and Mr. Jameson Johnson spoke; and Mr. Gordon replied.

LIVERPOOL MEDICAL INSTITUTION.

Rushton Parker, F.R.C.S., President, in the Chair.

Thursday, January 30th, 1902.

Gall Stones with Chronic Intestinal Obstruction.

Dr. A. C. Wilson described a case in which many diagnoses had been given by various physicians in Liverpool and London. Eventually an exploratory operation revealed gall stones in the gall bladder and duct, which were removed, also a curious mass in the intestine which not was dealt with.

Mr. R. W. Murray described the operation he had performed in Dr. Wilson's case. He believed the lump in the intestines to be an impacted gall stone. In order to deal satisfactorily with this, he thought it would be necessary to short-circuit the gut, and would not advise further operation unless the suffering of the patient became unbearable.

The President, Dr. Macfie Campbell and Dr. Gill commented upon this case; and Dr. Wilson replied.

Intestinal Anastomosis.

Mr. R. W. Murray exhibited a boy, aged 13 years, upon whom he had operated for an artificial anus in connexion with the small intestine, complicated with considerable prolapse of the gut.

Three years previously the boy had been operated upon for intestinal obstruction, a portion of the small intestine, probably about three feet from the ileo-caecal valve, being brought to the surface and opened. Prolapse of the bowel resulted, and for three years all faecal matter escaped from this opening in the small intestine. When first seen by Mr. Murray in May last the child's condition was pitiable; he was wasted, anaemic, and carried his prolapsed gut in a bag attached to his waist. In July Mr. Murray opened the abdomen and attached the working end of the small bowel to the transverse colon, end to end. The large gut was much collapsed, and as it had been lying fallow for three years there was some doubt as to whether it would resume its function. The result, however, was very satisfactory, the bowels acting naturally 48 hours after the operation.

The general health and comfort of the patient had greatly improved, although there is still a portion of unused bowel prolapsing from the original wound.

The Physics of the Mitral Regurgitant Murmur.

Dr. Bradshaw said that hitherto no thoroughly satisfactory explanation was forthcoming of the fact that the murmur was heard most plainly at the apex of the left ventricle. He suggested that it was brought about in the following way: The fluid vein in the left auricle set up sonorous vibrations in the still parts of the blood behind the mitral valve. The valve, being a thin membrane capable of vibrating, transmitted these vibrations to the blood in the ventricle, which conducted them to the apex, the part nearest the chest wall. He was making experiments with models to ascertain how far this kind of transmission was possible, but, so far, he had not succeeded in exactly reproducing the conditions artificially, as the construction of such a model involved considerable mechanical difficulties.

Dr. Barr spoke, and Dr. Bradshaw replied.

The X Rays in Cancer.

Dr. Stopford Taylor read a paper on the Treatment of Cancerous Affections of the Skin by Means of the X Rays, illustrating his remarks by lantern slides and patients.

Case I.—Rodent ulcer, involving right side of nose, lachrymal canals, and eyelids, in patient, aged 82. Case II.—Rodent ulcer on left cheek, implicating outer canthus and eyelids, in patient, aged 64. Case III.—Epithelioma on lupus erythematosus affecting the whole surface of the nose in patient, aged 59. Microscopical confirmation of diagnosis. Treated by scraping, followed by *x*-ray applications. Case IV.—Large rodent of left side of scalp and pericranium, in patient, aged 78.

The foregoing cases were of such a nature as to be beyond operative interference or relief by any other known method. The treatment in the first three cases resulted in complete healing of the ulcerated surfaces, with the formation of the most perfect scar tissue, and disappearance of all traces of disease. In the fourth case, as the pericranium was involved, only partial healing took place, but the wearying pain which usually attends rodent ulceration was much relieved. As a result of the treatment, Dr. Stopford Taylor arrived at the following conclusions: (1) That the rays were especially indicated in all inoperable cases of cancer of the skin; (2) that the best results were obtained when the disease was confined entirely to the soft parts; (3) that owing to the complete relief of pain and superior cosmetic result obtained patients too readily assumed that they were well and neglected to attend, and hence recurrence might occur from failure to complete treatment; and (4) that the use of *x* rays was no obstacle but a valuable aid to other methods.

Mr. Arthur Walker thought the action of the *x* rays on rodent ulcer was not due to their escharotic power, but to some influence which, as it were, turned the scale of growth in favour of the healthy tissues, thereby enabling them to destroy and absorb the malignant cells. In cases treated by the *x* rays at the Northern Hospital he had noticed that the rolled edge remained in the skin after the ulcer had healed, and then gradually disappeared, and in one case in particular, of recurrence in which further operation was refused, the skin was never broken, but the new growth slowly became absorbed under the influence of the rays.

Dr. GULLAN congratulated Dr. Stopford Taylor on the cases, and noted especially the excellent supple character of the skin, and the splendid condition of the scar tissue.

DR. LESLIE ROBERTS said that the *x* rays were being used for all sorts of cutaneous diseases. There was a want of precision in these experiments, perhaps unavoidable, owing to ignorance of the nature of the force with which they were dealing. But it could not be doubted that in the end all this promiscuous experimenting would lead to the discovery of some definite principles which would serve to guide their judgement in the selection of cases for treatment. He believed that the effects on the tissues of the skin of the *x* rays were, broadly speaking, of two orders: (1) Those of a kind analogous to burning; (2) specific effects. Roentgen rays appeared to exert a specific action on degenerative epithelium. The growth of hair, nails, and the horny cuticle were rapidly affected, and all these were forms of physiological degenerative epithelium. Rodent ulcer was a purely epithelial disease, and there could be no question that the rays caused a dissolution of the new epithelial cells. The same was true of epithelioma, and possibly, to some extent, of other forms of cancer. It was much to be regretted that we did not possess exact information on the microscopic condition of the scar of rodent ulcer after healing by *x* rays. The remedial influence of these rays on lupus was, in his opinion, to be attributed to their burning action, and not to any specific influence. No good effect resulted unless the exposure to the rays was followed by at least some symptoms of burning. Dr. Leslie Roberts did not think that the Roentgen rays afforded any marked superiority over the best of the old-fashioned methods of treating lupus. The *x* rays were in the majority of cases inferior to the arc lamp rays in the treatment of lupus.

The PRESIDENT, Dr. ALEXANDER, and Mr. NEWBOLT, also spoke; and Dr. STOPFORD TAYLOR replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 16th, Dr. C. H. WILLEY, President, in the chair, Dr. S. WHITE exhibited (1) phosphatic calculi and prostatic tissue removed suprapubically from a patient, aged 63, who had been suffering from enlarged prostate; (2) an excised gastric ulcer removed from the anterior wall of the stomach of a man, aged 24. The ulcer had existed for two years, and had perforated eighteen months previously, but owing to extensive adhesions the general peritoneum had not been fouled. The ulcer was about an inch in diameter, and funnel shaped. The walls of the stomach around the ulcer were fully one-third of an inch in thickness, and a dense band of fibrous tissue united the ulcerated area to the anterior abdominal wall. The patient was now quite free from his old symptoms. (3) A child, aged 2 years, the subject of extroversion of the bladder, in whom the ureters had been transplanted into the rectum by the extraperitoneal method described by Dr. Peters, of Canada. Peters's operation was described and criticised. Dr. A. J. HALL showed (1) a case of acute myelitis in which the first lesion had occurred in the lower thoracic region of the cord. The onset was accompanied by marked pyrexia, diarrhœa, and vomiting. An interesting feature was the presence of a circular ring of acute bedsore due to the presence of the rim of a chamber pot, on which the patient had been placed for some hours before admission on account of his diarrhœa. About five days after the first attack paralysis of both arms, paralysis of the tongue, and dysphagia occurred, and the patient became temporarily insane. These symptoms lasted about a week. The patient made a complete recovery. (2) A case of occupation neurosis. The patient was a single man, aged 43, a bricklayer, who for two years had noticed [illegible] of the right hand, varying from time to time. It was most marked when using his towel, and was accompanied by numbness and occasional stiffness. Tremors and pain occurred on excitement. To show the psychical element in the condition, the facts that the patient witnessed the sudden death by accident of his father five years ago, that the affection was improved by stimulants and arrested by a rubber ring on the finger were adduced. (3) A case of trade eczema of eleven years duration affecting the hands and arms in a polisher, who worked in rouge. The patient had been previously shown to the Society, and since then had been applying calamine gelatine daily over the dorsa of the fingers, hands, and forearms, with the result that she had been perfectly free from eczema for several weeks.—Dr. G. WILKINSON related two cases of successful operation for ruptured intestine:

Case I, a boy, aged 12 years, was stabbed in the lower part of the abdomen with a pocket knife. The intestine was wounded in two places, and the mesentery in one. There was much bleeding, and some extravasation of faeces. Resection of the wounded portion of intestine was performed, and the ends united over a Mayo Robson bone bobbin. Case II, a boy, aged 11 years, was kicked in the abdomen by a horse. Dr. Wilkinson saw him twenty-four hours later, when signs of acute general peritonitis were present. The abdomen was opened by an 8-inch incision in the middle line. A circular hole half an inch in diameter was found in the ileum and sutured. A large faecal collection was found in the lower part of the abdomen, and general septic peritonitis was present. After wiping out the extravasated faecal matter, evisceration and thorough irrigation of the abdomen were performed. The abdomen was closed without drainage. Though much collapsed after the operation, the patient eventually made a good recovery.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on January 15th, Mr. G. C. KINGDON, President, in the chair, Miss SARAH GRAY read a paper, entitled, Is Alcohol Properly Described as a Stimulant? and dealing with the question whether the action of alcohol on the human body was predominantly that of a stimulant, defined as "something which produces activity," or whether, by inhibiting nervous centres in inverse order of their development, it produced only a factitious and transitory display of energy due to overaction of centres below those inhibited. The effect on nervous tissue, especially on that of the highest cerebral centres, was regarded as of primary importance. Experimental work by Kräpelin, Fürer, Aschaffenberg, Hodge, Kellogg, and others was cited to show that this effect was uniformly depressant for higher centres, and depressant after a brief initial acceleration for lower centres. With regard to muscular work, the experiments of Frey and Destrée were quoted as supporting those of Parkes. The effect on the heart was particularly discussed, and, in the absence of decisive physiological or pathological experiment, clinical evidence with regard to treatment of diseases such as enteric fever, diphtheria, and septic peritonitis, with and without alcohol, was adduced from Knox Bond, MacNicholl (New York), G. B. Davis (Chicago), and others. This evidence seemed to show that results were much better without alcohol, "true" cardiac stimulants such as caffeine and strychnine being used. Mortality in septic peritonitis had been reduced by such treatment from 85·5 to 14 per cent. The results of treatment at the London Temperance Hospital were also cited. The effect of alcohol on digestion was very briefly discussed. In conclusion, a plea for more exact study of the subject and the formation of more accurate and fully-considered views of the action of alcohol as a drug was urged. In the discussion which followed, the PRESIDENT, Drs. CATTLE, BOLTON, HUNTER, GERATY, FULTON, COX, and CLINCH took part; and Miss GRAY replied.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on January 21st, Mr. P. MIALL in the chair, Dr. NICHOLSON DOBIE read notes of a case of distension of the gall bladder.

The patient was a woman, aged 60, who for two years had complained of pain in the umbilical region when she was moving about. There was no pain when she was at rest in bed. For about twelve months she had noticed a lump in the body. There was no history of jaundice. Examination of the abdomen showed a large ventral hernia in the middle line below the umbilicus. The hernia was easily reducible and contained a tumour which, when returned to her abdominal cavity, could be freely moved about. The tumour was tense and fluctuating and was about the size of a fœtal head at full term. On the right side of the tumour was a hard projection 1½ in. long and the size of three fingers. On December 4th, 1901, the abdomen was opened in the middle line below the umbilicus. The tumour was found to be a greatly distended gall bladder with thickened and congested walls. There were no adhesions. In a pouch on the right side was a large gall stone, cylindrical in shape and weighing 84 drachms. The gall bladder was opened and the stone removed. The gall bladder was stitched to the upper end of the abdominal incision, and the rest of the wound closed. The wound healed by first intention except for the biliary fistula. On December 27th the patient had an attack of right hemiplegia with complete loss of speech.

Mr. ROBERT MERCER read notes of a case of pyloric obstruction: gastro-jejunostomy.

The patient was a woman aged 45. In March, 1899, oöphorectomy had been performed for dysmenorrhœa and ovarian neuralgia. In September, 1900, symptoms of gastric disturbance began with pain and vomiting, blood was present in the vomit on one occasion. Notwithstanding treatment by rest in bed, dieting, and gastric lavage, relief was never more than temporary, and, as she was becoming more and more emaciated

and weak, operative measures were advised. She was admitted to a hospital, and the abdomen was opened in January, 1901; a band was found stretching from the greater curvature of the stomach, near the pylorus, to the scar of the previous operation. This was divided, and in addition the pylorus was stretched by the fingers, the stomach wall being invaginated into it. For three months the patient did well, but then the old symptoms began to return, and by August she had fallen back to much the same condition as before, and appeared to be slowly dying of starvation. At the patient's request, a further operation was undertaken by Mr. Mercer at home, in October, 1901. On opening the abdominal cavity the transverse colon was found to be adherent to the scar, and the intestines matted together; after some difficulty the jejunum was brought up into the wound, and united to the posterior part of the stomach. The pylorus was embedded in a mass of adherent intestine, and was not seen. The shock after the operation was not severe, but there was very persistent vomiting, which was stercoraceous on the third day. The stomach was washed out with potassium permanganate solution and a turpentine enema administered. The vomiting now ceased and the patient was able to take nourishment. A month after the operation she was taking solid food and was rapidly regaining her strength and weight. She did well for a time, but now (January, 1902) the old symptoms of pain and vomiting had returned.

—Mr. C. F. M. Althorp read notes on three cases of new growth in the large intestine.

Case I. Cancer of rectum.—A married woman, aged 30, who had had no children, suffered from pain on defæcation for six months. Examination showed a hard growth just within the sphincter ani, which surrounded the bowel, but was not fixed; healthy bowel could be felt by the finger passed through the growth. On September 6th, 1901, the growth was excised by the perineal route, and the mucous membrane stitched to the skin. The patient made a good recovery, with control over flatus as well as faeces. Case II. A woman, aged 60, had symptoms of chronic intestinal obstruction for eight months. On examination *per rectum* a growth was detected just within reach of the finger. On August 30th, 1901, left inguinal colotomy was performed, and the growth brought out of the wound. On September 1st the gut was opened, and on September 11th the growth was excised. The patient declined any further operation to close the colotomy wound, and left the hospital, the bowels being relieved through the colotomy opening. Case III. A man, aged 64, who had noticed symptoms of chronic obstruction for twelve months. Had lost weight very notably, and become very weak. Acute intestinal obstruction came on, and median laparotomy was performed, when an annular growth of the hepatic flexure of the colon was found. An opening was made in the right hypochondriac region, and the growth brought out of the wound and fixed by a rod passed through the mesentery. The colon was opened on the third day, and the bowels acted well through the wound. On the seventh day the growth was excised. The operation was rendered difficult owing to the growth having been partly drawn back into the peritoneal cavity. The patient became collapsed, and died the next day.

—Mr. Basil Hall read a paper entitled Some Observations on Dilatation of the Stomach and a Modification of Gastro-enterostomy, illustrated by five cases. He said that in cases of gastric dilatation the trouble appeared to be not due solely, or even chiefly, to pyloric obstruction, but to the limitation of the natural movements of the pyloric half of the stomach, caused by adhesions, and consequently that any anastomotic opening, in order to empty the stomach effectively, must be in the cardiac rather than in the pyloric half of the viscus. The modification which he had practised consisted in reaching the posterior wall of the stomach by tearing through the gastro-colic omentum rather than the usual method of opening the transverse mesocolon, and then connecting the jejunum with the stomach by stitching in the ordinary way. Mr. Hall said that the operation was easier and safer, in that the parts could be more effectively isolated from the peritoneal cavity during the operation, and also that there was less danger of wounding the mesenteric veins and so causing troublesome haemorrhage.

Mr. B. H. Slater showed a dermoid cyst from the neck, containing a large number of spherical pellets of putty-like material.—Dr. Crowley exhibited a brain showing a large cortical gumma.—Dr. H. J. Campbell showed the following cases: (1) Concussion of spinal cord; (2) heart disease with marked clubbing of fingers; (3) case of Addison's disease.

Society for the Study of Disease in Children.—At a meeting held at the Evelina Hospital for Sick Children on January 19th, Mr. A. H. Tubby, M.S., in the chair, Dr. George Carpenter showed a case of paroxysmal haemoglobinuria in a female child, aged 3 years. An infant sister had been treated at the hospital for congenital syphilis, but the patient showed no signs of that disorder.—Dr. George Carpenter also read notes of a case of suprarenal sarcoma in a boy, aged 2½ years, the organs from which were demonstrated by Dr. Nabarro who had conducted the necropsy. The right kidney was invaded secondarily by the new growth, and the left had become hydronephrotic from pressure on its ureter. The mesenteric and pelvic glands were secondarily invaded, and some glands under the sternomastoid subsequently. The case in its clinical aspect was not unlike tuberculous peritonitis, but the injection of tuberculin gave negative results and confirmed the original opinion.—Mr. Clement Lucas showed a case of traumatic chorea and musculo-spiral paralysis, complicating a fracture of the upper third of the humerus, in a girl, aged 11 years. The chorea developed within half an hour of the injury, and was not associated with heart disease or a rheumatic history. The musculo-spiral paralysis was believed to be caused by the callus resulting from movements during repair. Another interesting point in the case was an abnormal growth of hair on the lower third of the arm and the dorsal aspect of the forearm corresponding to the skin supplied by the injured nerve.—Dr. Frederick Taylor asked whether a recent attack of any infectious disorder could be negatived, and whether it was certain that there were no choreic movements prior to the accident. He observed as to the obscurity surrounding the relationship of chorea to the emotions and shock. How did the traumatism operate? Through the central nervous system, the nerve of the limb, or by the production of shock?—Mr. Tubby showed several cases of paralytic talipes calcaneo-valgus, equino-valgus, and equino-varus which had been treated by muscle grafting. In some of the cases, especially those of calcaneo-valgus, the results were good, also in two of the cases of equino-varus. But the equino-valgus cases were not so striking, although the improvement was very considerable.—Mr. Walter Edmunds and Dr. George Carpenter showed a case of myositis ossificans in a female aged 4 years, one of a family of eight. The disorder had been noticed six months, and recently had rapidly advanced.—Dr. Milligan read notes on a case of contracted granular kidney in a boy aged 7 years. The chief symptoms were pallor, wasting, headache, and polyuria.—Mr. Sydney Stephenson read for Dr. Lewis Marshall (Nottingham) notes on a case of thyroid dislocation of the hip in a child aged 9 years of four months duration, confirmed by *x* rays.

Dermatological Society of Great Britain and Ireland.—At a meeting on January 22nd, Dr. A. J. Harrison in the chair, the following cases were shown: Dr. A. Eddowes: A case of lichen planus.—Dr. N. Meachen: A case of tuberculides in a child.—Dr. P. S. Abraham: (1) Case of parakeratosis variegata in a young woman; (2) lupus erythematosus; (3) lupus vulgaris on elbow; (4) erythema ab igne in a boy of 10.—Dr. Graham Little: (1) Case of cutaneous tuberculides; (2) a doubtful eruption in a baby, possibly specific; this was considered by some members to be a bromide eruption; (3) comedones in a young child on back and front of chest.—Mr. A. Shillitoe showed: (1) Case of small papular (lichenoid) syphilide; (2) leukoplasia cervicis; (3) tertiary tuberculated syphilide: (4) secondary eruption in a much-tattooed subject.—Dr. Graham Little: Microscopic specimens from a case of syphilis with keloid-like eruption, exhibited by Mr. A. Shillitoe at a former meeting. Dr. A. Eddowes also showed the following microscopic specimens: (1) Eczema papule; (2) microbacilli on a hair taken from a leucodermic patch; (3) epithelioma of face.

REVIEWS.

QUAIN'S DICTIONARY.

The third edition of *Quain's Dictionary of Medicine*[1] naturally presents many changes, but the most notable of these is its reduction in size, for it now appears in one volume, the editor having found it possible to reduce the number of pages from 2,483 to 1,892. This reduction, Dr. Montague Murray states, has been accomplished by omitting many articles which, though excellent in themselves, were not in accord with the special object in view, and by as far as possible avoiding repetition. True, the print is somewhat smaller, and the volume is rather bulky, but after a careful perusal and comparison with the former edition, we feel that we can safely say that this radical change has not in any way detracted from the value of the book, while the many advantages

[1] *Quain's Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases of Women and Children.* By Various Writers. Third edition, largely rewritten and revised throughout. Edited by H. Montague Murray, M.D., F.R.C.P., assisted by John Harold, M.B., B.Ch., B.A.O., and W. Cecil Bosanquet, M.A., M.D., M.R.C.P. In one volume. London: Longmans, Green and Co. 1902. (Roy. 8vo, pp. 1910, 14 coloured plates. 21s.)

of the compression which has taken place are obvious. By keeping within judicious bounds of space the work preserves its special character as a dictionary for handy reference. The editor has been fortunate in retaining many of the contributors to the former edition, and where these have not been available the material has been adequately revised or rewritten by others.

The extensive researches which have been made during the last few years in the domain of bacteriology have naturally claimed considerable attention, and accordingly we find entirely new articles on antitoxin by Dr. H. E. Durham, bacteria by Dr. D. A. Welsh, serum reaction by Dr. J. W. Washbourn, and toxins by Dr. W. Bulloch. The article, "Micro-organisms," has disappeared from this edition, the information being given under "Bacteria," or in connection with different diseases. Extensive additions and revisions have also been required in connection with diseases of the nervous system, and in this branch of medicine Dr. Charlton Bastian, Sir William Gowers, Dr. Buzzard, and Dr. Ferrier have again borne a large share of the work.

Among the articles that are new are those on cerebral diplegia and myasthenia gravis by Dr. Risien Russell, and a contribution from Dr. F. E. Batten on combined degeneration of the spinal cord. Dr. F. W. Mott has an excellent article on cerebral syphilis, and Dr. Head has dealt very fully with pain in visceral disease, his article being illustrated with numerous coloured charts. The account of lead poisoning in this edition is by Professor Oliver. Among the more important revised articles on insanity, that on general paralysis of the insane by Dr. Percy Smith should be mentioned as being one of considerable importance; it has some interesting illustrations. In the articles dealing with diseases of the skin there has also been much revision, notably, for instance, in the subject of eczema by Dr. Liveing and Dr. J. J. Pringle, and in the ringworms by Dr. T. Colcott Fox. Several articles in this edition are from the pen of Dr. James Galloway. The diseases of the stomach have been entrusted to Dr. Sidney Martin, Dr. Lockhart Gillespie, Dr. Lauriston Shaw, Dr. John C. Hemmeter, and Dr. R. F. C. Leith; and Dr. W. H. Allchin has again written on diseases of the intestines. An important and interesting article on concretions, by Professor Sheridan Delépine, is to be found much enlarged in this edition, and another new article which should be mentioned is that on urinary deposits, by Dr. R. G. Hebb. A useful table of the periods of incubation, length of isolation, and of observation of contacts in infectious diseases, has been introduced by Dr. Dawson Williams into his article on incubation. Malarial disease, by Major Ronald Ross, F.R.S., naturally takes a prominent position, and good illustrations are given of the parasite in its different stages and surroundings. The diagnostic and therapeutic uses of the Roentgen rays are discussed by Dr. Mackenzie Davidson. There are very many other articles, some almost entirely new and others which have been extensively revised that might equally well be alluded to, but it would obviously be impossible to deal with them all in any sense individually, nor is this necessary in reviewing a third edition of a work so well established. Enough has been said to show that the present edition in its more convenient form of one volume is in no way below the standard of the previous editions, and it may be expected that it will retain its high position as one of the chief reference books for practitioners and students. When it is remembered that in addition to the articles on medicine there are others dealing fully with forensic medicine, diseases of women and children, and also with many important surgical subjects, some idea will be gathered of the immense amount of information the book contains, and also of the enormous amount of labour which must have been given by the editor and and his assistants, Drs. Harold and Bosanquet, in collecting and arranging the material in the convenient form in which it is now presented.

PHYSIOLOGY AND HISTOLOGY.

So little of the old Kirkes's *Physiology* remains, and so much has Professor Halliburton added to and changed the work, that the publishers have in this edition very properly decided to drop the name of Kirkes and substitute that of Halliburton. The popularity of this excellent student's textbook is shown by the fact that a new edition is called for every year, this being the fourth since 1896. Professor HALLIBURTON[1] has again thoroughly revised the book, and has introduced new sections on the significance of Nissl's granules, on Waller's work on the electrical currents of the eyeball, on Cannon's researches in connection with stomach movements, and on Waymouth Reid's investigation of the processes of absorption. The sections relating to the electrical phenomena of muscle, to the proteids, to the ductless glands, to the muscles of the larynx, and to the cranial nerves have been almost entirely rewritten. In the last section a figure is required to make the account of the roots of the auditory nerve more comprehensible.

When Professor VERWORN published the first edition of his book on *General Physiology*[2] in 1894 it received an enthusiastic welcome seldom accorded to physiological textbooks. The subject matter was so striking, the views advanced so philosophical, and the manner of presentment so interesting, that it leapt at once into a foremost place among physiological writings. The physiology of the cell, the unit of living things, is so obviously important for the proper understanding of the physiology of groups of cells, whether in tissues, organs, or animal and vegetable organisms, that it is a wonder that so little attention should have been previously given to that fundamental subject. We do not of course intend to imply that the work done on the cell had been small; on the contrary, there was a vast mass of material that needed systematising. This has been Verworn's great task, and to him above all others belongs the credit of grasping the proper relationship of cell physiology to other branches of that subject. We have noticed the book on several previous occasions, so that it is needless to repeat our high appreciation of the successful way in which the author has accomplished his task. The book has been translated into English, French, Italian, and Russian, and no better testimonial as to its value could be given. The present edition has been slightly enlarged. The publication of the book stimulated workers, and much research has been accomplished in the domain of cell physiology since then. This recent work is incorporated in the new edition. The author has of necessity to select what material to use and what to reject. This task has been judiciously performed: the book is no mere catalogue of facts and theories, but the new matter is amalgamated with the old in such a way that the interesting continuity of the threads of argument is maintained.

In his *Compendium*[3] Dr. SHULTZ sets forth the main facts of physiological science in a very compressed, but nevertheless clear, form. The book is thoroughly scientific and up-to-date, and would prove a boon to many a student preparing for examination. At the end of the volume a number of useful tables are given, in which temperature, body weight, CO_2 output, O intake, food and wine analyses, and many other numerical details can be seen at a glance.

In his little book on the cell and the tissues[4] Professor N. LOEWENTHAL has attempted to place before the reader the problems which face the histological worker of the day. His object is to inspire and guide young investigators. The book, however, is disappointing. Any man of intelligence reading a textbook can call up hundreds of such problems. A teacher is rarely required to aid the imagination of the investigator, but constant examples of method are needed to impel him to concentrate on the thorough execution of one or two pieces of research. Unless the power of imagination be within him he is not fitted for research. The ovary develops 70,000 ova, and but half a dozen, if any, create a fresh being. So it is with the researcher. His imagination teems with projected inquiries, and too often his work comes to nothing for lack of

[1] *Handbook of Physiology.* By W. D. Halliburton, M.D., F.R.S. Fourth edition (17th edition of Kirkes's *Physiology*). London: John Murray. (Demy 8vo, pp. 968; 686 illustrations. 14s.)

[2] *Allgemeine Physiologie.* Von Max Verworn, Professor of Physiology at the University of Göttingen. Third Edition. Jena: Gustav Fisher. 1901. (Royal 8vo, pp. 644, 238 illustrations. M.18.)

[3] *Compendium der Physiologie des Menschen.* Von Dr. P. Shultz. Second Edition. Berlin: S. Karger; and London: Williams and Norgate. 1901. (Cr. 8vo, pp. 470. 7s.)

[4] *La Cellule et les Tissus.* Par le Professeur N. Loewenthal. Basle and Geneva: Georg and Co. 1901. (Cr. 8vo, pp. 210. Fr.2.50).

concentration. In reading Professor Loewenthal's book we have gained no new insight into the problems that face us, and have not felt the hand of a master impelling us to work.

About two years ago we had occasion to review favourably the second American edition of Stöhr's well-known *Textbook of Histology*.[5] The present translation is prepared from the eighth German edition, and as is the manner of textbooks, it has grown slightly in size. The American editor, Dr. Alfred Schäfer, is responsible for more additions, both as regards text and illustrations. Dr. Stöhr's book is recognised as the standard textbook on histology for medical students in Germany, and it would be a work of supererogation to describe the general features of a work which has seen eight editions. Ten or twelve years ago histology might have been regarded as a subject in which any great extension of knowledge was hardly possible. But within that lapse of time its progress has been marvellous; new methods have resulted in new and useful knowledge. This progress has not been confined to the nervous system, though here with the names of Golgi, Marchi, Ramon y Cajal, and Nissl in mind it has been perhaps the most striking: but in other branches of microscopical research, for instance, in the structure of secreting glands, the advance has been quite as unmistakable. Dr. Stöhr and his American coadjutor have kept abreast of the times, and all that is valuable both in methods and results will be found in the present volume. To judge by the rapid appearance of the third after the second American edition the work appears to have taken firm root among English-speaking students. We cannot conclude without again calling attention to the beauty and accuracy of the illustrations.

In the handbook on *Normal Histology*[6] by Professor Dunham, of New York, the subject is succinctly dealt with. The descriptive text is lucid, and the illustrations, carefully selected from the best sources, are well reproduced. An introduction brings before the student the primordial activities of cell life, and he is then gradually taken through the elementary tissues up to those of special function. The rest of the book is devoted to a description of the histology of the various organs of the body. There are some excellent diagrams illustrating the appearances of muscle fibres in various planes of section. The last forty pages are occupied by practical suggestions on histological technique which are evidently the outcome of experience. As has been stated, the text is short and concise; but, nevertheless, the book can be recommended for the use of beginners.

Dr. Carl Huber's *Laboratory Work in Histology*[7] is an excellent manual, and if the medical students of Michigan University are conscientiously put through it they must be extremely well taught. Dr. Huber puts the methods of embedding, staining, etc., in a clear tabular form, and gives full practical instructions in all those minute details which can only be given by a man who has a masterly knowledge of his subject. The American student, according to the evidence of this textbook, has the work of cutting and staining done for him, and has only to mount sections affixed to coverslips. By this plan he must gain an excellent collection of slides, but must lose considerably by the lack of training in manual dexterity and the overcoming of difficulties.

Dr. Carl Huber is responsible also for editing Dr. H. H. Cushing's translation of Bohm and Davidoff's *Textbook of Histology*.[8] He has added largely both to the text and illustrations of the original, and the combined authorship of so many distinguished men has led to the production of a most valuable work. The illustrations are most beautiful, and beautifully executed, and their study will be an education in themselves. The technical instructions and methods given at the end of each section are thoroughly up-to-date, and will be found a most valuable guide by all workers in histology. The descriptive text is the weakest part of the work, for it is written in a style that lacks clearness, and is marred by the extravagant use of long and useless names. For example, there is no advantage gained by labelling the stages of indirect cell division "the prophases, metaphases, anaphases, and telophases of mitosis," nor in introducing such expressions as "heterotypic and homeotypic mitosis."

Histology and Pathology[9] is a brief presentment of the chief facts of histology, normal and pathological. The first 240 pages are devoted to the former, and are written by Dr. Nichols, the remainder of the book is written by Dr. Vale, and each is careful to disclaim any responsibility for the statements of the other. As the preface sets forth, originality of data is little to be expected, and accordingly little is to be found. In accordance with American methods the book is well illustrated, and the engravings are nearly all taken from well-known sources. The letterpress of the section dealing with pathological histology is scanty, though the illustrations are numerous. We could find no glaring errors in the book, but on the other hand it has no very conspicuous merits; it might serve as an aid to a jaded memory, but as a textbook or book of reference we venture to think that, in England at any rate, there are more informing works to be obtained.

SEXUAL PSYCHOLOGY AND PATHOLOGY.

Professor v. Krafft-Ebing's book *Psycho-pathia Sexualis*[10] is the largest, the most widely circulated and we may as well at once say the most repulsive of a group of books of which it is the type. Its object is ostensibly "to record the various psycho-pathological [why *psycho*-pathological?] manifestations of sexual life in man, and to reduce them to their lawful conditions" (*sic*). The critic is deterred from speaking as strongly about it as he might otherwise be disposed to do by respect for the great university in which the author holds, or until recently held, a chair. The book is in fact for the most part a record of a very large number of cases of masturbation, pederasty, bestiality, and other abnormal methods of obtaining sexual gratification. In their relation the reader is not spared the minutest and the most nauseous detail. No doubt Professor v. Krafft-Ebing commenced to study and to write about these subjects in a scientific spirit, but the manner of relation must often lead to an uncomfortable feeling that his "nature is subdu'd to what it works in, like a dyer's hand." Moreover the explanatory remarks often seem to be essentially pseudo-scientific, for what other term can be applied to such expressions as these? "*Exaggerated tension of the nervous system* stimulates sexuality, leads the individual as well as the masses to excesses, and undermines the very foundations of society and the morality and purity of family life." If for the expression that we have italicised were substituted the words "such a book as this," the sentence would acquire a certain rudiment of meaning. We are told also that "History shows that great (states) men have often been the slaves of women *in consequence of the neuropathic condition of their constitution*." Professor Krafft-Ebing omits to inform us that opium causes sleep by means of its soporific virtue. Sadism "can only be explained by the primary constituent element—*the general hyper-excitation of the motor sphere*." "To a certain extent there is over compensation of *physical pain* in psychical pleasure, and only the excess remains in consciousness as psychical lust. This also undergoes an excess, either through reflex influence or through a peculiar colouring in the sensorium of sensory impressions, a kind of hallucination of bodily pleasure takes place with a vague localisation of the objectively projected sensation." It is claimed that technical terms are used "in order to exclude the lay reader," and that

[5] *Textbook of Histology, including the Microscopic Technic.* By Dr. Philip Stöhr. Third American from Eighth German Edition. Translated by Dr. Emma L. Bilston. Edited with additions by Dr. Alfred Schäfer. London: Rebman, Limited. 1901. (Demy 8vo, pp. 432, 301 illustrations. 14s.)

[6] *Normal Histology.* By E. K. Dunham, Ph.B., M.D., Professor of General Pathology, Bacteriology, and Hygiene in the University and Bellevue Hospital Medical College, New York. Second Edition. London: Rebman, Limited. 1900. (Demy 8vo, pp. 318, 244 engravings. 12s.)

[7] *Laboratory Work in Histology.* By G. Carl Huber, M.D. Third edition Ann Arbor, Mich.: George Wahr. (Demy 8vo, pp. 204.)

[8] *A Textbook of Histology.* By A. A. Bohm, M.D., and M. von Davidoff, M.D. Translated from the second German edition by H. H. Cushing. Edited by Carl Huber, M.D. London: W. B. Saunders. 1900. (Roy. 8vo, pp. 502; 351 illustrations. 15s.)

[9] *Histology and Pathology: A Manual for Students and Practitioners.* By J. B. Nichols, M.D., and E. P. Vale, M.D. London: H. Kimpton. 1901. (Demy 8vo, pp. 458. 7s. 6d.)

[10] *Psycho-pathia Sexualis, etc.:* A medico-forensic study. By Dr. R. v. Krafft-Ebing, professor of psychiatry in the University of Vienna. Authorised translation of the tenth German edition. Rebman, 1899. Demy 8vo, pp. 582. 21s. net.

certain portions are written in Latin. There certainly are some Latin sentences in the book, the meaning of which is, however, pretty clear from the context, to anyone who is ignorant of that language, and it is easy to see that a schoolboy or a subaltern, upon meeting with such technical terms as *libido sexualis*, *puellas*, *masturbatio mutua*, *frigiditas uxoris*, *sudor pedem*, and *vice versâ*, once in every dozen pages or so, would find the book unintelligible and shut it up. The publishers, further, declare that the sale of the book is rigidly restricted to members of the medical and legal profession. In the preface of this edition, however, the author says that "its commercial success is the best proof that large numbers of unfortunate people find in its pages instruction and relief." "The hosts of letters that have reached the author from all parts of the world substantiate this assumption." They may do so, but they appear to prove that the author has not succeeded in confining the circulation, at any rate of the German editions, of his book to the members of the medical and legal professions, and that he is well pleased with his ill success. "May it continue," he says, "to convey solace and social elevation to its readers." Well, elevation is a relative term, and there may be persons in the stews of Vienna and the brothels of Paris who would be "socially elevated" by Professor Krafft-Ebing's stories, but at the risk of leaving such unfortunates in their social degradation we should prefer that the book should convey solace by being put to the most ignominious use to which paper can be applied.

It is a great mistake to suppose, as Mr. HAVELOCK ELLIS appears to do, that every fact is, as such, of scientific importance. A fact is of importance only in as far as it combines with other facts in an organized whole; in as far as it exemplifies a principle, in as far as it supports and is capable of inclusion in a generalization, or, on the other hand, as it conflicts with generalizations and compels us to modify and restate our principles. A fact which serves neither of these purposes is extra-scientific and scientifically valueless. All depends upon connexion and arrangement. A piece of paper or a piece of string may in certain connexions be of great value; but the collections of bits of paper and string in the pockets of a lunatic are of no value. It is with substances of this latter kind that many of the facts accumulated by Mr. Ellis, doubtless with much labour, in his *Studies in the Psychology of Sex*,[11] are to be classed. They are not interesting in themselves, nor are they important in connexion with any scientific principle, hypothesis, or doctrine. They have, moreover, the additional disadvantage that they are in themselves disgusting and nauseous. It is as though the lunatic were to collect, not bits of string or paper, but morsels of dung and scraps of offal and ordure. It does not become members of the medical profession to object to dealing with filth when it is necessary to deal with filth for the purpose of establishing a scientific principle or obtaining a valuable datum. A physician may be compelled in the course of his duty to examine and analyse the faeces of his patient, and he is supported in the repellent task by the anticipation of gaining knowledge that may be useful in saving life or mitigating pain. But there are persons of such unhappy mental constitution that they dabble with faeces, not for the purpose of gaining knowledge, but from a perverted love of stink and filth. They rub it on their hands, they plaster it in their hair, they bedaub their persons and clothing with it. We accept entirely and candidly Mr. Ellis's own statement that to him sex has appeared the central problem in life, and that the present works are the outcome of a long-cherished resolve to treat the subject scientifically—to get the facts, and to [illegible] simply and entirely in the face; but in collecting and [illegible] the facts he has been regardless of the consideration [illegible] that a mere fact, as such, has not necessarily any scientific value at all; and it seems that he has allowed his subject to possess him so completely that he has failed to discriminate between facts that are scientifically [illegible] and [illegible] that are not. It seems as if he argued that [illegible] bearing upon his subject are dirty and disgusting, therefore all dirty and disgusting facts [illegible]; consequently he proceeded in his book and in [illegible]

[illegible] 1897-1900. Demy 8vo, pp. 199, [illegible]

is that he frequently presents the appearance of bedaubing himself with filth without serving any useful purpose. Moreover, the same want of judgement shows itself in his attribution of sexual significance to phenomena which to an unbiassed reader reveal nothing of the kind. While there is in Mr. Havelock Ellis's books a great deal which in our opinion is unnecessary, even if we accept his own point of view, and regard the question of sex as the pivot upon which the universe turns, yet his scientific and explanatory discussions, although they do not advance our knowledge much, are serious and honest attempts to deal with his subject, and are not merely colourable and pretentious; and while we must regret the absorption in his subject which has so impaired his mental perspective that he fails to distinguish the necessary from the unnecessary, we must admit his honesty of purpose, and regret that it is not turned to better account.

"Why, sir, Sherry is dull, naturally dull, but it must have taken him a great deal of pains to become what we now see him. Such an excess of stupidity, sir, is not in nature." Applied to Sheridan, Johnson's witty dictum was ill-natured and excessive, but applied to Dr. PARK, who claims to have "rendered into English" Dr. CH. FÉRÉ'S *Pathology of the Emotions*,[12] it fits the case exactly. Bad translations are common enough, but a translation as bad as this has surely never been executed before. Translators are often ignorant of one of the languages with which they deal. It has been reserved for Dr. Féré to be translated from French into what professes to be English by a man who is ignorant of both. But ignorance alone could never produce such a farrago of rubbish and nonsense as Dr. Park has achieved. It must have taken him a great deal of pains to invent expressions so absurd as are to be found on nearly every page of the book. *Aliené*, a lunatic, he renders usually into *alien*, sometimes into *alienist*. "Sots," he says, "were more ennuied when they took coffee." "Lesions of the central orifice accompany themselves most frequently to delirium of the depressive sort." "Etiological conditions can make believe that these reminiscences are kith to a rapid modification of the circulation." A lunatic under detention is a "sequestered alien." A patient with auditory hallucinations is an "audial hallucinè." A bastard becomes an "adulterous infant." A patient dreams that a black cat is "eating him on the side." A woman "sought always to rob something." "Incendiarism can stand alone, but it is often found associated with thefts uous tendencies." We can provoke "an exaggeration of the combustions," and we are told of the "return to mediocrity in the descendants of a degenerate emote." "This character justifies the reproach which has been made betwixt anger and the psychic paroxysms in epilepsies." Everybody knows Dr. Féré's laborious and rather dull book on the Emotions, but nobody who is not paid to do so will ever read it in this nightmare of a translation.

It is satisfactory to meet with an author who can treat of sexual subjects in a dry, scientific light, and who shows by his example that they can be thoroughly and satisfactorily dealt with without sacrificing decency or making his reader sick. Dr. VECKI'S book on *Sexual Impotence*[13] is free from the records of individual cases to which some others are in the main devoted, and discusses the matters treated of without giving offence. We very strongly object to the advice which he gives that the subjects of certain forms of impotence should be encouraged to consort with prostitutes, but generally the author's views commend themselves, and he refrains from attaching the exaggerated importance to every sexual aberration which is so conspicuous in other books dealing with the same matters. A considerable portion of the volume is devoted to treatment, and is characterised, except in the one particular mentioned, by sanity and good sense. It is unquestionably the best of the books here reviewed.

The monumental bad taste of Dr. STURGIS'S dedication of

[illegible] 'The Pathology of the Emotions.' By Ch. Féré, Physician at the Bicêtre. Translated into English by Robert Park, M.D. Watford: The University [illegible] 1899. 8vo, pp. 554. (5s.)

[12] *The Pathology and Treatment of Sexual Impotence.* By Victor G. Vecki, M.D. From the author's second German edition, revised and rewritten. London: Rebman. 1899. (Demy 8vo, pp. 291. 12s.)

his book on *Sexual Debility*[14]—"to the sexual cripples of the United States, whose infirmities have in part contributed to his support"—is enough to create a violent prejudice against this book in the mind of the medical reader; but happily this prejudice is dissipated by a perusal. It is an honest and scientific work on the subject with which it deals, and is not disfigured by a wallowing in filth in the manner which characterises some of the books under review. The sections on the anatomy and physiology of the sexual organs might well have been omitted, since every student who is sufficiently advanced to study the subject may be presumed to be familiar with these facts. The author deals with the subjects of masturbation and onanism, spermatorrhoea, pollutions, impotence, and sterility with practical knowledge and common sense, and the book is one that can be read without nausea.

NOTES ON BOOKS.

Mrs. Alec Tweedie, whose life of her father, the late Dr. George Harley, we had the opportunity of reviewing some three years ago, has now published in a handsome and well-illustrated volume, entitled *Mexico as I saw it*,[15] an account of a visit paid in the winter of 1900-01. It is not a very methodical work, nor is the author's style either concise or precise, but it is a very interesting recreation book; for it contains the impressions—apparently, for the most part, set down at the time—of a clever, observant woman, who had excellent opportunities of seeing everything and everybody worth seeing. Moreover, Mrs. Tweedie's early connexion with medicine has prompted her to record some things which other travellers might have passed over in silence, or, perhaps, failed to observe. The city of Mexico, though it stands 7,500 feet above the sea, is for the most part built on made ground and has a very high death-rate. The sewers were in course of reconstruction while Mrs. Tweedie was there, and the place was pervaded by "dreadful smells"—so little regarded, however, that she saw a military band giving an afternoon concert round an open sewer, "the Mexican Indians thoroughly enjoying the combined music and smells." Bodies must be buried very shortly after death, and are taken to the cemetery in a special tram car, single for the rich but with many compartments for the poor. The popular therapeutics would appear to be mediaeval; a drug store in the market exposes for sale rows of skinned moles and bats "to purify the blood," alligators' teeth which when boiled in water yield a mixture to cure heart disease or the bite of a rattlesnake, ants' nests which yield a liquor to prevent hiccough and sickness, and many other queer materia medica. Midwives exist in Mexico, but occupy, it would appear, a properly subordinate position, for we are told that at a christening it is the custom for the godparents to present a twenty-dollar gold coin "to the doctor, midwife, father, mother, and priest." In the south, Mrs. Tweedie saw some men suffering from "pinto," or rather "pinta," a skin disease, known also by the name of "carate," and much dreaded owing to the offensive appearance it produces, including in the most advanced stage loss of pigment, which in a dark race is very conspicuous. Mexico is only now awaking under the rigorous rule of President Diaz from a sleep of centuries. Progress is rapid in many directions, and even the smells of the city of Mexico were evidence of a determination to improve its sanitary defects; incidentally the excavations brought to light a large number of specimens of archaeological interest, survivals from the Aztec or earlier native civilizations. Among the numerous illustrations of the volume are reproductions of photographs of these relics as well as of many ancient buildings and carvings, as also of the modern Mexican in his habit as he lives. The authoress also describes and illustrates a divided skirt for riding which seems very well adapted to the needs of women travellers in far countries who may find it necessary to ride astride.

[14] *Sexual Debility in Man.* By F. R. Sturgis, M.D. New York: E. B. Treat and Co. 1900. (Demy 8vo, pp. 432. 12s. 6d.)

[15] London: Hurst and Blackett. 1901. (Pp. 484, 117 illustrations, and 1 map.)

Dr. John Shivas, of Crouch Hill, was called to the Bar at the Middle Temple on January 27th.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Eye Irrigators.—Dr. J. Ward Cousins (Southsea) writes: In reply to the criticism of Dr. Hugh Jones which appeared in the British Medical Journal of February 1st, I beg to state that I have examined the illustration of the irrigator referred to, and that I am unable to admit that my instrument is similar to it "in all essentials." No doubt Dr. Hugh Jones will be astonished to hear that I have never seen the irrigator suggested by Mr. Edgar Browne. I observe, however, from the engraving that it possesses the exact form of Walton's eyelid retractor; on the other hand, my little contrivance is in shape a modification of the retractor of Pellier. I am quite willing to admit that it is a very simple and inexpensive little thing, consisting only of a piece of bent metal tube, a few inches of indiarubber tube, and a small glass receptacle; but when these little parts are joined together they form an efficient irrigator for washing out the conjunctival sac. I sincerely trust that Dr. Hugh Jones will kindly understand that the device is not intended in any sense to replace the costly and elaborate instruments which are employed by ophthalmic surgeons. It has been designed merely as an efficient substitute for the glass nozzle and glass syringe so commonly utilized by practitioners and nurses, and free from the serious risk of splashing and scattering the dangerous secretions. In conclusion, I am extremely glad to know of the valuable work of Mr. Edgar Browne in connexion with antiseptic irrigation in purulent ophthalmia and dacryocystitis; and it will be a great satisfaction, I feel sure, to Dr. Hugh Jones as well as to myself if my simple contrivance should prove a help in the application of the sound treatment our friend has so ably advocated.

MEDICINAL AND DIETETIC PREPARATIONS.

Meat Preparations.

"*Armour's Soluble Beef.*—Armour's soluble beef is described as a new albumose preparation, and is stated to have been prepared from pure beef by processes combining the most modern improvements. The results of our analysis of the sample submitted to us show that it is a well-made meat preparation of its kind. It contains 17·9 per cent. of water, 40 per cent. of total proteid matter, and 14 per cent. of mineral matter consisting chiefly of salt, and is free from chemical preservatives. The nitrogenous extractives amount to 5 per cent., and the proteid matters consist of products obtained from the proteid constituents of flesh by the usual processes employed in the manufacture of preparations of this kind.

"*Strenbo Extract of Meat.*"—Strenbo extract of meat is described as a new form of Liebig's extract of meat obtained by a new process. The results of our analysis of the sample submitted to us show that it is a meat extract of the type indicated, containing 24·7 per cent. of water, 33 per cent. of total proteid matter, and 18·53 per cent. of mineral matter consisting chiefly of salt, and that it is free from chemical preservatives. The nitrogenous extractives amount to 6·8 per cent., and the preparation contains 1·52 per cent. of insoluble matter. The proteid matters were of the character usually found in preparations of this kind.

*** We are not in a position to substantiate some of the very strong claims which are made by the manufacturers of these products, in common with the manufacturers of most articles of this kind. We think it is to be regretted that some of these claims should be put forward, inasmuch as adequate evidence to support them cannot, at any rate at present, be obtained. We do not think it is entirely justifiable to claim that a meat preparation of the kind is "the most perfect and modern form of concentrated food," nor that, however well well made such an article may be, it is altogether permissible to state that it is "the actual nutriment of prime fresh beef,

and that it "may be used for any purpose for which beef can be used." Such statements are obvious exaggerations, and, far from enhancing the value of a good product, tend to detract from that value in the eyes of thinking persons.

THE BRITISH ANTARCTIC EXPEDITION.

PRECAUTIONS AGAINST SCURVY IN THE VICTUALLING OF THE "DISCOVERY."

MR. REGINALD KOETTLITZ, M.R.C.S.Eng., Senior Surgeon to the British National Antarctic Expedition, writes, under date of December 19th, 1901, from the *Discovery*, then lying at Lyttelton, New Zealand. to give some account of the precautions which have been taken to prevent the outbreak of scurvy on board that ship while in the antarctic seas. That such an expedition is one especially liable to become affected with scurvy will not be questioned, and it is therefore interesting to learn the precautions which the surgeon to the expedition, who has already had some experience in the treatment and prevention of this disease, and who has himself been under such conditions already as are thought to predispose to it, having lived more than three years in high latitudes in the Arctic, has taken in order to prevent the expedition from becoming subject to so dangerous and incapacitating a disease. Mr. Koettlitz writes:

THE ETIOLOGY OF SCURVY.

Scurvy, which used to be not uncommon among people living in England, and was fairly common among sailors until comparatively recently, has now, owing to several causes, become practically a thing of the past, but in other more remote, poorer, and less civilized countries it is quite common still.

In a paper by Vaughan Harley and F. G. Jackson, which was read before the Royal Society,[1] many striking instances are given which bear upon the etiology of scurvy; some experiments also are detailed which tend to bear out certain conclusions, and, to any one interested in the subject, the perusal of this paper would be of special interest, for it is the first time that such views have been published, in England at least. That the experiments then made are not quite conclusive I quite allow, but, from the nature of the case this must be so; indeed, I cannot see how experiments can be made which would be perfectly conclusive, for monkeys are not carnivorous, nor even omnivorous, but for the most part frugivorous animals, and no human beings are available for experiment. Also there is, to my mind, a flaw in these experiments upon the monkeys, for the preserved meats used in the experiments were allowed to become tainted after having been preserved, which condition is very different to that which, in my opinion, is the condition which produces scurvy; the meat in the latter case is meat which became tainted before it was preserved, not after.

I should think that it is a very rare thing, if it ever occurs, for men on an expedition to have offered them by those looking after their mess, tinned meat from a tin which had been opened four or five days or more. The tin is probably always opened upon the day upon which it is served up for a meal and, because in the experiments of Vaughan Harley and Jackson this was not done the experiment is of less value than it might have been.

Tainted Fish and Scurvy.

The evidence given in this paper can, however, be supplemented, for it is well known to the medical officers appointed by the Russian Government that scurvy is a very common disease among the peasants in Northern Russia and Russian Lapland, where everything tends to point to the same conclusion as that in the paper by Vaughan Harley and Jackson. Though these people are able to obtain farinaceous and saccharine foods—though they, to some extent, make use of vegetables and fruits, both fresh and preserved—yet perhaps not so abundantly as among people where the luxuries of life are more easily obtainable, their nitrogenous food consists largely of fish. This fish, however, is generally eaten in a "high" or semi-putrid condition because of an acquired or possibly semi-barbarous taste, as well as because of the necessity, at certain seasons, it is more or less imperfectly preserved. Whatever the cause may be, it is generally eaten in this condition.

To this frequent ingestion of tainted fish without doubt is due the scurvy which is so common among these people; for that want of vegetables, fruit, saccharine, and farinaceous foods does not predispose to nor produce scurvy is perpetually shown by the condition of those Eskimo who never come in contact with Europeans or other people, for these people live exclusively, or very nearly so, upon a meat and fish diet, and never from generation to generation obtain the vegetable and fruit diet which has so often been considered a necessity for the prevention of scurvy.

Norwegian Experience.

That scurvy is chronic ptomaine poisoning came as a brilliant inspiration into the acute mind of Professor Tomp, of Christiania University some years ago, when he weighed the *pros* and *cons* of everything which bore upon the subject, and rejected as untenable all the conclusions and theories which had heretofore been drawn. He arrived at the conclusion that, although the acute form of ptomaine poisoning was well known, a chronic form was unknown; that there must also be a chronic form, and that scurvy must be this chronic form. So good was his reasoning, that the Norwegian Government adopted his advice with regard to the law which provides for the victualling of the Norwegian naval and mercantile marine.

So impressed was also Dr. Nansen with the same, that the choice and careful regulation of the food supply of his *Fram* expedition was entirely based upon it, with the brilliant result that not a man of that expedition suffered during the whole time with the slightest taint of scurvy. Yet, during the whole of the three years that the expedition was away, the men were placed in a far worse position and under worse conditions than any polar expedition has ever been placed in either before or since. The ship was (as is well known) during the whole of the time beset in an ocean of ice, far away from any land; the monotony of the voyage, therefore, must have been appalling—ice to the horizon and sky was almost all these men ever saw, and that for three years! All other arctic or antarctic expeditions have had the sight of land to vary the monotony of an arctic or antarctic landscape; and not only does the land vary the monotony of the outlook, but it also attracts to it birds of many kinds, whose breeding habits, comings and goings as well as migrations, cause interest, and afford sport as well as fresh food; plants also can generally be found upon land, and their peculiarities with regard to flowering and general behaviour also give much interest to observers. These, besides many other points of natural history which the proximity of land furnishes, all tend to break the monotony of a sojourn.

Where land is, again, the current or drift of the sea ice is stemmed back because of the impediment the land furnishes, and this, as well as the influence of the tides, causes the ice to be more readily, and in fact continuously, broken, so that seals can more easily keep their holes open; the submarine shores, abounding with fish, etc., also furnish them with their food, and therefore in the north at least bears are very likely to prowl about and visit such parts of the Polar area. These, with arctic foxes, wolves, ermines, reindeer, musk ox, or other animals, all give interest and vary the monotony of most arctic expeditions. None of this did the members of Nansen's expedition have, and therefore also the fresh game which other arctic expeditions have been able to obtain, if only occasionally, was practically wanting.

Is it not therefore a marked object-lesson, for all who can take it, that there is practically no danger of the members of a polar expedition becoming affected with scurvy, provided always that the preserved foods with which such expedition is supplied are carefully selected so as to be sure that not the slightest taint, or putrefactive change has taken place in any, such as was the case with the food which Nansen's expedition was supplied with.

A Control Experiment.

My experience with the Jackson-Harmsworth polar expedition, which is so closely associated with Nansen's expedition, is also especially striking and, to my mind, convincing. It will be remembered that the ship *Windward* was to have returned at once after having landed the expedition and its

stores. Owing, however, to the lateness of our arrival in Franz Josef Land and to the very early setting in of winter, that year (1894), it was unable to do so, and therefore her crew had to winter in the High North. The expedition proper ate fresh meat regularly at least once a day in the shape of polar bear. The people on the ship had, however, a prejudice against this food, which certainly was not particularly palatable, and insisted, against all advice, upon eating their preserved and salted meat. This meat I occasionally noticed to be sometimes "high" or "gamey," and afterwards heard that it was often so. The result was that, though I visited the ship every day, and personally saw that each man swallowed his dose of lime juice (which was made compulsory, and was of the best quality), the whole ship's company were tainted with scurvy, and two died. We on land, however, of the expedition proper, who never touched lime juice, but ate the fresh meat, and who, moreover, lived there three years instead of the one year passed by those upon the ship, were never in the slightest degree tainted with scorbutic symptoms during the whole of our sojourn.

No Scurvy with Fresh Meat.

That fresh food, whether animal or vegetable, will keep the members of a polar expedition in good health, is well known, and this has been especially shown by Mr. Leigh Smith's expedition, which was wrecked in Franz Josef Land in 1881; for among a crew of twenty-five men who wintered there under the most miserable circumstances, and whose food during that wintering was entirely carnivorous (but fresh) for quite a year, all managed to get back sound and well.

Again, Nansen and Johansen, who were away from their ship and all other food for sixteen months, subsisted for more than a year entirely upon fresh carnivorous food, and they remained sound and well.

That the cause of the outbreak of scurvy in so many polar expeditions has always been that something was radically wrong with the preserved meats, whether tinned or salted, is practically certain; that foods are scurvy-producing by being, if only slightly, tainted is practically certain; that the benefit of the so-called "antiscorbutics" is a delusion, and that some antiscorbutic property has been removed from foods in the process of preservation is also a delusion. That there is no antiscorbutic property in any food or drug is to my mind a certainty. An animal food is either scorbutic—in other words, scurvy-producing—or it is not. It is either tainted or it is sound. Putrefactive change, if only slight and tasteless, has taken place or it has not. Bacteria have been able to produce ptomaines in it or they have not; and if they have not, then the food is healthy and not scurvy-producing.

Precautions as to Preserved Foods.

The principal care, therefore, which the organizers of a polar expedition have to take, in order to be sure that the members of it may remain in sound and fit condition, is to see that the food supply, in the shape of preserved meats especially, is good; this can be done by seeing that the meat is perfectly fresh when it is being tinned, that it is properly tinned, as well as by keeping it under observation after it is tinned for as long a period as possible before the expedition sails.

These precautions are those which have, to a very great extent, been taken with regard to the preserved meats, etc., supplied to the National Antarctic Expedition. They have been inspected and as carefully tested as circumstances would allow, and everything which had even a suspicion of taint has been rejected.

That these precautions will be sufficient to relieve us of the danger of any of us becoming subject to so disastrous a disease as scurvy I have little or no doubt, and if, as is very probable, there will be a sufficiency of fresh game, in the shape of penguins and seals, we can take it as certain that no scurvy will be heard of in connexion with the expedition, however long it may remain in the High South.

Baron von Krafft-Ebing, Professor of Psychiatry of the Psychiatric Clinic in the University of Vienna, has obtained permission from the Austrian Minister of Education to resign his chair. It is stated that he intends to return to Graz, where he was professor from 1873 to 1889. His successor at Vienna will be Professor von Wagner-Jauregg.

THE MEDICAL SERVICES OF WEST AFRICAN COLONIES AND PROTECTORATES.

Formation of a "West African Medical Staff."

We are informed by Mr. Chamberlain, Secretary of State for the Colonies, that it has been decided to amalgamate the medical services of the British West African Colonies and Protectorates into a single service, to be known as the West African Medical Staff. The salaries and other conditions of service of the medical officers have been revised in connexion with the scheme of amalgamation. Particulars of the appointments are contained in a Colonial Office paper entitled *Information for the use of Candidates for Appointments in the West African Medical Staff: Colonial Office, African (West), No. 678.* The main provisions are as follows:

The services amalgamated are those of the Gambia, Sierra Leone, the Gold Coast, Lagos, Southern Nigeria, and Northern Nigeria. All the medical officers for the service will be selected by the Secretary of State for the Colonies, and will be on one list for employment and promotion.

Salary and Allowances.

The grades and salaries for medical officers are shown in the following table:

Grades.	Gold Coast, Southern Nigeria, Northern Nigeria.			Sierra Leone, Lagos.		
	Minimum Salary.	Annual Increment.	Maximum Salary.	Minimum Salary.	Annual Increment.	Maximum Salary.
	£	£	£	£	£	£
Principal Medical Officer	1,000	50	1,200	800	50	1,000
Deputy Principal Medical Officer	700	25	800	—	—	—
Senior Medical Officers ...	600	20	700	600	20	700
Medical Officers	400	20	500	400	20	500

The grades and salaries of the establishment on the Gambia are at present under consideration.

The allowances are as follows:

(a) Duty Pay.—A deputy principal medical officer or senior medical officer will receive duty pay at the rate of £100 a year while acting for the principal medical officer. Duty pay at the rate of £60 a year will also be paid (1) to each deputy principal medical officer or senior medical officer while employed in Ashanti or the northern territories of the Gold Coast; and (2) to not more than two officers of either of those ranks in Northern Nigeria, when similarly employed in outlying districts, at the discretion of the High Commissioner.

(b) Horse or Hammock Allowance.—An allowance of 2s. 6d. a day will be paid to every medical officer for personal conveyance while on duty at his station for any period during which he was required by Government to keep, and has actually kept, a horse, carriers, etc., for the purpose.

(c) Transport of Stores.—The Government will carry free of cost a reasonable amount of stores for every medical officer, the amount in each case being fixed by the local government.

(d) Travelling.—Medical and other officers travelling on duty in a Colony or Protectorate are entitled to repayment of any actual out-of-pocket expenses which they may necessarily have incurred. In some cases in lieu of the repayment of expenses, a travelling allowance is given, which is estimated to cover the average cost of travelling.

(e) Field or Bush Allowance.—An allowance of 5s. a day will be paid to all medical officers, whatever their rank, while employed in the field or bush, away from recognised stations. Officers, while in receipt of this allowance, will not be entitled to any repayment or allowance under *(d)* above.

(f) Allowances on a Military Expedition.—All medical officers, whatever their rank, while employed with a military expedition will be paid an allowance of 10s. a day, and will be given free rations, or an allowance of 3s. a day in lieu of rations. While in receipt of these allowances, medical officers will not be entitled to any repayment or allowance under *(d)* and *(e)* above.

(g) Outfit Allowance.—An allowance of £12 will be paid to every medical officer on first appointment for the purchase of camp outfit (see under "Outfit.")

Leave of Absence, Passages, Etc.

Medical officers will be in general subject to the Colonial Regulations, Chapter XVIII, the main rules in which are:

1. The ordinary tour of residential service is one year, followed by leave with full pay during the voyages to and from England, and for four or to two months in England, according as the officer is returning or not

2. An officer detained beyond the year receives additional leave with

full pay for ten or five days, according as he is returning or not in respect to each completed month beyond twelve.

3. If invalided before the end of the first year the leave with full pay is for the voyages and for ten or five days in respect of each completed month according as he is returning or not.

4. "Return leave" is leave granted on the understanding that the officer will return, and any pay drawn in respect of such leave is liable to be refunded if he does not return.

5. Leave may be extended for a limited period with half or no pay on the ground of ill-health.

6. Free passages are given to all officers granted leave as above, and also on first appointment, and half pay is given during the voyage out on first appointment.

A copy of Chapter XVIII of the Colonial Regulations can be obtained free on application to the Colonial Office. It is also contained in the annual *Colonial Office List* (Messrs. Harrison and Sons, 59, Pall Mall; 10s. 6d.).

General Conditions of Engagement.

Every medical officer, unless exempted on account of previous colonial service or other reason, is engaged on probation for one year from the date of his arrival in West Africa, but if found not qualified for efficient service in West Africa the Governor or High Commissioner, subject to the confirmation of the Secretary of State, will have power to cancel his appointment at any time within the year, and a free passage back will be granted at the discretion of the Governor or High Commissioner. At the end of the year of probation the officer may be confirmed in his appointment, but unless so confirmed the appointment will cease at the end of the year.

Private Practice.

"All medical officers, except the principal medical officer in each Colony or Protectorate, will be allowed to take private practice provided that it does not interfere with the faithful and efficient performance of their official duties, and that it will be within the power of the Governor or High Commissioner to withdraw or suspend the privilege in such places and for such periods as he may consider desirable."

Outfit.

Instruments and drugs and all medical appliances are supplied by the Government.

Camp outfit must be taken by every medical officer, who will receive an allowance of £12. It is added as a general rule it is desirable to take out as little as possible, but as circumstances vary the newly-appointed officer should, if possible, consult some one who has recently been on the Coast, and the Colonial Office will be ready to place him in communication with some officer at home on leave of absence who will be able to advise him.

Uniform.

The question of uniform for officers of the West African Medical Staff is under consideration, but a uniform is prescribed for medical officers in common with other civil officers in Northern and Southern Nigeria, and particulars can be obtained from the Colonial Office.

Pensions and Gratuities.

Intending candidates can obtain full particulars from the Colonial Office, but the following is a summary:

Age. On attaining the age of 50 years, or after eighteen years service, of which at least twelve must have been residential, an officer is qualified for a pension calculated at one-fortieth of the last annual salary for each year of service.

Invalids.—If invalided after a minimum of seven years service he is qualified for a pension at the same rate, if before completing seven years he is qualified for a gratuity not exceeding three-fourths of a month's salary for each six months of service, provided that he has been confirmed in his appointment and is recommended by the Governor or High Commissioner for a gratuity.

Gratuities.—At the end of nine years service, of which not less than six must have been residential, an officer of the West African Medical Staff will be permitted to retire with a gratuity of £1,000; at the end of twelve years, of which not less than eight must have been residential, with a gratuity of £1,250; but all claims to pension are forfeited on the receipt of such gratuity.

In calculating the amount of these pensions and gratuities, leave of absence without salary is not counted, but leave with one-half salary is counted as one-half.

Applications for Appointments.

Applicants must be of European parentage, and between 25 and 35 years of age. Preference will be given to unmarried candidates. Passages for wives and children are not provided by the Government; houses for them are rarely available, and except in the case of an officer dying on active service, no provision is made by the Government for a widow or orphans. The higher grades of the service will usually be filled by promotion from the lower. Candidates may express a preference for a particular Colony or Protectorate, but are liable to be posted in the first instance, or transferred afterwards, to any other Colony or Protectorate.

All applications, which must be accompanied by a general statement of qualifications and a certificate of birth, must in the first place be addressed, in writing, to the Assistant Private Secretary to the Secretary of State, Colonial Office, Downing Street, London, S.W., to whom intending candidates should apply for a copy of the pamphlet here quoted.

Instruction in Tropical Medicine.

Every candidate selected for appointment will, unless the Secretary of State decides otherwise, be required to undergo a course of instruction of eight weeks, either at the London School of Tropical Medicine, Royal Victoria and Albert Docks, E., or at the Liverpool School of Tropical Medicine, University College, Liverpool. The cost of the tuition fees, board, and residence, amounting to £30 17s. 4d., will be borne by the Government, and a daily allowance of 5s. (but no pay) will be paid to each candidate during the course, and subsequently up to the date of embarkation. Half-pay begins from the date of embarkation.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending January 11th there were 10,368 deaths from plague in India

In the city of Bombay 234 deaths from plague occurred during the week ending January 11th, being an increase of 37 upon that of the previous week. It is consoling, however, to note that during the corresponding period of 1901 the plague deaths were higher by 78.

Throughout India the distribution of deaths from plague during the week ending January 11th was chiefly as follows: Bombay Presidency Districts, 4,797, against 4,307 during the previous week; Madras Presidency, 586, against 501; Bengal, 462, against 443; North-West Provinces and Oudh, 685, against 665; Mysore State, 636, against 791; Punjab, 2,662, against 2,348.

In Calcutta the number of deaths from plague during the week ending January 4th and 11th were 22 and 36; in Kashmir 198 and 192; and in Hyderabad 50 and 40 respectively.

In almost every district, except in Mysore and Kashmir, has there been an increase in the mortality from plague. During the week ending January 11th plague broke out in Lahore. For some years plague has prevailed around Lahore, and especially in the Jullunder district. The disease appeared first in the house of a goldsmith, and 5 deaths occurred in his family alone. The latest report is dated January 13th, up to which period 9 cases of plague and 5 deaths from the disease had occurred in Lahore. The inhabitants of Lahore are behaving in an exemplary manner. There is no scare, and protective inoculation is proceeding.

EGYPT.

The Director-General, Sanitary Department of Egypt, in his report for the week ending January 10th, states that during the week 17 fresh cases of plague and 14 deaths from the disease occurred in Egypt. Of this number Tantah reported 14 cases and 12 deaths, Mit Ghamr and Ziffeh 3 cases and 2 deaths. It appears that the population of Tantah are averse to notifying plague, and as a result it is mostly by dead bodies being found that the presence of the disease is known. Out of a total of 39 cases up to the present announced at Tantah 24 have been found only after death in their houses. This is most detrimental to the chance of eradicating the disease, and must tax the energies and patience of the sanitary authorities to the utmost. No doubt in time the population of Tantah will become less resentful, and the fact with which the officers of the sanitary department have gained the goodwill of the people was never better displayed than at Zagazig, where, during the outbreak of plague in 1901, out of a total of 78 cases 10 only were found dead out of hospital. The consequence was that plague was speedily eradicated from Zagazig, and there is but little doubt the good work hitherto done by the Sanitary Department, in other parts of Egypt, will bear its fruit in Tantah when the natives have become accustomed to the foreigner and his ways.

MAURITIUS.

During the week ending January 25th 12 fresh cases of plague occurred in Mauritius and 9 deaths from the disease.

THE value of the estate of the late Sir William Mac Cormac, Bart., formerly President of the Royal College of Surgeons of England, has been proved at £22,812 5s. 6d.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 8th, 1902.

THE DISRUPTION OF VICTORIA UNIVERSITY.

The influential and enthusiastic town's meeting, which was held in Liverpool on January 27th to launch the scheme for a University of Liverpool, is significant evidence of the centrifugal tendency of the forces which are now moulding the growth of our system of higher education.

It is an incident, moreover, in which the members of the medical profession, whatever their individual opinions as to the multiplication of universities may be, may well take pride, for had there been no medical school already in existence in Liverpool there would have been no University College, and had the College not been founded there would have been no question of a local university. It is a time-honoured custom for a speaker to assure his audience that in the opportunity to address it he experiences "the happiest moment of his life," but we may reasonably suppose that Sir William Banks, but for his aversion to the commonplace, might have used this hackneyed phrase in all earnestness when he rose to support the motion in favour of the foundation of a Liverpool University. For the inception of the University College, Liverpool, was due to the courage and faith of the teachers of the old medical school, of whom he was not the least, and the circumstances which gave weight to their arguments was, we believe, the fact, humiliating to the pride of Liverpool, that the medical school as it then existed was unable to fulfil the requirements of the University of London with regard to the preliminary scientific training of candidates for its medical degrees. Some years ago Professor Campbell Brown published a short history of the College and the steps which led to its foundation, and a perusal of this pamphlet will, we believe, leave no room for doubt on this point.

At first the College contained only five endowed chairs, and for a time its fortunes seemed doubtful, but the support it received steadily increased, and at the present time there are twenty-six professors in arts, literature, and science, and sixty assistant lecturers and demonstrators. Moreover, the buildings of the College, and the provision made within for research and practical instruction, have increased with a corresponding rapidity, the last addition being the fine Thompson-Yates Laboratories, where already so much good work has been done in physiology and pathology to which collectively the convenient and time-honoured term of the "Institutes of Medicine" may perhaps now be applied.

Three years after its foundation the Liverpool University College was affiliated to the Victoria University, from which its students have for the most part received their degrees. When the Victoria buildings were opened in the autumn of 1892, the Rev. J. P. Mahaffy, of Dublin, in the course of a powerful address, urged upon his hearers the importance of aiming at the formation of a local university, and spoke of federated universities generally in terms the reverse of commendatory. His appeal at that time met with no very encouraging response, but it is not surprising that the example of Birmingham should have had its influence, and that a city of the wealth and importance of Liverpool, with a flourishing college in its midst, should desire to have a university of its own. The movement, we are told, has been taken up by the citizens of all classes, and, in other matters, of various views, with a unanimity and enthusiasm which render its accomplishment a practical certainty.

Liverpool University College owes its existence and much of its prosperity to its association with the teaching of medicine, and it may confidently be anticipated that medicine will bulk large in the history of the university which is to be. The fact that the City Council of Liverpool has unanimously resolved to apply to Parliament for powers to contribute to the foundation and maintenance of a university augurs well for the success of the scheme, for it would be worse than imprudent not to recognise that a great deal of money will be wanted. If the ambition of Birmingham is to excite emulation in other centres of population, the wise liberality of its citizens ought also to be imitated. A sum of £80,000 has been promised in Liverpool; this is very well for a first list, but at least five, probably ten times as much, will be wanted as a beginning.

It appears, then, that in Liverpool the disruption of the Victoria University is viewed not with equanimity but with enthusiasm: indeed, as we understand the matter, the disrupting force is derived altogether from Liverpool. But in Manchester the change, if it excites no such enthusiasm, is at least regarded with equanimity, for a proposal that Manchester should continue to be the home of a federal university, leaving Liverpool to "gang its ain gate" was rejected by a decided majority at a meeting of the Court of Victoria University, held to consider the course to be taken in view of the declared intention of Liverpool to dissolve the partnership which has existed for some twenty years. In Yorkshire the new order of things is evidently contemplated with less satisfaction. The men of that great county are perhaps slower to move than their neighbours of the West, and possess, may we say? more of the characteristic caution of the North. The serious financial questions involved may well give room for the exercise of that faculty: but, once moved, Yorkshiremen are not easily turned from their purpose, and if, as our Leeds correspondent assured us last week, they have declared with enthusiasm that if left alone they will do their best to establish a Yorkshire university on the soundest footing, we may feel pretty certain that the resolve will be carried out. Having regard to the existence of a University College in Sheffield, as well as in Leeds, to the intelligence and wealth which exist in abundance in the West Riding, and to the strong feeling of clannishness

which binds the poorer and more sparsely-peopled districts of the North and East Ridings to the West, we are inclined to agree that there is a great prospect before the Yorkshire University of, as must be assumed, the near future.

AN INTERNATIONAL LANGUAGE OF SCIENCE.

The General Committee of the forthcoming International Congress has, at the request of Professor Baccelli, unanimously decided to admit Italian as one of the official languages of the Congress. This adds a fifth to the languages already recognised; it seems likely, therefore, that the Madrid Congress may furnish an even more striking object lesson of the confusion of tongues than that of Rome. Indeed an application has, we note, been sent to the Organizing Committee by Doctors Decref and Calapraveno, asking for the recognition of Catalan among the official languages. There is some appearance of a movement in this direction in Catalonia, but we suspect it has no more gravity than the attempt made some time ago by some Irish members to impose Erse on the British Parliament.

There can be no doubt that the linguistic difficulty which began at the Tower of Babel is a most serious obstacle to the progress of science. But how can it be remedied? At the Moscow Congress Professor Sklifossovsky proposed the appointment of a committee to report as to the feasibility of choosing a language as an international medium of communication among scientific men. We do not know what the committee has done, or whether it has done anything. But, as Mr. Gladstone was fond of saying, three courses are open. One of the living languages may be chosen to be the medium of scientific intercourse between different nations; or a dead tongue may be used for the purpose, or a new language must be invented. To all these courses there are unfortunately objections which, except to enthusiasts, may well appear insurmountable. National jealousies stand in the way of the adoption of a living language. Matthew Arnold thought that "such a language will only be established by one language acquiring a stupendous preponderance of some kind." It may with some reason be claimed that English has already acquired such a preponderance. This is admitted by an eminent German authority, Professor Schröer, who says: "A world-language already exists; that is to say, a language which by its extension over the whole globe, and by the ease with which it can be learnt, has obtained such a foothold that nothing can prevent it becoming in the near future the great means of international communication. This language is English."[1] Yet how little chance there would be of English being adopted as the international language of science is sufficiently shown by the fact that the Organizing Committee of the Moscow Congress thought proper to exclude it from the list of recognized languages, and only after much vexation of spirit consented to its admission. Mr. H. G. Wells has argued[2] that French will eventually outstrip English as a world-language, but even those disposed to accept his ingenious reasoning will admit that at the present moment, when the determined resistance of the Germans has banished it even from their bills of fare, the omens are not happy. German is ruled out on account of its difficulty; Spanish and modern Greek have been proposed, but both lie too far outside the beaten track of linguistic acquirement to be likely to secure more than a few adherents.

Of dead languages Latin is the only one that need be considered. A petition was addressed to the authorities of the Rome Congress by a number of practitioners in India asking that they should take the opportunity offered by the meeting in the Eternal City to declare the languages of its founders to be the international language of science. Nothing came of the proposal. Yet one of the most successful features of the Rome Congress was the address of welcome delivered by the President, Professor Baccelli, who spoke the language of Cicero in periods which the Roman orator might not have disdained to use. Professor Baccelli has often shown how well adapted Latin is for the expression of modern ideas, and at the Moscow Congress the Russian Minister of Public Health delivered an address in the same classic tongue. That Latin is still to some extent a medium of communication among scientific men is shown by the fact that quite recently Professor Baccelli received from Professor Virchow the following telegram in response to an expression of sympathy on his accident: "*Caput ossis femoris fractum. Spero consolidationem. Gratias multas.* Virchow."

Till well on in the nineteenth century Latin was the official language of medical science. Theses were presented in it at the universities throughout Europe. Dr. Bozzi Granville was examined in it before the College of Physicians. How far Latin is from being a dead language even at the present day may be learnt by a visit to almost any Roman Catholic seminary when public exercises in theology or philosophy are being held. We are not surprised therefore to note that at the opening of the winter session of the University of Lyons in November last M. Regnault, Professor of Sanscrit, delivered an introductory address in which he discussed the question of an international language and concluded that Latin would serve the purpose better than any other language, natural or artificial. It must of course be understood that the Latin used need not be classical; for the purposes of medicine the Latin of Boerhaave, Morgagni, or Heberden, would serve excellently well. The revival of Latin as the language of science would not be difficult; it is all a matter of teaching. In connexion with this subject we may take occasion to say that the proposed removal of Latin from the list of compulsory subjects at the matriculation examination of the London University seems to us particularly ill-judged.

There remains the third solution of the problem, by the creation of an artificial language. The whole question is discussed by M. Leon Bollack in *La Revue* for January. He says that of all the problems which the twentieth century will have to solve this is the one which will have the greatest influence on the development of human progress. The problem is so pressing that a few months ago a petition, signed by Drs. D'Arsonval, Duclaux, Lannelongue, Roux, and several other members of the Institute, was addressed to the Academy of Sciences by General Sebert. M. Bollack refers to various artificial languages invented

[1] Quoted by Dr. Q. W. Leitwich in the *Westminster Review*, September, 1897.
[2] *Anticipations*, p. 239.

by Wilkins in 1665; to another evolved by Leibnitz; to "the universal tongue" of Letellier of Caen (1856); to another framed by Sotos Ochando, a Spanish priest to whom the Paris Linguistic Society awarded the first prize in 1858, although the dictionary which he promised to prepare never appeared; to Volapuk, which we owe to Pastor Schleyer; to Esperanto, the intellectual offspring of the Russian Dr. Samenhoff; and to the "Blue Language" invented by M. Bollack himself. Volapuk, which was received with general enthusiasm, has lost ground, although it is said still to have a considerable number of adherents in Germany, Austria, and the United States. "Esperanto" is harmonious, easy, and comparatively simple. The grammar rules are reduced to sixteen and the vocabulary to about a thousand roots with which it is said to be possible to express all shades of thought. The "Blue Language" (so-called, according to the inventor, from the colour of the sky, "on the azure of which there are no frontiers") has obtained many supporters, including M. Elie Reclus, and M. J. Novikoff. Its author claims for it that it is the only method resting on a theory of language from which a philosophical grammar is deduced. After the Congresses of 1900, where the question became very acute, a pamphlet, entitled, Is an International Language Possible? was published by M. L. Leau, Doctor of Science, and delegates were appointed to study the question. They reported that an auxiliary tongue for universal use was a necessity of the time, but this auxiliary speech must not be one of the existing national languages. Already the delegates have received the adhesion of more than fifty societies, including several chambers of commerce in France, the Paris Society of Commercial Geography, the French Society of Physics, and others. Belgium and the United States have also given favourable answers, and M. Bollack is sanguine that the other nations will listen to the voice of France. The delegation for the adoption of an auxiliary tongue will submit its resolutions to the International Federation of Academies. If that assembly declines to study the question—a contingency which M. Bollack refuses to believe possible—the delegation will itself proceed to elect a committee to examine the languages proposed.

The fundamental objection to an artificial *lingua franca* is that it will be as difficult to learn as a living or dead tongue, and that when it has been learnt the accomplishment will be of little practical value, as it may safely be assumed that only an infinitesimal portion of the human race will take the trouble to acquire a hotch-potch speech without a literature. The inventors of languages do not seem to take into account that in addition to vocabulary and grammar there is another most formidable difficulty—namely, pronunciation. If, as is the fact, at the present time, the pronunciation of living languages in different parts of the same country vary so much that people do not understand each other, how can it be hoped that any artificial tongue will ever be universally intelligible?

Of the many artificial languages which the ingenuity of man has hitherto invented, the most practical appears to us to be a form of Latinized English proposed a short time ago in the *Referee*. The following is a specimen:

In Mediaevale Temporcs Latine essete i universale lingue sed hodie, English esse in plurime aspectes i vere Lingua Franca. So iste duo lingues pote essere combinate per une nove simplice grammatice, nos habere une internationale medie de communicatione de magne utilitate.

This is simple enough, and will doubtless remind some of us of the Latin prose compositions of our schoolboy days. But would it be at all easier to learn than Latin? And would not the English element in it be sufficient to secure its rejection by people of other nations?

THE ORGANIZATION OF THE COLONIAL MEDICAL SERVICE.

The Colonial Secretary is to be congratulated upon the step which he has just taken towards organizing the Colonial Medical Service. It is true that it touches only one part of a larger question, for the new regulations organizing a West African Medical Staff, which are printed at page 343, apply only to one section of the Colonial Medical Service, but we hope that it is only a prelude to further developments.

For some time past the medical profession has been urging the Colonial Office to deal with this matter. The first serious attempt in this direction was made by Surgeon-General Evatt, who in a paper published in the British Medical Journal of September 26th, 1896, presented a complete scheme for "the organization of the Colonial Medical Service of the Empire." The first public meeting in connection with the subject was held at the Imperial Institute on March 12th, 1898, on which occasion Sir Joseph Fayrer, Bart., presided. At this meeting Mr. James Cantlie read a paper on the Organization of the Colonial Medical Service, and several resolutions were drawn up and forwarded to the Colonial Secretary. The British Medical Association has on several occasions appointed Committees to deal with the whole or part of the question, and from time to time the Council of the Association has submitted expressions of opinion to the Government. Mr. Chamberlain has on every occasion welcomed the suggestions made, and the action which he has now taken has no doubt been largely influenced and determined by the representations which he has received.

The West African Medical Staff is formed by the amalgamation of the medical services of the British West African Colonies and Protectorates into a single service. In addition to dealing with the principle of organization, the Colonial Office has revised and improved the salaries and other conditions of service of the medical officers engaging in this branch of Colonial work. The grading of officers is accompanied, we are glad to see, by the grant of definite titles, a most important point in any organization. There will be henceforward four recognized grades: (1) Principal Medical Officer, (2) Deputy Principal Medical Officer, (3) Senior Medical Officer, and (4) Medical Officer. It will be noticed that there is a difference in pay according to the Colony in which the medical officer is stationed, the officers in Sierra Leone and Lagos receiving a lower rate of pay than in the other districts. The grounds for this regulation have no doubt been carefully examined by the Colonial Office authorities, but the regulation as it stands is open to criticism. In the other public services pay is given according to the number of years' service, and "allowances" are made to cover the special circumstances of this or that locality. We shall hope to see this principle adopted at an early date for the West African

Medical Staff, the actual pay being fixed on a uniform scale in accordance with the rank and length of service, officers employed or engaged in certain regions being compensated by increased allowances. There can be no uniformity of prospects in any service where this is not the case. It is, however, satisfactory to have the rates of pay and allowances, the regulations as to leave of absence, and the terms of engagement clearly and definitely stated, since the medical officer on joining will now know exactly what his prospects are.

The matter of private practice is, and ever will be wherever and whenever an official receives reasonably good pay, a vexed question. Under the new regulations medical officers will be "allowed to take private practice provided that it does not interfere with the faithful and efficient performance of their official duties," but "it will be within the power of the Governor or High Commissioner to withdraw or suspend the privilege in such places and for such periods as he may consider desirable." Under a wise Governor this rule may work smoothly enough; but Governors are changed frequently, and what one Governor may deem "faithful and efficient performance of their official duties" may not be so regarded by his successor. Moreover, according to this regulation a community may suddenly find itself, by an arbitrary decision of the Governor, or by a mere disagreement between an individual medical officer and the Governor, without the services of a medical man. In the West African Colonies medical men are not readily obtainable, and unless the regulation here laid down is always judiciously interpreted on the spot with due consideration for the public benefit, a serious state of affairs might arise.

The question of uniform is as yet only under consideration. It is, we believe, advisable that a uniform should be assigned to the Colonial Medical Service, among other reasons, because it would mean the wearing of an indication of "grade," a most essential factor if discipline is to be maintained in the service.

The scale of pensions, although not too liberal, is fair; and the gratuities which are bestowed upon those retiring at the end of nine and twelve years are on a scale which will, we believe, meet with approval.

The plan of obtaining appointments by nomination is probably the best which could be adopted under the special circumstances, but it would probably be well to establish a competitive examination amongst the nominees. The most successful candidates at this examination might then on entering the service be given the privilege of selecting the Colony or Protectorate in which they wished to commence their service.

This is the more important, because we are strongly of opinion that the Colonial Office will only obtain the best class of men if every opportunity is afforded for individual talent to show itself.

THE LONDON WATER BILL.

THE London Water Bill, which the Government has introduced into Parliament, will afford considerable subject for discussion, mainly on questions of principle embodied in it which run counter to those which have been observed in the settlement of water supplies to other communities. For a number of years the principle which has been accepted has been that the ownership and control of the water supply shall be vested in the urban authority and that the surrounding districts shall be supplied by the authority which is the owner. In the Bill which is before Parliament a different course has been adopted. London with its vast population and its active representative body is not to exercise the powers which have been given to so many other authorities, but is to be represented on a Board on which other communities are also represented, and then not by direct election but by indirect appointment. The Board, which it is proposed shall take over and manage the water supplies of the populations now provided for by the metropolitan water companies, will consist of sixty-seven representatives elected by the county and district councils within the water area. London has necessarily, in view of its population, the largest representation—its County Council has ten representatives, the City and six of the metropolitan boroughs have two each, and each of the remaining metropolitan boroughs one each. London is therefore, to begin with, the predominant partner; but the fact that its forty-six representatives are appointed by thirty authorities will deprive it of the cohesion which is wanted for effectual control.

It is difficult to say what reception the Bill will meet with in the House of Commons. Indirect election has not for many years been regarded with favour, the results which have attended this constitution of administrative bodies have not been calculated to inspire the public with confidence, and the opportunity for redressing a grievance, if such exist, is practically not available. This system gives the pretence of the representation of a community, and the proposal is not likely to pass through Parliament without being seriously challenged. Opposition, moreover, is likely to come for other reasons. The districts outside London may not improbably be dissatisfied with anything short of a much more direct and complete control of the water supply to their populations, and may make their voices heard when the Bill is under discussion.

The terms of purchase have no doubt been especially carefully considered. While debenture holders are to receive newly created water stock paying 3 per cent. in quantity to provide them with income equivalent to that they are now receiving, the purchase of the companies' undertakings, which is to be in water stock, is to be effected without allowance in respect of compulsory sale, and no account is to be taken of any enhancement or depreciation of the market value of any stock or shares of the companies. Such are to be the instructions to the arbitrators if the sale is not effected by agreement. The Government has therefore adopted an important principle incorporated in the Bills which the London County Council has introduced into Parliament, but in respect of other points in the Council's purchase clause there is less direction to the arbitrators than in the Council's Bills. We do not profess to have considered the Bill in all its financial aspects. Its provisions need, and will no doubt receive, careful study, and it may be that the clauses on this subject will need amendment. If such should be found to be the case, it may be anticipated that the Government will not be averse to any necessary modifica-

tion, but it is this question that will no doubt determine the attitude of the water companies to the measure.

There is one aspect of the Bill which must necessarily present itself to those who are concerned for the public health. The constitution of the Board must obviously tend to cause less weight to be given to considerations of this sort than if the body having the control of the water supply were a health authority. The water supply of the metropolis has in the past been a large factor in the cause of epidemic disease. The growth of population above the intakes which must inevitably take place may not improbably imperil the safety of the supply, and indeed, even in recent years there has been reason for the belief that failure in filtration has been attended by the result which has been observed in connexion with some other water supplies. It is, we think, a cardinal principle that ownership and control of the supply should be in the hands of the health authority, but for this the Bill does not provide. With so vast a community as that which will be supplied with water by the new Board we submit that the constitution of the Board should have been such as to place this consideration in the forefront.

Still the Bill must be regarded as an honest attempt to settle a difficult question on lines which the present Government is adopting towards London questions. In a way it is a natural sequel to the London Government Act of 1899. Its great fault, from the point of view of the public health, is, as we have already stated, the constitution of the Water Board; for the rest, any amendments needed are probably those which will arise on the discussion of clauses. It cannot be expected that another election will be imposed upon populations which already have county council elections, district or metropolitan borough elections, School Board elections, and elections of Boards of Guardians; and a separate election would still leave the scheme open to the objection which has been indicated. The proper course, we contend, is to adopt the policy of the London County Council; and to this the Bill is a decided negative on the part of the Government. It is in this respect, we think, that the Bill fails, and for the reason we have given.

LATIN AT THE UNIVERSITY OF LONDON.

In the report of the proceedings of the meeting on January 24th of the Faculty of Medicine of the University of London, published in the British Medical Journal of February 1st, p. 306, it was stated that the Faculty had expressed its approval of the proposals for the conduct of the examinations made to the Senate by the University's Advisory Board for the admission of students, and had reaffirmed a resolution to the effect that no scheme of matriculation would be satisfactory which did not permit a wide choice of subjects for examination, so as to meet the requirements of candidates whether from the classical or modern side of secondary schools. We understand that one of the proposals of the Advisory Board, which have now been approved by the Faculty of Medicine, is a recommendation that Latin should no longer be required as a compulsory subject at the examination for matriculation. This decision has excited some surprise, as the three Medical Boards—that is to say, the Board of Preliminary Medical Studies, the Board of Intermediate Medical Studies, and the Board of Advanced Medical Studies, which together constitute the Faculty of Medicine, as well as the Boards of Studies related to medicine, including the Board of Dental Studies—had reported in favour of the retention of Latin. It would appear, therefore, that some circumstance had occurred to lead the members of the several Boards, when they met collectively as the Faculty of Medicine, to change the opinion which in another capacity they had already expressed as to the advisability of retaining Latin. It is known that the technical colleges, or some of them, and the Engineering Faculty of the University upon which these colleges are largely represented, are strongly in favour of removing Latin from the list of compulsory subjects. The Senate would appear to attach great weight to the opinion of the Engineering Faculty, partly on account of the ability and influence of its members, and partly, perhaps, because it is believed that the technical colleges would not be sorry to acquire the right to grant degrees in engineering, and possibly in science, to their students. Some members of the Senate would appear to be greatly, if not unduly, impressed by the possibility thus foreshadowed of the foundation of a technical university in London, which would be in certain faculties a rival of the existing University. We do not know how far these arguments may have prevailed with the Faculty of Medicine to take what we cannot but think to be a retrograde step. No doubt the decline of the number of students in the London medical schools has been very serious, and as it has been accompanied by an increase not only relative but actual in the number of students in the provincial medical schools, the phenomena is not one which the London teachers can afford to disregard. At the same time, it is surely a mistaken policy to endeavour to attract students by lowering the standard of education. It is partly on account of the breadth of the general education required as a preliminary for graduation that the London degrees in medicine hold so high a place in the estimation of the profession. If Latin is eliminated from the programme of preparatory studies—for this is what the proposal amounts to—medicine will, as far as the London University is concerned, cease to be a learned profession. This result must be detrimental to the University itself, for it will lessen the value of its degrees in the Faculty from which it has hitherto derived its chief prestige. It will inevitably follow that the men seeking for the best hall-mark of professional knowledge will go elsewhere. If, therefore, this short-sighted proposal is adopted, we venture to predict that the University, so far from improving its position, will, even in a commercial sense—slowly it may be, but surely—sink to the second or third rank among licensing bodies. Moreover, to put the matter upon the lowest ground of the self-interest of London medical schools and teachers, this policy of degradation of standard in the hope of attracting the less ambitious and less competent students would, unless followed by the Conjoint Board of the Royal Colleges, in all probability either fail in its intended effect, or lead to so great a falling off in the candidates for these diplomas as to involve their practical abolition as licensing bodies.

THE RED BADGE OF VACCINATION.

The red band so frequently seen on the left arm of the man in the street at present naturally has an effect on the "antivaccs" akin to that of the proverbial red rag on the bull. We note without surprise, therefore, that at the annual meeting of the General Council of the London Vegetarian Association, held the other day at the Memorial Hall, Farringdon Street, Mr. A. F. Hills, the President, who was in the chair, used strong language on the subject. He is reported to have said that it was absurd and distressing to see men and women walking about the streets with a piece of red ribbon on their arms, advertising the fact that they had taken into their bodies one disease in order to prevent the breaking out of another. This he thought must be regarded as a sad sign of the mental decrepitude of the people of our time. Vegetarians believed in no such nonsense. They believed that if only people would put their lives

in harmony with God's eternal law of health there need be no fear of contracting small-pox or any other disease. He hoped vegetarians would do all in their power to counteract the false doctrine that people could be saved from one disease by the inoculation of another. All who looked carefully into the question would find that the medical statistics respecting the power of vaccination were fallacious, and it did not possess the value claimed for it in preventing a person contracting small-pox. We may perhaps be excused from dealing with the statistical part of Mr. Hills's remarks here. But we venture with all respect to ask for a little more light on his dark saying about "God's eternal law of health." Faddists are too ready to take the name of God in vain to support the sickly fancies bred in their own brains. Has Mr. Hills an atom of proof that vegetarians unprotected by vaccination are not as liable to small-pox as their carnivorous fellow creatures? If he has, we call upon him to produce it. If he has not, what right has he to delude the silly folk who listen to him into the belief that they need have "no fear of contracting small-pox or any other disease?" Does Mr. Hills seriously believe himself or the devotees of his cult to be above the common lot of humanity and invulnerable against disease? Are they immortal, or do they all crumble into dust, showing only, like the famous "one hoss shay,"

> A general flavour of mild decay,
> But nothing local, as one may say?

Vegetarianism is merely one of the many more or less amiable forms of eccentricity which one expects to find in a free country. But the remarkable doctrine preached by Mr. Hills would appear to indicate that vegetarians, if proof against other ailments, are by no means safe from disorder of the mind. At the same meeting Dr. Saunders, of Market Lavington (whose name, by the way, we do not find in the provincial section of the *Medical Directory* for 1902), declared that small-pox was a purifying disease, and those who contracted it were all the better for it afterwards. He recently attended his brother for a fortnight for the disease, and that brother assured him the period was the happiest he had spent in his life. Men's ideas of happiness differ, and Dr. Saunders has a right to his opinion, of which he will probably retain the monopoly. If small-pox has the purifying effect attributed to it by him, we may look upon the present epidemic as a blessing in disguise. If it does not purify the constitution of the population at large, at least it may purge the nation of a certain number of particularly dangerous fanatics.

SHOCK TO THE SYSTEM.

THE question whether damages are recoverable at law for nervous shock caused by an accident has often been discussed, but has not yet been satisfactorily decided in courts of law. Medical practitioners are frequently called as witnesses in cases where the chief question for the jury to decide is the amount of damage sustained by the plaintiff. If actual physical injury has been sustained, which has kept the plaintiff from his business, the computation of damages is a simple matter; it is otherwise when obscure nervous disorders occasion partial incapacity. A case in the Privy Council (Victorian Railway Commissioners *v.* Coultas, 13 App. Cas. 222), is often cited as an authority for the statement that, even when there are physical effects plainly traceable to the "nervous shock" damages cannot be recovered in the absence of actual impact. The correctness of this decision has been doubted in several later cases. For instance, in Dulieu *v.* White and Sons (1901) 2 K. B. 669, a case which was heard by Justices Kennedy and Phillimore last year, it was held that damages were recoverable by a woman who sustained so severe a shock in consequence of an accident, that she gave premature birth to a child, although there was no direct impact. This case probably adumbrates the rule which is likely to guide English Courts in future, but a further refinement has been introduced in the Scots Courts. According to the *Law Times* (February 1st), in a case which was heard in Edinburgh on January 24th, the plaintiff, a lady of 56 years of age, was travelling in a compartment of which she was the sole occupant. The door flew open and was struck and broken by a passing train. She stated in her evidence that she was greatly agitated by what had happened and that she had been in terror of being struck and cut by the breaking glass and fragments of the woodwork. In consequence she sustained a nervous shock which confined her to bed for three weeks. Lord Stormonth Darling was of opinion that the lady's fears were unreasonable, and said that "the test must always be whether the terror produced was a natural result of the negligent act; in other words, would a mind of average intelligence and strength experience a nervous shock in the circumstances?" He accordingly withdrew the case from the jury.

MOVABLE SPLEEN.

WE have heard a great deal for many years about movable kidney and pelvic kidney, and the subject of movable spleen is nowadays quite familiar. Renal surgery is well established, indeed Mr. Henry Morris and the Americans have added a legitimate ureteral surgery as an appendix. Splenic surgery stands on a less secure basis, but British and foreign authorities have tackled the spleen, and have not only shown how it may be safely removed, but, what is equally important, have gone far towards determining when a diseased spleen should be left alone. Some Continental operators have had wide experience in splenectomy. Subbotin, of Belgrade, one of the number, has shown that torsion of the pedicle is quite frequent, proportionally commoner than the same complication in ovarian cystic disease. An interesting discussion on movable spleen took place at the Obstetrical Society of Vienna last year. Wertheim stated that a patient had recently been sent to him for what was diagnosed as an ovarian tumour impacted in the pelvis. He detected a very tender mass, "of the size of two fists," firmly incarcerated in the pelvic cavity, but on putting the patient under an anaesthetic it slipped up into the abdominal cavity on pressure from below; the uterus with its appendages felt quite healthy. Whether it were a movable kidney or a movable spleen seemed doubtful. An exploratory incision was made, and the tumour proved to be the spleen enlarged to about three times the normal size. The pedicle was long and easily secured, the patient recovered from the operation, but no after-history was given. Hansy related an interesting case where a young woman, aged twenty-four, was delivered spontaneously of her third child, and all went well until the fourth day of the puerperium, when she was seized with a stabbing pain in the left side. After the pain had subsided she felt as though something had come down. Her physician detected a firm, not tender, mass in the right, not the left, side of the abdomen inferiorly. It was of the size of a child's head and could be pushed into any region of the abdomen. The abdominal walls were thin and the splenic notch could be detected with ease; it lay, with the inner border of the organ, uppermost. Though the spleen was not tender the patient felt sharp abdominal pain when she moved suddenly. There was no history of malaria and she lived in the village of Baden, the well-known suburb of Vienna, far from any malarious region. Nor was there the least evidence of leukaemia. The enlarged spleen was removed; the pedicle which was twisted 180°, was moderately thick and was tied in segments. The spleen was 9 in. long, 5½ in. broad, and over 3 in. thick, in weight it exceeded 2¾ lbs. Its tissues showed pure hyperplasia. The patient was quite well in eighteen days, the blood showed no change since the operation save a trifling diminution in the proportion of leucocytes. These cases are of high interest, but it would be better if all operators waited until an after-history of at least

eighteen months could be obtained. Splenectomy cannot be compared therapeutically with an ordinary ovariotomy. After the removal of a common, non-malignant cyst, the patient, as wide experience has proved, suffers little or no physiological or pathological disturbance. We have also much experience as to the effects of removal of a fibroid uterus. Even if the patient might have well lived with it, and never died of it, she may be on the whole better without it. With splenectomy it is otherwise; there have been many recoveries and many deaths; in certain affections the operation is hardly justifiable, but it might be found to be advisable if we could certainly ascertain how far it it has benefited the patients who have recovered and survived the operation for many years.

THE STRUCTURE OF THE HUMAN CEREBRAL CORTEX.

John Turner (*Brain*, 1901) has by the application of the methylene-blue and peroxide of hydrogen method of staining the fresh cerebral cortex obtained evidence of new structures in the clear presence of and surrounding the cell bodies of nerve cells; and though the staining reaction is somewhat capricious, the appearances obtained are unmistakable. The method reveals around the pyramidal and giant cells of the cortex a delicate-beaded network of very fine nerve fibrils "loosely enveloping the cell body and its apex and processes, and extending along the latter as far as it is possible to trace them [the processes] in sections." In some specimens the fibrillary network can be seen "enveloping like an open-work stocking" the dendrites of the giant cells for a distance of three-tenths of a millimetre or one-eightieth of an inch. The beads on this network stain, as do the fibrils, nearly black. When the branching of the network occurs a "bead" is always seen as the point of junction. This network does not appear as a closed network drawn over the cell body, for tags can be traced passing from it on all sides to the surrounding matrix; some of these are seen to unite into stouter fibres, which have all the appearance of being dendrites from neighbouring cells. Turner thinks (*contra* those who believe that such pericellular networks are derived from axons and nerve fibres) that the dendrites of the "small dark" cortical cells are the origin of these beaded networks. These dark cells show great diversity in shape and size, varying from 20 μ to 24 μ in length, and have a more or less fusiform shape, although not infrequently they are square or pentagonal. The cytoplasm stains deep blue and the nucleus black. The processes springing from the cell body are shaggy and slender, and branch but little as a rule; they get finer, and eventually pass into the beaded fibrils which form the networks already spoken of. A smooth axon may sometimes be traced from these cells, passing upwards (Martinotti's cells). These dark cells are found scattered throughout the cortex, from the second layer inclusive down to the white substance: in the occipital cortex they are aggregated chiefly if not entirely in the region of the "granule" cells, occurring here in greater numbers than in the frontal or ascending frontal regions. The fibrils arising from neighbouring small dark cells co-operate in the formation of the beaded network around the pyramidal cells, and "the whole system of dark cells is in absolute continuity one with another, through the medium of the network." In the cerebellum these dark cells are present in the molecular layer, and give off processes which, sweeping downwards, multiply and contribute to form the basket-work first described by Ramón y Cajal around the cell bodies of Purkinje's cells. Turner suggests, therefore, that the cerebral dark cells are homologues of these, and, moreover, surmises that the functions are concerned with afferent impulses which, after being received by them, are distributed from them, *viâ* the beaded fibrils and network, to the pyramidal and Purkinje cells. The cerebellum, however, abounds with these dark cells, whereas by contrast in the cerebrum they are but sparsely present, being numerically less than the pyramidal cells. The significance of this is not as yet known, though it invites questions of psychological importance which will have to be asked in the near future.

DISEASE AMONGST THE LAOS OF FURTHER INDIA.

Dr. Carl Hansen has recorded some interesting details about the native methods of cure for disease amongst the Laos tribes of further India.[1] The Laos tribes number about five millions of people, and occupy the regions to the north of Siam proper, India to the west, and China to the east. They live under different governments, and their country has been but little visited by travellers on account of the difficult and long journeys, either by river in a small boat, which takes a month, or on an elephant through the jungle. The country was once the seat of a high civilization, as is shown by the remains of temples, palaces, and finely-executed bronze images of Buddha. The people are noted for their politeness and simplicity. Buddhism and spirit worship are the prevailing forms of religion. Dr Hansen says that "the most common diseases are malaria and dysentery, small-pox, leprosy, and syphilis. One striking feature of practice in the East is the entire absence of cerebro-spinal diseases amongst the natives. I have never yet seen a case of cerebral haemorrhage or spinal paralysis among them and only two cases of insanity. Neuralgia is common, and is mostly of malarial origin. Tabes dorsalis is said in the great majority of cases to be due to syphilis, yet I have not seen a case of tabes though syphilis is quite common. Another feature is the absence of carcinoma. In my three years practice I have seen only one case, and as in this one no microscopical examination was made I am not sure but that it might have been sarcoma." The Laos nearly all suffer from malarial fever, and this may possibly account for their freedom from cancer. There are no surgeons amongst them, and the name they use for doctor is "Mo Ya" or "Pa Lieng," the nourishing father. Tradition states that the Gautama or Buddha established these nourishing fathers or doctors, but when Buddha became sick and died, their medicines having failed to cure him, they became discouraged and burned their books. When the people found that the doctors had burned their books they became anxious, and said to each other, "What shall we do now, and from where shall we get medicine?" Then they went to the place where the books were burnt, and carefully gathered up the pieces, and from these remnants medical knowledge, they say, has been transmitted to the present day. The native doctors have absolutely no knowledge of anatomy or physiology, and their methods of cure consist chiefly in reciting ancient *gâthas* or formulae; in recalling the guardian spirits which for some reason have left the sick person; and in appeasing the evil spirits which have caused the disease. Along with these exorcisms medicine is prepared from certain trees, plants, and minerals, which are rubbed on a stone; and the resulting powder is suspended in water and given to the patient as a drink. When the sickness does not yield to the above means the doctor decides that the patient is possessed of an evil spirit belonging to some person in the village. By beating and questioning the patient the spirit will reveal the name of the person to whom it belongs. This person is then required to leave the village, with his wife and all his belongings, within a given time, and if he does not leave within this time his house is burnt down, and no one ever builds a house in that place again. Such a person is called a "Phi Ka," and is only allowed to live in villages of his own kind.

[1] *Pacific Medical Journal*, January, 1902.

THE TREATMENT OF HIP-JOINT DISEASE IN CHILDREN.

MR. GRANT ANDREW, Assistant Surgeon to the Victoria Infirmary, Glasgow, has sent us a copy of a pamphlet on tuberculous disease of the hip-joint[1] founded on a critical examination of seventy cases. We have nothing but praise for the masterly way in which he has marshalled his facts and drawn his conclusions, and are now mainly concerned with one broad principle which he deduces. This is that for the efficient treatment of cases of this form of disease special hospitals and convalescent homes are needed. He alludes to the good work done by the Alexandra Hospital in London, and argues that owing to the pressure on the beds of a general hospital and even of a children's hospital, operations have to be done on cases of hip-joint disease in poor children which experience, nevertheless, shows do not always shorten the disease. We would like to go a step further in this matter of treating tuberculous affections in children's wards in a great city, and to say that we think each children's hospital should have a branch hospital in the country, preferably at the seaside, where cases may be sent as soon as possible after operation, and so secure sound healing. There would then be less sinus scraping done, early and complete recovery would take place, and a greater number of tuberculous children would be treated, and, in all probability, more successfully. If this work of Dr. Grant Andrew aids in the establishment of hip hospitals in town for urgent cases, with branches in the country for convalescing cures, we feel he will have done yeoman service.

PROFESSOR VIRCHOW.

THE *Berliner klinische Wochenschrift* of February 3rd states that on January 26th Professor Virchow was able to sit up for several hours, and felt himself the better for it. The injured limb showed no tendency to rotation outwards, and moderate movements of the hip-joint caused no pain. On Monday, January 27th, and the two following days some depression of the bodily and mental powers again occurred, together with pain in the left side of the chest, without local physical signs or rise of temperature. On January 31st the Professor was again improving, and able to take his meals sitting up in bed; the strength, however, fluctuates. It is proposed once more to try the effect of allowing him to sit up in a reclining chair.

EXAMINATIONS AND THE R.A.M.C.

THE inaugural address delivered at the opening of the present session at the Cork South Infirmary by Professor Henry Corby contains an interesting comment on the proposed alterations in the conditions of the army medical service with regard especially to the suggested increase in the number of examinations. It could well be understood, he pointed out, that the Commissioners when considering their report saw the necessity for holding out inducements to the army medical officers to keep pace with the progress of medical science. The army medical officer at present had not the same incentive as the civil practitioner to read current medical literature and to avail himself of the most recent improvements and developments of medical science. If the civil practitioner should not take advantage of all his opportunities he was bound to be left behind in the race, but from a pecuniary point of view it made little difference to the army medical officer. The Commissioners were, in Professor Corby's opinion, to be commended for endeavouring to rectify this state of affairs in the army. But had they gone the right way about it? Examinations were very useful for students who started on pretty equal terms, and whose information was mainly theoretical. But no system of examination that had been devised could adequately gauge the exact value of the resourcefulness and promptness of the accomplished surgeon in dealing with the grave and unexpected difficulties arising in the course of a serious operation, when hesitancy would mean defeat for the surgeon and death for the patient. Neither was it possible to appraise in marks as between two medical men, say, twenty years in practice, the knowledge each had gained as the result of patient comparison of facts, careful observation of symptoms, and prolonged clinical study of the protean forms presented by disease. It can, indeed, never be too much emphasized that the amount of information a person is able to put on paper in an examination is no standard of his fitness for having charge over the lives of men.

[1] *Tuberculous Disease of the Hip-Joint. A Critical Examination of Seventy Cases.* By J. Grant Andrew, M.B., F.F.P.S., Glasgow, Assistant Surgeon to the Victoria Infirmary, Glasgow, etc. Glasgow: Alex. Macdougall. 1901. (Demy 8vo, pp. 69.)

CANVASSING MEDICAL AID SOCIETIES.

THE old fallacious argument, over and over again exposed, that the poor obtain through the instrumentality of Medical Aid Companies advantages which they could not otherwise compass, is not dead yet, and we notice that it was trotted out again recently in an "interview" in the *Manchester Daily Despatch*. Those who inflict this claptrap on the public appear to forget that the great Friendly Societies do in a measure supply what can be supplied for the money, and, as a matter of fact, often for less money. The canvassing Medical Aid Companies have to spend a good deal in canvassing and collecting, and not being subject to the conditions of the Friendly Societies Acts are not under official supervision. The only legitimate road to success in practice is the esteem of a man's patients and neighbours, whether lay or professional, whereas the canvassing society seeks to obtain patients for a man merely because he is for the time being their officer, and probably by unduly extolling his merits. They are not now, at all events, in a position to provide for their subscribers the best medical service. In the present healthier state of feeling in the profession it is often necessary for them to import a stranger whose necessities constrain him to accept a position in which he forfeits friendly relation with his brother practitioners. It is, therefore, not too much to say that they are only likely to secure the services of a man who either has had no experience, or who has failed to secure a competence in the place where he has been in practice. For such a person patients are to be provided by a system of interesting recommendation, and, if the persons canvassed only understood this, they would never be induced to join.

THE KEIGHLEY GUARDIANS AND VACCINATION.

WE gather from a local newspaper that vaccination disputes still occur in Keighley, that ancient stronghold of antivaccination folly. Under the Act of 1898, however, there has been appreciable improvement in the vaccination returns. In 1895 in Keighley and Bingley, out of 1,643 births, only 26 were returned as vaccinated, while in 1900, out of 1,605 births, 395 were so returned. For the great bulk of the remainder exemption certificates had been obtained, but there were still 190 unaccounted for. Even to a Board of Guardians whose majority disprove of compulsory vaccination, it should be obvious that this balance of cases ought to be dealt with in some definite fashion. Every facility is said to be given to conscientious objectors in Keighley, and parents who will neither procure the vaccination of their children nor certificates of exemption are simply flouting the Board; and even if the Board is willing to be flouted, it is hardly to be supposed that the Whitehall authority will allow the relative part of the Act of 1898 to be regarded as a dead letter. Meanwhile, the chairman of the Keighley guardians appears to have made rather a contemptible attack on the public vaccinator, with the result that that gentleman in his turn has sent to the Board a letter

flatly denying certain assertions of the chairman, and making at the same time a series of definite charges against the vaccination officer with regard to the lists which it is his duty to supply to the public vaccinator. These lists, he states, had not always been forwarded regularly, had contained the names of some children under four months of age, of others who had been already vaccinated, of others who had been exempted, and of others who had been several weeks dead. The Board very properly gave the vaccination officer full opportunity to reply, which he did in a manifestly incomplete and unconvincing fashion. Nevertheless, it was decided by the casting vote of the chairman to regard the vaccination officer's answer as satisfactory. Such a decision arrived at by a public body cannot fail in the end to be hurtful to its position and prestige. A Board which appears to allow the opinions or prejudices of a majority of its members on a question like compulsion to turn its verdict as regards the due performance of duty by its servants is in a fair way to lose the respect of all that is worthiest of regard in its own constituency.

PROFESSOR VON BERGMANN.

On January 27th, the Kaiser's birthday, the title of "Privy Councillor" was conferred on Professor Ernst von Bergmann. The honour gives the right to the prefix "Excellenz," which may be taken to correspond to "Right Honourable." Titular distinctions can add nothing to the honour in which Professor von Bergmann is most deservedly held throughout the surgical world. It is, however a legitimate cause of gratification to the whole medical profession that the merits of one of its foremost members should be recognised by the head of the State in which his beneficent activity has been so fruitfully exercised. We hope we may be allowed to join His Excellency Professor von Bergmann's numerous friends in congratulating him on his new dignity, and we heartily echo the wish—which must have come to him from all quarters of the globe—*In Plurimos Annos*.

A NEW HONOUR FOR DR. RODDICK.

We have much pleasure in announcing that Dr. Thomas G. Roddick has been chosen by his fellow members Dean of the Faculty of Medicine of McGill University, Montreal, in the room of Dr. Craik, who recently resigned that position. The new Dean was born at Harbour Grace, Newfoundland, and took his degree at McGill University in 1868, being awarded the Holmes Gold Medal. Subsequently he served for six years as house-surgeon in the Montreal General Hospital. He then began to teach in the McGill University, holding successively the positions of Lecturer in Hygiene, Demonstrator of Anatomy, Professor of Clinical Surgery, and Professor of Surgery. He still occupies with great distinction the Chair of Surgery. Honours have fallen thick and fast upon him throughout his professional career. He has been President of the Medico-Chirurgical Society of Montreal, and is a past President of the Canadian Medical Association. He was elected to the Canadian House of Commons in 1896, and was re-elected last year. In that body he has ardently advocated the Dominion registration of medical men, a measure providing for this being now before the House. To the profession of the old country he is probably best known as a former President of the British Medical Association. He was elected to that dignified office in 1897, when the Association held its annual meeting in Montreal, that being the first occasion on which the gathering took place outside the United Kingdom. Dr. Roddick has, therefore, the honour, so far unique, of being the only citizen of the Britains beyond the seas who has been President of the British Medical Association. To the dignity, tact, and marked organizing and administrative ability with which he discharged the duties of that position the success of the Montreal meeting was very largely due. Dr. Roddick's great personal influence was also a powerful factor in the early growth of the Canadian Branches of the Association, and to the continuance of that energizing quality we confidently look for the reawakening of their flagging vitality. In the name of the Association of which he is so conspicuous a member we express an earnest hope that Dr. Roddick may long enjoy the new dignity which has most deservedly been bestowed upon him.

"BUSINESS METHODS" IN TROPICAL HYGIENE.

The annual report of the Chief Surgeon, Division of the Philippines, for the period ending May 16th, 1901, by Colonel Chas. R. Greenleaf, Assistant Surgeon-General, U.S.A., contains material of much interest, and indicates the thorough method in which the Americans are already dealing with their new tropical possessions. The report deals mainly, but not exclusively, with the diseases acquired by the troops. Malaria was common, but as usual when energetic treatment is employed, the mortality was small, and invaliding from this cause alone not frequent. Dysentery was prevalent, and cases of this disease formed from 15.96 to 11.92 per cent. of the total non-infectives. The author states that "it has been found poor economy to keep a soldier who has apparently recovered from an attack of dysentery," adding that with hardly an exception such persons are again attacked. He advocates invaliding all convalescent cases of dysentery. Venereal disease has shown a great increase. In September, 1900, 8·97 of the sick were cases of this class. In April, 1901, no less than 20.47 per cent. of the total sickness was from this cause. Colonel Greenleaf forcibly urges that this disease should be treated as any other dangerous contagious disease would be, both in the interests of the soldiers and, still more, in those of the native population. Much attention has been paid to sanitation, the local diseases are being carefully investigated, and the amount of attention paid to the public health in Manila is highly satisfactory.

Dr. Theodore Shennan has been appointed Pathologist to the Edinburgh Royal Infirmary. The appointment, to which a salary of £400 a year is attached, is tenable for five years. The vacancy has been caused by the election of Dr. Welsh to be Professor of Pathology in the University of Sydney.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Small-Pox Returns.—Mr. Corrie Grant asked the President of the Local Government Board last week whether the Metropolitan Asylums Board had repeatedly refused to supply information as to the names, addresses, ages, and conditions as to vaccination of all small-pox patients treated in their hospitals and whether children born in these hospitals, and duly vaccinated, and afterwards dying of small-pox were included in their statistical tables as unvaccinated cases? Mr. Long, in reply, said that Section viii of the Vaccination Act, 1898, did not apply in the case of a small-pox hospital maintained by the Metropolitan Asylums Board, as the Board was not a sanitary authority within the meaning of the section. A register, similar to that described in the section, was kept at the hospital ships, but only two persons had applied to inspect it. The reply of the managers to these applications, which it appeared were made on behalf of the National Anti-Vaccination League, was to the effect that arrangements would be made to produce the register if the person wishing to inspect the register was prepared to comply with the regulations of the managers and satisfy the medical officer before entering the

ships, that he was adequately protected against contracting small-pox. It was the practice of the managers to classify as unvaccinated any person who was already infected with small-pox before vaccination was performed. No birth took place at the small-pox hospitals last year, and this year there had only been three births.

The Vaccination Bill introduced by Mr. Broadhurst, Mr. Thomas Bayley, Sir John Rolleston, Mr. Channing, and Mr. Corrie Grant, proposes to amend the law by repealing all the sections in the Vaccination Acts which enact compulsory vaccination. It consists of only one operative clause and is not intended to apply to Scotland or Ireland. It is the same Bill as that of last year, and although introduced early and put down for February 5th, and on that day postponed to February 26th, it has little or no chance of being discussed this session.

Small-Pox and Revaccination.—Mr. Coghill elicited by means of a question to the President of the Local Government Board that there had been since June 1st, 1901, to January 25th last, 2,656 cases of small-pox in the metropolis, and that the Government had no intention of bringing in a Revaccination Bill this session. Mr. Grant Lawson added that he did not admit that any pledge to introduce such a Bill had been made. On Tuesday Sir John Tuke asked the President of the Local Government Board if he would consider the expediency of adopting in connexion with the present outbreak of small-pox in London the methods for procuring more general revaccination which were resorted to successfully in Glasgow in the year 1901, involving a house-to-house visitation of the community divided into manageable areas and the employment of all medical men willing to assist in the matter. The reply was that it would be impossible to adopt the Glasgow plan throughout the whole of London at one and the same time, but the question how far it might be practicable to adopt some such methods in particular areas was under consideration.

The Licensing Bill, which the Home Secretary has introduced and which has passed a first reading after a short discussion, is a somewhat composite measure. It takes up the proposals which the Bishop of Winchester brought before the House of Lords last year with regard to drunkenness. The drunkard is to be more severely dealt with, and, if an habitual drunkard, he is to be committed to an inebriate home. A married man is to be entitled to protection against a drunken wife, and a wife is to be entitled to apply for protection under the Married Women's Protection Act against a husband who is an habitual drunkard. Restrictions and penalties are also embodied in the Bill with reference to serving of habitual drunkards with intoxicants. The Bill further provides for a regular register to be kept of offences by publicans under the Act, and for bringing grocers' licences under the control of the justices. In the third part, the Bill deals with the registration and regulation of all clubs. The Bill met, generally speaking, with a favourable reception.

The London Water Bill was introduced by Mr. Long last week, and several hours were spent in discussing it on the first reading. There was general satisfaction expressed that the Government had recognised the necessity of having one water authority for the whole of London. It was felt that this would be a great advance from an administrative as well as from a public health point of view. The establishment of a special Board more or less on the model of the Metropolitan Asylums Board, and consisting of at least 67, and possibly of 69 members, was regarded as a proposal which must be criticised, and possibly modified, before the Bill could be generally accepted.

The Midwives Bill has not yet been printed, and, so far as can be learned, is not yet even in the hands of the printers. The Bill will most probably be on the lines of last year's measure, with modifications designed to strengthen the local control of registered midwives. The promoters are not obliged to issue the Bill till a week or so before February 26th, and in some cases much less time is given. The new Rules of Procedure will occupy all next week and the week after, except Wednesdays, and from the general feeling in the House, are sure to be discussed at considerable length. This may possibly force the Government to take some of the Wednesdays before Easter, but such a contingency is not very likely to happen in connexion with the Midwives Bill, which is pretty sure to come on for discussion and second reading on February 26th. Mr. Griffith-Boscawen's motion that it be read a second time that day six months is at present the only sign of opposition.

The General Medical Council and Medical Aid Associations.—The action of the General Medical Council in the case of Dr. Rendall of Great Yarmouth was raised by a question of Dr. Macnamara on Monday, who wished the Home Secretary to take the opinion of the Law Officers of the Crown with a view of ascertaining whether the General Medical Council had power under the Medical Acts to declare the holding of an appointment such as that held by Dr. Rendall in connexion with the Liverpool Victoria Legal Friendly Society, infamous conduct in a professional respect. The Under-Secretary for the Home Department replied that the Home Secretary did not wish to enter into the details of the particular case referred to, as he understood it was still, in a sense, *sub judice*. He was advised that the powers of the General Medical Council as to deciding what is and what is not "infamous conduct in professional respect" within the meaning of the Medical Act were clearly laid down by that Act, and the decisions thereunder, and he saw no necessity for consulting the Law Officers of the Crown on the matter.

Tubercle among Postal Employees.—Sir Walter Foster called the attention of the Postmaster-General to the report of the Association of British Postal Medical Officers on the prevalence of tubercle among postal employees and to the summary of preventive measures drawn up, and inquired whether the proposals were to be adopted. The Financial Secretary of the Treasury said in reply that the Postmaster-General had received the report. Some of the preventive measures suggested were already in operation, and others that had been found practicable had been adopted. Statistics supplied by the Registrar-General showed that the mortality from phthisis and cognate diseases between the ages of 15 and 65 was much greater in the country at large than amongst the established employees at the Post Office, and that there was no reason to think that those employed in the Post Office were more subject to tuberculous diseases than others.

The Commission on Tuberculosis.—In answer to an inquiry by Mr. Channing, Mr. Grant Lawson said that he was not in a position to state when the Commission would be able to report, but it was not likely to be able to do so for a considerable time. Very extensive experiments, he was informed, would have to be carried out by the Commission, and for this purpose laboratories and other buildings had been erected on the farms, where this part of the work had to be done. It was impossible to say how long these experiments would take, but arrangements had been made to occupy the farms for three years.

The Royal Army Medical Corps and the New Warrant. The Secretary of State for War does not apparently contemplate at present giving a day for the discussion of the new Warrant, for when Sir John Tuke asked on Tuesday last if an early opportunity would be given for debating the Warrant, his reply was that he was not yet in a position to say when the vote for the Medical Establishment would be brought forward. Mr. Black later in the day asked for the appointment of a professor from one of the Scotch Universities upon the Army Advisory Board, but Mr. Brodrick said that every care had been taken to make it representative that Dr. Galloway was appointed to represent Scotland, and that three of the military members had been connected with Scottish medical schools.

"CURES" FOR ALCOHOLISM.

(*Continued from page 292*).

"The Leyfield (Hayden) Cure."

According to a pamphlet before us, the Leyfield (Hayden) cure, which "takes the form of a drug," was discovered by Mr. James L. Hayden, an Irish Canadian. Mr. Hayden is not a qualified medical man, but he has "devoted his life to the study of the question, and has by adaptation of and improvements upon older methods, produced a medicine which has the wonderful properties of entirely destroying the craving for alcoholic liquor. The composition of the drug is a secret, but it is understood that chlorate of gold is an important ingredient. ..... A Liverpool gentleman, who travelled to Canada for the express purpose of undergoing the treatment, was thoroughly cured and returned home exulting in his regeneration." He did not rest until, with the financial assistance of three friends, he had induced Mr. Hayden to establish himself in Liverpool. The treatment dates in this country from 1897, when a furnished house was taken in Liverpool and a few isolated cases treated. As a result of this "the friends of several patients volunteered further financial assistance, and a syndicate was formed and large and more commodious premises were purchased." There are now two houses, one for men and one for women, superintended by a lady nurse-matron acting under a medical attendant. Upwards of 200 cases have been treated, and "the percentage of permanent cures is about 80 per cent.," which, the prospectus maintains, is "far in excess of anything ever previously obtained in this country." As regards the treatment:

"The patient on his reception, and throughout the treatment, has impressed upon him the view that he is a victim to be sympathized with; his sense of self-respect, which in many cases has all but disappeared, is revived, and by the end of his time he is freed from the craving, well in health and spirits, and feels in a position once again to look the world in the face and hold his own in the sphere in which he is placed. The moral effect of this in securing the permanency of the cure is incalculable, and no pains are spared to obtain it."

"The location of the institution itself is a secret." Patients are permitted to enter under assumed names and visitors are not encouraged during the first few days. At the same time there is absolute freedom from restraint. The patient is allowed "to go where he pleases, the effects of the treatment after a few days being a sufficient safeguard against continued indulgence in the old habits." The medicine is said "to produce sensations akin to those of sea-sickness." The treatment lasts three weeks. The fee charged is twenty guineas, with three guineas a week for board and lodging. Patients are not required "to enter any place of the nature of a 'Home.'" In only one case, it is stated, has the freedom afforded been abused. The owners of the cure defend their secrecy with regard to its real nature on the grounds that

"it is only right and fitting that persons who have devoted their time and skill to so important an object should be adequately rewarded; and this can, from the nature of things, only be secured by, at all events, in the first instance, keeping the nature of the remedies secret." "The Directors, whatever their own views may be, will find themselves confronted with the difficulty that the Agreement under which their rights (which are confined to Great Britain and Ireland) were acquired, precludes them from divulging the nature of the remedy."

It is the particular boast of this institution that the scepticism and doubt formerly manifested by members of the medical profession have

"gradually worn away, with the result that many patients are now sent by members of the profession, and the treatment is now given under the daily supervision of a well-known medical man, practising in the vicinity of the Institution, who is possessed of the highest degrees both surgical and medical, and who has accepted the post with the approval of several of the leaders of his profession."

A letter from the medical officer in question, printed in a sketch of the treatment issued by the Syndicate, runs as follows:

"I consider the treatment scientific and up to date. The drugs employed in the treatment are of a perfectly safe kind, and include only those countenanced by Medical Writers in the latest textbooks upon the subject. The true value of the system is not the utilization of something altogether new, but the scientific grouping and application of known, but in some cases but little used, remedies. There is not an element of danger in the treatment, which is solely of a tonic and restorative nature. The result of the treatment speaks for itself, and I can only characterize it is magnificent. During my supervision of the Cure some hundred cases of alcoholism have been treated in all of which the drink craving has been removed. I have moreover observed that in some cases, as the effects of the treatment, the early symptoms of Bright disease (albuminuria) have disappeared also that many cases of alcoholic paralysis have been perfectly cured. The treatment has also a very marked curative action upon several skin diseases such as acne, eczema, and psomasis. I look forward to great results in the treatment of neuritis and general nerve trouble, as the drugs used are indicated in the treatment of nerve cases."

It will be observed that in the above letter the drugs used are spoken of in the plural.

The Syndicate publishes 14 "voluntary" testimonials, all sent to it between February and April, 1901. In 10 of the cases the patients vouch for themselves, in 4 they are vouched for by others. Twelve of these letters refer to the cessation of the "crave" or "desire," 4 make definite and emphatic statements that the patient has, since treatment, remained a total abstainer. The cures, it is alleged, had in all cases been complete from one to three years.

"The Hutton Dixon Cure."

This cure advertises itself as follows:

"A Hutton Dixon's vegetable antidote for alcoholism, morphine, and other drug addictions; neurasthenia, nerve exhaustion, nervous and general debility. A new home cure which is now being successfully demonstrated in Great Britain and Ireland, after being publicly demonstrated on the American continent for twelve months with astonishing success."

"A simple vegetable medicine, which can be carried in the pocket and taken in private."

"Obviates the publicity, expense, and loss of time of an institute treatment."

As far as can be ascertained from Mr. Hutton Dixon's pamphlet his remedy is about six years old. "After seven years of experimenting he succeeded, about two years ago (this was in 1897) in perfecting his remedy, which is now infallible in its results. Since 1895 he has cured more than 1,000 cases."

In his pamphlet Mr. Hutton Dixon says:

"No matter how many cures you may have tried without avail, give my cure a trial and you will get what you want, if you desire a cure. My remedy almost immediately relieves the desire for liquor, and restores the system to a natural and normal condition. There is nothing miraculous about it. The system is diseased either by heredity or the long use of alcoholic drinks. My cure meets this disease and overcomes it. A cure is really effected in from one to three days, but the treatment is kept up for three weeks, in order to restore the patient to the condition he was in, before he acquired the disease .. Is perfectly harmless, and leaves no bad after-effects. This I guarantee .... Every victim of the liquor habit, no matter what his condition, can be cured by my preparation, and within three days and often within a few hours from commencing the treatment, will be so free from all desire for alcoholic liquor, that he would not pay one penny for a carload of beer or whiskey for his own use. The fact that all are cured, is evidence in itself, that this is the best and easiest cure yet discovered. I have heretofore been successful in every case, and I have yet to meet the case that will not yield to my remedy."

Mr. Hutton Dixon further gives what he calls his guarantee.

"My guarantee.

What I guarantee by the use of my medicine, is the removal of all crave for drink in a few days, and a permanent cure in three weeks, provided the directions have been faithfully followed. I guarantee the building up again of the system, especially of the nerves, which have been injured by excessive use of intoxicants: so that, after three weeks, the patient will find himself where he was before he acquired the habit of drink. I do not, however, pretend to take away the patient's free will, and to prevent him beginning to drink again. But by radically removing all craving for intoxicants, I thereby strengthen his will power, and keep him sober for ever, unless he begins again to drink, by abusing his free will, without any crave for liquor urging him to do so.—A. Hutton Dixon."

The medicine, it is stated, costs about £2 2s., and doses are taken every two waking hours.

As regards other testimony to the value of the drug on his advertisement sheet, Mr. Hutton Dixon publishes sixteen letters having reference to about 20 patients, but three of the letters refer to an unspecified number of patients. Of the patients alluded to, 17 were vouched for by other persons and 3 by themselves. At the time the letters were written 2 were stated to be still under treatment; in 6 cases the time which had elapsed since treatment was not mentioned. In 12 out of the 20 cases the time stated to have elapsed since cure was over a year, six months, four months, four months (6 cases), two months, three weeks, one week respectively. Of 2 patients out of the 20 it was definitely asserted that they had not touched intoxicating drink. The other 18 testimonies make no mention of this point, but all 18 allude to the disappearance of the "crave," "desire," or "appetite," and 13 make other kinds of statements of a definite or indefinite nature about the cure of the patients. The testimonials are of various dates in the years 1897, 1899, 1900; but although the remedy has been in use for six years no case dates further back than twelve months, and, so far as can be made out, only 1 case dates back so far.

A home was opened January 2nd, 1901, at the Anchorage, Felixstowe, by a charitable lady who had seen good results

follow the treatment, and who wished to make it known. The prospectus of the Home advertises "The Hutton Dixon Antidote, a Sure and Permanent Cure," and at the bottom of the prospectus are found the names of 11 well-known ladies and gentlemen who are patrons and contributors. The treatment in this home lasts in an ordinary way from seven to fourteen days, and the charges are from 5 to 10 guineas a week for treatment. Board and lodging are from 1 to 2 guineas extra, all board charges being doubled during the season. In May, 1901, the founder of the home was interviewed, and stated that when the home had been opened five months previously there had been quite a good entry of patients, but these had fallen off so that the home was not now paying its expenses. She could not quote any cure of more than three months standing from her own personal knowledge. Since the home was opened they had had 17 cases, of which 15 were cures and 2 failures. They had treated a case of locomotor ataxia (the patient was not an alcoholic case) with the Hutton Dixon remedy and with great benefit.

(To be continued.)

CHICKEN-POX AND SMALL-POX.

NOTIFICATION AND THE VERIFICATION OF DIAGNOSIS.

In reference to the decision of certain metropolitan borough councils to schedule chicken-pox as a notifiable disease, which has now been extended by the London County Council to the whole area under its jurisdiction, we have received a long letter, dated January 21st, from Dr. Charles Sanders, Medical Officer of Health for West Ham.

Is the Notification of Chicken-pox Useful?

Dr. Sanders questions the utility of the notification of small-pox and writes as follows: "Unless some unusual practice be adopted by which the chicken-pox notifications are verified they will be accepted as chicken-pox certificates until such time as an outbreak of small-pox throws suspicion on the earliest recorded case. If it is intended to verify notifications in this case, who is to be called in for the purpose? The medical officer of health of a large borough could not possibly do so, and in any case it has been laid down by the Local Government Board that he should avoid any attempt in this direction except in most unusual circumstances, for example, if he have suspicion of mala fides. At the present time one finds it difficult to visit cases of small-pox, and personally I have been unable to visit more than about half the cases which have occurred in my borough. At the same time, since the beginning of the outbreak last October, some thirty of my professional brothers have asked me to see doubtful cases, or, what amounts to the same thing, notified them as small-pox with a query. Some of these doubtful cases have proved to be chicken-pox, others small-pox. During the whole period I have received from the school attendance officers the addresses of all children away from school on account of alleged chicken-pox—about 300 cases, one week alone numbering about 25. I have had three local outbreaks traceable to an overlooked case of small-pox which was treated as chicken-pox, but in only 1 out of the 3 cases had a medical man been in attendance. I suggest that if that 1 case had been notified I should have accepted the notification and arrived on the scene no quicker than I ultimately did, while the 2 other cases would not have been notified, as although notification is incumbent by law upon the householder, in actual practice it is almost non-existent. . . If it be suggested that the notification will give us information as to the distribution of chicken-pox the advisability of such a course is much discounted by the information we already receive from the school authorities, and the notification fee might with greater advantage be spent in obtaining information of several other diseases. The comparatively few errors in diagnosis experienced in respect of the usually notifiable diseases are corrected on arrival at hospital, but I take it no one proposes to remove chicken-pox cases to the hospital, and consequently the cases must remain accepted as chicken-pox or the notification certificate be verified. I shall be certainly glad to learn the views of the profession on the question thus raised, for if verification of diagnosis be admitted in such a usually simple ailment the thin end of the wedge must surely be placed ready for similar action with regard to scarlatina and diphtheria, which we have always with us."

Confusion Due to Local Names.

Dr. B. Strachan (Sunderland) sends in support of the opinion that it is especially desirable during an epidemic of small-pox to make chicken-pox notifiable, the following notes of circumstances which occurred some eighteen years ago:

An elderly lady was visiting some friends in a neighbouring town where small-pox was prevalent, and on coming home suffered from general *malaise*, but did not feel ill enough to think me [illegible] attendance necessary. At length, yielding to the solicitations of her friends, she allowed me to be called in. When I first saw her I noticed several spots on her face, with inflamed, swollen bases; and, as my suspicions were at once aroused, I asked if they had been all quite well where she had been staying. She replied that they had been suffering from "water-jags," which is another name in this quarter for chicken-pox. But I was convinced we had here something more formidable than chicken-pox to deal with, and took my partner, the late Dr. Jas. Smith, to see her, who confirmed my opinion. Events proved it to have been correct; for although the old lady got off comparatively easily, there being few spots on any other part of the body, her son, a middle-aged man, was in due course seized, and had an acute typical attack of small-pox; as well as a grown-up female, who had also been exposed to the infection.

But the most interesting episode remains to be told. A young baby, amongst its first visits to friends, was sent to see the old lady soon after her return home, and fortunately, a week after, underwent vaccination, according to previous arrangement, and without there being any suspicion of her having been exposed to infection. The arm took beautifully and ran a typical course, without any undue inflammation; yet, at the end of the week she became suddenly very ill, and presently her whole body was covered with a profuse measly eruption, becoming papular, vesicular, and pustular: everything, in short, following the ordinary course of a well-marked case of small-pox, and ending in becoming confluent in a good many places. The child was very ill, and I thought we should lose her, but thanks (let us hope) to the intervening vaccination the virulence was in some degree checked, and she managed to pull through. One or two others of the same family were also in due course prostrated with it.

In conclusion, Dr. Strachan writes: "In the light of such an experience as this, I would urge that not only in London, but all over the country, notification of chicken-pox should be made compulsory, every case being subjected to the strictest scrutiny."

The Duties and Discretion of an M.O.H.

We may take this opportunity of referring also to a letter received some time ago from Dr. Harvey Littlejohn, of Edinburgh, which we were unable to publish, owing to its length and the pressure upon our space at the time. A letter from Dr. Harvey Littlejohn was published in the BRITISH MEDICAL JOURNAL of October 20th, 1901, taking exception to the view which had been expressed in a previous issue of the JOURNAL that the diagnosis of doubtful cases of small-pox is not one of the duties of the medical officer of health. Dr. Littlejohn subsequently wrote to express the opinion (1) that there are many duties performed daily by every efficient medical officer of health which are not specifically referred to in the Order, but which none the less are regarded by him as duties; (2) that the Local Government Board Order affords ample authority for treating the action in question as a duty required of him. In support of this he quoted the following paragraphs from the Order:

1. He shall inform himself as far as practicable respecting all influences affecting, or threatening to affect, injuriously the public health within the district.

2. He shall inquire into and ascertain by such means as are at his disposal the causes, origin, and distribution of disease within the district, and ascertain to what extent the same may have depended on conditions capable of removal or mitigation.

4. He shall be prepared to advise the sanitary authority on all matters affecting the health of the district . . . . . ; and, in cases requiring it, he shall certify for the guidance of the sanitary authority . . . . . as to any matter in respect of which the certificate of a medical officer of health or a medical practitioner is required as the basis or in aid of sanitary action.

5. On receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character within the district, he shall visit without delay the spot where the outbreak has occurred, and inquire into the causes and circumstances of such outbreak; and in case he is not satisfied that all due precautions are being taken, he shall advise the persons competent to act as to the measures which may appear to him to be required to prevent the extension of the disease. . . . . .

Dr. Littlejohn asked whether a medical officer of health who is requested by a medical practitioner to visit a doubtful case of small-pox in his district is conforming to the letter or to the spirit of the Order if he refuses to go and see the case: "Where a possible case of small-pox exists, and the medical officer of health is requested by a medical practitioner to come and assist him in the diagnosis, would the former, for example, be informing himself as far as practicable respect-

ing all influences affecting the public health within his district.' or could he be said 'to be ascertaining by such means as are at his disposal the causes of disease within his district.' By Section IV 'he must be prepared to advise the sanitary authority on all matters affecting the health of his district.' Is a case of suspected small-pox not such a matter? Or, again, can any reasonable man refuse to read into the context of Section VI the word 'suspected' before 'outbreak' under certain circumstances of which I take the danger of the spread of small-pox to be one?"

Dr. Littlejohn then refers to a case reported in the British Medical Journal of November 23rd, 1901, in which a practitioner was summoned for failing to notify a case of small-pox, which he had diagnosed as chicken-pox; the case was dismissed, but it of course caused much inconvenience and Dr. Littlejohn comments upon it as follows:—

"If the medical practitioner had asked for the friendly assistance of the M.O.H. in diagnosis, would it not have been the 'duty' of that officer to render the help requested? I think so, and in that case no charge of concealment could have been brought against the practitioner, while the sanitary authority would have had the immense advantage of early knowledge of possible danger, enabling it to adopt any precautionary measures deemed necessary in the public interest. Any responsibility thereby incurred as regards a claim for damages by the patient, a sanitary authority would naturally, and rightly, have to bear and I believe such a responsibility would not be shirked under the circumstances."

Dr. Littlejohn's criticism does not convince us that the statements in the leading article in the Journal of October 12th, 1901, p. 1096, and in the note to his letter in the Journal of October 26th, 1901, p. 1299, went beyond the facts of the position, but the word "duty" is being used with two connotations—a fruitful source of controversy where there is in fact no difference of opinion. We must observe further that in considering this question it will not do to look at the matter entirely from the point of view of large towns or urban districts with medical officers of health who give the whole of their time to the duties of their office.

In the article in the issue of the Journal for October 12th, p. 1097, reference was made to a correspondence between Dr. Roxburgh and the Medical Officer of Health of Marylebone; and we dissented from the view expressed by the former that the practitioner could claim that "it was the duty of a medical officer of health, if asked to do so, to assist in the diagnosis and take part of the responsibility of the results of diagnosis in all doubtful cases of infectious disorders." In the case in question the medical officer of health, although unable to see the doubtful patient, arranged for the visit of a medical man who had special experience of small-pox, while at the same time he pointed out that the diagnosis of cases was "no part of the duty of a medical officer of health."

The Opinion of the Local Government Board.

Since that date Dr. Roxburgh has addressed an inquiry to the Local Government Board, and in answer to it has been informed that "the responsibility for the diagnosis as regards the duty of notifying must rest with the practitioner in attendance on the case,"[1] but that cases not infrequently occur in which "for the due carrying out of the medical officer of health's prescribed duties under Sections I, II, IV, and VI of Act 18 of the Board's General Order of December 8th, 1891, a consultation between the medical officer of health and the medical practitioner in attendance is desirable. A personal examination of the patient, however, can only be made by the medical officer of health with the consent of the patient or that of the persons in charge of him." It is added that "the Board believe that medical officers of health are usually found willing to assist medical practitioners in the diagnosis of suspected cases of infectious disease where danger to the public health is threatened, and they are advised that much benefit is likely to result from such co-operation." It is stated further that a sanitary authority is empowered in such cases to call in and pay a reasonable fee for expert advice beyond that of their medical officer of health, when this is considered necessary.[2]

[1] *Lancet*, December 7th, 1901, p. 1603.

[2] The St. Pancras Borough Council has appointed special medical referees to see small-pox cases with practitioners who may be in doubt (see British Medical Journal, November 30th, 1901, p. 1613).

The letter from which we have extracted the above essential sentences appears to us to put the matter on a broad and statesmanlike basis. It confirms our former statement that under ordinary circumstances it is not part of the duty of a medical officer of health to relieve the medical practitioner of the responsibility of diagnosis and the compulsory notification which the law requires forthwith when the diagnosis has been made; and this appears to be the view taken by Dr. Sanders.

The Responsibility of Notifying.

Were it to be otherwise, were the onus of responsibility to be removed from the medical practitioner and placed upon the medical officer of health, the whole machinery of prevention of infectious diseases would need to be recast, and in the recasting the fees for notification would doubtless disappear along with the responsibility of notifying.

In regard to scarlet fever, diphtheria, and enteric fever, it is surely desirable that the onus should remain as at present chiefly upon the medical practitioner. The facilities given by an increasing number of local authorities for gratuitous bacteriological aid in the diagnosis of enteric fever and diphtheria are sufficient proof that in the most common infectious diseases there is a desire to aid the medical practitioner in his difficult work. Even in regard to these diseases the medical officer of health does well to help in really doubtful cases. It is, however, one thing to help in cases of difficulty and another for the practitioner to be able to "claim" this help in every instance as a routine practice.

It may readily be admitted that circumstances may arise, especially in connexion with small-pox and plague, in which the medical officer of health may only be able to fulfil completely his duties under Section I (informing himself of any influences threatening the health of his district), Section II (inquiring as to the causes of disease within his district), Section IV (advising the sanitary authority), and Section VI (visiting without delay the spot where the outbreak has occurred), by assisting the diagnosis either personally or by an efficient deputy. It does not strain the last section to make it apply to a suspected outbreak. But a cast-iron rule would probably prove unworkable.

In the main the problem hinges on the difficulties associated with the diagnosis of mild and aberrant forms of disease, and the view expressed by Dr. Newsholme in the following passage is worthy of consideration:

> The time is ripe, I think, for asking for the compulsory notification of all cases in which there is reasonable ground for suspecting the existence of an infectious disease.....The prevention of disease can never be effective and complete until such cases are brought to the attention of the medical officer of health, and until precautionary measures are required to be carried out as soon as suspicion is aroused, and prior to the certain diagnosis of the character of the illness.[3]

There is much to be said against as for the notification of doubtful cases. Unless judiciously administered the system might lead to reflections on the skill of certifying practitioners. Possibly the universality of the practice would quickly remove this objection; and the sooner the public are made to realize the difficulties connected with the early recognition of infectious diseases the better.

[3] *Practitioner*, Possible Medical Extensions of Public Health Work. By Newsholme. August, 1901, p. 1234.

IRISH POOR-LAW MEDICAL OFFICERS.

We are informed that at a meeting of the medical profession of the Fermoy district, held at Fermoy on January 11th, for the purpose of considering the present condition of the Poor-law medical service, the following resolutions, passed by the Co. Mayo Branch of the Irish Medical Association, at a meeting held on November 5th, 1901, were with some modifications unanimously adopted:—

That in view of the great hardship inflicted on Poor-law medical officers by the uncertainty that exists as regards pension when compelled to retire from active work through ill-health or age, this meeting calls on the Irish Medical Association to take the necessary steps to bring once more under the notice of the Government the urgent necessity that exists for an equitable scheme of superannuation

That in the opinion of this meeting every workhouse and dispensary medical officer should be entitled to one month's leave of absence annually. Substitute to be paid by the guardians.

That this meeting of medical men of Fermoy district, being impressed with the vital necessity for organization that exists, calls on the medical

men of the adjoining counties and of all Ireland to at once form strong county branches of the Irish Medical Association, so as to strengthen its demands for the above concessions.

That pending the granting of the reasonable concessions we seek, we call on the entire profession to adopt and unflinchingly adhere to the several proposals hereinafter specified:

(a) That henceforth no medical man shall apply for, or accept of any dispensary appointment at a smaller remuneration than £200 per annum, or workhouse appointmant under £120 per annum, unless both be held conjointly when the minimum salary should be £300 per annum.

(b) That no medical man shall henceforth under any circumstances apply or accept of any dispensary or other Poor-law appointment where the outgoing medical officer, if otherwise entitled to same, has without just cause been refused superannuation.

(c) That in the event of any position being taken, in violation and contrary to the foregoing regulations, no member of our Association shall recognise, do duty for, or meet in consultation the offender. Such an offence on the part of a member of our Association shall entail instant and ignominious expulsion.

(d) That the co-operation of the several licensing and teaching bodies, including hospital surgeons and physicians, be requested in support of the above programme and an earnest appeal made that at the close of each session each lecturer would kindly devote a lecture to explaining to his pupils the many disabilities of the Poor-law Medical Service, and that he would recommend them to shun the service unless superannuation, increased pay, and annual holiday be secured.

That it would be greatly in the interest of the Poor-law Medical Service for the Irish Medical Association to urge on the Local Government Board the adoption by them of the necessary measures to create a system of union promotion for medical officers whereby when a vacancy occurs within a union the existing officers of that union would be given a preference in the order of their seniority in the service of that particular union.

It was further resolved that the minimum fees for the discharge of temporary duty should be:

	£	s.	d.
For dispensaries	4	4	0
For workhouse	3	3	0
For both and combined	5	5	0

The fee shall be £2 2s. in all cases of consultation, night and day.

In the case of broken periods a guinea a day for dispensary and workhouse duties, and for both combined a guinea and a-half, provided that in the case of dispensaries no charge beyond £4 4s. a week, and in the case of workhouse £3 3s., and in both combined £5 5s. a week shall be made except where the peculiar position of circumstances of a district may render a higher scale of fees than the above necessary.

It was also resolved to forward a letter making a request for an increase of salary to the Fermoy Board of Guardians.

THE MORISON LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

THERAPEUTICS OF SENSORY AFFECTIONS OF THE HEART.

THE third and concluding Morison Lecture was given in the College on January 24th.

Historical.

In a short statement of the history of our knowledge and practice, Dr. GIBSON briefly passed over the early methods of Heberden and his immediate followers, which consisted in blood-letting, counter-irritation, stimulation, and the use of sedatives according to circumstances. He pointed out that Stokes had suggested the use of chloroform, and Strange that of chloral, and then described fully the researches of Lauder Brunton on the use of the nitrites. The observations of Balfour on the use of the iodides was fully discussed, and it was shown that Balfour attributed the benefit of these drugs to a reduction in blood pressure and a diminution in the frequency of pulsation. The work of Sée on the relative value of the iodides was then discussed, and the long series of clinical observations upon these drugs by Huchard received full attention. Fraser's belief that the iodides acted by the removal of noxious products was next discussed, and the recently expressed opinion of Stockman that the beneficial effect of the iodides was due to their stimulating the thyroid gland to increased activity, thereby supplying the blood with an adequate amount of thyroid secretion which had a power of averting senile changes, was brought forward.

General Principles of Treatment.

Passing on to the general principles of treatment the lecturer showed that the management of patients suffering from or threatened with angina pectoris naturally fell into the two divisions—alleviation of the symptoms of a paroxysm and prevention of their recurrence. In this connexion the actions and uses of vaso-dilators, of circulatory stimulants, of general anodynes, and of reflex agents received full attention. Under the second head the various measures calculated to obviate the recurrence of attacks was discussed as regards occupation, surroundings, diets, habits, rest, and exercise, as well as the selection of appropriate drugs for particular conditions.

Special Details of Management.

The concluding portion of the lecture was occupied by a consideration of the special details of management in different classes of disease, taking in the first place the organic types of the affection. It was shown that in the cases marked by the presence of arterio-sclerosis, attended by symptoms leading to the belief that myocardial degeneration was present, the iodides were of special utility, and a preference was shown for iodide of sodium as compared with the other iodides, in case that the metals in combination with the iodine in the other salts might have a depressing influence upon the heart. In cases marked by the features of simple cardiac dilatation without any appearance of degenerative changes the use of cardiac tonics was strongly insisted upon, while in all cases where there was a tendency to spasm of the arterioles the vaso-dilators were shown to have a valuable field of action. Turning to the toxic types of disease the lecturer pointed out that, beyond stimulating metabolic functions in every way, there was no means of removing the effects of such chemical poisons as alcohol, tea, and tobacco, but in the case of uric acid, colchicum and the alkalies exercised a wonderful influence. As regards the effects of such microbic poisons as were found in typhoid fever and influenza, rest and nervine tonics played an important part, while in post-malarial angina quinine and arsenic were of paramount importance. In all these cases strychnine was of especial use with or without cardiac tonics. Dealing in the last place with the neurotic types of angina, Dr. Gibson emphasized the necessity of discovering in such cases the presence of any reflex causes arising in connection with any of the viscera elsewhere, such as the stomach or kidney, and the employment of such measures as would remove the source of the reflex irritation; in instances due to the instability of the vasomotor mechanism, such as were not infrequently seen in connexion with Raynaud's disease, it was shown that the regulation of the functions of the skin by attention to baths and to clothing was of the first importance, along with the use of the vaso-dilators; in the neurasthenic and hysterical conditions the treatment was shown to consist in the employment of such means as were of proved efficiency in the treatment of such neurotic states. Special attention was given by the lecturer to some of the modern means of treatment, the use of baths and exercises in the treatment of the cardiac conditions underlying angina pectoris. These measures had often been employed in recent times in a fashion which he could not but regard as unscientific and unconscientious.

It was announced that the second series of the lectures for the biennial period 1901-2 would, if possible, be delivered before next Christmas, and would deal with the mitral disturbances of the heart.

THE PREVENTION OF CONSUMPTION.

NOTIFICATION.

THE Committee of the London Reform Union passed at its last meeting the following resolution:

That the Executive Committee of the London Reform Union, recognizing the important part which a system of voluntary notification must play in the war against consumption, which the people of this country under the leadership of the King have entered upon, and the success which has attended its adoption by many municipal authorities, earnestly urges those metropolitan borough councils where this method is not employed to introduce it at the earliest possible moment.

Already notification is in force in the City, Finsbury, Hampstead, Kensington, Southwark, Stoke Newington, and Woolwich. To emphasize this appeal a leaflet detailing the advantages of notification has been issued by the Union.

PROPOSED NOTIFICATION IN EDINBURGH.

The Public Health Committee of Edinburgh Town Council, at its meeting on February 4th, decided to recommend

the Council to hold a special meeting on February 12th to discussion the addition of consumption to the list of notifiable diseases.

Southampton.

A meeting was held in the Council Chamber, Audit House, Southampton, on January 23rd, to consider the desirability of forming a branch of the National Association for the Prevention of Consumption. The chair was taken by the Sheriff (Dr. Weston) in the unavoidable absence of the Mayor. The meeting was the outcome of a resolution passed by the Southampton Medical Society in November last, expressing the opinion that a local branch of the National Society should be formed. The Mayor of Winchester referred to the splendid work achieved by the branch formed twelve months ago in that city; and Dr. Wade and Major Firth, R.A.M.C., of Netley Royal Army Medical School, supported the proposal. A resolution in favour of establishing a Southampton branch of the National Association for the Prevention of Consumption was carried unanimously, and officers of the Branch were elected. Lord Montagu, of Beaulieu, was chosen as President of the Branch, and Drs. Wade and Lauder are the Honorary Secretaries.

Nottingham.

The Mayor presided at a public meeting at Mansfield on January 27th to consider what further steps should be taken by the inhabitants of the town to assist in the maintenance of the sanatorium for consumptives recently erected at Ratcher Hill, near Mansfield. The chairman said that the Town Council had voted a donation of £200 and an annual subscription of £32, thus entitling them to a bed for six months in the year. He thought, however, that the inhabitants might assist further, and in the result his opinion, after Dr. W. B. Ransom of Nottingham had spoken in its favour, was confirmed by a resolution to the effect that a subscription list should be opened. A committee was formed to give effect to this resolution, and promises of annual subscriptions amounting to £46 were received in the room.

The Ratcher Hill Sanatorium, which is open to receive patients this week, is a result of the efforts of the Nottingham and Notts Association for the Prevention of Consumption. Situated in a splendid site in Sherwood Forest, given for the purpose by the Duke of Portland, the sanatorium will accommodate twenty patients at present, and is capable of extension. It is surrounded by pine trees on a gentle slope facing south-east and it is well sheltered from cold winds. The building is constructed of wood on brick foundations, and is covered with corrugated iron; it is heated throughout on the low pressure hot water system, and is lighted by electricity. The cost of completing the sanatorium has been about £5,030, and it is estimated that the cost of maintenance will be about £75 per annum for each patient.

THE EPIDEMIC OF SMALL-POX.

Prevalence.

The continued increase of small-pox in London is shown in the following table giving the number of cases admitted into the hospitals of the Metropolitan Asylums Board during the last four weeks:

Week Ending	Admitted.	Under Treatment.
January 11th	306	876
January 18th	213	877
January 25th	204	870
February 1st	499	1,135

The total number under treatment at midnight on February 5th-6th was 1,175.

Compulsory Vaccination.

The Warwickshire County Council on January 28th adopted, on the recommendation of the Sanitary Committee, a resolution stating that in the opinion of the Council "primary vaccination should be made compulsory." A copy of the resolution has been forwarded to the Local Government Board, the County Councils Association, and all other county councils in England and Wales.

Proposed Inquiry on Vaccination Administration.

At a recent meeting of the Executive Committee of the Jenner Society it was resolved that, in view of the provisional character of the Vaccination Act of 1898 and of the unanimous recommendation of the Royal Commissioners on Vaccination that the existing State machinery for administering vaccination should be maintained on lines which, up to a certain point, were followed in that Act, it is desirable, as a preliminary to the further legislation which must be adopted next year in fulfilment of the promise made by the Government in regard to revaccination and in consequence of the termination of the experimental period for which the Act was passed, that a comprehensive and careful inquiry should be made into the working of the administrative machinery by which vaccination is promoted as well as the results of the Act itself.

LITERARY NOTES.

The title of "Professor" has been conferred on Dr. Julius Schwalbe, one of the editors of the *Deutsche medicinische Wochenschrift*.

Lieutenant-Colonel L. A. Waddell, I.M.S., is engaged in the preparation of a new edition of Lyon's *Medical Jurisprudence* for India. It will be published by Messrs. Thacker, Spink, and Co., of Calcutta, in a few months.

Professor Devoto, of Pavia, has undertaken the direction of a journal entitled *Il Lavoro*, which will deal with all medical and hygienic questions having a bearing on professions and industries. The new journal will fill a gap in the medical journalism of Italy.

Last week we gave extracts from a poem by Dr. James W. Smith, of Ryton-on-Tyne, on the country doctor of the Border. Some of our readers may be glad to have an opportunity of comparing that picture with one of the Canadian country doctor, given by Dr. William Henry Drummond in his recently-published volume entitled *Johnnie Courtau and Other Poems* (G. P. Putnam's Sons). Dr. Drummond, who won fame on both sides of the Atlantic by his *Habitant*, is doubly a son of Apollo, for he is a physician as well as a poet. He therefore writes of the doctor with knowledge. The poem begins:

I s'pose mos' ev'ry body t'ink hees job's about de hardes',
From de boss man on de Gouverneiment to poor man on de town;
From de curé to de lawyer, an' de farmer to de school boy;
An' all de noder feller was mak' de worl' go roun'.

But dere's wan man got hees han' full t'roo ev'ry kin' of wedder,
An' he's never sure of not'ing but work an' work away:
Dat's de man dey call de doctor, w'en you ketch heem on de contree,
An' he's only man I know me, don't got no holiday.

If you see the doctor driving about in his "buggey" in the summer you may be tempted to think that "contree doctor mus' be very pleasant t'ing." There is another side to the picture, however, which the poet proceeds to show:

But it isn't alway summer on de contree, an' de doctor
He could tole you many story of de storm dat de's been in;
How hees coonskin coat come handy, w'en de win' blow off de reever,
For if she's sam' ole reever, she's not alway sam' old win'.

O! le bon Dieu help de doctor w'en de message come to call heem
From hees warm bed on de night-tam for visit some pore man
Lyin' sick across he hillside on noder side de reever
An' he hear de mountain roarin' lak de beeg Shawinigan.

Ah! well he know de warning but he can't stay till de morning,
So he' hitchin' up hees leetle horse an' put heem on burleau;
Den w'en he's feex de buffalo, an' wissle to hees pony,
Away t'roo storm an' hurricane de contree doctor go.

The poet sings the praise of the Canadian pony:

O! de small Canadian pony! dat's de horse can walk de snowdreef,
Dat's de horse can lin' de road too he's never been before
Kip your heart up leetle feller, for dere's many mile before you,
An' it's purty hard job teilin' w'en you see your stable door.

The doctor can, if he has time, tell you "all about de bird was singin' before de summer lef'," but he says nothing of his own heroism in his daily round of work:

But about de way he travel t'roo de stormy night [illegible]
W'en de rain come on de spring flood, an' de [illegible] wash away;
All de hard work, all de danger that was offe[illegible] in' heem
Dat's de tam our contree doctor don't have very moche to say.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—A meeting of this District will be held in the Board room of the Hampstead Hospital, Parliament Hill, N.W., on Wednesday, February 12th, at 4.30 P.M. Dr. Hooper May will preside. Dr. Murray Leslie will read a paper on Some Difficulties in the Diagnosis of Chest Diseases, with allusion to Illustrative Cases. The medical and surgical staff of the Hospital will show interesting cases in the wards. The District Committee will meet at 4.15 P.M.—J. DYSART MCCAW, M.D., Coolard Lodge, East Finchley, Honorary Secretary.

EDINBURGH (LOTHIANS AND FIFE) BRANCH.—The winter meeting of this Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, February 21st. The Museum will be open from 3 P.M. onwards. Clinical meeting in the large theatre at 3.30 P.M. Dinner in the Royal British Hotel at 6.30 P.M.; morning dress; dinner ticket 5s. Members of the Branch desirous of exhibiting patients, pathological specimens, etc., and members of other Branches who propose to attend the meeting are requested to communicate with JAMES HOBSDON, F.R.C.S.Edin., 6, Chester Street, Edinburgh, or NORMAN WALKER, M.D., 7, Manor Place, Edinburgh, not later than February 8th.

PERTHSHIRE BRANCH.—A clinical meeting of this Branch will be held at the Infirmary, Perth, on Friday, February 14th, at 4 P.M. Business:—Minutes. Election of member—Dr. D. M. M'Donald, Dunkeld (Branch). Dr. E. [illegible] Two cases of Torsion of the Caecum and one of Rupture of the Bladder. Dr. Urquhart and Dr. Thomson: A case of Rupture of the Heart. Dr. Lyell: Palpation of the Pregnant Uterus. Adjourned discussion on Gastric Ulcer and Sanitary Law. Dr. Ferguson Finsen Lamp.—A. R. URQUHART, W. A. TAYLOR, Perth, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—It is proposed to hold a meeting of this Branch in Liverpool early in March. Members who desire to read papers, being [illegible] to propose new members for election, are requested to communicate [illegible] possible with the Honorary Secretaries, J. ARTHUR E[illegible], M.D., St. Peter's Square, Manchester.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE eighty-first quarterly meeting of this Branch was held at Sandown on January 24th, Dr. COWPER, President, in the chair. Thirteen members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of President-elect.—Dr. Hollis, of Freshwater, was elected President-elect for the coming year.

New Members.—Two new members were elected to the District.

Communications.—Dr. GREEN read notes on a case of ruptured tubal pregnancy, with operation and recovery. Dr. Ross showed a case of pulmonary tuberculosis where rapid and marked improvement both in symptoms and signs followed an attack of pleurisy with effusion. A discussion followed on the subject of the isolation of small-pox patients in the event of any outbreak occurring.

Next Meeting.—It was decided to hold the next meeting at the Station Hotel, Sandown.

BATH AND BRISTOL BRANCH.

A MEETING of this Branch was held on January 29th, Dr. G. C. TAYLER, President, in the chair. Forty members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The following gentlemen were elected: C. F. Laing, M.B., C.M., Medical Superintendent, Wells County Asylum; W. Barrett Roué, M.D., Clifton.

Communications.—Dr. G. PARKER showed a case of leukaemia complicated with pulmonary phthisis in a man, aged 34. The illness began in May, 1899, after an injury to the left side. Seven years ago he had an affection of the vocal cords. The white corpuscles reached the number of 640,000 to the cm. with a large number of myelocytes, or one white to three red. He remarked on the rarity of tuberculosis as a complication of leukaemia and discussed the effect of tuberculosis on various blood diseases. Drs. WATSON WILLIAMS, MICHELL CLARKE, and MARKHAM SKERRITT discussed the case.—Dr. ELWIN HARRIS showed a patient, aged 23, suffering from interstitial keratitis, swelling of left knee joint, perforation of nasal septum, aphonia and emaciation due to hereditary syphilis, with an unusually long period of latency. Drs. HARRISON, WALDO, STACK, CAVE, FISHER, and Messrs. OGILVY and EWENS discussed the case.

Contract Medical Practice.—Dr. A. B. MCKEE read a paper entitled contract practice, the evil and its remedy, which is published at page 330. The rest of the evening was taken up by the discussion which followed this paper, in which the PRESIDENT, Drs. MARKHAM SKERRITT, COTTON, HARRISON, MICHELL CLARKE, FISHER, Messrs. CARTER, EWENS, and BREW took part; and Dr. MCKEE replied.

SPECIAL CORRESPONDENCE.

BERLIN.

Christian Science.—Charges against Hospitals.—Professor Virchow.

Die Dummen werden nicht alle (Fools never die out) is a German saying which rises to one's lips as one reads or hears of the faith-healing meetings on Mrs. Eddy's system which is the rage just now in fashionable Potsdam and Berlin society. At the last meeting of the Berlin City Council a storm broke out at the intelligence that the lecture-hall of one of the higher municipal schools had been placed at the disposal of Eddy disciples and their "patients," and that faith-healing *séances* were regularly held there. It is needless to add that this abuse at last has been peremptorily stopped.

Herr Autrick, a Social-Democratic member of the German Reichstag, every year during the debate on the Budget, brings forward violent indictments against the public hospitals of Berlin and the provinces. Last year his attacks on the Moabit Hospital (Berlin) were disproved by competent authorities: this year his alleged "disclosures" embraced a number of large provincial and Berlin institutes, their basis being chiefly complaints from patients. That these complaints contain a grain of truth no sensible person will doubt. Hospital nursing is arduous work, and even in the best-managed institutions there must be occasional ill temper, weariness, even carelessness here and there. Speaking generally, the great Berlin hospitals are remarkable for scrupulous cleanliness and attentive nursing. Of all Herr Autrick's accusations only two remain as well founded, namely, the numerical insufficiency of hospital beds in Berlin and the late outbreak of gonorrhoea in the Elizabeth Children's Hospital. Serious matters both, no doubt, and it is right that public attention should be drawn to them, but not in the way that Herr Autrick affects—with torrents of abusive epithets and exaggerated indignation.

Professor Virchow's recovery is likely to prove very slow.

He has given notice that he will not resume lecturing during the present half year, and that Professor Oskar Israel, his senior assistant, will lecture in his stead.

LIVERPOOL.

The Proposed University for Liverpool: Influential Town's Meeting: Speech by Sir W. M. Banks: Expected Aid from the City Council: £80,000 already Secured.

The scheme for the establishment of a university for Liverpool was officially made public at a town's meeting convened by the Lord Mayor, and held in the Council Chamber in the Town Hall on January 27th. The attendance was large and representative of all interests and classes in the city, and the proceedings were absolutely unanimous.

The Lord Mayor, in the course of his remarks, said that the history of University College, which was established in 1881, showed steady progress. To day there were something like 700 students of the arts and sciences at the College, and there were about 1,100 more students taking advantage of the day and evening classes held in connection with the College. The capital invested in the buildings, land, and endowments was something like £500,000, so that these few figures alone afforded them some idea of the magnitude and character of the work carried on at that great educational establishment. The citizens of Liverpool felt that the day was not far distant when the College should be converted into an independent university. They had no quarrel whatever with their other two partners in the Victoria University; but they felt that Liverpool was a large city, and was situated in a very populous district, and that, looking at other large cities on the Continent of Europe and on the Continent of America, where cities of less importance than Liverpool had their own independent university, they felt that in a great commercial port like Liverpool it was their duty to develop the educational system. He was pleased to think that the City Council of Liverpool had, by a unanimous vote, passed a clause in a Bill asking for Parliamentary powers to aid the establishment of a university in Liverpool. In the districts around and about Liverpool—in south-west Lancashire and part of Cheshire—they should appeal with a good deal of confidence for some aid, and neighbouring municipalities—such as Bootle, Birkenhead, St. Helens, and Southport—ought all to come forward and give something towards the establishment of this university, for their people would derive as much benefit from an institution of that kind as would Liverpool itself.

Lord Derby proposed the following resolution:

That in the interests of higher education, and in order to extend and more effectually carry out the objects for which University College, Liverpool, was founded, it is desirable to establish a university within the city of Liverpool for the advancement of knowledge and for the diffusion and extension of arts, sciences, and learning, and to transfer to such university the powers and property of the College, and that public subscriptions be invited to a fund to be raised for the above purpose, and to be applied and administered by a committee.

He dwelt upon the warmth and enthusiasm with which the citizens had taken up the proposal for a university, and described the remarkable progress which University College had made during the twenty years it had been in existence. It now had a staff of 26 professors and more than 60 lecturers and teachers. The time had come when the authorities of Liverpool University College thought that the work done by the College entitled it to the privilege of an independent university. Perhaps they should not have separated from Victoria University so soon but for the example set in the city of Birmingham.

The Bishop of Liverpool, in seconding the resolution, said it was sometimes thought that the older universities would regard with something like dissatisfaction and jealousy these modern universities. He ventured to think that they would do nothing of the kind, and if some among the authorities of these old universities had secret misgivings that the multiplication of universities might not in the long run be for the best interests of education, he could only advise them to live in Liverpool for eighteen months, as he had done, and he was sure that they would quickly change their minds.

Sir William Mitchell Banks, in speaking to the resolution, could not but remember that some twenty-eight years ago he was present at a meeting convened by the Mayor of the day, at which the advisability of having a college for Liverpool was discussed. He had now the delightful pleasure of having been able to watch the growth of that College, and to see that afternoon the determination of many of the citizens to make that College into a university. He said that for two centuries or more the peoples of the Continent were torn and ravaged by warfare. During that time we sat in peace in this sea-girt isle, defended by our ships and sailors, and, while money poured in upon us, we made and mended for the whole world. Alas! there was, perhaps, such a thing as too great prosperity; and there could be little doubt that England had for a long time fallen asleep, and her old men had become luxurious and her young men too much given to sport and games, and neglectful of the business of life. He was glad to think there was a change beginning, and, if they asked him his opinion as to all the spurious hatred of Continental peoples for us lately expressed, his belief was that they had discovered that our craftsmen were again awake—*hinc illae lachrymae!* The universities had also had their period of slumber, having for generations been given up to Greek and port wine. Now the breath of life had been breathed into the nostrils of the universities. The universities were improving themselves, and they would ever be among the traditional glories of our land. But the great universities did not supply the education of the country, because they remained the abodes of those who could afford an expensive education. They in Liverpool had modelled themselves upon the plans on which were formed the German and Scottish universities, and he hoped that would be carried out to the full, because it included the education, not only of the wealthy, but of the poor and humble. He could well remember the objections made twenty-one years ago in regard to the proposal for a college for Liverpool. It was said that they would cheapen education, that they would be a superior kind of high school, and that Victoria University would lower degrees and the standard of education. Had one of these things happened? The very opposite was the case. When he had the honour of being one of those who helped to make the constitution of Victoria University as regarded its examinations, nothing gave him more delight than to see the universal desire that the examinations and the education for them should be of the highest type. It was just thirty years ago since, as the youngest lecturer at the old Royal Infirmary School of Medicine, he was called upon to give an introductory address. They were commencing a begging campaign for what was then considered a very great sum—£6,000. What did we now think of £6,000, or even £60,000, for such a purpose? When a college was proposed for Liverpool there were those who said, "What have we to do with these things—we are cotton brokers?" They could now imagine the pleasure he felt at the change which had taken place. Man did not live by money alone, and by what science brought him in the shape of money. There was a better side to man's nature. The men of Liverpool had said they desired a university, and whether it came this year, or next, or the year following, that university they would have.

The other speakers to the resolution were Principal Dale and Mr. E. K. Muspratt, and it was carried unanimously.

It was then proposed by Sir William Forwood, and seconded by the Rev. John Watson (Ian Maclaren), and carried unanimously:

That a committee be appointed for the purpose of carrying the above resolution into effect and of taking all such steps as they may consider desirable for the purpose, and particularly that the committee be empowered to pay over the balance of the fund (after deducting any expenditure incurred by them) to the university, when created, and in the meantime to apply so much thereof as they may think fit, either directly or through the college authorities, in providing such additional endowments, buildings, and equipment at the college, and for such other purposes as they may consider advisable in view of the contemplated establishment of a university and the transfer to such university of the powers and property of the college.

The Committee is composed of about 250, including the most influential names in the City and the neighbourhood. About £80,000 have already been raised for the purposes of the new University.

SOUTH WALES.

Outbreak of Small-pox at Swansea.—Spread of the Disease in South Wales.—Jubilee of Dr. W. T. Edwards, of Cardiff.—Newport Hospital.

Originally confined to Ystalyfera, near Swansea, small-pox shows signs of extending over South Wales. Considerable precautions had been taken to prevent the spread of the disease to Swansea, but on January 29th, three cases were discovered in one of the most densely populated parts of the town. It is not quite clear whether these cases are to be traced to the Ystalyfera outbreak or as stated in some quarters are due to direct infection from London. The first victim—a painter—who was removed to the Swansea Fever Hospital, died on February 2nd. Up to February 3rd, three additional cases have been notified, making six cases in Swansea. The visiting of cases at the Swansea Fever Hospital has been suspended. As strongly advocated by the medical officer to the Swansea School Board, the Board has decided to send circulars to the teachers pointing out the main features of the disease and asking them to be on the look-out for it among their children. At a meeting of the Swansea Sanitary Committee on January 30th, it was decided to make application to the Local Government Board to place chicken-pox temporarily on the list of notifiable diseases owing to the mistakes frequently made between the two diseases. Owing to the very large numbers of people now wishing to be vaccinated in Swansea, and the impossibility of coping with it under present conditions, vaccination stations will be opened at suitable hours in different parts of the town.

At Ystalyfera fresh cases are still being notified, 1 on January 29th and 3 on January 30th, making 14 cases in all. At Merthyr, small-pox has also developed. Two cases have been reported. The first case (a collier) was notified on January 27th. In both cases the infection is assumed to have been contracted in London, as both patients had been to London (independently) by excursion to see the international football match—Wales *v.* England—at Blackheath, subsequently sleeping a night or two in London. Whether the infection took place at a football match or subsequently it is, of course, impossible to say, but it is certainly possible, and throws a sidelight on the wisdom of these large gatherings at a time when small-pox is so prevalent. The possible results of the huge gathering at Cardiff on February 1st for the international football match—Wales *v.* Scotland—which included a good many visitors from Swansea and Merthyr, will be watched with anxious interest by those responsible for the public health in Cardiff and South Wales.

A pleasant function took place on January 31st at Cardiff, when a dinner was held in honour of Dr. W. T. Edwards to celebrate the jubilee of his connection with the Cardiff Infirmary, and the diamond jubilee of his residence in Cardiff. The banquet was given by the medical men of the town and district, and about sixty attended. Dr. Edwards, after a distinguished student career, settled in Cardiff in 1844. The population then numbered 10,000 and now is over 165,000. Intimately associated with the infirmary as surgeon, physician, and consulting physician, many years president of the Cardiff Medical Society, and one of the original supporters of the University College, of which he is now a vice-president. Dr. Edwards has held a prominent position in Cardiff for many years. In 1885, when the British Medical Association visited Cardiff, he filled the office of President of the Association.

At the annual meeting of subscribers to the Newport Hospital, presided over by Lord Tredegar, it was stated that four wards of the new buildings opened in August last were now open. An increase of in-patients and out-patients had taken place during the year. The working income for the year was £3,525, and the expenditure £165 in excess. An anonymous gift of £3,050 had been received. More funds were still required, and two wards remained unopened for want of money.

Bequest. In accordance with the will of the late Mr. Robert Webb Watkins, F.R.C.S., of Towcester, his executors have paid a legacy of £100, duty free, to the British Medical Benevolent Fund.

CORRESPONDENCE.

THE HEADQUARTERS STAFF OF THE ARMY MEDICAL SERVICE.

Sir,—One of the most urgent questions in the Army Medical Service is to try and secure for it an efficient headquarters staff. The following officials are, I consider, needed if such an aim is to be secured.

1. *Director-General, Army Medical Service*, that is to say, the Surgeon-General of the Army responsible as now for all the whole medical service.

2. *His Private Secretary and Aide-de-Camp.*—An officer of the R.A.M.C. attached as a personal staff officer to the Director-General Army Medical Service in the same way that an A.D.C. is allowed to the Inspector-General of Fortifications. Very essential, and asked for by all officers of the R.A.M.C.

3. *Intelligence Officers.*—At least two of our ablest men should be attached to the office of the Director-General Army Medical Service as "intelligence officers." There are eighteen such officers for army intelligence and two are requisite for the medical service. A former head of the Army Intelligence Department assured me that he felt the want of medical representatives very much. The absence of such officers has always been the great want of the Director-General's office.

4. *An Inspector-General of Hospitals.*—An officer with this title is needed to be unceasingly on the move through the three kingdoms and the Mediterranean and Egyptian stations, inspecting hospitals, and advising as an authority in all hospital matters. Hurried visits by the Director-General Army Medical Service are of little use, as he has not the time to make a thorough inspection, and unless such inspections be thorough and educative in their character they are of little use.

5. *An Assistant Military Secretary.*—An officer with this title is needed to hold the personal documents of all medical officers, and to deal with promotions, nominations for appointments, and also technical education and examination questions in the R.A.M.C. He should be at least a Colonel R.A.M.C., and be one of our most trusted men. The above five officers constitute the Director-General's immediate and special *entourage*, and I cannot see how he can do efficient work without such a staff.

Quite separate from the above group come another important series of officials.

6. *The Deputy Director-General.*—This official has grown up in a haphazard and irregular way from the head of the medical branch of the office, as remodelled by Sidney Herbert in 1858. He has been a kind of "jack of all trades"—a factotum dealing with a mass of questions, all needing special knowledge; and in addition, and most wrongly, he is a permanent member of the Medical Board on sick and wounded officers, an exhausting duty from which he should be at once relieved. He also in the past set the papers for examination of officers of the R.A.M.C. in military administration, law and hospital organisation, a matter entirely for specialists in these vital matters. His real duty is to co-ordinate the opinions and decisions of the various departmental staff officers I now proceed to name, and act as Deputy in the Director-General's absence.

7. *Assistant Adjutant-General and Deputy Assistant Adjutant-General of R.A.M.C., with its Militia, Volunteers, and all classes of Reserves or Civil Contingents for War Work.* An officer of colonel's rank is much needed, with a senior officer as his assistant to deal with these matters, and either he himself or the junior member should be specially in touch with the Volunteer Medical Services and all Reserves. The whole medical service cries aloud for more senior officers for these and many other of the headquarter appointments.

8. *Director of the Medical Branch of the Office and his Assistant.* To deal with purely medical professional matters, tropical disease, medical records, vaccination, medical attendance. To preside at medical Boards, invaliding, and to be a specialist physician at headquarters. A much-needed official.

9. *Director of the Surgical Branch of the Office and his Assistant.*—Similar to above, but dealing with surgery, venereal disease, ophthalmology, recruiting, the presidency of invalid-

ing Boards on surgical cases, and to be surgical specialist at headquarters, and to keep touch with surgical progress throughout England.

10. *Director of Hospital Administration and Organization in Peace and War, with Assistant.*—The "one thing needful" above all others in the medical headquarter office is a skilled specialist in the organization of all military hospitals, *personnel*, fabric, stores, administration, field organizations, bearer companies, field hospitals, stationary hospitals, general hospitals, hospital ships, diets, stoppages, equipment, stores; in fact all the details in which we still are very babies in knowledge. No officer below the rank of brigade-surgeon is needed in this branch, nor would be in any other headquarter office.

11. *Directors of Stores and Equipment.*—Two officers needed in this branch, the germ of a medical store department. Who can deny the need of these specialized officers?

12. *Directors of Sanitation and Statistics.*—Last, but of primary importance, come these officers. The former "statistical officer" was abolished in Mr. Childers's régime in 1881, and resulted in a real blow to the efficiency of that branch office. Let us now replace this official, and let him have an assistant.

With a staff as above it may be possible to control and organize an important service like the medical service of the army. I cannot see how the "efficiency" for which Lord Rosebery and all of us ask can be achieved with less.

The Intelligence Army Head Quarter Staff number 18 officers; the Engineer Head Quarter Staff are some 17 officers; the Ordnance and Ordnance Committee Staff are nearly the same: how then can five officers, often very young men indeed, attempt to deal with medical service matters efficiently, and be as they ought to be—a final court of appeal in all matters of justice, scientific efficiency, and all that goes towards readiness for duty in peace or war?

By recruiting these officers mainly from officers who had learned their work in the District or Army Corps Medical Staff some certainty might be assured as to efficiency and previous knowledge of the work they undertake.—I am, etc.,

January 23rd. I. V. R. C.

THE REGISTRATION OF NURSES.

Sir,—For many years past much space in your correspondence column has been monopolized by a small band of writers who have laboured with wearisome reiteration to support one or other of two untenable propositions. One is that the interest of the public and the profession alike require that midwives should continue to pursue unqualified and uncontrolled the practice of midwifery; the other, that the Legislature should be invoked to enact that the confinements of the women of this country should be conducted only by duly-qualified and registered medical practitioners. It may fairly be said that the bulk of the correspondence with which you have been favoured on the midwives question has been virtually in support of one of these two propositions. The result has been that your readers have been bored to extinction; that such of the arguments as have been noticed outside have greatly lowered the reputation of the profession for political foresight: and, worst of all, that the inevitable settlement of this simple question has been allowed to pass into lay hands.

The artificial prominence to which this question has been foisted in medical politics is the main reason for the abstention of two-thirds of the profession from the recent election of direct representatives. As long as candidates make this minor matter the chief plank in their programmes so long will the silent thinking workers of the profession have nothing to do with the election, and lift not a finger either for or against the men who are drawn away from the crying needs of the profession, consolidation, organisation, and means of discipline by such a red herring.

I venture to urge that not merely midwives, but the whole body of nurses, should be both qualified and registered by a properly constituted statutory authority. While all medical men bear willing tribute to the ability, faithful service, and zeal of the nursing body as a whole, there are few who do not see, every year of their lives, evidence of incapacity, officiousness and even cruelty, displayed by unfit members of the nursing profession, and who do not frequently have cause to regret that there exists no machinery for the correction of ignorant, and the punishment of wilful, offenders.

Let me give two typical instances which occurred to me in the same week not long ago. In the one case I entrusted a delicate girl to the case of a masseuse obtained from a well known institution. I directed her to give stated amounts of massage and sea water douches to the patient. The mother informed me next day that the nurse had scoffed at my treatment and told her that both were done merely *pour passer le temps*. I took the nurse to the bedside and directed her to show her method of massage and saw at once that she had only the most cursory acquaintance with the art. In the second case, a nurse in an elaborately frilled and starched costume, took the occasion of the crisis in a bad case of appendicitis which had been submitted to operation, to quarrel with her two colleagues on some ridiculous point of precedence, and to refuse them admittance to the patient's room. In both these cases my only remedy was to dismiss the offenders on the spot. No doubt they both continue active members of the profession.

It is unnecessary to multiply instances; not one of us but has suffered similarly, and most are conscious of the frequent danger they are in from the disparaging criticism of our irresponsible subordinates.

A glaring example of the ease with which untrained and undesirable women become nurses and gain entrance to nursing institutions was brought to light on the conviction of a nurse at the last Suffolk Assizes. It was shown in evidence that she obtained admittance into the Trained Nurses Institution, Leeds, in August, 1895, by means of fabricated testimonials. In the same month she was sent to Guy's Hospital by the institution for training, and dismissed for inferior work and light conduct in the following September. In January, 1896, she was appointed second assistant nurse at the Eastern Fever Hospital under an assumed name, and left in March of the same year. After various escapades she was appointed first assistant nurse at the North-Western Hospital in November, 1898, and dismissed in January, 1899, for falsely asserting that she had not been engaged at the Eastern Hospital. A series of immoral episodes occupied her time until 1901, when, without any training whatever, she reappears in the nursing world on the staff of a provincial nursing home. It is but fair to say in extenuation that she was described by her counsel at the trial as "one of the most beautiful and divine women ever created." It was while in the employ of that institution that she committed the crime for which she was convicted and sentenced to fifteen months' imprisonment.

I am informed that some of the surgical homes with which the West End is pervaded recruit their staff among untrained women, and these acquire their training at the expense of patients paying for the highest possible skill, and under the care of the first surgeons in London. I have known a case in which a large cystic thyroid had been removed in one of these institutions, left the night of the operation entirely to herself, helpless and prostrate.

For the purpose of this argument mankind in this country may be divided into three categories: doctors, patients, and nurses. In the interests of all three classes it is high time to unite into a disciplined army the irregular forces of the nursing profession. It is in no hostile spirit that I urge this plea. I yield to no one in admiration of the excellent spirit, high character, and devotion to duty, of the great majority of the members of this indispensable and exalted calling.

Among nurses themselves I believe the feeling is strong. I am convinced they would welcome any centripetal forces which would weld these disorganized units into an organized body. These forces could be exercised by no one so fitly as our Association. A Bill constituting a general nursing authority composed of representatives of the medical and nursing professions and the laity, having powers for directing the education, qualification, and registration of nurses, including midwives, would, I believe, be approved by the great majority of members. By classing midwives with nurses under one common authority "the inferior order of practitioners" argument would lose whatever force it possesses. It might be found desirable to divide nurses into two classes, trained and untrained, in the same manner as teachers in

elementary schools are classed according as they are certificated or not.—I am, etc.,

Felixstowe, Jan. 29th. C. G. HAVELL.

AMENDMENT OF LUNACY LAWS.

SIR,—As a Bill will be before Parliament this session, and I believe a Government one, to amend the Lunacy Acts, it seems to me very desirable that it should deal with some of the grave practical defects of the present law.

I would instance one in particular. Under Section XX of the Act of 1890, a relieving officer may remove a pauper lunatic to the workhouse, but he is required within three days to have him seen by a magistrate, who may authorize his further detention in the workhouse for fourteen days. This is the usual procedure, and in most cases a magistrate visits the pauper at the workhouse, and signs the detention order. In some cases, however, the magistrate refuses to attend unless, and until, a vacancy has been found in some asylum for the pauper, and in that case the medical officer of the workhouse is practically compelled to keep on signing detention orders, or certificates which have the same force, till such a vacancy is found. This was never the intention of the Act, and indeed the Commissioners in Lunacy have advised that workhouse medical officers should never give more than one such certificate in the same case. The magistrates seem to have very good authority for refusing to act under the above circumstances, for an official opinion has been given by the law officers of the Crown that they are not obliged to do so. The result is that one of His Majesty's subjects may be kept in durance as a lunatic merely on the certificate of a medical practitioner for an indefinite time without coming under the notice of any judicial authority. One of the chief objects of the latest lunacy legislation was to prevent such a contingency.

A further injustice is done to the workhouse medical officer. If the magistrate attends to sign a detention order, he must take the evidence of the medical officer, who then is paid a fee; but the latter is paid nothing for giving the ordinary detention certificate. Again, the giving of this certificate was meant to be entirely at the discretion of the medical officer, which for obvious reasons it ought to be. I know of an instance where that officer refused to sign one, when the magistrate did not attend, after due notice had been given by the relieving officer. The lunatic was discharged, and there was near being a public scandal. This medical officer's Board then ordered him in future to give the certificate, intimating that they considered it part of his duties *qua* medical officer. Clearly, this ought not to be, but I believe the Bill about to be introduced makes no attempt to deal with this difficulty.—I am, etc.,

MAJOR GREENWOOD, M.D.,
Honorary Secretary Poor-law Medical Officers' Association of England and Wales.

Copthall Avenue, E.C., Feb. 1st.

THE "FOURTH DISEASE."

SIR,—Having had actual experience of a series of cases apparently clinically identical with the cases of "fourth disease" as described by Dr. Clement Dukes, I have naturally been interested in the correspondence on the subject, and also I must admit not a little surprised at some of it. The subject is a very difficult one, but though brought forward by such an authority as Dr. Clement Dukes, and supported by the experience of Sir William Broadbent,[1] some of your correspondents have apparently settled to their own satisfaction that there is no such thing as "fourth disease." Dr. Killick Millard's contribution to the subject[2] is to me particularly surprising, as while admitting that he has had no personal experience of such cases, he informs us that he pointed out to us all soon after Dr. Clement Dukes's first communication on the subject appeared, that in his opinion there was no such disease as "fourth disease," and now when Dr. Dukes returns to the subject he (Dr. Millard) first finds fault with the meagre clinical facts given by Dr. Dukes, and then forthwith on those facts, meagre though he says they are, diagnoses all Dr. Dukes's cases for him without any hesitation as rubella or scarlet fever, and not "fourth disease."

[1] *Lancet*, July 28th, 1900.
[2] BRITISH MEDICAL JOURNAL, December [illegible].

But leaving on one side the controversal side of the question, my own cases consisted of 14, or, leaving out one doubtful case, 13 cases which occurred in 1900 and 1901 in the Southport Borough Infectious Diseases Hospital. Of these 13 cases, 7 were diagnosed as scarlet fever by medical practitioners in the town, and sent into hospital in such. They all there developed scarlet fever, after having apparently recovered from the complaint from which they were suffering when admitted. The remaining 6 were cases which were admitted into the hospital as scarlet fever, and, when convalescent from that disease, developed "fourth disease," the infection having been caught no doubt from some of the other cases of "fourth disease" already referred to as having been inadvertently admitted into the wards among the scarlet fever cases.

It is impossible here to record all the clinical facts of these cases, but they have been already fully reported. The first 9 cases—all the cases of which I had had experience up to that time—were reported by me to the Southport Medical Society in April, 1901, and afterwards published in the *Dublin Journal of Medical Science* (June, 1901). In July, 1901, I read a paper on the subject at the Eastbourne Congress of Public Health, including additional cases, and this paper has since been reproduced, with temperature charts of all the cases, both in the *Journal of State Medicine* (November, 1901), and in *Public Health* (December, 1901).

Briefly, the symptoms of a well-marked case of "fourth disease" as seen by me have been those of a mild attack of scarlet fever, with the difference that in "fourth disease" the rash (identical in other respects with the rash of scarlet fever) is out of proportion in intensity and extent to the other symptoms, so that with a profuse bright rash you have only slight rise of temperature, not above about 100°, some soreness and redness of throat, tongue not typical of scarlet fever, little or no feeling of illness by patients, and no loss of appetite. All the spmptoms, including the rash, disappear rapidly, in many cases in twenty four or forty-eight hours time.

Such may be taken as a description of a typical case, but with slight variations from this type the difficulties of diagnosing the cases begin. I believe now that it is quite impossible to distinguish in the early stages some of these cases of "fourth disease" from mild scarlet fever, and in such cases it is only by after-results, where they occur, that they are to be distinguished.

The following quite recent case may be taken as a sample for diagnosis. A boy, aged 4 years, was admitted into hospital on the notification of a medical practitioner as a case of scarlet fever. On admission there was no rash remaining, no rise of temperature, or quickness of pulse, and the tongue was not typical of scarlet fever. Within a fortnight after admission this child developed a second slight rash and other symptoms of apparently a mild attack of scarlet fever. In neither the first nor second attacks was there the typical tongue of scarlet fever, but in a week after the second attack there was enlargement of the cervical glands, in another week free nasal discharge, and in six weeks time slight peeling of hands. Now I ask, What was the first attack? The curious part of the case follows. A few weeks after the above case had been in hospital (and in the meanwhile I had had no communication with the practitioner who sent it in) I received a note from him asking me to see a second case at the same house from which the first case had come, as he did not feel quite certain about the diagnosis. On my visit I found a boy about 10 or 12 years of age with a copious scarlatina-like rash all over his body and legs, back and front, but with only slight sore throat and practically no rise of temperature, and no feeling of illness, etc. I ventured to diagnose the case, though in the house of a school caretaker, as "fourth disease," and advised his being kept at home. He was carefully isolated in his bedroom; no peeling occurred, and after sixteen days isolation he was allowed to leave his room and mix with the other members of the family, which included one boy older than himself and three younger, none of whom had had scarlet fever. No ill results followed.

Another medical man who had sent into hospital a case of "fourth disease," which unfortunately there developed fatal scarlet fever, thus described the symptoms as he first saw them: "The case seemed to me so straight that it occasioned me no anxiety. She had an abundant fine scarlatinal rash,

with some sore throat and a raised temperature, and the temperature was higher on the second visit."

I do not wish to take up more of your space, but I venture to state emphatically that there has been in Southport an infectious disease corresponding in all particulars with the disease described by Dr. Clement Dukes as "fourth disease."

As to the exact nature of that disease, I am of opinion that at present it is impossible to decide. Possibly the disease is a modified form of German measles, with which disease it has many points of agreement—namely, the length of incubation period (9 to 21 days), mildness of general symptoms, absence of sequelae, etc.; but, if so, it is a form of German measles quite unknown to me, and also apparently to the profession in Southport. It is curious, too, that in the discussion which followed the paper read by me before a largely-attended meeting of the Southport Medical Society not a single member present suggested such a relationship. Besides, Dr. Clement Dukes's statement—that in an epidemic of "fourth disease" with which he had to deal 42 per cent. of the cases had recently had German measles—seems to negative this view.—I am, etc.,

Southport, Feb. 1st. JOHN J. WEAVER.

SIR,—A brief report of an outbreak of "fourth disease" or scarlatinal reinfection which occurred in the Burnley Sanatorium in November last may not be uninteresting at the present moment.

In one of the scarlatina pavilions were about a dozen children on the male side and seven children and one adult on the female side. All these cases had been convalescent from scarlatina for some time and were up and about daily. All were desquamating freely and the temperature was either normal or slightly subnormal in all cases.

On November 7th I admitted to the female side a child suffering from a mild attack of scarlatina. All the symptoms were present, but the temperature was only 100° F., and within twenty-four hours this had fallen to normal, and the patient made an uninterrupted recovery, but desquamation was slight.

On November 10th, three days after the admission of the last case, I was astonished to find all the patients in that ward in bed. I found that there was a slight elevation of temperature in each case varying from 99° to 100.5° F., and a rash quite characteristic of scarlatina covering the trunk and limbs—none on face. The skin was hot and dry, but there was no sore throat or even redness of fauces and no enlarged glands, in fact, no *malaise* at all. The most marked rash and also highest temperature was in a girl who was convalescent from a severe attack, and was desquamating very freely, but except that there was a second desquamation no other symptom developed to retard her discharge from hospital.

In no instance did the elevation of temperature continue beyond thirty-six hours, and in some of the cases it was normal on the evening of the day on which the rash appeared without any further rise. The tongue was perfectly clean, and there was no interference with the appetite, although I considered it advisable to put them on a milk diet for the day.

The other side of the pavilion (male) was not affected. Not a single disturbance of temperature or slightest return of rash being noted.

The rash was distinctly scarlatina and had no suspicion of measles about it. I am distinctly inclined to think that the disease was a reinfection of scarlatina, and that the previous attack had rendered the system practically immune, so that the disease aborted.

The points I would draw attention to are (1) that all the patients had undoubtedly had scarlatina and were desquamating, and (2) that all the patients in the ward developed the rash on the same day, and after exposure to a fresh infection there were no initial symptoms such as vomiting and very little pyrexia. No change in tongue, no sore throat, or even redness of fauces, pulse rate remained low and that there was a second desquamation, but not very free.

Moreover, none of the patients had been treated with sodium salicylate, or indeed with any drug capable of producing a rash.

To my mind the evidence points to a reinfection by the scarlatinal poison followed by an abortive attack of the disease.—I am, etc.,

J. M. FERGUSON, L.R.C.P.Edin., L.R.C.S.Edin.

Burnley, Feb. 2nd.

THE INCREASE OF TYPHOID AND DIPHTHERIA.

SIR,—In the BRITISH MEDICAL JOURNAL of February 1st is a letter under the above head from Dr. Erskine in which he plainly shows that in Goole at all events the increase and spread of diphtheria are not dependent on the adoption, in the last sixty years, of indoor in lieu of outdoor waterclosets—a theory propounded by Mr. Nourse in the BRITISH MEDICAL JOURNAL of January 25th. When advancing this theory Mr. Nourse also states "no doubt other causes have contributed to the increased frequency of typhoid and diphtheria." He thus appears to relegate those "other causes" to the background as merely contributory; but when one considers the very greatly increased facilities for travelling throughout the country over those of "sixty years ago," with the consequent increased chance of personal conveyance of infection, and also the much greater herding together of susceptible units, as in schools, which now obtains, it seems more reasonable to attribute increase and spread of diphtheria to these factors and to relegate "drains" *et hoc genus omne* to the position of contributory or predisposing causes. That a mucous membrane rendered unhealthy by inhalation of sewer gas or other noxious odours, or by bad air or dust from overcrowding, is more likely to afford a suitable field for the growth of the diphtheria bacillus when implanted, is undoubted; and to this extent faulty drains, etc., are contributory causes, precisely as a dusty occupation is to phthisis; but they do not produce the disease. Every drain may be made perfect, yet diphtheria will not cease.

Evidence is rapidly accumulating to show that diphtheria is a personal disease personally spread, and that control over it must be sought by careful bacteriological examination of the noses and throats of contacts to detect very mild cases or those who, while in good health, are carrying the bacilli in nose or throat, and so may act as infective agents.

As Dr. Erskine points out, fowls and certain animals do sometimes suffer from diphtheria, and may act as disseminators of the disease. If, however, a systematic bacteriological examination of noses and throats of contacts were made, it would probably be found that the children of infected households and schools are really responsible.—I am, etc.,

Clifton, Bristol, Feb. 3rd. JOHN C. HEAVEN, D.P.H.

INOCULATION AND THE INCUBATION STAGE OF PLAGUE.

SIR,—My departure for India prevented my seeing Major Bannerman's letter in the BRITISH MEDICAL JOURNAL of November 23rd, 1901. He has abandoned any attempt to defend his deductions from his statistics as to the abortive and curative powers of the prophylactic in favour of quoting Mr. Haffkine's theoretical estimate of its capabilities. When writing my former letter I certainly should have been surprised to hear that that savant held the views with which Major Bannerman credited him. Since then I have had the advantage of reading the final report of the Indian Plague Commission. I find that not only does Mr. Haffkine believe in the abortive power of his preparation, but also in its power of favourably influencing other diseases. How absolutely without foundation such opinions are, health officers in England, who may yet have to deal with plague policy on a large scale, would do well to ascertain for themselves by a perusal of the patient and exhaustive report mentioned. In this I am glad to find that the President lays down at p. 443 precisely the policy I advocated (although I was at time of writing ignorant of his views) as to the relative position that should be occupied by Mr. Haffkine's prophylactic and Yersin's serum during the incubation of plague. As Major Bannerman reaffirms his statement that Mr. Haffkine has informed him "and others" that the term "haffkinine" is "not agreeable to him," after having formally accepted its use in correspondence with me, I can only say that Russian etiquette must have a standard as difficult to understand as, according to the Plague Commission, is that used by M. Haffkine for his "vaccine."—I am, etc.,

Guindy, Madras, Jan. 7th. W. G. KING, Lieut.-Col. I.M.S.

THE DIAGNOSIS OF YELLOW FEVER.

SIR,—I should be glad if you would publish the enclosed letter from Dr. Guiteras as a sequel to my note on the Diagnosis of Yellow Fever.[1]

Dr. G. C. Low has examined the blood in a fourth case of yellow fever since my note was written, and finds the percentage of large mononuclear leucocytes to be 5.5 per cent.—I am, etc.,

Castries, St. Lucia, Jan. 17th. ST. GEO. GRAY, M.D.

Dr. GEORGE GRAY,
Colonial Assistant Surgeon.

Dear Sir,—Your letter of the 9th inst. has been kindly referred to me by Dr. Gorgas. He had also handed to me a communication on the same subject, written by you some time ago.

I have never made an accurate estimate of the leucocytes in yellow fever, but I had always received the impression that the marked leucopenia found in this disease was the result of a diminution of the polymorphonuclears, and that, therefore, the other leucocytes were relatively increased. The leucopenia is, in part, also relative, since we find a decided increase in the number of red cells. If we are to use the blood cell count for diagnostic purposes, the increase in the number of red cells will be found of value in favour of yellow fever.

Since reading your interesting letters we have had but one case of yellow fever in which the blood count could be made, with the following results:

First Day—		
Leucocytes		11,400
Polymorphonuclear		85.5 per cent.
Lymphocytes		5.5 ,,
Large mononuclear		9.0 ,,
Second Day—		
Red cells		5,150,000
Leucocytes		3,200
Polymorphonuclear		62.50 per cent.
Lymphocytes		18.75 ,,
Large mononuclear		18.75 ,,
Third Day—		
Red cells		6,500,000
Leucocytes		3,600
Polymorphonuclear		72.2 per cent.
Lymphocytes		22.3 ,,
Large mononuclear		5.5 ,,
Fourth Day—		
Leucocytes		3,200
Polymorphonuclear		68.75 per cent.
Lymphocytes		25.0 ,,
Large mononuclear		6.25 ,,
Fifth Day—		
Leucocytes		5,600
Polymorphonuclear		67.86 per cent.
Lymphocytes		14.28 ,,
Large mononuclear		17.86 ,,

The above case was a severe haemorrhagic case, terminating in recovery.

I shall be much interested in following up these investigations.—I am, etc.,
JOHN GUITERAS.

Hospital Las Animas, Habana, Dec. 25th, 1901.

ANATOMICAL PLATES.

SIR,—In the BRITISH MEDICAL JOURNAL of February 1st, herre is a notice of the late Professor A. W. Hughes's *Manual of Practical Anatomy*, recently published under the editorship of Dr. A. Keith. It is therein stated that the plates of the bones showing the muscular attachments "have been introduced from Holden's *Osteology*," and it is the case that the reviewer got this statement from the book itself. I trust, however, that I may be permitted to point out that this is not correct. The plates in question were drawn under my supervision by Mr. Stephen Miller of Glasgow for the tenth edition of Wilson's *Anatomist's Vade Mecum* in 1880. They were drawn for the most part from bones in my possession, and Holden's *Osteology* was never in the hands of the draughtsman throughout the progress of the work. I had lent him a small volume by Professor Cossar Ewart on the *Anatomy of the Upper Extremity* in order that he might see the kind of thing I wanted, and, to to my annoyance, he copied from it the plates of the scapula, clavicle, humerus, radius, and ulna. I at once withdrew the book, and the rest of the plates were drawn entirely from the skeleton, the muscular markings being added by me. A reference to Holden's *Osteology* will show that there is no resemblance between the plates, and that while Holden's are lithographs those produced under my supervision and now used by Dr. Keith are woodcuts. We all appreciate the fact that Luther Holden was one of the first to mark out the attachment of the muscles to the bones by coloured lines, and we give him every credit for thus taking the lead in a movement which has much simplified the teaching of osteology. I do not, however, think this justifies the publication of plates bearing his name, for which he was in no degree responsible, and which were not even suggested by his book. It was because I did not like Holden's plates and was not satisfied as to the accuracy of some of his markings of muscular attachments that I decided on the production of a new set of illustrations of the bones.—I am, etc.,

Glasgow, Feb. 1st. HENRY E. CLARK, C.M.G.

[1] BRITISH MEDICAL JOURNAL, January 25th, 1902, page 200.

ROYAL MEDICAL BENEVOLENT COLLEGE.

The France Annuities.

SIR,—Under the provisions of the will of the late Mr. France, the Council of the Royal Medical Benevolent College will proceed to elect, at their meeting on April 2nd, eight aged and necessitous medical practitioners to annuities of the value of £30. Particulars can be obtained from the Secretary, at the office of the College, 37, Soho Square, W.—I am, etc.,

C. HOLMAN,
Treasurer.

SCOTTISH POOR-LAW MEDICAL OFFICERS.

SIR,—Might I call the attention of the members of the British Medical Association to the enclosed advertisement by the parish council of Kilfinichen and Kilvickeon for an interim medical officer?

Parish of Kilfinichen and Kilvickeon.—Wanted, a Duly Qualified (Interim) Medical Officer for this parish; salary at the rate of £45 per annum and £5 for medicines.—Applications to be lodged with Alexander M'Gregor, Inspector of Poor, Bunessan, not later than the 10th February next.—Bunessan, 18th January, 1902.

This is the parish council which dismissed their medical officer in 1898 (Dr. M'Kechnie), not for any professional fault, but because he did not agree with them on some matters outside his professional work. Dr. M'Kechnie is still, and will continue to be, resident in the locality; therefore there is no room for another medical practitioner.

I shall be pleased to give further information to any one who might be thinking of becoming a candidate for the appointment.—I am, etc.,

W. L. MUIR,
Secretary, Scottish Poor-law Medical Officers' Association.

Glasgow, Feb. 1st.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE REORGANIZATION OF THE VOLUNTEER MEDICAL SERVICE.

V. M. O. writes: I am sure all medical officers will be interested in reading the letter of the Volunteer Medical Association to the Secretary of State for War. It points out some important subjects, especially "that each regiment should be provided with proper equipment as laid down for the regular forces." Medical officers have at present frequently to go into camp with the medical companion containing two bandages, a piece of plain lint, two feet of guttapercha tissue, some thread, a pair of scissors, some opium, and a box of pills of various kinds, all so old and so few in quantity that the medical officer has to supply what is wanted for the whole regiment out of his own pocket or dip into the funds of the corps.

In the new regulations as regards camp allowances to medical officers a special scheme should be drawn up. When a doctor leaves his practice to go under canvas, he has to provide a *locum tenens*, and may not, owing to confinements, etc., be able to stay the full time, in which case he loses the whole of his grant. What I would suggest is that the regiment be allowed a full and sufficient allowance to provide for the attendance of a medical officer at so much a day, which would not only save him from the great personal loss he has at present, but would allow him to share part of the camping period with one of his brother medical officers, in the event of his being able to spend only part of the time in camp. It is this difficulty that keeps so many medical officers from attending camp.

A short time ago, whilst acting as medical officer to a regiment of 300, another regiment arrived in camp close by, over 600 strong, without one of its four medical officers being

with the corps. By courtesy I acted for both regiments, and was kept pretty hard at work, all the time feeling that a system which brought about such a state of things was much in need of reform.

I trust the two important points—the equipment and the pay in camp—will receive the favourable consideration of the authorities, and if the Volunteer Medical Association took up the subject much good would likely result.

V. M. S. and A. M. R. writes: That the Volunteer Medical Service needs some kind of reorganisation is not to be denied, but the lines on which any particular reform is to take place are perhaps not quite so evident. Something, however, might be done in the direction of amalgamating the regimental surgeons with the Volunteer Medical Staff Corps; this should lead at any rate to a proportionate distribution of the medical officers, so that one battalion would not have six or seven surgeons though another—perhaps in the same brigade—musters one only, or even none! Some volunteer brigades display a plethora of doctors, while others have not sufficient for the field hospital, bearer company and brigade units. The Volunteer Medical Service should be organized much on the same plan that obtains in the regular army, though I agree with "Volunteer Surgeon" that the R.A.M. Corps is probably not the body to which we can—or care—to look for any rehabilitation, for it is a very long way as yet from having set its own "house in order." As to any epecific grievances I was not aware that we had any very pressing ones, perhaps "Volunteer Surgeon" will detail them. It is quite possible that the services of some volunteer medical officers were declined for the front, though it would be interesting to know how many of those who really volunteered and were found "fit" were declined; while as regards service at home it has been pointed out that more than once in your columns that the conditions and routine of duty required were quite incompatible, in the vast majority of instances, with the employment of men immersed, as most volunteer surgeons are, in the cares and responsibilities of general practice.

ARMY MEDICAL SCHOOL, NETLEY.

Distribution of Prizes.

On January 31st the results of the examinations held at the close of the eighty-third session of the Army Medical School were declared, and the prizes obtained by the successful competitors distributed by Surgeon-General W. Taylor, M.D., C.B., Director-General Army Medical Service, who was supported by Colonel Charlton, R.A.M.C., Principal Medical Officer, Netley; Colonel Creagh, Assistant Adjutant-General, Netley; Colonel Cayley, C.M.G.; Lieutenant-Colonel Wilson, Deputy Assistant Director-General, Army Medical Service, and the professors of the school. There was a good attendance of officers and nurses on the hospital staff and of the general public.

The following is a list of surgeons on probation who were successful at both the London and Netley examinations:

Indian Medical Service.

	Marks.		Marks.
*A. E. J. Lister	5,881	T. W. Harley	4,809
†T. S. B. Williams	5,800	J. W. McCoy	4,631
‡S. H. L. Abbott	5,074	R. L. Hagger	4,566
A. W. Greig	5,519	R. M. Carter	4,531
R. E. Lloyd	5,422	R. D. Willcocks	4,513
J. E. Clements	5,409	T. G. F. Paterson	4,379
H. B. Stein	5,330	D. G. R. S. Baker	4,358
**E. Bissett	5,522	J. R. J. Tyrrell	4,259
R. J. Bradley	5,241	D. G. Rai	4,091
J. Woods	[illegible]	R. M. Barron	4,036
††A. W. Overbeck-Wright	5,160	W. R. J. Scroggie	3,833
D. Munro	[illegible]	L. P. Farrell	3,817
‡‡E. A. Loch	[illegible]		

Royal Army Medical Corps.

B. A. Craig.

* Gained the Parkes Memorial Medal, and the Maclean Prize for Clinical and Ward Work.

† Gained the Herbert Prize, the Prize in Pathology presented by Professor Wright, and the De Chaumont Prize in Hygiene.

‡ Gained the Marshall Webb Prize of £5 and Medal.

** Gained the Martin Memorial Medal.

†† Gained the Second Montefiore Prize of £7 7s., and the Prize in Pathology.

‡‡ Gained the First Montefiore Prize of £21 and Medal.

The prizes are awarded for marks gained in the special subjects taught at the Army Medical School.

The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in this list.

The following Surgeons on probation received special commendation for proficiency in the various branches of study: H. B. Steen, A. E. J. Lister, A. W. Greig (in military medicine); H. J. Bradley (in military hygiene); J. E. Clements, R. E. Lloyd, T. S. B. Williams (in military surgery); and A. W. Greig (in pathology).

Colonel MacLeod read a report of the work of the session which indicated that the results had been most satisfactory. Twenty-six surgeons on probation who had undergone the final examination had proved themselves fitted to receive His Majesty's commission. Twenty-three surgeons on probation of the Indian Medical Service had passed an examination in company and stretcher drill, and had received certificates to that effect. They had all given evidence of punctuality, diligence, and capacity in the pursuit of their studies, and their conduct while passing through the school had been excellent. The examination in hospital administration for the prize established by Mrs. Marshall Webb in memory of her husband the late Surgeon-Major-General W. Marshall Webb, who had held the position of Assistant Professor of Medicine in the Army Medical School, had been held for the first time. Lieutenant-Colonel Webb reported that the results of the examination, to which all the surgeons on probation were subjected, had been on the whole very satisfactory

Surgeon-General Taylor, after presenting the prizes to the successful competitors, delivered an interesting and appropriate address. He had heard with much gratification that a prize had been instituted by his widow in memory of the late Surgeon-Major-General William Marshall Webb, who was a most excellent officer and estimable man. To know him was to respect him, and no one who gained his friendship ever willingly lost it. The subject of examination for this prize was a most important one, and the reward gave prominence to a kind of knowledge which might perhaps be considered by some petty and irksome, but was really indispensible. He wished on the present occasion to dispel a mistaken impression which had somehow got about that the death-warrant of the Army Medical School had been drawn up, and would soon be signed and issued. There was no foundation for such a rumour—quite the opposite. If any change impended as regards an institution which had been of such signal benefit to the service in the past, it was a change for the better—not extinction, but elevation to a higher plane of usefulness. He congratulated those who had now qualified for commission in His Majesty's medical service on their selection of a profession and a career. The two things were not the same. They had satisfied all the tests to which they had been subjected for the purpose of ascertaining their fitness for the work which lay before them, and now they were about to enter upon the real business of life. He would impress upon them as forcibly and earnestly as he could that they must from the beginning to the end of their service avail themselves of every opportunity of advancing their knowledge and improving their capacity. They had no doubt learnt much there and elsewhere, but they had still much to learn. Medical science never stood still, and if they were to keep pace with it they must keep moving—observing, noting, trying, and striving. From the moment they embarked on their first voyage eastward to the end of their last journey home they would find abundant opportunities for the exercise of their faculties, and the application of their knowledge and skill. It was sometimes said that the Army Medical Service did not offer field or scope for professional improvement. This was sheer nonsense. They could not be placed in any position in which they might not learn and practise to the utmost of their time and inclination. He had not the honour to belong to the Indian Medical Service, but he had served long in India, and was well acquainted with its history and its great capabilities of usefulness and honour. It was a service which had produced men whose names were historical, and had helped greatly to weld the Indian Empire and render British rule acceptable and popular among the native inhabitants. There was no station, however small or remote, in which, if so minded, they could not get abundance of practice and enjoy unlimited opportunities of doing good. They would learn lessons of self-reliance, and reap the fruits of previous study and training. Their knowledge must be wide as well as deep. There were, except in the Presidency towns,

no specialists to send their patients to. They must learn and practise specialities as best they could. He was once inspecting a camp on the Indian frontier, far beyond any centre of civilization. He found a young Indian medical officer working in a small bacteriological laboratory which he had set up in a corner of his tent. It enabled him to differentiate fevers which had been previously subject of doubt and uncertainty, and to identify the existence in the Swat Valley of Mediterranean fever. He mentioned this incident as an illustration of what could be done under circumstances apparently unpromising. Pathological and clinical laboratories were being, he was glad to say, organised in many parts of India, and that which had been established at Kasauli under his friend Major Semple, of the Royal Army Medical Corps, deserved special mention and praise. They were no doubt aware that the first few years of their service must be spent in military employ; and even if they obtained civil employ, which was doubtless the ambition of most, they were all liable to recall to military duty. He would impress strongly upon them the need of careful practical study of military regulations and arrangements, sanitation, and hospital administration, so that when they rejoined the army they would be able to acquit themselves creditably in that sphere of employment. His good friend Surgeon-General Harvey, the late and much lamented Director-General of the Indian Medical Service, had distinguished himself greatly as a civil practitioner and professor and as a military medical officer and administrator. The secret of his success was that he systematically maintained his knowledge of matters military while he was engaged in civil duties. He would earnestly warn them against giving way to any grasping disposition in their dealings with wealthy natives in India. The labourer was worthy of his hire, and big fees would perhaps come to them in recognition of important services rendered; but let them come without pressure or solicitation. In their dealings with rich and poor, white and black, they were bound to display and exercise those attributes of benevolent sympathy, cheerfulness and kindliness of manner, as well as disposition, which were consistent with the spirit and traditions of their noble calling, and the case of the meanest coolie demanded the same thought and care as that of the proudest Maharajah. And need he add that the official patient who was entitled to their services without fee should obtain exactly the same sedulous attention and treatment as the private patient who paid for their attendance and skill? It was a source of real pleasure to him to revisit Netley where he had spent some of the happiest days of his life and to renew, under different circumstances, his connection with the Army Medical School of which he retained very pleasing recollections. He hoped they would carry with them similar impressions of their stay at Netley, and he wished them every happiness and success in their future life and career.

Colonel CHARLTON, Principal Medical Officer of Netley, added a few words of congratulation and counsel, and the proceedings came to a close.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON J. E. BRAY is placed on the retired list at his own request, January 25th. He was appointed Surgeon, August 25th, 1881, and Staff Surgeon, August 25th, 1893.

The following appointments have been made at the Admiralty: A. LA T. DARLEY, Surgeon, to the *Britannia*, for the *Racer*, lent for the coming season, February 3rd; JOHN N. ROBERTSON, Surgeon, to the *Goldfinch*, February 4th; H. C. C. ROSS, Surgeon, to the *Magnificent*, January 20th; WILLIAM L. MARTIN, Surgeon, to the *Tamar*, January 20th; HERBERT R. H. DUNNY, Surgeon, to the *Vivid*, for the *Thistle*, February 18th; GEORGE S. SMITH, Fleet Surgeon, to the *President*, for a three months' course of study at a civil hospital, February 1st.

Inspector-General CHARLES HENRY SLAUGHTER died at Woodlands, Horsham Road, Sussex, on February 3rd, in his 68th year. He was the second son of the late Dr. T. G. Slaughter, of Farningham, Kent, and entered the Royal Navy as Surgeon, October 17th, 1856; becoming Staff Surgeon, December 7th, 1867; Fleet Surgeon, August 21st, 1877; Deputy Inspector-General, November 11th, 1885; Inspector-General, January 2nd, 1894; and retiring, November 9th, 1895.

ROYAL ARMY MEDICAL CORPS.

COLONEL N. B. MAJOR [illegible] half pay, to be Colonel, January 4th. He entered the service as Assistant-Surgeon, October 2nd, 1866; became Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1878; Brigade Surgeon, June 9th, 1894; and Colonel, November 4th, 1897. He went on half pay, November 4th, 1900.

Civil Surgeon LEONARD COTTERILL is appointed Lieutenant, December 5th, 1901.

Lieutenant-Colonel E. H. JOYNT, M.D., is placed on retired pay, January 19th. He was appointed Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; was granted the rank of Lieutenant-Colonel, April 1st, 1891; and became Brigade-Surgeon-Lieutenant-Colonel, December 7th, 1895. He was with the Soudan Frontier Field Force in 1885-6, and received the medal and Khedive's bronze star granted for the campaign.

Captain J. M. BURT, officiating as Personal Assistant to the Principal Medical Officer, Punjab Command, is confirmed in that appointment from October 14th, 1901.

We are requested to say in reference to a paragraph that appeared in the BRITISH MEDICAL JOURNAL of January 18th, that Captain J. W. Jennings and Civil Surgeon H. A. Loeser returned on duty, and not as therein stated.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL C. W. OWEN, C.M.G., C.I.E., Bengal Establishment, Medical Adviser to the Maharajah of Patiala, is permitted to retire from the service from March 15th. He was appointed Surgeon, September 30th, 1876, and became Surgeon-Lieutenant-Colonel twenty years thereafter. He was in the Afghan war in 1879-80, including the action of Charasiah, the engagement in Chardeh Valley (slightly wounded), and the operations around Cabul in December, 1879 (mentioned in despatches, medal with two clasps). He was also in the Egyptian war in 1882, and was in the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star).

Lieutenant-Colonel A. W. ROGERS-HARRISON, Madras Establishment, District Medical and Sanitary Officer, Central Gaol, Salem, has also retired from the service, from January 6th. He joined the department as Surgeon, October 1st, 1872, and became Brigade-Surgeon-Lieutenant-Colonel, April 7th, 1896, but has no war record in the *Army Lists*.

ARMY MEDICAL RESERVE.

MAJOR W. G. CLEMENTS, R.A.M.C., is promoted to be Lieutenant-Colonel, November 30th, 1901. His commission as Major bears date July 30th, 1893, and he retired from the Active List, June 14th, 1899.

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN W. G. THORNTON, Royal East Kent (the Duke of Connaught's Own) Imperial Yeomanry, resigns his commission, February 5th.

THE VOLUNTEERS.

MR. ROBERT ABERNETHY, M.D., is appointed Surgeon-Lieutenant in the Queen's Rifle Volunteer Brigade, the Royal Scots (Lothian Regiment), February 5th.

Surgeon-Lieutenant H. WILLIAMS, 1st (Brecknockshire) Volunteer Battalion South Wales Borderers, resigns his commission, February 5th.

Surgeon-Lieutenant W. G. BRETT, 1st Volunteer Battalion the Dorsetshire Regiment, is promoted to be Surgeon-Captain, January 11th.

VOLUNTEER MEDICAL STAFF CORPS.

MR. DAVID W. S. MUIR is appointed Surgeon-Lieutenant in the Manchester Companies, February 5th.

THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES.

THE Association of Military Surgeons of the United States was founded in 1901, and embraces the medical officers of the Federal, or regular United States army, the national forces of the various States, the "contract civil surgeons" of the army, and the surgeons of the United States navy. The time-honoured, but now rather obsolete, term of "surgeon" as applied to a medical officer, and indicating but half his functions, is still retained as a title in the services of the United States. Thus in its army the "grade" of brigadier-general, which is the official designation, has the corps "title" of surgeon-general; colonel, that of assistant surgeon general; major, surgeon; captain, assistant surgeon; the correct mode of official address is therefore Major....., Surgeon, U.S.A. There is the same grading in the navy, thus: Rear-admiral, surgeon-general; captain, medical director; lieutenant, surgeon, etc.; but naval and marine medical officers are only addressed as Surgeon....., U.S.N., not by their gradient or relative rank. It is laid down that contract and acting surgeons not having actual rank, although officially addressed by official designations, are by society styled "doctor" merely. It is thus evident that even in the United States the official and social designations of medical officers in the public services are not yet satisfactorily fixed.

The objects of the Association are to promote solidarity in the services; to afford mutual aid and protection, and to advance professional knowledge and interests in all that relates to their common functions. That these objects are worthily attained the large and influential list of membership published in its *Journal* testifies.

The problems which present themselves to this Association personal, social, and professional—are almost identical with those to be found in the naval and military services of the Old World; these seem little altered either by time, distance, or local institutions. In this number there are some interesting papers and discussions on various matters relating directly to military surgery and hygiene, including one on observations in China, in which the United States forces took part. There is also an important paper on medical field equipment, which constantly requires overhauling. It may be mentioned that, in accordance with usage in the United States the Association has handsome "insignia" in the form of a "badge" and a "button," which the members are duly authorized to wear, the former in uniform, the latter in civilian attire.

THE PAY OF THE INDIAN MEDICAL SERVICE.

I. M. S. writes from India: It is rumoured that a scheme has been sent home remodelling the pay and prospects of the Indian Medical Service. I think there are certainly three points which cannot be too strongly emphasized: (1) The insufficient pay of the civil side, founded on the old and worn-out idea that this is compensated by private practice.

(2) The pay of a lieutenant-colonel I.M.S. as compared with that of a lieutenant-colonel Staff Corps commanding a regiment. The pay of the former is Rs.1,000 per mensem, and that of the latter Rs.1,400 per mensem. (3) The last point to which I would invite attention is the hardship and loss entailed to junior medical officers who are practically obliged to keep a horse, and yet when moved from one to another appointment are not allowed a free railway warrant for their horse as all Staff Corps officers are. It should be kept in minds that the average junior is moved at least three times a year, sometimes a railway journey of three, four, or even more days. You will easily understand the hardship and loss of money which he suffers as a consequence.

THE NAVAL MEDICAL SERVICE.

X. Y. Z. writes: It is understood that a scheme of improvement is being prepared for the naval medical service. The warrant for the R.A.M.C. will shortly be published granting practically all that was asked for, with greatly increased rates of pay to all ranks. This of course will have the effect of attracting all the better men to that service. In order, therefore, that the naval medical service should not be left without sufficient candidates, it will be necessary that considerable inducements should be offered. Principal amongst those I would suggest that the pay of all ranks be considerably increased, and on a higher scale than is now to be granted to the R.A.M.C. Secondly, the pension, which is the great inducement to men to enter the service, should also be increased. I would suggest that the present pension of £1 a day after twenty years' service be the same, but instead of having to serve four years for an increase, and again three years for an additional increase, and so on to thirty years' service, it would be a greater inducement to do away with those stated periods of service and give an additional 1s. a day for every additional year of service after twenty years. Further, the senior medical officer of all second flagships, both at home and abroad, should be granted the allowance of 2s. 6d. a day at present granted to all other heads of departments except the medical, and this should apply to all flagships at the different home ports. No fleet surgeon to serve in a seagoing ship after holding that rank for four years, or on reaching the age of 50, except in national emergency.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A PARTNERSHIP ACTION.

ON Wednesday, January 29th, the Lord Chief Justice commenced the trial of an action brought by Dr. Theophilus Hoskin, of 1, Amherst Park, Stoke Newington, against his former partner, Dr. Richard Unthank Wallace, of Cravenhurst, Craven Park, to recover damages for breach of contract and an injunction. By the consent of both sides the case was heard without a jury.

Mr. Lawson Walton, K.C., M.P., and Mr. Newson appeared for the plaintiff; Mr. Marshall Hall, K.C., M.P., and Mr. Hansell for the defendant.

According to counsel's opening statement, the plaintiff and the defendant had carried on a partnership practice in Hackney from 1882 to 1895 under terms and conditions contained in an indenture dated December 21st, 1888, which had been substituted for a previous deed. It was a term of the indenture that on the retirement of either partner, the continuing partner should purchase his half share and the goodwill of the business. There was also a covenant to the effect that the retiring partner would not directly or indirectly practise as a surgeon, etc., within three miles of the place or places of business of the partnership for five years. The defendant retired from the practice on December 31st, 1895, and assigned his half-share to the plaintiff for the sum of £2,000. The plaintiff complained (*inter alia*) that the defendant had broken the covenant not to injure the goodwill which he had sold, and that there had also been breaches of the covenant whereby the defendant had undertaken not to practise or solicit patients of the former partnership for the space of five years within the three-mile radius. The defendant, by his pleading, denied the plaintiff's allegation, or that there had been any breach of the contract.

While Mr. Lawson Walton was continuing his opening of the case on the second day the Lord Chief Justice interposed, and said that it was a pity a dispute of this kind between two members of an honourable profession should be fought out in open court. He offered to see counsel in his private room.

Counsel having consulted with his lordship, Mr. Marshall Hall stated that the case had been settled. Mr. Lawson Walton said he thought it right to say that Dr. Wallace had paid a sum of money which Dr. Hoskin accepted.

The record was then by leave withdrawn.

DEATH FROM CHLOROFORM ADMINISTERED BY UNREGISTERED DENTISTS.

A DEATH from chloroform administered by two unregistered dentists named Lancaster and Crook was the subject of an inquest reported in the *Clitheroe Advertiser* of January 24th. The patient was a woman of 30, apparently in good health, though at the necropsy both kidneys were found to be large and not altogether healthy. Chloroform, in unknown quantity, was administered on a handkerchief, and the teeth were extracted before the administrators became alarmed. They sent for a medical man who lived only a few doors away, and he attended within a few moments. According to his evidence the patient was dead when he arrived. He found her in a semi-upright position, and stated that the usual measures for restoration had not been applied. The lividity and the appearances found at the necropsy, the gorged right heart, gorged veins of the neck, the congestion of lungs, liver, and spleen pointed to the conclusion that death was due to asphyxia rather than heart failure. On the window there was inscribed "teeth extracted painlessly," and "artificial teeth supplied"; also "specialists for skin diseases," but the word dentist was not made use of. One of the defendants offered to give evidence, and stated that he had been at Clitheroe fifteen months; during that time he had administered chloroform between 300 and 400 times. As the outcome of the inquest both defendants stand committed for trial on a charge of manslaughter, and we are therefore debarred from commenting upon the case at the present moment.

TESTIMONIALS AS ADVERTISEMENTS.

WE have received a cutting from the *Yorkshire Telegraph and Star* of January 15th containing a double-column displayed advertisement of a coffee essence supported by twelve testimonials purporting to be from members of the medical profession. It is generally considered to be professionally undesirable to allow such testimonials to be used for purposes of advertisement, and we hope that the gentlemen concerned will take steps to have their letters withdrawn.

PROSECUTION UNDER THE NOTIFICATION ACT.

AT Bow Street police court, on January 21st, Mr. John Colin Matheson, M.B., C.M.Glas., formerly resident medical officer, Westminster General Dispensary, appeared to answer a summons for not sending to the medical officer of health a certificate that a patient was suffering from small-pox.

According to Mr. Matheson's statement he first saw the patient on December 20th. The man then had a rash not unlike scarlet fever, but there was no sore throat and no diagnosis was made; on the following day an erythematous rash spread over the whole body, but the general symptoms were slight; on December 23rd the patient was much worse and died on that day. It was stated that 12 cases of small-pox, of which 3 were fatal, could be traced to infection from this patient, and it appeared that he had in reality suffered from haemorrhagic small-pox. For the defence Dr. Washbourn, physician to Guy's Hospital and to the London Fever Hospital, was called, and said that the diagnosis of haemorrhagic small-pox was difficult, and that it was sometimes almost impossible to distinguish it from purpura haemorrhagica. At the conclusion of his evidence Dr. Washbourn said that medical practitioners of the present day had very little opportunity of studying small-pox, and that the officials of the small-pox hospitals ought to make provision for general practitioners to have an opportunity of becoming acquainted with the disease. Other medical evidence was called and the magistrate said that while there could be no doubt that the man had died from small-pox, the question for him to decide was, did the defendant know the nature of the disease from which the man was suffering? He thought that there was a doubt, and the defendant ought to have the benefit of the doubt. The summons would therefore be dismissed. At the same time he wished to say that the prosecution had acted properly in instituting proceedings so that the matter might be investigated.

MEDICAL ETHICS.

L.R.C.S.I.—If the attendance upon C. and his wife was gratuitous, as we understand our correspond to state, A. might consider that he has kept the spirit of his promise not to practise in B.'s district, as it is not likely that A. would care to take other cases on the same terms. But in order to remove any misunderstanding, B. should see A., and represent to him that, while deriving no material benefit from such gratuitous attendance, A. is materially damaging B., who, it may be presumed, would otherwise have attended these cases, and have been paid for his attendance.

SALE OF A PRACTICE.

SOLD asks our opinion on the following case: A. advertises his practice for sale, and B. buys the same without having a personal interview with A. or even going to the place. B. receives a short introduction, but afterwards finds that statements as to the practice had been greatly exaggerated, and further, that a brother of A. resided in the district and was attending many of A.'s old patients. Was A. acting professionally in selling his practice to B. without telling him of his brother being in the same locality?

*** If A.'s brother was an independent practitioner, having nothing to do with A.'s practice, the latter was under no obligation to mention the fact to the purchaser of his practice. Had B. used ordinary prudence in investigating A.'s practice before buying he would have found out such facts for himself: and under the circumstances if he has made a mistake it is to be feared he is himself chiefly to blame.

DOCTORS, MIDWIVES, AND NURSES.

A CORRESPONDENT asks whether following a nurse in midwifery cases would not be "covering." It could hardly amount to that in a technical sense, but there may be relations between nurses and medical practitioners which are very much the reverse of professional.

In a circular received relating to the "Kingsclere Parish Nurse," and giving the rules to be followed by subscribers desiring to avail themselves of her services, are found the following terms for employment of the parish nurse in confinements:

Subscribers—
Class I. 5s., or with doctor, 3s. 6d.
II. 7s. 6d. " " 6s.
III. 10s. " " 8s. 6d.
IV. 20s.

If this means that where the nurse, acting as midwife, calls in a medical practitioner the patient has to pay the second fee in addition, it would be interesting to know what arrangements are made to remunerate the doctor, and under what conditions he is called in. If it simply means that where the patient has engaged a doctor the nurse will give her services as monthly nurse for the latter fee no exception can be taken.

CLUB APPOINTMENTS.

CAMESTRES is referred to the answer to B. under this head in the BRITISH MEDICAL JOURNAL of February 1st, page 300.

OBITUARY.

JOHN MANLEY, M.R.C.S.Eng., L.S.A.,

West Bromwich.

WE regret to have to record the death of Mr. John Manley, of West Bromwich, on January 21st last, in the 76th year of his age.

Mr. Manley commenced practice in West Bromwich in 1854, and for nearly half a century he was engaged in active work, his energy and power of endurance being extraordinary. Mr. Manley had the advantage of a good preliminary education. Latin, French and Portuguese were familiar tongues to him, and his education was of a kind that never ceased, as he was always reading and acquiring knowledge, not only of subjects relating to his own profession, but to many of the kindred sciences. He was an admirable botanist and would have made a splendid professor as he possessed the faculty of imparting information in a way that was both interesting and impressive. Many of his pupils and student friends owed their easy passage through "the first college" to the excellent coaching in anatomy received from him. Mr. Manley had a large midwifery practice, and his skill in operative midwifery was so well known that he was frequently consulted by his professional neighbours in difficult cases. He performed one of the earliest successful ovariotomies done in the district in the presence of many local surgeons invited, as was then the custom, to be present, and he was fully prepared to take up the position of Surgeon to the West Bromwich Hospital at its opening in 1871. But he always strongly held the view that hospital appointments should be paid ones, and failing to carry these views upon the committee of which he was a member, he declined to accept honorary office. He continued to serve upon the Board of Management for 28 years.

Mr. Manley was a Justice of the Peace for the Borough of West Bromwich, and was at the time of his death, and for many years previously, the Chairman of the Free Library Committee, a capacity in which his services were invaluable. In fact, he was one of the originators of the free library movement, and a very large proportion of the many works the library now contains were selected and purchased by him. He had been President of the Midland Medical Society, was for many years Local Secretary to the Sydenham Society, for a long time was upon the Council of the Birmingham and Midland Counties Branch of the British Medical Association, and was for 17 years Medical Officer of Health to the Borough. Scathing and outspoken in the denunciation of cant or shams, as Mr. Manley always was compelled to be by his own strong individuality, he was yet kindhearted, witty, and amusing, and his passing away is sincerely regretted by a very large number of friends.

H. L. B.

WE regret to have to record the sudden death, on February 2nd, of Mr. WILLIAM MARTINDALE, the author, with Dr. Wynn Westcott, of the *Extra Pharmacopoeia*, and for some years Pharmacist and Teacher of Pharmacy at University College Hospital, and Demonstrator of Materia Medica in University College, London. He came of a Cumbrian family, and was born at Southwaite, near Carlisle, in 1840. After an apprenticeship in Carlisle, he came to London in 1862, and passed the major examination of the Pharmaceutical Society in 1866. After holding the appointments above mentioned at University College for five years, he acquired in 1873 the business of Messrs. Hopkin and Williams, in New Cavendish Street, and this he conducted until the time of his death. He was for ten years a member of the London Board of Examiners of the Pharmaceutical Society, and was President of the Society in 1899-1900. He was a Fellow of the Linnean Society and of the Chemical Society; he was also a member of the Council of the Royal Botanic Society, and took great interest in the proposal to establish a botanical laboratory there. He was twice President of the British Pharmaceutical Conference: at Cardiff in 1891, and at Liverpool in 1896. He was a member of the Committee of the Pharmaceutical Society which gave assistance in the preparation of the current edition of the *British Pharmacopoeia*, and was at the time of his death a member of the Committee appointed by the Privy Council to consider the revision of the poison schedule of the Pharmacy Act. He was Mayor of the ancient town of Winchelsea, where he had a country house, in 1893, and was a Baron of the Cinque Ports. His large experience and practical abilities combined with his genial and courteous nature to win for him the respect and esteem of medical practitioners and pharmacists with whom he came in contact. His best monument will perhaps be his share in the production of the *Extra Pharmacopoeia*, of which ten editions have been published.

MR. SAMUEL ROBERT LOVETT, L.S.A., L.R.C.P.andS.Edin., who died on January 7th, aged 69, was Medical Officer of Health for the district of St. Giles-in-the-Fields and St. George's, Bloomsbury, from 1875 down to the coming into force of the London Government Act, 1899, when he retired with the highest pension possible. Dr. Lovett's father had been medical officer to the parish, and the young man early acquired an intimate acquaintance with the notorious district of Seven Dials, and the courts and alleys which were swept away to afford a site for the law courts. During his tenure of the appointment of medical officer of health, Mr. Lovett was instrumental in bringing about several radical clearances of slum property in the St. Giles's district. He was an active member of the Society of Medical Officers of Health, which, we learn, from *Public Health*, he joined in 1875; in 1880 he was elected Honorary Treasurer, and in 1894 President. Mr. Lovett was not only a zealous official but a man of considerable natural parts, which he hid under an unassuming demeanour. His advice was greatly valued by his colleagues, and was always readily and ungrudgingly given.

IT is with much regret that we record the death of Dr. DONALD WINGATE, of Easington, Castle Eden, Durham. He was born at Houston, Renfrew, in 1863, and received his early education at the Neilson School, Paisley. He obtained his medical training in the University of Glasgow, taking the M.B. and C.M. degrees in 1886. After gaining experience as assistant to a general practitioner, he commenced practice in Haswell. In 1897 he removed to Easington, where he was appointed Medical Officer to the Workhouse and Fever Hospital, and Public Vaccinator to the District. He also held the post of Surgeon to important collieries, and soon became highly esteemed throughout the entire neighbourhood. On January 12th last he was attacked with virulent erysipelas of the head and face, to which he succumbed a week later. His wife predeceased him, and he leaves two children, aged 6 and 7.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Edward Cramer, Extraordinary Professor of Hygiene in the University of Heidelberg, aged 38; Dr. G. Garibaldi, Professor of Surgical Anatomy and Operative Surgery in the University of Genoa; Dr. N. Homs y Pascuets, Professor of Clinical Medicine in the University of Barcelona; Drs. Blaise, Professor of Medical Pathology; Gemy, Professor of Dermatology and Syphilography; and Bourlier, Professor of Therapeutics in the Medical School of Algiers.

INTERNATIONAL CONGRESS OF GYNAECOLOGY AND OBSTETRICS.—The International Congress of Gynaecology and Obstetrics will hold its fourth meeting in Rome from September 15th to 21st 1902. The official languages of the Congress will be Italian, French, English, German, and Spanish. The following are the subjects proposed for discussion: (1) The medical indications for the induction of labour; (2) hysterectomy in the treatment of puerperal infection; (3) genital tuberculosis; (4) the surgical treatment of cancer of the uterus. Professor Pasquali will be the general president of the Congress, while Professor Morisani will preside over the obstetric, and Professor Mangiagalli over the gynaecological, sections. The general secretary is Professor E. Pestalozza.

COMPULSORY VACCINATION IN THE PHILIPPINES.—It is announced that, owing to an outbreak of small-pox in some of the Philippine Islands, the civil commission has prepared an Act for the compulsory vaccination of all persons resident in the islands.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DEGREES.—The following degrees were conferred on January 30th:—*M.B. and B.C.*: A. C. Hudson, Trinity; A. B. Dunne, Queens'; A. P. Bowdler, Sidney Sussex. *M.B.*: A. H. Greg, Trinity; R. G. Abercrombie, Caius.

UNIVERSITY OF LONDON.

MEETING OF SENATE.

A MEETING of the Senate was held on January 22nd. The more important business transacted has already been reported in the BRITISH MEDICAL JOURNAL of January 25th, pages 213 and 220.

Preliminary Scientific Examination and Intermediate Examination in Medicine.—The Senate adopted a resolution prescribing that the present examination should be considered as held jointly for internal and external students, without prejudice to any future arrangements for the examination of internal students.

Appointed Teachers and the Allocation of Grants.—In view of the grant of £10,000 a year made by the Technical Education Board of the London County Council, general regulations as to grants and as to teachers appointed by the University or transferred to the service of the University from that of the College or other institution connected with it were adopted.

UNIVERSITY COLLEGE.

The Council of University College on February 3rd appointed a Committee to confer with the Committee of the Senate of the University of London with regard to the incorporation of the College in the University. This Committee will therefore be constituted as follows:—*For the University:* The Vice-Chancellor, the Chairman of Convocation, Mrs. Bryant, Sir H. Cozens-Hardy, Lord Davey, Dr. Fowler, Mr. Howse, Mr. Pember, Reeves, Miss Penrose, Dr. Robertson, and Mr. Unwin, and the Principal will also attend. *For University College:* The President, the Principal, Lord Edmund Fitzmaurice, Sir T. Barlow, Sir John Rotton, Mr. Sharpe, Dr. Bourne Benson, Professors Hill, Ker, Ramsay, and Bradford.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary Comitia was held on Thursday, January 30th, the President, Sir W. S. Church, Bart., M.D., in the chair. The minutes of the previous meeting were read and confirmed.

The King.

The President announced to the Comitia that His Majesty the King had graciously expressed his consent to remain an honorary Fellow of the College. The following resolution was proposed by the Senior Censor, seconded by the Treasurer, and carried with acclamation:

"The President and Fellows of the Royal College of Physicians are deeply sensible of the great honour which the King has been pleased to confer upon them by graciously consenting to remain an Honorary Fellow of their body. They desire to assure His Majesty of their devoted loyalty to His Throne and Person, and to beg His Majesty's acceptance of this expression of their gratitude and dutiful allegiance."

Lecturers Appointed.

The President also announced that he had nominated Dr. David Ferrier as Harveian Orator, and Dr. Cullingworth as Bradshawe Lecturer for the year. Upon the nomination of the Council Dr. Bulstrode had been appointed to deliver the Milroy Lectures in 1903.

Members.

The following gentlemen, having passed the required examination, were admitted as Members: Arthur Stanley Barnes, M.B.Lond., L.R.C.P.; John Charlton Briscoe, M.B.Lond., L.R.C.P.; Arthur Edmund Carver, M.B., B.A.Camb., L.R.C.P.; Otto Fritz Frankau Grünbaum, M.A., M.B. Camb.; Richard Crawshaw Holt, M.D.Durh.; Charles Hunter, M.A., M.B. Aberd.; William McCallin, M.D.R.U.I.; Sheffield Henry Morier Neave, L.R.C.P.; Charles Gabriel Seligmann, M.B.Lond., L.R.C.P.

Licences.

The licence to practise physic was granted to 118 gentlemen. Of these 15 were under regulations dated October 1st, 1884.

Diploma in Public Health.

The diploma in Public Health was granted to the following: William Macqueen Brunton, M.B., C.M.Edin.; Francis Edward Fremantle, M.B., B.Ch.Oxon., M.R.C.P., M.R.C.S.; James Campbell Morgan, L.R.C.P., M.R.C.S.; Albert Edward Thomas, M.B., B.Ch.Oxon.; James Watt, M.D., C.M.Edin.; Reginald John Willson, M.B., B.C.Cantab.; James Patterson Wilson, M.B., Ch.B.Glas.; Meredith Young, M.D., C.M.Edin.

The Lectures on Medical History.

The College Seal was set by the President to a Declaration of Trust settling the foundation of the FitzPatrick Endowed Lectureship.

Communications.

Lady Priestley offered for the acceptance of the College a portrait of the late Sir William O. Priestley, M.D., F.R.C.P., and Mr. Thomas Wakley, jun., offered for the acceptance of the College silver and bronze medals bearing the head of Sir William Browne, a former President of the College (1765-1766).

The best thanks of the College were accorded to Lady Priestley and to Mr. Thomas Wakley for these interesting gifts.

The President announced that he had accepted the honorary Presidency of the Egyptian Medical Congress to be held in December, 1902; and upon the motion of the Senior Censor the President was invited to be the representative of the College upon the occasion of the celebration of the Jubilee of the Owens College on March 12th and 13th next.

Murchison Scholarship.

The Dean of the Medical Faculty, University of Edinburgh, November 15th, reported the award of the Charles Murchison Scholarship, in July last, to Robert Veitch Clark, M.A. Edin.

Council.

Upon the nomination of the Council, Dr. Gee, Sir R. Douglas-Powell, Bart., Dr. Champneys, and Dr. Sharkey were elected Councillors in the room of Dr. Dickinson, Dr. Bradbury, Sir John Williams, Bart., and Dr. Stephen Mackenzie, who retired by rotation.

Reports.

A report from the Committee of Management, dated December 9th, 1901, was received and adopted. The Committee recommend that the North-Western University, Chicago, be added to the list of universities recognized by the Board at which students may complete the curriculum of professional study, and whose graduates in medicine, on fulfilment of the [illegible] conditions, may be admitted to the Final Examination. The Committee further recommend that the fee of 5 guineas, hitherto p[illegible] dates for admission to the Examination in Public Health, be in[illegible] 6 guineas, and be paid on each occasion of admission to Parts I and II of the Examination.

A report from the Laboratories Committee, dated December 6th, 1901, was also received and adopted. The Superintendent of the Bacteriological Department reported that during the preceding two months 7,274 doses of diphtheria antitoxin, each containing 3,000 units, had been supplied to the hospitals of the Metropolitan Asylums Board, making a total of 21,822,000 units; and that during the quarter further batches of antitoxin supplied by Messrs. Parke, Davis, and Co., had been tested in the laboratory, and a certificate granted showing its strength, sterility, and freedom from excess of antiseptic.

CONJOINT BOARD IN SCOTLAND.

THE quarterly examinations of the above Board in Edinburgh were concluded on February 1st with the following results:

First Examination (Four Years' Course).—J. Q. Donald and D. Burrows.

First Examination (Five Years' Course).—J. W. Pell, M. S. Naidu, J. L. Power, A. McMillan, M. Moody, and W. R. Miller.

One passed in Physics, 7 in Elementary Biology, and 3 in Chemistry.

Second Examination (Four Years' Course).—J. Q. Donald, H. L. Jones, D. Burrows, W. Gerrard, J. C. Warwick, and R. H. Hunter.

One passed in Physiology and 1 in Materia Medica.

Second Examination (Five Years' Course).—M. S. Naidu, J. D. Kennedy, T. Owens (with distinction), T. F. Murphy, N. D. Sweetnam, W. H. Woodger, D. E. A. Buchanan, D. C. McCabe-Dallas, D. A. Hastings, J. Wylie, T. Archdeacon, and J. R. Purcell.

One passed in Anatomy.

Third Examination (Five Years' Course).—K. D. Contractor, H. F. Everett, C. V. R. Naidu, J. G. Heathcote, H. Doig (with distinction), J. Walker, and E. G. Taylor.

Two passed in Pathology and 5 in Materia Medica.

Final Examination.—R. E. Turner, T. Huston, E. H. Kenny, W. E. Graves, W. McFarlane, H. B. Connell: Jessie Eleanor George, Emma Taylor, W. Barclay, S. A. Sittampalam, S. Rivers, Grace Eleanor Soltau, J. H. O'Sullivan, H. Aspinall, L. E. Staynes, R. G. Campbell, P. F. Manchester, M. Johnston, E. W. Kemp, R. Chisholm, C. L. Mandl, G. J. Harman, K. D. Contractor (with honours), W. Hunter, C. E. Marshall, S. R. Kapoor, D. R. Rees, G. Goldfoot, C. V. R. Naidu, Kathleen Bonnar, J. J. McNicholl, W. Beck, and R. Murphy.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE EVASION OF THE LIABILITY TO REHOUSE.

A FLAGRANT example of how a wealthy railway company may evade the obvious intention of the Legislature in the matter of rehousing persons of the working classes displaced by clearance schemes was brought before the London County Council at a recent meeting.

The facts as reported by the Housing Committee were briefly as follows: A block of buildings containing 162 tenements of one, two, or three rooms, were built in Whitecross Place, Finsbury, in 1880, by the Lands Securities Company, Limited; the dwellings were found convenient by persons of the poorer working class, as they were situated in the centre of districts in which they found employment, and up to November, 1900, the dwellings were always full. The company has gone into liquidation, and at the date mentioned notices to quit were served on the tenants of two of the blocks; many left, and nine months later ejectment orders were obtained against those that still remained. In October, 1901, notices to quit were served on the tenants of two other blocks; since then nothing further has been done, but tenants from other parts of the dwellings have been leaving, preferring to do so when they saw their way to find other homes, so that at present, out of 162 tenements, only 62 are occupied. The Committee reported that the work of demolition had been commenced on the first two blocks, and stated that on March

1901, in reply to a question by the Hon. Claude Hay, M.P. for Hoxton, the Secretary of State for the Home Department made the following reply:

I am informed by the London and North-Western Railway Company that the property referred to has not yet been transferred to them, but that they have entered into a conditional agreement to purchase it.

The case appears to involve questions as to the rehousing of displaced labouring class persons, with regard to which I am bound to say that I consider the attitude adopted generally by this company to be very unsatisfactory; without answering the latter part of the question in detail I may say the whole matter is engaging my most serious consideration.

The Committee conclude their report as follows:

It will be seen from this that the liquidator has evidently sold only the land upon which these buildings are situated to the London and North-Western Railway Company, and in order to carry out his part of the contract he is now pulling down the buildings, and displacing nearly 600 persons of the poorer labouring class.

In this way he is enabling the London and North-Western Railway Company to evade the obligation cast upon them by the Standing Orders of Parliament.

The above facts are sufficient, in our opinion, to justify the Council in taking action in the ensuing session of Parliament to oppose the Bill to be introduced by the London and North-Western Railway Company. We have, therefore, communicated with the Parliamentary Committee with a view to their taking such action at the proper time, and we report the facts for the information of the Council.

THE DEATH-RATES OF METROPOLITAN BOROUGHS DURING 1901. In the accompanying table will be found summarized the vital statistics in the cities and boroughs of the County of London, based upon the Registrar-General's returns for the year 1901. The mortality figures relate to the deaths of persons actually belonging to the various metropolitan boroughs, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various boroughs in which the deceased persons had previously resided.

The 131,278 births registered in London during 1901 were equal to an annual rate of 29.0 per 1,000 of the population, estimated at 4,543,757 persons in the middle of last year; this rate was lower than that in any of the ten preceding years, during which the birth-rate averaged 30.7 per 1,000. Among the various boroughs the birth-rate showed wide variations, consequent principally upon differences in the sex and age-distributions of their populations; the rates ranged from 13.7 in the City of London, 17.8 in the City of Westminster, 18.0 in Hampstead, 20.4 in Kensington, 21.6 in Stoke Newington, and 22.1 in Chelsea to 34.3 in Bermondsey, 34.6 in Poplar, 35.0 in Shoreditch, 35.6 in Bethnal Green, 37.2 in Stepney, and 37.7 in Finsbury.

The deaths of persons belonging to London registered during last year numbered 77,663, and were equal to an annual rate of 17.1 per 1,000, against 18.5, 19.6, and 18.7 per 1,000 in the three preceding years; the mean rate during the ten years 1891-1900 was 19.2 per 1,000. The lowest death-rates last year among the metropolitan boroughs were 10.7 in Hampstead, 13.0 in Lewisham, 13.2 in Stoke Newington, 13.4 in Wandsworth, 14.3 in Paddington, and 14.6 in Woolwich; the highest rates were 20.3 in Bethnal Green, 20.9 in Stepney and in Bermondsey, 21.4 in Finsbury, 21.5 in Southwark, and 21.9 in Shoreditch.

During the year under notice 10,107 deaths in London were referred to the principal zymotic diseases; of these, 229 resulted from small-pox, 1,952 from measles, 584 from scarlet fever, 1,330 from diphtheria, 1,604 from whooping cough, 4 from typhus, 497 from enteric fever, 7 from simple continued fever, and 3,900 from diarrhoeal diseases. These 10,107 deaths were equal to an annual rate of 2.22 per 1,000, against 2.84, 2.52, and 2.24 in the three preceding years; this rate was slightly below the mean-rate in the ten preceding years, 1891-1900, which was 2.67 per 1,000. Among the various metropolitan boroughs the zymotic death-rates ranged from 1.02 in Hampstead, 1.06 in the City of London, 1.28 in Stoke Newington, 1.31 in Chelsea, 1.34 in the City of Westminster, 1.51 in Woolwich, and 1.55 in Wandsworth, to 2.86 in Hammersmith, 2.88 in Bethnal Green, 2.90 in Bermondsey, 2.99 in Shoreditch, 3.02 in Southwark, and 3.04 in Poplar. Compared with the averages in the ten preceding years, the mortality from small-pox was greatly in excess, that from diarrhoeal diseases showed a slight increase, while that from each of the other principal zymotic diseases showed a considerable decline. Among the various boroughs the greatest proportional mortality from small-pox was registered in Hammersmith, City of Westminster, St. Pancras, Holborn, and Bermondsey. During last year 1,788 small-pox cases were admitted into the Metropolitan Asylums Hospitals, nearly five-sixths occurring during the last three months of the year; 666 patients remained under treatment at the end of the year. Measles showed the highest proportional fatality in Shoreditch, Bethnal Green, Stepney, Southwark, Bermondsey, and Battersea. Scarlet fever was proportionally most fatal in Finsbury, Shoreditch, Bethnal Green, Southwark, Bermondsey, and Camberwell; 14,959 scarlet fever patients were admitted into the Metropolitan Asylums Hospitals during the year, and 3,080 remained under treatment at the end of December last. The greatest proportional mortality from diphtheria occurred in St. Pancras, Islington, Hackney, Bethnal Green, Poplar, and Camberwell; there were 9,090 diphtheria patients admitted into the Metropolitan Asylums Hospitals during 1901, and 1,369 remained under treatment at the end of the year. Whooping-cough was proportionally most fatal in Hammersmith, Fulham, Shoreditch, Poplar, Southwark, and Battersea. The highest "fever" death-rates last year were recorded in Fulham, Holborn, Bethnal Green, Stepney, Poplar, and Bermondsey; the number of enteric fever patients admitted into the Metropolitan Asylums Hospitals last year was 1,480, and 195 remained under treatment at the end of December. Diarrhoeal diseases showed the highest proportional fatality in Fulham, Finsbury, Shoreditch, Poplar, Southwark, and Battersea.

The deaths from phthisis in London registered during the year under notice numbered 7,514, and were equal to an annual rate of 1.66 per 1,000; in the Central and in the East Districts of London, the mortality from this disease was considerably higher than in any other part of the metropolis. In the West District the phthisis death-rate was 1.47 per 1,000; in the South Districts, 1.55; in the North Districts, 1.59; in the East Districts, 2.06; and in the Central Districts, 2.40 per 1,000. Among the various

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Year 1901.

Boroughs.	Estimated Population middle of 1901.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoeal Diseases.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,543,757	131,278	77,663	29.0	17.1	2.22	10,107	229	1,952	584	1,330	1,604	4	497	7	3,900	7,514	148
Paddington	144,154	3,360	2,060	23.4	14.3	1.72	249	—	9	11	46	52	—	15	—	116	158	136
Kensington	176,787	3,603	2,675	20.4	15.2	1.83	321	1	76	15	38	62	1	11	—	117	241	163
Hammersmith	112,619	3,022	1,914	26.8	17.0	2.86	323	15	47	14	36	80	—	10	—	115	160	168
Fulham	138,426	4,596	2,181	33.3	15.8	2.81	389	3	38	20	48	77	—	20	2	181	189	152
Chelsea	73,879	1,631	1,223	22.1	16.6	1.31	97	1	9	5	9	29	—	6	—	38	124	138
City of Westminster ...	182,[illegible]	3,232	2,906	17.8	16.0	1.34	245	16	59	11	21	48	—	20	—	70	344	135
St. Marylebone ...	131,[illegible]	4,008	2,207	30.2	16.6	1.65	219	7	9	18	33	40	—	8	—	104	251	107
Hampstead	82,287	1,481	874	18.0	10.7	1.02	84	2	1	4	20	24	—	7	—	26	75	104
St. Pancras	235,207	6,124	4,291	27.0	18.3	2.39	563	41	68	33	109	87	—	30	—	195	419	154
Islington	335,325	9,223	5,346	27.6	16.0	1.97	662	8	157	30	132	90	—	47	—	198	504	140
Stoke Newington ...	[illegible]	1,168	674	21.6	13.2	1.28	65	3	8	4	14	8	—	5	—	25	69	115
Hackney	219,780	6,344	3,455	28.9	15.8	2.15	471	5	94	26	97	50	—	20	—	179	330	145
Holborn	59,205	1,675	1,186	28.4	20.1	2.28	135	30	23	3	15	10	—	12	—	42	166	124
Finsbury	101,263	3,803	2,166	37.7	21.4	2.78	279	7	48	18	36	38	—	11	—	121	221	142
City of London ...	26,629	365	534	13.7	20.1	1.06	28	2	1	4	8	2	—	3	—	8	61	175
Shoreditch	118,554	4,109	2,591	35.0	21.9	2.99	354	5	75	20	29	60	—	10	—	155	204	207
Bethnal Green	129,700	4,668	2,628	35.6	20.3	2.88	372	11	88	44	63	78	—	19	1	117	279	183
Bromley	[illegible]	11,092	6,218	37.2	20.9	2.54	761	22	180	42	76	98	1	44	—	298	623	113
Poplar	168,887	5,820	3,364	34.6	20.0	3.04	514	10	89	14	83	79	—	26	—	213	309	165
Southwark	[illegible]	6,875	4,416	33.4	21.5	3.02	620	14	101	54	53	98	—	18	—	222	516	168
Bermondsey	[illegible]	4,450	2,718	34.3	20.9	2.90	377	14	81	44	37	[illegible]	—	22	—	122	233	189
Lambeth	302,460	9,104	5,204	30.3	17.3	2.15	649	4	122	38	81	115	—	23	3	298	499	139
Battersea	167,364	5,016	2,771	29.6	16.4	2.76	465	2	138	10	20	[illegible]	—	18	—	202	246	163
Wandsworth	233,943	6,110	3,118	26.2	13.4	1.55	362	1	65	17	41	62	—	16	1	157	267	138
Camberwell	259,807	7,303	4,268	28.2	16.5	2.44	631	7	152	47	112	84	—	25	—	204	384	142
Deptford	110,732	3,397	1,818	[illegible]	16.5	2.48	274	1	53	17	37	50	2	10	—	104	131	146
Greenwich	96,188	2,787	1,463	[illegible]	15.3	2.17	209	1	55	5	22	30	—	10	—	75	111	130
Lewisham	128,423	3,299	1,665	25.8	13.0	1.65	211	—	31	11	24	28	—	13	—	104	115	129
Woolwich	117,619	3,336	1,709	30.1	14.6	1.51	178	1	21	5	20	[illegible]	—	12	—	99	206	149

metropolitan boroughs the rates ranged from 0.90 in Lewisham, 0.71 in Hampstead, 1.10 in Paddington, 1.14 in Wandsworth, 1.16 in Greenwich, and 1.19 in Deptford, to 2.16 in Bethnal Green, 2.19 in Finsbury, 2.23 in Shoreditch, 2.30 in the City of London, 2.51 in Southwark, and 2.81 in Holborn.

Infant mortality in London last year, measured by the proportion of deaths of children under one year of age to registered births, was equal to 143 per 1,000, and was 11 per 1,000 below the mean rate in the ten preceding years. The lowest rates of infant mortality were 104 in Hampstead, 107 in St. Marylebone, 111 in Stoke Newington, 124 in Holborn, and 125 in Lewisham and in Woolwich; while they ranged upwards in the other boroughs to 165 in Poplar, 168 in Hammersmith and in Southwark, 169 in Bermondsey, 175 in the City of London, and 197 in Shoreditch.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,228 births and 5,115 deaths were registered during the week ending Saturday last, February 1st. The annual rate of mortality in these towns, which had been 17.7 per 1,000 in each of the two preceding weeks, increased last week to 17.9 per 1,000. Among these large towns the death-rates ranged from 7.2 in York, 9.2 in Burton-upon-Trent, 9.3 in Wallasey, 9.7 in Hornsey, 9.8 in Walthamstow and in Barrow-in-Furness, and 10.2 in Birkenhead to 23.6 in Halifax, 24.3 in St. Helens, 25.0 in Rhondda, 25.9 in Merthyr Tydfil, 26.1 in Ipswich, 26.5 in Newport (Mon.), and 30.3 in Great Yarmouth. In London the rate of mortality was 18.8 per 1,000, and exceeded by 1.2 the mean rate in the seventy-five other large towns. The zymotic death-rate in the seventy-six large towns averaged 1.6 per 1,000; in London this death-rate was equal to 1.5 per 1,000, while it averaged 1.5 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.0 in Willesden, in East Ham, in St. Helens, in Stockton-on-Tees, and in Merthyr Tydfil, 3.2 in West Bromwich, 3.4 in Middlesbrough, and 4.0 in West Hartlepool. Measles caused a death-rate of 1.2 in Northampton and in St. Helens; scarlet fever of 1.2 in Newcastle and 1.5 in South Shields; diphtheria of 1.2 in Willesden, 1.5 in Merthyr Tydfil, 1.6 in West Hartlepool, 2.0 in East Ham, and 2.5 in Cardiff; whooping-cough of 1.1 in Liverpool, 1.2 in Leicester, 2.0 in Aston Manor, and 2.4 in West Hartlepool; "fever" of 1.2 in St. Helens; and diarrhoea of 2.2 in Middlesbrough and 2.4 in West Bromwich. Thirty-nine fatal cases of small-pox were registered in London, 2 in Willesden, 1 in Tottenham, and 1 in West Ham, but not one in any other of the seventy-six large towns. There were 1,136 small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday, February 1st, against 873, 877, and 870 at the end of the three preceding weeks; 429 new cases were admitted during the week, against 306, 213, and 264 in the three preceding weeks. The number of scarlet fever cases under treatment in these hospitals and in the London Fever Hospital, which had declined from 3,137 to 2,658 on the five preceding Saturdays, had further decreased to 2,555 at the end of last week; 226 new cases were admitted during the week, against 250, 288, and 299 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, Febuary 1st, 869 births and 704 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.8 and 20.3 per 1,000 in the two preceding weeks, rose again last week to 21.8 per 1,000, and was 3.9 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 10.9 in Perth and 18.6 in Paisley to 23.1 in Aberdeen and 23.2 in Glasgow. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Glasgow and Dundee. The 346 deaths registered in Glasgow included 1 from small-pox, 16 from measles, 5 from scarlet fever, 2 from diphtheria, 12 from whooping-cough, 2 from "fever," and 2 from diarrhoea. Five fatal cases of measles and 2 of diarrhoea were recorded in Dundee: 4 of whooping-cough in Aberdeen; 2 of whooping-cough in Leith; and 2 of scarlet fever in Greenock.

THE PAYMENT OF ACCOUNTS BY PUBLIC AUTHORITIES.

From communications which have reached us recently, it appears that certain district authorities have been endeavouring to insist that medical men, entitled to payment of fees under the Notification Acts, should make a personal visit to the council's offices to obtain payment. It appears that the clerk to the Bracebridge Urban District Council, Lincolnshire, recently required Dr. F. Bastow Cooper either to make a personal application at his office in Lincoln, or to send a receipt before receiving the money. Dr. Cooper refused to adopt either course and commenced an action in the county court, whereupon the fees with the costs were paid into court before the case was heard.

THE NOTIFICATION OF MEASLES.

The Public Health Committee of Edinburgh Town Council, at its meeting on February 4th, decided to delay the motion by Councillor Dr. Matheson Cullen as to the advisability of replacing measles on the list of notifiable diseases under the Infectious Diseases Notification Act, in order to have the opinion of the medical profession on the point. The agenda for the meeting of the Edinburgh Medico-Chirurgical Society on Wednesday, February 5th, contains the following: "Motion by Dr. Matheson Cullen: 'That the Society should petition the Town Council to continue the notification of measles.'"

VACCINATION.

VACCINATION AT THE PATIENT'S HOUSE.

H.F.—A child, according to definition in the Vaccination Order, Article 31, is "any person not more than 14 years of age." There is no provision for payment in respect of vaccination of children elsewhere than at the house. According to Section VII of the Act of 1898, the Local Government Board may open stations "by order" for the vaccination of children, but the remuneration in such a case is fixed by the Local Government Board by virtue of the powers contained in Section VI of the Act, and is expressly set forth in the order. The primary vaccination of a person "other than a child" is provided for in Article 3, where a fee of not less than 2s. 6d. is authorised for the operation performed at the surgery or elsewhere than at the house, and a fee of not less than 5s. if performed at the house of the person vaccinated.

THE "VACCINATION BOOM."

Under this heading the *Hackney Express* of February 1st devotes some paragraphs to a report of a meeting of the Shoreditch Guardians to a letter addressed to the Board by one of the district medical officers. The term, strange to say, is quoted from that gentleman's letter, which, according to the report, complained that the writer had reaped no benefit by "the vaccination boom." To speak of the present attempt to vaccinate effectually many of the public as a "vaccination boom" might come very well from a pronounced antivaccinist, but it does not sound well in the mouth of a medical practitioner, who appears to desire to share in the professional fees derived from the operation.

POOR-LAW APPOINTMENT.

J. R. M. asks whether the holder of the M.B. degree only is eligible for the post of Poor-law medical officer and public vaccinator.

*** This depends upon the date of the degree in question. If obtained since the Act of 1886 came into force the holder is fully qualifying for Poor-law purposes, but if granted previous to the year 1886 it would not be a qualification to practise medicine, surgery, and midwifery, and the holder could only obtain an appointment of a temporary character as a Poor-law medical officer, and would consequently be subject to re-election to office every one, two, or three years.

CONDEMNATION OF WORKHOUSE INFIRMARY SICK WARDS.

The Holbeach Workhouse Infirmary, as we see from the *Lincolnshire Free Press*, has been made the subject of an adverse report from the inspector for overcrowding and understaffing: in fact, the old sins, on which we have so often commented in these columns in connexion with other workhouses, sins which mar the efficient treatment of the sick poor. The guardians pay the medical officer and the cost of food and drugs, and yet, with a short-sighted parsimony, withhold the additional expenditure which is necessary. The medical officer was in entire accord with the report. It is futile to expect that these old buildings, erected when the sick poor were in a minority as compared with the able bodied, can adapt themselves to present-day requirements; the inspectors must go on condemning them until sufficient pressure is brought upon the guardians to rebuild them.

HOSPITAL AND DISPENSARY MANAGEMENT.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.

Clinical Laboratory.—We are informed that the work in this laboratory from June, 1901, to January, 1902, included 155 examinations of clinical and *post-mortem* pathological specimens. Among these were examples of actinomycosis of the peritoneum, splenomyelogenous leukaemia, forms of anaemia, the serum and "serosedimentation" diagnosis of enteric and undulant fevers, gonorrhoea, tuberculosis, diphtheria, blood counts, and haemoglobin estimations. The histopathological work included specimens of a duct cancer and a large-celled sarcoma with intracystic growths of the mamma, tuberculous pyosalpinx, lymphadenoma of the abdominal type, adeno-myxoma of parotid region, membrane of hydatid cyst, an enormous diffuse pigmented "sarcoma" of the liver, and varieties of sarcomata.

MEDICAL NEWS.

We understand that Mr. George Pernet, M.R.C.S., L.R.C.P., is now in charge of the Light Department at University College Hospital.

Mr. C. B. Ball, F.R.C.S., Regius Professor of Surgery in the University of Dublin, has been re-elected by the Council of the Royal College of Surgeons in Ireland as the representative of the College on the General Medical Council for the ensuing year.

We are informed that the annual dinner of British Gynaecological Society took place on January 29th at the Café Monico, London, when the retiring President, Dr. J. A. Mansell Moullin, presided. Among the company present were several ladies.

A Disclaimer.—We are requested to state that at a meeting of the Medical Committee of the Hospital for Consumption and Diseases of the Chest, Brompton, held on February 5th, it was unanimously resolved: "That the medical staff of the Brompton Hospital repudiates all responsibility for statements with reference to treatment of consumption by intravenous injection which have recently appeared in a daily journal. The treatment in question is being tried by some members of the staff, but as yet no trustworthy results have been demonstrated."

ON the initiative of Professors Golgi and Foà of the University of Turin, steps are being taken for the formation of an Italian Pathological Society.

THE Edinburgh University Club of London will dine at the Criterion Restaurant on Wednesday next (February 12th). The chair will be taken at 7.15 P.M. by Dr. T. J. Maclagan. Further particulars can be obtained from Dr. James Taylor, 49, Welbeck Street, W.

CONGRESS OF RUSSIAN SURGEONS.—The second meeting of the Congress of Russian Surgeons was held at Moscow in the early part of January, under the presidency of Professor W. Rasumowski, of Kasan. The Congress was attended by about 200 members.

PRESENTATION.—At the annual dinner of the Ambulance Division in connection with Sir Joseph Causton and Sons, Limited, Mr. Hildred Causton, on behalf of the members, presented a handsome electric reading lamp to Dr. J. Samuel Hudson, in recognition of his services as lecturer in first aid.

AT a meeting of the Sanitary Institute to be held at the Parkes Museum, Margaret Street, W., on Wednesday next, at 8 P.M., Dr. Wynter Blyth, Medical Officer of Health, St. Marylebone, will open a discussion on the Prevention of Small-pox in the Metropolis. The chair will be taken by Sir James Crichton-Browne.

THE HUNTERIAN SOCIETY.—The Hunterian oration before this Society will be delivered by Dr. Arthur Davies at the London Institution, Finsbury Circus, E.C., on Wednesday next at 8.30 P.M., the subject will be Organo-Therapeutics Ancient and Modern, and the meeting will be open to members of the profession.

"SLEEPING SICKNESS."—It is said that the medical mission sent to Africa some time ago by the Portuguese Government to investigate "sleeping sickness" has discovered a serum which has a curative effect on the disease. We give this information "with all reserve," for it comes to us through the Continental lay press without, as far as we are aware, the guarantee of the name of any member of the mission.

LEPROSY IN THE UNITED STATES.—It is not unlikely that a Bill will be introduced into the United States Congress providing for a Commissioner of Leprosy and a home for lepers. The Bill provides for a Commissioner of Leprosy who shall be a physician of ten years' practice and who shall receive a salary of 5,000 dollars (£1,000) a year. He is to reside in New York or San Francisco. For the erection of buildings for the lepers a sum of 50,000 dollars (£10,000) is to be appropriated. In addition, a square mile of the public domain is to be set aside for the colony. No lepers are to be admitted as immigrants, and persons coming from leprous families are to be under the strict supervision of the authorities for at least seven years.

MEDICAL OFFICER TO THE LONDON SCHOOL BOARD.—At the last meeting of the London School Board, Dr. James Kerr, Medical Superintendent to the Bradford School Board, who, as was announced in the BRITISH MEDICAL JOURNAL of February 1st, had been selected by the General Purposes Committee, was formally elected Medical Officer to the Board. His duties will be generally to supervise the medical officers department, to conduct correspondence, to examine male candidates for employment, to visit schools where there has been an outbreak of infectious disease, and generally to do such work and conduct such inquiries, and give such advice as the Board may require of him from time to time. The salary is £800 a year, rising by annual increments of £25 to £1,000 a year. It is stated that there were 148 applicants for the appointment.

A MEDICAL DESERTER FROM THE RUSSIAN NAVY.—According to the New York *Medical Record*, the Supreme Court in Washington recently decided that a liberal construction of the treaty between the United States and Russia demanded the delivery to that country of Dr. Leo Alexandroff, a deserter from the Russian warship *Variag*, notwithstanding the fact that he had renounced allegiance to Russia and signified his intention of becoming an American citizen. He came to the United States a year or so ago, with a detail of men, to act as assistant surgeon on the *Variag*, then building at Philadelphia, when she should be completed, but almost immediately deserted, and announced his intention of remaining in and becoming a citizen of the United States. Three of the justices strongly dissented from the decision, holding that the case was not covered by the express provisions of the treaty, and that in the absence of such express provision there was no power of the executive or the judiciary to surrender a fugitive.

THE ROYAL ZOOLOGICAL SOCIETY OF IRELAND.—The annual meeting of the Royal Zoological Society of Ireland was held in the Royal College of Physicians of Ireland last week. Professor Cunningham, F.R.S., Honorary Secretary, presented the annual report of the council, which stated that the erection of the Roberts House for carnivora to commemorate Lord Roberts's tenure of office as President, was almost completed. The total cost of the building would be £4,000, of which members of the Society and the public have contributed £2,140. There were eighteen lions in the gardens. One valuable lioness died from peritonitis, due to perforation of the stomach (probably ulcer). The adult Bactrian camel and the camel calf both died, and it seemed to be a mystery why these animals failed to live in Ireland. A sea lion died, also a female chimpanzee—the latter from phthisis. The energetic Honorary Secretary has written and published a short sketch of the origin and early history of the Society.

THE STUDY OF MALARIAL FEVER.—We are informed that in future the surgeons of the ships of the Imperial Direct West Indian Mail Service (Elder, Dempster and Co.), which sail between Bristol and Jamaica, will be provided with an outfit for taking blood films in cases of suspected malarial fever. Each outfit consists of cover glasses, forceps, and small bottles of absolute alcohol for fixing and holding the films when taken; a printed form, containing directions for taking and preserving the films and for filling in clinical details of the cases, is also provided. On arrival at Bristol, the films will be sent to Dr. J. O. Symes, of the Bristol Medical School, for report and classification, and will then be available for demonstration purposes. Although Jamaica itself is comparatively free from malarial fever, it is anticipated that a considerable number of specimens will be obtained from patients coming from other parts of the West Indies, and the careful classification of these will, it is hoped, throw some light upon the varieties of fever endemic in that part of the world.

A FRENCH LEAGUE AGAINST INFANT MORTALITY.—A league against infant mortality has recently been founded in Paris, the object of which is to set in operation and promote in every possible way a movement for the lessening of the terrible mortality among French babies. One of the chief objects of the League is the study of the causes of this mortality. It will also assist the public authorities in organizing a system of home visits, in establishing *crèches*, places for the supply of milk, dispensaries, etc., and in watching over infants put out to nurse. The League will also strive to educate the public mind as to the principles of infantile hygiene and the rearing of children. Among the original members of the League are Prince d'Arenberg, President of the Philanthropic Society; Professors Fournier and Grancher; Dr. Duclaux, Director of the Pasteur Institute; and Dr. Leon Labbé. The Council consists of Dr. Théophile Roussel, Member of the French Senate, chairman; M. Paul Strauss and Professor Pierre Budin, vice-chairmen; Drs. Josias and Variot, secretaries; and Dr. Henri de Rothschild, treasurer.

MEDICAL VACANCIES.

The following vacancies are announced:

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Salary, £120 per annum, with board and lodging. Applications, marked outside "Application for the Office of House Surgeon," to be sent to Mr. W. Bottomley, Honorary Secretary, 120, Stamford Street, Ashton-under-Lyne, by February 18th.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon; not exceeding 30 years of age. Salary, £80 per annum, with furnished apartments, board, and attendance. Applications, endorsed "Junior House-Surgeon," to be sent to the Honorary Secretary, W. W. Cannon, Esq., 23, Mawdsley Street, Bolton, by February 13th.

BRADFORD ROYAL INFIRMARY.—Pleasurary Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications to the Secretary.

BRIDGWATER INFIRMARY.—House-Surgeon. Salary, £80 per annum, with board and residence. Applications to the Secretary by February 17th.

BRECON INFIRMARY.—Resident House Surgeon; unmarried. Salary, £100 per annum, with furnished apartments, board, attendance, fire and gas. Applications to the Secretary, 6, Bulwark, Brecon, South Wales, by February 10th.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Physician; unmarried, and under 30 years of age. Salary, £80 per annum, with board, residence, and washing. Applications to the Secretary by February 26th.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum, with residence and maintenance. Applications to the Secretary by February 19th.

BRISTOL GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum, with board, residence, etc. Applications to the Secretary by February 12th.

BRISTOL ROYAL INFIRMARY.—Casualty Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary.

BURY INFIRMARY.—Junior House Surgeon. Salary, £80 per annum, with board and residence. Applications to the Honorary Secretary, Dispensary, Knowsley Street, Bury.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board and lodging. Applications to the Secretary by February 21st.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary, £160 per annum, with board, lodging, and washing. Applications to Dr. Lawrence, County Asylum, Chester, by February 12th.

EASINGTON UNION AND RURAL DISTRICT COUNCIL.—Medical Officer for the Union Workhouse, and Medical Officer for the Easington Relief District, and Public Vaccinator for the Easington Vaccination District. Salary, £100, and usual vaccination fees. Candidate appointed will probably be elected Medical Officer of the District Infectious Diseases Hospital at a salary of £50 per annum. Applications, on forms provided, and endorsed "Application for Medical Officer, etc.," to be sent to the Clerk, Union Offices, Easington, Castle Eden, R.S.O., co. Durham, by February 18th.

EDMONTON URBAN DISTRICT COUNCIL.—Resident Medical Officer for Temporary Small-pox Hospital (tents). Applications to M.O.H., Town Hall, Edmonton, N.

GLASGOW: ANDERSON'S COLLEGE MEDICAL SCHOOL.—Chair of Physiology. Applications to the Secretary, 59, West Regent Street, Glasgow, by February 22nd.

HASTINGS, ST. LEONARDS AND EAST SUSSEX HOSPITAL.—House-Surgeon (male); unmarried. Salary, £75 per annum, with residence, board, and washing. Applications to the Secretary by February 28th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. Salary, £450 per annum, with partially furnished house etc. Applications, endorsed "Application for Medical Superintendent," to be sent to the Clerk to the Visiting Committee, County Hall, Brecon, by February 28th.

KENT COUNTY ASYLUM, Barming Heath, Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising to £200, with furnished quarters, etc. Applications to Dr. F. P. Davies, Superintendent.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Junior House Surgeon. Salary, 63 guineas per annum. Applications to the Chairman of the Medical Board by February 8th.

MANCHESTER: ANCOATS HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum, with board, etc. Present House Physician candidate for the post, and if elected office of House Physician will be vacant at £80 per annum, with board. Applications to the Secretary by February 11th.

MANDALAY MUNICIPALITY.—Health Officer. Salaryf Rs. 600, rising to Rs. 800 a month, by annual increments of Rs. 40. Applications to Mr. I. Calderaraj, Secretary of the Municipality, by March 24th.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent.—Assistant House-Surgeon. Board, apartments, and washing provided, and honorarium of at least £25 at the end of six months. Applications to Mr. A. E. Boyce, Secretary and House Governor, by February 10th.

OXFORD: RADCLIFFE INFIRMARY.—House-Physician. Appointment for six months. Salary at the rate of £80 per annum, with board and lodging. Applications to Mr. G. W. Farmer, 11, Beaumont Street, Oxford, before February 12th.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Resident House Surgeon. Salary, £135 per annum, with board and residence. Applications to the House Governor by February 14th.

PRESTON ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £60 per annum, with board, lodging, and washing, etc. Applications to the Secretary by February 20th.

RAINHILL: COUNTY ASYLUM.—Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary commencing at £150 per annum, with prospect of increase of £25 annually to £200, and further on promotion, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

ROYAL DENTAL HOSPITAL FOR LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square, W.—Lecturer on Materia Medica in Relation to Dental Surgery. Applications to the Dean by February 17th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £60 per annum, with furnished apartments, board, and washing. Applications to the Acting Secretary by February 11th.

SOUTH SHIELDS: INGHAM INFIRMARY, AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon: salary, £100 per annum. (2) Junior House-Surgeon: salary, £75 per annum. Residence, board, and washing provided in each case. Applications to the Secretary by February 17th.

SUFFOLK COUNTY ASYLUM.—Second Assistant Medical Officer. Salary commencing at £130 per annum, rising to £150, with board, lodging, laundry, and attendance. Applications to the Medical Superintendent, County Asylum, Melton, Suffolk.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Resident Medical Officer; unmarried. Salary, £100 per annum, with board and lodging. Applications to the Secretary, 34, Craven Street, Charing Cross, London, W.C., by February 10th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £50 per annum, with board, lodging, washing, and attendance. Applications to Mr. T. P. Bache, Honorary Secretary, Churchill House, West Bromwich.

WESTMINSTER HOSPITAL, S.W.—Assistant Surgeon; must be F.R.C.S.Eng. Applications to the Secretary by February 22nd.

WOLVERHAMPTON: GENERAL HOSPITAL.—(1) Assistant House-Physician; (2) Assistant House-Surgeon. Appointments for six months. Honorarium at the rate of £75 per annum, with board, lodging, washing. Applications to the House-Governor by February 10th.

MEDICAL APPOINTMENTS.

ALLARDYCE, William C., M.D.Glas., appointed Assistant Surgeon to the North Staffordshire Infirmary and Eye Hospital.

BROWNE, F. W. S., M.R.C.S., L.R.C.P.Lond., appointed Certifying Factory Surgeon for the Chatham District.

BRUNYATE, T. T. M.A., M.D.Oxon., appointed Physician to St. Bartholomew's Hospital, Rochester.

CANE, Howard, M.D., L.R.C.P.Lond., M.R.C.S.Eng., appointed by the London County Council Medical Officer to the Staff of the Crossness Outfall Works, *vice* J. Elliot, M.R.C.S., resigned.

EDWARDS, G. M., M.B., B.C.Cantab., appointed Certifying Factory Surgeon for the Harrow District of Middlesex.

ELLIOT, S., M.D.Edin., appointed Certifying Factory Surgeon for the Wick District of Caithness.

FIRTH, J. Lacey, M.D., M.S.Lond., F.R.C.S.Eng., appointed Surgeon to the Bristol General Hospital, *vice* Mr. C. F. Pickering, F.R.C.S., resigned.

HARPER, John R., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health to the Barnstaple Urban District, *vice* Mark Jackson, M.D.R.U.I., resigned.

HOWARD, V., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health for the Borough of Buckingham, *vice* G. H. De'Ath, M.R.C.S., L.R.C.P.Lond., deceased.

KYLE, Henry Greville, B.A., M.B., B.Ch.Oxon., appointed Assistant Surgeon to the Bristol General Hospital.

MEACHEN, J. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health for the Wadebridge Urban District, *vice* H. W. Haydon, M.R.C.S.Eng., resigned.

ROBERTS, David J., M.B., Ch.B.Edin., appointed Medical Superintendent of the Westmorland Sanatorium for Consumption, Meathop, *vice* W. M. M. Jackson, L.R.C.P., L.R.C.S.Edin., resigned.

SUNDERLAND, S. P., M.D.Brux., M.R.C.P.Lond., appointed Physician-in-Chief to the Royal Maternity Charity, *vice* Fancourt Barnes, M.D.Aberd., appointed Consulting Physician.

WARING, H. J., M.S., B.Sc., F.R.C.S., appointed an Assistant Surgeon to St. Bartholomew's Hospital.

WHEATLEY James, M.D.Lond., D.P.H., appointed Medical Officer of Health for the County of Shropshire, *vice* Charles Porter, M.D.R.C.P.I., D.P.H.Cantab., resigned.

YOUNG, Robert Arthur, M.D., B.Sc.Lond., M.R.C.P.Lond., appointed Assistant Physician to the Middlesex Hospital.

ST. BARTHOLOMEW'S HOSPITAL.—The following appointments have been made:
House-Physicians—H. L. P. Hulbert, M.A.Cantab., M.R.C.S., L.R.C.P.; R. H. Winick, M.A., M.B., B.C.Cantab.; A. E. Thomas, M.B.Lond., M.R.C.S., L.R.C.P.; J. Stirling Hamilton, B.A.Cantab., M.R.C.S., L.R.C.P.; H. H. Weir, B.A.Cantab., M.R.C.S., L.R.C.P.
Intern, April, 1902—H. G. Pinker, M.R.C.S., L.R.C.P.
Extern, April 1902—F. C. Shrubsall, M.A., M.B., B.Sc.Cantab.
" July, 1902—R. T. Worthington, M.R.C.S., L.R.C.P.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Clinical evening. Mr. Edmund Owen: Case of Traumatic Rupture of the Prostatic Urethra in a Boy. Dr. W. Ewart: (1) Case of Senile Anaemia associated with Gouty Rheumatoid Arthritis; (2) Case of Chronic Nephritis treated by Drainage and Feeding. Mr. C. B. Keetley: Case illustrating the use of Thiersch's Grafts in Excision of the Hip. Mr. E. M. Little: Two Cases of Late Rickets. Dr. W. E. Wynter: Three Cases of Chronic Oedema. Mr. T. H. Kellock: Case of Actinomycosis of the Tongue after treatment by Cauterization and Potassium Iodide. Dr. B. Potter: Case of Nodding Spasm.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 P.M.—Mr. Christopher Heath: Two Cases of Ligature of the Left Carotid for Aneurysm of the Arch of the Aorta, with the "Post-mortem" Specimens of Four Cases.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 P.M.—Demonstration of Cases of Interest.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Dr. Winson Ramsay, Mr. R. O'Callaghan, and Dr. H. Macnaughton-Jones. The President, Dr. Halliday Croom, will deliver his Inaugural Address.

FRIDAY.

British Electro-Therapeutic Society, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. Samuel Sloan (Glasgow) will exhibit his "Faradimeter." Dr. Herschell: Demonstration on Modern Induction Coils. Dr. Lewis Jones: Present Day Electro Therapeutics.

Clinical Society of London, 20, Hanover Square, W., 8.30 P.M.—Mr. Gilbert Barling: Seventy four Cases of Appendicitis with Localized Suppuration, with Special Reference to the Treatment of the Appendix in such Cases. Mr. F. C. Wallis: The Treatment of Intraperitoneal Abscess of the Appendix, illustrated by cases.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, W.C., 8.30 P.M.—Dr. W. Arnold Evans: The Factory and Workshop Act, 1901.

SATURDAY.

British Orthopaedic Society, City Orthopaedic Hospital, Hatton Garden, E.C., 4.30 P.M.—Cases, etc. Mr. J. Jackson Clarke will open a discussion on Fracture Deformities.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 P.M.—Gynaecological Demonstration.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 P.M.—Demonstration of Selected Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 P.M. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, throat.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 P.M. Lecture on Epilepsy.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 P.M. as follows:—Monday: Therapeutics. Tuesday: Uterine Haemorrhage. Wednesday: Lantern Demonstrations on Hernia. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Skin Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BOWES.—At Rishton, Lancs., on January 18th, the wife of Jos. E. Bowes, M.B., C.M., of a daughter.

FIELD.—On February 4th, at Moor Park View, Killinghall Road, Bradford, the wife of Arthur Holmes Field, L.R.C.P., L.R.C.S., etc., of a son.

MCCANDLISH.—At 155, Woodhouse Lane, Leeds, the wife of J. Gordon McCandlish, L.R.C.P., L.R.C.S., L.F.P. and S., of a daughter.

SLATER.—At Whitianga, New Zealand, on December 17th, Mrs. Howard Slater, of a daughter.

MARRIAGE.

SPENCER—SWEENEY.—At the Parish Church, Bolton-le-Moors, on February 1st, by the Rev. Henry Henn, George Herbert Spencer, M.R.C.S., etc., of Yarnsworth, Bolton-le-Moors, eldest son of the Rev. J. W. Spencer, Turton, to Marion Sweeney, eldest daughter of Edward Sweeney, Esq., of Ballina, co. Mayo, Ireland.

DEATHS.

MARTINDALE.—On February 2nd, suddenly, at 19, Devonshire Street, Portland Place, W., William Martindale, F.C.S., F.L.S., Past President of the Pharmaceutical Society, aged 61. Friends will please accept this, the only intimation.

RATTRAY.—On January 30th, at Hampstead, Eliza, beloved wife of Alexander Rattray, M.D. (late of Bournemouth).

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

B. W. asks whether any case of metol poisoning has occurred as a consequence of its use in photography, and in particular whether it would be likely to cause symptoms in a gouty patient.

J. M. C. asks for advice in the treatment of a lady, aged 66, who suffers severely from acid dyspepsia, severe burning pain coming on half an hour after meals.

MICTURITION ON EXERTION.

M.D. would be glad of suggestions in the following case: H. G., a girl aged 19 years, complains of involuntary micturition by day on making any extra exertion—for example, walking quickly, running, laughing, sneezing, etc. There is no trouble at night. This condition has been constant since the commencement of menstruation five years ago, except that during the first three days of each period she has complete control.

LATERAL INCISION OF THE PERINEUM.

G. C. writes: In Dr. G. W. Robertson's note of a case of early pregnancy, in the BRITISH MEDICAL JOURNAL of January 18th, 1902, p. 142, he says: "The vulvar aperture was specially small, but the perineum was saved by my making lateral incisions in the vulva." I do not know personally any one who has performed this operation, which has been strongly advocated; nor do I recollect any case other than this reported. We need not doubt that it was advantageous in this instance. But surely this is the exception that proves the rule, and forms the only class of case which would conceivably justify lateral incisions, with all the risk of sepsis. Some time since my opinion was asked about a girl, not quite so young, perhaps, as this case, who had menstruated only once. She was pregnant, was admitted into a lying-in hospital, and had a difficult labour—instrumental, I believe—from which mother and child emerged safely and well. Thus even in juvenile pregnancies lateral incision is not always required. Are there any reported cases? How deep were the incisions; and were they stitched up? There must always be exceptional treatment for exceptional cases. I am sceptical as to the advisability of this operation as a recognised procedure in many difficult or tedious labours.

LETTERS, NOTES, Etc.

THE DANGERS OF THE LOVING CUP.

DR. J. HAROLD BAILEY (Port Erin), writes to express the opinion that the use of the loving cup after banquets is a possible source of the dissemination of infective diseases, and suggests that the medical profession might set a good example by abandoning the custom.

SYMPTOMATOLOGY OF SHOCK.

DR. GEORGE A. [illegible] ASHLEE (Liverpool) writes: The Canadian "Surgeon" who comments in the JOURNAL of January 25th, p. 248, on my paper on surgical shock, appears to have been misled by my insistence on "white bleeding" as a factor in shock into thinking that I regard it as the only important factor. I have proved Dr. Sherrington's view and work on the [illegible] because they opened up an important and [illegible] factor in the causation of an exceedingly complicated [illegible] of vital interest to practical surgeons. I do not suppose that these explain anything but one of the factors of this condition, which we are engaged in studying. In a rabbit, that is, on which I performed the operation of abdominal section, exposure of intestine, and abdominal wall, after injecting 15 c.cm. of 1 per cent. solution into the vein of one ear, shock was apparently severe, though there was no [illegible] specific gravity of the blood indicative of apoplexy as well as after operation. So shock may be indicated in a variety of ways, mental and physical, and we, while investigating various factors in causation, must not overlook the fact that these are many and various.

THE HYGIENE OF THE MERCHANT SERVICE.

DR. THOMAS DUTTON (London) writes: The paragraph concerning the above in the BRITISH MEDICAL JOURNAL of January 25th must cause great surprise to those interested in this important subject. It seems that the committee, without a representative in medicine and hygiene, will only produce a report of no scientific value. Such a committee should certainly have a physician upon it well versed in theoretical and practical dietetics, also a practical medical officer of health with a knowledge of a large mercantile seaport. I have studied the question for the last twenty years, and I have come to the conclusion that the well-being of the British sailor is sadly neglected. In the diet the fault is not so much in the quantity or quality of the food as it is in the proper selection of the foodstuffs. I may say, in conclusion, that in my article on ship's surgeons in the second edition of my work on *Sea-sickness: Voyaging for Health*, I strongly advocate that there should be a medical mercantile marine formed under the Board of Trade, and that the surgeons should be specially trained in such subjects.

RINGWORM.

MR. BALMANNO SQUIRE (Weymouth Street, W.), writes: My experience of ringworm, which is a long one, fully bears out what you say in your article on the subject. I regard special schools for children with ringworm as unnecessary and as inexpedient, and I have found that children affected with ringworm can be brought up with children not thus affected without the disease spreading to the unaffected, the sole conditions necessary being the adoption of precautions of the kind you suggest, and of course a very careful examination at starting of all the children of the school in order to determine which of them are affected, even in ever so slight a degree. This comprehensive examination of the whole school should be repeated at fairly short intervals for some little time in order to make sure. It is expedient to examine at the same time the adult attendants of the children, some of whom may have contreated the disease on the face or on the arms.

LETTERS, COMMUNICATIONS, ETC., have been received from

A Messrs. Arnold and Sons, London; Mr. R. S. Antrobus, C.B., London; Alienist; Dr. F. J. Allan, London. **B** Dr. J. R. Bradford, London; H. W. L. Browne, M.B., West Bromwich; Dr. J. Beddoe, Stratford-on-Avon; Dr. H. S. Ballance, Weston-super-Mare; Rev. P. W. Bryan, Charlton Adam; Mr. L. A. Bidwell, London; Mr. T. H. Brocklehurst, Weymouth. **C** Messrs. A. Clicquot and Co., London; Dr. W. P. Cockle, Sheffield; Mr. H. W. Carson, London; Dr. C. H. Cattle, Nottingham; Dr. J. M. Clarke, Clifton; Dr. J. Cotter, Cork; Common Decency; Mr. H. E. Clark, C.M.G., Glasgow; Hon. Stephen Coleridge, London. **D** Dr. S. Davies, London; Dr. A. Duke, London; Mr. L. Downes, London. **E** W. McA. Eccles, M.B., London. **F** Dr. W. T. Freeman, Reading; Dr. A. R. Friel, Waterford; Mr. H. Farbstein, Hull; Mr. J. M. Ferguson, Burnley; Dr. T. Fentem, Bakewell. **G** Gold-headed Cane; Dr. J. Galloway, London P. R. Griffiths, M.B., Cardiff; G. P. E.; W. T. Gardner, M.B., Bournemouth. **H** Mr. J. D. Howe, Preston; Mr. J. H. Hadwen, London; Dr. J. W. Hamill, Manchester; Dr. C. O. Hawthorne, London; Dr. J. Haddon, Hawick; Mr. J. C. Heaven, Clifton; S. K. Hutton, M.B., Manchester; Mr. A. G. Hebblethwaite, Keighley; Mr. W. Hammond, Liskeard; Dr. T. A. Helme, Manchester. **I** I.M.S. **J** Mr. G. S. Jones, Horsham; Dr. J. A. Jamieson, Brodick. **K** Mr. L. H. G. Kerr, London; Dr. E. D. Kirby, Birmingham; Dr. G. S. Keith, Currie. **L** Liverpool Medical Institution, The Secretary of, Liverpool; Lex; L. L. **M** Dr. H. Manders, London; Mr. H. M. Morgan, Lichfield; J. R. Mitchell, M.B., Ossett; Dr. P. Manson, C.M.G., London; Mr. W. H. Martindale, London; Mr. W. J. Middleton, Bournemouth; Mr. K. Meadam, Oamaru, N.Z.; Dr. W. L. Muir, Glasgow; J. D. Mackay, M.B., Knaresborough; Member Midland Medical Union; Dr. T. Maguire, Stony Stratford; Dr. J. G. McKendrick, Glasgow. **N** Dr. J. T. C. Nash, Southend-on-Sea; Mr. A. R. Nicholls, Lauxport. **P** Puzzled; Mr. V. G. Plarr, London; Dr. R. Purdon, Belfast; Dr. C. Porter, Shrewsbury; D'A. Power, M.B., London. **Q** Querubus. **R** Rusticus; Dr. A. Robertson, Glasgow; Dr. R. Rentoul, Liverpool Dr. L. Roberts, Liverpool; Mr. J. Robertson, Edinburgh. **S** Dr. J. Shives, London; Dr. G. Sharp, Leeds; Mr. W. J. Spriggs-Smith, Wisbech; Mr. S. B. Stedman, Market Rasen; Shetlander; Dr. J. H. Swanton, London; B. Squire, M.B., London; B. Strachan, M.B., Sunderland; Dr. T. Savage, Knowle; Mr. F. Scott, Manchester. **T** Mr. F. T. Travers, Maidstone; J. H. Targett, M.B., London. **V** Volunteer Medical Officer V. M. S. and A. M. R. **W** Mr. J. F. Woodyatt, Halifax; Mr. W. L. Woollcombe, Plymouth; Dr. F. Willcocks, London; Mr. J. H. Wraith, Darwen; Mr. G. A. Wilson, London; Messrs. Wilson and Mackinnon, Melbourne; Mr. C. Williams, London; Dr. T. J. Wood, Bradford; E. Waggett, M.B., London; Mr. J. J. Weaver, Southport; Dr. T. Wise, Montreux; Mr. E. Whalley, Lancaster. **X** X.Y.Z., etc.

BOOKS, ETC., RECEIVED.

Selected Essays and Monographs chiefly from English Sources. London: New Sydenham Society. 1901.

The Croonian Lectures on the Chemical Side of Nervous Activity. By W. D. Halliburton, M.D., F.R.S. London: John Bale, Sons and Danielsson. 1901. 5s.

Progressive Medicine. Edited by H. A. Hare, M.D., assisted by H. R. M. Landis, M.D. Vol. IV. London: Henry Kimpton. 1902.

A Manual for Assistants' Examination, Apothecaries' Hall. By Mabel F. Stanley. London: Henry Renshaw. 1902.

An Experimental and Clinical Research into Certain Problems relating to Surgical Operations. By G. W. Crile, A.M., M.D., Ph.D. London and Philadelphia: J. B. Lippincott Co. 1901. 12s. 6d.

Handbuch der Massage und Heilgymnastik. Von Dr. A. Bum. Dritte Auflage. Berlin und Wien: Urban and Schwarzenberg. 1902. M. 3.

Hernia: Its Etiology, Symptoms, and Treatment. By W. McA. Eccles, M.S., F.R.C.S. Second Edition. London: Baillière, Tindall and Cox. 1902. 7s. 6d.

The Roentgen Rays in Medical Work. By D. Walsh, M.D. Third Edition. London: Baillière, Tindall and Cox. 1902. 12s. 6d.

A Simple Cure for Stammering. By the Rev. P. W. Bryan. London: William Whiteley. 3d.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	1 17 6
A page	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restantes* addressed either in initials or numbers.

Remarks
ON
FELT HAT MAKING: ITS PROCESSES AND HYGIENE.*

By CHARLES PORTER, M.D.R.U.I., M.R.C.S.Eng., D.P.H.Camb.,
Barrister-at-Law; County Medical Officer of Health for Shropshire, and formerly Medical Officer of Health for Stockport.

It is proposed in this article to describe briefly the extremely interesting and ingenious processes of felt hat making; to refer further to those of them which have unhealthy possibilities, and, finally, to adduce some statistics which, limited and incomplete as they unavoidably are, were obtained with great difficulty and after much personal inquiry by the staff of the Health Department of Stockport, the felt-hatting metropolis of the world.

Wool-felts and even cotton-felts[3] are used in the manufacture of the cheapest hats. A "sliver" or thin web of carded wool (previously carbonized with H_2SO_4 and water to remove vegetable matter) is guided on to two revolving cones, which move peculiarly through an arc of 45°. The hat "form" thus produced is hardened by mechanical "jibbing" pressure, the subsequent processes being somewhat similar to those hereinafter described. Comparatively few hats of this class are made in Stockport.

The better sorts of felt hats are made from the shorter, finer hairs in the fur of the rabbit, hare, musk rat, nutria, South American rat, beaver, etc. It is necessary to consider separately (I) the dressing of the "fur," and (II) the manufacture of hats from the prepared fur.

I.—The Dressing of the Fur.

The work of dressing the skins is carried out by "hat furriers," who are to be found chiefly in Southwark, Newcastle-on-Tyne, Glasgow, Manchester, and Stockport.

The various processes include (1) cleaning the skins; (2) mixing the acid nitrate of mercury solution; (3) carotting, which may be manual or mechanical; (4) drying); (5) tying up and damping; (6) cutting; (7) locking; (8) pelt-shaking. In briefly explaining them, free use will be made of the very excellent and accurate description by Misses Deane and Squire, in the Chief Inspector of Factories' Annual Report for 1898.

1. *Cleaning.*—Any fat which remains on the underside of the skin is rubbed with whiting, and the skin is hung up to dry. It is afterwards damped with water and sawdust, and "fleshed," the fleshings being said to be used as manure on hopfields. The fur is next cleansed by revolving brushes of strong wire, and is then "pulled"—that is, the long hairs or "kemps" are removed with a curved knife, and sold to upholsterers, and the remaining short hairs or "down" from which felt is made is now ready for carotting.

2. *Mixing the Acid Nitrate of Mercury Solution.*— This is made of nitric acid, mercury, and water, but the proportions vary in different factories. Arlidge[3] says that arsenious acid is one of the ingredients, but this is apparently not so at present.

3. *Carotting.*—The skin is spread out on a stone bench, and brushed or sprinkled with the nitrate of mercury solution, the workers usually wearing rubber gloves or finger-stalls. In some places the carotting is done mechanically, the skin being "drawn in between rollers, and thrown out dressed with nitrate of mercury. Each skin is, however, removed wet by hand, so that there is still direct contact of the operator with the mercury solution."

4. *Drying.*—The skins are then hung on racks in a drying chamber for four hours, "the workers usually entering the chamber to bring and remove the dressed skins, and thus necessarily inhaling the acid mercurial fumes."

5. *Tying-up and Damping.*—The dressed skins are tied up in bundles according to quality, ready to be passed on to other workers. Sometimes, not being wanted at once, they are stored, and have then to be damped with water or weak limewash to render them sufficiently pliable for cutting.

6. *Cutting.*—By an ingenious arrangement of rotating knives the hair is shaved close to the pelt, the fur in perfect form—called a "back"—as if still adhering to the skin, being delivered on to a tray.

7. *Locking.*—The outer edges of the "trays" or "backs" of fur are removed by women who, with their hands, compress the remaining fur and place it in a bag for dispatch to the hat factory.

8. *Pelt Shaking.*—The shavings of skin from the cutting machines are sent to glue makers, but have to be previously freed from dirt, hair, etc. The writer witnessed this being done by shaking on an ordinary riddle, and a good deal of dust—impregnated, of course, with nitrate of mercury—was evolved.

The *effect of carotting* has been described by Pappenheim and Hillairet.[1] The granular cells and the medulla of the hairs lose their shape, shrink, and become transparent. The epithelial sheath is no longer formed of a very thick layer, but gets markedly thin and transparent. Whilst a normal hair remains long in the water without appreciable change, the carotted hair swells, becomes less transparent, and coils in rounded contours; and it is, these observers believe, to this tendency and not, as was thought, to the imbrication of the epithelial inequalities that the felting is attributable. The researches of Hillairet have satisfied him that this is due to the action of the nascent nitrous gas developed by the decomposition of the acid nitrate of mercury in contact with organic matter, and that mercury is not indispensable. This, he states, can be proved by subjecting a hair in a closed test tube to the action of nitrous vapour generated by the decomposition of HNO_3 by Cu.

M. Merget[2] has tried to neutralize by chloride of lime the vapours of mercury which become suspended in the air during the process of carotting, and M. Meyer[2] claims to have obtained good results in the same direction by the use of ammonia poured on the ground.

Various methods of "carotting" without the employment of mercury have been suggested. MM. Hillairet and Bergeron recommended[1] that the skin should be coated on the hair side with molasses and then washed with a solution of HNO_3, the only inconvenience to the workmen being the evolution of some nitrous fumes. But it was found that it entailed more labour, took longer to dry, and interfered with "blowing," while the solution itself cost more, and so this method died a natural death.

L'Abbé Nollet, in *L'Art du Chapelier*,[6] published in 1765, says that a Parisian workman named Mathieu returned from England with a much better method of carotting than that then practised in Paris. The reagents employed were aqua fortis diluted with water, and a little lard with which he rubbed the hair. Others added honey and other substances to the solution without any special reason.

M. Dargelos, in an article on *L'Hygiène Professionelle des Ouvriers Chapeliers*,[1] claims that with 5 or 10 per cent. solutions of hydrochloric acid in the cold, he has obtained highly satisfactory results, the action on the epidermis of the hands being the sole inconvenience, and one which can be obviated by the use of flannel gloves. The time occupied is no longer, whilst 75 grams of hair carotted in this way went as far as 80 grams treated with nitrate of mercury. There is no liberation of chlorine except when the carotted skins are in the stove, and arrangements can be made to empty the stove without the workman having to enter it at all.

Schoul (*Annales d'Hygiène* September, 1882)[2] says that he believes he has found a solution of the problem in the use of "*sulfure sulfuré de calcium*" (bisulphide of calcium) suspended in water slightly acidulated with hydrochloric acid. This solution is perfectly innocuous, but has a disagreeable odour which can be diminished by good ventilation. Albrecht[4] states that Hillairet applied a solution of molasses on the hairy side of the skins, and then washed them with a weak solution of nitrous acid (*salpetrige saüre*), but the result does not seem to have been encouraging.

The writer's friend Mr. Thomas Kay, J.P., of the well-known firm of manufacturing chemists in Stockport, has kindly allowed his analyst (Mr. E. Hardcastle, Ph.C.) to investigate this matter. Mr. Hardcastle treated "fur" with solutions of varying strengths of the following substances: iron nitrate, zinc nitrate, zinc chloride, nitrous acid. He also exposed fur to

* Read before the North-Western Branch of the Incorporated Society of Medical Officers of Health.

the action of gases from a mixture of copper and concentrated nitric acid. Each of the fur samples so treated was separately felted by experienced hatters, and a careful record taken of the time occupied. Without exception this was appreciably longer than that required by similar quantities of ordinary carotted fur, in addition to increased difficulty of manipulation.

Mr. Hardcastle also searched the Patents Records, and found that solutions of the following had been registered: (1) nitrate or sulphate of iron; (2) sulphate of antimony, nitrate or sulphate of soda, or nitrate of potash mixed with oxalic and sulphuric acids; (3) tin dissolved in nitric and sulphuric acids; finally (4) caustic soda solution.

II.—The Manufacture of Hats from the Prepared Fur.

1. *Mixing and Blowing.*—The prepared fur is mixed and opened, and the "kemps" and "dags" separated and removed by passing it repeatedly through mixing and blowing machines containing revolving spiked cylinders and a fan, the finer qualities of fur being so treated as many as seven times.

2. *Forming.*—Boys ("feeders") weigh out sufficient fur (about 3½ ozs.) for each hat, and feed it into the "forming" machine, from which it is aspirated on to a forming cone on a revolving base by means of a powerful fan fixed below the forming cone, the result being a conical "form." The cone and the form are then removed by putting a churn-shaped "dipper" over the cone, and are immersed in hot water.

3. *Hardening.*—The water is loosely wrung out, and the "form" is wrapped in flannel and rolled by women to impart the necessary consistency and to start the felting.

4. *Planking* is of two kinds. In *hand-planking* the "form" is dipped in boiling water acidulated with vitriol, and then folded and vigorously kneaded by the planker's hand, which is occasionally protected by a leather glove, the process being repeated with the form differently folded and turned, so as to secure uniformity. Grégoire[5] says that in France plankers use a wooden roller (*roulet*) and a large flat wooden appliance (*manicle*) fastened by bands to the wrist and middle fingers. In *machine-planking* or *crozing* (French, *crosier*, to cross or fold) the folded form is repeatedly passed between rollers. It is then "milled" or pounded with heavy oak hammers to reduce it to the necessary size, and may be also passed through the "stamping" machine, which consists of three wooden rollers, two of which have spiral vulcanite flanges, whilst the third is fluted.

Proofing or *stiffening* is of two kinds: (*a*) *Water Proofing* is done with shellac and resin dissolved in water with borax or salts of tartar (potassium carbonate). The "body" is dipped into the mixture, and the superfluous shellac is then rubbed on with a piece of wood. (*b*) *Spirit Proofing.*—The form or "body" is brushed with a solution of shellac and resin in methylated spirit.

Stoving.—The proofed forms are placed in tiers on wire racks in a chamber heated to 180° F. by steam pipes. The spirit given off as vapour during this process is recovered by condensation.

After stoving, the hats are placed under steam pressure of from 10 lbs. to 15 lbs. per square inch; this has the effect of driving the "stiffening" well into the material of the hat.

Scouring and Dyeing.—The bodies are "scoured" with soda and water to remove any stiffening left on the surface; they are afterwards dried, and stretched by hand to prevent premature "setting" whilst still in the conical form. They are then immersed in steam-jacketted dyeing vats, the pigments used being aniline, logwood, and alizarine.

Blocking. After dyeing the hat is softened in boiling water, and, having been shaken and kneaded, is forced on to a wooden block to get the shape of the crown, the brim being flat and of the requisite width.

Pressing. After softening in a gas oven the hat is fitted in an iron mould of the requisite size and shape, and is pressed by hydraulic power of from 180 to 200 lbs. to the square inch.

Finishing consists of "*shaving*" with fine sandpaper and "*luring.*" In front of each finishing lathe is a hood and fan to draw off the fine dust produced by the sandpapering process. The "luring" is done with a suitable pad, a little grease being used to give a gloss to the finished hat.

Curling.—The "finished" hats are softened in a steam-heated saddle or "baker," a metal collar of required width is put over the crown, and by means of a suitably placed hydraulic press the rim-edges are forced or "curled" up, the rims themselves being still flat. The hat is then damped and ironed.

Shaping.—The hat is again softened in a steam-heated saddle, laid over a wooden matrix, and shaped or set by pressing with a hand press, being finished off by hand.

Trimming.—This includes binding the edges and fixing ribbon, inside leather, and silk lining.

Effects on Workers.

Possibilities of injury to health arise in connexion with the following:

1. The various processes connected with the dressing of the skins with acid nitrate of mercury (carotting).
2. The dust evolved during the "blowing" process.
3. The "forming" process.
4. The hot steam-laden atmosphere in which the plankers work.
5. The effect of hand-planking and blocking on the hands.
6. The process of spirit-proofing and the subsequent drying of the "proofed" hats.
7. The fine dust evolved during the process of finishing.

Risks of Carotting.

Hand-carotting, or brushing the skins with acid nitrate of mercury, subjects the operator to the inhalation of mercurial and nitrous vapour, and marked symptoms of mercurial poisoning frequently ensue. Salivation and intestinal irritation are rare, but amongst those who actually brush the skins there are stomatitis (hatters' sore mouth), and marked dental erosion. Dr. T. M. Legge finds that whereas those who are exposed to the fumes of metallic mercury only (for example, thermometer makers) suffer hardly at all, the teeth of workers with nitrate of mercury very soon exhibit characteristic erosion and facetting, the tissue which suffers most being the enamel, and not the dentine as in caries. The teeth become blackened and loosened from recession of the gums, and fall out in a certain kind of order, first the upper and lower molars, then the upper canines and incisors, and so on. Dr. Legge adds that 67 per cent. of the workers he examined were more or less affected in this way, and states that an extreme form of this condition has been described by Dr. Vogt, of Berne, amongst persons engaged in converting cotton wool into nitrocellulose by the action of a mixture of nitric acid and sulphuric acid.

Dr. Legge[12] has further noticed that muscular tremors ("hatters' shakes") are most often observed in those engaged in dusty post-carrotting processes (for example, cutters, lockers, and pelt shakers), and who swallow dry particles of fur impregnated with the solution. Such fur has been found by Professor Thorpe, F.R.S., to contain 1.34 per cent. of nitrate of mercury.

Amongst the operatives in the hat factories proper, mercurial poisoning appears in England and France to be a rare occurrence. In Stockport the whole of the medical practitioners were circularized on this point, and only some two or three slight cases had been noted during many years. Apparently this has not been so in the States, for Professor S. W. Williston, of Yale College, states[10] that:

> The injurious effects have not been so great, perhaps, in the actual carotting as in the forming and pressing of the hats. Since the general use of stiff hats has come into vogue, there has been a decrease in the extent of mercurial poisoning, especially in Connecticut, where comparatively few soft hats are made. The manufacture of soft hats requires in finishing a much greater use of the pressing iron on the damp felt, and a correspondingly greater inhalation of the mercurialized vapour. Still, there is not a little mercurial poisoning amongst the operatives, especially in the hat-forming shops.

It is difficult to reconcile this with the observation of M. Dargelos,[1] that

> after the hat is planked it contains nothing hurtful, the sulphuric acid and boiling water having removed all trace of mercury and nitric acid.

Moreover, A. L. Scott, of Danbury, U.S.A.,[7] states that mercurial poisoning is very rare now. During the Civil War, to meet large contracts, a mixture of fur and shoddy was used, which had to be very strongly carotted to make it "felt," and it was then that cases of mercurialism were frequent.

On the other hand, Mr. E. Hardcastle of Stockport has

found an appreciable amount of metallic mercury in the alcohol condensed from the vapour given off during the stoving which follows proofing.

Dr. J. G. Taylor[11] furnishes detailed clinical particulars of a number of cases investigated by him amongst hatters' furriers in Southwark, and observes that according to Kunkel the inhaled vapour as such does not pass through the walls of the alveoli of the lungs. It first undergoes condensation (?), and the tiny globules become oxidized and then dissolved. The reaction that enables mercury to enter the system is not perfectly understood, but Dr. Taylor thinks that the explanation probably lies in the fact that the perchloride of mercury forms with albumen an albuminate which is insoluble in water, but readily soluble in the presence of sodium chloride.

Injury to the eyes from splashing of the nitrate of mercury solution has been recorded in more than one case.

Prevention.—In December, 1900, Dr. Whitelegge, H.M. Chief Inspector of Factories, issued a circular letter[14] to hat furriers suggesting the following preventive measures, namely: (1) The removal by means of fans, etc., of the noxious fumes and dust; (2) periodical medical inspection, with power of temporary suspension of workers affected; (3) suitable and sufficient washing conveniences; (4) a separate room for meals; (5) daily removal of waste fluff and dust; (6) provision of drying stoves with sliding "horses," etc.

Risks of the Actual Process of Hat-Making.

Blowing.—The dust evolved during fur-blowing is impregnated with nitrate of mercury, and if inhaled is obviously likely to cause mercurialism in addition to the respiratory mischief which dusty occupations often entail. The blowing machines are well covered in, but the figures obtained in Stockport (see Tables B. and C., p. 380) appear to indicate a marked liability to respiratory disease amongst the blowers.

Forming.—This does not appear to be as dusty a process as might be expected, possibly because the atmosphere of the forming room is steamy and moist. The Stockport statistics point to no special cause of mortality, but in 1899 the writer had to investigate an outbreak including 7 cases of pneumonia (2 fatal), 5 of conjunctivitis, and 2 of ophthalmia amongst certain boys from an industrial school who were employed as "feeders" in a forming shop. No special cause could, however, be elicited, but the physique of the boys was poor, and they were very careless in their habits; for example, they left their capes to get soaked with rain in an open yard. Influenza was, moreover, very prevalent at the time.

Planking.—The hot steam-laden atmosphere in which the "plankers" labour is said by Arlidge to favour the development of lung trouble, and to impart a washed-out, pale, and languid appearance. The work is "piece work," and is exceedingly hard, the sight of the plankers, often stripped to the waist, dipping their "forms" into the boiling acidulated water in the huge steaming kettles and then energetically folding and kneading them on a bench or plank being one not easily forgotten. The Stockport mortality figures, so far as they go, do not appear to have any striking significance. The writer repeatedly noticed rapidly physical improvement in police recruits who had been plankers.

The Effect of Hand Planking and Blocking on the Hands.—Arlidge, quoting Lévy, says the felt hat makers suffer much from fissures and abrasures of the hand, and from constant contact with hot and acid water and "carotted" hair. The writer has frequently observed this in Stockport. Dr. Grégoire, of Chazelles sur Lyon,[7] gives a very interesting and accurate account of the characteristic marks on the planker's hand. He mentions the following peculiarities:

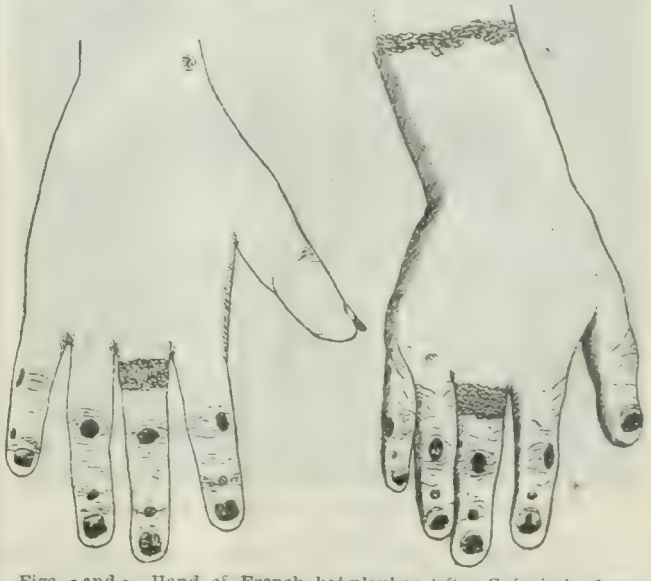
1. A more or less pronounced polish of the whole palmar surface.
2. The dorsal surface is deprived of hair.
3. The nails have the colour of ivory, have rugged borders, are foreshortened, and are loosened or discoloured in the terminal half or third.
4. The terminal phalanges are short, thick, and bulbous.
5. Callosities (called planker's "segs") on the thenar and hypothenar eminences.

The "wear and tear" on the planker's hand is undoubtedly very great, and Dr. Hanson Smith, of Reddish, states that he has had cases in which almost complete loss of power has resulted.



Fig. 1.—Hand of French hat-planker (after Grégoire); shows enlargement and induration of pulp of fingers, callosities on thenar and hypothenar eminences and mark of manicle on wrist.

The blocker's hand presents an almost equally characteristic appearance, the result of vigorously kneading the dyed "form" after it has been softened in boiling water.



Figs. 2 and 3.—Hand of French hat-planker (after Grégoire); show condition of nails, callosities on joints, and marks made by the loops of the manicle on wrist and middle finger.

Proofing.—The evaporation of the spirit in the spirit-proofing process occasionally causes headache and slight irritation of the eyes.

It will be remembered that within the last year a very serious explosion occurred at Denton in a stoving room in which proofed hats had been placed, owing to ignition of the fumes of evaporated spirit. Messrs. Kay and Hardcastle suggest that such accidents may also be due to the formation and explosion of fulminate of mercury ($CN.C(NO_2)Hg$), which results from dissolving mercury in nitric acid and adding alcohol.

Finishing.—The work of "finishing" is probably the least healthy of any of the processes of hat-making proper. Notwithstanding the exhaust fan with which each lathe is provided, there can be little doubt that an appreciable quantity

of the dust resulting from the application of sandpaper to the hat is inhaled by the workers, and the mortality from phthisis and other lung diseases, as well as from heart disease and "other diseases," is much greater than amongst any other class of hat operatives. The use by these workers of suitable respirators ought to have a good effect.



FIG. 4.—Hands of English hat-planker after 13 years.



FIG. 5.—Hands of English hat-blocker after 34 years.

STATISTICS.

On attempting any inquiry as to the effect on the Stockport operatives of these various processes, one was faced with the difficulty that neither the Census returns nor the Home Office could afford any information as to the number, sex, and age distribution of the various classes of workers. The Census returns classified all hatting operatives as "hatters," and gave their numbers as 2,764 males and 1,682 females, total 4,446. To meet this difficulty, the manufacturers (some 20 in number) were circularized, and all of them kindly replied, their figures aggregating as follows:

TABLE A. *Number of Hatting Operatives in Stockport in March, 1900.*

Blowers	68	Blockers, including "pressers" (44)	219
Hardeners	166	Finishers	451
Plankers, including "formers" (91)	730	Curlers, including "shapers" (81)	167
Proofers, including "stovers" (44) and "steamers" (43)	161	Trimmers	1,313
Dyers	71		

The next point was to obtain, from the Registrar's returns, the causes of deaths amongst these operatives; this one was fortunately able to do for a period of five years. As, however, the "employment" was usually returned in the death certificate merely as "hatter," in almost every individual case special inquiries had to be made amongst the relatives in order to ascertain the particular process upon which the deceased was engaged. The results thus laboriously obtained are as follow:

TABLE B.—*Causes of Death amongst Hatting Operatives in Stockport during the Five Years 1895-1899.*

Deaths from	Fur Blowers.	Hardeners.	Plankers.	Proofers.	Dyers.	Blockers.	Finishers.	Curlers.	Trimmers.	Totals.
Phthisis	3	1	4	1	2	1	35	—	2	49
Bronchitis	4	1	4	—	—	—	3	1	3	13
Pneumonia	1	—	6	1	3	—	11	—	4	26
Heart disease	1	2	6	—	1	1	8	—	5	24
Nervous disease	—	1	1	—	—	—	—	—	—	4
Cancer	—	—	0	—	1	2	—	1	—	4
Other causes	1	—	10	—	8	2	20	2	6	49
All causes	7	5	31	2	17	6	77	4	20	169

All these deaths occurred at ages over 15 years, and even to roughly compare the resulting rates with the corresponding mortality amongst the general population would involve calculation which time compels the writer to leave in the able hands of his successor (Dr. Meredith Young) who will shortly be aided by the recent Census returns.

Bearing in mind the smallness of the figures, the general mortality amongst the different classes of hat works may perhaps be very cautiously and guardedly contrasted as follows:

TABLE C.

	Deaths per Annum.		Deaths per Annum.
Proofers	1 in 402	Hardeners	1 in 100
Curlers	1 in 330	Blowers	1 in 48
Trimmers	1 in 208	Finishers	1 in 28
Blockers	1 in 182	Dyers	1 in 23
Plankers	1 in 116		

It would be extremely unwise to attach too much importance to these figures, and especially to those relating to "proofers" and "dyers," which are based on such very small numbers as to be most unreliable. On the other hand, the writer is quite convinced of the correctness of the indication afforded that the dusty processes of "blowing," and especially of "finishing," are associated with a high rate of mortality from phthisis and other respiratory diseases.

TABLE D.—*The Mortality of Hatters from Certain Diseases expressed as a Percentage of all Deaths amongst Stockport Hatters, 1895-9.*

Phthisis	29.6	Bronchitis	7.6
Pneumonia	15.3	Phthisis, pneumonia, and bronchitis	52.0
Heart disease	14.2		

Arlidge[6] observes that "the teaching of vital statistics is to the effect that, though in a less degree than formerly, hat making is unhealthy." Dr. Tatham, in his Mortality of Occupations Report[7] of 1897, says that the death-rates of hatters scarcely differ from the average at ages under 35 years, but at all subsequent ages they are considerably above it. Their comparative mortality figure is 1,109, and is therefore above that of occupied males as a standard by 10 per cent. He confirms Dr. Ogle's observation that the conditions under which hatters work appear to lead to excessive drinking and its consequences, their death-rates from alcoholism and also from liver disease showing serious excess. Their mortality figure from phthisis is also very high, being 301, or 63 per cent. above the standard. Scott,[7] indeed, remarks that in the States "hatters' disease" was synonymous with phthisis. Dr. Tatham adds that hatters suffer much less severely than the average from influenza and from rheumatic fever, but their figure for urinary diseases is considerably above the average, whilst that for suicide is exactly double.

The writer begs to cordially acknowledge the courtesy of Mr. Frederick Green, of the great firm of Messrs. Christy

and Co., of Stockport, in patiently demonstrating the different processes of manufacture, and subsequently revising the foregoing description. He has also to thank Dr. M. Young for securing the accompanying photographs, and Dr. Edwin Rayner for calling attention to the word "crozing."

REFERENCES.

[1] M. J. A. Dargelos, Hygiène Professionelle des Ouvriers Chapeliers, Cong. Internat. d'Hygiène, etc., *Compte Rend.*, 1889, par. 1890, 770-782. [2] Schoull, Des Moyens Propres a Empecher les Accidents d'Intoxication chez les Ouvriers Chapeliers, *Annales d'Hygiène*, September, 1882. [3] Jungfleisch, Sur les Dangers du Secrétage des Poils par le Mercure, *Ibid.*, December, 1892. [4] Albrecht, *Handbuch der praktischen Gewerbehygiene mit besonderer Berücksichtigung der Unfallverhütung* (Brit. Med. Assoc. Library). [5] Grégoire, La Main de l'Ouvrier Fouleur Chapelier. *Annales d'Hygiène*, par. 1898, 3 s., xxxix, 133-141. [6] L'Abbé Nollet, *L'Art du Chapelier*, par. 1765. [7] A. L. Scott, Report on Hatting, *Rpt. Bd. Health*, Connect., 1887-8, New Haven, 1888, xi, 299 (Library, Med. Dept. L.G.B). [8] Arlidge, *Diseases of Occupation*. [9] *Patents Records*, Solutions for Carotting. [10] Professor S. W. Williston of Yale, On Manufacturing Processes and Refuse, *Tenth Report Board of Health*, Connect., 1888-1889, quoted in *Rafter's Sewage Disposal*. [11] J. G. Taylor, Chronic Mercurial Poisoning, with special reference to Hatters Furriers, *Guy's Hospital Reports*, vol. lv. [12] Legge, British Medical Journal, August 17th, 1901, p. 402. [13] Deane and Squire, *Annual Report of Chief Inspector of Factories*, 1898, p. 167. [14] Whitelegge, Circular to Hat Furriers, *Annual Report of Chief Inspector of Factories*, 1900. [15] Tatham, *Supplement to Fifty-fifth Annual Report of Registrar-General*, part ii, p. li, etc.

TYPHOID FEVER IN SOUTH AFRICA: ITS CAUSE AND PREVENTION.

By GEORGE TURNER, M.B., D.P.H.,
Medical Officer of Health, Transvaal.

During the past two years the attention of the public, both lay and medical, has been very naturally directed to the prevalence of typhoid fever in South Africa. I remark, too, that the transference of infection by means of dust storms and flies appears to meet with much support.

It is true I have only been living in South Africa a little over six years, but the nature of my employment, that of medical officer of health, has certainly brought to my notice more cases of typhoid than would occur in the practice of any single medical man.

I have during these years inquired into the causes of typhoid fever in the large towns, in the villages, and in the scattered farm houses from Capetown to Mafeking and from Komati Poort to Port Nolloth.

For twenty-two years I was a medical officer of health in England and during that time I had much experience in regard to the causation and prevention of enteric fever. The experience gained in both hemispheres and under very diverse climatic and social conditions must be my excuse for interfering in this discussion.

I should not, however, venture to trouble you with my opinion on this very important question if I did not feel that the growing tendency to attribute enteric to wind and flies was not becoming a source of danger.

The following remarks must be taken as applying only to South Africa. I have read all or most of the accounts of the dissemination of typhoid by dust in India. I do not know what may happen in India, never having been there, but I do know that the reports are remarkably inconclusive, and I felt while reading them that if the epidemics in question had been investigated by any man accustomed to that work a different conclusion would perhaps have been arrived at. However, I do not wish to press this point.

During six years' experience I have found that the causation of epidemics of enteric in South Africa is practically similar to that which gives rise to the majority of cases in England, namely, a polluted water supply. Beyond the opportunity I have enjoyed of investigating the origin of typhoid in the Cape Colony, I have had more than average advantages in that respect in the Transvaal.

In August, 1900, Lord Roberts employed me to superintend the sanitary arrangements of the towns, camps, hospitals, etc., in the British occupation. I did so in and around Pretoria and Johannesburg, and in the Eastern line as far as Komati Poort and Barberton, and never had reason to suppose that enteric was attributable to either dust or flies. In fact, I have on one occasion only—and that was in the Cape Colony in 1899—had any grounds for supposing that dust was concerned in the production of typhoid, and on that occasion the dust appeared to have acted through the agency of the water used for drinking.

Most of my work in the Transvaal was carried out in association with Professor Simpson, who is a member of the Enteric and Typhoid Committee. I know nothing of the opinions which will be expressed in the report he will make conjointly with Colonel Notter and Colonel Bruce, but I shall be extremely surprised if either dust or flies are given an important place in it, the evidence that water was the chief agent in spreading the disease was so overwhelming.

On p. 382 is a diagram showing the weekly incidence of enteric fever, based on the Pretoria notification returns, compared with the average monthly rainfall. The notifications are made to me at my office, for the rainfall I am indebted to a diagram issued by the Public Works Departments prepared from records kept by Mr. J. Lyall Soutter.

It is to be regretted that I can only compare the rainfall and disease in one year and in one place. I had full notes of some hundreds of cases of typhoid fever—I might probably say thousands—which I had inquired into during my tenure of office as Medical Officer of Health for Cape Colony; unfortunately a fire occurred at my office, and most of my manuscript books were lost. Only those cases recorded in printed reports remain and those I cannot now consult—they are in Capetown.

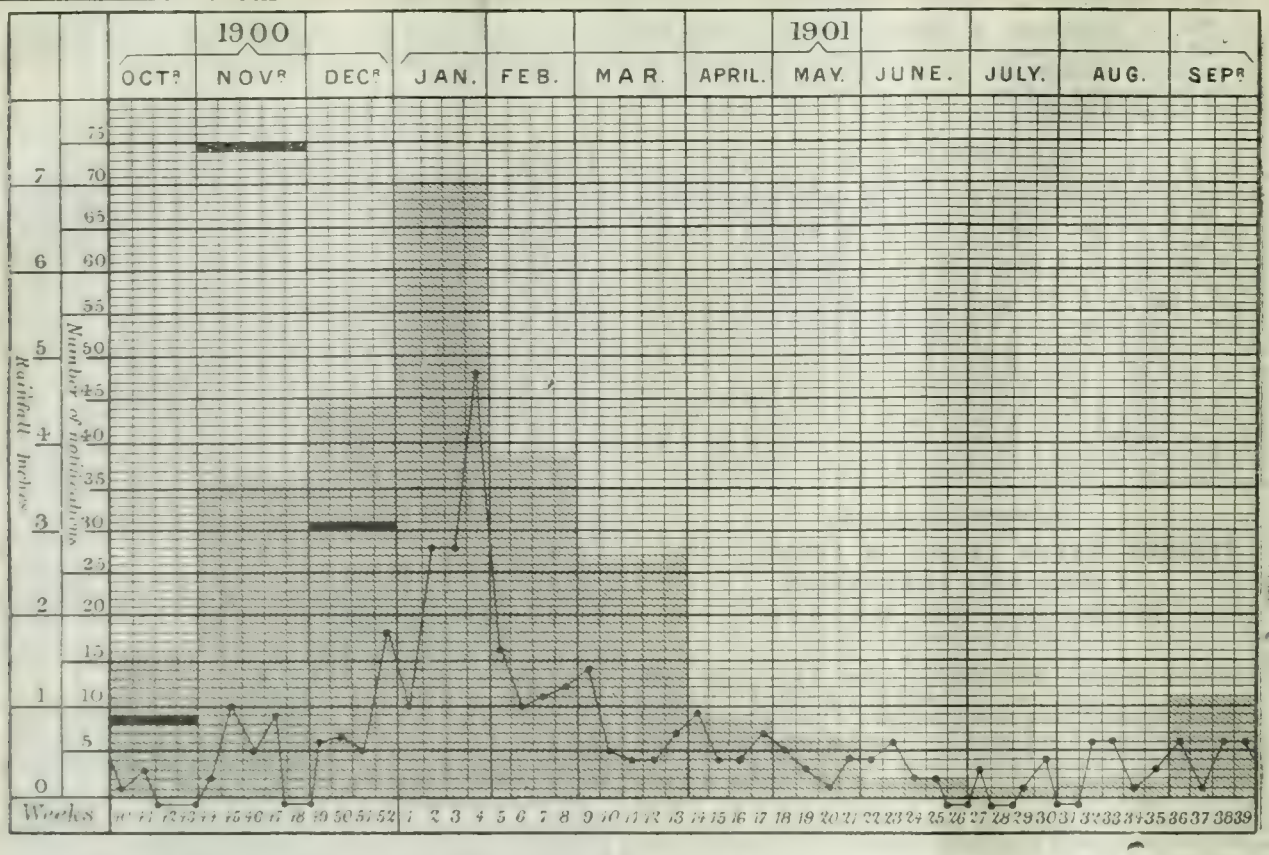
It is true that for some years we have had compulsory notification in the Cape Colony, but during the first period the returns were naturally defective, and for the past two years the war has exercised such a disturbing influence, that it would be a waste of time to work on any figures based on returns made during 1899, 1900, and 1901. I have no doubt that in a few years, working in conjunction with my colleague, Dr. Gregory, much useful information will be obtained on this point. In the meantime I send the official returns relating to one place, Pretoria and for one year—October, 1900, to October, 1901.

There is no intention on my part to deny absolutely the possibility of typhoid infection by means of windborne dust. I should say that such an occurrence is probably possible; at the same time, I deny that it is usual or even frequent.

If dust infection were the predominating or an important cause of enteric, one would expect to find the disease commence soon after the dusty season began and to cease soon after it finished. As a matter of fact, typhoid cases are least frequently met with just at the period during which dust storms prevail, and are most numerous when, on account of heavy rain, dust is less troublesome. This to my mind is conclusive proof that dust does not exert much injurious influence as regards typhoid.

As regards flies, I can only say that I hold a similar opinion. The possibility of the conveyance of enteric through these pests is undeniable; but in this instance also the supposed cause, the flies, begin to be troublesome long before typhoid prevails, and continue to annoy us long after it has subsided. If the flies were really important agents in the spread of typhoid fever, one would expect that, even if the disease did not commence to prevail soon after these nuisances commenced to be numerous—because it is conceivable that at that time typhoid-infected stools would be rare—yet when once typhoid became common the flies should carry on the infection, which should continue as long as or longer than the flies continued.

This year the typhoid fever is again steadily rising, and I should not be surprised if we suffered severely. When Lord Roberts was in command, all cases amongst the military as well as amongst the civilians were reported to the Health Office. For this the army officers in charge were paid a fee of 2s. 6d. per case. Since Lord Roberts has left notification of cases amongst soldiers has been peremptorily stopped. There may be good and sufficient reason for this; I know nothing of military matters, and never have been able to understand them. Certainly if the cessation of notification will have any beneficial effect on the war, no one would grudge a few civilian lives. In the meantime the only result, so far as I am concerned, is that I am completely in the dark as to the occurrence of disease amongst the people for whose health I am officially responsible. Nothing is more difficult than to discover conclusively



The number of cases of enteric fever notified weekly in Pretoria amongst the civilian population (22,000?) since the Proclamation came into force in October, 1900, until September, 1901. The dark shading represents the average monthly rainfall in Pretoria for nine years, 1892-1900; the thick black line the actual rainfall in October, November, and December, 1900; the thin line represents notifications.

the origin of one or even a few cases of typhoid fever, but multiply the few by ten or twenty, and patient investigation will almost certainly disclose the cause. Thanks to notification of both military and civilian cases last year I was able to trace out two or three commencing epidemics which would have caused much damage and loss of life had I not been in a position to interfere. Professor Simpson and I were working together from the time he arrived in Pretoria until he left for Capetown, and I have no doubt that he will endorse this statement.

Emphatically typhoid in South Africa is almost entirely due to polluted water. It has been said that filters were sent out with the troops, and that typhoid prevailed notwithstanding. I know that the filters were not generally used. At the end of October, 1900, I was making an inspection of a camp with Professor Simpson. We were informed that they had filters, and immediately asked to see them. The boxes containing them were produced: the screws holding down the lids had all the appearance of never having been removed, an opinion which was corroborated by the fact that the apparatus inside was contained in the original wrappings just as they were dispatched from England; I cannot say from memory how often the candles were cracked and how often it was frankly admitted that the filters had never been used systematically. I can only say that there was ample evidence that where the commanding officer had a "fad about water"—an expression once used to me by a military man the case incidence of typhoid was insignificant. No one wants to minimise the difficulty of providing pure water when on the march. My private opinion is that if the army had been supplied with the best sanitary expert advice on the march from Paardeberg to Bloemfontein, one of two things would have resulted: Either the army would never have reached Bloemfontein; or it would, as it did, have suffered from fever. One or other of these results was inevitable.

Admitting to the full extent that sanitary requirements must give way to military necessity, I am of opinion that much more might have been done to prevent typhoid fever, especially in camp. I remember once inspecting, with Professor Simpson, a camp to which good water had been conveyed by means of a big pipe, at the cost of some hundreds of pounds, yet, with an officer not ten yards away, we saw, in the space of ten minutes, at least six men drink or fill water bottles from a sluit which contained a considerable share of the drainage of Pretoria. I called the officer's attention to the fact and he said, "They will do it." Again, on another occasion, we saw men filling water bottles from a filthy hole because it was about forty yards nearer than a perfectly pure supply. This, too, was done without any attempt at prevention. The answer to any recommendation made by us always was, "They will do it."

I believe that if a general order appeared that each man was to wear his left boot on his right foot and vice versa the army would be lame in a week, and there is no earthly reason why orders as to drinking water should not be enforced in camp with the same rigor. I do not believe that disregard to ordinary sanitary precautions such as I have described cannot be prevented, or that it is necessary in a military sense.

Let it be clearly understood that I am not casting any reflection on my colleagues in the R.A.M.C. I do not wish to be impertinently patronizing, but two years' intercourse with the army surgeons has caused me to admire that much abused body of men. However, it is no part of my object to point out where mistakes have been made in the Army Medical Service. My object is to cause men to pause before attributing enteric in South Africa at least, to dust and flies. Once this idea has become rooted, investigation, worth speaking of, will cease. It is so easy and often so acceptable to attribute an epidemic to atmospheric influences. It is the lazy man's excuse, the delight of the do-nothing sanitary

authority. Who can as yet control the atmosphere? The wind bloweth where it listeth.

In conclusion I hope, by a simple device in a year or so, to be able to contrast the frequency of typhoid with the comparative prevalence of flies, and also with the average amount of dust blown through a given vertical area.

I am collecting evidence on the subject of typhoid fever and the variations in the condition of the water supply, but as yet it is too soon to publish the results I have obtained.

AIRBORNE TYPHOID.

By Lieutenant-Colonel R. H. QUILL, R.A.M.C.,
Senior Medical Officer, Ceylon.

At the late meeting of our Association, Dr. Leigh Canney read a very interesting paper on the Etiology of Typhoid Fever, in which, while strenuously supporting the proposition that epidemics of typhoid fever are always waterborne, he vigorously denounced those who ventured to believe that such epidemics could sometimes be traced to an airborne origin.

I should like to say, at the outset of the remarks I have to offer on Dr. Canney's proposition, that I, in common, as I believe, with the officers of the R.A.M.C. as a body, hold that epidemics of typhoid fever are chiefly waterborne, and it is to the water supply we first turn our attention when investigating the origin of typhoid cases, occurring sporadically or epidemically. But I am entirely at issue with Dr. Canney when he lays down the hard and fast proposition that typhoid epidemics are invariably waterborne—never airborne.

The subject is one of far-reaching importance, well deserving of full discussion. I will therefore, as briefly as possible, adduce evidence to prove that the waterborne theory will not *always* account for the occurrence of a typhoid epidemic. My facts will be drawn from our experience in connexion with the large camp in this island where Boer prisoners of war are confined.

In August, 1900, a large camp was formed at Diyatalawa, in the hills of Ceylon, for the Boer prisoners of war. The first batch of prisoners arrived on August 9th, and succeeding batches quickly followed, until by the end of December 96 officers and some 5,000 men were under confinement.

On September 21st, 1900, one of the prisoners who had arrived on September 5th reported sick. He was found to be suffering from typhoid fever of probably ten or more days duration. This was the commencement of an epidemic of typhoid among the prisoners, which soon assumed formidable proportions. By the end of December 600 cases had been diagnosed as typhoid fever, and during the same period some 200 cases of simple continued fever occurred, many of which, it is highly probable, were mild cases of typhoid.

We fully satisfied ourselves that this epidemic of typhoid among the prisoners had been imported from South Africa, but in that connexion I refrain from further remarks, as it has nothing to do with the proposition I have set myself to prove.

It is here necessary for my argument that I should briefly describe the relationship which exists between the prisoners' camp and that of the surrounding camp, where is located the military guard.

The prisoners' camp, situated on an undulating slope, is surrounded with a strong fence of barbed wire; outside that fence are inner and outer military guard lines. The "inner guard" consists of a number of sentry boxes at intervals of 100 yards, and placed only some 20 yards from the barbed wire fence. The "outer guard" consists of guard huts occupied by strong guards, placed on rising ground some 200 yards further back. The latrines, urinals, washhouses, and hospitals for the prisoners are all situated close to the barbed wire fence which surrounds the prisoners' camp as a whole.

The guard for the prisoners was formed by the 2nd Battalion King's Royal Rifles, who were a fine healthy body of men. No suspicious fever of any kind, prior to the outbreak among the prisoners, existed among them. The battalion remained in a thoroughly satisfactory healthy condition until October 18th, 1900—that is, for over two months after its arrival at Diyatalawa, and for a month after the first case of typhoid occurred among the prisoners.

On October 18th a man reported sick; he was found to be suffering from fever, which quickly proved to be typhoid. From that date admissions for typhoid among the battalion occurred at short intervals, until by the end of December there had been altogether 24 admissions and 5 deaths.

Now, in attempting to account for this outbreak of typhoid fever among the military guard at Diyatalawa Camp, I commence by advancing the following evidence against the outbreak having been in any sense waterborne.

1. The water supply was obtained from a mountain stream some three miles distant, and was brought into camp by underground iron pipes. The intake in the hills was so isolated that its pollution was, indeed, very remote. On the arrival in camp of the main iron pipes, smaller ones passed directly into four large Pasteur tank filters disposed about the camp in suitable positions, while in each barrack hut portable Pasteur or Berkefeld filters were placed and kept under careful supervision; thus all water used in the camp before its distribution invariably passed through a thoroughly reliable filtering medium. The water prior to filtration was subjected to a weekly chemical analysis, and the report always gave the water a high character; a similar verdict followed frequent bacteriological examinations. There has been no alteration in the water supply or filtering arrangements since the camp was opened, and no case of typhoid fever has occurred among the troops since December, 1900—that is, since the practical cessation of the epidemic among the prisoners of war.

2. No fresh milk was allowed within the camp precincts. When milk was required condensed milk (Milkmaid Brand) was used.

3. All aërated waters used in camp came from the Ceylon Brewery at Newera Eliza, and were identical with those used at that sanatorium. There has been no enteric fever at Newera Eliza.

4. No uncooked food or uncooked vegetables were used in camp.

5. No native hawkers of any kind were allowed to enter the camp.

6. Within the camp there were five or six native shops; these were under strict military supervision. No native drinks of any kind were sold in them. The aërated water sold in them were invariably procured from the Ceylon Brewery at Newera Eliza.

7. All men leaving the camp for purposes of duty or pleasure were obliged to take with them a water bottle filled with filtered water.

8. It is to be remembered that for obvious military reasons the camp was situated in an isolated position in the hills far removed from habitations of any kind.

As the foregoing considerations, in my judgment, completely put out of court a waterborne cause as being responsible for the typhoid outbreak in the military camp, I was driven to the conclusion that the infection was airborne, being derived from the adjoining prisoners-of-war camp, where at the time an epidemic of typhoid fever was raging.

In support of that opinion I submit the following observations:

1. Guard huts, accommodating strong guards, surround the prisoners' lines, and are close to them. This for military reasons is unavoidable.

2. The men on sentry duty are during day and night posted at short intervals almost immediately outside the barbed wire enclosure which separates the prisoners from the military camp. Thus those on sentry duty (a numerous body of men) are in close contact not only with the prisoners, but with their latrines, urinals, and washhouses, all of which, as I have already stated, are situated close to the barbed wire fence. The undesirability on health grounds of the line of sentries being placed so close to the prisoners' camp was fully recognised, but for military reasons it was not found possible to alter the arrangement. From the foregoing remarks it will be obvious that those on duty in the guard huts and sentry boxes must be to a very appreciable extent exposed to the emanations arising from the latrines used by the prisoners of war, especially during the time when the latrines are emptied—a frequent necessity. Now assuming that such emanations contained typhoid organisms—not a very far-fetched hypo-

thesis when we remember that at the time typhoid fever was very rife in the prisoners' camp, and further assuming that typhoid infection can be airborne—the possibility, nay the probability, of the infection being thus conveyed from the prisoners' camp to the military guards appears to be well founded.

3. But in addition to the assumption that the emanations from the prisoners' latrines may have conveyed infection to the military guard, it has to be recorded that the soil of the prisoners' camp gave peculiar facilities for the spread of the infection. The rank grass which originally covered the slope upon which the previous camp was arranged very soon disappeared, giving place to a reddish soil, so friable that dust was much in evidence, notwithstanding that it was the rainy season of the year. Now it is not unreasonable to reject as pure the dust of a camp in which at the time a formidable epidemic of typhoid fever was prevailing.

4. Lastly, the possibility of the infection being conveyed to some extent by flies must be considered. During the whole period that typhoid fever was prevailing in the prisoners' camp, flies in that camp amounted almost to a plague, the military camp being also infested, but to a lesser extent. Now flies being well adapted for the carriage of infection it is plain that, under the conditions existing in the prisoners' camp, there would be nothing to prevent flies laden with typhoid bacilli migrating from the prisoners' to the military camp, and thereby conveying to the latter camp the poison they carried.

I have endeavoured in this paper to review dispassionately the evidence bearing on the causation of the typhoid outbreak which occurred among the military guard at Diyatalawa Camp, Ceylon, during the closing months of 1900. I submit that I have shown—

(*a*) That all water avenues through which typhoid fever could have been conveyed to the military camp at Diyatalawa, were efficiently guarded, and therefore that a waterborne origin must be abandoned.

(*b*) That the infection was airborne, resulting from emanations from specifically infected latrines, infected dust, or bacilli-laden flies.

SO-CALLED "REMITTENT" OR "PRETORIA" FEVER.

By WENTWORTH TYNDALE, L.R.C.P., M.R.C.S.Eng.,
Civil Surgeon South Africa, late House-Physician, House-Surgeon, St. George's Hospital, and Assistant Medical Officer Fever Hospital, Metropolitan Asylums Board, London.

A GREAT many soldiers who stay for any length of time in Pretoria or its neighbourhood suffer from attacks of fever of a remittent type which is of short duration, and for want of a better name and a good deal from want of any accurate knowledge of its nature is returned either as "remittent," "malarial remittent," sometimes "simple continued" fever, and has even been given the special name "Pretoria" fever. To ally the complaint with malaria, however, is distinctly wrong, as it has no connexion whatever with it.

Below I only refer to the fever of the Pretoria neighbourhood. I do not include the simple continued fever so common at the beginning of the war amongst soldiers, especially in Cape Colony. This fever was more often of an intermittent type. True malaria does not, so far as I can ascertain, exist in Pretoria and its neighbourhood among the soldiers, except cases imported from Komati Poort and its surrounding districts.

I am informed, however, that amongst the poorer class of Dutch living on the low-lying ground near the river in Pretoria a low form of fever occurs, but I have seen no cases of a malarial nature amongst soldiers living near. I am also informed that about Penaar's River an intermittent fever occurs among the soldiers; the temperature rarely rises over 100°, and is unaffected by quinine. Personally I have neither heard of nor seen a single case of remittent fever, originating in this district, in which plasmodia have been found in the blood. Captain Beveridge, R.A.M.C., Analyst to the Army in South Africa, who has examined the blood of many of these cases, has not met with a single instance.

The onset of fever is, as a rule, sudden; the patient has been feeling out of sorts probably for a day or two previously but not sufficiently so as to cease work. The attack commences with acute frontal headache, pains in the back and legs; sometimes acute pain in the lower part of the occipital region, which occasionally occurs in enteric fever and is rather a characteristic symptom when present; sensations of "cold water being poured down the back"; often vomiting; loss of appetite and *malaise*. In 24 hours the temperature may reach 104°, rarely higher. A history of diarrhoea previous to admission to hospital is often given.

When admitted generally after about twenty-four hours' fever, the patient's condition is usually as follows: Headache as above, also about this time slight abdominal pain located, as a rule, by the patient above the umbilicus, and passing from right to left, slightly griping in nature (an almost constant symptom). Vomiting, if present, rarely lasts more than twenty-four hours after admission. Diarrhoea is fairly common for the first day, sometimes longer, but occasionally the patient is constipated. He is heavy and languid, with flushed face. The temperature variable, between 100° and 104° as a rule. The tongue is generally thickly coated with white or yellow fur, sometimes inclined to be dry, sometimes quite moist; occasionally quite clean, even raw-looking and moist. No enlargement of the spleen can be felt, but as a rule there is tenderness over this region (below the costal margin), and sometimes over the liver. On the whole, the condition on admission is generally much more characteristic of an intestinal lesion than of malaria.

The temperature generally descends gradually, dropping one or two degrees in the morning, rising half to one and a-half in the night. The time of descent is variable, two days or much longer, but remittent in character. The symptoms rapidly ameliorate; the headache disappears within two or three days, and even though the patient has a temperature of 101° or 102° at night, he may be quite indignant at being kept in bed and on a light diet. Spots resembling enteric only occurred in one case of mine (at the sixth day), but not more that 20 per cent. of the enterics out here have characteristic spots.

The stools are rarely typically enteric. The pulse is slow and quite out of proportion to the temperature. In one or two cases it was markedly dicrotic, even when the temperature had become normal. In one case with a normal temperature and dicrotic pulse, a typical enteric "relapse" occurred.

The tongue may clean rapidly, but often the coat persists for several days after the temperature is normal. This generally prognosticates a relapse with all the features of true enteric fever.

In contrast with malaria sweating is not at all a constant feature towards the termination of the fever, and is not profuse when present. The duration of the fever is from five days upwards, if beyond twelve days the diagnosis has to be altered to enteric fever.

NATURE OF THE FEVER.

Personally I have had very many, I may say hundreds of cases of the above type, and the conclusion I came to some time ago was that they were almost invariably abortive attacks of enteric fever. The proofs of this seem fairly conclusive.

1. These short fever attacks more often occur in men who have been some time in the country, generally well over six months. For instance, in about one month, out of 11 successive cases of "remittent" fever (under thirteen days fever), 1 patient had been out five months (see list at end—he had a relapse), one 7, one 10, and the rest all over a year, three-quarters of them over eighteen months. The reason is that most of these old-service men are, under ordinary circumstances, immune to enteric fever. In the first six months out here many men if they get run down will get true enteric fever not "remittent." The remainder after six months are more or less immune, that is, their powers of resistance are very high; but even these after prolonged exertion, bad food, etc., have their resistance broken down and fall victims to fever. So soon as they get rest and proper feeding the resistance reaches its former high level and the attack aborts; they have had "remittent" fever (otherwise abortive enteric).

Occasionally it happens that though the disease aborts their powers of resistance again give out, probably owing to their being debilitated by a prolonged light diet, and the men relapse with typical enteric fever.

2. Short attacks of "remittent" fever occur frequently in men who within a short time (1 to 12 months) have had a true attack of enteric fever. This occurred in my own person, and I have many cases in my notes. An attack of enteric does not prevent a second, but it undoubtedly makes the second attack milder in the majority of cases.

3. The symptoms and signs point more to intestinal mischief than anything else, and closely resemble at first the early stage of the enteric fever.

4. The absence of plasmodia in the blood of these cases, the failure of quinine to affect the course of the disease, and the absence of periodical attacks, etc., excludes malaria.

5. In a large percentage of cases relapses take place after the temperature has been normal for from three days to three weeks. I have notes of many such cases, and in most the relapses are typically enteric fever and run a typical course of twenty-one days or more. A few relapse and have only a short attack like the first, and I have 2 instances of short relapses followed by second ones typically enteric. In the list at the end it will be noticed that 5 out of 14 relapsed; 30 per cent. is about the average. Before the time when I could use Widal's test there was always the possibility of these cases having contracted true enteric fever whilst in hospital. However, the precautions against infection were so elaborate, and the fact that patients suffering from other diseases contracted enteric so rarely in hospital (not more than 1 in 300 at the most), and whereas my remittent fevers relapsed in more than 20 per cent. of cases, without Widal's test this possibility was negatived.

6. Remittent fever is most prevalent when and where enteric fever exists.

7. It occurs during times of the year when malaria in malarial districts is not prevalent. I had a number of cases in September. Malaria does not become really bad in Komati Poort until December.

8. Out of 11 successive cases of remittent fever of duration from five to ten days, mostly under my care, collected during one month, I obtained Widal's reaction in all. The majority had had no previous fever, and had not been inoculated. By Wright's sedimentation method I obtained reactions at dilutions varying from 1 in 50 to 80 and 160 within twenty-four hours at the most, and with a control experiment, agglutination method (1 in 10 dilution) in 10 minutes usually, maximum time one hour. The total number of cases I examined was 14. They all reacted. These tests were generally made when the patient's temperature had been normal two or three days, and in several cases a typical enteric fever relapse took place in periods varying from one to fourteen days after the test, helping to form a double proof of the nature of the case.

9. A natural objection to creating a new disease neither malarial nor enteric, and of which we know no pathology, when it can be included with a well-known disease.

It seems to me most important that it should be recognized that these cases of so-called remittent fever are in truth enteric fever, both for the sake of the sanitary precautions that should be taken when such cases occur in block-houses, etc., and for the sake of the patient himself. It must be borne in mind that possibly out of 100 mixed cases of enteric fever and remittent fever, as many as 40 may be returned as "remittent" fever.

As regards relapses, they are considerably more frequent than in ordinary enteric fever, the chief reason being that the patient feels so well that it is often impossible to keep him as quiet as he should be.

I must draw attention to the fact that some of these cases do not go to hospital at all, and when trekking or in temporary camps form a fruitful source of infection.

As regards the pathology of these cases it seems probable that in these short attacks the disease never reaches an ulcerative stage. Naturally this is almost impossible to prove.

Treatment.

The great factor in preventing relapse is absolute rest. Prolonged fluid diet after the temperature is normal appears to me unnecessary and debilitating. After giving "early feeding" in enteric fever a prolonged trial, it scarcely proved satisfactory, and relapses were more frequent. In "remittent" fever I give a light diet (beef-tea, jelly, custard) for six days, full diet about the tenth day—that is, half the time of ordinary enterics. I keep the patients in bed twelve days after the temperature is normal, allowing them to sit up on the ninth and tenth day.

I have met with no case of this kind that has been improved in the slightest degree by the administration of quinine. A more effective mixture is one that Dr. Ewart used to give to his enteric fever cases— namely, Tr. ferri perchlor. ♏ viii—x, liq. hydrarg. perchlor. ♏xv—℥ss ex aqua t. d. s. It helps to clean the tongue, and abdominal discomfort, or even distension, is certainly relieved by it.

Initials and Regiment.	Length of Service in S. Africa.	Previous Fever.	Inoculated.	Length of First Attack.	Relapse.	Result of Widal's Test, Sedimentation Method.
	Years.			Days.		
Trooper W., S.A.C.	¼	"Fever," Komati Poort 6 months ago; none since	No	7	No	Yes, 1 in 50 dilution within 25 hours; well marked
Private MacG., D.C.L.I. ...	1¼	No	No	7	No	Yes, 1 in 50 .. ..
Private M., 3rd Camerons..	1¼	No	No	9	Yes, after 18 days' normal temperature	Yes, 1 in 80 .. ..
Lieut. C., N.S.W. Bushmen	1¼	Enteric 2 months ago	No	13	No	Yes, 1 in 50 .. ..
Private H., 1st Camerons...	¼	No	No	10	No	Yes, 1 in 50 .. ..
Private K., A.S. Corps ...	2¼	No	2½ ago	7	No	Yes, 1 in 80 .. .
Private F., Cam. Highlandrs	1¼	No	No	9	No	Yes, 1 in 80 .. ..
Trooper M., S.A.C.	¼	No	No	5	Yes, after 5 days' normal temperature	Yes, 1 in 50 .. ..
Private L., A.S. Corps ...	¼	No	No	11	Yes, after 10 days' normal temperature	Yes, 1 in 50 .. .
Private C., M.M.P.	¼	Enteric 6 months ago	No	7	No	Yes, 1 in 50 .. ..
†Private S., 13th Hussars...	¼	No	No	6	Yes, after 16 days' normal temperature	Yes, 1 in 80 .. ..
*Driver D., R.F.A.	¼	Enteric 8 years ago	No	9	No	Yes, 1 in 160 .. ..
*Driver D., R.G.A.	¼	No	No	9	Yes, after 6 days' normal temperature	Yes, 1 in 80 .. .
*Private B., 2nd Beds. ...	¼	No	No	12 complicated with dysentery	No	Yes, 1 in 80 . .

† Widal taken second day of relapse.
Average length of fever, 8⅝ days.
In addition to above there were several cases with fever from 12 to 15 days, all reacting to Widal's test.
These, with the exception of three marked with asterisks, were the total numbers of remittent fever cases in hospital during a period of four weeks.
The number of enterics in hospital during the same period was about 30.
Control experiments (agglutination test) accompanied nearly all above tests, dilution 1 in 10, time of reaction ten minutes to one hour.
The bacteriological examination of these cases was made in the Government Laboratory, Pretoria, by kind permission of Captain Beveridge, R.A.M.C.

THE PREVENTION OF ENTERIC FEVER IN ARMIES.

By GEORGE D. N. LEAKE, M.R.C.S., L.R.C.P., D.P.H.,
Colonel, R.A.M.C.

When I proceeded to Bermuda as senior medical officer, Surgeon-General Jameson, C.B., the Director-General Army Medical Service at that time, directed my attention to the great prevalence of enteric fever there, and requested me to spare no pains in my efforts to cope with it.

After being in Bermuda a year or so, I arrived at the conclusion that the dry-earth latrines were responsible for nearly all the cases which occurred in barracks—by inhalation or deglutition, when using the latrines, of the germs—so, acting on this conviction, I strenuously advocated their total abolition from all the barracks in the islands, and the introduction of the water-carriage system.

My recommendations were approved of by the General Officer Commanding Sir George Barker, K.C.B., Colonel Moore, C.R.E. (the pioneer, I believe, of the water-carriage system in Bermuda), and by his successor Colonel Bor, C.R.E., who most ably supported me throughout a very difficult (and expensive) undertaking. Some considerable time necessarily elapsed before the dry-earth latrines could be done away with, so it was incumbent on me in the meantime to render them as little pernicious as possible.

This was done by disinfecting every portion of the latrines and urinals with a 10 per cent. solution of carbolic acid applied in large quantities by means of a watering-pot and rose once or twice a week, and when the water-carriage system was established the same process was continued but less frequently.

In connexion with this the following table will, I think, be of interest:—

Year.	Average Annual Strength.	Admissions for Enteric Fever.	Deaths from Enteric Fever.	Remarks.
1895	1,447	[illegible]	20	
1896	1,385	[illegible]	4	
1897	1,521	34	7	
1898	1,730	26	4	
1899	1,781	[illegible]	0	In the year 1900 of the 1,444 troops 816 were West Indian.
[illegible]	1,443	[illegible]	[illegible]	

In 1897 all filters in barracks were abolished, and in 1899 boiling the drinking water was no longer resorted to, as I considered filtering and boiling unnecessary with the water supply we had—rain water collected on catches stored in tanks and kept in a good sanitary state.

Undoubtedly boiling the water for drinking purposes is essential under certain circumstances, but I question its utility in preventing to any great extent the incidence and spread of enteric fever in barracks or in the field.

I lay much more stress on keeping the latrines, etc., in a perfect sanitary condition, but I know from experience what a very difficult duty this is: the medical officer must give the matter his personal superintendence, and to do it effectually his sanitary zeal must be above the average. I hold that the sedentary life and close atmosphere on board ship predispose soldiers to enteric fever; so, also, does the vitiated air of tents, which may account for enteric fever being so prevalent amongst recent arrivals at a foreign station, and its breaking out so frequently on going into camp from barracks.

The fact of men being so thirsty as to drink muddy and dirty-looking water rather than wait for pure water, suggests to me that Nature may only be asserting herself, the demands of the system being paramount, and that to withhold water under such conditions is, paradoxically speaking, to add fuel to the fire. May not the liquid, perhaps, be salutary, by distending the intestines and serving as a medium for any micro-organisms already introduced to float in and pass away with the excreta; and may not the contrary, the comparative emptiness of the canal and probable apposition of its walls, tend to foster them?

Again, may not the secretion or excretion of the bile with its antiseptic and germicidal properties be thereby checked? Possibly there would be no enteric fever if the liver acted healthily.

THE DISINFECTION OF NEW CLOTHES.

By Sir CHARLES A. CAMERON, C.B., M.D.,
Medical Officer of Health, Dublin.

I have been able in several instances to satisfy myself that new clothes were the vehicle of the infective matter of scarlet fever: but I shall only mention one of them.

A young lady, residing in a sequestered part of the county of Wicklow, contracted scarlet fever. No case of the disease had for a long time previously occurred in or near the district, and the young lady had not been from home for several months. Her mother had been three times in Dublin shortly before her daughter's illness. On each occasion her visit was to a dressmaker, and on the last visit she brought home a new dress. It was handled and admired by her daughter, who soon after became ill from scarlet fever, a disease from which her mother and all the other members of her family had suffered several years before. Circumstances led me to inquire into the origin of the infection, and I ascertained that in the family of the dressmaker there was a severe case of scarlet fever. It was admitted to me that the making of the dress had been chiefly carried on in the room in which the patient was located. There seems to be little room for doubting that the dress was infected by this patient, and that the *materies morbi* infected the lady's daughter. I could describe many similar cases.

The recruits of the Royal Irish Constabulary are located in a large barracks situated in the Phœnix Park, Dublin. The barracks are large, well ventilated, and provided with the most approved sanitary accommodation, and are situated in a park, yet for many years past the recruits have been peculiarly liable to contract scarlet fever, from which disease the other inmates of the barracks rarely suffer.

The clothes of the recruits are largely made by women for the contractor who supplies them to the constabulary. It occurred to me that the new clothes supplied to the recruits were probably the means of conveying infection to them. Accordingly, I recommended that the clothes should be sterilised before they were received into the barracks. The recommendation was adopted, and apparently with a good result. The sterilisation commenced at the end of April, 1901, and the following shows the number of cases of scarlet fever in each month of that year and the previous one: 1900—January, 3; February, 7; March, 2; April, 4; May, 1; June, 4; July, 3; August, 1; September, 0; October, 3; November, 4; December, 11. 1901—January, 6; February, 10; March, 0; April, 6; May, 4. From May 15th up to the present (January, 1902) no further cases have occurred.

It would be desirable to have all clothes, made by tailors and dressmakers, sterilised, and certificates given that they had been subjected to that process before the articles were sent home. The cost of sterilising is trifling, and the process could be carried out in the disinfecting stations of the sanitary authorities or by private persons provided with the necessary appliances. No doubt some articles of ladies' apparel might be injured by the process, but they would be exceptional.

ON DIPHTHERIA ANTITOXIN ERUPTIONS.

By ARTHUR STANLEY, M.D., B.S.Lond., D.P.H.,
Health Officer of Shanghai.

The following observations were made on a series of 500 cases cases of diphtheria during two years' work in a diphtheria ward at the North-Western Hospital of the Metropolitan Asylum Board. All the cases were treated with antitoxin, and the diagnosis of doubtful cases was verified by bacteriological examination. The total number of deaths in the series was 80, a death-rate of 16 per cent. The antitoxin was

prepared at the laboratories of the Royal Colleges of Physicians and Surgeons in London, and was injected in quantities usually of 4,000 Behring antitoxin units immediately after admission, but varied from 1,000 up to 30,000 units according to the severity of the case, and the time of admission after onset. No constant relation between the quantity of antitoxin given and frequency of eruption was noted, but in one case, where antitoxins from two different sources were injected at the same time, two separate antitoxin rashes were observed; the first occurring ten days and the second fourteen days after the giving of the antitoxins. No special sources of antitoxin were found to cause a preponderating number of eruptions, and the eruptions occurred steadily throughout the two years I was working with diphtheria.

Diphtheria Antitoxin Eruptions.

Cases of diphtheria receiving antitoxin	500
Antitoxin eruptions	112
Erythemata	58
Erythemata + urticaria	15
Urticaria	30
Scarlatiniform	6
Morbilliform	3
Transient early erythema and urticaria (usually at seat of injection)	17

Average day of onset of eruption:	
Erythemata (varied from 4th to 20th day)	12.2
Urticaria (varied from 4th to 19th day)	9.2
All eruptions	10.8

Skin eruptions appeared in about a fourth of the cases. The period of onset was usually during the second week after the giving of the antitoxin. The eruption met with was not so peculiar as to be pathognomonic, but was sufficiently marked, especially in relation to the general symptoms as to constitute a distinct type.

The typical diphtheria antitoxin eruption is a marginate erythema on the psoriasis regions tending to run into arcs of a circle, lasting about three days, and accompanied by slight *malaise*, and a rise in temperature of about 3° F. The margins of the erythema are raised and turgid, and may be made up of arcs of circles of widely varying diameter according to the phase of spread of the lesions, which, beginning in macules, become rings, increasing in diameter, until the adjacent rings coalesce and break the arc. There is usually some transient light-brownish red pigment left by the evanescence of the eruption.

The spread of the rash is most frequent from face and trunk to limbs, and from extensor to flexor surfaces. The eruption lasts from two to five days, but may in cases of an urticarial or scarlatiniform nature last a few hours only. There may be a little desquamation after severe and prolonged erythemata, but there is rarely any confusion between true scarlet fever occurring in the course of diphtheria and eruptions produced by antitoxin.

The general symptoms, beyond a rise of temperature of some 3° F. and its accompanying *malaise*, are not marked. Pains in the joints have been frequently described but were not observed in one of these 500 cases. This result may have been due to the cases being chiefly among children. The only marked case in which pain was present was a girl of 13, who had frontal headache and lumbar pain extending down the thighs. She had a marginate erythematous eruption, and the temperature rose to 101° F.

I injected myself on two occasions with 4,000 units of antitoxin into the leg, and had after the first injection some immediate itching erythema followed by severe pain in the leg, thighs, and lumbar region lasting a week. There was no antitoxin rash.

The greater number of rashes follow this type. In the most common variation the erythema lesions are raised into wheals. These urticarial lesions appear to be erythemata in which the subcuticular exudation is excessive, and the wheals last longer and leave redder patches than ordinary urticaria. Most of the so-called urticarias fall into line with the above-described type rash, which is an erythema marginatum. Quite frequently a rash, which begins as urticaria, passes gradually into typical erythema marginatum without the occurrence of new lesions.

The erythema lesions may be very small and punctate, and may conglomerate so as to closely resemble scarlet fever, or they may consist of roundish measly macules, pinker than measles, though closely resembling rötheln. Sometimes the same eruption was like measles on the face and neck, like scarlet fever on the trunk, and was a typical circinate erythema on the extremities.

Two cases, which contracted scarlet fever after admission for diphtheria, had typical ringed erythematous antitoxin rashes. One of these cases had scarlet fever four days after admission with diphtheria, which was followed two days later by a typical ringed erythematous antitoxin rash. The other case had scarlet fever seven days after admission with diphtheria, which was followed on the fourteenth day after admission by a ringed antitoxin erythema.

The rash, which in the typical cases is limited to the psoriasis regions—trunk and extensor surfaces of the limbs—may become quite general. The buttocks are almost invariably affected by the eruption.

Transient early erythematous blushes and also urticaria often occur soon after the injection of antitoxin, but these may be generally considered to be of traumatic origin, and not to be related to any specific property of the antitoxin. The area of skin before injection was sterilized with soap and carbolic lotion, and the injection syringe was boiled before each injection. No abscess at the seat of injection occurred.

The occurrence of an antitoxin eruption during the course of a case of diphtheria did not appear to influence the prognosis seriously, though it cannot but be held that any febrile disturbance of the heart would tend to have a harmful effect. No case, however, was observed where fatal heart failure was precipitated by the occurrence of an antitoxin eruption.

TREATMENT OF CHRONIC ECZEMA.*

By ALFRED EDDOWES, M.D., M.R.C.P.,
Physician for Diseases of the Skin, St. George's and St. James's Dispensary.

IT is certain that as our knowledge of bacteriology and pathological processes increases the term eczema will be less frequently employed or more frequently qualified by an adjective indicating its causation, etc.

It is impossible to separate the consideration of the treatment of chronic eczema from that of its causation. It is obvious that if a condition called eczema be produced or kept up by the presence of micro-organisms, as in what we still, correctly I believe, call impetiginous eczema (but which I am quite prepared to call staphylococcogenic dermatitis), we must kill, or at least check the growth, of these micro-organisms by suitable germicides. But if eczema be due to other causes than germs, even though such appear as a complication, we must try to discover that cause if we would permanently relieve or cure a patient. We may safely at present assert that the contention that eczema is always of parasitic origin is not yet definitely proved, but that germs soon appear and look suspiciously like a cause, and at least form a complication, I have convinced myself by frequent histological and bacteriological examinations. We see every day that toxins flowing over the skin from the ears, eyes, nose, abscess cavities and scabs can scald, so to speak, and produce an eczematous condition. It appears to me fortunate that the germs found in connection with eczematous conditions, whether as cause or complication, generally remain superficially situated, and, therefore, within reach. The great importance of keeping this in mind can be easily illustrated by a single case, which will show its bearing on every day practice.

Case of Relapsing Eczema.—A lady had had severe and almost general eczema upwards of a year, and had been unable to obtain satisfactory lasting relief. I was fortunate enough to be called in, although the lady had begun to think herself incurable. Many patches of skin were thickened and very pruriginous, while others were moist, or crusted in such a way as to suggest that the skin required rest and protection. I fetched my glue-pot containing Unna's zinc gelatine, because I felt certain that the zinc gelatine would prove an invaluable remedy for such a severe, raw, smarting case. The moment the lady saw it she exclaimed: "That is Unna's gelatine stuff; I cannot bear it. Mr. So-and-So—mentioning her last attendant's name, one of the ablest surgeons of our day—tried it and it utterly failed." I asked her how the gelatine dressing had been applied, and she told me it had been heated and painted on the affected surfaces and then dabbed with cotton wool. In answer to [illegible] whether anything had been done to the skin before the [illegible] was applied by way of preparation she said No. Then I inform[illegible] her that was just the secret in her case, and that I intended to carefully pre-

* A paper read before the East Anglian Branch of the British Medical Association.

pare all the spots requiring the application of Unna's dressing. I explained to her that I had a reason for each step I was about to take, and I strongly advised her to let me proceed without interruption in my own way, and I half promised her that she would feel immediately better, and be able to dispense with night draughts which her previous attendants had found it necessary to prescribe for her. I wetted the whole surface to which I intended to apply the gelatine with a solution of carbolic acid; then I applied spirit, after which, with the intention of drying the skin and leaving a very mild antiseptic in contact with it I dusted it with starch powder containing a little boric acid. The gelatine was then applied in the usual way.

The result was fully up to my expectations. I did not commit the common and, as I believe, fatal mistake of covering in and assisting the growth of any micro-organisms that might have got into and be living upon the exudation which was drying upon the surface. What would any modern surgeon think of any of us if we dressed a wound which had been exposed to contamination for days with such a simple material as gelatine and oxide of zinc, and expected it to remain aseptic for several days or a week without renewing the dressing? Yet such seems to be still the practice of many who use this invaluable dressing. The exuded serum or coagulating albumen upon an eczematous surface is an ideal medium for the cultivation of germs pathogenic to man.

One of the most important points, as we all know, is to obtain physiological rest, that is to say, peace for the tingling terminal filaments of nerves of sensation, and those governing the nutrition of the skin. How is that to be secured if we apply soothing remedies, which do not kill, but rather encourage the development of germs capable of producing irritant toxins, as we know they do, or if we, in order to kill these germs, apply antiseptics which act for too long a time and aggravate the eczema, as they might a superficial burn or scald?

It may be objected here that this was a chronic eczema, and I might be asked why I compare that with an acute eczema? My answer would be there is no fine line to be drawn between the acute and chronic. It was only because the repeated little acute outbreaks were not completely subdued that this lady's case lasted so long. Some parts of her skin appeared normal or nearly so, others were acutely eczematous, others much infiltrated. This is generally the case with chronic eczema. We must take cases as we find them; there is no stereotyped plan or royal road to the cure of eczema.

Treatment must be suited to the locality and the severity of the inflammation or irritability of any given portion of affected skin. But there is no difficulty in formulating at once one golden rule: soothe angry spots before attempting to excite absorption in an indurated patch anywhere near them.

General Principles of the Treatment of Chronic Eczema.

The object of all treatment is to bring back the diseased condition, no matter how complicated, to a healthy physiological state and keep it there, therefore our first step towards treatment consists in making as clear and comprehensive a diagnosis as possible. Is a patch of eczema chronic and dry? We must moisten and grease it. If too wet we must dry it. If swollen we must raise or support the part; if hot we must cool it; if painful we must soothe it, and so on; if due primarily to microbes, we must kill or check them; if complicated only by them, we must do likewise, but take care that our antiseptics do not become a source of aggravation afterwards to parts already prone to congestion. If there be great cell infiltration we must excite absorption; if dead scales cover the surface and prevent our remedies reaching as deeply as we wish, and possibly form a nidus for germs, they must be removed or at least saturated with suitable remedies, and converted into a harmless and perhaps a useful protective material for an irritable surface. If injury is being done by scratching or other form of friction, the part must be soothed and protected or otherwise treatment may be almost useless.

Lest I should forget it, I may mention here that I often advise patients to gently pinch or press itching spots as a way of obtaining relief more satisfactorily than by scratching. If, as frequently happens, the skin is being infected constantly or at intervals by discharges from the ears, nostrils, eyes, mouth or other mucous orifices, umbilicus, or from wounds and sinuses, these causes must be cured or satisfactorily dealt with, if curing be impossible, otherwise, at best our treatment of an eczema so kept up will be but palliative. Eczemas having such a causation illustrate well the difficulty of attempting to draw any fine distinction between acute and chronic. We may have in quite a small area of skin the acute, subacute, and chronic states coexisting.

For convenience at present we may speak clinically of eczema in the following terms:

Overflow or soakage eczema.
Circumscribed.
Lichenization—that is to say, chronic induration.
Papular.
Pustular or impetiginous.
Erythematous, common on parts exposed to weather.
Intertrigo.
Eczema of palms and soles.
Rimosum.
Rubrum.
Seborrhœicum.
Squamosum.
Eczema of children and the aged.
Linear—that is, in the course of nerves, veins, and, perhaps, lymphatics and lines of segmentation.

Eczema may have many associated causes and complications, such as constipation, dyspepsia, gout, tubercle, urticaria (the latter being sometimes a very serious matter), and syphilis (hereditary or acquired); and it may be aggravated by sunlight, heat, cold winds, wet, chemical irritants (such as may be due to the occupation of patients), plants, and, as I have already mentioned, discharges from boils, abscesses, etc., and by scabies and even tubercle.

General Treatment.

Though the general treatment is in many cases essential, I feel sure I need not dwell upon it. Constipation, indigestion, anæmia, any malnutrition, neurasthenia, worry, gout, kidney disease, as well as any bad habits, such as excess of smoking, eating, or free indulgence in alcohol, must be noted and corrected as far as possible. Grey powder, calomel, decoction of aloes, citrates and carbonates, iron, quinine, strychnine, and occasionally colchicum, and still more rarely arsenic, will meet almost all our needs as far as internal medicine is concerned. Sometimes the regulation of diet is of first importance. In the case of children meat juice or blood gravy for sucklings, and cod-liver oil or malt extract for those a little older, will often do wonders, as will also, now and then, change of air or the administration of thyroid extract. For adults a change of occupation is sometimes absolutely necessary, but fortunately rarely so.

Cases.

The following is an account of some striking varieties or types of cases and the treatment which proved successful, the treatment being modified in the way I thought best to meet the difficulties encountered:

1. A gardener burnt his hand; it suppurated and slowly recovered. Next year it inflamed, and the diagnosis was erysipelas. It improved, but relapsed again and again. In the following year—that is to say, two years after the burn—both hands and forearms broke out with a most violent eczema, supposed to have been caused, but erroneously I think, by the primula obconica. The skin was covered by minute vesicles and crusts. It improved under boric acid lotion constantly applied, appeared to be cool and nearly well, a mercurial ointment of a mild description was used for only forty-eight hours when a red spot reappeared in the centre of one palm, all the parts previously affected becoming congested and irritable, and a papular rash appeared on the chest which had previously remained free; the red spot referred to on the palm was opened, serum expressed and cultivation gave a luxuriant growth of staphylococcus aureus. After this the case did well. Had this focus not been opened so that the ointment could get at it I believe another relapse would have occurred with a symmetrical outbreak.

2. *Sympathetic Eczema.*—This case bears out the theory, which you will have noticed I merely hinted at in the last case. A man, perhaps inclined to gout, had a persistent, circumscribed, lichenoid, that is, indurated and pruriginous patch of two years' duration. I painted it with strong tincture of iodine. During the following week a corresponding perfectly symmetrically situated patch of acute eczema broke out on the other arm; both patches recovered quickly, the newly excited patch without treatment. Nerve influence must have caused the second patch to break out; infection was out of the question. Why should nerve influence not have done it? We know that the two sides of the body are correlated, that an involuntary laugh appears on the paralysed as well as upon the sound side of the face in cases of facial hemiplegia; and I would suggest, too, that the symmetry of nutrition is due to central control, and that pro-

bably the exercise or irritation of one limb may improve or damage its fellow. More than this, I believe eczema often behaves like urticaria—a widely-spread or general outburst being due to a local, perhaps distant, irritation or intoxication of the nerves supplying quite a small area of skin.

3. *Circumoral Eczema.*—The eczema in this case affected the face for a considerable distance around the mouth; the inside of the mouth appeared to be in an exactly similar pathological condition, but, of course, not dry and crusted like the skin, but covered by an almost milk-white exudation. I strongly suspect that the condition of the mouth was brought about by the use of a too irritating dentifrice, and that soakage from the mouth kept up this chronic eczema

4. *Circumoral Eczema.*—A somewhat similar case was sent to me recently by a medical friend. I wrote to him as follows: "I think electrolysis would do good, and reduce the thickening of the lip as you have suggested, but I think it more important that we should remove what I believe to be the cause of the chronic inflammatory thickening of the lip and neighbouring skin. Bad teeth have caused a thickened ridge on the buccal mucous membrane. Just inside the lip there is a similar inflammatory ridge produced, I believe, by the decayed canine and bicuspid against which the lip lies in repose. I would advise the removal of all stumps, and the clearing and filling of all teeth worth preserving, and the brushing of the teeth with a saturated solution of borax night and morning; for a long time to come I would use a medicated lip salve to prevent saliva soaking into the skin around the mouth."

5. O. T., a boy, semi-idiotic, had had a red eczema of his scalp since infancy. Three years after I commenced treatment, by perseverance with the application occasionally of strong antiseptic lotions, followed by the constant protection afforded by mild pastes, this obstinate case of eczema of the scalp, eyelids, ears, and other parts of the body made a surprisingly satisfactory recovery. Some credit I give to cod-liver oil and malt extract; but I suspect most of the credit was due to mercurials, as I almost accidentally discovered that he had probably inherited syphilis.

6. A lady had five scattered patches of chronic lichenization from eczema of eight years duration; her life was a misery, she had a worn expression, injected conjunctivæ, and told me that if she did not have sleeping draughts she spent the whole of the night in scratching, tossing about in bed, or walking about her bedroom. In six weeks the patches almost entirely disappeared, and she was practically cured by the application of mercurial plaster-mull.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

RESTRICTION OF DIET IN DIABETES.

I send for publication the following case. It is a fair illustration of the benefit from a rational method of treatment, as contrasted with the too common so-called scientific methods of the present day. It is, however, not a whit more satisfactory than I have found in innumerable cases of various ailments, specimens of which I have given in a *Plea for a Simpler Life* and *Fads of an Old Physician*, published in 1895 and 1897.

Mr. T., aged 38, had resided for several years in a tropical but not unhealthy climate. He came home early last year as the heat did not seem to suit his health. He was living in North Berwick where he could enjoy his favourite game of golf. He consulted a medical man there for an immoderate degree of thirst, and was told by him that he was suffering from diabetes. The specific gravity of his urine was found to be 1037. He was advised to consult a famous specialist for such disease in London, who ordered him the usual treatment.

He was to abstain absolutely from everything containing starch or sugar, and he was given a long list of flesh and other albuminous foods as gluten biscuits, etc. No restriction whatever was put on the quantity of these which he might take. He was also recommended to take fatty substances at his discretion, with the view of restricting the waste of tissue which was going on very rapidly. He soon found that the fats, which he took in large quantity, did not agree with him, and his Edinburgh doctor advised him to stop them, which he did much to his comfort.

I first saw Mr. T. about the middle of October. He had got reduced from his natural weight of about 12 st. to 10 st., but he still had considerable strength and was able to enjoy a game of golf. He had an intense craving for food and liquid, and was passing a very large amount of water. I recommended him to reduce as rapidly as he could the nitrogenous food, and by-and-by to try bread in small quantity. I saw him again three weeks later. He had reduced his food to a very moderate amount, and for a week he had taken at breakfast a couple of ounces of bread, which he enjoyed amazingly. The craving for food and water had disappeared. The amount of urine was now 2 to 2½ pints. An analysis of the urine gave the following: Specific gravity 1019, albumen *nil*, sugar 0.32.

His weight had increased in three weeks by 6 lbs., which, as I pointed out to him, was no doubt from his retaining more water in his system, which demanded a large quantity of water to force the huge amount of nitrogenous matters through his kidneys. He had now resolved to return to the tropics and resume his duties, which he thought he had finally relinquished.

I again saw Mr. T. two months later (January 6th), and found him preparing to leave in the middle of the month; but in the meantime he had had a slight return of his former symptoms. He had gradually, while still reducing his flesh food, indulged too freely in everything else, and even in sweets. On strictly avoiding these for a short time the symptoms entirely disappeared, and he means to carry out his original intention of returning to his duties in the middle of the month.

Currie, Midlothian. George S. Keith.

RHEUMATIC JOINT PAINS: CHOREA: RHEUMATIC NODULES: ENDOCARDITIS OCCURRING IN SUCCESSION.

A girl, M. C., aged 16, was admitted to the Salford Union Infirmary on August 21st, 1900, complaining of "rheumatism" in both knee-joints. The joints, on examination, presented nothing abnormal; there was no elevation of temperature; and the heart sounds were pure. There was nothing of importance in the family history.

A week in bed, coupled with antirheumatic treatment, caused the pains to disappear, and on August 28th the patient was allowed to get up for an hour. The following day she was noticed to be restless and fidgety, and on the morning of August 30th choreic movements of both hands and arms had developed. A few days later the patient was in the grip of a severe attack of generalized chorea, involving not only all the limbs but the trunk and head, and necessitating isolation, padded sides to the bed, and sedatives in the shape of hot packs and chloral. The speech was much affected, and at the height of the attack it was quite unintelligible.

When the choreic movements first developed an unusually plentiful crop of rheumatic nodules made its appearance. These were first noticed on the head and, the scalp having been shaved, several nodules varying in size from a hazel nut to a split pea could be seen. From first to last there were probably a dozen nodules on the scalp, fresh ones appearing at intervals. Similar nodules appeared over the cervical and dorsal spines, along the spines of the scapulae, over the elbow joints, the patellae and the malleoli. Along the extensor tendons of both wrists numerous smaller nodules, the size of millet seeds, could be felt, and two a little larger than these could be felt under the skin of the abdominal wall, to the left of the umbilicus.

Several days after the onset of the above-mentioned symptoms a soft systolic *bruit*, following on the first sound, could be heard over the heart's apex.

In a week from the time of the onset of the chorea the severity of the symptoms had considerably abated, and the patient, from being dull and apathetic, became gradually bright and cheerful. Speech improved slowly and the appetite returned. With the decrease of excitability, I by degrees withdrew the sedatives, and began to administer liq. arsenicalis, starting with ♏iij thrice daily in water with food, and increasing the dose until ♏xv were being taken thrice daily.

In about a month from the first eruption all the nodules had disappeared, and at the end of October the patient was discharged at her father's request.

Three weeks later she was readmitted suffering from a mild attack of right hemichorea, and a fresh crop of nodules was discovered in similar situations to those of the first attack, but less in size and fewer in number. The first cardiac sound at the apex was entirely replaced by a loud, blowing, systolic *bruit*, conducted to the left and heard behind at the angle of the scapula. The temperature, which had remained normal during the first attack, rose occasionally at night to 101° F. to 103° F. without apparent cause. On this account, and also

remembering the severity of the first attack, the patient was kept rigorously in bed until February, 1901, when she was again discharged at her own request.

EVA MCCALL, M.D.Glasg.,
Late Resident Medical Officer, Salford Union Infirmary.
Union Infirmary, Birkenhead.

INTRAUTERINE DEATH FROM SUPER-ATROPHY OF THE CHORIONIC VILLI.

THE allantois, which is a very vascular structure, appears about 14 days after the ovum is fertilized. It grows rapidly, and towards the end of the third week of gestation the vessels of this structure have penetrated all the villi of the chorion. At this period, therefore, the ovum may be considered as universally placental, and by imbibition all the villi aid in nourishing the ovum. Towards the sixth week of pregnancy, however, that portion of the uterine mucosa which is destined to participate in the formation of the true placenta—the so-called decidua serotina—begins to be differentiated and simultaneously the chorionic villi correlated to this serotinal area become more and more enlarged whilst the non-placental villi gradually undergo atrophy. The atrophic change taking place in the chorionic villi may affect not only the non-placental but the placental villi. Atrophy of the non-placental villi is a natural phenomenon, but occasionally the process extends to and involves more or less extensively the placental villi as well. A parallel condition of affairs is sometimes noted in the case of the uterus after parturition when the dissolutionary changes transcend the normal amount and produce a state of superinvolution.

The decidua serotina and the placental villi react mutually on each other, consequently the atrophic process extending to the placental villi causes the serotina to cease developing and sooner or later these two conditions will suffice to bring about the death of the ovum. Because of the insidious progress of this abnormal phenomenon the ovum may be retained for several months after its death.

JAMES OLIVER, M.D., F.R.S.Edin., F.L.S.
Gordon Square, W.C.

EXTRAVASATION OF BLOOD UNDER COLLES'S FASCIA SIMULATING URINARY EXTRAVASATION.

W.H., a young and healthy man, was crossing a barbed wire fence on July 23rd, 1901, and had one leg raised over it in the act to step across, when the foot on which he was standing slipped, and he came down astride the fence, one of the barbs piercing his fork. A large perineal swelling appeared almost at once, and, after walking a short distance, he was forced to lie down and wait for a vehicle to take him home.

When seen two hours after the accident there was a very small puncture in the perineum to the left of the raphe, midway between the anus and the root of the scrotum; the pouch of Colles's fascia was distended with fluid; the scrotum was enormously swollen, tense, and fluctuating; and fluid was being diffused under the skin of the lower part of the abdomen. It finally reached a point midway between the pubes and umbilicus. The patient was unable to make water. This symptom, together with the history of the case, caused a suspicion of ruptured urethra, but the absence of bleeding from the meatus, and the fact that a soft rubber catheter passed easily, led to this being negatived, and an absorbent lotion was applied and rest in bed enjoined.

In a few days micturition became normal, and the swelling over the abdomen became absorbed, leaving the skin much discoloured over the area of extravasation. At the end of a week, as the patient complained of much pain and loss of sleep, and had a slight rise of temperature, a free incision, under aseptic precautions, was made in the perineum, and a large quantity of clot turned out. This showed no signs of breaking down; indeed, the case ran an absolutely non-suppurative course from first to last. The incision was followed by immediate relief, but clots and blood stained serum continued to be discharged from the opening for about three weeks, though no fresh bleeding took place. Recovery was uneventful, and the only sign of the injury left is the scar in the perineum and a small hard mass of organised clot at the bottom of the scrotum.

We have thought the case worth publishing, both as an example of a rare condition, and on account of its almost perfect simulation of ruptured urethra with extravasation, as regards history and site of injury, physical signs, and inability to pass water; although not only the urethra, but even the bulb (as was seen afterwards through the incision) had escaped laceration. From the rapidity of onset and the tenseness of the swelling we should judge that the bleeding was arterial, and was probably from the transverse perineal, though this was impossible to demonstrate. The inability to make water was probably due to the pressure of the effused blood on the bulbous portion of the urethra.

S. ENGLISH, M.B., C.M.,
Belfast. R. J. JOHNSTONE, M.B., F.R.C.S.

CLINICAL *VERSUS* BACTERIOLOGICAL ASPECTS OF DIPHTHERIA.

IT is notorious that the clinical and bacteriological aspects of diphtheria do not always correspond. Hence cases arise which cause no small degree of anxiety in the matter of management, especially as regards isolation and the notification of the sanitary authorities.

Two cases which I recently saw compel me to adopt the view that all bad cases of membranous sore throat should be isolated and notified.

CASE I.—W. M., a girl aged 10 years, presented a typical wash-leather membrane on both tonsils, uvula, and soft palate, which on removal left a bleeding surface; the temperature was 104° F., pulse 150. I assured myself that this was a case of genuine diphtheria—that is, an infection with virulent Klebs-Loeffler bacilli, and consequently isolated and notified the case. A specimen of the membrane was sent to the Jenner Institute, and within twenty-four hours a report was to hand to the effect that no bacilli were found. Somewhat disconcerted by this report, I proceeded to make a culture from the membrane myself, and had a third cultivation made, through the kindness of the superintendent, in the clinical laboratory of St. Thomas's Hospital. Both of these last entirely confirmed the report of the Jenner Institute, and demonstrated streptococci in long chains.

The case proceeded as one of genuine virulent diphtheria, cardiac debility set in, and for a time the outlook seemed hopeless. The usual topical and constitutional remedies were adopted and closely pursued, and in three weeks the tide turned. About six weeks from the commencement of the disease typical pharyngeal paralysis was manifest, together with a degree of peripheral neuritis, most apparent in the lower limbs. Four months later paralysis and neuritis had disappeared.

CASE II. D. G. D., a boy, aged 4 years, presented a buff-coloured membrane firmly fixed on the left tonsil, the left half of the soft palate, and the uvula. Swelling of the lymphatic glands, both anterior and posterior to the sterno-mastoid on the left side, was very marked. The remaining signs and symptoms were an almost exact counterpart of those of Case I. Four weeks from the commencement of the disease pharyngeal paralysis supervened and had gone at the end of ten weeks. Two bacteriological examinations demonstrated streptococci in pure growth and in long chains.

Both of these cases had been in contact with children suffering from "bad sore throats" some days prior to the onset of their illnesses. Had the "bad sore throats" been isolated the cases just described would doubtless not have occurred.

DAVID SOMMERVILLE, B.A., M.D.
Great Marylebone Street, W.

DELIVERY IN A CASE OF ROBERT'S DOUBLE OBLIQUELY CONTRACTED PELVIS.

THE patient, aged 25, a Polish Jewess, had been pregnant twice before, and was delivered—on the first occasion at seven months and on the second at term with great difficulty, and on each occasion of a very small child. She was then carefully examined, and, finding the above defect, the obstetric physician who was consulted advised her in future to have labour brought on at the seventh month, or carry to term and then undergo operation (Cæsarean section or symphysiotomy).

She went to term, and only sent for me to attend her when labour was well advanced. By abdominal palpation a large-sized fetus was found lying dorso-anterior, with the head in the first position. *Per vaginam* the membranes were found ruptured, the liquor amnii practically all escaped, the head at the brim, and a caput succedaneum formed. The pains were strong and frequent, but without any effect. I put on Milne Murray's axis-traction forceps and pulled strongly, but the instrument, though screwed tight, gradually and slowly slipped out, leaving the head *in statu quo*. I then put on Simpson-Barnes's long forceps. This instrument showed no tendency to slip, though powerful traction was made, but the head remained immovable. The pulse was 100, the patient restless and excited, and the pains strong and regular. Another medical man was sent for, who gave chloroform, and he also tried with the forceps, but without success.

I then opened the head by means of Smellie's perforator, going through the bone in the usual way, and passing the instrument right into the cranium, broke up the brain and medulla. Simpson's cranioclast was then applied, but it constantly slipped, bringing away bone and scalp. The face was then brought down, but the instrument, again being applied, again failed as a tractor. I then performed internal version and brought down the legs and trunk. The extreme narrowing of the outlet rendered it quite impossible for either my colleague (a practitioner of great experience) or myself to insert the hand and bring down either the anterior or posterior arm. I therefore opened the child's body and removed the liver, lungs, and heart. The space thus gained enabled me to rapidly complete the delivery. The third stage was easy. An intrauterine douche of iodine was given, and two separate injections of $\frac{1}{100}$ gr. ergotinine.

The patient suffered considerably from shock and the effects of the chloroform, though she seemed fairly comfortable until the evening of the second day, when the temperature rose to 102°. She complained of pain, felt particularly in the right groin and to the right of the uterus. She was ordered quinine gr.iij every third hour, a mixture of belladonna, nux vomica, and hydrobromic acid every four hours: and trional gr.xxv in brandy and water at night. For nourishment, milk, milk and egg, beef-tea, meat juice, chicken broth, etc.: enemata for bowels when needed: brandy frequently and cold sponging. She was douched thrice daily for four days, and then twice daily, with carbolic lotion, and also with Condy's fluid. Great tympanites developed on the fifth day, which was well relieved by enema asafoetidae. A mixture containing magnesium sulphate was prescribed, and for the cough terebenum mxv on sugar.

The temperature never fell below 101.8°, and during the last three days ranged between 102.4° and 105°. She died early on the morning of the eighth day.

Jewry Street, E.C. GEORGE A. BRUCE, M.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

FORT NAPIER HOSPITAL, PIETERMARITZBURG.

HYPERPYREXIA IN RHEUMATIC FEVER, FOLLOWED BY TETANIC CONVULSIONS AND TEMPORARY LABIO-GLOSSO-PHARYNGEAL PARALYSIS: RECOVERY.

(By Lieutenant G. CONSTANTINE PHIPPS, R.A.M.C.)

A SOLDIER patient of mine at Fort Napier, under treatment in January, 1900, for rheumatic fever, suddenly one afternoon sat up in bed with every appearance of terror and made a peculiar sound like a prolonged "A—h!" The nurse took his temperature, and, on finding it to be 107° F., at once sent for the orderly medical officer, who also took the temperature, which by this time had risen to 110.4°. The patient was immediately sponged, and wet cloths were applied while a cold bath was prepared. After five or six minutes immersion in the bath the temperature in the rectum fell to 101°, and the patient was put back to bed. The thermometer used was above suspicion, being used regularly in the wards and on this occasion by an experienced nurse and a medical man.

He rapidly fell into a condition of extreme collapse—skin cold, clammy, and sweating, pinched blue appearance, incontinence of urine and faeces, respiration shallow and sighing, pulse almost imperceptible, and, in spite of mustard and hot fomentations to the cardiac region, hot bottles, friction to the limbs, stimulants, etc., he appeared past all hope. He, however, did react to the above restorative measures after about ten minutes, but instead of consciousness a convulsive state set in, beginning by a series of jerky spasms of the right leg, and passing upwards until the whole body was involved. Clonic were succeeded by tonic spasms, and the patient became so rigid that his posture approached that of opisthotonos. The respiration, first a series of gasps, became suspended and the pulse imperceptible; the pupils did not react to light.

I administered ether and chloroform on a piece of lint as the quickest antispasmodic remedies available, and almost immediately the spasm relaxed and cyanosis disappeared as the respiration became regular, the pulse could be again felt at the wrist, the pupils reacted to light, and the patient passed into a condition resembling normal sleep; but no sooner had the effect of the anæsthetic passed off than the clonic spasm returned, first attacking the right leg and then rapidly passing over the whole body. As before, it was followed by tonic spasms, and again the patient appeared as in opisthotonos. Again I administered the anaesthetic with the same good result, but this time I pushed it a little further into narcosis; but a third time the convulsions returned after the effects of the anaesthetic had passed off. I had also administered chloral and potassium bromide *per rectum*, and later still I gave a hypodermic injection of morphine, but for five hours or so I kept the patient under the influence of the anaesthetic, administering it as soon as the jerking of the leg indicated a coming convulsion, and hoping that the chloral, bromide, and morphine would produce a permanent effect, which they did about five hours from the first convulsion: then the patient fell into a condition of sleep in which he passed the remainder of the night.

The temperature taken in the rectum showed a tendency to rise with the onset of the convulsions, but never exceeded 103° F. Nourishment was administered *per rectum*. The following morning the patient was terribly prostrated, but his mind was apparently quite clear, as he nodded or shook his head feebly in answer to a few questions I asked him; he showed that he knew he had been very ill, but that all the pains in his joints were gone. This much I made out by questions, but he appeared unable to speak properly. The next day (third from the hyperpyrexia) he was much stronger and attempted to speak, and then I noticed that he had great difficulty in articulation, and that saliva dribbled from the corners of his mouth. He was unable to pronounce such letters as *b, d, f, v, p, s, t*: for instance, "I want something to drink" sounded like "Ah wah hum-hin hoo hing," a labio-glosso-pharyngeal paralysis. He continued in this condition for several weeks until speech became almost normal; the swelling and pains of the joints returned as bad as before, but subsided in a few weeks; the heart throughout was not attacked. At this stage I lost sight of him, but shortly afterwards I heard that he had returned to England convalescent.

REMARKS.—The points I consider most interesting in this extraordinary case of so many phases and symptoms are: The peculiar sound—a prolonged "A—h," and frightened appearance at the onset; the hyperpyrexia, 110.4° F.; the success attending symptomatic treatment throughout the case; the curious temporary condition of labio-glosso-pharyngeal paralysis, resembling to a certain extent acute bulbar paralysis; and recovery.

As regards the pathology, I am inclined to think that it was a case of an acute toxaemia, a sudden overdose of the rheumatic toxin acting on the whole nervous system, but especially on the bulb, where possibly a slight oedema also existed, and that the symptoms passed off owing to the absorption of the oedema and the gradual elimination of the toxin from the system.

FOURTEENTH BRIGADE FIELD HOSPITAL, PRETORIA.

CASE OF RAYNAUD'S DISEASE.

(Reported by Major H. A. CUMMINS, R.A.M.C.)

A PRIVATE soldier of the New Zealand contingent was admitted to the hospital on June 6th, 1900, said to be suffering from enteric fever. No symptoms of this disease developed. The patient was listless and weak, and quite unfit for duty. He had apparently been ill for only a few days. A small round spot of gangrene was discovered on the tip of his nose, about one-sixth of an inch in diameter. On June 7th this spot had increased, and involved the end of the nose. The lobules of both ears and inner sides of the feet were symmetrically affected by gangrene during the course of the day. The patient was delirious, and in a very weak condition. On June 8th gangrenous spots appeared on both cheeks, and the heels became involved. The spots on the ears and nose also increased in extent. On June 9th there was further extension of gangrene in all the parts previously mentioned. It also attacked the lower lip and the palmar surfaces of both hands. The patient was in a semicomatose condition, but could with some difficulty be aroused. Medical treatment was of no avail, and he died two days later from extension of the gangrene and exhaustion.

REMARKS.—The symmetry of the disease throughout its course evidently points to Raynaud's disease (symmetrical gangrene). The patient was of good physique, and a strong-looking man, but the exposure to cold and hardships of the campaign had evidently reduced his vitality to such a low ebb that the disease supervened.

HARRISMITH HOSPITAL STATION.

THREE CASES OF NON-TUBERCULOUS, RAPIDLY FATAL, LUNG NECROSIS: NECROPSIES.

(Reported by Major C. BIRT, R.A.M.C., and Major H. B. MATHIAS, D.S.O., R.A.M.C.)

DURING the last eight months between 80 and 90 necropsies on Europeans and natives have been conducted at this station. Among them there have been three cases in which death was due to an acute lung lesion ending in the formation of cavities without the presence of tubercle, pus, or gangrene. The symptoms during life in two were compatible with those of enteric fever. Cough was slight; the sputum was blood-stained, scanty, and odourless. Pneumothorax from rupture of a cavity was the immediate cause of death.

CASE I.—A hitherto healthy Guardsman, aged 34, was admitted in May, 1901, on the fourth day of his illness, suffering from a comparatively mild continuous fever, the maximum evening temperature being 102.2°. By the fifteenth day the morning temperature had fallen to 98.6°. Lung symptoms then set in, with an increase of pyrexia (101° to 104°), and sputa scanty and dark, red in colour, without fetor. Diarrhœa began, and thrombosis of the left femoral vein was noticed two days before his death, which occurred on the twenty-second day of his disease.

Necropsy. The intestines were healthy. Air was present in the right pleural sac, which had entered through a perforation in a large, thin-walled, ragged, blood-stained cavity in the upper part of the lower lobe of the right lung. The tissues surrounding the cavity were deeply congested and airless. The lung was bound to the diaphragm by recent adhesions. No infarts, tubercle, or pneumonic consolidation were seen. The other organs were healthy. The liver, which weighed 96 ozs., appeared normal.

CASE II.—A sapper of the Royal Engineers, aged 35, came under observation on the seventh day of a continuous fever complicated with mild diarrhœa. His temperature ranged between 97° and 101.5° until the twenty-fifth day, when he experienced a rigor, and it rose to 103°. Signs of pleurisy of the right side were observed. Thrombosis of his left femoral vein occurred two days later. His respiration became embarrassed, and he died on the thirty-fourth day of the disease with signs of heart failure and pneumothorax and a subnormal temperature.

Necropsy. At the necropsy the intestines were healthy. About 30 ounces of reddish chocolate-coloured fluid were removed from his right pleura. In the right lung were three cavities from 1 to 3 inches in diameter, with shreddy walls. They contained blood. No tuberculous or pneumonic consolidation was present. There was an infarct in the middle lobe. The liver weighed 106 ozs. and the spleen 11 ozs. The latter was unlike that usually found in the enteric cadaver.

CASE III.—An officer, aged 53, whilst convalescing from a gunshot wound of his right shoulder-joint, which had healed without suppuration, complained of renal colic of such severity that morphine had to be freely injected. His temperature, which had been within normal limits from the third day after he was wounded, rose to 101° or 102° for three days. After a three-days interval of apyrexia, a sudden recurrence took place, with symptoms of renal colic of the opposite side. Slight cough, with the expectoration of a little blood, came on. Death occurred ninety-six hours later from hyperpyrexia (106.4°) and left pneumothorax.

Necropsy.—The intestines were found to be normal. In the left pleural sac were air and about 20 ounces of dark red fluid, apparently unchanged blood, which had escaped through a perforation of a thin-walled cavity in the left lung. There was also another unruptured cavity which was full of blood. The condition of the lung was identical with that found in the two previous cases. Tubercle and pneumonia were absent. The kidneys were normal. No explanation was forthcoming of the pain simulating renal colic. His urine had been free from albumen, blood, pus, and sugar during life.

REMARKS.—Unfortunately, owing to want of facilities, no bacteriological examination could be made. But since the above notes were written, a patient has succumbed to enteric fever in whom, together with extensive and typical intestinal ulceration, a condition of the lungs resembling that above described was found. Two large cavities, from which blood escaped under considerable pressure, were opened on cutting into the right lung, the surrounding tissue was deeply ecchymotic and airless. No pneumonic or tuberculous areas were discovered. In this case cough and expectoration had been slight. It therefore appears possible that the above three cases may be instances of pneumo-typhoid fever without intestinal lesion, such as that recently reported by Flexner. He obtained Eberth's bacillus in pure culture from a necrotic area in the lungs of a case in which the alimentary canal was healthy.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

F. W. PAVY, M.D., F.R.C.P., LL.D., F.R.S., President, in the Chair.

Tuesday, February 11th, 1902.

LIGATURE OF THE CAROTID FOR ANEURYSM OF THE AORTA.

MR. CHRISTOPHER HEATH read a paper on this subject, founded on two cases, and showed *post-mortem* specimens of four cases. The cases were the sixth and seventh in which Mr. Heath had performed the operation.

CASE I.—The sixth case was that of a woman, aged 61, under the care of Dr. Robinson in the Mile End Infirmary, when she was admitted in July, 1890, with all the symptoms of aneurysm of the arch of the aorta. She was kept in bed, and had large doses of potassium iodide for many weeks, but no alteration in the pulsation resulted. She always sat up in bed with the knees drawn up and her head resting upon them. On attempting to lean back against the pillows the dyspnœa increased and inspiration became stridulous. The left carotid was tied without an anæsthetic on November 16th, 1890. On November 19th the respiration, which had been distinctly noisy, was unaccompanied by the least noise, and the patient was able to recline against her pillows. On November 22nd she was able to sleep for seven hours consecutively. In January, 1891, there was some return of pain in the right shoulder. In February the pulsating tumour above the sternum had decreased, and the patient was able to lie and sleep in any position. She continued to improve, and was discharged at her own request on August 8th. She was admitted to the London Hospital on September 3rd, when the pulsating tumour could be just felt above the clavicle, and she died suddenly on November 29th, more than a year after the operation. CASE II.—The seventh case was that of a man, aged 36, admitted into University College Hospital under Dr. Roberts, November 4th, 1898, with aneurysm of the arch. The physical signs were well marked, and included "tracheal tugging," and a blowing systolic sound over the aneurysm. The lungs were examined and found to be healthy. During November, December, and January the patient had severe attacks of pain in the shoulders, back, and neck. The

aneurysm at first diminished but in January it increased in size and definite swelling and pulsation appeared beneath the pectoral below the right clavicle. Mr. Heath tied the left carotid with silk under eucaine β on January 18th, 1899. On January 20th the pulsation was distinctly less marked, and daily improvement was noted till February 1st, when he returned to the medical ward with the operation wound healed. The pulsation in the aneurysm was now much less distinct, and the patient was free from pain, and had slept well since January 20th. On February 16th patient had pain in his chest, and next day his temperature went up to 103°, and he rapidly developed all the symptoms of acute phthisis, and sank and died on March 21st. The aneurysm gave no trouble, and was daily less evident. The pathological specimens shown were four in number: One from a man under Dr. Cockle, in whom Mr. Heath tied the left carotid in February, 1872, and who greatly improved for a twelvemonth, when he resumed his hard agricultural labour, and the aneurysm began to grow and eventually burst four and a-half years after the operation. In this case the necropsy was made three days after death in very hot weather, and the decomposed clots were unfortunately washed away. The second was from a case recorded by Dr. Harris in a man aged 38. Mr. Heath tied the left carotid on March 8th, 1800, and the patient died suddenly on May 12th. The aneurysm was filled with laminated clot. The third was from Case VI, and showed an aneurysm of the size of an orange almost completely filled with laminated clot. The fourth was from Case VII, and showed an aneurysm of the arch of the size of a clenched fist, and a second small aneurysm of the root of the innominate, both of which were nearly filled with laminated clot, the centre of the larger being occupied with soft clot.

Mr. Heath maintained that ligature of the left carotid undoubtedly produced an immediate effect upon aneurysm of the arch, and discussed the theories which had been proposed to explain the formation of laminated clot in the sac. He thought that the ultimate solidification of the aneurysm, though its only method of cure, accounted for the sudden deaths which occasionally occurred some months later, owing to pressure effects and partly to the induction of syncope.

Mr. A. Carless referred to the case of a woman with aneurysm, the specimen from which was shown, which was published in the British Medical Journal for December 3rd, 1898, p. 1685, in whom the left carotid had been ligatured by Mr. Carless, and the left subclavian by Mr. Rose, with improvement in the signs and symptoms in the case. She died suddenly three years later from rupture into the left pleural cavity.

Dr. Frederick Roberts alluded to the second case, and remarked that the indication for operation was the extreme suffering the man had, and this in spite of free aortic regurgitation and marked arterial degeneration. There was benefit both in regard to the physical conditions of the aneurysm and to his sensations from the operation.

Mr. R. Barwell thought that sacculation of the aneurysm was necessary for the formation of clot after ligature of a distal artery. The clotting probably originated in the sac, and not at the seat of ligature. There were cases in which, in his opinion, the right carotid should be preferentially tied, of which the cases described in the paper might have been such.

Mr. Bucknall discussed the question of danger from this distal ligature, particularly the cerebral symptoms which formerly preceded death not infrequently.

Mr. Heath replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

Professor McWeeney, President of the Section, in the Chair.

Friday, January 10th, 1902.

The Etiology of Vaccinia.

The President read a paper on this subject. He referred to the fact that, having been entrusted by the Irish Local Government Board with the supervision of the production of calf vaccine, he had naturally thought of undertaking a research with the object of ascertaining the cause of vaccinia. Before doing so he had thought it well to carefully survey the ground that had already been covered by others, and lay the present state of the question before the Academy. That vaccinia was merely small-pox, modified by passage through the calf, there could be no doubt since the work of Von Thieme, Ceely, Voigt, and Fischer. The microbic etiology of the two diseases must therefore be identical. Since the commencement of the bacteriological epoch repeated and unsuccessful endeavours had been made to establish a bacterial etiology for these maladies. As among the most recent of these attempts might be cited those of Klein, Copeman, Kent, Nakanishi, and of Czaplewski, and Vanselow. Mann had demonstrated that in sections of vaccine tissue appearances closely resembling micro-organisms, but really consisting of granular or rod-like precipitates of stain—mere artefacts—might be produced in the process of Gram's method. The bacillus of Nakanshi was at once recognizable by any one familiar with the microbic flora of the calf's skin, as the xerosis bacillus, which closely resembled that of diphtheria, but was harmless. The micrococcus quadrigeminus of the last-named observers had recently been admitted by themselves to be devoid of all etiological relation to the vaccine process. The attempts to prove that variola and vaccinia were due to a parasitic protozoön were begun in 1886 by Van der Loeff, continued by L. Pfeiffer, of Weimar, and still further developed by Guarnieri, of Pisa, and by Pfeiffer's pupil, v. Wasielewsky. To Guarnieri belonged the credit of having selected as the field of observation the rabbit's cornea, a transparent, non-vascular structure, in which the histological events could be observed uncomplicated by the vascular and exudative phenomena of inflammation. Guarnieri saw in the epithelial cells of the inoculated cornea rounded bodies varying in size from that of a minute coccus to about one-third of that of an epithelial nucleus. They lay in the protoplasm, often close to and even indenting the nucleus. Amoeboid movements were observable on the warm stage, and Ernst Pfeiffer saw the bodies lying *between* the epithelial cells an hour after vaccination, and *within* them a few hours later on. Several observers, such as Ferroni and Massari, Salmon, and others, had endeavoured to explain these bodies as resulting from irritation of a non-specific kind. But Hückel, whilst not admitting their parasitic nature, had been led to infer that they were the result of some alteration of the cell produced by the parasite or its toxin. E. Pfeiffer had shown that lymph that had lost its activity through filtration or otherwise was incapable of producing "bodies" in the corneal epithelium. Wasielewski had propagated the vaccine virus on the rabbits' cornea for forty-three generations, and used the corneal epithelium scraped off the forty-third consecutive rabbit for vaccinating children, and produced a large percentage of typical vesicles. The only feature presented by such virulent epithelium and not presented under any circumstances, by normal or otherwise irritated epithelium, was the presence of the "bodies" described by Guarnieri. For this reason it was difficult to escape from the conclusion that the "bodies" were the carriers of the infection. The cycle of development which they went through was far from being clear. In some form or other they must exist in vaccine lymph. Perhaps this was what Cohn described as "microsphoera vacciniae." Perhaps some of the "cocci" found in fresh lymph were really stages of this mysterious protozoon. Beyond the seeming existence of a nucleus, the most careful examination had failed to reveal much structure in the "bodies" as found in the infected epithelium, and as to their reproduction and developmental cycle little or nothing was known. Through the kindness of Dr. Gustave Mann, of the Physiological Laboratory, Oxford, who had carried out a thorough investigation of the histology of the vaccine process, the President was enabled to show the several stages in the evolution of the vaccine vesicle, illustrated by lantern slides and actual preparations, and he also exhibited slides and sections of the inoculated rabbit cornea in which every cell was seen to harbour one or more "bodies." He had lately seen a statement that Guarnieri had been able quite recently to cultivate his organism within collodion sacs in the peritoneum of the rabbit, but was unaware whether the fact had received confirmation.

Dr. Montgomery held that a vaccine pustule never occurred; the pustule was the result of want of cleanliness. Pure lymph gave vesicles only. He would like to hear from Dr. McWeeney if he had ever found these Guarnieri bodies in lymph supplied to the cow-pox institution? Could these bodies be cultivated and vaccination be produced from the cultures?

Dr. McWeeney declared he was at one with Dr. Montgomery in saying that pure lymph never produced a pustule. He had not as yet commenced a systematic search for the bodies.

DISEASE OF VERTEBRAE AND HUMERUS.

Dr. J. P. DOYLE read a paper entitled "Disease of Two Upper Cervical Vertebrae and Upper Part of Left Humerus." The patient, a boy aged 9, was admitted to St. Joseph's Hospital under his care on September 6th, 1901. He was suffering from a pain in the left shoulder-joint. The boy stated that he fell from a ladder on a large stone, a distance of 20 ft. He had a temperature of 100°, and he complained of pain in the joint, and was noticed to carry his head to the left side. On September 28th the pain was acute and his limbs were stiff. On October 8th Mr. Doyle excised the head of the humerus. The boy made a good recovery, and the wound healed by first intention. On October 23rd the temperature rose to 104°, but some days before death it fell to 97°. He looked on the case as one of osteomyelitis. On December 4th, at night, soon after a nurse had been with him, the boy died suddenly. At the necropsy, Dr. Doyle found the anterior surface of the occipital bone and first and second cervical vertebrae with their intermediate anterior portion very much eroded. The odontoid process of the axis was considerably diseased, especially on the left side, and it protruded through the atlas in a very oblique direction. By the giving way of the transverse ligament the process pressed on the upper portion of the spinal cord, and thus caused sudden death. The atlas was displaced slightly downwards to the left side, owing to the articular surfaces on that side being much eaten away; and in this position there could be seen the remains of the sinus in the soft tissues, which burrowed down to the acromial end of the clavicle. The pancreas was found enlarged and hard. All the viscera were anaemic, but otherwise normal.

Dr. MCWEENEY thought that case more resembled one of tuberculosis than of osteomyelitis, of which it would be a very rare example.

Dr. Doyle's paper was sent to the Reference Committee.

MEDICAL SOCIETY OF LONDON.

W. H. ALLCHIN, M.D., F.R.C.P., President, in the Chair.

CLINICAL MEETING.

Monday, February 10th, 1902.

TRAUMATIC RUPTURE OF PROSTATIC URETHRA.

MR. EDMUND OWEN showed a boy, aged 7, on whom a pile of coffin lids had fallen; some hours later blood was found to be oozing from the urethra. A catheter could not be passed, and the boy could not pass water. Opening the urethra from the perineum did not discover the track, so the bladder was opened suprapubically. It was found full of urine, and blood was also found at the base of the bladder. A drainage tube was passed through the floor of the pelvis and out by the perineal incision. A week later the house-surgeon was able to pass his finger through the suprapubic wound and out by the perineal incision, apparently through the prostate, and to pass a No. 7 catheter through the urethra into the bladder. The wounds closed without any indication of a traumatic stricture.

SENILE ANAEMIA ASSOCIATED WITH GOUTY RHEUMATOID ARTHRITIS AND DYSPEPSIA.

Dr. WILLIAM EWART showed a man, aged 66, with evidence of anaemia and dyspepsia, with swelling and stiffness of the wrists, knuckles, and knees. There was a history of gout. There was no indication of visceral disease or cancer. The case was regarded as one of senile anaemia and arthritis of toxic (alimentary) origin.

CASE OF TABES DORSALIS.

Dr. WILLIAM EWART also showed a patient suffering from this disease associated with gastric crises, followed by ataxy, who improved under treatment.

USE OF THIERSCH'S GRAFTS IN EXCISION OF HIP.

Mr. C. B. KEETLEY showed a girl, aged 6½, in whom the left hip-joint (head of femur) was removed by erasion for tuberculous disease. The tubercle, however, extensively affected the superficial parts, so three weeks later the operation was repeated and the whole wound lined by Thiersch's grafts. All the deep and most of the superficial grafts adhered, and from a fortnight later discharge practically ceased. The hip-joint, which had given no more trouble, was never drained by any artificial tube. The temperature was generally about normal.

LATE RICKETS.

Mr. MUIRHEAD LITTLE showed two cases of this condition. In one, aged 17, the deformity—knock-knee—was not noticed until the patient was 5 years old. In the other patient, aged 13½, the deformity—also knock-knee—was not noticed until she was 4½ years old. In both cases Macewen's osteotomy was performed.

Mr. WALTER SPENCER suggested the term "osteomalacia of puberty" as preferable.

Dr. E. CAUTLEY thought late rickets was recrudescent rickets.

CHRONIC OEDEMA.

Dr. W. ESSEX WYNTER demonstrated three cases of a condition in young women of solid oedema affecting the face and lower limbs, without albuminuria or cardiac disease. In two, at least, there was deficiency of the isthmus of the thyroid, and in another symptoms and signs similar to those of myxoedema. In two cases benefit had followed administration of thyroid substance.

ACTINOMYCOSIS OF THE TONGUE.

Mr. T. H. KELLOCK brought forward a case of this disease which had been treated with the actual cautery and potassium iodide.

CASE OF NODDING SPASM.

Dr. BERNARD POTTER exhibited an instance of this condition in a child of 9½ months, which came on with the onset of teething at 5½ months. Following the nodding, rotatory nystagmus occurred in both eyes.

Dr. VOELCKER pointed out that in this case the nystagmus was sometimes convergent.

Dr. CAUTLEY thought dentition, unfavourable surroundings, and rickets might be excluded as causes. In the presence of microcephalus the prognosis was bad.

SCIRRHUS OR ATROPHIC CANCER OF TONGUE.

Mr. WALTER G. SPENCER showed a case of hard tumour of the tongue in a man, aged 72, which was believed to be an example of this rare malignant disease of the tongue, corresponding with scirrhus of the breast. It was suggested that possibly the tumour started in one of the glands of the tongue.

Mr. JONATHAN HUTCHINSON, JUN., made a comparison with scirrhous tumours of the penis, originating sometimes in the glands of the fossa navicularis.

FACIAL PARALYSIS.

Mr. BARNARD showed two cases of this disease occurring in children without otitis media. In one case, occurring after a fall, there was associated hemiplegia on the opposite side.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

ALFRED COOPER, F.R.C.S., President, in the Chair.

Friday, February 7th, 1902.

DISCUSSION ON INOPERABLE CANCER.

MR. MCADAM ECCLES, in opening the discussion, said that to feel in a case of cancer that there was nothing further that could be attempted by operation was a condition which was the despair of the patient and of the surgeon. Therefore, if there were any other means that could be taken from a non-operative local point of view he thought it would be a good thing to have them discussed. In a case of recurrent carcinoma of the mamma the steady progress of the disease was ever before the eyes of the patient, and anything that could remove the surface disease would be a relief to the mind, and death would be rendered easier even if it were due to visceral deposit. In a considerable number of surface carcinomata of recent growth the treatment by the *x* rays had apparently been successful. Double oophorectomy had been followed without any shadow of doubt by most happy results in a certain number of cases and yet in others the result had been equally disappointing, the operation was therefore practically an experiment. Life might be prolonged and rendered not

only endurable but actually pleasant by the disappearance of all visible growth.

Mr. Stanley Boyd said that he had used chiefly oöphorectomy, and had not given thyroid extract until he had been fairly certain that the oöphorectomy had failed. He had endeavoured to find out what oöphorectomy alone could do, and unfortunately had had plenty of opportunity of seeing what thyroid could do when oöphorectomy had failed. The effects of a successful oöphorectomy were relief of pain, softening, shrinking and disappearance of nodules, and marked improvement in health. If recurrence took place that recurrence came when the patient was really in a very fair condition, and she started at a much higher level again, and it took longer for the disease to kill her. There was only one thing which he could think of that had been suggested as a possibility other than the oöphorectomy producing that effect, and that was that the abdominal section caused the improvement, but he did not think that that was the case. Out of 46 oöphorectomy cases 17, or about 35 per cent., showed marked improvement. The results of this treatment on inoperable cases could be compared with the treatment by Coley's fluid of inoperable sarcoma. Out of 148 cases operated upon by Coley 12 per cent. remained free of disease at periods from one to six years. These results were not so good as the results from oöphorectomy. There were some points upon which they might dwell as indications of the cases which were most likely to give the best results. The first thing was that it was only in cancer of the breast that oöphorectomy, so far as was known, was of any influence at all. The next was that the mere mass of disease present, provided that it was local, was not a contraindication to operation; also cancers of slow growth had yielded better results than acute cancers. The next point was that more good results seemed to have been obtained after 40 years of age than before. Further it had to be remembered that obvious lesions of the viscera and bones had never been known to disappear after oöphorectomy, but it was possible that unrecognised nodules which were small had disappeared, and it was also possible that the growth of some of these visceral troubles might have been controlled or retarded by oöphorectomy. Lastly, complete re-establishment of the menopause had not proved to be a contraindication to the treatment. Consequently if they wanted to get the best results, so far as could be seen at present, and did not want to make what he might call experimental experiments—because all were more or less experiments—they should take women of forty who were still menstruating, with cancers of chronic type and with only local recurrence. Dr. Beatson had asked whether the time had not come when oöphorectomy should not be the primary operation for the treatment of cancer of the breast either alone to replace the local operation or in combination with the local operation. Mr. Stanley Boyd did not think the operation was to be trusted alone. He knew of nothing from the study of the cases to lead him to suppose that it was the earliness of the oöphorectomy which did good. It was in the cases which were proved to be of a chronic nature that the best results had been secured. In two hopeless cases he had added oöphorectomy to the local operation, and in neither could he say certainly that it had done any good. In regard to the thyroid treatment he had never seen any good result from it, but he had observed the health depressed by it. It had to be admitted, however, that cases of cancer of the cervix had been more commonly reported as apparently affected by the thyroid treatment than cancer of the breast. With regard to the *x* rays he thought they would get some good results from this method of treatment.

Mr. Henry Morris communicated a paper in which he pointed out that many patients had been condemned from time to time by really able and competent practitioners as suffering from "inoperable cancer" who were really not cases of malignant disease at all. There had been many cases admitted under him into the cancer wing of the Middlesex Hospital where only cases of inoperable cancer were supposed to be admitted, several of which had been treated for years, and some of which had been in other London or provincial hospitals, yet which were really not cases of cancer at all. A striking instance was that of a fine stalwart man who stated that he had been an in-patient at one of the large London hospitals and also at the Cancer Hospital, where his case was regarded as one of advanced cancer of the rectum unfitted for removal. The condition was really a long-stalked pear-shaped polypus, and the man soon left the Middlesex Hospital quite well after removal of the tumour. In palliative treatment morphine was the most general panacea; but though it relieved the pain and tended thus in one way to prolong life, yet it added considerably to the loss of appetite and caused anaemia and emaciation. For nausea or vomiting, he had found the two most effective remedies were oxalate of cerium and cocaine in grain pills given once or twice a day half an hour before food. For correcting the fetor of discharges one of the best applications he had found was an ointment or a suppository containing vaseline, eucalyptol, and iodoform. As regards the various special remedies now being much tried, he had seen no cure from any of them. He had employed Coley's fluid, but owing to constitutional disturbance patients had declined its continuance. Many years ago Campbell de Morgan used to point to cases in which cancerous ulcers had healed during and after an attack of erysipelas. The *x* rays produced a change in the cell structures, so that healing occurred, pain was relieved, and the discharges were diminished in amount and improved in character; but in no case which he had seen had the healing been sound and permanent.

Dr. C. Ryall said he had abandoned Dr. Beatson's operation owing to the bad results he had obtained. There was no doubt, however, that the simple abdominal section had a great effect. It probably set up some tissue change not altogether understood. In his own personal experience he had most satisfactory results from these simple exploratory sections.

Dr. Herbert Snow said that epithelioma on the wrist or on the foot was very tardy in infecting the lymph glands in the axilla or groin. On the observation of this phenomenon he formulated the principle that the nuclear cells or infective particles of carcinoma must be destroyed either in the lymph current on their discharge to the glands, or by the cells in the glands, or by some secretion in the glands. He could explain the phenomenon on no other principle. Referring to the use of morphine, he quoted a case of his own, a lady aged 30, who had carcinoma of the breast, who was treated after operation with morphine, and lived for more than six years, the cancerous nodules softening and gradually disappearing.

Mr. C. R. B. Keetley said a few words on the possibility of every case of cancer affected by discharge being a focus for spreading the disease.

Dr. F. Harrison Low exhibited the apparatus by which high frequency currents were produced. There was no suggestion of producing any evidence at present that it was of any particular value in the treatment of inoperable cancer, although some efforts might in time be made in that direction.

OBSTETRICAL SOCIETY OF LONDON.

Annual Meeting.

Peter Horrocks, M.D., President, in the Chair.

Wednesday, February 5th, 1902.

Dermoid Cyst of the Ovary.

Dr. Amand Routh showed a dermoid cyst of the ovary the size of a large cocoanut removed *per vaginam* from a patient aged 53. He asked the Fellows to state their experience as to the best method of treating the vaginal incision after the pedicle had been ligatured and returned. He usually partly closed the vaginal incision, and inserted a gauze drain, but sometimes closed it completely.

The President said that it might be questioned whether posterior colpotomy was as good as abdominal section for the removal of tumours in general and dermoids in particular. It was true that it might be an easy matter to remove a dermoid through the vaginal roof, but one could never tell beforehand, and if the abdomen had to be opened to complete the operation after the cyst had been opened from below, there would be increased risk of soiling the peritoneum with the dermoid contents; and it had struck him that the contents of a dermoid were occasionally more virulent than the contents of ordinary ovarian tumours. Bacteriological investigations, however, had not resulted in the discovery of any specific

or specially pathogenic microbe. He preferred after a posterior colpotomy not to close the opening but to drain with sterilized gauze. If the opening were very large it might be partially closed by a stitch or, better still, by forceps.

Dr. F. H. CHAMPNEYS thought that the treatment of the vaginal wound should depend upon its size. If large, it should be partially closed, and a gauze drain put through the remainder: if small, no suture was necessary. He now treated the pedicle of cysts removed by colpotomy by pressure forceps and gauze drainage, without ligature, and found the result very satisfactory, the forceps (left on for thirty to forty-eight hours) assisting drainage.

Dr. G. E. HERMAN said the special danger attending the fouling of the peritoneum with the contents of dermoid cysts was due to the proneness of dermoids to suppuration, apart from which the contents were but slightly irritant. He thought that after the removal of such a cyst *per vaginam* drainage was not needed, unless suppuration had occurred or the cyst contents were known to have fouled the peritoneum.

Dr. ROUTH said, in reply, that he preferred not to use a clamp for the pedicle, but to draw the cyst outside the vulva, retroverting the uterus during that procedure, and then to ligature the pedicle at leisure, all tension of the tissues being thus easily avoided.

UTERINE FIBROIDS.

Dr. AMAND ROUTH also showed a uterus with fibroids removed at eight months and a-half of gestation by abdominal hysterectomy after Caesarean section. There were six fibroids, two of which were originally in the pelvis. One was pushed up, but the second one remained in the sacral hollow, preventing all chance of normal delivery. At the operation on January 31st last the obstructing fibroid was found to be firmly adherent to the pelvic floor. Both mother and child remained well.

After Dr. HERMAN and the PRESIDENT had spoken,

Dr. CHAMPNEYS said that the position of the fibroid behind the cervix would have rendered birth *per vias naturales* very difficult, even after destroying the child. He therefore thought Dr. Routh's treatment correct.

TUBAL GESTATION.

Mr. J. BLAND-SUTTON read notes of 2 cases of tubal gestation. The first was that of a lady whose husband, a doctor, had diagnosed a tubal pregnancy, which Mr. Bland-Sutton, after confirming the diagnosis, removed before rupture. The gravid tube was larger than usual, owing to the size of the contained blood mole, and to the unusual size of the amniotic cavity, which contained a misshapen embryo. The second case had been actually diagnosed by the patient herself, and reminded Mr. Bland-Sutton of an artizan's wife, whose husband had also diagnosed extrauterine pregnancy after reading his *Diseases of the Ovaries and Fallopian Tubes*. The patient, aged 36, had been confined in 1891, and was regular till July 5th, 1901, when a period was missed, and the patient suspected extrauterine pregnancy. Severe abdominal pain followed two cycle rides, and Mr. Bland-Sutton was called into consultation. He confirmed the diagnosis, and on July 19th removed the left tube and ovary, and several ounces of fluid blood in the pelvis. The ampulla of the tube contained a clot as large as a walnut, the coelomic ostium was large enough to admit a goose quill, and blood leaked freely from the opening during the operation. The walls of the tube were extremely thin, but had not ruptured. Typical villi were found at the placental site.

The PRESIDENT thought that the explanation of the first specimen being so large without causing rupture was due to the fact that the embryo had perished early and there had been slow haemorrhage with formation of partially organized clot. With regard to the second specimen he called attention to the ease with which a tubal gestation might be ruptured during examination or during straining by the patient, and gave details of an unsuspected case that had proved fatal in this way.

Dr. HERMAN pointed out that the clot in Mr. Bland-Sutton's first specimen of tubal mole was in different degrees of decolorization, indicating haemorrhage at different dates. Had the patient had successive attacks of pain? He had seen rapid increase of size in tubal moles between examination and operation. He thought the thick layers of fibrin lining the tube would tend to prevent rupture, but the patient would be in danger of haemorrhage from the open end, and for this and other reasons operation was advisable.

Dr. CUTHBERT LOCKYER asked if Mr. Bland-Sutton could explain the usually large size of the amniotic cavity in the first specimen, and

Dr. AMAND ROUTH asked why the amniotic cavity in tubal moles should be so much smaller than in uterine moles of the same date. He also asked if any Fellow had heard of a "hydatidiform" mole of the Fallopian tube.

In reply, Mr. BLAND-SUTTON said he had never seen a hydatidiform tubal mole, but felt sure one would come to hand. He emphasized the President's remarks, and also discountenanced dressers examining cases of suspected tubal gestation, for fear of rupture of the tube. He endorsed the fact that the amniotic cavity was much larger in uterine moles than in tubal moles, but could not explain it.

REPORTS.

On the motion of Dr. WALTER RIGDEN, seconded by Dr. H. RUSSELL ANDREWS, the report of the treasurer, Dr. F. H. Champneys, was received and adopted. The report of the honorary librarian, Dr. M. Handfield-Jones, was received, and its adoption was moved by Dr. G. F. BLACKER, seconded by Mr. C. A. GOULLET, and carried. The report of the Chairman of the Board for the examination of midwives was adopted on the motion of Dr. THOMAS STEVENS, seconded by Dr. CUTHBERT LOCKYER.

ANNUAL ADDRESS.

The PRESIDENT then delivered the annual address. He stated that (including 14 honorary) there were 654 Fellows, and these include every obstetric physician and every teacher of obstetrics and gynaecology from the medical schools of London. The papers read and specimens shown during the past year had maintained the high standard of former years. Of 7 papers read 6 were obstetric and 1 gynaecological, but of the 50 specimens shown (excluding new instruments), 34 were gynaecological and only 16 obstetric. The papers and specimens were then reviewed. Obituary notices of six Fellows who died during the year 1901 were read, namely: Dr. Eugene Goddard, Dr. Thomas Tinley, Dr. John D. Williams, Dr. A. E. Aust Lawrence, Dr. Henry Sutherland, and Surgeon-General Robert Harvey, C.B., LL.D.

VOTES OF THANKS.

On the motion of Dr. W. S. PLAYFAIR, seconded by Dr. G. E. HERMAN, a vote of thanks to the President for his address was passed by acclamation.

Dr. JOHN GALTON proposed, and Dr. DRUMMOND ROBINSON seconded, a vote of thanks to the retiring Vice-President, Dr. W. R. Dakin, and to the other retiring members of Council.

Dr. F. H. CHAMPNEYS moved, and Dr. W. H. TATE seconded, a vote of thanks to the retiring Honorary Secretary, Dr. Herbert Spencer, and the Honorary Librarian, Dr. M. Handfield-Jones; and Dr. SPENCER briefly replied.

ALTERATION OF BY-LAWS.

Dr. JOHN GALTON proposed, and Dr. W. S. PLAYFAIR seconded, that the law which declares that "registrable medical men" are eligible for election to the Fellowship should be changed, as suggested by the Council, to "registrable medical practitioners." The proposal was carried unanimously.

A law was also passed by which Fellows, who might make communications to the Society, would be permitted to publish their paper in scientific journals after being read.

ELECTION OF OFFICERS.

The following gentlemen were declared elected to serve on the Council of the Society for the session 1902-3:—

President: Peter Horrocks, M.D. *Vice-Presidents:* John W. Byers, M.A., M.D. (Belfast); Edward Malins, M.D. (Birmingham); John Phillips, M.A., M.D.; Herbert R. Spencer, M.D. *Treasurer:* Francis Henry Champneys, M.A., M.D. *Chairman of the Board for the Examination of Midwives:* W. R. Dakin, M.D. *Honorary Secretaries:* Amand Routh, M.D.; Montagu Handfield-Jones, M.D. *Honorary Librarian:* Robert Boxall, M.D. *Other Members of Council:* Comyns Berkeley, M.B., B.C.; Henry Briggs, M.B. (Liverpool); Thomas Vincent Dickinson, M.D.; Charles Owen Fowler, M.D.; Charles Arthur Goullet; Walter Spencer Anderson Griffith, M.D.; David Berry Hart, M.D. (Edinburgh); Arthur Corrie Keep,

M.D., C.M.Edin.; Arthur H. N. Lewers, M.D.; Thomas Robert Lombe, M.D. (Torquay); William Rivers Pollock, M.B., B.C.; Harry Campbell Pope, M.D.; Edward Reynolds Ray; William Loudon Reid, M.D. (Glasgow); William Japp Sinclair, M.D. (Manchester); Thomas George Stevens, M.D.; Francis T. Tayler, M.B.; John William Taylor, F.R.C.S. (Birmingham).

EPIDEMIOLOGICAL SOCIETY.

Patrick Manson, M.D., LL.D., C.M.G., F.R.S., President, in the Chair.

Friday, January 10th, 1902.

Asylum Dysentery.

The evening was devoted to the discussion of Dr. Mott's paper on dysentery in asylums.[1] After Dr. Mott had given a summary of the salient points in his paper, the Secretary read an account by Dr. P. J. Bailey of a succession of outbreaks at Hanwell during the past two years, in which 15 of the staff, including himself, were attacked, none fatally. Of the inmates 13 in 48 (27 per cent.) of the males, and 9 in 47 (19 per cent.) of the females died, the majority of the deaths in both sexes being among general paralytics or persons 70 years of age. Many of the cases in 1901, including a fatal one of an attendant were persons who had suffered from previous attacks.

A short communication was read from Dr. Claye Shaw, in which, while admitting that the cases described by Dr. Mott differed in no respect from dysentery as seen elsewhere, he maintained that there was a special asylum dysentery, not bacterial, but induced by degeneration and necrosis of the tissues of the intestine dependent on the nerve changes inseparable from general paralysis, etc., in the insane; and the cases observed by him at Banstead Asylum were of this kind, occurring from time to time apart from defects sanitary or administrative.

Colonel McLeod, R.A.M.C., said his first experience of dysentery was at the Durham County Asylum in 1864, when 30 cases with 20 deaths occurred among the 200 inmates in small groups at intervals corresponding with the irrigation of a meadow with putrid sewage from a huge cesspit, the wind blowing from that quarter. A similar coincidence was remarked in a simultaneous outbreak at the Carlisle Asylum, and Dr. T. S. Clouston had about that time published a paper still worthy of study on Sewage Exhalations as a Cause of Dysentery. He had seen much dysentery in India—in gaols, asylums, camps, and among the general population, and latterly at Netley, among invalids from all parts of the world. In India it was always associated with insanitary conditions and overcrowding, but specially with the foul water supply from tanks used by the natives for bathing, etc. In Calcutta it—and faecal diseases generally—had almost disappeared wherever the public service of pure water was substituted for that from tanks, though previously the diphtherial and worst form was very frequent. The dysentery he had seen at Durham differed in no respect from that in India. The relation between dysentery and enteric fever, sometimes the one sometimes the other preceding, called for investigation, as did its prevalence in asylums and gaols, when the general population amid less sanitary conditions remained free, though the uncleanly habits and low vitality of the insane doubtless rendered them more susceptible. Thus Major Buchanan had described a "terminal dysentery," to which many consumptives and most lepers in India succumbed. He deprecated the use of euphemisms as "ulcerative colitis" for what was simply dysentery, as diverting attention from its preventability.

Dr. Goodall criticised Dr. Claye Shaw's paper, and remarked that all he said as to non-occurrence of primary cases among the attendants might be applied to so obviously infectious a disease as diphtheria. He had at the Eastern Hospital at Homerton a young woman who, while convalescent from enteric fever, developed a fatal attack of dysentery or "ulcerative colitis." He knew that cases of dysentery, never reported, occurred at Leavesden Asylum some years ago, and that in 1895 there were many of fatal diarrhoea. Some might have been enteric, but the majority were obscure and in none was ulceration found after death. How, he asked, did dysentery appear in asylums when there was none outside?

After some remarks by Mr. Shirley Murphy and Dr. Hamer,

Dr. Stansfield, in reply to Dr. Goodall's question, said that patients were constantly transferred from overcrowded asylums, that those newly opened were mostly thus filled, and if any of such transfers were suffering from latent forms of the disease they would develop it sooner or later. Thus at Bexley, where the sanitary arrangements were perfect, dysentery broke out within three years of the opening of the asylum, the first cases being invariably transfers.

Dr. Eric France had no doubt as to the high infectivity of dysentery in asylums, though under ordinary conditions it might not be greater than that of enteric fever, but the conditions—namely, the habits of the insane—were not ordinary. Its infectivity and the value of isolation were well shown at Claybury Asylum, where, after isolation was practised, the cases fell off remarkably, and the mortality was reduced to half, though the recognition of its infectious character by the attendants contributed to this result.

Dr. Wilson told how a patient, transferred from the gaol at Trinidad, where dysentery was prevalent, to the hospital communicated the disease to four others in the same ward.

Dr. Washbourn then read a paper by himself and Mr. Owen Richards, on the relation of dysentery as seen by them in South Africa to that in asylums here, in which they described three types of the disease: (1) the normal, with a febrile stage lasting a week, the temperature ranging from 101° F. in the morning to 103° F. in the evening, bloody and mucous stools and white-furred tongue, after which the symptoms subsided or became chronic, unless death occurred previously from the fever itself, or later from perforation, peritonitis, or exhaustion; (2) mild non-febrile cases, soon recovering; and (3) cases in which the pyrexia lasted for three weeks or longer, with perhaps an absence of blood or mucus, the bowels being loose or constipated. These cases were often mistaken for enteric fever, but were no doubt due, like the typhoid form of scarlatina, to a secondary septicaemia. The mortality in South Africa had been low, the patients being healthy young men, only 1·86 per cent. in the Imperial Yeomanry Hospital at Pretoria. Liver abscesses were rare, and in the one case examined the pus was full of streptococci and bacilli unlike that in tropical dysentery, which was sterile. The caecum and rectum were the parts most affected with thickening, haemorrhages, and ulceration, perforation being the most frequent cause of death. No amoebae were found.

Dr. Rolleston confirmed the distinction between tropical dysentery and these cases which he thought resembled those described by Shiga in Japan, and maintained that the inflammation began in the mucous rather than the submucous coat as observed by Dr. Mott. He suggested that, like broncho-pneumonia, dysentery was a symptom of several pathological conditions, clinically indistinguishable.

Dr. Washbourn then read a communication by Dr. T. Dunlop, describing an outbreak of dysentery at Aldershot in August and September last, of 180 cases with 38 deaths, of which 28 were under 5 years of age. The infectivity was great and the symptoms unmistakable, though the cause was. There were no cases in the most insanitary quarter of the town, and only one in the camp which had the same water.

Mr. E. J. F. Hardenberg described 19 cases, of which 12 with 3 deaths were children, forming part of the outbreak reported by Dr. Dunlop. There were no complications but extreme prostration, the deaths having been due to collapse.

Colonel Bruce, R.A.M.C., as the result of three months laboratory work in South Africa, doubted the existence of amoebic dysentery. It was impossible to identify the specific organisms for the organs and the mucus were sterile, but the normal contents of the bowel swarmed with bacteria, from which he had isolated a long series of the so-called coli group, presenting every gradation of reactions positive and negative, to which he believed Flexner's and Shiga's belonged. The primary inflammation seemed to him always submucous.

The President considered that Dr. Mott had rendered a public service in calling attention to the prevalence of a pic-

[1] British Medical Journal, January 4th, 1902, p. 25.

ventable disease in asylums, and the County Council deserved credit for instituting the inquiry. He deprecated such aggregations of the healthy and much more of the insane as tending to develop disease, and complained of the ignorance of the elements of hygiene or principles of nursing on the part of the attendants.

Dr. MOTT, replying, was inclined to think that Dr. Claye Shaw had materially modified his views. He himself recognised a "weakness of the bowel" in the paralytic insane, but as a condition rendering them more susceptible, not as a cause, essential or other, of the disease. At Claybury 25 per cent. of the patients were general paralytics but they had no dysentery whatever. Its first introduction into any asylum was through transfers, when it was communicated and naturalized by defects in sanitation and personal care of the sick. He knew that at Claybury Asylum patients who had been working in irrigation took their meals without washing hands, and he had seen beds of lettuces watered with crude sewage.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

T. CHURTON, M.D., in the Chair.

Friday, January 31st, 1902.

FRACTURES OF SEMILUNAR CARTILAGE OF THE KNEE-JOINT.

MR. MAYO ROBSON read a paper on this subject, which it is proposed to publish.

The CHAIRMAN, Mr. LITTLEWOOD, Mr. MOYNIHAN, and Mr. LAWFORD KNAGGS took part in the discussion; and Mr. ROBSON replied.

ADVANTAGES OF A BAG PERVIOUS TO AIR IN ETHER-GIVING.

Dr. MCGREGOR YOUNG read a paper, in which he pointed out that air limitation for all practical purposes was a necessity, but the question was whether in using the rubber bag they did not go too far, and produce often an undesirable state of anoxæmia; certainly in unskilled hands this was apt to occur. The advantages of the semi-open method in vogue in America might, he thought, be combined with those obtained in using a Clover's regulating apparatus if instead of an air-excluding rubber bag, a bag made of some porous fabric was used. Although by no means the only cause of cyanosis the rubber bag was probably the most common one, and cyanosis was an undesirable and even dangerous condition, and the reproach of ether-giving. Besides the rubber bag was an unclean thing. He showed the bag which he suggested as a substitute, made of "holland" linen. He claimed that with this cyanosis was avoided; and as regarded cleanliness it was without reproach, for a fresh bag newly washed and starched from the laundry was used for each case. He had tried it in a very large number of cases with excellent results. Chloroform could be added to hasten anæsthesia by simply dropping it on the outside of the bag. He found the asphyxial factor being absent that the corneal and pupillary reflexes were no longer indicative of the same depth of anæsthesia.

In the discussion which followed Mr. MAYO ROBSON spoke strongly in favour of Dr. Young's methods. Dr. WARDROP GRIFFITH and Mr. MICHAEL TEALE also took part in the discussion; and Dr. YOUNG replied.

CASES, SPECIMENS, ETC.

The following were shown:—Mr. H. J. ROPER: A specimen of amputation through the forearm for diseased wrist-joint in a man aged 68.—Dr. BRONNER (Bradford): Two cases of saddle-nose treated by subcutaneous injections of paraffin.—Dr. C. POWELL WHITE: Urine from a case of bilharzia hæmatobium.—Mr. LITTLEWOOD: (*a*) A child, aged 4, with Volkmann's contracture, treated by tendon lengthening; (*b*) renal calculi; (*c*) a specimen of perforating ulcer of upper part of rectum producing general peritonitis; (*d*) a new instrument—forceps dissector.—Dr. CHURTON: (*a*) Three patients recovering from acute cerebral endarteritis (syphilitic) with aphasia; (*b*) a brain showing syphilitic endarteritis.—Mr. R. G. A. MOYNIHAN: (*a*) A patient operated upon some months ago for supposed malignant disease of the stomach; the tumour, of large size, adherent and irremovable, had entirely disappeared; (*b*) a specimen of calculous pyonephrosis.—Dr. T. WARDROP GRIFFITH: (*a*) Two cases of heart disease; (*b*) a case of progressive muscular atrophy; (*c*) (with Mr. MOYNIHAN): a specimen of perforated gastric ulcer.—Mr. MAYO ROBSON: (*a*) Double pyosalpinx (tuberculosis); (*b*) tubo-ovarian abscess; (*c*) myxomatous degeneration of myoma uteri—hysterectomy; (*d*) growth of mesentery, associated with intestinal obstruction by band.—Dr. BARRS: (*a*) A case of chronic posterior basic meningitis—recovering; (*b*) tumour of the brain (pons).—Dr. HELLIER.—Double solid malignant ovarian tumour removed a fortnight after labour.—Dr. ALLAN: (*a*) Osteitis of tibia and fibula after chronic ulcer; (*b*) heart showing dilated pulmonary artery and lung with infarcts from same; (*c*) dilated pulmonary artery and emphysematous lung; (*d*) dilated pulmonary artery from a subject with emphysematous lungs; (*e*) large kidneys; (*f*) aneurysm of aorta and very small kidney; (*g*) brain of an epileptic.—Dr. TREVELYAN: (*a*) A case of early locomotor ataxia, and another suspected case of the same disease, both with preserved knee-jerks; (*b*) a specimen of tubercle bacilli prepared from a hæmoptysis which occurred at the commencement of acute phthisis.

MIDLAND MEDICAL SOCIETY.

ARTHUR OAKES, M.R.C.S., L.R.C.P., President, in the Chair.

Wednesday, January 22nd, 1902.

DIFFUSE SYMMETRICAL SCLERODERMA.

MR. HASLAM showed a woman, aged 37, the subject of this condition. It affected the skin of the face, neck, thorax, and to a less extent the upper extremities. It came on about six months ago, and reached its maximum intensity in five months, since which time it had improved. The case was a good example of that form of the disease which began as a leathery induration and not as an oedema.

CARCINOMA OF SIGMOID FLEXURE IN A BOY.

Mr. F. MARSH showed this specimen and related the case.

The patient, a well-developed, healthy-looking boy, aged 15, was admitted into the Queen's Hospital, on June 26th, 1901, for pain in the epigastrium and passing blood with his faeces. The first symptom was the passing of blood, which began six months prior to his admission. It was generally dark in colour and frequently mixed with mucus. The pain, which was intermittent and referred to the epigastrium, commenced only a month previously. Until then the bowels had acted fairly regularly with the help of aperients, but during the last month they acted frequently—sometimes only blood and slime, sometimes scybala, sometimes loose evacuations being passed. There was no tenesmus or frequent micturition. There had been a slight loss of weight, 5 lbs., in two months. On examination, the abdomen was not found distended, resonance was normal, and no tumour could be palpated. *Per rectum* an indistinct fullness could be felt to the left in the recto-vesical pouch. Blood and mucus followed the withdrawal of the finger. On July 5th a median incision was made and a growth found in the lower 3 inches of the sigmoid, most extensive on the posterior aspect and completely encircling the gut at the lower end. Several of the mesenteric glands were enlarged. The growth was excised with a margin of healthy bowel, the mesenteric glands were removed, and with considerable difficulty the two ends of intestine, the middle of the sigmoid and the upper end of the rectum were joined as accurately as the position of the parts would allow with Lembert sutures. A drainage tube was put on either side to the site of union on the floor of the pelvis, and for a few days a small quantity of fluid faeces came through one of them. A good recovery was made, the bowels acted regularly without difficulty, and the boy went home well on August 7th. The line of union could be felt *per rectum*, and there was no constriction or sign of recurrence. Microscopical examination showed that the growth was a columnar carcinoma.

The case was shown as interesting from a diagnostic point of view—the age being an early one for sigmoid carcinoma—and as a satisfactory result of excision and anastomosis. The subsequent history, however, pointed to recurrence, as the brother of the boy reported some four months after the operation that there was a return of blood in the faeces, but Mr. Marsh had not had an opportunity of examining him.

PYONEPHROSIS.

Mr. CHRISTOPHER MARTIN showed a kidney removed for calculous pyonephrosis from a woman aged 40.

She had had for fifteen years symptoms of stone in the right kidney—namely, pyuria, pain in the right loin, renal colic—and during that time she had had six normal confinements. No mass was to be felt, as the patient was very short and stout, but there was marked tenderness on deep pressure in the right renal region. There was no haematuria. The kidney was removed through a long horizontal incision beginning posteriorly at the erector spinae and reaching anteriorly nearly to the rectus abdominis.

This incision enabled the surgeon to remove a big kidney without opening the peritoneum. The patient bore the operation well and made an uninterrupted recovery. The kidney was much enlarged and distended, with loculi containing pus. The pelvis and calices were filled with large branching calculi.

PAPER

Mr. HALL-EDWARDS read a paper, illustrated by lantern slides, on experiences with the Imperial Yeomanry Hospital in South Africa.

A STATE SANATORIUM FOR MISSOURI. A movement has been set on foot by the Medical Society of the City Hospital Alumni of St. Louis, having for its object the erection of a sanatorium for tuberculous persons by the State of Missouri.

REVIEWS.

DISEASES OF THE UPPER RESPIRATORY TRACT.

Dr. Watson Williams's *Manual of Diseases of the Upper Respiratory Tract*,[1] in passing into its fourth edition, has entered on a new phase. In its larger form it merits all the commendation bestowed upon previous editions. The first was a marvel of condensation, as it contained in it practically all that was of utility to the student or practitioner. In this respect it was almost unique, and indeed we are tempted to regret that the author has not contented himself with a reproduction of it, without any other change except the correction of the few very minor errors and such changes as were necessary to bring it up to date. The present volume, which is much more pretentious, contains all the information conveyed in the former edition, with such further instruction as the student who had mastered it might be expected to desire. Every chapter has been considerably amplified. Thus, the consideration of the diseases of the tonsils occupies 22 instead of 10 pages; and 29 pages are devoted to membranous angina and diphtheria, as against 17 in the previous edition. The advance in bacteriology has greatly added to the knowledge of the different forms of membranous inflammation of the throat, but at the same time it has added considerably to our responsibility in making a diagnosis. Dr. Williams devotes a few pages to membranous or diphtheroid angina as distinguished from true diphtheria with a view to diminishing these difficulties as far as possible, and he describes the membranes produced by streptococci, staphylococci, spirilla, and the bacterium coli, as well as the true diphtherial membranes, falling back for certainty upon the results of bacteriological examination. The revolution effected in the treatment of diphtheria by the use of the antitoxin now obtainable is well brought out in the paragraphs on serum treatment. The writer speaks very highly of intubation, and while comparing its advantages and disadvantages with those of tracheotomy, he says (p. 218), "but I may urge the advantages of intubation as affording a ready and effective means of tiding the patient over the period of dyspnoea that is usually relatively short when antitoxin has been given early." This sentence describes briefly what should, at the present day, be the ideal treatment of laryngeal diphtheria. The paragraphs on malignant neoplasms of the pharynx might have been extended with advantage, but they are extremely clear. The summary of Watson Cheyne's conclusions as to the distinction between operable and inoperable cases will be found most useful. The chapters on diseases of the larynx have been extended. Favourable reference is made to Holbrook Curtis's vocal exercises for the treatment of singers' nodules, and a full account is given of congenital laryngeal stridor. The treatment of tuberculous laryngitis is discussed in the light of the modern treatment of tuberculosis in general, the writer stating (p. 201) "laryngeal implication is no contraindication for such rational methods (open air, etc.) which combined with local treatment of the larynx have yielded most favourable and encouraging success." In certain cases he is in favour of submucous injection of guaiacol, similar to that already employed by Krause, Chappell, and Donelan (misprinted Donelari). Lactic acid is in general recommended, but the contraindications are also set forth. With regard to the question of operative treatment of malignant neoplasms, when thyrotomy is not sufficient and partial laryngectomy is required, he recognises a growing feeling that total excision of the larynx is preferable. In the introduction of the chapter on neuroses of the larynx, the author expresses his accord with Semon's well known views. Among the neuroses he includes stammering, and in the treatment gives a large place to breathing gymnastics. The consideration of laryngoplegia as such is appended somewhat inconspicuously to the section on paralysis of the internal tensors of the vocal cords (p. 260); the description given both of the unilateral and bilateral forms is extremely good, and quite worthy of a bolder heading, so that the reader might not overlook what is really an important part of the subject. The section on laryngeal manifestations of intrathoracic aneurysm (p. 265) is well written and illustrated. In striving after completeness Dr. Watson Williams has added an admirable condensed account of deaf-mutism, and also an important section on the throat affections of chronic diseases of the nervous system. The chapters on diseases of the nose have received considerable amplification. Among other points of interest may be noted the discussion as to the essential nature of atrophic rhinitis, the author considering it to be "of the nature of a tropho-neurosis, which, like acne vulgaris, is generally connected in some obscure manner with sexual development or sexual involution at the time of the menopause" (p. 289). This is a conclusion to which we are driven in many cases, although Bosworth's view that it is sometimes the result not of chronic hypertrophic but of purulent rhinitis cannot be altogether discarded. In the chapter on postnasal adenoids some instructive illustrations from the works of Zuckerkandl and Zarniko have been introduced. The question of the choice of anæsthetic for the removal of these growths is very judicially discussed, the advantages of nitrous-oxide anæsthesia being very favourably set forth. The author faces the question of failure to obtain successful results from the operation, and discusses the various causes (p. 320). The various operations for treatment of deflections of the nasal septum are shortly described, including Asch's, but the author does not express a definite preference for any particular one. Hay fever has always been a favourite subject with Dr. Watson Williams. He is still satisfied with the results of treatment by means of a spray of biniodide of mercury at the period of the onset of the symptoms; he speaks favourably of the adrenal capsule and orthoform, and refers to Holbrook Curtis's injections of extract of ragweed and other flowers with the object of producing immunity to their influence. Intranasal medication in the treatment of asthma is well spoken of, especially in acquired as opposed to hereditary forms. The reader will find the chapter on diseases of the accessory sinuses of the nose extremely complete and the methods of treatment very judiciously described. The collection of stereoscopic plates, which can be had either bound with the text or in a separate volume, accompanied by a thoroughly practical little stereoscope, will greatly assist the learner who may not have the anatomical and pathological specimens at his disposal. Among the many valuable features of this work is the tendency of the author to consider the various diseases from the point of view of the physician as well as from that of the specialist.

We welcome the appearance of a third edition of Dr. McBride's *Diseases of the Throat and Nose*.[2] It has been increased in size by 66 pages, and this increase is pretty equally shared between the three sections. The book is well-proportioned, although we should be glad to see the section on nasal diseases somewhat expanded. As a guide for students and practitioners it may safely be pronounced absolutely reliable. It is the work of an experienced and accomplished practitioner, who deals with his subject in a plain straightforward way, using a natural and proper dogmatism, where his experience has been large, and not hesitating to say frankly when he relies chiefly upon the experience of others. The student or practitioner who masters this book will have nothing to unlearn, for his knowledge will rest upon a solid foundation of established facts. Dr. McBride is not so "advanced" a practitioner as some of his Continental and Transatlantic brethren; but his work bears evidence in every chapter of sound common sense, and a very wholesome scepticism regarding new departures, whether in theory or practice. Sometimes it seems to us that he loses by his conservatism, as for instance in the chapter on the accessory sinuses; but, if this be so, it is an error on the side of safety, and one that time is sure to correct. Dr. McBride thinks that "there is every probability that those cases which have hitherto been classed as chronic hypertrophic laryngitis, are in reality due to scleroma." This is a very sweeping statement, and we had supposed that though the appearances below the glottis are similar, the processes

[1] *Diseases of the Upper Respiratory Tract, the Nose, Pharynx, and Larynx.* By P. Watson Williams, M.D. Lond. Fourth Edition. Illustrated. Bristol: J. Wright and Co. London: Simpkin, Marshall, Hamilton, Kent and Co., Limited. 1901. (Demy 8vo, pp. 450, 37 plates. 17s. 6d.)

[2] *Diseases of the Throat, Nose, and Ear.* By P. McBride, M.D., F.R.C.P. Edin. Third Edition. London: Young J. Pentland. 1900. (Demy 8vo, pp. 760. 25s.)

are distinct. In both there is cellular infiltration with subsequent formation of fibrous tissue, but scleroma is a bacillary infection which runs a definite if prolonged course, and leaves nothing but a contracted cicatrix behind it; whilst in hypertrophic catarrh the fibrous tissue tends rather to slow increase, and has no connection with any known bacillus. Speaking of the use of the spokeshave, Dr. McBride remarks that it is only justifiable in a few instances, adding "if the amount removed could be satisfactorily controlled it would be more frequently advisable." With this we quite agree, but surely after such an expression of opinion we have a right to expect some advice on the subject of partial turbinectomy, for there is a great gulf between the snare and cautery on the one hand, and the spokeshave on the other, and it is just the intermediate cases that are most troublesome. In treating epistaxis, if compression of the alae or the application of an oiled plug to the anterior part of the septum do not suffice, the reader is advised to plug the posterior nares; we believe, however, that an attempt ought always to be made to localise the bleeding spot, in order to apply the plug to it directly. The posterior plug is, we believe, very rarely required. No book is perfect, but whatever faults there may be in this manual are so comparatively trivial that they hardly affect its general excellence. The coloured illustrations, which are admirable, have been increased in number.

It is not surprising that Dr. J. B. BALL's work on the *Diseases of the Nose and Pharynx*[3] should have within a comparatively short time reached a fourth edition. On the appearance of each of the previous ones we have referred to the qualities in the work which render it acceptable not only to the student but also to the general and special practitioner. The last edition is so recent that comparatively little change has been necessary, and this has been effected without any increase in the size of the volume. Perhaps the sections in which the greatest change will be found are those on the accessory sinuses of the nose, the department of rhinology in which in recent times the greatest progress has been made. This is especially noticeable in regard to the sphenoidal sinus. An improvement in the chapter might perhaps be the insertion of a more graphic description of malignant disease commencing in the antrum. The book continues to merit in every way the commendation given to former editions.

Dr. GERBER, in his pamphlet on the origin and prevention of aural suppuration,[4] expresses the opinion that the middle ear is almost always invaded from the upper air tract, and that the infective organisms concerned are the same which produce suppuration in other regions of the body, chiefly staphylococci and streptococci, and not the specific organisms of the diseases in the course of which otitis may occur as a complication. "Keep the nose and throat healthy," he says, "and the ears will remain healthy"; and "if the nose or throat become infected try to prevent extension." The directions for cleansing the mouth, nose, and throat in fevers are very complete, and mostly capable of application by anyone who will take the trouble; but the recommendation to swab the naso-pharynx with antiseptics will probably be found somewhat difficult of application, especially in children, who form, of course, a large majority of the patients. The importance of nasal respiration is emphasised. The precautions enjoined after nasal operations are, we think, needlessly elaborate, and savour rather of meddlesome surgery, but some of them might well be adopted in every case. The random use of douches and syringes is justly condemned, and the indications for their employment are clearly defined. Altogether the pamphlet is very instructive, and may be read and pondered with advantage by practitioners in all departments of medicine.

The object with which Dr. TILLEY wrote *Purulent Nasal Discharges*[5] was, he tells us, "to present a concise and prac-

[3] *A Handbook of the Diseases of the Nose and Throat.* By J. B. Ball, M.D. Fourth Edition. London: Baillière, Tindall and Cox. 1901. (Cr. 8vo, pp. [illegible].)

[4] *Entstehung und Verhütung der Ohreneiterung.* Von Dr. P. H. Gerber, Privatdozent an der Universität in Königsberg. London: Williams and Norgate. 1901. (Demy 8vo, pp. [illegible].)

[5] *Purulent Nasal Discharges: their Diagnosis and Treatment.* By Herbert Tilley, M.D., B.S. Lond., F.R.C.S. Eng., Surgeon to the Throat Hospital, Golden Square, London. H. K. Lewis. 1901. (Crown 8vo, pp. 123. 4s.)

tical account of chronic suppuration of the nasal accessory cavities." In this object he has, we think, succeeded very well, and the student or practitioner who has mastered the elements of rhinoscopy will find Dr. Tilley a safe guide. The descriptions of the main operative procedures are full and clear, and the illustrations as a whole are good. Errors due apparently to haste are, however, more numerous than they ought to be in a second edition; the phrase "elderly children" (page 9) is a contradiction in terms; the use of the word cocaine as a verb in the expression "to cocaine a hypertrophy" (page 20), is certainly not permissible; other examples might be quoted. The statement that atrophic rhinitis from focal suppuration "cannot easily be mistaken" for atrophic rhinitis ("ozaena") of unknown origin should be modified, for the idea that the two sets of cases can be distinguished at a glance tends more than anything else to foster the mistakes referred to. It was Michel who attributed all cases of ozaena to suppuration of the accessory sinuses, not Grünwald, as stated; the latter claims to have shown that many cases of atrophic rhinitis own this cause, but he has always dissented from Michel's general statement.

Dr. GLEASON'S *Essentials of Diseases of the Nose and Throat*[6] contains in a small compass a large amount of useful information, most of which is reliable. The author, however, appears to adopt in their entirety Woakes's views on necrosing ethmoiditis, and the section on diseases of the accessory sinuses is meagre and unsatisfactory.

THE ROENTGEN RAYS.

THE book on the *Roentgen Rays in Medicine and Surgery*,[7] by Dr. F. H. WILLIAMS, is the outcome of practical work, and he is to be congratulated upon having provided an admirable handbook which cannot fail to be of great service not only to medical men engaged in this work, but also to those who only wish to get a general knowledge of the progress which has been made in the medical and surgical uses of the Roentgen rays. Chapter I gives a short description of the *x* rays dealing with the law of absorption, and on p. 5 a plate shows the relative opacities of equal bulks of various substances which represent the constituents of the body in a general way; another figure illustrates the relative opacities of an equal quantity of water and blood. The second chapter on *x*-ray equipment contains a detailed and illustrated description of the static machine Dr. Williams used at the Boston City Hospital. It is of the Holtz form, and the four revolving plates are 6 feet in diameter. The difficulties and precautions as to adjustable spark gaps, etc., are well explained, and induction coils and interruptors and vacuum tubes are next described, and then the methods for making *x*-ray examinations with fluorescent screen and of taking skiagraphs. In the chapter on the application of the method to the thorax, diagrams are given showing the appearances during full inspiration in health. The appearances in pulmonary tuberculosis are described and illustrated and cases cited. The appearances on the screen in pneumonia, pleurisy with effusion, etc., are described. The heart is next dealt with. An interesting table gives the result in 155 cases of the difference of *x*-ray and percussion determination of the left heart border at the nipple level during expiration. A chapter is devoted to a subject of great and increasing interest at the present time, the therapeutic uses of the *x* rays. Several photographs are given of patients with epidermoid cancer, etc., before and after treatment with an *x*-ray tube. It is a pity that some of the photographs are so large and out of focus, for a good deal of detail is no doubt lost in the reproduction. The use of the rays in the diagnosis of fractures and dislocations is fully discussed, and some pages are devoted to foreign bodies and the methods of localization. The method illustrated in the book is taken from the paper by Dr. Mackenzie Davidson in the BRITISH MEDICAL JOURNAL of January 1st, 1898, and December

[6] *Essentials of Diseases of the Nose and Throat.* Arranged in the form of Questions and Answers. By E. B. Gleason, S.B., M.D., Professor of Otology, Med. Chi. College Philadelphia, Laryngologist to the Philadelphia Hospital. London: H. Kimpton. 1901. (Cr. 8vo, pp. 242. 4s.)

[7] *The Roentgen Rays in Medicine and Surgery.* By F. H. Williams, M.D. Harv. New York: The Macmillan Company; London: Macmillan and Co., Limited. 1901. (Demy 8vo, pp. 690. 25s.)

3rd, 1899. The chapter on *x* rays in military surgery is very short, but the account of their use in diseases of the bones and joints is fuller. There are some good skiagraphs of teeth, and a new holder is shown for supporting the photographic film inside the patient's mouth. The book concludes with sections on the detection of calculi, on the usefulness of *x*-ray examinations to life insurance companies, and on the medico-legal uses of the *x* rays. All those interested in *x* rays will find this book of real value to them.

Mr. Addyman claims popularity for his volume, entitled, *Practical X-Ray Work*,[8] on the ground that it is "a description of *x*-ray work of use to medical men." The book is beautifully printed and well illustrated; but, considering the size of the work, far too much space is devoted to the description of the necessary electrical apparatus, and other purely technical points. Eleven pages are devoted to air pumps, a subject in which medical men have not the slightest interest. Less than one-third of the book is devoted to practical *x*-ray work, and out of this limited space one chapter is wasted in describing the uses of the *x* rays as applied to metallurgy—defective castings, and weldings, adulteration, jewellery. The author has wisely refrained from discussing the therapeutic action of the *x* rays, and gives only four pages to their application in war. From the physicist's point of view the book contains much of interest—from the surgeon's little; and from the physician's none. There are many statements in the book which are open to criticism, but, taken as a whole, it is an excellent endeavour to do justice to the subject but not on medical lines. The plates are well reproduced, but their clinical interest is lost in the brief description accorded to them. The work may be considered as a welcome addition to the literature of the *x* rays, but it falls far short of being a textbook upon the subject.

Mr. Isenthal's small book, entitled *Practical Radiography*,[9] covers in a superficial way much ground. In the first chapter the author gives a historical review, and ends by adopting the term "radiography as the most suitable and popular." It is the most indefinite and least appropriate. "Skiagraphy" is more distinctly descriptive of the *x*-ray photographs. The sources of electric energy and the subject of induction coils and interrupters are discussed in 72 pages, but some of the most recent and practical apparatus is not even mentioned. Some of the *x*-ray photographs reproduced are rather poor specimens, and many of them show the shadow of the cross wires, indicating that they were taken according to the method first described in the British Medical Journal in 1898. In spite of certain defects the book may be of considerable service to a person commencing the study of the subject.

NOTES ON BOOKS.

The Penalty of Death or the Problem of Capital Punishment,[10] by J. Oldfield, M.A., B.C.L., L.R.C.P., M.R.C.S., exemplifies the truth that a good cause may be injured by a too zealous advocate. The author's case suffers at every point through over-statement and want of judicial tone while the *non sequitur* is a conspicuous feature in his arguments. His adoption of a purely humanitarian point of view would seem to have led to the neglect of some of the more philosophic considerations of life and death which other thinkers would maintain were of cardinal importance. Both pain and death are to him great evils, but mainly, it would appear, from a physical point of view, apparently he thinks death the greater evil of the two. Though many would welcome a more scientific treatment of criminals it is to be feared that this book will not materially conduce to that end.

[8] *Practical X-Ray Work.* By Frank T. Addyman, B.Sc.Lond., F.I.C. London: Scott, Greenwood, and Co. (Demy 8vo, pp. 224; 52 illustrations; 12 plates. 10s. 6d.)

[9] *Practical Radiography.* By A. W. Isenthal, F.R.P.S., and H. Snowden Ward, F.R.P.S. Third Edition. London: Dawbarn and Ward. 1901. (Demy 8vo, pp. 108. 6s.)

[10] London: George Bell and Sons. 1901. (Demy 8vo, pp. 244, 3s. 6d.

"CURES" FOR ALCOHOLISM.

(*Continued from page 356.*)

The "Tacquaru" Cure.

The title page of the pamphlet issued by the company is as follows:

"'Tacquaru' Specific Treatment. The Recognised Method for Alcoholic and Drug Excess. Safe, Sure, and Simple. Used with greatest success by the Missionary of the Church of England Temperance Society (London Diocesan Branch). All inquiries to be addressed to Medical Superintendent, etc. Consultation hours 10.30 to 5, or by appointment."

The book is illustrated by two pictures of secretary's office and manager's office. The facts that are to be learnt from this pamphlet are the following. A knowledge of the "cure" dates from the year 1887, when the ne'er-do-weel and inebriate son "of a well-known officer in the British Army" had it communicated to him out of gratitude by the "medicine man" of "a nomadic tribe ..... near the falls of the Parana River," a "hitherto unexplored country" in the interior of the Argentine. In 1894 the secret was sold "in a sealed envelope" to a gentleman in the West of England, and resold by him to the company. In this country the effects of the treatment are said to have been "amply demonstrated for a number of years," but the precise number is not stated. Before putting the "wonderful recipe" before the public

"The specific was thoroughly and publicly tested, and brought up to modern scientific therapeutic basis by a specialist of twenty five years experience, who is exclusively engaged by the Tacquaru Company. Each case is attended to, and treated individually by this physician."

In a circular letter sent out by the company we read:

"The specific is certified by the public analyst and also by the discoverer to be perfectly harmless, and can be taken by the most delicate persons, effecting a cure in every case of alcoholic excess, however bad or of long standing in about the space of three weeks, the patient during that time suffering no inconvenience."

The fee for treatment and advice is 10 guineas, and the course "can be carried out at home without inconvenience or interference with the ordinary routine of daily life." The circular calls attention to the fact that the fee is "much below that asked for other treatment." It is below some, but not all. Each patient is required to fill up a printed schedule giving particulars of his health and habits, and on receipt of this and of the fee treatment is "specially prepared for patient and forwarded" with "all necessary instructions and specialist's advice on the case." In the pamphlet it is stated "many of the so-called 'cures' for dipsomania are merely injections or doses of drugs in which the principal ingredient is strychnine, which has the effect of subduing the craving for alcohol for a time, but the danger of such a treatment is too obvious to necessitate any remarks here." The "Tacquaru" Company does not undertake to treat patients by "degrading subjection and distasteful surroundings in a place little better than an asylum for the insane." By this it is to be inferred is meant the ordinary home or retreat. A patient treated by Tacquaru specific "recovers his self-respect and moral strength of will without any personal effort or feeling of collapse." No theory is put forth by the company as to the nature of the disease, but the effect of the specific is stated as follows: It

"Strengthens the whole body, brings the nervous system into good order, imparts a clear healthy complexion, alleviates disorders such as palpitation of the heart, congestion of the liver and kidneys, and obviates alcoholic paralysis of the brain and muscles."

It is claimed that the specific is an "antidote to alcohol." We now turn to the evidence of cures furnished by the company's pamphlet. In this we find

"As a rule, but little faith is placed on testimonials from private individuals extolling advertised remedies, but the testimony in favour of the 'Tacquaru' treatment is from men and women of integrity and honour, some of whom belong to the best families in England."

"Added to this testimony there is also medical evidence as to the value of the treatment. This is a unique instance in which medical men have been glad to acknowledge the value of our method."

Numerous testimonials are printed in the pamphlet. The first is undoubtedly an important one, signed by the well-known police-court missionary, Mr. Thomas Holmes. The company had supplied him with their specific, which he had given to some of his worst cases. On March 29th, 1897, after "some months," he wrote an interesting letter to the company testifying that those who had been experimented on by him were "new men." Their number was not stated, nor did Mr. Holmes assert that they were cured. On June 13th, 1901, in answer to a special inquiry, he informed a correspondent that the cases that had made good recoveries were four in number. One of these had stood firm for three years, and then relapsed.

One was in very bad health and afterwards died (time not stated), but so far as Mr. Holmes knew he had not relapsed. One had now occasional modified attacks. One stood firm for "a long time," living with Mr. Holmes for a year; he had now lost sight of him. The history of these cases, therefore, after four years, was one dead, one gone away, two relapsed. Mr. Holmes wrote: "My candid opinion of the specific is that, coupled with personal influence and interest, it will do much for some men but not for all." He also stated that "the men who recovered themselves used to spend every Saturday night at my house when we played chess and whist together." He gave up using the specific when the company ceased to supply it to him: its price was prohibitive.

A series of 24 "unsolicited testimonials" are advanced by the company. In 4 the patients' improvement is vouched for by themselves, in 17 by friends, in 3 by relatives. Eight cases were under treatment at the time the letter was written (that is within three weeks), in 6 cases the time since treatment was not stated, in 10 cases the times that had elapsed since treatment ranged from one to seven months, 2 only being over four months. Six of the 24 letters made the definite statement that the patient had had no alcohol whatever, of these cases in 2 no time is specified, of 2 it is stated while the patient was still under treatment, and of the other 2 respectively eight weeks and three months after treatment. The other 18 letters make no definite statement on the subject. Of 12 of the 24 cases statements are made about the "craving," "inclination," or "desire," etc., to the effect that the patients no longer experienced it; of the other 12 nothing is stated on this head. The whole 24 letters refer to the improved general health, spirits, appetite, happiness, etc., experienced by the patients or obvious to their friends. Although the cure is said to have been established "for a number of years" none of the 24 letters published dates farther back than 1900. Cases of even two years standing are nowhere mentioned. Yet this kind of evidence would have been more convincing than are the letters by "A Lady of Position and Note in Literature," "A Titled Lady," "The Wife of a Senior Partner in a Noted Brewery," "A Lady (Wife of Head of an Important City Firm)," "An English Countess," "A Titled Lady from Scotland," "The Editor of a Large London Daily," or a "Well-known Physician from the Midlands." "Three Press Opinions" reprinted by the company are unanimous in their verdict as to the impression made by the treatment upon the medical profession: "The Faculty acknowledges itself amazed," "The Faculty acknowledges itself astonished," "The Faculty are surprised."

THE TYSON CURE.

The documents are voluminous, and in some respects contradictory.

The following are the headings of two sets of press notices, one of which bears no date, the other is dated 1893:

"The Latest Triumph of Medical Science: Dr. L. B. Tyson's Vegetable Cure for Intemperance." "Dr. Tyson's Treatment of Inebriates: The Intemperance Problem: Its True Solution: Practical Demonstrations in Birmingham."

From the latter the following particulars are to be gathered:

"A claim is now put before the public that a real and undoubtedly effective panacea for this terrible evil has been found, and when we find that claim backed up by a free and open test, at which every kind of independent scrutiny and investigation is invited, it becomes, considering the immense importance of the subject claimed to be dealt with, a matter worthy of the earnest attention of every thoughtful man who has the smallest interest in the well being of his fellow-creatures."

Dr Tyson has invented "a vegetable compound as a specific for intemperate [illegible]ies.

"A local committee of gentlemen connected with almost every temperance organization was formed to see what Dr. Tyson's discovery really [illegible]

"The most severe test of the specific was to try its power upon a number of selected subjects addicted to habitual over indulgence in intoxicants."

The members of the committee selected a number of undoubted bad specimens of habitual drunkards and a start was made with 9 cases.

"Dr. Tyson is now demonstrating by his agents the efficacy of his specific over many quarters of the earth, and has not been able to attend here personally. His representative simply gives the patients selected by the committee a printed form to fill containing a number of questions as to the subject's past habits, health, etc., and to supply them daily with their due amount of medicine, and [illegible] them how to act.

"The curative process lasts twenty-one days.

"No restraint whatever is put upon the patients. They are in no way debarred [illegible]ing to take intoxicating liquor, and all that they have to do is to drink the medicine as prescribed. The bichloride of gold cure, invented by Mr. Keeley, involves detention in some institution and a great number of subcutaneous injections of the specific. Its cost is £24 to each patient, and, though undoubtedly many habitual drunkards have been cured by this process, there have also been numbers of failures, while the direct infusion into the blood of a mineral poison as well as the method of inoculation involves some serious risks of another character to the patients. Thus the gold cure is not free from objection. Dr. Tyson, however, gives a vegetable medicine which is swallowed; its administration is claimed to be absolutely unattended with risk of physical harm of any kind."

The medicine is also said to be an excellent tonic, which may be administered to any one, whether he be a drinker or not. The account goes on to state that the nine test cases were "visited daily by local medical men; there has been one interim report of a satisfactory character, and yesterday their 'cure' concluded." The first "practical tests" of the specific were made in 1890, and it is said that, though many thousands have undergone the "cure," there has never been a single failure.

"Over sixty institutes for the treatment of habitual drunkards by this system have been established in the United States and Australia during the past twelve months, and it is somewhat singular that until now England, which affords so great a field for valuable work of this character, has been passed over."

A case of cure is quoted of a Birmingham master plumber who had for days together taken half a gallon of whisky, expending 15s. a day on liquor.

"In Melbourne a police magistrate who furnished six test patients from the habitues of his court, now give the drunkards who come before him the option of a course of treatment at the Tyson Institute there, or the usual penal consequences.....Our Government has just recently recognized habitual drunkenness as a disease, and the conferring of a power upon our justices similar to that adopted by the Melbourne magistrate would only be but a naturally following step."

Dr. Tyson has also a special antitobacco specific, which takes a somewhat longer "cure."

The *Birmingham Argus*, June 4th, 1896, made a further inquiry as to how the cases treated in 1893 had progressed, and it was found that out of 15 cases treated, two had relapsed and the rest remained cured.

From a small pamphlet now circulated by L. B. Tyson and Co. Limited, drug merchants, it appears that seven public tests have taken place "under the supervision of different committees of well-known public men in large towns in Great Britain, and also in the Channel Islands." In the beginning of the above-mentioned pamphlet we find that "Dr. Tyson's treatment for chronic intemperance, and also for restoration of patients from the temporary effects of periodical excesses of alcohol, etc., is prescribed by our surgeon either under personal supervision or by post; particulars on application."

Further on we find that "the treatment is intended for those who have a sincere and well-grounded desire to be restored to their normal condition of temperance and good health, and when restored to remain so.....It is equally efficacious to restore patients from the effects of periodical excesses of alcohol who do not desire to be permanently reclaimed. A three, five, or ten-days' course is sufficient for this, according to the severity of the symptoms." A series of twenty-nine letters are published by the company, respecting 29 patients treated by them. Of these, 12 were under treatment at the time of writing, 6 had just concluded their treatment; 7 had been treated at periods dating from one to nine months previously; 1 had been treated two years and 3 one year previously: 14 cases were testified to by patients themselves, 15 by other persons; 21 made statements with regard to the cessation of the crave; 7 made definite statements that they had not touched intoxicating drink since their treatment; of these 7, 4 were at the time of writing still under treatment, and 2 had been treated respectively 3 and 6 months previously.

A list of questions is sent to each patient to be filled up before the treatment is commenced, and this paper must be signed both by the patient and by some relative or friend who undertakes to see the medicine regularly administered during the prescribed time. At the foot of this document is printed "Dr. Tyson's guarantee: If the questions on this and the preceding page are fully and correctly answered, and the medicines prescribed and directions given by the medical adviser strictly followed for the period directed, I guarantee, in every case undertaken for treatment in London under the medical adviser's supervision, a cure of the drink crave or a return of the fees paid. L. B. Tyson, M.D." A special notice on the same form states that

"The medicines are prescribed and medical directions sent in each case according to its needs, upon the written answers of patients or their friends to the questions, the answers being the guide to the surgeon pre-

scribing as to the strength, etc., of the medicines necessary and applicable to such case. Cases differ. They cannot therefore be sold indiscriminately as proprietary medicines are sold."

"On receipt of the answers they will be referred to a qualified medical adviser, and Dr. Tyson's representatives will reply stating fee payable for the course of treatment, including medical directions and advice necessary under the circumstances."

Printed in the pamphlet of testimonials before alluded to is the statement that over 38,000 cases have been treated by Dr. Tyson's remedy. It is also stated (referring to the writers of the twenty-nine testimonials) that "every one of the writers were entire strangers to Dr. Tyson and ourselves before treatment, and only one of the entire number has ever been seen by us. All but that one were treated at their homes in England, Scotland, and Ireland by correspondence."

From a printed leaflet containing newspaper extracts we take the following:

The *Australasian Journal of Pharmacy* of May 20th, 1893, contains the report of a trial at the Melbourne District Court when the Secretary to Dr. Tyson's Sanatorium Company was prosecuted by the Secretary of the Pharmacy Board of Victoria, for, he not being a properly-certificated person, selling a certain poison within the meaning of the Poisons Act, 1890, to wit, a preparation of strychnine. Evidence was called to prove that two bottles of "Tyson's vegetable cure for drunkenness" were purchased for £10, and their real commercial value, according to Mr. Johnson, the prosecuting counsel, was not 2s. The Government analyst stated that No. 1 bottle was composed chiefly of nux vomica and a small amount of vegetable extract. It contained strychnine and brucines to the extent of 0.11 per cent., and one tablespoonful of it would be a fatal dose. The second bottle was simply a strong alcoholic tincture of a vegetable bitter, which was of no particular medicinal value. The defendant, who said that Dr. Tyson lived in America, and that he (defendant) did not know what the bottle contained, was fined £5 and costs. The *Journal* says that since the prosecution the office of the Company in Bourke Street, Melbourne, and the Sanatorium at St. Kilda, have been closed. The prosecution was instituted by the police after the death of George Stranghair, who died very suddenly after taking the above medicine.

In the same leaflet is a reprint from the *Christian Scotsman*, November 19th, 1894. It is stated:

We regret to have now to report concerning all the three cases of alcoholists we put under Dr Tyson's treatment *complete failure!* Five months have elapsed since they had the treatment and not one of them is cured.

The file of joint stock companies at Somerset House discloses that the Company is a limited liability company with a nominal capital of £100,000 divided into 10,000 shares of £10 each. It appears that on January 14th, 1897, the number of shareholders in this company was seven, of whom six bore the name of Stephens and resided at Woodthorpe, Purley, Surrey, the seventh being Mr. William Sturt, a chartered accountant, of 32, King Street, Cheapside. The number of shares taken up to January 14th, 1897, was 1,052. Of these 1,010 were held by Thomas English Stephens, barrister-at-law, and one share each by Mr. Sturt and a female member of the Stephens family; the rest held ten shares each. Mr. T. E. Stephens would seem to be responsible for the cure, the business being carried on by B. W. Hair and Son, of 249½, High Holborn.

We have seen a printed document purporting to be a copy of a statement made and signed by L. B. Tyson, M.D. in 1893, repudiating Mr. Stephens's right to the cure, and denying his knowledge of the formula, and also of an affidavit made by L. B. Tyson, M.D., before a notary public in Hardin County, Ohio, on January 6th, 1894, in which he denies the agency of B. W. Hair and Son, of 249½, High Holborn, and characterizes the matter as an impudent fraud, and denounces the parties as gross and malevolent impostors, and states that he has no connection with them or they with him in anything connected with his cure in Europe. It seems that Stephens had previously been his agent in London, having apparently been so appointed by Mr. J. W. Hair, who claimed at one time to be Dr. Tyson's agent for Europe.

Both Stephens and J. W. Hair are stated in these documents to have been dismissed by Dr. Tyson. And while Stephens continued to trade under the style of B. W. Hair and Son, J. W. Hair then published an advertisement stating that with his "perfect knowledge of how Dr. Tyson's remedy is prepared," he had "perfected a better medicine," which he called Dyke's cure for alcoholism.

It is hardly necessary to describe this cure separately. It is advertised by the proprietor as follows:

"Tyson's Remedy Superseded."

"Dyke's Cure for All Forms of Insobriety or Alcoholism."

"Dyke's Cure for Drunkenness, Insobriety, and all forms of Alcoholism is a distinct improvement of the formula of L. B. Tyson." . . . "The undersigned who is the sole proprietor of the Dyke Cure having carefully studied the effect of the two remedies has obtained from the experience of numerous cases under his own personal observation undeniable evidence that the Dyke Treatment is speedier in its effects and more durable in its results . . . . . ."

"Some of the Advantages Possessed by it over Tyson's are as follows:

I.—It has all the efficacious elements possessed by Tyson's together with others—

II.—The remedy is speedy and permanent. . . .

III.—The Medicine of the Dyke Cure is contained in one bottle. . . .

IV.—The price of Dyke's Cure is such as to bring it within the reach of all classes," etc.

The price was three to five guineas.

Test committees were formed in the usual way in Liverpool and Belfast, and the kind of reports and testimonials which have been described in connexion with several other "cures" were published by the proprietors.

This instance of the evolution of a new cure is of considerable interest, and the ease with which it was "perfected" by J. W. Hair (according to Dr. Tyson, just two months after his dismissal by Dr. Tyson) may be contrasted with the long labour and study that had been involved in the "perfecting" of sundry of the other cures.

The following is a copy of the labels on a bottle of "Tysiloids."

TYSILOIDS.

(Registered Trade Mark.)

For Inebriety, Opium, and Tobacco Excesses, and their Effects, etc.

DOSE.

One Tysiloid four to fourteen times a day, as directed by the Physician prescribing. They are to be used only under the directions of a qualified Medical adviser.

The bottle should be kept in a dry, cool place, free from light.

Poison.—This Medicine is thus labelled in compliance with the Act of Parliament, but being strictly medicinal is non-injurious if taken as directed by the Physician prescribing.

None genuine without our signature across the label.

L. B. TYSON & Co., LTD., Drug Merchants, High Holborn, London, W.C.

FORMULA—Contents of Each.

Ext. Nuc. Vomic. } Brucinae } Comp.	... ...	$\frac{1}{10}$ gr.
,, Chirettae	... ...	$\frac{1}{20}$,,
,, Yguazae	... ...	1 ,,
Pulv. Glycyrrh. Co.	... ...	quant. suff.

The above Extracts are highly concentrated.

Each bottle contains 300.

SUMMARY.

From the foregoing account of the certain "cures" for alcoholism sold or administered in this country, it will be seen that the majority are of American origin. One hails from South America, three come to us from the United States and one from Canada. Three of the remedies—the Hutton Dixon, Tacquaru, and Tyson "cures"—can practically be purchased and taken at home. Two of the companies—the Tyson and the Tacquaru—send forms of questions respecting the patient to be filled up for the guidance of the medical adviser of the company, and one—the Tyson—advertises that the London medical adviser has only once out of a series of 29 cases, the results of which are published in a pamphlet, personally seen the patient. Three of the "cures"—the Leyfield (Hayden) Keeley and Hagey—only undertake patients in special homes or as boarders or patients under special conditions.

The three remedies which may be purchased are taken by the mouth. The Keeley, the Hagey, and the Leyfield (Hayden) are given by hypodermic injection. Three of the remedies—the Hutton Dixon, Tacquaru, and Tyson—are said to be entirely vegetable in composition. The Leyfield (Hayden) and Keeley—are called "gold cures," but what exactly is to be understood by this we have been unable to ascertain. Four—the Keeley, Hagey, Leyfield (Hayden), and Tacquaru—permit alcoholic liquors to be taken during the treatment. One—the Hutton Dixon—makes total abstinence a *sine quâ non*. The Tyson "cure" appears to be advertised as a restorative to those who have periodical outbreaks of alcoholic excess, but who are unwilling to remain total abstainers. All claim a large percentage of cures. The Hutton Dixon, it is claimed, cures all cases, the Hagey 90 per cent., the Keeley over 70 per cent., the Leyfield (Hayden) 80 per cent. Two—the Hutton Dixon and the Tyson—give a guarantee of cure, which in the former case would seem to depend on the patient's remaining a total abstainer, and in the latter, among other conditions, on the case having been treated in London

under the medical adviser's supervision. Three — the Tacquaru, Hagey, and Tyson—offer to return the fees in any case in which the patient is not satisfied at the end of treatment that the cure is complete.

It is noteworthy that there would seem to be a rather free criticism of each other's methods among the various proprietors of the cures. Allusions are made in some of the advertisements to methods of treatment practised by their rivals or *confrères*, not always in laudatory terms. For instance, the Keeley advertisement warns its readers against the various pretenders to the gold cure, and mentions "bogus institutes" and "unfortunate accidents to the lives and health of their patients." The Tyson advertisement mentions the "detention in some institution" involved in the "bichloride of gold cure invented by Mr. Keeley," and points out the "number of failures" and the "serious risks" of the "method of inoculation" and of the "direct infusion into the blood of a mineral poison" which it is suggested attend that treatment. The Keeley advertisement also points out that accidents are frequent as a result of hypodermic injections in general medical or ordinary hospital practice, but not in the Keeley method of administration. Mr. Hutton Dixon announces that "he has cured thousands of the most hopeless cases in all parts of the world, many of whom were relapses from gold-cure institutes." The Tacquaru pamphlet calls attention to the fact that strychnine is the principal ingredient in many of the so-called cures for dipsomania, and adds, "but the danger of such a treatment is too obvious to necessitate any remark here." The Leyfield (Hayden) advertisement describes the production of nausea as an early feature of that particular treatment; while the Hagey pamphlet comments on the uselessness of "mere pick-me-ups and emetics," "unless the will co-operates in the effort of cure and is toned up." Accounts of the action of the drugs, according to those who administer them, have already been alluded to, as also their alleged peculiar property of intense potency, combined with entire harmlessness.

The public and the medical profession are invited to investigate the results of treatment, but are as a rule neither invited nor permitted to investigate the drugs used. The proprietors of the cures declare them on the one hand to be potent in their effect, and on the other hand entirely harmless. There is, however, no question of any investigation of these statements by qualified judges, and the "treatments," several of which require "skilled administrators" cannot be taught in medical schools, studied by scientific observers, or handed on as part of the common stock of human knowledge. The "cures" are in all cases the property of some individual or company, and are generally made known to the public by means of advertisements.

In introducing the treatments to public notice in this country a particular method was followed by three of the proprietors or companies, the Keeley, Leyfield (Hayden), and Tyson, and in a somewhat modified manner by the Hutton Dixon. Prominent persons interested in good works generally or in temperance questions in particular were in each case asked to form a committee for the impartial investigation of results. Test cases were selected by the committee who watched the treatment and reported on the "cures." These reports were then referred to in, or published with, other advertisements. The names of the members of the committees were thus caused to give support to the several enterprises, while their reports testified to the efficacy of the various drugs used. In addition to this method of advertisement five of the cures publish series of letters or testimonials regarding the results of the various treatments, namely, the Hutton Dixon, Leyfield (Hayden), Tacquaru, Tyson, and Keeley.

Perusal of the above documents suggests the following criticisms:

The Reports of the Committees.

The Committees referred to above may very well comprise persons of unimpeachable repute and standing, who do the work they set themselves to do with all possible care, yet their knowledge of the kind of evidence necessary to satisfy a medical inquiry may be limited. Whatever may have been true in times past, happily not all men nowadays are familiar with the varied phenomena of drunkenness, still less are they familiar with the physical and mental symptoms of the chronic alcoholic patient either by personal or any other kind of knowledge. Therefore the diagnosis of a lay committee must tend to lack accuracy, and its testimony is to be excused if it only reaches a certain low level of scientific usefulness. The inquiries which were made by these Committees, one at least of which reckoned two medical men among its members, may in reality have been full and searching, but the facts they have thought it necessary to state in their reports afford absolutely no proof of this. On the contrary, the reports contain little or nothing in the way of evidence which will bear impartial scrutiny, but merely indefinite statements dealing chiefly with the patients' appearance, feelings, and so on.

The following extract from a "signed and detailed report" by a committee who investigated the Tyson test cases, one of ten quoted by the company, affords a good example of the methods followed.

"Case of Mrs. L., Female, aged 49. Been drinking twenty years. Very nervous. When treatment commenced was drinking Spirits and Rum in large quantities.

"After 1 day's treatment: Drank 6 halves whiskey to-day. Feels a little sick in consequence.

"After 2 days treatment: Feels better. Less nervous. Sleeps better.

"After 3 days treatment: Nervousness disappearing. Crave for drink gone.

"After 6 days treatment: No desire for drink. Feels better. Is very hopeful of ultimate cure.

"After 10 days treatment: Going on well. Eats and sleeps better.

"After 21 days treatment. Offered whiskey and rum and positively declined. Very satisfactory case."

However satisfactory the case may have been, there would not appear to be anything in the least degree convincing to the medical mind in such evidence as this:

The following are examples of the Keeley Committee's report:

"The patients all affirm positively that, in periods varying from three to seven days, they lost the crave for alcohol, and ceased to take it without any restraint in that respect being imposed upon them."

"A gentleman was treated in 1894. For some years drank heavily. Drink had injured his sight, and at one time he went nearly mad from its effects. Now he never had any crave or desire for it."

The letters published by the various companies are written in a very similar strain. In many of the letters there is a graphic description of the patient's previous miserable condition which must probably have been very well known already to those who had undertaken the treatment. The description is sometimes given by the patient, oftener by friends, much more seldom by relations. The similarity of the letters in each series is rather remarkable unless they were written in response to categorical inquiries. For instance, the Tacquaru writers dwell largely, as does the Tacquaru pamphlet, on the great improvement to the general health—"in excellent health," "in excellent health and spirits," and so on; while persons who have undergone the Hutton Dixon "cure" state "I am cured," "I am cured, quite cured." A large proportion of writers refer to the cessation of their "crave" or "desire" for alcohol (the former, by the way, a word not often heard on the lips of inebriates themselves). A very small proportion make the definite statement that they have not tasted any alcohol whatever since their treatment. This proportion is further reduced if the quarter of the whole number who were actually under treatment when they made it be subtracted. A considerable number of the letters state that the patient is very well, but make no mention of the question of abstinence from or desire for alcohol. The Keeley and Leyfield (Hayden) produce testimony of a certain number of patients who have remained cured for periods varying from one to seven years, but the greater number of all the testimonials refer to cases in which days, weeks, or months only have intervened since treatment; and it is noteworthy in regard to the Hutton Dixon treatment that, although it has been in existence some years, no case of more than "over a year" is alluded to, and this in only one out of twenty patients.

The Time Test.

A serious defect in the printed evidence of the various cures lies in the fact that the test of time is very often disregarded by those who make these "cures." Cases of from one to several years' duration are quoted by several of the proprietors of the cures. Information regarding the proportion they bear to the whole number treated is, however, lacking. As regards the shorter cases, even those in which treatment and care may have effected the "pulling up" or temporary check, cannot be regarded as evidence of cure by those acquainted with the

usual course of the disease, for in many cases of alcoholism it is quite possible to secure so much as this by other means. Time is always necessary if only to prove whether the periodic drinker is within his accustomed interval or not. The proprietors of the cures do not as a rule appear to distinguish between chronic alcoholics and dipsomaniacs, maintaining that their several cures are equally prompt and permanent in all cases. They therefore take no account of the fact that relapses after a few weeks or months are extremely common in patients who may have been, by whatever means or circumstances, temporarily "pulled up." So that according to a very usual experience in medical practice a man may be said by his friends or by himself to be cured, and yet during the very few months that have elapsed since his so-called cure he may be slowly and secretly drinking himself towards another outbreak. Or though he may actually have remained sober for his normal interval, he may again be approaching the time for his periodic attack of dipsomania. The time test is one which no scientific observer can consent to dispense with, and not only time—but a long time—should always elapse before anything definite can be said with reference to the prospects of ultimate cure.

Testimony of Friends.

Again, the kind of evidence usually offered by the patient's friends is not satisfactory evidence. No evidence is so good as that of a man's own household, yet the testimonials advanced by the patient's own relations are not very numerous.

On the other hand, the evidence of missionaries, doctors, clergymen, and others ought to state in a very detailed manner how the patient has spent his time, as well as his own and other people's money, and should give many other definite personal particulars, if such evidence is by itself to be held to be reasonably valid.

Testimony of the Patient Himself.

Still less satisfactory as evidence is the patient's own version of his own cure, especially if, as in the majority of the testimonials, it is not only indefinite in itself but unaccompanied by any confirmatory evidence. Those who are familiar with the mental reservations and twists, ingenious defences and general unwillingness or incapacity to make a definite or accurate statement which characterise alcoholic patients can only maintain that as a rule their unsupported statements are not worth the paper they are written on. It is indeed worthy of note that a number of the letters written by the patients themselves do not even refer to the question of the writer's alcoholism or its cure, but are confined to generalities on appetite, health, sleep, etc., while quite a small number of all the patients or their friends state definitely what inquirers must above all things wish to know, namely, that they have remained total abstainers ever since their treatment. A few of the letters as they stand carry conviction, the rest are mainly interesting as showing the states of mind of the various persons who indited them, but as proofs of anything else are entirely worthless.

The Testimony regarding the Craving for Drink.

A very large number of the testimonials report that the patient has not felt any desire or experienced any "craving" for alcoholic liquors. Both the patients and their friends would seem to regard this information as of cardinal importance, for it is alluded to much more frequently than is the fact of total abstinence. It is, of course, possible that in the minds of some of the writers the fact of total abstinence is included in the statement about the craving or desire. It must, however, be borne in mind that there are a large number of people who, though they experience what is called the "craving" for drink, resist it, and do not drink. There are also a large number who drink to excess and yet deny that they drink in response to any "craving." Therefore testimony about the existence or non-existence of the "crave" is not necessarily evidence of a man's drunkenness or sobriety at all. It is in fact only an account by the patient of his own sensations, or a repetition by his friends of this account. Whatever value a man's own account of his own sensations may have for anyone who is rightly able to estimate the man himself, his feelings are in the nature of things an unknown quantity, inaccessible to and incapable of proof by any other person. The question therefore whether the "craving" persists or not is not a completely conclusive test of the value of any treatment of alcoholism.

The Nature of Satisfactory Proof.

As a matter of fact, proofs to be satisfactory must be cumulative. The time test must be applied for as long as is necessary. The patient's own definite word as regards not his feelings, but his deeds, the evidence of his relations or of those with whom he lives as to his work, the evidence of his account book, and all the subsidiary testimonies of his changed character, appearance, and habits in respects in which they had been at fault—all these things taken together undoubtedly give satisfactory witness to a man's cure. But taken singly they cannot be accepted by the medical profession as satisfactory proofs, while they are likely to confuse in no small degree the minds of the less well educated part of the lay public.

Conclusion.

The claims made by the various cures would seem to be unworthy of support from the medical profession, because, speaking generally:

1. The treatment is secret, so that no opinion can be founded on general scientific grounds as to the reasonableness of the claims made for the drugs in the treatment of the diseased condition—alcoholism—asserted to be benefited.
2. No proper statistics of results are published.
3. Testimony of cure is offered which is obviously insufficient.
4. Definite claims to infallibility are made which cannot be made in any department of medical treatment.
5. Cure is generally promised in a definite time—that is, after a definite number of doses have been administered, which is absurd.

THE PLAGUE.

Prevalence of the Disease.

India.

For the week ending January 18th the total plague deaths throughout all India were returned at 9,204, compared with 10,368 in the week preceding.

In the city of Bombay plague is increasing, although the advance is not serious, and the disease is by no means as severe as this time last year. During the week ending January 18th 296 persons died of plague in the city. Deaths from respiratory disorders increased considerably in Bombay during the week, the total deaths falling little short of 1,000 a week.

In other parts of India the principal plague returns for the week ending January 18th are: Bombay Districts, 3,510, against 4,797 during the week ending January 11th; Punjab, 2,370, against 2,662; Mysore State, 652, against 636; Madras Presidency, 590, against 586; North-West Provinces and Oudh, 829, against 685; Bengal, 593, against 462; and Kashmir (Jammu), 257, against 192. It will be observed that in all parts except the Bombay Districts and the Punjab there is an increase: but as these are the two most extensively infected districts there is a large falling off in the total returns for all India.

Egypt.

The Director-General, Sanitary Department, reports that during the week ending February 2nd, 22 cases of plague and 16 deaths from the disease occurred throughout Egypt. Tantah is the city chiefly afflicted: 18 cases and 14 deaths from plague were reported in this city. Of the 14 deaths no fewer than 9 occurred out of hospital, showing the reluctance of the inhabitants to report the disease or go to hospital. All the patients were natives except one Greek. In one house in Tantah 5 cases and 4 deaths occurred, 2 cases in another, and 1 case in a third, where only a few days previously the dead bodies of plague patients were found. The Director-General points to this circumstance as indicative of the fact that in all probability if these first cases had been at once found and dealt with no further cases would have occurred in the same houses.

From Abousir in the Mehalla district of Gharbieh 2 cases and 1 death are reported. At the village of Kafr Enan, near Zifteh, 1 death occurred out of hospital; and also at the village of Koum-El-Nour, near Mit Ghamr, 1 case is reported.

Cape of Good Hope.

During the week ending January 18th there were no deaths from plague in any of the districts of the Cape. Two cases of plague were admitted to hospital, 1 in Cape Colony and 1 in Mossel Bay. Nine plague patients remained under treatment on January 18th, namely: 1 in the Cape Peninsula, 3 in Port Elizabeth, and 5 at Mossel Bay. The total number of plague cases in Cape Colony since the beginning of the outbreak has been 875, with 420 deaths from the disease.

Mauritius.

During the week ending February 6th 13 fresh cases of plague were reported in Mauritius and 8 deaths from the disease.

THE EPIDEMIC OF SMALL-POX.

ESSEX.

THE prevalence of the disease in this county is rapidly increasing, as is shown in the following table:

Month.	Number of Districts in which Cases were Notified.	Number of Cases Notified.
1901—August	1	1
September	3	12
October	4	14
November	8	60
December	14	139
1902—January	14	228
Total		454

Of these 454 cases no fewer than 290 have occurred in the Orsett Union, having a population of 33,721.[1]

Cases per 1,000 population in the Orsett Union 8.60
" " " remainder of county 0.21

The cause of this excessive prevalence in the Orsett District has been the subject of an investigation by the county medical officer of health. In 1895, when an outbreak occurred in this area, he reported that in his opinion it was due to airborne infection from the small-pox ships of the Metropolitan Asylums Board, which lie near the Kent shore opposite the hamlet of Purfleet, in West Thurrock parish in the Orsett Rural District. The ships are about 700 yards from the Essex shore, and the whole of the hamlet of Purfleet lies within a radius of three-quarters of a mile from the ships as a centre. Numerous cases occurred during the years 1892-5, and the following table is from one of Dr. Thresh's reports:

Small-pox in the Orsett District, 1892-5.

	Number of Cases.	Proportion relative to Population.
Purfleet Hamlet	15	100 (taken as)
West Thurrock Parish	35	46
Orsett Union, without W. Thurrock	48	7
Essex County without Orsett Union	668	3.5

At this time the Metropolitan Asylums Board suggested that the excessive prevalence was due to personal communication between the ships and the shore, and a promise was made that such communication should be prevented in future. For several years past there has been no such communication, yet as soon as a number of cases of small-pox were received on the ships Dr. Thresh's prediction that an outbreak would occur in Purfleet was verified.

Up to February 1st, of the 290 cases of small-pox in the Orsett Union, 42 were in the hamlet of Purfleet within a radius of three-quarters of a mile of the ships, 50 in the remaining part of West Thurrock, and 198 in the other parishes of the union. The following table shows that in proportion to the population, nearly four times as many cases have occurred in Purfleet as in the more distant portion of West Thurrock, and fourteen times as many as in the rest of the Orsett Union:

	Purfleet Hamlet.	Remainder of West Thurrock	Remainder of Orsett Union.
Population	479	2,106	30,578
Cases of small-pox	42	50	198
Rate per 1,000 population	88	24	6.5

Dr. Thresh can find no cause for this excessive prevalence save the proximity of the hospital ships. Cases are promptly removed to a properly-equipped hospital, and such steps taken as would have ensured a speedy eradication of the disease in any other thinly-populated district. Further evidence adduced in favour of the airborne theory is based on the direction of the wind during the past six months. During the greater part of this time the wind has merely veered from west to south-west; on very few days has the wind had a northerly direction. The hamlet of Purfleet is divided into two distinct and comparatively widely separate portions by a curve in the railway. One, the smaller portion, is almost due north of the ships, the other almost due east. The former has only on few occasions been exposed to wind blowing from the ships, whilst the latter has been almost constantly exposed to such winds. The following table shows the marked difference in the two portions:

	Population.	No. of Cases of Small-pox	Per cent. of Population.
Purfleet (to north of ships)	137	1	0.8
Purfleet (to west of ships)	342	41	12

[1] In the first eight days of February 55 additional cases were notified, 29 being from the Orsett Union.

Besides the cases which have actually been notified from West Thurrock and Purfleet quite a number of persons engaged at the cement works, paper mills, etc., but residing in adjoining parishes, have been attacked.

The following table relating to Purfleet may also be of interest. All the figures relate to the date antecedent to the present outbreak with the exception of the number of those revaccinated, the census of which was taken last month:

	Vaccinated in Infancy only.	Revaccinated.	Not Vaccinated but had Small-pox.	Neither Vaccinated nor had Small-pox.	Totals.
Adults	111	171	8	4	294
Children 12 and under	70	100	2	7	185

Only one revaccinated person has been attacked.

Of the 11 persons who had neither been vaccinated nor had small-pox two were infants only a few weeks old, and of the remaining 9, 8 had been attacked. Could any stronger proof of the efficiency of revaccination be adduced?

Of those vaccinated in infancy only 6 children under 12 have been attacked, and 27 over that age. The percentages work out as under:

	Attacks Per cent.
Those who had previously had small-pox	0.0
Those revaccinated	0.4
Those vaccinated in infancy only	18.0
Those neither vaccinated nor had small-pox	89.0

The matter apart from its epidemiological interest is one of great importance to the county. The expenses which are being incurred in the Orsett district are already so great as to necessitate the addition of 1s. to the rates, and still heavier expenses will have to be incurred if, as the county medical officer of health contends, the epidemic prevalence will continue so long as the ships remain in their present position. The Essex County Council, which has been moving in this matter, suggests either that the use of the ships be at once entirely abandoned, or that they should be used for convalescent cases only. We understand the Council also protests strongly against the sewage from the ships and from the new hospitals being discharged into the river without having undergone some real process of purification or sterilization.

SOUTH WALES.

Our Correspondent writes: A few additional cases of small-pox have developed in Glamorganshire, but the number is smaller than in the previous week. In Swansea a fresh case was notified on February 4th, but no other cases have since developed (that is, up to the 10th). Several fresh cases were notified at Ystalyfera, near Swansea, bringing up the number there to 17 cases. Most of the cases were however mild. No fresh cases have developed at Merthyr, but on February 6th, a case of small-pox occurred in the Cardiff Workhouse Infirmary. The infection in this case can be clearly traced from London, where the patient, a marine fireman, had been tramping around for work for a fortnight. The patient was at once removed to the isolation hospital.

GLASGOW.

Our Glasgow Correspondent writes: For the last three months small-pox has been again present in Glasgow, but at no time has the present outbreak assumed formidable dimensions, and it is considered not unlikely that it will soon die out on account of the extremely well vaccinated condition of the community generally. On this occasion the disease has been characterized by a mildness that is rather unusual, and although there have been during the past month on a average about 50 cases under treatment, there have been only one or two deaths. Every precaution is being taken to stamp out the dreaded disease, special attention being paid to the public lodging houses, in connection with one of which many of the recent cases arose. It is confidently anticipated that the city will be spared a repetition of its experience last spring.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

DR. W. CALWELL (1, College Square North, Belfast), Honorary Secretary of this fund, desires to acknowledge the following additional subscriptions:

	£ s. d.		£ s. d.
The Eastbourne Medical Society, per Dr. H. S. Gabbett	10 0 0	C. M. O., South African Field Force	2 0 0
Captain Longett, South African Field Force	2 0 0	Dr. Rayley Owen, London	1 1 0

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 15TH, 1902.

THE LONDON UNIVERSITY MATRICULATION.

We publish elsewhere the reply made by the Medical Faculty of the University of London to a communication received from the Senate as to proposed changes in the character of the Matriculation Examination. The Medical Faculty expresses the opinion that, in view of the discouraging effect of the examination as it is at present on a considerable number of young men who desire to study medicine in London, the examination must be materially altered so as "to meet the requirements of candidates, whether from the 'classical' or 'modern' side of secondary schools." The implied anxiety on the part of a university to meet the requirements of candidates in respect of the subjects they are to be examined in is surely an anomaly in these days, and though the phrase may not have been intended to be taken in this sense, it accurately expresses what we take to be the true inwardness of the situation. It is indeed somewhat painfully evident that what the Faculty desires is to smooth the way of candidates so that they may not "betake themselves to some other university where the matriculation is more in accordance with the education they have received at school." The University of London has hitherto justly prided itself on the fact that no one could enter its portals without having given proof of having received an intellectual training fairly wide if necessarily somewhat superficial. It held up a standard to the schools to which many schools did their best to attain. Now the Medical Faculty cries, with a slight modification of Macbeth's despairing words, "Doctor, the schools fly from me!" And it has no better remedy to suggest than that the University should run after the schools. This, we take it, is the real meaning, stripped of all verbal disguise, of the desire expressed by the Faculty "that a Matriculation Examination should be instituted which shall ensure that an intending undergraduate has profited by the secondary education at present given by the best schools in this country."

To speak frankly, the proposal has the appearance of being dictated rather by alarm at the decrease of candidates than by disinterested zeal for the improvement of the entrance examination. Under the fine phrases in which the Faculty deprecates the institution of "a rigid matriculation test" as unduly narrowing the scope of the University's work lies, as we pointed out last week, the notion that if Latin is eliminated from the list of compulsory subjects, the examination will cease to be a deterrent to the ordinary student. We believe this notion to be altogether mistaken. It is not Latin that is the stone of stumbling; it is the multiplicity of subjects included in the examination even in its present mitigated form. It may also safely be asserted that it is not the supposed difficulty of the examination which has made so many schools discontinue to prepare boys for it. It is because they find in the local and other school examinations conducted by the Universities of Oxford and Cambridge more satisfactory tests both of knowledge of facts and of mental training. That the Matriculation Examination still needs to be considerably modified we fully admit, and would urge again as we have urged for years past; but we hold that the modification can be effected without sacrificing a subject which is rightly considered by every other academic body an essential of a liberal education.

From various criticisms of the remarks made in the British Medical Journal of February 8th, with which we have been favoured, we gather that the Medical Faculty cherishes the hope that Latin, if it is relegated to a place among the optional subjects, will still be taken by all, or almost all, students aiming at a medical degree. Even if this hope be largely justified, the fact will still remain that a man may become a Doctor of Medicine of the University of London without any knowledge of the language, phrases of which he meets with in every medical book and journal. If a patient brought him a colleague's prescription, it would scarcely add to the dignity of the profession if he had to get it interpreted for him by a chemist's apprentice. We feel strongly that the University of London will lower medicine not only in the eyes of the other learned professions, but in the eyes of the public, if it introduces into it persons ignorant of a language which is still recognised as the shibboleth of educated men.

It is pleaded that, if Latin is retained as a compulsory subject by the Medical Faculty, science will be insisted on by the Science Faculty. It is, indeed, hinted that each Faculty wishes to impose on the unhappy candidate for a London degree some subject belonging to its own peculiar domain; the theologians clamouring for logic, the engineers for drawing, the musicians for harmony or acoustics, to be included among the compulsory subjects. The Medical Faculty might well have retorted that the mere fact that such claims are made is a proof that those who put them forth have an altogether erroneous idea of what a university training is intended to accomplish. Their view apparently is that a young man intended for a particular pursuit in life should have his education solely directed to that object from the first. Their ideal would seem to be that of Edgeworth, the author of a book on professional education whose system is described as follows by a man who knew what intellectual training really is: "In his system, the value of every attainment is to be measured by its subserviency to a calling. The specific duties of that calling are exalted at the cost of those free and independent tastes and virtues which come in to sustain the common relations of society, and raise the individual in them. In short, a man is to be usurped by his profession. He is to be clothed in its garb from head to foot. His virtues, his science, and his ideas

are all to be put into a gown or uniform, and the whole man to be shaped, pressed, and stiffened, in the exact mould of his technical character."[1]

This cramping effect of an exclusively professional training can be counteracted only by a sound literary education. The whole purpose of an entrance examination is to ascertain whether the candidate has received such an education, in other words, whether the various faculties of his mind have been sufficiently developed to make him able to profit by the technical instruction which he seeks from the university. We are of those who believe that a classical training is greatly superior as an instrument of intellectual culture to a premature specialization in science. We hold further that it has a special value as a preparation for the study of medicine. It is well that a medical man should learn Latin, not that like Mr. Jobling in *Martin Chuzzlewit*, he may get a reputation among his patients by quoting tags of the Eton grammar, but because the study of it affords a better training in accuracy of thought and clearness of expression than that which any modern language can give. John Hunter felt the deficiencies of his literary education, and went to Oxford to try to repair them. It is true, he soon left the University in disgust, saying "They wanted to make an old woman of me!" Yet one has only to read his writings to realize what the world has lost by the fact that John Hunter had never acquired the power of expression which even a slight training in the classical tongues would have given him.

THE MIDWIVES BILL, 1902.

The Midwives Bill "to secure the better training of midwives and to regulate their practice," which is down for second reading on February 26th, appears to be more likely to create a special class of midwives, whose services will not be restricted to the poorer classes of the community than to protect poor lying-in women from the practice of incompetent persons, which is the ostensible reason for seeking legislation. The Bill of 1902, which is printed at page 416, is decidedly worse than any which have been previously introduced. It differs from the Bill which was read a second time in 1900 mainly in the following respects. In the first place the prohibition of unqualified practice is struck out. This provision, which was contained in Clause 2 (2) of the Bill of 1900, has, we are informed, been omitted at the instance of the Home Office, which has expressed the opinion that in the absence of any similar provision in the Medical Acts it would not be practical to insist upon it. In the second place the Lord President of the Council is substituted for the General Medical Council, as the authority to take steps for the formation of the Central Midwives Board, the constitution of the Board remaining as before. In the same clause the rules of the Board are made subject to the approval of the Privy Council after consultation with the General Medical Council. These alterations are, it is stated, made to avoid expense, and the promoters maintain that they are not substantial, since the Bill of 1900 contained in Clause 14 a provision that in the case of disagreement between the General Medical Council and the Central Midwives Board, such disagreement should be determined by the Lord President of the Council. Lastly, it is proposed to substitute a system of notification for the annual licence.

It is stated that the Bill of 1902, in its present form, has the approval of the Home Office, the Privy Council, and the Local Government Board. This does not apparently mean that it has official support, but that the Government will observe an attitude of neutrality more or less benevolent.

It will be observed that the alterations suggested by the General Medical Council, so far as they were incorporated in the Bill of 1900, have been expunged, and that the control which the Council would have over the proposed Midwives Board would be of the most shadowy sort.

It may be well to review briefly the alterations suggested by the Council, which have been now abandoned. The Council pointed out that, even after the passing of such a measure, if the practice of unregistered midwives was not penalized, the mischief perpetrated by that class, which it was the main object of the proposed legislation to remove, would be left very much where it is. The mere inability of an unregistered midwife to recover her fees in the county court would interfere but little with her practice. No profit is ever gained by suing poor people, and at the present time a midwife seldom, if ever, avails herself of that remedy.

What, then, are the really poor to gain by the passing of such a Bill? The new midwives would become a kind of intermediate class between the old midwives and ordinary medical practitioners. The definite status given by the proposed registration would no doubt create in the public mind, on very insufficient grounds, an idea of superior qualification and would thus tend to cause a demand for their services among some who have hitherto been attended by medical practitioners. On the other hand, it is difficult to see how the registration of these women would greatly diminish the practice of their unregistered sisters among the poor. Cheapness before everything else is considered by the poor. In spite of the revelations of coroners' inquests, and in spite of the recurring scandals arising from their incompetence, the services of unregistered midwives, unless forbidden by law, will constantly be resorted to. At first, when nearly every practising midwife is put upon the Midwives Roll, this will not be so noticeable, but it may be anticipated that in course of time the certified midwife will find it far more profitable to compete with medical practitioners than to cater for the wants of the poor.

The provision requiring a certified midwife to take out a local licence, has been omitted from the present Bill. As it was most important that the practice of midwives should be directly under the supervision of the sanitary authorities throughout the country, it was proposed by the General Medical Council that the new midwives should be certificated rather than simply registered, and that the certificate should entitle the midwife to take out a licence—to be renewed annually—from the sanitary authority of the district or districts in which she desired to practise. This subordination to the sanitary authorities served another useful purpose. It prevented the new midwives from appearing in the eyes of the public as an independent class of obstetrical practitioners. The proposed creation of a Midwives Board, the exact

[1] Noted from Davison in J. H. Newman's *Idea of a University*.

counterpart of the General Medical Council, and the granting of diplomas conferring the right of practising midwifery throughout England and Wales, subject only to conditions difficult to enforce, would bring into existence a system calculated to mislead the public and will appear to the medical profession to be a distinct infringement of the principles of the Medical Act of 1886.

By the present Bill the certificated midwife would only be required to notify to the sanitary authority her intention of practising in the district, and her position as an independent obstetric practitioner would be correspondingly strengthened. By the substitution of the President of the Privy Council for the General Medical Council the carrying out of the measure, if it become law, is taken altogether out of the hands of the medical profession, so that even those members of the profession who looked with favour on legislation of this kind can scarcely support the Bill in its present form. Probably the latest modifications entirely meet the wishes of its more ardent supporters. They have always been jealous of medical control, and in every Bill in which they have formulated clauses requiring medical aid to be sought in cases of difficulty they have laid down no penalty for their infringement. Their intention from the first has been to introduce a new class of practitioners in midwifery, who might call upon medical men to assist them in emergencies, much as the latter might occasionally call in consultants themselves. The new definition of "midwife" is "a woman who is certified under this Act," so that here again no attempt is made to limit the extent of her duties. After a careful consideration of this Bill we are forced to the following conclusions: (1) That it is not likely to remedy the evil for the removal of which it is ostensibly intended; (2) that it tends to create another class of practitioners of midwifery to compete with medical men rather than to protect the poor from incompetent midwives; (3) that it is likely to be mischievous by inducing the public to believe in the fitness of a registered midwife to replace a medical practitioner in the lying-in room, a belief altogether unwarranted, when the inadequate training of the former is considered.

BRAINS, BEER, AND RECREATION.

We are all of us the better for home truths; they are not always palatable, and we do not always love the more those from whom they come. There are, however, exceptions to the last rule, and Mr. John Burns is a notable one, for he speaks his mind to all, and particularly to the working people, and never loses their esteem. As their candid friend he told them, in a speech delivered last month in the adult school rooms, Roscoe Street, Bunhill Row,[1] that, beyond the Parliamentary help by Fair Rent Courts, building, and municipal owning, the one supreme remedy immediately at hand for overcrowding is for the overcrowded to think more and to drink less, of their own initiative to help reforms that will help themselves, to be persistent in rising upwards and not vigilant in sliding downwards, and to spend on the improvement of their lot, even in rent for better homes, what is now devoted to drink, betting, and worse.

[1] *Brains Better than Bets or Beer.* By John Burns, M.P., L.C.C. London: The *Clarion* Press. 1902. Pp. 16. 1d.

Herein is undoubtedly one of the chief requirements for the reduction of overcrowding. Working people must learn to value space, and to make sacrifices of their personal indulgences to obtain it. Municipal authorities cannot build for the poorest of the wage-earning class. "Better," as Mr. Burns points out, "that wages should follow rent than rent be adapted to wages." The principle is absolutely sound, for even when the long-looked-for time arrives when London and other big cities of this country are provided with all necessary means of locomotion, and the resident population can be spread over a much larger area than that which it now covers, the rents of dwellings which meet the requirements of family life will be in excess of that now paid for the miserable one-room tenement which is so often the habitation of the poor. With the increase of wages which is taking place among the industrial classes should come an increased desire for better homes or the money will find its way into other channels, and be devoted to other objects than the better dwelling which is one of the first necessities of a healthy life.

Mr. Burns quoted the figures of the census of 1891 showing the vast population which in London lives in tenements of one room. In that year there were 172,502 one-room tenements. It is encouraging to find that the figures of 1901 show a marked improvement, for the number of one-room tenements has fallen to 149,524. And, again, whereas the number of one-room tenements having more than two people in them was in 1891 56,622, the number in 1901 was 40,762. Here there is a distinct advance, indicative not only of increased prosperity but of a better appreciation of the advantages of house room. If the lessons Mr. Burns taught his audience were largely accepted and acted upon, the progress which has begun should continue in still greater proportion, and the one-room tenement should cease to exist for family life.

Mr. Burns, in his address, dwelt at length on the drink problem. He claimed that in chronically poor districts poverty and drink act and react upon each other till it is difficult for some (not himself) to decide whether drink causes poverty or poverty causes drink, and he added that it is certain that drinking is increasing among working women.

He associates much of this tendency "with the monotonous life the workman's wife has to lead." In the overcrowded one-room tenement it is often difficult to resist the temptation, and he urged the married men he was addressing to take their wives and children out to the numerous places of enjoyment which are open to them. The advice was in every way sound. Change of thought, change of surroundings will bring to many a spirit of hopefulness which can be attained in no other way, and which will make the ginshop less attractive. Hence the necessity of the municipal authority doing what is in its power to give facilities to the many poor families to obtain their recreation without claims upon their slender purse. Life must be made more attractive than it is for those who live in limited and confined habitations, but it is for them to take advantage of what is provided, and hence Mr. Burns has done well to tell the married man that when he has an hour to spare to "take the missus out."

AIRBORNE INFECTION AND SMALL-POX.

THE question whether the increased incidence of small-pox which has been shown to occur in a population residing in the neighbourhood of a hospital in which cases of the disease are being treated is due to conveyance of infection through the air does not yet appear to be decided, as many epidemiologists contend that there are other ways in which the infection could be carried without necessitating the airborne theory. The present outbreak in London has enabled Dr. Thresh, the medical officer of health for the County of Essex, to undertake an investigation relating to the connexion between the hospital ships of the Metropolitan Asylums Board and the prevalence of small-pox in the Essex parishes nearest to these ships. This investigation is of special interest, as the floating hospitals in Long Reach are anchored on the Kent side of the Thames, some 700 yards from the Essex shore, and there is no communication of any kind whatever allowed with this shore. There cannot, therefore, in this case be any question of the infection being conveyed outside by nurses, attendants, the passage of ambulances, etc., which have complicated other outbreaks investigated. Dr. Thresh has reported on this subject several times to the county council, but has refrained from further publication until the facts could be marshalled so as to allow of some definite and conclusive opinion being formed thereon. These facts are embodied in the report on Small-pox in Essex, which will be found at page 406. The facts furnished by Dr. Thresh shows that during the years 1892-95, when small-pox was last prevalent in London and the ships were receiving numerous acute cases, the disease was constantly present in Purfleet and the adjoining parishes. At this time he became convinced that this endemicity was due to the proximity of the small-pox ships, and predicted that if another epidemic occurred in London and the patients were removed to the ships, small-pox would again occur in Purfleet and the distribution be as before. The results have verified this prediction. Small-pox began to be widely prevalent in London in the third quarter of last year, and in August a workman employed on the nearest point on the railway to the ships was attacked. Other cases quickly followed, notwithstanding all the well-directed efforts of the local authority, possessed of a properly equipped hospital, etc. The results to date show that within a radius of three-quarters of a mile of the ships no less than 8.8 per cent. of the entire population has been attacked, and that in the parish of West Thurrock, beyond this radius 2.4 per cent. have been attacked. In the outer zone of the Orsett Union only 0.65 per cent. have as yet been infected. This evidence is further strengthened by a study of the direction of the wind during the past six months. In that portion of Purfleet exposed to the prevailing wind, no less than 12 per cent. of the population have been attacked with small-pox, whilst in the smaller area to the north, towards which the wind has rarely blown, the attack rate is under 1 per cent. Dr. Thresh is, we understand, inclined to believe that the effect of the ships is experienced two miles away, and the data now accumulating will probably enable him at a later period to give a more decided opinion. The investigation is one of national importance, and, if the conclusions are correct, the aggregation of a large number of acute cases of small-pox would appear to be fraught with serious danger to the public, and the further question arises whether the risk to the lives of the patients themselves is increased by treatment in a strongly infected atmosphere. Dr. Thresh has, we understand, expressed the opinion that it would be better to treat such cases in small tent encampments, so as to avoid this concentration of infection, thereby giving the patients a better chance of recovery and minimizing the risk of spreading the infection to the population around. It is indeed fortunate that we have other methods of controlling this terrible disease in vaccination and revaccination. Now that the dangers arising from isolation are pointed out the last plank is removed from the platform of the antivaccination agitator. We do not wish to decry the secondary advantages to be derived from improved sanitary conditions and the provision of hospital accommodation, but it is increasingly evident that small-pox will never be eradicated until the community is protected by vaccination and revaccination.

THE DIAGNOSIS OF SMALL-POX.

IN a case recently heard before one of the London magistrates a medical man who was summoned for not notifying a case of small-pox, successfully pleaded that haemorrhagic small-pox was a disease with which he could not reasonably be expected to be familiar, and his contention was supported by the evidence of members of the profession whose opinions are entitled to weight. There is no doubt that small-pox is so multiform in its appearances that in its rarer forms it may easily escape recognition by those who have not had much experience of it. It is often absent from London for a number of years, and when it occurs in epidemic form only a limited number of practitioners have the opportunity of seeing it, for the patients are removed as rapidly as possible to the hospitals down the river, and the student, if he desires to see them, is obliged to comply with the requirements of the Metropolitan Asylums Board, and reside for two weeks in the hospitals. It would be a great boon to the profession, and therefore to the public, if the managers could see their way to giving opportunity to practitioners and students to make themselves acquainted with this disease under conditions more easily obtainable. No doubt precautions of an exact kind would have to be taken to prevent infection being carried back by the visitors, but this ought to be possible, and the safety of the public ensured, while an important and necessary lesson is learnt. We would gladly see the Metropolitan Asylums Board take this matter under its consideration, and prepare a scheme which would satisfy all reasonable requirements. We believe that if this were done there are many who would take advantage of it, and we would suggest that on some particular day of each week the hospitals should be open to those who in every detail comply with the instructions which are given them. A few visits, while, of course, not adequate to give a complete knowledge of the disease, would nevertheless serve a useful purpose.

SMALL-POX AND THE PRESS.

THE publicity which the daily press has given to the occurrence of small-pox in London has undoubtedly served the useful purpose of promoting vaccination in the community, but it has, on the other hand, caused widespread misapprehension as to the extent of the prevalence of the disease in the metropolis. People read of 3,000 persons attacked with small-pox, and picture to themselves what this would mean in the town or district in which they live. It is difficult to keep in mind the vastness of the London population, and to recollect that 3,000 cases of small-pox occurring in five months in a population of 5,000,000 is little more than one attack in 2,000 persons. If scarlet fever and diphtheria were not constantly present, and it was announced by the press for the first time that some 10,000 persons had in the same period been attacked with scarlet fever, and some 6,000 by diphtheria, the statement might easily give the impression that London was a hotbed of disease. Familiarity with these diseases, however, causes such incidence practically to escape observation. The figures we have quoted as to small-pox may usefully be compared with those for scarlet fever and diphtheria, and it will then be seen what a small factor in disease in London small-pox at the present time

really is. It is necessary to emphasize this fact for the reason that we hear of people in the country hesitating to visit the metropolis and that trade is suffering as the result because a relatively small number of people have been attacked with this disease. The chances of the ordinary visitors receiving infection from the persons attacked is remote for the sick are immediately removed to hospitals outside London. Beyond this, however, remains the fact that it is open to every one to protect himself by vaccination against any possibility of infection that exists. Experience shows that a person thus protected may visit a small-pox hospital without risk, and obviously, therefore, such a person may well disregard the bare possibility of exposure to small-pox infection in London. Perhaps the best evidence which can be adduced as to the safety of the visitors is that the King, the Queen, and the Court remain in London, that a Levée was held on Tuesday, and that no Londoner thinks of quitting the metropolis because cases of small-pox are occurring in numbers which in relation to the total population are small.

SMALL-POX AND VACCINATION.

The Council of the British Medical Association has reissued the pamphlet *Facts About Small-Pox and Vaccination* in a new cover, along with a new tract, entitled, *The Lesson of a Hundred Years of Vaccination in Europe—1706-1896*. The new publication shows exceptional knowledge of Continental statistics, and gives for successive periods in the past century figures and comparisons of much interest and value. It ought to prove very useful alike for instruction of persons willing to be instructed, and for controversy with opponents of vaccination. The original pamphlet has already done yeoman service, and has had a very large circulation. We note from a newspaper paragraph that a few days ago, at the Liverpool City Police Court, the stipendiary magistrate used the pamphlet freely in pointing out the truth to a conscientious objector who had come before him, and further stated his intention to read from it to every objector who appears. The combined issue may be heartily recommended to all who want a short and convenient statement of the case for vaccination. Copies may be obtained from the office of the British Medical Association, 429, Strand, London, W.C., or from the Jenner Society, Gloucester. The prices are: single copy post free 1½d., or per dozen 10d. (by post 1s. 1d.), and per 100 6s. 6d. (by post 10d. extra).

AN ANTIVACCINATION BILL.

A short Bill to abolish compulsory vaccination in England has been introduced in the House of Commons, and is backed by Mr. Broadhurst, Mr. Thomas Bayley, and two or three other members. Its purpose, which is formally set down as "to amend the Vaccination Acts," must seem curiously, even comically, at variance with what most people regard as the requirements of the times in the way of legislation on this subject. What the country needs is a Bill to place revaccination on the same basis of obligation with primary vaccination. The measure as introduced deals only with the question of compulsion. It makes no proposal to "disendow" vaccination, nor to interfere with existing machinery, local or central, for providing lymph and carrying out the operation at the expense of the rates. In this respect it falls far short of embodying the objects of the Antivaccination League, which embrace "the entire repeal of the Vaccination Acts" and "the disestablishment and disendowment of the practice of vaccination"—objects which, it may be noted, did not receive the support of any one member of the Royal Commission, for even Dr. W. J. Collins and Mr. Picton, in their statement of dissent, proposed to leave as at present the machinery of vaccine administration, whereby every one might have himself or his children vaccinated with lymph provided by the State, and by a public vaccinator appointed for the purpose. The Bill stands so far down on the list that there seems no chance of its being heard of again in this session of Parliament. Meanwhile, a Bill with a very different object has been introduced into the House of Lords by Lord Newton. This is a very short measure, with one operative clause which proposes to repeal Section 2 of the Vaccination Act, 1898. This is the famous section which created the conscientious objector.

THE SPITTING NUISANCE IN AMERICA.

By a recent ordinance of the Boston Board of Health, the old regulation in regard to expectoration which was passed in 1896 and extended to 1900 is rendered more effective. It regards the deposit of sputum in public places as a nuisance, a source of filth and a menace to health, and therefore orders "that spitting upon the floor, platform, or steps of any railroad or railway station, or car, or from any electric car while said car is in the subway or elevated above the surface of the ground, or upon the floor, platform, or steps of any public building, hall, wharf, theatre, market, or any sidewalk immediately connected with said public places, be, and hereby is, prohibited." We suggested not long ago that the most effective way to suppress the spitting nuisance would be to induce women to take the matter into their hands. We are pleased, therefore, to learn that the Woman's Sanitary League of Philadelphia is endeavouring to secure the passage by the City Council of an ordinance which shall provide that persons expectorating in public shall be punished. The present order of the Board of Health is declared to be almost inoperative. The formation of a similar league in this country would, we venture to think, be highly advantageous in the promotion of what may be called the minor sanitary morals. The force of public opinion on such matters would find more effective expression in the glare and frown of a strong minded woman than in a wilderness of pamphlets. And if silent reprobation proved insufficient, ladies of the type fitted for such a crusade might be trusted to discharge torrents of "rattling and indignant eloquence" on the heads of offenders. We are inclined to think that ordinances are unlikely to be of much use in the suppression of promiscuous expectoration. *Dux femina facti* should be the motto of antispitting crusaders.

THE DIET OF THE LABOURING CLASSES.

Some time ago Drs. Noël Paton and Dunlop and Miss E. M. Inglis undertook, with the help of a number of assistants, to make an investigation for the Town Council of Edinburgh, with the view of ascertaining what food is chiefly used by the labouring classes in Edinburgh, whether the food is sufficient, and whether it might be improved without additional expenditure. The method used was the same as that employed by Atwater in the important series of dietary studies recently carried out under his directions by the Agricultural Department of the United States Government. The food consumed during a single week was carefully observed in the case of a number of families, the amount of waste being also noted. The daily physiological value of the food per adult man was then calculated in terms of calories and grams of protein, each woman being reckoned at 0.8 of a man, and each child, according to age, as a correspondingly smaller fraction of a man, on the scale adopted by Atwater. The results are fully stated for each family in a report recently issued,[1] in which details are given also as to income, expenditure, and social conditions. The average food actually eaten per man per day in 9

[1] *A Study of the Dietaries of Working Class Families in Edinburgh*. By Noël Paton, M.D., F.R.C.P.E., J. Cranfurd Dunlop, M.D., F.R.C.P.E., and Elsie Maud Inglis, L.R.C.P.&S.E. Edinburgh: Otto Schulze and Co. 1901. (Demy 8vo, pp. 110. 4s.)

typical labourers' families contained 108 grams of protein, and had an energy value of 3,228 calories. The wages of the fathers of these families varied (except in one case) between 17s. 6d. and 23s. a week, and there was an average of 4 children in each family. The authors conclude that the amount of food was "decidedly too small," considering the quantities found by Atwater and others to be consumed by working-class families in better circumstances. We may add that the amount is very distinctly less than the present allowance (about 135 grams protein and 3,500 calories) to able-bodied male paupers in English workhouses. The latter allowance, which is certainly a generous one, has been taken by Rowntree in his recently-published book on *Poverty*, as the standard required for physical efficiency. The average cost of the Edinburgh labourer's diet was found to be 7¼d. per man per day. Of the energy value, about 70 per cent. was derived from vegetable and 30 per cent. from animal food, while of the cost., 56 per cent. was due to animal food, 38 per cent. to vegetable food, and 6 per cent. to condiments. The writers point out very clearly that by a judicious use of porridge and milk and various other nutritious but inexpensive articles of food, a better dietary may be obtained at much less cost. The whole report is very interesting, but there are a few errors in the figures given. Thus it is said that carbohydrates are far cheaper foods than fats, and in illustration of this it is stated that whereas only 435 calories are obtained for 1d. in the case of margarine at 8d. per lb., 1,860 are obtained in the case of sugar at 2½d. per lb. The latter figure is incorrect; it should be about 720. Indeed, with dripping, which is the cheapest fat obtainable, about 1,050 calories may be obtained for a penny. The miscalculation as to sugar has also led the authors to regard it as a cheaper source of energy than the cereals. We note, further, than an error has arisen through the assumption that American "cookies" are the same in composition as Scotch "cookies" and other forms of "tea-bread"; also that an incorrect composition for flour has been assumed, which has led to the erroneous conclusion that oatmeal is a cheaper foodstuff than flour. In spite of such minor errors the report is of much value, and the Edinburgh school, to which we already owe the investigations of Aitchison on workhouse diets and Dunlop on prison diets, is to be congratulated on this further contribution to a most important subject.

THE SANITATION OF HOSPITALS.

EVERY one who is acquainted with the history of hospitals knows that many lamentable mistakes have been made in the planning of the sanitary arrangements of even new buildings, mistakes which too often are only discovered after the prevalence of infective disease, using that term in the widest sense, in the wards and among the nurses, has called attention to the probability that such defects exist. The Belgrave Hospital for Children, hitherto carried on in Pimlico, is removing to Clapham Road on the south side of the river Thames, where the new building is approaching completion. This change has been marked by certain innovations in hospital administration, of which we have already had occasion to speak in terms of praise. We are glad to observe that the Committee has given a striking proof of their desire to place the new building and its administration on a sound sanitary basis. As will be seen by an announcement in our advertisement columns, they are about to appoint a sanitary officer who will be a member of the honorary medical staff. His position will be equivalent to that of the physicians and surgeons, he will be required to visit the hospital at least once a week, and more often if necessary; he will decide in consultation with the physician or surgeon, as the case may be, on the steps to be taken should any infectious disease break out in the hospital, and he will supervise all the sanitary affairs of the hospital. Being appointed at this stage, when the building of the hospital is not yet complete, he will be able to advise as to the sanitary plans and appliances specified by the architect. This will place the hospital in a specially favourable position, but the duties of the consulting sanitary officer will by no means end with the completion and furnishing of the building. Sanitary appliances, however perfect in the first place, require intelligent supervision to keep them in order, and in a hospital, especially a children's hospital, questions with regard to the prevention of the importation of infectious disease, and of isolation should it occur in the hospital, are constantly arising. As a rule such matters are left very largely in the hands of the resident medical officer, who, as a rule as soon as he becomes expert, vacates his appointment by effluxion of time; moreover, his office necessarily places him in a position of subordination to the physicians and surgeons; and we think that it is a real advance in hospital administration to have a consulting sanitary officer as a member of the honorary consulting staff in a position of equality with the other members of the staff engaged in the therapeutic work of the hospital.

IMBECILES AND EPILEPTICS.

WE are very glad to see that the Cumberland County Council, at its meeting on February 5th, resolved to provide proper accommodation for imbeciles and epileptics—that is, accommodation distinct from the ordinary workhouse or the asylum. Many of those interested in this question hoped that either the Home Office or the Local Government Board would have promoted a Bill this year to remedy the very great injustice which at present exists as regards what is known as the four-shilling grant. This grant is only payable for insane paupers in asylums; if in workhouses, the whole cost must be borne by the union. As regards epileptics, eminent counsel's opinion has been taken, and it is at least questionable if the county councils have the power to expend money in making provision for sane epileptics, since "mental disease" is held not to include epilepsy. There can be no doubt in the minds of those who have given attention to the subject that England is being rapidly left in the background in the matter of the provision for this class of cases. Apparently there is some difference of opinion among the departments of the State as to which is responsible for this neglect. We need not attempt to untie this particular knot of red tape; but, attention having again and again been drawn to the matter, it is time that Parliament found an opportunity to deal with so important a question. If it be contended that the necessary information is not yet available in an official form, the reply must be that it should be obtained, for the question must be dealt with before many years have passed. It is true that Royal Commissions and Parliamentary Committees are sometimes excuses for wasting time; but in good hands such a public inquiry can bring together much valuable material which can be analysed in a report. So soon as the Departmental Committee on Workhouse Nursing has reported, an inquiry should be instituted into the best means of making provision for cases suffering from mental diseases, including imbecility and epilepsy.

PROFITABLE FRUIT GROWING.

ONE City company after another is justifying its existence by acts of benevolence of a practical nature, and among them the Worshipful Company of Fruiterers is doing good work in its persistent attempts to make our country men and women realise the fact that fruit can be grown in the British Isles, not only with fair success, but with actual profit. "Unquestionably," says Mr. Wright, the author of an essay on *Profitable Fruit Growing for Cottagers*

and Small Holders of Land,[1] which won a gold medal offered by the Company, "the apple is the most important fruit of temperate climes." Possibly it is in recognition of this importance that he places on the title page of his essay a picture of an apple tree with a serpent winding round its trunk, and Adam holding out both hands to take a fine specimen of the important, though seductive, fruit from Eve. Mr. Wright truly remarks that in the majority of instances our orchards are composed of trees planted generations, not to say centuries, ago, which produce such miserable fruit that consumers naturally pass it by for that which has been imported. The essay is equally interesting and instructive; the illustrations are excellent, and the advice given is so convincing that we cannot but wonder how it is that the book (which has already passed into the sixth edition) has not effected a tangible result in the direction of improved supply of fresh, home-grown fruit. The best English apples fetch so high a price in London and other large towns that the ordinary householder can scarcely buy them. They are far better than those of foreign growth, and we believe, with the writer, that it should be no difficult matter for an enterprising farmer to cultivate them with success, to pack them with skill, and to sell them with profit.

THE SKULL OF SIR THOMAS BROWNE.

A few weeks ago it was stated in the British Medical Journal that Professor Osler, of Baltimore, had presented to the Norfolk and Norwich Hospital a casket to serve as a receptacle for the preservation of the skull of the author of the *Religio Medici*, one of the glories of Norwich. The Museum Committee of the hospital, as we learn from an interesting communication from Mr. Charles Williams to the *Eastern Daily Press*, while intimating their readiness to accept so generous an offer, suggested that the casket should be formed, not of silver, but of plate glass. It was considered that this would allow the skull to be well seen on all sides and at all times, and would avoid the necessity of its being taken out of the casket for the inspection of pilgrims who occasionally visit the hospital with the view of seeing this most historical and venerable relic. It was also considered that too frequent an examination would in the end lead to total disintegration of the skull; besides, a silver case would afford a tempting object for theft, and the hospital might probably one day lose both skull and case. Early in December the casket was presented by Mr. Williams, in the name of Professor Osler, to the Museum Committee, who directed that an appropriate pedestal should be made on which the gift was ordered to be permanently placed. The casket is of oblong shape, about 13 inches in length by 11 inches in width, and 11 inches in height. The four sides and top consist of crystal glass with silver gilt mountings, and set on a stand of ebony. It was manufactured by the Goldsmiths' and Silversmiths' Company of London, and is an exceedingly choice work of art. On the stand are placed four gilt plates, on one of which is engraved the name of the donor, etc., and on the other three quotations selected by Professor Osler from the *Religio Medici*:

This casket was presented to the Norfolk and Norwich Hospital by William Osler, M.D., F.R.S., Professor of Medicine, Johns Hopkins University, Baltimore, 1901.

I believe that our estranged and divided ashes shall unite again; that our separated dust, after so many pilgrimages and transformations into the parts of minerals, plants, animals, elements, shall at the voice of God return into their primitive shapes and join again to make up their primary and predestinate forms.

At my death I mean to take a total adieu of the world, not caring for a monument, history, or epitaph, not so much as the bare memory of my name to be found anywhere but in the Universal Register of God.

In these moral acceptions the way to be immortal is to dye daily. Nor can I think I have the true theory of death when I contemplate a skull, or behold a skeleton, with those vulgar imaginations it casts upon us.

It has been suggested in one of the daily papers that the skull is not that of Sir Thomas Browne, but we believe the authenticity of the relic is fairly certain. It was obtained by accident, a workman having driven a pickaxe through the lid of the coffin in the course of some repairing work in 1840. There must always be an element of doubt about relics, but the grand old physician who expressed a strong objection to his bones being "knav'd out of his grave" may possibly, if perchance these sublunary things have still any interest for him, think the homage of his admirers none the less acceptable, even if it be mistaken in its object. To paraphrase his own words, whilst they direct their devotions to the skull, which may not have been the tenement of his brain, he will rectify the material error, if such there be, by taking into account the fact their intention is "rightly ordered."

[1] *Profitable Fruit Growing for Cottagers and Small Holders of Land.* A Gold Medal Essay, by John Wright, V.M.H., F.R.H.S., written for the Worshipful Company of Fruiterers. Sixth Edition. London: W. H. and L. Collingridge. (Demy 8vo, pp. 132. 1s.)

FEDERATION OF MEDICAL BOARDS IN THE UNITED STATES.

Uniform medical legislation and universal recognition of certificates of State Boards of Health in all States are the objects of the "Reciprocal Federation of State Medical and Examining Boards," which was organized at a meeting held in New York on January 17th. The new organization has long been desired by the medical profession, and it is expected that it will soon become national in character. Another meeting is to be held in May in Chicago and every State will be invited to send representatives. The prime object of the Association is to effect a uniformity of rules governing the examination and admission of medical men and women to practice. Heretofore each State has made its own laws, without regard to the laws of other States, and this has frequently resulted in many hardships to members of the profession. A practitioner desiring to labour in his vocation in a State other than the one in which he was first examined and granted a certificate would be required to stand the second examination and pay another fee. If he desired during his lifetime to practise in ten states he would be compelled to submit to ten examinations. Under the reciprocal plan the certificates issued after an examination in one State will hold good in the other States belonging to the organization. The examination required in many of the States at the present time grants the licence to practise only in one particular State, but when the proposed federated States examination has been passed it will admit the holder to practise in all the other States. The plan was first proposed by Dr. Emil Amberg of Detroit, Michigan, and set forth in the New York *Medical News*, and has been a subject of discussion in medical societies and in various State Boards for years. It is only recently, however, that active steps were taken to form such an organization.

FOUR CAESAREAN SECTIONS ON ONE PATIENT.

Dr. N. Charles, a well-known obstetrician of Liége, has recently, as we learn from the *Journal Médical de Bruxelles* of February 6th, performed Caesarean section for the fourth time on a small rachitic patient whose pelvis measures only 6 centimetres in the sacro-pubic diameter. Both mother and child are doing well. Of the three children previously brought into the world in the same fashion, two are in good health, and one died of bronchitis at the age of 13 months.

LEPROSY IN MADEIRA.

A writer in the *Polyclinic* for February, who has recently visited the lazaretto at Funchal, says that in the present state of things there are elements which inspire both gratitude and hope. It is a large establishment, and almost empty of patients. On December 10th, 1901, there were only four inmates, and one of them was certainly not

a leper. Dr. Gavin Milroy, fifty years ago, recorded his belief that leprosy was diminishing in Madeira, but he found that the average of admissions had been eight new cases a year. In 1829 Dr. Kinnis found in the home seventeen men and seven women. At present there are no women and only three men. No compulsion to enter the home or to remain in it now exists, or ever has existed. No precautions whatever have been taken against contagion other than the provision of a comfortable home for those who wish to avail themselves of it, and this does not prevent a considerable majority from remaining with their friends at home. The decadence of the disease, according to the writer (whose opinions betray his identity), resulted from precisely the same class of causes which were brought to bear in England and the adjacent islands a few centuries ago. "Our Norwegians *confrères*," he says "are exultingly attributing their own improved statistics to the partially compulsory measures of segregation which there, during the last few years, have been in force. But precisely the same general improvement in dietary is taking place amongst their peasantry that is occurring in Madeira, and it may be that to it, and to it alone, the gain is due." Of course it may be so. But the fact that our Norwegian *confrères*, who are in a better position to observe and judge the facts, think otherwise, should at least give pause to any one less favourably placed who is disposed to question the soundness of their opinion. Further, we venture to ask with all respect if the phrase "during the last few years" adequately expresses the fact that segregation has been practised in Norway since 1856 and has been compulsory, though not absolute, since 1885.

THE TEACHING OF TROPICAL MEDICINE IN PORTUGAL.

A PROPOSAL for the erection of a colonial hospital with full equipment for the teaching of tropical diseases has been laid before the Portuguese Legislature by the Government. The hospital, which is to be in Lisbon, is intended for the accommodation of officers and men of the army and navy, and also of civil servants and ecclesiastics who have contracted disease on foreign service. The arrangements for teaching include provision for three chairs, namely, tropical pathology and clinical medicine, tropical hygiene and climatology, and tropical bacteriology and parasitology. Medical officers of the colonial service and the navy will have to go through a course of lectures on all branches of tropical medicine, with demonstrations in the wards and practical exercises in the laboratories. The teaching staff, which is to be chosen from the colonial and naval medical services, will consist of a director with two assistant physicians and a demonstrator. The session will last from November to February, and at the end of the course an examination will be held and certificates of proficiency in tropical diseases delivered to those who satisfy the examiners. Provision is also made for elementary instruction in tropical hygiene, and first aid to the injured and the sick, to be given to missionaries, military officers, and those employed in public works in the colonies. For these the courses are compulsory, but they are also open to traders, agriculturists, and others seeking their fortune in the colonies.

PROFESSOR VIRCHOW.

ACCORDING to the *Berliner klinische Wochenschrift* of February 10th, a distinct improvement has taken place in Professor Virchow's condition. The extension apparatus was definitely removed on February 2nd. The condition of the injured limb is satisfactory. At the seat of fracture abundant callus can be felt. The hip-joint can be freely moved without pain, and slight resistance exercises can be practised. Since February 3rd Professor Virchow has sat up in a chair every day for several hours, and has felt considerably benefited by the change of position. He is showing interest in current events, but all intellectual effort is strictly forbidden.

THE SULTAN AND THE PLAGUE.

AN *Iradé* has just been issued by the Sultan for the erection of a small bacteriological laboratory at Silvi-Bouroun, an isolated place on the Bosphorus situated above Beicos. Huts for the accommodation of sufferers from plague were not long ago built in the same place. Researches on the bacillus of plague will not be permitted at any other place near the Turkish capital. The Turkish Government has sent Drs. Chevki Bey and Nihad Bey to India to study the plague. Each of them will receive 5,600 piastres a month while discharging this duty in addition to 10,000 piastres for travelling expenses.

SIR WILLIAM HINGSTON.

A NUMBER of the friends and professional brethren of Sir William Hingston of Montreal recently presented him with a portrait of himself in oil on the occasion of his professional jubilee. Sir William Hingston, who took his degree at McGill University in 1851, organized the first Board of Health in the Dominion. He is a past president of the Canadian Medical Association, an honorary D.C.L. of Bishop's College University, an honorary LL.D. of Victoria University, Toronto, and a vice-president of the Montreal Branch of the St. John Ambulance Association.

THE FACULTY OF MEDICINE OF THE UNIVERSITY OF LONDON.

A MEETING of the Faculty of Medicine will be held at the University Buildings of the University of London at 5 P.M. on Friday, February 21st. The business of the meeting will be the further consideration of the concentration of the preliminary and intermediate medical studies. In view of the recent large accession of new members who have not been able to take part in former discussions on this subject, Mr. Butlin, the Dean of the Faculty, will make a short statement as to the work of the Faculty during the past year in connexion with "concentration."

THE Lettsomian Lectures of the Medical Society of London will be delivered by A. Pearce Gould, M.S., F.R.C.S., on February 17th, and March 3rd and 17th. The subject is "Certain Diseases of the Blood Vessels." The first lecture will be devoted to Varicose Veins, the second to Obliterative Arteritis, the third to Thrombosis. The lectures, which will be delivered at the Society's rooms, 11, Chandos Street, Cavendish Square, W., will commence at 9 P.M.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Midwives Bill has been finally settled as to its form after consultation between the promoters and the Government departments which are concerned with the measure. The Bill which has been issued this week, will, when compared with last year's measure, be found to differ in some important particulars. The four principal changes are as follows: (1) a system of notification of practice to the local authority is substituted for the annual licence of the last Bill, following the precedent of the Infant Life Protection Act; (2) the duty of forming the Central Midwives Board is laid on the Lord President of the Council instead of on the General Medical Council; the constitution of the Board will remain the same; (3) the rules regulating the practice of midwives are to be formulated by the Privy Council, and submitted for consideration and report to the General Medical Council, but the Privy Council will finally decide upon their provisions; lastly, the

practice of uncertificated women is not to be made illegal, although the use of the title "midwife" is to be forbidden; in this the Bill follows the precedent of the Medical Acts. Two important clauses of last year's Bill, namely, 2 and 10, have thus been materially modified as to alter the whole character of the Bill which is so far rendered less satisfactory to some of its former promoters. Sir John Tuke has withdrawn his name from the back of the Bill, as he regards the changes made with disfavour.

The Supply of Vaccine Lymph.—Mr. Bartley asked the President of the Local Government Board last Monday whether, seeing the importance of all persons being vaccinated and revaccinated with vaccine lymph of guaranteed quality made in this country, and not obtained from abroad or from other sources not so guaranteed, he would take steps to provide with the least possible delay an adequate supply of Government lymph, so that every qualified medical practitioner should be able to purchase such Government lymph in such quantities as required at a price just sufficient to pay the cost of production. Mr. Long said, in reply, the duty undertaken by the Government in 1898 was to provide lymph for primary vaccination by public vaccinators, and this duty had been completely fulfilled. It had also been the desire of the Government as far as possible to provide public vaccinators with lymph for revaccinations, and this had been done to the utmost extent practicable. In ordinary times it had been found sufficient to issue from 8,000 to 10,000 charges of lymph weekly. Since, however, the epidemic of small-pox began this output had been largely increased, and the establishment was now producing some 50,000 charges a week. There were several difficulties in connexion with the manufacture of glycerinated lymph. In the first place, it was not possible to store it to any large extent, because the period for which it would keep was so uncertain, and when the demand in consequence of the outbreak of small-pox began to increase there was in reserve the full amount which it was thought practicable to retain. Further, the lymph took some weeks to mature, especially as it was of importance that all practicable means should be used to test its efficiency and purity before it was issued. Moreover, there was great fluctuation in the demand, owing to the habit of so many persons to defer vaccination until small-pox was imminent. Thus, in a single fortnight recently the applications for lymph from public vaccinators, which had previously risen to four times the normal demand, suddenly more than doubled. He understood that an ample supply of glycerinated calf lymph could be obtained from unofficial sources, and that there was no reason to doubt that it was satisfactory in quality. It would, he thought, be unfortunate at this moment to enter into competition with private enterprise in this matter. He did not see his way at the present time to accede to the suggestion made. Mr. Bartley then asked if there was any guarantee of the unofficial lymph. Mr. Long said there was no guarantee of the official or the unofficial lymph. Two years ago there was an independent inquiry by the *Lancet* of the lymph generally supplied, and considerable fault was found with the lymph supplied by the Local Government Board, which was placed fifth on the list. It was impossible to guarantee lymph. The Local Government Board secured the greatest care in its preparation, in the hope that it would prove efficacious. The lymph provided privately for commercial purposes was of excellent quality, and was at present as good as that supplied by the Local Government Board. Mr. J. A. Pease asked if a large quantity of lymph had been recently obtained from the French Government. Mr. Long said that was not so, and that he was unaware that any lymph had been supplied by the French Government. There was a considerable manufacture of lymph in France of a very satisfactory character, but the supply of lymph from France through merchants had nothing to do with the Government having a home supply.

Small-Pox Huts at Aldershot.—Colonel Tufnell asked the Secretary of State for War by whose authority huts had been erected on Thorn Hill, Aldershot, specially for the reception of small-pox cases, the site being within a stone's throw of the abattoir for killing animals for the troops. Mr. Brodrick, in reply, said that the huts had been erected by the authority of the Commanding Officer of the First Army Corps, and that they were near the Isolation Hospital, 200 yards from the supply depôt, and some 400 yards from the abattoir. Sir Walter Foster asked whether the Secretary of State for War was aware that a distance of 400 yards was very dangerous in the case of a small-pox hospital, and whether he could inquire further into the matter. The Secretary of State for War was understood to say he would inquire.

Unqualified Assistants and the Sale of Poisons. Last week Mr. Caldwell called attention to the fact that the unqualified assistant of a medical man or a chemist was prohibited from selling poisons under penalty of a fine, but that no penalty attached to the employer. He contrasted this with the action of the General Medical Council in threatening to erase from the *Medical Register* the name of a practitioner who employs an unqualified assistant even in an open surgery or shop, while no penalty attached to the registered chemist, and suggested that the same penalty should attach to the chemist as to the medical practitioner. The Under-Secretary for the Home Department said that under the Pharmacy Acts, 1868 and 1869, any person who, not being a chemist or a qualified medical practitioner, sold poison, was liable to prosecution, but that there was no provision in those Acts for making the employer responsible for the acts of his apprentice or assistant except in the case of a breach of the regulations to be observed in the sale of poisons. The Home Secretary had said, in answer to another question, that the powers of the General Medical Council as to deciding what was or what was not "infamous conduct in a professional respect" under the Medical Act were governed by the terms of that Act, and the decisions thereunder, and the Secretary of State for the Home Department had no authority to interpret them. The subject of the sale of poisons was now being considered by a Committee, whose recommendations must be awaited before any decision as to the legislation suggested could be arrived at.

Irish Dispensary Medical Officers and their Substitutes.—Mr. J. P. Farrell asked the Chief Secretary to the Lord-Lieutenant of Ireland on Monday whether he would consider the advisability of medical officers providing their own substitutes when summoned by subpoena to give evidence in criminal cases, instead of having a *locum tenens* paid by the ratepayers. Mr. Wyndham, in reply, said that a medical officer absent on subpoena was considered to come under the provisions of the statute relating to temporary disablement, and that the cases were so rare as not to require any legislative change.

Inoculation for Enteric Fever.—Mr. Wason last week asked the Secretary of State for War if he could now give any information as to the results of inoculation against enteric fever among the troops in South Africa. Mr. Brodrick, in reply, said that the report of the civil surgeon specially detailed to collect information had not been completed, and he was therefore not in a position to give the information asked.

The Commission on Enteric Fever and Dysentery.—Sir John Tuke asked the Secretary of State for War on Tuesday last whether, in view of the continued prevalence of enteric fever in the army in South Africa, he would lay upon the table at an early date the report of the Commission on Enteric Fever and Dysentery appointed to proceed to South Africa in August, 1900. Mr. Brodrick, in reply, said that the report was not yet completed, and that he was consequently not able to make any promise as to its presentation to the House.

The Plumbers Registration Bill has been read a second time in the House of Lords and will probably pass through the committee stage this week. The object of the Bill is to establish a system under which plumbers can, if they wish, be registered. No privilege is given to the registered plumber, but no one can call himself a registered plumber unless he is registered under the Bill. The plumber will have to show himself qualified before he can be registered and a general council will be formed under a scheme to be framed by the Local Government Board to register plumbers and regulate the qualifications necessary for registration. The Bill closely resembles the Bills of 1892 and 1897.

THE MIDWIVES BILL 1902.

THE following is the text of the Midwives Bill, 1902, which was issued on February 13th. It is prepared and brought in by Lord Cecil Manners, Mr. Tatton Egerton, Mr. Schwann, Mr. Parker Smith, Sir Savile Crossley, Mr. Eugene Wason, Mr. Tennant, and Mr. Heywood Johnstone.

MIDWIVES BILL.
ARRANGEMENT OF CLAUSES.

Clause.
1. Short title and commencement.
2. Certification.
3. Provisions for existing midwives.
4. Constitution and duties of the Central Midwives Board.
5. Fees and expenses.
6. Midwives roll.
7. Appointment of secretary and supplemental provision as to certificate.
8. Local supervision of midwives.
9. Delegation of powers to district councils.
10. Notification of practice.
11. Penalty for obtaining a certificate by false representation.
12. Penalty for wilful falsification of the roll.
13. Prosecution of offences.
14. Appeal.
15. Expenses of local supervising authority.
16. Act not to apply to medical practitioners.
17. Extent of Act and action by English Branch Council.
18. Definitions.

A BILL TO SECURE THE BETTER TRAINING OF MIDWIVES AND TO REGULATE THEIR PRACTICE.

BE it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Short Title and Commencement.*—This Act may be cited as the Midwives Act, 1902. It shall, except as otherwise provided by this Act, come into operation on the first day of April, one thousand nine hundred and three.

2. *Certification.*—(1) From and after the first day of January, one thousand nine hundred and five, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is certified under this Act, or is recognized by law as a midwife unless she be certified under this Act.

(2) Any woman who, after the first day of January one thousand nine hundred and five, not being certified under this Act, shall take or use the name of midwife or any other such name, title, addition, or description as aforesaid, shall be liable on summary conviction to a fine not exceeding five pounds.

(3) No woman shall be certified under this Act until she has complied with the rules and regulations to be laid down in pursuance of this Act.

(4) No woman certified under this Act shall employ an uncertified person as her substitute.

(5) The certificate under this Act shall not confer upon any woman any right or title to be registered under the Medical Acts or to assume any name, title, or designation implying that she is by law recognised as a medical practitioner, or that she is authorized to grant any medical certificate, or any certificate of death or of stillbirth, or to undertake the charge of cases of abnormality or disease in connection with parturition.

3. *Provision for Existing Midwives.*—Any woman who within two years from the date of this Act coming into operation, claims to be certified under this Act, shall be so certified provided she holds a certificate in midwifery from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the Central Midwives Board, or produces evidence, satisfactory to the Board, that at the passing of this Act, she has been in *bonâ-fide* practice as a midwife, and that she bears a good character.

4. *Constitution and Duties of the Central Midwives Board.* On the passing of this Act the Lord President of the Council shall take steps to secure the formation of a Central Midwives Board, which shall consist of—

(1) Four registered medical practitioners, one to be appointed by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the Society of Apothecaries, and one by the Incorporated Midwives Institute;

(2) Two persons (one of whom shall be a woman) to be appointed for terms of three years by the Lord President of the Council: and

(3) One person to be appointed for a term of three years by the Association of County Councils.

After two years from the commencement of this Act, the members appointed under subsection (1) shall retire, but shall be eligible for reappointment annually. Any vacancy occurring by resignation or death shall be filled up in the case of a member appointed under subsections (1) and (3) by the body which appointed him, and in the case of a member appointed under subsection (2) by the Lord President of the Council.

The duties and powers of the Board shall be as follows:

I. To frame rules, subject to the approval of the Privy Council, after consultation with the General Medical Council,
   (*a*) regulating the issue of certificates and the conditions of admission to the roll of midwives;
   (*b*) regulating the course of training and the conduct of examinations;
   (*c*) regulating the admission to the roll of women already in practice as midwives at the passing of this Act;
   (*d*) regulating, supervising, and restricting within due limits, the practice of midwives;
   (*e*) deciding the conditions under which midwives may be suspended from practice;
   (*f*) defining the particulars required to be given in any notice under section ten of this Act;

II. To appoint examiners;

III. To decide upon the places where, and the times when examinations shall be held;

IV. To publish annually a roll of midwives who have been duly certified under this Act;

V. To decide upon the removal from the roll of the name of any midwife for disobeying the rules and regulations from time to time laid down under this Act by the Central Midwives Board, or for other misconduct, and also to decide upon the restoration to the roll of the name of any midwife so removed;

VI. To isssue certificates.

And generally to do any other act or duty which may be necessary for the due and proper carrying out of the provisions of this Act.

5. *Fees and Expenses.*—There shall be payable by every woman presenting herself for examination or certificate such fee as the Central Midwives Board may, with the approval of the Privy Council, from time to time determine, such fee not to exceed the sum of ten shillings. All such fees paid by midwives in practice at the passing of this Act and by candidates for examination shall be paid to the Central Midwives Board. The said Board shall devote such fees to the payment of expenses connected with the examination and certificate, and to the general expenses of the Board. The Board shall, as soon as practicable after the thirty-first day of December in each year, publish a financial statement made up to that date, and certified by a chartered accountant as correct, showing the receipts and expenditure, including liabilities of the Board during the year. The Board may apportion between the councils of the several counties and county boroughs any balance against the Board shown in the financial statement in proportion to the number of midwives who have given notice during the year of their intention to practise in those areas respectively, and may recover from the councils the sum so apportioned.

6. *Midwives Roll.*—There shall be a roll of midwives containing

(1) The names of those midwives practising at the date of the passing of this Act who have been certified under this Act;

(2) the names of those not already in practice as midwives at the passing of this Act, but who have been certified under this Act.

The entry on the roll shall in every case indicate the conditions in virtue of which the certificate was granted.

7. *Appointment of Secretary and Supplemental Provision as to Certificate.*—The Central Midwives Board shall appoint a secretary who shall be charged with the custody of the roll, and every person so appointed shall be paid such salary as the Board shall think fit, and shall be removable at the pleasure of the Board.

A copy of the roll of midwives purporting to be printed by the authority of the Board or to be signed by the secretary to the Board, shall be evidence in all courts that the women therein specified are certified under this Act; and the absence of the name of any woman from such copy shall be evidence, until the contrary be made to appear, that such woman is not certified under this Act. Provided always, that in the case of any woman whose name does not appear in such copy, a certificate under the hand of the secretary of the entry of the name of such woman on the roll shall be evidence that such woman is certified under this Act.

8. *Local Supervision of Midwives.*—Every council of a county or county borough throughout England and Wales shall, on the commencement of this Act, be the local supervising authority over midwives within the area of the said county or county borough. It shall be the duty of the local supervising authority—

(1) To exercise general supervision over all midwives practising within their area in accordance with the rules to be laid down under this Act.
(2) To investigate charges of malpractice, negligence, or misconduct, on the part of any midwife practising within their area, and should a *primâ facie* case be established, to report the same to the Central Midwives Board.
(3) To suspend any midwife from practice, in accordance with the rules under this Act, if such suspension appears necessary.
(4) To report at once to the said Board the name of any midwife practising in their area convicted of an offence.
(5) During the month of January of each year to supply the secretary of the Central Midwives Board with the names and addresses of all midwives who have notified their intention to practise within their area and to keep a current copy of the roll of midwives, accessible at all reasonable times for public inspection.
(6) To report at once to the Central Midwives Board the death of any midwife or any change in the name or address of any midwife in their area, so that the necessary alteration may be made in the roll.
(7) To give due notice of the effect of the Act to persons at present using the title of midwife.

The local supervising authority may delegate, with or without any restrictions or conditions as they may think fit, any powers or duties conferred or imposed upon them by or in pursuance of this Act, to a committee appointed by them, and consisting either wholly or partly of members of the council, and the provisions of subsections one and two of section eighty-two of the Local Government Act, 1888, shall apply to every committee appointed under this section and to every council appointing the same, and women shall be eligible to serve on any such committees.

9. *Delegation of Powers to District Councils.*—A county council may delegate, with or without any restrictions or conditions as they may think fit, any powers or duties conferred or imposed upon them by or in pursuance of this Act, to any district council within the area of the county, and the powers and duties so delegated may be exercised by a committee appointed by such district council, and consisting either wholly or partly of members of the district council, and women shall be eligible to serve on any such committee. Any expenses incurred by a district council in the execution of any powers or duties so delegated shall, to an amount not exceeding such sum as may be prescribed by the county council, be repaid to such district council as a debt by the county council, and any excess above the sum so prescribed shall be borne by the district council as part of their ordinary expenses.

The provisions of this section shall apply to the administrative county of London in like manner as if each metropolitan borough were a county district and the borough council were the district council of that district.

10. *Notification of Practice.*—Every woman certified under this Act shall, before holding herself out as a practising midwife or commencing to practise as a midwife in any area, give notice in writing of her intention so to do to the local supervising authority, or to the body to whom for the time being the powers and duties of the local supervising authority shall have been delegated under this Act.

Such notice shall be given to the local supervising authority of the area within which such woman usually resides or carries on her practice, and the like notice shall be given to every other local supervising authority or delegated body within whose area such woman at any time practises or acts as a midwife, within forty-eight hours at the latest after she commences so to practise or act.

Every such notice shall contain such particulars as may be required by the rules under this Act to secure the identification of the person giving it; and if any woman omits to give the said notices or any of them, or knowingly or wilfully makes or causes or procures any other person to make any false statement in any such notice she shall be guilty of a misdemeanour, and shall on conviction thereof be liable to a fine not exceeding five pounds.

11. *Penalty for Obtaining a Certificate by False Representation.*—Any woman who procures or attempts to procure a certificate under this Act by making or producing, or causing to be made or produced, any false and fraudulent declaration, certificate, or representation, either in writing or otherwise, shall be guilty of a misdemeanour, and shall on conviction thereof be liable to be imprisoned, with or without hard labour, for any term not exceeding twelve months.

12. *Penalty for Wilful Falsification of the Roll.*—Any person wilfully making or causing to be made any falsification in any matter relating to the roll of midwives shall be guilty of a misdemeanour, and shall be liable to be imprisoned with or without hard labour for any term not exceeding twelve months.

13. *Prosecution of Offences.*—Any offences under this Act punishable on summary conviction may be prosecuted by the local supervising authority.

The expenses of any such prosecution shall be defrayed by the council of the county or county borough in which the prosecution takes place.

14. *Appeal.*—Where any woman deems herself aggrieved by any determination of any court of summary jurisdiction under this Act, such woman may appeal therefrom to the court of quarter sessions.

15 *Expenses of Local Supervising Authority.*—Any expenses under this Act payable by the council of a county or county borough shall be defrayed out of the county fund or out of the borough fund or borough rate, as the case may be.

16. *Act not to apply to Medical Practitioners.*—Nothing in this Act respecting midwives shall apply to legally-qualified medical practitioners.

17. *Extent of Act and Action by English Branch Council.*—This Act shall not extent to Scotland or Ireland.

The General Medical Council shall act by the English Branch Council, which for all purposes of this Act shall occupy the place of the General Medical Council.

18. *Definitions.*—In this Act—

The term "midwife" means a woman who is certified under this Act.

"Central Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

French Congress of Medicine.—The annual meeting of the French Congress of Medicine will be held this year at Toulouse on April 1st and following days under the presidency of Professor Lemoine, of Lille. The questions proposed for discussion are: (1) Hepatic Inadequacy (to be introduced by Professors Ducamp, of Montpellier, and Ver Ercke, of Ghent; (2) Convulsions in Children (to be introduced by Professors Moussous, of Bordeaux, and d'Espine, of Geneva); (3) Waste-preventing Medicaments (to be introduced by Professors Soulier, of Lyons, and Henri Jean, of Liége. All communications should be addressed to the Secretary-General, Dr. Saint-Ange, Toulouse.

THE PREVENTION OF CONSUMPTION.

WEYMOUTH.

A RECENT issue of the *Weymouth Weekly Journal* contains an interesting letter from Dr. T. Howard Brocklehurst, giving the results of some special inquiry into the comparative freedom of Weymouth and the neighbourhood from tuberculosis. He has examined the various local registers, and drawn from them some statistical facts dealing with the prevalence of tuberculosis in the district during the ten years from 1892-1901. From these it appears that whereas the mean death-rate from tuberculosis for England and Wales in the corresponding ten years was 2.01 per 1,000, that of Weymouth was only 0.85 per 1,000. During the ten years only 171 deaths were registered from tuberculosis in Weymouth, out of a population at the last census of 19,831. Dr. Brocklehurst attributes this low mortality, which is shared by the adjoining districts, to the sea-air, the very large amount of sunshine, and the small rainfall, and no doubt these have their influence. The healthiness of the town suggests also that the sanitary condition of Weymouth must be satisfactory.

THE SARANAC LABORATORY.

Dr. E. L. Trudeau has a right to feel proud of his laboratory and of his own work and that of his helpers and colleagues at Saranac Lake. With little training in scientific research, no apparatus, no access to books, and searching for health in a primitive forest forty-two miles from a railroad, Dr. Trudeau nevertheless set to work some eighteen years ago to study the tubercle bacillus and its relation to tuberculosis with such crude apparatus as he could procure, and under difficulties which might have disheartened a less resolute investigator. Even with such disadvantages he was able to make observations of practical value. A series of experiments published in 1886 demonstrated the infectiousness of bacillary sputum and the harmlessness of expectoration free from bacilli taken from a patient supposed to have consumption. He also found that many of his inoculated rabbits allowed to run wild on an island recovered, whilst those placed under unhygienic conditions all died within three months. His laboratory and apparatus having been destroyed by fire, he was enabled, by the generosity of a friend and patient, to build and equip a suitable laboratory, from which much valuable work has been published by himself and others—notably by Dr. Irwin H. Hance and Dr. E. R. Baldwin. Two lessons of importance may be taken from Dr. Trudeau's account of his work given to the Laennec Society at the Johns Hopkins Hospital[1]: First, that if a man be thoroughly in earnest he may overcome the initial drawbacks of defective scientific training, and need not despair of being able eventually to do good scientific work; and secondly, that a sanatorium may extend its usefulness far beyond the limited range of its inmates if it is utilized for research as well as for the treatment of patients.

LITERARY NOTES.

THE late Professor Hyrtl's collection of portraits of distinguished physicians, surgeons, and men of science has been purchased for the Hofbibliothek of Vienna. The collection consists of about 10,000 prints.

We have received from A. Bielefeld's Hofbuchhandlung (Liebermann und Cie., Karlsruhe) a catalogue of 2,000 works on gynaecology, midwifery, marriage, childbirth, women in the history of civilization, prostitution, etc., including the library of the late Dr. Molitor, of Karlsruhe. Many of the works are of the greatest interest from a historical and bibliographical point of view, and some of them are so rare that they scarcely ever come into the market.

Gustav Fock, of Leipzig, has sent us a catalogue of inaugural dissertations of the German universities. His firm has for some fifteen years given special attention to the collection of such essays, and they have what in less literary lines of business would be called a "select and varied assortment" of them. The dissertations are *de omni scibili*, including besides medicine, theology, philosophy, law, politics, classical philology, modern philology, oriental languages, paedagogics, history, geography, natural science, and "*varia*."

[1] *Johns Hopkins Hospital Bulletin*, vol. xii, No. 121, September, 1901.

The *Indian Medical Gazette* proposes to issue a special number entirely devoted to medico-legal and forensic medicine. Criminal experience in India has shown that there are many aspects of crime in that country which differ widely from the experiences of European nations. Little has been added to the well-known medico-legal records of Norman Chevers, Robert Harvey, Coull Mackenzie, and Kenneth McLeod. Our contemporary invites the assistance of civil surgeons, and points out that the subjects which might be dealt with in such a special number are of almost infinite variety. Among them it mentions hanging, methods, causes, sex, etc.; drowning: poisoning, methods, drugs used, arsenic, opium, etc.; vegetable poisons, statistics thereof, detection; methods of torture; the prevalence and methods of infanticide and abortion and insanity.

Dr. Norman Walker and Mr. Harold J. Stiles have been appointed Editors of the *Scottish Medical and Surgical Journal* in the room of Dr. William Russell, whose resignation we recently announced. In the February number of the journal the Board of Directors state that his resignation has been accepted with great regret, and they express their recognition of the laborious work which fell to Dr. Russell's share as first Editor, and in the name of the proprietors they thank him for labours in which he did not spare himself in the endeavour to make the journal successfully present the progress of Scottish medicine and to maintain the best traditions of professional journalism.

According to the *Indian Medical Gazette*, the Scientific Memoirs of Medical Officers of the Army of India will this year appear in a new guise, each article or group of articles being published separately. At present the first six articles of the new series are in the press, and will be issued shortly. One of these will be an illustrated pamphlet by Captain S. P. James, I.M.S., now on the Malaria Commission, on Mosquitos and Malaria, and Methods of Prophylaxis. It is intended for the use and instruction of assistant surgeons and hospital assistants.

Messrs. Baillière, Tindall, and Cox have just published a second edition of Mr. W. McAdams Eccles's book, entitled *Hernia: its Etiology, Symptoms, and Treatment*. The preface states that a certain number of fresh illustrations, almost wholly derived from photographs, has been added. Beyond this but little alteration has been made, as it was the author's wish not to increase the size of the volume.

Dr. Charles Ségard, *Médecin en Chef de première classe* of the French navy, has received permission from the Minister of Marine to have his "dramatic legend" entitled *Geneviève de Brabant* played at the Grand Théâtre, Toulon.

Dr. Paul Garnault, who some time ago offered to submit himself to inoculation with tuberculosis with the object of disproving the assertion made by Professor Koch at the London Congress on Tuberculosis that bovine tuberculosis is not transmissible to man, is about to publish a work entitled, *Le Professeur Koch et le Péril de la Tuberculose Bovine*.

Owing to the death of Dr. Charles Henry Brown, proprietor of the American *Journal of Nervous and Mental Diseases*, the staff has been reorganized. Dr. Smith Ely Jelliffe of New York has become the manager and responsible editor, and the Advisory Board of Editors has been enlarged by the addition to it of Dr. William Osler, Dr. Frederick Peterson, and Dr. Wharton Sinkler. The duties of acting editor will be discharged as heretofore by Dr. William G. Spiller of Philadelphia, with whom will be associated Dr. L. Pearce Clark. The journal will remain the organ of the American Neurological Association, and of the New York and Philadelphia Neurological Societies. The scope of the journal will be enlarged so as to cover the whole field of neurology.

From a letter addressed to us by "A Medical Student," we gather that we have added one more to the long tale of Irish grievances. He writes:

> Your leading article on An International Language of Science well illustrates the proverbial want of knowledge (not to use a stronger word) of English writers when they venture on any statements about Ireland or the Irish. In referring to the Canadian claims, you quite gratuitously drag in a reference to a supposed attempt on the part of some Irish member to "impose" some language named "Erse" on the British Parliament. Permit me to inform you that no such language as "Erse" exists except in the imagination of English writers. There is an Irish or Gaelic language which is one of the most ancient in Europe, and which had a flourishing literature and an almost perfect syntax at a period when English only existed

as an ovum in the ovaries of time, and the ancestors of the English were naked savages roaming the forests of Germany. The Irish member you referred to had no desire to "impose" this language on anybody. He only claimed a right at present enjoyed by the French in Canada and the Dutch in Cape Colony, namely, to speak in the national language of his country. The case of Catalan is quite different, it being only a dialect of Spanish.

May we, with the humility proper to descendants of German savages, venture to point out to our correspondent that the word "Erse" is, in fact, only a variant of "Irish," with which it is etymologically identical? As on our correspondent's own showing there is an Irish language, we submit that "Erse" cannot accurately be said to exist only in the imagination of English writers. As to Catalan he is still less happily inspired. So far from being a dialect of Spanish it is a distinct variety of the *Langue d'Oc* or Provençal with a literature of its own almost as old as that of its sister speech, Castilian. The "Catalanist" movement to which we referred is a good deal more likely to be successful than "the present revival of the Irish and Welsh languages even within the shores of these islands" to which "A Medical Student" refers. Our correspondent proceeds:

> Englishmen may as well give up the idea that foreign nations will ever agree to recognize as the universal tongue their promiscuous conglomeration of words borrowed (or stolen) from every language under the sun, and thrown together without grammar or syntax.

We must own to a feeling of mild surprise that he goes on to suggest Spanish as having the best claim of any modern tongue to be chosen as an international language; we should have expected that he would propose Irish, but this, we suppose, is only another example of the proverbial ignorance of English writers. Our correspondent thinks that "a good artificial language" would be best, and he says "It should be within the power of scientific men to construct such a language, and if once adopted as the vehicle of science a literature would soon spring up." A language constructed by "scientific men" would be a serious addition to the ever-increasing burden of modern life, and as for the "literature" that would spring up if such a tongue were invented, it cannot be thought of without a shudder. "Scientific men" have already done something in the way of constructing language, and in respect of "literature" we may say, with Falconbridge, that we know their handiwork.

The *Glasgow Medical Journal* for November contains a poem by Dr. William Findlay on the "*Vis Medicatrix Naturae*." He attributes to Hippocrates the first enunciation of the theory

> That morbid states, disease we ca',
> Are formed an' cured, as 'twere by stealth,
> By just sic ministers an' law,
> As doth preside o'er perfect health;
> An' when no meddlet wi' by art—
> Diverted frae their ain true way,
> She a' the better plays her part—
> "*Vis medicatrix Naturae*."
>
> Whilk is but in an aulder guise
> The new immunity made guid,
> When Nature does antagonise
> The microbes' toxines in the bluid;
> An' splendid shaws the prescient part
> The grand auld man o' Greece did play,
> Wha warned his brethren ne'er to thwart
> "*Vis medicatrix Naturae*."

This, says, Dr. Findlay means

> .....in honest, plain braid Scotch,
> That's spoke in ilka burgh toun,
> Don't mix wi' drogs some d——d hoteh potch,
> To turn folks' stomachs upside doun;

but leave them to the *vis medicatrix Naturae*. In this healing power of Nature lies whatever beneficial effect can be claimed for homœopathy:

> E'en the delusive principle
> O' feckless homœopathy,
> By dose infinitesimal,
> As guid as lea's the field quite free
> To Nature's sel' to act her part,
> Whilk proves as clear as honest day
> That she's the frien' mair than our art—
> "*Vis medicatrix Naturae*."

Dr. Findlay illustrates what we venture to call the *laissez faire* principle in dealing with disease by the uselessness of blistering in pneumonia, of "some bit drog to quench the flame" in fever, and indeed "in a' acute or mild internal morbid strife." If all diseases are to be left to Nature, medical practice is reduced to an absolute simplicity which makes Sangrado's method seem complex by comparison. That illustrious physician, it may be remembered, told his pupil that there was no need for him to study medicine, for he could "learn the whole art at once" by grasping the great truth that the only remedy for every ailment was hot water. We gather, however, that the *vis medicatrix Naturae* can dispense even with water. The doctrine, indeed, leads us to therapeutic Nihilism. There would be little harm in this if Nature always chose to exert her healing power. But in spite of Hippocrates and Dr. Findlay, there are too many cases in which, as Sir William Gull used to say, she "means to kill the man."

The awards of the Gunning Celtic prizes offered by the Caledonian Medical Society for original work on medico-Celtic subjects have just been made public. The adjudicators, Principal Rhys, Oxford, and Professor Mackinnon, Edinburgh, have awarded the first prize of £20 to Dr. Cameron Gillies, of Hampstead, for his paper on A Gaelic Medical MS of 1563. This manuscript, which the author discovered in the British Museum, belonged to the famous Beaton family, who were hereditary physicians to the Kings of Scotland from the beginning of the fourteenth century. The second prize of £10 has been awarded to Mrs. K. Whyte Grant, New Zealand, for an essay on The Influence of Scenery and Climate on the Poetry and Music of the Highlands. The papers will be published in the *Caledonian Medical Journal*.

Dr. H. Labonne has addressed to the Editor of the *Gazette Médicale de Paris* a letter, in which he states that on a recent visit to England he discovered a book entitled *Memoirs of Baron von Pollnitz*, and published by John Nourse of London in 1741. The Baron, having become a Roman Catholic, had to leave Berlin, and during the year 1740 went about among the Courts of Europe seeking for a post of some kind. At Madrid he formed an acquaintance with a well-known medical practitioner, named Peralta, whose career was sufficiently romantic to deserve at least a temporary rescue from oblivion. Before his birth his mother had been thrown into prison on a charge of Judaism, and soon after her confinement she was burnt. "She was," says Pollnitz, "one or the most beautiful women whom I saw in Spain, and she went to her doom with a steadfastness like that of the martyrs, praying that her son might die the same death." The boy was brought up a Catholic, but soon began to show a love of liberty, and what was still more imprudent, contempt for those in high places. He studied medicine, and after graduation ministered to the poor of Madrid, and preached against the Inquisition which had burned his mother. One night Pollnitz witnessed the arrest of 40 persons, among whom was Dr. Peralta, then 30 years of age. He was convicted of Judaism, but got off with three years imprisonment. After his liberation the Inquisition kept its eye on him, and it was not long before he was again in its clutches. Pollnitz states that he heard after he had left Madrid that "his poor unhappy friend had been burnt." He adds: "I am glad not to have been at Madrid at the time of Dr. Peralta's execution. I knew him well; he was the honestest man in the world, but really fanatical in his Judaism." While commiserating the fate of our long lost brother, we confess that we are just a little puzzled by Pollnitz's chronology, in which however Dr. Labonne seems to see nothing remarkable. Baron Pollnitz's *Memoirs* bear date 1741, and the date of his travels in search of an appointment is given as about 1740. It was presumably in that year that the German Baron and the Spanish Hebrew physician came across each other. The Baron, who witnessed the first arrest of the doctor, then 30 years of age, speaks of his mother as if he had seen her. As on his own showing her execution was delayed till Peralta was born, this throws the date of the *auto da fe* back to 1710 or thereabouts. It would seem that the "romance" of Peralta's existence extends to its dates.

Messrs. P. S. King and Son, of Westminster, have in the press for publication early in March, a practical guide entitled the *Sanitary Inspector's Guide*, for the use of the inspector of nuisances—or, as he is more often termed, the sanitary inspector—and also for the guidance of the student preparing for examination. The author, Mr. H. Lemmoin-Cannon, a professional Associate of the Surveyors' Institution and Associate of the Sanitary Institute, has set out very clearly the numerous sections of the Public Health Act, 1875, as well as of the Public Health Acts Amendment Act, 1890, so far as they affect the inspector of nuisances.

BRITISH MEDICAL ASSOCIATION.

SEVENTIETH ANNUAL MEETING.

THE seventieth annual meeting of the British Medical Association will be held at Manchester on Tuesday, Wednesday, Thursday, and Friday, July 29th, 30th, 31st, and August 1st, 1902.

President: GEORGE BAGOT FERGUSON, M.D., Senior Surgeon, Cheltenham Hospital.

President-elect: WALTER WHITEHEAD, F.R.C.S. Edin., F.R.S.E., Consulting Surgeon Manchester Royal Infirmary, Manchester.

President of the Council: JOHN ROBERTS THOMSON, M.D., F.R.C.P.Lond., Consulting Physician to the Royal Victoria Hospital and to the National Sanatorium for Diseases of the Chest, Bournemouth.

Treasurer: ANDREW CLARK, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

An Address in Medicine will be delivered by Sir THOMAS BARLOW, Bart., K.C.V.O., M.D., Physician to His Majesty's Household.

An Address in Obstetrics will be delivered by WILLIAM JAPP SINCLAIR, M.D., Professor of Obstetrics in the Owens College, Manchester.

The scientific business of the meeting will be conducted in seventeen sections, as follow, namely:

MEDICINE.

President: JULIUS DRESCHFELD, M.D. *Vice-Presidents:* JOHN DIXON MANN, M.D.; ROBERT CHARLES BROWN, M.B.; GRAHAM STEELL, M.D.; WILMOT PARKER HERRINGHAM, M.D. *Honorary Secretaries:* ARTHUR THOMAS WILKINSON, M.D., 22, St. John Street, Manchester; WILLIAM CALWELL, M.D., 1, College Square North, Belfast; EDWARD MANSFIELD BROCKBANK, M.D., 3, St. Peter's Square, Manchester.

SURGERY.

President: JAMES HARDIE, F.R.C.S. *Vice-Presidents:* FREDERICK ARMITAGE SOUTHAM, F.R.C.S.; GEORGE ARTHUR WRIGHT, F.R.C.S.; WILLIAM THORBURN, F.R.C.S. *Honorary Secretaries:* HENRY ALEXIS THOMSON, F.R.C.S.E., 32, Rutland Square, Edinburgh; HERBERT LUND, F.R.C.S., 22, St. John Street, Manchester; JOHN EDWARD PLATT, F.R.C.S., 28, St. John Street, Manchester.

OBSTETRICS AND GYNAECOLOGY.

President: DAVID LLOYD ROBERTS, M.D. *Vice-Presidents:* SAMUEL BUCKLEY, M.D.; WILLIAM WALTER, M.D.; ARCHIBALD DONALD, M.D.; JAMES HENRY TARGETT, F.R.C.S., *Honorary Secretaries:* THOMAS ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester; ARNOLD WM. WARRINGTON LEA, M.D., 274, Oxford Road, Manchester; WM. EDWARD FOTHERGILL, M.D., 10, St. John Street, Manchester.

PUBLIC MEDICINE.

President: JAMES NIVEN, M.B., M.O.H. *Vice-Presidents:* THOMAS CARLETON RAILTON, M.D.; JOHN MILSON RHODES, M.D.; WILLIAM LESLIE MACKENZIE, M.D., D.P.H.; FRANK DREW HARRIS, D.P.H. *Honorary Secretaries:* WILLIAM HEATON HAMER, M.D., 73, Dartmouth Park Hill, Highgate, N.; GEORGE NEWMAN, M.D., Town Hall, Finsbury, E.C.

PSYCHOLOGICAL MEDICINE.

President: GEORGE WM. MOULD, M.R.C.S. *Vice-Presidents:* JUDSON SYKES BURY, M.D.; THOMAS STEELE SHELDON, M.B. *Honorary Secretaries:* ERNEST SEPTIMUS REYNOLDS, M.D., 2, St. Peter's Square, Manchester; CHARLES TIDBURY STREET, L.R.C.P., Haydock Lodge, Newton-le-Willows, Lancs.

PHYSIOLOGY AND ANATOMY.

President: Professor WM. STIRLING, M.D., F.R.S.E. *Vice-Presidents:* Professor ALFRED HARRY YOUNG, F.R.C.S.; ARTHUR ROBINSON, M.D.; J. SYDNEY EDKINS, M.B. *Honorary Secretaries:* JAMES ACWORTH MENZIES, M.D., 3, St. Peter's Square, Manchester; PETER THOMPSON, M.D., Anatomy Department Middlesex Hospital, W.

PATHOLOGY.

President: Professor SHERIDAN DELÉPINE, M.B. *Vice-Presidents:* Professor J. GEORGE ADAMI, M.D.; ROBERT MAGUIRE, M.D.; GEORGE NEWTON PITT, M.D. *Honorary Secretaries:* FREDERICK CRAVEN MOORE, M.D., 96, Mosley Street, Manchester; EDWARD JOHN SIDEBOTHAM, M.B., Erlesden, Bowdon, Cheshire.

OPHTHALMOLOGY.

President: DAVID LITTLE, M.D. *Vice-Presidents:* CHARLES EDWARD GLASCOTT, M.D.; WM. THOMAS HOLMES SPICER, F.R.C.S.; ANGUS MCGILLIVRAY, M.D. *Honorary Secretaries:* ALEX HILL GRIFFITH, M.D., 17, St. John Street, Manchester; EDWARD ROBERTS, M.R.C.S., 44, Deansgate Arcade, Deansgate, Manchester; JOHN GRAY CLEGG, M.D., 22, St. John Street, Manchester.

DISEASES OF CHILDREN.

President: HENRY ASHBY, M.D. *Vice-Presidents:* JOSHUA JOHN COX, M.D.; HENRY RICHMOND HUTTON, M.B.; JOSEPH COLLIER, F.R.C.S.; BERTRAM MITFORD HERON ROGERS, M.D. *Honorary Secretaries:* RICHARD WALTER MARSDEN, M.D., Taitlands, 4, Swinton Grove, Manchester; JAMES STEWART FOWLER, M.D., 68, Northumberland Street, Edinburgh; JOHN HOWSON RAY, F.R.C.S., 22, St. John Street, Manchester.

LARYNGOLOGY.

President: ALEXANDER HODGKINSON, M.B. *Vice-Presidents:* EDWARD LAW, M.D.; SIEGMUND MORITZ, M.D.; GEORGE WALTER RIDLEY, M.S. *Honorary Secretaries:* EUGENE STEPHEN YONGE, M.D., 3, St. Peter's Square, Manchester; CHARLES J. HEATH, F.R.C.S., 3, Cavendish Place, W.

OTOLOGY.

President: WILLIAM MILLIGAN, M.D. *Vice-Presidents:* FREDERICK JOHN WILLIAM COX, M.D.; RICHARD LAKE, F.R.C.S. *Honorary Secretaries:* ARTHUR HENRY CHEATLE, F.R.C.S., 117, Harley Street, W.; FREDERICK HIBBERT WESTMACOTT, F.R.C.S., 8, St. John Street, Manchester.

NAVY, ARMY, AND AMBULANCE.

President: Brigade-Surgeon-Lieutenant-Colonel G. S. ELLISTON, M.R.C.S. *Vice-Presidents:* Surgeon-General JOHN BUTLER HAMILTON, M.D (A.M.S. ret.); Colonel ALEXANDER WILLIAM DUKE, M.D., R.A.M.C.; Fleet-Surgeon GILBERT KIRKER, M.D., R.N. *Honorary Secretaries:* Surgeon-Captain JOHN BENTLY MANN, V.M.S.C., 26, St. John Street, Manchester; Surgeon-Captain WILLIAM BRIDGETT PRITCHARD, V.M.S.C., 272, Oxford Street, Manchester; Captain WILLIAM ALFRED WARD, R.A.M.C., c.o. Messrs. Holt and Co., 17, Whitehall Place, S.W.

DERMATOLOGY.

President: HENRY AMBROSE GRUNDY BROOKE, M.B. *Vice-Presidents:* WILLIAM DALE JAMES, M.R.C.S.; NORMAN WALKER, M.D.; Professor THOMAS CASPAR GILCHRIST, M.R.C.S. *Honorary Secretaries:* GEORGE HERBERT LANCASHIRE, M.R.C.S., Barlow Moor Road, Didsbury, Manchester; ALLAN WHITFIELD, M.R.C.S., 38, Rochdale Road, Harpurhey, Manchester.

PHARMACOLOGY.

President: NESTOR ISIDORE CHARLES TIRARD, M.D. *Vice-Presidents:* ROBERT BRIGGS WILD, M.D.; HECTOR WILLIAM GAVIN MACKENZIE, M.D. *Honorary Secretaries:* FRANCIS WHITTAKER TUNNICLIFFE, M.D., 6, Devonshire Street, W.; ALBERT HOPKINSON, M.B., Parsonage Nook, Withington, Manchester.

ETHICS.

President: SAM WOODCOCK, M.D. *Vice-Presidents:* THOMAS GARRETT HORDER, M.R.C.S.; MATTHEW ARDEN MESSITER, M.R.C.S.; ALEXANDER BROWN RITCHIE, M.B.; JAMES SMITH WHITAKER, L.R.C.P. *Honorary Secretaries:* JAMES BRASSEY BRIERLEY, M.D., Alma House, Old Trafford, Manchester; ALFRED COX, M.B., Cotfield House, Gateshead-on-Tyne.

INDUSTRIAL HYGIENE AND DISEASES OF OCCUPATION.

President: ARTHUR WHITELEGGE, M.D. *Vice-Presidents:* HENRY HAMMOND SMITH, M.R.C.S.; COLIN CAMPBELL, M.R.C.S. *Honorary Secretaries:* WILLIAM FRANCIS DEARDEN, M.R.C.S., Oak Leigh, Crumpsall Park, Manchester; THOMAS MORISON LEGGE, M.D., Home Office, Whitehall, S.W.

TROPICAL DISEASES.

President: Sir WILLIAM R. KYNSEY, C.M.G. *Vice-Presidents:* Professor RUBERT BOYCE, M.B.; MAX F. SIMON, M.D. *Honorary Secretaries:* BRIAN MELLAND, M.S., Ashley Road, Bowdon, Cheshire; C. W. DANIELS, M.B., Seamen's Hospital, Albert Dock, E.

The *Honorary Local Secretaries* are: WILLIAM COATES, Esq., Ingleside, Whalley Range, Manchester; T. ARTHUR HELME, M.D., 337, Oxford Road, Manchester; A. BROWN RITCHIE, M.B., 117, Boston Street, Hulme, Manchester; and JOHN WILLIAM SMITH, Esq., 274, Oxford Road, Manchester.

PROGRAMME OF PROCEEDINGS.

TUESDAY, JULY 29TH, 1902.
9.30 A.M.—Meeting of 1901-1902 Council.
10.30 A.M.—Church Service.
2.30 P.M.—First General Meeting. Report of Council. Reports of Committees and other business.
8.30 P.M.—Adjourned General Meeting from 2.30 P.M. President's Address.

WEDNESDAY, JULY 30TH, 1902.
9.30 A.M.—Meeting of 1902-1903 Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting.
8 P.M.—Address in Medicine.

THURSDAY, JULY 31ST, 1902.
9.30 A.M.—Meeting of Council.
10 A.M. to 12.30 P.M.—Sectional Meetings.
12.30 P.M.—Address in Obstetrics.
2.30 P.M.—Third General Meeting.
7 P.M.—Public Dinner of the Association.

FRIDAY, AUGUST 1ST, 1902.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting.

SATURDAY, AUGUST 2ND, 1902.
Excursions.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

EDINBURGH (LOTHIANS AND FIFE) BRANCH.—The winter meeting of this Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, February 21st. The Museum will be open from 3 P.M. Clinical meeting in large theatre at 3.30 P.M. Dr. Argyll Robertson, President. Cases:—Dr. Allan Jamieson: Three cases of Lichen Planus; a case of Lupus Erythematosus cured by quinine. Dr. James: Four cases of Hypertrophic Cirrhosis in one family. Dr. Bruce: Paralysis of Serratus Magnus. Dr Philip: Cases illustrative of Effect of Open-air Treatment on Advanced Pulmonary Tuberculosis. Dr. Caverhill: Cases of Pulmonary Phthisis. Dr. J. Thomson: Three cases of Dwarfed Growth, with a peculiar deformity of the Cranium. Dr. Norman Walker: ases of Lupus treated by Electric Light; case of Rodent Ulcer treated by *X*-rays; case of Epithelioma treated by Arsenious Acid. Dr. Boyd: Case after Operation for Gastric Dilatation due to Stricture of the Pylorus; case of Early Sclerosis, showing exaggerated Babinski's sign. Dr. McBride: Case of Cerebral Abscess, Thrombosis of Lateral Sinus cured by operation; three cases after removal of Laryngeal Tumours. Mr. Stiles: Cases from his wards. Mr. Alexis Thomson: Case of Gastro-enterostomy for long-standing Ulceration of the Stomach; a case subjected to Laparotomy for Acute Peritonitis, resulting from a suppurating tuberculous mesenteric gland, etc. Specimens will be shown by Drs. Boyd, Lackie, McBride, Berry Hart, Bruce, Shennan, Stuart MacDonald, Thomson, Stiles, Logan Turner, Miles, and Scott Skirving. Dinner at the Royal British Hotel, Princes Street, at 6.30 P.M.; tickets, 5s.; morning dress. Members who intend to be present at the dinner are requested to communicate with Mr. HODSDON, 6, Chester Street, Edinburgh.

LANCASHIRE AND CHESHIRE BRANCH.—It is proposed to hold a meeting of this Branch in Liverpool early in March. Members who desire to read papers, bring forward business, or propose new members for election, are requested to communicate as early as possible with the Honorary Secretary, T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester.

DUBLIN BRANCH.

THE twenty-fourth annual general general meeting of this Branch was held on Thursday, January 31st, in the Hall of the Royal College of Physicians, Sir GEORGE DUFFEY presided, and there was alarge attendance of members.

Report of Council.—Dr. JAMES CRAIG (Honorary Secretary and Treasurer) read the annual report of the Council. The actual number on the roll of membership of the Branch was 162. Nine new members of the Association were elected by the Council within the year. The financial position of the Branch was in a satisfactory condition and showed to its credit in the Ulster Bank a balance of £30. The Council had made important recommendations respecting the Army Medical Service to Mr. Brodrick, the Secretary of State for War. They had also, through the Parliamentary Bills Committee, kept a close watch on proposed legislation in reference to matters cognate to the profession and were engaged in considering the subject of preliminary education of medical students. The members of the Branch would recollect that in his presidential address last year Sir George Duffey pointed out the necessity which existed for the establishment of a Bacteriological Institute in Dublin on the lines of the Jenner Institute of London, where research work could be carried out independently of the existing laboratories in the city. In accordance with the wish of the last general meeting at which the address was delivered, the Council took the matter up and invited the Corporation of Dublin, the Royal Society, the University of Dublin, the Royal University of Ireland, the Colleges of Physicians and Surgeons, and the Royal Academy of Medicine in Ireland to send delegates to attend a meeting in order to discuss the subject. The bodies named, with the exception of the Royal Dublin Society, responded to the invitation, a meeting of delegates was held, and a subcommittee was appointed to draft a scheme for consideration at a subsequent meeting of delegates. This subcommittee held numerous meetings, and at length presented a scheme which, with some slight modifications, was adopted by the delegates, and was now available for members who wished to peruse it. The delegates having only recently adopted the scheme, at the same time appointed a committee to take such steps as might seem desirable to them to carry into effect the scheme for the establishing of "The National Institute of Research and Public Health of Ireland."—Sir J. W. MOORE moved the adoption of the report.—Sir P. C. SMYLY seconded the motion, which was adopted unanimously.

Election of Officers.—The CHAIRMAN announced the result of the ballot, and stated that the officers nominated had been unanimously elected as follows: *President:* C. B. Ball, F.R.C.S. *President-elect:* J. M. Finny, M.D. *Vice-Presidents:* Sir P. C. Smyly, M.D.; J. F. O'Carroll, M.D. *Council:* E. H. Bennett, M.D.; Sir C. Cameron, C.B.; James Craig, M.D.; Sir G. Duffey, M.D.; F. W. Kidd, M.D.; J. Lentaigne, F.R.C.S.; E. J. M'Weeney, M.D.; Sir J. W. Moore, M.D.; J. M. Redmond, M.D.; W. G. Smith, M.D.; R. F. Tobin, F.R.C.S.; W. J. Thompson, M.D. *Representative on the Council and on the Parliamentary Bills Committee of the Association:* Sir J. W. Moore, M.D. *Honorary Secretary and Treasurer:* Dr. A. H. White, 35, York Street, Dublin.

Dr. BALL, the newly-elected President, then took the chair.

Vote of Thanks to the Retiring President.—On the motion of Dr. W. G. SMITH, seconded by Dr. CRANNY, a warm vote of

thanks was passed to Sir George Duffey.—Sir George Duffey acknowledged the vote of thanks, and said the scheme which had been drawn up for the proposed National Institute of Research and Public Health existed at present unfortunately only on paper. He trusted, however, that the committee which had been formed for the purpose of furthering this object would meet with success in their efforts. He hoped the committee would see their way to draw up a statement embodying the objects of and the reasons for such an institute in the hope of attracting still further public support. It was not at all creditable to the city or to the country at large that, with the solitary exception of the city of Belfast, there was no place in Ireland where bacteriological investigations into disease could be carried on for public health purposes. He was glad to see that quite recently an effort had been made in this direction in connexion with the prevention of tuberculosis. The matter had been brought again before the Public Health Committee of the Corporation. But that was only one step in the right direction. What was really wanted in this matter was money. They wanted an institute on the lines of the Jenner Institute in London, which was at present doing such grand work, and the scope of which was largely due to their distinguished fellow-citizen, Lord Iveagh, who gave a sum of £25,000 to that institute.

Presidential Address.—Dr. C. B. Ball then delivered the presidential address, taking as his subject the proposed reorganization of the Army Medical Service. The address will be published.—Mr. R. F. Tobin, in proposing a vote of thanks to the President, said that before the war the chief shortcoming of the Army Medical Corps was the paucity of doctors. As a consequence, there was excessive foreign service. A doctor could not get leave for study or sick leave, and they were sent about from station to station. That was the chief cause of the discontent. The effective pay of the Army Medical Department for the twenty-seven years from 1870 to 1897 had been practically the same from year to year. No matter how the pay had been increased, the Chancellor of the Exchequer had not given one penny more towards the Army Medical Department. He hoped this state of affairs would be remedied.—Dr. Finny seconded the vote of thanks, which was adopted unanimously.

Vote of Thanks to the Honorary Secretary and Treasurer.—On the motion of Sir George Duffey, seconded by Dr. Delahoyde, a vote of thanks was passed to Dr. Craig for his services as Honorary Secretary and Treasurer.

Medical Aid Associations.—Dr. Craig proposed:

That the Dublin Branch of the British Medical Association desires to express its disapproval of the system of Medical Aid Associations, in which the services of medical practitioners are used so as to produce a profit for lay persons, or where canvassers are] used for the purpose of obtaining patients.

—Dr. Peacocke seconded the resolution, which was adopted.—The President said the resolution did not refer to respectable Friendly Societies, such as the Foresters and the Oddfellows, which did an enormous amount of good. If the General Medical Council decided that the action of any medical man was, according to the wording of the Act, "infamous" in a professional sense, they could take his name off the *Register*; and if a medical man joined one of these Aid Societies, in which canvassing was habitually practised, he would be guilty of "infamous" practice in this sense.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: MM. Albert Robin and Binet on the Prophylactic and Therapeutic Indications in Phthisis founded on a Knowledge of the Nidus. Inaugural Clinical Lecture by Professor Landouzy. Commission to Study the Question of Depopulation in France. Constitution of the League for the Defence of Human Life.

MM. Albert Robin and Maurice Binet in previous communications made before the Académie de Médecine and the Tuberculosis Congress in London have shown that in 92 per cent. of phthisical patients, while there is a diminished respiratory capacity, there is a considerable increase in the respiratory exchanges—the quantity of air expired is increased 80 per cent.: the carbonic acid expired is increased 64 per cent.; the total oxygen consumed is increased 70 per cent.; the oxygen absorbed by the tissues is increased 94 per cent.; and that this fact can be of value in the diagnosis not only of the disease, but also of persons who are predisposed to infection by the bacillus of Koch. At a recent meeting of the Académie MM. Albert Robin and Binet gave a detailed description of their subsequent research in this question. They find that 60 per cent. of the descendants of phthisical patients show these phenomena, which are also found in all conditions such as alcoholism and overwork, which predispose to phthisis. It follows from this research that the primordial condition of the pretuberculous state consists in an exaggerated vitality or auto-consumption, and not a lowered vitality as has been taught hitherto. In consequence, they consider that the main lines of prophylactic and therapeutic treatment of phthisis should be radically changed; instead of tonic preparations, the physician must select such remedies as diminish the power of the organism to fix an excess of oxygen and to produce too much carbonic acid. MM. Robin and Binet have studied the effects of forty drugs and physical agents from this point of view, and find that the drugs which in phthisical patients diminish by 10 to 27 per cent. in one month the exaggerated respiratory exchanges are more especially: cod-liver oil, sodium arseniate, and Fowler's solution—dose 5 mg. daily; sodium cacodylate—dose 5 cg. daily for ten consecutive days, followed by ten days interval; tartar emetic—dose 1, 2, or 5 cg. daily according to the patient, given in fractional doses of 1 to 5 mg. The preparations of arsenic produce an opposite effect if the dose is doubled. In studying the effects of climate, MM. Robin and Binet find that cold climates suit phthisical patients and those predisposed to the disease, provided that the surface of the body is kept warm and cooling down is avoided; also that warm climates can be supported if the patient breathes air that has been cooled. Before deciding whether a stay at the seaside or in the mountains is likely to be of benefit to any particular patient, it is advisable to make an examination of the respiratory exchanges before and after a week's residence at the place selected. MM. Robin and Binet maintain also that there are certain drugs which have the power of modifying the nidus, and that by an examination of the respiratory exchanges such drugs can be recognised, and that in any particular case it can be ascertained whether the drugs have acted, and consequently whether the predisposed person under such treatment has lost his predisposition, at least temporarily. This method of prophylactic treatment directed to the nidus deserves, they urge, as much attention as that directed against the bacillus itself, and the fight against the disease will only be successful when these two elements concur. Just as we vaccinate against small-pox, so should we treat preventively, by means recognised as capable of modifying the chemical or vital conditions of the nidus—that is, the exaggerated respiratory exchanges and the organic demineralization, after an examination of the respiratory exchanges, all persons recognised as predisposed to consumption and thus liable to contract the disease. Lastly, the treatment of confirmed phthisis should no longer be limited to antibacillary treatment: it should take into account the state of consumption which renders the organism apt to infection and modify this concurrently, not by tonics and stimulants, but by such measures as restrict the consumption and the fixation of oxygen by the tissues, and by such food and drugs as shall divert a portion of the combustion which is consuming the organism.

Professor Landouzy gave his first lecture in clinical medicine at the Laënnec Hospital on January 31st. The numerous colleagues, friends, and pupils of the newly-appointed professor thronged to hear him, and fully two-thirds of those who came were unable to find room in the amphitheatre. Professor Landouzy spoke in eulogistic terms of the good work of Professor Jaccoud, his predecessor, and went on to emphasize the importance in clinical medicine of the study of the nidus in which the disease develops, for on it depended the evolution and the cure of the disease. A knowledge of heredity enabled the physician to play the true part reserved for him in the future—that of hygienist and preserver. Prophy-

laxis would replace therapeutics, and the practitioner would fill the fine part of moral educator of the public health. He would direct the laws, which, according to the constitution of each individual, must control his alimentation; he would enforce preventive measures against preventable diseases. Thanks to him, it would become possible to stop the progress of tuberculosis, syphilis, alcoholism, the triple scourge which threatened the human race at its very source. The part played by the practitioner of the future would be a great one, since he would work to make the race stronger and better.

The Minister of the Interior has recently appointed an extra-parliamentary Commission to study the whole question of depopulation, and the most practical means of dealing with it.

The League for the Defence of Human Life was definitely constituted on February 8th in the Faculty of Medicine by a crowded meeting of senators, deputies, physicians, barristers, and the general public. M. Jean Cruppi, deputy and former Advocate-General of the Court of Cassation, was unanimously elected President, and in an eloquent speech recalled the object of the League. The adulteration of milk, wine, beer, margarine, butter, meat, mineral waters constitutes a serious danger to the public health. Of these, none is more criminal than the adulteration of milk; of the 18,000 deaths in Paris annually from infantile diarrhoea, it is calculated that 7,000 are due to adulterated milk, while it is calculated that 80,000 infants die annually in France from bad milk. The League will exert its action by the application of all legal means capable of guaranteeing the public against falsifications and alterations in all articles of alimentation. The minimum annual subscription is two francs. Professor Brouardel, Professor Heller, and Dr. Budin were elected vice-presidents.

BERLIN.

The Emperor and Christian Science.—Exhibition of Medical Appliances.—The Congress of Internal Medicine.—Professor von Bergmann.—The Lung Sanatoria for the People.—The Summer-Day Sanatoria.

The German Emperor has taken up a very decided position with regard to the "Christian Science Faith Healing," so fashionable in "society" circles both in Berlin and Potsdam. Herr von Windheim, Chief of the Berlin Police, and Rev. Mr. Faber, Head Superintendent of the Berlin Churches, were invited to the Palace in order that the Emperor might discuss with them the best means of stopping such unenlightened trading on superstition. Very wisely the Emperor warned against making "martyrs." As to his own intentions, the Emperor left no room for doubt that the persons who take part in or encourage practices such as Mrs. Eddy's faith healing will henceforth be excluded from the Court.

An exhibition of appliances for medical instruction will be held this spring, in the large hall of the Prussian Ministry of Education (Cultus-Ministerium). Planned and arranged by the "Prussian Central Committee for the Continued Studies of Medical Men," the exhibition will not have any mercantile object, and no charge will be made for exhibiting space. The exhibits will embrace the following:

1. Anatomical and surgical charts and atlases for purposes of demonstrations.
2. Skeletons and bone preparations.
3. Anatomical and pathological specimens to illustrate special technical methods.
4. Charts, tables, and objects of demonstration for teaching hygiene.
5. Optical instruments for lecturing purposes, namely: (*a*) microscopes and test slides; (*b*) projection of various systems; (*c*) ophthalmoscopes for lecturing purposes; (*d*) laryngoscopes, rhinoscopes, and ear specula for lecturing purposes; (*e*) stereoscopes for medical observations.
6. Models of body organs for teaching purposes (mannikins) namely: (*a*) obstetric models; (*b*) larynx models; (*c*) bladder models.
7. Models for lecturing purposes, namely: (*a*) wax masks; (*b*) papier maché models; (*c*) wooden models.

This year's Congress for Internal Medicine will be held in Wiesbaden from the 15th to the 20th of April, under the presidency of Professor Naunyn (Strasburg). The two chief subjects of discussion on the programme are: Diagnosis and Therapeutics of Gastric Ulcer (introductory addresses by Ewald (Berlin) and Fleiner (Heidelberg) and Therapeutics of Light (introductory address by Bie, Copenhagen). Amongst other papers of interest already announced may be mentioned: Rumylf (Bonn), on the Causes of Coma Diabeticum; Kaminer (Berlin), on the Relation between Infection and the Iodine Reaction in the Leucocytes; Koeppen (Norden) on Tuberculous Peritonitis and its Surgical Treatment.

A deputation, consisting of delegates from the Berlin-Brandenburg Aerztekammer (representative body of medical men) and from the Berlin Ambulance Society "Rettungsgesellschaft" assembled in Professor v. Bergmann's house last Sunday, to express their congratulations on the honour conferred on v. Bergmann by the Emperor's bestowal of the title "Excellenz." Geheimrath Becher, the distinguished president of the Berlin-Brandenburg Aerztekammer was spokesman. In an eloquent speech he praised v. Bergmann's unselfish devotion to his suffering fellow-creatures, and dwelt specially on the "Rettungsgesellschaft" which v. Bergmann had called into existence. Nor did he omit a well-deserved tribute to the way in which v. Bergmann had always represented and furthered the best interests of the medical profession as a body. Professor v. Bergmann, who was evidently much moved, thanked the deputation for their kind congratulations. The whole medical profession, he said, participated in the distinction conferred on him. As long as strength was left him, he would never cease devoting it to sufferers, to the Berlin "Rettungsgesellschaft," and to the profession. He concluded by three cheers (or rather three "Hochs") for the Emperor.

From the report read by Surgeon-Major Pannwitz at the annual meeting of the Red Cross Sanatorium Society, it appears that no fewer than 20,000 patients already find room yearly in German lung sanatoria for the people. Interesting statistics of the Society's sanatorium at Grabowsee (near Berlin) were given; 921 patients were received, of whom 70 were dismissed as unsuitable cases; 667 were dismissed after treatment, and of these 636 had improved, and 28 had not improved; 3 patients died. Of the improved cases, 474 were able to return to work, and 142 were able to do light work. The Ladies Committee reported on the assistance given to the families of patients in the sanatorium, and on the results of their efforts in obtaining work for dismissed patients.

Frau Studt, the wife of the Prussian Cultus-Minister, read the yearly report of the summer-day sanatoria for the working classes, of which there are four, all in the immediate neighbourhood of Berlin; 734 men, 212 women, 243 girls, and a large number of babies in arms were received, and more or less treated during the summer, the total number of days for all four sanatoria together being 28,914.

INDIA.

Exceptional Increase of Plague: New Areas Attacked.—Typhoid and Water Supply.—The New Director-General of the Indian Medical Service.

Four months ago I drew attention to the exceptional prevalence of plague in the Bombay Presidency, the death-rate from this disease being several times as great as at the same time in the previous year. At that time no other province was severely affected, but with the onset of the cold weather a great extension of the disease has taken place, and not only has it reappeared in its old haunts, but considerable areas of new country have been invaded. This can best be illustrated by comparing the present returns with those of the same period of a year ago. The Bombay Presidency shows much the highest figures, namely, from 3,000 to 4,000 deaths weekly, as compared with 300 last year; but Bombay city returns 269 against 308 a year ago. The Central Provinces still show an extraordinary escape from the disease, considering that they lie on the route between Bombay and the whole of the north and east of India, the other provinces having been infected across it. The North-West Provinces were not involved at all extensively until last year, mainly on account of the vigorous policy adopted on the first appearance of infected centres, but a year ago the disease obtained a footing in the Allahabad and Benares divisions, having probably been introduced from the severely affected adjacent districts of Bengal. During the last month the number of cases reported weekly has risen from 228 to 829, while at the beginning of the cold weather only 28 deaths were reported. Still more serious is the spread of the disease in the Punjab, where a year ago only from 20 to 30 deaths a week were reported, and the area affected was very limited. At the present time over 2,000

deaths are being returned weekly. Seven districts and parts of some native States are involved, and no fewer than 27,904 cases with a mortality of 57 per cent. have been reported within the last three and-a half months in the Punjab alone. This low mortality may possibly mean that some cases of malarial fever have been reported as plague; still, the rapid spread of the disease is very disquieting, especially after it had been kept within narrow limits for several years by very thorough evacuation methods. Moreover, cases have recently appeared in Lahore itself, where it will be quite impossible to control it if the experience of other large cities is any criterion. In Bengal the usual cold weather increase is beginning to make its appearance both in Calcutta and in the previously affected districts; and although at the present time the figures are somewhat lower than those of a year ago, it is far too early to attempt any forecast of the progress of the disease in this province. Turning to Madras, we again find a marked increase in the numbers of deaths and extent of the disease. A year ago the returns showed 25 deaths a week: at the beginning of the new year they had risen to 500, so that the practical immunity of this province in previous years is no longer apparent. Mysore also reports about 700 cases weekly, or double the number of last year; while, lastly, Cashmir returns about 200 deaths weekly against 25 eight months ago. The present weekly total for all India is about 10,000 against some 2,500 one year back. Altogether the prospect is far from encouraging, and the hopes roused each year that the disease may begin to wane and disappear are once more doomed to disappointment. The statement of the Plague Commission that the total death-rate from plague is very minute as compared with that from other causes in India may yet be falsified by the events of the future.

A letter appeared in the *Times* of November 29th, 1901, signed with the initials of a well-known senior officer of the Indian Staff Corps, in which he traverses the statement of Dr. Canney at the United Service Institution to the effect that combatant officers required special instruction in sanitary science from their medical brethren, especially with regard to boiling water as a safeguard against cholera and enteric fever. The writer states that the practice of boiling water is usual in India both in barracks and in the field, except when objected to by the Army Medical Staff, and refers to an instance in which his order to boil water had been objected to by a lieutenant-colonel of the R.A.M.C., and backed up by the principal medical officer, on the ground that boiled water was unwholesome and worse than the danger of enteric. The writer adds that both these medical officers subsequently held high posts in South Africa. This statement is undoubtedly a serious one, but it is probable the incident was most exceptional, or that some other reasons must have been given, such as the difficulty of cooling the water again without exposing it to contamination by dust, etc. This is the real difficulty, for Tommy Atkins will not drink tepid water in the hot weather, and if only such is obtainable he will be driven to drink from bad sources, or in the bazaars, where it is now known there are plenty of enteric fever cases among the natives, sources of infection must be many. The idea that typhoid fever is rare in natives of India must now be classed among the exploded fictions, thanks to recent work in the Bombay and Calcutta laboratories with the serum test. The overgrown bazaars in cantonments should be as far as possible cleared away, and the sanitation of the remainder most carefully looked after. These measures, if the native city were placed out of bounds, would go far to remove the most dangerous places of infection, and so allow good results to be obtained from careful attention to the water supply in barracks.

Surgeon-General Franklin has been appointed Director General of the Indian Medical Service in the place of the late Surgeon-General Harvey, and has already taken over the duties of his new office. He has had several years experience of administrative work in the important post of Inspector General of Civil Hospitals in the Punjab, while he is well known in Simla and Calcutta, having been Surgeon to the Viceroy for several years before promotion to the administrative grade. He is known to be a strong and influential man, and the Indian Medical Service is fortunate in having him at its head in the present critical time in its fortunes.

ABERDEEN.

The Finances of the Royal Infirmary.—The Lord Rectorship.—University Education of Veterinary Surgeons.

IN the annual report which has been issued by the Director of the Aberdeen Royal Infirmary is seen the effect of Lord Mount-Stephen's generous gift of £25,000 which cleared the institution of debt, and thus relieved the total yearly expenses of the heavy sum paid in interest on loans. But though this is the case it is found that in spite of bringing a large special donation and handsome legacies into the current account of the year the balance to the credit of the institution amounts to less than £260 on the year. That there is such a balance shows certainly a more satisfactory state of affairs than the accounts of previous years, but a closer inspection of the figures reveals some serious facts. Not only have capital sums been brought into revenue, but the ordinary income is less by nearly £600 than in the previous year, and £900 less than in 1899. The annual subscriptions have fallen off, the subscriptions from workpeople and the subscriptions from patients have also decreased, and special sums for the endowment of beds have been apparently included in the ordinary income of the institution. These aspects of the situation are far from encouraging, and it is hoped that strenuous efforts will be made by the directors and others interested in the institution to improve these conditions, otherwise it is to be feared that the finances will fall back again into the same condition of accumulating debt, from which they have so recently been removed.

The Students' Representative Council has been fortunate in obtaining the consent of Mr. Asquith to stand as the Liberal candidate in the approaching election of a Lord Rector for the University. Lord Strathcona has declined a second term of office. Lord Rosebery and Mr. Chamberlain have been approached by the students, but have found it impossible to undertake the duties of the post in addition to their public responsibilities. The candidate on the Conservative side has not yet been nominated, but it is evident that if such a candidate be forthcoming the election will run on political lines.

At a recent meeting of the North of Scotland Veterinary Surgeons Society, Professor Hamilton warmly supported the suggestion that veterinary surgeons should be granted university degrees after working at and being examined in scientific subjects relating to their profession. At present the best veterinary colleges in Scotland were mainly private institutions and had no connexion with the universities. A knowledge of hygiene, bacteriology, and pathology was of essential importance to veterinary surgeons, and the study of pathology on comparative lines would be of definite benefit to medical students. As a plea for higher work among veterinary surgeons he instanced the necessity for the study of diseases of the horse from every point of view. The horse was of the greatest possible importance in warfare, and this would probably be increasingly the case. It could only be by careful and scientific observations of the conditions of health and disease of that animal that nations would be able to perfect the efficiency under varying conditions of what was now so large a factor in military organization.

A COMPLIMENTARY dinner to Captain E. T. Inkson, V.C., R.A.M.C., is to be given by the Union Society of University College and hospital on Friday next, February 21st, at the Café Royal, Regent Street, W. The chair will be taken by Professor G. V. Poore. Tickets (6s. 6d. each) can be obtained from Mr. W. L. Scott, the Honorary Secretary, University College, Gower Street, W.C.

INTERNATIONAL TUBERCULOSIS BUREAU.—The organization of this bureau is almost complete. At the head of it is a committee consisting of Professors von Leyden, Gerhardt, and Fraenkel of Berlin, with Dr. Pannwitz as General Secretary. The various nationalities are represented by the following honorary members: The Duke of Ratibor (Germany), Professors Brouardel, Lannelongue, and Nocard (France), Sir William Broadbent and Sir Hermann Weber (Great Britain), Prince von Oldenburg (Russia), Professor von Schrotter (Austria), Professor Baccelli (Italy), and Dr. Hasshi-Moto (Japan).

CORRESPONDENCE.

THE CLASSICS IN PRELIMINARY EXAMINATIONS.

Sir,—I am entirely in sympathy with you in your remarks upon "Latin at the University of London," and am not a little surprised that the movement towards the displacement of Latin from medical education should have come from that quarter. When I became a student of medicine half a century ago, there was practically no attempt to secure general education of any kind, with the single exception of a bit of simple Latin to be translated at sight. That was the Nadir of the Medical Preliminary in Scotland; and in England I believe that the M.R.C.S. was even held to be guiltless of this shadow of a shade of classical learning. I am not sure if there are many of the younger generation, or of those who are now so critical of the General Medical Council for not proceeding fast enough in forcing up the standard, who are aware of the depths of illiteracy from which the profession has been brought up, solely by the prudent and gradual, but yet effective, insistence on the Preliminary Examination. It is difficult, however, to hold a just balance as between the ancient and the modern subjects, or (let us say) between the linguistic and the scientific disciplines; and although I have all along been chiefly an advocate for the latter, I confess I am one of those who still regret the disappearance of compulsory Greek. And yet I am disposed to think that the merely pedantic or formal use of either Latin or Greek—as it is commonly taught at a great sacrifice of time in school—may be to a great extent dispensed with, nay, must be dispensed with in future. What should be aimed at is such a knowledge, both of Latin and Greek, as will conduce to a correct and idiomatic use of English, and still more, perhaps, of French and other modern languages as derived from the classical tongues.

I was myself inducted into this field of inquiry along the lines of etymology at a very early age, a year or two before I had ever opened a Latin grammar, or construed a single sentence from the Latin *Delectus*; and, even now, I have a most grateful recollection of the great interest of the study, and how easily and naturally it led on to a more mature study of the language, or languages, in question.

I fear that the "learned doctor," in the sense in which you probably use the term, is irretrievably gone—died out, in fact, with the late Dr. Greenhill, a most admirable sample of the type. But an examination founded on etymologies, and extending to elementary grammar, both in Latin and Greek, might still be retained with advantage.—I am, etc.,

Edinburgh, Feb. 12th. W. T. Gairdner.

THE NATURE OF THE SO-CALLED CANCER BODY.

Sir,—In the British Medical Journal of February 1st (p. 284), when speaking of the debate in the Pathological Section of the Liverpool Medical Institution on January 23rd, you say: "The chief topic of interest discussed was the nature of the so-called cancer body; whether it is in any sense the cause of the disease, or whether its appearance is merely accidental—a non-essential event in the life of the cancer cell."

These opposing views were ably represented at the meeting by Mr. H. G. Plimmer and Mr. H. J. Stiles, and it is well known that for many years the labours of a whole army of skilled investigators have resulted in similar differences of opinion. In regard to the facts made out by microscopical examination, there has been comparative unanimity: the apparently irreconcilable divergence comes in regard to the interpretation of the facts.

Those who, with good reason, find evidence tending to prove that "the so-called cancer body is in reality merely a modified cell nucleus, and that all stages can be recognized between it and the unaltered nucleus," seem to think, as do their opponents, that the establishment of such a view would be a refutation of the other doctrine, namely, that the bodies in question are independent living organisms. But does this of necessity follow? Is there no *via media* capable of reconciling the two views? I have long thought that there probably is a means of reconciliation, and have for some years watched the controversy with much interest.

During the last four years all the time that I have been able to spare from professional work has been devoted to investigations intended to substantiate the reality of the occurrence of heterogenesis: and in my recently-published *Studies in Heterogenesis*, Part I, I have adduced much and varied evidence tending to show the frequency of such occurrences among lower organisms.

But if such changes are so common in lower organisms, it seems at least possible that some representatives of such processes may occur in the bodies of higher organisms, in sites where unnatural or morbid processes are actually taking place. Well, in cancer there are such unnatural processes going on, and many workers have told us of the way in which the nuclei of some of the cells become altered and individualized to such an extent that other workers actually regard them as independent organisms of lowest type—protozoa in fact. The acceptance of both these views, and the admission of the occurrence of heterogenesis in cancer cells would reconcile all opposing views as to the facts, though it would be the deathblow to the notion that the protozoal organisms were parasites in any ordinary sense of the term. They would not have come from without; they would have been engendered within the body, and would, in accordance with this view, probably be unimportant and quasi-accidental consequences of the disease rather than its causes.—I am, etc.,

Manchester Square, W., Feb. 8th. H. Charlton Bastian.

ARSENIC IN THE HAIR OF BERI-BERI PATIENTS.

Sir,—In your issue of February 8th Major Ross reports on the finding of arsenic in the hair of certain Chinese persons said to be suffering from beri-beri, and he cites this fact in support of the hypothesis that beri-beri is, after all, simply a manifestation of arsenical poisoning. There is no doubt much to be said in favour of this hypothesis, but in this particular case Major Ross is rather unfortunate in the choice of his evidence. The detection of arsenic in the hair is no evidence that this metalloid has entered the body through any abnormal channel, or in any but normal physiological quantities. This was experimentally proved by M. Gautier in 1899, who found arsenic in the beard of a healthy man and also in the hair of a pig, and in the horn of an ox. In 1901 Messrs. Knecht and Dearden of Manchester discovered arsenic in the hair of three healthy persons, none of whom were taking arsenic (*Lancet*, March 23rd, 1901). These and other facts were pointed out by me in an article on the action of arsenic on the skin which appeared in the British Medical Journal of September 28th, 1901. If Major Ross were able to report the detection of arsenic in the liver or kidneys of individuals dying of beri-beri, or in the urine during the prevalence of the symptoms, that would be evidence of no little value.—I am, etc.,

Liverpool, Feb. 10th. Leslie Roberts, M.D.
Honorary Dermatologist to the Liverpool Royal Infirmary.

CHICKEN-POX AND SMALL-POX.

Sir,—I am inclined to share the doubts of Dr. Sanders as to the advantage of making varicella a notifiable disease. No doubt it may happen that a case may be notified as chicken-pox in which the suspicions of the medical officer of health are aroused by the age of the patient or by the absence of vaccination, and which may prove to be small-pox. In my own district, I believe, my attention would in all probability be called to such cases by the medical attendant in the absence of compulsory notification. And is there not a certain danger that practitioners who have a doubtful case may feel that by notifying it as varicella they have discharged themselves of responsibility, although they have not informed the medical officer of health of their uncertainty? As Dr. Sanders says, we shall certainly not have cases notified by householders unless the lawyers and magistrates interpret the law on notification in a way very different from what has hitherto been the case. I doubt whether one parent in a hundred is aware of his responsibility in the matter. The obligation to isolate cases of chicken-pox may prevent the exposure of some cases of small-pox; this will be a decided gain.

With respect to our duty, or otherwise, to examine doubtful cases, you have, I think, stated the position exactly. It is for each medical officer of health to decide for himself how he can best perform the duties laid down by the law and the regulations of the Local Government Board. For myself, I consider the examination of uncertain diseases in consultation with or by request of the medical attendant one of the

most important and most interesting parts of my work. But I should certainly protest against the idea that any practitioner could require my services as a right. I am also careful to avoid taking official responsibility for the diagnosis. The necessity of notification of all cases in which there is reasonable ground to suspect an infectious disease, as advocated by Dr. Newsholme, seems to me essential, and the attendant difficulties would be found much less serious than those found at the initiation of the present system of notifying. If it is granted that a case need not be notified until certainty has been obtained, enteric fever will often not be notified at all (a patient was recently notified to me three weeks after the commencement of the disease, and the delay justified on this ground); and the adoption of a consistent attitude of "being unaware" will always enable a medical man to avoid convictions for failure to notify.—I am, etc.,

SIDNEY DAVIES,
February 8th. M.O.H. Woolwich.

THE TREATMENT OF HIP-JOINT DISEASE IN CHILDREN.

SIR,—With reference to the annotation on this subject in your issue of February 8th, in which you urge the advantages of treating children with hip-joint disease in a hospital at the sea-side, rather than in children's wards in a great city, may I remind your readers of the Royal Sea-Bathing Hospital, Margate (150 beds)? It is not perhaps too much to say that this is an ideal hospital for this class of case. It stands in large grounds, right on the edge of the cliff, the wards are large and airy, there are extensive verandahs in which patients are lying in the open air day and night in all weathers, the general appointments and arrangements of the hospital are equal to any London hospital, and the beds are open to all who are able to pay the small sum of five or six shillings a week.

It is to be hoped that in the present craze for open-air treatment of tuberculosis it may be remembered that open-air treatment has been successfully carried on here for more than a hundred years.

There appears to be an impression, however, among hospital surgeons and others that cases may be sent here after all other treatment has failed: hopelessly incurable cripples, or profusely suppurating cases that no treatment can relieve. These cases can be equally well cared for in many other institutions. This erroneous estimate of the function of this specially organised hospital is fraught with much disappointment to the patient. We do not retain patients who are not likely to receive early or material benefit, nor do we keep ordinary convalescents, both classes are promptly sent home to make room for cases likely to benefit by the special advantages offered by this hospital.

If tuberculous patients are to reap advantage from bracing sea air the sooner they are sent out of populous cities the more likely they are to reap permanent benefit; this fact is recognised in the case of tuberculous disease of the lungs, and it is of equal importance in tuberculous disease of the bones, joints, and glands. The treatment of early tuberculous disease by rest and the traditional tonic, with the assistance of cod-liver oil and a local application of iodine liniment, is perhaps too tempting to be invariably resisted; but it is precisely in these early weeks of the disease when climatic surroundings are of the most importance.

I venture to send you this communication in the hope that it may remind your readers of the existence of this hospital, and especially to ask them to remember that it is useless sending us mere convalescents or hopelessly incurable cases.
I am, etc.

February 9th. BERTRAM THORNTON.
Senior Surgeon Royal Sea-Bathing Hospital, Margate.

THE INCREASE OF TYPHOID AND DIPHTHERIA.

SIR,—The possibility of poultry acting as a source of disseminating diphtheria is a subject which I have been investigating of late. I am not, however, convinced that so-called diphtheria in poultry and diphtheria in the human subject are one and the same disease; moreover, I am of opinion that poultry suffer from more than one infectious throat disease; for instance, the infectious disease of the throat common in pigeons is quite distinct from that of the fowl.

The appearances in the throat of fowls affected with the disease are hardly similar to those present in human beings. In the fowl at first there is a thick glairy secretion, which, after a few days, forms into cheesy masses around the glottis: but I have not seen any distinct membrane in the birds I have examined. The differences in appearance may of course be due to the different temperature at which the growth takes place, the normal temperature of the fowl being about 105° F.

An outbreak occurred among some fowls on a farm in my district, and at a neighbouring farm I had a case of diphtheria which was verified bacteriologically; several of the fowls died of asphyxia. I took possession of one of the fowls suffering from the disease, the owner giving it strongly as his opinion that the bird would die. I immediately injected 2,000 units of Burroughs and Wellcome's serum under the wing, and sent a swab from the throat to the Clinical Research Laboratory in London; the fowl made a rapid recovery, but the bacteriological examination proved negative.

A point of considerable interest is that fowls, after having had the disease, are in many instances affected with paralysis; generally they trail one leg. The paralysis passes off in time, but I have seen a fowl that had a very severe attack of the disease two years ago, which was followed by paralysis of both legs, still awkward in its gait.

The subject is well worthy of the fullest investigation, although as yet, in the absence of bacteriological verification, the identity of the disease in poultry and man has not, I believe, been satisfactorily proved.—I am, etc.,

F. W. HOPE ROBSON, M.D.
Burscough Bridge, Lancs., Feb. 10th.

THE PREVENTION OF ENTERIC FEVERS IN ARMIES.

SIR,—The attention of the Secretary of State for War has been directed to a letter which appeared in the BRITISH MEDICAL JOURNAL of January 25th, and in which it is stated that "the boiling or sterilizing of water for drinking purposes in the army at present in South Africa is grossly neglected, and is the exception rather than the rule."

I am directed to state that the reports at present being received from South Africa show that these preventive measures are, on the contrary, receiving every attention, and are being carried out everywhere as far as circumstances permit.—I am, etc.,

War Office, S.W., Feb. 5th. FOR G. FLEETWOOD WILSON.

THE "FOURTH DISEASE."

SIR,—This subject is of sufficient practical importance to justify me in replying to Mr. J. J. Weaver, who, in the BRITISH MEDICAL JOURNAL of February 8th, objects somewhat strongly to my criticism of Dr. Clement Dukes.

I think Mr. Weaver can scarcely have read my letter carefully or he would have noticed that so far from my denying the possibility of the existence of a "fourth disease," I specially affirmed that it would be rash for anyone to do so. What I complain of, in common with Dr. Washbourn, is that Dr. Dukes has not as yet adduced facts at all sufficient to justify his confident assertion (made in his original paper):[1] "I conceive that I have now adequately proved that a definite disease exists which I have temporarily designated the 'fourth disease.'" I also think, with Dr. Washbourn, that in the meantime the acceptance of the view that a "fourth disease" has been discovered is likely to result in considerable harm.

As to Mr. Weaver's own cases of supposed "fourth disease," it will be interesting to compare his description of them, as given in his paper read before the Eastbourne Congress,[2] with that given by Dr. Dukes of his cases in the *Lancet*, July 14th, 1900. Mr. Weaver states that the temperature of his cases was "not high, not above 100° usually." As to the eruption, he describes it (in Case III) as "small scattered red spots appearing first on face." Lastly, there was "practically no desquamation." Dr. Dukes, on the other hand, describes his cases as follows:

"The average temperature was 101° F., but it ranged from 99.4° to 104.2°." The eruption "in nearly every case was very full and quite characteristic

[1] *Lancet*, July 14th, 1900.
[2] *Journal of State Medicine*, November, 1901.

of scarlet fever. In fact, if ten experts had inspected the skin, and made no other investigation, all would have diagnosed the eruption as that of scarlet fever." Desquamation: "In some cases the skin became merely rough; in most instances there was free desquamation of small scales, whilst in others the peeling was equal to the worst I have ever noticed in scarlet fever."

After this, it is somewhat surprising to find Mr. Weaver stating in his letter to you, February 8th, 1902, that his cases "correspond in all particulars with the disease described by Dr. Clement Dukes as 'fourth disease.'"

I should like to suggest to Mr. Weaver that it might, perhaps, have been better to have described his own cases as examples of "fifth disease"! It is certainly very undesirable that every atypical or ambiguous affection of a scarlatiniform nature should be classed under the common designation of "fourth disease."

Personally, I can see little in the history and symptoms as described by Mr. Weaver to suggest that his series of cases need be regarded as anything more than an outbreak of German measles. Indeed, he himself admits this as an alternative diagnosis.

When we consider the admitted difficulty of diagnosing German measles, it scarcely seems unreasonable to hesitate before unreservedly accepting a diagnosis which involves the exclusion of German measles and the creation of a new and hitherto unknown disease.—I am, etc.,

Leicester, Feb. 10th. C. KILLICK MILLARD.

THE TREATMENT OF APPENDICITIS.

SIR,—In the BRITISH MEDICAL JOURNAL of February 8th you publish three communications on the treatment of appendicitis. Will you allow me to emphasize, if only by reiteration, that all-important sentence in Mr. Charles A. Morton's paper, that "It is entirely a mistake to suppose because a patient's pulse is under 100, his temperature hardly raised, and his belly not distended and not generally rigid, that diffuse infection of the peritoneum is not present." Bitter experience must surely have brought this truth home to most practitioners. And yet it has no place in the other two papers upon the same subject, and early operation is recommended by Professor Finlay and Mr. Taylor only in "fulminating" cases. I venture to offer two suggestions in the treatment of appendicitis in which there is local suppuration.

First, the site of incision. In such cases drainage is all-important, and as the pus is often at a depth of nearly 6 inches it seems to me illogical to expect efficient drainage either by tube or by gauze plug unless a posterior flank incision has been made. Should not such dependent drainage be provided in all cases of appendicitis with abscess?

Secondly, the difficulty of passing flatus. In Mr. Morton's first case—full of interest and value—I note that for three days no flatus was passed in spite of calomel, strychnine, and turpentine enemata. Would not this difficulty have been more simply and safely dealt with by the dilatation of the anal sphincter at the time of operating? In Mr. Morton's second case there was also vomiting and temporary obstruction from paralysis of the bowel.—I am, etc.,

Paris, Feb. 11th. A. A. WARDEN, M.D.

IRISH POOR-LAW MEDICAL OFFICERS.

SIR,—The publication in the BRITISH MEDICAL JOURNAL of February 8th, under the heading "Irish Poor-law Medical Officers" of what are known in Ireland as "the Mayo resolutions," raises points which in my opinion demand the immediate and careful consideration of the members of the Association, and especially of those members whose opinions carry weight with their brethren.

With the objects of the Mayo resolutions no one who has had, as I have, a life-long acquaintance with the hard treatment and inadequate pay of the Irish Poor-law officers can have anything but sympathy. To say that they are sweated by the guardians because the supply exceeds the demand expresses in the fewest words the simple facts of the case; and I for one would gladly stand by those in their righteous demand for a fair day's pay for a fair day's work, and I think that individually and collectively they should do all in their power by personal influence to deter young men from seeking vacant appointments until their reasonable demands are granted.

But I must take exception to Clause C. It runs as follows:

That in the event of any position being taken in violation and contrary to the foregoing regulations, no member of our Association shall recognize, do duty for, or meet in consultation the offender.

I regret that any body of medical practitioners should have found it expedient to draft a resolution which amounts to nothing more or less than the illegal and inhuman practice of boycotting a system which has been productive of untold misery in Ireland. I do not and cannot believe that any considerable number of Irish medical men will ever be induced to adopt as a means of getting their legitimate ends practices which are utterly demoralizing and would degrade the members of an honourable profession to the moral level of their oppressors.

It is not alone in Ireland that efforts have been made to enforce compliance with the views of office-holders by similar if not so plainly stated means. In fact it appeared as if not a few members of the Association at one time contemplated converting the organization into a gigantic trades-union, which, once established, there would be nothing to prevent picketing and other trades-union coercion devices following.

I am sorry to say that, although the Mayo resolutions were formulated by what purports to be a branch of the Irish Medical Association, the Council of that Association has not so far had the courage to express an opinion upon Clause C.

It seems to me, Sir, that the time has come when the leaders of the profession should decide the question how far and by what means are the majority of the members of a profession like ours entitled to impose their will upon the minority. We have no organizations like the Church or the Law for regulating professional morals.

The interest of the corporations in our morals ceases when the last fee has been extracted, and the General Medical Council is only the corporations boiled down; so that in a case like this, where, in my opinion, the honour of the whole profession is at stake, we can only rely upon the Association itself. Social ostracism is a powerful weapon, which any body of persons, large or small, is entitled to use for its own protection against moral lepers of whom the law cannot take cognizance; but the questions I submit for the earnest consideration of the members of our Association are two:

(*a*) Is boycotting permissible as a punishment for any other offence than infamous conduct? If so,

(*b*) Is boycotting permissible as a means of promoting the pecuniary aggrandizement of the majority?—I am, etc.,

February 2nd. T. H. M.

PROFESSOR OSLER'S TRIBUTE TO SIR THOMAS BROWNE.

SIR,—Every true admirer of Sir Thomas Browne cannot but feel a sense of gratitude towards Professor Osler for his pious tribute to the remains of the Knight of Norwich—a gratitude as for a kindness done a personal friend. Though time, space, and death brood over our friendships, yet by the power that is in the written word we learn to love many that have entered long ago into the silent land. That genius is, perhaps, not the highest which reveals frankly its very self in its works, but it has the most points of contact with our common humanity, and thus it is that we have for writers like Browne a more personal feeling than the admiration which genius always commands. How the meditative melancholy of the man would have delighted in the occasion to moralise! "Who knows the fate of his bones .....who hath the oracle of his ashes?" Nor do we doubt that he, the author of one of the most exquisite passages on friendship in our literature, would have pardoned the loving treachery of his friends that wills not to let his fame die as he himself desired: "At my death I mean to take a total adieu of the world, not caring for a monument, history, or epitaph; not so much as the bare memory of my name to be found anywhere but in the universal register of God."—I am, etc.,

Sheffield, Jan. 18th. E. W. ADAMS, M.D.

ANATOMICAL PLATES.

SIR,—I am indebted to Professor Clark, C.M.G., for his courteous letter in the BRITISH MEDICAL JOURNAL of February 8th, pointing out that the authorship of the osteological plates in Hughes's *Practical Anatomy*, which I have ascribed to Mr. Holden, was really his. I regret the mistake, the more because of the utility and excellence of the plates, and will

take the earliest opportunity of ascribing them to their rightful source.—I am, etc.,

ARTHUR KEITH.

The London Hospital Medical College, Feb. 10th.

A DISCLAIMER.

SIR,—There have recently appeared in journals of the daily press certain articles relating to a treatment of pulmonary tuberculosis by intravenous injection, and stated to be a "cure for consumption" discovered by me. I have discovered no such cure. The suggestion of treatment by such means I put before the profession more than a year ago. It is on its trial, and as yet its results do not warrant any authoritative opinion, still less such positive assertions as have been published. I greatly regret that, by no fault of mine, the matter should have obtained access to the lay press.—I am, etc.,

Seymour Street, W., Feb. 5th. ROBERT MAGUIRE.

"WHAT'S WHAT."

SIR,—In a recent publication called *What's What*, there is, I understand, a paragraph indicating various medical men by name as consultants, with my name among the number. I should have thought that it was quite unnecessary for me to say that I had nothing whatever to do with such a paragraph and was indeed quite ignorant of its existence till the other day. To my surprise, however, a paper called the *Medical Times and Hospital Gazette*, of the existence of which I was also unaware, was sent to me last week containing a most offensive paragraph which insinuates very pointedly that it is by no means certain that those whose names are mentioned in *What's What* are quite innocent in the matter.

I wrote to the editor of *What's What* asking him to withdraw my name from his paragraph, and I enclose my letter and his reply, and also a letter which I sent to the *Medical Times and Hospital Gazette*.—I am, etc.,

Harley Street, W., Feb. 11th. W. WATSON CHEYNE.

To the Editor of *What's What*.

February 7th, 1902.

Dear Sir,—My attention has been called to a paragraph in *What's What* in which a list of medical men is given containing, among others, my name. I feel sure that you did not at all realize how such a paragraph would affect those whose names are mentioned, otherwise you would not have inserted it. I presume your object in introducing it was that, just as you tell elsewhere what people should do or say, so you want to guide them if they are ill. If that was your object it would entirely fail, because patients, if they are wise, ask their family medical man whom they should consult, and would not be at all guided by a paragraph in a book or newspaper. On the other hand, those whose names are mentioned in this way may suffer irreparable damage as the result. While the better-class practitioners would of course assume that such a paragraph was inserted entirely without our knowledge or consent, and would know that we would not have anything to do with such an advertisement, there are, I am sorry to say, men in our profession, as in every other, with jealous and dirty minds who would assume that we were not innocent in the matter, and would employ this occurrence to blacken our characters in every possible way. I need only refer you to an article in yesterday's issue of the *Medical Times and Hospital Gazette* as an example of this. For these reasons I would strongly advise you to suppress this paragraph, and in any case I would beg of you to cut my name out of the list.—Yours faithfully,

W. WATSON CHEYNE.

Reply from the Editor of *What's What*.

My dear Mr. Watson Cheyne,—With much that your letter contains I heartily agree, and I will gladly do as you ask with regard to your own name, and in all probability with regard to the whole paragraph. I cannot, however, agree with you as to its being so great a crime to inform the public on these matters: nor that one's "family medical man" is in all cases the most fitting person to advise. How about the cases, also, where one has no "family medical man"? What is to happen then? The intention and the limitations of my paragraph in the appendix are very clearly stated, and nobody in their senses could read it and not see that its origin was in personal opinion and experience, and not in the desire to advertise anybody. In this troublous and troubling world, however, the best motives are liable to misrepresentation, and breaches of etiquette even by a layman are apparently "the unforgivable sin." I shall not again hurl myself so wantonly against the "footstool of justice" to serve the public; in this case they will have to look elsewhere for "What's what."

Meanwhile I could wish that all who differ from me would express themselves with your courtesy and moderation.

I have not seen the paragraph to which you allude in the *Medical Times*, but I can guess its tenor.—Very truly yours,

February 10th, 1902. HARRY QUILTER.

To the Editor of the *Medical Times and Hospital Gazette*.

February 9th, 1902.

SIR,—With reference to your paragraph on page 85 in your issue of yesterday, I do not know which is most offensive, namely, the original paragraph or the one in your issue. Whatever the object of the editor of *What's What* may have been, what he has done has, I am sure, been in ignorance. In your paragraph, however, you imply the possibility on our part of some knowledge or of complicity in this publication, an insinuation which is most offensive and absolutely unwarrantable. It surely might have occurred to you that men in the position of those whose names are mentioned would not lower themselves to such an extent as to have, either directly or indirectly, incited such a statement, or that they had any knowledge of it beforehand. If you can indicate how such occurrences can be avoided, or how the matter can be remedied, I shall be most grateful to you; but I resent most strongly that you should have in the faintest degree implied that I have anything whatever to do with the matter. I am not aware that I have ever done anything which should make you think that that was at all possible.—Yours faithfully,

W. WATSON CHEYNE.

OBITUARY.

WALTER WYKESMITH, F.R.C.S.ED., L.R.C.P.ED., M.R.C.S.ENG.,

Formerly of Wimborne.

IT is with much regret we announce the death of Mr. Walter Wykesmith, which occurred in the night of February 3rd at his residence, Longfleet, Poole. Mr. Wykesmith was born on March 5th, 1844, and was the son of the late Mr. William Wyke Smith, solicitor to the old Board of Works. He was educated at Rugby, and began his professional studies under unusually favourable auspices by apprenticeship to the late Dr. S. S. Dyer, of Ringwood—a man respected and beloved by all who knew him—continuing them afterwards at King's College Hospital, where his uncle, Henry Smith, was one of the surgeons.

In 1867 he took the diploma of M.R.C.S.Eng, and in the following year those of L.R.C.S. and L.R.C.P.Edin. He then attended the hospitals at Paris, and was also Paris correspondent of the *Lancet*. In 1869 he married the daughter of the late Dr. Fluder, of Lymington, Hants, and started practice at Islip, Oxon, where he remained until 1873, when he entered into partnership with the late Mr. William Druitt, at Wimborne, and, on Mr. Druitt's retiring from practice, with Dr. G. H. Batterbury. He was compelled by ill-health to retire last midsummer, when he went to Longfleet to reside.

Mr. Wykesmith had an extensive practice, and his services were in great request as an operating and consulting surgeon. In 1877 he was elected F.R.C.S.Edin. He was for some years Medical Officer of the Workhouse and No. 2 District of the Wimborne and Cranborne Union, a Public Vaccinator, and Surgeon to the Post Office and Oddfellows, and the Wimborne Victoria Jubilee Hospital.

Mr. Wykesmith was a member of the British Medical Association, and a Past President and member of Council of the Dorset and West Hants Branch. He took great interest in the work, was a constant attendant at the Branch meetings, and was universally esteemed by the members. He was greatly instrumental in promoting the Wimborne Water Company, which is the greatest boon to the town; was Chairman of the Directors, and was unanimously re-elected on the very day he died.

Mr. Wykesmith was a Churchman and one of the Governors of the Minster Church, a Conservative and Imperialist, and a leading member of the local Habitation of the Primrose League, a Freemason and Pastmaster of the local Mark and Craft Lodges, and held high rank as a Provincial Officer.

As a young man he was devoted to outdoor sports—cricket, fishing, and hunting—but soon after he came to Wimborne he had an attack of facial paralysis due to excessive work and exposure to cold, from which he never thoroughly recovered, and his great enjoyment in later years was cruising about in a relative's yacht. He published a book giving an interesting and amusing account of a yachting cruise. He invented and patented several useful improvements in harness and a bicycle saddle.

In January, 1897, Mr. Wykesmith had a severe attack of angina pectoris. He recovered slowly and resumed work, although he showed signs of premature ageing. In October, 1900, he was attacked with shivering and fever, and developed cystitis and pyelitis, which proved little amenable to treatment, and led to his retirement in the following summer. In November last he improved somewhat under the care of his old friend and partner, Dr. Batterbury, and Dr. Patterson, of Parkstone, and Dr. Hyla Greves, of Bournemouth. Acting on their advice he consulted Mr. Harry Fenwick, who after examination, gave a hopeful prognosis, and he returned home

much cheered, but his devoted wife who nursed him throughout broke down from the nervous strain and developed heart disease and died just before Christmas. He bore the shock wonderfully and appeared to improve in strength while the bladder trouble nearly disappeared, and on February 3rd he went to bed apparently better than usual, but just before midnight his son heard him breathing in distress and found him in great pain but sensible. He expired in a short time from angina pectoris, the only attack since the first in 1897. Mr. Wykesmith leaves a daughter and three sons, one Pelham Wykesmith, a surgeon in the Colonial Service. He was buried in the beautiful Longfleet Cemetery overlooking the sea on Friday, February 7th, in the presence of many sorrowing friends and patients, members of the Dorset and West Hants Branch of the British Medical Association, Wimborne Church and School Governors, Primrose League, Oddfellows and Freemasons, and the many beautiful wreaths testified to the esteem with which he was regarded by all who knew him. C. H. W. P.

CECIL LATTER, M.A., M.D., B.C.Camb.

His many friends will learn with deep regret of the sudden death of Dr. Cecil Latter, of Folkestone, which took place on the evening of January 29th under circumstances of singular sadness. He was staying with a medical friend in London, and while hurrying across Hyde Park to be in time for dinner was seized with heart failure, and died during his conveyance to St. George's Hospital. To those who had seen much of him of late this sudden end was not wholly unexpected, as signs of heart weakness had shown themselves previously, and the general condition had been lowered by insomnia. He may be said never to have fully recovered from a very severe attack of complicated scarlet fever contracted at the end of his term of service as assistant medical officer at the Western Fever Hospital in 1893.

Cecil Latter, the son of the late Rev. Arthur S. Latter, was born in 1866. In 1884 he left Charterhouse with a science scholarship, and entered at Pembroke College, Cambridge, where he took the Science Tripos in 1887. Mental abilities of a marked order enabled him to grasp and retain very easily the details of an education in natural science, but science in itself did not really attract him. His real interests were always human, and as quite a young man he exhibited in a remarkable degree the power of insight into character; he was acutely critical, but nearly always in the sense of seeing good qualities where others missed them.

In 1888 he entered at St. Thomas's Hospital, where, becoming at once intensely interested in the human side of medicine, he gave his very able mind for the first time to the serious study of its science and art. As a consequence he scored a brilliant record there, taking the Mead Medal in 1891, and earning the special esteem of the staff and of his fellow students. He held the various resident posts at St. Thomas's, and then acted as Assistant Medical Officer at the Gore Farm and the Western Fever Hospital, contracting at the latter the illness which was to permanently weaken him. Feeling strongly that the most complete and satisfactory function of medicine was that exercised by the family physician, Latter elected to enter at once upon general practice, and in 1893, after convalescence from his fever, he settled down at Folkestone, where an opening seemed to offer. In the same year he married the daughter of Mr. William Beechey. For this lady, as well as for her little son, the most profound sympathy is now expressed by many friends both in and outside of the profession. At Folkestone Latter soon began to acquire the work and occupy the position to which he was entitled as a doctor unusually well equipped in his profession, and possessed besides of a mind both original and highly cultivated. He took an active share in the work of the Folkestone Medical Society in its early days, proving an invaluable Honorary Secretary in 1894 and 1895, and a frequent contributor to its debates. He was elected to the staff of the Folkestone Hospital and to that of the St. Andrew's Convalescent Home. He always realised very keenly that members of our profession owed special public duties to the community, and a few years since he read a very convincing paper before the Balneological Society, urging his views on this subject. He put his doctrine into practice by getting himself elected, in 1899, to the Town Council, in which body he proved himself an active citizen, particularly where public sanitation was concerned. The same sense of public duty made him devote a good deal of time and energy to lecturing upon first aid and ambulance, especially among the fishermen, who repaid him with most affectionate gratitude. It seems probable that his enthusiasm for municipal work put upon his constitution a strain greater than it could bear, for he never permitted it to interfere with the exactions of a large and increasing practice, nor with his work at the hospital. If we need proof of his professional devotion we may find it in the sense of real loss which his colleagues at the hospital experience, and in the expressions of deep personal regret from members of every class in Folkestone, where so many have lost in him not merely a skilful doctor but a sincere friend.

We regret to announce the death of Dr. Thomas White, of Gardiner's Place, Dublin, which took place last week, from pneumonia, after a few days' illness. Dr. White obtained the licences of the Irish Royal Colleges of Physicians and Surgeons in 1898. He then filled the position of House-Surgeon in Jervis Street Hospital, where he won golden opinions from the visiting staff. On the call for civil surgeons for duty in South Africa he offered his services, and being accepted, spent nearly two years with the army abroad. He was with Sir William Stokes at the time of the latter's lamented death. While stationed at Pretoria he was called up to render medical assistance in General Delarey's camp. He returned to Ireland some months ago, and was immediately appointed Visiting Surgeon to the Children's Hospital in Temple Street. Dr. White was a young man with brilliant prospects, and owing to his genial disposition was a universal favourite. He was at his work on Monday, February 3rd, got the initial rigor of acute pneumonia during the day, and on the following Wednesday morning he passed away. Much sympathy is felt for his relatives in the severe affliction which has so suddenly fallen upon them.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE MEDICAL SERVICE OF THE ROYAL NAVY.

Mr. James Cantlie, F.R.C.S. (London, W.), writes:

The letter which appears in the British Medical Journal of February 8th, and signed "X. Y. Z.," calls attention to the medical service of the navy, and to some of the reforms necessary in that service. It would be well were the medical officers of the navy allowed to voice their wants a little more freely than they are. As a rule, they are so loyal to their shipmates, so jealous of any detrimental remark concerning either their own or any other branch of their splendid service, that there is some chance of the medical service falling behind in its efficiency from the mere fact of contentment. It were all very well perhaps if other services were similarly pleased, but there is a danger of the medical service of the navy being neglected owing to the public stir and the consequent increased encouragement given to the R.A.M.C. officers. This would be nothing more or less than a calamity, and it behoves the medical profession to see that they do their duty by the country in its needs, and provide for the navy surgeons of at least equal capacity to those being sought for by the army. If this is not done the best men will go to the army, and it will be a question of obtaining a sufficient medical staff of any description for the requirements of the navy, unless at least equivalent attraction be held out for medical men to join the navy. The medical men in the navy are so scattered, they have so few chances of meeting in any number, that it is difficult to obtain a collective view of their wishes. I avoid the word "grievances," because it is unfair to say that the surgeons of the navy have grievances; they want reforms, and they wish the service improved, but they so mask their feelings in wishing to be loyal, that "grievance" is not the proper term to apply to their case.

The more prominent changes and reforms desired are:

1. The present rate of pay is relatively below what is granted to the R.A.M.C. officers, and is less amongst newly-joined naval officers than is nowadays earned by recently-qualified medical men in civil practice.

2. The pension of £1 a day would appear satisfactory, but instead of the

increments of pension being obtainable after three or four years additional periods of service, it would be better were the suggestions of "X. Y. Z." adopted, namely, that the pension should be increased by 1s. a day for each year after the twenty years service has been completed.

3. Sending a fleet-surgeon after twenty-five years service or more to sea in any but a flag ship would appear to be inexpedient and unnecessary, the work in ships other than flagships being quite within the scope of work of surgeons of a lower rank.

4. A real grievance seems to be that the flag allowance of second flagships, and in the flagships of the home ports, is not granted to the medical department, though all heads of other departments are allowed it during the time the admiral's flag is flying.

5. Allowance of time for and pay during study leave must be granted sooner or later unless the medical men of the navy are to fall behind.

THE VICTORIA CROSS.

THE *Gazette* of February 11th, 1902, announces that the King has been pleased to signify his intention to confer the decoration of the Victoria Cross on Surgeon-Captain T. J. Crean, 1st Imperial Light Horse. The conduct for which the distinction is given is thus officially described: During the action with De Wet at Tygerskloof on December 18th, 1901, this officer continued to attend to the wounded in the firing line, under a heavy fire at only 150 yards range, after he had himself been wounded, and only desisted when he was hit a second time, and, as it was at first thought, mortally wounded.

THE ROYAL ARMY MEDICAL CORPS.

CHANGE OF DESIGNATIONS AND TITLES OF THE MILITIA AND VOLUNTEER MEDICAL STAFF CORPS.

Under date War Office, February 1st, the *Gazette* states that in consideration of the valuable services rendered by the Militia Medical Staff Corps and Volunteer Medical Staff Corps during the war in South Africa, his Majesty the King has been graciously pleased to approve the following changes in the designations of the corps and in the titles of the officers:

Former Designation of Corps.	New Designation of Corps.
Militia Medical Staff Corps	Royal Army Medical Corps (Militia).
Volunteer Medical Staff Corps.	Royal Army Medical Corps (Volunteers).

Former Title of Officers.	New Title of Officers.
Honorary Commandant	Honorary Colonel.
Honorary Surgeon-Colonel	
Honorary Surgeon-Lieutenant-Colonel Commandant	Honorary Lieutenant-Colonel Commandant.
Lieutenant Colonel	Lieutenant-Colonel.
Major	Major.
Surgeon-Captain	Captain.
Surgeon-Lieutenant	Lieutenant.

ROYAL NAVY MEDICAL SERVICE.

SURGEON WILLIAM P. WALKER, M.B., has been appointed to the *Vivid* for disposal, February 10th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL C. W. M. KEYS, M.D., is placed on retired pay, [illegible] 1901. He was appointed Assistant Surgeon, March 30th, 1872; [illegible] 1879; Surgeon-Major, March 30th, 1884; granted the [illegible] March 30th, 1892; and made Brigade-Surgeon-[illegible].

[illegible] W. T. [illegible] LEY, C. A. STONE, M.D., H. E. WINTER, and L. WAY, having completed twelve years full pay service, are promoted to be Majors, February 1st. Their war records are as follows: Major Mould—Operations in Sierra Leone in 1868-9 (medal with clasp); South [illegible] the Chitral Relief Force in [illegible] Major [illegible] African war, 1899-1900, as a [illegible] Major W. [illegible] Manipur Expedition in 1891 (medal [illegible] the Irrawaddy and North Eastern Columns in Burma [illegible].

[illegible] H. O. W. BARROW, J. E. HODGSON, A. L. SCOTT, L. E. L. PARKER, J. C. GILL, M. H. G. ERILL, G. H. GODDARD, W. B. WINKFIELD, T. C. LALOR, M.B., J. W. LEAKE, J. W. H. HOUGHTON, M.B., D. E. CRIMMIN, [illegible] G. M. GOLDSMITH, M.B., R. H. LLOYD, D. HARVEY, M.B., [illegible] M.B., H. E. HAYMES, F. J. BRAKENRIDGE, G. C. PHIPPS, N. J. [illegible] M.B., C. J. A. ORMSBY, M.D., H. D. PACKER, L. HUMM[illegible], R. [illegible] M.B., W. W. SCARLETT, H. E. PALMER, A. O. B. [illegible], have completed three years service, are [illegible]. All of [illegible], except Captains [illegible] and Bevington, have [illegible] in South Africa [illegible] the present war. Captain Goddard was severely wounded at [illegible] in February, 1900, and Captain Sloan was made a Companion [illegible] Distinguished Service Order for devotion to duty at Brakenlaagte [illegible].

Lieutenant J. R. WELLAND, M.B., is seconded for service in Somaliland, January 3rd.

Brigade-Surgeon JOHN WILD HULSEBERG died at 38, Glazbury Road, West Kensington, on the 4th instant, suddenly, in his 70th year. His commissions were thus dated: Assistant-Surgeon December 14th, 1854; Surgeon, October 4th, 1867; Surgeon-Major March 1st, 1873; and Brigade-Surgeon November 27th, 1879. He retired from the service July 27th, 1881. He was with the 8th Hussars in the Crimean campaign from January 29th, 1855, including the battle of Tchernaza and the fall of Sebastopol (medal with clasps and Turkish medal).

Deputy-Surgeon-General THOMAS BLATHEWICK died at Bromley, Kent, on the 6th instant, aged 78 years. He was appointed Assistant-Surgeon, June 4th, 1847; Surgeon, December 31st, 1858; Surgeon-Major, June 4th, 1867; and Honorary Deputy-Surgeon-General on retirement, January 6th, 1895.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL H. S. MUIR, M.D., C.B., is placed on retired pay, January 1st. Entering the service as Assistant-Surgeon, March 31st, 1864, he became Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; Brigade-Surgeon, November 1st, 1888; Surgeon-Colonel, December 23rd, 1893; and Surgeon-Major-General, November 30th, 1896. He was in the Afghan war of 1878-80, including the action at Shahjui, was mentioned in dispatches, and received the medal granted for the campaign. He was made a Companion of the Order of the Bath in 1900. He had but recently retired from the post of Deputy-Director-General, to which he was appointed in February, 1899.

IMPERIAL YEOMANRY.

THE appointment of Private G. D. LAING as Medical Officer to the 5th Battalion, with the temporary rank of Captain, is cancelled.

THE VOLUNTEERS.

THE undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, dated February 18th:—H. DICKIE, M.B., 1st Volunteer Battalion the Northumberland Fusiliers; C. J. MARTIN, M.B., 4th Volunteer Battalion the East Surrey Regiment; R. H. CORDEUX, M.B., 1st Nottinghamshire (Robin Hood) Rifles.

Brigade-Surgeon-Lieutenant-Colonel O. GRANT, M.B., 1st (Inverness-shire Highland) Volunteer Battalion the Queen's Own Cameron Highlanders, is seconded whilst serving on the staff of a Volunteer Infantry Brigade, February 12th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

CAPTAIN F. J. L. WARWICK, M.B., the London Companies, is appointed Transport Officer to the Division, February 12th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

RIXON *VERSUS* JOYCE.

THE attention of the profession is directed to this case, as by the decision of Mr. Justice Jelf, and the subsequent confirmation of his judgement by the Court of Appeal, a most important judicial interpretation has been given to Section 330, Subsection (2), of the Lunacy Act, 53 and 54 Vic., cap. 5. The circumstances leading to the judgement referred to are briefly as follows: Miss Rixon, the plaintiff in the action, some three years ago made an attempt upon her life whilst residing in the house and under the medical care of a registered practitioner. Information was sent to the sisters of Miss Rixon of the attempt at suicide, and these ladies instructed Dr. Joyce of Cranbrook, Kent, their medical attendant and friend, to take all necessary legal steps to protect their sister, and if required, to place her in an asylum. Dr. Joyce found on inquiry that Miss Rixon had been removed from her residence in the country and had been taken to a nursing home in London, in the charge of two nurses and a male attendant. After seeing the self-inflicted injuries and becoming aware of her mental condition, he called in Dr. Savage and Dr. Outterson Wood, who, after due and proper examination, made out and signed the necessary certificates under the Lunacy Acts, and the patient was ultimately, after the necessary legal formalities had been carried out, taken to a private asylum. At the asylum she remained for nearly two years and a-half, and finally was discharged cured.

Miss Rixon subsequently brought an action against Dr. Joyce claiming damages for slander, assault, and false imprisonment. Dr. Joyce being a member of the Medical Defence Union, placed the case in the hands of the Council, who instructed their solicitor, Mr. Hempson, to take all necessary steps to defend. After consultation with counsel, it was decided to apply to the judge in chambers to strike out the statement of claim on the ground that the acts of Dr. Joyce were done in good faith and with reasonable care, and that the action should be dismissed as frivolous and vexatious.

The application came before Mr. Justice Jelf and counsel were heard for each side, and finally the Judge made an order as asked, striking out the statement of claim, dismissing the action, and giving costs against Miss Rixon. From this order the plaintiff appealed, and the appeal came before the Master of the Rolls, and Lords Justices Mathew and Romer in their Court on February 10th.

In support of the appeal, and on behalf of Miss Rixon, there appeared Mr. Lawson Walton, K.C., and Mr. Cavenagh; and Mr. Dickens, K.C., and Mr. Hugh Fraser were instructed on behalf of Dr. Joyce.

The case for the appellant was argued at considerable length both by Mr. Walton and his junior, who sought to show to the Court that Dr. Joyce had not acted either bona fide or with reasonable care, and that practically he had misled both the medical practitioners into certifying by unfounded, or at least exaggerated, statements.

Upon the case for the appellant being closed, the Court at once declared that, as far as the bona fides of Dr. Joyce's acts were concerned, they desired no reply from his counsel, but asked Mr. Dickens to confine his remarks to the point whether he had exercised "reasonable care" with his

the meaning of the Act. After a very short statement by Mr. Dickens in reply, the learned Judges stopped the case, and in an elaborate judgement the Master of the Rolls and Lord Justice Mathew gave their decision, in which Lord Justice Romer concurred, that Dr. Joyce had exercised reasonable care and acted in good faith, and that therefore they dismissed the appeal with costs, and confirmed the decision of Mr. Justice Jelf.

This decision is of immense value not only to the profession, but to all persons who have unfortunately to take any part in causing to be certified those suffering from unsound minds. It has been generally considered that the protection afforded by the Lunacy Act in the Section referred to only had reference to those who actually certified the lunatic. By the present judgement protection is afforded to all who are in any way concerned "in doing anything in pursuance of the Act" as long as, it is perhaps needless to add, the acts done are bona fide and the result of the exercise of reasonable care. It is true that in Hodson and Another *v.* Parr, L. O. B., 1899, 455, the Court of Appeal decided that defamatory statements made in the course of proceedings under the Lunacy Act and set out in the petition and statement of particulars in the lunacy certificate were not actionable. Though this judgement could not be referred to in the Rixon case, as it was not strictly on all-fours, the two judgements together form protection and relief to all concerned in the unpleasant duty of placing lunatics under proper care.

CORONERS AND UNCERTIFIED DEATHS.

We are glad to be able to report that Mr. Holden, H.M. Coroner for the Birkenhead County Borough, has publicly announced his intention to hold an inquest upon the body of any person lying dead within his jurisdiction whose death is not certified by a registered practitioner of medicine.

The announcement was made at an inquest reported in the *Birkenhead News*, held on January 31st on the body of Mrs. Elizabeth Jones, who had been attended by an unregistered person named Alfred Pleavin. It appears from the report that Pleavin had assured the son-in-law of the deceased that he (Pleavin) "had never had a certificate [that is, certificate of death] refused in any part of the kingdom." This statement satisfied the relatives, and they permitted Mr. Pleavin to attend up to the death, but were surprised to find that the certificate given was not accepted by the registrar, and that an inquest was ordered.

At the inquiry Mr. Pleavin was present on subpœna, and gave evidence stating that although he had never been to America he held a doctorate of medicine from Buffalo and Ohio, United States of America; he also informed the Court that he was examined in England "by a professor appointed under the seal of the Attorney-General of Government House, Washington." The medicines given in the case were American, and were made up by his son, who was not a registered chemist. He also stated that his "certificate" had never been returned and that he had given them for twelve years. After medical evidence had been given showing that the cause of death was other than that given by Mr. Pleavin in his "certificate" the jury brought in a verdict of death from natural causes, and expressed themselves in sympathy with the coroner in his intention to hold inquests on all cases not certified by registered practitioners. The coroner in his summing up, told the jury that he had been in communication with the Registrar-General on the subject and that instructions had been given to the local registrars to notify all uncertified deaths at once to him so that all enquiries could be made. The coroner called the attention of the jury to the fact that inquests held in such cases as these would serve to show the public the stupidity and futility of seeking medical advice from people who were not qualified to give it.

Every medical practitioner will approve of the decision of Mr. Holden, and we cannot but hope that all other coroners will follow on the same lines if they have not previously acted in the same way. It has long been a scandal that many deaths have been registered without the cause of death being ascertained and certified by registered practitioners.

It is true that such deaths are registered as "uncertified," but burial orders follow, and practically the same course is adopted as if the information had been given by a qualified medical man. The course adopted by Mr. Holden will go far to put a check on this scandalous condition of things which we have protested against for many years and which was reported against by a parliamentary Committee in 1893.

FEE FOR TREATING COLLES'S FRACTURE.

S., while at supper at a restaurant, was asked to treat a lady who had met with an accident at a ball then being held at that establishment, and had sustained a Colles's fracture. The patient's husband, who was a wealthy merchant, wished S. to continue with the case, but, finding his patient had a regular medical attendant, he advised that the latter should be called in. He was asked the amount of his fee, and named 5 guineas. He was told that it was exorbitant, and payment refused. He wishes to know whether his fee could be considered exorbitant under the circumstances.

*** Certainly not. The Consolidated Orders of the Local Government Board allow the parish doctor £3 for attending to a Colles's fracture in the case of a pauper.

MEDICAL WITNESSES IN COURT.

Medical Witness.—A medical witness had no right to remain in court when other witnesses were required to retire. The clerk was correct in his ruling, although in many cases, as a matter of courtesy, medical witnesses are permitted to remain.

CERTIFICATES OF UNREGISTERED PRACTITIONERS.

Queerens.—It is for the patient, who is the aggrieved party, to take action, as no certificate issued by an unregistered practitioner is valid. However, if the name of the person granting the certificate in question and the (ull particulars of the case were forwarded to the Secretary of the Medical Defence Union, 4, Trafalgar Square, W.C., we have no doubt that inquiries would be made, and that some action would be taken if any infringement of the Medical Acts was proved.

MEDICAL ETIQUETTE.

Dubious.—As A. and B. appear to have made statements totally at variance with each other, C. should have disregarded both, and have requested B., if it was his intention to dismiss A., to do so by writing him a politely-worded letter telling him not to call again. After this had been done C. would have been free to take charge of the case.

REMUNERATION OF INVALIDED ASSISTANT.

Q. wishes to know what amount his assistant, who left him on account of illness, is entitled to.

*** If notice was given at the time, the assistant could not claim more than a month's salary. Till such notice is given the assistant, although ill and unable to do his work, continues at law in the employment of the principal, and must be paid his usual salary. An assistant, when given a month's salary in lieu of notice, cannot, we are advised, claim the value of a month's board in addition.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Dr. J. Reynolds Green, F.R.S., Professor of Botany to the Pharmaceutical Society, has been elected a Fellow of Downing College.

Principal Griffiths, F.R.S., of Cardiff University College, has received the degree of Doctor of Science.

Professor Osborne Reynolds, F.R.S., of Manchester, will deliver the Rede lecture this year. Mr. W. N. Shaw, F.R.S., will lecture this month on the physics of the ventilation of buildings.

Research Studentships.—An election to the Allen research studentship of £250 for one year will take place at the end of this term. Candidates must be graduates of not more than 28 years of age, and be prepared to undertake research in certain specified departments, one of which is medicine.

Third M.B. Examination.—The Special Board for Medicine has issued schedules of the examinations in Pharmacology and General Pathology for the third M.B. Copies may be had on application to the Registrar. Dr. Bradbury, Dr. D. MacAlister, Professor Woodhead, and Professor Delépine have been appointed Examiners in Pharmacology and General Pathology for the Third M.B. Examination, Part I, to be held next June.

Electors to Professorships.—The following have been appointed electors to Professorships: *Chemistry*, Dr. Tilden, F.R.S., and Lord Rayleigh, F.R.S.; *Anatomy*, Dr. A. Hill; *Botany*, Mr. F. Darwin, M.B., F.R.S.; *Jacksonian*, Sir George G. Stokes F.R.S.; *Downing of Medicine*, Dr. D. MacAlister; *Zoology*, Professor Ray Lankester, F.R.S.; *Cavendish of Physics*, Sir J. G. Stokes, F.R.S.; *Physiology*, Professor McKendrick, F.R.S.; *Surgery*, Professor J. Chiene, C.B.; *Pathology*, Lord Lister, F.R.S.

UNIVERSITY OF LONDON.

The Faculty of Medicine.—The Matriculation Examination.

It will be remembered that at a meeting of the Senate of the University on November 27th, 1901, a report from the Advisory Board on the Matriculation Examination was further considered, and was "referred to the Academic and the External Council for consideration and report to the Senate, with power to confer."

We are informed that the following are the terms of the reply adopted by the Faculty at its meeting on January 24th to a communication from the Academic Council with regard to matriculation:

1. The Faculty of Medicine, having considered the communication from the Academic Council with regard to matriculation, together with the report of the Advisory Board to the Senate thereon, and other documents relating to the same subject, begs to report as follows:

2. The Faculty reaffirms the opinion expressed in its communication to the Senate, dated November 8th, 1901, that "No scheme of matriculation will be satisfactory which does not permit a wide choice of subjects for examination, so as to meet the requirements of candidates, whether from the 'classical' or 'modern' side of secondary schools."

3. To meet such requirements the Faculty believes that the present Matriculation Examination must be materially altered.

It has come to the knowledge of the Faculty of Medicine, through the Deans of the London medical schools, that a considerable number of young men who desire to study medicine in London, and who naturally wish to graduate at the University, are discouraged from doing so by the character of the matriculation examination. While the matriculation examinations of most of the universities of Great Britain and Ireland are of such a kind that youths educated at the principal secondary schools are able to go up directly from their schools and pass the examinations, the character of the London Matriculation Examination is such that the teaching of the secondary schools has, for the most part, to be specially adapted to it. In fact, the candidate for matriculation in London must, if he will pass the examination, undergo a special preparation of from six to twelve months; and to provide this is so inconvenient to the masters of the principal secondary schools that they will not undertake to send their pupils up for this examination. Rather than do so they deliberately dissuade boys from entering the University of London. In most cases, if a boy persists in his determination to enter the University of London, he is obliged to leave his school and to study with assistance at home, or to betake himself to some special institution where candidates are prepared for the London Matriculation.

The dean of every London medical school is familiar with cases which occur year after year of young men who have been educated at one or other of the principal secondary schools in this country, who then come to London with the intention of studying medicine, and, making inquiries with the desire of becoming undergraduates of the University, find that they cannot do so without devoting at least [illegible] for the Matriculation Examination. In these circumstances they elect to be content with a licence to practise medicine or betake themselves to some other university where they [illegible] advance with the education they have received at school.

4. The Faculty of Medicine believes that the past experience of the London University proves beyond doubt that for a single university to

attempt to define the subjects which boys and girls should be taught at school by instituting a rigid matriculation test unduly narrows the scope of the University's work, starves the schools of the University, and has an almost inappreciable effect upon Secondary Education.

5. It is for these reasons that the Faculty desires that a Matriculation Examination should be instituted which shall ensure that an intending undergraduate has profited by the secondary education at present given by the best schools in this country, and that other means should be adopted to modify Secondary Education, where such modification is necessary.

6. The Faculty of Medicine believes that a Matriculation Examination of the kind required would be provided by the adoption of the Report of the Advisory Board for the Admission of Students, dated April 26th, 1901.

7. The Faculty would point out that it is only by allowing such a wide choice of subjects as is recommended in the report of the Advisory Board that it will be possible for teachers to induce their students to choose those subjects a knowledge of which is likely to be most useful to them in their university studies

8. The Faculty of Medicine believes it to be very undesirable to establish a separate Matriculation Examination for each Faculty.

INTERMEDIATE EXAMINATION IN MEDICINE.—The following candidates have satisfied the Examiners:

Entire Examination.—First Division.—A. J. Blaxland, University College; R. H. C. Gompertz, B.Sc., King's College; E. L. Holland, King's College. *Second Division.*—H. Catling, St. Thomas's Hospital; F. B. Dalgliesh, St. Thomas's Hospital; Delia Davies, Lond. (R.F.H.) School of Medicine for Women; J. E. Dunbar, London Hospital; R. Felton, Guy's Hospital; W. Goodchild, University and Royal College of Surgeons, Edinburgh; C. H. M. Hughes, Westminster Hospital and King's College; F. P. Hughes, Guy's Hospital; D. Isaacs, Guy's Hospital; C. H. F. Johnston, Charing Cross Hospital; T. H. Jones, King's College; W. N. Kingsbury, Middlesex Hospital; G. Laurence, University College, Liverpool; J. L. Lawry, London Hospital; A. Leeming, Guy's Hospital; F. C. McCombie, King's College; J. B. McVail, London Hospital; S. H. Matson, St. George's Hospital; W. N. May, Guy's Hospital; R. H. Miller, St. Mary's Hospital; J. McF. W. Pollard, Guy's Hospital; T. Pratt, University College, Bristol; P. M. Roberts, University College; A. M. Roome, Guy's Hospital; W. M. Sadler, University College; J. L. Schilling, Yorkshire College; G. H. Shortridge, University College Cardiff and St. Mary's Hospital; G. A. Soltau, London Hospital; L. Warren, London Hospital; S. Zobel, University College.

Excluding Physiology.—First Division.—F. W. Higgs, St. George's Hospital; A. J. Malcolm, St. Mary's Hospital; C. S. White, University College. *Second Division.*—C. H. Berry, University College; F. M. Bishop, St. Bartholomew's Hospital; A. C. Brown, St. Bartholomew's Hospital; J. Jones, Owens College; S. W. Milner, St. Bartholomew's Hospital; H. F. Whittall, University College; L. A. Wilson, Owens College.

Physiology only.—First Division.—A. D. Hunt, Yorkshire College and University College, Liverpool. *Second Division.*—L. Bathurst, St. Thomas's Hospital; L. H. H. Boys, Middlesex Hospital; C. N. Davis, St. Bartholomew's Hospital; W. J. Edgar, St. Thomas's Hospital; H. Farncombe, University College; Florence Erin Gubb, London (Royal Free Hospital) School of Medicine for Women; E. C. Hood, Yorkshire College; H. A. Kellond-Knight, St. Bartholomew's Hospital; J. T. Lloyd, University College, Liverpool; D. J. Mulholland, University College, Liverpool; E. W Parry, St. Thomas's Hospital; J. M. Plews, St. Bartholomew's Hospital; T. P. Puddicombe, St. Thomas's Hospital; S. H. Sweet, University College Cardiff; Barbara Tchaykovsky, B.Sc., London (Royal Free Hospital) School of Women for Medicine and Bedford College; L. L. A. W. Thomson, St. Mary's Hospital; F. H. Whitehead, St. Thomas's Hospital.

ROYAL UNIVERSITY OF IRELAND.

At a meeting of the Senate, held on Friday, February 7th, the following Examiners (among others) were appointed for the year 1902:—*Natural Philosophy:* William Bergin, M.A. *Natural Science:* Alexander J. M. Blaney, M.A.; Marcus Hastof, D.Sc. *Medicine:* James A. Lindsay, M.D.; Joseph F. O'Carroll, M.D. *Ophthalmology:* Arthur W. Sandford, M.D.; Louis Werner, M.B. *Midwifery:* John W. Byers, M.D.; Alfred J. Smith, M.B. *Medical Jurisprudence, etc.:* Charles Y. Pearson, M.D.; Antony Roche, M.R.C.P.I. *Materia Medica:* Martin Dempsey, M.D.; William Whittle, M.D. *Physiology:* William H. Thompson, M.D. *Pathology:* Edmond J. McWeeney, M.D.; James Lorrain Smith, M.D. *Sanitary Science:* Sir Charles A. Cameron, C.B., M.D.

It was agreed to postpone appointing to Extern Examinerships until next meeting.

UNIVERSITY OF DUBLIN.

At the Spring Commencements, Hilary Term, held on Shrove Tuesday, February 11th, the following degrees in Medicine, Surgery, and Midwifery were conferred by the University Caput in the presence of the Senate assembled in the Theatre of Trinity College:

In Medicine, in Surgery, et in Arte Obstetricia.—F. J. [illegible] D. H. D. Browne, A. S. Chambers, R. E. Croe, F. J. [illegible], J. N. Laird, W. Ormsby, W. H. Somerville, H. T. Stack.

In Medicina.—W. Bramwell, R. E. Croe, G. A. Pringle, H. Pringle.

VICTORIA UNIVERSITY.

THE PROPOSED DISSOLUTION.

It is announced that the following protest has been drawn up:

"We, the undersigned graduates of the Victoria University, hereby express our emphatic protest against the proposed dissolution of the Victoria University. We are of opinion that the dissolution of the University would be injurious to the cause of higher education in the North of England, and would be seriously detrimental to the interests of the graduates."

It is stated that this has been signed by 302 graduates, of whom 186 are members of Owens College, Manchester; 89 of Yorkshire College, Leeds; and 27 of University College, Liverpool.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of the Royal College of Physicians of Edinburgh was held on Tuesday, February 4th, Dr. Fraser, President, in the chair.

The Fellowship.

Dr. D. J. Graham was introduced, and took his seat as a Fellow of the College. Frederick James Tresilian, M.D., R.U.I., M.R.C.P.E., and John Rutherford Gilmour, M.B. C.M.Edin., M.R.C.P.E., were admitted by ballot to the Fellowship of the College.

Membership.

On a ballot the following candidates were admitted to the Membership of the College after examination: Harry Oliphant Nicholson, M.D. (Edinburgh), Charles Porter, M.B., C.M. (Leith), and John Macaulay Bowie, M.D. (Edinburgh).

Licence.

The Registrar reported that since the last quarterly meeting 33 persons had obtained the licence of the College by examination.

Parkin Prize.

The Secretary reported that the Council had resolved to offer the Parkin Prize for competition during the current year, the subject to be, in terms of the bequest, On the Curative Effects of Carbonic Acid Gas or other forms of Carbon in Cholera, for different forms of Fever and other Diseases. Essays must be received by the Secretary up to December 31st, 1902.

Freeland Barbour Fellowship.

Intimation was made that the Council had determined to defer the award of the Freeland Barbour Fellowship from February to May biennially.

Congresses.

The President announced that the Council had nominated the President and Vice-President for the time being to be delegates to the International Medical Congress at Madrid on the invitation of the Organising Committee of the Congress. It was remitted to the Council to nominate delegates to the Sanitary Institute Congress to be held in Manchester in September, 1902.

Scottish Representation on Advisory Board of Royal Army Medical Corps.

The Secretary read a statement which had been prepared by the Council and transmitted to the Secretary for War and the Secretary for Scotland, protesting against the proposed representation of Scotland on the Advisory Board of the R.A.M.C. as not calculated to give the medical profession of Scotland, from whose medical schools a large percentage of successful candidates for the R.A.M.C. is annually supplied, the confidence that is desirable in the work of the Board. The conviction was expressed that the proposed appointment would lead to widespread dissatisfaction.

CONJOINT BOARD IN IRELAND.

DIPLOMA IN PUBLIC HEALTH.—The following candidates have passed this examination:

T. Hennessy, F.R.C.S.I.; J. O'Donoghue, F.R.C.S.I.; D. M. Saunders, M.D., Major, R.A.M.C.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE SUPPLY OF VACCINATION LYMPH.

WE are informed that the following letter has been sent from the governing body of the Jenner Institute of Preventive Medicine, over which Lord Lister presides, to a correspondent who had written concerning the confusion existing in the public mind from the fact that there are two Jenner Institutes, in one of which—that at Chelsea—the Government lymph supplied gratis to public vaccinators is prepared, while in the other—that at Battersea—vaccination lymph is prepared and sold commercially. The Government lymph, as is known generally, cannot be purchased.

Jenner Institute of Preventive Medicine,
Grosvenor Road, Chelsea Gardens, S.W.,
February 11th, 1902.

Sir,—In reply to your letter, I am directed to inform you that no vaccine lymph is prepared at the Jenner Institute of Preventive Medicine under the direction of the governing body of the Institute, but that certain laboratories in the Institute are leased to the Local Government Board, and that the officers of the Board are engaged there in preparing glycerinated lymph for supplying public vaccinators only. The manufacture of calf lymph for sale is also carried on at another Institute, the Jenner Institute for Calf Lymph, situated in Battersea, but that Institute is in no way connected with the Jenner Institute of Preventive Medicine.

I am, etc.,
ALLAN MACFADYEN
(Secretary).

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths registered in the fourth quarter of 1901, and to the marriages during the three months ending September last. The marriage-rate was equal to 17.5 per 1,000, and was 1.1 per 1,000 above the average rate in the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter ending December last numbered 228,916, and were equal to an annual rate of 27.8 per 1,000 of the population, estimated by the Registrar-General at 32,617,001 persons in the middle of last year. This rate was 1.0 per 1,000 below the mean rate in the corresponding quarters of the ten preceding years. The birth-rates in the several counties ranged from 20.9 in Rutlandshire, 21.6 in Westmorland, 21.9 in Sussex, and 22.0 in Somersetshire and in Herefordshire, to 30.9 in Northumberland, 31.5 in South Wales, 32.3 in Staffordshire 32.6 in Monmouthshire, and 35.9 in Durham. In thirty-three of the largest English towns, including London, the birth-rate last quarter averaged 28.8 per 1,000, and exceeded by 3.1 the general English birth-rate. In London the rate was 28.0 per 1,000, while it averaged 29.3 in the thirty-two large provincial towns, among which it ranged from 20.3 in Halifax, 22.0 in Bradford, 22.5 in Huddersfield, and 24.3 in Blackburn, to 32.1 in Hull, 33.1 in Sheffield, 35.1 in West Ham, 35.4 in Sunderland, and 37.3 in Gateshead.

The births registered in England and Wales during the three months under notice exceeded the deaths by 92,079: this represents the natural increase of the population during that period. From returns issued by the Board of Trade it appears that 66,878 emigrants embarked during last quarter for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 66,878 emigrants, 29,797 were English, 4,732 Scottish, and 6,475 Irish, while 25,874 others were of foreign origin. Compared with the averages in the corresponding quarters of the three preceding years the proportion of emigrants showed an increase in England of 24.7 per cent., in Scotland of 22.7 per cent., and in Ireland of 5.7 per cent.

During the fourth quarter of last year the deaths of 136,837 persons were registered in England and Wales, equal to an annual rate of 16.6 per 1,000, being 1.1 per 1,000 below the average rate in the fourth quarters of the ten preceding years. The lowest county death-rates last quarter were 12.5 in Hertfordshire, 12.9 in Buckinghamshire and in Bedfordshire, 13.1 in Surrey, and 13.3 in Berkshire, in Northamptonshire, and in Herefordshire; and the highest rates 18.6 in Durham and in Monmouthshire, 18.9 in Northumberland, and 19.2 in Lancashire. In the urban parts of England and Wales, with a population estimated at about 22½ millions, the rate of mortality during the quarter under notice was 17.5 per 1,000; while among the remaining, and chiefly rural, population of about 10 millions, the rate was 14.7 per 1,000; these urban and rural rates were 1.0 above and 1.2 below the respective averages. Among thirty-three of the largest English towns the mean death-rate was 18.6 per 1,000, or 1.1 in excess of the general English death-rate during the same period. In London the death-rate was 18.3 per 1,000, while it averaged 18.7 in the thirty-two large provincial towns, among which the rates of mortality ranged from 13.2 in Croydon, 13.7 in Derby, 14.9 in Halifax, 15.5 in Huddersfield, and 15.6 in Leicester, to 20.9 in Preston, 21.3 in Newcastle, 21.8 in Oldham, 22.0 in Salford, and 22.3 in Manchester. In sixty-seven other large towns, with an estimated aggregate population of more than four millions, the mean death-rate was 16.9 per 1,000, or 1.7 below the mean rate in the thirty-three great towns.

The 136,387 deaths from all causes registered in England and Wales during the three months ending December last included 2,957 which were referred to diarrhoea, 2,766 to measles, 2,627 to diphtheria, 1,745 to "fever" (principally enteric), 1,403 to whooping-cough, 1,350 to scarlet fever, and 296 to small-pox. The mortality from small-pox and from diphtheria exceeded the average in the corresponding quarters of the ten preceding years, while that from each of the other principal zymotic diseases showed a decline. Of the 296 fatal cases of small-pox, 192 were of persons belonging to London.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under 1 year of age to registered births, was equal to 142 per 1,000, or 8 per 1,000 above the average. In thirty-three of the largest English towns, including London, the rate of infant mortality was 102 per 1,000; in London the rate was 153 per 1,000, while it averaged 167 in the thirty-two large provincial towns, and ranged from 102 in Portsmouth, 117 in Plymouth and in Huddersfield, 124 in Birkenhead, and 127 in Croydon, to 190 in Birmingham, 192 in Sheffield, 224 in Burnley, 225 in Blackburn, and 227 in Preston.

The mortality in England and Wales last quarter among persons aged between 1 and 60 years was equal to 8.6 per 1,000 of the estimated population at this group of ages, and was 0.6 per 1,000 below the mean rate in the ten preceding fourth quarters. In the thirty-three great towns the mortality at this age-group averaged 10.2 per 1,000, and ranged from 6.3 in Derby, 6.4 in Croydon, 7.3 in Wolverhampton, and 7.7 in Bristol, to 12.3 in Blackburn and in Newcastle, 12.5 in Liverpool, 13.0 in Salford, and 13.3 in Oldham and in Manchester.

Among persons aged 60 years and upwards the death-rate in England and Wales last quarter was equal to 67.0 per 1,000 of the population estimated to be living at this group of ages, and was 1.2 below the mean rate in the ten preceding fourth quarters. In the thirty-three great towns this death-rate averaged 76.2 per 1,000, and ranged from 58.9 in Brighton, 60.4 in Croydon, 62.4 in Norwich, 64.0 in Leicester, and 64.2 in Halifax, to 87.4 in Salford, 87.5 in Burnley, 89.6 in Manchester, 89.7 in Newcastle, and 97.0 in Oldham.

The mean temperature of the air at the Royal Observatory, Greenwich, was 43.9°, which was 0.2° above the average in the fourth quarters of 130 years; in October the temperature exceeded the average by 1°, and in December by 0.8°, but declined during November to 1.3° below the average. The rainfall during the quarter measured 0.30 inches, and was 0.78 inch below the average.

THE anniversary dinner of the Medical Society of London will take place on Saturday, March 8th, at the Whitehall Rooms of the Hôtel Métropole.

VITAL STATISTICS OF IRELAND.

THE Registrar-General's quarterly summary of births and deaths in the Dublin registration area and in twenty-one of the principal urban districts in Ireland for the quarter ending December 28th, 1901, has been issued.

The Birth-rate in the Dublin registration area was equal to an annual rate of 24.5 per 1,000 of the population. In the city proper the rate was 26.8, and in the outlying districts of Rathmines, Pembroke, Blackrock, and Kingston it was 16.6 per 1,000. The birth-rate for a similar period was in London 27.9, in Glasgow 28.9, in Edinburgh 23.7, and in Belfast 28.9.

The Death-rate for the quarter was in the Dublin registration area equal to an annual rate of 21.6 per 1,000. In the north side of the city proper the rate was equivalent to 22.4, in the south side it was 23.7, while in the outlying districts named above it was 16.5 in every 1,000. In London for the same period the death-rate was equal to 18.3, in Glasgow to 21.1, in Edinburgh to 17.9, and in Belfast to 19.3 per 1,000. In the twenty-two principal town districts the average annual death-rate varied from Lurgan 11.9, to Kilkenny 25.2.

Zymotic diseases during the quarter caused 185 deaths in the Dublin registration area, which was equal to 2.0 per 1,000, this being 2.5 under the rate for the preceding quarter, and 1.5 under the average for the fourth quarter of the previous ten years. There was no death from small-pox registered during the quarter, nor did measles or typhus fever cause any deaths. Diarrhoea was responsible for 59 deaths, enteric fever 39, whooping-cough and diphtheria 19 each, influenza 12, and scarlatina 6. In the twenty-two principal town districts enteric fever and diarrhoea caused 100 deaths each, 80 and 40 of these respectively occurring in Belfast. Diphtheria caused 24 deaths in Belfast, 3 each in Londonderry, Dundalk, and Ballymena, and 1 each in Kilkenny, Clonmel, Lurgan, and Newtownards. Typhus fever was responsible for 4 deaths in Galway, 2 in Londonderry, and 1 in Wexford. There was no death registered from small-pox.

Phthisis caused 285 deaths in the Dublin registration area during the quarter, which is equal to a rate of 3.0 per 1,000 of the population. The numbers for the preceding quarters of the year were 296, 324, and 379, making a total for 1901 of 1,284, or a rate of 3.4 per 1,000 for the Dublin area. This compares favourably with the year 1900, when the number of deaths from phthisis in the Dublin registration area was 1,337. Phthisis caused 428 deaths in the twenty-two principal towns. This was equal to a rate of 1.6 per 1,000 of the aggregate population of the twenty-one urban districts. In Belfast the deaths from phthisis amounted to 210 during the quarter.

Uncertified deaths in the Dublin district numbered 130, and of these 60 per cent. were deaths of children under 5 years of age. Of the deaths of 133 infants under 1 month old registered, there were 43 regarding which the cause was uncertified.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 6,645 births and 5,875 deaths were registered during the week ending Saturday last, February 8th. The annual rate of mortality in these towns, which had been 17.7 and 17.9 per 1,000 in the two preceding weeks, further rose last week to 20.6 per 1,000. The rates in the several towns ranged from 8.8 in Coventry, 9.0 in West Hartlepool, 12.5 in Derby, 12.9 in Grimsby, 13.1 in Hornsey, and 13.5 in East Ham, to 26.0 in Burnley, 26.1 in Rotherham, 26.3 in Rhondda, 26.8 in Sunderland, 28.0 in Wigan and in Preston, and 28.8 in Merthyr Tydfil. In London the death-rate was 22.5 per 1,000, and exceeded by 2.7 the mean rate in the seventy-five other large towns, which was 19.8 per 1,000. The zymotic death-rate in the seventy-six large towns averaged 2.0 per 1,000; in London this death-rate was equal to 2.4 per 1,000, while it averaged 1.9 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.5 in East Ham, 4.0 in Rhondda, 4.0 in Aston Manor, 4.2 in Bournemouth, 6.0 in Stockton-on-Tees, and 8.4 in Rotherham. Measles caused a death-rate of 2.0 in Stockton-on-Tees, 2.2 in Merthyr Tydfil, and 7.5 in Rotherham; scarlet fever of 1.0 in South Shields and 1.4 in Gateshead; diphtheria of 2.2 in Cardiff, 1.6 in Willesden, 1.4 in Portsmouth, 2.5 in Bournemouth, and 3.3 in Hanley; whooping-cough of 1.4 in Plymouth and in Liverpool, 1.8 in Rhondda, 2.1 in East Ham, 2.7 in Aston Manor, and 4.0 in Stockton-on-Tees; and "fever" of 1.6 in West Hartlepool and 1.8 in Walsall. Seventy-seven deaths from small-pox of persons belonging to the large towns were registered last week, of which 64 belonged to London, 7 West Ham, 3 to Tottenham, and 1 each to Walthamstow, Reading, and Swansea. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals at the end of the week was 1,162, against 877, 550, and 1,000 on the three preceding Saturdays; 287 new cases were admitted during the week, against 213, 204, and 400 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had declined from 3,137 to 2,554 at the end of the six preceding weeks, had further decreased to 2,500 on Saturday, February 8th; 277 new cases were admitted during the week, against 288, 299, and 226 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 8th, 922 births and 571 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.3 and 21.8 per 1,000 in the two preceding weeks, further rose last week to 23.9 per 1,000, and exceeded by 3.3 per 1,000 the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 20.5 in Leith and 23.1 in Dundee, to 24.1 in Edinburgh and 26.5 in Greenock. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Glasgow, Paisley and Greenock. The 357 deaths registered in Glasgow included 1 from small-pox, 16 from measles, 5 from scarlet fever, 4 from diphtheria, 10 from whooping-cough, 2 from "fever," and 9 from diarrhoea. Two fatal cases of "fever" and 4 of diarrhoea were recorded in Edinburgh. Five deaths from diarrhoea were recorded in Dundee, from scarlet fever, 2 from diphtheria, and 3 from diarrhoea in Aberdeen; 4 from whooping-cough in Paisley; and 2 from measles and 2 from scarlet fever in Greenock.

MEDICAL NEWS.

SENATOR GALLINGER has introduced into the Senate of the United States a Bill prepared by the American Society for the Regulation of Vivisection, which has its headquarters in Brooklyn, for the regulation of vivisection.

THE muzzling of dogs order has been reimposed upon the petty sessional divisions of Llanboidy and St. Clears, county Carmarthenshire, and the administrative county of Pembroke, except the petty sessional division of Kilgerran.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of the Society will take place on Wednesday, February 19th, at Frascati's, at 7.30 P.M. The Presidents of the Royal Colleges of Physicians and Surgeons, the Medical and Clinical Societies, and other guests will be present.

EGYPTIAN CONGRESS OF MEDICINE.—The date of the first Egyptian Congress of Medicine to be held at Cairo this year has been altered from December 10th to 14th to December 19th to 23rd. The official languages of the Congress are French and Arabic, but the use of English, German, Italian, and Greek will also be permissible.

SMALL-POX IN THE UNITED STATES.—The Surgeon-General reports that during 1901 small-pox occurred in every State and Territory of the Union, with the exception of Arizona, from which no reports have been received. For the whole year the number of cases was 38,506 cases, with 689 deaths, showing a mortality of 1.79 per cent.

PRESIDENT MCKINLEY'S PHYSICIAN.—In recognition of the services rendered by him to the late President McKinley, Dr. Presley M. Rixey has been chosen chief of the Naval Bureau of Medicine and Surgery, with the rank of Rear-Admiral. He succeeds Rear-Admiral William K. Van Reypen, who at his own request will be retired with the rank of Senior Rear-Admiral.

A HYDROLOGICAL CONGRESS IN ITALY.—A Congress of Hydrology and Climatology will be held at Milan at Eastertide under the presidency of Dr. De Christoforis. The organization of the Congress has been carried out under the auspices of the Italian National Society of Hydrology. Among the members of the Organizing Committee are Professor Mangiagalli and Dr. Bordoni-Uffreduzzi.

A PATHOLOGICAL LABORATORY IN MANILA.—Dr. Sternberg, Surgeon-General of the United States Army, has made arrangements for the prosecution of pathological work at Manila, and the American Government has granted him every facility for the purpose. The laboratory is said to be equal in equipment to the best in the United States, and it has an excellent outfit for photomicrography.

CONGRESS OF GERMAN SCIENTISTS AND MEDICAL PRACTITIONERS. The Congress of German Scientists and Medical Practitioners will be held this year at Carlsbad from September 21st to 28th. All classes of the population, particularly the municipality and the medical profession, whose number amounted to 130 during the last season, are already engaged in making arrangements for a worthy reception of the members of the Congress.

CARDIFF INFIRMARY.—On February 7th Dr. Herbert Vachell was appointed Physician to the Cardiff Infirmary in place of Dr. C. T. Vachell, who has been appointed Consulting Physician. The vacancy of assistant physician caused by the promotion of Dr. Herbert Vachell was filled by the appointment of W. Mitchell Stevens, M.D., M.R.C.P., Fellow of University College, London, and Honorary Pathologist to the institution.

TRAUMATIC BONE DISEASE IN THE GIRAFFE.—At the meeting of the Zoological Society of London on February 4th a communication from the Prosector, which contained some remarks on the recent death of the young male giraffe in the Society's Gardens, was read. Examination of the neck of the animal had revealed an injury to the fourth and fifth cervical vertebræ. This injury had caused the two bones to ankylose, and the bend in the neck, so noticeable in the living animal, was due to the epiphyses having grown only on one side of the bones.

INCREASE OF VACCINATING STAFF IN NEW YORK. One hundred additional vaccinators have been appointed by the New York City Board of Health at a salary of £20 a month. The gentlemen selected have all been taken from the list of medical school inspectors, in which capacity they have been receiving salaries of £6 a month. The Health Commissioner was also authorized by the Board to provide a disinfecting plant in each of the boroughs of the city at a cost of £1,000 each, and also to build an isolation hospital for contagious diseases on Staten Island.

JEWISH MEDICAL OFFICERS IN THE PRUSSIAN ARMY.—According to an official report recently issued by the Prussian War Office, only three Jews hold commissions as medical officers in the Prussian army. One is of the rank of surgeon-general, another is a staff surgeon-major, and the third is a staff surgeon. In the reserve there are 510 Jews, being 10.12 per cent. of the total number. Of the surgeons' assistants, 384, or 24.84 per cent., are Hebrews. The exclusion of Jews from the medical service of the Prussian army is an extraordinary relic of mediaevalism. The inconsistency of admitting them to the reserve makes it still more remarkable. If a Jewish surgeon is considered unfit for the service in time of peace, why should he be compelled to face the risks of war?

FRENCH SOCIETY OF THE HISTORY OF MEDICINE.—It was mentioned in the BRITISH MEDICAL JOURNAL a week or two ago that steps had been taken to form a French Society of the History of Medicine. The society was formally constituted at a meeting held on January 29th, when the statutes were adopted, and the office-bearers elected as follows:—*President:* Professor Raphael Blanchard, Member of the Academy of Medicine. *Vice-Presidents:* Drs. Motet, Member of the Academy; G. Ballet, *Professeur Agrégé* in the Medical Faculty of Paris; Dureau, Librarian to the Academy; and Triaire of Tours. *Secretary-General:* Dr. Albert Prieur, Editor of *La France Médicale*. *Secretaries:* Dr. MacAuliffe and M. Victor Nicaise, *Interne des Hôpitaux*. *Archivist:* Dr. Beluze. *Treasurer:* M. A. Prévost, Rédacteur in the Secretarial Office of the Faculty.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the Committee of the Medical Sickness Annuity and Life Assurance Society was held on January 31st, at 429, Strand, London, W.C. In the absence of Dr. De Havilland Hall, the chair was taken by Dr. Major Greenwood. As is usual at the January meeting the committee examined the special reports which are required annually from all those members of the Society who appear to be permanently incapacitated. Of these special reports eighteen were presented, and although in some few of them there is ground for hope that the member will recover his health, in the great majority it seems certain that he will never again be able to perform professional duties. Members thus afflicted are entitled to draw half-pay sickness allowance continuously until they reach the age of 65 years. This half-pay usually amounts to one hundred guineas per annum, and in some cases on the present list a cheque for £2 2s. has been sent to the member every week for more than ten years. At each valuation of the Society's business a special sum of money is reserved to make this important benefit absolutely secure. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

MEDICAL VACANCIES.

The following vacancies are announced:

ASHTON-UNDER-LYNE: DISTRICT INFIRMARY.—House-Surgeon. Salary, £130 per annum, with board and lodging. Applications, marked outside "Application for the Office of House-Surgeon," to be sent to Mr W. Rottomley, Honorary Secretary, 130, Stamford Street, Ashton-under-Lyne, by February 18th.

BELGRAVE HOSPITAL FOR CHILDREN.—(1) Ophthalmic Surgeon. (2) Assistant Physician. (3) Assistant Surgeon. (4) Sanitary Officer, must be D.P.H. Applications to the Secretary, 70 71 Vincent Street, S.W., by March 1st.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Male House-Surgeon. Salary, £80 per annum, with board and washing. Applications to the Chairman of the Weekly Board.

BOURNEMOUTH: ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by February 24th.

BRADFORD EYE AND EAR HOSPITAL.—Honorary Surgeon. Applications to the Secretary by February 22nd.

BRECON INFIRMARY.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished apartments, board, attendance, fire and gas. Applications to the Secretary, Mr. Bulwer K. Griffith, Watton, by February 19th.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary, and Assistant Medical Officer of the Workhouse. Salary £[illegible] per annum at Isleworth; unmarried. Salary, £80 per annum, with furnished apartments, rations, washing, etc. Applications, on forms provided, to be sent to the Guardians, Union Offices, Isleworth, W., by February 25th.

BRIDGWATER INFIRMARY.—House-Surgeon. Salary, £80 per annum, with board and residence. Applications to the Secretary by February 17th.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Physician; unmarried, and under 30 years of age. Salary, £80 per annum, with board, residence, and washing. Applications to the Secretary by February 26th.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum, with residence and maintenance. Applications to the Secretary by February 19th.

BURY INFIRMARY.—Junior House-Surgeon. Salary, £90 per annum, with residence, board, and attendance. Applications to the Honorary Secretary, Dispensary, Knowsley Street, Bury.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Surgeon; unmarried. Salary, £110 per annum, with board and lodging. Applications to the Secretary by February 21st.

CITY OF LONDON ASYLUM, near Dartford.—Locum Tenens Assistant Medical Officer for six weeks, not exceeding 30 years of age. Applications to the Medical Superintendent.

DONCASTER RURAL DISTRICT.—Medical Officer of Health. Salary, £300 per annum. Applications, endorsed "Medical Officer," to be sent to Clerk to the Council, Union Offices, High Street, Doncaster, by February 27th.

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180, with board, apartments, laundry, and attendance. Applications to the Medical Superintendent, at the Asylum, Winterton, Ferryhill.

DURHAM COUNTY HOSPITAL.—(1) House Surgeon. Salary, £100 per annum. (2) Junior House-Surgeon. Salary, £50 per annum. Board and lodging provided in each case. Applications to the Secretary by February 28th.

EDINBURGH ROYAL INFIRMARY.—Assistant Pathologist. Honorarium, 50 guineas per annum. Applications to the Treasurer by March 7th.

GLASGOW: ANDERSON'S COLLEGE MEDICAL SCHOOL.—Chair of Physiology. Applications to the Secretary, 50, West Regent Street, Glasgow, by February 22nd.

HAMPSTEAD: MOUNT VERNON HOSPITAL FOR CONSUMPTION.—Junior Resident Medical Officer. Appointment for six months. Honorarium at the rate of £60 per annum. Applications to the Secretary, at the Offices, 41, Fitzroy Square, W.

HASTINGS, ST. LEONARDS AND EAST SUSSEX HOSPITAL.—House-Surgeon (male); unmarried. Salary, £75 per annum, with residence, board, and washing. Applications to the Secretary by February 28th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician; unmarried. Appointment for six months. Salary, £20, washing allowance, £2 10s., with board and residence. Applications, on forms provided, to be sent to the Secretary by March 4th.

JENNER INSTITUTE OF PREVENTIVE MEDICINE.—Studentship of the value of £150 for the purpose of research in the Bacteriological Department of the Institute. Applications to Dr. Allan MacFadyen, Chelsea Gardens, S.W., by March 15th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. Salary, £450 per annum, with partially furnished house, etc. Applications, endorsed "Application for Medical Superintendent," to be sent to the Clerk to the Visiting Committee, County Hall, Brecon, by February 28th.

LEAMINGTON: WARNEFORD HOSPITAL.—House Surgeon. Salary, £100 per annum, with board, washing, and apartments. Applications, on forms provided, to be addressed to the Secretary by February 25th.

LEEK: CHEDDLETON ASYLUM.—Junior Assistant Medical Officer. Salary commences at £150 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to be sent to the Chairman by February 28th.

LIVERPOOL INFECTIOUS DISEASES HOSPITAL, Parkhill.—Assistant Resident Medical Officer; unmarried, and not exceeding 28 years of age. Salary, £120 per annum, with board, washing, and lodging. Applications, endorsed "Assistant Resident Medical Officer," to be addressed to the Chairman, Port Sanitary and Hospitals Committee, under cover to the Town Clerk, Liverpool, by February 24th.

MANDALAY MUNICIPALITY.—Health Officer. Salary, Rs. 600, rising to Rs. 800 a month, by annual increments of Rs. 40. Applications to Mr. I. Calderaral, Secretary of the Municipality, by March 24th.

MARYKIRK AND LOGIE PERT: PARISH COUNCILS OF.—Medical Officer. Combined salary, £30 per annum. Applications to Mr. George Porteous, Clerk to the Parish Council of Logie Pert by Montrose, by February 19th.

MIDDLESEX HOSPITAL, W.—Medical Registrar. Applications to the Secretary-Superintendent by March 14th.

PRESTON ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £60 per annum, with board, lodging, and washing, etc. Applications to the Secretary by February 20th.

QUEEN'S JUBILEE HOSPITAL EXTENSION, Earl's Court, S.W.—(1) Physician. (2) Gynaecologist. (3) House-Surgeon. Salary, £50 per annum, with board, etc. Applications to the Secretary by March 1st.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Three members of the Court of Examiners. Applications to the secretary by March 12th.

ROYAL DENTAL HOSPITAL FOR LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square, W.—(1) Lecturer on Materia Medica in Relation to Dental Surgery. (2) Demonstrator. Honorarium, £110 per annum. Applications to the Dean by February 17th and March 17th respectively.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary to commence at £150 per annum, with board, lodging, and washing. Applications to Dr. Finch, the Asylum, Salisbury.

SOUTH SHIELDS: INGHAM INFIRMARY, AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon: salary, £100 per annum. (2) Junior House-Surgeon: salary, £75 per annum. Residence, board, and washing provided in each case. Applications to the Secretary by February 17th.

STOCKPORT INFIRMARY.—House-Surgeon. Salary, £100 per annum, with residence, board and washing. Applications to the Secretary by February 18th.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board, and residence. Applications to the Honorary Secretary by February 25th.

WESTMINSTER HOSPITAL, S.W.—Assistant Surgeon; must be F.R.C.S.Eng. Applications to the Secretary by February 22nd.

MEDICAL APPOINTMENTS.

BATCHELOR, F. S., F.R.C.S., appointed Assistant Surgeon to Dunedin Hospital, New Zealand.

DONALD, Wm., M.D.Aberd., C.M., appointed Certifying Factory Surgeon for the Banff District.

GARRETT, P. G., M.B., B.S.Durh., appointed Certifying Factory Surgeon for the East Shelton District of the county of Leicester.

GRANGER-EVANS, Jessie D., M.B., Ch.B.Glasg., appointed Clinical Assistant to the New Hospital for Women.

HAMILTON, James A. G., M.B.Dub., L.R.C.S.Edin., appointed Gynaecologist to the Adelaide Hospital, *vice* E. W. Way, M.B.Edin.

HAY, John B., M.B., appointed Medical Officer of Health for the Shire of Bulla, Victoria, *vice* Richard Player, M.B., resigned.

LIDDLE, Percy Herbert, M.B., Ca.B.Melb., M.R.C.S.Eng., appointed Medical Officer of Health for the Shire of Glenlyon, Victoria, *vice* Harry Findlay Main, M.B.

LINKS, David H. E., M.B., Ch.B.Melb., appointed House-Surgeon to the Hobart General Hospital, Tasmania, *vice* E. T. Macgowan, M.B.Melb., resigned.

LLOYD, J. Allden, M.B.Lond., M.R.C.S., L.R.C.P.Lond., appointed House Surgeon to the Stroud Hospital.

MACKENZIE, Donald, M.B., C.M.Aberd., appointed Certifying Factory Surgeon for the Ullapool District of the county of Ross and Cromarty.

MOFFIT, J. E. J., L.K.Q.C.P., L.R.C.S.Irel., appointed Government Medical Officer and Public Vaccinator for Balranald, *vice* P. J. Kelly.

ORMOND, James S., M.D.Glas., appointed Medical Officer of Health for the town of Malvern, Victoria, *vice* C. J. Parkinson, M.B.Lond., resigned.

PADWICK, J. C., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health for the Bridgnorth Rural District, *vice* A. Bethell, M.R.C.S.Eng., resigned.

POWELL, W. Wyndham, F.R.C.S., appointed Surgeon to the Westminster General Dispensary.

SPENCE, Basil A., M.B., Ch.B.Edin., appointed Dispensary Surgeon to the Bradford Royal Infirmary.

SPROTT, Gregory, M.D.Glasg., D.P.H., appointed Honorary Medical Officer to the Hobart Hospital, Tasmania, *vice* R. S. Bright, M.R.C.S.Eng.

STEVENS, W. Mitchell, M.D.Lond., M.R.C.P., appointed Assistant Physician to the Cardiff Infirmary.

VACHELL, Herbert R., M.D.Aberd., appointed Physician to the Cardiff Infirmary, *vice* C. T. Vachell, M.D.Lond., appointed Consulting Physician.

VAUGHAN, Hamilton, M.R.C.S., L.R.C.P.Lond., appointed Second Assistant Medical Officer to the St. Marylebone Infirmary, Notting Hill, *vice* H. Brown, M.R.C.S., L.R.C.P.Lond., resigned.

WILSON, J. H., L.R.C.P., L.R.C.S.Edin., appointed Resident Surgeon and Dispenser at Trial Bay Prison, New South Wales.

WYSE, Thomas P., L.R.C.P., L.R.C.S.Irel., appointed Dispensary Medical Officer for the Phillipstown Division of the Tullamore Union.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 9 P.M.—Mr. A. Pearce Gould: Lettsomian Lectures on Certain Diseases of the Blood Vessels. Lecture I.—Varicose Veins; Nature; Influence of Heredity; Regurgitation from Deep Veins; Importance; the Value of Trendelenburg's Operation.

Royal College of Surgeons of England, 5 P.M.—Dr. T. G. Brodie: On the Pulmonary Circulation, more particularly in Relationship to Variations in Cardiac Activity. Lecture I.

TUESDAY.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., 8.30 P.M.—Mr. H. L. Albert: Oral Sepsis; with Bacteriological Demonstration by Professor R. T. Howlett. Dr. J. Woulf Flanagan: Tuberculosis and the Poor Law. Clinical Case by Dr. Wm. Ewart and Dr. Lee Dickinson: Relapse of Pernicious Anaemia after Radical Cure of Oral Sepsis by Complete Removal of the Teeth.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Professor R. Muir: The Reactions of the Bone Marrow and other Leucocyte forming Tissues in Infections (Lantern Demonstration). Card Specimens will be shown by Mr. H. L. Barnard and Mr. Raymond Johnson.

WEDNESDAY.

Royal College of Surgeons of England, 5 P.M.—Dr. T. G. Brodie: On the Pulmonary Circulation, more particularly in Relationship to Variations in Cardiac Activity. Lecture II.

Royal Meteorological Society, 70, Victoria Street, Westminster, S.W., 7.30 P.M.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.

THURSDAY.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 P.M.—Clinical cases will be shown by Dr. James Taylor, Dr. Morison, Dr. Caley, Dr. Eddowes, and others.

Royal College of Physicians of London, 5 P.M.—Dr. Corfield: On the Etiology of Typhoid Fever and its Prevention. Milroy Lecture I.

FRIDAY.

Royal College of Surgeons of England, 5 P.M.—Dr. T. G. Brodie: On the Pulmonary Circulation, more particularly in Relationship to Variations in Cardiac Activity. Lecture III.

Society for the Study of Disease in Children, 11, Chandos Street, W., 8.30 P.M.—Cases by Dr. C. O. Hawthorne, Mr. Sydney Stephenson, Mr. J. Jackson Clarke, Mr. E. W. Goble, Dr. W. G. Chaffey, and Dr. George Carpenter. Papers.—Dr. C. N. Gwynne (Sheffield): Note on a Case of Congenital Dilatation of the Sigmoid Flexure of the Colon. Dr. J. Porter Parkinson: The Local Treatment of Adenoids.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 P.M.—Medical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 P.M.—Lantern Demonstration on Different Forms of Paralysis in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 P.M. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, ear.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 P.M. Lecture on Degenerative Diseases of the Nervous System.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 P.M. as follows:—Monday: Therapeutics. Tuesday: Appendicitis. Wednesday: Lantern Demonstrations on Hernia. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Ectopic Gestation.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BENNETT.—On January 30th, at 22, Broad Street, Birmingham, the wife of W. Edward Bennett, F.R.C.S.Eng., of a daughter.

MATHWIN.—On February 8th, at Nathalia, Victoria, Australia, the wife of Dr. Frank S. Mathwin, of a son. (By cable.)

STALKARTT.—On February 5th, at 28, Upper Merrion Street, Dublin, the wife of Captain C. E. Grey Stalkartt, M.D., Royal Army Medical Corps, of a son.

MARRIAGES.

BIDWELL—FICHARDT.—On January 2nd, by the Venerable Archdeacon Balfour, at the Cathedral, Bloemfontein, South Africa, C. Hugh Bidwell, M.R.C.S., L.R.C.P., to Maude Geraldine, eldest daughter of the late Mr. G. A. Fichardt.

GOWLLAND—THORNHILL.—On February 10th, at the Church of St. Michael and All Angels, Chiswick, by the Rev. W. Ranger, St. Saviour's, Ealing, and the Rev. A. Wilson, Vicar of the Parish, Edward L. Gowlland, M.B.Lond., of Faversham, elder son of the late Richard Sankey Gowlland, of H.M. Office of Works, to Dorothy Mary, eldest daughter of Hubert Thornhill, of Priory Road, Bedford Park, W.

WARING—MILVAIN.—On February 10th, at Adwick-le-Street, near Doncaster, Alfred John Waring, M.B.Lond., of 31, Dorby Road, Nottingham, to Isabel Catherine Milvain, daughter of the late James Milvain, Newcastle-on-Tyne.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M. F. asks for information as to the vision of shorthand writers, or for references to literature on this subject.

LIPOMA OF LABIUM.

SCOTIA asks: What is the simplest method of dealing with a lipoma (of labium) weighing about half a pound, with long narrow pedicle? Would a local anaesthetic suffice, and what one would be advisable?

SOLUTION OF SODIUM CACODYLATE.

ARSENIC asks for a formula which would enable the hypodermic solution to be more concentrated. The only formula he has seen, and that which he uses, requires the injection of 15 minims to administer a full dose, and is, he is informed, troublesome to prepare.

POTASSAE PRUSSIAS FLAVA: YELLOW PRUSSIATE OF POTASH: FERROCYANIDE OF POTASSIUM.

F.R.C.S. asks: Many old practitioners administer internally the above drug in cases where hydrocyanic acid is indicated. Would any correspondent kindly state what is the dose, and whether in his experience it is more efficacious than the acid? It is well known to be poisonous, and the standard test for iron, forming Prussian blue.

ANSWERS.

DR. J. J.—The matter is, we think, one which must be settled by the churches, and does not, under all the circumstances, appear to be suitable for discussion in a medical journal.

LATERAL INCISION OF THE PERINEUM.

DR. HEYWOOD SMITH (Harley Street, W.) writes: In answer to "G. C.," I write to say I have on several occasions carried out this method where [illegible] has been in imminent danger of tearing, and with complete success. The incisions can be made with a blunt-pointed pair of scissors about an inch or so from the fourchette to the depth of about half an inch. They need no sutures, and rapidly heal up. I have seen no ill after-effects.

TREATMENT OF MUCOUS COLITIS.

PUZZLED invites suggestions for the treatment of a severe case of mucous colitis with rectal prolapse. Some benefit has been obtained from the use of 2 per cent. ichthyol solutions.

*** Large injections of various weak antiseptic solutions may be tried, such as sodium hyposulphite 5 per cent., tincture of benzoin 15 per cent., boric acid 3 or 4 per cent. (Dauchez), 1½ or 2 pints at a temperature of 100° F., being introduced on alternate days. Mathieu recommends also large enemata of boiled water, weak solutions of sodium [illegible] of ammonia, with castor oil and [illegible] by the mouth, and a non-irritating diet. For the dysenteriform attacks weak solutions of silver nitrate may be injected, and for haemorrhage the hamamelis preparations.

LETTERS, NOTES, Etc.

ERRATUM.—In the BRITISH MEDICAL JOURNAL of February 8th, p. 356, col. 1, line 32, Dr. C. Sanders is said to have questioned "the utility of the notification of small pox." The latter word, as the context shows, should have been "chicken-pox."

THE [illegible] OF MALARIA.

DR. P. R. RUSTON [illegible] the leaflet prepared by him, entitled *[illegible] Prevention of Malarious Cases*, can be obtained from Messrs. Meek, Thomas and Co., Cable Street, Liverpool, at 5s. per 100.

A CASE OF ASCITES.

M. [illegible] writes: [illegible] of the country [illegible] had himself as a moderate drinker of malt liquor only, but admitted that at times he substituted this for a more solid meal, he was first visited on account of an epileptic fit, apparently the only one he ever had. In September, 1891, he found some difficulty in getting up and down from his cab and complained of a distended feeling in his bowels which he likened to water rolling and splashing from side to side. A month after being treated internally for ascites he was aspirated; this was in October, 1896, and from this date until October, 1900 he was aspirated regularly every three weeks at first, later every fortnight, and ultimately every nine days, making a total of 150 tappings. At first twelve to fourteen quarts were drawn at each sitting by Southey's tube, but the quantity lessened towards the end, though the total amount removed was over 250 gallons. The tapping lasted from October, 1896, to October, 1900, when he died of cardiac failure. Features in the course of the case were oedema of the right leg, which cleared up and was followed by a similar condition of the left leg, and thrombosis of the superficial abdominal veins on the right side.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Mr. F. Addiscott, London; Dr. H. Armstrong, Liverpool; Aberdeen; Messrs. Arnold and Sons, London. **B** Mr. A. A. Bradburne, South Farnborough; Dr. F. S. Beatty, Southampton; Dr. H. C. Bastian, London; Barnato; Mr. H. Brown, Surbiton Hill; Dr. F. D. Boyd, C.M.G., Edinburgh; Blackwall Galvanized Iron Company, Manager of, London; Mr. H. N. Barnett, Knock; Mr. W. H. Brown, Leeds; Mr. L. A. Bidwell, London. **C** Correspondent; Miss A. M. Corthorn, M.B., Birkenhead; Miss L. B. Clapham, M.B., London; C. J. M.; Calf Lymph; Dr. W. Calwell, Belfast; Messrs. Corner and Donald, Dumfries; Dr. A. Cooper, London; Mr. H. W. Carson, London; Mr. W. W. Cheyne, C.B., London. **D** Davis's Feather Mills, Limited, Manager of, London; Dublous; Dr. L. C. Dobson, London; Dr. S. Davies, Woolwich; Mr. W. E. Denison, Halifax; Messrs. Down Bros., London; Dr. G. H. M. Dunlop, Edinburgh; Dr. J. Dulberg, Manchester. **E** W. McA. Eccles, M.B., London; E. J. R.; Mr. T. A. Evans, London; Mr. H. H. Ellis, Lelant. **F** F.R.C.S.; Fiat Justitia; Mr. S. Forrest, Bury St. Edmunds; Dr. H. M. Fletcher, London; Mr. C. Flood, Gravesend. **G** Mr. P. T. Goodman, London; Mr. H. Gilford, Reading; Mr. G. A. George, Bournemouth; W. Gripper, M.B., Wallington. **H** Mr. G. A. Hawkins-Ambler, Liverpool; Colonel J. Harris, London; Dr. W. J. Horne, London; Mr. J. L. Hamilton, Brighton; Mr. J. Hutchinson, jun., London; Mr. J. R. Hatfield, Worthen; Hirundo Urbica. **J** Justitia; J. S.; Dr. H. L. Jones, London; Dr. E. Jepson, Durham; Mr. F. Jaffrey, London; Dr. J. Jamieson, Edinburgh; Dr. R. W. Jones, Penrhiwceiber. **K** Mr. F. W. E. Kinneir, Horsham; Mr. H. M. Kelly, London; Mr. H. V. Knaggs, London; Dr. A. Keith, London. **L** Dr. H. G. Langwill, Leith; Dr. H. Law, San Francisco; Mr. H. K. Lewis, London. **M** F. Matheson, M.B., London; J. C. Matheson, M.B., London; Mr. W. Monnington, London; M.; Dr. J. A. Menzies, Rochdale; Member B.M.A., M.D.Edin.; Medical Student; Dr. S. R. Macphail, Rowditch; Dr. C. K. Millard, Leicester; Dr. R. Maguire, London; Manchester Medical Society, Secretary of, Manchester; M. E. **N** Mr. A. R. Nicholls, Langport; Mr. C. F. Norway, C.E., London. **O** Dr. J. Oliver, London; Obstetrical Society, Secretary of, London. **P** C. Porter, M.B., Leith; Public Vaccinator; J. Pollock, M.B., Mauchline. **Q** Quaerens. **R** R. W. M.; Dr. J. Robinson, Dunscar; R.A.M.C.; J. H. Ray, M.B., Manchester; R.N.; Revaccination; R. W. L.; Dr. L. Roberts, Liverpool; Dr. F. W. H. Robson, Burscough Bridge. **S** B. Squire, M.B., London; Dr. S. Sunderland, London; Dr. J. K. Spender, Bath; Dr. H. Smith, London; Spital; Scotia; W. M. Smith, M.B., Stoke-on-Trent; Mr. A. G. Southcombe, London; C. Sanders, M.B., London; S. Stephenson, M.B., London; Mr. H. A. Smith, Leeds. **T** Mr. W. H. Theobald, London; Mr. P. Thompson, London; Dr. J. C. Thresh, Chelmsford; Mr. B. Thornton, Margate; T. H. M.; Dr. E. F. Trevelyan, Leeds; Dr. D. Turner, Edinburgh. **W** Mr. W. Whitehead, Manchester; Dr. F. Willcocks, London; Dr. A. McC. Weir, Liverpool; Mr. A. W. Wigmore, London; Mr. S. W. Wilson, London; A. Wauchope, M.B., Glasgow; Dr. A. A. Warden, Paris; Dr. T. Wise, Montreux; Mr. G. F. Wilson, C.B., London; C. S. Wallace, M.B., London; E. B. Waggett, M.B., London. **X** X. Y. Z. **Y** Dr. E. S. Yonge, Manchester.

BOOKS, ETC., RECEIVED.

Transactions of the Epidemiological Society of London. Vol. XX. Session 1900-1901. London: Shaw and Sons. 1901.

Outlines of Anatomy. By E. W. Holmes, A.B., M.D. Lancaster, Pa.: New Era Printing Co. 1902.

Recherches Cliniques et Thérapeutiques sur l'Epilepsie, l'Hystérie et l'Idiotie. Par Bourneville. Vol. XXI. Paris: Félix Alcan. 1901. Frs. 6.

Atlas of Practical Elementary Zootomy. By G. B. Howes, LL.D., F.R.S. London: Macmillan and Co. 1902. 10s.

Contribucion al Estudio de la Anulesia Quirurjica por Inyeccion Lumbar Sub-Aracnoidea de Cocaina (Raquicocainizacion). Por Aurelio Meleau C. Santiago de Chile: Litografia i Encuadernacion Turin. 1901.

St. Bartholomew's Hospital Reports. Vol. XXXVII. London: Smith, Elder, and Co. 1902.

An International System of Electro-Therapeutics. Edited by H. R. Bigelow, M.D. Second Edition edited by G. B. Massey, M.D. London: Henry Kimpton. 1902. 25s.

Baldness and Greyness: Their Etiology, Pathology, and Treatment. By T. Robinson, M.D. Fourth Edition. London: H. Kimpton. 1902. 2s. 6d.

The Fish River Bush, South Africa, and its Wild Animals. By W. T. Black, M.R.C.S., L.S.A. Edinburgh and London: Young J. Pentland. 1901.

Studies in the Psychology of Sex: Sexual Inversion. By Havelock Ellis. Philadelphia: F. A. Davis Co. 1901. 2 dols.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	1	17	6
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

An Address
ON
THE REORGANIZATION OF THE ARMY MEDICAL SERVICE.

Delivered at the Annual Meeting of the Dublin Branch of the British Medical Association.

By C. B. BALL, M.D., M.A., F.R.C.S.,
Regius Professor of Surgery in the University of Dublin; Member of the Advisory Board, Army Medical Service.

The British Medical Association, the Dublin Branch of which is assembled here to-day, is a power that year by year, as it is increasing in numbers and becoming more thoroughly representative of the entire profession, is making itself more widely felt upon all questions in which the interest of medical men are involved, no matter to what branch of the profession they belong. The annual meetings of the Association at large and of the Branch meetings afford opportunities for discussion of questions which at the time are engaging our thoughts, while our Journal now, with a circulation of upwards of 21,000 copies weekly, affords publicity not alone to the deliberations of members at these annual meetings, but also, through its correspondence columns, to the views of individuals on questions of contemporary interest. The wide space allotted by the Journal to the purely scientific matters connected with our profession enables members, if they will only read their weekly issue, to keep themselves informed of the progress of our great profession in all its branches. In choosing a subject upon which to address you to-day, I thought the suggested reorganization of the Army Medical Service in which our Association has taken such a wide interest, was the one to which public attention is at present most markedly attracted, and more particularly, possibly, to us in Ireland, as the army has always been a career favoured by our young Irish graduates in medicine. Upon turning to the *Army List* published last month, some interesting, and to me somewhat unexpected, facts were revealed. In the first place, the total number of officers, from the Director-General to the last-joined lieutenant of the R.A.M.C., is 987, or over 100 more than the full strength of the corps before the war, not including the large number of civilians at present doing temporary duty at home and in South Africa. This large surplus must, however, to some extent be discounted by the fact that it includes 30 officers of the reserve, and that resignations have been interrupted during the progress of the war; but, even allowing for these, it will probably be found at the termination of hostilities that the corps is considerably above its normal strength, and not in the depleted state that many of the critics would have us believe. That a permanent increase of the strength for the future is necessary is, however, fully recognized.

The Schools and the Service

When we come to investigate the schools from which the officers have come into the service, as evidenced by the *Medical Register*, or in some cases by Churchill's *Medical Directory* for last year, we find the following interesting details Officers whose qualifications are all Irish, 352; officers whose qualifications are all English, 305; officers whose qualifications are all Scotch, 221; officers whose qualifications are obtained in more than one division of the United Kingdom, of whom 32 have at least one Irish qualification, 100; officers whose qualifications are not to be found in the *Medical Register* or Churchill's *Medical Directory*, 1901, 9—987. (This last item is made up chiefly of recently-joined lieutenants.) It will thus be seen that Ireland has sent into the service a considerably larger number of officers than either England or Scotland. When, however, we come to see the proportion of the different nationalities in the various ranks of the corps, some further interesting particulars are brought to light. The present Director-General has Scotch qualifications Of 8 Surgeons-General, 75 per cent. have Irish qualifications; of 27 Colonels, 77.7 per cent. have Irish qualifications; of 206 Lieutenant-Colonels, 48.8 per cent. have Irish qualifications; of 284 Majors, 35.1 per cent. have Irish qualifications; of 227 Captains, 24.2 per cent. have Irish qualifications; of 234 Lieutenants, 37.6 per cent. have Irish qualifications. It will thus be seen that amongst the higher ranks the Irishmen largely predominate, whilst amongst the lower ranks there is a marked falling off in the number of those who possess qualifications from the Irish licensing bodies. A study of these figures shows, in the first place, that Irish graduates have been in the past highly successful in obtaining the highest ranks in their profession, but I fear it also proves that of recent years the service has not been so popular upon this side of the water as it used to be.

Lord Lansdowne's Reforms.

During the time Lord Lansdowne was Secretary of State for War he upon several occasions showed the keen interest which he took in the welfare of the Army Medical Department, and many and important reforms have followed, when grievances from which medical officers undoubtedly suffered were brought under his notice. At that time students who obtained their qualifications in Ireland found it absolutely necessary to go for some months to a grinder in London if they desired to obtain a good place at the entrance examination, the character of the London examination being different and in some respects, I believe, inferior to that to which they had been accustomed in Ireland. Upon this matter being brought under the notice of Lord Lansdowne, Professor D. J. Cunningham, of Dublin University, was placed upon the Examination Board. Again, in January, 1898, a deputation organized by the British Medical Association, and upon which I had the honour of representing Dublin University, waited upon Lord Lansdowne, and urged what undoubtedly at the time was the greatest grievance of which the medical officer complained—the want of substantive rank in the army, and the formation of the Army Medical Staff into a Royal Corps. These reforms were shortly afterwards granted, and it was quite evident, from the way in which the Secretary of State for War received and spoke to the deputation, that he was much in earnest in his desire to remove all reasonable causes of complaint and render the service again attractive to a good class of young medical men.

The Dearth of Candidates.

But since these changes were made, the market price of medical men has gone up, and the question of pay, which three or four years ago was not really complained of, except during service in India, has become a prominent one; the marked increase which has taken place in the salaries to the assistant and *locum tenens* of the general practitioner naturally drew attention to the pay of the R.A.M.C., and the newly-qualified man hesitated to join the army when he had abundant opportunities of being employed with fair remuneration in civil practice. As has been frequently pointed out, this dearth, and consequently enhanced value, of newly-qualified practitioners is due largely to the abolition of unqualified assistants in general practice, and to the prolongation of the course of study to five years, which so greatly adds to the cost of production of the qualified practitioner; but a cause of a more temporary character which has been much overlooked is the fact that the change from four to five years' curriculum practically obliterated an entire year's supply of graduates, a loss which was felt for several years, as the five-years students gradually blended with the old four-years men.

Mr. Brodrick's Committee.

The present war has directed attention to the army doctor again, and the Secretary of State for War has approached the question in a broad and statesman-like spirit, and appointed a Committee to inquire into the entire question of reorganization of the corps, upon which Sir William Thomson ably represented Irish interest. The report of this Committee has now been before the public sufficiently long for its propositions to be thoroughly well criticized and discussed. I propose, therefore, to review some of its more important features. First, as to increased pay: The proposals made by the Reorganizing Committee in this respect seem to have met with universal commendation. Formerly a lieutenant on probation at Netley received 5s. a day, a sum insufficient to pay his necessary expenses, and when he obtained his commission he received £200 a year with allowances. Under the new suggested scheme he will receive £250 a year, both

as a probationer and lieutenant, with allowances valued at £73 10s., making a total of £323 a year, increased at the end of three years' service to £379 15s. 2d., and so on through the higher ranks there is a liberal increase provided for; but, besides the actual pay, the officer is building up during his service a substantial sum either in the way of gratuity or pension, while in the higher ranks provision is made for widows and children of officers who die during their period of service. The deferred pay under the new scheme will be at the rate of a gratuity of £1,000 after nine years' service, £2,500 after eighteen years' service, and a pension of £1 per day after twenty years' service. The pension will be subsequently augmented according to rank and length of service as previously provided for. Owing to the wording of the report of the Reorganizing Committee it was thought that if the officer failed to pass the examination recommended for promotion to the rank of lieutenant-colonel before he reached twenty years' service, he might be compulsorily retired upan the gratuity of £2,500, without the option of completing his twenty years' service, and so becoming under existing rules entitled to a pension of £1 per day. This possibility excited widespread dissatisfaction amongst the officers of the R.A.M.C.; in fact, it was the one subject in the report upon which disapproval appeared to be quite unanimous. I am enabled, however, to state upon authority that it was never intended to deprive officers of the right to this pension, even if they failed to pass the suggested examination for promotion to lieutenant-colonel. Besides the pay above alluded to, officers who qualify as specialists in any one of the comprehensive list of subjects will be entitled to an additional 2s. 6d. per day, while those in charge of hospitals will be entitled to extra pay, varying from 10s. per day if the hospital contains 300 beds, down to 2s. 6d. if it contains only 50 beds. The question of increased pay whilst serving in India, which has long been a grievance, will, it is hoped, be satisfactorily settled by the Indian Government, but no statement to that effect has as yet been made public. The necessity of periods of study leave has long been urged, and its importance admitted by the authorities, but hitherto the exigencies of the service have prevented its being granted to the extent which is undoubtedly required.

The Reorganizing Committee recommend that after three years' service, and before promotion to the rank of captain, the officer is to be "attached for a period of six months to a recognized hospital in a centre where he has opportunities of gaining further professional knowledge by attendance at a course or courses of instruction in a civil hospital or otherwise, as may be approved by the Advisory Board," and upon completion of six years as captain he shall be afforded a further similar period of six months at a centre where he may have facilities for attending courses at a recognized civil hospital. In case of an officer desiring to engage in advanced professional study, it shall be open to the Advisory Board to recommend that special leave be granted him for a period of six months. Another recommendation of the Committee that has met with approval is that promotion to the higher ranks is to be made through some other means than mere seniority. That officers should be encouraged to devote themselves to the acquiring of professional knowledge, and that they should know that work done in this direction will be rewarded by accelerated promotion, appears to me to be the most essential reform if the army is to be looked on as a career which will attract a good class of men. That the present arrangement is not satisfactory is an admitted fact. No doubt amongst the officers of high rank are many who take a keen interest in encouraging young officers under them to occupy themselves with scientific pursuits, and where good work has been done, to notify such to headquarters by confidential report or otherwise; but that the contrary is also sometimes true is notorious, and the energetic young officer finds anything but encouragement from his superiors, and soon learns that the way to reach the higher ranks is to have nothing said against him, but otherwise to do as little as possible. I can best illustrate my meaning by an example. A good many years ago a house-surgeon that we had at Sir Patrick Dun's Hospital entered the army as a surgeon; he was one of the very best men we ever had at the hospital, extremely hardworking, keen about his business, and thoroughly devoted to his profession. Shortly afterwards he was stationed at Dublin, and he devoted all his spare time to work at medicine and allied science; he took several higher qualifications upon distinguished answering at his examinations, and occupied himself largely with the higher branches of analytical chemistry in the laboratory of Trinity College. While so engaged he brought down some samples of food supplied to soldiers, and found more than one instance of serious adulteration, which he reported to his superior officer, with the result that he was called before the colonel and told to mind his own business, and leave things that did not concern him alone. Shortly afterwards he proceeded on foreign service, and upon his return I asked him how he was getting on. He replied, "Splendidly; I do my clinical work; I spend about half an hour in the morning looking at two or three patients, and never do anything further of professional work, and have no doubt but that now I am in a fair way to promotion." All the energy and keenness for work had been driven out of him by want of encouragement. Poor fellow, he was shortly afterwards murdered in China. It is only in the nature of things that men who have risen to the executive rank simply by living long enough, and having nothing said against them, are not the most likely to encourage and stimulate young officers to hard work at their profession.

THE MULTIPLICITY OF EXAMINATIONS.

The report of the Reorganizing Committee shows that this subject has been very fully considered, and suggestions have been made that a series of examinations should be held immediately preceding each step of promotion to the rank of lieutenant-colonel, failure to qualify at any of which, after a second trial, will lead to compulsory retirement from the service; while, upon the other hand, brilliant answering at the earlier examinations will lead to acceleration of promotion of from three to eighteen months, according to the percentage of marks obtained. This suggestion of examinations up to the eighteenth year of service has been very adversely commented on by officers and others, and it is probable that when the warrant appears certain changes will be made. The verdict of the profession at large, which is fully endorsed by the public, is that if the service is to be made attractive to young graduates, and thoroughly efficient for the important duties it has to discharge, professional merit must be acknowledged, and lead to accelerated promotion. But how is this to be done? By examination say some, and if the examination is the right sort there is much to recommend it; but if it should be carried out in the form of a student's examination, which is to be passed, not by so many months' grinding for this special purpose, but rather by one conducted on a definite principle by examiners, whose duty it must be to find out what use the candidate has made of the opportunities of purely professional work he has had at his disposal, and to what special scientific branches he has most devoted himself—if carried out in this way it has the great advantage of uniformity, and is much more satisfactory than the alternative of relying upon reports sent to the Director-General from all parts of the world by superior officers, which vary enormously according as to whether the superior officer with whom the subaltern is serving happens to be a man of enlightened scientific mind, or one whose only idea is to carry out what is contained within the four corners of the regulations.

A MEDICAL STAFF COLLEGE.

A suggestion which has been made by the Reorganizing Committee, but which has received little notice from the critics, appears to me one of the most important of all; it is the establishment in London of a large military hospital with Staff College attached. This hospital will differ from Netley and others of similar character in the fact that it is intended more for acute cases of illness and accident, such as are met with in the great clinical hospitals, the invalids returned from abroad and cases of chronic illness being largely treated elsewhere. The supply of cases will come from the London garrison, the soldiers' wives and families, War Office employés, and, in cases of accident and emergency, civilians. Recruits who are ineligible for admission to the army in consequence of hernia, varicose veins, varicocele, and other similar conditions will be taken in in order to undergo operation that they may qualify for enlistment. In this way it is thought that an abundant supply of clinical material, not only

in medicine and surgery, but also in the various special departments will be forthcoming. A professional staff, with numerous assistants, will be appointed from the R.A.M.C., while the Staff College will afford opportunities for the training of lieutenant probationers and also of officers, for periods of study and practical work during their term of service. As this hospital will be in London, it will be under the eye of the Director-General, and a very much more correct judgement of the professional capabilities of officers can be obtained during their periods of service at this hospital than can possibly be done by any system of examination or reports of individual superior officers. I believe all fair-minded people will admit that the work done by this Committee, at the instigation of Mr. Brodrick, is an honest and broad-minded endeavour to place the R.A.M.C. in the position which we all wish to see it occupy. What are the prospects likely to attract young graduates into the service? Men likely to get appointments on the staff of general and special hospitals other than the post of house-surgeon are not likely to seek the army as a career; but, as contrasted with country private practice, except in favoured districts, it appears to present many solid advantages, more particularly so when compared with the miserably hard and underpaid lives which so many dispensary doctors in Ireland lead. The officer of the Royal Army Medical Corps commences with a fair salary; he sees the world, and if, after a few years, he desires to settle down into private practice, he can retire upon a gratuity probably considerably in excess of any sum he could have saved if he were engaged in civil practice for the same period; while after twenty years he can retire on a pension of £1 per day, and, if he so desires, start in any branch of the profession he may wish. The distinguished position which Mr. R. F. Tobin holds as a hospital surgeon and clinical teacher shows what can be done by a man determined to work, even after he has spent twenty years in the service. To those to whom distinctions and decorations are an attraction, it may be interesting to know that six officers of the R.A.M.C. hold the much coveted honour of the Victoria Cross, three hold the K.C.M.G., sixteen the C.B., twenty-five the C.M.G., and twenty-nine the D.S.O.

The Drawbacks of the Service.

There are many men who are fond of their work, but who hesitate to enter the army, as it affords—in time of peace, at any rate—so little scope for practical work. That this is to some extent true is an undoubted fact, and it is one of the great difficulties that the service has to contend with—a difficulty which, to some slight extent at any rate, will be diminished by the establishment of the large hospital in London. But even if the opportunities of practical medicine and surgery may be small, there are always opportunities of doing good work in hygiene, bacteriology, and, on foreign service, tropical disease, or other similar subjects in which a really sound scientific reputation may be made. It is only necessary to mention the names of Lieutenant-Colonel Bruce, F.R.S., of the Royal Army Medical Corps, the discoverer of the cause of Malta fever, and of horse sickness in South Africa; or of Major Ross, late of the Indian Medical Service, whose work on the relation of mosquitos to malaria is notorious, to show that medical officers in the army have opportunities of scientific research in some directions far greater than can be enjoyed by their civilian brethren, and that amongst the officers are to be found men capable of utilizing those opportunities to the utmost, and of gaining, not only for themselves but for the service to which they belong, a well-merited scientific reputation.

A Long Hospital Record.—It is seldom that so long a period as seventy-five years of service on a hospital staff can be recorded in one family. On January 29th, 1902, Mr. Andrew Boutflower, M.R.C.S., completed thirty-one years service as Honorary Surgeon to the Salford Royal Hospital, immediately following a period of forty-four years service performed in the same capacity by his father, the late Mr. John Boutflower, F.R.C.S. As a memento of this occasion, Mr. Boutflower's colleagues at the Salford Royal Hospital presented him on January 20th with an Early English silver salver, engraved with the family crest and suitably inscribed.

THE TREATMENT OF CHRONIC MALARIAL FEVER BY SUBCUTANEOUS INJECTIONS OF QUININE BIHYDROBROMATE.

By G. B. FERGUSON, M.D.,
Senior Surgeon, Cheltenham Hospital; President of the British Medical Association.

Lieutenant H. P. W. Barrow, R.A.M.C., having recently[1] mentioned my name in connexion with the subject of malarial fevers, it may perhaps be well for me to detail my own experience of their treatment.

Several years ago I was asked to see a military officer suffering from chronic fever of tertian type, thought by him to have been contracted at Malta. He was much emaciated and was getting steadily weaker. Quinine, of which he had taken much by the mouth, moderated, but did not remove, the fever, whilst it induced much sickness, which added to his debility. I tried quinine by the rectum and by inunction, but without success, and iodine and arsenic were equally unavailing. His condition having become very serious, I injected 2 grs. of quinine sulphate, dissolved by the aid of a minimum of tartaric acid, under the skin of his forearm. Decided improvement followed, and accordingly the injection was repeated. It was distinctly painful, however, and the arm swelled and became tender. Accordingly I began a series of experiments on different salts of quinine, till at last I hit on the bi or acid hydrobromate, which dissolves readily in six parts of pure warm water. After six injections altogether my patient made a rapid and perfect recovery, and not very long afterwards took part and obtained distinction in the Chitral and Soudan campaigns. He has not since suffered from any but trivial and temporary attacks of fever.

The next patient was an officer from Burmah. His attacks were extraordinarily severe. People in the adjoining house declared that they could feel the shaking of his rigors. At first they thought it was an earthquake. His final sweats soaked sometimes through the bed and wet the floor. Six injections cured him also, which much quinine by the mouth had not done. He has since had no more fever though he is now again in Burmah.

The next case was an Austrian colonel, the husband of an English wife. His fever was contracted during the manœuvres in Bohemia. The same story—failure of quinine by the mouth, but quick cure after six injections and no fever since.

Then followed cases from India, South Africa, the Ionian Islands, Gibraltar, and elsewhere, and all with the same tale of rapid and permanent cure. I have not hitherto published any account of my treatment of malarial fever, as I have not considered it in any way peculiarly mine, though it has certainly been spoken about, for I have answered inquiries on the subject from many medical men. There is nothing new or individual about it. The Italians have long practised subcutaneous injection of quinine, and Baccelli in "malaria comatosa" even injects as much as 15 grs. at one time into a vein. Surgeon-Colonel Benson,[2] reported 614 successful cases, and no untoward results such as tetanus, abscess, or sloughing. Surgeon-Colonel Benson used 5 grs. of the ordinary sulphate, dissolved with the aid of hydrochloric acid in 20 minims of water. My own cases and those in which I have advised the treatment amount to nearly 100, and among these likewise have occurred no tetanus or ulceration.

The treatment is of remarkable efficacy, and it will often cure malarial joints and malarial rheumatism. It is not very painful if the bihydrobromate salt is used. In fact, the subcutaneous use of this salt and antisepsis are my only special points. The bihydrobromate is perfectly stable, and makes a solution (1 in 6) that is only faintly acid. It is not approached in solubility by any salt of quinine except the acid hydrochloride. I feel sure that this last would be equally efficacious, though I have my doubts as to its being equally unirritating. It is the fear of tetanus alone that restrains the more extensive employment of quinine subcutaneously. Several of my patients postponed their cure owing to their fear of tetanus. This fear is echoed by Dr. P. T. Manson in the *Guy's Hospital Gazette* of December 7th, 1901. The danger of tetanus is undoubtedly much greater in the tropics, but it can hardly be

very serious, as Surgeon-Colonel Benson's experience shows. I cannot believe that with a careful and antiseptic operator there is any danger at all of tetanus. I have by me a letter telling of 800 cases of malarial fever cured by a native Indian doctor, nearly all of them by one subcutaneous injection each. No ill consequences followed any of these injections. The native doctor used each time 2½ grs. of quinine sulphate dissolved, with the aid of tartaric acid, in 20 minims of water. I have also another letter, in which an old patient of my own writes of having cured about 50 Indian natives in the same way, many of them after months of fever. One abscess but no tetanus followed in this set of cases. The method followed by me—I must not call it my method—is to inject subcutaneously 3 grs. of quinine bihydrobromate dissolved in 20 minims of pure warm water. I first inject it under the skin of the upper arm, then under that of the thighs, then under the skin of the abdomen or at the top of the chest or between the scapulae. Six injections on alternate days are usually required in a serious case, and 3 grs. under the skin will prove much less distressing and more curative than 30 by the mouth. I keep a syringe for the purpose, and use it for nothing else. I disinfect the syringe and the patient's skin with strong carbolic lotion, and carefully disinfect my own hands. I always sterilize the needle in the flame of a spirit lamp. The solution of quinine is sterilized when first made, but I have not myself boiled it each time before using, though, following Lieutenant Barrow in this respect, I will beg that it be always done. With such precautions I am convinced there need be no fear of tetanus, and I am further convinced that there are few or no cases of malarial fever that will resist six subcutaneous doses of 3 grs. each of quinine bihydrobromate. This dose may, of course, be exceeded on special occasions, or it may be given several times a day, but it will usually be sufficient. It may be that intramuscular injection into the glutei (as advised by Dr. Manson) is a still better method, but I have no experience of it, and would expect it to be more crippling and more painful.

None of my cases have required more than six injections, and some have got well after only three. Considering that quinine is almost completely excreted within twelve hours, it is not easy to understand why so many convalescents remain malaria proof, unless it be the case that, like other febrile convalescents, they have manufactured a special antitoxin. The excretion of quinine through the kidneys begins a few minutes after a dose has been given, and it is this fact that explains the superior results from its subcutaneous use. Slowly absorbed through disordered stomach and intestinal membranes, it is excreted nearly as fast as it is absorbed, and never reaches in the blood the strength sufficient to destroy the malarial plasmodia. Subcutaneously used its maximum and effective strength is probably reached within half an hour. In a case of malarial fever contracted in Holland treated by me many years ago it required 30 grs. daily of quinine by the mouth for nearly a week to subdue the fever; smaller doses had failed, and, though cured, this patient suffered much in head and stomach during his treatment. It is difficult to explain why quinine subcutaneously used affects the head less, but the fact is so. It has probable reference to the sympathy between the head and the stomach, and the latter is of course not irritated at all by the subcutaneous treatment. I would advise the injections to be given two or three hours before the expected paroxysm, so as to catch and destroy the spores; though in chronic cases, like all I have had to deal with, it does not seem to matter much when you inject, provided that you do it often enough.

In the hope that the simple and effective treatment described may soon become the rule instead of the exception, and at the suggestion of the Editor I have contributed this short paper.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1902, i, p. 302. [2] *Trans. Indian Med.*

ANTIRABIC INOCULATION IN MEXICO.—The Mexican National Board of Health reports in its last bulletin that since 1888, when the Pasteur treatment of hydrophobia was introduced, 4,000 persons have been treated, with a total mortality of only 3 per 1,000.

SHOULD MILK BE BOILED?*

BY W. B. RANSOM, M.A., M.D., F.R.C.P.,
Physician to the General Hospital, Nottingham.

SOURCES OF CONTAMINATION OF MILK.

THE slightest acquaintance with the methods of the farmer, the dairyman, and the milkman shows that pure milk is an unknown substance on our tables. Secreted perchance in a healthy mammary gland, the fluid is drawn through unwashed rustic hands into a pail placed under the dung-spattered udder and belly of a cow who spends at least half her time in a dark and noisesome byre, carpeted with a slush of decomposing urine and faeces and papered with the splashings of the same, while the air is thick with the bacterial flora of these admirable culture media and of the bovine alimentary canal. What wonder that the bottom of a milk-can nearly always exhibits a rich sludge, and thus serves the purpose of a cesspool or septic tank? It has been calculated that the inhabitants of Berlin consume in their milk 3 cwt. of excrement per diem. Even in the milk of one of the most model dairies of this district, where hand-washing and teat-washing are supposed to be *de rigueur*, have I seen this sludge, which the milkman said he could not understand, because he always strained the milk through a cloth before sending it out! And on arrival in the city do we not daily see a row of milk-carts in the bright and perfumed air of Station Street, where milk is being poured from big cans into smaller ones through dirty cloths which between their services lie about anywhere?

When in addition to the chances of pollution we recall the contaminated water with which in country places the milk cans are often washed, the contaminated atmospheres of shops and cellars in which the milk retailed to the poor is usually stored, we no longer wonder that milk, even from a healthy cow, occasionally makes people ill.

But in the present state of the law we have no guarantee that our milk does come from a healthy cow, and in most English towns milk is sold coming direct from udders which are affected by tuberculous or other inflammatory disease, and from which in milking a considerable quantity of pus is squeezed into the milk can.

PATHOGENIC PROPERTIES OF CONTAMINATED MILK.

Thus, as matters now stand, we are liable to drink milk which may come from a diseased cow and which is almost invariably exposed to contamination by subsequent dirt. The milk on which our children mainly live may be primarily or secondarily a pathogenic fluid. Thus epidemics of scarlet fever and diphtheria have been traced to the milk from diseased cows, while the virus of these diseases and of typhoid fever has been introduced by infection from the *personnel* of the dairy or milk seller. Tuberculosis I will not dwell on, though I think that cases of milk infection in that disease have been made out. But undoubtedly the main disease caused by milk is the summer diarrhoea or gastro-enteritis of hand-fed infants, the mortality from which is appalling. Thus the deaths in Nottingham among children under 1 year of age were in 1900 equal to 196 per 1,000 born, and in 1899 to 210 per 1,000, and the total of deaths from diarrhoea in 1899 being 600.

During the summer of 1899 the epidemic of infantile diarrhoea spread all over England, and the death-rate everywhere rose; for example, in 67 large towns from 156 to 179 (or *plus* 23) per 1,000. To this increase, however, there was one notable exception St. Helens—where it fell from 176 to 157 (or *minus* 19). In this town Dr. Drew Harris, the energetic M.O.H., in August started the public distribution, in closed bottles, of milk which had been exposed for three-quarters of an hour to a temperature of 102° C. Although the distribution only began in August, the effect was to cause the infantile death-rate of the whole town to fall from 176 to 157, while among the consumers of the sterilized milk it fell to 103. This system was introduced in 1894 at Fécamp, in Normandy, by Dr. Leon Dufour, with the result that in 1898-99 but 1.3 per cent. of the infants drinking the sterilized milk of the *goutte*

* Abstract of a paper read before the Nottingham Medico-Chirurgical Society.

de lait died of enteritis; while the mortality of the other town infants from the same cause was 10 per cent.

It is hardly necessary to bring further evidence that sterilizing the milk checks summer diarrhoea, for this is admitted, I think, by all.

Alleged Scurvy of Boiled Milk.

What, then, is the harm of heating milk to such a temperature as will kill pathogenic germs? It has been alleged that the nutritive value of milk is largely diminished by boiling, and that it causes rickets, infantile scurvy, and tuberculous diseases in infants, and deficient nutrition in the aged and sick. Further, it has been complained that boiling kills the living cells and coagulates the albuminoid constituents, so that they must be digested before being absorbed, whereas it is implied that the living cells of fresh milk enter the circulation direct as living protoplasm and build up the tissues direct. Again, Dr. Frederick Smith speaks of the number of babies seen as out-patients "who are made peevish, fretful, and even seriously ill by the pernicious effects of boiled milk on their nutrition."[1] Dr. Smith's opinion is based on impressions gained in the out-patient room of the London Hospital. What hospital physician has not seen babies peevish, fretful, and seriously ill from the use of unboiled, sour, and adulterated milk: and what guarantee can there be, even if the mother says she has boiled the milk, that the boiling was efficiently carried out; that the many precautions needful to prevent subsequent contamination were taken, or that the milk was originally of good quality and not diluted or adulterated?

Let me quote from Dr. Variot,[2] of the Hôpital des Enfants Malades, Paris, where for ten years sterilized milk has been distributed (as at Fécamp) to the infants of the poor, the children being afterwards weighed and inspected weekly by the doctor. The milk is either sterilized at Paris in a Soxhlet's apparatus or sterilized beforehand in Normandy at 115° C.:

In these conditions we have given this milk to a number of infants carefully looked after, and have noted neither rickets nor infantile scurvy. In five years I have had about 200,000 litres of sterilized milk distributed to 1,000 infants, and have never observed a single case of Barlow's disease. Rickets is very exceptional.....Infantile scurvy is rare in France. Ten cases have been collected, and 7 of these can be imputed to "humanized milk" made by Gaertner's method. It would seem that the modifying of milk rather than the sterilization does the harm. Farinaceous mixtures and milks artificially made up in laboratories by the method of Rotch seem to us most dangerous food even if well sterilized. We have brought up a large number of healthy and even atrophic children with sterilized milk. The tracings of their growth, without being as perfect as in the case of infants nursed by their mother, are nevertheless very satisfactory in general.

Again, Holt in his textbook says:

I have carefully investigated this question [infantile scurvy] in the records of three institutions in which for five years sterilized milk was the standard food for all artificially-fed infants. The number of children under 18 months who had this diet is nearly 1,000. During this period but 2 cases of scurvy were observed, and in neither case had the child been upon a diet of sterilized milk. However, I have recently seen in private 2 cases of scurvy in which the cause seemed to be prolonged sterilization at a high temperature, that is, 212° F. for over an hour. In some of the cases in which the sterilized milk is supposed to have been the cause of scurvy, it was undoubtedly the milk formula which was at fault and not the process of heating. In two patients under personal observation who developed scurvy while taking sterilized milk and a proprietary food, the food was discontinued and the patient recovered, although heating the milk was continued. In 4 cases observed by Winkes no other treatment was employed than the substitution of sterilized milk for the previous diet, which in three instances had been proprietary foods. All the patients promptly recovered. The milk was heated to 212° F.

In an article on infantile scurvy[3] Dr. E. Cautley, of the Belgrave Hospital for Children, says that in seven years' hospital practice he has brought up a very large number of infants on boiled milk; that none of them have developed scurvy, and that the gain in weight has been satisfactory. He notes also that in London shop milks he found from 3 million to 30 million microbes in each teaspoonful.

In my own experience I have never known scurvy, rickets, or atrophy occur as the result of feeding with milk that had been boiled or sterilized by exposure to the temperature of boiling water. At the General Hospital the milk is sterilized in an Aymard's sterilizer, and the rapid improvement in nutrition that occurs in the wasted infants brought to us is most striking. In private practice and in my own family I advise for young infants the sterilization of milk in the bottles in a Hawksley's or Soxhlet's apparatus, and for older ones in an Aymard, the water being put in tepid and kept at the boiling point for about ten minutes.

All the cases of infantile scurvy that I have seen have been due to the sole use of proprietary dried foods. However perfect the food may appear to be from the point of view of chemical composition, there is no doubt that their prolonged use (for example, for six to eight months) does, in a certain number of cases, cause scurvy, although the child may for a time have gained weight and appeared thriving.

Sir Thomas Barlow, the discoverer of "infantile scurvy," or "scurvy rickets," discussed the question in his Bradshaw Lecture,[4] and has recently been good enough to communicate his views to me in a private letter. He says: "Undoubtedly the proprietary foods are the worst offenders; condensed milk is responsible for a fair number of cases, and sterilized and humanized milk as supplied by the dairies is, if used long enough, very apt to produce scurvy. By this preparation I mean milk which has been deprived of half its quantity of casein and has been subsequently sterilized, and in several cases stored for some weeks." He also adds: "I have had several cases of scurvy in children taking milk sterilized by Soxhlet's process, which takes forty to forty-five minutes. I have not seen scurvy in children brought up with milk just scalded."

Dr. Kingston Barton[5] comes to similar conclusions, namely, that completely sterilized milk, that is, milk which will keep fresh in sealed bottles for several days, will produce scurvy, whereas milk raised to the boiling point and kept at that temperature for five to ten minutes will never do so, while it is almost quite safe from pathogenic organisms.

Now, with regard to these views and facts, I would venture to point out first that in the case of "humanized" or "modified" milk, we are not dealing merely with milk that has been heated, but with a fluid the chemical composition of which is markedly different from whole milk, and that in some cases it may well be the milk formula which is to blame. Condensed milk is notoriously often an imperfect nutriment. Secondly, I would remark that when so-called "sterilized" milk has been brought from a dairy laboratory or manufactured at home, there is a tendency to undue confidence in the virtues of sterilization, to keep it too long, and to give a supply of fresh milk at too long intervals. Milk sent down from a London "laboratory" is frequently given when a week old. But it is by no means true that milk which has been boiled, even for three-quarters of an hour, can be absolutely relied on as sterile. Repeated discontinuous heatings are necessary to kill all spores. The outbreak of diarrhoea a few years ago at St. Bartholomew's, which was traced by Dr. Andrewes to the bacillus enteritidis sporogenes existing in well-cooked rice puddings, is striking proof of the resisting power of spores.

It happens not very rarely that "sterilized" milk from the best London dairies is found when the bottle is opened to be obviously bad to smell and taste, and it is practically certain that minor fermentative changes may go on in milk which seems good enough to give to the child. Hence we may be for several months administering to the infant small doses of the chemical products of saprophytic or pathogenic germs.

In this connexion let me remind you of the extremely interesting paper by Mr. F. A. Jackson and Dr. Vaughan Harley[6] on the etiology of scurvy. This disease has been generally held to be due to the absence in the diet of some constituent of fresh food, and especially of fresh vegetable food, by many supposed to be the salts of organic acids, such as citrates, malates, and lactates, and it is generally believed that the administration of fresh vegetables or limejuice in addition to meat and preserved foods will prevent the outbreak of scurvy. That this is not the case is shown by the fact that scurvy was rife among the members of the Nares Polar expedition, although limejuice was regularly taken. On the other hand, a shipwrecked party, of whom Dr. W. H. Neale was a member, lived for nine months on freshly-killed meat without any vegetables, and had no scurvy at all.

Dr. Nansen did the same for the same period, with the same result, and a party of Mr. Jackson's expedition spent three years in Franz Josefland without limejuice, vegetables, or scurvy, while their companions on the ship *Windward*, living on tinned and salted meat with a regular allowance of

limejuice, suffered severely from scurvy. The conclusion drawn from such facts as these by Professor Torup, of Christiania, and Messrs. Jackson and Harley is that scurvy is due, not to the absence of a hypothetical *x* in preserved food, but to poisoning by the ptomaines of tainted animal food. Jackson and Harley bring experimental support to this view by finding tainted meat produce scorbutic symptoms in monkeys, even when plenty of fresh vegetables were given as well.

The cases reported by Winkes, and mentioned above, of infantile scurvy caused by proprietary foods, and cured merely by the substitution for them of sterilized milk, strongly support this view of the pathology of the disease. I would submit, then, that the evil effects observed not rarely after the prolonged use of powdered substitutes for milk, and occasionally after the use of modified milk supposed to be thoroughly sterilized may be partly due to unsuitable chemical composition as to food elements, but more largerly to actual insufficient sterilization, and subsequent keeping the food long enough to allow of decomposition processes to occur.

Flügge[7] found that in milk that had been kept at 90° C. for some time various anaërobic organisms could be cultivated at a temperature of 30° C., the commonest being the bacillus butyricus, which made the milk toxic to guinea-pigs. He also obtained several kinds of spore-bearing aërobic bacilli. Repeated heatings to 100° C. at intervals are needful to destroy such bacilli, or a prolonged exposure to 120° C., which latter process greatly alters the colour and taste of the milk. Hence it is obvious that in milk supposed to be sterilized various toxic substances may be formed if it is kept long enough to allow of the growth of micro organisms, and, if the taste and smell are not obviously altered, a fluid containing small doses of poisons may be administered for long periods to infants.

It should also be remembered that if fermentative changes have taken place in the milk before sterilization, the latter process, though it may destroy the living organisms, may not destroy the poisonous chemical substances they have produced. In these days, when the milk for the metropolitan dairies is drawn from as far off as Derbyshire, these are points worth remembering. It travels 120 miles to London to be mixed, modified, and "sterilized," and then the same distance back again to the Midland baby. It is just conceivable that on its journeys changes may occur, for milk is not, like sherry, better for travel. It is a not uncommon experience occasionally to open a bottle of "humanized" milk from the best London dairies, which to vision, taste, and smell is bad; but for one in which microbic growth is thus obvious there may well be a dozen in which slight unperceived chemical changes have occurred.

Condensed milk is, I believe, usually sterile, though often of unsatisfactory composition as a nutriment; but I feel some doubt as to its being an important cause of infantile scurvy, for this disease is admittedly much more common among the children of the richer classes than among those of the poor, who are the chief users of condensed milk. Rickets and malnutrition, on the other hand, are frequently traceable to its use.

Alleged Loss of Nutritive Value.

Let us pass on to the statements as to the loss of nutritive value alleged to occur in milk as the result of boiling or exposure to the temperature of boiling water.

First let us consider the statement that we are thus deprived of "living food." If it is meant that living protoplasm, or animal or vegetable matter, is absorbed into our system and incorporated with our living tissues without being previously killed and converted into a totally different chemical substance, I venture to say that this is an absolute fallacy. Such a process occurs in the fusion of the spermatozoon with the ovum, and in the conjugation of lower organisms, but is unknown in the process of nutrition of the higher animals. Putting aside the fact that the protoplasmic envelope of the fat globules of cow's milk is dead long before it reaches the consumer, even when unboiled, there can be no doubt that the same substance in mothers' milk drawn from the breast must be acted on and dissolved by the gastric juice before absorption, just as the casein is precipitated by the rennin ferment and subsequently peptonized. Neither is raw meat juice in any sense a "living" food. Potatoes have been described as such, even when boiled and mashed. Although an excellent remedy for scurvy, they do not act by virtue of being living. If scurvy were due to the want of living, or even of raw food, most of us would have scurvy; for there are thousands of persons who for years never consume uncooked food. It should be remembered that the use of raw milk is almost peculiar to Great Britain.

Is there any scientific evidence that boiled is less digestible and less absorbable than raw milk? It is asserted by the advocates of raw milk with the utmost assurance that this is the case: but for facts to prove their assertion we look in vain, while evidence to the contrary is not lacking.

Most people know that the clot of boiled milk (at least, outside the body) is less dense than that of raw milk, and may therefore be expected to be more rapidly acted on by pepsin.

Further facts as to the effect of boiling (that is, heating to 110° C.) on milk are given by Dr. Hutchison in his valuable book on *Food and Dietetics*.[8] Thus he points out that there is not, as alleged by some, a material loss of nutriment in the scum, which consists mainly of phosphate of lime with a minute quantity of lactalbumen and casein. Very prolonged boiling gives a brownish tint to the milk, probably owing to caramelization of the sugar; but it is not shown how far this renders it less digestible; nor is such prolonged boiling necessary.

Then it is said that boiling destroys the beautifully fine emulsion in which the fat exists in milk, causing the droplets to run together. This to some extent is true, and, if sterilized milk be kept for a week or a fortnight, it is very difficult to again get a fine emulsion by shaking the milk; but this is hardly perceptible in milk consumed within a few hours of boiling. This is another reason, besides that before mentioned, for not keeping milk long.

As regards the rate at which raw and boiled milk are digested in the stomach, the results of experimenters vary somewhat, some finding one and some the other more rapidly digested; but the general conclusion is that there is no great difference.

As regards the absorbability and nutritive capacity of boiled and raw milk, here again experiments show no inferiority in the former. Chamouin of Paris[9] found that kittens fed on boiled milk were twice as fat and healthy as those fed on raw milk. Bendix found that both infants and calves assimilated both nitrogen and fat quite as well from milk sterilized for over an hour as from milk just boiled; while between raw and boiled milk in animals and man the results of other experiments gave no constant difference. Hutchison[10] concludes that "just as boiling does not appreciably diminish the digestibility of milk in the stomach, so it does not to any important extent interfere with its absorption in the intestine," and he gives as his clinical experience at the Hospital for Sick Children that "amongst several hundreds of infants thus fed" (with boiled milk) "I have but rarely had any difficulty in obtaining the normal increase in weight. This is not a mere general impression, for I make a point of having these children weighed every week, and a careful record kept of the increase in weight and the exact method of feeding." One wishes that the writers on the other side would give something beyond "general impressions." Dr. Hutchison's experience thus falls into line with that already quoted of Holt, Variot, Cautley, and the towns of Fécamp and St. Helens.

Conclusions.

To sum up: we may say that there is no solid evidence to show that milk raised to its boiling point (110° C. = 233° F.), or to the temperature of boiling water for ten minutes or a quarter of an hour, suffers any diminution of its nutrient qualities. Neither is it probable that, if consumed within twenty-four hours of the heating, it will cause infantile scurvy. The same is true of pasteurised milk heated to 80° or 85° C. None of these methods render the milk absolutely sterile, but they do kill most pathogenic microbes (for example, those of tuberculosis, cholera, diphtheria, and typhoid),[11] and if the milk be kept cool and drunk within twelve hours of the heating, few or no spores will have developed into bacilli. Pasteurisation is probably less reliable than heating to 212° F.

for ten minutes, and is also more difficult to carry out, as it is easy with simple domestic apparatus such as Aymard's, or other double saucepan, or Soxhlet's, or Hawksley's bottle-holding tins to keep the milk in a bath of boiling water for ten minutes.

In times of epidemic summer diarrhoea the heating should be prolonged for at least half an hour, and the milk drunk within a few hours, or subjected again to the process, as the spores of the bacillus sporogenes enteritidis are very resistant. Under all circumstances milk, whether raw or "sterilised" should be drunk as fresh as possible, and then the liability to gastro-enteritis and nutritional diseases will be diminished; but it is my emphatic opinion that infants who live wholly or mainly on milk as at present supplied to us should never be exposed to the dangers lurking in the raw fluid.

Lastly, let me say that nothing in this paper is intended to detract first from the paramount importance of children being suckled by their mothers for the first seven or eight months of their life: and, secondly, from the equally vital matter of securing a pure milk supply from healthy cows, hygienic stables and dairies, and clean milk cans. Educational and legislative measures to secure such a pure milk supply should have the heartiest support of every medical man.

REFERENCES.

[1] *Lancet*, July 6th, 1901. [2] *Ibid.* [3] *Ibid.*, July 20th, 1901. [4] BRITISH MEDICAL JOURNAL, November 10th, 1894. [5] *Ibid.*, 1897. [6] *Proc. Roy. Soc.*, April 14th, 1900. [7] *Zeit. f. Hyg. u. Infectionskr.*, Bd. xvii. [8] Hutchison, pp. 118-9. [9] *Lancet*, August 18th, 1802. [10] *Ibid.*, July 20th, 1001. [11] Flügge, *Yearbook of Treatment*, 1896, p. 153.

REMARKS ON THE RELATIONS OF HUMAN AND BOVINE TUBERCULOSIS.*

BY C. H. CATTLE, M.D.LOND., M.R.C.P.,
Assistant Physician to the Nottingham General Hospital.

IN addition to the danger of inhaling the infection of tuberculosis it has until lately been believed that human beings may also be infected through the digestive passages by the consumption of meat or milk derived from tuberculous animals; but Professor Koch has startled the Congress recently held in London and the world by declaring that the risk of this occurrence is extremely slight and that in his opinion no measures to prevent it are necessary.

What, then, are our reasons for believing in the identity of human and bovine tuberculosis, and that the disease can be transmitted from one species to the other?

1. The bacilli found in each case are extremely alike both in their form, their staining reactions, and their mode of growth under artificial cultivation.

2. These bacilli, whether of bovine or human origin, produce typical tuberculosis when injected into rabbits and guinea-pigs.

3. Tuberculin prepared from human tubercle bacilli produces a characteristic reaction when injected into tuberculous cattle just as it does when injected into tuberculous man.

Objections can be urged against each of these statements. The similarity of the bacilli, it is said, does amount to identity of form. The bovine bacillus is not beaded like the human one, and is also shorter and thicker. In pure culture there are some differences in the mode of growth, and the bovine bacillus will not grow on glycerine-agar while the human will.

COMMUNICABILITY OF HUMAN TUBERCULOSIS TO BOVINES.

A fact, admitted by all observers, is that while both bacilli are pathogenic for animals, the bovine bacillus is much more virulent than the human. This fact, however, may eventually turn out unfavourable to Koch's views. His argument is based on the results of experiments in which he found calves very susceptible to bovine tuberculous material, whereas these animals were not susceptible to infection by human material, and swine but very slightly. But it is a matter of experience that man is as a rule liable to the diseases which are common to the domestic animals, and if bovine tubercle is virulent for a large number of different animals it strengthens the probability that it is virulent for man also. With regard to the tuberculin reaction Koch explains that, although the bacilli are different, they belong to the same group, the members of which give a common reaction with toxins. In support of this statement he points out that typhoid serum agglutinates cultures not only of typhoid bacilli, but also of paratyphoid [a form of colon bacilli]. As regards pathological and experimental evidence, the conclusion seems to be justified that the differences between human and bovine bacilli are those of variety rather than of species, such variation being due to the soil on which the organism grows.

Other observers, however, have not met with such uniformly negative results after attempts to communicate human tubercle to cattle. Ravenal of Philadelphia[1] inoculated intraperitoneally four calves with human sputum; three of these became tuberculous, two showing extensive lesions of true *Perlesucht* character. Contrary to Koch's experience, he found swine very susceptible to infection by human sputum. Lately Professor Delépine[2] has succeeded in giving human tubercle to the calf. Dr. Sidney Martin fed calves on bovine and human material. Those fed with bovine material were easily infected. The experiments with human material, while not being entirely negative, failed to communicate tubercle in two cases out of six, while in the other four there were lesions of limited extent in Peyer's patches and the mesenteric glands. Accidental infection of cattle, pigs, and even fowls, by means of the sputum of phthisical attendants, has been thought possible, and cases in support have been cited, but, as we are not told that all other sources of infection were excluded, the evidence is not very convincing.

COMMUNICABILITY OF BOVINE TUBERCULOSIS TO MAN.

We may now turn from the possibility of communicating tuberculosis from man to cattle to the far more important consideration whether transmission of the disease from cattle to man can take place, and whether the danger of contracting tuberculosis from meat and milk is real and substantial. I have nothing to say about the danger from meat, because meat inspection is practised by our authorities; and even if tuberculous meat escapes the inspector, the risk is so much diminished by cooking, that the transmission of tuberculosis by this means is so rare as hardly to constitute a substantial danger. Indeed, Dr. Sidney Martin[3] tells us that meat itself very rarely contains tubercle bacilli, and that danger consists only in its being contaminated by knives, cloths, etc., which have been in contact with tuberculous organs. Nocard[4] was unable to infect animals by feeding with raw flesh from highly tuberculous beasts, and even inoculation with juice from the same generally failed. The case is different as regards milk, because it is much more frequently taken uncooked, and the general opinion is that it is a fertile source of the tuberculosis of childhood. This belief is supported by the findings of the Royal Commission in 1895. We are told that something like 30 per cent. of milch cows—kept as is usual in confinement—are tuberculous, but that only the milk of cows with tuberculosis of the udder is infective. Udder disease is said to exist in 2 per cent. of cows; but this estimate may be too high, for Mr. Lloyd,[5] veterinary surgeon to the Manchester Corporation, after examining 9,576 animals, found this affection in 0.5 per cent., and appears to consider this a fair average for the whole country. Tuberculous milk is dangerous in proportion to the number of bacilli contained in it, and it is easy to exaggerate the infectiveness of milk, unless we remember that the infection is very much diluted by the mixing of milk. Tuberculous milk has been amply shown to be infective for animals. Knowing this, we find in the bodies of children lesions in the intestine, glands, or peritoneum, and we argue thus: All children drink milk, some milk is infective, therefore some children die of infection by milk. This conclusion may be correct, but in forming it there is something we have not taken into account.

Koch[6] has said: "It is just as likely these cases of intestinal tuberculosis were caused by the widely-propagated bacilli of human tuberculosis." In breathing a germ-laden atmosphere tubercle bacilli may be deposited in the mouth or nose and afterwards swallowed mixed with mucus, or even after being inhaled they may be expectorated and swallowed.

* Extracts from a paper read before the Nottingham Medico-Chirurgical Society.

It is not only milk that goes into the mouths of children; they grub about on all-fours, plastering their fingers with the tuberculous dust hidden away in inaccessible corners, and then put their fingers in their mouths; they play with the spittoons and handkerchiefs of phthisical relatives; jellies, blancmanges, and other food are left for hours, if not days, besides a coughing patient, and these, as well as all other infection lying about, are finally eaten by the children.

Abdominal Tuberculosis in Children.

There is a pretty general belief among the medical profession that tuberculosis in young children usually affects the abdominal organs primarily, and this belief is fostered by the reports of the Registrar-General, which show during the first five years of life a heavy mortality from tabes mesenterica. This disease—true mesenteric tuberculosis—can hardly be diagnosed clinically, the term being apparently used to signify a disease characterized by diarrhoea, wasting and tumid belly, the so-called "consumption of the bowels" of the laity. Sir Richard Thorne-Thorne in his 1898 lectures uses these very fallacious statistics to prove his point that infantile tuberculosis is due to milk. He points out that while the death-rate for phthisis, owing to improved hygienic conditions, has declined during the last fifty years as much as 50 per cent., that for tabes mesenterica for children under 5 has remained practically stationary, and has even increased as much as 27 per cent. for children under 1 year. Children, he says, have had the benefit equally with adults of improved sanitation, therefore some other cause, not affecting the phthisis death-rate, has been operative in causing the increased tuberculous death-rate in children, and this cause is probably infective milk. There are observers, however, as fully convinced as Sir R. Thorne-Thorne of the dangers of milk who do not accept the figures on which he bases his conclusion. Dr. J. McFadyean, who defended the milk theory against Professor Koch at the Congress, says: "The Registrar-General's returns do not afford much trustworthy information with regard to the number of cases of primary intestinal tuberculosis, and are absolutely worthless as an indication of the extent to which human beings are infected by milk."[7]

The only reliable statistics open to us are those based on necropsies. The results thus obtained are very striking, and do not lend much support to the doctrine that abdominal tuberculosis is relatively common during the milk-drinking period. The records of several large Children's Hospitals for a number of years back have been analysed by independent observers—Dr. Shennan of Edinburgh, Drs. Still, Carr, Colman, Guthrie, and others, in London. The investigations concern over 2,000 necropsies, and the results in each case are strikingly similar.

It is shown in the case of children under 12 years of age dying in hospital, first, that nearly one-third of the deaths are due to tuberculosis, thus supporting the general opinion that the disease is common in childhood; but secondly, it is also shown that at all the age periods up to five years tuberculosis primarily affecting the lungs or thoracic glands is at least twice as common as the same affection of the intestine or abdominal glands.

After five years of age tuberculosis is much less common, and primary infection in the two cavities is more nearly equal. The most fatal period of tuberculosis is the second year of life, and this is the very period when we ought to find most evidence of primary infection through the intestine. At this age Dr. Still[8] found 38 cases of primary thoracic infection and 15 of primary abdominal; Dr. Shennan's figures are 57 and 22.[9] These figures show a preponderance of chest tuberculosis in the proportion of nearly 3 to 1, at an age when milk is largely drunk.

Putting together the figures of these two observers, and taking all cases up to 6 years of age, we get 281 primarily thoracic and 91 primarily abdominal. And if we look at the earliest period of life, under one year, we find the figures, instead of confirming the impression given by the Registrar-General's reports that abdominal tuberculosis is especially fatal at that time of life, absolutely contradict it; for Dr. Still found primary chest disease in 18, abdominal in 5; Dr. Shennan, chest 21, abdominal 4. Here the figures are 4 to 1 in favour of the chest. Dr. Carr examined into the cause of 330 deaths in children, 30 per cent. of which were due to tuberculosis, and concludes:[10] "Tuberculous disease starts much more frequently in the thorax than in the abdomen, and certainly far more often in the thoracic than in the mesenteric glands." His figures are 65.8 per cent. starting in the thorax as against 16.7 per cent. in the abdomen. Dr. Colman says:[11] "While not doubting the infection by milk in some cases, I am led to attach more importance to the condition of the thoracic glands, as the process was more advanced in them as a rule than in the mesenteric glands." There are two other sites beside the chest and abdomen in which tuberculosis may have its primary seat, and which conceivably may be infected either by inhalation or ingestion. One of these is the middle ear, which Dr. Still[12] found affected fifteen times, and suggests this is really an inhalation tuberculosis, as the Eustachian tube is more closely related with the respiratory than the alimentary passages. The other site is the glands of the neck, which probably become tuberculous by infection through the tonsils or other parts of the fauces. Dr. Shennan claims this mode of infection as due to food, but it is, in my opinion, just as probably aërial in origin, and, anyway, cannot prove very much in favour of milk infection, being probably more common in later than in earlier childhood. In 43 of Dr. Still's cases healed tuberculous lesions were found, the patient having died of some other disease. In these healed lesions the proportion of thoracic to abdominal disease was fairly well maintained, being 26 of the former to 16 of the latter. So far as the evidence goes we may say that the tendency of tubercle to become obsolescent is not decidedly more marked in the one situation than in the other.

From what has been said it must not be concluded that cases of tuberculosis in childhood can always be ascertained clinically to be of pulmonary or intestinal type respectively. Nearly half the total number appear clinically as meningitis, the primary lesion, whether thoracic or abdominal, being often latent. What is shown by the figures—and I think conclusively—is that primary infection takes place far more often by the respiratory than by the alimentary passages. And just as primary chest infection is commoner than primary abdominal, so also a larger proportion of secondary meningeal infection comes from a thoracic than from an abdominal source. Therefore clinically, and excluding meningitis, we ought to find pulmonary phthisis more common than abdominal, and this, I think, is what we do find. During my last six months practice in the out-patient room I have not seen a single case in which there were reasonable grounds for a diagnosis of abdominal tuberculosis, while I have met with a considerable number of children with local and constitutional signs of the pulmonary form, one of these, aged 2 years, being probably infected by a phthisical mother. Experience in the wards points in the same direction, and I think in private practice also, if anyone kept careful note of his cases, he would find at the end of a twelvemonth he had seen more cases of pulmonary phthisis in children than abdominal.

Conclusions.

What follows from this line of argument? Well, we cannot as yet deny the possibility of infection by milk; still enough has been said to show that the assumption that the frequency of tuberculosis in early life is chiefly due to tuberculous milk is in one direction too narrow and in another erroneous. An exclusive milk theory, while it ignores the greater incidence of tuberculosis on the lungs than on the bowels in young children, fails also to take account of other sources of infection. There can be no doubt that certain infantile diseases measles, whooping-cough, bronchitis, broncho-pneumonia serve as powerful predisposing causes to tuberculosis mortality. They leave behind them constitutional weakness, catarrh of the respiratory passages, and often of the intestinal as well. Under these conditions the widely disseminated bacilli of human tuberculosis gain a footing, attaching themselves to the most susceptible organs in a majority of cases the lungs or their related glands, in other cases to the intestine, ear, or neck glands. Milk may be responsible for some cases, but the fact that thoracic tuberculosis is so common at an early age suggests the conclusion that the human bacillus (in the one case inhaled, in the other swallowed) mixed with

the bodily secretions or with food, is the cause of chest trouble in one case and of abdominal in another.

Koch has told us that while secondary infection of the intestine is admittedly very common, primary infection of that tube with tuberculosis is exceedingly rare. This conclusion, however, is not in accordance with British experience as regards disease in children.

In 66 cases of Dr. Shennan's, 45 were found with ulceration of the intestine prior to infection of the glands of the mesentery; but in a minority the glands were affected with little or no lesion of the bowel, thus tending to support the view that bacilli may sometimes find their way through a mucous surface without leaving traces there of primary inoculation. It is said[13] that in Germany the use of boiled milk is very common, if not the rule, while with us it is the exception: and this difference of treatment would, therefore, if milk be the cause of the disease, explain the greater frequency of primary intestinal ulceration among us.

The following case has been often quoted in support of the belief that tuberculosis can be acquired from milk. At a school for girls in France there occurred within three months 11 cases of tuberculosis of which 5 were fatal. In several of the cases the site of the infection appeared to be intestinal. The milk used during the period was obtained from a cow affected with tubercle of the udder and internal organs. There is other evidence of at any rate the occasional innocuousness of tuberculous milk. The following occurrence was communicated to me by Professor Clifford Allbutt, with his permission to publish the facts: Some years ago when living at Meanwood, near Leeds, he used to keep a small herd of Guernseys, among which was a prize cow he had purchased for a high price. This cow had been coughing for many weeks without any particular attention being paid to the fact, when at last it was noticed that her milk did not look right. On examination disease of the udder was found, no doubt at an advanced stage, seeing that the milk was noticeably altered in appearance. The milk contained swarms of tubercle bacilli, and had been consumed mixed with that of the other cows for a long period by over twenty persons, ten of these being children. This disclosure naturally gave Dr. Allbutt considerable anxiety for a time. But he says, "No one was one penny the worse, except myself for the loss of my pedigree cow."

From instances like the foregoing it is difficult to draw any general conclusion as to the danger of drinking tuberculous milk. The evidence, however, tends to show that such milk is not highly infective when diluted with the milk of healthy cows, and that some persons are likely to show a much higher degree of susceptibity than others. Nocard, an eminent French authority, quotes several cases of tuberculosis of the intestines in young persons traced with a high degree of probability to milk, but he also says, "Ingestion only succeeds in giving tuberculosis when the ingested material is very rich in bacilli."[14]

As regards the spread of tuberculosis we seem to be going through much the same change of thought as we have gone through with regard to the spread of typhoid fever. In this disease we used to say that case-to-case infection was very rare, and that infection from a common source was the rule. We now believe that the disease often arises from case-to-case infection. In the same way we have slowly come round to the idea that tuberculosis in adults arises directly or indirectly from case-to-case infection. During the last few years the belief has become general that the tuberculosis of childhood is due mainly or entirely to a common source of infection, namely, milk. Are we not now in process of recognising that here again tuberculosis is mainly caused by infection derived directly or indirectly from a person affected by the disease?

REFERENCES.

[1] *Lancet*, August 17th, 1901. [2] British Medical Journal, November, 1901. [3] Allbutt's *System*, vol. ii, p. 30. [4] *The Animal Tuberculoses*, p. 01 *et seq.* [5] *Lancet*, August 3rd, 1901. [6] "The Fight against Tuberculosis," Address to the British Congress, British Medical Journal, July 27th, 1901. [7] Address to the Congress, *Ibid.*, August 3rd, p. 323. [8] *Ibid.*, August 19th, 1899. [9] *Edinburgh Hospital*, 1900. [10] Allbutt's *System*, vol. iii, p. 055. [11] British Medical Journal, vol. ii, 1893. [12] *Practitioner*, July, 1901, p. 94. [13] Shennan, *Scottish Medical and Surgical Journal*, 1901, p. 324. Dr. Coutts, however (Allchin's *Manual of Medicine*, vol. i), expresses the opinion that primary tuberculosis of the intestinal mucous membrane is rare. [14] *Op. cit.*, p. 79.

GENERAL HOSPITALS AND PULMONARY CONSUMPTION.

By ALEXANDER ROBERTSON, M.D., F.F.P.S.G.,
Late Physician, Royal Infirmary, Glasgow.

One of the most important problems that have arisen in connexion with the national efforts to check the ravages of phthisis pulmonalis is how to deal with advanced cases among the artizan and generally less wealthy classes—those socially a little above the pauper grade. The sense of self-respect of the sufferers will not, as a rule, permit them to enter the parochial hospitals; and, indeed, at least in Scotland, they would have no legal claim to become inmates of these institutions. What happens with a large proportion of the cases of that kind in Glasgow, and presumably also over the kingdom, is that they seek admission into our infirmaries and general hospitals, and I do not put it too strongly—are turned away from their doors. It is done in this way: A consumptive, with cavities in the lungs, having obtained a subscriber's line and a medical certificate of his illness, comes or is brought by his friends to the reception room of the infirmary. He is there examined by one of the resident medical officers, and also, in the event of a refusal, by a dispensary or chief physician. The decision having been arrived at that the disease has advanced to the condition described, the patient is told that his case is unsuitable for admission. Very clearly, the shock to the sufferer and his friends must often be great on hearing this statement, and, it need scarcely be said, the duty of declining him is a painful one to the physicians.

Objections to Admission of Advanced Cases to General Hospitals.

In such cases, whatever their feelings, there is nothing for it but to go back to their homes. These are too often in densely populated districts where overcrowding is common. There they remain for the weeks or months that intervene before death closes the scene. More frequently than otherwise husbands or wives, brothers and sisters, as the case may be, are meanwhile exposed to the infection from the sputa that are usually so abundantly expectorated in the terminal period of consumption. During all this time they are centres for the diffusion of tubercle both in the home circle and around it. Who can doubt that this is one - indeed, probably, the chief—source from which continues to spring the various forms of tuberculosis, and more particularly phthisis pulmonalis?

The question arises, Ought the physicians who refuse to receive consumptives in the advanced stage into their respective hospitals to act otherwise? Certainly not, in view of the absence of special arrangements for the care of these cases. The physician's duty is, as far as practicable, to protect those under his charge from possible infection, and to admit in considerable numbers patients in advanced consumption into the general wards would be blameworthy. It would endanger those recovering from pneumonia, certain forms of bronchitis, and, generally, cases in which the vital powers are low, especially when there is likewise an hereditary disposition to tuberculous disease. It will doubtless occur to many, why restrict the objection only to the admission of considerable numbers, as, if there be risk, why not exclude all cases of that kind from the ordinary wards of hospitals? Complete exclusion of them I believe to be the only sound and satisfactory position to take up in relation to the question. And yet there are physicians of eminence who contend that in the large, well-ventilated wards of modern hospitals, with abundance of air space and disinfection of the sputa, the presence of, say, two consumptives with vomicæ in their lungs and abundant expectoration in a general ward does not really expose the other patients to danger of infection. They point to the absence of evidence that either patients or nurses in such hospitals have actually become phthisical. To this the reply may justly be made that the danger, though not great, unquestionably exists. Patients in the stage referred to, when they become weak and when the mind is not very clear, sometimes carelessly or inadvertently, especially at night, soil their nightdresses and bedclothes with the sputa. This, it must be obvious, is a clear source of risk to others.

The mere fact that no patients are known to have acquired phthisis does not warrant the conclusion that it has not actually occurred. The bacilli may have been inhaled by them during their residence, but have become practically encapsulated in the lungs, and so have remained inactive at first. Later, perhaps after months or longer, at a time when the resistive powers of the system had somehow become impaired, they may have wakened up into action and begun their work of destruction. Of course this cannot be proved; but neither can it be disproved, and the possibility of infection being so caused is undoubtedly present. However, as a matter of fact, I know of three nurses, a house physician, and a patient, who, there is strong reason to suspect, acquired phthisis in the wards of a large hospital. Further, there seems a certain want of consistency in permitting even two cases to be in the wards; the very fact of limitation implies an admission that there is risk in the presence of the disease. The knowledge that patients in the advanced stage daily expectorate thousands of bacilli justifies that apprehension.

Special Wards.

We have also to consider the question of medical education in connexion with the presence of phthisis in hospital wards. Wherever medical students are under training there must be facilities for their acquiring a thorough acquaintance with its symptoms and physical signs in all its stages. It is therefore necessary that advanced cases should be in or near wards where clinical instruction in general medicine is given. We have consequently to meet the two requirements—the protection of other patients, and the education of the young men and women who are preparing to enter the profession. This can obviously be done without serious difficulty; phthisical cases have simply to be removed from the ordinary wards and kept by themselves. The amount and kinds of separate accommodation required will be best determined in connexion with another aspect of the subject.

Bearing in mind the conditions which have been briefly discussed—the necessity of retaining some cases in general hospitals in the interests of clinical teaching, the protection of other patients, and more especially the prevention of infection by those refused admission to relatives and others in their homes—the special wards suggested would probably need to be of considerable size; perhaps in some cases more than two would be required. In the three large infirmaries of Glasgow the total number of advanced cases of phthisis usually amounts to about thirty. If in each of them there were two special wards, a male and a female, with forty beds in all, there would be accommodation for 120 patients. It may be doubted if this would suffice for all the cases in the city, belonging to the classes and in the stage referred to, who would be willing to leave their homes. The question can only be determined by fuller inquiry. My impression is that the provision named would be ample for the number of cases requiring care at one time. It is not to be lost sight of that the problem only concerns a portion of the community; the higher and lower sections are provided for otherwise.

Where there is sufficient ground attached to a hospital it is desirable that the phthisis wards should be at some little distance from the main buildings. It would also be an advantage if they were built, say, of brick, so that they might be taken down and renewed every few years. They ought to be constructed on the open air principle both on the patients' and students' accounts. Even in the advanced stages of the disease the sufferers often derive much benefit from it; indeed recoveries now and again, though exceptionally, occur. The gain to the students would also be important, for they would become familiar with the details of this mode of treatment, and be prepared to use it in suitable cases in everyday practice, even in cities. In this way the benefit to the general public would be great. In the case of hospitals where ground is not available for new erections, an effort should be made to set apart special wards for these cases, as much isolated as is practicable.

Other proposals have been made for the care of cases of advanced consumption. One is to build municipal hospitals for them. It is certain that very many of the patients would not consent to go there. As is well known the hope of recovery is retained to near the fatal close in a large proportion of phthisical cases, and the gloomy associations of an institution solely devoted to conditions mostly hopeless would have a deterring effect in many instances. There is perhaps less objection to their being associated with the curables in the sanatoria likely to be erected over the country. Still, the frequent deaths among the advanced cases, which could not easily be concealed from those in a more hopeful stage, would have a depressing and injurious effect on the latter. Another weighty objection would be their removal from the neighbourhood of relatives and friends. The sanatoria will be at some distance from large towns or cities. A visit to them will occupy a large part of a day, and the expense of frequent visits will be a serious consideration to those whose means are small. Naturally the desire, both of the afflicted and those dearest to them, to see each other often increases as the end draws near. No more suitable place away from their own homes could be found than the hospital of the town or district of the city in which their homes are situated. Daily or more frequent interviews are there usual in all diseases when death becomes imminent. An additional advantage would be the far fewer removals to their own dwellings arising from the longing to be with their relations when the illness assumes a more serious aspect. Indeed, for the all-important reason already urged—the danger to others—a return home should be opposed firmly but with all possible consideration. If this were done and the reason fully explained, probably few would persist in their intention to leave hospitals near where they reside; were they to do so, there is no law to prevent them.

Treatment of Advanced Cases.

So far we have been all but assuming that this class of patients would enter these wards simply to die. This, no doubt, has been our experience of advanced phthisis in the past. Happily the prospect is now less gloomy. Reference to Dr. Philip's paper lately published,[1] as well as to the statistics of Quarrier's Home in Renfrewshire[2] and those of the German sanatoria, shows that to an encouraging extent, even when the disease had progressed to the stage of softening and formation of cavities, under the open-air system of treatment the patients so far recovered as to be considered fit to go back with safety to the families of which they were members.

However, while welcoming this newer method to our armoury for the treatment of phthisis in its later as well as in its earlier stages, we must not discard medicinal measures; that would be a great mistake. Dr. Koch[3] has been lately showing a good case in favour of our old friend tuberculin in its improved form. His favourable conclusions on the present occasion seem based on a sufficient number of cases (76) to inspire considerable confidence in his statements, at all events such as would justify a series of observations by others on a more extensive scale. Fresh claimants on our notice—germicides and antitoxins—are from time to time brought forward on adequate authority to warrant a trial of them. Who would venture to say that one or other of these agents will not ultimately be found potent enough to overcome the tubercle bacillus or neutralize its poisons? At least it seems a duty incumbent on us to prosecute our investigations into the action of agents whose properties suggest a reasonable hope that they may act in either of these ways. In this relation, then, it is important that cases of well marked phthisis should be admitted into our hospitals in sufficient numbers for scientific study. Further, our duty to the sufferers themselves will be best discharged in connexion with general hospitals. They will there be under the care of skilled and experienced physicians and nurses, who will do much to relieve the complications in the bowels and other organs which are not rare in the later periods of the disease.

A point of importance regarding, if not the legal, at least the moral, claim which these patients have to admission into the infirmaries should not be overlooked. They have in most cases in Glasgow and other towns contributed year after year to the support of these institutions through the workers' fund where they have been employed. Naturally they feel it a grievance that when their time of need comes they find themselves excluded from the hospital which their money has helped to maintain.

Some may think that the care of patients in the condition

under consideration is outside the proper sphere of a general hospital. To this the rejoinder may fairly be made that the prevention of disease is higher service than the cure of it, and that the removal of consumptives from localities where they are foci of infection would establish a new claim on the grateful appreciation by the community of the beneficent work done by our infirmaries.

Parochial Hospitals.

The very poor are better off than the class whose wants and claims we have been considering. They are accommodated in the parish or union hospitals. The grounds for the segregation of consumptives, it need scarcely be stated, exist in them also. Probably the gathering of the males and females into wards apart from other patients would be found easier in many of them than in some infirmaries. It may be mentioned, as showing what is being done for this section of the public, that in a hospital for 1,500 chronic patients in course of erection by the Glasgow Parish Council, there are to be special wards for consumptive patients. It is expected to be ready for occupation in August of the present year. As example is better than precept, it is to be hoped that this enlightened action will prove a stimulus to other parish councils to do likewise.

References.

[1] British Medical Journal, December 14th, 1901, p. 1728. [2] See Annual Reports. [3] British Medical Journal, January 11th, 1902, p. 97.

THE ORIGIN OF THE MODERN TREATMENT OF PULMONARY CONSUMPTION.

By A. T. TUCKER WISE, M.D. (Diplôme Suisse Fédéral).
Montreux.

The present system of treating pulmonary tubercle by nutritious diet (as much as the digestive organs can assimilate) with open-air exposure for the patient instead of shutting him up indoors, originated in England in 1835. Important hygienic reforms have generally originated in the English school. Dr. George Bodington (Warwickshire) carried the plan out in spite of great opposition and ridicule. He was, however, so derided for his innovations that he ultimately found it expedient to give up the practice and turn his sanatorium to other uses.

One of his consumptive patients, treated by him in 1835, whose case is mentioned in Bodington's book,[1] has within the last few weeks written me a letter. This is no "spirit writing," as some might suppose, but a clearly-written, intelligent communication which has reached me through the post. Before announcing what the patient tells me, I will quote Bodington's own description:

In 1835, a young lady, aged 16, who had suffered from occasional pain in the side, cough and debility, returned home from boarding school, where she had been placed under medical treatment for these complaints; she was still ill .... I met several medical men in consultation, and a treatment was pursued in the usual manner, the patient being confined to her room, and consumption gradually wearing her away. After two months of confinement indoors every symptom of the disease had become aggravated; she was now extremely emaciated, suffered from profuse night perspirations, violent cough, and difficulty of breathing. The expectoration was abundant, consisting of mucus mixed with opaque solid portions frequently tinged with blood, most of which sank in water; some floated. There was a dull sound on percussion of the upper portion of the lungs, mucous rattle with a gurgling noise, hoarseness, and weakness of voice. The physical signs in combination with the general symptoms were clearly indicative of the existence of cavities in the upper portion of the lungs

In the month of January, 1836, the case was left entirely to my management, and having urged my views strongly to her friends, I gained consent to their being adopted.

A donkey was procured, on which the patient began to take exercise out of doors, notwithstanding the inclemency of the season, in the depth of winter. The first trial was unpromising; the cough appeared to be much increased in coming into the open air from the warm bedroom. This arose from the undue closeness and heat of the bedroom, and not the external air. There cannot be a more fatal error than that which arises from the supposition of there being something deleterious in the external atmosphere, because persons cough when first brought into it out of unwholesome heated apartments. The latter should be especially avoided and the apartments kept cool and airy, corresponding in temperature nearly to the external atmosphere, whilst the latter should be courted and indulged in to the utmost.....In the present instance it was soon found that by continuing a long time out of doors the cough abated materially; every day some improvement was observed to take place, very gradual but constant. A sedative draught was given every night, which, together with the exercise of the day, procured sleep and warded off the cough till morning. In the daytime an emulsion mixture was taken at intervals, and very small doses of morphine, to subdue by degrees the irritation arising from the presence of tubercles in the lungs. The diet was nourishing, consisting of boiled egg, fresh meat, milk and bread, and two glasses of sherry in water daily. This treatment was continued very strictly through the winter and spring months of the year 1836. By June the patient had entirely lost her cough with all the other symptoms of the disease, regained her health and strength, and passed through the succeeding winter in very good health, accustoming herself to go out of doors walking and riding almost daily. At this time (July, 1839) she is in perfect health.

This patient (Mrs. E. M.) writes me from Cheltenham as follows:

Dear Sir,—My cousin, Dr. Bodington, tells me that you wish to hear from me any details I am able to give you respecting his father's treatment of my case when, many long years ago, I was supposed to be hopelessly ill in an advanced stage of pulmonary consumption. As this illness commenced in the year 1835, when I was in my 15th year, you will not be surprised that after the lapse of sixty-six years my memory is rather shadowy about the progress and different stages of my illness, as well as of my uncle's special treatment: but I will only state to you those things of which I have a clear recollection.

In the autumn of 1834 I had a severe attack of measles, which I suppose may have left me in a weakened condition of health. In the following summer of 1835, when at the sea-coast, I took a chill, which ended in a sharp attack of inflammation of the right lung, and was treated by the local doctor in the then usual way with leeches and blisters and other lowering remedies, and for many weeks I was too seriously ill to undertake the long coach journey between Liverpool and Birmingham—for this was before railway days. After my return home late in the autumn my uncle, Dr. George Bodington, then of Erdington, afterwards of Sutton Coldfield, took me under his charge, but was not able during the winter months to pursue his own plan of treatment except with regard to liberal diet, owing to the strong opposition of my dear parents and other relatives, whose prejudices against the new system of treatment were too strong to be overcome.

I grew worse rapidly, my cough was incessant, with every symptom of advanced disease of the lungs, until at length my friends gave way to my doctor's repeated assurance that the only hope of my recovery lay in my being allowed to breathe the fresh cool air and to be out of doors as much as possible.

I think it was in February, or very early in March, 1836, that I was first lifted on to a donkey, for I was too weak to walk, and led round the garden, and in spite of my dear parents' fears the result proved more than they had ventured to hope for. From that time I began to recover strength. The cough and other unfavourable symptoms gradually decreased, and, though the process of recovery was slow, it has been sure, for now, in my 81st year, I am in the possession of fairly good health, and able thankfully to enjoy the many mercies which surround me in my daily life.

I have had some serious illnesses in the course of my long life, and have always needed to be careful in avoiding cold, having had several attacks of pleurisy and occasional bronchitis, but on the whole I have enjoyed remarkably good health, and until the last few years have been able to lead an active life. There is no doubt that the mischief in my lung was entirely healed under the skilful treatment of my uncle, Dr. George Bodington.

If there is any other point on which you desire information, it will give me sincere pleasure to answer any question you may ask, if I am able to do so.

I hope the length of this letter will not alarm you.

Believe me, dear Sir,
Sincerely yours,

To Dr. Tucker Wise. ——.

After the relation of some cases Bodington concludes his book of 60 pages by advocating the establishment of sanatoria (he calls them hospitals) in the vicinity of large towns, where gardening and farming occupations could be undertaken by the convalescent. He mentions, too, "that if the medical profession are to succeed in the treatment of their consumptive patients, they should have country houses in proper situations, well ventilated, and provided with 'all appliances and means to boot,' where their patients should be under their own eyes, and strictly watched and regulated in all respects as regards exercise, air, diet, medicine, etc."

If one peruses his writings carefully it will be seen that nothing of importance in the routine treatment of pulmonary tubercle has been added since his book appeared, except cod-liver oil as a remedy, and rest during feverishness. The main principles, which at the time of introduction were a complete reversal of the ordinary treatment followed in those days, remain unchanged; but we are duly indebted to later workers in the same field, especially Brehmer, for their elaboration and completeness carried out in his sanatorium established in 1859 at Goerbersdorf in Silesia. His additions to the régime of a free use of alcohol and the cold douche have, however, been abandoned.

The later history of the developments and popularity of what is now termed "open-air cure" is not uninteresting. In the year 1865 Dr. Friederich Unger and Hugo Richter, a bookseller, both of whom had not entirely recovered their health in Brehmer's establishment, went to Davos in Switzerland. They had heard of this remarkable climate in the

Alps through an article in the *Deutsche Klinik* by Dr. Meyer-Ahrens, who had been visiting Davos. The article had been freely copied in the German press, and was read by the two inmates of the Goerbersdorf Sanatorium, who were not progressing as rapidly as they had hoped. Unger had watched and was familiar with Brehmer's system, and now, under unique conditions of climate, introduced the plan of open windows at night, walking and sitting out all day long, with *sur-alimentation* by taking large quantities of milk in the twenty-four hours in addition to the ordinary meals, a greatly-increased appetite being a marked effect of Alpine climate on debilitated patients, especially in dry cold cold weather. The results were eminently satisfactory; both the newcomers regained their health completely. Dr. Unger started in practice, and Hugo Richter went into business as bookseller and librarian. I had the satisfaction of making their acquaintance when I visited Davos in 1880 and following years. We were mostly disposed in those days to attribute the striking improvement in the condition of patients to the effect of climate alone, but it did not escape the observation of those who practised in Davos that success depended a great deal on the "push given to nutrition."[2]

Although it is now eight or nine years since I practised in Davos, I regard the place as having contributed in no small measure to the popularity of "open-air treatment," which spread from thence to other countries through the thousands of invalids and their friends who carried home with them a practical acquaintance with the potency and value of fresh air. This was to a certain extent superfluous in respect to English people, as English physicians and medical officers of health had long before drawn attention to the subject, and the ventilation of dwellings was already in vogue in England.

The later reputation of Nordrach in the Black Forest has shown us what Bodington originally demonstrated—namely, that the treatment can be carried out advantageously in quite inferior climates, but Bodington has never received his meed of recognition, even from his own countrymen. He has incontestibly the prior claim to originality in devising the modern method—give the proceeding what new name we may—"sanatorium treatment," "open-air cure," "hygienic treatment," or what not. Dr. Otto Walther has, however, with much attention to detail and constant supervision of the patient, attained considerable success at Nordrach during recent years.

It was about the middle period of the last century that hygienic and sanitary matters began to attract attention. The use of the morning "tub" began, ventilation was studied, and land drainage undertaken. Food eventually became more plentiful and cheaper. The window tax had long been abolished; reforms were made in the Poor Law and prison life. Public baths and wash-houses were introduced. The standard of sanitation with the army and navy rose each decade.

Finally, the English school took a prominence in hygiene which has never been lost, and the repute of the country as leading in sanitation is proverbial, and is acknowledged on the Continent. Is it mere coincidence that since these times there has been a surprising decline in the death-rate from pulmonary tuberculosis to less than half of what it was in 1840, and that there is less of the disease in England at the present moment than in most other European countries, where the fear of infection has taken deep root for many years past, but little importance is attached to fresh air except as a "cure"?

Deaths from Pulmonary Phthisis per 10,000 Inhabitants.

London	17.2 (1897).
Paris	38.0 (1896).
Berlin	21.8 (1897).
Berne	33.0 (1888-1892).

It was less of an innovation for Brehmer to prescribe a life in the open air for phthisical patients twenty-five years later, even in Germany, than for Bodington to conquer the widespread prejudice against an open window in the year 1835; but the latter has left clear proof in his writings and practice that he was the originator of the modern method.

References

[1] *Essay on the Treatment and Cure of Consumption*, Longmans, 1840. [2] *Davos Platz and the Effects of High Altitudes on Phthisis*, Churchill, 1881.

HYDROGEN PEROXIDE IN THE TREATMENT OF LUPUS VULGARIS AND TUBERCULOUS ABSCESS.

By CHARLES HERBERT GUNSON, M.B., Ch.B.,
Medical Officer to the North Cambridgeshire Hospital Out-Patient Departments, Wisbech.

Hydrogen peroxide is a most effective germicide, yet practically unirritating and harmless to the delicate tissue cells, if not used in full strength. Its mechanical action is also of value, as by its effervescence when applied to disorganised tissue it aids in removing the débris resulting from the destructive action of bacteria or their toxins on the tissue cells. I have used it in a number of cases of lupus exedens, applying it by means of a fine spray daily to the ulcers, with most encouraging results. The granulations soon assume a healthy appearance, the area of congestion around the ulcer gradually disappears, and the stratum lucidum becomes very active, proliferating over the granulation tissue when it reaches its level. The resulting cicatrix is firm, and has no the usual tendency to break down from any slight irritation.

If the granulations are of a protuberant nature, then it is necessary to resort to a preliminary scraping, and subsequently apply the hydroxyl daily. In either case I then dress with an ointment consisting of one part of powdered iodoform and two parts of boric acid, mixed with lanolin.

In the healing of chronic or tuberculous abscesses, after evacuating their contents hydrogen peroxide gives excellent results. The cavities are soon filled by healthy granulation tissues, and the process of repair completed with greater rapidity than under the usual treatment.

I have also found it of much value when sprayed daily on ulcers and purulent wounds, especially the former, which I have known to respond actively to this treatment when other methods have failed to effect a cure.

The following are a few illustrative cases:

Case I.—H.A. consulted me about a small crescentic ulcer with raised and infiltrated edges on her face, which she stated had appeared three weeks before, and was "spreading." Some years previously she had been treated for lupus involving the nose and upper lip, which, after having been scraped several times, healed, leaving obvious scars with much loss of substance. As the patient did not desire surgical procedure, I sprayed it each day with hydrogen peroxide, and dressed it with the iodoform and boric ointment mentioned. In a fortnight's time the ulcer had healed, and remained so when I saw her three months later.

Case II.—W. E. presented herself suffering from ulcers on the lower part of her right cheek, extending to her neck. She stated that the disease had many years before attacked her skin just over the cicatrix, resulting from an operation on a tuberculous gland, and had extended upwards to her cheek. The ulcers had been frequently scraped, but never entirely healed. There were also present a few shot-like nodules surrounded by a zone of hyperaemia, and much infiltration. As the granulations were protuberant we resorted to a preliminary scraping, and treated thereafter with hydroxyl in manner already mentioned. In four weeks' time healing was complete.

Case III.—E. M. complained of a painless swelling of long duration over the outer end of the right clavicle. Patient had suffered from tuberculous disease of the left hip-joint some years before. Upon making an incision into it, pus with small masses of curdy débris, and cholesterine crystals escaped. I sprayed the cavity well with hydrogen peroxide daily, and packed with iodoform gauze. In ten weeks healing was complete.

In conclusion, from my experience of the use of hydrogen peroxide and results in many other cases, I deem it a valuable agent which as a surgical dressing deserves to win its way to a high place in the list of surgical applications.

The United States Navy Ration.—In a report appended to that of the Surgeon-General of the United States Navy, Dr. John C. Boyd, Medical Inspector of the Flagship *Kearsarge*, adds his testimony to that of many others with regard to the nutritive value and sufficiency in amount and variety of the several food elements which collectively constitute the ration now issued by the United States Navy Department. He particularly insists that well-trained cooks should be employed on board the vessels of the United States Navy, and argues that unless this be done, however good the ration may be, it will in many instances be spoiled, or its nutritive value impaired, by bad cooking. The remedy suggested for this too frequent occurrence is that some well-defined plan should be adopted for instructing a certain number of the enlisted force in the special knowledge pertaining to the duties of ship's cook.

Scientific Grants Committee
OF THE
British Medical Association.

REPORT LXVII.

ON THE EFFECTS OF FORCED FEEDING IN CASES OF PULMONARY TUBERCULOSIS AND IN NORMAL INDIVIDUALS.

BY
NOEL D. BARDSWELL, M.D., M.R.C.P.Lond. & Edin.,
Physician to the Sanatorium, Banchory;
FRANCIS W. GOODBODY, M.D., M.R.C.P.Lond.,
Assistant Professor of Pathological Chemistry, University College, London;
AND
JOHN E. CHAPMAN, M.R.C.S., L.R.C.P.,
Clinical Pathologist to the Sanatorium, Banchory.
(From the Pathologico-Chemical Department, University College, London).

The following work on the metabolism in pulmonary tuberculosis was undertaken in the hope of throwing some light upon the question of how to feed patients suffering from this disease. For the opportunity of carrying out the research we are indebted to the courtesy of the Brompton Hospital Committee, and to Dr. Kingston Fowler, who placed six beds at our disposal for the purpose. The cases were selected as representing fairly typical phases of the disease. We also wish to express our cordial thanks to Professor Vaughan Harley, of University College, for much valuable advice and assistance in carrying out the work.

Method of Investigation.

Before the commencement of the observations the food of each patient was weighed separately, in order to find out the composition of his ordinary diet; from this a diet was made out for one week. The urine and faeces were collected on the last four days in each period. The following estimations were made throughout the month:

In the Urine: Quantity, specific gravity, amount of total nitrogen, urea, uric acid, chlorides, phosphates, and sulphates (total and aromatic). *In the Faeces:* Quantity, water per cent., amount of nitrogen, and of fat. *Clinically* change of weight and condition as regards anorexia, dyspepsia, etc., were noted.

A.—Cases of Acute Pulmonary Tuberculosis.

Case 1.

H. A., aged 22, admitted July 18th, 1900.

Lesion.—Left lung: Extensive infiltration with commencing excavation in the upper lobe, andex tensive infiltration of the lower lobe. Right lung: Infiltration of apices of upper and lower lobe.

Symptoms.—His temperature (rectal) ranged from 99° to 100.5° F.; appetite and digestion were good; night sweats were slight. His weight was 120 lbs., this being 22 lbs. at least below his highest known weight.

Diet.—During the first week under observation he was continued on the hospital diet, which consisted of milk 3 pints, bacon 1 oz., butter 1 oz., meat 3 ozs., bread 8 ozs., sugar 1 oz., vegetables 4 ozs., and milk pudding 5 ozs., roughly equivalent to 120 grams proteid, 120 grams fat, and 300 grams carbohydrate. On this diet he was found to be practically on nitrogenous equilibrium, only 0.32 grams of nitrogen being retained. His absorption of nitrogen and fat were somewhat low, namely, 91 per cent. and 94½ per cent. respectively, these low percentages being probably due to the use of enemata. During the following three periods the original diet was gradually increased, until in the fourth period the patient was taking double the original amount of proteid and fat and 25 per cent. more carbohydrate, the diets being made up of milk 5 pints, meat 4 ozs., eggs 2, bacon 2 ozs., butter 2½ ozs., bread 11 ozs., sugar 3 ozs., somatose 3 ozs., milk pudding 5 ozs., vegetables 6 ozs., beetroot 3 ozs., fruit 8 ozs.

Table I.

Period.	Increase of N. Ingested over Last Period.	Increase of N. Excreted in Urine and Faeces over last Period.	Increase of N. Retained over last Period
	Grams.	Grams	Grams.
1	—		0.32
2	3.42	− 3.17	4.59
3	15.07	+ 6.84	9.23
4	6.21	5.27	0.94

Table I shows that on Diet II the patient's retention of nitrogen was very satisfactory. On Diet III the retention of nitrogen was certainly greater, but the extra excretion of nitrogen amounted to almost half of the extra amount ingested, while on Diet IV almost the whole of the extra amount ingested was excreted.

Table II.

Period.	N. per Cent. Excreted as Urea.	N. per Cent. Excreted in less Oxidized Forms.
1	85.82	10.74
2	91.74	5.95
3	79.70	17.33
4	79.41	18.12

Table II shows that the largest amount of nitrogen was excreted in the most oxidized form, namely urea, in the second period, the percentage amount excreted in less oxidized forms increasing greatly on the increased diets. Absorption of nitrogen was highest on the second diet, namely, 97 per cent., but fell to 90 per cent. on the fourth diet. Absorption of fat, on the other hand, was very good throughout. Clinically he did best on the second diet. On the large diets of the last two periods he gained very little more weight than on the second, and suffered much from anorexia and dyspesia, symptoms which were quite absent on the earlier diets.

Case 2.

C. T., aged 36, admitted July 28th, 1900.

Lesion.—Right lung: Extensive disease, with excavation in the upper lobe, infiltration of the middle lobe, and extensive disease of the lower lobe. Left lung: Early disease in the upper lobe.

General condition very grave. High continuous fever, severe night sweats and exhaustion, appetite and digestion bad, sputum averaged 10 ounces daily. Was losing weight in hospital at the rate of 2 lbs. a week.

The diet in this case was very similar to that in Case 1; commencing with milk, 3 pints; meat, 3 ozs.: bacon, 1 oz.; bread, 8 ozs.: butter, 1 oz.; sugar, 1 oz.: vegetables, 4 ozs.; and pudding, 3 ozs., equivalent to proteid 120 grams, fat 120 grams, and carbohydrate 240 grams. The diet was gradually increased, until the patient eventually took double the original quantity of proteid, 70 per cent. more fat, and 20 per cent. more carbohydrate.

Table III.

Period.	Increase of N. Ingested over Last Period.	Increase of N. Excreted in Urine and Faeces over last Period.	Increase of N. Retained over last Period.
1	—	—	3.71
2	2.39	0.60	3.00
3	14.45	4.03	10.42
4	4.90	2.40	2.50

Table III shows that, as in the last case, the first increase of diet was followed by a lessened excretion of nitrogen and increased retention. On Diet III the amount of nitrogen

retained was increased, but 28 per cent. of the increased intake was excreted, while on Diet IV 50 per cent. of the increased nitrogen intake was excreted. The least waste then occurred on the second diet. Table IV shows that the

Table IV.

Period.	N. per Cent. Excreted as Urea.	N. per Cent. Excreted in less Oxidized Forms.
1	81.90	18.04
2	80.00	20.00
3	75.38	24.63
4	73.16	26.84

percentage of nitrogen excreted as urea was low all through, and, as in Case I, the percentage diminished on increasing the diet. The absorption of nitrogen was low throughout, but highest on Diet II—namely, 94.4 per cent. The absorption of fat, however, was good on every diet. The excretion of aromatic sulphates increased greatly on the two larger diets, indicating increased intestinal putrefaction. Throughout the whole month under observation his weight was practically stationary, though it fluctuated considerably in each period. The larger diets of the last two weeks gave worse experimental results, and certainly gave rise to more dyspepsia and general discomfort than did those of the first two. The slightly increased diet of the second week was probably the best from every point of view.

B.—Cases of Chronic Progressive Pulmonary Tuberculosis very much Below Weight.

Case 3.

J. T., aged 49, admitted July 16th, 1900.

Duration of illness, 10 months.

Lesion.—Left lung: fairly extensive disease in upper lobe, with some arrest, and infiltration of the lower lobe. Right lung: disease at apices of upper and lower lobes.

General condition rapidly improving. Appetite and digestion very fair. Weight 143 lbs.—still 53 lbs. below his normal weight; practically apyrexial.

Diet during the first period was very similar to that in the previous cases, and was roughly equivalent to proteid 110 grams, fat 120 grams, carbohydrate 245 grams. The diets during the second and third periods were increased greatly in proteid, and to a less extent in fat. The diet of the fourth period was reduced considerably in proteid only.

Table V.

Period.	Increase or Decrease of N. Ingested.	Increase of N. Excreted.	Increase of N. Retained.
1	—	—	10.67
2	+ 3.56	−0.46	+ 4.02
	+15.53	+3.83	+11.70
4	−10.7	+0.11	−10.8

Table VI.

Period.	N. per Cent. excreted as Urea.	N. per Cent. Excreted in less Oxidized Forms.
1	79.24	20.76
2	[illegible]	18.97
3	82.45	17.55
4	[illegible]	20.98

On Diet I he was found to be retaining 10 grams of nitrogen and to be absorbing 87 per cent. and 93 per cent. of nitrogen and fat respectively, these low absorption percentages being partly due to the use of enemata. On Diet II the increased nitrogen intake of 3.5 grams was associated with better nitrogen absorption, an increased nitrogen retention of 4 grams, and an increased nitrogen excretion of only 0.46 gram. The percentage of nitrogen excreted as urea also increased. The absorption of nitrogen was highest on this diet—namely, 95 per cent.; and that of fat was satisfactory—namely, 96 per cent. The gain in weight was the same as on the previous diet—namely, 3½ lbs. On Diet III, which was greatly increased in proteid, the patient continued to do very well. The greater part of the increased proteid was retained, and this retention was not associated with diminished nitrogen elaboration and increased intestinal putrefaction, as in Cases I and II. The absorption of nitrogen and fat also showed no deterioration. Clinically the patient remained very well and gained 4½ lbs., so that we must conclude that in this case the large quantity of proteid given was of value. During the last week under observation, the diet as regards carbohydrate and fat was practically the same as in the previous week, but the amount of proteid given was considerably reduced. This reduction in proteid meant a reduction of 10.7 grams of nitrogen ingested compared with the last diet, and it is seen from Table V that the reduction in the amount of nitrogen retained was practically the same—namely, 10.8 grams—the absorption of nitrogen remaining the same. The weight increased 1 lb. This fact supports the opinion expressed as to the value of the large proteid diet in period 3, and we consider that in this case the largest diet given was the best. It is of interest to note that the increase of proteid was given in the form of somatose, and so caused but little increase in the bulk of food given.

Case 4.

E. R., aged 34, admitted July 22nd, 1900. This patient's tuberculous history was of at least five years' duration, and his symptoms and physical signs were characteristic of chronicity; for example, dyspnoea, clubbing of fingers, marked dyspepsia, etc. Unfortunately he failed to take the prescribed diets, and was very untrustworthy, so that the results are not of much value. One point, however, was of interest, namely, that in spite of very pronounced symptoms of disordered alimentary tract his absorption of fat was normal, 97 per cent. His absorption of proteid, on the other hand, was poor, 93 per cent.

C.—Cases of Arrested Pulmonary Tuberculosis: Apyrexial and up to Weight.

Cases 5 and 6.

Both these cases had been admitted some six months previous to the commencement of observations, and had during that time been treated in the special sanatorium wards of the hospital. The results of this treatment had in both cases been very satisfactory, the disease in each patient being arrested. Both patients were also quite restored in general health, free from fever, and up to their highest known weights.

During the first week under observation they were continued on the ward diet, which they had been taking since admission. This diet consisted of milk, 3 pints; meat, 7 ozs.; bread, 7 ozs.; 1 egg; bacon, 2 ozs.; butter, 3 ozs.; sugar, 1 oz; milk pudding, 3 ozs.; vegetables, 6 ozs. roughly equivalent to 150 grams proteid, 210 grams fat, and 230 grams carbohydrate. The diet was very similar during the second week. The following table gives the metabolic results during the first two weeks:

	Case V.		Case VI.	
	First Week.	Second Week.	First Week.	Second Week.
Proteid ...	148 grams	145 grams	144 grams	143 grams
Fats ...	212 ,,	192 ,,	212 ,,	183 ,,
Carbohydrates...	222 ,,	217 ,,	218 ,,	212 ,,
Total calories ...	3,494	3,274	3,396	3,265
Total N. in urine	14.2 grams	14.6 grams	15.6 grams	17.6 grams
Urea ...	24.1 ,,	27.0 ,,	28.3 ,,	30.0 ,,
N. absorption ...	95.8 %	[illegible]	94.0 %	93.7 %
Fat absorption...	98.5 %	[illegible]	97.3 %	98.2 %
Weight in kilos.	[illegible]	[illegible]	65.7	66.2

It is seen from the above that the diets gave very good metabolic results. The retention of nitrogen was very satisfactory, and the percentage of nitrogen excreted as urea was high, showing that it was used to good advantage. The absorptions of nitrogen and fat were normal, the amounts excreted in the faeces being small. The small amounts of aromatic sulphates excreted in comparison to the alkaline showed that the intestinal tract was in good condition as regards putrefaction. Clinically the patients also did very well, both gaining weight. During the last two weeks under observation it was found impossible to persuade these patients to alter their diets sufficiently to allow of any comparison of results being made.

Summary.

The observations on these cases show the following points of interest:

1. That pushing the amount of proteid in the diets in Cases I and II resulted in:
   (*a*) An increased excretion of nitrogen out of all proportion to the increased amount retained.
   (*b*) A diminution in the percentage of nitrogen excreted as urea, and consequently an increase in the percentage amount excreted in less oxidised forms, indicating diminished nitrogen elaboration.
   (*c*) A diminution in the percentage of nitrogen absorbed.
   (*d*) An increase in the amount of aromatic sulphates excreted, indicating increased intestinal putrefaction.
2. The absorption of fat remained very good in all six cases, even when very large amounts were taken.
3. The amount of nitrogen excreted in the urine on comparable diets was very small in cases much below weight, and was largest in patients approaching or up to their normal weights.
4. Clinically it was observed that the very large diets gave rise to much anorexia, dyspepsia, and in one case to vomiting. It was also noticeable that the onset of dyspeptic symptoms nearly always coincided with experimental figures indicating deranged metabolism.
5. In every case weight was gained, the gain being greatest on the very large diets, but with these large diets the gain was achieved at the expense of the physical well-being of the patient, as was shown both by clinical and experimental results.
6. It was observed in regard to the diets that the original generous hospital diets of Cases I, II, III, and IV were capable of being distinctly increased with advantage to the patients. Still further increase of the diet as already stated was followed by less satisfactory results, for example, in Cases I and II. The original diet of Cases V and VI, which was that of the special sanatorium wards, was found to be satisfactory in every respect, and was not improved upon during the month's observations.

Results of Forced Feeding in Normal Individuals.

The effect of forced feeding upon three normal individuals up to weight and in nitrogenous equilibrium were:

1. A marked increase in the amount of nitrogen excreted in the urine, with a proportionate increase in the amount of urea.
2. No diminution in the absorption of nitrogen.
3. A diminution in the absorption of fat.
4. A rapid and large gain in weight, which was in every case associated with marked impairment of general health. The chief symptoms induced were anorexia, nausea, dyspepsia, drowsiness, abdominal discomfort, and diarrhœa.
5. The weight put on was rapidly lost on resumption of ordinary feeding.

Conclusions.

In conclusion, we venture to make the following suggestions:

I. That since very large diets gave worse results than those of more moderate amount, the indiscriminate stuffing of all tuberculous patients should be replaced by systematic dieting. The diets as regards amounts and constitution should be determined in each case after due consideration has been given to the respective conditions as regards:
   (*a*) The activity and extent of disease.
   (*b*) Amount below weight.
   (*c*) Digestive capability; and
   (*d*) To some extent, personal dietetic likes and dislikes.

II. That in view of the bad effects which over-feeding gave rise to in the normal individuals, great care should be taken in the selection of a diet for patients who, as the result of treatment, have reached or passed their highest known weights. When this regain of weight is associated with arrested disease, the original diet found suitable for a person very considerably under weight and with active lesions, should be reconstructed more upon the lines of what would be suitable for the same person in perfect health.

The observations were not sufficiently extended to allow of conclusions being drawn as to which diets gave the best results as regards the condition of the lungs: but subsequent sanatorium experience of two of us, with the advantage of being able to carefully observe the course of pulmonary lesions in patients upon weighed diets, leads us to think that the lungs do not improve any more rapidly upon forced feeding than upon generous diets. Further there is no doubt that anorexia, dyspeptic symptoms, and vomiting are much more frequently met with when working with very large diets than when more moderate amounts of food are given.

The following diet summary may be of interest and of practical value:

Diet Table.

	Diet of Cases I and II, which Proved to be too Small.	Diet of Cases I and II, which Proved to be too Large.	Diet of Brompton Hospital Sanatorium Wards, which gave Good Results.
Milk	3 pints	5 pints	3 pints
Meat	3 ozs.	7 ozs.	6 to 7 ozs.
Somatose ...	—	3 ozs.	—
Egg	—	2	1
Bacon	1 oz.	2 ozs.	1½ to 2 ozs.
Bread	11 ozs.	11 ozs.	7 ozs.
Butter	1 oz.	2½ ozs.	3 ozs.
Vegetables ...	4 ozs.	6 ozs.	2 ozs.
Fruit	—	8 ozs.	—
Milk pudding...	5 ozs.	5 ozs.	4 ozs.
Sugar	1 oz.	4 ozs.	1 oz.

Metabolism Tables.

Case I.

	Period 1.	Period 2.	Period 3.	Period 4.
Proteid	116 grams	137 grams	232 grams	271 grams
Fat	123 ,,	137 ,,	184 ,,	231 ,,
Carbohydrate ...	296 ,,	296 ,,	321 ,,	392 ,,
Total calories ...	2,897	3,105	4,126	5,026
N. in urine	16.6 grams	14.5 grams	20.8 grams	24.0 grams
Urea	30.7 ,,	28.3 ,,	35.5 ,,	40.0 ,,
N. absorbed... ...	91.2 %	97.5 %	94.2 %	89.0 %
Fat absorbed ...	93.8 %	98.1 %	98.0 %	96.0 %
Weight in kilos. ...	50.7	52.3	54.3	56.0 %

Case II.

	Period 1.	Period 2.	Period 3.	Period 4.
Proteid	115 grams	130 grams	220 grams	251 grams
Fat	121 ,,	127 ,,	180 ,,	208 ,,
Carbohydrate ...	240 ,,	225 ,,	265 ,,	297 ,,
Total calories ...	2,500	2,654	3,661	4,187
N. in urine	13.4 grams	13.0 grams	15.0 grams	18.0 grams
Urea	20.5 ,,	22.0 ,,	24.5 ,,	28.5 ,,
N. absorbed... ...	93.3 %	94.4 %	91.6 %	94.0 %
Fat absorbed ...	95.0 %	98.3 %	95.7 %	97.0 %
Weight in kilos ...	53.4	53.0	53.8	53.6

Case III.

	Period 1.	Period 2.	Period 3.	Period 4.
Proteid	109 grams	131 grams	228 grams	161 grams
Fat	123 ,,	190 ,,	197 ,,	186 ,,
Carbohydrate ...	245 ,,	249 ,,	283 ,,	207 ,,
Total calories ...	2,594	3,332	3,930	3,495
N. in urine	6.7 grams	6.8 grams	10.2 grams	11.1 grams
Urea	11.5 ,,	11.0 ,,	18.0 ,,	18.8 ,,
N. absorbed... ...	87.0 %	95.0 %	94.4 %	94.5 %
Fat absorbed ...	93.0 %	90.4 %	98.5 %	97.8 %
Weight in kilos ...	62.5	64.0	65.5	66.0

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE DIRECT INTRODUCTION OF PURGATIVES INTO THE INTESTINE DURING OPERATION FOR SEPTIC PERITONITIS.

I WAS much interested to read Mr. Sheild's communication on the subject of direct injection of purgatives into the bowel of patients suffering from septic peritonitis. I have employed this treatment in a few cases myself, and while Resident Assistant Surgeon at St. Thomas's Hospital have had the opportunity of watching this procedure in the hands of others. I enclose the notes of three of my own cases.

T. B., male, aged 32, carman, admitted to St. Thomas's Hospital on July 9th, 1899, with a three days' history of appendicitis; features pinched, pulse 100, tongue dry and brown, abdomen rigid, vomiting. Coeliotomy. Diffuse peritonitis in lower two-thirds of abdomen, much sero-pus, intestines much distended, appendix removed, evisceration and irrigation; magnesium sulphate in solution to extent of half an ounce of the solid salt injected into small gut; abdomen sutured; no great shock; bowels failed to act before death, which occurred in thirty hours.

L. H., female, aged 23, admitted January 16th, 1899, with well-marked general peritonitis from appendicitis; pulse 148, temperature 101° F. Coeliotomy through right rectus; appendix sloughed at base, removed; general peritonitis; evisceration and irrigation; intestine punctured, and much gas and faecal matter evacuated. Magnesium sulphate to extent of half an ounce of the solid salt injected into jejunum; abdomen closed; two enemata yielded no result; an ounce of castor oil given on January 28th; bowels open on January 29th; recovery; discharged on March 4th, 1899.

M. P., female, admitted February 15th, 1899. Hysterectomy (March 3rd) was performed, and followed by intestinal paralysis, which failed to yield to treatment by purgatives (castor oil and calomel) or enemata: vomiting, expression anxious, eyes sunken, pulse rapid and rising. March 7th abdomen reopened; small gut distended: incised, contents evacuated. Large intestine greatly distended, punctured, but immediately refilled; small artificial anus made into transverse colon; one ounce of castor oil injected into small intestine. On March 7th colotomy commenced to act slowly. Discharged cured on May 10th, 1899.

Twice I injected half an ounce of magnesium sulphate (solid salt) in solution, and in the fatal case the bowels failed to act before death, which occurred in thirty hours. In the case that recovered an ounce of castor oil was needed before the bowels were moved. The third case was one of intestinal paralysis following a hysterectomy for gangrenous fibroids, and the patient made a good recovery. It is to be noted that in both patients who recovered the bowels were punctured and much gas and intestinal contents removed.

The impression produced by this treatment in my own hands and those of others did not lead me to be enthusiastic about the results likely to be obtained, though the results reported by the originators of this method—who were, I believe, American surgeons—were encouraging. The point arises as to whether grand results are obtained by the purgative treatment of peritonitis. If this is admitted, then the injection of a purgative into the bowel is the ideal treatment, and it would seem that the higher it is injected the better, as by this means the small gut will be emptied. On the other hand, Mr. Sheild's cases seem to point to the efficacy of this method, even if injected into the caecum.

Against the purgative treatment of peritonitis may be advanced the fact that the constipation or intestinal obstruction is due to paralysis of the gut brought about by septic absorption from the peritoneal surface. If the absorption can be stopped the intestines will recover their tone and expel their contents, and it is open to doubt whether purgatives will act until some recovery has taken place. Patients whose bowels act as a rule recover, but this does not prove that the purgative is the salvation of the patient, and it is possible and, I believe, probable, that the bowels act because the patient is combating successfully the septic absorption from the peritoneum. Some of the worst cases of peritonitis, on the other hand, suffer from uncontrollable diarrhoea.

The most effective way to limit septic absorption in acute appendicitis is to give free exit to the purulent collections. If the peritonitis is general this is best obtained by removal of the appendix, which usually in these cases presents a sloughing perforation, and by evacuation and irrigation of the abdominal cavity. Should the peritonitis be less general, a fairly free incision, removal of the appendix, and a mopping out of the sero-pus from the coils until freely normal peritoneum is reached seems to me to be the best plan.

Experience seems to show that in acute abscesses there is usually no actual localization, but a gradual decrease in the infection of the peritoneum. Under these circumstances there is little danger of infecting healthy peritoneum by the more extensive operation. I do not of course here refer to late-forming abscesses which are more definitely circumscribed.

Though my previous experience of this method was not successful, Mr. Sheild's results would certainly encourage a further trial.

I may add that if castor oil is used it is best to dispense with a needle and to inject the oil through the nozzle of a syringe; the oil is so viscid that it will not run through a fine aperture.

CUTHBERT S. WALLACE, F.R.C.S.Eng.,
Assistant-Surgeon, St. Thomas's Hospital.

SEVERE CASE OF DIPHTHERIA TREATED BY ANTITOXIN ON THE SEVENTH DAY.

As it is acknowledged that the death-rate rises progressively with each day the treatment by antitoxic serum is delayed, I think the following cases may be of interest as showing that even in the most apparently hopeless cases there is a chance of a successful issue when it is used.

During an epidemic of diphtheria I was called one Monday morning at 12.30 A.M. to see a child said to be suffering from sore throat. The mother informed me that her daughter had been complaining of sore throat since the previous Tuesday, but her symptoms had not caused alarm till the Sunday night. I found a girl, aged 14, suffering from dyspnoea, cyanosed, and with the extremities cold. The pulse was almost imperceptible at the wrists. She had been unable to swallow for six hours, and lay with her mouth open in a semi-comatose condition. Both tonsils, uvula, and palate were covered with membrane which had extended to the posterior nares. There was also evidence of obstruction of the larynx, and the glands at the angles of the jaw were enlarged.

I injected 2,000 units of serum at once, and left the house having given a very grave prognosis. About six hours later I found the child much improved. She had coughed up a large piece of membrane, and was able to swallow a little milk and water with difficulty. I again injected 2,000 units, and the same night I found still further improvement in the general condition. The cyanosis had disappeared, and the pulse was stronger. From this time convalescence was slow, being retarded by an attack of acute nephritis, and afterwards by post-diphtherial paralysis. However, after three months the patient, though never of a very robust constitution, was restored to her usual health.

The mother informed me that two hours after the first and the same time after the second injection of serum she thought the child was dying, as she became cold, and appeared to faint, but after half an hour or so she improved again. This statement is of interest, owing to the attack of syncope occurring twice, and at the same period after each administration of serum. It may, of course, have been only a coincidence, or the serum may have been the cause. I have not seen any mention of a similar effect in cases recorded.

Selby. ARTHUR SOMERS, M.B., B.Ch., B.A.O.Univ. Dub.

SUPRARENAL EXTRACT IN GASTRO-INTESTINAL HAEMORRHAGE.

AT the time when Mr. Thelwall Thomas's article on the use of suprarenal extract as a haemostatic appeared in the BRITISH MEDICAL JOURNAL of November 23rd, 1901, I had under my charge a very severe case of haematemesis from gastric ulcer; severe haemorrhage had occurred three times in spite of the usual treatment with ice, gallic acid, and starvation. I at once put the patient on a 5-grain tablet of suprarenal extract reduced to a powder and placed on the back of the tongue every three hours for twelve doses. No return of the haematemesis occurred after the first dose. As I see that Dr. Soltau Fenwick records great success from the use of this drug in cases of gastric haemorrhage in the JOURNAL, the above result may be worth recording as confirmatory evidence.

Liverpool. J. C. M. GIVEN, M.D., M.R.C.P.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

JAMES MURRAY'S ROYAL ASYLUM, PERTH.

A CASE OF RUPTURE OF THE HEART.

[Reported by Eric M. Thomson, M.B., Assistant Physician.]

The patient, a widow, aged 74, was admitted on December 3rd, 1896, suffering from chronic mania. Four attacks of rheumatic fever were followed by chronic bronchitis, emphysema, and dyspepsia. She was of florid complexion and of fair physique, although there was a loud systolic *bruit* most distinctly heard in the mitral area; the second sound at the base was accentuated; her pulse was regular, of fair volume, but of low tension. She was subject to dyspnoea and palpitation on the slightest exertion. The urine was normal.

History.—During her residence of over four years she gradually sank into dementia, and was subject to attacks of bronchial catarrh and gastric irritability. On two occasions, in 1898 and 1900 respectively, dyspnoea was very intense, and the heart's action irregular and laboured. A presystolic murmur then developed, the second sound at the base having become almost inaudible; on each occasion she gradually improved under digitalis. Her subsequent history was slow decay, physical and mental.

Fatal Seizure.—About 4 P.M. on March 29th, 1901, while sitting quietly by the fire, she suddenly fainted, became collapsed, and vomited. On examination the superficial cardiac area was found to be increased under an exceptionally dull percussion note; the cardiac sounds were muffled, but presented no other unusual features except those already noted. A large dose of strophanthus in whisky was administered; the patient gradually recovered, and in the evening she had apparently regained her usual condition. Next morning she was lively and talkative, and wanted to get up; but her pulse was feeble. She complained of thirst, as was usual in these attacks. Suddenly, after speaking a few words, at 1.30 P.M. she again became unconscious, and died quietly in a few seconds.

Necropsy.—The pericardium was found distended, and contained 12 ozs. of blood and blood clot. The heart was large and flabby, and weighed 17 ozs. On the anterior aspect of the apex of the left ventricle there was a ragged rent three-quarters of an inch long, partially sealed with blood clot, but allowing a probe to be passed into the ventricle. On opening up the rent it was found to admit a 0.5-inch cone. The point of rupture was evidently the seat of a localized fatty degeneration resulting from an endocarditic vegetation. The left ventricle measured 7 cm. in length, and its wall at the apex 1.5 cm. in thickness. There was no marked atheroma of the coronary arteries; the aortic valves had several endocarditic thickenings on them but were competent; the mitral valve was incompetent, and had a cone diameter of 1.2 inch. The cerebral arteries were markedly atheromatous. In the liver were several cysts, the largest the size of a walnut, containing a clear serous fluid.

Note by Dr. Urquhart. Although similar cases have been recorded from time to time, this observation is of considerable interest in reference to the prolongation of life for twenty-one hours after the first symptom of cardiac failure. Otherwise the case conforms with the observations of Quain[1] in his Lumleian Lectures. At that time he had collected information as to the minority of cases in which life was prolonged namely: 1 survived for 8 days, 1 for 6 days, 1 for 3 days, 5 for 2 days, 3 for 1 day, and 19 for over 12 hours out of a total number of 100. To these may be added Coupland's case,[2] surviving for 19 hours; Mallet's (Paris) case,[3] surviving for 53 hours; Macleod's (Shanghai) case,[4] surviving for 13 hours; and Nash's,[5] surviving for 48 hours. Other cases (besides Nash's) have been reported in asylum practice namely, 3 by Drs. Rorie and Findlay,[6] and 1 by Dr. J. Bruce.[7] Dr. Coupland concludes his observation with the remark that stimulant treatment is not so harmful as is generally assumed, and the case now reported confirms his opinion.

References.
[1] *Lancet*, i, 1872. [2] *Ibid.*, ii, 1882. [3] British Medical Journal, ii, 1880. [4] *Ibid.*, 1881. [5] *Journal of Mental Science*, January, 1892. [6] British Medical Journal, November 23rd, 1901. [7] *Journal of Mental Science*, January, 1892.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor T. R. Fraser, President, in the Chair.

Wednesday, February 5th, 1902.

Chloroma.

Dr. G. H. Melville Dunlop read a paper entitled A case of Chloroma, with Pathological Report and some Brief Notes on the Condition, and illustrated it with microscopical sections, photographs, etc.

Dr. Byrom Bramwell read notes on the following, and gave illustrations by means of drawings and lantern slides: (1) A case of chloroma, with numerous lymphoid deposits in the skin, and a remarkable infiltration of the conjunctivae, gums, larynx, etc.; (2) three cases of lymphatic leukaemia, in one of which lesions identical with those in case (1) were present in the gums, tonsils, larynx, and skin.

Case 1. *Chloroma.*—Married man, aged 25, a teacher of music, enjoyed excellent health till October, 1900, when he accidentally discovered a small glandular swelling on the left side of the neck below the jaw: a week later a similar swelling developed on the right side of the neck. In January, 1901, an eruption developed on the front of the chest, and gradually extended over the greater part of the body. In February rheumatic pains were felt for a fortnight in the back. In April the face and gums swelled, the eyes became watery and painful, the voice husky, and some deafness developed. On May 22nd the patient was sent to Dr. Bramwell by Dr. Douglas, of Cupar. The condition was then as follows: The patient was much debilitated, and had lost a stone in weight. He complained of soreness of the mouth and gums, and of deafness, more marked in the right than in the left ear. He was not anaemic. There was no excess of white corpuscles in the blood. The face was swollen, the swelling being chiefly due to the presence of nodular swellings in the skin, oedema of the skin, and glandular swellings in the neck and parotid regions. The voice was husky, the breathing attended with some stridor: there was frequent cough; the patient could not breathe through the nose. The pulse was quick (120 to 130), the temperature 100.6°. A remarkable eruption was present over the greater part of the body: it was copious on the thorax, abdomen, back, arms, face, and scalp; sparse over the lower extremities; the eruption consisted of flat-topped nodules varying in size from a pinhead to a sixpence. In many places the nodules were confluent, and produced a uniform raised infiltration of the skin; the nodules were painless, not adherent to the deeper parts, and for the most part of a slaty-grey or purple-grey colour; some of them were yellow in their centres. The gums were enormously swollen, firm, and of a dark purple colour; the right tonsil was much swollen and of a dark purple colour. The conjunctivae presented a peculiar appearance, being infiltrated with a translucent fleshy-looking growth in which vessels could be seen ramifying. There was no exophthalmos. The optic discs were normal. The glands on each side of the neck below the jaw were swollen, hard, and painless. The parotid glands appeared to be enlarged. There was some symmetrical swelling in each temporal region. The splenic dullness was increased. The liver was somewhat enlarged. The urine was normal. There were no pigmented moles or warts; but Dr. Bramwell concluded that the case was probably one of melanotic sarcoma, with peculiar infiltration of the skin, gums, tonsil, and conjunctivae. The patient was admitted to the Edinburgh Royal Infirmary on May 23rd, and remained there until his death, which took place a month later—on June 24th. Microscopical examination of portions of skin excised during life showed that the case was not one of melanotic sarcoma; the nodules in the skin consisted of lymphoid deposits, and were entirely made up of small uninucleated round cells. The blood count showed that the red corpuscles numbered 4,480,000, and the white corpuscles 8,000, per c.mm. The white corpuscles were almost entirely (95 per cent. or more) lymphocytes, chiefly large lymphocytes, with large nuclei and clear, non-granular protoplasm. During the month that the patient remained in hospital the blood condition remained practically the same: the temperature was elevated (highest 104°), and the pulse remarkably quick (from 110 to 160), the respirations always above the normal (25 to 35). The breath was foul; the gums occasionally bled slightly. No micro-organisms were detected (either in stained films or after incubation of gelatine tubes) in the blood. The skin eruption increased, and many of the nodules became yellow, some yellowish-green, and a few on the face distinctly green in colour. The face became much more swollen. The fleshy infiltrations of the conjunctivae became much larger. On necropsy the skin lesions (nodules) on the face, thorax, abdomen, back, and arms were of a green colour; some of the glands in the neck were green, the tonsil was green, the epiglottis and laryngeal mucous membrane were green. The bones of the head and face were not examined (permission was limited to the respiratory and abdominal cavities). The glands in the neck were enlarged, the spleen and liver were enlarged, the gums, tonsils, epiglottis, and larynx were greatly swollen, the swelling being due to lymphoid infiltration. The bone marrow of the ribs contained some, but not very numerous, lymphoid cells similar to those in the skin, gums, and blood. There were some petechiae on the heart. The thoracic and abdominal,

axillary, and inguinal glands were hardly at all affected. The kidneys were infiltrated in places with lymphoid deposits.

The case was undoubtedly one of chloroma. The condition of the blood corresponded to that of acute lymphatic leukaemia, and it was very important to note that the leucocytes (95 per cent. or more of which were lymphocytes) were not increased in number (8,000 c.mm.). The mere fact that the leucocytes were not increased in number did not exclude leukaemia. It was necessary to note the character of the leucocytes in stained films. The case was remarkable because of the skin lesions and the very peculiar infiltration of the conjunctivae, gums, epiglottis, and larynx. Dr. Bramwell had never seen anything like the condition of the gums, conjunctivae, epiglottis, and larynx before. Curiously enough another case in which exactly similar lesions were present had since come under his observation.

CASE II. *Acute Lymphatic Leukaemia, with a Similar Lesion in the Gums, Epiglottis, and Larynx to that which was present in Case I.*—The patient was a labouring man, aged 33, who was admitted to the Edinburgh Royal Infirmary on Saturday, September 29th, 1901, and who died on Sunday, September 30th, 1901. He complained of shortness of breath on exertion, of deafness, and of glandular swellings on each side of the neck and jaw. The deafness had commenced a month previously, but he had continued his work as a labourer until three days before his admission to the hospital. He was a thick-set, well-nourished, muscular man. There was no anaemia; in fact, his face and lips were turgid and cyanotic. No examination of the blood was made during life, but after death the blood was found to contain a large excess of lymphocytes, mostly of the large form. The patient was very deaf. His voice was husky and almost toneless, he was very short of breath, and the respiration was attended with stridor. Large, hard, painless, glandular swellings were present on each side of the neck, especially marked about the angle of the jaw; the face was swollen and blue, the veins of the neck somewhat engorged. Dr. Bramwell, who had seen the patient for a moment on his admission to hospital but had not made an exhaustive examination of the case, thought that the condition was suggestive of enlargement of the mediastinal glands with intrathoracic pressure. The case had been more carefully examined by Dr. Bell, house-physician. The chest was full of bronchitic *râles*. The pulse numbered 108, the temperature was 102°, and the respirations 20. The tonsils were swollen and ulcerated. The patient died on the day following his admission to hospital. Necropsy showed that the case was one of acute lymphatic leukaemia. The glands throughout the body were enlarged: the spleen, liver, and kidneys were infiltrated throughout with lymphoid cells; the bone marrow was of a dark purple colour and infiltrated with lymphoid cells. In the skin of the back and neck there were several lymphoid deposits similar to those which were present in the first case. In the second case a condition of the gums, tonsils, epiglottis, and larynx identical with that in the first case was present. Some of the glands in the neck in the second case was on section found to be green in colour. The second case was undoubtedly a typical example of very acute lymphatic leukaemia with peculiar lymphoid infiltrations of the gums, tonsils, epiglottis, and, to a very limited extent, of the skin.

The two cases when taken together had, Dr. Bramwell thought, an important bearing upon the pathology of chloroma. That disease was very rare, but it was probably much more common than was usually supposed. Many cases were no doubt missed. A case figured in a recent number of the *Medical Review of Reviews*, November, 1901, p. 695, and described as a "rapidly-growing tumour of the orbit," was, Dr. Bramwell had no doubt, a case of chloroma. Some years ago, a friend in Barbadoes had sent him a photograph of a remarkable case of symmetrical sarcomatous growths of the orbits with exophthalmos, which was probably a case of chloroma; it appeared to be merely an exaggeration of a case of chloroma recently published by Rosenblath.[1] As Dr. Dunlop had told them chloroma was a very rare disease, some five and twenty cases only having been recorded up to the present time. In typical cases the characteristic features of chloroma were as follows: (1) The presence of lymphoid deposits in the orbits, temporal fossae, and periosteum of the bones of the skull, and the symptoms and signs resulting therefrom. In consequence of the lymphoid deposits in the orbits there was usually, but not always, exophthalmos; and often as the result, partly perhaps, of the pressure on the optic nerve and its vaginal sheath, and partly of the altered blood condition (lymphatic leukaemia and anaemia), haemorrhages in the retinae and optic neuritis. Lymphoid infiltrations of the conjunctivae, which in some cases produced large protruding swellings, giving the idea of sarcomatous growths, sometimes occurred. Lymphoid infiltrations of the cornea were also sometimes developed. Firm bilateral swellings in the temporal fossae were very often present. The periosteal lesions were not confined to, though they were apparently always most marked in, the region of the skull and face. The periosteum of the bones of the vertebral column was often affected. In a recent case (Rosenblath's first case) the spinal column was eroded, the nerve roots and spinal cord pressed upon, and secondary ascending degeneration in the spinal cord developed. Deafness was very common; it was apparently, in some cases, due to pressure on the auditory nerve, in others to lesions (involvement) of the middle or internal ear. Facial paralysis due to pressure on the facial nerve was sometimes met with. There was in many cases difficulty in breathing through the nose, the result of swelling and infiltration of the nasal passages. The tonsils were often enlarged and infiltrated. The remarkable swelling of the gums, epiglottis, and larynx which was present in the two cases related had not, so far as Dr. Bramwell had been able to find, been hitherto described—but he was much interested to find when Dr. Dunlop kindly gave him an opportunity of seeing his case during life, that in his case the palate was swollen and infiltrated in exactly the same manner. (2) The green colour of the lesions (lymphoid deposits in the orbits, periosteal lesions, lymphoid deposits in the kidneys, liver, spleen, bone marrow, etc.) This was a remarkable feature of the disease. In many cases the green discoloration was only noticed after death. But that the green colour, in some cases at least, was not due to *post-mortem* changes was conclusively shown by the fact that in some of the recorded cases the urine was green during life. As Dr. Dunlop had stated, the exact cause of the green colour was still unknown. In Dr. Bramwell's own case, the change in colour which the skin lesions went through during life was suggestive of a blood change, and the marked increase of the green colour which was noticed at the necropsy in the skin lesions in the upper part of the body seemed to him to be suggestive, in part at least, of a *post-mortem* (? decomposition) change. The question naturally occurred whether in all cases of chloroma the green colour was due to the same cause. It was possible that it might be due to different causes in different cases. It was possible that the green tumours were not invariably due to one and the same pathological condition. Further, though this might at first sight seem to be a contra-indication in terms, it seemed to him probable that cases of chloroma occurred in which there were no green tumours and no green lesions. He was strongly disposed to think that the green disolorations, though they had hitherto been considered to be essential and characteristic features of the disease, might, in some undoubted cases of chloroma, be absent. These questions required solution. (3) A profound blood change, characterized by anaemia, cachexia, haemorrhages into the skin, bleedings from the mucous membranes, especially epistaxis, and petechial extravasations into the retinae and internal surfaces (epicardium, etc.). The same profound blood change was met with in most cases of acute lymphatic leukaemia, but it was certainly not always present. In the two cases which he had just described (Case I, chloroma, and Case II, acute lymphatic leukaemia), there was little or no anaemia and no cachexia. The essential blood change in chloroma seemed to be an enormous excess of the lymphocytes, and especially of the large lymphocytes in the blood; in short, in cases of chloroma the blood seemed (? always) to present the characteristic features (95 per cent. or more of lymphocytes) which up to the present time were regarded as indicative of one condition only, namely, lymphatic leukaemia. (4) Further, the bone marrow, spleen, lymphatic glands, and organs throughout the body were affected (infiltrated with lymphoid deposits) as in lymphatic leukaemia. Lantern slides illustrative of the condition of the blood, etc., were shown. In conclusion, Dr. Bramwell stated that the present communication was merely preliminary. It had been impossible in the time placed at his disposal to attempt to discuss the questions exhaustively; all he had attempted to do was to mention the chief clinical and pathological facts of the cases which he had related.

Remarks were made by Drs. W. S. GREENFIELD and G. LOVELL GULLAND; and Drs. MELVILLE DUNLOP and BYROM BRAMWELL replied.

[1] *Deutsches Archiv für klinische Medicin*, Band lxxii, Heft 1, 1902.

A METHOD OF SECURING THE LINGUAL ARTERY IN EXCISION OF THE TONGUE THROUGH THE MOUTH.

MR. C. W. CATHCART read a note on this subject. The method might be shortly described as a preliminary ligature of the lingual artery carried out through the mouth instead of through the submaxillary triangle. The first stages of the

operation were performed according to the method now usually adopted in excision of half of the tongue—that is, the jaws were opened widely, the tongue drawn forward with a stout silk suture in each half, the mucous membrane divided along the middle line of the dorsum, behind the growth and between the tongue and the jaws, the tongue split, and the fibres of the genio-hyglossus snipped through close to the symphysis on the affected side so that the diseased half of the tongue could be drawn well out of the mouth. After this, with a few vertical strokes of a director or other blunt instrument the interior edge of the hyoglossus muscle was defined at the junction of the posterior and middle thirds of the tongue. The director was then insinuated beneath the muscle, the tissues being separated with the point before it was pushed on. The muscle was next carefully cut through on the director for about two-thirds of its extent, and the fibres retracting left the artery at the bottom of the wound covered only by a little connective tissue. With the point of the director the vessel could then be easily defined as a bluish-white cord and traced downwards and backwards. An aneurysm needle should be passed under it well back and the vessel tied before it was cut. After the artery had been ligatured and divided, a few snips should be made with the scissors radiating out from it into the substance of the tongue. This lessened the chance of cutting the artery again in the later stages of the operation. All that now remained was to complete the operation with scissors cutting wide of the disease.

Cases.

Dr. William Stewart showed a patient after compound dislocation of the ankle, with fracture of the neck of the astragalus and removal of the outer malleolus (with photograph).—Mr. F. M. Caird showed a patient from whom 80 inches of gut were removed for tuberculous stricture and glandular implication.—Dr. Dawson Turner showed (1) a patient suffering from rodent ulcer treated by Roentgen rays and ultra-violet light; (2) a patient suffering from lupus treated by Roentgen rays and ultra-violet light.—Dr. Byrom Bramwell showed a case of infantilism. The condition was very rare and, so far as Dr. Bramwell had been able to ascertain, was not described, though incidentally referred to, in medical literature. The patient, aged 18 years 10 months, did not look more than 12 years of age. He was bright and intelligent mentally. There was no suspicion of sporadic cretinism or of congenital syphilis. The only apparent cause for the condition was chronic diarrhoea, which had lasted for nine years and which was perhaps due. Dr. Bramwell had suggested, to defective pancreatic secretion. Dr. Young, house-physician, had by an elaborate investigation, the details of which were communicated to the meeting, proved that the pancreatic secretion was deficient. Under the administration of pancreatic extract the diarrhoea had lessened, the patient had gained half a stone in weight, and had grown nearly half an inch in the course of six weeks. These facts suggested that in this case the arrested bodily development was due to defective pancreatic secretion. The condition of the pancreatic secretion in future cases should be carefully investigated.—Apparatus: Dr. Dawson Turner showed an apparatus for generating ultra-violet light for the treatment of diseases of the skin.—Mr. Purves showed Henle's screen for protecting area of operation in breast and neck, cases from infection due to vomiting of patient and from anaesthesia apparatus. Card specimens were shown by Dr. Logan Turner, Mr. Purves (for Professor Annandale), Mr. F. M. Caird, and by Drs. George A. Gibson, and Stewart Macdonald.

The Notification of Measles.

A motion by Dr. Matheson Cullen,

That the Society should petition the Town Council to continue the notification of measles,

was carried by a large majority, and a committee appointed for action in connexion with the purposes of the motion.

CLINICAL SOCIETY OF LONDON.

Howard Marsh, F.R.C.S., President, in the Chair.

Friday, February 14th, 1902.

Appendicitis with Localized Suppuration.

Mr. Gilbert Barling read a paper based on 74 cases. He said that of 140 cases of appendicitis operated upon in the acute stage, 74 had been cases of localized suppuration in the right iliac fossa or immediately adjacent to it. In 40 of these the abscess, though well shut off by adhesions, had not yet come forward so as to be adherent to the parietal peritoneum, and operation involved the opening of the general peritoneal cavity. In the remaining 28 cases the abscesses had become adherent, and were evacuated without opening the general cavity. The points to which attention was directed were: (1) The diagnosis of and the time at which pus should be evacuated; (2) the safety with which this could be done if the removal of the vermiform appendix was not insisted upon; (3) the rarity with which recurrence took place if the appendix were not removed; (4) complications at the time of, or following operation; (5) certain risks to life which followed attacks of appendicitis apart from recurrence. The abscess should be attacked as soon as the diagnosis of suppuration was made, but it must be remembered that pus might be present in the presence of a normal temperature and pulse, though there might be other symptoms indicating it. Leucocytosis, though not pathognomonic, was decidedly valuable. In a series of 21 cases in which pus was present, leucocytosis was only absent in 2 cases, and in every case examined where a high leucocyte count was found pus existed. The safety with which appendical abscesses might be treated if removal of the appendix was not insisted upon was shown by the small mortality in the cases under discussion. In the 74 cases there were 2 deaths. The appendix was only removed 25 times, and in 49 it was not removed. All but 2 of these patients in whom the appendix was not removed had since been traced, and of these 2, both hospital patients, nothing could be learnt; of the other 47 patients, only 1 had suffered from recurrence, a girl who had another attack within a few weeks of her operation, and who was subsequently operated upon successfully and the appendix removed. Complications were not numerous, and had been chiefly phlebitis and pleurisy and pneumonia.

Treatment of Intraperitoneal Abscess of the Appendix.

Mr. F. C. Wallis read a paper illustrated by several cases. The paper dealt with those cases of appendix abscess in which the abscess, although shut off by adhesions from the general peritoneal cavity, was in no way adherent to the abdominal parietes. It was, therefore, necessary to open the general peritoneal cavity before the abscess could be dealt with. In giving details of the operation great importance was attached to the fact that all the cases except one occurred in young people, and that adhesions at this age were very frail and required delicate manipulation to prevent the pus under tension in the abscess sac from escaping uncontrolled into the general peritoneal cavity. To prevent this, gamgee sponges were packed in a crescent around the affected area, and when possible the pus was gradually evacuated and sponged up as it appeared. When the amount and tension of the pus was too great for this to be done, the patient was bodily tilted over to the right side and the escaping pus caught in a small bowl held underneath. When most of the pus had been evacuated, the cavity was more freely opened and thoroughly cleansed. The appendix and its remains were then removed, and the cavity dusted with iodoform and packed with iodoform gauze. It was a matter of importance to keep the wound as dry as possible. The necessity for operating quite early after the primary attack in young people was strongly urged.

Mr. A. E. Barker thought that whenever possible the appendix should be removed. If to do this added materially to the gravity of the operation, it might be postponed until a quiet interval. He preferred a warm saline solution to solutions of powerful germicides for washing out the peritoneal cavity, and the exit for such fluids should be quite free. He thought aseptic gauze more effectual for drainage than a tube; and in regard to the site of the incision, he preferred to separate the muscular fibres sufficiently to obtain room to evacuate the abscess.

Mr. James Berry said that when the appendix was always removed the death-rate was high. There were two schools of surgery—the one favouring a small, the other a large incision. Of 41 cases (during six years) with a small incision there were only 2 deaths, whereas in 39 cases treated by various surgeons without regard to the adhesions there were 32 deaths. At St. Bartholomew's Hospital in two years, in the medical and surgical wards together, there were 242 cases, of which 39 died (being 1 in 8), the mortality in the surgical wards alone being 1 in 7. At St. Mary's Hospital, in 200 medical and surgical cases, the mortality was 25 (1 in 8); while in the surgical wards it was 1 in 4 (22 deaths). It was better, he considered, not to hurry the removal of the appendix, and certainly not to remove it during the acute stage. At the Royal Free Hospital during the last five years he and his colleagues had waited for adhesions to form before opening; and out of 53

cases had had 49 recoveries and 4 deaths (1 in 13). In cases of suppuration he had sometimes remarked a very low temperature.

Mr. C. S. Wallace said that in looking through the hospital reports from 1895 to 1901 he found 8 cases of recurrent abscess—about 5 per cent. The appendix should, if possible, be removed without infecting the general peritoneal cavity. He had removed it in 5 cases through the abscess cavity, and all did well except one, in whom the suppuration continued for a long time.

Mr. W. G. Spencer considered that the incision through the middle line instead of the use of the iliac incision was responsible for much of the mortality mentioned by Mr. Berry. It was true that high mortality had sometimes followed immediate removal of the appendix; but he regretted that Mr. Berry should advocate waiting when once pus had been diagnosed. There were no statistics for appendicitis, no two cases being alike. He inquired if Mr. Barling's cases from whom the appendix had not been removed remained in good health after recovery; in his own experience, even if they did not relapse, they did not enjoy good health. Some patients could not support a prolonged operation; from them the appendix should not be removed when the abscess was opened.

Mr. C. B. Keetley, to prevent the danger of infecting the peritoneal cavity, thoroughly packed the parts around the site of the appendix with gauze, and raised the pelvis to keep the intestines away. The surgeon should also take care to see what he was doing, and promptly repair any injury.

Mr. Charters Symonds thought it better not to attempt the removal of the appendix unless the abscess were localized. He thought that the reason why Mr. Barling seldom found adhesions was because he incised the most prominent part of the swelling. In his (the speaker's) experience, there were often no adhesions there. He advocated an incision nearer the iliac spine. There were two drawbacks to the non-removal of the appendix—namely, recurrence and prolonged suppuration. In two recurrences he had found the abscess following the old track, so that there was not much danger to the individual. The existence of a sinus might necessitate the subsequent removal of the appendix, when things had quieted down. In reviewing his own cases he could discover no cause for regret that he had not forthwith removed the appendix. In point of fact, if one intervened early one could do what one wished. Only when pus had formed discrimination was required.

Sir Thomas Smith said he had always made his incision low down, occasionally so low as to be below the reflexion of the peritoneum. Usually in such cases if pus did not show he left in a drain, and the pus generally in due course worked its way through. This plan was not usually adopted; but it had given him satisfactory results.

Dr. H. A. Caley said that the proportion of relapses was less than 5 per cent.; was, in fact, about 1.5 per cent. in the figures he had collected. He asked if the authors had had experience of a counter opening in the lumbar region, which to him, a looker-on, had appeared to be advantageous.

Mr. Barling, in reply, said that in all his cases (about 300) the aggregate mortality was between 12 and 15 per cent. This included 72 cases of abscess with 2 deaths, relapsing cases with 1.5 per cent., and the cases of diffuse peritonitis or widespread suppuration, of which the mortality was, of course, much higher. He pointed out that the patient who had recurrences was the one who had mild attacks. He had noted the low temperature in suppuration, but it generally rose in the evening. It was very significant in general peritonitis. He added that packing and secondary suture might be all very well, but for the patient it constituted a second operation, and, moreover, it did not always fulfil their expectations. He much preferred to open right over the pus, wherever situated. As to the patients who had no recurrence after non-removal of the appendix their general health was usually perfect. He had used a counter-opening in the loins in a few cases.

Bequest.—Under the will of the late Mr. A. J. Dettmar a sum of £9,367 has been left to the Committee of the Hospital for Epilepsy and Paralysis, Regent's Park, for the purposes of the new hospital now being built in Maida Vale, W.

PATHOLOGICAL SOCIETY OF LONDON.

W. Watson Cheyne, F.R.S., President, in the Chair.

Tuesday, February 18th, 1902.

The Reactions of the Bone Marrow and other Leucocyte-forming Tissues in Infections.

Professor R. Muir (Glasgow), in a communication on this subject, pointed out the difference in distribution of the functional activities of the leucocytes; the germ centres of lymphoid tissue, Malpighian bodies, etc., and the bone marrow being essentially formative areas; the lymph sinuses and splenic pulp being specially adapted for phagocytic activity, etc. The bone marrow was the seat of formation of the characteristic elements of the blood—red corpuscles and granular leucocytes. He had shown by experiments that this activity as regarded neutrophile leucocytes was greatly increased in inflammatory and suppurative conditions. An account was given of observations in like states in the human subject, a great many different conditions being investigated. The results were entirely confirmatory, the leucoblastic change (neutrophile reaction) being shown, not only by an increase of the myelocytes in the existing marrow, but by a partial change of the fatty into red marrow. At the spreading margin of the young marrow, the chief elements found were red corpuscles and neutrophile myelocytes, there being no evidence that the latter were formed from non-granular cells. The newly-formed marrow ultimately contained all the elements of the normal marrow, the distinctive feature being the relative excess of the neutrophile cells. Mitotic division was most active in these latter. In addition to the marrow obtained *post mortem*, the condition of that obtained during life, in cases of rib resection for empyema, was described. The state of the marrow in small-pox was then considered. In this disease there was always a percentage diminution of neutrophiles though the actual number might be somewhat increased; the lymphocytes and hyaline cells showed both a relative and absolute increase, the percentage being sometimes as high as 60. The marrow showed very slight or no neutrophile reaction (a slight extension in the femur was often present) and there was often, especially in grave cases, a great depletion of its cells, notably neutrophile myelocytes, the place of them being taken by widened vascular channels distended with blood. The presence of these cells in the blood and spleen was to be related to this change. These changes were the result of toxic action. The gelatinous change in the marrow was next considered, this affecting both the fatty and the red marrow. Evidence was given to show that the essential factor in its production was inanition. It might be associated with leucoblastic change, though probably tending to interfere with the latter. The conditions governing the chief variations of the neutrophile cells in the tissues, blood, and marrow had been established; in all probability the eosinophiles behaved in an exactly analogous manner. The chief pathological changes in the bone marrow were: (1) Changes in leucocythaemia—lymphatic and medullary respectively; (2) reactive changes, (*a*) leucoblastic; the neutrophile reaction; in all probability also an eosinophile reaction, possibly a hyaline; (*b*) erythroblastic; normoblastic after haemorrhage, megaloblastic in pernicious anaemia, also in bothriocephalus anaemia; (3) degenerative or retrogressive changes, (*a*) gelatinous marrow, (*b*) fatty marrow, recorded in a case of idiopathic anaemia, possibly aplastic. The spleen was chiefly treated of in contrast to the bone marrow—the outstanding feature being the extensive destructive changes in the former as contrasted with the formative functions of the latter. Acute enlargement was chiefly due to accumulation of blood or leucocytes—hence variation in the colour. Both endothelial cells and hyaline cells might increase in number and size, and act as phagocytes. In addition to bacteria, damaged red corpuscles and neutrophile leucocytes underwent an intracellular destruction by non-granular phagocytes (to a greater extent in animals than in the human subject); they were also digested extracellularly. Myelocytes appeared in the pulp, especially in severe cases, and with them nucleated red corpuscles were usually present. They probably represented an escape from the marrow owing to disturbances of its delicate structural arrangements. Proliferative changes occurred at the periphery of the Malpighian

bodies, a zone of comparatively large basophile cells resulting (potential myelocytes of Dominici, Bezançon, etc.). In the neighbourhood of these myelocytes might be seen, but it was not certain that the latter were formed from the basophile cells. The marrow elements present might merely be separated from the blood; the question of "myeloid transformation" must be considered an open one. With regard to lymphatic glands and other lymphoid tissues, evidence that an increased formative activity could be produced by substances in the blood was still wanting. In small-pox there was a lymphocytosis in the blood, but this might possibly be due to irritating substances carried by the lymphatics from the skin lesions, etc. Local hyperplasia of lymphoid tissue might be produced by abnormal conditions in the corresponding area drained through it. Enlargement of glands in infections was, however, usually due to one of two causes: (*a*) Emigration of neutrophile leucocytes from the blood vessels, as in other tissues; these might invade the whole gland structure; in milder cases with favourable results these cells might be destroyed by the non-granular phagocytes, and a return to normal follow. (*b*) Reaction in the lymph sinuses and paths—marked desquamation and proliferation of endothelial cells with phagocytic activity. This was seen well in typhoid fever, and also in a somewhat similar manner in small-pox, especially with extensive skin lesion. A study of the lymphatic glands in infections afforded no evidence whatever that neutrophile leucocytes were ever formed there. [The remainder of the paper was occupied by a comparison and contrast of the granular and non-granular cells as regards distribution, spheres and rapidity of action, extent of supply, variations in size, etc.]

Dr. William Hunter observed that besides the physiological interest attaching to the proved origin of the polymorphonuclear leucocytes from myelocytes, the paper was of much pathological interest, as showing that the marrow changes in many diseases—for example, pernicious anaemia—thought to be only compensatory arose from the results of tissue infection. The relation between the functions of the marrow and spleen was intimate, and was indicated in two ways: by change in the bone marrow after removal of spleen, as well as vice versa: the marrow might take on the activity of the spleen.

Dr. J. H. Drysdale observed that the finely granular leucocytes were not in all pathological conditions of uniform size, as Professor Muir seemed to imply; in certain forms of leukaemia it was not so. Again, as explaining excess of leucocytes in the blood without excess of myelocytes, the cells might be attracted out of the marrow without compensation taking place; as in severe cases of small-pox. As to the haemorrhagic form of small-pox, this was probably due to a second infection, and against this vaccination did not protect. Was the production of leucocytes in such cases abolished?

Dr. A. G. Phear cited a case of suppuration of the knee-joint after injury and in which amputation was performed; profuse haemorrhage occurred before death. The bone marrow presented the results due both to suppuration and to haemorrhage. The marrow from the shaft of the femur was firm and pinkish; its fat cells were reduced, and it showed the cells classed as myelocytes, erythroblasts, and giant cells, the last being in large numbers.

Professor Muir, in reply to the different speakers, remarked that phagocytosis of blood corpuscles occurred in bone marrow by means of non-granular cells, as it did in the spleen. In pernicious anaemia both erythroblasts and myelocytes increased. In certain forms of leucocythaemia the polymorphonuclear leucocytes in the blood differed in size, as the marrow cells reached the blood. Peptone injected into the circulation induced the marrow cells to leave the marrow and enter the blood. In severe confluent small-pox as well as in the haemorrhagic variety there was the same diminution of neutrophile cells. He had studied a case similar to that recounted by Dr. Phear; and in answer to Dr. O. F. Grünbaum he did not find mitotic figures differed in number in *post-mortem* material and that removed during life.

Fibro-sarcoma of Tail of Pancreas.

Mr. J. D. Malcolm showed the above specimen, which was a tumour removed from a child, the growth being before removal diagnosed as renal. Death took place; at the necropsy a secondary tumour was found distending the portal vein and partially free in it.

Card Specimens.

Mr. Raymond Johnson: Hernia into the processus vaginalis and invagination of the upper part of the latter.—Mr. H. L. Barnard: (1) Melanotic pigmentation (without tumour) around the anus; growths in the adjoining lymphatic glands; (2) spindle-celled melanotic sarcoma of the bed of the nail of index finger.

SANITARY INSTITUTE.

Sir James Crichton-Browne, M.D., in the Chair.

Wednesday, February 12th, 1902.

Prevention of Small-pox in London.

Mr. A. Wynter Blyth (M.O.H. St. Marylebone) introduced a discussion on the Prevention of Small-pox in the Metropolis. He began by showing with the aid of diagrams the incidence of small-pox in various years as compared with other infections. In regard to immunity one attack of most infectious fevers rendered the person less liable to contract a second. One attack of small-pox usually immunized throughout life and vaccination inoculated a something so much akin to small-pox that it conferred the same kind of immunity but not so intense, and it was unreasonable to expect vaccination to give immunity for more than a few years. Crude statistics in relation to small pox and vaccination were misleading, for the public understood by the word "vaccinated" protected or immunized; such statistics required to be dissected and classified to arrive at their true interpretation. Referring to the incidence of small pox with regard to age Mr. Blyth observed that infectious diseases with few exceptions attacked the youngest most severely and in the greatest numbers. From 1848 to 1854 was a period uninfluenced by vaccination and there was an enormous preponderance of small-pox mortality up to 7 or 8 years of age. From 1855 to 1859 was a period of compulsory vaccination but no sufficient machinery was provided, nevertheless as vaccination increased the mortality in children decreased, but there was a rise in the number for adults. From 1880 to 1894 there was an appreciable tendency to an increased mortality from small-pox owing to the diminution of the practice of vaccination. From the study of the statistics published by the Asylums Board dealing with 1,017 cases admitted into the hospitals during the present epidemic, out of 843 vaccinated cases the main incidence was on adults, the least incidence on children, the effect of primary vaccination protecting the children. With regard to the protective influence of revaccination he quoted the crowd of revaccinated nurses who day after day in small-pox hospitals attended to the unfortunate patients afflicted with the disease. To absolutely protect a person from small-pox vaccination must be comparatively recent and very thoroughly done. Discussing the influence of sanitary conditions on the incidence of small-pox, he said that sewer and drain gas, filthy collections of matter, bad smells generally, and noisome habitations in no way affected the spread of the malady. No connexion had been established between any of these things in any epidemic. On the other hand, the insanitary conditions of overcrowding had a marked influence, especially night overcrowding. The explanation was simple, because when points of human contact were multiplied the chances of absorbing infection were also multiplied. With regard to the incidence of small-pox, the one single circumstance that predominated over all sanitary conditions was the condition of immunity, whether acquired from a previous attack of small-pox or from efficient vaccination. By means of curves constructed to show how small-pox was influenced by seasons Mr. Blyth showed that so far as season was concerned the epidemic was likely, unless the efforts of the local authorities were aided by the public, to increase up to May, and not decline until the first or second week in June. It was perfectly possible to arrest the epidemic in a single week. Vaccination followed by revaccination was the one potent preventive. If there existed a Minister of Health who could compel immediate compulsory vaccination of all those in health who bore no evidence of recent vaccination the scourge would be stayed, and there would be very little small-pox in the metropolis for years to come. The many thousands of unvaccinated, unprotected persons in the City of London were putting the community to

the enormous expense of providing hospital accommodation for the purposes of isolation. It was impossible to isolate a small-pox patient effectually in a private house, but besides the safety of the unvaccinated, unprotected public there was the nursing and attendance on the sufferer himself, which could only be done effectually and properly in a well-equipped hospital. The local authorities had made admirable arrangements for organizing the ambulance service of the Asylums Board to work promptly. It was seldom that removal after notification was delayed from any part of the metropolitan area more than an hour after communication. The metropolis was not only provided with hospital accommodation, but possessed a transport service for rapid isolation superior to that of any city in the world. In the borough of St. Marylebone the plan adopted with "contacts" was to inculcate immediate revaccination, to supply free of charge a cleansing bath, and simultaneously disinfect the clothes by superheated steam. There was, however, a class of homeless persons who could not be kept under observation except by persuasion and legislative enactment. Measures for this class were urgently needed so that a case of small-pox in the incubation period might be properly watched. For the diagnosis of doubtful cases medical referees with experience of small-pox had been appointed, and their services were at the disposal of medical practitioners who might be in doubt as to the exact nature of the disease in a suspected case of small-pox. The medical referees were appointed more particularly because of the difficulty experienced in deciding in many cases between chicken-pox and small-pox.

The Chairman said that all the objects of their present campaign against small-pox might be summed up in one word and that word was "security." What the medical profession had to do was to satisfy and persuade the public on the value of vaccination, and to awaken them to a sense of its vital importance. The public was entitled to an absolute guarantee of the purity of lymph, and he considered that the manufacture of lymph should be subject to Government inspection. With regard to the question of compulsory vaccination, they could not shut their eyes to the fact that since it had been abolished the number and the proportion of vaccinations in England had vastly increased. He wished to see the avoidance of vaccination made much more difficult and expensive so as to properly punish anyone defying the law.

Dr. Sykes (M.O.H. St. Pancras) said that infantile vaccination was excellent, but that revaccination in the adult was equally important.

Dr. J. G. Glover said that the Local Government Board had given an idea to the public that the only way of getting properly vaccinated was to be done by a public vaccinator with public lymph. He had heard on all sides that educated people and rich persons were sending to the public vaccinator for vaccination, and that meant that the public vaccinator could not attend properly to the vaccination of the poor.

Dr. P. Caldwell Smith (M.O.H. Wandsworth) said that every medical man ought to be a public vaccinator.

Mr. Shirley F. Murphy (M.O.H. Administrative County of London) said that the extraordinary rush of people to the public vaccinators because of 1,000 cases of small-pox was a very unscientific proceeding. In his opinion revaccination should be a matter of routine.

Dr. W. A. Bond (M.O.H. Holborn) said that in his district, among those persons who had been revaccinated there had not been a case of small-pox.

Dr. H. W. G. Macleod and Mr. W. G. Kershaw having spoken, the meeting terminated with the usual vote of thanks.

SOUTH INDIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Friday, October 25th, 1901.

The Treatment of Hepatic Abscess.

Lieutenant-Colonel J. Maitland, in opening a discussion on the treatment of hepatic abscess, said the subject was not only one of perennial interest to them in Madras, where the disease was so common, but it was also one of special interest at the present time, owing to the fact that somewhat radical changes in the treatment of this affection had lately been forced upon the attention of the profession. The first point to which he drew attention concerned the use of the exploratory needle. There was a tendency amongst medical men of the present age to resort somewhat hastily to the use of such means as that of the exploratory needle, to the neglect of careful and systematic investigation by the more ordinary and often less hazardous methods of clinical examination. There was a tendency, in other words, to make short cuts to diagnosis. He was afraid that this was sometimes the case in regard to abscess of the liver. In the great majority of cases the diagnosis of hepatic abscess was quite simple and the use of the exploratory needle quite unnecessary. It was extremely important to emphasize this point because there appeared to be a widespread idea that the use of the exploratory needle in cases of disease of the liver was a very simple procedure, and one unattended with any danger. So far was this from being the case that a very considerable number of deaths had been recorded as having been due directly to this operation. For this reason alone it was important to insist that exploratory punctures for the purpose of diagnosis in cases of disease of the liver should be restricted to cases in which it was absolutely necessary. There was a certain number of cases in which its use could not be avoided, but they formed a comparatively small proportion. What were the causes of haemorrhage which occurred in some of these cases? Mr. Cantlie, in a paper read at the recent meeting of the British Medical Association, stated his belief that the chief danger of haemorrhage was from the inferior vena cava, and that this vessel could not be injured so long as the needle was not thrust in as far as 4 inches. Whether any of the recorded cases of haemorrhage were due to injury of the vena cava or not, Lieutenant-Colonel Maitland was not prepared to say, but he did know from practical experience that fatal haemorrhage might occur from puncture of the liver tissue alone, when that tissue was in a condition of acute congestion. He spoke feelingly on this subject because he lost a patient himself from this cause. The case was one in which he was asked to explore the liver of a patient who was suffering from acute hepatic congestion and in which the presence of an abscess was suspected. Two hours later, when going round the wards, he found the patient dying from internal haemorrhage. The vena cava was not injured in this case; bleeding took place from the liver substance itself. Fatal haemorrhage had also been known to occur from injury to the intercostal artery. Whenever it became necessary to perform an exploratory operation, arrangements should be made to open the abscess at once should pus be discovered. By opening the abscess at once, not only was the patient saved the injurious consequences that might result from delay, but he was also saved the anxiety involved in a second operation. Moreover, it sometimes happened that considerable difficulty was experienced in hitting off the abscess at the second operation, although it might have been found quite easily on the first occasion. Indeed, he had known of a case in the practice of a colleague in which the abscess could not be found at all at the second operation. In performing the exploratory operation by means of a needle there was one precaution to which it was important to draw attention. There was always a temptation in withdrawing the needle, when no pus had been found, to alter its direction before it had been completely withdrawn, and make another exploratory venture through the same orifice. As this manœuvre tended to enlarge the orifice of entrance it should always be avoided. If it were necessary to explore again, a fresh puncture should be made at another point. The fatality to which he had already alluded was due, he believed, in part to neglect of this precaution. The possibility of wounding the intercostal artery, if due precaution was not taken, must also be borne in mind. Lieutenant-Colonel Maitland then passed to the consideration of the operation for the evacuation of the abscess. If no exploratory puncture had previously been made, a needle must first be inserted for the purpose of locating the pus. In the great majority of cases of single abscess the pus was found in

the right lobe, and a transthoracic opening was required for its evacuation. The cases in which the abscess was situated in the lower part of the right lobe, which had been pushed far down below the margin of the ribs, were, in his experience, comparatively uncommon. He proposed, therefore, first to describe the transthoracic operation as he was in the habit of performing it. If any point of special tenderness had been found the needle might be thrust in at that part. If no indication of that nature was present, it was best to explore through the eighth intercostal space. When the abscess had been found the needle should be left *in situ*, to serve as a guide. An incision was then made over the rib immediately beneath the level of the needle, and a portion of the bone, about 2 inches in length, was removed. The pleura was next incised, and, if there were no adhesions, the two layers were stitched together, the sutures being made to enclose as wide an area as possible. The diaphragm and peritoneum were next divided, and if no adhesions were present the peritoneum was dealt with in the same manner as the pleura. A pair of sinus forceps was passed alongside of the aspirator needle into the abscess, and an opening made by separating the blades. The opening was next enlarged to the necessary extent by incision. Having made a sufficiently large opening, two glass drainage tubes were inserted and the pus allowed to flow away. When pus had ceased to flow freely the cavity was irrigated with weak boric acid lotion or sterilized water, in order to wash away as much as possible of the remaining purulent contents. Irrigation of the abscess cavity, although not an absolute essential, had the advantage of minimizing the amount of discharge subsequent to operation. After the abscess had been emptied as far as possible, a finger was introduced into the cavity for the purpose of ascertaining its size, and the necessity, or otherwise, of making a counter opening. If the abscess was a large one, and the opening had not been made at the most dependent point, a counter opening should be made further down and more posteriorly. The arrangements for securing free drainage were the most important points in the whole operation, and it was for that reason chiefly that he was opposed to the methods recommended by Mr. Cantlie. The main opening into the abscess should be sufficiently large to admit two drainage tubes of half an inch diameter easily. An opening of that size could not be made in the chest wall without removing a piece of rib. Lieutenant-Colonel Maitland was in the habit usually of injecting iodoform emulsion into the cavity of the abscess before inserting the drainage tubes. This was done with the view of checking septic decomposition should the discharges come to the surface and become contaminated, as they were not unlikely to do if the abscess had been a large one. There was considerable difficulty in applying a sufficiently wide and thick dressing to that part of the body. In a climate like that of India nothing was more distressing to a patient than to be swathed in an enormous mass of dressings. When the abscess had to be opened below the ribs the operation was necessarily more simple. Here again he considered it best to operate by means of a free incision, and, if adhesions had not taken place, to stitch together the two peritoneal surfaces. If, as sometimes happened, difficulty was experienced in suturing the peritoneum to the surface, owing to the proximity of the pus, or to the movements of the liver, the better plan was to pack the wound with gauze, and, having turned the patient on his side, to open the abscess by means of a knife. After the pus had been evacuated the edges of the wound in the liver were stitched to the edges of the wound in the abdominal wall. Lieutenant-Colonel Maitland next proceeded to deal with the method of operation recommended originally by Dr. Manson and specially advocated by Mr. Cantlie at the recent meeting of the British Medical Association. It was necessary that this question should be fully discussed, not only because this method was so enthusiastically recommended by Mr. Cantlie, but also because he condemned, in equally forcible language, all other methods of operation. Was it possible that the methods used in India were so faulty as he proclaimed them to be? The speaker did not think so. Mr. Cantlie's method, speaking briefly, consisted in puncturing the abscess with a trocar and emptying it by means of "siphon drainage." It was in fact an operation by means of limited incision, as opposed to operation by free incision; and was therefore opposed to the ordinary principles upon which abscesses in other parts of the body were treated. The main objection to this operation, as he had already stated, was that by such a method of dealing with an abscess of the liver it could not be ensured that drainage would be sufficiently free. This objection was forcibly illustrated by three out of the four cases cited by Mr. Cantlie in his paper. In the first case they were told that on the tenth day the drainage tube having slipped out, it was found necessary to administer an anaesthetic before the tube could be reinserted. Again, in the same case, on the thirty-fifth day, it became necessary to make a counter-opening in order to establish free drainage. In the second case they found that on the thirty-third day there was some difficulty in drainage, and it was contemplated to open the cavity further back, but the patient objected to be operated upon again. In the third case the drainage tube was pulled out by the patient on the night after the operation and "could not be satisfactorily replaced." Four days later a large drainage tube was introduced and 20 ounces of pus welled out of the wound. It was to be presumed that these four cases that had been selected by Mr. Cantlie were taken by him to illustrate the benefits of his method of treating abscess of the liver, as compared with the results obtained by other methods. If that were so, the speaker could only say that in his experience such extraordinary difficulties in securing free drainage as were met with in these three cases were the rarest exception. It was impossible to avoid the conclusion that all these difficulties would have been obviated had the abscesses been opened by free incisions. The truth of the matter was that an opening so small as to embrace a single tube tightly did not suffice for the efficient drainage of most large abscesses of the liver. Moreover, if the tube became displaced by accident, its replacement into so small an opening was almost an impossibility. These difficulties were occasionally met with even in cases in which a piece of rib had been excised and an opening made sufficiently large to admit two drainage tubes with ease. Another disadvantage of Mr. Cantlie's method of operation was that it did not admit of exploration of the cavity of the abscess with the finger, and therefore no estimate could be formed of its size, nor of the necessity, or otherwise, of making a counter-opening. Attention was then briefly drawn to the objections raised by Mr. Cantlie against the ordinary method of operation. In the first place, he stated that "the severity of the operation in many cases is such that the opening of the abscess is apt to be deferred until too late in the disease." That was a statement entirely without justification so far as India was concerned. The rule in this case was to operate at once. His second objection was that "the medical practitioner is willing to try every available resource before condemning his patient to so severe a line of treatment." It was hardly necessary for the speaker to say, in that assembly, that such a statement was also without justification, at least so far as India was concerned. Indeed, it would be curious to know what the "available resources" were to which Mr. Cantlie alluded.

Lieutenant-Colonel Sturmer for the most part agreed with what Colonel Maitland had said. His experience was no doubt limited, and he had not had to excise the rib so frequently; but perhaps his cases had been further advanced, and had contracted adhesions to the abdominal wall below the ribs. He could not consider Mr. Cantlie's operation superior to that of incision and free drainage. His prospecting the liver had never resulted in any bad after-effects; but Colonel Maitland stated that he had lost a case, and Colonel Hatch in the *Indian Medical Gazette* reported one or two deaths. That the liver could bleed when punctured there could be no doubt, and that, too, without puncturing any such large vessel as the vena cava. He certainly thought it advisable to irrigate the abscess cavity after incision, and could not understand why a case of hepatic abscess should be treated differently from an abscess elsewhere.

Captain Molesworth said he would like to ask Colonel Maitland whether it was not a fact that exploration in cases of congestion of the liver had not been followed by disappearance of the symptoms.

Lieutenant-Colonel Browne agreed with Colonel Maitland's remarks. He did not quite understand what Mr. Cantlie

meant by "siphon drainage," and noticed that Dr. Manson said nothing about it in his latest book. It was very unusual for the tube to run "full," and therefore "siphon action" could not be obtained. He believed that the danger of damaging the pleura was just as great with the tube as with the incision method. He knew of three cases in which death occurred from haemorrhage. In one of these, certainly, the bleeding did not come from the vena cava or any of the large veins, but welled up from the whole of the interior of the wound.

Captain NIBLOCK agreed with everything Colonel Maitland had said. As to exploratory puncture with a needle he thought it should only be done in the operating theatre, when the operation could be proceeded with at once. Two cases he had seen impressed this strongly on his mind.

The first case had been explored in the ward, and was a short time afterwards sent to the theatre. When the liver had been exposed by incision, the pus was seen to be pouring into the peritoneal cavity through the puncture in the hepatic wall. In the second case also the patient had been punctured, and then sent to the operating theatre with diagnosis of hepatic abscess. Under chloroform an exploring needle was introduced close to the former puncture wound, but immediately on entering the cavity of the peritoneum blood began to flow through the needle, and several ounces came away. An incision was made alongside the needle at once, when about 10 ounces of dark blood were sponged out of the peritoneal cavity. The liver was found to be very congested and the capsule extremely tense. An irregular rupture about ¾ inch in length was found in the latter, which opened immediately into a cavity the size of a walnut. In this case the oozing was general, and did not come from any large vein. The damage to the liver substance was probably due to alterations made in the direction of the needle before it had been completely withdrawn. His experience, therefore, agreed with that of the previous speakers that bleeding was not in every case, at any rate, due to puncture of a large vein.

The operation performed by him was similar to that described by Colonel J. Maitland except that he did not inject iodoform emulsion. Later, if any unpleasant smell was noticed in the discharge he injected iodoform emulsion. He believed firmly in the use of two large tubes, one of which could be removed after a few days' time in the majority of cases. In one of his earliest cases, in which the liver only projected a few inches below the costal margin, he incised below the ribs, with the result that as the abscess began to empty and contract the liver was drawn up under the ribs, and the utmost difficulty was experienced in getting and keeping the drainage tubes in. Ever since, unless there was very great enlargement below the costal margin, he used the transthoracic method, generally with excision of a rib. He had operated by the incision method in 12 cases of single abscess, with 2 deaths, and in 4 cases of multiple abscess, all of whom died. In no case was death due to the operation itself, and he did not think that any one of the fatal cases would have been saved by the "siphon drainage" method.

Lieutenant-Colonel J. MAITLAND, in reply, said Captain Molesworth had drawn attention to the fact that it was stated in some books that puncture of the liver with an exploring needle, even if no pus were found, was calculated to have a beneficial effect. It was unfortunately true that such had been the teaching on this subject, but it was to be hoped that, in view of the fatalities that had resulted from the operation, the use of the needle would in future be more restricted than in the past. He was pleased to learn that evidently all the members present were in favour of the open method. As to mortality after operation, the great majority of their deaths were in cases of multiple abscesses of the liver.

REVIEWS.

MEDICINE.

THE term "hepatic insufficiency"[1] suggests a certain vagueness of meaning, and Dr. GOUGET'S definition is very comprehensive. His small work includes a discussion on all hepatic disorders, functional or organic, and in following the French school he reiterates much that has been made familiar by the writings of Gilbert, Castaigne, Brouardel, Bouchard, and others. He is, however, quite aware of the inappropriateness of the term "insufficiency," because in some of the disorders discussed he considers that there is an overaction of the liver. M. Gouget believes that alcohol exerts its baneful influence on the liver by inhalation as well as by absorption from the alimentary tract, and considers that cellarmen, workers in distilleries, and cabinetmakers afford instances of this. With other recent French writers he argues that cirrhosis is an indirect result of alcohol, being more immediately due to the gastric disturbances produced by it; but Gilbert and others would explain certain forms of cirrhosis of the liver by the direct invasion of the biliary passages by bacteria. Much attention is given to the subject of icterus, and the term so often used by French observers, "*ictère hémaphéique*," is brought into prominence with the warning, however, that "*hémaphéine*" is a purely hypothetical substance, or at best nothing more than urobilin (Quincke). German writers, more especially Gerhardt, prefer to speak of it as "urobilin jaundice"; but the low tinctorial properties of urobilin make it difficult to accept this term, the more so as von Jaksch asserts that in urobilinuria bile pigments alone are found in the tissues. Much of the difficulty which surrounds the subject of hepatic disorders depends upon the mists of theoretical speculation, and we can but admire the efforts made by modern French investigators to replace theories by the facts of experimental and clinical research.

[1] *L'Insuffisance Hépatique.* [Hepatic Insufficiency]. Par A. Gouget. Paris: Masson et Cie et Gautier Villars. Crown 8vo, pp. 202. Fr.2.50.)

DR. LYMAN GREENE'S *Medical Examination for Life Insurance*[2] is full of interesting information of various kinds, but much of it has little direct bearing on "the medical examination for life insurance." The last 64 pages, for instance, have nothing to do with life insurance; and the section devoted to Attempts to Defraud Insurance Companies is of legal rather than medical interest. The same may be said, though to a less extent, of the section on Accident Insurance. When a physician sits down to write a treatise on life assurance two courses are open to him: (1) He may assume that his readers will possess an average amount of medical knowledge, and will therefore be conversant with the methods of examination and the ordinary signs and symptoms of disease; or (2) he may assume that some of his readers will be medical students, not fully trained, and who therefore require to be instructed in the rudiments of medicine. The former is the correct method, for treatises on medicine are so good and numerous that it is quite unnecessary to write another under the guise of a guide to life assurance. Dr. Greene, however, has taken the other course, and in the preface writes as follows: "Realizing the fact that many readers will be undergraduates, no effort has been spared in writing the chapters devoted to the examinations of the heart and lungs, to outline a correct technic, and explain clearly the best manner of eliciting physical signs and of giving them their proper interpretations and value." His description of the examination of the chest, to which he devotes 82 pages, is excellent, but is more fitted for a work on general medicine than for a guide to life assurance. "Undergraduates," or, as we should call them, medical students, do not usually find time to study works on "life assurance," so that much of this part of the book might have been omitted. Dr. Greene gives one very necessary caution, namely, that the applicant's chest should be bared for examination, "to attempt a thorough examination with the white shirt over it is an absurd proceeding." He omits, however, to recommend that the examination should be made by daylight; this is essential. The author has made out a case for testing the knee-jerk and taking the temperature. Even if the thermometer be not used as a matter of routine, it should be employed when the pulse is accelerated. One of the most interesting paragraphs is that on the effect of chronic worry on the expectation of life. The section on "the medical examiner and his problems" is exceedingly practical. If the author had been equally fortunate in the treatment of the other questions bearing on life assurance the book would have been smaller, but of greater utility to the medical examiner. As it is, many questions are discussed which have no connexion with life assurance, for example, the appearance of a patient dying with mitral disease, frequency of errors in the diagnosis of appendicitis, and so on. In many instances it is difficult to ascertain what line he advises the medical examiners to follow. This is especially the case in regard to "the insurance of substandard lives." With respect, however,

[2] *The Medical Examination for Life Insurance and its Associated Clinical Methods, with Chapters on the Insurance of Substandard Lives and Accident Insurance.* By Charles Lyman Greene, M.D. London: Rebman, Limited. 1901. (Demy 8vo, pp. 430; 90 Illustrations. 17s.)

to syphilis he is most uncompromising, and advises that under no circumstances should a straight life policy be issued to any man who has a syphilitic history. The majority of the British offices take a much more lenient view of this question. The book, regarded as a work specially devoted to the requirements of medical men undertaking examinations for life assurance, is most disappointing, both in what it contains and what it omits. We can therefore hardly recommend it in its present form to the busy medical examiner as the best work on the subject, in spite of the fact that it contains much valuable matter.

Dr. P. FROUSSARD, of Plombières-les-Bains, has written a voluminous monograph on *Muco-membranous Entero colitis*,[3] which he defines as a symptom-complex, especially occurring in neuro-arthritic subjects, having a continuous or intermittent course, and characterized by habitual constipation, with attacks of diarrhoea and pain and the occurrence of mucus in the stools, either glairy or in the form of false membranes. Although the author will not wish us to claim for him that his essay adds anything material to the sum of our knowledge of a condition otherwise known as dry colitis, chronic colitis, interstitial enteritis, fibrinous diarrhoea, mucous colic, intestinal croup, and tubular diarrhoea, yet his book may be commended, because the group of diseases to which its subject belongs does not seem to have received adequate attention. It may be that the disease, if disease it should be termed, is not so common in this country as it is on the Continent. Mendelson has even said that all neurasthenics suffer from the disease, but it is obvious that the importance of a group of diseases must not be measured solely by the number of individual cases, fewer or more, which occur in any particular district. The whole subject is treated systematically—its history, etiology, symptomatology, clinical forms in the adult and in the infant; its complications, its prognosis, pathogeny, and pathological anatomy, its diagnosis and treatment, with the details of 61 illustrative cases. Incidentally there is given an interesting account of the condition known as intestinal sand as it is seen in association with chronic colitis, a subject which has recently received a degree of attention in this country, while other complications are discussed in a lucid manner. The work contains, in short, a plain, straightforward account of the symptom-complex; and if it has no wide generalizations to offer, at any rate the propositions advanced in it are well supported by facts and clinical examples.

Sir LAUDER BRUNTON'S further papers on *Disorders of Assimilation, Digestion, etc.*,[4] cover a wide range of subjects. No attempt has been made to secure a systematic sequence in arrangement, and since the papers were written for many different occasions, a certain amount of repetition, especially noticeable in the chapters which deal with diabetes, has been unavoidable. The author's charm of style, however, and his fascinating method of instruction make criticism difficult and weariness impossible. Some of the papers were written in conjunction with other workers. Thus Dr. Sidney Martin is joint author of the account of the action of alcohols and aldehydes on proteid substances; Dr. Tunnicliffe was associated in the writing of the sections dealing with white and brown bread, and with acute atrophy of the liver; while for other articles Drs. Cash and McFadyen and Messrs. Watson Cheyne, D'Arcy Power, Bowlby, and J. H. Rhodes are in part responsible. This combined work, however, forms but a small fraction of the volume, and the most important sections are written by Sir Lauder Brunton alone. We have seldom read more interesting chapters than those which deal with the influence of stimulants and narcotics in health, or than the Cavendish Lectures on elimination, reprinted from the BRITISH MEDICAL JOURNAL. A most ingenious experiment is related which shows a possible cause of clumping of bacilli, and of the formation of rouleaux by red blood corpuscles. A large photographic tray was filled with water, coloured blue by litmus. The bacilli were represented by lucifer matches covered with hard soap. These rods floated indiscriminately in the liquid. If acid was added to the liquid till the colour became red, the rods at once drew together and formed clumps; but when an alkali was added and the water stirred, the clumps broke up and did not reform. Blood corpuscles were represented by thin cork discs, as in Professor Norris's experiment, weighted so as to float upright, either partially or totally submerged. These discs covered with soap formed rouleaux when the medium was acidulated. The author believes that both clumping and rouleaux formation are due to some slight alteration of surface tension, probably caused by the liberation of fatty substances by means of carbonic acid.

[3] *Contribution à l'Etude de l'Entero-colite Muco-membraneuse.* Par Dr. P. Froussard. Paris: G. Steinheil. 1900 (Roy. 8vo, pp. 231.)

[4] *On Disorders of Assimilation, Digestion, etc.* By Sir T. Lauder Brunton, M.D., D.Sc., LL.D., F.R.S., F.R.C.P. London: Macmillan and Co. 1901. Demy 8vo, pp. 495. Frontispiece. 10s. 6d.)

Dr. LINDSAY STEVEN has published a selection of *Lectures on Clinical Medicine* delivered during recent years in the Glasgow Royal Infirmary.[5] Some of them deal with cases of rare diseases and others are of general clinical interest, more particularly it must be remarked, for the student of medicine, either from the point of view of diagnosis or treatment. Among the subjects chosen are a case of Landry's paralysis with an account of a necropsy on what was possibly a second case, a case of hemiplegia following typhoid fever, a case of cerebral tumour and what is described as a case of spastic paraplegia in a boy "probably due to a progressive myopathy." It cannot be said that the perusal of these cases permits of any very definite conclusions being drawn on neurological subjects, and indeed the title of the last-quoted may perhaps be misleading. Two cases of mediastinal tumour are described—an interesting case of scleroderma with marked atrophy of the face, trunk, and limbs on one side, a case of congenital obliteration of the bile ducts, and one of hypertrophic pulmonary osteo-arthropathy without pulmonary disease. It is not claimed that anything new is recorded in these lectures, and indeed, considering that all have been previously published in various periodicals, it may be granted, as the author suggests in his preface, that the present volume will particularly appeal as a pleasant memento to those of his former students who heard them delivered.

The essay which Dr. VON GYÖRY has written on the *Morbus Hungaricus*[6] is based on an examination of the original literature on the subject of the Hungarian malady, and is an attempt to make out what the disease really was. It reigned during the sixteenth, seventeenth, and eighteenth centuries, originating in Hungary, where it remained localized at first, but thence spread later to Germany, Holland, and Belgium. The mortality it caused among the troops engaged against the Turkish invaders was very great, but the Hungarians suffered less from the pestilence than did their European allies. The upshot of Dr. von Györy's painstaking endeavours is to show what the disease was not rather than what it actually was. The author arrives at the conclusion that it was not malaria, typhoid, or typhus, nor was it a mixed typho-malarious infection, nor was it *csomor*, with which it has been confounded by some writers. To those interested in the subject the Hungarian author's work will be found valuable. Were it provided with an index it would be more so.

MEDICAL JURISPRUDENCE.

THE *Handbook of Forensic Psychiatry*,[7] compiled by Professor A. HOCHE with the assistance of Professor ASCHAFFENBURG, Dr. SCHULTZE, and Professor WOLLENBERG, though largely an exigesis of the German penal and civil codes, so far as these are related to diseased mental conditions, questions of responsibility and the like, contains so complete a description from the clinical point of view of those morbid mental states which may lead their subjects into conflict with the laws of their country, that it cannot but be of service to the medical casuist. The second part of the book, contributed mainly by Professor Hoche, is concerned with the clinical basis of forensic psychiatry, and is of much general interest.

[5] *Lectures on Clinical Medicine.* By John Lindsay Steven, M.D., Physician to the Glasgow Royal Infirmary. Glasgow: Alex. Macdougall. 1900. (Roy. 8vo, pp. 195; 37 illustrations. 6s.).

[6] *Morbus Hungaricus.* Von Dr. Tiberius von Györy. Jena: Gustav Fischer. 1901. (Roy. 8vo, pp. 100. M. 5.)

[7] *Handbuch der* [illegible] Psychiatry.] By Professor A. Hoche, with the collaboration of Professor Aschaffenburg, Dr. Schultze, and Professor Wollenberg. Berlin: August Hirschwald. 1901. (Royal 8vo, pp. 732. M. 20.)

In the chapter on heredity and degeneracy as applied to the higher degenerates (*dégenérés supérieurs*) Professor Hoche considers an asymmetry in the distribution of the mental capacities, a lack of internal equilibrium as the characteristic condition. Hallucinations, illusions, delusions, consciousness and self-consciousness, impulsive acts, abnormalities of the feelings and affections, are then exhaustively treated, and precede a description of the typical forms of insanity. A particularly interesting chapter on epilepsy, by Professor Wollenberg requires special mention. The author's attention is naturally directed to those epileptic states in which offences or even crimes are automatically committed, and of which acts the offenders have no subsequent recollection. The actual epileptic convulsion may be, as Dr. Hughlings Jackson in this country has frequently affirmed, of so slight a character as to escape not only the observation of the patients, but that of their attendants or friends. Professor Wollenberg traverses the view of Lombroso and his school, who regard all sudden impulsive states of excitability, even without the presence of other characteristic features of this disease, as epileptic in origin, and ranges himself with the majority of observers in requiring for this diagnosis the presence of the classical form of attack or its varieties. Notes of cases are given freely throughout the clinical part, and each section is followed by an extensive bibliography. The book is, notwithstanding its modest title of handbook, an exhaustive and valuable treatise on this branch of medical jurisprudence.

The small book on *Medical Jurisprudence and Public Health* compiled by Dr. G. H. GIFFEN[8] is divided into three practically equally portions dealing with forensic medicine, toxicology, and public health, and the author claims for it that the student should find in it all that he needs for his college or university examination. It goes without saying, of course, that the amount of space devoted to each subject is exceedingly small, and it follows also that the condensation is, as it always must be, somewhat unequal; thus, for instance, we find nearly two pages and a-half devoted to extracts from recent speeches on the subject of constructive murder, whilst a subject of such practical importance as the competency of a patient to make a will is not even mentioned, and less than half a page has to suffice for the consideration of the symptoms of acute poisoning by arsenic, opium, prussic acid, or strychnine. In the section on gunshot wounds the author draws upon the accounts of the surgeons who have published their experiences of modern bullet wounds derived from the war in South Africa; the subjects are so arranged that it will be very easy for the student to get hold of the salient facts in each division of the subject.

Dr. MCCALLIN'S *Introduction to Medical Jurisprudence*[9] is also a very condensed epitome of the subject, and might fulfil the function its author claims for it—that of serving as an introduction to the subject. The only novelty the author has introduced is that of arranging the poisons in alphabetical order. We have failed to discover anything to be said in favour of this plan, but the objections to it are sufficiently obvious.

Poison Romance and Poison Mysteries,[10] by C. J. S. THOMPSON, is a slight book, consisting for the main part of some familiar modern cases, and some of the best known of earlier date. The copy before us, received recently, is stated to be a "new and revised edition," but bears no date.

NEURO-PATHOLOGY.

Professor SCHÄFFER has published[11] in the form of a volume of lectures to students a study from the anatomical and clinical points of view of these three mutually-related diseases tabes dorsalis, progressive or general paralysis, and cerebral neurasthenia. After a minute description of the anatomy and pathology of the neuron, and a careful review of the opposing views as to the site and nature of the fundamental lesion in tabes, Professor Schäffer maintains that the primary condition is a parenchymatous degeneration of the sensory proto-neuron beginning in the sensory root between its entrance into the cord and the posterior spinal ganglion. Professor Schäffer regards tabes and general paralysis as parasyphilitic conditions, and introduces Professor Edinger's *Ersatz-theorie*, which might be shortly described as one of over-function in states of malnutrition as explaining why in some the exogenous sensory neurons (tabes) and in others the endogenous neurons, mainly of the brain cortex (general paralysis), should be affected. The post-syphilitic states of malnutrition induced in the subjects of both tabes and general paralysis are, he holds, identical, the locus being different, the nervous mechanism in which the hyperfunction occurs being determined by the occupation or habits of the individual.

Few questions have of late years awakened so widespread an interest as that of the minute anatomy of the neuron and the changes which accompany its function. Improved technique, and in particular the methods of Golgi and Nissl, have thrown so much fresh light on its architecture that it is not surprising that much controversy exists as to the mechanism, and even origin, of its component parts. Professor VERWORN, in a short treatise on "the neuron in anatomy and physiology,"[12] summarises and criticises the various conflicting views. On the vexed question of the continuity or the contiguity of neuron with neuron Professor Verworn deprecates any dogmatic attitude, is careful to show that it is impossible to speak to-day with certainty, but considers that it is probable that in adult animals in many cases a direct continuity does exist. As to the plasticity of the dendrites, otherwise the amœboid movements of their protoplasm, which has engaged so much attention since Rabl-Ruckhardt in 1890 published his theory in the *Neurologisches Centralblatt*, Professor Verworn speaks with no uncertain voice. The so-called varicosities, on whose presence this theory rests, are, he says, artifacts, products of the Golgi method, and supports this conclusively by the results of Weil and Frank. Many other controversial questions are ably discussed in this short treatise, which is of great interest.

Professor OPPENHEIM, in the introduction to Dr. CASSIRER'S book on *Vasomotor Trophic Neuroses*,[13] observes that it is difficult to secure a definite clinical picture of these disorders. Dr. Cassirer's attempt is, however, attended with some success: he has combined with result of his own experiences the impressions obtained by studying a large number of reported cases, the bibliography of which alone occupies forty-six pages of the monograph. It is no fault of the author that after a careful perusal of the book we feel rather dissatisfied: the types of disease which are here attempted to distinguish have so much in common in some cases, that it is simply a matter of personal bias whether we should label the malady discussed as sclerodactylia with symptoms of Raynaud's disease or Raynaud's disease with symptoms of sclerodactylia. The transition forms are so numerous and bewildering that it would appear almost useless to try to separate the various maladies described in this book. That the dissatisfaction is due only to the difficulty of the subject and the various anatomical reports on the various diseases, and not to the manner of the treatment of the subject by Dr. Cassirer is shown by the enormous pains taken to compare and analyse the morbid condition of the parts affected. The subject is treated as scientifically as it can be and in the first hundred pages a careful summary is given of the known facts of the anatomy and physiology of the vasomotor and secretory centres, with special reference to the vasomotor theories of Schiff and Brown-Séquard and the neurotrophic theory of Samuel. The author is convinced that under vasomotor

[8] *Students' Manual of Medical Jurisprudence and Public Health.* By G. H. Giffen, L.R.C.P. & S.Edin. Edinburgh: W. Bryce. 1901. (Crown 8vo, pp. 250.)

[9] *Introduction to Medical Jurisprudence.* By W. McCallin, M.D. London: Baillière, Tindall and Co. 1901. (Demy 8vo, pp. 160. 4s.)

[10] London: The Scientific Press.

[11] *Aus[illegible]ch-Klinischen Gebiete der Nervenpathologie.* Von Dr. Karl Schäffer, Professor der Nervenpathologie an der Universität zu [illegible]. Jena: Gustav Fischer. 1901. (Roy 8vo, pp. 205. Five plates; [illegible] M. [illegible])

[12] *Das Neuron in Anatomie und Physiologie.* Von Max Verworn, M.D., a.o. Professor of Physiology, University of Jena. Jena: Gustav Fischer. 1900. (Demy 8vo, pp. 54; 22 illustrations. M.1.50.)

[13] *Die vasomotorisch trophischen Neurosen.* Von Dr. Richard Cassirer. Assistant an der Poliklinik für Nervenkranke von Professor Oppenheim und Nervenarzt in Berlin. London: Williams and Norgate. 1901. (Royal 8vo, pp. 699. 24s.)

trophic neuroses may be included the following affections: Acroparaesthesia, erythromelalgia, Raynaud's disease, sclerodema, Quincke's oedema, multiple neurotic gangrene of the skin, and a malady described by himself as "acroasphyxia chronica." He discusses under the pathology of these diseases the various morbid changes met with and his own position by saying that the various vasomotor trophic neuroses are due sometimes to lesions, probably functional, of the various centres, and in other cases to disturbance of peripheral nerves. In the latter case the morbid processes at work on the peripheral nerves act reflexly on the centres with very similar results to those produced in primary disturbance of the centres. As our knowledge of such centres in the spinal cord and brain is limited these views seem too theoretical.

The distinction between functional and organic disease of the nervous system from the diagnostic point of view is ably if cursorily treated by Professor H. Obersteiner in an essay on functional and organic nerve diseases.[14] He takes exception to the talk about "molecular changes" in functional disease, since the term merely cloaks ignorance, and supplies a factitious base for what is mere theory. The term "nutritional" in this connexion is also traversed. It is known, he remarks, that in many functional neuroses the general nutrition is undisturbed, that in many cases of extreme nutritional disturbance no nervous symptoms are present, and that in extreme starvation the mental functions are the last and least affected. He reviews the recent work on the subject of "railway spine," and whilst admitting our indebtedness to Charcot for demonstrating the hysterical element in these cases, says that it would be going too far to relegate every such case in which no gross lesion can be proved to the class of functional disease. It is especially interesting in this connexion to note that the recent experiments and investigations of Bikeles, Kirchgässer, Endden, and others confirm the older results of Hodge and Schmaus, and establish with certainty the possibility of a direct traumatic necrosis of the central nervous system without the presence of any gross lesion, such as fracture or haemorrhage as the result of concussion. It will be remembered that so long ago as 1860 Erichsen attributed this disease to fine changes in the cord produced by the shock. Bikeles has now, by means of the delicate methods of Marchi and Nissl, demonstrated in the central nervous system of guinea-pigs degeneration in the cerebral and spinal neurons as the result of blows which had been insufficient to produce fracture or haemorrhage, and that though the blow had been inflicted on the skull, the degeneration could be traced with diminishing intensity as far as the lumbar cord. It is at once apparent that the application of these results extends far beyond railway spine. Epilepsy, which Professor Obersteiner says is frequently but mistakenly classed amongst functional diseases, hysteria, and the distinction between functional and organic palsies are briefly discussed. The essay, though somewhat discursive, is interesting, and the subjects discussed in it are ably and philosophically treated.

An essay by Dr. Heim, with a rather cumbrous title, which may be translated "nervous sleeplessness, its causes and treatment,"[15] does credit to the author's common sense. After a short discussion of the nature of sleep, and the causes and pathology of sleeplessness, he proceeds to consider the methods of treatment in cases of nervous sleeplessness, connected with the abnormal irritability and rapid fatigue ("irritable weakness") of neurasthenia. The nervous life of the individual must be searched to find out the cause of the trouble, and, according to the cause, the physiological remedies will be suitable occupation, exercise and diversion, dietic and climatic treatment. Hypnotic drugs are seldom required, but patience is necessary since the desired result may not be obtained immediately.

While so-called sensory charts marked for the record of sensory changes corresponding with the peripheral terminations of the spinal nerves have been published in considerable number, similar charts marked for the record of the different varieties of anaesthesia, or of pain, due to lesions of spinal segments or of spinal roots have been few. Those, therefore, devised by Dr. Seiffer[16] are all the more acceptable, and the fact that the dividing lines between the different sensory fields are in simple curves—that is, without any attempt at great precision in demarking their limits, is no drawback, but rather the reverse, in the present state of knowledge.

One of the latest additions to Naumann's Practitioners' Library is a handy book by Dr. Windscheid on the *Pathology and Treatment of the Diseases of the Peripheral Nervous System*.[17] It gives a compendious account of peripheral nerve disease, including neuralgia as well as neuritis. The author is an accomplished neurologist, and his analysis of symptoms of the various affections enumerated is thoroughly to be commended. He not only treats of the general affections, but summarises the diseases of the special nerves and regions. His description of peripheral neuritis strikes one as being perhaps somewhat disproportionately long, and his classification of its varieties is more convenient than scientific. The therapeutic part of the book is particularly good; the author does not content himself with general references to baths, massage, electricity, and so forth, but goes into exact and even minute details as to the forms of these agents which are to be used and the manner of their employment. Such sections as that on the treatment of sciatica are of particular merit. The diagrams are not, as a rule, original, but are well selected, and those illustrating the complex interrelations of the cranial nerves are exceptionally clear and instructive. The print and paper are the least satisfactory features of the book, which is also disfigured by not a few misprints.

We are glad to welcome an English translation of Professor Oppenheim's deservedly popular book on *Diseases of the Nervous System*.[18] The work of translation has been well done by Dr. E. E. Mayer. It is needless to refer again to the many excellent qualities of the second German edition from which it has been made.

NOTES ON BOOKS.

The object of *The Book of Old-Fashioned Flowers*,[19] which has been written by Mr. Harry Roberts, a member of our profession, is to teach those who are comparatively new to gardening general principles necessary for the production of flowers which are able to live in the open air in this country. It deals for the most part with hardy plants, such as one expects to find in the gardens of old cottages, farmhouses, and vicarages. The book is somewhat spun out, and, as is apt to happen in such circumstances, is a good deal larded with quotations from the poets, but even these defects may add to its attractiveness. The nine full-page illustrations of fritillaries, columbines, honesty, foxgloves, and other old acquaintances are excellent, but they are apparently tossed at random through the text, and there is no index by which their descriptions are discoverable. Towards the end of the book Mr. Roberts says, "There is one great rule in sowing all kinds of seed, and that rule, printed in largest type, should be placed wherever gardeners are to be found:—SOW THINLY." We think that our author has followed this rule in the preparation of the present volume.

Mr. F. M. Holmes, the author of *Surgeons and their Wonderful*

[14] *Functionelle und organischen Nerven-Krankheiten* [Functional and Organic Nerve Diseases]. Von Professor Dr. H. Obersteiner. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1900. (Royal 8vo, pp. 32. 1s. 3d.)

[15] *Die nervöse Schlaflosigkeit ihre Ursachen und ihre Behandlung.* [Nervous Sleeplessness, its Causes and Treatment.] Von Dr. M. Heim. Bonn: F. Cohen. 1902. (Demy 8vo, pp. 59. M.1.)

[16] *Spinales Sensibilitätsschema für die Segmentdiagnose der Rückenmarkskrankheiten zum einzeichnen der Befunde am Krankenbett.* Von Dr. W. Seiffer, *Privat-docent* for Psychiatry and Neurology in the University of Berlin. Berlin: A. Hirschwald. 1901. (Roy. 8vo. M.1.)

[17] *Pathologie und Therapie der Erkrankungen des peripheren Nervensystems.* Von Dr. Franz Windscheid, Privat-docent in University of Leipzig. Leipzig: C. G. Naumann. (Crown 8vo, pp. 244. 44 illustrations. M.2.50.)

[18] *Diseases of the Nervous System.* By H. Oppenheim, M.D., Professor at the University of Berlin. (Authorized translation from the Second German Edition by E. E. Mayer, A.M., M.D.) London: J. B. Lippincott Company. 1901. (Roy. 8vo, pp. 900. 21s.)

[19] *The Book of Old-Fashioned Flowers.* By Harry Roberts, author of *The Chronicle of a Cornish Garden.* London: John Lane. 1901. (Crown 8vo, pp. 112. 2s. 6d.)

Discoveries,[20] endeavours to tell in a popular manner free from technicality the story of some modern surgical wonders. He has chapters on the discovery of chloroform, antiseptic treatment, the Roentgen rays, the Finsen light apparatus, the transfusion of blood and saline solutions, plastic surgery, and other things. As the book is written in a popular style and the public is usually much interested in the matters of which it treats no doubt it will attract many readers.

The Liebig Extract of Meat Co., Limited, are issuing a *Lemco Cookery Book* containing a number of recipes for dishes of various kinds, in most of which the Liebig Company's extract of meat may be used as an adjuvant. It contains a short section on invalid cookery, and a good many practical recipes for everyday use. The book can be obtained from the company, 9, Fenchurch Avenue, London, E.C.

HEALTH RESORTS.

The effect of the Carlsbad treatment on gout is discussed by Dr. R. SACHS in a pamphlet which rises somewhat out of the ruck of such publications.[21] He considers (1) the treatment of chronic constipation and the lessening of the predisposition to gout; (2) the neutralization of the uric acid; and (3) promotion of the general and local metabolic changes. He draws due attention to the importance of not allowing treatment to render the urine alkaline for too long a period. He advises the local application of heat (by the use of hot peat, etc.) in chronic articular cases to promote local hyperaemia and increase the circulation and temperature of the affected part, and thus help to remove deposits of uric acid. In order to lessen the tendency to inflammatory exacerbations under this treatment the author recommends a cold or Priessnitz compress to be applied for half to one and a-half hour about five to eight hours after each application of heat, that is on the evening of the same day.

In a recent pamphlet on the climate of Montreux,[22] M. BUHRER studies the influence of the great lake of Geneva and the mountains between which Montreux lies. The comparison of the temperatures of the lake and the air for the different months is interesting. The relative humidity, the rainfall, the clouds and winds of this well-known health resort are all considered, and it is properly pointed out that owing to the various altitudes of different parts of Montreux and its neighbourhood, a choice of climates is presented. The moderating influence of the lake is shown not to be confined to its immediate shores, but to extend up the mountain side to Glion and Les Avants, a point noted by Sir Hermann Weber in his short preface to M. Buhrer's booklet.

The fifth edition of Mr. BROWN'S guide to *Madeira and the Canary Islands, with the Azores*,[23] was reviewed in the BRITISH MEDICAL JOURNAL for February 18th, 1899, page 416. The principal alteration in the sixth edition is the enlargement of the section on the Azores to 22 pages. These islands have typical insular climates, with a mean temperature rather lower than that of Funchal. Furnas, in an old crater, with thermal springs of various temperatures, at about 600 feet above sea level, is frequented as a summer resort from Ponta Delgada, the capital of St. Michael's, from which it is 27 miles distant. The accommodation in Azores is described as everywhere poor, the bedding generally clean, but the sanitary arrangements defective. At Ponta Delgada, however, there is a homely but good English hotel.

STUDIES IN THE PSYCHOLOGY OF SEX.

Mr. Havelock Ellis complains that our review of his *Studies in the Psychology of Sex* referred to an edition which is no longer sold by his authority. We have received two editions of each of the two volumes of the book, each edition being substantially the same as its predecessor; and, while Mr. Ellis is entitled to recognition of the fact that he has severed his connexion with the "University Press," of Watford, the correction makes no difference in the view which was taken of his books.

[20] London: S. W. Partridge and Co. (Crown 8vo, pp. 160. 1s. 6d.)

[21] *Die Licht-Therapie in Karlsbad.* [The Treatment of Gout in Carlsbad.] By Dr. R. Sachs. Berlin: S. Karger. London: Williams and Norgate. 1901. (Roy 8vo. pp. 48. 1s.)

[22] *Le Climat de Montreux.* Par C. Buhrer. Montreux: Syndicat des Intérêts de Montreux. 1901. Pp. 31.

[23] *Madeira and the Canary Islands, with the Azores.* By A. S. Brown. Sixth Edition. London: Sampson Low, Marston and Co. 1901. Cr. 8vo, pp. 358; numerous maps, plans, and diagrams. 2s. 6d.)

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Portable Folding Stretcher for Use with Mounted Infantry.—Surgeon-Captain P. C. FENWICK, New Zealand Medical Staff, East London, Cape Colony, writes: Whilst trekking with the flying column of mounted infantry I found the question of carrying stretchers a most annoying problem. Even when one succeeded in fixing a pair of stretchers on a trained pack-horse, any pace out of a walk soon scattered them abroad, and at a trot it was impossible to guarantee that the strongest straps would keep these unwieldy articles in place. I tried slinging the stretcher over the shoulders of a mounted

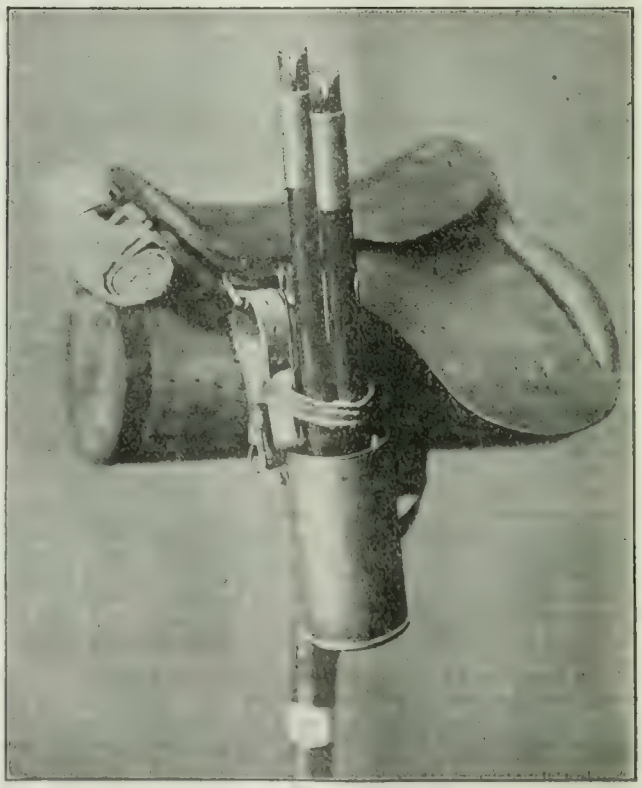


FIG. 1.

orderly, but the rider was sadly hampered, and the horse was invariably frightened, and the experiment had to be abandoned. Consequently the stretchers were relegated to the baggage waggons—we had no proper ambulance waggon—and as the waggon was always far in the rear our stretchers were always useless. To obviate this I have devised a folding stretcher which can be carried in an enlarged carbine bucket (Fig. 1), which could be attached to the saddle of the medical orderly, whilst the canvas portion can be rolled and carried behind the saddle. The following are the dimensions of the proposed stretcher:

Length of pole, 7 feet; 3 feet 6 inches when folded.
Length of canvas, 6 feet.
Width of canvas, 2 feet 6 inches.
Weight about 17 lb.

Each pole is exactly alike. It is hinged with a figure-of-eight

hinge in the middle, and to strengthen this when unfolded an iron sheath 12 inches long slides along the pole. At one end of each pole an iron traverse and a leathern shoulder sling is fixed. (Fig. 2). These lie along the pole when it is folded. If a pole is broken any other will form a twin to it as each is alike. The

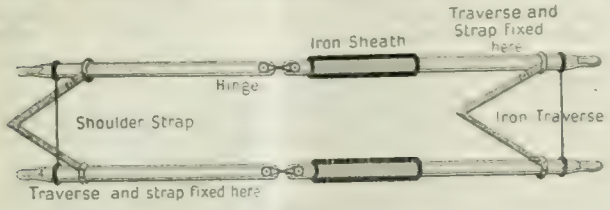


Fig. 2.

bucket is 2 feet in depth, and accommodates the stretcher poles when folded. It is secured to the saddles in the usual way by straps attached to "D's" on the saddle, and further secured by a third strap which is passed round the upper ends of the poles. When required for use the poles are removed from the bucket, unfolded, and the iron sheath slipped over the hinged portion, and each is passed through the canvas, the traverse and leathern shoulder strap is then fixed to the opposite, and the stretcher is ready. Sergeant-Major F. A. Palmer, late of Medical Staff of the Cape Mounted Rifles and Thornycroft's Mounted Infantry, has had over twenty years' experience, having been through six campaigns. He has assisted me in working out the details of this stretcher, and agrees that a stretcher of the above description is practicable and needed.

A Pocket Sputum Flask.—The pocket sputum flask introduced by Dr. J. M. Barbour of the Mendip Hills Sanatorium is made of white earthenware with metal hinge and clasp. The lid and the lower edge are perforated with small holes to allow of the flask being stitched to the inside of a handkerchief so as to prevent it being too much in evidence when being used. Its shape and appearance will appeal to those who object to the now well known flask of the Dettweiler pattern, but it is not so easy to cleanse thoroughly. It would be improved by rounding off the bottom of the cavity of the flask and by glazing the inside of the lid and top of the flask more completely. The flask is made by Messrs. Reynolds and Branson, Limited, Leeds. The price is 2s.

Pine Fibre for Bedding, etc.—A sample of a new material for mattresses and other padded articles has recently been submitted by Davis's Feather Mills, Limited (61 to 63, High Street, Whitechapel, London, E.). This material consists of dark brown, glossy, tough, flexible fibres, averaging 7 inches in length, curling naturally, and forming an open mass freely permeable to air, soft, elastic to the touch, and very light. It is said to be made from the long tufted foliage of the *Pinus australis*, the Georgia pitch pine, or yellow pine of the Southern States of North America. Its odour certainly resembles pine wood, and, when made up into a cushion, forms a soft elastic pad. According to the makers, this fibre has been favourably tested in America, and from what we have seen of it we are disposed to regard it as an excellent alternative to horsehair and flock for the stuffing of mattresses. From a sanitary point of view, its vegetable origin is a commendable feature, as it will be free from any tendency to attract vermin and moths. We have tested the fibre, and find that it does not readily break up or become lumpy, and can quite believe that mattresses stuffed with it may remain soft and elastic for many years. The fibre can be obtained either in bales of 2 cwt. each, at 28s. per cwt., or made up into pillows, bolsters, or mattresses.

MEDICINAL AND DIETETIC PREPARATIONS.

Colchicine Salicylate.—A sample of liq. colchicinae salicyl. (Hopkinson's) has been submitted by the wholesale agents, Messrs. Baiss Brothers and Stevenson (4, Jewry Street, E.C.). It is a bright sherry-coloured solution, which keeps well and does not deposit: each fluid drachm contains $\frac{1}{20}$ gr. of colchicine salicylate, and this is recommended as the adult dose for rheumatoid arthritis, chronic rheumatism, gout, etc. It is supplied in 1 lb., $\frac{1}{2}$ lb., $\frac{1}{4}$ lb., and 2 oz. bottles.

THE SEPARATION OF XIPHOPAGOUS TWINS.

Great prominence, more indeed than accords with our notions of professional reticence, has been given to M. Doyen's operation for the separation of the xiphopagous twins Radica and Doodica. The profession may, however, as well bear in mind that the public always take an interest in monsters and the idea of the separation of conjoined twins is a theme which many who dwell on certain metaphysical questions about the precise limits of individual entity like to take into consideration. In a transatlantic paper it was once asked if a certain two-headed monster said to be then living could summon himself for assault if he spat in his own face.

Dr. Doyen states in a signed article in the *Echo de Paris* for February 10th that "it had been already diagnosed that Doodica was the subject of tuberculous peritonitis," the lungs were slightly affected in both sisters and Radica had suppurating strumuous cicatrices on her neck. He hoped to save at least one twin, and believed that, as often happens, the other who had tuberculous peritonitis might be benefited or even cured by the opening and "toilet" of the peritoneum.

The teratology of these twins must be fairly familiar. Conjoined twins and an "autosite" with a parasitic fetus more or less imperfect, alike develop from one ovum and being uni-oval are invariably unisexual. Of the autosite and parasite twin we have written some fourteen years since when the case of Laloo was reported in the British Medical Journal (vol. i., 1888, p. 436). In that article we referred to other autosites who went about with relics of twin brothers hanging from them; a complete scientific report of Laloo, by Messrs. Bland-Sutton and Shattock, is to be found in the *Transactions of the Pathological Society* for 1888, vol. xxxix, p. 427. Closely allied is the "acardiac" monster, where the arrested development of its body is due to interference with its circulation, the allantois of the other twin growing faster than its own, so as to occupy the greater part or the whole of the decidua serotina, the allantois of the monster is then inserted on that of the autosite, the vessels inosculate, but the monster's circulation is reversed by the more developed heart of the perfect twin. Hence the heart of the monster atrophies, and its development is grotesquely affected, oedema adding to the disfigurement due to an absent head or limb.

Uni-oval twins may, on the other hand, develop separately without prejudice to each other. Between this condition and the autosite with a parasitic twin come the true double monsters, of which Radica-Doodica are examples. The fusion and separation of the upper and lower parts of the body are found in almost every degree and relation, but it is only when the separation is far in excess of the fusion that the twins survive their birth. The fusion may be posterior (opisthozygosis), as in the case of Millie-Christine, the "Two-Headed Nightingale," twin mulattos exhibited thirty years ago in London, so that the twins are attached back-to-back. When fusion is anterior (emprosthozygosis) we get the condition seen in M. Doyen's case. The class includes a not very rare kind—thoracopagus, where the twins are united by their thoracic cavities, the viscera blending fantastically, so that, for instance, there may be fusion of the hearts. Life cannot be maintained in such a condition after the suppression of the placental circulation at birth. The allied variety, xiphopagus, is distinguished by simple union of the ensiform or xiphoid cartilages of the sterna and of the abdomen above the umbilicus. The livers seem always united by a narrow band of hepatic tissue. The malformations in xiphopagus are not always sufficient to prevent the twins from surviving their birth. Radica-Doodica and the Siamese twins come under this variety of monster.

The famous Chang and Eng Bunker were born in 1811, near Bangkok, Siam. They were brought to Europe when children, and then crossed the Atlantic, and having made money by their interesting monsterhood, each purchased a farm in North Carolina, the twins residing about three days at a time at each farm. They were very prosperous and universally respected. Chang was 5 ft. 2½ ins. in height, Eng just 1 in. higher. They married sisters in 1843: Chang had ten children, Eng twelve. One boy and one girl of Chang's were deaf and dumb, but there was no other blemish of any kind in the family of the twins. They lost all their property

in the Civil War, and bravely set to work exhibiting themselves in Europe.

In 1869 Chang, naturally emotional, became intemperate. The fact that his brother remained sober of habit is of high psychological interest. In 1872 Chang had an attack of right hemiplegia, and could never walk up or down stairs easily afterwards. In January, 1874, Chang was seized with bronchitis, which was neglected. On the morning of January 17th Eng called to one of his sons to come and waken Chang. The youth cried out, "Uncle Chang is dead!" and poor Eng replied, "Then I am going!" Dysuria and dyspnoea set in, and he died two hours after his brother; they were 63 years of age. An admirable report was drawn up by Professor Harrison Allen, and may be found in the first volume of the *Transactions of the College of Physicians of Philadelphia*. The band was very short, broadest above, and measured 9 inches in circumference. It contained the ensiform cartilages, which were united by a symphysis, a true joint with a synovial sac and ligaments. There were also two peritoneal pouches on each side, without any communication between the fraternal peritoneal cavities. A delicate prolongation of liver substance ran from the anterior border of the left lobe of each liver, to be lost in the connecting band. A vessel ran in the band between the two livers.

Dr. Boehm in 1866 operated on a case of xiphopagous twins, his own daughters, a few days after their birth; one died; the band was narrow. The operation on Marie-Adèle in 1882 failed, the twins dying of haemorrhage. Dr. Chapot-Prévost operated on Rosalina-Maria, the Brazilian twins, in May, 1900. The cavities of the pleura, pericardium, and peritoneum communicated with the corresponding serous cavity in the opposite twin. Rosalina was saved. Dr. Chapot-Prévost closed the abdominal wall with great care. That part of the operation on Maria was done by assistants; she died on the sixth day.

Radica-Doodica are familiar to British readers of Mr. Bland-Sutton's *Tumours, Innocent and Malignant*. M. Doyen operated on February 10th for reasons mentioned above. The operation was done in twenty minutes. The skin was divided in front, the conjoined ensiform cartilages easily separated with a bistoury, the peritoneal cavity opened and a thin bridge of hepatic tissue exposed. Doodica showed, as expected, the signs of tuberculous peritonitis. The hepatic bridge was compressed with a double-lever forceps which exercised a pressure of 2,000 kilograms. Two interlocking catgut ligatures were applied on Radica's side, then the bridge was cut beyond the ligatures towards Doodica, three large arteries also required tying. Then two interlocking ligatures were applied to the bridge on Doodica's side; on dividing the posterior part of the peritoneal channel and the skin forming the posterior aspect of the band, the twins were separated entirely. The edges of the wound in Doodica were held together with forceps. Then the wound in Radica was closed with sutures, but a small strand of gauze was left in for drainage. The "toilet" of the peritoneum, in this case affected with tubercle, was carefully done when Doodica was attended to, and then the wound was closed and drained as in the sister. As the integuments of the band retracted no trace of it remained on either side except a linear suture.

On the morning of the operation Doodica took a small quantity of methylene blue; two hours later urine from both the twins was examined, and Radica's was as deeply coloured as that of Doodica, who alone had taken the reagent. On the night of the operation and for a time the separated twins did well, but six days later Doodica died suddenly after a slight convulsion from the rupture, as was proved at the necropsy, of a tuberculous abscess into the abdominal cavity. Radica, the surviving sister, continues to make good progress.

The separation of Chang and Eng might have been more safely effected had aseptic surgery been in vogue in their days, as there was no communication between the peritoneal cavities as in Radica-Doodica, and they were hale and hearty little gentlemen. They did not wish to be separated; several eminent surgeons advised against it, and therein all parties acted very wisely.

THE medical staff of the Post-Graduate College, West London Hospital, will hold a *conversazione* at the hospital on Wednesday, March 5th, at 8.30 p.m.

THE R. B. ANDERSON FUND.

THE Committee formed to appeal for aid for the widow and two sons of the late Mr. R. B. Anderson, F.R.C.S., beg to announce that the subscriptions now received amount in all to £202 5s. 6d., and to request intending subscribers kindly to forward their donations at once, marked "For the Anderson Fund," to the Manager of the Union Bank of London, Chancery Lane, London, as it is definitely proposed to close the account on February 28th.

A hope was entertained of collecting at least £500, the sum, it may well be remembered, fixed by the jury by their verdict in Mr. Anderson's favour in Anderson *v.* Gorrie and others. It is still earnestly desired that the £202 now in hand may be largely augmented before the Fund closes on the last day of this month. The Honorary Secretary is Mr. Walter Monnington, 7, Fig Tree Court, Temple, E.C.

The following is the further list of subscriptions to date, exclusive of those kindly collected and already announced by Dr. Alfred Cox, of Gateshead:

	£	s.	d.
Surgeon-Major H. de Tatham, retired I.M.S., London	3	3	0
Dr. W. R. Huggard, Davos Platz	2	2	0
Dr. T. M. Watt, Goxhill, Linc.	1	1	0
Dr. A. Smythe, Harrogate	2	2	0
Lord Hawke, Yorks	1	1	0
Dr. Brazil, Bolton	1	1	0
"O. S. M."	0	10	0
Dr. W. D. Stone, Cricklewood, N.W.	1	1	0
Dr. Walter Edmunds, London	1	1	0
Dr. E. B. Ffennell, Kirkby, Notts	1	1	0
Dr. H. P. Snook, Weymouth	1	0	0
Dr. Petch, York	1	0	0
Dr. A. E. Porter, Leeds	1	1	0
Major G. Gallon, R.A.M.C., Malta	2	2	0
Dr. W. Douglas, London	1	1	0
Dr. E. W. Emtage, Holsworthy	0	5	0
Dr. C. J. Warry, Surbiton	1	1	0
Surgeon-Major Poole, Norwood	0	10	0
Dr. Robert Barnes, Eastbourne	10	0	0
"Kirkham"	0	4	0
"L.R.C.P.," Sheffield	0	2	6
Dr Clement Dukes, Rugby	1	1	0
Dr. F. H. Alderson, Bournemouth	0	10	6
Dr. Alfred Cox, Gateshead	1	4	0
Surgeon-General Stewart, Lymington	0	5	0
The Almoners, *Lancet* Relief Fund, London	20	0	0
Dr. T. R. Lombe, Torquay	1	1	0
Eleanor A. Forge, Newhaven	3	3	0
Dr. G. McCouli, Stocksfield	0	5	0
"A. S.," Southport	0	10	0
Dr. Codd, Bromley	1	1	0
Dr. J. Johnson, Fulham, S.W.	0	5	0
Surgeon-Major F. P. Maynard, Bankipur, India	2	2	0
Dr. Jamieson, Brodrick, N.B	0	10	0
Ramsgate Medical Society, Ramsgate	2	0	0
Per Dr. R. H. Wolstenholme for Medical Guild, Manchester	*12	4	

* It is intended to give details of this amount subsequently.

BRITISH MEDICAL BENEVOLENT FUND.—The annual general meeting of subscribers to the British Medical Benevolent Fund was held on February 18th, Sir William Broadbent, Bart., President, being in the chair. The report of the Committee and the treasurer's financial statement for the past year were presented and adopted. In the grant department subscriptions amounting to £1,110 9s. 2d. and donations amounting to £369 8s. 3d. had been received, and £1,614 1s. had been distributed to 161 applicants in sums varying from £5 to £20. In the annuity department the income from capital had been £2,419 8s. 5d., of which £2,288 6s. 8d. had been paid to pensioners of the age of 60 and upwards, the number being now 114. The working expenses of the fund had been, as for so many years past, less than 5 per cent., and the accounts had been subjected to the usual strict investigation by a chartered accountant. The report stated that it was impossible to give adequate help even to the most distressing cases on account of the restricted means at the disposal of the Committee, and expressed a hope that every subscriber would endeavour to interest others in the work of the charity. Hearty votes of thanks were passed to the President and other officers, who were unanimously re-elected; and the meeting concluded with a warm acknowledgement of the support always given to the charity by the medical press.

THE AUDITORY AND OLFACTORY NERVE CENTRES.—The Spanish Royal Academy of Spain has awarded the prize founded by Dr. Martinez Molina, which is of the value of 4,600 pesetas (£184), to Professor Santiago Ramon y Cajal and Dr. Pedro Cajal for a paper entitled "Investigations on the Auditory and Olfactory Nerve Centres." The manuscript presented covered a thousand folio pages, and was accompanied by an album containing 200 drawings and photographs of histological preparations.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 22ND, 1902.

THE SPECIAL SESSION OF THE GENERAL MEDICAL COUNCIL.

The General Council of Medical Education and Registration will meet on Tuesday next, at 2 P.M., in special session, summoned primarily for the consideration of the conflict which has arisen between the Council and the Royal Colleges of Physicians and Surgeons in England.

The issue which this meeting of the Council has been specially summoned to discuss is somewhat momentous, for it is no less than the question whether there is any real central control over medical education. As we have already pointed out, the words of the Act distinctly imply that the General Medical Council should concern itself with the course of study as well as with examinations, while, on the other hand, the absence of any direction that it should lay down a definite curriculum might be held to imply that it was intended that there should be some latitude, and that each licensing body need not conform to the *ipsissima verba* of its rulings so long as their spirit was observed. In the past this seems to have been tacitly acknowledged and acted upon, for it must have been within the knowledge of many members of the Council that the regulations of some of the licensing bodies differed from those of others, and that in the case of one or two important bodies, whose degrees were universally held in the highest esteem, no regulations existed on certain points insisted upon by others. The Special Committee which is to report to the Council will, we understand, summarize the regulations of all the licensing bodies, and much will turn upon the extent of any differences found to prevail amongst them. The machinery of the Act under which the only course by which the Council can press its findings upon a recalcitrant body is by an appeal to the Privy Council, based practically upon an allegation that its courses of study and its examinations do not afford a sufficient guarantee of professional acquirements, is a little unfortunate, inasmuch as it might very possibly involve the inclusion in an adverse report to the Privy Council of bodies whose degrees are by general consensus of opinion adequate, and more than adequate, and with which the Council has always been, in reality, perfectly satisfied.

The Royal Colleges which constitute the Conjoint Board in England stand in a different position; with their modified curriculum the General Medical Council is distinctly not satisfied, and holds that it departs in essential particulars from what the Council has laid down. Whilst the other licensing bodies have, perhaps, never categorically admitted that they are subject to any outside authority they have in practice conformed to the decisions of the Council. Indeed, the two English Royal Colleges have themselves formerly done so, though they have now forced the question to an issue by declaring that they are entitled to decide for themselves absolutely, and without reference to any other body, in this matter, thereby breaking up the concert that has hitherto worked smoothly.

The Council is thus placed in a serious dilemma. Either it must abandon its previous position—under which, whether by law or by mutual concession, it stood as the arbiter of the scope and extent of medical education—or else it must report the English Conjoint Board to the Privy Council as having taken a step which renders the diplomas granted by the two Colleges inadequate—in fact, inferior to those of other bodies. But probably the Council does not seriously believe that this is the case. As we have observed before, a downward competition may arise, in the course of which medical education may be seriously deteriorated, although it may not be easy to declare at any particular point that a diploma is thereby rendered absolutely inadequate. Hence the outlook is not promising, and we await with much interest the publication of the report and its discussion, which, according to the unfortunate practice of the Council, will probably be simultaneous.

The Council will, we presume, also have to consider the Midwives Bill, and to decide what action it can take upon it. We understand that the promoters of the Midwives Bill have addressed to the Council a letter setting out the reasons which have led to the important modification, affecting its most fundamental principles, which the Bill has undergone since it was last discussed in the House of Commons two years ago; and there can be no doubt that the matter will come before the Council in some form, probably on the first day, since the Bill is down for second reading on Wednesday. Having regard to the previous action of the Council it may be expected to take exception to the disappearance from the Bill in its present form of the safeguards against the undue extension of the province of the midwife. There is no prohibition of her undertaking cases of abnormality or disease; it is true that she may not assume a title implying that she is by law recognised as a proper person so to do, but the drafting of the Bill is defective in this respect, and the Council may well desire to learn what this title would be. In fact, everything which the Council considered should be embodied in the statute is, as far as it is not deliberately expunged, left to the Midwives Board, upon which the medical members may only constitute a majority of one. Further, the fact that this Board would have no disciplinary power except to suspend a midwife or to expunge the name from the roll can hardly escape attention, for, in fact, the midwife, though to be placed in a recognised position by statute law, can commit no offence against this statute law by exceeding or improperly exercising her prerogatives.

According to the last report of the trustees of Mount Auburn Cemetery, Boston, Massachusetts, the number of cremations during 1901 was 119, as against 50, the total number in previous years.

THE MIDWIVES BILL.

Before we go to press again this Bill, which was printed in the British Medical Journal of February 15th, and upon which we then commented, will in all probability have been discussed by the House of Commons, for it is down for second reading on Wednesday next. It is to be hoped that all influence that can be commanded by the profession will be brought to bear to secure its rejection. There can be no doubt that from a medical point of view such legislation is distinctly retrograde. As was stated in a memorandum of the British Medical Association in 1900, the principle embodied in the Midwives Bill is contrary to the previous course of legislation on medical matters, the tendency of which has been to increase the stringency of the requirements for the registration of practitioners of medicine, surgery, or midwifery; and to license a woman to practise midwifery alone in respect of a certificate obtained after examination in that subject only would *pro tanto* amend the Medical Acts, while such an amendment would be in a direction contrary to the amendment made by the Medical Act, 1886. If the public good demand it, Medical Acts cannot be permitted to stand in the way; but the medical profession is entitled to ask that a good case for so serious a step should be first made out. The only reason adduced for this measure by its promoters and that which has had much weight in influencing public opinion is the harm done to the poor by incompetent midwives. If this Bill becomes law there will be in future two classes of midwives, those certified and registered on the Midwives Roll, and those other persons who will be forbidden to call themselves midwives, but will not be forbidden to practise, and who will without doubt practise with as little knowledge as the Gamps of the present day. Even with regard to the certified midwife, there is no real guarantee in the Bill that she will be adequately trained. Everything is left to the Central Midwives Board, but this Board will have before it the fact that the certificate in midwifery granted by the Obstetrical Society of London is specifically recognized by the Bill. This certificate may be obtained after a period of instruction which need not exceed two or three months—an inadequate training which may be contrasted with the two years required by the French law, a translation of which is printed at page 477. If the practice of midwifery by untrained and uncertified women is not to be penalized they will continue to practise, and the lying-in women of the poorest classes will still be exposed to the risks which the promoters of this Bill desire to remedy. They have appealed to the public with many a distressing and true story of the injury done to poor lying-in women by ignorant midwives, but the Bill now introduced will, as a matter of fact, give the victims no more real protection than that possessed already.

If the Bill is passed into law a retrograde step will in fact have been taken. At the present time midwives are much in the same position at law as herbalists, bonesetters, and other irregular practitioners. Many of these are no more imperfectly instructed in their vocations than is the midwife in hers. It has been frequently shown that they often cause harm to the public as do incompetent midwives, but it has not as yet been proposed to raise their standard of education and register them as inferior orders of practitioners in their respective callings. It is now proposed that an exception should be made in the case of midwives, and the Legislature has been asked to create out of them an inferior order of midwifery practitioners in direct contravention of existing legislation. If the Bill passes in its present form, there is no reason why similar attempts should not be made on the part of other irregular practitioners to obtain legal recognition.

If the Bill passes the second reading, every effort should be made to amend it in committee. We are far from denying that many of the existing midwives are altogether unfitted for the duties they undertake, and if the Bill could be made of any real service in abolishing that evil, it might be productive of good. At a meeting of the subcommittee of the Parliamentary Bills Committee, specially called on February 13th to consider this measure, a number of amendments were proposed, and their general effect may be summarized under the following five heads:

1. That the provisions penalizing the practice of midwifery by uncertified midwives in the Bill of 1900 and also in the Bill of the British Medical Association should be reinserted, and also that none but registered midwives should be entitled to recover fees for their services in that capacity.

2. That no statutory right should be given to the certificates of the Obstetrical Society to entitle the holders thereof to registration.

3. That the rules framed by the Midwives Board should be subject to the approval not only of the Privy Council but also of the General Medical Council.

4. That the system of local licensing should be reintroduced as it was embodied in the Bill of 1900, and a penalty imposed on a midwife practising without such local licence.

5. That in the formation of the Midwives Board representatives from different parts of England and Wales should be chosen, as recommended in the Bill of the British Medical Association, because the conditions of practice of midwives are not the same in different parts of the country.

Of these amendments the first is probably the most important. Mr. Heywood Johnstone gives as a reason for omitting the provisions dealing with it, the opinion of the Home Office that in the absence of any similar provision in the Medical Acts, it would be impracticable to insist upon them. It has long been admitted that this omission is a great defect in the Medical Acts, and to obtain their amendment in this direction every effort should be made. The harm resulting to the public from the absence of such a provision has been clearly shown by the evidence brought before coroners' inquests in hundreds of cases annually. There is no department of State which should be better acquainted with this than the Home Office, and it is extraordinary that it should have given Mr. Heywood Johnstone such questionable counsel.

GENERAL HOSPITALS AND CONSUMPTIVE PATIENTS.

Dr. A. Robertson, of Glasgow, in an article printed in this number of the British Medical Journal raises amongst

other points the question of special wards for consumptive patients in general hospitals.

The reasons generally given for admitting consumptives in various stages of the disease into the wards of general hospitals are: (1) The unsatisfactory conditions under which poor tuberculous patients have to remain if they are refused admittance. It is especially hard to send very bad cases away, just those cases in fact which would have no chance of obtaining admission to special hospitals and sanatoria for tuberculosis. (2) In the patient's own home there is great danger of his children and relatives becoming infected by his expectoration. (3) There is need of cases in order that medical students connected with the hospital may become familiar with the disease.

On the other hand it is argued: (1) That consumptives are not the class of patients likely to derive the greatest benefit from treatment in general hospitals; (2) that the treatment which can be obtained in the wards of a general hospital is not that most suitable for pulmonary tuberculosis; (3) that consumptives form a possible source of infection to non-tuberculous persons in the ward with them, especially if their fellow patients are peculiarly predisposed to infection owing to temporary debility after typhoid fever, pneumonia, etc. These objections can, at least in great part, be removed by setting apart special wards for patients suffering from active pulmonary tuberculosis. This would enable the principles of sanatorium treatment to be introduced, especially in regard to fresh air and feeding, and thus, even in bad cases, more satisfactory results would often be obtained. The danger of infection would be practically got rid of, just as it is at special sanatoria for tuberculosis. The extra feeding of these patients would not give rise to the secret grumbling of ordinary patients which the more elaborate diet of their neighbours is always likely to cause. Moreover, in this way medical students at general hospitals would not only become familiar with the physical signs and symptoms of pulmonary tuberculosis and with its diagnosis, but would become practically acquainted with the modern methods of treating a disease which in private practice often taxes the resources of the most experienced, and for which a modified open-air treatment has sometimes to be arranged in the patient's own home.

The reservation and adaptation of wards for pulmonary tuberculosis could probably be effected without much difficulty in the upper stories of large general hospitals or in separate wards in the same grounds as the main buildings. Indeed, as far as the method has hitherto been tried, the results have been, we believe, not discouraging. In cases where the hospital grounds are sufficiently extensive to permit of the erection of a building exclusively reserved and properly adapted for the treatment of phthisis by the open-air method, there can be no doubt that this plan offers the best solution of the difficulties to which Dr. Robertson's cogent arguments apply. But when, from lack of space or from considerations of the expenditure involved in such a scheme, this plan cannot be adopted, the alternative introduced by the Board of Management at the Seamen's Hospital, Greenwich, which was described in an article in the British Medical Journal of January 18th by Dr. Guthrie Rankin, one of the physicians to the hospital, may well be considered useful and, when practicable, worthy of imitation. In this institution a certain portion of the upper floor has been set aside as a consumption ward to which are transferred from the other wards of the hospital as many cases as can be accommodated. The ward has easy communication with the roof, where shelters, capable of accommodating twelve patients, have been erected. Here the open-air system is carried out as completely as the circumstances will permit of, and the results already achieved indicate—so far as the statistics given in the article referred to go—that an encouraging amount of success has been attained.

We understand that the plan followed at the Seamen's Hospital is tentative, and that should the results justify an amplification of the method, the propriety of devoting the whole upper floor and all the roof to the purposes of open-air and segregation treatment will come up for consideration by the Committee of Management. The rest of the hospital would thus be wholly free from consumptives, who would be treated in a special department.

Such an arrangement would be of obvious advantage, as fulfilling, in a general hospital, the conditions which Dr. Robertson points out are justifiable reasons for the admission of tuberculous cases in all stages of the disease. As the only qualification for admission to the Seamen's Hospital is one of occupation, every seafaring man being eligible, cases of all kinds of non-infective disease, however advanced, are received. A large number of the admissions for phthisis are, from this absence of restriction, more advanced than would be acceptable at other general hospitals, consequently the desirability of a segregation ward at this institution is specially great. The principle involved, nevertheless, applies to all hospitals and infirmaries, and its more general adoption would go far to remove existing objections to the reception of unfavourable cases of the disease.

CATCHPENNY "CURES" FOR ALCOHOLISM.

If tuberculosis and cancer must be recognised as the two great scourges of earlier and later adult life in civilized communities, the assertion that syphilis and alcoholism stand next in order may probably be hazarded without much fear of contradiction. They do not indeed bulk so large in mortality statistics, for deaths due to them are brought about in a more insidious fashion, and they are sometimes rather predisposing or contributory agencies than the immediate cause of death. The mischief wrought by the two causes in combination has been elucidated in recent years by researches into the etiology of general paralysis and other chronic nervous diseases, especially by the laborious investigations of Mott in this country. But alcoholism alone, if it does not kill—for a man takes longer "to drink himself to death" than the popularity of the phrase might suggest—produces a degree of mental enfeeblement in the individual and of misery to his relatives which is a heavy burden on the nation.

The old attempt to prevent the spread of syphilis has been abandoned in this country, and the question is only likely to come within the sphere of practical politics when it has been more generally thought out on lines which accord with our modern knowledge of the disease and the means necessary for its efficient treatment. Still, an ever-increasing willingness on the part of legislators to provide

temporary State control over the individual for the diminution of various national scourges is manifest.

An open-minded view of the nature and treatment of alcoholism has given it an advantage as a practical question over its twin scourge syphilis which it was once far from possessing, and the means suggested therefore deserve careful consideration by the medical profession. Clearly the most promising plan would be to attack the evil of alcoholism at its origin, to apply the principle of the old saw "prevention is better than cure." Schemes for diminishing the occasions and opportunities for acquiring the evil habit must, therefore, command the sympathetic attention of the medical profession. But we cannot forget that it is our duty also to endeavour to cure those who have already become the victims of alcohol. This is indeed a question which has long engaged the attention of the medical profession, and it was mainly through the persistent advocacy of the late Dr. Charles Dalrymple, that the first Act of Parliament was passed for the establishment under proper safeguards of retreats to which alcoholics could be admitted for a period sufficiently long to hold out some prospect of cure. That the mere withdrawal of intoxicants is the last word in the therapeutics of alcoholism will not be accepted, and it is this conviction probably which has led numerous correspondents to address to us recently inquiries as to the value of somewhat numerous "cures" which have been introduced into this country chiefly from America and have been largely advertised in various ways.

We concluded last week the publication of an article giving some account of the claims put forward by the proprietors of certain so-called "cures" for alcoholism on behalf of the treatments which they all vaunt with equal confidence as infallible. The claims are in some respects mutually destructive, for the several proprietors do not hesitate to speak of the methods of their rivals in trade in strong terms of condemnation. The published documents and private statements made by some of these persons reveal a mingling of ignorance and confidence which would be amusing if we did not remember the tragic circumstances of those who not infrequently build false hopes on such asseverations. The ruined husband, the despairing wife, the heart-broken mother scrape together their last pence to make up the large fee which, it is promised, shall bring the magic bottles, or secure the administration of the wonder-working hypodermic injections which shall transform the drunken wife, husband, or son in two or three weeks into a sober, respectable citizen. The proprietors of some of these "cures" have denounced others as frauds and impostors. We are not disposed to quarrel with the terms. There is a musty old proverb as to the occasion when honest men come to their rights. It may apply here. At any rate, it is clear from the statements put forward by the proprietors of these "cures" themselves that their claims of certainty and infallibility are not supported by proper statistics or trustworthy testimony, and that, judging from the fees charged, the stuff sold might indeed be composed of liquid gold.

At the same time, we must guard ourselves against pessimism. If little or nothing is to be hoped from these "cures" shrouded in secrecy, and run for commercial ends by trading companies or private proprietors, that is no reason why we should appear tacitly to allow that therapeutics can do nothing to check the alcoholic and to cure the pathological conditions which are in part the cause and in part the consequence of his addiction. It may fairly be asked whether all is done that might be done in this direction in the inebriate homes. Their best friends must admit that they have not achieved all that was hoped of them. Complete failure is not rare, relapse soon after the patient has returned to his home is too frequent. Is this in any way due to a too absolute reliance on mere seclusion and abstention? Is a systematic attempt always made to study the individual patient; not only his moral and intellectual defects, but his physical condition? We hear much of the need for dealing with his perverted will. That such need exists there can be no doubt. But is a corresponding attention given to his bodily ailments, to his deficient nervous and muscular tone, to his dyspepsia, his neuralgia or what not, which in a person predisposed by heredity or congenital weakness has often been the determining cause of inebriety? The motives of those who establish and conduct these homes are so highly respected that it seems almost ungracious to ask these questions; but we all tend to fall into ruts and to become the slaves of routine.

THE HEADQUARTER STAFF OF THE ARMY MEDICAL SERVICE.

THE letter of "I.V.R.C." in the BRITISH MEDICAL JOURNAL of February 8th (page 362) on strengthening and reorganizing the headquarter staff of the Army Medical Service, bears on a problem which should find prompt and concurrent solution with the development of any scheme of reform in the executive of that service. It is, indeed, vital to a rehabilitation of the service, and was so regarded in the recent reports of the Subcommittee appointed by the Council of the British Medical Association, which declared that in "numbers" the staff of the Director-General was "hardly compatible with due efficiency." To those familiar with the varying stages in the long-drawn-out evolution of the Army Medical Service during the past half-century, it would seem that the Committee had no need to qualify its opinion, but could boldly have asserted that the present staff was not sufficiently numerous to carry out the work with true efficiency. In pre-Crimean days the staff of the Director-General was little else than that official himself and a few civilian clerks; but there was then a second Director-General of the "Ordnance." But, when the great peace came to an end in 1854, headquarter army medical administration was found utterly unequal to the strain of war, and the result was disastrous to the health and efficiency of the army. The headquarter staff was entirely remodelled by Sidney Herbert's Commission in 1858, with a vastly increased establishment, which worked well for a quarter of a century. Then, under complacent Director-Generals, came a whittling down; so that now, notwithstanding a great increase in the strength of the army, much improvement in equipment and organization, and vast strides in sanitary science and preventive medicine, the staff is very considerably weaker than it was forty years ago. It is surely unnecessary to emphasize such a situation. What should be done? To revert to the staff of 1858, good as it was, would not meet the requirements of the altered circumstances of the present day; and, therefore, a strengthening and rearrangement of it on existing lines would seem the most practicable course. "I.V.R.C.," we fear, asks for more than the War Office is likely to grant, although that does not detract from

the value of his general thesis. Curiously enough, he ignores the existence of the "Advisory Board," which, of course, is as its name indicates, advisory and consultative—scarcely administrative, unless indirectly, and not at all executive: for if it attempted the latter function it would certainly soon come to grief. Two objects must be kept in view in considering this problem. In the first place, a sufficient headquarter staff for directing and controlling the entire regular and auxiliary army medical services is required. In the second place, such central authority should be so organized as to be in harmony with the principles of devolution and decentralization which we are assured are to be the cardinal features of future War Office organization. In striving for the first, "I.V.R.C." has, perhaps, not sufficiently considered the second; but he is in good company, for, as pointed out by the Subcommittee, the recommendations of Mr. Brodrick's Committee itself savoured, as regards inspections, etc., too much of centralization and interference with the due autonomy of Army Corps and Districts. As every one who is at all conversant with army administration knows, the adjustment of the balance between headquarter control and local autonomy is as difficult as it is delicate. It is, however, clear that the headquarter staff ought to be much strengthened, and we publish elsewhere in this issue (p. 490) a scheme drawn out by a correspondent whose long experience places him in an exceptionally favourable position to form an independent opinion on the subject.

THE NEW TITLES OF THE MILITIA AND VOLUNTEER MEDICAL CORPS.

The changes, under Royal Warrant, in the designations of the former Militia and Volunteer Medical Staff Corps to those of the Royal Army Medical Corps, Militia, and Volunteers respectively, will, we have reason to believe, be well received in the service generally, and considered a step in the right direction. The change is declared to be in acknowledgement of the "valuable services" of these auxiliary corps during the war in South Africa, and will doubtless enhance their popularity and efficiency. The old compound titles of the officers of these corps now give place to plain, military titles of an "honorary" kind, so that a distinction is retained between the regular and auxiliary forces, in so far that the titles of the former are substantive and of the latter honorary. It is not improbable that such a well won and gracious Royal concession may ultimately be extended to all medical officers of the auxiliary forces; in which case the sole remnant of the compound titles would exist among the medical officers of the Household Troops. The retention of compound titles among these officers was, of course, a mere concession to the prejudices—or, shall we say, privileges?—of the Guards; but it is very unlikely they will ever again be conferred, but will disappear with the existing holders of them. The concession in question is one more evidence of the closer union and sympathy which the war has brought about between the regular and auxiliary forces of the Empire, mainly by a process of levelling up—a process which cannot but rejoice the hearts of all patriotic men.

INTRATRACHEAL INJECTIONS IN PHTHISIS.

The vast number of methods which have been suggested for the treatment of pulmonary consumption fall into one of two categories, first, methods directed to the strengthening of the resistive powers of the body and the prevention of reinfection; and, secondly, medical and surgical treatment directed to destroy or remove the infective agents which have established themselves in the body. The first indication we now endeavour to fulfil mainly by the open-air treatment, by strict attention to personal and domestic hygiene, and by general and medicinal treatment. As to the second indication, many efforts have been made, and on the surgical side with much success, to assist the resisting powers of the body in destroying the infection; but hitherto in internal tuberculosis no very striking results have been attained, and there is no doubt a feeling of discouragement in the medical profession generally which is good neither for its members nor for their patients. We are therefore glad to see that Dr. Colin Campbell has continued his study of the method of treating respiratory affections, including tuberculosis, by means of large medicinal injections through the larynx. He gave a demonstration of this method before the Royal Medical and Chirurgical Society as long ago as 1894, and then proved that in skilful hands the manipulations necessary were neither painful nor dangerous. At the British Congress of Tuberculosis last year he gave another demonstration upon four patients, which was equally satisfactory in demonstrating the ease with which the method may be applied. We have now received a reprint from the *Transactions of the British Congress on Tuberculosis* of a paper by Dr. Colin Campbell, describing the medicament which he now uses—namely, a solution of izal in glycerine—and its effects. This is followed by a report on an experimental investigation of the value of izal in the disinfection of tuberculous products and in the treatment of tuberculous lesions by Dr. Sheridan Delépine, Professor of Pathology in the Owens College, and Dr. F. J. H. Coutts, his assistant in the bacteriological department. Dr. Colin Campbell points out that the fact that open air cannot in itself kill the bacillus is proved by the course of lupus: the object of his treatment is the destruction of the tubercle bacilli in their hatching place. He believes that the reason why the treatment he recommended in 1894 has not become more popular lies in the fact that at first olive oil was used as the vehicle; he has found by test tube experiments that the oil cannot mix freely with the secretion in the ultimate branchings of the air tubes. He therefore sought for a better vehicle, and found it in glycerine.[1] Glycerine, when injected through the trachea, causes a greatly increased flow of pulmonary secretions. He finds that it is possible to inject one, two, or even three ounces of fluid at a single sitting. The researches of Delépine on the bactericidal action of izal, which were begun in 1895, were, at the instigation of the author, completed in the report attached to this paper. Professor Delépine and Dr. Coutts used emulsions of izal oil, in the strengths of 1 in 25, 1 in 50, 1 in 125, and 1 in 250. The emulsions were mixed in equal parts (save in 2 cases) with sputum teeming with tubercle bacilli, and the mixture was injected into guinea-pigs after one hour. It appears that up to 1 in 125 izal is capable of destroying tubercle bacilli in one hour. The application of this drug for intratracheal injections in the hands of Dr. Colin Campbell has given excellent results. He finds that, although 3 ounces of fluid can be injected at a single sitting, it is not necessary to administer more than from 6 to 16 drachms at a sitting. After the dose has been administered, he directs his patients to take deep inspirations. This is followed by a sensation of heat travelling through the lungs, and later by a greatly increased flow of expectoration. In this way the lungs wash themselves out, by the action of the vehicle—glycerine. In conclusion he states that it is best to give two injections a day, one to wash out the lungs, and the second "to go to the bottom." He claims that by the destruction of the germs in the lungs he not only disinfects the sputum before it is discharged, but actually cures the disease at one and the same time.

[1] He uses Price's distilled glycerine, which he states is not irritating to the bronchial tubes.

A NEUROLOGICAL INDEX.

Only those who have personally gone through the dreary and irritating experience of searching through a set of some score or more volumes of the transactions of a Society will

be able properly to appreciate the debt under which the Neurological Society of London has laid all workers in that department of medicine by the publication of a general index to the first twenty-three volumes of *Brain* (1878-1900). *Brain* was started in 1878; in 1886, when the Neurological Society was founded, it became the journal of that Society. Dr de Watteville had become its editor in 1883, and continued to hold that office until the end of 1900; long before this *Brain* had reached a high position in neurological literature. An index of the first seven volumes was issued in 1888, but with this exception no proper index has hitherto been published, each volume having merely a table of contents. In 1895 Sir William Broadbent made a donation to the Society for the purpose of the preliminary expenses of making a proper index to the first eighteen volumes; subsequently it was decided to extend the index to the end of the year 1900. The duty of seeing the volume through the press devolved upon Dr. Percy Smith, who had succeeded Dr. de Watteville as Editor of *Brain*. The preparation for the press involved, it was found, a thorough revision of the manuscript, as well as the verification of names and titles by reference to the original papers, and in this laborious work Dr. Colman, the Senior Secretary of the Society, was associated with Dr. Percy Smith. The index is in two parts. The first consists of an alphabetical list of authors, in which are included not only the names of the writers of original papers, but also those of authors of books or papers contributed to other journals, but reviewed or abstracted in *Brain*. The preparation of the second part, the index of subjects, was a task of greater difficulty. Owing to the different nomenclature adopted at different periods, the same subject might be found under two or more headings, or under one and not under the other, and Dr. Percy Smith and Dr. Colman have endeavoured to simplify the work of searching through the index by referring at the foot of many of the headings to kindred subjects in other parts of the index. Still further assistance has been given to the student by references under the various subjects to the valuable bibliographies appended to many of the papers. The field covered by the twenty-three volumes now indexed is very large, and there can be no doubt that the anticipation of the Council of the Society that the present index will be of very considerable value to those interested in neurology will be fulfilled. The profession will join the Council of the Society in thanking Dr. Percy Smith and Dr. Colman for the large amount of unremitting and unremunerative time and labour which they have expended in the endeavour to make the index a valuable work of reference.

LONDON WATER.

IT is not surprising that the London County Council should have condemned the constitution of a Water Board, as proposed in Mr. Long's Bill, empowered to purchase and manage the water companies' undertakings. Last Monday a public meeting endorsed this condemnation. The main objections which are now taking definite shape appear to be, first that the procedure is unprecedented; and to create a new body for a particular municipal service is contrary to the accepted principles of local self-government. To entrust the water supply of a large town to an authority which has no special relation to drainage, or health, or suppression of nuisances is an anomalous proceeding. The employment of eminent and experienced advisers on engineering, chemical and medical questions is precisely what the London County Council can command and what the Water Board cannot, at least for some time to come, and, if at all, only at a needless duplication of officials. The new Board formed of 60 persons, representing 78 different authorities gathered from the watersheds of the Thames and Lee, besides being unwieldy, is so constituted as to serve rather to stereotype the existing state of things and concern itself with the area of distribution than to have regard to provision for the future and the purity of the sources from which London derives its supplies of water. Londoners may well complain that, with four-fifths of the population and seven-eighths of the rateable value of the whole area within the County of London, they are conceded only some 14.98 per cent. of the whole number by way of County Council representation, and 33.71 per cent. by way of borough council representation. Moreover, this new body will never be before the electors as a whole; it will possess neither a body to be kicked nor a soul to be otherwise dealt with. It may sit in secrecy, sin with impunity, and its members may pursue the path of extravagance without fear of extinction or expulsion. The fact that "Water London" overlaps London presents no new or special feature. Other large towns have been confronted with the same problem. In the case of Bolton, Liverpool, Manchester, and Bradford, larger areas with larger populations and rateable values have had to be dealt with than is the case with London, and they have been dealt with municipally without recourse to the erection of a heterogeneous Water Board, not directly responsible to any constituency. The price to be paid to the water companies may be settled by this new and inexperienced body without going to arbitration at all.

MUNICIPAL PATHOLOGY IN EDINBURGH.

A MEETING of the medical profession of Edinburgh, convened at the request of members of the profession by the Presidents of the Royal College of Physicians and the Royal College of Surgeons, was held in the Royal College of Physicians on Saturday, February 15th, to consider the proposed transference of the examination of pathological products, undertaken by the town in the interests of the citizens, from the Laboratory of the Royal College of Physicians to the Public Health Department of the University (John Usher Institute). After discussion it was unanimously agreed to express satisfaction with the arrangements at present in existence for the examination of pathological products, and to petition the Town Council to continue the same. A small Committee was appointed to carry the will of the meeting into effect. The President of the Royal College of Physicians, Professor T. R. Fraser, presided at the meeting, and was supported by the President of the Royal College of Surgeons of Edinburgh.

THE TREATMENT OF HIP-JOINT DISEASE IN CHILDREN.

THIS subject has recently been referred to in the columns of the BRITISH MEDICAL JOURNAL,[1] and our remarks have elicited a communication from Mr. Bertram Thornton,[2] the Senior Surgeon to the Royal Sea-Bathing Hospital at Margate, in which he says, "It is perhaps not too much to say this is an ideal hospital for this class of case." While not wishing for a moment to detract from the value of the work done in that hospital, we venture to think that before it can be styled "ideal" there are several points to be considered. In the first place, the selection of cases should not depend upon priority of application, but on their severity and on their capability of cure. Secondly, the treatment of tuberculous disease as of the hip, for example—is notoriously prolonged, and it is therefore highly undesirable to place a limit upon the length of the patient's stay, for it is well to remember that a completely cured case is more satisfactory in every sense than half a dozen cases temporarily benefited. And, finally, there ought not to be any downward age limit, especially where children are concerned. It is in children of tender years, and affected with tubercle of bones, joints, and glands, that we look for

[1] February 8th, 1902, p. 352.
[2] February 15th, 1902, p. 426.

the best results if they are placed under appropriate treatment. Excellent as is the Royal Sea-Bathing Hospital in many of its arrangements, we venture to express the opinion that it is these points which are worthy of recommendation by the governing body. We wish to hear that patients can be kept until they are cured, and that tender age is no bar to admission. The great difficulty of obtaining the aid of the hospital, and the long time patients have to wait for their turn on account of the pressure on the beds, are testimonies to the valuable work done by the institution, which we regard as a pioneer in a much-needed reform. To this subject we propose to refer later.

THE EFFECTS OF CIVILIZATION ON THE RED MAN.

At the annual meeting of the Medical Society of the State of New York recently held at Albany, Dr. H. D. Lake, of Gowanda, described the changed conditions of life of the Iroquois Indians and their consequent physical deterioration. When the whites first came in contact with them they were magnificent specimens of manhood and womanhood; now they have decreased in average height, and show a tendency to obesity. They have lost their great strength, and their capacity to stand fatigue, cold, and hardships. They have acquired the vices of civilization, and its diseases have been introduced among them. Alcohol has caused them to degenerate rapidly, and has lowered their power of resistance to disease. Tuberculosis has especially proved fatal to them, and but for their wonderful fertility would long ago have destroyed the race. Pneumonia is seldom recovered from, or, if it is, it is followed by acute or chronic tuberculosis. Bronchitis is very frequent, and is liable to have tuberculosis grafted on it. A young man comes for the treatment of some apparently mild disease, and evidence of the ravages of tuberculosis is found in his lungs. An epidemic of syphilis among these Indians lasted ten or fifteen years. Now, according to Dr. Lake, they seem to be immune; it is rare to see an initial lesion among them, but the scars of the disease may be seen in the older men. They were treated by their medicine men with herbs, and no mercury was used. No case seems to have got well in less than two years. Syphilis has undoubtedly contributed to the degeneration of the tribe. Gonorrhoea now rages among them, and the women suffer severely from its effects upon the internal sexual organs. Altogether, the Indians have suffered by getting away from Nature. A marked improvement has, however, taken place among them in recent years as the result of the school training of the younger generation. They have been trained by athletic sports in the midst of their college work, and come back as magnificent specimens of humanity to retain their good habits and be a source of emulation to others.

MIDWIVES IN NEW YORK.

At the ninety-sixth annual meeting of the Medical Society of the State of New York, held in Albany on January 28th, 29th, and 30th, 1902, Dr. M. J. Lewi said that last year, while some 80,000 births were reported by medical practitioners in New York City, over 30,000 were reported by midwives. This may, we gather, be taken to represent about the proportion of obstetrical cases that go to doctors and midwives respectively. Dr. Lewi went on to say that, as the result of the work of ignorant midwives, there are blind children crowding the blind asylums, and maimed women crowding the dispensaries. As the result of the work of criminal midwives, thousands of abortions are being procured, and the system of baby-farming, so fatal to the lives of infants, is perpetuated. Something should, he urged, be done by the representatives of the profession of New York State to prevent these evils. There should be a law requiring all midwives to registered and permitting only those to register who have passed a suitable examination and who have attended at least a dozen cases of labour under proper direction. The Legislative Committee of the State Medical Society should be instructed to draw up a Bill for this purpose and the influence of the Society should be exerted to secure its passage. Dr. Abraham Jacobi, of New York, said that the legal regulation of the practice of midwifery by women who were not medical practitioners was a crying need of the times. There would always in large cities and also in country places be need of the services of midwives, and women would employ them. For their proper control legislation providing for their examination and registration was required. Midwives, said Dr. Jacobi, were not the only ones who performed abortions; but if members of the profession did so, how much more these irregular practitioners! It was useless to hope for ideal results, and the practical conditions demanded that the midwife should be acknowledged and her proper training encouraged. A resolution was then adopted instructing the Legislative Committee to draw up and present a Bill to the Legislature on this subject, embodying the views expressed in this discussion.

ALLEGED INCREASE IN THE MORPHINE HABIT.

Our attention has been drawn to an article in one of the popular weekly journals entitled, "Morphine Tea Parties given by Women." The fashion, which is said to have originated in Paris, consists of the formation of what may be termed a morphine club. A number of ladies meet about 4 o'clock every afternoon, tea is served, servants are sent out of the room, the door is locked, the guests bare their arms, and the hostess produces a small hypodermic syringe with which she administers an injection to each person in turn. If one injection is not sufficient to satisfy any particular guest, a second or even a third is given. Whether this is merely a piece of sensational journalism or whether it represents unexaggerated fact we have no convenient means of ascertaining; probably, however, it is only too true that alcoholism, morphinism, cocainism, and other supposed means of getting beyond a monotonous daily life are becoming increasingly prevalent among women, and it is also only too true that there is no ruin so utter as a woman's ruin from such causes. Opium as a reliever of pain may still be regarded as "the gift of the gods;" but for those who use it for its mental effect it is fraught with the utmost danger, none the less because the one motive may merge so easily into the other, and none the less because of the ease with which the subject of a single administration may stumble into an enthralling habit, for the greater the relief from one the greater is the danger from the other. A consumer of opium of many years' standing, who writes in reference to this article to another weekly journal over the initials "G. W. B.," and claims as a credential that he is the discoverer of cyanide of arsenic (*absit omen*), would have its readers believe that it is only when an habitual morphine-taker is suddenly deprived of the drug that "wrecking" takes place, and that the direct action of the drug is much more beneficial than harmful. He quotes with approval the saying of a Dr. Browning, described as an insurance doctor, in regard to opium, that "we do not take it enough," and adds that there was no wonder the poor women mentioned in the article "tore their hair" madly when deprived of the drug to which they had become accustomed, for such an action "causes indescribable physical torment in the gastric regions, owing to a secretion of an indescribable irritating nature being formed." If it were not a well-recognized fact that habitual consumers of morphine are apparently, in the great majority of instances, quite incapable of habitually telling the truth, the opinions expressed in this letter would rise to the level of damnable doctrine, which should be ruthlessly attacked; as it is they may well be disregarded.

HOW SMALL-POX IS DEALT WITH IN AMERICA.

ALTHOUGH there is in America the largest toleration of fads in what may be called time of peace, they are dealt with vigorously when the public health is endangered by them. Thus a Michigan Central train was recently held up for three hours. There was a case of small-pox on board, and the health officer is said to have refused to allow the train to proceed until every person on board had been vaccinated. In Canada, too, the authorities have a short way with the conscientious objector in times of epidemic. "The Saints," a local sect near St. Catherine's, Ontario, have recently been giving trouble to the health authorities in that district. An outbreak of small-pox occurred among them, but they all refused on any terms to be vaccinated. They have therefore been quarantined *en masse*. The Health Officer has advised that the employment of force will be quite justified, and the "Saints" will have to choose between vaccination and the gaol.

MOSQUITOS AND RHEUMATISM.

WE have the authority of a great poet for the statement that there is a soul of goodness in things evil, and we are therefore not surprised to learn that there is balm as well as bane in the much-maligned mosquito. The time has not yet come for an avenger to arise out of his petroleum-floated corpse and clear his memory of the imputed guilt of malaria and yellow fever. He will doubtless find plenty of whitewashers by-and-by. In the meantime he has found advocates ready to claim for him that his merits in one direction should be taken as a set-off against his misdeeds in others. Has it not been suggested by Professor Loeffler that the inoculation of malaria may afford protection against cancer? Should it be found eventually that this theory rests on any solid ground, the mosquito will have to be regarded as one of the greatest benefactors of the sons of men. We may well say with Sir Thomas Moore: "Marry, this is somewhat!" but it is not all. We learn from the American journals that Professor Smith, New Jersey State Entomologist, announced, at the recent annual meeting of the State Agricultural Society, that he intended to ask the Legislature for an appropriation of £2,000 for the further investigation and possible extermination of the New Jersey mosquito. It is expected that certain members of the Legislature will resist the proposed legislation on the ground that the mosquito is beneficial to rheumatic natives. One Assemblyman, who valiantly opposed all efforts to legislate against the New Jersey mosquito a few years ago, declared that the bite of the mosquito had proved a sure cure for rheumatism. There are doubtless not a few among us at present who, racked with the cramps of that torturing disease, would gladly suffer anything on the chance of finding relief. Why should insects having in them such potentialities of cure be wasted? "Mosquito brigades" might be organized to supply the British market, and the clearance of infested regions might be accomplished by the transfer of the insects to places where they would find a field for the exercise of their beneficent activity.

THE SANITARY CONDITION OF ROME.

IN the bulletin of sanitary statistics just issued by the Rome Health Office, the statistics of mortality and morbidity for the year 1901 are reviewed. The mortality for December, 1901, compared with that of the corresponding month of 1900, shows a diminution of 0.31 per mille. Few deaths were attributed to contagious diseases; the mortality from typhoid fever was less than that for many years previously. There was a corresponding decrease in morbidity in the same class of diseases; there was also a diminution in the death-rate from diseases of the respiratory apparatus. Few deaths from malaria were registered, and in almost all cases the sufferers were patients in hospitals or were members of the foreign population. Among the sick poor treated at their own homes by the municipal medical officers malaria was but seldom observed. Thus in the Testaccio quarter, which is almost a suburb, of 583 cases only 3 were treated for malaria. The percentage of malaria cases in the total number of patients was 0.51, while in December, 1900, it was 2.63. In the suburbs of Rome malaria decreases year by year. The decrease is still more marked in the Campagna, where, in December, 1900, the number of sufferers from malaria treated was 998, while in December, 1901, it was only 404. It is pointed out, however, that not all the victims of malaria come under the notice of the municipal medical officers. Moreover, the type of disease was mild in 1901. But, when proper allowance is made for both those disturbing influences, it is claimed that the decrease in the prevalence of malaria is sufficient to show that the prophylactic measures recently adopted have proved effective.

THE GERMAN CONGRESSES OF MEDICINE AND SURGERY.

THE German Congress of Internal Medicine will hold its twentieth meeting this year at Wiesbaden from April 15th to 18th under the presidency of Professor Naunyn, of Strassburg. The following questions are proposed for discussion: (1) The Diagnosis and Treatment of Gastric Ulcer (to be introduced by Professor Ewald, of Berlin, and Dr. Fleiner, of Heidelberg); (2) The Light Treatment (to be introduced by Dr. Bie, of Copenhagen). The German Surgical Congress will hold its thirty-first annual meeting this year in Berlin from April 2nd to 5th under the presidency of Professor Kocher, of Bern. The questions proposed for discussion are the Treatment of Wounds, Cancer, the Pathogenesis and Treatment of Perityphlitis, and Abdominal Surgery. On the question of the Treatment of Wounds the following addresses will be delivered: (1) Professor von Bruns, The First Dressing on the Battlefield (introduction to a discussion on the subject); (2) Professor Honsell, Aseptic and Antiseptic Salves and Pastes; (3) Dr. Borchardt, Steam Sterilization of Dressings; (4) Professor Tavel, The Action of Antistreptococcus Serum; (5) Professor Kuttner, Examination of the Blood for Diagnostic Purposes in Surgical Suppuration; (6) Dr. Volker, Treatment of Fractures by Primary Wiring of the Bones; (7) Dr. Sultan, Implantation of Necrosed Bone in Different Culture Media alone or in Association with Living Periosteum. On the cancer question the following communications have been promised: Professor Gussenbauer, the Histogenesis of Cancer; Professor Petersen, Cancer Recurrence and the Cure of Cancer; Professor von Mikulicz, the Treatment of Intestinal Cancer. On the pathogenesis and treatment of perityphlitis and peritonitis the following papers will be read: Professor Korte, Report on 58 Operations for Subphrenic Abscess; Professor Rehn, the Treatment of Infectious Suppurative Foci in the Peritoneal Cavity; Professor Sprengel, New Researches on Appendicitis and the Treatment of Peritonitis; Professor Roux, the Perityphlitis Question; Professor Sonnenburg, Lung Complications in Appendicitis. On abdominal surgery the following communications will be presented: Professor Bunge, Talma's Operation; Dr. Ehrhardt, Wounds of the Liver; Professor Sprengel, Thrombosis in the Area of Distribution of the Mesenteric Artery; Professor von Eiselsberg, Colopexy; Dr. Payr, (1) Congenital Diverticula of the Intestine, (2) the Mechanism of Twisting of the Pedicle of Internal Organs; Dr. Graser, (*a*) Strangulated Hernia of the Vermiform Appendix; (*b*) Anomalies of the Mesentery; Professor Tavel, The Treatment of Neuralgia of the Sexual Organs; Dr. de Quervain, the Importance of Ulcer in regard to the Development of Cancer. Among other communications on various subjects promised are the following: Professor

König, Surgery and Orthopaedics; Dr. Kausch, Diabetes in Surgery; Dr. Lexer, Uncommon Cysts in the Neck; Dr. de Quervain, Acute Non-Suppurative Thyroiditis; Professor Kuttner, The Geographical Distribution of Vesical Calculus, particularly in Würtemberg; Professor Heussner, Permanent Effects of Stretching of Contracted Knee-Joint by Tendon Grafting.

INTERNATIONAL CONGRESS FOR ORIGINAL MEDICAL AND SURGICAL INVESTIGATIONS.

According to the *Philadelphia Medical Journal* of February 1st, Dr. J. D. Coakley, of Chicago, is now engaged in establishing an International Medical Association, to be formed only by those physicians and surgeons who have made original and extensive investigations which have added much to scientific knowledge. While essentially American, Dr. Coakley, who has just returned from Europe, has given the names of a number of foreign medical practitioners interested in the Association. Among these are Dr. Renvers of Berlin, Dr. Hallion of Paris, and Drs. Starling and Foster of London. All applicants for membership must be at least 25 years old, graduates of a school of medicine and surgery recognized by the International Medical Association, and affidavits must be presented to show the originality of work and the practical and satisfactory results of experiments. Members under 40 years of age will be required to perform satisfactory experiments on living animals or such lines as will be in harmony with their particular line of work. This must be continued each year for ten years, at the end of which time he may become an honorary member of the Congress. Less work will be required of those more than forty years old. The different divisions of the Congress will meet every year for the next five years with their respective national associations and every three years with the International Medical Association, after which time the meeting place will be selected by a majority vote. The last clause of the by-laws states the object of the Congress to be: The furthering of scientific research, honest work and honest reports, all of which, it is to be hoped, will result in the further alleviation of suffering and the prolongation of life. Before any line of work will be accepted as complete, the investigator will be compelled to demonstrate his results before a committee to be selected by the President of the Congress. It must be understood that the statements here reproduced from the Philadelphia contemporary named above are given on the authority of that journal; we have no independent information.

THE NEW ORLEANS MOSQUITO COMMISSION.

The Mosquito Commission appointed some time ago by the New Orleans Parish Medical Society recently presented a report which embodies the results of a study of the topographical and seasonal distribution of the mosquitos to be found in and about New Orleans. The Commissioner (Professor George E. Beyer, Drs. O. L. Pothier, M. Contet, and I. I. Lemann) state that *Anopheles* inhabits the swamps surrounding the city, as well as the suburbs, while stegomyia and some of the common forms of *Culex* infest the heart of the city and find their breeding places in cisterns and gutters. The Commission did a good deal of experimental work with the bacillus icteroides of Sanarelli and mosquitos, and their results have in every way borne out the theory that stegomyia fasciata is a means of infection with this organism. As to malaria they have confirmed descriptions given by other authorities, and have found the parasites in sections of *Anopheles* which have bitten malarial patients. Their conclusions are that *Anopheles maculipennis* is responsible for simple tertian and quartan infection, and that *Anopheles crucians* is responsible for the estivo-autumnal form. Although there is an undoubted relation of the genus *Anopheles* with malaria, and of stegomyia with the bacillus icteroides, it is by no means safe to conclude that the uninvestigated genera are not also carriers of these diseases. The Commissioners point out that its researches have not disproved that the mosquito might carry the contagion mechanically, either by means of an infected proboscis, or by the body, wings, and legs having been soiled by contact with dejecta, and then touching food or drink of another individual who might thus become infected. Attempts made to localize the bacillus icteroides within the tissues of the infected mosquito were unsuccessful. The report states that the simplest and most effective method of prophylaxis of yellow fever and malaria primarily depends on the destruction of mosquitos and the protection of the patient by proper screening.

THE CONCENTRATION CAMPS IN SOUTH AFRICA.

A Blue Book issued on February 17th gives statistics of the refugee camps in South Africa for the period from December 29th, 1901, to February 1st inclusive. The children under twelve years of age are distinguished from adults; it appears that the total number of persons in these camps was 114,376, of whom only 277 were in Cape Colony; the total number of children was 50,942. The mortality-rate in children showed a slight improvement, the number of deaths being 1 in 48 instead of 1 in 37, as was the case for the four months June to September analysed in the British Medical Journal of November 9th, 1901.

The Gillson Scholarship in Pathology of the Society of Apothecaries of London has been awarded to Herbert Stanley French, B.A., M.B., B.Ch.Oxon., Medical Registrar, Guy's Hospital.

It has been decided to start a subscription for a memorial to the late Surgeon-General Robert Harvey, C.B., Director-General, Indian Medical Service. The exact form of the memorial will not be decided till the subscription list is complete. Meantime subscriptions are invited. They should be sent to the Editor, *Indian Medical Gazette*, care of Messrs. Thacker, Spink, and Co., Calcutta, by whom they will be duly acknowledged.

The Organizing Committee of the Fourteenth International Medical Congress to be held at Madrid in the spring of 1903 has invited the following eminent members of the profession to deliver special addresses on the occasion: Professor Virchow, Professor Koch, Lord Lister, Professor Berthelot, Professor Brouardel, Professor Lombroso, Professor Golgi (of Pavia), Professor Retzius (of Stockholm), Professor Politzer (of Vienna), Professor Cajal (of Madrid), Professor Rodriguez, and Professor Mendez y Carracido.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Inspection of Army Medical Stores.—Mr. Charles Hobhouse inquired last week why no definite provision was made for the inspection of veterinary and medical stores in the (War Office) Order in Council of November 4th, 1901, while the inspection of ordnance and engineer stores was specially provided for. The Secretary of State for War stated, in reply, that the inspection of veterinary and medical stores was carried out by officers of the Veterinary Department and the Army Medical Corps, under orders of the Quartermaster-General and the Director-General A.M.S, who were charged with the duty of inspection. In the case of the Director-General of Ordnance, who is charged with the provision of warlike stores, it was necessary to draw a specific distinction between the inspection of those which were purely engineer stores, the responsibility for the quality of which rests with the Inspector-General of Fortifications, and that of warlike stores belonging to other branches of the army for which the Director-General of Ordnance is responsible.

The Tuberculosis Commission.—In reply to Sir Walter Foster, Mr. Long stated that the two farms to be used for the inquiries of the Tuberculosis Commission were situated at Stanstead, in Essex. They belonged to Sir James Blyth, who had most generously placed them at the disposal of the Royal Commission for experimental work free of charge. The Government had expressed to Sir James Blyth their warm appreciation of his act, which would greatly facilitate the labours of the Commission. Arrangements had been made for the occupation of the farms for a period of three years, though it was hoped that the inquiry would be completed within a shorter period. The Commissioners had caused to be erected on the farms the laboratories and other buildings necessary for their experiments.

Vaccination and Monkeys.—Mr. Thomas Bayley asked the the President of the Local Government Board whether his attention had been called to the use of small-pox virus derived from monkeys as a source of vaccine by Dr. S. Monckton Copeman, Medical Inspector of the Local Government Board, who had stated that a number of children had been vaccinated with vaccine thus obtained, and whether the Local Government Board had given its Medical Inspector leave to vaccinate children with vaccine of such a nature. Mr. Long said that Dr. Copeman had informed him that he had made experiments of the kind referred to. The Local Government Board had not given him permission to vaccinate children with lymph yielded by the monkey, and he understood that Dr. Copeman had not, in fact, done so. In all cases the vaccinations had been performed with lymph derived directly from the calf.

The Royal Army Medical Corps Orderlies.—Sir Walter Foster inquired on Friday last week how many non-commissioned officers and men of the R.A.M.C. had been sent from England to South Africa during the last seven months, and how many of these had had actual training in hospitals in nursing the sick. The Financial Secretary of the War Office in reply said that since July, 1901, 1,160 non-commissioned officers and men of the R.A.M.C. had embarked for South Africa. Of these 626 were enlisted in the usual way, and had had actual training in military hospitals in nursing the sick. The remainder were enlisted under a special Army Order of March 11th, 1901, engaging men who had been trained in civil life. These all had good certificates of proficiency in first aid, ambulance drill, etc., but it was not possible to say what actual nursing experience they had. On arrival in South Africa the drafts were detailed by the P.M.O. according to their qualifications.

Typhoid Fever among Troops in South Africa.—In answer to a question put last week by Sir Walter Foster, Lord Stanley said that the cases and deaths from typhoid fever to the end of November were as follows: June cases 885, deaths 170; July 324 cases, deaths 68; August 328 cases, 73 deaths; September 257 cases, 47 deaths; October 451 cases, 43 deaths; and November 1,091 cases and 160 deaths—making a total for twenty-six weeks of 3,336 admissions and 561 deaths. No further returns had reached the War Office.

Preservatives in Food. The President of the Local Government stated on Friday in last week, in answer to a question put by Mr. Joyce, that the recommendations of the Preservatives Committee to standardize the percentage of preservatives allowable in other articles beside butter and milk would require legislation, and that at present he could not make any pledge as to the course to be taken.

Vaccination Statistics. In reply to a question by Mr. Chaplin, the President of the Local Government Board said on Monday, that a Parliamentary return already issued gave the number of successful vaccinations for 1898 as 500,314, and for 1899 as 669,349. According to returns which he had since received the number for 1900 was 677,655. He had not up to the present received returns from all the Unions for 1901. The number of certificates of conscientious objection received by vaccination officers was as follows: In 1898, 203,413; in 1899, 32,341; 1900, 39,839; and in the first six months of 1901, 19,252.

The Vaccination Act (1898) Amendment Bill.—There was quite a smart little debate on Monday in the Lords, when Lord Newton moved the second reading of his Bill. He said he proposed merely to repeal the conscientious objection clause, and expressed surprise that the Government had issued a whip against him. He urged that the clause should be got rid of, and said there were more than 100,000 children born within the last three years who were unvaccinated in consequence of this particular provision. Lord Galway supported the Bill, but Lord Kenyon moved its rejection. He also appealed to statistics in support of his action, and showed that the number who escaped vaccination in 1895 was 136,000, in 1896 350,000, while in 1899 the number had fallen to 32,000, showing that the Act of 1898 had had some effect. The Act only ran to the end of 1903, and so there was no need within a year and nine months of its conclusion to repeal it. Lord Balfour of Burleigh also opposed Lord Newton's Bill, and speaking with the authority of the President of the Local Government Board, stated that from the information to hand, the administration of the law, as it existed under the Act of 1898, was a great deal more successful than it had been. He did not say that was due entirely to the conscientious objector clause, but it was enough for his purpose to say that the Act had, on the whole, been successful. Vaccination in London was generally better enforced than in any part of England. The Lord Chancellor admitted that his sympathy was in a great measure with the Bill, and he indicated how he had indirectly enforced vaccination among the employés in the Law Courts. Lord Spencer spoke as a strong believer in vaccination, but indicated the great difficulty of carrying out the law in face of a large body of objectors, and after a few words from Lord Newton in reply, the House divided, and the Bill was rejected by 52 to 32.

Food Adulteration.—General Laurie called the attention of the President of the Local Government Board to the report of the public analyst of Paddington in connexion with inadequate fines for adulteration of milk and butter, and asked whether he could by legislation or other means enable local authorities to enforce the law against adulteration. Mr. Long replied that he had not received the report referred to, and that he had no authority to intervene, nor could he undertake to promote legislation. It must remain in the discretion of the magistrate whether a fine should be inflicted in any particular case, and, if so, what the amount should be.

The Midwives Bill will come on for second reading next Wednesday, and will in all probability occupy most, if not all, of the afternoon. The motion for rejection which was down in the name of Mr. Griffith-Boscawen will not be moved, but Sir John Tuke will oppose the second reading. The member for the Edinburgh University will take this action as a member of the General Medical Council, for he feels that the changes made in this year's Bill as compared with last year's measure are such as to ignore the very moderate requirements of the Council. In the House itself there is much division of opinion respecting the Bill, but the opponents seem to be much less organized than the supporters of the Bill. The latter are active with petitions supporting it, and signs are not wanting of many other efforts to influence opinion in its favour. A great many members who are unable to understand the real medical objections to the Bill, and who find it difficult to reconcile the conflicting opinions which they get from medical men outside the House, would gladly see the Bill sent to a Select Committee after the second reading.

The Report of Mr. Brodrick's Committee on the Reorganization of the Army Medical Service was the subject of a question by Dr. Thompson on Tuesday, who inquired whether the objections made to the recommendations of the Committee as regards examinations for promotion would be considered so as to limit examinations to the real requirements of the Service. Mr. Brodrick, in reply, said that the only examinations in purely professional subjects would be those for major and lieutenant-colonel; the examination of lieutenants for the rank of captain would be in corps and service duties only.

THE MIDWIVES BILL, 1902.

THE FRENCH LAW.

DR. H. ELLIOT-BLAKE (Bognor, Sussex) writes to express the opinion that the Midwives Bill, 1902, is of a very negative character, since it does not define training, does not prescribe medical supervision nor medical assistance in abnormal cases, and imposes no penalties on "unwashed midwives." He then points out that under the French law midwives have to call in medical help, and to pass examinations, as to which he gives some particulars. He concludes his letter as follows:

It seems common sense, to me, that if the Government wants adequate skill to be dispensed to the poor in childbirth, they should provide a skilled practitioner to supervise or to be called in by the definitely trained midwifery nurse, at the option of patient or nurse, and small or half usual fees would naturally attach to this service. It would simply mean that a midwifery nurse would have to send a notice to a medical man or woman, and could call him or her in at any time; the doctor could send in any notices to the councils, etc., do other duties, or make after-visits, etc., as provided for. A feature of this solution is that the nurse would be kept up to her work if she chose to call the doctor to her aid.

There is nothing wonderful in the names between the midwives and midwifery nurses. Still, perhaps, there is a little more than mere variety; we want something better than now exists; not only a midwives institute and large certificates as promised in this lay and last Bill.

*** It will, perhaps, be convenient at the present moment to quote the actual provisions of the French law, promulgated on November 30th, 1892, and of the decree issued under it:

"CHAPTER III.

"*Conditions of the Practice of the Profession of Midwife.*

"3. Midwives cannot practise the obstetric art unless they possess a diploma of the first or second class granted by the French Government, after examinations before a State Faculty of Medicine (medical school—*école de plein exercice*), or a preparatory school of medicine and pharmacy.

"The conditions of the curriculum and the programme applicable to midwifery pupils shall be determined by an order made with the advice of the Superior Council of Public Instruction.

"Midwives of the first and second class shall continue to practise their profession under the conditions previously existing.

"4. Midwives are forbidden to use instruments. In a case of difficult labour they shall call in a doctor of medicine or an *officier de santé*.

"They are likewise forbidden to prescribe medicaments except as provided by the decree of June 23rd, 1873, and by decrees which may be made under the same conditions with the advice of the Académie de Médecine."

It should be noted that the *officier de santé* was a medical practitioner who had passed through a less severe course of education and examination than that for the degree of Doctor, and that the grade was abolished (saving rights already acquired) by the Law of 1892.

By Chapter V, Section 16, Subsection 1, any midwife "who goes outside the limits fixed for the practice of her profession by Chapter IV of this Law," practises medicine illegally.

Section 18 of the same chapter enacts that "the illegal practice of the obstetric art is punished by a fine of fifty to one hundred francs, and, if the offence be repeated, by a fine of one hundred to five hundred francs, and by imprisonment for six days to one month, or to one of these two penalties only."

Section 19 enacts that "the usurpation of the title of midwife shall be punished by a fine of one hundred to five hundred francs, and if the offence be repeated to a fine of five hundred to one thousand francs, and to imprisonment for one to two months, or to one of these two penalties only."

A decree of July 25th, 1893, prescribed the conditions to be observed by midwifery pupils.

The first article laid down that the study should be theoretical and practical, and should extend over two years for the diploma of the first or the second class.

The second article prescribed that the first year of study for the diploma of the first class might be spent in a preparatory school of medicine and pharmacy, or in a maternity, but that the second must be spent in a faculty or complete school of medicine and pharmacy.

The third article prescribed that the two years of study for the diploma of the second class must be spent in a faculty or in a complete or preparatory school of medicine and pharmacy or in a maternity.

The fourth article required all candidates for either diploma to undergo two examinations—the first in elementary anatomy, physiology, and pathology at the end of the first year, and the second in the theory and practice of midwifery at the end of the second year.

The decree also prescribes that the candidate shall produce a certificate of good character, and of having passed an elementary examination in general knowledge.

(By a decree of June 23rd, 1873, pharmacists were permitted to dispense ergot on the prescription of a midwife possessing a diploma.)

THE COURSE OF STUDY FOR MIDWIVES.

We have also received a letter from Dr. R. R. Rentoul (Liverpool), who desires to point out that "the contents of the present Bill more than justify the opposition which we have offered to all the Bills introduced since that of February, 1890."....."Not only does the present Bill propose to create by Act of Parliament an inferior order of midwifery practioners; but by Clause 4 (Subclause 1 (*b*), it gives a Central Midwives Board power to regulate the course of study. This is a very gross proposal. When the Pharmacy Act, 1852, was passed, Section VIII provided that intending chemists should be educated as chemists only:—'Provided always, that such examinations shall not include the theory and practice of medicine, surgery, or midwifery.' If the promoters of the Bill are honest, and do not wish their 'midwives' to practise medicine or surgery, why do they not introduce a clause similar to that in the Pharmacy Act?".....In the meantime, I trust that each practitioner opposed to the Bill will write at once to the M.P.s for his division, asking them to strongly oppose the Bill. A list of the 670 M.P.s will be found in *Whitaker's Almanac*, and 'House of Commons, London,' will be a sufficient address..... I think it a great pity the wives and women relatives and women friends of practitioners are not asked to oppose the Bill, more especially as the various women's leagues are busy working in favour. Let it be understood that we do not object to midwifery work being carried on by women, but only on condition that they be fully qualified under the Medical Act, 1886."

THE EPIDEMIC OF SMALL-POX.

TWO CASES OF FATAL ILLNESS ATTRIBUTED TO VACCINATION.

WHEN the immense number of vaccinations and revaccinations that have been performed in London during the past few months is taken into consideration, it is evident that, according to the doctrine of chances, a certain number of persons must have suffered, within two or three weeks of the operation, from illness of one or another kind wholly unconnected with vaccination. And it is not unnatural that vaccination should be thought responsible for such illness, when it is not manifestly the result of a known accident or infection.

A case of this kind formed the subject of an inquest held at Hackney by Dr. Wynn Westcott on January 29th. A child named Harriet Stow, aged 8, was vaccinated by the public vaccinator, Dr. Reilly, on January 11th. The child was in good health until January 21st, when she was noticed by her parents to be breathing with difficulty and to be drowsy. Medical advice for her was not sought till January 23rd, when she was found in a comatose condition, with very rapid respirations, and a temperature of 106°. She died on the following day. The appearance of the vaccinated arm does not seem to have been abnormal at any time. Fifty-two cases were vaccinated by the same public vaccinator with the same lymph, and no ill-result followed in any instance. The symptoms and *post-mortem* appearances were consistent with double pneumonia accompanied by meningitis. At the inquest tetanus was suggested, but there was no evidence to support this view save that the child had shown a certain amount of trismus; there had been no general spasm, and the medical practitioner who had seen the patient had seen no reason to entertain any suspicion of tetanus. The jury found a verdict in accordance with medical evidence, adding that there were no facts to show any connexion of the illness with vaccination. They may have been surprised, if they saw the *Morning*

Leader on the following day, to read there the attempt made to use a report of the inquest, embellished by headlines of an alarming character, to suggest—what of course is wholly inaccurate—that tetanus was the cause of death, and that this disease is a frequent result of vaccination.

The liability of any breach of surface to extraneous septic infection in the absence of suitable care is presumably no less in the case of vaccination than of any other minor operation or accidental scratch. Precautions by way of dressings are now largely adopted, and in ordinary circumstances this risk (never of serious proportions before these precautions were adopted) may be considered as reduced almost to a vanishing point. An exceptional case, however, was reported recently, that of Henry Essex, a man who worked in the Smithfield Meat Market. He was revaccinated on January 15th by Dr. Charles Read with lymph from the National Vaccine Establishment, which produced no unusual results in some 106 cases vaccinated by the same vaccinator. His arm was dressed at the time of vaccination, and again when he came to be inspected on January 22nd, but this latter dressing seems to have been almost at once removed. On January 24th the man developed symptoms of acute septicæmia, from which he died three days later.

Judging from the medical and other evidence given at the inquest held by Dr. Danford Thomas on January 31st, it seems impossible to exclude the possibility that the vaccinated surface may have been the site at which septic infection found entrance in this case, although, on the other hand, there are no facts which warrant the assertion that this explanation is the correct one. It appears certain, in any case, that such infection was not introduced along with the lymph, but was superadded at a later stage.

The case suggests the desirability of enjoining upon people, such as men engaged in the meat trade whose liability to blood poisoning in consequence of accidental cuts is well known, special care in maintaining the protection of the vaccinated arm until the surface has completely healed.

We note that both the above cases have been made the subject of inquiry by medical inspectors of the Local Government Board, a practice which, we understand, is followed in all cases where the possible association of serious illness with vaccination is called into question.

GLASGOW.

During the past week the epidemic of small-pox has assumed more formidable proportions in Glasgow than was hoped might be the case. On three successive days a total of 66 new cases was reported, and the number under treatment in hospital on February 17th was 133. These cases are drawn chiefly from the eastern district of the city. In a recent report on the outbreak Dr. Chalmers, the medical officer of health, gives some interesting figures in regard to the subject of revaccination. Thus it is stated that 1,784 persons over 5 years of age were found in the infected lands of houses, of whom 61 per cent. were found to have been revaccinated at the time of infection, which proportion was raised to 78 per cent. as the result of the outbreak. Moreover, 3,167 persons over 5 years of age were found in non-infected lands adjoining infected houses, and of these 68 per cent. were found to have been revaccinated, and 5 per cent. more were vaccinated again as the result. The stimulus to revaccination which the occurrence of a case supplies is illustrated by the increase in revaccination of 17 per cent. in infected lands as compared with the 5 per cent. increase in the adjacent but non-infected lands. The majority of cases have come from the model lodging-houses; but it is noted that of 28 private houses recently attacked, in 15 none of the inmates had been revaccinated, and in all the houses only 18 per cent. of the inmates over 5 years of age were so protected.

EDINBURGH.

One case of small-pox has occurred in the city of Edinburgh. A man who had been acting as a canvasser in the city of Glasgow so lately as February 3rd, and apparently in some of the districts of that city where small-pox is prevalent, appeared at the out-patient department of the Edinburgh Royal Infirmary on February 15th, and was found by one of the assistant surgeons to be suffering from small-pox. The medical officer of health was at once communicated with, the man removed to the small-pox hospital, disinfection of the rooms, revaccination of those who had been in contact with him, and disinfection of the lodging house from which he came, promptly carried out.

PREVALENCE IN LONDON.

The number of cases of small-pox admitted into the hospitals of the Metropolitan Asylums Board during the past two weeks has been fewer than in the week ending February 1st, when the high total of 499 was reached. As will be seen, however, by the following table, the number of cases under treatment shows a slight increase.

Week Ending	Admitted.	Under Treatment.
February 8th	287	1,102
,, 15th	389	1,185

The total number of cases under treatment at midnight on February 18th-19th was 1,242.

FINSBURY.

The Medical Officer of Health for Finsbury (Dr. Newman) has printed a pamphlet with the title *Small-pox in Finsbury in 1901*, a portion of his annual report. The Public Health Committee of the Borough Council considered that early publication of the information it contains dealing with the cases of the present outbreak would be to the public interest. During the present year there have been 55 fresh cases in the borough, bringing up the total to 143. It is pointed out that the prevalence of the disease has not diminished, and that precautionary measures are as urgently needed as ever. Facts are given as to the recognition of the disease and its prevention.

VIBRATION FROM TRAFFIC ON THE CENTRAL LONDON RAILWAY.

THE Committee, consisting of Lord Raleigh, F.R.S. (Chairman), Sir John Wolfe Barry, K.C.B., F.R.S., and Professor Ewing, F.R.S., with Mr. W. F. Marwood, as Secretary, which was appointed a year ago by the Board of Trade "to consider and report to what extent the working of the traffic on the Central London Railway produces vibration in the adjacent buildings, and what alterations in the conditions of such working or in structure can be devised to remedy the same," have issued a report, and have happily arrived at a distinct opinion as to the nature of the evil, and the direction in which a remedy is to be found.

The evidence of several residents along the line of route of the railway testified to the annoyance caused by the vibrations experienced. The Committee also satisfied themselves of personal observation that vibration sufficient to cause serious annoyance was actually felt in many houses near the railway, and that the disturbances due to successive trains were very unequal; whilst the observations conducted by various observers, and analysed by Mr. A. Mulloch (to whose scientific insight and perseverance the Committee attribute much of their success in the elucidation of a difficult problem) showed (*a*) that it was a matter of chance whether a given train caused a slight or a severe vibration; (*b*) that trains causing a severe vibration in one house were as likely as not to cause only slight vibration in the others; (*c*) that different rooms in the same house were not similarly affected by the same train. The records further indicated the responsibility of the locomotives, as distinguished from the carriages, for the worst part of the disturbances, and pointed to the excessively large load, unrelieved by springs, carried on each axle of the locomotives (amounting to 8 tons on each of the four axles) as closely connected with the difficulty. This view was also in entire accordance with the results of experiments on the Metropolitan and Metropolitan District Railways. The Committee have also found that the vibrations arose from the want of rigidity in the rail; but they were unable to experiment with a stiffer rail, as the greater depth necessary to obtain increased stiffness would have encroached too much on the already narrow margin allowed between the tunnel and the tops of the carriages. Moreover, the Committee believe that the principal source of disturbance lies on the unevenness of the surface of the rails, which end their manufacture with a certain amount of waviness. As the unspringborne part of the load follows the rail over the crests and hollows of the waves, it tends, when the speed is high, to jump across the hollows. The Committee consequently suggest that a higher standard of rail in respect of straightness should be aimed at, since the irregular impulses given by uneven rail surfaces produce oscillation of the rails and road bed. These difficulties, however, largely disappeared when the load was carried by suitable springs. The springless type of locomotives in use on the railway was originally adopted to obviate the necessity for gearing. The railway company had already, before the Committee was appointed, ordered two new types of locomotives, in which the unspring

borne load was reduced. These were ready for experimentation last August. In one, described as the "geared" locomotive, the locomotive is, as before, distinct from the passenger cars, but gearing is introduced, so that the unspringborne load is reduced to 2½ tons on each axle. In the other system, known as the "multiple unit" or motor-car system, the motors are carried at one end of two or more passenger cars, and the unspringborne load on each axle of the truck under the motor is 1¾ ton. Observations showed at once that the vibrations in the ground decreased in proportion to the unspringborne load; for the "geared" locomotive they were less than one-third; and for the motor-car train less than one-fifth of what was caused by the ordinary locomotives. Like results were observed in some houses that the Committee had previously visited. The passages of the geared locomotives were felt in several cases in a house near the "tube," but in no case was the motor-car train perceived. So far as the Central London Railway is concerned the Committee are consequent confident that "by adopting motor cars in place of the original locomotives the vibrations produced by the running of trains can be reduced so as to cause no serious annoyance, although it is possible that the sound of the trains may still be detected, especially in the night." They are able to speak positively as to the motor-cars, but have little doubt that any method of driving in which the unspringborne load on each axle is reduced to a similarly small quantity might also be used with impunity. As to the best form of rail and sleeper there is no decisive evidence. The Committee prefer a stiffer rail than that in use on the Central London Railway, and think that in new undertakings sufficient room should be allowed for a deeper rail; but they are of opinion that, without altering the permanent way of the Central London Railway, the change of motors recommended will effect a practically complete cure of the disturbances complained of.

It appears, therefore, that the tube railway has thus caused annoyance of two distinct kinds to persons living near it—the vibrations, keenly felt, as we can readily believe, by the sensitive and those who sleep lightly, and the cracks and strains sustained by some of their residences when the tube was being constructed and since, for it appears probable that the tube acts as a deep drain, tending to dry the subsoil, and so to cause settlements.

It is to be expected, therefore, that keen opposition will await new undertakings of the kind, and to avoid the vibrations, the Legislature should at least decline to sanction the construction until fully convinced that the method of haulage to be adopted is such as will produce the minimum of vibration in buildings adjacent to the line. The risk of settlement will, however, remain, and such settlements will cause fracture of house drains, which will lead to the pollution of the soil and of the air of houses.

As respects the health and comfort of the passengers carried by the railway the Committee's report is naturally reticent; but it incidentally mentions that it is unfortunate that so small a margin was allowed between the tunnels and the tops of the carriages. Ventilation, indeed, appears to be very imperfect, as there is no real renewal of air, the same air being churned about by the passing trains. It would be of interest to learn the result of such an investigation into the bacteriology of the "tube," as that which was undertaken some years ago by Dr. Percy Frankland on the Metropolitan Railway.

AN APPEAL.

Our attention has been called to the distressing circumstances in which the family of the late Mr. Robert John Duffin, M.B., M.Ch.R.U.I., Barnoldswick, Yorks (via-Colne), have been left by his death from septic poisoning on January 25th last, at the age of 38 years. We are informed that Mr. Duffin settled some seven years ago, shortly after his marriage, at Barnoldswick, and that the family, which was increased by the arrival Mrs. Duffin's mother who had been obliged to sell up her home in Jersey, suffered serious pecuniary straits. Ultimately owing to circumstances which we are assured were not in any way due to any fault on the part of Mr. Duffin he had to file a petition in bankruptcy; this, of course, had a very injurious effect upon his practice, and the loss of hope, combined with actual privation, hastened his death.

He has left his widow, two girl children aged 6 and 3, and his wife's mother, all penniless except for the value of the furniture and some charitable gifts of money. A sum of £10 has been awarded from the *Lancet* Fund, and local assistance has been given for immediate needs, but more is wanted, and an appeal is made for subscriptions to enable the widow to start a boarding house at Southend. Mr. Duffin was a Freemason, but had been obliged to drop his subscription; it is, however, possible that the craft may be able to give assistance when the girls become of school age. The case is vouched for by Mr. Oliver Leak, solicitor, Barnoldswick, Yorks (via-Colne), and by Mr. Hector Leak, L.R.C.P., M.R.C.S., of Winsford, Cheshire, a member of the Lancashire and Cheshire Branch of the British Medical Association, by whom subscriptions will be received.

The following contributions are promised:

	£	s.	d.
Mr. Hector Leak	4	4	0
The Widow of Dr. A. P. Leak	1	1	0

THE PREVENTION OF CONSUMPTION.

The Exclusion of Tuberculous Immigrants from the United States.

A recent order of the United States Government excluding persons suffering from pulmonary tuberculosis from that country has not on the whole been favourably received by the medical profession of America. Their dissatisfaction found emphatic expression at a meeting of the New York Academy of Medicine held on February 6th, when the following preamble and resolutions were adopted:

Whereas, the Treasury Department of the United States, upon recommendation of the Surgeon-General of the Marine Hospital Service, has recently decided to classify pulmonary tuberculosis with dangerous contagious diseases, thereby placing a stigma wholly undeserved upon every American citizen who is suffering from consumption, be it

Resolved: That the New York Academy of Medicine deeply deplores this decision, which is not based either on clinical experience or on scientific experiments.

Resolved: That the Academy considers the exclusion of non-pauper tuberculous immigrants and consumptive aliens visiting our shores unwise, inhumane, and contrary to the spirit of American justice, be it further

Resolved: That, while the Academy upholds the fact of the communicability of tuberculosis, and urges all possible precautions against the spread of the disease from the sputum and other tuberculous secretions, or from the ingestion of tuberculous food substances, the Academy is opposed to all measures by which additional hardship is imposed upon the consumptive individual, his family, or his physician.

THE PLAGUE.

Prevalence of the Disease.

India.

The plague returns for all India for the week ending January 25th show 11,445 deaths, as against 9,204 in the week preceding, and 3,396 in the corresponding week of last year.

In the city of Bombay 311 persons died of plague during the week ending January 25th, against 269 in the previous week. These figures are considerably below the corresponding week of 1901, when 466 persons died of plague. In the Bombay districts 4,622 died of plague during the week ending January 25th, against 2,370; in the Punjab 3,040 against 2,379; Bengal 829, against 593; the North-West Provinces and Oudh 972, against 829; Mysore State 604, against 653; Madras Presidency 622, against 590; Kashmir 316, against 257; Calcutta 61, against 50. There is an increase in every locality except in Mysore. The most severely afflicted districts are the Saran district in Bengal, the Ballia district in the North-West Provinces and Oudh and the city of Allahabad, where 333 deaths were due to plague.

Egypt.

The Director-General Sanitary Department reports that during the week ending February 9th there were 8 fresh cases of plague in all Egypt and 8 deaths from the disease. Three cases and 1 death occurred at Aboukir; 1 case and 1 death at Kafr Enan, near Zifteh; and 4 cases and 6 deaths at Tantah. There is a marked improvement in the report from Tantah. A Reuter's telegram telegram dated February 18th states that during the past week 8 new cases of plague and 6 deaths from plague have occurred in Egypt. Since the outbreak on April 7th, 1901, there have been in Egypt 295 cases of plague, of which 178 died.

Cape of Good Hope.

In Cape Colony no fresh cases and no deaths from plague were notified in any district. The cases under treatment at the beginning of the week numbered 9, and there remained under observation "suspects" 2 and contacts 27.

Mauritius.

During the week ending February 13th, 15 fresh cases of plague were reported in Mauritius and 9 deaths from the disease.

Hong Kong.

The plague returns during the second week of January, 1902, stated that there were no cases of plague in Hong Kong. A case of plague was, however, reported on January 16th from the Wanchai district. It is to be hoped the active measures now being followed in Hong Kong will prevent the recurrence, or at least modify its extent, during the coming summer.

Manchuria.

It is reported that during the first week of January, 1902, some 40 Russian soldiers died of plague at Yichuanliangtai. The news reaches us by way of Newchwang, where plague quite recently prevailed to a considerable extent.

THE PROPOSED CANCER INVESTIGATION.

The *St. James's Gazette* of February 19th states that the following gracious message has been communicated through Sir William Broadbent to the President of the Royal College of Physicians:

"The King takes great interest in the prevention and treatment of cancer, and is glad that the Royal Colleges (of Physicians and Surgeons) are taking up the question of cancer research, and hopes for important results from their action."

We have received the following official statement from Mr. Frederic G. Hallett, Secretary to the Conjoint Board of the Royal College of Physicians of London and the Royal College of Surgeons of England:

The following resolution of a Special Committee was unanimously adopted by the Council of the Royal College of Surgeons on February 13th, and by the Royal College of Physicians on February 18th, namely:

This Committee recommends the two Royal Colleges to consider and develop a scheme for investigation into the causes, prevention, and treatment of cancer, and that for this purpose delegates be appointed by the two Royal Colleges (who shall have power to add to their number) to draw up a detailed scheme.

In pursuance of this resolution, the following delegates were appointed to draw up a detailed scheme for systematic investigation into the causes, prevention, and treatment of cancer, namely:—As representing the Royal College of Physicians—The President, Sir William Church, Bart., M.D.; Sir William Broadbent, Bart., M.D.; Dr. Payne, Dr. Pye-Smith, Dr. Rose Bradford, Dr. Whipham, Dr. J. F. W. Tatham. As representing the Royal College of Surgeons—Mr. H. G. Howse, President; Mr. J. Langton, Mr. Watson Cheyne, C.B.; Mr. H. Morris, Mr. R. J. Godlee, Mr. H. T. Butlin.

LITERARY NOTES.

Messrs. J. M. Dent and Co., will publish immediately a *Primer of Physiology*, by Dr. Alex Hill, Master of Downing. The book will be illustrated with numerous diagrams.

"Another Irishman" writes on the subject of an International Congress of Science: "The following short extract relating to the subject of Latin as a living language, and as a medium of international communication may not be uninteresting to some of your readers who are interested in this question:

In the year 1856, in the schooner yacht, *Foam*, Lord Dufferin made that pleasant voyage to Iceland, Jan Mayen, and Spitzbergen, which resulted in the publication of *Letters from High Latitudes*. During his stay at Reykiavik the Englishmen were feted at a grand banquet given by the public officials. The Bishop of Iceland proposed the health of the chief guest in Latin, which is commonly spoken in the island. Here was an opportunity for Lord Dufferin to show his love of fun and wit. His reply was in Latin, and is too good not to be given. It ran: "Viri illustres, insolitus ut sum ad publicum loquendum, ego propero respondere ad complimentum quod recte reverendus prelaticus mihi fecit, in proponendo meam salutem; et supplico vos credere quod multum gratificatus et flattificatus sum honore tam distincto. Bibere viri illustres, res est, quae in omnibus terris, 'domum venit ad hominum negotia et pectora; requirit 'haustum longum, haustum fortem, et haustum omnes simul:' ut canit Poeta, 'unum tactum Naturae totum orbem facit consanguineum,' et in hominis natura est—bibere.

The Latin is not Ciceronic: the Bishop, no doubt, would have been more classical, as he had time to prepare his speech, but what I desire to point out is, that Latin is spoken with as much ease as French by the ecclesiastics of the Catholic Church on the Continent and Catholic priests visiting England from France, Germany, Belgium, and Holland are surprised to find that in England even at our Universities they are not able to find amongst the very learned even Latin understood as a living language. The Catholic priests of Great Britain cannot as a rule speak Latin; they can write and read it as easily as English, but they are not able to sustain a long conversation in it. This is a point I desire to emphasize. Why is it? Because Latin is taught in the Catholic seminaries abroad rationally. It is used as a means of mental training, but it is also made valuable in daily life, and there appears to me no reason why Latin should not be taught in England as it is on the Continent. But first we must reform our teaching system, and we must also educate our teachers. I regret to hear that it is proposed to eliminate Latin from the matriculation of London University. It formed a great part of the course of *Literae Humaniores* which I underwent, and I feel I should have missed a great deal if I had not had a course of the Latin authors, from Caesar to Horace, from Quintus Curtius to the satires of Juvenal and the plays of Terence. Latin is the proper language of science as it is now of theology. It lends itself to definitions, as anyone can soon find out by consulting the textbooks on natural philosophy, etc., used in our Catholic seminaries, and as it is possible for Catholics to still conduct their discussions in Latin in the science, if I may so call it, of theology, so it should be possible for educated medical men to carry on a medical journal and even discussions in this language."

With its December number the *American Gynecological and Obstetrical Journal*, of which Dr. John Duncan Emmet was editor and proprietor, departed journalistic life. The number completed the nineteenth volume of a very valuable periodical, the discontinuance of which leaves a gap in the literature of the special branch of medicine to which it was devoted. Dr. Emmet, in a valedictory address to his readers, states that in the ten years of the journal's existence over 5,000 subscribers received and contracted to pay for it, but never did pay. He adds that "over 30 000 dollars had been lost through unpaid subscriptions on contracts freely entered into by medical men." This is certainly not creditable to the subscribers, but the story points the useful moral that to be financially successful medical or like journals, need not only to be competently edited but to be managed on business-like principles.

A Catalogue of Books and Pamphlets relating to Medicine preserved in the Reference Department of the Wigan Free Public Library has been prepared by Henry Tennyson Folkard, F.S.A., Librarian, and printed at the cost of the Wigan Medical Society. It is a production of 57 pages, and contains a list of well-known medical works. The Catalogue appears to have been carefully made, and forms a neat collection, and is detached from the General Catalogue. It is worthy of note that the Wigan Free Library was built at the cost of Mr. Thomas Taylor, a local manufacturer, and the brother of a medical man; and the first collection of books purchased by moneys left for the purpose by Mr. Winnard, a well-known surgeon of Wigan.

The *St. Paul Medical Journal* suggests that every newspaper should have on its editorial staff a person having a sound knowledge of the principles of scientific medicine, whose duty it should be to explain the laws of sanitation, the nature of contagion and the best way to prevent it, and to see that whatever appeared in the newspaper concerning medicine or disease in general, should be accurate, and so expressed as to be readily understood by the non-medical reader. Thus the press, instead of being as it now is a medium for the diffusion of quackery, of false ideas and of general misinformation concerning medicine, would become a powerful factor in the general diffusion of correct information concerning sanitation and the laws of public health. We agree with our American contemporary, but we fear it will be long before its advice is regarded as anything more than a counsel of perfection. What the "new journalism" wants is sensation; if its "facts" are not true, it says with the French theorist "*Tant pis pour les faits*." A "live paper" would not submit to be kept in leading strings by a medical editor.

In Carl Niebuhr's *The Tell el Amarna Period* (in David Nutt's The Ancient East Series), which contains an interesting account of the clay tablets in Babylonian cuneiform discovered near the ruins of the royal city built for himself about 1380 B.C. by the Egyptian king, Amenophis IV, a passage occurs containing what is, according to Niebuhr, the earliest reference to plague. Among the letters from Asiatic kings there is one from a prince of Alashia, a place which probably lay on the Cilician coast. The passage is as follows:

Behold! my brother, I have sent thee five hundred talents of copper as a gift. Let it not grieve my brother's heart that it is too little. For in my land the hand of Nergal (the god of pestilence) has slain all the workers, and copper cannot be produced. And, my brother, take it not to heart that thy messenger stayed three years in my land. For the hand of Nergal is in it, and in my house my young wife died.

There is an English translation of these tablets from the German of Professor H. Winckler (Luzac, London, 1896). Professor Flinders Petrie has also given an account of his discoveries in an illustrated memoir entitled *Tell el Amarna* (Methuen, London, 1894). Many of the best preserved tablets are in the British Museum.

ASSOCIATION INTELLIGENCE.

THE MIDWIVES BILL.

[*A copy of the following Report, containing an indication of the more objectionable features of the Midwives Bill, 1902, will be sent to every member of Parliament before the second reading debate on Wednesday next. It is hoped that members of the Association will communicate with their representatives in the House of Commons and draw their attention to the report.*]

A MEETING of the Medical Acts Amendment and Midwifery Nurses Bill Subcommittee was held on February 13th, in accordance with the resolution of the Council of January 15th, 1902. There were present Dr. S. WOODCOCK, in the chair, Mr. A. G. Bateman, Mr. George Brown, Dr. Major Greenwood, Mr. Victor Horsley, F.R.S., Dr. C. H. Milburn, Dr. A. Brown Ritchie, and Mr. C. R. Straton.

The Midwives Bill, 1902, which was printed in the BRITISH MEDICAL JOURNAL of February 15th, p. 416, was considered. It was resolved that it should be opposed, and it was resolved to ask Sir John Batty Tuke to move its rejection.

The Bill was then considered clause by clause, and the Committee were of opinion that, should it be read a second time, it should be amended in the following particulars:

Clause 2.—Certification.

On Clause 2, Subclauses (1) to (4), which stand in the Bill as follows:

2.—(1) From and after the first day of January, one thousand nine hundred and five, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is certified under this Act, or is recognized by law as a midwife unless she be certified under this Act.

(2) Any woman who, after the first day in January, one thousand nine hundred and five, not being certified under this Act, shall take or use the name of midwife or any other such name, title, addition, or description as aforesaid, shall be liable on summary conviction to a fine not exceeding five pounds.

(3) No woman shall be certified under this Act until she has complied with the rules and regulations to be laid down in pursuance of this Act.

(4) No woman certified under this Act shall employ an uncertified person as her substitute,

It was resolved:

That in Subclause (2), after the word "aforesaid," the following words be inserted: "or shall habitually and for gain attend women in childbirth," which words stood part of the Bill of 1900 as amended by the Standing Committee on Law.

That a penalty should be included in Subclause (3).

That there should be inserted an additional Subclause (6), as follows:

No woman shall be entitled after the passing of this Act to recover any fee or charge for attendance as a midwife unless she is certified under this Act.

Clause 3.—Provision for Existing Midwives.

On Clause 3, which stands in the Bill as follows:

3. Any woman who, within two years from the date of this Act coming into operation, claims to be certified under this Act, shall be so certified provided she holds a certificate in midwifery from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the Central Midwives Board, or produces evidence, satisfactory to the Board, that at the passing of this Act she has been in bona fide practice as a midwife, and that she bears a good character.

It was resolved:

That the following words should be deleted: "from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be."

Clause 4.—Constitution and Duties of the Central Midwives Board.

On Clause 4, Subclause (2), it was resolved:

That the persons on the Central Midwives Board should be registered medical practitioners.

On Clause 4, Subclause (3) I, which in the Bill begins as follows:

The duties and powers of the Board shall be as follows: 1. To frame rules, subject to the approval of the Privy Council after consultation with the General Medical Council.

It was resolved:

That the words "after consultation with" should be struck out, and the word "and" inserted in their place.

It was resolved that Clause 6 of the Association's Bill should be moved as an amendment to Clause 4 of the Midwives Bill, 1902, as follows:

Clause 6 of Association's Bill.

6. CONSTITUTION AND DUTIES OF THE CENTRAL MIDWIVES BOARD—

(1) Within six months after the passing of this Act the General Medical Council shall appoint a Board consisting of seven registered medical practitioners as members of, and to constitute, a Board, which shall meet on an appointed day to draft rules, arrange meetings, appoint a chairman, registrar, and other officials, and an executive and other committees. The members of the Board shall be elected for a period of three years, and on the death, resignation, or withdrawal of a member, the General Medical Council shall elect a successor from the district vacated.

(2) Six members of the Board shall be selected as follows, by the General Medical Council, from registered medical practitioners resident in or practising in the following districts as defined by the Registrar-General:

London and South-Eastern	2 Representatives.
South-Western, West Midland, and Welsh	1 Representative.
Eastern, North Midland, and South Midland	1 Representative.
York and Northern	2 Representatives.

(3) One registered practitioner shall be appointed a member of the Board for a term of three years by the Lord President of the Privy Council.

(4) After two years from the passing of this Act one-half of the six members of the Board selected by the General Medical Council shall retire, but shall be eligible for re-election, and thereafter one-half of such members of the Board shall retire annually in such manner that each of such members shall serve a term of two years before retiring, and members so retiring shall be eligible for re-election.

(5) In the event of the death or resignation of a member of the Board the successor elected or appointed shall hold office for the remaining period for which the deceased or resigned member was elected, and must be qualified equally with such deceased or resigned member to hold office as a member of the Board, and shall, on retiring, be eligible for re-election.

(6) No member of the Board shall act as teacher, instructor or examiner of midwives, and no member of the Board shall take any part in any inquiry respecting the conduct of any midwife to whom he or she had acted as teacher or instructor.

[1](7) The Board shall

(*a*) Lay down rules subject to the approval of the General Medical Council for education and training of midwives.

(*b*) Makes rules subject to the approval of the General Medical Council for conducting and superintending the examinations for qualification of midwives.

(*c*) Frame regulations, subject to the approval of the General Medical Council, for the proper conduct and inspection of any premises a midwife may reside in or rent or be tenant of, and wherein she receives for midwifery care and attendance a pregnant or lying-in woman.

(*d*) Frame, and if necessary from time to time alter, subject to the approval of the General Medical Council, rules and regulations governing the practice of midwives.

(*e*) Conduct the examinations and appoint the examiners.

(*f*) Decide upon the places where and the times when examination shall be held.

(*g*) If any midwife shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall, after due inquiry, be judged by the Board to have been guilty of misconduct as a midwife, the Board may, if they see fit, direct the Secretary to erase the name of such midwife from the Roll, or suspend her licence for a definite period. For the purposes of this Bill misconduct as a midwife shall include any omission to send for a registered medical practitioner where the case is not one of natural labour. The Board may, after due inquiry, restore to the roll the name of any person removed therefrom.

(*h*) Have power to delegate the duty of inquiry into cases of misconduct to Committees of their number, and such Committees shall have power to suspend the licence of any midwife pending inquiry by the Board.

(*i*) Issue licences and generally, by Committee or otherwise, do any such duty as may be necessary for the due and proper carrying out of the provisions of this Act.

On Subclause 4 (1) of the Midwives Bill, 1902, which proposes that the Central Midwives Board as to four of its members shall consist of

Four registered medical practitioners, one to be appointed by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the Society of Apothecaries, and one by the Incorporated Midwives Institute.

It was resolved that the words "the Incorporated Midwives Institute" be struck out, and the words "the University of Wales" inserted in their place.

Clause 10.—Notification of Practice.

On Clause 10, which in the Midwives Bill 1902 is as follows:

10. Every woman certified under this Act shall, before holding herself out as a practising midwife or commencing to practise as a midwife in any area, give notice in writing of her intention so to do to the local supervising authority, or to the body to whom for the time being the powers and duties of the local supervising authority shall have been delegated under this Act.

Such notice shall be given to the local supervising authority of the area within which such woman usually resides or carries on her practice, and

[1] The duties of the Board as here stated are those detailed in the Association's original Bill, but are similar to those of the Midwives Bill Committee's Bill.

the like notice shall be given to every other local supervising authority or delegated body within whose area such woman at any time practises or acts as a midwife, within forty-eight hours at the latest after she commences so to practise or act.

Every such notice shall contain such particulars as may be required by the rules under this Act to secure the identification of the person giving it; and if any woman omits to give the said notices or any of them or knowingly or wilfully makes or causes or procures any other person to make any false statement in any such notice she shall be guilty of a misdemeanour, and shall on conviction thereof be liable to a fine not exceeding five pounds.

It was resolved: That Clause 11 of the original Bill of the Midwives Institute be reinserted in its place as follows:

Midwives Licence.—No woman shall hold herself out as a practising midwife in any county or county borough, without having previously obtained from the local supervising authority a licence enabling her to practise therein, which licence shall be granted on proof by the woman that her name is on the midwives roll. The licence shall remain in force till the thirty-first of December following, and shall be revocable at any time by the local supervising authority in case the holder be proved to the satisfaction of the Central Midwives Board to have infringed any of the regulations framed under this Act. The licence shall be issued on payment of a fee of one shilling, it shall only be available in the county for which it is issued, and it shall be renewed annually on the first day of January.

It was resolved that a penalty should be imposed on midwives who practised without obtaining the local licence.

It was resolved that steps should be taken to have all the points in the Association's Bill, not dealt with in the foregoing, brought forward.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the North Western Hotel, Stafford, on Thursday, February 27th. The President, Mr. W. H. Folker, will take the chair at 4.45 p.m. Business: Minutes of the last ordinary general meeting, and of the special general meeting held at Stoke-on-Trent on December 27th. Election of members. To consider the recommendation of the Council re alteration of the date of the annual meeting. The Council recommend the alteration of By-law No V. so that "last week in October" read "first week in June;" and of By-law No. XV., so that "and May" shall read "and April." Correspondence. Exhibition of living cases. Paper, the condition of the gums in lead workers, Mr. Shufflebotham. Paper, the infection of diphtheria, Dr. C. E. Baddeley. Paper, remarks on two nervous cases of a cataleptic character, Dr. E. G. Hunt. Discussion on lead poisoning in the Potteries, postponed from the last general meeting at Stoke. Exhibition of pathological specimens. Dinner, 7.15 p.m.; charge, 5s.—G. PETGRAVE JOHNSON, Stoke-on-Trent, General Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The winter meeting of this Branch will be held in the [illegible] St. Vincent Street, Glasgow, on [illegible] at 8 p.m. Annual report, election of [illegible] and other [illegible]. In accordance with the [illegible] MEETING of the Branch called by the Council of the [illegible] on receipt of a requisition [illegible] for consideration of the [illegible] powers of the General Council and the [illegible] which have been communicated to the Council of the Branch and will be found in the information issued to members.—JAMES H. [illegible], 1, Woodside Place, Glasgow, Senior Honorary Secretary.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Empire Hotel, Bath, on Wednesday, February 26th, at 7.30, Dr. G. C. Tayler, President. The evening will be devoted to a discussion, which will be opened by Mr. Charles E. S. Flemming, on inflammatory affections of the female pelvic organs.—W. M. BEAUMONT, Bath, J. MICHELL CLARKE, Bristol, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of this District will be held at the Evelina Hospital on Thursday, February 27th, at 4 p.m. Mr. C. Herbert Fagge will read a paper on chronic middle-ear suppuration: its prevention and treatment. Cases of clinical interest from the wards of the hospital will be shown by Mr. F. C. Abbott and Mr. C. H. Fagge.—MAURICE CRAIG, Bethlem Royal Hospital, S.E., Honorary District Secretary.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 13th, at 4 p.m.; Mr. F. G. Swayne, M.B., of Upper Norwood, in the chair. Agenda: Minutes of Reigate meeting. To decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. Election of honorary secretary. To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read: Dr. Washbourn, small-pox; Mr. J. Bland-Sutton, inveterate retroflexion of the uterus; Dr. G. B. Batten, demonstration of methods of using Roentgen rays, light and the high frequency current for treatment (of lupus, etc.). Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m.; charge 7s., exclusive of wine. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends, and unattached members are invited to be present.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—It is proposed to hold a meeting of this Branch in Liverpool early in March. Members who desire to read papers, bring forward business, or propose new members for election, are requested to communicate as early as possible with the Honorary Secretary, T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester.

PERTHSHIRE BRANCH.

A CLINICAL meeting of this Branch was held in the Royal Infirmary, Perth, on February 14th, Dr. R. STIRLING, President, in the chair. Thirteen members attended.

Confirmation of Minutes.—The minutes of the previous meeting were read, approved, and signed by the President.

New Members.—Dr. D. M. Macdonald (Dunkeld) was elected a member of the Branch.

Rupture of Heart.—Dr. URQUHART read a note upon a case of rupture of the heart prepared by Dr. E. M. Thomson (see p. 453).

Palpation of Pregnant Uterus.—Dr. LYELL read a paper upon palpation of the pregnant uterus as a means of diagnosis. He referred to Dr. Milne Murray's opinion that the puerperal death-rate remained high in spite of antiseptic treatment, because of the abuse of anaesthetics and the misuse of antiseptics in general practice. Dr. Lyell showed that much might be learnt in regard to the presentation without vaginal examination. Quoting from a German authority he described how the head could be located and its position known by feeling the chin, how the back could be differentiated by its smooth roundness. He concluded by advocating the method in order to reduce vaginal examinations to a minimum, but assumed that these could not be altogether omitted. In cases of gonorrhoea or syphilis it might be of considerable value. Dr. MOON, TROTTER, STIRLING, and BEATTY joined in the discussion. Dr. Lyell's conclusions found general assent, and it was stated that dirt and syphilis were responsible for much of the puerperal death-rate, medical men having to face risks in lower-class practice which could easily be avoided in more favourable circumstances.

Torsion of Caecum.—Dr. R. STIRLING described two cases of torsion of the caecum, one in an old man who had suffered from habitual constipation without fever or notable abdominal tenderness. On opening the abdomen in the middle line the caecum was found distended and twisted on the ascending colon. An opening was made in the gut and a tube inserted. The patient sank after signs of septic poisoning and died in a week. *Post mortem* there were no signs of disease in the colon. Another, with similar history in a man of middle age, was similarly treated and discharged cured. These cases will be reported in detail.

Rupture of Urethra.—Dr. STIRLING also described a case of ruptured urethra behind the triangular ligament. The man

was discharged cured after suprapubic operation and drainage.

Exhibit.—The new Finsen lamp was then shown, and the members adjourned to tea with Dr. Burgess.

SYDNEY AND NEW SOUTH WALES BRANCH.

The regular monthly meeting of this Branch was held at the Royal Society's room, Sydney, on December 20th, 1901, Dr. G. E. Rennie, Vice-President, in the chair. There were thirty-five members and one visitor present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The Chairman announced the election of Drs. Tilley and Clatworthy.

Communications.—Dr. Hankins read notes on a case of thyrotomy and evisceration of the larynx for epithelioma. Professor Stuart and Dr. Crago made some remarks on the case. —Dr. Bowker read a paper on a case of cholecysto-colostomy with some remarks on the surgery of the bile ducts.—Dr. Hinder read a summary of his paper on cases illustrating the surgical treatment of the gall bladder and bile ducts. A discussion ensued, in which Drs. Maitland, McKay, Sinclair Gillies, and Charles MacLaurin took part. Drs. Hinder and Bowker replied.—Dr. Sinclair Gillies read some notes on a case of diaphragmatic hernia. Drs. Sawkins, Bowker, and Mills discussed the paper; and Dr. Sinclair Gillies replied.

HONG KONG AND CHINA BRANCH.

The annual meeting of this Branch was held at the offices of the Sanitary Board, Hong Kong, on January 8th, Dr. F. O. Stedman in the chair. Twenty members were present.

Election of Officers.—The following recommendations by the Council were adopted: Dr. F. O. Stedman as President for the ensuing year, Dr. J. M. Atkinson as Vice-President, Dr. Francis Clark as Honorary Secretary and Treasurer, and Major Whitty, R.A.M.C., Staff-Surgeon Canton, R.N., and Dr. Robert Gibson as members of the Council.

Communications.—The accounts having been duly adopted, Dr. Maclean Gibson showed a case of heterochromia, presumably congenital.—Dr. MacKeown related 2 cases which had come under his observation, one being congenital and the other following a traumatic cataract.

Dengue Fever.—The President, after thanking the members for re-electing him to that honourable office, read a paper on the recent epidemic of dengue fever. The epidemic had prevailed for a period of three months (from October to December, 1901), and similar epidemics had been recorded during the same period at Singapore and Macao. The Chinese population appeared to have been attacked first, then the Indians, and lastly the Europeans. There had been very few cases on the higher levels, and the epidemic abated on the onset of the cold weather. After a description of the symptoms of the disease, Dr. Stedman said that the only disease with which dengue could be confounded was non-catarrhal influenza, from which however it could be distinguished by the rash and by the occurrence of the pains mostly in the hands and feet. He had found salicylate of soda of great value in relieving the earlier pains and in abating the fever, while hot baths had also proved beneficial. The pains which came on after the febrile stage were, however, much more obstinate, and frequently necessitated massage or rubbing with stimulating liniments.—Dr. Harston demonstrated a bacillus which he had obtained in four successive cases of the disease, by pricking one of the spots of the terminal eruption. The specimens had been obtained, one from the face, one from the back, one from the forearm, and one from the finger, and they were identical in appearance.—Dr. Atkinson stated that this was the first epidemic of dengue he had seen in the Colony, in a practice of fourteen years. Twenty-nine cases had been admitted to the Civil Hospital between November 9th and December 16th. Some experiments had been conducted at the hospital with reference to a bacillus obtained from the blood of these patients, but the results so far had been inconclusive.—Dr. Rob. Gibson had met with one case in which the incubation period was most probably only 24 hours. In another case (a child) desquamation had resulted in the shedding of complete casts of the hands and feet; in 4 cases he had found some peripheral neuritis as a sequel. He considered that the recurrent fever, after the disease had run its course, was probably malarial.—Dr. Keogh stated that no case had been admitted to the Naval Hospital from the fleet, although there were at one time several men-of-war in the harbour.—Dr. King had a patient who was confined (at full term) during the progress of the disease, and after two days the infant had high fever (104° F.), lasting about 24 hours, but no rash.—Dr. Grazebrook, who had himself suffered from the disease, described the pain in the hands as exactly resembling that caused by a very tight glove.—Dr. Stedman, in replying, stated that the disease appeared to be unusual in children, and that Dr. Gibson's case of massive desquamation was also, he thought, exceptional, the usual form being fine branny scales. Isolation did not appear to be entirely practicable, as he had met with a number of mild cases in which the patient had only been absent from work for a few hours. The recurrent fever was in his opinion also most probably malarial.

Vote of Thanks.—The meeting terminated with a vote of thanks to Dr. Stedman for his paper.

SPECIAL CORRESPONDENCE.

SYDNEY.

The Proposed Australian Medical Association.—Vital Statistics of Sydney.—Ambulance Work.—Plague and Rats.

A special meeting of the New South Wales Branch of the British Medical Association was held recently, to consider a resolution proposed to be submitted to the Sixth Intercolonial Medical Congress at Hobart by the Executive Committee: "That the time is opportune for the formation of an Australian Medical Association on the lines of the British Medical Association." After discussion, a motion was carried practically unanimously that the formation of such an Association was undesirable. It appears to be doubtful whether this proposal will be seriously discussed, as the time appointed for it is at the close of the discussion on cancer, and it is anticipated that there will probably not be time to do more than mention the matter.

In the metropolis, during the quarter ending December 31st, 1901, the births numbered 3,195, and the deaths 1,605, being respectively 245 and 101 more than the average numbers registered for the corresponding quarter for the last five years. This is equivalent to an increase of 8½ per cent. on the average of births, and 6⅔ on the average of deaths. In the zymotic group of diseases the death-rate has increased by 29 per cent. above the average for the last five years. This increase is mainly due to whooping-cough, 87 deaths as against 34.8, the mean of the previous five years for this month. Diphtheria has caused 18 deaths, and measles, scarlet fever, and septic diseases also show increased death-rate. The death-rate from phthisis shows an increase of 14 per cent. above the five years' average. Diseases of the respiratory system caused 185 deaths, an increase of 27 per cent. Pneumonia was the chief complaint in this group, and caused 124 deaths. Enteritis was the cause of 151 deaths, largely amongst children, this being about the normal number. The birth-rate has slightly improved, the quarterly rate for the last five years being 6.31 per 1,000, and that for the last quarter is 6.54. The death-rate is practically the same as the quinquennial rate.

There are three Ambulance Associations in Sydney: the old-established St. John Ambulance Association; the Civil Ambulance and Transport Brigade; and the Australian Ambulance Association. The chief object of the first of these institutions has been to impart instruction in the principles of rendering "first aid" to different classes of the community, and also to give instruction in elementary home nursing. The Civil Ambulance and Transport Brigade is a charitable institution doing a large amount of good work under the supervision of well-known medical men. This brigade has ambulances and stretchers in different parts of the city and suburbs, and undertakes the removal of cases of accident and sickness to the hospitals; and it also undertakes the instruction of classes in "first aid" by members of the New South Wales Branch of the British Medical Association. It is felt that to some extent the work of these two institutions overlaps, and recently a satisfactory con-

ference of delegates from both was held, and it is hoped that an acceptable scheme of co-operation will be secured.

No further case of bubonic plague has occurred in Sydney. The last cases occurred on December 11th, and no plague-infected rats have been found since November 26th; 479 rats have been examined in the laboratory of the Board of Health since the latter date, all being free from plague. Over 15,000 rats have been burnt at the furnace between November 28th, 1901, and January 6th of this year.

LIVERPOOL.

Report of the Medical Officer of Health on the Working of the Vaccination Act, 1898: The Guardians and the Sanitary Authority: Proposed Penalty for withholding Information: the Supply of Vaccine Lymph: the Conscientious Objector.

DR. HOPE, the Medical Officer of Health for Liverpool, has made an interesting report on the working of the Vaccination Act of 1898. Liverpool is fortunately one of the best vaccinated communities in the country. Its enlightened City Council, representing all shades of opinion in most public matters, is unanimous in encouraging vaccination and revaccination; the various Boards of Guardians have been most active in providing every facility, and the "conscientious objector" is almost unknown. Any suggestions, therefore, for amending legislation with regard to vaccination emanating from the health authorities of this city, may be trusted not to be the result of panic or of any exceptional difficulty experienced in carrying out the operation effectually, but to be the outcome of calm deliberation directed to the lessening or removal of such difficulties as are more or less unavoidable under the regulations at present in force.

Dr. Hope lays particular stress upon the obvious anomaly that the enforcement of the most essential of all sanitary measures for the prevention of small-pox is not entrusted to the sanitary authority at all, but to the guardians of the poor. This is of more consequence in other places than it is in Liverpool, where, as Dr. Hope is careful to point out, the Boards of Guardians have performed their duties with regard to vaccination in a most exemplary manner, but it must tend to very incomplete fulfilment of the law in places where the guardians are indifferent or perhaps actively hostile to vaccination. But with the best intentions on the part of the Boards of Guardians the present system has its drawbacks, more especially as regards revaccination.

The auxiliary precautions of removal of the patient, isolation, and disinfection are as a matter of course performed by the health officers, but before the most important measure of all, namely, the immediate vaccination of contacts can be carried out it is necessary to communicate with the Poor-law authorities. For one public authority to have to set another public authority in motion must involve a loss of power, and what is far more important, it involves a loss of valuable time. Another drawback incidental to the system of entrusting the performance of public vaccination to the Boards of Guardians is that it sometimes gives rise to the groundless though not unnatural idea that the acceptance of vaccination at the cost of the ratepayers is equivalent to the acceptance of relief. Some useful suggestions are embodied in the report for facilitating revaccination, obtaining information of the existence of cases of dangerous or infectious disease, and for increasing the Government supplies of calf lymph. Clause 38 of the Liverpool Corporation Bill now before Parliament reads as follows:

> Any person who, when applied to by the medical officer of health for the city, or by any officer acting on his behalf and on his instructions, for information as to any dangerous or infectious disease, withholds any information in his possession, or knowingly gives false information, shall be liable to a penalty not exceeding 40s.

The introduction, with the necessary modifications, of a clause such as this into a general Vaccination Act, would, in Dr. Hope's opinion, be very valuable.

With regard to the supply of vaccine, he points out that good reasons can be advanced in support of the suggestion that stations for the preparation of vaccine should be established under Government supervision in some of the larger provincial centres.

Finally Dr. Hope expresses his views, firmly but temperately, on the operation of the conscientious objector's clause, and he states that it is apt to give rise to the mistaken impression that the Legislature shares some at least of the responsibility of depriving children of the protection from small-pox from which vaccination affords.

It is to be hoped that the suggestions embodied in the report will receive full consideration on the part of the medical profession and those who are concerned with future legislation on the subject, more especially the suggestion to place the obligation to perform public vaccination on the sanitary authority, and that which deals with the means of obtaining information of the existence of infectious disease in a community.

CORRESPONDENCE.

CHICKEN-POX AND SMALL-POX.

SIR,—In connexion with the letters of Drs. Sanders and Davies in the BRITISH MEDICAL JOURNAL, I would like to draw attention to the general practitioners' side of the question.

The notification of varicella would be valuable, not, as Dr. Davies hints, as a means of shirking that responsibility, which those medical men with whom I am personally acquainted never hesitate to face, but in giving us an opportunity of at once isolating effectually all cases about which any doubt may exist: then, if small-pox be diagnosed later, removal can be accomplished without the risk of spreading infection meantime.

In all infectious disease the general practitioner must first consider his patient's interests, then those of the community, and lastly his own.

The calling in of a medical officer of health in doubtful cases as a consultant can lead to no satisfactory result; his opinion will be biassed, his interests will direct him to send the case to hospital as infectious, and in his diagnosis he declines all responsibility either as a private medical practitioner or in his official capacity as medical officer of health.

I received a notice from a medical officer of health stating that as there was a receiving station for small-pox patients, where all cases were seen for confirmation of diagnosis before removal to the hulks, little harm could take place if a case of chicken pox did arrive there, as it would be sent home again. Here we have a most dangerous piece of advice. What a serious thing for our patient! He is taken off, and may contract the very disease he is supposed only to have; his place is pulled up; all his neighbours hear of another case of small-pox; he is subjected, if in business, to monetary loss: his medical man is dubbed as the doctor who does not know small-pox when he sees it; and I seem to remember an Irish case in which, for this very mistake, the doctor was sued in the courts and mulcted in damages. Osler wisely says: "It is not well, as a rule, to send a patient to a small-pox hospital until the characteristic papules appear about the forehead and on the wrists."

The formula we sign says "in my opinion," and I consider any attempt to obtain the conviction of a medical man for failure to notify, who delays doing so until his diagnosis is complete, is a gross misuse of the law and a violation of every canon of medical ethics. I have gone up with the class to the bedside of a patient who had been quite three weeks under the observation of one of the greatest diagnosticians of the day, and our professor has said: "Gentlemen, we must now, I think, come to the conclusion this man is suffering from enteric fever."

As matters now stand, it is our duty to diagnose the cases, and we should not send away those which are doubtful to be decided by the resident physician in a fever hospital, who knows nothing of their history and may only have a couple of years experience in his profession. Every man who has had anything to do with fever hospitals is aware of the mistakes made there, and of the cases which contract infectious diseases while in the wards. It is a serious question, which must cause us to move with the greatest caution and without undue haste in our diagnosis.

Early and accurate diagnosis is good, but if in doubt, the course for us to adopt is isolation at home for a time, and then when our minds are made up, notification.—I am, etc.,

Shooter's Hill, S.E., Feb. 17th. J. GRAY DUNCANSON.

THE STUDY OF THE HISTORY OF MEDICINE.

Sir,—In the British Medical Journal of November 23rd, 1901, it was suggested by Dr. Biggs that a society should be formed for the study of medical history, and in the following issue Dr. Lloyd-Owen uttered a further plea for the inclusion of the subject in the medical curriculum.

Having allowed a considerable interval to elapse it became apparent upon inquiry that nothing further had been done in the matter, and since the acceptance by the Royal College of Physicians of the FitzPatrick endowment of a lectureship of Medical History had excited a quite unusual amount of interest in the subject, it seemed to me a mistake to allow such an opportunity to pass.

In this spirit I ventured to bring the suggestion to the notice of several of those whose names—by authorship or otherwise—have become associated with the subject, and the scheme has already met with the approbation and support of Dr. Payne, Dr. Allchin, Professor Macalister, Mr. D'Arcy Power, Mr. Chas. Williams, Dr. Withington, Dr. Lloyd-Owen, Dr. Arthur Hall, Dr. Stokes, Dr. Biggs, and Dr. A. H. Robinson.

It has been objected by some that there are already so many societies that it is doubtful whether there is room for another: that their multiplication tends to starve existing ones, and that the subject might well be discussed in any of these. But in spite of the quarter whence these objections come I am by no means convinced of their soundness.

With reference to the first objection, I am hopeful of its being practically refuted by succeeding in the endeavour to form a society similar in its objects to that recently established in France—the study of the history of medicine and the allied sciences considered from the multiple point of view of the evolution of doctrines and institutions, biography, bibliography and documentary research. Are we always to remain behind our Continental neighbours in this speciality? National vanity alone should negative the objection: for if such a society can thrive in France, why not in England?

In the second place, the fact remains that the subject is very rarely discussed in any of the existing societies, and the reasons are not far to seek. The number of those who take a real and lasting interest therein is comparatively small. In the provinces they are generally only to be found far apart from each other, and there, as in London, a paper upon some topic allied to medical history, read at one of the societies' meetings, is by no means sure of gaining the approbation, if the attendance, of members. For it must be generally conceded that the present apathy of the bulk of medical men with reference to the history of their profession constitutes a gross anomaly. There is no professorial chair of the subject in any of our universities: it is included neither in the schedules of education nor examination—even as an optional subject—at any of our medical schools, and there is no existing society which makes it a speciality.

Having already taken the initial steps towards the formation of such a society, I venture to place the scheme before the profession, and to ask for further support.—I am, etc.,

Brightwalton, Wantage, Feb. 17th. George C. Peachey.

THE CLASSICS IN PRELIMINARY EXAMINATIONS.

Sir,—Your article in the British Medical Journal of February 15th, and Sir William Gairdner's letter of the same date, defend Latin learning as a necessity for the proper use of English. It is on that ground that both you and he require its retention.

That view I disbelieve. Newspapers show us that plenty of men who have had a classical education write execrable English. It is equally certain that many write excellently who have had no such training. To write well is to write clearly, to write clearly it chiefly needs to think clearly, and clear thinking is to be gained by many other studies than the learning of Latin.

All men allow that the classics are a fine mental training, and an introduction to cultivated pleasures. That is, however, no reason for claiming that they stand alone. When you and I, Sir, were young they formed the only liberal education. It seems doubtful, to judge by the present dispute, if the education was as liberal as we supposed.—I am, etc.,

Wimpole Street, W., Feb. 17th. W. P. Herringham.

"WHAT'S WHAT."

Sir,—I shall be obliged if you will publish the accompanying letter of apology relative to an unauthorized mention of my name which occurs in a publication entitled *What's What*, of which Mr. Harry Quilter is the editor.—I am, etc.,

Herbert W. Allingham.

9, Manchester Square, W.

To Herbert William Allingham, Esq.

Dear Sir,—I am very sorry to learn that certain references to you by name in my work entitled *What's What* have caused you annoyance, and that you consider them "calculated to damage you with the public and the medical profession."

I sincerely regret their insertion, and shall omit from any future edition any such references, and, indeed, all mention of your name whatsoever.

I wish also to state that the references referred to were absolutely unauthorized by you or any one on your behalf, and that you were in no way whatever responsible for, or a party to, such reference.

I need hardly say that it was very far from my intention to cause you damage or vexation, and, as it appears that my words have unwittingly done so, I authorize you to make any use of this expression of regret which you may think fit.

Yours obediently,

February 12th, 1902. Harry Quilter.

Sir,—As one of the medical men referred to in the publication called *What's What*, to which attention has been called by Mr. Watson Cheyne in the British Medical Journal of February 15th, I shall be obliged if you will afford me the opportunity of saying that, as soon as the paragraph in question was brought to my notice, I wrote to the Editor (January 2nd), asking him to withdraw my name from any subsequent edition or reprint. Mr. Quilter replied (January 6th), "I am quite disposed to act in the manner most agreeable to you, and shall therefore most probably delete the paragraph in question."—I am, etc.,

Wimpole Street, W., Feb. 14th. Percy Flemming.

Sir,—My attention having originally been drawn to a reference to me in this book by a visitor dining in my own house I, of course, at once took steps to obtain redress for the annoyance. I drew the attention of the Registrar of the Royal College of Physicians to the book in question with the statement that the reference to me had been inserted without my previous knowledge and consent and to my very great annoyance. I further placed the matter in the hands of the Medical Defence Union to obtain either a withdrawal of the article, or if that were not possible, an apology from the publishers and an undertaking that the objectionable article should not appear in any future issue of the book.

I have this morning received a letter from the solicitor to the Medical Defence Union stating that he had received from the publishers "what amounts practically to an undertaking that the paragraph shall not appear in any further edition," and also that he had, after correspondence with Mr. Quilter, received from him a letter giving "the same assurance that I gave to Mr. Watson Cheyne," and expressing his regret for the notice respecting myself.

With regard to the remarks which appeared in the *Medical Times and Hospital Gazette* of February 8th, in which the suggestion is made that the sympathy of their professional brethren can only be extended to those whose names were unwarrantably made use of after they have dissociated themselves "from what the public at all events is certain to regard as professional advertisement," I may say that all the members of the medical profession I have met who have been aware of the publication in question have expressed their sympathy in advance, and have not taken part in the unworthy insinuations of the editor of the *Medical Times and Hospital Gazette*.—I am, etc.,

Queen Anne Street, W., Feb. 19th. R. Percy Smith.

Sir,—Mr. Watson Cheyne's letter in the British Medical Journal of to-day demands some reply from me. I cannot congratulate Mr. Cheyne upon the choice of language he deems it dignified to employ. In my humble judgement he might with more effect have utilised argument rather than abuse. He could, for example, instead of three verbose epistles, have stated the following salient facts.

What's What was published some two months ago. It professes to be a popular compendium of general information. It contains an appendix (B) headed "London Medical Men." This

begins: "This paragram (*sic*) is medically speaking an unforgivable sin. For the strictest rules of etiquette forbid a doctor to advertise. . . . We do not suggest that the doctors named hereafter are superior to their fellows; we simply state that we have had experience of them as capable men in the various maladies alluded to." Then, about two columns are devoted to recommending about a dozen physicians and surgeons—with their addresses—as "having a most wonderful ear for diagnosis": as "second to none for general disease of a grave character"; as "a first-rate man"; as "most fashionable": as "kind and genial": as "having an enormous reputation," and as being "a long, bony Scotchman with a grey moustache and beard," while "Mr. ——— and Mr. Watson Cheyne are both undoubtedly first-class surgeons and especially known in abdominal surgery."

In the first place, then, Mr. Watson Cheyne's attempt to excuse his friend on the ground that he acted in "ignorance" is clearly baseless, except that his friend is evidently ignorant of the Addisonian meaning of a "paragram."

Some weeks ago the medical press condemned this appendix. For weeks medical men have been writing to the *Medical Times* and doubtless also to you, Sir, on the subject of this blatant advertisement. As it became evident that the gentlemen named were unaware of the invidious position in which they had been placed, the *Medical Times* called their attention to the matter. Far from implying that they had any "knowledge of, or complicity in, the publication"—an extraordinary misstatement on the part of Mr. Cheyne—we said that it was "of course to be expected that the persons puffed in this unsavoury manner are altogether innocent of any participation in it." Confident of that fact, we also spoke of "the gross liberty that has been taken in thus, without their knowledge or sanction, recommending them and their addresses in this pitiably patronising production."

I believe that the other gentlemen referred to, are grateful that their attention has been called to the matter. One of them has just sent me a printed and ample apology, which he at once obtained from the editor of *What's What*, a dignified vindication which may be commended to Mr. Watson Cheyne, who, while condoning his friend's "ignorance," considers it "offensive" and evidence of a "jealous and dirty mind" that his attention has been directed to the matter; and this in the face of his admission to his friend that the "paragram" may cause him "irreparable damage."

Verily, Mr. Watson Cheyne has a humorous method of expressing his gratitude to those who have saved him from his friend.

I refrain from further comment; but there is a great principle underlying this particular case—that there cannot be one law of right or wrong for Cavendish Square and quite a different law for Camberwell. It is no more justifiable for outsiders to advertise the former than it is for the latter to advertise themselves. That is the only argument the *Medical Times* has emphasized, and I submit that it is irrefutable.—I am, etc.,

THE EDITOR OF THE "MEDICAL TIMES."

Adam Street, W.C., Feb. 15th.

SIR,—As you have devoted a column of your valuable journal to the exposition of Mr. Watson Cheyne's point of view and the correspondence he had with me with regard to the Appendix on London Medical Men in *What's What*, I trust you will have the fairness to allow me a brief space in which to state my point of view in this matter. And this is the more desirable, since the question appears to be one which greatly exercises the medical profession, and concerning which not Mr. Cheyne only, but several other surgeons, have addressed to me complaints.

First, allow me to state the exact offence complained of. It is that I have printed a favourable opinion, which, I state, is derived from personal experience, concerning some twelve surgeons and doctors, most of them being well-known specialists. I have expressly limited my words by the following qualifications: "We do not suggest that the doctors named hereafter are superior to their fellows; we simply state that we have had experience of them as capable men in the various maladies alluded to, and that we should not hesitate to employ them ourselves."

Now, Sir, I venture to assert that a similar statement, so limited, made concerning the members of any other occupation or business known to men, would not have been considered annoying, improper, or in any way objectionable. It must be remembered that with regard to none of the gentlemen mentioned is there a word calculated to give pain, or to express disapproval. My remarks are entirely confined to saying,—I have had experience which justifies me in stating that those who go to A or B or C for the cure of such and such diseases will go to men who are capable in their profession.

Can it be maintained—excluding the question of medical etiquette, with which at present I have nothing to do, and with which, indeed, a layman has no right to concern himself—can it be maintained, I say, that to afford the public such information is in itself improper? Consider the record of any great man's illness, and the newspaper comments on the skill and devotion of this or that medical attendant. Has any one ever asserted that that such comments were objectionable? Consider the biographical sketches of men such as Sir Henry Thomson or the late Sir Andrew Clark, in which are recorded not only their abilities but the steps by which they attained eminence. Has any objection ever been taken to the publication of these, though their very essence is laudation?

Why then, should it be taken to the Appendix of *What's What*, which is clearly conceived in the interest of the public? The answer is to be found in the last letter which you publish from Mr. Watson Cheyne; that to the *Medical Times*. In that letter Mr. Cheyne states, with pardonable heat, that he has been unjustly suspected of self-advertisement; and he asserts that there is no reason why he should be so suspected. I most heartily agree with him. I go still further, and say that such suspicion is as ridiculous as it is unjust—is absolutely incorrect and entirely unwarranted; there is no shadow of ground which could justify such assertion.

But, Sir, I must go a step further: not only is this the case with regard to Mr. Watson Cheyne, it is also the case with regard to Mr. Harry Quilter. I am not a stranger to the public; it is more than a quarter of a century since I began to write continuously in books and newspapers, and opportunities have not been lacking to me, if my bent had been in that direction, of advertising my friends or calumniating my enemies. As a writer on the most important daily and weekly journals in England, as the editor of a well-known review, and as a constant contributor to magazines and newspapers of high standing, my words have been continually before the public, my opinions have been plainly expressed, frequently challenged, and as frequently defended. But no critic, however bitter, no adversary, however unjust, has ever said during the last quarter of a century, that I wrote in the interests of advertisement; that I stated as fact what I did not believe.

Surely, Sir, I have a right, with such a record, to resent accusation even more strenuously than Mr. Watson Cheyne. Indeed, I have more ground for resenting it, for my whole public life has afforded proof that it is false. In truth, it is a "dirty" suspicion, unworthy of a decent newspaper, and one for which there is no redress. It is true that no one who knows the gentlemen referred to would believe that they paid me to praise them, and no one who knows me will believe I was so paid. But the majority of readers will know neither of us; and so this "pseudonymous anonymuncule," as Charles Reade would have called him, and his malicious insinuations, will doubtless prejudice the minds of many envious and suspicious persons.

One last word on the question which lies at the root of this matter that of the medical etiquette which forbids the recommending of a doctor save by another medical man. On this point, Sir, I know I cannot expect to obtain the agreement of a medical journal *ex officio*, you are bound to be against me; but you have many lay as well as professional readers, and to them I would say, Can you honestly say that it is not for the public interest, not for the greatest good of the greatest number, that information should be obtainable by uninstructed persons as to who are leading specialists, or, in the ordinary phrase, the "best people to go to," in this or that medical emergency I will not even say the best, but good people? To whom could such information do harm? And is it not the case that the single argument against it is the unworthy argument above commented on the argument that such information might not be unprejudiced. That, Sir, can be urged against every kind of information whatsoever

which is given to the public. It appears to me that each of such cases must be judged on its merits. Where a writer of reputation states publicly, assuming full responsibility for the statement, that such and such a fact is the case in his own personal experience, he has a right, not possibly to his hearers' credence in the validity of his judgement, but to their belief in his bona fides. In all human probablity I shall never write another word concerning the medical profession in the strain to which objection has been made; I trust, however, you will allow me to put on record the above, I fear, rather lengthy expression of my views and the intention by which the passage in question was actuated. —I am, etc.,

Manchester Square, W., Feb. 17th. HARRY QUILTER.

*** We entirely agree with Mr. Harry Quilter that it is folly to accuse Mr. Watson Cheyne of having sought an advertisement of his abilities as a surgeon, and Mr. Quilter's present statement was not required to make us confident that he wrote as he did without consultation with the medical men whose names are mentioned in the extraordinary appendix to *What's What*. The appendix, however, is only fresh evidence that medical etiquette is only common sense applied to a special case, and that the true ground for its maintenance is quite as much the interest of the public as the good governance of the medical profession.

IRISH POOR-LAW MEDICAL OFFICERS.

SIR,—It is difficult to follow the entire sense of your anonymous correspondent, "T. H. M.," in his letter on Irish Poor-law medical officers. He accuses us of boycotting. The effect of Clause C. of the Mayo resolutions would not be boycotting in the usual acceptation of the term. What the members of the County Mayo Branch of the Irish Medical Association are determined to do is to put down the exploiting of the services of medical men by playing one off against the other, as has been done in the past. If any medical man, then, wishes to put himself forward as a champion of reduced fees and inadequate salaries, wishes to live in indigence and petty squabbling with ignorant guardians, wishes to die a pauper and leave wife and children, if he have such, dependent on the charity of strangers, he cannot do so in our company.

If "T. H. M." is resident in Ireland and has had experience, as indeed he says he has, of Poor-law methods here, particularly for the past three years, he knows as much as I do, and it is useless pursuing the subject further. He knows that the attitude of the new Boards towards their medical officers has been mostly one of contempt, abuse, and slander, and he also knows that this fight of ours, if it is to be fought successfully, is not one for feather-weight weapons. We are being hit hard, and our safety lies in hitting harder in return. This with loyal combination it is in our power to do. Not by gentle loving reproof was the Birmingham Consultative Institution squelched or the club war successfully fought out. And so, too, the Poor-law medical officers of Ireland, unless they want to fall into the position of slaves to the blatant Poor-law guardians of our day, must be up and doing, must take off their coats to the work and stand no nonsense. In doing all this they can still keep the honour of the profession bright and unsullied, and I can now guarantee that no act of the Co. Mayo Branch of the Irish Medical Association will ever tarnish that honour.—I am, etc.,

R. B. MAHON,
Honorary Secretary co. Mayo Branch
Ballinrobe, Feb. 18th. Irish Medical Association.

SUPERANNUATION OF POOR-LAW OFFICERS IN IRELAND.

SIR,—The actuarial report on the Poor-law Superannuation Bill (Ireland) has now been made public. It is based to a considerable extent on assumptions.

1. That the salaries of Poor-law officials are subject, as a matter of course, to a periodical and substantial increase. The past history of salary increments shows that they are rarely increased: and, therefore, the claims upon the pension fund would fall much below the sum named by the actuary.

2. That Poor-law officials do not resign or otherwise cease to hold office; or that they do not die before reaching the pensionable age of 65 years.

Probably Dr. Howell had no data upon which to base a reliable report in this respect. They are facts, nevertheless, and must have an important bearing on the average payments from the fund.

The percentage deductions in the English Act of 1896 embodied in the present Bill were based upon the percentages adopted by large public bodies in England for the superannuation of their officers—for example, the Corporation of London, the Liverpool Corporation, the North-Western Railway, the North-Eastern Railway, the School Boards, the Metropolitan Board of Works, and the London County Council.

It was not expected that the fund created by the deductions from income would, at first, be sufficient to meet all claims. There was, however, reason to believe, from the experience of other similar funds, under the management of the public bodies mentioned, that the percentages would be found sufficient to more than cover the proportion of the superannuation fund which Poor-law officers should be asked to bear; more particularly so, having regard to the equitable claim already possessed by some of these officers under existing Acts.

The actuarial report further states that in the event of the Bill becoming law it was absolutely necessary that the fund should be a national and not a union fund.

This would be a most advisable arrangement, inasmuch as Clause 4 of the proposed Bill provides that all service, whether continuous or not, shall be aggregated.—I am, etc.,

THOMAS GICK.
Irish Medical Association, Royal College of Surgeons, Dublin, Feb. 8th.

ASYLUM DYSENTERY.

SIR,—May I be permitted to make a correction in the report in the BRITISH MEDICAL JOURNAL of February 15th of the remarks which I made on dysentery in asylums at the meeting of the Epidemiological Society on January 17th? The outbreak at the Leavesden Asylum was reported, and an account of it will be found in the Medical Supplement to the Annual Report of the Statistical Committee of the Metropolitan Asylums Board for 1899. Though there were several fatal cases, yet in not one was ulceration found such as that described by Dr. F. W. Mott; nor did any of the non-fatal cases present the symptoms of dysentery. On the other hand, some of the cases were undoubtedly enteric fever.—I am, etc.,

Homerton, N.E., Feb. 15th. E. W. GOODALL.

*** Dr. Mott has also asked us to point out that the statement attributed to him in our report of the discussion at the Epidemiological Society, that at Claybury 25 per cent. of the patients were general paralytics, but they had no dysentery whatever, is quite inaccurate. What he said was that at Claybury Hall, which is used for private male patients only now, and for the past six years for special male cases, no case of dysentery had occurred. The water supply and the food were the same as in the main building. He adds that another interesting fact is that for the past two years 25 per cent. of the population of Claybury Hall has been made up of general paralytics, and yet no case of dysentery has occurred there. These facts show that dysentery has not arisen *de novo* among these insane patients. With regard to the final sentence, it was intended to explain the cause of sewage upon land being a cause of dysentery—not by exhalations, as supposed by Clouston, but by direct contamination of food or conveyance of the infection by the hands of those who are uncleanly in their habits.

THE PREVENTION OF ENTERIC FEVER IN ARMIES.

SIR,—I am pleased to find that, according to the War Office, the reports at present being received from South Africa show that preventive measures are now receiving every attention.

When I was in South Africa some months ago such was not the case, and the boiling or sterilizing of water for drinking purposes in the army was grossly neglected, and was the exception rather than the rule.

The commendable paper by Dr. Turner, Medical Officer of Health for the Transvaal, on Typhoid Fever in South Africa: its Cause and Prevention, in the BRITISH MEDICAL JOURNAL of February 15th, bears testimony to my assertions that enteric is chiefly waterborne and as to the indifference of troops as to what they drink.—I am, etc.,

February 18th. O. S.

OBITUARY.

ROBERT PEEL RITCHIE, M.D., F.R.C.P.E., F.R.S.E.,

Consulting Physician to the Hospital for Sick Children, Edinburgh.

WE regret to report the death, from cerebral haemorrhage, on Monday, February 10th, of Dr. Robert Peel Ritchie, Edinburgh.

Dr. Ritchie was born in Edinburgh in the year 1835. His father was a civil engineer, a magistrate, and an authority on ventilation in that city. His son was educated at the Edinburgh Academy and at the University of his native city, which, indeed, he never left save for the period when he was Resident Physician at Bethnall House Asylum, London.

He graduated M.D. in 1856, and in the same year was admitted to the Licentiateship of the Royal College of Surgeons of Edinburgh. In 1861 he was admitted to the Fellowship of the Royal College of Physicians of Edinburgh. In that same year he published his first paper, "An Inquiry into a Frequent Cause of Insanity in Young Men." On his return to Edinburgh he devoted himself to the study of diseases of children, became one of the Physicians to the Royal Edinburgh Hospital for Sick Children, gave lectures on the diseases of children, was much consulted by his brethren for that group of diseases, and was at the time of his death one of the Consulting Physicians to the Edinburgh Hospital for Sick Children.

Dr. Peel Ritchie was associated with many other public charities of Edinburgh—the Rescue Home, the Night Asylum, the Dispensary for Women and Children, but particularly the Royal Public Dispensary.

In 1883 he was elected a Fellow of the Royal Society of Edinburgh; and on December 1st, 1887, President of the Royal College of Physicians of Edinburgh. In connexion with the latter honour it is interesting to note that his largest and most important publication was on *The Early Days of the Royall Colledge of Phisitians, Edinburgh.* This was published in 1899, and has never received, either from the Fellows of the College or from the outside members of the profession, the attention it well deserved. It is an extremely interesting and valuable contribution to the history of medicine. For two years he was Vice-President, and for many years Treasurer of the College.

Dr. Peel Ritchie also wrote on cancrum oris, on umbilical hernia, on remedies used by the Caffres to prevent blood poisoning from anthrax, on vaccination, on ovarian dropsy, and in 1888 issued notes on the Report of the Departmental Committee appointed to inquire into pleuro-pneumonia and tuberculosis in the United Kingdom.

He filled the offices of President of the Edinburgh Medico-Chirurgical Society, the Edinburgh Obstetrical Society, the Edinburgh Harveian Society, and the Scottish Microscopical Society.

He was greatly interested in the administration of the Poor Law, and for many years he was a member of the City Parish Council. For a period of five years he was one of the managers of the Edinburgh Royal Infirmary, and when he retired from that office in 1892 he became a member of the Court of Contributors.

He was an able physician, and for many years had a very large practice. Indeed, it was only advancing years that compelled him to lessen this. In politics he was a Conservative, and in religion a member and elder of the Church of Scotland. Dr. Peel Ritchie's wife died several years ago. He is survived by two sons, one of whom is a member of the medical profession and the other a naval officer.

WILLIAM CHARLES HILLS, M.D.ABERD., M.R.C.S.ENG.,

Formerly Medical Superintendent, Norfolk County Asylum

DR. HILLS was the second son of Mr. Monson Hills the elder, resident apothecary and curator of Guy's Hospital, and was born within its precincts in February, 1828. He received his early education at Merchant Taylors School and his medical training at Guy's Hospital, where he was intimately known to Sir W. W. Gull, Mr. Bryant, Sir Samuel Wilks, and many others. After obtaining the diplomas of M.R.C.S. and L.S.A. in 1850, he was appointed House-Surgeon at the Surrey Dispensary, and subsequently in 1854 was elected Assistant Medical Officer at the Kent Asylum at Barming Heath, near Maidstone, under Dr. James Huxley, who is still living, the brother of the late Professor Huxley. In 1859 he graduated as M.D.Aberd., and in 1861 was promoted to the Medical Superintendency of the Norfolk County Asylum at Thorpe, which post he filled with great ability and tact until January, 1887, when he retired on a well-earned pension of £600 a year. The remaining fifteen years of his life were usefully employed as an alienist consultant in the county with which he had been so long associated, and in gratuitous medical work amongst the poor of his district, by whom he was beloved. Death came to him suddenly from cardiac failure shortly after retiring to bed at his house in the Chantry, Norwich, on Saturday, January 18th last, and on January 22nd he was laid to rest in the picturesque churchyard of Postwick, near Thorpe, beside his second wife and only son, who had predeceased him. He leaves one daughter, Mrs. Aubrey A. Blake, to mourn her loss. The funeral was largely attended by medical friends, including Messrs. Wm. Cadge, Charles Williams, Charles Muriel, Thomas H. Morse, and his old friend, Dr. Ernest White, with whom in recent years he had generally spent a few weeks each summer at the City of London Asylum, for to the last he was eager to keep himself abreast of the times in the treatment of mental diseases.

IT is with much regret that we record the death of Mr. D'ARCY BAINBRIDGE CARTER of Shipley, which occurred from pleuro-pneumonia after a very short illness. He was born in 1860, and was the son of the late Dr. Carter of Chapeltown, Leeds, and came of a medical family. He received his early education at the Leeds Grammar School and his medical training at the Leeds School of Medicine. He qualified in 1881, taking the M.R.C.S.Eng. and L.R.C.P.Edin. Shortly afterwards he held the post of House-Surgeon and House-Physician in the Leeds Infirmary. He then for a year was Resident Surgical Officer to the General Hospital, Wakefield. In 1884 he commenced practice in Shipley as partner with Dr. W. H. Ellis. Among other offices he held those of Senior Surgeon and Medical Superintendent to Sir Titus Salt's hospital at Saltaire, Surgeon to the Midland and Great Northern Railways and to the Shipley Section of the East Morley Division of the West Riding Constabulary, and Medical Officer to the Shipley Post Office. He was a Member of the Yorkshire Branch of the British Medical Association. He was one of the Managers of the National Schools, and a Member of the School Board of Shipley. He was a man of genial disposition as well as of high professional attainment, and he will be much missed through an area far wider than Airedale. He leaves a widow and two young daughters.

DR. JEREMIAH T. ESKRIDGE of Denver, who died recently, graduated at the Jefferson Medical College, Philadelphia, in 1875. Soon after taking his degree he was appointed Post-graduate Instructor in Nervous Diseases in the College, and he practised in Philadelphia until 1884, when he settled in Denver. He was a member of many learned societies, and at the time of his death he was Alienist and Neurologist to St. Luke's Hospital, and Consulting Alienist and Neurologist to the Arapahoe County Hospital. Dr. Eskridge contributed largely to the literature of his profession.

DR. CLAYTON PARKHILL of Denver died on the same day as his fellow-townsman, Dr. Eskridge. He was Professor of Surgery in the Gross Medical College of Denver, and Surgeon to the Arapahoe County Hospital and St. Luke's Hospital. During the war with Spain he saw service in Puerto Rico as Surgeon of the First Regiment of Colorado Volunteers, and he was a member of the Association of Military Surgeons of the United States. Dr. Parkhill did not write much, but his productions were all of sterling value. He was held in the highest respect by his professional brethren.

IT is with regret we record the death on February 1st of P. W. MARRIOTT, M.D.St.Andrews, M.R.C.P.Lond., 1881, M.R.C.S.Lond., 1853, F.L.S. He was born on June 30th, 1831, the second son of the Rev. Harvey Marriott, Vicar of

Wellington, Somerset, and forty years Rector of Claverton, Bath. He was educated at the Edinburgh Academy, where he won the prizes for the best Latin elegiaes and sapphics, and one for scholarship in the fifth class in July, 1846. He was at Bath United Hospital in 1849, and matriculated at the London University in 1850. He entered the College of St. Bartholomew's Hospital in 1850, where he was prizeman in Physiology in May, 1851. In 1859 he joined the medical service of Her Majesty's Indian Army, and was attached to the 1st European Regiment of Madras Fusiliers (102nd Royal Dublin Fusiliers). In 1861 he returned from India on sick leave, and from that date was in practice at Mentone, and held the grade of Officier de Santé (Alpes Maritimes) from 1864. Whilst at Mentone Dr. Marriott's unaffected simplicity and kindness were well known, and he was much beloved by many. He was, unknown to most people, a deeply religious man. His kindness to numbers of the poorer class of English who were sent there for their health was remarkable, not only attending them free, but even inducing landlords of hotels to remove his patients from cheap little cold north rooms to those that faced south and were sunny. His hobby was botany and he made a valuable herbarium in the Alpes Maritimes and other parts of Europe. He married a daughter of the late Gerald FitzGerald, of the Queen's County, Ireland, and Bath, and leaves one son.

The late Inspector-General Slaughter.—A correspondent writes: Let me add a few remarks to your notice in the British Medical Journal of February 8th of the death of my "sea-dad," C. H. Slaughter, Inspector-General of Hospitals and Fleets. He was one of the few medical students who joined the navy as Acting Assistant Surgeon during the Crimean war; was employed in the Baltic, and received the Baltic medal. Afterwards he returned to St. Thomas's Hospital, qualified, and joined the service as Assistant Surgeon. He also received the Abyssinian medal. He was very generally loved by all who knew him, was an excellent messmate, careful and painstaking in his professional capacity, and entirely devoted to the service to which he belonged. Dr. Slaughter took an immense amount of trouble in training the young surgeons who were under him, and did his best always to make them know and love the service as he knew and loved it. No one in the navy who was intimate with him but enjoyed at times the great pleasure of listening to his old service yarns; he had a wonderful memory, even for trifles, and the only pity is that he did not commit his reminiscences to paper.

We regret to announce the death of Dr. Charles H. Burnett, the well-known otologist of Philadelphia, who died on January 30th, at the age of 61. He took his degree as Bachelor of Letters at Yale in 1864, and graduated as Doctor of Medicine at the University of Pennsylvania in 1866. He was the author of a textbook entitled *The Ear: its Anatomy, Physiology, and Diseases*, which appeared in 1877, and of a work on *Diseases and Injuries of the Ear*. He was the senior editor of *An American Textbook of Surgery for Practitioners and Students*, and was one of the editors of *An American Yearbook of Medicine and Surgery*.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are: Mavroyéni Pasha, Physician-in-Ordinary to the Sultan, and formerly Professor in the Medical School of Constantinople; Dr. A. Koshelfnikoff, Emeritus Professor of Neuropathology in the University of Moscow, aged 66; Dr. Eugenio Fazio, Professor of Hygiene in the University of Naples; Dr. Alfonso Masi, Deputy Professor of Operative Surgery in the Medical Faculty of Buenos Aires; Dr. Elias Blix, Professor of Otology in the University of Christiania: Dr. Arthur Geissler, of Dresden, Director of the Statistical Bureau of the Kingdom of Saxony, formerly a practising physician at Meran, aged 70; Dr. Maximilian Bansen, formerly Medical Director of the Chapui Lunatic Asylum, Costa Rica, aged 54; Dr. Chedevergne, Director of, and Professor of Clinical Medicine in, the Medical School of Poitiers; and Dr. John T. Metcalfe, formerly Professor of Clinical Medicine at the New York College of Physicians and Surgeons, and for many years one of the leading consultants of New York, aged 83.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE UNDERMANNING OF THE ARMY MEDICAL SERVICE.

The following is the distribution of medical officers employed on the Active or Reserve Lists, according to the *Army List* for February:

Distribution in February Army List.

Ranks.	Home.	South Africa.	Other Foreign Stations.	Not Posted.	Total.	Remarks. Seconded.	Remarks. Reserve of Officers.
Surgeon-Generals ...	4	1	2	1	8	1	—
Colonels	11	5	10	1	27	4	—
Lieutenant-Colonels...	60	56	84	5	205	5	24
Majors	43	134	111	2	290	3	4
Captains	26	87	108	5	226	9	4
Lieutenants	20	144	67	3	234	2	—
Total	164	427	382	17	990	24	32

The total is 3 fewer than in January, with a few changes in distribution. There are 5 more at home, 8 fewer in South Africa, and 4 fewer in other foreign stations: there are 4 more unposted, the same number (24) seconded, and 1 more employed from the reserve of officers.

Deducting seconded and reserve officers, the effective active list numbers 934. Excluding the Director-General, but including the Deputy, the Surgeon-Generals number 8, or 2 short of the normal complement.

There are 98 retired officers employed; 2 are in South Africa, where are also 2 of the Royal Army Medical Corps (Militia).

THE NAVY ESTIMATES FOR THE YEAR 1902-1903.

The First Lord of the Admiralty, Lord Selborne, in his statement explanatory of these Estimates, dated February 10th, 1902, intimated that: "The recent changes in the conditions of service and pay of the medical officers of the army necessitated an immediate revision of the position of the medical officers of the navy. Fresh regulations will shortly be issued giving details of a substantial improvement of pay." These regulations will be awaited with interest in the hope that they will include reforms in the "position" as well as the "pay" of naval medical officers.

Increase in Pay.—As regards future pay, we find in these Estimates for the coming financial year provision for an increase of full pay in all ranks with the apparent exception of that of Deputy Inspector-General. The salary of the Director-General of the Medical Department of the Navy is raised from £1,300 to £1,700. That of the Inspectors-General of Haslar and Plymouth Hospitals from £1,004, with hospital allowance of £85 each, to £1,300 each. The daily pay of fleet surgeons will range, according to years of service, from 30s. to 36s. as compared with 27s. to 33s. as at present; that of staff surgeons from 24s. to 27s. as compared with 21s. to 24s.; that of surgeons from 14s. to 20s. as compared with 11s. 6d. to 15s. 6d. No change is apparent in the half-pay rates.

Establishment.—The Estimates also indicate that forty-one more naval medical officers will be required for the Royal Navy, Coast Guard and Royal Marines than in the year 1901-1902.

Hospital Vote.—The amount provided for hospital and infirmary works and buildings (alterations, improvements, and additions) is £95,160.

Chatham Naval Hospital. This new Hospital with some

600 beds and necessary residences and quarters for the staff, is being built under the Naval Works Act; it is well advanced but no intimation is given as to when it will be completed.

Dartmouth.—The sick quarters of the *Britannia* Royal Naval College for naval cadets at Dartmouth are to be completed early in the next financial year.

Nursing Service.—Lord Selborne also notified that "The Board have great pleasure in announcing that Her Majesty the Queen Alexandra has identified herself with the Navy by consenting to become President of the Naval Nursing Service and to give it her name." The whole navy and the medical branch in particular will keenly appreciate this gracious act. The sisters of the Naval Nursing Staff for the coming year number four head sisters and twenty-eight sisters.

THE HEADQUARTERS STAFF OF THE ARMY MEDICAL SERVICE.

[FROM A CORRESPONDENT.]

THE letter signed "I.V.R.C." published in the BRITISH MEDICAL JOURNAL of February 8th (p. 362) raises very important questions, and is a valuable contribution to the subject which it discusses:

"I.V.R.C." probably asks more than the War Office would be willing to give; but that a reorganisation of the headquarters staff of the Army Medical Service is urgently required no one acquainted with present-day needs can doubt. "I.V.R.C.," however, goes, in my opinion, too far in the direction of centralisation, and I therefore venture to submit the following scheme, which is more in accord with the policy of devolution, which we are told is to be the dominant character of army administration in the future.

The headquarters staff should be strengthened, and it should be divided into Sections with clearly-defined duties somewhat as follows:

I.—*The Supreme Controlling Authority.*

1. The Director-General (member of the Army Board and War Office Council).
2. The Deputy Director-General.
3. Secretary, or Aide de Camp, of field rank.

Duties: General control: everything personal to officers R.A.M.C; admission, promotion, retirement, distribution, discipline, etc.

II. *Sanitary.*

1. Surgeon-General.
2. Assistant to ditto.

Duties: Fully qualified in the Department of Public Health and trained bacteriologists; they should advise the War Office in all matters of military sanitation.

III.—*Statistical.*

1. Officer of colonel's rank.
2. Assistant of field rank, who should also be attached to the Intelligence Department.

Duties: Compiling of all hospital, recruiting, and other statistics; editing of hospital reports; medical organisation of foreign armies.

IV.—*The Royal Army Medical Corps.*

1. Officer of colonel's rank.
2. Staff officer, R.A.M.C.
3. Quartermaster, R.A.M.C.

Duties: Interior economy of the corps; distribution; training; hospital equipment, including medicines and material; field hospitals; bearer companies; the nursing service, etc.

V. *Auxiliary Medical Services.*

1. Officer of colonel's rank.
2. Senior medical officer of one of the auxiliary services.

Duties: All medical matters relating to Yeomanry, Militia, and Volunteers; the employment of civil surgeons.

The foregoing total of twelve officers seems to me the minimum likely to insure that "efficiency" which it is desired should be our watchword. It compares very reasonably, as "I.V.R.C." points out, with 18 in the Intelligence and 17 in the Royal Engineer headquarters staff.

I do not think that the appointment of a headquarters Inspector-General of Hospitals is desirable. It savours of centralization, and recalls the suggested "surprise visits" of the Advisory Board, which have been condemned; none but the Director-General, or his deputy, should come between the principal medical officers of districts or army corps and those under them. The Advisory Board must be regarded as only a means to an end, and in no way a solution of the headquarters staff problem.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: CHETH. R. RICKARD, Surgeon, to the *Boscawen*, lent, February 12th; EDWARD H. MEADEN, Staff Surgeon, and JOHN A.L. CAMPBELL, Surgeon, to the *Bulwark*, March 18th; ALFRED J. PICKTHORN, Staff Surgeon, to the *Ganges*, March 18th; ROWLAND A. KIRBY, B.A., M.B., Surgeon, to the *Vernon*, March 18th; ARTHUR GASKELL, Surgeon, to Chatham Hospital, March 18th; J. FULLARTON, J. G. PEEBLES, M.B., T. W. MILES, B.A., M.B., E. R. L. THOMAS, L. M. MORRIS, O MILLS, N. H. MUMMERY, A. K SMITH-SHAND, M.B., and W. M. L. CHERRY, Surgeons, to the *Duke of Wellington*, additional, for Haslar Hospital, with seniority of February 8th, and to join on February 26th.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Colonel Sir T. J. Gallwey, K.C.M.G., C.B., M.D.	Home District	India.
Colonel W. L. Gubbins, M.B.	South Africa	Home District.
,, M. D. O'Connell, M.D.	—	York.
Lieutenant-Colonel H. Grier	South Africa	Dublin.
,, ,, C. Seymour, M.B.	Bengal	Bombay.
,, ,, J. Maconachie	Madras	,,
,, ,, W. G. Birrell, M.B.	,,	,,
,, ,, J. McLaughlin, M.D.	South Africa	Chester.
Major B. M. Skinner	,,	Home District.
,, J. D. T. Reckitt	,,	Woolwich.
,, J. H. Greenway	,,	Chatham
,, C. S. Sparkes	Bombay	South Africa.
,, G. Raymond, M.B.	Chester	Preston.
,, G. F. Alexander, M.B.	Malta	Aldershot.
Captain G. S. McLoughlin, D.S.O., M.B.	South Africa	,,
,, T. W. Gibbard, M.B.	Madras	South Africa.
,, C. E. Pollock	Bengal	Edinburgh.
,, S. O. Hall	Bombay	Madras.
Lieutenant F. S. Walker	Dublin	Cork.
,, A. C. Adderley	Bombay	Madras.
,, C. R. L. Rouayne, M.B.	,,	Bengal.
,, W. S. Crosthwait	Shorncliffe	South Africa.
,, L. J. S Cahill, M.B.	Dublin	Bombay.
,, M. C. Beatty, M.B.	Aldershot	South Africa.
,, H. W. Long, M.B.	Colchester	Punjab.
,, T. J. Potter	Cork	Bombay.
,, A. J. Williamson, M.B.	Newcastle	South Africa.

Captain G. S. McLoughlin, M.B., D.S.O., has taken over the command of C Company at the Aldershot Training School, temporarily.

Lieutenant-Colonel A. S. K. Prescott, retired pay, has assumed medical charge of troops at Gravesend.

ARMY MEDICAL SERVICE.

MAJOR N. C. FERGUSON, M.B., C.M.G., from Royal Army Medical Corps, is appointed Surgeon-Major, 1st Life Guards, February 15th. He was appointed Surgeon, May 30th, 1885, and Surgeon-Major twelve years thereafter. He is at present serving in South Africa.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. MCLAUGHLIN, M.D., retires on retired pay on account of ill-health, February 19th. He was appointed Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893; and Lieut.-Colonel, July 30th, 1901. He served in the Burmese expedition, 1885 (medal). He was Senior Medical Officer with the expedition to the Tambaka country, on the West Coast of Africa, in 1892, being present at the capture of Tambi (mentioned in dispatches, medal with clasp), and also with the expedition up the Gambia in the same year, including the capture of Toniataba, for which he was again mentioned in dispatches, and received the thanks of H.R.H. the Commander-in-Chief and the Director-General, A.M.S. He also served in the South African War, 1899, 1900, 1901, as Senior Medical Officer of Sir Charles Warren's column and Griqualand West (mentioned in dispatches, medal with three clasps).

The undermentioned Majors, having completed twenty years' full pay service are promoted to be Lieutenant Colonels from February 4th: W. DICK, M.B., F. J. JENCKEN, M.B., F. H. TREHERNE, S. F. LOUGHEED, M.D., C.M.G., J. C HASLETT, M.D., H. J. BARRATT, H. E. R. JAMES, H. O. TREVOR, A. F. RUSSELL, M.B., C.M.G., R. J. L. FAYLE, D.S.O., J. W. JEROME, W. W. PIKE, D.S.O., L. HAYWOOD, M.B., J. M. IRWIN, M.B., E. O. WIGHT, F. H. M. BURTON, M.D., C. E NICHOL, M.B., W. A. MORRIS. Their war records are given in the Army List as follow: W. Dick—Nile expedition in 1884-85, including action at Abu Klea (medal with two clasps and Khedive's star). F. J. Jencken—expedition to Soudan in 1884, and engagements at El Teb and Temai (medal with clasp and Khedive's star); also with Nile Expedition in 1884-85 (clasp). F. H. Treherne—Soudan expedition in 1884 in medical charge of the 1st Battalion Black Watch, and engagements at El Teb and Temai (mentioned in dispatches, medal with clasp, and Khedive's star); with Nile expedition in 1884-85, and action of Kirbekan (two clasps); South African War in 1899-1900, including actions at Elandslaagte, Riotfontein, and Farquhar's Farm, and siege of Ladysmith. H. J. Barratt—South African war, 1899-1901 in charge of a general hospital. H. O. Trevor—Burmese expedition in 1885-86 in medical charge of a Battery of Royal Artillery (medal with clasp). J. W. Jerome and L. Haywood—South African war, 1899-1900. J. M. Irwin—Nile expedition in 1898 (British medal and Khedive's medal); South African war, 1899-1901. E. O. Wight—operations on the North-East Frontier of Burma in 1891-92 (medal with clasp). F. H. M. Burton—Burmese expedition in 1885-87, including the expeditions to Bhamo, Mogaung, and against the Kachins on the frontier of China; in charge of a section of a Field Hospital at Bhamo from January, 1886, to March, 1887 (medal with clasp). C. E. Nichol—Burma expedition in 1885-87 (medal with clasp). W. A. Morris—Burmese expedition in 1886-87, and again in 1887-9 (mentioned in dispatches, medal with two clasps); North West Frontier of India in 1897-98 with the Tirah expeditionary force as Secretary to the Principal Medical Officer (mentioned in dispatches (medal with two clasps). B. M. Skinner—North-West Frontier of India in 1897-98 (medal with clasp); South African war in 1899-1901 as Principal Medical Officer of a division.

The undermentioned Surgeons on probation are appointed Lieutenants: William J. S. Harvey, January 14th; Barry A. Craig, January 29th.

INDIAN MEDICAL SERVICE.

The following is a list of the candidates for his Majesty's Indian Medical Service who were successful at the Competitive Examination held in London on February 10th, 1902, and following days. Thirty candidates have been passed instead of seventeen as previously announced:

	Marks.		Marks.
J. Macpherson	3,210	H. Hallilay	2,629
W. C. Ross	3,086	F. E. Wilson	2,610
J. C. G. Kinhardt	3,051	B. B. Paymaster	2,577
G. D. Franklin	3,026	H. Crossle	2,560
J. H. Gill	3,011	L. Cook	2,546
R. A. Lloyd	2,878	J. Forrest	2,490
F. A. F. Barnardo	2,870	L. B. Scott	2,483
C. A. Gourlay	2,853	J. H. Ferris	2,456
E. A. Walker	2,750	W. S. Patton	2,445
F. W. Sime	2,746	N. W. Mackworth	2,409
L. L. Hirsch	2,713	W. L. Trafford	2,393
H. Ross	2,684	L. Rundall	2,365
H. E. J. Batty	2,666	E. C. C. Maunsell	2,342
G. J. Davys	2,656	G. C. I. Robertson	2,277
A. J. V. Betts	2,650	D. S. A. O'Keefe	2,062

Captain A. E. H. Pinch, Bengal Establishment, is permitted to retire from the service from December 17th, 1901. He joined the department as Surgeon-Lieutenant, July 29th, 1896, and was placed on half pay December 17th, 1899.

IMPERIAL YEOMANRY.

Surgeon-Captain W. Rendall, Dorset (Queen's Own) Imperial Yeomanry, resigns his commission is granted the rank of Surgeon-Major, and retains his rank and uniform, February 19th.

Surgeon Lieutenant L. J. H. Oldmeadow, M.D., from the 2nd Volunteer Battalion the Royal Fusileers, is appointed Surgeon-Lieutenant in the 4th County of London (King's Colonials) Imperial Yeomanry, February 5th.

Mr. Charters J. Symonds, M.D., is also appointed Surgeon-Lieutenant in the same corps, February 5th.

THE VOLUNTEERS.

Surgeon-Major J. Thomson, M.D., 1st Ayrshire and Galloway Artillery, is promoted to be Surgeon-Lieutenant-Colonel, February 19th.

Surgeon-Lieutenant A. C. Oldham, 1st Worcestershire Artillery, is promoted to be Surgeon-Captain, February 19th.

Surgeon-Lieutenant A. E. Larking, M.D., 1st Volunteer Battalion the Buffs (East Kent Regiment), is promoted to be Surgeon-Captain, January 21th.

The appointment of Mr. H. J. Bailey, M.B., as Surgeon-Lieutenant in the 2nd Cadet Battalion the King's (Liverpool Regiment), announced in *London Gazette* of January 17th is cancelled at his own request.

Surgeon-Lieutenant J. R. Foulds, M.B., 1st Dumbartonshire Rifles, resigns his commission, February 19th.

DEARTH OF CANDIDATES.

Ichthyosis writes: The present dearth of candidates for the Navy, Army, and Colonial Services arises mainly from insufficient inducements in the shape of pay and pension. The suggestion to increase pension by 1s a day for each year of service after twenty, up to a maximum, seems great.

*** The present dearth of candidates for the public services is a fact admitting of more than one explanation. First comes increased demand in civil life through the abolition of unqualified assistantships; next, the using up of the available supply through the temporary employment in the army of a large number of young medical men. At the same time, we doubt if even the end of the war will much assist the regular establishments of the public services unless sufficient inducements are offered to eligible candidates.

CHANGE OF TITLES OF MILITIA AND VOLUNTEER MEDICAL SERVICE CORPS.

V.M.O. and A.M.R. writes: There are, according to the *Army List* (January), one Artillery Volunteer Medical Officer, one Engineer Volunteer Medical Officer, one Yeomanry Medical Officer, and eight regimental Volunteer Medical Officers serving with the Royal Army Medical Corps, as against two only of the Volunteer Medical Staff Corps. Surely if the services of the Volunteer Medical Staff Corps merit its new designation and change of titles, the other medical officers have earned for themselves and their colleagues—if the change from a professional to a combatant title is a compliment—a right to omit—if only for the sake of uniformity—the prefix "Surgeon" when describing their rank.

PROMOTION IN THE ROYAL NAVY MEDICAL SERVICE.

R. W. writes: In the reform of the naval medical service promotion for professional merit must find a place. When all is said and done this can only be secured by competitive examination. Now, all do not want special promotion, but are content to jog along in the old easy style. For such as these let there be no change from the present state of affairs. For those, however, who wish to push ahead, let the Admiralty demand first of all a thesis on some subject which shall give evidence of an originality of thought; then, if this is considered satisfactory, and the surgeon obtains, say, 85 per cent. of marks in the staff surgeons examination, let the ambitious man be given two, three, or four years seniority, according to the value of his original work and examination.

THE TRAINING OF PRIVATES OF THE R.A.M.C.

R.A.M.C. writes: It is frequently stated in the public press that batches of non-commissioned officers and men of the Royal Army Medical Corps leave England for South Africa. It is to be feared that if the public is not made aware of the qualifications of some of the privates, the War Office will, as heretofore, urge the efficiency of the present arrangements against increasing the strength of the subordinate rank of the Royal Army Medical Corps. It should be generally known that a large proportion of the privates transferred from the dépôt Royal Army Medical Corps, Aldershot, to South Africa, have had no hospital training whatever, as there has been no time to give it to them. They are enlisted, sent to the dépôt for a few weeks drill, and then embarked for South Africa as trained sick attendants, although many have never been within the doors of any hospital. This is not fair to the sick or the Royal Army Medical Corps, and ought to be proclaimed aloud.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE ADVERTISEMENT OF HEALTH LECTURES.

A correspondent sends us the copy for December 14th of the *Buteman and Advertiser* for the Western Isles, published at Rothsay, which contains the advertisement of a lecture by Dr. Gordon Cluckie, Surgeon to the Eye Infirmary, Greenock, on the subject of The Eye: its Diseases and Defects, the lecture to be followed by a cinematograph and phonograph entertainment. Admission was to be obtained for the moderate prices of 1s. 6d., 1s., and 6d. In addition to the advertisement the paper contains a paragraph which, after stating that "Dr. Cluckie has made the eye his special study, and his fame as an oculist has drawn large numbers to him from different parts of the country, who really avow that they owe that most precious of boons—the preservation of their eyesight—to his skilful treatment," goes on to say that "the proceeds of the lecture will go to the Deacon's Court of the Chapelhill United Free Church and that to add to the variety and attractiveness of the programme the doctor has agreed to give a most interesting cinematograph and phonographic entertainment after the lecture." It is very much to be regretted that health lectures, the intention of which may be justified by the existence of much preventable disease due to ignorance of health principles on the part of the public, should be made the occasion of objectionable advertisements and puffing paragraphs. A medical man who undertakes to give such lectures owes it to himself and to his profession to take care that the announcements of the lecture are consistent with good taste and with generally recognised ethical principles. We do not wish to condemn health lectures altogether, but we think that they ought to be organised by responsible committees and given by persons selected by such committees. As it is, they sometimes seem to become means for improper self-advertisement, and we regard it as most desirable that the profession should recognize clearly the need for greater supervision over the announcements of lectures and lecturers upon such occasions.

FEE FOR TREATING COLLES'S FRACTURE.

In an answer to a correspondent under this head in the British Medical Journal of February 14th, p. 431, it was by a slip of the pen stated that the Consolidated Orders of the Local Government Board allowed the parish doctor £3 for attending a Colles's fracture. This is an error, as the fee allowed in the Order for simple fractures and dislocations of the upper extremity is £1.

OSTEOPATHY IN NEW YORK.

A bill for the recognition of the system of the treatment known as "osteopathy," which has been before the New York Legislature for some time, has just been thrown out in Committee. It proposed to give to "osteopaths," whose method consists in the application of a kind of massage, all the rights of medical practitioners to treat all kinds of diseases, sign death certificates, etc., without any State examination whatever. A public hearing on it was given before the Joint Committee on Judiciary on January 29th, during the meeting of the State Medical Society at Albany, and at the executive session of the Committee which was held directly afterwards the measure was dropped. Among those who spoke against it were Drs. A. G. Root and Albert Vanderveer of Albany, A. Jacobi of New York, and H. R. Hopkins of Buffalo.

CLUB CERTIFICATES.

Aberdeen.—A correspondent complains that a club in his neighbourhood has made a rule that no sick money will be paid to members without the certificate of the club surgeon. He wishes to know whether this is legal, as he thought that such societies could not legally refuse the certificate of a registered practitioner.

*** Such a rule is very invidious. Nevertheless, if a club makes such a rule the members dissenting must either obey it or retire from the club, for otherwise they may be put out of benefit. It is not illegal for a club to make such a rule.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Degrees.—The following degrees were conferred at a congregation on February 13th: *M.D.*: L. T. R. Hutchinson, Trinity; G. C. Taylor, Christ's. *M.B. and B.C.*: D. J. Morgan, St. John's; J. G. Cooke, Sidney.

UNIVERSITY OF LONDON.

Preliminary Scientific Examination.—The following candidates have satisfied the Examiners:

Entire Examination.—First Division.—S. J. A. Beale, London Hospital

and University of New Zealand; S. F. Dudley, Merchant Taylors School; H. J. Nightingale, St. Thomas's Hospital; A. M. Pollard, King's College and Alwyne Institution. *Second Division.*—Josephine Eugenie Louise Griffiths, University College, Aberystwith; C. C. Holman, Eastbourne College; A. T. Nankivell, Dulwich College and private study; B. T. Parsons-Smith, University Tutorial College; Elsie Muriel Smith, London (Royal Free Hospital) School of Medicine for Women; J. H. Spencer, Charing Cross Hospital and Alwyne Institute; R. E. Todd, St. Thomas's Hospital.

Chemistry and Experimental Physics.—G. F. E. Allison, Guy's Hospital and William Ellis Endowed School; *J. Appleyard, University College and private study; *C. J. Armstong-Dash, St. Bartholomew's Hospital; *C. A. Basker, Guy's Hospital; *J. A. Bullbrook, Guy's Hospital; *Angel Comacho, Charing Cross Hospital and Alwyne Institute; L. Croft, Yorkshire College and Bradford Municipal Technical College; *W. J. P. Dicks, private tuition; R. L. E. Downer, St. Bartholomew's Hospital; *A. T. W. Forrester, St. Bartholomew's Hospital; *H. M Fort, Owens College; *E. H. R. Harries, London Hospital; *C. T. Hawkins, University College, Cardiff; *R. B. Heygate, Middlesex Hospital and Epsom College; *R. de B. M. Hopkins, University College, Bristol, and private study; *C. R. Hoskyn, St. Bartholomew's Hospital; *H. T. Howells, University College, Cardiff; *E. H. Hugo, Charing Cross Hospital and Epsom College; *E J. G. Jones, University College, Cardiff; *R. de V. King, St. Mary's Hospital; *A. J. Lee, University College and University Tutorial College; H. H. Leeson, University Tutorial College; *Ethel Mary Lomas, London (Royal Free Hospital) School of Medicine for Women; C. Lovell, University Tutorial College and private study; *P. J. Marett, Birkbeck Institution; *E. M. S. Mecredy, Yorkshire College and private study; H. E. H Mitchell, Guy's Hospital; A. W. Mongredien, University Tutorial College and Birkbeck Institution; *J. G. Morgan, London Hospital; H. Nockolds, Hartley College, Southampton; *C. L. C. Owen, private study; *J. Owen, London Hospital; *O. B. Parry, Birkbeck Institution and University Tutorial College; W. Patey, Dulwich College; A. J. S. Pinchin, South-Western Polytechnic and private study; *E. J. Price, University College, Aberystwith; *Eliza Macdonald Smith, London (Royal Free Hospital) School of Medicine for Women and Alwyne Institute; *Nora Frances Smith, London (Royal Free Hospital) School of Medicine for Women; E. W. Squire, St. Mary's Hospital; W. F. Sutcliffe, St. Thomas's Hospital; H. Thwaite, Birmingham University and private tuition; *T. W. Wade, University College, Cardiff; *N. H. Walker, St. Bartholomew's Hospital; H. I. Welsh, St. Paul's School and private tuition; *E. Wharton, Owens College; *J. W. J. Willcox, University College, Bristol; H. O. Williams, University College, Cardiff.

Biology.—*A. Alcock, Owens College; F. A. Barter, London Hospital; H. H. Blake, University Tutorial College and private study; *H. J. Cates, University Tutorial College and private study; *B. W. Cherrett, Hartley College, Southampton; P. C. Conran, St. Paul's School and University Tutorial College; *S. W. Daw, Guy's Hospital; A. Ff. W. Denning, Guy's Hospital; T. Evans, University College, Aberystwith, and University Tutorial College; R. Farrant, Epsom College and private study; *Margaret Fisher, London (Royal Free Hospital) School of Medicine for Women; *A. L. Foster, Guy's Hospital; *S. F. Fouracre, Charing Cross Hospital and Alwyne Institute; *L. H. Grabham, St. Thomas's Hospital and Bedford Grammar School; *H. Houwink, Birkbeck Institution; *H. E. Jones, London Hospital; R. P. Jones, University College, Cardiff; *C H. Marshall, Guy's Hospital and Dulwich College; M. H. E. R. Montesole, St. Thomas's Hospital; *C. M. Page, St. Thomas's Hospital; *A. H. Pollard, London Hospital; *E. N. Ramsbottom, Owens College; *R. J. Reynolds, Alwyne Institution and private study; *A. H. Rich, University Tutorial College; C. M. Rigby, Dulwich College; *C. F. Robertson, Middlesex Hospital and private tuition; *A F. Sanderson, St. Thomas's Hospital; F. Standish, London Hospital; K. H Stokes, University Tutorial College; *S. A. Tucker, St. Bartholomew's Hospital; *H. A Whitcombe, Birmingham University and private study; *C. U. Whitney, Westminster Hospital; *A. Zorab, Guy's Hospital.

*These candidates have already passed a part of the examination.

PRELIMINARY AND INTERMEDIATE TEACHING.—We learn from the *Times*, which appears to be the accredited organ of the Senate of the University of London, that the Senate has approved the report from the Academic Council, recommending, in accordance with a suggestion made by the Faculty of Medicine, that, subject to the liberty to be left, as recommended by the Faculty, to those schools which desire to retain the teaching of the preliminary and intermediate medical subjects, the Senate should take steps to secure funds to enable it to establish in the near neighbourhood of the University an Institute of Medical Sciences, and appointed a Committee to consult with the Faculty on the whole question. The report of the Faculty of Medicine was published in the BRITISH MEDICAL JOURNAL of December 21st, 1901, page 1837.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN Extraordinary Comitia of the Fellows was held at the College on Tuesday, February 18th; the President, Sir W. S. Church, Bart., in the chair.

The King.—The Registrar read a letter from Sir Francis Knollys, conveying a gracious reply from His Majesty the King to the resolution adopted by the College at the last meeting.

The Croonian Lectures.—The President announced that the Royal Coronation being fixed for June 26th, the Croonian Lectures would be delivered upon June 10th, 12th, 17th, and 19th, instead of upon the dates previously announced.

Communications.—Communications were received from: (1) The Secretary of the College of Surgeons, reporting certain proceedings of their Council on February 13th. (2) From the Sanitary Institute, inviting the College to send delegates to the annual congress to be held at Manchester, September 9th. Upon the nomination of the President, Dr. Vivian Poore and Dr. Corfield were appointed to represent the College. (3) From the Clerk to the Management Committee of the Chelsea Physic Garden, inviting the College to appoint a member of the Committee for a term of four years. Upon the nomination of the President, Dr. Cayley was appointed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary council was held on February 13th, Mr. H. G. Howse, President, in the chair.

University of London Examinations.

The council agreed to lend a set of surgical instruments to the University of London for the M.B. and B.S. examinations, the agreement to last for three years.

Bradshaw Lecturer.

Mr. Howard Marsh was appointed Bradshaw Lecturer for the ensuing collegiate year.

Medical Congress at Cairo.

Mr. Reginald Harrison was appointed delegate to represent the College at the above Congress, which is to be held from December 19th to 23rd next, instead of from December 10th to 14th as previously proposed.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,456 births and 6,451 deaths were registered during the week ending Saturday last, February 15th. The annual rate of mortality in these towns, which had been 17.7, 17.9, and 20.6 per 1,000 in the three preceding weeks, further rose last week to 22.6 per 1,000 last week. Among these large towns the death-rates ranged from 11.7 in Hornsey, 12 2 Handsworth, 12 5 in East Ham, 13.4 in Barrow-in-Furness, 13.9 in Walthamstow, and 14.1 in Portsmouth and in Reading to 26.7 in Norwich, 26.8 in Liverpool, 27.3 in South Shields, 27.5 in Preston, 29.7 in St. Helens, 29.9 Rhondda, 31.0 in Merthyr Tydfil, and 31.3 in Burnley. In London the death-rate was 25.9 per 1,000, while it averaged only 21.2 per 1,000 in the seventy-five other large towns. The zymotic death-rate last week in the seventy-six large towns averaged 1.8 per 1,000; in London this death-rate was 2.4 per 1,000, against a mean-rate of 1.6 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.0 in Stockton-on-Tees and in South Shields, 3.1 in Leicester, 3.3 in Birmingham, 3.4 in Tottenham, 3.6 in St. Helens, 4.8 in Burnley, and 5.8 in Hanley. Measles caused a death-rate of 1.5 in Croydon and in Southampton, 1.6 in Warrington and in Huddersfield, 1.8 in St. Helens, 2.6 in York, and 3.7 in Burnley; diphtheria of 1.2 in St. Helens, and 4.2 in Hanley; whooping-cough of 1.1 in Liverpool, 1 3 in Birmingham and in Aston Manor, 1.4 in Leeds, 1 5 in Leyton, 1 8 in Rhondda, 2.0 in Stockton-on-Tees, 2.1 in Newcastle, and 2.5 in South Shields; and "fever" of 1.1 in Sunderland. The mortality from scarlet fever showed no marked excess in any of the large towns. The 60 deaths from small-pox registered in these towns last week included 54 which belonged to London, 3 to Tottenham, and 1 each to West Ham, East Ham, and Plymouth. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, the 15th inst., was 1,185, against 870, 1,135, and 1,102 at the end of the three preceding weeks: 390 new cases were admitted during the week, against 204, 499, and 287 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had declined from 3,137 to 2,500 at the end of the seven preceding weeks, had further decreased to 2,455 on Saturday, last; 260 new cases were admitted during week, against 299, 226, and 277 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 15th, 908 births and 761 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.3, 21.8, and 23.0 per 1,000 in the three preceding weeks, declined again to 23.6 per 1,000 last week, but was 1.0 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.5 in Perth and 19 5 in Aberdeen, to 25.1 in Leith and 25.2 in Glasgow. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Dundee and Greenock. The 376 deaths registered in Glasgow included 2 from small-pox, 8 from measles, 2 from diphtheria, 10 from whooping-cough, 5 from "fever," and 5 from diarrhœa. Three fatal cases of "fever" and 2 of diarrhœa were recorded in Edinburgh. Two deaths from measles and 6 from diarrhœa occurred in Dundee; 3 from whooping-cough in Paisley and in Leith, and 2 from scarlet fever and 2 from "fever" in Greenock.

SCOTTISH POOR-LAW MEDICAL OFFICERS.

SHETLANDER, who is a parochial medical officer, writes: Having had to sign two certificates of lunacy at the request of the poor inspector, I in due course sent in a bill for the work done. The parish council decline to pay on the ground that it came within the scope of my "retaining fee" or fixed salary that I receive as medical officer. The patients were not paupers until they became insane, but became so in virtue of the inability of their friends to keep them in an asylum; they applied to the inspector, and were duly made paupers, and sent away as such. (1) Can I not claim to be paid for visiting and certifying them? They both lived more than ten miles from my house, and long distances from any road. (2) Is there any limit fixed by law beyond which I cannot ask? I asked £1 1s. for each case. One of the patients I had to visit twice, as the inspector allowed the first certificate to lapse because he could not see anything wrong with her. It was a case of puerperal mania—one attempt at suicide by drowning had been made, as well as attempts to kill her child. I thus had to go forty miles over that case alone. At the time of my appointment here nothing was said about lunacy fees. (3) Can I

claim for medicines and surgical dressings, etc., supplied to paupers, or does that come under my salary?

*** (1) The appointment as parish medical officer is under the Local Government Board Acts, and the duties are laid down by that Board. We are of opinion that it is not part of the duty of a parish medical officer to do work under the Lunacy Act unless he receives a special salary for lunacy work; further, as the parish council receives a special grant to pay the salary of the parish medical officer, this salary must not include work outside the regular parish duties; and, if the parish council include other work, they are apparently doing what is irregular. (2) We are not aware of any limit fixed by law for the fee. The usual fee charged is £1 1s. for each case certified, exclusive of any expenses incurred; and in the case where our correspondent visited the patient twice, he is, in our opinion, entitled to an extra fee; considering that he had to go forty miles, a substantial fee. (3) A claim can be made for medicines and surgical dressings supplied to paupers, unless a fixed sum for medicines is allowed.

We would suggest that our correspondent should write the Secretary, Local Government Board, Edinburgh, and, without making any complaint, ask the advice of that Board.

REMUNERATION OF MEDICAL OFFICERS OF INFECTIOUS HOSPITALS.

G. P. E. writes: A temporary small-pox hospital of twelve beds is being erected. What is the usual method of remuneration for the medical officers? Is it by salary or by fee per case? What would be a reasonable amount, and should the medical officer have any retaining fee while the hospital is unoccupied?

INDEFATIGABLE asks what salaries are offered to medical officers of isolation hospitals. He states that the —— Union is offering a salary of £20 a year and one guinea a case treated at the isolation hospital, which is established at a distance of three or four miles from the nearest town.

ISOLATION AND REMOVAL OF SMALL-POX PATIENTS.

PRACTITIONER.—The law requires compulsory removal to hospitals of a patient suffering from any dangerous infectious disease if he be without proper lodging and accommodation, but not otherwise.

SMALL-POX AND VACCINATION.

Fees for Vaccination.

REVACCINATION suggests certain rules for charging patients for vaccinations and revaccinations. He says that in order to encourage people to be vaccinated, in the case of the poor a uniform fee of 2s. 6d. should be charged. With regard to the more wealthy, that a charge of twice the visiting fee would meet the justice of the case where only a single operation was done. Where two or more were vaccinated, for all after the first a single visiting fee might suffice. There seems to be no objection to such a scale. Where however, owing to distance, the visiting fee is somewhat high, the extra charge for vaccination might appear a little large.

A CORRESPONDENT asks what he is entitled to charge for vaccinating at a school within his district as public vaccinator. May he charge the same as if he did them at the homes of the children, or is he only entitled to be paid the same fee as if the vaccination were done at his own surgery?

*** For all residing at the school, such as boarders, he is entitled to charge the same as if done at their own homes. In the case of day pupils and others not residing at the school, he can only make the same charge as if done at his surgery.

ATTENDANCE AT SMALL-POX HOSPITAL BY POOR-LAW MEDICAL OFFICER.

R. W. L. asks: If the medical officer of a Poor-law district is required to attend persons in receipt of outdoor relief suffering from small-pox who have been removed to a temporary isolation hospital, can he make any extra charge?

*** If the isolation hospital is located within the area of the district of the Poor-law medical officer whose duty it is to attend the patient as a pauper, he would not (except by some special arrangement officially sanctioned by the Local Government Board) be able to claim any extra remuneration, because the case in question was one of small-pox. Should the isolation hospital not be in the district of the medical officer in question, his remuneration for attendance on the patient must be a matter for special arrangement.

THE MEDICAL STAFF OF RATE-SUPPORTED HOSPITALS.

SPITAL asks whether in any district the services of the medical staff are given gratuitously to rate-supported hospitals as they are given to hospitals supported by voluntary contributions.

*** So far as we are aware this has never been done, and we certainly think that it would be inadvisable.

THE Faculty of Rush Medical College, Chicago, has adopted resolutions recommending the opening of the courses of that institution to women, the change to take effect in the autumn. This recommendation will undoubtedly, says the New York *Medical Journal*, be adopted by the Board of Trustees.

INDIA AND THE COLONIES.

INDIA.

MIDWIVES.—According to a Reuter telegram from Calcutta dated January 31st, Lady Curzon has issued a letter thanking subscribers to the Victoria Scholarship Memorial Fund, the purpose of which is to provide for the training of Indian midwives throughout the country. The fund, which is now closed, amounts to more than six lakhs of rupees. Lady Curzon says that the generosity of the donors testifies to the profound veneration felt for the late Queen Victoria, and states that the work is progressing well, and enjoys the warm support and interest of Queen Alexandra.

BRITISH GUIANA.

THE Report of the Surgeon-General for the year ending March 31st, 1901, consists as usual of financial and statistical returns and departmental reports from the officers in charge of the various medical institutions. Drs. Anderson and Snell retired during the year, and another vacancy in the service was caused by the death of Dr. Ozanne.

General Observations.—The Surgeon-General states that the health of the Colony has been fairly good throughout the year, in so far that there was no severe epidemic: there were no cases of small-pox or yellow fever. The principal diseases prevailing were malaria, dysentery, diarrhoea, pneumonia, influenza and catarrh. A severe drought prevailed throughout the period under review, and much difficulty in obtaining good water resulted; in the medical establishments rain water is almost entirely relied on for drinking and domestic purposes. Intestinal disorders were rife as a result of the drought and with the rains at the end of the year came influenza.

Public Hospitals.—The number of patients treated in the public hospitals during the year showed an increase of nearly 14,000. The large hospital at Georgetown accommodated more than three-fourths of the whole number of in-patients, the average daily number being 477. There were 371 deliveries in this institution and 116 major operations. The deaths after operation were eight in number, but in no instance was the fatal result due to the operation itself. The medical officer in charge remarks on the increased prevalence of ankylostomiasis and its extension to new districts throughout the Colony. Though the fact is not commented on in the report, the returns from the hospitals show a large percentage of cases of tuberculosis; 57 cases of cataract extraction at Georgetown hospital appear to show that this condition is also prevalent.

Lunacy.—In the public lunatic asylum at Berbice the average daily number resident was 700; of the admissions, the large majority were natives of the Colony and of India, in about equal numbers; the chief causes of insanity were ganje, alcohol, and epilepsy.

Leprosy.—The leper asylum returns show a slightly diminished admission rate; the inmates are all given occupation, for the most part, in the open air, with the result that the death-rate is low and tuberculosis is rare.

Sanitation.—The reports of the district medical officers show that sanitary requirements are fairly well complied with on the estates, but that in the villages generally the arrangements are of the most primitive description, and dysentery and diarrhoea are common among the coolies. Malaria was not as prevalent throughout the year as usual, but it is widely distributed, and no attempt has hitherto been made to combat the disease by modern methods. There are no doubt many difficulties in the way of such attempts, and, from the remarks of one of the medical officers, the lay authorities do not lend any support to medical suggestions in this direction. Throughout the Colony there is evidently much difficulty in obtaining a good water supply, and in protecting present supplies from pollution.

MEDICAL NEWS.

PROHIBITION OF HOMOEOPATHY IN JAPAN.—We learn from the *Philadelphia Medical Journal* that the American Minister at Tokio, in a dispatch dated December 12th, 1901, stated that on July 20th, 1899, the Central Sanitary Council of Japan resolved not to permit the practice of homoeopathy in Japan.

SUCCESSFUL VACCINATION.—Dr. Alfred G. Hebblethwaite, Public Vaccinator for Keighley, has been awarded by the Local Government Board a gratuity for successful vaccination. This is all the more satisfactory, as Keighley is a hotbed of antivaccination, and the Board of Guardians, under whom the public vaccinator acts, are wholly against vaccination.

PRINCESS SOPHIE BAMBA DHULEEP SINGH, daughter of the Maharajah of Lahore, India, who had begun her medical studies in the North-Western Women's Medical College, Chicago, which recently had to close its doors, has betaken herself to the Women's Medical College, Toronto. We trust that nothing will now happen to interrupt Her Highness's triumphal progress to a medical degree.

THE INVESTIGATION OF CHRONIC DISEASES.—The late Miss Ellen O. Proctor has bequeathed to the President and Fellows of Harvard College and their successors the sum of £10,000 to constitute a fund to be known as the Proctor Fund for the Study of Chronic Diseases. The income of the fund is to be devoted to the care in a hospital, or hospitals, of persons

afflicted with chronic diseases, and to investigations into the nature and treatment of such diseases. The special disposition of the income of the fund is to be under the control of the heads of the Departments of Theory and Practice of Medicine, Clinical Medicine, and Pathology in the Harvard Medical School.

CHELSEA CLINICAL SOCIETY.—The annual clinical debate of this Society will be held on March 11th and 18th in the Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., at 8.30 p.m. The subject selected for discussion is Cancer, its Nature, Origin, and General Principles of Treatment; and the debate will be opened by Dr. J. F. Payne. These meetings will be open to all members of the medical profession.

OWING to the fact that the next meeting of the International Medical Congress has been fixed for 1903, it has been decided to postpone the meeting of the International Dermatological Congress which was to have been held in that year till September, 1904, when it will take place in Berlin under the presidency of Professor E. Lesser. The Secretary-General of the Congress is Dr. B. Rosenthal.

THE International Jury of the Paris International Exhibition has awarded Dr. Mackenzie Davidson a gold medal in Class 15 (mathematical and scientific instruments), and a silver medal in Class 12 (photography). His name is also mentioned in the Grand Prix Diploma awarded to the Board of Education, South Kensington, for its collective exhibit of mathematical and scientific instruments.

CONSTANTS FOR OFFICIAL FORMULAE.—Messrs. Southall Brothers and Barclay, Birmingham, send a copy of their tenth annual laboratory report. This consists chiefly of a record of experiments done to determine either the proportion of active constituent or, in cases where this is not possible, of extractive matter in galenical preparations as prepared by them according to the official formulae. This is done with a view to the suggestion of official constants for such preparations, and will doubtless serve as a useful guide in their selection.

A COMPETITION FOR A MODEL SANATORIUM IN ITALY.—We stated a short time ago that a Committee with Professor Durante, Senator of Italy, as Chairman had been appointed by the Italian Government to adjudicate on the essays and plans sent in by competitors for the prizes of the value respectively of £200, and £140, for the best design of a model sanatorium. The prizes have just been awarded, and the Minister of the Interior will publish a volume containing the descriptions and plans sent in by the successful candidates together with the report of the Committee.

MEDICAL MISSIONARIES.—*Mercy and Truth* for February quotes a list compiled by Dr. Maxwell of all medical missionaries holding British degrees or diplomas, and others who, while working in connexion with British societies, have foreign or colonial diplomas. The number has increased from 295 a year ago to 312, of whom 91 are women. This compares with 113 men and 12 women twelve years ago. Of the 312, the Presbyterians claim 114, and the number assigned to the Church of England is put down at 87, but we think that is short of the mark, for the C.M.S. has 59 (British diplomas only), the S.P.G. 15, C.E.Z.M.S. 12, Ranagnat 5, Universities Mission 3 (equals 94), and we believe that 2 or 3 are working with the C.I.M. and Z.B.M.M. As in previous years, India takes the lead with 115, and China follows close with 106. Africa claims 36, and Palestine 17. At a long interval Persia follows with 7, Madagascar and New Hebrides each with 6, while Egypt and Japan each has 4. The remaining 11 are scattered as units in various parts.

PROFESSIONAL EARNINGS OF BERLIN DOCTORS.—In Germany returns of professional incomes can be obtained for statistical purposes, the names of the individual taxpayers being suppressed. Some interesting figures obtained in this way as to the earnings of the medical profession in Berlin have recently been published. One practitioner returns the handsome amount of £14,800, but on the whole the financial condition of the Berlin doctor is by no means brilliant. There are in the Prussian capital 1,946 medical practitioners, of whom 529, or more than one quarter, have a yearly income of less than £140; 273 have an income ranging between £140 to £260, while 785 exceed the latter sum and approximate, for the most part *longo intervallo*, to the £15,000 which is the high-water mark of professional prosperity. No fewer than 107 earn less than £40, and are consequently exempt from income tax.

CREMATION IN MID-AIR.—An ingenious American is the inventor of the Navobi, a balloon-like apparatus, the object of which is to cremate bodies high in mid-air. We do not think that this method, whatever other advantages it may possess, will get over the religious difficulty. If the clergy denounce cremation conducted on *terra firma* as pagan, they are likely to condemn it when carried out in mid-air as Mohammedan, for was not the prophet's coffin suspended between earth and heaven? This is as good an argument as some of those advanced in defence of the theological position in regard to cremation.

ANTIRABIC INOCULATIONS IN PORTUGAL.—From a report of the work of the Royal Bacteriological Institute at Lisbon published in *A Medicina Contemporanea* of February 9th, it appears that during the year 1900 the total number of patients treated was 651. Of these two died, one of the deaths occurring during the course of treatment. This case being left out of account, the rate of mortality is 0.15 per cent. During the last four years the treatment has also been carried out in the Pasteur Institute at Oporto, founded by Dr. Avantes Pereira, under whose direction it has from the first been conducted. The following statistics show the results obtained: In 1897, the number of patients treated was 79 with no death: In 1898, 77 also without a death; in 1899, 140 with a mortality rate of 0.71 per cent.; and in 1900, 395 with a death-rate of 0.50 per cent.

ASSOCIATION OF MEDICAL LICENTIATES OF THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—We are asked to state that an Association of Medical Licentiates of the Faculty of Physicians and Surgeons has recently been formed for the purpose of (1) conserving their interests, (2) encouraging a feeling of *esprit de corps* amongst them, and (3) enabling them to take effective action in matters affecting their interests. The meetings of the Association are at present being held in the Southern Medical Club, 18, South Portland Street, Glasgow, but a general meeting of the Association is to be held in the Faculty Hall, 242, St. Vincent Street, Glasgow, on February 27th, at 4 p.m., when the recent action of the General Medical Council in reference to prosecutions under the Sale of Poisons Act will be considered. All Licentiates of the Faculty are invited to be present.

AMERICAN CONGRESS OF TUBERCULOSIS.—The third annual session of the American Congress of Tuberculosis will be held conjointly with the Medico-Legal Society on May 14th, 15th, and 16th, 1902, in the City of New York. Besides papers of a miscellaneous nature, four "symposia" have been arranged, each to occupy one sitting, as follows: (1) Preventive Legislation, embracing the Social, Municipal, and State Aspects of Tuberculosis; (2) Tuberculosis in its Pathological and Bacteriological Aspects; (3) The Medical and Surgical Aspects of Tuberculosis; and (4) The Veterinary Aspects of Tuberculosis. The Presidents of the Central and South American Republics, and all Governments on the American Continents, have been invited to send delegates, and to name suitable persons to act as vice-presidents. Scientific men from every part of America have been invited to contribute to the work of the Congress.

PROTECTION OF INFANTS IN SPAIN.—The Spanish Legislature has before it two Bills for the better protection of infants. One, which has several members of the Senate among its promoters, is based on the Roussel law, which, though it has been in force only a few years in France, has already been found to need considerable modification. The other is under the auspices of the Spanish Society of Hygiene.

MEDICAL VACANCIES.

The following vacancies are announced:

BELGRAVE HOSPITAL FOR CHILDREN.—(1) Ophthalmic Surgeon. (2) Assistant Physician. (3) Assistant Surgeon. (4) Sanitary Officer, must be D.P.H. Applications to the Secretary, 70 (1) nearer Street, S.W., by March 1st.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Male House-Surgeon. Salary, £80 per annum, with board and washing. Applications to the Chairman of the Weekly Board.

BLACKBURN COUNTY BOROUGH.—Medical Officer of Health; between 28 and 45 years of age and must hold D.P.H. Salary, £450 per annum. Applications, endorsed "Medical Officer of Health" to be sent to the Town Clerk by March 6th.

BOOTLE BOROUGH HOSPITAL.—Senior Resident. Salary, £100 per annum, with board and laundry. Applications to the Secretary.

BOURNEMOUTH: ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by February 24th.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary, and Assistant Medical Officer of the Workhouse and Schools at Isleworth; unmarried. Salary, £100 per annum, with furnished apartments, rations, washing, etc. Applications, on forms provided, to be sent to the Clerk to the Guardians, Union Offices, Isleworth, W., by February 25th.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Physician; unmarried, and under 30 years of age. Salary, £80 per annum, with board, residence, and washing. Applications to the Secretary by February 26th.

BRADFORD POOR-LAW UNION. First Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £125 per annum, with prescribed rations, apartments, and washing. Applications to the Clerk, 22, Manor Road, Bradford, by March 25th.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL.—Non-resident House-Surgeon. Appointment for six months, but renewable for similar period. Salary at the rate of £75 per annum. Applications to the Secretary, Church Street, Brighton.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with furnished apartments, board, lodging, and laundry. Applications to the Secretary.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road.—House-Surgeon; non-resident. Honorarium at the rate of 40 guineas a year. Applications to the Secretary.

DONCASTER RURAL DISTRICT.—Medical Officer of Health. Salary, £300 per annum. Applications, endorsed "Medical Officer," to be sent to Clerk to the Council, Union Offices, High Street, Doncaster, by February 27th.

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180, with board, apartments, laundry, and attendance. Applications to the Medical Superintendent, at the Asylum, Winterton, Ferryhill.

DURHAM COUNTY HOSPITAL.—(1) House Surgeon. Salary, £100 per annum. (2) Junior House Surgeon. Salary, £50 per annum. Board and lodging provided in each case. Applications to the Secretary by February 28th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—House-Surgeon. Board and residence provided, and a honorarium of £25 on completion of six months approved service. Applications to the Secretary by March 10th.

EDINBURGH ROYAL INFIRMARY.—Assistant Pathologist. Honorarium, 50 guineas per annum. Applications to the Treasurer by March 7th.

FARRINGDON GENERAL DISPENSARY.—Honorary Physician. Applications to the Honorary Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C., by March 3rd.

HASTINGS, ST. LEONARDS AND EAST SUSSEX HOSPITAL.—House-Surgeon (male); unmarried. Salary, £75 per annum, with residence, board, and washing. Applications to the Secretary by February 28th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician; unmarried. Appointment for six months. Salary, £20, washing allowance, £2 10s., with board and residence. Applications, on forms provided, to be sent to the Secretary by March 4th.

JENNER INSTITUTE OF PREVENTIVE MEDICINE.—Studentship of the value of £150 for the purpose of research in the Bacteriological Department of the Institute. Applications to Dr. Allan MacFadyen, Chelsea Gardens, S.W., by March 15th.

JOINT COUNTIES LUNATIC ASYLUM FOR BRECON AND RADNOR.—Medical Superintendent for the new asylum at Talgarth. Not under 30 or over 45 years of age. Salary, £450 per annum, with partially furnished house etc. Applications, endorsed "Application for Medical Superintendent," to be sent to the Clerk to the Visiting Committee, County Hall, Brecon, by February 28th.

LEAMINGTON: WARNEFORD HOSPITAL.—House Surgeon. Salary, £100 per annum, with board, washing, and apartments. Applications, on forms provided, to be addressed to the Secretary by February 25th.

LEITH HOSPITAL.—(1) House Physician, (2) Assistant House-Physician (non-resident), (3) House-Surgeon, (4) Assistant House-Surgeon, (5) Surgeon for the Outdoor Department. Appointments for six months from May 1st. Applications to the Secretary, 33, Bernard Street, Leith, by March 15th.

LICHFIELD, CITY OF.—Medical Officer of Health. Salary, £70 per annum. Applications, marked "Application, Medical Officer of Health," to be sent to the Town Clerk, Lichfield, by February 26th.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to be sent to the Chairman by February 28th.

LIVERPOOL INFECTIOUS DISEASES HOSPITAL, Parkhill.—Assistant Resident Medical Officer, unmarried, and not exceeding 28 years of age. Salary, £120 per annum with board, washing, and lodging. Applications, endorsed "Assistant Resident Medical Officer," to be addressed to the Chairman, Port Sanitary and Hospitals Committee under cover to the Town Clerk, Liverpool, by February 24th.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer; unmarried. Appointment for six months, but eligible for election as Senior for six months. Salary at the rate of £50 per annum as Junior and £100 as Senior, with board and lodging. Applications to the Secretary, Dispensary, Gartside Street, Manchester, by March 5th.

MANCHESTER ROYAL INFIRMARY.—Junior Anaesthetist. Non-resident. Salary, £50 per annum. Applications to the General Superintendent by March 1st.

MANCHESTER SCHOOL BOARD.—Medical Officer. Salary, £250 per annum. Applications, to the Clerk to the Board, School Board Offices, Deansgate, Manchester, by March 8th.

MANDALAY MUNICIPALITY.—Health Officer. Salary, Rs. 600, rising to Rs. 800 a month, by annual increments of Rs. 40. Applications to Mr. I. Calderaraj, Secretary of the Municipality, by March 24th.

MIDDLESEX HOSPITAL, W. Medical Registrar. Applications to the Secretary-Superintendent by March 14th.

PETERBOROUGH INFIRMARY AND DISPENSARY.—House-Surgeon, male. Salary, £80 per annum, rising to £100, with board, residence, and washing. Applications to Dr. T. J. Walker, Senior Surgeon.

QUEEN'S JUBILEE HOSPITAL EXTENSION, Earl's Court, S.W.—(1) Physician. (2) Gynaecologist. (3) House-Surgeon. Salary, £50 per annum, with board, etc. Applications to the Secretary by March 1st.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Three members of the Court of Examiners. Applications to the Secretary by March 12th.

ROYAL DENTAL HOSPITAL FOR LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square, W.—Demonstrator. Honorarium, £100 per annum. Applications to the Dean by March 17th.

ROYAL PIMLICO DISPENSARY.—Attending Medical Officer. Applications to the Secretary, 104, Buckingham Palace Road, by February 22nd.

SHEFFIELD ROYAL HOSPITAL.—Junior Assistant House Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Honorary Secretary of the Staff, Dr. S. Risley, 389, Glossop Road, Sheffield, before February 28th.

THINGOE UNION.—Medical Officer for the No. 3 District. Applications to the Clerk, Bury St. Edmunds, by February 26th.

TOTTENHAM URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £350 per annum. Applications, on forms provided, endorsed "Appointment of Medical Officer of Health," to be sent to the Clerk of the Council, 712, High Road, Tottenham, by March 3rd.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board, and residence. Applications to the Honorary Secretary by February 25th

MEDICAL APPOINTMENTS.

ANDERSON, D. Lechmere, L.R.C.P., L.R.C.S.Edin., D.P.H., appointed Medical Officer of Health for the Borough of Doncaster and the Parish Councils of Balby-with-Hexthorpe, and Wheatley.

COCK, M. F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of the Staines Union Workhouse, *vice* A. J. Anderson, M.B., C.M.Edin. resigned.

COOPER, Arthur, M.R.C.S., appointed Honorary Consulting Surgeon to the Westminster General Dispensary.

COOPER, Fraser R., M.B., Ch.B.Vict., appointed House Surgeon to the Devonshire Hospital, Buxton.

DAWE, F. S., M.B.Lond., M.R.C.S., appointed Second Assistant Medical Officer of the Kensington Infirmary *vice* E. O. Austin, M.R.C.S.Eng., L.R.C.P.Lond., promoted.

FRY, Cradock A., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S.Lond., appointed Honorary Assistant Surgeon to the Essex and Colchester Hospital.

FULCHER, G. F., M.B., C.M.Edin., appointed Medical Officer of Health to the Chingford District Council, *vice* W. Strover, M.R.C.S.Eng., resigned.

GRAVELY, F., M.R.C.S.Eng., appointed Medical Officer of Health for the Chailey Rural District and Medical Officer of the Chailey Workhouse and No. 1 District of the Lewes Union, *vice* R. G. Gravely, M.R.C.S.Eng.

HUMPHRY, R., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health for the City of Chichester, *vice* C. S. Jones, M.R.C.S.Eng., resigned.

LAWSON, T. C., M.R.C.S.Eng., appointed District Medical Officer of the Clutton Union, *vice* H. C. Linden, L.R.C.P.Edin., L.F.P.S.Glas., resigned.

NEILSON, H. J., M.D.Glas., appointed District Medical Officer of the Nottingham Union, *vice* R. G. Buckle, L.R.C.P.Edin., L.R.C.S.I.

POWELL, W. Wyndham, F.R.C.S.Eng., appointed Honorary Surgeon to the Westminster Dispensary.

REYNOLDS, F. E., M.R.C.S., L.R.C.P., appointed District Medical Officer of the Totnes Union, *vice* J. L. Cuppaidge, M.D.Dub., B.Ch., resigned.

SANDERS, Alfred W., M.D.Lond., F.R.C.S., appointed District Surgeon for Pretoria, Transvaal and Surgeon for the Pretoria Hospital.

SANSOM, Charles Lane, F.R.C.S.Edin., L.S.A., appointed District Health Officer of the Transvaal.

SYMONS, Robert Fox, M.R.C.S., L.R.C.P., appointed Medical Officer of Health for Pretoria and District and Assistant Medical Officer of Health for the Transvaal.

WYNCOLL, J. W., M.B., C.M.Edin., appointed Resident Medical Officer to the Westminster Dispensary.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Markham Skerritt: Cardiac Pain. Dr. H. Rolleston: Note on Hypostatic Albuminuria of Splenic Origin.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Communications by Mr. W. Gifford Nash: On Sarcoma of the Submaxillary Gland proving rapidly fatal; and Mr. J. Bland-Sutton on Anomalous Tumour of the Antrum. Paper by Dr. Harry Campbell on The Influence of Mastication on the Jaws and Appendages.

Royal College of Surgeons of England, 5 p.m.—Professor W. McAdam Eccles: On the Imperfectly Descended Testis: Its Anatomy, Physiology, and Pathology. Lecture I.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Mr Charles Ballance and Dr. Purves Stewart: Clinical and Experimental Observations introducing a Discussion on the Regeneration of Peripheral Nerves, with lantern, epidiascope, and microscopical demonstrations.

Royal College of Physicians of London, 5 p.m.—Dr. Corfield: On the Etiology of Typhoid Fever and its Prevention. Milroy Lecture II.

WEDNESDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 8.0. p.m.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Mr Reginald Harrison: The Hunterian Lecture on Some Points in Practical Surgery Suggested by the Study of the Life and Work of John Hunter.

Royal College of Surgeons of England, 5 p.m.—Professor W. McAdam Eccles: On the Imperfectly Descended Testis: Its Anatomy, Physiology, and Pathology. Lecture II.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. Corfield: On the Etiology of Typhoid Fever and its Prevention. Milroy Lecture III.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8 p.m.—Exhibition of Clinical Cases, followed by discussion. Patients will be in attendance from 3 p.m. to 9 p.m.

Royal College of Surgeons of England, 5 p.m.—Professor W. McAdam Eccles: On the Imperfectly Descended Testis: Its Anatomy, Physiology, and Pathology. Lecture III.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m.—Demonstration of Selected Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m. Lecture on Hysteria.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows:—Monday: Therapeutics. Tuesday: Backward Displacement of the Uterus. Wednesday: Hygiene of the Mouth. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Skin Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

JUDD.—On February 5th, at Stockport Road, Ashton-under-Lyne, the wife of W. Rossell Judd, M.R.C.S., L.R.C.P., of twins (daughters).

POWELL.—On February 15th, at Calver on Lodge, Stony Stratford, the wife of Cecil Powell, M.A., M.B.Cantab., of a daughter.

WARRINGTON.—On February 13th, at Rodney Street, Liverpool, the wife of W. H. Warrington, M.D., M.R.C.P.Lond., of a son.

DEATH.

CARTER.—On February 5th, at Victoria Park, Shipley, from acute pneumonia, aged 3 years, D'Arcy Bumbridge Carter, M.R.C.S.Eng.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. W. M. asks: What is the best treatment for thickening and induration of the epididymis following gonorrhoeal epididymitis; no tubercle, no syphilis.

DEVON desires to hear of a home where a mentally deficient girl, aged 5, who is destructive but has clean habits, could be received. The parents are quite poor.

VACCINATION DURING MENSTRUATION.

R. W. L. asks: Is it advisable to vaccinate females just before or during the menstrual period?

*** We know of no good reason to the contrary.

TREATMENT OF SYPHILIS.

E. asks for suggestions in the treatment of a patient who contracted syphilis three and a-half years ago. He was treated imperfectly with mercury, and now has tertiary eczematous eruptions over the extensor surfaces of both elbows and one knee. The treatment has been potassium iodide, mercury internally, and red oxide of mercury ointment locally. The improvement has been slight. His general health is excellent.

RELAPSE OF VACCINATION.

AMICUS writes: Can some of our bacteriological friends explain the following curious deviation from the usual course of vaccination? I vaccinated a lady on January 2nd: good vesicles—almost typical vaccine vesicles—followed, and the resulting scabs came off on or about January 19th. On February 5th the whole process commenced again in the old places, and the vesicles have gone through the same course as before.

LETTERS, NOTES, Etc.

A WARNING.

MR. LOUIS F. DODS, L.S.A. (246, Marylebone Road, N.W.) writes: On January 29th last a tall spare man, clean shaven, with dark hair, called on me, representing that he came from the Medico-Literary Supply Association, 7, Whitefriars Street, Fleet Street, London, E.C. He took an order from me for three books, for which I foolishly paid, getting a receipt from him signed "T. Scott." As the books have not arrived, I wrote to the office, and have had the letter returned as "Not known." I wish to save others from the same trick.

MEDICAL SERVICE IN THE TROPICS.

ONE WHO HAS TRIED writes: I see an advertisement in the BRITISH MEDICAL JOURNAL for an assistant in the Straits Settlements, to start on £300 per annum. Any qualified man who accepts a post in the tropics for £300 a year is, in my opinion, making a great mistake. If the part of the tropics happens to be an expensive one to live in the mistake is greater.

A CASE FOR DIAGNOSIS.

J. B. would be glad for suggestions as to probable trouble and cause of death in the following case: The patient, a very intelligent boy, aged 7½ years, though delicate, was fairly healthy; his body was badly nourished, and chest slightly inclined to the "pigeon shape." Immediately before this attack (with the exception of a slight cough) he was in his usual health. About 10.30 A.M. he was given some beef-tea, and shortly afterwards got suddenly unwell. I was sent for, and upon arrival found his condition as follows: He was lying on a sofa, his face and lips swollen and cyanosed; pupils slightly dilated, respiration quickened, no stridor; alae nasi working, episternal space retracted; heart quick, otherwise normal; temperature normal; rhonchi and some large crepitations in right lung; no dullness. The other organs appeared healthy. In about two hours his condition considerably improved. Another doctor saw the case with me. The possibility of a foreign body was discussed. A specialist was called in, but his examination was negative; the vocal cords being quite clear, the oesophagus was also free. The specialist's impression was (after examination) that the condition might have been due to a spasm which had passed off, and he therefore decided to do tracheotomy later in the day should the boy not improve. When he returned at 6.30 P.M. the cyanosis had disappeared, and the patient was lively and talked to those about him. Temperature 99·4°, pulse 120; rhonchi and crepitations still present in right lung. In the interval between the specialist's visit the boy vomited twice, and to this was attributed his improvement. As his condition was now so satisfactory no operation was done. He continued to improve till 11.45 P.M., when he again got cyanosed; this passed away in a few minutes, and he was again apparently well: fifteen minutes later his face got pallid, respiration suddenly ceased, the heart continuing to beat for about half a minute; he had no convulsions or twitchings of any kind. Death was very quiet, he had no pain. The parents are confident that the beef-tea contained no solid matter.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Aseptic Toilet Company, Manager of, London; Dr. R. O. Adamson, Glasgow; A. R. A.; Mr. T. Adair, Belfast; Messrs. Arnold and Sons, London; A. W. M. **B** F. Beach, M.B., Kingston Hill; G. A. Bruce, M.B., London; Dr. B. Bramwell, Edinburgh; Mr. W. M. Beaumont, Bath; Dr. E. G. Barnes, Eye; J. M. Barbour, M.B., Wells, Somerset; Mr. G. H. Broadbent, Manchester; Mr. L. A. Bidwell, London. **C** Messrs. M. Cockburn and Co., Falkirk; Mr. B. Connell, Birmingham; S. Cameron, M.B., Glasgow; Dr. J. H. Crawford, Bradford; Dr. A. R. Cook, Beckenham; Colonial; Dr. F. W. Clark, Hong Kong; Dr. A. E. Cooper, London; Dr. M. Craig, London; C. S.; Dr. L. Cole-Baker, Southsea. **D** Mr. W. W. Dickie, Glasgow; Devon; Dr. A. Duke, London: Mr. L. F. Dods, London; Mr. G. A. Davidson, Bodmin; Dr. R. Dowden, Kingston, Jamaica; A. A. Dunne, M.B., Bradford; J. G. Duncanson, M.B., London; Messrs. C. Dreyer and Co., London. **E** Dr. J. Evans, Pretoria; Eruption; Mr. H. Elliot-Blake, London; Enquirer. **F** Dr. E. Fraser, London; Dr. W. T. Freeman, Reading; Fresh Air: Mr. E. S. G. Fowler, Leeds; Dr. P. Flemming, London; F.R.C.S.E.; A. Forbes, M.B., Inverurie; Mr. J. H. Fardon, Birkenhead. **G** Mr. D. E. Greenfield, London; Mr. D. Grundy, London; Dr. E. W. Goodall, London. **H** Mr. G. C. Hall, Islip; Dr. R. Hopton, Leeds; Dr. W. P. Herringham, London; Mrs. Hermansen, London; Mr. A. G. Hebblethwaite, Keighley; Dr. J. P. Henry, London; Hospitaller; J. B. Hall, M.B., Bradford; C. A. B. Horsford, M.B., Devonport; S. Hamilton, M.B., Newport, Mon. **I** Mr. M. G. G. Irving, Barry. **J** Mr. E. F. Jones, Kew: Dr. G. P. Johnson, Stoke-on-Trent; H. M. Jones, M.B., London. **K** Mr. H. M. Kelly, London; Mr. J. E. Kilvest, Derby. **L** Mr. T. B. Leech, London; Dr. C. N. Lovely, Dawlish; Mr. O. Leak, Colne; Liverpool Medical Institution, Secretary of, Liverpool; Mr. H. Leak, Winsford; B. T. Lewis, M.B., Willingham. **M** Messrs. S. Maw, Son, and Sons, London; Member; Mr. H. P. F. Marriott, Exmouth; Mr. A. S. Morley, London; Dr. E. Mayer, New York; Dr. A. Macfadyen, London; Mr. J. C. McWalter, Dublin; W. Mitchell, M.B., Bradford; Dr. J. D. McCaw, London; M.C.M.; "Medical Times," Editor of the, London; W. J. Moor, M.B., London; Dr. A. H. M. Macmorran, London; M.R.C.S.; Dr. R. B. Mahon, Ballinrobe; Mr. W. Monnington, London; M.O.H.; Mr. J. H. Mummery, London. **N** J. H. Nicoll, M.B., Glasgow. **O** One of his old mates; One who has tried; Rev. A. D. Owen, M.R.C.S., Enkeldoorn. **P** Dr. E. A. Peters, London; Mr. G. C. Peachey, Wantage; Practitioner; Messrs. Potter and Clarke, London; Mr. H. J. Prangley, London; Canon W. Page-Roberts, London. **Q** Mr. H. Quilter, London. **R** Messrs. Reynolds and Branson, Leeds; Dr. R. R. Rentoul, Liverpool; Major R. Ross, Liverpool. **S** C. A. C. Smelt, M.B., London; Dr. W. M. Stevens, Cardiff; E. J. Sidebotham, M.B., Manchester; Mr. W. E. Sargent, London; Mr. W. R. H. Stewart, London. **T** Dr. J. F. Tuohy, Hove; Thirty Years a G.P.; J. H. Targett, M.B., London; Mr. M. R. Taylor, Helston; Dr. E. F. Trevelyan, Leeds. **U** Dr. A. R. Urquhart, Perth. **V** V. M. O. and A. M. R. **W** Mr C. H. Whiteford, Plymouth; Dr. F. Willcocks, London; Dr. R. R. Wade, Tunbridge Wells; W. Wright, M.B., Glasgow; E. W. White, M.B., Dartford; Mr. C. Williams, London; Dr. T. Wise, Montreux.

BOOKS, ETC., RECEIVED.

The School Calendar, 1902. A Guide to Scholarships and Examinations, 1902. Fifteenth Year of Issue. London: Whittaker and Co. 1s.

Transactions of the Twenty-third Annual Meeting of the American Laryngological Association, held at New Haven, Conn., on May 27th, 28th, and 29th, 1901. New York: Rooney and Otten Printing Company. 1901.

Bibliographia Lactaria. Deuxième Supplément (Année 1901) à la Bibliographie Générale des Travaux parus sur le Lait et sur l'Allaitement jusqu'en 1899. Par Dr. H. de Rothschild. Paris: Octave Doin. 1902.

The Discovery of the Future. By H. G. Wells, B.Sc. London: T. Fisher Unwin. 1902. 2s.

The Child-Healer. By G. H. R. Dabbs, M.D., Shanklin, I.W.: Salisbury Brothers. 6d.

A Manual of Practical Anatomy. By the late Professor A. W. Hughes, M.B., M.C., F.R.C.S. Edited and completed by A. Keith, M.D., F.R.C.S. In three parts. Part II. London: J. and A. Churchill. 1902. 8s. 6d.

Introduction to the Study of the Defective and Delinquent Classes, and of their Social Treatment. By C. R. Henderson, D.D. London: D. C. Heath and Co. 1902. 7s. 6d.

Small pox. An Inquiry into its Real Nature and its Possible Prevention, showing the Extent and Duration of the Protection afforded by Vaccination. By C. G. Gümpel, L.R.C.P. London: Swan Sonnenschein and Co. 1902. 6d.

Reports of the Cambridge Anthropological Expedition to Torres Straits. Vol. II. Physiology and Psychology. Part I. Introduction and Vision. Cambridge: University Press, and London: C. J. Clay and Sons. 1901. 9s.

The Golfers' Guide and Official Handbook for Scotland. Glasgow: John McMurtrie.

Hospital Sketches. By L. Galen. London: Grant Richards. 1902. 1s.

The Four Epochs of Woman's Life. By Anna M. Galbraith, M.D. London and Philadelphia: W. B. Saunders and Co. 1901.

Nothnagel's Encyclopædia of Practical Medicine: Variola, Vaccination, Varicella, Cholera, Erysipelas, Whooping-cough, Hay Fever. Edited by J. W. Moore, M.D., F.R.C.P. London and Philadelphia: W. B. Saunders and Co. 1902. 21s.

Some Thoughts on the Principles of Local Treatment in Diseases of the Upper Air Passages. By Sir F. Semon, M.D., F.R.C.P. London: Macmillan and Co. 1902. 2s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	£0 4 0
Each additional line	...	...	0 0 6
A whole column	...	...	1 17 6
A page	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

A Clinical Lecture
ON
FEEDING IN GASTRIC ULCER.

Delivered at St. Bartholomew's Hospital

BY SIR LAUDER BRUNTON, M.D., F.R.S.,
Physician to the Hospital.

GENTLEMEN,—I have lectured to you before on the subject of gastric ulcer, and I told you that the usual plan we follow when cases of this disease come into the hospital wards is to put them upon rectal feeding for some days—from two to five days—according to the severity of the case; and then to begin gradually to feed them with small quantities by the mouth. Under this treatment they generally recover pretty quickly, so that we are able to get them out of the hospital cured in about six weeks. There is another case at present, however, in Mr. Cripps's wards which came in with the symptoms of perforation, and was operated upon. The ulcer was found with a good deal of difficulty. The abdomen was washed out, the ulcer stitched up, and the girl is now doing exceedingly well. One of the cases in Elizabeth Ward has, on the contrary, progressed very slowly. Up to a certain point she began to recover well on the ordinary treatment, so far, indeed, that I signed the paper for her to go to the convalescent home at Swanley. But on the day on which she was to have started she had a relapse, the pain in the epigastrium returned, and we have been obliged to keep her on a very limited diet ever since. In some cases of gastric ulcer the relapse is apt to come on because one puts the patients on too free a diet, and the other day Mr. Cripps asked me to go into his ward, and give some advice as to the kind of diet upon which the patient upon whom he had operated should be put. This made me think that very likely some of you might like to hear more in detail not only about the kind of diet one gives to cases of convalescent gastric ulcer, but also about the reason why we give certain articles of food to them.

Perhaps the easiest way to put it is this: Supposing you have an ulcer on the back of your hand, how are you going to treat it? You know perfectly well you would not like it sandpapered three or four times a day, nor would you like to have it dressed with vinegar instead of with water. You would not like to have a poultice made of pickles, pepper, and cayenne applied to it. You must treat a gastric ulcer in very much the same way; you must avoid irritating the ulcer by anything that will do harm to it, either mechanically or chemically. Some things injure mechanically, others chemically: some do both. Now, amongst the things that injure mechanically are hard, indigestible things that will play the part of sandpaper. If you take a pot of strawberry jam, treat it with water, allow the mixture to rest upon a sieve, so that all the soluble parts shall pass through, and then take the residue, you will find something lying upon the sieve, which if rubbed upon an ulcer on the hand would have very much the same effect as sandpaper. The small achenia, or seeds as they are usually called, of the strawberry are absolutely indigestible; they are very hard, and pointed at one end. We know that they are indigestible, because the seeds of strawberries have been found in the faecal masses which have come down to us from prehistoric man, so we know prehistoric man was in the habit of feeding on strawberries, and that he was powerless to digest the seeds. And, in fact, it is the indigestibility of seeds which gives permanence to the races of plants. If the seeds were digestible, they would be destroyed in the intestine, when they were swallowed. But as these seeds are very often enveloped in a coating, or are placed upon some sweet and attractive substance, they are eaten along with the soft sweet substance. And then the seeds themselves, passing thus into the digestive tract of animals or birds, are carried to a distance, and the plant from which they come is propagated. It is in this way that the seeds of trees and plants are carried from one oceanic island to another by birds, sometimes for hundreds of miles. The bird itself eats the fruit, carries the seeds of the fruit with it, and then deposits the undigested seeds in some new island, where they spring up and grow. So seeds may be looked upon as absolutely indigestible. And even the kernels or ovules of seeds are usually very hard, such as almonds, nuts, and the like, and these are to be avoided, even though they are not so hard or so irritating as the whole seeds or fruits. Thus nuts are less irritating than the achenia or seeds of the strawberry or raspberry. First of all, then, you have to avoid anything that is irritating in the way of seeds or stones in fruits.

Then another thing which is indigestible and very irritating mechanically is a bone. You are not likely to eat whole bones except in the case of fish, but fish bones may sometimes give rise to great pain and produce great danger. One of the porters here who used to attend the out-patient room was one day, just after we had finished seeing the out-patients, seized with intense pain. He was clearing up the out-patient room when suddenly he became doubled up, and crouched over the table in awful pain. I sent him up to the ward and had him put to bed immediately. The pain passed off. Next day the pain, which on the first day had been chiefly in the right iliac fossa, passed over to the left. There was no apparent reason for this. The next day he got the pain in the rectum. The house-physician put his finger into the rectum, and there found an arrow-headed piece of bone about two or three inches long which had come from the head of a cod, and this had stuck transversely across the rectum. Even smaller fish bones may do a great deal of harm, and in case of gastric ulcer even the small bones of fish are to be avoided. Still more risky, however, are the little splinters of bone which you sometimes get in curries. You do not, as a rule, get splinters of bones in ordinary food, but you do frequently get them in curries; and sometimes in game pies you may get the same, because the bones of the game have been shattered by shot. They are less likely to be noticed in a curry or pie than if you are eating the whole bird. So avoid all stones and all bones.

Then you must avoid substances that will act as scrubbing brushes. The vegetables which I have before me here consist partly of soft cellulose and partly of the harder cellulose which forms the stalk of the cabbage. Now, cellulose is quite insoluble in the stomach, and the hard cellulose fibres, if they are rubbed together for a while, so that the softer parts are removed, tend to form something like a felt, which may still be soft; but if the vegetable be at all old this felt may be pretty hard, and may cause a good deal of irritation. So that fibres, wherever they may happen to be, either in vegetables or in fruits, ought to be avoided. In fruits you get them occasionally, but they are not so common. Cellulose in a hard form in fruits occurs more frequently in the form of skins, which are also quite indigestible in the stomach. Therefore skins of fruits should be avoided, and any fruit the pulp of which contains hard fibres should also be rejected. When you cannot remove the skin and you cannot remove the stones, as in the case of raisins and currants, the fruit itself should be rejected. From currants you cannot remove the skins, and so you avoid anything containing currants. I say this specially because I remember a case of ulcer, not in the stomach but in the intestine, where the patient seemed to be killed by a currant just as surely as by a rifle bullet. It was a case occurring in the female ward, that of a woman who was suffering from typhoid fever, who had been getting on perfectly well—as well as anyone could wish—until one visiting day, when a friend unfortunately came in, and, compassionating the poor woman's scanty fare as she thought it, gave her a currant bun to eat. The patient ate the currant bun, got increased irritation in the iliac fossa, her temperature went up, and she died. She was simply killed by that currant bun, and in all probability if she had not eaten it she might have been well and alive now. That is a thing, therefore, to which we have to pay special attention.

Strings are also to be found in meat, and it is upon the comparatively less or greater size of the strings of meat that their digestibility or indigestibility depends. Here is some beef and here is some mutton. Break a bit of each up for yourselves and see the comparative thickness of the fibres in the beef and in the mutton. If you notice the fibres in the beef when you tear it up, you will see they are rather big fibres. The mutton tears into rather smaller ones, and the chicken into quite fine fibres. Now, I said just now that strings might act partly mechanically and partly chemically. The way in which they act chemically is this: Anything which tends to stop up the mouth of the pylorus tends to

keep the food longer in the stomach, and the longer it stays there the more acid does it become, either from the greater increase in the hydrochloric acid, or from the decomposition of the food leading to the formation of other acids, such as lactic or butyric. So that anything hard, anything that is likely to plug the pylorus, tends to increase the acidity in the stomach. Now, in cases of gastric ulcer the acidity of the stomach is generally over the normal, and we rather wish to diminish than to increase it.

In cases of gastric ulcer one trusts very much to fluid food, and the fluid food *par excellence* is milk. I do not know if any of you have thought of milk as coming under the heading of stringy food, and yet it sometimes does so.

One of the most extraordinary things I ever saw in my life was a lump of something about $2\frac{1}{2}$ inches long by $1\frac{1}{2}$ broad and $\frac{1}{2}$ thick. It was of a slate-grey colour, and looked like felt, and was also like it in consistence. It looked somewhat like the kind of felt of which shoe soles are made. My colleague, Dr. Wickham Legg, showed it to me. A woman had brought it to him saying that she had vomited the thing up. He was a good deal puzzled. As it happened I had seen something of the same sort before in the case of a patient who had passed a large concretion by the rectum wherein the same fibrous structure was to be found. This concretion was formed as a consequence of drinking a very large draught of milk at once. So I asked the patient whether she had drunk a lot of milk all at once. She told me she had drunk nearly a quart at once; and this large felt-like mass was the result of it. The milk when poured into the stomach had become coagulated; the curds had become partly digested by the stomach and partly worked up into these long fibres of casein which had become felted, and so this big lump had been formed. I have here some artificial gastric juice, and I will pour some into some milk. You will probably find the coagulation begins at once. But there are not such large flakes as I expected. This gastric juice is only of normal strength, that is to say, 0.2 per cent. If I put milk into lime water you will find a difference. As a rule when you mix cow's milk with the secretion of the stomach it tends to form rather big flakes, whereas if you mix it with a little lime water before, it falls as a much finer precipitate and it does not tend to become worked into the same hard resistant mass as it does if you pour it into the stomach without admixture, either with barley water, lime water, or soda water. These three things tend to prevent the flakes from aggregating and the casein from becoming thick and hard, and so they increase the digestibility of the milk. If milk is peptonized it does not tend to form these large flakes; and so another way of treating your patient is to give peptonized milk.

As I have said, the longer the material stays in the stomach the more acid is it likely to become, and therefore at the beginning of your treatment you do not want to give your patient a large quantity of food at once; you want to get the stomach emptied. Therefore we begin the treatment of gastric ulcer by giving, in addition to the nutrient enemata, only a tablespoonful of milk with a tablespoonful of lime water, say, every two hours, gradually increasing this quantity as we find the patient is able to bear it without it causing pain. If it causes pain we diminish the quantity. We can then, after a few days, increase the proportion of milk, and instead of giving equal parts we may give one part of lime water to four of milk, and then one part of lime water to eight of milk, and so on, always taking care to modify the treatment according to the condition of the patient. When we notice that the patient is not bearing the less diluted milk or the larger quantity at each dose, then we lessen it.

I have just shown you the effect of differences in the fibre of meat. But we must bear in mind that the effect of the gastric juice upon meat varies very much according to the form in which the meat is put into the stomach. If the meat is thoroughly masticated and broken up in the mouth, the gastric juice has a chance of dissolving it which it has not when the meat is not broken up. I have here some specimens which I pass round. Here is a piece of meat which has not been masticated at all, and you see that the meat lies in the bottle almost untouched. There has been so little action of the acid upon the surface of it that it is hardly perceptible. Here is a piece of meat which has been masticated in the ordinary way—that is to say, two or three bites given to it; and here you see that although the lump of meat has been broken up there has been still comparatively little action of the gastric juice upon it. But here is a piece of meat which has been thoroughly masticated before it was put into the gastric juice in the bottle, and you see there is absolutely no lump at all; it is all converted into fine granular matter. These specimens have all been standing for about four hours at the temperature of a somewhat warm room, and the digestion is still far from complete, but if they had been at the temperature of the body I have very little doubt that the meat that had been thoroughly masticated would have been completely digested ere now, and it would have formed almost a complete solution, whereas the others are scarcely acted upon at all. There are some things which are hardly attacked by gastric juice. Here is a piece of the crackling from roast pork, and you see it has hardly been acted upon at all. The fat has begun to separate from it to some extent, but the outline of the piece of crackling is hardly altered. Here is a hard-boiled egg, and I pour off the liquid from it into another bottle, so that you may see how much has been dissolved and how much has been left undissolved. You see that although a certain amount has been dissolved there are great masses of the hard-boiled egg still remaining. Here is a piece of hard-boiled egg which has been thoroughly masticated, and I think you will see that almost the whole of it has been converted into a fine emulsion, and there is hardly any residue. Here I have a piece of cheese which has been masticated in the ordinary way, that is to say, two or three bites given to it and then swallowed. You see that the outside of the cheese has been a little eroded, but the masses are there just as they were. Here, on the contrary, is some cheese which has been thoroughly broken up by mastication, and you see that although it does not form an emulsion, yet all the particles are so fine that they will pass with perfect readiness through a very fine sieve. The reason why cheese is so often spoken of as being very indigestible is because lumps of cheese, when swallowed, do not imbibe the gastric juice readily, as a bit of meat will do. Cheese is hard of texture, and is acted upon only on its surface by the gastric juice. The consequence is that it remains in the stomach for hours, and then when the stomach tries to empty itself a hard lump of cheese comes to the pyloric orifice, the sphincter there reacts against the passage of anything through it, just as sphincters elsewhere do, and the bit of cheese is turned back into the stomach again. Along with it the whole of the liquid contents are retained in the stomach, and the churning process goes on again, until the acidity becomes so great that the stomach becomes irritated, and finally vomiting sets in, and the whole of the gastric contents are ejected. People look at the vomited matter and find that everything is digested but the cheese, and then they say, "cheese digests everything but itself."

You see that as a rule by careful mastication you can prevent many of these troubles. But as a rule we cannot depend upon our patients' teeth sufficiently, nor upon their habits of mastication. So in the hospital, after we have put them upon milk for some days, we pass from it to such things as custards, which are very readily digestible, and the custard is so smooth that it can produce no mechanical injurious influence upon any ulcer, however tender it may be. Then from custard we go on to pounded fish. You see, the pounded fish I have here is so finely broken up that if you put it into gastric juice it will be quickly dissolved, and it will pass out of the stomach almost like milk. Then we give pounded meat, and if it is broken up with fluid it is really like milk. You may make a very nice liquid food of pounded chicken, which is very useful not only in cases of gastric ulcer, but in disease of all kinds when patients will not take meat. You simply take the breast of a chicken, cut it into thin slices, then mince it up, put it into a mortar, grind it with a little chicken broth or else a little weak beef-tea, until it is like a paste. Then mix it up with a little more chicken broth or beef-tea until it is about the consistence of milk. A patient can drink this down just as he would drink milk. And many patients will drink this chicken milk even when they will not swallow the soft paste of pounded chicken or chicken panada, as it is often called, which I show you.

I will now briefly recapitulate. In cases of gastric ulcer you begin by giving the patient rest in bed, with feeding by the rectum for a few days, then careful feeding by the mouth while you still continue rectal feeding. The first food given is generally milk in small quantity, a tablespoonful of milk with a tablespoonful of lime water every two hours. Gradually diminish the lime water at the same time that you increase the proportion of milk, as the patient will bear it for several days more. Then you may try the effect of custard, which is very mild and non-irritating. Then you may give the patient pounded fish, and perhaps pounded chicken next day. You may give at the same time some chocolate, which I find is very well borne, and makes a great change in the patient's diet, which is otherwise very monotonous and tasteless. Then you will give some of the various foods, of which I have a large supply here, but I must not go into them just now.

Now I want to bring one other little point before you, because nearly all those various foods consist of starch and dextrine in a certain proportion. It is almost worth while to try to make starch in two ways. Take some starch and put it into hot water, and you will see what a mess you will make of it, because it goes all into lumps, and will not make a smooth paste. But beat your starch up with a little cold water, and then you will get it into a paste like thickish cream. Then add boiling water to it, and you will get a fine paste. When you are dealing with starchy foods, you must treat them like starch—that is, make them into a paste with cold water first, and then add hot water afterwards.

Lastly, one word about bread. The digestibility of bread, like that of meat, depends to an enormous extent upon the way it which it can be broken up in the intestine. Here is a piece of breakfast roll, of very good quality. I take a piece out of the middle and knead it up. It forms a firm putty-like mass, and, if you were to put it into pancreatic juice, you would see how little would be absorbed. Here I have some stale bread, and I crumble it up easily. You see the difference, and you will be able to appreciate the advantage of the latter over the former. The stale bread is broken into a fine powder, but the new bread forms an indigestible lump.

Had time permitted, I wished to have said more on this subject, but I have already exceeded my limits.

An Address
ON
MEDICAL DIAGNOSIS AND MODERN DISCOVERIES.

Delivered at a Meeting of the Northern Counties of Scotland Branch of the British Medical Association at Inverness.

By JOHN ADAM, M.A., M.D., C.M.,
Dingwall; President of the Branch.

The growth of any science from the stage of infancy, with all its inexperience and credulity, on to the stage of robust maturity is always a subject of interest. The more widespread the benefits of each particular science the more intense the interest in its progress becomes. And when that science is the great one of medicine, in its ever increasingly numerous ramifications, the interest taken in its advancement should be universal. Health, or as it has been defined, "a sense of well being" demonstrated by a certain degree of activity or energy, and later and more correctly "soundness of structure and function" is desiderated by all. Disease—every deviation from the normal either in structure or function—is dreaded by all. Hence the struggle to regain health, to restore the body to a sense of well-being is coeval with humanity itself. Implanted in the human breast, however devoid of intelligence and reason, from the earliest times has been the belief that Nature provides agencies to expel every morbific element. Let disease be what it may—let it, according to the demoniacal theory, be a lodgement in the system of some evil spirit; let it be a loss of equilibrium among the four great physical elements: let it, according to the physico-mathematical school of the sixteenth century, be a cessation of motion in some part of the body; let it be a want of chemical equilibrium, or a derangement of the humours; or let it be, as we now in many cases believe it to be, an invasion of pathogenic bacteria: whatever produces the bane, in Nature exists the antidote.

Disease at first was a mere collection of symptoms, the chief being pain, heat, and fever, and to check these, to propitiate the *morbus peccans*, as it was called, causing all these abnormal conditions, was a favourite study of the ancients. The science and art of healing would probably come into being first on its therapeutic side. The earliest votaries of the art took a practical view of their calling. The diagnosis was elementary and simple, because of the absence of any differentiation or location of the affected areas. Therapeutics thus bulked largely in their course of study. It was the be-all and end all of their career. Proficiency in physiology, or even pathology, would count for nothing. Even a lengthy lecture on the etiology of his disease would have failed to appease an ancient Briton suffering from the unrelieved tortures of a gall stone. It behoved the medicine man, therefore, in such circumstances to be prompt and practical. But of necessity the differentiation of symptoms would follow in the wake of its elder sister—therapeutics. A crude symptomatology would gradually obtrude itself on the observant. Pain, hitherto a specific term, would become a generic one, including, for example, pain with and without delirium, pain with and without impeded or accelerated respiration, and fever with or without frequent micturition, jaundice, mobility, and so on. And with the advance of symptomatic diagnosis would arise a corresponding advance in therapeutic skill and in the number of therapeutic agencies. And with advancing education and the disappearance of old-world prejudices, the desire would arise to compare symptoms with pathological conditions, and the latter with healthy physiological ones. The diagnosis of disease would thus become more specialized. To diagnose the individual organs affected would gradually be the objective, symptoms being compared with pathological conditions ascertained after death.

The history of medical diagnosis may be broadly divided into three eras:

I. Symptomatology.
II. Physical methods.
III. Bacteriology.

I.—Symptomatology.

From the earliest ages of which we have any record, down to about the year 1818, the diagnosis of disease had to be arrived at by a more or less scientific analysis of symptoms. Previous to the discovery of the circulation of the blood the most careful observation of symptoms could not fail to lead men astray. The liver and the torcular Herophili had an imaginary importance in connexion with the blood which Hunter's discovery for ever destroyed. Thereafter the significance of the pulse was observed, and its indications were more and more studied. Congested conditions of the internal organs were more correctly explained and understood, inflammations were diagnosed, in many cases quite accurately; and step by step along an oft-tortuous and even circular route, the diseased conditions of many internal organs were accurately co-related to definite groups of symptoms. So that by the middle of the eighteenth and beginning of the nineteenth centuries, in consequence of long-continued study by men of great mental power, the physician was sent out of our colleges well-equipped, by a careful training of his unaided senses, to detect diseases sometimes most obscure in their outward manifestation. The teachers had infected their students with enthusiasm for symptomatology. The facies sardonica and hippocratica, cyanosis, the character, fullness and rapidity of the pulse, and its varying relations to respiration were well understood by the physicians of a hundred years ago. Chest diseases were studied with care, and "peripneumonics," as they were termed, and pleurisies were actually diagnosed and differentiated. The trained eye and the *tacta erudita* did much for them, and largely compensated for the want of more modern methods. They got out of the symptoms all that could be got, though enthusiasm and earnest study had its limits. They must by long practice have looked penetratingly into a patient's face, taking in all that its ever-varying aspect

could afford them. Of an eminent member of this old school I once heard it said "that he seemed to look through and through his patient." But the earnest penetrating look was not because of this, but it was due to the determination not to overlook any assistance which the most trivial superficial symptom might afford. For him outward signs were necessary, and were seldom missed if present. But in many cases he had to be content with a diagnosis of symptoms the constancy of whose effects led him to designate them as distinct diseases. Prominent among these were jaundice and dropsy, particularly the latter. With regard to jaundice, physicians as long ago as the middle of the eighteenth century said that it was sometimes due to obstructed bile and a scirrhous liver. But with dropsy it was different. The writer I have quoted does not hint that kidney or heart disease may be the cause. And yet the nomenclature is complete, different forms being designated anasarca, ascites, hydrops pectoris, hydrocephalus, etc. Causes such as heredity, immoderate drinking, want of exercise, excessive haemorrhages and evacuations are given, but no mention of the kidney and the heart, then to all *terrae incognitae*. Such was the limited diagnostic armamentarium of the physician, of which he made so wonderful a use at the time when the world of medicine was literally thrilled by the great discovery of Laënnec of "mediate auscultation."

II.—Physical Methods.

Previous to Laënnec's simple yet momentous discovery, some advances in the direction of physical methods in diagnosis had been made. In the time of the ancients, succussion had been used by Hippocrates about the year 410 B.C. for the detection of fluid in the chest. But for centuries no further progress was made. But the remarkable advances in pathological anatomy, due in large measure to Broussais and Bichat, in the eighteenth century, made men anxious to have means of detecting during life the lesions which were so thoroughly understood after death. The discovery of percussion preceded that of mediate auscultation, an Austrian physician—Auenbrugger, in the year 1761—being the first to use it. He percussed by striking the chest "by the fingers brought close together and stretched out straight," very similar to the method of our late teacher, Sir Douglas MacLagan.

But the discovery of Auenbrugger made no impression in Germany. He died obscure and unknown; and, though his work was translated into French, it had no success until Corvisart, the eminent physician, imbued with a desire for the means of precise observation, read the entirely forgotten work of the Austrian physician. He immediately adopted it, and for twenty years practised it before his pupils at the Hôpital de la Charité. And in addition, when palpation and percussion both failed to furnish him with sufficient data, he applied his ear to the chest to enable him better to distinguish the sounds of the heart. Trousseau says: "Thus you perceive how one method of physical examination led to the discovery of others. By a small intellectual effort, Corvisart might have rendered his name immortal by the discovery of auscultation. Among his pupils, however, there was a young physician, a man of grave and meditative mind, full of ancient lore, and yet inspired with the spirit of modern inquiry. Laënnec applied his ear to the chest; but he was more fortunate than his master in knowing how to listen and understand. He discovered auscultation." Laënnec's account of how he made the discovery is amusing. He was consulted by a young woman who had the general symptoms of heart disease, and in whom, from her plump condition, the application of the hand and percussion gave little information.

Laënnec modestly remarks that on account of "the age and sex of the patient," he felt himself interdicted from applying his ear directly to the chest, and he recollected "that if the ear be applied to one extremity of a post, the stroke of a pin at the other extremity will be heard very distinctly." He thereupon applied one end of a tightly-compacted roll of paper to the precordial region, and he says that "he was equally surprised and pleased to hear the pulsations of the heart with much more precision and distinctness than by the immediate application of the ear." The physical examination of the chest, installed with so much *éclat* by Laënnec, suggested the examination of the organs of secretion; the urine and blood were submitted to the action of chemical reagents. Albuminuria was discovered, and glycosuria became better known. To the anaemia of the old physicians were added uraemia, leucocythaemia, and melanaemia. Examination by the speculum was brought nearer perfection, the laryngoscope and the ophthalmoscope were introduced. These discoveries were due to the spirit of research of a later generation, stimulated thereto by the great discoveries of Auenbrugger and Laënnec. The remarkable thing about Laënnec was that he not only discovered but he perfected the science of auscultation. The sounds of the labouring, overburdened heart, and of the congested or waterlogged lungs were, until his time, an unknown language. But Laennec's genius discovered the code, till then a hidden secret, which proclaimed to the medical world the diagnostic meaning of the murmuring heart and the creaking lungs. A brilliant discovery we must all admit, at one gigantic bound raising the accuracy of the diagnostic methods to a pitch undreamed of by pre-auscultation physicians. But brilliant though it was, it was not without its disadvantages. The teachers and students became infatuated with the laws of auscultation, and a tendency became evident to despise the symptomatic teaching of previous days. In the discovery of chest diseases the ear became trained and the eye became neglected. The clinical evidences, relied on so confidently hitherto, were more neglected, and less thoroughly taught and mastered. The confidence in a diagnosis by the older methods was shaken, and would only be established when the stethoscope had detected the *bruit*, or located the tubular respiration. I believe that the older physicians were more skilful diagnosticians minus stethoscopes than we should be. And more; owing to their more elaborate training in the observation of outward superficial symptoms and of the more careful mastering of the rhythm, force, and volume of the pulse, their diagnosis, or more properly their prognosis, of impending death was more accurate than ours. They could tell approximately more accurately than the stethoscope men the number of hours or days that a patient's vital powers would last. In my student days the extreme swing of the pendulum had just righted itself, and though our teachers were as enthusiastic as ever over stethoscopy, they gave its proper place and importance to the older symptomatology.

III. Bacteriology.

And now we come to the third great era—that of bacteriology. My student days almost preceded that era. For some time previous there was a growing belief that many diseases, especially the zymotic diseases, were due to the invasion of germs, and germicides were used internally in a haphazard sort of way. Grape-shot methods were used for their destruction, such as might be used for an enemy which is neither located nor identified. But the germs themselves remained hidden until in 1863 Davaine discovered the bacillus of splenic fever. The discovery of one led the way to the brilliant discoveries of the last twenty-five years of the nineteenth century. The bacilli of relapsing fever and leprosy were next discovered, and the typhoid bacillus, discovered in 1880 by Eberth, was artificially cultivated by Gaffky in 1881. This is a year which will always be memorable for the discovery by Koch of solid culture media. The advances in the new science have been marvellous, and in none more so than in the discovery of the bacilli of diphtheria and tubercle. The cultivation at will of disease-generating germs, the elucidation of the toxins, and the antitoxins which prove fatal to the further development of the bacteria, the immunizing of animals by the injection of attenuated virus, or by the use of antimicrobic or antitoxic serums are discoveries, the result of scientific research and genius, which have no parallel in the history of scientific medicine. The discovery of the Klebs-Loeffler bacillus and of the tubercle bacillus are as yet, from the point of view of therapeutics, the most important, the one because it confirms our diagnosis and provides a most reliable antitoxin, and the other because it enables a diagnosis to be made when both symptoms and physical methods might fail to give positive evidence of the disease. The Klebs-Loeffler bacillus has, however, been found in the throats of healthy people, and has not been discovered when clinically the disease was certain. On the other hand, the tubercle bacillus is believed to be positive evidence of dis-

ease, though even in fully-diagnosed cases careful examination has failed to discover them.

Bacteriology is a fascinating study, and one in the prosecution of which men imbued with the spirit of research can never tire. But to-night I shall ask you to join with me in considering it more from the point of view of the physician engaged in the diagnosis and treatment of disease.

1. What place, then, does it hold compared to symptomatology and physical methods of diagnosis? Let us first shortly discuss infectious diseases. In a great number of these the specific bacillus has been discovered, and in three of these the discovery of the bacillus has distinctly advanced our older methods of diagnosis. In diphtheria the presence of the bacillus, either microscopically or by means of cultures, has been early demonstrated as present, sometimes even before clinical symptoms gave any indications of the disease. On the other hand, often in the early stages, the B. diphtheriae has not been isolated, while the clinical symptoms were definite. My own experience has been that when the disease was definite clinically the bacillus was found, and when it was doubtful no bacillus was discovered. I was early taught if bleeding followed the removal of a patch from the tonsil, with no contraindicatory symptoms, to diagnose diphtheria with perfect confidence. And I have still the greatest belief in the value of this diagnostic sign.

Typhoid fever, again, by the "clumping" of the bacilli of a culture by adding a drop of typhoid blood, has been diagnosed in cases of doubt. Widal's reaction has certainly assisted very materially in obscure cases; and it is the same with tubercle, which, in a stage so early that the stethoscope left one in doubt, can now be diagnosed by bacteriological methods. But with the great majority of infectious diseases it is as yet no positive aid. I was interested in reading a discussion at the last meeting of the British Medical Association with regard to the early diagnosis of the acute specific fevers to observe that bacteriology was not relied on in the discovery of small-pox, scarlet fever, typhus, measles, rötheln, etc., various pathognomonic signs being mentioned for each, but no reference to bacteriological aid; and it would appear that the incipient and fully-developed symptoms of all these fevers have been so elaborately studied and mastered that symptomatology will hold its own as a diagnostic in that class of diseases. Then, with regard to pneumonia, the omnipresence of the pneumococcus would contraindicate its being an aid in its diagnosis.

Recently a paper was read before the British Medical Association showing the presence of the pneumococci in the lungs, kidneys, meninges, and even in joints inflamed with acute rheumatism. No doubt bacteriology is still a science in its infancy, and as research progresses some means of differentiating these differently-situated but apparently morphologically identical cocci may be discovered. Their presence in the human body in healthy conditions would also contraindicate, in the present state of our knowledge of their life-history, their diagnostic value. With regard to tubercle the presence of the bacilli in the sputum, even in the absence of all clinical and stethoscopic signs of disease, is held to be pathognomonic. But the presence of the bacillus of diphtheria in the throats of healthy people suggests at least the question whether the tubercle bacillus could not exist in the throats of people who might remain healthy. In such cases open-air treatment could not fail to have brilliant results.

With regard to the other diseases of the chest we get no assistance from bacteriology. Pleurisies (dry and moist), hydrothorax, hydropneumothorax, empyema, and all cardiac diseases are still, and probably will remain, entirely in the hands of the clinician and stethoscopist. One of the greatest triumphs of stethoscopy over symptomatology was the early diagnosis of hydrothorax and empyema. The clinician had generally to await the bulging of the chest and even the pointing of the abscess before he could diagnose and treat such cases. But with the discovery of the stethoscope an early diagnosis was possible, and as a result tapping the chest was adopted with most satisfactory results. The writers of the middle of last century wax eloquent over the numerous lives saved by the new discovery of mediate auscultation.

But every new discovery, however beneficial, is never an unalloyed benefit. Railway travelling—and what should we say if it were suddenly abolished?—swept off our highways the old stage coach with its jovial driver, its social travellers, and the echo of the merry horn is now no longer heard. Our great writers often hark back to those "good old times," and there must have been much to make the remembrances sweet. The journey was longer, and perhaps more laborious, but the time was not misspent. The eye was more educated and the scenery more accurately studied than now. And so with the older methods of getting over the roads of medical diagnosis. Slower, more laborious they were, but there were compensating advantages.

There was the educative advantage. The pure clinician, if he were to be a first-rate physician, must of necessity have been a man with a keen logical brain and an all-observant eye. In the absence of direct evidence of a particular disease, he must have exercised and educated his reasoning powers more than was necessary for his successor, who could fall back on his stethoscope, and the medical man of to-day, who can also call in the assistance of bacteriology. (The degree of diagnostic power and ability required by these three may be roughly compared to that of the man who can discern rain while it is suspended in the air, the second who discerns it by sound while he is inside his house, and the third who discerns it only when he sees it pouring down in torrents all around him. The powers of trained observation and experience required for the first of these three diagnostic methods immeasurably surpass those for the second two, while the third is merely a case of "seeing is believing.")

I have already said that the discovery of the stethoscope placed the older method in the background, and I am of opinion that the tendency of bacteriology is to do the same for the other two. I fear—I may be wrong—that this entrancing study has made both students and teachers less enthusiastic over the stethoscope, less inclined to trust to the sounds conveyed by it, and more chary to give a confident diagnosis with its help alone, as did the men of a quarter of a century ago. Young practitioners nowadays, who feel wearied after a few minutes unsuccessful search with the stethoscope for a tuberculous deposit in the lung, are eager, after a two hours' fruitless search for the bacillus expectorated from that lung, to persist for the rest of the day in the same occupation, unless some troublesome patient calls them away. Besides, they do not feel prepared to diagnose even a case with a history, if carefully inquired into, of rigor, sudden onset, rusty sputum, tubular respiration and pyrexia, until the rusty sputum is submitted to a bacteriological analysis! And while they are waiting for the result, they get a little note from the patient's friends intimating that, as they did not appear to understand the case, they had called in old Dr. "Soundinghorn," who had at once pronounced the illness pneumonia! Let us hope that a few such experiences will enable our young friends to trust more to the reasoning faculties with which they have been endowed, and to the portable little instrument which Laennec has bequeathed to them. If not, then we shall soon find that the stethoscope is often left at home during their daily rounds, and clinical methods of observation gradually become a bore. It was such a young man who once said on beginning practice in a certain district, "They are peculiar people here; they all expect you to look at their tongues and feel their pulses, and most of them expect you to sound them."

Another disadvantage—and it is a serious one—is that if we trust to bacteriology alone we must soon cease to make our own diagnoses. I am sure we all remember the mental exhilaration experienced when we correctly diagnosed our first case of empyema, pericarditis, etc. And in a modified form should not some such mental exaltation persist all along the line? The instant detection of a pneumonic condition by an intuitive mental process of induction from outward symptoms, and the subsequent detection of a small localized area of congestion and consolidation is a pleasurable experience even to the oldest physician. And should we not grudge to forego all this by constantly having to verify our diagnosis by artificial cultures of bacilli. These the busy practitioner, even if an expert, could not carry out personally, but would require to keep a bacteriologist or forward his specimens to some laboratory. What a loss of dignity for the practitioner when he became

content with such an arrangement. Let us hope the members of an honourable profession will never deteriorate into mere gatherers of sputum, who, in return for their forwarded specimens of sputum or membrane, receive small consignments of varying antitoxins, with full instructions as to use.

But bad though this would be, a still worse state of matters would be that we should be entirely in the hands of others. Everything would depend upon the care and perseverance, and methods employed, and the competency of the bacteriologist. Dr. Gerhardt's assistant in Berlin stated, in 1891, that as many as sixty examinations sometimes were made before the tubercle bacillus was discovered.

A negative result may in such circumstances mean much or little. An erroneous report as to the isolation of tubercle bacilli would mean the possible removal of a patient suffering from a severe catarrh or pneumonic consolidation to a sanatorium, where, of course, he would be rapidly cured, but earnestly advised to spend the winter months in a dry climate. Medical diagnosis and treatment would thus degenerate into a simple "rule-of-thumb" arrangment. Let us therefore as medical men welcome the aid of the bacteriologist, but do not allow him to supplant us. And to do this our teachers must strive to inculcate on the students the pressing need of mastering the old, the modern, and the new methods of diagnosis. Let them teach them how to diagnose disease as the great clinicians did one hundred years ago, and confirm it by the auscultatory and clinical methods of later years. Let their students be congratulated and encouraged when obscure cases are diagnosed by the old method, and even by the second. By so doing they will give them self-reliance and a sense of dignity, and in this way they will hand down unimpaired the medical traditions of the past, hand in hand with the results of modern scientific research, and enable the profession to remain in the future, as it has so long been, a "learned one."

REMARKS ON CONGENITAL CYSTS OF THE TONGUE.

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,

Senior Surgeon to the Royal Portsmouth Hospital, and the Portsmouth and South Hants Eye and Ear Infirmary.

CONGENITAL cysts of the tongue are not a common class of tumours. They generally occur in the middle line between the genio-hyo-glossus muscles, or between the genio-hyo-glossus and the myo-hyoid. Sometimes they remain unchanged for many years. Their contents consist of soft sebaceous matter, and occasionally they contain also hair and solid masses of true dental tissue. When they undergo inflammatory changes, the putty-like material is mixed with purulent and offensive fluids. The cyst wall is lined with squamous epithelium, and is of delicate structure and easily torn, but it is occasionally thick and fibrous. Now these tumours do not fluctuate, but feel elastic and tense on palpation. They are generally observed in young adults, and their existence is often overlooked during infancy and early life. They are painless, and increase with the development of the individual; but, if anything irritates their surface or disturbs their lining membrane, they are apt to suddenly increase in size and to undergo inflammatory changes. Congenital cysts have their origin in the accidental displacement of some epithelial structure. During early embryonic life a portion of the epiblast, consisting probably of only a few connective-tissue cells, gets folded in and shut off from the external surface. They always possess a true epithelial lining, provided it has not been destroyed by necrotic and suppurative changes.

Inflammation of a Congenital Cyst of the Tongue caused by Wearing Artificial Teeth.

S. P., aged 40, a married woman, consulted me in February, 1901, in consequence of a painful and rapidly-increasing swelling of the tongue.

History.—She stated that soon after birth her mother noticed a small tumour on the side of her tongue. When 10 years of age it was the size of a marble, at 30 it had enlarged to the size of a small egg, and in 1899 it had increased considerably, and its presence caused great discomfort, especially during eating and swallowing.

Condition when First Seen.—The swelling almost filled the mouth, and the gums and base of the tongue on the left side were extensively ulcerated. She was unable to swallow anything but a little fluid, and there was also great swelling and tenderness in the submaxillary region. In December, 1900, she commenced to wear a lower plate of artificial teeth, but they caused so much pain and swelling that in a few weeks she was compelled to give them up.

Operation.—On making an exploratory puncture a little thick, yellowish matter escaped. Ether was then administered, the tongue secured with a ligature, the incision extended, and the thick material removed by pressure and a scoop. The cavity was then completely laid open to the base of the tongue, and the thick cyst wall, which was intimately connected with the substance of the tongue, dissected out. The patient rapidly recovered, and a few weeks after the operation the tongue was normal in size, with a long linear scar along its margin.

The lifelong presence of a tumour on the tongue, the attack of acute inflammation after wearing the artificial teeth, and the result of the exploratory incision made in this case the diagnosis an easy matter. At the time of my first examination, however, the appearance of the swelling with its vascular markings, the extensive ulceration of the mouth, the fixation of the jaw, and the submaxillary tumefaction suggested the probability of a malignant growth.

It is an interesting fact that prior to the inflammatory changes the presence of the tumour caused the patient very little inconvenience. The tongue itself was thin and small, and although burdened with a growth as large as a small orange, it proved an efficient organ, and articulation and mastication were performed apparently for many years with very little difficulty.

There are many kinds of congenital tumours of the tongue, and of these, naevi and warty growths appear to me to be the most common. Pedunculated fatty tumours have been recorded, and also large tongues in which the increase in size has been attributed to a diffused development of fatty tissue. Pure cartilaginous tumours have been occasionally observed, and also osteomata and fibromata developed in connexion with the fetal structures from which the septum originates.

Central sublingual cysts projecting into the submaxillary region are occasionally met with. A complete history with distinct evidence of their recognition in early life is often difficult to obtain. They grow slowly, and exhibit very little transparency. They are true dermoid cysts, and are the outcome of the renewed activity of embryonic relics, and appear in the position which was formerly the seat of a tubular passage lined with epithelium.

These congenital cysts are sometimes confounded with other kinds of cystic swellings arising from the transformation of connective tissue interspaces, or from the dilatation of the ducts of the sublingual or snbmaxillary glands. True ranula, however, always appears as a bluish, transparent, and fluctuating tumour on one or both sides of the lingual fraenum.

Central sublingual cysts are sometimes intimately connected with cystic swellings which occur near the hyoid bone, on the thyroid cartilage, and even lower down the neck. They have been regarded as bursal tumours. Their walls are thin, and they are filled with mucoid fluid.

Large Sublingual Cyst Extending Downwards below the Thyroid Region.

G. M., aged 36, a married woman, came under my care with a large cystic tumour situated in the sublingual region. Her parents never noticed any swelling in the mouth during infancy. During the last two years it had been growing rapidly. A large portion of the cyst was excised, and in two months she left the hospital apparently cured. In 1894 she returned to me again with a large and prominent swelling extending from the left side of the chin to the sternum. It did not fluctuate externally, but a distinct impulse on palpation could be discovered between the mouth and the neck. The cyst was punctured in the sublingual region, and an opening traced with the probe contained a thick mucoid fluid.

The second operation was performed in July, 1894, and the whole sac was completely excised. In many places the cyst wall was very thin, and the central muscles of the neck were widely separated. The thyroid gland was not enlarged. The large cavity was then thoroughly disinfected, and a drain inserted at the lower angle. The wound healed in a few days. The photograph was taken seven years and a half after the operation, and it exhibits the long central scar.

The congenital origin of this cystic tumour is very indistinct. The patient stated that she always had rather a full neck, but that it never gave her any inconvenience until 1891. Now, it is a well-recognised fact that the obsolete canals from which congenital cysts are developed, after remaining dormant for many years, may again wholly or in part assume activity. If, then, there were a congenital cyst, it is probable that the whole length of the embryonic tubular passage, known as the ductus thyreoglossus, had remained

unobliterated. In the early life of the embryo an invagination takes place on the floor of the pharynx between the second and third branchial arches, and a narrow median tube is formed which opens on the surface of the rudimentary tongue, and then, as the thyroid gland and the tongue undergo separation, this duct gradually elongates. About the end of the eighth week the closure of the lumen of this tube commences by the formation of a cord-like substance, which gradually diminishes in size, and at length becomes completely obliterated. Sometimes the obliteration of this tube is only partial, and a portion of it remains lined with epithelial structure. Now, it is from such a remnant that many congenital cystic tumours of the neck are developed. I have recently operated on two cases, and in both of them the cyst arose from the inferior part of this obsolete canal. These cysts are often found over the cricoid or thyroid cartilages as small and tense swellings. Their walls are thin, and they are liable to undergo chronic inflammatory changes and then to rupture somewhere near the middle line of the neck, leaving



Photograph of patient taken 7½ years after second operation.

behind them troublesome sinuses, which can often be traced inwards to the thyroid bone and deeply behind the sternothyroid muscles. Complete excision of these cysts is the only remedy. The platysma and fascia should be freely divided, the central muscles separated, and the cyst or sinus carefully dissected out. Small masses of glandular tissue have been found in these cysts resembling in structure the thyroid gland. Sometimes the upper part of this embryonic canal continues unobliterated, and the sinus may then communicate with the floor of the mouth or with one of the salivary ducts, causing a thin mucoid discharge to flow from the orifice in the neck during mastication and deglutition, which adds greatly to the discomfort of the patient.

References.

Diseases of the Tongue, Butlin; *Human Embryology*, Chas. Sedgwick Minot; *System of Surgery*, Keith and White.

ABSTRACT OF

The Hunterian Lectures

ON THE

ANATOMY, PHYSIOLOGY, AND PATHOLOGY OF THE IMPERFECTLY DESCENDED TESTIS.

Delivered before the Royal College of Surgeons of England.

By W. McADAM ECCLES, M.S.Lond., F.R.C.S.Eng.,

Hunterian Professor of Surgery; Senior Assistant Surgeon, West London Hospital; Assistant Surgeon, City of London Truss Society.

Lecture I.—Anatomy.

The human testis may be arrested at one of several spots in the normal route along which it migrates, namely, within the abdomen, in the inguinal canal, just below the superficial abdominal ring, or in the higher part of the scrotum. These constitute non-descent, partial descent, or retention; or the testis, having proceeded as far as the exit of the inguinal canal, may pass into an unnatural position, such as the perineum, Scarpa's triangle, the root of the penis, or upon the superficial surface of the aponeurosis of the external oblique muscle of the abdomen. These constitute abnormal descent or ectopia.

The conditions which have been considered to be the causes of the arrest of the human testis may be classified as follows:

(*a*) Conditions associated with the mesorchium: (1) The mesorchium too long, the testis would then hang too freely in the abdominal cavity, and would thus be prevented from engaging the ostium of the processus vaginalis; (2) adhesions between the peritoneum forming the mesorchium and the adjacent portions of the serous membrane, generally the outcome of intrauterine fetal peritonitis; (3) abnormal persistence of the plica vascularis.

(*b*) Conditions associated with the testis and its component parts: (1) The spermatic vessels too short; (2) the vas deferens of insufficient length; (3) the epididymis abnormal in size; (4) fusion of the two testes—synorchism; (5) certain forms of hermaphroditism.

(*c*) Conditions associated with the gubernaculum testis: (1) Absence of the upper normal attachments of the gubernaculum; (2) deficiency of its muscular fibres; (3) deficiency or absence of its scrotal attachments.

(*d*) Conditions associated with the cremaster: (1) Retraction of the testis after it has descended to its usual habitat in the scrotum; (2) want of action of the internal fibres of the cremaster before the testis has reached the inguinal canal.

(*e*) Conditions associated with the route: (1) Ill development of the inguinal canal; (2) ill-development of the superficial abdominal ring; (3) ill-development of one-half of the scrotum.

(*f*) Other conditions, such as the wearing of a truss preventing the onward passage of the organ into the scrotum.

In some cases the body of the testis may be arrested in the canal, while the epididymis and vas pass into the scrotum.

There are probably only two causes of the abnormal descent of the human testis, or its ectopia; one is that it may be drawn into its unusual position by the traction of certain sets of fibres of the gubernaculum testis, or it may be pushed into its abnormal site by an advancing hernia (Fig. 1).

The actual regions in which they have been observed are Scarpa's triangle, about the root of the penis, and towards the anterior superior spine of the ileum in front of the aponeurosis of the external oblique muscle of the abdomen. Those fibres which pass into the perineum may terminate by the side of the anus, may blend with the external sphincter ani, or may be attached to the ramus of the ischium (Fig. 2).

It is extremely doubtful whether the testis has ever reached the upper part of the thigh by a spontaneous passage through the femoral ring. Nearly always the spermatic cord can by careful manipulation be traced up to and through the superficial abdominal ring, thus proving that the organ left the abdomen by the inguinal canal, and it was only after its exit from the superficial abdominal ring that it passed into the upper part of the thigh. That a hernia in its advance may force a testis from its normal course into a position which is altogether unusual for it is fairly certain,

and most if not all of those instances in which a testis is found lying on the aponeurosis of the external oblique muscle superficial to the inguinal canal are in reality examples of this pushing and not of the drawing action exerted by the fibres of the gubernaculum.



Fig. 1.—A right testis in Scarpa's triangle. The right half of the scrotum is developed, but not distended. From a photograph of a man, aged 35, who said his right testis had always been in this position.

Into whatever position the testis unnaturally passes, it takes with it a process of peritoneum termed the processus vaginalis testis, provided that the pouch remains connected with the general peritoneal cavity, or the tunica vaginalis if it is shut off from the same. What is imperfect or abnormal descent in the human subject may be the natural or perfect condition in other animals.



Fig. 2.—A right testis at the root of the penis. The right half of the scrotum is developed, but not distended. A case of Mr. Hilton Pollard's recorded in the *Medical Chronicle*, December, 1895, p. 193.

[The lecturer at this point described the permanent position of the testicle in the various types of the vertebrata.]

The actual size of the testis compared to the weight of the animal to which it belongs varies greatly in different classes. In many carnivorous animals—as, for instance, in the cat or the dog—the testes are relatively small. Herbivorous animals, such as the goat and the ram, on the contrary have proportionately large testes. In the human subject, the testis that has normally descended into the lowest part of the scrotum is usually fully developed, but if it should be arrested, then there is a great probability of imperfect development. But, on the other hand, in those animals in which the testis naturally lingers in its descent, or does not even start to descend, the development of the organ will be perfect. There is, therefore, some subtle influence at work in the testis of the higher vertebrates which renders full descent in the vast majority of cases necessary or concomitant with full development. Moreover, the various pathological conditions associated with imperfect descent in the human subject are unknown, or almost unknown, in those animals whose testes never transgress the limits of the abdominal wall. The effect of imperfect descent upon the testicle itself, in so far as its anatomical characters are concerned, lies chiefly in the fact that, as a rule, the organ is smaller than it should be.

This want of growth, however, is not invariable, for about 5 per cent. are of normal size; but without confirmatory microscopic examination it is impossible to be quite certain that the ultimate tissue is not imperfect in its development.

There are at least three ways in which the abnormal condition of the imperfectly-descended testis can be viewed. That there has been an initial want of proper formation of the organ, altogether apart from the want of complete descent. That the organ proceeds in its usual growth up to the period of the commencement of sexual life, but never enlarges and undergoes that full development which should accompany the onset of puberty. That the testis does acquire its normal size, and with it its complete physiological function at puberty, but that owing to its abnormal position, it is soon involved in retrogressive changes producing in the end entire atrophy of the seminal tubules and a consequent loss of activity.

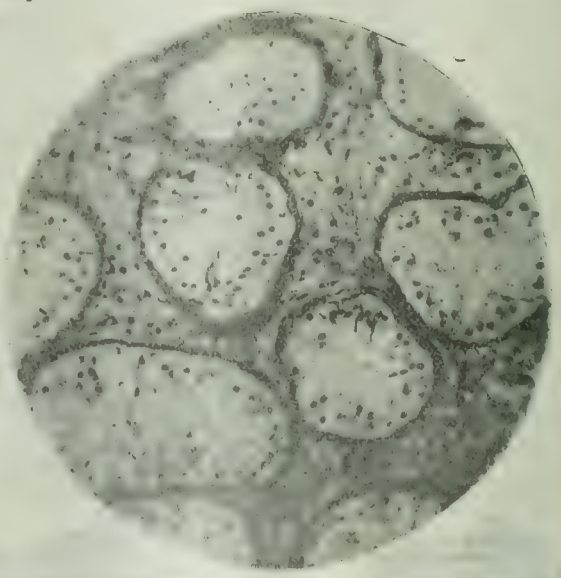


Fig. 3.—Section of a testis removed from the inguinal canal of an adult, showing tubules fairly well developed, but inactive, and numerous interstitial cells. (× 150.)

The testis as it lies in the abdomen close by the kidney, in the iliac fossa, or within the deep abdominal ring, or when it has passed into but not out of the canal, or further, when it has only reached just below the superficial ring, or the upper part of the scrotum, is undoubtedly, in the majority of instances smaller and softer than a normally placed organ. In shape the arrested testis may closely resemble that of the perfect organ, or it may widely differ therefrom. If the epididymis has passed beyond the site of the body of the testis, this condition will materially alter the shape of the gland. Moreover, its internal structure on section contrasts markedly with that which is fully developed.

Of recent years a considerable amount of attention has been paid to the want of development of the imperfectly-descended testis, chiefly from the fact that there has been much difference of opinion as to what is the correct method of dealing with the organ when it is met with in the course of a radical operation upon an associated hernia.

From a review of a large number of records, both published and unpublished, as well as from the examination of a considerable series of sections of imperfectly-descended testes, as to the exact condition of the seminal tubules, of the presence or not of spermatozoa or of their partial formation, it would

seem that it may be accepted as a working hypothesis that the testis so arrested is one that has very definite divergences from the structure of a normally-placed and fully-developed organ.

[The lecturer here described the microscopical appearances of normal testes, and then proceeded as follows:]

When the structure of the tubules of a testis that has not reached its proper level is examined, there will be found a very different histological picture in the majority of instances.

The tubules are fewer in number, smaller, and more widely separated from one another by interstitial tissue, consisting of loose connective tissue, which is rich in blood vessels in spite of the otherwise ill-development of the gland (Fig, 3).

Scattered throughout this will be seen nuclei belonging almost certainly to interstitial stroma cells. In some sections these appear to have undergone considerable increase both in number and size. Such interstitial cells are present in the connective tissues of the normal adult organ, but in comparatively few numbers. What their significance and function may be is still problematical. Possibly they are associated with an internal secretion of the gland, a secretion that may be needful for the full bodily development or sexual perfection of the man.

The fact that they are found in apparently larger numbers in particular instances of imperfectly-descended testes is a matter of great interest both from a physiological and pathological point of view. The connective tissue, moreover, here and there contains some large lymph spaces. The basement membrane of the tubules derived from the connective tissue as well as the membrana propria are well developed. The lumen of the tubules is most uncommonly found occupied by a mass of granular débris containing a large number of nuclei of various shapes and sizes, these being probably separated from the cells lining the tubules. As a rule, neither spermatoblasts nor spermatozoa can be demonstrated in the tubules of imperfectly descended testes.

In some instances, however, it is possible to show that there has been actual spermatogenesis, and this most usually in those testes which have passed into the perineum.

A NEW METHOD OF DEALING WITH THE PERITONEUM IN OPERATING FOR RADICAL CURE OF UMBILICAL AND INGUINAL OR FEMORAL HERNIA.*

By W. F. BROOK, F.R.C.S.Eng.,

Senior Surgeon to the Swansea General Hospital.

The peritoneum of the anterior abdominal wall when viewed from within is stretched taut like a well-filled sail. Any pouching or pouting constitutes a weak spot, and one which the plus intra-abdominal pressure is always tending to deepen. If added to such weak spot the external supporting structures are deficient in strength, the result is sooner or later a hernia.

When operating for radical cure of hernia, whatever method be adopted of dealing with the other structures of the abdominal wall, the aim should be to leave the peritoneum stretched taut without pout or dimple over and around the site originally occupied by the neck of the sac.

Treves's and Kocher's operations for inguinal and femoral hernia are designed to remove the neck of the sac from its original position, and leave its site more or less covered in by a taut sheet of peritoneum. In the case of umbilical hernia, as far as I can find, no attempt has been made to apply the same principle. The usual operation, consisting of excision of the sac, and suture of the peritoneum and other constituents of the abdominal wall layer by layer, as far as possible, is faulty. First, because each line of suturing is bound to be almost immediately over the one below, consequently the weakest point in the peritoneum will be left opposed to the weakest point in the muscular wall. Secondly, because owing to the enormous thickness of the abdominal wall in these cases, sometimes to as much as 4 in., the suturing of the peritoneum at the bottom of the ring (that is, at the bottom of a deep hole) cannot possibly be done so as to leave no sag or pouch, and sag or pouch is the first step in the direction of the recurrence.

The following method of operating is one which I adopted in two cases of large pendulous irreducible and painful hernia twenty-eight and nine months ago respectively. Both were as usual in enormously stout women. In the more recent the patient was 5 ft. 2 in. in height and 18 st. in weight. The other was of the same build.

A large elliptical piece of skin, its long axis in the mid-line, is dissected off the tumour, care being taken to avoid button-holeing the sac where adherent to skin. The sac is then isolated as far as the edges of the ring and opened by a transverse incision. The contents having been treated in the usual way, the peritoneum is detached all round and well within the ring, especially around the upper segment where the separation is extended at least 2½ in. beyond the ring border Fig. 1). The two halves

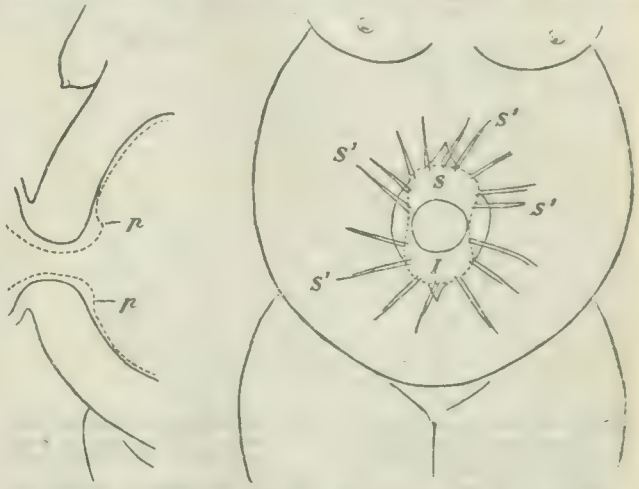


Fig. 1.—Peritoneum (p) stripped up around and within the ring.

Fig. 2.—Sac fashioned into upper (S) and lower (I) flaps. S' running sutures through edges of flaps.

of the sac are then shaped into two flaps, each of which is a little wider, and about two inches longer than the diameter of the ring (Fig. 2). [The shape and size of the sac or accidental button-holeing may render it necessary to make these flaps right and left instead of upper and lower. In that case the sac will have been opened vertically instead of transversely. This was done in the first case.] Through the free edge of each flap running sutures of fishing gut are now passed at intervals of 1½ in. or in the case of the upper which is destined to lie within the abdomen at shorter intervals. The ends of each suture are for the time being clamped together with pressure forceps. The two ends of the central suture of the upper flap are mounted on a large semi-circular perineum needle. The point of this, protected by the left forefinger, is carried through the ring and thrust from within out through the whole thickness of the belly wall at a point in the middle line about 2½ in. below the ring. The needle is withdrawn and the two ends again secured by a clamp on the surface. This is repeated with each suture of the upper flap, so that the row of double-ended sutures emerging from the skin forms about two-thirds of a circle whose centre is a little below that of the ring. The sutures are now pulled up, care being taken that no overriding bowel is caught between the tightened edge and the parietal peritoneum, and the ends tied firmly together over a piece of lead wire bent to the required shape (Fig. 4). The lower flap is now treated in the same way except that the needle with the successive sutures instead of being introduced into the abdominal cavity is made to penetrate the abdominal wall from the space around the upper segment of the ring which has already been prepared by more extensive separation of peritoneum at this point. These sutures are pulled up and secured in the same way as the others and the ring is closed by one or more rows of buried sutures.

The result of this procedure is that the weak spot in the abdominal wall, the site of the ring, is backed by two thicknesses of peritoneum stretched straight and taut across it like a drumhead (Figs. 3 and 5). I do not for a moment claim that this method of operating for umbilical hernia will remove all chance of recurrence, but I do think that with efficient after-care it should tend to diminish that chance. Two cases with twenty-eight and nine months interval since operation do not afford sufficient evidence from which to draw conclusions. My hope is—and this is the object of my publishing this paper—that this evidence may be provided by others being induced to give the method a trial where possible, for in no other way can its efficiency be tested. I use the words where possible advisedly, for in a third case in which I attempted the operation the peritoneum was

* Read before the South Wales and Monmouthshire Branch of the British Medical Association.

so friable that it was impossible to strip it. In the second case the abdominal wall is now all that could be desired. The first I lost sight of until a few weeks ago. I then found that she had discarded her belt immediately after she had left hospital, and, as was to be expected, considerable bulging had occurred. This case consequently affords no fair test of the operation.

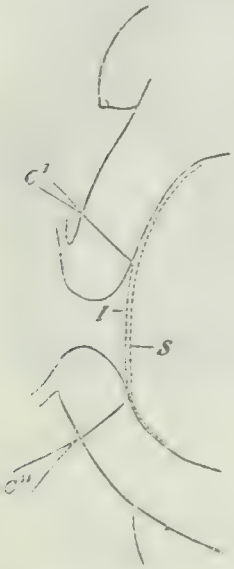


Fig. 3.—Section showing flaps drawn taut. (I) lower flap. (S) upper flap. (C') Central suture of lower flap. (C'') central suture of upper flap.



Fig. 4.—Completed operation (skin aspect. (W) pieces of wire over which the sutures are tied.

Fig 5.—Completed operation (peritoneal aspect). (S) upper flap (intraperitoneal). (I) position of lower flap (extraperitoneal). The dotted circle in Figs. 4 and 5 represents site of ring.

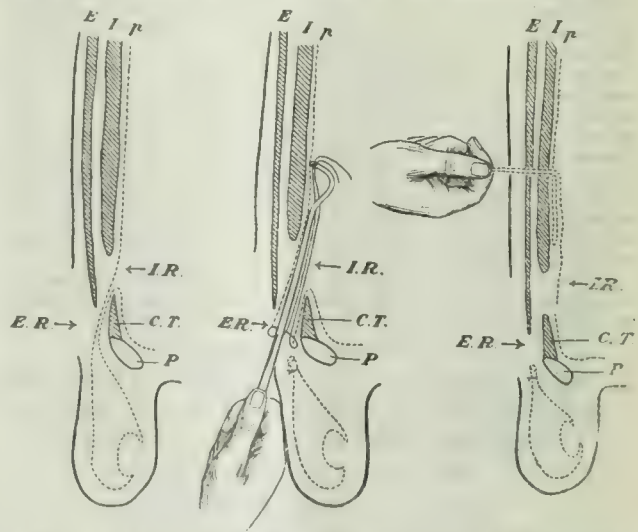
While operating on the second case it occurred to me that intra-peritoneal treatment of the sac might be applied in somewhat the same way to inguinal and femoral hernia, and that complete inversion followed by traction would allow of more thorough removal of the neck of the sac from the site of the ring than those operations already in vogue and above alluded to which have been designed with this object; and furthermore that the peritoneum left opposed to the ring and the whole canal would be more evenly and firmly stretched than by any extraperitoneal method of treating the sac.

I have since applied the principle when doing radical cure for 4 cases of inguinal and 2 of femoral hernia.

The following description of the operation applies to the inguinal variety.

The sac, having been isolated from the cord, is cut across immediately above the part which it is intended to leave in the scrotum. A running silk suture is passed across it just above the point of section. The two ends of the suture are threaded on an aneurysm needle. The latter is introduced into the abdominal cavity through the sac, its point being kept in contact with the inner aspect of the wall till it reaches a point ½ to 2 in. above and internal to the internal ring (Fig. 7). Here a little pressure causes it to present beneath the skin. A small incision, ⅜ to ¾ in. in length, through skin and subcutaneous tissue exposes the point closely invested with a little process of peritoneum, together with which it has been readily forced through muscles and aponeuroses. The peritoneum is nicked with the point of a knife, and the small hole thereby made enlarged with a sinus forceps, and the aneurysm needle pushed through. The suture ends are now disengaged, the needle withdrawn, and by traction on the suture the sac is inverted and pulled well through (Fig. 8). This is now twisted through one or two turns, the little process of parietal peritoneum pushed back with fine sinus forceps to its proper level, and the sac cut off and the stump fixed by one or two buried sutures. The other structures concerned in the hernia are dealt with by whatever method is preferred; personally I adopt Bassini's where it is necessary to close them.

It will be noticed that this proceeding does away with the necessity of slitting up the external oblique fascia roofing in the canal. This is a distinct gain in those cases in which the canal has not been unduly stretched, and in which there is no necessity for approximating the conjoined tendon to Poupart's ligament. The chief objections which may be urged against the operation are, first, that without exposing the site of the internal ring it will not be possible to so thoroughly detach the neck of the sac from the transversalis fascia as to allow of its being drawn sufficiently away from the position of the internal ring. In practice, however, the looseness of these attachments is surprising, allowing, as they do, complete and easy inversion of the sac. That this is so is shown by the fact that the length of the sac drawn out on to the surface is considerably greater than the distance between the internal ring and the point of section (Fig. 7). Secondly, it may be objected that the perforation of the peritoneum by the inverted sac would result in another weak spot. If, however, the perforation is situated in a muscular part of the wall (that is, through the rectus abdominis), and is made as small as possible, and chiefly by stretching rather than cutting, and is pushed well back after the sac has been drawn out so as to leave no funnel-shaped depression, I doubt if the objection is more than a theoretical one, especially as the muscles and aponeuroses have not been weakened by incision. The same description suffices, and the same arguments hold, in the case of femoral hernia, the sac being brought out above Poupart's ligament and 1½ in. outside the femoral ring.



Figs. 6, 7, and 8 represent an antero-posterior section of the abdominal wall and hernia in the axis of the inguinal canal. For the sake of clearness, the abdominal wall is represented as being perforated in the same line. E, external oblique; I, internal oblique and transversalis; P, peritoneum; E R, external ring; I R, internal ring; C T, conjoined tendon; P, pubic bone.

This operation I venture to put forward as one that is worth a trial, and if, as I suggest, the objections I have mentioned are entirely theoretical, I believe it is likely to be of real use, for it is a golden rule in surgery that in arriving at the required result the least possible injury should be done to the tissues concerned in the operation. Added to this recommendation, too, is the extreme simplicity of the procedure.

NOTE.

Since writing and reading this paper I am informed that the operation described for inguinal and femoral hernia is essentially the same as one which Professor Kocher, of Berne, has now for some time been practising, but has not yet published, he having abandoned the operation which is still described as his in the most recent textbooks and referred to above.

THE SECRET OF A LONG LIFE.—Sir James Grant, of Ottawa, not long ago, delivered a lecture upon The Secret of a Long Life, under the auspices of the Women's Residence Association of Victoria College. Sir James, as we gather from the *Canadian Journal of Medicine and Surgery*, found the secret in total abstinence from the use of intoxicating liquors. He made a strong plea for prohibition, not by law, but by the force of public opinion educated to a proper appreciation of the harmful nature and health-destroying agency of the use of intoxicating beverages.

RUPTURE OF THE JEJUNUM FROM DIRECT VIOLENCE WITHOUT EXTERNAL BRUISING.

By J. LOCKHART LIVINGSTON, M.D.R.U.I.,
Hursley, Winchester.

On December 2nd, 1901, I was summoned to a remote farmhouse to see a lad, aged 16, who was said to have been "run over." On reaching the house about three hours after the accident, I found the boy lying on a sofa, partially undressed, pale, somewhat cold, (although he had an "eiderdown" over him), with a pulse of 116, and respirations 24. He was perfectly conscious, and did not complain of pain. He told me that while driving a horse and empty cart he had fallen out while endeavouring to release the reins from some part of the harness, and the horse had stepped on his belly with his near hind foot, and that he had lain between the wheels, which did not go over him. A carter who was about 100 yards away when the accident occurred saw the horse running away, and soon after the boy got up from the ground and came towards him, but fell down after walking a few yards; he then got up again, and walked 50 or 60 yards, screaming. Before reaching the carter he vomited about a tablespoonful of blood (?), and soon afterwards when lifted into a cart he vomited freely "what looked like the whole of his dinner" (which he had had three hours before), "but of a purple colour"; this was believed to be due to jam (sloe or damson) pudding which he had had at dinner, and it was also thought to account for the supposed blood which was vomited. It was impossible to verify the statement of blood vomited, owing to cattle having been driven over the spot.

On examining the boy's abdomen there was no sign of external injury, although the carter said he had seen a red mark near the navel immediately after the accident (there was dirt on the lower part of the boy's waistcoat where he said the horse stepped on him, but as other parts of his clothes were dirty from lying on the ground this evidence was not considered conclusive); the abdominal walls moved in respiration, although not quite freely; there was no tenderness in any particular spot to light pressure: dullness on percussion in the hypogastrium, and also in the flanks, in the latter situation changing with the position of the body. Soon afterwards quite half a pint of clear urine was passed without difficulty, and this probably accounted for part of the dullness in the hypogastrium. He had passed urine shortly before the accident, so that there was no anxiety on this score.

I had now to form some judgment on the evidence before me. On the one hand there was the fact that the boy's general condition was good, and that he did not appear to be suffering from such severe shock as one would expect to find if there were serious internal injury, but on the other hand there was (1) the history of a cart-horse stepping on his abdomen, confirmed by (2) rapidity of pulse, 116, and other symptoms of shock three hours after the injury, (3) presence of fluid in the peritoneum, (4) unusual freedom from pain (from my previous experience of the patient I regarded this as a grave symptom), (5) doubtful vomiting of blood, (6) vomiting of a full meal three hours after being partaken of.

Recognizing the impossibility of giving a positive opinion from symptoms alone—on the question of internal injury, I asked for and obtained permission for a consultation to decide whether an exploratory incision would be justifiable, and a messenger was sent for Mr. Wace, of Winchester, and for a surgical nurse at the same time. In the meantime we got the patient to bed, and applied hot bottles, which had the effect of improving the circulation in the extremities. On Mr. Wace's arrival, about five hours and a-half after the accident, the boy was smiling, free from pain, moving easily and freely in bed—so much so, that he had to be told to keep still. The surface of the body was warm, and he could bear considerable pressure with the flat hand on all regions of the abdomen; the signs of fluid in the peritoneum were less marked, the liver dullness was about 2⅔ inches vertically in the middle line, ceasing about 1 inch above the costal margin, and his pulse 112. In view of his slight symptoms and general good condition and in the absence of positive evidence of internal lesion, Mr. Wace was averse to operation. We therefore decided to give a guarded opinion, and to await events. Nothing was allowed by the mouth but teaspoonfuls of water at intervals of half an hour or an hour.

At 11 o'clock next morning he had slept at intervals—altogether about three hours—complained of pain, not localized, once or twice during the night, had passed urine, thick and depositing urates, three or four times, flatus by the mouth. At 7 A.M. vomited about 1 ounce of bile. His temperature at midnight (2nd) had been 100°, pulse 110, respirations 36. At 6 A.M. (3rd) temperature 100.6°, respirations 32, pulse 116; now it was under 100°, pulse 126, respirations 26, and he was free from pain; the abdominal walls still moved; there was no particular tenderness, but there was dullness on percussion continuous with the liver dullness in the nipple line almost to the umbilicus. As the patient was not at all collapsed, it was thought this could not be blood.

At 1 o'clock on the morning of December 4th I got a message to go "as soon as possible," and reached the house at 2 A.M. The nurse informed me that there had been a slight action of the bowels, without straining, at 11 P.M., and that he then became collapsed, and she thought he was dying, but that he had improved since then. I was unable to count his pulse at the wrist, which was small and running; the heart beats were from 140 to 150 in the minute. Shortly afterwards I could hardly feel his pulse at the wrist, so I injected ℥j brandy hypodermically. Almost without warning, and before I could reach a basin, he vomited from half to one pint "coffee-ground" fluid — evidently altered blood — and the pulse at the wrist soon returned. As it now seemed certain that there was some serious internal injury—probably rupture of the gut—I again sent for Mr. Wace, who arrived, accompanied by another surgeon, at 6 A.M. On examining the abdomen it was now noted that the liver dullness extended downwards to within an inch of the costal margin (as on the first occasion), and there was a separate line of dullness (with intervening resonance) about two fingerbreadths wide, extending from about the umbilicus for 2 or 3 inches transversely to the right. As there seemed very little chance of saving the boy's life by an operation in the condition he was then in, it was decided to give ¼ gr. morphine hypodermically, and to see him again in six hours. He had not slept at all during the night.

At our next visit (2 P.M. on the 4th) we had the advantage of the opinion of Dr. Wingfield, of Winchester, in conjunction with Mr. Wace, Mr. T. W. Letchworth and myself. The parents thought the boy much better as he had slept and was more comfortable, but there was no improvement in the pulse, which was 140° or more, the abdominal walls still moved, although the recti were rigid on palpation. There was now a decided diminution in the liver dullness which was reduced to about 1 in. vertically in the nipple line; the same area of dullness was present to the right and just above the umbilicus and in the flanks. There had been a small action of the bowels not blood-stained. The position was explained to the parents, who requested that an operation should be performed if there was the smallest chance of its success, and preparations were at once begun, including provision for intravenous injection of saline solution if it should be required. Chloroform was administered by Dr. Wingfield, but by the time ℥j had been used, and the patient removed from the bed to the table, the pulse could not be felt, and breathing had almost ceased; it was therefore found necessary to abandon any attempt at laparotomy, and some two or three pints of saline solution were injected into a vein at the bend of the elbow, which had the effect of improving the colour, circulation, and general condition of the patient. The patient gradually sank and died at noon on December 5th 1901, 68 hours after the accident. There was an absence of marked distension of the abdomen throughout. A partial necropsy was performed on the 8th—75 hours after death. Rigor mortis was not quite gone; greenish discoloration about the abdomen and flanks. On opening the peritoneum gas escaped, and 1 to 2 pints of bloody fluid were found. Flakes of lymph were sparingly distributed on the small and large intestines; on the posterior (lower) layer of the transverse mesocolon pus had formed. The only injury, with the exception of slight superficial bruising of the lower end of the

left kidney, was a rent in the jejunum, near its commencement close to the spine, about 1½ inch long in the longitudinal axis of the bowel, at its free border; the edges of this rent were thickened as if bruised; no other source of haemorrhage was discovered.

TWO CASES OF INOPERABLE SCIRRHUS OF THE BREAST TREATED BY OÖPHORECTOMY: RESULTS.

By E. PERCY PATON, M.S.Lond., F.R.C.S.,
Assistant-Surgeon, Westminster Hospital.

The question of the treatment of inoperable scirrhus of the breast by removal of both ovaries has of late caused considerable discussion, but as its ultimate value as a means of relief or cure can only be settled by extensive experience of cases in which the treatment has been tried, I have thought it worth while to add the only two cases, which I have so far done that they may be included in the larger experience of others. Both of them are unfortunately "complete" cases, as both of them have since died.

Case I.

E. L., married, aged 43, first came under my care on January 15th, 1900.

History.—She was married and had had nine children, and was at the time five months pregnant; she had first noticed a swelling in the left breast the previous November, and it had increased very rapidly.

Condition on Examination.—There was extensive infiltration of the whole breast with new growth and some, though not very extensive, affection of the axillary glands.

Operation on Breast and Result.—On January 18th the breast and axillary contents and sternal portion of the pectoralis major were removed, the wound healed without trouble and she went out of hospital on February 7th in good health. She returned on September 13th, having in the meantime had a child which she had suckled. She said that two months before the lump had returned in the scar, and that on September 7th it had bled a little; the bleeding was stopped by pressure, and she was kept under observation. On October 9th she was readmitted, and a careful sketch having been made of the extent of the growth, it was found that an area of about 9 in. by 5 in. of the left chest wall was ulcerated, and there was also considerable infiltration around this ulcer; the opposite breast was also involved, but there was very little glandular affection palpable, and no evidence that any internal organs had been attacked.

Oöphorectomy was done on October 11th, and a day or two later she was put on 5 gr. of thyroid extract three times a day, which, however, was only continued for about three weeks.

After-History.—The patient's mental condition soon became a source of trouble; she was very restless and unable to sleep, trying to get out of bed, and apparently going rapidly downhill. On November 14th it was noted that the growth on the left side seemed a little smaller and showed less tendency to bleed than formerly, but that the swelling in the right breast was increasing. As she was still very restless and sleepless, sulphonal (20 gr.) every night was ordered. This had a very beneficial effect on her general condition, as she at once began to sleep better and became more herself; but there was no further improvement in the condition of the growth, while that in the right breast continued to increase, and she now suffered a good deal of pain; she was, however, able to get up, and her general condition remained about the same till January 5th, 1901, when she was discharged. She died in the infirmary on March 4th.

Case II.

Mrs. L. B., aged 31, came under my care on March 21st, 1901.

History. She had first noticed a lump in her left breast eighteen months before, she being then four months pregnant. Five months later after the birth of the child it began to grow more rapidly, and when I saw her it had extensively infiltrated the whole left breast and axillary glands, and the glands in the posterior triangle were considerably involved. There was no evidence of any affection of any of the internal organs.

Operation on Breast.—The state of matters was explained to her, and I was desirous of leaving the tumour alone in the first instance and removing the ovaries, but she was anxious that at any rate an attempt should be made to remove some of the growth. An extensive operation was therefore done on May 30th, 1901, the breast and pectoral being taken away, as well as the contents of the axilla, but the cervical glands were not touched.

Oöphorectomy.—The wound healed kindly, and on July 1st the ovaries were removed, and she was discharged from the hospital in good general health on July 24th; indeed she expressed herself as feeling much better than when she came under treatment, though there was no obvious improvement to be noticed in the masses in the neck. From the time of her discharge she was kept carefully under observation, but the growth speedily recurred in the scar, and extended widely, and although she suffered very little pain she went very rapidly downhill, and died at the end of December, 1901.

It may be noted here that the nature of the growth in both these cases was characteristic scirrhus.

Remarks.

Very little I think need be added to the notes given above. Both of them were exceedingly bad cases to have to deal with, as in both the growth was associated with either pregnancy or lactation, but on the other hand in both cases the removal of the ovaries was done at a time of life when theoretically their removal may perhaps be expected to have most effect. Two cases can, however, only be of value in estimating the utility of the treatment under consideration when added to a larger number of cases under the care of other surgeons.

TREATMENT OF A CASE OF SCIRRHUS RECURRENT FIVE YEARS IN A PATIENT AGED 93: IMPROVEMENT.

By E. A. PETERS, M.D., B.C.Cantab.,
In charge of Throat Department, Bolingbroke Hospital.

Highly satisfactory results of the treatment of various forms of cancer by exposure to Roentgen rays have been reported by Mr. Bryant and Mr. Lyster,[1] Mr. Clarke,[2] and others. Thanks to the courtesy of Mr. Lyster, I had the opportunity of seeing some of these cases so treated, and the methods employed at the Bolingbroke Hospital. The resulting improvement so impressed me that I felt justified in employing the treatment on a recurrent slow-growing spheroidal-celled carcinoma which had been under my observation for three years.

The original growth was said to have been removed with the left breast by Lord Lister[3] thirteen years ago. The recurrence had been noticed by the patient eight years later. When the patient first came under my care there was a projecting mass about 1½ in. in diameter adherent to a rib at the seat of the incision. This condition was considered unsuitable for operation.

From that time on the growth slowly progressed. At times considerable inflammation set in, with swelling, bleeding, and pain; sloughing ensued, and a period of quiescence followed. The pain was relieved by application of suprarenal extract.

On December 5th, 1901—the date of the commencement of the Roentgen treatment—the growth measured 3 by 2¼ in.; it had a well-raised margin covered by thin red epidermis, while the centre was occupied by an irregular ulcer. There was also some ulceration of the raised margin. Large tender glands could be felt at the edge of the lesser pectoral muscle. Some of the surrounding veins were distended. The patient complained of pain of the extensor surface of the forearm and middle digit.

A 10-inch coil was employed to give a parallel discharge 4 to 7 inches in length with Watson's vril break worked at maximum speed.

A "penetrator" tube of medium hardness was used throughout: it gave primrose-green iridescence with no intrapolar flow of violet light. The tube glowed even when discharges were passing across an interval of only 2 inches on the coil.

The growth was at first isolated by foil, but, later, as no dermatitis had resulted in the area of skin exposed near the growth, the foil was omitted in favour of a flannel protection. The exposures were made two or three times a week for ten to twenty minutes: the distance of the tube from the skin varied from two to four inches. In all ten applications were made over a period extending from December 5th, 1901, to January 8th, 1902. Unfortunately the patient developed croupous pneumonia on January 11th and died on January 14th.

Improvement was noticeable at the end of a week's treatment and on January 8th the character of the growth had completely changed. It then measured 1 by $\frac{3}{4}$ in., the margin was only slightly raised and the central ulcer was very small. The skin area which was previously undermined by the growth appeared deep red in colour. The discharge and pain had decreased to a minimum. There was no indication of a Roentgen burn.

The death of the patient when her long standing trouble had so much diminished prevented the completion of the treatment, but the local result was very encouraging. Neither photographs nor a necropsy were obtainable. The patient's age was 93.

REFERENCES AND NOTE.

[1] BRITISH MEDICAL JOURNAL, 1901, vol. ii, p. 1663. [2] *Lancet*, 1901, vol. i, p. 1398. [3] In response to my inquiry Lord Lister kindly looked up his notes, but unfortunately there was no reference to this case.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CASE OF FETID BRONCHORRHOEA TREATED BY PROLONGED OXYGEN INHALATION.

I have recently had a case of fetid bronchorrhoea in which the marked effect of prolonged oxygen inhalation was very striking. The patient was a man, aged 65, with a previous history of attacks of asthma diminishing as age advanced, the last attack being some years ago. Each winter he suffered from a certain amount of chronic bronchitis, expectorating thick, sticky mucus.

His present illness started with a chill about a week previous to my seeing him on October 27th, 1901. He complained then only of a "liver attack," and appeared to think nothing of the increased bronchial trouble. A week later he began to expectorate very offensive sputum. Benzoin and creolin inhalations made no improvement. On November 11th Dr. Goodhart saw him with me in consultation. The foul-smelling sputum continued with slight intervals till November 16th, when Dr. Goodhart saw the patient again. With Dr. Goodhart's consent and approval, I procured Dr. G. Stoker's oxygen apparatus, which consists of a cubic foot collapsing bag with india-rubber tube and nasal attachment.[1] The bag was filled with oxygen gas from a cylinder, and the nasal end inserted in one nostril, the other being plugged with cotton wool. The patient then allowed the bag to empty its contents very slowly through the naso-pharynx, breathing quietly during the process. The next morning there was only a slight taste of offensive sputum. Oxygen was inhaled continuously for several hours in the same manner. The sputum became less and entirely free from odour. The patient also felt better. Daily oxygen treatment was continued till November 22nd, when it was stopped. The patient rapidly improved generally, and beyond small doses of cinchonine had no other treatment. He was allowed out on November 27th, and went to the seaside on the 30th.

Ovington Gardens, S.W. FREDERIC VICARS, M.D.Brux.

[1] The oxygen apparatus used was supplied by Fellows, Hertford Street, Mayfair.

THE TREATMENT OF ENURESIS IN FEMALES.

THE paper published in the BRITISH MEDICAL JOURNAL, of January 11th, p. 72, by Mr. Parnell on the treatment of enuresis in females reminds me very forcibly of exactly similar treatment carried out by myself several years ago with very varying results.

I have now discarded this and various other methods for what I believe to be a more perfect and, moreover, an exceedingly simple, way, which I may briefly describe as the formation of a day-habit of retention or continence.

Nearly every child or young woman suffering from incontinence of urine is urged by her friends to empty her bladder frequently so as to avoid the unpleasant consequences of incontinence. Not infrequently the child is wakened by older relatives (on going to bed at eleven or twelve o'clock) in order that the urine may be passed once, at least, during the night: the child herself often assists in the carrying out of this domestic treatment and the consequence is that the bladder becomes more or less permanently contracted, and the incontinence is necessarily perpetuated.

Such a patient can usually hold her water during the day for only three or four hours, and the first step in the way of successful treatment is to train the patient to hold it longer during the day. While this is in progress, she is not to be found fault with if incontinence occurs, but to be encouraged cheerfully and hopefully to hold her urine as long as possible, even to the very point of incontinence.

As a rule, in my experience, an additional hour of retention can be obtained by this method every three or four weeks, and this without any severe pain or discomfort.

When the urine can be held for six or seven hours during the day, it will be found that there is no nocturnal incontinence.

JOHN W. TAYLOR, F.R.C.S.,
Professor of Gynaecology, Birmingham University.

A CASE OF GENERALIZED VACCINIA.

ON January 21st I vaccinated a servant, aged about 23. When I inspected on the sixth day all four places had taken well, but there was some oedema and swelling extending down to the elbow. About the left wrist and the back of the hand were nine large shotty papules, one or two of which were commencing to be vesicular. Upon the right wrist and the back of the hand were six similar papules.

I mentioned the case to Dr. Alfred Ashby, medical officer of health for the borough, and he and I examined the girl together on January 29th. All the papules were then either vesicular or semipustular, and were umbilicated. The vesicles or pustules were multilocular. The palms were quite free from eruption, and there were no traces of either vesicles or pustules upon any other parts of the body than those mentioned. Upon this date the inflammatory area around the remains of the vaccination pustules was lessening. The woman had been vaccinated in infancy, and showed three typical foveated marks. Somewhat similar cases are mentioned in the *British Journal of Dermatology*, 1901, p. 433 (Dr. Morrow), and the *Medical Annual* for 1901, p. 244 (T. Colcott Fox, Haslund). Generalized vaccinia is probably bovine small-pox evidencing itself in the human subject. It is a very rare condition, and its infectivity as far as other human beings are concerned is almost certainly limited to actual inoculation.

Reading. W. T. FREEMAN, M.D.

THE TREATMENT OF PUERPERAL ECLAMPSIA.

I was very much interested in the article on this subject in the BRITISH MEDICAL JOURNAL of January 11th, p. 71, by my old friend Mr. Francis, of Uxbridge. I quite agree with his line of treatment, and have tried it in three cases with the greatest success, the mother recovering in each case. In one case labour came on spontaneously during a fit about an hour after the first injection of morphine; in the second case I dilated the os with my fingers, and delivered by forceps; and in the third case, to which I was called by a brother practitioner, who for some years had been trying the chloral and chloroform treatment unsuccessfully, I injected morphine gr. $\frac{1}{4}$, which caused the fits to cease at once, after which he

ruptured the membranes, the labour coming on normally the next day. In my opinion labour should be brought on as soon as possible, because as soon as it is over the fits will cease.

G. H. BRAND, M.D., L.R.C.P., L.S.A., L.M.

Northampton.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE INFIRMARY, BURY.

CASE OF INTESTINAL OBSTRUCTION DUE TO A BAND PASSING FROM APPENDIX TO MESENTERY.

(Under the care of Dr. J. B. KERR.)

[Reported by EDGAR W. SHARP, M.B., Senior House-Surgeon to the Hospital.]

W. B., a male, aged 19, was admitted to the hospital on November 19th, 1901, suffering from intestinal obstruction.

History.—Early in April, 1901, whilst working in a coal mine, the patient sustained a somewhat severe crush between two coal wagons, involving his abdomen: he did not, however, complain much at the time. About a month later he complained of pain and tenderness in one or other iliac region his friends could not say definitely which side. The seat of the pain was limited in area, the patient himself having stated that he could "cover the spot with a half-crown." His friends volunteered the information that at this time he felt "a lump" at the part affected; this, however, disappeared. He was in bed for a short time, but resumed his work in the latter end of May, 1901, and from this time onwards he was troubled with constipation. During the last week of October, 1901, he complained of severe abdominal pain, which came on somewhat suddenly and caused him to take to bed. He ceased to have movement of the bowels (according to his friends), and began to vomit; the vomit at a later date becoming evidently faeculent; he lost all inclination for food, and also lost flesh rapidly. When brought to the hospital, three weeks had elapsed since the onset of the obstruction. He was almost moribund, and emaciated to the last degree. His temperature was subnormal; his pulse weak, fairly rapid, and of very low tension; he was also suffering from sordes and several bedsores. Vomiting was frequent and faeculent, nothing being retained.



A, appendix (stump). I, ileum. C, seat of constriction. D, caecum.

The obstruction, however, was only partial, as he frequently passed small yellowish, semi-fluid motions.

State on Examination.—The abdomen was somewhat distended, and the stomach and coils of intestine could be seen through the abdominal wall; percussion revealed a general tympanitic note; there was no special area of superficial tenderness, and no tumour could be felt. The temperature gradually sank, becoming 96° on the second day after admission. Delirium supervened, and was soon followed by death.

Necropsy.—This revealed a constriction of the last part of the ileum, due to a fibrous band about 2½ inches long, passing from the end of the appendix to the mesentery opposite about the fourth lumbar vertebra, the ileum being firmly bound down between this and the posterior wall of the abdomen. There were signs of some subacute inflammation about the appendix, which itself presented an enlargement at its distal end, about the size of a bean. On dissection this was found to be a cyst-like cavity, with relatively thickened walls, and containing a yellowish fluid of thin consistency.

For the accompanying photograph and other help in the case I am much indebted to my colleague, Dr. McIlraith. The photograph is taken from the part affected after it had been immersed, first, in perchloride of mercury solution, 1 in 1,000, for twenty-four hours, and then in methylated spirit for forty-eight hours, and finally injected with plaster-of-paris and dried.

OLDHAM INFIRMARY.

CASE OF PERFORATING GASTRIC ULCER.

(Reported by W. A. STEWART, M.A., M.B., C.M., Honorary Pathologist to the Infirmary.)

History.—A girl aged 18, but looking older, was carol-singing on Christmas morning, when she felt "a pain like the stab of a knife." She sank down and was carried home. This was at 6 a.m., and I was sent for at 2.30 p.m., of the same day.

State on Examination.—Her face was very pale, her pulse 140, and her temperature subnormal. She vomited every few minutes a fluid containing mucus, and a little admixture of coffee grounds, which might have been a brown "composition powder" she had taken. She complained of intense pain, but bore it very quietly. The abdomen was rigid, slightly tympanitic, and very tender all over, but especially at the pit of the stomach. The liver dullness to slight percussion was absent.

There was a previous history of indigestion and frequent vomiting, and now and then of vomiting "brown stuff," but no red blood. I diagnosed perforation of a gastric ulcer, and had her removed at once to the infirmary. At 4 p.m. Dr. Martland operated.

Operation. On opening the abdomen there was an escape of odourless gas. There was a great quantity of fluid in the abdomen resembling dirty water. It also was odourless, and there were a few flocculi of coagulated lymph in it, but no (macroscopic) trace of food. The stomach, peritoneum, and that of adjacent bowel and omentum were acutely inflamed. A perforation was found overlapped by the liver on the upper curvature of the stomach slightly to the left of the middle line. The opening was quickly and effectively closed, and the abdomen, which was full of fluid, irrigated until the returning stream was fairly clear. As much of the water as possible was sponged out, but the condition of the patient did not allow of its absolute removal.

Progress. After the operation the patient rallied to some extent. She had hypodermic injections of strychnine and brandy enemata, which, however, were partly rejected. About 11 a.m. on the following day the pulse at the wrist was hardly perceptible. A vein was opened in the arm, and a sodium chloride solution injected. She rallied for a little, but finally sank and died at 4 p.m.

Necropsy. Permission was given for a modified examination over all the walls of the abdomen. The peritoneum was acutely inflamed. The same applies to the covering of the bowels, only the coils of small intestine lying near the seat of lesion in the stomach were most markedly inflamed. The ulcer on opening the stomach was found to be a chronic ulcer with a wide bevelled thickened margin like a single-holed

button as large as a penny, the ulcer being the hole in the centre. A similar ulcer, but of only half the size, lay about two inches posterior to the first; this had not perforated. There were no adhesions to the liver. The stomach wall was abnormally thick. All the rest of the abdominal viscera were healthy. The ovaries were normal also, and there was no appendicitis.

REMARKS.—The striking point about the case was the tremendous quantity of fluid in the abdomen, mainly it seems the result of acute peritonitis, but possibly in part due to a leakage from the stomach. Saving a grape seed and three currants the stomach was empty, and there was no fluid or contents of the stomach in the abdomen. In my opinion the patient died from loss of blood serum, and but for the time that elapsed between 6 a.m. and 4 p.m. of the same day she would probably have recovered. The emptiness of the stomach was due to the fact that, not feeling very well, the patient had had no solid food for seven or eight hours before the perforation occurred.

METROPOLITAN HOSPITAL.

RESULTS OF SWALLOWING STRONG HYDROCHLORIC ACID.

(Reported by R. COZENS BAILEY, M.S.Lond., F.R.C.S.Eng., Senior Assistant Surgeon to the Hospital).

THE following case seems to be worthy of publication because it strongly supports the line of treatment recommended by Mr. C. B. Keetley for this complaint in a paper read before the Royal Medical and Chirurgical Society on November 12th, 1901, in which he pointed out that "it was a mistake to postpone resort to surgery until there was no alternative except that of letting the patient die of inanition." The case further illustrates the peculiar way in which damage done to the stomach by this acid is confined to the pyloric end.

S. K., aged 21, domestic servant, attempted suicide by swallowing "spirits of salt" on August 17th, 1901, since then she has complained of increasing difficulty in swallowing, with loss of flesh, and the constant vomiting or eructation of large quantities of clear frothy fluid with an alkaline reaction.

From September 23rd to October 18th frequent attempts to pass small bougies were made, sometimes with and sometimes without success. During this time the dysphagia varied, fluids at times being fairly easily taken. In spite of this and also of rectal feeding, the patient continued to waste.

On October 20th, gastrostomy in two stages having been decided upon, the abdomen was opened, and the stomach being somewhat dilated was easily found and sutured to the abdominal wall. After the operation there was constant vomiting of dark grumous matter, which contained neither blood nor bile.

As a result of the vomiting the sutures all cut out, and there was not the slightest attempt at the formation of adhesions between the stomach and the abdominal wall; the stomach was therefore resutured in position. Patient appeared to be holding her own, but died rather suddenly on October 29th.

Necropsy.—The oesophagus was found closely adherent to the vertebral column at the level of the thoracic inlet by cicatricial tissue, and a fibrous stricture admitting a No. 6 catheter was found opposite the cricoid cartilage, and below this extensive ulceration of the mucous membrane. The stomach was attached to the abdominal wall by sutures, but no adhesions were present. It contained about two pints of light-brown fluid. At the pyloric end there was a large ulcer, which reached down to the serous coat, and the pyloric orifice was stenosed to the size of a crow quill.

In the above case I am bound to admit that the prominence of the oesophageal symptoms completely absorbed my attention, so that I omitted to appreciate the extent of the pyloric affection. But even had I done so, the time for treating it had been allowed to pass, and the patient had drifted into too feeble a condition to stand the extensive measures required to overcome the double lesion. The inability to form adhesions also, to whatever cause due, shows how futile any such proceeding would have been at that late stage of the disease. This case may serve to emphasize the importance of being fully alive to the frequency of pyloric complications in poisoning by strong hydrochloric acid, and may strengthen the plea for early and efficient surgical interference in such cases.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir THOMAS BARLOW, Bart., M.D., F.R.C.P., Secretary, in the Chair.

Tuesday, February 25th, 1902.

DISCUSSION ON THE REGENERATION OF PERIPHERAL NERVES. MR. C. A. BALLANCE read a paper communicated by himself and Dr. J. PURVES STEWART introducing this discussion, which was illustrated by lantern slides and microscopical preparations. Allusion was made to the two schools of opinion as to the manner of the regeneration—the central and the peripheral respectively. According to the former, new nerve fibres grew down from the central end of the divided nerve into the distal segment; according to the latter they were formed in the distal segment itself. The authors supported the latter view. After division of a peripheral nerve, degenerative changes affected simultaneously the lower end of the proximal segment and the whole of the peripheral segment. These changes, which commenced on the fourth day, consisted of fragmentation and ultimate absorption of the axis cylinders and the medullary sheaths; diapedesis of leucocytes; proliferation of connective tissue cells which first appeared to have an absorbent action, and later one of forming new fibrous tissue; and, lastly, the proliferation of neurilemma cells which it was believed were first absorbent, and then formed new nerve elements. The regenerative changes were first described in the ununited central end of a divided nerve; they consisted of a new development of nerve fibres in the swollen fibrous extremity. In a united nerve the neurilemma cells formed new nerve elements, beginning about the end of the third week, which fused into long axis cylinders, and these ultimately fused in the longitudinal direction to form continuous fibres. In the distal segment of a divided nerve, where the ends had been left widely separated, new nerve fibres formed slowly, but did not attain complete development unless subsequent continuity with the centre was established. It was shown that nerve grafts were useful when the interval between the divided ends was great, but only by acting as a scaffolding. The clinical indications were either for primary suture at the time of injury, secondary suture at a later date or nerve grafting. The difference in time of the restitution of function after these procedures was described. Microscopical examinatien of a portion of the proximal end of the distal segment gave assistance in arriving at a prognosis as to recovery by finding new though imperfectly developed fibres in it or the reverse. Sensation always returned before motor power. Nerve grafting was preferable to turning a flap of nerve from one segment into the other.

Dr. PURVES STEWART pointed out that, according to the neuron theory, regeneration of a nerve should not be able to occur in the distal segment of a divided nerve, the ends of which remained widely separated, and therefore the neuron theory broke down in regard to the peripheral nerves. It was suggested that the reason why regeneration of nerve fibres in the central nervous system did not occur was that there were no neurilemma cells present. Total atrophy of a paralysed muscle, as shown by complete loss of galvanic excitability, was probably a contraindication to attempted reunion of a divided nerve by operation.

Professor SHERRINGTON thought the paper proposed a revolution in the teaching as to structure of nerves which was opposed to the neuron theory. The paper reminded him of experience as to the absence of regeneration after experimental lesions of the central nervous system, even after section of the posterior columns of the cord, which were hardly spinal fibres. After removal of the posterior ganglia, he had, however, on one occasion found apparently new-formed nerve fibres in the spinal part of the tract at a remote date after the operation. Physiological difficulties in regard to the nature of nerve action—on an electrical type—were perhaps more easily explained by the new linked-chain theory giving retardation of the impulses at the intervals between the quasi-electrical conductors. Similarly, the difference in resistance between the longitudinal and transverse axes of the nerve was accounted for to some extent, as were also the facts of polariza-

tion by the idea that the axis cylinders were not continuous fibres, but apposed short lengths. However, this theory was perhaps somewhat difficult to accept in view of the degeneration in the peripheral nerves after removal of the trophic centres in the spinal cord. The regeneration of centripetally conducting fibres was even more difficult to get over.

Dr. R. KENNEDY referred to his observations described five years ago before the Royal Society, by which the theory of the regeneration of nerves by a downgrowth from the central end was combated. This theory could not explain the rapid return of sensation after apposition of the divided nerves, returning as it might even on the day following operation. The demonstration of newly-formed fibres in the peripheral segment was first made in 1859 by Vulpian, and later by Bowlby and himself, and now by the authors of the paper: and as they had found they never attained maturity as long as unconnected with the central end. Allusion was made to the difficulty arising from believing that the restoration of original conduction paths by bringing the divided ends of a particular nerve fibre together was possible, otherwise peripheral terminations would be brought into connexion with foreign nerve centres. (The details of his experiments bearing on this point were described in the EPITOME of the BRITISH MEDICAL JOURNAL of July 28th, 1900, Par. 67). Reference was also made to the effect of joining the central end of the spinal accessory nerve with the peripheral end of the facial nerve of a patient with facial paralysis.

Dr. R. A. FLEMMING spoke in support of the central theory, which he to some extent still held. He asked what the fixing methods used in the specimens shown were: Stroebe's method particularly was apt to give fallacious results. In two animals seventeen weeks after division he had found in both central and peripheral ends intact axis cylinders. In his opinion the fine fibres were the more vulnerable. The neurilemma nuclei he had for long held had a trophic influence. When old neurilemma sheaths were found to contain small new fibres, it was always in the central end; this he held to be in favour of the central theory. To hold the peripheral theory it was not necessary absolutely to reject the central. It was a matter for future experiment whether union of nerve by first intention were possible.

Mr. THORBURN referred to the extraordinary way in which the brain adapted itself to the new conditions after reunion of divided nerves. In a case in which a portion of practically the whole of the brachial plexus was excised, and a more or less indiscriminate union was performed, there was as a result but little confusion in the weak movements that returned.

The discussion was adjourned.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor T. R. FRASER, President, in the Chair.

Wednesday, February 19th, 1902.

THE TREATMENT OF INCIPIENT INSANITY IN HOSPITALS.

A DISCUSSION on the treatment of incipient and transient mental disorders in the Royal Infirmary was opened by Sir JOHN SIBBALD, whose paper had been written at the suggestion of his friends, Dr. Clouston and Dr. John Macpherson, who, however, having left him a free hand in dealing with the subject, were not to be held responsible for the opinions expressed. Their chief object was to elicit the views of the meeting in regard to what they deemed an important defect in the present arrangements for the treatment of mental disease, and for giving clinical instruction in regard to it. In their opinion that defect might be best remedied by the establishment of wards in the Royal Infirmary for the treatment of incipient and transitory mental disorders. He therefore proposed to show that from the point of view of public charity the establishment of such wards was desirable, that the present opportunities for clinical instruction in insanity were singularly inadequate, and that the wards they proposed would furnish the means of making such instruction efficient and complete. Little was needed to be said to show that the wards would be useful from the charitable point of view, as patients in the early stages of mental disorder were at present almost entirely neglected. It was certain, therefore, that a considerable number of patients were thus allowed to fall into incurable insanity who might have been, and, indeed, ought to have been, saved from that fate. The reasons which led to the view that the patients for whom they wished to provide could be best cared for in the wards of a general hospital such as the Royal Infirmary of Edinburgh might be summarized as followed: In the treatment of incipient and transient mental disorders the special arrangements which distinguished asylums would not be essential; every arrangement which would suggest the idea of an asylum would be open to objection as tending to prevent patients and their friends from availing themselves of the benefits which the wards would offer, and therefore the wards should not differ appreciably from the ordinary wards of a general hospital; it was of the utmost importance, in order to stamp the wards with their true character in the eyes of the public, that they should form part of an institution whose whole purpose was clearly recognized to be the curative treatment of persons suffering from illness; and an out-patient department could be established in connection with wards in a general hospital to which patients would be more likely to resort than to one attached to an institution devoted solely to the treatment of mental disease. In his opinion the establishment of wards for incipient mental disease as a separate institution would certainly be useless because it would inevitably be regarded as a lunatic asylum and it would be shunned by patients and their friends because of the belief, probably well founded, that any one who had been resident there would ever after be handicapped by the stigma of insanity. In regarding wards which did not differ from the ordinary wards of a general hospital as suitable for the treatment of the cases under consideration it must be borne in mind that it was not proposed that patients should be kept for long periods, or that detention would be compulsory, except in the sense that the general wards of a hospital sometimes were for patients suffering from ordinary diseases. As regards the period of residence he would be satisfied with a period limited to not more than six weeks. Before the end of that time, if death or recovery had not taken place, it would in most cases have become evident that removal to an asylum was inevitable. The restriction as to compulsory detention would exclude from the wards such patients as ought properly to be dealt with under the statutory provisions which regulated the admission of patients to asylums. With reference to the kind of wards that would require to be provided, it was important to keep in view that of late medical opinion as to the treatment of mental disorder in its early stages had been moving more and more towards the adoption of methods resembling those resorted to in the treatment of bodily disease. To obtain repose, to induce cessation of effort, both mental and bodily, and to restore the nutritive processes to healthy action were the main objects. In recent years an opinion, to which he gave his cordial support, had been steadily growing that treatment on the lines asociated with the name of Weir Mitchell, which had been found so efficient in the treatment of other neurasthenic conditions, was equally applicable to the early stages of mental disorder. It was not, of course, to be regarded as a panacea; but there was good reason to regard it as an essential element in the best treatment of the majority of such cases, not merely for melancholia, as was shown by Guislain as long ago as 1852, but also in other conditions such as maniacal excitement. The practicability of dealing effectually with maniacal excitement by this so-called "bed treatment" had only become apparent since the introduction of the system of "continuous nursing" under which patients suffering from active mental disorder were kept under the constant care of nurses both night and day. He gave as his opinion that in view of the fact that the wards would only be intended to receive patients requiring hospital treatment, and of what he regarded as the best method of treating the cases under consideration, it would not be necessary, or even desirable, that the wards should have any of what are regarded as special asylum features; that in fact, as he had already said, they should not differ appreciably from the ordinary wards of a general hospital. No workshops or recreation halls, no exercise gardens, no kitchen garden or farm, and no cricket field would be required. Active exercise and occupation were no doubt invaluable in the treatment of many cases of mental disease; but their chief use was either in cases which had not reached the stage when hospital treat-

ment was desirable, or in cases which had passed that stage and had become suitable for treatment in an asylum. Neither would seclusion rooms or single rooms of any kind be required to any great extent. These, which were formerly regarded as indispensable for the treatment of a large number of asylum inmates, especially the excited and restless, were found to be required, under the continuous nursing system, only in a few exceptional cases. With these few exceptions it was now found that cases of acute insanity, even the excited and noisy patients, could be more efficiently treated in associated dormitories than in single rooms. He also drew attention to the recent development of female nursing in some asylums where the majority of the male patients suffering from acute forms of mental disorder were placed under the care of women, and pointed out that in this way wards for mental diseases were brought still more into line with ordinary hospital wards. In estimating the value of the kind of treatment he had sketched, he attached great importance to the fact that treatment in a general hospital tended in every way to foster the feeling among the patients that they were from first to last regarded as suffering from illness which required medical treatment, and to make them recognize that everything that was done had for its object the promotion of their welfare. The defect in the arrangements for clinical instruction in mental diseases was twofold. It was partly that the seats of the teaching at Morningside and Larbert were too distant from the rest of the medical school. In Germany since 1866 special buildings had been erected in the neighbourhood of sixteen of the German universities, and every university had now its psychiatrical clinic close to the medical school. Germany's example was being followed by other Continental nations, and the United Kingdom now stood almost alone in being without such provision in any of its medical schools. It would redound to the credit of Edinburgh if she resolved to lead the way as was her wont in days past. The other aspect of the defect in the present clinical teaching was even more important. The great majority of medical students were destined to become general practitioners, and all clinical teaching should therefore supply in the first place the knowledge which would be useful to the general practitioner. But the only clinical teaching in mental disease at present was given in lunatic asylums, and consequently—as he did his best to emphasize in 1868 and subsequent years when ventilating a proposal to establish wards such as were now in question—the only patients whom the students saw were those whom the general practitioner was not called upon to treat. Similar views had more recently been emphatically expressed by Sir John Batty Tuke. Under present arrangements the ordinary medical student received no clinical teaching as to the treatment of the incipient and the transitory phases of mental disease. It was in the treatment of these phases that the student would find himself in presence of one of his most serious responsibilities, and it was only by the establishment of such wards as were proposed that he could be duly equipped for the discharge of these responsibilities.

The Master of Polwarth, Chairman of the General Board of Lunacy, said such a scheme as now proposed would help to remove the stigma attaching to sufferers from mental disease, and to enable those cases to be dealt with in which there was strong aversion to going to a lunatic asylum.

Sir John Batty Tuke said that for the last twenty years he had on every available occasion tried to lay before the public the advantage that would accrue by the treatment of early and incipient cases of insanity in the general hospitals of the country. Sir Arthur Mitchell, when the new infirmary buildings were in course of erection, made a strong and earnest endeavour to get wards such as were now proposed, but even his great influence failed. The scheme would reduce the number of lunatics, and would exercise a great and widespread educational influence. The burden of expenditure under which the taxpayer was groaning was spent for the most part in the interests of the chronic lunatic, whereas little was done to avert the manufacture of chronic lunatics. He believed that if they excluded general paralytics and epileptics, and treated cases in the earlier stages, they would get 70 per cent. of recoveries. The increase of chronic lunatics was not in the upper classes, which could afford early and efficient treatment, but in the lower classes, which could not. The educational influence would be important and widespread. It would break down popular misconceptions, and probably in time affect legislation. Above all, the gradual education of the public mind would rapidly do away with the stigma which attached to insanity, and which had no more right to attach to it than to any other form of disease. It would be the duty of that meeting to press upon the Infirmary managers as strongly as possible the propriety of entertaining such a scheme as this. If the managers did so they would have the credit of being the first hospital authorities to take a wide, a broad, and a munificent view of the nature and treatment of insanity.

After remarks by Dr. Affleck,

Dr. Clouston mentioned that of the 900 admissions to Morningside during the last two years, only 80 were discharged recovered within six weeks, and about 160 within two months and a half. This pointed strongly to the conclusion that it would be a very economical thing for the Parish Council to come to some business arrangement with the Royal Infirmary to treat incipient cases, and thereby prevent the rates being burdened by their becoming chronic. He estimated that about 40 beds would be necessary.

Dr. Alexander Bruce and Dr. Urquhart supported the scheme.

Dr. Carswell, adviser in lunacy to the Glasgow Parish Council, described a scheme which that body had had in operation for several years, and was now about to put on a permanent footing for the treatment of insanity in its early stages. A mental block for 50 patients was being erected in connexion with one of the poorhouse hospitals, where the patients would be treated on hospital lines. Last year 212 patients were treated. Of these, 28 were afterwards removed to asylums, 10 died, 167 were discharged recovered, and 7 remained under treatment at the end of the year. With better facilities and a larger staff he believed they would be able to pass through the wards about 300 patients per annum, or more than one-third of the cases of mental disorder. The Parish Council hoped also to establish an outdoor clinic, and thereby anticipate the stage at which asylum treatment became necessary.

After Dr. Wilson, Mavisbank, had spoken,

Sir John Batty Tuke then formally moved:

That this meeting urges strongly on the managers of the Royal Infirmary to seriously consider the expediency of providing wards within or in the immediate vicinity of the institution for the treatment of incipient, transitory, and recent cases of insanity.

The Master of Polwarth seconded the motion, which was unanimously adopted.

Professor Rankin mentioned that a committee of the Infirmary managers had been appointed to meet a deputation from the Society. The Committee had considered the question of locale, and it seemed prima facie as if it would be impossible to have mental wards within the walls of the infirmary.

MEDICAL SOCIETY OF LONDON.

W. H. Allchin, M.D., F.R.C.P., President, in the Chair.

Monday, February 24th, 1902.

Cardiac Pain.

Dr. Markham Skerritt read a paper on this subject. The protective influence of pain was referred to and illustrated. Heart pain tended to check the strain that was fraught with danger. It occurred in the first place when the work of a normal heart was in excess, as in simple over-exertion or in the so-called vasomotor angina. Its characters were described as seen after excessive exercise in persons out of condition. Vasomotor anginal pain depended on excess of peripheral resistance. The cardiac nerve mechanism concerned in such production of pain referred to the heart was described. The influence of uric acid in the blood, and of muscular fatigue, was alluded to: also the symptoms and favourable prognosis of vasomotor angina. Cardiac pain was not produced in Bright's disease so long as the heart was free from degeneration. In the second place pain was associated with heart disease either valvular or myocardial. The only valvular lesion with which anginal symptoms were apt to occur was aortic incompetence. They were least marked in aortic stenosis, where the balance between heart power and work was most perfect. If to valvular defect were added vasomotor resist-

ance. cardiac distress as manifested by pain was exaggerated. The third group of causes were the most important in producing anginal symptoms, the myocardial group, for example, fatty or fibroid degeneration, with or without atheroma of the coronary arteries. When a degenerate heart had to face the difficulty of vascular obstruction, as in interstitial nephritis, the risk from angina pectoris was most imminent. The pathology of angina pectoris was discussed, and the various theories held by different observers referred to. The bearing of the condition termed intermittent claudication on that of angina pectoris was emphasized. To restore the loss of balance between the power and work of the heart it was best to diminish the vascular resistance by vessel dilators rather than to attempt to increase the cardiac power.

Dr. SYMES THOMPSON thought the functional causes of pain were rather more important and frequent than appeared in the paper. In hysterical and hypochondriacal patients the cardiac pains were due to the conditions present at the moment which were not of serious significance.

Dr. SANSOM thought the title of the paper had limited the subjective cardiac sensations in a way which was not clinical. The angina vasomotoria was not strictly pain at all, but merely discomfort. Although much cardiac discomfort was ascribed to over-exertion, yet very little of it remained permanently. The right heart, which was first affected, very quickly recovered. Over-exertion was probably not to be credited with causing so much cardiac mischief as was usually ascribed to it. Hypertrophy of the left heart in athleticism was not a harmful thing within limits. Many of the cases of cardiac pain were due to extrinsic causes, such as neuralgia and neuritis. Formerly he had believed that true angina pectoris was almost always associated with thickened arteries and some hypertrophy of the left ventricle; this he was now inclined to modify in some degree. A case referred to had led him to think that ischaemia cordis might have a causal relation to the attacks. Perhaps neuritis of the intrinsic nerves of the heart was commoner than was thought. The pain, whatever its nature, should be relieved; the coal-tar analgesics for the slighter forms was preferable to opium. The taking of vessel dilators was apt to become habitual. A combination of phenacetin, for example, and nitrite was often useful.

Dr. DE HAVILLAND HALL described a case of apparently severe anginal pain with depression and faintness, little relief from which was obtained from nitrites but much from blue pill and white mixture. The pain was found later to be due to gall stones.

The PRESIDENT questioned in how many cases pain referred to the cardiac region was really referred to the heart itself and not to the cutaneous areas commonly associated with lesions of the deep organ, as for example the frequent pain referred to the left arm and other widespread areas. The most constant circumstance associated with cardiac pain was degeneration leading to an anaemia of the heart. The heart muscle probably differed from skeletal or other visceral muscles in not being subject to spasm.

Dr. ALEXANDER MORISON alluded to a brittleness of the muscle fibre in the heart of persons dying from angina pectoris as supporting the idea of localized cramp. The nervous supply of the coronary arteries and their neighbourhood was so rich that it was possible a mechanical irritation by a rigid artery might cause the pain.

Dr. PARKES WEBER defended the localized cramp theory of causation of angina pectoris. In conditions of ischaemia the defect belonged to the removal of the waste products of muscular activity.

Dr. PASTEUR referred to the comparative rarity of cardiac pain as compared with cardiac distress. The most striking cases were in degeneration of the heart muscle.

Dr. H. D. ROLLESTON, in reference to the cramp, seeing that it could not be universal in presence of life, thought an attractive theory was that it affected the musculi papillares. Real cardiac pain was certainly rare. In young people it was often very difficult to distinguish between true and vasomotorial angina. The association of atheroma at the base of the aorta was as a matter of fact rare in the cases of aortic stenosis. Fragmentation of the heart muscle, itself doubtful, was probably, if evidence of anything, evidence of rigor mortis.

Dr. MARKHAM SKERRITT replied.

SPLENIC ENLARGEMENT WITH ALBUMINURIA.

Dr. H. D. ROLLESTON read a short communication, based on three cases where splenic enlargement due to different causes—leukaemia, cirrhosis, and splenic anaemia—was noticed to be associated with intermittent albuminuria, the urine containing albumen when the patient was in bed, and being normal when the patient had been up for some hours. The first case was seen with Dr. C. S. Heaton, who explained it by Falkenheim's suggestion that the albuminuria was due to the pressure of the enlarged spleen on the left renal vein. This seemed a probable explanation. However this intermittent or hypostatic albuminuria only occurred in some instances of splenic enlargement, and had no relationship to the size of the spleen. Possibly the determining factor was some difference, such as elongation of the peritoneal ligaments of the spleen, which allowed or prevented pressure on the left renal vein. In a patient who had manifested this form of intermittent albuminuria the urine might become normal. This hypostatic albuminuria was, of course, the converse of ordinary cyclical albuminuria: Edel's work was referred to in connection with the possibility that in some instances of cyclical albuminuria the occurrence of albumen in the urine might be the reverse of that ordinarily met with.

Dr. SANSOM thought the enlarged spleen was possibly an indication of a more remote cause of albuminuria, other than posture, as influenza or malaria.

Dr. ROLLESTON replied.

METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION: NORTHERN DISTRICT.

Wednesday, February 12th, 1902.

HOOPER MAY, M.D., F.R.C.S., Vice-President, in the Chair.

DIFFICULTIES IN THE DIAGNOSIS OF CHEST DISEASES.

DR. R. MURRAY LESLIE read a paper entitled Some Difficulties in the Diagnosis of Chest Diseases, with Reference to Illustrative Cases. The importance of the subject had been forced upon his attention by the fact that a large number of wrongly-diagnosed chest cases had come under his own immediate observation, particularly in relation to hospital practice. His experience with private patients was sufficient to enable him to conclude that a precisely similar state of matters obtained in ordinary private practice. He was of opinion that there was no class of diseases which less frequently conformed with textbook descriptions than those affecting the thoracic organs. Considering the important rôle played by diseases of the chest in this country, he felt inclined to recommend a three months' course of clinical study at one of the chest hospitals, either as part of the ordinary five years' curriculum, or as a part of post-graduate study. Since the introduction of more exact methods of physical diagnosis there had been, on the whole, a distinct and somewhat unfortunate tendency to minimize the importance in chest diseases of symptoms as compared with physical signs. He mentioned the importance of such symptoms as haemoptysis, character of cough, type of pyrexia, and character of sputum. In illustration of the latter he alluded to the fact that the expectoration of pus would often enable one to diagnose a localized empyema which had ruptured into the lung. He, however, quoted two cases in illustration of the difficulties that might arise, neither of which cases were diagnosed during life. One, that of a pulmonary abscess, in which there had been no expectoration of pus whatever; the other, a case of a young girl with profuse expectoration of pus, which *post-mortem* evidence showed to be a case of perforation of the oesophagus with abscess in the posterior mediastinum communicating with one of the bronchi. He dwelt on the importance of pain as a symptom, which, when distinctly localized to a particular area of the chest, had, he believed, in the majority of instances, some real pathological and clinical significance. He instanced the case of a soldier, aged 35, who had bronchitic signs at the bases of his lungs, and complained of severe pain in the right scapular region, which had been present for about two months; the case was believed to be one of bronchitis, but

dying suddenly, a large aneurysm of the descending aorta was discovered *post mortem*, though there had been no physical signs during life to indicate such a condition. Reference was also made to the importance of orthopnoea as a symptom of chest disease. Orthopnoea in acute pneumonia, he believed, generally indicated some complication, and he quoted Dr. Kingston Fowler, who had made the statement in his recent work that the presence of pericarditis as a complication of pneumonia might often be discovered from observing the position assumed by the patient, who expressed the wish to be propped up with pillows instead of lying flat on his back, as in uncomplicated cases. Dr. Leslie detailed a case of cardiac thrombosis and pulmonary embolism where the diagnosis was arrived at solely from the supervention of sudden orthopnoea. He also mentioned its diagnostic value in pneumothorax and other conditions. The presence of Cheyne-Stokes breathing in adults, apart from cerebral mischief, should always raise a suspicion of Bright's disease. Another important symptom was one which he defined as "distress:" this symptom was markedly present in pericardial effusion as well as in pneumothorax, in both cases being accompanied by orthopnoea. The general distressed aspect of the patient, with orthopnoea, and curious sense of pressure in the front of the chest, particularly over the region of the precordia, he believed to be quite characteristic of pericardial effusion in any considerable amount. He described at length a case of pericardial effusion which had been quite overlooked, with a fatal result, owing to this symptom, which was present in a marked degree, not having been appreciated during life. The physical signs in this case had been masked by the coexistence of pleural effusion. He stated that pericarditis was seldom overlooked when present as a complication of rheumatic fever, but insisted on the importance of also bearing it in mind in cases of Bright's disease, where it was very common, but seldom detected *ante mortem*. Dr. Leslie drew attention to the frequency with which chest affections were merely associated sequelae of abdominal diseases; he quoted a case with the signs of pulmonary consolidation at one base and of fluid at the other, where the lung condition was secondary to a subdiaphragmatic abscess from perforated gastric ulcer. Empyema, pulmonary abscess, and even serous effusions, not to speak of hydatids and rarer affections, he stated to be not infrequent accompaniments of gastric, hepatic, and appendicitic conditions, and could generally be diagnosed by careful attention to the history and mode of onset. In connection with physical signs, he laid great stress upon the importance of carefully noting the position of the cardiac apex, which he believed to be the key to a large number of the most important diseases that affected the lungs. He mentioned a case which was diagnosed by the doctor as one of left-sided pleuritic effusion on account of absolute dullness and diminished breath sounds at the left base, ignoring the fact that the heart apex was palpable well to left of the nipple line, the case being in reality one of chronic fibroid phthisis with retraction. He stated that a knowledge of the position of the heart apex was an invaluable diagnostic sign in pneumothorax, pleuritic effusion, pulmonary collapse, pericardial effusion, chronic phthisis, and aortic aneurysm. He then emphasized the importance of inspection as a method of physical diagnosis, referring particularly to unequal expansion or one-sided retraction. He alluded to a case of urgent dyspnoea where diaphragmatic paralysis was diagnosed by observing the immobility of the lower ribs and the inspiratory recession of the lower intercostal spaces and epigastrium, the latter contrasting so markedly with the normal expiratory recession. As regards percussion he considered the sense of resistance more important than the actual pitch of the percussion note, this sign being especially characteristic of pleuritic effusion and new growth. He mentioned the value of immediate percussion with the tips of the fingers as being an especially delicate test of this sense of resistance. He stated that a frequent source of error lay in the prevalent belief that tubular or bronchial breathing necessarily implied pneumonic or phthisical consolidation. He quoted a case of a boy who had some dullness, tubular breathing, and moist *râles* in the left axilla and interscapular region, which was wrongly diagnosed as septic pneumonia, while in reality the case was one of septic pericarditis with effusion, which had compressed the left lung, and so produced the physical signs referred to. In this case the characteristic physical sign of pericardial effusion, namely, the extension upwards of the cardiac dullness to the second or third rib, was absent. He mentioned that a patch of dullness with pneumonic signs in the interscapular region was by some regarded as almost pathognomonic of pericardial effusion. Tubular breathing might be found not only over compressed lung, but also in cases of pulmonary collapse with patent bronchial tubes, aneurysm, or mediastinal tumour situated over the trachea or large bronchi, and last not least, in pleuritic effusion, particularly in children. He mentioned a case of empyema in a young girl of 13, where the case was wrongly diagnosed as phthisis because loud though distant tubular breathing was audible all over the back of the lung, particularly in the interscapular region. Dr. Leslie stated the fact that distant tubular breathing, occasionally accompanied by bronchophony and even whispering pectoriloquy, was frequently met with in cases of pleuritic effusion in children, and sometimes also in adults, particularly near the root of the lung. He spoke of the extreme importance of exploration of the chest by the exploring needle in all doubtful cases, a measure which was frequently avoided in private practice on account of the patient's natural objection to such a procedure. He strongly recommended the use of a large exploring needle, and mentioned the frequent necessity of puncturing in more than one situation and on more than one occasion. He laid emphasis on the fact that the finding of fluid by no means cleared up the diagnosis, except in the case of empyema: the case might not be one of simple pleurisy at all, the effusion possibly being but a symptom of aneurysm, mediastinal tumour, or some abdominal disease. The presence of blood in the effusion he believed to be frequently a sign of underlying malignant disease, and quoted a case in illustration. He spoke of the value of the localization of physical signs as a diagnostic point; bronchitic signs, if localized to any particular area, apical or otherwise, should always arouse the suspicion of phthisis, and in such a case the sputum should be searched frequently for tubercle bacilli. He stated that the examination of sputum for tubercle bacilli had been by far the most important addition to the means at our disposal for the diagnosis of chest diseases since Laënnec's time. He then alluded to the great difficulty sometimes experienced in the case of children of diagnosing between acute broncho-pneumonia and acute pulmonary tuberculosis where the absence of sputum prevented any examination being made for tubercle bacilli. There was no class of case in Dr. Leslie's experience where he had observed more errors in diagnosis than in the differentiation of aortic aneurysm and mediastinal tumour. He had seen a large number of cases where experienced physicians had mistaken aneurysm for tumour, and vice versa. He mentioned what he believed to be the most important diagnostic points between the two conditions. Dr. Leslie concluded his paper with some remarks on the importance of the *x* rays as an aid in the diagnosis of thoracic affections, and alluded to the valuable work done in this connexion by Mr. Mackenzie Davidson, Dr. Hugh Walsham, and others.

A long discussion followed the reading of Dr. Leslie's paper.

LIVERPOOL MEDICAL INSTITUTION.

RUSHTON PARKER, M.B., F.R.C.S., President, in the Chair.

Thursday, February 13th, 1902.

ABSCESS OF BRAIN.

MR. DAMER HARRISSON described a case of cerebellar abscess with thrombosis of the lateral sinus in a young man, who had suffered from ear disease for eleven years.

There was some dullness of the intellectual faculties, paresis of the right facial nerve, with a tendency to fall to the right side. There was some swelling over the mastoid process, and fullness in the upper part of the neck; no optic neuritis. The antrum was cleared, the necrosed inner wall removed, and the abscess cavity opened up. The patient was greatly collapsed, and further operation was deferred. After a few days, the temperature being still irregular, the internal jugular vein was exposed and ligatured below the thrombus; an excised bit of vein contained a softening clot.

The patient made an excellent recovery.

MR. C. G. LEE had seen some 30 cases of cerebral and

cerebellar abscess resulting from ear disease. In many cases it was often impossible to say in which situation the abscess was. Optic neuritis was as frequently absent as present in cases of cerebral and cerebellar abscess. Cerebral abscesses were frequently multiple; and reference was made to the case of a child who had paralysis of one arm and leg, and in which he opened and evacuated the abscess. This was followed by complete recovery of the limbs. Ten days later the child died, and the necropsy showed the whole of one occipital lobe necrosed, and several small abscesses scattered about the cerebrum.

Dr. PHILIP NELSON asked if the source of the discharge from the ear had been definitely ascertained. Owing to difficulty of drainage mastoid and other complications were more liable to occur when the attic was the seat of the trouble, the perforation being in the M. flaccida. Referring to the facial palsy, Dr. Nelson pointed out the frequency of this trouble in tuberculous disease, particularly in children.

The PRESIDENT, Drs. PERMEWAN, GRÜNBAUM, and Mr. MURRAY spoke; and Mr. HARRISSON replied.

CAESAREAN SECTION TWICE, EMBRYOTOMY ONCE, IN THE SAME PATIENT.

Dr. NATHAN RAW showed a woman upon whom he had twice performed Caesarean section. There was no evidence of rickets. The conjugate diameter of the pelvis was 2½ inches, the promontory of the sacrum being projecting markedly. At the time of the first section the patient had been twenty-six hours in labour, and general cutaneous emphysema was present. The child from the second section was shown, and attention drawn to the circular shape of the head. Dr. Raw raised the question as to what the correct procedure was in this case. The patient was unmarried. He thought she must take the consequences, but it was a most difficult question to answer.

The PRESIDENT, Dr. MACFIE CAMPBELL, Dr. BRIGGS, Messrs. PAUL, HARRISSON, and NEWBOLT spoke; and Dr. RAW replied.

X-RAY AND LIGHT TREATMENT OF LUPUS AND RODENT ULCER.

Dr. DAVID MORGAN showed three cases of very obstinate and extensive lupus and rodent ulcer cured by the *x* rays and violet light.

(1) A woman, aged 34, had suffered from childhood with lupus of the nose and cheeks. Every variety of surgical treatment had been adopted, including over 40 scrapings, but the benefit was only temporary. *X*-ray treatment had proved quite successful, the patient exhibiting a very healthy white scar. (2) A tuberculous ulcer of the cheek of limited size was treated by the violet rays. A healthy cicatrix formed in six weeks. (3) In this case there was a large rodent ulcer over the scalp and forehead in an elderly spinster. The disease had been in progress for many years, and was too extensive for excision. Three months' treatment with *x* rays had cured the disease.

After some remarks from Dr. FRANK H. BARENDT,

Dr. STOPFORD TAYLOR said the effect of the "light" treatment was largely superficial, and the number of cases to which it could be applied were limited in number on account of the necessity of actually placing the lamp in contact with the surface. With the *x* rays it was quite a different matter, as they certainly penetrated much more deeply, and could be therapeutically applied to every part of the body.

Mr. ARTHUR WALKER mentioned that Dr. Finsen had found Bang's iron electrode lamp unsuccessful in the treatment of lupus on account of the lack of penetration of its rays.

The PRESIDENT and Mr. PAUL emphasized the need for microscopical confirmation of the diagnosis. Drs. PERMEWAN and HOLLAND also spoke; and Dr. MORGAN replied.

THE PREPARATION OF THE HANDS FOR SURGICAL OPERATIONS.

Dr. GRIMSDALE described the method he had used for some time. The hands were cleaned with a nailbrush and boiled water for a definite time, then soaked in a solution of potassium permanganate, the colour was discharged by washing in oxalic acid solution, the acid neutralized by washing in sterilized lime water, and finally the hands were washed in sterilized water. The results of this method had been rigorously tested on several occasions by Drs. E. E. Glynn, Abram, and Hill. In every instance Dr. Grimsdale's hands and those of his assistants were sterile, and in his opinion therefore the hands could be made practically sterile. Moreover, of all the methods he had tried this had the least roughening action on his skin, in fact it did not roughen it at all. He did not think the method was simply mechanical in its action.

The PRESIDENT, Drs. BRIGGS, HILL, GRÜNBAUM, Messrs. HARRISSON, PAUL, and HAWKINS-AMBLER discussed the paper; and Dr. GRIMSDALE replied.

BRITISH ELECTRO-THERAPEUTIC SOCIETY.—At a meeting held on February 14th, Dr. W. S. HEDLEY, President, in the chair, Dr. LEWIS JONES, in the course of an address on the Present and Future of Electro-therapeutics, dealt with the subject of the treatment of cancer by the *x* rays. Most of them no doubt had cases in which they were making guarded trials in that direction. It was too soon, however, to express any very definite opinion, but it was not too soon to relate any interesting cases which might come under their observation. At St. Bartholomew's they had been entrusted with the treatment of a case of late cancer of the breast, a case of recurrence *in situ* after operation. When admitted the patient had a large open ulcerated wound of the right breast measuring about 4 inches in one diameter and 5 in the other. Treatment with the *x* rays was commenced on November 14th, and an exposure of ten minutes was given four times a week with a few omissions until January 17th. After a few days signs of healthy cicatrization began to appear round the margins of the ulcer, and this continued to advance until the healing process had extended inwards from the margins for a distance of fully half an inch all round. It was noteworthy that the new epithelium was deeply pigmented. The centre of the wound had gradually ceased to slough, and appeared to be in process of healing all over, but unfortunately the patient was at a late stage of her illness and secondary deposits became apparent, the patient suffering a spontaneous fracture of both the femur and the humerus. In view of the hopelessness of the future of this patient the *x*-ray treatment was suspended. The total number of exposures was seventeen, and it was most impartant to note that many of these were made with the ulcerated surface covered by dressing or bandage. Since the suspension of the *x*-ray treatment exactly four weeks before the delivery of his (Dr. Lewis Jones's) remarks, the process of healing had gone on quite steadily, and now there was a firm and healthy scar covering the whole surface except about one square inch in the centre. That portion was also a healthy healing surface though not yet covered over by healthy epithelium. Thus nineteen-twentieths of the area of a cancerous ulcer had in three months healed up as a consequence of *x*-ray applications, and the result was one which obviously was most significant. Nevertheless, although the local effect was splendid, there was no influence upon the spread of the disease in the remote parts of the body. They must hope for the opportunity of treating some cases of cancer in the early stage, when the disease was still limited to a superficial part.

REVIEWS.

HYGIENE.

IN his *Introduction to the Bacteriological Examination of Water*[1] Major HORROCKS, R.A.M.C., Assistant Professor of Military Hygiene at Netley, has made a welcome addition to the literature of a difficult subject. As was to be expected from one who has himself made valuable contributions to their elucidation he does not fail to point out the difficulties which have to be encountered in order to determine the safety of a water bacteriologically. Any one who will carefully peruse this work will appreciate the fact that although a great mass of information has already been collected existing knowledge is still very limited. The many varieties and the extreme variability of water bacteria, the extent to which they are influenced by the media on which they are growing, and the manner in which their cultural characteristics depend on whether the micro-organisms are enfeebled or not, are some of the matters which complicate the subject. Major Horrocks

[1] *An Introduction to the Bacteriological Examination of Water.* By W. H. Horrocks, M.B., B.Sc. Lond. London: J. and A. Churchill. 1901. (Demy 8vo. pp. 310. 10s. 6d.)

has grouped the bacteria which occur in water into three classes: (1) Bacteria which are found in pure water; (2) bacteria which are common in sewage but rarely met with in pure water; and (3) bacteria which give rise to specific disease in human beings. Many of the micro-organisms have as yet been imperfectly described, and it is no easy matter to group them in a satisfactory manner in such a scheme; but as the easiest solution of the difficulty certain well-defined types have been selected, and under each type have been described all those bacteria which are probably varieties—the varieties being caused by differences in food, habitat, etc. Again, the subject of the bacterial flora of sewage is almost unexplored, but certain bacteria can already be classed as the normal occupants of sewage. The details given with reference to the bacillus coli communis group, to the species of streptococci and staphylococci, and the bacillus enteritidis sporogenes are very well and clearly set out and furnish a valuable statement of present knowledge with regard to the frequency, duration, and significance of these organisms in water. Of the bacteria which give rise to specific disease in human beings only the typhoid and cholera organisms are dealt with, for the reason that these alone occur sufficiently often in water to merit description in a comparatively small work. The book has evidently been written with great care and the general treatment of the subject leaves nothing to be desired from the standpoint either of accuracy or clearness. It is well printed and bound. Five plates of the forms most commonly seen during the routine examinations of "water-plates" have been satisfactorily reproduced from the author's own sketches.

A third edition of Dr. THRESH'S *Simple Method of Water Analysis*[2] has been demanded, and the method has been adopted for the British army, so that the author may congratulate himself upon having attained to a considerable measure of success. But those who, like Dr. Thresh, have had a considerable experience in water analysis, appreciate that, as we indicated in the review of the second edition, it is only by a most careful and complete chemical analysis by the most approved methods, together with a careful consideration of the actual risks the water runs (as gathered from a local inspection) that one can pronounce a safe opinion upon a large proportion of drinking water samples. The most that can be said of the rough-and-ready methods of chemical analysis of water herein set out is that they will enable the worker to safely condemn certain samples, but rarely to pronounce a water safe for drinking purposes. The danger of advocating the simple scheme of analysis recommended in this small work is that many will not recognize the great limitations which apply to it. The author himself acknowledges that the limitations are great, for, on page 20, he states: "If the analysis reveals nothing suspicious, and the source is such that contamination, either continuous or occasional, is practically impossible, then the water may be passed as safe." The defects of the scheme are shown in one of the analyses and opinions given by the author. In sample No. 15 "no appreciable trace" of ammonia is detected: that is to say, there is no indication given of what is often far more significant of dangerous pollution than any of the other matters tested for under Dr. Thresh's scheme, and yet it amounts to as much as 0.10 part per million.

Bacteriology is essentially a laboratory study, and it is only by actual work in a laboratory that it can be taught in such a manner as to serve any useful purpose. Mr. GORHAM'S *Laboratory Course in Bacteriology*[3] is clearly intended to be used as a guide to the practical details of that work. We doubt, however, whether it will usefully serve the purpose. In the first place, too much is attempted for the size of the book; some portions are good, and the illustrations are excellent, but there is so much lacking in regard to details, both of technique and material to be employed and studied, that, without being supervised by a very competent teacher, no student could work profitably with this book as his guide. The author has evidently little grasp of the technique of, and interpretations to be placed upon, the bacterial analysis of water. The few pages devoted to this subject might well have been omitted.

Messrs. SIMMONS and STENHOUSE are to be congratulated upon having well attained the object which they set themselves in their small work on *Experimental Hygiene*[4]. It will serve admirably as a sound practical introduction to the scientific principles which bear upon the subject of hygiene. The ordinary circumstances and practices of the household have been happily chosen to illustrate physical and chemical laws, and a large number of simple experiments are set out, the performance of which will do more to impress an intelligent appreciation of scientific facts upon the youthful mind than any quantity of written matter, even though it be as clearly expressed as it is by the writers of this small volume. The book is, in addition, well illustrated and printed, and, as it meets a decided want, it should prove successful.

We are very glad to see that a second edition of Lieutenant-Colonel DAVIES'S *Handbook of Hygiene*[5] has been called for, as it is one of the best of the smaller manuals. In the preparation of this edition the author has made no changes in the plan of the work, which is a veritable *multum in parvo*, but has brought each subject up to date. In many cases the opinions of and quotations from others are so carefully set forth that it is difficult to gather the views of the author. This is a defect, for, from the positions which Lieutenant-Colonel Davies has held both at Netley and in India, his opinions on many debatable points would be of value. To those desirous of focussing their general sanitary knowledge rapidly and with the minimum of reading this handbook may be strongly commended, for we know of no other volume which furnishes so much real information in so small a compass.

The appearance of a second edition of the *Imperial Health Manual*,[6] edited by Dr. ANTHONY ROCHE, renders any elaborate criticism unnecessary. It is printed in large and distinct type, is well illustrated, and gives an interesting, though sketchy, view of elementary hygiene from a German standpoint. The first 37 pages are occupied by elementary physiology; then the air, water, food, clothing, the dwelling, and exercise receive consideration. Next man is considered in his social relations—settlements, the rearing of children, and industrial hygiene being sketched. The dangers to health from external influences, as weather and climate, infectious and other diseases, and accidents are next considered; sick nursing is sketched; and there is an interesting appendix of German laws of health. Here and there the translation from German has, we think, been too literal. "Dirt elements found in our surroundings" is a somewhat unusual phrase. The use of the word "husk" for the wall of a vegetable cell containing starch (p. 68) might give rise to misapprehension. There is an unguarded statement that "for detecting these reprehensible adulterations" (including the addition of chemical preservatives as well as skimming and watering) "it is sufficient in many instances to ascertain the specific gravity of the milk."

Dr. JOHN ORR states that his aim in writing a new *Handbook of Public Health*[7] has been to describe in as concise a manner as possible those matters relating to public health which a medical student ought to know in order to fit him for his future duties as a practitioner of medicine. Conciseness is certainly secured, but at the cost of affording the reader very meagre information. The author, we gather, considers that the medical student, preparing for his degree

[2] *A Simple Method of Water Analysis.* By John C. Thresh, M.D., D.Sc., D.P.H. Third Edition. London: J. and A. Churchill. 1901. (Fcap. 8vo, pp. 58. 2s. 6d.)

[3] *A Laboratory Course in Bacteriology.* By F. P. Gorham, A.M. London and Philadelphia: W. B. Saunders and Co. 1901. (Crown 8vo, pp. 192, 97 illustrations. 5s.)

[4] *Experimental Hygiene.* By A. T. Simmons, B.Sc., and E. Stenhouse, B.Sc. London: Macmillan and Co. 1901. (Crown 8vo, pp. 330. 2s. 6d.)

[5] *A Handbook of Hygiene.* By Lieutenant-Colonel A. M. Davies, R.A.M.C. Second Edition. London: C. Griffin and Co. 1901. (Fcap. 8vo, pp. 676. 8s. 6d.)

[6] *The Imperial Health Manual.* Edited by Anthony Roche, M.R.C.P.I. Second Edition. London: Baillière, Tindall, and Cox. 1902. (Crown 8vo, pp. 320; 54 illustrations. 3s.)

[7] *Handbook of Public Health.* By John Orr, M.D., F.R.C.P.E., M.R.C.S. Edinburgh: E. and S. Livingstone. 1902. (Cr. 8vo, pp. 248. 4s.)

examination, finds it difficult to extract the minimum information which it is essential for him to know from the several excellent textbooks of public health now available. We have here that essential information, and it is a minimum; in other words, the volume is a cram book of a very superficial type. We do not know what degrees are attainable with so small an amount of knowledge on public health as this book affords, but we do not believe that a pass in the advanced hygiene examination of the Board of Education, such as is constantly secured by Board School boys of from 12 to 14 years of age, could be gained by working from this book. We confess to great regret that young medical men should be encouraged by books of this kind to remain satisfied with such a minimum of information.

Mr. FURNEAUX'S *Elementary Practical Hygiene*[8] belongs to a "practical elementary series," and is intended to provide the student with a practical guide to elementary physics and chemistry as far as is necessary to form a sound basis for the study of elementary sanitation. The volume is planned on original lines, and leads the student through a series of simple exercises and experiments, each of which may be performed with apparatus of the simplest possible kind. The subject matter covers fully Section I of the Elementary Hygiene Syllabus of the Board of Education, and the book, though evidently intended for the needs of primary schools, is in many respects also likely to meet the requirements of not a few medical students. We have read the contents of this book with considerable interest; it is extremely simple and accurate.

We have found some difficulty in reviewing Dr. BERGEY'S *Principles of Hygiene*,[9] because he has made no attempt to treat the subject in a comprehensive manner. The book will help the reader to acquire a knowledge of the principles on which modern sanitary practice is based, but it will not suffice those who wish either to become experts in the subject or to gain a practical knowledge of the laboratory manipulations associated with public health work. To the American reader the book will be more valuable than to the British, as the references to statutes and ordinances are purely American. The author has evidently kept himself abreast of the times, as the chapter on immunity proves, and in that dealing with the management of infective diseases, he shows a familiarity with some of the best and latest English views on notification and isolation. If the other sections were as good and practical as these the volume would take a high place in hygienic literature; possibly in a later edition the defects of the present may be removed.

PSYCHIATRY.

THE breadth of view, soundness of judgment, and lucidity of expression which in general characterise Professor BERKLEY'S *Treatise on Mental Diseases*[10] place it in the first rank of such works. It is divided into three parts—the Anatomy and Histology of the Central Nervous System, General Pathology, and the Clinical Forms of Mental Diseases. The first two parts, which occupy the initial 98 pages, contain a succinct, yet sufficient, description of the macroscopic and microscopic appearances of the normal and diseased brain and membranes, as shown by the most recent methods of examination. They are beautifully illustrated by photographs, diagrams, and coloured drawings. The researches of Continental and other workers are freely cited and their opinions epitomised. In the chapter on the Special Pathology of the Nerve Cell, a valuable and original investigation by the author, by whom these changes were first described, into the changes in the nucleus as the result of ricin and alcohol poisoning is given. With regard to the general causation of insanity, Professor Berkley considers a hereditary instability of the nerve tissues, evidenced pathologically by divergences from the normal in the structure of brain convolutions, number of cortical nerve units and abnormalities in the form and component parts of the cells, etc., the most important factor to be taken into consideration. Considerable stress is laid also on vascular lesions in relation to degeneration insanities, either by cutting off the supply of nutrient plasma or by damming back the return flow. Thus he writes:

> I fully believe that in these slowly progressive vascular changes we shall finally determine from a pathological standpoint the origin of the majority of the various types of the organic-degenerative forms of mental aberration, the first alterations in the vessels inducing the gradual change from perfect sanity to the slight mental obliquities.....that stamp the beginning of the first stage. Later, when the lesions in the vessel walls have progressed, the nutrient plasma transuding through them being altered both in quantity and quality, we find a rebellion of the brain cell to the lack of its accustomed food, showing itself in a stage of acute excitement; and, lastly, when the nutrient supply has sunk to a point barely sufficient to maintain the cell alive, and chemical and histological alterations have been induced in its protoplasm, there results the final stage of terminal dementia.

With regard to the pathological etiology of general paralysis of the insane, Professor Berkley, whilst taking up no dogmatic position, considers that the theory of its primarily vascular origin enables us to account more satisfactorily for its clinical development than Nissl's theory of primary neuron implication. The clinical description of mental diseases which forms the bulk of the book, follows the classification of Krafft-Ebing, and is of such sustained excellence that it is difficult to single out chapters for particular notice. To English readers, however, the section on Chronic Progressive Paranoia, an insanity which has received so much attention in Germany and America, will be of special interest. The book is well illustrated, contains an extensive and valuable bibliography, and may be warmly recommended.

Professor SOMMER'S able and clearly-written book on the *Diagnosis of Mental Diseases*[11] deserves a wide acceptance as a comprehensive description from the clinical point of view. The method of examination of cases is treated at considerable length, is searching and complete, and contains a scheme of case-taking which leaves little to be desired. In a short chapter on the origin and development of disease he discusses the question of degeneracy and bespeaks a stricter limitation of the term "degenerate" than is customary with Lombroso and his school. The normal condition, Professor Sommer points out, is a physiological not a morphological state, and therefore morphological alterations are of pathological significance only when these evidence abnormal function. Torus palatinus, abnormal shapes of the lower maxilla, sessile earlobes, etc., he regards as mere natural curiosities, and their exact measurement and description as a *progressus ad infinitum* which raises these stigmata into undue prominence. The description of mental diseases in the chapter on special diagnosis is throughout lucid and minute and is exemplified by notes of numerous cases. Particular attention is paid to differential diagnosis. In this relation it will be noted that the term "mania" is much more circumscribed in its application than is common in this country. As an aid to exact diagnosis Professor Sommer's work is of great value, although in places, as for instance in the chapter relating to degeneracy, his decisions are somewhat arbitrary.

We cannot say this of the *Compendium of Insanity*,[12] by Dr. JOHN B. CHAPIN. He regards and classifies mental diseases entirely in relation to their psychical manifestations, does not aim at the elucidation of their etiology or pathology, but wishes rather to provide a handy guide to general diagnosis and medico-legal questions. The chapter on morbid anatomy is very superficial, and might be omitted without affecting the usefulness of the book, which though elementary and written from a point of view already in the initial stages of its obsolescence, may perhaps be of service to non-professional readers and members of the legal profession.

Of the manual of *Nervous and Mental Diseases*,[13] by Dr. CHARLES S. POTTS, it may be said that it is a fairly successful

[8] *Elementary Practical Hygiene* (Section D). By W. S. Furneaux. London: Longmans, Green, and Co. 1901. (Crown 8vo, pp. 248. 2s. 6d.)

[9] *The Principles of Hygiene*. By D. H. Bergey, A.M., M.D. London and Philadelphia: W. B. Saunders and Co. 1901. (Demy 8vo, pp. 496. 13s.)

[10] *A Treatise on Mental Diseases*. By Henry J. Berkley, M.D., Clinical Professor of Psychiatry in Johns Hopkins University. London: Henry Kimpton. 1901. (Demy 8vo, pp. 616. 21s.)

[11] *Diagnostik der Geistes Krankheiten für praktische Aerzte und Studierende*. Von Robert Sommer, o. Prof. an der Universität Giessen. Zweite Auflage. Berlin and Vienna: Urban und Schwarzenberg. (Roy. 8vo, pp. 506; 30 Illustrations. M 10.

[12] *A Compendium of Insanity*. By John B. Chapin, M.D., LL.D., Physician-in-Chief, Pennsylvania Hospital for the Insane. London and Philadelphia: W. B. Saunders and Co. 1901. (Cr. 8vo, pp. 227. 6s.)

[13] *Nervous and Mental Diseases: A Manual for Students and Practitioners*. By Charles S. Potts, M.D. London: Henry Kimpton. 1901. (Demy 8vo, pp. 455; 88 Illustrations. 7s. 6d.)

attempt to bring within the covers of one small volume the essential facts of nervous and mental diseases. The pathological anatomy it contains is of the scantiest, but the symptomatology, differential diagnosis, and treatment, are well and tersely treated. The greater part of the book is devoted to neurology, mental diseases being only accorded the last 42 pages. It is, however, essentially a cram-book for examination purposes, epitomized from the larger textbook, and, as such, not worthy of any detailed analysis or criticism.

The psychologist will find Professor Colegrove's *Memory*[14] of value mainly on account of the very admirable summary which it contains of previous theories on memory. Current views of the physical basis which underlies psychical retentiveness are epitomized, and attention is drawn by the author to the fact that one should speak of memories rather than of memory. Professor Colegrove in fact uses the term memory in its wider significance of the conservation of experience, whether conscious or unconscious. It was hardly possible that a field of such width and a subject presenting such inherent difficulties as the relationship of mind to brain could be satisfactorily treated in so small a work as this; in consequence, whilst bearing witness to the author's industry, it is too discursive, lacking in logical continuity, and contains occasional paralogisms.

NOTES ON BOOKS.

Medical men and others who are likely to make acquaintance with the Hausa race will find Mr. Miller's *Hausa Notes*[15] a very valuable help. It ought to be explained, as the title is rather vague, that the book is a phrase book and brief vocabulary of the language. The author has evidently not only an eye to the practical utility of his book for conversational purposes, but also a sound literary instinct which enables him to map out his course of instruction on sensible principles of grammatical science. The book is warmly recommended by Sir F. Lugard and Dr. Cargill.

The Ship Captain's Medical Guide,[16] which has for so many years done good service under the official sanction of the Board of Trade, has lately been reissued in a much enlarged and improved form. New diagrams have been adopted, the instructions on "first aid" have been thus rendered more effectual, and the recognition of different diseases has been simplified by arranging for comparison different symptoms in tabular form. Mr. Spooner has shown much ability and judicious care in the revision of this new edition, and has thoroughly succeeded in maintaining under altered conditions the utility of Dr. Leach's handbook.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

The Curette in Endometritis and Incomplete Abortion.—Dr. Alexander Duke (London) writes: The uterine curette is a most dangerous instrument in unskilful and reckless hands. In cases of incomplete abortion it is especially useful, as such cases are too often left to Nature to finish, and thus become the fruitful source of endometritis, etc., later on. It is most important, however, that it should never be forced through an undilated cervix. My own practice is to first dilate the cervix sufficiently to admit the examining finger, and by selecting the day subsequent to a period (as advised by Dr. James Braithwaite, of Leeds), it will be found a much easier matter. The condition of the entire uterine cavity should then be examined with the finger. The uterus should not, however, be drawn down by volsella while digital examination is being made, but should be depressed from above by the fingers of the free hand; in a few cases where a backward displacement may exist help can be obtained by the finger in the rectum, it being hooked over the fundus through the anterior rectal wall. When a thorough digital examination has been made of the entire uterine cavity, then and not till then should the curette be inserted. The danger of the sharp curette is in doing too much, and not bearing in mind the fact that uteri differ in thickness and density; hence I object to the use of the flushing curette. For if a small opening is made, the fluid would be carried through, and if a solution of corrosive sublimate the danger is intensified. The curette pictured (Fig. 1) differs from those in general use, and consists of two ring knives super-imposed and working inside each other presenting a blunt edge when closed and introduced. When the blades are opened we have a double curette which will do twice the work of a single instrument and in the same time. The open blades yield to the pressure of the uterine walls (a weak spring keeping the blades open) preventing the removal of too great a depth of tissue. The extent of the cutting edge exposed can be arranged to a nicety (before introduction) by the milled edged discs at the handle. This double spring curette has been made for me by Messrs. Evans and Wormull, London. The entire unhealthy surface should, if possible, be removed. This should be investigated by the finger, and when satisfied I wash out the cavity with my simple uterine tube (Fig. 2) and then by means of sliding depositor (Fig. 3) introduce into the uterine cavity a pledget of cotton wool saturated with lin. iodi which is left in utero till expelled by uterine action as it is certain to be. This treatment I also adopt in all cases of chronic endometritis and am so far satisfied with the results and recommend a trial of the treatment to my brother gynæcologists.



Fig. 1. Fig. 2. Fig. 3.

The *Bolletino Bibliografico delle Pubblicazioni Mediche Italiane*, which has recently entered on the second year of its existence, gives a classified list of all original papers and monographs published in Italy. It is clearly arranged, well printed, and very convenient for reference. We congratulate its editors, Signori Luigi Nobile-Lojacono, Vice-Secretary of the Medical Library of the Royal Institute of Superior Studies at Florence, and Gustavo Cini, Sub-Librarian of the National Central Library of Florence, on their successful performance of a useful but, we fear, unremunerative task. We are glad to see, however, that their labours have not passed without recognition, for they have received a "prize of encouragement" from the Italian Minister of the Interior on the recommendation of the Superior Council, and a gold medal was awarded them at the Exhibition of Hygiene held in Naples in 1900. A silver medal was also awarded them at the International Congress of Hygiene held at Ostend in 1901.

[14] *Memory: An Inductive Study.* By F. W. Colegrove, Ph.D., D.D., Professor of Philosophy in the University of Washington. London: George Bell and Sons; and New York: Henry Holt and Co. 1901. (Crown 8vo, pp. 369; 6s.)

[15] *Hausa Notes.* By Walter R. Miller, M.R.C.S., L.R.C.P. London: Henry Frowde. 1901. (Cr. 8vo, pp. 127. 3s. 6d.)

[16] *The Ship Captain's Medical Guide.* Compiled by Harry Leach, M.R.C.P. Revised and enlarged by William Spooner, L.R.C.P.Lond., M.R.C.S. Thirteenth edition. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1901. (Cr. 8vo, pp. 190, 31 illustrations. 2s.)

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

EXTRAORDINARY SESSION, 1902.

Tuesday, February 25th, 1902.

Sir William Turner, K.C.B., President, in the Chair.

New Members.

Dr. David White Finlay, representing the University of Aberdeen, and Dr. John Yule Mackay, representing the University of St. Andrews, introduced by Sir William Gairdner, took their seats on the Council; Mr. George Jackson and Mr. George Brown took their seats as direct representatives of the English Branch Council, as did Dr. William Bruce as direct representative of the Branch Council for Scotland.

President's Address.

Changes in the Council.

Gentlemen,—Since the last meeting of the Council several changes have taken place in its *personnel*. As a result of the election of two direct representatives of the profession in England, the seat for so many years occupied by Dr. Glover, whose impending retirement on account of health I intimated in November, has been filled by the election of Mr. George Jackson, and Mr. George Brown has again been chosen. Dr. Wm. Bruce has also been re-elected by the registered practitioners resident in Scotland.

Dr. Pettigrew has retired from the representation of his University. With one exception he had occupied a seat at our Council Board for a greater length of time than any other member. Originally chosen in 1877 to represent the Universities of Glasgow and St. Andrews, and ten years afterwards as the representative of St. Andrews, when the Act of 1886 gave to the latter University the power to elect its own member, he has been in continuous occupation of his seat for twenty-five years. Dr. Pettigrew took a strong personal interest in the work of the Council. We shall miss his genial presence and the experience which he gained during so many years in the management of our affairs. Dr. John Yule Mackay, Principal of University College, Dundee, which is now a constituent part of the University of St. Andrews, has been appointed his successor.

Dr. Robert Wm. Reid, who for five years represented the University of Aberdeen, and who during his period of office took an active interest in the subjects which came under the consideration of the Council, more especially in the work of the Education Committee, has been succeeded by Dr. David White Finlay, Professor of Medicine in that University.

The Council welcome to their Board the new and the re-elected members.

The Curriculum.

The Council will recollect that on December 3rd of last year it was resolved to appoint a Committee to report on the differences that exist between certain licensing bodies on the one hand and the General Medical Council on the other, regarding the courses and conditions of study and the recognition of the institutions and schools in which the required courses may be taken, and that a special meeting of the Council to consider the report should take place on the fourth Tuesday in February of this year. This is the reason why we have been called together at this unusual period. The Committee's report has been for some days in your hands, and members of Council, in view of the momentous issues which have been raised in it, will, I feel sure, have given it their close attention.

The Midwives Bill.

It is, I have no doubt, in the knowledge of all of you that a Midwives Bill has been introduced into the House of Commons during the present session, and is to be read a second time during this week. I instructed our Registrar to obtain copies of the Bill as soon as it was printed, and to forward one to each member of Council. You will observe from the programme of business that a copy of the Bill has been sent officially by the Lord President of the Privy Council for our information. As the consideration of a Midwives Bill formed no part of the business specified in the resolution of December last by which this meeting was fixed, it will be necessary, in accordance with Standing Order 1 (3), should the Council desire to discuss this Bill and to offer an opinion on it, that a resolution to this effect should be agreed to by the Council before any discussion can take place.

I shall therefore put to the Council the two following questions:

1. Shall the Council consider the Midwives Bill at this special meeting?

2. Shall the Council consider the Midwives Bill before proceeding to the special business for which it is summoned?

THE MIDWIVES BILL.

It was agreed that the Midwives Bill should be considered at this special meeting.

In reply to Dr. McVail the President that the Bill stood for second reading in the House of Commons on the following day, and he had been informed that if the Bill passed the second reading it would be referred to the Grand Committee on Law; it might come up in that event for consideration before the Council met again in May.

The question was then put and agreed to.

Mr. Victor Horsley, who had given notice of motion with reference to this question, said he would withdraw it in favour of one proposed by Dr. Atthill; and in order to clear the ground Mr. Horsley moved, Dr. Atthill seconded, and it was resolved:

That the Council do proceed to consider the letter of the Lord President (of the Privy Council) transmitting the Midwives Bill now before the House of Commons as the first order of the day.

The President pointed out that there were two motions on the agenda—one by Mr. George Brown and the other by Dr. Atthill. Mr. Brown's motion was to the effect that the Council go into committee of the whole Council to consider the Midwives Bill; and Dr. Atthill's was a motion that the Council adhere to its former resolutions come to in April, 1898, at the time when the Midwives Bill was before Parliament.

Mr. George Brown intimated his willingness to withdraw his motion in favour of that by Dr. Atthill, as his only object was that the Council should maintain the position it had formerly taken up with regard to legislation on this subject.

The President was sure the Council would thoroughly appreciate Mr. George Brown's object.

The motion was accordingly withdrawn.

Dr. Atthill moved:

1. That the Council adheres to the resolutions in regard to legislation for midwives, which it adopted at a special meeting held in April, 1898, and communicated at his request to the Lord President of the Privy Council.

2. That the Council is of opinion that the provision of the Midwives Bill, 1902, are at variance with the principles thus adopted by the Council, and do not embody the safeguards for the protection of the poor which it regards as essential.

3. That accordingly the Council is of opinion that the Midwives Bill, 1902, now before Parliament, ought not to pass into law.

4. That the foregoing resolutions be communicated forthwith to the Lord President of the Privy Council.

He thought it essential that the Council should adhere strictly to the opinions it had already expressed. It was not desirable to discuss the Bill in detail; in his opinion it was the most objectionable Bill that had ever come before the House of Commons. So long ago as 1897 a Committee, of which he was a member, and in which he took an active part, was appointed to consider a Midwives Bill. That Committee brought out a report, which was considered in the spring of 1898. Then came the Bill that was introduced into Parliament. The Council debated the Bill very fully, a special session being held, which lasted two days, at the end of which time Dr. MacAlister undertook to draw up a report which would bring their views into line. On that occasion the Privy Council sent the Bill to the Council, a course which they had not followed on the present occasion. On another occasion the attention of the Council was merely drawn to a proposed Bill from what appeared in the papers. On the former occasion, instead of giving their opinions on the details of the

Bill, they merely drew up their opinions on the subject in general. In the Minutes, vol. xxxv, p. 40 (1898) would be found embodied the whole provisions which the Council considered essential, therefore it was not necessary to go into the details of them. These provisions were adopted by the Council unanimously. On a subsequent occasion the Council had confirmed its previous opinion without modifying it in any respect. Two provisions which the Council insisted on, were, first, that in cases of difficulty a midwife should be bound to obtain the aid of a registered medical practitioner; and, secondly, that there should be a small annual fee for registration in order to keep midwives under proper supervision. If these provisions were absent from any Bill the most incalculable damage would be done. The Council having considered this matter in every detail in special session in April, 1898, having reconsidered it in 1899, and having on all occasions adhered distinctly to the opinions then laid down, he suggested that the Council should forward its previous report, with a covering letter from the President, informing the Privy Council that it considered that any Bill which did not contain the provisions of the report would not be deserving of support, and would not protect the poor women whom it was intended to protect.

Dr. Heron Watson seconded the resolution.

Mr. Brown entirely approved of the action taken by the Council. It was highly desirable that the Lord President of the Privy Council should understand that in the opinion of the Council the proposed Bill was a great departure from the previous Bill, which was approved of to a certain extent by the Council, and all the safeguards which the Council wished to have introduced in the Bill having been dropped out, the Council considered it was a Bill which it would deprecate passing into law in its present state. The Bill professed to protect poor women against ignorant midwives, but it did nothing of the kind. It simply protected the title of midwives. The absence of provision making it obligatory on midwives to call in medical aid in cases of difficulty and danger was to be deprecated. In his opinion the Bill ought to provide for efficient nursing after, as well as efficient attendance during, childbirth. He was pleased to find that the medical profession were unanimous in condemning the Bill. He had heard it suggested that they were opposing the Bill from financial reasons, but he wished to repudiate any such suggestion.

Dr. MacAlister thought it desirable to point out how the Bill differed with every one of the articles of faith laid down by the Council in 1898. Comparing the Bill with the resolutions passed in 1898, he pointed out that it was not proposed to regulate the practice of all those who practised midwifery, but only those who took out certificates; they constituted a very small proportion of those who practised midwifery. The second provision insisted upon by the Council, that every woman who engaged in practice as a midwife for gain should be subjected to legal regulation and control, was omitted from the proposed Bill. It was only those who were certificated who were to be submitted to such regulation. Then with regard to the third provision the proposed Bill merely protected the title "midwife"; it did not contain the essential safeguard proposed by the Council making illegal and penal the unlicensed practice of midwifery for gain. Then with regard to the Council's suggestion that some central body should be established by Parliament whose functions should include the framing of the conditions under which midwives might be licensed and the regulations under which alone they should be allowed to practise, it was quite true that the Bill did propose the establishment of a Midwives Board, but that was only for the elect who held certificates. A clause to the effect that the conditions and regulations so framed should be subject to the approval of the General Medical Council, which had appeared in all previous Bills in one form or another, was omitted from the present Bill; and again there was no provision that such regulations when approved should be issued to the local sanitary authorities by the State department concerned with the public health. If the Council's advice were asked it would have to be given, but no provision was made in the Bill for reimbursing the General Medical Council for any time that it might have to spend on the matter. The important provision that a woman should apply annually for the renewal of her licence was also left out of the proposed Bill. Then, again, the provision making it penal for an unlicensed woman, not being registered under the Medical Acts, to practise as a midwife for gain, though appearing in an incomplete form in a previous Bill, was entirely left out of the present Bill, in consequence of the representations of the Home Office. Notwithstanding the fact that the removal of that clause was due to the Home Office, the Council could not regard its omission as otherwise than extremely dangerous. With regard to the conditions under which licences were granted, including the production of satisfactory evidence of character, the only persons who had to produce any evidence of character were those who applied for a licence as having practised for two years. This point was discussed before the Committee of the Council in a conference with the promoters of the original Bill formerly before Parliament, who, it was perfectly clear, thought it important that midwives should not be insulted by being asked to produce certificates of character before registration. There was also no provision calling upon a midwife to seek medical assistance in cases of difficulty or danger. Having gone through the decalogue of their requirements, he had said enough to show that the Bill now before Parliament sinned against every one of the points which the Council considered of essential importance. For these reasons he desired strongly to support the motion moved by Dr. Atthill.

Dr. Payne asked if it was only women that the Council suggested should be subjected to rules and regulations. If a Bill were passed in accordance with the views of the Council, would it control the practice of midwifery by unregistered and unlicensed medical practitioners? Would it have the effect of saying that it was illegal for a woman to do what it would not be illegal for a man to do under the same circumstances, even though he was not a registered medical practitioner?

The President said that throughout Section II the word used was "woman." It was a woman's Bill. There was a point he should like to put to Dr. Atthill and Dr. Heron Watson: Would those gentlemen object to adding to the third paragraph of their resolution the words "in its present form"?

Mr. Brown trusted that this would not be agreed to, because the Bill could not by any possible amendment be turned into a good Bill.

Dr. Atthill said he originally framed his resolution in the way suggested by the President, but after consultation with some of the members he had altered it, as they felt it would be impossible to amend the Bill.

Sir John Williams did not think that Dr. MacAlister's account of the Bill was quite a fair one. It was said that this Bill was simply for the protection of midwives. It would be important to know what was the effect of the present registration and education of the midwives. He had examined the results of the outdoor department of lying in hospitals where women were taught and examined in the way they would be if the Bill came into force. The only control over them was that if they did not call in a medical man from the hospital in cases of difficulty or danger they would be suspended or dismissed. The result of the practice was that whilst throughout the country the mortality of childbirth was 1 in 200, under the system mentioned the mortality was something under 1 in 1,000. He would suggest that in the third paragraph of the motion one or two of the essential points in which the Bill failed to meet their requirements should be pointed out, and that they should not say it failed in every particular.

Dr. McVail said Sir John Williams had stated that the mortality was 1 in 200. Did the Registrar-General's report state how many of those cases were attended by qualified medical practitioners and how many by the present form of midwives?

Sir John Williams said he could not answer that question. Dr. McVail had misunderstood him. He had said that the mortality was less than 1 in 1,000.

Dr. McVail thought the point ought to be cleared up.

Mr. Horsley understood Sir John Williams to say that these women were immediately under the control of the hospital physicians. The Bill provided that the women were to be independent of medical men, so that he could not see the slightest parallelism in the illustration.

Mr. BROWN said the mortality of 1 in 1,000 applied to the lying-in hospitals, where medical men were responsible for the conduct of the midwives. He should like to know if the out-patients were in any sense under the supervision of the medical staff of the hospitals? Were they visited by the doctors?

Sir JOHN WILLIAMS said they were not visited by the doctors. The midwives were supposed to call the doctor in in cases of difficulty. No better results had been obtained than from the practice of these women in London and lying-in hospitals outside: the mortality was the smallest in the world. The supervision consisted solely in this: that the women sent in reports to the hospitals because they had to be paid for their attendance, and they called upon the physician when need required it.

In reply to Mr. JACKSON, Sir JOHN WILLIAMS stated that patients were attended for ten days or a fortnight.

Mr. GEORGE BROWN thought it important that the Council should have a clear idea on the question.

The PRESIDENT observed that the Council was drifting into questions of practical midwifery.

Dr. NORMAN MOORE, as one who desired to know how to vote, asked for information. It was admitted that things as they were now were not as they ought to be, but would the present Bill make things worse? If it did, the strongest terms should be used in expressing dissent to it; but if it merely erred in this, that it did little where a great deal might be done, would it not be better to take steps to have it amended rather than to take no steps whatever?

Dr. ATTHILL observed that legislation which enabled women to attend cases without the supervision of a medical man was a step in the wrong direction.

Sir WILLIAM GAIRDNER pointed out that it was obvious that the Lord President of the Privy Council and the promoters of the Bill were most anxious to bring their Bill into accord with the resolutions of the Council.

The PRESIDENT, in view of what had been stated, thought he ought to read part of a letter which he had received from one of the most active supporters of the Bill, who said, "I believe the Government will agree to the Midwives Bill being read a second time on the understanding that all necessary amendments should be made in Committee, and I can have no doubt that they will seek to obtain the views of the General Medical Council at that stage. I sincerely hope they will, and that those views may receive full and ample consideration at their hands" (that is the Government's hands), "and weight which properly attaches to them, and that they may influence the final shape of the Bill." He assumed that that letter was sent to him officially as President of the Council.

Mr. VICTOR HORSLEY wished to refer again to the clear and unequivocal statement of the Lord President of the Privy Council in answer to the deputation of the supporters of the Bill, that he regarded the opinions of the Council as representing the profession. He told the supporters of the Bill that they must agree with the Council, and he had now unquestionably gone back on that statement.

Sir CHRISTOPHER NIXON thought the Council ought to make up its mind as to whether it wanted a Midwifery Bill or not; and that it ought not to take a completely *non possumus* attitude in regard to the question. He thought they ought to make up their minds either that the Bill presented some features which could be worked with advantage in the interest of midwifery practice by women, or that it contained something very objectionable. In his opinion there were features in it of advantage, and equally there were objectionable features; but these were all points to be corrected in Committee. They would do more in discussing the merits of the Bill and getting alterations made which would be satisfactory to them, than by simply saying that they did not agree to the Bill at all. If it should so happen that the Bill should pass with objectionable clauses in it, the General Medical Council would be to some extent to blame for not taking steps to have such clauses altered. This was the reason he thought it better to consider the Bill upon its merits, to formulate their several objections in tabular form, and send them to the Lord President for his consideration.

Dr. MCVAIL strongly supported the view of Sir Christopher Nixon. They must either pass the matter over without saying anything at all about it, or they must indicate how the Bill would be improved. Members of Parliament could not discuss questions of this nature; and it was to the General Medical Council that the Lord President of the Privy Council looked for guidance in such matters.

The PRESIDENT then put the amendment moved by Sir JOHN WILLIAMS and seconded by Dr. MACALISTER,

That the words "in its present form" be added to Clause III of Dr. Atthill's motion,"

and it was agreed to.

Dr. LITTLE moved:

That a committee consisting of Sir John Williams, Dr. Atthill, Dr. MacAlister, Mr. Victor Horsley, and Mr. George Brown be appointed to consider the Midwives Bill, and to submit to the Council during the present session any amendments which they think should be suggested to the Lord President of the Privy Council.

Dr. BRUCE seconded.

Dr. MACALISTER pointed out that there was already a committee appointed to deal with this subject, and he asked what would be the use of appointing such a committee without knowing whether the Council adhered to its previous conclusions?

Dr. ATTHILL observed that it was desirable to strengthen the hands of those who were opposing the Bill in Parliament.

Mr. VICTOR HORSLEY hoped Dr. Little would withdraw his motion, which, with the permission of the Council, he ultimately did.

The PRESIDENT then put the resolution as amended:

(1) That the Council adheres to the resolutions in regard to legislation for midwives which it adopted at a special meeting held in April, 1898, and communicated at his request to the Lord President of the Privy Council;

(2) That the Council is of opinion that in important respects the provisions of the Midwives Bill, 1902, are at variance with the principles thus adopted by the Council, and do not embody the safeguards for the protection of the poor which they regard as essential;

(3) That accordingly the Council are of opinion that the Midwives Bill, 1902, now before Parliament, ought not to pass into law in its present form;

(4) That the foregoing resolutions be communicated forthwith to the Lord President of the Privy Council,

and it was adopted.

Mr. VICTOR HORSLEY thought that after the way in which the Council had been misunderstood in the House of Commons, it was essential that its resolutions on this subject should be laid before the House in some form or another, and he had found out from Sir John Tuke that this was the most advisable form. He moved accordingly:

That in the event of the Midwives Bill at present before the House of Commons passing the second reading, Sir John Tuke be requested to place the views of the Council before the Grand Committee on Law.

Dr. BENNETT seconded the motion, which was agreed to.

REPORT BY THE SPECIAL COMMITTEE ON CURRICULUM.

THE report of this Committee was then brought up.

The report stated that the Committee had met on February 12th and 13th, and that the members present were Dr. McVail (Chairman), Dr. Norman Moore, Mr. Bryant, Mr. Young, Sir Hector Cameron, Sir William Thomson,[1] and Mr. Ball. The Committee had been appointed in accordance with a resolution passed by the General Medical Council on December 4th, 1901, instructing it "to prepare a report on the differences that exist between certain licensing bodies on the one hand, and the General Medical Council on the other, regarding the courses and conditions of study, and the recognition of the institutions and schools in which the required courses may be taken." The report, which is a lengthy document occupying 58 octavo pages, begins with a "Narrative,' this is followed by a "Summary of Narrative, by "Observations by Committee," by "Conclusions by the Committee," and by "Recommendations by the Committee," and there is also a Minority Report. The following is the "Summary of Narrative" above mentioned, and the text of the remainder of the report.

[1] Was unable to be present on the second day.

SUMMARY OF NARRATIVE.

The principal events in the foregoing narrative may be briefly summarized as follows:

In June, 1900.

Adoption of five years' course after registration; physics, chemistry, and biology to constitute the first year. These to be studied in universities, medical schools, or in teaching institutions that are recognised by the licensing bodies.

In May, 1893.

The Medical Council codified its resolutions into requirements and recommendations, the former to be enforced, if necessary, by action taken under Clause xx of the Medical Act, 1858.

December, 1894.

The Council by resolution authorized chemistry, physics, and biology to be taken before registration at teaching institutions recognized by the licensing bodies, but a full five years of curriculum after registration was still to be enforced. The licensing bodies were requested to send annually lists of the institutions so recognized—after inspection. (So far the Medical Council did not assert a right of approval.)

December, 1898.

A letter read from the Royal College of Surgeons of Ireland calling attention to the large number of teaching institutions recognized by the English Conjoint Board—many of them grammar schools.

June, 1899.

The Medical Council decides that the scientific institutions (the term "teaching institution" disappears) at which study in chemistry, physics, and biology shall qualify for registration in the *Students' Register* must not only have been recognized by one or more of the licensing bodies, but must also have been approved by the Council.

December, 1899.

Refusal of English Royal Colleges to recognize the right of approval as belonging to the Council, or that the Medical Acts gave the Council any authority to impose conditions regarding the registration of medical students.

December, 1900.

Memoranda, counsel's opinions, etc., considered, and Council decides to adhere to requirements, and in effect precludes the registrars from registering students of unapproved institutions, but invests the Students Registration Committee with powers to deal for the present with such cases.

June, 1901.

The English Royal Colleges intimate to the Council that they no longer require candidates for their diplomas to be registered in the *Students' Register*.

December, 1901.

The English Royal Colleges in their latest regulations require their candidate to have passed a preliminary examination that is recognized by the Colleges—not, as heretofore, a preliminary examination recognized by the Medical Council. Up to the present the list of preliminary examinations of the Colleges is identical with that of the Medical Council.

The Council appointed the Committee engaged in the present report, and decided to hold a special meeting to consider it.

OBSERVATIONS BY COMMITTEE.

From the foregoing narrative of events it will be seen that from 1890 to 1894 one matter was in dispute between the Conjoint Board of England and the Medical Council, and that since the end of 1898 the variance has been on quite another question. In the former period the Colleges desired that recognition should be given to the study of the three science subjects prior to registration, and after a four years' struggle the Medical Council yielded. In the latter period the dispute has been about the institutions to be recognised at which the three preliminary science subjects might be studied. The Colleges, between 1894 and 1898, had been according recognition to a large number of institutions, some of which had been inspected by the Colleges, whilst others had been inspected by the Science and Art Department only, and when quite suddenly the attention of the Medical Council was called to this circumstance it began to remonstrate with the Colleges, at firs mildly, but these bodies remaining obdurate, the Council passed resolutions gradually more and more stringent, until finally it in effect refused to register students entering at institutions which it itself had not approved. As to the merits of the institutions as places of study for the first year of the curriculum, the Colleges hold that in all of them the teaching is adequate, but in this opinion the Council has not concurred. Quite clearly it was the intention of the Council, when it decreed the five years' professional course in 1890, that physics and biology should be taught as to scope and standard just as chemistry had been taught prior to 1890. Chemistry had a place in the old curriculum beside anatomy and physiology and other branches of medical science. A course during a full session of systematic chemistry had been imposed, just as a systematic course of a full session in anatomy was required. and instruction in practical chemistry of a duration of at least two months and a half was demanded. In every respect chemistry had been an integral subject of the medical curriculum to be taught in a university, a recognized medical school, or in a college of science. When physics and biology were introduced into the curriculum and the period of the curriculum was extended to five years, the Medical Council intended that these subjects should receive, in relation to the time to be given to them respectively, place and consideration not inferior to those accorded to chemistry or any other subject of medical study. The Council did not contemplate these two new subjects as being taught together with ordinary school subjects in day schools, and still less that the teaching of chemistry should be reduced with them to an ordinary school level. The Council had permitted the introduction of the words other "teaching institutions," without perhaps apprehending the direction and the length to which this concession would lead. When the Council at the end of 1898 had awakened to some appreciation of the results of their concession in 1890, it began to take steps to arrest and correct the evil. But all such efforts the London Colleges have opposed most strenuously, until the rupture is complete, and the Colleges will confer their diplomas without regard to the Medical Council's directions and resolutions. In 1899 and in 1900 the Council has, by large majorities, repeatedly in its resolutions expressed its opinion that under the widespread recognition of institutions by the London Colleges the study of the three science subjects is not sufficiently safeguarded as to its scope and standard, and has stated its determination to recognize only scientific institutions that have specially been approved by the Council itself. The Colleges hold that the Council has no power under the Acts to impose such requirements on them, and generally that the Council may, on such points, only tender advice which a licensing body may accept or decline.

What then actually are the powers of the Council in regard to the matter in consideration? The General Medical Council derives all its authority from the Medical Acts, particularly the Acts of 1858 and 1886, and the Council is bound to administer these Acts. The preparation of a *Register* containing the names of all practitioners duly qualified in terms of the Act was the first important work to be undertaken by the Medical Council, and the supervision of the *Register* remains its chief duty. The Act requires the Council to enter in the *Register* the names of persons who have received medical degrees and diplomas from bodies that are mentioned in Schedule (A) of the Act of 1858; and, since 1886, persons who have received diplomas from Conjoint Boards of medical and surgical corporations as defined in the Act of 1886, or of single corporations under conditions as to additional examiners appointed by the Council as provided for in that Act. At present there are twelve universities in the United Kingdom and one corporation, each of which grants qualifications that entitle to registration; there are three Conjoint Boards, each of which gives qualifications that must be registered on application by the recipients, and there are two single corporations which, having been provided with the necessary additional examiners, also confer registrable qualifications. In all, then, there are seventeen bodies in the United Kingdom whose graduates and diplomates are entitled to be put on the *Register*.

The question then is, has the Council acted without legal power, or do the Acts of Parliament confer upon it the power which it claims.

It was open to Parliament in framing the Act of 1858 to require the Medical Council to register every graduate and diplomate of every one of the bodies, or combinations of bodies, without any question and without any voice as to the conditions of study and examination, each body being a law to itself. Or the Act might have given to the Council absolute powers as to receiving or declining any of the various degrees and diplomas. The Council might have had power to strike off and to readmit any qualification according to its dissatisfaction or satisfaction with the conditions under which the qualification is granted. Neither of these courses was adopted, but the Act did not leave the bodies free to confer qualifications entirely as each might think fit, and on any terms it might individually decree. The Act (Section XXI) confers on His Majesty and the Privy Council the power, if they see fit, to order that any qualification granted by any of the bodies may cease to confer any right to be registered under the Act, and His Majesty and the Privy Council have also the power of revoking any such order of deprivation. But the Privy Council cannot act thus on its own initiative; it can act only as regards an order for deprivation on a representation by the Medical Council. No provision exists by which such representation can be made by any authority other than the Medical Council, and this representation must be that the course of study and examinations to be gone through, required by the College or body regarding which the representation is made, are not such as to secure the requisite knowledge and skill for the efficient practice of the profession. The manner in which the Medical Council is to acquaint itself with the courses of study and Examinations is laid down in Section XVIII of the Act, which gives the Council the power to ask from the several Colleges and bodies in Schedule (A) from time to time such information as the Council may require as to the courses of study and examinations to be gone through in order to obtain the respective qualifications, and generally as to the requisites for obtaining such qualifications: and any member or members of the Council, or any person or persons deputed by the Council, may attend such examinations. Section XX of the Act is:

In case it appear to the General Council that the course of study and examinations to be gone through in order to obtain any such qualification from any such College or body are not such as to secure the possession by persons obtaining such qualification of the requisite knowledge and skill for the efficient practice of their profession, it shall be lawful for such General Council to represent the same to Her [His] Majesty's most Honourable Privy Council.

The Council thus has laid upon it the obligation of deciding this point as to the standards of study and examinations. Under the Act of 1858 the voice of the Council alone can be heard by the Privy Council as to this point in regard to the sufficiency or insufficiency of study and examinations. There appears to be no provision in Section XXI whereby the Privy Council can receive evidence or opinions relating to study and examinations otherwise than through the Medical Council.

But in the Act of 1886, Section IV modifies Section XXI of 1858, and is as follows:

"IV.—(1) If at any time it appears to the General Council that the standard of proficiency in medicine, surgery, and midwifery, or in any of those subjects or any branch thereof, required from candidates at the qualifying examinations held by any of the bodies for the time being holding [illegible] insufficient, the General Council shall make a representation [illegible] Privy Council, and the Privy Council, if they think fit [illegible] such representation, and also any objections thereto made by any body or bodies to which such representation relates, may by order declare that the examinations of any such body or bodies shall not be deemed to be [illegible] examinations for the purpose of registration under the Medical Acts; and Her Majesty, with the advice of Her Privy Council, if upon further representation from the General Council or from any body or bodies to which such order relates, it seems to Her expedient so to do, shall have power at any time to revoke any such order.

"(2) During the continuance of any such order the examinations held by the body or bodies to which it relates shall not be deemed qualifying examinations under this Act, and any diploma granted to persons on passing such examinations shall not entitle such persons to be registered under the Medical Acts, and any such body shall not choose either [illegible] or confer jointly with any other body a member of the General Council and [illegible] any) for the time representing such body in the General Council, which under or was exercised by such body collectively, while any other body not subject to an order under this section, be prevented from taking part in the proceedings of the General Council."

Thus the Privy Council must hear and consider "any objections thereto made by any body or bodies to which such representation relates." Does this apply to the sufficiency or insufficiency of the courses of study of Sections XVIII and XX of the Act of 1851, and the first Section of the Act of 1886 is that the Act is to "be construed as one with the Medical Acts." Apparently, regarding courses of study, the Medical Council can only be heard by the Privy Council.

How, then, should the Medical Council proceed in this relalationship which it bears to the Privy Council and the bodies enumerated in Schedule (A)? Obviously its primary duty with regard to the bodies is to inform them as to its opinions regarding the courses and standards of study, and the scope and standard of examinations which each body should as a minimum require. To refrain from doing this would be unfair and vexatious; were it to deny information as to the standards it approves, the bodies in ignorance of its requirements would necessarily act each according to its own judgement; insufficiency here and there might occur, and the Council might be repeatedly reporting to the Privy Council or otherwise would be neglecting its duty. To formulate, therefore, a minimum course of study was obligatory on the Council as one of its earliest duties when it was first constituted, and that duty it performed, and has continued to perform during the 45 years of its existence. It has always set forth a curriculum, which it has amended and extended from time to time with the progress of education and the advancement of medical science. Had the Council refrained from formulating a minimum curriculum, and had it in the absence of such a curriculum made a representation to the Privy Council of insufficiency of study on the part of any body in Schedule (A), it appears probable that the Privy Council would have ordered the Medical Council to lay down forthwith a minimum curriculum of study for the guidance of the bodies. The present action of the Royal Colleges of Physicians and Surgeons of England in refusing to regard the Medical Council's resolutions as other than mere recommendations which they may adopt or ignore, is contrary to the view above expressed as to their duty under the Medical Acts. It seems inconsistent with the conduct of their own representatives on the Council, who always, before the present differences arose, took a large, important, and enlightened share in the formulation of a curriculum.

Clause XVIII of the Medical Act of 1858 reads as follows:—

"The several Colleges and bodies in the United Kingdom mentioned in Schedule (A) to this Act shall from time to time, when required by the General Council, furnish such Council with such information as they may require as to the courses of study and examinations to be gone through in order to obtain the respective qualifications mentioned in Schedule (A) to this Act, and the ages at which such courses of study and examination are required to be gone through, and such qualifications are conferred, and generally as to the requisites for obtaining such qualifications; and any member or members of the General Council, or any persons or persons deputed for this purpose by such Council, or by any Branch Council, may attend and be present at any such examinations."

The Medical Council is to obtain information regarding the courses of study required by, and the standard of the examinations conducted by, the various licensing bodies. It is clear that any registrable qualification is not to be granted after study alone, or after examination alone. Were examination ever to become the only safeguard to the *Medical Register*, it would require to be, as to scope and character, entirely different from any examination that has ever been conducted by any medical licensing authority in the United Kingdom. All the present examinations would be altogether inadequate, as they can only test here and there the knowledge of a candidate. They do no more than merely sample his attainments. A curriculum of study is assumed in the case of every student, he produces certificates that he has spent a prescribed time in the study of a large number of subjects, and in addition that he has given a prolonged attendance at clinical and other practical work. It is on this basis that the examiners investigate his proficiency in any subject. Examination can never adequately guard the portals of the profession where the sources of study have been insufficient. Therefore it is that the obligation is imposed on the Medical Council to regard both study and examination to the extent of securing the possession of the requisite knowledge and skill in the case of every person presenting a qualification which they are to register. If the courses of study of the three science subjects recognized by the English Colleges are unsatisfactory in this respect, then the mere standard of examination cannot supply the deficiency.

The institution of the *Medical Register* was for the protection of the public; only persons of sufficient skill were to be admitted to it. Forty-three years have passed since the first Medical Act became law, and in the interval medical science has advanced at a rate never equalled in the former history of

the world. The first curriculum required by the Medical Council differs greatly from that required to-day. The Council has consequently from time to time increased its requirements. An adequate knowledge of physics and biology is essential in the study of modern physiology, pathology, and bacteriology, as these in turn are essential to medicine and surgery. The new subjects should be studied under conditions not less stringent and exacting than those that apply to the older subjects of the curriculum.

CONCLUSIONS BY THE COMMITTEE.

I. The Medical Council has decided that the scientific institutions other than the universities or recognised medical school, at which the courses of study in chemistry, physics, and biology, may be taken by students as part of their medical curriculum, are to be approved by the Medical Council prior to registration in the *Students' Register* of students commencing their studies at those institutions.

II. The Conjoint Board of the Royal College of Physicians of London and the Royal College of Surgeons of England, notwithstanding repeated remonstrances made to these Colleges by the Medical Council, continues to recognise courses of study in a large number of teaching institutions that have not been approved by the Medical Council, and does not now require evidence of registration in the *Students' Register*, nor that the students shall have passed a Preliminary Examination recognised by the Medical Council, but a Preliminary Examination the recognition of which is determined by itself.

III. The Conjoint Board of the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, although requiring evidence that candidates who present themselves at their First Professional Examination, which includes the subjects of physics, chemistry, and biology, shall have been registered in the *Students' Register*, and thus must have taken the courses of study in these subjects at institutions which have been approved by the Medical Council; nevertheless this Conjoint Board admits candidates to its Second and subsequent Professional Examinations when such candidates produce evidence that they have passed the First Professional Examination of the Conjoint Board of England, and that the regulations of the Scottish Conjoint Board do not require in such cases evidence that the courses of study in chemistry, physics, and biology undergone by such candidates have been so undergone at scientific institutions which have been approved by the Medical Council.

IV. The Society of Apothecaries of London, although requiring evidence that candidates who present themselves at its First Professional Examination, which includes the subjects of chemistry, physics, and biology, shall have been registered in the *Students' Register*, and thus must have taken the courses of study in these subjects at institutions which have been approved by the Medical Council; nevertheless this Board admits candidates to Part II of its Primary Professional Examination when such candidates produce evidence that they have passed the First Professional Examination of the Conjoint Board of England, and that the regulations of the Society of Apothecaries do not require in such cases evidence that the courses of study in chemistry, physics, and biology undergone by such candidates have been so undergone at scientific institutions which have been approved by the Medical Council.

V. The University of Oxford prescribes practically no curriculum of study to be undergone by candidates previous to their admission to the Professional Examinations conducted by that University for its degrees in medicine, nor does it require candidates to have been engaged in medical study for any definite minimum term of years, and it does not require evidence of registration in the *Students' Register*. It asks only that candidates for its second or final examinations for the M.B. degree "must present certificates of instruction in infectious diseases and mental diseases, and of attendance in labours and of proficiency in the practice of vaccination."

VI. The University of London admits candidates to its preliminary scientific examination, which is one of the examinations for the medical degree, altogether irrespective of evidence of study in these subjects at any scientific or teaching institutions. As regards the remaining subjects of the medical curriculum the University of London requires evidence only that five of eleven subjects which it enumerates shall have been taken in universities, schools of medicine, and hospitals approved by it. The University does not require evidence of registration in the *Students' Register*, but it does require that candidates for its medical degrees shall have been engaged for five years in medical study subsequently to their having passed their matriculation examination, and four years subsequently to having passed the Preliminary Scientific Examination.

VII. The University of Durham requires only one of the five years of professional education to be spent at the College of Medicine, Newcastle-upon-Tyne, and the Newcastle Royal Infirmary. The other four years of the curriculum may be spent either at Newcastle or at one or more of the schools recognised by the licensing bodies named in Schedule A of the Medical Act of 1858. The University therefore recognizes courses of study in physics, chemistry, and biology which have been undergone in teaching institutions recognized by the Conjoint Board of England, many of which institutions have not been approved by the Medical Council. The Calendar of the University does not state that registration in the *Students' Register* is required.

RECOMMENDATIONS BY THE COMMITTEE.

The Committee recommends the Medical Council to adopt the following resolutions:

I. That many courses of study in the subjects of physics, chemistry, and biology are accepted by the Conjoint Board (constituted terms of Section III, Subsection (i), paragraph (*b*), of the Medical Act of 1886) of the Royal College of Physicians of London and the Royal College of Surgeons of England as parts of the curriculum to be gone through in order to obtain the respective qualifications of these bodies, which qualifications are mentioned in Schedule (A) of the Medical Act, 1858, and admit to the *Medical Register*: and that these courses of study of chemistry, physics, and biology, pursued at institutions which are not universities or recognized medical schools or scientific institutions approved by the Medical Council, do therefore not secure that the persons who pursue such courses of study, and who afterwards obtain the qualifications of the Royal College of Physicians of London and the Royal College of Surgeons of England, possess the requisite knowledge and skill for the efficient practice of their profession.

II. [A resolution in similar terms having reference to the Royal Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow.]

III. [A resolution in similar terms having reference to the Society of Apothecaries of London.]

IV. That, as the University of Oxford grants its medical degrees after examination only, and without evidence that any courses of study in the subjects of the curriculum laid down by the Medical Council have been undergone by candidates for these degrees: the possession of such degrees, which are qualifications admitting to the *Medical Register*, does not in terms of Section XVIII of the Medical Act of 1858 secure that the persons holding the degrees possess the requisite knowledge and skill for the efficient practice of their profession.

V. That the attention of the Governing Body of the University of London, which is at present engaged in framing regulations under the new constitution of the University, be directed to the requirements of the Medical Council regarding the medical curriculum, and to Clauses XVIII and XX of the Medical Act of 1858, which impose on the Medical Council the duty of insuring that the courses of medical study pursued by candidates for a registrable qualification shall be sufficient to insure along with an adequate standard of examination that the persons who obtain the qualification shall possess the requisite knowledge and skill for the efficient practice of their profession.

VI. That the University of Durham, by recognizing all the courses of study which are recognized by all the licensing bodies in Schedule A of the Medical Act, 1858, accepts many courses of study in the subjects of physics, chemistry, and biology which have been recognised by the Conjoint Board of England, but have not been approved by the Medical

Council, as parts of the curriculum to be gone through in order to obtain the medical degrees of the University, which are qualifications mentioned in Schedule (A) of the Medical Act of 1858, and admit to the *Medical Register:* and that these courses of study of chemistry, physics, and biology pursued at institutions which are not universities or recognized medical schools or scientific institutions approved by the Medical Council do not secure that the persons who pursue such courses of study, and who afterwards obtain the medical degrees of the University of Durham, possess the requisite knowledge and skill for the efficient practice of their profession.

VII. That the President be requested to communicate the foregoing resolutions of the Council to the licensing authorities to whom they respectively refer, and that the President be further requested to call the earnest attention of these bodies to the obligation under which the Council will be placed in November next, to represent to His Majesty and His Most Honourable Privy Council in terms of Section XX of the Medical Act of 1858 the insufficiency of the courses of study required by these bodies from candidates who seek their registrable qualifications, and to express the hope that when the Council meets in November it shall receive assurances from these bodies that they will give effect to the Council's requirements as to courses of study and curriculum, and thus relieve the Medical Council from the necessity of making any such representation.

VIII. That the University Courts of the Scottish Universities be requested to frame new Ordinances, by which the provisions of Clause X of the present Ordinances, which permit that in certain cases the full period of the medical curriculum may be four years only, shall be abrogated, and that the new ordinances shall provide for a five years' medical curriculum being in all cases required.

IX. That the Education Committee shall in future be designated the Education and Curriculum Committee, and that in addition to its present duties the Committee shall report annually to the Medical Council regarding the curricula of the licensing bodies.

MINORITY REPORT.

A minority recommended:

I. That the Committee, having considered the numerous differences in detail as to the courses of professional study required by the several qualifying bodies, are of opinion that, even if it were desirable, it is impossible to obtain absolute uniformity, and recommends the Council to withdraw its late resolution requiring the approval by the General Medical Council of the scientific institutions recognised as places of study by the qualifying bodies.

II. The Committee is of opinion that the powers claimed by the Council in this particular do not exist.

The Council also had before it the following opinions expressed by Mr. Muir Mackenzie, and dated February 22nd, 1902:

REPRESENTATION TO THE PRIVY COUNCIL: OPINION.

The first question in which, as I understand, my opinion is desired is whether, in the case of one or more of the licensing authorities, if the General Council takes no exception to the qualifying examination prescribed by the Medical Act, 1886, and the standard of proficiency required from candidates at those examinations, the General Council can nevertheless, if dissatisfied with the course of study prescribed and accepted by such licensing authorities, represent to the Privy Council that the course of study is defective[1] within the meaning of Section XX of the Medical Act, 1858.

On this question my opinion is as follows:

The enactments in the Medical Act, 1886, do not supersede the enactments in the Act of 1858. Both sets of enactments are to be read and applied as if they were contained in one Act. The Legislature has not made examination the test, and the only test of the possession by a candidate for admission to the medical profession of the necessary knowledge and skill. Although in Sections XVIII and XX of the Act of 1858 the words used are "courses of study and examinations," it will be observed that in Section XXI of the Act the words are "course of study or examinations, or the mode of conducting such examinations." Again, in Section XVIII of the Act, the Colleges and bodies mentioned in it are required to furnish information as to the ages at which courses of study are to be pursued, and generally as to the requisites for obtaining the qualifications. In my opinion the Legislature has recognized and had regard to the principle that mere examination cannot be a sufficient test of professional knowledge and skill if the courses of study have been insufficient, and if in the opinion of the General Council the courses of study required by one or more of the licensing authorities are defective, the General Council can no represent to the Privy Council, notwithstanding that the General Council makes no representation on the subject of the examinations.

2. The second question is this:—If one of the licensing bodies accepts as part of the course of study required from a candidate a course of study pursued in particular subjects at another institution, then, if the General Council does not approve of the institution as a teaching body, can the General Council represent to the Privy Council that the course of study of the licensing body is defective?

On this question my opinion is, that if the General Council is of opinion that the teaching and course of study in the particular subjects at the institutions whose courses of study are accepted by the licensing body are inadequate and defective, then the General Council would be within its powers in representing to the Privy Council that the course of study required by the licensing body is defective. So if one of the licensing bodies fails to exact from its candidates a sufficient or adequate course of study and teaching in particular subjects, such as chemistry and physics, the Council would be within its powers in representing to the Privy Council that the course of study required by the licensing body is defective. But in a case in which the ground of objection by the General Council to the course of study required by a licensing body is that the teaching and course of study in special subjects at a particular school is accepted as part of the licensing body's curriculum, the Council could not properly make a representation to the Privy Council unless satisfied that the teaching and course of study at the school is in fact defective.

3. The third question is as to the powers and procedure of the Privy Council, as to which my opinion is as follows:

The Act of 1858 empowers the Privy Council, upon the representation of the General Council, if it see fit, to order that the qualification granted by a licensing body shall cease to confer a right to be registered. For the purpose of exercising this power the Privy Council would not be confined to considering the facts and views presented by the General Council. The Privy Council would have power, and in accordance with the procedure which it generally adopts would hear the licensing body or bodies of whose courses of study complaint is made, and would not make an order depriving or suspending the qualification of the body from admission to the *Register* without being satisfied that the complaint that its course of study was defective was substantially justified.

The fourth question is substantially as to the extent of the duty and power of the General Council as to prescribing a curriculum or course of study which each licensing authority is to observe.

On this it will be observed that the enactments in the Medical Act of 1858 do not direct the General Council to prescribe courses of study, or (still less) to prescribe that every licensing body is to require as a minimum a specially defined course of study. The provisions of the Act leave each licensing body to prescribe its own course of study, the duty and power of the General Council being to exact information as to the courses of study and examinations, and to depute members of the Council and other persons to attend the examinations. It follows that the General Council's statutory duty is, strictly speaking, limited to requiring defects in the courses of study to be made good to the Council's satisfaction, and improvements, which the Council can specify, to be made in the courses of study and examinations. A licensing body which declined to adopt in all respects a curriculum prescribed by the General Council would not, in my opinion, be deprived by the Privy Council of the right to have its qualifications admitted to the *Register* if it could establish to the satisfaction of the Privy Council that its prescribed curriculum was nevertheless not defective.

5. The fifth question has regard to the particular licensing bodies mentioned in the Committee's report, on which my opinion is as follows:

The cases of the University of Oxford and the University of London are simple. In effect these universities do not require any special course of study of the nature which in the General Council's opinion a candidate for a qualification ought to be required to pursue. Clearly, the General Council can make a representation to the Privy Council in relation to these universities, unless effectual provision is made by those universities, to the satisfaction of the General Council, for the improvement of the courses of study required by the universities. As regards the other licensing bodies, the question relates in principle to the acceptance by each licensing body as part of its prescribed curriculum of a course of teaching or study at an institution of which the General Council does not approve. As I have already stated, my opinion is, that if one or more of these bodies directly or indirectly accepts as part of the course of study required by a candidate for its qualifications a certificate that the candidate has pursued a course of study at another teaching institution, then if the General Council is of opinion, on sufficient grounds, that the teaching and course of study at the teaching institution is inadequate and defective, the Council can represent to the Privy Council that the course of study of the licensing body is defective: but it would be for the Privy Council in the exercise of its uncontrolled discretion to decide if, and if so to what extent, effect should be given to the representation.

M. MUIR MACKENZIE.

The following question had also been submitted by the Curriculum Committee:

Should the Medical Council be of opinion that a licensing body, whose qualification or qualifications admit to the *Medical Register*, accepts courses of study pursued by candidates for its qualification or qualifications, which courses of study do not, in the opinion of the Medical Council, secure that the candidates who have undergone them and who, after passing the qualifying examination of the licensing body, receive its registrable qualification or qualifications, shall possess the requisite knowledge and skill for the efficient practice of their profession, is the Medical Council empowered to represent to His Majesty and to His Most Honourable Privy Council that the qualifications granted by the licensing body are not such as to secure that that the persons who receive them possess the requisite knowledge and skill for the efficient practice of their profession?

Mr. Muir Mackenzie's opinion, dated February 22nd, was as follows:

[1] I propose to use the single expression "defective" to avoid repetition of the longer words in the Act, "not such as to secure the possession by persons obtaining such qualification of the requisite knowledge, etc.

My opinion is that the General Council can, if necessary, dissociate courses of study from examinations, and in the case above described can represent to the Privy Council that the courses of study to be gone through by candidates for the qualification of the licensing body are not such as to secure that the persons who receive the qualification possess the requisite knowledge and skill for the efficient practice of their profession.

Mr. Victor Horsley pointed out that the report was not correct inasmuch as the minority report was not signed by the authors of it, which he thought was the most satisfactory thing to do.

Dr. Norman Moore, as one of the minority, said the present form was adopted because it was thought the chairman of the committee was the authority for the truth of what was presented to the Council, but both he and Mr. Bryant would be quite willing to append their names to the minority report if it was considered the proper form.

The President said it was understood that various corrections and emendations referred to would be given effect to, and that Dr. Norman Moore and Mr. Bryant should sign the minority report.

Moved by Dr. McVail, seconded by Mr. Young, and resolved:

That the report as amended be received and entered on the minutes.

On the motion of Dr. McVail, seconded by Mr. Young, the earlier part of the report was taken as read.

The President called the attention of the Council to two opinions that had been given by Mr. Muir Mackenzie: (1) With regard to the curriculum; (2) the representation to the Privy Council. These two legal opinions had a very important bearing on the report and on the discussion which would take place on it, and it was felt that, though they were marked "strictly private and confidential," they should form a part of the papers before the Council and of the report that they were about to consider. He proposed that the opinions should be printed with the report and as an appendix to it.

This was agreed to.

Dr. McVail said he would put the views of the majority of the Committee before the Council, leaving the minority to state their own case. Nearly twelve years ago the Council by general consent decided on a five years' curriculum, and decided, moreover, that physics and biology should be added to the curriculum. There was no disapproval expressed by any representative of the Licensing Boards to the action of the Council. Three years afterwards the Medical Council saw fit to stiffen its regulations. The matter was referred to the Education Committee, which Committee submitted a full report and recommended to the Council that it should codify its requirements regarding medical study. The Committee explained that the requirements should be such regulations as the Council would be prepared to submit to the Privy Council under Section xx of the Act of 1853. These requirements related exclusively to study, and the Council therefore assumed with regard to study alone that if it were insufficient they could so represent to the Privy Council whatever the examination might be. The Committee's report was adopted by the Council, and the Council codified its requirements with regard to study. That was in 1893. He need not refer to the dispute which took place between the Royal Colleges and the Council as to the time when these studies should be taken up, because the Council had given way on that point. Nothing of special moment occurred till the year 1898, when the Council was made aware of the fact that the Conjoint Board of England had been recognizing a large number of teaching institutions as places where study in chemistry, physics, and biology might be taken, many of them being grammar schools. This information came to the Council in the form of a letter from the Secretary of the Royal College of Surgeons in Ireland, sent on behalf of that body. The Education Committee looked into the matter, and reported to the Council that a very great number of schools of various descriptions were recognized by the Royal Colleges, some of which the Royal Colleges had not inspected, but had been content with the inspection of the Science and Art Department. The Council very decidedly, but courteously, expressed its opinion, and requested the Royal Colleges to reconsider their position. This the Royal Colleges refused to do. The General Medical Council then decided that the institutions must not only be recognized by the bodies individually, but also by the Council; that was to say, the institutions where these subjects were taught other than universities or recognized medical schools. The Royal Colleges refused to recognize any right of approval on the part of the General Medical Council, and, not only that, but they stated that the Council had no power whatever to make resolutions or requirements of any kind that were necessarily binding on the bodies; that the bodies might consider those resolutions, and, if they thought fit, give effect to them, but if not they might disregard them. That was a new feature in the case. It was no longer merely a refusal to submit for approval to various institutions, but it was a decided expression of opinion that the Council had no power whatever over the medical curriculum that any body in Schedule (A) might choose to adopt. Then came what was certainly one of the most important resolutions that the Council had ever passed. It, in effect, refused to admit to the *Students' Register* students who took the course at institutions of which the Council had not itself approved. That was a very decided and strong step, and a step which he thought the Council never contemplated having to apply to any licensing body. The next step was that the Royal Colleges absolved the students from the necessity of being admitted to the *Register*. A further step was that the preliminary examination to be passed by the candidates should no longer be a preliminary examination approved by the General Medical Council, but one approved by the Conjoint Board or the constituent bodies of the Conjoint Board. The English Colleges had thrown off every shred of dependence upon the General Medical Council, and had acted as if the Council did not exist at all. That was the position of affairs at this moment. The point was, Were they to be bound with regard to the curriculum by the requirements of the General Medical Council, or was the English Conjoint Board to act entirely outside the Council's requirements? Another most important letter came from Trinity College, Dublin, in which they stated quite distinctly that owing to the manner in which the Council had permitted the English Conjoint Boards to act, they (Trinity College) in future would only consider the interests of medical students in Ireland without reference to that Council. It was no wonder that the General Medical Council found it necessary to have the matter settled, and hence the Committee was appointed. That Committee had drawn up a report which stated accurately and with perfect fairness the position of the General Medical Council with regard to licensing. He thought many members of that Council when the report came to their hands would be astonished to find how widespread was the non-uniformity of the bodies with the Council's requirements. This was a state of affairs which the Council should have looked into long before. Why should the University of Oxford, for instance, be allowed to go on so long without any remonstrance whatever? The General Medical Council had never made any communication on the subject to the University of Oxford. It was quite true that that University stood in a very peculiar position, because until comparatively lately it was not a medical school. It had been spoken of a number of years ago in the medical journals as a lost medical school, but now the University of Oxford was becoming a medical school and would shortly be one of extreme importance in the country. As regards the University of London that was being reconstituted, and the General Medical Council should certainly draw the attention of that University to the requirements of the Council. If the Conjoint Board of England were at one with the Council, the differences so far as regards the Scotch Conjoint Board and the Irish Conjoint Board would disappear. Not one of these bodies, with the exception of the English Conjoint Board, had directly declared that it would not in any way be bound by the requirements of the Council. Not one of these bodies had stated that the Council had no power to bind them. The question was what was to be done. That involved the question as to what the powers of the Council were. Had the Council any authority at all over these bodies, or had it not? If it had no authority over these bodies what an immense amount of time and money had been wasted in past years. On his reading of the Act there was not the slightest doubt as to the Council's power. The Council was

the supreme body so far as indicating to the bodies what the minimum requirements should be. The Council was not to dictate uniformity to the bodies, but it was to see what was the least of each subject that was necessary to insure that the student should know when he got his diploma to practise his profession. This the Council was entitled to lay down. If they decided that a course of study was insufficient to secure a man being competent to practise his profession, they had to go to the Privy Council with that representation, and they had nothing to do with what the Privy Council might do. They had simply to do their duty: it was then for the Privy Council to do as it saw fit. It was said that the Privy Council might snub them; but that they had nothing to do with. They had to do their duty, and to represent when they were satisfied that the course of study was insufficient. They were satisfied, for they had directed their registrars not to register these students in the *Students' Register*. They had already expressed an opinion openly to the profession and to the public. They had publicly decided by a large majority that these courses of study were insufficient. After referring to the opinions given by Mr. Muir Mackenzie, he said in his opinion the Council had quite wrongly refrained from inspecting the earlier medical examinations since the passing of the 1868 Act. Prior to that Act they were inspected. The Act of 1868 compelled them to inspect examinations.

The President said the 1860 Act compelled them to inspect the qualifying examination. He thought Dr. McVail should expand his statement a little.

Dr. McVail said he would expand it by saying the qualifying examination, excluding the examination in biology and chemistry. This had been ridiculed by some. The qualifying examination in medicine and surgery was an examination in everything that the General Medical Council deemed necessary to secure that the person put on the *Register* should have sufficient knowledge to practise. That Council had itself decided to have a visitation of the examinations in physics and chemistry, but it had never taken place, though he did not know why. He did not know whether the gentlemen who ridiculed the idea were on the General Medical Council at the time or not, but nobody for a moment raised a question as to the power of the Council to inspect—not merely to visit, but to appoint an inspector under the 1886 Act. Why the inspection did not take place he could not tell. He thought it was most unfortunate that it did not.

Mr. Brown wished to call Dr. McVail's attention to the fact that they did inspect such examinations in the Apothecaries' Hall, Ireland.

Dr. McVail, referring to the following passage from Mr. Muir Mackenzie's opinion,

> But in a case in which the ground of objection by the General Medical Council to the course of study required by a licensing body is that the teaching and course of study in special subjects at a particular school is accepted as part of the licensing body's curriculum, the Council could not properly make a representation to the Privy Council unless satisfied that the teaching and course of study at the school is in fact defective,

asked if that meant that before they could guard the public against persons being improperly put on the *Register* they would have to go and inspect every one of the schools of the Royal Colleges of England. If it meant that, it was absurd, and was perfectly preposterous. Were they a living body or a dead body? could they do their duty or no? was there a defect in the Act? If there was, the sooner the Privy Council were made to understand it the better. They had no power to inspect, and the bodies could refuse to be inspected. He did not think there was any need at all for such a thing. How were they to ascertain the position of affairs as regards study in connexion with the various licensing bodies? Were they to do it by making inquiries and then, having got answers, were they to control all the conditions? On looking at the regulations, they found there was a very considerable difference between the subjects of the first examination and the second examination. The subjects of the second examination and the final examination were very serious. With regard to the subjects of the first examination, there was no information given to the student as to how many hours he was to study. He was to do during a year physics, chemistry, biology, and pharmacy altogether, and there was not a word saying whether the whole of those subjects might or might not be taught by one man.

Dr. Norman Moore said the Royal Colleges required that he should be taught by separate teachers. There was no doubt about that; they had always required it.

Dr. McVail said that a boy might be out of work a great part of the time but still present his certificates if they were signed. They knew now that they did not know the conditions of these Colleges with regard to those subjects. It was on that that they wanted information. The examination papers of the Royal Colleges would give them some information regarding the routine and standard of the course of study. In the paper of the quarterly examination of the Conjoint Board for the year 1900, which was published at the instance of the Conjoint Board of the Royal Colleges, physics were not mentioned except as chemical physics. Two questions were set in chemical physics, and the student was not required to answer more than one. As regards the day schools, there were no written questions at all on biology. They knew, of course, that an examination in such a subject as biology could not be conducted without written questions. He held that they had quite sufficient information with regard to the course of study, and that the General Medical Council was right to order its registrars to cease to receive the names of such students. It was right then and it was right now to still refuse to admit to the *Register* such students. The report proposed that they should capitulate or rescind the resolution. That was a very simple way out of the difficulty, but that would be going back on its work for the past twelve years. If it would not do that what could it do? It could do nothing but fulfil its duty under Section xx. A great deal had been said about the rights of ancient charters, and that they were interfering with the rights of the Colleges. In Glasgow the Faculty of Physicians and Surgeons had the monopoly of several counties. That had been swept away by the Act of 1850. The Royal College of Edinburgh had the monopoly of several counties, but the establishment of the Imperial *Register* had swept that away. All such rights that any one had under any charter which conflicted with the Medical Act of 1858 had disappeared, or could only be exercised in conformity with the Medical Acts. No doubt some of those charters were very old, but that did not concern them in doing their duty. They did not willingly trench on any rights except so far as the public service required it. Their duty was the care of the *Medical Register*. They were not to admit men on to the *Register* who were unfit to be admitted, and they were not to retain on the *Register* persons who should not be on it. The whole supervision of study and examination was necessarily included in this: Should they perform their duty to the public or should they not? They must come to a decision at that meeting, because the other bodies were waiting. Other bodies thought that there might be certain improvements in the course of study. They came there to discuss the matter, and, whatever their individual opinions might be, most of the bodies had done what the Council decided they should do. If the greatest licensing bodies in this kingdom were to be allowed to flout the Council by telling it that it had no power to lay down rules and regulations which those bodies were bound to observe, other bodies must be left quite free, and they would all be acting independently of one another—which was the position that existed before the passing of the Act of 1858. Under the Act of 1858, if the General Medical Council chose to go to sleep, the Privy Council itself could do nothing at all. Some of the members at that table would remember that as far back as 1875 and 1876 there began to be very general dissatisfaction with the work of these bodies. The reports of the Army and Navy Examining Board were very unfavourable to the men who had been admitted to the *Register*. Some were admitted on surgical qualifications without having passed in medicine, and some in medicine without having passed in surgery. The public and Parliament took the matter up, and it resulted in a Bill being passed in 1877, and another in 1883. A man who had passed the examination carried on by the examiners of the Scotch Board, or the English Board, or the Irish Board, was entitled to be registered without any diploma whatever. He was a registered medical practitioner. He could go to the College of Surgeons or the University and get a diploma, and

provision was made for his registration. That was an extreme course, but that was really what the Bill of 1883 amounted to, and this Council was to be reduced greatly in importance. It was interesting to know how that Bill of 1883 came to be wrecked, but it did not concern them at that moment. The Bill of 1884, which was a less drastic Bill, was wrecked also, and then finally came the Bill of 1886. That Bill compelled them to inspect examinations. By the Bill of 1858 they were only empowered to do that, not compelled. He urged the Council to seriously consider the position and to take some definite action, otherwise, unless some definite steps were taken, every body would be acting as it liked regardless of the Council's regulations, and this Council, which had to supervise medical education, would be practically defunct. In conclusion, he moved the adoption of the report down to the end of the conclusions.

Mr. Young formally seconded the motion, reserving any observations he might desire to make to a later period.

Dr. Norman Moore thought Dr. McVail had given such a full account of the proceedings of the Committee, which met twice, and the Council paid such close attention to it, that he ought first of all to begin by thanking him for the great consideration which he had shown to the opinions which were entirely different from his own on that Committee. The minority on the Committee received every possible consideration, and were as considerately treated as could be, and no attempt was made to slur over their objections; and he himself—and he knew Mr. Bryant took the same view—considered that they sat on the Committee not as representatives of their respective Colleges, but as members of the Council. He ventured to think that the report in itself formed a much more seemly document than as it originally appeared before the Committee, which was largely due to their exertions, and also due to the view which Dr. McVail took with regard to this subject. He considered that Dr. McVail in his extremely able speech had put his case with all the force with which it was capable of being put, but there were several chance remarks which he thought ought not to be entirely passed over. He had spoken of the English Conjoint Board, meaning, of course, the Royal Colleges, defying the Council. In his opinion that was not a word which should be used in this connexion. The Royal Colleges would not write any letter or issue any manifesto which would do that. If their opinions differed from those of the Council, that was no reason why the word "defiance" should be applied to their action. They differed from the Council for reasons which they were prepared to state. They received the reasons of the General Medical Council with the utmost respect, and they expected the General Medical Council to receive theirs with equal respect. Then he spoke about the General Medical Council being satisfied that the course of study was insufficient. How could they tell that a particular course of study was insufficient? Surely it must be a matter of observation; it must be a matter of study; it must be a matter of inquiry in all cases. Dr. McVail thought that on a question of principle the Colleges ought to throw doctrine to the winds, and in that he followed him. The Council ought to consider this point, and before it said that these schools were improper places of education—and here again he objected to his insinuation that bad schools would do one thing and good schools would do another—or that their course was insufficient, that that must be determined by personal observation. If the Council doubted the Royal Colleges, it was competent to investigate the whole subject, but unless it had investigated the whole subject, he (Dr. Norman Moore) maintained it had no right to assert, on the general theory that a secondary school was not a proper place of education, that their curriculum was insufficient. They did not think it insufficient at all, because they had examined these schools. The Council was not on an equal footing with the Royal Colleges until it had the same materials for forming an opinion which they had. He besought the Council, in the most earnest possible way, to clear its mind from all insinuations, and to hear the case exactly as it was put before. Let them hear no more about School Boards and so on. All this study must be after the preliminary education was passed. There was no practical difference between the schools the Council recognized and the schools the Royal Colleges recognized. He was not asking for victory. He believed the course the Colleges had taken was the best course; but he wanted to be criticized in the fullest possible way, and he implored the Council therefore to get rid of the idea as to the boys and so on, in regard to which several passages had been omitted from the report and he thought wisely. Dr. McVail made a great point as to the students who had passed preliminary examinations in arts who might go up once a fortnight and so on. He quite agreed with Dr. McVail, and he was certain that it was the right principle, that in medical education the curriculum as well as the examination should be considered together, and that for a student to pass a definite examination as far as it went was a security for his giving a sufficient time for the study of that curriculum. Another security was his place of study, and ascertaining that his teacher was a proper man and also that his laboratory was properly equipped. The argument that students in their first year might possibly spend part of their time in some other way than the study of physics, chemistry, and biology, he did not think was a fair argument, and he maintained that the curriculum must be taken side by side with the examination. A reference had been made to charters and Acts of Parliament. When he (Dr. Norman Moore) made those allusions, what he wanted to convey to the Council was that the Royal Colleges were not doing any new thing when they arranged their curriculum for their licence; but no comparison could be made with regard to the charters, because their charters were confirmed by Act of Parliament, just as were the charters of the General Medical Council. Dr. McVail had put the Council in this dilemma. He said the whole power of the Council would be gone if you do not go to the Privy Council. He (Dr. Norman Moore) felt very reluctant to say anything about that, because he might be thought to be deprecating that course. He did not do anything of the sort. The Royal Colleges courted investigation. The system they had adopted they believed to be absolutely sound. They had the most profound respect for the opinion of the Council, and would like to support it in every way; but upon this point they thought the Council was wrong and they were right, and therefore as they had a duty to perform they must perform it, and for that reason he would not deprecate the matter being reported to the Privy Council, because he did not believe the Privy Council would deprive the Colleges of the power of granting their licence. The Council as a body endeavoured to discharge the duties which were cast upon it by various Acts of Parliament. This report suggested that the most celebrated modern University of England granted to persons who had not the requisite knowledge and skill its licence to practise their profession, and it stated that the chief licensing bodies—and in saying "chief" he did not claim supremacy at all, granted their licence upon an insufficient qualification to persons to practise, with an insufficient knowledge, their profession. Did these propositions commend themselves to the Council? Did the Council seriously believe that the University of Oxford, that the Royal College of Physicians of London and the Royal College of Surgeons of England deliberately granted the power to practise to persons who had not the requisite knowledge and skill? Surely there was something wrong in that statement. The words and argument seemed to hang together; but there must be some logical flaw in it, and it was not a conclusion to which they ought to be driven. That brought him to the point, What was the difference between the Council and the Royal Colleges? The Council did not assert that the final examination in surgery, medicine, and midwifery was not all that it should be, and Dr. McVail had not uttered a single word against it. A suggestion had been made, but such a suggestion ought not to have been made with that inspection, and he did not think they had any right to suggest that the first examination was insufficient. Therefore the question narrowed itself down to this: The Royal Colleges' opinion as to the curriculum in the first year differed from that of the Council. How did it differ? The Royal Colleges thought that the students should study chemistry, physics, and biology. He admitted that there was a little difference as to the range of the physics. That was a point on which there was a great deal of room for discussion, and he did not for a moment say that the Royal Colleges were right on that point. As a

matter of fact, that subject had been discussed more than once. Some lines ought to be drawn between putting too big a burden and too little a burden on the medical student's back. The Royal Colleges had only one desire, and that was to settle the question in the best way for medical education, and if the General Medical Council pointed out to them that their examination was defective in any particular, in that respect they would at once endeavour to make it effective. They desired a year to be spent in these studies; so did the Council. The studies were practically the same. The only difference was that with regard to some students the Royal Colleges allowed the studies to be pursued at institutions which, after inspection, they were convinced were sound places of study, and there was no other difference whatever. They agreed that they should pass the same preliminary examination in Arts, and that the study should not begin until after that had been done. That was the whole point. If the Council wished to take the steps suggested, he thought they ought to thoroughly go into the question, and see if its views were sound and inspect these places, and then it would be able to judge if the Royal Colleges were doing anything contrary to the best interests of medical education. In conclusion he maintained that they had only one object, and that was to make the study and the examination in the requisite subjects as thorough as they possibly could be.

On the motion of Dr. PAYNE the debate was adjourned until the next day.

Wednesday, February 26th, 1902.

Sir WILLIAM TURNER, President, in the Chair.

REPORT OF SPECIAL COMMITTEE ON CURRICULUM.

The minutes of yesterday's meeting were read and, as amended, approved.

On the motion of Dr. MCVAIL, seconded by Dr. NORMAN MOORE, it was resolved that a memorial received from a number of lecturers and teachers of science in England on the subject of the curriculum should be entered on the minutes.

Dr. PAYNE resumed the debate on the motion of Dr. MCVAIL and Mr. YOUNG:

That the report to the end of Section V "Conclusions" be adopted.

He expressed his surprise on first reading the report at the references contained therein to the University of Oxford. That University was not one of the licensing bodies referred to in the reference to the Committee. The reference was with regard to two well-known bodies, although they were not mentioned by name. He maintained that there were no differences existing between the University of Oxford and the General Medical Council; and therefore he contended that the whole of the references in the report to the University were out of order, and ought never to have appeared in it. The Committee, in considering one institution, might take into account certain facts relating to other institutions, and to quote those facts in illustration of the subject they were discussing. When that part of the report came on for consideration which dealt with the recommendations, he should urge that the Committee was not entitled to recommend the Council to take any particular action with regard to any licensing bodies other than those specially alluded to in the reference.

Dr. MCVAIL referred Dr. Payne to the minutes, where he would find that the Education Committee did deal with the University of Oxford.

Dr. PAYNE pointed out that, although the Education Committee had reported to the Council, yet there was no record that the Council had passed any resolution or taken any action in consequence of their report, he presumed because the Council did not think the point reported upon was one requiring special attention. The Committee was appointed to report upon a certain dispute which had arisen between the Royal Colleges and the Council. After a great many years without any complaint, and with the appearance of the continuance of harmony existing between the constituent bodies of the Council and the Council itself they found resolutions suggested, the passing of which, if not upon legal grounds, at all events on grounds of equity and reason, he deprecated, as the Council would be bound, if they were adopted, to take action in consequence of those resolutions. Upon these grounds it would be a most discourteous and improper act for the Council to proceed to any action in the matter practically without any warning, because, regarding the report as private and confidential, he had not apprised the Council of the University of Oxford of its contents, and therefore what he said was entirely on his own responsibility. He then proceeded to traverse the various statements contained in the report, which he maintained were not warranted by the facts. The University had taken active steps to concur with the views of the General Medical Council with regard to the *Register*, and all medical students entering at Oxford were advised to register. It was perfectly true that they did not require registration as a condition precedent to the granting of a degree; that would be a change of a most fundamental character. The Committee seemed to think that the General Medical Council ought to require that all students should be registered at the office of the Council; but could the Council go to the Privy Council and say a certain qualifying body was defective beeause it did not require students to be registered? The regulations of Oxford University were framed and adopted at a time when the late Sir Henry Acland was President of the General Medical Council, or immediately after that event, and was it likely he would be party to regulations which he would know contravened the requirements of the General Medical Council? But whether the regulations were right or wrong, they certainly had not given rise to any dispute or variance between the University and the General Medical Council. The University had a right to judge in matters of that kind, not only on theoretical grounds, but on the ground of what would be best under all circumstances. He was prepared to say from his personal experience and knowledge that the teaching afforded at Oxford was at least as high as that afforded by any qualifying body in the United Kingdom.

Sir CHRISTOPHER NIXON said after what they had heard from Dr. Payne with reference to the University of Oxford he thought the Council would be very unwise to exercise its power in maintaining a uniform minimum of examination, if it were satisfied that a very much higher standard of education was maintained than was laid down by the Council in its requirements and regulations. Their duty was to see that the students were duly educated, in order to enable them to practise the profession of medicine. If they were satisfied that a body like the University of Oxford had a higher standard than was laid down by that Council, it was not a wise thing to interfere by vexatious restrictions in dealing with that body. This led him to direct attention to Regulation No. 6.

The PRESIDENT asked Sir Christopher Nixon to speak generally, and not take up the recommendations with reference to any individual body.

Sir CHRISTOPHER NIXON said he would take up the recommendation with reference to two bodies. He maintained that it was a most extraordinary act on the part of the Committee to recommend the President to write an official communication to, amongst other bodies, the University of Oxford and the London University. He believed the first communication which had ever been directed to those bodies from the General Medical Council was in connexion with the curriculum, and instead of courteously asking those bodies to comply with their regulations it went much further, and told them that if they did not do so by a certain date the Committee would report them to the Privy Council. The original contention between the Council and the Royal Colleges was the recognition of certain scientific institutions. The Council had been accepting the scientific bodies recognized by the Colleges up to the point when their attention was directed to the matter by the letter of the College of Surgeons in Ireland. Then it was distinctly laid down that certain of those scientific institutions which were recognized by the Royal Colleges did not come up to what they considered to be a sufficiently high standard, and an order was issued that none of those scientific bodies would be adopted except they were approved of by the Council. Then the question of the efficiency of the course of study came into consideration. It was not merely a question of a scientific institution itself, but it was a question as to the course of studies, and the efficiency of those studies, without the Council having any information to enable it to decide whether the courses of study

were efficient or not. He wished to compliment Dr. McVail on the able and statesman-like manner in which he had introduced the matter, but at the same time his speech conveyed somewhat of an air of unreality, and he asked himself, Was the question really the recognition of a certain number of scientific institutions by the Royal Colleges not recognized by the Council, or was the real question the powers of the Council to deal with the matters in dispute in relation to medical education? It occurred to him that this was not the psychological moment to determine their powers. Reviewing the whole matter calmly, there seemed to be faults on both sides. The Council had undoubtedly been in error. It at once jumped to the conclusion that it would not recognize certain institutions which had been recognized by the Colleges. What information had the Council before it to show that the teaching in the institutions which it refused to recognize was not efficient? The Council had not inspected nor received any reports of the inspection, yet in the absence of information on that point the Council proposed to go to the Privy Council, saying that the bodies in question were acting illegally. On the other hand, the Royal Colleges, whose intellectual aid and co-operation had helped to build up the commanding position of influence which the Council held in education and in the profession, could hardly be said to have treated the Council with the amount of consideration which was expected from them. This was shown by their own memorandum. He would ask whether the question that had arisen with reference to the recognition of the teaching of certain scientific institutions was sufficiently grave to bring before the Privy Council. He did not dispute that they had the power to do it, and to deal with medical education in its broadest degrees. Although they had this power, it ought not to be exercised with giant's strength, but with moderation. Had they a sufficiently strong case against the Royal Colleges to lay before the Privy Council that those bodies were not acting up to their standard of efficiency of teaching. There must be mutual concession, and the Royal Colleges had gone a long way in this direction, which was a fact that had not been fully realized. By a motion that was lost at the last Council meeting it would seem that a considerable proportion of the members were in favour of putting those subjects which were now a matter of contention between the Colleges altogether outside the medical curriculum. With regard to the recognition of scientific institutions apart from medical schools by the Council, it was known that in connexion with medical schools and the universities certain specific requirements were laid down with regard to the teaching in chemistry, physics, and biology. Students were empowered to take a set course of lectures given on so many days per week during the winter and summer sessions, but there was no obligation for certificates of attendance at lectures on chemistry, physics, and biology. Having conceded that point, it was very difficult to understand the action of the Council in drawing a sharp line of demarcation between the bodies that it approved and those that it did not approve of. He wished to acknowledge the conciliatory tone of the speech made by Dr. Norman Moore, and also the loyalty which he referred to of the action of the Colleges towards the Council. Dr. Norman Moore's proposal, which was seconded by Mr. Bryant, was

That the list of scientific institutions other than universities or schools of medicine, consist of the teaching institutions where physics, chemistry, and elementary biology are taught, recognized by each licensing body as stated in the list forwarded each year, provided that the list in each case be accompanied by a statement that after due inspection the licensing body is satisfied that each institution so recognized possesses sufficient laboratory accommodation and appliances for the efficient teaching of the required subjects.

Surely that accomplished what Dr. McVail clearly pointed out the Council itself could not undertake. The bodies undertook to conduct an inspection of those institutions which were presented to them for approval. Looking round that table, he did not think there was any man who would refuse to display that amount of confidence in the Royal Colleges of England that it would not be prepared to recognize the scientific institutions after they had been carefully inspected by those bodies. Their position was very strong. There could be no doubt that they had the power to supervise medical examinations from start to finish, but they ought to be very careful how they exercised that power, and that no injustice was done to anybody. They should be satisfied that a certain minimum standard of education was maintained, and beyond that there should be no interference on their part that would be likely to engender hostility.

The President having called on Mr. Bryant,

Mr. Brown suggested that Mr. Bryant should in the remarks he was about to make, refer to the point which had been called attention to by Dr. McVail as to the written examinations in biology, physics, and so on. He understood that these subjects were practically omitted from the written papers.

Mr. Bryant, as representing one of the licensing bodies with which there was a difference with that Council, wished to make a few observations. He felt that the memorandum which had been drawn up, fully put before the Council the case of the Royal Colleges. Coming to the question of dispute between them with regard to certain scientific bodies that had been recognized, he appreciated the remarks which had just fallen from Sir Christopher Nixon, for although that gentleman had stated that the Colleges had made a very important concession he could not admit that they had done anything of the kind. It had been the custom of the Royal Colleges under all circumstances to visit these institutions to satisfy themselves that the teaching was good and that the laboratories were good, and that there were sufficient teachers before they would accept them. It was admitted that there were some few institutions that were not inspected. When it was found after the experience of years that they had visited these institutions, and that up to the present time there were very few which had not been inspected, although they did not receive them quite all as authorities on scientific questions, he hoped he had satisfied Sir Christopher Nixon that it had not been a concession, because it had been a custom of the Colleges since they recognized the teachings of institutions other than their own. In spite of this question of visiting institutions, he felt that there was a subject behind it which he thought influenced a large number of the members of the Council, and that was the power of that Council to enforce all its edicts. It was clear to him that when the first Medical Act was brought forward it had not the slightest intention of taking away any of the rights and privileges of any of the licensing bodies, whether universities or colleges. It was true that a few years after the Council was formed there was a severe struggle and a heated debate emanating from the Scotch members in favour of having full authority to enforce their edicts; but since that time it had been a recognized fact that the Council had no official power to compel the bodies to carry out their edicts. When the question before them came to the vote, it would be decided by a good many members who thought they had the full right, and on the ground of having that full right they would favour the recommendations that would presently be submitted to them. He sincerely hoped that they would not be influenced entirely by that opinion. They had no such right, and he did not think the Government would give them such a right as to bring down all the institutions to a level which they would be very sorry to see. At present there was competition between all the bodies to raise the standard of the profession in every way, and it might be safely said that the Royal Colleges had not been behindhand in that matter. If they were to ask for and get the powers which they did not yet possess, it would be a very sad matter for the profession generally. The good that the Council had done to the profession during the forty years of its existence would be very fully recognized, and also the benefit it had been to the public. Having gone on so well for forty years, with happy influences all round, and with no bad influence on the different licensing bodies, he hoped that they would continue in the same temper. To force the Royal Colleges to carry out the Council's regulations, the registration scheme had been utilised. In his opinion it was not fair to utilize the question of registration for that purpose. In his opinion it would be a very great mistake for the Council to go to the Privy Council and find fault with the Royal Colleges on the basis of the report. The Royal Colleges had no fear of inquiry; they felt the more their work was inquired into, the

better it would be found, but still he should be sorry for the Council to do it, and get, as it would do, a blow back, because it would be a very serious blow back, which would have public importance. The Council had gained a position in the world, but it would go many steps back if it were to appeal to the Privy Council on such a basis as this, and get snubbed.

Mr. BROWN asked, as a question had been raised by Dr. McVail as to the sufficiency of the examination questions, whether there was an oral examination supplementary to the written. He thought they had a right to get that information from the Colleges.

Dr. HERON WATSON wished, in the first place, to confirm the universal opinion with regard to those who had prepared the report. The Committee had certainly done a work of the greatest usefulness, not only to the Council, but to the individual members. It was a matter of congratulation to the Council that they should have members who were willing to undertake that vast work, to reduce it to a tangible shape and to enable them to understand their position and the position of the bodies with reference to the matter. The first matter he wished particularly to refer to was put thus in the report.

The Conjoint Board of the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, although requiring evidence that candidates who present themselves at their First Professional Examination, which includes the subjects of physics, chemistry, and biology, shall have been registered in the *Students' Register*, and thus must have taken the courses of study in these subjects at institutions which have been approved by the General Medical Council: nevertheless, this Conjoint Board admits candidates to its Second and subsequent Professional Examinations when such candidates produce evidence that they have passed the First Professional Examination of the Conjoint Board of England, and that the regulations of the Scottish Conjoint Board do not require in such cases evidence that the courses of study in chemistry, physics, and biology undergone by such candidates have been so undergone at scientific institutions which have been approved by the General Medical Council.

Dr. McVail was in error in alleging that the Scotch Board accepted the examination of the English Conjoint Board without any question. It was made plain in the printed regulations that all candidates in Scotland must fill up and lodge schedules of curriculum. That was obligatory on them, whether they were exempt from examination in any such subject or not. In this connexion he would refer to a memorandum by the Registrar of the Scottish Conjoint Board to the representatives in the General Medical Council, in the Royal Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons in Glasgow, which was as follows: "It appears that the regulations of the Triple Board do not conform to the requirements of the General Medical Council in three particulars—(1) That they recognize four teaching institutions in Scotland not recognized by the General Medical Council, two for physics, chemistry and biology, one for physics and chemistry only, and one for chemistry only (after personal inspection). (2) That they recognize those teaching institutions in England (for physics, chemistry, and elementary biology) which are recognized by the English Board. (3) That they exempt from the First Professional Examination candidates who have passed the corresponding examination of the English Board, and may thereby indirectly recognize the teaching of the institutions recognized by that Board which are not recognized by the General Medical Council. As regards these points, the Registrars have to remark: (1) That the Committee of Management had no desire to depart from the time-honoured usage of recognizing for teaching purposes any institutions other than the ordinary medical schools, university and extramural. In making the departure they simply followed the lead of the English Board. At the same time they have to say that all the four institutions referred to were carefully inspected by the Committee, and the accommodation and appliances for teaching found to be satisfactory. At the time these institutions were recognized the policy of the General Medical Council with regard to such recognition was, or appeared to be, much less pronounced and decisive than the form it has recently assumed, and the Registrars believe that in according recognition the Committee were quite unaware that they were running counter to the desire of the General Medical Council. The Board have, however, insisted that the course of study should be five years from registration, and that this should precede recognized study; (2) The Registrars are convinced that the Committee of Management had no knowledge of the fact that recognition had been accorded to institutions in England in the wholesale manner which is now alleged to be the case. The policy on which they have acted is no new thing. It was adopted at the beginning of the Scottish Conjoint Board That policy was to recognize in Scotland only institutions and private teachers under their own auspices, and for that purpose they have invariably inspected the premises and apparatus for teaching; while in England and Ireland they have assumed the position that any institutions recognized by the Conjoint Boards in those countries should *ipso facto* be recognized by the Scottish Board. Hitherto it has seemed to the Board that any other course was impracticable, as the expense of visiting institutions in those divisions of the kingdom precluded inspection by the Committee. No doubt the Committee, in view of the pronounced attitude now assumed by the General Medical Council will at the annual revision of the regulations again consider their position. All that can be said at present is that if the English Board reduce their list of recognised teaching institutions to meet the views of the Council the Scottish list will *ipso facto* be reduced to the same extent. As a matter of fact the Registrars affirm that no certificates from the schools in question have so far as they know, been submitted to them for inspection and that the recognition of those schools is, therefore, as far as they are concerned, only one in theory. (3) As regards the exemption of candidates from the First Examination in virtue of their passing it at that Board it may also be said that such cases now rarely present themselves; and the Registrars can find no case in which the applicant so exempted had studied in one of the Institutions in question."

Sir HUGH BEEVOR said he represented a body which had always acted in harmony with the General Medical Council. He did not wish to enter particularly on any argument on the report, but Dr. McVail in the way he had dealt with it seemed to touch on matters which were not to be found in the report. He was thinking of the point where he said if they did nothing within twelve months they would cease to be a Council of Education. He did not know how Dr. McVail made that out. He felt perfectly sure that there was nothing in the minds of the Apothecaries' Society of London which would in any way alter its relations to the Council. It was only in the most indirect manner that that Society recognized institutions not adopted by the Council. He would strongly deprecate any resolutions which might be brought forward proceeding beyond the lines of the report. In his opinion it was most unfortunate that the body in London which had qualified so many people was not represented on the Education Committee.

Sir HECTOR CAMERON said Dr. Heron Watson had so fully explained the position of the Scottish Conjoint Board in the memorandum that he had read that it was hardly necessary for him to add anything. At the risk of a little repetition he might explain what he, as a member of the Committee, had explained to that Committee, that the non-uniformity of the Conjoint Board to the requirements of the Council was more apparent than real. What had been stated was that there were two points on which they differed from the recommendations of the Council. The first was that they recognized certain courses of physics, chemistry, and biology in teaching institutions before registration, but there was an important proviso in the regulations of the Conjoint Board which was left out of the conclusions of the Committee. The rule as it stood in the regulations of the Conjoint Board read as follows: "The student who has previously to registration attended a course or courses of studies in one or all of the following subjects, physics, chemistry, or biology in any recognized university school of medicine or any other teaching institution, may, without further attendance, be admitted to examination in these subjects." In a footnote the statement was made that they accepted certificates from England and Ireland which were recognized by the Conjoint Boards. The rule went on to provide that the period of professional study after registration should not be less than five years, and that if such course or courses be attended after the date of registration, they might be attended at a recognized medical school. In that manner it would be conceded that they were not sinners. With regard to recog-

nizing the early examination of the Conjoint Board of England, Dr. Heron Watson had explained that that was an old-standing regulation. It had been on their by-laws since the Conjoint Board was formed. They had not receded from those by-laws, nor had they added to them. Their position was what it had always been. Indirectly it might possibly happen that a candidate might be admitted to their later examinations, who had not passed the earlier examination. All he could say was that no such candidate had yet been admitted, and he thought it extremely unlikely that any would, because, as Dr. Heron Watson had pointed out, when he presented himself he not only had to bring a certificate of having passed the examination, but he had also to fill up a blank form of his course of study, and that must correspond with other requirements which were entirely in keeping with the requirements of that Council.

Mr. YOUNG said after the observations that had been made by the different speakers, he would content himself by saying that he hoped the report would be adopted.

Dr. MACALISTER said the report contained a legal argument with regard to the procedure of the Privy Council—what the Privy Council would require, and how that Council stood if it made an appeal to it, and he suggested that that legal argument ran counter to the advice given them by Mr. Muir Mackenzie in the second appendix to the report as printed. It was stated on page 49 of the report that the Privy Council must hear and consider any objections made by any body or bodies with regard to the examinations. The question was whether these objections would apply to complaints regarding the course of study, and the answer given was that on that point the General Medical Council only could be heard by the Privy Council.

Sir WM. GAIRDNER had the strongest possible objection to all recommendations that went in the direction of an appeal to the Privy Council, and he was prepared to oppose them to the uttermost, but he had no objection to the report, so far as the recommendations, being adopted as a historical statement of the case.

Dr. MCVAIL, in reply, said the report was practically a statement of the facts brought up to date. With regard to Oxford University, when he proposed his resolution last December he had that body specially in mind, and therefore deliberately put in the words "certain licensing bodies," in order to cover it. Oxford was one of the licensing bodies under the Act of 1858 in Schedule (A), and therefore the Committee could not have left it out. He did not see the reason of Dr. Payne's objection, unless it was to Oxford University being called a "certain body" or that it should have been dealt with differently to the other bodies.

Dr. PAYNE observed that he did not assert that Oxford was to be dealt with differently to other bodies; he had said this matter concerned the two Royal Colleges, and that the other bodies had been brought in in order to enable the Committee to state its case.

The PRESIDENT then put the motion, which was carried, 17 voting for, and 4 against. The names and numbers were taken down.

Dr. MCVAIL said he had heard a great deal as to the views of members of the Council. The adoption of the recommendations was an extreme step; but it was equally a difficult matter to stand still. Was there no third course open to them? He found that some members of the Committee who approved of these recommendations were now in doubt as to whether the time had come to ask the Council to adopt them, and were not prepared to support them at this meeting. It seemed to him, in the first place, seeing the gravity of the step involved in making representations to the Privy Council, that the difficulty might be met by deferring the consideration of these recommendations, and that in the meantime the Council should inspect all the examinations of the licensing bodies that included the subjects of chemistry, physics, and biology. In the next place, they should obtain from other licensing bodies information as to the course of study they accepted in these subjects and what institutions they accepted, when they were inspected, what the accommodotion was, who the teachers were and what were their qualifications, what the classes were, how often they met and what were the number of hours given for systemati study. For himself he would without hesitation have gone on and asked the Council to take the recommendations; but there was something to be said on the other side, and he would like to take the opinion of the Council on the matter. If the Council was of that opinion he was prepared to adopt such a course, especially as under the Act of 1858, Section XVIII, it could ask for the information he had indicated.

The PRESIDENT observed that a resolution had been prepared on those very lines by Dr. MacAlister.

Dr. MCVAIL was unaware of that fact.

The PRESIDENT expressed his personal satisfaction at Dr. McVail's statement, and called on Dr. MacAlister to read his resolution.

Dr. MACALISTER had assumed that the first recommendation would have been proposed, and he had intended to propose this as an amendment in some form at the end of his speech. The first recommendation was that the Council should decide practically that the courses of instruction at these particular institutions were insufficient. It seemed to him that, although it might be proved to the satisfaction of individual members of the Council, it was not proved in such a manner as would establish the fact before a judicial body like the Privy Council, and the General Medical Council required additional evidence of a specific character before it could proceed to the Privy Council at all. Therefore he was prepared to move:

I. That the Council, under the powers granted by Section XVIII of the Medical Act of 1858, require the Examining Board in England to furnish the Council with the following information regarding the courses of study in chemistry, physics, and biology to be gone through by candidates for the qualifications L.R.C.P.Lond., M.R.C.S.Eng., namely:

In respect of each of the teaching institutions recognized by the Royal Colleges but not approved by the Council:

(*a*) What are the methods of instruction, theoretical and practical, adopted in the subjects of chemistry, physics, and biology?

(*b*) What time is devoted by students to the recognized course of study in each of these subjects?

(*c*) What subjects other than chemistry, physics, and biology are students permitted to study simultaneously with these subjects?

(*d*) What were the ages at the commencement of the recognized courses in these subjects of the students on whose behalf certificates of study were accepted by the Examining Board in the year 1901?

(*e*) What are the names and qualifications of the teachers of chemistry, physics, and biology who give the recognized courses in these subjects?

II. That it is desirable that, under the powers given by Section XVIII of the Medical Act of 1858, the examination in chemistry, physics, and biology held by the several licensing bodies should from time to time be visited and reported upon.

III. That in the first instance the examinations in chemistry, physics and biology held by the Examining Board in England during the present year be visited by two persons appointed by the President on behalf of the Council, and that they be instructed to report on the scope, standard, and sufficiency of these examinations.

He thought if they had this information, two things would result of particular usefulness. First of all, the Royal Colleges would ascertain some facts with regard to these schools which at present were not in their possession, and which it was important they should be in possession of, in which the time devoted by the students to the first year's course of a particular study was not such as would satisfy the Royal Colleges themselves, and would certainly not satisfy the Council; and if that information was before the Royal Colleges and the General Medical Council it was quite possible, on the information thus elicited, ground might be obtained upon which they might meet, and the General Medical Council and the Royal Colleges brought to see eye to eye. It was clearly information which by the Act they were clearly entitled to ask the Royal Colleges to furnish them: and with that information they would be in a better position to judge of the efficiency of the first year's study than they were at present.

Dr. MCVAIL had no hesitation in seconding these propositions. Replying to the PRESIDENT, he said the recommendations were not withdrawn; they were not moved.

Dr. NORMAN MOORE was of opinion, seeing the turn the debate had taken, that the recommendations ought to be withdrawn as they were in the position of litigants, and if they remained it would be open to the Council to adopt any one of them.

Dr. McVail concurred, and on behalf of the Committee offered to withdraw them.

Dr. Bruce thought it was not wise to have them on the minutes.

Mr. Victor Horsley moved that the Council postpone the further consideration of the recommendations of the Committee. Dr. Moore had spoken as if there was an atmosphere of litigation about the matter; he (Mr. Victor Horsley) could not see it. The Council had merely taken upon itself to get further information before adopting the recommendations.

The President pointed out that they might never be discussed: the Council might be satisfied with the information.

Mr. Victor Horsley agreed; but "withdraw" meant that those who approved of the recommendations were not ready to substantiate their views by a vote. He objected to the term "withdraw."

Dr. MacAlister thought there was something in Dr. Norman Moore's contention, and suggested that, in view of Dr. McVail's statement, the Council should agree to the withdrawal of the recommendations.

Dr. McVail agreed. There was practically nothing withdrawn: they were not going to be moved now.

Dr. Pye-Smith appreciated the skill and moderate tone with which the report was drawn up and introduced by Dr. McVail, and his present attitude was a statesman-like one which would not reduce his influence on the Council. It should be understood that the Council did not intend to make a quarrel if it could be avoided, because it would be bad, not only for the Royal Colleges, but for the profession to which they all belonged.

The recommendations were then by leave of the Council withdrawn, and the three resolutions proposed by Dr. MacAlister, and seconded by Dr. McVail, before referred to, were put *seriatim* and adopted.

On the motion of Dr. MacAlister, seconded by Dr. Bruce, it was further resolved:

That the President and Treasurers be requested to arrange for a suitable remuneration for the Visitors on the basis of the remuneration at present paid to the Inspector of the Examination of the Apothecaries' Hall, Dublin.

Dr. Little in view of the attitude of the Royal Colleges on the question of registration, which he considered one of the most important of medical education, suggested that the representatives of the Colleges should bring the question before those bodies to see if they could see their way to again strengthen the hands of the Council by requiring students to register.

Dr Norman Moore thought that as the matter was still under discussion, an absolutely definite answer could not be given, but his feelings with regard to registration were the same as Dr. Little's, and he would bring the matter before his body.

Mr. Bryant said he would do the same.

Mr. Victor Horsley desired to know if *pro tem.* there was an understanding that the Council would not insist on its resolution, as if the resolution had been temporarily abandoned it should be clearly so stated.

Dr. McVail did not think the resolution ought to be touched until the Council was in a position to know what steps were desirable to be taken in the matter.

Mr. Victor Horsley considered the Council in exactly the same position that it was before.

Election to a Vacancy on the Executive Committee.

The President, pursuant to the Standing Orders, announced that a vacancy had occurred on the Executive Committee (English Branch), owing to the retirement of Dr. Glover.

A ballot was taken, the result of which was that Dr. Payne was declared to be elected.

Midwives Bill, 1902.

Sir John Batty Tuke, in reply to Mr. Brown, said the Midwives Bill had passed the second reading of the House and had been referred to the Standing Committee on Law.

The President announced that some of the names on the Committee to watch the progress of this Bill were those of gentlemen who were no longer members of the Council. He then moved that Sir John Williams and Mr. Brown be added to the Committee. The resolution was carried.

Vote of Thanks.

Dr. Norman Moore proposed that a vote of thanks should be accorded to the President for his able and courteous conduct in the chair.

This was seconded by Mr. Brown and unanimously agreed to

The President, in responding, said that one of the most important debates at that Council had been conducted in the most admirable manner. He congratulated the Council on this, because it would be clear that they could do things in a thoroughly business-like way when they made up their mind to do so.

THE R. B. ANDERSON FUND.

Dr. Alfred Cox (Cotfield House, Gateshead) writes: I enclose my final list of contributions to the R. B. Anderson Fund, and would take this opportunity of thanking most sincerely those who have responded to my personal appeal. I would specially thank Drs. Abbott and Thomarson, who in their respective districts have taken a great deal of trouble to get in subscriptions. If there are any of your readers who even at the eleventh hour would like to do something to help to redeem the credit of the profession in this matter, I would refer them to the Treasurer of the Fund, the Manager, Union Bank of London, Chancery Lane, London, where subscriptions could be received up to Monday.

	£	s.	d.
Dr. Prosser James, London	2	2	0
Dr. J. Brassey Brierley, Manchester	1	1	0
Mr. F. A. Humphrey, F.R.C.S., Crowborough Beacon	1	1	0
Mr. J. Rand, F.R.C.S., Surbiton	1	1	0
Dr. J. B. Siddall, Bideford..	1	0	0
Dr. J. A. Stewart, Normanton, Yorks	0	10	6
Mr. Thomas Wilson, M.R.C.S., Wallsend-on-Tyne	0	10	6
Mr. J. Whyte, L.R.C.P., L.R.C.S., South Shields ...	0	10	0
H. C. M. (2nd donation) ...	0	5	0
K	0	5	0
Mr. F. C. Wood, L.S.A., Ripley, Derby	0	3	6
Per Editor of *General Practitioner*:			
Dr. G. Danford Thomas, London	2	2	0
Dr. R. B. M.	0	10	0
F. E. V.	0	5	0
Collected by Dr. C. Abbott, Aston, Birmingham, at meeting of Birmingham and District General Practitioners Union ...	5	0	0

	£	s.	d.
Per Dr. J. Thomarson, Bowes Park, London, N. made up as follows:*	12	1	0
Dr. Ailan, Bowes Park	0	7	6
Dr. Campbell ,,	0	7	6
Dr. Barker ,,	0	5	0
Dr. Griffiths ,,	0	5	0
Dr. Harrison ,,	0	5	0
Dr. Wiles ,,	0	5	0
Dr. Thomarson ,, (2nd donation)	0	9	0
Anon. ,,	0	2	6
Dr. Holt, Finsbury Park	0	10	6
Dr. Carmichael, Hornsey	0	5	0
Dr. Eedle, Palmer's Green	0	5	0
Anon, Palmer's Green...	0	2	6
R. B. M., West Green ...	0	10	0
Anon, Wood Green ...	0	2	6
Dr. Mailer, Wood Green	0	5	0
Dr. Stephens ,,	0	5	0
Dr. Tomlin ,,	0	7	6
Anon, London, W. ...	5	0	0
Anon, Scarborough ...	0	5	0
Dr. W. F. Grant, Oxford Terrace, Hyde Park, W.	0	10	6
Dr. J. H. Staniland, Iffley Road, Oxford ...	0	10	6
M. E. M., Wood Green ...	1	1	0

*A total (per Dr. Thomarson) of £12 6s. 6d., less 5s. 6d. expenses, leaving a net total of £12 1s.

THE DUFFIN FUND.

Dr. Hector Leak, of Winsford, Cheshire, Honorary Treasurer of this fund, writes that he has received up to February 26th the following subscriptions on behalf of the family of the late Mr. Robert John Duffin, M.B., M.Ch.R.U.I., who died from septic poisoning in January last at the early age of 38, leaving his widow, her mother, and two girls totally unprovided for. The appeal is made for subscriptions to enable the widow to start a boarding house. Further particulars of the case will be found in the British Medical Journal of February 22nd, page 479:

	£	s.	d.
Previously acknowledged ...			
Mr. Bidwell, London ...	1	1	0
Dr. Brook, Fareham	1	1	0
Dr. O'Meara, London ...	1	1	0
Dr. Anderson, London ...			
K.W.M.	1	1	0
Dr. Rhodes, Harrogate ...	1	1	

	£	s.	d.
Dr. T. Smith, London ...	5	0	0
Dr. Eversbed, London ...	0	10	6
Dr. Taylor, London ...	0	10	6
Dr. Stear, Saffron Walden...	1	1	0
Dr. Davis, Sunderland ...	0	10	6
Dr. Percival, Northampton	1	1	0

The War against Rats in the Philippines.—The extermination of rats is prosecuted with great vigour in the Philippines. In Manila 1.7 per cent. of rats captured were found to be infected with plague.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 1ST, 1902.

THE GENERAL MEDICAL COUNCIL.

IF the results of the meeting to which, at heavy expense, the members of the General Medical Council were specially summoned together are to be estimated by the resolutions actually passed, they appear to be absurdly small. The report of the Special Committee, an able document, temperate in tone, and complete in the history which it gave of the whole controversy, was discussed apart from the recommendations with which it concluded, and was adopted with certain corrections. Then, with the consent of the Council, the recommendations were withdrawn, so that the whole work formally accomplished consisted in the adoption of a narrative, and the subsequent adoption of a resolution moved by Dr. MacAlister that the examinations in physics, chemistry, and biology of the Conjoint Board be inspected, and that these bodies be requested to furnish much more minute and precise information about the courses at those schools which it recognized, but which the Council did not approve.

If, however, we read between the lines, much more than this was indirectly settled. Dr. McVail, the Chairman of the Committee, to whom must be given the chief credit of the report, did not move the recommendations, because, as he intimated, some even of the members of his Committee who had accepted them in Committee were not prepared to vote for them at the Council. It seems safe therefore to assume that they would have had practically no chance of passing. These recommendations involved the statement that the courses of study prescribed by the Conjoint Board in England, by the Conjoint Board in Scotland, by the University of Oxford, and by the Society of Apothecaries of London did not afford a sufficient guarantee that the persons who pursued them and afterwards obtained the qualifications of these bodies possessed the requisite knowledge and skill for the efficient practice of their profession, and the University of London, which is now being reorganized, was so far included that its attention was to be drawn to similar deficiencies in its curriculum as it used to be. This was to be communicated to the bodies concerned, and they were to be informed that it would be the duty of the Council, if they disregarded this intimation, to report this insufficiency to the Privy Council. The withdrawal of these recommendations may be taken as almost, though not entirely, tantamount to their rejection by a vote of the Council, and it is hardly probable that they will be revived, at all events in their present form. A representation to the Privy Council that all of these diplomas were actually insufficient on account of various deficiencies in the curriculum as laid down by the General Medical Council—the only form which any representation could take—could hardly have been made in full sincerity, and the abandonment of such a proposition appears to have been wise.

The impartial narrative disclosed that the action of the Council itself in the past had not been consistent. In 1890 the resolutions establishing a five years' curriculum after registration allowed the first year to be occupied by chemistry, physics, and biology studied (amongst other places) in teaching institutions recognized by any of he licensing bodies. This was confirmed in 1893, and in 189 these subjects were allowed to be taken before registration, but in that case a five years' curriculum after registration was still enforced. Although these resolutions do not exactly cover the same ground as that of the present dispute, they recognized the principle that the licensing bodies were to be the judges of the quality of the teaching institutions, and it was not until 1899 that the Council for the first time claimed that the institutions must be approved by itself. This was the result of its becoming aware that its intentions in founding a five years' curriculum were hardly being fulfilled, the first year of study being taken under circumstances which did not meet an ordinary conception of a year of medical study. Still, any application to the Privy Council could not fail to have been weakened by the fact that the Council might seem to be assuming a new position.

In its present resolution to inspect the examinations in preliminary science and to ask for further information, the Council is unquestionably within its legal right, and Dr. MacAlister intimated that there were facts within his personal knowledge respecting some of the institutions recognised by the Conjoint Board in England, which would surprise that body when they were brought out. Hence, while the Council apparently admitted that it cannot enforce the acceptance of the position it had taken up, there still is a probability that by an indirect method its control may be exercised in some degree if not to the full extent desired. We may hope that the Colleges may come to see that their dissociation from the concert in which they and the other bodies have hitherto worked is not a public-spirited step. Indeed, their representatives intimated that they were ready, if the path were somewhat smoothed, to revert to requiring students' registration; so that after all the session of the Council has not been wholly unproductive. It has, perhaps, paved the way towards a *modus vivendi*.

THE GOVERNANCE OF PUBLIC HEALTH DEPARTMENTS IN SCOTLAND.

THE disputes which have from time to time arisen as to the relation of medical officers of health to the sanitary inspectors and other members of the staff of the local sanitary authorities in Scotland have been somewhat difficult for residents south of the Tweed to understand. It seems so natural and proper that laymen without any medical qualification, and not even necessarily possessed of a certificate of elementary competence from any re-

cognized or unrecognized examining body, should, if admitted into the sanitary service, be under the supervision and control of an official who must not only be a medical man, but must also have a degree or diploma in public health granted by a university or college statutorily appointed for the purpose—all this seems so natural and proper as to require no more argument than would be needed to support the thesis that a law court should be presided over by a lawyer, or that a man ought to stand on his feet rather than on his head.

This elementary truth is coming more and more to be recognized north of the Tweed, especially within these dozen years, since whole-time appointments of medical officers have become more common, but the great city of Glasgow, which is in the forefront in so many things municipal, appears up to now to have been very backward here. The explanation we gather is largely historical. Until recent years the central authority for local government in Scotland was a Board of laymen without a medical department, while the local administrative areas were in most cases very small, and though they could usually afford to appoint a layman to fulfil a large group of official duties, of which sanitary inspection was one, the position of medical officer of health was almost nominal, and in many places there has never been any such appointment. Not unnaturally, a concomitant of this system was that, as a rule, the Public Health Acts remained a dead letter.

In Glasgow, when Dr. Russell, the first whole-time medical officer, was appointed, a lay sanitary inspector was already in possession, but on his demise, when a new man had to be elected, Dr. Russell advised that the department should be definitely put under his own control. This was in 1885, but the town council rejected the advice, and matters seem to have gone from bad to worse since then, so that for the last two or three years the friction between the sanitary inspector and the present medical officer, Dr. A. K. Chalmers, has been such as, in the opinion of a Special Committee which has now reported on the whole matter, is seriously detrimental to the health interests of the community. We observe from the newspaper reports of the town council's discussion on the subject that one member who seemed to be speaking from a brief on behalf of the inspector, said that no mutual incompatibility of the officials had been heard of in Dr. Russell's time. Well, it is not surprising that a man of Dr. Russell's weight and authority should have been able to rub along and do good work in some fashion without any proper system of departmental government, such as he had asked for in 1885, but we take leave to doubt whether even he did not feel the difficulty, and we can conceive it very likely that Glasgow, instead of the Scottish Local Government Board, might still have been enjoying his services had its rulers accepted his scheme of 1885. The same councillor urged that in pressing the question to a decision of some sort Dr. Chalmers had only been fighting a medical battle. That is not so, for in this matter the medical and the public interests are identical, and Glasgow will never be properly governed until it puts all its health interests under single instead of dual management. Indeed, the one important fact which emerges from the recent inquiry is that every member of the Special Committee, including the Lord Provost, has been definitely convinced that from now onwards there must be only one chief to the whole sanitary department, and that chief must be the medical officer of health.

The remedy, however, that the Committee have proposed is in one respect very remarkable. They recommend that an additional medical officer should be advertised for, to rule over the two present principal officers, lay and medical. This would indeed be a singular way of rewarding Dr. Chalmers for at last compelling the conviction that a medical man must govern in the health office, and it is very satisfactory that the Committee's proposal gained the support of only five members out of some fifty or sixty. It may, we presume, have had its origin partly in a sense of irritation against the present officers for causing the Committee so much trouble, and partly in a desire not to hurt too severely the feelings of the present sanitary inspector, but it seems to us that the Town Council and City of Glasgow are much indebted to their medical officer for having forced them to tackle a question of which the proper settlement is essential for the wellbeing of the community. The position now is that several members of the Health Committee have been added to the already existing Special Committee, in order to draft a set of by-laws regulating the relationship and duties of the present officers. When these by-laws come before the council it can hardly be suposed that that body will any longer refrain from taking the only logical course that is open to it, the course, namely, of giving to their medical officer of health once and for all a definite control over the whole staff engaged in the health administration of the city.

THE HOUSE OF LORDS AND VACCINE LEGISLATION.

LORD NEWTON'S Bill for the repeal of the Conscientious Objection clause of the Vaccination Act of 1898 was the subject of a second reading debate in the House of Lords last week. It is curious that in the course of the somewhat prolonged discussion no special reference seems to have been made to the circumstances under which the clause was originally passed by the Lords. It will be recollected that in supporting the acceptance of the provision Lord Lister said, in effect, that he did so in view of the fact that he had been reliably informed that the Government would proceed to consider the question of the introduction of a Revaccination Bill in the following session of Parliament. Lord Harris, on behalf of the Government, hastened to assure the House that Lord Lister was correct, and on this understanding the clause was reluctantly accepted, but only by a very small majority.

We observe that Mr. Grant Lawson, Parliamentary Secretary to the Local Government Board, speaking for the Government in the House of Commons a week or two ago, said that he did not admit that any pledge to introduce such a Bill had been made. That is technically correct, and the BRITISH MEDICAL JOURNAL has always been careful not to go further, in referring to the matter, than the exact facts warrant. But the Government was certainly pledged to careful consideration, and we have no hesitation

in saying that favourable consideration was understood by every one who heard the promise made. Very definite cause would indeed have to be shown now to justify their failure to introduce such a Bill in the session then following. There is no evidence that after getting their Bill passed they gave any serious consideration to the subject, and they certainly have never in either House of Parliament stated any case in defence of their inaction—an inaction which will stand to their discredit in the mind of every one who has given heed to what has happened. No quibbling as to the exact terms of their pledge will avail in presence of the plain facts of the case.

Nevertheless, we cannot greatly regret the rejection of Lord Newton's Bill, and its fate is no evidence of any change of opinion on the part of the House of Lords, which would certainly not have accepted the conscientious objector had they not been led by the Government to believe that the subject of revaccination would receive immediate legislative attention. After all, the Bill which has now been refused a second reading would only have forestalled by a twelvemonth the termination of the five years' experiment, and that fact was what appeared to weigh with every speaker who opposed it. The whole subject of vaccine legislation is bound to come up for consideration again in the course of 1903, and it may safely be assumed that meanwhile the officers of the Local Government Board are carefully observing and noting the operation of the present law in all its relationships, so that, when the time comes, Government will at least have the benefit of an abundant basis of facts on which to found a fresh piece of legislation. Then will be the opportunity to recall to their attention their paltering with the subject of revaccination; and it is hard to suppose that Parliament will again be lulled to sleep by such an easily evaded promise as was made to the House of Lords when it consented to pass the Act of 1898.

THE SECOND READING OF THE MIDWIVES BILL.

THE Midwives Bill was read a second time on Wednesday without a division. The debate lasted about four hours and a-half, and though the attendance was very thin during the early period the House filled up after the interval, and was, for a Wednesday afternoon, fairly full when the debate was closed at about a quarter to five. Sir John Batty Tuke, Sir Walter Foster, Dr. Ambrose, and Mr. T. P. O'Connor made a gallant attempt to induce the House to reject the Bill, mainly on the ground that it contained no provision directed to prevent uncertified women from practising or to penalise such practice, and they pointed out that the absence of any provision of this nature must tend to defeat the main object of the promoters of the Bill, that is to say, the protection of poor parturient women from the evil consequences which flow from reliance on dirty and incompetent midwives.

Their efforts were largely neutralized by the speeches of Dr. Farquharson and Sir Michael Foster. The former insisted on the need for legislation, but asserted and reasserted that "no House of Commons under the sun" would ever sanction penal legislation against persons who chose to practise midwifery without certificates sanctioned by the State. The speaker's long experience of Parliament gives this assertion much weight; but it is after all only an *obiter dictum*, and it would have been more satisfactory had the House been left to formulate its opinion without this very strong lead from a medical member. Sir Michael Foster supported the Bill because he considered it to be a measure designed simply to arrange that the poor should know that there were specially trained nurses who would understand when to send for the doctor, and how to be clean, and who would always be sober. If there were any prospect that the Bill would achieve these objects it would, we believe, have the support of an overwhelming majority of the medical profession. It is just because all the provisions directed to these ends have been dropped out of the Bill, while those which favour the formation of an inferior order of midwifery practitioners who will not be nurses are retained, that the general feeling of the profession is so strongly against the Bill in its present form. It must, however, in justice be admitted that it was pretty clear that the House of Commons did not need the speeches of these two gentlemen to induce it to pass the second reading by a large majority had a division been forced. It was perfectly good-humoured, but quite unmoved.

The Bill has been referred, at the suggestion of the Home Secretary, to the Standing Committee on Law, which will be increased by the addition of fifteen members for this purpose. The Committee will not meet for some weeks, possibly not until after Easter, but efforts must now be concentrated on preparing amendments for its consideration and on convincing members of the Committee of the necessity of strengthening the Bill in several directions. The most important point is the introduction of a clause penalizing the practice of midwifery by uncertified persons. Every effort must be made to obtain the insertion of such a clause as was contained in the Bill of 1900, and in making the effort the profession will be able to quote the opinion of the General Medical Council reaffirmed at the special session this week. Another amendment which should be pressed is that which seeks to restore the provision of the Bill of 1900, which made the rules of the Central Midwives Board subject to the approval of the General Medical Council. It is also important to restore the system of local licence replaced in the Bill of this year by "notification." There are many other points which will need attention, but we may content ourselves for the moment by referring readers to the very comprehensive series of resolutions adopted by the Midwives Bill Subcommittee of the British Medical Association. It dealt systematically with all the clauses, as will be seen by the report published in the BRITISH MEDICAL JOURNAL of February 22nd, p. 481.

UNQUALIFIED PRACTICE AND THE NOTIFICATION ACT.

A NEW line of procedure against unqualified medical practice has been taken by the Southport Corporation; but it is one which, we must confess, we view with a certain amount of misgiving. That unqualified medical practitioners should be prosecuted successfully in accordance with the Medical Acts we can approve most cordially, but we fear that the Southport Corporation have so far gained their point at the expense and to the detriment of enact-

ments which have been made for the protection of registered practitioners. The prosecution to which we refer was conducted by the Town Clerk of Southport upon the instructions of the Health Committee of the Corporation against an unqualified person named Alfred Pleavin for failing to notify a case of scarlet fever. The summons was taken out under Section III of the Infectious Diseases Notification Act, 52 and 53 Vic., cap. 72. The special sections referred to enact "that every medical practitioner attending on or called in to visit the patient shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which this Act applies, send to the medical officer of health for the district a certificate stating the name of the patient, the situation of the building, and the infectious disease from which in the opinion of such medical practitioner the patient is suffering. Every person required by this section to give a notice or certificate who fails to give the same shall be liable on summary conviction in manner provided by the summary jurisdiction Acts to a fine not exceeding 40s." The case was heard at the Southport Police Court on February 17th before a Bench of Magistrates, and evidence was given that the defendant had attended a child who admittedly was suffering from scarlet fever, and that no notification under the Act was received by the medical officer of health. The prosecution contended that the words in the section "every medical practitioner" made it compulsory even for an unregistered person acting as a medical practitioner and attending cases of infectious disease to notify, and that it did not especially and solely refer to registered medical practitioners. It was further urged that in all other Acts of Parliament where special duties devolved upon registered practitioners of medicine they were referred to not as "medical practitioners," but as "legally-qualified medical practitioners," and that the special designation in the enactment in question would bring the defendant who was acting and posing as a "medical practitioner" within its terms. The Town Clerk pointed out that Mr. Pleavin had tried to get a practice as a medical practitioner, and yet when it was sought to place him within the obligations of the law, he tried to evade such obligations, and then pleaded that the Act could not refer to him and that he was outside its scope. The defence raised was on these lines, and the defendant gave evidence that he had practised medicine for twenty years, and that only two complaints had been made against him, and that no medical officer of health would "recognize" a certificate coming from an unregistered doctor as a notification under the Act. The Bench, after retiring, announced that their decision was that the defendant was a medical practitioner within the meaning of the section, and that he would be fined 20s. and costs. The solicitor for the defence asked for a case to be stated, which was agreed to, and therefore we withhold further comments.

CANCER AND MALARIA.

A short time ago Professor Loeffler published[1] a paper, which was summarized in the BRITISH MEDICAL JOURNAL, in which, after referring to some observations made by Dr. Trnka, a physician of the eighteenth century, which seemed to go to show that there is a kind of antagonism between cancer and malaria, he suggested that the inoculation of malarial haematozoa might cure cancer. The case recorded by Trnka was that of a young girl who had a tumour of the breast which disappeared when she contracted tertian ague. Another fact relied on by Professor Loeffler was the rarity of cancer in the tropics, precisely in those places where malaria is common. He admitted that the hypothesis could be taken seriously only if it were shown to rest on a solid statistical foundation. A large body of statistics has since been collected by Professor Kruse, of Bonn, and published in the *Münch. med. Woch.*, 1901, No. 48. These statistics upset Professor Loeffler's hypothesis by showing that in no country is there any relation between the frequency of cancer and that of malaria. Thus from 1887 to 1891 in every 10,0000 of population the deaths from malaria and cancer were as follows:

	Malaria.	Cancer.
Italy	5.81	4.28
Prussia	5.81	4.20
Ireland	0.03	4.42
Austria	0.03	4.98
Scotland	0.05	6.34
England	0.06	6.53
Netherlands	0.40	7.28

Thus the number of persons who died of cancer in Prussia, Austria, and Ireland is proportionately the same as in Italy, while in the latter country alone is malaria a frequent cause of death. A mortality from malaria of 5.81 per 10,000 supposes a morbidity a hundred or two hundred times greater, and in spite of the considerable prevalence of malaria in Italy cancer is as frequent in that country as in Prussia, where malarial fever is almost unknown. It may be objected to these statistics that the figures are taken *en bloc*, as if cancer and malaria were distributed uniformly throughout Italy. It will therefore be well to consider the frequency of the two affections in different regions of the peninsula. The following table showing the mortality of the two diseases per 10,000 inhabitants supplies the information required:

	Malaria.	Cancer.
Piedmont	1.3	3.5
Liguria	0.3	5.1
Lombardy	1.0	5.3
Venice	1.5	4.3
Emilia	1.1	6.4
Tuscany	1.3	6.8
The Marches	0.6	5.5
Umbria	1.2	4.4
Latium	0.8	4.0
Abruzzi	0.8	2.9
Campania	6.1	3.2
Apulia	11.5	2.9
Basilicata	17.5	2.2
Calabria	15.3	2.3
Sicily	13.8	3.0
Sardinia	20.6	1.7

At first sight this table seems to confirm Loeffler's hypothesis, although the figures with regard to Latium and Piedmont are exceptions difficult to explain. But the case is quite otherwise when the mortality from cancer and malaria respectively are considered not in large regions, but in small districts. The following figures suffice to show that Loeffler's hypothesis is not borne out by facts, and that there is no relation whatever between the mortality from malaria and that from cancer:

	Malaria.	Cancer.
Alessandria	0.1	4.5
Genoa	0.2	6.6
Corno	0.1	5.7
Rovigo	3.7	4.9
Venice	3.1	6.1
Ferrara	4.2	4.7
Grasseto	8.6	5.8
Siena	1.0	9.0
Aquila	1.6	4.2
Foggia	26.7	2.4
Syracuse	18.1	3.3
Cagliari	10.2	1.8
Sassari	13.7	1.5

It may be added that, according to Kruger, oscillations in the mortality from cancer are observed in other countries, and notably in countries where intermittent fever is almost unknown. Thus in Prussia the mortality oscillates between 2.9 at Coblenz and 6.6 at Schleswig.

[1] *Deut. med. Woch.*, 1901, No. 42.

INFLUENZA.

It seems abundantly clear that another epidemic of influenza is now in progress in various parts of Great Britain. The number of deaths in London directly attributed to influenza rose in the week ending February 22nd to 107, having been 26, 40, and 51 in the preceding three

weeks. As has happened on many previous occasions the House of Commons appears to provide at least one centre of infection, so that the business of the House has been, to some extent, disorganized during the last week, owing to the illness of distinguished members, including the Leader of the House. As is well known, the prevalence of influenza, especially of the catarrhal type, is usually attended by an increase in the number of deaths attributed to diseases of the respiratory organs. The present epidemic is no exception; the number of deaths from diseases of the respiratory organs registered in the week ending February 22nd was 885, which is 363 above the corrected average: the rise appears to have taken place during the last three weeks, the numbers for each week being 375, 486, and 681. Our Edinburgh correspondent writes that during the month of February influenza has asserted itself as an important evil factor in the health of Edinburgh. The death-rate of Edinburgh in the week ending February 22nd, was 20 per 1,000. The total mortality was 127, and diseases of the chest accounted for "at least 71 deaths." How many of these 71 deaths were of influenzal origin there are no means of knowing. But influenza prevails, and a great many of the cases show after a brief febrile stage a subnormal temperature, and a slow and depressed pulse; they are often accompanied or followed by most evil complications, among which may be noted middle-ear catarrh, sometimes going on to suppuration and mastoid disease, pneumonia of a rapidly fatal type, other lung affections, notably bronchitis and broncho-pneumonia, heart affections, brain affections, and gastric and hepatic disturbances.

INFANTILE MORTALITY AT HULL.

LAST October[1] we congratulated the Subcommittee appointed by the City Council of Hull to investigate and report upon the causes of the diarrhoea amongst the infant population of that city upon the competent manner in which it had discharged its work. It is with surprise and regret, therefore, that we note that at a special meeting of the City Council, convened to deal with the report and the recommendations contained therein, a motion to proceed to the next business was carried by the narrow majority of one. The general tone of the discussion, however, gives good ground for belief that the matter will not be suffered to remain where it is. The excessive infantile mortality in the city cannot be disputed, and there appears to be a general conviction among the councillors that something must be done to reduce it; and practically the whole of the opposition to the report was directed against the proposal to substitute at the expense of the owners of the properties the water-carriage system for the privy system in the 11,000 houses, the excreta from which have to be carried through dwelling rooms to the removing cart. How much of this opposition was influenced by the desire to conciliate the small property owners of the city, and how much of it was due to an honest conviction that the improvement was unnecessary we are not in a position to estimate; but it is difficult to believe that a majority of the Council was against the improvement. The situation which the Council has to face is this: The Subcommittee which they themselves appointed have told them, in unmistakeable language, that the sanitary state of their city leaves much to be desired, and that as a consequence preventable mortality is high. Are they, then, prepared to face the discredit of shirking their responsibility as the public health authority? Other towns have effected similar improvements, and always in the face of some opposition. They have had the courage to ignore the protests of a few in the interests of the general public, and the City Councillors of Hull will doubtless do the same. To reduce the excessive mortality of summer diarrhoea to its lowest possible limits, each one of the recommendations of the Committee will have to be adopted; but the placing of the existing drainage in a satisfactory condition, the proper flushing of alleys and cleansing of streets, the establishment of a sterilized milk depôt, and the adoption of the steps advised to promote the education of the poor upon the important subject of infant feeding and rearing, will achieve little or nothing in these 11,000 houses in which the dejecta have to be carried from a privy at the rear through a living room to the collecting cart. We venture to predict that those who think otherwise would change their minds if they could be induced to occupy those premises, along with their wives and children, for a few weeks in the summer time. That disgraceful state of things must be discontinued, and the best remedy is the substitution of a water-carriage system. It is not to the credit of the municipal representatives of a great city that such a grave duty should be shirked. It is for them to decide whether some of the expense should be paid out of the rates; but if it is decided otherwise, we strongly dissent from the view expressed by Alderman Gillet, that "the ruin of hundreds of citizens would be accomplished." We know those citizens. They come from other places besides Hull, and when they have been called upon to effect improvements in their insanitary properties, despite their protestations they have always remained solvent.

[1] BRITISH MEDICAL JOURNAL, October 5th, 1901, p. 1003.

THE SUPERVISION OF SMALL-POX "CONTACTS."

THE Local Government Board has issued in a circular letter to metropolitan borough councils the opinion of its medical adviser as to the proper method of dealing with persons who are exposed in their homes to small-pox infection. If the removal of the infectious person to hospital is promptly effected, if those who have been exposed to his infection are without loss of time vaccinated or revaccinated, and the home of the infectious person thoroughly disinfected, there is no need to retain in the house those who are now called "contacts." This is practical common sense; the cost of the maintenance of the contacts who would thus be deprived of opportunity of earning their living when small-pox becomes prevalent is absolutely prohibitory, and while the cost is great the gain is very small. The circular states that "occasions however may arise in which additional precautions may be necessary; as, for example, when laundries are in question, or where the business or habits of the inmates of the invaded house are such as to make it difficult for proper medical observation of them to be maintained." The inmates of common lodging-houses may desire to move from one house to another, and may thus provide fresh centres of infection. It is desirable that these persons should be kept under observation, for necessarily every person exposed to small-pox should be subjected to examination at the time when their small-pox may develop. A trifling expenditure will usually suffice to ensure in particular cases needing assistance the residence of such persons in the house under observation, not to prevent their continuing their avocations, but so as to provide that they shall be visited at the time when small-pox may manifest itself in them. If the course recommended by the Local Government Board be adopted, the best results will be obtained at the smallest cost.

A NAMELESS MEDICAL HERO OF THE FRANCO-PRUSSIAN WAR.

DR. GORDON SHARP, of Leeds, has sent us the following interesting account of an American student whose devotion at the siege of Metz entitles him to a place in the Valhalla of medical heroes. "After the surrender of Metz on October 29th, 1870, it was found that 'black typhus fever' was raging amongst the French soldiers who had survived the siege. The Grande Place or great square of Metz was packed with railway wagons belonging to the Eastern Railway Company of France brought within the fortifications in order to save them from falling into the hands of the Germans.

During the siege these wagons had been converted into field ambulances, in which the typhus patients were placed after their removal from the hospitals. Each truck had accommodation for at least 6 patients, and as there were 320 wagons, the typhus patients must have numbered 1,800. After a certain lapse of time a detachment of German soldiers entered the Grande Place in order to remove the dead for burial. A large quantity of quicklime was brought in wagons and thrown from long-handled shovels over the corpses in the trucks. The bodies were then swung by the legs into the wagons, carted away into the fields outside the walls, and thrown promiscuously into huge trenches prepared for their reception. The soil was at once shovelled over them. 'Tools,' as Byron bitterly protests, 'the broken tools which tyrants cast away.' Among the bodies thus unceremoniously huddled into the trenches was that of a young doctor, who had volunteered to attend on the sick men in the railway wagons, and who had himself fallen a victim to the fatal malady. The pathetic story of this youth of 22, which I afterwards heard from my friend Whitwell, who had it from what he considered to be a reliable source, deserves mention as a remarkable instance of magnanimous self-sacrifice and courageous devotion to duty. He was a medical student of American nationality, unknown to me even by name. He had served in the French army as a surgeon throughout the campaign, and had been shut up with it during the siege of Metz. When the 'black typhus' patients had been conveyed out of the hospitals into the railway wagons in the Grande Place, and no surgeon or nurse was found willing to be shut up entirely with them in the square, he volunteered to go alone into the enclosure to undertake this dangerous duty. As a medical man he knew perfectly well he was taking his life in his hand in thus devoting himself to the care of these men, who were dying of the most terribly infectious of all forms of fever. All that one pair of hands could do to relieve their sufferings he did for them by night and day, literally handing them the cup of cold water in the name of a disciple; for it is to me inconceivable that any lesser motive could possibly induce a youth of 22 to undertake so dangerous a task than 'the love of Christ constraining him.' Naturally in a short time the fever seized him in that hotbed of disease and ended his brave young life. Buried undistinguished among the heaps of corpses thrown indiscriminately into the trenches, 'no storied urn or animated bust' reared over that nameless grave to commemorate his noble self-sacrifice in the service of his fellow-beings—he remains in my memory and in that of my companions who knew the story—to be distinguished as the one true hero of the siege of Metz."[1]

PAINLESS PARTURITION IN TABES.

MIRABEAU of Munich recently related at a meeting of the Gynaecological Society of that city[2] a case where an afflicted woman brought forth a child in sorrow certainly, yet in neither pain nor peril. She was 31 years of age. When 17 she contracted syphilis, after 18 her health seemed good, and when 22 she married a man free from any morbid taint. For years the union proved sterile. When the patient reached the age of 26 unmistakable signs of tabes dorsalis set in; two years later the lower extremities were completely paralysed. The patellar reflex was absent, there was sensory disturbance in the upper extremity, and the Argyll-Robertson pupil was noted. The patient could retain neither urine nor motions; she aborted when 30, and soon afterwards, whilst undergoing a course of inunction, became pregnant again, and carried the child to term. Labour set in spontaneously, the pains were remarkably strong and well maintained, but the patient declared that she could not feel them, nor did she know that the child was born until she heard it cry. It was a healthy, well-developed female. Mirabeau observed that this case proves the existence of motor centres in the uterus. Owing to the patient's absolute insensibility to the uterine contractions, it was impossible to ascertain how long the labour had lasted when the obstetrician first examined her.

[1] *Quaker Campaigns in Peace and War*. By Wm. Jones. London: Headley Bros., 1899.

[2] *Monatschrift f. Geburtsh. u. Gyn.*, February, 1902, p. 206.

A CONGRESS OF MEDICAL STUDENTS.

THE epidemic of medical congresses which has raged with increasing severity for some years has now spread to students. We in this country are said to take our pleasures sadly, but at least when our students wish to celebrate any anniversary they do not indulge in a congress in honour of the occasion. This is what was recently done by the Liége Medical Students' Association by way of celebrating the fifteenth anniversary of its foundation. The subjects discussed were uniformity of curriculum in all the universities of Belgium, international reciprocity in the recognition of degrees, and compulsory courses in special departments. With regard to the first of these subjects, it may be gathered from the report of the discussion that at the four universities of Belgium the curriculum is exactly similar, but all examinations for the degree must be passed at the same university. A resolution that it would be advantageous to allow students to migrate from one university to another and pass their examinations where they please, as is done in Germany, was passed unanimously. As to reciprocity, no decision was arrived at; the general feeling, however, seemed to be that it would lead to an influx of foreign doctors which, it was said, would be a misfortune for Belgium. A resolution in favour of compulsory courses in special departments was passed unanimously. An interesting feature of the Congress was an address delivered by Professor Calmette, of Lille, to an overflowing audience, which included the governor of the province, the burgomaster and various other notabilities of the town. M. Calmette spoke of the social function of the medical practitioner, who, he said, combined in himself two characters, that of healer and that of guardian of health. In recent years the preventive part of the doctor's activity had become expanded, owing to the increase of knowledge of the causes of disease. Why, he asked, should not all classes of society pay their doctors, as is done in China, for keeping them in health? Why should not the medical practitioner become a public functionary with a fixed salary? Carried away into a scientific rhapsody, M. Calmette declared that small-pox no longer exists—a statement which will wring the withers of many in England and elsewhere—typhoid fever is disappearing, hydrophobia and diphtheria can be summarily dealt with, and tuberculosis will soon be conquered. M. Calmette sees with prophetic vision the advent of a time in the no very distant future when there will no longer be medical practitioners, but only hygienists and specialists. Of these optimistic visions we need only say that they take their origin from the laboratory, not from the sick room. We are still a long way from the fulfilment of these dreams; indeed, we venture to think that the "anticipations" of Mr. Wells will be realized almost as soon as those of M. Calmette.

CAN A FETUS CRY *IN UTERO*?

BEFORE the days of scientific obstetrics midwives declared that the fetus might cry out audibly in the womb. Reidhaar, of Bâle (*Centralblatt f. Gynäk.*, No. 6, 1902) claims to have had recent experience of a case of the kind, noting how within the last ten years several instances of "vagitus uterinus" have been reported by well-known authorities. Thorn, six years ago, recorded that he heard three cries after using Barnes's dilator, and Schaller speaks of an inexperienced operator who attempted to turn, and during

the process the fetus was heard to cry out for over fifteen seconds. The question has been raised whether there is true inspiration and expiration when the voice is heard. Reidhaar's patient was a woman, aged 21, who suffered from a severe attack of enteric fever in August, 1900, followed by septic endocarditis and hepatic, pulmonary, and renal embolism. She was pregnant, and her general health grew worse and worse. Induction of labour was therefore decided upon on November 23rd, 1900. There was cardiac hypertrophy, pulmonary regurgitation, and albuminuria, but the fetal heart sounds were clearly audible. At 10 A.M. Reidhaar introduced his metreurynter or dilator, the waters escaped at once. One hour later, as no pains had set in, he removed the instrument and introduced a larger size, but he found this manœuvre very difficult. The attempt set up crampy pains in the uterus, and the debilitated patient became excited, then seven distinct cries were heard in rapid succession, and though not very shrill they were audible in the room adjacent to the patient's apartment. Two minutes later Reidhaar caught up the anterior lip of the cervix with a volsella, cries were heard again very distinctly. The fetal heart beats had fallen from 140 to 100, the mother's pulse rose from 100 before the introduction of the first dilator to 130. At length the second dilator was slipped in, and uterine contractions began. The bag was introduced in the afternoon: it was expelled at 7 P.M.; it was reintroduced, then pains became strong, and at 3 A.M. on November 24th it was once more expelled. The fetal head lay in the first position, and delivery was promptly effected by the forceps. The child was asphyxiated, but revived after a little assistance, and was saved; it weighed close upon 5 lbs. The mother's condition greatly improved during the puerperium. This case is certainly of much interest. Cries, audible in an adjacent room, emanated from the uterus, and the child was born alive sixteen hours later. It is hard to understand how the fetal voice, never very strong, can be heard when uttered inside the uterus, where there can be very little air, even when an instrument has been pushed in or the os opened widely. All happened an hour after the escape of the waters, when the uterus must have firmly gripped the fetus. The physiology of the cries remains obscure. If truly respiratory, the lungs must have filled out more or less when they were uttered. Then the fetus, nourished by its placenta, was able to live for sixteen hours in the uterus with its lungs more or less filled. The theories of Schwarz and Zuntz about intrauterine and extrauterine stimulation of the fetal skin as setting up respiratory movements do not settle the main questions whether intrauterine cries have been heard, which seems true, and if so, how they are produced, which is more problematical.

THE THEORY OF NEURON RETRACTION.

THE theory of the motility of the neuron, which followed the observation of Wiedersheim that certain cells in the nervous system of the crustacean leptodora were capable of active motion, was first advocated by Rabl-Rückhardt in 1890 and has ever since engaged the attention of neurologists. Since Collela in 1893 first supported this theory by his results with the Golgi method, a host of workers have been busy in this field. Even to summarize their results would take up much space. Suffice it to say that variation in the contour of the neuron, consisting essentially of disappearance of the dendritic spines or gemmules, with coincident dendritic swelling or varicosity, forms the substance of every description. It is further affirmed that these variations can be decided experimentally, and that Golgi preparations from animals which have been subjected immediately before being killed to various stimuli, thermal, electrical, etc., or to the action of certain drugs, show the condition of absence of gemmules and presence of varicosities; whereas preparations from animals killed after rest without stimulation give the reverse picture. On this slender anatomical basis theoretical structures have been raised which cover almost the whole ground of pychic phenomena. In this relation the results of an investigation by Drs. Weil and Frank at the Pathological Institute of the New York Hospitals[1] is of great importance. The methods employed were the three forms (slow, mixed and rapid) of the bichromate-silver method of Golgi. The number of animals, mostly rabbits, experimented upon was 43, and the number of pieces cut amounted to 342. Of the rabbits ten were normal and used as controls, and of the remainder two were poisoned by morphine, one by strychnine, four by chloroform and the rest by the injection of hypertoxic urine or serum. The same material when treated by different methods yielded different results; pieces from the same animals when immersed in the same fluids illustrated the extremes of varicosity produced by that method; and the various methods gave results constant for themselves, irrespective of the nature of the material. Thus the histological picture does not correspond to the functional condition of the material—unless perchance pathological changes have been induced—but depends on the method used; the varicosities must be regarded as artifacts, as has long been maintained by Kölliker, Cajal, and in this country by Hill; and the authors contend that whether (as seems probable) the gemmules displayed by the Golgi and other methods are anatomical entities or not, the retraction theory, whose anatomical basis is still to seek, must be relegated to the region of pure theory.

MEDICAL SCHOOLS AT FUNCHAL AND GOA.

A RECENT interpellation by a member of the Portuguese Chamber of Deputies, Senhor Egas Moniz, set in a fierce light of publicity the deplorable state of the schools of medicine at Funchal and at Goa. In was stated by Senhor Moniz that at Funchal the curriculum is only of three years' duration, while the teaching staff consists of two doctors and an apothecary, The honourable member declared it to be incredible that there should be a medical school existing in such conditions in the twentieth century. Goa was somewhat better off, for it had six professors and a five years' curriculum: nevertheless, its condition was far from satifactory. Senhor Hintze Ribeiro, replying on behalf of the Government, practically admitted the truth of the indictment, though he pleaded that Senhor Moniz had been unjust in saying that there were only three teachers in the Funchal school, for as a matter of fact there were four. The estimation in which the practitioners trained in this school are held by the authorities is shown by the fact that, under the terms of the most recent measure of sanitary reform, they are expressly debarred from holding the post of municipal medical officers and other public appointments.

HERMAPHRODITISM · SEX DETECTED AT AN OVARIOTOMY.

SURGEONS are now well aware that an ovarian hernia must be looked upon with suspicion, as the "ovary" has more than once turned out to be a testicle, even when a rudimentary uterus was discovered. Hence the genital tract should be always explored before and during an operation on a hernia where a body diagnosed as an ovary lies in the sac. Krabbel, of Aachen,[2] records a remarkable case. A teacher in a high school suffered from an abdominal tumour. "He" was a splendidly built, short "man" with a moustache and a less developed beard. The voice was high, the larynx not prominent, and the breasts flat. The abdomen was distended by a large tumour. There was a distinct penis, but showing extreme hypospadias, no scrotum, and no testicles, whilst two well-

[1] *Archives of Neurology and Psychopathology*, Vol. iii. No. 3. 1900.
[2] Ueber eine seltene Ovariotomie. Report of meetings of the Cologne Obstetrical Society, *Monats. f. Geb. u. Gyn.*, February, 1902.

formed labia existed. Under chloroform a small vagina and a cervix were detected. Ovariotomy was performed, the tumour was a multilocular cyst of the left ovary, a small body resembling an ovary which lay attached to its under surface proved to be the parovarium. There was a well made though small uterus, with a right as well as a left broad ligament, though nothing is reported about a right ovary. One year and a-half later a large recurrent growth was removed. Professor Marchand pronounced it to be a teratoma with sarcomatous and myomatous tissue added to the complicated and highly-developed structures seen in this kind of morbid growth. No recurrence has taken place and the patient remains in good health. No emissions nor catamenia had ever occurred. Of course the patient was in this case an undoubted female, but hypospadias, undescended "testicles," and even a distinct rudimentary vagina are no proof of sex, whilst, as said above, a male, that is a testicle-bearing person, may possess a rudimentary uterus. The nature of the genital gland, in Krabbel's case a cystic ovary, can alone determine disputed sex.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY'S DINNER.

THE Fellows' Dinner of the Royal Medical and Chirurgical Society took place in the Whitehall Rooms of the Hôtel Métropole on February 26th. The Chairman of the evening (in the much regretted absence of the President of the Society, Dr. F. W. Pavy, owing to domestic bereavement) was Dr. C. Theodore Williams. About 120 Fellows and guests were present, among others Sir Walter Sendall, G.C.M.G., Sir William Turner, Sir Dyce Duckworth, Sir Thomas Smith, Mr. A. Willett, President-elect of the Society; Mr. Watson Cheyne, Mr. Howard Marsh, Dr. Peter Horrocks, and Dr. Urban Pritchard, Presidents of kindred Societies; Sir Thomas Barlow, Bart., and Mr. Clinton Dent, Honorary Secretaries of the Society; Mr. Howse, President of the Royal College of Surgeons; Mr. W. W. Ouless, R.A., Dr. Conan Doyle, Surgeon-General Taylor, Professor A. W. Rücker, Mr. Stephen Langton, Mr. Thomas Bryant, Dr. Pye-Smith, and Mr. Rickman Godlee. A telegram of congratulation, and of regret on being absent, was received from the President, and welcomed by the Fellows and guests. Among the toasts were "The Patron of the Society, His Majesty the King," proposed by the Chairman, and "Her Majesty the Queen, the Prince and Princess of Wales, and the other Members of the Royal Family," also proposed by the Chairman. The toast of "The Royal Medical and Chirurgical Society" was proposed by the Chairman in a somewhat lengthy speech, in which the history and present state of the Society were recounted. Mr. Alfred Willett, President-elect, proposed the toast of "The Guests," which was responded to by Sir Walter Sendall, G.C.M.G., and Dr. Conan Doyle. Dr. Conan Doyle acknowledged to a feeling of some embarrassment, because he felt like a deserter dining with his old regiment, and although he had certainly attained to the dignity of full private in that regiment, he felt still more embarrassed because he was that night dining in the officers' mess. Although no longer a member of the medical profession, yet he valued the medical training which he had received not a little. The medical education he held was the truest basis for thought and the truest basis for life because it cut down to its very roots. But the greatest influence had been exercised on his mind not by the eminent leaders of the profession or by his learned professors, but by those parish priests of science—the humble general practitioners. Their inconspicuous life was to him a continual inspiration, characterized as it was by a serene high sense of duty which stretched through life to death. After a humorous speech by Dr. George Ogilvie, Sir William Turner proposed "The Health of the Chairman," at the same time making a sympathetic allusion to the family affliction of the President; the toast was drunk with acclamation.

COMPULSORY VACCINATION IN AMERICA.

A SYSTEMATIC effort to prevent the further spread of small-pox is being made by the Health Department of New York. There are now 155 vaccinators at work, and it is reported that about 10,000 persons are vaccinated daily. A Bill making vaccination compulsory has also been introduced into the Senate of the Legislature of the State of New York. It provides that every local Board of Health shall compel the vaccination of every public officer, policeman, fireman, school teacher, and all other municipal officials who come in contact with the public. No person is to be admitted to the National Guard without a certificate of vaccination obtained not more than five years before. A radical feature of the proposed law is that no person, firm, or corporation employing more than ten persons shall employ any one who has not been vaccinated within five years. In a recent issue we gave an illustration of the way in which Strafford's system of "Thorough" is carried out in dealing with matters relating to the public health in America. Another is reported from Minneapolis. Medical officers of the Health Department of that city recently entered the Chamber of Commerce and vaccinated all occupants of the building. There was great excitement when it was discovered that all must submit to the operation, exit from the building being barred by policemen. Some 300 persons were vaccinated. It may be added that the Finance Committee of the Philadelphia Common Council has recommended the appropriation of the sum of £45,000, in addition to what has already been appropriated by the city, for the extermination of small-pox. In the course of a debate on the subject the Chairman said that the city might have to pay £100,000 before the present epidemic was entirely suppressed.

THE TREATMENT OF HAY FEVER.

IF any victim of hay asthma or other form of coryza nervosa goes unrelieved of his troublesome complaint, it cannot be owing to any deficiency in the number of remedies which he can try. From lotions, sprays, snuffs to surgical operations a wide field of choice is offered him, and, if we call attention to yet another mode of treatment, it is because it presents some points of novelty. Dr. Fink does not share Sticker's pessimistic opinion that no case of Bostock's catarrh has ever been cured, for he has met with some success since he adopted his present method of treatment. Bosworth regards those cases which do not begin with symptoms of irritation as due to stimulation of the trigeminus, and those which do to stimulation of the sympathetic. Fink,[1] on the other hand, thinks that the coryza is not caused by vascular dilatation, and that the sympathetic is not concerned at all. Aschenbrandt showed that secretion from the mucous membrane of the nose and neighbouring cavities was controlled by special fibres in the trigeminus, but that it was affected only by stimulation of their distal extremities. The author believes that the irritants which call these fibres into action also stimulate the sensory fibres of the trigeminus and irritate the lachrymal and conjunctival glands, and by reflex action set up sneezing, etc. The abnormally profuse secretion loses the bactericidal properties of the normal, and may become muco-purulent, and by long-continued irritation give rise to hypertrophy of the inferior turbinate body and even polypi; but these conditions are to be regarded as secondary and treatment of them can only effect a temporary improvement. As regards the source of the profuse secretion, an observa-

[1] *Deutsche medicinische Wochenschrift*, November 14th, 1901.

tion made by Helmholtz (who himself suffered from the disease) is important. Helmholtz found that the secretion which was discharged by vigorous sneezing contained certain vibrios, while that which trickled out slowly did not, and concluded from this observation that the former came from the cavities and recesses of the nose. Without regarding the vibrios as the cause of the disease, Fink directed his attention to the cavities in connexion with the nose, and found that the secretion came mainly from the antrum of Highmore, and further experiment showed that the insufflation of aristol into this cavity checked the symptoms of hay asthma. Eleven cases in all were treated with from one to six or more insufflations, the result being in each case apparently a cure. The aristol—we are not told in what quantity—was introduced through a tube passed into the antrum. The precise nature of the affection and the rhinoscopic appearances seem to be unimportant, but the neurasthenic condition frequently present should of course be treated concurrently. The duration of the relief is not stated definitely in some of the cases, but in one instance there had been no recurrence for a year and a-half. Further investigation is of course needed before we can assign this method of procedure its proper value.

PROFESSOR VIRCHOW.

The *Berliner klinische Wochenschrift* of February 24th states that since the date of the last report Professor Virchow has continued to make steady progress. On February 16th, six weeks after the accident, he for the first time made an effort to walk with suitable support, and with characteristic energy has since persevered in the attempt. His physical condition is said to be satisfactory, and it is hoped that he will recover the use of the limb, though, owing to his age and the severe nature of the injury, some amount of lameness will probably be left.

TRAINING SCHOOLS FOR NURSES IN CUBA.

Schools for nurses are to be established in Cuba. These schools will be State institutions, and will be under the control of the Department of Charities. Diplomas will be issued to successful candidates attesting their fitness for their duties. It is hoped to establish and maintain a universal standard for instruction, and to provide hospitals and institutions in the island, with skilled nursing service and a proper number of qualified assistants.

THE NEW FRENCH PUBLIC HEALTH LAW.

A new public health law, bearing date February 15th, 1902, came into force in France on February 20th. Among other things the new law provides that in each commune the mayor shall issue, under the form of municipal ordinances, sanitary regulations indicating the precautions to be taken against communicable diseases, and especially the means of disinfection and other measures for the maintenance of the healthiness of dwellings and their precincts. These ordinances must be approved by the prefect acting on the advice of the departmental Councils of Hygiene. A list of the diseases to which the provisions of the new law are applicable must be drawn up within six months of its promulgation. This list must be approved by the Academy of Medicine and the Consultative Committee of Hygiene of France. The notification to the public authorities of all cases of diseases included in the list is compulsory on every doctor of medicine, *officier de santé*, or midwife who recognises its existence. Vaccination is made compulsory within the first year of life, and revaccination is compulsory during the eleventh and twenty-first years respectively. Disinfection is compulsory in all cases of diseases included in the list. It must be carried out by the municipal authority in towns of more than 20,000 inhabitants, and by a departmental staff in towns with a smaller population. When an epidemic threatens a district, and local means of defence are recognized to be insufficient, a decree passed after reference to the Consultative Committee of Hygiene will determine the measures to be taken to prevent the spread of the disease. When during three consecutive years the number of deaths in a commune has exceeded the average rate of mortality in the whole of France, it is the duty of the Prefect to direct the departmental Council of Hygiene to institute an inquiry as to the sanitary conditions of the commune. If this inquiry shows that sanitary improvements are required, particularly if the drinking water is either unsatisfactory in quality or insufficient in quantity, the Prefect must call on the communal authorities to carry out the necessary works. Fines and other penalties are imposed on all persons who pollute wells, cisterns, conduits, aqueducts, reservoirs, who leave the bodies of animals, dung, or other noxious substance in public places or wherever it may be a nuisance, or who interfere with the authorities in carrying out the provisions of the law.

On the anniversary of his accession to the throne, His Highness the Khedive has bestowed on Harry Crookshank Pacha, F.R.C.S.Edin., the Grand Cordon (1st Class) of the Imperial Order of the Medjidieh, in recognition of his eighteen years' service in Egypt.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Midwives Bill occupied the House of Commons for nearly five hours on Wednesday afternoon, and was finally read a second time without a division! The second reading was moved by Lord Cecil Manners in a short and business-like speech, in which he quoted the medical opinion in favour of the proposal, and the example of other countries. Mr. De Tatton Egerton seconded the motion, and warmly urged the necessity of checking the employment of incompetent women. Sir John Tuke then moved the rejection of the Bill. He said he had supported the Bill of 1900 on the ground that it had an important bearing on public health, but the most valued and vital clause of that Bill was absent in the present measure. He showed that it would not reduce the number of uncertified women, and generally supported the views of the General Medical Council against the present proposals. Sir Barrington Simeon strongly opposed the Bill, and then Dr. Farquharson gave it warm support, and amused the House by references to the practice of midwifery in his early days. Mr. Griffith-Boscawen, who opposed the Bill of 1900, advocated the passage of the present measure, as did also Mr. Wason and Sir Francis Powell. Dr. Ambrose, speaking with the authority of a doctor in actual practice, pointed out the dangers likely to arise if the measure were enacted, and opposed it in the interests of women who might entrust their lives to incompetent midwives who would still be able to practise. After other short speeches the luncheon interval occurred, and then Colonel Sadler made a neat and vigorous speech against the Bill, quoting his experience of twenty-five years as a local administrator in a great manufacturing district. To him replied Mr. Luke White from the Liberal benches, who called in his experience as a coroner for the East Riding of Yorkshire in favour of a measure to control midwives practising among the poor. Sir Walter Foster next spoke, and the House soon filled up while the member for Ilkeston developed his views about the difficulty of the problem and the need for longer and deeper consideration before legislation was enacted. He dwelt at length on the defects of the Bill, and pointed out its failure to control the practice of those women who attended the poorest classes in the community, while it protected the more skilful midwives. He pleaded for more efficient local control and an annual licence as essentials to the success of any measure. Mr. Heywood Johnstone, who may be described as the father of the Bill, replied in a strong speech which defended the Bill and traversed the objections. Mr.

T. P. O'Connor followed in an eloquent and humorous speech, which pleased the House but failed to make converts. Then Sir Savile Crossley, Sir Michael Foster, and Mr. John Burns all in short speeches supported the Bill. The Home Secretary wound up the debate with a speech strongly in favour of the second reading. It was evident by this time that a division on Sir John Tuke's motion could only result in a disastrous defeat, and so the Bill was read a second time without a division. Mr. Heywood Johnstone then moved that it be referred to the Grand Committee on Law, and no one else rising, Sir Walter Foster proposed as an amendment that it be referred to a Select Committee for more careful consideration. This was seconded by Sir John Tuke and supported by Mr. T. P. O'Connor, but the House was impatient of any but the ordinary course, and so the Bill was referred to the Standing Committee. The Bill has now an excellent chance of passing into law. The organized battalions have scored a noteworthy victory, and although some amendments may be made in Grand Committee, the Bill is not likely to be altered materially. The Home Secretary's speech dwelt on the simple form of the Bill as its great merit, and this feeling will militate against any serious amendment. There can be no doubt the feeling in the House was overwhelmingly in its favour. As there is no provision in the present measure to penalize any woman who attends midwifery cases without calling herself a midwife, the friends of this interesting class, who were strong enough to check and destroy the Bill of 1900 at the report stage are now on the side of the promoters of the Bill of 1902.

Small-pox and Infection.—There was quite a little debate last week carried on by question and answer, on the precautions against the spread of small-pox. Mr. Corrie Grant called attention to a case in which small-pox was contracted by a visitor to the hospital ships, and asked what precautions were taken to prevent infection. Mr. Long, in reply, said that visitors on their arrival were invited to partake of a light meal in order to make them physically better able to resist infection; the medical officer then saw them and inquired into their condition as to vaccination and if necessary urged the advisability of immediate revaccination. Before entering the wards the visitors were dressed in overalls and caps, and while in the wards were on no account allowed to touch or handle their relatives or the beds on which patients were lying. After a brief stay of some minutes only in the wards, the visitors were taken to a dressing room, where the overalls and caps were removed, and the visitors underwent a thorough washing of hands and face. The fact of every visit was communicated to the medical officer of health of the district in which the visitor resided. In the case referred to by Mr. Grant the two visitors, of whom one had since contracted small-pox, had refused to be revaccinated when visiting the ships. In answer to a further question, the President of the Local Government Board said the Government would not bring in a Bill to enforce isolation of persons known to have been in contact with small-pox cases, and to provide for compensation for such persons. He however proposed to issue a circular on the subject of the isolation of contacts based on the views of his medical staff. With reference to a suggestion that wages should be paid during isolation he could not promise to consider it. He did not think it was at all desirable that district authorities should pay the wages out of the rates. Local authorities could provide for the maintenance of persons isolated, but to pay their wages would be a very serious step. In answer to Mr. Bartley, Mr. Long said the Metropolitan Asylums Board had absolute power in the matter of visitors, and they only sanctioned visits when it was believed the patients were dying.

Certificates of Exemption from Vaccination are the cause of many curious questions. Mr. Levy on Monday last called attention to a rule at Norwich by which the justices ask for a medical certificate showing that vaccination will be injurious before granting an exemption certificate. The Home Secretary said he was aware that different views prevailed as regards practice in these cases, but, as he understood, action was not governed by the rule referred to. He had no power to interfere with the discretion of the magistrates. In reference to the retention of the birth certificates by the magistrates' clerk at Leamington in case of an application for an exemption certificate, the Home Secretary said he was in communication with the clerk, but that at the moment he could not see under what authority the retention had been made.

War Office Factories, and Small-Pox.—The Secretary of State for War said that a notice had been issued at the Brennan Torpedo Factory, Chatham, in order to obtain information as to vaccination among the employés for guidance in case the epidemic became so serious as to require special consideration. The circular referred to revaccination, but did not enforce it. Non-compliance with the notice would not involve dismissal, but he reserved complete freedom to the War Office to issue any regulations that might be thought necessary to prevent small-pox being introduced into the factories.

The Medical Service of the Navy.—In the course of the debates on the Navy Estimates, which extended over three days during the last week, Mr. Arnold Forster said that the Admiralty had not lost sight of the necessity for an increased medical service for the navy in time of war. It was a mistake to suppose that by paying a retaining fee to doctors, they could obtain exactly what they required. They were making arrangements by which they could obtain the services in time of war of a number of qualified medical officers, but they had not found on inquiry that they could much improve the position by giving doctors retaining fees in time of peace. It had been found in the case of the war in South Africa that medical men of the highest rank were ready to assist the troops in the field; but those were not gentlemen who would have availed themselves of a retaining fee. The Admiralty believed that if they were to offer a retaining fee, they would obtain, no doubt, doctors of considerable merit, but of less qualifications than those upon whom they could rely to give their services to the country in time of war.

The Public Health Bill.—This Bill, which was introduced last year to amend the law relating to the qualification and tenure of office of medical officers of health, sanitary inspectors, and inspectors of nuisances, and to provide for superannuation allowances for such officers and inspectors, and to make certain other provisions of less general interest, will, we learn, be introduced again this year by Sir Francis Powell, and will be backed by Sir Walter Foster.

The Cremation Bill has passed its third reading in the House of Lords after being slightly amended in Committee. In the form the Bill is much the same as when altered in Committee in the Commons last year and applies to Scotland. Sir Walter Foster, who has charge of the Bill, has put the second reading down for Monday next, but it is not likely to be taken then.

Army Nurses and War Medals.—In answer to Mr. Claude Lowther, Mr. Brodrick has announced that the South African war medal is given to all nurses and nursing sisters who served in South Africa from October 11th, 1899, but the term "nurses and nursing sisters" is held to apply only to those specially appointed as such, and to the staff of any local charitable institution in South Africa duly recognized by the military authorities there, and utilized by them for the reception and care of the sick and wounded.

The Royal Army Medical Corps. In answer to a question put on the paper by Dr. Thompson, in which it was suggested that a cause for the delay in the issue of the new warrant resided in the attitude of the Indian Government towards the army medical officers, Lord George Hamilton stated that no proposal had been refused by the Government of India, nor made to them to assimilate the pay and allowances of the R.A.M.C. to any other branch of the army. The pay of officers of the corps serving in India was increased somewhat in 1897, and compared favourably with that of most other branches of the service. Various questions relating to the organization of the corps were engaging the attention of the Government of India, and he hoped shortly to receive and consider their recommendations.

THE MIDWIVES BILL.

DEBATE IN THE HOUSE OF COMMONS.

[Special Report to the British Medical Journal.]

Wednesday, February 26th, 1902.

Lord Cecil Manners, in moving the second reading of the Midwives Bill, said he could not himself claim to have made a prolonged or thorough study of the subject; but the question was by no means new to the House of Commons. As far back as 1878 a Bill on this subject was introduced, and since then almost every year a Bill had come before Parliament. Two Select Committees had reported generally in favour of the object his measure had in view, and in 1900 a Bill, drafted on the lines of the report of one of these Subcommittees, passed its second reading, but reached the report stage too late to become law. The general consensus of opinion was undoubtedly strongly in favour of legislation. The General Medical Council in 1889 passed a resolution in favour of the education and registration of midwives, and so also had the Royal College of Physicians. The opposition hitherto offered to the Bill was more owing to the fact that experts differed as to the precise form of legislative action rather than to any feeling that legislation was unnecessary. At present any unqualified woman might put a name plate on her door and practise as a midwife. This was the only civilized country in Europe where there was not some sort of registration and regulation for midwives. These women were very often incompetent, and very serious results to health and life occurred from the fact that in hundreds of thousands of cases they alone attended at childbirth. The present Bill proposed to secure proper training for midwives by the appointment of a Board of seven members (of whom four must be registered medical practitioners), who would frame rules and regulations as to the conditions upon which women should be admitted to a register of midwives or allowed under certificates to practise midwifery. This would enable persons who were in need of the services of midwives to discriminate between those who were competent and those who were incompetent. It was proposed to entrust supervision to the county councils. He moved the second reading of the Bill.

Mr. De Tatton Egerton, in seconding the motion, said that as far back as 1813 the Society of Apothecaries tried to get that House to legislate on the question of midwives. In 1886 the General Medical Council inserted in the Medical Act a section which referred to the registration and organization of midwives, but in order to carry their Bill they found it necessary to drop that section, because it was proved that it might make some confusion between midwives and medical men. Since that time the subject had been well threshed out in the country and in that House, and it was a disgrace to the country that there was no registration whatever to prevent the employment of unqualified women or their use of the word "midwife." The General Medical Council, which had opposed the Bills that had been brought forward in the last three or four years, had a Bill of their own, but they had never thought fit to bring it for discussion in that House. He would hardly say they had taken up the position of the dog in the manger, but though they had never brought their Bill forward they had done all they could to wreck the Bills brought forward by those whom he had the honour to represent. He contended that the proposals in the Bill were sound and just, and evidence which had been obtained from coroners alone pointed to the absolute necessity of passing such a measure as this, and the House would do wrong if it did not give this Bill a second reading and refer it to a Committee.

Sir John Batty Tuke (Edinburgh and St. Andrews Universities) said it was with a certain amount of regret that he moved the rejection of this Bill, for it contained certain good points. But it was so lacking in strength and purpose that he considered it to be really a useless Bill: it was lacking in one essential and particular and vital point; and, owing to that, he considered it to be his duty to move the rejection of the Bill. He supported the Bill of 1900 generally on the ground that, to his mind, it was an important measure bearing upon public health. He supported that Bill, notwithstanding the opposition of a section of the medical profession. The profession was by no means unanimous upon the question, but he thought he was not wrong in saying that 95 per cent. of the medical profession was opposed to the Bill now before the House, on account of the omission of the penal clause. The hon. member for Knutsford had alluded to the action of the General Medical Council, and had spoken of them as being like a dog in the manger. It was not so. He spoke in 1900 in order to represent the views of the General Medical Council, which was desirous, as he was, that a really good and efficient Bill should be presented to the House. He had said that he supported the Bill of 1900 although it was opposed by a certain number of the profession to which he had the honour to belong. He did so on account of the strong belief that he held that it conferred very great benfits upon women. But the Bill now before the House did not contain the clause which rendered that of 1900 an important measure to public health, and the omission of that clause rendered, in his opinion, this Bill inoperative, futile, and, to a certain extent, mischievous. This Bill, omitted the provision which existed in the Bill of 1900 to prevent uncertified women from practising, and that, to his mind, constituted a cardinal objection. He opposed this Bill on that account, but he had other grounds of objection which could be better represented should this Bill reach the Committee stage, which he trusted it would not do. The hon. members who moved and seconded this motion stated that the main and great object of the Bill was to provide women in labour with suitable and safe attendance. There was no one more anxious than he was that a measure securing such safety should pass that House, but this safety could not be secured merely by providing for the education and superintendance of midwives—there must be a clause preventing the practice of incompetent women. It was a matter of common knowledge that amongst the women now acting as midwives there were a considerable number who, as stated by the proposer of the Bill, by their ignorance, carelessness, filth, and occasional dissipated habits, constituted a serious danger to the public. Through their evil ways puerperal fever was generated and communicated from case to case, by their filth a most dangerous form of insanity was often generated, and many thousands of women, he believed, suffered for years from the consequences of ill-directed labour, and, in not a few cases, death to the child and mother was caused. In evidence of this he thought it was only necessary to refer to the verdicts found in many coroners' courts. The Bill of 1900 was not only calculated to build up a class of midwives who, after receiving elementary education in obstetrics, would be placed, as to their practice, under regulation and supervision, but there was a special clause which was calculated to suppress the existing dangers of nursing. The Bill before the House failed in this important particular; it did not suppress the evil arising out of non-registration, and it failed to protect certified and respectable midwives. Under the Bill of 1900 only certified midwives were allowed to use the name of "midwife," and what was of infinitely greater importance, uncertified women who habitually and for gain practised midwifery were made liable to a fine of not more than £5. He asked the House to consider Clause 3 of this Bill: "Any woman who, within two years from the date of this Act coming into operation, claims to be certified under this Act, shall be so certified provided she holds a certificate in midwifery from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the Central Midwives Board, or produce evidence to the satisfaction of the Board that at the passing of this Act she has been in bona fide practice as a midwife, and that she bears a good character." Thus, any woman who now acted as a midwife could obtain a certificate on producing evidence that she was a respectable woman, and fulfilled certain conditions to be laid down by the Midwives Board constituted under Section IV of the Bill. Surely this was sufficient protection of vested interests. By the penal clause in the Bill of 1900 only ignorant, disreputable and incompetent persons would be precluded from certification—the very class of persons out of whose irregularity the whole

question had arisen. But as the present Bill stood these persons would be permitted to prosecute their work unchecked by any authority. It was quite true that a woman of this class could not put a board over her door or ticket in her window calling herself a midwife, or using any term or designation implying that she had a certificate under this list, but any one acquainted with the class of persons amongst whom such women practised knew that such a slight disability would have no effect in checking her work, and she would continue under this Act to be a source of danger and evil. It might be argued that already the number of incompetent women had lessened in consequence of the extended views on nursing; but the evidence obtainable from the great manufacturing centres and from the metropolis itself, and the evidence obtainable from district nurses and others, would show that at the present moment the dangerous midwife was still a power in the land. He should like to ask the House to consider whether the provisions of this Bill were likely to lessen the number of uncertified midwives. It might be allowed that the Bill might produce a class of fairly well-educated women, educated in the rudiments of obstetrics, and that before a woman could get on the register she came under the jurisdiction of the Midwives Board, one of whose functions was to regulate the course of training and the conduct of examinations. This Board would not admit any woman who, not having had previous hospital training, had not studied the subject specially for six months, or any woman who, having had previous hospital training, had not studied it for more than three months. That, he held, would be the absolutely irreducible minimum. The Board was to possess other powers as regarded the certification of midwives, and the latter were to be brought under the supervision of the county and borough councils. All this meant expenditure of time and money, and the subjection to authority enabled a woman to call herself a midwife, and to sue for recovery of fees. At the same time, the women who had acquired some reputation among the poorer classes could without expenditure and subjection to authority continue their practice. The Board would possess powers to strike a woman's name off the list, but she would still be enabled to continue her practice, and her continuance of practice might be a source of danger. He believed that the promoters of the Bill were sincerely sorry when, under the pressure of Parliamentary exigencies, they withdrew the penal clauses, thereby absolutely eviscerating the Bill. The reason put forward for this was the objection to the creation of new offences, but he denied that a new class of offences would be created thereby. The Apothecaries Act of 1815 was not repealed, and he might refer to the case of an auctioneer, a solicitor, a trader, or even to the case of a man who wished to carry a gun. These were precedents, and he saw no reason why the system of licence should stop short of midwives. The objection of the restriction was alike in all cases, the exclusion of undesirable persons from the occupation or pursuit, and there would be no creation of a new offence, but simply an extension of the known principle. No measure for the certification of midwives could be made effectual to safeguard public health and prevent the too numerous deaths from puerperal fever and other causes, unless uncertificated women were prohibited under penalty from practice. The hon. member would allow that he had not argued the case from the professional point of view. [Hear, hear.] He had argued from the point of view of a member of the general public who might be permitted without vanity to claim some knowledge of medical matters. [Hear, hear.] He held no brief for the profession. If he held any brief at all it was for the hundreds of thousands of women who from necessity or choice had to depend on the services of midwives. He would gladly support a Bill with some modifications were the penal clauses introduced; but as an old Parliamentary friend said to him the other day, "You cannot make certain of anything in the House of Commons," and therefore he found it necessary to move the rejection of the Bill. It was not in its present form a measure that would tend to secure public health; it did not secure the advantages the promoters had in view when they began their movement, and he moved that the Bill be read a second time six months hence.

Sir J. G. BARRINGTON SIMEON seconded the motion. Every gentleman who took interest in the condition of the poorer classes around him, and had acquaintance with medical officers of health, parish and club doctors, must know that there were some poor girls who got into trouble, and married women who did not wish to increase their families, who went to a doctor hoping to induce him to relieve them by some operation. Of course, a member of an honourable profession would dismiss such a woman with a severe rebuke; but if midwives were given a certain amount of authority by registration and certificate under the Bill, the danger that such illegal operations would be performed would be enormously increased. The Bill would set up a perfectly new class of midwives with a sort of authority in the eyes of the poor, and the temptation among poor wives would be to employ these in lieu of the doctor. In too many instances the husband would have an undertaker's bill to pay, and there would be an increase in ophthalmic and other diseases incidental to children neglected at birth. The present state of affairs was highly unsatisfactory, but the Bill would make that state worse, and he mentioned the faults of commission and omission which led him to believe that if the Bill became law all the evils now complained of would remain untouched.

Dr. FARQUHARSON regretted to find himself in opposition to his distinguished friend who had moved the rejection of the Bill, though he was glad to think the objection to the Bill was on points of detail and not on principle. The evils being admitted it was high time to find a remedy, and though the Bill would not do all that was required it would lessen the evils. It was estimated that 450,000 cases of labour were annually attended by women; naturally women at such times sought the sympathy of their own sex. Therefore women should be educated for midwifery, and as the process of parturition was perfectly simple, he saw no difficulty in midwives becoming qualified in three months after twenty labours. He defended the Bill as an honest attempt to regulate and remove great and crushing evils. The penal clauses had been omitted from the present Bill because Parliamentary experience led to the conviction that it was a hopeless Utopian dream to expect the House to pass such clauses. The principle being admitted, the clauses could be amended by a Select Committee.

Mr. GRIFFITH-BOSCAWEN in the differences of doctors found justification for the intervention of lay opinion, and expressed himself as opposed to several details of the Bill while acknowledging the useful object of the promoters. He would not object to the second reading, but held himself free to move amendments in Committee.

Mr. EUGENE WASON, in support of the Bill, said it was wiser to proceed tentatively, and the effort now made might later be extended.

Sir F. S. POWELL spoke in favour of the Bill, though he regarded the alterations from the form of the Bill of 1900 as lessening the claim to support. The Bill might, however, be strengthened in Committee.

Dr. AMBROSE strongly opposed the Bill. He characterized the setting up of the Lord President of the Council as an authority in these matters as a ridiculous proposition. Criticizing various details severely from the medical point of view, he said he opposed the second reading in the hope that some day an efficient measure would be introduced.

Mr. W. F. LAWRENCE felt the necessity for the House coming to a decision, and said that public opinion in Liverpool was decidedly in favour of the Bill. That the Bill was not strong enough was no reason for its rejection. All the points of objection raised left the principle unimpaired, and might be dealt with in Committee.

Mr. EMMOTT cordially supported the Bill.

Colonel SADLER said the ignorance of the poorer classes made them an easy prey to quacks and charlatans who acted as midwives, and the nickel-plate diploma to be given under this Bill would make them a still more easy prey. He believed the Bill was unnecessary, because a sufficient number of trained nurses could be supplied from the public institutions. He opposed the Bill on the ground that it was not fair to the working classes.

Mr. LUKE WHITE, speaking as a coroner, assured the House that there was urgent need for legislation on the question. He supported the motion for the second reading in order that

the measure might be considered by a committee and put before the House in an improved form.

Sir Walter Foster said he rose to speak because he had a sense of serious responsibility with reference to the measure before the House, and the whole subject which had been engaging the attention of the House that afternoon. It was mainly through action on his part that this question came under the notice of the General Medical Council. He was then struck, as members of that House had expressed themselves that afternoon, with the horrors that had occurred from incompetent persons attending the poor at the time of childbirth, and some very startling incidents having come under his personal observation—for at that time he happened to be practising his profession—he felt that something ought to be done to improve the education of those persons and to put them in a position to render aid to their sisters in trouble, and aid of such a kind as not to be fraught with some of the terrible calamities that occurred then—and still occurred, he was sorry to say—to so many of the very poor. Having only that view, he moved a resolution in the General Medical Council in the direction of improving the education of women practising midwifery. In 1889, the following year he thought, some kind of measure was brought before the House, and out of that grew the general agitation which had now been going on for some twelve years, and the subject had been brought before the House from time to time in consequence of that action. Ever since that time the matter, as might be well supposed, had not been out of his mind. Having some humble qualification for knowing how it would affect the poor, and putting aside altogether its possibility of affecting the medical profession, he was bound to admit that even at the present moment, so complicated and so difficult was the problem of seeing how to meet this great evil, that though he was as anxious as any promoter of this Bill could be that it should be solved, he must honestly say to the House that there were still some points of difficulty which he could not get over, and which were apparent in this Bill to a still greater extent than they were in some of the Bills which had preceded it in the consideration of the House. A problem that was as difficult as this problem, which had engaged the minds of some of the most able men in his profession, and had not been solved from the medical point of view, which members of that House had failed to solve from the public point of view, was not a problem which they could discuss lightly. They could not lightly draw up a Bill dealing with such a problem, nor could they find a cure in a few hours' discussion in that House. It was a subject which eminently required deliberation on the part of men specially qualified to consider it; even then this problem would be found to be very difficult of solution. He thought everybody on each side of the House was anxious that they should find some method by which they could approach the question with a view to obtaining some assistance of that kind for the poor in the time of difficulty. They were all agreed upon that; the only thing upon which there was any difference of opinion was the question of method, and in his opinion, and in the opinion of many others, the present Bill was not as good a Bill as previous Bills submitted to the House, and nearly passed into law. Let them consider the position in which they were placed in reference to the Bill. They must remember that they were dealing there with a subject which had been steadily growing in scientific complexity and difficulty during the last 30 or 40 years. He remembered the time when the medical profession did not consider the practice of midwifery quite on a level with their other duties and when the practitioners of midwifery had a separate diploma, and consequently a different rank in the medical profession from that which they had to-day. Gradually the scientific practice of midwifery had been developed, and it had obtained a position on the Statute Book and in the eyes of the scientific world in which it had a greater amount of consideration, and had been put on a level with the other branches of the medical profession; and that which was not the case under the Act of 1857 became the case in the actual legislation of 1886, when the House of Commons in its wisdom, taking into consideration the position which the science of midwifery had at that time attained, said medicine and surgery were no longer to be the only qualifications. Nobody should be put on the *Medical Register* unless qualified in the third branch of the medical profession, and that a man who was qualified in medicine and surgery, and not in midwifery, should not be put on the *Register*. That law so placed on the Statute Book had placed the practice of midwifery in a totally different position. The position now was that no individual man was allowed to practise midwifery in this country unless he had had five years' training and obtained a diploma to practise medicine and surgery equally with midwifery. So that if he (the speaker) happened to be a general practitioner and wanted assistance in a midwifery case, he could not get even as an assistant a man who had gone through his whole curriculum, had been five years a student in a medical school, had attended his midwifery cases, was practically qualified in every way, and had a very wide experience, but who had not passed his final examination, to put him on the *Medical Register*. He could not employ such a man, however qualified he might be, to attend a simple maternity case. It was a strong position for the law to take up, but the House approved it in 1886, and it had not been interfered with. So strong was it that the General Medical Council in carrying it out had to be most severe in its action against the employment by medical men of unqualified assistants. He remembered a case of a practitioner of good repute being prevented from using in midwifery cases the services of his son, who had taken out all his lectures and passed through the whole curriculum and had attended thousands of cases, and who was preferred by patients to the principal. The General Medical Council, carrying out the law of 1886, could only regard the man as an unqualified assistant. That attitude taken up by the Council was not in the interest of the medical profession, but to save the public from terrible disasters and sufferings experienced in the past from the free practice of unqualified men. The Council was jealous of maintaing the high standard of professional efficiency, but if this Bill were passed the whole structure built up with so much care would fall to the ground. Practitioners instead of having men with five years' qualification as assistants would employ women with certificates, though the men had twenty times their training and experience, and the tendency would grow to employ such women generally as assistants. There was the apprehension of an evil so great that before putting such an Act on the Statute Book the utmost care and deliberation was required. Evil might follow from injudicious attempts to do good on the part of benevolent people; a flood of greater evils might follow the introduction of a supposed remedy. The dangers to the public were not met adequately by the Bill. When conjuring up the evils of the present system, those which were displayed in coroners' courts were present to the mind, but there were for each of these scores that never met the public eye. They occurred among a class of people whom this Bill would never touch, people in country districts and in large manufacturing towns who, without a signboard or brass plate, had wide connexions among the poor, and who would continue their practice after the passing of such a Bill. The only people the Bill would touch would be the certificated class, and they would, he hoped, get better training, and they would have some protection against competition. Below the class this would affect the very poor would still—cheapness being a great object—go to the class of midwives they now employed. In this respect the Bill was defective. He was not at all sure that a system of registration was good. In 1890 a strong protest was raised against the mania for registration, and he was not sure that there was not an element of truth in the contention that registration was a poor protection. It was useful for professional purposes, but it did not protect the public. There was no penalty against an unqualified man practising medicine, though being on the *Register* carried with it certain advantages. The midwives' register would not be read, though it might be searched. A person who required the service of a midwife would not search the register, but would send for one of whom she or he had heard, and would not stop to question her qualifications. The Bill was so bad as compared with previous Bills that though he was in favour of educating women

for midwifery he could not vote for a Bill that fell short of previous Bills. There was no definition of a midwife in the Bill, and it should be well understood what a midwife was and what she should do. The word "abnormality" would not protect the public, for abnormality would not arise until the woman was called, and it might be so slight that only experience could detect it, and life might be lost while an unskilled practitioner was trying to find it. There was no check upon the class that did most harm—they would continue their practice without penalty. In the last Bill there was a provision requiring the renewal of annual licence from the local authority and the medical officer of health. That should be of enormous advantage in keeping only respectable persons on the list and protecting them from the temptations which assailed them. It was an unpleasant feature of our modern life that women who advertised themselves as ladies' friends were the cause of horrors and immoralities that every man condemned, and which the utmost care should be taken not to indirectly encourage by any addition to the Statute Book. [Hear, hear.] The Bill was without the protection local control by licence would give. A woman could go anywhere, and producing her certificate could carry on her practice without the restraint of a licence to keep her in the strait and narrow way she ought to follow. The control of the General Medical Council was practically cut out of the Bill, and the controlling body proposed was not strong enough to control tens of thousands of women all over the country. Considering the grave defects in the Bill he entreated the House to pause before giving it a second reading. The correct course would be to refer the subject to a Select Committee: it was not a matter for discussion in Grand Committee or Committee of the House. It required the careful deliberation of men who had given years of study to the subject. With such a committee he believed they might bring forward a solution of the difficulties. These difficulties were so great and intricate that thirty men of the General Medical Council had "been unable to arrive at a conclusion as to the provisions of such a Bill; and if such a body of men of high professional and scientific attainments, with all their knowledge, were unable to come to a satisfactory conclusion, surely the House of Commons ought to pause before settling in a few hours on a Wednesday afternoon a question of a Bill which even its promoters admitted to be defective, not in an ideal sense, but as compared with previous Bills. The Bill was not big enough for the problem: it was not a problem for the solution of private members. The Government should take it up and consider it as an important matter for the State. It should be dealt with in connexion with the nursing of the sick and the registration of women nurses who much needed control. It was time for the Home Secretary to rise to the height of statesmanship and propose such a Bill; and, if he passed such a Bill he would confer a benefit on his generation and humanity at large. [Hear, hear.]

Mr. J. HEYWOOD JOHNSTONE remarked that the hon. gentleman had not himself assisted towards the solution of the problem, and the speech was somewhat misleading by not mentioning the report of the Committee of 1893. He then went *seriatim* through the objections raised to the Bill on points of detail. The provision as to annual licence had been omitted in deference to the wishes of women who found a certain amount of humiliation in having to make frequent application to local authorities, and who further pointed out that the licence restricted them to limited areas. Notification was therefore substituted, and was a less cumbrous form of local supervision, local authorities still having the power and duty of investigation into complaints, and authority to suspend licences. The absence of penalties he justified as being in consonance with the principles of the Medical Act, the purpose of which was to give the public the opportunity of distinguishing between qualified and unqualified practitioners. He quoted figures to show that 11 nursing institutions sent out nurses to 13,712 cases, and the deaths in those cases were only 17. That was a death-rate of 1.23 per 1,000, as compared with a general death-rate in maternity cases of 4.66 per 1,000. Nothing more was necessary to show the superiority of trained over untrained nurses. [Hear, hear.]

Mr. T. P. O'CONNOR criticized the Bill, and urged the promoters not to apply a remedy in a way which would aggravate the existing evil. Women should not be allowed to have powers of practising midwifery under less severe guarantees and safeguards than men.

Sir SAVILE CROSSLEY supported the Bill in the interest of the working classes, and said the prevalence of puerperal fever in the country districts proved that deaths had occurred owing to untrained nursing.

Sir MICHAEL FOSTER was in favour of the Bill, the object of which was to supply special nurses—as distinct from trained nurses—whose qualifications would be, first, that they knew when to send for a doctor; secondly, that they should be cleanly and know what cleanliness meant; and, thirdly, that they never drank. [Hear, hear.] He should look with terror on a Bill which demanded two or three years' training for these women. What was wanted was a better Mrs. Gamp. When the people knew that Mrs. Gamp could be trusted and that Mrs. Harris could not, even though Mrs. Gamp charged a shilling more than Mrs. Harris, he ventured to say that Mrs. Gamp would prosper and Mrs. Harris would disappear because she would be starved out of existence. He hoped the Bill would be read a second time.

Mr. J. BURNS supported the Bill in the interests of the working classes. The doctors in his constituency, which was a typical working man's constituency, and the admirable sisterhoods of nurses, with whom he had discussed the subject, all regarded the Bill with sympathy. They had had in London far too long unqualified midwives, dirty and drunken, who were trading upon the poverty of the poor.

Mr. C. T. RITCHIE (the Home Secretary) said there seemed to be a general consensus of opinion in favour of the second reading. It was only the hon. member for Ilkeston who asked for further inquiry. The object of further inquiry was to make the Bill more drastic and comprehensive. This was a modest Bill, and its only object was to provide the means of knowing that women engaged as midwives were worthy. The Bill would be imperilled if it went to a Select Committee or if it was made very stringent. But there were matters of detail in the Bill which might be very well considered in Committee, and he hoped that the House would not only give it a second reading, but would send it to a tribunal which would deal with it without delay, and enable it to be passed into law in the present session.

Mr. CAINE wished to know who constituted the Incorporated Midwives Institute?

Mr. HEYWOOD JOHNSTONE said it was a body which had been in useful existence for a considerable number of years, and was doing good work under responsible management. He moved that the question be now put.

The second reading was then agreed to without a division.

Mr. HEYWOOD JOHNSTONE moved that the Bill be referred to the Standing Committee on Law.

Sir W. FOSTER moved as an amendment that the Bill be referred to a Select Committee. He wanted, not a longer inquiry, but a more thorough inquiry.

Mr. T. P. O'CONNOR supported the amendment.

After a short discussion, the amendment was negatived, and the Bill referred to the Grand Committee on Law.

THE CONCENTRATION CAMPS IN SOUTH AFRICA.

THE recently issued report by the Committee of Ladies appointed by the Secretary of State for War on the concentration camps in South Africa is the most satisfactory document that has hitherto appeared on this subject; and it will tend to reassure the public mind that every effort is now being made to bring down the high mortality in these camps. The Committee signing this report had Mrs. Garrett Fawcett for its chairman, and included two lady doctors (Dr. Scarlett and Waterston) in its number. There is no minority report, and the criticisms and recommendations contained in it are therefore advanced with their maximum force. We are happy to be assured that many of the recommendations have already been carried into practice. There is manifest, in fact, the utmost anxiety to ameliorate the condition of the inhabitants of the camps, to use the opportunity in educating the children and in encouraging more friendly relationships between British and Boer, and to pave the way for future prosperity and peace.

We have on several previous occasions criticized the administration of some of the concentration camps and pointed out the directions in which improvement might be secured. Thus, in the BRITISH MEDICAL JOURNAL of November 30th, 1901 (page 1631) we stated that: (1) A large share of the high death-rates in the camps is ascribable to the condition in which the women arrive; (2) the dirty habits of the Boers, their use of improper and filthy remedies, their ignorant errors on dietetics have greatly increased the difficulties: (3) the measles which has prevailed has been of a specially malignant type, but this malignancy has doubtless been intensified by filth and overcrowding as well as by previous bad health of the children; (4) dysentery, diarrhoea, and enteric fever have been largely prevalent as well as measles; (5) the differences in incidence and in the fatality of these diseases in different camps appears to indicate defects in the management of some of the camps; insufficient staffs have been occasionally supplied; (6) there has been every attempt to supply the necessary food, clothing, and medical comforts, though sometimes these attempts failed; (7) the camps should be split up and where practicable placed on fresh soil, and increased stringency of sanitary administration enforced.

In the report now issued there is abundant evidence confirmatory of the above general conclusions and satisfactory proof that some of the necessary reforms had already been adopted when the Committee visited the camps. The visits of the Committee appear to have been made between August and November of last year, the report being signed at Durban on December 11th.

In discussing the high death-rate in the camps the Committee's report very properly lays stress on the insanitary condition of the country produced by the war as one of its three main causes; next in importance to this come the well-known personal insanitary habits of the Boers; and finally, causes within the control of the administration. On the last point the Committee has not hesitated to recommend the removal of individual unsatisfactory superintendents of camps, the provision of better and larger medical and nursing staffs, and general improvements in sanitation.

After careful consideration, the Committee, while welcoming the proposed reduction in the numbers of certain camps, do not think "it either necessary or desirable to urge a wholesale removal of the camps, either to Natal or to the eastern part of Cape Colony." They base their objection to such wholesale removal on the actual physical difficulties and risks of removal, and on their doubt as to the possible results of removal from sites having an altitude of 4,000 to 6,000 feet above the level of the sea to the almost tropical heat of some parts of Natal. There is much force in this contention, and we endorse their recommendation as follows, which is on all-fours with our recommendation (7), as stated above: "We recommend the improvement of conditions in the existing camps and the breaking of them up into smaller units, rather than their removal in any wholesale manner."

Now that the camps have become more completely organized, and better conditions for housing and more varied rations, as well as improved sanitation, are being secured, there is reason for hope and, indeed, confidence, that their future experience will be of a more favourable character, and that the educational and other ameliorative measures that are being vigorously prosecuted will materially aid in securing a better and brighter future for the combined British and Boer races in South Africa.

AUSTRALIAN HOSPITALS.

WE have received, through the courtesy of publishers of the *Melbourne Argus*, a report by two gentlemen—Messrs. Haddon and Cornish—nominated by the *Argus* to inquire into the financial position of the Melbourne Hospital. The report is most interesting to all connected with the management of hospitals, and that not only in spite of, but even perhaps on account of, the fact that Australian hospitals differ profoundly from ours both in their constitution and in the sources from which they derive their income. The occasion of the report was that the Melbourne Hospital had been gradually sinking more and more deeply into debt, till it owed £26,000 to its bankers. By an appeal to the public and by private liberality this great debt was extinguished; and then the *Argus*, which had powerfully supported the appeal, instituted the present inquiry in order to see how means could be provided to carry on the hospital on its present scale without the necessity of closing any of the wards. The inquiry had two main branches: (*a*) Whether the expenditure could be diminished: and (*b*) whether the receipts could be increased. The statistics of five other hospitals were used in order to check the expenditure at the Melbourne Hospital.

The report shows that its authors have investigated the problem before them most thoroughly: and we cannot doubt that they have come to correct conclusions, in view of the circumstances in which the hospitals of Australia are carried on. These differ, as we have said, greatly from the system prevailing here, mainly in two respects: first, that in Australia the hospitals are largely supported by the State; one, in fact—the Adelaide Hospital—entirely so; and, secondly, that they are largely pay hospitals, and also receive contributions from the municipalities of their neighbourhood for services rendered.

Let us see what the experience of the Australian hospitals has been in these very important particulars.

1. *As to State Support.*—Excluding the hospital at Adelaide, which is entirely State-supported, the other five included in this report derive 60.46 per cent. of their income from the Government, besides a small proportion from the municipalities. The reporters say that there seems no fixed rule which regulates the allotment of the Government subsidy to the Melbourne Hospital, and it was decreased by £2,000 a year some years since without known reason. At other hospitals it bears a fixed ratio to the public subscriptions. This system may be necessary in the Colonies, or, rather, may have been so when the regions which are now great cities were sparsely populated, but Australian experience is sufficient to show its drawbacks, as contrasted with the self-governing system which prevails here. In the Adelaide Hospital, which is entirely subsidized, the evils which Government control brought with it threatened not long ago to break up the institution altogether. The Melbourne Hospital seems to have been brought near to bankruptcy by the arbitrary withdrawal of a grant which was fixed on no intelligible principle. In Sydney, if we may trust a pamphlet which recently came into our hands,[1] the system leads to very gross abuse, especially in the admission of patients who are not proper recipients of charity. Without, therefore, taking on ourselves to say that the system may not be necessary there, we have no hesitation in saying that if so it is a regrettable necessity, and that strenuous efforts should be made to check the many abuses which control by Government officials tends to bring with it. In particular it seems essential that (as Mr. Bruck recommends) "no patients be admitted into a hospital without a medical man's recommendation accidents and urgent cases excepted."

2. *As to Patients' Payments.*—In the table above referred to, the percentage of income derived from this source averages 12.74 per cent. of the total income at the five hospitals referred to, that is, not much less than the amount received from public subscriptions, which averages 14.68 per cent. The report on which we are commenting is exclusively financial, and the reporters seem to accept the system of payment by patients as a matter of course, and only think how to increase the income of the hospital; but Mr. Bruck's pamphlet above referred to gives a gloomy account of the abuses which this pay system involves—how the destitute poor, for whom surely the hospitals were intended, are kept out by the admission of persons who can pay, and in fact do pay, and therefore not unreasonably consider that they are not receiving charity; how of the large sums so received nothing goes to remunerate the medical officers whose reputation often attracts the patients to the hospital, and whose private patients they would otherwise probably become; how the system deprives the hospitals of the support which they are entitled to receive from public subscriptions; and how it favours the foundation (especially in remote parts such as the mining districts) of so-called hospitals which are little better than "medical clubs." On this point again we have no wish

[1] *On the Uses and Abuses of the Public Hospitals in A... and New Zealand.* By L. Bruck. Sydney: L. Bruck, Med... 1899.

to pronounce an opinion as to how far such a system may be necessary in a community under such different circumstances from those of our own country; but at any rate if pay hospitals be a necessity in Australia, or anywhere else, it seems clear that (as Mr. Bruck recommends) they should be kept quite separate from those which are gratuitous, and that the patients should select their own medical attendants, and pay them as may be agreed between them. In any case, Australian experience does not seem to favour the introduction of the pay system into our hospitals, either for in-patients or out-patients.

Municipal Contributions.—With regard to the support which the Australian hospitals derive from the neighbouring municipalities the report is inconclusive. Two of the five hospitals receive nothing under this head, and it only constitutes a substantial source of income at one of the others.

This report, as we have said above, is strictly financial—perhaps too strictly so—and the reporters, while showing their competence as financiers, do not pretend to meddle with questions of administration and general policy, though these are of still greater public importance. There were doubtless good reasons for so limiting the scope of the inquiry, but the fact of course limits the interest of their conclusions. For example, the report dwells on the desirability of keeping the accounts of the out-patient separate from those of the in-patient practice, but says nothing of the gross abuses which appear to prevail in out-patient hospital practice in Australia as much as here: it dwells on the need which the hospitals experience for more aid from the State, but does not discuss the grave question whether State money is legitimately expended on pay-hospitals: it dwells on the desirability of a uniform system of bookkeeping on Sir H. Burdett's plan, which is now so widely adopted, but it leaves aside the consideration of the widely different nature of the practice at these different Australian hospitals.

Yet the report shows that while the Melbourne Hospital is largely a hospital for the treatment of zymotic diseases, the others are so to only a very slight extent, and the reporters seem aware that this fact (besides its public and municipal bearings) has great influence on the expenditure. In fact, a report of this kind, which aims at perfection, ought to be drawn up by a body which contains medical as well as financial experts. But though this report may be in that respect imperfect, it is very valuable, and well worthy of the serious attention of hospital reformers.

THE EPIDEMIC OF SMALL-POX.

DIFFICULTIES UNDER THE VACCINATION ACT.

SOME of the troubles which arise in the administration of the Vaccination Acts as they at present stand are well illustrated in connexion with local proceedings at Helston in Cornwall. A large red ink placard has been displayed throughout that town as follows:

> In consequence of the Epidemic of Small-pox now raging in London and other parts of the Country, the Town Council of Helston, being the Sanitary Authority for the Borough of Helston, urgently call the attention of the Inhabitants to the necessity of Vaccination of all children and revaccination of all persons over the age of 10 years. Pure Glycerinated Calf Lymph is now supplied to all Public Vaccinators. And every person [illegible] attended at his own residence or at the Surgery of the Vaccinator, Free of Charge, by the Public Vaccinator for his own District. The Public Vaccinator for District No. 1 (which includes all the Borough of Helston, Gwealangear, and St. Johns, and the Parishes of Cury, Mawgan, and Gunwalloe) is Mr. Walter Wearne, Surgeon, Helston. Dated 1st February, 1902.

The most interesting thing about this is its issue, not by the Board of Guardians, the vaccinating authority, but by the Town Council of Helston, the sanitary authority. As every one knows, it is the guardians who pay, and at one of their meetings, the propriety of the issue of such a bill by the Town Council was strongly questioned. We are bound to say, however, that a sanitary authority anxious to prevent the spread of small-pox among its constituents is taking no illegal action, and may be taking no unnecessary action, in calling attention to the provisions of the law, even though, through defective legislation, the cost is defrayed by assessment levied not by the Town Council but by the Board of Guardians. The question was raised in the Guardians' meeting whether the bill had really been issued by the Town Council or by the public vaccinator, Mr. Wearne, and the belief (whether well or ill-founded we know not) seemed to be that Mr. Wearne was responsible. There had also, it appears, been a house-to-house distribution of similar circulars. From the *Medical Directory* we observe that in addition to being the public vaccinator for part of the Union, Mr. Wearne is also medical officer of health for the borough. On this point it need only be said that a public vaccinator should, while faithfully fulfilling his public duty, be exceedingly careful to avoid doing anything injudicious and likely to cause ill-feeling or jealousy among fellow practitioners. In circumstances like those of Helston, with its medical officer of health and public vaccinator engaged in private practice, it would be wiser that such notices should be signed on behalf of the Town Council or Board of Guardians by their clerk.

At the meeting of guardians a very foolish discussion took place as to whether public vaccination was not limited to paupers, and the chairman was so ill-acquainted with the law as to say, according to a newspaper report, "If people wanted to be vaccinated free their names should be published as paupers." That of course is nonsense, but the fact that at present the Acts are administered by the local authority under the Poor Law may be some excuse for misconception. Vaccination is a public health measure, useful not merely for protection of the individual, but also for diminishing the field for the spread of small-pox, and for preventing the costs involved in small-pox isolation and treatment. Very many people will choose all the same to pay for their own vaccinations, but those who do not can no more justly be stigmatized as paupers than can parents who send their children to a Board School maintained out of the rates.

From a newspaper report of a recent meeting of the Croydon Board of Guardians we observe that much the same question was raised, but a more reasonable spirit prevailed in considering it. One statement, however, deserves attention. A member of the Board said: "As a matter of fact he happened to know that a certain vaccination officer [public vaccinator?] when offered a fee, said 'Don't pay, I can come to your house and revaccinate you and get 7s. for each case.'" This is a serious charge, and we must hope that it is made in error. If the public vaccinator wishes to retain the respect of the guardians or of his medical brethren, he must keep himself free from any suspicion either of canvassing among other men's patients, or of charging his own private vaccinations against the public rates. If people apply to him as public vaccinator he must act as such, but if they apply to him as their ordinary medical attendant he must make no attempt to deal with them otherwise.

The question of fees for public vaccinators was also raised before the Helston Board, and we hear that some time ago there was a suggestion to appoint one public vaccinator for the whole locality. The Local Government Board has strongly discouraged such a course during the experimental stage of the vaccination machinery. There is no regulation binding a public vaccinator to reside in his district; but if any alteration were proposed in the divisions of the union, the Local Government Board would have to be satisfied and would have power of veto, and if one man were appointed to all the districts, the guardians would still have to pay him by fee and not by salary. The newspaper reports state that a resolution was moved and seconded that all contracts with vaccination officers be terminated at the end of twenty-eight days, but this must refer to public vaccinators, as vaccination officers are in a different category, and are not so dismissible, which difference between the two classes of officials is another of the anomalies of our wonderful vaccination law.

VACCINATION IN FACTORIES AND WORKSHOPS.

At a meeting of the Council of the Poor-law Medical Officers Association, held at their rooms, 9, Copthall Avenue, E.C., on February 18th, D. B. Balding, F.R.C.S., J.P., in the chair, the vaccination by public vaccinators of those working within, but residing outside, their districts was considered. The Hon. Secretary, Dr. M. Greenwood, read a letter from the Local Government Board in answer to an inquiry made by the Council as to the legality of such vaccinations, and also as to the duty of Boards of Guardians to supply lymph for public vaccination when the Government supply ran short.

Local Government Board,
Whitehall, S.W.,
February 14th, 1902.

SIR,—I am directed by the Local Government Board to advert to your letter of the 23rd ult., and with reference to the first inquiry contained therein, I am to state that any question as to the legality of the payment by a Board of Guardians of a fee to a public vaccinator for the vaccination or revaccination of persons employed within their union, but residing outside the union, would have to be considered with regard to the facts of the particular case. At the same time I am to refer you generally to Section 11 of the Vaccination Act, 1867.

I am to add that if a Board of Guardians in any exceptional circumstances were to apply to the Board for sanction to the payment of a fee for vaccinations and revaccinations performed by a public vaccinator at a factory, school, or other similar establishment within his district of persons not resident within the district, the Board, in order to avoid difficulty at the audit, would be prepared to consider the application.

In reply to the second inquiry I am to state that the Board are of opinion that a Board of Guardians should defray the cost of any glycerinated calf lymph which it may be necessary to procure (beyond that which the Board are in a position to supply) in order to enable the public vaccinators of the union to discharge their duties under their contracts with the guardians.

I am, Sir,
Your obedient servant,
NOEL T. KERSHAW,
Assistant Secretary.

After some discussion it was unanimously agreed that in the case of epidemics invading large towns, where it was most important to get as many vaccinated as possible, no opportunity ought to be lost. Where employers of labour were willing to give facilities for performing the operation at the place of business, the public vaccinator ought to be permitted to vaccinate, regardless of the residence of those vaccinated. Many might thus be vaccinated who would never trouble to go to the public vaccinator of their own district when they returned home after work.

LONDON.

Diagnosis of Small-pox and Chicken-pox.

The Clerk of the London County Council has sent to all registered medical practitioners in London a circular letter, stating that, with a view to facilitate the diagnosis of doubtful cases of small-pox, the Council has made arrangements under which any of the medical men whose names appear on a list appended to the letter can be called in for the purpose of consultation, the Council paying their fee. The letter further points out that these gentlemen reside in various parts of London, so that when a consultation is desired one of those residing in the neighbourhood can be selected. It is added that the arrangement will continue in force so long as chicken-pox remains a notifiable disease, or until further notice. We have received certain letters from correspondents taking exception to this appointment of medical men to act as consultants at the cost of the Council. This step appears to be the natural corollary of the order made by the Council on January 29th requiring chicken-pox to be notified, and we have no reason to doubt that the Council has done its best to prepare a list of men who are able to give assistance in this matter. There is, of course, no obligation upon the medical practitioners to consult with these gentlemen, but we believe that their services may be of use in certain cases, for there are not a few medical practitioners in London who have seen little of small-pox. Another objection made is that some of the medical men on the list do not possess a D.P.H.; on this point we must remind our correspondents that the possession of this diploma is no assurance of knowledge or of experience of small-pox. Others object, again, on the ground that the publication of the list savours of an advertisement, which might be dealt with by the General Medical Council. There are, however, ample precedents for the publication of the names of men engaged in public duty, and it is difficult to see in what other way the fact that these services are available could be made known to members of the profession than by a circular addressed to them.

GLASGOW.

The statistics for last week showed that 114 new cases were admitted and 172 patients remained under treatment, a considerable increase when compared with the previous week. At the same time last year there were 388 patients in hospital. Most of the cases during the last two weeks have come from the east end of the city, although the present outbreak had its origin in the northern district. It was also noticed during the more severe epidemic a year ago that by far the greater number of cases came from the eastern districts which are close to the fever hospital, and this may be taken as another illustration of the danger of a small-pox hospital to the surrounding districts. Dr. Carswell, a member of the town council, in a recent discussion on the epidemic drew special attention to this point, urging the importance of revaccination of the population in the districts that adjoined the hospitals, and also the necessity for the early removal of small-pox patients from the hospital at Belvidere to more suitable quarters. It was true that land had already been secured in one of the outlying districts for this purpose, but the experience of the past two years pointed to the necessity of active steps being taken to push on the building of the new small-pox hospital. Dr. Carswell pointed out that the present outbreak began in November in the northern district, and from that month until February 8th there were in that district 59 cases. During the same period there were only 8 cases in the eastern district, but subsequently the position of matters had become entirely altered. From February 8th to February 17th 68 cases had occurred in the east end and only 11 in the north, and since then the same thing had continued. Both northern and eastern districts were crowded, and might be looked upon as containing a large number of susceptible persons; but there must be in the east end a source of infection which did not exist in the northern district, and this no doubt was the small-pox hospital. The same thing had been found to happen in last year's epidemic, when the east end gave two-thirds of the cases with only about one-fourth of the population.

SWANSEA.

The first cases of small-pox in Swansea developed on January 29th, and in a few days others were notified. After a period of quiet a number of fresh cases developed. On February 17th 3 fresh cases were notified, all from the same house, and on February 18th 2 additional cases; of these one was Mr. L. Davies, the Chief Sanitary Inspector of the borough. He had not been revaccinated owing to the fact that he had suffered, or was supposed to have suffered, from a previous attack of small-pox. On February 19th the medical officer of health reported that 16 cases had been removed to the hospital, including 1 from outside the borough. Of these 1 had died, 3 had been discharged well, and the remainder were still under treatment in the isolation hospital. He also reported that 6 of the cases were traceable directly or indirectly to a supposed case of chicken-pox in an unvaccinated infant which ended fatally. Two fresh cases were notified on February 20th. A resolution to adopt the notification of chicken-pox was considered by the Borough Council, but was ultimately withdrawn. A theory, said to have been based on the statements of two Swansea medical men, had been freely mentioned in the press to the effect that there was no real small-pox at all in the town but that the cases were chicken-pox. This statement, calculated to cause much harm, was started after the earlier cases had been notified. The later development of fresh cases showed that it had no foundation in fact. The outbreak at Ystalyfera, near Swansea, appears to be dying out, only 3 patients now being under treatment.

CATS?

SURGEON R.N. writes: In respect to the present epidemic of small-pox in London and the neighbourhood, it has appeared to me that one source of the spread of the disease may have been overlooked. I have observed no mention, either in the daily press or in your paper, of the part played by cats in distributing this disease, and as it appears to me that these animals may be a great public danger at this time, prowling from house to house, searching every dustbin and heap of refuse, and then being petted indiscriminately by their owners, I feel constrained to write to you in order that my suggestion may elicit further expressions of opinion.

CONTRACT MEDICAL PRACTICE.

BIRMINGHAM AND DISTRICT MEDICAL PRACTITIONERS UNION.

THE Honorary Secretary of the East Birmingham Branch of this Union informs us that the following resolution was passed at a meeting held on January 9th, 1902:

That the Honorary Secretary be instructed to write to the Managers of the various Medical Aid Societies working in East Birmingham and inquire whether they are prepared to adopt the course of action already adopted by the National Medical Aid Company and the London and Manchester Medical Aid Society, which Societies have resolved under no circumstances whatever to admit new members or to re-enter lapsed ones;

and, further, that the result of the correspondence be reported to the next meeting.

At a meeting held on February 13th, 1902, the Honorary Secretary reported that each of the Societies concerned had given a written guarantee to observe the conditions laid down in the above resolution, and it was thereupon further resolved:

That this meeting is of opinion that the undertaking given by the Managers of the various Medical Aid Societies, which are working in East Birmingham, is perfectly satisfactory, and calculated to deal effectually with the practice of canvassing; and further, that this meeting trusts that the Medical Officers and Managers of these Societies in East Birmingham will take care that this undertaking is rigorously carried out.

That this meeting is of opinion that the establishment of private medical clubs is not in accordance with the real interests of the public; is derogatory to the dignity of the medical profession; and is eminently unfair to those Medical Aid Societies which have given undertakings not to accept new members; and, further, that all possible means will be taken to prevent the formation of such private clubs in East Birmingham.

That copies of these resolutions be forwarded to each of the Medical Aid Societies, to the Council of the Union, and to the Medical Press.

THE PLAGUE.

Prevalence of the Disease.

India.

There were 12,192 deaths from plague for all India during the week ending February 1st, as against 11,445 in the preceding week. During the same period last year the deaths numbered but 3,415.

The Bombay Presidency and the Punjab made the heaviest returns, and the Punjab showed the greatest increase in mortality.

In the city of Bombay the deaths from plague numbered 408 during the week ending February 1st, against 311 in the week preceding—in the Bombay districts 3,822, against 4,622. In Calcutta the deaths from plague during the week ending February 1st numbered 82, against 61 in the previous week; in Bengal districts 822, against 820; in the North-West Provinces and Oudh 1,182, against 972; in the Punjab 4,102, against 3,040; in Kashmir (Jammu) 371, against 316; in the Mysore State 587, against 604; and in the Madras Presidency 574, against 622. It is satisfactory to note that in the city of Bombay, although the numbers have increased, the position as regards plague still compares favourably with the corresponding week last year (1901), when the deaths from plague stood at 786, whereas for the last week in January this year the figures are 538.

Egypt.

A Reuter's telegram, dated Cairo, February 24th, states that the plague returns for the past week (week ending February 22nd) show that there were 4 fresh cases of plague at Tanta, and 4 deaths from the disease; 2 cases at Kom-el-Nour, and 1 case and 1 death at Alexandria. Since April 7th, 1901, when the present outbreak began, the total number of cases in Egypt has been 304, of which number 184 persons died.

Mauritius.

During the week ending February 20th, 13 fresh cases of plague occurred in Mauritius and 11 deaths from the disease.

Shanghai.

A Reuter's telegram, dated Shanghai, February 24th, states that the P. and O. s.s. *Ballarat*, from Bombay and Hong Kong, is in quarantine at Wu-sung anchorage, below Shanghai, having 5 cases of plague on board. The patients are Portuguese stewards, 2 of whom have died. The vessel is said to be infested with rats.

THE PREVENTION OF CONSUMPTION.

Winchester.

A meeting of the Winchester and District Branch of the National Association for the Prevention of Consumption was recently held at Winchester in furtherance of a scheme for the establishment of a Hampshire county sanatorium. The meeting was held mainly on the initiative of the Mayor of Winchester, Mr. Bertram Douglas Cancellor, who takes a keen interest in the movement for the prevention of tuberculosis. An address was delivered by Mr. Malcolm Morris, who took the opportunity of thanking Dr. Wace for the energetic way in which he had established the branch at Winchester. The Association had been trying to establish branches in all the big centres of the country: they had been singularly successful in many, but in others they had failed. In many towns they had not been able at present to arouse even the slightest interest in the subject. After referring to the prevalence of the disease and to the discoveries of Koch in regard to its nature and mode of dissemination, he alluded to the fears which had been expressed by many worthy persons that the efforts made to prevent infection would tend to make consumptives be regarded as lepers. Mr. Morris said there was not any danger to the neighbourhood in establishing a sanatorium, nor was there any danger from individuals in their own houses provided the rules for protecting others were carried out. After describing what he had seen of the results of the open-air treatment, Mr. Malcolm Morris gave details as to how sanatoria might be established. He thought Boards of Guardians should combine not only among themselves, but with other sanitary authorities, and not to build sanatoria for paupers alone; he thought it would be far better to build sanatoria in which some of the patients could contribute to their own comfort. He further suggested that there should be beds in respect to which other public bodies, for example, the Friendly Societies, might contribute towards the maintenance of patients. As a matter of information, to show how far local authorities might go on this question and yet be within their legal right, Mr. Malcolm Morris quoted a statement which was compiled by the Town Clerk of Cardiff for the South Wales Branch of the National Association. It would not be divulging any secret if he stated that the National Association had been in communication with the President of the Local Government Board, and they had his most hearty sympathy and co-operation. Mr. Walter Long could not do more than the law permitted, but he believed that to the utmost letter of the law he would assist any county council or rural sanitary authority in this matter. They were told by Lord Salisbury not to expect anything from the State. His answer to that was, "As soon as the people of this country are really moved by this question then the Government will do what the people want." Mr. Morris concluded by appealing to ladies and to the clergy to help in the crusade.

NOVA ET VETERA.

WAR SURGEONS IN THE FIELD.

Some Medical Aspects of Napoleon's Russian Campaign.

A recent number of the *New York Medical Journal* contains some interesting extracts made by Dr. Achilles Rose of that city from a Latin dissertation by C. J. von Scherer, a surgeon attached to the Würtemberg Corps, and from a book by an officer of the Westphalian Corps which formed part of the army with which Napoleon invaded Russia in 1812. In the beginning of May the army began a series of forced marches across the sandy soil of Poland. The tropical heat during the day and the low temperature at night, the frequent rain storms from the north, the camping on bare and often wet ground, the ever-increasing want of pure water and fresh provisions, the immense masses of dust which, like a cloud, hung over the marching columns—all these together had sapped the strength of the soldiers even in the beginning of the campaign. Many were taken sick before they ever reached the Niemen. The march through Lithuania was as hurried as that through Poland; provisions became scarcer; meat from cattle that had suffered from starvation and exhaustion was for a long time the soldier's only food. The officers were powerless to prevent the soldiers from kneeling down at the stagnant pools and drinking the foul water without stint. The forced marches were continued during the heat of the day through sand and dust, until stormy weather set in, with rain followed by cold winds. With the appearance of bad weather a general diarrhœa, which had already been observed at the time of crossing the Niemen, showed itself with greater severity. Men were attacked so rapidly that in the midst of the march they had to leave the ranks. The route the army had taken from camp to camp was marked by offensive evacuations. The number of the sick became so great that they could not all be attended to, and medical treatment became illusory when the supply of medicaments was exhausted. Many were left behind, and a large number died on the way. Everything of which the sick were in need was wanting—vegetables, farinaceous food, and medicaments—and, consequently, there was no barrier against the spread of the disease, while at the same time the privations and hardships which had caused it continued and reached their climax. Of a morning there were often as many as thirty of the small Würtembergian corps who had died during the night. Many who apparently were strong were struck by sudden nervous exhaustion, and were as if paralysed, unable to stir. Then came vertigo, insatiable thirst, and pain over the eyes. They

died suddenly without fever. They had a slow pulse, without any abdominal pain, and often died in a moment with perfect consciousness. The *post-mortem* examination of those who had died from dysentery revealed inflammation of the stomach and the large intestine, especially the rectum. The intima of the stomach, of the duodenum, and sometimes of the whole intestinal tract was completely relaxed and atrophied. In some cases there were found small ulcers in the stomach, with dentated margins, especially in the fundus, and there were similar ulcers in the rectum. In other cases there were found large ulcers extending from the stomach into the small intestine. They were from the size of a lentil to the diameter of half an inch, and occupied the different membranes; in extreme cases the muscularis and the mucosa, but only rarely the serosa. In many instances there were gangrenous patches. The gastric juice had a sour odour; the lower part of the liver was bluish and hardened, containing a bluish liquid; the gall bladder was generally empty or contained only very little bile; the mesenteric glands were mostly inflamed, sometimes purulent.

In the advanced stage of the disease the patients suffered from gastralgia, were very hungry, longed for vegetable diet, but had no fever. Some would march, equipped with knapsack and arms, apparently in good spirits, but suddenly would fall down and die. Others, especially men of strong constitution, would become melancholic and commit suicide. Immoderate use of liquor proved very disastrous. On the way from Niemen to the Duna 3,000 sick men had to be left in the hospitals of Malaty, Wilna, Disna, Strizzowan, and Witepsk. The number of deaths increased from day to day. In the hospital of Strizzowan, in which von Scherer served six weeks, there were 902 patients. Of these, 310 died during the first three weeks; during the following three weeks, when better nursing and better means of treatment were obtainable, the number of deaths was only 36. The arrangements which were made in haste during the march and called hospitals had either no supply of drugs or only a very limited quantity. All that could be found in the shape of medicinal herbs in the fields or in the woods was made use of. Thus they used, for instance, in the hospital of Witepsk, huckleberries and tormentilla root. When von Scherer organised a hospital in the castle of Strizzowan, he brought a large number of patients into a barn and two stables, and being without the necessary refreshments and drugs for them, he proceeded, not without difficulty and danger, to obtain some from the vicinity. During the first three weeks he gave partly as nourishment, partly as medicaments, the following plants which grow there, and sometimes with really good effect: Cochlearia armoracea, acorus calamus, allium sativum, rhaphanus sativus, menyanthes trifoliata, and salvia officinalis.

During the following three weeks he received several thousand florins from General Count von Scheeler, with instructions to apply the sum toward ameliorating the condition of his patients. He procured eatables and drugs from great distances, namely, from the Polish cities, Mohilew, Minsk, and Wilna. Enabled now to give his patients proper diet and medicines, he had excellent results. Some of the convalescents had relapsed on the slightest provocation, such as the eating of potatoes, which grew abundantly in the vicinity of the hospital. They were eaten surreptitiously, often in large quantities, by some of the convalescents. Many who were on the way to recovery died in consequence of their imprudence; others suffered for a long time great weakness of the intestine. Marvellous was the effect of mental emotions on the disease. Great fright or great joy caused a sudden cessation of dysentery. Surgeon-General von Kohlreuter, during and after the battle of Smolensk, witnessed the great influence of mental emotion on diseases of the body. Of 4,000 Würtembergians who took part in the battle, there were few quite free from dysentery. Tired and depressed, the army dragged along; but as soon as the soldiers heard the cannon at a distance, telling them the battle was beginning, the expression of their faces, which had been one of sadness, changed to one of joy and hilarity. During the four days that the battle lasted and for some days afterwards dysentery disappeared as as if banished by magic. When the battle was over, the disease returned worse than before, and the soldiers fell into complete lethargy. At Borodino the soldiers fought like maniacs, with a wild joy devoid of all human feeling. In charging a battery they all sought to be first, exposing themselves to the fire of innumerable cannon; over heaps of corpses they stormed the batteries of the enemy. This was not the work of health and calm courage, but the act of despair. About a thousand Würtembergians were wounded, and many had to undergo surgical operations. It is noteworthy that in those of enfeebled and in reduced general condition capital operations were unusually successful, and more were saved than is usual under apparently most favourable circumstances. After the army marched to Moscow, and remained there until October 19th. The condition of the men was not materially improved. They had arrived starving, without the necessaries of life, and the burning of the city deprived them of suitable winter quarters. Although eatables saved from the fire were distributed among the soldiers, so that they had during the weeks that remained tea, coffee, meat, and bread in sufficient quantity and of good quality, dysentery continued, and in the majority of patients assumed a typhoid character. Besides, "typhus" (probably enteric) had now made its appearance in the army. Icterus, associated with gastralgia and feverish pulse, were among the first symptoms. The fever spread rapidly, and added to the misery of the army. The large number of sick gathered in miserable places, the odour of the innumerable corpses lying in the streets of Moscow, the fatigue and privations of the men—all this had prepared for the development of the disease. After the retreat from Moscow had been decided upon, all the sick that could be transported were sent ahead on waggons under a strong guard. They were sent on the nearest road to Borodino, while the army took the road to Kaluga. Several thousand fever patients were left in Morkan. With few exceptions, according to later information, they all perished. Of those who, although attacked by the disease, had still strength enough to be transported on the wagons, quite a number recovered on the way, to fall, later, victims of the cold.

On the endless tract of devastated land from Moscow to Wilna not a native, or even one head of cattle, might be seen for days. Cities and villages had been laid in ashes; every day the misery and distress increased. The provisions which the men had taken with them from Moscow were lost, together with the wagons, on the flight after the engagement of Moloijoroslawez, before the army had reached Borodino. The rations which the soldiers carried with them were eaten in the first few days, and after that there was total want of food. The horses, which could not be fed, fell in great numbers on the road. From the last days of October until mid-December, when the army arrived at Wilna, horseflesh was the only food of the greater portion of the soldiers. Many did not get even this, and died of starvation before the great cold set in. During the last days of October, when the army hardly had reached Borodino, cold north winds came. On October 26th there was the first snowfall, and the cold increased now from day to day, and it was already terrible for many to pass the night in the open air. Most of those who were unable to protect themselves by the warmth of a fire or by warm clothing had their limbs frozen. During the first days of November the thermometer had fallen to 5° F. The first effect of the cold on the brain, which manifested itself even in the strong and healthy men, was loss of memory. At the very beginning von Scherer noticed many who could not name the best known and most familiar things, who even could not name the articles of food they were longing for most eagerly, or called them by a wrong name. Many forgot their own names, and did not recognise their nearest friends and comrades. Others appeared altogether weak-minded, the facial expression being that of perfect dulness. In consequence of the effect of the cold, the deep-seated vessels of the brain and lungs were gorged, and the right heart was enlarged. In one case the necropsy revealed rupture of the bloodvessels of the brain; in most instances more or less serum was found in the sinuses. The corpses were white as snow, while the central organs in every necropsy were found full of blood. In the beginning, while the cold was still tolerable, "the concentration of the liquids from the surface of the body into the central organs" caused only slight changes in the functions of these organs, such, for instance, as difficult

breathing, mental weakness, sometimes in greater, sometimes in less degree, numbness, indifference to external matters. The actions of these men gave evidence of complete paranoia and the highest degree of indifference. This condition may be compared to that of senility, when body and mind have been reduced again to the state of childhood. The bodies of those who had suffered most from cold were as much wrinkled and parched as those of very old people. Men, before full of vigour in body and mind, hardened in the field, were tottering along, bent over a stick, lamenting and wailing like children. On the way they would beg for a piece of bread, and, if they received something to eat, childish joy overcame them, bringing not infrequently tears to their eyes. The features of these unfortunate men were deadly pale and strangely changed. Youths looked like men eighty years of age, or like cretins. The lips were bluish, the eyes dull without brilliancy and constantly in tears; the veins were small, hardly visible; the extremities were cold, the pulse could not be felt either at the wrist or at the temples; an almost invincible inclination to sleep prevailed. Often there occurred in the moment of sinking to the ground paralysis of the lower extremities; shortly after this a few drops of blood from the nose indicated approaching death.

During the second half of November, still more during the first days of December, and especially on the 8th, 9th, and 10th, when the army arrived at Wilna, the cold had reached the highest degree. During the night from the 9th to the 10th the thermometer was 40° F. below zero. The cold air caused severe pain in the eyes, similar to that brought on by heavy pressure. Many were blinded to such a degree that they could not see one step forward, could recognise nothing, and had to feel the way by means of a stick. Numberless men fell on the road and stiffened at once. During this period von Scherer observed that when those who had been suffering already considerably from cold fell on the hard, frozen, ice-covered ground they died soon, in consequence, probably, of concussion of the spinal cord brought on by the fall, for suddenly general paralysis of the lower extremities, of the bladder, and of the sphincter ani occurred; urine and faeces were involuntarily voided. Many, without falling, without suffering such a concussion, died from progressive paralysis which proceeded from the lower extremities. In others complete hemiplegia ensued, while the mental faculties remained intact up to the last moment.

General Sheridan, who was no sentimentalist, described war in one word as "hell." No amount of preparedness on the part of the War Office, and no abundance of volunteered help can make it otherwise. There are, of course, degrees, and in the lowest depth there may be one still lower. But in order to place the temporary breakdown of the medical arrangements in South Africa in its proper perspective it must be compared with what has happened in other wars. The picture here given of Napoleon's Russian campaign of 1812 shows war in a grimmer shape than is likely to be seen at the present day. But there were no impressionist writers or advertising politicians to describe its horrors.

THE NATIONAL EXPECTATION OF LIFE.

DURING 1881-90 the death-rate among all males in England and Wales was 10.6 per cent. lower than in the previous decennium. The amount of decrease in the death-rate at various age periods of life varied from 22.0 per cent. at ages 20 to 25 to 0.3 per cent. at ages 55 to 65. The only exception to the rule of decrease was at the ages 65 to 75, when the death rate increased to the small extent of 0.9 per cent.

Official life tables have been published by the Registrar-General's Office for the same periods. These show that the expectation of life (mean after-lifetime), which was 2.31 years greater for males at birth in 1881-90 than in 1871-80, became practically equal in the two experiences at the age of 45; and at subsequent ages was less in the later than in the earlier decennium. Thus at the age of 60 years it was 13.14 years in 1871-80 and 12.88 years in 1881-90.

It may appear anomalous that with a generally lower death rate at these higher ages in 1881-90 than in 1871-80 the expectation of life should also be lower. There is, however, no *a priori* improbability in these figures. The expectation of life at a given age is the quotient of a divisor—the number of survivors to the given age out of 100,000 at birth—and of a dividend—the aggregate number of years which these survivors will live during the remainder of their lives. Hence the quotient might be changed by an alteration in the prospects of life at an earlier or at a later period of life than that under consideration.

It has been assumed in the preceding statement that the same method of constructing the national life table was adopted in 1881-90 as in 1871-80. Now, however, it appears that this supposition cannot any longer be entertained.[1] Dr. Hayward has shown that somewhat different methods were employed in constructing the two life tables, and that adjustment for this disturbing element materially alters the results, and the deductions to be drawn from them. This is clearly brought out by the table given below.

Expectation of Life for Males in England and Wales.

Age.	Difference of 1871-80 from 1838-54 by Farr's Extended Method. (1)	Difference of 1881-90 from 1871-80 by Farr's Extended Method. (2)	Difference of 1881-90 from 1871-80 according to Official Tables. (3)
0	+ 1.44	+ 2.62	+ 2.31
5	+ 1.16	+ 1.60	+ 1.88
10	+ 0.55	+ 1.34	+ 1.40
15	+ 0.23	+ 1.26	+ 1.06
25	— 0.44	+ 0.89	+ 0.60
35	— 0.76	+ 0.47	+ 0.27
45	— 0.69	+ 0.21	— 0.01
55	— 0.50	+ 0.06	— 0.21
65	— 0.27	+ 0.06	— 0.24
75	— 0.15	+ 0.17	— 0.24
85	— 0.17	+ 0.31	— 0.27
95	— 0.16	+ 0.33	— 0.29

When the life tables are constructed by strictly comparable methods as in column (2) of the above table, it is seen that, when comparing 1881-90 with 1871-80, there is no deterioration in the expectation of life after 45 years of age, but that a slight improvement beyond the position in 1871-80 continues up to the highest ages.

It is interesting to compare this result with the comparable results of the two previous English national life tables. Dr. Ogle, in comparing the experience of 1871-80 with that of 1838-54 showed that, after the age of 19 years in males, the expectation of life was poorer in the later than in the earlier period; and on these results he based interesting speculations as to the influence exerted by the greater effect of sanitation at earlier ages, by the preservation of the lives of feeble children tending to raise the death-rate at higher ages, by the increasing severity of competition among adults, and by the ever-increasing tendency of the adult population to migrate from the rural districts into the towns.

It would carry us too far afield to enter at present into a discussion of the influence of these different factors on the prospects of life. We doubt whether the factors causing the deterioration in 1871-80 as compared with 1838-54 were more than temporary in character. In 1881-90 the balance of life, when comparable methods are employed, is now shown to be improved; and we may look forward with confidence to the publication of comparable official data for the decennium 1891-1900.

LITERARY NOTES.

PROFESSOR LEO KÖNIGSBERGER, of Heidelberg, has undertaken to write a full biography of Hermann von Helmholtz, which will be published by Friedrich Vieweg and Son. The author's purpose is to present a complete picture of Helmholtz as a man and a scientific worker. A vast quantity of correspondence with other investigators and with personal friends and relatives has been placed at Professor Königsberger's disposal. The work will take from one to two years to complete, but it is possible that the first volume may appear earlier.

Sir George Birdwood, M.D., K.C.I.E., C.S.I., has contributed an introduction to a new edition of the *Adventures of Ulysses*, adapted from George Chapman's translation of the

[1] The Comparability of our National Life Tables, BRITISH MEDICAL JOURNAL, February 15th, 1902, p. 295.

Odyssey, by Charles Lamb. The book, which is edited by E. E. Speight, B.A., is published by Horace Marshall.

The *Athenaeum* states on the authority of Dr. Beattie Crozier that a new edition of vol. i of his *History of Intellectual Development* is in the press. He hopes that it will be ready in six or eight weeks' time. A new introduction has been written, and the whole book has been carefully revised: the sections on Greek Philosophy are written by Professors Burnet, Mackenzie, and Muirhead, and the Rev. R. G. Bury: the sections on Judaism by the editor of the *Jewish Quarterly* and the editor of the *Encyclopaedia Biblica*, who has also gone over those on Christianity.

The Country is the title of a new illustrated monthly journal, devoted to natural history, archaeology, and folk-lore, horticulture, and kindred subjects. It is hoped by those responsible for its existence that *The Country* may serve as a permanent record—literary and photographic—of the English flora and fauna, of English agriculture and horticulture, and of the habits, homes, and industries of the people of rural England as they exist at the present time. Amongst some of the special features that will characterize the journal are a series of drawings of The Moated Houses of England, by Herbert Railton; illustrated descriptions of The Gardens of Eminent Gardeners (Canon Ellacombe's garden being described in the second number, and the gardens of Dean Hole and Sir Michael Foster, M.D., in subsequent issues): a series of descriptions of suburban gardens. *The Country* will be published by Messrs. J. M. Dent and Co., and edited by Mr. Harry Roberts, of Hayle, Cornwall, who is a member of the medical profession and is well known to the general reading public as the author of *The Chronicle of a Cornish Garden*, *A Book of Old fashioned Flowers*, and other works on similar subjects. Among the contributors to *The Country* will be Sir Michael Foster, Mr. Alfred Russell Wallace, Professor J. Arthur Thompson, Rev. G. Henslow, Mr. F. G. Aflalo, Mr. W. Savill-Kent, and Mr. W. B. Tegetmeier.

Among contemporary medical novelists, Dr. James Ball Naylor, who practises his profession at Malta, Ohio, has won for himself a wide reputation in America. His first work, *Ralph Marlowe*, achieved a considerable success, the sale, as we learn from the New York *Medical News*, running well into the thousands. He has recently made a second venture in the same field with a novel entitled *The Sign of the Prophet*, which has also been well received. Dr. Naylor's paternal ancestors are Pennsylvania Quakers, while his maternal ancestors are Virginia English. The family tree contains besides a sprinkling of Irish and Dutch as a condiment. He says of himself "that he has worked on a farm, clerked in a drug store, taught school, 'toted a grip' on the road, practised medicine, and written for the newspapers." Dr. Naylor's books are pictures of life in a small Western town, and are said to be drawn from life.

M. Dorchain, a French poet, has, we learn from the *Gazette Médicale de Paris*, recently discovered a sonnet by Ronsard which seems to have escaped the notice of literary critics and historians. M. Dorchain found it in an old book, the title page of which runs as follows: "Les *Œuvres* d'Ambroise Paré de Laval, Conseiller et premier chirurgien de Henri II, de François II, de Charles IX, et de Henri III, nouvelle édition, corrigée et augmentée.....A Paris, de l'imprimerie de Nicolas Buon, libraire, 1585 (*in-folio*)." We think many of our readers may be pleased to have the sonnet in full:

Tout cela que peut faire en quarante ans d'espace
Le labeur, l'artifice et le docte savoir:
Tout cela que la main, l'usage et le devoir,
La raison et l'esprit commande que l'on face,
Tu le peux voir, lecteur, comprins en peu de place
En ce livre qu'on doit pour divin recevoir:
Car c'est imiter Dieu que guérir et pouvoir
Soulager les malheurs de notre humaine race.
Si jadis Apollon, pour aider aux mortels,
Reçut en divers lieux et temples et autels,
Notre France devrait (si la maligne Envie
Ne lui sillait les yeux) célébrer ton bonheur:
Poëte et voisin, j'aurais ma part en ton honneur,
D'autant que ton Laval est près de ma patrie.

Surely never had a surgical author a more eloquent sponsor. Ronsard's tribute to the nobility of the healing art is not diminished by the fact that the two lines which we have printed in italics are imitated from Cicero's famous saying, *Homines ad deos nullâ in re propius accedunt quam salutem hominibus dando.*

A gift of £6co from Mr. Adolph Lewisohn has enabled the Columbia University to obtain 50,000 theses, mostly in pamphlet form, embracing nearly every branch of scientific work, and almost covering the entire field of original research in foreign universities during the last century. This addition, with 40,000 dissertations already belonging to the University, will form the most extensive collection of inaugural dissertations in the possession of any institution in America.

In a recent number of the *Münchener medicinische Wochenschrift*, Dr. Kotelmann calls attention to the fact that both Luther and Pope Leo the Tenth, whom he defied, used glasses as aids to vision. There is in the Civic Library of Hamburg an autograph letter from Luther to his wife, dated "Coburg, Feast of Pentecost, 1530," in which he refers to a "scandalous" pair of glasses sent him by a jeweller named Christian Döring. Discussing the question whether Luther, who was then in his 46th year, was myopic or hypermetropic, Dr. Kotelmann argues that it is improbable that he was myopic, for it is recorded that he delighted in the chase and was fond of watching the flight of crows. As for "the elegant Pagan Pope," as Carlyle describes Leo the Tenth, there is said to be documentary evidence that he was the subject of myopia which, according to Burckhardt, was hereditary in the Medici family, to which he belonged. His eyes were large and somewhat prominent, and Roscoe states that he could distinguish distant objects only with the help of glasses. In hunting he used concave lenses, which must have been remarkably perfect, for Paulus Jovius says:

Admoto autem crystallo concavo oculorum aciem in venationibus et aucupiis adeo late extendere solitus ut non modo spatiis et finibus sed ipsa etiam discernendi facultate cunctos anteiret.

For near objects the Pope also used concave glasses, and in the famous portrait of him by Rafael now in the Pitti Gallery at Florence he is depicted seated in front of a book with a lens in his hand.

Our useful contemporary *Knowledge* announces several new features for 1902. It is proposed to make the microscopical columns more extensively serviceable by including directions for the collection, preparation, and mounting of various subjects, and in order to render these thoroughly practical, material will from time to time be offered to readers to enable them to follow the instructions given. The first of this series began with the January number, when Mr. A. Earland gave instructions in collecting, cleaning, and mounting Foraminifera. It is also intended month by month to give a list of forms of pond life that may be looked for during that month. This will be prepared by Mr. C. F. Rousselet. By the co-operation of manufacturers from time to time new apparatus described in the columns will be placed at the disposal of the readers for inspection and examination, thus enabling those who may so desire to gain a wider experience in up-to-date microscopical matters.

At a meeting of the Glasgow Pathological and Clinical Society held on December 9th, 1901, Dr. James Finlayson gave an interesting demonstration of what he called "the classics" of pathological anatomy. To those who might wish to study the history of pathological anatomy he recommended the introduction to Lebert's *Traité d'Anatomie Pathologique*. The origin of the subject might, in his opinion, be traced to the Egyptians in connexion with their processes of embalming, and, more definitely, it took its origin in the great Alexandrian School of Medicine. Erasistratus wrote a work on the anatomy of special affections. In the time of Galen, dissections of the human body had, for many reasons, passed out of use. Anatomy—and therefore also pathological anatomy—did not have an important place assigned to it as a science until direct observations were made on human structures in the time of Vesalius. Theophilus Bonetus, a Frenchman, was the first to connect the scattered facts of pathological anatomy into a single important work, published in 1679. This volume, not inaptly known as the *Sepulchretum*, though professing to deal with the whole subject, was really a vast compilation of the anomalies and curiosities of medicine, and made no attempt at a scientific treatment of pathology. Between the appearance of the *Sepulchretum* and the great work of Morgagni, a hundred years later, a number of works were issued dealing with different aspects of the subject. Amongst them that of Ruyschius (1691), which is an admirable collection of medical and surgical cases, might serve as an example. Morgagni's *De*

Sedibus et Causis Morborum was one of the really fundamental works on the subject. Dr. Finlayson exhibited the various editions of the work possessed by the Faculty of Physicians and Surgeons. In some of these the addition of the four capital letters P.P.P.P., after Morgagni's name had given rise to some speculation as to their meaning. In Dr. Finlayson's opinion, a satisfactory explanation of their significance might be found in the fact that Morgagni was at the same time Professor Primarius of Anatomy and President of the famous University of Padua (Professor Primus—or Primarius—Praesesque Pataviensis). As Morgagni's own dissections numbered more than six hundred, he possessed a tolerably wide basis for anatomical study. William Hunter's museum of anatomical and pathological preparations was of great importance. The works of the first British systematic writer on pathology—Matthew Baillie—were shown, namely, the treatise on *Morbid Anatomy* and the volume of *Engravings of Morbid Anatomy*. After Baillie, pathological anatomy was represented by Sir Charles Bell's *Engravings of Morbid Parts, etc.*, 1813. To the same period might be referred, although published some twenty years later, an atlas of coloured plates by Dr. James Hope—*Principles and Illustrations of Morbid Anatomy*; and also the *Pathological Anatomy* of Dr. Robert Carswell, a native of the West of Scotland. After this, the publication of atlases of pathology in this country might be said to have ceased, to be renewed by the atlas of the Sydenham Society, and that of Kast and Rumpel (the text of which had been translated by Dr. Armand Ruffer), published quite recently. At the same time the subject was advanced by the great physicians and surgeons who illustrated special parts of the subject. Of these, the most notable works shown were as follows: Sir Astley Cooper, on *Hernia* (1804), *Dislocations and Fractures* (1822), and *Structure and Diseases of the Testis* (1830); the works of Bright, *circa* 1830, and Addison; of John Richard Farre, *circa* 1814; Joseph Hodgson, on *Diseases of the Arteries* (1815); and Annesley's work on *Tropical Diseases*, published at the expense of the East India Company in 1828. Beside the last of these was placed a work of a much later period, H. Vandyke Carter's *Fungus Disease in India*, dated 1874. Special attention was also directed to the beautiful copies of the works of the great Italian, Scarpa, on hernia (1809), and on aneurysm (1804); while the German school of the same period was represented, among others, by Meckel, Lobstein, and, somewhat later, Rokitansky, the great Vienna pathologist (1842-46). In France there were the beautifully-executed atlas of Billard (1828), and the works of Rayer on the kidney (1841), and of Cruveilhier, whose activity extended over a period of about fifty years, from 1820 onwards. Coming yet nearer our own time, Dr. Finlayson demonstrated a wealth of splendid works, of which only a few can be enumerated here, such as the plates of Frerichs and Duchenne, and the atlases of Lebert ("the perfection of coloured plates of morbid anatomy"), and Lancereaux and Lackerbauer. Finally, Dr. Finlayson showed a development of the modern art of photography—a stereoscopic atlas.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 13th, at 4 p.m.: Mr. F. G. Swayne, M.B., of Upper Norwood, in the chair. Agenda: Minutes of Reigate meeting. To decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. Election of honorary secretary. To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read: Dr. Washbourn, small-pox; Mr. J. Bland-Sutton, inveterate retroflexion of the uterus; Dr. G. B. Batten, demonstration of methods of using Roentgen rays, light and the high frequency current for treatment (of lupus, etc.). Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m.; charge 7s., exclusive of wine. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends, and unattached members are invited to be present.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—It is proposed to hold a meeting of this Branch in Liverpool early in March. Members who desire to read papers, bring forward business, or propose new members for election, are requested to communicate as early as possible with the Honorary Secretary, T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the East and West Sussex Districts of this Branch will be held at the Grand Hotel, Brighton, on Thursday, March 20th. The chair will be taken at 4 p.m. by Mr. W. S. Simpson, President of the Branch. Dinner at 6 p.m., charge 6s., without wine. Notice of intended communications should be given before March 3rd to J. W. BATTERHAM, M.B., 3, Grand Parade, St. Leonards, or H. C. L. MORRIS, M.D., 10, The Steyne, Bognor.

SPECIAL CORRESPONDENCE.

BERLIN.

A Defence of the Administration of the Municipal Hospitals.—Jubilees and Deaths.—Workmen's Dinner Carts.

THE last meeting of the Berlin Town Council was almost entirely taken up by a discussion on the attacks against the municipal hospitals made in the Reichstag by a Social Democrat member, Herr Autrick. Town Councillor Weigert went into the whole subject in a long and masterly speech. Herr Autrick's accusations, he said, were in part exaggerations, in part entirely unfounded. As regarded the Moabit Hospital, the constructive and hygienic arrangements of which had been denounced, it consisted of pavilions, which had originally been built at the time of the small-pox and typhoid epidemics of 1870, and had afterwards been transformed into a general hospital. The sanitary arrangements had been improved in accordance with modern hygiene; and though they were not and could not be as perfect as in hospitals built at the present day, yet they would stand comparison with State hospitals and the hospitals in other large towns. Only lately a superb operation building had been added. As soon as the Rudolf Virchow Hospital was ready (and there would thus be less pressure on the Moabit Hospital) the pavilions would be entirely rebuilt. Funds for the purpose had already been voted. If proof of the efficiency of the Moabit Hospital were wanted, it could be found in the fact that the Prussian Government had selected it, together with the Charité Hospital, for purposes of medical instruction. It was true that in the male wards at Moabit male nurses were employed, but before long these would be replaced by female nurses, for there was no doubt that women performed the duties of sick nursing with greater tact and kindness. Men, as a rule, considered a nurse's life a trade, like any other trade. But the male nurses at Moabit were selected with the greatest care, and by no means underpaid, as Herr Autrick

alleged: their number had risen from 116 in 1890 to 158 in 1902, that is, by 35 per cent., while the wages had increased from 42,000 marks (£2,100) in 1890 to 74,000 marks (£3,700), that is, by 80 per cent. With regard to the food, he could confidently assert that all the victuals employed were of the very finest quality obtainable. But in catering for 1,000 or 1,200 persons a day, it was impossible to please individual tastes at all times. The food department at Moabit cost 390,000 marks (£19,500) a year—no small sum, surely. Then Herr Singer (another Social Democrat) had said in the Reichstag that the directing physicians had charge of as many as 1,000 or 1,200 beds. This was as unfounded as the rest. In the surgical departments, as in the departments of internal medicine, the institution of independent *oberärzte* left not more than 200 patients for each *chef-arzt* (directing surgeon or directing physician). And further, there was an *assistenz-arzt* for every 50 beds. Herr Singer demanded that all private practice should be prohibited to the whole medical staff. The assistant doctors, of course, were engaged to give their entire time to their hospital duties; but as to the heads of the staff, nowhere in the world were they required to abstain from consulting practice. The question had been raised, What was the annual sum that the Berlin Municipality devoted to its hospitals? Here were the figures: In the year 1900 the total expenses amounted to 2,728,900 marks (£136,445), and taking into the calculation interest on invested capital at 3½ per cent., it amounted to 3,353,100 marks ((£167,655); from this must be subtracted 1,152,000 marks (£57,600) paid by or for patients, so that the actual expenditure came to 2,200,000 marks (£110,000), or 2.37 marks (or 2s. 4⅝d.) per day a head. The municipal hospitals represented ground property worth 20 million marks (a million sterling), and on the completion of the Rudolf Virchow House, the sum would be nearly double. The City of Berlin need not be ashamed of its hospitals or their management; they were grateful for sensible suggestions and honest criticism, but Herr Autrick had nothing for them but abuse. This was the more unjustifiable because Herr Autrick had twice been an inmate of the Moabit Hospital, had twice been operated there successfully, and twice by nursing and care restored to health. Before leaving, Herr Autrick had called on the manager Herr Merkel, and had been seriously asked by him whether he had any complaints to make; and what had been the answer?—that once the potatoes had been hard and once a piece of sausage underdone. And this was the man who now by his intemperate and irresponsible charges tried to sow mistrust amongst the population. It was to be expected that Herr Autrick's attacks would not pass unnoticed by the chief inspector of police, in whose hands lay the supervision of the Berlin hospitals. By his orders a careful inspection of the Moabit and other hospitals was made, and the result (in the words of the official report) "showed the accusations to be totally unfounded."

Two jubilees and two deaths have to be chronicled: Professor F. Koenig, the eminent surgeon, surgeon-in-chief to the Charité Hospital, and Professor von Leuthold, staff surgeon-general of the army, both completed their 70th year a few days ago; and Professor Julius Wolff and Geheimrath Siegmund have died. Siegmund, for a long time Vice-President of the Berliner Medizinische Gesellschaft, was one of the foremost among Berlin practitioners. Deeply devoted to his profession, he kept up work to within a few days of his death, and he was over 82. Wolff, who by his researches on the architecture of the bones had gained a European reputation, and who was famous for his plastic operations—especially in cases of defect of the palate—only reached the age of 66.

A new and practical arrangement for providing masons and other building labourers, coachmen, errand boys, policemen, etc., with cheap food and non-alcoholic drinks has been called into being by the Berlin section of the German Society for Popular Hygiene. At stated hours special carts pass through the streets and dispense sandwiches, bread and butter, the sausages so dear to the German palate, tea, cocoa, coffee, and soup, all of course at the lowest possible prices.

Laval University, Montreal, will celebrate the fiftieth anniversary of its foundation on June 24th next.

GLASGOW.

The Public Health Department.—A Divided Authority.—Early Difficulties: Report of the Special Committee of the Town Council: Discussion at the Town Council: Appointment of an Additional Committee.—Census Returns and the Housing of the Poor.

An illustration of the unsatisfactory relationships that may exist between the sanitary officials and the medical department of the public health administration has just been given in the city of Glasgow. In England, under the Order of the Local Government Board, it is laid down that the medical officer of health, subject to the instructions of the local authority, shall direct or superintend the work of the sanitary inspector. The lack of such a regulation in Glasgow appears to have resulted in a serious crisis in the health organization of the city. The present difficulty in Glasgow is due to the previous laxity of the town council in failing to define satisfactorily the relations between these officials, the sanitary inspectors and the medical officer of health. It has long been an open secret that there was much friction in the different departments of the public health administration, departments which must always be of such importance to the general well-being of the city, and in which efficiency and co-operation are of the utmost importance. Evidently the various departments—medical, sanitary, veterinary, etc.—have in a general way been supposed to be independent, and no superior authority has been given to the medical officer, whom one would expect to find at the head.

As far back as 1885 Dr. Russell urged that the health department should include the sanitary, the medical officer being the supreme official, but his scheme was rejected by the Town Council, and things drifted on with occasional friction, though Dr. Russell's personality and influence were so great that no serious breach occurred. Dr. Chalmers, who was the junior medical officer, succeeded to the senior appointment when Dr. Russell was appointed to the Local Government Board for Scotland, and since then the sanitary and medical departments have been repeatedly at variance, the disagreement reaching a crisis in the summer of 1900 when small-pox was beginning to gain a footing in the city. No man could be more devoted to his work or more skilful and better qualified to act as the medical officer in a city like Glasgow than Dr. Chalmers. Mr. Fyfe, the sanitary inspector, also is an excellent public servant, with a high idea of the importance of his office. With no properly defined relations, the town councillors themselves for the most part being in confusion as to any regulations, frequent difficulties have arisen, and no doubt the friction at the head of the departments has been felt lower in the scale and must have hampered the administration generally. It is gratifying, however, to see how in spite of these difficulties the city has successfully grappled with a serious outbreak of plague and the recent epidemics of small-pox.

In the summer of 1900 the want of harmony between the sanitary officials and Dr. Chalmers was so serious that a Special Committee of the Town Council was appointed, with the Lord Provost as convener, to investigate the causes of the difficulty and suggest a remedy. The quarrel at that time was referred to in the British Medical Journal. It appears that the position taken up by Mr. Fyfe at that time was mistaken, and the advice and instructions of the medical officer prevailed in spite of opposition. After the long interval of nineteen months this special committee, delayed it is true by the threatened plagues of small-pox and pestis major, has presented its report and proposed a solution of the difficulties, and a special meeting of the council was held on February 19th to consider the matter. The report reveals a serious state of mismanagement, but the recommendation proposed the appointment of a senior medical officer over the head of Dr. Chalmers, and to have authority over the sanitary department, was so unfair to the present medical officer of health that it is gratifying to see that the special committee received very little support from the council. At the meeting a very acrimonious discussion took place, and there was much washing of dirty linen. Admittedly the council was in a difficulty, and a solution which was evidently wanted by many

was the resignation of one or other or both of the officials. However, after various proposals had been made, the large majority agreed to a motion to the effect that the matter be remitted back to the committee with the addition of six members of the Health Committee to draft regulations and frame by-laws for the conduct of the whole public health department. It was generally admitted in the course of the debate that the present chief sanitary inspector of Glasgow is a man of high character and excellent ability, but his position is an impossible one. A house divided against itself cannot stand. The health department of a great city must be run upon business principles; it must have a head; it is too complex an organization to run itself. The subdepartments for infectious disease, nuisances and sanitary defects, hospitals, veterinary and meat inspection, and bacteriology are to a certain extent separate, and they are bound to prove incompatible unless there is some recognized head to co-ordinate the whole, and that head can be no other than the medical officer of health. That in England is of course a commonplace of sanitary administration. It will be recognised in Glasgow sooner or later. If later, it may be only after irretrievable mischief has been done. But with business men, such as are associated in the administration of the affairs of Glasgow, it may be hoped that the solution of the difficulty will be found without delay, and that further heartburning and strife, and consequent inefficiency, may be obviated.

Dr. Chalmers has just issued his report on the last census returns for Glasgow. The population of the city proper, excluding Partick, Govan, etc., was 761,712, the average per acre being 60 persons. The increase in the decade was 103,639, or 15.75 per cent. This increase is stated to be made up as follows: 81,405 being the natural increment or excess of births over deaths, and 22,234 being the excess of immigration over emigration. The proportion of males to every 100 females is given in 96.2, the increase in the proportion of males corresponding with what has been found in Scotland as a whole, while in England and Wales the increase of females has exceeded that of males. The most interesting part of the report is that which deals with the housing of the people, and it is gratifying to learn that there is a tendency both towards enlargement in size of the houses and reduction in the number of inhabitants in each. In 1891, 18 per cent. of the population lived in one-apartment houses compared with 14 per cent. in 1901, and there has actually been in the city proper a reduction in the number of one-roomed houses. The proportion of two-apartment houses has altered little during the decade, about one-half of the population living in such houses. Notwithstanding the improvement shown, much overcrowding still exists, and much must be done especially to improve the housing of the very poor. The Corporation of Glasgow has during the last week decided on a scheme which is meant to help to solve this problem, and it is hoped will be successful, even though it may be only a beginning. It has been resolved to apply to Parliament for powers to purchase land to the extent of 50 acres, on which it is proposed to build 3,600 houses for the poorer inhabitants, who are being displaced through the improvements going on in the crowded and insanitary parts of the city, and borrowing powers are to be asked to the extent of £750,000 for this purpose, and also powers to levy an assessment not exceeding 1d. in the pound.

CORRESPONDENCE.

IS THE LADY DOCTOR A FAILURE?

SIR,—An editorial note in the BRITISH MEDICAL JOURNAL of February 1st seemed to infer, from the fact of a medical school for women at Chicago having been closed for financial reasons, that medical women in the United States are not prospering. It is, however, possible to suggest a more cheerful explanation. The North-Western University took over the School in question about ten years ago, with the result that the University had practically to support two schools, one for men, another for women. This caused the doubling of nearly all expenses. According to the Bulletin upon Professional Education in the United States issued January 8th, 1900, there were at that date in America eighty medical schools in which men and women studied medicine together. The loss at the women's department of the North-Western University is put down as about 5,000 dollars a year, not £5,000, as Mr. Raymond is reported to have said. The loss may have been still greater during the last two years, but it is improbable that it advanced from dollars to pounds sterling. Three important and well organized medical schools in Chicago have recently opened their doors to women. They are the Physicians and Surgeons School, the Medical Department of the University of Illinois, and the Rush Medical College. The last is the leading medical school of the Western States. It is splendidly endowed, is affiliated to the University of Chicago, and it will probably in the near future rival the Johns Hopkins (Baltimore) in the perfection of its organization, and in the eminence of its teaching staff.

A large, well-endowed school is sure to give better teaching than a small school without endowment. American women have done well to desert a weak school in favour of others thrown open to them which offer the best teaching and the best laboratories. It would be easy to quote evidence of the excellent position taken by many medical women in the United States. In Chicago there are four hospitals in which the *internes* are all women, two in which all the work is done by women, and seven in which some women are on the visiting staff. At the Physicians and Surgeons' School, and at Rush Medical College, a woman is in charge of the out-patient obstetric clinic, and in each case she is on the teaching staff. The number of responsible hospital posts open to women is no doubt small there as it is here, compared with those open to men, and the final output of first-rate physicians and surgeons among the women must inevitably be controlled by the opportunities for responsible hospital practice they enjoy. No one can get to the top of the professional ladder if it is impossible for her to get even upon its lowest rung. A point of more importance than this, however, is that the school at Chicago did not die because there are no women working there sturdily at medicine, but because they can work to better advantage at other and more richly-endowed schools.—I am, etc.,

E. GARRETT ANDERSON, M.D.

Upper Berkeley Street, W., Feb. 19th.

THE REGISTRATION OF NURSES.

SIR,—I have just seen Dr. Havell's letter in the BRITISH MEDICAL JOURNAL of February 8th. If the matter of the registration of nurses is of sufficient interest will you allow me to reply?

I know that to oppose registration as the panacea of all nursing evils is to run the risk of being abused and held up to contempt by some of its enthusiastic and intemperate supporters. But that is their way, and why not let them amuse themselves and bring sunshine into our dull lives at the same time?

Now what does Dr. Havell write? He urges that "the whole body of nurses should be qualified and registered by a statutory authority," and then he goes on to say that "all medical men see every year of their lives evidence of incapacity, officiousness, and even cruelty displayed by unfit members of the nursing profession," and he "regrets that there is no machinery for the correction of the ignorant, and the punishment of the wilful offenders." So do we all. We all wish, too, we could correct ignorant and incapable doctors, and punish cruel ones, but we cannot unless they are criminally ignorant or cruel. We have no remedy against the unfit yet they are all registered!

Registration would only secure that every woman who took fees for nursing had had a certain length of training, and passed certain examinations, and the public would be lulled into a false sense of security and would think that because a woman is registered that she may safely be engaged as a nurse. Will anyone tell me how an officious nurse, a cruel nurse (by negligence, manner, or even neglect) unless very grossly so, a dirty nurse, a careless nurse, a flirting nurse, an occasional drinking nurse, an immoral nurse not too glaringly so—will anyone tell me how any of these could be turned off the register? Why, it would mean an action of law in every case. It would be as difficult as to get rid of a bad clergyman.

If I am granted that these women could not be turned off a register, what a farce registration would be. You might have on the register a really very bad woman, combining all the

above failings, and yet going about with the Government hall mark!

Those who preach registration seem to me to put training first, and the "good woman" second. I put training second by a long way.

It is a little amusing for Dr. Havell to give, as instancing the need for registration, the example of "one of the most beautiful and divine women ever created," who by means of forged testimonials and assumed names, got on to the staff of a provincial nursing home. How on earth does this further his argument? If this divine creature forged testimonials and assumed the name of a less divine woman, surely she could with equal success have forged a certificate of registration, and would have assumed the name of a properly registered nurse.

The only way and the best way that the public can protect themselves is:

1. Only to engage nurses from respectable institutions.
2. To go first to hospitals who retain, in close connexion with the hospital, a private staff of nurses.
3. In case of doubt to write a letter to the matron of the nurse's training school.
4. To give the true and fair character of every nurse they employ.

In conclusion, I protest against placing midwives and trained nurses in the same category as regards registration. To do so always confuses the arguments. Technical knowledge is the first qualification, that is, of the first importance in a midwife—not so in a nurse. Hence midwives should be registered. They either do or do not possess certain definite information on one subject which can be ascertained by examination. I can conceive that the services of the divine forger referred to by Dr. Havell might, if she had qualified as a midwife, be of more value to a woman in labour than those of an ignorant angel. No one wants midwives to be bad women or nurses technically ignorant, but it is well to understand and to insist on the relative importance of the technical and personal qualifications of the two professions.—I am, etc.,

SYDNEY HOLLAND,
Bryanston Square, W., Feb. 22nd. Chairman London Hospital.

DELEGATION AND TAMMANY.

SIR,—Though no official intimation has yet appeared on the subject, it is probable that before long the Association will be invited to meet, and by a series of resolutions give effect to all or a part of the changes in its constitution which were agreed to by some of its members at the last annual meeting at Cheltenham. Some of these alterations are admitted by all to be necessary reforms; but at this time, when the minds of members of the Association have not been influenced lately by the agitating reformers, is it too much to ask the more conservative and responsible among them to reflect seriously before allowing one portion of the scheme to be passed as at present proposed?

The Council with its numbers slightly altered is to remain with its powers much the same as at present, but it is to be bound to carry out the decisions of a second elective body, meeting only once a year, the first-class fares of whose members to the place of meeting are to be paid. These delegates are to be bound to vote in accordance with the resolutions of the district electing them, however much their individual opinions have been altered by the arguments they may have heard, or the new facts brought to their notice at the meeting.

A number of gentlemen supposed to know most things about electioneering methods and the like have recently met in this town, and singularly enough Dr. Spence Watson, Chairman of the National Liberal Federation, took the opportunity of condemning the practice of paying the expenses of delegates, who were bound to vote in a particular and prearranged way, in the strongest terms, as being one of the worst features of Tammany, and he was loudly applauded for making the statement. Now if this method is not good enough for the National Liberal Federation, ought it to be introduced into the British Medical Association?

The expression of other medical organs on the proposal has been far from favourable. It is well known that many of those who have had a share in the management of the Association for many years, and by whom it has been raised to its present very prosperous condition, view the change with extreme distrust. I venture to suggest that we should make the Council thoroughly representative, the mode of election and provisions for changing its membership simple, and then give it as the expression of the opinion of the Association the fullest powers, but hesitate before establishing the proposed system of dual control which appears to have little to recommend it, and may do much harm to our Association.—I am, etc.,

Leicester, Feb. 23rd. FRANK M. POPE.

THE TREATMENT OF HIP-JOINT DISEASE IN CHILDREN.

SIR,—I read your remarks "On the Treatment of Hip-Joint Disease in Children" with very considerable interest, as we have in the Liverpool Country Hospital for the Chronic Diseases of Children an institution which has been working for three years on the lines which you suggest.

Although reference to this hospital has appeared in the BRITISH MEDICAL JOURNAL before, perhaps you will allow me briefly to indicate its scope. For some years many of us have felt that there are a large number of children suffering from chronic medical and surgical ailments with whom a general hospital in town is not fitted to deal. A large proportion of these cases are necessarily tuberculous in character. Such cases, we believe, should be treated in the country, should be admitted into the hospital at the earliest possible moment, and should not be dismissed until the medical staff are of opinion that the patients have derived all the good that is possible from treatment, and this regardless of the time occupied.

At present our hospital has secured a ward of twenty beds in the West Kirby Convalescent Home, and for the last three years has been doing good work, but we are now on the eve of erecting a fine hospital at Heswall, the site of which was inspected by the members of the Society for the Study of Disease in Children in June last. The hospital when completed will contain 200 beds, and will be fitted up for the active treatment of these children for prolonged periods. It is in no sense a convalescent home, and although most of our town hospitals are represented there by cots, it is not the adjunct of any special one and is independent of all.

Our endeavour is to get cases early, treat them without any lapse of continuity, and we aim at preventing the wreckage of life and limb which, from the very nature of things, is inevitable where intermittent treatment in vitiated air is relied on.—I am, etc.,

Liverpool, Feb. 24th. ROBERT JONES.

THE NEW DESIGNATION FOR THE VOLUNTEER MEDICAL STAFF CORPS.

SIR,—I have had so many letters from volunteer medical officers upon the above subject that I venture to ask you to publish this. The reason we are not included in the recent order is because we are all regimental medical officers, and follow the custom of the various regiments of Guards, and so enjoy (?) compound rank. The authorities believe it is more popular with the medical officers to wear regimental than departmental uniform. I am in favour of providing that directly a regimental medical officer is gazetted he should become an officer in the R.A.M.C.V. and wear departmental uniform; he is then easily recognizable, and has one uniform for either regimental or departmental duties. I shall be glad if all volunteer medical officers will send me a postcard with "agree" or "not agree," also stating name and regiment. I will tabulate the answers, publish and place the result before the Under-Secretary of State for War. I am, etc.,

P. B. GILES,
Brig.-Surg.-Lt.-Col., S. M. O. Volunteer Ambulance School of Instruction.
Bletchley, Bucks, Feb. 24th.

STRETCHING THE ANAL SPHINCTER IN PARALYSIS OF THE INTESTINES.

SIR,—I hardly like to criticize Dr. Warden's criticism of the treatment of my cases of peritonitis, because he has written in such an appreciative way of my suggestion as to early operation; but I think I must point out that the method he recommends should be employed to prevent the onset of the

troublesome paralytic condition of the bowels after operation, would not be likely to succeed in these cases. It is not simply a question of contraction of the anal sphincter. Gas does not always get down as far as the rectum in this condition of general paralysis of the intestines. In my cases the rectal tube was repeatedly used in addition to other measures, but its use in abdominal operation cases, in which there is any flatulent distension, is so much a matter of course I did not mention it in my report. The tube is left in the rectum for ten minutes at a time, and any gas that is retained by contraction of the anal sphincter is at once liberated. In the less severe cases of flatulent distension this often at once relieves the condition. With such a simple method available, I see no object in stretching the anal sphincter at the time of operation.—I am, etc.,

Clifton, Feb. 22nd. CHARLES A. MORTON.

AN INTERNATIONAL LANGUAGE OF SCIENCE.

SIR, As one who has always taken a deep interest in languages generally, and in a universal language in particular, I have read your article on the above subject with great pleasure, as it expresses opinions I have held for a long time. If it is too much to expect the advent of a universal language for daily and general use, there certainly are no reasons wanting why scientific men all the world over should not come to an understanding in the matter, and what language can serve the purposes of an international scientific language better than Latin? It is a subject of education in all civilised countries, it is one of the few links which join cultured men and women no matter what their nationality, it is a distinguishing feature of all those who have had a university training, and in that I include the medical curriculum, and it carries along with it a sort of superiority not possessed by the general populace. Who has not noticed the important air which public speakers love to assume by means of well-known Latin quotations? They know this to be the surest way to acquire the reputation of being educated and well-read gentlemen. It is usual on the Continent, and to a less extent in this country, for medical men to converse in Latin when engaged in a consultation in the presence of the patient, and it cannot be denied that such a course is sure to have an effect favourable to the dignity of the medical profession.

If the BRITISH MEDICAL JOURNAL, representing perhaps the largest Association of medical men in the world, should commence an agitation to establish Latin as an international scientific language, I feel sure other scientific journals in various countries would follow the lead, and we might not then be so far from the day when international congresses would have one official language, and one only.

In the meantime, may I venture to make a suggestion to you, Sir, and to ask you to give it your careful consideration? How would it be if you were to make a beginning by publishing the EPITOME of the BRITISH MEDICAL JOURNAL in Latin? Culled as it is from medical journals written in different languages, it appears to me particularly adapted for such an innovation, which would have, moreover, the additional great advantage of serving to refresh the memory of those whose Latin has become somewhat rusty since they have left the school benches for the armchair of the consulting room.—I am, etc.,

Manchester, Feb. 11th. JOSEPH DULBERG, M.D.

THE "SOCIETY OF PUBLIC ANALYSTS."

SIR,—In view of the press reports of the proceedings at a recent dinner of the Society which is still incorrectly called the "Society of Public Analysts," we venture to ask you to give publicity to the following statement:

The title, "Public Analyst," is legally applicable only to certain scientific officers appointed by specified public authorities under the provisions of the Sale of Food and Drugs Acts, whose qualifications have been approved and whose appointments have been sanctioned by the Local Government Board.

At the present time only about 28 per cent. of the members of the Society referred to are public analysts, owing to the fact that, as stated by its President, "the Society has widened its borders, and now includes other analytical chemists" and persons concerned "with all branches of the chemical industry"—an expression of obviously wide application. The President is also reported to have said that "the great object of the Society was to ensure that its members were possessed of proper qualifications"—a statement which if left uncorrected may cause serious misapprehension.

The Society in question is not in any sense a qualifying body, and its rules contain no specific requirements as to the scientific qualifications of candidates for admission to it beyond the mere fact that each candidate must be recommended by three of the members, who testify "from personal knowledge" to his "scientific fitness." Indeed, one of the previous presidents of the Society, when under examination before the late Food Products Committee of the House of Commons, found himself compelled to admit that membership of the Society did not imply the possession of any special qualifications.

The only qualifying body connected with the profession of analytical and consulting chemistry is the Institute of Chemistry of Great Britain and Ireland, which was incorporated by Royal Charter in 1885, and which, under that Charter, grants diplomas of Associateship and Fellowship to candidates who, having gone through prescribed courses of study and training, have passed the examinations conducted by the Institute.

From the facts stated above it will be seen that the Society referred to does not and cannot properly represent the public analysts of the country, that it cannot justifiably be described as a Society of Public Analysts, and that it is in no sense a qualifying body.—We are, etc.,

J. CARTER BELL,
Public Analyst for the County of Cheshire and the Boroughs of Salford, Birkenhead, etc.

CHARLES E. CASSAL,
Public Analyst for the City of Westminster, the Royal Borough of Kensington, the Metropolitan Borough of Battersea, and the County of Lincoln (Kesteven and Holland Divisions).

J. KEAR COLWELL,
Public Analyst for the Metropolitan Boroughs of Finsbury and Holborn and the Borough of Bedford.

C. HOWARD CRIBB,
Public Analyst for the City of Westminster and the Metropolitan Borough of Fulham.

W. F. KEATING STOCK,
Public Analyst for the County of Durham and the Borough of West Hartlepool.

February 22nd.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

SIR,—I send you a few statistics concerning the Passes and Rejections of the Final Fellowship Examination of the above College, as they may be instructive to those of your readers who have followed my recent correspondence in the BRITISH MEDICAL JOURNAL:

Year.	Pass.	Reject.	Total Candidates.
1897	5	7	12
1898	18	5	23
1899	10	4	14
1900	35	0	35
1901*	18	1	19†

* 1 p to February. † One examination.

I can hardly expect that the President, Vice-President, and Council of the College will so far relax the reticence they have hitherto observed towards the letters of mine which appeared in the JOURNAL, but should they do so an explanation as to whether the Charter witnesses were present at any Fellowship examination in 1900 would be of interest.

It seems hardly possible to believe that of 35 candidates for Fellowship in a given year the average answering should be so rich in success as was the case in 1900; unless, indeed, there were some explanation which the ordinary practitioner has overlooked. My affidavits to the Secretary of State and to the General Medical Council prove positively that in February of last year the prescribed Charter witnesses were not present at any part of the said examination.—I am, etc.,

Dublin, Feb. 24th. S. WESLEY WILSON.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir,—At the annual meeting of the Royal Medical and Chirurgical Society, on Saturday, March 1st, at 5 p.m., the very important question of doing away with a Resident Librarian will be decided, and it is very desirable that there should be a large attendance of Fellows present.—I am, etc.,

February 26th. A Fellow.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE ARMY ESTIMATES, 1902-3.

The Estimates for the ensuing year afford the usual detailed information under each head of expenditure; and if, in their magnitude, not very exhilarating reading for the taxpayer, are yet, no doubt, framed, according to official language, with "due regard to economy and efficiency."

Mr. Brodrick explains, in a lucid "Memorandum," that the huge total of nearly £93,000,000 for 1901-2 had fallen to £69,300,000 for 1902-3. This has been effected by a small saving of £375,000 in the ordinary services, and by the enormous saving of £23,230,000 in general war charges, for which 30,000 fewer men are voted.

"Vote 2," "Medical Establishments, Pay,, etc.," shows a total of £1,025,000 this year, against £1,088,000 last year, showing a saving of £63,000, which, however, requires explanation. There is really an actual increase of £92,700 in pay, etc., against a saving of £156,300. The saving, however, is more apparent than real, being made up of a true saving of £56,300 in medicines, etc., and sundry so-called appropriations; and a nominal saving of £100,000, which was voted last year, for a yet but partially attained "reorganization of the Army Medical Services," and which, as explained, is now spread over various appropriate votes as a matter of accounting.

The total estimated pay of the regular Army Medical Service is £360,500, against £324,500 last year, an increase of £36,000, part of which is, we suppose, to be accounted for by an increase of 67 executive medical officers shown in these estimates (page 40).

The total officers on the medical establishments is placed this year at 1,045, against 978 last year; but the true effective strength of active medical officers in this total only comes out on analysis. From the total of 1,045 must be deducted, first, 88 "acting medical officers," but better known as retired medical officers employed on £150 a year, *plus* retired pay; secondly, 5 medical officers of Indian native battalions at Colonial stations; thirdly, 35 quartermasters R.A.M.C. These deducted leave a total of 917 active medical officers; but genuine deductions do not stop here. A further deduction of 335, borne on the Indian Establishment, whose pay is not provided for in these estimates, must be made; which reduces the true effective strength of active medical officers for all duties at home, and in the colonies and dependencies other than India, and for all relieving, including Indian reliefs, to 582; but even here we cannot halt, for, from the latter number at least, 5 or 6 per cent. should be deducted for officers seconded or sick, and therefore immediately non-effective, at least for all purposes of foreign reliefs.

Under the lengthened heading "Pay of Civilian Medical Practitioners, Militia Medical Officers, and Medical Officers of Military Prisons, including Extra Fees for Visits and Medical Bills," etc., the large sum of £264,000 is voted, showing an increase over last year of £10,000. No official information is given as to the numbers of civil medical men employed on army duties, whether on consolidated pay or by contract.

The "Pay, etc., Army Nursing Service" amounts to £126,100, an increase on the year of £34,500, almost equal to that for medical officers; but the establishment of nurses has been increased from 87 to 230. The war has increased this vote by £100,000.

At page 40 there is a curious little vote of £2,100, entitled "Payments to Dentists at London and Aldershot, and to Civilian Members and Clerical Staff of the Advisory Board for Army Medical Services." It would have been interesting to have had some particulars as to the way in which this mixed vote is allocated, how much to the dentists and how much to the members and to the "clerical staff" of the Advisory Board.

The strength of the Royal Army Medical Corps, non-commissioned officers and men is shown as 3,045; and the pay, including extra pay, amounts to £114,000—an increase of £10,000.

The "cost of medicines," etc., is given at £160,000 against £216,000 last year. A few other medical items spread over the votes for clothing, army medical school, headquarter staff, etc., give a total of £20,358.

While these votes in the aggregate thus show large and even liberal provision for army medical services during the stress of the war, they also, we think, point a broad moral—that, sooner or later, there is no escaping inevitable and legitimate army medical expenditure. An undermanned and ill-equipped medical service in peace only ends in providing, by wasteful expenditure, an improvised and untrained scratch service in war. There is no saving in the end—nothing but waste and inefficiency. As we have already remarked, liberal as these estimates are, we yet fail to find any real grappling with the central evil of the army medical system—an undermanned regular service.

ROYAL NAVY MEDICAL SERVICE.

Surgeons F. W. Parker, W. H. S. Stalkartt, M.D., J. A. Keogh, B.A., M.B., G. G. Borrett, and G. A. S. Bell, having completed twelve years' service, are promoted to be Staff Surgeons from February 21st. Staff Surgeon Stalkartt landed with the Naval Brigade in the expedition up the Gambia in 1901-2, and was at the capture of Tambi and Toniataba, receiving the Ashanti medal with clasp. Staff Surgeons Borrett and Bell are reappointed on promotion to the *Pylades* and *Blanche* respectively, to date February 21st.

Surgeon P. N. Randall, M.B., has been allowed to retire from the service with a gratuity.

ROYAL ARMY MEDICAL CORPS.

Major R. G. Kelly, M.D., is placed on temporary half-pay on account of ill-health, February 6th. He was appointed Surgeon-Captain, July 28th, 1886, and Major, May 10th, 1899. He has been serving in South Africa since the latter part of 1899.

Deputy-Surgeon-General S. B. Roe, C.B., retired pay, has been granted a distinguished service reward. He joined the department, August 4th, 1855; became Deputy-Surgeon-General, July 23rd, 1885; and retired, September 11th, 1890. He was in the Afghan war in 1879-80, and was at the engagement at Ali Kheyl, and the operations round Kabul in December, 1879, including the investment of Sherpur (mentioned in dispatches); took part in the march from Kandahar to Kabul, and was in the battle of September 1st (mentioned in dispatches, medal with two clasps, and bronze decoration). He was also in the Boer war in 1881.

Erratum.—In the British Medical Journal of February 15th it was incorrectly stated that Captain J. E. Hodgson had not served in the present war in South Africa. He proceeded thither in October, 1899, with the Guards Brigade, and was invalided home five months later.

IMPERIAL YEOMANRY.

Surgeon-Captain H. Williams, South Nottinghamshire Imperial Yeomanry, resigns his commission, and receives a new commission, subject to the provisions of the Militia and Yeomanry Act, 1901, retaining his rank and uniform, February 26th.

Surgeon-Captain J. E Bowser, M.B., Westmoreland and Cumberland Imperial Yeomanry, resigns his commission, February 26th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Messrs. Hewitt, J. L. Bullen, and John W. Hopkins are appointed Lieutenants, February 26th.

ROYAL ARMY MEDCAL CORPS (VOLUNTEERS).

Lieutenant A. W. Mackintosh, M.D., the Aberdeen Company, is promoted to be Captain, February 26th.

Captain H. W. Dodd, the London Companies, is promoted to be Major, February 26th.

Captain C. P. Oliver, M.D., the Maidstone Companies, is promoted to be Major, and to command under Paragraph 55A, Volunteer Regulations, February 26th.

VOLUNTEER CORPS.

Mr. John B. M'Bride is appointed Surgeon-Lieutenant in the 2nd (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment, February 26th.

Brigade-Surgeon-Lieutenant-Colonel E. Shedd, 2nd Volunteer Battalion the Essex Regiment, resigns his commission, retaining his rank and uniform, and vacating at the same time the appointment of Senior Medical Officer to the Essex Volunteer Infantry Brigade, February 26th.

VOLUNTEER INFANTRY BRIGADE.

Surgeon-Captain H. T. Challis, 4th Volunteer Battalion the Essex Regiment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel on appointment as Senior Medical Officer to the Essex Brigade, February 26th.

THE VOLUNTEER OFFICERS' DECORATION.

The Volunteer Officers' Decoration has been conferred upon the following officers: Surgeon-Lieutenant-Colonel G. Robinson, [illegible] Yorkshire (Sheffield) Royal Engineers (Volunteers); [illegible] Colonel J. Thomson, M.D., 1st Ayrshire and Galloway [illegible] Artillery (Volunteers); Surgeon-Lieutenant J. Mudge, jun., 1st Cornwall (Duke of Cornwall's) Royal Garrison Artillery (Volunteers).

MEDICAL QUALIFICATIONS IN THE SERVICE LISTS.

L.R.C.P.LOND., M.R.C.S. asks: Why is it that in the official lists of the Navy and Army the diploma of F.R.C.S. and the various degrees M.D. and M.B. are placed after the names of medical officers, whereas the conjoint diploma of the London Royal Colleges is ignored?

*** In this matter the London Colleges are in the same position as the similar colleges in Scotland and Ireland, and are therefore not exceptional. We presume the explanation to be as follows: To obtain a commission in the navy or army a medical man must have registrable diplomas such as these colleges grant, and, therefore, where not otherwise specified, it is taken for granted that all officers have such qualifications, and to append them to their names would be supererogatory. University degrees in medicine have always, from time immemorial, been appended to the names of officers. The custom of appending F.R.C.P. or S. arose a few years back in this way: The examination for the (then) new rank of brigade-surgeon, was found to be beset with difficulties so inequitable, that it was abandoned; and the qualification of a College Fellowship was accepted instead. That, of course, was a most preposterous substitute for an examination bearing on army medical administration, and has also been abandoned; as an affix to names in the list it will probably soon die out.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ADMINISTRATION OF CHLOROFORM BY UNREGISTERED DENTIST.

ON February 22nd, at the Liverpool Assizes, the case of Rex *v.* Lancaster and Crook was heard before Mr. Justice Bucknill. Mr. Aitken appeared for the prosecution, Mr. Riley defended Lancaster, Mr. F. H. Mellor defended Crook, Mr. Reginald Harrison held a watching brief on behalf of the British Dental Association.

Mr. Aitken said that the two prisoners were charged with the manslaughter of Margaret Ann Hothersall at Clitheroe on January 21st, 1902. The facts were simple and practically undisputed. They were charged with administering, negligently and unskilfully, and without taking proper precautions, a large dose of chloroform, from the effects of which the deceased woman died. The two men were not qualified as dentists, nor were they on the *Register*, and they carefully abstained from calling themselves so, because there were penalties for so doing; they therefore carried on business under the style of "Manufacturers of artificial teeth, teeth extractors, and skin specialists." The deceased had been twice successfully operated upon by the accused before. On one occasion gas had been used, and upon the second chloroform; upon this particular occasion the gas had given out, and Mrs. Hothersall consented to take chloroform. They then proceeded to administer it. She was laid upon the sofa, and Lancaster dropped the chloroform from a bottle, which was not a graduated bottle, upon a handkerchief held by Crook, about 2 inches from the patient's mouth. The teeth were extracted, but the deceased did not recover consciousness, but remained in a state of collapse. They then did a very dangerous thing. They raised her from a prone to a sitting position. As she still showed no signs of recovery they sent for Dr. Barker, who pronounced her to be dead. The necropsy showed her to be a healthy woman with no organic disease, and the doctor's opinion was that death was due to asphyxia caused by inhalation of chloroform. What was the degree of negligence necessary to make these men criminally responsible? The law required from skilful and qualified men to use that skill and knowledge with due care and without negligence, or they were equally liable to be prosecuted: how much more then did it require care and precaution from unqualified men. There was no law to prevent the administration of anæsthetics by unqualified persons, but if they did so unskilfully and negligently, then they were guilty of [illegible]

[illegible] was then called

[illegible] of the deceased, Francis Hothersall, spoke to his wife's [illegible] on that evening, and said that except for her teeth [illegible]th. In cross-examination he said that she had said that she was satisfied with what they had done for her before; but that [illegible] to her sick.

[illegible] who said she was housekeeper to the prisoners, [illegible] on that evening. The deceased expressed a [illegible] witness loosened her corsets and clothes, and generally prepared her for the operation; she was placed in a reclining position on the sofa, and the teeth were extracted. She appeared to be coming round, and was given tepid water to drink, and then more to wash her mouth out with; she then appeared to collapse. The prisoners did all they could to bring her round by means of rubbing and artificial respiration, and raised her head on the couch. Dr. Barker was then sent for.

In cross-examination the witness said that she had been a private nurse [illegible] and that in her opinion the prisoners had done all they could [illegible] and had used proper care; she had been present whenever they administered chloroform, which they had done about 150 times, and they had never had an accident before. Lancaster had questioned the deceased as to her fitness to take chloroform, as to how recently she had taken food, etc.; and did so in every case. She had known him to refuse to administer chloroform.

Dr. Barker said he was called in to see deceased by Crook. He found her sitting up on the sofa, her head being supported; he considered the position to be an improper one under the circumstances. She was dead, and he could see no evidence of any attempt having been made to resuscitate her; her face and lips were livid, eyes prominent, and pupils dilated. In his opinion the lividity pointed to a state of asphyxia, the condition of the eyes to an advanced stage of chloroform narcosis. He made a necropsy with Dr. Smithies; he found the body well nourished and healthy, heart sound, the stomach empty, from which a decided smell of chloroform emanated. The vessels on the right side of the heart were gorged with dark blood, while those on the left were empty. Lividity was pronounced through the body. She died from asphyxia, which could have been caused by an overdose of chloroform.

In cross-examination, he said that the method of administering the chloroform was a proper one, and that doses varied according to circumstances. Had he been asked by the prisoners to administer chloroform for them he should have declined; he believed he had once advised a patient of his not to have teeth extracted by these men. He had heard of cases where patients had collapsed under a dose of half an ounce of chloroform. The chloroform used in this case was of the best. In his opinion the evening was not a favourable time for administering chloroform, as in the present case.

Dr. Smithies, partner of the above witness, corroborated his evidence as regarded the necropsy.

The Chief Constable of Clitheroe said that Crook came to him and described what had happened; he explained their method of administering gas and chloroform, and admitted that they were not on the *Register*.

The learned judge here said: That has nothing to do with it.

This closed the case for the prosecution.

Mr. Mellor submitted that the prosecution had made out no case.

The learned judge said: It is not illegal for these men or either of them to administer chloroform, provided they do it with the ordinary care and skill of a qualified practitioner. Before he would let the case go to the jury the Crown must show some evidence of negligence and such evidence as would justify the jury in finding them liable. It was alleged that the woman had died of an overdose. Where was the evidence of that? In his opinion there was none. Nothing could be made out of the fact that they were unregistered practitioners. Where was the evidence of want of skill? It was rather the other way. It showed that they had administered chloroform 350 times without an accident. There could be no conviction for manslaughter upon such evidence, and he must direct an acquittal.

The Jury: We agree, my lord.

The prisoners were then acquitted and discharged.

UNQUALIFIED PRACTICE BY MIDWIVES.

ACCORDING to the *Western Mail* an inquest was held on February 5th on the body of the infant son of a Mr. Deacy, at Cardiff. It appeared from the evidence that the mother was attended by a midwife, and that later the child developed a rash which was declared to be red gum. Medical evidence went to show that the disease was in reality pemphigus contracted by the child through the midwife, she having been attending another child suffering in the same way. The disease, it was stated, might have been carried from the one child to the other owing to the uncleanly condition of the midwife's hands.

The coroner, in summing up, stated that it was a serious case, and that it was for this reason he held the inquest. It was necessary that midwives should be cautioned to use the utmost care to prevent infection. It was to be deprecated that women were allowed to act as midwives until they had a certain amount of knowledge, and the very first knowledge required was the absolute necessity for cleanliness.

The jury returned a verdict in accordance with the medical evidence.

ACCORDING to the Hednesford *Advertiser*, Mr. Morgan, the deputy coroner of Staffordshire, held an inquest on February 5th at Castle Hill, Blackfords, respecting the death of a woman named Williams. The evidence showed that Mrs. Williams some short time before complained of having fallen in the road and hurt herself. The pain continuing, a midwife was sent for who attended the woman, premature confinement taking place. She appeared to go on satisfactorily, but later, fresh symptoms appearing, Dr. Butter was called in. He found her in a collapsed condition, suffering from peritonitis, and in a very grave state. Instructions were given for treatment, but death took place as the result of peritonitis. Dr. Butter gave it as his opinion that in all probability had he been called in sooner the woman's life might have been saved, and also stated that he had twice cautioned the midwife, as he had found two cases which she had mismanaged.

At the request of the jury the coroner severely censured the midwife, and she was cautioned against taking part in any other cases; her expenses were also disallowed. The jury returned a verdict in accordance with the medical evidence, and added a rider that the Legislature should adopt stringent measures with regard to uncertificated midwives.

MEDICAL BIOGRAPHIES IN CITY AND COUNTY GAZETTEERS.

DISGUSTED writes from Leicester to say that he has been called upon by a canvasser who asked to be allowed to insert his biography and portrait in a proposed gazetteer for the county of Leicester. Our correspondent's expression of surprise and doubt of the propriety of the proceeding were met by the exhibition of proofs and portraits of several medical gentlemen in the town. He asks our opinion on the matter.

"*" We are of opinion that the publication of such notices is most undesirable, and we believe that leading practitioners in the great cities have generally taken this view, and have declined to supply the information required. We may refer our correspondent to our former answer to this question in the BRITISH MEDICAL JOURNAL of September 21st, 1901, p. 843.

PUBLIC VACCINATION BY AN ASSISTANT.

AN opinion is asked on the following: A. is assistant to B., a public vaccinator, through whose instrumentality A. is appointed a deputy public vaccinator by the guardians, and given a separate register, and paid separately the usual fees. B. allows A. one half the fees for cases vaccinated by him at the surgery and one third of those done by him at the patient's home. Under the above circumstances ought not A., as an extra vaccinator, to receive a larger portion of the fees paid for his work?

"*" While the relationship of principal and assistant exists between B. and A., the latter is entitled to nothing beyond his salary for work

done in his principal's practice. Where special work is done by an assistant during an emergency, it is usual for the principal to give him an increase of salary, or a share of the fees derived therefrom, and the amount allowed by B. to A. seems fair and reasonable In spite of his direct relations with the guardians, A. does not occupy the position of an independent extra vaccinator.

MIDWIFERY FEES.

M. C. M.—A country practitioner writes that he was called one night to a midwifery case six miles from his residence, and on arrival found a midwife in charge, who was unable to deliver the patient of a second child. He gave the necessary assistance, and visited the patient the next day, when he was paid a fee of one guinea. The following night he was again sent for, and found the patient showing symptoms of puerperal fever. He attended her for this for about six weeks, and on sending in a claim the husband declined to pay on the ground that the whole attendance was included in the guinea fee. Can he recover in the county court?

*** Where a medical man attends a confinement the fee paid is usually considered to cover attendance up to the tenth or fourteenth day. All further attendance is usually paid for extra, and our correspondent would probably have no difficulty in recovering charges for at least this portion of his attendance.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

MATRICULATION EXAMINATION.

THE number of successful candidates at the Matriculation Examination in January was 731. The Honours Division contained 12 names, the First Division 410 names, and the Second 309.

CONJOINT BOARD IN ENGLAND.

THE following candidates passed the First Examination of the Board in the subjects undernoted:

In Chemistry.—L. E. Acomb, Middlesex; G. K Awbery, King's College; A. J. K. Brayton, Owens College, Manchester, and University College, Liverpool; W. A. J. M. Briggs, Owens College, Manchester, and St. Thomas's; W. W. D. Chilcott, Charing Cross Hospital; R. M. Coalbank, St. Bartholomew's; G. W. Collinson, Yorkshire College, Leeds, and Halifax Technical School; G. H. Curtis, Birkbeck Institute; G. Eager, King's College; F. G. Edholm, Birkbeck Institute; L. G. H. Furber, Cambridge, St Bartholomew's, and Hartley College; W. J. G. Gayton, London; H. G. Gibson, Felsted School; V. B. Green Armytage, University College, Bristol; G. Holryde, Yorkshire College, Leeds; T. J. Jenkins, University College, Cardiff; V G. Johnson, St. Mary's; M. A. Kenny, Yorkshire College, Leeds; W. K Kershaw, Owens College, Manchester; W. W. King, University College, Bristol; A. L. Loughborough, St. Thomas's; J. L. Meynell, London; A. J. Mundy, University College, Bristol; E. Morgan, F. Morres, C. M. Ockwell, and H. A. Pallant, Guy's; D. Phillips, St. Mary's; F. E. L. Phillips, London; S. K. Raina, Allahabad, Charing Cross, King's College, and Birkbeck Institute; H. T. Rossiter, University College, Bristol, and St. Thomas's Hospital; H. K. Salisbury, University College, Bristol; G. A. Simmons, St. Thomas's; F. Smith, Firth College, Sheffield; L. E. M. Smith, Charing Cross; F. H. Stephens, St. Mary's; E. J. F. Thomas, University College, Bristol; G. Wacher, Guy's Hospital; J. G. Watkins, St. Bartholomew's; J. W. Whiteman, University College, Bristol; A. B. Wolfenden, Yorkshire College, Leeds, and Halifax Municipal Technical School.

In Practical Pharmacy.—G. K. Awbery, King's College; F. Barnes, Guy's; H. F. Bodvel Roberts, Cambridge and St. Bartholomew's; R. Burges, London; A. H. Davis, St. George's; C. J. S. Dismore, Guy's; K. A. C. Doig, Westminster; C. R. B. Eyre, St. Thomas's; G. E. O. Fenwick, Otago, and University College; C. A. Godson, St. George's; E H. Griffin, Cambridge and Guy's; R. G. E. Grote, Charing Cross; C. J. H. Gunning, St George's; G. R. Hannon, King's College; H. F. Hatfield, Guy's and St. Barthomew's; G. W. Heron, Westminster; A. E. Hills, E. T. Holland, St. Thomas's; B. Hood, Charing Cross; P. R. Humphrey, M. O. Hunter, St. George's; E. Joseph, J. A. Laughton, Charing Cross; R. E. H. Leach, G. M. L. Lester, Oxford and St. Thomas's; G. M. Levick, St. Bartholomew's and University College; H. Nicol, Westminster; B. Pick, St. George's; C. H. Reinhold, J. F. Rey, Guy's; E. S Routley, St. Mary's; M. W. Shutte, St. George's; F. M. V Smith, Guy's; C. Speers, St. Mary's; F. J. Turner, Guy's; G. S. Welham, Charing Cross; F. E. Whitehead, A. C. Wilson, and F. H Wood, St. Bartholomew's; G. E. Wood, St. Mary's.

In Elementary Biology.—R. N. W. Biddulph, University College, Bristol; A. J. K. Brayton, Owens College, Manchester and University College, Liverpool; A. Cordon, Mason College, Birmingham; H. D. Dakin, Yorkshire College, Leeds; L. E. Davies, University College, Liverpool; H. A. de Pinna, Middlesex; F. C. Doble and G. Eager, King's College; H. G. Gibson, Felsted School; C. V. Griffiths, King's College; W. R. Greening, J. K. A. Helm, H. J. Hills, Guy's; H. G. Hobson, Middlesex; G. Holroyd, Yorkshire College, Leeds; C. M. Kennedy and J. I. F. Knight, London; T. G. Lewis, King's College; A. L. Loughborough, St. Thomas's; P. J. Lush, London; O. Le F. Milburn, Birkbeck Institute; M. K. Nelson, University College, Belfast; J. H. Mayston, E. Morgan, G. H. Morris, G. R. Phillips, E. E. Rendle and A. T. Rivers, Guy's; C. F. Rumsey, Charing Cross; G. B. Scott, St. Bartholomew's; G. N. B. Sebastian, St. George's; S. Slade, Middlesex; F. Smith, Firth College, Sheffield; H. McL. Staley, Owens College, Manchester; A. W. Swinburne, Yorkshire College, Leeds; R. H. E. Stevens and A. C. Watkin, University College; R. Willan, Guy's; J. D. Williams, University College, Belfast.

The following candidates have passed the Second Examination of the Board in the subjects undernoted:

In Anatomy and Physiology.—W. G. Attenborough, King's College; J. M. Barrionuevo and A. M. Benett, Guy's; C. M Bernays, St. Thomas's; J. B Binns, St. Bartholomew's; W. Bowater, Mason College, Birmingham; H. A. Bodkin and L. H. Bowkett, London; R J. Brogden, University College, Cardiff; G. H. Cheyney, Guy's; P. D MacI. Campbell and G. P. Claridge, St. Mary's; T. A. Clarke, King's College; O. C. P. Cooke, London; H. P. Costobadie, Guy's; J. A. Cowie, B.A., B.Sc., New Zealand, Otago and Glasgow Universities; J. R. Davies, University College, Cardiff; A. Dixon, St. Mary's; E. M. Dolan, Yorkshire College, Leeds; P. A. S. Dyson, Guy's; S. Field, St Mary's; E. S. H. Gill, University College, Liverpool; A. D. Griffith, King's College; H. Gray and E. C. Hayes, St. Bartholomew's; S. C. Hayman, University College, Bristol; F. C. Hepburn, Cambridge University; R. R. James, St. George's; H. E. Kitchin, B.A., Cambridge, and Owens College, Manchester; A. Leeming, Guy's; A. S. Littlejohns, B.A., Cambridge and Guy's; S. H. Lockwood, St. Mary's; C. Loddiges, St. Bartholomew's; F. J. Macphail, University College, Liverpool; E. W. Matthews, King's College; F. W. Morgan, University College, Bristol; E. B. Miles, H. F. F. Mortimer, and W. G. O'Malley, London; A. O'Neill, St. Bartholomew's; H. F. Powell, University College; W. H. P. Parker, University College, Cardiff; H. E. Priestly, St. George's; L. Rawes, H. W. Read, St. Thomas's; F. J. Rees, Calcutta; W. Reeve, Guy's; F. M. P. Rice, St. Bartholomew's; T. M. Roberts, University College; E. W. Routley, Guy's; A. Salmon and E. L. Sandiland, London; G. M. Taylor and W. R. M. Turtle, London; T. R. Waltenberg, M.A., Oxford and Owens College, Manchester; F. Weber, St. Bartholomew's; W. J. Weston, St. George's; L. White, Westminster; T. H. Witkins and W. J. Wilkinson, St. Thomas's; E. D. Wolff, King's College.

In Anatomy only.—U. M. Asplen, King's College; W. R. Pagen, London.

In Physiology only.—J. W. W. Hogan, Madras; C. F. Stileman, St. George's.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.—Mr. F. J. C. Heffernan, Miss M. R. Kapadia, Mr. H. Pringle, and Mr. M. J. Russell have passed the examination for the Fellowship; and Mr. F. J. S. Heaney, Miss C. McCrea, and Mr. R. S. Ryce the Primary part of the same examination.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, February, 1902.—The following candidates passed in:

Surgery.—W. V. Braddon (Section I), Cambridge and Manchester; T. S. Davies, St. George's Hospital; E. N. de V. Dawson (Section II), St. Thomas's Hospital; J. C. S. Dunn, St. Bartholomew's Hospital; R. Gauld ((Section II), London Hospital); S. F. Hickman (Sections I and II), Royal Free Hospital; H. Jacques (Sections I and II), London Hospital; C. C. Morgan (Section II), St. Bartholomew's Hospital; E. Osborne (Section I), Birmingham; P. G Sheppard (Sections I and II), Cambridge and Liverpool; J. H. Williams, London Hospital.

Medicine.—J. E. Bolton (Section II), Leeds; R. Gillett (Sections I and II), Royal Free Hospital; C. E. A. Huddart (Sections I and II), London Hospital; M. E. S. Scharlieb (Sections I and II), Royal Free Hospital; C. Watson (Sections I and II), Dublin and Westminster Hospital.

Forensic Medicine.—D. Fletcher, St. Bartholomew's Hospital; M. E. S. Scharlieb, Royal Free Hospital; C. Watson, Dublin and Westminster Hospital.

Midwifery.—W. C. P. Bremner, University of Toronto; I. Griffith, London Hospital; M. E. S. Scharlieb, Royal Free Hospital; R. H. Terry, Guy's Hospital.

The diploma of the Society was granted to J. E. Bolton, E. N. de V. Dawson, D. Fletcher, R. Gillett, C. E. A. Huddart, P. G. Sheppard, and C. Watson.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,844 births and 6,050 deaths were registered during the week ending Saturday last, February 22nd. The annual rate of mortality in these towns, which had been 17.9, 20.6, and 22.6 per 1,000 in the three preceding weeks, further rose last week to 24.4 per 1,000. Among these large towns the death-rates ranged from 13.1 in Ipswich, 13.4 in Derby and in Barrow-in-Furness, 14.2 in West Bromwich, and 14.7 in Portsmouth, to 29.7 in Wigan, 29.8 in Rochdale and in Newcastle, 32.7 in Plymouth, and 36.2 in Merthyr Tydfil. In London the rate of mortality was 29.3 per 1,000, and exceeded by 7.0 the mean rate in the seventy-five other large towns, which was 22.3 per 1,000. The death-rate from the principal zymotic diseases in the seventy-six large towns averaged 2.0 per 1,000; in London this death-rate was equal to 2.2 per 1,000, while it averaged 1.8 in the seventy-five other large towns, among which the highest zymotic death-rates were 4.2 in Brighton, 4.4 in Bootle and in Merthyr Tydfil, 5.0 in Hanley and in Stockton-on-Tees, 5.3 in Burnley, and 5.6 in Rotherham Measles caused a death-rate of 1.7 in Stockport, 1.8 in Preston, 2.8 in Rotherham, 3.0 in Merthyr Tydfil, and 5.3 in Burnley; scarlet fever of 1.0 in Tottenham, in South Shields, and in Newcastle; diphtheria of 1.7 in King's Norton, 2.0 in Burton-upon-Trent, 3.0 in Stockton-on-Tees, and 4.2 in Hanley; whooping-cough of 1.3 in Brighton, 1.4 in Birmingham and in Gateshead, 1.5 in

Coventry, 1.7 in Bournmouth, and 2.6 in Bootle; and diarrhoea of 1.8 in St. Helens. The mortality from "fever" showed no marked excess in any of the large towns. Of the 69 fatal cases of small-pox registered last week 64 belonged to London, 2 to Tottenham, 2 to West Ham, and 1 to East Ham. There were 1,321 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, February 22nd, against 1,102 and 1,185 at the end of the two preceding weeks; 502 new cases were admitted during the week, against 499, 287, and 390 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had declined from 3,137 to 2,455 at the end of the eight preceding weeks, had further decreased to 2,406 on Saturday last; 219 new cases were admitted during the week, against 226, 277, and 260 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 22nd, 889 births and 817 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.8, 23.9, and 23.6 per 1,000 in the three preceding weeks, rose again to 25.3 per 1,000 last week, and was 0.9 per 1.000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 22.1 in Edinburgh and 23.7 in Paisley, to 28.4 in Leith and 37.1 in Greenock. The zymotic death rate in these towns averaged 2.5 per 1,000, the highest rates being recorded in Dundee and Greenock. The 386 deaths registered in Glasgow included 6 from small-pox, 7 from measles, 15 from whooping-cough, 4 from "fever," and 12 from diarrhoea. Three fatal cases of diarrhœa were recorded in Edinburgh; 3 of measles and 5 of diarrhoea in Dundee; 4 of whooping-cough in Aberdeen; 2 of measles in Paisley; 4 of measles and 3 of diphtheria in Greenock; and 1 of small-pox in Perth.

BOARDS OF GUARDIANS AND THEIR MEDICAL OFFICERS.

From a long article which appears in the *Yarmouth Mercury* bearing date February 22nd, we gather that the Poor-law guardians of Yarmouth were at their last meeting engaged for a long time in discussing the question as to the remuneration to be paid to their workhouse medical officer, Dr. H. Collier. We gather that he has held this appointment for the last eight years, and it appears that the Board has during this period proved himself to be an efficient and reliable medical officer.

A recent application from Dr. Collier for an increase of salary led to the appointment of a Committee, which, after an interview with Dr. Collier, considered that he had established a fair claim for the request he had made, and recommended the Board to increase his stipend by an additional £25, thus raising it to £165 per annum. This report of the Committee was not adopted by the Board, as the majority of the guardians present voted against it.

So far as we are able to understand the merits of this question from the report referred to, we can only come to the conclusion that Dr. Collier's claims have not met with the attention which he might fairly have expected from a Board which had so readily acknowledged the value of his past services.

An irregularity in connexion with his appointment as medical officer appears to have existed from the very first, and a second one, not less grave, to have cropped up since. In consequence apparently of the regulations under which Dr. Collier was appointed to office not having been strictly complied with by the guardians or enforced by the Local Government Board, it would seem that he is now likely to be a sufferer. It is stated that previous to Dr. Collier's appointment the guardians passed a special resolution to the effect that the Board would, in addition to the salary paid to the medical officer, provide him with all instruments and appliances required for the tretment of the patients in the workhouse, and it was on these terms that Dr. Collier accepted office; they were subsequently strictly adhered to for several years by both parties. There came a time, however, when on Dr. Collier applying for some dental instruments, this request and his right to make it were referred to the Local Government Board, whose decision was against Dr. Collier.

The question will naturally be asked: How can this be correct after the resolution which the guardians had passed previous to Dr. Collier's appointment, and the explanation would appear to be the following: When the written contract which the guardians made with him was subsequently framed and submitted for confirmation to the Local Government Board, no mention of this special resolution of the guardians was inserted, nor was any allusion made in it to the proposed supply of instruments by the guardians. The consequence was that the Local Government Board, on considering the contract which the guardians had entered into, did not sanction the proposed supply of instruments, and probably never knew that this plan had ever been contemplated. Dr. Collier himself was no doubt technically negligent when he signed this contract, which he probably assumed was strictly in accordance with the terms agreed upon.

[illegible] a further question which we should like to see satisfactorily answered: As the Local Government Board had, in consequence of this defect in the contract, never sanctioned the supply of instruments at the expense of the ratepayers of Yarmouth, how did it happen that this expense was for several years sanctioned by the Board without any objection being raised? It appears to have altogether escaped the notice of the auditors of the Local Government Board as well as that of its other officials.

A further irregularity appears to have crept in when an increase of salary was made some time back on the understanding that it should include medical attendance on some of the paid officials of the Yarmouth guardians. We are surprised to find that the Local Government Board should have sanctioned either tacitly or indirectly, any such arrangement. Without such sanction this cannot be binding on Dr. Collier, and we have, moreover, grave doubts whether it is within the power of any public body to make any such terms with a workhouse medical officer. We shall not therefore be surprised to hear that the Yarmouth guardians have no power to compel their medical officer to give medical attendance to their paid officials, though this part of the agreement they appear to be specially desirous to enforce; but how they can do so and at the same time refuse to find the instruments for Dr. Collier's use, which they specially engaged to do, is altogether beyond our comprehension.

REMUNERATION OF MEDICAL OFFICERS OF INFECTIOUS HOSPITALS.

W. R. writes: In reply to "G. P. E," I am medical officer to a small-pox temporary hospital of 8 beds for a combined rural and urban districts committee. I receive five guineas a year retaining fee, and three guineas a week during the occupation of the building by a patient or patients.

H. T. S. writes: The basis on which I would suggest payment is at the rate of 10s. per head per week, with a minimum salary of £3 (or 3 guineas) per week, and a maximum according to the number of beds. If the hospital is not occupied perhaps a retaining fee of 1 guinea per week would be reasonable. I have had a little experience in this matter, as I have recently been appointed medical officer to our temporary hospital for small-pox here.

OBITUARY.

SEYMOUR GRAVES TOLLER, M.D.LOND., M.R.C.P.

WE regret to report the death of Dr. Seymour Toller of Cairo on Wednesday, February 19th, after an illness of about ten days' duration, the details of which have not yet arrived.

Dr. Toller was 35 years of age. He was educated at Malvern College, where he obtained an exhibition. He entered the Medical School at St. Thomas's Hospital as a first year's student in 1885, obtaining the Entrance Science Scholarship. From that time his career shows an uninterrupted list of distinctions obtained not only in his own medical school, but in the wider sphere of the London University. At St. Thomas's, amongst his other prizes, he gained the Mead Medal for Practical Medicine. In 1886 he was awarded the Gold Medal in Materia Medica at the Apothecaries' Hall. At the M.B. examination of the London University he secured the University Scholarship and Gold Medal in Medicine and in Obstetric Medicine. In the M.D. examination also he won the Gold Medal. In 1896 he took the M.R.C.P.

In the meantime, that is from the year 1889, he had been actively engaged in various hospital appointments, culminating in that of Resident Assistant Physician to St. Thomas's Hospital for the years 1894 to 1897. At the termination of his three years' office his dearest hopes were gratified by his election as Assistant Physician to the Hospital Staff. But the clouds were already lowering over his head. Almost immediately after his appointment he was compelled to resign it on account of the breakdown of his health. He had a severe attack of what at first appeared to be influenza, but in the course of his illness the sputum was found to be teeming with tubercle bacilli. In a few months' time his health to outward seeming was fully re-established, but it was clearly too dangerous for him to attempt to remain in this country; he accordingly applied for and obtained the posts of Physician to the Kasr-el-Aini Hospital, Cairo, and Professor of Clinical Medicine in the Medical School. There, with the exception of summer visits to this country, the remaining years of his life were passed. He threw himself with all his energy into both the hospital and teaching work, and in addition had to satisfy the demands of a rapidly increasing practice. His health could not bear the strain, and a few months ago he resigned his hospital appointments.

Dr. Toller was known to many outside his profession as a brilliant musician. For many years he played the violin in the orchestra of the Royal Amateur Orchestral Society, and also had the honour of a seat on the Council. At St. Thomas's, for ten years or more, no function was complete without one of his violin solos.

Dr. Toller was possessed of a very remarkable personal charm, the outcome of his affectionate impulsive nature. Everything he did was done with an enthusiasm which seemed the keynote of his character. He was perhaps inclined to be oversensitive, and at times took offence where no offence was meant, but the artistic temperament will exact its toll, and none of Toller's friends loved him the less for these little ebullitions. He had contributed little to medical literature, but the exactions of hospital appointments rendered this impossible, and his untimely death has robbed the future of its fruit. The wonder is, not that he did so little, but that in his short span of life he achieved so much. Few professional

careers can have started with greater promise than his, and it is an additional pang to his friends to feel that for long before the final blow his energies were so hampered by ill-health as to make it impossible for him to fully justify the hopes raised by his youth.

It is with much regret that we record the death of Dr. J. F. L. Mullin, of Newport, Mon., which occurred with tragic suddenness on February 17th. We are indebted to an old and intimate friend for the following appreciation of his career: "'In Dr. Mullin's death the poor have lost a good friend, and Newport has lost a good citizen.' With these words the Coroner for Newport wound up the inquest on the late Dr. John Francis Langan Mullin, and words more appropriate to the occasion were never uttered. The deceased gentleman was a native of Ireland, having been born in Drogheda some 52 years ago. He was not the only member of his family who was connected with medicine, for he had two brothers in the profession, one of whom, after an honourable record in the British navy, still occupies a high position as a practitioner in Monte Video, and the other, after a distinguished career as a student in the late Queen's University in Ireland, died of phthisis a few years ago in Texas. The late Dr. Mullin himself was an *alumnus* of the Queen's University, Ireland, having graduated as M.D., M.Ch., and L.M. in 1880. Previous to his medical career he had sojourned for some time in the Southern States of America, and was an intimate friend of General Beauregard, and other well-known Confederate leaders. Throughout his career as a student Dr. Mullin was distinguished for his remarkable assiduity and the whole-hearted zeal with which he devoted himself to the mastery of his profession. After a few years of preliminary study in Queen's College, Galway, he went to Dublin and studied medicine at the Meath Hospital under the late Dr. Foot, and surgery at the Richmond Hospital under the late Sir William Stokes. By both these distinguished teachers he was held in the highest personal esteem." After graduating in 1880 he acted as assistant for some years in London. He then commenced practice on his own account in Cardiff, but finally settled down in Newport, Mon., to the career of a general practitioner. "His career in Newport extended over some ten years, and although he went there as a perfect stranger, by his genial manner and kindly disposition, he soon succeeded in winning hosts of friends, and by his skill, attention, and unflagging energy, he gathered together an enormous practice. During his ten years' residence in the town of his adoption, he probably had not ten days' holiday. This unremitting labour could have but one result, and the inevitable breakdown occurred without any premonitory symptoms, when he dropped dead on January 17th. The cause of death was heart failure produced by the strain of overwork. His funeral was probably one of the most striking spectacles that has ever occured in the annals of Newport: from his house to the cemetery, a route over a mile in length, all traffic was suspended, and all that distance was completely blocked by the multitude who followed his hearse. It was quite touching to see how many were in tears, the poor especially manifesting the deepest grief. But the townspeople were not satisfied with even this tribute of affection to his memory, as they started a shilling subscription to erect a memorial that would keep his name ever green amongst them. Assuredly such a career and such an ending is to be envied." Another correspondent, who writing as one who knew him well, adds his testimony that "he was the soul of courtesy and honour. A dishonourable action was foreign to his nature."

Dr. Paul Fortunatus Mundé, who died recently in New York, in the fifty-sixth year of his age, was born at Dresden, and was taken to the United States when he was but three years old. He received his medical degree from the Harvard Medical School in 1866, having previously served as an acting medical cadet in the Federal army. After his graduation he went to Germany, and served as a volunteer medical officer in the Bavarian army. He then went to Würzburg, where he served in the Maternity Hospital. In the Franco-Prussian war he was a battalion surgeon on the German side, and at the siege of Paris won distinction by his bravery in saving some wounded men from a field hospital that had been set on fire. For his valour on that occasion he received the decoration of the Iron Cross. At the close of the war he pursued his obstetrical and gynaecological studies in Vienna, where he obtained the degree of Master of Obstetrics. He returned to New York in 1873, and soon acquired an active practice in obstetrics and gynaecology. Dr. Mundé was a member of many learned societies, and he taught gynaecology in the Dartmouth Medical College and in the New York Polyclinic. From Dartmouth he received the degree of LL.D. He was the author of an excellent work on Minor Surgical Gynaecology, and, in collaboration with Dr. T. Gaillard Thomas, he made a thorough revision of Dr. Thomas's treatise on *Diseases of Women*. He was the editor of the *American Journal of Obstetrics and Gynecology and Diseases of Women and Children*, and the author of many valuable articles on obstetrical and gynaecological subjects, and a frequent speaker on such topics in society meetings.

We regret to announce the premature death of Dr. Charles E. G. Simons, of The Hollies, Merthyr. Born in Merthyr in 1868 he received his early training there, and later at Bedford County School. Subsequently he was a student at University College, Cardiff, and at the Universities of Aberdeen and Edinburgh. He obtained the M.B., C.M. Aberdeen in 1891, and in the following year the D.P.H. of the Royal College of Surgeons, Edinburgh. He soon settled down to practice in Merthyr first with the late Dr. Dyke and subsequently with Dr. Pechell. For some time he was a member of the Merthyr District Council. After Dr. Dyke's death, the then medical officer of health for Merthyr, Dr. Simons, who had acted as his deputy for some years, was appointed, the appointment being changed to a whole time one. After a few months, owing to differences with some of the members of the Council, he resigned the appointment and returned to private practice. For some time he had been in weak health, being a sufferer from diabetes, and on February 16th he succumbed to an attack of pneumonia. Dr. Symons, who was well known in the town and neighbourhood, was only 34 years of age. A keen worker and especially interested in all public health matters, the resignation of the appointment of medical officer of health was a great disappointment to him. He leaves a widow and two children.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Nil Filatoff, Professor of Children's Diseases in the University of Moscow, aged 55; Dr. H. Barella of Chapelle-les-Herlaimont, a Member and some time President of the Belgian Academy of Medicine; Dr. Julius Wolff, Professor of Surgery in the University of Berlin, and author of writings on osteoplasty, fractures, resection of joints, trophic lesions of bone, etc., aged 65; and Dr. G. Siegmund, one of the oldest physicians of Berlin, author of numerous papers on medical chemistry, aged 82.

MEDICAL NEWS.

On Wednesday, March 5th, 8.30 p.m., at the Medical Society's Rooms, Dr. Vivian Poore, the President of the Life Assurance Medical Officers' Association, will shortly review the work of the Society, and introduce a discussion on the influence on life assurance of a history of appendicitis and insanity.

British Child Study Association.—The attention of late years devoted to the minds and bodies of children should be fruitful of good results to the rising generation. In addition to the Childhood Society, which was established to carry on work similar to that in former years conducted by a Committee appointed by the Council of the British Medical Association for the Scientific Study of the Mental and Physical Conditions of Childhood, there exists a large Society, with branches in ten of the principal towns of the kingdom, called the British Child Study Association. From the report of the London branch, of which Dr. Fletcher Beach is President for the year, we learn that the object of the Association is to gather inform-

ation about the life and training of children; and that this work is promoted not only by formal lectures, but by studies, psychological and practical, carried on by local centres and circles meeting in sixteen different localities in the metropolitan area. These studies are periodically compared and discussed at general meetings at present held at the Sesame Club, Dover Street. A journal called the *Paidologist* is published by the Association three times a year, and contains articles bearing upon child study. The Secretary of the London Branch is Miss K. Stevens, Carlisle House, Dartmouth Park Hill, N.W.

SUICIDE IN THE UNITED STATES.—There were 7,245 cases of suicide in the United States during the past year, and it is probable that a great many suicides are concealed. The published statistics show that the number of people who take their own lives is increasing much more rapidly proportionately than the population. As usual poison heads the list of agencies, and as usual medical practitioners are at the top of the list of victims in professional life.

THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of this Society was held on February 19th at Frascati's Restaurant, Mr. Alfred Cooper, President, in the chair. The guests numbered over 100, amongst whom were the President of the Royal College of Physicians of London (Sir William S. Church), the President of the Royal College of Surgeons of England (Mr. H. G. Howse), the President of the Medical Society (Dr. W. H. Allchin), the President of the Pathological Society (Mr. Watson Cheyne), the Director-General of the Army Medical Service (Surgeon-General W. Taylor, C.B.), Sir J. Crichton-Browne, and Mr. Edmund Owen. The President proposed the toast of "The West London Medico-Chirurgical Society." This was replied to by Mr. C. B. Keetley, who in turn proposed "The Imperial Forces," with which he coupled the name of Surgeon-General Taylor. In responding, the Director-General said that, through the kindness of the Secretary of State he was now supported by some of the most eminent men in the medical profession in London. Mr. F. Swinford Edwards gave the toast of "The Kindred Societies," which was replied to by Dr. Allchin. Mr. L. A. Bidwell proposed "The Guests," and in replying to this toast Sir J. Crichton-Browne said that if he had to characterize the individuality of the West London Medico-Chirurgical Society, he would say that it consisted in conciseness and in practicality, which were due no doubt to the influence of the general practitioners amongst its members. "The Health of the President" was proposed by Dr. J. Barry Ball. The President having acknowledged this toast, the proceedings ended by Dr. McCann proposing "The Officers of the Society," which was replied to by Dr. L. Dobson (who said that the number of members was 585), and by Mr. Percy Dunn, the editor of the journal of the Society.

MEDICAL VACANCIES.

The following vacancies are announced:

BELFAST: ROYAL HOSPITAL FOR CHILDREN, Gloucester Street, S.W.—House Surgeon, ... months. Board and lodging provided, and gratuity of £5. Applications to the Hon. Secretary by March 4th.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Male House Surgeon. Salary, £80 per annum, with board and washing. Applications to the Chairman of the Weekly Board.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; unmarried. Salary, £100 per annum, ... per annum cab hire, furnished rooms, etc. Applications to ... by March 4th.

BRIGHTON AND HOVE DISTRICT DRAINAGE BOARD.—Bacteriologist. ... Mr. J. D. Watson, Engineer to the Board, ... by March 24th.

BRISTOL AND KING'S COUNTY BOROUGH.—Medical Officer of Health; between 28 and 45 ... per annum. Applications, endorsed "Medical ... of Health," to the Clerk by March 6th.

BRADFORD POOR LAW UNION.—Poor Law Assistant Medical Officer for the ... and Workhouse, salary, £125 per annum, with prescribed rations, apartments, and washing. Applications to the Clerk, 22, Manor Road, Bradford, by ...

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board ... to Mr. John Coombs, temporary secretary.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL.—Non-resident ... for similar period. Salary at the rate of £75 per annum. Applications to the Secretary, Church Street, Brighton.

BRISTOL GENERAL HOSPITAL.—(1) Assistant House Physician. Salary £70 per annum, with board, residence, etc. (2) Assistant House Surgeon. Applications to the ... by March 6th.

BUXTON DEVONSHIRE HOSPITAL.—Assistant House Surgeon. Salary, £70 per annum, with furnished apartments, board, lodging, and laundry. Applications to ... Secretary.

CARLISLE CUMBERLAND INFIRMARY.—Resident Medical Officer to act as House ... House Surgeon for several six months. Salary, at the rate of £100 per annum, with board, lodging, and washing. Applications to the Secretary by March 12th.

DORCHESTER: DORSET COUNTY HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum with board, and residence. Applications to the Chairman of the Committee by March 10th.

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180, with board, apartments, laundry, and attendance. Applications to the Medical Superintendent, at the Asylum, Winterton, Ferryhill.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—House Surgeon. Board and residence provided, and a honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 10th.

EDINBURGH: CRAIGLEITH POORHOUSE AND HOSPITAL.—Medical Officer. Salary, at the rate of £110 per annum, with board and apartments. Applications to the Clerk, Parish Council Chambers, Castle Terrace, Edinburgh, by March 10th.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Resident Medical Officer (woman). Appointment for six months. Residence board, and washing provided. Applications to the Secretary, 1, White House Loan, Edinburgh.

EDINBURGH ROYAL INFIRMARY.—Assistant Pathologist. Honorarium, 50 guineas per annum. Applications to the Treasurer by March 5th.

FARRINGDON GENERAL DISPENSARY.—Honorary Physician. Applications to the Honorary Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C., by March 3rd.

HAYWARD'S HEATH: EAST SUSSEX COUNTY ASYLUM.—Second Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, with board, lodging, washing, and attendance. Applications to the Medical Superintendent by March 18th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician; unmarried. Appointment for six months. Salary, £20, washing allowance, £2 10s., with board and residence. Applications, on forms provided, to be sent to the Secretary by March 4th.

JENNER INSTITUTE OF PREVENTIVE MEDICINE.—Studentship of the value of £150 for the purpose of research in the Bacteriological Department of the Institute. Applications to Dr. Allan MacFadyen, Chelsea Gardens, S.W., by March 15th.

KING'S NORTON AND NORTHFIELD URBAN DISTRICT.—Assistant Medical Officer at the Infectious Diseases Hospital. Salary, £120 per annum, with rations, rooms, etc. Until accommodation is provided, officer will be paid at the rate of £90 per annum in lieu of apartments, rations, etc. Applications, on forms provided, to be sent to the Clerk to the Council, 10, Newhall Street, Birmingham, by March 11th.

LEICESTER INFIRMARY.—Surgical Dresser. Board, apartments, and washing provided, and honorarium of £10 10s. for six months. Applications to the Secretary, 24, Friar Lane, Leicester.

LEITH HOSPITAL.—(1) House Physician, (2) Assistant House-Physician (non-resident), (3) House-Surgeon, (4) Assistant House-Surgeon, (5) Surgeon for the Outdoor Department. Appointments for six months from May 1st. Applications to the Secretary, 33, Bernard Street, Leith, by March 15th.

LONDON COUNTY ASYLUM, Banstead.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications, on forms provided, to be sent to the Clerk of the Asylums Committee 6, Waterloo Place, S.W., by March 6th.

LONDON LOCK HOSPITAL, Harrow Road, W.—Anæsthetist to the Female Hospital. Applications to the Secretary by March 30th.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer; unmarried. Appointment for six months, but eligible for election as Senior for six months. Salary at the rate of £80 per annum as Junior and £100 as Senior, with board and lodging. Applications to the Secretary, Dispensary, Gartside Street, Manchester, by March 5th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary, £80 per annum, with apartments and board. Applications to Mr. H. Teague, Secretary, 38, Barton Arcade, Manchester, by March 25th.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Physician; must be F. or M.R.C.P. Lond. Applications to the Secretary by April 5th.

MANCHESTER SCHOOL BOARD.—Medical Officer. Salary, £250 per annum. Applications, to the Clerk to the Board, School Board Offices, Deansgate, Manchester, by March 8th.

MANDALAY MUNICIPALITY.—Health Officer. Salary, Rs. 600, rising to Rs. 800 a month, by annual increments of Rs. 40. Applications to Mr. I. Calderara, Secretary of the Municipality, by March 24th.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon (Junior for six months and Senior for six months). Salary at the rate of £80 and £100 per annum respectively, with board and residence. Applications to the Secretary, 30, Charing Cross, London, W.C., by March 12th.

MIDDLESEX HOSPITAL, W.—Medical Registrar. Applications to the Secretary-Superintendent by March 14th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Senior House-Physician. Salary, £100 per annum. (2) Junior House-Physician, Salary, £50 per annum. Board and apartments provided in each case. Applications to the Chairman of the Board by March 10th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Anæsthetist (female). Applications to the Secretary by March 12th.

PETERBOROUGH INFIRMARY AND DISPENSARY.—House-Surgeon, male. Salary, £80 per annum, rising to £100, with board, residence, and washing. Applications to Dr. T. J. Walker, Senior Surgeon.

QUEEN'S CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Pathologist. Remuneration at the rate of £100 per annum. Applications to the Secretary by March 17th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Three members of the Court of Examiners. Applications to the Secretary by March 12th.

ROYAL DENTAL HOSPITAL FOR LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square, W.—Demonstrator. Honorarium, £100 per annum. Applications to the Dean by March 17th.

ST. GEORGE'S UNION INFIRMARY, Fulham Road, S.W.—Assistant Medical Officer. Salary, £70 per annum, with board, residence, and washing. Applications to Dr. Webster at the Infirmary.

SALFORD ROYAL HOSPITAL.—(1) House-Surgeon. Salary, £100 per annum. (2) House-Physician. Salary, £80 per annum. Board and lodging provided in each case. Appointments for six months. Applications to the Superintendent by March 15th.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—House-Surgeon; unmarried. Salary, £75 per annum, with board, lodging, and washing. Applications to the Hon. Secretary of the Medical Staff, Mr. P. E. Barber, Leavygreave House, Homefield Road, Sheffield.

TOTTENHAM HOSPITAL, N.—(1) Honorary Dermatologist. (2) Two Honorary Anæsthetists. Applications to the Chairman of the Joint Committee by March 14th.

TOTTENHAM URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £360 per annum. Applications, on forms provided, endorsed "Appointment of Medical Officer of Health," to be sent to the Clerk of the Council, 712, High Road, Tottenham, by March 3rd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) House-Physician. (2) House-Surgeon. Board and lodging provided in each case. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

MEDICAL APPOINTMENTS.

ALLPORT, R. H., M.R.C.S., L.R.C.P. Lond., appointed Certifying Factory Surgeon for the Loughton District of Essex.

BELBIN, H. A., L.S.A., appointed District Medical Officer of the Stourbridge Union, *vice* R. Sturgis White, M.B., C.M. Edin., resigned.

BELL, J. T., M.B., B.S. Durh., appointed Medical Officer of the Medlow School of the Wycombe Union, *vice* J. B. McKay, M.D., M.Ch.R.U.I., resigned.

BEVAN, Edmund C., M.A., M.B., B.Ch. Oxon., M.R.C.S., L.R.C.P., appointed House-Physician to the Radcliffe Infirmary, Oxford.

COLLUM, R. W., L.R.C.P., M.R.C.S. Eng., appointed Anæsthetist to the Charing Cross Hospital.

CROWN, Daniel, M.B., B.Ch. Dub., appointed Certifying Factory Surgeon for the Ulceby District of Lincoln.

GEDGE, A. S., M.R.C.S., L.R.C.P. Lond., appointed District and Workhouse Medical Officer of the Pewsey Union, *vice* W. F. Manners, M.R.C.S.Eng., resigned.

JEFFERISS, F. B., M.R.C.S., L.R.C.P., appointed Assistant Physician to St. Bartholomew's Hospital, Rochester.

LACEY, Hugh K., M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Cheam Hospital of the Croydon and Wimbledon Joint Small-pox Hospital Board.

RAMSBOTTOM, A., M.B., Ch.B.Vict., appointed Assistant Medical Officer to the Salford Union Infirmary.

ROBERTS, Miss A. M., M.B., B.S.Lond., appointed Second Assistant Medical Officer and Dispenser at the Hendon Asylum of the Central London Sick Asylum District, *vice* Miss M. B. Austen, resigned.

ROSS, Robert Hamilton, L.R.C.P., L.R.C.S.Edin. appointed Medical Officer to the Clogher Union Workhouse.

THORP, Winifred, L.S.A., appointed House-Surgeon to the Mater Infirmorum Hospital, Belfast.

SINCLAIR, G. T., M.D., appointed Certifying Factory Surgeon for the Clackmannan District.

UPPLEBY, T. G. L.R.C.P. & S.Edin., reappointed Honorary Visiting Surgeon to the Provincial Hospital, Port Elizabeth, South Africa.

VAN PRAAGH, Harold, M.D.Lond., appointed Casualty Physician at St. Mary's Hospital, Paddington.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Mr. A. Pearce Gould: Lettsomian Lectures on Certain Diseases of the Blood Vessels. Lecture II.—Obliterative Arteritis; Nature of the Disease; Symptoms; Treatment; Liability to Recurrence.

Otological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 4.30 p.m.—Cases and specimens will be exhibited by Mr. Hugh Jones, Dr. A. Bronner, Mr. Cresswell Baber, Dr. Herbert Tilley, Mr. Arthur Cheatle, and Dr. Jobson Horne.

Royal College of Surgeons of England, 5 p.m.—Professor F. G. Parsons: The Blood Vessels of Mammals in Relation to those of Man. Lecture I.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Professor Vaughan Harley: A Case of Low Nitrogenous Metabolism. Dr. Hedin: Splenic Enzymes. Dr. R. Hutchison: Chyliform Ascites. Dr. Schölberg: An Unknown Pigment of Urine. Dr. Thiele: A Brown Pigment in Urine.

Royal College of Physicians of London, 5 p.m.—Dr. G. F. Still: Some Abnormal Psychical Conditions in Children. Goulstonian Lecture I.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Dr. Comyns Berkeley, Dr. Victor Bonney, the President, Dr. Horrocks, and Dr. Boxall. Paper: Dr. R. G. McKerron, Suppression of Urine after Labour.

Royal College of Surgeons of England, 5 p.m.—Professor F. G. Parsons: The Blood Vessels of Mammals in Relation to those of Man. Lecture II.

THURSDAY.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Mr. P. L. Daniel: Some Rare Cases of Sarcoma of the Thyroid. Clinical cases will be shown by Dr. Cautley and others.

North-East London Clinical Society, Tottenham Hospital, 4 p.m.—Demonstration of Clinical Cases.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Barry Blacker: On Localization: with Demonstration of a Simple Direct Reading Apparatus.

Royal College of Physicians of London, 5 p.m.—Dr. G. F. Still: Some Abnormal Psychical Conditions in Children. Goulstonian Lecture II.

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor F. G. Parsons: The Blood Vessels of Mammals in Relation to those of Man. Lecture III.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 p.m.—Clinical evening. Followed by a General Meeting to Consider Addition to Rules.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.45 p.m.—Clinical Cases and Pathological Specimens will be Shown or Notes read by Dr. Toogood, Mr. Chisholm Williams, the President, Dr. Leonard Williams, Dr. James Donelan, Dr. Herschell, Dr. R. V. Donnellan, Dr. Caesar, Dr. Peacock (for Mr. Poland), and Dr. Henry.

SATURDAY.

Medical Society of London, Whitehall Rooms, Hotel Metropole, 7.30 p.m.—129th Anniversary Dinner. Dr. W. H. Allchin, President, in the Chair.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Dermatological Demonstration.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m.—Lantern Lecture on Lesions of the Cerebellum.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, throat.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m. Lecture on Myopathies.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday: Therapeutics. Tuesday: Some Common Diseases of the Eye. Wednesday: Therapeutics. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Diseases of the Tonsils.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

GREENWOOD.—On February 22nd, at Garbett House, Acorington, the wife of Alan Y. Greenwood, M.B.Edin., of a son.

DEATHS.

POWER.—On February 17th, at Bournemouth, Julia Charlotte, wife of F. D. Power, M.R.C.S., Brixton.

SMITH.—At his residence, Colbostone, Yorkshire, on February 20th, aged 57 years, Robert Ayre Smith, M.D., late of Sunderland and West Norwood, London.

TOLLER.—On the February 19th, to the great distress of his parents, and deeply lamented by his friends, at his residence Cairo, Egypt, Seymour Graves Toller, M.D., M.R.C.P. Lond., aged 35, late Physician to Kasr-el-Aini Hospital, Cairo, and late Assistant Physician to St. Thomas's Hospital, London. Friends will kindly accept this, the only, intimation.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE DIAGNOSIS BETWEEN SCARLET FEVER AND GERMAN MEASLES.

C. E. R. writes: My partner and I have had several cases of what we believe to be German measles; some had the rash on the face, while others had not, but all had a scarlatiniform rash on the body. Nearly all peeled in small flakes or in branny scales. What are the reliable diagnostic points to determine between scarlatina and German measles as one cannot rely upon the description in the ordinary text-books?

ASSURANCE.

W. M. S. is considering the matter of insurance with respect to (1) life; (2) accident and sickness, (3) servants, (4) horses and traps, (5) slander, etc., and asks for advice.

*** (1) Several small books have been published, but we are not prepared to recommend any of them. The *Medical Annual*, published by Messrs. Wright and Co., Bristol, contains a list of assurance companies, with information as to rates, etc.; (2) our correspondent should obtain information as to the Medical Sickness Assurance Society from the Secretary, 33, Chancery Lane, London, W.C.; as to (3) he might communicate with the Employers Liability Assurance Corporation, 84-85, King William Street, E.C.; (4) several companies insure against accidents to horses, including the Horse, Carriage, and General Insurance Company, 17, Queen Victoria Street, E.C., and the Imperial Accident Live Stock and General Insurance Company, 17, Pall Mall East, S.W.; (5) information can be obtained from the Secretary of the Medical Defence Union, 4, Trafalgar Square, W.C., or from the Secretary of the London and Counties Medical Protection Society, 31, Craven Street, Strand, W.C.

ANSWERS.

T. D. B. has omitted to enclose his card.

A CASE FOR DIAGNOSIS.

G. P. C. writes: In answer to your correspondent, "J. S.," in the BRITISH MEDICAL JOURNAL of February 22nd, I think possibly some light might be thrown on his obscure case if he were to read the article on the status lymphaticus in Osler's *Medicine*, p. 826.

J. D. W. writes: The positive and negative signs and symptoms detailed by "J. S." are highly suggestive of primary diphtheria of the trachea involving the larynx and right bronchus. After symptoms of slight bronchial and tracheal catarrh of one or two days' duration, which may cause no alarm, sudden spasm of the glottis with cyanosis occurs from extension of the membrane into the larynx: the symptoms and course are much like those of a foreign body. Jacobi, in his treatise on diphtheria, says he has operated perhaps fifteen times on such cases, and no case, from the commencement of urgent symptoms to death, ever lasted more than a day, but many a few hours only.

CHRONIC ENLARGEMENT OF THE TESTICLE.

DR. H. OPPENHEIMER (South Hampstead, N.W.) writes: In reply to a query by "A. W. M.," I beg to state that in thickening and induration following gonorrhoeal epididymitis, systematic strapping with adhesive plaster is, in my experience, superior to and quicker in its action than any other plan of treatment I have tried. The diseased testicle being first fixed by a circular layer of strapping plaster applied near the root of the scrotum, and by a longitudinal one applied at the seat of the raphé, the whole of the diseased half is systematically and completely covered with alternate circular and longitudinal strips of plaster. I find Mead's ½-inch adhesive plaster answering the purpose well. Care should be taken that no skin remains visible in the diseased half of the scrotum, since uncovered portions are in danger of being strangulated and sloughing. The plaster dressing remains *in situ* for a period of from 10 to 14 days, when a few days are allowed to elapse before a fresh plaster dressing is applied, so that any soreness of the skin that might show after taking the bandage off has a chance to disappear, and the slight excoriations which occasionally form may heal.

Later, when the affected testicle is too much reduced in size to offer a sufficient support to the strapping, the whole of the scrotum may be encircled in this manner without any detriment to the healthy testis. Dr. Oppenheimer also suggests to "E." that he might subject his patient with advantage to a prolonged course of mercurial inunction followed by a course of iodides. No further local application should be necessary.

LETTERS, NOTES, Etc.

Mistletoe on Oak Trees.

DR. CHARLES J. WELLER (Frampton-on-Severn, Stonehouse, Gloucestershire) writes: If the doctor who wrote to me some two years ago about the growth of mistletoe on oak trees would write, I could give him the information he wanted. I have unfortunately lost his address.

The Separation of Xiphopagous Twins.

IN the account of the celebrated xiphopagous twins, Chang and Eng and Radica and Doodica in the BRITISH MEDICAL JOURNAL, February 22nd, p. 465, we omitted to remind our readers that a good engraving of the latter will be found in the JOURNAL, vol. i, 1893, p. 1176, under the heading The Orissa Twin Sisters the name by which Radica and Doodica were then known, when they were exhibited at the Westminster Aquarium. The drawing is accompanied by a full description of the anatomy of the connecting band as far as could be ascertained before the operation, with a good clinical history of the twins. Just as Chang loved the flowing bowl when elderly, whilst Eng resisted its allurements, so one of the little Orissa girls was able to enjoy the sea whilst the other suffered from sickness when rocked on the billows.

Relapse of Vaccination.

DR. R. H. NORMAN (Canonbury Park North) writes: I note with interest the letter from "Amicus" in the BRITISH MEDICAL JOURNAL of February 22nd, p. 496. The same event has happened in three of my cases during the last two months, and the period of the relapse of the vaccination, as in his case, was about a month after the inoculation. I should appreciate an explanation from any of your readers.

DR. F. G. GARDNER (Warwick) writes: About an hour after reading a note with the above heading in the BRITISH MEDICAL JOURNAL of February 22nd, a young lady whom I had vaccinated about six weeks before came to say that her arm, after getting nearly well, had broken out afresh. And so it proved; the marks were swollen just as in the revaccination, when she had almost typical vesicles. I am at a loss for an explanation.

Choice of an Anaesthetic in Abdominal Operations.

MR. J. D. E. MORTIMER, M.B., F.R.C.S. (Anaesthetist to the Royal Hospital for Children and Women) writes: In regard to the preference expressed by Mr. L. A. Bidwell in the BRITISH MEDICAL JOURNAL of February 8th, for chloroform as an anaesthetic in abdominal operations, may I remark that a very satisfactory plan is to begin with gas and ether or the A.C.E. mixture, and (if necessary on account of rigidity or too ample respiratory movements) to change to chloroform as soon as the initial difficulties (which in the case of chloroform often mean the initial dangers) are fairly over? Again, if the operation is long and the patient begins to flag, one may revert to ether or A.C.E. at a later stage with benefit, and without fear of disturbance.

Stimulation of the Skin in Phthisis, Etc.

As there have been several requests for further particulars regarding the treatment advocated by Dr. Newbiggin, of Abington, N.B., in the BRITISH MEDICAL JOURNAL of December 28th, 1901, p. 1888, under the heading The Value of Rest and Stimulation he has kindly provided the following additional information. The waistcoat recommended is made [illegible] A flannel be made to fit well up to the neck and closely to the chest, and over it a dry flannel waistcoat should be worn. The extract [illegible] vary in strength according to the age of the patient [illegible] of the skin. As a rule 1½ oz. of powdered capsicum [illegible] be concentrated in hot water, but not boiled, for three or four hours. To [illegible] 2 oz. of dilute acetic acid, specific gravity 1040, should be added and the waistcoat wrung out from the warm lotion. It [illegible] be applied three to five times daily. If the skin becomes rough [illegible] should be omitted and olive oil well rubbed into the skin. It [illegible] the coarser the powder of cayenne the more stimulating is the resulting decoction.

The "Fourth Disease."

THIRTY YEARS A G.P. writes: On Thursday, January 23rd, I was called to see a servant girl who was ill, complaining of pains generally and headache. I found nothing very definite except [illegible] temperature 102.5°. I saw her again the next day, when her temperature at 11.30 A.M. was [illegible] and she had a rash on her face and chest, but no throat symptoms. Not feeling certain about the case I did not notify on that day, but on Saturday the rash was very marked on face, chest, arms, and legs; [illegible] complained of stiffness [illegible] neck, with some glandular enlargement. As there were [illegible] in the house and [illegible] that it was a case of [illegible] and he was requested to [illegible] the fever hospitals [illegible] were [illegible] by one mark when the friends received a [illegible] that she was not suffering from [illegible] and [illegible] be removed. Was it a case of the "fourth disease"? The rash appeared to me to be indistinguishable from scarlatina rash.

Sanitary Officers for Egypt.

THE Maritime and [illegible] Sanitary Council of Egypt, under the date of January 30th, [illegible] invited applications for the following:—A [illegible] medical officer [illegible] of the second [illegible] for Kosseir and [illegible] and a medical officer of inspection and [illegible] for Suez and Port Said. The salary of the first post is [illegible] Egyptian, [illegible] for the two second posts £200 to £300 Egyptian a month, and for the third £150 to £200 a month. Candidates for the first appointment are required to produce a doctor's diploma, a certificate of sound constitution, and a formal engagement to take up the duties of the post in case of nomination in the course of the month following official notification. For the second posts a diploma of doctor in medicine and surgery is required, and for them and the last evidence of study in practical bacteriology and in epidemiology is required. In every case candidates are required to state the languages with which they are acquainted, and they must forward all the necessary documents to the President of the Quarantine Board (Dr. Ruffer), Alexandria, so as to reach him on or before March 30th, 1902.

Persistent Haemorrhage caused by Leech Bite.

DR. EDGAR WHALLEY (Lancaster) writes: A short time ago a girl was brought to me with a profuse haemorrhage from the left upper eyelid. Acting on the advice of a friend, she had placed a leech on the eye in order to reduce a "black eye." The leech was placed on the eyelid itself, and when removed in about an hour's time bleeding ensued, which she could not control. On examination it appeared that the leech had bitten into one of the numerous vessels of the part, and I could detect distinct pulsation in the wound. Not wishing to ligature in such a position, I compressed with artery forceps, but without result, after allowing them to be kept *in situ* for half an hour. Hot applications also failed, but eventually I succeeded in controlling the haemorrhage by the application of liq. ferri perchlor. fortior to the open wound.

COMMUNICATIONS, LETTERS, Etc., have been received from

A Amicus; Mr. M. A. Alabone, London; Mrs. E. Garrett Anderson, M.D., London; Professor T. Clifford Allbutt, Cambridge. **B** Mr. G. H. Broadbent, Manchester; Mr. W. Berry, Wigan; Mr. H. N. Barnett, Knock; J. W. Batterham, M.B., St. Leonards-on-Sea; Mr. J. P. Bush, C.M.G., Clifton; Braith; Beta; Mr. L. A. Bidwell, London. **C** Dr. J. M. Clarke, Clifton; Mr. H. H. Cotman, London; Mr. H. M. Crookshank, M.B., Cairo; R. W. Cruikshank, M.B., Evesham; Mr. N. H. Choksy, Bombay; Mr. E. F. Champion, London; Commune Bonum; D. A. Callender, M.B., Leith; Dr. H. Collier, Great Yarmouth; E du Cane, M.B., Swindon; Mr. C. E. Cassal, London; C. E. R. **D** Disgusted; Mr. W. T. Davies, Pen-y-bont; Dr. G. H. M. Dunlop, Edinburgh. **E** W. McA. Eccles, M.B., London; Epilepsy; Enquiring Member. **F** Fleet Surgeon, R.N.; Dr. P. S. Fenton, Bakewell; Dr. L. H. Fox, London; Dr. G. B. Flux, London. **G** Mr. P. T. Goodman, London G. P. C.; Mr. R. J. Gilbert, London; Brigade-Surgeon-Lieutenant-Colonel P. B. Giles, Bletchley; Dr. A. E. Garrod, London; Mr. W. J. Greer, Newport, Mon.; Mr. I. Griffin, Banbury. **H** P. S. Hichens, M.B., Northampton; G. Halley, M.B., Dundee; Mr. J. Hutchinson, Jun., London; Hon. Sydney Holland, London; Dr. W. J. Horne, London; H. J. S.; Mr. J. Humphrey, London; Dr. S. Halbriech, Bridgend; Dr. J. W. Hamill, Manchester. **I** I.M.S. **J** G. Jones, M.B., London; Dr. R. Jones, Woodford Bridge; Mr. J. A. Jones, Port Talbot; Mr. F. Jaffrey, London; J. D. W.; Mr. R. Jones, Liverpool. **K** Kidderminster Medical Society, Secretary of, Kidderminster; Mr. J. E. Kilvert, Derby; Mr. H. D. Kelf, London. **L** Mr. H. Longford, Thirsk; Dr. L. Lazi, London; L.R.C.P.Lond., M.R.C.S.; Messrs. C. Letts and Co., London; Dr. H. A. Latimer, Swansea; L.R.C.P.; J. F. Little, M.B., London; London Diplomate. **M** Mr. W. Monnington, London; Mr. R. Moynahan, Kilrush; J. D. E. Mortimer, M.B., London; Dr. G. V. Miller, Stockton-on-Tees; Mr. E. Merck, London; Dr. G. H. Mackenzie, Edinburgh; Mr. W. L. Muir, Glasgow; D. M. Mackay, M.B., Liverpool; M.B.Aberd.; Mr. H. May, Birmingham; Mr. W. J. Midelton, Bournemouth; Mr. K. Monsarrat, Liverpool; Mr. F. C. Melhado, London; Dr. J. L. Maxwell, London; Dr. S. Melville, London; D. McAskie, M.B., London. **N** Dr. R. H. Norman, London; Dr. J. T. Neech, Halifax. **O** Dr. H. Oppenheimer, London. **P** P. H. W.; H. W. Pooler, M.B., Birmingham; Mr. F. T. Paul, Liverpool; Mr. H. E. B. Porter, Windsor; Mr. A. Perry, Colombo; Public Vaccinator. **R** Dr. H. M. Riley, Leicester; Mr. W. A. S. Boyds, St. Mary Bourne; Mr. H. Roberts, Hayle; Dr. M. A. Ruffer, Alexandria; Ridan; Retired Half Pay; Rosacea; Rectus; Dr. J. B. Rankin, London; Rosin; Rusticus. **S** Dr. M. M'I. Sinclair, Stroud; Mr. R. C. Saunders, London; B. Squire, M.B., London; Surgeon R.N.; Dr. E. Saalfeld, Berlin; Dr. W. Sheen, Cardiff; S. Stephenson, M.B., London; Sanitas; Messrs. Scott, Greenwood and Co., London; Mr. G. L. St.George, Lisburn; Dr. J. Scott, Manchester; Mr. H. T. Sells, Northfleet. **T** Tacquaru Co., Secretary of, London; Mr. L. E. Todd, York; T. H. M.; Dr. H. G. Turney, London; Dr. J. F. Tuohy, Hove; Mr. H. J. Taylor, Bolton; Mr. H. S. Turner, London; J. Thomarson, M.B., London. **U** S. Vincent, M.B., Cardiff; Vytallo Co., Secretary of, London; Mr. C. J. Vanderstraaten, Bellatta, Ceylon. **W** D. C. Watson, M.B., Edinburgh; Dr. F. Willcocks, London; D. J. G. Watkins, M.B. Lincoln; W. R.; A. Wauchope, M.B., Glasgow; Mr. C. Williams, London; Mr. C. J. Weller, Stonehouse; Mr. S. W. Wilson, Dublin. **Y** Yaxford; A. Young, M.B Glasgow.

BOOKS, Etc., RECEIVED.

Tables of Organic Materia Medica. By W. A. Wood, M.B., C.M., M.R.C.P.E. London and Edinburgh: Medical Supply Association.

The British Sanatoria Annual. Third year of Publication. London: John Bale, Sons, and Danielsson. 2s. 6d.

A Handbook of the Gnats or Mosquitos. By Lieutenant-Colonel G. M. Giles, I.M.S., retired, M.B., F.R.C.S. Second edition. London: John Bale, Sons, and Danielsson. 1902. 21s.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	1 17 6
A page	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restantes* addressed either in initials or numbers.

A Clinical Lecture

ON

TWO CASES OF SPINAL CORD DISEASE CONSEQUENT ON SYPHILIS.

By T. R. BRADSHAW, B.A., M.D., M.R.C.P.,

Physician to the Royal Infirmary; Consulting Physician to the Samaritan Hospital for Women; Lecturer on Clinical Medicine in University College, Liverpool,

At the present time I have in one of my wards two patients the subject of disorders of the nervous system, disorders which, although they differ entirely in their symptoms, their pathology, and their prognosis, have this in common—that they are late consequences of antecedent syphilis. They both present features which are somewhat unusual, and we may learn some important lessons from their consideration.

The first case is that of a man 40 years of age, who was sent to me by Dr. Main, of Macclesfield. He is the subject of locomotor ataxy in a characteristic form, but as we have already during the session made a careful study of this complaint I do not propose to go at length into the symptomatology of his case to-day. I am concerned more especially with the causation of the disease.

The causes which the textbooks assign to locomotor ataxy are various, and include excessive fatigue, over-exertion, injury, and exposure to wet and cold; but the antecedent which overshadows all others is a precedent attack of syphilis. The frequency of a syphilitic history has been variously given by different writers: Gowers places it at a high figure—70 or 80 per cent.—though he believes that in about 10 per cent. of the cases syphilis can be positively excluded. On the other hand, Drummond, of Newcastle, has expressed the opinion that locomotor ataxy is always a result of syphilis; and Möbius is quoted by Osler as saying, "The longer I reflect upon it the more firmly I believe that tabes never originates without syphilis." My own experience, so far as it goes, is strongly in favour of the syphilitic origin of tabes; I cannot recall a single instance of the disease since I began to pay special attention to this point about ten years ago, in which I failed to elicit a fairly clear history of syphilis.

The nature of the relation between syphilis and tabes is not clear. The lesion in the latter disease is not structurally the same as that which we recognize as the direct result of the syphilitic poison; neither is it influenced by the administration of remedies which are effectual in arresting and removing the characteristic lesions of syphilis.

Two theories have been advanced to explain the apparent connexion between tabes and syphilis. According to one, the action of the syphilitic poison gives rise to some toxic agent which exerts its action on certain parts of the nervous system; according to the other, the syphilitic poison has lowered the vitality of these parts in such a manner that they are liable to undergo degenerative changes under the influence of causes which would otherwise have no injurious action upon them.

The man whom I now show you has, as I have already stated, the symptoms of locomotor ataxy in a characteristic form. Two years ago the first symptoms of ataxia became manifest; he used to stagger when he shut his eyes in washing his face. Subsequently lightning pains came on, and there was partial retention of urine. At the present time he has the characteristic gait, and he cannot stand steady with his eyes shut, though there is no clear loss of power in the limbs; the knee-jerks are abolished, there is impaired sensibility in the legs, and the Argyll-Robertson pupil is present. His memory is, perhaps, somewhat impaired. In inquiring into the history with great care, I was much surprised to find that he denied, apparently with sincerity, the occurrence of any syphilitic infection, though he admitted readily that years ago he had frequently exposed himself to the possibility of acquiring it. Further, the most thorough search failed to reveal the existence of a scar in the usual situation. I began to wonder whether I had not at last met with an exception to what I had come to look upon as a rule; but on my next visit I found evidence to show that there was no exception; that infection had undoubtedly taken place, but in an irregular manner. You will often find a great difficulty in eliciting an exact history from patients at a first interview. Ailments which have not interfered with the occupation are soon forgotten, the unusual surroundings of the hospital or the consulting room produce confusion of thought, events of the highest importance may seem too trifling to be narrated. But the first examination has probably started a train of thought which will lead to the recall of forgotten events, the patient takes a more intelligent interest in his condition, and he begins to suspect that what seems trivial may be of great moment. In the course of subsequent interviews I was able to piece out the following history of an attack of primary and secondary syphilis, which is of sufficient interest to be related at some length. He suffered very much from chapped hands eighteen years ago. While he was sharing his bed with a man whom he knew to be affected with some disease a sore formed on the back of his left hand. It was very painful; it was raised, and increased to about the size of a sixpence. He was treated by a doctor in Manchester, who prescribed pills and a mixture, which he took for some weeks. Soon afterwards an eruption appeared on his forehead and chest, his hair fell out, and his throat became sore. The position of the sore on the back of the hand is marked by a permanent scar.

It seems to be practically certain that in some way the chapped skin became inoculated with syphilis, that a chancre formed on the back of his hand, and that a slight attack of secondaries ensued. The account of the case serves to emphasize the importance of syphilis as an antecedent of tabes, and it illustrates the care which may be necessary to elicit a history of it.

The second case is that of a man, A. C., 46 years of age, who gives a clear history of syphilis twenty-three years ago. He seems, however, to have had no further manifestations of the disease until twelve months ago, when he had some form of amblyopia of the left eye, which got well under mercurials. Subsequently he suffered from pain in the right lumbar region, his right leg began to get weary on exertion, and a fortnight before admission it dragged as he walked. Quite recently he has felt some weakness in the left leg. On admission he was able to walk with marked dragging of the right leg, the toes tending to catch in the floor, the movement being characteristically spastic. The toes of that foot were slightly clawed, the first phalanx being extended, the second slightly flexed. The muscles were flabby, but not materially wasted; the knee-jerk was exaggerated, and ankle clonus was well marked. Some numbness was complained of in the second, third, and fourth toes, but, so far as the usual tests for sensibility were employed, it did not seem to be materially diminished. The left leg appeared to be normal on physical examination. At the present time, however, a feeble ankle clonus can be elicited on the left side, which appears to have developed during the fortnight which has elapsed since admission. The cremasteric reflex is absent, but there is no impairment of the reflexes of the bladder and rectum.

When we endeavour to make an exact anatomical diagnosis of the condition upon which this man's nervous symptoms depend, we notice at once that the lesion is confined to the lumbar enlargement; further, that it is almost confined to the right side, the left being affected only recently and in a slight degree. When we come to analyse the symptoms more closely we notice the occurrence at the outset of pains suggesting irritation of the nerve roots or the meninges, while the existence at present of interference with sensibility, of loss of muscular tone, and paralysis of some of the small muscles of the foot may be readily explained by interference with the nerve roots. But we have also evidence of local degeneration of the pyramidal fibres—namely, ankle clonus and exaggeration of the knee-jerk: while the absence of all interference with the vesical reflex seems to indicate that the deeper part of the cord is not affected. It seems to me that most of the symptoms present may be very well accounted for on the supposition that there is a small gumma situated in the pia mater of the right side of the cord near the upper end of the lumbar enlargement. In its neighbourhood there will probably be a good deal of thickening of the meninges, which may even encircle the cord. The lesion will naturally press upon the more superficial parts of the

cord, including the crossed pyramidal fibres which lie directly beneath the pia mater, and will also interfere with the nerve roots. On this hypothesis we can readily understand why there is no impairment of the organic reflexes.

If this view be correct it is clear that although syphilis is the cause of the lesion in both cases, the lesions themselves are totally distinct, have a different prognosis, and call for different lines of treatment. In the one case we have a degeneration which tends to advance, and is not likely to be influenced by antisyphilitic remedies; nor, indeed, to any great extent by any therapeutic means at our disposal. In the other case we have to deal with a special form of inflammation, which we may confidently hope to arrest by appropriate measures, measures which will even lead to the disappearance of such morbid products as are already formed.

It only remains to remind you that arrest of the syphilitic process and the absorption of its products does not necessarily mean entire restoration to health, inasmuch as it is possible that their presence may have already injured the adjacent nerve structures to such an extent that their complete restitution is no longer possible.

ABSTRACT OF

The Hunterian Lectures

ON THE

ANATOMY, PHYSIOLOGY, AND PATHOLOGY OF THE IMPERFECTLY DESCENDED TESTIS.

Delivered before the Royal College of Surgeons of England.

BY W. McADAM ECCLES, M.S.LOND., F.R.C.S.ENG.,
Hunterian Professor of Surgery; Senior Assistant Surgeon, West London Hospital; Assistant Surgeon, City of London Truss Society.

LECTURES II. AND III.

PHYSIOLOGY.

NEARLY all authorities are agreed that the testis which has not reached its normal position in the scrotum is generally functionless, at least in so far as the formation of spermatozoa is concerned. While this belief is true in the vast majority of instances, yet there are persons whose testes, although arrested or ectopic, are nevertheless capable of producing well-formed and active spermatozoa.

Double arrest or ectopia associated with want of development of the testes, as a rule implies sterility on the part of the man, although he may be perfectly virile. There is also some real doubt as to whether a testis arrested at birth, but brought down in early life into the scrotum, ever so develops as to become the seat of spermatogenesis. A few cases are on record in which this has been stated to have occurred, but the facts given do not strongly support the assertion. Moreover, testes which at birth are lying in the inguinal canal or even within the abdomen have been known to descend gradually, or perhaps somewhat hastily, either before or after the period of puberty. It may, therefore, be that some of the glands that have been brought down, placed in, and grown in the scrotum were those which, although well developed for their age, had merely had their passage delayed and would eventually have reached their proper position by natural means and become fully capable of function.

But while the chief fault of the imperfectly descended testis may be its inability to produce active spermatozoa, there are other important conditions closely associated with arrest or displacement of the organ. There would appear to be some relationship between the general growth and development of the body in the male and a proper descent of the testes, or, in other words, many instances of want of general growth of the body are accompanied in the male by an arrest of the testes.

With one testis arrested and ill-developed there is, except in a few instances, no lack of development of the individual, whether bodily, mentally, or sexually. It would seem from this fact that either the fully descended and developed testis is sufficient in itself to promote bodily growth, or that the arrested gland must also supply its quota towards the full development of the individual.

If the former view is the correct one, it might be argued that the normal testis, in order to supply the full amount of what is needful for the growth of the body, ought to show signs of hypertrophy. Yet a size of the normally placed organ greater than it should be in a person of corresponding age and development is but rarely seen in the human subject. In animals, on the other hand, there seems to be more evidence of a compensatory hypertrophy. This is particularly the case in the horse. Experience has shown that a single well-developed testis is sufficient to provide all that is needed for the proper growth of the individual, and that no serious inconvenience to the subject, so far as complete bodily growth is concerned, is likely to occur should it become necessary to remove its fellow, and this in spite of the fact that the organ which is left does not exhibit any tendency to increase in size.

In furtherance of the argument that an ill-developed and imperfectly descended testis does not subscribe much, if any, of the stimulus for full bodily development of the man, is the fact that in instances of double arrest and non-development of the testes, there is as a rule some failure in the growth of the individual in all directions.

It is to be understood, however, that this want of growth may be due to some prior cause which is acting as a factor in also producing the imperfect descent. Such a condition is commonly seen in cases of cretinism, and in those rare instances of the condition which it is proposed to term "atcleiosis." When both testes are arrested, but are not imperfectly developed, there should be no want of bodily or other development.

In endeavouring to determine the causal relationship between imperfect development of the arrested testes and the failure of general bodily growth, or of efficiency in certain physiological functions, some light may possibly be thrown by a careful study of the microscopical appearances of sections of the arrested glands. The testis of the boy before puberty is often entirely devoid, or nearly so, of a type of cell lying in the spaces between the seminiferous tubules. These interstitial cells, however, may become noticeable about the period of increased sexual development, and are sometimes very abundant. Although in instances of double arrest of the testes both organs may be wholly incapable of producing spermatozoa, yet the owner of them may acquire full virile power, but will remain for ever without the ability to procreate. The arrested glands not infrequently have large numbers of these well-defined interstitial cells, and it is possible that they have an important function at the onset of puberty. They may have the duty of producing what is now generally called the "internal secretion" of the organ. This substance, whatever it may be, probably plays an important part in the development of the body. That there is some relationship between internal secretion of glands and the growth and division of cell elements gains some support from the fact that in a considerable proportion of instances where double oöphorectomy has been performed for recurrent or inoperable carcinoma of the mamma, and particularly in women before the climacteric, there has been a very noticeable change in the constitution of the malignant deposits. In some of these cases the neoplasm has become markedly altered within a few days of the removal of the ovaries; in others, well-authenticated, there has been a complete temporary if not permanent disappearance of the carcinomatous masses. Then, again, there is the well-known circumstance that an early removal of the ovaries leads to a diminution in the size of the uterus—uterine atrophy—and that the ablation of both the testes causes shrinking of both lobes of the prostate—prostatic atrophy. Further, it is an interesting fact that each of these mutilations is liable to be followed soon after they are performed by severe "nerve storms," in which the patient may for the time being become irresponsible for his or her actions.

On the other hand, supposing in the male that the vasa deferentia alone have been severed, such nervous phenomena but rarely follow, and in such a condition, although eventually the testis does atrophy on the side of the vasectomy, yet it remains present, and probably still capable of producing its internal secretion. Further, a removal of both the testes or of both the ovaries tends to a deposition of a considerable amount of adipose tissue in the body. There is much that is highly suggestive in the fact of these internal secretions, but there

is need of a large amount of clinical, physiological, and pathological study to elucidate their full significance.

The influence of the descent and the development of the testis upon the formation and growth of the accessory genital structures in the male is marked. The chief organs to be affected are the prostate, the vesiculae seminales, Cowper's glands, and the penis. When both testes have failed to arrive in the scrotum, provided that they also show a want of proper development, the prostate is usually small—that is, it does not increase in size at the onset of puberty, its fibrous tissue appears to be added to, while its glandular tissue in the form of the tubules is never fully formed, being represented merely by branching fissures doing duty for ducts, and lined by a single layer of flattened cells. The intervening or intertubular connective tissue is hypertrophied and there are but few non-striated muscular fibres present. Further, as life advances, there seems to be but little tendency for that enlargement which is so common in the organ when there has been an active sexual life. It is also true that only one-half of the prostate will be properly developed when only one testis has reached the scrotum, the other having been arrested and remained in a condition of ill-development.

The vesiculae seminales and the vasa deferentia, either unilaterally or bilaterally, according to whether one or both of the testes have failed to gain their position in the scrotum, show evidence of want of development, and appear almost as if they were absent in some instances. The vesicle on the side on which the testis has not descended is small, very saccular, and unfilled by semen (Fig. 1).



Fig. 1.—Absence of left testis, with imperfect development of the left vesicle. (Godard.)

Cowper's glands habitually fail to become of normal size where the testes have been arrested; in fact, in some instances neither they nor their ducts can be found.

The penis with double arrest is, as a rule, small, though there are exceptions. It is also flaccid, and appears frequently as if shrunken. Erection may be faulty, and ejaculation nearly, if not quite, absent.

Not uncommonly associated with these conditions there is a want of the proper attainment of manly characteristics. The hair about the symphysis pubis shows a feminine arrangement, the pelvis tends to assume the shape seen most often in the female, and the larynx and the voice remain as in the boy. Occasionally the mammary glands show distinct hypertrophy. In a few instances sexual perversion has been present. Another relationship of considerable interest is the association of non-descent of the testis with a condition of hermaphroditism.

Pathology.

Inflammation of the Imperfectly-descended Testis.—The testis which has not reached the lowest limit of the scrotum, or which has passed into abnormal positions, is liable to inflammation arising from the same causes as the inflammatory conditions of the normally-descended organ. But in addition the site of the testis, when arrested or ectopic in itself, renders it prone to become inflamed from reasons other than those operating upon the normally placed gland. Inflammation of the imperfectly-descended testis may be due therefore to: (1) Traumatism: (2) extension of inflammation from the urethra: (3) secondary inflammation in certain cases of parotitis: in all of these the inflammation is of an acute nature; (4) deposit of the tubercle bacillus; (5) syphilitic infection; in both of these it is usually of a chronic nature.

Traumatic Inflammation: Causation.—Inflammation due to traumatism is peculiarly the misfortune of the testis which is abnormally situated. A testis hanging from a normal cord is so mobile that it slips aside almost at the approach of violence. The testis which hangs high in the scrotum or just below the superficial ring, often from a short, altogether unyielding cord, cannot, neither can the gland which is retained in the inguinal canal. When it has only passed out of the canal but a short way, it is constantly liable to blows and harmful pressure. Many a time the delicate and very often sensitive testicular tissue is pressed backwards against the totally unyielding body of the os pubis, only to result in a sharp attack of orchitis. It is here, also, outside the inguinal canal, but not in the scrotum, that the imperfectly descended testis is certain to be injured by the pressure of the pad of a truss that has been improperly applied. When an inguinal hernia accompanies a testis found just below the superficial abdominal ring, the pad of the truss which is to control it should be placed over the site of the inguinal canal, and altogether above the level of the body of the os pubis. In like manner, the adjustment of a truss to a bubonocele with the testis in the inguinal canal will cause, as a rule, no harm if the testis is allowed to slip away to one or other side of the pad. But it may be markedly irritated in this position if a truss with a so-called horseshoe or forked pad is applied. Fortunately the testis does not remain within the trap that is so placed to retain it, and thus escapes injury; but, should it happen to be squeezed in the restricted area, an attack of inflammation is almost certain to result.

Again, with the testis in the canal, damage may accrue if a truss with too strong a spring is applied, or from the pressure of an instrument the spring of which has a too-marked antero-posterior curve, such as is so often seen in badly-constructed trusses. Inguinal inclusion is also a cause of inflammation, owing to the pressure from strong muscular efforts. In many other cases the application of a truss is in reality a prophylactic measure, for it will occasion the retention of the gland within the abdomen, and thus keep it to a great extent out of danger.

Torsion of the cord, which itself is not infrequently the outcome of traumatism, is another cause of inflammation, often passing on to gangrene. When the testis has passed into the perineum, it is peculiarly liable to become squeezed and bruised from pressure in sitting. The testis in Scarpa's triangle is again exposed to injury, but not to the same extent as the organ which lies in the perineum. The testis which has not left the protection afforded by the abdominal wall and still lies within that cavity is not more threatened with damage than is the normally-placed ovary.

Inflammation of the imperfectly-descended testis consequent upon traumatism may occur at all ages, but is most common in young adults.

The prognosis of traumatic inflammation of the imperfectly-descended testis is a grave one so far as the organ itself is concerned. Such an inflammation is nearly always the forerunner of complete atrophy of the gland. If the disorganization of the testicular tissue is not absolute after the primary inflammation, a second attack is almost sure to occur, and lead to local destruction, or the conversion of the gland into a fibrous mass (Fig. 2). Sometimes the retained testis affected with fibrosis may be considerably enlarged, so as to simulate a new growth. These repeated attacks of inflammation will render the organ a source of great annoyance to the sufferer, and may be even of danger to him. It is rare for suppuration to take place in the ordinary traumatic inflammation, just as it is also uncommon when the normally-placed testis is similarly affected. A hydrocele is often produced during the attack of orchitis, and may persist after all the signs and symptoms of the inflammation have passed away.

A testis which has once been the site of inflammation may remain much more sensitive than it was before the affection of the gland came on, and in certain instances a form of neuralgia may distress the patient for a long period of time, unless the organ is removed. Adhesions of the testis to the inner surface of the tunica vaginalis may result, which will usually lead to a greater fixation of the organ than heretofore. Although it is undoubted that atrophy may and often does follow upon inflammation of the arrested testis, yet it is open to considerable uncertainty as to whether malignant disease is ever attributable to the same lesion. Irritation and inflammation of the imperfectly-descended gland may possibly in some rare cases initiate such changes in the testicular tissue so far as its embryonic constituents are concerned as to bring about the incidence of a new growth. In a few instances where the testis has been found in the inguinal canal and has been the seat of inflammation, peritonitis has been set up within the abdomen owing to the fact of the communication between the processus vaginalis and the general cavity of the peritoneum.

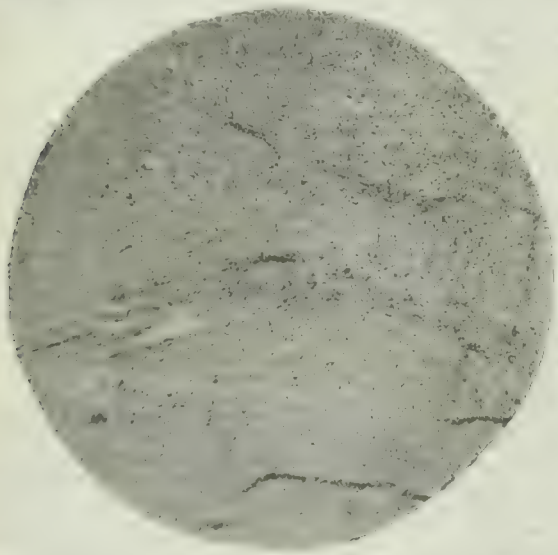


Fig. 2.—Section of a testis from the inguinal canal which had been subjected to repeated attacks of inflammation resulting in fibroid degeneration (× 50).

Torsion of the Cord of an Imperfectly-descended Testis.—Torsion of the spermatic cord may occur in connexion with the fully-descended or imperfectly-descended testis. Nearly 50 per cent., however, of the recorded cases are those in which the testis has been arrested, and in the other half there is usually some abnormality of the testis or its annexa. There are a number of causes which possibly act in bringing about torsion, such as imperfect descent of the testis, an abnormally long mesorchium, a practical absence of a mesorchium, action of the gubernaculum testis, a congenital twist of the cord, a roomy tunica vaginalis, and a flattened condition of the imperfectly-descended organ. There are two important peculiarities that may be present in the testis which has not reached its proper habitat—an abnormally long mesorchium, and the existence of two cords supporting the testis, the one consisting of the vessels, the other of the vas deferens. Frequently the two conditions are found at one and the same time. The body of the testis has its own blood supply, and these vessels lie in the plica vascularis, which will then form one cord, or part of the mesorchium, while the epididymis and the vas have an altogether separate origin, and therefore a different blood supply, and they consequently tend in some cases to form a distinct cord, which may become itself the site of torsion. Probably an absence of a mesorchium is a condition which is seldom, if ever, present. It is extremely doubtful whether the gubernaculum can ever exercise any influence in bringing about torsion.

It has been suggested that, as the outcome of intrauterine peritonitis, a congenital twist may be given to the testis in its descent, and that later this may be aggravated by an exciting cause of torsion being added to it. A roomy tunica vaginalis would certainly give more space for the occurrence of a twist. To sum up, it is probable that partial descent with a freely movable testis is the chief predisposing cause of torsion of the spermatic cord.

As exciting causes may be mentioned a muscular effort, a mechanical twist, the action of the cremaster, the application of a truss, attempts at the reduction of a hernia by taxis, and possibly the enlargement of the organ at the approach of puberty.

The onset of torsion more markedly affects the thinner-walled veins than the artery, with the result that while the blood is pumped in through the latter it cannot properly return through the former. The consequence of this is a rapid and extreme turgescence of the veins of the pampiniform plexus and great congestion of the whole of the parts from which they derive their blood. It is this overfull state of the vessels that leads to the agonizing pain from which the patient suffers. Soon the testis becomes greatly increased in size, often to twice or even thrice its orginal magnitude. Occasionally it is only the epididymis that is enlarged, the body of the testis remaining almost its usual size. This will be the result of a twist only of that cord which carries the vessels of the epididymis and vas.

If the congested testis is exposed by an incision it will be found to be bluish-black in colour, not unlike a ripe purple



Fig. 3.—Strangulation of a testis due to torsion of its cord. The darker patches indicate extravasation of blood into its substance. (Guy's Hospital Museum, No. 2078.)

plum, and somewhat like very deeply congested gut. This discoloration may in some instances be visible, even through the skin. A certain amount of fluid, usually blood-stained, may transude the distended vessels into the cavity of the tunica vaginalis. Sometimes the vessels actually give way under the pressure to which they are subjected, and pure blood is thereby extravasated. It is interesting to note that there may be a comparatively early invasion of the congested tissues by bacteria, both cocci and bacilli, but possibly only in the cases in which an accompanying hernia has allowed intestine to lie in juxtaposition.

For the integrity of the gland, torsion necessitates a very grave prognosis. Even one attack of rotation, and that one only permitted to last quite a short while—say but a few hours—has been demonstrated to lead to atrophy of the testis. Repeated attacks unquestionably tend to eventual disorganization. Torsion produces atrophy. Torsion with infection by bacteria leads to true moist gangrene.

Cysts of the Imperfectly-descended Testis.—There are at least four varieties of cysts that may be developed in connexion with the testis that has failed to reach the scrotum. These are: (1) Cysts formed upon the epididymis; (2) cysts found in testis proper; (3) cysts due to fetal remains; (4) dermoid cysts, teratomata.

Cysts in Connexion with the Epididymis.—Like the cysts derived from the epididymis of the fully-descended organ, so those found associated with the arrested gland are of two varieties, the small and the large. In the former the cysts never tend to enlarge to any but a comparatively small size, certainly not greater than that of an ordinary cobnut. They are not therefore of much clinical importance. In the latter there is a tendency for the cysts to grow, and they may assume such proportions as to become of very definite clinical significance. Small cysts in the epididymis of the fully-descended organ are uncommon before the age of 40, and almost unknown previous to puberty. In the imperfectly-migrated gland, on the other hand, they may appear earlier and more frequently than this. They may be sessile or pedunculated. When of the latter form they occasionally give rise to the production of loose bodies in the tunica vaginalis of the testis. Not infrequently they are multiple, and sometimes very numerous.

When pedunculated they cause small balloon-shaped swellings, very firm to the touch, almost giving the impression that they are of a solid nature. When sessile they raise the serous membrane so as to produce small oval or hemispherical tumours, also with the feeling of extreme hardness. If punctured a clear fluid as a rule escapes, which but rarely contains spermatozoa. It is possible that rupture of one or more of these cysts may lead to the production of a vaginal hydrocele on account of some irritation set up by the extravasated fluid. These small cysts owe their origin to one of two sources. Either they are involution cysts due to the distension of previously existing cavities, or they are connected with some fetal remains, and are therefore cysts of congenital origin.

In the senile changes which occur in the epididymis when the testis is fully descended, and the similar changes which take place in the testicular tissue of the organ which has failed to reach the scrotum, consequent upon repeated attacks of inflammation, both go to prove that there is an increase in the interstitial connective tissue. This new fibrous tissue, by a process of contraction to which it is ever prone, may bring about the obliteration of portions of certain ducts with a dilatation of that part which remains patent.

With regard to the theory that these small cysts of the epididymis owe their origin to the dilatation of fetal remains, such as traces of the Müllerian duct, in favour of it may be advanced the fact that the enlargement usually occurs close to the spot where such remains are likely to be left, and against it is the knowledge that they seldom, if ever, are found in quite early life, a period of existence in which it might be thought they would have been common.

The large cysts of the epididymis of the retained testis have their origin altogether within the substance of the epididymis in the majority of instances, and are probably closely connected with the seminal tubules or the ducts of the epididymis. They are usually single, have a tendency to increase in size, so that at times they assume considerable proportions; they often contain spermatozoa when the gland to which they belong is functionally active, and they can be readily palpated from without. They are generally found during the period of sexual activity, and are therefore more common at an earlier age than the small cysts of the epididymis which have been just dealt with.

There are, again, two theories as to the causation of these large cysts of the epididymis. They may, in the first place, be derived from the dilatation of one of the seminal tubules, one of the vasa efferentia, one of the ducts of the epididymis itself, or even in the sac they may result from the inflammation produced by the rupture, traumatic or spontaneous, of a seminal tubule. There is no doubt about the fact that spermatozoa in the active gland are generally present in the fluid of the encysted hydrocele, and that this proves a direct communication, probably between the sperm-producing testis and the connected cyst. Further, the origin of some of these large cysts sometimes from fetal remains is certain, and in these instances the sac will not contain any spermatozoa. Large cysts of the epididymis are not common in association with the imperfectly-descended testis.

Cysts in Connexion with the Testis Proper.—That the tissue forming the testis proper can originate cysts is a fact that is well recognized. They have been for the most part designated simple cysts or cystic fibroma of the testis. They are found in connexion with the imperfectly-descended testis as well as in that organ which has reached the scrotum. They are perhaps more usually seen in the lower animals than in the human subject. Sometimes the cyst is derived from the tissue forming the corpus Highmori, and its walls are then lined with ciliated epithelium.

Cysts in Connexion with Fetal Remains.—Attention has already been drawn to the fact that cysts in connexion with the imperfectly-descended testis are derived from the dilatation of certain fetal remains, and perhaps more frequently so in the arrested testis than in the one that has fully descended. They are extremely interesting, and may be classified as follows:

a. Those derived from the hydatid of Morgagni.
b. ,, ,, Wolffian tubules.
c. ,, ,, vasa aberrantia.
d. ,, ,, paradidymis.

So-called dermoid cysts of the testis that have reached the scrotum have been undeniably observed, although it is no doubt true that some of the specimens that have been recorded are more likely to have been dermoids derived from the scrotal tissue rather than from the testicular body. I have not been able to trace a record of a true dermoid cyst of an imperfectly-descended testis in the human subject, but there are several recorded in animals, particularly in the horse (Fig. 4). In these latter animals they have been shown to present similar characters to the common dermoids found in

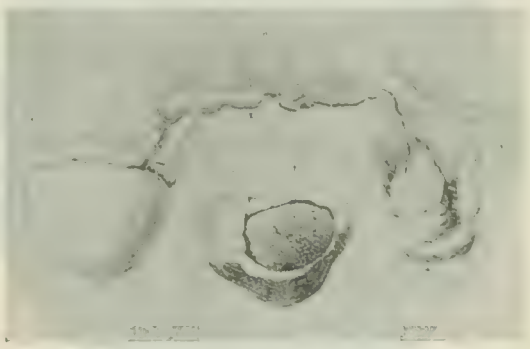


Fig. 4.—A dermoid cyst of a testis retained within the abdomen of a horse. *a*, testis and annexa as removed: *b*, section of testis: T, testis: E, epididymis; Q, E, tail of epididymis; C D, vas deferens, O, nodules of osseous tissue; P, hair matted together by sebaceous material (Cadiot).

the human ovary, and probably their origin is somewhat the same. They may be in reality an attempt on the part of Nature to produce a descendant from germinal epithelium which has remained from the primary genital mass but undifferentiated, and this abortive development, being without the help of the union of cells of the two sexes, results in the formation of the heterogenous mass of sebaceous matter, teeth, ossifying cartilage, bone, hairs, etc.

It is conceivable that the testis, and especially the imperfectly-descended one, may contain the same or similar cells to those which the ovary does, and from which this curious growth takes its origin.

Malignant New Growths of the Imperfectly-descended Testis.—Both sarcoma and carcinoma may attack an imperfectly-descended testis, but the mesoblastic neoplasm seems to be of more frequent occurrence than the epiblastic.

Sarcoma.—Sarcoma of a testis, whether of the fully-descended or the partially-migrated organ, is a comparatively rare disease. Considering that every male, except an infinitesimal minority, has at birth two testes, wherever they may be situated, it follows that the number of testes that might become the seat of a new growth of a malignant character is

enormous; yet the instances of such lesions admitted into large hospitals is decidedly small. From the published statistics of one hospital at which over 4,000 males are annually admitted, there were only 38 cases of sarcoma of the testis, whether fully or imperfectly-descended, seen in fifteen years, giving an average of two and a half cases a year. It is a matter of extreme difficulty to satisfactorily determine whether a testis which has not reached the scrotum or has passed into an abnormal position is proportionately more liable to become attacked with sarcoma than one which is situated in its usual place. In the 38 cases which have just been alluded to, only one was in a testis which was imperfectly descended, the gland lying in the abdomen and belonging to the left side. In a close examination of 48,000 males with hernia, 854 had imperfect descent of one or both testes, or one in every 56, and none of these presented any form of malignant disease of the testis, though many had had attacks of inflammation of the testis, and in some instances these had been often repeated.

The forms of sarcoma that affect the testis when it is retained are similar to those that occur in the normally-placed gland, although they are not, so far as I have been able to determine, instances of every variety. The varieties as a rule met with are the round-celled, whether chiefly of large or small cells, the spindle-celled, the mixed-celled, and the myxosarcoma. Chondrosarcoma, lymphosarcoma, and melanosarcoma have not apparently been observed in connexion with a partially-descended testis (Fig. 5).

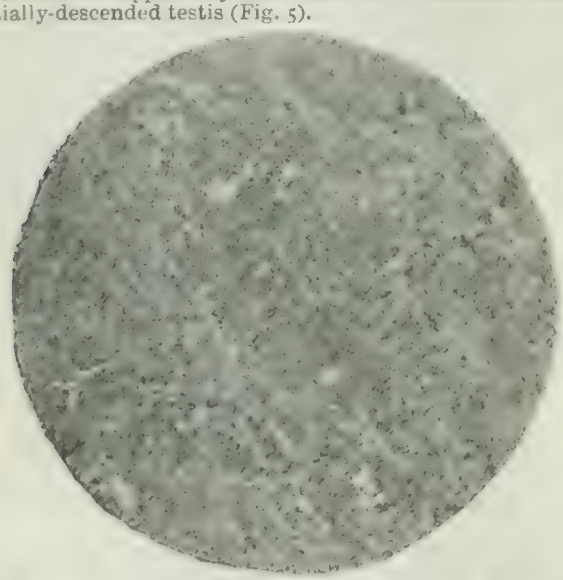


Fig. 5.—Round-celled sarcoma of an abdominal testis. Case of Mr. J. B. Pike's recorded in *Lancet*, 1897 (× 50).

Round-celled sarcoma is undoubtedly the most usual form to occur, and after this the mixed-celled variety. These two sarcomata are of rapid growth, commencing generally in the connective tissue of the body of the gland, being but rarely primary in the epididymis. At first the new growth is confined within the tunica albuginea of the testis, and is often surrounded with fluid in the tunica vaginalis, which fluid is not infrequently blood stained. As the growth advances it transgresses the confines of the tunica albuginea and involves the surrounding structures. Usually, however, lymphatic glandular infection or secondary deposit in viscera has taken place before considerable local extension has occurred. The sarcomatous elements often in the imperfectly-descended organ appear first in the connective tissue forming the walls of the poorly-developed seminal tubules, or in the tissue found between these parts. The invasion of the round or spindle cells displaces the tubules further and further from one another, and at the same time compresses them so that their shape becomes completely altered, their lumen entirely obliterated, and their imperfect epithelial cell lining destroyed. The deposition of interstitial fibrous tissue in these sarcomata is not uncommon, and in some instances it is present in a marked degree. No instance of cartilage being present with the sarcomatous elements in a testis which has not reached the scrotum is on record. This is a matter of some interest, seeing that cartilage is comparatively frequently found in the spindle-celled sarcoma of the fully-descended organ.

On analysing a considerable number of instances of sarcoma of the imperfectly-migrated testis—in fact, all those which it has been possible to find in medical literature up to the present year—some interesting facts become apparent. It will be found that the disease begins most usually between the ages of 20 and 40, and it is therefore a disease rather of middle life. Sarcoma of the fully-descended gland is not uncommon in quite young boys. There does not seem to be any marked difference as to which side the new growth attacks. This is not altogether in accord with the fact that the right testis is the one that is most frequently the site of arrest. There is, therefore, possibly some reason why the testis on the left side should be more frequently the seat of the new growth, but none suggests itself to me. The position that the testis has been found in when diseased is also of interest. Inguinal inclusion is the most common place for the arrested testis to be found, and thus it is the general position in which sarcomatous imperfectly-descended testes are discovered. After this position the abdominal retention is the next most productive of a malignant growth, which, again, is of interest from the fact that the abdominal inclusion is not the second most common position for the testis to be found, just below the superficial abdominal ring being more usual.

A definite history of an injury—such as a blow, a squeeze, etc.—is not infrequently given in the cases where sarcoma attacks the testis lying in the scrotum; but when the lesion affects the imperfectly-descended testis, a predisposing cause of this nature is not nearly so common or so clear. On the other hand, it must be remembered that the testis which lies in the inguinal canal is subjected to numberless though probably slight occasions of violence, which may pass in the greater number of instances without any notice being taken of them. As was shown when the inflammation of the arrested organ was being discussed, muscular effort, blows, extrusion of the organ suddenly through the deep or through the superficial abdominal ring, all contribute to the onset of inflammation, and possibly also to the incidence of neoplasms. When the testis is retained within the abdominal walls it cannot be so exposed to the risk of injury, and yet it has been seen that the abdominal inclusion does not by any means protect the gland from the onset of malignant disease.

Previous inflammation, other than that which has been due to trauma, is also apparently rare in cases of new formation in the arrested testis. There is at least, however, one case in which the malignant trouble was preceded by a double orchitis secondary to parotitis, but the interval of time between the two affections was considerable—namely, twenty-three years.

An associated hernia is such a common complication of an imperfectly descended testis that caution must be used in considering that it has any influence on the production of malignant disease, though this has been much asserted by observers. In the 854 cases of arrest of the testis accompanied by hernia which have been already mentioned, in no single instance was a sarcomatous growth also present. Further, out of 26 cases of sarcoma of the imperfectly-descended testis only two had a hernia associated with the new growth, and in neither of these did the protrusion seem to have any bearing whatever on the production of the neoplasm. Two other cases had worn a truss for a supposed hernia, but only with a possible relation to the onset of the new growth in one.

But there are two facts which must be taken into consideration under this heading—namely, that so many instances of imperfect descent of the testis are mistaken for hernial protrusions and a truss applied; and also that a hernia is in reality so frequently present with the arrested testis that a truss is needed, and therefore that most of the cases in which a sarcoma has developed were in patients who had been wearers of trusses.

It is, however, extremely doubtful whether a truss worn over the inguinal canal in the case of an inguinal inclusion of

a testis, really does produce harmful pressure on the gland, provided that the truss is of right construction and size. On the other hand, the pressure of a truss, if applied over a testis that is lying just below the superficial abdominal ring, is ever prone to excite the occurrence of inflammation in the organ; but sarcoma, as has been seen, is rare in a gland so placed. Heredity does not seem to have the slightest influence on the production of sarcoma of the imperfectly-descended testis.

The persistence or not of embryonic traces or cell elements—possibly such as might reasonably be termed "rests"—in testes that have failed to reach their normal resting place, is a matter which requires a closer histological investigation; and for this purpose, among others, every imperfectly-descended testis that is removed should be submitted to a rigid microscopic examination. Further, in every castration for early sarcoma—and such early removal should be of increasing frequency—and whether the gland affected is an imperfectly or a fully-descended one, the testis should be considered as likely to throw some light on this till now obscure question of etiology.

Carcinoma of the Imperfectly-descended Testis.—While it has already been noticed that carcinoma of the imperfectly-descended testis is less common than sarcoma of the gland, yet it is probable that this is even more distinctly so from the fact that many of the cases which have been recorded as "cancer," "encephaloid," and "medullary" disease by the older writers were in reality examples of sarcoma rather than carcinoma. Several varieties of carcinoma are met with in the imperfectly-descended testis—the encephaloid or medullary, the scirrhus and the colloid, and lastly a rare form of chondro-carcinoma (Fig. 6). The cells are spheroidal, oval, and polygonal. They are abundantly rich in protoplasm, and do not, as a rule, have very distinct outlines, both of which peculiarities are strong evidence of their epithelial origin. The most probable source of the cells, and therefore the growth of which they form the chief part, is from the imperfectly-formed epithelial elements of the seminal tubules. Another reason why carcinoma of the arrested testis is comparatively uncommon may be found in the fact that there is so little active epithelium present in the poorly-developed organ. In the fully-descended gland the tubular epithelium is constantly, between puberty and the involution of the testis, undergoing division and subdivision for the formation of spermatozoa, a condition which has a predisposing influence upon the incidence of carcinoma.

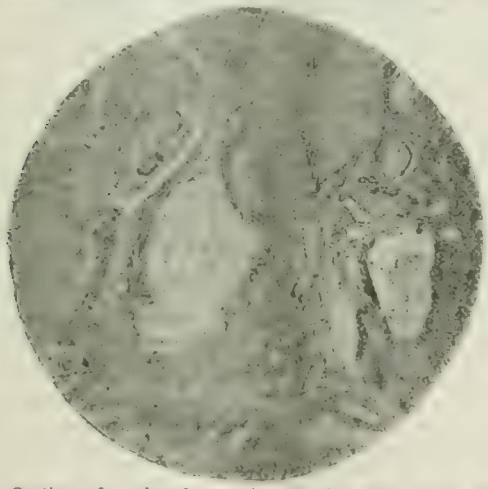


Fig. 6.—Section of a chondro-carcinoma of a right testis, removed from the inguinal canal of a man aged 36. Case of Mr. M. H. Way's, reported in *Guy's Hospital Gazette*, December 16th, 1899, p. 533 (×50).

While sarcoma of the arrested testis occurs most usually between the ages of 20 and 40, carcinoma is, on the whole, a disease of rather later life, namely, between 30 and 50. The two sides of the body are equally liable to the affection. Of the more recent cases in which the microscopic examination has proved the presence of undoubted carcinoma, the testis has been found in the abdomen, in the inguinal canal, and just below the superficial ring. There is no record of a case of carcinoma of the testis when lying in the perineum or in Scarpa's triangle. With regard to causation, injury would seem to have rather more association with the onset of carcinoma than it had with the development of sarcoma, and this particularly when the testis has been lying in the inguinal canal. Previous inflammation has apparently no very definite bearing upon the origin of the disease. In a few instances there has been a history pointing to some hereditary influence. Secondary glandular and visceral infection is very rapid in its appearance, and the case runs a peculiarly quick and fatal course.

Hydrocele in Connexion with the Imperfect Descent of the Testis.—When the testis is arrested within the abdominal cavity, no tunica vaginalis testis is developed, and therefore there can be no intra-abdominal hydrocele formed. But when the organ has passed beyond the bounds of the abdominal wall, then a processus vaginalis testis will always be found of a smaller or greater extent, and a hydrocele may therefore be in evidence. Further, it is true when a testis is retained within the abdomen that sometimes a processus vaginalis may be drawn down into the inguinal canal, the scrotum, or even into the perineum or Scarpa's triangle. It is possible, then, to have a hydrocele outside the abdominal wall, with a testis which is completely retained within that cavity.

A classification of hydroceles in connexion with imperfect descent of the testis is: inguinal, scrotal, bilocular and trilocular, perineal, and in Scarpa's triangle (Fig. 7). An inguinal hydrocele may be further subdivided into two classes—one in which the testis is still within the abdomen, and the other in which it is lying in the inguinal canal. When the testis is within the abdomen, the processus vaginalis may still communicate with the general cavity of the perineum, or it may be shut off from that space, and the same difference may be found with the inguinal testis.

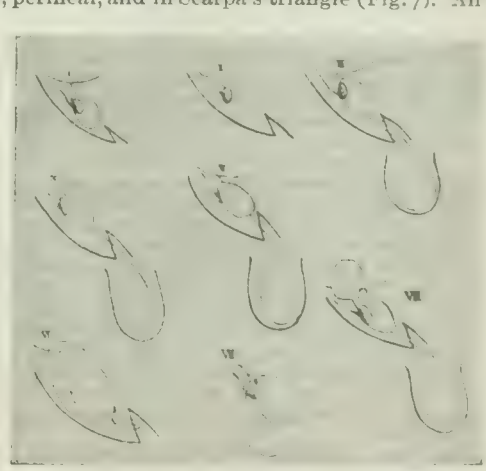


Fig. 7.—Diagrams to illustrate the varieties of hydrocele which may be associated with imperfect descent of the testis. I, inguinal, shut off from general peritoneal cavity; II, inguinal, communicating with general peritoneal cavity; III, bilocular, shut off from general peritoneal cavity; IV, bilocular, communicating with general peritoneal cavity; V, bilocular, the two sacs separated from one another; VI, interstitial, first variety; VII, interstitial, second variety; VIII, trilocular, or interstitial, third variety.

When the processus vaginalis has been formed, but the testis is arrested within the abdomen, it is usual for the pouch of peritoneum to remain in communication with the general cavity of the serous membrane. Fluid, therefore, which may be found in it has either been formed *in situ*, or has drained down from the peritoneal cavity. In both cases it will be freely reducible, or rather it will flow back into the abdomen when the patient resumes the horizontal posture. When the communication is obliterated, then when fluid collects, there will be irreducibility and the cyst will present all the signs of an inguinal hydrocele of the processus vaginalis, except for the fact that a testis can never be felt within it. Inguinal hydrocele with the testis in the canal is the

most common form of hydrocele in association with the arrested testis. When there is a communication of the processus vaginalis, it may be either a very free one, or it may be blocked by the testis. When the tunica vaginalis is shut off from the general cavity of the abdomen, the hydrocele may be unilocular or multilocular. The fluid found within is of ordinary serous hydrocele nature, or is inflammatory in its origin and characters.

Truss pressure is not a marked cause of hydrocele, for out of 936 cases in which a truss has been worn only 32 were complicated by a hydrocele. A scrotal hydrocele is one in which the processus vaginalis testis has passed into the scrotum beyond the place of the arrest of the accompanying testis. As a rule, that part of the pouch which lies below the superficial abdominal ring becomes shut off from the rest before the onset of the hydrocele. The peritoneal process accompanying the testis is by no means infrequently drawn down into the scrotum beyond the site of the arrested testis, and in such a case the original communication with the general cavity of the abdomen may remain patent, or it may become shut off. If it is closed then all the conditions necessary for the development of a bilocular hydrocele are present, and the same may be said of those instances in which the imperfectly descended testis acts as a plug at the deep abdominal ring, preventing the return into the abdomen of any fluid which has collected in either portion of the processus vaginalis, the inguinal, or the scrotal. Distension, therefore, of the inguinal and scrotal parts of the peritoneal pouch will lead to the formation of one variety of bilocular hydrocele, and a swelling will be apparent both in the groin and in the scrotum.

A second variety of hydrocele occurs when the testis is arrested, whether within the abdomen, in the inguinal canal, or just below the superficial ring, and that portion of the processus vaginalis which lies in the canal becomes distended with fluid, and, being unable to contain more without further space, a secondary sac is formed in one of the planes of the abdominal wall. Sometimes this additional portion is protruded in the space between the aponeurosis of the external oblique and the muscular tissue of the internal oblique muscles. In other cases less common, with the testis lying without the superficial ring, the primary pouch of peritoneum also traverses the same aperture, and then, instead of entering the scrotum, which may be practically absent, mounts upward and outward on the abdominal wall in the plane between the aponeurosis of the external oblique and the skin. The third variety is very rare, and consists of a secondary sac lying in the extraperitoneal tissue behind the body of the os pubis in the pelvis. The three varieties may be respectively termed the deep interstitial, the superficial interstitial, and the properitoneal.

Sometimes the superadded sac may become of enormous size, and may mount up on the abdominal wall so as to lie in such a position as to simulate a hydronephrosis.

A few instances of trilocular hydrocele have been seen. In these there is, in addition to the two pouches of the bilocular hydrocele just described, a third pouch which lies in the upper part of the scrotum. The arrested testis is to be found either in the canal or just below the superficial ring. Probably in the majority of instances the inguinal and the scrotal portions are the first to be formed, and subsequently the interstitial diverticulum is produced.

Hernia in Association with Imperfectly-descended Testes.—It is probable that a hernial protrusion is the most frequent pathological condition associated with imperfect descent of the testis. The exact frequency in which inguinal hernia accompanies imperfect descent of the testis is difficult to estimate, but from a review of a large number of cases it is distinctly more than half. As has already been seen in the majority of cases of arrested testes, there is an associated want of formation or arrest of development of the annexa. Thus it happens that there remains a patent process of the peritoneum into which abdominal viscera may descend. It is, however, necessary, as in the hernia of congenital type with a testis normally placed, that there should be some other besides this primary predisposing factor, and indeed, other than the imperfect development which so often accompanies imperfect descent. Neither of these two factors is in itself sufficient to actually determine protrusion.

About 35 per cent. of the cases of hernia with arrested testis occur in the first year of life, while of those in persons who are not affected with imperfect descent only 7·7 per cent. commence before twelve months of age, showing that the congenital defect has an undoubted influence on the onset of the protrusion. Inguinal and abdominal inclusion favour the early development of a hernia. The exciting causes may be such as are present in other so-called congenital herniae—namely, disease of the lungs, over-distention of the abdomen by intestinal gas, obstruction to the outflow of urine, constipation, and other less common conditions. It may be also true that the presence of the testis in the inguinal canal may in itself prevent the proper sphincter-like action of the lower fibres of the internal oblique and transversalis. This and other reasons would seem to show that the position in which the testis is arrested plays an important part in the frequency with which a hernia is developed.

There are at least five varieties of inguinal hernia associated with imperfect descent of the testis—namely, bubonocele, scrotal, interstitial, cruro-scrotal, and superficial perineal. As would be naturally expected, a bubonocele is the most frequent form of inguinal hernia to be met with in association with imperfect descent of the testis. It is, moreover, the early stage of several of the other varieties. With the non-closure of the processus vaginalis nothing is more likely to happen when the testis is lying in the inguinal canal than that some of the abdominal viscera should prolapse into the waiting sac. The same may happen when the testis is completely retained within the abdomen, provided that a peritoneal pouch has entered the canal and has remained patent. As a rule the testis can be palpated and its exact position made out. Sometimes the contents of the sac will obscure the presence of the gland, which, however, can be felt on the return of the viscera within the abdomen. The deep ring, the potential opening in the transversalis fascia through which the organ has entered the canal, is usually small, and therefore strangulation, should it occur, is frequently very severe. There is generally an intimate relationship between the back of the peritoneal pouch and the short spermatic cord, and their separation the one from the other may be a matter of some difficulty in a radical operation upon the hernia. In some cases there will be found adhesions between the contents of the sac and the upper part of the testis, thus rendering the hernia an irreducible one.

In the history of the case it is frequently stated that the swelling which has been noticed in the inguinal region becomes larger on the advent of the hernia. A bubonocele may also be associated with a testis which has transgressed the confines of the inguinal canal and is lying in front of the body of the os pubis.

Further, a scrotal hernia may be associated with imperfect descent of the testis. By this term is meant a protrusion, which, having left the inguinal canal through the superficial ring, has passed into the scrotal tissue and has not distended the fold between the scrotum and the thigh. A scrotal hernia is further covered with dartos tissue, and more or less expands the scrotum, which, until the entrance of the hernia into it, has remained undistended owing to the absence of the corresponding testicle. When the scrotum is but poorly developed, then the hernia will actually have to dilate the parts so as to obtain room for itself.

The explanation of the scrotal protrusion lies as a rule in the fact that a pouch of peritoneum is so frequently drawn down by the gubernaculum testis into the region of the scrotum beyond the site of the arrested organ.

Interstitial Inguinal Hernia with Imperfect Descent of the Testis. By an interstitial hernia is understood an inguinal protrusion, a part or the whole of the sac of which is placed in one or other of the planes of the abdominal wall, transgressing the ordinary limits of the inguinal canal. Interstitial hernine may be associated with imperfect or abnormal descent of the testis. On the other hand, they are also found present in males whose testes have reached their normal position in the scrotum; and, further, they actually occur in female subjects in a proportion greater than in the male sex; and, lastly, all instances of inguinal hernia associated with imperfect descent of the testis are not of the interstitial variety. Imperfect descent of the testis has a marked bearing upon a development of the hernia. Nearly 1 per cent. of inguinal

hernia in male subjects are of the interstitial variety: 5 per cent. of those who show hernial protrusions with imperfect descent of the testis present one or other of the varieties of interstitial hernia. In males 73.4 per cent. of interstitial inguinal herniae are associated with more or less imperfect descent of the testis.

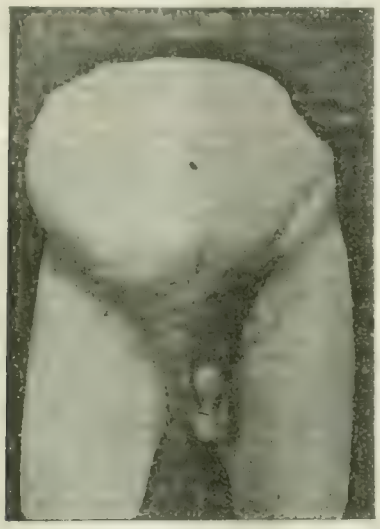


Fig. 8.—A large right interstitial inguinal hernia, reaching as high as the costal arch. The right testis was retained.

The position of the arrested testis is a matter of great interest in view of the relationship which undoubtedly exists between the imperfect descent and the interstitial sac. The position, however, which is observed is usually that which is found at the time when the patient presents himself for treatment, and it does not therefore necessarily imply that this was the site of the testis when the hernia first made its appearance. It is not common, however, for the testis to alter its position after the commencement of a hernia, though undoubtedly this may occur in some cases. In the majority of instances the arrested testis is found in the inguinal canal, and at a position towards the lower end of that space. Next it is most usually seen just below the superficial abdominal ring, and in some of these latter cases it is conceivable that it may have been pushed by the oncoming hernia through the superficial ring. In a few instances it may be found lying on the aponeurosis of the external oblique and towards the anterior superior spine of the ilium, again having reached the spot by the pressure exerted by the protruded viscera.

Several theories have been advanced to explain the relationship between the arrest of the testis and the development of an interstitial hernia. First, there is the position of the testis itself, for if lying in the inguinal canal, and especially if occupying a position at its lower and inner end, tethered by a short cord, it may act as a barrier to the exit of the contents of a hernial sac through the superficial abdominal ring. Repeated expiratory efforts drive the viscera into a patent processus vaginalis, and after a time tend to force the testis and the viscera from the canal through the superficial ring. The gland is, however, prevented from being extruded by its short cord, and the peritoneal pouch dilates in the plane of least resistance; but, on the other hand, the smallness of the superficial ring itself may be the cause of the imprisonment both of the testis and of the contents of the sac. Secondly, want of muscular development in the inguinal region is not infrequently present with a want of descent of the testis, and may be a reason why the hernial sac insinuates itself in the planes of the abdominal wall, though it is open to question whether the abnormal condition of the muscles is not rather the result of the pressure exerted by the hernial protrusion than the cause of the formation of the sac. Thirdly, it is possible that some abnormal drag of the gubernaculum testis on a portion of the peritoneum near the abdominal opening of the processus vaginalis may cause adventitious pouches to be formed, and these to lead to the production of an interstitial sac.

There are three chief varieties of interstitial hernia usually described. In the first the sac is found between the aponeurosis of the external oblique and the muscular fibres of the internal oblique, and this is the one which is most frequently associated with the arrest of the testes. It usually presents an external swelling which is very characteristic in its shape and extent; beginning in the region of the inguinal canal, it mounts upwards and outwards towards the anterior superior spine of the ileum. The whole course of the gradual formation of the tumour can be observed if a patient, after the contents of the sac have been reduced, is directed to lie on his back and cough. There is no other condition that will give the spectacle of a gradually increasing tumour under these circumstances. The shape of the swelling is usually ovoid, and its margins are fairly distinct. It is flattened on the surface, and does not project far from the abdominal wall. The limits of the tumour may be wide, and sometimes it reaches as high as the costal arch, sometimes it may overlap the rectus muscles, or may even hang down in front of Poupart's ligament so as to simulate a femoral hernia.

The second variety of interstitial hernia is that in which the sac is placed between the aponeurosis of the external oblique and the skin. It also is not infrequently associated with an arrest of the testis. The method in which the sac has arrived at its position may be one of two. Either the peritoneum has been pushed forward and then upward through a gap in the aponeurosis, or the sac, at first lying in the inguinal canal, has transgressed the bounds of this space, protruded through the superficial ring, and finding its way into the scrotum blocked has turned upwards on the abdominal wall. In both of these the direction taken by the hernia is that of the least resistance, for the attachment of the deep layer of the superficial fascia to the front of Poupart's ligament would bar its progress into the thigh. As a rule the external swelling present in the second variety is more pronounced than that of the first. Some help may be obtained in the diagnosis between the two forms by requesting the recumbent sufferer to raise his head and shoulders, and thus throw into action the abdominal muscles, when if the external oblique is placed in front of the sac, the hernia will become more tense, but will not evidently increase much, while if the aponeurosis be posterior to the bulk of the swelling, then this will be markedly enlarged, and its tenseness will only be augmented in proportion to its size. The third form of interstitial hernia is that in which the sac lies in the plane between the transversalis fascia and the peritoneum, that is, in the extraperitoneal tissue. This is a rare form, and one which is not so commonly associated with imperfect descent of the testis. There is usually a scrotal portion of the sac in addition to the pro-peritoneal. In almost every case the additional portion of the sac within the abdominal wall has not been recognized until after death or during an operation on account of the strangulation, for there is no external swelling, and it is rare that the deeper part of the sac can be palpated. There are two chief sites in which the secondary sac may be placed, one in the iliac fossa and the other in the prevesical region.



Fig. 9. A right cruro-scrotal hernia. The right testis was not in the scrotum

Cruro-Scrotal.—By a cruro-scrotal hernia is meant a hernial sac which distends not the scrotal tissues, but the fold of the skin which is found between the scrotum and the thigh. The hernia, therefore, will be covered with ordinary cutaneous tissue and not with dartos. It is always associated with an imperfect or abnormal descent of the testis, and the hernia follows the organ. The testis, usually an imperfectly developed one, having left the inguinal canal, is for some reason—probably either a want of development of the scrotal tissue or a tenseness of the fascia at the entrance of the scrotum—prevented from continuing its further descent into that region. It will therefore remain permanently in the cruro-scrotal fold, or pass into the perineum, or possibly into Scarpa's triangle. If the processus vaginalis testis which accompanies it remains patent, viscera may descend into it, and gradually distend the fold, so as to form a cruro-scrotal hernia. As the hernia progresses, the pouch becomes larger and more definite, and hangs directly downwards, and does not pass backwards into the perineum. On examining a patient the subject of this form of hernia, it will be first noticed that the scrotum is either imperfectly developed on one side, or, being developed, it is not distended. Lying external to it and separated from it by a distinct sulcus, is an adventitious sac covered with normal skin. On the patient being requested to cough, an expansile impulse will be felt in the swelling; the contents of the sac are usually reducible, and after reduction a small testis may usually be felt fixed at the bottom of the pouch of skin, which, when the viscera are not distending it, hangs lax and is thrown into folds.

A hernia which accompanies the testis into the tissues of the perineum may be designated a superficial perineal hernia, it being termed superficial to distinguish it from that rare form of perineal hernia which leaves the pelvis through a gap in its floor. The course of the descent of a superficial perineal hernia is from the abdomen, along the canal, through the superficial ring, past the scrotum near its entrance, and then backwards towards the margin of the anus. This form of hernia is necessarily rare, for perineal ectopia of the testis is uncommon, and, even when present, an accompanying hernia is seldom seen. It appears as an elastic swelling on one side of the perineum, with an expansile impulse on cough, frequently resonant on percussion, and usually reducible on pressure. After the return of the contents of the sac, the testis, sometimes well developed, can be felt lying by the side of the anus, and often tethered by a band, probably of the gubernaculum, to the region of the external sphincter or tuberosity of the ischium.

THE INFLUENCE OF PHOSPHORUS ON ORGANIC SUBSTANCES IN PILLS.

By W. HARRISON MARTINDALE, PH.D.MARBURG,
London.

THE following investigation has been undertaken at the suggestion of Sir William R. Gowers, M.D., on account of the absence of definite evidence of the influence of phosphorus on alkaloids and other organic substances when mixed together in a pill. The opinion of chemists and pharmacists has been that these bodies are not affected, but hitherto it has been an opinion only. Definite facts seemed desirable, since the knowledge is important for the art of therapeutics. The suspicion that alkaloids may be decomposed, either entirely or in some degree, must have occurred to many.

For the purposes of examination phosphorus pills were prepared with the addition of strychnine (base), morphine (base), quinine sulphate, nitroglycerine, and zinc valerianate respectively, and to render the examination more exhaustive the formulae were prepared in duplicate, employing in the first instance the official phosphorus pill, and in the second either the theobroma oil or the prepared suet basis as given in the *Extra Pharmacopoeia*. The suet basis was used where the additional ingredient in the pill rendered it preferable to produce as small a pill as possible. Large doses were arranged as these would be more advantageous to any possible decomposition, and if such should occur it would be more readily capable of detection.

The composition and results of examination of each pill was as follows:

Strychnine in Combination.

1. ℞ Strychnine (base) gr. $\frac{1}{10}$; phosphorus (*B.P.*, mass), gr. $\frac{1}{50}$. Ft. pil. These pills were prepared on November 25th last, and coated with sandarach varnish. On December 19th the alkaloid was extracted from 7 of them. The yield was 4.6 gr. of base in a partially crystalline condition. It was examined as to the presence of phosphorus with negative result. It further gave all the reactions characteristic of strychnine.

2. The next pills examined were of the same composition as 1, excepting that the phosphorus was exhibited in the form of the 1 per cent. theobroma oil basis of the *Extra Pharmacopoeia*. These pills were prepared on November 27th, and the alkaloid contained in 75 of them was extracted on December 30th, the yield being 4.7 gr. of a base, containing no phosphorus, and giving distinctive alkaloidal reactions for strychnine.

Morphine in Combination.

3. ℞ Morphine (base) gr. $\frac{1}{2}$; phosphorus (*B.P.*, mass) gr. $\frac{1}{50}$. These pills were prepared on November 25th, and examined on January 1st. Both gravimetric and titrimetric analyses were conducted, but the quantitative results will not bear quotation. These unsatisfactory figures I am inclined to attribute to difficulties in the technique rather than to any decomposition.

4. Pills of the same composition as 3, but having the theobroma oil mass in place of the official pill gave similarly unsatisfactory quantitative results.

Quinine Sulphate in Combination.

5. ℞ Quinine sulphate gr. $2\frac{1}{2}$; phosphorus (*B.P.*, mass) gr. $\frac{1}{50}$. These pills gave more satisfactory data. They were prepared on November 25th, and their examination was commenced on December 30th. Ten pills yielded on extraction 1.1423 gram of base, giving the thalleioquin and other characteristic reactions. It contained no phosphorus. Calculated as quinine, 1.1423 gram is equivalent to 24.22 gr. of quinine sulphate.

6. The next combination examined was a repetition of that considered under 5, with the exception that the 10 per cent prepared suet mass was substituted for that of the official pill. The pills were prepared on November 25th, and their examination commenced on January 2nd. The yield of base from ten of the same was 1.1466 gram, which reckoned as quinine is equivalent to 24.3 gr. of quinine sulphate. This base as before showed absence of phosphorus. It gave reactions common to quinine, and did not appear to have suffered in any way from its insertion in the pills in company with phosphorus for a month.

Having thus satisfied myself as to the absence of any considerable interaction or decomposition in the case of alkaloids, I turned my attention to other substances.

In the first place, it is my experience that in the case of the phosphoretted suet mass, pills composed of reduced iron in various combinations with strychnine, quinine, etc., of which the formulae are numerous, and in which one might be led to expect decomposition, will show a luminous surface on cutting even twelve months after they have been prepared. This in itself is good proof of the protective action which the fatty basis exerts.

Nitroglycerine in Combination.

7. Of this several formulae were tried, and it will be sufficiently obvious from a chemical point of view that the basis of the pill should be as simple and as little prone to oxidation as possible—a simple theobroma solution of the bodies appears best both chemically and pharmaceutically, and it should therefore commend itself from a therapeutic standpoint. The pills made and examined contained one-fiftieth of a grain of phosphorus and of nitroglycerine in each. The nitroglycerine in the same after keeping was not submitted to quantitative estimation. There was, however, in the case of the simple theobroma oil basis, no evidence of decomposition.

Zinc Valerianate in Combination.

8. ℞ Zinc valerianate gr. ij, phosphorus (*B.P.* mass) gr. $\frac{1}{50}$. These were prepared on November 26th, and examined on December 31st. The zinc valerianate was extracted, the yield being the equivalent of 31.5 gr. of the same from the sixteen pills which were experimented upon. The method of extraction was repeated treatment with fresh quantities of warm water. The zinc valerianate thus obtained was found to contain a distinct trace of phosphorus. On washing with carbon disulphide (in which phosphorus in the free condition would be soluble) this trace was not removed from the residue. We may assume, therefore, the formation of a small quantity of zinc phosphate, probably during the process of extraction with warm water.

9. The next pills examined were of similar composition to the last mentioned excepting that the 10 per cent. phosphoretted suet basis was employed in place of the official phosphorus pill. Zinc valerianate to the extent of 0.89 gr. were obtained from five pills. It was found to contain a distinct trace of phosphorus, which after washing the residue with carbon disulphide, was still in evidence.

It is satisfactory to be able to state that even as late as January 31st most of the pills were found to be luminous in the dark on cutting them in half. This indicates in general that no great amount of oxidation of the phosphorus had set in. Of the combinations of nitroglycerine by far the best in this respect were those prepared with simple theobroma oil solution.

It will be seen, therefore, that one may conclude that there is in most instances no interaction or decomposition of substances prescribed in this form with phosphorus. In the case of the zinc valerianate, however, there is evidence of a combination, but I am inclined to think that this has taken place in the process of extraction.

PUERPERAL INSANITY.*

BY ROBERT JONES, M.D.LOND., B.S., F.R.C.S.ENG.,
Medical Superintendent of the London County Asylum, Claybury.

INTRODUCTION.

THE reproductive process is one of the most fundamental and imperative activities that operates in Nature. It is not limited to the reflexes involving the special instruments of reproduction, for it affects the whole organism; it depends upon vital protoplasmic bodily states, and includes most of the elementary excitations of which man is capable—the various sensations and sentiments, the pleasure of possession, admiration, self-esteem, love of approbation, reverence, exalted sympathies, and certain physiological wants; all of them enter into this great "complex," which involves the most powerful as well as the most compound of the feelings.

This process in certain constitutions depending upon temperament, diathesis, and heredity, is apt to be disturbed: which is evidence, if any were needed, that the idea of mind and body being separate and independent is radically false, and that bodily phenomena accompanying states of feeling are not factors external and negligible, foreign to psychology, and without interest to it.

When disturbance takes place during the fulfilment or after the immediate completion of this process, it converts (as Clouston states) the most joyous time of life into one of fearful anxiety, and, short of death, no event is so great a shock to all concerned, for the perfection of the providence for childhood is destroyed by disease, and the strongest affection turns to hatred and becomes a danger.

Those who have studied the reproductive life of woman admit that gestation is attended with much nervous disturbance in many, and some nervous disturbance in all; the intimate sympathetic connection of the mammae with the gravid uterus gives rise in normal persons to various forms of neuralgia, severe headaches, dizziness, and insomnia, whereas in highly-susceptible persons these changes of disposition and character become so marked that irritability, fractiousness, and despondency may and do amount to actual insanity; and although this period of life is less liable to insanity than any other, the dynamical changes in the nervous currents are so great that insanity does actually occur about once in every 700 confinements. As against these figures, however, it may be well to quote Ripping, who, whilst acknowledging and admitting that changes in the uterus or its appendages—physiological or pathological—may have an effect upon the mental susceptibilities of woman, denies that these are ever profound enough to become a cause of insanity.

GENERAL STATISTICS.

As to actual insanity during the reproductive life, and connected with it, the report of the Lunacy Commissioners (1900) shows that of all occurring insanity among women of all ages, the yearly average number of admissions for the five years 1894 to 1898 inclusive due to pregnancy, parturition, the puerperal state, and lactation bears the ratio of 7.2 in the private class, and 8.41 in the poorer classes to the total yearly average of admissions. The proportion is somewhat higher, as might be expected, among the poorer insane during the period of lactation, but that due to parturition and its attendant stage is higher among the well to do. At Claybury the statistics for 1900 correspond very closely with those of the Lunacy Commissioners' report, the number due to the causes under consideration being 7 per cent. of all occurring insanity, and 10 per cent. when compared to those admitted during the child-bearing period, calculated as between 15 and 45 years. I note that Dr. Clouston[1] gives the percentage of the insanities of childbed, nursing, and pregnancy as 9 per cent. of all female cases admitted under his care for nine years. Dr. Warnock in his report for the Egyptian Asylum in Cairo during the same period, gives the proportion of 10 per cent. of this class to all occurring insanity among females.

The cases out of which my numbers are taken represent about 3,500 female patients, who were received into the asylum during the past eight years. They exclude all those transferred from other asylums suffering from chronic and terminal mental conditions, although in many instances the insanity of these was due to puerperal conditions, but we ourselves have no definite record of this. Out of the 3,500 admissions, 259 cases were admitted suffering from insanity, for which reason pregnancy, confinement, the puerperal state, or lactation was assigned as a cause, a proportion of 7.4 per cent., and these are comprised as follows: 56 were from pregnancy, a proportion of 21.62 per cent., 49 of these being delivered in Claybury: 120 occurred during the puerperal period, a proportion of 46.33 per cent.; and 83 were associated with lactation, a proportion of 32.43 per cent. Dr. Batty Tuke,[2] quoting 105 cases, gives the proportion of 18 06 per cent. for the insanity of pregnancy, 47.09 for that accompanying the puerperal period, and 34.8 for that accompanying lactation. Marcé,[3] quoting 310 cases, gives the proportion of 8.06 per cent. for pregnancy, 58.06 for the puerperal period, and 30.3 for lactation. Dr. Clouston, quoting 141 cases, gives roughly the proportion as 5 for the puerperal period, 4 for lactation, and 1 for pregnancy. My statistics tend to agree much more with those of Batty Tuke, but I am unable to throw any light upon the apparent discrepancy with others. Dr. Menzies, in a very interesting and complete analysis of 140 cases published in the *American Journal of Insanity* for 1893, gives the percentage of 13.5 cases of puerperal insanity among those occurring in the county of Lancashire and admitted into Rainhill Asylum. In the annual report of the asylums of London for 1900 there were 120 puerperal cases admitted out of a total of 2,600 female patients, a proportion of less than 5 per cent., but a large number of the total were transfers of chronic cases from other asylums owing to the recent opening of two of the new asylums of London. During the same year the births of London are given as 132,652, which gives the approximate ratio of 1 case of puerperal insanity admitted into asylums for every 1,100 births.

In Dr. Menzies's paper, dealing with Liverpool more especially, he calculates the ratio to be 1 for every 700 births; but Dr. Clouston gives the proportion of puerperal insanity as 1 in every 400 confinements, and this high average clearly includes all cases, whether treated in their own homes, institutions, or special hospitals, and are probably based upon statistics of maternity hospitals, public and private practice. M. D. MacLeod gives the ratio as 1 for every 469, of which about one-fourth only come into asylums. Pedler, in an interesting article,[4] quoting Johnston and Sinclair, gives the relation of puerperal insanity as 1 in every 528 confinements. In his paper he gives the history of 76 cases.

DIVISION OF DISEASE.

As to the division of insanity for these periods, the classification which is customary is (1) that which occurs during pregnancy, (2) that from the date of parturition to six weeks after confinement, which in this paper we shall refer to technically as "puerperal" insanity, and (3) insanity occurring during lactation, and dating from six weeks after confinement. This classification must not be taken as suggesting a type of insanity, and it is more convenient than accurate.

The insanity of lactation is calculated to date six weeks after confinement, under the impression that involution of the uterus is then complete, although authorities differ upon this point, for some consider involution at this date to be only half complete, and not accomplished under three months. Moreover, the secretion of milk commences within the first few days of confinement in the majority of women, and is not infrequently accompanied with constitutional disturbance, but the exhaustion and drain due to nursing is probably not evidenced until the process has gone on for some time, and six weeks is generally agreed upon as the commencement of this period.

As to the types of insanity corresponding to these periods, my experience leads me to conclude that there is no type associated either with pregnancy or lactation, but with parturition and the period immediately succeeding it the case is different, the insanity presents such a marked delirium with wildness and delusions of a hallucinatory character, in which

* Portions of this paper formed the introduction to a discussion on Puerperal Insanity in the Section of Psychological Medicine at the Annual Meeting of the British Medical Association, held at Cheltenham, July-August, 1901.

religious and erotic features become so prominent that I recognize an almost distinct nosological entity, a view I am bound to confess which is not supported by high authorities. The ratio which these three divisions bear to each other in my 259 cases is—4 of puerperal, 3 of lactation, and 2 of pregnancy. As already stated, Batty Tuke gives the relation as 2.6 puerperal, 1.9 lactation, and 1 pregnancy: and Clouston, as 5, 4, and 1 respectively; a relatively smaller number of cases occurring before delivery in the latter's experience.

It would appear in some cases that marked mental disturbance takes place during the period of gestation, not amounting to actual insanity, but culminating in acute mania during the later puerperal period; also that some mental alienation during this period may culminate in actual insanity during lactation. The relationship between the various forms of nerve-cell reduction and consequent psychic changes requires further elucidation, and may well form one of the subjects for discussion.

General Characters.

I.—*Primiparae—Civil State and Illegitimacy.*

Changes of so far reaching a character as gestation implies, with all the nervous excitation and psychic changes involved in the full development of the reproductive process, together with the arousal of maternal instincts for the first time, must cause many phases of mental condition, varying from vague fears and morbid dread to exalted feelings and eager expectations. The introspective life consequent upon more or less retirement during this period has many actions and reactions. In the predisposed these new relationships and changes may give rise to morbid mental action resulting in insanity, and we should expect this to be more marked among first pregnancies, more especially in the single, where the moral shock of disappointment and shame in addition to the nervous exhaustion becomes an additional strain.

Of the 56 cases of pregnancy no fewer than 14 (25 per cent. or one-fourth) were first confinements, and of these 11 (78 per cent.) occurred in single women, who were 14 in number, whilst the first confinements among married women amounted to only 3 out of a total of 40, namely, less than 6 per cent., 12 per cent. were second confinements, 17 per cent. were third, 12 per cent. were fourth, 22 per cent. were fifth, and 15 per cent. were between the sixth and thirteenth.

As to illegitimacy, of the 259 cases 12 per cent. of the insanity was among single women, and of this proportion 25 per cent. were among the pregnancies, 12 per cent. among the puerperal cases, and only 3 per cent. among the lactation cases, but the proportion of single women to married in the total puerperal cases is only 14 per cent., in the lactation only 3.7,

Table I.—*Showing the Civil State of those Suffering from First Attacks of Insanity.*

	Puerperal.			Lactation.			Pregnancy.			Total.
	First Attack.	Previous Attack.	Total.	First Attack.	Previous Attack.	Total.	First Attack.	Previous Attack.	Total.	
Single ...	14	1	15	3	—	3	12	2	14	32
Widowed...	2	—	2	—	—	—	1	1	2	4
Married ...	75	28	103	58	22	80	24	16	40	223
			120			83			56	259

Table III.—*Showing Civil State, Ages, and Heredity of "First" Confinements.*

	Pregnancy.					
	Single.		Married.			
	First Attack.	Previous Attack.	First Attack.	Previous Attack.	Total.	Heredity.
15 to 19 ...	2				2	
20 ,, 24	5	1	3		9	9
25 ,, 29	1	1			2	1
30 ,, 34 ...	1				1	1
Total ..	...	...	...	...	14	8

Age.	Details of above Cases of Heredity.	Age.	Details of above Cases of Heredity.
21	Father died apoplexy; two brothers died phthisis	23	Mother phthisis
21	Sister committed suicide	23	Maternal uncle shot himself
21	Mother insane and phthisis; father's cousin insane	25	Brother insane, grandfather eccentric, father drink
22	Mother puerperal fever when patient 5 years old	31	Father and mother phthisis; mother had a good deal of trouble before child born.

Table II. *Showing at which Confinement Insanity occurred, together with the Civil State, among the Insanities of Pregnancies.*

	Puerperal.							Lactation.					Pregnancy.						
	Single.		Widowed.		Married.			Single.		Widowed.		Married.			Single.		Widowed.		Married.		
	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	Total.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	Total.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	Total.
1st confinement							11	1				2	2	11	11	1			2		14
2nd						1	12	1				1		2	1	1			4	1	7
3rd						1	5							1					3	4	7
4th							2					1		1					3	1	5
5th							3					1		1	1				4	4	9
6th							2					2		2			1		2	2	5
7th					1		1					1		1					1		1
8							1												1		1
9						1	1													2	2
10th												1		1						1	1
11th																					
12th					1		1														
13th																					
14th																					
Not stated																	1		1		1
Totals	11																				

whereas, as stated in those suffering from the insanity of pregnancy, it is 32 per cent.

Dr. Clouston states that in Scotland, where illegitimacy is more common, 25 per cent. of his cases of puerperal insanity occurred among single women. Dr. Bevan Lewis, quoting 66 cases, gives a ratio of only 10 per cent. among single women; and as his statistics deal with a total female insane population of 1,810 cases, among whom the proportion of single to married was 1.4, the proportion of puerperal cases among those who had illegitimate offspring is exceptionally low. Dr. Menzies gives a percentage of only 7.1 of illegitimates among his 140 cases, which is lower than that among the general admission.

The incidence of illegitimacy in the general population varies greatly in different counties. In Middlesex and Essex, which are the lowest (as compared with Cumberland, 70 per 1,000 births, and Scotland, which is probably higher still), it is 29 illegitimate births per 1,000 legitimate, a proportion of 1 illegitimate to every 34 legitimate.

In my cases, out of 259 insane puerperal women 32 were single, a proportion of over 8 to 1, but the proportion of married to single in the general asylum population is 1.7 to 1, which argues a considerably increased liability to insanity among single puerperal women, the liability being nearly four times as much.

II. *Form of Insanity and Onset.*

Of the 259 cases, 60 per cent. were married women suffering from their first attack, and 25 per cent. were married women who had suffered from previous attacks. One of my patients had suffered from an attack of insanity with each of twelve children, and another with nine, each closing the scene by becoming chronic and incurable at the climacteric. As to the cases of insanity of pregnancy in single women, some of these were weak minded, with weakened emotional inhibition, unable, therefore, to restrain their passion, and thus were more readily tempted. They were of the type which is also less likely to be helped and more liable to neglect, disappointment, and shame. Taking single and married together, they suffered in about equal proportion from melancholia and mania, but the acute form of melancholia was more intense than that noticed in mania. Especially was the insanity of an unfavourable form among single women, for of the 56 cases, 4 were epileptics (1 single woman), 2 general paralytics, and 2 were congenital imbeciles, also single women. It has been stated that insanity was more common when the sex of the child was male. In 44 of my cases the sex of the child was ascertained, the sexes were equally divided, and I am unable to bear out the truth of the above statement.

Of the puerperal cases, more suffered from mania than melancholia, and, again, more from the acute form of mania than the same of melancholia. Of the 120 cases, 1 only was epileptic.

Of the 83 lactational cases, on the other hand, a greater proportion suffered from the depressed than the exalted variety of insanity.

TABLE IV.—*Showing Sex of Infant in Cases of Insanity of Pregnancy.*

	Single.		Widowed.		Married.		
	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	Total.
Males	3	1			11	7	22
Females	4	1	1	1	8	5	20
Not Stated :—							
Confinements before admission			—	—	2		2
Twins	1			—			1
Confinements after discharge					1	1	2
Pregnant at death			—	—		1	1
Stillborn				—	—		
Abortion			—	—		1	1
Premature fetus			—	—		1	1
—					1		1
							50

The onset of insanity in this class is either sudden or gradual.

TABLE VI.—*Showing Onset Compared with the Form of Insanity.*

	Puerperal.			Lactation.			Combined Total.
	Mania.	Melancholia.	Total.	Mania.	Melancholia.	Total.	
Sudden	37	10	45	7	2	9	54
Gradual	11	22	33	31	6	37	70
Unknown	1		1	—	—	—	1
Totals	49	32	79	38	8	46	125

The onset in the puerperal cases was sudden more often than gradual, and the gradual onset characterized the advent of melancholia twice as often as mania. Clouston states that the nearer the insanity is to the confinement in point of time the more acute the symptoms, and this accords with my experience. It has been my experience, also, that when the onset is more gradual and the form is melancholia, the termination is more often in dementia. Also in the melancholia cases there has been more tendency before admission to wander and go away from home.

Of the 259 total cases 102 had a sudden onset, of whom 68 recovered, and over 30 died or became chronic, a proportion of more than two to one; whereas of the 155 cases with a gradual

TABLE V.—*Showing Form of Insanity and the Civil State.*

	Puerperal.				Lactation.				Pregnancy.				Combined Total.
	Single.	Widowed.	Married.	Total.	Single.	Widowed.	Married.	Total.	Single.	Widowed.	Married.	Total.	
Mania	7		11	18			14	14	1	1	5	6	38
Acute	6	1	42	49	1		33	34		1	11	12	84
Chronic			1	1									6
Epileptic			1	1									4
Melancholia	8		17	25			11	11	2		5	7	43
Acute	6	1	23	31	2		3	5	4		11	15	77
Chronic			1	1			1	1	1		1	2	4
Epileptic							1	1	1				2
Delusional insanity			3	3									3
General paralysis							1	1					2
Congenital imbecility									2				2
	15	2	103	120	3		80	83	11		4	15	259

TABLE VII.—*Showing the Onset in all Cases under Treatment.*

	Puerperal.		Lactation.		Pregnancy.		Combined.	
	Sudden.	Gradual.	Sudden.	Gradual.	Sudden.	Gradual.	Sudden.	Gradual.
Recovered	45	33	9	37	14	11	68	81
Relieved	3	6	-	5	1	2	6	11
Chronic (resident)	8	11	5	13	3	13	16	37
Died	7	5	3	11	2	10	12	26
Totals	63	55	19	64	20	36	102	155
	118*		83		56		257*	
	*2 not stated. 120						*2 not stated, 259	

onset only 81 recovered, and over 70 became chronic or died, a proportion of recoveries of only about 8 to 7. Of those resident and chronic, or died, over 50 per cent. had a gradual onset of insanity. In the 83 lactation cases the onset was equally frequent between the second and third month, and the first and second years, and was gradual in more than 68 per cent. The onset next most frequent was between the third and fourth month, and then between the fourth and fifth and sixth and seventh month, and it was gradual much more often than sudden in these also. In the 56 pregnancy cases, 49 of whom were delivered in Claybury and 3 before admission, the onset occurred before the third month in 25 per cent., after the fifth month in 48 per cent., and after the sixth month in 34 per cent. In these the onset was also more often gradual, and I am inclined to think that the strain during the last months of pregnancy, and immediately before parturition, is more likely to unbalance a mentally unstable woman than that attending the early changes of pregnancy, and this applies equally to the single and married.

TABLE VIII.—*Showing Onset of Disease previous to Admission in the Puerperal and Lactation Cases, and how far Pregnant on Admission in the Pregnancy Cases.*

Puerperal.—Onset before admission.

	Single.		Widowed.		Married.		Total.
	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	
2 to 2 days							
2 ,, 3 ,,					4	1	5
3 ,, 4 ,,					5	1	6
4 ,, 5 ,,					3	2	5
5 ,, 6 ,,					1	1	2
6 ,, 7 ,,							
1 ,, 2 weeks			1		22	4	27
2 ,, 3 ,,	5	1			11	5	22
3 ,, 4 ,,					12	5	17
4 ,, 5 ,,	4				10	4	18
5 ,, 6 ,,	2		1		5	2	10
Sudden.—No date					1		1
Gradual.—					2	2	4
Totals	14	1	2		75	28	120

Lactation.—Onset before admission.

	Single		Married.		Widowed.		Total.
	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	
6 to 7 weeks					1		1
7 ,, 8 ,,							
1 ,, 2 months					1		1
2 ,, 3 ,,					1		1
3 ,, 4 ,,					2		2
4 ,, 5 ,,							
5 ,, 6 ,,							
6 ,, 7 ,,					1		1
7 ,, 8 ,,					1		1
8 ,, 9 ,,					1		1
9 ,, 10 ,,							
10 ,, 11 ,,							
11 ,, 12 ,,					1		1
1 ,, 2 years					1		1
2 ,, 3 ,,							
3 ,, 4 ,,					1		1
Unknown					1		1
Totals					12		12

TABLE VIII.—*(Continued).*

Pregnancy.—Pregnant on admission.

	Single.		Widowed.		Married.		Total.
	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.	
Confined before admission	1				2		3
1 to 2 weeks after admission							
2 to 3 ,,			1				1
3 ,, 4 ,,							
1 ,, 2 months	1				1	2	4
2 ,, 3 ,,					5	1	6
3 ,, 4 ,,	1				5	2	8
4 ,, 5 ,,	2				2	3	7
5 ,, 6 ,,	1	2		1	2	2	8
6 ,, 7 ,,	2				4	4	10
7 ,, 8 ,,	4				1	2	7
8 ,, 9 ,,					2		2
Totals	12	2	1	1	24	16	56
	14		2		40		

III.—GENERAL SYMPTOMS AND ETIOLOGY.

The symptoms of puerperal mania in 40 per cent. (48 out of the 120 cases) occurred within the first two weeks, and of these more than a third occurred within the first week. In 58 per cent. of the 120 cases the first symptoms occurred within the first three weeks after confinement. The almost universal early symptom of insanity in puerperal cases is loss of sleep. The progress of the case is described by those who have the care of the patient as first sleeplessness, then a feverish and anxious restlessness, a busy concern about trivial details, distrust, a suspiciousness, loss of appetite, and a readiness to take offence when none was meant, an exacting irritability and ready reaction to outward stimulus, culminating in wild delirious excitement and mania of the peculiar character already described. When sleeplessness and headache, followed by an indefinable feeling of apprehensiveness, occur in puerperal women of hereditary nervous instability, any sudden unaccustomed stimulus of however slight a nature tends to and may presage a mental breakdown. Is is for this reason that early attention should be given to sleeplessness and headache. In some of the cases symptoms of unrest appeared upon the second day, and one of my patients was brought under treatment on this date suffering from the most violent delirium, with sensori-motor disturbances. In puerperal women the anxious expectancy of the latter months of pregnancy, followed by the subsequent exhaustion of parturition, causes this period to be one of unusual anxiety even in normal women. It is a period eminently impressionable, active and irritable for all the systems—the nervous, circulatory, secretory, and excretory—and it is one in which disordered conduct appears to result and be out of all proportion to the apparent stimulus. I have known pictures in the lying-in room become the basis upon which a regular system of delusions was weaved, and I have known a mother to injure her child because she herself has been crossed; and I have also

known a woman attempt to jump out of a window merely because she suffered from toothache. Suicidal promptings were most common in the lactation cases (47 per cent). In the insanity of pregnancy they occurred in 41 per cent., and in the puerperal cases in only 21 per cent. The "fear of insanity" acted as the apparent cause in one case, and the mental change against which she struggled came on quite suddenly whilst engaged in her domestic duties; in another the conversation of her nurse that babies were occasionally removed piecemeal; and in a third the suggestion of a slight operation by her medical man was the apparent cause of a mental breakdown. Peculiar mistaken ideas about the baby are not infrequent; one imagined her baby was a skeleton, and that she was compelled to nurse it; another that her baby and the other children were horrid animals whom she had to destroy. Infanticidal promptings were also relatively more common in the lactation cases, and in married rather than single women. These were present in 14 per cent. of all cases of lactation, and in only 10 per cent. of puerperal cases. Several cases in each variety of insanity were, however, described as careless and neglectful, and having lost their love for their children.

TABLE IX.—*Impulse to Infanticide.*

	Puerperal.	Lactation.	Pregnancy.	Total.
Single, first attack	2	—	1	3
,, previous attack ...	—	—	1	1
Widowed, first attack	—	—	—	—
,, previous attack ...	—	—	—	—
Married, first attack	8	4	—	12
,, previous attack ...	1	8	1	10
	11	12	3	26

Delusions as to place and surroundings are not uncommon: women frequently imagine their children to be in bed with them, and they often wrap a portion of the clothing under the impression that it is their infant—acute hallucinatory confusional insanity. I have known religious differences well understood and tolerated between husband and wife before confinement to be the starting point of wild and terrifying religious melancholia, when the most abject fear of hell fire caused suicidal attempts.

Hearing of the accouchement of the Princess May caused one to imagine herself the identical subject of conversation. The firing at the Military Tournament, to which a visit was paid too soon after confinement, was the cause of breakdown in one case, and bad news has frequently been assigned as the cause. Is this due to septicism or some other form of toxaemia? Is it a bodily exhaustion, or is it partly mental also?

Most of the patients admitted had undergone the most severe bodily strain, for, in addition to the puerperium, they also had the care, responsibility, and management of a home under peculiar difficulties.

There is in all cases of insanity a breaking strain beyond which the crisis occurs. What this may be we have referred to under the remarks on its pathology, but such is the tendency with some authorities to look upon mental disease as essentially bodily that a mere reference to mental strain may not be out of place. We know that in ordinary life the perusal of a letter or the sudden communication of bad news may strike the stoutest to the ground: indeed, the physical accompaniments of fear are too well known to require detailing. Fear can paralyse and hope can instantaneously give soundness and vigour to the frame, as much as despair can effect the reverse. It is during the early puerperal period that care should be rigidly exercised to avoid sudden excitement, to procure sleep, and to sustain the organs in a healthy nutritive state during the process of restoration. Once abnormal conditions are started, loss of sleep occurs, hallucinations of the senses arise, and I have noticed in several instances that of the sense of smell, with suspicions of poisoning and refusal of food.

As to hallucinations of the senses, those of hearing were six times as common as any other.

Few had hallucinations of smell, touch, or taste. I have known a case where the too free administration of alcohol gave rise to the most painful hallucinations of sight; the patient imagined she saw the devil, and attempted to murder another under the impression she was killing the devil. With confusion of ideas, the patient has delusions of personal identity; she mistakes those about her for others she has seen and known, and fails to recognize her own identity or that of her baby. She develops marked antagonism to her husband; erotic delusions appear, with immodest behaviour and improper language, generally with rapid and inconsequent chatter and indecent suggestions. Marked sexual excitement, with faulty habits mingled with religious exaltation, are more often met with in this form of insanity than in any other. They appear in a person previously of pure and unblemished character, and this condition shocks and alarms everybody about her. As to the association of prurient language with sexual disturbances and religious exaltation, it must be remembered that love and religion are the two most volcanic emotions to which the human organism is liable, and when the one is disturbed, as so extensively occurs in pregnancy and parturition, the vibration naturally and readily extends to the other. Religious and sexual manifestations associated together are well known among certain classes of the insane, such as the epileptics, and they are not unknown among the sane in the lives of some religious devotees and ecstatics. As Havelock Ellis states, religion like modesty consists in the repression of natural impulses, and a certain reticence and restraint are characteristic of what is best in religion, art, and life. When the proper balance between certain definite restraint and impulse is disturbed, as occurs particularly in this form of insanity, the symptoms we have referred to as characteristic of the disease appear with painful prominence. This confusional condition passes into an absolutely uncontrollable and restless violence, accompanied with profound physical exhaustion, in which the patient presents a peculiarly glaring, wild look, with a markedly anaemic and general sallow hue. The bodily exhaustion is probably the cause of an overpowering tendency to yawning which I have frequently noticed in these cases. The gibberish nonsense, erotic, immodest conduct and bad language, the evolutions of shameless indecency, accompanied with noisy delirium and marked religious exaltation, with purposeless restlessness, characterize—sum up, if I may say so—the insanity of the puerperal period, and in this I am disposed to recognize, as already stated, a distinct type of nosological entity. In the insanity of pregnancy and lactation, my experience leads me to conclude that there are no general symptoms characteristic of these periods, and in the pregnancy cases no unanimity of opinion other than that the third stage of labour in the insane is perhaps generally precipitate can be obtained. In some there was slowness on the part of the uterus to contract after the birth of the child, and free haemorrhage occurred. The patients were described in some cases as stubborn and resistive. One case was a placenta praevia, in two cases labour came on quite suddenly. Many of the infants failed to survive their births for long, and I consider that insanity is very unfavourable to the life of the offspring, which after all may be a kindly Providence.

Insanity has been stated to occur during conception, but I have never met with such a case. Dr. Savage has divided this form into that of early and late pregnancy, but my experience is that it mainly occurs towards the end of gestation. Over 33 per cent. of this form were over six months pregnant upon admission. A transient insanity during delivery has not come under my notice. Such cases would naturally only come under the notice of the obstetrician, but they are of great medico-legal interest in view of unexpected and occasional tragic occurrences.

IV.—ATTACKS.

Of the 120 puerperal cases 88 (namely, 73 per cent.), were first attacks, and of these 13 out of 15 cases were single women (namely, 86 per cent.): 19 (namely, 16 per cent.), had one previous attack; 9 (namely, 8 per cent.), had two attacks; 9 were third attacks; 3 (nomely, 2.5 per cent.), had had four attacks, and 1 had eleven previous attacks, each at a puerperal period.

Of those cases who had first attacks mental changes had occurred in some previous confinement, but not sufficiently marked to be in an asylum. Of the lactation cases, 83 in

number, 58 (69 per cent.), were first attacks, and of the other 25, 13 (namely, 15 per cent.). had one previous attack, 7 (8 per cent.), had two previous attacks: 2 (2 per cent.) had three previous attacks, and were suffering from the fourth; 2 were suffering from the fifth, and 1 from the sixth.

Of patients at Claybury, but not coming under the purview of this paper, one female was at another asylum for an attack of puerperal insanity, but she afterwards bore seven other children without an attack of insanity, and it may be worth recording that five of these children became insane.

It is interesting to notice in many of these the previous record of hysteria, although the percentage of such cases is not common. The question may be asked whether hysteria in early life increases the possibility of a mental breakdown in the puerperium, and if so their marriages should be discouraged; but it must be remembered that to many girls marriage fulfils a natural expectation, and may lessen the possibility of a breakdown at the climacteric, and therefore to condemn such cases to singleness may be adding to the increase of insanity.

As to the number of the confinement after which insanity occurred, 41 (including 8 of the 15 single women) followed the first pregnancy, or 33 per cent.

12 followed the second confinement, equal to 10 per cent.
9 " third " " 7 "
9 " seventh " " 7 "
8 " fifth " " 6 "
6 " sixth " " 5 "
5 " fourth " " 4 "
2 " ninth " " 1 "
1 " eighth " " 1 "
1 " twelfth " " 1 "
26 were not stated " 21 "

Of the lactation cases, on the other hand, the strain of

TABLE X.—*Showing the Number of Attacks of Insanity in the Puerperal, Lactation, and Pregnancy Cases together with Ages and Heredity of the "First" Attacks.*

Puerperal.

Number of Attacks, Civil State, and Heredity of First Attacks.	Single.	Widowed.	Married.	Total.	Heredity.
1st attack ...	13	2	74	89	31
2nd " ...	1		16	17	
3rd " ...	1		8	9	
4th " ...			3	3	
11th " ...			1	1	
Not certain ...			1	1	
				120	

Ages and Heredity of First Attacks.	Single.	Widowed.	Married.	Total.	Heredity.
15 to 19 ...	3		1	4	2
20 " 24 ...	4	1	22	27	10
25 " 29 ...	2		25	27	7
30 " 34 ...	2		14	16	6
35 " 39 ...	1	1	11	13	5
40 " 44 ...	1			1	
45			1	1	1
				89	31

Age.	Analysis of Heredity in above 31 Cases.
17	Mother (when pregnant) fits; four brothers and sisters died fits; grandfather and grandmother died asthma
[illegible]	Mother Colney Hatch four times
[illegible]	Father died consumption
[illegible]	Mother suicide; aunt insane
[illegible]	Father eccentric
[illegible]	Maternal aunt insane
[illegible]	Maternal aunt insane
[illegible]	Mother insane; phthisis
[illegible]	Father intemperate
[illegible]	Brother insane; father phthisis
[illegible]	Phthisis in family
[illegible]	Paternal grandfather intemperate
[illegible]	Father insane
[illegible]	Mother phthisis
[illegible]	Brother insane (after patient's admission)
[illegible]	Father epileptic fits
[illegible]	Brother insane

Age.	Analysis of Heredity in above 31 Cases.
28	Phthisis and drink
[illegible]	Parents phthisical
[illegible]	Paternal grandfather and maternal uncle insane; mother died paralysis
[illegible]	Maternal grandfather insane
1	Father and others insane
[illegible]	Mother insane
[illegible]	Uncle and cousin insane
[illegible]	Eccentric relatives
[illegible]	Brother insane, another epileptic
[illegible]	Mother and two sisters insane
17	Maternal grandfather and uncle insane
7	Paternal aunt insane; phthisis in family
[illegible]	Mother and sisters insane
[illegible]	Paternal aunt insane; phthisis on mother's side.

Lactation.

Number of Attacks, Civil State, and Heredity of First Attacks.	Single.	Widowed.	Married.	Total.	Heredity.
1st attack	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2nd	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3rd	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4th	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5th	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6th	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
				[illegible]	[illegible]

Ages and Heredity of First Attacks.	Single.	Widowed.	Married.	Total.	Heredity.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
				[illegible]	[illegible]

TABLE X.—*(Continued).*
Lactation *(Continued).*

Age.	Analysis of Heredity in above 28 Cases.
21	Cardiac disease in family
21	Phthisis on father's side
22	Mother eccentric; father drink
22	Mother and maternal aunt insane
23	Mother insane
24	Brother insane
24	Mother insane (at birth of patient)
24	Father suicide
26	Mother died of paralysis
26	Mother intemperate
26	Cousin insane
26	Paternal grandfather insane
28	Mother died in a fit
28	Brother insane
30	Mother insane; sister insane after childbirth

Age.	Analysis of Heredity in above 28 Cases.
30	Maternal aunt insane
30	Parents intemperate
32	Mother insane (epileptic); aunt insane
32	Father insane
33	Mother died of phthisis
33	Mother epileptic; aunt insane
34	Mother and aunt insane
35	Paternal side insane
35	Mother in asylum
35	Paralysis father's side; all brothers and sisters
37	Phthisis in family
38	Mother hysterical
41	Sisters insane

Pregnancy.

Number of Attacks, Civil State, and Heredity of First Attacks.	Single.	Widowed.	Married.	Total.	Heredity.
1st attack ...	12	1	24	37	25
2nd " ...	1		11	12	
3rd " ...	1	1	4	6	
4th " ...			1	1	
				56	

Ages and Heredity of First Attacks.	Single.	Widowed.	Married.	Total.	Heredity.
15 to 19 ...	2			2	
20 " 24 ...	6		6	12	8
25 " 29 ...	2		7	9	7
30 " 34 ...	1		7	8	7
35 " 39 ...	1		4	5	3
40 " 45 ...		1		1	
				37	25

Age.	Analysis of Heredity in above 25 Cases.
21	Father died of apoplexy; two brothers died of phthisis
21	Sister committed suicide
21	Mother insane and phthisis; father's cousin insane
22	Father eccentric
22	Mother puerperal mania when patient 5 years of age
23	Mother phthisis
23	Maternal uncle shot himself
24	Mother's uncle insane
24	Aunt insane
25	Father drinks
26	Mother phthisis
26	Father died of paralysis; brother died of phthisis, also eccentric
27	Grandmother paralysis; mother and sisters drink
28	Grandmother insane; father drink

Age.	Analysis of Heredity in above 25 Cases.
29	Grandmother, grandmother's sister, mother, and three aunts insane
30	Mother drinks, and eccentric
31	Father and mother phthisis; mother much trouble before birth of patient
31	Mother paralysis; brother epilepsy and paralysis
32	Father insane
32	Father died of cardiac; mother died of asthma
33	Paternal grandfather and brother insane; father drinks
33	Maternal aunt insane; maternal side epilepsy
37	Father drinks
38	Father fits
39	Brother insane

frequent pregnancies, and the drain of prolonged suckling (in some amounting to over two years), appears to have been the cause of insanity rather than a first attack:

15 cases occurred after the third child, equal to 19 per cent.					
11	,,	,,	first	,,	13 ,,
10	,,	,,	fifth	,,	12 ,,
9	,,	,,	fourth	,,	11 ,,
8	,,	,,	sixth	,,	9 ,,
6	,,	,,	second	,,	7 ,,
5	,,	,,	eighth	,,	6 ,,
4	,,	,,	seventh	,,	5 ,,
2	,,	,,	ninth	,,	2 ,,
13 were not stated				,,	16 ,,

Of the pregnancy cases, 19 (including 13 single women out of 15) out of a total of 56 cases, or 34 per cent., became insane at or during the first pregnancy, and an equal number of married women at the second and fourth. These statistics prove beyond a doubt the great moral shock of a first pregnancy especially in women with illegitimate offspring.

VI.—Heredity.

Of the 259 cases 129—nearly 50 per cent.—had some hereditary predisposition either physically or mentally, and this includes both direct and collateral insanity, epilepsy, suicide, intemperance, phthisis, etc., as shown in the accompanying tables, a higher proportion than is generally ascertained. Of these 129 cases, nearly 53 per cent. had a direct hereditary history, 11 per cent. had a collateral, and 21 per cent. had both a collateral and a direct.

Of the total 120 puerperal cases, whether first attack or not, 51 (50 per cent.) had a faulty heredity, and this was direct maternal oftener than it was paternal. In the 89 first attacks among the puerperal cases 34 per cent. suffered from a hereditary taint, and in these maternal heredity was twice as frequent as paternal. In some of the chronic cases who did not recover, and who are still in the asylum, although no hereditary history was obtainable upon admission, one or other parent subsequently became an insane inmate of an asylum, showing that, although not apparent, the faulty strain nevertheless existed.

Of the 83 lactation cases, 58 were first attacks, 23 of these had a hereditary history, direct maternal heredity being twice as common as paternal.

In the 56 pregnancy insanities there was heredity in 82 per cent., but there was no marked difference in the maternal and paternal heredity. Of the 56 cases 14 were first attacks with a percentage heredity of 57. It is upon the baneful influence of an evil heredity that attention should be concentrated, for it is impossible to qualify that great biological law according to which all beings endowed with life tend to repeat the elements and functions of their organism in their descendants—a law which governs the subordinate no less than the dominant characteristics, and which involves internal and external structures with their physiological and psychological consequences.

V.—Ages.

That of greatest incidence was between the ages of 25 and 29 years, both for the insanity of pregnancy and that of the puerperal period, whereas the greatest incidence in lactation cases was between 30 and 34 years, a fact which supports the view that this latter form is closely related to exhaustion, and occurs most commonly immediately after the best period of life—namely, that under 30 years.

The next period of greatest incidence in the two first classes was between 20 and 24 years.

Of insanity among pregnant women, a high proportion—26 per cent.—occurred in unmarried women, and of these 20 per cent. were under 20 years of age, the same proportion was over 30 years of age, one (a widow, illegitimate) being over 40 years. Only 3 single women out of 83 cases suffered from the insanity of lactation, which is probably due to the fact that few illegitimate infants are allowed to be nursed by their mothers. Of the first pregnancies and first attacks of insanity, 75 per cent. occurred in single women, whereas only 21 per cent. occurred in married women. Most first attacks, both in married and in single women, occurred between the ages of 20 and 24 years; but 43 per cent. of married women were over 30 years of age when suffering from the insanity of pregnancy, 50 per cent. of these being first attacks. Of the insanity during lactation and the strictly puerperal period, 4 per cent. and 12 per cent. respectively occurred in single women, 14 per cent. and 12 per cent. respectively occurred with the first child, and between the ages of 35 and 45 years, a fact which agrees with general experience and expectation that when pregnancy and parturition occur beyond the age at which restoration and recuperation naturally and readily occur, the great outlay and exhaustion consequent thereon are more likely to act as the breaking strain. The shame and worry of an illegitimate pregnancy must exercise a considerable influence as a moral factor in the production of insanity, but it is difficult to state upon which age-extreme of the reproductive life this is greater, and this is open to further inquiry.

VII.—Temperament.

Of the 120 puerperal cases 48 per cent. were described as cheerful, 15 per cent. as reserved, 7.5 per cent. as unstable, and 8 per cent. as excitable.

Of the lactation cases 42 per cent. were described as cheerful and 18 per cent. as reserved. Of the pregnancy cases 41 per cent. were cheerful, 23 per cent. reserved, and 9 per cent. excitable.

Table XI.—*Showing Approximate Ages.*

Ages.	Puerperal.							Lactation.							Pregnancy.							Combined Total.
	Single.		Widowed.		Married.		Total.	Single.		Widowed.		Married.		Total.	Single.		Widowed.		Married.		Total.	
	First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.		First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.		First Attack.	Previous Attack.	First Attack.	Previous Attack.	First Attack.	Previous Attack.		
15 to 19					1		4															
20 ,, 24	4		1		22	2	29	1				9	1	11								
25 ,, 29	3	1			25	11	40	2				11		13	1	2				1	4	
30 ,, 34	2				14	10	26					23		23	1						1	
35 ,, 39	1		1		12	4	18					12	1	13	1			1			2	
40 ,, 44	1				1		2					1		1								
45 —					1		1					1		1								
							120															

* Illegitimate

As to the colouring, most had brown hair and brown or grey eyes. Very few had dark hair, only two had red hair. Several were described as having fair hair, but brown and dark brown greatly predominated. The colour of the eyes was noted as either dark, brown, hazel, grey, and blue. Brown hair with hazel or grey eyes greatly predominated, so also does this type normally in the London area; the dark Iberian-Mediterranean type being comparatively infrequent outside Cornwall.

REFERENCES.

[1] *Mental Diseases*, 1883. [2] *Edinburgh Medical Journal*, vol. x. [3] *Traité de la Folie des Femmes Enceintes*. [4] *West Riding Asylum Reports*, 1872.

(To be continued.)

A CASE OF TUMOUR OF THE CEREBRAL CORTEX.

BY H. CECIL BARLOW, M.B.LOND., L.R.C.P., M.R.C.S.,
Farnborough.

THE following is a somewhat incomplete account of a case of tumour of the cerebral cortex, which is interesting in that several of the symptoms and physical signs which are diagnostic of that condition were absent.

History.—W. R., aged 57, an armourer sergeant, apparently in good health, was suddenly seized with convulsions, while at his work on May 10th, 1901, which were confined to the left side of the body, beginning in and mainly affecting the face, but also the arm. During the attack he was perfectly conscious, but was unable to articulate distinctly. This attack lasted for about an hour, and he appeared to get quite well. Between May 10th and May 16th he had another attack, and obtained medical advice. On May 16th he was admitted an in-patient to St. Bartholomew's Hospital, where he remained until May 29th.

Unfortunately I have been unable to obtain any account of his condition while there, but I have learned from his friends that he had one attack of convulsions.

State on Examination.—On the night of May 31st I saw him for the first time. He was standing with head and shoulders bent forward—perfectly conscious, and appearing to understand all that was said to him, but he was unable to articulate distinctly. There was frequent and marked spasm of the left facial muscles, and of the left arm, and to a less extent of the left leg. The mouth was open—tongue protruded, and saliva flowing from the mouth. The grasp of the left hand was decidedly weaker than that of the right. The deep reflexes were very brisk on the affected side, while sensation was markedly dulled and delayed to pain and touch on that side. The pulse-rate was 78. He appeared free from pain. The attack came on while in bed, and the twitching began in the face. He was put to bed, and a mixture of chloral and ammonium bromide administered. There was no obtainable history of alcoholism, epilepsy, or specific disease.

Progress.—Next morning, June 1st he appeared fairly comfortable having slept during the night, there was still marked twitching of the muscles of the left side of the face occurring every three or four minutes and very slight occasional spasm of the muscles of left arm. In the intervals between the spasms left facial palsy was obvious, and the left arm was decidedly weaker than the right. Temperature was normal, pulse 68, regular, good volume, moderate tension. There was no abnormal rigidity of the arterial walls. Sensation on the left side was dulled and delayed to touch and pain. An examination of the urine revealed nothing abnormal. Taste and smell were normal. Sight was good and the optic discs were normal. There was no discharge from the ears and no pain or tenderness of the head. The chest was emphysematous—the only abnormality discovered was a systolic *bruit* loudest at the aortic cartilage. He was ordered a liberal diet and given a mixture of bromide and potassium iodide (ten grains) three times a day. For the next four days, June 2nd, 3rd, 4th and 5th, the patient's general condition appeared to improve. The twitching gradually subsided, leaving marked facial palsy and paresis of the left arm and hand. The temperature was normal each day, and the pulse ranged between 68 and 76. He slept comfortably at night. He complained of no pain, he was able to read his paper and converse with [illegible] him. On June 3rd there was a very decided increase [illegible] in the left arm and hand, but no improvement in the face. He took food well. On June 6th he began to be drowsy—the bromide was discontinued, but the iodide was still given—he complained of pain in the [illegible] parietal region. On June 7th, 8th, 9th, 10th and 11th the condition remained the same as on 6th, with the exception that the pain in the head passed off. On June 12th he was more drowsy but could be roused and [illegible] to questions. He said he [illegible] pain. The [illegible] and found normal. His pulse [illegible], rate 68. Temperature normal. The palsy was [illegible]. On June 13th he died suddenly, without any preliminary [illegible] apparently from heart failure.

Necropsy.—I obtained leave to examine the brain. On removing the skull [illegible] the dura mater and no marked [illegible] in marked injection of the [illegible] Rolandic area was evident. Just [illegible] the cortex, which was considerably softened for [illegible] round it was a perfectly circumscribed firm tumour [illegible] of a walnut. The main bulk of the tumour was situated in [illegible] portion of the ascending frontal lobe. My friend, Dr. Be[illegible] has examined the tumour, and reports that it is [illegible]

A consideration of the facts of the case would naturally lead to a diagnosis of a lesion in the right Rolandic area, but as to the nature of that lesion the data obtained did not give any very clear indication. The absence of optic neuritis, vomiting, and the very slight pain in the head all seemed to negative cerebral tumour. The short duration of the illness (thirty-three days) and the sudden termination without any preliminary stage of coma are points which are deserving of notice.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE TREATMENT OF INFLUENZA.

IN the short paper in the BRITISH MEDICAL JOURNAL of February 15th I related a case of diabetes cured in a few weeks by measures exactly the opposite of those followed by the profession. This disease is a comparatively rare one. I now wish to speak of one of the most common and most fatal diseases of the period which may also be treated with success by methods the opposite of what are now ordinarily employed.

I allude to influenza. My first experience of influenza was in Aberdeen, when beginning my medical studies in the winter of 1836-7. The epidemic was almost universal, affecting more of the community than any I have met with since. Whole families were laid down and were absolutely helpless, and sometimes were discovered in this condition by their neighbours.

The last thing that was thought of in those days was to feed the sick, who wished for nothing, or to give them any stimulant whatever. They were absolutely left to Nature and I do not remember hearing of a death during the whole epidemic; it is quite possible that such may have occurred in old and feeble individuals, but I have no recollection of it; nor do I remember any epidemic occurring since with anything like the same severity or numbers. Common colds, which occur also in epidemics as being of a most infectious nature, got to be spoken of as influenza, but I am not aware of cases like those in Aberdeen occurring till the appearance of the severe form of the disease which originated in Russia and spread thence to this and other countries. The general method of treating disease had now completely altered, and with it the treatment of influenza. The toxic element, whatever it is, led as formerly to intense depression, but, instead of being left to Nature to be got rid of in its own way, was opposed by giving food and stimulants, both of which, especially the stimulants, stopped the natural actions of the system in expelling the poison, and in many cases led at once to a fatal result. The after-effects are too well known to need mention, and the deaths from them have been much more frequent after a more or less prolonged period than were those from the original attack. For myself I have all along treated cases of influenza on the old method of leaving them absolutely to Nature, and, so far as my memory goes, I do not remember the loss of a single case. Certainly for twenty-five years after my late colleague and successor joined me we did not lose a single case.

In *Plea for a Simpler Life*, and also in the preface to the conjoint volumes of *Plea* and *Fads*, I give numerous cases of patients who were cured when left to Nature, and of others which went wrong on the usual treatment of the day. Perhaps the most remarkable of the recoveries was that of an old lady of 87, given fully at p. 87 of *Plea*. She has enjoyed the best of health ever since, and at the age of 94 she gives every promise of living her hundred years at least. On the other hand several cases which were treated wrongly from the beginning or were interfered with when making good progress to recovery are instances of the sad results daily occurring from what has come to be regarded by the profession as the proper method of treating the disease.

Diabetes and influenza are typical diseases which differ the one from the other as to their cause and treatment. Diabetes is the result of bad feeding and its cure is effected by a return to a more rational dietary.

In influenza an active poison has got into the system causing intense temporary depression which Nature if left free to

act soon eliminates not only with no permanent damage but it also carries off morbid matters in the blood which may have been affecting the general health of the patient perhaps for a long period.

I have invariably found that influenza wisely treated leaves the patient in better health than before.

George S. Keith, M.D., F.R.C.P.E.

Currie, Mid-Lothian.

THE SETON IN MIGRAINE AND ALLIED AFFECTIONS.

Some twelve months ago I was much interested in a paper on the Surgical Treatment of Migraine, by Mr. Whitehead of Manchester, which appeared in the British Medical Journal, 1901, vol. i, p. 335. At that time I had under my care a young woman who had been suffering for a considerable time with paroxysmal hemicrania, and pain referred to the lower jaw, neck, and arm of the same side. She was of a highly neurotic temperament, and twice previously had simulated perforated gastric ulcer. Before coming under my care many of the teeth had been removed, but I gathered from her history that this gave only temporary relief, the pain returning again with as much severity as before. All manner of medicinal treatment had been resorted to without permanent benefit.

After a careful examination of the patient I was unable to detect any cause for the pain she was suffering—and that she did suffer there was no doubt; the remaining teeth were sound, the eyes were normal, and the ears were examined without effect. The urine was free from any abnormal constituent, but occasionally, after a severe attack, she passed a large amount of light-coloured urine of low specific gravity. The intervals between the attacks of pain had become shorter and the attacks were of longer duration.

I came to the conclusion that the patient was suffering from a paroxysmal neurosis, and therefore of a nature analogous to migraine. On these grounds I decided to try the effect of a seton, as suggested by Mr. Whitehead, and on February 11th, 1901, I inserted one *secundum artem*. Shortly after its introduction the duration of the attacks and the severity of the pains began to diminish, and after it had been worn for nine weeks I removed it, the patient declaring herself well, and wishing to go away from home for change. There being some return of the attacks of pain I, at the request of the patient, introduced a second seton on August 22nd, and this one was worn for four months. She has had no pain for upwards of three months, has improved in every way, and now does a share of the household work, an employment she has been unable to do for several years.

How does the seton produce this effect in these cases? The etiology of migraine being obscure, one can only theorize upon how the seton acts. It may be that the attacks of pain are of the nature of discharges of energy from certain cells in the central nervous system, and that the irritation of the seton acts by preventing an accumulation of energy in these cells, draining it away, as it were, and so allowing them time in which to recover their normal equilibrium. The moral effect of the seton must also be borne in mind, for a majority of these cases are met with in those of a hysterical temperament. If I have another suitable case I shall certainly make trial of the seton, and it would be instructive to introduce it into some part of the body where its presence would not be so forcibly kept before the mind of the patient as is the case when it is introduced into the nape of the neck.

This is only one case, but the beneficial result of Mr. Whitehead's treatment has been so marked that I have deemed it well to put it on record, in the hope that it may be suggestive to some one who has under his care one of these most troublesome cases.

Cateliff, Bakewell. Thomas Fentem, M.D.

MICRO-ORGANISMS ISOLATED FROM THE LESIONS OF GROUND ITCH.

About a year ago Dr. Bennett, of Trinidad, forwarded to Professor Crookshank, cultures of an organism isolated by plate culture from the feet of persons afflicted with "ground itch." These were handed to me for examination, and after due investigation, I concluded they were merely varieties of bacillus mesentericus, and probably without any causal relationship to the disease. Besides these, Dr. Bennett had recognized a few ordinary pyogenic organisms, such as staphylococcus pyogenes aureus, etc.

This negative bacterioscopic evidence is of little value except as an incidental support to Dr. Bentley's observations on the causal relationship of the larvae of ankylostoma duodenale to ground itch. His investigations[1] are a model of careful observation, well considered experiment, and logical deduction, in spite of limited laboratory apparatus, etc.

J. T. C. Nash, M.D., D.P.H.,

Late Demonstrator in Bacteriology, King's College, London.

Southend-on-Sea.

THE THERMO-CAUTERY *VERSUS* SUPRARENAL EXTRACT AS A HAEMOSTATIC IN HAEMOPHILIA.

Much has been written and many cases have been quoted in the British Medical Journal during the past year in favour of suprarenal extract as a haemostatic in the treatment of haemophilia. The following case illustrating its failure may be of interest.

A boy, aged 10, with a well-known haemophilic family history, fell down on December 7th and bit his tongue with the two upper incisor teeth. He lost a good deal of blood at the time, and every styptic was tried in vain, one after the other, each in its way affording some temporary cessation of the the bleeding. Digital pressure, too, answered for a time, but nothing gave permanent relief. The powdered suprarenal extract was used frequently; it was dusted on the wound, it was made into a paste, and finally the wound was filled with it and covered with collodion.

On December 18th I was summoned in a hurry with the urgent message that the boy was bleeding to death, which appeared to be the case. I found him deathly pale, with a feeble, fluttering pulse, and blood oozing from the tongue. I at once gave him a hypodermic injection of strychnine, and under chloroform, after clearing away the clots, freely cauterized the wound with a Paquelin's thermo-cautery. The bleeding instantly stopped, the wound healed in a few days, and the boy made an excellent recovery.

I think that in this case the suprarenal extract had a fair trial and failed, and in future I shall rely on the cautery only, and use it at once instead of wasting time in the vain hope of finding some styptic which may have the desired effect.

Horsham. F. W. E. Kinneir, M.R.C.S.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON TEMPERANCE HOSPITAL.

TETANY OF GASTRIC ORIGIN: DEATH IN THE FIRST ATTACK.

(Under the care of Dr. Soltau Fenwick.)

[Reported by Charles M. Young, M.B., Ch.B.Aberd.]

History.—A man, aged 64, was admitted on October 12th, 1901, for gastric disease. He stated that his digestion had been weak for fourteen years, but that during the last three years the symptoms had been unusually troublesome, and had been accompanied by vomiting. Pain after food was an inconstant phenomenon, but there was always distension and discomfort after meals, with occasional regurgitations of an acid fluid. The vomiting was especially troublesome at night, when the ejecta often amounted to two or three pints. He had never brought up blood, nor to his knowledge had he ever voided any by the bowel. During the three years he had lost over 4 st. in weight.

State on Examination.—On examination the patient was found to be very emaciated, but not cachectic. The tongue was flabby and moist, the pulse of low tension, and the temperature subnormal. With the exception of some slight emphysema, the lungs were apparently healthy, and there were no indications of cardiac disease. The abdomen was

[1] British Medical Journal, January 25th, 1902.

flattened above the navel, but below that point it presented a large swelling, over the surface of which the peristaltic movements of the stomach were distinctly visible. On auscultatory percussion the lower border of that viscus was found to extend to within 2 inches of the pubes, while its right extremity reached as far outwards as the anterior axillary line. The pylorus was fixed posteriorly, but no abdominal tumour or localized tenderness could be detected. The urine was normal. When a soft tube was passed into the stomach in the early morning the organ was found to contain about 11 oz. of semidigested food, which possessed a sour smell, and gave the reaction for free hydrochloric acid. After the administration of a test breakfast, 15 oz. were extracted at the end of an hour, and when filtered yielded an opalescent acid fluid, which contained a slight excess of free hydrochloric acid, but no lactic acid. The history of the illness, combined with these physical signs, seemed to warrant a diagnosis of contraction of the first part of the duodenum from the cicatrization of a simple ulcer, and pending the question of surgical interference lavage with warm water was ordered to be performed night and morning, and the patient was restricted to a semisolid diet of a nutritious and digestible character. The next day he expressed himself as feeling much better, but at two o'clock on the following afternoon he was attacked with violent retching and vomiting, which continued until 7 p.m., when tetany supervened. This condition affected all the limbs, but was rather more pronounced on the left than on the right side of the body. The forearms were flexed, pronated, and adducted, the wrists bent, and the thumbs pressed into the palms with the fingers closed over them. The lower extremities were rigidly extended, with the heels drawn upwards and the soles of the feet turned inwards. There was also slight trismus. The tetany continued without intermission for sixteen hours, and was accompanied by a quick superficial form of respiration and by a very feeble pulse. The immediate cause of death was cardiac failure.

Necropsy.—The stomach was considerably dilated and its muscular coats hypertrophied. About 2 inches from the pylorus, upon the posterior wall and close to the lesser curvature was a circular, chronic ulcer, about the size of a florin. The base of the ulcer was adherent to the upper margin of the pancreas, and the dense adhesions which had formed around it had dragged the second portion of the duodenum upwards and inwards, and had given rise to considerable obstruction of its lumen through kinking and compression of its walls. The pyloric orifice was dilated to the size of a half-crown, and the first 2 inches of the bowel were greatly dilated. The other viscera were normal.

REMARKS BY DR. SOLTAU FENWICK. The case presents three points of interest. In the first place the causation of the duodenal stricture was an unusual one, since the ulcer, instead of being situated in the bowel as we expected, occupied the pyloric region of the stomach, and had only affected the duodenum through the medium of adhesions. Secondly, death during the first attack of tetany is very rare, as in most of the recorded cases the patient had experienced several seizures before the one which terminated fatally. It may be observed, however, that the presence of trismus, such as was noted here, is always a sign of evil omen. Lastly, the onset of the tetany soon after the passage of a tube into the stomach is important, since the same sequence of events has been observed in other cases. It seems to us very probable that the organic poison which is responsible for the nervous symptoms is frequently present in the stomachs of persons affected with pyloric or duodenal obstruction due to simple ulceration, but that its absorption is prevented by the integrity of the columnar epithelium. When, however, this natural barrier is injured or in part removed by the employment of a tube or by an unusually severe attack of retching, the convulsive agent is enabled to gain immediate access to the circulation and to exercise its toxic effects upon the central nervous system.

A SAFEGUARD AGAINST ACTIONS FOR MALPRACTICE. The physicians and surgeons at Anderson, Indiana, have, it is stated, agreed to refuse all services in surgical cases unless they receive an agreement from the patient or his family releasing them from liability in the event of any unsatisfactory results.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ANNUAL GENERAL MEETING.

F. W. PAVY, M.D., LL.D., F.R.C.P., F.R.S., President, in the Chair.

Saturday, March 1st, 1902.

REPORT OF COUNCIL.

SIR THOMAS BARLOW, Senior Secretary, read the report of the Council. During the year 12 resident and 5 non-resident Fellows had been elected, while 9 had died and 6 resigned. In view of the termination in 1904 of the Berners Street lease, involving a diminution in income of £435, it was recommended to let off the rooms hitherto occupied by the resident librarian at an estimated rental of between £400 and £500 per annum. As an outcome of this it was recommended that the post of resident librarian should be abolished, and that a secretary and a librarian should be appointed respectively, and this had been provisionally given effect to. The Honorary Librarians reported that 686 volumes had been added during the year, 355 of which had been received as gifts. The report of the Committee on Climates and Baths was included. The Honorary Treasurers reported that the financial condition of the Society was satisfactory. The excess of income over expenditure during the year was over £834, and the surplus of assets over liabilities amounted to over £27,919, showing an increase in the assets during the year of over £769. The Council had passed a resolution of thanks to the members of the Committee on Climates and Baths and to those who had assisted the Society in the work.

MR. CHRISTOPHER HEATH regretted that this provisional step should have been taken without consulting the Society. He held that a resident librarian was important for the interests of the Society, and asked for details as to the suggested arrangements.

THE PRESIDENT explained that a portion of the accommodation on the third floor had been let on lease at a rental of £270, which included the use of the meeting room, reckoned at £50, leaving £220 for the rooms disposed of. They were negotiating for the letting of two rooms on the top floor at a rental of £155, and they would then still have three large rooms with a kitchen and bedroom vacant. The Council had encouraged the reception of societies as tenants in order to avoid house duty. The suggestion was that the sum of £150 should be given to the Secretary in lieu of house rent in addition to his salary of £400.

MR. HEATH criticized adversely the statement of expenditure and income offered to the Society, and thought it should be referred back to the Council.

MR. WARRINGTON HAWARD explained the differences in the statement of expenditure and income as compared with those of previous years.

MR. C. B. KEETLEY agreed that some person should be resident although it need not be a librarian; it might be a fireman.

MR. EDMUND OWEN expressed dissatisfaction with the report.

MR. PEARCE GOULD held that the Council should be granted the indemnity they asked for, and defended in the main the statement of accounts. The need for retrenchment which would arise in 1904 was emphasized, and it was pointed out that the only way was by diminishing the expenditure on service of the house. The alleged need for a resident librarian was shown not to have been met in recent years, but the need for a good business man in addition to a librarian was urgent.

THE PRESIDENT put the report of the Council to the meeting, and it was carried.

ELECTION OF OFFICERS AND COUNCIL.

The following were unanimously elected as new officers of the Society: Mr. Alfred Willett as President; Sir Douglas Powell, Sir Dyce Duckworth, Mr. N. C. Macnamara, and Mr. Edgcombe Venning as Vice-Presidents; Dr. Newton Pitt as Secretary; and Dr. Kingston Fowler, Dr. A. E. Garrod, Dr. Isambard Owen, Dr. Amand Routh, and Mr. W. H. A. Jacobson as members of Council.

Presidential Address and Votes of Thanks.

Dr. F. W. Pavy delivered the annual address, in which reference was made to the career of Fellows who had died during the year.

Votes of thanks were passed to the retiring President, the Vice-Presidents, the retiring Members of Council, and the retiring Honorary Secretary (Sir Thomas Barlow).

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Howard Marsh, F.R.C.S., President, in the Chair.

Friday, February 28th, 1902.

Cases.

The President showed a man who had sustained a dislocation of the semilunar bone, the displaced bone having been removed by operation. A skiagraph thereof was shown by Mr. Mackenzie Davidson.—Dr. Graham Brown showed a new form of aesthesiometer consisting of a surface which could be made rough to any desired degree by means of adjustable projections.—Dr. Ewart showed cases illustrating the treatment of bronchial dilatation and bronchial catarrh by posture and respiratory exercises. He described the method, which consisted in keeping the foot of the bed raised, sometimes to a considerable height, whilst the shoulders were kept low, only the head resting on the pillow. Such posture, particularly if kept up continuously, saved the tubes from accumulation and from irritation, whilst freeing the patient from the evils of cough strain. The respiratory exercises improved the ventilation and the circulation in the damaged lung, and reclaimed for pulmonary tissue the bronchial space vacated by the previously-retained secretions. Two men, patients from St. George's Hospital, were shown to illustrate the benefit to be derived from the treatment.—Dr. Purves Stewart showed a soldier wounded fourteen months ago by a Mauser bullet, which entered one inch and a-half below the left mastoid process, and came out in the seventh right intercostal space in the posterior axillary line, lodging in his bandolier. He had temporary total paralysis of the right arm. There was some haemoptysis and slight dysphagia for a few days only. Ever since the injury the sight in the right eye had been less acute than in the left, and he had noticed that he did not sweat on the right side of the face, scalp, neck, or upper limb. This area of anidrosis was bounded by the middle line, and extended down as far as the third rib in front, and posteriorly as far as the middle of the scapula. The lesion was apparently one of the first dorsal nerve root on the right side.—Dr. J. A. Ormerod showed a woman, aged 39, with an eruption of psoriasis type, but of somewhat uncertain nature. She was treated with liq. hydrarg. perchl. internally, and lotio nigra to the leg. The ulcers on the leg were nearly healed, the throat was no longer sore, and the face had improved a little, but in the rash as a whole there was no difference. In the discussion that ensued it was suggested that the case might be one of mycosis fungoides; and a committee was appointed to investigate and report thereon.—Dr. J. A. Ormerod showed a man, aged 28, with atrophic paralysis of hands and wrists, being the remains of a recurrent generalized paralysis (? peripheral neuritis). He was formerly in the Dragoon Guards. This was the fourth attack of the kind since March, 1899, when he was in the Punjab. The patient's urine darkened, after standing, to an intense brownish black. This appeared to be due to some rare kind of pigment, and was under investigation by Dr. Archibald Garrod.—Dr. F. L. Penrose exhibited a boy, aged 6 years, who had never walked. He could talk, but only occasionally did so. The head was small. Intelligence was apparently below normal. He was readily made to laugh, and hardly ever cried; he was distinctly of a happy disposition. He was completely unable to change his position; and if set up, his head fell forwards, so as almost to allow his chin to touch his chest. He had never had any real incontinence of urine or faeces, but frequently had "accidents," owing to his not stating his wants clearly. The organs of special sense appeared to be normal, and there was no paralysis of any cranial nerve to be detected. He frequently burned himself by leaning against hot fireguards, pipes, etc., and had never felt any pain. The diagnosis had to be made probably between the following conditions: (*a*) Hydromyelia or syringomyelia; (*b*) the infantile type of idiopathic muscular atrophy: (*c*) mental deficiency from microcephaly.—Mr. C. H. Fennell showed a case of general paralysis of the insane in a girl, aged 9. The father had syphilis before marriage, and died last year in Hanwell of paralytic dementia. The patient was the result of the third pregnancy, the first two having produced miscarriages; two healthy children were subsequently born. No definite history of congenital syphilis could be obtained.—Dr. Manson and Mr. Rickman J. Godlee exhibited two patients, the subject of lobulated swellings in Scarpa's triangle. At Dr. Manson's suggestion, Mr. Godlee had anastomosed a dilated lymphatic vessel with a tributary of the internal saphenous vein, and (on another occasion) one of the dilated vessels of the cord with one of the spermatic veins. Each operation had led to much improvement. The cases were to form the subject of a future communication to the Society.—Dr. John R. Lunn, Mr. Cuthbert T. Wallace, Mr. G. R. Turner, Mr. W. G. Spencer, Dr. Rolleston, Dr. Lawrence Jones, Dr. S. Vere Pearson, and Dr. F. E. Batten also showed cases.

PATHOLOGICAL SOCIETY OF LONDON.

W. D. Halliburton, M.D., F.R.S., in the Chair.

Tuesday, March 4th, 1902.

Low Proteid Metabolism.

Dr. Vaughan Harley and Dr. Francis Goodrody brought forward the case of a lady who suffered from obesity in spite of being a small eater. It was found that while under observation during a period of seven days, during which time she took a small diet containing 12 grams of nitrogen and 25 grams of fat per diem—giving only 7.74 calories per kilo. body weight—she lost barely 2 kilos. in weight. Her urine during this time contained 13.51 grams of nitrogen, so that she was losing from the tissues of her body on an average 1 gram of nitrogen per diem. The urea during this period of analysis was only 24.63 grams per diem, while the daily excretion of uric acid averaged 0.57 gram. It was found that she suffered from constipation, and not merely constipation, but a delayed action of the bowels, charcoal given by the mouth taking 60 to 70 hours to appear in the faeces. The motions only contained 68 85 per cent. of water, and the quantity of nitrogen passed per diem in the faeces was, on an average, 0.48 gram: in fact, the same quantity as other observers have found in fasting individuals. The fat in the motions was 1.09 gram per diem. For purposes of comparison the case of a man on practically the same diet was taken. During the four days of observation the patient took 14.72 grams of nitrogen, and 36.68 grams of fat, so that the diet contained 9.27 calories per kilo. On this low diet the patient passed on an average 22.71 grams of nitrogen per diem. The urea, in this case, was 44.27 grams and the uric acid 0.89 gram. It is thus seen that this individual, during the four days of observation, lost on an average 7 grams per diem of nitrogen from the tissues: and the weight showed that, during these four days, the patient lost 2 kilos. in weight. This individual, although somewhat constipated, passed the charcoal in twenty-four hours, so that there was practically no delay in the action of the bowels. The percentage of water in the faeces was 68.59 grams, while the faeces contained 0.66 gram of nitrogen and 2.43 grams of fat per diem. It was decided that the lady first observed should take a diet containing half the quantity of meat. During two periods of five days each, she therefore took 6.08 grams of nitrogen and 12.86 grams of fat, so that the diet contained 4.15 calories per kilo. On this remarkably low diet the nitrogen in the urine was decreased to practically one-half. During the third period only 7.32 grams of nitrogen, 13 01 grams of urea, and 0.42 gram of uric acid were excreted per diem on an average, so that again, on this extremely low diet, the patient only lost, roughly, 1 gram of nitrogen per diem from the tissues. During this time the loss in weight was extremely slight, the average of the first period of five days being 66 8 kilos, while the average for the second period of five days was 66.5 kilos. It is thus seen what a very small metabolism this lady had. Since, however, women have

naturally a smaller metabolism than men, it was thought advisable to compare this lady on a mixed diet with another lady on a similar diet. The mixed diet contained 14.69 grams of nitrogen, 19.56 grams of fat and 131.9 grams of carbohydrates, yielding 16.6 calories per kilo body weight. During this time the patient spared nitrogen, the urine containing only 6.69 grams per diem, the urea falling to 11.42 grams, and the uric acid remaining practically the same as before—0.48 gram. The sparing of nitrogen allowed of a slight increase in weight. The mixed diet caused an increase in the quantity of faeces and also a marked increase in the percentage of water in the faeces, the latter being now 91.57 per cent. The nitrogen in the faeces was now 0.87 gram and the fat 1.87 gram. On comparing this with the control lady, who took a small mixed diet containing 16.24 grams of nitrogen, 67.69 grams of fat, and 88.69 grams of carbohydrates—yielding 22.91 calories per kilo—we find that this lady passed in her urine on an average 15.73 grams of nitrogen, 28.35 grams of urea, and 0.71 gram of uric acid. The nitrogen in the faeces during this time was 1.01 gram, and the weight remained practically constant. We can therefore say that the patient was on nitrogen equilibrium, so that she was taking 16 grams of nitrogen instead of 14 grams, as in the previous case. These two cases showed how very varied metabolism in different people was, and what a small amount of food certain people required to maintain their weight.

Dr. E. G. HOPKINS knew of instances of healthy men whose daily excretion of nitrogen was extremely small. The question was one upon which much investigation was needed; in the cases under observation the subjects partook of very little meat; they were not vegetarians.

Professor STARLING remarked that the body weight in obese persons did not represent active weight, but largely a mere inactive ballast which took little or no part in the proper process of metabolism.

The CHAIRMAN remarked in regard to Eastern peoples that though supposed to live on a very low nitrogenous diet, the diet was in some cases of high proteid value, due chiefly to the inclusion of nuts in it.

CHYLIFORM ASCITES.

Dr. ROBERT HUTCHISON exhibited specimens of fluid from cases of chylous and chyliform ascites. He remarked that the former condition had been recognized for a long time, and was produced by obstruction of the abdominal lymphatics usually from the presence of filariae. The fluid in the present case exactly resembled rich milk in appearance, had a specific gravity of 1018, and became entirely clear on shaking up with potash and ether. It contained 2.3 per cent. of fat, to which the opacity was due. The patient from whom the fluid was obtained was a man aged 32, who presented no other symptom besides ascites, and who did not suffer from filariae. The cause of the effusion in his case could not be ascertained. Chyliform ascites had only been recently investigated. The fluid in such cases was opalescent rather than opaque, and had sometimes a greenish-yellow tint. The opalescence had been attributed by different observers to one of three causes: (1) To lecithin; (2) to mucoid substances; (3) to the presence of a proteid resembling casein. In the fluid exhibited, which was derived from a patient suffering from chronic parenchymatous nephritis, the presence of lecithin and mucoid substances could be excluded. The opalescence appeared to be due to a proteid which left a phosphorus-containing residue on digestion, presumably a nuclein or paranuclein. The methods of analysis employed were described, and references to the literature of the condition appended.

SPLENIC ENZYMES.

Dr. HEDIN summarised work he had carried out upon this subject in conjunction with Mr. Rowland. The enzyme acted in the presence of acid, and digested proteid as far as any enzyme known. Besides this body, a second enzyme was isolable which acted in an alkaline medium. Both were probably contained in the cells of the spleen. That the acid enzyme might act *in vivo* was probable seeing that the intracellular digestion in certain infusoria occurred in acid fluid within digestive vacuoles, and the same was true of phagocytic leucocytes, though leucocytes might also digest without the production of acid.

AN UNDESCRIBED PURPLE PIGMENT IN URINE.

Dr. H. A. SCHÖLBERG described the above. The urinary pigment was met with in a patient admitted to St. Bartholomew's Hospital suffering from peripheral neuritis, and under the care of Dr. Ormerod. The condition was probably congenital, and was met with in the patient's father and in another member of the family. During an attack of fever the amount of pigment excreted was increased in quantity, taking the colour of the urine as an index. The condition was not due to any drug taken. The pigment was differentiated from other purple pigments recorded. The acid solutions gave a faint haematoporphyrin band in the red portion of the spectrum, while the blue and green portions of the spectrum showed the absorption associated with the pigment. Chemically it was very stable, but the difficulty of finding a suitable solvent rendered it impossible to obtain it in a pure condition. The conclusion arrived at was that it was a purple pigment comparable to, though different from, that producing the deep colour in haematoporphyrinuria.

A BROWN PIGMENT IN URINE.

Dr. F. H. THIELE had found the above in four cases of different kinds. It was not urobilin, as it gave no spectroscopic bands, though it bore certain resemblances to that pigment.

Dr. A. E. GARROD compared Dr. Schölberg's case with one of alkaptonuria in which the condition was also hereditary; he thought the pigment allied to haematoporphyrin. The differentiation of pigments which gave no bands was a matter of the greatest difficulty.

Dr. F. G. HOPKINS noticed that several of the reactions given in Dr. Thiele's case corresponded with those given by a pigment at times present in the faeces, and possibly that in the urine had been absorbed from the intestinal canal.

[Considerable difference of opinion was expressed as to the existence of urobilin in the skin without the excretion of bile pigment in the urine, that is, of a true urobilin jaundice. The CHAIRMAN pointed out that the urobilin spectrum needed a strong solution of the pigment, which might not easily be obtained from the skin.]

YORKSHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

H. MAJOR, M.D., President, in the Chair.

Wednesday, January 29th, 1902.

GASTRIC ULCER.

MR. SINCLAIR WHITE (Sheffield) read notes on two cases of gastric ulcer treated by excision.

(1) The first case occurred in a male patient, aged 52 years, who was admitted into the Sheffield Infirmary on October 23rd, 1901. There was a history of chronic indigestion with vomiting and a steady loss of flesh extending over a period of four years. There had been no haematemesis. There was no evident tumour, neither was there any dilatation of the stomach. When inflation of the stomach was used for diagnostic purposes, alarming haemorrhage occurred. On November 1st the abdomen was opened and an ulcer found on the posterior wall of the stomach close to the lesser curvature and 2 inches from the pylorus. It could easily be felt before the stomach was opened. The gastro-hepatic omentum above the ulcer was divided between a double row of silk ligatures, and the ulcer, together with a narrow band of thickened tissue, excised. The wound was closed with sutures. The patient was in a somewhat critical condition, but after flushing the abdomen with hot saline solution he rallied and did well. He rapidly put on flesh, and was discharged in perfect health. (2) G. U., aged 24, was admitted with a history of two years' gastric trouble. Eighteen months prior to admission perforation of the stomach had occurred, forming a localized abscess, which was operated upon. Partial temporary relief was obtained, but in spite of medical treatment pain and vomiting continued. On December 20th the abdomen was opened. The anterior wall of the stomach was widely adherent to the abdominal parietes, and there was a thick cicatricial band stretching from the organ to the left of the middle line. The stomach was hour-glass in shape. On opening the stomach the anterior wall was found to be greatly thickened, and near the lesser curvature in the middle line was a deep conical ulcer. This was excised by a free horizontal incision, the edges of which was united vertically to neutralize the hour-glass contraction. Convalescence was uneventful.

RELAPSING APPENDICITIS.

MR. SINCLAIR WHITE also read notes of a case of relapsing appendicitis on which he had operated, removing the appendix and also the right ovary, which was involved.

TALIPES VARUS.

MR. SINCLAIR WHITE showed a young man who had suffered

from severe talipes varus, which he had treated by splitting the tendo Achillis, transplanting the outer half of the tendon forward and grafting it on to the extensor tendons. The patient now walked without difficulty, the talipes varus having almost entirely disappeared.

PARTIAL GASTRECTOMY.

Mr. PYE-SMITH (Sheffield) read notes on a case of partial gastrectomy.

The patient, a woman, aged 41, when admitted into hospital gave a history of gastric symptoms of only ten days' duration. There was a well-marked tumour in the epigastrium. The abdomen was opened on December 3rd, 1901, and a growth exposed which involved the pylorus and spread along the greater curvature to the extent of 2 in. Partial gastrectomy was performed, the jejunum being united to posterior wall of the stomach after Kocher's method.

The patient, who was shown at the meeting, was now complaining of some symptoms suggestive of contraction of the anastomotic opening, although she appeared in excellent health.

EXTROVERSION OF BLADDER.

Mr. PYE-SMITH read notes of a case of extroversion of the bladder treated by Peters's operation.

The patient was a boy, aged 14, who had been unsuccessfully operated upon when four years of age, apparently by a skin flap operation. On September 17th, 1901, Peters's operation was performed. Two small catheters were first introduced into the ureters. The right ureter was then exposed by dissection through an incision along the right edge of the extroverted bladder. The peritoneum being pushed upwards for a short distance so as to free the ureter, the latter was cut away from the bladder, and passed through a small puncture in the anterior wall of the rectum, the catheter being allowed to protrude through the anus. A suture held the ureter in place. The left ureter was similarly treated. The extroverted mucous membrane was treated by curetting, and the formation of a penis left to a later date. Urine passed through the catheters the first few days until union was secure, when they were removed. The rectum was tolerant from the first, and the patient could very soon retain his urine three or four hours. The curettage did not destroy the extroverted mucous membrane, but this was removed at a second operation, when the penis was also partially restored.

Mr. SINCLAIR WHITE, who had performed a similar operation on another case, spoke, and also Mr. WRIGHT (Leeds); and the PRESIDENT and Mr. PYE-SMITH replied.

THE LIGHT TREATMENT OF LUPUS.

Dr. ARTHUR HALL (Sheffield) read a paper on this subject and illustrated his remarks by a series of lantern slides. Prior to the meeting he gave a demonstration of the Lortet-Génoud lamp, and showed a number of cases under treatment. The apparatus had not been in use for a sufficient length of time to allow any definite statement to be made as to the results of the treatment, but several of the cases had certainly improved very considerably. At the meeting Dr. Hall reviewed the history and development of phototherapy, commencing with Finsen's earlier work in connexion with small-pox and the gradual development of his original apparatus for the treatment of lupus. The various modified forms of lamp were shown by lantern-photographs, and the improvements on the original pattern described. The cost of the treatment had now been reduced to moderate dimensions, especially where the town's electrical supply could be used direct from the mains. Unfortunately many cities supplied an alternating current, which produced a light that was too much dispersed for this purpose. When this was the case the conversion into a constant current involved a considerable outlay. Dr. Hall also showed a number of pathological specimens.

RINGWORM OF THE EYELIDS.

Mr. SIMEON SNELL (Sheffield) read notes of a case of ringworm of the eyelids in an adult, due to a large-spored trichophyton, probably of animal origin. The patient had in all six separate patches, one on the eyelid and five on the arms. At the farm where the patient lived some cows had been affected with a similar condition. Dr. Arthur Hall, who had made a pathological examination, reported that the condition was caused by a large-spored fungus, the megalosporon ectothrix. Cultivations had failed in consequence of the patches having been vigorously treated by germicides prior to his seeing the case.

Dr. ARTHUR HALL referred to investigations he had made on the distribution of the two varieties of the fungus; and Mr. SNELL replied.

PRESIDENT'S ADDRESS.

The PRESIDENT concluded the meeting by an appeal to medical men to continue the study of anatomy after they had entered into practice. He gave a graphic description of Syme, as he remembered him thirty-three years ago, standing in the large theatre of the old Edinburgh Infirmary, lecturing on a case of fractured pelvis with rupture of the bladder, and impressing upon his audience the vital importance of sound anatomical knowledge in medical practice. Recognizing that many practitioners could not remain in touch with medical schools and post-graduate courses, the President asked how far it was possible to maintain anatomical knowledge by means of bookwork alone, and whether means could not be devised for encouraging a more systematic study of anatomy amongst practitioners generally.

Dr. WARDROP GRIFFITH (Leeds) spoke; and the PRESIDENT replied.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

E. MALINS, M.D., President, and later, R. SAUNDBY, M.D., in the Chair.

Thursday, February 13th, 1902.

NEW MEMBERS.

THE following members of the Association were elected members of the Branch: W. E. Alldridge, Birmingham; T. H. Galbraith, M.B., Wolverhampton; James Miller, M.B., Edgbaston; James Neal, Birmingham; Thomas Salt, Birmingham; E. T. Walker, Birmingham.

PERFORATED GASTRIC ULCER.

Mr. GEORGE HEATON showed a girl, aged 21, on whom he had operated successfully for a perforated gastric ulcer.

She had had symptoms of gastric ulcer for one year and a-half previously. On November 4th, 1901, she was suddenly seized with violent abdominal pain and collapse, with vomiting. Peritonitis quickly set in. Abdominal section was performed twenty-seven hours after the actual perforation. The ulcer was a large one, and situated close to the pylorus. The lower peritoneal sac contained a considerable quantity of fluid, and there was much lymph around the stomach and liver. The perforation was closed with a double row of Lembert sutures, and to strengthen these the falciform ligament of the liver was divided and its lower half fixed to the disc of the perforation by a few silk sutures. The patient made a good recovery. Since the operation she had gained 28 lb. in weight, and had entirely lost all her digestive troubles.

Mr. Heaton remarked that this case was the fifth case of perforated gastric ulcer on which he had operated. Two cases had recovered, the remaining three had died. Prompt diagnosis and immediate surgical interference would in the future lessen the mortality of this extremely fatal complication of gastric ulcer.

NEPHRECTOMY.

Mr. BARLING showed a specimen obtained by nephrectomy for huge pyonephrosis due to the impaction of a small calculus at the upper end of the ureter. It was removed from a girl, aged 21, who had suffered from discomfort in her left loin since early childhood.

As time went on acute attacks of pain with vomiting and faintness were experienced. In October, 1901, a severe attack of pain occurred in the loin followed by the appearance of a tumour in the front of that region. This became painful and tender, and at the time of admission to hospital extended upwards underneath the left costal arch, downwards into the left iliac fossa, and laterally from the internal margin of the left lumbar region nearly to the middle line in front. The kidney was removed by the oblique lumbar incision, and was found to be a mere lobulated sac of pus, no renal tissue remaining. Just where ureter and kidney pelvis met a small calculus was firmly impacted.

An excellent recovery followed the operation.

NEPHROLITHOTOMY FOR RENAL AND URETERAL CALCULI.

Mr. BARLING also showed two calculi removed from a lady, aged 38, who, when recovering from a hysterectomy performed in London in 1900, suffered from severe pain in the right loin, with vomiting and suppression of urine.

The urgent symptoms subsided, but since that time there had been similar attacks at intervals sometimes on the left side, at others on the right, but the latter had been of the greater severity. On November 27th, 1901, there was an intense attack of pain in the right loin with a severe rigor, followed by another rigor on the 29th, and another on the 30th, the temperature ranging from 99° to 104°. When seen on December 4th there was intense pain and tenderness over the right kidney, which was very much enlarged; temperature 101°, pulse 108; urine from ʒxx to ʒxl; specific gravity about 1013, containing a few pus cells. Operation on December 6th showed the kidney to be very much enlarged, congested, and softened; the pelvis was dilated and distended. At a point 3 in. from its commencement the ureter was found to be blocked by a calculus, and in manipulating to allow of an incision on to this the stone slipped away

out of the ureter. An incision was then made into the pelvis of the kidney, evacuating some ounces of fetid pus. The lower end of the kidney was found to be much dilated and its substance atrophied. In the dilated part a small stone, somewhat wedge-shaped, half an inch long and a quarter of an inch at its widest part, was found, evidently the ureteral stone. Another larger stone, an inch by half an inch, was also found in the same part of the organ.

An excellent recovery followed the operation, and though at first there was a good deal of pus in the urine, this was now only microscopic in amount.

Functional Word-deafness.

Dr. A. H. Carter showed a woman, aged 30, suffering from this condition.

Colon Catarrh and Muco-Membranous Colitis.

Dr. T. Stacey Wilson read a paper on this subject, and showed a series of illustrative specimens of intestinal mucus. The following is a synopsis of the paper: morbid conditions of colon referred to, namely, simple catarrh, muco membranous colitis, membranous colitis, mucous colic, typhlitis. Symptoms of these as usually described. Relationship of these to one another. Classification of cases of colon catarrh as suggested by the author's cases: 1. Simple acute general catarrh of the colon—illustrative cases. 2. Subacute and chronic catarrh, mainly involving the transverse colon. 3. Acute and subacute catarrh, mainly involving the caecum and ascending colon correctly designated typhlitis: symptoms and physical signs of this type: its relationship to appendicitis. Illustrative cases. 4. Chronic catarrh mainly involving the caecum and ascending colon. Prognosis. Treatment—dietetic, hygienic, medical.

Dr. Saundby, Mr. Deanesly, Dr. Kauffmann, Dr. Carter, and Mr. Heaton took part in the discussion; and Dr. Stacey Wilson replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Pathological Meeting.

A. G. Barrs, M.D., F.R.C.P., in the Chair.

Friday, February 14th, 1902.

The Pathology of Tuberculosis.

Dr. Trevelyan read a short paper on the tubercle bacillus. In discussing its morphology, he alluded particularly to the clubbed and branching forms. Several acid-fast micro-organisms and some members of the streptothrix group were shown for comparison with the tubercle bacillus. He generally succeeded in getting a rapid growth (often in three or four days) on Heydenized media, especially when potato was added to them. In examining sputum, he much preferred to use a pointed platinum spatula for making the film. If after a careful examination of the sputum in cover-glass preparations a negative result was obtained in a really suspicious case, he preferred to at once employ the inoculation test; sedimentation methods had been of no real service to him. A large number of bacteriological specimens prepared with the assistance of Dr. Ursula Chaplin were shown in illustration of the various points alluded to.

Dr. Long, Mr. P. J. Cammidge, Dr. Maule Smith, and Dr. Churton and the President discussed the subject; and Dr. Trevelyan replied.

The Anatomy of Tuberculosis.

Dr. Eurich (Bradford) divided the tissue changes produced by the bacillus into proliferative and inflammatory, and showed how the manifold appearances of tuberculosis depended upon the relative proportions of these two factors. He further discussed the influence of the mode of infection upon the form assumed by the tuberculous products, and contrasted the effects produced by the dead and the living bacillus respectively. The paper concluded with a review of the methods by which the tuberculous virus might spread and become disseminated in the human or animal body, special reference being made to the origin of acute miliary tuberculosis, and to the progressive tuberculosis of children. A series of lantern slides served to illustrate the paper.

Tuberculosis of the Cervix Uteri.

Dr. E. D. Croft said that the disease had developed in the cervical mucous membrane at the external os, and had produced a localized growth of a papillary form (tuberculous papillary cervicitis). Sections taken through these papillae and adjoining mucous membrane showed typical tuberculous tissue. The disease was apparently quite localized, the uterus and tubes being normal.

Dr. Hellier discussed the paper; and Dr. Croft replied.

Specimens.

A large number of tuberculous specimens were classed under the various systems. Among the tuberculous lesions of the nervous system there were several specimens of multiple tumours of the meninges and of the brain. In one case several tuberculous tumours were present in the frontal lobes, and the corresponding dura mater was involved in a typical tuberculous pachymeningitis. In another two tuberculous tumours were present in the cerebellum of a man aged 63. A specimen was also shown of a tuberculous tumour in the cervical spinal cord. Under the respiratory system, besides lungs showing various stages of tuberculosis, there were two which contained large haemorrhages, one coming from a child. In one specimen, when the thickened pleura was stripped, large numbers of minute tubercles were visible—a typical instance of tuberculous pleurisy. In another case where both lungs were involved, minute tubercles and small tuberculous masses were present on both parietal and visceral pericardium (tuberculous pericarditis). Among the tuberculous larynges, there was one from a chronic case of phthisis, showing an ulcer occupying the middle of one vocal cord. Under the alimentary system, the specimens were chiefly from the intestine, showing tuberculous ulceration, secondary strictures, etc. There was one specimen of tuberculous disease of the caecum and vermiform appendix which simulated malignant disease. Among the specimens under the genito-urinary system there was a tuberculous testicle from a man aged 69. There were numerous specimens of tuberculous bones and joints. The most interesting was a carious frontal bone from a case in which there was tuberculous disease of the dura mater and frontal lobes. Tubercle bacilli were demonstrated in the latter lesions. Animal tuberculosis was illustrated by specimens from the cow, pig, monkey, horse, and guinea-pig. The specimens of pig tuberculosis chiefly showed tuberculous masses in the liver and spleen, but in one specimen of tuberculous lung the lesion was a much more disseminated one. A horse's spleen which had been kept in the museum for years still showed the presence of tubercle bacilli in every cover-glass preparation made from it. A number of microscopic specimens illustrating tuberculous lesions were shown by Dr. Maule Smith, Mr. P. J. Cammidge and Dr. Eurich.

Harveian Society of London.—At a meeting held on February 20th, Mr. W. Watson Cheyne, President, in the chair, Dr. Whitfield showed a young woman who had suffered from psoriasis for a number of years. The present attack came on fourteen days after vaccination. The vaccination marks on the left arm were very severely affected. He had not previously noticed such a strong tendency for the condition to affect the vaccinated arm. He had found creosote of use.—Dr. Morison showed a boy with congenital heart disease now 5 years old, who had been under observation since he was 1 year and 8 months old. There was an abnormally-placed heart, giving a considerable amount of dullness to the right side of the sternum. The second sound was felt very clearly over the precordial region. There was a systolic *bruit*, which gained in intensity towards the pulmonary area and was very loud over the front of the chest. It was also audible in the neck, and it was sometimes mentioned as a diagnostic point that if a *bruit* of this description was audible in the neck there was some defect involving the base of the aorta, as well as the pulmonary artery. He believed it to be a case of pulmonary constriction.—Mr. Barnard showed a young woman the subject of Bazin's disease. The girl had the ulcers on her legs for the last five years. They appeared first as nodules under the skin, and felt something like erythema induratum. These broke down, and formed little round ulcers about the size of a shilling, and very like specific ulcers, for which they were often mistaken. Mr. Barnard also showed a girl with an anomalous condition of the hand. She came three months ago for what was regarded

as an erysipelatous rash, though he did not know at that stage whether it was erysipelas or cellulitis. The vesicles appeared in the night, then burst and left linear scars. When first seen they were symmetrically arranged in an almost mathematical pattern. He thought no one who saw the case would doubt its artificial origin.—Dr. James Taylor showed a young woman, aged 28, with syringomyelia. Five years ago she poisoned her left index finger; this was opened. She was complimented by the surgeon on her pluck; but in fact there was no pluck—she did not feel it. The wound did not heal readily. Afterwards the hand contracted, and in a few years symptoms of weakness of the left arm appeared. Frequently bullous sores appeared without apparent cause. There was wasting of the hand and shoulder, but she could walk fairly well. Knee-jerks exaggerated, ankle clonus could be elicited on both sides. Marked anaesthesia to all forms of stimulation of hand and lower part of forearm. Higher up the arm she had a certain degree of thermal anaesthesia and analgesia, over the trunk a similar condition. On the left side of the face she had distinct thermal anaesthesia and marked analgesia of the left side of the forehead. There was marked nystagmus. Apparently until five years ago she was quite well, and he thought the condition depended upon some inherited peculiarity of the spinal cord, which after the age of puberty took on some modification which had resulted in a greater dilatation of the canal and consequent encroachment upon the anterior horn in the left cervical region, resulting in sclerosis of the lateral columns. —Dr. Eddowes showed a schoolmaster, aged 23, who suffered from separation of the nails. For the last nine months the man had noticed this condition, which affected both the nails of the hands and feet; there was no other indication of disease about him. Dr. Eddowes also showed a case of a nurse with a swelling of the right forearm.—Dr. Tilley showed a girl, aged 14, who had an aural exostosis with extensive mastoid disease. He showed the case to illustrate what extensive disease could be present without symptoms.—Dr. Caley showed a case of abdominal aneurysm in a man, aged 39, involving the aorta and right common iliac. He had had syphilis sixteen years previously, but there was no history of injury or strain. With the exception of occasional dyspeptic symptoms, he had no pain in the abdomen or back, but he was conscious of pulsation at times; there was marked expansile pulsation and on pressure a slight systolic thrill and *bruit*: there was no perceptible pulse in the right external iliac or femoral arteries, but exaggerated pulsation on the left side. The treatment had been prolonged rest in bed, restricted diet, and potassium iodide (gr. xx t. d. s.). The pulsation had diminished much in extent and in degree, and the tumour become more solid. Mr. Campbell Williams, Dr. Cautley, the President, Dr. Dallaway, Dr. Phillips, Dr. Boyd Joll, and Mr. Longridge also took part in the discussion.

Society for the Study of Disease in Children.—At a meeting held on February 21st, Dr. James Taylor in the chair, Mr. Jackson Clarke showed a girl, aged 9 years, who sustained a fracture of the outer condyle of the humerus in August, 1891. When seen two weeks after the injury the elbow was rigidly extended, the ulna was dislocated backwards, and the bones of the forearm outwards. Under chloroform the elbow-joint was fixed at a right angle. There was now perfect power of pronation and supination, and an increasing degree of flexion and extension. The case was discussed by Mr. Tubby.—Dr. C. O. Hawthorne showed a case of congenital spastic paraplegia in a boy aged 2 years 9 months. There were crossed-leg progression and heightened tendon phenomena, but no positive evidences of a cerebral lesion; no specific disease or family neurosis. Mr. Carre-Smith inquired as to the results of ophthalmoscopic examination. Mr. Tubby was of opinion that the subjects of this affection were never mentally complete. Dr. G. A. Sutherland regarded the slight strabismus present in the case as confirmatory of a cerebral origin. Dr. Robert Hutchison was inclined to regard the case as one of Little's disease. Dr. James Taylor thought that syphilis undoubtedly played a part in the causation of the disease, for he had seen some patients with syphilitic choroiditis. Dr. Hawthorne, in reply, said the fundus showed no changes, and that the family history was not suggestive of syphilis. Dr. Hawthorne also showed a case of hypertrophy affecting the right lower limb of a boy. The condition seemed to affect the bones as well as the soft tissues. The tibial arteries were probably enlarged. Haemorrhagic spots and patches were present on the leg and dorsum of the foot; no other deformity except a moderate degree of hypospadias. Dr. A. E. Sansom believed this was an instance of genuine hypertrophy. Dr. F. Parkes Weber thought the spots and patches were distinctly naevoid. The veins and arteries of the limb were much dilated. Dr. Hawthorne replied.—Mr. Sydney Stephenson showed a girl, 11 years of age, with a congenital paralysis of the oculomotor nerve on the right side. After discussing the theories of causation, he concluded that the condition was due to an absence or functional inactivity of the nuclei of origin of the nerve. Dr. James Taylor, after mentioning the rarity of such cases, said he did not know whether any definite lesion had yet been found in the nerve nucleus. Mr. Carre Smith asked if there was any evidence of congenital syphilis. Mr. Stephenson, in reply, stated that there was neither family nor personal evidence of syphilis.—Dr. E. W. Goble exhibited a specimen showing perforation of a tuberculous ulcer of the small intestine in a boy aged 6. The child died of general tuberculosis. Dr. Gwynne (Sheffield) remarked that tuberculous nodules in the intestine sometimes existed without causing any symptoms. He had come across such nodules when operating for the radical cure of hernia in children.—Dr. W. C. Chaffey (Brighton) exhibited a specimen of cirrhosis of the liver from a girl of 10 years. Dr. Lister thought that some obscure cases of cirrhosis of the liver in children might be explained as the result of an acute enteritis. The Chairman alluded to a case in a girl aged 15 years, who suffered from choreiform movements. Dr. Weber and Dr. Sansom also discussed the specimen.—Dr. George Carpenter showed: (1) A case of paroxysmal haemoglobinuria in a boy aged 3 years. There was no evidence of syphilis. Application of ice-cold water to the extremities induced an immediate destructive action on the red corpuscles to the extent of 20 per cent., but failed to produce haemoglobinuria. (2) A case of extreme ichthyosis in a male infant aged 5 months, which developed a few days after birth. He also had craniotabes and chronic snuffles. (3) A boy aged 8½ years, with a large head, probably hydrocephalic, a supposed sequel of basic meningitis during infancy. There was rigidity of the lower extremities and a feeble gait. The enlarged head was not characteristic of hydrocephalus, and was somewhat suggestive of hypertrophy of the brain.—Dr. C. N. Gwynne (Sheffield) described the case of a boy aged 6½ years, who was admitted to hospital suffering from obstinate constipation and great emaciation. His abdomen was enormously enlarged. As no action of the bowels could be obtained, either by medicine or by injections, left iliac colotomy was performed. The condition was diagnosed as a congenital dilatation of the sigmoid flexure of the colon. The result of the operation was satisfactory.—Dr. J. Porter Parkinson read a paper on the Local Treatment of Adenoids. This consisted in the direct application to the naso-pharynx of an astringent compound of equal parts of solution of perchloride of iron and glycerine, applied by means of a curved brush passed behind the soft palate. Dr. Parkinson advised this treatment for soft and gelatinous adenoids which caused temporary recurrent obstruction of the nasal passages, and other symptoms, as cough, headache, aural discharges, and deafness. The method was applicable to patients of any age, and could be carried out with a minimum of discomfort.

Dermatological Society of Great Britain and Ireland.—At a meeting held on February 26th, Dr. A. J. Harrison in the chair, the President announced that Dr. Unna, of Hamburg, had kindly accepted the invitation of the Council to give the oration at the annual meeting on May 22nd.—Dr. Stowers showed: (1) A case of lichen planus; (2) a boy with extensive alopecia and some vesicating erythema of the hands; (3) a girl suffering from favus; this patient was born and had lived all her life in London; the origin could not be traced: microscopic preparations of the fungus were exhibited.—Mr. George Pernet showed a case of trophic disorder of the

nails. He sought for an explanation of the disorder in some toxaemic state induced by carious teeth.—Dr. ALFRED EDDOWES showed a case with calcification of follicular plugs met with on the legs. The patient, a painter, aged 70, had tophi on both ears, and this led the members present to consider the salt found to be urate of soda. Microscopic sections of a papule were shown.—Dr. GRAHAM LITTLE showed: (1) A case of keratodermia symmetrica of six months' duration in a woman. Dr. Little would not definitely exclude syphilis, but believed the case not to be syphilitic. He suggested the possibility of arsenic taken in beer as a cause. He drew attention to the fact that the disease was preceded by tingling of the legs. (2) A case of lupus vulgaris in a little girl, one of whose eyes had been completely destroyed by old phlyctenular ulceration; (3) a case of lichen scrofulosorum in a boy.—Dr. ARTHUR SHILLITOE showed: (1) A case of extensive gummatous infiltration of the thoracic wall in a man who contracted syphilis thirty years ago and had never since been free from some manifestation of the disease; (2) a case of general scaling papular syphilide.—Dr. WILFRID WARDE showed: (1) A case of lupus erythematosus; (2) a case of erythema induratum.

BRITISH ORTHOPAEDIC SOCIETY.—The seventh annual meeting was held on February 15th, Mr. JOHN POLAND in the chair. The reports of the Honorary Secretaries and Treasurer showed that the Society was in a sound condition. The following members were elected to the Council: Mr. W. Armstrong, Mr. W. E. Bennett, Mr. Carwardine, Mr. J. Jackson Clarke, Dr. Percy Lewis, Mr. H. Openshaw, Mr. Muirhead Little, Mr. H. H. Reeves, and Mr. Noble Smith. Mr. C. B. Keetley was re-elected Treasurer and Dr. A. F. Blagg and Mr. Chisholm Williams, Honorary Secretaries. The twenty-ninth ordinary meeting was then held. Mr. CHISHOLM WILLIAMS showed a lad, aged 16, with rheumatoid arthritis of the second, third, and fourth fingers of both hands with plaster cast of same; and a girl, aged 19, similarly affected, and a boy, aged 12, with entire loss of pronation and supination, due to congenital fusion of bones just below bicipital tuberosity (both forearms); one had been operated on and a false joint formed just below fusion. Pronation and supination were slowly returning. Mr. JACKSON CLARKE, Mr. WILLIAM THOMAS, and Mr. JOHN POLAND commented upon the cases.—Mr. JACKSON CLARKE showed a case and skiagraph of fractured dislocation of head of the radius in a woman aged 28. He had operated and removed the fractured part with excellent results.—Mr. WILLIAM THOMAS read a paper on excision of knee in children, illustrated by many photographs. The paper was discussed by all the members present.—Mr. JACKSON CLARKE read a paper on the prevention and treatment of fracture deformities, illustrated by photographs and skiagraphs. Owing to the lateness of the hour the discussion was adjourned to the next meeting.

WIGAN MEDICAL SOCIETY.—The annual meeting of this Society was held on February 11th, when the following were elected officers for the ensuing year:—*President:* T. M. Angior, M.R.C.S.Eng., L.R.C.P.Lond. *Vice-President:* Wm. Latham. *Committee:* The President, the Vice-President, W. Mitchell Roocroft, R. P. White, C. M. Brady, John Blair, Matthew Benson, C. R. Graham. *Honorary Treasurer:* E. H. Monks, J.P. *Honorary Secretary:* Wm. Berry, J.P.

HUNTERIAN SOCIETY. The following have been elected officers for the ensuing year:—*President:* A. L. Galabin, M.A., M.D. *Vice-Presidents:* H. J. Sequeira, F. R. Humphreys, W. Rawes, M.D., W. A. Dingle, M.D. *Treasurer:* R. Hingston Fox, M.D. *Trustees:* H. J. Fotherby, M.D., F. M. Corner. *Honorary Librarian:* T. H. Arnold Chaplin, M.D. *Orator:* T. H. Openshaw, M.S. *Secretaries:* J. H. Targett, M.S., T. Glover Lyon, M.D. *Editorial Secretary:* W. Rawes, M.D. *Council:* Sir Hugh Beevor, Bart., M.D., J. S. Cotman, A. T. Davies, M.D., Fortescue Fox, M.D., A. W. Galloway, J. Dundas Grant, M.D., E. W. Goodall, M.D., H. V. Hickman, M.B., J. Kearney, J. W. Oliver, M.D., David Ross, M.D., J. H. Sequeira, M.D. *Auditors:* L. Gordon Brown, Hope Grant, G. Newton Pitt, M.D., F. J. Smith, M.D.

REVIEWS.

PHARMACOLOGY AND THERAPEUTICS.

THE *Textbook of Pharmacology and Therapeutics*,[1] edited by Dr. HALE WHITE, is the joint production of twenty-nine contributors, mostly of British but partly also of American nationality. The majority are teachers of pharmacology and therapeutics or hospital physicians, while the few who are neither contribute special articles on subjects regarding which they have special knowledge. The points at which physiology and therapeutics touch are represented by Drs. Haldane and Pembrey, Messrs. Leonard Hill and Gowland Hopkins, while the therapeutical aspects of bacteriology find an able exponent in Dr. Washbourn. In planning the scope of the book, the editor has omitted descriptions of drugs, preparations, doses, and prescribing, in short, all matters relating to materia medica and pharmacy except such as naturally or incidentally emerge in connexion with the text. The reader is supposed to have already some knowledge of the ordinary materia medica, or at least to possess a book from which it can be acquired. The volume is therefore not intended to be an elementary manual, but rather an advanced textbook suitable for practitioners and for senior students. It ranges over a considerable variety of subjects outside the ordinary routine of drug actions and uses, such as the open-air treatment of phthisis, the effects of rest, exercise, and baths in heart disease, the Weir Mitchell treatment, electricity, and similar matters, all of which are ably, if somewhat shortly, discussed. The systematic descriptions of the actions and uses of drugs form naturally, however, the bulk of the book. Most of the articles have been entrusted to men who have themselves made investigations into the actions of the drugs which they write about, and this gives their descriptions a special value, and prevents them assuming the form of mere compilations. The editor seems to have given each contributor great latitude within certain wide limits, and this has resulted in very considerable diversity of contents. Some of the articles are almost entirely toxicological, such as those on lead and on phosphorus by Dr. Thomas Oliver; some, again, are almost entirely pharmacological, such as those on physostigma by Professor Cushny, and on muscarine by Professor Cash; but, on the whole, a due sense of proportion seems to have animated most of the contributors. Certain of the bibliographies also are of portentous and quite unnecessary length, and often include well-known standard books of reference. It is with regard to these points that criticism will most naturally arise. We incline to the view that for a treatise on therapeutics the book contains too much unnecessary pharmacology, toxicology, and bibliography; but, after all, this is merely a matter of opinion. Further, the editor has made no attempt at classification, a point which is alluded to in the preface with an expression of hope that the index will atone to the reader for this. For practical purposes it does do so, but a more orderly arrangement of the subject matter and headings of subjects would undoubtedly have been an improvement, and would have given the reader an impression of more consistency. Nearly all the articles are written with conspicuous ability and show an intimate acquaintance with the subject under discussion, hence the work may be considered an epitome of our present-day knowledge of pharmacology and of the principles of therapeutics. The late Professor Leech contributed the articles on nitrites and on mineral waters, Professor Wild writes on salicylates and several other subjects, Dr. Hector Mackenzie on the belladonna group, Dr. Shoemaker on mercury and iodides, Dr. Archibald Garrod on alkalies, and Dr. Michael G. Foster on climate. Among the other contributors are Professor Amory Hare, Professor C. R. Marshall, Dr. George Savage, Professor Stockman, Professor Tirard, Professor Walter G. Smith, and the editor. Besides other articles, Dr. Sidney Martin has written a sound, if somewhat conventional, account of dietetics, but there is some ambiguity in his statement of the proportion of fat to carbohydrates in the dietary of different classes. A short synopsis is given of the *Indian and Colonial Addendum* to the

[1] *Textbook of Pharmacology and Therapeutics.* Edited by W. Hale White, M.D., F.R.C.P. Edinburgh and London: Young J. Pentland. 1901. (Roy. 8vo, pp. 1,040. 21s.)

British Pharmacopoeia, which leaves the impression that none of the drugs included in it are of much importance. One of the sections of the volume is headed Drugs of Pharmacological but not of much Therapeutical Importance, and it includes such substances as absinthe, apocynum, gold, nectandra bark, piperazine, and others. Muscarine, curare, and several other substances might with advantage have been placed in the same category instead of occupying so much space as they do. We shall conclude with a short reference to the first article in the book, which is on the relationship between chemical constitution and physiological action, and in which this intricate subject is reviewed with great ability. It is, however, rather too elaborate and too full of chemical detail for the general medical reader, and in a work of this kind a less technical sketch would probably have been more suitable. In the course of it the author uses the word "auto-des-intoxication," to explain which he adds the German term *Engiftung*, by which we suppose *Entgiftung* is meant. On the second page in the third paragraph, also, the chemical changes are misstated, as the alkaloidal compounds to which reference is made are formed merely by addition and not by replacement of a hydrogen atom. The book, as a whole, has many excellencies, the individual articles are with few exceptions of very high quality, while the faults and shortcomings are largely those inseparable from a composite work to which many writers have contributed. We wish it every success.

DR. WHITLA'S *Dictionary of Treatment*[2] deserves many editions. The value of such a book to a busy practitioner can hardly be overestimated, and the alphabetical order facilitates reference. The fourth edition has increased in size by some fifty pages, but the wonder is that not only general medical and surgical treatment, but even the management of the disorders of the eye and ear can be comprehensively considered in so short a space. It would be well, we think, in the next issue of the work to substitute English for the abbreviated Latin of the signature of the prescriptions. The sections dealing with malignant disease and with phthisis are especially to be commended.

The well-known textbook, *Therapeutics: its Principles and Practice*,[3] has now reached its eleventh edition, and Dr. WOOD has taken advantage of the opportunity to associate his son along with himself in its production. Some of the preceding editions had been only superficially revised, and the contents had perhaps fallen somewhat behind the more advanced lines of contemporary research and opinion. This has now to a great extent been remedied, and throughout the book the newer literature has been freely drawn upon, although there is still rooom for improvement in this respect, especially in the portions dealing with therapeutics. On the whole a careful revision has been made, numerous passages have been cut out or condensed, while small type and footnotes have been freely used in discussing the less important points. A very useful innovation is a short summary of the pharmacological action, printed in large type at the end of each description, and giving the authors' own conclusions. These paragraphs are models of clear and concise writing, and greatly increase the value of the text. Space has been further saved by removing the references from the body of the letterpress and placing them in much more condensed form at the end of each section. In its general arrangement and conception the book is not materially altered. Remedial measures other than drugs are first shortly considered, and then drugs themselves under the headings of "Nervines," "Cardiants," "Nutriants," "Local remedies," and "Extraneous remedies," with various subdivisions into so-called "families." It is not a good classification, but with the aid of the index there is no trouble in finding what one wants. Since the publication of the first edition, now twenty-five years ago, Dr. Wood's treatise has occupied a prominent position as a guide to pharmacology and therapeutics; it has been of great use to all students of the subject, and has made its author's name known throughout the medical world. The new departure taken in this edition has our warmest wishes for continued success.

The title of Dr. SOLLMANN'S work, *A Textbook of Pharmacology and some Allied Sciences*,[4] suggests that it is devoted mainly to a consideration of the pharmacological actions of remedies rather than to their therapeutical applications, and on perusing it this idea is on the whole confirmed. Nevertheless, many parts of the book are extremely practical and the clinical aspects of the subject are not by any means entirely neglected. Therapeutical matters are discussed from a general rather than from a special standpoint, and as much as possible in groups such as expectorants, emetics, emollients, and so forth. The author seems to hold the opinion that therapeutics can only be taught at the bedside, and has designed his book as an introduction to the more practical work of the clinic. Certainly any one who had mastered its contents would be well fitted to receive further instruction in the actual use of remedies, and to rapidly grasp the principles of present-day treatment. The first six chapters are devoted to a brief account of the anatomy, chemistry, and physiology of plants, with a somewhat fuller description of the mysteries of pharmacy and prescription writing. These are followed by a very full discussion of the pharmacological actions of drugs, and this forms the bulk of the book. The author shows an intimate acquaintance with the subject generally, and more especially with the recent literature, so much so as to give his book a distinct value of its own. He has also introduced several novel features. One of these is an outline of a short practical course of pharmacological experiments on animals, so arranged as to show the actions of many of the more important drugs. As the author gives the exact procedure and doses necessary, this section is calculated to greatly increase the utility of the work to teachers. Many of these demonstrations possess considerable educative value, but we would deprecate strongly the performance of such experiments as the administration of purgatives or emetics to dogs merely to see their effects. The book is well worthy the attention of all who are interested in the pharmacological and physiological side of therapeutics.

The contents of Dr. SCHLEIF'S volume on *Materia Medica, etc.*,[5] remind one of the notes which a careful student might make during attendance on a detailed course of lectures on materia medica and therapeutics. He has treated the subject in outline very much as it is at present taught in most medical schools. No discussion is attempted, and no theoretical questions are considered, but the bare facts are given regarding the origin, preparations, dosage, actions, and uses of drugs and certain other remedial agents. All this, however, is very carefully and accurately done, and it is a book which might well be used by students to relieve them of the drudgery of note-taking, were it not that the preparations and doses are those of the *United States Pharmacopoeia*. The different classes of remedies are classified according to their therapeutical uses.

Dr. CUSHNY is to be heartily congratulated on the well-deserved success of his *Textbook of Pharmacology and Therapeutics*,[6] which has necessitated the publication of a second edition in little more than a year from the appearance of the first. The volume was favourably reviewed in the BRITISH MEDICAL JOURNAL when first published, and, owing to the short interval of time which has elapsed, there has been no necessity for making any important changes in the text or subject matter.

[2] *A Dictionary of Treatment.* By William Whitla, M.A., M.D. Fourth Edition. London: Henry Renshaw. 1902. (Crown 8vo, pp. 1,052.)

[3] *Therapeutics: its Principles and Practice.* By Horatio C. Wood, M.D., LL.D., Professor of Materia Medica and Therapeutics. Eleventh Edition. Remodelled by H. C. Wood and Horatio C. Wood, jun., M.D., Demonstrator of Pharmacodynamics in the University of Pennsylvania. London: Smith, Elder, and Co. 1902. (Demy 8vo, pp. 800. 18s.)

[4] *A Textbook of Pharmacology and some Allied Sciences (Therapeutics, Materia Medica, Pharmacy, Prescription-Writing, Toxicology, etc.).* By Torald Sollmann, M.D., Assistant Professor of Pharmacology and Materia Medica, Western Reserve University, Cleveland, Ohio. Philadelphia and London: W. B. Saunders and Co. 1901. (Demy 8vo, pp. 894. 16s.)

[5] *Materia Medica, Therapeutics, Medical Pharmacy, Prescr[illegible] and Medical Latin.* A Manual for Students and Practitioners. By William Schleif, Ph.G., M.D., Instructor in Pharmacy in the University of Pennsylvania. London: Henry Kimpton. 1901. (Demy 8vo, pp. 354. 7s. 6d.)

[6] *A Textbook of Pharmacology and Therapeutics.* By Arthur R. Cushny, M.A., M.D.Aberd., Professor of Materia Medica and Therapeutics in the University of Michigan. Second Edition. London: Rebman, Limited. (Demy 8vo, pp. 732, 47 illustrations. 17s. 6d.)

The accounts given by Dr. v. WALDHEIM[7] of the present state of knowledge of serum-therapeutics and organo-therapeutics are purely objective in the sense that they have been carefully collated from the literature of the subject without any great pretence to personal experience or criticism. Under each heading there are descriptions of the methods of manufacture, the preparations in use, and the doses in which they are administered. The results obtained are given in abstract from the original reports, usually without comment. The different sections form a record of what has been done rather than a reasoned account of the therapeutical results obtained. From some points of view this may be considered to add to the value of the book, but it distinctly lessens its interest for the reader. All the ordinary serums and antitoxins are described, while preparations from nearly every tissue and organ of the body come in for more or less detailed notice.

Dr. ROSENFELD'S elaborate essay[8] on the effects of alcohol in health, its use in diseased conditions, and the pathological changes which it is capable of producing in the human body, is simply a plea for its abolition as an article of diet and as a medicine. He sees in alcohol only a poison, and denies or argues away any useful action which it is supposed to possess as a remedy. Although written with an assumption of scientific knowledge and much quoting of original authorities, the greater part of the book is quite irrelevant to the points discussed.

In the preface to the first edition of his book *On the Cure of the Morphia Habit*,[9] Dr. OSCAR JENNINGS wrote, "My object in writing the following pages has been to compile a guide for practitioners as well as patients, so as to give them an idea of what is required to escape the thraldom of morphia." The faults inherent in any such attempt are amply manifest in this book, which is further spoiled for scientific reading by its discursive and involved style, and by a looseness, not to say inaccuracy, of statement. If the author would entirely rewrite it, giving statistics, a detailed and coherent account of his method, and a more tolerant and balanced comparison of his own as compared with other forms of treatment, he would certainly produce a more worthy and more useful book.

Dr. SAMUEL BERNHEIM'S volume on Ergot[10] is an example of the art of bookmaking. It consists of a collation of researches and clinical experience on the action and uses of ergot, so ill-digested and so lacking in discrimination that the result is as nearly as may be useless. The action of the drug, real or supposed, in inflammation, aneurysm, goitre, infectious fevers, night sweats of phthisis, dermatoses, diabetes, cerebral haemorrhage, purpura haemorrhagica, and haemorrhoids is described. The author does indeed protest too much. He even gives the precise formulae (how much of a certain preparation of ergot to so much distilled water) used by Ziemssen, Lucas-Championnière, Tauret, Dujardin-Beaumetz, and others. Students of materia medica should not be advised to read this book, and we are of the opinion that every one beyond their stage of education will let it severely alone.

The title *Pharmacopedia*[11] at once arrests attention as something new, but the explanation of it is not far to seek, as it forms the first sentence of the preface, in which the authors define pharmacopedy as instruction or information about drugs. They add that their object has been "to put recorded facts together in such a way as to render the subject-matter of the *British Pharmacopoeia* more intelligible to pharmacists and others who have occasion to consult that work." It may be said at once that the book reflects the highest credit on its authors. On reading over a few of the principal articles one is struck with the great amount of chemical, botanical, and pharmaceutical knowledge which has been brought into so small a compass. The *British Pharmacopoeia* is essentially a book of reference and a working guide for pharmacists, and as such it enumerates many tests and gives many directions which are easily enough carried out by a person of experience and skill, but the exact significance of which it does not seek to explain. In many cases this is sufficiently apparent; in others it is far from being so. In *Pharmacopedia* the authors explain the processes and tests very fully, and not only so but in each case give a clear account of the chemical principles and methods involved. The materia medica is treated in a similar manner, and with an equally successful result, the why and wherefore of the details of the official descriptions being pointed out with reference to possible adulterations, impurities, or inferiority in quality. The arrangement of the book follows that of the *British Pharmacopoeia*, a section being devoted to each substance in alphabetical order. The official preparations—such as pills, extracts, or tinctures—are simply summarized after a short account of the processes involved in compounding them, a plan which saves space, as their exact composition with directions for preparing them are stated at length in the *Pharmacopoeia* itself. The drugs included in the *Indian and Colonial Addendum* (1900) are described on similar principles. A series of 46 plates illustrating the organic substances of the materia medica form a valuable addition to the volume. There are also several useful tables. The volume is well printed and got up, it is moderate in price, and should prove of great value to all who are interested in the *Pharmacopoeia* or in pharmacy and materia medica. The authors are to be highly congratulated on the successful production of a work which must have involved much labour and research.

The Year-Book of Pharmacy for 1901[12] is well up to the high standard of excellence set by its predecessors. About one half of its pages are devoted to the transactions of the British Pharmaceutical Conference. The arrangement of the other half of the book has been much improved, and is now divided into four sections dealing with chemistry, materia medica, pharmacy, and notes and formulae respectively; in each of these the matter is arranged alphabetically, and the subjects are brought well up to date. Perhaps the most valuable portion of the book is the introduction which, in a few pages, sums up a recent work having a bearing, direct or indirect, on the advance of pharmaceutical knowledge.

Saunders' Pocket Medical Formulary[13] contains over 1,800 formulae grouped in a therapeutic thumb index, but for use in this country the nomenclature employed should be that of the *British Pharmacopoeia*. The use of such terms as hyd. chlorid. mit. (for hyd. subchlor.), and of tinct. opii camph. (for tinct. camph. co.), though official in the *United States Pharmacopoeia*, may lead to confusion in British prescriptions. Many new drugs occur in the formulae, and in this respect the book is quite up to date.

EPIDEMIOLOGY.

THE literature of plague is gradually accumulating, and one of the largest of the volumes on the subject is the *Treatise on Plague*,[14] by Major G. S. THOMSON and Dr. JOHN THOMSON. Its first six chapters are devoted to the subject of plague in general; the seventh describes the plague epidemic in Satara City; the eighth deals with Haffkine's plague prophylactic inoculation; the ninth gives the Parel Hospital reports. Chapter II is historical; it is well written, and forms a valuable summary of what is known of plague and its epidemics. Chapter III is devoted to the incidence of the disease. The

[7] *Die serum- bakteriencytosin- und Organ-Präparate: ihre Darstellung, Wirk* ... *r, Aerzte, Bacteriologen.* ... Wien: A. Hartleben.

[8] *Der Einfluss des Alkohols auf den Organismus.* (The Influence of Alcohol on the Organism.) Von Dr. Georg Rosenfeld. Wiesbaden: J. F. Berg- ... gical ... tion. ... 6d.)

[9] ... Maloine.

[10] ... 1901. (Demy 8vo, pp. 706; 46 plates. 14s.)

[12] London: J. and A. ... 8vo, pp. 544; non-members, 10s.

[13] *Saunders' Pocket Medical Formulary.* By W. M. Powell, M.D. Sixth Edition. London: Henry ... 1900. (Cr. 8vo, pp. 308. 7s. 6d.)

[14] *A Treatise on ... for its Causation, Prevalence, Incidence, and Treatment.* By Major Geo. S. Thomson, M.B., M.R.C.S., L.R.C.P., and ... Thomson, M.R.C.S.L., L.R.C.P.I., Special Plague Officer under the Government of Bombay. London: Swan Sonnenschein and Co. 1901. (Crown 8vo, pp. 316. 7s. 6d.)

subject of insanitary dwellings, the laws of pestilential contagion, the diffusion of plague, the diagnosis, pathology, incubation, and treatment of plague are dealt with, as well as the question of immunity. Chapter IV is devoted to the association of "rats and pest." The writers are not ardent supporters of the idea that plague originates with rats, and declare that "man is liable because of his insanitary environment, whether the first germ be introduced by pest-suffering rodents, afflicted human beings, or fomites." In support of their belief they state:

> Our own servants' quarters, our own houses even, had refugee, pest-infected rats; and one of us turned out five dead rats from our clothes bag—within a week they had accumulated there—and no pest followed among natives even exposed to rat infection in such good sanitary surroundings. The fact that rats found under such conditions were pest-infected was proved repeatedly by necropsy and bacteriological and sub-culture tests, etc. Surely alteration of environment is easier and more universally applicable than extermination of rodents. It sounds nice to formulate—no rats, no plague epidemic; it is too ideal, just as the hankering after abolition of all disease by germicides is futile.

The mode of infection in plague is ably handled in Chapter V. The authors state that "Our Hong Kong experts maintained cutaneous inoculation was the most usual mode of infection, but further considerations show that its general occurrence is improbable," and it is evident that insanitary environment is regarded by them as the most serious mode of infection. Chemical disinfectants are discussed in Chapter VI, where it is stated truly that "laboratory experiments may prove that the plague microbe is destroyed by certain chemical disinfectants, but the houses of the plague infected are not laboratory test tubes." They also state "that plague cases have developed in houses that have been disinfected over and over again." Chemical disinfectants ought therefore, they argue, to take a quite secondary position in the minds of administrators—they are only palliatives. The keynote of the book is that plague is to be fought by sanitation, and in this we must confess we heartily agree.

Dr. H. Jaeger[15] has devoted an octavo volume of over two hundred and fifty pages to the consideration of the epidemiology, etiology, diagnosis, and prophylaxis of cerebro-spinal meningitis. The first chapter deals with the history of various epidemics. The second chapter deals with the disease as a soldier's disease, giving an account of its occurrence in the French army, during the American war, and during the Franco-German war, and its spread in the German and other European armies. The third chapter is devoted to the spread of the disease among the civil population during the last twenty years in the various provinces of Germany and in other countries. The fourth and fifth chapters treat of etiology, and contain an excellent description of the morphology, pathogenic properties, and life-history of the diplococcus intracellularis meningitidis. The sixth chapter is devoted to diagnosis, especially in reference to the detection of micro-organisms by lumbar puncture. The remaining four chapters deal with predisposition, infectivity, and methods of stamping out the disease, and combine a short account of the clinical symptoms. The book contains a large number of valuable tables, and it may be considered to be an exhaustive and reliable account of the subject. We can especially recommend it as a book of reference.

Readers who are interested in bacteriology, public health, or clinical medicine will all find in Professor Behring's little book on *Diptheria*[16] a mine of information, written in a clear and concise style by a man who possesses a masterly grip of his subject. After tracing the evolution of the modern conception of diphtheria and dealing with the experimental evidence on which it is based, the author has much of interest to say on the technique of bacteriological diagnosis and on the difficult problems concerning the character, virulence, and relationships of diphtheria toxin. He discusses the systems, adopted in various towns, of organizing public stations where every case which is clinically suspicious can be confirmed by bacteriological examination, describes their methods of working, and gives useful statistics of their results. Many points of clinical diagnosis and treatment and the utility of various prophylactic measures are also dealt with. As features of especial interest may be mentioned the author's improved method of virulence determination, his suggestions as to the chemical nature of the diphtheria toxin based on a comparison with the more stable toxin of B. tuberculosis, the discussion on the relation in different bacteria of final toxicity to the quantity of the initial dose of living organisms, and his discrimination between the important and the unimportant observations on the characters of "diphtheroid" bacilli. But the whole book is well worth studying as a piece of thoroughly good scientific work.

[15] *Die Cerebrospinalmeningitis als Heeresseuche.* Von Dr. H. Jaeger. Berlin: A. Hirschwald. 1901. (Demy 8vo, pp. 264. M. 7.)

[16] *Diphtheric.* Von Professor Dr. E. v. Behring. Berlin: August Hirschwald. 1901. (Crown 8vo, pp. 185. M. 5.)

NOTES ON BOOKS.

We owe to the courtesy of Mr. H. E. Allen, LL.B., M.A., the Registrar, a copy of Volume XXXVIII of the *Minutes of the General Medical Council* and of the various Committees and Branch Councils for the year 1901. It contains sixteen appendices, including three reports by the Education Committee, four reports by the Examination Committee on the Apothecaries' Hall, Dublin, and a number of other reports which have been noticed from time to time in our columns.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Sugarless Table Wines.—We have received from Mr. George Anderson, wine merchant, Frankfort-a.-Main, samples of wines described as Anderson's Table Wine No. 1, No. 2, and No. 3. According to the analyses put forward by the vendors, No. 1 contains 0.0384 gram of sugar per 100 c.cm.; No. 2, 0.0830 gram; and No. 3, 0.0956 gram. Our results do not quite agree with these figures. Estimating the sugar by the reducing power of the wine on Fehling's solution, No. 1 gives 0.125; No. 2, 0.166; and No. 3, 0.25. The discrepancies are trifling, and the quantity of sugar is at any rate very small, being about one-tenth of that present in ordinary Rhine wine. We may add that they are by no means harsh, but are pleasant to the taste and well suited for dietetic use, although in our opinion they should be diluted with alkaline mineral water. It is claimed for them that, as they contain very little sugar, they are suitable for use in diabetes, gout, and other diseases in which it is desirable to eliminate sugar from the diet so far as possible. Sugarless, or practically sugarless, champagne, whisky, beer, and light wines can now be obtained in all civilized countries, but at a price too often somewhat in excess of that of the ordinary article of equal or superior quality, and it is a question which needs an answer: How far it is worth while to put patients to the expense of purchasing these specialties? Ordinary Scotch whisky does not reduce Fehling's solution, and may therefore be considered sufficiently "dry" for all practical purposes. Champagne always contains sugar varying from 200 to 1,000 gr. to the pint, and it is only the Brut wines which contain the smaller quantities, while ordinary dry champagne contains about 600 gr. to the pint. Laurent Perrier's champagne sold as "Sans-sucre" is free from sugar. The ordinary table wines, Bordeaux, claret, Chablis, hock and still Moselle contain from 150 to 200 gr. to the pint; Anderson's wines contain less than 20 gr. to the pint, consequently the amount of sugar is negligible. Beer not only contains more sugar, but is usually taken in larger quantities than wine. Burton bitter ale contains about 500 gr. to the pint and German lager beer rather more than Burton. Harvey's sugar-free pale ale contains only 16 gr. to the pint, and is therefore practically sugar free. If these figures are borne in mind and definite quantities of these drinks are prescribed it will often be possible to allow patients to take ordinary wine or beer without producing unfavourable results, but when these very moderate quantities are insufficient or prove to be injurious it becomes necessary to have recourse to

special brands such as those now under consideration and there is therefore room for the enterprise of merchants who provide a well-made and pleasant wine which is practically free from sugar, and may therefore, in this respect, be prescribed in moderation with safety.

MEDICAL AND SURGICAL APPLIANCES.

Surgical Cambric.—Professor Billroth's cambric is a material which is stated to have been manufactured under the direction of the late Professor Billroth. It is a waterproofed cambric, soft and tractable in texture, adjusting itself readily to any surface. The most important of the qualities claimed for it is that of standing sterilization. We have tested this quality, and find that it suffers in no way by exposure to 100° C. in the steam sterilizer for as long as half an hour. In this respect it possesses very distinct advantages over the waterproof materials in common use as surgical appliances, and would appear to be suitable for all the purpose of such materials, for covering wet dressings, for aprons, etc. It has been brought to our notice by Messrs. L. Paechtner and Co., 40, Queen Street, Cheapside, E.C., who inform us that it is in favour with many Continental surgeons: its advantages are likely to procure it popularity in this country also.

SANITARY APPLIANCES.

A New Welted Water Cistern.—Our attention has been called to a galvanized steel welted water cistern designed by Mr. T. B. Leech, Works Manager of the Blackwall Galvanised Iron Company, Limited. The novelty in the cistern is that it presents no rivets or projections, and that the bottom corners are filled in. In this way the opportunities for the collection of dirt and bacterial life are diminished. The cistern, we are informed, is made of black smooth steel, which is plunged into molten zinc, thus ensuring a uniform surface. The cistern appears to be a distinct improvement, and to make for that first sanitary essential—cleanliness.

THE AMENDMENT OF THE VACCINATION ACTS.

DR. HOPE, the Medical Officer of Health of Liverpool, pursuant to a resolution of his Health Committee, has issued a short report on the Vaccination Act of 1898. In preparing it he has had regard to the operations of the Act in other parts of the country as well as in Liverpool. An outline of this report was given in the BRITISH MEDICAL JOURNAL of February 22nd, page 484, but it will be well to consider further the conclusions arrived at. They are mainly as follow:

1. One of the most important requirements in an amended Vaccination Act is the transference of the control of vaccination from Boards of Guardians to sanitary authorities.

2. Revaccination should be made compulsory among insufficiently-protected persons in all houses or establishments where a case of small-pox has occurred, and among all persons employed in or about small-pox hospitals, disinfecting stations, ambulances, etc.

3. The following clause, taken from a Liverpool Corporation Bill now before Parliament, should, with the necessary modifications, be made generally applicable: "Any person who, when applied to by the medical officer of health for the city or by any officer acting on his behalf and on his instructions for information as to any dangerous or infectious disease, withholds any information in his possession, or knowingly gives false information, shall be liable to a penalty not exceeding 40s."

4. The question should be considered whether Government stations for the preparation of vaccine should not be established in some large provincial centres.

5. Dr. Hope doubts whether the conscience clause has been a success. He is careful to point out that the purpose of the Royal Commission in suggesting such a provision was to "conduce to increased vaccination," and he seems to think the balance of result has been on the other side.

In support of his first conclusion, Dr. Hope points out that at present the control of small pox, apart from vaccination, rests with sanitary authorities, but that all other measures "will be futile, however rigorously and at whatever cost they may be applied, without efficient vaccination": also, that the other duties of Boards of Guardians relate only to the poor, but that small-pox has no exclusive relationship with poverty. Coming from the Medical Officer of Health of Liverpool, where primary vaccination of infants is exceptionally well attended to, this opinion is of special value. Dr. Hope fully acknowledges the good work done by the Liverpool guardians, but holds that if the transference of powers were made, revaccination would be facilitated and more systematically carried out, while the erroneous view that vaccination is a Poor-law rather than a public health measure would be discountenanced. On this question of the proper local authorities for carrying out the Vaccination Acts, we have pointed out in the past that a further change of the law should accompany the imposition of vaccine administration on sanitary authorities. Prosecution of defaulters should be in the hands of a public prosecutor centrally appointed, and not of any local authority or its nominee. The election of sanitary Boards should not be open to the risk of being rushed by antivaccination faddists. It would be a serious menace to the general welfare that public bodies charged with all the important functions of public health administration, should, under the influence of any chance wave of misguided and ignorant sentimentalism, come to be composed of cranks of the average quality and calibre of antivaccinationists. The present system, by which the duty of prosecution is laid on vaccination officers, who in this matter are responsible to a Local Government Board which does not pay them, and are paid by guardians to whom they are not responsible, is essentially unsound, and is distinctly detrimental to the proper enforcement of the vaccination laws.

Dr. Hope's second and fifth conclusions raise the general question of the policy of rigid compulsion as contrasted with the present experiment of recognition of "conscientious" objection. There is no doubt that, whatever may be the future of the conscientious objector, under ordinary circumstances it is very important that the fullest powers which Parliament will consent to give should be applicable under the circumstances specified by Dr. Hope in his second conclusion. The whole subject will fall to be dealt with in the light of the experience of the administration of the present law throughout England.

All the points raised by Dr. Hope in his thoughtful and suggestive report are well worthy of consideration and we have no doubt that the views expressed will receive due attention not only by the Liverpool Public Health Committee, but by the Local Government Board in the course of its deliberations on vaccine legislation.

DISCUSSION ON ELECTRIC SHOCK AT THE INSTITUTION OF ELECTRICAL ENGINEERS.

A DISCUSSION on electric shock was opened last week at the Institution of Electrical Engineers by Major-General C. E. WEBBER, C.B., R.E., who dealt with the scientific side of "electric shock" and the liability to shock in electrical industries. He expressed the opinion that the circulation of the blood was arrested in the capillaries of the skin, for it is through the skin that the electric shock is communicated. Further effects might be due to nerve conduction from the integument to the central nervous system, or it might be that the nerve power of the small vessels in the skin was arrested over a very large area. In 1882, when Major-General Webber was President of the Institution, Drs. Stone and Kilner directed attention to the action of electricity on the human organism for curative purposes. Crompton as early as 1883 showed that so far as continuous currents were concerned, freedom from painful injury, with a quantity of, say 25 ampères, lay "between the limits of 300 and 400 volts." Death had been caused by an alternating current of 500 volts. In 1887 D'Arsonval demonstrated that electricity killed either by causing a mechanical disruption of the tissues or indirectly through its action on nerve centres, and that when apparent death has been caused reflexly through the nerve centres consciousness could be restored by artificial respiration. Alternating currents were, he said, more dangerous than con-

tinuous, and it was the alternating current that had been employed in the United States for the electrocution of criminals since 1889. Major-General Webber, after dealing with the resistance of the skin to electricity, alluded to the experiments carried out by Dr. Bleile of Ohio State University, and spoke of the extremely constricted state of the arteries of the body throwing extra strain upon the heart as the cause of death in electric shock. Speaking as an engineer, the General went a step further than Bleile: he said that the contraction took place in the channels of the capillaries owing to their afferent nerves having become paralysed, but paralysis of vasomotor nerves causes dilatation and not constriction of blood vessels.

Mr. Alex. P. Trotter, Electrical Adviser to the Board of Trade, stated that while shocks at 500 volts had proved fatal, it would be a mistake to assume that contact with such voltage was necessarily fatal. He ridiculed the public excitement that followed the tramway over-head wire accident in Liverpool a year ago, and stated that he had stood on the rails of the City and South London Railway in wetted boots, had sat on the live conductor, and slapped the running rails with his bare hands, to the astonishment of engineers and electricians, who, he said, ought to have known better. Mr. Trotter dealt at considerable length with the resistance of the skin, and did well to point out how the resistance of the integument varies at certain parts of the body. Grasping with bare hands two pieces of metal at 500 volts would give, he said, a very painful shock, but a light and quick touch would be no worse than the shock from a half-pint Leyden jar. No doubt such shocks are experienced daily by workmen engaged in electrical traction. It is well for these men that their finger-tip resistance is great. Moisture of the skin by diminishing its resistance, or in cases where contact is over a large area and is prolonged, might transform what would be simply a painful shock into one capable of causing death. Under such conditions 100 volts might be fatal.

While the object of Mr. Trotter's paper was to discuss the conditions under which shocks at 500 volts are devoid of danger, there must be to many minds a semblance of rashness in his personal experiments to which we cannot assent, nor can we advise that they should be repeated by the ordinary public. Electricity is not a force thus to be played with. Mr. Trotter's remarks as to the exaggerated fears of the public in regard to trolley wires are interesting; but there must be few men who, when standing on the top of a tramway car, would care to flick a trolley wire with their fingers, though no doubt dry hands, dry clothes and boots are great safeguards.

Mr. F. B. Aspinall raised some very important questions bearing upon the susceptibility to electric shock, and how far this is diminished in disease and drunkenness; whether burning of the skin caused by electrical contact increases the effectiveness of the shocks, whether a fatal shock is ever received without the injured person uttering a "cry," and whether additional assistance could be given by medical men and physiologists in throwing further light upon this important subject. After quoting from Dr. T. Oliver's article in Allbutt's *System of Medicine*, he gave it as his own opinion that not only were different people differently affected, but that under different conditions they did not feel the same effects.

Mr. Aspinall's statements as regards the comparative harmlessness of electric shocks received during normal sleep and during alcoholic intoxication are extremely interesting. He rather weakened his paper by referring to the heart and its valves going wrong. He was seen to greater advantage when dealing with direct and alternating currents. The after-effects of the direct current are, he believes, worse than those of an alternating current. A direct current knocks a man down, whereas an alternating current draws him closer and ties the body as it were into a knot.

It is gratifying to the medical profession to know that this important matter is receiving the attention of scientific and practical electrical engineers, for electricity, since becoming more and more the handmaid of man, is not only rapidly displacing other forms of motor power, but is still too frequently a cause of accidental death.

ANTIVIVISECTIONIST AMENITIES OF DEBATE.

Sir,—I trust you may find space for publishing the enclosed somewhat lengthy correspondence which gives, I think, a good idea of the politeness and ingenuousness adopted by those who wish to impede the progress of medicine.

The letters are self-explanatory, but I may mention that the correspondence arose out of a translation of portions of F. and M. Lautenschläger's catalogue of scientific instruments, issued on behalf of the National Antivivisection Society, of which 12,000 copies have been distributed. In this translation are several errors.

Some unessential words (addresses, titles, etc.) have been omitted in the copies of the telegrams.

It is almost superfluous to add that many experimenters in this country, including myself, strongly disapprove of and condemn much that is contained in this catalogue.—I am, etc.,

Albert S. Grünbaum,
School of Pathology, Thompson Yates Laboratories,
University College, Liverpool, Feb. 26th.

School of Pathology, Thompson Yates Laboratories,
University College, Liverpool,
February 26th, 1902.

Dear Sir,—With your frequently-expressed love of accuracy you will not mind my pointing out to you some inaccuracies in the translation of Lautenschläger's catalogue. They are not in themselves of much importance, but I think you will admit that the tendency of these mistakes is towards your side of the controversy.

I will mention only a few which at once strike the eye. I have no doubt several more could be found if it were worth while to go through the translation thoroughly.

No. 2361. This is an apparatus for use merely in the bacteriological examination of water, and is so described in the original. There is no question of virus, nor does "inoculation" refer to animals. Why omit these essential particulars?

Fig. 462 H. description. "Rectification" is quite wrong. "Inspection is the proper translation. You will, I think, appreciate this difference.

Fig. 472 A. The "Abdominal covering" does not mean "peritoneum, a word not occurring in the original. Abdominal wall is the correct translation. "Inflating" is also wrong. The words "squeezers" and "Angle squeezers" so frequently used are not the proper technical words, and would lead anyone to suppose that they are generally meant for squeezing the animals instead of iron rods or similar things. "Screw-nuts" or "clamps" would be more correct.

I will believe that all this has not "been set down in malice," although I do not feel sure that some stronger epithet than careless is not applicable.

Yours faithfully,
(Signed) Albert S. Grünbaum.

The Hon. Stephen Coleridge,
92, Victoria Street, Westminster.

The National Antivivisection Society,
92, Victoria Street, London, S.W.,
February 21st, 1902.

Dear Sir,—I am obliged for your letter. I am totally ignorant of the German language. Purposely to avoid any possibility of prejudice I requested the Librarian of the British Museum to nominate a translator. I have never seen either the Librarian or his nominee. The latter did his work and received his fee for doing it, and was given no instructions from me other than the single one to execute his translation fairly and correctly.

I am, of course, quite incompetent to judge of your suggested corrections. From your name I assume that you are familiar with the German language, but the Parliamentary report issued under the Act 30 and 40 Vict., c. 77, and the address from which you write, both deprive you of the qualifications of disinterestedness in the matter that I sought for and found in Mr. Paul Grünfeld.

I remain, Dear Sir,
Very truly yours,
(Signed) Stephen Coleridge.

Albert S. Grünbaum, Esq.,
University College, Liverpool.

School of Pathology, Thompson Yates Laboratories
University College, Liverpool,
February 22nd, 1902.

Dear Sir,—I am obliged for your reply. I had hoped that your desire for accuracy would have led you to inquire into the points which I raised, but from your reply I gather that you do not care.

The qualification of disinterestedness is not one to which either of us can lay claim, but it does not seem to me so essential for a correct translation as an accurate knowledge of English and German.

Yours faithfully,
(Signed) Albert S. Grünbaum.

The Hon. Stephen Coleridge.

The National Antivivisection Society,
92, Victoria Street, London, S.W.,
February 24th, 1902.

Dear Sir,—I have received your letter of February 22nd. As a matter of fact I ordered your former letter to be sent to Mr. Paul Grünfeld on the day that I received it.

It is because I am not at all disinterested that I took such especial pains to secure a correct translation of the catalogue.

Do I understand you to claim a knowledge of the German and English languages superior to that of the gentleman nominated by the Librarian of the British Museum?

Yours faithfully,
(Signed) STEPHEN COLERIDGE.

To Professor A. Grünbaum.

School of Pathology, Thompson Yates Laboratories.
University College, Liverpool,
February 25th, 1902.

Dear Sir,—I am glad to learn that you are making inquiries, since your letter of 21st inst. gave me no indication that you intended doing so.

I only claim to have pointed out some errors in the excerpts from a catalogue issued under your direction and responsibility.

Yours faithfully,
(Signed) ALBERT S. GRÜNBAUM.

The Hon. Stephen Coleridge,
92, Victoria Street, Westminster.

Telegram.

February 24th, 1902.

Grünbaum, University College, Liverpool.
Presume you have no objection to your letters appearing in *Zoophilist*?
COLERIDGE.

Reply to Telegraphic Inquiry of February 24th, 1902.

School of Pathology, Thompson Yates Laboratories,
University College, Liverpool,
February 24th, 1902.

Dear Sir,—I have no objection to your publishing my letters of 20th and 22nd inst., *together with your reply of 21st inst.*, in the *Zoophilist*, provided all three letters are also sent by you to and *appear* in the *Times*.

Yours faithfully,
(Signed) ALBERT S. GRÜNBAUM.

The Hon. Stephen Coleridge.

To the Editor of the *Times*.
School of Pathology, Thompson Yates Laboratories,
University College, Liverpool.
February 24th, 1902.

Dear Sir,—I have recently been in correspondence with the Hon. Stephen Coleridge on some points connected with vivisection. He asks permission to publish the correspondence in the *Zoophilist*. I have agreed to this provided it is previously published in the *Times* at his request. I hope that you will not refuse to do so if Mr. Coleridge applies.

Yours faithfully,
(Signed) ALBERT S. GRÜNBAUM.

Telegram.

February 25th, 1902.

To Grünbaum, University College, Liverpool.
Will send whole correspondence to *Times*, but cannot guarantee appearance, not being editor. Will this meet your wishes. *Zoophilist* goes to press to-day for first March. Reply
COLERIDGE.

Reply.

February 25th, 1902.

To Coleridge, 92, Victoria Street, S.W.
Please adhere to terms of my letter.
GRÜNBAUM.

The National Antivivisection Society,
92, Victoria Street, London, S.W.,
February 25th, 1902.

Dear Sir,—I congratulate you on your prudence. Vivisectors do well to shun publicity. I shall mention in the *Zoophilist* that you decline to allow your letters to see the light.

Yours faithfully,
(Signed) STEPHEN COLERIDGE.

Professor Grünbaum.

Telegram in Reply to Letter of 25th.

February 26th.

Coleridge, Victoria Street, S.W.
You will of course mention in *Zoophilist* my request for publication in the *Times*.
GRÜNBAUM.

Telegram.

February 26th, 1902.

Grünbaum, University College, Liverpool.
To impose on me condition that anything should appear in *Times* simply ridiculous—I am not its editor. I offered to send whole correspondence to *Times*. What more could I do? As you raised transparent difficulties to publication in *Zoophilist* have described our attitude in *Zoophilist* in its true significance. It has gone to press.
STEPHEN COLERIDGE.

School of Pathology, Thompson Yates Laboratories,
University College, Liverpool.
February 26th, 1902.

[illegible] last letter I infer that you did not send our correspondence to the *Times*.* I shall therefore publish the whole of it in such manner as seems to me; you are free to do the same.

* I have since learnt that Mr. Coleridge did *not*, as a matter of fact, send the correspondence to the *Times*.

My objection to its appearing in the *Zoophilist* alone was based on the limited publicity it would thereby receive.

I leave it to our readers to form their own opinion of the courtesy and fairness displayed in your communications.

Yours faithfully,
(Signed) ALBERT S. GRÜNBAUM.

The Hon. Stephen Coleridge.

CONTRACT MEDICAL PRACTICE.

COUNTY OF DURHAM MEDICAL UNION.

The half-yearly meeting of this Union was held at Sunderland recently, under the chairmanship of Dr. EDWARD JEPSON, the President.

Upon the motion to adopt the report from the Council and Local Committees, Dr. HERN stated that the Darlington practitioners had recently made a request to the Friendly Society of that town for the payment of 4s. a member, and 2s. for juveniles, and requested an expression of opinion which was to the effect that while every district should deal with such a question in the way in which it thought best, the minimum fee for adults should be 4s. a member, and many were adverse to any lower rate being accepted for juveniles. Reference having been made to the alleged employment of unqualified assistants by members, it was resolved on the motion by Dr. COX (Gateshead), seconded by the VICE-PRESIDENT (Dr. Murphy):

That any member known to have in his employment an unqualified assistant be warned that the matter will be reported to the General Medical Council, and that it will be the duty of the Union in the interest of the profession to take the same steps as would be taken in the case of a non-member.

Further, on the motion of the PRESIDENT, seconded by Dr. WILLIAM JAQUES, it was resolved:

That any medical man who shall knowingly meet in consultation any practitioner who is actively opposed to the Union shall himself be considered as opposed to the Union.

This resolution was unanimously carried.

It was also resolved on the motion of the PRESIDENT, seconded by Dr. E. H. DAVIS (West Hartlepool):

That, in the opinion of the Union, the payments made by the insurance companies for medical examinations are totally inadequate.

Considerable discussion on the subject then took place, and it was resolved:

That the subject of the payment of fees for examinations for life assurance be referred to the various local Committees for consideration and report to the Council, and that after such reports have been received communication be opened with the Northumberland and Newcastle Medical Association with a view to concerted action in the counties of Durham and Northumberland.

WORK'S CLUB.

C. A. S.—The annual salary paid to a medical officer for his attendance upon the members of a sick club might be fixed at an amount representing payment at the rate of 5s. a head per annum. This amount has been arranged in many instances, and the movement in favour of making such payment the minimum rate received is now a fairly strong one.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

DR. CALWELL, 1, College Square North, Belfast, Honorary Secretary of this fund, begs to acknowledge the following late subscriptions:

	£	s.	d.
Dr. John Cock, Exmouth	1	0	0
Miss Freeman, per Dr. Cock	1	0	0
Dr. W. Gordon, Exeter	5	0	0
Colonel W. H. Burnett, R.A.M.C., India	1	1	0

VIVISECTION LEGISLATION IN NORWAY. A Bill is at present before the Norwegian Storthing among the provisions of which is one which gives the King, or a person to whom he delegates authority for the purpose, power to grant permission to certain persons to perform at certain places painful experiments on animals with a scientific object. As some writers in the daily press have called for the total prohibition of such experiments a number of leading members of the medical profession have presented a memorial to the Justice Committee of the Storthing, pointing out the necessity of such experiments as means of advancing scientific knowledge and the art of healing.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 8TH, 1902.

THE HOUSING OF LONDON.

IN another column we publish a very exhaustive study of the conditions of housing in London and in its 29 constituent boroughs. This is based upon the tables contained in the recently-issued census report for London, the task of reducing which to a form that will enable satisfactory comparisons to be instituted between the different boroughs of the metropolis has been most laborious.

It will be remembered that the census schedule required a return of the number of rooms occupied by each householder making the return who occupied fewer than five rooms. The figures collated from this return, and further figures which we have calculated to show the number and proportion of such rooms, each of which is occupied by more than two persons (that is, overcrowded in the sense in which the word is used in this article), form the basis of this study.

It is not satisfactory to note that although some improvement in this respect has occurred since 1891, it still remained true in 1901 that 66 per cent. of the total families in London occupied tenements of fewer than five rooms, that 15 per cent. occupied tenements of one room, 20 per cent. tenements of two rooms, 18 per cent. tenements of three rooms, and 13 per cent. tenements of four rooms. It is significant that in Stepney 45 per cent., in Bethnal Green 38 per cent., in Finsbury 35 per cent., and in Holborn and Shoreditch 34 per cent. of the single-roomed tenements are overcrowded. The figures as to two-roomed and three-roomed tenements in the different boroughs deserve a yet more detailed study than we have been able to give to them; but the table showing the order of the several metropolitan boroughs in respect to overcrowding should be in the hands of every member of the London County Council and of each of the metropolitan boroughs until its lessons are thoroughly learnt. There would then, we believe, be reason to hope that more strenuous efforts would be made in two directions—in securing more rapid increase of the means of cheap communication from the centre of London in every direction; and in securing more ample accommodation in model block dwellings of the best type for those to whom it will always remain, owing to their occupations, necessary to reside in the immediate vicinity of their work. It is noteworthy that the present defective conditions of metropolitan housing are by no means confined to the poorer metropolitan boroughs. Stepney, Finsbury, Bethnal Green, and Shoreditch show worst, but Holborn, St. Marylebone St. Pancras, and Kensington also show badly. There are, in fact, as the tables show, fashionable residential districts in which the crowding is so widespread and serious as to call for large measures of housing in these districts.

Not the least important point brought out by this investigation is the relationship which is shown to exist between conditions of housing and the magnitude of the death-rate, and particularly of the death-rate from consumption.

The modifying effect on the death-rate of social condition, as evidenced by the proportion of domestic servants, introduces a somewhat novel and important consideration. Were it possible to quantify this important cause of discrepancy in death-rates, it is probable that districts like Paddington and Hampstead would not present a death-rate so distinctly lower than other districts with less favourable social conditions. At the least this factor of correction needs to be borne in mind, and the necessity is indicated of limiting any comparisons between districts or boroughs to those in which this important social element exists to a comparable extent.

INSTRUCTION IN MEDICAL ETHICS.

THE increasing importance of a proper conception of the rights and duties of medical men as members of a body corporate is illustrated by the amount of space now devoted to such subjects in the medical press, and the lively discussion which from time to time arises on these questions. A course of lectures was begun in Paris in 1899 by MM. P. Le Gendre and G. Lepage on what they called "Medical Deontology," the lectures being delivered during the first session in the building belonging to the Sociétés Savantes, but in subsequent years in the small amphitheatre of the Faculty of Medicine, so that they have acquired semi-official recognition. These courses were published recently,[1] and the volume is well worth careful study by everyone who feels the pinch of the shoe, and desires to know by what means its pressure can best be relieved.

We in England often envy our French brethren the protection ostensibly afforded them by the stringent medical laws which penalize the irregular or unqualified practice of medicine, surgery, and midwifery, forbid chemists to prescribe medicine, and regulate and restrict the work of the midwife—which, in short, appear to realize all those legislative ideals for which reformers are wont to sigh. Yet we find from these lectures that French practitioners complain pretty much as we do of unfair and unqualified competition, and have in addition a few indigenous grievances of their own.

The first topic discussed is the nature of the qualities necessary for success in the medical profession, a profession which the authors rightly consider one of the most difficult, calling for a combination of physical, intellectual, and moral qualities by no means commonly encountered in the same person. It is noteworthy that they place in the front rank personal cleanli-

[1] [illegible] Par MM. les Docteurs P. Le Gendre and G. Lepage. Paris: Masson et Cie. 1902. (Cr. 8vo, pp. 218.)

ness and good conduct. The successful doctor should have judgement and sagacity, a retentive memory, and capacity for work; he must have a good general education so as not to occupy a position of relative inferiority towards any of his patients: among his moral qualities must be patience, kindness, dignity, honesty, courage, and devotion: he must love his patients, and be animated by the desire to relieve them, for we are told "si c'est la curiosité des malades qui fait le savant, c'est l'amour des malades qui fait le médecin."

In considering the relations of specialists to the rest of the profession, it is held that the consulting room of the specialist is neutral ground to which any patient may go with or without the consent of his medical attendant; and while it is right, with the patient's consent, to send a letter to the former indicating the diagnosis and treatment, yet if the patient prefers not to tell his doctor the specialist must keep silent. Professor Grasset formulates what is said to be a generally accepted opinion in the following terms: "The consultant's room is a neutral territory where advice may be given to all patients who seek it, whoever may be their medical attendant." The only modification the authors suggest to this dictum is that the specialist or consultant must not keep any patient to whom he has been called by the medical attendant during the same illness. Reference is made to what is said to be the contention of some English doctors that the prohibition should extend to the patient's future illnesses, but this is held to be unreasonable.

The young doctor is warned not to confound dignity with susceptibility. "If," say the lecturers, "we learn from the patient that he has gone to consult a colleague, and if he tells us the result of this consultation, and asks us to supervise the new remedy which he has been recommended, we shall in no wise compromise our dignity by agreeing to do so unless the method seem to us to be dangerous or ridiculous. It would generally have been better if in a lingering case we had anticipated the action of our patient by suggesting to him the idea of a consultation, and by warning him that we should not be annoyed by his seeking other advice."

Upon the burning question of the patient changing his doctor the authors are very clear in maintaining the absolute right of the patient to choose his medical adviser and to change him when he pleases, but they consider that no medical practitioner should undertake the care of a patient except under certain conditions. Of these the one which seems to occupy the most important place in their minds is that the former doctor's account should have been settled. "If this is done," says Professor Grasset, "everything is easy; we may accept the position in complete security of conscience." If on account of the urgency of the case it is impossible to postpone attendance, it is the duty of the supplanting physician to take care that the former medical attendant's account is settled before his own is paid. Where, however, one medical practitioner supplants another in the course of a grave illness such as typhoid fever, it is held to be in addition the duty of the supplanter to notify the fact to the former attendant, and it is suggested that this is best done by an interview ostensibly to obtain information upon the patient's history.

Amongst the many pitfalls and snares of practice against which the neophyte is warned is the use of new remedies of which the prescriber knows nothing more than he has gathered from an advertisement. We notice that in Bavaria medical practitioners may not sell either instruments or apparatus, or buy or sell medical practices, or take part in such negotiations; but in France, as in England, the buying and selling of medical practices is usual and considered honourable.

Among the special grievances of French practitioners is the competition of military surgeons "who, with all the advantages of regular pay, a horse furnished by Government, and the prestige of the uniform, take away the patients of the unfortunate civil doctor, who has frequently only his profession as a means of livelihood."

Another form of competition, serious in France, but which troubles us comparatively little, is that of the physicians at watering places. It is said to be the practice for well-to-do people living in villages and small towns in France to leave home in order to place themselves under the care of physicians at watering places for all sorts of chronic ailments in preference to remaining under their own doctors, and complaint is made that watering-place physicians do not confine themselves to hydrotherapeutics and the treatment of the particular maladies for which mineral waters are supposed to be beneficial. The competition of chemists and pharmacists seems to be quite as great in France as in England, although it was forbidden as long ago as 1566 in an edict of Henri II, where it is said "les apothicaires oublians que leur estat est de dispensez seulement les ordonnances des médecins, et à toutes adventures ordonnent eux-mèmes et dònent les médecines non cognoissans à quelles maladies sont bonnes ou mauvaises;" and where a fine of fifty Paris livres is enacted as punishment for such interference with the rights of the physicians. In spite of this edict and of the numerous regulations since made, we are told that "many pharmacists continue to give medical advice, and it is probable that the abuse will long persist." In fact we are told that it is scarcely possible to prevent a dealer in drugs from giving medical advice if asked "when every citizen, and especially every citizeness, is so ready with his or her opinion in such matters and each one has his favourite remedy." While the law in France seems to be unable to suppress the prescribing chemist, medical practitioners are strictly forbidden to dispense drugs even to their patients or to sell medicines to them if there is a chemist in the neighbourhood. This is still the law in spite of attempts to reform it to the modest extent of defining the distance as 4 kilometres within which a chemist's shop must exist in order to interdict the doctor from dispensing for his patients. On the other hand, the practice of midwifery is regulated by law, and no woman can practise as a midwife without having passed an obstetric examination after a two years' course of instruction, and is then forbidden to use instruments, is compelled to call in the assistance of a doctor of medicine in difficult cases, and is not allowed to prescribe any medicine except ergot. She is, however, authorized to practice vaccination and revaccination. In spite of this strict law, many of these women, especially in large towns, are stated to engage in

a good deal of illegal practice, making gynaecological examinations, performing small operations, applying dressings, and treating diseases of children. The law, when put in action, punishes these practices by imposing such a moderate fine as is insufficient to act as a deterrent: for example, the court at Lille was content to condemn a midwife to a fine of 200 francs and 50 francs damages upon her third conviction for illegal practice.

Under the heading of the payment of medical fees we are told that the ideal arrangement exists in England, where, at least in the case of many practitioners, payment is made at the time of the visit. "When an English doctor is called to a family he receives at his first visit a double fee: but afterwards, if he need not return or the family does not desire him to pay further visits no fee is given him!" We are not aware that this "ideal" condition exists anywhere in England although we have heard of something like it in Ireland.

In discussing fees, the authors boldly face the thorny question of the payment of commissions on consultation and operation fees, which was satirized by "Gyp" in Le Docteur tant pour Cent., noticed in these columns at the time. The idea of an operating surgeon or a consulting physician handing over a share of his fee to the practitioner who calls him in seems to be tolerably familiar to the medical profession in France, and fails to excite the feeling of reprobation with which we regard it. The practice is euphemistically called "dichotomy," and all the arguments in its favour are given in these lectures, the chief being the enormous disproportion between the fee of the consultant and that of the ordinary medical attendant, the frequent poverty of the latter, and the difficulty of a consultant refusing to pay when he has to compete with so many who do. It is evident that "Gyp" was by no means exaggerating when she drew attention to this blot upon the honour of the French medical profession. The authors, while treating the matter somewhat tenderly, decide against the practice, and comment upon the reproach to the medical profession in France conveyed by the following paragraph in the last edition of Baedeker's *Guide to Paris*:

> It is averred that owing to the facility with which they can be performed many doctors willingly advise a number of more or less necessary operations, and recommend the services of colleagues who demand enormous fees, of which they receive a considerable part. Take care, at east, to make inquiries, and learn beforehand what the cost will be.

"It is not pleasant," as they say, "that such a passage should have been read by all the strangers who came to Paris to see the exhibition in 1900," and they point out that "if such things are printed they must be known to the public, and there is no good in trying to make a secret of them." They recommend that the matter should be taken up seriously, with a view to prevent the spread of the evil, but the remedy they recommend is that the ordinary medical attendant should receive for a consultation or operation a fee in proportion to that paid to the consultant or operator, this sum, fixed by one authority as one fourth, being paid by the patient.[2] They also advise that the Faculties of Medicine should take up the question of fees, a somewhat vague recommendation, the meaning of which we do not pretend to explain. After condemning the receipt of commissions by medical men on "dressings, medicines, mineral waters, cost of embalming, funerals, etc.," they protest energetically against the custom of wet nurses employed upon their recommendation paying medical practitioners sums of ten, fifteen, and twenty francs!

The subject of professional secrecy is discussed at length, and necessarily from a different standpoint from that occupied in this country—a difference determined by the fact that the French Penal Code punishes by fine any revelation by a doctor of information acquired by him in his professional capacity, while the indiscreet physician is also exposed to an action for damages.

Overcrowding of the profession is regarded by the authors as a great cause of its demoralization, the overcrowding being especially marked in large cities. They attribute it to the great development of facilities for secondary education and superior instruction, the multiplication of bursaries in the colleges, and the operation of the military law, which, while compelling every young man to join the army, exempts university students from more than one year of military service, and as, so the authors say, it is easier to acquire the doctorate in medicine than the doctorate in laws, a medical career is selected as a ready means of escaping two years' service with the colours. They also complain of the numerous exemptions too commonly given for political reasons by which students are allowed to enter upon the medical curriculum without having taken the Bachelor's degree. Lastly, it is asserted that the examinations are not sufficiently strict owing to the excessive number of candidates overtaxing the examiners, and to the rigour of the military law by which the unfortunate candidate is compelled to perform the two complementary years of military service if he has not acquired his doctorate by a certain age, so that the examiners are induced to pass weak candidates out of sheer commiseration.

In addition to these causes of overcrowding the authors complain of the multiplication of dispensaries and free clinics, the development of provident societies, the illegal practice of medicine under all sorts of disguises by midwives, nurses, magnetizers, hypnotists, spiritualists, nuns non-medical electricians, and masseurs, by institutes academies, and policlinics carried on by limited liability companies; and, as a consequence of all these, the general lowering of fees and the diminution of the social importance of the doctor. These are very much the same grievances as those complained of in this country. The remedies suggested are restriction of the number of medical schools better pay for the teachers, separation of the examining body from the teaching body, and stricter professional examinations, together with the alteration of the military law, by suppressing all exemptions, and making service with the colours for two years obligatory upon every citizen.

The social, legal, and educational conditions in France differ so much from those in England that we can hardly expect much help in our own troubles from these suggestions, but it is interesting to notice that the authors see in the formation of an association such as the British Medical Association, possessing its own journal for

[2] A system of this kind is, we are informed, in force in Buenos Aires, but the fees are stated to be equal in amount.

the defence of medical interests, one of the most powerful means that could be afforded for the elevation of the medical profession in France.

ASYLUM DYSENTERY.

THE paper read by Dr. Mott at the Epidemiological Society[1] gives in a convenient form the main features of the lengthy report presented by Drs. Mott and Durham to the London County Council, and brings its evidence more nearly up to date. That report was summarised and commented upon in the BRITISH MEDICAL JOURNAL at the time of its publication,[2] and it is unnecessary again to go over the same ground in detail. There can be no doubt that Dr. Mott has done a great public service in drawing public attention to this serious cause of mischief in some of the large asylums of the London County Council, and that the County Council itself deserves public commendation for having instituted this important inquiry, and then published its results, notwithstanding the fact that certain details of administration of the asylums receive condemnation in the report.

It will be remembered that the chief defects found were overcrowding of wards, sometimes to a very grave extent; injudicious transfer of infected patients from one ward to another, thus causing infection in successive wards: unskilled nursing, and deficient cleansing and disinfection of contaminated bedding, etc.

It appears to be now generally agreed that the colitis in asylums is an infective disease, whether in all cases identical with true dysentery or not. This being agreed, the importance of extreme cleanliness in dealing with diarrhoeal cases in asylums will be admitted, as will also the necessity for not transferring such cases from one ward to another, unless the latter be a special isolation ward. The carrying out of these requirements is a matter of extreme difficulty; but unless they can be carried out it becomes, as we pointed out on a former occasion, "a question whether an asylum authority having such a stream of would-be patients, to accommodate whom overcrowding to this pernicious extent is required, would not better fulfil its duty by accepting the risks associated with keeping these patients in their homes or in workhouse infirmaries, until further asylums can be built." An ocasional suicide outdoors would scarcely be worse than a large mortality from "ulcerative colitis" in the asylums. Since the report to the London County Council was issued the statistics show considerable improvement, and it is clear that the precautionary measures which have been carried out have already had a most beneficial effect on the prevalence of this disease.

Among these recommendations was one relating to the keeping of exact records of cases of diarrhoea in asylums. One of the chief difficulties encountered by Drs. Mott and Durham in the earlier part of their investigation was the absence of such records. These have now, we believe, been supplied. Their utility will be manifest. They will serve as a constant reminder of the necessity for certain precautionary measures, and furnish a gauge of the efficiency of the measures actually carried out. It appears, however, that, as has already been suggested, something more formal and general in the direction of notification of cases of asylum diarrhoea is needed. The machinery of the Infectious Disease (Notification) Act scarcely lends itself to the purpose: but it would be practicable to make "ulcerative colitis," "diarrhoea," and "dysentery" occurring in asylums compulsorily notifiable to the Commissioners in Lunacy, and to the Lord Chancellor's Visitors in Lunacy, in the same way that lead and other forms of industrial poisoning are made compulsorily notifiable to H.M. Inspector of Factories. By this means a machinery would be put into operation for collecting, collating, and comparing the experience in different asylums; and the knowledge thus obtained of the extent of the evil would almost certainly secure its removal. We trust that this reform will not be lost sight of, but will commend itself to all the authorities responsible for the administration of the law relating to lunacy.

The investigation appears to contain a lesson which may be commended to the attention of the authorities of all institutions in which many persons live together under one roof: to the managers of pauper schools, for instance. It is also worthy of study by those responsible for the administration of children's hospitals, and the children's wards of infirmaries. At the present time, owing to the desire to simplify vital statistics, practically all cases of intestinal disease in children accompanied by frequent stools are returned under the single head "diarrhoea." This practice is not without its dangers, as it tends to mask the occurrence of infective colitis, which some believe to be a very common disorder in infants and children. It is at least certain that colitis occurs with great frequency in early life, that it is the cause of much ill-health, and directly or indirectly of many deaths.

[1] BRITISH MEDICAL JOURNAL, January 4th, p. 25, and February 15th, p. 397.
[2] Ibid., April 6th, 1901, pp. 818 and 846.
[3] Ibid.

INFLUENZA IN THE HOUSE OF COMMONS.

IT seems to us that Mr. Dillon's zeal for the health of his fellow members a little outran his discretion the other day. His proposal practically was that the medical members of the House should meet in solemn conclave to review the sanitary situation and suggest appropriate remedies. Now, with all deference to these gentlemen, we hardly think that they are prepared in this light-hearted and perfunctory way to take this highly charged scientific attitude. A Cabinet Minister was heard to say, in conversation the other day, "Bother the experts! Give me men of good common sense." Perhaps the admixture of expert knowledge with the best common sense obtainable in the House of Commons may result in the preparation of a suitable remedy. Certainly neither the one nor the other seems to have guided "the officials responsible for the heating and ventilating arrangements," who during the week-end adjournment "thoroughly fumigated, by means of lamps fed by eucalyptus oil, the legislative chamber, the division lobbies, and the adjacent corridors." So says the *Times*, but we can hear, in our mind's ear, the Homeric laughter with which this announcement must have been received by persons who know what disinfection and ventilation mean, and we can imagine the ridicule excited abroad by the story of this absurd fumigation. We are therefore glad to hear that Mr. Akers Douglas is to reappoint the Committee which sat last year on the accommodation of the House, but which had not then time to investigate the ventilation question. Since they last met, the green benches have been usefully reinforced by Sir Michael

Foster, and he will be a valuable—indeed indispensable—addition to the Committee. We think it would be well also that Mr. Akers Douglas should call to the assistance of the Committee the Consulting Sanitary Adviser to the Officer of Works. Professor Corfield may perhaps have been supposed by some to have been responsible for the ceremonial fumigations of Saturday, but he has not, we understand, hitherto been consulted. Something like a scare was produced in the House the other afternoon by the mournful catalogue of the victims of influenza. A member who sits on the Opposition side has suggested to us that, as all or most of the victims have been occupants of the Treasury bench, their misfortune may be attributed to the fact that "their systems have been run down by worrying work, and constant immersion in air extracted from the banks of an unwholesome tidal river: and that if they had been Smith of Clapham, or Jones of Upper Tooting, instead of Walter Long and George Wyndham, whose position gives lurid prominence to their physical infirmities, we should never have had all this melodramatic ado about the health of the House." At the same time we may observe that Smith and Jones of Clapham or elsewhere may have business which takes them to the House of Commons or its crowded and stuffy committee rooms, and that when they are laid up with influenza subsequently, they in corporal sufferance find a pang as great as the greatest of M.P.'s, and probably experience more loss and inconvenience. A threat of adjournment alarmed Sir M. Hicks-Beach into a promise to do something, and soap and water and fresh air, and above all, strong-smelling antiseptics were freely used, and ministered to the sentiment of honourable members, and now we have a respectful affirmative given to Mr. Rutherford's desire to have the air examined. We shall be curious to learn the result of the examination. It is not probable that the influenza bacillus will itself be caught red handed, but we shall not be surprised to learn that the proportion of carbonic acid is excessive not only in the committee rooms but in some of the rooms most used by members, and that in the lobbies, and even in the legislative chamber itself, there is an undue amount of dust. "The man from Sheffield" was responsible for the introduction of influenza to the House of Commons years ago, and it has apparently smouldered on (and we use the word advisedly) ever since; but whether it is only communicated by personal contact in dirty and stuffy committee rooms, whether it is airborne, or lurks in the dust and dirt which the activity of three separate and too often conflicting authorities allow to lurk about the elaborate carvings of the Gothic chamber, are all points which urgently need clearing up. Complaints are rife in the House about the variations of temperature—chilling cold one day and sickly warmth another: but these are practically accentuated by the personal peculiarities of members, according to whether they belong to what Mr. Plunkett well called the hot or the cold school.

AN ACTION FOR DAMAGES FOR INDUCED MORPHINOMANIA.

THE curious case of Forsythe *v.* Law, which occupied the attention of Mr. Justice Grantham and a special jury for several days last week, terminated, we are glad to say, in a verdict for the defendant. The action, as may be seen by the report published at page 626, was brought by a nurse against her medical attendant for negligence. She claimed damages against him "for negligently administering to her, or negligently giving her opportunities of administering to herself, quantities of morphine, cocaine, and other drugs to such an extent that she lost her reason and very nearly lost her life." The case was thus an attempt to make the defendant liable for the morphine habit, which the plaintiff stated had grown upon her in consequence of his treatment. It appeared that morphine had been in the first place prescribed, after other remedies had been tried and failed, for the relief of severe spasmodic asthma. It was admitted that the plaintiff had a weak heart, and the defendant contended that this rendered it all the more imperative to relieve the paroxysms of asthma. The defendant attended the plaintiff on many occasions extending over several years, and appears to have received a fee on one occasion only. Some of the witnesses who were called on behalf of the plaintiff seemed to suggest that the reason why the defendant had been guilty of negligence was that he was anxious to be rid of a troublesome patient. With this exception, there was no suggestion of any motive which might have explained the allegations against the defendant. Having regard to the gravity of the charge and to the insufficiency of the evidence brought forward in support of it, we are not surprised that the jury stopped the case after the defendant had given them his version of the facts, which he did in a most clear and straightforward manner. It is also noteworthy that the jury added an expression of their opinion that the action ought never to have been brought. Looking at the matter from a legal point of view it is difficult to see how the plaintiff could have obtained damages, even if it had been proved that the defendant had been guilty of negligence in prescribing morphine for her relief. It does not seem to have been seriously urged that the amounts which he prescribed, taken in accordance with his prescriptions, were the cause of the mischief: the substantial allegation was that he had given her a taste for the drug. Even if this had been proved, we think it likely that the Courts would hold that the resulting damage was too remote. If all medical men were to be held responsible in such circumstances, there would be no end to litigation, for it is probable that many morphinomaniacs first taste the drug which works their ruin in some medicine prescribed by a physician. It would not be to the advantage of the public that medical men should be made to hesitate to give opium or morphine in cases which call for its administration by the fear that the patient may at some future time develop the habit of taking the drug. It is, of course, generally recognized by the profession that this danger exists and should be guarded against. Actions brought by nurses against medical practitioners have often been misconceived, and this case affords no exception to the rule. We recall one instance in which the late Lord Esher, when delivering the judgement of the Court of Appeal, said that the little knowledge which nurses have of medicine sometimes induces them to bring actions for negligence in cases where other persons would hold aloof: in the present instance it was the opinion of the presiding judge that the fault lay with those who instructed the plaintiff's counsel. We cannot congratulate one of the medical witnesses for the plaintiff—Dr. Kirkland—upon the appearance which he made in the witness box. The judge and the jury showed their appreciation of Dr. Law's plain and honest defence by stopping the case, and by the expression of opinion quoted above. We congratulate Dr. Law on the issue of a trial which must have been a source of great anxiety to him. It will also, whatever may happen as to costs, entail very considerable expense upon him, and we regret to learn that he was not a member of the Medical Defence Union or any other similar organization. One moral of the case is, indeed, to emphasize once more the wisdom of providing against the risk of actions for negligence or malpraxis, which, as this case shows, may be brought under circumstances which the judge and jury consider unwarranted, by joining one of these organizations.

ANTIVIVISECTIONIST "AMENITIES OF DEBATE"

IN the course of a little controversy which we had with him last summer Mr. Stephen Coleridge was careful to impress on us that he is a stickler for the "amenities of

debate." We confess that, unless we had received the assurance from so unimpeachable a source, we should scarcely have guessed that this was one of his characteristics. It would of course be rude to deny his assertion; and we know that rudeness is particularly distressing to Mr. Coleridge's gentle soul. But to judge from his correspondence with Dr. Albert S. Grünbaum, of Liverpool, which is printed on p. 599, we are driven to conclude that Mr. Coleridge, professor of the "amenities of debate" as he is, has cultivated the art of polite letter writing with very indifferent success. He has sent broadcast over the country a translation of an illustrated catalogue of apparatus and appliances for experiments on animals, issued by a German firm, with the expressed intention of shocking persons of sensitive nerves into subscribing to the National Antivivisection Society, of which he is the honorary secretary. The proceeding is characteristic of Mr. Coleridge's methods. As he has for a long time been striving to divert the stream of charity from the general hospitals of London, we are rather surprised that it has not occurred to him to issue a pamphlet with illustrations taken from textbooks of surgery and instrument makers' catalogues to serve as revelations of the horrors practised by the doctors on the sick poor in hospitals. Mr. Coleridge has evidently taken Mr. Kensit as his great exemplar in the art of conducting an agitation. The President of the National Antivivisection Society has expressed his approval of the honorary secretary's tactics, but we have already shown what weight is to be attached to the opinion of that noble lord. The antivivisectionists number in their ranks many persons worthy of all respect, and we cannot think that their right feeling is so obscured by philozoic fanaticism as to prevent them being ashamed of such a champion as Mr. Coleridge. When his attention is called to gross errors in translation, he replies that he is totally ignorant of the German language. Does he really imagine that he can shuffle off his responsibility in the matter in this airy manner? When the notorious compilation entitled the *Nine Circles* was shown to contain a number of errors, Miss Frances Power Cobbe, though like Mr. Coleridge, ignorant of German, took the full responsibility for it on herself. We commend to Mr. Coleridge's imitation the example of a lady who doubtless is to him the object of devout veneration. It will be remarked that Mr. Coleridge states that "to avoid any possibility of prejudice," he requested the Librarian of the British Museum to "nominate a translator, and in accordance with this statement the following words appear on the title page of the translation: "Translated into English by Paul Grünfeld, *who was nominated at the request of the National Antivivisection Society by the Librarian of the British Museum*" (the italics are ours). Sir E. Maunde Thompson has pointed out in a letter addressed to the *Times* that the statement intended to be conveyed by these words is utterly misleading. All that the Librarian did in the matter was to hand Mr. Coleridge's request for a translator, through the superintendent of the reading room, to a German gentleman who has no official connexion with the Museum. When Sir E. Maunde Thompson learnt of what he justly calls "this unwarrantable abuse of a mere act of courtesy," he wrote to the Antivivisection Society demanding the withdrawal of "the objectionable title page." Mr. Coleridge, however, persists that the Librarian "appointed" Mr. Grünfeld, and "he sees no reason whatever for depriving the publication of that evidence of its bona fides and impartiality afforded by the statement on its cover of the means he took to secure for it those essential qualities." In plain words, Mr. Coleridge is quite indifferent as to the accuracy of a statement, provided he finds it convenient for his purpose; or, to put it in another way, he acts on the principle that the end justifies the means. We need hardly say that to us this is no new discovery; but we think it well that the Honourable Stephen Coleridge's peculiar standard of honour should be placed in a clear light before the world. He says "We believe that the profession of lofty motives will never make a wrong act right." There is a wide divergence between the belief expressed in these words and Mr. Coleridge's methods in carrying on his "fight for the tortured animals." But that concerns himself and his egregious sponsor, Lord Llangattock, who vouches once more for his accuracy and "perfect fairness to his opponents." From our point of view, nothing could be better than that he should continue to bring discredit on the cause of which he is the advocate.

THE MEDICAL SERVICE OF THE NEW ARMY CORPS.

THE special Army Order of March 4th in connexion with Mr. Brodrick's speech of the same date on introducing the Army Estimates fairly launches the War Office scheme of devolution of powers in the new Army Corps. The Order states that the Principal Medical Officer of the corps will be attached to the staff of the general officer commanding it; but we cannot say whether that is the same as being "on" the staff of the general, and thus acting as an integral part of it. He is to be the "responsible adviser" of the general "on all points connected with the health, the sanitary arrangements, and the medical institutions of the troops"; by which latter must be meant the hospitals, bearer and other ambulance arrangements, etc. The position and responsibilities of the Principal Medical Officer will be such as the Subcommittee of the British Medical Association recommended they should be so as to limit headquarter interference; at all events, visits of inspection "without notice" can hardly take place by delegates form the War Office without interfering with the position and responsibilies of the officers of the corps. We observe that Mr. Brodrick in his speech spoke somewhat enigmatically about keeping medical officers in the same quarters for two years, and of giving them "a home" by attaching them to a battalion; we shall be anxious to see by what means this is to be carried out, and what class of medical officers are to be so attached.

CURES FOR ALCOHOLISM.

WITH reference to the articles on this subject which have been published in the BRITISH MEDICAL JOURNAL recently we have received a communication dated February 22nd from the Tacquaru Company offering "to produce evidence which would," they think, "be accepted by the most critical and careful enquirer as to the satisfactory results of the large number of cases dealt with by us." In reply the Secretary of the Company was informed that any documentary evidence which the company might think fit to submit should have careful attention. On February 25th we received from the company a series of letters with reference to 22 cases; the letters were from the patients or their friends, and all appear to be recent, but four are not dated fully. Upon perusal of these they appear to be typical examples of the kind of letters to which attention was called in previous articles—the testimony they bear being incomplete or indefinite or uncorroborated or given while the patient was still under treatment. The writers also strike us as themselves in several instances regarding the medicine more in the light of a pick-me-up than as a permanent cure. The company further state in their letter: "We know of few cases either alcoholic or drug which have not derived the greatest benefit from our treatment by at least interrupting the course of alcoholism and alleviating the pathological condition of the chronic inebriate." We have already expressed the opinion that the "interruption of the course of alcoholism" in other words the temporary "pulling up" of a drunkard is a quite possible thing to secure by divers methods, and have pointed out the fallacy that lies in quoting "interruption" where permanent cure alone is in question. Cure and neither "interruption"

nor "alleviation" is the question at issue. The "pathological condition of the chronic inebriate" especially as understood by the Tacquaru Company is too large a subject to discuss in this place, but the company favour us with the following explanation: "The secret of the whole matter is that few drinkers unless of the most confirmed and unabashed type will admit the fact even to their own family practitioners, and the majority, except under a certain amount of compulsion, would never avail themselves of the aid of any public or semi-public institution for the treatment of the disease. On the other hand, they will and do avail themselves of help held out to them through our medium, and in the majority of cases with the utmost benefit to themselves." In other words, it is asserted that there are a certain number of the less severe cases who will not consult medical men and that the majority of these are benefited. We take leave to doubt whether this is an actual fact. It is, at any rate, not proved by the fact that some certainly do appear to consult the Tacquaru Company. The "secret of the whole matter" does not, however, seem to us to lie in the undoubted tendency of persons with secret sins to resort to secret methods of treatment, for that is so open a secret that it amounts to a well known fact. The "secret" would rather seem to lie in the composition of the Tacquaru Specific, a point which the company leaves obscure. We cannot regard the evidence now offered of its therapeutic success as proving more than that the tonic effect of the specific has probably done good in the twenty-two cases referred to in the letters submitted.

THE LEPER HOSPITAL OF ST. JAMES THE LESS.

The constant upheaval which takes place in London is sometimes productive of interesting results. Recent excavations in one of the courtyards of St. James's Palace have revealed the site of the old burial ground attached to the hospital which was dedicated to St. James the Less, Bishop of Jerusalem. The hospital was founded by some citizens of London, "before the time of man's memory," Stow says—that is to say, before the Norman conquest—"for fourteen sisters, maidens that were lepers living chastely and honestly in divine service. Afterwards divers citizens of London gave six-and-fifty pounds rents thereto. After this sundry devout men of London gave to the hospital four hides of land in the fields of Westminster, and in Hendon, Chalcote, and Hampstead eight acres of land and wood." The hospital flourished, and in 1290 King Edward I confirmed these gifts and granted a fair to be kept on the eve of St. James April 30, N.S., the day and the morrow and four days following. This fair was the origin of May Fair, for it was held in the fields near Piccadilly. The house was rebuilt by Berkynge, Abbot of Westminster, in Henry III's time, and in 1450 its perpetual custody was granted by Henry VI to Eton College. In 1532 Henry VIII obtained the hospital in exchange for Chattisham and other lands in Suffolk. He then dismissed the inmates, pensioned the sisterhood, and, having pulled down the ancient structure, bought the neighbouring meadows, which he laid out as St. James' Park. It is said, though on insufficient grounds, that he asked Holbein to plan the palace, which was built under the direction of Cromwell, Earl of Essex. Some curiosity has been expressed at finding a leaden coffin of unusual shape during the excavations, the shell having evidently been made to the shape of the body which it was to enclose. Such a mode of burial was not very unusual. Dr. William Harvey was so buried, and for many generations this method was adopted by the Harvey family, as may still be seen by those who choose to pay a visit to the church at Hempstead, in Essex, some seven miles east of Saffron Walden. The leaden case enclosing the great discoverer of the circulation of the blood was only roughly shaped to the form of his body, the head part having the rude outline of a face with mouth, nose, and eyes, the neck wide, and the shoulders expanded. The body of the case was long and tapering towards the feet, where it was turned up at a right angle; and it is noteworthy that, although Harvey was "a man of the lowest stature," probably not much over 5 ft., the length of the leaden case in which he was buried is no less than 6¼ ft.

INSURANCE AGAINST SMALL-POX.

The principle of insurance against the various risks to which men and affairs are liable is receiving a constantly-extending application. Death, sickness, accident, burglary, fire, rain, and hail are among the certainties and possibilities provided against. The idea behind all such measures is thoroughly sound, and they illustrate in very practical fashion the way in which modern civilization promotes mutual helpfulness and protection against the many dangers to which poor humanity is liable. At the present time it is not surprising that insurance corporations have turned their attention to small-pox risks. For the sum of 1s. 2d. a person can obtain for a year an insurance policy entitling his heirs to £100 after his death from small-pox, and entitling himself to £1 weekly for five weeks of a non-fatal attack. Lloyds, we note, make a difference in the rates charged as between recently-vaccinated and not-recently-vaccinated persons. Doctors, it is said, are charged specially high rates, particularly if they attend small-pox, in which case the charge is no less than 50s. per cent. against attack. It will greatly surprise us if many medical men spend money in this fashion. Insurance against small-pox is very easy. Recent successful revaccination enables a medical man or any other person to defy small-pox in every shape and form. The true means of insurance are not premiums and policies, but a tube of good lymph and a clean lancet. Ordinary insurance is always of a more or less speculative character, but there is nothing speculative here. A person who has taken the trouble to acquire for himself all the protection which vaccination can afford need not indulge in the least hope of benefiting his wife and family by any payment from any insurance company on account of his death from small-pox. A Yankee, canvassed by a persevering agent, once replied that he did not believe in a speculation where he had to die in order to realize. The case of the properly-vaccinated man insuring against small-pox is even more hopeless. He may take it that he will not die from that disease, and that neither he nor his heirs will have any fair chance of getting the better of the insurance company. In such a game the company may be safely counted on to score every time. The only man who has a chance here is the antivaccinationist or he who neglects to renew his premium by omitting to attend duly to revaccination. To all such we most heartily recommend the offers made by Lloyds and the insurance companies.

THE AFTER-CARE ASSOCIATION.

At the annual meeting of this useful Association, held recently in the library of Lambeth Palace, the Archbishop of Canterbury, who was in the chair, explained that it was the only charity in the country dealing with poor persons discharged recovered from asylums, with a view of bridging over the gap that separated them from the work-a-day world and finding for them suitable occupation. The number of patients discharged from all the lunatic asylums of the country was about 7,000 a year, and of that number a very large proportion needed just such help as the Society offered. Some required change of air and scene before returning to their friends or settling down to work, and this the Society provided, meanwhile looking out for suitable situations for those who were fit for employment. The Association fulfilled a useful mission and deserved cordial support. Dr. D. Nicolson, C.B., in moving the

adoption of the report, referred to the inadequacy of the funds contributed to the Association, which had dealt with 214 cases during the last twelve months, assisting them to resume the duties of ordinary life under much more favourable conditions than would otherwise have been possible. The Bishop of Barking (who seconded the adoption of the report) remarked on the need of arrangements for convalescing mental patients being made by this Society, inasmuch as none of the 240 ordinary convalescent homes would receive cases from asylums. Dr. G. H. Savage instanced cases in which the aid of the Society had been beneficial in preventing mental breakdown, and claimed for it support from those who had experienced amongst their relatives the need of careful treatment to prevent recurrence, so apt to occur when circumstances were unfavourable. Society indeed had to pay in one form or other, for did we not often hear of crimes committed by imperfectly-recovered or relapsed lunatics, many of whom might have been fully restored had they had the advantages which this Society was ready to supply? Mr. C. S. Bagot, Commissioner in Lunacy, bore testimony to the high regard for the work of the Association which he and his colleagues entertained.

MUNIFICENT GIFT FOR MEDICAL RESEARCH IN LIVERPOOL.

THE sum of £25,000 has been given by Mr. William Johnston, shipowner, of Liverpool, for furthering the university movement in that city. The money will be devoted, in accordance with the wishes of the donor, to promote research in pathology and physiology. The £25,000 is divided as follows: £10,000 is allocated to found a chair of chemical biology, £6,000 at 5 per cent. interest to permanently endow three Research Fellowships of £100 a year each. Of these Fellowships one is to be held by a medical graduate of a Colonial University, a second by a graduate of medicine of the United States, and a third by a research student in gynaecology. The remaining £9,000 is to be spent in building a laboratory adjoining the Thompson-Yates laboratories, to accommodate the Tropical School, the Professor of Chemical Biology, Experimental Medicine, Comparative Pathology, and Serum Research Departments.

HOSPITAL SHIPS, ROYAL NAVY.

MR. ARNOLD FORSTER, in his speech introducing the Navy Estimates, said that the Royal Navy now had a hospital ship in the Mediterranean, and that steps were being taken to provide material for three other hospital ships in the event of war. The hospital ship now in the Mediterranean is the *Maine*, which has been in commission for nearly a year; her duty is to collect the sick from the squadrons, and convey them to the Royal Naval Hospital at Malta; she also receives sick from gunboats, torpedo destroyers, and other small vessels, and treats them on board; further, if a large number of invalids have to be sent to England, she brings them home. The ship has proved an enormous boon to the sick, who are now treated afloat, and moved about with the greatest comfort and convenience. The three other ships, for which material is to be provided for use in the event of war, would carry a staff of naval medical officers and nursing sisters; they would be in attendance upon the fleet during an action, and would receive the wounded on board. Mr. Arnold Forster also stated that steps were to be taken to provide the necessary material for a considerable number of additional steps for use as hospitals in case of war. Some of the experiences of the Japanese in the war with China showed the need of hospital ships to accompany a fleet into action. In warships of the present day, when the crew goes to general quarters, the medical officers and their staff are told off to some part of the ship which is turned into a dressing station, but when all the watertight doors between the various bulkheads are closed, as they would be, communication between the various parts of the ship would be difficult if not impossible; and the wounded, particularly if in large numbers, would have to stay where they fell until the action was over. The question, then, is whether medical aid would not be more efficient were the medical officers and the staff placed in a hospital ship provided with plenty of beds, each carrying one or more medical officers, who when the action was over, or when a ship had dropped out of action, could go on board and render the necessary aid; all wounded could then be hoisted out of the man-of-war and sent on board the hospital ship as soon as possible. Their removal would increase the efficiency of the fighting ship, and give the wounded a better chance of recovery. From the information now published, it would appear that the Admiralty has been studying this question, and the first result is seen in the arrangements outlined by Mr. Arnold Forster.

CHELSEA CLINICAL SOCIETY.

TWO special meetings of the Society will be held in the Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., on Tuesday, March 11th, and Tuesday, March 18th, 1902, at 8.30 p.m. The subject of discussion will be Cancer—its Nature, Origin, and General Principles of Treatment. The following, among others, will take part in it:—On March 11th: Dr. J. F. Payne (who will open the debate); Dr. John F. W. Tatham, Professor R. T. Hewlett, Dr. Beatson (Glasgow) Dr. J. Galloway and Dr. H. R. Gaylord (New York) (communication on Cancer in Swine, with lantern slides). On March 18th the discussion will be continued by Sir Wm. M. Banks, Mr. H. G. Plimmer, Professor Adami (Montreal) (a communication from whom will be read); Mr. A. Pearce Gould, Mr. A. W. Mayo Robson, Mr. A. Marmaduke Sheild and Dr. A. Barry Blacker, who will deal with the present position of treatment by means of *x* rays and ultra-violet rays, with demonstration of apparatus.

CHRIST'S HOSPITAL ARBITRATION AWARD.

THE immediate removal of Christ's Hospital in Newgate Street, known familiarly as the Bluecoat School, to new premises near Horsham, has enabled its neighbour, St. Bartholomew's Hospital, to acquire land for the much-needed and long-desired expansion. It was thought at first that the old and wealthy hospital might obtain the whole site of the Bluecoat School, and might thus preserve the insular position which carries with it the inestimable advantages of light and air. The area of the site occupied by the Bluecoat School is about the same as that at present in the possession of the St. Bartholomew's Hospital (five acres). But the purchase of five acres of land in the heart of the City of London is too great an undertaking even for this wealthy hospital, and there appears to be no citizen or body of citizens sufficiently philanthropic to buy the site and bestow it upon the hospital, conferring thereby a lasting benefit upon London. After the legislation which compelled the removal of Christ's Hospital, the Treasurer and Almoners of St. Bartholomew's Hospital offered to purchase about an acre and a half of the site at a price of £117,000, but the Governors of Christ's Hospital considered that the ground was worth more than this sum. The authorities of St. Bartholomew's Hospital therefore promoted a Bill in the last session of Parliament, and succeeded in obtaining an Act authorizing them to purchase at a price to be fixed by valuation. In accordance with this Act, Lord Balfour of Burleigh acted as arbitrator, and has made his award during the past week. The claim was for compensation in respect of 67,680 square feet of land adjacent to St. Bartholomew's Hospital, and forming the back portion of the well-known Newgate Street estate reaching as far as the boundary of the Old City Ditch. His lordship heard the evidence of Alderman Sir John Whitaker Ellis, Mr.

W. H. Elwell, Mr. E. H. Bousfield and Mr. A. R. Stenning for the claimants: and of Mr. Samuel Walker, Mr. C. A. Lang, Mr. Robert Vigers, and Mr. Edward Tewson for the promoters. His award is that the Governors of Christ's Hospital are to be paid the sum of £238,781, an enormous sum of money when it is considered that the land thus acquired is not more than can be usefully employed at the present moment to supply the urgent need for space, and that it leaves absolutely nothing for the future expansion of the hospital. The constant tendency of medical science is to require more room. Greater air space is needed for the adequate treatment of disease, and consequently fewer beds can be placed on the same area. Better scientific knowledge demands greater accuracy of detail, and more space is needed for research laboratories where blood counts can be made and bacteriological examinations can be conducted. The advance of surgery has multiplied the number of operations performed in a large hospital to an enormous extent. Additional operating theatres and an increased nursing staff have therefore become necessary. If St. Bartholomew's Hospital is to maintain its prestige room must be found for its increasing wants, and it is plain that if an acre and a half is hardly sufficient for present wants, it is wholly inadequate for future necessities. It behoves the Governors to consider most carefully the present position of the hospital, for they will certainly be called to a heavy account by posterity unless they can show to its satisfaction that everything possible has been done at the present crisis.

DEPENDENT AND DELINQUENT CHILDREN.

An international congress to consider the provisions which should be made for dependent and delinquent children will be held in London on July 15th and four following days. A large and influential committee has been formed to make the necessary arrangements. Messrs. G. E. Lloyd Baker, J.P., of Hardwicke Court, Gloucester, and J. Milson Rhodes, M.D., of Didsbury, are acting as secretaries *pro tem.* The Congress will meet in section so that each question can be thoroughly discussed. Representatives from European countries and from the United States are expected to take part in the proceedings. The programme of the proceedings will, we are informed, be issued very shortly.

THE TREATMENT OF INCIPIENT INSANITY.

In connection with the last meeting of the Edinburgh Medico-Chirurgical Society, we are informed that, when the treatment of incipient insanity in hospitals was discussed, half the asylum physician-superintendents of Scotland were present, some of them having come from long distances. The new movement appears to have the unanimous support of the asylum physicians, and is arousing great interest in the profession generally.

A NEW STATUE TO PASTEUR.

Seven cities in antiquity contended for the honour of being regarded as the birthplace of Homer, and probably as many places in our tight little island could quote expressions used by the late Mr. Gladstone which might be taken to mean that he first saw the light there. As far as we are aware, there can be no such dispute about the birthplace of Pasteur, but in the matter of statues he already leaves both Mr. Gladstone and Homer far behind. The cities, towns, and villages of the pleasant land of France appear to be vying with each other in erecting sculptured memorials of the great investigator. The latest is Marnes, where Pasteur resided during the closing years of his life. The municipality of that town has formed a strong Committee to secure the erection of a monument to his labours. Subscriptions on an international basis are being invited.

Lord Lister and Dr. Patrick Manson, C.M.G., have been elected Honorary Fellows, and Major Ronald Ross has been elected a Corresponding Fellow, of the Ghent Medical Society. Professor Virchow and M. Laveran were at the same time elected Honorary Fellows of the Society.

The *Indian Medical Gazette* understands that Captain E. R. Rost, I.M.S., has been successful with certain experiments on cancer in the laboratory of the General Hospital, Rangoon. It is further stated that he has succeeded in growing the organism on a solid medium, and that peritoneal injection of a culture of the parasite has caused a fatal carcinoma of the liver in a guinea-pig. The parasite in this case was taken from a cancer of the testis.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Midwives Bill and the Standing Committee.—The reference of this Bill last week to the Standing Committee on Law, which will meet on Tuesday, March 11th, gives the measure a very considerable prospect of passing into law. It is necessary that amendments should be put down at once. Sir John Tuke, Mr. Parker Smith, Sir F. Powell, Mr. Griffith-Boscawen, and Dr. Robert Ambrose have already placed several on the paper. Sir John Tuke's amendments embody the views of the General Medical Council. The names of the Standing Committee and the constituencies they represent are as follows:

The Lord Advocate, Buteshire
Mr. Asquith, Fife, East
Mr. Atherley Jones, Durham, N.W.
Mr. Atkinson, Londonderry, North
Mr. Barlow, Somerset, Frome
Mr. Bartley, Islington, N.
Mr. Butcher, York
Mr. Carew, Meath, South
Lord Hugh Cecil, Greenwich
Mr. Clancy, Dublin Co., North
Mr. Coghill, Stoke-upon-Trent
Mr. Colston, Gloucester, Thornbury
Mr. Cripps, Lancashire, Stretford
Sir Savile Crossley, Halifax
Mr. Bromley-Davenport, Cheshire, Macclesfield
Sir Charles Dilke, Gloucester, Forest of Dean
Mr. Dillon, Mayo, East
Mr. Tatton Egerton, Cheshire, Knutsford
Mr. Arthur Elliott, Durham
Mr. Samuel Evans, Glamorgan, Mid.
Mr. George Faber, York
Sir George Fardell, Paddington, S.
Mr. Flynn, Cork, North
Mr. Vicary Gibbs, Herts, St. Albans
Sir Frederick Godson, Kidderminster
Mr. Goulding, Wilts, Devizes
Mr. Graham, St. Pancras, West
Mr. H. D. Greene, Shrewsbury
Mr. Haldane, Haddington
Mr. Harwood, Bolton
Mr. T. M. Healy, Louth, North
Mr. James Heath, Staffordshire, N.W.
Mr. Helder, Whitehaven
Mr. Hemphill, Tyrone, N.
Mr. H. Hobhouse, Somerset, East
Mr. Jacoby, Mid-Derbyshire
Mr. Brynmor Jones, Swansea District
Mr. Jordan, Fermanagh, South
Mr. Lees Knowles, Salford, West
Mr. W. F. Lawrence, Liverpool
Sir Joseph Leese, Lancashire, Accrington
Mr. Lloyd Morgan, Carmarthen, West
Mr. Loder, Brighton
Mr. A. K. Loyd, Berks, Abingdon
Mr. Lyttelton, Warwick and Leamington
Dr. Macnamara, Camberwell, N.
Mr. MacNeill, Donegal, South
Sir H. Meysey-Thompson, Handsworth, Staffs
Mr. W. Moore, Antrim, North
Mr. A. Morton, Deptford
Mr. Newdigate, Nuneaton, Warwickshire
Captain Norton, Newington, West
Sir F. Powell, Wigan
Colonel Pryce-Jones, Montgomery Boroughs
Sir Robert Reid, Dumfries
Mr. Secretary Ritchie, Croydon
Mr. Bryn Roberts, Eifion, Carnarvonshire
Mr. Parker Smith, Partick, Lanark
Mr. Soames, Norfolk, South
Mr. Solicitor-General, Inverness
Sir Ernest Spencer, West Bromwich
Mr. Stevenson, Eye, Suffolk
Sir Benjamin Stone, Birmingham
Mr. Ure, Linlithgow
Sir Howard Vincent, Sheffield
Mr. Robert Wallace, Perth
Mr. Warr, Liverpool
Sir James Woodhouse, Huddersfield

Sir James Ferguson will be the Chairman and the following fifteen additional members have been added in respect of the Midwives Bill by the Committee of Selection:

Dr. Ambrose, Mayo, West
Mr. Griffith-Boscawen, Kent, Tunbridge
Mr. John Burns, Battersea
Mr. Caine, Cornwall, Camborne
Mr. Emmott, Oldham
Sir Michael Foster, London University
Sir Walter Foster, Derbyshire, Ilkeston
Mr. Heywood Johnstone, Sussex, Horsham
Lord Cecil Manners, Leicestershire, Melton
Mr. T. P. O'Connor, Liverpool
Colonel Sadler, Middlesbrough
Mr. Schwann, Manchester
Sir Barrington Simeon, Southampton
Sir John Tuke, Edinburgh and St. Andrews Universities
Mr. Eugene Wason, Clackmannan and Kinross.

Medical Witnesses and Fees.—Captain Bowles asked the President of the Local Government Board last week whether the auditors of the Board were instructed with respect to fees allowed by coroners to medical witnesses under Section XXII of the Coroners Act, 1887, to disallow all fees to medical men who acted gratuitously as medical officers at an infirmary or other medical institution; and whether, if a medical officer attached himself to act gratuitously to any such institution, he was entitled to be paid fees under the said section of the statute. Mr. Grant Lawson, in reply, said that the Local Government Board had not given any instructions to district auditors on the subject referred to. It rested with the auditor in any case to decide whether a particular payment was illegal and therefore one to be disallowed. The Board's jurisdiction only arose on appeal from such decision. A question of this nature was considered in 1898 by the Board and the Secretary of State. The view taken was that the medical officer of an institution to which the section applied would not be entitled to the fee in question although he received no pay for performing the duty of medical officer.

Vaccination and Revaccination.—In answer to an inquiry made by Mr. Coghill as to laws as to vaccination and revaccination abroad, Mr. Grant Lawson said that he understood that under a law made in February of this year vaccination and revaccination would be made compulsory in France. In Germany vaccination and revaccination had been compulsory on the population generally since 1874. Information obtained by the Royal Commission on Vaccination, and referred to in their report, showed that the system had been highly beneficial in diminishing small-pox.

The Influenza. Mr. John Dillon asked the Chancellor of the Exchequer on Friday whether his attention had been turned to disinfecting the House against influenza, and suggested an informal Committee of the medical members of the House to consider the subject and report. The Chancellor of the Exchequer, after referring to the fact that the Treasury Bench had suffered most, said that no one would be more happy than the Government to find a remedy, but he was not prepared to say that the House was the only place in which they were exposed to infection. He promised to make inquiries to see what could be done by Monday. When the House met on Monday there was a distinct odour of eucalyptus in the lobbies which appeared to reassure the more timid legislators. On Tuesday Mr. Rutherford, amid some laughter, asked the First Commissioner of Works to have samples of the air of the House taken for analysis during a sitting. Mr. Akers Douglas said he had already ordered this to be done. Dr. Farquharson thereupon asked whether the Government would reappoint the Committee of the House which formerly inquired into the drainage and sanitary arrangements of the House generally. In reply, it was stated, that one Committee on this subject had recommended its own reappointment, and that this had been agreed to. Mr. Henry Hobhouse, on Tuesday, asked the President of the Local Government Board whether, in view of the spread of influenza and the uncertainty that prevailed as to its causes and conditions, he would consider the appointment of a small Commission of experts to investigate and report upon the subject. Mr. Grant Lawson, replying, said that the causes and conditions of influenza had already been investigated by the Medical Staff of the Local Government Board, and by experts employed for the purpose, and two lengthy reports had been issued by the Department in 1891 and 1893. Under these circumstances it did not appear that any good results would follow from further investigation at present.

Lead in the Pottery Trade. On the vote on account for the Home Office on Friday last, Sir Charles Dilke raised an interesting debate on the dangerous trades. He congratulated the House on what had been effected by discussion as regards the disuse of phosphorus in the match industry, and regretted that the early successes as regarded the use of lead in pottery had not been maintained. He referred to the failure of the Home Office in the recent arbitration, and argued in favour of the recognition of the standard of frit in the pottery trade and against the principle of suspension of workmen as unsatisfactory. The actual standard for safety should be laid down, and manufacturers encouraged to do without lead or reduce it to the lowest standard. Mr. Coghill spoke in favour of the manufacturers, while Mr. Tennant and Mr. Asquith spoke in support of the general action of the Home Office. Mr. Secretary Ritchie, in defending the Home Office, referred to a golden list for manufacturers who did not use lead or reduced it to the minimum of 2 per cent., as laid down by Dr. Thorpe. He said that rules had now been agreed upon, and the Home Office proposed to circulate them among manufacturers, and he hoped that many would take advantage of them, and would apply to be entered on the golden list.

Death from Vaccination.—Mr. Corrie Grant called Mr. Long's attention to the death of a Mr. Essex after vaccination, and asked whether the lymph was supplied by the Local Government Board. The President of the Local Government Board, in reply, said his attention had been called to the case, and that the jury found that Mr. Essex had died from "coma and septic meningitis, the septic condition occurring after vaccination from some external infection from natural causes." The jury added that it was satisfied that the vaccination was duly and properly performed. An inspector of the Board had attended the inquest and made further inquiries, and he concurred in the view of the jury. The five other persons mentioned as having been seriously ill after vaccination from the same lymph were not so bad as represented. In only two cases was there any trouble, and the inspector ascertained that the arms were healing satisfactorily. The lymph, which was from calf No. 1538, had been used in the vaccination of a large number of persons, but no ill-effects beyond those named had been reported.

Army Estimates.—On Tuesday, on the motion that Mr. Speaker do leave the chair in order to go into Committee of Supply on the Army Estimates, Mr. Brodrick made his annual statement as Secretary for War. In the course of a long speech Mr. Brodrick referred to the Medical Service, and to the assistance he had had from civilian doctors in drawing up a scheme for the Army Medical Corps. The features of the scheme were increased pay, increased number of officers, and the opportunity for zealous officers to study, to be provided, if possible, in London. By examinations he proposed to carry out the principle of promotion by merit, and he hoped by the interchange of officers to bring them into close touch with the civil schools. There would be a gradual change in quartering, so that the officer would, where possible, occupy the same quarters for two years. It was desired also to attach the officer to a battalion. A notice of motion on the subject had been given, and he hoped to be able to convince any critics that anything the wide experience of civil practitioners could bring to bear on the new system had not been lost sight of in drawing it up. The new Warrant will be discussed later on, and the Secretary of State promised, in answer to Sir John Tuke, that it should be in the hands of members before the Estimates were reached. Later in the evening the discussion was directed to the condition of the concentration camps in the Transvaal, and to the report of the Ladies Commission thereon.

THE DUFFIN FUND.

DR. HECTOR LEAK, Winsford, Cheshire, Honorary Treasurer of this fund, writes that he has received the following subscriptions on behalf of the family of the late Mr. Robert John Duffin, M.B., M.Ch.R.U.I., since February 26th. Full particulars of the case will be found in the BRITISH MEDICAL JOURNAL of February 22nd, p. 479.

	£	s.	d.
Previously acknowledged	20	18	6
W. G. B., Bournemouth	1	0	0
Amicus, Matlock Bath	1	1	0
C. E. C., Hyères	1	0	0

TRIPLETS IN THE UNITED STATES. According to recent reports there are living at present in the United States five sets of triplets who have attained an age of 45 or over. The oldest set, aged 55, live at St. Clair, Michigan.

THE HOUSING OF LONDON.

THE portion of the recently-issued first volume of the Census Report on the County of London, which possesses the greatest interest from the standpoint of the public health of the metropolis, is that dealing with its conditions of housing. The facts as to housing throw important light on social and sanitary conditions, and are therefore worthy of careful study. In a general preface to the report, prominent attention is drawn by the Registrar-General, Mr. Noel Humphreys, and Dr. Tatham—who sign the report—to "the opinion we have been compelled to adopt that the returns as to 'houses' are in many cases unsatisfactory and, to some extent, misleading.' The same point is mentioned in a note prefixed to Table XII, in which it is stated that "for census purposes a block of model dwellings or residential mansions is counted as a single house, whatever may be the number of separate tenements." This rule appears to have been disregarded in 1891: hence the figures for the census of that year are often not comparable with those of 1901. In view of the above caution we have in the following remarks ignored statistics as to inhabited houses, confining ourselves to those relating to tenements.

Comparing Tables XIX, XX, and XXXVa in the report, on which the following remarks are based, it is clear that by a tenement is meant a dwelling occupied by a single family or by a separate occupier. In the census report for 1891 Dr. Ogle drew attention to anomalous statistics obtained from different towns, as to proportion of tenements, etc., which appeared to indicate that the meaning of the word tenement had not been always understood by the enumeration officers. As, however, we do not propose, except in a few preliminary remarks, to contrast 1891 with 1901, it may, we think, be assumed that the statistics as to tenements in the different metropolitan boroughs in 1901 are fairly comparable.

TENEMENTS IN LONDON.

The total number of separate tenements in London in 1901 was 1,019,546, the increase in ten years being equal to 8.7 per cent. The number of tenements containing five or more rooms was 347,516, an increase of 13.2 per cent.; while the increase of those with fewer than five rooms did not exceed 6.6 per cent. This indicates a distinct improvement in the conditions of housing. This is further shown by the fact that the tenements of one room formed only 14.7, while in 1891 they formed 18.4 per 100 total dwellings of all kinds. The proportion of one-roomed tenements which were overcrowded was also less in 1901 than in 1891.

TENEMENTS IN METROPOLITAN BOROUGHS.

The following tables have been specially calculated for the BRITISH MEDICAL JOURNAL from the tables given in the official census report. The latter give only the gross figures for each borough. In the following tables these are reduced to percentages, so that the different boroughs may be compared, and the lessons taught by the differences may be learnt.

In Table I are shown the percentage of total families occupying all forms of tenements of less than five rooms, and the percentage of total families occupying one, two, three, and four rooms respectively in each metropolitan borough. In Column 2 of Table V these metropolitan boroughs are arranged in the order of the proportion of tenements of less than five rooms found in each borough. Beginning with those having the largest proportion of such tenements, we find Stepney, Finsbury, Bethnal Green, Shoreditch, and Holborn heading the list, with St. Marylebone, St. Pancras, and Kensington following close in their wake; while at the other and more favourable end of the scale are Hampstead, Greenwich, Fulham, Stoke Newington, Woolwich, Wandsworth, and Lewisham. These results are consistent with what might have been anticipated. The centrifugal influences at work tending to scatter the workers in the metropolis to suburban and rural homes have hitherto been only partially successful; consequently the pressure of population, as shown by small tenements, is most keenly felt in Central London. When the figures in Table I for tenements of various sizes are considered this main rule is not subverted.

The highest proportion of *one-roomed tenements* to total tenements of all kinds is in Holborn (27 per cent.), Finsbury (26 per cent.), St. Marylebone (26 per cent.), and Shoreditch (25 per cent.), though St. Pancras (24 per cent.), Stepney (22 per cent.), Southwark (21 per cent.), and Chelsea (21 per cent.), have nearly as many. The smallest number is in Wandsworth and Lewisham (4 per cent.), the next smallest in Hampstead (6 per cent.), and Woolwich (7 per cent.).

TABLE I.

Name of Borough	Out of every 100 Total Families or Separate Occupiers the Number Occupying Tenements of Fewer than 5 Rooms was	Out of every 100 Total Families or Separate Occupiers the Number Occupying Tenements of			
		1 Room	2 Rooms	3 Rooms	4 Rooms
City of London ...	62	15	20	17	10
Battersea ...	62	4	15	20	19
Bermondsey ...	77	17	24	20	17
Bethnal Green ...	84	13	27	24	17
Camberwell ...	56	9	14	17	12
Chelsea	67	21	21	17	8
Deptford ...	57	8	15	17	14
Finsbury ...	85	26	33	17	4
Fulham	63	6	14	25	21
Greenwich	57	7	13	15	20
Hackney ...	61	10	22	19	10
Hammersmith ...	63	10	17	19	18
Hampstead	42	6	14	14	8
Holborn	79	27	25	15	7
Islington	71	17	24	18	12
Kensington	55	15	20	12	6
Lambeth	63	14	17	17	15
Lewisham	31	4	6	9	12
Paddington	68	15	18	20	15
Poplar	73	11	18	23	21
St. Marylebone ...	73	26	26	13	8
St. Pancras	79	24	29	18	8
Shoreditch	83	25	28	19	11
Southwark	83	21	25	21	16
Stepney	81	22	25	20	15
Stoke Newington ...	44	8	13	16	12
Wandsworth	42	4	7	13	12
Westminster, City of	64	18	20	15	8
Woolwich	57	7	14	17	19
London as a whole ...	66	15	20	18	13

The highest proportion of *two-roomed tenements* to total tenements of all kinds is in Holborn and Shoreditch (28 per cent.), St. Pancras (29 per cent.), and Finsbury (33 per cent.), while the smallest proportion is in Lewisham (6 per cent.), and Wandsworth (7 per cent.). Woolwich and Hampstead, which came out well in regard to one-roomed tenements, have each 14 per cent. of two-roomed tenements, as compared with 20 per cent. for London as a whole.

The highest proportion of *three-roomed tenements* is in Fulham (25 per cent.), Bethnal Green (24 per cent.), and Poplar (23 per cent.), while the lowest is in Kensington (12 per cent.). The variations in this class of tenement are evidently on a comparatively small scale.

The highest proportion of *four-roomed tenements* is in Poplar and Fulham (21 per cent.), Deptford and Greenwich (20 per cent.), Woolwich (19 per cent.), and Battersea (18 per cent.); the lowest proportion in Holborn (7 per cent.), Hampstead, St. Marylebone and Westminster (8 per cent.).

Glancing at the horizontal entries in Table I it will be seen that in Bethnal Green and Southwark there is an excessive proportion of all forms of tenements of fewer than five rooms, that is an excess above the average conditions for the whole of London; in others the excess is confined to the tenements of fewer rooms than four. Thus in Chelsea, Finsbury, Holborn, Islington, St. Marylebone, and St. Pancras Boroughs, and in the City of Westminster the excess is confined to one-roomed and two-roomed tenements; in Bermondsey the excess occurs in one-roomed, two-roomed, and three-roomed tenements; in Bermondsey, Shoreditch, and Stepney the excess beyond the average condition of London is confined to two-roomed and three-roomed tenements; in the City of London to two-roomed tenements; in Battersea and Paddington to three-roomed tenements; in Fulham, Hackney, Hammersmith, and Poplar to three-roomed and four-roomed tenements; and in Greenwich, Lambeth, Wandsworth, and Woolwich to four-roomed tenements.

It is reasonable to suppose that a high proportion of on-

roomed and two-roomed tenements has a more serious significance, as indicating insanitary conditions in a borough than a similar excess of three-roomed or still more of four-roomed tenements: and evidence will be adduced in support of this view when considering the facts tabulated in Table V.

Overcrowded Tenements.

The number of rooms occupied by a family is necessarily only a rough qualitative test of its condition as to overcrowding. If some standard of size of room could be recorded, it would be possible to make the test a quantitative one. This, however, is impracticable. Failing this, it has to be remembered that in the more central districts of London, in which larger houses have been sublet, a one-roomed tenement may contain as much air space as a two-roomed tenement in other districts. This fact to a slight extent militates against the value of the next test which the census table enables us to apply in determining the conditions of housing of the poor.

This test consists in the assumption made by Dr. Ogle in the census report for 1891 that, if there are more than two persons to each room of a given tenement, that tenement is overcrowded. Table XX in the new census report gives for metropolitan boroughs the number of persons living in each one-roomed to four-roomed tenement. From this table the following (Table II) has been calculated, giving for each

Table II.—*Overcrowded and Total Tenements in London.*

—	Overcrowded Tenements containing 1 Room.	2 Rooms.	3 Rooms.	4 Rooms.	Total Number of Tenements of all Sizes, including those containing more than 4 Rooms, and all Uncrowded Tenements.
London as a whole ...	40,762	50,304	23,079	9,728	1,019,546
City of London ...	151	256	81	16	5,339
Battersea	783	1,159	728	356	38,987
Bermondsey	1,189	1,705	986	427	29,073
Bethnal Green ...	2,042	2,374	1,402	566	28,209
Camberwell	1,016	1,459	1,109	489	56,985
Chelsea	683	749	389	93	17,467
Deptford	554	570	322	261	24,615
Finsbury	2,227	2,855	1,058	233	24,037
Fulham	512	723	752	154	32,137
Greenwich	248	366	331	254	19,702
Hackney	1,069	1,246	[illegible]	463	48,794
Hammersmith ...	566	892	492	235	25,810
Hampstead	177	423	203	61	16,998
Holborn	1,267	1,126	328	62	13,790
Islington	3,316	4,455	1,662	638	79,129
Kensington	1,424	2,208	764	203	38,749
Lambeth	2,258	2,543	1,229	518	70,887
Lewisham	130	168	132	105	27,701
Paddington	1,035	1,585	607	167	[illegible]
Poplar	1,187	1,413	1,173	635	35,787
St. Marylebone ...	2,052	2,319	637	172	31,623
St. Pancras	3,578	4,830	1,310	440	57,045
Shoreditch	2,305	2,439	1,114	411	27,031
Southwark	2,700	3,292	1,555	586	47,808
Stepney	[illegible]	[illegible]	[illegible]	1,188	61,113
[illegible]ington ...	[illegible]	[illegible]	[illegible]	30	11,824
[illegible]	[illegible]	[illegible]	[illegible]	147	40,756
[illegible]or, City of	[illegible]	[illegible]	[illegible]	[illegible]	41,244
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24,585

borough the number of crowded one-roomed, two-roomed, three-roomed, and four-roomed tenements, and in the last column the total number of tenements or separate dwellings in each borough. In Table III the proportion of overcrowded tenements in every 100 of each class is stated. Considering first the general statement for all tenements containing fewer than five rooms, it will be noted that in Stepney 34, in Finsbury 31, in Bethnal Green and Shoreditch 27, in Holborn 26 per cent., and in St. Marylebone and St. Pancras 23 per cent. of the total tenements with fewer than five rooms are overcrowded according to the standard adopted, which we believe to be reasonable. Metropolitan boroughs which stand best in this arrangement are Stoke Newington and Woolwich, in which 9 per cent., Wandsworth in which 7 per cent., and Lewisham in which 6 per cent. of the total tenements containing fewer than five rooms are overcrowded.

The lumping together of all tenements of fewer than five rooms gives but an imperfect measure of crowding. Crowding in one-roomed or two-roomed is more serious than in three-roomed or four-roomed tenements, as in the latter there are almost certain to be available better arrangements for ventilation of rooms by perflation and for efficient lighting, as well as more complete sanitary arrangements in other respects. Hence the necessity to study the four last columns in Table III. Of every 100 tenements of one room, the number overcrowded varied from 45 in Stepney. 38 in Bethnal Greeen, and 35 in Finsbury to 14 in Wandsworth and 13 in Lewisham. As might have been anticipated, in one-roomed tenements a high proportion of overcrowding occurs even in the better districts of London, and it cannot be in accordance with the requirements of civilized life that all the functions of family life should be carried on in a single-roomed dwelling.

Table III.—*Out of every 100 total Families or Separate Occupiers in each kind of Dwelling or Tenement the Number Overcrowded was in*

—	All Tenements under 5 Rooms.	In Tenements of 1 Room.	2 Rooms.	3 Rooms.	4 Rooms.
City of London ...	15	19	23	9	3
Battersea	13	23	20	12	5
Bermondsey	19	18	24	17	8
Bethnal Green ...	27	38	33	21	13
Camberwell	13	21	19	11	5
Chelsea	16	18	20	13	6
Deptford	12	28	16	8	5
Finsbury	31	35	36	25	11
Fulham	11	21	17	9	5
Greenwich	11	18	14	11	6
Hackney	13	22	17	9	6
Hammersmith ...	14	21	20	10	7
Hampstead	12	16	18	9	4
Holborn	26	34	29	15	6
Islington	18	26	24	12	7
Kensington	22	25	28	16	7
Lambeth	15	23	21	10	5
Lewisham	6	13	10	5	3
Paddington	16	21	24	9	5
Poplar	17	30	22	14	8
St. Marylebone ...	23	25	28	15	8
St. Pancras	23	27	29	14	8
Shoreditch	27	34	32	22	11
Southwark	21	27	26	15	8
Stepney	34	45	40	26	14
Stoke Newington ...	9	16	15	5	2
Wandsworth	7	14	10	7	4
Westminster, City of ...	10	21	19	12	5
Woolwich	9	19	12	7	5
London as a whole ...	—	27	25	13	7

Among two-roomed tenements, Stepney, Finsbury, Bethnal Green, Shoreditch, St. Pancras, and Holborn occupy an invidious position, the number overcrowded varying from 29 to 40 per cent. The royal borough of Kensington comes next with 28 per cent. of its two-roomed tenements overcrowded, and we may add 25 per cent. of its one-roomed and 16 per cent. of its three-roomed tenements overcrowded. Even Hampstead has 18 per cent. of its two-roomed tenements overcrowded: while in Lewisham and Wandsworth—the best in this column—there is 10 per cent. of overcrowding.

The same boroughs as before head the list of overcrowding in three-roomed tenements; but here Kensington is only six places removed from the position of unfortunate notoriety at the head of the list. In Stoke Newington and Lewisham only 5 per cent. of three-roomed tenements are overcrowded, as compared with 26 per cent. in Stepney and 16 per cent. in Kensington.

Among four-roomed tenements, 14 per cent. were overcrowded in Stepney at one end of the scale, and 2 per cent. in Stoke Newington at the other end of the scale.

In Table IV the metropolitan boroughs are arranged in decreasing order of overcrowding for each kind of tenement containing fewer than five rooms. By this means can be seen at a glance the relative position of each borough in this important matter; and the special kind of overcrowding in each borough can be gauged. It will be easy by means of this

table to answer the question whether in a given borough overcrowding occurs chiefly in one-roomed, two-roomed, three-roomed, or four-roomed tenements, or whether it occurs in several or in all of these varieties of tenements.

Table IV.—*Order of Overcrowding, the Most Crowded being given First.*

All Tenements Under 5 Rooms.	1 Room.	2 Rooms.	3 Rooms.	4 Rooms.
Stepney	Stepney	Stepney	Stepney	Stepney
Finsbury	Bethnal Green	Finsbury	Finsbury	Bethnal Gr'n
Bethnal Gr'n	Finsbury	Bethnal Green	Shoreditch	Finsbury
Shoreditch	Shoreditch	Shoreditch	Bethnal Green	Shoreditch
Holborn	Holborn	St. Pancras	Bermondsey	Bermonsey
St. Mary'l'b'n	Poplar	Holborn	Kensington	Poplar
St. Pancras	Deptford	Kensington	Holborn	St. M'ryl'bn
Kensington	St. Pancras	St. Marlybone	St. Mary'l'b'n	St. Pancras
Southwark	Southwark	Southwark	Southwark	Southwark
Bermondsey	Islington	Bermondsey	Poplar	H'm'rsm'th
Islington	Kensington	Islington	St. Pancras	Islington
Poplar	St. Maryleb'n	Paddington	Chelsea	Kensingt'n
Chelsea	Lambeth	City of London	Islington	Chelsea
Paddington	Battersea	Poplar	Battersea	Greenwich
Westminster	Hackney	Lambeth	Westminster	Hackney
City of L'nd'n	Camberwell	Battersea	Camberwell	Holborn
Lambeth	Fulham	Chelsea	Greenwich	Battersea
Hammersmith	H'm'rsmith	H'm'rsmith	H'm'rsmith	Camberw'll
Battersea	Paddington	Camberwell	Lambeth	Deptford
Camberwell	Westminster	Westminster	City of L'ndn	Fulham
Hackney	City of L'ndn	Hampstead	Fulham	Lambeth
Deptford	Woolwich	Fulham	Hackney	P'ddington
Hampstead	Bermondsey	Hackney	Paddington	W'stm'nst'r
Greenwich	Chelsea	Deptford	Hampstead	Woolwich
Fulham	Greenwich	Stoke N'w'nton	Deptford	Hampst'ad
Stoke N'ngtn	Hampstead	Greenwich	Woolwich	W'ndswrth
Woolwich	Stoke N'n'gtn	Woolwich	Wandsworth	Lewisham
Wandsworth	Wandsworth	Lewisham	Lewisham	C. of L'nd'n
Lewisham	Lewisham	Wandsworth	Stk N'w'ngt'n	St'ke N'w'gtn

The preceding tables have been calculated from the gross figures given in the Census Report for London. They possess great national importance as concerning intimately the deepest interests of the metropolis; and they are placed on record here as a contribution to the study of overcrowding. It will not, we think, be difficult to deduce from the preceding statistics the two broad general conclusions: first, that improved and increased facilities for the transmission of a large share of the population of London to and beyond its periphery are needed; and secondly, that in the more central districts of London greater efforts will need to be made for housing those who cannot migrate to or beyond the periphery of London. The boroughs of Kensington, Paddington, and to a less extent of Hampstead, for instance, cannot rest contented in view of the high proportion of overcrowding which Table III shows to prevail in them. It may be hoped that in these, as well as in other boroughs of the metropolis public opinion will demand that the second remedy indicated above shall receive a practical trial, and that the policy of *laissez faire* shall not be allowed to continue.

Influence of Size of Tenement and Degree of Overcrowding on Death-rates.

In Table V certain data are arranged, which will enable the relationship between proportion of tenements of fewer than five rooms, proportion of overcrowded tenements, and the death-rates from all causes, from consumption and in infancy to be studied. It has not been practicable to give in the same table the comparative facts as to the metropolitan boroughs for each of the four different sizes of tenements under five rooms; but there will be no difficulty in contrasting the data of Table V with those in Tables III and IV. It is not necessary to pursue the comparison in detail, but the main points may be indicated. Speaking generally, the metropolitan boroughs with the highest proportion of tenements containing fewer than five rooms, and with the highest proportion of overcrowding in these tenements have the highest general death-rate and the highest death-rate from phthisis. The death-rate from the latter disease may be taken as a fairly accurate gauge of the effects of overcrowding. In some districts, as in Paddington and Kensington, the relative position is not such as would be expected in view of the relative overcrowding of tenements. The probable social reasons for this will be mentioned later. At the other end of the scale the low phthisical and general death-rate of Lewisham, Hampstead, and Wandsworth show the important favourable influence of what may be described as the more diluted housing of the people in these districts.

With regard to the last column in Table V it is only necessary to remark that there is no such close relationship between overcrowding in tenements and infantile mortality, as holds good for the general and the phthisical death-rate. St. Marylebone and Holborn, which stand out badly in other respects, occupy a very favourable position as regards infantile mor-

Table V.—*The Metropolitan Boroughs.*

Arranged in order of the Proportion per cent. of Domestic In-door Servants to Families or Separate Occupiers, beginning with the Boroughs having the Lowest Proportion.	Arranged in order of the Number out of every 100 Total Families occupying Tenements of less than 5 Rooms.	Arranged in order of the Number out of every 100 Total Tenements under 5 Rooms which were Overcrowded.	Arranged in order of Death-rate per 1,000 of Population during 1901 from		Arranged in order of Deaths of Children under 1 Year of Age to 1,000 Births.
			All Causes.	Phthisis.	
Shoreditch	Finsbury	Stepney	Shoreditch (21.9)	Holborn (2.81)	Shoreditch (197)
Bethnal Green	Shoreditch	Finsbury	Southwark (21.5)	Southwark (2.50)	City of London (175)
Bermondsey	Bethnal Green	Bethnal Green	Finsbury (21.4)	City of London (2.29)	Bermondsey (169)
Southwark	Southwark	Shoreditch	Stepney (20.9)	Shoreditch (2.22)	Hammersmith (168)
Poplar	Stepney	Holborn	Bermondsey (20.9)	Finsbury (2.19)	Southwark (168)
Deptford	St. Pancras	St. Marylebone	Bethnal Green (20.3)	Bethnal Green (2.15)	Poplar (165)
Stepney	Holborn	St. Pancras	Holborn (20.1)	Stepney (2.09)	Kensington (163)
Battersea	Bermondsey	Kensington	City of London (20.1)	St. Marylebone (1.92)	Stepney (163)
Woolwich	Poplar	Southwark	Poplar (20.0)	Westminster (1.80)	Battersea (163)
Camberwell	St. Marylebone	Bermondsey	St. Pancras (18.3)	St. Pancras (1.87)	St. Pancras (154)
Deptford	Islington	Islington	Lambeth (17.3)	Poplar (1.79)	Bethnal Green (153)
Islington	Chelsea	Poplar	Hammersmith (17.0)	Bermondsey (1.79)	Fulham (152)
St. Pancras	Fulham	Chelsea	St. Marylebone (16.0)	Woolwich (1.70)	Deptford (146)
Hackney	Paddington	Paddington	Chelsea (16.6)	Chelsea (1.68)	Finsbury (142)
Lambeth	Westminster	Westminster	Camberwell (16.5)	Lambeth (1.65)	Camberwell (142)
Fulham	Lambeth	City of London	Deptford (16.5)	Hackney (1.53)	Islington (140)
Hammersmith	Battersea	Lambeth	Battersea (16.4)	Islington (1.51)	Lambeth (139)
Holborn	City of London	Hammersmith	Westminster (16.0)	Camberwell (1.48)	Chelsea (138)
Greenwich	Hackney	Battersea	Islington (16.0)	Battersea (1.43)	Paddington (136)
Stoke Newington	Hammersmith	Camberwell	Fulham (15.8)	Hammersmith (1.42)	Westminster (135)
Wandsworth	Deptford	Hackney	Hackney (15.8)	Fulham (1.37)	Hackney (135)
Lewisham	Woolwich	Deptford	Greenwich (15.3)	Kensington (1.36)	Wandsworth (132)
City of London	Camberwell	Hampstead	Kensington (15.2)	Stoke Newington (1.35)	Greenwich (130)
Paddington	Kensington	Greenwich	Woolwich (14.6)	Deptford (1.10)	Lewisham (126)
St. Marylebone	Greenwich	Fulham	Paddington (14.3)	Greenwich (1.06)	Woolwich (120)
Chelsea	Stoke Newington	Stoke Newington	Wandsworth (13.4)	Wandsworth (1.04)	Holborn (124)
Westminster	Hampstead	Woolwich	Stoke Newington (13.2)	Paddington (1.00)	Stoke Newington (115
Kensington	Wandsworth	Wandsworth	Lewisham (13.0)	Hampstead (0.91)	St. Marylebone (107)
Hampstead	Lewisham	Lewisham	Hampstead (10.7)	Lewisham (0.90)	Hampstead (104)

tality; while Hammersmith, with relatively few overcrowded tenements of one, two, and three rooms, but many of four rooms, has a high infantile mortality.

The key to many of the above discrepancies is contained in the first column of Table V, which is an adaptation from Table XXXV A of the census report. The proportion of total male and female indoor domestic servants to every 100 families or separate occupiers varies from 5.7 in Shoreditch, 5 8 in Bethnal Green, and 6.6 in Bermondsey to 50.2 in Paddington, 80.0 in Kensington, and 81.4 in Hampstead. The presence of such a varying proportion of domestic servants affects the death-rate in at least two ways: (*a*) *Statistically* by altering the age incidence of the population, increasing the proportion of persons at the most viable time of life. There is reason to think, furthermore, that frequently domestic servants die elsewhere than in the districts in which they work. (*b*) *Socially* the presence of a high proportion of domestic servants, implying all the conditions favourable to life which money can afford. Of the two, this is doubtless the most important factor. Overcrowding in small tenements is detrimental to the prospects of life not merely because it involves living in a vitiated atmosphere, but because along with this occur the associated privations—deficient and unsatisfactory food, deficient clothing and firing, etc.—of poverty. In adjudging, therefore, of the relative sanitary condition of two districts any comparison of death-rates which fails to make a considerable allowance, though an allowance which we cannot at present quantify, for varying social conditions will be likely to be fallacious, if not absolutely misleading. As the successive volumes of the census report appear they will enable such a comparison of and such an allowance for variations of social conditions to be made.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending February 8th, 15,165 deaths occured from plague in India. These figures show a great increase compared with the previous week, when the numbers stood at 12,102, and largely in excess of the corresponding week of 1901, when the figures stood at 4,337. The increase is chiefly in the Punjab and Bombay districts. In the city of Bombay during the week ending February 8th 549 deaths were attributed to plague, against 408 during the previous week. During the same period the figures were in the Bombay districts 4,676, against 3,822; in Calcutta, 124 against 82; in Bengal, 953 against 822; in the North-West Provinces and Oudh, 1,526 against 1,182; in the Punjab, 5,529 against 4,102; in Kashmir, 470 against 371 (Juminu); in Karachi, 44; in the Mysore State, 576 against 587; in the Madras Residency, 562 against 574; and at Hyderabad, 146.

EGYPT.

The Director-General, Sanitary Department, Egypt, reports that during the week ending February 16th, 8 cases and 8 deaths from plague occurred in Egypt; and that during the week ending February 23rd, 8 cases and 5 deaths were attributed to plague. Tantah continues to be the chief seat of the disease, and during the two weeks ending February 16th and 23rd the cases in Tantah numbered 6 and 5, and the deaths amounted to 7 and 4 respectively. At Kom-el-Nur, a village near Mit Ghamr, the cases during the two weeks amounted to 4, with one death from the disease.

One case and one death occurred in Alexandria during the week ending February 23rd.

M[illegible] from plague in Tantah occurred out of hospital.

A[illegible] dated March 3rd, states that during the week ending [illegible] cases of plague were reported for the whole of [illegible] the disease. The cases were distributed as follows: [illegible] Mit Ghamr, 4; Mehallet-Abu-Ali, 1. In the neighbourhood of Zifteh 4 deaths are reported from plague, and at Mehallet-Abu-Ali, 1 death.

CAPE OF GOOD HOPE.

One case of plague only was reported in Cape Colony (Mossel Bay) during the week ending February 1st. There were no deaths from the disease during the week. Eight cases remained in hospital under treatment.

MAURITIUS.

During the week ending February 27th 7 fresh cases of plague were reported in Mauritius, and 3 deaths from the disease.

SYDNEY.

A[illegible] dated March 4th announces that plague has re[illegible] and that, since the recurrence of the disease, 46 [illegible]

A NEW HOSPITAL IN BARCELONA. The Spanish Government has built a clinical hospital in connexion with the Medical Faculty of the University of Barcelona. The cost of the building was 5,000,000 pesetas (£200,000).

THE MIDWIVES BILL.

STANDING COMMITTEE ON LAW.

NOTICE has been given of the following amendments:

Sir JOHN TUKE,—

Clause 2, page 1, line 16, after "shall," insert "habitually and for gain attend women in childbirth, or shall."

Clause 2, page 1, line 31, at end, add,—

(6) No woman shall be entitled, after the passing of this Act, to recover any fee or charge for attendance as a midwife unless she is certified under this Act.

Clause 3, page 2, line 4, after "or," leave out to "be," inclusive, in line 5.

Clause 4, page 2, line 16, leave out "Incorporated Midwives Institute," and insert "the University of Wales."

Clause 4, page 2, line 31, leave out "the Privy Council after consultation with."

Clause 10, page 5, line 34, leave out from commencement, to end of line 4, page 6, and insert,—

No woman shall hold herself out as a practising midwife in any county or county borough without having previously obtained from the local supervising authority a licence enabling her to practise therein, which licence shall be granted on proof by the woman that her name is on the midwives roll. The licence shall remain in force till the thirty-first day of December following, and shall be revocable at any time by the local supervising authority in case the holder be proved to the satisfaction of the Central Midwives Board to have infringed any of the regulations framed under this Act. The licence shall be issued on payment of a fee of one shilling, it shall only be available in the county for which it is issued, and it shall be renewed annually on the first day of January.

Clause 14, page 6, line 30, at end, add,—

(2) Should any disagreement arise between the General Medical Council and the Central Midwives Board respecting the carrying out of the provisions of the Act, or any of them, it shall be determined by the Lord President of the Council.

Sir FRANCIS POWELL—

Page 1, postpone Clause 1.

Clause 3, page 2, line 9, at end, add "and that if in practice at the passing of this Act she conforms to the regulations of the Central Midwives Board respecting the admission to the roll of women already in practice as midwives at the passing of this Act."

Clause 4, page 2, line 10, leave out "the Lord President of the Council," and insert "the General Medical Council."

Clause 4, page 2, line 19, leave out "shall," and insert "may."

Clause 5, page 3, line 22, leave out "Privy Council," and insert "General Medical Council."

Clause 8, page 4, line 25, at end, insert—

(1) To issue licences.

Clause 8, page 4, line 39, leave out "have notified their intention," and insert "holding a licence."

Clause 10, page 5, line 36, leave out "give notice in writing of her intention to do so to," and insert "without having previously obtained a licence enabling her to practice."

Clause 10, page 5, line 37, leave out "to," and insert "from."

Clause 10, page 5, line 40, leave out from "such," to end of sub-section.

Mr. GRIFFITH-BOSCAWEN

Clause 2, page 1, line 16, after "shall," insert "habitually and for gain attend women in childbirth, or shall."

Clause 3, page 2, line 4, leave out "from the," to "as may be," in line 5.

Clause 4, page 2, line 13, after "by the," leave out to end of sub-section, and insert "General Medical Council, who either are or have been teachers of midwifery in a recognized medical school in England."

Clause 4, page 2, line 22, at end, insert—

(4) One person to be appointed by the Royal British Nurses' Association.

Mr. Parker Smith—

Clause 2, page 1, line 12, after "Act," insert "or is a person specially qualified to practise midwifery."

Clause 8, page 4, line 34, at end, insert "to prevent the spread of infection."

Dr. Robert Ambrose,—

Clause 2, page 1, line 18, after "aforesaid," insert "or shall habitually and for gain attend women in childbirth, or any woman who being licensed under this Act shall employ as a substitute at any childbirth any person not licensed under this Act, shall be liable on summary conviction to a fine not exceeding five pounds: provided always, that nothing in this Act shall apply to any person or persons attending a woman during labour in a case of emergency until the services of a person licensed under this Act, or of a registered medical practitioner, are available."

Clause 2, page 1, line 31, after "parturition," insert "Any woman contravening this section shall, upon summary conviction, be liable to a fine not exceeding five pounds."

Clause 4, page 2, line 10, leave out from "the," to "shall," in line 11, and insert "General Medical Council shall appoint a Board consisting of seven registered medical practitioners—

After two years from the passing of this Act one-half of the six members of the Board selected by the General Medical Council shall retire, but shall be eligible for re-election, and thereafter one-half of such members of the Board shall retire annually in such manner that each of such members shall serve a term of two years before retiring, and members so retiring shall be eligible for re-election;

In the event of the death or resignation of a member of the Board the successor elected or appointed shall hold office for the remaining period for which the deceased or resigned member was elected, and must be qualified equally with such deceased or resigned member to hold office as a member of the Board, and shall, on retiring, be eligible for re-election;

No member of the Board shall act as teacher, instructor, or examiner of midwives, and no member of the Board shall take any part in any inquiry respecting the conduct of any midwife to whom he had acted as teacher or instructor."

THE DUBLIN SCHOOL.

Our Special Correspondent in Dublin writes:

When the Midwives Bill of 1898 was introduced into Parliament the Royal College of Physicians of Ireland and the Dublin Branch of the British Medical Association entered a protest against the exclusion of Ireland from the provisions of any such Bill, and pointed out to members of Parliament that as Dublin was the most important centre in the United Kingdom for the education of midwives and monthly nurses, it would be a great hardship if candidates for registration as midwives should have to proceed to England to be examined for such registration.

In July, 1899, the Royal College of Physicians decided to discontinue their examination for the certificate of midwife and nurse tender, and thereupon removed the regulations relating to this examination from the College By-laws. Again, on the introduction of the Bill of 1900 the Irish College of Physicians laid their views before many members of Parliament, and obtained from Mr. J. Heywood Johnstone, M.P., a promise that he would accept an amendment to the Bill to the effect that the examinations of the Rotunda and Coombe Lying-in Hospitals should be regarded as equivalent to that of the Central Midwives Board, provided the College could receive the assent of the Privy Council to such amendment.

The reasons then put forward by the College for desiring the introduction of this amendment were that the Rotunda Hospital had been incorporated by Royal Charter in 1756, and the Coombe Hospital in 1867 for the express object of training, examining, and certifying midwives; that in this way Dublin had come to be regarded as the most important school of midwifery in the United Kingdom, to which were attracted annually large numbers of English women; and that, finally, it would be a distinct hardship on these women, trained and examined in Dublin at considerable expense, if they should be compelled to present themselves for re-examination before a Central Board in England should they determine to practise in that country.

The Bill at present before Parliament would probably meet the approval of the Royal College of Physicians of Ireland if provision were made clearly defining that the certificates issued by the two hospitals above named would entitle the holders without further examination to be certified under the new Act.

There seems to be no necessity to make any special provision for the holders of the now extinct certificate of "Midwife and Nurse Tender" of the Royal College of Physicians of Ireland.

THE TASMANIAN MIDWIFERY NURSES BILL.

It is interesting to note that one of the matters that came before the Executive Committee of the General Medical Council on February 24th was an Act to promote the better training of women as midwifery nurses, and for their registration as such, introduced into the Tasmanian Legislature. As a Midwives Bill is now before Parliament, the promoters of which have the same objects in view, as, it may be assumed, those of the Tasmanian Bill, it will be interesting to compare the means adopted by the latter to further this end with those set out in the English Bill. In the first place, it is to be noted that in the Tasmanian Bill, midwifery nurse is not defined merely as a woman registered under this Act, but, in addition, as a woman "who undertakes for gain to attend in cases of natural labour." A distinct attempt, conspicuous by its absence in the English Bill, is here made to limit the practice of the registered midwife. In Section 4 a still more important principle is insisted upon. After the passing of the Act all unregistered midwives are forbidden to practise for gain under a penalty of £2 for the first, and £5 for the second offence, the only exception being, where the lying-in woman resides more than three miles from a registered practitioner, or a legally qualified medical practitioner shall be unable or unwilling to attend. The exigencies of colonial life no doubt require this, but it is evident that our countrymen in Tasmania recognize the importance of the penal clause that was incorporated in the Midwives Bill of 1900 but eliminated from that of 1902. Another improvement may also be noted. In the schedule of the Bill it is laid down that before presenting themselves for examination every candidate must present one of the following certificates:

(a) Of having attended for not less than six months the practice of a lying-in hospital of not less than six beds.

(b) Of attendance on not less than twelve cases of practical midwifery, or a course of not less than twelve lectures on midwifery.

A minimum is thus laid down by the Legislature as to the training required of candidates for registration, and the Board of Examiners created by the Bill, although they may increase its stringency, cannot diminish it.

It remains to be seen how far the Midwives Bill now before Parliament will be improved in committee. If it becomes law in its present condition, there can be no doubt that Tasmania will possess legislation on this subject much superior to that in the mother country.

LITERARY NOTES.

We are informed that Her Majesty Queen Alexandra and Her Royal Highness Princess Christian have graciously accepted copies of *Woman's Best Work and Latent Capabilities*, by Mr. F. J. Gant, F.R.C.S., which has just been published by Elliot Stock.

Lieutenant-Colonel Frank Howard, Army Medical Staff (retired pay), has compiled a *Handbook of the Medical Organizations (Chiefly for War) of Foreign Armies*, which will shortly be published. The author's object is to supply a source of information on a subject some knowledge of which will in

future be required from army medical officers, and on which no textbook exists. The book, which can be obtained from Messrs. Eyre and Spottiswoode, is issued with the permission of the Secretary of State for War obtained officially through the Director-General of the Army Medical Service.

The University of Würzburg has, at the suggestion of its Medical Faculty, conferred the honorary degree of Doctor of Medicine on Professor Julius Jolly, the distinguished Sanscrit scholar, in recognition of the services rendered by him in furtherance of the study of the history of medicine by his work on *Medicine in India*.

The annual report of the Committee of the *Library of the College of Physicians of Philadelphia* shows that the number of volumes in the library is 64,916, an addition of 3,557 having been made during 1901. Of the new publications added, 36 were written or edited by Fellows of the College. By the generosity of a few Fellows, Dr. J. Stockton Hough's collection of rare and valuable books was procured, 515 of which were printed before 1700, 76 in the fifteenth century, 175 in the sixteenth century, and 264 in the seventeenth century. Bequests of Dr. John Ashhurst, jun., and Dr. Alfred Stillé furnished 1,707 volumes. During the year there were donations from 211 persons, a number of them giving more than 50 volumes.

In the *Library* for January Mr. Campbell Dodgson gives an interesting account of a collection of old prints bearing on the subject of plague, which has recently been published by Heitz and Mundel, of Strassburg, with what Carlyle would have called "elucidations" by W. L. Schreiber. The introduction shows by statistics, more or less trustworthy, how large a part was filled by the plague, and the dread of it, in the life of Europe from 1347 to 1500. The latter half of that period coincides, says Mr. Campbell Dodgson, with the rise of engraving, both on copper and on wood; and wood engraving, the more popular branch of the graphic art, reflects with wonderful completeness, considering the scarcity of extant prints, the habits and modes of thought of the people who patronized it. Scientific remedies—so far, at least, as our documents go—were little in demand. There are three type-printed broadsides among the facsimiles reproduced in the book which recommend a certain regimen in time of plague, but only one attempts to prescribe for a patient actually infected. The leading idea was that God sent pestilence as a visitation for sin, and that His wrath could be mitigated by the intercession of His Son, of the Blessed Virgin, and of St. Antony, St. Sebastian and St. Roch. Other saints invoked at certain times, or in certain localities, for the same purpose, were St. Anne, St. Adrian, St. Valentine, and St. Quirinus. The process by which the first group of saints became connected with the plague is curious. The starting point is said to have been the "Tau" cross. It appears that "Tau" is the Hebrew word for the "mark" set upon the foreheads of certain men appointed to be saved in Ezekiel ix. 4. The authors of the Septuagint version transliterated the word instead of translating it, and its identity with the name of T, the Greek letter, combined with the shape of that letter, caused the idea to get abroad that the mark in question was a cross. Hence the superstitious notion that the letter T marked upon a house acted as a charm against plague. But this same T was already a symbol of St. Anthony the hermit; hence his invocation for plague, as well as for "St. Anthony's fire," the malady in which his aid was chiefly sought. The mark T is also found on some woodcuts of St. Sebastian, but the arrow, the instrument of his martyrdom, is at the root of the association of this saint with plague. The arrow is coupled with pestilence in Ps. xci. 5, and God, as the sender of pestilence, is accordingly represented with an arrow in his hand. St. Anne is introduced by reason of her close connexion with the Virgin, and because a special devotion to her followed the elevation of her festival to the first rank which Frederick the Wise of Saxony obtained from the Pope in 1494. The connexion of St. Roch with the plague is more logical. He was a medical student of Montpellier, his native town, who gave all his goods to the poor, and went to Italy, where the plague was raging in 1348, expressly to devote his labour and skill to tending the sick. He at length caught the plague himself, but lived to return to Montpellier. His relics were stolen thence by a band of Venetian conspirators late in the fifteenth century, for the benefit of Venice, whose trade with the Levant entailed a constant risk of infection.

In the *Fortnightly Review* for March Sir Henry Thompson, with characteristic boldness, adventures himself into the field of theology in an article entitled "The Unknown God?" His text is the following sentence from a paper by Mr. Herbert Spencer:

> But amid the mysteries which become the more mysterious the more they are thought about, there will remain the absolute certainty that he (the Astronomer) is ever in presence of an Infinite and Eternal Energy, from which all things proceed.

Guided by this illuminating utterance, Sir Henry Thompson has examined all things for the last twenty years, and has satisfied himself, first, that man has, throughout a long and very gradual course of development from his prehistoric origin, acquired all his stores of natural knowledge solely by his own unaided efforts; secondly, that the authenticity of the ancient records, existing in several parts of the world, made at different periods of its history, and regarded as supernatural or "divinely" revealed, respecting the origin of the entire universe, especially that of the earth, including man himself and his duties to an alleged Creator, and asserting the existence of a future endless state of rewards and punishments for every individual after death, has never been substantiated, and is in fact unsupported by evidence. Then the great Truth became manifest to him—to wit, that interference of a supernatural kind with man's doings (supposing its exercise to be possible within the limits of the great scheme of Nature) would have marred, if it did not arrest, the course of that development which has issued in the remarkable progress he has made, especially during the last three centuries. Sir Henry Thompson was now assured by evidence which he could not resist that all which man—with his limited knowledge and experience—has learned to regard as due to Supreme "Power" and "Wisdom," although immeasurably beyond his comprehension, is also associated with the exercise of an "Absolutely Beneficent" influence over all living things, of every grade, which exist within its range. "And," he concludes, "the result of my labour has at least brought me its own reward, by conferring emancipation from the fetters of all the creeds, and unshakeable confidence in the Power, the Wisdom, and the Beneficence which pervade and rule the Universe." The conclusion is scarcely so novel as Sir Henry Thompson seems to think, but it will doubtless be comforting to those who find spiritual support in abstractions. The same number of the *Fortnightly Review* contains a short paper by Mr. Cannan, on the recent decline of natality in Great Britain, which is attributed to a diminution in the number of children born to each marriage; and one by Dr. John Beattie Crozier, on Free Trade or Protection for England.

To the *National Review* for March Dr. Bond of Gloucester contributes a timely article on small-pox. He recommends a system of steady pressure exerted on parents from the birth of their children up to thirteen or fourteen years of age by officials who have a direct sanitary interest in promoting vaccination, because it diminishes the trouble and anxiety to which they are exposed by outbreaks of small-pox. Thus "the wise policy recommended by the Royal Commissioners, and adopted by the Government in the Vaccination Act of 1898, of preventing the determined, and, as we must believe, the 'honest' objector to vaccination from posing as a martyr, and thus attaching to himself a sympathy and a following which have done infinite harm to the cause of vaccination, would be consummated." No one, Dr. Bond adds, who is familiar with the history of the agitation against vaccination can doubt that the steady and persistent prosecution of this policy would in time cut the ground from under the feet of the Antivaccination League. Dr. Bond quotes a remark made to him by the President of the Royal Commission shortly before his death to the effect that "we are paying the penalty of years of neglect and mismanagement on this question; and we must be very patient in our attempts to remedy the mischief that has been done. We want to educate rather than coerce."

In the *Contemporary Review* for March Mdlle. Claire de Pratz gives an account of M. Brieux, the dramatist, who has taken upon himself the task of improving the moral condition of France by plays on baby-farming, syphilis, and kindred subjects. As illustrating how he works, Mlle. de Pratz says:

I happen to have in hand a recent work written by one of the great physicians of Paris—Dr. Petit—which is the [illegible] series of lectures delivered at the Hospital d'Ormesson by several well-known Paris specialists on subjects connected with the physical training of children. The book contains many statistics quoted against the evils of the crèches of wet-nurses. In it the writer carefully explains the reasons for which and under what conditions the *remplaçantes* are willing to leave their own babies, their husbands, and their homes for the attractions of city life. We learn also much concerning the agents who, acting as "go-betweens" for the mutual benefit of the peasant women and the ladies of Paris, make quite a comfortable living out of their services of introduction. The work contains also many technical details concerning the rearing of babies, and all these details have been admirably put together and used by Monsieur Brieux.

This is the method of M. Zola, who is also in his way endeavouring to reform the world. It is an excellent method for the production of Blue Books and "dismal treatises," not of the kind which could rouse Macbeth's fell of hair, but of the sort in which ladies with a mission find special edification. There is, of course, a place in the scheme of things for this species of literature. But to our mind that place is not the theatre. We think the Censorship did well to forbid the public performance of M. Brieux's *Les Avariés*, which he calls a play, but which would be more accurately described as a popular lecture on syphilis and the social evil.

Mr. Victor Plarr, Librarian of the Royal College of Surgeons, has sent us the following version of the sonnet by Ronsard to Ambroise Paré, which was printed in the British Medical Journal of March 1st:

All that in forty years or so you can
Effect through toil, and art, and skilled design:
All that the hand and practice do combine
With duty, reason, wit, to tell a man,—
Reader, all this, expressed on a small plan,
You here may note. Nay, hold the book divine.
For they in God's reflected glory shine
Who, healing, better life's poor tortured span.
If once, to win Apollo's help, men raised
Temples to him and altars far and wide,
You by our France should also now be praised,
Had envy not her eyelids sewn together*:
A neighbour bard, I'd share your sunny weather,
For your Laval is near my countryside.

* A hawk's eyelids were sometimes sewn by the falconers of Ronsard's age.

Ronsard (writes Mr. Plarr), "the Homer of France and King of Poets," as he was once called, was born at the Château de la Poissonière, near Vendôme. The year of his birth was 1524, and he was admired by all of the Renaissance, including Mary Queen of Scots and our own Elizabeth. All France wept him at his death and ridiculed him twenty years after. The building up of long and splendid sentences was his forte in his sonnets, of which this is a fine example. His greatest is undoubtedly that in which he represents an old noblewoman sitting by her fire on a dark night, and telling her waiting maid to regard her in a new character—as the woman, in fact, whom Ronsard had once loved and celebrated. Vendôme is less than ninety kilometres, as the crow flies, from Chinon, sacred to the memory of Doctor Rabelais, who died in 1553, and one cannot help wondering whether as a young man the poet ever encountered this greatest of all medical wits, and one would like to know what he wrote of him. Laval is much farther afield from Vendôme than Chinon.

THE EPIDEMIC OF SMALL-POX.

Municipal Staffs.

Dr. Collingridge, medical officer of health for the City of London, in his report for the four weeks ending February 15th, makes the extraordinary statement that in spite of the fact that since October every facility has been afforded to the staff of the cleansing department of the Corporation, only 36 out of 800 have been reported as revaccinated. He adds that three cases of small-pox have already appeared among the staff. The medical officer of health urges the Sanitary Committee to take further steps, and we shall be glad to know the result of this recommendation.

Proposed Caravan Hospital.

In a Lincolnshire newspaper we note a suggestion at a Sanitary Committee meeting about a caravan for treating small-pox in. The notion seems attractive, but what about such essential matters as water supply, hot and cold; disinfection, bathing, accommodation for nursing, possibly for both night and day nursing, and all the other requirements of modern management of a case of small-pox? Would a sanitary authority be secure against prosecution for neglect if a patient went wrong under such circumstances? We are not surprised to note that the medical officer hoped the Council would do something better.

Essex.

During February there has been a decrease in the prevalence of small-pox in this county. The returns issued by the County Medical Officer of Health are as under

	Cases in Grays Urban and Ossett Rural.	Remainder of County.
From January 1st to February 1st ..	128	[illegible]
Week ending February 8th	37	[illegible]
Week ending February 15th	19	[illegible]
Week ending February 22nd	[illegible]	[illegible]
Week ending March 1st	[illegible]	[illegible]

It will be observed, however, that this decrease has been entirely in the area which Dr. Thresh alleges is affected by the floating hospital of the Metropolitan Asylums Board. The decrease in this district is attributable to two causes: (1) The decreased number of susceptible persons living in Purfleet; and (2) the change in the general direction of the wind. During February the wind has only blown from the direction of the ships over Purfleet on nine days. On the other nineteen days the direction has been from Ossett towards the ships. This factor is probably the one which is chiefly responsible for the decreased prevalence.

Scotland.

Arbroath.—There have been no further cases since Friday, February 28th. In all there have been 4 cases. The origin has been well located and precautionary measures taken.

Ayr.—Three cases have occurred; all are doing well. There have been no cases for two weeks.

Dundee.—Four new cases have been discovered, all belonging to one family—a mother, two grown-up sons, and a child. There are now 11 patients in hospital and 14 persons in the reception house.

Leith.—One case was reported to the medical officer on Monday, March 3rd. He attended a football match a fortnight ago. This match brought a large influx of people from Glasgow, and it is supposed the man may thus have got infection. He has been removed to hospital and his wife and family isolated. There has been no case in Leith for fully a year.

Perth.—Four cases have been reported, the last on Sunday, March 2nd.

Glasgow.—One hundred and seventy-eight cases to Sunday, March 2nd.

Difficulties under the Vaccination Act.

Dr. Walter Wearne (Helston, Cornwall) writes: Referring to your editorial note in the British Medical Journal of March 1st *re* the above, I beg to send you herewith a copy of a resolution passed by the Helston Town Council at their meeting held on January 30th last. I think this will plainly show who issued the placards and circulars, and it was not my wish that my name appeared on them:

Resolved: That posters be published freely around the town setting out the necessity and advantages of vaccination and revaccination, and that all can be vaccinated with pure lymph free of cost by the public vaccinator of the district, and that leaflets be sent to every house in the borough.

Diagnosis of Small-pox and Chicken-pox.

Dr. James M. Cochrane (London) writes: The appointment by the London County Council of medical referees to assist in doubtful cases of small-pox is simply an extension of a course pursued by several borough councils for some weeks past. The necessity of such is shown by the number of cases of measles, influenza, and chicken-pox over which medical attendants have been in doubt, and the most evident cases of small-pox over which hesitation in reporting has been shown. The suggestion of advertising is absurd, and the qualification

required is not that of D.P.H., but of experience in the recognition of the diseases in question.

SALE OF VACCINE BY CHEMISTS.

J. S.—At present there is no law to hinder a chemist or druggist or any one else who chooses from retailing vaccine lymph. Where he obtains the lymph, and how long he keeps it, and what precautions he takes in storing it are matters over which there is no statutory supervision, and the question is simply one of good faith and care and knowledge on the part of the retailer. To what extent the custom of selling lymph by chemists prevails is a matter of fact on which we have no special information, but in one large city we know that much lymph is sold to medical men by a druggist who acts as agent for a firm of lymph producers, and there is no reason to doubt the trustworthiness of the druggist. It is to be supposed, however, that sale of lymph to other than medical men will be very exceptional. We have strongly urged in the BRITISH MEDICAL JOURNAL that the whole business of vaccine lymph production should be under Government supervision, and this ought also to apply to its distribution. Meanwhile there is nothing to compel any medical man to insert any sample of lymph of which he is at all doubtful; and most practitioners, we presume, will only use material in which they have every reasonable confidence.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 16th day of April, at 2 o'clock in the afternoon.

March, 1902. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above district will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 13th, at 4 p.m.; Mr. F. G. Swayne, M.B., of Upper Norwood, in the chair. Agenda: Minutes of Reigate meeting. To decide where [illegible] will be held, and to nominate a member of [illegible] Election of honorary secretary. To receive [illegible] selves on the Council of the Association. [illegible] will be read: Dr. Washbourn, small-pox; [illegible] of the uterus; Dr. G. B. [illegible] Roentgen rays, light and the [illegible] lupus, etc.). Members desirous of [illegible] cases are invited to communicate with the [illegible] retary. Dinner at 6 p.m.; charge 7s., [illegible] e Honorary Secretary would be much obliged if [illegible] inform him whether they intend, if possible [illegible], and if likely to remain to dinner. By so doing [illegible] arrangements and promote the [illegible] of the South Eastern Branch are [illegible] friends, and unattached [illegible] ited to be present.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

LA[illegible] proposed to hold a meeting of the [illegible] Members who desire to read papers [illegible] ers for election, are requested to communicate as [illegible] with the Honorary Secretary, T. ARTHUR HELME, M.D., [illegible] are, Manchester.

[illegible] BRANCH: EAST AND [illegible] DISTRICTS. The next [illegible] Districts will be held [illegible] at the Grand Hotel, [illegible] Simpson, of Worth[illegible] The following papers [illegible] Dr. W. [illegible] Morris on a child of 10 months old [illegible] recovery; Dr. Hadwen on Mr Noden, a plea for the more frequent performance of tracheotomy in diphtheria among the poorer classes; Dr. Mackey, aspirin in the treatment of rheumatism; Dr Mabel Jones, on direct examination and treatment of the bladder, exhibiting instruments used by Dr. Kelly of the Johns Hopkins Hospital, Baltimore. Dinner at 6 p.m., charge 6s., without wine.—J. W. BATTERHAM, M.B., St Leonards, H. C. L. MORRIS, M.D., Bognor, Honorary District Secretaries.

COMBINED MEETING OF EDINBURGH, PERTHSHIRE, STIRLING, KINROSS AND CLACKMANNAN, AND DUNDEE DISTRICT BRANCHES.

A COMBINED meeting of these Branches was held in Edinburgh on February 21st under the presidency of Dr. ARGYLL ROBERTSON. The main part of the programme consisted in the clinical meeting in the Royal Infirmary, at which a large number of interesting specimens and patients were exhibited.

Museum and Clinical Meeting.—This took place in the Royal Infirmary.—Professor ANNANDALE showed a large number of specimens, among which were (1) three hernial sacs showing cicatricial ridges; (2) mixed celled sarcoma removed from right motor area of a patient the subject of Jacksonian epilepsy; (3) spindle-celled sarcoma from sole of foot, which clinically simulated tubercle very closely; (4) arm of a lad of 18 years showing fracture of surgical neck and splitting of shaft of humerus, greenstick fractures of ulna and radius, and separation of their lower epiphyses the result of a crush: (5) middle of tibia with Lee-Metford bullet in medullary cavity, the bullet having entered the head and then travelled down in medulla (presented by Dr. C. F. CADDICK); (6) leg amputated for gangrene the result of a crush, showing rupture of femoral vein through half its circumference and rupture of inner and middle coats of femoral vein (outer coat intact), due probably to the impact of a fragment of bone.—Mr. N. T. BREWIS showed (1) a huge kidney weighing 45 lb. and measuring 48 in. in circumference which he had successfully removed in August last from a woman who had suffered from kidney trouble since 1875, when movable kidney was diagnosed. The patient was first seen by Mr. Brewis in consultation with Dr. Playfair in May, 1900. Its dimensions were then enormous, and the urine from the opposite kidney was found to be albuminous and to contain a few granular casts. A year later the swelling was tapped, and a pint of pus removed. Operation was now performed in order to give the patient a chance of life. It was found entirely adherent. (2) Tuberculous kidney and ureter successfully removed extraperitoneally. The ureter showed extreme enlargement.—Dr. ALEX. BRUCE exhibited (1) a case of injury to the brachial plexus in a girl, probably due to stretching of the plexus from the arm having been pulled violently upwards and backwards in a carding machine. Complete sensory and motor paralysis of the arm followed the accident. Several months later, besides complete motor paralysis, the muscles showed atrophy and the reaction of degeneration. The anaesthesia reached the insertion of the deltoid. In addition, contraction of the palpebral fissure, entophthalmos, failure of pupil to dilate with its fellow, Déjerine-Plumpke sign, absence of sweating in the anaesthetic area, and lowering of temperature were present. Under massage and electricity sensibility had been recovered in the forearm in the area supplied by the fifth cervical root, and power in most of the muscles of the upper arm and supinator longus, while reaction to faradism had reappeared in the pronator teres and flexors of the wrist and fingers. (2) A case of paralysis of the serratus magnus, showing the typical winging of the scapula in a marked manner. The causation was interesting, having followed pressure on the nerve during labour, the patient having lain on her side while pulling on a rope attached to the bed-head. The patient was recovering, and the reaction of degeneration disappearing. Mr. COTTERILL showed a series of specimens of goitres, gall stones, and specimens from nephrectomy. In addition: (1) A case of oöphorectomy for mammary carcinoma in a woman, aged 27, who about eighteen months ago had had the right breast and axillary glands removed, the disease being then of six months' standing. Ten months later the disease returned in the other breast and axilla, in the glands in the neck on both side, and in the chest wall. Oöphorectomy was performed, and 5 grains of thyroid extract given twice daily. Great im-

provement took place for four months, after which, however, menstruation began again, and rapid growth simultaneously in the various growths. Menstruation had now lasted for three months, and the cancer was considerably worse. (2) Fibrous stricture of pylorus greatly relieved by pyloroplasty. (3) Patient after operation on the fifth day for general peritonitis due to gangrene of appendix. (4) A case after neurectomy of the fifth nerve for severe neuralgia of all three branches, of seven years' duration, done six months ago. Only the supraorbital and infraorbital branches and Meckel's ganglion were removed. The neuralgia of the first and second branches had entirely disappeared, and that in the third had been vastly improved. Mr. Cotterill thought the case a strong argument for peripheral operations before resorting to the major operations on the Gasserian ganglion.—Dr. Berry Hart showed a series of specimens illustrating (1) Ovarian pathology, namely, colloid, papillomatous, dermoid, and parovarian tumours. (2) Extrauterine gestation, namely, (*a*) bones of full-time foetus retained five years in extraperitoneal sac; (*b*) two months tubal gestation in the fimbriated end of the tube. (3) Uterine pathology: malignant disease of uterus and cervix (*post-mortem* specimen mounted dry to preserve colour).—Dr. Lamond Lackie showed: (1) A large tortoiseshell hairpin removed from a female bladder. The pin, the sharp ends of which "presented," had slipped in while the patient was using it to relieve itching. It was removed by dilating the urethra, the pin being first with difficulty turned round. (2) Tubal mole in patient exhibiting all the signs of early extrauterine gestation.—Mr. Miles, besides various specimens and photographs, showed a simple form of single and double inclined plane splint which he had designed. This could be rapidly and easily altered so as to assume the form desired.—Dr. R. W. Philip exhibited (1) six patients who had been under treatment on open-air lines at the Victoria Hospital for Consumption for advanced bilateral pulmonary tuberculosis with extensive vomica formation, during periods varying from ten weeks to several months. The temperature, which had been irregularly elevated, was now continuously normal. The circulation had similarly improved. The weights had increased from amounts varying from 21 lb. to 43 lb.; one patient, who had hardly been able to creep to and from his bed, had gained 36½ lb. in eleven weeks. A corresponding improvement in physical signs was also determinable. (2) Large collection of very perfect bronchial casts which had been expectorated by a patient with fibrinous bronchitis in twenty-four hours. (3) Hydatid cyst expectorated by patient with recurrent severe haemoptysis.—Dr. Shennan showed: (1) specimens illustrating Pick's method of preserving natural colours—those of special interest being a haemorrhagic pericarditis and organs from diphtheria in an adult; (2) cast showing improved method of making casts with Cathcart's material.

Mr. Scot Skirving exhibited a brain showing a remarkable track produced by a non-expanding Mauser bullet. The bullet entered in the posterior part of the second frontal lobe, passed obliquely across from before backwards in such a way as to tear up the whole of the posterior limb of the right internal capsule, producing a funnel-shaped track with the apex at the wound of entrance. Emerging in the right angular gyrus the bullet had failed to fracture the skull, had become deflected, and, tearing up the occipital cortex, had finally lodged under the skull, just posterior to the parieto-occipital fissure. There was sensory and motor paralysis of the left side, no hemianopia, and the patient, until he died of secondary lung complications on the seventeenth day, was quite conscious, though somewhat dazed at times.—Mr. Stiles exhibited (1) a number of interesting skiagraphs by Dr. Rainy and himself illustrating tuberculous bone lesions, and a series of stereoscopic photographs of surgical affections in children. (2) A patient in whom an unusual and at the same time serious sequela to operation for appendicitis had developed, namely, acute intestinal obstruction. Suppurative appendicitis was found at the original operation. The obstruction occurred six weeks later, and was found to be due to the pressure on the rectum of a large brawny inflammatory swelling in the pelvis. A left inguinal colotomy was performed, and it was not considered desirable to close the opening until four and a-half months later. This was done with excellent result. (3) A child after removal of extensive laryngeal papillomata by thyroidotomy. (4) A child after operation for double hare-lip, with marked forward displacement of the intermaxilla. Mr. Stiles stated that in his experience the best results were obtained by a modification of Bardeleben's method, and that the intermaxilla should be preserved. This had been done with a very perfect result in the case shown. The main obstacle which prevented the intermaxilla from being forced back was the dense bone at the junction of the intermaxilla with the vomer. A wedge of bone, therefore, with its base below, should be taken from here.—Dr. Logan Turner showed, amongst other specimens, a beautiful series of preparations demonstrating the arrangement of the loose submucous tissue of the larynx, and the bearing this had upon the development of laryngeal oedema. The method consisted in injecting recent specimens with carmine gelatine, allowing this to set, and finally hardening in formalin.—Dr. John Thomson showed three boys, between 10 and 12 years of age, who presented peculiarly deformed crania, stunted growth, and intellectual backwardness; also photographs illustrating the changes which had occurred in the form of the crania in two of the cases during ten years. The condition was regarded as the result of extreme and early rickets in children who were probably in all cases syphilitic.—Dr. P. McBride exhibited: (1) Several patients after removal of laryngeal tumours. (2) A lad, aged 19, after operation for mastoid disease with certain symptoms pointing to cerebral abscess. After the diseased bone had been removed a temporo-sphenoidal abscess containing 3 cz. of fetid pus was opened into. The patient made an uninterrupted recovery. On examination six months later optic neuritis, present before, was found to be absent. (3) A boy of 12 years after operation for thrombosis of the lateral sinus. On admission the symptoms pointed more to mastoid trouble, and Stacke's operation had first been done; but as the tenderness, temperature, pulse, and microscopic condition of the blood pointed still to the presence of pus, the lateral sinus was exposed a week later, when pus was found. For a month, however, the temperature remained irregular. After this the boy made a good recovery, and optic neuritis, which had been present, disappeared.—Dr. James showed four cases of hypertrophic cirrhosis of the liver in one family.—Dr. Norman Walker showed: (1) Some cases of lupus treated by phototherapy; in one of these, a patch on the hand, the disease had almost entirely disappeared after six applications; this was largely due, in his opinion, to the site being a favourable one for exercising pressure and so rendering it anaemic; (2) a case of erythema multiforme of the hands occurring fourteen days after vaccination, and somewhat suggestive of small-pox to any one who had not had much experience in that disease.—Dr. Boyd showed a patient who had suffered from extreme gastric dilatation, and on whom a gastroduodenal anastomosis had been performed by Mr. Alexis Thomson. The relief to all gastric symptoms, which had been severe, was immediate, and the patient took solid food ten days after the operation. The greater curvature before operation extended down into the pelvis. The stomach was rapidly diminishing in size. The case illustrated the value of surgical treatment in cases due to pyloric obstruction.—Dr. Allan Jamieson exhibited (1) three cases of lichen planus, all in middle-aged patients, all markedly improving under small doses internally of antimony, and a varnish of coal-tar in acetone. (2) A singular case in which the scalp was chiefly affected, and of which the exact nature had not yet been ascertained. Parts were raised and papillomatous-looking, not at all unlike those seen in lupus verrucosus, other parts had assumed an appearance like acne-keloid. On the whole, the appearances reminded one of those described as blastomycetic dermatitis more than any other.—Mr. Alexis Thomson showed (1) a number of specimens; also (2) a woman, aged 39, on which a gastro-enterostomy performed six months ago had brought about the disappearance of gastric symptoms dependent on ulcer of ten years' standing. (3) A woman, aged 39, subjected to laparotomy for acute peritonitis resulting from a suppurating tuberculous mesenteric gland. (4) A youth, aged 20, showing condition six months after interscapulo-thoracic amputation for sarcoma.

Demonstration of Apparatus.—At the conclusion of the Clinical Meeting Dr. Dawson Turner conducted the mem-

bers through the electrical department, and demonstrated the new apparatus introduced by him for producing ultra-violet light, and also the large static influence machine.

A SPECIAL meeting of the Edinburgh (Lothians and Fife) Branch was subsequently held.

New Members.—The following new members were admitted: Messrs. J. M. Bowie, Edwin Bramwell, E. Scott Carmichael, George Chiene, J. W. Dowden, R. J. Johnston, Stuart Macdonald, R. B. Purves, J. A. Raeburn, and J. W. Struthers.

Donation to Smyth of Arranmore Fund.—A motion "That the Branch vote the sum of ten guineas as a donation to the Smyth of Arranmore Fund" was carried unanimously.

Dinner.—In the evening the members dined together in the Royal British Hotel, Princes Street, Dr. ARGYLL ROBERTSON taking the chair, and Drs. WILLIAM RUSSELL and G. A. GIBSON acting as croupiers. A very enjoyable evening was spent. Dr. G. A. GIBSON proposed "The British Medical Association," Dr. RUSSELL gave "The Guests," to which Dr. R. STIRLING (Perth) replied. The toast of "The Chair" was given by Dr. MACGILLIVRAY (Dundee). During the course of the evening songs were contributed, amongst others, by Drs. Gray, MacGillivray, Templeman (Dundee), James, Gulland (Edinburgh), and Macdonald (Coupar).

GLASGOW AND WEST OF SCOTLAND BRANCH.

The Reform of the General Medical Council.—A special meeting of this Branch was held on February 28th, at which the following motions were, after discussion, adopted:

1. That this Branch of the British Medical Association, recognising the inadequacy of the direct representation of members on the General Medical Council, and the exceptional penal powers possessed by that Council, hear with satisfaction, on the authority of Mr. Fowke, that the Council of the British Medical Association is preparing a Bill for presentation to Parliament dealing with these questions, and resolves to support any such Bill, in so far as it supports the principles of increased direct representation on, and modification of the penal powers of, the General Medical Council, and instructs the representatives to the Council of the British Medical Association to give diligence to the matter and report to the Branch.

2. That the Secretaries of the Branch be instructed to ascertain the views of the other Scottish Branches of the British Medical Association as to concerted action for consideration of the question of the constitution and powers of the General Medical Council, and more especially with reference to increased direct representation and modification of penal powers, with a view to legislation.

BATH AND BRISTOL BRANCH.

THE fourth ordinary meeting of the session was held at Bath on February 27th, Dr. G. C. TAYLER, President, in the chair. There were 26 members and one visitor present.

Discussion.—Mr. C. E. S. FLEMMING (Bradford-on-Avon) opened a discussion on inflammatory affections of the female pelvic organs, which was continued by Dr. WALTER SWAYNE, Dr. STACK, Dr. GROVES, Dr. MICHELL CLARKE, Mr. MONRO SMITH, and Mr. WAUGH; and Mr. FLEMMING replied.

New Members.—Dr. A. E. CARSBERG (Bruton) and Dr. C. J. TABOR (Bath) were elected members of the Branch.

SPECIAL CORRESPONDENCE.

EGYPT.

The Egyptian Season.—The Weather.—The Health of Visitors.—Nile Fever.

THESE notes refer only to that part of Egypt which lies between Cairo and the First Cataract. The tourist spends no time in the Delta, and the writer has no experience of those increasingly popular regions of Nubia and the Soudan which extend from Assouan to Khartoum. It is computed that about 8,000 strangers visit Egypt every winter. Many of these, coming for health or society, do not penetrate beyond Cairo, but it is probable that more than half, who may be included in Sterne's category of "simple travellers," ascend as far as Luxor or Assouan. This year Egypt has been more than ordinarily full, and a further invasion by 800 Americans is announced for the end of February, the *Celtic* having been especially chartered for their convoy. At the present time (the middle of February) the Assouan season is at its height, and there has not been a vacant room in any of the hotels there for over three weeks. Luxor, Cairo, and Helouan are almost equally crowded, and it may be affirmed that the popularity of the country as a winter resort is at present unabated; as to its future something will be said later, in connexion with the climatic changes anticipated as the result of the increasing amount of land which the new barrages will render available for cultivation.

It is not usually recognized by the inexperienced that the climates of Upper and Lower Egypt are widely different. This season the weather in the former region has been on the whole very pleasant. There have been a couple of heavy downpours of rain, and, just as happened last year, the railway between Luxor and Assouan has been washed away. Traffic was interrupted for some days and impeded for about a fortnight. Luxor has as usual from time to time suffered from strong cold winds, and there was a short spell of unpleasantly hot weather in Assouan during December; otherwise, the whole district above Assiout has enjoyed that genial and equable warmth for which Egypt is justly famous. Of Lower Egypt a different tale must be told. The climate of Cairo during the latter half of December and the whole of January is very far from ideal. Rain is not infrequent, and the sanitary conditions, if the adjective may be permitted, render its occurrence excessively unpleasant. For days after a heavy shower the streets are covered with a malodorous slush in which the natives paddle with a glee quite unshared by the bespattered tourists. The nights are extremely cold and the early mornings often foggy. With February comes a change, and until the end of March there are almost no climatic drawbacks to the otherwise great attractiveness of Cairo.

Europeans who are careful in certain particulars cannot find the Egyptian winter other than healthful. In Cairo there is always a certain amount of influenza, which has, however, been less prevalent than usual this year. This disease is seen sporadically throughout the whole of Egypt. It appears to be believed in England that tourists in Egypt are very liable to dysentery. For this view the writer is unable to find any present grounds. During the past two winters he has heard of only one case, that of a man who deliberately set at defiance every precaution in the matter of drinking water. It is obviously to the interest of hotel-keepers to ensure the purity of the milk and water supplied to their guests, and every possible precaution to this end is accordingly taken both in the principal hotels and on the Nile steamers. In spite of this, however, it is in general inadvisable to drink unboiled milk or water, either of which may be polluted through the ignorance or carelessness of an Arab. It is well known that native servants require continuous watching. The writer well remembers the astonished indignation of one who was summarily dismissed for washing his head in the filter, which he professed to regard as the appropriate fountain of cleanliness. Similar considerations render the eating of salad a practice not to be commended in the absence of a definite history as to its mode of preparation.

Adherence to the simple warnings just given will spare the tourist almost all anxiety as to gastro-intestinal affections; but there remains one complaint to which he is very liable, and of which the prophylaxis is as uncertain as the pathology. It appears to be almost entirely confined to passengers on Nile steamers and inhabitants of hotels on the river bank. It is frequently induced by a chill, especially if resulting from careless exposure to the often great fall of temperature at sundown. It is certainly not the result of drinking Nile water, as it attacks many who have entirely abstained from that beverage. It has no relationship either to typhoid fever on the one hand, or malaria on the other. Its symptoms may simulate those of influenza, but the writer, having suffered from both in Egypt, and having treated many cases of each, is convinced that the two diseases are distinct. In the simplest form of "Nile fever" the patient merely feels tired and chilly. He sleeps a good deal, especially in the afternoons, and frequently breaks into profuse sweats. His temperature may be anything from 100° to 104°, with not more than a degree of variation between morning and evening. The commonest complication is some affection of the alimentary tract, either diarrhœa or vomiting, or both to-

gether. Headache is quite rare, and there are almost never pains in the limbs, though the loins sometimes ache. There is seldom any appetite. The complaint, if untreated, lasts four or five days, but with carelessness on the part of the patient may be protracted for a fortnight or even more. Relapses are not uncommon, and the patient is usually extremely weak after the illness has passed off. The affection is certainly not infectious, and there is no limit to the number of times which it may attack the same subject. In its treatment, coal-tar products are as a rule useless. A milk diet and a mild diaphoretic are indicated. For sleeplessness sulphonal may be given; for the alimentary complications bismuth is almost specific, and may be given in full doses at frequent intervals. If there is no diarrhoea, oranges and mandarins may be permitted. During convalescence a tonic is indicated; cinchona is here more valuable than iron. The patient must of course be warned as to the probability of a recurrence if he contracts a chill.

CORRESPONDENCE.

THE CLASSICS IN PRELIMINARY EXAMINATIONS.

SIR,—I should like to express my agreement with the views put forward by Sir William Gairdner and yourself regarding the value of Latin as a preliminary subject in medical education. I can still remember the light which, for me, it threw on the grammatical construction of English sentences; and if we had more of it we should not see in print such phrases and words as "different *to*," "a person *whom* it was stated was injured," "a man *who* I knew," "auto-infection," "appendicular," "valvulitis," and the like.

It may be quite true, as Dr. Herringham states, that "plenty of men who have had a classical education write execrable English," but if such an education will not help a man to write good English nothing will; and it may as truly be said that a man who has not had a classical education is *more* likely to write "execrable English."—I am, etc.,

Aberdeen, March 4th. DAVID W. FINLAY.

REPORT OF THE SPECIAL CURRICULUM COMMITTEE.

SIR,—In your account of the proceedings of the recent special session of the General Medical Council you quote from the Confidential Report of the Special Committee on the Curriculum (February, 1902).

In this report (Par. 7 of the Conclusions of the Committee) it was stated that "the University required only one of the five years of professional education to be spent at the College of Medicine, Newcastle-upon-Tyne, and the Newcastle Royal Infirmary, and that the other four years of the curriculum might be spent either at Newcastle or at one or more of the schools recognised by the licensing bodies named in Schedule A of the Medical Act of 1858," and further, that "*the University therefore recognizes courses of study in physics, chemistry, and biology which has been undergone in teaching institutions recognized by the Conjoint Board of England*, many of which institutions had not been approved by the General Medical Council."

I beg to inform you that the statement as to the recognition of instruction in physics, chemistry, and biology was made on imperfect information, and that for the last five years the University of Durham has only accepted instruction in chemistry, physics, and biology received at the following institutions: (*a*) The recognised medical schools in Great Britain and Ireland; (*b*) The Durham College of Science, Newcastle-upon-Tyne, and the other University Colleges in the kingdom.

The report of the Committee was therefore amended before being presented to, and adopted by, the Council by Par. 7 of the Conclusions of the Committee, and Par. 6 of the Recommendations of the Committee being completely withdrawn, and the University of Durham placed on the list of the examining bodies which conform to the General Medical Council's requirements.

As for the statement that the *Calendar* of the University does not say that registration in the *Students' Register* is required, it was pointed out to the Chairman of Committee that this is referred to in no less than three places in the *Calendar* of the University of Durham College of Medicine, and, as a consequence, the statement was withdrawn.—I am, etc.,

GEORGE HARE PHILIPSON,
Representative of the University of Durham on the General Medical Council.

March 3rd.

*** The paragraph appears as printed in the copy of the Report handed to our reporters. This *contretemps* will we hope induce Sir George Philipson to join with us in asking the Council to follow the precedent of Parliament and of the Crown and publish the reports of its Committees as reports to the Council and not as findings by the Council.

THE REGISTRATION OF NURSES.

SIR,—The advantages of discussing this subject from the chair of a general hospital are more apparent than real. The survey includes only a limited section of the profession of nurses, and the experience thus acquired has a tendency to be one-sided. It ignores the position of the thousands of private nurses, who carry on their professional work according to their own lights with no professional standard, with no code of ethics by which to guide their conduct; it is greatly to their credit that their failures have been comparatively so few. All these Mr. Sydney Holland dismisses with a wave of his pen, in common with the staff of the small provincial hospital, the district nurse and other units now filling the many official posts open to nurses. The arguments adduced by Mr. Holland are such as were urged in the early part of the last century against the registration of the medical profession, and then as now they confused the issues.

The counsels of perfection advised as a protection against the nurse-adventuress by your correspondent are not practicable; mercifully a sick nurse is not an everyday want, and when such a need has to be met, the general public has neither the knowledge nor the skill, and very often not the time, to investigate, first, the credentials of the institution, and then the character of the nurse; this may apply to the deliberate engagement of a servant, but not to the speedy and often agitated summons for a nurse.

I quite agree that no register can guarantee the "character" of those placed on it. I only claim for it that it provides a means of testing and endorsing the value of the manifold certificates at present floating about; that by the machinery of the register it will be possible to evolve order out the existing chaos of training, and that its indirect action will be to form a professional and ethical standard which will in the course of time steady and elevate the profession.

The subtle question of "character," the discovery of the "good woman," must be left as always in the hands of the nurse-training schools; would that they realized their immense responsibility in this matter. Even when a conscientious matron is anxious to purge her school of those of whose "character" she is doubtful, she finds an almost insuperable difficulty in convincing her Board that she is not, in the absence of definite and overt misconduct, acting as the tyrannical woman in power; is Mr. Sydney Holland aware of this? At least registration will prevent the rejected candidate of the nurse-training school from masquerading in the uniform of the qualified nurse, often under the style and title of the hospital which refused to qualify her for a certificate.

This most important question concerns the profession as well as the public, and it will be settled by the profession; but in approaching it I would ask that it be considered by the profession as a whole, and not from the hospital standpoint only.—I am, etc.,

Francis Street, W.C., March 1st. CATHERINE J. WOOD.

IRISH POOR LAW MEDICAL OFFICERS.

SIR,—I am in entire agreement with Dr. Mahon as to the necessity for combination. I have been preaching it in season and out of season for years, alas, mostly to deaf ears. I also agree with him as to the treatment the Poor-law Service has received, and is receiving, at the hands of their employers, and I agree with all the resolutions of the Mayo Branch save one.

Dr. Mahon takes exception to my calling Clause C "boycotting." I believe that boycotting has been defined by lawyers as an effort on the part of the majority to ostracize individuals who refused, at their bidding, to do or not to do

things they were legally entitled to do or leave undone; and I think this is the recognized meaning of the word.

Surely Dr. Mahon will not contend that a medical practitioner is not legally entitled to accept any Poor-law appointment offered to him, and form his own opinion what his services are worth; nor can the acceptance of such public office be construed into an offence against professional ethics.

Dr. Mahon instances the Birmingham Consultative Institution; but he must recollect that the objection raised to that institution before the General Medical Council was the issue of advertisements. He will probably also recollect the South Australian case, where certain gentlemen were actually expelled from the Association for exercising their legal rights. I speak subject to correction, but my impression is the results of that boycott were not quite satisfactory.

It appears to me that a broad distinction should be drawn between the actions of individuals and the action of combinations such as the Mayo Branch. Each individual has the right to decide upon his course of conduct towards those of his professional brethren who do things he does not approve of, but when a number of individuals combine and threaten boycotting it has an ugly resemblance to conspiracy.

Neither Dr. Mahon nor anyone else has so far offered any reply to the two questions with which I concluded my previous letter, and upon the answer to these the whole controversy turns. As a matter of fact, I never took Clause C as being anything more than a threat. I know the gentlemanly feeling and the disinterested devotion to duty of my professional brethren in Ireland too well to believe the members of the Mayo Branch ever seriously contemplated putting into execution what Clause C involves. If there is a country in the world where professional amity and generosity prevails amongst medical men, that country is Ireland; and when we see the bickering and petty squabbling among our professional brethren elsewhere, we have every reason to be proud of ourselves and our traditions, and I would deprecate anything calculated to introduce amongst us trades-union practices from which we have hitherto been exempt, much to our own advantage and the respect with which as a body we are regarded by the public.

Dr. Mahon's strictures upon the actions of the newly constituted local authorities are not too severe, but in judging them we must recollect that these men are for the most part new hands, entirely ignorant of the rudiments of local government, elected to a man with the mandate to keep down the rates at all costs, and impatient of any restraint upon their wild career. Time will mend all this—is mending it. The Irish peasant is as parsimonious as the French, but he is not mean. The great majority of them do look up to and respect, nay adore, the doctor in many cases. Where in this world will you find such grateful patients as our fellow-countrymen? To the bulk of them the salary of the doctor appears to be an enormous income compared with their own scant means, and we must make allowance for this in judging of the conduct of their representatives.

What we need to do first is to put pressure upon our neighbours to organize just as the national teachers have done. When we are organised like them, and not till then, we shall be in a position, through our leaders, to dictate terms. The Mayo Branch is a step in the right direction, and would, I believe, have been more extensively imitated had it not been for Clause C.—I am, etc.,

February 24th. T. H. M.

TYPHOID FEVER IN SOUTH AFRICA: ITS CAUSE AND PREVENTION.

SIR,—Certain points in the interesting article on the prevention of typhoid fever by Dr. George Turner, Medical Officer of Health for the Transvaal (BRITISH MEDICAL JOURNAL, February 15th) appear open to criticism, notwithstanding the almost Continental extent of his experience.

Surely Dr. Turner is mistaken in his assumption that because flies and dust have recently attracted notice as possible factors in the transmission of enteric fever that, to quote his own words, "all investigation worth speaking of will cease." To some the suggestion of any path of infection other than water seems impious and fraught with dangers, against which we are all solemnly warned. Surely this is neither scientific nor sensible.

The plague of flies which was present during the epidemic of enteric at Bloemfontein in 1900 left a deep impression on my mind, and, as far as I can ascertain from published reports, on the minds of all who had experience on that occasion. Nothing was more noticeable than the fall in the admissions from enteric fever coincident with the killing off of the flies on the advent of the cold nights in May and June. In July, when I had occasion to visit Bloemfontein, the hospitals there were half-empty and had practically become convalescent camps.

The sight of soldiers drinking some of the diluted sewage of Pretoria may well disturb Dr. Turner's equanimity, but surely he might make this particular sewer less accessible to them. This at all events would be something accomplished, even in the absence of the notifications of enteric cases, which under Lord Kitchener's régime he appears to lack.

It is useless for Dr. Turner to speculate on the "might have beens" of the Paardeberg-Bloemfontein phase of the war. I venture to say that not even Dr. Turner could in the slightest degree have influenced the course of events, neither could he, like Moses, have smitten the rock until there gushed forth water. It is well to remind Dr. Turner that "necessity hath no laws."—I am, etc.,

Laisterdyke, Bradford, March 3rd. A. B. DUNNE, M.B., B.C.Cantab., Late Civil Surgeon S. African Field Force.

EPIDEMIC JAUNDICE.

SIR,—In the BRITISH MEDICAL JOURNAL of December 7th, 1901, I notice a letter from Dr. Herbert Peck, of Chesterfield, Derbyshire, referring to an epidemic of "catarrhal jaundice" in his district.

It has been my intention to report a similar epidemic which occurred here in the Falkland Islands during the months of July and August of last year, the severest of our winter months. Dr. Peck's letter and your subsequent remarks in a later issue have induced me to add my testimony to the character of the epidemic we experienced. The onset, duration, and development of the cases (numbering thirty) which came under my care were invariably similar to those described by Dr. Peck. The degree of jaundice varied from very slight to very severe, but no case proved fatal.

The first two cases I attended puzzled me, occurring simultaneously in the same house, the primary symptoms being those of influenza, followed by jaundice in a few days, but other cases ensuing left me no doubt as to the infective nature of the disease and at a loss to give it a name, as I was always under the impression that jaundice was non-infectious, and rather a symptom than a disease.

My practice is in the "camp," and extends over a very large area, the only means of getting about being on horseback along "tracks," as there are no roads, and by cutter to the various small islands. In a number of cases which occurred at distances apart and on adjacent islands, I was always able to prove that infection had been conveyed by individuals who had either just recovered from or been in contact with the complaint.

The epidemic did not confine itself to my district but was also experienced in Stanley, the chief town, and on the West Falklands. Children and young adults of the working class were the only sufferers. The climate of the Falkland Islands can only be compared to that of the Shetlands, only it is damper and keener by reason of the frequent southerly gales. The summer is short—about three months—the rest of the year being winter; but, notwithstanding this inconvenience, the climate on the whole can be considered healthy.

During the five years I have spent here the only epidemics have been scarlet fever, whooping-cough, and chicken-pox, and all in a very mild form except influenza, which has visited us every winter, and is of a more severe character. In my opinion this last epidemic was influenza with a new complication, namely, catarrhal jaundice.—I am, etc.,

C. N. FOLEY,

East Falkland Islands, Jan. 29th. L.R.C.P.Lond., M.R.C.S., L.S.A.

SOCIETY OF LICENTIATES AND MEMBERS OF THE LONDON ROYAL COLLEGES.

SIR, I should esteem it a favour if you would allow me to make known through the BRITISH MEDICAL JOURNAL that the Secretaries of the above Society have this week posted to

every L.R.C.P., M.R.C.S., who has not already a degree in medicine, a copy of the petition to the Royal Colleges, asking the Royal Colleges to consider the disabilities of their petitioners.

The Secretaries would be glad to receive signatures as soon as possible, that the presentation of the petition may be proceeded with.

As it is very important that the petition should be as numerously and as influentially signed as possible, we hope that all Licentiates and Members will sign, quite irrespective of whether they belong to the Society or not.—I am, etc.,

FRED. J. SMITH,
Harley Street, W., March 1st. President and Treasurer of the Society.

THE TREATMENT OF HIP-JOINT DISEASE IN CHILDREN.

SIR,—It may interest your readers to know that on the outskirts of London there exists an institution which, for twenty-six years, has been working on the lines advocated in recent issues of the BRITISH MEDICAL JOURNAL. It is St. Monica's Home Hospital for Children, 16, Brondesbury Park, N.W.; and its object (as stated in the by-laws) is, "The surgical and medical treatment of poor children requiring treatment for longer periods than can be afforded in general hospitals." Its advantages of site and architecture enable it to carry out fully the aims so ably defined by Mr. Robert Jones, giving to its patients careful hospital treatment in a healthy and beautiful environment.—I am, etc.,

Kilburn, N.W., March 5th. W. WINSLOW HALL.

OBITUARY.

JOHN HENRY ECCLES, M.R.C.S., L.S.A.

WE regret to record the death, on March 1st, of Mr. J. H. Eccles, of Plymouth, at the ripe age of 87. After his curriculum at St. Bartholomew's Hospital he qualified in the year 1839, and subsequently settled in Plymouth, where he was in active practice for over forty years. Always a man of thorough earnestness of purpose, he soon became connected with hospital and other philanthropic work in his town, and at the time of his death he was Consulting Surgeon to the Royal Eye Infirmary. He also held numerous and important appointments in connection with the port, particularly that of Medical Inspector of Emigrants. His cheery nature and great kindliness of heart made him a friend of many and won the esteem of all. He was an intense lover of Nature, and nothing was a greater delight to him than to discover to relatives and friends the natural beauties of his county, and especially of the magnificent view from the Hoe. He was twice married, and three sons by his first wife followed in the same profession, while four of his grandsons are also medical men.

MR. J. J. TWEED, who died at his residence in Upper Brook Street, Grosvenor Square, on February 22nd, at the ripe old age of 82, was the son of a well-known surgeon, who practised at Bishop Stortford in Essex, where Mr. Tweed was born in 1819. Here he was educated at The Parsonage, and after at London University College, and prosecuted his medical and surgical studies at University College Hospital, of which latter institution he was a life governor. He became a Member of the Royal College of Surgeons in 1842, and was elected a Fellow in 1864; thus he was actively engaged in his profession for the unusually long period of over sixty years. Mr. Tweed was the oldest inhabitant of Upper Brook Street, and was one of the most hard-working and deservedly-respected of the members of his profession. He was a Fellow of the Obstetrical Society, and had had a very large obstetric practice, to which he devoted the best years of his life. He was remarkably abstemious and temperate in all things, never brilliant, but was patient, self denying, and enduring beyond the ordinary. His old-fashioned courtliness of manner, his unquenchable zeal for the relief of suffering, and his unfailing readiness to give his whole attention and sincere sympathy to all those by whom he was consulted, however poor and forlorn, won for him the respect and affection of a very large number of patients and friends. Mr. Tweed was a good example of the quiet, sincere, unselfish friend of the invalid, by whom he was never heard to speak of himself or his attainments, and to whom he devoted himself absolutely, cheering and counselling his patient with a kindliness, charm, and sympathy known so well by those whom he treated. *Requiescat in pace!*

DR. T. L. BARNES, of Ukiah, California, who died recently, had a romantic history. He was born in North Carolina in 1812. At the age of 18 he was sent by his father to Fort Dearborn, now Chicago, to purchase supplies from that trading post. He was not able to buy a pair of shoes for himself, so he had to go barefooted. At that time Chicago had two houses. Young Barnes was offered 160 acres of land along the lake front for his yoke of oxen; but the deal was not made. Dr. Barnes served as a medical officer in the Black Hawk war. In the early Forties the Mormon troubles at Nauvoo saw the young doctor an officer of a military company called the Carthage Grays, and when Joe Smith, the "Mormon prophet," was arrested for conspiracy and put in gaol at Carthage, the Grays were stationed around the gaol as guards, as the Mormons threatened to storm the gaol and rescue their leader. Dr. Barnes was a member of the detail. During an attempt to escape from gaol, Joe Smith was fired upon and killed. Dr. Barnes made a necropsy of the body of the "Prophet," and for years had in his possession the lead slug which sent Joe Smith into the silent land. In 1854 the Barnes family and party started westward. On reaching the country around the Great Salt Lake the emigrant party had a narrow escape. The Mormons had not forgotten Nauvoo and Dr. Barnes and the Carthage Grays. The "Danities" or "Destroying Angels" were about to execute vengeance on the travellers, when Dr. Barnes overheard a conversation at the small trading post which assured him that his party had been recognized, and it was planned to attack them that night. Dr. Barnes rode swiftly to his companions, and by means of forced marches all night and the next few days, they all escaped the "Danities" vengeance. They reached California without further incident, and settled in Petaluma. Later, Dr. Barnes went to Ukiah, where he lived until his death, respected and beloved by all.

WE regret to have to record the death of Mr. THOMAS SMALLHORN, M.R.C.S., L.R.C.P., L.M., of Eynsham, Oxford, which occurred after a short illness on February 9th, at the age of 63. After qualifying in 1863, he commenced practice in Eynsham, and was medical officer for the district for thirty-seven years. He was untiring in his efforts for the relief of the sick and suffering, and his extreme kindness and many acts of benevolence, more especially to his poorer patients, will not soon be forgotten. He was held in much esteem by his brother practitioners in the district.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are: Dr. Ranz de la Rubia, a well-known Spanish balneologist; Dr. Bouqué, Professor of Surgical Pathology in the University of Ghent; Dr. Eduard Cramer, Extraordinary Professor of Hygiene in the University of Heidelberg; Dr. Heinrich Lahs, Professor of Gynaecology in the University of Marburg, aged 64; and Dr. Emil Holub, of Vienna, a well-known African explorer, aged 54. Dr. Holub first went to Africa with the view of practising his profession. He devoted seven years to ornithology and zoology, and wrote several books, including *Contributions to South African Ornithology*, *Seven Years in Africa*, a sketch of the Mambunda people, whom he visited in 1880; but his most important work was *From Capetown to the Land of the Masku-kulumbe*, among whom he spent four years.

RESTRICTION OF OPIUM SMOKING IN THE UNITED STATES.—A Bill is to be introduced into the United States Congress prohibiting the importation of opium manufactured for smoking to any port in the States. Before any package containing opium exclusively shall be delivered, an affidavit must be made that the opium is to be used solely for medicinal purposes. If these provisions are not complied with the opium will be forfeited. For breach of these regulations a fine not exceeding £100, or imprisonment not to exceed one year is imposed.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE HOME ARMY CORPS.

Special Army Order.

A special Army Order was issued on March 4th notifying certain changes in organization to give effect to the Army Corps Scheme. The change will take effect forthwith in the Aldershot, Southern, and Irish commands, in others as soon as the other army corps have been established.

The Order defines the area of each command, existing districts being merged in the six army corps, with headquarters at Aldershot, Salisbury, Dublin, London, York, and Edinburgh. Districts will be retained as subdivisions in peace, except that Dublin and Curragh will be grouped together, and Woolwich will be absorbed in the Thames District.

The second part of the Order deals with the distribution of troops; and the third gives details of the "establishment of the staff."

The fourth part makes rules governing relations between army headquarters and general officers exercising commands, and the distribution of staff and departmental duties.

All matters requiring decision of higher authority will be submitted to the general officer commanding the army corps, who may decide them or refer them to the headquarters of the army, but the general officer commanding army corps may authorize the general commanding a division or other officer commanding to communicate direct with army headquarters on cases of routine or minor importance.

Subjects of primary importance, and affecting the army at large or more than one command, will be submitted by the general officer commanding army corps to the headquarters of the army.

The orders of the general officer commanding will be issued to the army corps through the chief staff officer. "In artillery, engineer, and other services all questions involving military as apart from administrative matters should be discussed with the chief staff officer in order that military considerations, or those affecting general military policy, may be fully weighed before submission to the general officer commanding.

"The officer commanding royal artillery, and officers in similar positions as defined in Paragraph 6, will have direct personal access to the general, but papers from these officers requiring orders of the general officer commanding will invariably be submitted to the latter through the chief staff officer, with, if necessary, an expression of his opinion theron."

"6. The duties of staff and departmental officers at the headquarters of army corps comprise the supervision and control under the general officer commanding of all army services, including mobilization and intelligence. These services are divided into the following groups .....(7) medical services The medical service will be under the principal medical officer,

"7. The principal medical officer of an army corps will be attached to the staff of the general officer commanding, and will be his responsible adviser on all points connected with the health, the sanitary arrangements, and the medical institutions of the troops."

Each army corps will have an auditor, who will be the financial adviser of the general officer commanding. In consequence of the delegation of financial duties to the general officer commanding various changes are made in the King's Regulations, and in, among others, the medical regulations.

THE TREATMENT OF WOUNDS IN WAR.

We have received a very long letter from a medical officer at present serving in South Africa, in which he controverts some of the criticisms of Mr. Watson Cheyne[1] on the medical arrangements of the campaign. He states that many of the statements will be read with pain and "with a feeling almost approaching indignation" by most medical officers serving in South Africa. He thinks that Mr. Cheyne's experiences, which appear to have been very unfortunate, were not sufficiently extensive to justify the extreme and general strictures which he has passed. The writer has served for two years in this campaign with a regiment, a bearer company, and a field hospital; he claims, therefore, to speak with authority, and states that he has never seen anything to suggest, much less to justify, such comprehensive charges. He resents Mr. Cheyne's statement that, "far from having reached finality in the treatment of wounds in war, we have hardly begun to bring modern surgery to bear on the subject," recalls that this is not the first campaign in which a medical service has been engaged, and maintains that the general routine methods in use are based on the progressive experience of generations of army surgeons.

He points out that Mr. Cheyne's "pepper-box panacea" has existed and been available to regimental medical officers for years in the field medical companion, in the form of an iodoform duster; also that in addition to the first field dressing the surgeon has a good supply of dressings at hand during an action in the medical companion and the surgical haversack. He considers that the use of the first field dressing, condemned by Mr. Cheyne, has many advantages over the proposed practice of leaving the wounds uncovered, especially when flies and dust abound, and the wounded man's clothes are probably filthy; many wounds protected in the first stages by this dressing have passed through the writer's hands, and in no case has suppuration come to his notice. With regard to the field hospitals, sterilizers, irrigators, etc., have been available throughout the campaign, and the writer thinks that Mr. Watson Cheyne must have been singularly unlucky if he did not see them; he thinks it apparent that Mr. Cheyne has failed to grasp, if even to observe, many of the details at present in use for the treatment of wounds at the immediate front, and that had he made himself acquainted with the arrangements as a whole, and then turned to criticism, and given the medical service the advantage of his special knowledge, his words would have borne weight, and his suggestions been gratefully received.

In reference to Mr. Cheyne's remarks on abdominal wounds and operative interference, our correspondent says that army surgeons would like to hear the circumstances under which the latter is indicated; his own experience and that of all with whom he has discussed the subject is that if there is one fact more than any other that the campaign has taught, it is that in the vast majority of abdominal wounds due to Mauser bullets operative interference is not only inadvisable but inadmissible.

[1] British Medical Journal, November 30th, 1901.

PROFESSIONAL PAPERS BY MEDICAL OFFICERS R.N.

Appended to the *Statistical Report of the Health of the Navy, 1900*, noticed in the British Medical Journal, February 1st, p. 303, are a series of professional articles, and the following notes upon them will, we believe, be found interesting:

1. *Recruiting.*—Fleet Surgeon T. E. H. Williams, in a paper entitled Some Observations on Recruiting, treats at considerable length of the various points of importance in the selection of naval recruits, and gives a number of statistical tables bearing on their examination.

2. *Malaria on the Zambesi and Shiré.* Surgeon R. T. Gilmour relates his experiences of malarial fever on the Zambesi and Shiré. He was able to distinguish five different varieties of *Anopheles*. The parasite was found in two forms only, the malignant tertian and the benign quartan. He emphasizes the importance of giving quinine at a definite period of the attack; it should be commenced about two hours before the sweating stage, and continued in repeated doses as long as this stage lasts, and for some hours afterwards. He discusses the time determination of this stage in malignant tertian and benign quartan. The crew under his care were protected by stringent regulations from exposing themselves to mosquito bites with good results.

3. *The Gilbert and Ellice Islanders.*—Staff Surgeon Walter G. Axford describes certain diseases affecting the inhabitants of the Gilbert and Ellice groups of islands. These islands are of the atoll character. The diseases most apparent were tinea imbricata due to a trichophyton, and an affection called tona. The latter has been described under other names; it is characterized by a papular eruption which ulcerates, appearing in crops chiefly on the face and limbs; it is probably identical with yaws.

4. *Tetanic Convulsions in Malaria.*—Surgeon Warren G. Westcott relates an interesting case of remittent malaria in which tetanic symptoms supervened. The convulsions came on at the end of a fourth attack of fever, the patient for the previous twenty-four hours having been stupid and complained of headache. The first seizure was followed by a second; after these had subsided speech was impossible, and there was complete hemiplegia of the right side. The writer thinks that a toxic theory best explains such attacks which have been described by others in relation with malaria.

5. *The Western Naval Brigade, South Africa.*—An interesting account of the work of the Western Naval Brigade in South Africa is given by Deputy-Inspector-General James Porter. The brigade saw much service from Stormberg and Belmont to Pretoria, Belfast, and Barberton. Instead of withdrawing combatants from the ranks to serve as stretcher bearers, stokers were supplied for the purpose, and the system worked well. The brigade on an average did not suffer much in the enteric epidemic; great care was taken with the drinking water: orders were issued that it should always be boiled, and after precipitating impurities with alum, it was stored in breakers previously washed and disinfected; from these it was decanted into canvas bottles. The filters did not prove of much use. In the brigade there were 111 casualties, 6 due to shells, the remainder to rifle fire: the defective bursting of the enemy's shells frequently saved many casualties. The lyddite shells had not the destructive effect anticipated, at any rate, in the open; the writer met with no evidence of the use of explosive bullets. In regard to Mauser bullet wounds of the abdomen, the results of operative interference were discouraging, and the writer thinks that in field hospitals all elaborate operations should be avoided except in cases of extreme urgency. In the field the surgeon's equipment is advantageously confined to a water bottle, a leather belt with webbing shoulder strap and two pouches, and a haversack; an orderly accompanies him with a large water bottle and a surgical valise. The ordinary double service bell tent is the best for hospital purposes, except when the Indian tent is available, which is best of all. Deputy Inspector-General Porter dwells at some length on the question of the abuse of the Red Cross brassard. Though he never witnessed what could be called deliberate firing on the Red Cross, yet the badge was frequently used by the Boers to escape capture and to protect military movements; in one laager there were found 27 bogus doctors with 7 or 8 wounded for their patients, and similar tricks were frequently resorted to. He considers that further and more precise regulations regarding the use of the Red Cross are called for.

6. *The First China Expedition.*—Staff Surgeon G. B. Pickthorn tells the story of the first attempt of the Allies to reach Pekin. The British Naval Brigade in this unsuccessful expedition numbered 950. Short notes are given of many of the wounded, some of considerable interest. Generally the wounds were characterized by their severe nature and the extensive destruction wrought by the bullets used by the Chinese. Dysentery and diarrhoea of a mild character prevailed throughout the force. The medical equipment appears to have been fairly complete: two stretchers were attached to each company of sailors, three bearers to each stretcher; the first-aid dressings proved of great value.

7. *Water Breakers and Enteric.*—Surgeon Thomas T. Jeans contributes some notes and suggestions on the supply and transport of drinking water for naval brigades. For the purpose wooden breakers and casks are usually supplied. In the advance from Enslin to Bloemfontein muddy and infected water was on several occasions unavoidably carried in these casks, and the wood itself becoming in this way soaked with infective material, it was impossible to satisfactorily clean them through the small bunghole. Casks thus contaminated, if they are the only transport available, continue to act as sources of infection. These defects render wooden receptacles most unsuitable for water carriage. Surgeon Jeans urges the use of the twenty-eight gallon oil drums as substitutes; they could be easily adapted for the purpose, and would have the following advantages: they are non-absorbent and easily cleaned, they are much stronger and water could be boiled in them; the only difficulty is their extra weight. Water from the wooden breakers was decanted into canvas bags, in which it rapidly cooled; these are a necessity in a hot climate, but in their present form cannot easily be cleaned out. The Berkefeld filters did not prove of much service; in addition to their generally becoming choked the porcelain candles were so fragile that they soon broke. The writer remarks that there is no reason why typhoid should cling to troops on the march if their water transport is clean, but with these casks it is impossible to keep the supply satisfactory once a typhoid-infected district is passed through; even if afterwards a good water is available the casks themselves, sodden and infected, continue to propagate the disease.

8. *Caisson Disease.*—A case of death from syncope caused by caisson disease is related by Fleet Surgeon Archibald McKinlay. A man of exceptionally good physique was employed diving at a depth of 24½ fathoms. He took forty minutes to go down, was on the bottom forty minutes, and took twenty minutes to come up. When he came up he felt well, but eight or nine minutes after he became unconscious, and died about fifteen minutes after reaching the surface. *Post mortem*, air was found diffusely throughout the venous system and in the right heart; this condition by its interference with the circulation produced syncope.

BEARER-COMPANY OR FIELD AMBULANCE?

Sir,—I ask space for the following remarks:

1. *Change of Title of Bearer Company.*—I propose that the title of bearer company now used in our army be changed to "field ambulance." The former title ignores the technical duties required from the officers and men of such a company, and tends to lower the professional efficiency of the unit. A "bearer" may be an untrained man, but a member of a "field ambulance" should be a trained first-aid giver. In the French army the bearer company is called the "ambulance divisionaire," and in the German Army the "medical (*sanitats*) detachment." In neither is the rather brutal word "bearer" pushed forward to designate the unit.

2. *Advantages of the Change.*—So long as you call the unit by the bad title I now propose to abolish it seems to limit the duties at all times to carrying wounded—only this and nothing more. But there must always in war be periods of inaction in a fighting sense when little or no wounded need to be carried. During these periods a bearer company may remain inactive, but when you call it a "field ambulance" you introduce the function of treatment of special classes of disease, and the field ambulance becomes a hospital not so comfortable as a field hospital, but still perfectly able to care for ordinary cases or convalescent patients.

3. *The Title of "Regimental Stretcher Bearers."*—Following the same lines, the title of "stretcher bearers" in use for regimental ambulance men could be changed to regimental ambulance section, and the individual men to ambulance men or ambulancers; and the ambulance wagon, which now alone bears the distinctive word "ambulance" in our army, would be then more clearly recognized as a wagon of the field ambulance, and perhaps be drawn closer to the medical service in peace as in war. This compromise seems to me better than the proposal to link together the field hospital and the bearer company into a single unit, which some persons are now proposing. Of course there will always be a difficulty in co-ordinating the work of the three field hospitals and the two bearer companies of a division in the field until, as in the well-organized Swiss medical service, the five units are loosely grouped into what is practically a medical "divisional battalion" under a senior lieutenant-colonel, who commands the whole under the administrative supervision of the colonel on the staff who is principal medical officer of the division. This lieutenant-colonel has an adjutant as his assistant, and greatly relieves the principal medical officer of the division, who is thus able to attend to sanitary or general duties. For the past fifteen or sixteen years I have been advocating this change of title.

George Evatt.

ROYAL NAVY MEDICAL SERVICE.

Staff Surgeon W. G. K. Barnes, M.D., is promoted to be Fleet Surgeon February 27th. He was appointed Surgeon February 27th, 1882, and Staff Surgeon twelve years thereafter.

Staff Surgeon Hamilton Meikle has been appointed for service at the R.N. Rendezvous at Spring Gardens, February 26th.

Surgeon Ernest Elliott, M.D., late of the Royal Navy, died at Southsea on February 27th, aged 84. He was appointed Surgeon, July 30th, 1841; but the date of his retirement is not stated in the *Navy List*.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL G. A. HUGHES, M.B., D.S.O., is granted the local rank of Colonel while acting as Principal Medical Officer at Hong Kong, October 12th, 1900.

Colonel J. F. SUPPLE, C.B., who is serving in the Bombay Command, is appointed to officiate as Principal Medical Officer Bombay Command, with the temporary rank of Surgeon-General, from December 15 h, 1901.

Lieutenant-Colonel W. O. WOLSELEY, serving in the Madras Command, was granted the temporary rank of Colonel while officiating as Principal Medical Officer of a district, from December 27th, 1901.

Captain EDMUND GEORGE FORREST died at Aden on February 20th, aged 31. He was appointed Surgeon-Lieutenant, January 29th, 1896, and Captain three years later.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR W. S. CHEYNE, M.B., is promoted to be Surgeon-Lieutenant-Colonel, March 5th.

Surgeon-Lieutenant J. P. BROWN, M.B., is promoted to be Surgeon-Captain, March 5th.

INDIAN MEDICAL SERVICE.

COLONEL A. S. REID, M.B., Bengal Establishment, has been appointed Inspector-General of Civil Hospitals in the Punjab, *vice* Surgeon-General Franklin. Lieutenant-Colonel G. C. HALL, Bengal Establishment, succeeds Colonel Reid as Administrative Medical Officer and Sanitary Commissioner in the Central Provinces.

Colonel C. H. JOUBERT, M.B., Bengal Establishment, is appointed Inspector-General of Civil Hospitals, North-west Provinces and Oude, in place of Colonel G. Hutcheson, M.D.

The Secretary of State for India has decided that the period spent in India on plague duty by the medical officers who are being admitted to the Indian Medical Service shall count as service for pension.

IMPERIAL YEOMANRY.

CAPTAIN E. T. VINT, Medical Officer Imperial Yeomanry Depot, is granted the temporary rank of Major, January 1st.

Surgeon-Lieutenant J. G. D. KERR, M.B., North Somerset Imperial Yeomanry, has resigned his commission, March 5th.

THE VOLUNTEERS.

SURGEON-CAPTAIN F. C. ROGERS, from the 4th Volunteer Battalion the Cheshire Regiment, is appointed Surgeon-Captain in the 3rd Kent (Royal Arsenal) Volunteer Garrison Artillery, March 5th.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, dated March 5th: W. M. TAYLOR, M.B., 1st Midlothian Royal Garrison Artillery; R. G. HARM, 3rd Volunteer Battalion the Prince of Wales's Own (West Yorkshire Regiment); E. T. MCDONNELL, 2nd Tower Hamlets Rifles.

Mr. JAMES G. MILLER, M.B., is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the Northumberland Fusiliers, March 5th.

Lieutenant E. L. HUGHES, 4th Volunteer Battalion the King's (Liverpool Regiment), resigns his commission, and is appointed Surgeon-Lieutenant, March 5th.

Surgeon Lieutenant F. N. COOKSON, M.D., 2nd Volunteer Battalion the Prince of Wales's (North Staffordshire Regiment), resigns his commission, March 5th. Mr. EDWARD C. STACK is appointed Surgeon-Lieutenant in the same corps, March 5th.

Surgeon-Captain C. A. MCMUNN, M.D., 3rd Volunteer Battalion the South Staffordshire Regiment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel on appointment as Senior Medical Officer to the Staffordshire Volunteer Infantry Brigade, March 5th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS) LONDON COMPANIES.

On Saturday, March 1st, the prizes for the last Volunteer year were presented by the Director General, Army Medical Service, Surgeon-General Taylor, C.B., K.H.P. On the platform were Major-General Sir Henry Trotter, K.C.V.O., commanding the Home District; Surgeon-General Keogh, Colonel Gubbins, P.M.O., Home District; Lieutenant-Colonel Edson and Babtie, V.C.

Lieutenant-Colonel Squire opened the proceedings by giving a short account of the strength of the corps, and of the work done during the past year. The prizes were then presented by Surgeon-General Taylor, the challenge [illegible] for general company efficiency going to No. 4 Company, [illegible] in command.

On the [illegible] of the presentation, Surgeon-General Taylor congratulated the corps on their change of title; he was very glad that they had at last been recognised as an integral portion of the R.A.M.C., and he could not speak too highly of the assistance they had been during the crisis in South Africa. He was extremely gratified at the report on their last inspection, and considered that very great credit was due to all on having arrived at such a degree of efficiency by work and study given in spare time. A professional man had nothing else to do, but a volunteer had his civil occupation to attend to, and had to deny himself other [illegible] to thank most heartily the [illegible] connected with the corps, who had been of great service in connection with the [illegible] comforts to the troops in the field, and he was sure the [illegible] had had their troubles greatly alleviated by the efforts [illegible]

Major [illegible] was received with applause, and [illegible] R.A.M.C. Volunteers had [illegible] it was the last time he would [illegible] his command he had [illegible] with their general efficiency. He considered that if [illegible] that the new regulations [illegible] that alterations should be made, and that every [illegible] given to men who found it honestly impossible to comply [illegible]

After [illegible] votes of thanks had been passed, the proceedings were concluded [illegible] a dance.

CIVIL SURGEONS IN MILITARY EMPLOY.

THE Secretary of State has decided, under the powers conferred on him by Articles 375 and 375A of the Pay Warrant, that when civilian medical practitioners are employed on duties which do not come within the range of ordinary medical attendance, or when they are employed in positions usually occupied by officers of the Royal Army Medical Corps, they shall, if contract rates are not applicable, receive such remuneration as may be deemed fair and reasonable. The claims must be certified by the Principal Medical Officer as fair and reasonable, and may then be approved by the General Officer Commanding an Army Corps or the General Officer commanding a district lying outside an Army Corps command. If in very exceptional circumstances the Principal Medical Officer considers that abnormally high charges should be allowed, the claim will be referred to the Director General, Army Medical Service. Paragraphs 54 to 56 of the regulations for Army Medical Services will be amended accordingly.

THE INDIAN MEDICAL SERVICE PAY.

A CORRESPONDENT writes: One often hears of the underpaying of the R.A.M.C. in India; contrast that of the Indian Medical Service. The following is my experience, as one over five years' service: I am in officiating medical charge of a native regiment; the pay in corresponding rank R.A.M.C. would be Rs. 450 per mensem, plus exchange compensation allowance (about 6 per cent.), or a total of Rs. 478. My actual pay is, grade pay, Rs. 400; staff, Rs. 100; compensation allowance, Rs. 36; total, Rs. 536; minus as follows: Income tax, Rs. 14; service fund, Rs. 5.12; mess subscription, Rs. 8; band, Rs. 14; quartermaster's charges, Rs. 22 (does not include rent); total, Rs. 63 8. If the latter is subtracted from Rs. 536 the balance is Rs. 473, or Rs. 5 less than the R.A.M.C. I spend the whole of my life in India—no home service.

*** We give these figures as stated, without doubt of their being correct; a good deal, however, we imagine, hinges on the term "officiating medical charge," which means a curtailment of bona fide medical charge, which carries higher emoluments than those stated. As to deductions, we presume R.A.M.C. officers also pay income tax; the "service fund" deductions are to the advantage of the payee; the regimental charges are presumably met by some advantages; of the quartermaster's charges we cannot speak. In any comparisons, however, two blacks cannot make one white.

INSUFFICIENT PAY, R.A.M.C.

COLONIAL writes: Medical students look askance at a service which does not enable them to marry before fifteen years' service, and even as bachelors to struggle through that period. Nor can they regard a service as of much value in which twenty-five years must be spent before an income of £500 a year can be reached; and only half that up to ten years' service. He does not include allowances, because these are expressly given to meet extraordinary expenses, and are in no way fair income. The present improvement is a promise of £50 per annum additional, which is quite inadequate to meet the risks of long service in unhealthy climates.

A COLONIAL MEDICAL SERVICE FOR SOUTH AFRICA.

FIAT JUSTITIA writes: The difficulty in recruiting the R.A.M.C. might be met in South Africa by a Colonial medical service as in India. Appointments might be made for three, five, or ten years, with gratuities on termination of appointment. He is assuming that civil surgeons on such a tenure could be found. Something must be done, as under the proposed "scheme" of perpetual examinations candidates for the R.A.M.C. will never be found.

EMPLOYMENT OF RETIRED MEDICAL OFFICERS.

FROM what we can learn, the invaluable services of retired pay medical officers at home and abroad during the war have as yet met with scant recognition. Many of these officers, at much personal inconvenience and even pecuniary loss, and while not liable to recall, have voluntarily given invaluable service to the State for very small remuneration. The service could not have been carried on without these old and loyal officers, as any one acquainted with details well knows. Some of them are old men, over age, who have been asked to serve on notwithstanding regulations. Are they not to receive any recognition? We strongly advise the "Advisory Board" to look into these matters. If the old officers who have stood in the breach during the stress of war are ignored in the distribution of honours, then we say younger men are not likely to be encouraged to enter the service.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE MORPHINE HABIT.

FORSYTHE *v.* LAW.

IN this case, which was heard in the King's Bench Division before Mr Justice Grantham, Miss Charlotte Florence Forsythe, a nurse, at one time part proprietor of a nursing home at 24, Bulstrode Street, sought to recover damages from Dr. William Thomas Law, of 32, Weymouth Street, alleging that he had negligently, unnecessarily, and improperly prescribed for her morphine and other drugs with the result that she had become addicted to the morphine habit, and had been in danger of losing both her reason and her life. The defendant denied the allegations, and said that his treatment was skilful and proper. Sir Edward Clarke, K.C., and Mr. E. E. Jones were for the plaintiff, and Mr Eldon Bankes, K.C., Mr Sherman, and Mr Fleming for the defendant.

Sir Edward Clarke, in opening the case, said that in Dec. Miss Forsythe, in connection with Mr. Wardell, set up and ran the home at 24, Bulstrode Street, which [illegible] when, in consequence of the state of health to which Miss [illegible] had been reduced by the defendant's

treatment, the house had to be given up. In 1898 Miss Forsythe had suffered from asthma and bronchitis. Dr. Law recommended her to take compressed air baths at the Brompton Hospital, and the plaintiff had gone to reside in the neighbourhood; while she was there her sister and a nurse observed that Dr. Law was administering morphine in quantities which they judged to be causing serious injury to the plaintiff's health. Miss Forsythe was consequently removed to Hampstead, where she was attended by Dr. Hardwick, and got better; she then went to Bath, under the care of Dr. Mackenzie, where she improved in health; Dr. Law, however, visited her there, and left morphine with her. In 1899 she returned to the nursing home, where she was attended by Dr. Law, who again administered morphine in large quantities. In October she was seen by Dr. Chalmers Brown, who stopped the supply of morphine, and she again improved. In January, 1900, to March, 1901, she was again under the charge of Dr. Law, who either administered to her, or gave her the opportunity of administering to herself, morphine and other drugs to an extent which counsel described as almost incredible. The nursing home having been given up she went to reside elsewhere, and her relations discovering that her reason and life were in danger forbade Dr. Law attending her further; she was then placed in other hands, and by the greatest care was restored to health, morphine being rigorously denied to her.

The plaintiff's evidence, taken on commission, was read, and bore out the counsel's opening statement. Dr. Mackenzie, at Bath, disapproved of the injections, and gave her diminishing doses. Dr. Law visited her there, and gave her injections of morphine, although he knew she wished to give up taking it; whilst staying with her brother-in-law Dr. Law visited her and left morphine with her, with which she injected herself; she had written to him, and asked him to bring more morphine. Dr. Law had never charged her a fee except on one occasion, but she paid his travelling expenses when he came to see her in the country. She commenced taking chloral in 1901 on the prescription of Dr. Law; she had also taken cocaine, but gave it up. She had put about £1,000 into the nursing home, and the business at first did very well, but after she became ill it got worse and worse, and was sold for £750. In cross-examination she said that she had previously been given morphine in Bath by another doctor, and subsequently at Sutton; the injection did relieve the asthma from which she suffered.

Several chemists were called to prove supplying various prescriptions to the order of Dr. Law.

Dr. Savage was the next witness. He said that he was called on April 1st in the evening to see Miss Forsythe at 62, Ladbroke Grove. He found her in a weak physical condition, partly unconscious, and half delirious when roused. Witness was told that she had taken morphine, and her condition indicated long-continued use of drugs, such as morphine, cocaine, and chloral. He was told she had asthma, but the only disease he found was a feeble heart. Drugs of this kind would depress the heart. He had seen Miss Forsythe within the present week, and she seemed to be improved physically and nervously. In cross-examination, he said that he did not know that 62, Ladbroke Grove was a home for persons who had acquired the morphine habit; many of her symptoms were such as followed the stopping of the drug; in his opinion her condition indicated that there had been a partial stoppage. There were occasions when it was necessary to administer morphine, but there was the danger of establishing the morphine habit. It was generally difficult to find out when the patient had acquired the habit. The hypodermic injection of morphine was an accepted treatment for spasmodic asthma, though he did not approve of it; the plaintiff's heart was affected, and it was necessary to relieve the paroxysms; the sudden stoppage of morphine in a person who had acquired the habit of its use would be attended with peril to life, but he preferred himself to take that risk, though others considered it wiser to diminish the amounts gradually. Questioned as to cocaine, he said that it was a dangerous drug, and that he did not consider it wise to substitute it for morphine in the treatment of the morphine habit. If the cocaine had been used in this case as a nasal spray, that would make a difference to his opinion, although he had known serious breakdowns produced by the continued use of nasal sprays of cocaine.

Evidence in support of the plaintiff's case was given by Miss Critchlow who swore that Miss Forsythe stayed with her for three weeks at Pelham Crescent and that during that time Dr. Law attended her. He used to call once or twice every day and had stayed two or three hours. Morphine injections were prescribed by him and administered there himself at times. Several times she found Miss Forsythe in a very helpless condition which she ascribed to the morphine. She communicated with the plaintiff's friends and suggested to Dr. Law that the patient should be moved, but he refused to allow this, saying that she was too ill. She said that if the patient remained there she would die, and if she did Dr. Law would have to bear the consequences. Dr. Law told her that Miss Forsythe wanted to die, but witness denied this. Finally the patient was removed to her mother's house at Hampstead and placed under Dr. Hardwick's care, and the morphine lessened considerably. She became much better and then went to Bath and there the administration of morphine nearly ceased. From Bath witness took her to her brother-in-law's, and at that time she substantially recovered.

Upon cross-examination she admitted that 10 years since Miss Forsythe was suffering from hysteria and asthma that she was occasionally self-willed and impatient of restraint and at Pelham Crescent she was distressingly ill. Often she thought Miss Forsythe was dying and she was not fit to be left alone; she appeared to suffer great pain, agonising at times, either real or imaginary. Witness had a strong objection to morphine and was an opponent to its use.

Dr. Hardwick in his evidence stated that he had seen Miss Forsythe in consultation with Dr. Law, and that then she had all the appearance of a morphinomaniac. Witness did not find the asthma severe, but the patient was neurotic. He did not consider that morphine in such a case was the correct treatment, and he reduced the dose gradually.

In cross-examination he said that the use of morphine in spasmodic asthma was a well-recognized treatment, and that Miss Forsythe went away when he reduced the doses, and that it was the reason why she left.

Mr. Hurry Fenwick, F.R.C.S., stated that he had seen Miss Forsythe for a surgical matter purely, and expressed no opinion about the morphine treatment: if he did he would probably have said it was right.

Dr. James Kirkland said that he had attended Miss Forsythe. She had no asthma. He stopped the morphine at once, there being nothing to justify its use. She steadily improved, and to a great extent regained her mental faculties and health. He had examined the prescriptions given her, and found that an enormous amount of morphine had been given, sufficient to account for the condition in which he found her.

In cross-examination he said that the patient, although so well, could not attend the court, as she had heart disease, which would have rendered the strain of cross-examination dangerous to her. He had qualified at Glasgow five years ago, and had never held any position as house-surgeon or house-physician. He had acted as *locum tenens* in Glasgow, but could not remember for whom. While at Glasgow he had attended a large number of patients. He was unqualified at the time, but after he qualified he came to London and practised as a *locum tenens* at Fulham. He also had had a good practice at Hastings. He considered Miss Forsythe should have been placed under control, and that he would have certified her as a morphine maniac; but what would have happened had he so certified he did not know. He also suggested that Dr. Law was responsible for the large doses of morphine which Miss Forsythe took. When he stopped the morphine entirely he was quite aware that there was danger in doing so, but he took the risk and anticipated it. His fees against the plaintiff came to above 150 guineas, part of which had been paid by her sister.

The case for the defence was opened by Mr. Bankes, K.C., and it was urged that all Dr. Law could have done in the matter was to have exercised reasonable care and skill. He was not bound to offer advice to a person of full age who persisted in taking a particular course. Dr. Law had attended the plaintiff gratuitously, and no reason could be suggested why Dr. Law should have continued the treatment for a moment longer than it was absolutely necessary. No objection had been raised by Dr. Law to the relations or other doctors visiting Miss Forsythe; indeed, he had called in Dr. Theodore Williams, Mr. Hurry Fenwick, Dr. Hardwick, and others. The patient was a victim of the morphine habit. The charge against Dr. Law was one of negligence, and the whole question turned upon the necessity for the administration of morphine at particular times. The defendant gave the drug for spasmodic asthma, and no stronger dose had been given than a standard one. If it had not been for Dr. Law's sympathy the plaintiff would have been in a far worse state than she was at present. Action had been brought by her against a man who had befriended her for years; Dr. Law had behaved honourably and properly, and there was no ground for such an action as this.

Dr. Theodore Williams, Dr. Capon, Sir Richard Douglas Powell, all gave evidence that the defendant's treatment of the case was right and proper, and that he had exercised a most careful management of it.

Dr. Law went into the box and supported on oath the statements made by his counsel in the opening. He asserted that Miss Forsythe was suffering from spasmodic asthma, and he carried out the treatment which he adopted after consultation with Dr. Mitchell Bruce. He was taken over the whole course of his attendance upon the plaintiff, and after a long cross-examination by Sir Edward Clarke the foreman of the jury intimated to the judge that they had made up their minds and did not want any more evidence.

Sir Edward Clarke insisted, however, upon addressing the jury, and at the close of his address the foreman again intervened, and in response to the judge gave a verdict for the defendant, and added that in their opinion the case should not have been brought into court.

Mr. Justice Grantham said he quite agreed with the jury, and could not allow the case to pass without expressing his indignation with those who had instructed counsel for the plaintiff in this case upon a certain point. She had charged the defendant with the very base act of making up a mock consultation for the purpose of misleading the plaintiff's relations. Those who made that charge knew it to be false, and telegrams had been produced which showed that the consultation was genuine, and that the plaintiff's family were informed of the time it was to take place. He liked to see a hard fight, but also liked to see it fairly fought.

Judgment was given for the defendant, with costs.

FEE FOR EXAMINATION OF SPUTUM.

ESSEX states that in the case of a patient recently he diagnosed early phthisis, and on obtaining a specimen of the sputum, staining and mounting, he found a few bacilli. To confirm his own opinion he sent another specimen to a research association, and the report is, "tubercle bacilli present in small numbers." He has asked a fee of 10s. 6d., but this the patient refuses to pay on the ground that the examination is a part of the doctor's routine of work. Our correspondent asks if he is correct in enforcing the extra fee.

*** In our opinion our correspondent is entirely justified. The patient's contention is unreasonable and ungrateful.

MEDICAL ADVERTISING.

M.B. ABERD. sends us a cutting from the *Peterhead Sentinel*, which is headed "Dr. Anderson's Successor," and informs the public that "Dr. Norman Davidson, M.B., Ch.B., D.P.H., has commenced practice in succession to Dr. Anderson," and that "he is a brilliant student of Aberdeen University, a medallist in forensic medicine and public health," and "took highest distinctions in surgery, geology," etc. We are further informed that Dr. Davidson has travelled extensively in Egypt, Turkey, and Russia, that he has been assistant in a large London practice, that he has acted as Medical Officer of Health at Keighley, that he has been resident in the Rotunda Hospital, Dublin, at the Aberdeen City Fever Hospital, and at the Sick Children's Hospital, Aberdeen. Further, that after graduating Dr. Davidson underwent a prolonged training in hygienic and bacteriological methods, and that he possesses splendid testimonials from Professor Matthew Hay, Dr. Angus Fraser, and many other eminent medical men.

*** Nothing could be in worse taste than this announcement which we can only hope is due to the indiscreet zeal of a friend and that Dr. Davidson himself has had nothing to do with it. We are sure that the

eminent gentlemen whose names are quoted above would be the first to deprecate such use of the testimonials they may have given to any former alumnus of the distinguished medical school of Aberdeen.

ILLNESS OF NURSE.

M.O.H. writes: A sanitary authority has a nurse for an isolation hospital from a certain institution. The nurse contracts scarlet fever and is disabled for seven weeks. During this time she is looked after by the sanitary authority, and another nurse is employed from the same institution. Can the latter claim for the services of the nurse while she was ill?

*** It had been notified to the institution at the time the nurse contracted the fever that her engagement was at an end, the former could only have claimed a week or a month's salary in lieu of notice. If no such notification were given, the sick nurse practically continued in the service of the sanitary authority, and the institution would be entitled to her salary during the time she was ill, or until due notice had been given of the termination of her engagement.

TRANSFER OF PRACTICE.

RECTUS.—According to the facts stated, our correspondent appears to have parted with his practice to his assistant, the consideration being a payment by the latter of £10 a month to him out of the receipts. It further appears that this payment was faithfully made during the lifetime of the assistant, so that in the absence of any special agreement to the contrary his executors would be entitled to the proceeds derived from the sale of the practice, the value of the debts being therein included. If, however, our correspondent did not actually transfer his practice the answer would be different. We should advise him to consult his solicitor.

TESTIMONIALS AS ADVERTISEMENTS.

WE have received further copies of the prospectus of a school for stammerers apparently conducted by Mr. P. Beasley, Brampton Park, Huntingdon, which contains a testimonial letter from Mr. E. Luke Freer, of Birmingham. We are informed that Mr. Freer has been absent in South Africa but we think that he ought to take steps to prevent the continued circulation of this pamphlet (see BRITISH MEDICAL JOURNAL, March 9th, 1901).

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At a congregation on February 25th the following medical degrees were conferred:—*M.D.*: G. H. Goldsmith, Caius. *M.B.*: J. S. S. Perkins, St. John's; J. L. Timmins, Emmanuel. *B.C.*: J. S. S. Perkins, St. John's; J. E. W. Cole, Corpus.

UNIVERSITY OF EDINBURGH.

THE University Court has appointed Dr. Dawson Turner Additional Examiner in Experimental Physics. Dr. Dawson Turner has been a Lecturer in Physics in the Extra-Academical School for the last ten years. Hitherto Examiners in Physics have never been members of the medical profession.

HONORARY DEGREES AT THE SCOTTISH UNIVERSITIES.

THE Senatus Academicus of the University of Aberdeen has resolved to confer the degree of LL.D. on Sir Thomas Barlow, Bart., M.D., etc., and on Professor Wright, of Oxford.

The Senatus of St. Andrews University has agreed to confer the same degree on Professor Sir William Turner; Professor Frankland, Birmingham; and on Mr. A. S. McCormick, Secretary of the Carnegie Trust.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examinations and conformed to the by-laws, have been admitted Members of the College:

J. W. W. Adamson, St. George's; F. E. Anley, Charing Cross; H. L. Atkinson, Yorkshire College and General Infirmary, Leeds, and [illegible]; L. Bedwell, Charing Cross; E. W. Bain, [illegible] College and Royal Infirmary, Man[illegible]; W. E. Bendy, Charing Cross; J. C. Bridge, [illegible]; W. E. Browne, B.A.Camb., Cambridge and St. Thomas's; W. W. Browne and J. B. Burt, University College; A. Cameron, Middlesex; G. F. M. Clarke, L.S.A.Lond., Charing Cross; E. L. Clay, [illegible] and Queen's and General Hospitals, Birmingham; J. B. Cook, Owens College and Royal Infirmary, Manchester, and at [illegible]; E. A. Cox, King's College; W. T. Crawford, University College; R. J. Cuming, St. Thomas's; H. T. Doble, St. Mary's; R. V. Dudley and R. A. Eastmond, London; H. A. [illegible]; C. J. E. Edmonds, L.S.A.Lond., St. [illegible]; P. K. [illegible], University College, London, and Newcastle Royal Infirmary; D. E. Finlay, St. Mary's; E. P. [illegible], London Hospital; E. C. Foster, University College; [illegible], Cambridge and St. Thomas's; J. G. [illegible], St. Mary's; C. H. Gask and A. W. Gater, Guy's; G. F. [illegible], Melbourne; [illegible]; W. [illegible], London; [illegible]; [illegible], St. Bartholomew's; S. W. [illegible]; W. T. Heydon, St. Thomas's; F. J. Hender[illegible]; [illegible], Middlesex; G. S. C. Hayes, H. A. Higgins, Guy's; W. [illegible], M.D., C.M.Toronto, Medical University, Montreal; A. F. [illegible], University College; C. R. Howard, B.A.Camb., Cambridge and [illegible]; J. L. Hughes, St. Bartholomew's; E. Hyde, Cambridge and St. [illegible]; F. W. Jackson, St. Bartholomew's; L. R. Jiminez, Guy's; H. N. Keeling, Yorkshire College and General Infirmary, Leeds, and St. Mary's; T. T. Kelly, A. D. E. Kennard, W. P. Kerr, Guy's; H. H. Kiddle, St. Thomas's; H. A. Kingsmill, M.D.West.Univ.,Ontario, Edinburgh and Middlesex; F. S. Langmead, St. Mary's; A. P. Laycock, Cambridge and London; A. N. Leatham, Charing Cross; N. Leonard, St. Bartholomew's; J. W. Llewellyn, University College, Cardiff, and St. Bartholomew's; A. M. Macintosh, St. Mary's; M. R. C. MacWatters, King's College; F. D. Martyn, Westminster; H. G. McKinney, H. N. Marret, H. M. H. Melhuish, G. W. Miller, St. Bartholomew's; O. Mills, St. Thomas's; W. J. Morrish, St. Mary's; C. R. Moss, M.A. Oxon., Oxford and University College and Royal Infirmary, Liverpool; S. G. Mostyn, M.A.Oxon., St. Bartholomew's; N. H. Mummery, University College; L. G. Nash, Guy's; H. R. FitzNattle, University College; R. A. Needham, B.Sc., M.B., Ch.B.Vict., Owens College and Royal Infirmary, Manchester; W. Nicholson, L.D.S.Eng., Owens College, and Royal Infirmary, Manchester; P. A. B. Odgers, B.A.Oxon., Oxford and Guy's; J. N. Parrott, St. Mary's; V. S. Partridge, L.S.A.Lond.; Westminster and Charing Cross; N. R. Phillips, University College, Cardiff, and University College; C. A. G. Phipps, Owens College, and Royal Infirmary, Manchester, and London; J. F. Powell, St. George's; J. P. Prell, London; W. R. Read, L.D.S.Eng., St. Bartholomew's; M. J. Rees, Guy's; B. E. Sausom, L.S.A., St. Thomas's; L. D. Saunders, St. George's; S. S. H. Shannon, Guy's; J. Sharples, Cambridge and St. Mary's; C. B. Shuttleworth, M.D., C.M.Toronto, Medical College, Toronto; E. Smallwood, L.S.A.Lond., M.D.Brux., University College and Royal Infirmary, Liverpool, and University College; G. F. D. Smith, M.A., M.B.Oxon., B.Ch.Oxon., Oxford and St. George's; G. M. Soper, St. Mary's; R. D. Stacey, St. Bartholomew's; W. H. L. Stewart, Cambridge and St. Thomas's; G. W. Stone, St. Bartholomew's; W. B. Swete-Evans, B.A.Camb., Cambridge and St. George's; E. R. L. Thomas, London; R. E. G. Tillecke, M.D.Brux., L.R.C.P.& S.Edin., and D.P.H.Lond., Ceylon Medical College and King's College; F. I. Trimmer and J. H. Tripe, London; J. Walker, St. Thomas's; A. H. E. Wall, Guy's; J. Walters, University College, Cardiff, and King's College; H. K. Ward, Mason College, Queen's and General Hospitals, Birmingham; V. G. Ward, St. Bartholomew's; A. T. Waterhouse, B.A.Oxon., Oxford, and St. Thomas's; R. J. Waugh, St. Bartholomew's; A. R. Wellington, St. Mary's; J. A. West, St. Bartholomew's; G. H. L. Whale, B.A.Camb., Cambridge, and St. Bartholomew's; J. L. Whatley, Guy's; P. W. White, University College, Bristol; F. E. Wilson, University College; A. S. Woodward, C. S. Woodwark, and A. C. Young, St. Bartholomew's.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,455 births and 6,633 deaths were registered during the week ending Saturday last, March 1st. The annual rate of mortality in these towns, which had increased from 17.7 to 24.4 per 1,000 in the six preceding weeks, declined again last week to 23.3 per 1,000. The rates in the several towns ranged from 10.6 in Aston Manor, 11.7 in Hornsey, 12.4 in Walsall, 12.6 in Leyton, 12.9 in Kings Norton, and 13.8 in Norwich, to 27.3 in Great Yarmouth, 27.6 in Reading, 28.2 in London, 28.5 in St. Helens, 28.8 in Merthyr Tydfil, 29.3 in Hastings, and 29.4 in Plymouth. The death-rate in London, 28.2 per 1,000, exceeded by 7.1 the mean rate in the seventy-five other large towns, which was 21.1 per 1,000. The zymotic death-rate in the seventy-six large towns averaged 2.0 per 1,000; in London this death-rate was equal to 2.9 per 1,000, while it averaged 1.6 in the seventy-five other large towns, among which the death-rates from the principal zymotic diseases ranged upwards to 3.0 in Stockton-on-Tees, 3.4 in West Ham, 3.9 in Willesden, 4.4 in Huddersfield, 4.6 in Tottenham, and 5.3 in Burnley. Measles caused a death-rate of 1.5 in Tottenham and in Southampton, 1.8 in Northampton, 1.9 in Rotherham, 2.1 in Willesden and in Brighton, 3.8 in Huddersfield, and 4.2 in Burnley; scarlet fever of 1.7 in Wigan; diphtheria of 1.3 in Willesden, 1.5 in Coventry, and 1.6 in West Hartlepool; whooping cough of 1.1 in Liverpool, 1.3 in Aston Manor and in York 1.4 in Gateshead, and 1.9 in Wallasey; and "fever" of 1.5 in Devonport. Of the 84 deaths belonging to these large towns registered last week 75 belonged to London, 7 to West Ham, 1 to Tottenham, and 1 to Swansea. There were 1,300 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 1st, against 1,102, 1,185, and 1,321 at the end of the three preceding weeks; 370 new cases were admitted during the week, against 287, 390, and 402 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had decreased from 1,170 to 1,064 at the end of the nine preceding weeks, had further declined to 1,000 on Saturday last; 218 new cases were admitted during the week, against 277, 280, and 279 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 1st, 928 births and 729 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.0 and 25.3 per 1,000 in the two preceding weeks, declined again last week to 22.6 per 1,000, and was 0.7 per 1,000 below the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 17.3 in Paisley and 18.5 in Aberdeen to [illegible] in Greenock and [illegible] in Dundee. The zymotic death-rate in these [illegible] was [illegible] per 1,000, the highest rates being recorded in Dundee [illegible] and Paisley. The [illegible] deaths registered in Glasgow included 10 from small-pox, 6 from measles, 4 from scarlet fever, 2 from whooping-cough, 2 from "fever," and 1 from diarrhœa. Three fatal cases of measles and

of whooping-cough were recorded in Edinburgh. Six deaths from measles and 4 from diarrhœa occurred in Dundee; 7 from whooping-cough and 1 from diarrhœa in Aberdeen; 3 from whooping-cough and 2 from diarrhœa in Paisley; and 2 from measles in Greenock.

INFLUENZA IN EDINBURGH.

Influenza continues prevalent in Edinburgh. The mortality in the week ending March 1st was 114, and the death-rate 18 per 1,000. The inference from these figures is that the epidemic is not of a very fatal type. Diseases of the chest, however, account for 56 deaths, almost exactly half the total mortality. Of these 56 deaths 10 were due to phthisis, 6 to other forms of tuberculosis, 25 to other "chest" diseases not defined. Thirty-five deaths were in persons over 60 years of age.

MANCHESTER AND SALFORD SANITARY ASSOCIATION.

The Committee of the Manchester and Salford Sanitary Association have been in communication with the Education Department with respect to the ventilation of schools, and having been invited by Sir John Gorst to submit a draft of such a circular as they would recommend for issue to managers and inspectors of schools, have drawn up the following:

Ventilation of Schools.

The health of the children and teachers in public elementary schools is so largely influenced by the condition of the air they breathe as to necessitate at all times that teachers should make the best use of the means provided for ventilation. Inattention to this important subject is to a large extent responsible for the sore throats, anæmia, headache, and mental dullness which occur amongst school children; moreover, it favours the spread of infectious disease, and is extremely prejudicial to children that are predisposed to phthisis. Defective ventilation also leads to conditions of ill-health among teachers, especially to hoarseness, partial loss of voice, teachers' sore throat, and undue mental weariness. The teacher should insist:

1. That foul air outlets are kept open at all times, the size of opening being regulated to minimize draughts.
2. That sufficient air inlets (which should be at a lower level than the outlets, and be air gratings, Tobin's tubes, hinged or swing windows, lower "hopper" windows, window-sill inlets, ordinary slide windows or doors) are kept open to supply fresh air during teaching hours, and that the currents of air are of a "through" character.
3. That during playtime recess, dinner hour, before morning school, and after the close of the day's work all windows and doors be left open sufficiently long to "air" and refresh the schoolroom and classrooms.
4. That fireplaces (where they exist) are not blocked up by fancy screens in summer, and that air inlet or air outlet gratings are left uncovered by maps, etc.
5. That each assistant teacher follow out and practise the same regulations.
6. That opportunity be taken to instruct the children in the value of ventilation both in school and for their own homes.
7. That the ventilation should be examined when much "school illness" is noted in the classes.

CHOICE OF THE PLACE FOR VACCINATION.

A Country Public Vaccinator writes: Has the public vaccinator free choice to vaccinate where he likes, namely, at the surgery or at the patient's home? I frequently prefer going to the home, especially if there are a number in the same family to be done. At the home there are attendants to wait on you, supply you with water, towels, undress and dress the patient or patients, and there is a larger fee, namely, 6s. 6d., the fee being 2s. 6d. at surgery. I was requested to vaccinate the members of a convent, and about a dozen came to my house. I had just had a message to go to an urgent case, and told them I would later in the day visit them and vaccinate them, which I did at the convent. Should I charge the surgery fee or the home fee? I subsequently vaccinated more inmates who had not been to my house. For these, I presume, the home fee should be charged, although they might have come to the surgery had I asked them. Had they come to my house it would have been a case of flooding my consulting room and dining room, and perhaps surgery with the patients, and it was much nicer in every way for me to vaccinate at their home. Again, a person stops me in the street and says, "Doctor, I want you to vaccinate me (or it may be the family)." I reply "Yes," and then comes my difficulty; Am I to say "Come to the surgery," or "I will visit you and do it"? Yesterday I was asked to vaccinate a little girl, and the father said, "When shall I bring her up"? (that is, to my house). I told him if I vaccinated at his house I should get the larger fee. Then he said "Oh, come to the house." He preferred it, so do I. The question I want to try and settle is, Has the public vaccinator free choice in the matter to vaccinate where he prefers, either at the surgery or at the patient's home? If he has, well and good; but if not, there is a temptation with the larger fee to do cases at home, and where it is often far more convenient. If he has not the choice, the vaccination regulations should state it definitely.

*** The public vaccinator must vaccinate primary cases under 14 years of age at the home. In regard to other cases, his contract says: "He will, if [so requested, visit the home of such person for the purpose of vaccinating or revaccinating him, or will, if not so requested, perform the operation at his surgery or at such other place as may be arranged by him with the person so applying." The place of vaccination, therefore, is purely a matter of arrangement between applicant and doctor, but the latter should endeavour always to consult the public convenience rather than his private interest. Where these coincide of course there will be no difficulty, but it is not advisable to push vaccination at home for the sake of getting higher fees.

ONE-MARK VACCINATION.

Public Vaccinator might consult the Local Government Board. Our own view is that he should not abate one jot or tittle of the full requirement, but, owing to want of legal [illegible] vaccination, it would not surprise us if the [illegible] to unwillingly allow some modification of [illegible] Certificate may, two marks are made instead of four, the two should be extra [illegible] to give the half-inch area. But every public vaccinator should, as a matter of principle, refrain from entering on any downward competition.

QUALIFICATIONS FOR PUBLIC APPOINTMENTS.

Dublin asks whether a man who has the diploma L.S.A.Lond. only is eligible to become a medical officer of health or a public vaccinator, or to hold a Poor-law appointment; also whether a medical officer of health must reside within a mile of his district.

*** This depends upon the date when the diploma of the Apothecaries Society was issued. Previous to the passing of the Medical Act of 1886 these diplomas were only partially qualifying. All the diplomas, however, of this body which have been obtained since this Act came into operation are fully qualifying in medicine, surgery, and midwifery, and any holder of such is consequently eligible for a Poor-law appointment or to become a public vaccinator. He is also eligible for a Public Health appointment except for districts with a population of 50,000 or upwards: for these a D.P.H. diploma is required in addition. We are not aware that any medical officers of health are bound to reside within a mile of their districts, but it is possible that this might be made one of the conditions of any such appointment.

DRY ROT.

X. Y. Z. asks what power a medical officer of health possesses to deal with houses built within the last two years, in which floors are broken through by dry rot owing to deficient ventilation under them and a wet subsoil.

*** The fact that the houses were only built two years ago does not affect the present method of dealing with the above nuisance, though it incidentally reflects upon the defective supervision of new dwellings under the building by-laws, which may be supposed to be in existence in the district in question. The medical officer of health should report the above defects to the sanitary authority, and recommend the latter to serve notices to remedy them by providing a layer of concrete under the house, and arranging for efficient cross-ventilation in the space between the new floor boards and this layer of concrete.

MEDICAL NEWS.

The Prince of Wales has become a Vice-Patron of the Royal Institution.

Royal Infirmary, Glasgow.—The annual dinner of the past and present residents of the Royal Infirmary, Glasgow, was held in the Windsor Hotel, Glasgow, on February 26th. Surgeon-General Jameson, C.B., lately Director-General of the Army Medical Service, and a Past Resident of the Royal Infirmary, presided. The Committee hopes that any old Residents whose names were omitted from the invitation list will communicate with the Senior Resident.

Treatment of Inebriety in Victoria.—The formation of a committee to investigate the different cures for inebriety has, according to the *Australasian Medical Gazette*, 1902, been completed by the Chief Secretary. The Committee will consist of Messrs. M'Kenzie and J.W. Billson, M.S.L.A., the Rev. Dr. Bevan, the Rev. Dr. Strong, and Dr. Godfrey, Assistant Government Medical Officer. About half a dozen methods of treating alcoholics have been brought under Mr. Trenwith's notice, and a number of persons have submitted themselves as willing to be treated.

Society of Medical Phonographers.—The Society of Medical Phonographers will hold its next annual shorthand examination early in May, 1902. Two prizes will be offered, each of the value of £5, one for first-year students, and one for students of more than one year's standing. The competition will be open without entrance fee to any registered medical student in the United Kingdom who has not taken a first prize at one of the Society's previous examinations. It will be held simultaneously in London, Edinburgh, Dublin, and at any provincial medical centre in the United Kingdom at which not fewer than three candidates shall offer themselves. Intending candidates should send in their names as early as possible to Dr. P. G. Griffith, Bonhams, Farnborough, Hants, who will furnish them in return with a detailed prospectus of the examination. The latest date for receiving entries will be April 15th, 1902.

TOBACCO HEARTS IN CHICAGO SCHOOL CHILDREN.—Cigarette smoking is held responsible by the medical examiners of the Chicago School Board for a startling increase in heart disease and nervous ailments among pupils in the high schools. The condition was revealed by examinations recently held for admission to athletic sports. Twenty-one out of a hundred would-be competitors were found unfit, and all but three suffered from some form of heart trouble.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; unmarried. Salary, £150 per annum, £30 per annum cab hire, furnished rooms, etc. Applications to the Secretary by March 15th.

BIRMINGHAM, TAME, AND REA DISTRICT DRAINAGE BOARD.—Bacteriologist. Salary, £160 per annum. Applications to Mr. J. D. Watson, Engineer to the Board, Tyburn, near Birmingham, by March 19th.

BRADFORD POOR-LAW UNION.—First Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £125 per annum, with prescribed rations, apartments, and washing. Applications to the Clerk, 22, Manor Road, Bradford, by March 25th.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence. Applications to Mr. Johns Coombs, Honorary Secretary.

BRISTOL GENERAL HOSPITAL.—(1) Assistant House Physician. Salary £70 per annum, with board, residence, etc. (2) Assistant House-Surgeon. Applications to the Secretary by March 11th.

CARDIFF INFIRMARY.—(1) Assistant House-Surgeon. (2) Assistant House Physician. Appointments for six months but renewable. Salaries at the rate of £75 per annum, with board, washing and apartments. Applications, endorsed "Assistant House-Surgeon" or "Assistant House Physician," to be sent to the Secretary by March 19th.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer to act as House-Physician for first six months and House Surgeon for second six months. Salary, at the rate of £80 and £100 per annum respectively, with board, lodging, and washing. Applications to the Secretary by March 12th.

CENTRAL LONDON SICK ASYLUM DISTRICT.—First Assistant Medical Officer. Salary, £120 per annum with board and residence. Applications to the Clerk, Cleveland Street Asylum, Cleveland Street, W.

COLCHESTER: ESSEX AND COLCHESTER GENERAL HOSPITAL.—House Surgeon. Salary, £100 per annum, with board, washing and residence. Applications to the Secretary.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer. Salary, £120 per annum, rising to £150, with board, furnished apartments, etc. Applications to the Medical Superintendent by March 28th.

DAGENHAM SMALL-POX HOSPITAL.—Temporary Resident Medical Officer. Salary at the rate of £26 per annum, with rooms, board and washing. Applications to the Medical Superintendent, Plaistow Hospital, London, E.

DORCHESTER: DORSET COUNTY HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum with board, and residence. Applications to the Chairman of the Committee by March 10th.

DOWN COUNTY INFIRMARY.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to Dr. Tate, Downpatrick, by April 3rd.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—House Surgeon. Board and residence provided, and an honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 10th.

EDINBURGH: CRAIGLEITH POORHOUSE AND HOSPITAL.—Medical Officer. Salary, at the rate of £100 per annum, with board and apartments. Applications to the Clerk, Parish Council Chambers, Castle Terrace, Edinburgh, by March 10th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HALIFAX ROYAL INFIRMARY.—(1) Second House Surgeon, (2) Third House-Surgeon. Salary, £90 per annum, with residence, board and washing. Applications to the Secretary by March 19th.

HAYWARD'S HEATH: EAST SUSSEX COUNTY ASYLUM.—Second Assistant Medical Officer and Pathologist, unmarried. Salary, £175 per annum, with board, lodging, washing, and attendance. Applications to the Medical Superintendent by March 18th.

JENNER INSTITUTE OF PREVENTIVE MEDICINE.—Studentship of the value of £150 for the purpose of research in the Bacteriological Department of the Institute. Applications to Dr. Allan MacFadyean, Chelsea Gardens, S.W., by March 15th.

KING'S NORTON AND NORTHFIELD URBAN DISTRICT.—Assistant Medical Officer at the Infectious Diseases Hospital. Salary, £120 per annum, with rations, rooms, etc. Until accommodation is provided, officer will be paid at the rate of £40 per annum in lieu of apartments, rations, etc. Applications, on forms provided, to be sent to the Clerk to the Council, 10, Newhall Street, Birmingham, by March 11th.

LEEDS UNION.—Assistant Medical Officer for the Workhouse, Schools and Infirmary; unmarried, and not more than 35 years of age. Salary, £120 per annum, rising to £150 with board, washing, apartments and attendance. Applications to the Clerk, Poorlaw Offices, South Parade, Leeds, by March 11th.

LEICESTER ROYAL INFIRMARY.—(1) Honorary Assistant Physician. (2) Surgical Dresser. Board and lodging provided, and honorarium of £10 10s. for six months. Applications to the Secretary, 24, Friar Lane, Leicester.

LEITH HOSPITAL.—(1) House Physician, (2) Assistant House Physician (non-resident), (3) House-Surgeon, (4) Surgeon for the Outdoor Department. Salaries at the rate of £100 per annum from May 1st. Applications to the Secretary.

LIVERPOOL ROYAL INFIRMARY.—(1) Second House Surgeon. Salary, £60 per annum. (2) House-Surgeon. Salary, £70 per annum. Board residence, and washing in each case. Applications to the Chairman of the Medical Board by March 20th.

LONDON: ROYAL HOSPITAL, Harrow Road, W.—Anaesthetist to the Female Hospital.

MANCHESTER: ROYAL INFIRMARY.—House-Surgeon. Salary £100 per annum. Applications to the Secretary by March 15th.

MANCHESTER: CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—House Surgeon, £100 per annum, with apartments and board. Applications to Mr. H. Marsden Arnold, Manchester, by March 25th.

MANCHESTER: ROYAL INFIRMARY.—Assistant Medical Officer; unmarried, commencing at £150, increasing to £200 per annum. Applications to the Medical Superintendent by March 15th.

MANCHESTER: ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Physician. Applicants must be M.R.C.P. Lond. Applications to the Secretary by April 5th.

METROPOLITAN HOSPITAL.—Resident Surgeon (Junior) for six months. £100 per annum. Applications to the Secretary, 30, Charing Cross, London, W.C., by March 12th.

METROPOLITAN ASYLUMS BOARD.—Male Assistant Medical Officer at the Darenth Asylum, Dartford; unmarried and not exceeding 35 years of age. Salary, £150 per annum rising to £170, with rations, lodging, attendance, and washing. Applications on forms provided to be sent to the office of the Board, Embankment, E.C., by March 14th.

METROPOLITAN EAR, NOSE AND THROAT HOSPITAL.—Clinical Assistants. Applications to the Secretary, Grafton Street, Tottenham Court Road, W., by March 22nd.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House Physician, (2) House-Surgeon, (3) Assistant House Physician, (4) Assistant House Surgeon. Appointments for six months. Salary for (1) and (2) at the rate of £40 per annum and for (3) and (4) at the rate of £20 per annum. Applications to the Secretary by March 17th.

MIDDLESEX HOSPITAL, W.—Medical Registrar. Applications to the Secretary-Superintendent by March 14th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Senior House-Physician. Salary, £100 per annum. (2) Junior House-Physician. Salary, £50 per annum. Board and apartments provided in each case. Applications to the Chairman of the Board by March 10th.

NATIONAL ORTHOPAEDIC HOSPITAL, Great Portland Street, W.—Honorary Assistant Anaesthetist. Applications to the Secretary by March 5th.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary (outdoor), £160 for first year, £180 afterwards. Applications to the Honorary Secretary, Mr. Joseph Carr, 41, Mosley Street, Newcastle-on-Tyne, by March 19th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Anaesthetist (female). Applications to the Secretary by March 12th.

NOTTINGHAM CHILDREN'S HOSPITAL.—House Surgeon; unmarried. Salary, £100 per annum, with board and residence. Application to the Secretary, Mr. A. F. Kirby, St. Peter's Church Walk, Nottingham, by March 24th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marlebone Road, N.W.—Pathologist. Remuneration at the rate of £100 per annum. Applications to the Secretary by March 17th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Three members of the Court of Examiners. Applications to the secretary by March 12th.

ROYAL DENTAL HOSPITAL FOR LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square, W.—Demonstrator. Honorarium, £100 per annum. Applications to the Dean by March 17th.

ST. MARK'S HOSPITAL FOR FISTULA, etc., City Road, E.C.—House Surgeon. Salary, £80 per annum, with board and lodging. Applications to the Secretary by March 15th.

SALFORD ROYAL HOSPITAL.—(1) House Surgeon. Salary, £100 per annum. (2) House-Physician. Salary, £80 per annum. (3) Junior House Surgeon. Salary, £70 per annum. Board and residence provided in each case. Appointments for six months. Applications to the Superintendent by March 15th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer, age about 30; unmarried, Salary, £150 to commence, with board, lodging and washing. Applications to Dr. Finch, Salisbury.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—House-Surgeon; unmarried. Salary, £75 per annum, with board, lodging, and washing. Applications to the Hon. Secretary of the Medical Staff, Mr. P. E. Barber, Leavygreave House, Hounefield Road, Sheffield.

SHEFFIELD: UNIVERSITY COLLEGE.—Demonstrator in the Bacteriological Laboratory. Salary, £150 per annum, rising to £200. Applications to the Registrar by March 22nd.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House Surgeon. Appointment for six months. Salary at the rate of £60 per annum, with board, lodging and laundry. Applications to the Honorary Secretary.

TOTTENHAM HOSPITAL, N.—(1) Honorary Dermatologist. (2) Two Honorary Anaesthetists. Applications to the Chairman of the Joint Committee by March 11th.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Resident Medical Officer, unmarried. Salary £100 per annum, with board and lodging. Applications to the Secretary, 34, Craven Street, Charing Cross, London, W.C., by March 12th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) House-Physician. (2) House-Surgeon. Board and lodging provided in each case. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary, £140 per annum, rising to £160, with board, etc. Applications to the Medical Superintendent by March 17th.

WILTS COUNTY ASYLUM, Devizes.—Assistant Medical Officer. Salary, £150 per annum, rising to £180, with board, residence, attendance and washing. Applications to the Medical Superintendent by March 12th.

MEDICAL APPOINTMENTS.

ANDERSON, H. M., M.B., appointed Resident Medical Officer to the Sydney Hospital, New South Wales.

AUSTEN, Harold, M.D., B.S Lond., M.R.C.S., L.D.S.Eng., appointed Lecturer on Materia Medica to the Royal Dental Hospital of London.

BALDWIN, G. R., F.R.C.S.Eng., appointed Honorary Surgeon to Outpatients, St. Vincent's Hospital, Melbourne.

BARRACLOUGH, A. M., M.B., B.C.Camb., appointed Certifying Factory Surgeon for the Chapeltown District of the West Riding of York.

BROADBENT, P. L., M.B., appointed Resident Medical Officer to the Prince Alfred Hospital, Sydney, New South Wales.

COMBES, E. W. L., M.B., appointed Resident Medical Officer to the Sydney Hospital, New South Wales.

DOYLE, Andrew Aloysius, L.R.C.S., L.K.Q.C.P.Irel., L.S.A., appointed Medical Officer at Roma, Queensland, and also Visiting Surgeon to the Prison, *vice* G. Stewart L'Estrange, L.R.C.S., L.K.Q.C.P.Irel., resigned.

EVERED, A. C., L.R.C.P., L.R.C.S.Edin., appointed Quarantine Officer at Albany, West Australia, *vice* F. J. Ingoldby, M.R.C.S.Eng., resigned.

HASLAM, A. C., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Medical Superintendent of the St. Pancras Infirmary.

HENRY, Howard, M.B., B.Ch., B.A.O.Dub., appointed District Medical Officer to the Rosnere and Claydon Union.

MONCHIEFF, E. W., M.D., appointed Resident Medical Officer to the Prince Alfred Hospital, Sydney, New South Wales.

O'CONNOR, Arthur Charles, M.B., M.Ch.Syd., appointed Government Medical Officer, and Vaccinator at Bulli and Coalcliff, New South Wales, *vice* Clifton Sturt, L.R.C.P., L.R.C.S.Edin.

PAGE, E. C., M.B., appointed Resident Medical Officer to the Prince Alfred Hospital, Sydney, New South Wales.

PROCTER, T., M.R.C.S.Eng., appointed District Medical Officer of the Ulverston Union.

SHARP, Ellen M., M.B.Lond., appointed Senior House Surgeon to the Victoria Children's Hospital, Hull.

SHARP, W. A. R., M.B., appointed Resident Medical Officer to the Sydney Hospital, New South Wales.

SHORTT, William, L.R.C.P., L.R.C.S.Edin., appointed Coroner for the Police District of Orange, New South Wales, *vice* Mr. A. D. Barnett.

STEPHEN, E. M., M.B., appointed Resident Medical Officer to the Prince Alfred Hospital, Sydney, New South Wales.

SWORDER, E. G., M.B., B.C.Cantab., appointed Honorary Medical Officer to St. Andrew's Convalescent Home, Polkestone, *vice* Dr. Cecil Latter, deceased.

TOD, Hunter F., M.A., M.B., B.C.Cantab., F.R.C.S., appointed surgeon to the Throat and Ear Department of the Paddington Green Children's Hospital.

WARDEN, A. A., M.D.Glasg., Docteur en Médecine de la Faculté de Paris, appointed Physician to the Hertford British Hospital, Paris, *vice* Dr. J. Faure-Miller, deceased.

WEBB, F., M.B., appointed Resident Medical Officer to the Sydney Hospital, New South Wales.

ZIMPEL, Adolph, M.B., M.S.Aberd., appointed Junior Medical Officer to the Lunacy Department of New South Wales.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Mr. A. M. Sheild: A Series of Cases of External Operations on the Larynx. Mr. C. Mansell Moullin: Three Cases of Gastrotomy for Recent Gastric Ulcer.

Royal College of Surgeons of England, 5 p.m.—Professor C. Stewart: On the Organs of Respiration. Lecture I.

TUESDAY.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., 8.30 p.m.—Annual Clinical Debate. On Cancer, its Nature, Origin, and General Principles of Treatment. The following, among others, will take part in the discussion: Dr. J. F. Payne (who will open the debate), Dr. John F. W. Tatham, Professor R. T. Hewlett, Dr. Beatson (Glasgow), Dr. J. Galloway, Dr. H. R. Gaylord (New York). Communication on Cancer in Swine, with Lantern Slides.

Royal College of Physicians of London, 5 p.m.—Dr. G. F. Still: On Some Abnormal Psychical Conditions in Children. Goulstonian Lecture III.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Adjourned Discussion on the Regeneration of Peripheral Nerves.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Pathological Evening.

Royal College of Surgeons of England, 5 p.m.—Professor C. Stewart: On the Organs of Respiration. Lecture II.

THURSDAY.

British Gynæcological Society, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Mr. Furneaux Jordan and Mr. R. O'Callaghan, and short papers will be read by Mr. Freyer (introduced) on Stone in the Female Bladder, also by Dr. E. T. Collins.

Royal College of Physicians of London, 5 p.m.—Dr. F. T. Roberts: On the Comprehensive Study of Thoracic Phthisis. Lumleian Lecture I.

FRIDAY.

British Laryngological, Rhinological, and Otological Association, 11, Chandos Street, W., 4 p.m.—Cases will be shown by Mr. Mayo Collier, Dr. McCall and the President. 5 p.m.—A Discussion on the Diagnosis and Treatment of Various Forms of Nerve Deafness: opened by Dr. Dundas Grant, continued by Dr. Greville MacDonald, Dr. Barclay Baron, and others. 7.30 p.m.—Annual dinner at the Café Royal.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Mr. H. W. Page and Drs. Payne and Poynton: Two Cases of Arthritis of the Knee. Dr. W. Hale White and Dr. Walter C. Pakes: A Case of Malignant Endocarditis giving Widal's Reaction. Sir Thomas Barlow, Bart., and Dr. H. Batty Shaw: Hypertrophic Cirrhosis of the Liver. Mr. A. E. Sears: Acute Paralytic Dilatation of the Stomach.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, W.C., 7.30 p.m.—Dr. J. R. Kaye: Scarlet Fever: how far Statistics prove or disprove the Utility of Hospital Isolation.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, London, W., 8.30 p.m.—Cases will be shown by Mr. Hartridge, and Messrs. Harman and Bradburne. Papers—Mr. R. Lawford Knaggs: Symmetrical Concentric Changes of Choroid and Retina in Four Cases of Unusually High Myopia. Mr. W. H. H. Jessop: Membranous Conjunctivitis, with cases. Mr. Sydney Stephenson: Diphtheria of the Conjunctiva.

Royal College of Surgeons of England, 5 p.m.—Professor C. Stewart: On the Organs of Respiration. Lecture III.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith Road, W., 8.30 p.m.—Clinical Evening. Mr. Keetley, Mr. Edwards, Mr. McAdam Eccles, Dr. Ball, and Dr. Saunders will show Cases.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m.—Lantern Demonstration on Oral Sepsis in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, ear.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m. Lecture on Visual Fields in Diagnosis.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows:—Monday: Therapeutics. Tuesday: Diseases of the Tonsils. Wednesday: Some Functional Disorders. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Treatment of After-effects from Anæsthetics.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CAMPBELL.—At 48, Belmont Gardens, Hillhead, Glasgow, on February 28th, the wife of Dr. A. Thomson Campbell, of a son.

HAWTHORNE.—On February 17th, at "Warrawee," Mudgee, New South Wales, the wife of E. Sydney Hawthorne, F.R.C.S., L.R.C.P., of a daughter.

SIMMONS.—On February 27th, at St. Ives, Portland Road, South Norwood, the wife of Stewart Septimus Simmons, M.R.C.S., L.R.C.P., of a son.

WILLS.—On February 6th, to Dr. and Mrs. W. Kenneth Wills, of 59, Apsley Road, Clifton, Bristol, of a son.

DEATHS.

JOHNSON.—At Evandale, Tasmania, on January 22nd, John George Johnson, M.R.C.S. Eng., L.R.C.P. Lond., aged 44 years.

LOUDON.—At Linnwood, Hamilton, on February 26th, James Loudon, M.D., aged 77 years.

THOMAS.—On February 27th, at Bournemouth, Robert Thomas, F.R.C.S., M.A. Oxon., of Eastbach Court, Coleford, Gloucestershire, recently Professor of Anatomy at St. Mungo, Glasgow, aged 48 years.

WAGGETT.—On February 20th, at Perivale, Bournemouth, Florence Blechynden, the beloved wife of John Waggett, M.D., F.R.C.S.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

RUSTICUS wishes to know where he can find an account of the effects (moral and physical) of tobacco smoking when indulged in by growing boys.

LIDUS, who is about to build on land adjoining his house a surgery, consulting, and waiting rooms, asks for help as to plans and probable cost; he wishes to know if there are any movable buildings of this kind to be obtained.

X-RAY BURN.

R. asks for hints in the treatment of an x-ray burn that has resisted all treatment for two months. The pain at times is very severe. The ulcer is on the abdomen.

MULTIPLE WARTS.

H. C. R. asks for suggestions in the treatment of multiple warts on the face, scalp, and hands of a girl aged 6 years. Warts are now developing over little scratches or abrasions on different parts of the body. The warts on the face number some hundreds.

VENEREAL WARTS.

NAVALIS asks for suggestions in the treatment of venereal warts situated in the mucous membrane below the corona glandis, which have been present for about ten months. At various times they have been completely removed by scissors, ligature, and the application of various caustics; for example, chromic acid (saturated solution), nitrate of silver, etc.; but they always appear again in about a week. There is no discharge to keep up the irritation, and strict cleanliness of the parts has always been attended to.

CASE OF INCONTINENCE OF URINE.

J. R. (Islay) asks for suggestions as to the cause and treatment of the enuresis in the following case: A young, delicate girl complains of micturition occurring two or three times an hour. The urine is apparently normal: its specific gravity is 1012. There is no indication of hysteria, no tenderness of the hypogastrium, and nothing abnormal about the meatus. Opium, belladonna, and cantharides have been tried, with elevation of the foot of the bed, but with no improvement except that she can now retain urine for about three hours.

RIGIDITY UNDER CHLOROFORM.

DR. J. GAY MOFFAT (Keighley) writes: I have recently had an experience which is to me, at any rate, of interest, as I do not remember having met with it before, and am at a loss to know exactly how to explain it. The condition I refer to is one of extremely well-marked rigidity of the muscles of the abdominal wall in a patient who was in a state of complete surgical anæsthesia. The patient was a young man, 29 years of age, the subject of gall stones. He was being anæsthetized, chloroform being used, preparatory to my doing a cholecystotomy. When declared "ready," I found his abdominal wall "as rigid as a board." More chloroform was administered until the man was under to the full surgical extent. The rigidity, however, continued throughout the whole length of the operation, thereby rendering his case unusually difficult and tedious. I was compelled to work through an incision (vertical) the margins of which could only be retracted to a very slight extent, and, as the gall bladder was difficult to reach I had to be satisfied, after removing the gall stones, with inserting a rubber drain without any suturing, and packing underneath it with gauze. The patient, I may mention, has done quite well. My object in recording this is twofold: I should like to have the opinion of any one who has had experience of the condition—or not for that matter—as to the nature, and whether or not any steps can be taken to prevent it.

ANSWERS.

W. G.—We are not aware that there is any foundation for the statement that cancer is unknown among regular cider drinkers.

THE DIAGNOSIS BETWEEN SCARLET FEVER AND GERMAN MEASLES.

DR. C. KILLICK MILLARD (Leicester) writes: In reply to the correspondent "C. E. R.," who asks what are the distinctive features between scarlet fever and German measles, he will find an excellent description of the diagnostics of these diseases in a paper entitled, Scarlet Fever, Measles,

and German Measles; is there a Fourth Disease? by Dr. C. B. Ker, published in the *Practitioner* for last month.

TREATMENT OF ACNE ROSACEA.

DR. W. PRICE (Coonoor, India) writes, in reply to "Woodlands," who asked for suggestions for the treatment of a case of this disease, that he has lately treated successfully a very bad case by the electric face bath, with electrolysis of the pustules, using a platinum wire electrode. He received this idea from a statement in Dr. Lewis Jones's *Medical Electr...* that acne of the back disappears during a course of bath treatment.

LETTERS, NOTES, Etc.

WE must remind our readers that we cannot take notice of communications unverified by the names of the writers.

ALLEGED IMPOSTOR.

OUR attention has been called to the following paragraph which appeared in the *Manchester Evening News* of March 4th; its republication here may serve as a warning to our readers: "This morning Alderman Snape, sitting at the City Police-court, granted a warrant for the arrest of a supposed swindler under the following circumstances. On the 11th of last month Dr. W. J. Sinclair, of Oxford Street, was visited by an American who represented himself to be Dr. C. C. Perry, of New York, and who took with him a message purporting to be from an old medical friend of the doctor formerly in practice in Manchester. He also represented himself as a friend of several medical men in America with whom Dr. Sinclair is acquainted. He explained that having missed a friend he was financially inconvenienced for the moment, and he asked for the loan of a few pounds, promising to return the money on his arrival in London. The doctor parted with the sum asked for, but soon had reason to fear that he had been victimized. He waited for some time for fear of doing the man an injury, although he found that he had made several false statements. Medical friends in New York were communicated with on the subject, and the cablegram reply was 'Impostor; punish.'"

RELAPSE OF VACCINATION.

DR. E. D. FITZGERALD (Folkestone) writes: In regard to the letter of "Amicus" in the BRITISH MEDICAL JOURNAL of February 22nd the following case may be of interest. The patient was vaccinated on February 5th; two well-marked vesicles developed by the fifth day, ran a rapid course, and the scabs came off on the tenth day, leaving the places well healed. Eleven days afterwards a secondary vesicle came out on one of the scars, even better developed than the original one, and is apparently running the usual course. It would certainly be of interest if this could be explained, as it rather upsets one's preconceived notions of the way in which vaccination protects against small-pox. My patient wishes to know if he is peculiarly liable to take small-pox.

DR. RICHARD A. COLES (Barham, near Canterbury) writes: A further instance of vaccination relapse, as described by your correspondent "Amicus," may be of interest. On January 23rd I vaccinated a nurse, aged 25, and [illegible]e, aged 2, with lymph from the same source, the latter being a [illegible] the former a revaccination. In each case typical vaccine ve[illegible]ed, and in due time the scabs came off. I was calle[illegible] to the nurse, and found that that the whole proce[illegible] on February 16th in the old places, and was follow[illegible] course. The case is of further interest in that the patient has heard from her mother since I vaccinated her that she had small-pox as a child, but this I have no means of verifying.

DR. ST. GEORGE EYRE HARRIS (Bournemouth) writes: In 3 cases in which [illegible] (obtained from same source) on January 9th last, [illegible] to that described by "Amicus" (BRITISH ... 22nd). In No. 1, recurrence took place in [illegible] eighth day, and again two of these recurred for [illegible] eighth day. Nos. 2 and 3 respectively re[illegible] places on the twentieth day. These were all [illegible], and in each four insertions were primarily [illegible] nderness in the axilla as well as soreness at the [illegible] at the time of recurrence. I may mention that in the [illegible] nated for the first time at 13 years of age, about [illegible] or nine secondary vesicles occurred about [illegible] day. [illegible] abridged course with the four inoculated vesicles.

TREXOPHYTON TRUSS.

DR. W. PRICE (C[illegible] Indies) writes: The illustration of the trexophyton [illegible] on January 4th, 1902, reminds me [illegible] I made for a patient of mine, [illegible] ...ars ago. I think my [illegible] any doctor to fit the [illegible] belt, broad surcingle of [illegible] er; (4) retained in place by an [illegible] er straps; (5) the splint has a [illegible] can be washed regularly.

[illegible]

JUSTITIA writes: A [illegible] published a note from Mr [illegible] tor to the [illegible] from which it might [illegible] ecuted chemists as [illegible] ants for the sale of [illegible] to Mr. Caldwell in [illegible] It be seen that there is no [illegible] prosecution of the em[illegible] under these Acts medical [illegible] the sale of [illegible] deserves that [illegible] no medical profession generally.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Dr. C. A. Aitken, Penarth; Army Surgeon's Friend; F. H. Alderson, M.B., London; A. W. P. B.; A. E. J. **B** G. R. Brebner, M.B., West Croydon; Mr. H. Baldwin, London; B.A., M.B.; T. A. Buck, M.B., I.W.; Dr. J. W. Ballantyne, Edinburgh; Dr. H. T. Bulstrode, London; J. W. Batterham, M.B., St. Leonards-on-Sea; Mr. K. Bagshot de la Bere, Hinckley; Mr. L. A. Bidwell, London. **C** A. Cox, M.B., Gateshead; Dr. J. B. Christopherson, London; R. A. Coles, M.B., Barham; Mr. F. H. Collins, Torquay; Dr. J. M. Cochrane, London; Dr. E. O. Croft, Leeds; C. A. S.; C. C. Cuthbert, M.B., Glasgow; Messrs. Callard and Co., London. **D** Dr. A. T. Davies, London; Dublin: Dr. L. Dobson, London; Mr. A. B. Dunne, Lasterdyke; Mr. G. H. M. Dunlop, Edinburgh. **E** Messrs. Evans, Lescher, and Webb, London; W. McA. Eccles, M.B., London; Mr. F. S. Edwards, London: Essex. **F** Fellow; Mr. E. D. Fitzgerald, Folkestene; Mr. C. N. Foley, Darwin Harbour, East Falklands; F.R.C.S., L.R.C.P.; "Florence Warden"; Dr. D. W. Finlay, Aberdeen. **G** Mr. F. G. Grapel, West Croydon; Mr. W. Gosse, Sittingbourne; Mr. C. A. Goullet, London; Dr. J. Galloway, London; W. Gorrie, M.B., Lochee; Messrs. Graham and Shepherd, Sunderland: T. H. Gardner, M.B., London; E. H. Gibbon, M.B., South Shields. **H** Mr. C. Heath, London; Dr. J. P. Henry, London; Messrs. J. Haddon and Co., London; J. E. Holden, M.B., Preston; Dr. P. Z. Hebert, London; St. G. E. Harris, M.B., Bournemouth; Hovis Bread Flour Co., Manager of, Macclesfield; G. E. Herman, M.B., London; Dr. S. Halbreich, Bridgend; Messrs. Hazell, Watson, and Viney, London; L. Harman, M.B., Kingston-on-Thames; H. C. R. **J** Dr. A. J. Jefferson, Rochdale; Mr. F. Jaffrey, London; Mr. H. Jones, Hereford. **K** Dr. G. S. Keith, Currie; Keeling. **L** J. L. Loudon, M.B., Hamilton; R. E. Legat, M.B., Cromer; Mr. H. Leak, Winsford; Dr. H. A. Latimer, Swansea; Dr. G. H. Lancashire, Didsbury; Dr. T. G. Lyon, London; Liverpool Medical Institution, Secretary of, Liverpool; Lidus; Dr. T. Laffan, Cashel; Mr. C. Lunn, London; Mr. L. Lovell-Keays, London. **M** Mr. H. May, Birmingham; M.D.; Dr. J. D. McCaw, London; Mr. W. L. Muir, Glasgow; Dr. J. G. Moffat, Keighley; C. J. McCartie, M.B., London; A. B. Mitchell, M.B., Belfast; M.D., M.R.C.S.; Dr. C. K. Millard, Leicester; D. W. K. Moody, M.B., London; Mr. T. Mitton, Manchester; J. R. McCrindle, M.B., Middlesbrough. **N** Northerner; Navalis; Mr. W. J. C. Nourse, London; J. H. Nicoll, M.B., Glasgow. **O** G. L. O'Neill, M.B., Sydney. **P** Mr. W. A. Pierce, Birkenhead; Public Vaccinator; Messrs. Potter and Clarke, London; Mr. V. G. Plarr, London; Dr. W. Price, Coonor; Miss Pitcairn, London; Sir G. H. Philipson, Newcastle-on-Tyne; Messrs. L. Paechtner and Co., London; Dr. F. J. Poynton, London. **Q** Query. **R** Dr. J. Ross, Islay; Rusticus; Dr. A. Roberts, Harrogate. **S** Mr. F. Sacchi, London; T. R. Smith, M.B., Stockton-on-Tees; G. B. Smith, M.B., London; Dr. F. J. Smith, London; S. Stephenson, M.B., London; Dr. F. O. Stedman, Hong Kong; Dr. J. Swain, Clifton; Dr. S. P. Sunderland, London; Dr. S. Sloan, Glasgow; Mr. H. A. Smith, Leeds; Messrs. W. B. Saunders and Co., London; Dr. G. A. Sutherland, London; Dr. J. H. Swanton, London; Sanatorium. **T** Dr. E. R. Tweed, Honiton; Mr. J. M. Thorne, Retford; Dr. H. Tilley, London; G. Turner, M.B., Pretoria; Dr. E. F. Trevelyan, Leeds; J. H. Targett, M.B., London; Mr. B. Thornton, Margate. **V** Mr. V. C. J. Vanderstraaten, Beliatta. **W** Mr. S. W. Wilson, Dublin; Dr. C. P. White, Leeds; Dr. F. Willcocks, London; O. K. Williamson, M.B., London; A. L. Whitehead, M.B, Leeds; Dr. R. R. Wade, Tunbridge Wells; D. C. Watson, M.B., Edinburgh; Mr. C. H. Whiteford, Plymouth; W. Wright, M.B., Glasgow; J. R. Williams, M.B., Penmaenmawr; Dr. T. J. Wood, Bradford; Mr. W. Wearne, Helston; Rev. H. Wilson, London; Dr. A. McC. Weir, Liverpool; Dr. A. A. Warden, Paris; Mr. J. H. Wraith, Darwen; W.; Dr. J. T. Wilson, Hamilton. **Y** Dr. M. Young, Stockport. **X** X. Y. Z.

BOOKS, Etc., RECEIVED.

Demonic Possession in the New Testament. By W. M. Alexander, M.A., B.Sc., B.D., C.M., M.D. Edinburgh: T. and T. Clark. 1902. 4s.

Between Life and Death. The Story of C.E.Z.M.S. Medical Missions in India, China, and Ceylon. By Irene H. Barnes. London: Marshall Brothers and Church of England Zenana Missionary Society. 1901.

Transactions of the Association of American Physicians. (Sixteenth Session. Vol. xvi. Philadelphia: Published by the Association. 1901.

Die Physiologie und Pathologie der Coordination. Von Dr. O. Foerster. Jena: Gustav Fischer. 1902. M.7.

Handbuch der Schulhygiene. Von Dr. L. Burgerstein und Dr. A. Netolitzky. Zweite Auflage. Jena: Gustav Fischer. 1902. M.20.

Guy's Hospital Reports. Vol. lvi. London: J. and A. Churchill. 1902. 10s. 6d.

Hindustani Self-taught. By C. A. Thimm, F.R.G.S. London: E. Marlborough. 1902. 2s. 6d.

Bullets and their Billets. Experiences with the X Rays in South Africa. By J. Hall-Edwards, L.R.C.P., F.R.P.S. London: Rebman Ltd. 1902. 6d.

The Annual Charities Register and Digest. London: Longmans, Green, and Co. 1902. 4s.

A Textbook of Physiology. Edited by W. H. Howell, Ph.D., M.D. Vol. II. Second Edition. London and Philadelphia: W. B. Saunders and Co. 1901. 18s.

"Off." Licences: Their History and Utility. London: National Federation of "Off" Licence Holders Associations. 6d.

A Textbook of Insanity. By C. Mercier, M.B., M.R.C.P., F.R.C.S. London: Swan Sonnenschein and Co. 1902.

Burdett's Hospitals and Charities, 1902. By Sir Henry Burdett, K.C.B. London: Scientific Press. 58.

The Academic Gregories. By Agnes Grainger Stewart. London and Edinburgh: Oliphant, Anderson and Ferrier. 1s. 6d.

Woman's Best Work and Latent Capabilities. By F. J. Gant, F.R.C.S. New Edition. London: Elliot Stock. 1902. 2s. 6d.

Die Mechanik und Therapie des Pneumothorax. Von Dr. E. Aron. Berlin: A. Hirschwald. 1901. M.2.40.

Die Verletzungen und Verengerungen der Harnröhre. Von Dr. M. Martens. Berlin: A. Hirschwald. 1902. M.4

Die experimentelle Diagnostik, Serumtherapie und Prophylaxe der Infectionskrankheiten. Von Dr. E. Marx. Berlin: A. Hirschwald. 1902. M.8.

Die mikroskopische Diagnose der bösartigen Geschwülste. Von Dr. von Hansemann. Berlin: A. Hirschwald. 1902. M.8.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	1	17	6
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

A Report

OF

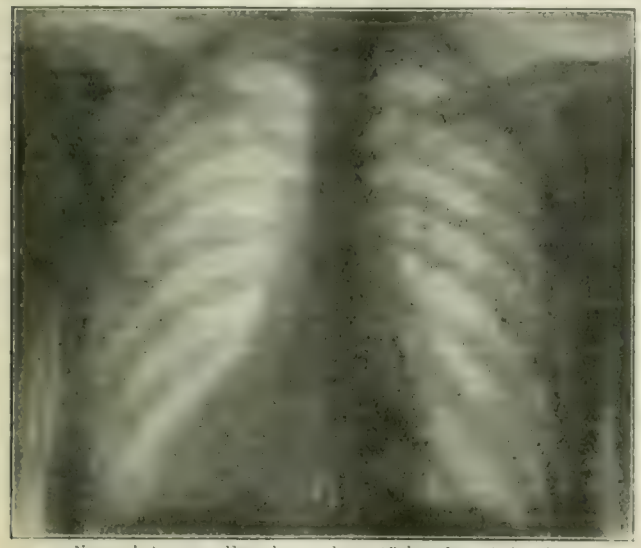
CASES ILLUSTRATING THE AID OF THE ROENTGEN RAYS IN THE DIAGNOSIS OF INTRATHORACIC TUMOURS.*

BY

J. MAGEE FINNY, M.D Dubl., Ex-President R.C.P.I.; King's Professor of Practice of Medicine; and Clinical Physician to Sir Patrick Dun's Hospital.

and EDWARD J. M. WATSON, B.A.Cantab., M.D.Dubl., Officer in Charge of the X Ray Department, Sir Patrick Dun's Hospital.

The diagnosis of intrathoracic disease, it will be readily acknowledged by every practising and consulting physician, is at all times a matter of clinical acumen; and although it may be arrived at in some cases with comparative ease and by the ordinary methods of clinical examination, in other



Normal thorax. Female, aged 34. (Taken from behind.)

cases, and especially in those of suspected intrathoracic tumours, it is often one of the most difficult problems presented to the physician, and may be impossible by those same tests.

Of course there are instances of aneurysms of the arch of the aorta or of malignant disease of the lungs which can be recognized as such with any ordinary care and observation: but even then, while the presence of a new growth or an arterial dilatation is readily made out, the extent and size of an aneurysmal sac or the exact site of a cancer must be at best but a question of probability or a bare guess. Then again at times an aneurysm may present no physical signs whatever to betray its presence, while, on the other hand, a mediastinal neoplasm may so closely simulate an aneurysm in its symptoms as to defy differentiation.

Any aid, therefore, which can help to clear up such difficulties and remove such doubts, and which can change deductive evidence into demonstrable must be gladly welcomed.

Such an aid, I believe, we may have in the *x* rays, and I would like to illustrate this point in the following cases, which occurred in my practice during the year 1901. Two are cases of aneurysm, and one of malignant disease occurring within the chest. In all the *x* rays were a help more or less in removing doubts and in explaining anomalous symptoms, while in one it was the only means I had of detecting an aneurysm of the thoracic aorta.

And here I gladly acknowledge the able assistance I got from Dr. Edward Watson in the examination of these cases by means of both the screen and the radiograph.

* Read before the Royal Academy of Medicine in Ireland, March 7th, 1902.

The accompanying illustrations are reduced from the skiagraphs of the cases, and I have added for the sake of comparison a skiagraph of a normal thorax.

Case I.—Sarcoma of Right Lung.

C. B., aged 30, a dressmaker was admitted under my care to Sir Patrick Dun's Hospital on the recommendation of Dr. Wright, Dalkey, on February 29th, 1901. Dr. Wright had treated her for haemoptysis, and recognizing that her symptoms were of an unusual character, advised her being placed under observation and treatment in hospital.

History.

Her history was indefinite, but it appeared that she had not felt well for three or four months, and had lost flesh. About six weeks ago she had some slight pains in her right side, and had a cough and had spat up a little blood. At the same time she noticed that her right breast was larger than the left, and that the right side of her chest appeared swollen. There is no history of any previous illness.

Present Condition.

She has very little cough or any distress except breathlessness on exertion. She prefers to lie on her back slightly raised. Temperature normal; pulse, 100; respirations, 24.

Inspection.—The patient appears well nourished. Her face is, as a rule, of a good colour, but sometimes shows a cyanotic hue, and there is a decided puffiness under the eyes, and both sides are swollen. The jugulars are prominent, and the right supraclavicular fossa is swelled. The infraclavicular region is also puffed out with a firm semi-elastic infiltration of the skin or subcutaneous tissues, which does not pit on pressure. The right side of the thorax is considerably larger than the left—by 2 inches—both above and below the mamma. The right breast is heavy and large, and feels hard and inelastic but not nodular, the swelling being in the areolar tissue rather than in the gland. The superficial veins over the thorax are enlarged, and at the level of the diaphragm extend to the left side. The current of the stream is downwards. The right arm measures three-quarters of an inch more than the left.

Palpation.—The voice is so feeble that the presence of vocal fremitus could not be established; the feel of the whole side is that of induration and thickening, so that the ribs cannot be readily made out.

Percussion.—Above the right clavicle a high-pitched note is obtainable: below the clavicle the whole of the front of the right chest is dull, and the dullness extends across to the left sternal margin. At the back a high-pitched note is to be heard above a line drawn from the ninth dorsal spine to the acromion process; all below that line a flat non-resonant note. Change of position made no alteration in these signs.

Auscultation.—Over the affected side the breath sounds are practically annulled, vocal resonance being diminished below and rather increased above.

Circulatory System.—The heart is normal in position and sounds. The pulse is rapid, circulation 100, and equal in both radials. The urine is normal.

As the diagnosis inclined to the existence of an intrathoracic growth involving the intercostal veins and superior cava, Dr. Edward J. Watson (the officer in charge of the *x*-ray department at the hospital) took a skiagraph. The result was not, however, satisfactory, as the whole side was more or less almost uniformly opaque, such as might be due to pleural effusion alone. Yet on looking closely at the picture, an ill-



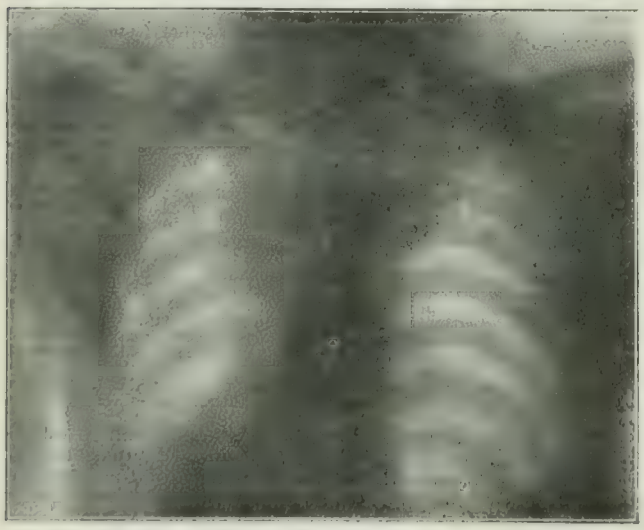
Case I.—C. B. Sarcoma of the right lung (taken in front).

defined mass, corresponding to the deeper shadow in the lower half, could be faintly outlined.

An exploratory puncture was made on April 5th, and some clear yellow fluid drawn off. It was then plain that there was, as expected, fluid in the pleura. Thoracocentesis was done on April 8th, when 72 oz. were obtained by siphon drainage; the first was yellow and clear serum, the latter third was blood-stained. The fluid did not coagulate on standing and presented no inflammatory corpuscles or morbid cells.

The interest now lay in the physical signs. After the tapping the air was found to enter the upper part of the lung, and to a less extent the lower. The dull note disappeared over the whole back and axillary regions, and in front down to he fourth rib; below this it remained dull. This dullness might have been due to an encysted pleurisy, which had not communicated with the posterior effusion, and had thus escaped drainage, or, as I strongly suspected, it was due to a neoplasm which by its pressure caused the oedema of the right thorax and the varicosity of the superficial veins. Besides, a pleural effusion alone could not explain the jugular and cervical distension.

For a couple of days after the tapping improvement was experienced, the swelling of face and neck diminished, and



Case II.—P. C., aneurysm of the arch of the aorta (taken from behind).

the skin of the thorax and right breast was looser and moved more freely over the ribs. However, the dullness over the front of the chest never altered, and there was an absence of breath sounds over this dull area. On the 13th the fluid was evidently re-forming, as in addition to the dull area below the fourth rib in front, the dullness extended up again to the clavicle, and to the level of the inferior angle of the scapula behind.

April 14th.—The patient weighs but 6st. 11 lb., and has lost 3 lb. in a fortnight. She has been up each day since the tapping of the 5th, feeling greatly relieved, and thinks herself better, although from the returning and more persistent cyanosis of her face and lips, the increase in the size of the varicose veins over the thorax and abdomen, it is evident the intrathoracic pressure is not relieved.

April 23rd.—A second tapping was done, and 62 oz. were removed; the fluid was straw-coloured, with a few flocculi of fibrin in it. It did not spontaneously coagulate.

On the day following Dr. Watson took another *x*-ray photograph, which demonstrated clearly the presence of a tumour (Plate II) in front of and to the right side of the vertebral column, extending from the level of the fourth rib behind, down to a short distance above the diaphragm, and occupying more than three-quarters of the lung space, and having regard to the persistent dullness in front, it presumably lies nearer the front than the back of the thorax.

During the months of May and June, three weeks of which she spent at home, there was little change, but the fluid slowly re-formed, and the swelling in the breast, etc., returned. She was readmitted on July 1st, with an aggravation of all her symptoms and, in addition, there were much insomnia due to orthopnoea, and some difficulty in swallowing. The physical signs of cutaneous oedema of eyelids, face, neck, and thorax, as well as those of the lungs and respiration, were much as before the first tapping; yet, in the hope that some relief might be obtained, she was tapped a third time, when 16 oz. were drawn off.

No relief to her distress, and no change in the physical signs followed it. The only ease the patient got was from the hypodermics of morphine. She left hospital a week later, and died at home on July 18th, in an attack of dyspnoea—the second after her return.

REMARKS.

There are some features in the foregoing case worthy of note.

The onset of the disease, which lasted about eight months, was insidious. It was not preceded by any operative proceeding for external cancer, nor by evidences of disease in other regions or organs. The intrathoracic tumour is, therefore, the primary disease, and although not positively proved, owing to the impossibility of obtaining a necropsy, yet considering the age of the patient, its nature in all probability was sarcomatous, and its origin in the connective tissue of glands of the posterior mediastinum, from which its growth spread peripherally and laterally to the right, and invaded the pleura and lung. Its pressure on the intercostal veins caused the oedema over the right half of the thorax, and it further involved the vena azygos and its tributary, the superior intercostal, as it reached the superior vena cava. It is probable it pressed also upon the superior cava itself or the right innominate vein.

The cyanosis, the swelling in the supraclavicular fossae, and the varicosity and large size of the superficial veins of the thorax and abdomen, in which the direction of the blood stream was downwards, could not well be otherwise explained.

CASE II.—ANEURYSM OF THE ARCH.

P. C., farmer, aged 42, married, was admitted to Sir Patrick Dun's Hospital on March 21st, 1901, under my care, with an aneurysm of the thoracic aorta, on the recommendation of Dr. John G. Gibbon, of Mullingar, co. West Meath.

History.

The patient states that he has been for many years in the habit of drinking a large quantity of whisky—up to 12 glasses a day; that about eighteen months ago he suffered from pain and a feeling of stiffness along the right side of the neck, and at the same time he noticed a lump at the upper part of the right side of the chest in front. He consulted a physician, and was given medicine, with the result that the pain left him in three or four days; that for eight months subsequently he was free from trouble, and that then, about three months ago, the pain began to trouble him again, being at times unbearable in the right shoulder. He saw the same physician again, and being no better, was treated by Dr. Gibbon, who gave him potassium iodide gr. xv thrice daily with great relief. He



Case III.—D. M., aneurysm of the aorta (taken from behind).

also had morphine [administered] hypodermically for the pains. Patient states that fourteen years ago he suffered from numbness and pain in his left hand and arm, that his hand used to get white and cold at intervals

and he lost complete power over it. On consulting a doctor he was told that his left radial pulse was much smaller than his right.

A month ago his cough became considerable, and he brought up each day about a teacupful of "phlegm," chiefly muco-purulent, and at times mixed with some dark-coloured clotted blood. Tubercle bacilli were not present in the sputum.

Present Condition.

The patient at present complains of pain more or less constant in the right shoulder and side of the neck; the pain varies in intensity, and at times becomes very acute.

Inspection and Palpation: Percussion.

There is a tumour present in the upper part of the right chest at the position of the sternal end of the clavicle and the attachment of the costal cartilages of the first and second ribs, and percussion dullness present in this situation for an area of 2 inches diameter. Expansive pulsation is visible and palpable there also, and the aorta pulsates above the sternal notch. Tracheal tugging is also readily elicited, and a prolonged soft murmur, synchronous with the cardiac systole, is audible on auscultation. The trachea is pushed a little to the left side. Over the heart there is a loud systolic murmur audible, and most distinctly towards the apex. The right radial pulse is normal, the left is absent, and the brachial pulse cannot be felt.

Respiratory System.—The inspiratory murmur in the upper part of the right lung is delayed, and then enters with a rush, though feeble all over the right side. The air enters the left lung well above, but below and also through the lower lobe the sounds are masked by coarse crackling *râles*. Urine, specific gravity 1030, reaction acid, no albumen.

April 3rd.—Dr. Watson took a skiagraph (see illustration), which graphically depicts the aneurysm of the ascending transverse and descending portions of the arch.

The patient was put on modified Tufnell's treatment, and he was given gr. xxx of potassium iodide in the day, rest in horizontal position being strictly enforced, and all stimulants were withdrawn.

April 12th.—Patient complained of pain at night over the region of the aneurysm; he, however, slept well, but on waking seemed to have some difficulty in breathing. The dyspnoea became so much worse a few hours later, that he could not maintain the recumbent posture, but sat up leaning forward; stridor also ensued, with a hacking, harsh cough.

For two days he seemed in imminent danger of suffocation, the only relief being given by medicated steam inhalations and the hypodermic use of morphine in repeated doses.

Our senior surgeon, Dr. E. H. Bennett, saw him in consultation on the question of tracheotomy, but as the dyspnoea, etc., were not due to direct laryngeal oedema or pressure, but rather to deep-seated pressure on the bronchus, it was discarded as useless. Fortunately the necessity did not arise, for in three days the aneurysmal pressure had varied in its direction, and the urgent symptoms abated and were quite gone in seven days.

The postural treatment, having been so interrupted on 12th-16th, was given up. There was now no difficulty in breathing or swallowing. The aneurysm appears to have receded somewhat from the anterior chest wall, the pulsation above the clavicle being still very well marked, but below the clavicle much diminished.

May 3rd.—Allowed up to-day, slight pain complained of behind the right ear and right side of the neck, which feels hotter than the left. The inner end of the right clavicle still pulsates with the beat of the aneurysm; there is no discoloration of the skin over the tumour. The patient went out of hospital on May 10th. The temperature was never above normal; the pulse ranged from 60 to 104.

Recent inquiries are to the effect that the patient was alive and about in December last, and was able to take exercise, and that he had had no serious return of pain or dyspnoea. It is further reported that he had not continued the total abstinence which his seven weeks' residence in hospital had enforced and inculcated.

REMARKS.

In the foregoing case the interest is much enhanced by the location of the aneurysm by the *x* rays. While it was evident from the ordinary clinical tests that aneurysm of the first portion of the arch of the aorta existed, and pressed forward at the usual place, and also at the sterno-clavicular joint, and that it extended into the transverse portion of the arch, and bulged up into the neck, pushing the trachea to the left, and engaging the opening of the left subclavian artery, it was not at all evident that the aneurysm was of the large size the skiagraph depicted, or that it extended quite as much to the left as to the right of the middle line, or that it reached from the level of the second to the sixth rib on the left, and of the first to the fourth on the right side.

Thus by this clinical aid it was demonstrated that the aneurysm extends into the third stage, and by its pressure against the left bronchus, as I imagine it did, it produced the symptoms of the haemoptysis, the mucopurulent expectoration, and the congestion of the left lower lobe in the beginning of his illness, and induced the dangerous attack of "stridor from below" (Stokes), and the dyspnoea of the latter stages of his case while in hospital.

It is to be regretted that a more recent skiagraph could not be obtained to define the present size and shape of the aneurysm, for, as it is evident that improvement has taken place, and its pressure signs and symptoms have proportionately diminished, it is more than probable that the sac has more or less contracted and become consolidated.

CASE III.—ANEURYSM OF DESCENDING AORTA.

D. M., aged 54, admitted November 23rd, 1901, under my care. The patient is a flour miller, and had often to lift 20 st. sacks on his shoulder.

History.

He came to hospital complaining of pain localised in the left infra clavicular and supramammary regions. This pain was first noted about three weeks ago, while the patient was engaged in work of a fairly heavy character (putting belts on pulley wheels). His health has always been fairly good, but six years ago he was operated on for a left hydrocele, and four years ago he got a tumour in the right inguinal region, for which the right testicle had to be removed. On inquiry at the Adelaide Hospital this tumour was said to be of an adenomatous type. The patient gives a definite history of having received an injury to the left testicle over two years ago, and as a result it became very painful, and after some time enlarged in which condition it remains.

He states that he has had gonorrhoea, but never syphilis. He states that he has lost 6 lb. in the last six weeks; his present weight is 8 st. 1½ lb. The pain is described as of a dragging character, shooting down into the left axilla and arm, and the pain in the arm is accompanied by a certain amount of numbness.

The pain appears to get worse when the patient is walking about or working, and he has had to stand or sit down in the street or at work when thus affected, and this rest relieves him only for the time being and it has been bad enough to prevent his sleeping.

Condition on Admission.

Full and complete physical examination of the thorax failed to give the slightest indication of any disease of heart or blood vessels, lungs or pleura, and there were no evidences of pressure on the veins or nerves. The only alteration discoverable was that the left side of the thorax was half an inch smaller than the right above and below the mamma. The cervical and supraclavicular glands were not enlarged. There was no slowing or alteration in the volume of the left radial pulse, and the pupils were normal.

Under these negative signs I determined to seek the aid of the *x* rays, and Dr. Watson examined the patient by the screen and made out a distinct area of shadow in the region of the descending aorta, and further noticed that it pulsated synchronously with the heart. He then took the skiagraph I exhibit (see p. 634, col. 2). The aneurysm is therefore of the descending aorta, and extends vertically from the third to the fifth ribs, and laterally for 2½ inches from the vertebral middle line opposite the fourth rib.

The treatment was based, even before the skiagraph, on the suspicion of an aneurysm and on the fact that staying in bed and lying down gave great relief from pain. It consisted in keeping him in bed for four weeks and administering potassium iodide gr. v twice a day and ten grains at bedtime. His diet was not rigidly restricted. The temperature had been subnormal throughout. For a week before leaving hospital, which he did on January 17th, 1902, he was free from all pains and felt better than he had done for months before admission in the last week of November, 1901. One day he walked for two hours without any recurrence of pain. He had gained 5 lb. while in hospital.

REMARKS.

In this case there was a complete absence of all objective phenomena, and the only subjective symptom on which to lay stress was the existence of an ill-defined pain in the left thorax in front, referable to the third rib in the mammary line, and occasionally shooting out to the shoulder.

Now, though the presence of pain as the essential symptom of aneurysm should never be overlooked nor made little of, it must be readily admitted that this symptom is not, in and by itself, sufficiently characteristic to justify a diagnosis of aneurysm. One is well aware that some patients may, with a moral obliquity and for a certain unworthy purpose, make great stock out of these pains; but, on the other hand, when there is no desire or intention to deceive, cases have occurred which have been made little of by the patient and the doctor alike,

and yet have ended fatally by the sudden bursting of an intrathoracic aneurysm. In such cases the aid of the *x* rays is incalculable, as it converts the possibility of an intrathoracic tumour being the cause of the pain into a certainty.

This it did in my case, where it might be called a revelation, and it did more, for it told me that the tumour was a pulsating one, expanding laterally at each cardiac beat. Of this particular feature Dr. Watson assures me he is as certain as that the heart itself moves with each ventricular systole and diastole. By the use of the screen this is more readily made out, and indeed the print of the photograph (exhibited) shows it as an indistinct and hazy halo surrounding the tumour at its side.

POSTURE AND HEART MURMURS.

By W. GORDON, M.A., M.D., M.R.C.P.,
Physician to the Royal Devon and Exeter Hospital and the West of England Eye Infirmary.

VERY little attention has been directed to the influence of posture on heart murmurs. Murmurs are constantly being described and discussed without reference to the posture of the patient, the stray allusions in the textbooks (if we except the rather fuller treatment of "haemic" murmurs) are of the briefest sort, and statements so extreme as Potain's on "cardio-pulmonary" murmurs[1] are quoted without comment. The present position of the subject is thus summed up by Dr. Gee:

> Some murmurs, which are audible whilst a patient is lying down, become much less loud or even disappear when he sits or stands. This is especially the case with mitral and tricuspid murmurs. The reason of the occurrence is not understood.[2]

I shall endeavour to show that the subject deserves more attention than has been bestowed upon it, and that there is an explanation of the phenomena which may be reasonably put forward.

If any one who has a considerable number of cardiac cases and cases of anaemia coming under his notice takes the trouble to examine these cases systematically both in the recumbent and sitting postures, he will find that change from one to the other position produces effects on the cardiac sounds which are generally obvious and sometimes profound. In making such observations there are several sources of error which have to be avoided.

Influence of Exertion.—To get rid of this the change of position must be effected by an assistant, so that no effort is made by the patient himself.

The Transitory Effect of the Change of Conditions.—A few pulse beats should be allowed to pass after changing the posture before listening again to the heart.

Possible Influence of Altered Adjustment of the Stethoscope.—The observations should be made with a straight wooden stethoscope.

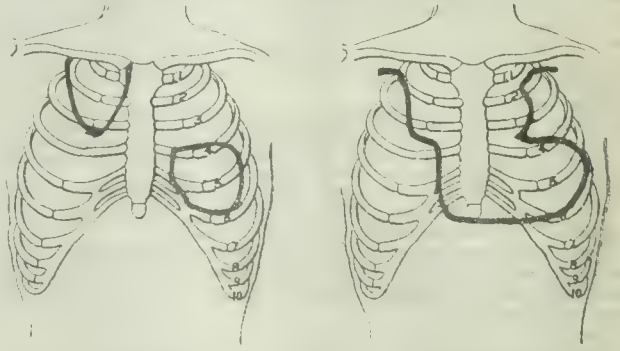
"Cardio-pulmonary" Murmurs.—These should be excluded. Their dependence on respiration, their limitation to an area overlying the edge of the lung, and the fact that they do not follow the lines of conduction which characterize intracardiac murmurs should suffice to distinguish them. Potain's sweeping statement (that all murmurs which almost or altogether disappear when a change is made either from the sitting to the recumbent, or from the recumbent to the sitting posture are cardio-pulmonary) is not in accordance with the facts.

Having avoided these errors, it will be found that, although most murmurs are better heard when the patient lies down than when he sits up, this is by no means universal. There are murmurs which are uniformly influenced in the opposite direction, and there are murmurs in which position produces practically no effect. At first sight these differences seem merely bewildering, but on consideration it will, I think, be discovered that, instead of hindering, they actually help us to arrive at an explanation of the whole series of phenomena. In order to make this clear, I will briefly consider the effect of posture on each sort of murmur separately, confining the consideration to the commonest murmurs and to the two commonest positions, of sitting (or standing) and lying down.

A. "HAEMIC" MURMURS.

1. *In the Pulmonary Area.*—The systolic murmur heard over the pulmonary artery is the murmur whose variations with varying posture have been definitely insisted on. Dr. Sansom says it is "greatly influenced" by the position of the body, being louder as the patient returns to the recumbent posture.[3] This murmur is often markedly increased by lying down, and a murmur may even be developed which was inaudible in the erect position. Moreover, the area of audibility may be greatly extended; a murmur which is heard over quite a small area while the patient sits may become audible over an area three or four times the size when she lies down.

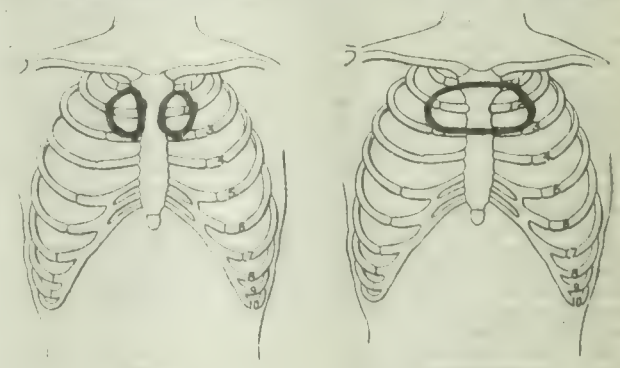
2. *At the Apex.*—The systolic apical murmur is also greatly influenced by posture, both in loudness and area of audibility. Fig. 1 illustrates the increase in area.



Erect. Recumbent.

Fig. 1.—E. B. Two "haemic" murmurs fusing on recumbency.

3. *In the Aortic Area.*—Fig. 1 also illustrates the fusion of two systolic "haemic" murmurs, one apical, the other "aortic," in consequence of each becoming audible over a wider area when the patient lies down. Fig. 2 similarly

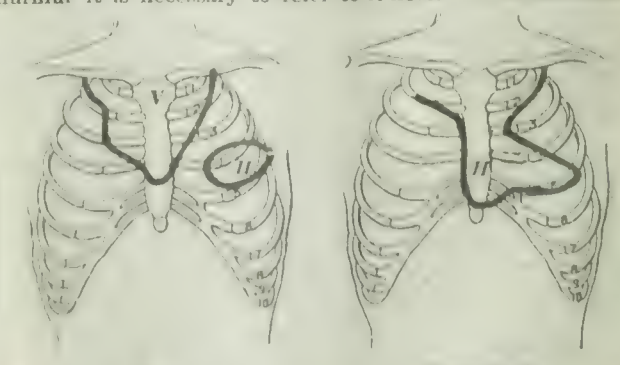


Erect. Recumbent.

Fig. 2.—Fusion of two "haemic" murmurs on recumbency.

illustrates the fusion of a "pulmonary" with an "aortic" haemic murmur.

4. *Venous Hum in the Neck.*—Although this is not a cardiac murmur it is necessary to refer to it here. It has been said



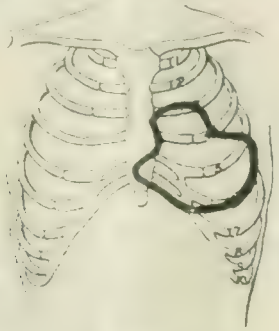
Erect. Recumbent.

Fig. 3.—E. D. Chlorosis. The venous hum vanished on recumbency. V, area of venous hum; H, area of "haemic" murmur.

to be "heard best in the standing position, being favoured by gravitation."[4] In my experience it is often heard only in the standing position, being altogether lost on lying down. Fig. 3 represents the changes in the areas of venous hum and "haemic" murmur which were observed in a case where the hum was unusually widely heard.

B.—"Organic" Murmurs.

1. *Mitral Regurgitation.*—The influence of posture is often pronounced in cases of recent murmurs developing in the course of chorea or acute rheumatism. These murmurs tend to be more evident when the patient is lying down. Fig. 4 is

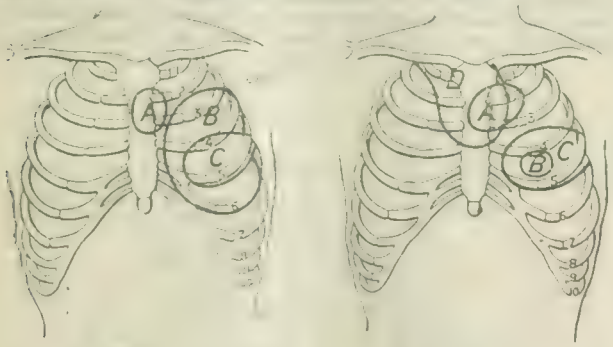


Recumbent.

Fig. 4.—F. R. T. Systolic mitral murmur after rheumatic fever. The murmur was inaudible in the erect position.

taken from a case in which a systolic apical murmur conducted towards the left axilla, developed in the course of acute rheumatism. Posture also usually exerts the same influence on the systolic mitral murmurs of confirmed valvular disease, and of dilated auriculo-ventricular orifice, but apparently not so markedly as in recent valvular murmurs.

2. *Mitral Stenosis.*—Here just the reverse appears to obtain. The presystolic murmur of mitral stenosis tends to be louder and more widely heard when the patient sits up. The loudest mitral presystolic murmur I have heard was scarcely audible when the patient was recumbent. Fig. 5, taken from a case



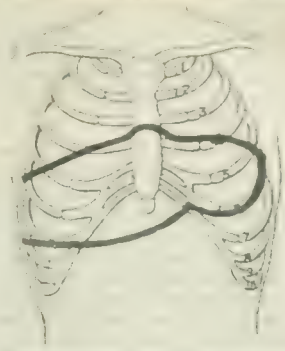
Erect. Recumbent.

Fig. 5.—O. C. Case of well marked mitral disease, with slight aortic disease. There was a marked presystolic thrill. The presystolic murmur was clearly not "Flint's murmur." A, Area of aortic regurgitant murmur; B, area of mitral stenotic murmur; C, area of mitral regurgitant murmur. D, area of aortic stenotic murmur.

of marked mitral stenosis and slight aortic regurgitation, serves to illustrate the increase of area of the presystolic mitral murmur consequent on assuming the sitting position.

3. *Tricuspid Regurgitation.*—This murmur seems to me to be sometimes increased on lying down, but less so than is the murmur of mitral regurgitation. In the case from which Fig. 6 was taken I could detect no change, but in this case the pericardium was adherent. Some months previously, however, there was a very obvious increase on lying down.

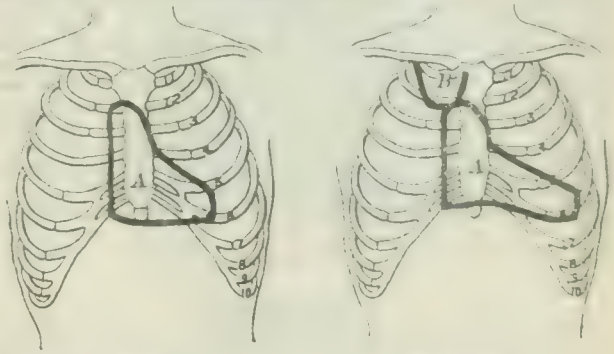
4. *Aortic Regurgitation.*—Here posture has remarkably little effect. Sometimes recumbency seems to lessen the murmur a little, sometimes to increase it a little. The area of audibility



Erect and Recumbent. Area of Systolic Murmur.

Fig. 6.—F. T. Tricuspid regurgitation, with adherent pericardium and very extreme mitral stenosis. No mitral stenotic murmur was audible when this figure was traced. The tricuspid murmur had, some months earlier, been louder and more extensive on recumbency, being then audible almost all over an enlarged and pulsating liver.

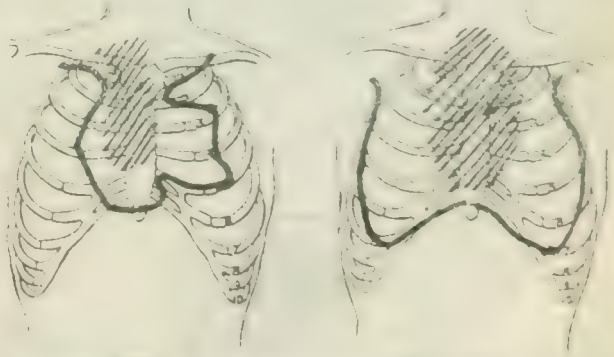
remains about the same size, though it sometimes slightly shifts its position. See Figs. 5 and 7.



Erect. Recumbent.

Fig. 7.—E. M. Aortic disease. The aortic regurgitant murmur was, if anything, rather fainter when she lay down. The aortic stenotic murmur was inaudible when she sat up. A, Area of aortic regurgitant murmur; B, area of aortic stenotic murmur.

5. *Aortic Stenosis.*—On the other hand, the murmur of aortic stenosis is often considerably increased by recumbency. See Figs. 5, 7, and 8.



Erect. Recumbent.

Fig. 8.—H. D. Aortic stenosis. The shaded area indicates the maximum of the murmur. It became much louder on lying down.

Summary of Effects of Recumbency.

In short, recumbency seems to tend to—

Increase the murmurs of mitral regurgitation.
" " tricuspid " (to a less degree)
" " aortic stenosis.
" " anaemia "pulmonary."
" " " apical.
" " " "aortic."
Decrease " mitral stenosis and the venous hum of anaemia.
Leaving unaffected the murmur of aortic regurgitation.

Now, if these observations should, on more extended inquiry, prove to be illustrations of a general rule, how can they be explained? In trying to answer this question it is necessary at first to confine our consideration to the organic murmurs, because so much doubt exists as to the mode of origin of the "haemic" murmurs.

INFLUENCE OF CHANGE IN CHEST DEPTH.

It occurred to me, when looking for an explanation, that possibly the antero-posterior diameter of the chest might be less in the recumbent position than in the upright. I therefore measured several dozens of chests with a specially-designed pair of calipers, and I found that this was actually the case, and that the difference was even greater than I expected. Although a rigid chest may not differ at all in the two positions, a very elastic chest may be as much as one inch deeper antero-posteriorly, at the nipple level, in the upright position. The average difference between the antero-posterior diameters of the upright and recumbent chest at the nipple level seems to be half to three-quarters of an inch. This, at first sight, may not appear a great deal, but when we observe in sections of the human body, as in Braune's *Atlas*,[6] that practically half of the antero-posterior diameter in the mid-line is formed by the solid structures of the back, the bony spine and the aorta and oesophagus, it will be obvious, in a chest measuring 7 inches from front to back in the upright position, where the reduction of half an inch is to be made not in 7 inches but in $3\frac{1}{2}$ inches, that this difference of half an inch becomes an important quantity. Moreover, it will be remembered that, of these $3\frac{1}{2}$ inches half an inch may be fairly taken to represent the sternum and its coverings. Consequently, the space which contains the heart becomes, in such a patient, on recumbency, shallower by about one-sixth of its depth. Such an alteration must bring the listening ear appreciably closer to the murmur-producing orifice.

Figs. 9 and 10, modified from Braune's sections, illustrate



Fig. 9.—Diagram of transverse section of the body at the base of the heart. (Modified from Braune). *a*, pulmonary artery; *b*, aorta; *c*, superior vena cava; *d*, sternum; *e*, vertebra.

the point and indicate the greater effect which slight reduction of depth will produce on murmurs at the pulmonary and aortic valves than on the tricuspid and mitral, the latter being more remote from the front of the chest. It ought to be most marked on murmurs at the pulmonary valves, which are nearest the front of the chest, and one knows that the shock of the valvular closure in an over-full pulmonary artery can sometimes be felt when the patient lies down, although it may not be felt when he stands up. The accentuated second

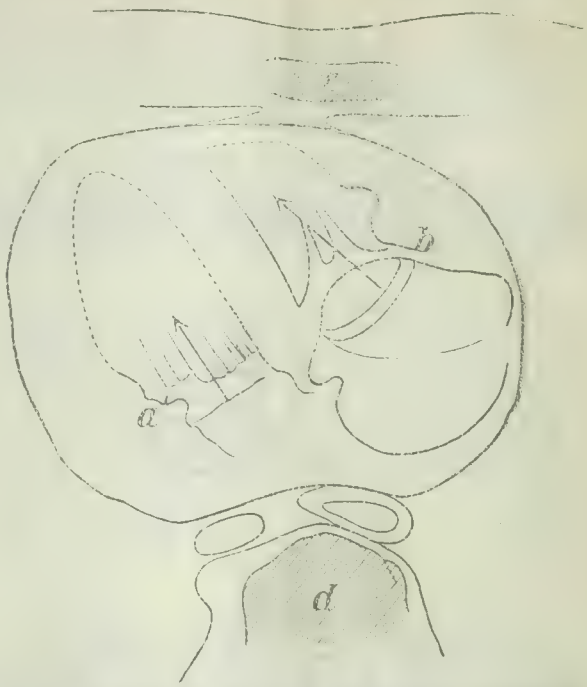


Fig. 10.—Diagram of transverse section of the body passing through heart. (Modified from Braune). *a*, mitral valve; *b*, tricuspid valve; *c*, sternum; *d*, vertebra.

pulmonary sound of mitral stenosis is also best heard when the patient is recumbent.

The change in chest depth on recumbency therefore should

greatly	increase a murmur at the	pulmonary	valves	
decidedly	"	"	" aortic	"
somewhat	"	"	" tricuspid	"
"	"	"	" mitral	"

Here, therefore, we have probably part of the reason of the increase of some of the murmurs, although a further explanation is necessary, since in some rigid chests, where there is practically no change in chest depth on recumbency, re-

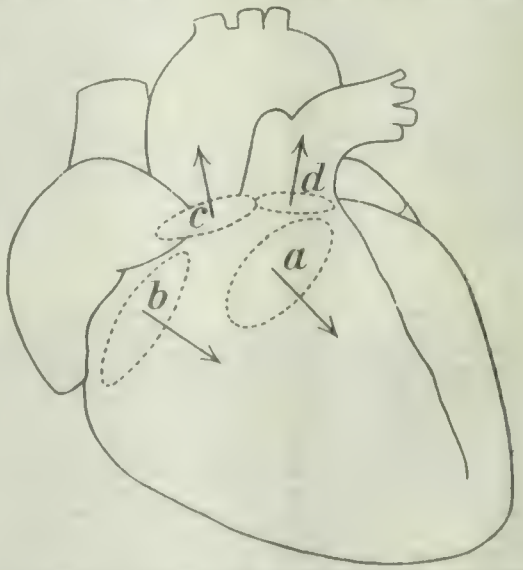


Fig. 11.—Diagram of the heart, seen from the front in the erect posture, showing the valvular orifices as they would probably appear in perspective if the heart were transparent. The arrows indicate the directions and inclinations to the vertical of the normal currents. *a*, mitral orifice; *b*, tricuspid orifice; *c*, aortic orifice; *d*, pulmonary orifice.

cumbency still influences cardiac murmurs. The clue to this further explanation lies, I think, in the relation of the venous hum to posture.

INFLUENCE OF GRAVITY.

Gravity (as Professor Clifford Allbutt has pointed out) seems to cause the increase of the hum in the upright position. Can gravity affect the murmurs in the heart? It seems so, and in order to illustrate the relation of the intracardiac blood currents to gravity, I have prepared Figs. 11 (p. 638) and

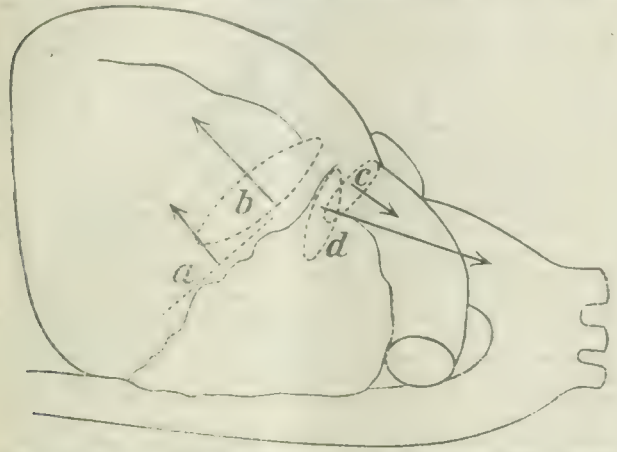


Fig. 12.—Diagram of the heart, seen from the left side in the recumbent posture, showing the valvular orifices, etc., as in Fig. *a*, mitral orifice; *b*, tricuspid orifice; *c*, aortic orifice; *d*, pulmonary orifice.

12, based chiefly on a careful consideration of the fine drawings in Professor Macalister's *Anatomy*, Professor Braune's *Atlas of Topographical Anatomy*, and Dr. Sibson's article in Reynolds's *System of Medicine*.

Fig. 11 is an attempt to represent the heart (as if transparent) seen with its valves in perspective from the front when the patient is upright. Fig. 12 is similarly an attempt to represent the heart and its valves from the left side when the patient is recumbent. Fig. 10, as just stated, is modified from a frozen section showing the arrangement of the heart cavities in the recumbent position.

From these diagrams it will be seen that:

In the upright position

Gravity should increase the force of flow
from left auricle to left ventricle
" aorta " "
And should decrease the force of flow
from left ventricle to left auricle
" " " " aorta
" right " " pulmonary artery
leaving almost unaffected the nearly horizontal flow between the right cavities.

Whilst in the recumbent position

Gravity should increase the force of flow
from left ventricle to left auricle
" right " " right " (to less degree)
" left " " aorta (slightly)
" right " " pulmonary artery
and should decrease the force of flow
from left auricle to left ventricle
" aorta " " (slightly)

In short recumbency, owing to the action of gravity, should

increase the force of the flow of mitral regurgitation
" " " " tricuspid " (to less degree)
" " " aortic stenosis
" " " pulmonary stenosis
and decrease the force of flow of mitral stenosis and
" " " " aortic regurgitation.

In other words, since whatever tends to reduce the force of flow through the valves tends to lessen the murmurs produced at them, and whatever tends to increase the force of flow tends to augment the murmurs, the action of gravity alone appears to explain all the peculiarities observed, except that it does not reduce the murmur of aortic regurgitation.

In the case of aortic regurgitation, however, the force producing the regurgitation is an exceptionally great one—the aortic tension—and in the case of the aortic valves we have the effect of chest depth directly opposed to the effect of gravity.

Taking, then, change of chest depth and gravity together, we should expect to find on recumbency:

Mitral regurgitant murmurs increased,
Mitral stenotic murmurs decreased.
Tricuspid regurgitant murmurs increased.
Aortic stenotic murmurs increased.
Aortic regurgitant murmurs scarcely, if at all, affected.

And these are just the effects which appear to be produced.

Turning next to "haemic" murmurs, it is curious to observe that (assuming the foregoing to be generally true) these behave exactly as if they were produced at the valves to which they correspond. If the apical "haemic" murmur is (as is generally admitted) a real mitral regurgitation, if the pulmonary "haemic" murmur is (as is often denied) a real pulmonary "forward" murmur, and if the aortic "haemic" murmur (which is scarcely discussed) is a real aortic "forward" murmur, we ought to find on recumbency:

The pulmonary murmur greatly increased.
The aortic " increased.
The mitral " "

And this is exactly what we do find.

There is an explanation of the pulmonary "haemic" murmur which, so far as I know, has never been put forward, yet may perhaps deserve consideration—namely, that whilst the normal right ventricle, throwing the normal amount of blood into the pulmonary artery, flings wide the valves, and thus encounters no constriction, in anaemia a relaxed right ventricle, propelling a reduced amount of blood, may fail to force quite open the pulmonary valves, and then these valves, though healthy, being held by the pulmonary tension in an intermediate position, may actually, by their position, constitute a constriction and produce a murmur. If this be so, then the explanation of the changes in the murmurs due to change of posture would seem to be complete.

If gravity really exercises the influence which I believe it does, a number of interesting questions arise. To take one instance: we may ask, Does a patient in the last stage of mitral regurgitation assume a forward-leaning position when trying to sleep, in order to bring gravity as much as possible to his assistance, that object being certainly thus attained?

SUMMARY.

1. It seems to me that recumbency tends to increase all "haemic" murmurs except the venous hum, which it tends to obliterate; to increase the murmurs of mitral regurgitation, tricuspid regurgitation, and aortic stenosis; to decrease the murmur of mitral stenosis, and to leave little, if at all, affected the murmur of aortic regurgitation.

2. That the effects of gravity and of change in chest-depth seem to account for the influence of recumbency.

3. And that, therefore, in describing and discussing murmurs which posture modifies the patient's position at the time of observation should be stated.

REFERENCES.

[1] Potain, *Clinique Médicale de la Charité*, quoted by Sansom in Allbutt's *System of Medicine*, vol. v, p 979. [2] Gee, *Auscultation and Percussion*, 1893 edition, p. 149. [3] Allbutt's *System of Medicine*, vol. v, p. 504. [4] Allbutt's *System of Medicine*, vol. v, p. 502. [5] Braune, *An Atlas of Typographical Anatomy*, translated by Edward Bellamy.

TWO CASES OF CONGENITAL DISEASE OF THE LEFT SIDE OF THE HEART.*

BY THEODORE FISHER, M.D., M.R.C.P.,
Physician to Out-patients to the Bristol Hospital for Sick Children; Pathologist to the Bristol Royal Infirmary.

ALTHOUGH it has frequently been suggested that cases of valvular disease of the left side of the heart may date from fetal life, there has been little *post-mortem* evidence in favour of such a view. Dr. Goodhart once remarked that he had hunted for years for a specimen of mitral stenosis in an infant, both in the *post-mortem* room and in museums, but had not succeeded in finding one. Neither had he met with any medical man who had seen such a specimen.[1] The two following cases illustrate the fact that congenital disease of the left side of the heart may exist, but it does not follow that there is any foundation for the theory that a valvular lesion

* The specimens from these two cases were shown before the Society for the Study of Disease in Children.

such as mitral stenosis when found in a young adult has probably been present since birth. The great mass of *post-mortem* evidence is decidedly opposed to such a view. The interest of these two cases lies, not in the support they may be considered to give to a theory, but in their rarity.

CASE I.

Congenital Mitral Stenosis.

History.—A male infant, aged 15 months, was brought to the out-patient department of the Bristol Children's Hospital in August, 1901. The child is described in my notes as rather small, anaemic, and presenting some degree of cyanosis. There was no clubbing of the fingers. The mother stated that at the time of birth the child was very blue, and there had been difficulty in "getting warmth into it." Attacks of difficulty of breathing, in which the child was described as going of a "grey colour," had been frequent since birth. The cardiac impulse was in the fifth intercostal space about a quarter of an inch outside the nipple line. A rather high-pitched but not loud systolic murmur was audible all over the cardiac area, but was not conducted far outside the limits of the heart, and was not heard behind. At the base the second sound over the pulmonary area was described as sharp and "clicking" in character, but elsewhere it was rather dull. The only particularly unusual feature noticed was at the apex, where three sounds with something of a *bruit de galop* rhythm were audible. The pulse was 140. On the following week the child was again brought up. It had suffered from repeated attacks of severe dyspnoea, and appeared as if it would not live many days. The child was admitted under the care of Dr. Elliott, and died four days later.



Fig. 1.—Congenital mitral stenosis; the letter M is in the left auricle immediately outside the stenosed mitral orifice; the letter T is in the centre of the tricuspid orifice.

Necropsy.—Only a partial examination was made, the heart being removed by Dr. Forster, but I afterwards went down to the house of the parents, and with their consent removed the aorta beyond the situation of the ductus arteriosus. The heart was much hypertrophied, and weighed 4½ oz. The enlargement was mainly of the right ventricle. The pulmonary artery also was fully double the size of the aorta. On [illegible] was seen to be very large [illegible] extremely stenosed. [illegible] but the mitral only [illegible] of the pulmonary and aortic valves were normal. [illegible] nor the foramen ovale was patent. [illegible] was of somewhat curious character. [illegible] but [illegible] the diaphragm of a [illegible] by a circular membrane, the base of which was [illegible] of the mitral flap. [illegible] was thus produced a [illegible] one at the base of the [illegible] and the other at [illegible] It measured [illegible] is patent but of small size, and would only admit a glass rod about the size of a lady's hat pin.

Family History.—The existence of mitral stenosis led to more careful inquiries being made into the medical history of the mother. She had not suffered from rheumatism, either during her pregnancy or at any other time. None of the other children, four in number, had been affected with rheumatism. One child had died apparently of diphtheria.

The records of cases of mitral stenosis which I have succeeded in finding have not been numerous. Sansom mentions a case in a child, aged 2 months. The mitral valve was thickened, and presented granulations along the edges of the cusps, and refers also to a somewhat similar case recorded by Ayrolles.[2] Carmichael has met with a case where in a girl, aged 3 years, extreme mitral stenosis was found. Two orifices not more than ½-inch in diameter were present. The ductus arteriosus was patent in this case.[3] Another example is recorded by Cotton, in which granulations were present both on the mitral and upon segments of the aortic valve.[4]

As will be seen from the description of the case recorded above, the stenosis differed in one important detail from ordinary cases of mitral stenosis due to endocarditis. How the perforated diaphragm was produced is not quite clear. So far as I am able to understand the changes which occur in the auriculo-ventricular valve-segments during their developments, I do not see how a diaphragm could arise at the bases of these segments. The processes of endocardium which arise, and later, to some extent, atrophy, are situated at the extremities of what afterwards become the segments of the mitral valve. On the other hand, it is also difficult to understand how endocarditis could have produced the diaphragm, since this membrane did not occupy the usual site of rheumatic vegetations. In the aortic valve rheumatic vegetations may occasionally be seen to form a band which unites the segments, but I hardly think a band produced in this way can have been present here. Although it is not clear how this membrane could have been produced, it seems probable that endocarditis led to some change in the relative positions of the portions of the segments which develop from the ventricular wall and from the endocardium, and it is the endocardial portion which persisted as the diaphragm.

In this case the existence of mitral stenosis was not suspected during life. No presystolic murmur was heard, and the triple sound audible at the apex was not of the rhythm commonly present in mitral stenosis.

It may be mentioned, also, that the patency of the ductus arteriosus was not suspected. I listened carefully in the second and third left intercostal spaces for the undulating but continuous murmur present in some cases of patent ductus arteriosus, but could hear only the systolic murmur that was audible elsewhere over the cardiac area. The narrowness of the lumen of the patent duct probably was the explanation of the absence of this interesting and curious murmur, which, it may be remarked in passing, has resembled, in the two cases in which I have heard it, the mixed sounds of the engine-room of a screw steamer.

CASE II.

Congenital Aortic Stenosis.

History.—A female child, aged 4½ months, was brought to the Bristol Royal Infirmary in May, 1898, suffering from bronchitis and bronchopneumonia. It was seen by Dr. Watson Williams, and admitted. The child died the following day.

Necropsy.—The body was of average size and fairly well nourished. Broncho pneumonia and bronchitis were present in both lungs, but the condition of the heart was the chief point of interest. It was much enlarged, the enlargement being chiefly of the left ventricle, which measured 1¾ inch from apex to base, and its wall ¾-inch in thickness. The segments of the aortic valve were found to be much thickened and adherent to one another. The right posterior segment was most affected, and was fully 2 mm. in thickness. It was adherent to the segments on either side, which were also irregularly thickened, but to a slighter degree. The thickening in the segments was situated chiefly upon the ventricular aspect. Above they were comparatively smooth. The chordeae tendineae of the mitral valve were also slightly thickened, but the orifice was not stenosed. The anterior muscular pillar presented a feature of some interest. It was more than half converted into fibrous tissue, and microscopic sections from other parts of the cardiac wall showed some fibrosis. The other valvular orifices were normal, and the heart presented no other defects. There was nothing noteworthy in any of the other organs.

Family History.—A visit to the mother elicited the interesting fact that about three months before the birth of the child she had suffered from pain and swelling in the left knee, which lasted a few days. She had not been kept in bed, but had been obliged to use a walking stick to aid her in getting about the house. She was about 36 years of age, but had suffered from no previous attacks of rheumatism.

Congenital disease of the aortic valve appears to be more common than similar disease of the mitral orifice. Dr. G.

Carpenter quotes Ranchfuss as having recorded 24 cases of congenital aortic stenosis, the majority of which appear to have been due to endocarditis.[5] Cases in which two segments of an aortic valve are adherent to one another, and apparently have been so since birth, are not very rare. Whether such a

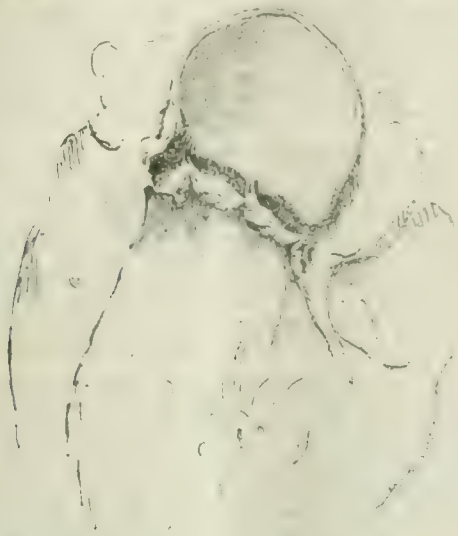


Fig. 2.—Congenital aortic stenosis: the valve segments are thickened and adherent to one another.

condition is the result of an endocarditis or is a malformation may not be obvious. It is a curious fact that when two aortic segments only are present the valve is far more likely to become affected during adult life with chronic endocarditis than when it is possessed of the normal three segments. Dr. Parkes Weber[6] argues from this that in some of the cases of disease of the aortic valve occurring in adults, where two cusps are found adherent, the adhesion which is thought to be the consequence of endocarditis has in reality existed from fetal life. This may be so; but I have met with specimens in the *post-mortem* room which have illustrated various stages in the development of such adhesion during adult life. An inflammatory nodule appears at the junction of the attachment of two segments. This swelling generally spreads more or less equally into the adjacent segments, and may unite them together by a mass of considerable size, which, with other nodular thickenings that may have subsequently appeared, sooner or later becomes calcareous. The disease is one of adult life—in one instance only have I seen the nodular swellings under the age of 20—yet it is possible that a similar inflammation may attack the valves of the fetus. This would be especially probable if one could connect the valvular disease with syphilis; but of such an association it seems to me there is little if any evidence. While, however, other causes of fetal endocarditis besides rheumatism may exist, in the case of congenital disease of the aortic valve recorded above, the thickening, although well marked, resembled that commonly seen in rheumatism, and the history given by the mother leaves little doubt that rheumatism was the cause.

In closing I wish to express my thanks to Dr. Elliott and to Dr. Watson Williams for allowing me to use these cases.

Note.—Another case of congenital disease of the heart of some interest has recently occurred in the *post-mortem* room of the Bristol Royal Infirmary. In the heart of a female infant, aged 4 months, the rare lesion of a wide communication between the aorta and pulmonary artery, situated immediately above the valves, was present. Besides this, however, very large vegetations were attached to the segments of the aortic and pulmonary valves. The mother had never suffered from rheumatism, but during her pregnancy there had been offensive smells in the house and a few weeks after her confinement, the drains, which had been found to be in a bad state, were repaired by the landlord. The possibility of the fetal endocarditis having been infective in nature suggests itself.

References.

[1] British Medical Journal, 1891, vol. ii, p. 255. [2] *Med. Soc. Trans.* vol. xiii, p. 147. [3] *Edin. Hosp. Reps.*, vol. ii, p. 268. [4] *Trans. Amer. Pediac. Soc.*, 1900, vol. xii, p. 142. [5] *Congenital Diseases of the Heart*, p. 44. [6] *St. Bart.'s Hosp. Reps.*, vol. xxxv, p. 147.

ON THE TREATMENT OF TRAUMATIC ANEURYSM BY PROXIMAL LIGATURE:

WITH SIX SUCCESSFUL CASES.

By CECIL BIRT,
Major, Royal Army Medical Corps.

It is usually laid down in surgical treatises that the correct treatment of traumatic aneurysm is to incise the tumour and apply ligatures to the ends of the artery when found. In the revised tenth edition of Erichsen's *Surgery*, it is stated that the result of departing from this first principle of treatment of diffused traumatic aneurysm in the axilla is well shown by three recorded cases in which the subclavian was tied for subcutaneous rupture of the axillary artery. Two died of gangrene and secondary haemorrhage respectively; the third recovered after amputation at the shoulder-joint.

In gunshot injuries the difficulty of the procedure is great, and can only be sufficiently realized by those who have attempted the operation in the living or made dissections in the dead of the widespread lesions caused by high velocity bullets.

The following cases, which have been admitted to No. 19 Stationary Hospital, Harrismith, Orange River Colony, during the past six months, show that proximal ligature alone has been sufficient to bring about recovery in every instance in which this plan has been adopted.

Case I.—*Gunshot Wound: Diffused Traumatic Axillary Aneurysm: Ligature of Third Part of Subclavian: Recovery.*—A trooper was struck by a Lee-Metford or Mauser bullet half an inch internally to the angle of the anterior fold of his right axilla. The wound of exit was at the corresponding site behind. The artery was injured, as the radial pulse was lost. The nerves were not severed, since he retained his rifle in his grasp for some minutes. Paralysis of the limb soon came on. On the third day after the injury when he arrived here he had great extravasation of blood in his axilla, arm, and side of his chest; paralysis of the forearm was complete; pain was severe. By the sixth day the swelling had rapidly increased. The hollow of the armpit was replaced by a diffused expansile pulsating tumour. The arm was tense, livid, and ecchymosed in places; his suffering was much aggravated. I therefore tied the third part of the subclavian artery. His symptoms were at once relieved. Twelve days later, when the dressings were removed, the wounds were healed, the tension in his axilla and arm had subsided, and the aneurysm was firmly consolidated. The symptoms of pressure on the nerves were gradually abating when he left.

Case II. *Gunshot Wound: Diffused Traumatic Axillary Aneurysm: Ligature of Third Part Subclavian: Recovery.*—A yeoman was wounded at a few yards' range by a rifle bullet which entered midway between the right coracoid process and the angle of the anterior fold of his right axilla and emerged below the spine of his right scapula. He lost much blood. Major R. Caldwell, R.A.M.C., who was near him when he was shot, thought the haemorrhage would prove fatal. He controlled it by compressing the subclavian artery. Forty-eight hours afterwards on his arrival at this hospital the bleeding had ceased. There was a diffuse axillary aneurysm taking an upward direction, causing much swelling beneath the pectorals as well as in the armpit. The right radial artery was pulseless. His upper limb was completely paralyzed and anaesthetic. His pain was great. The third part of the subclavian was therefore tied. In 8 days' time the operation wound was healed and the tumour had become reduced in size and solid. He was regaining feeling and power in his forearm and hand. On his being invalided to England he was making rapid progress towards a complete recovery.

Case III. *Gunshot Wound: Diffused Traumatic Brachial Aneurysm: Ligature of Third Part Axillary Artery: Recovery.*—Dr. Allan Campbell, whose case this was, has kindly per-

mitted me to refer to it. The wounds were large, and situated in the middle of the arm. The limb was much swollen and discoloured; widely-diffused pulsation was marked. Bullae had formed. The tension was so great that some present at the operation considered amputation the only rational mode of treatment. Dr. Campbell tied the third part of the axillary artery three days after the infliction of the injury. Recovery was rapid and all that could be desired. No portion of the extremity became gangrenous.

CASE IV. *Diffused Traumatic Popliteal Aneurysm: Ligature of the Superficial Femoral in Scarpa's Triangle: Recovery.*—A guardsman strained his left knee while going up Majuba Hill in June last. Pain and an aneurysmal swelling in his left ham shortly afterwards came on. Palliative measures were tried without benefit. On the day before he came under my care the tumour had suddenly become greatly enlarged. The aneurysm had evidently ruptured. The hollow behind the knee was obliterated by a diffused pulsating swelling extending down the leg and up the thigh. The skin was livid and thinned. The leg was oedematous. It seemed that gangrene could not be averted. The pain was intense. The femoral was tied at the apex of Scarpa's triangle. The oedema, pain, and tension were thereby immediately reduced. He was invalided to England with a whole limb, though with the movements of the knee-joint much curtailed by the thickening left by the consolidation of the large extravasation.

CASE V. *Gunshot Wound: Diffused Traumatic Popliteal Aneurysm: Ligature of Upper Third of Popliteal: Recovery.*—A yeomanry officer received a bullet wound behind the bones of his left leg, injuring the lower part of the popliteal artery. Five days later the limb was much swollen and ecchymosed. The skin was stretched to such a degree that sloughing seemed inevitable. Expansile pulsation was to be felt over the upper part of the calf and in the popliteal space. The pain had become so severe that he besought that amputation might be performed. There was every indication that this contingency would probably arise. The first part of the popliteal was tied as a tentative measure. This proved amply sufficient to check the symptoms. The aneurysm consolidated and the circulation was re-established in every part of the leg. He was quickly regaining power in the limb when he embarked for England.

CASE VI.—*Gunshot Wound: Circumscribed Traumatic Radial Aneurysm: Ligature of Upper Third Radial Artery: Recovery.*—A yeoman's forearm was perforated by a Mauser bullet which broke both bones. Sixteen days afterwards, although the wounds were healed, he suddenly experienced severe throbbing pain near the entrance wound, which lay over the middle of the radial artery. A circumscribed aneurysm was found, which increased in size to the dimensions of a large walnut in forty-eight hours. The radial artery was accordingly tied in its upper third. Recovery was complete.

In all the cases the wounds ran an afebrile and aseptic course. Kangaroo tendons were used. The limbs were sterilized with 1 in 500 potassium-mercuric-iodide in 50 per cent alcohol.

Major S. Westcott, C.M.G., in charge of 19, Stationary Hospital, has kindly allowed me to publish the above cases, the success of which was largely due to the assistance given me by him and by Major H. B. Mathias, D.S.O.

CASE OF ACUTE EXOPHTHALMIC GOÎTRE.

By ALEXANDER JOHN CAMPBELL, M.D.,

ON September 26th, 1901, a young woman, aged 27, came to my house to have an upper bicuspid stump extracted. I extracted it, using cocaine hydrochloride ¼-gr. A few hours afterwards I met her in the country walking homewards. She stopped me, and said that she had forgotten to tell me about a swelling on her neck to which her mother had drawn her attention a few days before. She undid the collar of her jacket and I saw that she had goître. She complained of no symptoms. I sent her some syrup of hydriodic acid, and bade her take a teaspoonful three times a day.

I did not see her again till October 14th, when I called on her to draw some more bad teeth. She was "busy cleaning" at the house where she was housemaid. I injected cocaine hydrochloride ¼-gr. into the gums and drew three teeth. There was no faintness, and very little pain was felt. The goître was unaltered in appearance; the patient was somewhat bloodless. She was not at all excited. I prescribed a mixture of syrup of the iodide of iron and syrup of hydriodic acid, which, owing to her subsequent condition, was never taken. After I left the house the patient returned to her cleaning, and worked with great energy all the rest of that day and the next.

On October 17th her master called on me. He told me that she had been ill during the previous day, feverish, and complaining of pain in the left side. She had been given some grey powder, but the bowels had not moved. Her pulse had been beating at the rate of 112 per minute, but had sunk to 90. Her temperature had not been taken, but she had been "feverish, hot, and perspiring." I could not see her that day, but I sent a drachm of compound liquorice powder to be taken at once, and ordered powders, each containing 4 grs. of citrate of caffeine and 10 grains of phenacetin, to be taken every four hours.

On October 18th I saw the patient. She had been much excited during the night, and complained of pain in the precordial region. The heart was beating 144 times per minute, the pulsation of the heart and of the abdominal aorta were very violent, and the pain complained of was said by the patient to be due to the thumping of the heart. There was no cardiac murmur, and I could hear no morbid lung sounds. The temperature was normal, and the tongue moist and clean. I was told that the morning pulse had been 100 per minute. I applied a mustard plaster to the precordial region for half an hour. The voice was tremulous, and the patient was trembling slightly all over.

On October 19th, after a very restless night, her temperature was 99° F.; her pulse-rate was 140 per minute. Her eyes were wide open, and a margin of sclerotic showed between the iris and the edge of the upper eyelid. Again I failed to find the sign of any morbid condition of the lungs. There was von Graefe's sign, but the reactions of the pupil to light and accommodation were normal. I ordered potassium bromide gr. x and tinct. digitalis ♏ x to be given twice during the night, and a diet of milk and milk puddings.

On October 20th I continued the bromide and digitalis mixture, giving it every three hours, and painted the precordial region with glycerine of belladonna. Temperature 99°, pulse 140.

On October 21st the patient had been very restless, and the arteries were thumping violently. The temperature was normal and the pulse-rate 128. A suppository of morphine hydrochloride (½-gr.) was given at night, and the patient rested well.

During October 22nd the patient took a greater quantity of food. The pulse-rate was 120 per minute. In the evening she complained that the thumping of the abdominal vessels was severely painful. Hot fomentations were applied and another morphine suppository given, after which the patient rested fairly well.

On October 23rd the patient was removed to her mother's house, a distance of about half a mile. She stood the journey well. The thumping of the heart was not now so much complained of as the thumping of the abdominal aorta, although precordial discomfort was still felt. The bowels had not moved for two days, so I ordered a tablespoonful of castor oil to be given; temperature 99°, pulse 120. She slept pretty well that night.

On October 24th the tongue was coated with white fur; the bowels had not moved. I gave 3 gr. of calomel and a motion followed.

On October 26th the white rim above the iris had disappeared, and the staring expression was less marked. The lagging of the eyelid (Graefe's symptom) could still be observed. I think that the power to make the eyes converge to fix a near object was lessened, but I could not make myself sure. I continued the use of potassium bromide and digitalis; the pulse varied in rate between 108 and 120 beats per minute.

On October 28th the abdominal pain was less violent, the

pulse was 102 per minute. The bowels had moved freely. Exophthalmos was slight, but the upper lids still lagged.

On October 29th vomiting set in, and there was frequent hiccough. The bromide and digitalis mixture was stopped. Mental excitement was increased. During the last few days the patient was fed tentatively: she was given as much food as she could be induced to swallow, mainly milk puddings, but much was vomited immediately and pain, which was described as an aggravation of the throbbing in the abdomen, preceded the vomiting. The temperature remained normal.

On November 3rd the pulse was beating at the rate of 120. I prescribed bis. carb. gr. x, acid hydrocyan. dil. miij, to be taken in water ever four hours. I also ordered Benger's food, which though not relished was quite well tolerated. Nothing else stayed on the stomach but a little boiled milk. The quantity taken was very small. Day by day the patient grew thinner and the pulse quicker, but all this time the temperature kept normal.

On November 12th I gave by the rectum two raw eggs and two teaspoonfuls of whisky. This was ejected in about half an hour, and repeated when two hours had elapsed.

Early on the morning of November 13th I was called to see the patient. I found that she could not make water. I ordered hot fomentations to be applied at once. When I returned at 10 A.M. I had to pass a catheter and drew off about ten ounces of dark coloured urine. This had to be done again at 6 P.M., and afterwards I gave a suppository of morphine gr. ½. Next day micturition was naturally performed, and I heard that the patient had taken a little more food.

On November 15th I noticed that the patient was slightly jaundiced. The bowels were moving daily, the motions were small, but natural in colour and consistency. During sleep the eyes did not quite close and there was slight conjunctivitis. I gave an enema of tepid water. Vomiting followed almost continually on feeding; small quantities of arrowroot, of Benger's food, of poached egg, and of boiled milk were tried at intervals but very little was retained. The urine was dark in colour, and gave the bile ring with nitric acid. The temperature kept normal, and the pulse varied from 130 to 140.

On November 19th, Dr. Mackintosh (Duns) saw the patient with me. He corroborated my diagnosis of exopthalmic goître, but thought that the treatment should for the present be directed chiefly against the jaundice. Small doses of grey powder were given but had no apparent effect. Emaciation continued, and I tried in vain to allay the violent pulsation of the blood vessels by painting the epigastrium and precordial region with glycerine of belladonna. No further medicine was given by the mouth. The patient died on November 27th. No necropsy was made.

THE DIFFICULTIES OF PREVENTING ENTERIC FEVER IN WARFARE.

By CHRISTOPHER CHILDS, M.A., M.D.Oxon., D.P.H., London.

The question whether epidemics of enteric fever may be prevented in campaigns was discussed in a letter published in the British Medical Journal on January 25th. In that letter it was contended that "the prevalence of enteric fever may be reduced in proportion to the completeness and effectiveness of the precautionary and preventive measures which are taken to exclude the possibility of infection"; that "in war the agencies at work for the production and propagation of enteric fever are greatly intensified and increased as compared with the conditions obtaining in civil life, whilst the means of prevention are far more difficult"; that "something more than the ordinary precautions and preventive measures will be required for the prevention of such epidemics"; and that "the difficulties which obstruct the accomplishment of the extraordinary preventive measures required are great and numerous but not insuperable."

Detection of "First Cases."

Even the civilian can realize the great difficulty of detecting first cases amongst soldiers in the field. In addition to the ordinary difficulty of diagnosing this subtle and protean disease at its onset, the actual specific infection must constantly be masked by the numerous cases of diarrhoea resulting from exposure, fatigue, and diet, etc.

From the outset the medical officer will require all his energy and skill to watch for and detect the invasion of camp, barracks, or moving column by the first cases of specific infection. In some instances the immediate detection may be of the highest importance, and may be the means of saving a battalion or a whole army from epidemic.

Under all circumstances each individual infected by enteric must be regarded as a source from which an incalculable amount of disease will spread unless effective measures are taken to prevent it. Even where the disease is endemic, therefore, it will obviously be something more than a wise economy to give the medical officer a free hand and every facility for detecting these first cases. Obviously, this cannot be done if the Army Medical Service is undermanned.

Direct Infection.

From this difficulty of detecting first cases another difficulty must constantly arise, namely, that of preventing direct infection from man to man, especially in crowded tents, etc.

Very little is heard of direct infection of enteric fever. It is probably far more common than is generally supposed, where sufficient precautions are not taken, or where there is overcrowding. Investigation has shown that, even amongst the medical nurses of the chief London hospitals the incidence of enteric is far greater than the average.

The Commission of Inquiry on the origin of typhoid fever, which created such havoc in the military camps in the United States in 1898 found that out of 1,608 cases, investigated with special care, 563—that is, more than one-third—were "directly connectable," that is, were communicated directly from man to man in the tents. "Certain tents were badly infected, and the majority of all their inmates developed the disease, while other tents wholly escaped."

When it is remembered that a soldier, even in the early stages of the disease, may contaminate his body and his clothing with excretions swarming with the germs of enteric fever, and that he is sleeping night after night in close contact with other highly-susceptible individuals within the crowded tent, it is more difficult to explain how any of his comrades escape infection than to account for the occurrence of one or two cases in the same tent.

The only means by which such direct infection can be prevented is through the prompt detection of the specific disease by the skilled medical officer and the removal of the patient from the crowded tent.

Owing to the difficulties of diagnosis and the prevalence of diarrhoea mentioned above it may be impossible for many days to decide whether the man is suffering from enteric or not. Surely it would not be impossible to set aside certain tents—say one for each company—in which suspicious cases could be quartered until the medical officer can decide whether the man under observation should be allowed to return to his tent or be sent to the hospital. At the same time special care could be given to the removal, and where possible to the disinfection, of the excreta of those men separated for observation.

If every case suffering from diarrhoea—or other symptoms indicating possible typhoid infection—be at once reported and brought under the notice of the medical officer, there is at least some chance of checking the diarrhoea by treatment. Detection of the specific disease would thus be facilitated, whilst many of those invalided through simple diarrhoea would soon be rendered fit for service. The commanding officer would by these means be relieved to a great extent of the embarrassment caused by the accumulation of men incapacitated by diarrhoea, whilst the best chance would be given for the prompt removal to hospital of the foci of enteric infection.

These measures for the prevention of direct infection, if carried out thoroughly and persistently, would no doubt prevent much death and disablement. It would be a true economy in every way to employ additional medical officers and trained orderlies for this purpose.

Difficulty of Preventing Pollution of Soil.

Another probable source of infection in camps is the polluted soil round about the tents. Owing to various reasons it seems impossible to prevent the custom of urinating around the tents at night. The inevitable consequence is that in the course of a week or two each tent becomes surrounded with a zone richly impregnated with organic matter, a very hotbed for the germs of disease; to this the urine of those infected with enteric could contribute myriads of the specific enteric bacilli. The results of much scientific investigation have failed to prove exactly what happens to these bacilli when implanted in the soil, but the evidence on the whole favours the conclusion that when sown in such a soil they may continue to live to multiply and spread indefinitely. If this be so the tent, its inmates, and contents will almost inevitably become freely contaminated with a dust which sooner or later contains numberless hosts of the disease germs.

In order to prevent the contamination and infection of the tents, except in permanent camps, there seems to be no possible alternative but to shift the camp. In some cases, owing to military reasons, this may be impossible; but, unless there is strong reason to the contrary, it is obviously desirable to shift the camp from time to time, and without delay if enteric fever has developed in it. For the same reasons it must always be a risk to pitch a camp upon a site which has been previously occupied, and nothing less than criminal if enteric fever has prevailed in that locality.

Latrines.

If the *Army Regulations and Instructions* for constructing latrines and for preventing excremental pollution of the camp were constantly and thoroughly carried out in principle and in detail, under all circumstances, there should be little risk of infection from this source, unless the infecting germs are conveyed from them by flies, or (after the excreta have dried) together with the dust. In a country like South Africa, where the drying power of the air is exceptionally high, there can be no doubt that infected faecal matter must frequently be conveyed in the form of dust into the air, into tents, etc., and over the food, unless extraordinary measures are taken to prevent this occurrence. Nor is any proof required to show that the same material will be conveyed and distributed by flies.

In the United States camps in 1898 this method of distribution was actually demonstrated by the fact that "more than once it happened that when lime had been scattered over the faecal matter in the pits, flies with their feet covered with lime were seen walking over the food."

It may be very difficult to prove by direct evidence that outbreaks of enteric are due to this source and convection of the infective material. Many observers consider that there is no evidence in favour of this supposition. But in any case it must be admitted that it is imperative to do everything that is possible to prevent the convection of faecal matters in this manner, and, in many cases, that more than the ordinary precautions must be taken for this purpose.

Preventing Soldiers from Drinking Infected Water.

To those who advocate extraordinary measures for the provision of pure water for soldiers in the field the answer invariably given is, "The soldier will drink anything when he is thirsty—mud, diluted excrement, or any filthy fluid, and you cannot stop him." Under existing conditions and regulations that is quite true and to be expected. An ordinary man when suffering from the agonies of thirst will drink almost any fluid although he knows it may cost him his life, unless he can be sure that within a short time a supply of pure fluid will be provided for him, and unless he has been trained by a long course of discipline to acquire sufficient self-restraint to resist the craving for fluid, and to reserve some portion of the water (or tea, etc.) with which he has been provided early in the day.

That such self-restraint can be acquired is well known to sportsmen, explorers, mountaineers, etc., and has been practically demonstrated by many of our soldiers in the present campaign. In an ideal system of military hygiene this training should be only a part of that sanitary discipline which from first to last should be an integral part of the soldier's life. That such an ideal is attainable, that at some future time it will actually be attained, there is no reason to doubt, far as we are at present from that consummation. But before this can be accomplished every soldier, from the Commander-in-Chief to the rawest recruit, and, before them, the officials of the War Office from highest to lowest, must be imbued with the true sanitary instinct born of and developed from a knowledge of the simple laws of health, and controlled by recognition of the fact that the most perfect health, vigour, and efficiency can only be maintained by due observance of those laws.

Every recruit from the date of his enlistment must be educated by precept and practice to realize that, in addition to the human enemy in warfare, he has always to contend against a more subtle and more deadly one in the form of those diseases which from time immemorial have decimated armies in the field, and that by breach or careless disregard of sanitary discipline he endangers the lives and efficiency not only of his immediate comrades, but also of his regiment, or even a whole army.

If the soldier is to be educated to abstain from drinking foul water when parched with thirst the abstention must be made a matter of discipline and training from the first and at all times. During peace, in all manœuvres, route marches, etc., the power of self-restraint must be acquired; the morning draught of coffee or tea is to be supplied, the water bottles are to be filled, and a sufficient quantity of cold water, or of tea or soup, is to be ready for each man at the end of the day's march or manœuvres. In addition to these supplies no drink should be allowed to the thirsty soldier without the assent of the officer in command. The water bottles should be inspected at some prescribed time (just as in case of the "emergency rations"), in order to see that the soldier has not committed a breach of discipline by drinking its contents too soon.

The above suggested measures involve the necessity of providing a sufficient supply of pure or purified water for the battalion or smaller units at the end of the march or of other manœuvres. Let it be admitted that in presence of the enemy this may be a matter of extreme difficulty, and in some cases impossible. That is no reason, however, why every possible effort should not be made to supply the pure water whenever and so far as it is possible.

Water Parties.

Is it not possible to train the "water party"—the three men who, according to the regulations, are told off from each company before encamping—so that they may be expert in finding the best water supplies at hand, and in purifying and distributing the water, and constantly employed (under skilled supervision and control) in carrying out these all-important duties? Let each water party be provided with the best modern materials and appliances for purifying and transporting the water.

Dr. Leigh Canney has shown that one mule may carry the apparatus, fuel (petroleum) and materials by means of which a pint of hot soup, cocoa, or tea may be provided for each of 100 men for four days, the process of boiling occupying only 10 minutes. The American troops in the Philippines have employed the "Waterhouse-Forbes apparatus," weighing only 150 lb., by means of which 26 gallons (208 pints) of water may be purified by boiling, and cooled in one hour. It is reported that this apparatus has been approved by the Surgeon-General of the United States army. These modern inventions are a great advance on the old, and probably admit of still further improvement.

"Kitchen Carts."

Is it not possible that the advantages of the two inventions could be combined, and that each company should be provided with a light "kitchen cart," devised for cooking food as well as for boiling water, drawn by mule, and under the charge of the "water party"? Kitchen carts of this description have for long been employed in other armies (for example, the Russian and Swiss), so contrived that much of the cooking can be carried on whilst on the march. With such provision for each company the camp kitchen would be relieved of much labour, and would require less transport, whilst each soldier could be provided with a pure drink and a warm meal immediately after pitching camp.

It is generally admitted that the infection with enteric fever takes place chiefly in the standing camps. Until, therefore, some such measures as those suggested above have been thoroughly and systematically applied, it cannot be conceded that the difficulties of supplying soldiers on service with pure water and of preventing them from drinking foul fluids are altogether insuperable. The increase of transport required for such a system may be considerable. But there is good reason for supposing that this increase would be counterbalanced, or more than counterbalanced, by the saving of transport, etc., effected through the amount of disease thus prevented.

Notes on Kitchen Carts and Boiling Apparatus.

The Swiss Kitchen Cart ("*Cuisine Roulante*") Figs. 1 and 2.—Attention was called to this cart as long ago as April 25th, 1885, in an article on The Swiss Army Medical Service, contributed to the British Medical Journal by Surgeon-General Evatt. This cart consists of two screwed-down digesters or boilers, beneath each of which a fireplace is fixed, the whole being mounted on a pair of wheels with a strong axle, and supplemented with various accessories for storage, etc. The food is put into the digester and cooked on the march. The adjoining photogravures (Figs. 1 and 2) will give a fair idea of the size and construction of the cart.

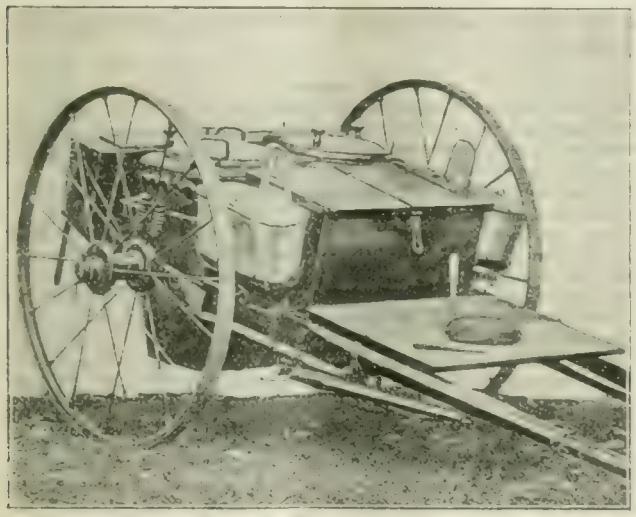


Fig. 1.

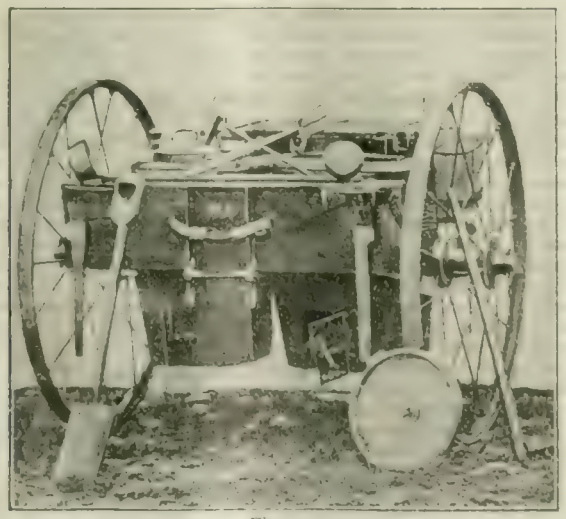


Fig. 2.

The Russian cooking cart, described and commended in glowing terms by the special correspondent of the *Times* after attending the Russian army manœuvres in August last, is similar in construction to the Swiss. It enables cooking to be done on the march. One kitchen cart is detailed to every company, and to the cavalry in about the same proportion. In both of the above carts wood is used as fuel. The construction and details of these carts obviously admit of considerable modification and improvement. Petroleum might be used where other fuel is not available. Above all, part of the apparatus might be employed for purifying supplies of water by rapid boiling.

Dr. Leigh Canney's Apparatus for the Rapid Boiling of Water.—This apparatus was designed for the purpose of supplying soldiers in the field with water which has been boiled and in the shortest possible time. It has been manufactured and patented by Messrs. Ewart and Son, of 348, Euston Road, N.W. (Fig. 3). The apparatus consists essentially of a copper cylinder 18 in. in height, mounted on a light iron tripod stand (s, s), and a petroleum lamp (L). The bottom of the cylinder is involuted, and from the bottom 18 "pockets" (not visible in the illustration) project downwards so that the flame of the lamp plays over an extensive



Fig. 3.

surface. The cylinder contains a little more than 6¾ gallons—that is, 50 pints. The petroleum lamp (L), made of brass, requires no wick. When it is used the petroleum is driven up through openings at the top of the lamp by means of compressed air, which is pumped in at intervals by means of a metal hand-pump (P). In a trial of the apparatus which we lately witnessed, the 50 pints of water were heated from 46° F. to 212° in thirteen minutes, the quantity of petroleum consumed for this purpose being ½ a pint. In a previous trial during warmer weather the temperature was raised from 55° F. to boiling point in ten minutes. There can be no doubt that this apparatus provides the means of boiling large quantities of water with the aid of portable appliances far more rapidly than any other with which we have been hitherto acquainted. In other words, 50 pints of water may be rendered innocuous in about ten minutes by means of the apparatus, although the water may have been previously teeming with the infectious germs of enteric fever or of other "waterborne diseases."

Therapeutic Skin-Stretching.—Captain George A. Zeller Assistant-Surgeon U.S.A., describes, says *American Medicine*, a peculiar Bicol practice known as *tangkong*, which consists in repeated skin-stretching on both sides of the neck until tumours are produced. The operation is performed by grasping the skin firmly between the semiflexed index and middle fingers, drawing it out as far as possible and letting go again and again. As the skin is successively stretched it becomes quite elastic, and when it becomes very sensitive a strong salt solution is applied, and the operation is repeated. It is used as a general panacea, but its greatest virtue lies in the relief it affords in severe headache. So universal is the practice that it is rare to find a native without these tumours on the back of the neck. From photographs of a number of native prisoners of war, selected at random from a company, the tumours seem to be as large as good-sized oranges. Leeching, cupping, the application of cataplasms or vesicants, and the employment of the scarificator, are general procedures in most diseases, and most Filipinos are covered with scars on their bodies.

PUERPERAL INSANITY.

BY ROBERT JONES, M.D.LOND., B.S., F.R.C.S.ENG.,
Medical Superintendent of the London County Asylum, Claybury.

(*Concluded from page 586*).

PROGNOSIS AND RECOVERY.

THIS form of insanity is considered by all authorities to be the most recoverable. It is for this reason that some recommend home treatment for all, and much is to be said for this view, but terrible anxiety, worry, and a great responsibility are incurred, and it is a form of insanity needing particular patience and involving great expense. Moreover the delirious impulses to infanticide and suicide cause much alarm, and furthermore the presence of the husband is often very undesirable, for, as Sir James Simpson stated, "the organ diseased gives a type to the insanity, so that with women suffering from affections of the generative organs the delusions would be more likely to be connected with sexual matters," and the husband's presence is often the exciting cause of erotic impulses.

As to prognosis in the different types, that occurring in early pregnancy is favourable, that in later gestation is apt to continue in an exaggerated degree until after confinement and during the puerperal period, and may afterwards become chronic.

Most of the puerperal cases get rapidly well, but I have known several cases of acute mania on admission pass into acute dementia. Although contrary to the teaching of both Savage and Clouston, my experience of this form of insanity can relate numerous and frequent relapses, which I think more common than is generally believed. Insanity during lactation has the tendency (as in the puerperal form) to get rapidly well, but warning must be sounded against the risk of low forms of inflammatory diseases indicating a general want of recuperative power and a low state of nutritive tone which not infrequently make themselves manifest by a tendency to gangrene or phthisis, and indicating also the necessity for a stimulating and vigorous form of treatment. Albuminuria in puerperal insanity is not common, when it occurs the prognosis is grave. In 1 of our cases the convulsions only ceased after the administration of choloroform. A return of menstruation is a satisfactory symptom.

Clouston states that the insanity of pregnancy rarely passes off before confinement 3 only of my 56 cases were discharged recovered before confinement but that from 75 to 80 per cent. of puerperal and 80 per cent. of lactational cases recover. Savage bears the same testimony, adding that they hardly recover completely under five months. Bevan Lewis also quotes the recovery-rate at 80 per cent. Our own statistics bear a like interpretation, as in the 120 puerperal cases (including among the recovered 4 relieved and 5 cases who are improving and have been under treatment on an average two months), 88 recovered, a proportion of 73 per cent., and 13 died- 10 per cent. Of the 83 lactation cases, 49 recovered (including 1 relieved and 2 resident and improving under treatment), a proportion of 60 per cent., and 14 died, a proportion of 16 per cent., whilst of the pregnancy cases, 56 in number, 27 recovered (including 1 relieved and 1 improving cases under treatment less than three months), a proportion of 48 per cent. and a death-rate of 21 per cent.—yielding a grand recovery-rate of 63 per cent., and a death proportion of over 15 per cent in the 259 total cases. Of the recoveries, 43 per cent. occurred among the puerperal cases before the expiration of four months and 31 per cent. before the expiration of three months.

The death-rate is highest among the insanities of pregnancy and lowest among the puerperal cases. Most of the deaths among the lactation cases died after over two years' residence, as also among the pregnancy cases and they had become chronic, but the majority (70 per cent.) of the deaths among the puerperal cases died under six months' treatment.

Clouston's[5] statistics of recovery out of 60 cases of puerperal insanity are 55 per cent., and of deaths, 8 per cent.; out of 40 cases of lactation, 77½ per cent., and of deaths 2 per cent.; out of 15 cases of pregnancy, 60 per cent., and of deaths 13 per cent. Batty Tuke's statistics give the recovery-rate among 13 puerperal cases as 79.4 per cent.; and M. D. Macleod, quoting 620 "puerperal" cases as 77.3 per cent.[6]

TABLE XII.—*Comparative Length of Residence of Mania and Melancholia Cases.*

Duration of Residence.	Recovered : Puerperal.			Recovered : Lactation.			Combined Totals.
	Mania.	Melan.	Total.	Mania.	Melan.	Total.	
Under 1 month	1		1				1
1 to 2 months	6	1	7				7
2 ,, 3 ,,	9	8	17	2	1	3	20
3 ,, 4 ,,	3	6	9	2	10	12	21
4 ,, 5 ,,	5	5	10	1	7	8	18
5 ,, 6 ,,	6	3	9		3	3	12
6 ,, 7 ,,	5	2	7	3		3	10
7 ,, 8 ,,	2	3	5	4	1	5	10
8 ,, 9 ,,	3	1	4		2	2	6
9 ,, 10 ,,	3	1	4		2	3	7
10 ,, 11 ,,					1	1	1
11 ,, 12 ,,	1	1	2	1		1	3
1 ,, 2 years	3	1	4	3	1	4	8
2 ,, 3 ,,				1		1	1
Totals ...	47	32	79	18	28	46	125

PATHOLOGY.

It is desirable, if possible, to distinguish the form of brain affection which is due to pregnancy and the puerperal period, including lactation, from that which occurs independently of the bodily condition under consideration.

The parturient state, as already referred to, involves marked psychic and bodily transformations, and these are caused by the new uterine eccentric reflex and the active state of the reproductive organs. These changes during a first pregnancy cause an anatomical and physiological strain upon the organism which opens up channels in the nervous system hitherto undeveloped, and these channels are brought into fresh activity with each repeated gestation. A reflex process goes on, which, although not directly dependent upon the higher nervous system, nevertheless profoundly reacts upon it, and any unfavourable nervous accompaniments or developments tend to be repeated at each successive similar crisis. It is known that when the gravid uterus is cut off from the cerebral centres by a complete accidental section of the cord, natural labour pains come on at full time if the pregnancy proceeds, also the mammary glands enlarge and proceed to secretion, even when all the nerves entering the mamma have been divided. Absorption through the placental circulation and liquor amnii of material necessary for the building up of embryonic and fetal structures, and the discharge of waste products from the fetus, suggest considerable alterations in the mother's blood. Whether this means a change in the phosphorus-containing elements of the blood is uncertain (we know that the most vital and most highly vitalizing cells and tissues of the body contain this element in some proportion), but certain blood changes that occur during pregnancy possibly involve a slightly toxaemic condition of the maternal blood, and which lasts for a considerable period. Some have compared this to a form of anaemia, there being a material diminution both in the number of the red blood corpuscles and also in some forms of albumen, whereas an increase is said to take place in fibrine and extractives—conditions which appear to favour the frequency of thrombotic affections. Some chemists have described a condition of peptonuria in association with this condition. From the sallowness, the deposit of pigment, and, as some chemists have stated, an increase in the coefficiency of urotoxicity, it is probable that profound changes do occur in the maternal blood during gestation which may, in part at any rate, account for the mental transformation incident to pregnancy. The form of insanity which characterized the 56 cases referred to in our statistics was in the main the depression of melancholia, which was more marked than its antithesis the acuteness of mania, possibly owing to the impending fear of danger and the apprehensions which the arousal of maternal instincts for the first time probably excited. Bevan Lewis

states that fundamentally distinct as these two mental states of melancholia and mania would appear to be, the process of reduction is the same in both. What the nature of the process (which causes so great a transformation in the mind of the parturient woman) may be is not definitely ascertained, and from the 12 deaths (22 per cent.) which took place in those suffering from the insanity of pregnancy, there was nothing pointing to any definite form of mental disorder peculiar to this period.

Only one died before confinement: she was admitted suffering from melancholia, and died within 3 weeks of admission with pathological symptoms of general paralysis, for the pia was adherent over the frontal and parietal regions, the ventricles were dilated, and the ependyma of the fourth ventricle granular. There were several abscesses in the lower lobe of the left lung, and similar ones in the kidney. The uterus contained a fetus of about the fourth month, the placenta was formed and attached to the back wall of the uterus, and the cord was round the neck and leg of the fetus. Two died within one week after confinement, 1 from pneumonia of the right lung, which was solid, and there were recent vegetations upon the mitral valve. The uterus was nearly the size of the closed fist, the wall three-quarters of an inch thick; the lining membrane presented a reddish flocculent aspect, which was much thicker over the placental site. There were no signs of septic changes, the appearance being that of a normal uterus a few days after parturition. The other patient died from puerperal eclampsia, but there was no necropsy. One female died two weeks after confinement from septic peritonitis. She was weak minded, and the cerebrum upon examination was small and ill-developed. The 8 other deaths occurred after an average residence of four years; 2 were from general paralysis, 1 of these being also phthisical, 1 died in the status epilepticus, 1 from chronic Bright's disease (cerebral venous thrombosis), 1 from syphilitic brain disease, 3 from phthisis (1 a general paralytic), and 1 from colitis (melancholia).

The relation of general paralysis to this form of insanity I consider to be accidental, for the disease had been in existence for a considerable time previous to pregnancy; in one case which lasted five years, general paralysis was known to have lasted over two years and a-half before admission. During pregnancy the patient was liable to general or hemiplegic seizures, with alternating periods of albuminuria, and consequent regression of mental and physical symptoms, yet no premature confinement took place in these cases. When parturition is over, and the acute additional stress following this stage has passed, the general paralysis appears to make slower progress.

In those cases of insanity occurring after confinement only one was a general paralytic, and she had marked signs of congenital syphilis. After confinement the morbid and effete material which is taken into the maternal circulation during the early uterine involution must tend to produce in the predisposed a profound irritation of the nervous system, and especially so should the functions of secretion and excretion be checked by interference with the venous, lymphatic, and other excretory organs. It is in this stage in neurotic women and in those with an inherited tendency that the most violent delirium occurs. This of all others in the lying-in is the stage of septic infection when saprophytic bacilli gain entrance into the blood, and either themselves multiply in the blood, giving rise to general septicaemia and pyaemia or produce general toxaemia through the formation of poisonous chemical substances. Whether saprophytic bacilli have pathogenic potency possibly depends upon the vital resistance of the blood and tissues; there are cases in whom the resistance is so slight, owing to an unstable nervous system, that toxic products, and these alone, may cause maniacal delirium. The foul, dry, and coated tongue, the sordes on lips and teeth, the loaded bowels, scanty concentrated urine and dry skin, point to an accumulation of nitrogenous or other morbid products in the blood. The chemistry of vital activity is not at present sufficiently complete to state with definite accuracy the form and nature of the various basic substances containing nitrogen which in chemical constitution resemble the vegetable alkaloids. The identification and isolation of some of these ptomaines from putrefying material and from the cultures of bacteria concerned in putrefaction have been accomplised by some chemists. Some of these are toxic in very minute doses, others are non-toxic.

Dr. W. L. Arnold has recently investigated the bacteriological condition of the lochia in puerperal women by inserting a sterilized tube into the uterus, withdrawing some of the contents, and making cultures, with the result that in some streptococci, staphylococci, anaërobic bacteria, and various bacilli have been identified and pure cultures obtained, in others no bacteria were found, and the indications from these researches would point to treatment by antitoxins as a remedy to which we shall presently refer. Dr. Mott has kindly examined the blood of two cases of puerperal mania, and made cultures, but with negative results as to micro organisms.

It is uncertain and improbable that all forms of puerperal insanity are due to the presence of bacterial poison, although unquestionably some are of septic origin, the sudden and violent symptoms favouring the theory of septic absorption, but an elevation of temperature usually accompanies septic infection, and some of the cases, although received from the second day after confinement, had no fever, the temperature remaining normal throughout an acute delirium lasting for several days. The temperature in most of the puerperal and lactation cases was taken on admission and often afterwards and it was exceptional for it to be raised above 1 to 3 degrees. There is no doubt, however, judging from the analogy of poisons and of alcohol, that some morbid material—animal, vegetable, or mineral—circulating in the blood is able to cause disordered energy in the cerebral cortex with consequent mental aberration, and if the uterine surface be not at fault other toxic influences are found in the uraemia or other haemic states.

With regard to lactation insanity, the great drain upon the mother who, from inability to act otherwise in the lower classes, is often obliged to nurse her young, and who also from the fear of another pregnancy continues this for many months beyond what is necessary, entails acute bodily exhaustion, and to this loss of albumen her mental breakdown must in great part be attributed. Statistics of insanity in the rich and poor during this period support this view, as also does the prevalence of deaths from pneumonia with gangrene of the lungs and phthisis, the latter causing about 24 per cent. of deaths in this class. Impoverished blood supply, uterine subinvolution, and a general cachectic condition often accompanied this form of insanity in many of my cases As to the association of this class with general paralysis only 1 case occurred among 83 cases. She had seizures five months after confinement, and she was in addition the mother of five children. It is not improbable that the exhaustion of lactation may have precipitated what might otherwise have been further delayed.

Treatment.

No greater truism has been uttered than when Gooch stated that no medicinal agents can relieve a disordered mind except indirectly through the disorder of the body with which it is connected, and which must therefore be ascertained and discriminated.

The treatment of disorders during this physiological period must depend upon whether the stage be that (1) of pregnancy, or (2) childbirth, and (3) after confinement. And first as to pregnancy: Out of 56 cases whose insanity occurred during pregnancy 49 were delivered in the asylum, 47 at full term. Only 1 died before confinement, and the cause of death was recorded as vomiting connected with the parturient state, although the necropsy revealed the lesions of general paralysis. It has been recommended by some authorities that if the onset of insanity be early in pregnancy, abortion should be procured. Unless this treatment be adopted for convulsions or uncontrollable vomiting, I fear that it has but little to recommend it. This form of insanity is generally a recoverable one, and the symptoms in many pass off either towards the end of pregnancy or soon after confinement, whereas the chances are remote of operating successfully upon a patient who is not only quite incapable of assisting her own aseptic treatment, but who on the contrary may add further risks to it owing to her own mental condition, and these disabilities appear to me to be strong contraindications to premature delivery. On the other hand there is an end to anxiety as to the future of the child if it survives, but this does not concern us. The great outbursts of excitement

Analysis of the Puerperal Deaths.

Age	Civil State	Previous Attacks	Neuroses	Heredity	Onset, Sudden or Gradual	Form of Insanity	Ascertained Cause.	Cause of Death.	Duration of Residence.	Some *Post-mortem* Remarks.
[illegible]	M.	None	No	None stated	4 weeks after confinement	Melancholia	Puerperal state, sleeplessness	Exhaustion of melancholia	Under 3 months	Skull cap dense, adherent over frontal lobe. Pia, general congestion; not adherent. Cortex, section pale; (?) wasted convol. White matter, dry, pale, and soft; slight granular. Ependyma in part of 4th V. Heart, endocardium, v. blood-stained; all valves very much thickened. Liver, grey, fatty, soft. Kidneys, commencing fibrous. Uterus not named.
[illegible]	M.	None	Headaches, rheumatic fever, years back	None stated	3 weeks after confinement	Melancholia	Puerperal state	Exhaustion of mania	5½ months	No necropsy.
[illegible]	M.	[illegible]-wards [illegible] osp [illegible]-ton [illegible]	None stated	None stated; mother died shortly after birth of the patient	Sudden, 3 days after birth of child	Mania	Childbirth and previous attacks	Exhaustion of mania (syncopal)	1 month	Skull cap, thick. Dura, thick, excess cerebro-sp. fluid. Pia, much thickened and congested; not adherent. Cereb. conv., good, brain firm; white matter rather congested; grey, good in amount. Lat. vent. not dilated. Heart, ante-mortem spots; *nil*. Lungs, caseating nodules in L. R.L. oedem. Uterus not named.
[illegible]	M.	None	None stated	None stated	Sudden, 8 days after childbirth	Mania	Serious bodily illness; hectic temperature on admission	Exhaustion of puerperal mania and phthisis	6 weeks; 8 days after admission	No necropsy.
[illegible]	M.	None	None stated	Mother insane and phthisical	Sudden, 1 month after confinement	Melancholia	Shock from death of mother; poor health	Exhaustion of pneumonia	3¾ years	Brain (?) Bilateral lobar pn. R. ovary, small cyst. Small clot in uterus. White matter pale. Slight granules 4th V. Some commencing pachy. haem., int.
[illegible]	S.	None	None	None stated	Sudden, 13 days after confinement	Acute mania	Worry and ill-health	Exhaustion of chronic brain disease and phthisis	Over 2½ years	No necropsy.
[illegible]	M.	None	Hysteria and pains in head	Mother and sisters	Gradual, for about 3 months	Melancholia	Miscarriage, ill-health, worry, and heredity	Exhaustion of melancholia and cardiac failure	4 days	Conv. good; grey and white matter firm and greatly congested. Blood, dark fluid. Cavity of uterus slightly dilated; congestion of fundus. Marked erosion of os.
[illegible]	S.	None	None stated	None stated	Sudden, immediately after confinement	M	Shame and shock	Exhaustion of phthisis	5½ months	Uterus, *nil*.
[illegible]	M.	[illegible] but not in asylum	Influenza.	Father, rheumatism	Sudden, about 1 week after confinement	Mania	Previous attack	Exhaustion of puerperal mania, debility, and cardiac failure.	7½ months	Heart, dark, fibrous, tough. Uterus and ovaries, *nil*. Brain, *nil*. Kidneys, cortex, and pyramids congested. (?) Pigmentary degen. of heart.
[illegible]	M.	None	None stated	None stated	Gradual, for 6 weeks after confinement	Melancholia	Anaemia, heart disease, phthisis, puerperal state	Exhaustion of phthisis	3 months	Conv. somewhat wasted. Uterus, *nil*. Cortex, soft and pale. Pia strips. Liver and kidney fatty. Both lungs, tuberculous nodules breaking down.
[illegible]	M.	None	Anxious and fearful	None stated	Gradual from 1 month after confinement	Acute melancholia	Fright, shock, bodily illness	Exhaustion of broncho-pneumonia and gangrene of lung	2⅝ months after admission; 4 months after confinement	Brain, *nil*. Uterus, *nil*.
[illegible]	M.	None	None stated	None stated	Ill mentally 1 week before admission	Melancholia	Confinement	Exhaustion of phthisis and morbus cordis	Over 2 years	No necropsy.
[illegible]	M.	None	Influenza	None stated	Sudden, 4 days after confinement	Melancholia	Confinement, bodily disease albuminuria	Exhaustion of cerebral abscess due to pyonephrosis	3 days after admission	Cerebral abscess L. frontal lobe, due to pyonephrosis associated with renal calculus. Uterus perfectly involved, and more like 1 month than 9 days.

Analysis of the Pregnancy Deaths.

No.	Age.	Civil State.	Previous Attacks.	Neuroses.	Heredity.	Time of Onset.	Form of Insanity.	Ascertained Cause.	Cause of Death.	Duration of Residence.	Some *Post-mortem* Remarks.
1	[illegible]	M.	Hoxton House 6 years ago	Epilepsy	Father and aunt insane. Father and mother phthisis	4½ months pregnant on admission	Epileptic mania	Puerperal heredity	Exhaustion of status epilepticus	5 years 7 months after admission	Died. Epilepsy 5 years 7½ months after admission. Cystic ovaries. Uterus *nil*.
2	[illegible]	M.	Cambridge House [illegible]	None stated	None stated	Depression came on when 4 months pregnant	Melancholia (? general paralysis)	Pregnancy, previous attack and worry	Exhaustion of melancholia with vomiting and pregnancy (general paralysis)	18 days after admission	Died 3 weeks after admission. Brain, pia adherent over frontal and parietal adhesions. Ventricles dilated. Fourth ventricle, granular abscess in base left lung. Several abscesses lower lobe left lung. Abscess left kidney. Uterus contained a fetus of about 4 months. Placenta was formed and attached to back wall of uterus; the cord was round the neck and leg of fetus.
3	[illegible]	S.	None	Headaches	Mother phthisis	When about 3 months pregnant	Idiocy and mania (congenital)	Pregnancy	Exhaustion of mania and peritonitis	Over 2 months after admission	Died 10 weeks after admission, 2 weeks after confinement. Cerebrum small, ill developed. Abdomen—peritoneum inflamed, flakes of lymph throughout the cavity, but more especially in the pelvic region. Uterus large, thick-walled, the walls on section showing large dilated openings of the uterine veins, the interior of the uterus covered throughout, with the exception of the cervix with dark flocculent membrane which could be stripped fairly easily in places, showing beneath the infected wall of the uterus.
4	[illegible]	M.	None	Epilepsy	Grandmother, grandmother's sister, mother, and three aunts insane	6½ months pregnant	Melancholia of pregnancy	Pregnancy, heredity	Exhaustion of syphilitic brain disease	Over 2 years 7 months after admission. Confined 2½ months after admission	Died over 2½ years after admission. Right ovary large cyst, size of pigeon's egg. Uterus *nil*. Brain sclerotic.
5	[illegible]	M.	None	None stated	Mother's uncle insane for 5 years	6 months pregnant	Mania of pregnancy	Pregnancy and heredity	Exhaustion of phthisis	Over 4 years 7 months after admission. Confined day after admission	Died over 4½ years after admission. Phthisis. Brain cortex soft. Anæmic. Kidneys tuberculous.
6	[illegible]	M	Yes Berrywood [illegible]; after birth of child	Neuralgia	None stated	About 12 days about time of quickening	Mania of pregnancy	Pregnancy and previous attacks	Exhaustion of pneumonia and mania	2½ months after admission, and 4 days after confinement	Died 10 weeks after admission, 4 days after confinement. Pneumonia R. lung solid. Heart, recent vegetations, mitral valve. Uterus was nearly the size of closed fist, the wall ½ inch thick; the lining membrane presented a red, flocculent aspect, which was much thicker over the placental site. There were no signs of any septic change, the appearance being that of a uterus a few days after pregnancy.
7	[illegible]	M.	Colney [illegible]	None stated	None stated	3 months pregnant	Mania of pregnancy	None stated	Exhaustion of phthisis	Over 3½ years after admission, and 4 years after confinement	Died 4 years 4 months after admission. Phthisis and tuberculosis of intestine. Uterus *nil*. Brain anæmic.
8	[illegible]	M	None	None stated	Aunt believed to have been a lunatic	4½ months pregnant on admission	Dementia (? general paralysis), acute melancholia	Death of father, heredity, shock	Exhaustion of general paralysis (chronic Bright's disease)	5 years 3 months after admission; 5½ years after confinement	Died 5 years 2 months after admission. Chronic Bright's disease. Cerebral venous thrombosis with softening.
9	[illegible]	M	None stated	Bad headaches during pregnancy, several fits	Mother paralysis, brother epileptic and paralytic	2 months pregnant, 2½ months pregnant on admission	Mania	Heredity, pregnancy, worry	Exhaustion of mania and puerperal eclampsia (albuminuria)	Over 2 months after admission, and 6 days after confinement	Died 7 months after admission and 4 days after confinement. Puerperal eclampsia. No necropsy.
10	[illegible]	[illegible]	None stated	None stated	3 weeks pregnant, 1½ month pregnant on admission	Ep. dementia	Epilepsy	Exhaustion of paralytic dementia (general paralysis)	Nearly 3 years after admission, 2 years 4 months after confinement	Died [illegible] years after admission. Right ovary dermoid cyst. Chronic metritis. Paralytic dementia.

Analysis of the Pregnancy Deaths (continued).

No.	Age.	Civil State.	Previous Attacks.	Neuroses.	Heredity.	Time of Onset.	Form of Insanity.	Ascertained Cause.	Cause of Death.	Duration of Residence.	Some *Post-mortem* Remarks.
[illegible]	[illegible]	M	[illegible]	Headaches; chronic rheumatism	Father intemperate	2¾ months pregnant, 3 months pregnant on admission	General paralysis	Pregnancy	Exhaustion of general paralysis	Nearly 4½ years after admission; 3 years after confinement	Died nearly 4½ years after admission. General paralysis. Uterus healthy. Pulmonary hypostasis.
[illegible]	[illegible]	M	[illegible]	None stated	Paternal side [illegible] other	9 months pregnant, 7⅝ months pregnant on admission	Ric. melancholia	Pregnancy, heredity, and previous attacks	Exhaustion of ulcerative colitis	3½ years after admission; 3⅝ years after confinement	Died 3 years 9 months after admission. Colitis. Uterus subinvolved. Ovaries thick capsule. Skull much congested.

Analysis of the Lactation Deaths.

No.	Age.	Civil State.	Previous Attacks.	Neuroses.	Heredity.	Onset, Sudden or Gradual.	Form of Insanity.	Ascertained Cause.	Cause of Death.	Duration of Residence.	Some *Post-mortem* Remarks.
[illegible]	[illegible]	M	Colney Hatch	Yes	Uncle insane, father intemperate	Gradual	Mania	Lactation and previous attacks	Exhaustion of gangrene of lung	Over 4 years after admission	Brain pia adherent; cortex wasted slightly; congested.
[illegible]	[illegible]	M	None stated	Headaches	None stated	Gradual; since confinement 6 months ago	Melancholia	Confinement and adverse circumstances	Exhaustion of melancholia, phthisis, and pneumo-thorax	2[illegible]⅞ years after admission; 2[illegible] after conf.	No necropsy.
[illegible]	[illegible]	M	None	Neuralgia	None stated	Gradual; 8 months after confinement	Melancholia	Lactation, phthisis, and morbus cordis	Exhaustion of enteritis and mania	11 months	No necropsy.
[illegible]	[illegible]	S	[illegible]	Chorea	None stated	Gradual	Mania	Heart disease, anaemia	Exhaustion of mania and colitis	4½ years	Brain undeveloped; moderate septic; broncho-pn.; chronic mitral and dilated heart; first degree atheroma; fatty liver; cloudy fatty kidneys; colitis; ovarian capsules thickened; uterus, cervicitis (slight); body of uterus pale.
[illegible]	[illegible]	M.	None stated	Headaches	Cousin insane	Gradual; 5 months after	Melancholia	Lactation	Exhaustion of diarrhoea and cardiac failure	Over 4 months	Pia thickened; slightly opaque; worm-eaten adhesion; uterus normal. Small (?) abscesses in kidneys; capsule thickened and adherent in both.
[illegible]	[illegible]	M	None stated	None stated	None stated	Gradual	Mania	Worry by illness of children	Exhaustion of double basal pneumonia	2 years and 2 months	No necropsy.
[illegible]	[illegible]	M.	None stated	Headaches and epileptic fits	Mother intemperate	Gradual; 2 months after confinement	Melancholia	Lactation	Exhaustion of phthisis	1 year 5 months	No necropsy.
[illegible]	[illegible]	M	None stated	Headaches and epileptic fits	None stated	Gradual; admitted when baby 5 months old	Mania	Lactation, ill-health	Exhaustion of acute rheumatism and hyperpyrexia	Over 5 months after adm.; 12 months after conf.	Uterus normal; ovarian veins very varicose. Heart soft and pale; haemorrhages on end of cardium. Brain: Pia thick, opaque, very congested; cortex and white matter soft. Lungs congested.
[illegible]	[illegible]	M	None stated	Fits (paralytic)	None stated	Gradual; admitted when baby 6 months old; mentally abnormal 2½ months	Dementia of general paralysis	General paralysis	Exhaustion of general paralysis	18 months after conf.; nearly 1 year after admission	Menst. uterus; ovaries *nil.*
[illegible]	[illegible]	M	None stated	None stated	None stated	Sudden; admitted when baby 13 months old	Melancholia	Lactation	Exhaustion of acute colitis	Over 3 years after adm.	No necropsy.
[illegible]	[illegible]	M	None stated	None stated	None stated	Sudden	Mania	Lactation	Exhaustion of phthisis pulmonalis	Nearly 4 years after adm.	Tuberculosis of lungs and intestines; some wasting of convolutions.
[illegible]	[illegible]	M	[illegible]	Yes	None stated	Gradual; 5 months after confinement	Melancholia	Lactation and worry	Exhaustion of colitis	Nearly 3[illegible]⅝ years	Chronic wasting of brain. R. broncho-pneumonia; dilated and fatty heart; colitis.
[illegible]	39	M	None	None stated	None stated	Sudden; 10 weeks after confinement	Mania	Puerperal state and drink	Exhaustion of pyonephritis, bronchitis, and fatty heart	2 days after adm. 13 weeks after conf.	Brain—grey and white matter soft, pale, heart soft, fatty. Blood dark and fluid. Uterus—small amount dirty greenish-brown mucus coating its walls. Lungs—lobar pneumonia.
14	26	S.	None	None stated	Mother died of paralysis	Gradual; 3 months after confinement	Melancholia	Privation, seduction, and parturition	Exhaustion and phthisis	2[illegible]⅝ yrs. after adm.	Brain *nil.*

which are not infrequent symptoms of this variety, the marked fits of depression and fear culminating in suicidal attempts, require the most constant vigilance on the part of those around her, and in private practice the grave question of home or special hospital treatment becomes of paramount importance. The dislike and mistrust shown by the wife towards her husband, coupled with the general acceptation of trifling mental deviations at these times, and the feeling of repugnance against putting pregnant women away, make it difficult, if not impossible, for the husband to do so, and she is generally nursed by her friends. On the other hand the indifference and possible danger to her children, and the heedless regard to the home ties, may make it necessary to remove her. The impulses to suicide and homicide are not infrequently aggravated by the presence of friends, whereas the regular routine of asylum life favours regular processes of thought and reflective action which are the first indications of recovery. Asylum treatment often renders unnecessary the excessive and damaging use of narcotics, calmatives, and restraints which must be used to prevent the noise and destructiveness of patients in their own homes. Asylum treatment means decisive feeding, and it rids the patient for a time of the female relations, who almost invariably have a prejudicial effect upon her. This question most often resolves itself into one of means, and I would hesitate to send the well-to-do pregnant woman from home when she can obtain all the advantages of asylum care, which is impossible for the poor. The general treatment is that of the parturient female—a light dietary, gentle exercise, bright surroundings, attention to the bowels by saline aperients, and sleep by mild hypnotics, the best of which are chloral and bromide in combination. Complications which may arise, such as eclampsia, must be dealt with after the methods and upon the principles of obstetric practice.

Insanity occurring after the puerperium needs more special treatment, both general and local. This is the most recoverable form, and well-to-do women, if suffering from the first attack, should not be sent away from home within the first six weeks of the onset of symptoms. I would even endeavour to make this my rule in all cases of puerperal insanity. At the same time this is one of the most difficult forms to deal with, owing to the emotional disturbance and the tendency to infanticide and suicide. It will be an intense relief to the family to avoid the stigma of an asylum when this is possible, and the gratitude of patients upon recovery from this form of insanity for everything that has been done for them—and they require vigorous treatment—is in marked contrast to the recovery from any othe form. Moreover, to the mother herself it will be an intense relief, as Savage states, to think she has only been suffering from "fever" and not brain disease, and it will help her to go through subsequent attacks if she can be treated at home and got in an asylum. For the mania of this disease the "wet pack" has been used successfully, and is recommended, but I have had no experience of its use.

I have used continuous immersion with water at 100°, but had to give it up owing to the struggling. I have had satisfactory experience of the electric bath treatment when cases have appeared to become chronic and stuporose, or indifferent to their surroundings. Although the insanity of childbirth is impulsive, wild, violent, and noisy, it is a busy delirium not of a sthenic character, and treatment of too antiphlogistic a kind is undesirable. I know of no form of insanity which so well repays generous treatment, and the free administration of liquid, easily assimilable nourishment is a necessity. Indeed, the essence of general treatment may be summed up in "compulsory super-alimentation." Dr. Savage agrees that the great danger in these cases is starvation, and that the crux of treatment is decisive feeding. Refusal of food is the most serious symptom in all cases of puerperal insanity, and must be combated with at all cost, as when bodily improvement occurs in puerperal insanity it is not infrequently the forerunner of mental recovery. Food should be given during every quiet interval, and at each opportunity, as the exhaustion from this form of acute delirious mania is intense. It is for these cases that alcoholic stimulants appear to be absolutely necessary. Cases are reported in which within a week or so of admission into the asylum, puerperal women have developed gangrene of the extremities necessitating amputation: and, although it is open to critical suggestion that this is a proof of septic or bacterial origin I have not met with such in any of the 259 cases under review, although I have met with cases in which, when pneumonia has occurred the hepatized lung has failed to undergo resolution, and gangrene or phthisis has resulted. I often (probably in more than 25 per cent.) use the nasal feeding tube for puerperal and lactation cases—eggs, beef-tea, milk, and malt liquor, malt extract, and cod-liver oil are pressed upon the patient, who, during puerperal mania, can bear free doses of calomel, podophyllin, jalap, or croton oil, not only once but frequently repeated. Sleep must be obtained, and for this opium and morphine are both unsuitable, the former is contraindicated owing to its effect upon the secretions, and also owing to its stimulating effect on the nervous and circulatory organs: sulphonal is useful when there is much motor excitement. Paraldehyde is satisfactory, but more so are chloral and bromide in combination. It is important to relieve headaches which often accompany sleeplessness, and I have successfully used antipyrin and potassium bromide. Iron, strychnine, and digitalis I have used during the later stages of involution, and the great change from a cachectic waxy pallor to natural colour is rapidly apparent when iron is tolerated. A return of the menses may be looked upon as the forerunner of permanent mental improvement, and means to encourage this should not be omitted.

Before recovery is complete I have, as already stated, frequently noticed relapses and a return of mental confusion after apparent convalescence. This pathological periodicity appears to be the equivalent of the physiological periodicity occurring in normal sexual and reproductive life. At times, after prolonged mania, a dull, listless condition of semi-stupor is developed which requires a special effort to overcome. I believe it is at this stage that a change from the asylum to home surroundings may prove beneficial; or, if the patient is treated at home, a change from home is attended with marked improvement. If this be neglected an incurable dementia may set in and become progressive. One cannot insist too strongly upon a return to home life in these cases. As to local treatment, vaginal douches of boracic lotion, Condy's fluid solution, and carbolic acid have been used in many of my cases, and the latter appears to soothe also, as some patients have asked to continue them.

In cases where an offensive discharge occurs and the temperature points to the retention of membrane or clot, it is necessary to dilate the cervix under an anaesthetic and "curette" the endometrium. In one case this was successfully done. In another, confined before admission, sudden haemorrhage occurred about the seventh week after childbirth, and which recurred twice. The vagina was packed with ice and normal saline solution injected into the rectum.

In 2 cases I have used the antistreptococcus serum, but beyond the slight reaction evidenced by elevation of temperature, which may possibly have been due to the fear on her part that some harm was being done to her, no good resulted. Thyroid extract has been tried in several cases. Marked physical reaction resulted but no mental benefit accrued, and the cases have become chronic.

The breasts need special attention. Glycerine extract of belladonna has been used, as also strapping, and in some cases abscesses formed which had to be dealt with.

With regard to stimulants, I have seen cases admitted during lactation as the result of its indiscriminate recommendation and administration, and it affords another instance of the abuse of a valuable and powerful therapeutic remedy.

I have already referred to the prevention of this form of insanity by discountenancing the marriage of hysterical and neurotic persons, and upon this I should like further information from the practice and experience of others.

I conclude by expressing my firm belief in the maxim that insanity is, and ever will be, the product of two factors—stress, and heredity, and the greater the inherited vital resistance of the tissues the greater will be the strain required to overcome it. Our duty as professional men is to raise this resistance against the action of selective toxins by combined effort, and thus render growth more perfect, life more vigorous, and death more remote.

References.

[3] *Textbook*, 1882. British Medical Journal, 1886. [7] *Lancet*, 1883.

ON A CONVENIENT TERMINOLOGY FOR THE VARIOUS STAGES OF THE MALARIA PARASITE.*

BY E. RAY LANKESTER, M.A., F.R.S.,
Director of the Natural History Department, British Museum.

I HAVE found it necessary in labelling a series of models of the malaria parasite in the Central Hall of the Natural History Museum to use as simple and clear a terminology as possible. I think that this terminology will be found useful by others who are perplexed by such terms as "sporozoites," "blasts," "ookinetes," "schizonts," "amphionts," and "sporonts"—terms which have their place in schemes dealing with the general morphology and life-history of the group sporozoa, but are not, as experience shows, well suited for immediate use in describing and referring to the stages of the malaria parasite.

It is necessary to treat the malaria parasite from the point of view of malaria: that is to say, to consider its significant phases to be those which it passes in the human blood. In reality its mature condition and most important motile, as well as its most prolific reproductive, phases are passed in the body of the mosquito.

1. The malaria germ which is brought by the stab of the *Anopheles* into the human blood vessels is a reproductive particle, a spore. It is needle-like in shape, and might be named in reference to its form (for example, oxyspore or raphidiospore), but the most important fact about it for description and comparison is that it has been formed outside the human body, and is introduced as a strange element into the human blood by the agency of the mosquito. I therefore call it the exotospore.

2. The exotospores (probably as many at a time as forty or fifty) enter the blood by the agency of the mosquito's stab, and immediately penetrate, each one, a red corpuscle. The history of this process has not been observed. As soon as it has entered a red corpuscle the exotospore loses its needle-like shape and becomes amoebiform. I apply to it the name I proposed some years ago for similar amoebiform spores in other protozoa—namely, amoebula.[1]

3. The amoebula exhibits amoeboid movements within the red corpuscle, enlarges and finally breaks up into spherical spores, which are liberated with destruction of the red corpuscle. It seems to me unnecessary to have a special name for the starlike or other condition of the amoebula when in course of breaking up into spores; but the spores so produced require a special name which shall emphatically distinguish them from the exotospores. I call them the enhaemospores, in reference to the fact that they are produced by a process of division which occurs in the blood of the malaria-stricken human being.

4. The enhaemospores penetrate fresh red blood corpuscles, and after a certain growth as amoebulae break up into a new crop of enhaemospores, by which the infection of the red corpuscles is extended. This process appears to go on for several generations, and for a varying duration of time. But owing to conditions and at a period of the infection which has not been precisely ascertained, some (or all?) of the amoebulae derived from enhaemospores cease to break up into spores. Instead of carrying out that process they enlarge, and in the case of the aestivo-autumnal parasite (Laverania praecox) become sausage-shaped or, as it has been termed, crescent-shaped. This change of form is accompanied by a destruction of the red corpuscle and the formation of granules of dark pigment within the parasite. It seems best to term this phase the "crescent" or "crescent-sphere," the latter term being applicable to those species in which the form is not markedly crescentic.

5. The crescents or crescent-spheres remain quiescent in the human blood. They are, however, of two different natures male and female. It is not possible to distinguish with any certainty the male from the female crescents whilst they remain in the human blood vessels. But it is these bodies which are destined to be swallowed by the *Anopheles* mosquito, and to carry on further the life-history of the parasite.

The crescents are therefore the sexual phase of the parasite.

When the crescents are swallowed by a mosquito (of an appropriate species), they undergo two different modes of development, determined by the fact of their sex. Both sexes become spherical, and may now be called respectively "egg-cell" and "sperm-mother-cell."

From the periphery of the sperm-mother-cell, now floating in the mosquito's stomach, there are developed with surprising rapidity six or seven spermatozoa, which for a time remain attached to the residual mass (or sperm-blastophor) of the sperm-mother-cell. Complete cytological study of this development is still wanting, but it appears that the spermatozoa are true spermatozoa, like those of the higher animals, and have the same relation to the mother-cell from which they develop as is the case in such an animal as the earthworm.

The egg-cell, now also floating in the mosquito's stomach, apparently gives rise to one, and possibly to two, polar bodies, but the observations on this point are as yet insufficient.

Fertilization of the egg-cell now takes place in the gnat's stomach. A single spermatozoon penetrates and fuses with each egg-cell.

The fertilized egg-cell is spoken of as a "zygote"; it is also described as the sexually-produced embryo.

6. The zygote or sexually-produced embryo remains unicellular, but increases in size and becomes pyriform. It exhibits active movements of expansion and contraction in the line of its long axis, and also a quick movement of its narrower end alternately to either side. This is the largest growth of the individual cell attained to in the series presented by the life-history of the malaria parasite. It has been called "vermiform" and "vermicule" (Ross), and I adopt this name for it, namely, the vermicule. The vermicule is the dominant individual form in the history of the malaria parasite, endowed with greater size, power, and activity than other phases. It corresponds, not only in this respect, but also in its position in the life cycle, to the large, often active, cells of the gregarinidea, which I proposed some time ago to call the euglena-phase.[2]

It is worthy of note that in the size and activity of the vermicule, the haemaosporidia—the order of sporozoa which embraces the malaria parasite—come nearer to the gregarinidea than they do to the coccidiidea, though in the existence of a sexual generation absent in gregarinidea, they agree with the coccidiidea.[3]

The vermicule now pushes its way through the tissues of the gnat's stomach and in the blood sinuses outside the stomach becomes spherical. It enlarges and nourishes itself on the insect's blood, and forms a spherical cyst, or structureless transparent envelope. This cyst is destined to enlarge, with vast increase of its living contents.

The living cell within the cyst breaks up by a definite process to form eventually an immense number of exotospores, the stage with which the present description commenced. The cyst would most conveniently be called a "sporocyst," since, as so often happens in protozoa, it is formed purely and simply in relation to the quiescence of the organism and its division into numerous reproductive spores. Unfortunately, the word "sporocyst" has been employed recently by writers on the sporozoa for the small capsules containing one or two to eight elongated spores which used to be called "pseudonaviculae," and are formed within such larger cysts as that now in question. The word "cyst" should have been reserved for the larger more general protective envelope, and the "pseudonaviculae" might have been called "sporo-thekaes." In any case, I think we may call the cysts in which the vermicules of the malaria parasite enclose themselves "spore-cysts" or "spore-forming cysts." The name "oocyst," applied to them by some writers, is simply misleading.

7. The spore-cysts lying outside the stomach wall of the mosquito bathed in the insect's blood receive abundant nourishment. The single-celled vermicule enclosed undergoes rapid changes; it increases greatly in volume, and breaks up by normal cell division (? the earliest steps have yet to be studied) into a number of spore-mother-cells. In the process of this division and the later stages of the final development of the "spores" (exotospores), the "spore-forming cyst" increases in size to twenty times its initial diameter.

The spore-mother-cells are set closely together in the cyst;

* Read at the meeting of the Royal Society on March 6th, 1902.

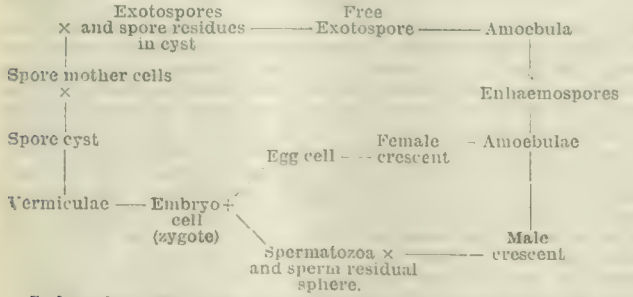
	Malaria.	Coccidium.	Gregarina.
1.	Exotospore, free in human blood ("Blast" of some authors)	Sporozoite	Sporozoite. (Filiform young.)
2.	Amœbula, in red corpuscles	Schizont	Amœbula.
3.	Enhaemospore, in red corpuscles and in blood	Merozoites, formed by schizogony	
4.	Crescent, in human blood	Gametocytes	
	a. Male	Microgametocyte	
	b. Female	Macrogamete	Schizogony rare: sexual stages not observed and probably wanting.
5.	Sperm-mother-cell, in gnat's stomach	Microgametocyte	
6.	Egg-cell, in gnat's stomach	Macrogamete	
7.	Spermatozoon, in gnat's stomach	Microgamete	
8.	Zygote or embryo-cell, in gnat's stomach	Young oocyst (sporont)	
9.	Vermicule, in gnat's stomach	Wanting (called "ookinete" or "kineto-sporont" in the nomenclature of this column)	Full-grown motile "gregarine" (Euglenoid phase).
10.	Spore cyst, in blood sinus outside gnat's stomach	Older (but not larger) oocyst or sporont	Cyst enclosing one or two full-grown sporonts.
11.	Spore-mother-cells in cyst, in blood sinus outside gnat's stomach	Sporoblasts (sporogony)	Sporoblasts (? conjugation in Lankesteria ascidiae. Spermatozoa and ova in stylorhynchus).
12.	Exotospores in cyst, in blood sinus outside gnat's stomach	Sporozoites enclosed in small groups in sporocysts within the bigger oocyst	Sporozoites enclosed in capsules, called "pseudonaviculae" or "sporocysts."
21.	Free exotospores, in gnat's salivary duct	Free sporozoite	Free sporozoite.

they are of polygonal shape, owing to pressure, and each has its nucleus. Finally they give rise, each spore-mother-cell, to a crop of filiform spores (exotospores) which have the same relation to the spore-mother-cell as spermatozoa have to a sperm-mother-cell, namely, they form on the outside of the spore-mother-cell as outstanding processes, carrying away all the chromatin of the mother-cell and leaving in the centre or to one side a "residuary body," a "spore blastophore" similar to the "sperm-blastophore" or spermatozoon-developement.

Thus we are brought back to the needle-like exotospores with which we started.

The spore-holding cysts burst and liberate the exotospores into the blood of the mosquito. Thence they readily pass into the ducts of the salivary gland, and so are conveyed by the mosquito's stabbing beak into human beings. A point in this connexion is the definite ejection by the mosquito of the secretion of its salivary gland into the punctured wound which it makes in the human skin. There can be no doubt that such an ejection takes place. The leech ejects a secretion on to the wound caused by its bite which has the property of preventing the coagulation of the blood. It is possible that the mosquito and other blood-sucking flies may use the salivary secretion for the same purpose. It is obvious that unless there were some injection into the wound on the part of the fly, the chances of infection of the bitten animal by the parasites carried by mosquitos or tzetze fly would be very small.

Our cycle of forms with the names here made use of may be written as below. The sign × is used to indicate fissile multiplication, and + to indicate fusion, while —— merely indicates continuity.



I also give a list (see table) of the names here used with reference to the occurrence of the forms indicated in man or in gnat, and an indication of the corresponding stages in a gregarina and a coccidium. In the column belonging to coccidium I have employed the generalized physiological nomenclature accepted by special students of the sporozoa (Schaudin, Lühe, etc.).

REFERENCES AND NOTE.

[1] *Encycl. Britann.*, article Protozoa. [2] Ibid. [3] A sexual phase has been described in the gregarine stylorhynchus by Léger since this paper was written. It occurs at an unexpected point in the cycle; two encysted full-grown "sporonts" are stated to produce the one egg cells, the other spermatozoids!

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TRAUMATIC EMPHYSEMA OF THE EYELIDS.

W. J. B., aged 27, whilst playing football, was struck by the chin of one of the opposing side over the lower orbital margin. He continued playing, and a few minutes afterwards on blowing his nose both eyelids became distended with air, causing complete closure of the eye. As I was playing I saw the accident. I found both eyelids very swollen but no signs of any bruising. There was a distinct crackling on pressure and a little of the air escaped, but I could not detect the way in which it did so. There was no bleeding whatever from the nose or into the eye; the eye was perfectly normal. A pad of lint was applied over the eye and moderate pressure by means of a bandage. The next morning he could open his eye, the swelling being much less, and on gentle pressure I was able to remove the remaining air. There has been no trouble whatever during the fortnight which has elapsed since the accident. There was no pain except a moderate amount at the time of the blow.

This is, I believe, a very unusual accident, and seems to be explained by a fracture of the orbital plate of the frontal bone causing a communication between the frontal sinus and orbit (left). This would, I think, explain the distension of the eyelids with air on his forcibly blowing his nose.

I should have expected a more severe injury to cause it, more pain, and probably haemorrhage or eye trouble to accompany it, and think it very strange that a slight blow in such a place should cause a fracture of the orbital plate, if such it be.

H.M.S. *Esk*, China Station. J. G. WATT, Surgeon R.N.

A PLEA FOR A MORE CONTINUOUS TREATMENT OF GASTRIC ULCER.

HAVING had during the last three or four years a large number of cases of gastric ulcer which seemed hopeless after the usual treatment of rest in bed, limited frequent feedings, etc., I determined to try a more radical treatment, which arose out of the success which has attended the use of rectal saline enemata to which I was the first to draw attention in these columns some fourteen years ago.

At the time of writing the notice under the heading of An Additional Treatment of Post-partum Haemorrhage I stated that I had used some 2 oz. of saline fluid by injection, being then under the delusion, in which I had been brought up, that the bowel would certainly eject any larger quantity. Later experience (acquired shortly after) showed me that a pint or more might be easily retained, either with or even without supporting the patient's rectum. Finding, moreover, that absorption and even digestion appear to go on in the larger bowel, I saw no reason why the stomach should not be

given complete rest for a period of from three to four weeks while any ulcer was healing. This I have since put in practice with perfect success in several confirmed cases of ulcer with haematemesis.

The patients have been given 6 to 8 ounce injections, consisting of white of eggs, milk, and beef-tea, with liq. pancreaticus every four hours, and in very debilitated cases a couple of peptonized milk or meat suppositories in the intervals. Absolutely nothing has been given by the mouth, the patients washing that out with soda-water or ice and rejecting it. Thirst has not been a predominant trouble; in one case it was complained of, and the quantity of the injection was increased, with immediate subsidence of the trouble.

I expected irritability of the bowel to come on with inability to retain the injections, but my fears were not realized owing, I believe, to rejecting another part of my teaching, namely, that the bowel should be washed out to rid it of detritus. This appears quite unnecessary; as soon as the quantity is sufficient to cause irritation the bowel will empty itself, and I firmly believe that the less the bowel be manipulated the better.

In three cases I maintained the treatment for three weeks absolutely, in which time the localized epigastric tenderness entirely disappeared, and in each of these cases a cure appears to have taken place as something over a year in one case, and two years in both the others have now elapsed, Two of the cases were exceptionally bad (one of them in my own family having had three severe attacks of haematemesis during the last ten years), and the other having been in hospitals for some months. I trust that others may give this treatment a trial in its entirety.

King Henry's Road, N.W. RANSFORD F. GILL, M.D.

SURVIVAL OF A PREMATURE CHILD WEIGHING TWO POUNDS: SEQUEL.

I PUBLISHED in the BRITISH MEDICAL JOURNAL of March 30th, 1901, page 767, a note about a premature (6½ months) child which had been successfully reared in an incubator. At the time of dismissal from the hospital, when 4 months old, she had gained from 1¾ lb. to slightly over 3 lb. in weight. When she was 10 months old her mother gave birth to a full-time female child which weighed 7½ lb. At that time the midget weighed 6 lb. 12 oz. She unfortunately died of bronchopneumonia within a fortnight of the birth of her sister. She had remained perfectly healthy until then, and with reasonable care ought to have survived.

Glasgow. ROBERT JARDINE, M.D.

TETANUS TREATED WITH ANTITETANUS SERUM AND MORPHINE: DEATH.

C., aged 16, was admitted into the Ottery St. Mary Cottage Hospital on December 20th, 1901, at 9 P.M., as a case of tetanus following pistol-shot injury. His symptoms began on the previous day with slight stiffness of the neck muscles. On getting out of bed on the 20th, he found he had difficulty in opening his mouth, and his neck and back felt stiff and sore. At 12 noon he had a general convulsion, and between that time and 9 P.M. he had several more.

On admission, he was in a semi-rigid state, and had a violent spasm on the least movement. His temperature was 100° and his pulse 120. He was given morphine gr. ¼ and aconite gr. 1/100 hypodermically, after which his muscles relaxed and he slept for half an hour. He was ordered enemata of potassium bromide gr. x and chloral gr. x every 3 hours, and nutrient enemata with brandy ℥ss every 2 hours. With the exception of slight twitchings he had no more convulsions until 4.30 A.M., when he had a very severe one lasting 10 minutes.

On the 21st, at 9 A.M., his temperature was 101° and his pulse 160. He had another convulsion, and was given morphine gr. ¼. At 12.45 he had three very severe convulsions for which he had chloroform, also brandy hypodermically. At 2 P.M. his temperature was 102° and his pulse 150. A first injection of antitetanus serum (B. W. and Co) 20 c.cm. was given in the gluteal region; convulsion. The bromide and chloral enemata were now stopped. At 3.30 P.M.: Temperature 104.8°; pulse 150; serum 10 c.cm. At 6.30 P.M.: Temperature 105.4°; pulse 150; muscles twitching occasionally; mouth open for first time and water passed without catheter; serum 10 c.cm. At 8 P.M.: Temperature 106°; pulse 148; has been sleeping; serum 10 c.cm. At 10 P.M.: One short convulsion: morphine gr. ¼ and aconite gr. 1/100. At 11 P.M.; Temperature 106.2°; pulse 152: slept a little. At 12 midnight: Very weak; all muscles relaxed; brandy given hypodermically. At 1.30 A.M.: Temperature 108.2°; brandy hypodermically. At 2 A.M.: Died.

In all he had 50 c.cm. of serum, which certainly seemed to lessen the violence and number of the spasms.

Ottery St. Mary. NESBITT O'D. BURNS, M.B.(Univ. Dub.).

SUPRARENAL EXTRACT AS A HAEMOSTATIC.

THE following case may prove of some interest. A boy, aged 16, suffered from rather severe intestinal haemorrhage, pain, and nausea, following a fall while playing football. He had a good deal of pain and tenesmus, and passed blood very frequently (about twenty times in twenty-four hours). His temperature was 103° and his pulse 110. The pain and nausea abated under the use of bismuth and opium, and the case assumed a a dysenteric character, with blood and mucus, and several masses of coagulated mucus like boiled sago. Ipecacuanha somewhat improved the colour of the evacuations, but had no effect on the haemorrhage, neither had acid sulphuric. dil. & opio nor various other astringents. I then injected into the larger intestine by means of a soft tube adrenalin chloride solution, 1 in 1.000 (Parke, Davis, and Co.) in boiled water at a temperature of 100° F.

Next morning the patient expressed himself as having felt very much more comfortable soon after the injections, and all tenesmus and haemorrhage had stopped. There was some slight diarrhoea for a day or two after, and then steady recovery. I had previously tried the adrenalin solution internally but without obvious effect.

DOUGLAS MACDONOGH, L.R.C.P. & S.I.

Bettws-y-Coed, North Wales.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

No. 9 GENERAL HOSPITAL, BLOEMFONTEIN.

CASE OF HEREDITARY PARAMYOCLONUS MULTIPLEX.

(Reported by P. T. CAIRNS, M.B., Ch.B., Civil Surgeon to the Hospital.)

G. P., aged 23, prisoner of war, district of Thaba 'Nchu, was admitted to the hospital complaining of pains all over the body, headache, and coryza. He was supposed to be suffering from measles, so was transferred to the isolation wards. While under observation there I found that there occurred regular rhythmical contractions (50 to 60 per minute) of the calf muscles of both legs. This went on continuously throughout the day and every day. On inquiry I found that he had suffered from this for practically his whole life. His father's mother, his mother, and his sister, aged 11, all suffered or had suffered from the same complaint. There was no history of other nervous disease in the family. He stated that tonic spasm of the affected muscles occurred very often, but it did not occur while in hospital. The muscles were well developed, and showed no wasting; they responded to the faradic current. Sensibility to heat, cold, pain, and touch were normal except in a portion of the leg extending from just above the ankle-joint for four inches, where it was diminished. The knee jerks were normal, there was no ankle clonus, and he walked quite well. His arms were normal. His eye reflexes were normal. He was nervous and hysterical, but otherwise healthy and well developed. The case was believed to be one of paramyoclonus multiplex. The treatment was liq. arsenicalis ℥iv t.i.d., but he was under observation for so short a time that nothing definite can be said as to the result.

REPORTS OF SOCIETIES.

CHELSEA CLINICAL SOCIETY.

ANNUAL CLINICAL DEBATE.

C. A. MORRIS, M.B., F.R.C.S., President, in the Chair.

Tuesday, March 11th, 1902.

CANCER, ITS NATURE, ORIGIN, AND GENERAL PRINCIPLES OF TREATMENT.

DR. JAMES GALLOWAY, in opening the debate on this subject, said that the present was a good occasion for a revision of the additions to their knowledge on the subject of cancer made during the last eight or ten years. The last great stimulus to investigation on the subject was the enunciation of the thesis of the parasitic origin of the disease. It must be admitted that the foundations of this hypothesis had been gradually weakened, unfortunately with a corresponding diminution in the activity of researches. Little had been added to strengthen the theory upheld by Cohnheim—that tumours were due to the abnormal and late development of embryonic tissue. As a general explanation the accumulated evidence was much against this hypothesis. A certain amount of knowledge had been obtained by the recognition of the fact that epithelial cells accidentally transported into tissue of different nature were capable of multiplication and of the formation of new epithelial masses. The "implantation cysts" described in the eye and certain masses of epithelium in the corium occurring as the result of injury were examples of this process. This new epithelial tissue reproduced the characters of the cells of the region from whence it was originally derived, but in cases where malignant features had been assumed they were as much at a loss as ever in accounting for this additional characteristic. It was of the greatest importance to recollect that the dangerous attribute of the malignant tumour was not simply the power of multiplication possessed by its cells, but the fact that the cells undergoing multiplication invaded the neighbouring tissues where normally they ought not to exist. Considering next the parasitic hypothesis as a causation of cancer, Dr. Galloway remarked that none of the structures described as parasites of protozoal nature in carcinoma and sarcoma had withstood the test of criticism. Analogies had been made between certain diseases characterized by overgrowth of tissue in the lower animals undoubtedly due to protozoal influences and the peculiar overgrowth of tissue which occurred in cancer, but these had turned out to be less informing than had been hoped. Observers were now inclined to attribute to certain budding fungi a causal part in the production of cancer. Great difficulties stood in the way of accepting this theory, namely, that similar bodies had been discovered and claimed to be the causative element in a class of diseases in which the origin, development, and structure were totally different from cancer, namely, the granulomata. It was from clinical experience that they were all likely to inquire as to the truth or falseness of a pathological theory, and it must be admitted that clinical evidence gave but grudging support to the parasitic theory of the origin of cancer. There was an interesting body of clinical evidence which had not been greatly attended to as yet derived from those diseases in which prodromal morbid states, it might be for years, preceded the development of cancer. He referred particularly to such conditions as in xerodermia pigmentosa and to certain forms of abnormal pigmentation. In both of these conditions there occurred possibly for years before the development of a form of carcinoma which proved fatal an alteration in the texture of the integument. If it were conceded that the distribution of pigment was directly influenced by the nervous system, might not the process continue, and the disorganization and nervous control end in allowing the resistance of the connective tissue to be impaired and the epithelium to escape from control? It would be the desire of every one that observation and experiment would in the near future show why the balance was upset, and why a tissue cell instead of leading its normal life suddenly ran riot, penetrating beyond bounds, and multiplying with an energy never approached in its usual normal well-ordered existence.

DR. JOHN F. W. TATHAM (Superintendent of Statistics, General Register Office) said that in England and Wales during the last four years the deaths from malignant disease had averaged more than 25,000 a year. In the returns issued from the General Register Office the term "malignant disease" included all the diseases classed as such in the nomenclature of the Royal College of Physicians. Hitherto all forms of malignant disease had been grouped together under one heading in their national returns; but with the new century a revised list of diseases had been inaugurated, of which a shortened form was published for London in the weekly return from which he quoted. The table showed that the carcinomata or true cancers were distinguished from the sarcomata, and these again were distinguished from the indefinite forms of disease which were ascribed in medical certificates to "malignant disease" or "cancer" merely without further qualification. That medical practitioners appreciated that improvement in the classification of a most important group of diseases was shown by the fact that in London, since the beginning of the present year, when the new list of diseases was first published, the deaths from malignant disease in the aggregate, rather more than 800 in number, had been differentiated thus, in the medical certificates supplied for registration 52 per cent. had been certified as from carcinoma, 6 per cent. from sarcoma, and the remainder amounting to considerably less than half, to "cancer" or malignant disease. It was highly gratifying to him, as he was sure it would be to them, to note how readily the practising members of their profession responded to any attempt to secure greater accuracy in the statistical records of the fatal cases coming under their care. Malignant disease in the aggregate, namely, without limitation as to organ or part affected, was more fatal to women than to men. According to the latest returns the male death-rate from cancer in England and Wales was equal to 672 in each million living, whilst the female death-rate amounted to not less than 975 per million. But this excess was due to the unequal tendency of malignant disease to attack the generative organs of the female rather than those of the male. He quoted statistics to show that when the deaths from cancerous affections of the ovaries, uterus, and breast, were subtracted from the total cancer deaths of females, the remainder gave a death-rate among females which was considerably below that among males. Thus in the four years 1897-1900 the male death-rate from cancer, less the deaths from disease of the organs referred to, corresponded to a death-rate of 645 per million, whilst the female rate, with the same limitations, did not exceed 568 per million. The mortality from cancer was not very excessive until some time after the 25th year of age. Thus, at ages under 35, it averaged from 44 to 66 per million, but as age advanced the mortality increased in both sexes very rapidly, until at the more advanced ages it was enormous. The following table showed that:

Cancer Mortality at Certain Ages, 1900.—Annual Death-rate per Million living at each Age.

	Male.	Female.
All ages	672	975
Under 35	44	66
,, 35—45	418	942
,, 45—55	1,483	2,432
,, 55—65	3,700	4,561
,, 65—75	5,738	6,254
Above 75	6,715	7,408

It was notorious that in recent years the mortality from cancer had increased very rapidly, not only among females but among males. This was shown by the subjoined figures:

Annual Rate of Mortality in England and Wales.—Rate per Million Living.

Males.		Females.		Increase in 1891-1900 per Cent.	
1861-70	1891-1900	1861-70	1891-1900	Males	Females.
242	597	519	993	147	74

It thus appeared that although at the present time women suffered much more severely than men from malignant disease, nevertheless the disease during the last 30 years had increased among men much more rapidly than among women.

Dr. G. T. Beatson (Glasgow) said that it was necessary to make a clear statement as to what he understood by the terms "cancer" and "carcinoma." He meant a morbid process placed where epithelium was situated in the body resulting in the production of a structure made up of epithelioid cells which multiplied and increased, invaded the surrounding tissue and travelled along the lymphatic vessels; in a large number of cases dissemination occurred by cells that hived off from the primary growth and formed secondary growths. In such a debate it was important that they should not lose sight of the question of tumour formation generally, and it had to be remembered that a theory explaining only one class of neoplasm was defective. They must first bear in mind that there was undoubtedly a connecting link between malignant and benign growths. This was due to their being composed of tissues which had a common parentage—they all sprang from epithelial cells. Differentiation, of course, might and did alter the character of the cells, but it varied in amount, being in some cases slight and in others very marked, so that the appearances of the cells were altered, and types of highly-formed tissues were produced. These specialized or differentiated cells as long as they were healthy—that is to say, as long as they remained specialised—bred true. Differentiation did one important thing, and that was it lessened the proliferating power of the cells. Daily proof of this was seen in the amount of regeneration power shown by the various tissues in connexion with wounds and injuries. While differentiation masked the primitive epithelial form of all cells it was unlikely that that form was completely eradicated unless, perhaps, in the very highly specialized tissues. Certain facts seemed to show that it was only masked and remained latent. What was more important was that in the less highly specialized cells they might lose their specialization and revert to the primitive epithelial form. In no other way could they explain the fact of benign tumours sometimes becoming malignant. If benign tumours could do that none could deny the same capability to the tissue generally of which they were composed. The conclusions that could justly be drawn from the above facts were that if the influence or influences that caused tumour growth came into play the effects would vary with the tissue involved. If a highly specialized tissue were attacked the result would be a limited growth, that is to say, a benign tumour. If a tissue at the time it was attacked were very little differentiated the result would be great proliferation and indefinite growth; in other words, a malignant tumour. Malignancy or simplicity of tumours depended on the proliferating power of the cells attacked by the exciting cause of the tumour growth. That proliferating power again was to be measured by the amount of specialization to which the cells attacked had attained or that they possessed at that particular time, for they might have lost some of it and come down lower in the scale. Therefore the mere division into malignant and benign tumours was not sufficient. They had always present in the body an important factor in tumour growth, namely, a proliferating power in its cells; that power varied with the tissue differentiation, and the tissue might be brought to a lower standard with increase of proliferating power. The only other factor required to explain tumour growth was the necessary stimulus. Dr. Beatson then drew attention to the similarity between cancerous tissue and early embryonic tissue, and detailed in connexion with embryonic development the relation of malformations to neoplasms. In regard to the question whether cancer was a local disease or a local expression of a general disease, his opinion was that it was in its initial stage a purely local disease commencing in an alteration of the cells of the part affected. The natural division of the factors starting local cell proliferation was into those from without and those from within. Of the factors from without the parasitic theory was the only one requiring notice. This was supported by the discovery of the so-called cancer bodies, but he considered that there were three fatal objections to the acceptance of that theory. The first was the presence of congenital tumours; the second was the occurrence of secondary growths, and the third was the absence of toxins. He himself believed in an intrinsic cause that explained the commencement of local cell proliferation. His belief was based on the results observed in oöphorectomy for mammary cancer. Its chief interest, in his opinion, lay in the fact that after oöphorectomy there was a disappearance of cancerous tissue. Others besides himself had obtained that result. Various explanations had been given of the fact; according to some it was because of diminished vascularity of the parts; others considered that it was due to increased resistance on the part of other body cells, and others, again, thought that it was caused by the mere laparotomy. In his opinion these explanations were inadequate, and he believed that the explanation was to be found in the facts connected with the testes and ovaries. In his original paper he had suggested that these organs might be the exciting cause of cancer, either by migrated cells or by altered secretion. In reference to migrated cells, when they remembered that there was possibly a daily discharge of ova only a few of which entered the Fallopian tube, the rest being lost in the peritoneal cavity, the possibility of migrated cells was not unreasonable. Further, the cancer bodies might be special germinal cells. However, after a series of experiments he had not found anything to confirm that view. In connexion with altered secretion he had no confirmatory evidence for that theory, but another possible explanation was to be found in what happened in connexion with the function of the testes and ovaries. Both had to prepare cells to perpetuate the species. The testes formed spermatozoa from epithelial cells, and the ovaries exhibited the maturation phenomena which fitted certain of the epithelial cells contained in them for fecundation. By what agency was this done? He considered that it must be a secretion of some kind elaborated by all the tissues in the body under the stimulus of these organs. In other words the secretion produced the fructifying fluid that gave to the spermatozoa and the female ova their procreative power. The existence of such a fructifying fluid in the body tissues furnished an explanation of many observed facts and opened up other possibilities. Such a fluid was most likely to influence those cells whose proliferating power was greatest. A special proliferating power might exist under two conditions, natural and acquired, and by acquired he meant loss of differentiation, that is to say loss of functional activity so that such cells were no longer of any service in the economy, and reverted to practically their embryonic state. His views were that the cancer process could only develop in tissues that had special proliferating power, and that the exciting cause of the proliferation was a secretion from all the tissues of the body which was possessed of fructifying powers. A mutual relationship existed between the character and amount of this secretion and the testes and ovaries. In that way alone could the disappearance of cancerous tissue after oöphorectomy be explained.

The meeting was adjourned to Tuesday, March 18th.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Alfred Willett, F.R.C.S., President, in the Chair.

Tuesday, March 11th, 1902.

The Regeneration of Peripheral Nerves.

Professor Langley, in resuming the adjourned discussion on this subject, remarked that the primary question was whether a nerve separated from its central connexions could regenerate of itself; from his own experiments and observations he had come to the conclusion that a peripheral nerve might regenerate of itself. His own observations had had to do with the sympathetic system; after a sympathetic ganglion had been removed in the cat two years later there was apparently regeneration of non-medullated fibres. The possibility of the severed nerves receiving an indirect stimulus from the central ganglia by fibres that could not be traced was pointed out. After extirpation of the superior cervical ganglion at the end of a year the peripheral end was stimulated without effect, then another portion of the central end was excised, but after an interval of days there was no degeneration in the peripheral end, thus apparently excluding the possibility of nerve stimuli reach-

ing the peripheral end from its own central end. It was possible that the sympathetic system recovered more easily than the ordinary peripheral nerves; but in them, although there was return of histological structure, there was no return of function. This was possibly due to the greater vulnerability of the terminations of the sympathetic nerve as compared with the fibres themselves. The variation in recovery would probably differ in different nerves and in different animals. As to the manner in which the actual regeneration occurred, the neuroblast view of the authors of the paper was not convincing; the observations made were on sections: and it was not possible to follow a nerve fibre by this method; the method of teasing was necessary. His observations had rather revealed the idea of a long multinucleated cell than a series of short cells as the authors had maintained. The difficulty of admitting the phagocytic action of the connective tissue cells for the medulla was obvious in view of the fact that they were separated by a membrane—the neurilemma. The earlier disappearance of the medullary substance of the large fibres was probably due to the staining agent. In his experience this change was earlier in the small than in the larger fibres. The rapid return of sensation (in from an hour to a day) was only in cases of secondary suture. The nerve could not be cut without the stump of the central end degenerating, and this in itself negatived the rapid recovery on the basis suggested in the paper, as seven to ten days at least were required for their recovery. It was possible that a nerve divided at a node of Ranvier might unite by primary intention.

Dr. F. W. Mott congratulated the authors of the paper on affording still further proof that regeneration of a divided nerve took place from the periphery. For some time past he had been engaged with Professor Halliburton in making a series of observations upon the chemical changes occurring in nerves undergoing degeneration and regeneration after their division. The inquiry was not conducted for the purpose of ascertaining how regeneration took place; therefore a positive opinion in the paper which was published in the *Philosophical Transactions* was not expressed, but Dr. Mott, from the histological examination of the nerves, came to the conclusion that new axis cylinders were formed by the proliferation of the cells of the neurilemmal sheath. Subsequent observations which he had made confirmed this opinion. He stated that he relied upon teased preparations rather than sections, as a most valuable method of studying both degeneration and regeneration, because individual fibres could thus be seen in their entirety. He used the direct Marchi method for fixing and hardening the tissues, which stained the myelin a greenish grey and the degenerated myelin black. He considered that this was a more valuable method than the Weigert, which stained both myelin and degenerated myelin blue. The protoplasmic substance of the new axis cylinders and the nuclei of the neurilemmal cells were subsequently stained by the Ströbe method and logwood. In this way he was enabled to see the proliferation of the neurilemmal cells, their phagocytic action upon the degenerated products, and formation of the axis cylinder process and new sheaths by a process of differentiation of their protoplasm. He purposely did not use the term "secretion of axis cylinders" which the authors of the paper had employed. He was of the opinion that the axis cylinders were formed more especially by the nuclear protoplasm of the cells. Frequently in the neighbourhood of the nuclei of these teased preparations he had seen the products of degeneration of the myelin stained black, mingled with highly-refractive, much lighter-stained globules which appeared like the new myelin. He stated that he was at present engaged with Professor Halliburton in making further inquiries regarding the process of degeneration and regeneration under the following conditions: (1) The process of regeneration of the divided ulnar nerve after section of a sufficient number of posterior roots on one side to produce paralysis; (2) the conditions of the nerve terminations in the skin and muscles. So far the observations were not sufficiently numerous to make any definite statement, but they tended to show that stimulus played an important part in regeneration. He asked the authors of the paper whether they had in their numerous experiments tested the conductivity of the nerve above and below the seat of division and union. Dr. Mott considered the Golgi method, which the authors of the paper had used, unreliable for pathological purposes.

Mr. Mayo Robson referred, in a written communication, to his observations made some years ago on nerve grafting. In one case sensation returned in the distribution of the grafted nerve on the day following the grafting. In another case, after grafting with the spinal cord of a rabbit in only one of two divided nerves, recovery of function returned sooner in it than in the nerve united by direct suture.

Dr. W. Aldren Turner discussed the attack made in the paper on the neuron theory in relation to the peripheral nerves. There was an important change affecting the central end of the divided nerve extending up to the nerve cell which had not been dealt with. It was indeed a defect of the paper that the condition of the whole of the peripheral nerve (including its cell) were not described. The fact that new fibres did not reach maturity until sutured rather supported than negatived the neuron theory. He asked what occurred in the peripheral nerves in acute anterior poliomyelitis; if regeneration did not occur the neuron theory was rather supported than otherwise. There might be a very grave lesion of the nerve with very little loss of sensibility, and it seemed that the sensory neuron was susceptible to injury in a different degree from that of the motor neuron. If the motor neuron were affected in any one point the whole was influenced.

Mr. Rickman Godlee observed that after section of the trigeminal and other nerves and even after neurectomy sensation returned in quite a short time; similarly in the anaesthetic patches appearing after operations on the kidney. The effects of different degrees of pressure on nerves was alluded to; even severe pressure leading to complete paralysis was recovered from.

Dr. F. E. Batten referred to his observations on the finer peripheral nerves after nerve section, that after complete degeneration regeneration did not occur for three months at least, and this was not consistent with the views in the paper.

Mr. Ballance, in reply, said they had not been able to obtain any evidence for or against regeneration of nerve in anterior poliomyelitis. It was possible that the connective tissue cells passed within the neurilemma sheath to eat up the myelin, and that at the junctions of the short nerve lengths. After secondary suture the immediate return of sensibility was, in some cases, only transitory, remaining absent for seven or eight days, in others it returned immediately and permanently.

Dr. Purves Stewart, in reply, said as long a tract as 7 in. of nerve below the lesion had been examined. The neuron theory could not, he held, explain the regeneration of peripheral nerves cut off from its central cells. The reason of degeneration of nerve fibres thus cut off was probably the lack of functional stimulus passing along them through the nerve cells. The essential elements of the nervous system was probably not the nerve cell, but, as Apathi had maintained, the nerve fibril.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., in the Chair.

Monday, March 10th, 1902.

External Operation on the Larynx.

Mr. Marmaduke Sheild read a paper on this subject in which he described a series of cases in which thyrotomy and other external operations on the larynx had been performed. The particulars of the operation, which differed in some particulars from that usually described, were given, including the preliminary tracheotomy, the opening of the larynx, and the removal of any new growth, also the after-treatment. A case of fracture of the larynx followed by obstruction from cicatricial tissue was recounted. This was permanently relieved by thyrotomy and removal of the cicatricial formation: another of syphilitic stenosis with an unsatisfactory result. Four cases of growths of the larynx with excellent results, two being possibly papilloma, the others were a fibroma and an undoubted papilloma. A case of thyrotomy required for impaction of a piece of bone in the larynx, the patient making a good recovery; and for an epithelioma of the epiglottis, a suprahyoid pharyngotomy, with excellent result, were next described, and, lastly, the

removal of half the larynx for extensive cancer involving the pharynx with relief from dyspnoea, but with recurrence.

Mr. JONATHAN HUTCHINSON, jun., mentioned an operation of thyrotomy in which he had assisted, in 1879, for early epithelioma with very good result. He also had under his care an obstinate case of syphilitic stenosis for which he had contemplated doing thyrotomy, but after having heard the result of the similar case described in the paper, he would not now attempt it.

Mr. W. G. SPENCER referred to the cases in which there was very difficult breathing requiring immediate relief, and the cases in which an accurate median thyrotomy was difficult. In some cases it was advantageous to leave the wound open, not attempting to get primary union. There were cases of syphilitic stenosis in which operation was of use, particularly if one cord were removed: this meant a hoarse voice, but freedom from wearing of a tracheotomy tube. Reference was made to laryngeal obstruction in children and to chronic oedema of the larynx, for which thyrotomy was indicated.

Dr. ST CLAIR THOMSON alluded to a successful case in which the whole of the epiglottis and a great part of the base of the tongue had been removed. He hardly thought there would be the field for the operation of thyrotomy that was foreshadowed in the paper. The cases suitable for the operation were very few. Syphilitic stenosis was perhaps better treated by a preliminary tracheotomy, and then by the persevering administration of antisyphilitic remedies. Even papillomata in children might be removed by the natural passage, and even without using the laryngeal mirror. Probably thyrotomy was more adapted for early-diagnosed malignant growths than for any other condition.

Mr. SHEILD replied.

EXCISION OF GASTRIC ULCER.

Mr. MANSELL MOULLIN read the notes of three cases in which a gastric ulcer had been excised. In two of the cases the operation was performed for recurrent haematemesis; in the third for persistent pain and vomiting. One of the former died on the ninth day after the operation, the gastric wound at the necropsy showing little or no evidence of repair, being held together only by the sutures. The two others recovered completely. These, with others he had published, make six cases, five for haematemesis, with one death. It was usually held that the advisability of operating in these cases could be settled at once by comparing the actual mortality of haematemesis arising from gastric ulcer with that which it was supposed might follow gastrotomy under similar conditions. But no such comparison was possible. On the one hand, the whole number of cases of haematemesis, trivial and severe alike, was taken. On the other, only those cases which were absolutely desperate, in which the operation was performed as a last chance after everything else had been tried and had failed. The only comparison that could be made with any fairness was between those cases in which surgical measures were advised and declined and those in which they were advised and accepted. If this was done there could be no doubt as to the result. In 3 of the 5 cases the patient was already so bloodless that transfusion had to be performed, and in 2 more operation had to be declined altogether, as the patients were beyond even transfusion. The mortality of such cases left to themselves without operation would compare very unfavourably with that of gastrotomy, even when performed under desperate conditions. Of all the 246 cases of haematemesis from gastric ulcer which had been admitted into the London Hospital during the five years 1895 to 1899, there were 202 women and 44 men. Among these there were only 4 deaths among the women: 3 of these deaths, however, occurred in the 49 women who were over 30 years of age; so that the mortality in women under 30 years of age was less than 1 per cent., while in those over 30 it was 6 per cent. In the men, on the other hand, taking all ages together, the mortality from haematemesis alone was 14 per cent. When the other causes of death in gastric ulcer were taken into consideration, it must be admitted that the death-rate due to gastric ulcer, especially in the case of women over 30 years of age, and of men, is very much higher than was usually believed. There was no doubt that the treatment of gastric ulcer was and must remain in the hands of physicians; but, as had been already recognised in the case of perforation, it was equally clear that certain contingencies or accidents might arise, which could only be met by surgical measures. So far as haematemesis was concerned, it was clear that much greater risk could be run in the case of women under 30 years of age than in the case of those over 30, and especially in the case of men. But if due allowance were made for this, it might be laid down as a general rule that, if there was one single severe haemorrhage in a case in which the previous history suggested the presence of a chronic gastric ulcer (for in this case the bleeding was probably due to an opening in an artery of some size, and was not merely capillary); or, if there were two separate attacks of severe haematemesis at a short interval; or if there were frequent small haemorrhages so that the patient was becoming seriously anaemic, there was less risk in operating than in leaving the patient to the chance of the haemorrhage stopping of itself.

The CHAIRMAN had not yet had, either in hospital or in private practice, a case of gastric ulcer requiring surgical operation, neither had he had a death from haematemesis or from perforation due to gastric ulcer. He described the treatment he had been accustomed to employ.

Dr. VOELCKER described a case of haematemesis in which at the operation nothing could be detected abnormal on the outer surface of the stomach, and which was therefore not opened; subsequently a severe and nearly fatal attack of haematemesis occurred. In the cases with severe pain alone, operation was probably more indicated in the haematemesis cases.

Mr. MANSELL MOULLIN replied.

CLINICAL SOCIETY OF MANCHESTER.

HERBERT LUND, M.B., in the Chair.

Tuesday, February 18th, 1902.

THE LOCAL TREATMENT OF DIPHTHERIA.

DR. F. R. COOPER (Bowdon) opened a discussion on the Present Position of the Local Treatment of Diphtheria. He considered that the tendency at the present time was rather to neglect local treatment as superfluous or even pernicious. Whilst strongly deprecating the injudicious use of local measures which might merely irritate the inflamed parts and exhaust the patient, he expressed the strong conviction that in certain cases efficient local treatment combined, of course, with antitoxin treatment was of the greatest importance. He suggested the use of strong carbolic acid carefully applied to the throat with a swab before the formation of membrane, to destroy the bacilli *in situ* and cut short the disease. He believed he had succeeded in doing this in several instances. When cases were progressing favourably under antitoxin, only the mildest local applications, alkaline washes or sprays, such as euthymol, listerine, or sedatives, as eucaine or cocaine, were necessary. But in cases where antitoxin seemed powerless, that is, "mixed cases" of a septic or erysipelatous character, he was inclined to recommend energetic antiseptics, giving an anaesthetic if necessary, forcibly removing membrane and thoroughly swabbing the raw surface with pure phenol. He had not done this in cases of faucial diphtheria, but had adopted it in laryngeal and tracheal cases with the happiest result.

DR. VIPONT BROWN said that since the introduction of antitoxin injection he had almost entirely neglected local applications. He regarded the diphtheria antitoxin as the most potent weapon for the treatment of this disease and since its introduction he had lost only one case. In this instance, no Klebs-Loeffler bacillus had been found on examination at Owens College, antitoxin was not given and the membrane soon cleared away. A few days afterwards, however, severe diphtherial paralysis supervened, which proved rapidly fatal. The immediate use of serum might not have prevented the paralysis, but he believed that the child's life was lost through want of confidence in the clinical diagnosis. He therefore regarded it as of the utmost importance that antitoxin should be used in doubtful cases, without waiting for the diagnosis to be bacteriologically confirmed. He was impressed by the importance of not leaving the same tube (after tracheotomy) in the trachea longer than two or three days and gave an instance in which a bimucous fistula was caused by the pressure of the end of the tube, milk swallowed

by the patient came through the tracheal opening for some time, but the child ultimately made a good recovery.

Dr. R. W. Marsden spoke of the importance of using antitoxin at the earliest possible moment after the disease was diagnosed. As regarded local measures, he strongly deprecated the adoption of any heroic treatment, which had been sufficiently tried in pre-serum days, without observing any constant effect. On the other hand, he favoured the application of milder antiseptics used freely to wash away septic exudations, though insisting in all cases on the importance of avoiding any action likely to cause a deterioration in the patient's general condition. He believed absolutely in the efficacy of the antitoxin injection if applied sufficiently early and in adequate doses.

Dr. Christopher Heywood understood that Dr. Cooper did not in any degree underrate the value of the antitoxin treatment, but realized that in many cases occurring in general practice energetic local measures were useful and necessary. With this he fully agreed, and felt somewhat disappointed that some of the speakers had not touched on local treatment at all. The point about local treatment was not to be timid, but to use some powerful antiseptic vigorously as soon as any sign of membrane appeared, but not to repeat the application for twenty-four hours. Potassium chlorate he regarded as not only useless, but dangerous, having seen haematuria arise from its use. Local treatment gave an additional chance of recovery; it was used with benefit in pre-antitoxin days, therefore it ought not to be neglected now, and especially not in cases of "mixed" infection, where it seemed particularly valuable.

Dr. David Owen referred to the dangers and difficulties of local treatment, and mentioned two cases, the diagnosis of which was bacteriologically confirmed by Professor Delépine. The patients had recovered after the free administration of antitoxin without any local applications, in whom recovery in pre-antitoxin days would have been impossible.

Dr. Alex. Fraser said he treated diphtheria as a general blood poisoning. He relied on antitoxin and general stimulating treatment. He had tried the local applications of various remedies in the pre-serum days, but had met with no particular success from any particular remedy, and judging from the countless applications advocated in the local treatment others had had equally disappointing results.

Mr. E. T. Milner, after contrasting his results of local treatment before and since the use of serum, remarked that the almost specific action of antitoxin was probably responsible for a common neglect of local applications nowadays, and except in some cases where the membrane disappeared so rapidly as if dissolved, entirely agreed with the combined local and serum treatment, particularly in cases of mixed infection. The local treatment should be mechanical as well as chemical and disinfecting. He quoted one specially virulent case occurring when he was Resident Surgical Officer at the Royal Infirmary some twelve years ago, where he used strong nitric acid with beneficial effects, the extension of the membrane not ceasing until the surface had been mopped over with the acid, both through the tracheotomy wound and in the pharynx. He also mentioned an epidemic on the Continent fifteen or twenty years ago, of haemoglobinuria, which was proved to be due to the administration of chlorate of potash in heroic doses.

Mr. Howson Ray also agreed that local applications were of importance in conjunction with antitoxin, and suggested that streptococcus toxin might give rise to a form of diphtheria in which the Klebs-Loeffler bacillus might be absent.

The Chairman expressed his conviction that local treatment was of the greatest use in the early stage, and mentioned that his father, the late Mr. Lund, used to employ a swab of chloride of zinc (20 gr. to 1 oz.), and had no trouble with his cases, even in the pre-serum days.

Dr. Cooper replied to the various criticisms on his paper, and said that although it referred chiefly to the local treatment, he regarded the injection of antitoxin as of essential importance.

Association of Registered Medical Women.—At a meeting held on March 4th, Mrs. Boyd, M.D., President, in the chair, the midwives question was discussed. The following resolutions were proposed by Mrs. Scharlieb, M.D., M.S.:

1. That in the opinion of this meeting it is desirable that midwives be registered.

2. That in the opinion of this meeting the Bill for the Registration of Midwives as at present drawn is inadequate to safeguard the interests of the patients, and is likely to lead to the development of a class of unqualified practitioners.

Mrs. Dickinson Berry, M.D., proposed the following amendment to resolution 1:

That in the opinion of this meeting it is not desirable that midwives be registered, unless at the same time it is rendered penal for unregistered persons to act as midwives for gain.

The amendment to resolution 1 was carried unanimously. Resolution 2 was carried by a large majority.

LIVERPOOL MEDICAL INSTITUTION.

Rushton Parker, M.B., F.R.C.S., President, in the Chair.

Thursday, February 27th, 1902.

The Duration of Pregnancy.

Dr. Thurstan Holland read a note on the duration of pregnancy, based on the case of a young primipara; dating from the last date of normal menstruation to the birth of the child, the duration was 340 days: from the date of last coitus to the birth was 323 days; from the date of the menstruation following the last coitus (an abnormal period only lasting two days) the duration was 316 days.

Dr. Macfie Campbell said he had notes of 64 cases in which the date of impregnation was known, and the average came to 268 days, or rather less than was generally allowed. In one case of seduction 273 days elapsed after one coitus. Nine cases of no menstruation after marriage gave an average of 264 days, and in 5 when the husbands (seafaring men) were only at home for one night 277 days. He never had a case similar to that of Dr. Holland, which was open to a little doubt; it was so difficult to be quite sure of the data in these matters. He had, however, notes of 6 cases, ranging from 293 to 303 days, 3 of 308 days, 1 of 310 days, and 1 of 312. Dr. Holland's paper was of much interest from a professional and legal point of view.

Gastric Ulcer.

Dr. R. J. M. Buchanan and Mr. R. A. Bickersteth read the notes of a case of gastric ulcer in which a successful operation had been performed for perforation.

J. C., a housemaid, aged 27, had a history of epigastric pain and occasional vomiting for two years. Twenty-seven hours after the symptoms of perforation came on laparotomy was performed at the Royal Infirmary. Much turbid fluid was found in the abdomen, collected in pockets formed by recent adhesions. A perforation near the cardiac end of the stomach was found with some difficulty, and eventually closed by passing a rectangular cleft palate needle deeply through the tissues on each side of it. The operation was performed on August 6th, 1901. The girl left the hospital on October 20th, and continued well up to the present.

Dr. Buchanan said that on admission to the infirmary the patient did not exhibit any signs of collapse but rather of reaction. The pulse was of good volume—120 and steady, her temperature 100° F.; respirations were shallow and purely costal. Her face was pallid and somewhat pinched, the expression indicative of pain and distress; the skin was moist. On examination of the abdomen it was seen to be much distended, the distension being localized to two areas. One, the upper, was bounded by Harrison's furrow above, and a second transverse furrow below about 1 in. above the umbilicus. Over the epigastric distension the abdomen was tender on palpation, and the wall felt somewhat boggy: it was tympanitic on percussion, and on auscultation the heart sounds were heard as if echoing in a gas-containing cavity. The liver dullness was diminished to 1 in. above the lower costal margin. The lower portion of the abdomen was distinctly stretched and tympanitic. The abdominal walls did not move on respiration. The patient complained of most severe pain in the left hypochondrium, and extending towards the base of the left lung behind, it was intensified on deep inspiration, and auscultation revealed a soft friction sound most marked below the diaphragm. It was not of the usual near and harsh pleuritic character, and was considered to be of peritoneal origin and subdiaphragmatic. It was impossible to locate the ulcer with accuracy, but the localized friction suggested that its position might be at the cardiac end. That such was the case was verified at the operation. Dr. Buchanan said that the points which influenced their decision for operation, even after the long period of twenty-seven hours from perforation, were:—The symptoms of reaction—steady pulse and rising temperature; the localized

distension of the epigastrium pointing to adhesions acting as a safeguard from further leakage.

APPENDICITIS.

Dr. W. BLAIR BELL related a case of appendicitis which had run an unusual course. At the operation he found an empty abscess cavity. The stump of the appendix was ligatured and removed from the caecum, and the apex from the ileum to which it adhered, and when there was a large perforation through which the abscess had discharged into the bowel. He closed the perforation and packed the abscess cavity with gauze soaked in iodoform emulsion. The patient, a girl aged 16, made an uninterrupted recovery.

CEREBRO-SPINAL RHINORRHOEA.

Mr. LARKIN read a case of cerebro-spinal rhinorrhoea. The fluid had escaped through a fracture of the basi-sphenoid. The patient lived twenty-seven days after the fracture, and died from septic meningitis.

Drs. MACALISTER, E. T. DAVIES, Messrs. F. T. PAUL and G. P. NEWBOLT, and the PRESIDENT discussed these cases.

THE RELATION OF MENTAL SYMPTOMS TO BODILY DISEASE.

Dr. NATHAN RAW read a paper on this subject. He first minutely described the symptoms present in various diseases of the viscera, with special reference to reflected visceral pains, agreeing in the main with the conclusions of Head that they were present in a fair proportion of cases of heart disease, phthisis, and diseases of the stomach and liver. He then described the various mental symptoms occurring in the course of kidney disease, gout, exophthalmic goitre, myxoedema, and chorea, mentioning several cases of temporary insanity which he had noticed. The mental symptoms occurring in the course of typhoid, pneumonia, and rheumatic fever he divided into two important groups, those of the initial stage of the fever due to the severity of the infection and characterized by mania and delirium, and those supervening on convalescence, chiefly of a depressant and melancholic type. He had often observed post-typhoid insanity of the melancholic type with delusions, and was of the opinion that it was due to nervous exhaustion and insufficient food. In his experience post-typhoid insanity always passed off, and the patient's mind was restored to the normal. He had never observed insanity follow an attack of pneumonia. After a long observation of many thousands of cases, Dr. Raw was of opinion that there was a form of temporary mental disorder which occurred as part and parcel of some bodily diseases, and which rendered the patient insane for the time, but which rapidly passed away. He was strongly of opinion that these cases should not be certified as lunatics and sent to an asylum, but should be treated in a special hospital for mental diseases. He advocated the provision of a reception house or hospital for mental disorders in Liverpool, where a patient suffering from delirium tremens and other forms of temporary mental disorder could be sent and specially treated, and facilities given to students for studying this important group of mental disorders, and he was of opinion that such patients should not be subject to the stigma of having been certified as lunatics, when a few weeks of special care would restore the mental equilibrium.

Dr. WARRINGTON mentioned the important observations of Sherrington, who found that the emotional life of dogs seemed to be unimpaired after a complete section of the spinal cord below the origin of the phrenics, and also in addition section of one vagus nerve. He also alluded to the fact that innumerable poisons which could be demonstrated in the nerve cells, and expressed the opinion that these changes had no distinguishing features from one another. He considered the characteristics of mental disorder in visceral lesions depended rather upon the psychical life of the individual.

Drs. T. R. GLYNN, CARTER, GILL, STREET, and BARR spoke; and [illegible]

[illegible] At a meeting on February 12th, Dr. HARRIS, vice-[illegible], in the chair. Dr. [illegible] exhibited [illegible] and from the exudation at the base of the brain. The recorded cases of staphylococcus meningitis were briefly referred to.—Dr. FINNEY presented a short communication on myomalacia cordis and its results.—Dr. HARRIS and Dr. MOORE showed preparations from a case of chloroma.

The patient was a boy 14 years of age, who commenced with symptoms believed to be sciatica about thirteen weeks before his death, up to which time he had enjoyed good health. The pain persisted in his left hip, and no further symptoms developed until a month before his death, when he showed signs of orbital and intracranial growths. About the time referred to exophthalmos of the right eye developed; there was paralysis of the seventh and eighth nerves on both sides, together with marked headache. He was admitted to the Manchester Royal Infirmary under the care of Dr. Harris a fortnight before his death, with partial paralysis of the lower and upper extremities, great pain in the left hip, marked exophthalmos of the right side, almost complete deafness, and bilateral facial paralysis. He was very anaemic. The urine presented a trace of albumen on one occasion; otherwise showed nothing abnormal. The temperature was irregular, being generally elevated in the evening to about 100° F. during the fortnight that he was in the hospital. He gradually became weaker, and died about thirteen weeks from the first commencement of any indications of disease. At the necropsy numerous nodular masses of new growth of a grass-green colour were found in connexion with the inner aspect of the dura mater, with the periosteum of the orbit, vertebrae, sacrum, iliac bones, and in the kidneys; also a diffuse infiltration of the mesenteric lymphatic glands, the connective tissue of the portal canals in the liver showing a similar colour. The colour rapidly faded on exposure in the dark equally as in the light, becoming greyish green, then greyish yellow. The tumours histologically consisted of a fine fibrous reticulum with capillaries, containing closely-packed lymphocyte-like cells. The nature of the pigment had not, so far, been determined.

—Dr. WALTER showed microscopic sections from a case of primary epithelioma of the vagina, in some of which the growth was seen to be of papillomatous origin, and in others there was evidence of the epithelium having invaded the neighbouring tissues.

The patient, aged 37, and unmarried, first presented herself for treatment in August, 1898, on account of vaginal haemorrhage. A small papilloma, the size of a pea, was found on the posterior wall of vagina, and had frequently recurred. Infiltration of the peri-vaginal tissues was found in December, 1901, and a growth the size of the kernel of a filbert nut was removed.

Dr. Walter pointed out that care was necessary in diagnosing primary carcinoma of the vagina, the majority of cases of vaginal carcinoma being of secondary origin, either from direct extension, by contiguity, or in some few cases by metastatic infection from the body of the uterus or the ovaries. The disease might extend over a period of three years; sometimes it terminated more rapidly, especially if pregnancy coexisted. In a recent table of 123 cases of primary carcinoma of the vagina prepared by Kroënig, of Leipzig, the posterior wall was found affected in 71 cases, the anterior in 23, the sides in 13, and in 16 the disease attacked the vagina in the form of a ring, converting the passage into a hard tube.—Dr. WALTER also exhibited specimens of sarcoma of the ovary; and Dr. LEA showed a series of vaginal growths—primary epithelioma, primary sarcoma, papilloma, and fibroma.

MIDLAND MEDICAL SOCIETY.

ARTHUR OAKES, M.R.C.S., L.R.C.P., President, in the Chair.

Wednesday, February 19th, 1902.

ANGIOMA OF THE GLOBE.

DR. MARTIN YOUNG showed a case.

The patient was a child, aged 14. Two and a-half years ago the right eye presented a leash of deep-coloured vessels on the nasal side of the cornea under the conjunctiva. The nasal half of the retina was detached and very black. Vision = ?. The condition was diagnosed as one of melanotic sarcoma and excision was advised, but the parents refused their consent. At the present time there was externally a large vascular dark blue mass on the nasal side of the eyeball. The pupil was crescentic, the iris being pushed over towards the temporal side; it could not be dilated with atropine, in consequence of a vascular tongue creeping outwards in the anterior chamber and restricting the movements. There was only light perception. The patient had suffered no pain at any time. The left eye was normal. A small and very painful tumour the size of a hazel nut had appeared eight months before on the back of the [illegible]. It had been excised and examined by Professor Leith, whose [illegible] appended below. Three months ago a small tumour about the same size developed just outside the area of the axillary glands, but this had [illegible]

The long history was held to negative the diagnosis of sarcoma, and the condition was thought to be one of naevus of the choroid. The two small tumours were probably entirely unrelated to the eye condition. There was no history of tuberculosis in the family. The child was well in other respects. Professor Leith reported that the tumour examined by him was entirely encapsulated, and showed bands of well-formed fibrous tissue penetrating the substance in every direction, and dividing it into a number of areas like a sponge.

These areas were filled with a substance showing an apparently entirely cellular structure, the cells being spindle-shaped and round. The complete fibrous capsule suggested that the tumour was simple, while its apparently entirely cellular character within the above-mentioned areas suggested sarcoma.

Mooren's Ulcer of the Cornea.

Mr. Jameson Evans showed this case.

The patient, a woman aged 49, came under his care in March, 1901. She was then suffering from marginal ulceration of the cornea in each eye, the right being slightly the worse. As the ulcers resisted all the usual topical and constitutional remedies, it became necessary to cauterize them. At the end of two months, and after three cauterizations, the right eye was completely cured, except for a diffuse marginal opacity of the cornea. The left eye, though subjected to varying treatment, including periodical cauterizations, had steadily, though somewhat slowly, progressed, until only a central piece of cornea about the size of the pupil was left uninvolved. The ulceration was at first confined to the upper half of the corneal limbus, but it gradually extended completely round, and then worked inwards more or less concentrically. The ulcer was limited by a grey infiltrated margin, which was distinctly undermined at certain parts. The central clear cornea became cloudy and infiltrated occasionally, and the eye then became functionally useless. The scar tissue left in the course of the ulcer was vascularized, but its vitality was very low, and it periodically broke down into ulcers. These completely healed over at times for periods of from two to six weeks, and then the disease would break out again and progress as vigorously as ever.

Myoma of Uterus Removed by Supravaginal Hysterectomy.

Mr. J. Furneaux Jordan showed this specimen.

The patient, aged 40, had been married fourteen years. She had had no children and no miscarriages: menstruation had been regular and the quantity not excessive. Six months ago she had noticed a lump in the abdomen, which had rapidly increased in size. In the two months during which she had been under observation the increase in size had been most marked. For some few weeks pain had been severe, and there had also been bearing down in the pelvis. The specimen was a multinodular myoma. One large nodule on the right side invaded the whole of the broad ligament, and, lifting the peritoneum from part of the iliac fossa, lay right underneath the caecum and vermiform appendix. A second subperitoneal nodule occupied the true pelvis, and on the left side a third invaded the left broad ligament, but not to the same extent as on the right side. The tumour was removed by Kelly's method, the broad ligament tumours being enucleated, one from above down and the other from below up. The cervix was divided at the level of the internal os.

The operation was done on January 15th of this year, and the recovery had been good except for the formation of a stitch abscess about the eleventh day.

Paper.

Dr. Edge read a paper on the treatment of abortion.

Nottingham Medico-Chirurgical Society.—At a meeting held on February 5th, Mr. E. C. Kingdon, President, in the chair, Dr. Vincent Shaw (Ilkeston) read notes on and showed a case of a man, aged 33, who, previously healthy, after overwork developed, nearly two years ago, enlarged glands in the neck, first on the right side, then five months later on the left. These were quite painless, but grew rapidly; were removed from right side, but recurred in six weeks. Some postnasal obstruction first noticed, probably adenoids. No growths found elsewhere. Blood and spleen normal. A diagnosis of lymphadenoma was made. The case was discussed by the President, Messrs. Willis, Hogarth, Hunter, Mackie, and Tressider.—Dr. C. H. Cattle read a paper on the significance of anginal pain. Great caution should be observed in forming a prognosis in all cases in persons of middle life and upwards in whom marked angina pectoris occurred. The cases in which no coarse cardiac lesion could be found were often more grave than those in which this was the case. Angina might be the only symptom of a serious condition such as progressive occlusion of the coronary arteries, whereas, on the other hand, the prognosis of angina accompanying obvious cardiac disease was favourable so long as the latter was stationary. Dr. Cattle quoted cases which had been under his immediate observation. The President, Drs. Handford, W. E. Tressider, and Jacob discussed the subject.—At a meeting held on February 19th, Mr. E. C. Kingdon, President, in the chair, Dr. C. B. Taylor showed two cases of recent double cataract extraction.—Dr. H. Poole Berry (Grantham) read a paper on the Importance of the Attempt at the Diagnosis of Common Functional Disorders. He said that we were inclined to think lightly of any train of symptoms shown by the patient which did not clearly mark out in our minds some definite disease as catalogued in a text-book, and that it was of value to endeavour very carefully to sift and analyse these symptoms, and so group them, functional disorders being those which, though sufficiently definite to make the patient come and complain to us, had for the most part no present known pathology. Dr. Poole Berry gave examples of grouping of hysteria, *petit mal*, neurasthenia, hypochondriasis, migraine, post-influenzal conditions, and nervous disorders which appeared to be due to the defective secretion of some internal gland. The President and Drs. W. B. Ransom, T. Geraty, F. H. Jacob, and Miss S. Gray discussed the subject, and Dr. Poole Berry replied.—Dr. F. H. Jacob read a short paper on the Diagnosis and Treatment of Empyema. It was possible to mistake bronchiectasis at base of lung, subphrenic abscess, and pyopericardium for empyema. Withdrawal of pus from chest by means of needle with large calibre was necessary for diagnosis. Thick creamy pus indicated pneumococcus, thin pus indicated streptococcus, and putrid pus the possibility of subphrenic abscess. As regarded treatment aspiration alone was not reliable, though was sufficient in some cases. Removal of piece of ninth rib just outside angle of scapula and free drainage he had found most successful. Tuberculous cases never did well if opened and drained as they became infected by other organisms, and death was thereby hastened. Value of treatment by means of irrigation and baths of weak solution of boracic acid were instanced, also Estlander's operation in chronic cases. The subject was discussed by Drs. W. B. Ransom, W. E. Tressider, R. G. Hogarth.

REVIEWS.

THE PATHOLOGY OF TUBAL PREGNANCY.

Tubal pregnancy is a subject of great practical importance, and the theory of its relation to salpingitis raises so many questions of clinical and pathological interest that we need make no apology for discussing at somewhat unusual length two contributions to the subject which have appeared recently, the one due to a French and the other to a Danish observer. Fifteen cases in which the tubal sac contained living ova form the basis of the valuable essay by Dr. Couvelaire on "the morbid anatomy of tubal pregnancy."[1] In no fewer than 7 of the 15 the sac had developed in the isthmus, so that there were only 8 ampullary pregnancies. The sac was in no case interstitial or purely infundibular. The cases are recorded in full, and the anatomy of tubal gestation studied synthetically and analytically. The entire aim of the author is to demonstrate the anatomy of the fetal appendages and the relation of these products of conception to the tissues of the Fallopian tube. That is the reason why he has excluded all cases in which secondary changes interrupting the pregnancy had occurred. A fine series of large photogravures including photomicrographs adorn this work. As the result of his labours Couvelaire rejects the theory that a previous pathological change in the tubal mucosa is a necessary condition in tubal pregnancy. The "desquamative salpingitis" of Lawson Tait is, he thinks, imaginary as far as ectopic gestation is concerned. Here we must observe that Petersen has traced a close connexion between tubal gestation and previous salpingitis. The changes in the tubal mucosa, according to what Couvelaire can detect are the manifestation of physiological reaction caused by the presence of the ovum. So far the author supports Clarence Webster, who was the first to demonstrate that the ovum gone astray sets up, or is associated with, "decidual reaction" in the tube just as the ovum in its right place sets up a similar reaction in the mucous membrane of the uterus. On the other hand, Couvelaire failed to detect any decidual reaction in the opposite or non-gravid tube in any instance, though Webster claims to have demonstrated such a change. The author of this essay further insists that comparisons must not be forced between the uniform and well-distributed decidua vera of the pregnant uterus and the localized and irregular modifications of the mucosa of the gravid tube around the ovum. Nor does Couvelaire find the

[1] *Études Anatomiques sur les* [illegible] *ures.* Par [illegible] Ancien Interne des Hôpitaux, [illegible] nque Obst[illegible] de Medecine de Paris. Paris: [illegible]. 1901. [illegible] plates. Frs. 12.)

these modifications are ever preliminary to the abnormal gestation. We have no reason to believe, says Couvelaire, that the stimulus of impregnation first sets up a decidual reaction which, when it extends, as an abnormal condition, to the tubal mucosa, arrests the ovum, and thus causes the pregnancy to develop in the tube. On the contrary, in the cases which he examined where the pregnancy was very early the changes in the mucosa around the ovum were very trifling, whilst in the specimens where gestation was more advanced the muscular coat, as well as the mucous membrane, was involved in essential modifications. Even then, these changes were all but limited to the tubal tissues adjacent to the ovum. These researches show that it is now easy to understand certain after-histories of tubal gestation which till recently were held by many as gross misinterpretations. A tube which casts an ovum may clearly recover, and it is not necessarily so damaged as to be incapable of becoming once more the seat of a fetal sac. M. Couvelaire's minute description of the histological changes in the tubal mucosa and in the fetal membranes deserves careful perusal and still more careful study for purposes of verification. The modifications in the tubal tissues at the insertion of the ovum are carefully noted and figured: but the histologist's attention will be turned to the author's description of the development of the free pole of the ovum, the part which projects into the tube. He finds no proof that it is invested with a true decidua reflexa, its tissues seem of purely fetal origin. He has detected portions of the tubal plicae adherent to the free pole of the ovum, but he noted after careful inspection that as the pregnancy advances these portions of the maternal tissues are dragged upon till they become mere threads with degenerated epithelium. In short, there is no imbedding of the ovum and closing in over it of a mucosa which plays an active share in developing the appendages of the ovum; on the contrary, the ovum tends to free itself from the maternal tissues as pregnancy advances. The surgeon, experienced in operations on this condition, will not be surprised that Couvelaire can show him that the changes in the tubal tissues, though very incompetent as imitations of uterine decidua developed for the benefit of the fetus, are essentially liable to cause those well-known accidents so prejudicial to the mother. The muscular as well as the mucous coats of the tube undergo changes which weaken the tubal wall, but interstitial haemorrhages also occur in the same region and these either increase the weakness of the wall or are the direct cause of rupture. Couvelaire's monograph is as important as a contribution to our knowledge of the pathology of tubal pregnancy as is Taylor's *Extrauterine Pregnancy* in relation to its later stages, diagnosis, and treatment.

The *Contributions to the Pathological Anatomy of the Gravid Tube*[2] upon which Dr. PETERSEN founded a thesis submitted to the University of Copenhagen in 1890 comprise an account of 14 cases of tubal pregnancy which occurred in the Royal Maternity in the Danish capital so ably directed by Professor Leopold Meyer. The chief interest of this publication is the evidence which Petersen brings forward in support of the older view mentioned above that inflammatory changes are predisposing causes even if not the usual and immediate cause of tubal gestation. Unfortunately Petersen, unlike Couvelaire, publishes no illustrations. He has, on the other hand, brought forward histological and clinical evidence in favour of his theory. The traces of salpingitis common around the fetal sac are not, he insists, the result of its development. The long pause often noted in clinical reports between the last normal pregnancy and the tubal pregnancy favours the salpingitis theory. Pelvic inflammation of uterine not tubal origin explains the interval of sterility, during which space of time the tubes become involved. Bilateral salpingitis seems the rule in tubal pregnancy, at least according to this author's researches, though he does not imply that the advanced forms pyosalpinx or hydrosalpinx are necessarily present in the non-gravid tube. In the gravid tube he finds inflammatory changes clearly older than the gestation itself. The fungation of the mucosa, familiar in chronic salpingitis, promotes the imbedding of the ovum. Perhaps the most important statement of Petersen's researches is that to be found at page 37. He declares that he has detected distinct and extensive "decidual reaction" in the gravid and in the opposite tube, and the decidual elements are to be seen not only where the mucous membrane is normal, but also where it is the seat of a slight degree of catarrhal inflammation (*sondern auch wo sie schwach katarrhalisch verändert ist*). We should have liked to see some drawings of this condition. Those who, with Couvelaire, hold the opposite theory as correct, will never be convinced by verbal descriptions and interpretations of appearances in favour of the salpingitis theory. Petersen makes out that decidual changes in the tubal mucosa beyond the immediate seat of attachment of the ovum develop relatively late, about the second month. So far he agrees with Couvelaire as to the very limited decidual reaction in early tubal gestation. We commend this pamphlet to scientific gynaecologists; the relation of salpingitis to tubal gestation is a question of great clinical and pathological import.

[2] *Beitrage zur pathologischen Anatomie der graviden Tube* (Contributions to the Pathological Anatomy of the Gravid Tube.) Von Dr. Med. August Petersen. Berlin: S. Karger, and London: Williams and Norgate. 1902. Demy 8vo. pp. 84: 28.

MECHANICAL THERAPEUTIC AGENCIES.

THE first volume of *A System of Physiologic Therapeutics*,[3] edited by Dr. S. S. COHEN, deals with "electrophysics" and with the apparatus required for the therapeutic and diagnostic use of electricity. It is written by Dr. GEORGE W. JACOBY, whose treatment of the subject is not generally satisfactory. Various forms of batteries, galvanometers, electrodes, and so forth, are figured, but the descriptions are often inadequate. The spelling is Americanised. On page 18 we are told that "chemism, heat and light, the three great forces of Nature, are directly interchangeable as to direction and rapidity of the molecular vibrations." On page 94 an impossible method of measuring the resistance of an electric lamp is imagined and described. Roentgen-ray apparatus is treated of in 18 pages very badly. There is no proper account even of the ordinary portable combined medical battery, nor is there any illustration of it. The sections dealing with leakage to earth of electric light currents and the dangers to be guarded against in using these currents for applications to patients are carefully written and good. The second volume deals with the electrical treatment of a vast number of ailments and for the most part the statements made are not incorrect. The whole of the book is written in a vague impersonal manner which fails to carry conviction to the reader. On the contrary the impression is rather that of a hash-up of stale and second-hand matter. The last hundred pages of the book are mainly taken up by chapters on the surgical uses of electricity—electricity in diseases of the eye; of the nose, throat and ears; in gynaecology, and in skin diseases, and these chapters are from the pens of different writers who are specialists in their respective subjects, and are fuller and more instructive than the body of the work.

Dr. GUILMBAIL in his book on *The Therapeutics of Physical Agencies*[1] has made an effort to give a scientific explanation of the effects produced by electricity and other agencies upon the human body in health and disease. In order to do this he has considered the subject under three headings—descriptive, physiological, and clinical therapeutics. In a short introduction he makes an attack upon the inefficiency of drugs, but it is only too obvious that the author is a specialist holding a brief for physical means of cure. The attack upon ordinary therapeutical agencies could have been more forgiven had the author stated his case in favour of electricity and other agencies in more moderate terms, had he relied less upon theories, and had he given more details of the forms of malady to be treated by different means. He gives a description of a form of electrical treatment by "polyphasic currents," and recommends it in neurasthenia, dyspepsia, dysmenorrhoea, infantile paralysis, etc. The

[3] *A System of Physiologic Therapeutics.* Edited by Solomon Solis Cohen. Vol. I. *Electrotherapy*, by George W. Jacoby, M.D. Book I. *Electrophysics.* Book II. *Diagnosis Therapeutics.* London: Rebman, Limited. 1901. (Demy 8vo, pp. 242 and 324; 220 Illustrations. 10s. 6d. each volume.)

[1] *La Therapeutique par les Agents Physiques.* Par W. D. Henri Guilmbail. Paris: J. B. Baillière et Fils. (Roy. 8vo, pp. 568. Fr.10.)

explanation given of the results in dyspepsia and other disorders of the alimentary tract is based on researches made by d'Arsonval and Charrin, who found that currents of high frequency are capable of rendering diphtheria bacilli less harmful, and not only destroy toxic bodies, but even produce a certain degree of immunising effect. Electric baths are described in Chapter V. and are recommended in all cases of sensory disturbances, rheumatism, gout, obesity, asthma, chorea, athetosis, insomnia, etc. An ingenious theory is advanced to explain the effects of an electric current in hysterical paralysis, etc. It is an application of the discovery by Branly that a current failed to pass through a tube containing metal filings unless such tube was brought into an electric field. In hysteria the author thinks that hypothetical elements of the nervous system are in the condition of the non-conducting particles of metal in Branly's experiment. It is quite in keeping with past history that a recent development of electricity such as the adoption by Marconi of Branly's observation to wireless telegraphy should find some one ready to apply it to explain normal or disturbed functions in the human body. The book, instead of giving details on physical therapeutics, is mainly concerned with elaborate theories as to the functional activity of the nervous system in health and disease, and contains very little experimental proof of the views advanced.

In his small book on *Mechanotherapy*,[5] Dr. L. R. REGNIER, Chief of the Electro-therapeutic Laboratory, and Radiographer at the Charité Hospital, has given a general description of active and passive exercises as they are employed at the present day in the treatment of many deformities and ailments, and the indications for their use. The list of evils for which mechanotherapy (we look in vain for a definition of this word) is said to be useful includes diseases of the bones, muscles, nerves, heart and circulatory system, lungs, dyspepsia, hernia, obesity, diabetes, affections of the female genital organs, scoliosis, lordosis, and kyphosis—a truly miscellaneous collection of troubles. We are not convinced that the book will serve any useful or practical purpose, and indeed it seems to us to describe in some places methods of treatment which are unproven, fashionable, and probably ephemeral.

It often seems that the author of a manual of massage "doth protest too much." One wonders if there is any disease that massage will not cure or alleviate. When it comes to massage of the uterus and annexa *per vaginam* even Dr. Majnoni[6] (who says he has not practised it himself) feels it necessary to offer some defence against the obvious suspicion such a practice would arouse. That massage is useful in some cases no one would deny, but it is a little surprising to see it advocated in the form of "vibratory massage" as a remedy for ozaena and other diseases of the nasal mucous membranes. There is a good bibliography at the end of the book.

A great portion of *Lessons on Massage* by MARGARET D. PALMER[7] is taken up by anatomical and physiological descriptions and figures collected from standard works on anatomy and physiology, but the portions on actual massage are likewise ample, and they are rendered easy to understand by numerous admirable illustrations. The book will be useful to nurses learning massage.

THE SOCIETY OF APOTHECARIES.

MR. PERCY G. LODGE, the President of the Association of Physicians and Surgeons (Society of Apothecaries) London, has published a small volume[8] with the praiseworthy object of showing that apothecaries have been fully-qualified practitioners of medicine from the year 1615 to the present day. But Mr. Lodge claims too much when he states that "in this little work the reader will be able easily to trace the whole history of medical evolution in this country." Such a history is greatly needed, but neither in England nor in any civilized country has it yet been issued. Mr. Lodge might have produced a most readable story with a little more trouble. His short history, as it stands, is not altogether satisfactory. It is scrappy, and the copy before us is disfigured by such glaring typographical errors as "dens" for "Deus." "statues" for "status," "atonice" for "atomic," whilst "Sir Dominic Corrigan" is called "Sir Dominie." This absence of historical instinct is the more tantalizing as the history of the Apothecaries Hall of Ireland has still to be written, and the writer—apparently Mr. C. R. C. Tichborne—states in the present work that he has before him a minute book of the Apothecaries Guild from which he might have compiled a really valuable account. The later pages of the book contain reprints of a series of letters which have appeared in various journals in regard to the title of L.S.A. as well as a prospectus of the Association of Physicians and Surgeons. The book is dedicated to Sir Hugh Beevor, Bart., representative of the Society of Apothecaries of London in the General Medical Council and to Mr. Samuel Lodge, surgeon to the Bradford City Police.

[5] *La Mechanotherapie. Application du Mouvement à la Cure des Maladies.* [Mechanotherapy, or the Application of Exercises to the Cure of Diseases.] Par Dr. L. R Regnier. Paris: J. B. Baillière et Fils. 1901. (Crown 8vo, pp. 92, 6 illustrations. Fr. 1.50.)

[6] *Manuale del Massagia* (Textbook of Massage). Par Dr. R. Majnoni. Milan: Ulrico Hoepli. 1901. (Fcap. 8vo, pp. 102. 2 lire.)

[7] *Lessons on Massage.* By Margaret D. Palmer. London: Baillière, Tindall, and Cox. 1901. (Demy 8vo, pp. 234; 105 illustrations. 7s. 6d.)

[8] *A Short History of the Society of Apothecaries of London, with an Account of the Apothecaries' Hall of Ireland.* By Percy G. Lodge, F.R.C.S., L.R.C.S., L.A.H.I., L.S.A.London. London: J. and A. Churchill. 1901. (Cr. 8vo, pp. 61.)

NOTES ON BOOKS.

THE last issued part (XII) of the *Scientific Memoirs by Medical Officers of the Army of India*[9] contains six articles. Two are botanical: On the Character and Relationships of Afrelia (Smith), by Major D. Prain, and on the Anatomy of the Roots of Phoenix Puludosa (*Roxb.*), by Lieutenant A. T. Gage; one is zoological, Gleanings from the Royal Indian Marine Survey Ship *Investigator*, by Major A. W. Alcock; one sanitary, On Some Practical Methods of Sanitation in India, with special reference to cantonments, by Major Ernest Roberts; and two pathological, Inoculation of Malaria by *Anopheles*, by Captain C. F. Fearnside, and Some Observations on Spirillum Fever as seen in the Monkey (Macacus radiatus), by Captain George Lamb. The botanical papers are elaborate and indicate painstaking observation. Major Alcock's zoological gleanings are diverse in character and full of interest, including notes on commensalism, sexual habits, sounds, coloration, phosphorescence, etc., of of various crustaceans, molluscs, fishes, etc. Major Roberts's paper is very detailed. He reviews and condemns the present systems of sanitation, more especially of faecal disposal in Indian cantonments, explains the principles of the septic tank system, and indicates how that and other collateral sanitary reforms may be practically worked. Captain Fearnside confirms the results of the investigations of Ross and others as regards the development and inoculation of the malaria parasite through the agency of the *Anopheles* mosquito. He takes a gloomy view of the possibility of protecting natives by means of netting, abolishing puddles or extirpating mosquitos, and would rely for prevention on the free use of quinine and the segregation of the sick. Captain Lamb's experiments are designed to explain the cause of relapses in spirillum fever. He holds that at the crisis of the first attack most of the spirilla perish, but that some survive and undergo increase in consequence of abatement of the power or elimination of the protective elements elaborated during the primary pyrexia. The comparative mildness of secondary attacks is held to be due to the antibactericidal principles being retained in considerable but insufficient amount. The illustrations in this volume are admirably executed.

[9] *Scientific Memoirs by Medical Officers of the Army of India.* Edited by Surgeon-General Robert Harvey, M.D., C.B., LL.D., Director General, Indian Medical Service. Part XII. Simla: Government Central Branch Press. 1901. (Demy 4to, pp. 158, numerous illustrations. Rs. 5.12.)

SANITARY INSTITUTE.—A meeting of the Institute will be held at the Parkes Museum on Wednesday, March 19th, at 8 p.m., when a discussion will be opened on the Collection and Disposal of Refuse in the Large Towns, by H. Percy Boulnois, M.Inst.C.E.

AGE DISTRIBUTION IN LONDON.

There is evidence in one of the new departures of the present census of the increasing importance which is attached to statistics of the age and sex distribution of the population. Official figures are now published of the number of persons of either sex for each year of life from 13 to 21 in addition to those hitherto recorded, the quinquennial periods being retained for the remainder of life. The first instalment of the detailed abstracts of the census returns supplies us with these figures for the administrative County of London. They demonstrate how much the age constitution of the metropolis has altered in the last twenty years, in marked contrast with previous decades of which the records remain. Some peculiar conditions of life are to be found in the immense aggregation of four and a-half millions which constitutes the population of London, notably the large number of adults, both male and female, who are attracted from the outside. Its population cannot therefore be regarded as a fair sample of the relative proportion in which persons of different ages will be found to be living in England and Wales when the final report and summary census tables come to be published. It may, however, be regarded as affording a good index of the character and extent of the disturbance which has been brought about by the fall in the birth-rate during the last two decades, and it foreshadows an even more considerable departure from the age distribution of England and Wales prior to 1881 than that which was indicated by the census of 1891. The relative proportion in each 1,000 of the population of the country at different age periods (in round figures and omitting details as to sex) was as follows:

Number of Persons per Thousand at all Ages—1871, 1881, 1891 (England and Wales).

Census.	Under 5 years.	Under 10 years.	Under 15 years.	Under 20 years.	Under 25 years.	Under 35 years.	Under 45 years.	Under 55 years.	Under 65 years.	65 and upwards.
1871	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	147	113	88	[illegible]	47
1881	[illegible]	120	108	98	90	146	111	83	59	47
1891	[illegible]	117	111	102	91	151	115	86	57	47

The following figures give the relative proportions of those living at corresponding age-periods in the administrative County of London at the last four censuses:

Number of Persons per Thousand at all Ages—1871, 1881, 1891, 1901 (London).

Census.	[illegible]	[illegible]	5 to 15 years.	[illegible]	15 to 20 years.	20 to 25 years.	[illegible]	35 to 45 years.	45 to 55 years.	[illegible]	[illegible]
1871 ...	[illegible]	[illegible]	[illegible]	[illegible]	94	99	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1881 ...	[illegible]	[illegible]	[illegible]	[illegible]	97	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1891 ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	171	[illegible]	[illegible]	[illegible]
1901 ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41

These figures show that the alteration in the age constitution of the population of London from its normal condition prior to 1881 manifest in 1891 had developed still further on the same lines in 1901—namely, a relative decrease in the number living at each quinquennial period under 15, and a corresponding increase in those at the middle periods of life. The wave of disturbance is gradually moving towards the higher ages, and there is already apparent the beginning of an accumulation of persons over 45. The reduced proportion in London up to the present has been chiefly in the child population with its high mortality, and the corresponding increase has been among those at the middle periods of life, and changes in the same direction and to a similar if not to a greater extent may be reasonably anticipated to have taken place in the population of England and Wales.

MEDICAL OFFICERS IN THE HIGHLANDS AND ISLANDS.

Our attention has been drawn to two recent cases of bullying of Poor-law medical officers in remote parts of Scotland. The facts should be generally known in the Scottish medical schools, so that young men who may think of becoming candidates for these wretchedly-paid appointments may understand the lack of common sense and common justice with which they may be treated.

The first case was reported in the *Northern Times*, which gave a prominent place to an account of a stormy meeting of the Clyne Parish Council, when a letter was read from a ratepayer complaining of the want of attention shown by the parish doctor when called on to attend his child. Although this individual was not a pauper, and although the Chairman stated that the parish council had nothing to do with the doctor's privats practice, the letter was read, and after this meeting a public meeting was held, when it was moved, and unanimously agreed, that the medical officer for the parish should be asked "to tender his resignation at once or within three days after notice."

In the other case a medical officer to the parish council of a remote Highland parish signed no agreement with his parish council on his appointment three years ago. He is paid his official salary in quarterly instalments. He has been at much expanse furnishing his house in so isolated a district. The returns from private practice average from £15 to £20 only. There has been no complaint regarding his services to the paupers, of whom there are a large number, about 10 per cent. of the population in the parish. A section of the people in the parish, consisting of the most ignorant, and of those who pay little or no rates, are endeavouring to put the others against the medical officer because he has dared to make certain "hours" at his house for seeing private patients; has asked that he should have several weeks notice of expected confinements; and has given notice that all hires to private patients must be prepaid by the patient's messenger. These malcontents having held a "meeting," are to petition the parish council to "dismiss" the medical officer from his official appointment. We asked therefore whether, in the event of the parish council dismissing the medical officer on account of these malcontents being dissatisfied with his regulations for his private practice, without giving any specific reason, he could, with any chance of success, sue the parish council for wrongful dismissal and claim damages for for loss of employment. We regret to have to say that, owing to the fact that the Scottish Poor-law medical officers have no security of tenure, they can be dismissed, or rather, receive notice that after a certain time their services are not required without any reason being given. This was done in the well-known case of Dr. Robertson, South Harris; if reasons are given, and if these reasons are libellous, then of course damages may be claimed; but if no reasons are given, the medical officer must submit, and the Local Government Board is powerless to help him. The usual notice is three months on either side. All that can be done in the meantime is to bring these cases of oppression prominently before the profession and the public, so that security of tenure may be given to parish medical officers.

At the same time, the profession in Scotland really have this matter in their own hands to some extent. At any rate, it will be folly for medical men to apply for posts where their predecessors have been badly treated. We believe that if intending candidates will address an inquiry to the Secretary of the Scottish Poor-law Medical Officers' Association, Dr. W. L. Muir, 1, Seton Terrace, Dennistoun, Glasgow, it will usually elicit information and advice.

A New Serum Treatment for Tuberculosis.—According to the *Boston Medical and Surgical Journal*, the Board of Health of Newark, New Jersey, has been sufficiently impressed with the importance of a new serum treatment for tuberculosis, with which Dr. Herman C. H. Herold, the President of the Board, states that he has had encouraging results, to pay the expense of further experiments. It has also provided a room for the purpose in the City Hospital, and offered the use of the laboratory of the Health Department.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 15TH, 1902.

THE WAR OFFICE AND ARMY SANITATION.

DURING the months of January and February of this year over 800 deaths from enteric fever amongst the troops serving in South Africa have been recorded in the daily papers from the War Office reports. Probably therefore the number of cases of the disease under treatment during the same period has been over 4,000, if not indeed over 5,000.

In order to realise the meaning and significance of these figures it will be well to make a comparison. The most notorious of the epidemics of enteric fever which have occurred in this country of late years is that which began at Maidstone in August, 1897, and ended in January, 1898. The total number of deaths in this epidemic was 132, the mortality per 1,000 inhabitants was 3.93.[1]

From this it would appear that the number of deaths reported in the first two months of this year amongst the troops in South Africa was more than six times the total number of deaths at Maidstone. If this rate continues the mortality per 1,000 of the troops during the first quarter of 1902 will probably exceed the mortality per 1,000 of the whole epidemic at Maidstone.

Moreover, the deaths are reported from more than sixty different localities scattered throughout the length and breadth of the country, from the Orange River in the South to Barberton and Warmbaths in the North; from Standerton and Charlestown in the East to Mafeking and Vryburg in the West. In some six or more of these localities greatly-intensified Maidstone epidemics must have existed during the last two months. During January and February, 1901, the deaths from enteric fever amounted to 756, whereas during the corresponding period of 1902 they exceeded 800. This appears to indicate that the epidemic prevalence is not on the decrease, and leads to the inevitable conclusion that in spite of all the sad lessons of experience and the opportunities of profiting by that experience, grave defects must exist in the system of sanitary organization amongst our forces in the field.

It is difficult to gain a clear conception of the sanitary organization of the army at the present moment. After the Crimean War admirable sanitary reforms were introduced, one of the most important being the appointment of a head sanitary officer and a head statistical officer. Each of these was of high official standing, and each responsible, under the Director-General, for their respective departments. If a force were put into the field a chief sanitary officer was to be appointed to it. It was the duty of this officer, or of others deputed for the purpose where necessary, to inspect, report and advise upon the sanitary conditions and arrangements of towns and camps in which the troops might be quartered, and to perform similar functions when on the line of march.

In 1881 the statistical office was abolished, and thereafter influences then dominant in the counsels of the War Office succeeded not only in doing away with the sanitary organization devised after the Crimean War but have ever since, we are assured on good authority, "constantly been at work to kill out the sanitary initiative of the medical service." It is a lamentable story which the loyalty of the officers of the Army Medical Staff prevents them from telling, perhaps even prevents them from fully realizing.

When the war in South Africa broke out, the War Office knew that it was sending troops into a country where enteric fever was endemic. A special memorandum was issued by the Director-General at a very early stage giving some information as to climate and prevailing diseases and much excellent advice, which, if it could have been acted on, ought to have had great influence in preventing disease. It was fully recognized that as operations were conducted in a country where enteric fever has long been endemic, special precautions were rendered necessary. The causes of the endemicity may be stated, summarily, to be the insanitary habits of the people, the habitual pollution of the soil, and the consequent risk of the specific pollution of water and food. It is, however certain that the skilled staff available was altogether inadequate.

There is no doubt that the prevention of enteric fever in armies, in camps or on active service, is a complex problem involving many practical difficulties. This is well brought out by Dr. Childs in the paper published at p. 643, and he is able to reinforce his opinion, founded on general principles, by the specific instance of the American experience in 1898. The existence of the endemic condition in any locality indicates the necessity for more sanitary officers, greater sanitary vigilance, precautions, and discipline, but does not render epidemics inevitable. After his experience in the present war, Lord Roberts expressed a decided opinion to the Royal Commission on South African Hospitals[2] that it would be advisable to have in camps of any size a special medical officer to look after the camp sanitation generally, and that sanitary officers formed a most important part of the medical provision for all campaigns. The Commission subsequently recommended "the appointment of properly qualified officers of the Royal Army Medical Corps to undertake sanitary duties."

That opinion was expressed a year and a-half ago. Have these special sanitary officers been appointed? Probably the number required at the present moment would be about twenty-four, but if during the last two years there had been anything like a similar prevalence of enteric in this country, a large staff of experts would have been commissioned to search out the origin and cause of the outbreaks, to report upon them, and to advise as to the measures necessary for preventing and stamping

[1] Report to the Local Government Board, 1897.

[2] *Minutes of Evidence*, Questions 12721, 12722.

out the disease. A small Commission was appointed in August, 1900, "to inquire into the nature, mode of prevention, etc., of dysentery, and its connexion, if any, with enteric fever." The Commissioners have returned, but their report has not been published. Has any similar Commission been appointed to inquire into the far more serious and important question—the origin and means for preventing the enteric epidemics?

If we look to the report of Mr. Brodrick's Committee on Army Medical Reorganization, we search in vain for any indications of a real appreciation of the importance of army sanitation; neither can we find in Mr. Brodrick's own speeches in the House, or in any known action of the Advisory Board, any indication that the need of any improvements in the sanitary organization of the army is recognized. Amidst all the elaborate regulations for securing the best treatment of the sick and wounded, the construction of a system for the prevention of disease—which is the most important function of the Army Medical Service—appears to have been forgotten or ignored.

Mr. Brodrick, in introducing the Army Estimates last week, congratulated himself on the assistance he had received from "civilians in the best practice in London in drawing up a new scheme for the Army Medical Corps." But we cannot agree that he has any reasonable prospect of convincing the country that nothing which "the wide experience of civil practitioners can bring to bear on the new system" has been lost sight of in drawing it up. As a matter of fact, the most important part of any adequate system has been, to say the least, very inadequately considered. This is perhaps not surprising, for though the representatives of the Army Medical Service, both on the Commission and on the Advisory Board, are recognized authorities, not one of the civilian physicians and surgeons who took part in the deliberations of the Commission or who are to assist on the Advisory Board is known to have devoted much study to the difficult problems and the intricate practical details of hygiene and preventive medicine. "Civilians in the best practice in London" seldom have time or opportunity to do so.

The omission of a civilian representative of hygiene both from the Commission and the Advisory Board could not have been due to the lack of authorities on this subject in the civilian ranks. More than one such authority has been engaged in assisting the Army Medical Service during the present campaign, to say nothing of the large number of able and experienced medical officers of health available.

If it was necessary to appoint three surgeons on the Commission and Advisory Board, would it not have been well to have elected at least one expert to watch the interest of hygiene and sanitation, and to aid the army representatives in the advocacy of those sanitary reforms for which so many eminent army medical officers have pleaded so long and have pleaded in vain?

EDINBURGH AND PSYCHIATRY.

WE congratulate the medical profession in Edinburgh upon their unanimity in supporting Sir John Sibbald's proposals for the treatment of incipient and transient mental disorders in the Royal Infirmary. These proposals have now been briefly formulated by a committee of the Medico-Chirurgical Society for presentation to the managers of the infirmary, and we hope that they will be favourably received. It is manifest that the scheme is not merely of local importance. London and other centres of medical activity must consider the propriety of embarking on similar undertakings, without which medical study and medical teaching are but partial and incomplete.

This is, in fact, a return to earlier methods under modern conditions. The Royal Infirmary of Edinburgh originally provided for cases of mental disorder, and still continues to care for those of alcoholic causation; yet it must be admitted that this limitation of its functions has been distinctly inimical to advance in the treatment of the insane. It is remarkable that, while Skae founded his classification upon what he called the "natural history of insanity"—upon the underlying bodily condition of the insane patient—it is only now that his school awakens to the logical realization of his position—not, indeed, without long-continued premonitory symptoms of unrest, for Sir Arthur Mitchell, Sir John Sibbald, Sir J. Batty Tuke, and others have in years past directly raised the question now more generally appreciated and discussed. But they failed to catch the public ear or to secure the active support of their colleagues until Dr. John Macpherson—one of the Scottish Commissioners in Lunacy—appealed to the *Scotsman*, and thus to the general public, for the establishment of a Psychiatric Clinic in close connection with the medical schools. The munificence of Mr. Carnegie in his gift to the Scottish universities offered an inducement to reopen the question, the notable development of these clinics in German universities emphasized the suggestion, and the larger knowledge of the day clinched the argument.

Specialism in medical work is, of course, inevitable; notable improvements are made in our science and art by those who limit their attention to well-defined groups of cases: but, we need hardly add, the dangers and distortions of specialism must be kept in check by continuous and large-minded references to the general experience of the profession. The specialist must maintain intimate relations with the world of medicine, otherwise he is ineffective, unfit and negligible. In the widest sense, it is not good for man that he should be alone. In this respect scientific medicine is well served by the British Medical Association. It welds together the various activities of its diverse members, it affords a common ground for the discussion of medical questions and promotes practical issues in the general interest. Similarly, in so far as our hospitals for the insane are diverted from the main current of medical life, by so much is the position detrimental to the physicians placed in that position of sterile isolation. It is the unfortunate fate of too many of these alienist physicians to be limited by geographical difficulties in their opportunities of obtaining skilled medical aid in their work of elucidating obscure but important medical problems.

They would not refrain from co-operation with general physicians or other specialists if intimate co-operation were possible. Some advance in this respect has already been made in Scotland, where the asylums have established a Conjoint Pathological Laboratory with excellent

results. But clinical investigations, no less than pathological studies, are important: and, to come closer to the subject, the clinical investigation and adequate treatment of incipient or transient mental disorders, hitherto greatly neglected, demand a full share of that attention which has been lavished upon the more chronic and incurable forms of insanity.

The Edinburgh plan is to erect a modest pavilion in proximity to the Royal Infirmary, and to place the patients therein under the care of a physician skilled in psychological medicine, effective in research and capable in teaching. That this would be a great gain is evident. It would bring Scottish psychiatry into line with the best Continental practice; it would prevent many cases from drifting into the asylums in consequence of neglect or ineffective treatment; it would add to our knowledge of obscure yet important problems; it would place the practitioners of the country on a higher level of efficiency in dealing with the insane. The experience of Dr. Norton Manning in Australia and of Dr. Carswell in Glasgow strongly supports this project, and we trust that it will be carried into effect at no distant date.

SMALL-POX HOSPITAL ACCOMMODATION.

WE doubt whether in the whole field of Governmental administration, whether local or national, and whether relating to public health or to any other subject, there can be found so remarkable a paradox as at present exists in connexion with the means which are required to be used for the prevention and control of small-pox. Owing to the proved dangers of small-pox hospitals as centres of infection acting in a wide surrounding area—as to which at this moment we need only refer to Dr. Thresh's report on the aërial influence of the small-pox ships at Long Reach—it is more difficult to provide safe hospitals for small-pox than for any other infectious disease. At the same time, among all the infectious diseases which are commonly dealt with by hospital isolation, small-pox is the one, and the only one, as to which it can be safely said that hospital isolation is essentially and absolutely unnecessary. Notwithstanding this, the Local Government Board, in presence of existing facts, has no alternative but to insist on an extensive provision of small-pox hospitals throughout the whole country.

The reason, of course, is the neglect of vaccination. If advantage were taken of vaccination and revaccination to their fullest extent, small-pox would really be an unknown disease in this country, yet the liberty of the subject is regarded as so sacred that every man in England has a statutory right to refrain from protecting himself against it, and has equally a right to refrain from protecting his children and any others for whom he is responsible. This right is used to such an extent that Government feels bound to compel local authorities everywhere to provide hospital accommodation for small-pox, notwithstanding the great difficulties that exist in obtaining sites on which such hospitals, when once erected, may not be a source of serious danger, and notwithstanding also the great expense which is involved in obtaining the sites and building the hospitals—an expense the great bulk of which has to be borne by people who have already protected themselves against infection, and who are willing to renew their protection whenever renewal is required. The situation is all the more remarkable on this account, that hospitals used to their completest extent are of themselves quite unable to prevent the spread of the disease. It is only because vaccination exists or can be resorted to as a protective of nurses and attendants and all who are within the sphere of influence of small-pox that the infection does not spread in ever-widening circles. With vaccination and revaccination universally practised, small-pox hospitals would be needless. In the entire absence of vaccination no small-pox hospitals would be large enough to produce any appreciable effect on the progress of an established epidemic. It is one of the penalties of the present unprotected or imperfectly protected condition of a considerable part of the population of this country that all the worry and anxiety and waste of time and money that are involved in the purchase of sites and the erection of hospitals and their subsequent management have to be faced.

It is impossible to keep these considerations out of mind in noting the difficulties which at present exist in the county of Middlesex in connexion with this whole subject. It appears that various sanitary authorities have already made some kind of hospital provision for small-pox; but so far as such provision is in connexion with fever hospitals, or is in near proximity to populous places, it is obviously unsuitable. The question now appears to be whether three hospitals entirely devoted to small-pox should be erected in different parts of the county, or whether there should be only one. To express any definite opinion on the concrete case would be unjustifiable, unless in presence of a full report by a competent authority on all questions relating to the two rival proposals—questions, for example, of distance to the hospital or hospitals from the furthest parts of the county or of the areas intended to be served; nearness and amount of surrounding population in concentric quarter-mile zones; the likelihood of rapid increase of population in these zones: convenience of access, medical attendance, water supply, drainage, lighting, etc.; cost of building ground, and of administration, and so forth.

Some general considerations may, however, be noted. Other things being equal, one possible centre of infection is better than three. The cost of building and administering one large hospital ought to be proportionally less than of building three separate smaller hospitals with the same total accommodation. One large hospital with an extensive administrative block, and with much ground attached to it, would be more suitable for rapid extension of accommodation by the erection of temporary pavilions. Small-pox cases are, as a rule, conveyable by ambulance without injury to the patients for a much longer distance than cases of enteric fever or scarlet fever or diphtheria. How these general truths may apply in the particular circumstances of Middlesex we do not venture to say, for, as already indicated, a definite conclusion would only be justified by definite inquiry and ascertainment of many facts.

Again, however, we would call attention to the utterly illogical position in which the whole matter at present stands: and this further fact may be pointed out, that even though in a partially vaccinated community small-pox hospitals are useful, vaccination has this enormous advantage

over hospital isolation, that, duly performed and duly renewed, it prevents attack by small-pox, while hospitals are built on the assumption that attacks will continue to take place, an assumption which will be thoroughly sound so long as vaccination and revaccination continue to be neglected.

INVALIDING IN THE IMPERIAL YEOMANRY.

As we expected, Mr. Brodrick was able to assure the House, in reply to Dr. Farquharson's question, that the Army Medical Service was in no way responsible for the alarming number of men of the Imperial Yeomanry invalided from South Africa for structural and organic physical defects which could not have escaped the eye of any experienced observer. Ostensibly in consequence of the absence from England of so many of the R.A.M.C., but really, we believe, for quite different reasons, the examination of these men was entrusted to civilian medical practitioners residing at convenient distances, and not familiar with the details of the standard required for "regulars." In the printed instructions which were issued to those concerned in Yeomanry enlistment, there was a paragraph which stated that there was no need to reject men for minor defects and deformities, as the standard need not be so high as for regulars. There was no attempt to give any approximate guide to the amount of laxity to be exercised at the discretion of the medical examiner, even if he might happen to be acquainted with the requirements of the regular army. If he happened to be ignorant of these requirements, the clause would seem to provide an ample excuse for unlimited discretion, and, if the blame is attributable to any one, it should rest on those who were responsible for the printed instructions and not on the medical examiner. At the same time, however, it must be admitted that some of these surgeons seemed to be infected too much with the general spirit of laxity, and literally sent out the halt and the maimed and the blind to do battle with their country's foes. With regard to the printed instructions Mr. Brodrick says he cannot find out whether the late Director-General saw and approved these instructions before they were issued. We have great pleasure in supplying the information, with which, strange to say, the War Office cannot supply him. The Director-General was never consulted; he had no hand in the wording of the paragraph above referred to, nor was his advice or opinion asked as to the physical standard of Yeomanry recruits. Nor was he instructed to detail any officers of the R.A.M.C. to examine them until a much more recent date—long after the complaints arose which culminated in a telegram from Lord Kitchener, which was published in the daily press. This telegram drew attention to the fact that a large number of Yeomanry were, on arrival in South Africa, found unfit to proceed to the front, owing to defects which should have been detected at home had the men been examined with even a slight degree of care, whereas the inference appeared justifiable that many of the men could not have been even stripped! It is significant that as soon as the Secretary of State for War and the Commander-in-Chief were convinced that steps were necessary to place these examinations on a better footing the work was handed over to the R.A.M.C., and is now, we believe, entirely in their hands.

THE LEICESTER GUARDIANS AND VACCINATION.

THE contumacy of the Leicester Board of Guardians in relation to the execution of the Vaccination Acts reached what we venture to hope was a final stage in the Divisional Court last week, when the case of Moore *v.* Keyte was heard. This was an appeal by way of case stated from a conviction of the appellant, who had refused to have his child vaccinated. The ground of appeal was, shortly, that the vaccination officer had no authority to prosecute without the consent of the Board of Guardians. To understand the full meaning of the case it is necessary to glance at the record of the Board in its relations with the vaccination officer. Before the appointment of Mr. Keyte the guardians had refused to appoint an officer at all. When ordered by the Court of Queen's Bench to appoint an officer, they took the precaution of appointing a man who would not carry out his duties with regard to prosecuting defaulters. This contempt of Court resulted in a further order to the effect that unless a proper official was appointed the guardians must go to prison. They then appointed Mr. Keyte, and passed a resolution to the following effect:

> That the vaccination officer be instructed to take no further steps for instituting proceedings against those persons whose names are included in the list submitted to the guardians to-day until he receives the instructions of the guardians to do so.

The officer, however, took the view that he was bound to carry out the instructions of the Local Government Board, and prosecuted the present appellant, who was fined 1s., and costs. The main point to be decided on the appeal was whether a vaccination officer can prosecute without the authority of the guardians, and in view of the public importance of this matter the Court admitted the Attorney-General to take part in the discussion. The Divisional Court decided three points: (1) That it is for the magistrates who hear a case to consider the question of legal excuses for non-vaccination, and that a preliminary inquiry by the guardians is unnecessary: (2) that the assent of the guardians is not a condition precedent to prosecution; (3) that it is the duty of the vaccination officer to take proceedings when he thinks proper, and if the guardians interfere with him he is not bound to obey them. The result of this case is that even if all the guardians who appoint an officer are antivaccinators, they can put no obstacle in the way of his acting independently. Mr. Justice Darling in commenting upon the conduct of the guardians said: "Their action reminds me of a very celebrated recipe for preparing a cucumber. You are to choose it very carefully, peel it, cut it up into delicate slices, add expensive condiments such as vinegar, pepper, and oil and then throw the whole mixture out of the window." Unfortunately for the Leicester guardians they found that the cucumber chosen by them was not content to be thrown out of the window without remonstrance. It is deplorable that the ratepayers' money should have been wasted in prosecuting an appeal of this kind. Under the Factory Acts, inspectors have power to enter every factory and mill in the kingdom, and they owe no allegiance to any one save the Secretary of State at the Home Office. Seeing that a vaccination officer must obey the orders of the Local Government Board, it seems anomalous that these officers, if they are to be continued as prosecutors, are not appointed by that Board. In conclusion we congratulate Mr. Keyte upon the firm stand which he has taken in order to establish a point of the highest importance to the general public.

DR. BOND ON THE VACCINATION ACTS.

DR. BOND of Gloucester contributes to the *National Review* for March an excellent article entitled "Small-pox." A more appropriate title would have been the Vaccination Act of 1898. That Act he says has been successful in reducing the number of "martyrs" to the cause, but in some places it has been administered with undue laxity. He holds that the presence of the male parent should be insisted on at courts where applications for exemption certificates are made and granted, and that the Leicester and Keighley practice of granting exemption to whole batches of mothers with practically no inquiry, and at a speed limited only by the time required to sign the certificates, is wholly illegal. The principle laid down by the Royal Commission was in effect that it should be more trouble-

some for a parent to obtain exemption than to secure the vaccination of his child, and the practical importance of the principle is really great. Dr. Bond points out that in Liverpool, where the Acts are efficiently enforced, there have been only twenty-six exemptions, as against 15,000 vaccinations. Throughout the country as a whole the numbers of children who escape vaccination under the conscience clause are trifling as compared with those for whose escape Boards of Guardians and vaccination officers have been directly responsible, through neglect of duty. At one time the excuse for neglect was that they were waiting for the report of the Royal Commission. After it was published a new question was raised as a result of the decision by Justices Wright and Bramble, that the vaccination officer is to prosecute defaulters independently of the opinion of the local guardians. This gave the Anti-vaccination League the opportunity of endeavouring to arouse Boards of Guardians into opposition, not *qua* vaccination, but *qua* their control of their own officers. In 1898 (the latest year for which figures are available), out of 923,050 children born, only 20,341, or 2.23 per cent., were exempted under the conscience clause, whilst 181,830, or 21.5 per cent., were defaulters not dealt with by the vaccination officers. The present position is that the central authority is insisting on vaccination officers doing their duty as interpreted in the law courts, and much hitherto neglected infantile vaccination is probably being overtaken. Dr. Bond holds that an efficient system of vaccination would include (1) the substitution of the District Council (or the County Council in county boroughs) for the guardians as the vaccination authority, and the recognition of the medical officer of health as superintendent of vaccination: (2) the appointment, as opportunity might offer, of sanitary inspectors or school attendance officers as vaccination officers; (3) the prosecution of defaulters by the vaccination officer under instruction of the Clerk to the Council or the Superintendent Registrar (in both cases usually a solicitor), and under the direct control of the Local Government Board; (4) the requirement that infants exempted under the conscience clause should be vaccinated on entering school, unless conscientious objection were again pleaded by the parent: and (5) a third application of the law, before the time of leaving school, to children already twice exempted, and the revaccination of children whose primary vaccination would then be more than eight years old—this application of the law being again subject to the conscience clause. With the details of some of these proposals we are not inclined entirely to agree, but all who are interested in the country's welfare must certainly concur in Dr. Bond's whole purpose, which is to promote vaccination as extensively as possible without at the same time playing into the hands of notoriety-seeking "martyrs" and their instigators and abettors of the Antivaccination League. The country owes much to Dr. Bond for the whole-hearted energy and marked ability which he has devoted to the protection of the people of England against the ravages of small-pox, and his article in the *National Review* is a valuable contribution to the discussion of the best means for the achievement of this most important purpose.

CREMATION IN CASES OF DEATH FROM SMALL-POX.

THE Works Committee of the Metropolitan Asylums Board has been making inquiries into the desirability of cremating the bodies of those dying from small-pox. In reply to an inquiry as to whether there was any objection on the part of Roman Catholics to the cremation of their dead, Cardinal Vaughan replied that it was forbidden by the discipline of that Church, while Dr. Adler, the Chief Rabbi, replied that it was prohibited by the Jewish religious laws. The Committee was informed that strong objections were entertained by persons of other religious denominations. In view of these objections, and believing that apparently little use has been made of crematoria established for some years in various parts of England, the Committee informed the Board at its last meeting that it was not prepared to recommend any further action in the matter at present.

THE LAWS OF FECUNDITY.

ALTHOUGH all the laws of fecundity have by no means been discovered, some would seem to be fairly well established. It would appear, for instance, that certain kinds of sheep are more prolific than others. The writer of the agricultural article in the *Times* has recently (March 3rd) drawn attention to the remarkable fecundity of Suffolk ewes, and has instanced the case of an aged ewe on the farm of the Colonial College at Hollesley Bay that had in six successive years let fall triplets, and in the seventh year twins, so that in seven years there had been twenty lambs in all (nineteen of which had been rams). Twinning also was very common in the flock to which this proletaneous ewe belonged, for last year 402 ewes had produced 642 lambs. There is, therefore, a sort of heredity of fecundity among Suffolk ewes; further, the lambs do not appear to be any the worse because of their advent in twos and threes, and fetch high prices. In the human subject, also, there would seem to be some proof of the heredity of fecundity. In a discussion on Twins, which took place some years ago in the Edinburgh Obstetrical Society,[1] Dr. J. W. Ballantyne recorded certain clinical histories in which large families and twin-bearing seemed to be closely associated. The twin-bearing woman was commonly herself a twin, or was at any rate one of a large family. One of the cases was particularly striking; it was that of a woman who had had 22 children in 18 confinements, 4 times twins and 14 single births; she was one of a family of 17, among whom there were no twins. One of her sisters had had triplets, and another had given birth to twins. It has to be stated, however, that the children of this woman, unlike the lambs of the Suffolk ewe, do not seem to have been robust, for out of the 22 only 4 had survived. With regard more particularly to triplets, Robert Saniter[2] has pointed out the tendency of this form of plural pregnancy to repeat in the same woman, with or without the occurrence of twins as well. He refers to one woman who was twice the mother of twins and once of triplets, and to another who once gave birth to twins and once to triplets. Saniter has also noted the hereditary tendency to produce twins and triplets. In the human subject there would seem to be more males than females in the case of the infants that come into the world in threes; but the disproportion is nothing like that of nineteen to one which was that noted in the prolific Suffolk ewe above referred to, being indeed only as fifty-two to forty-eight (Saniter). It may be said, then, that both for the human subject and for the sheep the tendency to have large families runs in families, and that associated with it is the tendency to give birth to twins and triplets. Paradoxical as it may appear, there is evidence also that "sterility is hereditary," by which is, of course, meant that some of the relatives of the childless man are childless like himself.

PLAGUE PRECAUTIONS IN HONG KONG.

OUR Hong Kong correspondent, under date February 1st, writes as follows: Professor Simpson arrived in the Colony a few weeks ago, and as sanitary expert has submitted to Government a memorandum containing suggestions regarding the precautions which should be adopted to prevent as far as possible the recurrence of bubonic plague this year. A special meeting of the Sanitary Board was held on January 23rd to discuss the recommendations, and it was unanimously agreed to recommend that the measures proposed be carried out by the Government. In the memorandum attention is called to the part that rats

1 *Trans. Edin. Obst. Soc.*, xxii, p. 29, 1896-7.
2 *Zeits. f. Geburts. u. Gynäk.*, xlvi, 347, 1901.

and mice take in the dissemination of bubonic plague and it is pointed out that "no means are complete which do not include the prevention of the disease in rats as well as man, and it is advised that two trained medical officers—preferably assistant-surgeons from Indian Government—be appointed to bacteriologically examine daily the rats found dead by rat-catchers and any that are alive and seem to be ill; further, that the number of rat-catchers should be doubled." By this means any area where rats are infected could be at once found out and active measures taken to destroy the rats. The migration of rats should be watched and special means taken to destroy them on their first entry into a healthy area. The general destruction of rats should go on side by side with this special effort. "If the rats and mice are destroyed in a locality before plague is imported, plague becomes comparatively a manageable disease." In addition to the present methods in use in Hong Kong for killing rats Professor Simpson recommends that thousands of doses of Danysz's virus be systematically distributed in different parts of the town not only during every day of the plague season but throughout the whole year in order that an impression may be made on the enormous number of rats which exist in Hong Kong. The importation of rats from ships should also be prevented. As to measures against human plague, "the town and district should be divided into conveniently-sized districts with a medical man and a sanitary inspector in each, their work to consist in the discovery of cases, house-to-house visitation, and supervision of preventive measures; not only should the house infected be inspected daily, but a zone of houses surrounding should also be watched." Professor Simpson urges the great value of Haffkine's prophylactic and states that the inoculation against plague with properly prepared material is perfectly harmless. Passengers from Macao and Canton should be carefully inspected. The Chinese objection to removal of the sick might be overcome by allowing under proper medical supervision the treatment of plague patients in private hospitals.

STANDING ORDERS AS TO REHOUSING.

On the motion of the Marquis of Salisbury, the House of Lords has agreed to the appointment of a Joint Committee of both Houses to reconsider the standing orders as to the rehousing to be insisted upon, where, by a private Bill or a Provisional Order, dwellings, occupied wholly or in part by persons of the working classes, are to be destroyed. The existing standing orders of both Houses require that when a railway company, a local authority, or other promoters of a private Bill or of a Provisional Order, propose to take down in London twenty, in the provinces ten, houses occupied by the working class, they shall furnish full particulars, with plans, showing how many persons of this class will be displaced. This statement and these plans must be furnished not only to the officers of Parliament, but also to those of the "central authority.' Such central authority is the Home Secretary for London, the Scotch Secretary north of the Tweed, and the Local Government Board for the rest of England and Wales. As regards Ireland, the central authority is the Irish Local Government Board, and the restrictions apply only to urban districts. In all such cases it is further required that a statement of how the replacing of the dishoused population is to be provided for must be supplied, and clauses must be incorporated in the Bill for this purpose satisfactory to the central authority. Before sanctioning any scheme of the kind this authority must inquire not only how many of the working classes are to be displaced, but also as to what accommodation in the way of suitable empty dwellings is to be found in the neighbourhood, and what is the usual distance from their dwellings at which the displaced persons work. Obviously there is a considerable difference between the destruction by a railway company of wholesome and convenient dwellings occupied by the labouring classes and the removal of slum property by a sanitary authority because of its unfitness for use. Often, it is true, an improvement not primarily designed for sanitary purposes is beneficent in its destructiveness. On the other hand, a new railway, or even a new street, may involve the removal of perfectly healthy dwellings, and contribute to the consequent overcrowding of those around. Especially is this the case in London, where already the difficulties of the artizan class in finding suitable houses sufficiently near their work is a crying evil. In many provincial towns with larger proportionate area, and easy communication with the suburbs, the need of new houses is less pressing. The recent census, for instance, has revealed in many such cases that the proportion of houses to population is actually much greater than it was ten years ago. The reference to the Committee is, however, properly extensive, and it is free, if it sees fit, to recommend that every house destroyed by any public Bill should be replaced by another. That it will see fit to do so we do not, of course, for a moment imagine. It is well, however, that the whole subject should be again thoroughly discussed by level-headed men. The anomaly of requiring the evidence in the less crowded country for only half the number of houses for which it is compulsory in London may possibly be remedied. It is to be hoped that, if authorities are to find houses for all displaced from their slums, they will be permitted to do so by proxy, and that the Government will lend money to respectable private builders certified by these authorities—say for forty years, at 2½ per cent.—to enable such private persons to do this public service without risk of loss.

THE STUDY OF MEDICAL HISTORY.

The study of the history of medicine is arousing considerable interest at the present time amongst the profession in many parts of the world. We mentioned not long ago[1] that lecturers and professors of the history of medicine have already been appointed at several centres in the United States. We were unable at the time to give a list of the appointments, but we have now received the following particulars from Dr. Charles McIntire, Secretary and Treasurer of the American Academy of Medicine, to whose courtesy we are greatly indebted. He writes: "The following medical schools in the United States advertise a course of lectures on the history of medicine: The Boston University School of Medicine [homoeopathic] has appointed Dr. Charles L. Nichols to deliver the course on this subject. Dr. W. O. Stillman lectures at the Albany Medical College, which forms the Medical Faculty of the Union University. Dr. Charles W. Dulles lectures in the medical department of the University of Pennsylvania; and Dr. T. L. Bradford holds a similar appointment at the Hahnemann Medical College and Hospital in Philadelphia. Dr. Roswell Park formerly gave lectures on the history of medicine at the University of Buffalo, but of late years he has ceased to do so." The Italian Universities, however, seem to be the home of medical history. As early as 1846 the Grand Duke of Tuscany appointed Francesco Puccinotti to the Chair of Medical History at the University of Pisa. In 1860 the Italian Government selected Salvatore De Renzi, the historian of the School of Salerno, to occupy a similar position in the University of Naples, where lectures on medical history had been given intermittently since 1810. Guiseppe Cervetto from 1860 onwards, gave a course of lectures in the higher veterinary school attached to the University of Bologna. Professor Francesco Puccinotti, with Dr. Carlo Morelli as his substitute, lectured at Florence in the Royal Institute for Higher Studies. At Modena the course of medical history

[1] British Medical Journal, 1901, vol. ii, p. 1425.

was compulsory for third year's students, and it was given by Louis Bruni. Dr. Pietro Morelli was titular professor of the history of medicine at the University of Palermo, and Professor Prospero Padoa was professor *agrégé* at the University of Turin. In 1862-3 Dr. Angelo Camillo de Meis was appointed titular professor at Bologna, and in 1867-8 Dr. Giuseppe Bonomo replaced Dr. Pietro Ramaglia at Naples. For some time between 1870 and 1890 the study of the history of medicine rather languished in the Italian universities in spite of these appointments, but since 1899 it has received a fresh impetus by the selection of Professor Del Gaizo at Naples, Professor Pietro Giacosia at Turin, Professor Dominico Barduzzi at Siena, and Professor Virginio Penzuti at Rome. Dr. Carlo Minati, who died in 1899, was for four years the distinguished emeritus professor of the history of medicine in the University of Pisa. In Denmark Dr. Jul. Petersen has been since 1893 professor extraordinary of the history of medicine in the University of Copenhagen. Dr. A. A. Schrutz has lately been appointed professor extraordinary of the history of medicine at Prague. There is a chair of medical history in the University of Paris, which until 1899 was filled by Professor Laboulbène, but neither England, Germany, nor Holland has as yet any professor of this department of knowledge.

WOMEN AS SURGEONS.

AT the annual meeting of the New Hospital for Women, Euston Road, which was held recently, Sir Thomas Smith, referring to the surgical work done at the hospital, said that the hospital had given women an opportunity of testing their capacity for performing and carrying to a successful issue all the most important operations that were performed on womankind. The result had been that they had gained there a reputation for good surgery They had dissipated all prejudice which existed before, and they had now a sound reputation. At that hospital upwards of 1,900 cases of maternity had been attended. Up to within a short time of that meeting he could have said that among those 1,900 cases there had been no deaths, but in view of that meeting of course a death took place. That death, however, could in no way be connected with maternity. So really they had 1,900 cases of maternity attended from that hospital without a death. He was informed that what was called the normal fatality of those cases was one in 500. That in itself was an enormously improved result compared with what it was before the antiseptic method was introduced. In the aggregate 577 major operations were performed there with a mortality of under 6 per cent. He had been allowed personally to attend the operations in the operating theatre of that hospital, and he had very great pleasure in stating that he had nothing but admiration to express for the great dexterity and celerity with which the operations had been performed. He would not be discharging his duty if he did not refer to the admirable discipline and excellent training of the nurses in the operating theatre.

A COUNTY HEALTH REPORT.

THE eleventh annual report of the Medical Officer for the County of Derby, Dr. Barwise, contains much that is interesting and instructive. In addition to the report for the year 1900, Dr. Barwise has included the vital statistics for the county for the ten years 1891-1900. These statistics have been specially worked out for each district on the population as proved by the last census enumeration. The ten years corrected mortality returns for each district, for the rural districts as a whole, for the urban districts as a whole, and for the whole county are now published for the first time. The sanitary staff of the county consists of 38 medical officers of health and 45 sanitary inspectors, in addition to the county council staff consisting of Dr. Barwise, medical officer of health, and one county sanitary inspector. The county council undertakes for the sanitary authorities the work of the bacteriological diagnosis of disease, and the analysis of water and sewage, and it administers the Food and Drugs Act. The population appears to be decreasing, in spite of a high birth-rate, in the more purely rural districts, while the chief increase is on the eastern borders of the county. The decrease is not due to a high death-rate, for whilst the death-rate of England and Wales has fallen 1.9 per thousand the death-rate for Derbyshire has fallen 2.4 per thousand. Though the case-rate for diphtheria in the county was slightly higher in 1890 than in the previous year the mortality per cent. had fallen from 22.2 in 1899 to 15.5 in 1900. This decrease in the death-rate of the disease is attributed by Dr. Barwise first to the larger number of cases recognized under the bacteriological diagnosis provided by the county councillors, and secondly to the antitoxin treatment having been more generally adopted. A table showing the influence of climatic conditions on diarrhoea gives some support to the idea that there is a general reverse relationship between the rainfall and the amount of diarrhoea—the mortality from diarrhoea being greatest in the years of least rainfall. In common with the whole of England, but in greater degree, Derbyshire shows a satisfactory decline in the death-rate for phthisis during the past ten years. In the north-western corner of the county, where the cotton industry is followed, the amount of phthisis is still considerable, and its incidence is here greater on males than on females, while the contrary condition prevails elsewhere—evidence of the influence of occupation. The geographical distribution of phthisis compared with the geological formation of the various districts shows that the districts with the lowest death-rate from phthisis were the districts on the coal measures. The districts on the mountain limestone show a phthisis mortality above the average. Amongst the leaflets issued by the Medical Officer of Health giving the precautions to be observed in the several infectious diseases, such as measles, scarlet fever, and typhoid, is one on precautions in consumption which is excellent in the brevity of its practical directions.

MYTHOLOGY AND TERATOLOGY.

THE idea that the birth of monstrous human infants was the origin of the deformed deities of mythology is not new, but it is doubtful if the various aspects of the subject have by any means been fully considered. There is much to make us think that, so to say, the gods did not create men but men made the gods, in the sense that in early times the occurrence of a monstrous birth suggested to the people of these early times that their gods, or at least their demi-gods, might have appearances similar to these seen in the deformed products of human reproduction. When therefore we call the one-eyed infant the cyclops fetus, after Polyphemus, the king of all the Cyclopes, we are really in error, and ought to say that Polyphemus owed his existence in the pantheon to the birth of a human (or animal) one-eyed fetus. So much seems fairly certain; but there are several speculations which spring from this generalization, and to some of these Professor Dr. Schatz has referred in a recent address.[1] There is the identification of the monstrosities which gave rise to some of the demi-gods which do not show obvious resemblances to any teratological products; there is the question why certain comparatively common monstrosities do not seem to have suggested any gods at all; and there is the consideration of how far the national character was potent in guiding the choice of the monstrosities to be made use of in constructing the national gods. Professor Schatz touches suggestively upon all these topics from the special standpoint of Greek mythology. His identification of the Siren with the sympodial fetus, of the Centaur with the infant

[1] *Die griechischen Götter und die menschlichen Missgeburten*, Wiesbaden, 1901.

born with two pairs of lower limbs, of the Gorgon head with an acormic placental parasite, of Atlas with the child carrying an occipital encephalocele, and of Janus with the double-faced but single-bodied monstrosity (fetus janiceps) seems exceedingly probable; but whether the Harpy owes its origin to the occurrence of a phocomelous fetus, and whether the birth of Athene from the brain of Zeus was foreshadowed by the birth of infants united by the crania, is much less evident. It may have been that the incident of the vulture tearing at the liver of Prometheus was suggested by the appearance of a fetus with exomphalos, and that the story of the peasants changed into frogs by Latona arose out of the birth of an anencephalic infant with spina bifida; but the evidence is far from conclusive. It is a striking fact that the Greeks in their deity-construction seem to have made no use of such wonder-exciting monstrosities as the acephalic parasites and the various types of united twins—for example, the thorocopagous and dicephalic monstrosities. In attempting to explain the lack of representatives of these teratological types in the Greek pantheon Schatz lays considerable stress upon the national taste which led to the selection of monstrosities which were not in themselves ugly or inartistic. He points out that in the case of the Cyclops fetus there are two types, an ugly one and one which in comparison might be termed pretty; the Greeks took the pretty (!) one for the construction of the god Polyphemus; further, the nose, which in the monstrous infant lies above the single eye, was put in its proper (aesthetic) position under the eye. It would be a most interesting line of investigation to apply this principle of selection to the mythologies of other nations, and more especially to those of the East, and to the gods worshipped by primitive peoples. The results might be of unexpected service in clearing up moot points in comparative mythology and racial folklore. At any rate, if some even of these speculations turn out to be true, it may be said in a somewhat novel sense, *Saepe visae formae Deorum*.

NURSING IN WORKHOUSE INFIRMARIES.

The Workhouse Infirmary Nursing Association convened recently a meeting of guardians and others interested in this question, at which a paper on the Scarcity of Nurses: the Cause and the Cure, was read by Miss Gibson of the Birmingham Infirmary. The paper dealt in an exhaustive manner with the subject, and the difficulties which have arisen since the new Nursing Order of the Local Government Board were handled in a fearless manner. Miss Gibson's long experience in one of the best-managed workhouse infirmaries in the kingdom enabled her to speak of the possibilities of Poor-law nursing under suitable conditions, but, as the paper pointed out, in nine cases out of ten the conditions surrounding the nurse are such as make her work impossible, and to make the situation more hopeless, those to whom she would look for redress are very ignorant on the matter. The remedy suggested by Miss Gibson was centralization of the nursing authority under a Central Board, with co-operation between the larger training schools and the smaller country unions. It was recommended that the number of the former be increased. It is probable that the improvement in Poor-law nursing will come somewhat on these lines; and we trust that the Committee of Inquiry which is now sitting will be in a position to frame some scheme which will bring the existing deadlock to an end. The discussion revealed how much remained to be done before the guardians had accurate knowledge of the merits of the case.

PEARLS AND PARASITES.

At the meeting of the Zoological Society of London on March 4th Dr. H. Lyster Jameson read a very interesting paper on the origin of pearls founded on observations made for the most part on the common mussel (*Mytilus edulis*). The pearls were found to be due to the presence of the larva of a distoma, apparently *D. somatinae* (Levinsen), which is an intestinal parasite of the eider duck, and has been found also by Dr. Jameson in the scoter, or black duck (*Oedemia nigra*). The larva parasitic in the mussel was found to arise as a tailless Cercarian larva, in sporocysts in *Tapes decussatus* and *Cardium edule*, and Dr. Jameson had succeeded in infecting mussels from *Tapes* in an aquarium. The larva enters the subcutaneous tissues of the mussel and became surrounded with an epidermal sack similar in its characters to the outer shell-secreting epithelium of the mantle. If the *Distoma* dies in the sack it becomes calcified, and forms the nucleus of a pearl; the pearl arising, like the shell itself, from the calcification of the cuticle of the epithelial cells. The parasite sometimes migrated out of the sac, in which case the nucleus of the pearl was inconspicuous. The complicated life-history of the parasite, and the absence of organs of locomotion in the *Cercaria* stage, sufficed to account for the anomalous and hitherto inexplicable distribution of pearl-bearing mussels. Dr. Jameson had found that pearls were caused by similar parasites in several other species of mollusca, including some of the pearl oysters; and he believed that the artificial infection of the pearl oysters could be effected in a similar manner to that which he had found successful in the case of the common mussel. When this was achieved, the problem of artificially producing pearls would, he thought, be solved.

MEMORIAL TO THE LATE SIR WILLIAM MAC CORMAC.

At a meeting of the members of St. Thomas's Hospital and Medical School on Tuesday, March 11th, the Treasurer of the Hospital in the chair, it was decided that steps should be taken to institute a permanent memorial of the connexion of the late Sir William Mac Cormac with the institution. A General Committee of the members of the Hospital and Medical School has been formed and already consists of 250 St. Thomas's men. An Executive Committee was selected from this body, empowered to solicit subscriptions, its first object being to arrange for the production of a bust of Sir William Mac Cormac to be placed in the central hall of the hospital. It was further decided that in the event of the amount of money collected being in excess of the sum requisite for the bust, a special meeting of the General Committee shall be called in the future to decide in what manner the surplus shall be applied. The Executive Committee selected consists of the Treasurer of the Hospital, Mr. J. C. Wainwright; two Governors, Messrs. Henry Bonham-Carter and Dr. Du Buisson; the Senior Physician, Dr. Sharkey; the Senior Surgeon, Mr. Clutton; the Dean of the Medical School, Dr. Turney; and four representatives of the School from London and the Provinces, Messrs. T. Wakley, jun., S. Osborn, George Wherry, and G. C. Franklin; Messrs. G. H. Makins and F. C. Abbott will act as Secretaries to the Committee.

EDINBURGH ROYAL MEDICAL SOCIETY.

The annual dinner of the Society was held on March 5th. The guest this year was Dr. Patrick Manson, C.M.G. About seventy members and guests attended. Among others present were the four presidents of the Society—Drs. Wood, J. G. M'Bride, W. Carnegie Dickson, and G. S. Carmichael; also Sir Alexander Christison, Bart.; Sir John Batty Tuke, M.P.; Professors Fraser, Greenfield, Simpson, Patrick, Drs. Halliday Croom, Allan Jamieson, Affleck, Berry Hart, Gibson, Smart, Colonel Rooney, R.A.M.C.; Messrs. Cotterill, Caird, Brewis, Littlejohn. In reply to the toast of the evening (the health of Dr. Manson), given by the Senior President (Dr. Wood), Dr. Manson, in thanking the Society for the honour done him, made an interesting speech. In referring to his work in connection with malaria and mosquitos he modestly disclaimed any

special praise in the matter. It had been his lot to live for many years in a part of the world where opportunities were afforded of studying diseases not usually met with at home. He had been surrounded by abundance of material of great scientific interest, material that had not been much investigated. His regret really was that he had not made more use of his opportunities, and it was this feeling that he had not done as much as he might have done, that induced him to take up the subject of the improvement of education in tropical medicine in order that others might, in the future, be better equipped than he had been to investigate those subjects. In referring to this matter Dr. Manson paid a warm tribute to the help and strong encouragement he had received from the Colonial Secretary, who, whatever his politics might be, was at least a patriot, and who had at once grasped the national importance of training young medical men in this special department of medicine. In emphasizing this point Dr. Manson pointed to the fact that year by year the necessity for expansion tended to force white men to colonize in tropical regions often of the most unhealthy kind. These regions must be made habitable, and it was by the establishment of such schools as the London School of Tropical Medicine, which had been imitated in Liverpool and elsewhere, that this might be brought about. Already in the London School, in the two years of its existence, over two hundred students had been trained and gone abroad. He thought that in addition to advancing knowledge in the pathology and treatment of tropical disease, these schools would also indirectly be a means of advancing pathological science in temperate climates. In conclusion, Dr. Manson, in proposing the toast of the Royal Medical Society, of which he had been made an honorary member, referred to the excellent work already done in tropical research by one of its younger members.

COMMISSION ON ARSENICAL POISONING.

The Royal Commission on Arsenical Poisoning resumed its sittings, after an interval of several months, on March 7th. Lord Kelvin presided, and there were also present Sir William Church, Dr. Whitelegge, and Dr. Buchanan (Secretary). According to the evidence of Dr. Ernest S. Reynolds, of Manchester, there had been practical freedom from arsenical neuritis during the last seven months in the Manchester district concerning which he had personal knowledge. Even the pigmentation, which for years had been ascribed to the irritation of vermin in the pauper class, had greatly lessened. The disappearance during the last seven months of many symptoms formerly believed to be due to alcoholism he could only explain by the elimination of arsenic from alcoholic beverages. It was consequently to be believed that arsenic had been present in alcoholic drinks to a dangerous extent for many years, and possibly from a source entirely independent of contaminated glucose. He had recently seen a case of supposed beri-beri in the wife of a missionary, who was a total abstainer from drinks containing alcohol. Her hair had been examined for arsenic by Professor Dixon Mann, and considerable quantities had been found. The syrup of tinned fruits, of which she had partaken largely, was found to contain merely a trace of arsenic. The idea of arsenic being responsible for beri-beri was a subject well worthy of investigation. Mr. Arthur Angell, public analyst for the County of Hants, gave evidence to show that the roots of plants were able to take up arsenic from soils manured with arsenical phosphates.

THE MEDICAL SOCIETY OF LONDON.

The annual dinner of the Medical Society of London was held on Saturday, March 8th, at the Whitehall Rooms of the Hôtel Métropole. It was attended by about 140 members, and amongst the guests were the Presidents of the Royal Colleges of Physicians and Surgeons, the Regius Professor of Medicine at Cambridge, the Director-General of the Army Medical Service, the President of the Society of Apothecaries, the President of the Royal Medical and Chirurgical Society (Mr. Willett) and Dr. Patrick Manson, C.M.G. Dr. W. H. Allchin, President of the Medical Society, was in the chair, and the dinner was in every way a great success. During the evening the President presented the Fothergillian Medal, which had been awarded to Dr. Manson in recognition of his valuable services in the investigation of tropical diseases. In acknowledging the presentation, Dr. Manson alluded to the important effect on the colonization of tropical regions by Europeans which would be exerted by recent advances in our knowledge and treatment of malaria and allied diseases. He said that the recognition of his work by the Society would be a great encouragement to the able band of investigators who were working at these subjects on the West African Coast and elsewhere. Mr. Alfred Willett replied to the toast of "The Fellow Societies," which was proposed by Mr. Pearce Gould, and the toast of "The Medical Society," proposed by Dr. Allchin, was received with enthusiasm. Mr. Edmund Owen, in a very witty speech, proposed the health of "The Visitors," which was acknowledged by Sir William Church. The speeches throughout were both well delivered and received, and some excellent singing by Drs. McCann and Pope added to the enjoyment of the evening. The Medical Society is to be congratulated on its flourishing condition and on the success of its annual banquet.

ROYAL COMMISSION ON TUBERCULOSIS.

Dr. Louis Corbett and Dr. E. S. St. Barbe Sladen have been appointed by the Royal Commission on Tuberculosis to assist in the experimental work of the Commission to be carried out at Stansted. They will reside at the farms and devote the whole of their time to the investigations of the Commission.

CHELSEA CLINICAL SOCIETY.

The debate on Cancer: its Nature, Origin, and General Principles of Treatment, the first part of which is reported at page 655, will be continued on Tuesday, March 18th, at the Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., at 8.30 p.m. The following gentlemen will speak: Sir William Mitchell Banks, Messrs. Pearce Gould, Mayo Robson, Marmaduke Sheild, and Dr. Barry Blacker. Owing to the number of contributions to the debate that have been promised, the Society has decided to hold a third meeting on March 25th at the same place and hour, when the speakers will be Professor Hewlett, Dr. Gaylord (of New York), Mr. D'Arcy Power, and Dr. J. F. Payne, who will deliver the closing address. A communication from Professor Adami (of Montreal) will also be presented. All members of the profession will be welcomed at these meetings on presentation of their cards.

THE ENDOWMENT OF MEDICINE IN AMERICA.

The example of one pious founder seems often to be contagious. The famous University of Harvard has just had a pleasant illustration of this fact. Not long ago, as was stated in the British Medical Journal at the time, Mr. J. Pierpont Morgan gave a vast sum of money to Harvard for its new medical school buildings: now another millionaire, Mr. Rockefeller, has offered Harvard £200,000 to aid in carrying the project to completion. Mr. Morgan's gift of something more than £200,000 was for the erection of three of the five new buildings as already planned upon the new territory of twenty-six acres which had previously been secured by friends of the medical school for this and kindred purposes. Mr. Rockefeller's gift may, it appears, be used either for buildings or for endowment,

and is accompanied by the stipulation that an additional sum of £100,000 shall be raised for these purposes by other contributors. The New York *Medical Record* states that between £38,000 and £40,000 towards this sum has already been promised, among the large givers being some of the teachers in the medical school itself. Among contributions recently received is one of £20,000 from Mrs. James Stillman of New York, for the endowment of a new professorship of comparative anatomy. Another gift of £15,000 will be used to endow a clinical professorship of some subject not yet announced.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Midwives Bill in Committee.—When Sir James Fergusson took the chair in the Standing Committee on Law on Tuesday at 12 o'clock, he had to wait for some few minutes before the required members to form a quorum were gathered together. When business began Sir Francis Powell was the first to score by a motion to postpone Clause 1. This was done purely on technical grounds as to procedure, and was agreed to without a division. Sir Walter Foster next moved to add in Clause 2 after the word midwife the words "nurse midwife" so as to include within the scope of the Act all persons in attendance on the sick poor during childbirth. There was a short business-like debate on this proposal which was in the end rejected by 21 to 7. Mr. Parker Smith next moved to add after "Act" in the first subsection the words "or is a person specially qualified to practise midwifery." There was a long debate on this amendment, but in spite of the opposition of the promoters of the Bill the words were added by 19 votes to 12. Mr. Griffith-Boscawen next moved words to prevent any woman attending women in childbirth "habitually and for gain" unless certified under the Act. This was resisted very stoutly, and in spite of some earnest arguments the proposition was rejected by 25 to 8. Dr. Ambrose essayed afterwards to put in a penal clause, but the Committee were strongly against it, and it was negatived. Sir John Tuke then carried by 21 votes to 10 a new subsection limiting the power to recover fees for midwifery attendance to women certified under the Act. Mr. T. P. O'Connor, who took an active part in the work of the Committee, next sought to prevent any woman certified under the Act representing herself to be an independent midwifery practitioner. There was a strong disinclination to accept this amendment, and finally it was withdrawn and Clause 2 was passed. On Clause 3 there was a long and somewhat heated discussion on a motion by Mr. T. P. O'Connor to leave out lines 4 and 5, which recognize certificates in midwifery given by the Royal College of Physicians of Ireland and the Obstetrical Society of London. The promoters of the Bill stuck most tenaciously to the Obstetrical Society, for it was on the retention of its certificate that the dispute centred. Finally, after the sitting had been extended till 3.30 by leave of the Speaker, these certificates were retained by 17 votes to 8. There was an amusing episode in the course of the controversy. Sir Walter Foster, in pointing out that in the two years of grace accorded by the Clause the Obstetrical Society would be able to qualify many midwives, illustrated his argument by a reference to the action of certain Scotch universities during the years of grace before Medical Act of 1858 came into force. This brought up Sir John Tuke in a warm defence of his universities, and the Committee were much amused at the friendly dispute between the medical members. Sir John Tuke next tried to obtain the same rights as those conceded to the Obstetrical Society for other bodies granting certificates of competency to midwives. He was earnestly supported in this attempt by Mr. John Dillon, who pointed out the absurdity of leaving out the Rotunda Hospital of Dublin, which he said was regarded as the best training school for midwifery in Europe. The resistance of those in charge of the Bill, however, prevailed, and the recognition of additional certificates was rejected by a large majority. Finally, Clause 3 was passed with a verbal amendment, and the Committee agreed to meet half an hour earlier—namely, at 11.30—on Friday, in order to get on with the Bill.

The Examination of Recruits for the Imperial Yeomanry.—Dr. Farquharson on Tuesday asked the Secretary of State for War whether the enlistment of the Imperial Yeomanry was carried out by officers of the R.A.M.C. or by private practitioners, and whether a circular was issued to the effect that there was no need to reject men for minor defects, and whether these instructions were seen and sanctioned by the Director-General of the Army Medical Department. Mr. Secretary Brodrick, in reply, said that in consequence of the number of officers of the R.A.M.C. in South Africa and abroad, local practitioners had been employed, and instructions were issued to modify the requirements if the men were found free from all disease that would be likely to interfere with the efficient performance of duty. He was unable to learn whether the instructions had been sanctioned by the late Director-General.

Army Estimates.—In the debate on the votes for money and men last week some valuable points as to recruiting and rations were raised. Dr. Farquharson, in an interesting speech, contended that the increased pay to soldiers would not enable the Secretary of State to compete in the skilled labour market. One reason why recruits were not plentiful at present was that the Imperial Yeomanry were being paid 5s. a day. He considered that the examination of recruits was a most important task, and ought to be placed in the hands of men of special experience. He argued in favour of small men as compared with tall men, and contended that they were less liable to break down from various causes, especially from heart troubles. Instead of increasing the pay it would be better to feed the soldier more generously, to care for him more wisely, and to teach him some useful trade. Sir Charles Dilke also made some useful remarks on the food of the soldier, and said that it compared badly with the naval canons laid down on the matter. He also quoted Dr. Haldane's statistics on the point, and strongly argued that the present standards of food and comfort were not sufficient to attract the men needed.

Children in Workhouses.—In answer to a question on Monday last, the President of the Local Government Board stated that there were at the end of last year 651 children under 3 years of age in the metropolitan workhouses. The returns for the two previous years did not show the number under 3 years, but the number of children under 2 years of age in these institutions at the end of 1899 and 1900 was 501 and 512 respectively. He had no information as to the number of deaths under 3 years of age.

Enteric Fever in South Africa.—In reply to Sir Walter Foster, the Secretary of State for War said that during the month of December last the admissions for enteric fever among the forces in South Africa were 1,507, and the deaths were 224. The figures for January were not yet complete. He also stated that the report of the Expert Commission appointed in August, 1900, to inquire into the causation and modes of prevention of dysentery and its connexion, if any, with enteric fever had been received, and would be printed for the use of members of the House.

Small pox in Bethnal Green. In reply to Sir Mancherjee Bhownagree, the President of the Local Government Board stated on Monday that 136 persons had been reported to the Medical Officer of Health for Bethnal Green as suffering from small-pox during January and February. Thirteen were found not to be cases of the disease. The particulars as to vaccination were as follows: 31 were unvaccinated, of these 12 died; 4 were vaccinated children under 13, of these none died; 76 were persons above 13 who were stated to have been vaccinated in infancy, of these 7 died. The medical officer had no information as to the vaccination of the remaining 12 cases.

THE MIDWIVES BILL.

[SPECIAL REPORT TO THE BRITISH MEDICAL JOURNAL.]

THE STANDING COMMITTEE ON LAW OF THE HOUSE OF COMMONS.

THE Standing Committee on Law met on Tuesday, March 11th, under the Chairmanship of Sir JAMES FERGUSSON. Out of eighty-five members constituting the Committee only about thirty were present.

On the motion of Sir FRANCIS POWELL, Clause 1 was, as a matter of order, postponed.

Sir WALTER FOSTER said that it would be a good thing to really understand at the commencement of their proceedings what was proposed to be done in regard to the term midwife, which was used throughout the Bill. He proposed to insert after the term midwife the words "or nurse midwife." In the debate in the House of Commons there was a good deal of talk by some speakers with reference to Mrs. Gamp and Mrs. Harris. These ladies, who were famous in English literature, were not touched by this Bill, and were absolutely outside its scope. If they were to do this work thoroughly they ought to bring in all classes of women, because that particular class was a source of public danger. The Bill limited itself to the term midwife, and touched only the small class of women who were engaged in that work properly certified; if they took the public generally they would find ten women who were really only monthly nurses to every one woman who was a midwife, that was, who was properly trained and certificated. The Bill would only touch these latter women, the others would go on with their practice just as they liked, and these were the women who were really responsible for the fatalities attending childbirth. If the Committee were going to do the work merely in a piecemeal fashion they had better keep to the word midwife, but if in the interests of the poor they were going to include all these women they must use a term to bring in the larger class that otherwise would not be touched by the Bill, and who would continue their dangerous practices.

Mr. HEYWOOD JOHNSTONE asked the Committee not to accede to the amendment. The Bill dealt with midwives and not with nurse midwives nor with midwifery nurses. It might be perhaps desirable in the interests of the public health that every person who attended upon a woman in childbirth should be registered and qualified, but they could not do that at the present time, nor could they experiment in that direction. They could only proceed by steps; they had been something like ten years getting as far as the present position. He would ask the Committee not to take the first step towards overloading the Bill and so preventing it passing through the House; they had designedly made it a modest measure so as to enable it to pass.

Sir BARRINGTON SIMEON asked if the Bill was one merely to protect the title of midwife or was it a Bill to protect parturient women.

Mr. HEYWOOD JOHNSTONE said that it was a Bill to protect parturient women in the same sense that all persons requiring the services of a medical man were protected by the power of distinguishing between qualified and unqualified practitioners.

The amendment was then put to the vote and lost.

Mr. PARKER SMITH moved the following amendment:

Clause 2, page 1, line 12, after "Act," insert "or is a person specially qualified to practise midwifery."

He said that the scheme of the Bill was to put the same emphasis on the word midwife that was put on the word doctor or dentist. The Bill did not propose to put a penalty on any woman who practised midwifery for gain, but it was proposed to defend the public by letting them know by the brass plate on the door what women were to be relied on for doing the work of a midwife; the reasonable line to pursue was that which had been laid down in previous Acts, namely, that no woman was to be allowed to use any title which implied that she was a person specially qualified to practise midwifery unless she were duly certified. He did not think that if the word nurse was put on a woman's door that would mean she was specially qualified to practise midwifery, but he thought that no woman should be entitled to call herself obstetric nurse or nurse midwife unless she registered under the Bill.

Mr. HEYWOOD JOHNSTONE said that his only objection was that it would render the clause rather cumbrous by bringing in another sentence. He did not think the words were necessary, and although they appeared in the Dentists Act, it was rather difficult to know what particular meaning they would convey in the Bill before them. Who was to decide, supposing there was a criminal prosecution, that a person against whom proceedings were taken had used some title or description representing that she was a person specially qualified to practise midwifery? They were dealing with a penal clause, and it was desirable that the words should be simple and few, and leave as little room for mistakes as possible. The words "recognized by law," used in the second clause of the Bill before them, were taken directly from an Act dealing with a kindred subject, and well understood. He thought that it would be recognized that the words proposed would be needlessly adding to the length of Clause 2.

Dr. AMBROSE said that he did not see that Mr. Johnstone had replied to the proposed amendment. He took it that the amendment was to protect still further the poor who were attended by midwives, and he saw no harm at all in the insertion of the words. The clause would be rendered stronger by the addition.

This amendment was put to the vote, and was carried by 19 to 12.

Mr. GRIFFITH-BOSCAWEN proposed as an amendment:

Clause 2, page 1, line 16, after "shall," insert "habitually and for gain attend women in childbirth or shall"

He asked if the Bill was merely to confer a sort of legal sanction on certain amateur certificates which were now granted by various associations. The object of the Bill should be to put an end to the frightful amount of preventable disease which occurred in childbirth. In order that that terrible evil might be dealt with it was necessary that the women concerned should be prohibited from practice altogether. He had gathered that that was the object of the promoters of the Bill from a circular he had received from the Association for the Compulsory Registration of Midwives which said there was no legislation in England to control their training or practice. There was nothing in that Bill to prevent ignorant women from practising midwifery. The Bill would merely grant certain certificates to what he might call the better class of midwives, and it left all the ignorant, dirty, and dangerous women to continue to practise in the future exactly as they were doing now. Instead of striking a blow at the people who were doing the harm, the Bill was merely giving a certificate to those who were qualified to do the work. They did not want a Bill merely granting certificates to certain persons, they wanted a Bill that would stamp out Mrs. Gamp altogether. They ought to do in that Bill what was proposed in the last—namely, determine that no woman who was not properly trained and certificated should habitually and for gain practise midwifery. Why had that most radical change been made in the Bill? They had been told that objections were made by certain Government offices, but he contended that the legislation of the people should not be entirely conducted by Government offices. If the House of Commons thought that to deal thoroughly with the midwives question certain enactments were necessary, it was for the House of Commons to pass the enactments, and for the Government offices to see that they were carried out. They had been told also that his proposal was contrary to precedent in the case of the Medical Acts, the Dentists Acts, and other Acts, but the cases were not exactly the same, and if it had not been found necessary in those cases to make that enactment he ventured to think that considering the evil in the present case it was necessary that that stringent provision should be made. They were told by Sir Michael Foster that the proposed certificate would be quite sufficient in itself to prevent people from employing ignorant women, because they would know that one woman had a certificate and the other had not. That was not the case at the present time, because there were qualified midwives now at work, and yet the poor people chose unqualified women because they were cheaper; they did it at their own peril, but that was the cause of disasters. It might be said if there was danger

arising from unqualified midwives, Why did the people not go to doctors? and the answer to that was that the unqualified midwife was cheaper. Under the provisions of that Bill the unqualified woman would do her work much cheaper than the qualified woman, and there were the strongest grounds for saying that, unless it was made penal for unqualified women to practise, the condition of things would remain the same as before.

Mr. T. P. O'CONNOR thought that it was a distinct defect in the law that the public were not more protected from the quack, but the law was that the quack could be consulted by any one who pleased: if the public preferred a bonesetter to a regular qualified surgeon they had a right to go to him. His first objection was that the amendment would introduce in regard to a class of inferior medical practitioners a principle which had not yet been recognized in connexion with a much more responsible body of practioners, namely, physicians and surgeons. He acknowledged that the Bill was piecemeal, but if it was passed into law the new class of certified midwives would take a considerable time before it became numerous; it might become in a few years in a large city like London sufficient for the demand; but what would be the effect in the small towns and villages? The passing of the proposed amendment would mean that in many parts of the country there would be no women whatever to attend women in confinement—might perhaps mean that in a village there would be only one midwife certified under the Bill, and she would have a monopoly in her favour and could charge what she liked. The proposal was premature, and they had better wait till the Act had been in existence for some years.

Sir JOHN TUKE explained that under the Bill any existing midwife of respectable character could in the next two years become registered, and surely there was a sufficient number of them to supply the demand. The amendment was adopted by the Standing Committee in March, 1900, and he concluded by quoting a case of a man who was brought up before the courts and punished for acting and pretending to be a solicitor.

Captain NORTON asked what was going to happen to the unfortunate mothers during the next two years.

Mr. HEYWOOD JOHNSTONE said that he must ask the Committee not to accept the amendment. The insertion of the words would mean the ruin of the Bill. The objections were that the words were entirely contrary to parliamentary procedure and practice in all kindred matters. In the Medical Act of 1858 it was recited that it was expedient that persons should have the power of distinguishing between those in practice who were qualified practitioners and those who were not. That Act did not make unqualified practice penal, and did not forbid it, but it simply imposed a penalty on the persons who pretended that they were qualified. From the day of the passing of the Medical Act of 1858 when that principle was laid down by Parliament, the General Medical Council had sought to make unqualified practice penal. He found in February of that year an article in one of the leading medical papers in which it was said that the omission to penalize unqualified practice was a great defect in the Medical Acts, and that it was most desirable that it should be amended. He considered that the proposed amendment before them was the thin end of the wedge, and if it were passed the House of Commons would be soon asked to amend the Medical Act so as to make unqualified practice penal. The speaker then proceeded to quote the views of the late Sir William Priestley, and urged that an amendment such as that proposed was entirely contrary to the general current of legislation, contrary to the Medical Act, contrary to the Dentists Act, and contrary to the Veterinary Act, the recital of which followed almost exactly the words of the Medical Acts, and showed that the principle of the Act was that there should be power to distinguish between qualified and unqualified practice. If the proposed amendment was passed it would interfere very greatly with the help that might be afforded by a friendly neighbour in an emergency during a midwifery case, for in these matters the poor were very easily frightened, and would simply refuse to do anything at all.

Sir WALTER FOSTER said he had been acquainted with the General Medical Council for a long time, but he had never known that Council to take steps to put down unqualified practice in the sense referred to by Mr. Heywood Johnstone. The Midwives Bill proposed to give the same advantages that were granted to the medical profession to a small section—about one-tenth—of the women engaged in midwifery practice. The Bill was designed to protect a small class of certified midwives, whilst the whole class of monthly nurses who produced an enormous amount of harm were left untouched, and no protection was afforded to the public. He considered that the penal clause should be inserted in the Bill; registration in itself was no protection: it was no protection against quacks. To take the case of the herbalists: these men had societies and organisations, and were quite outside the power of the General Medical Council: but the public consulted these herbalists, and, in his opinion, showed a considerable amount of courage in doing so. It was clear that where the public could not judge for themselves, it was the duty of the State to step in and prevent their being beguiled and deceived. He believed that the Bill would be useful, and would aid in saving life among the poor if it provided some means of protecting them from unqualified practice. It was asked what would happen to the country districts, and the answer was that nothing would happen, for the reason that all those women were now carrying on midwifery practice would be immediately put on the register, and would go on with their work. The amendment would protect the public against incompetent, dirty, and unqualified persons, who were a great danger to the State.

Mr. SCHWANN said that if the amendment were carried it it would cause considerable opposition to the Bill in the House, because the amendment was contrary to the spirit of legislation already enacted for medical men and dentists.

Sir MICHAEL FOSTER said that in spite of the strong assertions to the contrary he still maintained the opinion that he had expressed, that the operation of the Bill would eventually very largely diminish, almost to extinction, the class of women they all desired to put down. He knew the conditions of country practice in that matter because he had practised midwifery himself for some six years, and he believed that without calling into operation any penal clause, that Act would produce the required result. A penal clause was not necessary, and his opinion was that a penal clause should never be enacted unless when absolutely necessary. He would not support the amendment because he did not consider there was any necessity for it.

Sir FRANCIS POWELL said that from what he had heard and from researches he had made with reference to other Acts, he considered that it would be best to omit the penal clause. The Medical Act was only an enabling measure, and he thought in that matter they should proceed tenderly.

Upon a vote the amendment was lost by 25 to 8.

Dr. ROBERT AMBROSE proposed the following amendment:

Clause 2, page 1, line 18, after "aforesaid" insert "or any woman who being licensed under this Act, shall employ as a substitute at any child birth any person not licensed under this Act, shall be liable on summary conviction to a fine not exceeding five pounds; provided always, that nothing in this Act shall apply to any person or persons attending a woman during labour in a case of emergency until the services of a person licensed under this Act, or of a registered medical practitioner, are available."

After a few words from Mr. HEYWOOD JOHNSTONE, this amendment was negatived without a division.

Sir JOHN TUKE proposed the following:

Clause 2, p. 1, line 31, at end add

6. No woman shall be entitled after January 1st, 1905, to recover any fee or charge for attendance as a midwife unless she is certified under this Act.

He said that the reason for moving the amendment was that it was a matter of justice to the certified midwife.

Mr. PARKER SMITH said that it would be an inducement to the women to get registered. It was clear that the same privilege should be given to certified midwives as to recognized doctors or dentists. The State naturally left people at liberty as to whether they would go to a qualified practitioner or to a quack, but he did not see why the State should give special facilities to the uncertified midwife to recover her fees.

Mr. HEYWOOD JOHNSTONE said it must be apparent to all that by passing the amendment they would disentitle a woman from recovering a fee for doing what was a perfectly

legal act. Any woman, although she might not be a certified midwife on the register, was entitled to attend her neighbour: and if she was doing what she had a right to do and what was perfectly legal, what reason was there why she should not recover her fees?

Mr. Griffith-Boscawen said that the amendment met the views of those who wished to make the Bill useful, and it would place the registered midwives in a better legal position than the unregistered women; if the Committee did not pass the amendment they were encouraging unregistered women by putting them in a position to recover fees equally with the registered midwives.

Upon being put to the vote, this amendment was carried by 21 to 10.

Mr. T. P. O'Connor moved the following:

Clause 2, page 1, line 31. At end to add as a separate Subsection, "No woman certified under this Act shall represent that she is to be regarded as an independent practitioner of midwifery."

He said that, on analysing the opposition of the medical profession to the Bill, it was found that the very basis of the opposition was that the Bill was said to create a class of midwives who would usurp the functions of medical men to the disadvantage of parturient women. The answer to that was that the Bill provided that the midwife should act only in perfectly easy natural normal labours, but he did not think that they could too strongly impress on the midwife that her functions were only those of a better class Mrs. Gamp.

Mr. Cohen said that the safer course would be not to accept the amendment.

Mr. Heywood Johnstone said that he had not the faintest idea what the amendment aimed at or what it meant, and further he could not see what it would do.

Sir Walter Foster said he would proceed to enlighten the last speaker. All midwifery Bills had proceeded on the line that midwives should be limited in their practice to cases of natural labour. It was in the interests of the public that when there was abnormality and disease that the doctor should be summoned; it was to bring home to the minds of these midwives this important fact that this amendment was brought forward, with the object that these midwives should not be regarded as independent practitioners of midwifery. Under the Poor-law administration of the country guardians allowed midwives to attend the poor who were in receipt of relief, but they did not allow it to occur without the knowledge and consent of the parish doctor.

Mr. Emmott considered that the amendment would not be of any use.

Sir Michael Foster said that it was very difficult to know what judges would make of any Act of Parliament, and he could not tell whether the words of the amendment would be considered by them as valid or not.

Mr. T. P. O'Connor said that rather than give rise to any litigation he would withdraw his amendment.

Sir John Tuke moved the following:

Clause 3, page 2, leave out lines 4 and 5.

The words proposed to be omitted provided that any woman within two years from the date of the Act coming into operation could claim to be certified if she held a certificate in midwifery from the Royal College of Physicians of Ireland or from the Obstetrical Society of London. To mention the two bodies in the proposed Bill was invidious, and inferentially a standard for examination would be set up by this clause.

Mr. T. P. O'Connor said that the Obstetrical Society of London was a private society of medical men practising a certain branch of medicine. He wanted to lave the full responsibility for the working of that Act to the Central Midwives Board. Why was an exception made of these two bodies, they were not the only bodies that granted certificates. Why should the Royal College of Physicians of Ireland, which did not at the present time grant certificates be mentioned?

Mr. Heywood Johnstone said that there were many women who held the certificate of the Obstetrical Society, who were not now in actual practice, but he thought that they would be doing something to attract these women to put their names in the register, and so set an example to their less educated and humbler sisters. He thought that they ought to recognise the work which the London Obstetrical Society had been doing for thirty years. It had been doing the work which in future would be done by the Central Midwives Board. It consisted of 668 Fellows, and gathered together all medical practitioners who were interested in the practice of midwifery and were best qualified to speak on the subject. Since 1872, when the Society took up the work at the instigation of the General Medical Council of examining midwives and giving certificates of their own it had examined 7,500 women, and at the present time there were on the register 6,527. Last year the Society examined 987 candidates, and the number had grown every year. Its work ought to be recognized, the merits of the Society ought to be acknowledged, and the 6,527 persons on its register would form an excellent nucleus for the new body of midwives.

Sir Walter Foster said that it was the first time he had ever known it proposed that an Act of Parliament should be used for the purpose of giving a testimonial to a society. The proposed amendment would not do any injury to the Society, and would not prevent the 6,527 women on its register being accepted by the Central Midwives Board. The Central Midwives Board was a body which they ought to trust, and in doing so no detriment would be received by the Obstetrical Society. He objected to the advertisement of that Society, which after all was a junior society, and not very important. He did not want to select any society that ought to have such a right. If, however, anyone cared to inquire about the facts, it would be found that the Rotunda Hospital had been granting diplomas long before the Obstetrical Society was ever thought of. The Rotunda Hospital had supplied Ireland with a large number of admirably qualified midwives. If any women had a right to come on the register they had. When that matter had been before the General Medical Council it had been a matter of discussion whether the Obstetrical Society was not really doing a certain amount of harm, not by educating midwives, but by the midwives using the certificates of the Society in some cases for improper purposes. If the amendment were not carried, any of the women who had improperly used the certificate of the Obstetrical Society might force themselves on to the register. No undesirable person should ever have the right to force herself on the register of the Central Midwives Board.

Mr. Schwann said that not to retain the name would be an injustice to the Obstetrical Society. The compliment should be paid because it had done such good work for so long a time. The test applied to these women by the Obstetrical Society was often more severe than that required from medical students in connexion with this class of work.

Mr. Griffith-Boscawen said that if they had any confidence in the Central Midwives Board, why did they tie their hands behind their backs, and lay down that a certain examination, a certain amount of training, and a certain number of cases would be regarded as sufficient? If they laid down that standard it would be difficult for the Midwives Board to make the training stricter in the future. They were limiting the power and curtailing the influence of the Midwives Board. Mr. Heywood Johnstone had in his speech simply praised the Obstetrical Society, but had not answered the question in regard to the Royal College of Physicians of Ireland not granting any certificates in midwifery at the present time.

Sir Barrington Simeon said that Mr. Heywood Johnstone considered that it would be invidious to leave out the name of the Obstetrical Society. He would ask why was it more invidious to leave it out than to put it in.

Mr. Parker Smith did not think that the clause bound the hands of the Central Midwives Board. With regard to the certificates of the Royal College of Physicians of Ireland, if they were nor being given, or were of no more importance than Mr. O'Connor had suggested, he did not see why the name of that body should be kept in the Bill.

Dr. Ambrose said that if the Obstetrical Society were mentioned the other institutions in the United Kingdom should be mentioned or all left out.

Sir Michael Foster said that the clause only referred to two years. The Committee was pledged to the fact that the certificates of the Royal College of Physicians of Ireland and the Obstetrical Society of London should be accepted by the

Central Midwives Board; after that the Central Midwives Board would form their own standard. It was only for two years, and it was desirable that the large number of persons who had received certificates from these two bodies should be at once accepted and placed on the register.

Sir Walter Foster explained that what he complained of was that the Bill gave a statutory right to the licentiates of the Obstetrical Society to be placed on the register. Those two years formed a period during which the character of the midwives register would be gauged. No statutory right should be granted to every licentiate of the Obstetrical Society to go on the register, because some of those women were not fit or proper to be placed on the list, and the register should be kept quite pure. The Central Midwives Board should have the right to approve or not of any candidate for the register. The amendment would guard them from a danger that was not imaginary, and it did not take any rights from any Society that had been doing good work.

Mr. John Dillon said that the reference to the Obstetrical Society was a pure advertisement. If they were to mention any institution whose certificate was thus to have a special advertisement, they could not pass over the Rotunda Hospital. They ought not to give an advertisement in an Act of Parliament to the Obstetrical Society as a body superior to the Rotunda Hospital.

On being put to the vote the amendment was rejected by 18 to 9.

Sir John Tuke moved that the names of the following institutions should be added to the clause after the names of the Royal Colleges of Physicians of Ireland and the Obstetrical Society of London: The Queen Charlotte Lying-in Hospital, London; the Manchester Maternity Hospital; the Lying-in Hospital, Birmingham; the Liverpool Hospital for Women; the Royal Maternity Hospital of Edinburgh; the Glasgow Maternity Hospital; the Coombe Lying-in Hospital in Dublin; and the Rotunda Hospital.

Sir Michael Foster said that the names brought forward were the names of hospitals. The two bodies mentioned in the Bill were societies with no interests in any particular institution.

Mr. T. P. O'Connor referred to the training received by the midwives at the Queen Charlotte's Hospital.

Mr. Heywood Johnstone said that the women were trained there but not examined.

Mr. T. P. O'Connor said that surely training in a proper hospital was just as efficient as an examination by a society. He contended that the preference given by Mr. Heywood Johnstone to the two institutions named in the Bill was ridiculous and fantastic. There were a score of institutions which were just as good as those mentioned.

Mr. Dillon said that they were asked to decide that the certificates of the two bodies named were superior to those given by any other society. It was pointed out that the Obstetrical Society was only a private society granting its certificates merely upon examination. He personally would greatly prefer a certificate which was granted for training and examination. But if any choice had to be made he would prefer to trust to the certificates given upon training.

Mr. T. P. O'Connor said that Mr. Heywood Johnstone had stated that there was no examination of the women trained at Queen Charlotte's Hospital, but he had just been assured that no certificate was given at that hospital without an examination.

Dr. Ambrose said that, during the two years, hundreds of women would be driven to go to those two bodies for certificates.

Sir Walter Foster said that the two years were practically years of grace. Nothing lowered the tone of a register more than years of grace. At the time of the passing of the Medical Act of 1858 no particular corporation or college was named, and it simply led to ship loads of gentlemen going up from London to certain universities in the North and coming back full-blown doctors of medicine with the right to be registered, and hundreds got on to the *Medical Register* in that way.

Sir John Batty Tuke said the assertion was absolutely unfounded.

Sir Walter Foster said that he knew what he was talking about. He had himself been invited to go to one or two of those universities. The period of grace opened the door to that kind of thing, and the Bill would give to the two bodies named in the measure an advertisement which would pay them very well. They would get hundreds of applicants for their diplomas, because the Bill would put them at the head of the list.

Sir John Batty Tuke said that he trusted he might be allowed to say that what Sir Walter Foster had stated in regard to some of the universities in the North was without foundation.

Sir Walter Foster said that Sir John Tuke was denying a historical fact.

The amendment was then put to the vote, and lost by 17 to 8.

The Committee then adjourned till Friday, March 14th, at 11.30 a.m.

EDINBURGH (LOTHIANS AND FIFE) BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Dr. Norman Walker informs us that a copy of the following statement has been sent to all members of the Standing Committee on Law:

Statement.

The Edinburgh Branch of the British Medical Association some years ago appointed a Standing Committee to watch over the question of midwifery legislation.

This Committee in its several reports to the Branch has always insisted that improved training and education of midwives, rather than complicated schemes of registration, should be the object of legislation.

With regard to the Bill now before the Standing Committee on Law the Committee are of opinion that the undernoted amendments are essential if the Bill is not to do infinitely more harm than good:

1. In Clause 2, Subclause 2, after the word "aforesaid" the following words should be inserted, "or shall habitually and for gain attend women in childbirth."

2. In Clause 3 the words "from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be," should be deleted.

3. Clause 4.—The Committee urge that Clause 6 of the Bil prepared by the British Medical Association should take the place of this clause. Alternately, as amendments to Clause 4. they submit (*a*) that all members of the Board should be duly qualified medical practitioners (male or female); (*b*) that the rules should be subject to the approvement of the General Medical Council; (*c*) that the Council of the British Medical Association, and not the Incorporated Midwives Institute, should nominate a member; (*d*) that a proportion of the members should retire every three years, and should not be eligible for re-election for a period.

4. On Clause 5.—That the fee payable by the candidate shall be 1 guinea. It is not possible adequately to examine candidates at 10s. per head.

Clause 8. *Local Supervision.*—The Committee submit that adequate supervision of the practice of midwifery by midwives can only be exercised after consultation with a medical practitioner.

Clause 10.—The Committee submit that the annual licence which was required in the last Midwives Bill is greatly to be preferred to the novel system of notification. They also are of opinion that, seeing no penalty is attached to the habitual practice of midwifery by unqualified persons, the penalty of a fine not exceeding £5 would be inoperative.

Clause 13.—The Committee submit that the use of the word "may" in this clause will admit of the same scandals arising as in the case of antivaccination Boards of Guardians.

Clause 17.—The Committee submit that the General Medical Council should not, in a matter of public importance such as this, be split up into sections.

D. Argyll Robertson,
President of the Branch.
Norman Walker,
Convener of Committee.

Vaccination Upheld by Homœopathists. At a recent meeting of the Boston Homœopathic Medical Society a resolution was passed opposing any change in the law regarding compulsory vaccination.

THE PREVENTION OF CONSUMPTION.

WORCESTERSHIRE.

THE Worcestershire County Consumption Hospital Committee has just received a very generous offer from Mr. Dangerfield, of Bilston. The offer, which has been made through Alderman E. J. Bigwood, consists of the free use for a period of five years of a residence and 30 acres of land for the purposes of a hospital for consumptives. Dr. Dixey, Chairman of the County Consumption Hospital Committee, and Dr. Fosbroke, the County Medical Officer, have inspected the site, which meets with their approval, and there is little doubt that Mr. Dangerfield's generous offer will be accepted.

CONTRACT MEDICAL PRACTICE.

THE TEVERSAL COLLIERIES.

THE *Notts Free Press* of February 21st reports a meeting of the miners working at the Teversal Collieries, convened to hear an address from the Notts miners' agent, Mr. J. G. Hancock. In the course of his remarks he contrasted the position of the Miners' Association at the present time with its position thirteen years ago. Financially its balance then was a little over £80, while at the present time they possessed to their credit £90,000. The Association had had also a powerful effect in advancing the wages of the men, who were now being paid by the colliery proprietors 60 per cent. more than previously. This is interesting reading for medical men in the Teversal district. The very miners now enjoying an increase of 60 per cent. in their wages are the same men who in 1896 reduced their club doctors' salary by 1s. a head per annum, and in 1901 dismissed them when they refused to attend their wives in confinement at a rate 50 per cent. below that current in the district.

This is to be commended to those who imagine that clubs and associations of working men are always ready to treat fairly their medical officers. The truth is often the other way. Working men are frequently most tyrannical; it may be on account of the tyranny they have been compelled to put up with in the past. If so they now return it with interest to those who come under their influence. Argument appears not to effect much, and it would seem that if the medical profession wants justice it must fight for it, and by strong combination show the workmen's associations that it is able to follow their example and to compel the justice which would not otherwise be given.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending February 15th the deaths from plague for all India amounted to 12,675. This is a substantial decrease upon the number of the previous week, when 15,765 deaths were recorded.

In the city of Bombay there was a slight increase in the number of plague deaths during the week ending February 15th as compared with the week ending February 8th, the figures standing at 568 and 549 respectively. During the corresponding week of 1901 the plague accounted for 923 deaths, so that the present outbreak is less virulent and widespread than during the previous year.

In the Bombay districts the plague deaths during the week ending February 15th numbered 3,850, against 4,676 during the previous week; in Bengal during the same period the deaths from plague numbered 738, against 953; in the North-West Provinces and Oudh 1,506, against 1,526; in the Punjab 4,113, against 5,329; in the Madras Presidency 514, against 562; in Mysore State 611, against 576; and in Kashmir (Jammu) 500, against 479.

EGYPT.

According to a Reuter's telegram dated Cairo, March 10th, there were 12 fresh cases reported in Egypt and 4 deaths from the disease. The cases and deaths were distributed as follows: 1 case and 1 death at Tantah; 1 case at Abusir; 2 cases and 1 death at Nahtai; and 8 cases and 2 deaths at Kom-el-Nur (Mit-Ghamr). The total number of cases during the present outbreak of the disease is 329, of which number 196 persons died.

MAURITIUS.

During the week ending March 6th 19 fresh cases of plague were reported in Mauritius, and 5 deaths from the disease.

CAPE OF GOOD HOPE.

During the week ending February 8th no fresh cases of plague were reported in Cape Colony. One coloured male died of the disease during the week.

THE CRUSADE AGAINST SYPHILIS.—The league against syphilis, recently started by Professor Fournier under the title of Société de Prophylaxie Sanitaire et Morale, at its last meeting adopted a resolution to the effect that it is desirable that instruction should be given in schools to boys above the age of 16 on the dangers of venereal disease. Such instruction might be given in a yearly lecture, delivered either by one of the masters, or preferably by a medical man. It was further recommended that a leaflet of instructions on the subject should be given to each boy.

SUCCESSFUL VACCINATION.—Dr. P. L. Benson, Steeple Claydon, Bucks, has obtained the Local Government Board grant for successful vaccination for the eighth time in succession.

ENTERIC FEVER AMONG PRISONERS OF WAR IN CEYLON.

WE have received from Mr. Allan Perry, D.P.H., Principal Civil Medical Officer, Ceylon, a report communicated by permission of His Excellency the Right Honourable Sir J. West Ridgeway, G.C.M.G., K.C.B., K.C.S.I., Governor of Ceylon, which supplements the information contained in the paper by Lieutenant-Colonel R. H. Quill, R.A.M.C., published in the BRITISH MEDICAL JOURNAL of February 15th, 1902, p. 383.

Mr. Perry states that prisoners of war commenced to arrive in Ceylon on August 9th, 1900, and subsequent batches followed until 5,000 eventually landed. The main Prisoners of War Camp is at Diyatalawa, which possesses an excellent climate, and is about 4,140 feet above mean sea level. It was at this camp that the epidemic occurred, and it was here that all prisoners of war in the first instance were sent.

History of the Outbreak.

The first case occurred in the person of H. C., who arrived by the transport *Bavarian* on September 9th. He reported sick on September 21st, and said he had been feeling ill for ten days previously.

The second case was that of Lucas K. who arrived by the transport *Dilwara* on the 8th September and who reported sick on September 28th with the disease well advanced.

The third case was P. T. P. who arrived by the *Ranee* on September 2nd and who reported sick on October 6th, having felt ill for some days.

The fourth case was that of A. K. who arrived by the *City of Vienna* on September 22nd.

The diagnosis of these first cases and of doubtful ones subsequently was confirmed by Widal's test. All arrivals were medically inspected before being sent to Diyatalawa and the sick separated from the healthy; among the sick were 6 cases of enteric fever which were admitted into the Colombo hospitals.

Working out the probable dates according to the generally accepted period of incubation, as to when the men first attacked at Diyatalawa contracted the disease, Mr. Perry considers that it is clear that the first case was infected before arriving in Ceylon, and that the three others mentioned above were most probably infected before arrival too.

The cases rapidly increased in number; there were 33 in October, 370 in November, and 196 in December; they declined through the early months of 1901. The total number attacked from September 2nd, 1900, to November 29th, on which date the last case occurred, was 711, and the death-rate 8.72; since December 26th, 1901, the camp has been free. It will thus be seen that by the vigilance of the medical staff the epidemic was rapidly controlled, six-sevenths of the total number of cases occurred during the first three months, the remaining one-seventh was spread over twelve months, as sporadic cases.

The type of the disease was remarkably severe in the earlier cases and became milder as the epidemic went on. Complications occurred as follows:

Haemorrhage, 3·18 per cent.
Perforation, 1·44 per cent.
Meningitis, 1·44 per cent.
Pneumonia, 2 per cent.
Pyaemic abscesses occurred in 4 cases.
Erysipelas occurred in 2 cases.
Relapses occurred in about 4 per cent. of the total number treated.

The number of cases among men of the Orange Free State considerably outnumbered those occurring among the Transvaalers, and on this point Dr. Garvin, the chief medical officer at Diyatalawa wrote:

The Transvaalers were in a less depressed mental condition than the others, who appeared to feel their position and sense of loss more acutely, and in their attacks exhibited more depression and more concern for their recovery. The bulk of these Free Staters were sent to Ceylon direct from the field of battle with the sense of defeat and disappointment strong upon them.

Preventive Measures.

Mr. Perry describes as follows the means taken to control the outbreak: New arrivals were segregated for a month, and not allowed to mix with the other inhabitants of the camp for that period. The interior of all huts was sprayed regularly with a solution of mercuric chloride, and the floors washed with the same. Early separation of those infected. The disinfection of latrines. The buckets were regularly cleansed and disinfected with mercuric chloride solution or Jeyes' fluid. Each bucket before use had a pint of disinfect-

ing solution placed in it, and another pint applied to its contents before removal.

Periodically every man's clothing and such articles as were likely to carry infection and could be so treated, were passed through a Thresh's disinfector; mattresses and large articles were exposed to the sun for many hours daily.

Urine.—This was separated from the solid matter as far as possible by making the men use urinals, which were placed in every latrine. The urine was conveyed by closed pipes to a considerable distance away from the camp and was discharged at a lower level into paddy fields or, when this method could not be carried out, into filter beds made by filling pits with loose pieces of brick, coke, and such-like porous material, forming small bacteria beds which worked admirably. Towards the later period of the epidemic urotropine was administered to all enteric fever patients.

Introduction and Dissemination of the Disease.

Mr. Perry observes that the outbreak is of general interest, owing to the ease with which many of the doubts which commonly surrounded the origin of an epidemic can be excluded. The bare facts, he points out, are these: A large body of men were transported from one continent to another; they were located in a perfectly new town, which had been built for them, with a good water supply and excellent sanitary and conservancy arrangements, and before they had been there a month cases of enteric fever occurred, which ran through the community at an alarming rate. The questions to be answered are: (I) How was the diseased introduced? and (II) How did it spread?

1. The answer to the first question is, he considers, that the disease was introduced from South Africa.

There was, he argues, no possibility of the disease having originated in Ceylon, because

1. Diyatalawa is built on virgin soil.
2. The water supply is excellent as shown by chemical and bacteriological examination. It is collected three miles from the camp, and it is conveyed by means of iron piping to standpipes placed at convenient points in the camp. The protected source is unpolluted.
3. No milk (with the exception of tinned milk) has even been sold in the camp.
4. The rations are good. No uncooked vegetables have been used. The aërated waters are of good quality, and are only partaken of by the officers among the prisoners.
5. There are no underground drains; all the drains are open surface ones, which were kept in a good sanitary condition.
6. There are no inhabitants in the immediate neighbourhood of the camp who could have introduced the disease, and it was known that no enteric fever existed in the neighbourhood.

Enteric fever was, therefore, he concludes, introduced into Diyatalawa Camp by the prisoners themselves.

II. With regard to the mode of dissemination, Mr. Perry makes the following observations: Direct infection was possible, particularly in the latrines; a man in the very early stage of the disease would use a latrine common to many others; in this way a healthy person using the same latrine may have become infected, or an early case may have visited healthy huts or a healthy latrine at some distance from his own part of the camp, and so have infected them. Flies were numerous in the camp; the possibility must be recognized that these may have been agents for the propagation of the disease.

The habits of the Boers at first were far from sanitary. After defaecation it was usual not to use any means of cleansing the person; in this way the inside of the trousers became fouled, and the dried excrement may have been disseminated in the huts (although it should be remarked that the clothing of many men was examined bacteriologically, but no true B. typhosus were found). The possibility must be recognized of the germs of the disease being in the system before the arrival of the prisoners in Ceylon, and remaining inert until by deterioration in health or under favourable conditions they lighted up into activity and produced the well-known train of symptoms.

INSURANCE COMPANIES AND MEDICAL OPINION.

A CORRESPONDENT has forwarded to us a copy of an examination form which was sent to him by an assurance company, with a request that he would examine an applicant and fill in the form. The fee offered was half a guinea, the policy being for £100. The form is a very elaborate one, requiring a minute investigation into the various systems, twenty-eight definite questions being asked. We have frequently commented on the mistaken economy shown by some offices in respect to medical fees for examinations in life assurance. Some of the leading offices are beginning to realize that it pays better to give a guinea for a carefully conducted examination, than to give half the amount for a careless report from a man who is irritated by the illiberality of the office. To a certain extent medical men have the remedy in their own hands, when they are consulted by their patients in respect to assurance they can recommend the companies which are known to adopt an enlightened policy in medical matters. We hope, however, that a system of boycotting will not be required to induce life assurance companies to offer a more suitable remuneration to their medical examiners.

THE EPIDEMIC OF SMALL-POX.

ST. PANCRAS.

THE medical officer of health for the borough of St. Pancras (Dr. J. F. J. Sykes) has issued a further report on cases of small-pox occurring in his district, together with observations on its diagnosis from chicken-pox, and measures for preventing the spread of infection. The rule is laid down that over 10 years of age cases of chicken-pox must be cautiously scrutinised, over 15 years must be regarded with suspicion, and over 20 years with grave suspicion. In regard to the clinical examinations made by medical referees during the previous thirteen weeks, about one-half of the doubtful cases of fever or eruption examined were found to be cases of small-pox, about one-fourth cases of chicken-pox, and the remaining fourth were distributed among a number of other conditions.

GLASGOW.

On March 10th there were still 202 cases of small-pox in Glasgow, although many patients had been discharged well. There are in addition about 50 patients under treatment at Shieldhall Fever Hospital, the epidemic having made its appearance in Govan.

SOUTH WALES.

Cases of small-pox still continue to be notified in Swansea; 24 cases in all have occurred in that town since the commencement of the outbreak; only 3 cases were notified during the last week; they have all been practically confined to the western part of the town. There are 16 cases in hospital, all doing well, and there have been two deaths.

An important question was raised at a meeting of the Finance Committee of the Swansea Board of Guardians on March 6th as to whether the cost of vaccine was included in the vaccination fee of 2s. 6d. paid. The question originated out of certain accounts (about £90) being presented from chemists for lymph supplied to the medical officers of the Board. The Clerk wrote to the Local Government Board on the subject, and the latter replied that it was prepared to sanction any reasonable cost of lymph supplied to the public vaccinators.

A case of small-pox was reported on March 6th at Ebbw Vale, but up to the present no fresh cases have developed.

Dr. W. Williams, Glamorganshire County Medical Officer, states in his recently-issued quarterly report that at the present time 184 cases of small-pox can be accommodated in the administrative county. This is exclusive of the beds available for Cardiff and Swansea, which are not in the administrative county. Reporting on the Ystalyfera outbreak, Dr. Williams remarks:

> It appears that all the 10 patients, except one, showed signs of having been vaccinated in infancy, but none as far as could be ascertained, had been revaccinated. The person who had no signs of having been vaccinated in infancy suffered from a confluent type of the disease, and was very ill. All the patients eventually recovered.

DIFFICULTIES UNDER THE VACCINATION ACT.

We learn that at a meeting between the public vaccinators of the Holston Union and a Committee of the Guardians on March 8th, the Chairman of the Guardians stated that the question had been misunderstood by them, and that they were prepared to renew the contract with the public vaccinators on the same conditions as before, subject to the proviso that, in case the Local Government Board's supply of lymph failed, the public vaccinators should purchase lymph at their own expense. This the public vaccinators refused, pointing out that, by a notice issued by the Local Government Board, they were entitled to charge the guardians under such conditions; the proviso was then withdrawn, and the upshot would appear to be that the notice given by the guardians to the public vaccinators to terminate their contracts has been withdrawn.

CANCER AMONG JEWS.

[From a Correspondent.]

Some interest has been excited recently by a statement that cancer occurs rarely among Jews. An emphatic contradiction must be given to this assertion by the writer, who, in a practice largely among Jews extending over twenty-five years, has found ample evidence to show that individuals of this race are by no means free from carcinomatous disease. Mammary scirrhus has been very often met with, and while examples of nearly every form of cancer have been seen, there has seemed to be a special tendency to the development of intestinal malignant growths. Of patients dying between 40 and 65 years of age a very large percentage have been sufferers from cancer, while it is sad to remember how many Jewish friends and relatives have succumbed to the same fell malady.

There is undoubtedly an impression in the minds of the members of the Jewish community that, far from being exempt, the Jews are especially prone to suffer from malignant growths; and I must admit that I have been somewhat inclined to share this view, although it has sometimes appeared to me that cancer is less prevalent now among them than it was in my earlier experience.

The vital statistics of the Jewish community are by no means complete, and the interpretation which might at first be put upon the figures is not free from fallacy, yet a careful study of them scarcely bears out the view of a disproportionately greater number of deaths from cancer.

The returns of the Burial Society of the United Synagogue deal with the deaths occurring in about 85 per cent. of the Jewish community in London. The following are the figures for the three years ending 1900:

	1900.	1899.	1898.
Deaths from all causes (all ages)	1,612	1,725	1,649
Deaths stated to be from cancer	37	42	34
Percentage of deaths from cancer...	2.3	2.4	2.06
Deaths of persons over 20 years of age from all causes	609	642	677
Percentage of deaths from cancer to deaths from all causes of persons over 20 years of age	6.1	6.5	5.02

These may be contrasted with the Registrar-General's returns for London for the same period:

	1900.	1899.	1898.
Deaths from all causes (all ages)	86,007	89,689	83,936
Deaths stated to be from cancer	4,251	4,234	4,084
Percentage of deaths from cancer	4.9	4.7	4.8
Deaths of persons over 20 years of age from all causes	50,565	51,922	45,490
Percentage of deaths from cancer to deaths from all causes of persons over 20 years of age	8.4	8.8	8.9

It will be observed that the difference is striking, and in quite an opposite sense to what personal observation had led me to expect. Omitting the deaths of persons under 20 years, as few deaths from cancer occur before that age, while infant mortality provides abundant sources of fallacy; we find in the last line of the tables a percentage of deaths from cancer among Jews of 6.1, 6.5, 5.02 for the three years respectively, as compared with 8.4, 8.8, 8.9 for the general population.

This contrast becomes exceptionally marked when we compare the cancer rates. Although, owing to there being no religious census, we have no accurate statistics as to the number of Jews in London, still this number is pretty generally admitted to be between 90,000 and 100,000, of whom certainly not fewer than 80,000 would be the population from which the death returns of the United Synagogue Burial Society are compiled. Taking the population, then, at 80,000, and on the basis of the highest number of deaths in the three years noted, namely, 42 in 1899, we get a rate for Jews of 525 deaths from cancer among 1,000,000 persons living, while the rate for England and Wales for 1896 was 764 deaths from cancer among 1,000,000 persons living, and from the Registrar-General's returns for London the rate for 1900 would work out at over 800.

It is impossible to think that there is not some fallacy underlying this immense discrepancy, and an inquiry from one of the honorary officers of the United Synagogue has elicited the fact that considerably more than half the statements as to cause of death are made verbally, and not accompanied by the medical certificate. Even allowing, however, a large margin for error from this cause, it is difficult to doubt that the proportion of deaths from cancer is less among the Jews than among the general population. This is further borne out by the very carefully-compiled tables of Dr. Loane, the Medical Officer of Health for the Sanitary District of Whitechapel. As is well known, a large proportion of the inhabitants of this district are Jews, and the following is the table of figures given by Dr. Loane for 1900, arranged as are those above:

Total deaths during 1900 corrected by the exclusion of non-residents dying in public institutions in the parish, and inclusive of residents dying in such institutions outside	1,545
Deaths from cancer	51
Percentage of deaths from cancer	3.3
Deaths of persons over 20 years of age	886
Percentage of deaths from cancer to deaths from all causes of persons over 20 years of age	5.76

It will be seen that the percentage of deaths from cancer to deaths from all causes of persons over 20 years of age, 5.76, varies but little (only 0.25 per cent.) from the figures of the United Synagogue for the same year; while, taking Dr. Loane's estimate of 85,000 for the population, the rate of death from cancer in Whitechapel per million persons living is 600, comparing, as we saw above, with the rate of 800 for the inhabitants of London generally.

From all these figures it seems to me impossible to doubt that the death-rate from cancer among Jews is comparatively small. On the other hand, private experience has shown beyond question that Jews of cancer age—that is, from 40 to 65 years—are nearly, if not quite, equally liable to suffer from that disease.

The fallacy underlying the statistics is probably to be found in the age distribution of the Jews of London. For the last twenty years there has been a steady tide of immigration of Jews from Russia and Poland into England. These immigrants chiefly consist of adults from 20 to 30 years of age with their young children. Of these, therefore, only such as arrived at the beginning of the period of immigration would have yet reached the age at which cancer is most likely to occur.

The absence of any accurate statistics with regard to the Jewish population of London makes it impossible to prove the existence of the special age-distribution just referred to, but the tables of Jewish mortality, of which use has been made throughout, contain other facts which point in the same direction.

It has been generally admitted by all writers on the subject that Jewish mothers are at least as careful as others of their offspring, and it has never for a moment been suggested that there is an excessive infant mortality in that community.

Now, the statistics for 1900 of the Burial Society of the United Synagogue show that the deaths of children under 5 years of age constituted 54.5 per cent. of the whole number of deaths; while, in the whole of London, as shown by the Registrar-General's report, the proportion is only 37.5 per cent., or, in other words, there is a death-rate of Jewish infants under 5 years amounting to 10,980 per 1,000,000 persons living as against a rate of 7,348 per 1,000,000 persons living for the whole population. This fact suggests, although of course it does not prove, that children under 5 years of age constitute a larger proportion of the Jewish than of the general population, and if this be allowed to be the case, it is an indication that young adults of the child-bearing age (and therefore below the age at which cancer usually manifests itself) are probably to be found in disproportionately greater numbers among the Jews.

It must be admitted that the statements just made are only probabilities, and the facts upon which they are based might

admit of another explanation. Nevertheless, these figures tend to confirm the conclusion already come to, and based upon the immigration of the last twenty years, namely, that young adults and children are to be found in much larger proportion among the Jews than among the general population of London.

It appears, then, on careful consideration, that the statistics of mortality from cancer among the Jews are not so much in opposition to the results of private observation as at first appeared, and the conclusion to be drawn from all the facts at present obtainable seems to be that, while cancer is considerably less prevalent among Jews than among the general population, nevertheless the probability that a Jew of cancer age will suffer from that disease is not materially less than in the case of a person of another race.

The idea that the consumption of pork may be a cause of cancer can certainly be dismissed. At the present time a considerable number of Jews are by no means strict adherents to the dietary laws, and it will be within the experience of every one who has practised among them that cancer attacks the orthodox as often as it attacks the most heterodox of the race.

The various suggestions which have been made of late as to the etiology of cancer—the consumption of pork, of salt, of tomatoes, of raw vegetables generally being variously assigned as a cause of this malady—indicate the direction in which an effort might be made to discover what are really the conditions which are most likely to lead to the development of this terrible disease.

The opinions above referred to are no doubt the outcome of a limited personal experience; but by collecting a large number of such experiences it might be possible to eliminate the accidental and to discover certain pre-existing conditions which have generally been present in patients who have become the subjects of malignant growths. No such information could be obtained from hospitals nor from consultants, who as a rule have known little of their patients before the disease made its appearance. The information which is required must be obtained from general practitioners who alone are in a position to enlighten us as to the facts.

In the opinion of the writer it would be especially interesting to know whether cancer is more particularly prone to attack otherwise healthy persons with large appetites and good digestions. There is a natural tendency for people beyond middle age to consume more food than is actually required; and it appears that, while Nature usually responds to this by indigestion—that is, by refusing to assimilate the excess of nourishment thus offered—that when this is not the case, graver results ensue. The frequency with which well-nourished individuals ultimately become the subjects of carcinomatous disease may be overestimated by a limited experience; still it must be admitted that it is not prima facie improbable that the existence in the body of a larger amount of semi-organised material than is required for the repair of tissue might lead to the development of a new embryonic structure in the form of malignant growth.

This, however, is only put forward as one more unsupported hypothesis, and no theory as to the etiology of cancer can be built upon it unless it were shown to be the general experience that sufferers from cancer were mostly well-nourished individuals with good appetites and exceptionally large assimilative capacity.

A systematic inquiry on this and other points might produce remarkable results.

THE DUFFIN FUND.

DR. HECTOR LEAK, Winsford, Cheshire, Honorary Treasurer of this fund, writes that he has received the following subscriptions on behalf of the family of the late Mr. Robert John Duffin, M.B., M.Ch.R.U.I., in addition to those already announced. Full particulars of the case will be found in the BRITISH MEDICAL JOURNAL of February 22nd, p. 279.

	£	s.	d.
Dr. O'Donnell, Dunkineely	1	0	0
Dr. Hembrough, Newcastle-on-Tyne ...	1	0	0

In the list of sub-criptions acknowledged in the JOURNAL of March 1st the name of Dr. T. Smith, London, should have read Sir Thomas Smith, Bart.

ANTIVIVISECTIONIST AMENITIES OF DEBATE.

The National Antivivisection Society,
92, Victoria Street, London, S.W.,
The 10th of March, 1902.

SIR,—With the general expressions of disapprobation of me in your article in the BRITISH MEDICAL JOURNAL of March 8th I have no desire to deal, being quite satisfied with them as evidence that you are aware that the principles for which I am contending are gaining ground with the public.

But I may perhaps claim space to say that I have never supposed, as you seem to suggest, that patients in hospitals are made fast for operations with gags of steel "made of the strongest material," or that horrors similar to those depicted in the German catalogue I have issued are inflicted on human beings by surgeons.

You say:

When his attention is called to gross errors in translation, he replies that he is totally ignorant of the German language. Does he really imagine that he can shuffle off his responsibility in the matter in this airy manner?

My answer is, certainly. Foreseeing that the translation of so damning a document as this catalogue would certainly be subjected to severe criticism, I took the most honourable course I possibly could to be perfectly fair, and directed the following letter to be written to the Librarian of the British Museum:

We have about ten pages of German which we are anxious to get translated accurately for this office. Would you kindly inform me if you undertake to get such work done by a thoroughly competent person? I should mention that the work is a description of surgical instruments and instruments used for the purpose of experimenting upon living animals, taken from the catalogue of a German firm.

Mr. Paul Grünfeld, whom I have never seen, consequently wrote to us as follows:

Your letter of the 12th to the Librarian of the British Museum has been communicated to me with the request to undertake (as being competent to) the translation of the German work mentioned in your letter.

I, therefore, take no responsibility for the accuracy of this translation; I am only responsible for doing all that a gentleman could to get it honestly and impartially translated.

The Librarian of the British Museum may now think fit to make a somewhat pusillanimous complaint about my use of his name to prove my bona fides, but, as a matter of fact, he did ask Mr. Paul Grünfeld to do the work: his having done so in no way connects him with any contention of mine save the sole one of my good faith, and I am certainly not going to allow him to escape from the legitimate guarantee of that good faith which his act affords me.

You assert:

Mr. Coleridge is quite indifferent as to the accuracy of a statement, provided he finds it convenient for his purpose.

What statement have I made that is inaccurate?

Your obedient servant,
STEPHEN COLERIDGE.

The Editor of the BRITISH MEDICAL JOURNAL.

*** Mr. Coleridge's notions of "evidence" are certainly remarkable if they enable him to infer from our article of March 8th that we are aware that the principles for which he is contending are gaining ground with the public. The expressions of opinion on his methods of controversy which we have seen in the press had, indeed, led us to the exactly opposite conclusion. One or two of the titled figureheads of the National Antivivisection Society have come forward in defence of their honorary secretary; but the public, as far as its opinions can be gathered, is beginning to be disgusted both with Mr. Coleridge and his "principles." It is clear, too, that even antivivisectionists are ashamed of his methods. A clergyman of Leeds who had consented to take the chair at a lecture to be given at Leeds under the auspices of the National Antivivisection Society has requested that his name should be withdrawn from future announcements of the meeting, and the Honorary Secretary of the London Antivivisection Society has felt it necessary to give publicity to the fact that Mr. Stephen Coleridge has no connection whatever with that Society. We earnestly hope that Mr. Coleridge's principles may continue to gain ground in this fashion.

We did not suggest that Mr. Coleridge really supposed that "horrors similar to those depicted in the German catalogue" are inflicted on human beings by surgeons, but we are glad to

have extracted from him a definite assurance that he does not believe this. Our point was that he had neglected an opportunity of pushing his philanthropic attack on hospitals, since by a proper selection of illustrations from surgical textbooks and by suppression of the trifling circumstance that operations, just like vivisections, are performed during anaesthesia, might have harrowed the feelings of subscribers. We have shown that Mr. Coleridge, whom we are asked to accept as a Bayard of controversy, has not, when he thought he could safely do so, been above making the shameful insinuation that "human living bodies" are placed at the disposal of "the physiologists" in a hospital.

On the question of responsibility for the translation of the German catalogue which he has issued we need say nothing more. It appears to be as useless to argue with Mr. Coleridge on questions of honour and fairness in debate as on questions of taste. He asks what statement he has made that is inaccurate. We ask him in turn if he thinks it accurate to state that the Librarian of the British Museum "appointed" a gentleman to translate the catalogue in the face of the fact that the request for a translator was handed, in the ordinary course, through the superintendent of the Reading Room to a person who, as far as appears from the correspondence, was actually unknown to the Librarian. It might have been thought that Mr. Coleridge's professed love of accuracy would have led him to express some regret for the inaccuracies in the translation to which his attention has been called. But at any rate we can congratulate him on his loyalty to his inaccurate translator which is truly chivalrous.

Mr. Victor Horsley has, in two powerful letters to the *Times* (March 8th and March 12th), pointed out that under the discussion as to Mr. Coleridge's action in regard to the German catalogue there lies a question of much greater gravity. As, he says, the Antivivisection Society in their letter accompanying the catalogue make no mention of any anaesthetics being used, it is evident that the object of the Society in issuing this catalogue with such an introduction is to lead the uninstructed and humane public into the belief that in the United Kingdom animals are first bound down on boards in the manner depicted and then "cut open," that is, "dissected alive," or, to use Lord Llangattock's language, "tortured" whilst still conscious of, and sensitive to, pain. Mr. Horsley adds: "As not a single animal is so operated upon, that is, 'cut open' or 'dissected alive,' in the United Kingdom, except while under an anaesthetic, it is plain that Lord Llangattock and his colleagues are renewing the tactics of Miss Cobbe and her *Nine Circles* which I exposed in your columns ten years ago, and that Mr. Coleridge's 'unspeakable deeds' and Lord Llangattock's 'tortured' exist only in the minds of two sets of persons—those who desire to deceive others and those who are, unfortunately, so deceived." Mr. Coleridge, in reply, cited certain experiments made by Dr. Crile in the laboratory of University College, London. Mr. Horsley's explanation on this subject is so interesting that we quote it in full:

> Next as to Dr. Crile's work, the record of which is quoted by Mr. Coleridge, especially the words he italicizes, "under incomplete anaesthesia." The context shows that Dr. Crile was referring to the varying degrees of anaesthesia he employed, but Mr. Coleridge quotes this record as though it meant that the animal was not anaesthetized and therefore suffered pain. He omits to relate that three years ago he made precisely the same misinterpretation of this same experiment; nor does he add, as he should, that when Dr. Crile's attention was drawn to this, that gentleman exposed it completely in the public press in New York. Nay, more, Mr. Coleridge fails to tell you, as he should in honour bound, that three years ago he accused Dr. Crile to the Home Office, asserting that, assisted by myself, he had broken the law by performing this same experiment under the ordinary licence and without the special certificate to which I have referred. Mr. Coleridge conceals this transaction because of what followed. The Home Office immediately investigated not only all the particular facts of Dr. Crile's experiments, but also the whole subject of anaesthesia, "complete" or "incomplete," "slight," or "profound," or "full," in short, the dozen different ways in which clinicians express the fact that a patient, whether man or beast, may either lie like a log in a dangerous chloroform coma, or, on the other hand, may preserve the power of automatic movements while still unconscious of any pain. This latter condition is technically "incomplete" anaesthesia, and is the degree of narcosis employed in many grave operations, for example, on the jaws, tongue, brain, etc., of human beings in which it is essential that various reflexes (for example, swallowing, coughing, etc.) should be in full activity. The Home Office, after an exhaustive inquiry, returned a clear and decisive answer to Mr. Coleridge that the animals in Dr. Crile's experiments were unconscious of pain, and that that gentleman had therefore not broken the law. Mr. Coleridge says nothing of all this, but quotes Dr. Crile's experiment as though his misinterpretation had never been completely exposed.

Here we have a specimen of Mr. Coleridge's "fairness to his opponents" of which we should think even his noble patrons must be ashamed. In accordance doubtless with the dictates of his conscience, he delated an experimenter to the Home Office for a supposed offence against the law. The case was fully inquired into by the proper authorities, who pronounced that the offence charged against the accused person had not in fact been committed; yet Mr. Coleridge suppresses this vital circumstance, and goes on quoting this case of imaginary cruelty as a proof of the tortures inflicted by vivisectors!

We have also received a letter from Mr. Robert Stewart, Secretary of the National Antivivisection Society, with reference to the footnote to the correspondence between Mr. Stephen Coleridge and Dr. A. S. Grünbaum. He is anxious to state that the last telegram sent to Dr. Grünbaum in reply to the letter with which he concludes the correspondence published in the British Medical Journal of March 8th, p. 599, was as follows:

> Grünbaum, School of Pathology, University College, Liverpool.—Publish anywhere you like provided you publish everything including telegrams. Will provide you with copies and render you what assistance I can for this purpose.—Coleridge.

ROYAL EDINBURGH ASYLUM.

Physician-Superintendent's Annual Report for the Year 1901.

The following are the main points of Dr. Clouston's report for the year 1901: The total number of patients under treatment was 1,411, the largest number on record; 441 patients were admitted during the year, of whom 215 were men and 226 were women; 326 (164 men and 162 women) were discharged; 123 (63 men and 60 women) died. The admission-rate had been high, as it has been for ten years. The number of rate-paid patients was six more than the average of the past five years. This led to a refusal of almost all patients at the lower rates of board, a hardship and an injustice to them and their relatives. The arrangement with the Edinburgh Parish Council was that the Edinburgh Asylum was to be relieved of the greater number of their patients in 1902, but the new Bangour Asylum was still *in nubibus*.

Causes of Insanity Multifarious.

No fewer than 33 different causes were assigned as having brought on the disease of those admitted. These ranged from the subtlest emotional excitants down to the grossest animal indulgences, the causes operating through the body standing to those operating primarily through the mind as 2 to 1. Alcoholic excess was again far too common a cause. Oversensitiveness was first cousin to melancholia. Oversensitiveness, diffidence, and shyness were charming and not too common qualities, but in excess they were apt to go with a want of staying power and brain instability which easily tended to morbid melancholy. There were no possessions for which an average man or woman should be so thankful as a good nervous heredity, an education in self-control, a fair self-assurance, and even a moderate thick-hidedness. A good mental inhibition and a well-balanced emotional nature was far more important than a well-balanced judgement. The vast majority of admissions were in bad bodily health, only 15½ per cent. could be said to be in average health and condition, while 70 per cent. were in bad health and reduced condition, and 15 per cent. in a very exhausted state. Again, between a third and a fourth of the admissions were suffering from gross and evident brain disease of an incurable and deadly kind. As compared with the average rate of prevalence of such gross organic brain diseases sent to the Scottish asylums, this asylum stood at double their amount.

Great Increase of General Paralysis.

In Dr. Clouston's first ten years at Morningside, 1874-83, the average yearly admission rate was 20.5, in 1884-1893 it was 25, in 1894-98 it was 38.3, and the last three years 1899-1892 it had reached 49. This year particularly its prevalence was almost startling, for there were 65 cases, or 69 per 1,000 residents, being over 1 case in every 7 admissions, a unprecedented number. The Scottish asylums, taking them all over, had a proportion of 11.6 of their deaths from this disease to every 1,000 of their residents during the five years 1895-1899. During those years the Edinburgh Asylum had a

proportion of 36.1, or three and a-half times as much as the rest of the country. The asylums of Edinburgh, Glasgow, Aberdeen, and Dundee, for the five years 1895-99, give 22.6 per 1,000 inmates, while Edinburgh for the same period shows 29.2, and for this year 37.2. A death-rate from this one disease among our asylum population, just twice as large as the death-rate from all causes in the city of Edinburgh, was an impressive fact in vital statistics. In asylums serving rural districts the proportion of deaths from general paralysis is only 5.1 per 1.000 residents as compared with the 22.6 of the four large cities, and the 29.2 of this institution. To grasp the meaning of these figures one must realize that general paralysis practically means certain forms of immorality.

Is Insanity generally Increasing?

That was very doubtful. Indeed the facts, as studied by really competent authorities, did not bear out any such general increase.

Mean Age of Patients.

The mean age of the patients sent in rose steadily. It used to be 40, now it was nearly 43. This resulted from so many more of the cases whose mental disturbance was really a sort of acute old age—an aggravated dotage—being sent in.

Discharges.

Of the 326 discharges, 135 were recovered and 146 relieved—a recovery-rate of 30.6 per cent. on admissions. In the main it was correct to say that the cases that recovered usually did so in from three to six months.

Deaths.

The number of deaths (123) was the largest in the history of the institution, though there had been no epidemic disease. No doubt this was due to the large number of cases of general paralysis and other cases of organic brain disease, as well as of persons whose brain power had broken down through old age. The mean age at death was 54.3 years; it was 50.7 in 1899; it had risen steadily. The tuberculosis death-rate was 15.1 per cent., or 16 per 1,000 of the average number resident. This was well below the average for Scotland, which was 19 per 1,000, while in England it was 23, and in Ireland 22. Two patients died who had been one thirty years and the other forty-six years resident in the asylum.

General History of the Institution.

The West House had been overcrowded yet the general health had been good. Craig House had been at times so full that patients had to be refused. A thoroughly-trained lady superintendent of the kitchen and housekeeping had been appointed. There were now 54 certificated attendants and nurses out of a staff of 170. Mrs. Findley, the head of the female hospital, had resigned after twenty-eight and a-half years' service

Scottish Asylums Pathological Laboratory.

The Laboratory was doing good work under Dr. Ford Robertson. It was founded in 1897. It had been highly commended in the forty-third annual report of the General Board of Commissioners in Lunacy for Scotland.

Proposed Psychiatric Ward in the Royal Infirmary.

In connexion with this movement it was interesting to note that during the past two years over 80 patients had been discharged recovered within six weeks of admission. These 80 might be reckoned among the incipient and transition cases of mental disorder, for whose benefit the proposal was intended. It would be a most philanthropic and useful scheme. It would provide early treatment for those cases that now lapsed into confirmed insanity for want of such treatment, and it would fill up a niche in the means of instruction to medical students and junior practitioners, from which the public would benefit. It would be a wise, and in the long run an economical proceeding on the part of the Parish Council to make an arrangement to pay the Royal Infirmary a yearly sum for all such patients. Meanwhile, in view of the scheme, the Council might well postpone the building of two of their cottages at Bangour. The proposal was on the latest scientific lines as to the right treatment of certain cases of early insanity. It was humane in a high degree, and it supplied a want for the poor who were threatened with the direst of calamities. It would place a poor man, threatened with mental disease, in the position of having equal means of treatment at his command as the richest. He had that means now in regard to every bodily disease from which he might suffer in the Royal Infirmary. Insanity was just as truly a disease of the brain as pneumonia was of the lungs.

LITERARY NOTES.

To the *Contemporary Review* for March the Hon. John M. Creed, who is a distinguished member of the medical profession as well as a political leader in Australia, contributes a short article on the Independence of Belgium from an Australian Point of View. His thesis may be gathered from the following passage:

> The independence neither of Holland nor of Belgium is essential to the well-being of the vast Empire of which we form part, and therefore it is quite fitting that outlying States like Australia should protest against the continuance of treaty obligations that are not necessary to the safety of the Mother Country or the prosperity of the distant Dependencies, but which may at any time involve the whole in a war to maintain, without adequate reasons, the continued existence of ungrateful nationalities.

The first number of *The Country*, the advent of which was announced in the BRITISH MEDICAL JOURNAL a week or two ago, has now appeared, and it certainly makes a brave show and testifies to great literary skill on the part of its editor, Mr. Harry Roberts, L.S.A. The contents are varied and interesting, the illustrations are numerous and beautifully executed, the printing is good, and altogether the periodical can scarcely fail to be attractive to all lovers of the country. We heartily wish it all success.

At a meeting of the Nürnberg Medical Society and Policlinic held on February 6th, Dr. Johann Merkel read a paper entitled A Surgeon of the Eighteenth Century. The surgeon was Desault, who was born in 1744, and died in 1793. He was the first surgeon who looked to anatomy and physiology for the guiding principles in surgical practice. He may, according to Dr. Merkel, be considered the father of surgical anatomy. All the leading French surgeons of the first third of the nineteenth century were his disciples in the sense that they followed in his footsteps. One of the greatest of them was Bichat, who edited his works and supported his family after his premature death. On the foot of Desault's statue are inscribed the following lines:

> Port du temple de mémoire
> Ouvrez vous! il l'a mérité.
> Il vécut assez pour la gloire
> Et trop peu pour l'humanité.

An amalgamation of the *Cleveland Journal of Medicine* and the *Cleveland Medical Gazette* has been successfully effected. On January 20th was held the organization meeting of the *Cleveland Medical Journal* Company, which is composed of members of the medical profession now interested in the two journals, together with a good proportion of the representative practitioners of Cleveland, numbering in all forty-five stockholders. The two journals have been transferred in their entirety to the company which will publish the new journal. This is, according to the *Journal of the American Medical Association*, to be "an independent and free professional institution conducted for the good of the medical community, with no idea upon the part of the stockholders that they shall ever look for dividends." At the meeting referred to a temporary organization was formed, consisting of Dr. Marcus Rosenwasser, President; Dr. William E. Bruner, Secretary; Dr. Joseph F. Hobson, Treasurer. Dr. P. Maxwell Foshay was elected Editor, and Dr. Edward S. Lauder, Associate Editor.

Dr. Chauveau has recently published a history of laryngology and otology in the Graeco-Roman, Byzantine, and Arabian periods. After a preliminary survey of the knowledge of anginas, and pharyngeal ulcers and indurations possessed by Hippocrates and his disciples, and later by Diocles, Praxagoras, Erasistratus, Herophilus, Heraclides, and Asclepiades, he cites the descriptions given by Celsus of cynanche, paracynanche, ulcers of the throat, and enlargement of the tonsils, and the methods of treatment recommended. He next studies Aretaeus and Galen, who distinguished between angina and laryngitis, and Oribasius, who in treating throat diseases bled from the saphena vein and practised massage of the tonsils. Next the Byzantine writers

are passed in review: Aetius, who treats of angina, pharyngeal diphtheria, diseases of the uvula, and inflammations of the pharynx; Paulus Aegineta, who recommends incision of tonsillar abscesses, and tracheotomy. In dealing with the Arabian period, Dr. Chauveau discusses the teaching of Rhases, Avicenna, Albucasis, and Avenzoar.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 16th day of April, at 2 o'clock in the afternoon.

March, 1902. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—A clinical meeting of this District will be held at the West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., on Friday, March 21st, at 4 p.m. (by kind permission of the Medical Board). Mr. S. Aird Jolly, L.R.C.P., Vice-President, in the chair. The following gentlemen will show cases: Dr. Outterson Wood, Dr. Fletcher Beach, Dr. Dundas Grant, Mr. H. Work Dodd, Dr. A. de Watteville, Dr Savill, Dr. Campbell, and Mr. Cantlie.—THOMAS DUTTON, M.D., 7, Manchester Square, W., Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of the above District will be held at the Royal County Hospital, Guildford, on Thursday, March 20th, at 4 p.m. Mr. A. Arthur Napper will preside. Agenda: Minutes of Guildford meeting. To decide where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. Election of Honorary Secretary. Dr. Galloway: The Signs on the Skin of certain Common Diseases. Mr. G. E. Cheatle: Wounds in War (lantern slides). Members desirous of exhibiting specimens or reading notes of cases are invited to communicate with the Honorary Secretary at once. Dinner at the White Lion Hotel at 6.15 p.m. Charge, 6s., exclusive of wine. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend if possible to be present at the dinner. By so doing they will materially facilitate arrangements, and promote the success of the dinner. All members of the South-Eastern Branch are entitled to attend and introduce professional friends.—ALEX. HOPE WALKER, The Common, Cranleigh, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—The next meeting of these Districts will be held conjointly at the Grand Hotel, Brighton, on Thursday, March 20th, at 4 p.m., Mr. W. S. Simpson, of Worthing, President of the South-Eastern Branch, in the chair. The following papers have been promised: Dr. Whittle, laryngeal diphtheria in a child of 10 months old: tracheotomy: recovery: Dr. Hinds and Mr. Nodes, a plea for the more frequent performance of tracheotomy in diphtheria among the poorer classes: Dr. Mackey, aspirin in the treatment of rheumatism: Dr. Mabel Jones, on direct examination and treatment of the bladder, exhibiting instruments used by Dr. Kelly of the Johns Hopkins Hospital, Baltimore. Dinner at 6 p.m., charge 6s., without wine.—J. W. BATTERHAM, M.B., St. Leonards, H. C. L. MORRIS, M.D., Bognor, Honorary District Secretaries.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at Lockerbie on Friday, April 4th. Members intending to read papers, etc., and gentlemen desirous of joining the Branch, are requested to communicate as early as possible with W. F. FARQUHARSON, M.D., Garlands, Carlisle, Honorary Secretary.

STAFFORDSHIRE BRANCH.

A SPECIAL general meeting of this Branch was held at the North Stafford Hotel, Stoke-upon-Trent, on December 27th, 1901, the PRESIDENT (Mr. W. A. Folker) in the chair. Seventeen members were present.

Lead Poisoning in Potteries.—The meeting was summoned to discuss the leading article in the BRITISH MEDICAL JOURNAL of November 30th, 1901, entitled Lead Poisoning in Potteries. Several members took part in the discussion, and the following resolution was adopted:

That the Staffordshire Branch of the British Medical Association recognizes the existence of the evil of lead poisoning in potteries, and thinks every possible means should be employed to diminish its prevalence having due regard to the whole interests of the district. The Branch disagrees emphatically with many of the opinions and conclusions in the leading article in the BRITISH MEDICAL JOURNAL of November 30th, 1901, entitled Lead Poisoning in Potteries, as being misleading, inaccurate, unfair, and contrary to the evidence given at the recent arbitration inquiry by Lord James.

*** We have been at some pains to obtain a report of this meeting setting out the grounds upon which the article in the JOURNAL of November 30th, 1901, was condemned, but without avail.

BRITISH GUIANA BRANCH.

THE first quarterly meeting of this Branch was held at the Public Hospital, George Town, on January 16th, Dr. L. J. VEENDAM, President, in the chair. Twelve members attended.

Confirmation of Minutes.—The minutes of the last three meetings were read and confirmed.

President's Address.—Dr. L. J. VEENDAM read his presidential address on Leprosy in British Guiana, in the course of which he called attention to the alarming increase of lepers among the East Indians in this colony, and suggested that compulsory segregation should be enforced in the place of voluntary confinement in the Leper Asylum, as at present obtains in this colony.—Several members took part in the discussion which followed.

Vote of Thanks.—Dr. LAW moved a vote of thanks to the President for his interesting address, which was duly seconded and carried.

The By-laws of the Branch.—The present by-laws of the Branch were then read, and were discussed *seriatim*: only five were amended, and by-law 18 was reintroduced, after a lengthy discussion, on the motion of Dr. OZZARD.—There being nothing further for discussion, the PRESIDENT declared the meeting closed.

SPECIAL CORRESPONDENCE.

BERLIN.

Official Expert Opinions in the Law Courts.—A New Organization against Tuberculosis.—A Lady Club Doctor.

THE talk of the week has been the Dührssen case. Professor Dührssen, a well-known gynaecologist and operator, was sued for damages by the husband of a patient, who, as he alleged, had been injured by an operation unskilfully performed, and performed against her will. Dührssen, however, was able to prove conclusively that in performing a more radical operation than the one first intended, he had acted under the pressure of medical necessity in order to save the patient's life, and that no possible precaution had been omitted. The verdict was in his favour. It is unnecessary here to go further into the case, the medical details of which were unusually complicated. From a professional point of view, the chief interest lies in the opinions

given by experts. For, whilst a number of distinguished obstetricians and gynaecologists pronounced in favour of Professor Dührssen, two official bodies, the "Medicinal-Collegium" (Board of Health) and the "Wissenschaftliche Deputation" (Scientific Committee) which forms part of the Cultus-ministerium, both gave an adverse opinion. Now both these bodies are made up of members drawn from all the different branches of medicine and medical and sanitary affairs; that means, that for special cases like the one in point, there is but one person in each able to give an expert opinion. Nevertheless, this opinion is always signed by all the members, and thus gains a fictitious and unjustified importance. In fact, by the Court these two official bodies are considered the supreme tribunal of expert deliberation, and there is little doubt that, if their opinions had been favourable to Professor Dührssen, the Public Prosecutor would have let the case drop.

The International Central Bureau for the fight against tuberculosis has now been constituted, with Berlin as its seat, and its organizing committee, which consists of Messrs. Althoff, Fraenkel, Gerhardt, von Leyden, and Pannwitz, will issue a monthly publication under the title *Tuberculose*. This periodical will differ from other scientific journals in that it will appeal, not only to medical and scientific men, but also to practical workers, to the committees of sick clubs, trades-unions, to parochial authorities, employers of labour, charitable organizations, etc., in fact to all those whose interest it is to help in the great fight of all civilized nations against tuberculosis.

Fraulein Dr. von Leyen has been appointed club doctor in the sick club of the Berlin Street Tramway Society, the first appointment of the kind bestowed on a female doctor in Germany. The sick club comprises 7,000 families, and employs 22 general practitioners and 15 specialists.

NEWCASTLE-UPON-TYNE.

The Finances of the Royal Infirmary.—Gift of the Finsen Light Apparatus.—The New Building. The Chairman and Vice-Chairman of the Infirmary.—Lying-in Hospital.—Hospital for Diseases of Women.

AT the annual meeting of the Royal Infirmary, presided over by the Mayor, Alderman Henry W. Newton, a well-known member of the medical profession in Newcastle, reference was made to the satisfactory condition of the finances of the institution, to the handsome donation of £100,000 by Mr. W. A. Watson-Armstrong, of Cragside, and to the bequest of £100,000 by the late Mr. John Hall, of Newcastle-on-Tyne. These two donations with the moneys subscribed by the public have provided the Committee with £310,000, to be utilized for the new infirmary. Last year 4,459 in-patients were treated in the infirmary, being an increase of 301 on the previous year; while the out-patients numbered 43 000. The average length of the stay of in-patients in the hospital was 21.46 days.

As announced in the *Times* a few weeks ago, Mr. Faber, the Danish Consul of Newcastle-upon-Tyne, has offered to provide at his own expense a complete Finsen apparatus for the treatment of lupus. The gift has been gratefully accepted. Proper accommodation is to be arranged for it in the new infirmary.

As regards the new building, operations are making slow but steady progress. The broken weather of the last few months has caused considerable delay, but recently there are signs of great activity on that part of the site allotted to the Nurses' Home, which is the first part of the building to be erected. The contractor is bound to have the new infirmary complete in three and a-half years' time.

Owing to the death of the late Alderman W. D. Stephens a vacancy arose in the Chairmanship of the Infirmary, and considerable interest was manifested as to how this vacancy should be filled. During the lengthened illness of the late Chairman the duties of the office had been discharged in a highly satisfactory manner by Sir George H. Philipson. It was, however, felt by many friends of the institution that the present was a suitable occasion on which to give expression to Mr. Watson-Armstrong of their sense of gratitude for his munificent donation to the funds of the new infirmary. Accordingly, at the meeting of Committee last week, Mr. W. A. Watson-Armstrong was elected Chairman, and Sir George H. Philipson was re-elected Vice-Chairman, an appointment which he has held for the last ten years. As it is now thirty-two years since this distinguished consulting physician became connected with the infirmary, it is proposed at the next quarterly Court of Governors, as a mark of esteem and in recognition of his services, to make Sir George H. Philipson a Vice-President of the Royal Infirmary. The Bishop of Durham (Dr. Moule) was appointed Grand Visitor to the Infirmary in succession to the late Bishop Westcott. It is interesting to know that the Bishops of Durham have held this office ever since the days of Bishop Butler, of *Analogy* fame.

At the annual meeting of the Lying-in Hospital it was announced that the wards which had been undergoing repair and decoration, also the new wing erected as a memorial to the late Dr. T. C. Nesham, would be ready shortly for the reception of patients. Suitable accommodation is being provided in the hospital, so that two senior medical students can reside in the building.

The Hospital for Diseases of Women, on account of increase of work, has been remodelled, and its Board of Management strengthened. Dr. T. Oliver and Mr. Page have been appointed Consulting Physician and Consulting Surgeon respectively to the institution, and the honorary active staff increased so that those now holding office are Dr. H. S. Baumgartner, Dr. W. Durant, and Dr. Lionel Calthorp.

CORRESPONDENCE.

THE CLASSICS IN PRELIMINARY EDUCATION.

SIR,—Will you allow me space in your columns to express my sympathy with those who are in favour of abolishing Latin as a compulsory subject for the entrance into any medical school. I am a teacher of Latin at one of our great provincial colleges, and have examined on several occasions for the Medical Preliminary. I can assure you that in my experience the standard is so low that the intellectual gain to the student who has succeeded in mastering the beggarly rudiments which suffice for a pass in Latin must be practically worthless. If I were a medical man I should clamour that the standard might be considerably raised, and that Latin should be made an optional subject. As an alternative I would give French or German, but would insist on a knowledge of the language of the pupil's choice being made a real one. I am in constant touch with the younger medical men of the large town in which I am a public teacher, and they are constantly lamenting their inability to read treatises published in French and German on medical matters.—I am, etc.,

March 8th. EXAMINER.

THE RECONSTITUTION OF THE ASSOCIATION.

SIR,—In a few weeks the British Medical Association will be asked to accept or reject the reconstitution scheme. Before taking the momentous step of entirely changing the mode of procedure of our great Association would it not be well to consider whether some less sweeping change would not secure the end we have in view? I take it that the reconstitution scheme would never have seen the light but for this one fact, that according to company law the annual meeting has absolute control over the funds and the policy of the Association. As 25 form a quorum, it appears that 13 members might allocate the funds and prescribe the policy of the whole Association, containing as it does more than 18,000 members.

As a scheme the reconstitution scheme is most ingenious, and its framers are deserving of the highest praise. At the same time I fear that if we adopt it we shall find that it will not be without its drawbacks. It is complicated, very hard for the busy man fully to understand; the creation of the delegates will alter the character of the meetings, and take away from the interest and sense of responsibility of the ordinary member. Above all, I believe the scheme is entirely unnecessary. I believe that all that is needed is to pass a law fixing the quorum for the meetings at 200, and requiring a majority of two-thirds to vote money. At any rate, this

modest proposal might be tried, and if it failed the reconstitution scheme would still be to hand for us to adopt if necessary.—I am, etc.,

Liverpool, March 11th. THOMAS R. BRADSHAW, M.D.

THE COURT AND THE MEDICAL SERVICE OF THE ARMY.

SIR,—Allow me to invite attention to the fact that at the late official dinner given at Devonport, the Surgeon-General of the Western District, the next senior officer to the general commanding, was not invited to meet His Majesty.

I have ascertained as an indisputable fact that this was not the fault of the local authorities, but that the list of those to be invited was prepared and sent down from London by the Court official.

It is, of course, impossible that the King could have been aware of such a slight being imposed on the medical service of the army as the omission of its official head from such a function, and to make matters more pointed, if possible, the Naval Inspector-General, and the other heads of departments and commanding officers, all long junior to the Surgeon-General of the District, were present.

How can we wonder at three of the leading military clubs (the United Service, the Naval and Military, and the Army and Navy) blackballing medical officers when they see them omitted from all Court functions, and that not even the Honorary Surgeons and Physicians of the King (members of the Household) are ever invited to Court balls, concerts, or dinners?

Mr. Brodrick may bring out his warrant and give increased pay, etc., but I cannot think that self-respecting gentlemen will accept the King's commission to occupy a position in which they are snubbed and insulted by the petty-minded officials who have the conduct of these matters in their hands.—I am, etc.,

March 12th. ONE OF THEM.

SMALL POX CONVEYED BY RAW COTTON.

SIR,—The following case illustrates, I venture to think, an unusual method of infection in cases of small pox. The patient, a young man of about 28, worked in a large cotton spinning mill here, opening the bales and feeding them into a machine for the first stage in the spinning process. He worked in a large room with only one other man. On a certain date he began to fall ill, had headache, slight feverishness, and marked backache; three days later a papular rash appeared, and his medical attendant was called in. For two days the medical attendant was uncertain as to the nature of the illness, and then, fearing the worst, asked me to see the case with him. At that stage there was still some little doubt as to the precise nature of the ailment, but there were evidences of vesiculation and umbilication. We decided that the case was probably small-pox, and the patient was therefore isolated in hospital, and the remainder of the family vaccinated. During his stay in the hospital he completed an undoubted though mild attack of true small-pox. The correctness of the diagnosis was further clinched by the fact that two attempts at vaccination were made when the skin had practically regained its normal condition, and both failed. The closest possible inquiry failed to reveal any local cause of infection; and, indeed, no case of small-pox had occurred in this neighbourhood for about a year previous to this, nor has any case arisen up to the present time since then. I made inquiries at the patient's workplace, and, through the courtesy of the managing director, saw the process in which he was engaged. I was also kindly furnished with the address of the place from which the cotton was imported, and on writing to the State Health Officer for that locality I received the following reply:

Quarantine Department, Austin, Texas.

Dear Sir,—Yours of the 15th instant received. Small-pox is quite prevalent on the cotton plantations not only of Texas, but of all the Southern States. It is of such a mild form as a rule as to not require medical attention, and in many cases the victim will pursue his ordinary work in the cotton field throughout the attack. That the cotton is thereby infected cannot be doubted, as the workmen of several cotton gins have been infected through the cotton. Wherever the health authorities become aware of the infection of cotton it is either disinfected or destroyed. But you will readily see by the preceding that there will be many instances of infection that will not come to their knowledge. If it will not appear presumptuous I will make the suggestion that your factory operators should all be thoroughly vaccinated.—Very truly,

(Signed) A. F. BLUNT, M.D.,
State Health Officer of Texas.

The last remark of Dr. Blunt is worthy of recommendatio to any medical officer of health whose energy is likely to prov equal to the demand.—I am, etc.,

Stockport, March 5th. MEREDITH YOUNG, M.O.H.

WORSHIPFUL COMPANY OF SPECTACLE MAKERS.

SIR,—It has been brought to my notice, as Master of the Spectacle Makers Company, that reports are circulated to the effect that candidates for the diploma of this Company are examined in sight-testing, and that the diploma certifies that the holder is competent, by virtue of such examination, specially to undertake cases of refraction.

I therefore wish to state most emphatically that the examination does not include sight-testing, but deals generally with theoretical and applied optics, spectacle making, and frame fitting, heat, and elementary mathematics, and so ensures that the holder has an intelligent knowledge of his trade.

Any holder of the diploma of the Spectacle Makers Company may carry on the general business of an optician in the ordinary way: but in reference to spectacle fitting particularly he is bound by certain restrictions, as may be seen by the enclosed copy of the declaration which he signs.

Thanking you in anticipation of your publishing this statement.—I am, etc.,

W. HART DYKE,
Temple House, Temple Avenue, March 7th. Master.

AGREEMENT.

The diploma granted being the property of the Spectacle Makers Company, every freeman who obtains one must agree to and subscribe to the following conditions:

1. That the said diploma is the sole property of the Company, and that he will not assign, transfer, or part with the same.
2. That the diploma is conferred on him personally and not on any other person associated with him.
3. That the said diploma shall not be carried about for commercial purposes, but shall remain in his personal possession at his recognized business or private address, and he undertakes to immediately inform the Clerk of the Company of the place where such certificate is exhibited and of any change of the same.
4. That in addition to the said diploma he will not exhibit for business purposes any other official diploma or certificate, excepting such as may be authorized by the Company.
5. That the said diploma shall not be reproduced, altered, or added to in any way except with the consent of the Company.
6. That the said diploma shall be immediately returned to the Company in the event of his death, bankruptcy, or lunacy, or of his committing any act which may be considered "disgraceful" by the Company.

Note.—The Company does not undertake to reissue the diploma, but may do so in special cases.

7. That he will not publish any advertisement unfair to fellow craftsmen or misleading to the public, and especially will not use or advertise this diploma in any way which would lead the public to infer that it conveys medical qualifications.
8. That he will not use any drug for the purpose of paralyzing the accommodation of the eye.
9. That he will pay to the Company the sum of 4s. per annum.
10. That the decision of the Court of the Company for the returning of the said diploma to the Company for breaches of any of the foregoing conditions or for any other reasons shall be final, conclusive, and binding.
11. That the posting of any notice to the last address of which he has given information to the Clerk of the Company shall be sufficient for all purposes.

A NEW METHOD OF DEALING WITH THE PERITONEUM IN OPERATING FOR RADICAL CURE OF UMBILICAL AND INGUINAL OR FEMORAL HERNIA.

SIR,—If Mr. Brook, of Swansea, will look up the *Bristol Medico-Chirurgical Journal* of December, 1898, he will find a full description of Professor Kocher's method of dealing with the sac in hernia under the heading "The Radical Cure of Reducible Hernia by Kocher's Method of Invagination, with Lateral Displacement of the Neck of the Sac," which is applicable to the radical cure of both inguinal and femoral herniae. This method is well-known to a number of surgeons in Glamorganshire, and has been very commonly performed by the surgeons of the Cardiff Infirmary for the last three years. The special forceps used by Professor Kocher for his operation has been on the English market for nearly three years, and is in every way a better instrument than the aneurysm needle. The principle of invaginating the sac has been suggested also by other surgeons, and some have made

an incision into the abdomen in order to pull out the sac. The above paper has been quoted by American and Continental surgeons, and I am sorry to find that the rate of travelling of published papers is so very slow in this country.—I am, etc.,

Cardiff, March 11th. J. LYNN THOMAS.

BLACKWATER FEVER.

SIR,—In the BRITISH MEDICAL JOURNAL for January 25th, 1902, Dr. Moffat of Uganda writes as follows: "The suggestion which Surgeon-Major Kleine quotes from Stephens to the effect that these aboriginal cases are not haemoglobinuria at all, but are probably due to bilharzia, does not say much for the latter's opinion of the intelligence of the ordinary medical observer." What I wrote[1] was: "Secondly it (blackwater fever) is recorded among natives, who presumably do not take quinine. The authority of observers such as Plehn *makes us accept the statement* (italics not in original). We failed ourselves to find a case among natives; it was quite easy, however, to procure cases of so-called blackwater fever, but these were due to bilharzia haemotobia."—I am, etc.,

J. W. W. STEPHENS, M.D.Cantab.

Waltair, Madras, Feb. 17th.

OBITUARY.

MORIZ KAPOSI, M.D.,

Professor of Dermatology, University of Vienna.

DR. MORIZ KAPOSI, Professor of Dermatology in the University of Vienna, died on March 6th after a short illness. His health had been failing for some time, but the end came suddenly. In October last, the twenty-fifth anniversary of his appointment as Professor was celebrated by his pupils and friends with much heartiness and festivity. A few days later he had a stroke of apoplexy, from which he quickly recovered. It was followed, however, by symptoms of degeneration of the myocardium, with asthmatic complications, which gradually undermined his strength.

Moriz Kaposi was born in 1837 at Kaposvár, of poor parents, and studied medicine under great difficulties at the University of Vienna. He took his doctor's degree in 1861, and was immediately appointed Assistant in the clinic of the famous dermatologist Hebra. In 1866 he qualified as Private Lecturer with a dissertation on Syphilis of the Mucous Membranes. He worked diligently under Hebra, and soon acquired a considerable reputation. On the death of his distinguished master he succeeded him in his chair. As a teacher he was very successful. Students and physicians from all civilized countries, especially England, France, and North America, flocked to his lecture room. During his thirty years of activity as a teacher he trained a generation of practitioners in his special department of medicine. Many of his pupils now occupy chairs of dermatology in different universities.

Professor Kaposi married a daughter of Professor Hebra, whose scientific work he continued and extended. He was the author of 150 publications of one kind or another. The most important of them are the *Handbook of Diseases of the Skin* in which he collaborated with Hebra (1860-76); *Syphilis of the Skin* (1873-75); *Ulcers of the Skin* (1876); *Pathology and Treatment of Syphilis* (1891); *Skin Diseases* (1880); *Handbook of Syphilis* (1880); and papers on erysipelas and epidemic zoster, published in the *Wiener medicinische Wochenscrift* and other journals.

JOHN LUMSDEN PROPERT, M.B.Lond., M.R.C.S., L.S.A.

THE death of Mr. Propert, which we announce with sincere regret, has removed from the ranks of the profession one who will be greatly missed by a large circle of patients and professional friends. Worthy son of a worthy sire, he was a child of John Propert, the well-known accomplished and experienced practitioner who in 1855 founded the Royal Medical Benevolent College, Epsom, and who, as its treasurer for over twenty years, devoted an immense amount of time to the furtherance of the best interests of that institution. Born in London in 1834 young Propert studied medicine at King's College, "passed College and Hall" in 1855, and in due course became house-surgeon and house-physician to King's College Hospital. He graduated in medicine at the University of London, obtaining honours in anatomy and physiology at the First M.B. Examination in 1854, and honours in medicine at the Second M.B. Examination in 1857. Shortly afterwards he joined his father in general practice, and by his energy, unflagging industry, and devotion to his patients soon rose to be one of the most successful practitioners at the West End.

His one relaxation he found in his devotion to art. He was widely known as a charming etcher and a connoisseur in many branches of art. Especially he was the pioneer of the modern revival of interest in old miniatures, notably those of the English school. Of these he formed a valuable collection, of which, however, he disposed in 1897. An exhibition of portrait miniatures at the rooms of the Burlington Fine Arts Club, in Bond Street, was largely brought together by his initiative. He wrote the illustrated catalogue of this exhibition, which is now extremely scarce, and commands a high price in the saleroom. He subsequently rewrote his introduction to the catalogue, and published it as a *History of Miniature Art: Notes on Collectors and Collections*,[1] which remains a standard work of reference on the subject. He was an authority upon Wedgwood china, and was also interested in Renaissance jewellery and ancient wax portraits.

The claims of his practice prevented Mr. J. L. Propert from giving the same amount of time to Epsom College that his father had given; nevertheless, he attended all the meetings of the Council that he could, and when unable to be present rarely failed subsequently to visit his old friend, the present Treasurer, to learn what had been done. From the date of the opening of the College to the present time there are but few trust deeds to which the signature of Propert (father or son) is not appended.

Mr. Propert rarely spoke in public at any length; but he had great facility in speaking and great power of happy expression. On two occasions, when proposing the toast of "The Chairman" at an Epsom College banquet, he, to the great delight of all present, hit off the characteristics of Mr. Balfour and of Lord Rosebery with a clearness and point worthy of one of his own etchings.

His wife and several children survive; a son, Mr. W. Archibald Propert, has been associated with him in his work for some years.

Mr. Propert died, at the age of 67, at his residence in Gloucester Place, Portman Square, on March 7th, after a few days' illness from pneumonia. The funeral service was held on Tuesday last at St. Mary's Church, Bryanston Square, and was attended by a large number of his professional colleagues and friends, amongst whom were Sir R. Douglas Powell, Mr. Christopher Heath, Dr. T. Buzzard, Mr. Reginald Harrison, Dr. F. Taylor, Dr. Savage, Dr. Whipham, Dr. M. Baines, Dr. Holman, the Head Master of Epsom College (the Rev. T. N. Hart-Smith), the Secretary of the College (Mr. J. Bernard Lamb), Mr. H. W. Kiallmark, Mr. T. S. Townsend, Dr. Stamford Felce, and his medical attendant, Dr. Atkin Swan. The service was conducted by the Rev. Russell Wakefield, the vicar, who gave an impressive address on the relations of medical men to the public, and dwelt on the respect shown by the leaders of the medical profession to their deceased brother. The interment subsequently took place at Brookwood Cemetery, Woking.

WE regret to announce the death of Dr. CHARLES STUART, of Chirnside, Berwickshire, who died on February 12th after a long illness. The son of Mr. John Alexander Stuart, of Carnock, Fife, N.B., he was born at Woodhall Bank, Midlothian, in 1825. He was educated at the Edinburgh Institution and at the University of the same city, taking his M.D. degree in 1846, and being admitted a Licentiate of the Royal College of Surgeons of Edinburgh in the same year. For over fifty years he practised at Chirnside. He held all the public appointments there and the adjoining parishes. An enthusiastic student of natural history, he was elected President of the Berwickshire Naturalists' Club in 1873. He was elected Gray Literary Annuitant (£40 a year) in 1900 as a mark of his literary and scientific attainments by the Gray Trustees. Dr. Stuart was a member of the Edinburgh Botanical Society and of the Scottish Alpine Botanical Club.

[1] *Lancet*, March 23rd, 1901.

He was well known among florists and nurserymen as a most successful hybridist, and he had an aquilegia call Aquilegia Stuarti, in recognition of its being one of his hybrids. He also discovered a heath at Connemara, in Ireland, new to Britain, which was called in honour of the finder, Erica tetralix Stuarti. He was the author of *The Gipsy King*, a biographical monograph. He leaves a widow and eleven children to mourn his loss. His two eldest sons are in the profession, practising respectively at Batley and Great Ayton in Yorkshire.

We regret to record the death of Civil Surgeon Percy Reginald Fort, which occurred on February 10th, at Standerton, South Africa, of enteric fever. Mr. Fort was the youngest son of Mr. James Fort of Kensington. He was born in January, 1874, educated at Merchant Taylors' School, London, and entered St. Mary's Hospital Medical School in October, 1895. He brought great enthusiasm and perseverance to his work, and took the diplomas of M.R.C.S.Eng., L.R.C.P.Lond. in October, 1900. He was anxious to take a higher degree, and with that aim in view he went to the Dispensary, York, as Medical Officer, where he hoped to have leisure for reading, and at the same time gain a practical insight into the work of his profession. He worked hard, and was deservedly popular at York. The attraction of seeing active service in South Africa was great, and having applied for and obtained the post of a Civil Surgeon, he sailed for South Africa in July, 1901, doing duty on the hospital ship *Simla*. After serving for two voyages in the same ship, he volunteered for duty at the front, was appointed to Colonel Rawlinson's column, in charge of the 8th Mounted Infantry, contracting enteric while on duty, which proved fatal.

Dr. Levi Cooper Lane, the founder of the Lane Hospital, San Francisco, died at his house in San Francisco on February 19th, at the age of 69. He was a graduate in Arts of Union College, Schenectady, New York, and took his degree in Medicine at the Jefferson Medical College, Philadelphia, in 1851. He spent some time in post-graduate medical study abroad, and became a member of the Royal College of Surgeons of England in 1875. On his return to the United States he joined his uncle, Dr. Cooper, a well-known surgeon of San Francisco, in practice. Dr. Cooper was the founder of the Cooper Medical College in San Francisco, the first medical school established on the Pacific coast. The College has, owing to the munificence of Dr. Lane, grown from comparatively small beginnings into a stately pile of buildings. The Lane Hospital, which is attached thereto, is splendidly equipped. Dr. Lane was Professor of Surgery in the Cooper Medical College, and Surgeon to the hospital founded by himself. He was the author of a work entitled *The Surgery of the Head and Neck*, which saw the light in 1896. Professor Lane was also the founder of the Lane Lectures, which are delivered each year by some physician or surgeon of recognized eminence. The first course was delivered in 1896 by Professor William Macewen of Glasgow; after him came Mr. Christopher Heath, Professor Clifford Allbutt, Professor Nicholas Senn, Sir Michael Foster, and Mr. Malcolm Morris. The lecturer for this year is Professor C. B. Ball of Dublin.

Dr. James Loudoun, of Hamilton, Lanarkshire, who died recently, was an intimate friend of the late Dr. Livingstone, the African traveller and missionary. Dr. Loudoun was born at Ganderhill, Strathaven, in 1824, and was the eleventh of a family of sixteen. He was educated at the Barnock and Gilmourton Schools, Strathaven, and received his medical training first as an apprentice to the late Dr. Millar, of Strathaven, and later in the University and in Anderson's College, Glasgow. He took the M.D. degree of St. Andrews University in 1845, and then commenced practice in Hamilton. He was Medical Officer to several large collieries and ironworks, and, besides holding other public professional appointments, he took an active part in the church and educational life of the place. He was an enthusiastic volunteer, and attained the rank of Surgeon-Lieutenant-Colonel. He was on the Commission of the Peace for the County of Lanarkshire. It has been said that the great aim and undercurrent of his quiet unostentatious life was the mental, moral, and religious improvement of the people among whom he lived. He is survived by a widow, his son Dr. Livingstone Loudoun, and three daughters, towards all of whom much sympathy is extended in their loss.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are: Dr. Bernard Lersch, formerly medical inspector of baths at Aachen, author of numerous publications on subjects connected with balneology, and a student of archaeology and history, aged 85; Dr. H. R. Baldwin, President of the New Brunswick Board of Health, and one of the most prominent medical men in New Jersey, aged 71; Dr. Deschamps, Surgeon to the Civil Hospitals of Liége; Dr. Secondo Laura, founder and medical director of the Children's Hospital at Turin, and author of a treatise of forensic medicine, a popular manual of hygiene and papers on venesection, suicide, and many other subjects; Dr. Benedetto Mircoli, Professor of Clinical Medicine and General Pathology in the University of Camerino; and Dr. Louis Lewis, of Philadelphia, Editor of the *Medical World*, *The Medical Council*, and the *Medical Times and Register*, aged 63.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE UNDERMANNING OF THE ARMY MEDICAL SERVICE.

The following is the distribution of medical officers employed on the Active or Reserve Lists, according to the *Army List* for March:

Distribution in March Army List.

Ranks.	Home.	South Africa.	Other Foreign Stations.	Not Posted.	Total.	Remarks. Seconded.	Remarks. Reserve of Officers.
Surgeon-Generals ...	3	1	2	—	6	—	—
Colonels	11	5	11	—	27	4	—
Lieutenant-Colonels...	66	65	85	6	222	5	24
Majors	41	121	108	3	273	3	3
Captains	31	106	107	5	249	12	4
Lieutenants	16	121	66	4	207	—	—
Total	168	419	379	18	984	24	31

The total is 6 fewer than February, with a few changes in distribution. There are 4 more at home, 8 fewer in South Africa, 3 fewer at other foreign stations, and 1 more unposted. The number seconded is the same, and of the reserve of officers 1 fewer is employed. Excluding the Director and Deputy Director-General, the list of Surgeon-Generals is 4 short of the establishment, and the delay in filling up these vacancies is giving rise to considerable comment.

COMPLIMENTARY DINNER TO CAPTAIN INKSON, V.C., R.A.M.C.

Professor G. Vivian Poore presided at the complimentary dinner given by the Union Society of University College and Hospital to Captain E. T. Inkson, V.C., R.A.M.C. The dinner was held at the Café Royal, Regent Street, and covers were laid for 148 guests. The Chairman, in proposing the toast of "The King," referred in detail to the interest taken by His Majesty in medicine. Mr. Christopher Heath proposed the toast of "The Services," which was responded to by Lieutenant-Colonel Babtie, V.C., C.M.G., R.A.M.C. The Chairman next proposed the toast of "Captain Inkson, V.C.," and amid applause read out the official account of how that officer won the cross for valour at Pieter's Hill on February 24th, 1900, by carrying a man who was severely wounded and unable to walk 400 yards under a very heavy fire to a place of safety. The ground over which Captain Inkson had to move

was much exposed, there being no cover available. The company were roused to a pitch of great enthusiasm by the eloquent manner in which the Chairman described how the Inniskilling Dragoons of their own accord turned out and received Captain Inkson with tremendous cheering after his bravery at Colenso, in which engagement the Dragoons had themselves suffered severely. Captain Inkson replied to the toast in a characteristically modest speech, and could not be persuaded to give more than a very brief epitome of what he had seen and done in the course of the war.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

COMMITTEE, consisting of Deputy Surgeon-General J. Meane, Colonel F. W. Stevenson, C.B., and Colonel W. L. Gubbins, has been formed to raise a fund for the purpose of erecting a memorial to the late Surgeon-General W. Nash. As the last part of Surgeon-General Nash's service was spent as Principal Medical Officer at Netley, it is considered particularly appropriate that the memorial should take the form of a brass in the church of the Royal Victoria Hospital, and that a portrait should be placed in the Headquarters Mess of the Corps. Subscriptions are invited from officers of the A.M.S. and the R.A.M.C., including those on retired pay. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

The following subscriptions have already been promised:

	£	s.	d.
Surgeon-General W. Taylor, D.G. ...	2	2	0
Surgeon-General A. Keogh, D.D.G. ...	1	10	0
Deputy Surgeon-General J. Meane ...	2	2	0
Colonel J. McNamara	1	0	0

THE ARMY NURSING SERVICE RESERVE.

IT will be remembered that this body was formed in 1896 97, and that H.R.H. Princess Christian took great interest in the organization, which owes its existence to a large extent to her suggestions. A strong Committee was formed to make all necessary arrangements, but with the understanding that in the event of war the nursing reserve should pass under the control of the Army Medical Department. The system was tested before it had been long in existence, but from the first it was seen to work well under the pressure of emergency. The original scheme was that the reserve should consist of 100 or more nursing sisters, who should, as a rule, only be expected to replace in military hospitals at home those members of the regular Army Nursing Service ordered abroad; but with the outbreak of the South African war it was found easy to extend the organization, and we learn from an article in the *Times* of March 12th that the number of candidates whose claims had been investigated down to last September was 1,500, and that 73 per cent. of these were accepted; of those thus selected, nearly 800 have served in South Africa, nearly 200 at military stations at home, and a few at various places abroad; 16 deaths have occurred—14 in South Africa—and 10 have been dismissed or called upon to resign. The standard of efficiency and conduct has been high, and has shown that the system of selection was correct. The original age limits were between 25 and 35, but this has been extended to 40 with regard to the occupancy of positions of special responsibility.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: JOSEPH CROWLEY, M.D., Fleet Surgeon, and ALEXANDER G. RENWICK, M.B., to the *Bulwark*, March 18th. ROBERT HICKSON, Staff Surgeon, to the *Prince George*, and JOHN ANDREWS, M.D., Staff Surgeon, to the *Monarch*, for Ascension Hospital, March 5th; JAMES McC. MARTIN, D.S.O., to the *Cambridge*, March 18th; HERBERT L. PENNY, Surgeon, to the *Benbow*, March 18th; LEONARD S. WHITWAM, M.B., Surgeon, to the *Dwarf*, March 4th; ARTHUR A. J. M'NABB, M.B., surgeon, to the *Collingwood*, undated; LOUIS E. DARTNELL, Surgeon, to the Hong Kong Hospital, March 10th; ALEXANDER T. WYSARD, Surgeon, to the *Ganges*, March 11th; PERCY V. JACKSON, Staff Surgeon, to the *Charybdis*, additional, April 1st, and to the same ship on recommissioning, undated; WILLIAM E. MARSHALL, Surgeon, to the Haulbowline Hospital, March 16th; ROBERT F. BOWIE, Staff Surgeon, to the *Gibraltar*, March 5th; EVAN ST. M. NEPEAN, Staff Surgeon, to the *Empress of India*, March 7th; WILLIAM G. STOFF, M.A., M.B., Staff Surgeon, to the *Melampus*, March 7th; RICHARD E. BIDDULPH, B.A., M.B., Fleet Surgeon, to the *Hibernia*, for Malta Dockyard, March 8th, WILLIAM G. E. [illegible], M.D., Fleet Surgeon, to the *Duke of Wellington*, April 1st; T. B. SHAW, M.B., Surgeon, lent to the Portsmouth Division of the Royal Marine Light Infantry, undated; EDWARD H. MEADEN, Staff Surgeon, and FREDERICK D. LUMLEY, Surgeon, to the *Amphitrite*, March 21st; CHRISTOPHER L. W. BUNTON, M.B., Surgeon to the *Forte*, when recommissioning, undated: JOHN WHELAN, Surgeon, to the *Partridge*, additional, April 1st, and to the same ship when recommissioned, undated: SAMUEL CONNER, M.B., Surgeon, to the *Empress of India*, March 10th.

INDIAN MEDICAL SERVICE.

THE undermentioned gentlemen are appointed Lieutenants, dated January 29th, 1902:—ALFRED E. J. LISTER, THOMAS S. B. WILLIAMS, SAMUEL H. L. ABBOTT, ALEXANDER W. GREIG, RICHARD E. LLOYD, JOHN E. CLEMENTS, HUGH B. STEEN, ERNEST BISSETT, RICHARD J. BRADLEY, JAMES WOODS, ALEXANDER W. OVERBECK-WRIGHT, DAVID MUNRO, ERNEST A. LOCH, THOMAS W. HARLEY, WILLIAM J. MCCOY, ROGER L. HAGGER, ROBERT M. CARTER, ROGER D. WILLCOCKS, THOMAS G. F. PATERSON, DODINGTON G. R. S. BAKER, JASPAR R. J. TYRRELL, DEWAN GAMPAT RAI, ROBERT M. BARRON, WILLIAM R. J. SCROGGIE, LEWIS P. FARRELL.

Lieutenants J. C. H. LEICESTER, M.D., H. INNES, M.B., W. S. WILLMORE, A. E. WALTER, C. HUDSON, L. T. R. HUTCHINSON, M.B., C. F. WEINMAN, M.B., H. M. CRUDDAS, A. M. FLEMING, M.B., E. L. WARD, J. N. WALKER, V. H. ROBERTS, J. E. ROBINSON, G. KING, M.B., T. S. ROSS, G. P. T. GROUBE, W. MACM. PEARSON, M.B., and D. C. KEMP, having completed three years' full-pay service, are promoted to be Captains from January 28th.

The retirement from the service of Lieutenant-Colonel A. T. L. PATCH, Bengal Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

Lieutenant-Colonel JAMSHEDJI KARSHEDJI KANGA, Madras Establishment, has also retired from the service from December 14th, 1901. He joined the department April 2nd, 1881, and became Lieutenant-Colonel, April 2nd, 1901.

The retirement of Lieutenant-Colonel E. BOVILL, M.D., has effect from November 9th, 1901, and not as notified in the *London Gazette* of January 17th last.

Lieutenant-Colonel ARTHUR ROBERT WYATT SEDGEFIELD, M.B., Bengal Establishment, died at Sanawar, Punjab, on February 8th aged 47 years. He was appointed Surgeon, October 2nd, 1880, and Lieutenant-Colonel, October 2nd, 1900.

Surgeon-Major FRANCIS TURNBULL, M.D., retired list Bengal army, died at 10, Cleveland Gardens, on March 7th, at the age of 82.

Brigade-Surgeon EDWARD AMBROSE FITZGERALD, retired list Bengal army, died at 65, Longridge Road, Earl's Court, on March 9th, in the 68th year of his age. He joined the department as Assistant-Surgeon, July 27th, 1859, and was made Brigade-Surgeon, December 9th, 1887.

IMPERIAL YEOMANRY IN SOUTH AFRICA.

THE undermentioned gentlemen are appointed Medical Officers in the corps respectively specified, with the temporary rank of Captain: JOHN H. WRIGHT, M.B., 27th Battalion, January 14th; THOMAS B. MCA. SHERWEN, 28th Battalion, January 21st; ARTHUR RICKETTS, C.M.G., 20th Battalion, February 4th; T. J. S. SUFFIELD, 30th Battalion, January 20th; JOHN E. WILLIAMS, M.R.C.S., L.R.C.P., 34th Battalion, February 3rd.

IMPERIAL YEOMANRY.

SURGEON-LIEUTENANT R. M. WILSON, M.D., Derbyshire Imperial Yeomanry, and Surgeon-Lieutenant-Colonel A. COOPER, Suffolk (the Duke of York's Own Loyal Suffolk Hussars), resign their commissions and receive new commissions subject to the Militia and Yeomanry Act, 1901, retaining their rank and seniority.

Messrs. HENRY SKELDING, M.B., and ROBERT L. MOORHEAD, M.B., are appointed Surgeon-Lieutenants in the Bedfordshire Imperial Yeomanry and the Royal East Kent (the Duke of Connaught's Own) Imperial Yeomanry, respectively, March 12th.

Surgeon-Major J. D. LLOYD, Shropshire Imperial Yeomanry, is promoted to be Surgeon-Lieutenant-Colonel, March 12th.

Mr. A. E. RIDSDALE, M.R.C.S., L.R.C.P., has been appointed Second-Lieutenant Sussex Imperial Yeomanry, February 26th.

VOLUNTEER GARRISON ARTILLERY.

MR. JOHN H. MARSH is appointed Surgeon-Lieutenant in the 9th Lancashire, March 12th.

Surgeon-Lieutenant P. B. G. CONSIDINE, M.B., 1st North Riding of Yorkshire, resigns his commission, March 12th.

VOLUNTEER ENGINEERS.

SURGEON-CAPTAIN J. W. EDWARDS, M.B., Submarine Miners (the Tees Division), resigns his commission, March 12th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT J. R. EVANS, 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment, resigns his commission, March 12th.

Brigade-Surgeon Lieutenant-Colonel F. H. APPLEBY, 4th (Nottinghamshire) Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment), is seconded while holding the appointment of Senior Medical Officer to the Sherwood Foresters Volunteer Infantry Brigade, March 12th.

Surgeon-Lieutenant D. LAMOND, M.B., 1st (Ross Highland) Volunteer Battalion the Seaforth Highlanders, resigns his commission, March 12th.

ROYAL ARMY VOLUNTEER MEDICAL CORPS.

MAJOR F. L. STEPHENSON, M.B., the Woolwich Companies, is promoted to be Lieutenant-Colonel, and to command under para. 55A Volunteer Regulations, March 12th.

RETALIATION

ARMY SURGEON'S FRIEND.—How is a more vigorous offensive to be assumed? The R.A.M.C. has been fully exonerated by committees, and in the press from the calumnies brought against it. If it is still blamed it must be through public indifference or denseness.

FINANCIAL ASPECTS OF THE R.A.M.C.

E. A. writes to express the opinion that no solution of the financial problem of the R.A.M.C. will be complete that fails, in addition to the full consideration of Indian pay, to deal with the following points:

1. *Free Passages for Officers' Wives on all Occasions of Travelling on Duty by Rail or Steam Vessel at Home or Abroad.*—The wives of surgeon-generals and quartermasters R.A.M.C. are now granted free passages. It should apply to all officers. The present system is ruinous from a financial point of view.

2. *Horses.*—The R.A.M.C. should be deemed a mounted corps so far as its officers are concerned, and should have the right to Government horses like the Royal Field Artillery and the Army Service Corps, and regulation saddlery complete should be issued for all officers, as in the Field Artillery, Army Service Corps, and Field Companies Royal Engineers. The constant change of stations prevents horses being kept.

3. *Widows' Pensions.*—Steps should be taken by the War Minister to enable officers to pay to a widows' pension fund, as in the Indian Staff Corps, so as to increase the official widow's pension.

4. *Separation Allowance.*—Owing to the constant moves of medical officers for short periods, separation allowance—namely, lodging allowance, and fuel and light allowance—should be issued to all officers' wives during such separation.

5. *Quarters.*—No steps have been taken to supply official quarters for officers at our large hospitals—a source of much expense and discomfort. Quarters are needed as in Royal Naval hospitals.

THE NEW DESIGNATION FOR VOLUNTEER MEDICAL OFFICERS.

A CORRESPONDENT states he is perplexed over his title. He had received two communications from the War Office—one addressed "Surgeon-Captain," and one afterwards, in correction, simply "Captain attached to ——— Volunteers."

*** As a medical officer of volunteers, our correspondent's title is surgeon-captain; if he belongs to the Volunteer Medical Staff Corps, his title under A. O. 28, 1902, would be captain. In the March *Army List*. the title of our correspondent is surgeon-captain. There was probably some mistake in the second note he received.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE NATAL MEDICAL REGULATIONS.

We have received a copy of the *Natal Medical Dental and Pharmacy Registers* together with the regulations of the Medical Council. The official publication is dated 1900, and we must therefore conclude that the *Register* as forwarded is not up to date, but the regulations of the Medical Council, and the legislative enactments remain unaltered and deserve favourable comment.

The Medical Council.—The Natal Medical Council meets regularly for the transaction of its official duties once a month, and in addition meetings can be called by the President at other times upon three days' notice detailing the reasons for such special meeting. Would that our General Medical Council had the funds at its disposal to meet as often as the Natal, instead of having to compress six months' work into a few days' conference, so that time after time matters of serious import have to be postponed. Any member of the Natal Council can be removed by the Governor from his seat should he be absent without leave from three consecutive monthly meetings.

Medical Registration.—Applicants for registration have to address themselves to the Colonial Secretary, and the necessary certificates of identification and diplomas are by him submitted to the Council. Proof has to be given by each applicant that he has passed a qualifying examination as physician and surgeon, but those who have already been registered in the United Kingdom are required only to produce a certificate from the Registrar of the General Medical Council to that effect, together with a sworn declaration of identity and authenticity. The right is, however, reserved to the Council to compel any applicant to appear personally before the Board to prove his identity and to give evidence of his good character.

Dentists.—The regulations as to the practice of dentists are similar for those who possess the requisite qualifications, but in the case of those who have no diploma, arrangements are made by the Council to hold an examination on May 1st of each year, and at other dates should occasion arise. Such examination includes general anatomy, dental diseases and their treatment, surgical dentistry, mechanical dentistry; the composition, action, and mode of administration of anaesthetics and other drugs commonly used in dentistry; and the causes, symptoms, and treatment of asphyxia, syncope, haemorrhage, etc. The fee for the examination is £3 3s., and for the certificate to practise when obtained, £10 10s.

Chemists and Druggists.—Examinations are also held for licences to practise as chemists and druggists; the fee is £3 3s., and proof has to be furnished that the applicant has passed previously a standard examination in preliminary and general education.

Midwives.—Certificates of competency as midwives, trained nurses, and attendants upon the insane are also granted by the Natal Medical Council, without examination if the applicant possesses a diploma or certificate accepted by the Council, or with examination where no such diploma or certificate is held. Midwives before being allowed to practise have to produce evidence of good character, a medical certificate of health, and a sworn declaration that the applicant is not debarred from practice in any country by reason of misdemeanour or professional misconduct. No certified midwife is allowed to administer any drugs except antiseptics and ergot (where specially indicated), or to use or apply any instruments except the catheter and vaginal douche.

Nurses.—Trained nurses are required before being granted a certificate to produce a certificate of qualification as such granted after examination by an institution or body recognised by the Council as competent to grant certificates. They must also produce medical certificates as to health and a certificate of good character, and also sworn declarations that they have not been debarred from practice in any country by reason of misdemeanour or professional misconduct. An examination is held for those who possess no diploma or certificate in January and July in each year. The examination comprises elementary anatomy, physiology, and surgery; medical and surgical nursing; also monthly nursing and general hygiene.

Attendants on the Insane.—Nurses and attendants upon the insane can have certificates granted them upon production of a certificate from any institution or body recognised by the Council as competent to grant such. For others without certificates an examination is held once a year in similar subjects to those required for medical and surgical nurses in addition to mental diseases and the care and management of the insane. Apparently no fee is required for this or the medical nurses examination.

MEDICAL PRACTICE IN CEYLON.

With reference to our reply to "L. M. and S." (British Medical Journal, January 18th, 1902), Dr. Vanderstraaten writes to say that he has more than once ineffectually endeavoured to get the Ceylon Branch to take up the question of registration. This would seem to indicate that there are local difficulties in the way of which we know nothing. It would not be reasonable to seek to apply the rules as to qualified and unqualified practice which are framed for the stage of civilization met with in Europe to every British colony and dependency; but we sympathize with our correspondent's desire to see a system of medical registration adopted in all Crown colonies.

THE PUFFING OF PROPRIETARY MEDICINES.

Dr. McA. sends us a card bearing the words "Nurse Roscoe. Representing Dr. Williams' Medicine Company, 46, Holborn Viaduct, London, E.C.," and says that it was left by a person wearing a nurse's uniform upon his chemist. There is no doubt that it would not be good taste for a nurse in uniform to travel as agent for a proprietary medicine, but any woman may don a nurse's costume, and the ways of the vendors of proprietary medicines are distinctly outside the scope of this column.

FEE FOR A LOST PRESCRIPTION.

Query asks whether he is entitled to an extra fee for furnishing a duplicate of a prescription that has been mislaid or lost. The patient is a stranger to him, and the fee he charged in the first instance was ten shillings.

*** There is nothing to prevent our correspondent from charging a fee under these circumstances, but we believe it is not usual. If a fee is charged it ought to be purely nominal.

An Old Member.—We think that the M.O.H. of the borough ought to have communicated with our correspondent before visiting his patients. At the same time we presume that the enquiries had reference solely to the possible relation of the illnesses to the sewage farm. It would, we think, be a mistake on our correspondent's part to attach much importance to the incident.

The widow of the late Dr. Theodore Puschmann, sometime Professor of the History of Medicine in the University of Vienna, has bequeathed her fortune, amounting to some £40,000, to the University of Leipzig.

The Italian Surgical Society will hold its sixteenth annual Congress this year in Rome. The meeting will open on March 22nd.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS IN SCOTLAND.

IT appears as if, at last, an opportunity were to be afforded of remedying the grievances of Poor-law medical officers in Scotland. Under the Local Government (Scotland) Act of 1889, an annual grant of £20,000 was allocated to parochial Boards as a contribution to the cost of Poor-law medical relief, and trained nursing in poorhouses. The distribution of the grant among parochial authorities was stereotyped by the Act in the mould existing in 1889, and in this way a grant which should have been made conditional upon efficiency became a matter of automatic distribution. For many years the Poor-law Medical Officers' Association has agitated to secure equitable treatment at the hands of parochial Boards, and the Local Government Board has frequently been approached on the subject. But the parochial Boards were free agents; they were not subject to the control of the Local Government Board in the matter. A Bill which has recently been introduced by the Lord Advocate will serve to place matters upon a proper basis. It is a Bill, practically, of a single clause. It provides, in substitution of the automatic distribution of the grant above referred to, that the grant shall be distributed "in such a manner and according to such scale and regulations as may be from time to time prescribed by order of the Local Government Board for Scotland with the approval of the Secretary for Scotland." The policy to be pursued by the Scottish Poor-law Officers' Association is plain. It is, in the first instance, to use all the influence they can exert to secure the passing of the Bill, although it is difficult to believe that there will be any opposition. When the Bill has become law, it will be for the Association to approach the Local Government Board in order to secure that the regulations which the Board will lay down for the distribution of the grant shall be such as to safeguard the Poor-law medical officers against the injustices to which they have been subject in the past.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9,143 births and 5,[illegible] deaths were registered during the week ending Saturday last, March 8th. The annual rate of mortality in these towns, which had been 22.6, 24.4, and 23.3 per 1,000 in the three preceding weeks, further declined last week to 20.5 per 1,000. The rates in the several towns ranged from 10.1 in Smethwick, 11.0 in Hornsey, 11.4 in Wolverhampton, 12.4 in Walthamstow, 12.8 in Middlesbrough, 13.1 in Great Yarmouth, and 13.7 in Plymouth and in Swansea, to 25.2 in Preston and in Huddersfield, 25.7 in Warrington, 26.0 in Bury, 27.0 in Burnley, 27.4 in Blackburn, 27.6 in Stockport, and 30.4 in Barrow-in-Furness. In London the death-rate was 24.6 per 1,000, and exceeded by 5.8 the mean rate in the seventy-five other large towns, which was 18.8 per 1,000. The death-rate from the principal zymotic diseases in the seventy-six large towns averaged 2.1 per 1,000; in London this death-rate was equal to 2.7 per 1,000, while it averaged 1.8 in the seventy-five other large towns, among which the highest zymotic death-rates were [illegible] in Blackburn, 3.4 in Leicester, 5.6 in Willesden, and 7.4 in Burnley. Measles caused a death-rate of 1.7 in Leicester and in Stockport, 1.8 in Barrow-in-Furness, 2.0 in Tottenham, 2.4 in [illegible]ton, 2.7 in Huddersfield, 4.1 in Northampton, 4.7 in Willesden, and 5.3 in Burnley; scarlet fever of 1.7 in Wigan and 1.9 in Handsworth; diphtheria of 1.1 in Portsmouth and in Bristol, 1.3 in Derby, and 1.7 in Bootle; whooping-cough of 1.2 in Walsall, 1.6 in Devonport, and 1.7 in Leicester; "fever" of 1.2 in St. Helens and in Bolton; and diarrhœa of 1.7 in Bootle. The 92 fatal cases of small-pox registered last week included seven cases belonging to London, 6 to West Ham, and 1 each to Croydon, Tottenham, East Ham, Reading, Leicester, and Swansea. There were 1,512 small pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 8th, against 1,185, 1,321, and 1,200 at the end of the three preceding weeks; 555 new cases were admitted during the week, against [illegible] in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,454, 2,413, and 2,507 on the three preceding Saturdays, had further declined to 2,283 at the end of last week; [illegible] were admitted during the week, against 200, 219, and 215 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 8th, 1,003 births and 570 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 25.3 and 22.6 per 1,000 in the two preceding weeks, rose again last week to 25.4 per 1,000, and was 4.9 per 1,000 in excess of the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15.6 in Perth and [illegible] in Paisley to 26.9 in Edinburgh and 29.8 in Dundee. The zymotic death-rate in these towns averaged 2.1 per 1,000, the highest rates being recorded in Dundee and Greenock. The 382 deaths registered in Glasgow included 2 from small-pox, 9 from measles, 4 from scarlet fever, 8 from whooping-cough, 2 from "fever," and 9 from diarrhœa. Three fatal cases of whooping-cough and 5 of diarrhœa were recorded in Edinburgh. Three deaths from measles, 2 from diphtheria, and 2 from whooping-cough occurred in Dundee; 5 from whooping-cough in Aberdeen; and 2 from diphtheria in Greenock.

SULPHUR DIOXIDE AS A GERMICIDAL AGENT.

UNDER the above heading, Dr. H. D. Geddings,[1] Acting Director of the Hygienic Laboratory, Washington, publishes the results of experiments he conducted on account of the "disparagement of the germicidal action of sulphur dioxide when employed for disinfecting or sanitary purposes." After reviewing briefly the nature and physical properties of the gas he discusses the two principal arguments against its use—namely, (1) its lack of penetrating power; and (2) its destructive effect upon textiles and fabrics. The former objection he dismisses after pointing out that great penetration is unnecessary, since any infective soiling is generally sufficiently superficial to be reached by the gas, which will penetrate as deeply as any infection that has been atmospherically carried. The second objection, however, on account of the bleaching and damaging action upon fabrics, is more serious, since sulphur dioxide in the presence of moisture is converted by oxidation into sulphuric acid, so that all linen and cotton goods, unless immediately washed, will become rotten and fall to pieces. On this account Dr. Geddings lays it down as a general rule that sulphur dioxide should not be employed for the disinfection of such articles, but, should its employment be necessary, warning should be given that the fabrics may be altered in appearance, and, unless immediately washed, their strength will be impaired. But against this real disadvantage are placed the distinct advantages of its simplicity and cheapness of production.

In his experiments the author has endeavoured to establish, first, its efficiency as a disinfectant; secondly, the minimum percentage; and thirdly, the minimum exposure to such percentage which is required to reduce as far as possible the expense, damage, and loss of time in its use. In his first experiment cultures of anthrax, cholera, typhoid, diphtheria, plague, etc., were exposed in a bell jar to between 9 and 10 per cent. of dry sulphur dioxide for forty-eight hours, and, on removal, these were placed in an incubator for twenty four hours, when it was found that none of the organisms except anthrax grew; but at the end of a further incubation of twenty-four hours, growth was found in all, showing that the effect of the gas had been merely inhibitory, and consequently that dry sulphur dioxide is not an efficient germicidal agent. Further experiments where the vessel in which the sulphur was burned was immersed in water showed that all the organisms except anthrax placed in the room were killed, while the controls in all cases grew, and it was found that, provided a proper quantity of moisture be present, even low percentages of gas were efficient against ordinary pathogenic organisms. The practical conclusion arrived at is that 5 per cent. of sulphur dioxide in the presence of moisture applied for twenty-four hours will satisfy all requirements, and this can be obtained by burning 5½ lb. of sulphur per 1,000 cubic feet of space in shallow iron pots surrounded by water, which becomes vapourised by the heat of the vessel containing the burning sulphur, ½ lb. of water requiring to be evaporised for every 1 lb. of sulphur.

WORKHOUSE INFIRMARY NURSES.

THE annual report of the Workhouse Infirmary Nursing Association states that the President of the Local Government Board has appointed from among the officers of the department a Committee, consisting of Mr. Grant Lawson, M.P., Parliamentary Secretary; Mr. W. Knollys, C.B., Chief General Inspector, and one of the Assistant Secretaries; and Dr. A. H. Downes and Dr. A. Fuller, Poor-law Medical Inspectors, with Mr. R. H. A. G. Dugg as Secretary, to inquire and report as to the qualifications of nurses and probationers, the difficulties in obtaining an adequate supply of these officers, and the regulations necessary to define the respective duties of the master or matron, and of the superintendent nurse.

NOTIFICATIONS BY M.O.H.

H.B.C.—Under the circumstances mentioned the medical officer of health is entitled, in our opinion, as the medical officer to a public authority, to one shilling for the notification of each case of infectious disease discovered during school inspection not otherwise notified. As to whether he retains this fee or pays it to his authority is dependent upon the arrangement he has with his authority.

POOR-LAW MEDICAL OFFICERS AND THEIR PAUPER PATIENTS.

T. H. G., who is a private practitioner, asks whether a patient of his, whose wife has applied to the relieving officer for some outdoor relief for her husband while incapacitated for work from rheumatism, is bound to have the Poor-law medical officer against his will, or must he forfeit his relief if he refuses?

*** When application is made to a relieving officer for relief on account of illness, it is usual for the district medical officer to be officially requested to visit the patient, in order to report on the nature of the illness. Should the patient not require his medical attendance and treatment he should fully explain this, and so relieve the district medical officer of all responsibility in reference to the treatment of the case. In the absence of any such explanation this official would rightly assume that the medical care and treatment of the patient had devolved upon him.

[1] *Sulphur Dioxide as a Germicidal Agent.* By H. D. Geddings, Passed Assistant Surgeon, Acting Director Hygienic Laboratory, U. S. Marine Hospital Service, Washington. Bulletin No. 3 of the Hygienic Laboratory. Published by the Government Printing Office, Washington, 1902.

VACCINATION

Vaccination of Several Cases from one Tube.

Dr. A. F. Meredith Powell, Public Vaccinator, Sedgley District, Dudley Union, writes: In reply to a query of mine to the Secretary of the Local Government Board as to whether two or more persons can be vaccinated from one tube of calf lymph, where opportunity arises, without infringing the regulations laid down for the use of lymph, I have received the enclosed reply, which I think of interest to public vaccinators, and am, therefore, forwarding same for publication if you think fit:

Local Government Board,
Whitehall, S.W.,
March 5th, 1902.

Sir,—I am directed by the Local Government Board to acknowledge the receipt of your letter of February 15th, and, in reply to your inquiry as to the propriety of vaccinating more than one child from one tube of lymph, I am to state that the Board's object in their Instructions to Public Vaccinators on this point in the Third Schedule to the Vaccination Order, 1898, was to avoid any chance of infection reaching the lymph or of damage to the lymph in any other way by reason of the conveyance of lymph from a tube that had been once opened from the residence or one child to that of another.

In cases where the children vaccinated reside in the same house and the vaccination of the second child is practically simultaneous with that of the first this risk would not, under ordinary precautions, be likely to occur.

I am, Sir,
Your obedient Servant,
John Lithiby,
Assistant Secretary.

A. F. M. Powell, Esq., Bleak House, Sedgley.

M.D.—It would appear that the Local Government Board has exhausted its powers in the matter, and that the parochial authorities, having now complied with the requirements of the statute, can appoint anyone they please.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Appointments, etc.—Dr. W. B. Ransom has been appointed by the University a member of the governing body of University College, Nottingham. Mr. J. S. Budgett, Trinity, is elected to the Balfour Studentship in Animal Morphology. Mr. F. N. Hales, Trinity, is elected to the Allen Studentship for research in Physiological Psychology.

The Third M.B. Examination begins next term on April 22nd, and the M.C. Examination on April 23th.

Degrees.—At the Congregation on March 8th the following degrees were conferred: *M.B.*: G. W. Deeping, Trinity; *M.B.* and *B.C.*: W. E. Tucker, Caius.

UNIVERSITY OF EDINBURGH.

Honorary Degrees.

The Senatus Academicus has resolved to confer the Honorary Degree of Doctor of Laws, at the Graduation Ceremonial on April 11th, upon: Professor John Cleland, M.D., LL.D., D.Sc., F.R.S., of the University of Glasgow; Arthur William Rucker, M.A., D.Sc., F.R.S., Principal of the University of London; J. G. Schurman, M.A., D.Sc., President of Cornell University, U.S.A.; and Sir John Batty Tuke, M.P., M.D., F.R.C.P.E., F.R.S.E., Honorary D.Sc.

The Carnegie Trust.

The University Court of the University of Edinburgh has sent in a statement of the more urgent needs of the University, in response to the letter issued by the Executive Committee of the Carnegie Trust.

The Court first indicated what had been done for the University by public subscription and by the generosity of private persons during the past 28 years. The extension and equipment of buildings devoted to teaching and research in medicine and in science, the McEwan Hall, the Hughes Bennett Physiological Laboratory, the John Usher Institute of Public Health, were in turn referred to, and it was pointed out that these meant an expenditure of £400,000.

But the University was still in need of large additions to its buildings, to its teaching staff, and for educational appliances of various kinds, a statement of which the University Court now begs to offer for the consideration of the Executive Committee of the Carnegie Trust.

The more urgent needs of the University were:

1. A building for natural philosophy and engineering at a cost of £8,000 annually for five years.
2. £500 for five years for structural alterations and on fittings for the library, and an annual sum of £1,500 for general and special library purposes.
3. £2,500 in the coming year to be expended on equipment of laboratories in chemistry, botany, zoology, anatomy, physiology, pathology, clinical medicine, special branches of surgery, etc.
4. £1,000 in the coming year for research and other scholarships.
5. An annual grant of £4,000 towards the maintenance and extension of the teaching and research work of the laboratories in the departments of physics, chemistry, botany, zoology, geology, anatomy, physiology, materia medica, pathology, public health, surgery, midwifery, tropical diseases, etc.
6. Various lectureships in ophthalmology, mental diseases, etc.
7. Certain new lectureships in science, medicine, etc.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At the monthly business meeting of the President and Fellows held on Friday, March 7th, Henry Cooke Drury, M.D.Dub., F.R.C.P.I., was unanimously elected a Physician to attend Sir Patrick Dun's Hospital in the place of Dr. Wm. H. Thompson, the newly-elected Professor of Institutes of Medicine in the School of Physic in Ireland, who has been exempted by the President and Fellows of the Royal College of Physicians from his clinical duties.

The following registered medical practitioners, having passed the requisite examination, have been duly admitted Licentiates in Medicine of the College: Thomas Percy Claude Kirkpatrick, M.B., B.Ch., M.D.; Francis Carmichael Purser, M.B., B.Ch., B.A.O., M.D.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE STANLEY HOSPITAL, LIVERPOOL.

Our Liverpool correspondent writes: The annual report of the Liverpool Stanley Hospital reveals the existence of a financial embarrassment which is hardly less disappointing to the members of the medical profession than it is to the Committee of the charity. The hospital was founded about 35 years ago by two practitioners in the north end of the town—the late Dr. D. D. Costine and the late Mr. E. M. Sheldon. It has been an essentially progressive institution, and its staff has always included a number of enthusiastic young physicians and surgeons, who were determined to extend the sphere of usefulness of the institution in the face of small funds and other discouragement. Of the three physicians and three surgeons now on the staff of the Royal Infirmary two of each began their hospital career at the Stanley Hospital: the same may be said of both the assistant physicians and of half the staff of the Royal Southern Hospital. This may be quoted as conclusive evidence of the quality of the work done within its walls: its quantity may be inferred from the fact that it is situated in the midst of a vast industrial population, and that its beds are always full. It is, however, the only general hospital in Liverpool which has a complete out-patient department where medicines are supplied to all comers; and the accounts show this year a deficit of over £5,000. The Committee are seriously proposing to close part of the hospital.

MEDICAL NEWS.

The Bureau de Statisque de l'Administration des Services Sanitaires, Egypt, has forwarded its quinquennial statement of the cases and deaths from various infectious diseases during 1896-1900. Small-pox caused 3,446 deaths, giving a rate of about 98 yearly per million living. The total for 1891-5 was only 1,572; for 1886-90, 2,075. During the five years 1896-1900 there were 17 cases in the English military hospitals, with one death in 1897 in Cairo. *Fièvres typhiqués* (typhoid, typhus, relapsing, and bilious fevers) caused 5,847 deaths during the period; of these 108 occurred in English military hospitals.

Antiseptic Shaving in New York.—Dr. Lederle, the new Commissioner of Health for New York City, has announced his determination to institute certain reforms in barbers' shops. The prohibition of the use of a sponge on the face after shaving, of the use of the powder puff, of the use of alum in stick form, and of the use of a towel more than once, are, according to the *Journal of the American Medical Association*, among the proposed changes. The new regulations are to be posted conspicuously in every barber's shop, and the customers are relied upon to see that they are enforced.

A New Lying-in Hospital for New York.—Mr. Pierpont Morgan has erected a new lying-in hospital for New York, which is described as "the most complete, the most modern, and the most comprehensive structure for the benefit of maternity patients yet built in this or any other country." A writer in *Harper's Weekly* says: "In a district where poverty is rampant, where more than 50,000 children are born each year, where physicians (according to statistics) reach only a little over 24,000, or fewer than half the suffering mothers, one can get an inkling of what such a building means to the future citizens of this city of New York." The money for the maintenance of the hospital—a sum ranging from £18,000 to £30,000 a year, depending on the number of beds used—is to be raised by private subscription.

The London County Council.—Last Tuesday the London County Council elected Mr. John MacDougall Chairman. A few years ago Mr. MacDougall was the butt of the music-halls for his action on the Licensing Committee of the Council. He has, however, pursued the even tenour of his way, regardless of praise or blame, and by downright hard work for thirteen years, especially in the Asylums and on the Main Drainage Committee—his total committee attendances amounting to thousands—he has convinced his colleagues that he is worthy of the greatest unadorned, unsalaried position in the empire. Lord Monkswell was elected Vice-Chairman, and Mr. Henry Clarke, of high reputation in the City, Deputy Chairman.

GERMAN ORTHOPAEDIC SOCIETY.—The German Society of Orthopaedic Surgery, which was founded last September at the time of the meeting of the German Association of Scientists and Medical Men, will hold its first annual meeting at Berlin on April 1st.

KING EDWARD'S HOSPITAL FUND.—The annual meeting of the General Council of King Edward's Hospital Fund for London was held on March 7th under the chairmanship of the Prince of Wales. A sum of £51,000 had been distributed, being £1,000 more than during the previous year. During the past year 34 beds had been reopened through the agency of the Fund. The Prince of Wales stated that he had now received provisional promises of support the investment of which would increase the annual income of the Fund by £20,000; this was about half the amount he wished to secure during the coronation year.

COMPULSORY VACCINATION IN AMERICA.—A compulsory Vaccination Act was passed in both Houses of the General Assembly of Rhode Island on February 19th. The Act provides that every child shall be vaccinated before the age of 2 years under a penalty of £1 for every year during such neglect; that, if a Board of Health deems it necessary, it may enforce the vaccination of all inhabitants at the public expense; refusal entails a fine of £1. Inmates of hotels, manufacturing establishments, hospitals, asylums, and correctional institutions may be vaccinated if the Board of Health so orders. Exemption can only be obtained on a certificate from two practitioners that a person is an unfit subject. Revaccination may be ordered.

DANGERS OF "FLANNELETTE."—Within the last few months in the North of England there have been several fatal accidents from the dresses of children, made of flannelette, becoming ignited. A spark from the fire falling upon a child's dress or chemise has in an instant wrapped the wearer of it in flames. So frequent have these accidents been of late that Mr. Coroner Graham, of Sunderland, after having denounced at several inquests the use of flannelette, recently stated that a Manchester firm of manufacturers had succeeded in giving a patent finish to flannelette which would enable it to stand the test of repeated washings, and would be less combustible than an all-wool article. Meanwhile, until this new material, which is said to be the discovery of one of the professors of Owens College, is placed upon the market, much danger will be averted by rinsing flannelette in alum and water after washing. It is well known that flannelette will not burn after being rinsed in such a solution.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon. Appointment for six months. Salary, £25, with residence, board, and washing. Applications to the [illegible] by March [illegible].

[illegible] AND REA DISTRICT DRAINAGE BOARD.—Bacteriologist. Applications to Mr. J. D. Watson, Engineer to the Board, by March 19th.

[illegible]-LAW UNION.—First Resident Assistant Medical Officer for the [illegible] Workhouse. Salary, £125 per annum, with prescribed rations, apparelling. Applications to the Clerk, 22, Manor Road, Bradford, by [illegible].

[illegible]MARY.—Dispensary Surgeon. Unmarried. Salary, £100 [illegible] residence. Applications endorsed "Dispensary Surgeon" [illegible].

[illegible] Assistant Medical Superintendent [illegible] of the Infirmary and [illegible] Isle-wort; unmarried. [illegible] washing, etc. Applications [illegible] Guardians, Union Offices, Isle [illegible].

[illegible] [illegible] [illegible] [

NESBIT, C., M.B., B.Ch., R.U.I., appointed Certifying Factory Surgeon for the Rondalstown District of the County of Antrim.

SELDON, William M.B., appointed Resident Medical Officer to the Sydney Hospital, New South Wales.

SOPER, G. Morgan, M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Royal Albert Hospital and Eye Infirmary, Devonport.

WALLACE, D., M.B., appointed Resident Medical Officer to the Prince Alfred Hospital, Sydney, New South Wales.

WHITE, G. F., M.D., appointed Senior House-Surgeon to the Birkenhead Borough Hospital.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been selected as House Officers from March 8th, 1902:

House Physicians.—T. B. Henderson, M.A., M.B., B.Ch.Oxon.; H. S. Stallard, L.R.C.P., M.R.C.S.

Assistant House-Physicians.—H. W. Smeeton, M.B.Lond., L.R.C.P., M.R.C.S.; K. E. Crompton, B.A., M.B., B.C.Cantab.

House Surgeons.—G. A. C. Shipman, M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S.; W. Hill, B.A.Cantab., L.R.C.P., M.R.C.S.; T. W. H. Downes, L.R.C.P., M.R.C.S.; F. J. Child, M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S.

Assistant House Surgeons.—B. S. Jones, L.R.C.P., M.R.C.S.; J. Coates, L.R.C.P., M.R.C.S.; A. C. Hudson, M.A., M.B., B.C.Cantab.; H. Spurrier, B.A.Cantab., L.R.C.P., M.R.C.S.

Obstetric House Physicians.—Senior) V. S. Hodson, B.A., M.B., B.Ch.Oxon.; (Junior) T. D. Miller, L.R.C.P., M.R.C.S.

Ophthalmic House Surgeons.—(Senior) F. B. Skerrett, B.Sc.Lond., L.R.C.P., M.R.C.S.; (Junior) F. Clarkson, M.B., B.Sc.Durh.

Clinical Assistants in the Special Department for Diseases of the Throat.—Z. Mennell, M.B.Lond., L.R.C.P., M.R.C.S.; B. E. Sansom, L.R.C.P., M.R.C.S., L.S.A.

Clinical Assistant in the Special Department for Diseases of the Skin.—H. A. Easton, L.R.C.P., M.R.C.S.

Clinical Assistant in the Special Department for Diseases of the Ear.—H. S. D. Browne, B.A.Cantab., L.R.C.P., M.R.C.S.

Several other gentlemen have received an extension of their appointments.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor C. Stewart: On the Organs of Respiration. Lecture IV.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Mr. A. Pearce Gould: Lettsomian Lectures on Certain Diseases of the Blood Vessels. Lecture III.—Thrombosis: Its Rarer Forms, Chronic, Recurrent; Thrombosis of Spermatic, Mesenteric, Innominate, Azygos Veins.

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. F. T. Roberts: On the Comprehensive Study of Thoracic Phthisis. Lumleian Lecture II.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., 8.30 p.m.—Annual Clinical Debate. On Cancer, its Nature, Origin, and General Principles of Treatment. The following will take part in the discussion: Sir William M. Banks, Mr. A. Pearce Gould, Mr. A. W. Mayo Robson, Mr. A. Marmaduke Sheild, and Dr. A. Barry Blacker (The Present Position of Treatment by Means of X Rays and Ultra-Violet Rays, with Demonstration of Apparatus).

Pathological Society of London, Laboratories of the Royal Colleges of Physicians and Surgeons, 8 p.m.—Laboratory meeting. Specimens by Drs. F. W. Pavy, T. G. Brodie, R. H. Sian, Mr. Edmunds, Dr. Bain, and Dr. Dixon.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor C. Stewart: On the Organs of Respiration. Lecture V.

Royal Microscopical Society, 20, Hanover Square, W., 7.30 p.m.

Royal Meteorological Society, Institution of Civil Engineers, Great George Street, Westminster, S.W., 7.30 p.m.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Hamilton Cumming (Torquay) will introduce a Discussion on Chronic Affections of the Kidney and Morbid Conditions of the Urine arising therefrom, in relation to Balneological, Climatic and Dietetic Treatment.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. F. T. Roberts: On the Comprehensive Study of Thoracic Phthisis. Lumleian Lecture III.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Clinical Cases will be shown by Mr. Watson Cheyne, Mr. Jackson Clarke, Dr. Atwood Thorne, Dr. Risien Russell, Dr. L. Guthrie, Mr. E. Roughton, and others.

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor C. Stewart: On the Organs of Respiration. Lecture VI.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Daniels: Infantile Mortality in the Tropics.

POST-GRADUATE COURSES AND LECTURES.

Central London Throat, Nose, and Ear Hospital, Wednesday, 8 p.m.—Lecture on Cases Illustrating the Correlation of Diseases of the Throat, the Nose, and the Ear.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m.—Lantern Demonstration on Convulsive Conditions in Infants.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C. Tuesday, 3.30 p.m. Lecture on Peripheral Neuritis.

Royal London Ophthalmic Hospital, Moorfields, City Road. Thursday, 4.30 p.m. Clinical Demonstration.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows:—Monday, Diagnosis of Small-pox.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

THOMSON.—On the 10th inst., at Bridge House, Retford, Notts, the wife of Dr. George Thomson, of a son.

DEATH.

KENT.—On February 27th, at Bournemouth, Robert Thomas Kent, F.R.C.S., M.A.Oxon., of Eastbach Court, Coleford, Gloucestershire, recently Professor of Anatomy at St. Mungo's College, Glasgow, aged 48 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are presumed to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary is stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. D.—A *List of Sanatoria* for the open-air treatment of phthisis is published by the National Association for the Prevention of Consumption, 20, Hanover Square, London, W. Price, 4d.

FOR THE WASTEPAPER BASKET.

A CORRESPONDENT writes that he has received a letter from the Secretary of the Victoria Mutual Assurance Society, stating that a claim had been made under a policy, and that the signature of the death certificate purported to be his. The letter ended as follows: "If you have not signed any such certificate, kindly reply, when we shall be pleased to recompense you for your trouble." He then replied, saying that no postal order had accompanied the letter; but, in answer, was reminded by the Secretary that he had been asked to reply only in event of his not having signed the death certificate.

*** It is clear from the secretary's letter that the Society only intended to pay a fee on the receipt of a letter from our correspondent stating that he had not signed the death certificate, but none the less it is, as he complains, an attempt to get something for nothing from the medical practitioner. In order to be in a position to answer the question asked, it might be necessary to spend some time in looking up the case. When this has been done, unless a forgery has been committed, no fee is to be paid. Many medical men would throw the letter into the wastepaper basket, and take no further notice; and it is a shortsighted policy on the part of the assurance society, which is greatly interested in detecting such frauds, not to pay for an answer in either case. The economy belongs to the kind which is known as "Penny wise and pound foolish."

ANSWERS.

C. F. might apply to the Medical Sickness, Annuity, and Life Assurance Society, 33, Chancery Lane, London, W.C.

DELTA.—The seeds forwarded are examples of the drug known as "isphagula" in the *Indian and Colonial Addendum (1900)* to the *B.P., 1898.* The chief constituent is mucilage, and a decoction (1 in 73) is given as a cooling demulcent drink, much the same as infusion of linseed or barley water. The dose of the powdered seeds for dysentery is from 30 to 150 gr., either mixed with sugar or in the form of a viscous liquid, with water.

MULTIPLE WARTS.

DR. HENRY WALDO (Physician to the Bristol Royal Infirmary) recommends "H. C. R." to prescribe enough magnesium sulphate three times a day to act upon the bowels pretty freely. If this plan is adopted without local treatment he hopes the result will be reported in the BRITISH MEDICAL JOURNAL.

X-RAY BURN.

DR. J. S. WALKER (Hanley), in reply to "R.," who asks for suggestions as to the treatment of an obstinate case of x-ray burn, writes: In former years I used to find a burn occasionally intractable, but never do so now by using the following treatment: Chalk ointment, creta precip. 3ss., ol. olivae 5ij, adipis 5j, and every other day brush it over with a solution of silver nitrate (gr. ij to 5j). A very good plan is to sprinkle the burn with bismuth trinitrate, and then apply several folds of thymol gauze, and bandage tightly, so as to exert a little pressure on the raw surface.

REMOVAL OF SUPERFLUOUS HAIRS.

A. H. asks for suggestions as to the permanent removal of superfluous hairs.

*** The method he mentions (the Roentgen rays) cannot be trusted to give permanent results. In answer to several previous inquiries on the same subject, the treatment by electrolysis has been described, using about five Leclanché cells, so as to obtain (having a galvanometer in circuit) a current of 2 or 2.5 milliampères. The negative pole should consist of a fine platinum wire which must be made to enter each hair follicle.

INCOME TAX.

NORTHERNER.—The return should date from the time when our correspondent set up for himself, unless he succeeded to another practice. As he has not been in practice for three years, he must make a return for the actual time he has been in practice. The first return would be up to the date when he made up his annual accounts, the second year to the anniversary of that date, adjusting figures. As all this is somewhat complex, it might be well to submit the case to an expert.

PYORRHOEA ALVEOLARIS.

M.B., M.D.—Absolute cure is seldom attained in pyorrhoea alveolaris, but much can be done to keep it in check. The teeth should be absolutely freed from tartar, and finely-powdered copper sulphate may be packed into the pouches between the gum and the teeth with a thin slip of wooden toothpick every two or three days till all discharge ceases. This may be alternated with similar applications of equal parts of the glycerine of carbolic acid and of tannin. Very loose teeth which fail to respond to treatment should be extracted, for the disease appears to spread from one to another.

TREATMENT OF NOCTURNAL ENURESIS.

M.R.C.S. asks for suggestions for the treatment of two obstinate cases of incontinence of urine in boys aged 8 and 13 respectively. The elder has been circumcised without lasting benefit.

*** Among other suggestions made in the past by correspondents are the following (in addition to the old method of giving belladonna, preferably the extract): Galvanism to the perineum, the negative electrode, a large one, being applied to the lower dorsal region, and a current of 3 milliampères being passed for ten minutes on alternate days. Carbolic acid or creosote in ½ minim doses before bedtime. Tincture of cantharides, m iv three times a day, the dose to be gradually increased to m viij or even m x. Antipyrin, in doses of 8 to 10 gr. at bedtime, nightly, to be gradually increased for a month or more, and to be followed by arsenic.

QUANTITATIVE ANALYSIS OF SUGAR AND STARCH.

G. H.—(1) There is no better method for the quantitative estimation of sugar than Fehling's or Pavy's. Where the amount of sugar is small the urine should be diluted only five times, or even less. If the reduction of copper is very slight, some confirmatory test is needed to prove that the reducing agent is really sugar, and for this purpose the best is the formation of glucosazone crystals by the phenyl hydrazin method. (2) A rough quantitative estimation of the amount of starch present in so-called "starch-free diabetic foods" can be performed by examining a few grains under the microscope after the addition of weak iodine solution, or by soaking some of the food in water in a test tube, boiling it, and adding weak iodine solution. An exact method of making a quantitative estimation of starch is to convert the whole of the starch present into sugar by boiling with dilute sulphuric acid, neutralizing, and then estimating the sugar by means of Fehling's solution.

RIGIDITY UNDER CHLOROFORM.

DR. J. BLUMFELD (Assistant Anaesthetist, St. George's Hospital) writes: In the BRITISH MEDICAL JOURNAL for March 8th your correspondent Dr. J. Gay Moffat relates a case which is an example of a condition giving rise to great inconvenience to the surgeon, and often to great difficulty on the part of the anaesthetist in his efforts to overcome it. In a paper shortly to be published I deal in detail with the causes of this condition and the most likely means of combating it, but may I in the meantime, while thanking Dr. Moffat for his instance, inform him that when the condition does not arise, through obstructed breathing or cyanosis, it is usually found in connexion with chronic inflammatory disease in the upper part of the abdomen, such as is associated with gastric ulcer or with the long-continued presence of gall stones? His own case was one of gall stones; perhaps he will kindly inform me whether there had been inflammation in connexion with them resulting in adhesions about the gall bladder.

LETTERS, NOTES, Etc.

THE VALUE OF QUININE AS A PROPHYLACTIC OF INFLUENZA.

M.B.CAMBRIDGE writes: I think my personal experience of quinine as a prophylactic of influenza would be interesting to your readers. Having had several attacks of influenza, followed by neuritic symptoms, a London consultant suggested to me to try quinine as soon as ever I started attending influenza cases. I have tried this on two occasions. First, December, 1900. Took 5 gr. of quinine on a Thursday, 4 gr. on Friday, and was attacked by influenza early Saturday morning. Was ill for a fortnight, but considered I was moderately lucky. Secondly. As influenza started in the town where I practise about the middle of November, 1901, I took 2 gr. of quinine after breakfast every morning for six weeks. At the beginning of January, 1902, influenza occurring in my house, I increased the dose to 4 gr.—2 gr. in the morning and 2 gr. in the evening, and continued this for six days, when I was again seized with my enemy. The catarrhal signs were slight, as they always are with me, but the symptoms of neuritis came on a fortnight later and made me [illegible] extremely uncomfortable for nearly six weeks, and I am now just [illegible] myself again. I reckon this last was a two months' illness. One begins to wonder if 4 gr. of quinine a day cannot prevent the disease [illegible] drug of as much use as is supposed in the treatment of this [illegible] perhaps some of your readers will have something to say on this subject.

RELAPSE OF VACCINATION.

DR. JOHN ROBERT WILLIAMS (Ardro, Penmaenmawr, N. Wales) writes: The interesting notes in the BRITISH MEDICAL JOURNAL of February 22nd and March 1st will probably remind many medical men of some curious anomalies they have experienced from time to time, the explanation of which it is difficult to fathom. A gentleman whom I vaccinated the other day had typical vesicles forming on one of his scars of childhood, in addition to those on the parts I scarified. I know the case of a young lady who was recently vaccinated on her left arm, but as it did not "take," she again requested to be vaccinated on the right arm. This, too, proving unsuccessful, she decided to try what the effect would be on her left leg, the result being that well formed vesicles appeared on both arms and leg simultaneously. Again, I believe, it sometimes happens in cases of revaccination there may be some constitutional disturbance, without the formation of vesicles, but with intolerable itching at the seat of scarification, or occasionally rheumatic pains in the vaccinated limb. Early in January, Dr Hughes of Penmaenmawr vaccinated a lady who was anxious it should be done before proceeding to London, but strange to say there was absolutely no trace of anything for twenty days, when there appeared a large crop of vesicles. This latter case raises an interesting point, as to whether it may be inferred that a long incubation period is any criterion of a greater power of resistance in the individual, thus ensuring more immunity from the influence of small-pox. I await an explanation of these phenomena.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Dr. T. D. Acland, London; F. H. Aldersen, M.B., London; A. H. **B** Mr. R. Barnard, Wanganui, N.Z.; Mr. W. Bell, London; Dr. W. A. Bonney, London; Mr. E. H. Batchelor, Bridlington; Dr. L. Buchanan, Glasgow; Dr. P. L. Benson, Winslow; Dr. J. Blumfeld, London; A. C. Barron, M.B., Dalby; Beta; Mr. L. A. Bidwell, London. **C** Dr. A. E. Cooper, London; C. F.; J. Cowper, M.B., Shanklin, I. of W.; Miss L. B. Clapham, M.B., London; Mr. H. B. Collins, Kingston-on-Thames; Dr. C. P. Coombs, Castle Cary; Hon. Stephen Coleridge, London; Dr. F. G. Crookshank, London; Dr. J. Cater, London; Dr. S. Cornish, Dorking; Chough; C. A. S.; H. R. Clarke, M.B., Manchester. **D** Delta Mr. A. Duckworth, Croston; Mr. A. S. Dillon, Liverpool; Dr. S. Davies, Woolwich Lieutenant Colonel J. D. Day, London; Dr. T. Dutton, London. **E** Enquirer; Examiner. **F** Financial Aspects; Dr. W. T. Freeman, Reading; J. B. Fisher, M.B., Whitehaven. **G** Mr. F. J. Gant, London; G. H.; Mr. J. Garrett, London; Dr. W. H. Gregory, Beverley; Dr. A. Greene, London; Mr. S. A. E. Griffiths, Mecpham. **H** Dr. W. W. Hall, London; Mr. W. J. Haslett, Sunbury-on-Thames; The Right Hon. Sir W. Hart-Dyke, Bart., M.P., London; H.; Mr. A. Hannan, London; Dr. W. P. Herringham, London; Mr. F. F. Hounslow, Redhill. **I** Inquirer. **J** Dr. A. J. Jefferson, Rochdale; Mr. F. Jaffrey, London; Dr. G. P. Johnson, Stoke-on-Trent. **K** Mr. H. Kimpton, London; D. H. Kyle, M.B., St. Andrews; J. Kirkland, M.B., London. **L** Mr. H. Leak, Winsford; L.R.C.P. Lond., M.R.C.S.; Dr. A. G. Lawrence, Chepstow; London Graduate. **M** J. MacIntyre, M.B., Glasgow; Dr. T. Mitchell, Gorseinon; Dr. J. D. McCaw, London; Mr. E. Merck, London; Mr. R. Moynahan, Kilrush; M.B.Cambridge. **N** Nottingham Medical Society, Secretary of, Nottingham; Mr. J. O. Neumann, London R. S. Nichol, M.B., Manchester. **O** Only a G. P.; Old Member. **P** Dr. A. E. Price, Bromley, Kent; A. F. M. Powell, M.B., Sedgley; Messrs. Potter and Clarke, London Messrs. L. Paechtner and Co., London; Mr. A. Pailbrook, London; Perplexed; Dr. J. A. Parsons, Oakham; Mr. J. J. Pickles, Leeds; Dr. R. Paramore, London. **R** Revilo; Rosin; Mr. H. M. Riley, Leicester; Dr. J. C. Ross, Manchester; Rus; Dr. W. C. Rainsbury, Skegby; J. H. Ray, M.B., Manchester. **S** Major B. M. Skinner, R.A.M.C., A. M. Sheild, M.B., London; Mr. A. H. M. Saward, London; Dr. J. W. W. Stephens, Waltair; Mr. F. W. Stoddart, London; A. A. S. Skirving, C.M.G., M.B., Edinburgh; Subscriber of 25 Years; Mr. J. A. E. Stuart, Batley; Senex; W. T. H. Spicer, M.B., London; Subscriber. **T** Fr J. C. Thresh, Chelmsford; Mr. M. R. Taylor, Helston; Mr. B. Thornton, Margate; Miss Todd, York; Mr. D. L. Thomson, Newbury; Mr. J. L. Thomas, C.B., Cardiff; Dr. T. Telfordsmith, Wimborne. **V** Messrs. Van der Berghs, Ltd., London. **W** H. Woods, M.B., Tunbridge Wells; Dr. R. Wilkinson, London; Dr. W. W. Wingate-Saul, Lancaster; Dr. J. S. Walker, Hanley; Mr. H. S. Woods, Belfast Mr. A. H. Walker, Cranleigh. **X** X. Y. Z.; **Y** Dr. M. Young, Stockport.

BOOKS, ETC., RECEIVED.

Forensic Medicine and Toxicology. By J. D. Mann, M.D., F.R.C.P. Third Edition. London: C. Griffin and Co. 1902. 21s.

Die Faeces des Menschen im normalen und krankhaften Zustände. Von Dr. A. Schmidt und Dr. J. Strasburger. II Theil. Berlin: A. Hirschwald. 1902. M 6.

On the "Herbarius" and "Hortus Sanitatis." By J. F. Payne, M.D., F.R.C.P. London: Blades, East and Blades. 1901.

Photographic Atlas of the Diseases of the Skin. By G. H. Fox, A.M., M.D. Parts 13 to 16. London and Philadelphia: J. B. Lippincott Co. 1901.

Manual of Antenatal Pathology and Hygiene. The Foetus. By J. W. Ballantyne, M.D., F.R.C.P.E., F.R.S.E. Edinburgh: William Green and Sons. 1902.

Selected Essays and Addresses. By Sir James Paget. Edited by Stephen Paget, F.R.C.S. London: Longmans, Green and Co. 1902. 12s. 6d.

Die spezielle Tuberculose der Knochen und Gelenke. Bearbeitet von Dr. F. Koenig. II Das Gelenkleiden. Berlin: A. Hirschwald. 1902. M.5.

The Medical Annual 1902. Bristol: John Wright and Co. 7s. 6d.

A Manual of the Diseases of the Eye and Refraction. By G. M. Gould, A.M., M.D., and W. L. Pyle, A.M., M.D. Second Edition. London: "The Optician and Photographic Trades Review" Office. 1900.

Spectacles and Eyeglasses. By R. J. Phillips, M.D. Second Edition. London: "The Optician and Photographic Trades Review" Office. 1900.

Dynamic Aspects of Nutrition and Heredity. By F. Horridge. London: Baillière, Tindall and Cox. 1902. 5s.

Royaume de Belgique. Ministère de l'Industrie et du Travail. Office du Travail. Les Filatures de Lin.

Rapport d'Enquête, par Dr. D. Gilbert. Bruxelles: J. Lebègue et Cie et O. Schepens et Cie. 1902.

*** In forwarding books the publishers are requested to state the selling price

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	1 17 6
A page	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Fifty Years Ago:

A FAREWELL RETROSPECT.

By JOHN KENT SPENDER, M.D.Lond.,

Sometime Physician to the Royal Mineral Water Hospital, Bath.

A physician or a surgeon who began to practise fifty years ago may ask himself a simple question: Is there any doctrine within the scope of my work which has survived the "changes and chances" of time and fashion, and which is as firm and immutable now as it was in the middle of the last century?

If the medicine and the surgery and the therapeutics of 1852 could be reproduced on a screen, some of it would look crude and thin; and there would be some that we might repudiate as not only imperfect, but absolutely wrong. The group of healing sciences as they exist in 1902, how will they appear to the practitioner of 1952? Of this we may be sure, that certain principles will be the same then as they are now. There will be many new discoveries, and new developments of old knowledge; but not all the "familiar friends" will have passed away. Shifting sands come and go; bed-rock truths will last for ever.

Of these deep facts, let me quote one as especially rich in useful results—the administration of medicines in comparatively small and frequent doses. It is a settled ordinance that nearly all great medicines are also great poisons. The dynamic forces which make a substance medicinal make it also toxic: it is a question only of form and degree. Good and evil are always near neighbours; excess of good may become malign; and so it is sung by our great dramatist: "Within the infant rind of this small flower, Poison has residence and medicine power." And the plain didactic verse of Pope is not less clear: "As poison heals, in just proportion us'd."

This, then, is our complex pharmacological problem. We want to get the greatest amount of good from a medicine with the least amount of harm. Its capacity for good is a measure of its capacity for harm; the latter is wrapped in the former, and cannot be wholly separated from it. Etymologically a "dose" is a thing given; in formal terms it denotes a quantity which is calculated to do a specific duty. The *British Pharmacopœia* for 1885 was the first *Pharmacopœia* which contained tables of doses; but there was no instruction about the number which ought to be given, or what interval there should be between any two doses. The perplexity is increased by the fact that a drug may show opposite qualities in comparatively small and large doses respectively. Here the human agent comes in; here he compasses his purpose by a skilful repetition of doses, by the nice adjustment of means to an end, and by directing every other aid (moral and mental) which may help the object that he has in view.

Many people insist that, well or ill, they cannot take a particular medicine because it "upsets" them, or "disagrees" with them in a real or fancied way. The supposed disagreement may be caused partly by the medicine being taken in a bulk which disturbs a natural function. Break up that bulk (so I advise) into four, and administer each of those four exactly four times as often. In this manner we get the same therapeutic influence with the minimum of disturbed function; and the influence is not impeded or thwarted—possibly it is even favoured. If a quantity termed X, given to a patient every fourth hour, causes symptoms of more or less toxic gravity; then split X into x, x, x, x, and each of these petty factors may be administered every hour with no more evident effect than if they were so many rations of cold water.

This canon of therapeutic art is of far-reaching importance. It abolishes the old belief that a drug must demonstrate itself to be a poison before we can accept it as a medicine. We find that when we disarm it of every physiological terror its therapeutic victory is the more complete. The evil spirit is dislodged, and the good spirit has a larger field of action; poison has no longer residence, and medicine has wider power.

In 1864 or 1865 the late Dr. Anstie published a small book which was full of inspiring thoughts for practitioners and students. The theme was *Opium as a Stimulant and as a Narcotic*. By clear and cogent reasoning he showed that opium is a stimulant to nutrition and to vital force generally. That opium promotes textural repair had been proved by surgeons in the treatment of ulcers. But the grand key of Dr. Anstie's thesis was that opium acts as a stimulant only within definite limits. If the drug be pushed so as to trespass in the slightest degree on the domain of narcosis, a toxic shock countermines all the benefit. Excretory functions are checked, the circulation is depressed, and the whole organic machinery is thrown out of order.

Dr. Anstie's book touched the imagination, and was widely read. Many of its hints and suggestions were fruitful in unexpected ways; the science of therapeutics was helped all along the line. Next, the philosophy of the therapeutist had to be translated into action. Opium is our great analgesic; no code of healing can do without it; and the wit of practitioners was devoted to the urgent question, How can we get most good from opium with the least possible evil?

In the spring of 1866, a gardener (aged about 55) came to me at the Eastern Dispensary, Bath. He was afflicted with a stage of chronic rheumatic arthritis, which was then almost impossible to differentiate from rheumatoid arthritis. He was weak and very lame; obviously there was much damage in the structures of several joints, but his chief complaint was about sharp and almost constant pain "all over him." Without any preliminary treatment beyond one or two aperient doses, the man was supplied with a number of pills, each containing one-twelfth of a grain of powdered opium, mixed with extract of gentian. He was told to take at least six of these pills in the day and night of twenty-four hours, and not more than eight; and there was to be an interval of at least two hours between any two pills. Special emphasis was laid upon these points: He was never to be drowsy or thirsty, and never to suffer more than the slightest approach to headache. An intelligent wife promised to obey all commands. No baths were ordered, and no special diet of any kind: and he was allowed a sparing use of alcohol and tobacco. His habits had been quiet and abstemious. At the end of three months the opium treatment had conquered nearly all pain, and had improved his muscular power so much that he could "muddle about" (to use his own words). All this was done without any drawbacks; the opium was gradually left off, and cod-liver oil was prescribed in its stead.

Morphine is the essential principle of opium as an analgesic; perhaps codeine somewhat helps it. But morphine has collateral excellences, which we do not value enough. When an eye is acutely "inflamed," we can see things which in other parts are hidden under many veils: and we can trace also the operation of our remedies. We learn what congestion and inflammation really are, and how they may be controlled without any local interference. Between thirty and forty years ago it was not the "ritual of routine" to drop atropine into every eye that was red and hot; a more common custom was to put a leech or a blister on the neighbouring skin. The apparent directness of these means makes us forget our powers for striking at vasomotor storms through the blood. Now, what can morphine do for vasomotor troubles of eye and ear?

In 1870 a London ophthalmologist of repute, the late Mr. Zechariah Lawrence, proposed a plan for soothing acute conjunctivitis (apart from iritis). He gave morphine in doses that were not relatively small or relatively frequent: the patient was secluded in a dark room, with the eyes closed and lightly bandaged. Pain and lachrymation were always much relieved; but gastric and other troubles were usually the heavy price which had to be paid. In the case of a male adult suffering in this way I reduced the dosage of morphine to gr. $\frac{1}{6}$ every hour for six or eight hours, continuing or slowly withdrawing the medication according to the local effect. As a rule the morphine disturbance was of the slightest kind, and was removed by a saline aperient draught.

My next trial was with *antimonium tartaratum*—tartarated antimony. In old days this was prescribed in order to produce a certain visible effect: and its synonym, tartar emetic, perpetuated a bad reputation. The heroic and potent force obscured finer characters; and thus a cloud gathered round the medicine, hiding for a time its better side. Assumed to

have qualities which are mostly coarse and unmanageable, tartarated antimony may be coaxed to operate with the suasiveness of a child. Wherein lies this happy secret? Solely in the mode of administration. Let the story of two cases tell the tale.

In September, 1866, I attended a healthy lady, aged about 28, in her first labour. The only point of note in an otherwise normal process was the amount of *post-partum* haemorrhage, and the difficulty in restraining it. An obstetric doctrine of that day was that this puerperal accident is often followed by breast abscess: and therefore special care was taken. In less than a week my attention was called to a sudden inflammation of the right breast, and clearly there was no time to lose in fighting a serious complication. Neither book nor monograph told me what to do. My thoughts turned to tartarated antimony; and a mixture was prepared, containing 15 minims of antimonial wine (= gr. ⅛ of the salt) to half a fluid ounce of distilled water. This was ordered to be taken every hour for sixteen hours; sleep was not to come in the way; the mandate was peremptory, and a capable nurse promised absolute obedience (barring anything unforeseen). Frequent sips of cold fresh milk and dry biscuits were the only food allowed. The treatment was begun at 7 o'clock in the evening, and at 10 o'clock on the next morning sixteen doses of the mixture had been taken, equivalent to one grain of tartarated antimony. Heat and redness and throbbing had quietly gone away: the breast was rather larger than the other, and that was all. The same dose was taken every second hour until late on the same afternoon. All trace of local inflammation had then disappeared; a more liberal diet was prescribed, and the special treatment ended with a dose of castor oil.

In November, 1885, a married lady, aged about 50, staying in Bath for a few months, had a recurrent attack of exfoliative dermatitis. The disease affected chiefly the lower limbs, but there were scattered patches on the arms and back. A diagnosis of congestive psoriasis diffusa was possible, but the point seemed to be of little moment. The general health was fairly good, but the irritation was persistent and almost intolerable. Nothing was applied to the skin, and (except a prohibition of alcohol) scarcely any alteration was made in the daily meals; but the patient was kept rigidly in bed, with a covering of light clothes. A mixture of antimonial wine was prepared precisely as in the case recorded just now, and a dose was taken hourly for eighteen hours. At the end of ten hours there was much relief; eight hours later the colour of every patch had greatly faded, and the subjective sensations were proportionately less. The same doses were continued at lengthening intervals for three or four days more. When the "psoriasis" assumed the same tint that it had before, the medicine was stopped entirely. Great was the gratitude of the patient that we spared her the worry and the "mess" of ointments and lotions. She told me that her skin troubles had been called "external gout" by competent authority. Tradition assigns to gout everything which we do not understand; but the young prophets know better, and only laugh. Whether gouty or not the pressing symptom yielded to a remedy which struck down the vasomotor rebellion, and cared not where it came from.

Both these persons took tartarated antimony according to the same formula. Neither was in the least hurt by it; there was no consciousness that any drug was being taken. A clear explanation of my treatment gave the "reason why;" but the name of the medicine was not disclosed.

Mark, then, the following points: Tartarated antimony acted in these cases not by magic or by mystery, but according to definite therapeutic law. It has no alliance whatever with a heresy which masquerades under the name of Medicine. A fourth of a grain, given to a patient every fourth hour, might cause bodily wreckage in the shape of prostration and sweating. Divide that fourth of a grain into four other quarters, each to be administered every hour for 16 hours, and most probably there will be no appreciable disturbance of any kind. Every fraction of the drug tends to be eliminated as soon as it is given; all the glands help to cast it out of the system; dose runs after dose, but one never overtakes another; the poison of it is rejected, and only the good stays. Such is the delicate strategy which unfolds all the benefit of a remedy, and defeats all the mischief. Punctual administration is the main postulate of success; and attendance in a sick room should enforce this imperative duty. A dose omitted is a weak link in the chain; and two doses must never be given at one time to make up for the omission.

Various experiments with opium and tartarated antimony (between 1865 and 1871) were published in a paper contributed to the *British and Foreign Medico-Chirurgical Review* for January, 1872. And further illustrations of the same subject were added in my Fothergillian Essay on *Therapeutic Means for the Relief of Pain* (1874).

A question much debated between thirty and forty years ago was the use of tartarated antimony for acute pneumonia in a previously healthy adult. It was favoured by men of a surgical habit of mind, because they like weapons which have a quick despotic energy. The physician inclined to a more lenient discipline; he was just as eager to quench the local combustion, if it were possible; but the patient, the human creature, must be supported and lovingly handled. And so he neglected a medicine which, because too often employed with heroic force, had fallen into discredit. Both physician and surgeon were wrong: both saw only one side of the truth. The narrative of one more case will testify to the advantage of that middle path which is often difficult to find.

A retired tradesman, born in or about 1830, living about a mile out of Bath, was under my care between 1884 and 1894. Ordinarily he had fair health, although declared by himself to be "gouty;" but there was occasional and transient glycosuria. During nearly every winter he had an attack of "congestion" of one lung—a term often loosely applied to a state which easily glides into classical pneumonia. In his first illness of this sort my attendance was not requested soon enough, and therefore no special therapeutic effort was made. A few months afterwards he was seen by me early one day when the pulmonary trouble had only just begun, and the pyrexia was relatively slight. Fifteen minims of antimonial wine were prescribed to be taken every hour with half a fluid ounce of cold water, and an austerely milk diet. An afternoon visit found him cool and perspiring. Late on the same evening the constitutional and local symptoms were favourable; the medicine had been taken hourly for 12 hours, and it was now ordered to be taken every second hour through the night. On the next day the man was joyfully convalescent, and the medicine was discontinued. Every precaution was observed to guard against relapse. In every subsequent attack of the same nature the same prompt treatment was successful.

A remarkable effect is sometimes produced by combining very small quantities of antimony and morphine. In the days before salicin, it was my practice to give very small and very frequent doses of quinine and Dover's powder to every person having rheumatic fever; but this treated only symptoms, and not the disease.

A famous doctor once said, Do not be afraid of power. Every valuable medicine represents power; a power for good or for evil according to the skill of him who works with it. *E libris nemo evasit artifex.* A medical workman can no more tell his secret than an accomplished musician can tell another how he touches an instrument, or how the melody is begotten. But there are principles which can be taught, and rules which must be obeyed. The physician sees a dangerous substance, but it does not frighten him; he breaks it into fragments, and endows each morsel with a new and benign efficacy. Thus a base thing may become an engine of mercy and comfort. On the same lines we use belladonna and chloral; and there are deadly agents, like strychnine, which can be persuaded to do splendid work when piloted with an unerring eye and a courageous hand.

In the management of chronic disorders by this method there is a difficulty in rousing punctual effort where there is not the urgency of acute distress. When a person protests in abrupt phrase that "the game is not worth the candle," a medical man has nothing to do but politely to retire.*

It is interesting to choose a symptom which is a common factor of several diseases, and study the varying behaviour of

* Every physician should carry in his wallet, besides the conventional furniture of stethoscope, clinical thermometer, hypodermic syringe, etc., two fluid drachms of liquor morphinae hydrochloratis, four fluid drachms of antimonial wine, a glass minim measure, and a two-ounce phial bottle. Precious moments might often be saved if these therapeutic necessities were always within immediate reach.

the healing art towards that symptom. It was the custom at King's College in the days of our great master, Dr. Todd, to look at isolated symptoms from a clinical standpoint. In the summer of 1850 he gave (in the theatre of King's College Hospital) the memorable lectures on Delirium and Coma, which drew audiences from every medical school in London; and my pencil notes of those lectures are among my most precious relics. Following Dr. Todd's precept, let us take dyspnoea, and examine it partly to discover the harm which may be done by a wrong therapeutic scheme. We may literally shorten life (or put it into peril) in our anxiety to save it: and the road along which we ought to go is not always easy to determine.

Whether the comity of heart and lungs be upset by disease or by an exaggeration of what may be called physiological dyspnoea,† the result is pretty much the same. With lapse of time the secondary static changes become fixed and practically irrevocable. It is the companion neuroses which concern us now; those neuroses which cry with appalling force for relief. The bronchial neurosis of asthma is a serious trouble; but the cardiac neuroses have a grave danger besides, as they connote stress and storm in the very citadel of bodily life. How far can we be assisted in our battle with these neuroses by the administration of any medicine in comparatively small and frequent quantities?

The anginoid pangs which haunt the chest of the cardiac sufferer may be alleviated by specific remedies: this is well known. But long before the virtue of these remedies had been established by Sir Lauder Brunton and others, two papers by Professor Clifford Allbutt in early numbers of the *Practitioner* (1870 or 1871) made a deep impression. He showed the value of hypodermic morphine in soothing a starved and worried heart; in granting peace to a heart turbulent with too much blood: and in quelling the riot of eddies and currents which have lost their way from damaged valves. But all this set me thinking—might not an equal benefit be done by giving morphine through the mouth in very tiny and repeated doses? For, in the most cautious hypodermic medication there are conceivable risks which a prudent man is glad not to encounter.

Imagine a case like this. A young man or woman has had one or two attacks of rheumatic pyrexia at an early age: endocardial disease has been started with more or less abiding consequences. If life be of a quiet and sedentary kind, those consequences may be so latent as almost to elude notice; but the family doctor knows by auscultation all about the lesion, and he keeps his ear on the weak spot. If life, however, be a continuous physical strain, with the excitement of a laborious business, it is easy to foretell the issue. And one of those issues is the searching and piercing pain, which comes and goes one can hardly say why or whither; existence becomes crippled and wretched from the bare fear of what may happen; and the patient is an invalid before the joy of middle years has begun. One of these invalids, a woman, aged 30 (maiden daughter of a country clergyman; I am drawing from my private records), is seized with sudden faintness. She writhes and groans: the face is a sheet of blue pallor: the arms are thrown about, and the respiration is irregular. The medical attendant is luckily close at hand. He puts his patient semi-recumbently on a sofa, throws a rug over her, and enjoins absolute silence in the room. He pours 16 minims of the hydrochlorate solution of morphine into a fluid two-ounce bottle, fills it with cold water, and places his watch on the table. Every minute he administers one fluid drachm of this mixture, so that at the end of a quarter of an hour one-eighth of a grain of morphine has been taken. And what happens? Calm succeeds tempest, lethal coldness and whiteness yield to warmer hues, the rhythm of breathing returns, and there is thanksgiving all round. The same dose is given every third minute during another quarter of an hour. The patient is then left for a while, with the instruction that if sleep should come it is not to be broken; otherwise the dose is to be repeated every fifteen minutes until the next medical visit. It is assumed that there is every help in the shape of warmth and fluid food; but for the moment alcohol would be a poison.

No therapeusis can alter or mend a textural flaw: but tiny and frequent morphine steadies cardiac nerves, and quietly readjusts cardiac function. Step by step the work is done: there is no hurry, no shock of narcosis, no fear that the medicine will bring another peril. The plan is as safe as it is gentle; and the fundamental treatment (if any) can be resumed in due order and at the proper time.

In prescribing morphine for any disorders which are subacute and may become chronic, the prudent physician never forgets the possibility of a morphine habit being formed, working an ulterior mischief more devastating than the original disease.

There is extant a prayer by a mediaeval physician (Dr. James Horst, 1537-1600), a clause of which may be thus rendered: "O God, open Thine eyes and behold the poverty of our art." In a relative sense, this "poverty of our art" is always with us. But we submit that our aim should be not so much to acquire new remedies as to gain a more exact knowledge of those we have, and to win a more complete mastery in the use of them. Our official materia medica is a storehouse of good things: but how does it profit us if we lack the skill to employ those things to the best advantage? There is no royal way to this knowledge. Severe clinical study is the only road; personal experience is the only school.

The therapeutic method of which a sketch has now been drawn has not had (so far as I know) any recognition in authoritative books on the practice of Medicine. It may be said to be still on its trial. But during thirty years it was my trustworthy ally; seldom did it fail in a great emergency; it relieved some anxious burdens: and my farewell words can speak of it with enthusiasm. And so I commend it to the candid attention of my medical brethren.

† People who went to Switzerland thirty-five or forty years ago may remember that before the railway was made to the top of the Righi boys attended the mules which carried travellers. The animals went at a steady pace of about three and a-half miles an hour up a steep ascent, and of course the boys were always "out of breath." This daily agony, going on all through the four months of summer, worked early mischief in heart and lungs. The poor fellows were pale and bloated; the face was often stained with ecchymoses, and dropsy sometimes appeared in the lower limbs. Their lives were short and sad. Many English servant girls endure a like painful discipline on stairs. In both cases there is a too long or too frequent draw on the "reserve forces" of Nature, and then follows disease—perhaps incurable.—The central idea of this paper came into my mind on one afternoon in August, 1863, when I was in a boat on the Lake of Lucerne. A wave of therapeutic scepticism had been spreading for some years, due much to the narrow resources of the *Ph. Lond.* of 1851 (published in Latin). The *British Pharmacopœia* (in English) appeared for the first time in 1864; but its chemistry and pharmacy were so faulty that the edition was soon withdrawn, and republished in 1867.

ON THE TREATMENT OF DEAFNESS OF MIDDLE-EAR ORIGIN.

A Preliminary Communication.

By CHALMERS WATSON, M.B., F.R.C.P.Edin.,
Physician for Diseases of the Eye, Ear, Throat, and Nose, Marshall Street Dispensary, Edinburgh.

The object of the present paper is to give a preliminary note of a method of treatment which I have pursued during the past nine months, and to indicate its results in a series of cases. The basis of the treatment is the use of a preparation of bone marrow, and in a later communication, when dealing with the *rationale* of the new method, I shall indicate the line of research which led to its adoption. It will then be seen that the use of this preparation in cases of chronic non-suppurative middle-ear disease has been a particular application of a general theory regarding the function of the bone marrow.

In broad outline my theory is that the bone marrow produces an internal secretion of vital importance in the economy: that this substance is a powerful prophylactic against the injurious action of various bacteria which in health are present as saprophytes in different tissues: and that defects in this active ingredient are liable to be followed by pathogenic action of these same micro-organisms. The results of this pathogenic activity vary much in different subjects, in accordance with the all-important factor of individual reaction. As the main sites of these bacteria are the respiratory tract, alimentary canal, the skin, etc., it follows that disease will be more or less directly associated with one or other of these channels as the main place of infection. This preliminary communication deals with chronic non-

suppurative middle-ear disease: in a later one I shall record the results of observations in cases of psoriasis. At present I am making a similar investigation on chronic rheumatic conditions.

In order to test the validity of any therapeutic result that might be obtained, it appeared advisable to make introductory experiments along the following lines: (1) To investigate the action of a substance such as olive oil, which might be expected to have an effect as a mechanical lubricant; and (2) to investigate the action of a combination of rectified spirits and glycerine. This was used on account of its stimulating effect on the circulation in the membrane and middle ear. The result of these preliminary investigations is given in the text record of Cases I and II.

Having satisfied myself regarding the effects of mere lubrication, I proceeded to apply a substance derived from the bone marrow which, in my view, was calculated to produce a beneficial result in certain joint affections and other conditions, and the present record gives the results of the first 20 cases submitted to the new treatment. Every one of these, with two exceptions, had previously been treated by well-known experts along the recognized lines, and had been given to understand that their condition was practically hopeless, that there was little or no hope of improvement, but, on the contrary, an almost certain prospect of a gradual and unarrestable increase. These results will be summarized, a detailed record only being given of two of the earliest cases that were under the critical observation of independent experts.

The tests employed included the watch; the whisper, low and loud; and the ordinary voice. The first was soon abandoned as of no practical value. My experience with the whisper test showed that there was no definite relation between the perception for whispering and the perception for conversation in an ordinary tone (*vide* Table II). I found, moreover, that when a low-pitched voice showed an improvement in the hearing distance of a few inches only (*cf.* Table III), my tests with the ordinary voice at medium pitch showed a gain of from 7 to 8 feet. This point is one to which I draw special attention.

As the ordinary voice alone gives the measure of hearing power in practical life it was mainly used as the test. Each ear was tested separately, and the combined hearing distance of both ears for speech was also usually investigated. As it is admittedly impossible to regulate speech with perfect accuracy, all figures possess merely a relative value, and due attention must be paid to the patient's report, and probably even more to the statements made by members of the same household.

CASE I.

Chronic Non-suppurative Middle-ear Disease.

Miss I., aged 21, came under my care at the Aural Department of Marshall Street Dispensary on October 22nd, 1900, suffering from advanced chronic non-suppurative middle-ear disease of three years' duration. She gave a history of having attended the out-patient department of the Royal Infirmary for five months in the early part of the year, and of having undergone the routine treatment, including the use of an alkaline lotion for the nose, Politzer's bag, Eustachian catheter, and general tonics, but without appreciable benefit.

The points of general medical importance learned were: Miss I. was decidedly anaemic, and apparently had always been so. The digestion had never been robust, although never seriously impaired. A defective state of the blood was also manifest in a sister frequently seen by me.

1. The first treatment consisted in the instillation of ℥ss of warm olive oil into both ears once a day. This was continued for five weeks, during which time the patient was seen twice weekly. At the end of a month no change had taken place, but during the fifth week the patient was conscious of a slight improvement.

2. On November 29th the treatment was changed to ℥ss of equal parts of warm rectified spirit and glycerine. This was applied daily, and careful attention was paid to the position of the head, in order that the fluid might get ready access to the upper part of the membrane, and an endeavour was made to promote absorption of the fluid by manipulation of the pinna and preauricle—the friction and movements used including that of intermittent pressure advocated by Lucae. As it appeared to me on anatomical grounds that the circulation and tissue change in the middle ear might be favourably influenced by jaw movements, I directed that the mouth be widely opened and sharply shut repeatedly during the application. At the end of a week the patient was conscious of improvement in both ears, and after three weeks of this treatment—December 20th—the improvement was quite apparent to all her friends. I satisfied myself on this latter point by personal inquiry at the patient's house and at her place of business.

Thereafter I continued the treatment for nearly eight weeks. On several occasions in this part of the course the use of the catheter was accompanied by a feeling of clearness in the head and also a subjective improvement in hearing which were not present at an earlier stage, and which had never been experienced during the previous course of catheter treatment in the Royal Infirmary. After January 15th the patient was not conscious of any further improvement, and on February 11th the treatment was discontinued.

Three weeks later (March 1st) the hearing had deteriorated, the impairment having been first observed seven days previously. The treatment with rectified spirits and glycerine was resumed. No improvement was apparent at the end of a week. The instillation was then increased from ℥ss to ℥¾, but eight days' application of this measure produced no result. The dose was then further increased to ℥j, and this was followed by slight but distinct improvement at the end of a week. Six days later, however—March 28th—that improvement was lost, and it did not reappear, although the treatment was continued to April 14th. On May 26th, after an interval of six weeks without any treatment, the patient reported that her hearing was as bad as it had ever been. This opinion was fully corroborated by her friends.

The results so far obtained were as follows:

1. The olive oil had been of little if any value.

2. The rectified spirits and glycerine had been decidedly beneficial; this treatment (*a*) improved the hearing and (*b*) appeared to induce alterations in the middle ear, whereby the use of the catheter was made more efficacious.

3. The benefits obtained from the spirits and glycerine soon passed off, and were not restored by a repetition of the treatment.

At this point I began a course of treatment with a product of bone marrow, to which I have given the name of "myelocene." My preliminary investigations had sufficiently proved that the condition of the middle ear would not yield to mere lubrication. Therefore, if any benefit were obtained from the use of myelocene, it could not be explained by reference to lubricating properties in the preparation. This fact is important in view of the physiological theory on which my treatment is ultimately founded.

On June 3rd the state of hearing was as indicated in Table I. The ordinary voice was not audible at 3 in. from either ear. The "loud whisper" used in objective examination was my loudest possible whisper—a test which probably allows less room for error than the raised voice. The new treatment was begun on June 3rd. It consisted in instilling into the ear ℥ss of equal parts of warm rectified spirits and glycerine, and in applying the same quantity to the skin of and around the ear. This was followed by a similar application of myelocene, 10 drops being the amount used internally. This treatment was repeated every night for six nights. At the outset the right ear only was treated, and immediately after the first application the patient was aware of an improvement in that ear. On the following day she was told by her companions at work that she was hearing better, and this improvement was accompanied by a diminution in the tinnitus in that ear. When tested the same evening a distinct improvement was found in the right ear only.

On the second and third days, while the improvement in this ear increased, an improvement also manifested itself in the other ear as yet not directly treated. Both ears were then treated from June 6th till the 11th, with a gratifying increase in the improvement. By June 9th the whole outward appearance of the patient had undergone a striking change. The dull, heavy, apathetic look characteristic of the very deaf had given place to a look of brightness and alertness. On the evening of June 9th the patient felt sick and vomited. The following day she looked paler than usual,

and complained of having felt weak and sleepy at her work, and the noises had increased. Treatment was withheld for a day. On June 11th she had quite recovered from this attack, and the hearing power was as shown in Table I:

TABLE I.

		June 3rd.	June 11th.	June 17th.	June 24th.
		Inches.	Inches.	Inches.	Inches.
Loud whisper	R. ...	5	30	24	90
	L. ...		24	1[illegible]	96
Raised voice	R. ...	8	204	180	—
	L. ...	10	168	96	—
Ordinary voice	R. ...	—	—	—	144
	L. ...		—	—	144

At this stage the patient was so satisfied with the improvement, that of her own accord and against my recommendation she ceased the treatment, but returned on June 17th, stating that her hearing had deteriorated a little, a statement that was corroborated by her sister and confirmed by myself. The deterioration was first noticed on the previous day.

The treatment was resumed on June 18th and was immediately followed by improvement.

On June 23rd the Eustachian catheter was passed, and immediately afterwards there was a very striking subjective and objective improvement. The patient was now quite satisfied with the amount of her hearing power and again ceased treatment.

On July 1st, however, eight days after its cessation, she and also her friends were aware that she had lost a little of the improvement, and on examination I found this to be the case.

By this time I had formed the opinion that a complete cessation of the treatment in this case would be followed by a diminution in the hearing power, but that this loss could be regained by a subsequent course of treatment, and at my suggestion Dr. Logan Turner kindly undertook to observe and record the case with the view of determining the accuracy of this belief. The subsequent course justified the opinion formed.

On July 1st, after the slight initial loss already referred to, the patient came under Dr. Turner's observation. An examination on July 15th showed no material subjective or objective change. On September 23rd the patient reported that her hearing power had continued very good till about September 8th; it had then begun to diminish and had continued to do so. An impairment is clearly indicated by Dr. Turner's figures.

Treatment was resumed on September 23rd, and between that date and October 9th the patient had the ear treated internally on three occasions only and externally on five. As on former occasions, an improvement was noted at once by the patient and by her friends, and it increased with each successive internal treatment until October 9th, when the patient was again quite satisfied with her state of hearing, and the treatment was stopped at her desire.

Dr. Logan Turner found that an improvement had taken place (Table II).

TABLE II.

		July 1st, 1901.	September 23rd.	October 9th.	Jan. 26th, 1902.
		Inches.	Inches.	Inches.	Inches.
Watch	R. ...	1	1¼	2½	1[illegible]
	L. ...	1	2	2½	2[illegible]
Whisper	R. ...	11	7	4	6
	L. ...	12	7	6	8
Ordinary voice	R. ...	84	48	60	17
	L. ...	72	42	96	36

His record furnishes evidence against the reliability of certain voice tests. While for all practical purposes, for example, hearing ordinary conversation or the casual sounds of the street the patient was conscious of great improvement, the whisper test showed no trace of this, but appeared to indicate an actual loss of hearing power. This patient was not seen again until January 25th, 1902, when she reported that the improvement was maintained until about three weeks prior to this, when an impairment set in, and has steadily increased. Dr. Turner found an impairment for the ordinary voice, as recorded in his figures. It is advisable to state that the patient's hearing power is still distinctly greater than before the original treatment in June, 1901. (*Vide* Table I).

Some time after I had obtained a positive result from the use of rectified spirits and glycerine I mentioned the fact to my friend and former teacher, Dr. McBride, and he arranged to try it in a suitable case. I was interested to hear from him some time later that the patient whom he had selected had reported himself slightly improved at the end of a week's treatment, but that a week later the improvement noted had disappeared. This, so far as it went, corroborated my own observation already recorded.

CASE II.

Chronic Non-suppurative Middle-ear Disease.

At a later date Dr. McBride kindly arranged to provide me with a case suitable for treatment with myelocene. It was thought advisable that a man should be selected, in order, if possible, to eliminate all chance of the results being vitiated by a neurotic element. The same patient, Mr. S., was chosen, and (as a preliminary) was subjected for ten days to daily treatment with the catheter before being handed over to me. There was no indication, either subjective or objective, of improvement by this treatment. The patient, aged 26, gave the following history: He was a cycle maker, and for years went in for cycle racing. His deafness was of four years' duration, developed shortly after marriage, and was first noticed after a severe cold. He was treated a year ago at the Royal Infirmary, Edinburgh, which he attended for four weeks, but without appreciable improvement. He presented himself again on May 14th, 1901. While his general health was at this time excellent, he had been for long subject to "bowel attacks," being suddenly seized with vomiting, pain in the region of the umbilicus, succeeding one or two days loss of appetite and constipation. There would come on suddenly and apparently causelessly, and were sometimes severe in character.

On June 23rd he came under my care, and was treated daily with myelocene, etc., as in Case I. From the outset there was a marked improvement, the test employed being the ordinary voice of medium pitch. On June 24th the patient reported that on his way home from my house on the previous day (within half an hour of the first application) he heard the footsteps of people more distinctly than usual; further, that on June 24th his fellow workers had seemed to be roaring at him unnecessarily. During treatment on June 24th, when in the act of opening and closing the jaws in the way previously referred to, the patient was conscious of the right ear clicking in a way it had not done for years.

On June 25th while at work he was hearing noises of repairing, etc., which he had not previously heard, and a comrade who did not know that he was undergoing treatment remarked on his improved hearing. On the same day he expressed the opinion that he was hearing better than he had done for at least three years, and objectively I found considerable improvement for the ordinary voice test, but no improvement for the watch.

On June 27th I saw his wife and she corroborated his report, stating that she had noticed a very great change for the better. When visitors were present, her husband could now readily follow and take part in their conversation, whereas formerly he would often start a new topic of conversation when some one else was actually speaking.

On June 28th the patient for the first time reported that he was not conscious of any further gain. He was seen by Dr. McBride on June 30th, and his hearing tested by the low conversation test—that is, the lowest voice, just above a whisper. Dr. McBride found that this test showed no improvement, while the watch test showed an actual deterioration. But the general hearing power of the patient had suffered no diminution since June 27th.

On July 1st the patient was aware of further gain. He also reported that for years he had been troubled by a roaring

shell-like noise in the ears after exposure to the slightest draught either in room, omnibus, or train; that a similar noise was heard if he chanced to open his mouth on a hill; but that now these symptoms were entirely gone. On July 3rd the patient voluntarily told me that his general health was now much beter. He no longer felt dull and low-spirited as he had done for years. The tinnitus also was much improved. The next day he reported further improvement, and stated that the previous night he had been much impressed by hearing footsteps behind him in a quiet street. He turned round, and the nearest person was a lady about twenty yards away.

He was seen by Dr. McBride on July 7th, and on that date there was an increase in the figures, as shown in Table III. In order to test the reliability of that objective improvement, faradism was applied for two minutes or so round the ear, after which the record was found to be increased rather than reduced.

TABLE III.

		June 16th.	June 23rd.	June 30th.	July 7th.
			Inches.		Inches.
Watch	R. ...	Contact	$\frac{1}{4}$	Contact Pressure	$2\frac{1}{4}$
	L.	1 in.	$\frac{1}{4}$	contact	$\frac{1}{2}$
Low ordinary	R. ...	14 in.	14	14	$15\frac{1}{2}$–$21\frac{1}{2}$
	L. ...	16 in.	16	16	$20\frac{1}{2}$–21

Treatment for the next three days produced no further subjective improvement, nor did I on examination find any further improvement for the ordinary voice. The treatment was then discontinued.

When seen on January 22nd, 1902, fully six months after cessation of treatment, Mr. S. expressed the opinion that the improvement had been maintained, and in this he is supported by his wife, his family, and his employers. I found confirmatory evidence of this on my objective examination. He also reports that in the course of these six months, the occasional colds to which he is subject have given him only very slight inconvenience, whereas formerly a cold was accompanied by a marked increase in his deafness and considerable general discomfort.

SUMMARY OF RESULTS.

Of the 20 cases treated, 4 were of a mixed type, the tuning-fork conduction being greater by air than by bone. One case was of post-suppurative origin. The results may be summarized as follows:

Of the 15 cases of apparently pure dry middle-ear disease, 11 showed a record of improvement fairly comparable to those already detailed, due allowance being made for the different degrees of deafness when the patients first came under observation. Two showed a marked improvement in one ear only, but as this improvement took place in the deafer ear, the practical benefit was slight; 2 cases, male patients aged 46 and 60 respectively, were quite uninfluenced by the treatment.

Of the mixed cases 3 showed a practical improvement and one did not. The post-suppurative case improved.

In some cases the improvement has been fully maintained, as in Case 11. in others deterioration has set in slowly, and has progressed, as in Case 1. Observations are at present being made on means of maintaining the improvement in the hearing power.

MYELOCENE.

It is advisable to give a brief note on the manner of preparing the substance which is the basis of the treatment. It is derived from bone marrow, and I have given the name of myelocene to the preparation, partly because it suggests the origin of the substance, and partly because the name will be suitable to any active principle which may yet be isolated.

Perfectly fresh bones are obtained from the butcher. In these bones the epiphyses are present, for the custom of that trade is to kill feeding stock when about two years old.

The first task is to select bones in which the marrow will be suitable for the internal treatment of the ear. When examined with the naked eye the marrow is found to vary in appearance and consistence within wide limits. I have examined hundreds of bones and, in the majority of instances, I found it presented a faintly yellow appearance, fairly vascular throughout, and of a fair consistence both on inspection and on handling. (There is no differentiation into red and yellow marrow.) In other instances the marrow was very pale, even lard-like in appearance and consistence; while yet again in others it presented a dull, sodden appearance quite unlike healthy marrow. As regards the epiphyses, too, I frequently found bones that were strikingly different from the normal—not only in the vascularity and general appearance of the epiphyseal line and the tissue in its immediate neighbourhood, but also in the epiphysis itself. It is hardly necessary to say that those bones must be selected in which both marrow and epiphyses are normal.

The mode of preparation is as follows: The marrow is extracted with ether, and the ethereal solution is evaporated down at first in the open, and later over the warm bath. The fat is then rubbed up with 1 per cent. chloretone for preservative purposes. It now appears as a whitish or faintly yellow fat with a strong odour, partly of ether, partly of chloretone. The melting point of the fat so obtained varies very widely. For example, one yield of fat would never become perfectly clear even when submitted for a long time to a very high temperature; another would only become clear at a melting point of 120° or 130° F., while yet another lot would rapidly clear at from 70° to 90° F. The same supply of bones has sometimes yielded samples of fat with different melting points; in the first 130°, in the second 110°, and in the third 90°. This order, again, has sometimes been reversed. The fat with the low melting point is the only one that has proved satisfactory in use; the others I have found to be unsuitable, and in some instances prejudicial.

This paper has been restricted to a statement of facts from which I draw the conclusion that in this treatment we have a means of increasing the hearing power in many cases of deafness of middle-ear origin (non-suppurative type), to a degree considerably beyond that obtainable by present methods.

It will be convenient to discuss the *rationale* of this treatment at a later date, after further facts have been presented from a different field of medicine, indicating the existence of a therapeutic agent in this substance, myelocene.

I have much pleasure in expressing my indebtedness to Drs. M'Bride and Logan Turner for kindly observing the cases referred to, and also to Miss Watson, L.R.C.P.Edin., for invaluable assistance in these investigations and other work bearing on them.

HAY'S REACTION FOR BILE SALTS.

BY

A. P. BEDDARD, M.A., M.D. and M. S. PEMBREY, M.A., M.D.

(From the Physiological Department, Guy's Hospital.)

IN the second edition of Landois and Stirling's *Textbook of Human Physiology*, 1886, Professor Matthew Hay published in a short note the fact that, when powdered sulphur is sprinkled on a fluid containing bile, it gradually sinks. He further showed that this reaction depends upon the presence of bile salts alone, and that when 1 part of pure bile salt is dissolved in 120,000 parts of water the reaction is still given; he also stated that this reaction depends upon the power of bile salts to reduce surface tension. Professor Hay published no further account of his extensive experiments, which he informs us began in 1882, and his useful discovery escaped general recognition.

Recently two papers dealing with this reaction have been published by Frenkel and Cluzet,[1] and another by Chauffard and Gouraud,[2] in all of which the test is ascribed to "Haycraft" instead of to Hay. And we, in ignorance of the previous work and only knowing the test as the "sulphur test" have again covered some of the ground for the third time.

Our object in writing this note is to correct the partial misunderstanding as to the name of the investigator who discovered the test, and further to draw more general attention to its clinical value.

The fluids in which a delicate test for bile salts would be most useful are vomit, faeces, and urine. Hay's test, however, is less reliable in the case of vomit and faeces than in that of

urine. For it has been shown that substances other than bile salts, which also have the power of reducing surface tension, may occur in vomit and faeces, and might under special circumstances be present in sufficient quantity to introduce a serious fallacy. The most important of such substances are alcohol, ether, chloroform, acetic acid, acetone, turpentine, phenol, skatol, and soaps. In the majority of these the power of reducing surface tension is small as compared with that of bile salts.

With urine the case is different, for none of the normal constituents give the reaction. None of the substances other than bile salts, which do give the reaction, have ever been found to occur in urine in sufficient quantity to introduce a fallacy, and there is no drug at present known which, when taken, invalidates this test.

The simplest method of carrying out the test is to place the urine in a test tube with a diameter of about 1 in., and to throw some sublimed or finely powdered sulphur upon it. If any begins at once to fall in the urine there is at least 1 part of bile salts per 10,000. If none falls at once, then, after waiting one minute, the test tube is given a very gentle shake; if sulphur now begins to fall, there is at least 1 part of bile salts per 40,000, and so on for further dilutions.

Few precautions are necessary. The urine must be free from air bubbles, it must be clear, and, if it is necessary to clear it, this must be done by filtration and not by heat. For all specimens of urine at the temperature of the body give the reaction at the end of one minute, owing to the effect that heat has in lowering the surface tension of a fluid; therefore in every case before the test is applied the urine must be cooled to about 17° C. The reaction of the urine and its specific gravity do not in any way affect the accuracy or delicacy of the test.

The delicacy of Hay's reaction as compared with that of Pettenkofer is very great; for, apart from the fact that in applying Pettenkofer's test to urine there are so many fallacies as to render it almost useless; 1 part of bile salts per 1,000 gives only a doubtful Pettenkofer's reaction.

Many urines in various pathological conditions have been tested, but no case giving the reaction has yet been found in which the clinical condition was not such as to make the presence of bile salts in the urine possible. Thus it has been found that Hay's reaction is frequently given by the urine from cases of backward pressure in cardiac and pulmonary disease, and in cases of suspected cirrhosis of the liver; even when bile pigments were shown by the iodine test[3] to be absent. In two cases of suspected cirrhosis of the liver the reaction was given only intermittently, being present on one day and absent on the next. In a case of gall stones with jaundice which was operated upon and the obstruction removed bile salts were found present in the urine for a fortnight after the bile pigments had disappeared, and when the patient in appearance was quite free from jaundice.

It has further been noticed that jaundiced patients differ greatly in the relative amounts of bile salts and bile pigments which their urine contains. For instance, the urine from a case of cirrhosis of the liver, which was scarcely darker in colour than the normal, was found to contain large quantities of bile salts; on the other hand, in two cases of secondary growths in the liver and in one case of gall stones, in all of which the jaundice was very intense and of some months' duration, the urine, although almost black with bile pigment, was found to contain but little bile salts.

Hay's test is so simple that it certainly deserves more extended use in clinical work, especially in investigations upon the relative excretion of bile salts and bile pigments.

[1] Note and References.

[1] *Journal de Physiologie et de Pathologie Générale*, 1901, tome iii., pp. 99 and 151. [2] Ibid., p. 461. [3] This test has a delicacy of about the same as that of Gmelin's test but is free from the latter's fallacies in the urine.

Antivivisectionism in the United States.—The Gallinger Bill for the regulation of animal experimentation in the District of Columbia has again been introduced into the United States Congress. While professing to be aimed only against experiments performed in the District of Columbia, it is really intended by its promoters to obstruct scientific investigation and medical instruction throughout the United States.

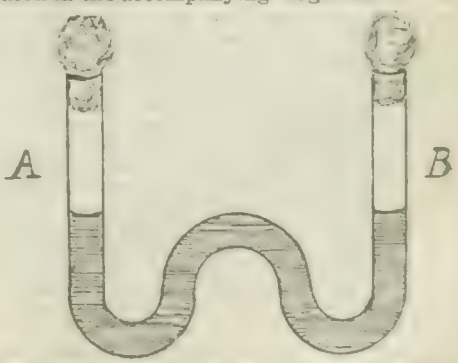
THE ISOLATION OF THE TYPHOID BACILLUS.

By A. MOORE, M.D.,
Research Student, Bacteriological Department, Jenner Institute of Preventive Medicine.

It is obvious that the results obtained by the methods in vogue at present for separating the typhoid bacillus from infected material are most unsatisfactory; the number of cases, indeed, in which bacteriological tests have indicated the source of infection in epidemics of typhoid fever is extremely limited, whilst every practical bacteriologist must admit having failed over and over again to demonstrate the presence of the specific bacillus in material, known, or at least strongly suspected, to contain the organism in question. Even in the discharges from typhoid patients which must contain the bacillus typhosus in large numbers the difficulties attending its isolation are so considerable that it has never been found practicable to adopt this as a means of clinical diagnosis. Fortunately, thanks to the discovery of the agglutination reaction by Grüber and Durham, and its practical application by Widal, we are independent of such means for clinical purposes; but, having regard to the fact that very widespread and fatal epidemics are so frequently caused by contamination of the food and water supplies, the detection and isolation of the typhoid bacillus still continues to be one of the most urgent of bacteriological problems, and consequently the following experiments directed towards its solution may perhaps be worth recording.

The main difficulty attending such examinations consists in the fact that the bacillus coli communis is almost universally present in overwhelming numbers in any material likely to be contaminated with the bacillus typhosus. The first experiments I made were therefore designed with a view to effecting the separation of these two closely analogous microbes. These were carried out as follows:

A rabbit was injected subcutaneously at repeated intervals with gradually-increasing doses of the ordinary non-virulent stock of the colon bacillus, until after a few weeks' time its serum was found to have a powerfully-agglutinating action on this bacillus; a reaction at a dilution of about 1 in 1,000 is quite sufficient for the purpose in hand. To test tubes containing 10 c.cm. of ordinary gelatine 0.1 c.cm. of Parietti's solution was added, and then 2 or 3 drops of the specific coli serum, obtained by bleeding the above rabbit from the marginal vein of the ear. Next, a piece of ordinary glass tubing, plugged at each end with cotton wool and sterilized, was bent in three places by means of the blowpipe so as to form a W-shaped tube, and was then filled up to the level indicated with the previously-prepared Parietti serum gelatine, as illustrated in the accompanying diagram.



To employ this apparatus all that was necessary was to sow the limb A with a mixture of cultures of the B. coli communis and the B. typhosus, and to place the tube in an upright position in the blood-heat incubator, where, of course, rapid growth took place in the liquefied gelatine. The mode of growth in such a tube is peculiarly characteristic and deserves careful attention. In the limb A we have a mixture of the naturally sluggish colon bacillus with the actively motile typhoid bacillus, and this natural difference between the two microbes is developed to the full by the fact that the liquid gelatine contains the specific coli-agglutinating serum, and

therefore completely immobilizes the colon bacillus without interfering in the least with the activity of the typhoid bacillus. The consequence is that the limb A is quite turbid, especially at its lower part, where masses of agglutinated coli bacilli are deposited. This turbidity decreases as we ascend the centre bend, and becomes faintly opalescent in the descending limb of this curve, whilst up to the twentieth hour of growth the limb B remains quite clear, and can be shown by subculture tests to be perfectly sterile. If now, after this period of growth, loopfuls of gelatine from the limb B are sown at hourly intervals into broth, it will be found almost invariably that the twenty-second hour test will produce a growth giving all the reactions of a pure typhoid culture; this result is very constantly obtained between the twentieth and twenty-fourth hours, but variations occur in accordance with the length of tube employed and the activity of the particular strain of typhoid bacillus used in any experiment. As will be seen from the following examples, the typhoid bacillus could always be separated with the greatest ease from mixtures with the colon bacillus, however such mixtures were prepared.

Examples.

1. Twenty-four hour broth cultures of colon and typhoid bacilli were mixed together, and one or two drops of the mixture sown in the W tube. Seventeenth hour test remained sterile; twenty-first hour test showed pure growth of typhoid in the opposite limb of the tube.

2. Scrapings from six-weeks old slope agar cultures of colon and typhoid bacilli were sown in the W tube. The tube was kept at blood heat for twenty-four hours, and was then found to give a pure typhoid growth.

3. Various media, for example, agar, broth, neutral and acid peptone (Remy's formula), were sown simultaneously with loopfuls of typhoid and colon cultures and incubated; the resulting mixed growths were subsequently sown in W tubes at intervals varying from two or three days up to as many months, and in all cases pure growths of typhoid bacilli were recovered within twenty-four hours.

Moreover, on several occasions the typhoid bacillus was separated from artificially contaminated tap water, and in one case a defective filter was tested by passing through it 5 litres of tap water contaminated with three tubes of typhoid broth culture, with the result that three or four drops of the filtrate sown into a W tube gave a pure growth in the opposite limb twenty-two and a-half hours afterwards. It will be noted that the conditions of growth in these tubes at once separate off all non-motile organisms, whilst the presence of the Parietti fluid and the high incubation temperature are both inimical to the growth of most saprophytic water microbes.

Unfortunately, however, this method, which gives such excellent results in artificial mixtures with a given strain of colon bacilli, altogether fails when applied to mixtures containing different strains of colon bacilli for the simple reason that a colon serum prepared with a special culture of colon bacilli cannot be depended on to agglutinate any other variety of this organism. Thus, although the serum used in the above experiments agglutinated powerfully, the stock colon bacilli used in its preparation in a dilution of 1 in 1,000, it failed to produce any marked reaction with strains of colon bacilli isolated from the intestinal contents of dogs, rabbits, pigeons, and guinea-pigs, even when employed in dilutions of only 1 in 100. It is not surprising, therefore, that repeated attempts to isolate the bacillus typhosus from the discharge of typhoid patients by means of W tubes were completely unsuccessful, the colon bacilli in all cases coming over in a very active state before the typhoid bacillus. It hardly seemed feasible to attempt to produce a poly-agglutinating serum, considering the great variety of strains of colon bacilli to be met with in the digestive tract, not only of man but of animals.

For these reasons the above method, although possessing a certain value, was abandoned for practical purposes, and the following modification of an existing method was tried instead. The Elsner gelatine medium is undoubtedly the best process at our disposal for isolating the typhoid bacillus, but it is open to the objection that it is very slow, owing to the low incubation temperature, and consequently it allows time for the development of liquefying organisms, the growth of which frequently spoils the plates before the typhoid colonies have attained a size sufficient to enable them to be separated out. To obviate this, a medium was prepared as nearly as possible on the lines of the Elsner potato-iodide medium, but substituting agar-agar for the gelatine. The exact mode of preparation is as follows:

Modified Elsner Agar Medium.—Take 500 grams of potato, peel them, and scrape them on a grater; the pulpy mass so obtained is then macerated in a litre of water for three or four hours, strained and allowed to stand overnight. Next morning the clear supernatant liquid is decanted off, and the volume made up to 1,000 c.cm. This liquid is then rendered distinctly alkaline and 20 grams of agar-agar added; the process is then continued as for ordinary agar. When sterile the medium is distributed into test tubes—10 c.cm. in each—and immediately before use 0.5 of the following solution is added to each tube: Potassium iodide, 10 grams; water to 50 c.cm. The agar tubes thus contain 1 per cent. of potassium iodide. It seems desirable to use this medium in as fresh a state as possible.

Plates prepared with this medium were sown with mixed cultures of the typhoid and coli bacilli, and incubated for twenty-four hours in the incubator at 37° C. At the end of this time, examination under the low power microscope showed very much the same difference between the two sets of surface colonies as is found in the Elsner gelatine after four or five days' growth; the typhoid colonies being very clear, transparent, and almost invisible when strongly illuminated, and with irregular clean cut margins, whilst the coli colonies were much larger, rounded, and opaque. By means of this method the typhoid bacilli were isolated in pure culture from numerous artificial mixtures, notably from 5 litres of very foul putrid Thames water, contaminated with 5 loopfuls of a typhoid broth culture, and from tubes of broth and sloped agar in which the typhoid and coli bacilli had been growing together for almost three months. It was also used successfully in the case of some old dejecta kept for five months in the cold storage room. Lastly, by its means bacilli, giving all the morphological and cultural characteristics of the typhoid bacillus (and which agglutinated well with several samples of positive typhoid blood at a dilution of 1-30, while they failed to react to a normal non-typhoid-blood) were isolated from the interior of some cockles suspected to have been the cause of an outbreak of typhoid fever. These results are very encouraging, even taken in conjunction with a certain number of failures, and it is hoped that more extended experience and further experiments along such lines as those indicated may result in an approach to the solution of that very difficult bacteriological problem—the isolation of the typhoid bacillus from contaminated material.

In conclusion, I should like to return my thanks to Dr. Macfadyen for his assistance and co-operation during the progress of the above work.

A NEW DIAGNOSTIC POINT IN TYPHOID FEVER

By HENEAGE GIBBES, M.D.,

Detroit Clinical Laboratory, Departments of Pathology and Photography, Detroit, Michigan.

SOME years ago I found that I could show the eruption in small-pox on a photographic plate before it was visible to the naked eye. I had shown long before this that structures which could not be made out with the microscope could be photographed, such as the unstained flagella in vibrio. I thought at first that this would be valuable in the diagnosis of small-pox, but on careful examination I found that the eruption could be felt at a stage when it could not be seen, and that it would not differentiate between small-pox and varicella or some cases of measles. I think, however, that it will prove of value in typhoid fever where the eruption can be reproduced by photography before it can either be seen or felt. There have been many difficulties in the way of proving this; amongst these the foremost is the few cases in which it can be tried owing to the patient's objection to the process, and next, the necessity of having the exposure just right. The best plan is to use orthochromatic plates, and make a number of exposures as quickly as possible; a ray filter is required with some plates, but with Cadett's "spectrum" plates this would not matter on account of their great rapidity. The procedure is simple: Cover the head and face with a light shawl and remove the coverings from the abdominal region, moisten a small bit of printed matter, and stick it on the skin to get the focus. The operation is greatly facilitated by an assistant throwing all possible light on the part with a mirror.

No rule for exposure can be laid down, as the amount of

available light varies in every case, but out of six exposures of varying lengths, one or two should show the rash.

The greatest care is required in developing the plate, but anyone who has had experience in making cloud negatives can easily get a good result. Over-exposure must be avoided; slow development with a weak developer, and not carried too far, is the rule. Hydrokinon or paramol give good negatives.

Those cases where in making a Widal test a cessation of motility occurs, without clumping, will, I think, generally show the rash, and when they do a diagnosis may be assured.

I have been trying to use the telephoto appliances with a rapid anastigmat in these cases, so that the apparatus may be placed at a distance from the patient. I think this will eventually prove to be the best method when sufficient rigidity in the camera can be secured, as well as enough light.

I trust that the method will be tried by some having special hospital facilities, and that it will be found of value in those atypical cases now so common.

AN EXPERIMENT WITH ULTRA-VIOLET LIGHT.*

BY DAWSON TURNER, M.D., M.R.C.P.LOND.,

Electrician to the Royal Infirmary, Edinburgh; Lecturer on Physics at Surgeons' Hall; Additional Examiner in Experiment Physics, Edinburgh University.

IT has long been known that the oscillatory discharge of a condenser produced a very brilliant spark which was likely to have strong actinic qualities. It was recently suggested to me by Mr. Leslie Miller that such a spark might be of service in the production of the ultra-violet rays for the treatment of disease according to Professor Finsen's method. The lamp introduced by Goerl in Germany also appears to be of the same nature; Mr. Miller or Mr. Schall can supply such spark lamps. I accordingly commenced by performing a number of experiments to ascertain the physical nature of the radiation.

The ultra-violet rays may be recognized by the following properties:

(*a*) They are powerfully actinic.
(*b*) They can excite fluorescence.
(*c*) They can discharge an electrified body (Hertz), provided the body is negatively electrified.
(*d*) They have a special action on the skin of the higher animals and on the entire tissues of the lower animals and plants.
(*e*) They can produce nuclei for cloud condensation in moist air (Wilson).

The chief difficulty that presents itself in dealing with these rays is due to the fact that glass is quite opaque to the extreme part of the ultra violet. Hence, glass lenses and prisms must be discarded, and to produce a spectrum by refraction some other substance must be made use of.

My experiments have consisted in comparing the ultra-violet radiation of an arc lamp with that of the spark.

A. The difficulty of comparing the photographic effects led me to discard such an attempt.

B. To compare the fluorescent effect I had some quartz lenses and prisms made, and projected by their means the spectra of the two sources of radiation. A screen of barium platinocyanide and one of potassium platinocyanide now by glowing with a pale-blue light in the ultra-violet region served to double the length of the visible spectrum as yielded by the arc light; in the case of the spark spectrum the barium salt did not fluoresce at all, but the potassium salt drew out the original spectrum to three or four times its original length; calcium tungstate produced the same extension, but with a dark band intervening. The calcium salt did not fluoresce at all in the arc spectrum. There are, therefore, some remarkable differences between the arc spectrum and that of the spark, chiefly in the direction of the latter's possessing a radiation of shorter wave length and greater frequency (more ultra violet).

C. The property of discharging an electrified body is the most easily tried. The radiation of an arc light will at ordinary atmospheric pressure only discharge a negatively electrified body, and the body must have a freshly-cleaned surface of zinc or other special material.

* Read before the Royal Scottish Society of Arts, January 27th, 1902.

EXPERIMENT.

If + charged no effect will be produced. If we [illegible] same experiment with the spark gap radiation, the ele[illegible] dis-charged whether + or − charged and whether pr[illegible] zinc or not. The discharging is, however, [illegible] the electroscope be charged negatively, and [illegible] on to the electroscope, so the difference may be o[illegible] also from the length of time required to produce the disch[illegible] gap radiation is far more potent than the arc light. I [illegible] some experiments on transparency and opacity, a short[illegible] I append, but I may summarize the results i[illegible] eri-ments lead me to conclude that there are [illegible] s of ultra-violet radiation, the one yielded by th[illegible] r by the spark discharge, and that the wave [illegible] er is at its shortest considerably longer than [illegible] at its shortest. The already noted and the [illegible] erve to contrast the two. Thus the arc [illegible] tro-scope if it has a zinc cap and quartz [illegible] t to its radiation and barium and potassi[illegible] cyanide [illegible] (calcium tungstate does not).

The spark radiation will discharge a − charged or a + charged electroscope, whether fitted with zinc or not, but more rapidly if − charged, and if with zinc still more rapidly.

Quartz and water only allow the lower-frequency radiation —that of the arc— to pass through freely, and are somewhat opaque to the higher-frequency radiation which is yielded in abundance by the spark. Barium platinocyanide does not fluoresce in the spark spectrum, but the potassium salt and calcium tungstate do, and both draw out its spectrum to twice the length that the barium and potassium salts can draw out the arc spectrum.

A further advantage of the spark gap as a source of ultra-violet rays lies in the fact that its heat radiation is almost negligible, and, owing to this latter property, the light can be brought within an inch or less of the affected parts with very greatly increased effect.

With regard to the transparency of matter to the ultra-violet radiation of the spark discharge, clear dry, pure rock salt is the most transparent of the bodies I have tried. Ice, quartz, pure water, grape sugar, and gypsum are less transparent. A film of moisture on the rock salt, owing to the electrical conductivity of brine, makes it quite opaque; glass $\frac{1}{25}$ in. thick is quite opaque, so are mica and ebonite in sheets of $\frac{1}{75}$ in. in thickness.

Concluding from these experiments that the spark-gap radiation is more powerfully ultra violet than that from an arc light, and also that rock salt would form the best compressing medium, I put the apparatus into operation in the electrical department of the Edinburgh Royal Infirmary in the treatment of cases suitable for the Finsen rays, and so far with very successful results, an exposure of two and a-half to five minutes being sufficient to produce a marked effect.

The following case, which was exhibited to the Edinburgh Medico-Chirurgical Society on February 5th, will serve to illustrate these remarks:

CASE.

A man, aged 55, recommended by Professor Annandale, was admitted to the electrical department on December 4th, 1901. The patient had suffered for the last eight years from a rodent ulcer on the right side of the nose, which had been treated unsuccessfully in many different ways. The ulcer was bean-shaped and about the size of a small mussel shell, covered with brown crusts, which when removed left an irregular depression ⅛ in. to ¼ in. in depth, with a raw greyish granular surface and shelving edges. Treatment by Roentgen rays was commenced on December 4th, 1901, with exposures of five minutes daily. Slow but steady improvement followed until January 10th, 1902, when the Roentgen-ray treatment was replaced by exposures of from two and a-half to five minutes to ultra-violet light three times a week. Three days after the first exposure marked improvement was observed, and after three exposures the ulcer had almost disappeared; after five exposures the patient returned home, the only trace of the disease that remained consisting of some slight scales towards the upper margin of what had been the ulcer.

I understand that Dr. Walsham, of St. Bartholomew's, has also been investigating the nature of these rays and treating patients by their means. This research has been an independent one.

FRANCISCAN HOSPITALS IN THE UNITED STATES.—According the *American Practitioner*, the Franciscan Sisters of Lafayette, Indiana, are erecting a hospital in Louisville, which is to contain 200 beds. The Sisters have erected and are now conducting a number of magnificent hospitals all over the United States. The mother institution is at Lafayette, where they have a fine hospital. The arrangements in regard to heating, lighting, and baths are said to be of the most up-to-date character, and in particular the new hospital will have "one of the most elegant operating rooms in the South."

TWO CASES OF RARE ORBITAL TUMOUR.*

By F. T. PAUL, F.R.C.S.
Surgeon, Liverpool Royal Infirmary.

THE two following cases—chondroma of the orbit and carcinoma of the lachrymal gland—are sufficiently unusual to be worthy of placing on record:

CHONDROMA OF THE ORBIT.

The chondroma occurred in a lady, aged 45, a patient, of Dr. Francis Johnston, of Birkenhead, I first saw her with Mr. Edgar Browne. The patient's attention was attracted to her eye seven years previously by the occurrence of pain in it, which was shortly followed by dimness of vision. Somewhat later she consulted Mr. C. G. Lee, who recognized proptosis and commencing optic neuritis in the left eye. The sight was gradually lost, and the eye has since remained quite blind; but the pain disappeared. The condition which had caused her the most distress was the steadily increasing proptosis, which for some time past had been excessive and attracted unpleasant observation in public. Chiefly for this reason the patient consulted many oculists and surgeons. All were agreed that the prominence of the eye was due to a slow-growing tumour of an innocent nature, which had originated deeply. All advised against operation, and most prescribed potassium iodide. For the last two years the anterior part of the tumour had been recognizable as a tense fluctuating cyst, which could be felt beneath the eye through the lower lid.

The patient consulted Mr. Edgar Browne with a view to enucleation, hoping to obtain some improvement in her appearance by the substitution of a glass eye. Mr. Browne hesitated to recommend this, both because the success of such a proceeding seemed doubtful, and also because he thought it was possible to improve the position of her own eye. I was asked as a general surgeon to give an opinion on the nature of the tumour, and as to the prospects of removing it in part or totally. Without committing myself definitely to any cause or view I consented to explore the orbit with the assistance of Mr. Browne, to deal with any technical details connected with the eye.

On March 27th, 1901, the operation was undertaken by Mr. Edgar Browne and myself, the anaesthetic being given by Dr. Johnston. I made an incision round the lower margin of the orbit and down the side of the nose, and reflected the flap outwards. On clearing the anterior part of the growth it was found to be encapsuled towards the eye, but had burst into the antrum below. It consisted of soft cartilage. With a blunt spoon the orbit and antrum were emptied of their foreign contents, and the removal was continued back to the base of the skull as far as any chondromatous tissue could be recognized. A considerable cavity was left which I drained through the canine fossa into the mouth. Mr. Browne deftly manipulated the eye into a good position, where it was retained by gentle sponge pressure. Up to the present the practical success of the operation has been quite satisfactory. The eye now presents a perfectly normal appearance with the exception of some external strabismus.

The tissue removed showed the usual structure of a soft chondroma. I have not been able to find a report of a similar tumour occupying the orbit, though malignant tumours growing from the sphenoid are known to produce similar symptoms, only much more rapidly. I think if it had occurred to me that a cartilaginous tumour might originate from the body of the sphenoid bone, and follow such a course in its gradual development that a correct diagnosis might have been made. As it was, however, though this patient had seen various oculists and surgeons of eminence, none had truly divined the cause of her trouble.

CARCINOMA OF THE LACHRYMAL GLAND.

The case of carcinoma of the lachrymal gland was brought to me by Dr. Baildon of Southport. It occurred in a single lady aged 56. She was stout and rather inclined to gout, but otherwise had always enjoyed good health. The early stages of the tumour had passed without observation, for it was painless, and had interfered very little with vision, only somewhat limiting the range of movement in the left eye. A few weeks previously she first noticed a slight swelling at the outer margin of the left orbit. On examining this with the finger a small, hard, nodular tumour could be felt in the position of the lachrymal gland, which had become adherent to the periosteum at the margin of the orbit. The eye was somewhat displaced forwards, downwards, and inwards; but the vision was quite good. From the position of the growth, the very hard nodular character, its slight mobility (showing it did not originate from the wall of the orbit), and its present infiltrating nature, a diagnosis of lachrymal carcinoma was made.

The operation was undertaken for its removal on November 23rd, 1900, Dr. Baildon assisting. Towards the eye the growth was encapsuled and shelled out, but towards the orbital margin it was infiltrating, and had to be chipped away. The wound healed well, and the eye was not damaged. Success was only temporary. On March 30th, 1901, I cleared out the contents of the orbit, and cut away more bone for a recurrence of the growth. This operation failed too, and Dr. Baildon has since on one or two occasions removed outlying nodules. For several months the case has been hopeless, the cheek being swollen and infiltrated with growth, and the submaxillary glands much enlarged. A five weeks' course of treatment by exposure to the *x* rays was also without beneficial result, and resort to morphine has become imperative to relieve the painful neuralgia that has accompanied the later stages of her illness.

The tumour removed measured 1 in. in diameter. The deeper part resembled a lobulated breast adenoma, and was, as has been stated, encapsuled towards the soft tissues of the orbit; but the upper part was exactly like a scirrhus cancer of the breast in appearance.

Microscopically the whole tumour was infiltrated with carcinoma, though I cannot help thinking that the lobular encapsuled growth was originally an adenoma, which may have existed many years without having attracted any attention. Strangely the histological characters of the carcinoma are strikingly like the typical scirrhus cancer of the breast, not only in the appearance and grouping of the cells and dense fibrous stroma, but also in the profusion of the so-called "cancer bodies."

Although in the books in our library there are several short references to the fact that carcinoma as well as other tumours may originate in the lachrymal glands, I have not come across the details of any case which has been investigated, hence this one may have some value.

* Read at the Liverpool Medical Institution, February 20th, 1902.

CASE OF TUMOUR OF THE PONS ASSOCIATED WITH DEGENERATION IN THE POSTERIOR COLUMNS OF THE CORD.

By E. E. LASLETT, M.D.VICT., B.SC.LOND.,
Late Senior Demonstrator of Physiology, University College, Liverpool.

THE following case is of some interest from the clinical side in the almost complete absence of nervous symptoms, and from the pathological side in the association of degeneration in the posterior columns of the spinal cord.

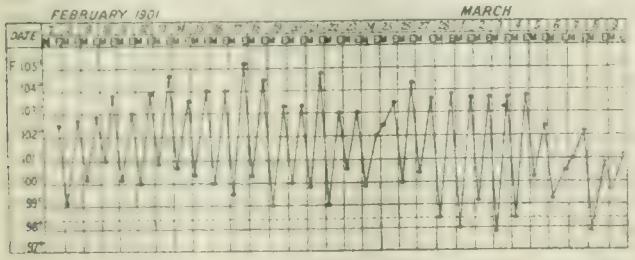
B. P., a negro, aged 36, was admitted under my care to the South-Eastern Fever Hospital, New Cross, on February 7th, 1901, certified to be suffering from enteric fever.

History.—A detailed history of his illness was difficult to obtain, but apparently he had been well up to a week previous to admission, when he was seized with headache, vomiting, and pain in the abdomen.

Condition on Admission.—The patient was dull and apathetic, little inclined to talk, but able to give some account of his illness. He complained of headache only. The tongue was dry and thickly coated with white fur. Temperature 102.5° F.; pulse soft, rapid, and heart sounds clear, with no murmurs. Lungs normal. Nothing abnormal in the abdomen. No jaundice. Urine dark coloured, but contained no bile pigment and neither albumen nor sugar. On the addition of nitric acid it deposited very abundant crystals of nitrate of urea. No diarrhoea; stools natural. With respect to the nervous system, there was no paralysis detected, either in the cranial or spinal nerve supply. Knee-jerks present. Sensation was not systematically tested, but, so far as the examination went, appeared normal. With no symptoms pointing to an affection of the nervous system, the optic discs were unfortunately not examined.

Progress.—The headache was severe during the first few days after admission, after which it ceased. There was no vomiting. Patient complained of pain and "stiffness" in the neck on movement, but nothing abnormal could be detected. A probable explanation of this symptom

will be mentioned later. There was continuous pyrexia of a variably remittent type, which neither quinine nor salicylates influenced. On one occasion it rose above 105°, and on several occasions was above 104° in the evening. No rigors. The tongue remained throughout the illness in the same condition as on admission. About February 27th he developed slight cough, accompanied with scanty sputum, in which no tubercle bacilli could be found. Examination of the lungs revealed a few rhonchi at the bases, but no other signs of import. At the same time there was some diarrhœa. A few days later he became drowsy, passing his evacuations involuntarily, but he was still able to answer questions. In the evening there was some delirium, and he frequently tried to get out of bed. The drowsiness increased, and on March 4th he was unconscious, and had to be fed by the nasal tube. This condition continued to his death, which occurred on March 7th.



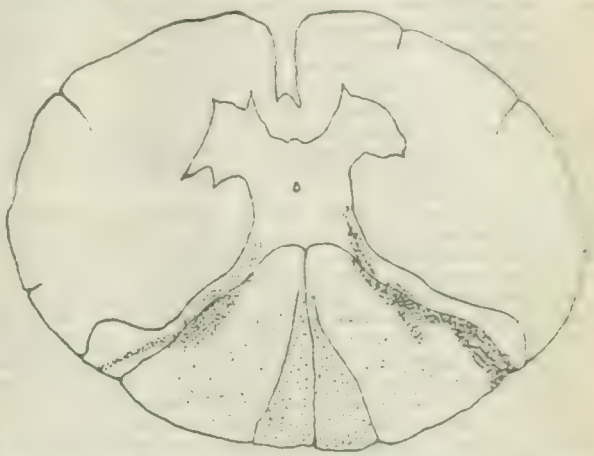
Necropsy.—The body was fairly well nourished. The lungs were congested, with fluid exudation at both bases, but no consolidation and no trace of tubercle. Heart normal. The liver was somewhat enlarged, congested, and showed considerable amount of fatty degeneration. All the other organs were healthy. A very careful examination was made, but no sign of enteric lesion was found either in the alimentary canal or in the other organs. On removing the skullcap and opening the dura mater the arachnoid seemed unduly opaque, and there was certainly an excess of subarachnoid fluid. On cutting into the cerebral hemispheres the lateral ventricles were found to be markedly dilated, otherwise this part of the brain was normal. In the pons an elongated tumour was discovered, situated on the left side near the middle line in the posterior part but not encroaching on the floor of the fourth ventricle, and extending through almost the whole length of the pons. The growth, which was about half an inch in diameter, was not encapsuled, but was marked off from the rest of the pons by its deeply-congested appearance.

Microscopical Examination.—The brain and spinal cord were hardened in Müller's fluid and pieces embedded in paraffin. The tumour was found to be a glioma. There was no degeneration (Marchi method) either ascending or descending as a direct result of the tumour, but the cervical cord showed (1) very marked symmetrical degeneration of the intraspinal portion of the first cervical posterior roots, the extraspinal portion of the roots being quite normal; (2) scattered symmetrical degeneration in Goll's column, and also a few degenerated fibres in Burdach's column. The source of the fibres in Goll's column appeared to be a scattered degeneration in the lumbar posterior roots, but this could not be quite definitely determined. The degenerated fibres of (1) and (2) terminated above in the outer part of the cuneate and the gracile nuclei respectively.

No definite diagnosis was made in this case, but it was thought that it was most probably acute tuberculosis. This the necropsy proved to be an error. The cause of the peculiar temperature is obscure. Affections of the pons are known to be associated with pyrexia, but it is hardly of this prolonged remittent type. Moreover, it is an association more commonly of haemorrhage than of tumour of the pons. It seems very possible that the pyrexia may have been due to the condition of the liver, but it is important to point out that this organ showed no signs of acute yellow atrophy, but merely a considerable amount of fatty degeneration. Acute yellow atrophy may indeed be fairly excluded by the duration of the case, because after such a period the liver would almost certainly have assumed the atrophied condition typical of that disease.

Degeneration of the posterior columns of the cord in cases of cerebral tumour was the subject of an exhaustive paper recently published by Drs. Batten and Collier.[1] These authors found it present to a greater or less degree in about 65 per cent. of cases. They find that the degeneration is of root origin, is nearly symmetrical, and is more common in the cervical region than in the dorsal or lumbar regions. According to the view of these authors the degeneration is due to increased intracranial tension which causes distension of the spinal arachnoid and consequent traction on the spinal roots. The anterior roots are less liable to suffer than the posterior, because they are less attached to the arachnoid. In my case the degeneration in the postero-external columns of the cervical cord was undoubtedly of root origin, and arose from the point where the first cervical posterior root entered the cord: the extraspinal portion being quite normal.

In three of the cases in the above paper there was symmetrical degeneration of the direct cerebellar tracts in the upper cervical region which it is suggested is due to pressure on the upper cervical cord brought about by the descent of the cerebellum and bulb, so as to block the foramen magnum a condition which occurs when the intracranial tension is rapidly increased.[2] Such a condition would of necessity shut off communication between the spinal and cerebral arachnoid spaces. This suggests that the descent of the bulb may of itself be a factor in the causation of the root degeneration by effecting a downward traction on the cervical posterior roots which have a nearly horizontal course. This suggestion is supported by the fact that in the three cases mentioned the degeneration in the posterior columns was limited to the cervical region. Such an explanation would hold good in the present case, because the roots of the first cervical nerve would be especially liable to traction on account of their short horizontal course. The presence of slight degeneration in the lumbar root goes to show that the foramen magnum was not completely blocked, a fact which would account for the absence of degeneration of the cerebellar tracts in my case.



Clinically the affection of the posterior columns is important, because in some cases it is a cause of absence of the tendon-jerks, particularly the knee-jerk. In the present case the affection of the posterior lumbar roots was but slight, and the knee-jerks were retained until coma supervened. The only evidence clinically of the involvement of the cervical roots was probably the pain and stiffness in the deep muscles of the neck, of which the patient frequently complained.

For permission to publish this case I am indebted to the kindness of Dr. F. M. Turner, Medical Superintendent of the South-Eastern Hospital.

REFERENCES.

[1] Batten and Collier, *Brain*, 1899, Winter. [2] Hill, Allbutt's *System of Medicine*, vol. vii, p. 266.

NOTES ON ADRENALIN CHLORIDE SOLUTION IN OPHTHALMIC PRACTICE.

By GEORGE A. FERDINANDS, M.D.,
Aberdeen.

THE value of suprarenal extract as a haemostatic is well known. In 1896 Bates published his first experiences in ophthalmic surgery of a solution of the extract, and later Dor, Darier, Velich and others recorded their experiences of a similar solution. But evidently the want of a stable, sterile and more convenient preparation of the drug was required to make its qualities better known. John Abel separated an alkaloid which he named epinephrin. It was found to cause conjunctival blanching and slight anaesthesia. Bates recorded his experience of its use in the eye: he found it lessened congestion and hastened absorption of inflamed tissue. The preparation, however, was not to be had commercially, which probably accounts for its limited use. Wolffberg also records his experience of atrabilin, another preparation of the suprarenal bodies. We are now indebted to

Dr. Jokichi Takamine for the separation of what appears to be the active principle of the suprarenal bodies. To this alkaloid he has given the name adrenalin. The alkaloid itself is not to be had, as it is impossible to make a solution of it by ordinary methods. It is therefore supplied as adrenalin chloride solution. In this form the drug has been used for some time with satisfactory results in the United States, both in the treatment of throat and eye affections. Papers on the action of the preparation were read last year at the Chicago Laryngological Association, by Casselberry and Wilson, who with many others spoke of its use in very favourable terms.

I am indebted to Messrs. Parke, Davis, for a supply of this preparation. Adrenalin chloride is supplied diluted in normal salt solution (1 in 1,000). It is colourless, odourless, sterile, and stable if protected from light, heat, and oxidation, particularly the latter.

I find that when instilled into the healthy eye adrenalin chloride solution (1 in 1,000) causes first a slight smarting, and, within a few moments, a blanching of the conjunctiva, which is best marked at the caruncle. This blanching reaches its maximum within five minutes. The action very gradually passes off, and the eye resumes its usual colour in about the same time or a little longer. The solution is non-irritating, and does not cause any dilatation of the pupil (Königstein found dilatation of the pupil with a 10 per cent. solution of the extract), neither does it render the conjunctiva or cornea insensitive to any extent. The solution has also no effect on the accommodation. Under its influence the eye feels slightly dry.

Applied to the inflamed conjunctival sac it gives relief in a few moments, evidently by checking the congestion: indeed, in some cases, especially those of foreign bodies in the cornea or under the lid, the relief obtained is not unlike that given by a weak solution of cocaine. In severe acute conjunctival hyperaemia several instillations may be required before complete blanching takes place. The hyperaemia of acute inflammation does not appear to yield so readily as chronic hyperaemia. The inflamed eye resumes its injected appearance within fifteen minutes after the instillation of the solution; but repeated instillations gradually overcome the hyperaemia provided, of course, the original cause of the irritation be removed. The solution is rapidly absorbed into the anterior chamber, and its action is seen on the congested iris, especially if the instillations be frequently repeated (once every fifteen minutes). This fact renders the drug particularly valuable in iritis. It relieves photophobia, and by its control over congestion assists atropine in dilating the pupil. The solution seems, too, to hasten absorption of serous exudation. It certainly assists the absorption of subcorneal deposits and thus improves vision; it also reduces tension, especially when above normal. This fact was also noticed by Zimmermann in using a preparation of the extract. Landolt's experience of the extract, however, is that it does not affect the tension of the globe. But Darier, at the Congress of the Société Française d'Ophtalmologie, recommended suprarenalin (another preparation of the extract?) as useful in reducing intraocular tension.

In operations on the eye adrenalin chloride solution will be also found of use. In tenotomy and advancement of the rectus, the previous instillation of the solution helps to control the haemorrhage. It is necessary often to reinstill a drop or two during the operation. A minim or two previously injected beneath the conjunctiva has, however, a more lasting effect. In this way most operations on the superficial tissues are rendered practically bloodless. The solution is also of use in stricture of the lachrymal duct from swelling of the mucous membrane. Its use facilitates the passage of a probe. No secondary haemorrhage has been observed, but when we consider that the drug only temporarily influences the blood vessels, such a sequence is, when larger vessels are divided, quite possible. In rhinology, Hopkins states that secondary haemorrhage does occur after the use of a solution of the extract (due evidently to delayed relaxation). Peters, too, has had similar experience with the extract, and found secondary haemorrhage occuring two hours after. Landolt also experienced troublesome haemorrhage. The experiences, however, of Mullen and Macleod Yearsley are contrary to these observers. In inflamed conditions of the eye, especially chronic, it will be noticed that there is a tendency for a reaction to set in after the influence of the drug passes off and the hyperaemia is temporarily increased.

So far, I have observed no toxic effect. In eye work it is not likely that such evil effects will readily occur, the solution being used in such small quantities. It must not be forgotten, however, that suprarenal extract can produce marked toxic effects (Corona). Landolt likewise reminds us of the fact. How long and to what extent adrenalin chloride solution influences the deeper tissues of the eye it is not as yet possible for me to state definitely. So far, my observations tend to point that the influence is much the same as on the superficial tissues. The action of the drug varies with the intensity and chronicity of the inflammation. It is not easy to arrive at precise conclusions from instillations into the eye. The size of the drop, its dilution owing to varied lachrymation, etc., all render precision in such observation almost impossible.

My experience of adrenalin chloride solution is that it will prove a valuable addition to the small pharmacopoeia of the ophthalmologist. Indeed, since the introduction of cocaine no drug of greater interest and use in eye work has come before us. But it is essential to bear in mind that the preparation in its action is only indirectly of use, that is (like the extract) it contracts the muscular coats of the blood vessels (Schäfer, Olliver), and thus by controlling congestion promotes healing and absorption.

According to Grünbaum, suprarenal extract does not cause clotting. In eye operation I have noticed that coagulation takes place more readily when the solution of adrenalin is used: this, however, may be due to the haemorrhage being scanty. The solution may be combined with atropine or cocaine, but it is better to use it by itself. First, because to be of much use it requires frequent instillations; and next, because the solution, if exposed, tends to oxidize and lose its original potency. The action of cocaine on inflamed tissue (which, as is well known, is not satisfactory) is greatly promoted by the previous use of the solution. Finally, I must not omit to state that in cases where the nutrition of the tissues is at fault the solution of adrenalin chloride is contraindicated. In certain forms of corneal ulceration, for instance, the use of the solution appeared harmful. It will be thus seen that the drug must not be used indiscriminately.

BIBLIOGRAPHY.

Bates, New York *Med. Journ.*, May 16th, 1896. Darier, *Annales d'Oculist.*, September, 1896. Abel, *Zeitschrift für Physiologie.* Maurange, *Gazette Hebdomadaire de Médecine et de Chirurgie*, September 19th, 1897. Bates, New York *Med. Journ.*, October 16th, 1897. Yelich, *Wien. med. Blätter*, 1897. Mullen, *Internat. Clinics*, vol. iv, Series 7. Swain, New York *Med. Journ.*, December 24th 1898. Corona, *Rif. Med.*, May 16th, 17th, 18th, 1898. Kyle, *Ophth. Rec.*, April, 1898. E. A. Peters, BRITISH MEDICAL JOURNAL, July 8th, 1899. Macleod Yearsley, ibid., October 14th, 1899. Landolt, *Centralblatt für Augenheilkunde*, November, 1899. Lermitte, BRITISH MEDICAL JOURNAL, February 24th, 1899. Whitehead, ibid., December 23rd, 1899. Hopkins, *Phil. Med. Journ.*, May 5th, 1900. Bates, *Medical News*, March, 1900. Zimmermann, *Die Ophth. Klinik.*, September, 1900. Grünbaum, BRITISH MEDICAL JOURNAL, November 3rd, 1900. Wolffberg, *Wochenschrift für Terapie und Hygiene des Auges*, December, 1900. Peters, *Lancet*, March, 1900. Reynolds, *American Medicine*, July 6th, 1901. Colburn, *Clinical Review*, July, 1901.

CASE OF TOTAL SUPPRESSION OF URINE DUE TO THE OBSTRUCTION OF BOTH URETERS BY RENAL CALCULI.

By W. MITCHELL STEVENS, M.D.Lond., M.R.C.P.,

Fellow of University College, London; Assistant Physician and Pathologist to the Cardiff Infirmary.

CASES of obstructive suppression of urine are of peculiar interest: first, from their rarity; secondly, from the "latency" of the symptoms produced; thirdly, from the good results which may be anticipated from operative interference; and, fourthly, from the light which they throw upon the pathology of uraemia and on the functions of the kidney. These cases are, therefore, of interest not only to the physician but to the surgeon, the pathologist, and the physiologist.

For an account of the symptoms observed in the following case, and for obtaining permission to perform a necropsy, I am indebted to my friend, Dr. Fred Evans.

History.—The patient, a publican, aged 58, a stout, flabby man, 5 ft. 7 in. in height, and weighing 15 st., first consulted Dr. Evans in December, 1898, complaining of loss of flesh, thirst, and the passing of excessive quantities of urine. Sugar in considerable quantity was found in the urine, and under treatment for this condition by July, 1900, he had regained his former weight, and the sugar had entirely disappeared.

State on Examination.—On January 3rd, 1901, having enjoyed good health in the meantime, he again came under observation complaining of shooting pains in the right loin with blood in the urine. The urine was now found to be normal in quantity, but it contained much blood and also a trace of sugar. These symptoms continued without any alteration until April 5th, 1901, when without any warning complete suppression of urine suddenly set in, and this continued until his death on April 12th, that is, on the eighth day of suppression. From the 5th to the 12th not a drop of urine was passed, nor could any be obtained by the introduction of a catheter into the bladder. The only symptoms observed during the seven days of suppression of urine were pain and tenderness in the right loin, a gradual and progressive loss of muscular strength, gradual enfeeblement of the pulse and respiration, slightly-contracted pupils, and obstinate constipation. The temperature was normal. The tongue was clean, though somewhat dry towards the end. There was no nausea or vomiting, no tremors or twitchings. The mental condition remained clear to the last, and the immediate cause of death was probably respiratory failure.

Necropsy.—The abdomen only was opened. The abdominal walls contained a large quantity of subcutaneous fat. There was an entire absence of any ammoniacal odour. The liver showed well-marked cirrhotic changes. The right kidney was large, weighing 12¾ oz. The upper half of this organ was represented by a bulging, tough swelling, which on examination was found to be composed of hard fibrous tissue arranged in a coarse spongy manner, the interstices of which contained blood clot for the most part completely decolorised. The capsule stripped off fairly easily. The kidney substance was pale and tough, and the pyramids had almost disappeared. The pelvis was much dilated and contained a small quantity of grumous fluid together with much decolorized blood clot. Projecting into the entrance of the ureter was a stone weighing 100 gr.; it was wedge-shaped, with the apex fitting tightly into the orifice of the ureter. The ureter itself below the obstruction was normal. The left kidney weighed 8⅝ oz. This organ, on section, was of a dark-red congested appearance, but otherwise it looked healthy. The pelvis was not dilated, but contained a few drachms of pale-coloured urine but no blood clot. A small stone weighing under 3 gr. and mixed with mucus and blood clot was found fixed in the entrance of the left ureter, producing a complete obstruction. The ureter itself was normal. The bladder was quite empty.

I. *Clinical History.*

Under this heading there are several interesting points in the above case:

(*a*) *The History of Glycosuria.*—The association of glycosuria with renal calculi, whether a coincidence or not, is worthy of notice.

(*b*) *The Short History of Symptoms Pointing to Renal Calculus.*—Previous to three months before the patient's death there was no history of symptoms indicating any lesions in connexion with the kidneys. From the *post-mortem* conditions found in the right kidney one cannot doubt that a stone had been present in that kidney for a long period, but nevertheless the patient had apparently suffered from no symptoms. Within three months from the first appearance of symptoms of pain and haematuria the patient died from total suppression of urine.

(*c*) *The Onset of Total Suppression of Urine without Symptoms of Renal Colic.*—The onset of the suppression was quite sudden and without any warning, which shows that sudden obstruction of a ureter may occur without any special symptoms.

(*d*) *The Suppression of Urine was "Absolute."*—Not a drop of urine was passed from April 5th until his death on April 12th, and none was found in the bladder either during life or after death. In most cases of "obstructive suppression" of urine which are on record small quantities of pale urine have been passed, a condition of the urine which, as pointed out by the late Sir William Roberts, is characteristic of that secreted in cases of "obstructive suppression."

(*e*) *The Absence of Symptoms of Uraemia.*—In the above case no urea was excreted for seven days and yet there was not a single symptom pointing to uraemia.

(*f*) *The Duration of Life.*—In the above case the duration of life from the onset of the suppression was seven days. Sir William Roberts states that the duration of life in these cases is, as a rule, from nine to eleven days. It is quite possible that had this patient lived for a day or two longer slight symptoms of uraemia would have been observed such as muscular twitchings, drowsiness, or delirium. However, in all recorded cases marked symptoms of uraemia have been absent, and thus these cases present a strong contrast to those of "non-obstructive suppression," in which there is no mechanical interference to the flow of urine.

II. *Pathological Conditions found at the Necropsy.*

The dilatation of the pelvis of the right kidney with atrophy of the pyramids shows that this organ had for some time ceased to perform its functions on account of the blocking of its ureter. The pelvis of this kidney contained no urine. The fibrous mass situated in the upper part of the kidney was no doubt produced by calculus irritation, and was probably the part of the organ in which the calculus was originally formed. At first sight this mass looked very like a growth, but microscopical examination demonstrated the fact that it consisted only of fibrous tissue and blood clot.

The left kidney had undergone compensatory enlargement, and up to the time of the blocking of its ureter it no doubt performed efficiently the excretory functions of both organs. The stone which blocked the ureter of this kidney was very small but yet larger than one recorded by Sir W. Roberts, which weighed only 1½ gr. It is indeed remarkable that such a small pathological object should be the cause of death. The pelvis on this side was not dilated, showing that a certain amount of time is necessary to produce a dilatation of the pelvis of the kidney after obstruction of its ureter. It contained a small quantity of pale-coloured urine, a fact which shows what a comparatively small pressure is capable of stopping the secretion of urine. The congested condition of the left kidney was very noticeable in this case, and contrasted with the pale colour of the right kidney.

III. *Treatment.*

The treatment which should be adopted in these cases would, of course, depend upon the diagnosis. It is obvious that an obstruction which produces sudden suppression of urine must occur simultaneously in connexion with both kidneys, or if it occur on one side only the other kidney must have been rendered useless by antecedent disease. Now it is most unlikely to get simultaneous blocking on both sides, therefore we must assume that one kidney had suffered previously either from stone or other disease, and that the immediate cause of the suppression was the obstruction of the ureter on the other side. In this case there was no history of renal pain until three months before the death of the patient (though the stone was probably present before that date) or of any other symptom referable to kidney disease. This pain was on the right side, and was associated with tenderness on palpation. At no time were there any symptoms referable to the left side.

When the sudden suppression of urine occurred the question would arise, In connexion with which kidney has this sudden obstruction occurred? I think that when we take into consideration the above facts we might assume that it occurred in connexion with the left kidney, which we have no reason to believe had suffered from previous disease, and here I may again remark that a sudden blocking of the ureter does not necessarily produce pain. As in 90 per cent. of the cases of total suppression the cause is stone, we may, I think, fairly arrive at the conclusion that we have to deal with obstruction of the left ureter from a stone.

Having established a diagnosis the treatment would be obvious—namely, to remove the obstruction. It is possible that the obstruction may in some cases be removed by manipulation of the abdomen in the course of the ureter. There is, of course, the possibility of spontaneous recovery, and a remarkable example of this is recorded by Professor J. Reczey, of Buda-Pesth, in a man who had suppression from renal calculi for ten days, when he was seized with a sudden desire to micturate, and passed several calculi, which was followed in a little time by his passing 12 pints of urine. The patient made a good recovery.

I think, however, that in most cases the sooner an operation is performed the better, and the relieving of the obstruction would probably at once be followed by a copious secretion of urine. To wait for some days until muscular twitchings and other symptoms arose would be to throw away valuable time, and would be allowing the patient to get into a very weak state, and in these cases loss of muscular strength is one of the most marked symptoms.

IV. *Remarks on the Pathology of Uraemia.*

Cases of obstructive suppression of urine throw a good deal of light on the pathology of this condition. The absence of

marked symptoms of uraemia is very striking in these cases; indeed, cases are on record in which, though there was total suppression for several days (for example, a case recorded by Professor Reczey) not a single bad symptom was observed. In non-obstructive suppression, although a certain quantity of urine may still be passed, the cases end fatally in a few hours or in a day or two, and symptoms of uraemia are prominent. It is obvious, therefore, that uraemia does not simply depend upon an accumulation in the blood and tissues of the body of excretory products such as urea which are normally excreted in the urine.

A comparison of the state of the kidneys in the two kinds of suppression of urine gives us a clue to an explanation of the striking difference observable in the symptoms. In "non-obstructive" cases the suppression is due to acute pathological changes in the kidneys themselves. In "obstructive" cases the suppression is due to a mechanical cause outside the kidney, this organ itself being healthy and quite capable of resuming its functions of secretion directly the obstruction is removed. Now, if the function of the kidneys were purely "excretory," and nothing else, there would not be such marked differences in the symptoms observable in the two kinds of suppression of urine, and it is therefore probable that these organs have some other important function. In cases of obstructive suppression the excretory function only is in abeyance, whereas in non-obstructive suppression some other function beside that of excretion is seriously affected, and it is quite apparent that in such cases every function of the kidney would be practically in abeyance when we consider the severe inflammatory processes present. Of course the abolition of the excretory function alone will cause a fatal result, but this, as we have seen, is generally delayed for some days (in one case even as long as twenty-two days), and the symptoms of uraemia are late in appearing, and, indeed, may be quite absent even for as long as ten days, and when they supervene they are ill-marked, convulsions and coma rarely set in, and the mind generally remains clear to the end. The explanation of this probably is that the kidney is practically healthy and is carrying on its other functions.

These other functions of the kidney are possibly due to some "internal secretion" which has some influence on certain metabolic processes as yet unknown. Dr. Bradford, in his experiments, has shown that excision of large portions of the kidneys in animals actually causes an increase in the quantity of urine secreted, and also in the amount of urea. He believes that the kidneys, beside excreting toxic products normally found in the blood, have also a further function of inhibiting their abnormal formation. In obstructive suppression of urine one can conceive that there is an accumulation in the blood only of those substances normally excreted by the kidney, and that this organ being still healthy is capable of fulfilling its other functions, but that in non-obstructive suppression there is an accumulation in the blood not only of these substances but of others normally formed as the result of perverted tissue metabolism, the kidney being unable to perform any of its functions either as a "secretory" organ or as an organ "influencing metabolism," and on examining the condition of the kidneys in such cases it is not surprising that there should be a state of complete, or almost complete, paralysis of function. The pathology of so-called uraemia is a very complex question, but I venture to think that clinical observations, taken in conjunction with experimental researches, will tend to throw much light on the matter.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CARCINOMA AND MALARIA.

IN a letter published in the BRITISH MEDICAL JOURNAL of January 11th, Dr. J. S. Davidson gives some interesting remarks under the above heading, in the course of which he implies that the negro in Africa is practically free from the former disease, and that where malaria is prevalent cancer is rare. The truth can only be obtained by the collation of a large number of reports from different places.

As regards this matter, my experience during the last five years in Uganda, Central Africa, is diametrically opposite to this. In the Church Missionary Society's Hospital at Mengo, the capital of Uganda, we had over 1,000 in-patients and about 16,000 out-patients under treatment last year. These were all Baganda, or the nearly allied tribes Banyoro, Batoro, or Basoga. Among this number were some 1,300 cases of malaria; while cases of malignant disease, though much less common than among Europeans, were by no means rare.

My brother, J. H. Cook, M.B., M.S., F.R.C.S., who is associated with me in the charge of the hospital, has had the same experience. We have had cases of carcinoma of the lip, oesophagus, intestine, breast, uterus, penis, etc., sarcoma of the parotid, lower and upper jaw, and melanotic sarcoma. Malaria is certainly no bar to the occurrence of carcinoma, and I would enter an earnest protest against "inoculating cases (of carcinoma) with the protozoon of tertian fever" as a preventive of carcinoma.

Were we able to overcome the prejudices of the natives and make more frequent necropsies, we should doubtless find cases of carcinoma to be more frequent than we suspect.

Lynsted, Beckenham. ALBERT R. COOK, M.D.Lond.

A DANGER OF LACHRYMAL STYLES.

A LADY came under my care suffering from an old-standing obstruction to the lachrymal duct.

On December 13th, 1901, I slit open the canaliculus and passed a full-sized probe down the canal. The obstruction, however, tended to recur owing to cicatricial contraction, and to obviate the necessity of passing the probe every day I introduced a style (Bickerton's). The flange of the style was not, however, sufficiently large to prevent it slipping down into the nasal duct, and two days later, when the patient returned, it had disappeared into the bony canal. From this it was extracted with great difficulty by Dr. Hill Griffith, after opening the sac.

Such an accident might be obviated by making the flange larger, but this might introduce the still more serious danger of the globe being injured by the flange in the movements of the eye, and the possible introduction of septic pus from the sac. Dr. Hill Griffith tells me that this accident has actually occurred.

Longsight, Manchester. E. VIPONT BROWN, M.D.Lond.

PINCE-NEZ IN OPHTHALMIC PRACTICE.

WITHIN the last eighteen months a considerable number of persons wearing pince-nez have come under my notice, complaining of epiphora or flowing of tears. In some cases two pairs of glasses were in use—pince-nez and ordinary spectacles; and only when the former were used were the tears troublesome.

At first I supposed this to be due to the fact that, at least in some cases, the pince-nez frame did not sit quite straight on the face, thereby causing the wearer to see obliquely through the glasses. This would cause the lenses to act as cylinders which might produce a condition of irritation in the eyes—an asthenopia from wrong glasses in fact—associated with increased lachrymation.

However on further investigation of the matter, I found that the trouble was caused by another condition altogether. This was that the compressing force of the pince-nez dragged on the tissues at each side of the nose to such an extent that the lower lid was actually pulled away out of position and no longer lay up in close contact with bulbar conjunctiva. The displacement of the lid, with of course the inferior punctum, was small in amount, only about 0.2 or 0.3 mm., and this easily escapes detection, all the more so, as it has to be looked for while the glasses are on the patient's face. But even this small amount of eversion this ectropion—is amply sufficient to cause the epiphoria.

This is a very important matter, as such an eversion of the lid, present at first only when the pince-nez is actually on the face, will become permanent in time, and set going all the troubles associated with ectropion.

The surgeon, for the patient's sake, as well as for his own protection, should guard against this, by closely examining

the pince-nez while on the patient's face, as this is a matter which the optician can hardly be expected to know much about. If the epiphora is set up by wearing the glasses, the patient will very naturally conclude that the *lenses* are "wrong" and thus will associate the surgeon, rather that the optician, with the fault.

In a large proportion of cases, pince-nez will sit well on the face and be a "good fit" as far as the optician is concerned: but in a certain number of these, they are really unsuitable and injurious for the above reason.

The surgeon should see the frame on the patient, if possible before the lenses are fitted into it, and also see that the spring is as weak as is compatible with steadiness. Some cases will be seen in which it is not possible to fit pince-nez without causing this ectropion.

Robert D. Joyce, F.R.C.S.,
Ophthalmic Surgeon, Richmond Hospital, Dublin.

ADVANCED TUBERCULOUS DISEASE OF THE MESENTERY WITH NO SYMPTOMS.

The following case seems to show that there may be grave disease of the mesenteric glands with no symptoms sufficiently marked to cause anxiety to a watchful mother. A girl, aged 7, active and clever, of a good colour and not thin, was apparently quite well on a Monday morning. After attending her drilling class she complained of feeling ill and of abdominal pain. She lay down for two hours and then vomited. This relieved her pain somewhat, but the sickness continued throughout the day. She had been subject to what her mother called "bilious attacks," and at the commencement, these symptoms were attributed to biliousness. The child had a restless night and vomited bile-stained mucus. In the morning she was flushed, but about midday she became pale and delirious. I saw her on the evening of the second day. She had not vomited since the morning, but little had been taken besides water. She was unconscious and delirious, with a pulse of 140 and small, her temperature was 99°, and her pupils were dilated, but acting well. The bowels had not acted since the morning before. The abdominal muscles were fixed and the breathing was thoracic. On palpation of the abdomen, although unconscious, she attempted to pull one's hand away.

Late at night she vomited some dark-green mucus; but, although she took about 5 ounces of milk and water, she did not vomit again during the night. The delirium continued, alternating with short sleeps and a few lucid intervals, in which she complained of abdominal pain. In the morning of the third day her pulse was 148 and the temperature 99°. A slight hectic flush alternated with paleness. The abdominal muscles were still fixed but not so firmly as the day before. A large plain water enema was followed by a hard motion, and three hours afterwards by a fluid light motion. This and the fact that there had been no vomiting for twelve hours seemed to preclude acute obstruction. The collapse was getting deeper.

After consultation with my partner Mr. R. G. Pollock and a neighbouring surgeon, it was decided that an exploratory incision would only hasten death in the collapsed state in which the child then was.

On the fourth day of the illness the bowels acted twice freely. She died on the morning of the fifth day.

At the necropsy the abdomen only was examined. The peritoneum was roughened and injected at the lower part of the cavity but still smooth over the stomach and liver. There was no faecal fetor or gas in the cavity. The intestines were only matted at the lower part of the abdomen. There was about 2 oz. of creamy pus in Douglas's pouch. At the back of the abdomen there was apparently a collapsed suppurating lumbar gland, from which part of the pus had evidently escaped. There were several enlarged mesenteric glands about the size of small beans, some of which were caseating. There was no ulceration of the intestine or any recent grey tubercles on the peritoneum.

I have been struck with the apparent health of cattle before slaughter, the carcasses of which have proved to be tuberculous; I was, however, much surprised to find so much evidence of suppurating tuberculosis in this child with no definite history of previous illness.

Warlingham. W. R. Etches, M.D., M.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

RADCLIFFE INFIRMARY, OXFORD.

CASE OF HYPERTRICHOSIS LOCALIS.

(Under the care of Gabriel Farmer, M.A., F.R.C.S., Surgeon to the Infirmary.)

F. B., male, aged 14 months, was admitted with an abnormal growth of hair on the face. On examination the hair was found to be long and silky over most of the area affected, but over the nose and upper lip it was short. It sprang from a pigmented ground, which, however, did not follow the distribution of any cutaneous nerve: it was smooth, naevoid, and varied in colour from light coffee brown to a dark chocolate. It was not bilaterally symmetrical. There were several isolated patches on the neck. The mother gave an account of being frightened by a horse shortly before the birth of the child.



Remarks.—This is one of those cases of hypertrichosis localis combined with a thickened and pigmented skin which are due to some tendency acquired during intrauterine life (hypertrichosis indoles hereditaria of Ziemssen). It is confined to the face and neck, and, as is generally the case in that position, the growth is not only very conspicuous, but largely developed. Echer regards it as a case of arrested development, the embryonic lanugo, instead of disappearing to make way for the natural hair, persists—a theory which is extremely plausible if one considers the character and lines of growth of the hair. Heredity does not appear to be present in this case, although this has been ascertained to be the rule in most of the so-called hairy men.

HOSPITAL FOR WOMEN, SOHO SQUARE.

CARCINOMA OF THE BLADDER: RESECTION OF THE GROWTH AND PART OF THE BLADDER WALL: RECOVERY.

(By Lawrie McGavin, F.R.C.S., Assistant Surgeon to the Hospital and to the North-West London Hospital).

Operations for the relief of malignant disease of the bladder, in which any very radical method has been employed are still of sufficient rarity to warrant the publication of cases which may affect the statistics for good or bad. Taking the majority of cases, erasion and cauterization of the growth may be said to represent the usual extent of the operative interference. The case which I am able to set forth here is, I think, of interest from more than one aspect.

First, the growth was in a situation which is usually supposed to contraindicate operation; secondly, the patient was over the age of 70 years; thirdly, the growth, although not by any means so large as many already reported, occupied an area of 2 in by 1½ in.

The patient, a woman aged 72, was admitted to the Soho Square Hospital for Women on September 19th, 1901, having previously given the following history.

History.—Six months before she had noticed blood in her urine from time to time, usually intimately mixed, but sometimes clotted, sometimes she thinks bright red, and present [illegible] micturition. She had never had any pain, [illegible] time passed some particles of gravel. There [illegible] quency of micturition, while tenderness over the pubes was marked

State on Examination.—On bimanual examination a distinct thickening could be felt to the left of the middle line, pressure there giving rise to a dull aching pain. There was no sign of kidney trouble, and the urine showed the following condition: Specific gravity, 1020; alkaline; blood, a trace; pus, in considerable quantities. Triple phosphate crystals and shreds of muco-pus.

Diagnosis.—A fortnight previous to admission I had sounded her bladder, and found a rough patch in the position of the thickening above mentioned. The examination had been followed by the passage of bright red blood. A diagnosis of epithelioma of the bladder was made, and the patient consented to operation.

Operation.—On September 18th, under an anæsthetic, I dilated the urethra with Hegar's dilators, and made a digital examination of the bladder. On the left side of the trigone, and rather towards the anterior half of the bladder, lying about an inch to the left of a line joining the left ureteral orifice to the internal meatus of the urethra, I found a large warty growth of the size stated above. It was oval in the vertical axis of the bladder, with hard, everted edges, and a granular friable surface. It was also freely movable on the deeper layers of the bladder, and had it been of smaller dimensions could, I fancy, have been drawn through the urethra. On account of the extremely healthy and robust condition of the patient, and of the unusually marked absence of fixity of the mass, I determined to attempt its removal. I therefore performed suprapubic cystotomy, and brought the growth better into view by digital pressure by means of the finger of an assistant in the vagina. I now proceeded to snip the tissues through at a distance of half an inch from the margins of the growth posteriorly, using blunt-pointed scissors curved on the flat. The bleeding gave some trouble from time to time, but was easily controlled by sponge pressure. With the growth, I removed the entire thickness of the bladder wall down to the pelvic fascia. I now found what I had already anticipated, namely, that the margins of the circular wound could not be brought together sufficiently accurately to prevent the danger of leakage. I therefore excised the remainder of the tissue between the circle and the median incision in the bladder, thus converting the gap into a semicircle, concave towards the middle line. I overcame the difficulty of suturing these edges together by stripping up the bladder and left ureteral orifice from the pelvic fascia, and turning the left half of the organ forwards towards the middle line. I then washed out the retrovesical space thus made with hot perchloride solution, and closed the bladder with twenty-five Lembert sutures of fine catgut, placed a small gauze drain in the suprapubic wound, and united the remaining structures with interrupted salmon-gut stitches.

Progress.—The subsequent history of the case was uneventful; with the exception of some suprapubic suppuration and slight pain on micturition, the patient recovered rapidly, her temperature never having been over 101°. The bladder remained perfectly watertight. The amount of bladder tissue removed in this case represented about one-fifth of the entire surface. The left ureteral orifice thus came to lie about half an inch from the line of suture.

REMARKS.—Regarding the advisability of attempting to remove non-pedunculated growths of the bladder, Sir Henry Thompson[1] writes: "If a thick and hardened base is encountered, it must be left: there can be no attempt to separate this from the tissues beneath, since it is incorporated with the wall of the bladder, and any ablation of this would be fatal."

Mr. Jacobson,[2] under Resection of Part of the Bladder for Growths, says: "The growth must be situated on the upper part of the bladder."

Sir Frederick Treves,[3] under Resection of Portions of the Bladder, states: "This operation has been performed in some four cases of malignant disease, but the results have at present not been sufficiently good to give the procedure a definite place in surgery," and draws attention to Mr. Gilbert Barling's report of the results of the operations performed up to date that is, the year 1890.

The above opinions bear ample testimony to the hazardous nature of the operation in these cases, and I am inclined to think that the success of the case I have quoted was due to the fact that I was able, owing to the slightly anterior position of the growth, to make the wound of excision eventually coincide with the primary incision into the bladder, thereby avoiding the necessity of two individual wounds in the organ, and consequently the danger of retrovesical extravasation of urine.

I would also suggest that, given a patient otherwise perfectly healthy, and a growth of not too great dimensions, and above all a growth which is freely movable, we may with improved technique and modern antisepsis, be justified in attempting its removal by using more radical measures, with more confidence in the future than has been possible in the past.

[illegible] Vol. xxx, p. 425.
[illegible] p. [illegible]
Manual of Operative [illegible], p. 612.

A LADY PRESIDENT AT A RUSSIAN CONGRESS.—At the eighth Congress of the Pirogoff Society recently held in Moscow the Presidential chair of the Section of Surgery was occupied by Dr. A. G. Archangelskaia, a lady who holds the post of district surgeon in the Moscow Government, and has won a wide reputation for surgical skill.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor T. R. FRASER, President, in the Chair.

Wednesday, March 5th, 1902.

THE RELATIVE INEFFICACY OF CACODYLATES AS THERAPEUTIC AGENTS.

THE PRESIDENT read a paper on this subject. He said compounds of cacodylic acid, $As(CH_3)_2O(OH)$, had recently been recommended and much used as substitutes for the usually employed compounds of arsenic, and it had been asserted that they had certain advantages over the medicinal compounds and preparations of that element ordinarily employed. A considerable body of clinical experience had already been accumulated regarding several of them, and especially regarding the cacodylate of soda and the cacodylate of iron. The former of these compounds had been administered in nearly all affections in which it was customary to employ the ordinary compounds of arsenic, including anaemia, leukaemia, pseudo-leukaemia, many forms of skin disease, leprosy, phthisis, bronchitis, chorea, and neurasthenia. Almost without exception those who had made observations with cacodylates had expressed themselves in the most favourable terms in regard to their value. Dalché, in a discussion at the Society of Hospital Physicians of Paris, stated that of 9 cases of pulmonary tuberculosis treated with cacodylate of sodium, subcutaneously injected, 3 were undeniably cured, 4 were greatly improved, 2 showed no results, and 2 very advanced cases became worse. Dr. Anelli had described a remarkable success in a case of aggravated pulmonary tuberculosis, where he injected 0.8 gr. daily intravenously, with almost immediate improvement, and with still more notable improvement in three weeks. Rocax treated 80 cases of tuberculosis, and found in pulmonary tuberculosis, excepting advanced cases, that cough, night sweats, and pyrexia disappeared and body weight increased. He, however, made the extraordinary statement that in cases of "latent, suspected, or threatened tuberculosis, cacodyl triumphs." He also asserted that 1 case of tuberculous peritonitis was healed, and 3 cases were improved. Gallois, who had used cacodylate of soda by mouth administration, claimed that the condition most favourably influenced was chronic bronchitis, with asthmatic paroxysms, occurring in elderly people. Ewart's experience led him to conclude that cacodylates could be administered for a long time in moderate doses, and could exert their "brilliant" effects in all cases where arsenic was indicated, especially in chorea, malaria, pernicious anaemia, and Basedow's disease; also in the hectic fever and the cough and expectoration of phthisis, and in all nervous exhaustions. Burlureaux had met with gratifying results in neurasthenia and chlorosis. Bormans summarised his experience with cacodylate of soda thus:

> It is a remedy which may be tolerated in much larger doses than those usually given, and therefore is valuable in all cases where large doses of arsenic are indicated, as in anaemia and chlorosis, especially where iron is not tolerated.

Doulos obtained good results in pseudo-leukaemia and psoriasis; and Reynard had obtained success in psoriasis, lupus erythematosus, cutaneous tuberculosis, sarcoma of the skin, and in leprosy. Gautier stated that the salts of cacodylic acid did not act in any special disease, but in all weakened conditions, and the success was all the more remarkable because it was free from risk. He indicated the daily quantity for subcutaneous injection as 0.05 gram, equivalent to 0.37 gr. of arsenium, or 51 minims of liquor arsenicalis. He believed that the cacodylates acted through the intermediary of the thyroid gland, the only structure in the body where arsenic was normally present in considerable quantity, where it was united with iodine. Cacodylate of soda had been administered by the stomach and rectum, by subcutaneous injection, and occasionally by intravenous injection. In the first case the dose per diem had usually been 0.1 gram, or 1.5 gr., equivalent to so large a quantity as 105 minims of liquor arsenicalis; but 1 gram (15 gr.), equivalent to about 2 oz. of liquor arsenicalis, had also been given; while for subcutaneous injection 0.05 gram, or ¾ gr. had been the dose most generally employed. The recommendation of cacodylates was based on the supposition that

as these compounds, though rich in arsenic, were almost inert, large quantities of arsenic might, by their administration, be introduced into the body with therapeutic advantage, but without producing inconvenient or dangerous effects. The President said it appeared to him that if cacodylic compounds were incapable of causing toxic effect when given in quantities greatly superior to the quantities of ordinarily employed arsenical compounds, they must, to a corresponding degree, be pharmacologically inert and therapeutically inefficient. In order to test this opinion, he had given cacodylate of soda and cacodylate of iron in cases of several of those diseases in which arsenic is frequently administered. Taking first the disease chorea, in which the value of arsenical preparations had been abundantly demonstrated, cacodylate of soda was given to three patients with the following results:

(1) A girl of 9, who had been ill for ten days, was treated for forty-five days. The minimum and maximum doses were $\frac{1}{4}$ and $4\frac{1}{2}$ gr. in twenty-four hours. There was no improvement. The child was then put about liquor arsenicalis in doses varying from 9 to 12 minims in twenty-four hours. In seven days there was very marked improvement, and in ten days there were no choreic movements. (2) A boy of 9, ill for four weeks, was treated for twenty-three days. The minimum and maximum doses in twenty-four hours were $\frac{1}{4}$ gr. to $11\frac{1}{2}$ gr. Improvement began after twenty days when the dose was $7\frac{1}{2}$ gr. in twenty-four hours, and continued to recovery, which was interrupted by diarrhœa. (3) A boy of 12, ill for ten days, was treated for fifty-two days, the minimum and maximum dosage in twenty-four hours being $1\frac{1}{2}$ and $10\frac{1}{2}$ gr. There was hardly any improvement till twenty-eight days, and then very slight till fifty-two days. On liquor arsenicalis in dosage 6 minims to 12 minims in twenty-four hours there was marked improvement in seven days, great improvement in fourteen, and recovery in twenty-one days.

In only one case of skin disease, an acute eczema, affecting the whole surface of the body except the scalp, had the effects of cacodylates been tested. During seventeen days before this treatment material improvement and disappearance of acute symptoms had occurred under regulation of diet, purgatives, and exalgine. Cacodylate of soda was given for twenty-three days, then intermitted because of nausea and vomiting for four days, and again given for other two days. There was slight improvement in the skin condition in six days, and this was gradually continued. Dosage 3 to 15 gr. in twenty-four hours. One case of spleno-medullary leucocythæmia was treated with cacodylate of soda first for a period of sixty-two days, with doses of from 1 to 3 gr. in twenty-four hours, with the result that the haemocytes fell from 3,200,000 to 3,000,000, haemoglobin from 42 per cent. to 39 per cent., and the leucocytes remained at 250,000. Treatment by cacodylate was intermitted for forty-two days, and other treatment tried with no improvement. During twenty days cacodylate treatment was again tried, but without improvement. This unfavourable result accorded with the experience of Delché, who, however, found that the red blood corpuscles became increased in number. Neither in this case nor in 6 cases of simple anaemia was any material increase produced in the haemocytes. Even if cacodylates were effective preparations of arsenic, such an increase was not anticipated, for the President had more than fifteen years ago definitely convinced himself that arsenical preparations were incapable of increasing either the red cells or the haemoglobin in this disease. When, on the other hand, cacodylate of iron was administered, anaemia was unmistakably benefited. This therapeutic effect was, however, much the same as might at any time be obtained by administering any of the efficient iron compounds. It thus appeared that the arsenic in cacodylic acid and in its salts was almost inert when regarded either as a therapeutic or as a poisonous substance; but that when certain bases having therapeutic properties, such as iron, were united with cacodylic acid, these bases were capable of producing their special curative effects. These results were rendered intelligible when the chemical properties of cacodylic acid and its compounds were considered. It was found, for example, that the well-known reactions of the ordinary arsenical compounds were not displayed by cacodylates, while the reactions of the bases referred to could readily be produced. Cacodylates, though arsenate compounds, failed to give the characteristic reactions of sodium arsenate, as with silver nitrate and zinc sulphate. On the other hand, cacodylate of iron showed the numerous ordinary reactions of solutions of ferric compounds. As contrasted with the iron, the arsenic was thus shown to be so firmly united with other elements in the cacodylic compound as to be incapable of disassociation by these by no means feeble chemical reagents. It was therefore suggested that, when a cacodylate was administered, the arsenic remained locked up in it, in so far as its pharmacological energies were concerned. It thus remained inert pharmacologically: and, if so, necessarily also therapeutically; and it probably passed through the body without undergoing disassociation. To determine the last point the urine of several of the patients who were receiving cacodylates was examined chemically in regard to the presence and form of the arsenic contained in it. Gautier had already shown that arsenic in cacodylates could not be isolated by Marsh's process until the organic constituent had been destroyed by a very prolonged oxidation process devised by him, in which nitric and sulphuric acids were successively employed, the whole process occupying about three hours. The result of analyses of the urine in Professor Fraser's patients was that arsenious acid dissolved in urine gave up its arsenic when treated with Marsh's process without any preliminary oxidation or destruction of the organic matter, whereas cacodylic acid failed to do so until the organic matter had been destroyed by a very prolonged and elaborate process of oxidation. The President concluded as follows: "Clinical observations and chemical analyses accordingly agree in showing that when a salt of cacodylic acid is administered to a patient it is absorbed and is eliminated, but with the arsenic which it contains so firmly combined with the other constituents that it does not become disassociated, and is therefore incapable of forming any compound in the body which can produce the well-known pharmacological activities of the compounds of arsenic usually employed for therapeutic purposes. The compounds of cacodylic acid may thus be given in large doses, and by them arsenic may be introduced into the body in quantities, which are large and even enormous relatively to the quantities of the commonly used compounds of arsenic, in which this element, however, is not so stably fixed as to be incapable of forming new combinations which produce well known and powerful effects. Cacodylates may be likened to certain of the cyanogen compounds, such as the ferro and ferricyanides, in which cyanogen is also so locked up that enormous quantities may be given without causing any cyanogen action or any manifestation of the deadly energy of hydrocyanic acid and of the majority of the cyanides. While, however, cacodylates are to be regarded as useless therapeutic agents in so far as they are compounds of arsenic, it may finally be observed that they are likewise inconvenient substances to administer to patients. In all the cases in which they were given by the mouth, disorders of the altimentary canal, such as nausea, vomiting, and diarrhœa, were induced by them long before the maximal doses were attained, and in some cases these disagreeable effects required the administration to be suspended. Only when the administration was by subcutaneous injection did these disorders fail to be produced; but this is a method of administration which can rarely be continued over the long periods of time which are most usually required in the therapeutic use of aresenic preparations. Further, even by subcutaneous injection, as by mouth administration, the less important, though highly obnoxious, garlic-like odour of cacodylic oxide was always easy produced, and it constitutes an additional obstacle to the prolonged use of cacodylates. These objections and inconveniences are, however, of secondary importance in view of the main result which has been arrived at, namely, that the compounds of cacodylic acid are apparently useless for producing the therapeutic effects of arsenic."

Dr. Norman Walker and Dr. James Ritchie made some remarks, and Professor Fraser replied.

The Co-ordination of Medical Research in Edinburgh.

Dr. D. Noël Paton read a short paper, in which he compared the progress of medical research in Edinburgh and in other schools of this country. He urged the advantages of combination on definite lines of investigation, with co-ordinated co-operation in supplying material and in prosecuting particular lines of work. Some discussion followed, and a Committee was appointed to consider the possibilities of the matter.

Meralgia Paresthetica (Bernhardt's Sensibilitäts-störung).

Dr. Edwin Bramwell showed a case.

The patient, a miner, aged 43, for eighteen months had suffered from pain over the right hip and over the lower part of the right thigh anteri-

orly, also from a feeling of coldness on the outer side of the right thigh. The pain was so severe that it had incapacitated him from work. He had had neither rheumatism nor syphilis. The condition was attributed to sleeping on hard boards in damp clothes. Upon examination, an area of relative cutaneous hyperaesthesia was found on the outer side of the right thigh, while there was marked tenderness on pressure over a point an inch and a-half below and just external to the right anterior superior iliac spine. An exhaustive examination failed to elicit any other objective signs of disease; the symptoms were obviously referable to the right external cutaneous nerve. Since no improvement resulted from rest in bed and faradism, Mr. Thomson cut down upon the nerve at the level of Poupart's ligament and excised 3 in. The nerve and its relations appeared to be normal. As an immediate consequence of the operation, the pain which had previously been present, even when the patient lay in bed, disappeared. Dr. Bramwell showed photographs to illustrate the area of anaesthesia produced by division of the nerve. For two or three weeks after the operation the patient complained of a feeling of tenderness on deep pressure over this area. Four weeks after the operation he was quite free from pain, but still had a feeling of stiffness about the front of the right thigh. The excised nerve was placed directly in 5 per cent. formalin. No degenerated fibres were to be seen in sections stained by Busch's method. Sections taken from pieces of the nerve hardened in chrome alum did not stain with Weigert's method. Was this to be accounted for by the fact that the nerve had been taken from the living body and placed directly in formalin?

The author pointed out that meralgia paresthetica was a distinct clinical entity; it was probably not uncommon. Roth, for example, had recorded fifteen personal observations. The condition was not generally recognized, but was well worthy of notice if only for purposes of exclusion in differential diagnosis. Further cases occurred in which the pain was so severe as to unfit the patient for work. The pathology was obscure. It might be that in some cases it was merely a neuralgia, in others a neuritis. Faradism appeared to have been efficacious in the treatment of several of the reported cases. Resection of the nerve was only justifiable in severe and persistent cases.

TABES WITH ACUTELY DEVELOPED ATAXIA.

Dr. BYROM BRAMWELL showed a case of tabes with acutely developed ataxia, in which great and rapid improvement had resulted from Frenkel's plan of treatment.

The patient, a married man, aged 34, for five years a barman, and for sixteen years previously a ship steward, was admitted to the Edinburgh Royal Infirmary on January 22nd, 1902, because of inability to stand or walk. Syphilis, gonorrhoea, and alcoholism were excluded. For six months before the inability to walk developed he had had slight shooting pains in the legs. On Sunday, January 12th, he walked three miles. On the following day he had great difficulty in walking from one room to another, and on January 14th he was quite unable to stand and walk. On examination it was found that the inability to stand and walk was due to ataxia. There was no paralysis. The muscularity of the legs was good. The movements of the legs were wildly ataxic; there was no ataxia in the arms. When the eyes were closed there was total loss of the sense of position, both during and after passive movements, in the lower extremities; occasional shooting (lightning) pains were complained of in the legs (thighs and calves). There was some varicosity of the veins of the left leg. The left calf measured 12½in. and the right 11½in. The patient was a short, spare man. The knee-jerks and Aachilles-jerks were completely absent even after reinforcement; the deep reflexes in the upper extremities were present but not exaggerated; the jaw-jerk was present. The direct muscular excitability of the anterior and posterior leg muscles and of the quadriceps group was slightly increased; there was no myoidema contraction. The plantar reflex was very active in both legs, the toe movement being flexion; the cremasteric reflex was absent on both sides; the abdominal reflex was present but slight. The pupils were unequal in size and markedly dilated, the right measured eight and the left ten millimetres; they were quite inactive to light, and only contracted very slightly on accommodation, the right pupil becoming six and the left eight millimetres in size; they did not dilate on powerful stimulation (pinching and faradic irritation) of the skin of the neck. There was well-marked thoracic and ulnar [illegible] and anaesthesia of the lower ex[illegible] not present. There was also marked [illegible] sense, but only slight, hypotonia. There was no girdle sensation. A slight dull pain in the "small of the back" was occasionally experienced. Slight difficulty in micturition (necessitating "forcing") was occasionally experienced; the bowels were [illegible] desire and power. There [illegible] movements and the optic [illegible] normal; there were no crises [illegible] or vasomotor derangements. The mental functions were [illegible], there was no articulatory defect, and no facial or tongue [illegible].

The case was interesting because of (1) the absolute, and apparently quite straightforward, denial of syphilis and gonorrhoea; (2) the acuteness with which the ataxia had been developed; Dr. Bramwell had lately analysed 155 cases of tabes which had come under his notice; in 3 of these cases only was the ataxia very rapidly developed; (3) the dilated condition of the pupils. In 104 of the 155 cases of tabes which Dr. Bramwell had analysed, the size of the pupils was mentioned in the notes. In 69 of these 104 cases, or 66.3 per cent., the pupils were contracted (below 3 mm.); in 27 cases, or 25.9 per cent., of medium size (between 5 and 3 mm.); and in only 8, or 7.6 per cent., dilated (above 5 mm.); (4) the striking and rapid improvement which had resulted from Frenkel's plan of treatment. On January 22nd, the patient was unable to stand or walk, the movements of the legs being wildly ataxic. Frenkel's treatment (exercises with cross boards) was commenced on January 27th. In the course of ten days (on February 7th) the patient was able to stand and walk with the help of a go-cart. A week later (February 14th) he was able to walk with the help of two sticks. He could now (March 5th) walk steadily and well with sticks, and he could also walk across the room fairly well and without a marked ataxic gait, without sticks, that is, totally unsupported.

CONSOLIDATION OF LUNG.

Dr. BRAMWELL also showed a case of complete consolidation of the left lung which presented great diagnostic difficulties.

The patient, a married man, aged 57, a cellarman by occupation, was admitted to the Edinburgh Royal Infirmary on January 28th, 1902, complaining of great shortness of breath on exertion, debility, hoarseness of voice, a troublesome, hoarse cough, and some pain in the left hypochondriac and infra-axillary regions. The illness had commenced seven months previously. There had been very little expectoration, but the patient had lost weight and had had some sweating at night. He had had a hard chancre, followed by secondary symptoms, eight years ago. When 37 years of age he had had rheumatic fever. For the past twenty years he had occasionally suffered from sciatica and from what he termed rheumatic pains in the legs. These pains did not appear to have been lightning pains. On admission he was found to be very debilitated and considerably emaciated (height 5 ft. 5½ in., weight 9 st. 7 lb.). The whole of the left chest from top to bottom was dull on percussion. At the base of the left lung, the dullness was less absolute than might be expected in a case of pleuritic effusion, and hypodermic exploration showed that there was no fluid. Over the greater part of the left lung, loud bronchial breathing, the expiratory sound being particularly well marked, and increased vocal resonance were present. There were no moist sounds over any part of the left lung. The dullness was clearly due to consolidation of the lung. At the level of the nipple the left chest measured ⅝ in. more than the right (18⅝ and 18 respectively). There was some impairment of the percussion note between the right scapula and the spine, and over this area and all down the right side of the spinal column a systolic murmur was audible. Indistinct pulsation could be felt in the second and third left interspaces close to the sternum. Over the manubrium sterni and in the second and third interspaces, both right and left, a systolic murmur and accentuated aortic second sound were audible; the murmur and accentuation were much louder in the second and third left interspaces than on the corresponding point on the right side. Loud, blowing, tubular breathing was audible over the manubrium sterni, and especially under the left sterno-clavicular articulation. The heart appeared to be of normal size; the mitral sounds were normal. The radial arteries were thickened and somewhat atherosed. The left radial pulse was somewhat smaller, and the apex of the upstroke in the sphygmographic tracing less sharp than that of the right. The veins in both upper extremities and on both sides of the neck, but especially on the left side of the neck and of the left arm, were somewhat engorged. The left vocal cord was fixed and immobile. There was no difficulty in swallowing. The pupils were contracted and usually equal (3 mm. in size), but occasionally the left pupil was much more contracted (2 mm.). No tracheal tugging could be detected. The contraction of the pupils to light was somewhat sluggish. There were no enlarged glands either in the neck or axillae. The red corpuscles were slightly reduced in number, normal appearance; the white corpuscles numbered 28,000 per c.mm.—that is, marked leucocytosis was present. The deep reflexes were altered in a very interesting way. The right knee-jerk was active, the left absent even after reinforcement; both Achilles-jerks were absent. The x-ray examination gave no definite information.

The dullness was clearly due to consolidation of the lung: there did not appear to be any fluid in the pleural cavity. Most of the competent observers who had examined the case were of opinion that the consolidation was due to malignant disease of the lung and mediastinal glands. Dr. Bramwell had never seen such extensive consolidation, the result of malignant disease of the lung), without much more cachexia and anaemia. He thought that the consolidation of the left lung was probably due to aneurysmal pressure on its root, there certainly seemed to be arterial (aortic) disease. The patient had had syphilis, and the condition of the reflexes was suggestive of a post-syphilitic lesion. The absence of anaemia and cachexia and of any glandular enlargement at the root of the neck was against malignant disease. On the other hand, the absence of tracheal tugging and of difficulty in swallowing was against aneurysm. The paralysis of the left vocal cord, the difference in the pulses and pupil, were rather in favour of aneurysm, though they might of course be due to a mediastinal new growth. It was difficult to reconcile the greater measurement of the left chest (⅝ in. more than the right) with aneurysmal pressure on the left bronchus, and resulting consolidation of the lung. In other cases of this kind which had come under his notice, the left lung had always been

more or less collapsed. The leucocytosis was at first sight strongly in favour of a new growth, for leucocytosis was usually a marked feature in malignant disease of the lung, but was not present in uncomplicated cases of thoracic aneurysm. Dr. Bramwell was, however, of opinion that the leucocytosis could be accounted for by the condition of the lung, granting that the consolidation was the result of aneurysmal pressure on the root. He had seen, either during life or in the *post-mortem* room, several cases in which consolidation of the left lung had been produced in this way; in some cases the lung had been completely solidified, and catarrhal and inflammatory changes, in one case going on to gangrene, had developed in it. Such a condition of the lung would account for the leucocytosis. The point was of considerable diagnostic interest; so far as he knew there were no recorded observations regarding it—the condition of the blood in aneurysm with consolidation of the left lung due to pressure on the root. The course of the case during the time that the patient had been under treatment (rest and iodide of potassium), was, Dr. Bramwell thought, in favour of an aneurysm rather than of a new growth. In the course of five weeks the patient had gained 7½ lb. in weight: the leucocytes had dropped from 28,000 to 9,800 per cubic millimetre (the red corpuscles now numbered 4,300,000, and the haemoglobin equalled 75 per cent.); the pain in the left side had disappeared, the dyspnoea was rather less, and the patient had gained strength. The pulse had remained quick (average about 100); the temperature was usually normal, though occasionally somewhat elevated; there had been very little expectoration. During the past three or four days the patient had spat a small quantity of thick, tenacious dark-brown sputum. Microscopical examination of the sputum showed numerous large cells with well-marked nuclei; many of the cells contained pigment particles derived from the lung, others fatty granules. The character of the cells was not distinctive: they might be merely swollen catarrhal cells derived from the bronchi or air cells; they might be derived from a new growth (carcinoma or large-celled sarcoma); the pigmented character of some of the cells was perhaps in favour of the former view. Taking all the facts of the case into consideration, Dr. Bramwell adhered to the opinion which he had formed when he first saw the case. He thought that the consolidation of the lung was probably due to aneurysmal pressure on its root, but he admitted that the diagnosis presented great difficulty. If, as others who had seen the case supposed, the consolidation of the lung was due to the presence of a new growth, there certainly seemed to be arterial (aortic) disease as well. It might be suggested that the consolidation of the lung was due to a syphilitic lesion, but the fact that the whole lung was involved rendered this supposition extremely unlikely. *Addendum.*—The patient died suddenly on March 12th. Necropsy showed a new growth in the mediastinum, involving the root of the lung and completely compressing the left bronchus. The thoracic aorta was completely surrounded by, and embedded in, the new growth, which extended into the lung along the bronchi. The remainder of the lung was consolidated with inflammatory and catarrhal changes, especially marked round the bronchi; in short, it presented a very similar condition to the consolidation due to aneurysmal pressure on the root of the lung.

Cases and Specimens.

Mr. F. M. Caird showed: (1) A girl after removal of intracranial tumour; (2) a woman after partial removal of intracranial tumour; and (3) a male patient, aged 68, after removal of portion of small intestine for tuberculous stricture.—Dr. Fleming showed nerves ten to eighteen weeks after complete division, showing regeneration of nerve fibres in the united peripheral portion of the nerve.—Card specimens were shown by Mr. Caird, Mr. Wallace, and Mr. Miles.

CLINICAL SOCIETY OF LONDON.

Howard Marsh, F.R.C.S., President, in the Chair.

Friday, March 14th, 1902.

Arthritis of the Knee.

Mr. H. W. Page briefly recorded the clinical history of two cases of arthritis characterized by considerable effusions into the joints, which did not subside under the influence of rest, warmth, and local remedies. Their etiology was obscure. In both instances they had been attributed to a slight injury, but the severity and stubborn character of the arthritis made it unlikely that such was the complete explanation. When these joints were aspirated a greenish, cloudy fluid was obtained floating in which were flakes of lymph and leucocytes. Aspiration of the joints was followed by a reaccumulation of the fluid and return of pain, and it was observed that when the arthritis was at its height the patients were slightly delirious. In both cases recovery had rapidly followed aspiration, together with irrigation of the joints with a 1 per cent. solution of carbolic acid. In the second case full doses of sodium salicylate given after the joint had been treated by aspiration and flushing with carbolic appeared materially to promote recovery. Mr. Page was of opinion that this form of arthritis, which in its clinical course was unusual, must be the result of an infection of the joint by a micro-organism which had a special affinity for the tissues of the joints, and he drew attention to them now because Dr. Poynton and Dr. Paine had demonstrated, isolated, and cultivated such a micro-organism, and had produced experimental results which led to the conclusion that this organism was the exciting cause of the arthritis.

Dr. Poynton and Dr. A. Paine described the investigation they had made in the second of the two cases described by Mr. Page. Upon two occasions they had found in the exudation numerous small diplococci growing in chains. The exudation contained in addition fibrin, and leucocytes which were not necrotic. This diplococcus grew well in pure culture, in an acid medium of milk and bouillon, in bouillon to which had been added ascitic fluid, and on blood agar. The cultural and morphological characteristics were indistinguishable from those of the diplococcus of rheumatic fever. Intravenous inoculation into rabbits produced a condition more akin to that resulting from inoculation with the diplococcus of rheumatic fever than that resulting from the streptococcus pyogenes. Multiple arthritis, and in one case valvulitis resulted, without visceral suppurations. The spleen after death was small, and in none of the four experiments that were made did death result from septicaemia. On the contrary, two of the animals recovered completely, after showing local signs of infection, and two were killed when the arthritis in each case had existed for two months. Quite independently of Mr. Page they had by bacteriological investigation arrived at the conclusion that the infection was an unusual one; and this investigation pointed to the probability that the condition was more closely allied to a rheumatic than a suppurative arthritis. The scientific interest of the question lay in the light that such an investigation might in the future throw on the etiology of rheumatoid arthritis, and the vexed problem of rheumatic and septic processes. One other point was worthy of note; many diplococci were present in the exudation. Dr. Poynton and Dr. Paine had found that the acute and clear effusions of rheumatic fever were usually sterile both in man and in animals, but nevertheless the diplococcus might be found in the synovial membrane. They thought that the endothelial lining of the synovial membrane was an important barrier to their escape, and that in this case of arthritis this barrier had been in all probability much damaged.

In answer to Dr. Hale White, Dr. Poynton stated that the heart of the rabbit that died showed definite valvulitis with granulations, which probably destroyed the valve's efficiency.

Malignant Endocarditis giving Widal's Reaction.

Dr. Hale White contributed a paper by himself and Mr. Pakes respecting a patient who was in the hospital for malignant endocarditis from which she died owing to cerebral embolism. The blood on June 10th failed to agglutinate typhoid bacilli even in a strength of 1 in 2. On June 20th agglutination was produced with a strength of 1 in 2 and 1 in 20, but not with a strength of 1 in 200. Pure cultures of streptococcus longus were obtained from the blood. On June 29th cultures from the urine collected with every precaution showed the presence of a streptococcus identical with that previously obtained from the blood, and a bacillus belonging to the paracolon group. Every attempt to isolate the typhoid bacillus failed. The agglutination test was tried with five different strains of bacilli, and with four a complete agglutination was obtained with a dilution of 1 in 20, and with one a partial agglutination was obtained with a dilution of 1 in 200. On September 13th the patient died. Blood taken from

the heart and the spleen showed streptococcus longus in pure culture, but no typhoid bacilli could be discovered. The patient never had spots or other signs of typhoid fever, nor were any signs of healed ulcers found *post mortem*. Thus, this was an instance of a patient who, suffering from malignant endocarditis of streptococcal origin without any clinical, *post-mortem*, or bacteriological evidence of typhoid fever, nevertheless developed in her blood serum certain substances which had the power of agglutinating the typhoid bacillus. The authors pointed out the clinical importance of this result in considering the diagnosis between typhoid fever and malignant endocarditis, and also the fact that many observers had failed to obtain a Widal reaction in malignant endocarditis. In this case the presence of the reaction could not be due to the patient having had typhoid previously, for no reaction was obtained when she was admitted. She was treated with various strains of antistreptococcus serum, but without any good result.

Dr. TOOGOOD described the case of a medical man who had cut his thumb when opening an abscess on February 10th. On February 27th he was ill, with a temperature of 104°, and his blood showed a positive reaction to Widal's test. His right shoulder and ankle-joints became painful, oedematous, and fluctuated, and the Widal's reaction was obtained in solutions having a strength of 1 in 10, 1 in 25, and 1 in 50, but no pyogenic organisms were found in the blood. There was no suggestion that this was a case of typhoid fever, and the patient was now recovering.

The PRESIDENT had seen the case, and considered it one of septicaemia, not enteric fever.

Dr. WALTER CARR reported the case of a child with acute tuberculosis in which the blood was reported as exhibiting a marked Widal reaction, but at the necropsy miliary tubercle throughout the lungs and in the abdomen was discovered, and no single lesion whatever of typhoid. These cases tended to shake men's faith in the test, for typhoid most resembled acute tuberculosis, septic endocarditis, and septicaemia, and these were the very cases in which the test had failed to discriminate.

Dr. BOX said that a good agglutination in a strength of 1 in 50 usually gave a correct diagnosis, but there were a few cases in which the reaction occurred, and the patients recovered without any other sign of typhoid.

Dr. LEE DICKINSON described a case which gave the reaction, but after death the lesion was found to be ulceration of the stomach, with no sign whatever of enteric fever.

Dr. POYNTON said the test was not infallible; it failed unexpectedly. One difficulty arose from the different methods o employing it.

Dr. HALE WHITE, in reply, said that before a case was allowed to invalidate the test, where the bacilli were agglutinated it must be absolutely determined that the patient had never had typhoid. That would clear away many of the difficult cases, as the reaction had taken place when the patient had had typhoid as many as twenty-three years before, and in one case twenty-six years before. There should be several strains for Widal's test; in his case the reaction occurred with four out of five strains employed. Many patient's, too, died before the eleventh day; they would then give no agglutination, and yet typhoid bacilli would be found in the spleen. Dr. Toogood's case should be followed up for years, that it might be discovered how long his blood would continue to agglutinate the bacilli.

ACUTE PARALYTIC DILATATION OF THE STOMACH.

Mr. SEARS read a paper on this case, which occurred in a medical man, aged 30. The disease commenced insidiously with an intermittent fever of obscure origin, and was accompanied by constipation, faecal accumulation, and progressive loss of flesh. Previous to the dilatation of the stomach phlebitis of the veins of the left leg and iliac region occurred, and later the stomach became suddenly distended, and on passing an oesophageal tube three quarts of a dark-green sour-smelling fluid were withdrawn. Vomiting was never present, and no peristaltic waves were observed. Complete recovery followed daily lavage of the stomach, and up to the present time, just twelve months, no recurrence of the disease had taken place.

Dr. BOX said the result was very unusual, as death generally ensued. The case was also peculiar in that there was no vomiting, which generally accompanied some stage of the malady. The cause of the disease had been attributed to the position of the stomach across the spine, also to the dragging action of the superior mesenteric artery upon the intestine, which he had found to exist in a well-marked case. The stomach in these cases of dilatation showed no capacity for contraction. Rectal feeding in many of the cases was impossible because of the diarrhoea that was frequently present. In one case he had tilted up the lower end of the bed, and some benefit had resulted. When rectal feeding failed dry food must be taken into the stomach, as much as was compatible with the patient's comfort. Sometimes the urine was largely suppressed, and contained blood and albumen. This condition was probably due to the pressure of the stomach upon the renal vessels.

LYMPHADENOMA, WITH GROWTHS IN THE SKIN.

Dr. LEE DICKINSON and Dr. W. J. FENTON gave the further clinical history and *post-mortem* account of this case. The patient, a boy of 15, had been shown to the Society last April, mainly on account of the growths in the skin, the true nature of which gave rise to some difference of opinion. Subsequently antisyphilitic treatment was adopted, but without benefit, and the disease remained unchecked in the lymphatic glands and spleen, and ended fatally in August. *Post mortem* the glands and spleen proved to be extensively affected with the hard form of lymphadenoma, and free from any suspicion of tubercle. Secondary deposits of the same nature were found in the cerebral dura mater and in the medullary tissue of the tibia, as well as in the skin. The microscope failed to discover tubercle in any part except the liver, where was at least one small tuberculous focus. The liver was lardaceous, but there was no evidence of syphilis. The case, therefore, proved to be one of lymphadenoma upon which tubercle had supervened.

OBSTETRICAL SOCIETY OF LONDON.

PETER HORROCKS, M.D., President, in the Chair.

Wednesday, March 5th, 1902.

SUPPRESSION OF URINE AFTER LABOUR.

Dr. R. G. MCKERRON read a paper on suppression of urine after labour. He at first directed attention to the fact that suppression of urine before or after labour was rare, notwithstanding the frequency of pathological changes in the kidneys during pregnancy. From recent experience he was disposed to believe that as a puerperal complication complete or partial suppression was more common than the small number of recorded cases would suggest. He described three cases which came within his own knowledge, adding short abstracts of three cases of complete anuria found in literature. The causation of anuria after labour was obscure. To assist in the solution of the causal problem an analysis of the leading clinical features of the cases was given, from which the author concluded that several factors were concerned in its production, and that these might be variously combined in different cases. The essential causes he believed to be: (1) A nephritis similar to that underlying eclampsia, and probably superimposed on kidneys previously defective; (2) a neurotic temperament; (3) shock, resulting from precipitate labour or from intense pain accompanying its progress. The paper concluded with a few observations on treatment and on the possible effect of opium in contributing to the suppression.

Dr. BOXALL presented the details of 2 cases in which partial suppression of urine occurred, in one after labour and in the other after a five months' miscarriage. In both cases the patient died; and in both disease of the kidneys had previously occurred. Except for persistent vomiting, till shortly before death there were no marked symptoms indicative of the grave condition of the kidneys. In the first case the urine was examined soon after labour and active measures, which included saline injections into the bowel and into the veins, were early adopted, but unfortunately failed to re-establish the functions of the kidneys.

Dr GRIFFITH said that there appeared to be two classes of puerperal cases of suppression of urine; one, the common cases of acute nephritis with or without eclampsia; the other, very rare and quite unconnected with this disease. He had

seen one of the latter some years ago at Blackheath, a primipara, quite clear in her mind, without headache or uraemic symptoms, and with complete suppression of urine, who survived about five days, and the treatment adopted failed completely. His recollection of the case was that it was a complication of acute septicaemia.

Dr. W. Murray Leslie could recall three cases in which, however, the anuria did not prove complete, though the daily amount of urine voided was in excessively small quantities and loaded with albumen, and in each of these cases the main factor in setting up the condition proved to be alcohol.

The first case seen in consultation had a long history of indulgence, and ended fatally after a fortnight with uraemic symptoms. The other 2 cases in private practice—primiparae—recovered. These two latter patients had never been previously suspected of alcoholism, and one had only acquired the habit during the pregnancy. The kidneys were not examined, as a necropsy could not be obtained.

He emphasized the importance of regular examination of the urine at intervals during the latter part of a pregnancy, and of dealing firmly with the question of alcohol, should any trace of albumen be found to be present.

Dr. Tate referred to a very remarkable case reported by Bradford and Lawrence in the *Journal of Pathology and Bacteriology* in May, 1898.

The patient—a multipara—was delivered of a stillborn child on February 28th, 1896. She was sick after the confinement was over and suffered from headache and slight drowsiness. She said she passed no urine from the time of her confinement until March 2nd, when two teaspoonfuls of urine were drawn off. There were no fits or twitchings, the patient gradually got worse and died suddenly on March 7th. At the necropsy, there was found to be necrosis of nearly the whole cortex of both kidneys. There was widespread endarteritis of the interlobular arteries, which were thrombosed, and had caused necrosis of the convoluted tubules throughout the cortex.

Dr. Tate also reported the following case of anuria following labour:

The patient—a primipara—passed through a normal confinement on April 16th, 1899. All went well till April 23rd, when while having a vaginal douche, the patient had a shivering attack, and her temperature rose to 102.5°. She felt faint and vomited. On the same day she complained of sore throat. On the following day the temperature had fallen to normal, but she vomited four times during the day. On the 25th, at 6 a.m. she began to hiccough, and this troublesome symptom continued until death. There was also some diarrhoea. The lochia appeared to be healthy and free from odour. The amount of urine passed was first observed to be below the normal on this day. On the 26th Dr. Cullingworth saw the patient and curetted the uterus. On the 28th the hiccough still continued, the temperature was sub-normal, and still no urine had been voided. The patient died suddenly at 6.30 p.m. She complained of sudden pain over the heart, and died before the nurse could get to the bed-side.

Sarcoma of Ovary.

The President showed two sarcomata of the ovary, each tumour being the size of a football. They were removed recently from two patients, who presented almost identical symptoms, namely, a large, freely-movable solid tumour, together with abundant ascites (necessitating paracentesis in one case to relieve dyspnoea), marked wasting, pyrexia, and pleurisy. The latter was thought to be due possibly to secondary growths. Both patients were making a good recovery. It was interesting to note that in one case the small intestines were so intimately adherent as to require a very careful dissection, whilst in the other case there were no adhesions. Now in the former the sarcomatous elements were most abundant, whilst in the latter the fibrous element predominated. Both women were multiparous, but the one with the marked sarcoma was under 30, and the other about 40 years of age.

A discussion followed, in which Mr. Targett, Dr. Corrie Keep, Dr. Victor Bonney, Dr. Tate, and Dr. Amand Routh took part.

Abdominal Tumour.

Dr. Victor Bonney showed two specimens from a patient, aged 50, who had suffered for twelve years from an abdominal tumour of large size.

Last October she was seized with symptoms of subacute intestinal obstruction, and subsequently spontaneously passed an intussusception of the large intestine, about 9in. in length, with immediate relief to the symptoms. The patient lived nearly five months after this event, but finally symptoms of obstruction again appeared, and the patient died very rapidly. The abdominal tumour was found on necropsy to consist of a large myomatous uterus and a large solid tumour of the left ovary, to the surface of which was attached what was probably a tubo-ovarian cyst of unusual size.

Dr. Bonney remarked on the rarity of primary intussusceptions of the large intestine, and the still greater rarity of their spontaneous expulsion. Intussusceptions occurring in persons over 50 years of age were very uncommon. The interest of the solid ovarian tumour centred around the relation between the tumour and its attached cyst, since outward inspection failed to decide as to whether the cyst was a very large hydrosalpinx, which had attached itself to the tumour, or whether the cyst formed an integral part of the tumour.

Rupture of Ovarian Abscess.

Dr. Comyns Berkeley showed a uterus and appendages removed from a patient, who had died twelve hours after the termination of labour from acute peritonitis caused by rupture of an ovarian abscess.

The patient, a multipara, had never suffered from any illness, except an attack of pelvic inflammation, which occurred before her marriage ten years ago. The pregnancy had been uneventful. Intermittent pains commenced on January 5th. On January 7th the pain became continuous and distressing, and patient began to vomit yellow fluid. Later in the day the labour terminated naturally, but the patient became rapidly worse and much collapsed, death occurring at the end of twelve hours. At the necropsy purulent peritonitis was found to be present with a large amount of semi-purulent fluid in the abdomen. The right ovary and both tubes were healthy, but the left ovary formed an abscess sac, which was bound down to the posterior surface of the uterus by old adhesions. There was an opening at the lower part of the abscess, through which pus was escaping. The abscess had also burst into the broad ligament, and pus was escaping from an opening in that structure.

The case was discussed by the President, Dr. Boxall, Dr. Handfield-Jones, Dr. Eden, Mr. Targett, Major Woolbert, and Dr. Griffith.

Orbital Tumour in a Fetus.

The report of the Teratological Committee upon Mr. Stannus's specimen of orbital tumour in a fetus was read.

Lithopaedion.

Dr. Tate, having shown a specimen of a lithopaedion, Dr. Horrocks and Dr. Galabin commented upon the case.

CHELSEA CLINICAL SOCIETY.

Annual Clinical Debate.

C. A. Morris, M.B., F.R.C.S., President, in the Chair.

Tuesday, March 18th, 1902.

Cancer, Its Nature, Origin, and General Principles of Treatment.

The adjourned discussion on this subject was opened by Sir W. Mitchell Banks, who said it was just two years ago since he gave in the Lettsomian Lectures a general review of the existing state of knowledge as to cancerous disease, especially cancer of the breast. Since that date he regretted to say that there had been no notable advance in the matter of the discovery of the causation of the disease nor in their methods of treating it. He would state, as briefly as he could, the views he had come to on the following points, and the shortness of the time at the disposal of the meeting must be his excuse for any appearance of dogmatism: the increase of cancerous disease, his view as to its causation, the existence of a cancer parasite, and the question of infectiousness. With reference to the general increase of cancer, there was now a general consensus of opinion that within the memory of living men this had been very great. Dr. Arthur Newsholme, in April, 1899, in the Cancer Number of the *Practitioner*, made a stand against that view, and argued that the increase was more apparent than real, and was due to our better diagnostic skill producing more accuracy in death certificates, and to the greater frequency of necropsies in hospital. But the accumulation of great masses of statistics by almost every civilized Government had steadily gone to show that Dr. Newsholme's views were untenable. Apart from all statistics, however, his own experience was that cases of cancer were much more numerous than they were when he began the practice of surgery. Moreover, he did not know whether statistics had shown it or not, but he was absolutely certain about another point, and that was that cancer now made its appearance at a much earlier period of life than it formerly did. There was another point which he had drawn attention to elsewhere, namely, that with regard to the sexes, the male was increasingly becoming the subject of cancer, although there were still more victims to it among women than among men. As to whether there was any general cause for cancer he had only been able to see one that stood out prominently from among the many that had been suggested, namely, the great increase in the amount of food, and notably of meat, which was now consumed by civilized peoples. It must be admitted that the increase

in cancerous disease did not probably date further back than thirty or forty years. In 1850, in the middle of last century, there were plenty of surgeons as able and shrewd as any surgeons of to-day, but in all their sayings and writings there was not a word to indicate that they saw any increase in cancerous disease. If they then admitted that hat increase was a thing of their own generation, let hem note what common general conditions were likely to produce it and deal with them by the process of exclusion. Was drunkenness a cause? He was sure it was not. A most common form of cancer was that which affected the female breast, and he had seen nothing in the many patients who had come under his notice with that complaint to indicate that drunkenness had anything whatever to do with it. Besides, in the better classes of society drunkenness had been wonderfully on the decrease of late years, and cancer was affecting these even more than the poorer classes. Was syphilis a cause? He was sure it was not. Among all the women whom he had seen with cancer of the breast, and of a large proportion of whom he had histories, he could hardly remember one whose character was bad. Mr. Roger Williams investigated the social history of 165 cases, and did not find in a single instance that there was any reason to suspect syphilis. Of course, syphilis of the mouth and other mucous orifices produced ulcerations, which as the result of chronic irritation became epitheliomatous and so malignant, but that was a different thing. An old sore the result of a burn would do the same thing. Would bad water, bad housing, bad sanitation in general account for it? No proof of this of the least moment had been adduced. On the other hand, in no path of public life had such advance been made as in sanitation. There was hardly any great city which did not now possess an abundant supply of good water. In Liverpool vast areas of houses which, when he went to the city in 1867 were covered over by the foulest of dens, were now covered with streets of healthy workmen's houses. As regarded sanitation of private houses people in good positions in life formerly considered it ridiculous to spend money on drains. When they went to buy houses nowadays the sanitary condition of these houses was almost the first thing they inquired into. Steam, electricity, telephones and telegrams were things of modern life, but it was their nervous systems that these things shattered. They did not bring cancer in their train. What, then, was the one great change in the lives of civilized peoples which could not be denied and which surely must have some effect on their physical well-being or the reverse? It was the great increase in the amouut of food—and notably of animal food—consumed by those who were now alive, or who had lived during the past forty years. If they tried to remember the general appearance of patients whom they had seen with cancer they must admit that it was not wretched, half-starved people who were prone to it. Its most numerous victims were well nourished persons, with plenty of fat about them, and often with a fine healthy colour in their cheeks. Mr. Moore, of the Middlesex Hospital, was the first man in this country to urge surgeons to a more free removal of cancerous growths, and he said, many years ago:

> Cancer is eminently a disease of persons whose previous life has been healthy and whose nutritive vigour gives them otherwise a prospect of long life.

During the last twenty years the importation of animal food from foreign countries had been enormous. Vast numbers of persons ate it daily, who fifty years ago ate it only once a week, while the wealthier classes ate it three times a day. They had just seen from statistics that it was the male who was now beginning to suffer more from the disease than the female in proportion to what used to be the case, and they would note that it was the male who ate the heavy food in ever-increasing quantities, while the female remained much as before in her eating. In his opinion the increase in the eating of meat had something to do with the causation of cancer. Opinions varied in regard to the question of a cancer parasite. It was said to be a degeneration, but he thought it was not. He considered there was a special cancer body, very easily recognizable when the observer was accustomed to it, which at all events accompanied cancer. Many arguments had been brought forward in favour of the view that cancer was infectious, but he thought nothing of the sort had been proved. Sir William Mitchell Banks concluded with an earnest appeal to the profession not to bring forward any new theories in regard to cancer until they had been so well matured and traced out that some truthful and definite statement could be deduced which would not be capable of refutation within the next three months.

Mr. PEARCE GOULD said that at the present time there were two great methods of so-called treatment of cancer in which they were interested, namely, the operative and the non-operative. In the first, the more extensive the operation, the greater the probable success, but amputation was not curing cancer; it might free a man from the malady to excise an infected area, but that gave no ground for hoping that operations would ever accomplish all that they hoped for. It had been stated, he believed by Mr. Butlin, that if every case of cancer could only be properly operated on when it was the size of a buckshot or pea results would be different. He thought that was correct, but such a time would never arrive. As regarded the curability of cancer, was there any ground for thinking that cancer would ever prove to be curable? They saw such long and almost constant procession of sufferers from malignant disease going more or less rapidly from bad to worse until death came as a welcome guest, that he was afraid that there was a tendency to believe that cancer was an absolutely incurable disease. He was quite sure, however, that it was not so, for the following reasons. The cure of any disease was only brought about by the workings of physiological processes. All their vaunted so-called remedies only produced their beneficial results by influencing in some way or other the ordinary physiological processes in the body. They were quite unable to introduce any new force into the body, and they could only work upon Nature's inherent powers, and the only hope of the cure of any disease was to observe the methods by which Nature herself dealt with the disease. He therefore thought it was important to recognize the fact that cancer did undergo in some cases a spontaneous cure; that the physiological forces of the human body were sometimes sufficient to accomplish the perfect cure of cancer. It was, of course, a very rare occurrence, but nevertheless it did occur. Mr. Pearce Gould related, amongst many other cases, an instance of a man who came to him with a carcinoma of the left upper jaw. He excised it, and two months afterwards considerable recurrence was observed, and there was a fungating growth into the man's mouth. The patient was sent back to the country, because nothing more could be done. Seven months after that the man came to see Mr. Gould without the smallest sign or trace of malignant disease about him. Careful microscopical examinations of the growth had been made; there was no doubt that that case was a striking instance of the power which Nature had of, in some cases, curing the disease. They must not therefore consider that operation was to be the last word in the treatment of cancer. There would be a better word to be spoken than that later on, and soon might that day arrive.

Mr. MARMADUKE SHEILD said that he felt the futility—to use no stronger word—of advancing theories for parasitic bodies, or peculiar fluids, or influences of one cell upon another, which would be easy enough to concoct, but impossible to prove or sustain. He was confident that pathologists needed a stricter classification of the varieties of carcinoma, and he doubted whether the explanation of the origin of a slowly-growing epithelioma upon the face of an old man was the same as that of a quickly-growing spheroidal cancer in the mamma of a woman. There were reasonable grounds for doubt that the explanation of the causes of that pathological puzzle, melanosis, were the same, as, for instance, a sarcoma growing from the fascia or skin. Regarding the cancerous growths of the skin, he was able to assert that their microscopical characters were so peculiar and complex that many years of patient investigation would be needful before even a sensible nomenclature could be arranged. What were they to say of those remarkable instances of spontaneous disappearance of evidently, according to their now limited vision, malignant tumours within the abdominal cavities? With regard to cancer of the breast why should the mamma have such a monopoly in frequency of spheroidal carcinoma, and

other glands very similarly constituted escape? Take the parotid and submaxillary salivary glands; their cellular structure and minute composition was very similar to the milk gland: they both had ducts leading to a surface. How rare was primary cancer of either of those great glands. If cancer were due to a parasite, what more inviting situation could be found for its development? The frequency of cancer of the breast at the time when the formative cells ceased their proper function was very suggestive of an error of growth: it was equally suggestive of a parasite seizing upon degenerating tissues and causing their riotous proliferation and ultimate decay. Nothing was of greater importance in their knowledge of morbid growths than the fact that the cells of the secondary growths exactly simulated the cells of the structure in which the primary growth originated. Cancer of the liver secondary to cancer of the intestine showed columnar epithelium; cancer of the axillary glands secondary to "duct cancer" of the mamma showed columnar epithelium: cancer of the thyroid gland, which was distributed secondarily in the bones, so exactly simulated thyroid gland structure that it was difficult to distinguish between them. How strongly did that suggest that the infective element was cellular, not parasitic—or if indeed parasitic, the parasitic element must be intracellular rather than extraneous. Let them reflect on the extraordinary cell development that occurred in the formation of the fetus. What was the mystery which induced the contact of two microscopical cells? From their contact masses of cells arose and developed into a mass which would exceed any sarcoma, and the cells were arranged in layers and laminae and complicated folds resulting in the elaboration of a complete organism. With regard to their knowledge of the remedial measures for carcinoma, operation free and extensive was doubtless the best at their command—and best was often bad. He had long ago pointed out in regard to cancer of the breast, that everything pointed to the fact that in certain individuals there was a something inimical to the growth of cancer, which prevented or retarded return; it was that more than the operation which was responsible for those few but remarkable cases, in the knowledge of every surgeon of experience, where long years had elapsed since operation and still the individual remained well. In conclusion, Mr. Sheild repeated his belief that the mysteries of tumour growth were bound up in the mysteries of cell proliferation as illustrated on the contact of the sperm cell with the ovarian cell, and whoever solved a problem like that would throw light on many subjects otherwise doomed to perpetual darkness.

Dr. Barry Blacker said that the success which had attended physical methods in the treatment of skin diseases, more especially the somewhat tedious but satisfactory results obtained in the treatment of lupus, had been followed by the employment of the same or similar methods in the treatment of cancer more especially of those varieties in the more superficial positions, and it was those methods which he proposed to demonstrate. They might be divided into three classes: The light treatment associated with the name of Professor Finsen, the electric brush discharge from any high-tension electrical machine, and the *x* rays. Dr. Blacker exhibited the five forms of apparatus for the production of light rays. That in which the sun was used as a source of rays; the original Finsen telescope condenser and compressor; the Lortet and Genoud lamp; the water-cooled iron electrode; and the condenser discharge lamp. Professor Finsen's process was founded on the physical data that the light from the sun and from an arc lamp was known to be rich in blue, violet, and ultra-violet rays destructive to many forms of bacteria, and that the ultra-violet rays had little penetrative power for most substances, the penetrative power increasing with the wave lengths. Owing to the difficulty experienced in producing rays of sufficient penetrative power, only the superficial forms of cancer could be treated by this method. The electrical brush-discharge method of treatment presented very much the same features as Finsen's; it differed however in the source from which the rays were derived. The brush discharge had many advantages owing to the absence of heat rays and the presence of violet rays, without the admixture of all wave lengths. The great penetrative power of the *x* rays marked a wide distinction between them and the violet rays. The well known action on the skin produced by the *x* rays showed that alterations and destruction of cells might be produced. This destructive action on the skin was usually produced by the action of tubes having a comparatively low vacuum and giving off rays of low penetration; and yet this destructive action was not a necessary accompaniment of the process which resulted in the diminution and contraction of an ulcerated surface, or in some instances of the diminution in size of subcutaneous growths, for those results could be obtained equally well by a tube having a high vacuum, which only rarely produced destruction of the skin. If the destruction of the superficial tissues were necessary before a subcutaneous growth could be acted upon it would be more convenient to use the salts of radium and polonium, for if the skin were exposed to the action of these salts for a few hours an ulceration would be produced in about three weeks, after which it would take another three weeks to heal. Dr. Blacker concluded by saying that as the various rays which he had mentioned might be utilized in the treatment of cancer, it did not seem unreasonable to suppose that other rays might be isolated which would be found capable of destroying bacilli or acting upon various cells in different parts of the body. Theoretically, therefore, the field of research in this direction seemed very extensive.

The meeting then adjourned to Tuesday, March 25th, at 8.30 p.m.

MANCHESTER MEDICAL SOCIETY.

Thomas Harris, M.D., President, in the Chair.

Wednesday, March 5th, 1902.

Hodgkin's Disease and Splenic Anaemia.

Dr. J. Dreschfeld made some observations on Hodgkin's disease and on splenic anaemia, exhibiting some patients to show the difficulty of distinguishing clinically between lymphadenoma and lymphosarcoma and drew special attention to the proportionate increase of lymphocytes, though there might be no leucocytosis as a distinguishing feature between the former and the latter disease.

Case I. was a woman, aged 35, a typical case of Hodgkin's disease of the lymphatic variety, showing large masses of enlarged glands in the neck, armpit, and groin, without enlargement of spleen or liver. The glands were soft, painless, and there was no change in the surrounding tissue. The affection had existed for two and a-half years, and had lately improved under treatment with arsenic. Analysis of blood: 5,000,000 erythrocytes, 14,000 leucocytes, showing polymorphonuclear neutrophiles 82 per cent., small lymphocytes 51.6 per cent., large lymphocytes [illegible] per cent., myelocytes 0.4 per cent., varophile cells 0.2 per cent., and eosinophile cells 5.2 per cent. Case II, a man, aged 30, who for some time presented the symptoms of the lymphatic form of Hodgkin's disease, latterly showed marked infiltration of the subcutaneous tissue of the neck due to extension of the glandular growth, a case, therefore, of lymphosarcomatosis developing apparently from a lymphadenoma. The analysis of the blood showed: Erythrocytes 5,360,000, haemoglobin 80 per cent.; leucocytes 7,000: polymorphoneutrophile cells 69.6 per cent., small lymphocytes 15.6 per cent., large lymphocytes 9.6 per cent., eosinophile cells 4.4 per cent. Case III, a man, aged 21, a case of local malignant lymphoma showing a number of enormously enlarged glands, still separate [illegible] causing any infiltration of the neighbouring tissue. The [illegible] lasted for over four years. The general health was still very good. Blood: erythrocytes 4,780,000, leucocytes 14,000, of which polymorphoneutrophile cells 60.8 per cent., small lymphocytes 26 per cent., large lymphocytes, 11.2 per cent. Case IV. A boy, aged 17, showed six months [illegible] in character and appearance to Case III. Ten weeks [illegible] increase and were now of very great size, had become [illegible] neighbouring tissue was infiltrated with tumour masses and [illegible] was hard, reddened and swollen, and the growth therefore either sarcoma or possibly tuberculous. Blood: erythrocytes 5,7[illegible] cytes 13,000 with polynuclear cells 60.6 per cent. small lymphocytes 25.0, large lymphocytes 10.4, cosinophiles 1.4 per cent.

Splenic anaemia included a number of affections which had two symptoms in common, namely, anaemia and an enlarged spleen. The splenic anaemia of children was often either a syphilitic or tuberculous affection; at other times the blood showed the characters of pernicious anaemia. The splenic anaemia of adults in which, besides the anaemia and the large spleen, there was usually severe and repeated haemorrhage (epistaxis, haematemesis, melaena) was often only the early stage of Banti's disease; marked enlargement of the liver appearing at a later stage, though in several of the cases of splenic anaemia which were evidently cases of Banti's disease which died during the early stage, as shown by the marked fibrosis of the spleen, the liver showed on *post-mortem* examination distinct signs of cirrhosis.

Dr. Dreschfeld exhibited a male patient, aged 26, as a good example of Banti's disease.

There was marked anaemia, the spleen and liver were very much enlarged, there was as yet no ascites and the patient suffered from repeated epistaxis, which was checked quickly by adrenalin, and lately had a purpuric eruption on the legs. Blood: erythrocytes 3,540,000, haemoglobin 66 per cent., leucocytes 4,200 of which polynuclear neutrophiles 58.8 per cent., small lymphocytes 32 per cent., large lymphocytes 7.6, eosinophile cells 1.2 per cent.

The blood, in this case, showed, as in many of the reported cases of Banti's disease, a marked increase of the lymphocytes, though the total number of leucocytes were diminished as compared with normal blood. The increase of the lymphocytes might be of some use in distinguishing Banti's disease from other forms of anaemia. Attention was also drawn to the splenic anaemia due to the malarial parasite, to the splenic form of Hodgkin's disease, and the true splenic anaemia in which the blood showed the signs of chlorosis and which if the other forms of splenic anaemia were abstracted, left only very few cases.

Dr. CHARLES MELLAND agreed, as the result of a considerable number of blood examinations in cases of Hodgkin's disease, including those shown by Dr. Dreschfeld, that the characteristic blood find was one in which there was absence of leucocytosis, or even slight leucopenia, with, however, a relative increase in lymphocytes. There had been at least three cases of the type of splenic anaemia described by Osler in the infirmary within recent years with the typical symptoms of enlarged spleen, anaemia, and profuse recurrent gastric haemorrhages. Whether these should now be called Banti's disease he was not prepared to say. There was no evidence of any affection of the liver in any of them.

FRONTO-ETHMOIDAL MUCOCELE.

Dr. HILL GRIFFITH made some remarks on the diagnosis and surgical treatment of fronto-ethmoidal mucocele, and showed four patients recovered from this condition who had had displacement of the eyeball, with diplopia and long-standing pain.

EXCISION OF CLAVICLE.

Mr. J. W. SMITH showed a man, aged 35, on whom excision of the right clavicle had been performed thirteen months ago. The growth involved the inner two-thirds of the bone and had existed for five months. There was a history of precedent injury. At the operation adhesions between the posterior surface of the bone and the deeper structures presented the only difficulty. There were no signs of recurrence at the present time. As was usual in such cases, the loss of the clavicle had made very little difference in the range of movement of the limb or the symmetry of the shoulder, and the patient was now working as a labourer. The growth was a chondro-sarcoma, showing areas of hyaline cartilage of a cellular type, separated by strands of fibrocartilage and small cell infiltration: other portions consisting entirely of small, round, sarcomatous cells.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

W. ADAMS FROST, F.R.C.S., Vice-President, in the Chair.

Friday, March 14th, 1902.

SYMMETRICAL CONCENTRIC FOLDS OF CHOROID AND RETINA IN FOUR CASES OF UNUSUALLY HIGH MYOPIA.

MR. LAWFORD KNAGGS (Leeds) read this paper. The appearance presented was that of a crescent having a sharp dark edge. It was always situated on the nasal side of the disc and at varying distances from it, and when both eyes were affected the condition was symmetrical. It was vertically placed, and its concavity faced the disc. It was two, three, or four times the diameter of the disc in height. The condition producing this appearance was a folding back of the choroid and retina upon itself towards the disc; in other words, there was a detachment of both tunics from the sclerotic. The dark edge was due to the increased thickness of pigment at the summit of the fold where it turned round upon itself. Vessels curved round the fold as round the edge of a glaucoma cup. The appearance had been met with in 4 cases. Both eyes were affected in 3, and in the other one eye had been lost from accident. The measure of the myopia varied from — 18D to — 38D, neglecting astigmatism. In one eye there was a rent on the anterior surface of the fold through both tunics showing the sclerotic, and the edges were turned towards the vitreous. In another there was a wrinkling of both coats on the nasal side of the crescent and parallel to it. In Haab's *Atlas* (edition 1901, Fig. 79) a very similar appearance was shown, but was described as true staphyloma in a highly myopic eye. The explanation was probably this. The anterior attachments of the choroid and retina stretching unduly in consequence of the elongation of the eyeball permitted the two inner tunics to slide back towards the posterior pole, but as they were both nailed to the sclerotic by the optic nerve, this sliding movement was checked by the obstruction and led to a reduplication of the coats within the area over which the obstruction was felt.

MEMBRANOUS CONJUNCTIVITIS.

Mr. W. H. H. JESSOP read notes of 13 cases treated as inpatients at St. Bartholomew's Hospital. All had adherent membrane, which left a raw surface when stripped off. Eight had the Klebs-Loeffler bacillus, giving the characteristic reactions. From a culture of 3 of the cases guinea-pigs were inoculated, causing death in forty-eight hours, and showing necrosis of tissue at the seat of inoculation and inflamed suprarenals. There was also enlargement of the neighbouring lymphatic glands. The temperature was over 100°; albumen was present in the urine, but only 1 case had membrane in the fauces. In no case was there paralysis or paresis of the soft palate nor absence of knee-jerk. The other 5 cases were tested several times for the Klebs-Loeffler bacillus, but without success. Two had streptococcus pyogenes, 2 had staphylococcus albus, and 1 staphylococcus aureus. None had albuminuria, only 2 had raised temperatures, 2 had enlarged glands, but none had membrane on the fauces. The diagnosis between diphtherial and non-diphtherial membranous conjunctivitis could only be made bacteriologically. In these cases the clinical evidence of albuminuria, raised temperature, enlarged glands, and signs of general diphtheria, was a great aid in diagnosis. It was thus proved that all cases of membranous conjunctivitis were not diphtherial, and that the type of severe diphtherial conjunctivitis mentioned in textbooks was rarely seen. The term "membranous conjunctivitis," which was convenient, must be enlarged to include cases due to diphtheria and other organisms.

DIPHTHERIA OF THE CONJUNCTIVA.

Mr. SYDNEY STEPHENSON communicated notes of 43 cases of conjunctivitis in which diphtheria bacilli were found. The cases formed 1.25 per cent. of the ophthalmic patients seen in two hospitals for children. The average age was 26.7 months, but 88 per cent. occurred in children under 4 years. The cases chiefly occurred during the first four months of the year and often there was a history of exposure to diphtherial infection; 40 per cent. of the children were bodily ill although the series included but 3 examples of really severe diphtheria of the conjunctiva. In 5 cases there was albuminuria, while in 2 cases the knee-jerks were absent. Diphtheria of the fauces or nose preceded the conjunctival affection once, was associated with it twice, and followed it once. Diphtheria of the skin was present in 7 children. The preauricular and other glands were generally enlarged. The malady was unilateral in about three-quarters of the cases. Death occurred once. The infection was "pure" in 13.93 per cent. and "mixed" in 36.04 per cent. of the cases. As regarded treatment, Mr. Stephenson advised liberal and early doses of antitoxin with 1 in 5,000 solution of corrosive sublimate applied to the conjunctiva by means of a small spray. He concluded that "croupous" and "diphtherial" conjunctivitis were clinically and bacteriologically one and the same disorder.

After remarks by Mr. BREWERTON and others, Mr. JESSOP and Mr. STEPHENSON briefly replied.

CARD SPECIMENS.

The following card specimens were shown:—Mr. G. HARTRIDGE: (1) Ectropion of uvea; (2) a large papilloma of the conjunctiva.—Mr. H. WORK DOBB: (1) A museum specimen of a very large melanotic sarcoma of the orbit, which had probably commenced in the choroid, and which had come through the globe and had entirely covered it; it was removed on account of pain, but the patient died shortly afterwards from secondary growths in the liver, kidneys, brain and glands; (2) calcareous tumour of the orbit.—Mr. J. HERBERT FISHER: Retinitis circinata.—Mr. J. H. PARSONS: (1) Degeneration of the retina; (2) arcus senilis.—Mr. LAWFORD:

Early changes in the retina following a blow; these changes were present within ten days of the injury.—Mr. R. E. BICKERTON: Unusual changes in the choroid.

ULSTER MEDICAL SOCIETY.—At a meeting held on March 6th, Dr. WHITLA, President, who was in the chair, showed a specimen of a heart with a rupture or tear of the valves in a case of old-standing mitral stenosis. The tear was at the site of recent valvulitis: there had been a presystolic murmur; after a sudden exertion this disappeared and a systolic was heard, and the patient soon died.—Dr. DEMPSEY showed a calculus removed from a female bladder *post mortem*; it weighed 9 oz. before drying. Dr. Dempsey read notes of a case of acute lymphatic leukaemia lasting only seven weeks, and of a case of splenic leukaemia.—Dr. CECIL SHAW gave a lantern demonstration of the structure of the fetal larynx.—Dr. THOMAS HOUSTON read an exhaustive paper on some original investigations on the blood in cases of glandular tumours.—Dr. J. A. CRAIG gave a lantern demonstration on the mastoid antrum.

PATHOLOGICAL SOCIETY OF LONDON.—A laboratory meeting of this Society was held on Tuesday, March 18th, at the Conjoint Laboratories of the Royal Colleges of Physicians and Surgeons. Demonstrations were given by Dr. F. W. PAVY, Dr. T. G. BRODIE, Dr. R. H. SIAN, Mr. W. EDMUNDS, Dr. W. BAIN, and Dr. DIXON.

REVIEWS.

ANTENATAL PATHOLOGY AND HYGIENE.

FOR nearly twenty years Dr. BALLANTYNE has been known as an indefatigable worker in the field of teratology and antenatal pathology. Since 1883 he has contributed to science 228 monographs, clinical reports, etc., bearing on the diseases of the fetus, on post-natal disorders, and on monstrosities as results of pathological intrauterine conditions. Rarely can it be said of a prolific writer that he has never penned one single note that was needless or of little worth, yet we fancy that such may truly be said of Dr. Ballantyne in respect to his publications relating to fetal disease. We further know him as the compiler of *Teratologia*. Two hundred odd writings would baffle any investigator; it was therefore right for Dr. Ballantyne to select and condense the accumulated knowledge which they contained, and to place it under the cover of a single volume, so that it may be an aid instead of a stumbling-block to further investigation. This he is doing in his *Manual of Antenatal Pathology and Hygiene*.[1] The first volume, on *The Foetus*, is published in an attractive form, and has the merit, rare in medico-scientific publications, of being practically original. Many current annotations and clinical notes on fetal diseases exist, but a monograph on antental pathology and hygiene is new to medical literature. The sole point inviting criticism is its name; a standard and exhaustive treatise should not be called a "manual." That term is understood as implying an educational work for the medical student, or a brief epitome of a subject for the benefit of the hard-worked physician or surgeon. Dr. Ballantyne's book is a complete synopsis of its subject. The author's quotations are apt, and he dedicates to the born and unborn this treatise devoted to the latter and somewhat overlooked section of humanity.

This volume of the *Manual* is divided into two "books." The first includes several chapters on antenatal in relation to postnatal and neonatal pathology. The author's arguments ably sustain the importance of the new branch of science. He indicates its association with biology in general, with public health, and with medical jurisprudence. He shows how closely antenatal is associated with what he terms neonatal pathology. This association is recognized to a certain extent by all of us, as it is evident that obstruction of the bile duct and umbilical hernia in an infant are prenatal. But our author traces many infantile diseases to intrauterine life. The passages on traumatism during birth are interesting, as it must be remembered that unavoidable wounding or "physiological traumatism" occurs, quite independently of damage from the pelvic brim and the forceps. The patho-physiological separation of the placenta and cord is taken into account. "It is evident," says the author, "that birth is traumatic." There is an excellent chapter on neonatal infections such as icterus, sclerema, tetanus, sepsis, and disease of the stump of the umbilical cord.

The second book reviews the pathology and hygiene of the fetus. The author very properly enters in full into the anatomy of the fetus and its circulation and nutrition; a mere sketch would have been insufficient, for these are subjects not easily understood. Under "excretions of the fetus" Dr. Ballantyne of necessity touches on a question often discussed, as to whether the fetus naturally and regularly micturates. Unlike some modern writers, he cannot support this theory in its entirety. He can find no evidence that it happens constantly, though he sees nothing impossible in the supposition that the fetus occasionally micturates into the liquor amnii. It is not probable, he observes, that the liquor amnii is mainly derived from the fetal renal secretion. The remaining chapters are chiefly devoted to the essential features of fetal disease. The physician and obstetrician will study with interest and profit the chapters on the exanthemata, continued and malarious fevers, tubercle, sepsis, syphilis, rheumatism, etc., before birth. A most instructive chapter treats of poisoning from alcoholism, tobacco, morphine, anaesthetics, metallic compounds, and other deleterious agencies transmitted from the mother. Then follow the long series of true idiopathic diseases of the fetus. As is well known, the whole organism—limbs, bones, and viscera—are subject to remarkable pathological changes; some, like achondroplasia, almost essentially fetal, others remarkably like the disorders of infancy, or even of maturity. Fractures, dislocations, and intrauterine death conclude the series. As injuries to bones and joints supposed to have occurred during delivery may get an obstetrician into trouble, it is important to remember that they may be prenatal. The second book ends with consideration of the therapeutical and public aspect of the questions, especially as regards the treatment of pregnant women.

Not only teratology but also morbid heredity are to be treated in a separate work devoted to the embryo and germ, which will form the second but independent section of this *Manual*. This section will be awaited with interest, as Dr. Ballantyne has been among the first to make the somewhat gruesome science of teratology move with the times. Thanks to him and to some living writers abroad, we shall soon understand by a work on teratology something more than an atlas of ugly, deformed babies, with a subsidiary text after the pattern of a museum catalogue, and some still more subordinate notes on the causation of monstrosities. That subject should be the essence of teratology, a truth which Dr. Ballantyne never overlooks, hence the value of his labours.

[1] *Manual of Antenatal Pathology and Hygiene: The Foetus.* By J. W. Ballantyne, M.D., F.R.C.P.E., F.R.S.Edin., Lecturer on Midwifery and Gynaecology, Medical College for Women, Edinburgh; Lecturer on Antenatal Pathology and Teratology in the University of Edinburgh (1900); Assistant Physician, Royal Maternity Hospital, Edinburgh. Edinburgh: William Green and Sons. 1902. (Roy. 8vo, pp. 527; 14 coloured plates and 55 figures.)

RENAL DISEASE.

THE second part of Professor VON NOORDEN'S series of essays on the pathology and treatment of disorders of metabolism and nutrition is devoted to the treatment of acute nephritis and contracted kidney.[2] It is well worth reading. The author's views differ on many points from those usually held. Diseases of the kidneys, he urges, should be treated, like diseases of other organs, on the principles admirably advocated and explained by F. A. Hoffmann: that is, the diseased organs must be spared unnecessary work, and therefore articles of diet and everything which unnecessarily irritates them should be avoided. The author gives his reasons for believing that the use of large quantities of milk and water, generally recommended in nearly all renal cases with the object of flushing out the kidneys, is not quite in accord with these principles. He explains why he mixes cream with the patient's milk in the proportion of about one part of cream to four parts of milk—and why he adds a

[2] *Sammlung klinischer Abhandlungen ueber Pathologie und Therapie der Stoffwechsel und Ernährungsstörungen.* Heft 2: Ueber die Behandlung der acuten Nierenentzündung und der Schrumpfniere. Von C. von Noorden. Berlin: A. Hirschwald. 1902. (Demy 8vo, pp. 68. M. 1.60.)

little calcium carbonate for cases of acute nephritis; also why in renal cases, when a certain amount of meat is advisable, he does not limit the kind to "white" meat. His views in regard to many other articles of diet—for instance, asparagus—are likewise stated, as well as his position in regard to the *rationale* of hot-air treatment, and other popular methods.

Cases of renal disease in which during life the evidence of disturbed action of the kidneys is wanting or the signs equivocal are not uncommon. Cardiac or vascular changes, or alterations physical and chemical in the urine may be absent: even the painstaking quantitative analysis of the solids of the urine may be of no use, especially when not combined with an analysis of the blood—a procedure in most cases quite impracticable. The French school has introduced other methods with a hope of getting more correct data as to the condition of the kidney. One of these is cryoscopy, a method introduced by Claude and Balthazard, which applies the law discovered by Raoult, whereby a comparison can be made between the molecular solid contents of the fluids by comparing the difference in their freezing points; another is the estimation of the toxicity of urine and serum as recommended by Bouchard. Both these methods, however, are difficult of application, and as ACHARD and CASTAIGNE observe more suitable for laboratory than clinical work investigation. These authors have written a monograph on the clinical examination of the renal functions by means of observations on elimination,[1] in which they explain the details of a method of estimating the permeability of the renal epithelium by the hypodermic injection of 5 cg. of methylene blue This pigment is partly converted by the tissues into a colourless body called by the authors chromogen, which can, however, be recognized when excreted in the urine by reconverting it into blue by boiling with acetic acid. By titrating the urine against a standard solution of methylene blue the quantity excreted in a given time can be estimated. In cases of interstitial nephritis—the form of renal disease which so often causes difficulty in diagnosis—the amount of blue eliminated in the first twenty-four hours was found to be half what it should be in a healthy subject: the period during which the elimination goes on is more protracted than in health, and the time at which the methylene blue or its derivative appears in the urine after hypodermic injection is delayed considerably. Cases of parenchymatous nephritis do not show results as uniform, but as a rule permeability is increased. It is often difficult to say in a mixed renal and cardiac case which was the original cause of the condition—heart or kidney—and the authors' observations with methylene blue do not help us much. All who are engaged in clinical investigation will find this essay well worth reading; but we are inclined to agree with Lépine when he says that it is asking too much of clinicians to believe that the excretion of a foreign substance such as methylene blue is a trustworthy means of measuring a character of epithelial tissue so vital as its permeability; this weakness of the new method is shown, of course, by its extremely limited application to the prognosis of renal disease. Finally, we cannot fully appreciate the argument in favour of the view that the renal circulatory activity plays only a minor part in the excretion of such substances as methylene blue.

Every physician has in mind cases of persistent albuminuria which have defied every form of treatment: a few like Dr. TEISSIER may have been able to follow up their cases for many years and been gratified to find that some at least have lost the symptom and have been restored to health. The experience which he relates in his pamphlet on curable albuminurias[2] is most encouraging and will impress on every reader the wisdom he has shown in the consideration of this grave symptom, in adopting Dante's maxim "Lasciate ogni speranza." His subdivisions of the group of cases commonly called "functional albuminuria" are the same as those adopted by English writers, though Dr. Teissier pays less attention to the albuminuria following exposure to cold, as for example, after a cold bath, and is somewhat sceptical of the so-called postural or orthostatic albuminuria. He apologizes for giving much of his space to the consideration of the curable albuminuria of renal disease, but the apology is unnecessary. He found in 100 private cases of albuminuria from renal disease that nine lost the albuminuria as long as ten years after the onset. So enthusiastic is the author on his subject that he devotes some pages to its discussion from the point of view of life assurance, taking as his brief that much injustice is done to many people by excluding them on the ground of albuminuria which may quite easily be functional or curable; we cannot, however, feel that he has laid down with sufficient precision the lines upon which such cases may be distinguished from others which it would be unsafe to accept. The essay is interesting, but readers must be warned against statements such as that on p. 33, where, speaking of digestive albuminuria disappearing in an attack of intercurrent fever, the author asserts that he has seen in such patients the complete oxidation of albumen *in vitro* under the influence of an excess of nitric acid and the disc of albumen transformed into a mass of crystals of uric acid which were precipitated at the bottom of the glass. It is more likely that the albumen was converted into syntonin and that the acid led to the separation of uric acid from urates in solution.

Professor ISRAEL'S recent book on surgical diseases of the kidney[3] claims to be no more than a personal expression of opinion based upon the experience gleaned during the sixteen years that the author has been in charge of his clinic. So wide and varied has this experience been that practically all branches of renal surgery are embraced. Many of the disputed points in the pathology and treatment of renal disease receive careful discussion, and illustrative cases are freely quoted. Renal tuberculosis is fully described. The author quotes the statement of Guyon that primary renal infection, though not impossible, occurs only with extreme rarity, and draws upon his wealth of experience to confute it. Of 26 cases operated on by Israel, 18 were certainly primary, 3 certainly secondary, and 5 doubtful; of the 26 cases 16 occurred in women. Partial nephrectomy is approved in the treatment of localized deposits, and one case is recorded. The difficult subject of calculus anuria is fully dealt with; and the notes of 5 cases operated upon by the author are given. Professor Israel relates 68 cases of malignant disease of the kidney, and he emphasizes the necessity when performing nephrectomy for a free removal of the fatty capsule of the kidney, as the microscopic examination reveals the frequent presence of cancer cells distributed throughout the fat, even at some distance from the kidney. A confident disbelief in the value of the operation for movable kidney in unhappy neurotic women is expressed. The most important feature of this work is the strong personal note expressed throughout. Each subject is defined, clearly set forth, classifications frequently introduced, and the author's experience at once appealed to, and freely stated. The loss from the want of consideration of the work of others is more than balanced by the intimacy gained with the work of so eminent an authority. The number of cases fully reported is 296.

NOTES ON BOOKS.

THE *Minutes of the General Medical Council* and of its Executive Committee for the period from January 1st to February 26th, 1902, have been issued in a paper-covered volume, price 5s. (London: Spottiswoode and Co.). In appendices are given the details of receipts and expenditure of the Council and the report of the Special Committee on the Curriculum.[6]

We have received the new edition of the *Annual Charities Register and Digest*, issued by the Charity Organization Society (London: Longmans, Green, and Co.; 4s. net). We have so often praised this work of reference that it is unnecessary to repeat what has already been said. It is a volume which we

[1] *Les Albuminuries Curables.* Par J. Teissier, Professor à la Faculté de Médecine de Lyon. Paris: J. B. Baillière et Fils. (Crown 8vo, pp. 96.

[2] *Chirurgische Klinik der Nierenkrankheiten.* Von Professor Dr. James Israel. Berlin: August Hirschwald. 1901. (Roy. 8vo, pp. 615; 15 lithographic tables; 8 illustrations. M. 28.)

[3] BRITISH MEDICAL JOURNAL, March 18th, 1902, p. 522.

find exceedingly useful; the new edition contains an article entitled Philanthropy in 1901, printed on paper of an extremely disagreeable mustard colour. The value of the publication lies in its directory of charities rather than in essays of this kind. We may also mention in this connection the new edition of *Herbert Fry's Royal Guide to London Charities* (London: Chatto and Windus; 1s. 6d.). It is again edited by Mr. John Lane, and consists of an alphabetical list of charities, with brief details in regard to the address, objects, income, and officials of each institution.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS

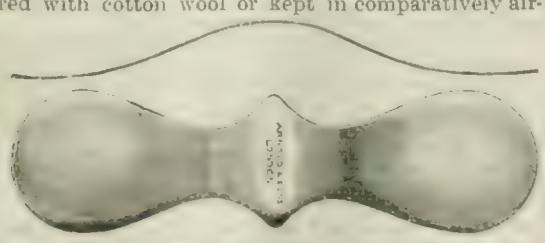
MEDICINAL AND DIETETIC PREPARATIONS.

Alginoid of Iron (Ferri Alginas).—Messrs. Evans, Lescher and Webb (60, Bartholomew Close, E.C.) send a sample of this compound of iron with alginic acid. It is a brown powder which is insoluble in water. The proprietors state that it is unaffected by the gastric digestion, and that it passes the stomach unchanged; if this were really the case we should suspect that the bulk of it would pass unaltered through the system. Our experiments, however, do not bear out the above statement. We find that on digesting the powder with a 0.2 per cent. solution of hydrochloric acid and filtering, the filtrate contains a fair amount of iron in solution. The proportion of iron brought into solution in this way is not large, but assuming that it is used up to form fresh compounds in the stomach the whole of the iron alginate would probably be decomposed in that organ. It is recommended for anaemia and chlorosis, and is said to have no astringent effect on the bowels, being indeed slightly laxative in action. In addition to the powder, pills are supplied each containing 3 gr.

Thyroglandin (Stanford).—A sample of this is also supplied by the same firm. It is really a standardized preparation made from fresh thyroid glands under the patented process of the late E. C. Stanford and is four times the strength of the fresh gland. In a paper by W. MacLennan, M.B., (BRITISH MEDICAL JOURNAL, July 9th, 1898), its uses are pointed out and the method of preparation described. It is a brown slightly coherent powder and contains the iodoglobulin and thyroiodin which are said to be the active principles of the gland. The dose of the powder is 1 to 5 gr. Pills and pellets containing 1 and 2 gr. respectively are also supplied.

MEDICAL AND SURGICAL APPLIANCES.

Aluminium Vaccination Shield.—Dr. HAYDN BROWN, Surbiton Hill, has sent us a specimen of an aluminium vaccination shield which he has designed. Its general form is shown in the diagram; it is fixed in position in the long axis of the arm by means of two oblong pieces of strapping placed over the broadened ends, and can be further secured by bandage if considered desirable. It is light and cleanly, and presents the advantage that if placed in position immediately after the operation has been performed it prevents the wound from being irritated. The vesicles can always be seen, and, if necessary, treated without removing the guard. He considers that the free ventilation allowed is advantageous, as the vesicles are not pressed upon or heated as they are when covered with cotton wool or kept in comparatively air-tight



appliances. Dr. Haydn Brown states that the instrument may be used for any age, but in the case of infants and children the upper end should be bent over to fit the curve of the shoulder. The shield is made by Messrs. Arnold and Son; price 1s.

THE MIDWIVES BILL.

[SPECIAL REPORT TO THE BRITISH MEDICAL JOURNAL.]

THE STANDING COMMITTEE ON LAW OF THE HOUSE OF COMMONS.

THE Standing Committee on Law met on Friday, March 14th, under the Chairmanship of Sir JAMES FERGUSSON, to resume the consideration of the Midwives Bill. The attendance was not large: there were never more than thirty present out of a total of eighty-five.

Sir FRANCIS POWELL moved the following amendment in connexion with the proposal that the Lord President of the Privy Council should take steps to secure the formation of the Central Midwives Board:

Clause 4, page 2, line 10, leave out "the Lord President of the Council," and insert "the General Medical Council."

In the last Bill that duty had been entrusted to the General Medical Council, and he did not consider that the proposed change was to the advantage of the cause they all desired to promote. The Privy Council had been deprived of much of the power which it formerly possessed. Since 1848 a succession of statutes had taken away powers from the Privy Council until it was no longer an authority fit to perform the duties it was suggested should be entrusted to it. He pointed out further that the Privy Council acted as an authority of a judicial character.

Mr. HEYWOOD JOHNSTONE said that the duties consisted simply in writing a few letters and asking people to serve on the Central Midwives Board. The Lord President of the Council was perfectly willing to do the work, and no benefit would arise from the General Medical Council undertaking it.

Mr. JESSE COLLINGS said that the amendment would give the whole control of the Central Midwives Board into the hands of the General Medical Council. They must remember what great powers that Board would have. It would have powers of making regulations practically creating new offences involving criminal proceedings, and that could not very well be placed in the hands of a private corporation or private body, however eminent. Another vital point was that the Board would have the power of practically levying taxes on local authorities, because the expenses of the Board, so far as they were not provided for, were to be raised from local authorities, and were recoverable by the Central Midwives Board from those bodies. That was a power that certainly ought not to be put into the hands of a private body. There must be a Government department to attend to that. It was a principle that was usually adopted that any regulations that affected the public interest and the character of people should be under the control of a Government department. The Privy Council was chosen for that purpose because medical matters were under their power.

Sir WALTER FOSTER said that before the last Midwives Bill was drawn up the Lord President of the Council received a deputation in 1898, and stated that the only form in which the Bill would be accepted by the Government would be that the Central Midwives Board was to be placed under the control of the General Medical Council. The Lord President of the Council went on to say that

It would be extremely desirable before another Bill was introduced that the promoters of the measure should come to some definite understanding with the medical profession as represented by the General Medical Council, because he could not help anticipating that the deputation still had very great difficulty before them, inasmuch as he did not understand there was any strong public opinion in favour of the Bill, especially proceeding from those most interested in the matter—namely, the working classes. Also, although the General Medical Council [illegible] qualified assent to it, he did not understand that [illegible] warmly supported the measure. He considered it would be very [illegible], before another measure was introduced, that the promoters should come to terms, at all events with the General Medical Council, whose [illegible] received in matters such as the Bill generally represented the bulk of medical opinion. Even then he thought all difficulties would not be removed, because it was somewhat uncertain how the clause relating to the action of the local authorities would be regarded.

The result was that when the Bill was brought in in 1900, it empowered the President of the General Medical Council to take steps to secure the formation of the Midwives Board.

Mr. HEYWOOD JOHNSTONE explained that the promoters of the present Bill had been invited to amend the Bill of 1900 in the direction complained of.

Sir WALTER FOSTER, continuing, pointed out that the General Medical Council was not a private but a public body created by statute and working under the Privy Council. He asked if the General Medical Council could not tax local authorities, why should that power be given to a smaller and an inferior body such as the Midwives Board? The General Medical Council was the more important body, both in regard to tradition and in regard to influence and position. He thought it would be better if the General Medical Council were given the position and power which the Lord President of the Privy Council had stated was due to it. In that manner the formation of the Central Midwives Board would be put under the control of the body that governed all medical matters.

Mr. VICARY GIBBS said that whatever the Lord President of the Privy Council might have said was a thing of the past. At the present time the President was convinced that he was the proper and fit authority to perform the work. It must be perfectly obvious to the Committee that the Lord President's name should not be taken out of the Bill.

Sir JOHN TUKE said that the duties could only be exercised by a medical body, and involved such purely medical considerations that he could not understand how the Privy Council was to undertake them. It would simply result in the Privy Council handing over all such matters for the consideration of their medical adviser.

Mr. JESSE COLLINGS said that the question was not altogether a medical one. The promoters of the Bill had gone as far as they possibly could in their proposal to give the General Medical Council a statutory right to be consulted by the Privy Council on these matters.

Mr. COHEN pointed out that the question concerned the formation of the Midwives Board and not the discharge of the duties assigned to it. In saying who was or who was not to constitute the Board, a lay body, such as the Privy Council, was just as competent as the General Medical Council.

Mr. LEES-KNOWLES said that it was important to remember that if the General Medical Council was entrusted with the question Parliamentary control would be lost.

Mr. JOHN BURNS said that it was a matter concerning public health, and that came within the purview of Parliament. Members of Parliament should be able to raise any questions on the subject when the salary of the Lord President of the Council came up for decision. They ought not to take from the purview of local authorities or Parliament the right of free criticism of what was done under the Act. They ought to retain the name of the Lord President of the Council in the Bill, and make him do his work in connexion with the subject.

This amendment was negatived without a division.

Dr. AMBROSE moved an amendment to the effect that the Central Midwives Board should consist of seven registered medical practitioners to be nominated by the General Medical Council.

Mr. HEYWOOD JOHNSTONE said that the amendment really meant that the President of the Privy Council should have the Central Midwives Board ready made for him by the General Medical Council. He asked if that Board was to have no lay element on it at all. As the Bill stood the majority of the Board would be medical men four registered medical practitioners out of the seven; of the remaining three, the Bill provided for two to be appointed by the President of the Council and one by the Association of County Councils.

Mr. T. P. O'CONNOR did not think it desirable that the Board should be entirely medical. The county councils would be liable to taxation by this Board, and it was essential where there was taxation to provide for representation.

Sir WALTER FOSTER said that the true inwardness of the amendment was to secure medical control, but he thought that was arranged for. He considered that there ought to be more medical ladies as representatives.

The amendment was then withdrawn by Dr. Ambrose.

Mr. T. P. O'CONNOR moved an amendment to Clause IV, the object of which was to give the General Medical Council the right of nominating the four medical practitioners proposed in the Bill as part of the Central Midwives Board. The effect of this amendment would be to take away the appointment of these four medical men from the Royal College of Physicians of London, the Royal College of Surgeons of England, the Society of Apothecaries, and the Incorporated Midwives Institute.

Mr. T. P. O'CONNOR said that these four bodies mentioned in the Bill were not calculated to produce as strong a Board as the working of so important a Bill required. They ought to look out for that body which was most representative of medical men and most entitled to voice medical opinion. If they began choosing particular colleges and bodies to have the right of nominating to the Midwives Board, they would find themselves in a morass of difficulties.

Mr. HEYWOOD JOHNSTONE said that the question raised was whether the General Medical Council was to have the monopoly of representation on the Midwives Board. The Midwives Board ought to have upon it some representative of the women who were to be governed by the Board; someone ought to represent those who would be under the authority of the Board, and that was sufficient reason for including the Incorporated Midwives Institute in the clause. That institute was the only representative body of midwives in the whole kingdom.

Sir WALTER FOSTER said that he had received many letters from medical men pointing out that if the Royal Colleges of Physicians and Surgeons were to nominate to the Midwives Board, such nomination should be in the hands of the Licentiates or Members of those bodies, so that the profession should have some influence in the matter. It should be recognized that the Royal Colleges of Physicians and Surgeons were governed by bodies which were elected by and from a limited class.

After considerable discussion, in which Mr. W. F. LAWRENCE, Mr. G. HARWOOD, Sir WALTER FOSTER, and Mr. O'CONNOR joined, the amendment was negatived by 24 votes to 7.

Mr. T. P. O'CONNOR said that he objected to the Society of Apothecaries being retained, and proposed to put in its stead the Royal British Nurses Association, which was truly representative of the nurses in the kingdom.

Mr. HEYWOOD JOHNSTONE said that there was no evidence that the Royal British Nurses Association desired to be represented on the Board.

Mr. T. P. O'CONNOR said that that wish had been expressed through the President of the Association.

Mr. JOHN BURNS urged that the Society of Apothecaries had interested themselves in the subject of the training of midwives as far back as 1813, and were primarily responsible for the first Bill dealing with this subject.

Sir WALTER FOSTER said that a representative of the Royal British Nurses Association would be a very desirable element on the Midwives Board. They particularly wanted to bring the nursing element rather than the practising element into the Bill.

Mr. T. P. O'CONNOR said that it was a tragic mistake to exclude a representative of the nurses of the country. The most essential part of the training of the new race of midwives should be nursing.

Sir MICHAEL FOSTER said that they were dealing with midwives and not with nurses.

Mr. T. P. O'CONNOR asked how a woman could be a good midwife without being a good nurse.

Sir MICHAEL FOSTER replied that a midwife was a nurse and something more.

The amendment was lost by 23 votes to 5.

Dr. AMBROSE proposed as an amendment that the Victoria University, which he said took in all the North of England and a large area of manufacturing districts, be inserted in the Bill in the place of the Incorporated Midwives Institute.

Mr. SCHWANN said that the Victoria University was likely to be soon dissolved.

The CHAIRMAN said that there was no idea at all of dissolving the University.

Sir F. POWELL approved the amendment.

Sir WALTER FOSTER said that the fault of the Bill was that there was no provincial representation. The population connected with the Victoria University was the largest population outside London. It was a district where there were many midwives and the University should be represented on the Board.

Mr. EMMOTT said that anything in the way of separate representation of universities in the manner proposed would do harm.

Mr. SCHWANN considered that the amendment was inexpedient and inappropriate.

The amendment was lost by 24 votes to 3.

The Committee adjourned for luncheon, and immediately on reassembling

Mr. GRIFFITH-BOSCAWEN, who had not been present in the earlier part of the sitting, moved an amendment that a representative of the Royal British Nurses Association should be added to the Midwives Board. He held that the nursing element should be strongly represented, and the Association named had done great good in training nurses and teaching them to act as midwives.

The amendment was rejected by 19 votes to 4.

Mr. HEYWOOD JOHNSTONE moved the following which was accepted without a division:

Clause 4, page 3, line 19, at end, add,—Rules framed under this section shall be valid only if approved by the Privy Council; and the Privy Council, before approving any such rules, shall submit them to the General Medical Council, and shall take into consideration any representations which that Council may make with respect thereto.

Mr. T. P. O'CONNOR challenged a division on Clause 4 as a a whole, when it was carried by 20 votes to 3.

Sir WALTER FOSTER moved as an amendment to Clause 5, which provides that 10s. shall be paid by midwives for their certificates, that the charge should be £1 1s. He explained how the Board would incur expenses, and he proposed his amendment with a view of lessening the burden that was likely to fall on the rates.

Mr. JESSE COLLINGS explained that the fee was fixed at 10s. so that no money barrier should be put in the way of any midwife who wished to take out a certificate. They wished to extend that class of midwife down to the poorest part of the community. If they could get midwives who would be certified under that Act, and yet would be of a class that would undertake some domestic duties as well, it would be a good thing for the poorer classes.

Captain NORTON said it was a mistake to raise the fee. With the development of the Midwives Board they would have different classes of midwives, and poor women should not be debarred from certificates.

Mr. VICARY GIBBS said that no undue charge ought to be laid on the rates, and these midwives who were to receive a distinct privilege should pay more than 10s.

The amendment was accepted without a division.

Sir WALTER FOSTER moved that in Clause 6 the word "roll" should be altered to the word "register."

Mr. HEYWOOD JOHNSTONE explained that the word register had not been used because it seemed to rather imply a medical qualification.

Sir WALTER FOSTER said that that was the opinion he wished to elicit from Mr. Heywood Johnstone, and therefore withdrew his amendment.

After some further discussion the last few clauses of the Bill were passed and added to the Bill.

Mr. GRIFFITH-BOSCAWEN then proposed that a new clause should be added to the Bill imposing a penalty not exceeding £10 on any woman certified under the Act who should neglect to call in a medical man in any case of abnormality or disease. He said that the question was whether there should or should not be a penalty imposed on a midwife for attending an abnormal case of labour. He reminded the Committee that there were many people who thought that in all cases of abnormality or disease a doctor should be called in. That should be made quite clear by imposing a penalty.

Mr. HEYWOOD JOHNSTONE said that the practice of midwives would be regulated and restricted by the rules to be made by the Midwives Board. Perhaps the Midwives Board would be able to solve the question which appeared impossible to answer how in any given case of labour it could be said for certain that nothing abnormal would occur. Rules would doubtless be provided for the midwives sending for a doctor when the case required it. The object of the Bill was to provide a class of women who should know when to send for a doctor.

Sir WALTER FOSTER said that no one could tell beforehand whether a case of labour was going to be perfectly natural or not, but the strongest possible incentive was necessary to compel the midwife in attendance to send for qualified assistance when the necessity arose.

The new clause was rejected by 22 votes to 4.

The CHAIRMAN said he would report the Bill to the House, and the proceedings in Committee then terminated.

THE ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

OUR Dublin Correspondent writes: The Royal College of Physicians of Ireland intend to press their amendment to the Midwives Bill in reference to the recognition of the certificates granted by the chartered lying-in hospitals of Dublin—namely, the Rotunda and the Coombe—as being equivalent to the examination of the Central Midwives Board. Further, the College consider that the term "midwife" in the Bill should be changed to "midwifery nurse"; that the penal clause of the Bill of 1899 (Clause 11, Subclause (*b*) should be incorporated in the present Bill; that a further clause should be inserted requiring a midwifery nurse to seek medical assistance in all cases except those of natural labour; that the General Medical Council and not the Privy Council should approve the rules framed by the Central Midwives Board; and that annual registration should be required instead of the notification provided for by the present Bill. As only fifty midwives and nurse-tenders were licensed by the College from 1874 to 1899 (when the licence ceased to be given), and only nine of these were licensed since the end of 1889, the College did not consider it necessary to make any representations regarding their recognition by the Midwives Board.

MR. J. H. JOHNSTONE, M.P., AND THE GENERAL MEDICAL COUNCIL.

SIRS,—Whatever our views on the subject of legislation to regulate the practice of midwives, it is of prime importance that we do not misrepresent the action and the motives of those who differ from us. As one concerned in this controversy, and anxious for the real—not spurious—protection of poor lying-in women, I shall thank you to insert the enclosed correspondence which deals with a grave error in Mr. Johnstone's presentation of the subject to Parliament. The responsibility of ignoring conditions insisted on by the General Medical Council is great and not to be minimized by positively erroneous statements. If the tragedies connected with the practice of midwifery by untrained women continue it will not be the General Medical Council that will be to blame.—I am, &c.,

Highbury Place, N., March 17th, 1902. JAMES GREY GLOVER.

[ENCLOSURE.]

25, Highbury Place, N., March 10th, 1902.

Dear Mr. Johnstone,—In your speech on the Midwives Bill you say that in asking for a penal clause against uncertified women practising for gain the Medical Council was contending for a stepping-stone towards rendering the practice of unqualified medical men absolutely penal (the *Lancet* report). Will you allow me with much earnestness and all respect to protest against this statement. I am in a position, though not now in the Council, to say that this statement is absolutely incorrect, and that the clause asking for the penalizing of practice by uncertified midwives was urged solely in the interest of lying-in women whose lives are endangered in quite a special way by the practice which it is the object of this legislation to stop.

Of course, all medical men disapprove of irregular and unqualified medical practice, but I think I may challenge you to find in all the records of the General Medical Council a resolution carried by—or even proposed in—that body, asking Parliament to stop unqualified medical practice by penalizing it. I need not say that I am no enemy to proper legislation on the subject of midwives. But a measure which omits the principal protection of the poor lying-in women is not legislation but the evasion of it, and it is without excuse. At any rate this is the view of the Medical Council in insisting on the clause penalizing practice for gain of uncertified midwives, and nothing I am sure is further from your intention than to misrepresent the motives and views of the Medical Council. Poor women do not look at registers and are not guided by titles. So that they will not be protected by merely penalizing the use of titles.

Believe me, dear Mr. Johnstone,

Yours very truly,

J. H. Johnstone, Esq., M.P. J. G. GLOVER.

House of Commons, March 12th, 1902.

Dear Dr. Glover,—I am very glad to hear from you, on authority, that the General Medical Council do *not* seek to penalize the unqualified practice of medicine, and I hope that by the publication of this correspondence their attitude in this matter may be made clear to the public and to the profession for all time. I owe them an apology if I have, in good faith, misrepresented their aims, but in explanation I may call your attention to the BRITISH MEDICAL JOURNAL of February 22nd, which in an article dealing with the present Bill states: "It has long been admitted that this omission" (a penal clause) "is a great defect in the Medical Acts, and to

obtain their amendment in this direction every effort should be made." However, your letter now makes it clear that the General Medical Council do not wish to penalize the practice of unqualified medical men, while they do wish to penalize the practice of women, of which Sir William Priestley said, and said truly, "It is quite certain that the House of Commons would listen to no such proposal." We have advisedly based our Bill on the principles embodied in the Medical Acts concerning medical practitioners, and beyond that we cannot hope to go at the present time.

Believe me, very truly yours.

J. G. Glover, Esq., M.D. J. H. JOHNSTONE.

JUBILEE CELEBRATION OF THE OWENS COLLEGE.

OPENING OF WHITWORTH HALL.

THE Prince and Princess of Wales visited Manchester on March 12th to take part in the jubilee of Owens College and to open the Whitworth Hall.

The Hall, which is to serve for college ceremonials, has been erected out of funds allocated by the late Mr. Robert Copley Christie, one of the trustees of Sir Joseph Whitworth. The Hall occupies the south-east angle of the site, and, so to speak, completes the college buildings, with which its architecture is in general harmony. The building is in two stories, the ground floor containing a series of rooms, while the Hall proper occupies the first floor. At the north end is a platform surmounted by a large organ and by galleries. It is a well-proportioned room, 65 ft. high, with an open oak roof, and is well lighted by lateral windows and by a large stained-glass window at the south end. In this window are shields bearing the arms of Victoria University, the Owens College, the city, the county, and of many benefactors. At the south end of the building are two turrets, and the total height is 100 ft. The Hall communicates on the west with the Christie Library, and on two sides abuts on open streets.

The Prince and Princess of Wales were received by the authorities of the Owens College, and the DUKE OF DEVONSHIRE, as President of the College, thanked their Royal Highnesses for their presence, and observed that the idea of the founder of the Owens College was to provide in Manchester for "higher education in such branches of learning and science as are usually taught in the English universities," but without religious tests. The success of the College had depended upon a fortunate combination of circumstance, and it should be remembered to its honour that it had never been content to be a merely medical, legal, or technical college; it had set before itself the aim of teaching of the true university type.

Mr. ALFRED HOPKINSON, the Principal of Owens College, then presented an address, in which he made reference to the recent tour of the Prince and Princess, and thanked them for taking part in the commemoration on that day of the fiftieth anniversary of the College.

The PRINCE, in responding, said that the Owens College had at first had an uphill fight, but that those who were responsible for its early fortunes had been faithful to the spirit of their trust in spite of discouragements. The best proof of the wisdom of the policy adopted was the fact that in nearly all the largest towns in the country there had been founded, during the last thirty years, colleges to a very large extent on similar lines, while Owens College had sent many teachers not only to these but to the old Universities of Oxford and Cambridge. On the occasion of its jubilee it was proper to remember not only the great teachers, but also the great benefactors of the College Owens, Beyer, Christie, Whitworth, and many others. Renowned as Manchester had always been for a broad and generous municipal life it might be asked how far the spirit which had created and inspired that life was due to the influence of Owens College. On the other hand, it might be asked, would the College have had the courage to persevere in the path marked out for it if it had not been sustained and aided by steady municipal support. In conclusion he called attention to the fund to pay off the indebtedness of the College; the fund already amounted to £100,000, and would, he hoped, attain much larger proportions. The Prince then declared the hall open.

A vote of thanks was moved by Lord DERBY seconded by Sir WILLIAM HOULDSWORTH, and briefly acknowledged by the Prince.

Sir RICHARD C. JEBB, M.P., of the University of Cambridge, then gave a short address as the representative of literature, and referred to the volume of historical essays which had just been published as a *Festschrift* in commemoration of the jubilee. The volume had been prepared by the Department of History, and, out of the twenty essays it contained, sixteen were written by former students not upon the teaching staff. There was a peculiar fitness in such a tribute, since Dr. Christie was virtually the first Professor of History, and with his name might naturally be associated those of other pioneers such as Dr. A. J. Scott, Professor Greenwood, Dr. Ward, Professor Stanley Jevons, and Professor Adamson.

Professor RÜCKER, Principal of the University of London, spoke as the representative of science; he said that Owens College had been wonderfully fortunate from the beginning in attracting to itself the life-work and the affection of men worthy of the great task it had in hand. Among its first professors was the late Sir Edward Frankland, and to him succeeded Sir Henry Roscoe, whose absence through ill-health all deplored: through him and his pupils the influence of Owens College had been visible in the creation of chemical laboratories of a distinctively British type. He referred also to Balfour Stewart, whose goodness was only equalled by his knowledge, and who won for Owens College a position, which his successor had worthily maintained, as the great centre for the study of terrestrial magnetism: to Professor Williamson, who had made a series of great contributions on the fossils of coal; to Professor Marshall; to Professor J. J. Thomson, now of Cambridge; and to the late Dr. John Hopkinson.

A vote of thanks to Sir Richard Jebb and Dr. Rücker, moved by Sir FRANK FORBES ADAM, brought the proceedings to a close.

The royal party subsequently visited the Town Hall, where they were presented with an address by the Lord Mayor and Corporation, and were entertained at luncheon.

CONGRATULATORY ADDRESSES: HONORARY DEGREES.

On the following day the jubilee celebration was continued, when at a meeting in the Whitworth Hall congratulatory addresses from a large number of learned bodies in the British empire and foreign cities were presented, and a number of honorary degrees were conferred.

The DUKE OF DEVONSHIRE welcomed the delegates and in particular thanked the distinguished representatives of foreign universities for their presence. Congratulatory addresses were then presented by, among others:

Professor Becquerel, for the Académie des Sciences, Paris.
Sir George Stokes, for the Royal Society.
The Rev. W. W. Merry, of the University of Oxford.
Professor A. Espinas, from the University of Paris.
Professor Angellier, from the University of Lille.
Professor Breymann, of the University and Academy of Munich.
Professor Voigt, from the Royal Academy of Sciences, Gottingen.
Professor Chodat, from the University of Geneva.
Dr. Woodward, from Harvard University.
Lord Strathcona, on behalf of M'Gill University, Montreal. [Lord Strathcona, who was received with loud applause, said that he was one of the few who survived who had known and spoken with John Owens.]
Professor Booth, for the University of Calcutta.
Professor H. Beare, of the Adelaide University.
Professor Dendy, on behalf of the University of New Zealand.
Sir R. C. Jebb, for the University of Cambridge.
Canon Fowler, for the University of Durham.
Mr. T. F. Roberts, on behalf of the University of Wales.
Principal Oliver Lodge, on behalf of the University of Birmingha
Professor W. A. Knight, from St. Andrews University.
Professor Ramsay, on behalf of the Glasgow University.
Professor Simpson, for the University of Edinburgh.
Professor Mahaffy, for the University of Dublin, and
The Rev. Dr. Lang, for the University of Aberdeen.

The PRINCIPAL briefly returned thanks to the delegates, and the chair was then taken by Earl Spencer, as Chancellor of the Victoria University, when a number of honorary degrees were conferred. Professor Young, Dean of the medical department, presented for the degree of Doctor of Science, Sir Thomas Barlow, Sir John Burdon-Sanderson, Sir William S. Church, President of the Royal College of Physicians of London, Mr. H. G. Howse, President of the Royal College of Surgeons of England, and Professor A. R. Simpson, of Edinburgh.

THE FORMULAE OF PATENT MEDICINES. A Bill is before the State Legislature of Ohio to compel makers of patent medicines to print the true formulae of their nostrums on all labels. The Bill was introduced by Mr. R. H. Sparke, and already has been favourably acted upon by the Committee having it in charge.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 22ND, 1902.

INFANTS OF THE STATE.

As we were enabled to announce a fortnight ago an International Congress will be held in London next July to consider the many questions still unsolved with regard to the best means which the State can take to guard and educate the unfortunate infants and children dependent upon it. Such a congress will undoubtedly be useful not only to our visitors who, we are told, will come from all parts of Europe and the United States, but also to ourselves, for if we have something to teach we have more to learn as to the best means of dealing with these children who are orphans or worse than orphans.

A striking example of the need for a growth of opinion upon these subjects is afforded by the curious opposition which has been raised to the proposed Bill to amend the Infant Life Protection Act of 1897 in applying its provisions to cases in which only one child is taken in to be nursed or maintained apart from its parents. The London Diocesan Council for rescue and preventive work has issued a memorandum signed by, among others, the Bishops of London, Stepney, and Winchester, calling upon the guardians to use their influence to obtain the withdrawal of the provision. It is suggested by the opponents of the Bill that it would greatly hamper the excellent rescue work being carried on among poor girls "with the result of an increase in desertion, infanticide, and even suicide, thus producing more harm than good...." There is a somewhat exaggerated ring about this sentence, and it may be asked whether the various rescue agencies do in fact deal with more than a fraction of the cases that should come under inspection. Apparently the Bill is resisted on behalf of a handful of superior foster-mothers who are said to resent inspection. But further on the Boards of Guardians are reminded that the rescue societies themselves provide "friendly and most effectual inspection." The objection would therefore seem to be to official inspectors rather than to the fact of inspection. It is urged that the motives that animate the better class of foster-mothers are such as to make inspection unnecessary; but motives or sentiments are very difficult things about which to testify, and do not generally furnish good practical reasons on which either to found or to withhold legislation.

As regards the time-honoured contention that "official notification followed by official inspection is so contrary to the feelings of the English people, particularly of the men," it is surely hardly worth discussion so long as an unlimited number of good foster-parents can be found who not only do not object to inspection, but, on the contrary, welcome it as an honourable means of sharing a responsibility which is in any case a heavy one.

While we may sympathise with the kindly talk as to the elevating effect upon the character of the mother which the admission of her child into the home of superior foster-parents may have, and admire the excellent work of this kind done by many rescue associations, yet we cannot forget that they have had a long innings, and that their score is not very satisfactory. It is well known that the death-rate among illegitimate children is abnormally high. As recent evidence on this head we may quote the statement made by Dr. Niven, the Medical Officer of Health for Manchester, in his last report, "that out of 1,000 illegitimate children born in 1900, 432 died, while out of the same number of legitimate children 179 died. The death-rate of illegitimates is thus much more than double the death-rate of legitimate children." If we pursue a step further the analysis of the figures which Dr. Niven gives we find most striking variations in the rates in different districts for which no explanation appears to be forthcoming. In every district, however, except one the death-rate of illegitimate infants is above the average for the whole of Manchester, whereas in the case of legitimate infants it is above the average in only six districts. Where the mortality among legitimate infants was high, there the mortality among illegitimate infants was high also, but the converse did not hold good, and in one district, West Gorton, where the proportion of deaths under one year per 1,000 births was among legitimate infants 174, it reached the enormous rate of 815 among the illegitimate infants. Facts of this kind, which could be paralleled from almost any large centre of population, appear to deserve more investigation than they have yet received, and we are glad to hear that there is a suggestion that the coming congress should devote a special session to the consideration of this question. The arguments of the rescue societies fail to convince us that they are doing all that can be done; we are told that the lowest rate at a baby farm is 5s. a week, and that under official inspection it has a tendency to rise to 6s., whereas "relations, friends, and kindly couples will often take a child at the bare cost of keep, 2s. 6d. or 3s. a week." Medical men will have their own opinion on the possibility of properly providing for any child at 2s. 6d. a week, any statistics of what it is possible for mothers to pay notwithstanding.

If all one-child homes were brought under inspection, and rates of payment and motives and sentiments ignored, the simple fact of the obvious well or ill being of the child being made the one and final consideration, the whole problem would be simplified. If it is found that under inspection the high rates of payment tend to rise, it might not impossibly turn out that the lower rates of payment would tend to rise too. Children, especially infants, grow very fast and need a great many new clothes and a great deal of food. They also need an atmosphere wherein is mother's love, interests, pleasures, and even toys. Some boarded-out children may get very few of these things even for 6s. a week, some may get them all for 2s. 6d. But it seems certain that a greater number would come into their right in every way if it could be shown that the

State cared for the poor and defenceless at 2s. 6d. as well as for the prosperous at 5s., and intended to exact a high standard of parental care for all.

HOSPITAL CHAPELS.

Lovers of London are of diverse temperaments: some take pleasure in her humanity, some in her history, some in her treasures of science and art. But, for the full enjoyment of London, a man must have also that imaginative habit of mind which children call make-believe; he must be able to play at being in a foreign town. There are Londoners who keep all the year round the sense of sight-seeing, the holiday feeling, the happy knack of exploring Soho or the Borough as though they were in Paris or Florence. Old City churches, and the Surrey side, and the docks, are dear to them; they prefer not to know where they are; and they will even take a Baedeker's guide with them to heighten the pleasant self-illusion that they are on the Continent. "If one could do London now as a strange place"—that is what they long for; to discover, to wander as tourists, to be where they have not yet been. Everywhere they find something to see: they know the way down to the Early English crypt of St. John's, Clerkenwell, and the way up to the roof of the new Roman Catholic Cathedral. We commend to these wise Londoners the study of hospital chapels: they will be glad to hear of new sights unstarred by Baedeker.

Not all hospital chapels are worthy of a star; but even those that are ugly have distinction, and none are wholly dull. In some of them there is this or that one thing to be seen; for example, the wood-carving at St. Saviour's, the founder's statue at Guy's, and the windows at St. Bartholomew's, that were the first commission given to the present President of the Royal Academy. But, in the chapels of the Middlesex Hospital and of the Great Ormond Street Hospital for Sick Children, there is not an inch that is not beautiful. Especially in the little chapel of the Middlesex, where ten years have been spent over the decoration of Pearson's exquisite design, the good Londoner will stand amazed at the wealth of marbles in all tints and veinings, and of gold mosaic of the utmost fineness; it is a veritable bit of Italy, a perfect example of the purest and richest decorative art of modern times.

A hospital chapel, if it be all that it ought to be, approves itself on other grounds beside religious. It fulfils three wants of the communal life within the hospital the desire for beauty, the desire for music, and the need of a place where those servants of the hospital may be commemorated who die in its service.

The first of these wants—the desire for beauty—is in some measure gratified, so far as the patients are concerned, by pictures and flowers and other pretty things in the wards. But people have a way of thinking that any old picture is good enough to be sent to a hospital, if it be at all too good for the dust-heap; and the value of large cardboard texts is not aesthetic. As for the aseptic adornments of a modern operating theatre, the patients care no more for them than for similar fixtures in the *post-mortem* room. Nor is it to be expected of sisters and nurses that they shall always take delight in the monotonous pictures and flowerpots of the ward, or in anything that they must perpetually scrub or dust. Convalescents and nurses alike need to have one place in the hospital set apart for beauty, and for the blessed sight of something fairer than pale walls and rows of temperature charts.

Music, in hospital life, comes rarely into the wards, and after a fugitive fashion of its own, like a vagrant minstrel unfavourably known to the police. There may be a piano here or a harmonium there (if we count a harmonium as music), and at Christmas doubtless there are carols, and nurses go a-singing from ward to ward, and house-physicians and house-surgeons generously deface themselves as niggers to amuse their patients. But a man's natural desire of music—and most sick folk know how strong it becomes during one's convalescence—wants more than this once-a-year treat; it would rather have a sure supply of familiar tunes, words and all, in their own environment; and nothing but a chapel will meet this want. Hard-worked nurses, even more than their patients, often long for music, and this longing can hardly be satisfied by the chance visits of kind ladies and gentlemen to sing to them; for they would rather sing than be sung to—they desire not an entertainment from others, but the use of their own love of music for rest and refreshment in a life that is overcrowded with incessant small duties.

The commemoration of those who die in or of the service of their hospital is left, at most hospitals, to chance; it may go no further than the names of a few eminent physicians and surgeons who died full of honours and of years. There is more pride than pity here; and it is not possible that the walls of a Board-room should rightly commemorate young residents or nurses who have fallen out of the ranks so soon. But, in the little ante-chapel at the Middlesex Hospital, though it is hardly larger than His Majesty's state coach, the names of all who have died at their work are inscribed in gold here or there on the glowing marble. Not one of them, it has been resolved, shall go unrecorded or unthanked, and their names at least shall catch the light and be read.

Seeing these things, the thoughtful Londoner will find it hard to understand why any great hospital that can afford a chapel should be without one. Though all other purpose for it were set aside, it remains the one right place, in hospital life, for beauty, and for music, and for remembrance: the one place set apart in recognition of these strong helps to a good life that are outside all disputation and common to all forms of Christianity.

THE INEBRIATES ACT AMENDMENT (SCOTLAND) BILL.

The Inebriates Act, 1898, was described at the time as a new departure in legislation, introducing new methods of dealing with prisoners who were found to be habitual inebriates. Previously the practice had been to sentence such persons to a fine or to imprisonment for short periods, or in aggravated cases to imprisonment without the option of a fine. The results of this policy had not been encouraging. The Inebriates Act placed a new and valuable power in the hands of a judge. If it is proved that a prisoner is a habitual inebriate, either on his fourth conviction within a year for drunkenness, or on any conviction for a serious crime to the commission of which inebriety

contributed, he may be sent forthwith, or, when indicted, on the expiration or in lieu of any sentence imposed upon him as a punishment, to an inebriate reformatory, there to be treated with the primary object of curing him of his drinking habits, and restoring him as a useful member of the community. The period of detention may extend to three years, but the inmate of a reformatory may be boarded out on licence before the expiry of his term of sentence. The establishment of two classes of reformatories was authorized by the Act. The first, styled State inebriate reformatories, are maintained by the State for the class of habitual inebriates who have been convicted of an indictable crime, or who have been found unmanageable in reformatories of the second class—certified inebriate reformatories. The latter are designed for the reception of persons convicted of drunkenness four times within a year, who are found to be habitual inebriates. Reformatories of this class are maintained by local authorities, with the assistance of a subsidy from the Treasury.

This summary of the existing law on the subject throws into relief the far-reaching character of the proposals of the Inebriates (Scotland) Bill, which has been introduced into the House of Commons, backed by Sir John Batty Tuke, Dr. Campbell, Dr. Farquharson, Mr. Wason, Dr. Douglas, Mr. Renshaw, and Mr. Black. The Bill proposes a further departure in legislation by dealing with habitual inebriates who have not been convicted of any offence. The Bill, indeed, may be said to be inspired by the medical spirit. Its methods are based upon those of the Lunacy Acts. The principal clause provides, in the first place, for a petition to the Sheriff or to the Court of Session, by a near relative of the person alleged to be a "habitual drunkard," or by a person having a sufficient interest in him, praying the court to find him to be a habitual drunkard, and craving a warrant for his committal to a retreat or reformatory. A "habitual drunkard" is defined as a person who is, by reason of the habitual intemperate drinking of intoxicating liquor, or habitual use of opium or any other drug, at times dangerous to himself or others, or who, in consequence of such excesses, is incapable of managing himself or his affairs. The petition must be accompanied by two medical certificates. The Court, being satisfied on these certificates and further evidence on oath, may commit the person for a term of not more than two years. Copies of the documents must be served upon the person not less than fourteen days before the hearing, and the person may be represented at the hearing by an agent. The proceedings may be conducted *in camerâ* if the Court so direct. The order of the Court may provide for the discharge of the costs of the proceedings, and of the maintenance of the person in the reformatory, out of his property, and may further provide for a contribution to the support of his family out of the residue of his estate. The Court is further authorized to appoint a *curator bonis*. An appeal is provided to the Sheriff-Principal or to the Inner House of the Court of Session. The Bill provides that in the case of persons whose means are insufficient to maintain them in a retreat, the inspector of poor may act as petitioner, when, in case of committal, the cost will fall upon the poor rate, aided by a capitation grant from the Treasury.

There is no chance of any such Bill passing into law in the current session of Parliament, and the most its promoters can expect is to secure for its proposals a certain amount of preliminary discussion. The Bill will be described as drastic and revolutionary. It will be denounced as an intolerable interference with individual liberty. It will be argued that it is unwarrantable to expose a man who, perhaps, occasionally "takes a drop too much," to the risk of being put out of the way by designing persons who desire to have the handling of his estate. But desperate diseases demand drastic remedies. Every medical man has knowledge of instances in which the operation of such a measure would have averted untold misery. Something is required to meet such cases; and social reformers might with advantage direct their energies to a discussion of the Bill, with a view to the introduction of such checks as would safeguard the machinery it affords against abuse.

CHEMICAL PHYSIOLOGY AT UNIVERSITY COLLEGE, LIVERPOOL.

WE were able to announce in a recent issue that munificent gifts to University College, Liverpool, are enabling that important and active institution to develop and extend its laboratory accommodation. In view of the fact that University College will, it is anticipated, shortly become the University of Liverpool, it is most important that its medical side should have before it a high ideal in maintaining the scientific aspect of medical education. The multiplication of universities which is one of the most striking features of the educational awakening which appears to have commenced with the new century is a recognition that the highest education should be within the reach of the people, and not the exclusive privilege of the wealthy few. But progress in any direction is generally attended with dangers, and the increase of competing bodies, whether they be medical schools or universities, may in some instances mean the lowering of the standard in order to attract numerous students.

So far as we have been able to gather, the Liverpool College has steered clear of such rocks, and the final decision to use the gifts of benefactors for the furtherance of science is to be highly commended. Among the proposals, that to establish a chair and laboratory of chemical physiology and pathology is one which holds out great promise of future benefits. This important branch of science has of recent years been springing into prominence, and though the average student mind is inclined to look on it as rather dry, those who are better qualified to judge recognize its scientific value and its practical utility. It is one of the most exact branches of physiology, and its application to practical medicine is perhaps more direct than that of any other. A few laboratories devoted to it exist in Germany and Switzerland, notably at Berlin, Strassburg and Berne, but in this country, so often lamentably behind the times, there is no chair, except that of pathological chemistry at University College, London, which can compare with those we have mentioned on the Continent. The new department at Liverpool is therefore almost unique in kind at present in the whole British Empire, though we hope it will not long remain so.

It is unavoidable that there should be some competition for time and space between the subjects of education necessary in a school of medicine. The decision of Liverpool to strengthen as it is doing the truly scientific and progressive side of its medical study is admirable. It is a much wiser course than to expend a large sum upon, for instance, the erection of some mere lecture auditorium on a palatial scale. The whole trend of modern medical education is against the development of the lecture, and to substitute for it the more useful instruction of the practical room. Students must do things for themselves, and no longer be content with witnessing the doings and drinking in the words of their teachers. The usefulness of such laboratories for research is so obvious as to need no further comment.

Liverpool is to be congratulated on the wisdom as well as the munificence shown in the bestowal of its latest benefaction. The sister studies of physiology and pathology are deservedly the first strengthened. Doubtless, later on pharmacology, hygiene, and other equally important subjects will receive due consideration; but now that the right road is started on let us hope there will be no turning back. London envies but does not grudge the large sums that our big commercial towns are able to devote to higher education, and in congratulating Liverpool on having shown the way let us endeavour to imitate her enterprise elsewhere.

THE PHYSIOLOGICAL LABORATORIES OF THE UNIVERSITY OF LONDON.

The Laboratories of Physiology and Experimental Psychology of the University of London are now established in the University buildings, South Kensington, in the rooms described in the British Medical Journal on January 25th, p. 213. Facilities are offered to workers engaged upon research for the doctoral thesis or for other purposes, and a few physiologists have already taken advantage of it. The Senate are advertising for a demonstrator or scientific assistant who will be required to devote the whole of his time to the service of the laboratories and to the study of physiology. Courses of lectures and demonstrations will be given by the university lecturers. The first two courses will be given during the summer session on Tuesdays and Wednesdays by Dr. Leonard Hill and Dr. Waller. Dr. Hill's subject will be the circulation, and Dr. Waller's will comprise the signs of life and animal electricity.

THE MIDWIVES BILL.

The Midwives Bill has passed through the Standing Committee on Law of the House of Commons without any amendment which materially alters its scope. The grounds upon which the changes desired by the General Medical Council and the British Medical Association were resisted may be gathered from the full reports of the two meetings of the Committee which have been published in the columns of the British Medical Journal (pp. 675 and 723). Sir John Batty Tuke procured the acceptance of a new subclause in the Certification Clause providing that no uncertified woman shall recover any fee or charge for attendance as a midwife, and this is an amendment in the right direction, though it can by no means be accepted as the equivalent of the proposal to penalize the practice of uncertified women. An amendment to make persons who so practised liable to a penalty was, however, rejected on a division by twenty-five votes to eight. The penal clause as it now stands in the Bill applies to the assumption of title only; it has been to some extent strengthened by the introduction of words forbidding an uncertified woman to use any title or description implying that she "is a person specially qualified to practise midwifery." In this amendment the wording of the Dentists Act has been copied. The constitution of the Central Midwives Board has been retained unaltered, and the rules framed by it will require the sanction not of the General Medical Council but of the Privy Council, although the Privy Council must submit proposed rules to the General Medical Council and must "take into consideration any representation which that Council may make with respect thereto." The abandonment of the system of local licence in favour of a "notification of practice" to the local supervizing authority has been maintained, but an amendment was made requiring the midwife to give notice every year in the month of January during the continuance of her practice. The Bill thus remains substantially what it was when introduced, but amendments can be moved on the next, the report, stage, when the Bill, as amended by the Standing Committee, will come before the whole House. This stage, we are informed, is not likely to be reached until after the Whitsuntide recess, when Bills which have passed through Committee take precedence of others. It should be said that, as a matter of order in drafting, the clause of the Bill which was the first is now the eighteenth and last; what was the second clause is now the first, and the numbering of the succeeding clauses is altered accordingly.

THE SPITTING NUISANCE ABROAD AND AT HOME.

At a recent meeting of the Municipal Council of Lisbon an ordinance was made forbidding spitting in vehicles of all kinds used as public conveyances, under penalty of a fine. A peculiar feature of the ordinance is that the fine is to be imposed on the conductor, who is held responsible, unless he can prove that having informed the police of the offence having been committed, the latter refused to take action. The writer of a note in the *Archives de Parasitologie* says that in Italy, which he describes as being the country in which promiscuous expectoration is most freely practised, the municipal authorities have lately been aroused to action. In most museums and galleries, particularly in Florence, neat notices have been placed on the walls, bearing the inscription *Vietato di sputare*. But in Italy, as in England which holds itself to be a model unto all nations in the matter of hygiene as well as other things, it is one thing to put up a notice, but quite another thing to get the public to pay any attention to it. Ask one of the officials of any museum, says the writer quoted, a question, and before he answers he will politely turn aside and empty his upper respiratory passages of a large mass of mucus. Relieved by this effort he will give you the information you require. If you venture to call his attention to the notice prohibiting spitting, he will simply shrug his shoulders as though to indicate that he considers such trifles unworthy the attention of a reasonable man. The same may be said of the tramway conductors and similar functionaries. Evidently the Italian sanitary authorities, if their most praiseworthy efforts for the suppression of an abominable and dangerous nuisance are to be successful, must solve the difficult problem, *Quis custodiet ipsos custodes?* It is gratifying to learn that the authorities of various cities of the United States are showing a determination to enforce the regulations made against expectoration in public places. In New York, the President of the Board of Health has issued orders to his staff to arrest all persons guilty of the offence. Since the issue of the order two men have been arrested and fined. At the request of the Health Board the Police Department has detailed a force of plain-clothes men to travel on all surface lines, elevated roads, and ferries on the look-out for persons who expectorate on the floor. The man-

agers of the Metropolitan Street Railroad informed the Commissioners that they would welcome all complaints against conductors who do not act on the suggestion of passengers, and caution offenders. At Decatur, Illinois, an anti-expectoration ordinance was passed on February 17th, making it an offence punishable by a fine of from 2 dollars to 5 dollars to expectorate on any public sidewalk, doorstep, or elevator. It is said that more than fifty citizens of San Francisco have recently been arrested for violating the ordinance forbidding spitting in public places. There are signs that at home municipal authorities are awakening to a sense of their responsibility in regard to this source of danger to the public health. At a meeting of the Glamorganshire County Council on March 13th a report was presented by the Sanitary Committee on a communication from the South Wales Branch of the National Association for the Prevention of Tuberculosis. The draft of a by-law forbidding spitting on the floor of any public carriage, or of any church, chapel, public hall, waiting room, schoolroom, theatre, or shop, under penalty of a fine not exceeding £5 was then considered. Dr. Morris moved that the draft be submitted to the Home Secretary, and if approved by him be promulgated as a county by-law. The motion was vigorously opposed, but was finally adopted by a majority of eight votes. We congratulate the Glamorganshire County Council on showing an example which it is to be hoped will be imitated by the other public authorities of this country.

THE IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

St. Patrick's Day, March 17th, was observed by the Irish Medical Schools' and Graduates' Association by a festival dinner at the Hotel Cecil, London. The chair was occupied by the President of the Association, Sir P. C. Smyly, Honorary Surgeon to H.M. the King in Ireland. A numerous company assembled, covers being laid for about 250 guests, among whom were many ladies. After the usual loyal toasts had been enthusiastically honoured, Mr. P. J. Freyer presented Dr. Brendan MacCarthy to the President for the Arnott Memorial Medal. This medal was granted to Dr. MacCarthy for his heroic conduct in the autumn of last year, during the epidemic of typhus in the Island of Arranmore, on the coast of Western Donegal. In this exploit Dr. MacCarthy was associated with the late Dr. William Smyth, who was struggling unaided with the epidemic in that district. Dr. MacCarthy gave his willing assistance, and, it being impossible to secure a seaworthy boat in which to convey the patients from the island to the main land, the two medical men conveyed the sick people across in an old boat that sank a few minutes after reaching the main land. The President, in presenting the medal, said that Dr. MacCarthy had bestowed upon the medical profession an honour which any man might be proud of. Dr. MacCarthy replied in a few words that if it had not been for the tragedy of Dr. Smyth's death nothing would have been heard of the occurrence. Dr. Smyth was an ideal example of the type of a class of medical man who had a great deal to do and reaped but little credit for his efforts. Dr. W. E. St. Lawrence Finny, Mayor of Kingston-on-Thames, proposed the toast of "Our Defenders," which was responded to by Inspector-General W. H. Lloyd, Brigade-Surgeon W. Ffolliott, and Surgeon-Major J. J. de Zouche Marshall. Dr. Gilbart Smith gave the toast of "Our Guests," which was replied to by Lord Rathmore, who pleaded eloquently for a closer union of Englishmen, Irishmen, and Scotchmen, and prayed for the day when they would be content to live together in the enjoyment of all the common benefits of that great Empire which the Irish had done so much to build up and maintain. Sir John Edge also replied to this toast, and after Miss Kate Rooney had delighted the audience with some Irish songs, Sir William Broadbent proposed the toast of "The Association," which was briefly acknowledged by the President. At the annual meeting of the Society, held earlier in the day, it was announced that the members had increased to the number of 823.

CANCER RESEARCH IN AMERICA.

The annual report of the Cancer Commission of the Harvard Medical School was recently presented at a meeting of the Boston Society of Medical Sciences. A number of important papers were read by the various investigators who are engaged, under the terms of the Croft bequest, in the study of the etiology of cancer. The work done during the past two years has been wholly negative in its results, in the sense that an increasing doubt has been thrown upon the parasitic origin of the disease and upon the pathological significance of so-called cell inclusions. A long series of admirably-conducted experiments was narrated by the various workers, all of which went to show that the search for a cause of cancer has not been furthered, and is not likely to be, by a continued prosecution of research on the lines just mentioned. In Buffalo, the new State laboratory for the investigation of cancer has been removed into a new building given by Mrs. Gratwick. The first floor has a large laboratory and several private laboratories. The second floor has offices, a library, the private laboratory of Dr. Gaylord, and the chemical laboratories. The third floor has the bacteriological laboratory, incubation room, a perfectly-equipped room with skylight for photography and its dark room, and another room for photomicrography. The lighting of all the laboratories is perfect, and they are all fitted with modern appliances. Professor Roswell Park, the initiator and Director of this institution, in the fourth annual report recently presented to the New York State Department of Health, points out that, at first conducted as an independent establishment, it passed under the control of the department in June, 1901. The laboratory staff consists, besides Dr. Roswell Park, of Dr. H. R. Gaylord, pathologist; Dr. Irving P. Lyon, clinical microscopist; Dr. G. H. A. Clowes, chemist; and Dr. H. C. Matzinger, bacteriologist. Dr. Park says that the results of the past year's work have been to strengthen the ever-growing convictions of himself and his fellow-workers that cancer is an infectious disease. These convictions, he adds, are both sustained and confirmed by the work of leading observers all over the world. They have never seen any reason to alter the statements upon which in the beginning the laboratory was largely founded—namely, that cancer as a disease is on the increase. Funds have been offered for experimentation with the x rays in the treatment of cancer, and the General Hospital will supply the space and the accommodation requisite for the work.

THE INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.

The twenty-fourth annual general meeting of the Institute of Chemistry of Great Britain and Ireland was held at 30, Bloomsbury Square, London, on March 3rd, Dr. J. Millar Thomson, LL.D., F.I.C., President, in the chair. The ordinary business of the institute having been transacted the President delivered the annual address, from which it appeared that there was a total of 1,040 Fellows and Associates at present on the register, and that there were 130 students in course of training at the colleges and institutions recognised by the Council of the Institute. The President stated that the higher percentage of passes at the recent examinations of the Institute clearly indicated that the thoroughness of the examinations was now more fully realised by those preparing for them. He referred to the establishment of an examination in biological chemistry, by means of which the Council hoped to encourage analytical chemists to pursue the study of bacteriology,

and thus to qualify themselves to deal with chemical work involving bacteriological knowledge. The examination was specially suited for those who intended to devote themselves to analytical practice in relation to the chemistry and bacteriology of food, water, and sewage-disposal, and to the practical applications of biological chemistry to such industries as brewing and tanning. During the past year the Council had ceased to recognize the junior, second class, and lower grade professional preliminary examinations of various examining bodies, and they had now under reconsideration the subjects in preliminary education an adequate knowledge of which should be compulsory for those who intended to proceed to the examinations of the Institute. During the past year the Council had addressed to the Local Government Board, and to various county and borough authorities, communications with reference to the combination of the two appointments of medical officer of health and public analyst. The Council expressed the opinion that the two could not be satisfactorily combined, and contended that the Sale of Food and Drugs Act, 1875, contemplated that they should be distinct, inasmuch as the medical officer was one of the officials empowered by the Act to submit suspected samples for analysis. In conclusion the Council pointed out that the qualifications of the Institute were accepted as evidence of competence by the Local Government Board, for analytical appointments, and the public interest demanded that no lower standard of training and experience than that prescribed by the Institute of Chemistry should be accepted as sufficient for such an important and responsible office as that of public analyst.

CARDIFF AND COUNTY PUBLIC HEALTH LABORATORY.

The second annual report of the Cardiff and County Public Health Laboratory has recently been issued by Dr William G. Savage, the Bacteriologist to the Joint Laboratory Committee. During the year an arrangement was made with the Swansea Corporation to do work from that borough in the Laboratory, and some 1,528 specimens have been examined (as compared with 817 in 1900). Among the more important have been 391 cases of suspected diphtheria and 122 cases of suspected typhoid fever; 197 examinations of sputum for tubercle bacilli; 19 for the organisms of anthrax, gonococcus, and tetanus; 15 examinations of new growths: 76 of urine, both chemical and bacteriological; 41 examinations of milk for pathogenic organisms: 33 of diseased meat; and 23 of pathological fluids, including some containing strychnine and phosphorus; 8 pathological examinations of blood; 532 examinations of drinking water, chemical or bacteriological; 26 of sewage and sewage effluents, and several bacteriological examinations of soil; also investigations in suspected cases of plague, and the examination of rats for the plague bacillus. Classes of the public health department organized in connexion with the laboratory by the University College of South Wales and Monmouthshire have been held in bacteriology, practical outdoor sanitary work, chemistry, together with those especially intended for sanitary inspectors. A feature of the year's work, as compared with that of 1900, has been a number of special investigations, including one of the Cardiff water supply, a preliminary examination of the milk supply of Cardiff, and an investigation in regard to the value of the employment of the Danysz bacillus in exterminating rats, concerning which an unfavourable opinion was given. The laboratory has been utilized during the year for the examination of schools from the point of view of detecting mild cases of diphtheria and so preventing their closure. In one school a boy died from diphtheria. The throats of the other boys were swabbed before returning to school by the medical attendant. It was found that out of 28 swabs taken, 20 yielded negative results, in 6 the pseudo-bacillus was found, and in 2 the true diphtheria bacillus was present. The 6 cases were kept apart from the other boys, and the 2 cases were carefully isolated until subquent examination showed these bacilli to be no longer present. No fresh cases of the disease developed in the school. It is pointed out in the report that if these two boys, who were apparently quite well, had been allowed to mix with the others, it is probable that a recrudescence of the disease would have taken place. The opinion is expressed that if such examinations were more frequently made in places where a number of susceptible individuals are brought into close contact, it is reasonable to suppose that many threatened epidemics and fresh outbreaks might be avoided, and a great saving of life, health, and money effected.

THE ROYAL SEA-BATHING HOSPITAL, MARGATE.

The letter which we publish this week from Mr. Bertram Thornton respecting the conditions of admittance to and retention of patients in the Royal Sea-Bathing Hospital clearly defines the present position of this institution in relation to the treatment of tuberculosis. We entirely sympathize with the expression of opinion shared by his colleagues, as to the desirability of abolishing the weekly payments by patients, for, while the patient may remain in the hospital during an unlimited period at the discretion of the surgeon, this discretionary power may be neutralized by the inability of the patient to continue the weekly payment. An important point, and one to which we wish more particularly to allude, is that the hospital is not designed for the mere maintenance of hopelessly incurable patients and convalescents. There is doubtless a widely-spread misconception amongst medical men as to the objects of the hospital. But our correspondent's letter should remove this misconception, and he and his colleagues naturally look for the assistance of the profession. If this be forthcoming then more room will be available for early cases of tubercle, especially those occurring in young children; for the special treatment of such cases the institution is very well adapted.

A MEDICAL GEOLOGIST.

At the annual general meeting of the Geological Society of London, held on February 21st, the President, Mr. J. J. H. Teall, F.R.S., presented the balance of the proceeds of the Lyell Geological Fund to Dr. Wheelton Hind, F.R.C.S., of Stoke-on-Trent, stating that the Council of the Society had made the award as a mark of their appreciation of his enthusiastic labours among the carboniferous rocks of this country. He said that during the past twelve years, while residing in the interesting region of the Potteries, and largely occupied in arduous professional work, Dr. Hind had found time for a detailed study of the rocks and fossils of his district, more especially of the neglected lamellibranchs of the coal measures. Extending his labours into bordering and even distant carboniferous areas, he had not only enriched our knowledge of the stratigraphical divisions, but had initiated a study of the life zones—a study which had borne good fruit, and in which they anticipated from him further important results. In addition to this, they were further indebted to him for the monographs on carboniferous mollusca which he had contributed to the Palæontographical Society. We heartily congratulate Dr. Hind on the recognition accorded to his work by those most competent to judge of its quality.

THE CLINICAL APPLICATION OF CRYOSCOPY.

During the last few years a new method of examining the physiological and pathological fluids of the body has been introduced, and in a recent number of the *Revue de Médecine*, 1902, No. 2, Dr. Léon Bernard has given a very complete account of the method and its results. The procedure consists essentially in determining the freezing

point of the fluid. This is done by means of an apparatus containing a special thermometer with a scale divided to one-fiftieth of a degree, and an agitator of platinum which is rolled spirally around the bulb of the thermometer. The observation is made by pouring in a sufficient quantity of the liquid under examination to cover the bulb of the thermometer, the liquid being kept in constant motion and refrigeration conducted slowly. As the column of mercury descends below zero the agitation must be continuous, and, as a rule, the mercury passes below the proper freezing point owing to what is called surfusion; but by throwing a little crystal of ice into the liquid freezing is immediately induced, and the column of mercury rises rapidly to a point at which it remains fixed during a few seconds: after this it falls again, but the operation is completed as soon as the fixed point has been reached. It has been proved experimentally that solutions of equal molecular concentration have the same osmotic tension and that equimolecular solutions have the same freezing point, therefore, solutions which have the same freezing point have the same osmotic tension. The freezing point may therefore be taken as an indication of the molecular concentration of solutions, and also of their osmotic tension. This method has been applied to the blood, blood serum, urine, milk, and to a number of pathological fluids, such as pus, sputum, dropsical fluid, etc. The general conclusion which the author draws from his review of the facts is that the method has only a very limited clinical application. It may be used to recognize the functional variations of the circulatory system, and has thrown some light upon its functional mechanisms, and may also be expected in the future to be of service in diseases of the heart and kidney. Dr. Bernard claims that its teachings are more precise than those furnished by other methods, and that it has penetrated deeper into certain obscure questions, such as the pathogenesis of uraemia. On the other hand, its application to the study of normal and pathological serous fluids has so far given uncertain and contradictory results, and it cannot be regarded as at present serviceable in their clinical study.

NATURAL SYMPHYSIOTOMY.

The operation of symphysiotomy has become once more familiar in works on obstetrics, though a generation ago it was relegated to footnotes or to brief terminal paragraphs in chapters on Caesarean section, where it was dismissed with contempt. Nature sometimes becomes the operator; in recorded cases her interference was usually needless and deleterious, there being no pelvic contraction. Reinprecht publishes a marked example of this rupture of the symphysis pubis,[1] which is mechanically a symphysiotomy, though the parts are torn, not cut. The woman was 36 years old, and was admitted into Professor Chrobak's wards in June, 1901, as a patient suffering from a laceration due to labour. The forceps was applied at her first labour in 1884; the remaining six pregnancies, inclusive of an abortion, terminated spontaneously. After all these labours the patient could not move her lower extremities for several days, and passive movements caused pain in the groin. Still, after convalescence she could always walk with ease. During the pregnancy, which was now drawing to a close, she suffered from great pain in the region of the symphysis. Labour came on, and her doctor applied the forceps immediately after the rupture of the membranes. Several attempts failed, but at the end of two hours he succeeded in delivering a child 20¾ in. long and 8½ lb. in weight. The patient insisted that she felt no sharp pain and no sensation of anything cracking during the labour. After the patient's admission into hospital Reinprecht detected the loss of active power and pain on passive motion of the lower extremities already experienced in previous pregnancies. The symphysis was very painful to touch, and there was a conspicuous gap between the bones superiorly. Pressure inwards or outwards on the anterior superior iliac spines, strange to say, did not increase the pain about the symphysis nor cause any pain in the region of the sacro-iliac joints, which had never been tender. A longitudinal rent lay in the anterior vaginal wall, and it was avowedly for this injury that the doctor had sent her to hospital. Through the rent the free border of the right os pubis could be felt, sundered from the interarticular cartilage. The articulation gaped to the extent of an inch and a-half; hence in this instance its rupture really proved of assistance in the delivery of the large child, though Reinprecht considers that it favoured injuries caused by the lack of very prompt and skilful use of the forceps, for the urethra was torn close to the bladder, and also at the meatus. A pelvic girdle was applied, then the lacerations were drained with iodoform gauze and a catheter placed in the bladder; they ultimately healed without a plastic operation. At the end of eight weeks the patient could leave her bed, two weeks later she was discharged. By last November, when she was exhibited at a society, she could walk fairly well, though the first efforts caused pain. The gap between the bones was mainly filled in with connective tissue, and there was very little movement in the joint.

[1] *Centralbl. f. Gynak*, No. 8, 1902, p. 205.

HYGIENIC REFORM IN FRENCH SCHOOLS.

In France as in England the question of the reform of secondary education is engaging the attention both of legislators and of the public. A scheme of reform has lately passed the French legislative chambers and will shortly become law. The proposed measures deal only with studies, and as we gather from criticisms which have appeared in the French press, it does not include within its scope such trifles as overcharged programmes, too long hours of study, and other details of scholastic organization which tend to defeat the whole object of education. Nothing was said in the debates as to adequate arrangements for physical exercise, the necessity of healthy sites and buildings, abundant provision for personal cleanliness, and a sufficient supply of well cooked and appetizing food. Yet these things in regard to their effect on the development of the growing child are of greater importance than all the ologies. As Herbert Spencer justly says, the first thing to be aimed at in any system of education is to make the child a healthy animal. Unless the intellectual training rests on a foundation of good health the builders will have laboured in vain. We note therefore with much satisfaction that a movement for the amelioration of school hygiene has been set on foot in France. Dr. Paul Le Gendre is organizing a League of Parents for the purpose of taking active steps to bring about a fundamental reform in the hygiene of school life in France, and his appeal has already been responded by many fathers of families among whom are a considerable number of doctors.

THE FOURTEENTH INTERNATIONAL MEDICAL CONGRESS.

The arrangements for the fourteenth International Medical Congress, which is to be held at Madrid from April 23rd to 30th, 1903, are in active progress. In almost all the countries of Europe and America local organizing committees have been formed. The Spanish Minister for Foreign Affairs has invited all Governments to send representatives. A similar invitation has been sent to all universities and medical schools, and to the principal medical societies in all countries. Among the numerous applications for membership which have up to the present been sent in are the names of 85 delegates, and there is every prospect of a most successful meeting. Among the notabilities of the medical world who have promised to deliver addresses are Professors Pavlov, Maragliano, Thomson, Laache, Waldeyer, Cajal, and others. Almost all the

various sections have arranged their programmes of discussions, and they are now grappling with the task of selecting men to open them. A preliminary programme including not only the official list of discussions but the titles of communications offered will shortly be issued. The Organizing Committee has commenced negotiations with railway and shipping companies for the customary reduction of fares, and the result will shortly be published. The Committee says that members of the medical profession who attend the Congress may feel assured of a cordial welcome; the profession of Spain is looking forward to the Congress with enthusiasm. We are asked to state that it will greatly lighten the labours of the General Secretary if those who intend to be present at the Congress will send in their names together with the subscription as soon as possible. Cheques should be made payable in Madrid; the amount is 30 pesetas, equivalent, according to the rate of exchange, to from 23 to 25 francs. All communications should be addressed to the Secretary General, Dr. Angel Fernandez-Caro, Faculty of Medicine, Madrid.

INTERNATIONAL PSYCHOLOGICAL INSTITUTE.

THE Organizing Commtttee of the Psychological Institute has decided on the formation of various groups or sections of studies, one of these being a group for the study of psychical phenomena. The members of this group are MM. d'Arsonval, Bergson, Branly, Brissaud, Duclaux, Marey, and Weiss. M. Duclaux has been elected President of the group. It is proposed to explore the region, situated on the confines of psychology, biology, and physics, in which it is believed by some that manifestations of forces not yet defined have been observed. Between the credulity of some and the indifference of others they consider there is room for a strictly scientific research with the sole object of finding an answer to the following question, What is the share of objective reality, and what that of subjective interpretation, in the facts described under the names of mental suggestion, telepathy, mediumship, levitation, etc.? The end can be attained only by the application of methods of precise observation and rigorous experimentation such as are in use in laboratories. Until the Psychological Institute has found a special place for the investigation of phenomena of the kind referred to, the group will use in case of need the private laboratories in which its members work. The Committee appeals to all who think they may be able to supply information as to persons capable of producing such phenomena, and to such persons themselves. Such as may present themselves will be free to choose the conditions under which experiments will be made. Communications should be addressed to the Secretary-General of the Psychological Institute, Hôtel des Sociétés Savantes, 28, Rue Serpente, Paris.

MEDALS OF HONOUR IN THE UNITED STATES ARMY.

A BOARD of officers of high rank, presided over by Major-General McArthur, has recently been engaged in investigating deeds of valour performed by officers and men of the United States army during the war with Spain, the Philippine campaign, and the expedition against Pekin. They have decided that only ten officers should be awarded a medal of honour, which is the highest distinction in the power of the State to bestow, and corresponds to our own Victoria Cross. At the head of the list of officers stands the name of First Lieutenant George W. Mathews, assistant surgeon United States Army, to whom the medal is awarded for "most distinguished gallantry in action near Porac, Luzon, P.I., October 29th, 1899, in attending wounded under a severe fire of the enemy, and seizing a carbine and beating off an attack upon wounded officers and men under his charge." Besides Assistant-Surgeon Mathews four other medical officers of the army, now living, have gained medals of honour. These officers are Colonel B. J. D. Irwin, who received the medal for "distinguished gallantry in action against hostile Apache Indians," while voluntarily in command of a body of troops; Lieutenant-Colonel H. R. Tilton, for "distinguished gallantry in action against Indians.... where he fearlessly exposed his life and displayed great gallantry in rescuing and protecting the wounded"; Major J. K. Corson, for "most distinguished gallantry in action near Bristol Station, Va."; Captain (now Brigadier-General and Governor of Cuba) Leonard Wood, for "distinguished conduct in the campaign against hostile Apache Indians during the summer of 1886." The total number of living officers to whom medals of honour have been awarded is 110.

THE END OF A SENSATIONAL STORY.

SOME weeks ago there appeared in the *Daily Telegraph* and other newspapers a sensational report that a medical practitioner of Brooklyn had offered himself as a subject for vivisection. It was impossible to believe that such an offer could have been made seriously, still less that it could, as was stated with all possible gravity, have for a moment been entertained by any responsible members of the medical profession. The affair was evidently only a silly hoax or a foolish piece of bravado. For this reason we did not think it worth while to make any reference to the matter. The whole thing now turns out to be a myth. The practitioner who was said to have offered to sacrifice himself on the altar of scientific research "to shame the antivivisectors" has written the following letter, which appears in the New York *Medical Record* of March 1st, and which finally disposes of the gruesome legend: "Dr. Russell regrets the necessity that compels him to refute recent newspaper statements associating his name with certain preposterous propositions, and desires to inform his friends, *clientèle*, and colleagues that he brands the same absolutely and unqualifiedly false; the only foundation, in fact, for the sensational publications being a private letter under a *nom de plume* in reply to one addressed to the correspondence department of the Brooklyn *Daily Eagle*."

QUACKS IN GERMANY.

STATISTICS recently published show that there are in Berlin 476 quacks, male and female, the number of legally-qualified practitioners being about 2,000. Of the male "healers" 20 per cent. have been servants or workmen, 40 per cent. artisans, and 16 per cent. tradesmen. Among 125 "lady healers" only one has had more that the most elementary education, while 58 per cent. are of the servant class, 24 per cent. shopgirls, 10 per cent. factory hands, and 4 per cent. sick nurses. The number of illegal practitioners in Saxony in 1900 was 1,578. This does not include a number of quacks who ply their trade without the knowledge of the police authorities. The number of legally-qualified practitioners of medicine in Saxony in the same year was 2,029.

KNEIPPISM IN RUSSIA.

WHAT is described by a Russian medical journal as "a new Kneipp era" has recently dawned in Moscow. The name day (January 7th) of the Prophet of Wörishofen was kept as a solemn festival by a gathering of believers. A large bust of the lost leader crowned with laurels served the purpose of a shrine. There was also an exhibition of relics of various kinds more or less directly connected with Kneipp. A commemoration address was delivered by Dr. Fitznow. The Kneipp system is being actively propagated in Russia, and disciples trained at Wörishofen have established themselves in Moscow and St. Petersburg, and have already gathered around them a considerable number of devotees in the world of rank and fashion.

CHELSEA CLINICAL SOCIETY.

The debate on Cancer: its Nature, Origin, and General Principles of Treatment, the second part of which is reported at page 717, will be concluded on Tuesday, March 25th, at the Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., at 8.30 p.m. The adjourned debate will be resumed by Professor Hewlett. A communication from Professor Adami will be read; Dr. H. R. Gaylord (of New York) will present a communication on Cancer in Twins, illustrated by lantern slides: Mr. D'Arcy Power will speak, and Dr. J. F. Payne will deliver the closing address.

THE SEMMELWEIS MEMORIAL.

The funds so far collected for a memorial to Ignaz Semmelweis, the pioneer of antiseptic midwifery, amount to 43,048 crowns (a trifle over £1,798). Semmelweis was a Hungarian: hence it is not surprising that considerably more than half the total, namely, 29,886 crowns, has been contributed by Hungary. Of the balance of 13,162 crowns, 5,312 has been contributed by Germany, 2,244 by Great Britain, 1,540 by Austria, 1,098 by Russia, 750 by Sweden and Norway, 628 by France, 490 by Switzerland, 366 by America, 216 by Holland, 212 by Denmark, 105 by Servia, 100 by Belgium, and 52 by Italy.

A Committee has been formed, under the presidency of Professor von Zittel, for the erection in Munich of a memorial of the late Professor Max von Pettenkofer.

The Professorial College of the University of Buda Pesth has recommended Fräulein Dr. Lea Roland for the post of Assistant to the Chair of Children's Diseases in the University. This is said to be the first time a lady has been appointed to such a position in a University Clinic in Hungary.

On February 22nd the Johns Hopkins University, Baltimore, celebrated the twenty-fifth anniversary of its foundation. A number of addresses were delivered by the Presidents of other universities. A new site, consisting of 176 acres of land in the northern suburbs of Baltimore, has been given to the University unconditionally. Among the many upon whom honorary degrees were conferred was one member of the medical profession, Dr. John Shaw Billings, of New York.

In the notice of Dr. Bond's article in the *National Review* of March, which appeared in the British Medical Journal of March 15th, there is an error which should be corrected. The number of exemptions granted to "conscientious objectors" in 1898 is there given, as it is in the article, as 20,341, or 2.23 of the total births for that year. It should, we are informed, be 47,423, or 5.1 per cent. of the birtbs. The error is traceable to a mistake made by the *Daily Chronicle*, from which the numbers were taken, in its report of a statement made on the subject by Mr. Long in the House of Commons.

The excess of expenditure over income to which we have several times called attention, as shown in successive balance sheets of the General Medical Council, still continues, and the accounts for 1901 show a deficit upon the year of £1,509, at which rate the liquid assets of the Council will be speedily exhausted. The reports of the special Financial Relations Committee, and also of the Ordinary Finance Committee, to which Mr. Tomes has been added for special business, will, it may be presumed, be presented to the next meeting of the Council. It is to be hoped that the question will then be seriously considered, and some conclusion arrived at which will place the finances of the Council upon a sound basis. We must await the reports of these Committees before commenting further upon the matter.

Professor Emil v. Behring (Marburg) intends, it is said, to give the amount of the Nobel prize recently awarded him (£8,400) to the Prussian State for the permanent endowment of the Institute of Experimental Therapeutics founded by him in the University of Marburg. The gift is to be devoted to the prosecution on a large scale of the researches on serum initiated by Professor Behring. The fact may appropriately be recalled that several years ago Professor von Behring gave the half of a French prize awarded to him, equivalent to a sum of £1,000, in furtherance of serum research.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Midwives Bill in Committee.—The second meeting of the Standing Committee on Law to consider the Midwives Bill was held on Friday, March 14th, half an hour before the usual time, and the proceedings began almost at once. Sir James Fergusson counted a quorum five minutes after he took the chair, which showed that the strong whip issued by the promoters of the Bill had had an effect. The discussion was resumed on the fourth clause, which directs the Lord President of the Council to take steps to form a Central Midwives Board. Sir Francis Powell proposed to substitute "the General Medical Council" for "the Lord President," so as to make it a Medical Council matter rather than a Privy Council duty. Mr. Heywood Johnstone opposed the proposal, and Mr. Jesse Collings, representing the Home Office, supported the Bill as it stood. Sir Walter Foster quoted the reply of the Lord President of the Council in 1898 to a deputation, in which he distinctly advised the promoters to come to terms with the General Medical Council. Sir John Tuke, Mr. John Burns, Mr. Vicary Gibbs, and others joined in the debate, and eventually the amendment was negatived without a division. Dr. Ambrose then raised the question of the constitution of the Midwives Board, and moved an amendment that all the seven members should be nominated by the General Medical Council. He complained that the clause ignored the General Medical Council altogether, and left it in the power of the Lord President to appoint persons who were not medical practitioners. The amendment was opposed by those in charge of the Bill, and was finally withdrawn so as to allow an amendment to give four nominations to the General Medical Council, to be moved by Mr. T. P. O'Connor. He contended that the General Medical Council was the most representative body to act on behalf of the whole profession, and he, moreover, wished to provide that the four persons appointed should be, or should have been, teachers of midwifery in a recognized medical school. On this proposal there was a warm and interesting debate, and it was urged that as the Royal Colleges would act only through their Fellows, or Councils elected by their Fellows, they would not so directly represent the great body of the profession as some wished in this particular. Mr. Heywood Johnstone strongly opposed the amendment, and regarded it as an attack on the representation of the Midwives Institute. After several speeches on both sides the division was taken, and the amendment was rejected by 24 votes to 7. The Royal College of Physicians being retained in the clause by the division, the Royal College of Surgeons was allowed to stand without challenge, and then Mr. T. P. O'Connor moved to omit the Society of Apothecaries in order to substitute the Royal British Nurses Institution. The Society of Apothecaries found several able defenders, and after some discussion Mr. T. P. O'Connor offered to withdraw his amendment in order to raise the claims of the Royal British Nurses later on, but the Committee, now thoroughly warmed to their work, refused this concession and rejected the proposal by 23 to 5. Dr. Ambrose next suggested that the Victoria University

should be substituted as a nominating body in place of the Incorporated Midwives Institute, and urged that the University, representing as it did great centres of population in the provinces, would give the Board the provincial element which had not been provided in the Bill. On voting, however, the Midwives Institute was retained by 24 to 3. The Committee then adjourned for twenty minutes for lunch, and on the return of the Chairman, Mr. Griffith-Boscawen proposed that an additional member should be nominated by the Royal British Nurses Association. After a short discussion this was rejected by 19 to 4. The rest of the clause, which was the most contentious in the Bill, was agreed to without material alteration, and on being put as a whole was challenged by Mr. T. P. O'Connor, and carried by 29 to 3. On Clause 5, which relates to fees and expenses, Sir Walter Foster proposed that the fee payable by a woman presenting herself for examination or certificate should be raised from a sum not exceeding ten shillings to a sum not exceeding one guinea. This amendment was accepted, and the clause passed with some other verbal alterations. Clauses 6 and 7 were passed much as they stood; and on Clause 8 the question of the annual licence was raised, but as the main object of the annual licence was considered to be gained by requiring a notification of intention to practise on January 1st every year in Clause 10, Clause 8 and the following clauses were agreed to with some small alterations and added to the Bill. Mr. Griffith-Boscawen then moved a new clause, which ordered a penalty for neglect to call in a medical man in any case of abnormality; but the Committee would have none of it, and rejected it by 22 votes to 4. The Bill was then ordered to be reported with amendments to the House. The Bill will now go back to be considered in the report stage by the House of Commons most probably after the Whitsuntide recess, when it will have priority over other private members' Bills. There is sure to be considerable discussion on the report stage, and if one day happens to prove insufficient for this stage, the chances of the Bill will be seriously imperilled.

The Dartford Small-Pox Hospital.—Sir William Hart Dyke last week called the attention of the President of the Local Government Board to the spread of small-pox in and around Dartford, and to the fact that some 2,000 workmen had lately been employed on the new buildings at the small-pox hospitals who were lodging in the towns and neighbouring villages. He inquired whether some accommodation for these workmen could not be provided on the spot where they worked so as to prevent the spread of the disease. Mr. Long admitted the facts mentioned, but said that a large proportion of the men slept in huts built for them on the site. It was not to be expected that all would do this, and if compulsion were attempted they would probably leave their work. It was most important that the buildings should be completed without delay, and he was pressing on the managers of the Asylums Board the importance of housing all men possible on the site. Every facility for vaccination had been given, and those men working nearest the small-pox hospital were required to be vaccinated. Sir W. Hart Dyke pointed out that a number of these men at the end of the week's work travelled up to London and returned on the Monday, and in this way caused great risk of spreading the disease. Mr. Long admitted the gravity of the position but said he had no power to detain these men on the spot. It was very important to prevent the spread of the disease outside the metropolitan area, but it was more important still to provide as rapidly as possible for the reception in hospital of cases occurring within the metropolitan area. Every effort had been and would be made to provide for the workmen on the spot, and to have them vaccinated. If the people in the district would be re-vaccinated the risks would be largely diminished. Mr. Bayley inquired if another hospital ship would not meet the difficulty of accommodation. Mr. Long said it would not, as it would be impossible to provide a ship in time to take the place of the building. The Asylums Board were trying to double the supply of beds by the buildings now being erected.

Glanders.—Mr. Hanbury stated at the end of last week, in reply to a request for legislation in view of the prevalence of glanders in and about the metropolitan area, that the Departmental Committee of the Board of Agriculture had reported that further investigation of the nature of the disease, even in some of the most elementary facts, was necessary, before their recommendations could be adopted with any certainty of success. Such an inquiry was instituted in January of last year, and a report was expected within the next few weeks.

The Sanitary Condition of the House.—On Friday night last week, after a long debate on congested districts in Ireland, about 11 o'clock, Mr. Wylie, who does not often trouble the House, rose to call attention to the imperfection of the ventilation and other sanitary arrangements. The hon. member was full of his subject; he discoursed learnedly on electric fans and on the old-fashioned and obsolete method by which the chamber was ventilated, and still worse, the galleries in which the reporters were stupefied by bad air and the ladies almost asphyxiated. The House was in a nonchalant mood and would barely listen. Members were tired and saw a chance of soon going away till Monday, and they would not take the subject seriously. The more the hon. member dilated on fresh air and bad lavatories the more the House smiled; and when he came to microbes the smile broadened and became a roar of delighted laughter as he declared that the microbe of lockjaw had been found in a piece of carpet taken from a legislative chamber in America! He asked for a committee of experts, and said better ventilation would do more for comfort than the new rules of procedure. The First Commissioner of Works made a good-natured reply, and said he intended to move for a committee before Easter, and he would consider whether it should be composed of experts or be a Select Committee of the House. The air was frequently taken and analysed, and a specimen was at present in process of analysis. The matter then dropped and the House rose at 11.30.

Vaccination in Public Offices.—Mr. Grant Lawson, in replying to Mr. Channing, said that notices relating to the vaccination of the persons in the employment of the Board of Education, had, by the authority of the Board, been issued at Whitehall and at South Kensington. Similar notices had been issued by Government departments. No person could be compelled by the Board of Education to be vaccinated or revaccinated.

Enteric Fever in South Africa.—The Secretary of State for War, in reply to Sir Walter Foster on Monday last, said that the system of notification to the Health Office at Pretoria of every case of enteric fever among the military and civil population instituted when Lord Roberts was in command had been carried on for a brief period, but had since been discontinued. It was held to be unnecessary to require the notification of every case in a country in which the disease was endemic, and that the communication of any outbreak of infectious disease to the health officer by the principal medical officer was sufficient. Special sanitary officers had been sent out to South Africa in connexion with inquiries into the origin and spread of enteric fever.

The Prevention of Cancer.—Mr. Balfour made an interesting statement on this subject last Tuesday, in reply to questions put by Mr. Weir and Mr. Lee. He said: My view remains that this subject, important as it is, can best be dealt with by private, though not unorganized enterprise. I am told that the Royal College of Physicians and the Royal College of Surgeons have appointed a joint committee to consider how investigation into the possible cure of cancer can best be carried on, and I have received communications from the President of the Royal College of Physicians, and from other quarters, which lead me to believe that their efforts will be successful, and that the scientific staff which they have at their command, and the liberality of the public, will enable a really important scientific investigation into this subject to be undertaken and carried through. In those circumstances I think it would be very unwise for the Government to intervene in a matter which, after all, Governments are not in the habit of conducting with very great success from a scientific or public point of view.

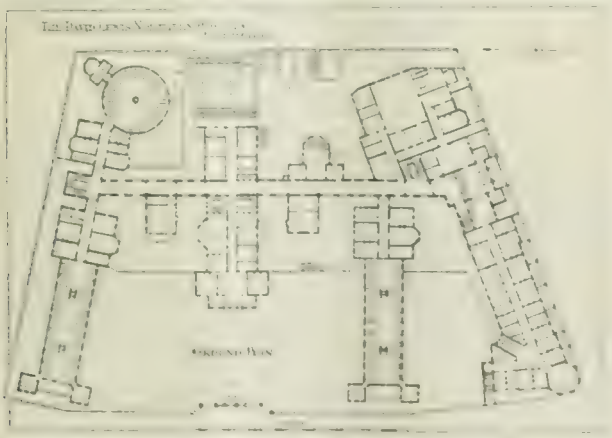
THE DAVID LEWIS NORTHERN HOSPITAL, LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

History of the Institution: Site and Cost of the New Building: General Description of the Hospital: The Operating Theatre.

THE new Liverpool Northern Hospital, which will be known henceforth as the David Lewis Northern Hospital, was formally opened by H.R.H. the Princess Louise on March 13th. The hospital was started in 1834, when a committee was formed to provide hospital accommodation in the northern part of the town. A house rented in Back Leeds Street was opened as a small hospital with 33 beds. A second house was soon added, and in 1845 the houses gave place to a building specially erected for the purpose. This was added to from time to time: but in 1882, owing to representations made by the Medical Board as to the insanitary and generally unsatisfactory state of the hospital, a report was obtained from Professor F. de Chaumont, which expressed a strong opinion that the hospital should be rebuilt. The committee obtained a strip of adjacent ground in 1884, and on it provided temporary accommodation for the nursing staff outside the hospital.

In 1892 a Subcommittee was appointed to collect subscriptions for a new hospital, and to prepare a scheme for submission to the General Committee. About this time Mr. Benn W. Levy and Mr. Geo. J. Cohen, legatees of the late Mr. David Lewis, decided to devote a large sum of money, left to them by that gentleman, to purposes of charity for the benefit of the poorer classes in Liverpool and Manchester, and for this purpose they formed the "David Lewis Trust." The Hospital Subcommittee approached the trustees with a view of obtaining funds for the rebuilding of the hospital. Their proposals were favourably received, a sufficient area of land was secured, partly by a grant of lands and money from the Corporation of Liverpool, adjacent to the existing site, and the trustees voted a sum of £60,000 for the purpose of building a new hospital, and the foundation stone was laid by Lord Derby on October 19th, 1896. The actual cost of the hospital has been about £120,000.



Plan of Ground Floor.

The site of the hospital is about 12,000 square yards. It is built of Ruabon bricks. The main corridor runs north and south parallel to Great Howard Street, the wards being placed east and west. In the centre of the main corridor on its west side is the administrative block, at its north end a block of wards is erected on the west side and another on the east, and near its south end there is a ward block on the west side, and on the east side the out-patient department. Further south the nurses' home runs obliquely in a south-westerly direction. The basement is lighted by large open spaces in lieu of the ordinary areas; all wards are provided with a verandah, and are disconnected from the main corridor by means of flying bridges with cross-ventilation. The total number of beds provided is 237, including tank beds, erysipelas beds, and special beds for accidents admitted at night. In the opinion of the constructors, 24 is the largest number of patients that can be efficiently supervised by one nurse and her assistants, and the wards have therefore been arranged for this number. They are 94 ft. long and 26 ft. wide and 14 ft. in height. The circular wards, of which there are three, have a diameter of 50 ft. and the same height as the other wards. The roof of the circular block is provided with a shelter, and arranged as a playground for children. The walls of the ward are lined with Parian cement, painted and varnished, all the angles being rounded off. In the small corridor leading to each ward is the nurses' kitchen, with an open-air safe in the wall, and an inspection window overlooking the ward: and on the opposite side of the corridor is the bathroom, the isolation ward, the convalescent room, and various offices. No nurses sleep in the hospital proper. The operating theatre is 30 ft. long, 18½ ft. wide and 16 ft. in height, and has two rooms adjoining, the one an anaesthetic room and the other a service room, the only entrance to the theatre being through one or other of these. The walls are lined with tiles, and the two steps arranged for spectators are of a kind of Spanish marble, which has a non-absorbent surface. The theatre is ventilated by fresh-air inlets which open into recesses on the north and south sides, the air passing through two large canvas screens which are played upon by a water spray, while on the inner side of the screens is a large steam radiator. Extraction of foul air is effected by fans driven by electricity. The floor of the theatre and of the adjacent rooms is made of terazzo, highly polished, and with a slight slope. In the opinion of those competent to judge, the theatre is one of the very best which has yet been built in either Europe or America. On the opposite side of the main corridor there is a second operating theatre.

The mortuary is a special feature. It contains a handsome sarcophagus capable of receiving four bodies, and maintained at a constant temperature of 32° F. by means of ammonia. The out-patient department is admirably designed, and the nurses' home leaves nothing to be desired. The architects are Messrs. Pennington and Son and Harvey.

THE CROONIAN LECTURE OF THE ROYAL SOCIETY.

HAEMOGLOBIN.

THE Croonian Lecture was delivered before the Royal Society on March 13th, by Dr. ARTHUR GAMGEE, F.R.S., Emeritus Professor of Physiology in the Owens College. The lecture, which dealt with certain chemical and physical properties of haemoglobin, consisted of two parts, as indicated in the following abstract:

I.—BIBLIOGRAPHICAL AND CRITICAL.

Dr. Gamgee commenced by stating that a peculiar interest—the parallel of that which in the plant organism belonged to chlorophyll—attached to haemoglobin, which in virtue of its special chemical and physical attributes possessed a definite and unique physiological function. He then discussed: (1) The question of the identity of haemoglobin throughout the animal kingdom: (2) the nature of the albuminous body linked to the coloured iron-containing group in haemoglobin—globin (haemato-histon)—and the general properties of the histons and their relation to the simplest of all the albuminous bodies, the protamines: (3) the products of the decomposition of the iron-containing molecular group in haemoglobin. Under this heading he directed attention to the researches of Shunck and Marchlewski, who, by the oxidation of phyllotaonin, one of the decomposition products of chlorophyll, had obtained phylloporphyrin, a body probably identical with haematoporphyrin.

II.—EXPERIMENTAL.

(1) *Extension of Previous Observations on the Absorption of the Ultra-Violet Rays of the Solar Spectrum by Haemoglobin.*

Dr. Gamgee referred briefly (illustrating his remarks by demonstrations) to his researches, previously published, into the absorption of the extreme violet and ultra-violet rays of the solar spectrum by haemoglobin, its compounds, and certain of its derivatives. The region of the solar spectrum which he formerly investigated was that comprised between the lines F and Q (4861–3280). He now examined the

question whether oxy-haemoglobin presented definite absorption for light of shorter wave lengths. Soret, whose observations were not conducted with solutions of haemoglobin but merely with diluted blood, observing by the aid of his fluorescent eye-piece the cadmium spark spectrum, found that diluted blood, in addition to the absorption band in the extreme violet, exhibited two additional bands. One of these, coinciding with the 12th cadmium line (3247), he considered to be probably due to haemoglobin; the other, coinciding with the 17th cadmium line (2743), he assumed to be caused by serum albumin, his observations having previously shown that all albuminous and albuminoid bodies, with the exception of gelatine, were characterized by an absorption band in the position of the 17th cadmium line.

Employing solutions of many times crystallized oxy-haemoglobin of great purity and of varying concentration, and with the aid of the sparks of a powerful induction coil, Dr. Gamgee had obtained a series of photographs of the cadmium spark spectrum with and without the interposition of the solutions. These photographs showed that solutions of oxy-haemoglobin sufficiently transparent to allow the ultra-violet spectrum of cadmium to be photographed presented no absorption bands corresponding either to the 14th or the 17th cadmium lines. The absorption band observed by Soret in correspondence with line 14 was, therefore, not due to the blood-colouring matter, but to some other organic constituent present in the blood.

(2) *Behaviour of Oxy-haemoglobin and CO-haemoglobin in the Magnetic Field.*

Having referred to his researches communicated to the Royal Society in June, 1901, and illustrated the main facts by demonstrations, Dr. Gamgee discussed: (1) Observations on the influence of temperature on the behaviour of oxy-hæmoglobin in the magnetic field; (2) observations on the ferro-magnetism of the ferro-albuminates.

(3) *The Specific Conductivity of Solutions of Oxy-haemoglobin.*

Dr. Gamgee said that in his examination of the specific conductivity of solutions of pure oxy-haemoglobin he had worked exclusively with the haemoglobin of the horse, and, following substantially the method of preparation which in Zinoffsky's well-known investigation yielded the purest product, he succeeded in obtaining crystallized oxy-haemoglobin of remarkable purity, the ash of which consisted solely of oxide of iron with an indeterminable trace of P_2O_5, and contained no trace of chlorine. After a laborious investigation on this branch of the subject, he had arrived at the following conclusions:

1. Although solutions of oxy-haemoglobin possess a low conductivity, this is very much higher than has been found in the previous observations of Stewart, all of which were made at 5° C.

2. The conductivity of solutions of oxy-haemoglobin increases rapidly with increase of temperature, and undergoes remarkable and permanent changes when the solution is kept for even short periods at any temperature above 0° C.

These results explained the impossibility of obtaining data which could be considered reliable concerning the absolute specific resistance of solutions of oxy-haemoglobin.

(4.) *The Results of the Electrolysis of Oxy-haemoglobin.*

1. When pure solutions of oxy-haemoglobin were subjected to electrolysis, a separation of oxy-haemoglobin in a colloidal, but perfectly soluble form occurred.

2. By employing an electrolytic cell in which the anode was separated from the kathode by an animal membrane (sheep's intestine or pig's bladder), it was seen that the first action of the current was to cause a separation of colloidal haemoglobin in the anode cell. This colloidal haemoglobin fell as a beautiful red cloud, leaving a perfectly colourless, supernatant liquid. On stirring, it instantly dissolved.

3. The further action of the current was to cause a rapid and entire transfer of the colloidal haemoglobin from the anode to the kathode cell. With an electrolytic cell, of which each compartment had a width of 5 mm and contained 2.5 c.cm. of a 1 per cent. solution of O$_2$Hb, complete precipitation and transfer occurred within 60 minutes.

4. On reversing the direction of the current by means of a commutator, the haemoglobin returned again in the direction of the positive current into the original cell from which it started.

5. The precipitated colloidal but yet perfectly soluble haemoglobin represented the undecomposed molecule of the blood-colouring matter.

6. The probable nature of the process which occurred under the influence of the current was discussed, as well as the character of the process which led to the transfer of the haemoglobin in the direction of the positive current. This process was considered to be of the same nature as the phenomena studied by Quincke under the name of electro-endosmose.

7. Special attention was directed to the importance of the facts elicited in reference to the colloidal yet soluble form of oxy-haemoglobin. All that had been said with regard to oxy-haemoglobin applied to CO-haemoglobin.

A typical colloid in the sense of its absolute indiffusibility through animal membranes and parchment paper, oxy-haemoglobin differed from most colloids in the facility with which it crystallized. Hitherto it had been known in its crystalline condition and in solution in water. Now in its third or colloidal form the analogy with such a colloid as silicic acid was rendered complete.

The discovery of this form of haemoglobin made it possible to form a conception of the state in which the blood-colouring matter was probably contained in the blood corpuscles. The amount of haemoglobin contained in the corpuscles was so large that in most animals at least the whole of the water of the blood would not be sufficient to dissolve it. It was perfectly obvious, therefore, that it did not exist in the corpuscles in a state of solution, and the opinion had generally been held that these contained some unknown compound of oxy-haemoglobin with a constituent of the stroma. It seemed highly probable that in the red blood corpuscles haemoglobin might be merely present in its colloidal form.

In conclusion, Dr. Gamgee pointed out that the remarkable facility with which the new colloidal form of haemoglobin traversed such permeable membranes as the animal membranes and even parchment paper, when its solutions were subjected to electrolysis, would suggest to physiologists the possibility that certain of the phenomena of absorption in the animal body might be closely connected with electromotive changes in the tissues concerned.

CONTRACT MEDICAL PRACTICE.

Formation of a Medical Practitioners' Association and Public Medical Service in Norwich.

On Saturday, December 21st, 1901, a well-attended meeting of the medical profession in Norwich, convened by circular issued by Messrs. Donald Day and H. A. Ballance, was held to consider the advisability of establishing a public medical service and kindred matters.

Dr. Samuel Barton, having been unanimously called to the chair, explained that the immediate cause of the meeting was the recent decision of the General Medical Council in the matter of the National Medical Aid Society. That society had in Norwich five medical officers, and these gentlemen had all announced that they would forthwith resign their appointment if the medical men of the city would make some provision, as by the formation of a public medical service, for the present members. That was the primary matter they were met to consider, but other important questions were bound up with it.

Mr. Ballance said that the action of the five medical officers of the National Medical Aid Society was a step in the right direction, namely, towards the unity of the profession locally. He trusted that this effort would receive their support, and that a public medical service would be established. This had been found elsewhere the best means of abating the evils connected with medical aid societies. Eastbourne and Coventry were cases in point. Such services were best managed by medical men only. He found also that these services were always established and managed by some kind of medical society which gave cohesion. It appeared to him that some such permanent bond of union was necessary, and, as in Norwich there existed at present no society composed solely of Norwich practitioners, it would be a matter for con-

sideration whether such a society should now be formed, primarily as a basis of operations in starting the public medical service, but of course capable of being adapted to other and not less important uses as time went on. He suggested that in the public medical service the patient should be allowed to choose his own medical attendant from those who joined the staff. Other important practical questions requiring their consideration would be the mode of collecting payments, the wage limit, and whether the staff should use their own private surgeries for the work of the service or have a central institution. As to the collector, if one was appointed, he must be strictly prohibited, of course, from canvassing, and to avoid temptation it would be better to pay him a fixed salary and no commission. As to wage limit, perhaps a hard-and-fast rule would be a mistake: the Committee might be left to exclude persons financially unsuitable. The question of central rooms was chiefly one of expense. Some practitioners also, he believed, would prefer to see their patients of the service at their private surgeries. Apart from the matter of central rooms the expenses would be relatively small, simply salaries of secretary and collector, and stationery, etc. He proposed:

That this meeting of medical practitioners resident in Norwich is of opinion that the time is suitable for the formation of a public medical service in the city.

Mr. DONALD DAY, in seconding, said that those present would recollect a previous attempt to form a public medical service which had broken down, perhaps through the want of some association or society to carry it through. At that time A would not work with B, and so on. Now he was glad to see indications of a different state of affairs. He thought it would be agreed that if the National Medical Aid Society, as a result of the action of the General Medical Council, had to cease its operations, the profession must provide some organization to take its place among the really poor. The plan proposed by Mr. Ballance would, he believed, meet this want.

Mr. EVERITT inquired as to the probability of the present members of the National Medical Aid Society coming into the service, and

Mr. RICHARDSON asked whether it was not probable that the Medical Aid Society would import fresh medical officers to take the place of those who resigned. It was also asked whether the resignation of the present officers was conditional on the profession starting a public medical service.

Dr. A. CROOK, one of the present officers, replied that, speaking for himself, he should resign in any case: that he could, of course, give no guarantee that his present patients would join the service, but he thought it probable; that he did not see how the National Medical Aid Society could bring new practitioners into the city and introduce them to their present members without some kind of canvassing; and the fact that the society had declared its intention of accepting no new members would operate against new medical men coming in.

Mr. Ballance's resolution, on being put to the meeting, was carried unanimously.

The CHAIRMAN then asked Mr. Whitaker, of Great Yarmouth, who was present as a visitor by invitation, to speak on certain practical points.

Mr. WHITAKER expressed his agreement with the remarks of Mr. Ballance as to the advisability of forming a Norwich medical practitioners' association to carry on the proposed medical service. This would give stability to the work and might prevent much friction. Contract practice of all kinds was open to many abuses which affected sooner or later not only those practitioners directly engaged but all members of the profession, both general practitioners and consultants. Therefore all were interested in the way a public medical service was conducted, and in framing the more important regulations, such as those relating to rates and wage limits, all should have the opportunity of giving effect to their opinion. This would be no injustice to the staff of the service but a help, because in resisting encroachment they would have the whole force of the local profession at their back. As to the scheme outlined for the service, he was in doubt as to the expediency of having collectors. The service was for the benefit of the poor, and was it too much to ask them to bring their contributions to a central office? This would avoid any possible imputation of canvassing. Certainly in no case should a commission be paid.

The CHAIRMAN and Dr. ODHAMS thought it impracticable to do without a collector; and Dr. CROOK agreed, at all events at first.

Mr. BALLANCE moved and Dr. COOPER PATTIN seconded:

That this meeting appoints a Committee to select the best way in which a public medical service may be organized in Norwich, to draw up regulations for the carrying on of such a service, and to report as soon as possible to a further meeting of the profession.

In moving this, Mr. BALLANCE hoped it might be understood that in considering the best way of organizing the service, the Committee should consider the advisability of forming a Norwich Medical Practitioners' Association, and the meeting signified approval of this suggestion. The resolution was unanimously carried, and a Committee appointed.

This Committee reported to a further meeting held on February 13th. Copies of proposed regulations drawn up by the Committee for a Norwich Medical Practitioners' Association and a Norwich public medical service had previously been sent to all members of the profession in the city. There was again a good attendance.

Dr. BEVERLEY, who was unanimously elected to the chair, in his opening remarks referred to the action of the General Medical Council in the Yarmouth case, and reminded those present of the action taken by Norwich practitioners five years ago in calling the attention of the Council to these matters, and sending a deputation to wait upon them. This action had, he believed, some influence in starting the train of affairs which had resulted in the important recent decision of the Council. He thought that before proceeding to consider any definite resolution for the adoption of the draft rules, a general and somewhat informal discussion would be desirable. Three matters, perhaps, specially deserved some such preliminary consideration—namely, the definition of the objects of the Association, the provision as to arbitration by the Association between its members, and the form of agreement that intending members were to be called upon to sign.

Mr. DAY, as Chairman of the Committee, briefly described its procedure and was followed by Mr. H. S. ROBINSON and Dr. BARTON, who took exception especially to the clause in the draft rules and in the agreement making it compulsory on members to submit differences to the arbitration of the Association. It was feared that these clauses in their present form would invite vexatious proceedings, and also interfere too much with the individual conscience of members in professional matters. The clause as to arbitration being similar to that contained in the rules of the Yarmouth Society, Mr. Whitaker, who was again present as a visitor, was asked whether unnecessary disputes had resulted there. He replied that he thought it had had the opposite effect, and had tended to check disputes, inasmuch as it had never been called into operation.

Eventually it was generally agreed that arbitration should be made voluntary, the clause referred to the Committee for further consideration, and the specific reference to this matter eliminated from the agreement of new members. With this understanding it was resolved:

That a Norwich Medical Practitioners' Association be formed,

and all present but one agreed to become members.

The proposed rules were then considered clause by clause, and with slight modifications approved. We quote those of most general interest:

II.—The objects of the Association shall be:

(*a*) To encourage cordial relations between medical men practising in Norwich.

(*b*) To consider any matters affecting the honour and interests of the medical profession, and to take combined action thereon when thought desirable.

(*c*) To act as the medium through which the Norwich medical practitioners may express their collective opinion on medical matters of public interest.

XVI.—No member of the Association shall [illegible] any course of action, which, with the prev[illegible] of the Association, he may take for the general [illegible]

XVIII.—If, in the opinion of a special meeting of the Association, of which fourteen days' notice has b[illegible] acted contrary to the laws of this A[illegible] pension or removal is brought [illegible] of the votes cast shall be n[illegible] is carried the president or [illegible] suspended for such period as the meeting decides, o[illegible] Association.

Form of Agreement to be signed by a Candidate for Membership.

I, the undersigned, if elected a member of the Norwich Medical Prac-

titioners' Association, in consideration thereof do promise and agree to conform to, and be bound by, the laws of this Association which are now in force, or which may be hereafter adopted

Name and qualifications

Date

The election of officers and Committee followed, Dr. Beverley being elected President, Dr. Fielding Vice-President, Mr. H. A. Ballance Honorary Secretary, and, as other members of the Committee, Dr. A. Crook, Messrs. Donald Day, Everitt, Morse, Cecil Muriel, Dr. Odhams, Mr. Haynes S. Robinson, and Dr. Watson.

The SECRETARY announced the names of certain gentlemen not present who had consented to join, among them Mr. Cadge.

The rules of the medical service were deferred for consideration till the following week, except that providing that the managing Committee of the service should include, in addition to the staff, three other members of the Association, elected by the Association.

Dr. ODHAMS thought this too large a proportion.

Mr. WHITAKER suggested that, if all rules of the service had to be approved by the Association, a smaller representation of the latter on the Committee of the service would suffice. In any case he thought the rules should be subject to such approval.

It was agreed that the representation should be by the President *ex officio* and one other member.

At the further meeting held to consider the proposed rules of the service, these were adopted, with slight modifications. We note among them:

II.—The Norwich Public Medical Service shall be a self-supporting society which will enable those persons within the city and suburbs of Norwich, who cannot pay for medical attendance at the usual charges, to secure for themselves and their families medical attendance, advice, and medicine during illness, with the advantage of a selection of their medical attendant.

III.—The acting medical staff shall consist of such members of the Norwich Medical Practitioners' Association as are willing to act in that capacity.

XI.—Any member of the acting medical staff, who shall have forfeited his membership of the Norwich Medical Practitioners' Association, shall forthwith cease to be a member of the staff of the Public Medical Service.

XII.—Each member of the committee shall sign an undertaking:

(*a*) That he will undertake in future no fresh contract practice, directly or indirectly, at a lower rate that that adopted by the Public Medical Service.

(It is expected that all members of the Norwich Medical Practitioners' Association, who hold contract appointments at a rate of payment lower than that of the Public Medical Service, will endeavour to raise such rate up to that adopted by the Service as soon as possible.)

(*b*) To accept no appointment in any medical aid or similar society, and to have no professional intercourse whatsoever with any medical man who associates himself with any of the companies known as medical aid societies or similar institutions, so long as the methods adopted by these societies include canvassing for members in the interests of individual practitioners, or the virtual sweating of their medical officers by the inadequate remuneration offered for the work done.

XVIII.—Owing to the difficulty in practice of adopting a hard-and-fast wage limit in the admission of members to the medical service, every doubtful case shall be left to the absolute discretion of the Subcommittee [illegible] own merits; but, as a general rule, families shall [illegible] ed incomes of the parents do not exceed 30s. a [illegible] for each individual between the ages of 14 [illegible] son shall be eligible if the income does not [illegible]

[illegible] wishes to change his medical attendant, one [illegible] given by the member verbally, or in writing to [illegible]

[illegible] be adopted and no existing law shall be [illegible] the annual meeting of the Norwich Medi- [illegible], or at a special meeting thereof called for [illegible] purpose. Not less than fourteen days' notice of the proposed [illegible] erations shall be sent to every member of the Association.

ATTEMPTED IMPOSITION BY THE POST OFFICE.

A CORN[illegible] writes complaining of a recent circular received [illegible] of the Post Office, pointing out that "the [illegible] of this Department was fixed at 3s. 6d. (when [illegible] Society was 4s. only), in order to cover the cost of expensive medicine and to preclude the necessity for the collection of extra charges on any pretext whatever."

*** It has always been usual for contract patients to bring bottles for medicines supplied. It may be true that 3s. 6d. a head is more than is paid by many Friendly Societies, but that amount, which works out at about 2d. a week, can scarcely be regarded as an extravagant rate of payment. In our opinion no medical practitioner should accept any club or Friendly Society at a lower rate of remuneration. Taking the cost of bottles as about one penny each, if the patients always required to be supplied with a fresh bottle whenever they attended at the surgeon's surgery, the Post Office medical officers would be possibly in a worse position than the medical officers to other societies, who although only paid at half the rate would not be required to find bottles.

CLUBS FOR WOMEN AND CHILDREN.

A MEMBER draws attention to the encroachments made by the Friendly Societies in the Worcester district on the rights of their medical officer. He say that the rate of pay has been reduced from 4s. 4d. per annum to 4s.: no mileage is allowed under three miles, whereas it used to be paid when the distance exceeded two miles; medical certificates of every kind have to be given without charge, instead of only those required by the lodge, as formerly; and the midwifery fee for members' wives has been arbitrarily fixed at half a guinea, instead of one guinea. The age limit for juveniles has been made 18, so that up to that age members only pay 3d. per quarter instead of 1s. In every other society or dispensary 14 is the extreme limit of age for children, so that the above limit has plainly been fixed for no other reason than to reduce the emoluments of the club doctor as much as possible.

*** Such a state of things is humiliating in the extreme to the medical profession. Surely our brethren in the Worcester district, by union among themselves, could do something to abolish it. The scant wisdom of accepting clubs for juveniles or women at even the same rate as that for clubs for adult men has frequently been pointed out in our columns. No doubt it often happens that adult lodges force their medical officers to accept juveniles by threatening to dismiss them if they refuse, but better far such loss than to submit to such derogatory conditions as those demanded by the Amalgamated Medical Friendly Societies Association.

J. H. writes that in consequence of raising the fees for Juvenile Oddfellows from 3s. to 4s., he has been dismissed from his post of surgeon to two lodges, in one case with two days', and the other with one day's notice. He wishes to know if he can claim anything in lieu of notice.

*** The office of surgeon to Oddfellow and Forester Lodges is usually only held during the pleasure of the court. In that case no notice is required on either side; the surgeon may resign his office at his pleasure, and the court may similarly dismiss him.

RETFORD, NOTTINGHAM.

The amalgamated clubs at Retford (Nottingham) are, we are informed, about to advertise for a medical officer. It would be advisable for any gentleman before entering into a contract with the above clubs, to communicate with any of the undersigned medical men, already in practice at Retford: Trevor J. Pritchard, M.B.; R. J. Tristan, L.R.C.P.Edin.; G. Thomson, M.B., C.M.; W. E. Cuthbertson, L.R.C.P.; C. Westbrook, M.D. St.And.; J. M. Thorne; P. E. Bearblock.

A VERDICT ON CHRISTIAN SCIENCE.

CERTAIN representatives of Christian Science made a memorable appearance before a jury in this country, but, as far as we are aware, the disciples of Mrs. Eddy are not yet familiar figures at inquests here. We cannot lay the flattering unction to our souls that we are more intelligent than our Transatlantic cousins; we are therefore inclined to believe that the Christian Scientists here are more wary than in the United States, where success has made them bold. As a rule the verdicts in the United States merely register the fact of death having occurred without proper medical attendance, with, perhaps, a word or two of condemnation of the credulity which leads people to neglect rational treatment and trust to the delusions of Eddyism. We think the following verdict, however, recently delivered by a coroner's jury in Wayne County, Michigan, worth placing on record. It was delivered in the case of a believer in Christian Science, who had died without medical attendance:

We find the deceased came to his death as a result of a complication of diseases, mostly acute in form and character, and that his end was untimely and most miserable, owing to his being denied the medical supervision and treatment which the common consensus of the best opinions of the most enlightened of mankind and the accumulated experience of all time has demonstrated to be necessary and imperative in the proper prevention of disease and death, and the humane amelioration of human suffering. We find inhuman treatment was accorded said deceased by a so-called sect of "Christian Scientists" in disregard of all basic and physiological laws.

There were, it is said, some peculiar features in the case, among them an internal abscess, of course undiagnosed, but the physicians who made the necropsy saw nothing that would have prevented recovery under proper medical or surgical treatment. "Absent" treatment by a Christian Scientist was sought for, but is said to have been ineffective because he could not read correctly the name as sent to him. That such a reason could seriously be assigned for the failure of the treatment is a curious commentary on such passages in the Gospel according to Eddy as the following: "The struggle for the recovery of invalids goes on, not between material methods, but between mortal minds and immortal Mind."

But if "immortal Mind," so far from being able to diagnose the disease, cannot even read the written name of the patient, people who trust thereto are too likely (to quote Lord Salisbury) to put their money on the wrong horse.

As we are on the subject, we append an example of the sort of appeal by which we suppose "immortal Mind" (when it knows the patient's name) is prevailed upon to work the miracle of curing a disease which, according to the teaching of Mrs. Eddy, does not exist. It reads like an inspired utterance, but it is said to have been drawn up by the President of the New York School of Primitive and Practical Christian Science. It is intended, we believe, for a case of cancer of the stomach, but would doubtless be equally appropriate *mutatis mutandis* for the treatment of any other affection. The healer sits by the bedside of the sufferer and repeats the following:

Holy Reality! We believe in Thee that Thou are everywhere present. We really believe it. Blessed Reality, we do not pretend to believe, think we believe, believe that we believe. We believe. Believing that Thou art everywhere present, we believe that Thou art in this patient's stomach, in every fibre, in every cell, in every atom, that Thou art the sole, only Reality of the stomach. Heavenly, Holy Reality, we will not try to be such hypocrites and infidels as every day of our lives to affirm our faith in Thee and then immediately begin to tell how sick we are, forgetting that Thou art everything and that Thou art not sick, and therefore that nothing in this universe was ever sick, is now sick, or can be sick.

We know, Father and Mother of us all, that there is no such thing as a really diseased stomach; that the disease is the Carnal Mortal Mind given over to the world, the Flesh, and the Devil; that the mortal mind is a twist, a distortion, a false attitude, the Harmatia of Thought. Shining and Glorious Verity, we recognize the great and splendid Fact that the moment we really believe the Truth, Disease ceases to trouble us; that the Truth is that there is no disease in either real Body or Mind; that in the Mind what seems to be a disease is False Belief, a Parasite, a hately Excrescence, and that what happens in the Body is the shadow of the Lie in the Soul.

Lord, help us to believe that All Evil is Utterly Unreal; that it is silly to be sick, absurd to be ailing, wicked to be wailing, atheism and denial of God to say, "I'm sick." Help us to stoutly affirm with our hand in your Hand, with our eyes fixed upon Thee, that we have no Dyspepsia, that we never had Dyspepsia, that we never will have Dyspepsia, that there is no such thing, that there never was any such thing, there never will be any such thing. Amen.

And this blasphemous drivel is the kind of thing by which the minds of persons, who in other directions have given proof of high intelligence, are led captive. How can we boast of the progress of knowledge when this silliest of superstitions is spreading in the very homes of "sweetness and light"?

THE PREVENTION OF CONSUMPTION.

National Association for the Prevention of Consumption.

The third annual general meeting of members of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was held on March 18th at 20, Hanover Square, London, the Earl of Derby, one of the Vice-Presidents of the Association, being in the chair. The annual report of the Council recounted the success which had attended the British Congress on Tuberculosis held in London last year and stated that the *Transactions* of the Congress would appear shortly. The services rendered to the Congress by Mr. Malcolm Morris, who acted as Honorary Secretary-General, received special mention and commendation. The report went on to recount how the branches of the Association continued to increase in number and activity, and how the movement was being considerably extended by the action of medical officers of health and various local and hospital authorities throughout the country. The Council had specially directed attention to the introduction of voluntary notification of phthisis. The expenditure had exceeded the income by £79 2s. 9d., and additional contributions would have to be sought. The membership of the Association, not including members of branches, now numbered 1,350. The report put on record an interesting legal opinion as to the legality of the Bath Town Council paying out of the general district rate towards the maintenance of a sanatorium at Winsley, near Bath, for the treatment of patients suffering from consumption, the Council having the right to nominate patients to two beds so long as it continued to pay the annual sum of £130. In the opinion of counsel, such a contract might lawfully be made. It was authorized by Section cxxxi of the Public Health Act, 1875, as being a contract with the executive committee of a hospital for the reception of a certain number of inhabitants of the district concerned.

Lord Derby, in moving the adoption of the report, pointed out that the Association had reached the stage when it would have to be contented with going on quietly in the path of progress, and emphasized the need for all who were interested in the Association making increased efforts to further its objects.

Sir William Church, who seconded Lord Derby's motion, insisted on the great importance of the notification of tuberculous disease. The most important part of the work of the Association was prevention, and every effort should be made to educate the public with regard to the prevention of tuberculosis.

Dr. E. Pratt described how the students' training at University College, Cardiff, to be ministers and school teachers were invited to interest themselves in the work of the Association.

He was followed by Colonel le Poer Trench, who detailed at great length the reasons that had induced him to retire from the Council of the Association. This had reference to Mr. Alabone, who according to Colonel Trench had had his name removed from the *Medical Register* because medical men were prejudiced against his particular treatment of tuberculosis.

Sir William Broadbent moved a vote of thanks to the Chairman, and dealt with the previous speaker's assertion by explaining to the meeting that Mr. Alabone had had his name removed from the *Register* for advertising.

Mr. Malcolm Morris seconded the motion, which was duly carried.

After a reply from Lord Derby acknowledging the vote the proceedings terminated.

The Royal National Hospital for Consumption, Ventnor.

In presiding over the annual general meeting of the governors of this hospital on March 13th, Lord Rosebery drew attention to the long time which accepted candidates for admission had to wait before they could be admitted. This was a serious matter for the consumptive who needed immediate treatment. It was proposed by the Committee to meet the difficulty by increasing the amount of the subscription which entitled the governor to a patient's letter of admission. In this way, without diminishing the resources of the hospital, the number of applicants for admission would be reduced. If, in addition, the accommodation could be increased, it would be of inestimable advantage, since the number of consumptives in the country was so large and the hospital accommodation for them so inadequate.

The National Hospital for Consumption for Ireland.

The annual meeting of the governors and supporters of the above hospital was held in the Royal College of Physicians of Ireland on March 14th. Mr. O'Brien Furlong, Chairman of the Board of Governors, presided. The annual report showed that the hospital had been opened in March, 1896, and that during the past year 200 patients had been treated thereat as compared with 163 in the 1900.

The Lord Lieutenant, who moved the adoption of the report, referred to the efforts made by Lady Zetland at the inception of the movement to erect the hospital, to the great interest taken in the prevention of consumption by the King, to the Tuberculosis Congress held in London during the past year, to the open-air treatment of consumption as being in accordance with common sense, and to the fact that additional accommodation had been provided at the Newcastle Hospital within a recent period.

Sir Christopher Nixon, President of the Royal College of Physicians, in seconding its adoption, spoke of the favourable results which the medical report showed of the good work accomplished by the hospital, of the services gratuitously rendered by Drs. O'Carroll, Coleman, and Parsons, and finally of a project to establish a large sanatorium in the northern suburbs of Dublin, of which the scheme would shortly be made public.

The report was unanimously adopted.

The Registrar-General for Ireland, in moving the election of governors, said the average death-rate in Ireland per 1,000 of the estimated population for all forms of tuberculosis during the ten years 1871-80 was 2.6, during the ten years 1881-90 it

was 2.7, during the nine years 1891-99 it amounted to 2.8, while in the year 1900 it was 2.9, so that notwithstanding all efforts at improved sanitation the disease in 1900 stood at its highest point. An examination of the relative rates for the urban and rural districts in 1900 showed that this mortality was not evenly distributed, and that whereas in the Registrars' districts containing towns with 10,000 or more inhabitants the rate was 4.6, in other parts of Ireland it was 2.2. Another sad aspect of this question was the social position of the unfortunate victims of this disease. From an examination of the deaths from phthisis in 1901 in the Dublin Registration Area, it was found that the total of 1,274 deaths from that disease was distributed as follows:—Professional or independent class, 18; middle class, 183; artisan class and petty shopkeepers, 289; general service class, 489; and inmates of workhouses, 295; so that the great majority of the persons who died in the Dublin Registration Area from phthisis last year belonged to the lower classes, who were altogether dependent on hospital accommodation for the alleviation or cure of the malady with which they had been afflicted.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending February 22nd the plague mortality in India was 14,946, compared with 12,675 during the previous week. In 1901 the deaths from plague during the corresponding week numbered 6,309.

In the city of Bombay 701 persons died of plague during the week ending February 22nd, against 568 during the previous week. In other parts of India the mortality from plague during the week ending February 22nd was as follows: Bombay Districts 4,373, against 3,830 during the previous week; Calcutta 176; Bengal 863, against 738; North-West Provinces and Oudh 1,351, against 1,506; Punjab 5,922, against 4,113; Kashmir (Jammu) 317, against 500; Madras Presidency 543, against 514; and in the Mysore State 507, against 611.

At Patiala Major Hendley, I.M.S., the Chief Medical Officer of Patiala, on February 22nd, in the course of his duty, visited a house where a woman had died of plague, and attempted to induce the other occupants of the dwelling to go into huts until such time as the place was disinfected. This the people refused to do, and they assaulted Major Hendley in the most brutal manner. It is stated that the people of the city had determined to sacrifice a doctor in order that the plague might cease, and Major Hendley was the unfortunate victim chosen. The injuries, although severe, are, we are glad to know, not dangerous to life.

EGYPT.

The Director-General, Sanitary Department, Egypt, states that during the week ending March 2nd 15 cases and 8 deaths from plague occurred throughout all Egypt. Of these, 7 cases and 3 deaths occurred at Tantah: 1 case at Abusir; 1 case at Kom-el-Nur; 1 at Mit-Ghamr; 4 cases and 4 death around Zifteh: 1 death at Mehallet-abu-Aly in the Gharbieh Province. The Director-General reports that he has experienced great difficulty in obtaining reliable information concerning suspected cases of plague in the Gharbieh district. It appears that in many native villages the barbers are the sources of information, and as their evidence is mere hearsay it is not likely to be reliable. During the week ending March 9th, 12 fresh cases of plague and 4 deaths from the disease occurred throughout all Egypt.

MAURITIUS.

During the week ending March 13th 10 cases of plague and 7 deaths from the disease occurred in Mauritius.

CAPE OF GOOD HOPE.

During the week ending February 22nd no fresh cases and no deaths from the disease occurred in Cape Colony. On February 22nd 2 cases of plague only remained under treatment. One of the cases was on the Cape Peninsula, and the other at Mossel Bay.

THE R. B. ANDERSON FUND.

LORD STAMFORD and his Committee beg to state that this fund is now closed, and to return their sincere thanks to the Editors and Proprietors of the BRITISH MEDICAL JOURNAL and the medical press generally for the valuable space which they have from time to time placed at their disposal.

They now take this last opportunity of thanking those who have so generously responded to the appeal. In all, the sum of £257 5s. 6d., has been sent out to Sir C. C. Knollys, K.C.M.G., Colonial Secretary of Trinidad, who has kindly consented, in conjunction with the Warden of Tobago, to dispose of this amount as far as possible for the permanent benefit of the late Mr. Anderson's widow and twin sons, and in due course to furnish an account of his expenditure for publication.

Mr. Timothy Holmes, Honorary Treasurer, has submitted the accounts of the fund to Mr. J. S. Cotman, Chartered Accountant, of Moorgate Station Chambers, E.C., who kindly certifies as follows:

I have agreed the totals of the lists of subscriptions which have appeared from time to time in the medical papers (and which totals are given below, and the total of the list which is given herewith) with the pass book, and have pleasure in certifying that the whole amount thereof—namely, £259 7s. 6d.—has been duly banked. I have seen the necessary vouchers for the two amounts which have been sent out to Trinidad—namely, £80 and £177 5s. 6d. The 2 guineas which have been deducted were duly authorised to be paid to the Honorary Secretary by a minute of the Committee, and do not, in my opinion, cover the actual out-of-pocket expenses which he must have incurred.

The following is the full and final list of subscribers, and makes up the total amount received as above certified:

	£ s. d.	£ s. d.
1. Total of list published July 31st, 1901	52 10 [illegible]	
2. " " October 30th, 1901	24 3 0	
3. " " February 26th, 1902... ...	78 13 6	
4. Total amount collected by Dr. Cox, representing the *General Practitioner*	88 13 6	
Total amount already published ...	244 0 0	
Deduct items which have been given in the above lists, and also included under Dr. Cox's list	2 3 0	
Net amount published		241 17 0
Further List:		
Dr. Frank, Elvaston Place	3 3 0	
Dr. Shelmerdine, Bexley Heath	0 10 6	
Dr. J. O. Brookhouse, Nottingham	0 10 [illegible]	
Anon	0 10 6	
Dr. L. Lewis	0 5 0	
Dr. G. B. Robatham, Monmouth	1 1 0	
Dr. H. Stear, Saffron Walden	1 1 [illegible]	
Dr. E. Elliott, Tunbridge Wells	1 1 0	
Dr. Cropley, Northampton	1 1 0	
Dr. Franklin G. Evans, Cardiff	1 1 0	
Dr. Q. Priestly, Halifax	1 1 0	
Dr. B. Baskett, Leeds	1 1 0	
Dr. C. H. Taylor, Derby	1 1 0	
Dr. H. L. Smith, Ballytrophy	1 1 [illegible]	
Dr. G. C. Franklin, Leicester	0 10 0	
Dr. T. C. Beatty, Clacton-on-Sea	0 10 0	
Dr. Emmett, Portsmouth	1 1 0	
Dr. J. Thomason, Bowes Park	1 1 0	
		17 10 6
Total amount received, as certified ...		£259 7 6

Since the preparation and auditing of the above accounts, the Honorary Secretary has received an additional sum of £1 from Dr. A. E. Prest Hughes, Straits Settlements, which has been duly dispatched to Trinidad with the above certified balance of £177 5s. 6d.

LITERARY NOTES.

THE library of the late Professor A. I. Kosheffnikoff, the distinguished neurologist and psychiatrist of Moscow, has, in accordance with the wish of the deceased, been given to the University of Moscow. The library contains several thousand volumes.

Mr. W. H. A. Jacobson, Surgeon to Guy's Hospital, and Mr. F. J. Steward, Assistant-Surgeon to Guy's Hospital, have just completed the revision of *The Operations of Surgery*. The book will, therefore, be published in April (by Messrs. J. and A. Churchill) and in two-volume form to render it easier to handle. It has been found necessary to add 172 pages. There are also to be 152 more illustrations. In all this fourth edition will contain 1,524 pages and 550 illustrations.

Messrs. Harrison and Sons, Pall Mall, S.W., will shortly reissue Banting's famous pamphlet under the title of *The Rational Cure for Corpulency*. The work has been revised and brought up to date with copious notes. Other prophets have arisen since his day, and the name of the undertaker of St. James's Street who, by following the advice of Mr. Harvey, an aurist of some note in the Sixties, succeeded in ridding himself of a cumbersome load of "too too solid flesh," has passed into the language. So great was the popularity of the booklet thirty-five or forty years ago that a diner-out was always asked by his hostess, "Do you bant?" and if he replied in the affirmative, he found that his needs had been provided for, while temptation had been removed from his path. The purpose of a book written by an undertaker on a subject connected with health might easily be misconstrued: but there was a frankness and a simplicity in the tone of the little tractate that showed that the author was inspired by pure philanthropy.

Modern investigators whose works fail to obtain recognition may take comfort from the example of Auenbrugger, the discoverer of auscultation. The Austrian physician's book, or rather pamphlet, containing the account of his new method of diagnosis fell, as David Hume says of one of his own early works, stillborn from the press. Auenbrugger knew the value of his discovery and possessed his soul in patience while his colleague, De Haen, wrote fifteen volumes without a word on percussion. Van Swieten did the discoverer no greater justice. In his huge history of medicine Sprengel merely mentions it as rather subtle. "Yet," says Dr. Weir Mitchell, "were the contents of this booklet of twenty-two pages more practically valuable to man than all these men wrote, or all the results of the vast and bloody campaigns during which it slept, until in 1808, one year before the grave, contented German died at 87, Corvisart translated it into French, and proclaimed its undying value to a waiting world."

In the book entitled *Some Unpublished Letters of Horace Walpole* edited by Sir Spencer Walpole recently issued by Messrs. Longmans Green and Co., there is frequent mention of James's powder, which was the fashionable remedy of the day. It may be remembered that Oliver Goldsmith in his last illness persisted in taking it despite the advice of his physicians. Horace Walpole urged its use for his friend Madame du Deffand with such persistency that one might almost suppose he had some interest in pushing its sale. On hearing of the lady's illness he writes:

> Would it be impossible to give "James's Powder?" if it were but 5 or 6 gr.....I would give the universe to have her try it. I earnestly beg you to recommend it.

Again he writes:

> Yet I should hope, if she had taken "James's Powder," tho' I did not express it so much as I wished to do, because I am at a distance and cannot be a perfect judge.

"How I abhor all professions!" he declares, on learning that the doctor has refused to prescribe the powder; and then, as if in despair, he exclaims, "Oh, if it were not too late to give her 'James's powder!'" J. A. Paris in his *Pharmacologia* says that the celebrated fever powder of Dr. James was evidently not his original composition, but an Italian nostrum invented by a person of the name of Lisle, a receipt for the preparation of which is to be found at length in *Colborne's Complete English Dispensatory for the year 1756*. In the last edition of the *Pharmacologia* (1843) there is the following footnote:

> Some years since I received a very interesting letter from Dr. Halliday, of Moscow, in which he thus comments upon the above passage: "You attribute the invention of James's powder to one Lisle, which was not the fact; as the original author was the father of a very old friend of mine, Mr. M'Intosh, perhaps you may think it worth while to correct the mistake in a future edition. The above inventor was a German apothecary and chemist of the name of Schwanberg, with whom Dr. James was associated, and who, on obtaining the patent, vended a medicine which did not accord with the specification. Mr. M'Intosh, who was in the habit of preparing medicine for the supply of Moscow, assured me that the formula given in the *London Pharmacopœia* for the pulvis antimonialis was something like the original receipt, but differed from it in certain particulars, which he was bound by an oath not to disclose."

In an address on the Art of Healing and the Science of Medicine delivered on the occasion of the laying of the corner stone of the New Medical Building of the University of Michigan, Ann Arbor, and published in the *Montreal Medical Journal* for January, Professor Adami suggests an interesting comparison between the status of the medical profession in the eighteenth and earlier centuries with its status now at the beginning of the twentieth. One need, he says, but study seventeenth and eighteenth century literature to discover that in those days the typical physician was not delineated in a manner that is pleasing. In that literature he is depicted as pompous, formal and insincere, accustomed to hide his ignorance of the nature of disease in a cloud of high-sounding words; accustomed to veil his ignorance of the cure of disease by inflicting on the patient medicines compounded from an appalling number of drugs on the off-chance that on or other of the many might prove efficacious. Rarely is he depicted as a disinterested seeker after truth, the friend and counsellor of the family, the man ready to sacrifice time and himself in order to aid in effecting a cure. And yet all this time the art of healing was especially studied, and manner was regarded as the essential for success. If, adds Professor Adami, our status and the popular estimation have risen during the last century it is not because we have improved in these matters. On the contrary, he thinks we have deteriorated. It is, he says, "because we have developed the science of medicine, because now-a-days we are not or would not be empirics; it is because all through this last century we have striven to an extent never before known to comprehend disease, to seek out its cause, to understand the meaning of symptoms, to develop a system of rational therapeutics, so that now over and above profound acquaintance with the art of healing, what leads to the production of the ideal physician is a knowledge of the science of medicine."

THE EPIDEMIC OF SMALL-POX.

London.

The epidemic of small-pox in London shows no distinct signs of abatement, although there has not been recently any great increase in the number of cases notified from week to week. The following table shows for the four weeks ending March 15th the number of cases of small-pox admitted to the hospitals of the Metropolitan Asylums Board, and the number under treatment on the last day of each week:

Week Ending	Admissions.	Under Treatment.
February 22nd	477	1,321
March 1st	532	1,309
March 8th	554	1,509
March 15th	450	1,542

Essex.

In Essex the number of cases notified has shown a considerable increase; the total number notified, which for the week ending March 1st had been 48, rose in the following week to 57, and in the week ending March 15th to 73. The cases in the Orsett area have decreased, whilst there has been a considerable increase in East Ham.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 16th day of April, at 2 o'clock in the afternoon.

March, 1902. Francis Fowke, *General Secretary*.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

Meetings of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 26th, June 18th, and October 1st.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be

elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at the Council Chamber, Town Hall, Dover, on March 27th, at 3 p.m., Dr. Robinson in the chair. Agenda—Dr. Halstead: Peripheral Neuritis: and an Imperfectly-recognized Cause of the Disease. Dr. Tyson: Broad Lines of Treatment. Dr. Howden: Varicella or Variola? The Chairman kindly invites members to luncheon at the Grand Hotel at 2 p.m. Gentlemen intending to avail themselves of Dr. Robinson's hospitality are requested to send acceptances, to be received not later than Tuesday, the 25th, or they will not be expected. All members of the South-Eastern Branch are entitled to attend these meetings and to introduce professional friends.—THOS. F. RAVEN, Barfield House, Broadstairs, Honorary District Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of the above District will be held at Rochester on Tuesday, April 15th. Dr. E. C. Warren will preside. Members intending to read papers, etc., or to bring any communication before the meeting are requested to give early notice to the Honorary Secretary, LUDFORD COOPER, 10, Victoria Street, Rochester.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.—A general meeting of this Branch will be held in the Royal Hotel, Stirling, on Thursday, March 27th, at 3.15 p.m. Dr. Milne Murray will be present and read a paper on Some Debateable Matters in Obstetric Practice.—J. E. MOORHOUSE, M.D., Stirling, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held on Tuesday, April 8th, at 3.30 p.m., at the Taunton and Somerset Hospital, under the presidency of Mr. J. P. Johnstone. After the usual business Mr. David Brown will read a short paper on Some Results of the Open-air Treatment of Consumption, and will show cases which have been so treated. It is hoped that other members will bring forward cases of interest, especially such as are of a tuberculous nature, in order to make the meeting of clinical interest. Notice of intention to take part in the meeting should be sent to the Honorary Secretary before April 2nd. Tea will be provided during the meeting through the kindness of the hospital staff.—W. B. WINCKWORTH, Taunton, Honorary Secretary and Treasurer.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at Lockerbie on Friday, April 4th. Members intending to read papers, etc., and gentlemen desirous of joining the Branch, are requested to communicate as early as possible with W. F. FARQUHARSON, M.D., Garlands, Carlisle, Honorary Secretary.

SPECIAL CORRESPONDENCE.

EGYPT.

Enteric Fever.—The Plague.—Malaria.—The Barrage.

THE question of enteric in Egypt is undoubtedly of great importance, since it cannot be denied that the disease attacks a considerable number of visitors every season. Not all of those who suffer contract it in the country; many can be shown to have acquired the infection at stopping places on the way out, particularly in Italy. But after making every allowance for this there is unquestionably more typhoid among tourists in Egypt than among people of the same station at home. It is, moreover, comparatively common among European residents; one is inclined to believe that of those who have lived in the country for any length of time, more have had typhoid than not. Among the natives, on the other hand, it appears to be rare; Dr. Sandwith has rarely more than one case each winter in his wards at the Kasr-el-Aini Hospital. To discuss the problems raised by these facts would lead too far, for the question is one of great difficulty; it may, however, be safely said that domestic carelessness in respect of the purity of milk and water entails more risk of enteric in Egypt than in England. And it is only natural that this risk should be greater in the huge city of Cairo than in the health resorts of Upper Egypt. Personal observation tends to make the writer believe that in the season now drawing to a close there has been rather more enteric than usual in Egypt, but no statistics bearing on this view are available.

At no time during the winter of 1901-2 has Egypt been free from bubonic plague, the continuance of which is fostered by the ignorance and secretiveness of the natives. A sufferer from the disease is at once hidden and if he dies his body is removed to another quarter of the town before discovery is allowed. The headquarters, so to speak, of the malady seem to be at Tantah, a town in the Delta long distinguished by the bigotry and fanaticism of its inhabitants. The most strenuous sanitary and detective measures have thus far failed to eradicate it and there is every reason to fear its increase during the coming summer. Still this is fortunately not a matter which intimately affects the tourist. He might, indeed, expose himself to infection as, for instance, by repeated and prolonged visits to the native quarters of Alexandria, but there does not appear to be a present likelihood of his contracting plague in any of his accustomed haunts. The most unpleasant way in which it affects him just now is by imposing quarantine upon him if he desires to visit other Eastern countries after leaving Egypt, which is indeed generally a far easier place to get to than to escape from. The Sanitary Board and its officers are most alert in the detection and segregation of plague cases, and any extension of the disease to the European population is considered to be improbable.

Malaria is endemic in certain districts of Egypt, but the tourist runs in ordinary circumstances virtually no risk of infection. It is, of course, chiefly prevalent in the summer and affects regions unvisited by most sightseers. The chief homes of malaria in Egypt are three: Alexandria and its environs, the coast of the Red Sea—especially in the neighbourhood of Suez—and the Fayoum. The malady is also constantly present in many of the cases, and is a source of some danger to those who go on shooting expeditions to them. It is, however, to all intents and purposes, absent, during the tourist season at any rate, from Cairo and the Nile valley. In these parts the writer has never recognized any of the malariferous mosquitos; he finds, however, that travellers on the Nile who have previously suffered from malaria are extremely liable to recrudescences as the result of chills. Among English residents in Alexandria the disease is very common, and it is interesting to observe that many of them go to Helouan to recruit, for Professor Koch has committed himself to the statement that this health resort, which he has not visited, is a nest of endemic malaria. Where the tourist runs most risk in this respect is in the Fayoum, which many visit for the sake either of sport or of its interesting memorials. The margins of the drying-up lakes—relics of the famous Lake Moeris of the ancients—are infested with malaria, and no traveller in this district should neglect to take precautions against it.

The Assouan Barrage, to which that at Assiout is subsidiary, has two chief claims upon the interest of medical men. These are, first, the means which have been adopted to safeguard the health of the colony, numbering in the unhealthiest season of the year 12,000, employed in carrying out this stupendous undertaking. In this matter the enlightened generosity of Messrs. Aird has been amply justified by the skill and forethought of their medical officers, particularly Dr. A. T. White, now Government Medical Inspector for the Assiout District. There is an admirably-fitted hospital, with separate pavilions for different races, for the workers include Englishmen, Italians, Arabs, and, indeed, many other species. The dispensary and out-patient department are excellently fitted, and the arrangements for operating could in the circumstances hardly be bettered. The precautions adopted by Dr. White against insolation deserve special mention. Dotted over the whole area of the works are tents distinguished by flags with the Geneva Cross. Each of these is in telephonic communication with the doctor's house, and contains a bath and an icebox. Any workman overcome by the heat is at once removed to a tent, the medical officer is rung up, and arrives on his trolley within a few minutes to find the patient already under treatment. No less efficient are the arrangements for the isolation of infectious cases; it is pleasant to be able to read that all this care has maintained the health of the heterogeneous population at a pitch which could hardly have been expected, considering that it has to endure a temperature reading 122° in the shade during high Nile. The other point of interest connected with the barrage touches upon the future. Those concerned with the problem are anxiously speculating as to the effects of the great dam upon the climate of Egypt. When it is completed it will cause the formation of a huge lake stretching nearly 150 miles south from the First Cataract. It is seriously feared that the presence of this sheet of water may do away with

that rainlessness, almost absolute at Assouan, which is one of the chief attractions of Upper Egypt. Already the weather seems to be altering, though this may be a fortuitous coincidence; as a matter of fact, however, in each of the last two winters heavy rains have washed away the railway between Luxor and Assouan. There will, moreover, be an increased amount of land under cultivation, and this must in all probability be a further factor to be reckoned with from the climatic point of view. A final matter of great interest to the tourist will be the effect upon the conditions of navigation. One result of the barrage will be the diversion of part of the Nile stream into irrigation canals. It is feared that the channels, already difficult enough in March, may then become impassable to the larger steamers. This applies in particular to the reach between Cairo and Assiout, and it seems quite possible that the increased commercial prosperity of the country is to be associated with a diminution in the stream of visitors to Upper Egypt. This may in the long run be a healthier condition for the nation; but it will press hard upon those who are interested in the country as a health resort, whether as patients or practitioners, and in particular upon the great firm which has made a visit to the shrines of the Pharaohs an easy and comfortable holiday trip.

HONG KONG.

Communicable Diseases in the Colony.—Plague Precautions.

Only 1 case of bubonic plague has been notified this year up to date of writing—February 15th. This case occurred in the western part of the city. During a similar period 9 cases were reported in 1901, 12 cases in 1900, 1 case in 1899, and 16 in 1898. There has been 1 case of small-pox, 5 cases of enteric fever, and 4 cases of diphtheria. Diphtheria is exceedingly rare in the colony, and no doubt the serious scarcity of water and the consequent insufficient flushing of the drains has much to do with the incidence of this disease.

A valuable memorandum has been issued by Dr. Clark, M.O.H., in English and Chinese for distribution to householders, explaining shortly the nature of bubonic plague, and how every one may help to prevent the dissemination of the disease. The coolies of the sanitary staff and of one of the hospitals have been inoculated with Haffkine's prophylactic. The reaction has been quite decided in all the cases, but no untoward symptoms have occurred.

EDINBURGH.

The Royal Infirmary.

It is greatly to be deplored that there should again exist a state of friction between the managers of the Edinburgh Royal Infirmary and the resident physicians and surgeons. Some time ago the residents sent a memorial asking that during their tenure of office they should have their laundry work done by or at the cost of the institution. They pointed out that the resident physicians and surgeons in the Royal and Western Infirmaries of Glasgow, the Aberdeen Royal Infirmary, the Royal Edinburgh Hospital for Sick Children, in many hospitals in London and in the provinces, had free laundry. It had been ascertained that the Edinburgh Royal Infirmary is almost the only large general hospital in the United Kingdom in which such a privilege was not granted, or an allowance made to cover the expense. After a delay of something like six weeks, during which it was understood the matter was under the consideration of the House Committee, the memorial was curtly, if not brusquely, refused by the managers without any reason being given. This mode of action is scarcely what might be expected in a great charitable institution, which is also the wealthiest hospital corporation in the kingdom.

There are a number of non-resident medical officers on both the medical and surgical sides of the hospital. On certain days of the week—on the waiting day, for example—these gentlemen have to be in attendance at the hospital during the whole or a very large part of the day. It was a very natural and reasonable thing to ask that on the days when they were compelled to be on duty they should be provided with luncheon in the residency. The managers of the infirmary, however, thought otherwise, and in the plenitude of their wisdom decreed—again without explanation—that the junior house-surgeons, the medical officer of the convalescent house, and the ophthalmic house-surgeons might have luncheon, but not the junior house-physicians; yet some of these junior house-physicians have to work from 10 a.m. till 4 or 5 p.m., or even later, if the professor or ordinary physician in charge of the ward has set aside work to be done. What determined such action by the managers it is impossible to say. On the face of it the action seems unintelligible and unintelligent.

One other instance of the tactless action of the managers towards the residents may be mentioned. The dining room in the residency is locked at midnight. If a resident is up all night or a greater part of the night, as is frequently the case, he cannot make himself a cup of hot tea or coffee, or warm a glass of milk. True, a glass of cold milk and two small biscuits are placed in his sitting-room at 9 p.m. and removed at 6 a.m. next day. But, surely, it will be said, if a resident has been detained during the night with serious illness in the ward under his care, one of the night nurses would provide him with a cup of beef-tea, bovril, bouillon, tea or coffee. They are, however, strictly forbidden to do anything of the kind. The resident may be faint with hunger and fatigue, but no night nurse dare move a finger to help him. If a physician, a surgeon, an assistant-physician, or any assistant-surgeon has to be summoned by the resident during the night the night nurses may then provide any refreshment which is asked for, and the resident may then be asked by his chief to join.

All this is shortsighted, and already there are not wanting signs that it will have an injurious effect on the hospital and the Edinburgh Medical School. Already some of the best graduates seek hospital appointments elsewhere. Already one has heard of legacies diverted to other charities rather than the infirmary. It is to be hoped that the managers will realize, before it is too late, that they are pursuing a course of action which will inflict serious injury on an institution with great and noble traditions, of which they happen for the time to be the governors. There is no excuse for treating the residents otherwise than as honourable gentlemen doing their utmost to maintain the reputation of the institution. Nothing but harm can accrue from treating them as overgrown school boys or raw recruits. With all deference to some of those in power, the Edinburgh Royal Infirmary is not a military academy nor an army barracks.

BRISTOL.

Royal Hospital for Children and Women.—The General Hospital.—Cottage Homes.

The annual meeting of the Royal Hospital for Sick Children and Women was held on March 7th, the Lord Mayor presiding. The first item of news was that the King and Queen had consented to become Patrons, and the Prince and Princess of Wales Vice-Presidents; the second was that the accumulated debt had during the year been wiped off. This was done by the very successful bazaar held in May, which yielded £3,085, but the increased expenditure with an inadequate income resulted in an adverse balance at the end of the year of £855 less £787, the balance left from the bazaar after paying off old debts. Legacies amounting to nearly £2,000 had been left during the year, which the report stated would justify the Committee in building a new diphtheria ward, though as a matter of fact nothing is going to be done. Owing to several outbreaks of diphtheria in the wards the number of in-patients is less than in the previous year, but in the out-patient department the numbers remained about the same.

The half-yearly meeting of the Governors of the General Hospital was held on March 10th. The report showed that 31,632 patients had been treated during the year, 2,100 being in-patients—an increase of 10—and 29,532 out-patients, 199 more than the previous year. Several changes have been made in the staff and in the nursing department. Both the number of subscribers and the amounts given had fallen off, though the total receipts were higher. During the past year Sir W. H. Wills presented the institution with a Finsen light for the treatment of lupus, and Dr. Harrison, who has charge

of it, expresses himself satisfied with the results so far. The Committee, in appealing for more funds, assure the public that there is little abuse of the institution by those in a position to pay for medical advice.

The Bristol Guardians are about to build some cottage homes for children in the outskirts of the city. There will be fourteen homes erected, each to hold 12 children and a matron, as well as a convalescent home to hold 36. A central hall will be used for school purposes and recreation.

SOUTH WALES.

Proposed By-law against Spitting.—University College, Cardiff, and the Prevention of Tuberculosis.—Isolation Hospital for Rhondda.

SINCE the formation of the South Wales Branch of the National Association for the Prevention of Tuberculosis, steps have been taken to carry out some of the recognized means of prevention. Thus, in Cardiff the Health Committee has recently issued a public notice requesting the public to refrain from street spitting; while at the meeting of the Glamorgan County Council on March 13th, a stringent by-law was introduced and adopted subject to the approval of the Secretary of State. The by-law as adopted states:

A person shall not spit on the floor of any public carriage, or of any church, chapel, public hall, washing room, schoolroom, theatre, or shop, whether admission thereto be obtained by payment or not. Any person offending against this by-law shall be liable to a fine not exceeding £5.

This appears to be stringent enough to satisfy the most exacting, but as to how far it is a practical and workable measure remains to be seen. It must, however, at the least do good by directing attention to the disgusting habit of spitting, and the dangers which may arise from it.

An important development in South Wales in the campaign against tuberculosis, and one of probably far-reaching significance is the formation of a local branch of the South Wales Branch in University College, Cardiff. The College turns out annually about 200 ministers and teachers, apart from other students, and it was felt by those interested in the College and the prevention of tuberculosis that such a promising and valuable field for the dissemination of information about this disease should be cultivated. After several preliminary meetings a meeting of all College students interested was held in the College on March 15th. At this meeting the formation of a definite sub-branch was unanimously ratified, and then the large audience listened to an address on the subject from Dr. Isambard Owen who attended as a delegate from the parent Association. Dr. Owen traced the scientific basis of the preventive treatment of tuberculosis and explained in details the exact experimental and other grounds on which the present views as to its causation were based. The meeting was an entire success and it was evident from the speeches made and the way the students took the matter up that practical work would be done. Already the provisional committee formed has done good work by pointing out to the proper authorities the insufficient ventilation of the library and many of the class rooms. The object of the movement in the College, however, is essentially to instruct the students and interest them in the subject so that they may act in future years in their several spheres of influence as centres of instruction for the necessary precautions to be taken against the scourge of tuberculosis.

Previously served by only a small isolation hospital of 8 beds the large and important Rhondda district was very inadequately fitted to cope with infectious disease. This is now remedied and the Rhondda Urban Council's new isolation hospital was formally opened on March 13th by Colonel Carne Curre in the presence of a large number of guests. The building is placed on an elevated site, but partially surrounded by still higher hills in a central position in the area served, which has an estimated population of 117,000. The hospital has accommodation for 32 patients, but could hold more in time of necessity. It is composed of seven blocks of buildings including the administrative, laundry and disinfecting and mortuary blocks.

Arrangements are made so that extensions of the hospital can be provided as required. The building and its fittings are complete and excellent in every way. The floors are for the most part of mosaic, and ledges and other dust catching areas have been as far as possible avoided.

A noteworthy and excellent feature is the arrangement of the single bed wards attached to each ward which are entered from a door in the short passage leading to them from the principal ward.

Minor features such as the prolongation of the lower sash to make all the windows into practical Hinks-Bird ventilators, improved window fasteners and the windows in the nurses' and observation room between the wards not being exactly opposite, have all been attended to.

The cost of the building is £13,385—the land cost £800, the building £11,255, and furniture and fittings £1,780. The money was not borrowed but paid for out of the current rates.

CORRESPONDENCE.

STATE VACCINATION BY PRIVATE PRACTITIONERS.

SIR,—I am requested by the Council of this Branch to send to you a copy of a resolution adopted at the last Council meeting as follows:

> "That, in the opinion of this Council, seeing that vaccination is made compulsory, in the interests of public health, the parent or guardian of a child should have the right to select any registered medical practitioner, who is willing to do so, to perform the vaccination, and that the cost of the same should be defrayed by the State at a fixed rate, provided always that the work so done shall reach the standard aimed at by the Local Government Board in the case of public vaccinators and that no work falling short of this standard should be accepted for the purpose of public remuneration."

—I am, etc.,

T. ARTHUR HELME,
Honorary Secretary, Lancashire and Cheshire Branch of the British Medical Association.

3, St. Peter's Square, Manchester.

VACCINATED OR UNVACCINATED.

SIR,—Antivaccinators are very fond of saying that our official statistics are not reliable. Let us look at a few facts. Each week there appears in the *Weekly Return* of the Registrar-General a paragraph of which the following, taken from the *Return* for the week ending March 8th, is a sample, vide page 150: "Among the cases classed as 'vaccinated' are those of five children aged respectively 3 months, 4 months, 3 years, 3 years, and 12 years, who had not been vaccinated until after infection by small-pox." By this I understand that the five children had had vaccine lymph introduced into their systems, but I do not understand that they had been vaccinated in the sense in which a child has to be vaccinated before a fee is payable to the public vaccinator for his services. On page 155 it will be seen that there were twenty-two children under 20 years of age who died of small-pox unvaccinated, and that the five children named above were the only other children under 20 years of age who died of small-pox after what is here styled vaccination: therefore, according to our statistics for last week, 18.5 per cent. of the deaths of children under 20 years who died of small-pox were vaccinated. Can anything be more misleading? If this is vaccination, then one might say with equal truth that a man has had a good dinner when he has only glanced through the kitchen window and seen the cook cooking the potatoes.—I am, etc.,

ROBERT MUSGRAVE CRAVEN,
Medical Officer of Health.

Kendal, March 19th.

THE WORSHIPFUL COMPANY OF SPECTACLE MAKERS.

SIR, Sir W. Hart Dyke's letter in the BRITISH MEDICAL JOURNAL of March 15th does not meet the case. He says the company "do not examine in sight testing." This is evading the question, as the greater part of the examination deals with visual optics and spectacle fitting, and the company's official instructor is a gentleman who teaches visual optics only. His printed circulars and advertisements are issued by the company with the particulars and syllabus of the examinations, and in one of these circulars he undertakes for a

substantial fee to coach anyone for the examination, partly by correspondence and partly by personal tuition, at a class held in London during the two weeks immediately preceding the examination. In fact, the Worshipful Company provides the examination for a substantial fee, and thoughtfully circulates the advertisements of its official instructor, who will for another substantial fee endeavour to cram sufficient information into the competitor to pass, and also thoughtfully provides that if the candidate cannot pass it all at once, he can do so by instalments at successive examinations.

I am not raising the question as to whether opticians should or should not test the sight, but I do say that the intention of the original optical committee of the Worshipful Company is not being carried out, that the present methods are calculated to do serious harm, though the examination is no proof of anything beyond the fact that the holder of the diploma possesses a certain amount of optical knowledge the diplomas are being used for the purpose of inducing the public to believe that they have been granted for proficiency in knowledge particularly connected with the fitting and adapting of spectacles to correct defective eyesight, and are used for advertising purposes to draw trade in the shape of the sale of spectacles: this is shown by the fact some of the holders attach the letters F.S.M.C. to their names in their business advertisements, presumably to imply a professional qualification, and also advertise themselves as "qualified by examination," etc. Many of these men have scarcely any knowledge of the trade whatever and do not profess even to understand anything but spectacles.

To prevent mistake, I may mention that I and eight of my assistants have passed this examination, but carefully refrain from making any public use of the fact.—I am, etc.,

JAMES AITCHISON,
Citizen and Spectacle Maker. Member of the Original Optical Committee of the Worshipful Company of Spectacle Makers.

SIR,—The letter from Sir W. Hart Dyke in the BRITISH MEDICAL JOURNAL of March 15th does not appear to me to mean very much. He states "emphatically" that the candidates are not examined in sight testing, and then says that they "may carry on the general business of an optician in the ordinary way," and there is nothing in the agreement signed by the candidates to prevent them testing refraction and calling it testing sight.

The "ordinary way" which Sir W. Hart Dyke points to his disciples to follow is a very broad way—the way of advertisements more or less misleading to the public, and more or less unfair to fellow-craftsmen. Here are some examples of it from a pamphlet in my possession:

When the vision begins to fail, a competent oculist or optician should be consulted. We offer to examine and test sight in a thorough and scientific manner entirely free of charge. By quack spectacle vendors we mean those, etc.

Now all this is quite ordinary, particularly the well-known formula that the sight is to be tested (in italics) *entirely free of charge*. The public are misled; they do not know the wholesale price of spectacles, and they are unaware that the price they often pay for them amounts to a large fee for "testing the sight," in addition to a handsome profit on the glasses. It would be interesting to know whether the Spectacle Makers' Company approves of this ordinary way, and how many hundred per cent. profit they think it right to take in one hand while with the other they test the sight entirely free of charge.—I am, etc.,

Southampton, March 17th. J. F. BULLAR, F.R.C.S.Eng.

THE NEW DESIGNATION FOR THE VOLUNTEER MEDICAL STAFF CORPS.

SIR,—At a meeting of the Liverpool and District Volunteer Medical Staff, held to-day, attention was directed to the suggestion of Brigade-Surgeon-Lieutenant-Colonel P. B. Giles in his letter published in the BRITISH MEDICAL JOURNAL of March 1st, that regimental medical officers should, on being gazetted, become officers of the R.A.M.C.V., and wear departmental uniforms. Bearing upon the latter point the following resolution was unanimously adopted:

That in the opinion of this meeting it is considered desirable that the regimental uniforms shall be worn as heretofore, and that any scheme involving a change from regimental to departmental uniforms, so far as medical officers are concerned, would be detrimental both to the interests of the officers themselves and to the regiments to which they belong.

It was further resolved that a copy of this resolution should be sent to your valued JOURNAL.—I am, etc.,

THOMAS STEVENSON, M.B.,
Hon. Secretary and Treasurer, Surgeon-Captain 2nd Lancashire Royal Garrison Artillery Volunteers.
Liverpool, March 18th.

THE ROYAL SEA-BATHING HOSPITAL, MARGATE.

SIR,—The annotation in the BRITISH MEDICAL JOURNAL of February 22nd in reference to the type of cases admitted to this hospital has required consideration in the interests of the institution. It seems clear that it was not your intention to criticize the hospital as regards its special adaptability for the treatment of early surgical tuberculosis. Your strictures specially referred to the type of cases admitted, to the downward limitation of age to 6 years, and to the apparent limitation of the time allowed for a patient to remain in the hospital.

It may be explained that there is no limitation to the period a patient may remain in the hospital except the discretion of the surgeon in charge and the weekly payment of 5s. or 6s. by the patient. It would be a boon if this payment could be abolished. It is difficult to question the justness of your criticisms on the other points.

The hospital is doubtless now suffering from the policy that has existed for the greater part of a century of practically admitting applicants in all stages of disease. Of late years, however, there has been some attempt at improvement in this respect. It is, however, abundantly evident that much misconception prevails among the profession and the public as to the function the hospital is intended to perform—namely, the cure or material alleviation of tuberculous and allied diseases, and not the mere maintenance of hopelessly incurable cases and convalescents. The surgeons have frequently to protest against medical men sending in cases of this sort in spite of the instructions on the letters of admission.

Owing to the fact that unbenefitable cases are now more promptly sent out there has latterly been much less pressure on the beds, and in time, with the assistance of the profession, we hope to get a much larger proportion of early cases and young children, and by the exclusion of advanced cases of disease the beds will be less blocked and there will be no delay in the admission of appropriate cases.

My colleagues associate themselves with these views.—I am, etc.,

BERTRAM THORNTON,
Margate, March 12th. Surgeon to the Royal Sea-Bathing Hospital.

CANCER AMONG JEWS.

SIR,—It appears to me that the author of the instructive communication on this subject which appears in the BRITISH MEDICAL JOURNAL of March 15th, and with the general tenour of which I agree, has nevertheless failed to find the fallacy which he believes underlies his statistics.

The correction of crude data for diversities in age and sex distribution, etc., is of course, an important matter: but I think it hardly likely that corrections of this kind will account for such considerable disparities as his data show.

The really important part of the fallacy underlying your correspondent's statistics seems to me consist in this, that like things are compared with unlike things. The great bulk of the Jewish population of London is an East-end population, living under conditions of stress and hardship; whereas the average Londoner is a comparatively prosperous and well-to-do being. To get a correct idea of the relative incidence of the disease among Jews and Gentiles, only populations that are, roughly speaking, similarly conditioned should be compared. We see the necessity for this in the fact that the cancer mortality of West London is at least double that of the East-end; and in the poorest parts of all our great towns the cancer mortality is always very much below the average. As a general rule, I think it will be found that the Jewish cancer mortality has nothing whatever to do with the race or with racial customs, but that it varies according to the conditions of existence in different localities and countries. The cancer mortality of well-to-do Jewish people living in the

West of London—under conditions of life similar to those of ordinary well-to-do Britishers—will no doubt be double that of their compatriots in the East-end, living under conditions more akin to those experienced by the poorest part of our population.

I am confirmed in this belief by the fact that the late Sir B. W. Richardson—who had considerable experience among the wealthy Jews of West London—found that they were just as prone to cancer as other well-to-do people of this part of the metropolis.

Moreover, the cancer mortality of Jews varies much in different countries, according to the conditions of existence there prevailing. For instance, in the United States their cancer mortality—like that of the American people in general—is comparatively low, much lower, for instance, than it is in prosperous European countries like France, England, etc. Billings's statistical reports show that in the United States the Jewish cancer death-rate is almost the same as that for the rest of the white population. He gives the cancer mortality per 1,000 deaths for Jews and Gentiles as follows:

	Jews.	Other U.S. Whites.
Males	13.58	13.09
Females	21.65	23.59

I think it cannot be too strongly insisted upon, that the conditions of existence really determine the incidence of cancer mortality. I have been trying to convince the profession of this for a long time, and in my essay on the Pathology of Cancer in vol. xvii, *Twentieth Century Practice of Medicine*, I have adduced evidence that should convince any really open-minded person; but at the present time the profession is so smitten with "microbic fever" that it will pay attention to nothing else.—I am, etc.,

Clifton, Bristol, March 15th. W. ROGER WILLIAMS.

THE RECONSTITUTION OF THE ASSOCIATION.

SIR,—I think a fair number of members agree that the quorum of twenty-five members entitled to form a lawful meeting of the Association is too small. But if Dr. Bradshaw's proposal of 200 members were adopted, then I fear that the Council would find it very difficult to keep a "house" of 200 members, and so the annual business could not be put through, or a "count out" might be carried.

As to adopting a delegate system, a fair proportion of members are opposed to it; but on condition that the Association be divided into electoral divisions, and voting for election of the Central Council be by voting papers sent through the post only. This proposal I put before members in the BRITISH MEDICAL JOURNAL some months ago.—I am, etc.,

Liverpool, March 16th. ROBERT R. RENTOUL.

THE AGE OF TINNED FOODS.

SIR,—I think that some step should be taken to enable purchasers to know the age of tinned food, and this might be done by compelling manufacturers to stamp their tins with the date on which the food is prepared.

I mentioned this to the medical men (representing nearly every part of the empire) who are now attending this school, and the idea met with such favour that I think some such measure is really needed. It would, I should think, be to the advantage of the makers as it would prevent the merchants keeping old stock or selling it to native hucksters to be retailed to Europeans in out-of-the-way places. I am, etc.,

H. E. MANN,
Medical Officer, East Africa Protectorate.
London School of Tropical Medicine,
Royal Albert Dock, E., March 14th.

THE NOVEMBER PRIMARY F.R.C.S. EXAMINATION.

SIR,—Shortly after the Primary Fellowship Examination last November, I was informed that a slanderous rumour was being actively propagated to the effect that I had prematurely divulged to the members of my class the nature of the questions which had been set for the written part of that examination. This slander was set in motion by a letter written by a medical practitioner to a demonstrator of physiology in one of the London medical schools. The writer was an entire stranger to me. The letter was, without my knowledge, passed on to the President of the Royal College of Surgeons, who summoned a meeting to consider the matter. I was invited to be present at this meeting. The result of the inquiry will be gathered from the following letter which I subsequently received from the Secretary of the College:

Dear Sir.—I am directed to inform you that at a meeting of the Nomination Committee on December 19th, 1901, the following resolution was adopted, namely:

"That the evidence taken by the President and Vice-Presidents be submitted to the Council, and that the Council be informed that after careful consideration of it, the Nomination Committee conclude that there is no evidence that Dr. Halliburton either intentionally or unintentionally supplied information on the subject of the questions at the last Primary Fellowship Examination."

I am to add that a report of the evidence given before the President and Vice-Presidents was read to the Council at their meeting held this day, and that the Council having heard the same expressed their concurrence in the conclusion arrived at by the Nomination Committee.

I am, dear Sir,
Yours faithfully,
S. FORREST COWELL,
Jan. 16th, 1902. Secretary, R.C.S.

Having received this official decision I called upon the author of the letter to withdraw his statements, and under the pressure of an action at law he has now done so, and given me an ample apology in writing.

I should not trouble you, but that the slander having been widely spread, I shall be obliged by your assistance in spreading equally widely the refutation of it. I have placed the apology in the hands of the President of the Royal College of Surgeons.—I am, etc.,

King's College, London, March 15th. W. D. HALLIBURTON.

OBITUARY.

SURGEON-GENERAL SIR GUYER HUNTER, K.C.M.G., M.D., LL.D.Aberd., F.R.C.P.Lond.,

Consulting Physician, Charing Cross Hospital.

ON March 15th Sir Guyer Hunter, after a life of exceptional activity, died at his residence at Anerley Hill, Kent, at the age of 73. His medical education was obtained at Charing Cross Hospital, and in 1849 he obtained the diploma of M.R.C.S. In 1850 he went to India, as a surgeon in the East India Company's service. From this date until the time he left India his career was one of uninterrupted success. He first saw war service in Burmah in 1852, and it was during this campaign that he attracted the attention of his seniors by the earnestness and thoroughness which he performed his duties. He was in India during the Mutiny, and during that terrible time gained a high reputation for his personal courage and his administrative ability. On account of his services in Upper Scinde immediately before the Mutiny he received the special thanks of the Government, especially for his tact and ability in dealing with the mutinous spirit that prevailed there.

The work by which his name will live in India, however, was performed in connexion with the Jamsetjee Jejeebhoy Hospital and the Grant Medical College, Bombay, of which College he was Principal. When he took upon himself the burden of resuscitating this medical school, the affairs of the college were at a very low ebb. He found it with 10 charity students and he left it with about 200, each contributing to the expenses of his own education. In 1879 he was appointed Vice-Chancellor of the University of Bombay, a culminating honour to a distinguished career.

In 1880 he bade farewell to India, and retired from the Army. On leaving Bombay he was the recipient of several addresses, expressing regret at losing so capable an administrator, a medical man of such high renown, and an educationalist who had done so much for India and the Bombay University in particular. Before leaving Bombay Sir Guyer was nominated Honorary Surgeon to Queen Victoria.

In 1883 he was employed by the British Government on a special

mission to Egypt, where cholera then existed as an epidemic. The result of his inquiries was to sweep away a number of theories as to the origin of cholera in Egypt, and to point out very clearly that serious insanitary conditions existed, and that by their removal alone could any hope be held out that cholera could be banished from the country. For his services on this occasion he was created a Knight Commander of St. Michael and St. George.

In 1884-85 Sir Guyer took great interest in the establishment of a Volunteer Medical Staff Corps—now the R.A.M.C. (Volunteers)—and in 1885 had the satisfaction of getting four companies established in London, and of being appointed Honorary Commandant of the corps.

In 1885 Sir Guyer entered Parliament as Conservative member for Central Hackney. In Parliament his technical knowledge and his wide experience gained in many capacities and several countries proved most useful. In connexion with the Water Inquiry Committee the Corporation of the City of London nominated Sir Guyer Hunter as Chairman. He also had a seat on the Departmental Committee "to inquire into the best mode of dealing with habitual drunkards." On the Vaccination Commission, on the Shop Hours Bill Committee, and on the Midwives Registration Bill Select Committee Sir Guyer did admirable service.

In 1892 he retired from Parliament, but continued to take great interest in sanitary questions. He was at the time of his death Vice-President and Registrar of the Sanitary Institute. Sir Guyer Hunter was a representative of Great Britain at the Sanitary Conference in Rome in 1885, where he upheld with ability and convincing argument the system of medical inspection as opposed to the quarantine customs then in vogue in the Continent of Europe.

Sir Guyer was attended in his last illness by Dr. Robert Wilkinson of Upper Norwood, with whom Dr. Green of South Norwood, and Mr. Cantlie were in consultation. The funeral took place at Paddington Cemetery, London, on March 18th.

PATRICK THURBURN MANSON, M.B.Lond.

On March 15th, a telegraphic message brought the sad news to London that Patrick Thurburn Manson, eldest son of Dr. Patrick Manson, C.M.G., F.R.S., had met with a fatal accident shortly after his arrival at Christmas Island.

A commission to investigate scientifically and to report upon Beri-beri was sent to Christmas Island by the London School of Tropical Medicine towards the end of 1901. Dr. Durham, one of the members of the Commission, left London in November on his way thither, and Dr. P. Thurburn Manson early in January of this year. Dr. Manson could only just have reached his destination when the accident occurred.

It is sad at any time to see a young life full of promise suddenly cut short, but it is especially sad when the victim, as in this instance, comes forward in the cause of humanity to risk his life so that disease may be checked. Beri-beri is so virulent a disease, and so wide-spread in the Malayan Archipelago, that it claims thousands of victims yearly, and has ruined many commercial enterprises by the havoc it causes amongst the labourers engaged in reclaiming land from the forest and cultivating it. It was to investigate the nature of this scourge and its possible prophylaxis that the Commission went out, and it was in this noble cause that young Manson lost his life. This is not the first time he proved his devotion to the cause of science. When his father conceived the notion of testing the transmission of malaria by mosquitos, he wished to do so by allowing mosquitos infected in the Roman Campagna to bite healthy persons in Britain. His son, Dr. P. Thurburn Manson, at once offered himself as a subject for experiment, and it will be remembered that the experiment was successful, and thus Dr. P. Thurburn Manson became infected with malaria.

After finishing his career at Guy's Hospital, Dr. P. Thurburn Manson took out a special course of pathology under Professor Hamilton, in Aberdeen. He then joined the School of Tropical Medicine, London, and entered enthusiastically into the study and investigation of tropical diseases. He also devoted himself to clinical work in the wards of the Seamen's Hospital, Albert Dock, and for some time held the post of House-Surgeon in the hospital. Thus equipped, he was in every way fitted to undertake clinical, pathological, and bacteriological work, and his instincts and desires carried his thoughts to the region of study where his father had acquired lasting fame. By his fellow-students at Guy's Hospital he was loved and respected, and by the staff of the hospital his abilities were well known. Of fine physique, possessed of mental abilities of a high order, and imbued with a keen enthusiasm for his work, no one ever started life with brighter prospects. His death is a loss to the country and to science. The widest sympathy will be felt with his family in this bereavement.

We regret to have to announce the death of Dr. James Tomb, of Crumlin Road, Belfast. Dr. Tomb had made some complaint of not feeling well latterly, but he attended to his practice with his usual regularity till March 8th, when he developed a very severe, indeed a malignant type of influenza. On March 11th a rapidly-spreading pneumonia of the upper lobe of the left lung set in, with great depression of strength and delirium, from which he rapidly sank and died on March 13th. Dr. Tomb was only 41 years of age. He obtained the degrees of M.D., M.Ch., and M.A.O. in the Royal University of Ireland in 1887 and 1888, and was twelve years in practice in the Crumlin Road. He was medical officer to a large number of societies, and enjoyed one of the largest practices in this district, gaining the respect and confidence as well as the affection of his patients. There is little doubt that he weakened his constitution by the close and unremitting attention to his exacting duties. Dr. Tomb was a member of the North of Ireland Branch of the British Medical Association, and of the Ulster Medical Society. He leaves a widow and two children, for whom much sympathy is felt.

Lieutenant-Colonel A. R. W. Sedgefield, M.B., Indian Medical Service, an excellent and popular officer, died at Sanawur on February 8th, at the age of 48 years, after completing 22 years' service. He was educated at Rugby and at King's College. Before entering the Indian Medical Service he was employed for a time in a steamer on the East Coast of Africa and, returning to London, took the M.B. of the London University with honours, and held the office of Demonstrator of Biology under Professor Yeo at King's College. He served in various places and capacities in India—in medical charge of native regiments, in civil stations and gaols, in the opium factory at Ghazipur, and finally as Medical Officer of the Lawrence Military Asylum at Sanawur. He was offered the appointment of Professor of Chemistry at Lahore and of Materia Medica at Calcutta, but was obliged to decline on account of ill-health. His constitution had been wrecked by malaria, sunstroke, a fall from his horse, and an accidental gunshot wound. He was an able, enthusiastic officer with a strong scientific bent; his professional attainments were of a high order, and his disposition kindly and benevolent. His death is a great loss to the public service and a cause of deep regret to his numerous friends.

Dr. R. B. Grimes, of the United States Army, recently died of apoplexy, aged 58. "Fighting Bob, the Doctor," as he was known, served throughout the war of the rebellion, and was discharged as lieutenant. After graduating in medicine he entered the medical department of the army, and was honourably mentioned in dispatches for bravery. He was a member of the Thornburg expedition that went to the relief of the White River agency in September, 1881, and was one of the few that survived. When Thornburg and his party were attacked, Dr. Grimes, as chief surgeon of the expedition, not only attended the wounded, but found time to make coffins, to assist in the burial of the dead, to throw up breastworks, to bring water to the soldiers in the pits, and occasionally take a shot at a redskin himself. Though dangerously wounded, he continued on duty for days till the survivors were rescued.

Mr. Athol Archibald Wood Johnstone, the son of the late Dr. James Johnstone, one of the physicians to King William IV, died at Brighton, on March 16th, at the age of 82. After receiving his medical education at St. George's Hospital, and after obtaining the F.R.C.S. (Eng.) by examination in 1847, he was engaged for several years in the practice of surgery

in London. He was lecturer on physiology and general anatomy in his own medical school, one of the first surgeons to the Great Ormond Street Hospital for Sick Children, being a colleague of Dr. West and Sir William Jenner, and surgeon to the St. George and St. James's Dispensary. In 1862, for reasons of health, he removed to Brighton, and since then he largely occupied himself in advancing the interests of many local charities. For many years he was connected with the Royal Alexandra Hospital for Sick Children, first as acting surgeon, then, up to the time of his death, as consulting surgeon. He was also consulting surgeon to the Brighton and Sussex Throat and Ear Hospital and to the Invalid Gentlewomen's Home in Brighton. He was a past-President of the Brighton and Sussex Medical Chirurgical Society and honorary surgeon to the Brighton Battery of the old Royal Naval Artillery Volunteers. He was the author of numerous contributions to the periodical literature of medicine, including the *British and Foreign Medico-Chirurgical Review*, of which his father was the founder, and he himself for a time sub-editor. About nine or ten years ago he retired from active practice. He was of a modest and retiring disposition, but it is recognised that during his life in Brighton he quietly and unostentatiously did a large amount of public good. He was greatly respected by all who knew him, and indeed it has been said of him that "to know him was to love him."

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Viscount de Cannavial, M.D., for some time Director of the Medical School of Funchal; Dr. Edward Mott Moore of Rochester, one of the leading surgeons of New York State, author of contributions to surgical literature on fractures and dislocations, and President of the American Medical Association in 1890, aged 87; and Dr. George A. Shurtleff, formerly Professor of Mental Diseases and Medical Jurisprudence in the Medical Department of the University of California, President of the California State Medical Society in 1872, Delegate to the International Medical Congress in 1876, Member of the American Medico-Psychological Association and of the State Medical Society, and for eighteen years Medical Superintendent of the State Insane Asylum at Stockton, aged 82.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE MEDICAL STATISTICS OF THE FRENCH ARMY.

The portly annual volume of medical statistics of the French army[1] always contains a vast amount of interesting and important information. The volume now before us, received a week or two ago through the courtesy of the Foreign Office, deals with the year 1899. As we have remarked in previous reviews the details are somewhat too elaborate and overlap too much to be easily analysed. The report is divided into two parts, the first gives the different diseases prevalent during the year, illustrated by shaded maps of French territory showing the intensity of diseases in different areas; the second is made up of statistical tables arranged in so many different ways as to be somewhat bewildering. The broad results are as follows: The total of effectives dealt with in 1899 was 605,867, consisting of 22,872 officers, 41,999 sons of officers, 334,397 soldiers of more than one year's service, and 206,589 of less than one year.

Disease.—The hospital admissions varied widely in different army corps, the most healthy being the first (Northern France) and the least the African corps. In seasonal divisions the most unhealthy periods for the entire army were from December to June; the healthiest, September and October.

Deaths.—The death-rate in 1899 was 5.43 against 4.98 per 1,000 in 1898; a rise which embraced all portions of the army both at home and abroad. The most deadly disease was typhoid fever, which caused 305 per 1,000 of the general deaths. The rate per 1,000 strength varied in different army corps, from 40.01 in North Africa, to 13 in Paris. The next most fatal ailments were tuberculosis, pneumonia, and influenza. Influenza, as in previous years, was most prevalent in Western France on the Atlantic seaboard; while scarlet fever, measles and mumps were more prevalent in South-Western France. On the other hand tuberculosis was more prevalent in North-Western France. Rheumatism was pretty equally distributed. Chest diseases, such as pneumonia and bronchitis, prevailed chiefly in December and March: abdominal affections, such as diarrhoea and dysentery, culminated in August.

Venereal diseases were slightly more prevalent, but the very marked decrease since 1879 continues—a fact not satisfactorily accounted for.

Suicides.—The large number of suicides in the French, as in other conscript Continental armies is a painful fact; and it is very curious to note that this lamentable form of crime is twice as common among non-commissioned officers, as among commissioned officers or privates. Are these sous-officers subjected to any special mental strain?

[1] *Statistique Médicale de l'Armée, pendant l'Année 1899.* Paris, 1901.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Henry C. Woodyatt, Surgeon, to the *Vengeance*, April 8th; Alexander C. Renwick, Surgeon, to the *Sphinx*, March 15th, the appointment to the *Bulwark* having been cancelled; Richard S. Osborne, Surgeon, to the *Robin*, undated; James H. Fergusson, Surgeon, to the *Duke of Wellington*, additional, lent to the *Research* for the surveying season, April 2nd; Charles E. C. Stanford, M.B., Surgeon, to the *Triton*, lent, April 2nd; George T. Collingwood, Staff Surgeon, to the *President*, additional, for service at Deptford Victualling Yard, April 2nd; August J. Wernet, M.B., Surgeon, to the *Pembroke*, additional, to be lent for service at Deptford Victualling Yard, April 2nd.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Colonel W. B. Major	— ...	Punjab.
Lieutenant-Colonel R. Blood, M.D. ...	Punjab... ...	Belfast
,, H. Grier	Dublin... ...	Curragh.
Major W. A. Morris	Aldershot ...	Bengal.
,, M. O'D. Braddell, M.B.	South Africa...	Sheerness.
,, H. D. James	Dublin	Curragh.
,, N. C. Ferguson, M.B., C.M.G. ...	South Africa...	Life Guards.
,, M. T. Yarr	Dublin	Aldershot.
,, D. M. Saunders, M.D...	South Africa...	Dublin.
Captain C. E. Pollock	Edinburgh ...	Glencorse.
,, E. A. Milner	Punjab	Madras.
,, A. H. Waring	Madras... ...	York.
,, E. P. Hewitt	South Africa...	Chester.
Lieutenant D. J. F. O'Donoghue	Curragh ...	Madras.

The undermentioned Lieutenant-Colonels on retired pay have relinquished the medical charge of troops at the stations specified: H. Knaggs, Scarborough; G. Simon, M.D., Lichfield; J. S. Comyn, M.B., Bradford; H. Harrison, Reading, W. Campbell, M.B., Caterham.

Lieutenant-Colonel R. W. Barnes, retired pay, has assumed the medical charge of Dover Military Prison; and Lieutenant-Colonel C. W. M. Keys, retired pay, medical charge of troops at the Mauritius.

ROYAL ARMY MEDICAL CORPS.

Major T. M'Culloch, M.B., has been appointed Deputy Assistant Director Army Medical Service, *vice* Major W. G. Macpherson, M.B.

Colonel E. Townsend, M.D., C.B., C.M.G., was dangerously wounded in the shoulder during the attack near Tweebosch by the Boers on March 7th. On the 10th he was reported to be progressing favourably.

Lieutenant-Colonel James Fitzgerald Brodie, M.D., died at Maidstone on February 21st. He was appointed Surgeon, August 5th, 1877; Brigade-Surgeon, August 5th, 1880; and Surgeon-Lieutenant-Colonel, August 5th, 1897. He retired from the service September 8th, 1897. He was in the Afghan war of 1878-80, and had the medal for that campaign.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant-Colonel E. Shedd, having resigned his Volunteer appointment, ceases to belong to the Army Medical Reserve of Officers, March 19th.

IMPERIAL YEOMANRY.

Surgeon-Lieutenant G. H. S. Daniell, M.B., Dorset (Queen's Own) Imperial Yeomanry, and Surgeon-Captain P. B. Mackay, Yorkshire Dragoons (Queen's Own), resign their commissions and receive new commissions subject to the provisions of the Militia and Yeomanry Act, 1901, retaining their rank and seniority.

Surgeon-Lieutenant G. H. S. Daniell, M.B., Dorset (Queen's Own) Imperial Yeomanry, is promoted to be Surgeon-Captain, March 19th.

VOLUNTEER ENGINEERS.

Mr. Edward C. Roberts is appointed Surgeon Lieutenant in the 1st London, March 19th.

VOLUNTEER RIFLES.

Surgeon-Captain J. Mill, M.B., 4th Volunteer Battalion the Royal Scots (Lothian Regiment), and A. A. Abraham, 5th Volunteer Battalion the Durham Light Infantry, are promoted to be Surgeon-Majors, March 19th.

Mr. James M. G. Bremner, M.B., is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the Norfolk Regiment, March 19th.

Surgeon-Lieutenant R. J. SWAN, 1st Surrey (South London), is promoted to be Surgeon-Captain, March 19th.

Surgeon Lieutenant R. E. BROWN, 2nd Volunteer Battalion the Durham Light Infantry, resigns his commission, March 19th.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

MAJOR B. M. SKINNER, R.A.M.C., the Secretary of the fund for the memorial to the late Surgeon-General W. Nash, desires to acknowledge the following further subscriptions. The memorial will take the form of a brass in the Church of the Royal Victoria Hospital, and a portrait in the headquarters mess of the corps. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£ s. d.
Colonel Stevenson, C.B.	0 10 0
Colonel Charlton	0 10 0
Colonel McLeod, I.M.S.	0 10 0
Professor Wright	0 10 0
Lieutenant-Colonel Webb	0 10 0
Lieutenant-Colonel Chester	0 10 0
Lieutenant-Colonel Dick	0 10 0
Major R. H. Firth	0 10 0
Major Horrocks	0 10 0
Major Leishman	0 10 0
Captain Whiston	0 10 0
Lieutenant Knox	0 10 0
Captain and Quartermaster Johnson	0 5 0
Captain and Quartermaster Lackey	0 5 0
Messrs. Holt and Co.	1 1 0
Lieutenant-Colonel Clements	1 1 0
Brigade-Surgeon J. Anderson	1 1 0
Surgeon-General T. W. Fox	1 1 0
Brigade-Surgeon Melville Jones	1 1 0
Captain H. Cotton	1 0 0
Notified in last week's BRITISH MEDICAL JOURNAL	6 14 0
Total	£19 9 0

THE NEW TITLES FOR MILITIA AND VOLUNTEER MEDICAL STAFF CORPS.

SEVERAL correspondents have made inquiries as to these new titles, evidently under the impression that the simple military titles have been extended to all Militia and Volunteer medical officers. If they will refer to the BRITISH MEDICAL JOURNAL of February 15th, they will find that the change of designations and titles, as set forth in the *Gazette* of February 1st, does not warrant that assumption. The change is limited to the Militia and Volunteer Medical Staff Corps respectively, and not extended to the regimental medical officers. Whether the new titles are to be reckoned substantive or honorary is not quite clear, for the word "honorary" is certainly used as regards the commandants.

INDIAN FURLOUGH PAY.

A CORRESPONDENT draws attention to the fact that, while in the early stages of service, furlough pay in the Indian Medical and Indian Staff Corps are equal, at twenty-five years' service the Staff Corps officer draws £600 a year against £500 drawn by the medical officer; at thirty years the former draws £700, whereas the latter never gets beyond £500. He considers that this, although not affecting any large number of medical officers, is an unfair inequality.

SURGICAL OPERATIONS IN THE UNITED STATES NAVY

THE Secretary of the United States Navy has recently given a decision as to the rights of officers and men of the navy in regard to submission to surgical operations judged by the medical officers to be necessary for restoration to health and duty. The question arose from an inquiry for information as to the authority of medical officers in such cases made by a medical officer of the navy. The Secretary has ruled as follows: "While the Department will not undertake to lay down as a general rule that a man must, particularly in cases involving risk of life or loss of limb, submit to a surgical operation, it cannot, on the other hand, accept the opinion of the junior squadron commander on the Asiatic Station that it is optional with the man concerned whether or not he shall submit to such an operation in the course of medical treatment. By a judicious application of the principles set forth in an endorsement of the Bureau of Medicine and Surgery, friction in the cases of the character therein referred to will probably be avoided. In ordinary cases, when, in the opinion of the medical officer, after consultation, if advisable, with other surgeons available, it is deemed necessary, in order to restore a man to his capacity for the performance of his duties, that a minor surgical operation be made upon him, he can be required to undergo the same, under the penalty of punishment, as a sentence of court-martial, in the case of his refusal to submit thereto. If the particular case under consideration was of this character, disciplinary action would have been proper upon the report made to the commanding officer of the *Monadnock* by the surgeon of the private's disobedience of orders."

THE NEW DESIGNATION FOR VOLUNTEER MEDICAL OFFICERS.

V.M.O. AND A.M.R. writes: I entirely agree with Brigade-Surgeon-Lieutenant-Colonel Giles in his suggestion that all Volunteer medical officers should be gazetted to the Royal Army Medical Corps (Volunteers), that they should wear departmental uniform, and that they should be attached to the various battalions. Indeed, I look upon this as the first and most important step in any attempt to reorganize—or, rather, give some organization to—the present chaotic condition of the Volunteer Medical Service. I notice in the list of the *levée* held on March 6th that some five or six regimental volunteer medical officers presented are described as "Lieutenants" or "Captains" of the "R.A.M. Corps (Vol.)," and as *attached* to their battalions. The assumption of this designation, and of the purely combatant title—a doubtful privilege in my opinion—scarcely seems warranted by the Army Order which conferred these changes, as far as the Volunteer Medical Service is concerned, on the Volunteer Medical Staff Corps alone.

*** We think our correspondent is mistaken in speaking of the assumption of the designation. The designation inserted in the *levée* list was, no doubt, that which the Adjutant-General considered to be correct.

THE QUESTION OF FEES IN INDIA.

THE Government of India in the Foreign Department has recently issued another circular (No. 3,937 I A, dated October 25th, 1901), on the subject of the rules regarding the remuneration of medical officers for attendance upon native chiefs and nobles, and upon native gentlemen of position in Native States. In previous orders the Government had laid down that the Local Government should satisfy itself that the fees offered or claimed was a reasonable and proper one, looking to the nature of the service rendered, the position and means of the patient, and the rank of the officer, and that every fee amounting to more than Rs.2,000 should be submitted for the sanction of the Government of India. The present circular is intended to enforce more rigid scrutiny of such claims by local authorities. Examples are given of what are considered excessive demands, and while the conduct of medical officers generally in such matters is extolled exceptional cases are severely criticised. The following paragraph of the circular illustrates this:

> The Government of India desire it to be understood that, in making the preceding observations, and in commenting on certain cases in which the moderation inculcated by the rules has not been observed, it is not their intention to bring any general charge against the officers of the medical profession, or to imply that the opportunities given to them of private practice in native States are as a general rule abused. The standard of professional honour that has always existed among the members of the service would alone negative any such imputation, and cases are known to the Government of India in which the professional relations of medical officers with native chiefs have been characterized by a more than punctilious generosity. At the same time, it cannot be denied that the cases brought to notice in this letter, which are all of recent occurrence, indicate that there are instances in which a clearer understanding of the objects and wishes of the Government of India is desirable, and it is in the hope of preventing the recurrence of similar incidents that these general instructions are issued.

The Government undoubtedly possesses the right, not only to grant the privilege of private practice to its officers, but also to lay down conditions under which it may be exercised; but the matter is a delicate one, and it seems a pity that the errors of the few should cause the issue of orders which wound the sensibilities of the many.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE UNAUTHORISED ADVERTISING OF MEDICAL PRACTITIONERS.

A CORRESPONDENT sends us a copy of an illustrated price catalogue issued by Parke's Drug Stores, Limited, of London. This publication contains a list of the various London hospitals with the names of their staffs, and this is followed by the names of the consultants in London, which are said to be compiled from the foregoing lists. The reader is further informed that while the writer "cannot undertake to recommend any consultant more specifically it may further guide inquirers to observe that the several hospital lists give a fair criterion of the position of the consultants. For example, those who are consulting physicians or surgeons may be assumed to be men of mature experience, while those in the assistant stage are usually young practitioners who have made a reputation for themselves, and between the two are the practitioners in the meridian of their reputation." It is fair to add that the list, which is not free from inaccuracies, is merely a catalogue of names and addresses arranged alphabetically. Although the publication is dated January, 1902, we notice that it includes the names of several who have died—for example, Dr. Grigg and Dr. Mortimer Granville; others who have retired from practice, some whose addresses are wrong, and others again who are not consultants at all.

These blemishes do not make the list any less offensive to the profession. It is another illustration of the unwelcome fact that compilers of works intended for the public think themselves at liberty to publish the names of members of the medical profession without asking permission. The only way to put a stop to the practice is for those whose names are thus used to write to the publishers protesting against the violation of professional decorum, and requesting its discontinuance.

AN AMERICAN ANALYST'S LITTLE BILL.

A JURY in the Supreme Court of New York recently rendered a verdict for $6,630.65 (about £1,328) in favour of Professor Rudolph Witthaus, the eminent chemist, for services rendered by him in analysing the stomach in a case of suspected murder. The items of the bill showed that Dr. Witthaus spent 366 hours making the analysis, for which he charged £3 an hour, with £50 for consultations and £100 for "incidentals." The verdict rendered included $420.65 interest on the account. We heartily congratulate the United States on the possession of citizens so enlightened in regard to the proper remuneration of scientific work as those who composed this jury.

ILLNESS OF PARTNER.

X.Y.Z. The usual practice when one partner is ill is to employ a *locum tenens* to do the work of the incapacitated partner, the expense being borne by the firm. If the other partner has sufficient leisure to undertake the work and save the expense of a *locum*, he cannot claim any remuneration, as he is bound under his partnership agreement to devote his time to the common business.

THE PROFESSIONAL STATUS OF A BANKRUPT.

X.Y.Z.—Bankruptcy should not *per se* be incompatible with holding an appointment on the staff of a hospital. To enforce such a rule would be very harsh, as it would diminish the man's chance of getting again into practice. The case would, however, be different if there were circumstances in the

bankruptcy which, although not amounting to a breach of the criminal law, were of a dishonourable nature. Each case would have to be considered upon its merits. It would be quite natural for the committee of a hospital, or for his professional colleagues to object to the presence upon the staff of a person whose appearance in the bankruptcy court had been especially discreditable.

LIABILITY OF GRANDPARENT.

F. H. writes that he was called in by a county alderman and J.P. to attend his granddaughter, who acted as his housekeeper. He attended during an illness extending over eight months, resulting in death from tuberculosis. The grandfather asked him to send in his bill, which was accordingly done, but it has since been repudiated on the ground of non-liability.

*** Under the circumstances the grandfather appear to be liable, and can be sued in the county court if he refuses to pay. The proper charge per visit would be what is usually charged by medical practitioners in that district for attendance on patients occupying the same social position as our correspondent's patient.

DEATH CERTIFICATES.

REVILO is only bound to furnish one death certificate for the use of the registrar. All death certificates for insurance purposes must be obtained from the registrar of the district, and insurance societies cannot lawfully demand any further evidence of the death of the insured than the production of a certified copy of the registration of the death, which includes the medical practitioner's certificate of its cause.

MIDWIFERY CONTRACTS.

PERPLEXED writes: A. engages B. for her confinement, B. giving her his card with name, address, date, and amount of fee marked on it: (1) Is B. obliged to attend, that is, is there any legal obligation? (2) B. goes and finds no nurse and no sort of preparation for him. He gives up the case, and tells the husband to call in another doctor. Is he justified in doing so? Can the husband compel B. to attend?

*** (1) There is a legal obligation on B. to attend or to send in his place a properly qualified substitute, and even in the latter case he might be held liable in damages for malpraxis or negligence on the part of his substitute. (2) If the conditions were such as to render it impossible for B. to fulfil his part of the contract, then he would be released from the same in consequence of breach of contract on the part of A., whose duty it was to see that B. was not prevented from performing his part of the contract by fault on her side. Except for sufficient reason, B. would not be justified in throwing up a case which he had undertaken to attend, and, if he did so, it would be at his peril.

TREATMENT BY UNREGISTERED PERSONS.

BETA.—If the patient in question place himself under the care of the unregistered practitioner named, the only course open to our correspondent is to decline to have any connexion with the case at all, even in respect of sick certificates. If death occurs, our correspondent, before signing a certificate under the Registration Act, should communicate with the local coroner and take his advice. In some districts the coroners hold inquests upon bodies of persons who die unattended by registered practitioners.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

SENATE.

A MEETING of the Senate was held on March 5th.

The University Mace.—The Senate accepted the offer of a mace made by the [illegible] approved of the design, and directed that the mace [illegible] before the Chancellor or Vice-Chancellor by a graduate of the University on ceremonial occasions.

Medical Acts and Amendment Bill.—The following Clause (2, a), of the Medical Acts Amendment Bill was approved by the Senate:

"2 (a). It shall be lawful for each of the medical authorities, if and when such authority thinks fit, to revoke, suspend the use of, or cancel the medical diplomas or diploma of such medical authority held by any person whose name has been erased from the *Medical Register* by order of the General Council for any of the causes mentioned in Section XXIX of the Medical Act, 1858, and subsequently to restore such medical diplomas or diploma to such person, without his being [illegible] examination."

The [illegible] out, was rendered necessary by the [illegible] granting registrable diplomas [illegible] the powers of depriving a practitioner of his [illegible] under the present law it sometimes happened [illegible] whose name has been erased from the *Medical* [illegible] to continue to use his medi- [illegible] would in no way interfere [illegible] orities already possessed, [illegible] medical authority to take away his medical [illegible] or for a limited time, from a practitioner [illegible] from the *Medical Register* for misconduct.

LONDON COUNTY COUNCIL.

At a meeting of the London County Council on March 11th a lengthy [illegible] from the University of London and on the [illegible] made to the Council to the University [illegible] Board and discussed. The report stated that the grant was made upon the condition that its advantages should be effectively opened to evening students, that adequate recognition should be given to the more advanced work of the polytechnics, that there should be no discouragement of technical education by its exclusion from university degrees, and that in particular engineering and the subjects of higher commercial education should be given a due place. The Committee reported that these objects had been attained, and that by means of the Council's aid the Senate had now determined on (1) the organization of an institute of advanced chemistry, both organic and inorganic, at one centre; (2) the provision of advanced teaching in engineering at two centres; (3) the systematic organization of the teaching of modern languages at all the university centres, including the polytechnics, and beginning with German; (4) the provision of a professorship of education in connexion with the Council's proposed day training college for teachers; and (5) the appointment of University teachers in economic history and theory, commercial geography, and history, banking, statistics, foreign trade, etc. In the course of the discussion Mr. MacDonald complained that the technical education money was being devoted rather to subsidizing secondary and academic education than to fostering the arts and crafts. Dr. Collins, while congratulating the Council on contributing £10,000 a year to the University, regretted that the Government contribution only amounted to £8,000; he objected to the proposed institution of honorary degrees, and to the admission of foreign graduates to the higher degrees of the University without passing the lower degrees, as London students would be required to do.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.

THE President and Fellows of the Royal College of Physicians of Ireland have elected Henry Cooke Drury, M.D., F.R.C.P.I., Physician to Sir Patrick Dun's Hospital, to act in place of the recently appointed Professor of Institutes of Medicine in the School of Physic, Trinity College, Dublin, who was exempted by the College of Physicians from undertaking the clinical duties which up to the present had been associated with his chair.

HOSPITAL AND DISPENSARY MANAGEMENT.

CARDIFF INFIRMARY.

THE annual report and statement of accounts of this institution was received and adopted at the annual meeting of the Governors on February 26th. The annual income showed an increase of £1,896 above that of the previous year, but the expenditure exceeded the income by £255. As the Chairman pointed out, they had increased the bed accommodation from 128 to 144, and cared for an increase of 155 in-patients and 1,285 out-patients during the year in excess of the previous year. The total number of in-patients for the year was 1,663, and the average cost per head had fallen from £63 15s. 8d. to £63 0s. 1d. A sum of £1,014 was spent on renovations, and the Committee of Management appealed for an additional £5,550 for alterations and repairs. The exact alterations and requirements were stated in detail in a supplemental report. The most important increase in the accommodation during the year was the opening in October last of a ward for the treatment of diseases of women.

HANLEY, STOKE, AND FENTON INFECTIOUS DISEASES HOSPITAL.

ON February 6th certain additional premises of the Hanley, Stoke, and Fenton Joint Infectious Diseases Hospital were formally opened. They form the third extension which has taken place during the last six years, and consist of a new 18-bed pavilion with separate wards and annexes, a large addition to the administrative block, a power block containing steam boiler, engine, dynamo, and accumulators, additions and extensive alterations to the laundry block, a modern disinfecting station, and new stabling and ambulance house block. The total cost, including all charges, has been about £10,500.

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.—The fifty-eighth annual meeting of the American Medico-Psychological Association will be held in Montreal on June 17th to 20th. The annual address will be delivered by Dr. Wyatt Johnston, Lecturer on Medical Jurisprudence and Assistant Professor of Hygiene in McGill University, who has chosen for his subject "The Medico-Legal Appreciation of Trauma in its Relation to Abnormal Mental Conditions." The following, among other papers, have been promised; Dr. Henry M. Hurd (Baltimore), Folklore of Insanity; Dr. E. G. Carpenter (Columbus), Insanity and Degeneracy; Dr. J. H. McBride (Pasadena, Cal.), Boarding-out for the Chronic Insane; Dr. James M. Buckley, D.D., LL.D. (Morristown, N.J.), The Possible Influence of Rational Conversation on the Insane; Dr. A. B. Richardson (Washington), Women Nurses in Hospitals for the Insane; Dr. George Villeneuve, Longue Pointe, Que.), Conjugal Jealousy as a Cause and Excuse for Crime from a Medico-Legal Standpoint; Dr. James Russell (Hamilton, Ontario), The Psychology of Anarchism; and Dr. E. D. Bondurant (Mobile, Ala.), The Early Diagnosis of General Paresis and the Possible Curability of the Disease in its Initial Stages.

THE New Jersey House of Assembly has appropriated £2,000 to meet the expenses of an extensive and well-considered plan of campaign for the extermination of mosquitos, especially *Anopheles*, in that State.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,615 births and 5,573 deaths were registered during the week ending Saturday last, March 15th. The annual rate of mortality in these towns, which had been 24.4, 23.3, and 20.5 per 1,000 in the three preceding weeks, further declined last week to 19.6 per 1,000. The rates in the several towns ranged from 6.6 in Handsworth, 9.7 in Hornsey, 10.2 in Wigan, 11.5 in Ipswich, 11.8 in Walthamstow, and 12.0 in King's Norton, to 23.7 in Hastings, 23.9 in Burnley, 25.0 in Harley, 25.2 in Huddersfield, 28.4 in Plymouth, and in 29.6 in Merthyr Tedfil. In London the death-rate was equal to 22.0 per 1,000, while it averaged 18.4 in the seventy-five other large towns. The zymotic death-rate in the seventy-six large towns averaged 2.2 per 1,000; in London this death-rate was equal to 3.1 per 1,000, while it averaged 1.7 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.4 in Leicester, 3.6 in Northampton and in Coventry, 3.9 in Willesden, 4.9 in Huddersfield, 5.6 in Grimsby, 7.4 in Burnley, and 7.5 in Hanley. Measles caused a death-rate of 1.6 in Warrington, 1.8 in Northampton and in Barrow-in-Furness, 2.1 in Reading, 4.0 in Grimsby, 4.9 in Huddersfield, and 5.3 in Burnley; scarlet fever of 1.5 in South Shields; diphtheria of 1.1 in Middlesbrough, 2.0 in Great Yarmouth, 2.2 in Coventry, and 5.8 in Hanley; whooping-cough of 1.2 in Northampton, 1.4 in Leicester and in Birkenhead; 1.5 in East Ham, and 2.0 in Aston Manor; and diarrhoea of 1.5 in Merthyr Tydfil. Of the 100 fatal cases of small-pox registered in these towns last week, 81 belonged to London, 4 to West Ham, 3 to East Ham, 2 to Croydon, 2 to Willesden, 2 to Tottenham, and 1 each to Hornsey, Leyton, Hastings, Leicester, Liverpool, and Tynemouth. There were 1,542 cases of small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 15th, against 1,321, 1,309, and 1,512, at the end of the three preceding weeks: 450 new cases were admitted during the week, against 502, 369, and 555 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had declined from 3,137 to 2,283 at the end of the eleven preceding weeks, had further fallen to 2,206 on Saturday last: 266 new cases were admitted, against 219, 215, and 277 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 15th, 1,003 births and 763 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.6 and 25.4 per 1,000 in the two preceding weeks, declined again to 23.6 per 1,000 last wek, but was 4.0 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 17.3 in Paisley and 19.8 in Leith, to 30.2 in Dundee and 34.0 in Greenock. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Dundee and Greenock. The 337 deaths registered in Glasgow included 7 from small-pox, 4 from measles, 4 from scarlet fever, 3 from diphtheria, 12 from whooping-cough, 2 from "fever," and 11 from diarrhoea. Two fatal cases of scarlet fever and 3 of diarrhoea were recorded in Edinburgh. Five deaths from measles and 4 from diarrhoea occurred in Dundee; 7 from whooping-cough in Aberdeen; 2 from whooping-cough and 3 from diarrhoea in Leith; and 4 from measles and 2 from scarlet fever in Greenock

OVERCROWDING IN LONDON.

A REPORT of the Housing of the Working Classes Committee presented to the meeting of the London County Council on March 11th confirmed the interesting figures which appeared in the BRITISH MEDICAL JOURNAL of March 8th in reference to the census figures in the metropolis. The report states that "in 1891 there were 831,668 persons living under overcrowded conditions in 145,844 tenements of less than five rooms. This gives an average of 2.99 persons per room. In 1901 there were 726,096 persons living under overcrowded conditions in 124,773 tenements of less than five rooms. This gives an average of 2.88 persons per room. Both the amount therefore and the density of overcrowding in such tenements appear to have been on the whole reduced since 1891, except in the case of the borough of Stepney. With regard to tenements of more than five rooms, in 1891 there were 1,889,475 persons living in 368,918 such tenements, thus giving an average of 6.11 persons per tenement. In 1901 there were 2,086,752 persons living in 347,516 such tenements, thus giving an average of 6.00 persons per tenement. There appears, therefore, to have been an increase in the number of tenements of more than five rooms, and an increase in the number of persons occupying such tenements, but a decrease of 0.11 in the average number of persons per tenement. This again points to a decrease in the prevalence of overcrowding since 1891." It would therefore appear that the efforts of sanitary reformers during the last decade have not been unfruitful, though much remains to be done. The relation between mortality and overcrowding, as shown in the JOURNAL last week, may well serve as a guide and inspiration to the London County Council in further grappling with this problem.

A UNITED STATES PUBLIC HEALTH BILL.

A BILL has, we learn from the New York *Medical Record*, been introduced in the House of Representatives to establish a board of public health, and for other purposes. The object of this Bill, as stated in the preamble contained in the first section, is to create a commission of public health, to be composed of a commissioner and of a representative from each State and territorial Board of Health, the Surgeons-General of the Army and of the Navy, the Supervising Surgeon-General of the Marine Hospital Service, or such other medical officer from either service as may be designated by the chief thereof, with the approval of the President, to be known as the "National Commission of Public Health," to be a bureau in the Treasury Department, and [illegible] to collect and disseminate information [illegible] infectious diseases in this and other countries [illegible] vital statistics; to prepare rules and regulations [illegible] sanitary condition of vessels from foreign ports [illegible] the introduction of infectious diseases into the United States [illegible] spread from one State or Territory into another State or [illegible] general, to make investigations, publish information, [illegible] with a view to the preservation of the public [illegible] other duties as may from time to time be [illegible] authorities. The Bill contains thirty-one sections [illegible] the duties which might be supposed to come within the province of a national board of health.

A PERMANENT UNITED STATES CENSUS BUREAU.

THE Bill which has passed the House of Representatives creating a permanent Census Bureau provides work in the Section of Vital Statistics to keep the skilled clerks busy from July 1st, 1902, until the latter part of 1908, when preparations for the thirteenth census will begin. In addition to the annual report upon births and deaths, the division of vital statistics is to prepare a special report upon the deaf and dumb, another upon the insane and feeble minded, another upon criminals and juvenile delinquents, and still another upon pauperism and benevolence, these reports to appear each year until completed.

DISTRICT MEDICAL OFFICERS AND THEIR DEPUTIES.

CONTRACT PRACTICE writes saying that he is one of two partners who each holds a district as medical officer in the same union, one being the recognized deputy for the other. In consequence of the illness of one of them a *locum tenens* has been engaged, but the guardians decline to accept his services, and insist on the working partner doing the pauper work of both districts, which our correspondent says is almost impossible owing to their extent. He asks whether his partner, who is ill, is within his right when he says that the *locum tenens* is to do the work of his district while he himself is incapacitated by illness?

*** If the guardians have decided that the work of the district is to be done by the legally-appointed deputy when the medical officer is incapacitated, it would appear that they are exercising a legal right; but if the difficulty thus occasioned is fully explained to them, it would, we consider, be judicious for them to waive their claim on this question, as, by insisting on the whole work of both districts being done by the working partner, the patients themselves might be disadvantageously affected. A determination of the guardians to accept no service from the *locum tenens* would, we consider, be ungenerous and unreasonable.

VACCINATION BY CHEMISTS.

ONLY A G. P. draws attention to the frequency with which chemists who sell vaccine also revaccinate people.

*** Only registered medical practitioners can give valid certificates under the Vaccination Acts, but there is nothing to prevent chemists or any other persons from vaccinating or revaccinating those who are foolish enough to permit them. This is only another form of unqualified medical practice which, if done openly and without any pretence on the part of the operator that he is a registered practitioner, the law condemns only indirectly by refusing to assist the latter in recovering his fees.

THE WORKING OF THE VACCINATION ACT.

SCARIFIER.—The question of the duration of vaccinal protection is dealt with in the Royal Commissioner's Final Report, in the second volume (p. 453) of Stevenson and Murphy's *Hygiene*, and elsewhere. Susceptibility to vaccination is not necessarily indicative of susceptibility and small-pox by infection. "Scarifier's" last question should be addressed to the Local Government Board.

GERMAN PUBLIC HEALTH CONGRESS.—The annual meeting of the German Public Health Association will be held this year in Munich from September 17th to 20th. The following questions are proposed for discussion: (1) The Hygienic Supervision of Watercourses; (2) Town and Country in their Sanitary Relations and the Sanitation of Rural Districts; (3) Damp Dwellings: Cause, Influence on Health, and Measures for Amelioration; (4) Influence of Quackery on the Health and Life of the Population; (5) The Baking Trade from a Hygienic Standpoint in Regard both to Trade and the Consumer.

A NATIONAL LEPER COLONY IN AMERICA.—According to *American Medicine*, a Bill for the establishment of a national leper colony was recently introduced in the United States Legislature. The measure provides for the appointment of a commissioner of leprosy, who must be a physician of at least ten years' practice, and who will receive a salary of £1,000. He must live in New York or San Francisco. An appropriation of £10,000 is asked for the erection of buildings, and a square mile of public land for the colony. It will probably be established somewhere on the Pacific coast.

MEDICAL NEWS.

THE GRESHAM LECTURES.—A course of four lectures on food and diet will be given by the Gresham Professor of Medicine, Dr. E. Symes Thompson, at the Gresham College, Basinghall Street, on April 8th, 9th, 10th and 11th, at 6 p.m. on each day.

ASSOCIATION OF NEW YORK NURSES.—The trained nurses in New York State have formed an association with the view of raising the educational standard of nursing, promoting the efficient care of the sick, and maintaining the honour and character of the nursing profession. When fully organized they will seek legislation to require a uniform standard for graduate nurses and the recognition of their calling as a profession.

A LIGHT INSTITUTE IN VIENNA.—Under the protection of the Archduke Otto and the premier member of the Austrian House of Lords, Prince Max Egon Fürstenberg, a Committee has been formed in Vienna for the foundation in that city of a special establishment for lupus cases on the lines of Finsen's Light Institute at Copenhagen. The estimated cost is 300,000 crowns. At the head of the list of contributors is the name of His Imperial Majesty the Emperor Francis Joseph, who gives 10,000 crowns from his privy purse.

THE lecture arrangements at the Royal Institution, London, after Easter include a course on Recent Methods and Results in Biological Inquiry by Dr. Allan Macfadyen, and the Tyndall Lectures on the Laws of Heredity with Special Reference to Man, by Dr. Karl Pearson. The Friday evening meetings will commence on April 11th, when Professor Dewar will deliver a Discourse on Problems of the Atmosphere. Succeeding Friday evening discourses will be delivered by Sir John H. A. Macdonald, Dr. J. Mackenzie Davidson, Sir Robert Ball, Sir Benjamin Baker, and Professor A. E. Tutton.

THE annual dinner of the British Laryngological, Rhinological, and Otological Association was held on March 14th, at the Café Royal, Regent Street. Dr. John Macintyre, F.R.S.E., the President of the Association, was in the chair. After the toast of "The King" had been duly honoured, Dr. C. O. Hawthorne proposed "The British Laryngological, Rhinological, and Otological Association." He said that the general body of medical men were indebted to those who worked in the special departments. The justification of the Association was found in the fact that the results of the researches of its members were found sooner or later to be of service in the practice of medicine. The toast was responded to by Mr. Lennox Browne, who described how the Association began in Ireland in 1887 at the meeting of the British Medical Association, when Dr. Whistler was President of one of the Sections dealing with the subjects they were interested in. They could judge of the success of the Association by its published *Transactions*. Sir William Dunn, M.P., in replying to the toast of "The Guests," expressed the pleasure they had experienced in accepting the hospitality of the Association. Mr. Wilhelm Ganz also replied to this toast, and the proceedings terminated by a cordial speech from Mr. Mayo Collier proposing the health of "The Chairman," to which the latter suitably replied.

ROYAL DENTAL HOSPITAL OF LONDON. On March 13th the annual general meeting of governors of this hospital was held in the new building in Leicester Square, which is now complete, and has been open for the reception of patients during the last nine months. During the year 70,040 patients have been treated, being an increase of 864 over the previous year.

THE MEATH HOME FOR EPILEPTICS. The ninth annual report of the Meath Home for Epileptic Patients at Godalming shows that many improvements have been carried out during the past year. Foremost among these may be mentioned the foundation of a convalescent home at Hayling, given by the Countess of Meath, for the accommodation of 12 patients. The Medical Officer, Dr. Dundas Minchin, reports that this addition has proved distinctly beneficial not only to the general health, but also to the epileptic condition of several of the patients. He also reports, as a result of the treatment in general, marked improvement in all cases in the health and *morale* of the patients even when the epilepsy itself has appeared to be unrelieved. Several cures and several cases of considerable clinical interest are mentioned, and the Home evidently continues to be a most useful institution.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on February 28th. The chair was taken by Dr. de Havilland Hall, and there were also present Dr. J. B. Ball, Dr. Walter Smith, Dr. F. R. Mutch, Dr. M. Greenwood, Mr. F. S. Edwards, Dr. Frederick S. Palmer, Dr. St. Clair B. Shadwell, and Dr. W. Knowsley Sibley. As is usual in the spring of the year there was a long list of claims. The more recent were not for the most part of a serious nature. A few arose from septic wounds and other accidents to which medical men are specially liable, some from bronchial affections, and not a few have been caused by influenza, but the more recent experience gives reason to hope that nothing like the virulence of the previous epidemics need now be apprehended. A larger number than usual of the members are availing themselves of the power given them by the rules to apply to have the sickness benefit increased to £4 4s. per week. This may be done by any member of five years' standing, and the increased rate of remuneration obtainable by competent assistants makes this course a very desirable one for general practitioners. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

MEDICAL VACANCIES.

The following vacancies are announced:

BEDFORD COUNTY HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with apartments, board and washing. Applications to the Secretary by April 2nd.

BIRMINGHAM AND MIDLAND SKIN AND URINARY HOSPITAL.—Assistant Surgeon. Applications to the Secretary by April 2nd.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon. Appointment for six months. Salary, £50, with residence, board, and washing. Applications to the House Governor by March 29th.

BOOTLE: BOROUGH HOSPITAL.—Junior Resident. Salary, £80 per annum, with board and laundry. Applications to the Secretary.

BRADFORD POOR-LAW UNION.—First Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £125 per annum, with prescribed rations, apartments, and washing. Applications to the Clerk, 22, Manor Road, Bradford, by March 25th.

BRECON INFIRMARY.—Resident House-Surgeon; unmarried. Salary, £120 per annum, with furnished apartments, board, etc. Applications to the Secretary, No. 6, Bulwark, Brecon, by March 26th.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth; unmarried. Salary, £120 per annum, with furnished apartments, rations, washing, etc. Applications on forms provided to be sent to the Clerk to the Guardians, Union Offices, Isleworth, by April 1st.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence. Applications to Mr. Johns Coombs, Honorary Secretary.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN.—House-Surgeon; unmarried and under 30 years of age. Salary, £80 per annum, with furnished apartments, board, etc. Applications to the Clerk, 76, West Street, Brighton, by April 4th.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer; unmarried. Appointment for six months. Salary at the rate of £100 per annum, with furnished apartments, board, etc. Applications to the Secretary by April 8th.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary, £120 per annum, with board, apartments, and laundress. Applications to the Secretary by March 26th.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer. Salary, £120 per annum, rising to £150, with board, furnished apartments, etc. Applications to the Medical Superintendent by March 28th.

DOWN COUNTY INFIRMARY.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to Dr. Tate, Downpatrick, by April 3rd.

DUBLIN: ROYAL UNIVERSITY OF IRELAND.—Extern Examiners in Surgery, Midwifery, Pathology, and Ophthalmology. Remuneration, £50, £35, £25, and £20 respectively, with usual travelling, etc., allowances. Applications to the Secretaries by April 10th.

DURHAM COUNTY HOSPITAL.—(1) House Surgeon. Salary, £100 per annum. (2) Assistant House-Surgeon. Salary, £65 per annum. Board and lodging provided in each case. Applications to the Secretary, 93, Saddler Street, Durham, by April 4th.

EDINBURGH: CRAIGLOCKHART POORHOUSE AND HOSPITAL. Medical Officer. Salary at the rate of £200 per annum, with board and apartments. Applications to the Clerk, Parish Council Chambers, Castle Terrace, Edinburgh, by April 7th.

EDMONTON URBAN DISTRICT COUNCIL.—Assistant Resident Medical Officer for Small-pox Hospital. Applications to the M.O.H., Town Hall, Edmonton.

GLASGOW EYE INFIRMARY. Resident Assistant House-Surgeon. Salary, £75, with apartments and board. Applications to the secretary by March 29th.

GUY'S HOSPITAL. Demonstrator of Bacteriology and Bacteriologist to the Hospital. Salary, £180, rising to £200 per annum. Applications to the Treasurer by April 12th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HANLEY, STOKE, AND PENKON JOINT HOSPITAL BOARD. Lady (Resident) Assistant Medical Officer at the Infectious Diseases Hospital, Bucknall. Salary, £80 per annum, with board, residence, and washing. Applications to the Clerk to the Board by March 25th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident House Physicians. Appointment for six months. Honorarium £25. Applications to the Secretary by April 6th.

HUDDERSFIELD INFIRMARY.—Assistant House Surgeon. Salary, £60 per annum, with board, residence, and washing. Applications to the Secretary.

LIVERPOOL DISPENSARIES.—(1) Head Surgeon; not under 25 years of age, unmarried. Salary, £200 per annum. (2) Two Assistant Surgeons; unmarried. Salary, £100 per annum. Board and apartments provided in each case. Applications to the Secretary, 9, Vauxhall Road, Liverpool, by March 27th

LONDON UNIVERSITY.—Demonstrator in the Physiological Laboratories. Initial salary, £150. Applications to the Principal by April 14th

MAIDSTONE: KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Secretary by March 26th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary, £80 per annum, with apartments and board. Applications to Mr. H. Teague, Secretary, 38, Barton Arcade, Manchester, by March 25th.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary by April 5th.

MIDDLESEX COUNTY ASYLUM, Upper Tooting.—Assistant Medical Officer. Applications to the Medical Superintendent.

MONTROSE ROYAL ASYLUM, Sunnyside.—Senior Assistant Medical Officer. Salary, £200 per annum, with usual allowances. Applications to the Medical Superintendent by March 31st.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon; unmarried, and not more than 30 years of age. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by April 1st.

NOTTINGHAM CHILDREN'S HOTPITAL.—House Surgeon; unmarried. Salary, £100 per annum, with board and residence. Application to the Secretary, Mr. A. F. Kirby, St Peter's Church Walk, Nottingham, by March 24th.

PIETERMARITZBURG: GREY'S HOSPITAL.—Resident Medical Superintendent, over 25 years of age. Salary, £350 first year, £400 second year, with board, lodging, and washing. Applications to the Agent-General for Natal, 36, Victoria Street, Westminster, S.W

ST. PANCRAS WORKHOUSE.—Senior Assistant Medical Officer, over 30 years of age. Salary, £135 per annum and residential allowances. Applications on forms provided to be sent to the Clerk to the Guardians, Town Hall, Pancras Road, N.W.

SOUTHAMPTON INCORPORATION.—Resident Assistant Medical Officer at the new Infirmary, Shirley Warren; not exceeding 28 years of age. Salary, £100 per annum, with apartments, rations, washing, and attendance Applications, endorsed "Resident Assistant Medical Officer," to be sent to the Clerk to the Guardians, Workhouse, Southampton, by April 7th.

TEIGNMOUTH HOSPITAL.—House-Surgeon. Salary, £70 per annum, with board, lodging, and washing, and £6 in lieu of mineral waters or stimulants. Applications to the House Committee.

TOTTENHAM HOSPITAL.—House Surgeon. Salary, £50 per annum, with board, residence, and laundry. Applications to the Chairman of the Joint Committee, Tottenham Hospital, N., by April 7th.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board, furnished apartments, etc. Applications to the Assistant Secretary by April 1st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, S.W.—House-Physician. Appointment for six months. Honorarium £25, with board and lodging. Applications to the Secretary by March 29th.

MEDICAL APPOINTMENTS.

BRISCOE, William Thomas, M.D.Dub., M.Ch., reappointed Medical Officer of Health to the Chippenham Corporation.

CRUISE, Richard R., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Bristol Eye Hospital.

GRIFFIN, Innes, M.R.C.S.Eng., reappointed Medical Officer of Health for Banbury.

JUDSON, J. E., M.R.C.S.Eng., L.R.C.P.Lond., late Senior Resident Medical Officer of the Manchester Workhouse, Crumpsall, appointed House Surgeon to the District Infirmary, Ashton-under-Lyne.

MARTIN, J. Middleton, M.B., B.C., D.P.H.Camb., appointed Medical Officer of Health for the Stroud Urban District Council, *vice* T. Partridge, M.R.C.P.Irel., M.R.C.S.Eng., resigned.

MEACHEN, G. Norman, M.B., B.S.Lond., M.R.C.P.Edin., appointed Honorary Dermatologist to the Tottenham Hospital, N.

WILSON, W. Cheyne, M.D.Edin., appointed Physician to the South Devon and East Cornwall Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. G. E. Herman will open a discussion on The Treatment of Puerperal Eclampsia.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Communications by Mr. C. W. Glassington, Mr. Ernest B. Dowsett, Mr. Arthur Underwood, and Mr. E. Lloyd-Williams.

TUESDAY.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, Chelsea Gardens, Grosvenor Road, S.W., 8.30 p.m.—Annual Clinical Debate. On Cancer, its Nature, Origin, and General Principles of Treatment. The following will take part in the discussion: Professor Howlett, Mr. D'Arcy Power, Dr. H. R. Gaylord (New York), Communication on Cancer in Swine (with Lantern Slides); Professor Adami (Montreal), Communication; Dr. J. F. Payne, who will deliver the Closing Address.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Mr. A. W. Mayo Robson: The Surgical Treatment of Obstruction in the Common Bile Duct by Concretions, with especial reference to the operation of choledochotomy as modified by the author, illustrated by 10 cases.

POST GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, throat

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CULHANE.—On the 15th instant, at Glin House, Hastings, the wife of F. W. S. Culhane, of a son.

PEARSON.—On the 18th March, at Alicedale, South Africa, the wife of Maurice Grey Pearson, M.B., B.Sc., F.R.C.S., of a son.

WARRACK.—At Glenview, Westberry Avenue, Wood Green, N., on the 15th inst., the wife of James Stratton Warrack, M.D., C.M., M.A.Aberd., of a daughter.

MARRIAGE.

HOLCROFT—RICHARDSON.—At St. Brooke Church, Wadebridge, Cornwall, on the 13th inst., W. F. Lucius Austen-Holcroft, M.B., B.Ch.Edin., son of the late F. W. Holcroft, of Sevenoaks, Kent, to Ruth Seymour, eldest daughter of J. B. Richardson, Esq., M.D., of Trevanion, Wadebridge, and Greenfield, Flintshire.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those [illegible] business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated*

AUTHORS desiring reprints of their articles [illegible] BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. J. W. asks for advice in the treatment of facial paralysis in an infant 6 months old.

H. wishes to know whether a young man aged 19, who suffers from occasional slight asthmatic attacks (once or twice a year) would be prevented on that account from passing the medical examination for candidates for the Excise Department of the Civil Service.

HOME FOR DEFECTIVE PERSON.

KEELING writes to ask for information as to a suitable home or institution for a female, aged 27, who is ill-developed physically (being under 4 feet in height), and in intellect is in the condition of a child. Her behaviour is quiet, and she gives no trouble. A sum of 10s. a week could be found for her maintenance.

HYDROFLUORIC ACID AND FLUORIDES IN FOOD.

A. E. P. asks for references or other information in connexion with the medicinal use of hydrofluoric acid and the fluorides, and as to whether any injurious effects have resulted from their administration. He finds that there is an increasing tendency to use them as food preservatives. He has noted references with regard to their use in Martindale and Westcott's *Extra Pharmacopœia*, 9th edition.

TREATMENT OF POISONED WOUNDS.

A. G. L., who has recently suffered from a poisoned wound incurred while operating on an empyema by resection of a portion of a rib, states that the inoculation took place at the thumb, which became inflamed on the following day, and on the fourth day a brawny swelling extended to the back of the hand. The thumb was incised, but a little later extension of the swelling to the arm led to another incision being made; the temperature was raised and the general symptoms grave. Eventually our correspondent made a good recovery, but the point upon which he wishes for opinions is that the incisions were treated with hot fomentations, whereas in his younger days, when house-surgeon, the treatment was by cold lead lotion. He asks whether the cold lotion and icebags would not be more likely to check the growth and spread of microbes.

TREATMENT FOR CASE OF ABSCESS OF ANTRUM.

DR. W. N. ISAAC (Molteno, Cape Colony) asks for suggestions for treatment under the following circumstances: For a year or more he had had an abscess at the root of the second left upper bicuspid, which was followed by evidence of suppuration in the antrum of Highmore. Free communication was established between the socket of the tooth and the antrum, and systematic syringing with weak Condy's fluid was practised. Later the turbinate bones became swollen, and facial erysipelas developed after contact with a case. Now there is on alternate days either stoppage of the affected side of the nose with cessation of discharge and frontal pain, or a constant, thin, watery discharge with no pain. Syringing will not of itself remove the obstruction.

THE CENSUS.

J. J. B. asks if a M.O.H. can obtain the census returns for his borough at the present time, giving particulars as to age, occupation, boundaries of enumeration districts, etc. He has been unable to obtain these particulars from the local registrar or the Registrar-General

"*" Probably J. J. B. has a copy of the *Preliminary Census Report* (Eyre and Spottiswoode, 1s. 5½d.). This gives the number of houses, population, and area of each sanitary district. The detailed census report for London has already been issued. The corresponding report for [illegible]shire is promised next. "Other counties [illegible] taken up in order, having due regard to [illegible] portance," is the promise made in the *Preliminary Census Report*. We fear that our correspondent must wait the fulfilment of this promise As regards boundaries of enumera[illegible] within the scope of information w[illegible] Act can be obtained from the Registrar-General on payment of a fee But the Registrar-General need not supply this information until it can be conveniently done in view of the other work of his department.

ANSWERS.

BACTERIOLOGIST.—The whole subject is still a matter upon which great difference of opinion exists among bacteriologists. A good summary will be found in the *Manual of Bacteriology* by DRS. Robert Muir and James Ritchie (Edinburgh and London: Young J. Pentland, 1899).

TREATMENT OF NOCTURNAL ENURESIS.

DR. GERALD HOVENDEN (Barnes) writes: As I have had considerable success in the treatment of nocturnal enuresis on the following lines, the suggestions may be of some use to "M.R.C.S." I allow no fluids of any kind after five o'clock. At bedtime the child is made to pass water thoroughly, and I give a dose of mixture containing about 5 gr. of potassium bromide and 5 to 10 min. of tincture of belladonna. Some means is then taken to prevent the child ever sleeping in the dorsal position; anything sufficiently uncomfortable does very well, such as a knotted towel or a bunch of cotton reels; care being taken that the knot or reels cannot shift from their position. In addition to attending to any abdominal irritation due to constipation, worms, or irregular feeding, I make sure that the child is a nasal breather, if not already so, either by breathing exercises or operation. Improvement takes place almost at once. The mixture is gradually left off by giving it every other night and then at longer intervals. The other details must be persevered in for several months or relapse is sure to occur.

VENEREAL WARTS.

DR. G. A. FERRABY (Nottingham) writes, in reply to "Navalis" in the BRITISH MEDICAL JOURNAL of March 8th: I have found the most effectual caustic to be trichloracetic acid in saturated solution, applied to the warts carefully so that very little of the surrounding healthy skin is whitened by the acid. The pain produced by its application to small venereal warts is very transient, lasting only about 5 or 10 seconds, and I have never seen a relapse, except when very small papillomata were left untouched. The smallest visible papillae should be touched. The acid does not act well for ordinary warts, pain being prolonged and the effect uncertain.

LETTERS, NOTES, Etc.

THE DUFFIN FUND.

DR. HECTOR LEAK (Winsford, Cheshire). Honorary Treasurer of this fund, writes that he has received the following subscriptions on behalf of the family of the late Mr. Robert John Duffin, M.B., M.Ch.R.U.I., in addition to those already announced. Full particulars of the case will be found in the BRITISH MEDICAL JOURNAL of February 22nd, p. 279.

	£	s.	d.
Barnoldswick Ambulance Corps	0	12	6
Dr. Boileau, Trowbridge	0	10	0
Mr. W. P. Brooks	0	10	0

RIGIDITY UNDER CHLOROFORM.

DR. J. GAY MOFFAT (Keighley) writes: I am obliged to your correspondent, Dr. J. Blumfeld, for his notice in the BRITISH MEDICAL JOURNAL of March 15th of my case. I may say that in the case described by me there was neither obstructed breathing nor cyanosis. The patient had suffered from the presence of gall stones for about fifteen months, and was in other respects healthy. With regard to adhesions, these were present, but were not well marked and were easily broken down. I was already aware that the condition described by me had been met with before in connexion with chronic inflammatory disease in the upper part of the abdomen, and I believe I have seen it mentioned that the rigidity sometimes limits itself to the affected side of the abdomen; but this does not explain satisfactorily to my mind why it should occur—as I presume it does—in only a small percentage of such cases, nor does it furnish me with any means which may be used to combat it.

CINNAMON IN THE TREATMENT OF INFLUENZA.

DR. J. CARNE ROSS (Withington, Manchester) writes to call the attention of the profession, during the present epidemic of influenza, to the good results he has obtained during the last eleven years from the employment of cinnamon. He originally used a decoction of cinnamon, or the drug in compressed tablets; he now finds that the oil of cinnamon, which is more easily obtainable, is more effectual than the decoction, and that it may be used with effect even though the disease has shown itself for over twenty-four hours. He prescribes 5 minims of the oil of Ceylon cinnamon in a tablespoonful of water every hour till five doses have been taken, after that the same dose every two hours till the temperature becomes normal, when the dose should be taken four times a day for three days. The patient is required to stay strictly within doors for twenty-four hours after the temperature has fallen.

INTRATRACHEAL INJECTIONS IN PHTHISIS.

DR. R. EDDOWES LEGAT writes: In reference to your article in the BRITISH MEDICAL JOURNAL on the treatment of respiratory affections by medicinal inhalation through the larynx, I should like to put it on record that [illegible] was employed and recommended by the late Professor of [illegible] Edinburgh University, Sir Thomas [illegible] in cases of bronchiectasis and [illegible]. The formulae he recommended were: Menthol, 10 parts; [illegible] about 5j to be injected in cases of [illegible] and [illegible] olivae, 5j, three to five minims to be injected in cases of phthisis.

HYDROGEN PEROXIDE IN THE TREATMENT OF LUPUS VULGARIS AND [illegible].

DR. W. J. MIDDLTON (Bournemouth) writes: I am much interested by DR. GUNSON'S paper (BRITISH MEDICAL JOURNAL, February 22nd, 1902, p. 443) on the use of hydrogen peroxide as an application to raw surfaces. I have used it [illegible] for a great twelve months, but not alone; I use it in conjunction with [illegible] this latter not only breaks up the hydrogen peroxide more readily than the discharges alone, but is of great value in feeding the half dead tissues. The following are a few of my cases:—Chronic ulcer of leg: Soundly healed in six weeks; now (eight months after) scar sound and woman in full work. Carbuncle: Rapid healing, in spite of patient being in a broken-down condition from chronic dyspepsia, causing constant vomiting. Extensive ulcer from a burn: Very rapid healing; splendid scar: enormous area of skin affected by psoriasis running on to dermatitis; patient, after fourteen years of suffering, rapidly approaching recovery after only eight weeks of treatment, with a break of three weeks between the third and sixth weeks. Diphtheria: Rapid disappearance of membrane. Several cases of chronic suppurative otitis: Very marked improvement.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Dr. J. Adamson, Hetton-le-Hole; Dr. J. H. Abram, Liverpool; A. J. W.; Dr. J. W. Anderson, London; A. E. P.; Mr. J. Aitchison, London. **B** Dr. J. R. Bradford, London; Mr. J. P. Bush, C.M.G., Clifton; Mr. J. Buchanan and Co., London; Dr. G. H. Brand, Northampton; A. C. Barron, M.B., Dailly; J. F. Bullar, M.B., Southampton; P. Boobbyer, M.B., Nottingham; Mr. W. Berry, Wigan; J. J. Boyd, M.B., South Shields. **C** Mr. R. M. Craven, Kendal; H. M. Cooper, M.B., Hampton-on Thames; Dr. A. C. Coles, Bournemouth; Messrs. J. and A. Churchill, London; Mr. C. E. Cassal, London; Miss A. M. Corthorn, M.B., London; Chemists; Dr. J. Cotter, Cork; Dr. A. Cooper, London; Carl; Correspondent; Mr. A. Challinor, London; Dr. H. Coates, Burton on Trent. **D** Dr. A. W. W. Dowding, Salcombe; Dr. E. A. Dent, Cheltenham; Dr. D. S. Davies, Bristol; Dr. T. Dean, Burnley; Dr. E. V. Dingle, Middlesbrough. **E** Enquirer; Dr. W. E. L. Elliott, Crowborough; Mr. T. S. Ellis, Gloucester; Dr. W. A. Evans, Bradford. **F** Dr. W. F. Farquharson, Carlisle; Dr. D. Fairweather, London; Mr. G. A. Ferraby, Nottingham; "Florence Warden"; Dr. A. M. Fraser, Southsea. **G** Mr. P. T. Goodman, London; C. Goodman, M.B., Cairo; Dr. J. G. Glover, London; Dr. W. J. Gow, London; G. A. J.; J. G. Gornall, M.B., Warrington; Dr. J. E. Gould, Bolton; Dr. R. Green, Gateshead. **H** Dr. M. L. Hepburn, South Lowestoft; Mr. J. Hutchinson, Jun., London; G. E. Herman, M.B., London; Dr. G. S. Hovenden, London; Dr. A. Hillier, London; Dr. T. A. Helme, Manchester; Mr. F. H. Hudson, Buntingford; Dr. A. Hill, Birmingham; Dr. W. J. Howarth, Derby; Dr. E. W. Hope, Liverpool; F. D. Harris, M.B., St. Helens; Dr. J. Howard-Jones, Newport, Mon. **J** Mr. S. E. Jones, Wrexham; Dr. J. M. Johnson, Leek; Dr. J. D. Jenkins, Rhondda. **K** J. Kirkland, M.B., London; Keeling. **L** London Graduate; Mr. R. Lake, London; Mr. W. J. Lineham, London; Mr. P. G. Lodge, Bradford; Mr. R. J. Love, Indwe; Mr. T. Leigh, Brighton; L.R.C.P.E.; Mr. H. Leak, Winsford; Mr. R. E. Lauder, Southampton. **M** Member; Dr. A. H. M. Macmorran, London; Mr. H. E Mann, London; Dr. J. E. Moorhouse, Stirling; Dr. D. McKenzie, Leytonstone; Dr. J. H. Mummery, London; Medical Officer; W. S. Malcolm, M.B., Dundee; Dr. J. J. Macan, Cheam; Mr. H. R. Mansell, Hastings; Dr. J. G. Moffat, Keighley; Mr. J. May, Jun., Devonport; Mr. J. H. H. Manley, West Bromwich; Dr. C. K. Millard, Leicester; Mr. J. W. Mason, Hull; Mr. W. Monnington, London; S. G. Moore, M.B., Huddersfield. **N** Newcomer; Dr. E. F. Neve, Srinagar; Nottingham Medical Society, Secretary of, Nottingham; J. Niven, M.B., Manchester; Dr. T. Newby, Great Grimsby; Dr. J. T. Neech, Halifax. **O** Mr. J. W. Olmstead, London; C. Ogle, M.B., London; Dr. B. O'Connor, London; The Other Side. **P** R. Parker, M.B., Liverpool; Mr. S. Paget, London; Public Vaccinator; E. M. Payne, M.B., London; T. J. Pritchards, M.B., Retford; Dr. C. A. Patten, London; Dr. H. C. Pattin, Norwich. **R** Dr. J. C. Renton, Glasgow; Mr. T. F. Raven, Broadstairs; Mr. W. Redpath, Ballymoney; Dr. D. D. Rogers, Chicago; Dr. R. R. Rentoul, Liverpool; Mr. C. H. Russell, Great Yarmouth; Dr. J. Richmond, Handsworth; Dr. J. Robertson, Sheffield. **S** Mr. R. Stewart, London; Dr. A. Scott, Braintree; Swiss Milk Society, Manager of, London; Dr. J. H. Swanton, London; Senior Officer; Sufferer; R. D. Shiels, M.B., Tiverton; B. Squire, M.B., London; Sigma; T. Stevenson, M.B., Liverpool; Mr. A. M. Stirling, Glasgow; Dr. E. H. Starling, London; Mr. T. W. Shepherd, Launceston; Messrs. Squire and Sons, London; Mr. J. Settle, Barrow-in-Furness; Dr. E. M. Smith, York; Dr. H. Scurfield, Sunderland; E. A. Saunders, M.B., London. **T** Mr. B. Thornton, Margate; Mr. M. R. Taylor, Helston; Mr. C. H. Tattersall, Salford; Mr. D. J. Thomas, Merthyr Tydfil. **V** M.O. and A.M.R. **W** Dr. H. Waldo, Clifton; Dr. N. Walker, Edinburgh; Dr. A. Whitfield, London; Mr. W. R. Williams, Clifton; Mr. W. B. Winckworth, Taunton; Mr. C. H. Whiteford, Plymouth; Dr. R. H. Watson, Hamilton; Dr. E. F. Willoughby, London; A. Wauchope, M.B., Glasgow; Mr. D. Wilson, Jun., Whitebbey; Rev. H. Wilson, London; Mr. W. L. Woollcombe, Plymouth; Mr. F. M. Williams, Plymouth; Dr. J. B. Wilkinson, Oldham. **X** X. **Y** A. Young, M.B., Glasgow; Dr. M. Young, Stockport. **Z** Zocco Limited, Manager of, London.

BOOKS, Etc., RECEIVED.

Transactions of the American Gynecological Society. Vol. 26. Philadelphia: W. J. Dornan. 1901.

The Case for Vaccination. By E. Brown, M.R.C.S., L.R.C.P. London: Baillière, Tindall, and Cox. 1902. 1s.

A Treatise on the Acute Infectious Exanthemata. By W. T. Corlett, M.D., L.R.C.P. London: Henry Kimpton. 1902. 18s.

From Cradle to School. A Book for Mothers. By Mrs. A. S. Ballin. London: A. Constable and Co. 3s. 6d.

A Plea for Sense and Science. By J. Atkinson, F.R.C.V.S. London: W. Straker.

The Treatment of Neurasthenia. By A. Proust and G. Ballet. Translated by F. C. Smith, L.R.C.P., L.R.C.S., L.F.P.S. London: Henry Kimpton. 1902.

Startling Relations concerning Small-Pox, and How to Prevent It. By George Reynolds. London: J. F. Haines 2d.

Health, Speech, and Song. A Practical Guide to Voice Production. By J. Bell-Rinske. London: Swan Sonnenschein and Co. 1902. 4s. 6d.

Entstehung und Verhütung der Blindheit. Von Dr. L. Hirsch. Jena: Gustav Fischer. 1902. M.3.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	1	17	6
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

Remarks
ON
CASES OF LYMPHANGIECTASIS
WITH
ENORMOUS OVERGROWTH OF CUTANEOUS AND SUBCUTANEOUS STRUCTURES.

(With Coloured Plate.)

BY WALTER WHITEHEAD, F.R.C.S.EDIN., F.R.S.EDIN.,
Consulting Surgeon to the Manchester Royal Infirmary; President-Elect of the British Medical Association.

THE following cases present certain points of resemblance which induce me to publish them together. They, however, are in many respects divergent, and I do not wish to assert that the initial pathological process was the same in each. The first case is remarkable on account of the enormous size to which the growth attained, but its pathology is very obscure. Before proceeding to discuss this, however, it will be necessary to give a full account of the history of the case and of the anatomical changes found.

CASE I.—REMOVAL OF UPPER LIMB AND SCAPULA FOR MOLLUSCUM FIBROSUM.

R. S., aged 32, was sent to the Manchester Royal Infirmary by my friend, Dr. William Sellers, late of Radcliffe, and now a member of the Northern Circuit, on July 19th, 1897.

History.

The history supplied by the patient is briefly as follows: Previous to a fracture of his right arm, when between 5 and 6 years of age, his two arms were, for anything he knew, precisely alike and perfectly normal.

Somewhere about eighteen months after this accident his parents noted a rash on the back part of his right arm, and shortly after this it was observed that the flesh on the posterior part of the arm began to swell and hang down in folds. Up to his sixteenth year the enlargement very slowly and gradually increased, until it had extended to the wrist below and as high as the shoulder above, and depended from the arm about 2 inches. After this period the mass commenced to grow much faster, and at the age of 27 the rate of increase became still further accelerated. The patient estimated that during the last four years the tumour had more than doubled itself in size, and he said that during the last five months the increase was still more marked and rapid. In the earlier years of his trouble a surgeon made an incision into the growth with the intention of removing it, but the attempt was abandoned in consequence of the alarming haemorrhage which occurred. This statement was corroborated by the son of the surgeon who made the incision.

Condition on Admission.

The general appearance of the tumour before operation is well shown in Figs. 1, 2, and 3, reproduced from photographs. Its dimensions were as follows: Length, 32 inches; breadth, 24 inches; depth, 12 inches.

The hand was perfectly free from any abnormal conditions, and the patient had the free use of his wrist and fingers. Sensation was natural all over the tumour. Over the shoulder and about the middle of the forearm there were large superficial ulcerated surfaces due to pressure (Fig. 2). The patient, up to a few weeks previous to his entering the hospital, had been in the habit of going about with his arm slung in a specially constructed sleeve. At one spot pus was being freely discharged from a deeply situated abscess in the substance of the growth and at its most dependent part.

The specific gravity of the urine was 1022; it was alkaline in reaction, and contained a slight trace of albumen and quantities of phosphates.



Fig. 1. Side view.

Operation.

The operation was performed on September 2nd, 1897, and the various stages of the procedure were as follows:

(*a*) Enucleation of outer two-thirds clavicle.

(*b*) Anterior axillary incision, exposing axillary and subclavian vessels.

(*c*) Ligature of vessels and division (high up) of brachial plexus.

(*d*) Amputation (disarticulation) at shoulder and sawing through acromion.

(*e*) Enucleation of scapula with its own muscles (subscapular, supraspinatus, and infraspinatus.

(*f*) Suturing flaps and drainage.

The patient having been brought under the influence of ether and placed on the operating table in the well of theatre, with the tumour supported on an ether-spray carrier, an incision, commencing about one inch external to the right sterno-clavicular joint, was carried down to the clavicle, and nearly to the region between coracoid and acromion. Through this incision the clavicle was cleared of soft parts as far as possible, and cut through with bone-forceps about one inch and a-half external to the sterno-clavicular joint. The bone was then lifted up by its free end and enucleated. From the outer end of this incision another was made downwards to the middle of the axilla, and after dividing skin, fascia, the pectoral muscles, and part of the deltoid muscle, the axillary and subclavian trunks were exposed, cleared, and ligatured in two places, with division between the ligatures. The arm was now allowed to drop somewhat from the front, so as to open up the axilla still further. The cords of the brachial plexus having been divided high up, the head of the humerus was disarticulated and freed by sawing through the acromion, and a posterior incision enabled the arm to be completely removed from the body. It was now found that the skin was insufficient to cover the stump, and the scapula being of no further use, it was decided to remove it so as to afford sufficient skin covering. This was accomplished by letting it fall back, and then cutting through the serratus magnus and the rhomboids; the skin was now dissected from the spine of the

scapula and from the aponeurosis over the trapezius and infraspinatus muscles, the latissimus dorsi muscle was divided at the attachment to the scapula and the removal completed. Two or three enlarged and softened axillary glands, with recent haemorrhages into their substance, were next removed from the axilla. One or two suspicious lobules of fat in the anterior flap were removed; a large drainage tube was made to perforate the posterior flap, and was stitched in the wound so as to lie antero-posteriorly. The skin flaps were brought together by many silk sutures, and wood-wool dressing applied.



Fig. 2.—Front view.



Fig. 3.—Back view.

Very little blood was lost during the operation, probably less than 4 oz., a large number of Spencer Wells forceps being used. Every precaution to prevent loss of heat during the operation was taken. The tumour with arm and scapula weighed 70¼ lb.

After-Treatment.

The after-progress was uneventful. There was very little shock after the first three hours. The first dressing took place ten days after the operation, when the wound, with the exception of the drainage track, was healed. To lessen the chances of any clot being detached and possible embolism, extreme care was taken to disturb the patient as little as possible, and all voluntary movement on his part was prohibited. The condition of the patient after the operation wound had healed is shown in Figs. 4 and 5.

Later History.

The patient left the hospital on November 9th, 1897, but was readmitted on January 26th, 1898, to have a mass of growth removed from the anterior chest wall on the same side from which the arm had been removed. This growth resembled the abnormal condition of the arm, and commenced to grow very rapidly directly he left the hospital. The weight of this growth was about 2 lb., and on removal it was found to be similar in character to the main tumour. The wound healed by first intention, and he left the infirmary on February 23rd, 1898. I saw the patient in January, 1902, and found him in robust health and entirely free from recurrence.

Report on the Pathological Anatomy.

This case, in addition to the immense weight of the growth and the successful issue of the operation presents many characters of noteworthy interest. As will be seen from the coloured plate and from Fig. 2, the right arm was placed upon and partly embedded in, the tumour, which had grown almost entirely on the extensor surface of the limb and around the region of the shoulder-joint. The growth ceased at the level of the wrist below (see coloured plate and Fig 2) so that the hand was entirely free (and could be moved with ease by the patient), and there was practically no abnormal growth of skin over the greater part of the flexor surface of the forearm and arm, whilst the extensor surface of the upper half of the arm and the region of the shoulder showed earlier stages of growth in the skin (Figs. 1, 2, and 3). About the lower three-fifths of the growth presented the usual appearance of a huge molluscum fibrosum with pendulous folds, having a coarse, irregular, ridged surface, dotted here and there with the enlarged openings of sebaceous glands or hair follicles. There was a large ulcerated surface (Fig. 2) on the largest lobule, opening into a cavity in the tumour, due to degeneration and breaking down of some of the growth, and making a space large enough to contain a full-sized orange. Lying along the outer border and front of the forearm were a large number of

separate, small, pedunculated nodules; and from the corresponding border of the main growth sprang other larger nodules. About half way up the arm, and chiefly on the extensor surface, were a few isolated patches of small size, showing sessile, papillary growth with ill-defined margin; they were evidently commencing nodules of fibrous tissue. About the shoulder the molluscum was more diffuse, was sessile, and presented three or four small areas of ulceration.

Underlying the entire skin from about the elbow and spreading up to and around the shoulder-joint, so as to mask deeper parts, (Fig. 1, and also Figs. 2 and 3) was a huge



Fig. 4.—After operation; side view.

lipomatous growth, which on examination was found to be quite free from the skin, to consist of fairly large lobules, and to present on section a granular, firm appearance, suggesting an increased amount of connective tissue element.

On reflecting the normal skin by incision along the anterior surface of the forearm and tracing out a branch of the external cutaneous nerve from the elbow almost to the wrist, it was found that whilst the nerve trunk itself was apparently normal, at intervals branches were given off and passed directly up to the necks of the pedunculated fibromata in turn, and were evidently distributed within these. A similar relation was traced out by taking a cutaneous nerve on the opposite border of the forearm.

Microscopical sections were prepared from the commencing nodules on the arm, a small nodule near the wrist, one of the large folds of the main growth, of skin near the shoulder, and of the fatty tissue making up the tumour about the shoulder and arm.

Skin taken near the region of the shoulder appeared to be normal except for some slight round celled infiltration of the corium.

The early nodules taken from the arm showed an outgrowth commencing in the base of the papillary layer of the corium, and consisting chiefly of white fibres mingled with a few yellow elastic fibres (Fig. 6). The papillae of the affected area protruded and pushed in front of them the epithelial layers which were stretched and at first thinned out. Cell infiltration was well marked in the region of the plexus of cutaneous blood vessels.

Sections of the small nodule taken near the wrist showed (Fig. 7) a greater outgrowth of this layer of fibrous tissue, which from its normal and somewhat laminated feltwork had

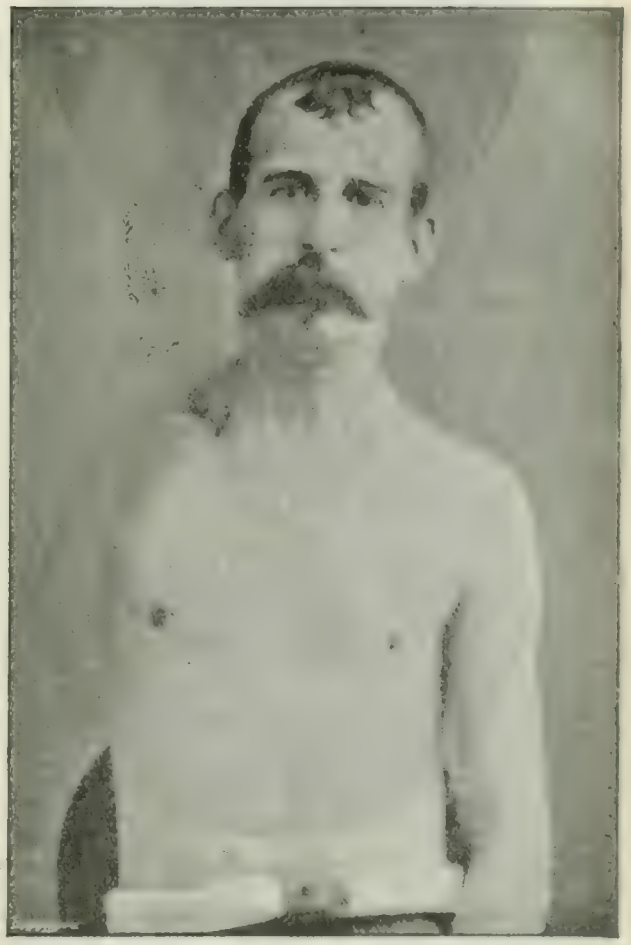


Fig. 5.—After operation; front view.

become a tangle of fibres in which the tendency to grow towards the epithelial layer was marked, and caused the protrusion of papillae noted above. Blood vessels, sebaceous glands, and lymphatics here showed well-marked cell infiltration. The general aspect of these small, pedunculated growths was that of a tangled mass of (chiefly) white fibrous tissue distending a capsule of thinned out epithelium.

Sections of the large fold of the tumour showed (Fig. 8) enormous increase in the white fibrous tissue, which was here placed most irregularly, and had a considerable number of yellow elastic fibres scattered through it, and here and there stellate cells forming groups where mucoid degeneration had occurred. The sebaceous glands had hypertrophied, and were placed at a greatly increased distance from the skin surface, where the epithelial layers were regaining, for the most part, their thickness, and were in places undergoing hypertrophy. Large numbers of connective tissue corpuscles were placed between the fibres of the growth, and round cell infiltrations about the vessels, sebaceous glands, and papillae of the corium, were prominent.

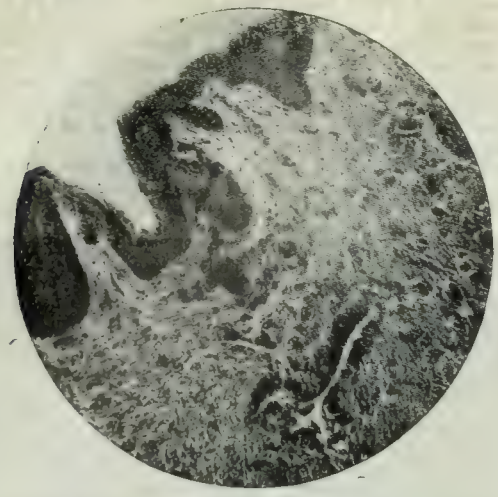


Fig. 6.—Vertical section of skin over fibrolipomatous growth near shoulder.

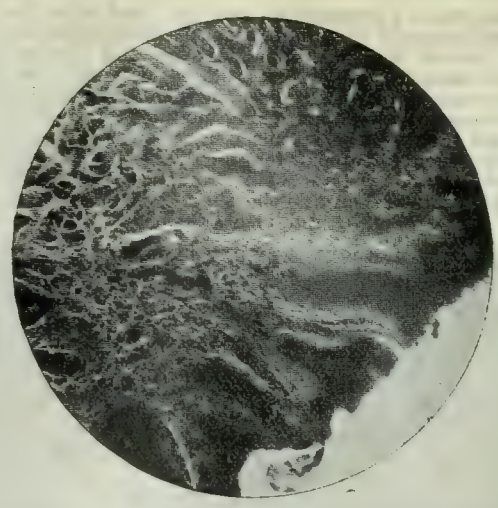


Fig. 7.—Vertical section of a small nodule on the forearm.

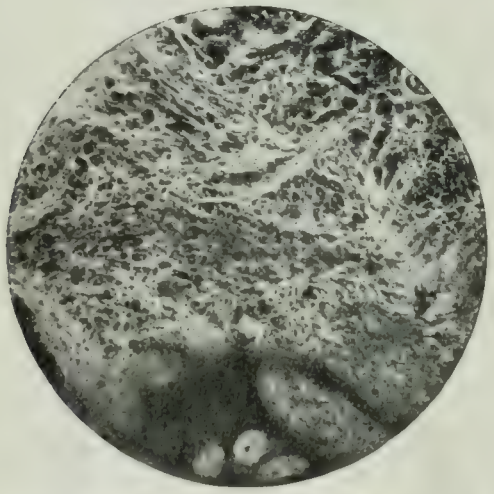


Fig. 8. Section of one of the folds near the wrist but on main tumour

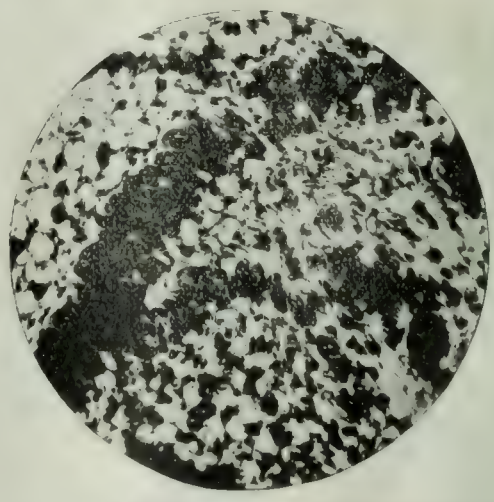


Fig. 9. Section of fibrolimpomatous growth in upper part of the tumour.

Some grey, gelatinous, softening patches could be seen with the naked eye. These corresponded with the degenerated areas described above, as presenting groups of mucoid cells.

Sections of the fatty tissue making up the tumour about the shoulder (Fig. 9) showed the fat cells arranged in small lobules, with a large amount of fibrous tissue in the form of bands and interlacing strands, giving to the fat the firm granular appearance noted above. The blood vessels showed also cell infiltration, and the perivascular lymphatic sheaths were distended with small round cells.

The coloured plate is from a drawing of the arm made after amputation. The specimen is now in the museum of the Owens College where it may be seen by members attending the Annual Meeting in Manchester next July.

Owing to my having had the misfortune to lose several of the engravings and some of the photographic negatives, I have had to depend for some of the illustrations upon the results of fresh negatives taken from the original proofs printed for me by the Swan Electric Engraving Company in 1898, the consequence being that, although the result is very creditable to Mr. Cameron, much of the delicacy in the pathological detail is lost.

REMARKS ON THE OPERATION.

The enormous size of the growth and its great weight are noteworthy features, and it is probable that this is the first case of interscapulo-thoracic amputation (Berger's operation) for molluscum fibrosum.

The operation of excision of the scapula with simultaneous removal of the arm has been performed most frequently for malignant growth (primary or secondary) in the region of the arm and shoulder; and in a total of 181 cases collected and recorded by J. J. Buchanan (Pittsburg) in 1900,[1] 131 amputations were carried out for malignant disease, with an operative mortality of 12 per cent. For the whole number of cases, 181, an operative mortality of 16 per cent. is recorded. The present case has, however, not been included in Buchanan's paper.

REMARKS ON THE ETIOLOGY AND PATHOLOGY.

In considering the etiology of this growth certain points stand out prominently, and make it improbable that the entire condition can be referred to any one pathological factor. These points are: The distinct varieties of growth encountered, their differing locality, the association of some of the smaller growths with the anterior divisions of the internal cutaneous and musculo-cutaneous nerves respectively, and the fact that the main masses of growth were met with on

the extensor aspects of the forearm and arm. As is well known, the superficial lymphatic vessels of the right upper limb join with the deep lymphatic vessels of the limb, with the lymphatics of the right side of the chest, right lung and right side of the heart, and upper surface of the liver, and with the lymphatics of the right side of the head and neck to form the right lymphatic trunk which terminates in the right subclavian vein. So far as the lymphatic distension of spaces in the tumour is concerned, this may be explained either by an obstruction in the lymphatic vessels draining the growth or by an increased rate of lymph secretion. This lymphatic oedema was, however, limited to the growth, so that it is clear we need not look beyond the growth itself in searching for either of the two factors, since an obstruction in the right lymphatic duct would have led to lymphatic oedema of all or most of the parts drained by it, and such was not the case. The character of the lymph glands removed from the axilla



Fig. 10.

suggests an alteration in the quality of the lymph returning from the growth, and would indicate that this was of an irritating nature.

It would appear that the lymphatic spaces in the neighbourhood of the injury were originally damaged; that as the growth extended implication of neighbouring lymphatic spaces took place; that a chronic lymphangitis was set up, leading to a retarded outflow of lymph; that with the further extension of the growth other superficial lymph spaces were involved; that most of the lymph was returned directly to the axillary glands; but that some following the course of the cephalic vein led to an alteration in the lymphatic vessels of this subclavicular region, and accounted largely for the recurrence noted in this region (the anterior flap) after the first operation.

The association of multiple soft fibromata with the peripheral nerve trunks has been recognized by the researches of Recklinghausen, who has shown that they may commence from the connective tissue sheaths of the nerves as well as from the cutaneous glands and vessels. It is then probable that the retarded outflow of lymph leads to great overgrowth, especially of the subcutaneous elements.

Case II.—Pseudo-Elephantiasis.

M. G., aged 18, was admitted to the Manchester Royal Infirmary on December 1st, 1897, suffering from a large tumour of the inner side of the left thigh.

History.

The following history was obtained. The patient had always lived in Lancashire, and, with the exception of an attack of scarlet fever at the age of 2 to 3 years, had been free from illness up to her 14th year, when she complained of pain and some swelling in her left knee. She sought advice



Fig. 11.

at a local hospital, where a diagnosis of hip-joint disease was made, and a Thomas's hip splint was applied after a month's rest in bed. The splint appears to have caused much discomfort and pain at the bottom of the back, and during this time the swelling at the knee gradually spread upwards and increased in size. She was readmitted to the same hospital, was again treated for hip disease by means of extension, and blisters were applied to the hip. Remaining in hospital for eight weeks she was then made an out-patient, and for two months wore a Thomas's hip splint again. At the end of this time she felt well enough to discard the splint, but two or three weeks later the swelling began to increase, and reached the groin. No redness and no pain were noticed at this time. Subsequently the rate of growth was variable, sometimes the increase in bulk was rapid, at other times it appeared to be stationary.

About the age of 16 years she became suddenly ill, was in

bed for five weeks, and, as the swelling rapidly increased, she was unable to use the leg. Again she was admitted to the hospital, where an elastic bandage was applied, with the result that the swelling, previously uniform, became more marked towards the groin. She was ultimately sent home as "incurable" with a diagnosis of "elephantiasis."

During her 18th year, about every three weeks she was laid up for a day or two on account of rigors, vomiting, and general *malaise*, such attacks coming on after walking. At these times the swelling became harder, broke out in several places, and discharged a clear fluid in varying quantity.

The following is a report on this fluid:

February 13th, 1902.

Fluid from lymph fistulae of thigh:
Colour: Almost white with tinge of yellow; opaque.
Reaction: Alkaline.
Albumens: Plentiful.
Fat: In fine emulsion.
Corpuscles: Few lymphocytes and also cell débris.
Does not reduce Fehling's solution.
When dried on linen renders this stiff.

On standing, the fluid became milky, and if dried on linen made this as stiff as when starched. The discharge was observed to come on about three days after the menstrual period.

Two months before admission to the Manchester Royal Infirmary she was obliged to give up work owing to the weight of the tumour.

Condition on Admission.

The growth was found to be composed of two masses divided by a deep sulcus. The larger mass commenced at the groin and extended by its attached base along the inner side of the thigh almost to the knee-joint (Fig. 10), whilst a pendulous growth hung down to a level with the tubercle of the tibia (Fig. 11). This tumour was brawny and firm, with tense adherent skin showing some tortuous dilated lymphatic vessels. The overlying skin was pink, covered with small scars, and showed overgrowth of hairs, sebaceous and sudoriparous glands. The smaller tumour arose from the inner side and front of the lower part of the thigh (Fig. 10) was elastic, soft, and covered with normal soft white skin.

Diagnosis.

The case was regarded as one of chronic lymphangitis with lymphatic obstructions and hypertrophy of the subcutaneous tissues—a typical example of pseudo-elephantiasis. The blood was tested at night on several occasions without finding any filariae, so as to dispose of the extremely remote possibility of elephantiasis arabum.

Preliminary Treatment.

As a preliminary to more radical treatment the patient was kept in bed and the limb bandaged carefully. Under this treatment the tumour steadily diminished in size. Digital compression of the femoral artery was carried out by relays of students for fourteen hours, and the following day it was found that the growth had shrunk considerably. The elastic bandage was kept on, and in March, 1898, the tumour was quite flabby.

First Operation.

On May 11th, 1898, the main mass of growth was removed through an incision extending the whole length of the thigh, and although there were numerous large veins in the growth, removal was effected without much loss of blood, and the wound was sutured completely.

Description of Growth. The growth removed was composed of fat and fibrous tissue, with greatly-enlarged lymphatic spaces and vessels, and presenting the usual features of chronic obstructive lymphangitis.

Second Operation.

On June 17th, 1898, a second operation was performed to remove some small growths of fibrous tissue from the upper end of the scar. The wound healed rapidly, and she left the infirmary on July 30th, 1898, wearing an elastic bandage.

After-History.

She writes to me in January, 1902, stating that she was keeping well, could work regularly, and that any tendency to recurrence of swelling in the groin was checked by the use of an elastic bandage.

Remarks.

In considering the nature of the growth the clear history given by the patient helps to fix both the time and the mode of origin. The growth dates really from the fourteenth year, and follows the use of a splint, which from the first seems to have caused pain and discomfort. It is probable that the lymphatics of the inner side of the thigh, accompanying the internal saphenous vein, were early the seat of some obscure mischief. The pressure of the straps around the thigh, when the splint was applied, appears to have led to some degree of stagnation of lymph, with the result that lymphangitis was set up, causing further obstruction. A very interesting feature of the later progress of the illness is the association of increase in size and lymphorrhoea with each menstrual period. It seems to have been dependent upon an altered secretion of lymph—different in quality as well as quantity—corresponding with the blood changes of menstruation. The plethora of lymph easily accounts for the lymphatic varices and lymphorrhoea, as well as for the hypertrophy of the tissues bathed in this excess of nutritive fluid.

The patient had never lived abroad, so that it was improbable that the case was one of elephantiasis arabum, and an examination of the blood put this out of court. The growth was practically single, but had some few resemblances to cases of molluscum fibrosum.

Case III.—Pseudo-Elephantiasis.

E. S., married, aged 40, was admitted to the Manchester Royal Infirmary on January 17th, 1882.

History.

Previous to the onset of the present condition she had always enjoyed good health. She had had one child (stillborn). She stated that seventeen years previously she sprained her right ankle, and from that time she had periodic swellings of her leg, which would commence in her ankle and extend to the knee. The swelling would increase after walking or long standing. This condition continued without any marked change for fourteen years, when she had a severe illness, supposed to be rheumatic fever. The illness was associated with swelling of the knee, accompanied by much aching pain. The swelling gradually extended to the thigh, and eventually to the lower part of the abdomen. She remained for some weeks in this condition, when the swelling gradually subsided, leaving the leg rather larger than normal. During the three years previous to admission the leg had increased in dimensions by successive stages, each stage being marked by attacks of pain and swelling with erythema.

Condition on Admission.

The right leg was four times the thickness of the left (Fig. 12). The swelling did not extend beyond the knee, but



Fig. 12.

was confined to the foot and leg. The leg from the toes to the knee was brawny, hard, and tuberculated. There was no fluctuation, and the tissues did not pit on pressure. The

colour and surface most resembled in appearance the back of a toad. The leg was fixed in a semi-flexed position and the foot was immovable. The left leg was larger than normal, and it was also hard on pressure. This was also confined to the parts below the knee. The skin of the right leg was dry and much thickened. The outline of the knee was lost. Below the knee, on the front aspect of the leg, there was a rough, discoloured, irregular patch of skin. From the upper fourth of the leg downwards the skin was typically elephantoid, being enormously thick, warty, and discolored, hanging in pendulous folds around the ankle, on the dorsum of the foot, and on the lower part of the leg. The scaly appearance was most marked. She was unable to straighten the leg beyond 100 degrees. Although she had no pain, sensation was not abolished. The left leg was oedematous below the knee, but there was neither roughening or thickening of the skin. She had only been able to get about on crutches during the last three years.

Measurements at the Date of Admission.

Right leg and foot: Circumference midway between great toe and heel, 9 in.
Over dorsum pedis, 12 in.
Over malleoli, 15 in.
Calf of leg (11 in. from heel), 19½ in.

The patient was in good health and cheerful, and was very well nourished.

Treatment was carried out as follows:

From January 17th the patient had entire rest in bed. This was tried for ten days without producing any sensible diminution in the size of the right limb, but with some improvement in the size of the left leg, evidently the seat of simple oedema.

On February 1st systematic massage was commenced. The leg was first anointed with olive oil, and then the surface was gently rubbed in an upward direction from the toes to the knee.

On February 3rd elastic pressure was applied from the toes to the knee, the oil having been previously washed off with soap and water. The bandage used was one of Statham's porous elastic bandages.



Fig. 13.

On February 10th compression of the femoral artery was carried out by means of Skey's tourniquet. The pressure was commenced very gradually at first, and limited to half an hour at a time, but was eventually increased and the time extended until the circulation was nearly arrested, and the time reached an hour's duration. The interval between each application of the tourniquet was generally about an hour. Later, the tubercles were rubbed down with pumice stone. The knee, which had become ankylosed in a flexed position, was straightened by sawing through the site of the original joint. This eventually afforded her a wide range of movement and enabled her to walk with comfort and freedom. All the induration and discoloration of the skin disappeared and it was difficult to distinguish which leg had been the one affected. The final result was satisfactory, as is shown by Fig. 13.

Remarks.

My opinion was that this was a case of lymphatic engorgement of the leg. From some cause or other the lymph stream had been interfered with, and in consequence the lymph had accumulated in the lymph vessels and lymphatic spaces. It appears more than probable that the injury to the ankle seventeen years before was the initial cause of the chain of events which followed. The parallel histories of similar cases leaves little doubt on this point. The condition of the leg did not occasion her any serious inconvenience beyond the lameness which compelled her to use crutches when she walked. From time to time, however, and without any obvious cause, she had attacks of erysipelas, which usually extended up the leg. After each attack it was always noticed that the leg increased in size. It is probable that an attack of inflammation of either the deep or the superficial lymphatic trunks was set up at the time of the accident to the ankle, and that one or other of these channels became destroyed or rendered useless. To carry on then the regular lymph circulation in the leg it became necessary for old channels to be augmented in size, new channels to be established, or the lymph stream to be diverted and conveyed by dilated collateral circulation. A somewhat similar case has been recorded by Billroth.[2]

The skin was excessively indurated, hard, and rough, resembling in the most complete manner the leg of an elephant. The growth had increased irregularly, every observable augmentation of bulk being preceded by one of the attacks already mentioned, which were regarded as erysipelas. These attacks, it should be added, were accompanied by pyrexia, pain along the main vessels of the limb, and superficial redness of the skin. In the sole of the foot and the flexure of the ankle and knee-joints there was a marked absence of the diseased changes. In fact, as will be observed (Fig. 12), the swelling advanced in the direction of least resistance; this was more particularly marked in the calf of the leg and on the dorsum of the foot; whereas at the ankle, where the tissues are bound down by the annular ligament, the swelling was much more limited in extent. By controlling the arterial pressure we temporarily limit or cut off the supply of nutrient fluid to the diseased structures, when the structures begin to degenerate. With such degeneration the process of absorption goes on very quickly, for just as we know that absorption of the living elements of a healthy tissue is an impossibility, so the further a morbid structure is removed from a condition of health, the more efficient and speedy may be the action of the absorbents in getting rid of it. The condition might be almost entirely explained by several hypotheses.

1. Coagulation of lymph as a cause of obstruction to the lymph stream.
2. The presence and mischievous influence of filariae in the lymph channels.
3. Occlusion of the lymph channels from inflammatory causes.
4. Blocking of the proximal lymphatic glands.

With obstruction of the lymphatic vessels and the resulting stagnation of lymph an excess of nutritive material is placed at the disposal of the tissues, resulting in overgrowth. There appears to be sufficient evidence to warrant the opinion that obstruction in the deep lymphatics is accompanied by giant growth of bone and the deeper structures, whilst obstruction of the superficial lymphatics results in hyperplasia of the integument, glands, hairs, etc. This in itself affords a ready means of roughly distinguishing between the two sets of lymphatics so as to determine where the fault lies.

The growth resulting from this obstruction is not, however, normal in structure and vitality, and it shows a tendency to break down, degenerate, or to increase irregularly and excessively, only to give way under the slightest strain of adverse circumstances.

The rarity of elephantiasis arabum in this country, and the fact that the patient had never resided abroad, practically exclude the second hypothesis. There is not sufficient evidence to support the fourth hypothesis, and the history points clearly and definitely to an injury in or about the right ankle as the starting point of the disease.

The occurrence of periodic attacks of cutaneous redness, succeeded by immediate augmentation in the bulk of the tissues affected, is a striking feature of the case, and points

strongly to a recurrent inflammatory affection of the superficial lymphatic system, probably leading to coagulation of lymph, and to the ultimate occlusion of many of the superficial lymphatics. The case would thus be regarded as one of lymphatic engorgement of the leg or pseudo-elephantiasis.

TREATMENT.

The *rationale* of treatment is based on well-recognized physiological laws:

1. The lymphatics in the leg are divided into a superficial and deep set; and whereas the lymphatics of the same set anastomose freely with each other, the deep only communicate with the superficial in the glands. This anatomical separation of the lymphatics has much to do both with the etiology and also with the treatment of lymphatic disease.

2. The activity of tissue absorption, as a rule, is in an inverse proportion to that of circulation. When the force of the circulation is weakened the process of absorption is energetic; the serum of the blood passes through the walls of the capillaries in a more or less rapid stream in accordance with the blood pressure—irrigating the connective tissue and collecting in its interstices, and is drawn off by the efferent lymph vessels, in which the pressure is practically *nil*.

I must acknowledge with all due gratitude my sense of indebtedness to Mr. J. Howson Ray, an old house-surgeon of mine at the Manchester Royal Infirmary, and now Assistant Surgeon to the Salford Royal Hospital and Surgeon to the Manchester Children's Hospital, for the careful way in which he has collated my notes and embodied my remarks on these cases.

REFERENCES

[1] *Philadelphia Medical Journal*, July 7-14th, 1900. [2] *Clin. Surg.*, p. 365; New Sydenham Society's Translation.

Remarks

ON SOME POINTS IN THE

TREATMENT AND MORBID ANATOMY OF ENLARGED PROSTATE.

BY CUTHBERT S. WALLACE, B.S., F.R.C.S.,

Assistant Surgeon to St. Thomas's Hospital and to the East London Hospital for Children.

CONSIDERABLE interest has been excited lately as to how far total extirpation of the prostate is surgically possible. Although for many years it has been known that certain tumours of the prostate admit of removal, the knowledge was never made use of as a regular proceeding in the treatment of enlargements of the organ, the growths having been removed only during the operation of lithotomy and without a definite design. It was mainly owing to the work of McGill and the Leeds surgeons that this operation has been definitely adopted in the treatment of prostatic disease.

Of late some operators have claimed that they have removed the whole prostate and left the urethra intact or little damaged. The expression used in speaking of this operation is that the prostate was removed "in its capsule." Some support has been lent to this statement by the large size of the masses removed, their comparatively smooth surface, and by the fact that apparently little or no tissue has been left behind in the region formerly occupied by the organ.

The establishment of normal micturition and the absence of stricture have been taken as showing that the urethra has escaped very serious damage. The following case of enlarged prostate seems to throw considerable light on the subject:

CASE I.—H. H., male, aged 60, was admitted to St. Thomas's Hospital for retention of urine produced by the impaction of a calculus at the junction of the prostatic and membranous urethra. One stone had already been passed, and the stone causing the obstruction could be felt from the rectum and pushed by the finger back towards the bladder and out of reach. Suprapubic cystotomy was performed, and a stone weighing 5·7 grains was removed from the bladder, and with the aid of a catheter another was extracted from the prostatic urethra. The projection of the prostate into the bladder was of what may be called the *os uteri* type, that is to say, the orifice of the urethra lay in the middle of a lowly-raised ring, the "posterior lip" of which was more prominent than the anterior; and immediately behind, the urethral opening had undergone a greater development and formed a small rounded projection, but even then its summit did not stand more than half an inch above the surface of the bladder. The patient died suddenly on the fourth day after admission. The necropsy showed chronic interstitial nephritis and engorgement of both lungs.

After death the prostate was removed from the body, hardened in alcohol, and examined by means of sections cut at right angles to the urethra. The whole organ viewed from the outside forms a globular swelling without any indications of division into lobes. The greatest transverse diameter measures 6 cm.; the urethra along its length also measures 6 cm. The cut surfaces show a distinct "capsule" and within this a glandular mass. The average thickness of the "capsule" is 0.3 cm. It is an exceedingly definite structure, and is distinctly laminated to such a marked degree that it admits of artificial cleavage for considerable distances along its lamellae. That the capsule is a proper part of the gland appears from the fact that flattened foci of gland tissue are found within it, after the separation to be described below has been made, and also from the fact that in certain positions behind the urethra it (the "capsule") presents the normal spongy structure of the prostate.

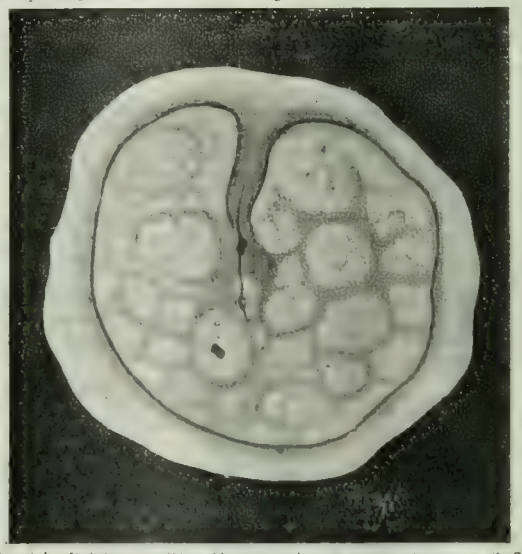


Fig. 1.—A transverse section through the prostate in Case 1 showing the "capsule," the vertical slit representing the urethra, and the fibrous septum between the upper or anterior parts of the glandular substance of the prostate. (Natural size.)

In the section taken through the centre of the enlargement the urethra is a vertical slit measuring 1.5 cm., and lies 2 cm. from the posterior and 1.5 cm. from the anterior border of the organ. The glandular substance is arranged in somewhat ill-defined lobules, absent on the anterior or upper aspect of the urethra. In the last-named situation there is a septum of fibrous or fibro-muscular tissue surrounding the urethra, and continuous above or in front with the "capsule" of the gland. Towards the inferior or distal end of the organ this fibrous septum is less distinct, being broken up by processes of gland tissue.

In the middle section the entire glandular mass admits of being cleanly enucleated from its "capsule," and from the medium septum above and anterior to the urethra. Towards the opposite, lower part of the urethra the separation is not possible without injury to the canal, the union between the fibrous tissue and the surrounding gland substance being more intimate.

The median projection behind the urethral orifice is shown on a transverse section, carried through this part, to be inseparably continuous with the lateral portions.

The following specimen (Fig. 2) is described because it is practically identical with that just related.

Specimen 1 (No. 1310, Royal College of Surgeons Museum).—There is a globular enlargement of the organ. The projection into the bladder resembles that of the uterus into the vagina, but the posterior lip is more prominent than the anterior. A section of the organ made at right angles to the mid-point of the prostatic urethra shows the following points: The gland is surrounded with a very distinct laminated fibrous "capsule," which has an average thickness of about 3 cm. From this "capsule"

fibrous septa run in between the lobules, to be presently described. With a blunt dissector the "capsule" can be easily raised and separated, and leaves the surface of the central mass as smooth as that of most adenomata in general. The cut surface of the mass within the capsule is made up of many lobules (average size 5 cm.), which are yellowish in colour, round or ovoid in section, and the smallest of which are no larger than a pin's head. Between these, and differentiated by their whitish colour, are strands of fibrous tissue which surround and hold together the lobules. The portion of the organ immediately in front of the urethra measures 2·5 cm., and immediately anterior to the urethral canal is a median fibrous septum passing forwards for a space of 1·3 cm., at which point it breaks up into numerous small bands that pass between the glandular lobules. In front of this, again, the glandular lobules pass continuously across the urethra, showing no division into two lateral halves. The arrangement of the gland tissue behind the urethra cannot be examined, as this has been cut away with the posterior part of the canal. In the section examined the rest of the urethral wall admits of separation from the substance of the prostate. The actual thickness after its separation is about 1 mm. Although readily separable, the urethral wall is so thin that the removal of the glandular substance without rupture of the canal would have been impracticable.

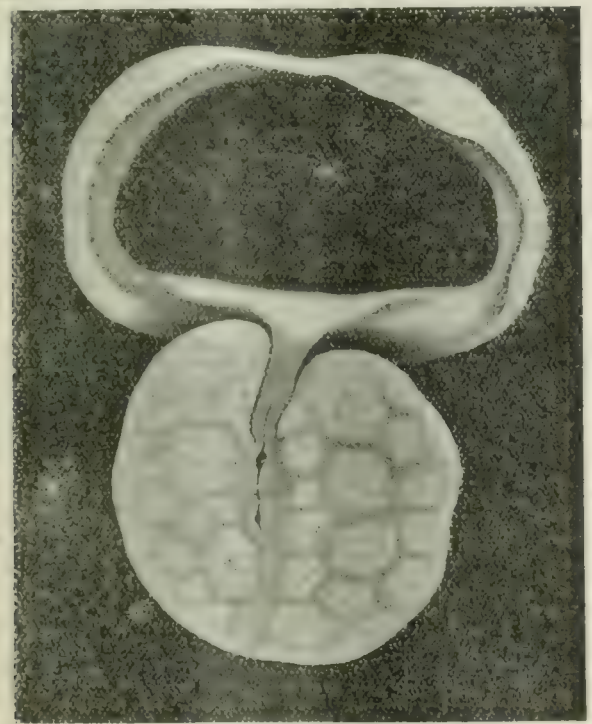


Fig. 2.—The same section after the enucleation of the central mass from the "capsule." In the upper part of the latter on the right hand side is shown a small lenticular focus of glandular tissue, proving that the "capsule" is in reality the altered peripheral portion of the organ. (Natural size).

When these specimens are compared with the normal prostate three main points of difference appear:

1. The organ is quite altered in appearance, and instead of being generally spongy to the eye, has lost its open structure and become converted into irregular lobulated areas which on section are smooth and firm.

2. The arrangement of the fibro-muscular tissue has also undergone a great change, and instead of forming bands radiating from the posterior aspect of the urethra, now forms irregular septa running between the lobules. The anterior fibrous septum is less disturbed, and may exist intact as in Fig. 1, or be more or less broken up as described in the College Specimen 1.

3. The thin fibrous covering has given place to a thick definite "capsule," which further differs from the normal structure in that it is readily separable from the contained glandular substance. Fig. 2 shows a section through the middle of the prostate described in Case 1. The central part, containing the urethra, has been shelled out from the "capsule." This can be repeated in every section of the organ, so that ultimately the organ is divided into two parts, namely, the "capsule" and a contained glandular portion, in which lies the urethra, the only line of continuity between the two being the thick anterior fibrous septum which is continued in from the "capsule" to join the periurethral tissue. If it were not for the intimate connexion of the main glandular portion to the urethra, it would be possible to have a hollow sphere formed by the "capsule" crossed axially by the urethra, suspended by the anterior septum, and between the two the loosely-lying glandular part of the prostate. If during life the urethra had been sacrificed and the whole central part removed, the operator would have been justified in believing that he had removed the entire organ; certainly nothing recognizable as prostate would have been left behind.

In the following instance the urethra was sacrificed and removed, surrounded by prostatic tissue.

CASE II.—The specimen, of which drawings are given in Fig. 3 and Fig. 4 was removed from a man aged 68, who was admitted for retention, the consequence of prostatic enlargement. When the bladder was opened, the prostate was but little enlarged on its vesical aspect, but there was a well-marked prostatic pouch. The organ was pushed down by a finger in the bladder and removed through a perineal incision. The actual separation was done with the finger and presented no great difficulty. The mucous membrane at the junction of the bladder and urethra was torn and the mass was then pushed out of the perineal wound. It was then seen that the specimen was completely separated except at its anterior point, where the urethra passed out. It did not seem possible to separate this from the mass, so it was divided. The membranous urethra was then approximated to the bladder with one stitch on its upper or anterior surface. The suprapubic wound closed in a short time, but that in the perineum remained open, and all the urine was discharged through it for some time. At first there was practically no control, but this gradually returned and at the same time more urine was passed through the penis. At the present time there is only a small sinus in the perineum; urine is voided by the penis and control has returned. The urethra admits of the passage of a steel sound. The patient has still to empty his bladder once in the night.

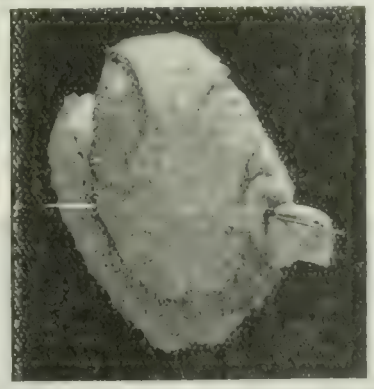


Fig. 3, Case II.—View of the enlarged prostate removed by the author. A bristle has been passed through the urethra. The mass is bilobed. Anteriorly it is circularly ridged, the rest of the surface, with the exception of one area, being slightly rough. The area referred to is that shown towards the upper part of the drawing on the right lateral lobe. This represents the exterior of the most posterior part of the glandular mass shown in the right-hand side of the section in Fig 4. The anterior end of the urethra lies on the right-hand side of the drawing. (Natural size).

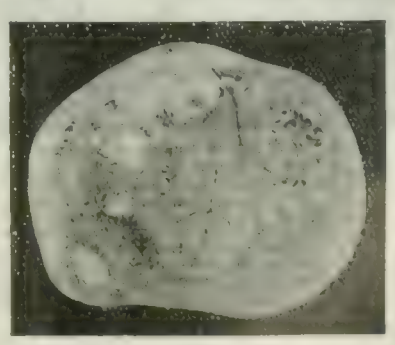


Fig. 4.—A transverse section of the same specimen. The urethra is triradiate, the long arm being the anterior. The cut surface represents several areas of glandular tissue. These show a tendency to form compound circumscribed masses, but little indication of a "capsule." The areas described nowhere approach the urethra, and had they grown into adenomata would have admitted of removal without injury to the canal. (Natural size).

In connexion with these developments in the surgical treatment the points to be determined are the nature of the pathological alteration in the organ, the nature and origin of the "capsule," and the relation this bears to the normal sheath. To do this numerous specimens of the prostate in all stages of enlargement have been examined, and in all the same changes though in different degree have been found.



Fig. 5.—Specimen 1 (No. 4312, Royal College of Surgeons). (Natural size.)

Formation of the Adenomata.

Specimen 1 (No. 4312, Royal College of Surgeons).—An enlarged prostate, showing a small reniform enlargement of the middle lobe. A section was carried through the right half of the prostate so as to include the middle and the lateral lobes. The section was coronal. The cut surface shows no line of fissure between the middle and lateral lobes. The ejaculatory ducts lie in the lower part of the gland. There is very little glandular enlargement below or behind the urethra. The reniform tumour above mentioned consists of glandular tissue, but this extends in the section beyond the actual enlargement, and is continuous with the tissue of the lateral lobe, there being no more distinction between it and the lateral lobe than between the parts of the lateral lobe itself. In the right lateral lobe there is a spheroidal mass in which the arrangement of the glandular substance suggests an early adenomatous formation: the prostatic tissue on the outer side—that is, the lateral aspect—presents the normal structure without any division into lobes. The adenomatous formation does not at present admit of being enucleated.



Fig. 6.—Specimen 3 (No. 4317, Royal College of Surgeons).—(Natural size.)

Specimen 3 (No. 4317, Royal College of Surgeons). An enlarged prostate through which a vertical section has been made which passes a little to the right of the mid line. The urethra presents an abnormal curvature, being convex forwards; this is possibly connected with the displacement of the parts due to a large diverticulum from the anterior wall of the bladder. The greater part of the section shows the lobules and fibrous septa ordinarily seen in cases of enlargement. The lobules are small and not so differentiated as they are in some of the other specimens. In a somewhat triangular area on the upper or anterior aspect adjoining the membranous urethra—that is, the anterior and lower part of a normal prostate—the lobules are wanting and the structure is homogenous to the naked eye, and tough, the section presenting a certain number of deep brown concretions showing the presence of glandular elements. In preparing the specimen most of the fibrous tissue has been cut away so that no definite statement can be made about the capsule in general, but over the above mentioned triangular area a somewhat thin membraniform sheet can be separated. The surface of the prostate thus exposed presents very obvious striæ, due to the presence of bundles of muscle fibre which course circularly over it.

Figures 1, 3, and 4 show that very different conditions are to be met with in the enlarged prostate, and that there may be very obvious differences between two contiguous areas of the same prostate. There can often on the same section be seen normal spongy prostatic tissue, areas showing whitish points, ill-defined lobulated masses, and distinctly encapsuled adenomata. It would seem that the first indication of a pathological condition is the appearance of small whitish areas.

The different appearances presented by the same section point to an unequal growth of the glandular elements. The more rapidly-growing areas increase at the expense of the more slowly-growing ones, which are compressed and stretched over the surface of their quickly-growing neighbour. By this process a capsule is formed, ill-defined at first, but later becoming very distinct. The elements forming this "capsule" show in process of time a lamellar disposition. The adenomatous mass can now be easily enucleated, and not only presents a smooth surface, but also leaves behind a smooth-lined cavity.

The adenomata may be either single or compound, that is to say, they may be composed of several adenomata bound together by their "capsules," or one adenoma may contain two or more smaller ones. The size of such a growth is very various, so that it may only occupy the central portion of a lobe, or may be so large as to apparently represent the whole lateral mass, or again, in some cases occupy both lateral lobes and also the "middle" lobe as seen in Fig. 1.

If situated near a free surface the adenomata grow in the direction of least resistance, and form the nodular masses so often met with on the vesical surface of the prostate or in the interior of the prostatic urethra. This point is illustrated by the following specimens:

Specimen 4 (No. 4331, Royal College of Surgeons).—"The prostate is generally enlarged, and the parts that project into the bladder and urethra are irregularly knobbed. Part of the right lobe projects as a short, thick nipple-like process into the neck of the bladder in front of the enlarged middle lobe. Part of the left lobe projects as a broad, but rather flattened, process into the urethra directly over the caput gallinaginis, so as to be in contact with the opposite wall. The middle lobe forms a deep and broad transverse and trilobed ridge across the neck of the bladder." The patient was aged 70 years. A vertical, almost transverse, section along the course of the urethra shows the following points: On the urethral aspect it presents three rounded eminences which correspond with the same number of imperfectly circumscribed adenomata. External to these there lies a thin layer of more or less normal spongy prostatic tissue, and beyond this, without any line of separation, lies the prostatic plexus. The section of the right lateral lobe shows the nipple-like process to be separated from the main mass by a fibrous septum. The rest of the mass presents two adenomatous foci, but elsewhere it is spongy, but for the most part less so than the normal gland. The outer surface of the lateral lobe can be separated from the muscular and fibrous tissue enveloping it; the surface of the envelope thus raised is transversely striated from the presence of muscular fibre.

Specimen 4340 A, Royal College of Surgeons, shows a similar condition in which the adenomatous enlargement occupies a median position behind the urethral orifice. Microscopic sections taken from these adenomatous areas show, besides a fibro-muscular stroma, a large proportion of gland tissue.

To recapitulate, it may be said that the increase in the organ is due in the first instance to an increase in the glandular elements.[1] This growth usually affects the greater part of the organ but often leaves small portions almost unaltered. Within the changed area the alteration of the glandular element may be of very varying degree, consisting in some cases of small discrete points, while in others well-marked adenomatous lobules occur. These adenomata are often, indeed, usually compound, and, as in Case 1 and Fig. 2, may occupy the whole space within the "capsule." The hypertrophy of the prostate in these cases is therefore best described as an adenomatous hypertrophy, and is comparable to the adenomatous form of goitre.

Formation of the "Capsule."

The next point of interest is the consideration of the nature and origin of the "capsule."

Some difficulty arises as to what is really meant by the word "capsule" in speaking of the prostate, and in works on anatomy the words "capsule" and sheath are used as interchangeable. In *Quain's Anatomy* both layers of the "capsule" are described as derived from the pelvic fascia, and therefore presumably are not considered an integral part of the organ. There is certainly no "capsule" comparable to that of the kidney. In the normal state the fibrous covering is intimately combined with the organ, and except for a small area

on the rectal surface any attempt at separating it simply leads to tearing the prostatic tissue.

Whatever may be the opinion as to the nature of the covering of the normal gland, there can be no doubt that the "capsule" shown in Fig. 1, and described in the other specimens, is a structure which does not normally exist. It must, therefore, have been formed during the enlargement of the organ. That the "capsule" is really an integral part of the gland is proved by the presence in the "capsule" of normal prostatic tissue, as shown in Case 1 and Specimen 6, and in addition it is often possible to see with a hand lens minute foci of gland tissue lying in the fibrous tissue; indeed, in some instances these foci are plainly visible to the naked eye, as shown in Fig. 1.

If microscopic sections are made from a part of the "capsule" that appears entirely fibrous to the naked eye, it will be found that such a section contains glandular elements either in the form of slightly altered alveoli or of long slit like cavities containing epithelium. Fig. 7 shows such a section taken from the "capsule" in Case 1.

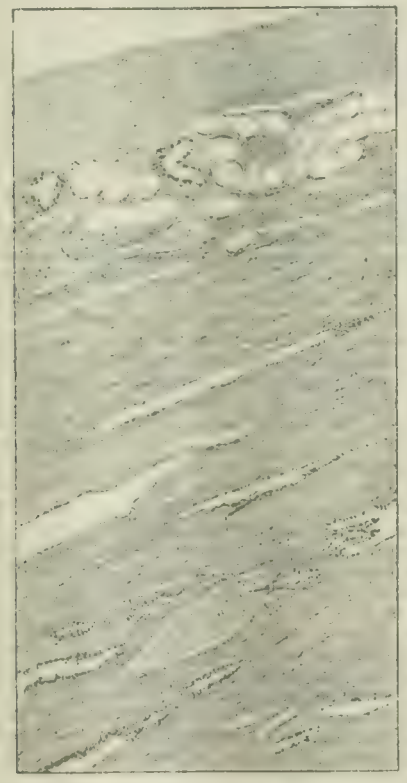


Fig. 7.—A microscopic section through the outer portion of the "capsule" artificially separated from the preparation shown in Fig. 1. Most externally it consists of connective tissue, fat, and vessels, and on the inner side of lamellae of fibro-muscular tissue, in which there lie well-marked collections of gland cells; these collections are flattened as a result of the displacement of the tissue by the adenomatous mass which has grown more centrally.

These points are well illustrated also by the two following specimens:

In addition to Figs. 1 and 2, Fig. 8 shows the ready separability of the "capsule," and in this particular instance the continuity of the "median" enlargement with the lateral mass, and also of the "capsule" covering the median lobe with that covering the lateral lobe.

Specimen 6 (No. 4332, Royal College of Surgeons) shows the changes already described, and particularly a definite separable "capsule." It is to be noticed that in this instance there is a fibrous septum both in front and behind the urethra.

Specimen 6 (4332, Royal College of Surgeons).—The prostate forms a globular swelling slightly compressed from before backwards. Viewed from the bladder, the median portion is seen to be enlarged, and to form a slightly crescentic prominent tumour of rounded outline, surrounding the opening of the urethra on the posterior half of its circumference. A section was made of the gland at right angles to the urethra, the plane of the section being rather nearer the membranous urethra than the bladder. The transverse diameter measured 5.5 cm. and the antero-posterior 4.5 cm. The urethra is triradiate in section; the long arm is the anterior. The space behind the urethra, measuring from the summit of the verumontanum and including the capsule, is 1.5 cm. and in front is 1.3 cm. There is no glandular tissue immediately in front or behind the urethra, the space being occupied with connective tissue, which passes out to join the capsule. This latter forms a definite covering to the prostate, and measures 0.4 cm. where thickest. It is composed of fibrous lamellae, which pass mainly in a circular direction. From the inner surface, in addition to the ones already mentioned, there pass in numerous fibrous septa, which run between the lobules of which the cut surface is made up. The outline of these is not so definite as in some specimens, and one lobule shows a tendency to run into another. The largest of the lobules measures 0.8 cm. Surrounding the urethra is a zone of connective tissue, continuous in front and behind with the capsule, from which the glandular substance admits of being separated without great difficulty. The thickness of this zone varies very much as the glandular portion approaches or retires from the urethra. The urethra would not admit of complete isolation because the connective tissue which surrounds it passes out both in front and behind, through the glandular substance to join the capsule.

The formation of the "capsule" can be actually traced if a number of specimens are examined. The adenomatous change increases more quickly at one part of the organ than in another, with the consequence that the surrounding tissue, whether it is normal prostate or that which has undergone glandular hyperplasia, is stretched over the more rapidly growing part and at the same time compressed. The effect of this is that the glandular elements become less obvious, and the other elements become disposed in a laminated manner. This is well shown in Fig. 5.

Since the "capsule" to the adenomatous masses is formed of the stretched and laminated prostatic tissue, the amount of "capsule" left on the adenoma will simply depend on the situation at which the separation was made. Should this pass near the adenomatous mass little or no capsule will be demonstrable on the tumour after removal, whereas should the separation pass through the middle of the "capsule," a very distinct laminated "capsule" may be found on the tumour after removal. In other words, the amount of "capsule" found on the adenoma after removal will depend on whether the separation has been carried through or within the "capsule." It may therefore be said that the so-called "capsule" is really altered prostatic tissue.

The Continuity of the "Median" and Lateral Lobes.

Specimen 5 (No. 4334, Royal College of Surgeons).—Enlargement of the median and lateral lobes of the prostate. A longitudinal section shows that the median enlargement occupies the anatomical situation of the so-called middle lobe. The ejaculatory ducts lie immediately behind and below. The muscular wall of the bladder is traceable over the posterior part of the intravesical eminence nearly to its summit, and posteriorly a second process of muscular tissue is continued for a distance of 0.5 cm. over the position of the extravesical surface of the enlargement, beyond which it thins out and is lost. Anteriorly and inferiorly the glandular tissue of the enlargement stops a short way behind the most prominent part of the verumontanum. The gland tissue of the median tumour admits of being cleanly detached with the finger on the extravesical aspect, and when the separation is continued the finger can be easily passed round the back and sides of the lateral lobe for its whole extent, thus showing the continuity of the lateral with the median enlargements. The capsule left behind after the shelling out of the glandular substance includes the posterior extension of the muscle fibre above referred to. The cut surface of the median enlargement presents to the naked eye the ordinary texture of spongy prostatic tissue imperfectly divided into lobe-like masses by septa continuous with the capsule.

Whatever may be the actual origin of the median enlargement, it has, in all the specimens examined, appeared to occupy the situation of the anatomical median lobe; that is to say, it lay between the ejaculatory ducts and the trigone. Fig. 8 is interesting in this connexion, for it shows the continuity between the median enlargement and the lateral mass. In addition, the capsule covering both is shown to be the same, and the instrument shown in the figure passes down behind the lateral lobe and is inserted into the space into which the finger passed after having enucleated the median enlargement and in the process of enucleating the lateral mass. Both the lateral mass and the median enlargement would have been removed together, and in fact show no more separation between themselves than is met with between different parts of the lateral lobe itself. It is also to be noticed that the upper part of the capsule of the median lobe is formed of muscle fibre continuous with the muscle in the wall of the bladder. This has apparently been stretched over it, as would have been expected if the median enlarge-

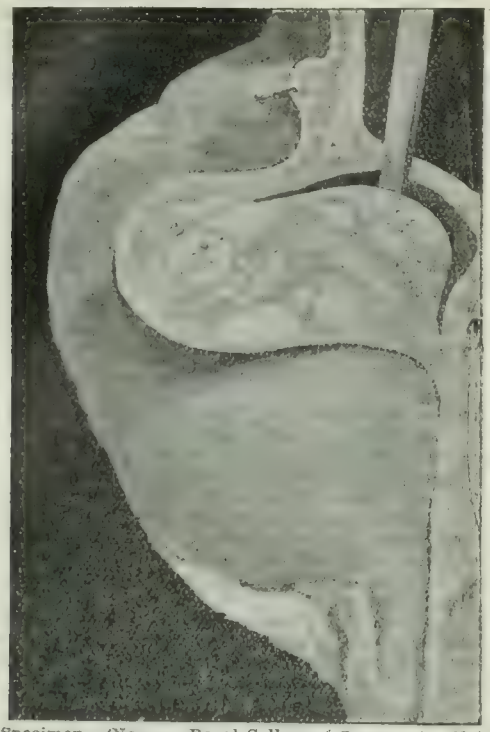


Fig. 8.—Specimen 5 (No. 4334, Royal College of Surgeons). (Natural size).

ment had commenced beyond the bladder wall. The continuity of the median and lateral lobes is equally well shown in the following specimen (Fig. 9).

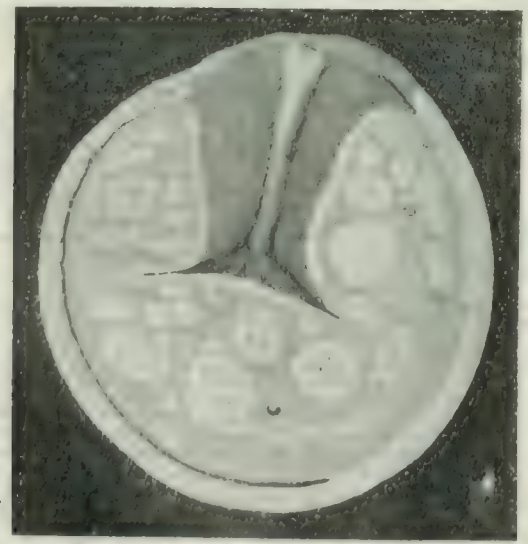


Fig. 9 (No. 4... e, Royal College of Surgeons).

No. [illegible], Royal College of Surgeons. The prostate gland is considerably enlarged, but the part corresponding to the middle lobe is increased in a much greater proportion than either of the lateral lobes, so that it forms a smooth pyriform tumour which measures 2½ in. by 2 in. in its chief diameters. The prostatic part of the urethra is very deep and narrow, and at the enlarged middle lobe turns suddenly upwards at a right angle to its former course. A transverse section of the urethra at a short distance from the bladder through the lower part of the third lobe shows on the right side that the median and lateral lobes are identical in character. The cut surface presents glandular areas of various sizes, but no enucleable masses. The median and lateral lobes as already mentioned are quite continuous, without any trace of a septum. The mucous membrane and subjacent tissue are no thicker over the lateral than over the median lobe, being in either situation about 1 mm. There is a marked capsule common to both parts of the enlargement, and having an average thickness of 0.3 cm. It presents obvious marks of lamination. On the right side the glandular substance adjacent to the naked eye is not continuous between the median and lateral enlargements, the lateral enlargement being bounded by a septum of laminated tissue directly continuous with the capsule. The forward rounded projection of the median lobe gives the urethra a crescentic shape, with the horns backward, and the distance between the bottom of the left lateral horn and the exterior of the capsule is 1.2 cm. The median and lateral portions are enucleable in continuity the line of separation being carried through the common "capsule." The enucleation of the entire mass would be quite impracticable without removal of the urethra. The cut surface resembles that shown in Fig. 1, except that the coarsely lobulated character is not so sharply defined. Were such a case dealt with during life the entire mass would admit of being removed together with the corresponding part of the urethra, with the result that the canal would be represented by the outermost portion "capsule." When a normal adult prostate is divided transversely to the urethra the same continuity between the lateral and middle lobes, as described in the forgoing specimen, is observed.

Enucleation.

Judging from the examination of specimens and from attempts in the *post-mortem* room, it does not appear possible to enucleate the prostate in its normal state, leaving the presence of the urethra out of the question. The upper part of the rectal surface can be cleared of its enveloping fibrous tissue over a small area, and the prostate, covered by a thin fibrous layer, exposed. Laterally these two fibrous layers join together to enclose the lateral plexus of veins. Immediately within this sheath is a fibro-muscular layer, and by working within this with a blunt instrument the main mass of the organ can be separated from the fibrous covering with more or less difficulty. The surfaces left by this procedure are rough and ragged, nor has the procedure any resemblance to "enucleation." The normal organ has no separable "capsule." The connexion between the prostate and the urethra is even more intimate than between the prostate and its fibrous covering.

When the organ is the seat of an adenomatous hypertrophy it has long been known that certain tumours are enucleable. These are of very various size and shape; they may be round, oval, lobulated, and are often compound. The surface after removal may be as smooth as that of most adenomata in other organs, or may exhibit in some places areas of torn tissue. The ease with which they are removed depends on two factors—namely, their situation and their isolation from the surrounding tissue. If they have so grown as to protrude into the bladder, the line of separation, after the incision of the mucous membrane, is soon reached and the enucleation is quickly carried out. On the other hand, should they lie more deeply in the lateral lobes, a considerable layer of prostatic tissue must be traversed before the line of separation is reached. Again, the mass may not have become isolated from the surrounding prostatic tissue or only partially so, in which case the removal will be more or less difficult and only accomplished with some tearing. This was the case when the specimen shown in Fig. 3 was removed. The adenomata shown in Fig. 4 were not yet truly encapsuled, and the separation was carried through prostatic tissue which had undergone less change than had the adenomatous areas. The surface of the specimen was therefore rough and ragged. The ease with which the removal was effected seems to show that the tissue outside the adenomatous masses had undergone some change which made it more brittle and friable than normal prostatic tissue.

A glance at Fig. 2 will show that the whole adenomatous mass could have been removed by enucleation from within the "capsule," but that the urethra would have been sacrificed on account of the close connexion between the posterior part of this canal and the adenomatous masses. If the quickly-growing adenomatous masses were situated toward the centre of the lateral lobes, as shown in Fig. 4, it is quite conceivable that in their growth they would have still left a considerable zone of tissue between themselves and the urethral wall, so that in their removal the urethra would have been left intact, and when placed together after removal they would have enclosed a sulcus in which lay the urethra in the body. If joined together on only side of the urethra such masses would still be capable of removal without injury to the urethra, and outside the body they would form a horseshoe-like mass. In those cases in which the adenomata of the two sides are continuous with one another, both in front and behind the urethra, it would be necessary to tear through the bond either in front or behind, or to circularly detatch the prostatic urethra from the bladder and draw the ring adenoma over the centrally lying urethra.

It therefore seems that there are no appearances presented by tumours removed from the prostate, and supposed to represent the whole organ, that cannot be accounted for equally well on the supposition that they are adenomata. On this theory the encapsulation, the ease of removal, the absence of bleeding, and the safety of the ejaculatory ducts, can easily be explained. These facts, taken together with the appearance shown in the various drawings, seem to leave no reasonable doubt that the so-called total prostatectomy is nothing more than the removal of adenomatous masses.

There are unfortunately some cases of enlarged prostate which do not present any easily separable tumours, and any attempt at removal simply leads to tearing portions of the organ away piecemeal. There does not at the present time seem any sure method of differential diagnosis between the two conditions before the actual attempt at removal is begun, though the projection into the bladder of a large asymmetrical tumour is, on the whole, the more favourable, since a large tumour is more likely to be caused by an enucleable mass than is a small or slightly projecting prostate.

In conclusion, I may say that Mr. Shattock has kindly given me his assistance in the examination and study of the specimens described from the Museum of the Royal College of Surgeons, and I am indebted to him for many suggestions made during the progress of the investigation.

The admirable and extensive collection of preparations in the College Museum has been of the highest value on arriving at the conclusions formulated in the paper.

I am indebted, also, to Mr. C. G. Seligmann for his help in the microscopy of certain of the specimens.

NOTE.

[1] This accords with the statement made by Virchow (Lecture 23), namely, that the process of enlargement in the prostate commences in general from the glandular parts, and that an increase of the stroma follows only little by little. Besides the glandular tissue such tumours necessarily contain fibro-muscular, and, to judge from the descriptions of writers on this subject, the latter tissue appears at times to be the chief, or even the sole, constituent.

TOTAL EXTIRPATION OF THE PROSTATE FOR RADICAL CURE OF ENLARGEMENT OF THAT ORGAN.

BY CHARLES ROBERTS, M.B., B.S.LOND., F.R.C.S.ENG.,
Resident Surgical Officer, Royal Infirmary, Manchester.

I READ with much interest Mr. Freyer's clinical lecture on this subject in the BRITISH MEDICAL JOURNAL of July 20th, 1901, with the correspondence that followed; and I determined if opportunity arose to perform the operation as advocated by Mr. Freyer on the cadaver, and after removing the parts by dissection to study the results.

A suitable case was met with, and I opened the bladder suprapubically, a catheter having previously been passed and left in. Both lateral lobes were much enlarged, the enlargement having been sufficient to cause complete retention of urine during life. The mucous membrane covering the left lobe, which was the larger, was snipped though with scissors, the opening in the mucous membrane was enlarged with the finger, and the mucous membrane was peeled off the prostate. Then with two fingers in the bladder and a finger of the left hand in the rectum, the whole of the enlarged prostate was enucleated and removed. The finger in the rectum steadied the prostate, and the fingers in the bladder peeled off the sheath from the prostate, and by manipulations between the fingers it was easy to be sure that one was working completely outside the gland, and that only the prostatic sheath remained behind.

The abdomen was then opened and the parts removed *en masse*. The tumour consisted of the two enlarged lateral lobes of the gland joined by a fibrous band. The left lobe was the size of a tangerine orange. Its surface was smooth and lobulated, and was covered by a complete fibrous capsule. On section, it was seen to be made up of adenomatous masses, each with a fibrous capsule of its own. The right lobe was similar in structure though rather smaller. The fibrous band joining the two lobes was partially covered with mucous membrane, and this, together with a few shreds on the left lobe was the only mucous membrane removed with the tumour.

The incision into the bladder was prolonged into the anterior wall of the urethra and the parts laid open.

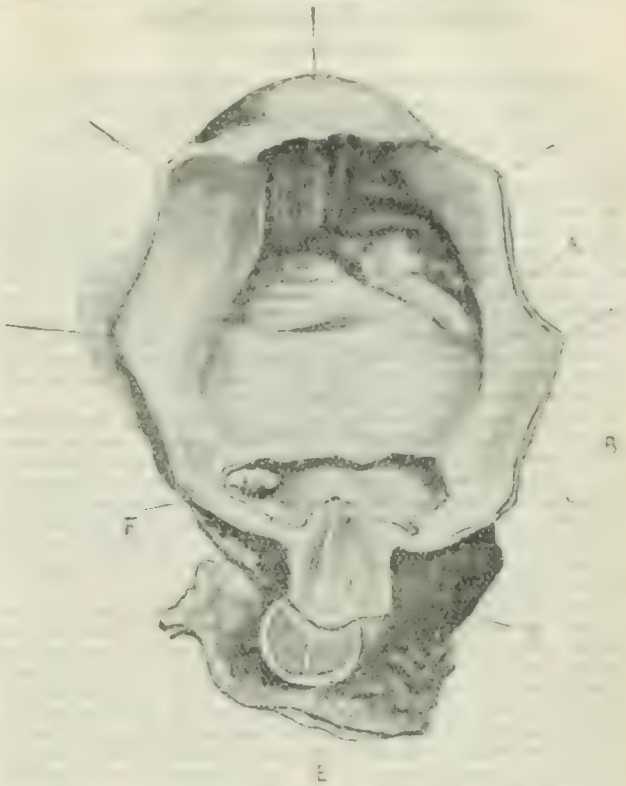


Fig. 1.—A, mucous membrane of bladder; B, prostatic fossa; C, cut edge of mucous membrane; D, urethra; E, cut surface of bulb; F, small lobule of prostate left behind.



Fig. 2.—The prostate. The two lobes removed by operation.

The urethra was unaffected to the level of the openings of the ejaculatory ducts. From this level to the internal orifice where it was torn across the wall of the urethra was separated from the prostatic sheath, and lay quite free in the fossa left after removal of the gland. The ejaculatory ducts could be traced into this fossa where they had been torn. The cavity from which the prostate was removed was quite smooth except at one very small area where an adenomatous nodule had been left behind. It was completely lined by a fibrous layer outside which lay the prostatic venous plexus which separated it from the thin fibrous sheath derived from the pelvic fascia. The space containing the prostatic venous plexus was nowhere opened up and no extravasation of urine could have taken place. The preparation, I think, demonstrates that the whole of the enlarged prostate can be extirpated leaving the urethra intact and without danger of extravasation of urine.

I attempted to remove the normal prostate in the same way, but found it quite impossible to do so.

I am greatly indebted to Dr. Stock, the resident medical officer, for his drawings.

THE total number of students on the books of the University of Warsaw is 1,312, of whom 312 belong to the medical faculty.

A SHORT NOTE ON THE SURGICAL USE OF SUBCUTANEOUS INJECTIONS OF CARBOHYDRATES IN EXHAUSTING DISEASES,

AND AS A PRELIMINARY TO SEVERE OPERATIONS.

BY ARTHUR E. BARKER, F.R.C.S.,
Surgeon to University College Hospital; Professor of Surgery at University College.

To all surgeons who have frequently to operate upon patients in a condition of great exhaustion, to whom subsequently it is necessary for a time to deny food in any considerable amount, some means of supplying their systems with materials which shall in some measure, at all events, make up to them for their hourly tissue waste must have often suggested itself as a serious desideratum. To some extent this waste may be replaced by rectal injections of fluid and peptonized foods. But this is a slow and imperfect method and only too frequently leads to irritability of the bowel, with rejection of the foods employed.

For many years some of us have sought help in these cases from copious subcutaneous injections of normal saline solutions, and have had the best results from the practice in most cases. But I now desire briefly to draw attention to a method of introducing compounds into the circulation which may be looked upon in the light of foods, and not merely an innocuous addition to the blood of the water which is so rapidly lost by the lungs, skin, and kidneys, and sometimes by the intestine or by vomiting.

This is the addition to our normal saline solutions of pure glucose. I learnt this from Professor K. Lennander, of Upsala, when he was my guest the year before last on the occasion of his receiving the Hon. F.R.C.S. of England. Since then I have constantly used it both at University College Hospital and in private with much satisfaction. I confess that when I began to do so I had certain misgivings on at least two points. In the first place I found that the introduction of so much glucose into the circulation and the tissues generally might possibly have the same injurious effects on the reparative processes in the latter which we see in diabetes. And though I was assured by my informant that in his large experience no ill-results had followed, it was not until I had employed it in several cases and seen my wounds heal in the most perfect manner, and until I had watched the urine of these patients and seen that no sugar was excreted in any, that I was reassured.

Another point seemed to me to demand careful consideration, namely, the osmotic effects of a saccharine solution on the parts into which it is injected. It is well known that even sterile and otherwise innocuous fluids, if injected subcutaneously above or below a certain concentration, produce in the first place intense pain through their effects on the sentient nerves; and, secondly, in concentration rapidly withdraw water from the living tissues by osmosis, and so lead to extensive necrosis, as in the case of a solution of 5 per cent. of sodium carbonate. Now if a solution of sugar had either of these effects it would be clearly inadmissible. The strength given to me by Professor Lennander was 5 per cent. of glucose added to normal saline solution = 0.6 per cent. It struck me in thinking over the matter that if 6 per 1,000 of Na.Cl. was "indifferent" to the tissues 5 per 100 of glucose might not be so. But on referring to tables giving the freezing points of various solutions as determined by Beckmann's apparatus, I found that a 5 per cent. solution of sugar freezes at the same point as the serum of the blood and as normal saline solution, and, in the terms of the botanical physiologists who first investigated these phenomena, was "isotonic" or "isosmotic" with the latter. It ought therefore to be "indifferent" to the tissues, and this proved to be the case on employing it subcutaneously; no reaction or pain has followed.

This whole question of "isotonic" or "isosmotic" fluids in relation to human tissues is an interesting one, and should always be borne in mind in injecting subcutaneously. But it is only necessarily here to remember that fluids (exclusive of corrosives) of the same freezing point as serum are "isotonic," and produce neither pain nor other change in the tissues into which they are injected.

Reassured on this point I have largely employed this saccharo-saline solution both in preparing exhausted patients for operation, and in supporting them during and after the latter. The only point remaining to be ascertained is the amount of glucose which may be introduced into the body at one time.

So far, I have limited myself to 25 grams in twenty-four hours as advised, equal to a litre of 5 per cent. solution, and have never seen any sugar in the urine. The mode of its employment has been simple. An ordinary aspirator needle of about 1 mm. in transverse section of its lumen attached to 3 ft. of rubber tubing, and with a glass funnel at the other end, is all that is necessary. This apparatus is, of course, carefully sterilized by boiling, and is filled with the sterilized and warmed saccharo-saline fluid; the needle is introduced under the sterilized skin of the arm near the axilla, and the funnel is raised 2 ft., when the transfusion is found to proceed easily as a rule, until the whole half litre is seen to distend the subcutaneous tissues of the arm and axilla. In preparing, say, for a gastro-enterostomy in an exhausted patient, I do this with 500 c.cm., morning and evening if possible, for some days before and up to the time of operation; and on the table again another 500 is injected. Possibly more might be used, but for the present I have been using only the half litre at a time. Again, for days after, while the stomach only receives a limited amount of food and fluid, the same course is pursued. The effect of this treatment has been uniformly good as regards pulse, general strength, and relief of thirst.

There is another effect which I think ought to be taken into account in septic cases; for example, appendicitis with septic peritonitis. This is the increased secretion of urine, which is rendered possible by the free use of saline injections. We believe that some, if not all, of the toxins in such cases, are eliminated from the system by the kidneys. If this is so the presence of abundance of water in the body ought to render the work of the kidneys easier. The toxins would be excreted in more abundance if there were plenty of water to be excreted and in greater dilution. The saving to the kidneys in eliminating dilute poisons rather than concentrated ought to be great, and we ought to see less of renal complications. In a case of very extensive peritonitis following on gangrenous epityphlitis I recently gave subcutaneously half a litre of the fluid mentioned above morning and evening for a fortnight, with, I believe, good results in many ways.

But in the preliminary treatment, the operation, and after-treatment of exhausted patients, the use of the saccharo-saline subcutaneous infusion is beyond doubt of great value, and ought to be more widely known and practised. A concentrated solution is now made for me sealed up in glass capsules, which can be diluted to the proper strength in a moment with the corresponding amount of boiled water. Such capsules can be carried about for every serious operation, and will, I believe, in the future be found of much use.

INTRAVENOUS INJECTION OF NORMAL SALINE SOLUTION IN A SEVERE CASE OF HAEMATEMESIS: RECOVERY.

BY H. E. BRUCE-PORTER, M.R.C.S.E., L.R.C.P.LOND.,
Windsor.

MRS. A., aged 40, had for some two years devoted her life to the care of her husband, who was in a very precarious condition, being the subject of serious cardiac trouble. On December 15th, 1901, at about 10 p.m., I was called to her. I was shown the vomit which had been brought up at 6.30 p.m.; there was about a pint and a-half of bright-coloured blood, and I was informed by the patient that she had brought up a larger quantity the day before, but had said nothing, as she was afraid of frightening her husband. She was very weak and blanched to an alarming degree; there were the usual symptoms of gastric ulcer and a history of previous haemorrhages, though not severe. A teaspoonful dose of extract of hamamelis with a dessertspoonful of water every fourth hour was the only thing given by the mouth,

with the exception of mx tinct. opii after the first dose of hamamelis. For feeding, recourse was had to nutrient enemata. There was no return of bleeding during December 16th or 17th up to midday; there was a patch of hardness in the mid-epigastric region about the size of a crown-piece, but not much tenderness.

At 1 30 p m. on December 17th, while standing by the patient's bed I noticed her look a little more pinched about the nose, her pulse began to quicken, and she said, "I must be sick." I at once pulled away the pillows, but at the same moment she vomited some bright blood, about 4 oz. Fortunately I had warned the nurse that haemorrhage might recur, and to have some turpentine in the room; the patient was now almost unconscious; I mixed 20 minims of turpentine with a tablespoonful of water and poured it down her throat. Things looked very bad indeed, and it was obvious that the only chance of saving life was to run in some normal saline solution. Captain Power, medical officer attached to the Royal Horse Guards, came at once when sent for, and stood by the patient while I went for the solution, etc. Dr. W. B. Holderness lent me his Aveling's transfusion apparatus, and very kindly tendered his aid should we need further assistance. As the rubber of the Aveling had got hard we were obliged to improvise, so connected one of the needles to a piece of tubing and ran the solution in by means of a glass funnel.

I was not away more than 20 minutes, but during that time, twice Captain Power thought the end had come and had to raise the patient's arms to revive the circulation; the patient was alive and that was all. While I warmed the solution and coupled up the tubing Captain Power set about opening the vein. This little operation reads as though it were the simplest of tasks, but in this case it was one of no mean order as the vessels were empty and the bandage above the elbow made no alteration in the appearance of the vein; it was only by pressure on the forearm that we were able to distend it enough to make sure that we were opening the vein which looked like a strip of tendon. We ran in a quart of solution, and as we had no special means of keeping it warm and feared to delay, I am sure that towards the end the solution was not of the temperature of the body.

A pad was placed on the opening and a bandage, the patient given ¼ gr. of morphine sulphate hypodermically, drachm doses of extract of hamamelis every three hours, a little ice to suck. For the next forty-eight hours she was fed by enemata. The improvement in the pulse was marked, and it steadied. There was, of course, the usual restlessness, but the patient was quite conscious, and had a very comfortable night. After two days, as the patient disliked feeding by the bowel so much, we felt obliged to risk feeding by the mouth, otherwise she would have gone under from sheer exhaustion, and it seemed to us that it would be as well to give the gastric juice something to act on. She was given a teaspoonful of Brand's essence every three hours, and the enemata only every eight hours; the amount of food by the mouth was gradually increased, and the only medicine was the hamamelis in teaspoonful doses every three hours, and silver nitrate pill thrice daily. For the first few days she was given a small hypodermic of morphine, gr. ¼. The tenderness gradually disappeared, and, with the exception of a little flatulence, she was quite comfortable.

The wound in the vein healed without causing the slightest trouble, and there was not a trace of soreness along the course of the vessel. The patient improved steadily; when there was a feeling of fullness in the stomach the food was cut down, and a few drops of peppermint water given. The bowels were washed out by simple enemata whenever needed.

On January 4th small doses of haematogen were begun. On January 11th she was allowed to sit up for an hour. There was no return of the bleeding. The progress was steady, and on February 16th she was able to go away to the seaside.

Haematogen proved itself a very valuable preparation, as it was well borne by the stomach. The temperature was subnormal for a few days after the haemorrhage, but when it reached the normal line it remained there.

Since the above was written the husband of the patient died suddenly. She went through the shock and strain remarkably well, and there has been no return of gastric trouble. She is, of course, still very careful with her diet, and continues to take iron.

SINGLE NON-TUBERCULOUS ULCER OF THE BLADDER: SUPRAPUBIC CYSTOTOMY: CURE.

By J. B. CHRISTOPHERSON, M.A., M.D., F.R.C.S.,
Surgeon, Seamen's Hospital Society.

J. H., aged 49, a plumber, was admitted into the Seamen's Hospital Society's Branch Hospital, Albert Docks, on September 24th, passing his urine every half-hour.

History.—He had done only six months' work during the last two years, and this total was made up by adding together a few days at a time. He had had gout (?) twenty-eight years earlier, but gave no history of syphilis. The symptoms dated from October, 1899, when they commenced during an attack of "rheumatism," with pains in his limbs, leaving him with frequency of micturition and pain during and after urination, suprapubic and at the end of the penis; these symptoms had continued since, occasionally improving so that he could work for a few days at a time. He had been an inmate of one of the large London hospitals for two months; he had there been given cod-liver oil. He had been sent to the Royal Sea-Bathing Hospital, Margate, and had returned somewhat improved, but had relapsed.

Condition on Admission.—He weighed only 6 st. 9 lb., though of average height. His face was pale, drawn, anxious. Besides a well-marked blue line on the gums, which coincided with the history of two attacks of lead colic, and some small multiple lipomata on the forearms and thighs, there was no evidence of disease elsewhere. No tubercle could be discovered in any part of the urogenital tract or elsewhere, nor was the tubercle bacillus to be found in the urine, which was examined twice for this purpose. The urine (specific gravity 1012) was acid, cloudy, with one-eighth albumen; it contained no blood or pus. He said that he had only passed blood sufficient to colour his urine on one occasion. The urethra was found to be healthy, and no stone was discovered in his bladder. Rectal examination discovered nothing.

Diagnosis.—As there was no evidence of tubercle elsewhere, it seemed to be a case of primary tuberculous ulceration of the bladder.

Operation.—On October 1st a suprapubic cystotomy was performed. The cavity of the bladder was found to be small and the walls hypertrophied, but otherwise healthy except for a small ragged irregular ulcer with granular surface and thin edges, and about 1.9 cm. in diameter, between the two ureters on the post part of the trigone. When it was brushed over with swabs of wool wet with carbolic acid (1 in 20) the surface bled readily. There were no signs of caseation or tubercles anywhere, and the ulcer looked more like an anal ulcer than anything else. There was no sign of malignant disease; the bladder was drained suprapubically and washed out with a solution of borax and iodine for twenty-eight days.

After-History.—On December 4th he could hold his urine four or five hours, and was not disturbed during the night; the urine, specific gravity 1011, was acid, and contained a trace of albumen and a few pus cells on microscopical examination. Between the date of the operation and December 4th he gained 2st. in weight. He left the hospital apparently cured.

Remarks by Dr. Christopherson.—I believe this to have been a case of a single simple ulcer of the bladder analogous to an anal ulcer, produced perhaps in much the same way, namely, by some traumatic influence, over-distension or straining to urinate, for instance, prevented from healing for similar reasons, that is, muscular action and contact with irritating material (urine). There seems to be no reason at all for the diagnosis of tubercle. It differs only from Mr. Fenwick's cases in the slight amount of haematuria and in the age (49).[1] Simple ulcer of the bladder has not yet a recognized permanent place in textbooks; amongst the four most frequently read in London there is no mention of it in two. In one a simple "perforating" ulcer is mentioned as described by Rokitansky. The other textbook makes the same observation. I think the case is worthy of record for this reason. This ulcer was not round, indurated, or perforating, and quite unlike a "gastric" ulcer.

Reference.
1 *Ulceration of the Bladder*, Hurry Fenwick, F.R.C.S. 1900.

SUPRAPUBIC CYSTOSCOPY.

By E. HURRY FENWICK, F.R.C.S.,
Surgeon to the London Hospital and to St. Peter's Hospital for Stone.

I NOTICE in the EPITOME of the BRITISH MEDICAL JOURNAL, March 15th, par. 172, a report of an article by Dr. Kraske (*Centralbl. f. Chir.*, No. 6, 1902), in which he states that he has recently had two opportunities of making cystoscopic examination of the bladder through a suprapubic fistula established by ordinary high cystotomy, and that this method of examination is dignified with the term "novel." I venture to remark that I have used this manœuvre for ten years when necessary. This, however, by the way. Dr. Kraske advocates an instrument devised by himself which consists of a straight cystoscope, which is pointed at the end like a trocar and so makes its own puncture. May I draw the attention of those seriously engaged in cystoscopy to the fact that this method is open to grave objections, for it may lead to dangerous subsequent leakage of urine into the cavity of Retzius? With my own instrument, substantially the same as Dr. Kraske's, the danger of extravasation is lessened. I published this in 1894[1] after two years' trial, and described its use as follows:



Fig. 1.

"The difficulties in sounding for stone in certain cases of much enlarged or in irregularly enlarged prostate are great, for calculi are sometimes so deeply fixed behind and below an upraised median lobe or collar, that the sound introduced *per urethram* cannot reach them, however much rotated it is, or however forcibly it is thrust towards the base over the lobe. Moreover, harmful pressure is often exercised in this manœuvre upon the prostate, and cystopyelitis and haemorrhage are apt to ensue. I suggest that whenever the prostate is very large, or whenever it is difficult to traverse, or if it bleeds easily, that an aspirator trocar and cannula should be thrust suprapubically into the full cleansed bladder, the trocar replaced by a loosely fitting blunt pilot, and the post-prostatic pouch and bladder base carefully prodded with the latter to ascertain the absence or the presence of the stone without incurring those risks which are consequent upon urethral sounding (Fig. 1). Through the same cannula a straight electric cystoscope can be introduced into the washed out bladder, and the interior examined (Fig. 2). I advise this latter procedure only in cases of much enlarged prostate in which a suspicion of benign growth exists; for in these cases the ordinary cystoscope cannot be used. If a stone or benign growth is discovered, a director can be passed through the cannula, the latter withdrawn over the director, and the bladder opened by a limited incision on the director. The disease can then be dealt with and the bladder drained. I believe that this method of sounding and cystoscoping

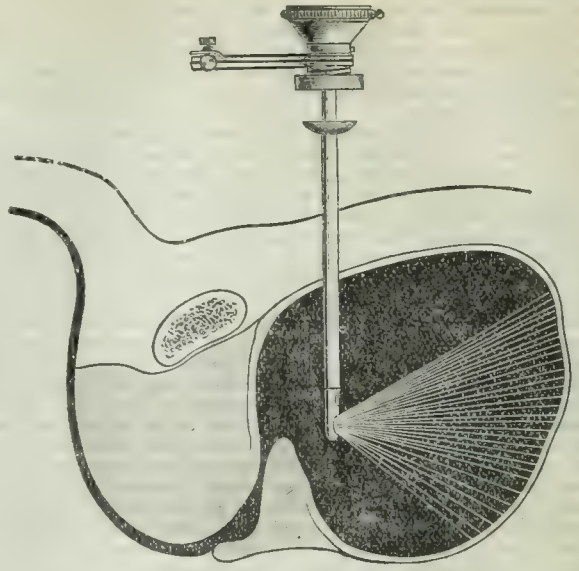


Fig. 2.—Fenwick's Trocar Cystoscope.

saves exploratory suprapubic cystotomy, which is a severe procedure in old age, and one which should not be undertaken lightly." My experience of a hundred suprapubic cystotomies for all forms of bladder disease amply substantiates this latter statement.

REFERENCE.

[1] *Epitome of Modern Urinary Surgery*, p. 82.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ACUTE ASCENDING PARALYSIS.

THE disease known as Landry's paralysis or acute ascending paralysis is so comparatively rare that scanty as the following notes are they seem worth reporting.

W. P., aged 23 years, a farmer of good physique and leading an exceptionally regular and temperate life was perfectly well on Sunday, October 20th. On the Monday he did his usual work but complained of being "out of sorts" and some time during Monday morning he vomited. He had a bad night that night; he complained of having had no sleep and that he "could not find an easy place." So far as I can learn he was never feverish and certainly had no rigor. On the Tuesday he declared himself better, but stayed all day in the house. He had a better night, and had his breakfast in bed on the Wednesday morning. He dressed about nine but complained of pain in his back and said that his feet were numb, and that he could not walk. He managed, however, to hobble with two sticks into the next room, where he sat till evening. He passed water when he dressed, but was unable to do so during the day, although he made several attempts. He made a fair tea and went to bed about six. By this time he was quite unable to walk, and was wheeled in his chair to his bedside. He had a supper of porridge about nine, but asked to be fed as he could not raise himself nor use his arms. About 10 p.m. the friends seem to have become for the first time alarmed and sent a messenger to my house some nine miles away. About this time he began to complain of shortness of breath and palpitation. The difficulty in breathing grew rapidly worse. His mind remained perfectly clear, and he frequently said, "I cannot breath—I am dying." The messenger got to my house about midnight, but the patient died some fifteen minutes before I reached the house. When I saw him he was deeply cyanosed. Rigor mortis had not set in. Unfortunately no necropsy could be obtained. These notes are necessarily

very imperfect, but the history of vomiting, of pain in the back and limbs, the rapidly increasing paralysis of legs, arms, and diaphragm seems to give a sufficiently clear clinical picture to justify the diagnosis.

There was no history of exposure to cold or wet, none of any acute infectious disease, or of syphilis. I am unable to suggest any cause for so quickly fatal an illness. It is stated in Allbutt's *System of Medicine* that in some cases no distinct cause can be found, and that some cases end fatally in forty-eight hours from the commencement of the illness.

Hovingham, York. CHAS W. SMEETON, M.R.C.S., L.R.C.P.

SURVIVAL OF A PREMATURE CHILD WEIGHING 18 OZ.

I HAVE just read the sequel to Dr. Jardine's case of a premature child, weighing 2 lb., surviving, and feel I must publish a still more extraordinary case which happened in my own practice.

On September 25th, 1890, I delivered a patient of a living premature (6½ months) female child, weighing 18 oz. This small particle of humanity was never dressed for some three months, but was swaddled in cotton wool, and had cod-liver oil rubbed every day over the abdomen and chest. No incubator was used. The sequel is, at the present moment, a strong and healthy child, somewhat stunted in growth, with a particularly fine crop of black hair. I am inclined to think that this case must be a record.

Hastings. H. R. MANSELL.

SIMULTANEOUS FRACTURE OF BOTH CLAVICLES.

A HORSEKEEPER, about 60 years of age, was forced by the hindquarters of a horse edgeways against the wooden stable partition, the horizontal clavicular line receiving the whole force, transmitted through the two humeral heads and acromio-clavicular prominences. The man's shoulders, he tells me, were greatly approximated to each other at the time; no other fractures occurred. The accident happened some months ago, and now the seats of both fractures (well united without marked deformity) are seen at the junction of the outer and middle thirds on each side.

Finsbury Circus, E.C. T. D. PATMORE.

VELAMENTOUS INSERTION OF THE CORD.

THIS condition is not a common one, but it is not so rare as one of your correspondents would make out. Of the cases I have seen more than one were in connexion with placenta praevia. In one I delivered a live child by version through the triangular space between the vessels. There was just room for the child to pass without rupturing the vessels. An exactly similar specimen from a case of placenta praevia was shown by Dr. Edgar to the Glasgow Obstetrical and Gynaecological Society. I believe the condition exists more frequently with placenta praevia than with an ordinary implantation of the placenta.

Glasgow. ROBERT JARDINE, M.D.

THE TREATMENT OF PYREXIA.

I HAVE read your editorial on pyrexia[1] with great interest. In it you give the opinion of Jendrassik, who expresses the importance of giving antipyretics continually during the course of the pyrexia. In confirmation of this view I have given antipyretics continually during the course of enteric. I have adopted the treatment with the most satisfactory and successful results, and "without any untoward symptoms occurring," for the last twelve years. The antipyretic I use is acetanilid, and this in doses from 4 to 12 gr. dissolved in brandy, every six to eight hours, according to the height of the pyrexia and the age of the patient, and I may state this is the only drug I use. I have treated over a hundred cases of enteric in this way without a single death and without any alarming symptoms. I have always thought there has been too much timidity shown in the use of this drug. The convalescence in my cases has been unusually short.

Finsbury Park, N. ROBERT MAIN.

[1] BRITISH MEDICAL JOURNAL, January 18th, p. 117.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

COVENTRY AND NORTH WARWICKSHIRE HOSPITAL.

DOUBLE TEMPORAL DISEASE FROM SUPPURATIVE OTITIS.

(Under the care of Mr. FAULDER WHITE.)

F. H., aged 20, was admitted to the hospital on May 19th, 1900. She had had discharge from both ears for a long time. For some months there had been very severe pain in both temporal regions extending across the head, and it was noticed there was a swelling over the right mastoid. Her temperature was 100°. On May 20th, Mr. White opened up the right mastoid and antrum with osteotribe and drill. The bone was found to be very hard. In this operation the lateral sinus was exposed but not opened.

There was little reaction after this operation, the temperature remaining about normal or a little above; but, severe pain being felt in the left mastoid region, on June 14th, Mr. White operated upon this side also. The bone was found to be much congested. The patient's condition being unfavourable, a complete operation was not performed, but an opening was made into the antrum and part of the mastoid was gouged out. The operation was followed by decided relief. During July the temperature remained about normal, but owing to severe pain in the right mastoid region it was decided to open up the old wound, on July 22nd, and on August 14th a similar course was taken with the left wound for the same reason. During September the patient seemed to be improving, but in October complaints of pain were more frequent, and in November both wounds were again opened with relief to the patient. Towards the end of the month the temperature began to creep up, reaching 103°, and facial paralysis of both sides, though not absolute, was noticeable. On December 1st a further operation was performed on the left temporal bone. The antrum was scraped, the ossicles removed, and the upper and posterior wall of the meatus removed with great relief to the pain and this relief proved to be permanent.

But as the general symptoms remained unrelieved, Mr. White decided in January, 1901, to again operate on the right side. The wound being reopened, the right antrum and adjacent cavities were scraped out, and parts of the meatal wall removed. There was severe reaction after this operation, the temperature ran up to 105°, and remained near that point for over a fortnight, the condition of the patient being alarming. Antistreptococcus serum was twice injected without any effect on the temperature.

On February 14th there was a sudden drop to normal, followed by a rise to 105.6°, with subsequent daily remissions of temperature. From this time the course of the case was uneventful, though convalescence was protracted. The hearing remained fairly good. The facial paralysis never altogether cleared up, though some improvement was noted. Discharges had ceased when the patient left hospital in September. She was seen on December 5th, 1901, in good health.

REMARKS BY MR. WHITE.—I have thought well to report this case as an extreme example of the results of neglect in suppurative disease of the ear. The sufferings of this unfortunate girl were extreme before and after admission, and her recovery was at one time very doubtful. Although I was driven to adopt the most drastic measures for the removal of her disease, I believe that such will rarely be required; and I have had many cases of bone disease from suppurative otitis which have done well after partial operations. In obstinate cases of suppurative otitis I am greatly in favour of the removal of the ossicles through the meatus. A subsequent course of irrigation will generally effect a cure.

WE are asked to state that the annual conversazione at University College, London, will take place on the evening of Thursday, June 19th.

REPORTS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

T. MYLES, F.R.C.S.I., President, in the Chair.

Friday, February 28th, 1902.

SWALLOWING OF METALLIC DENTURE SUCCESSFULLY TREATED BY THE INTERNAL ADMINISTRATION OF COTTON WOOL.

MR. G. JAMESON JOHNSTON related this case:

J. M., aged 20, whilst swimming in the open sea was struck in the face by a wave. He immediately felt a choking sensation, was unable to swim on his breast and made his way to shore by swimming on his back. Some of those on the shore slapped him on the back to displace the false teeth that he told them were choking him; the first slapping on the back produced dyspnoea. He got black in the face; a further slapping on the back got rid of the dyspnoea, though it caused him much pain. On admission to hospital a propang was passed and the patient experienced so much relief that it was felt that the denture had passed into the stomach. Soon afterwards pains in the pyloric end of the stomach were complained of, and they continued for some days. Mr. Johnston decided on treating him with sandwiches containing a thin layer of cotton wool in each. A week after admission he got 1½ drachm of compound liquorice powder, which acted as an aperient, and got rid of the denture, which was found rolled in cotton wool in his faeces.

MR. LENTAIGNE confessed that he would not like to take cotton wool under any circumstances. He thought it would not be without risk of producing obstruction.

TREATMENT OF SENILE HYPERTROPHY OF THE PROSTATE.

MR. R. H. TOBIN read a paper in which he traced the interdependence of the prostate gland and the testis and their correlation, and then considered the treatment of senile hypertrophy of the gland under the palliative and radical methods. In the former he placed great stress on the value of soft flexible catheters and the necessity for their asepsis. In the choice of radical methods he pointed out the value of the presence or absence of sexual desires as an indication. If these were present, the case was probably one of true hypertrophy, to be treated by vasectomy or castration; if they were absent, tumours causing pressure atrophy of the prostate probably constituted the enlargement, and enucleation would effect a cure. The failure of vasectomy in certain cases he considered to be due to the non-inclusion, in the resection, of the filaments of the hypogastric plexus accompanying the artery of the vas deferens, these being the most direct sympathetic link between the testicle and prostate. Of the radical methods, he advocated complete enucleation of the gland as practised by Mr. Freyer.

SUPRAPUBIC PROSTATECTOMY.

MR. E. H. TAYLOR read a paper on this subject, having previously given a demonstration of the structure, as well as of the normal and pathological anatomy of the prostate by means of a set of lantern slides and numerous specimens. He described the various steps of the operation, and showed large adenomatous masses which he had removed. He pointed out that the aim of suprapubic prostatectomy should be: (1) To remove *en masse* and by a process of enucleation those portions of the enlarged lateral lobes which lay beside the urethra and exerted a compressing influence upon it; (2) to remove the enlarged middle lobe in the same manner, seeing that its action in a large percentage of cases was to obstruct the bladder outlet. Mr. Taylor said that suprapubic prostatectomy as practised at the present day remained in its essential details the operation of McGill and of the Leeds school. It aimed at enucleation of encapsuled growths, and met all the requirements of the case. Mr. Freyer had related certain cases of total removal of the prostate and its capsule. Mr. Taylor had no hesitation in saying—and he could prove his statements by the material which he had at his disposal that evening—that Mr. Freyer was labouring under a grave misapprehension, and had overstated his case. With his anatomy Mr. Taylor did not purpose to enter into conflict just now. He would merely say, however, that his views on the structure of the prostate bore the impress of armchair and fireside reflection rather than of careful study in the dissecting room and histological laboratory. A total extirpation would of necessity involve the removal of the prostatic urethra, to which there adhered in these cases a varying amount of prostatic tissue, and which remained connected with the common ejaculatory ducts. These were displaced downwards and backwards with their surrounding tissue, and constituted important supports of the prostatic urethra after the adenomatous masses had been enucleated. Total extirpation would also imply the detachment from its surroundings of the interfibrous investment of the prostate, as well as of the thinned cortex. This would be not only a totally unwarranted procedure, but in the highest degree dangerous, as it would inevitably mean the laceration of the veins of the prostatic venous plexus, which lay in close contact, embedded in this interfibrous layer, which Mr. Freyer had alluded to as the prostatic capsule. As a matter of fact, this fibrous layer was fortunately very tough, whereas the encapsuled masses were of a much softer and more friable consistency. The result was that when the finger was introduced through the incision in the bladder floor, it found its way, following the direction of least resistance, between the tough investment of the prostate or greatly-thinned cortical layer and the encapsuled mass, and this was the true explanation of the ready manner by which the enucleation of enormous tumours might be carried out. Mr. Freyer had done nothing more than remove encapsuled prostatic growths, and it appeared to Mr. Taylor that what he considered the prostatic capsule was in reality the thin fibrous investment by which these and adenomatous tumours in other regions of the body were surrounded. A glance at his illustrations alone would, he thought, convince one of this fact. Mr. Freyer had no doubt extended the scope of McGill's operation, and in this respect Mr. Taylor believed he had succeeded in making a decided advance in this department of surgery.

THE PRESIDENT said the operation was not generally applicable; it was possible in a few cases only. Cases where the kidneys were diseased and the urine purulent were not suitable for enucleation. An artificial pouch containing unhealthy urine in the immediate vicinity of the prostatic plexus was not a desirable condition. Where the urine was non-purulent, and contained a normal amount of urea, and the patient was not too old or too feeble, the operation was applicable. In some of his cases he decided on suprapubic drainage. He considered the operation much superior to perineal incision, from which he had seen a patient bleed to death.

After remarks from Mr. H. G. CROLY,

MR. JAMESON JOHNSTON said that in a case of marked hypertrophy of the prostate, which involved the whole gland, and was readily recognized through the rectum, he had performed castration with good results. He congratulated Mr. Taylor on his splendid demonstration, which made it clear that the whole prostate could not be extirpated.

MR. TOBIN spoke, and MR. TAYLOR replied.

MEDICAL SOCIETY OF LONDON.

W. H. ALLCHIN, M.D., F.R.C.P., President, in the Chair.

Monday, March 24th, 1902.

DISCUSSION ON THE TREATMENT OF PUERPERAL ECLAMPSIA.

DR. G. E. HERMAN, in opening this discussion, referred to old and recent observations to the effect that emptying the uterus stopped the fits, and that therefore emptying the uterus should be the first thing in the treatment of eclampsia. Although this had been taught for at least three generations, its recent defenders tacitly recognized that it still needed proof. Statistics, obtained from the practice of many lying-in hospitals, including many hundreds of cases showed that the fits continued after delivery about as often as they ceased with it. The statement that after delivery the fits at once ceased could not possibly be reconciled with the facts. But even if the fits did not at once cease, the acceleration of delivery might yet favour recovery. It was found, however, from the experience of the most recent maternities, conducted in the best manner, with strict antisepsis, that the mortality of eclampsia in cases delivered naturally was about the same as that among cases in which the emptying of the uterus was accelerated. In some institutions in preantiseptic times the mortality in cases of eclampsia in which there was accelerated delivery had been much higher than in those allowed to be naturally delivered; this would probably be observed again if it were taught by all accoucheurs that under all circumstances the uterus should

be emptied as quickly as possible. Reference was then made to those cases of eclampsia in which death took place with a steadily rising temperature and pulse-rate. The most hopeful and reasonable treatment of such cases was to bring down the temperature with the tepid bath. Reference was made to two such cases, in one of which there was a temperature of 105° and a pulse-rate of 170; the temperature was reduced to 102° by the bath, and recovery followed.

Dr. Amand Routh supposed that the general belief in the utility of emptying the uterus in eclampsia depended on the force of the reasons given why it should be emptied. Tepid bathing was no doubt the proper treatment in hyperpyrexia, but it was not always successful. A case was related having a temperature of 107°, which was several times brought down to 100° or 101° without saving the patient.

Dr. F. J. McCann imagined the belief in the method of emptying the uterus was due to the idea that there was pressure on the renal vessels, but this did not occur. A high temperature was a very important prognostic sign in eclampsia cases—they were usually fatal. It could be shown from statistical evidence that the severity of the fits in eclampsia was diminished by emptying the uterus.

Dr. Gow pointed out that the actual nature of the disease was unknown, and that a certain proportion of cases naturally tended to recover and others to die. The theoretical basis of treatment was that the fits were due to a poison in the blood; its channels of elimination and its antidote being unknown, merely sedative measures were adopted. He had himself long maintained that the actual induction of labour was harmful although the ultimate results might sometimes be advantageous. Overactivity in the treatment of this condition was to be deprecated, especially, perhaps, violent purgation.

Dr. Campbell Pope referred to a group of cases of the disease as occurring in one particular village. Rapid delivery with bleeding had been in his experience temporarily beneficial.

Dr. W. Rivers Pollock thought the teaching of the paper proved conclusively that forced delivery under all circumstances was certainly a mistake.

Mr. Jonathan Hutchinson, Jun., asked if trephining had been used in the treatment of eclampsia; a possible indication for such a line of treatment was the hyperpyrexia.

Dr. R. A. Gibbons considered that sedative drugs had a very good influence, but did not cure the disease. Anything that diluted the poison was beneficial, hence the good of saline injections. If the urine were systematically examined during pregnancy there would be much saving of life from eclampsia, and if albumen were present in large amount the indication was for the induction of premature labour.

Dr. G. Blacker failed to see how the emptying of the uterus could affect the amount of toxin in the blood. The indications were to lower reflex excitability of the nervous system, as by morphine, to remove some of the toxin by venesection, and to dilute the remainder by saline infusion.

Dr. Handfield-Jones held that the rule that artificial labour should never be induced in puerperal eclampsia was too sweeping, and quoted cases against this view. In some cases the kidneys were capable of doing their work if not placed under extra strain, as that of the later stages of pregnancy from the placental circulation, and in such cases emptying the uterus was probably the proper treatment.

Dr. Herman, in reply, stated that he considered the induction of premature labour was the best treatment in cases of advanced kidney disease not tending to improvement, as a prophylactic of puerperal eclampsia. Bleeding almost certainly improved the condition in regard to the frequency of the fits, but it often of itself appeared to exhaust the patient so that she died.

STAFFORDSHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

W. H. Folker, F.R.C.S.Eng., President, in the Chair.

Thursday, February 27th, 1902.

The Condition of the Gums in Leadworkers.

Dr. F. Shuttlebotham read a paper upon the subject. After describing the macroscopic and microscopic appearance of the blue line he went on to describe a general and uniform blueness of the gums observed in leadworkers in the Potteries without any blue line being present. This condition had also been noticed in gilders who had never worked in lead. The blue line was only an indication of the presence of lead in the system, and as far as his investigations went was present in 10 per cent. of leadworkers. He believed that the lead in the blue line emanated in most cases from the blood stream. This was the only way in which the blue line could be explained in those cases of poisoning where the lead was introduced into the system as beer, cider, or water contaminated with its salts, and it afforded the only explanation of the formation of the blue line round the anus.

Dr. S. King Alcock was convinced, after systematic examination of leadworkers as certifying factory surgeon, that both causes of production of a lead line were in operation—general absorption being responsible for some, and local reactions at the edge of the gums in others, probably the majority. Hence cleanliness might remove the line in many cases, so that the utility of the line as a factor of diagnosis was much diminished. It was at most a danger signal, and must be studied in conjunction with other symptoms.

Mr. A. F. M. Powell expressed the opinion that the presence of H_2S locally produced by a decayed tooth or decomposed food particles, was necessary to the production of the blue line in lead workers. He instanced a case of severe lead poisoning that came under his observation some years ago; the blue line was quite absent from any part of the gum except at the root of a decayed tooth. The patient informed him she was very careful to wash her teeth two or three times daily. He thought the case went to show that the lead was absorbed and carried to the gums by the blood stream, and only deposited or precipitated in the presence of H_2S locally generated by the decayed tooth. He had never seen among enamel workers the blue line without there being at the same time either carious teeth or "tartar."

Dr. J. A. Codd had never found any characteristic line in copper or brass workers, though they often had a line of deeper red colour than the ground substance; never the pale-green colour described by some writers, even when toxic symptoms were most pronounced. It was a remarkable fact that a blue line was not produced by intoxications with metals having black sulphides, such as bismuth, iron, nickel, mercury, copper, and bismuth, probably because they were not readily absorbed, iron and nickel because sulphuretted hydrogen (as distinguished from alkaline sulphides) failed to precipitate the sulphides, and mercury because the sulphide when diluted was white, yellow, orange, or red. Hence the red line (from cinnabar) in that intoxication.

Catalepsy.

Dr. Hunt read notes on two cases of a cataleptic nature. Both cases were in girls, aged 17. They were both members of large families with no nervous history, and were in robust health before the attacks. They were not related. The first patient, Miss A., had a fright in the summer of 1901, and subsequently developed hysterical fits accompanied by rigidity of the limbs. She had a very severe attack early in September while at her work in a boot factory. She was seen in this attack and assisted home by Miss B., who worked at the same table. Miss B., for a fortnight after this, was nervous, and talked a great deal about this fit that she had seen, and fourteen days afterwards had an attack of an exactly similar nature. She quite quickly became unconscious and rigid, her pupils were dilated, her breathing shallow, pulse feeble, and all her limbs stiff and rigid; they could only be bent with great force. She continued to have similar attacks for three months, the longest time in which she was in one of them being nineteen hours. The first-mentioned girl, Miss A., subsequently suffered from well-marked catalepsy; her limbs could be placed in any possible position and remained there for a longer or shorter period. She was, as far as could be ascertained, quite unconscious during the attacks. Her respirations were 20, pulse 90, temperature normal. The leg, when extended at the knee, flexed at the hip-joint, and raised a foot or two from the bed (Fig. 2), was held in this position for over ten minutes, and gradually subsided under force of gravity. The arms, when raised up, remained in that position for four hours and a quarter (Fig. 1). When

the limbs were placed in a mechanically difficult position they became tremulous after a time and sweated. Both girls recovered under moral discipline. The association of the two cases was commented on, and remarks made as to the nature of catalepsy, which it it was suggested was of the nature of hypnotism of the motor centres. The complicated positions in which the limbs could be placed and retained their position showed considerable subconscious cerebration, and the length of time for which the limbs could be held in difficult positions much longer than would be possible in a conscious condition suggested remarkable concentration of nerve force under these conditions.

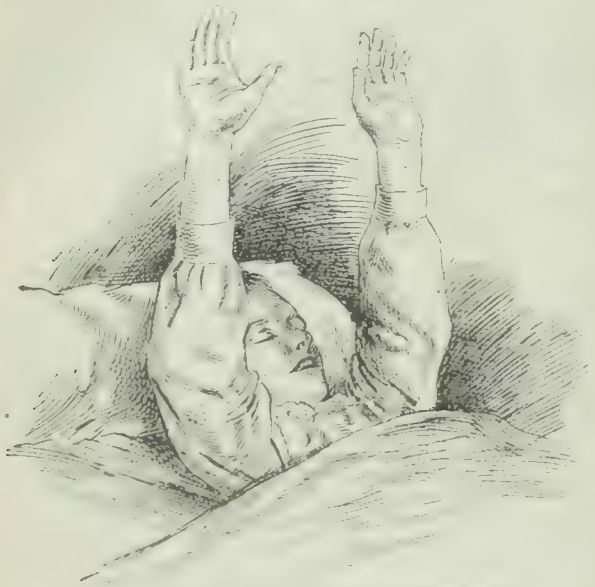


Fig. 1.—Miss A., showing arms in cataleptic state.

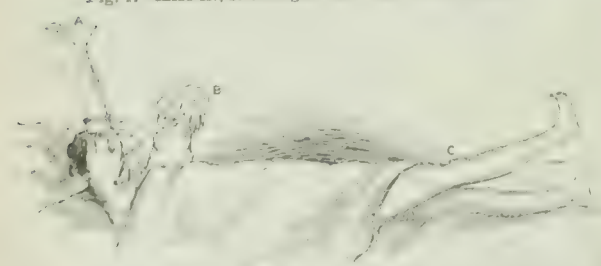


Fig. 2.—A, arm in this position and the other in similar one 4½ hours; B, arm held in this position for 20 minutes; C, leg in this position for 10 minutes, and then gradually sank down.

TUBERCULOUS MENINGITIS.

Dr. MALET related a case of apparently typical tuberculous meningitis, which passed into a condition of complete paralysis and unconsciousness, with extreme emaciation; then gradually improved in condition, gained flesh, and the muscles became generally tonic, and a condition of complete cataleptic plasticity existed for many days; then ordinary muscular power was gradually regained. The cataleptic condition was probably due to vitiated relationship between the superior and inferior cerebral planes.

Dr. SPENCE and Dr. MCALDOWIE also took part in the discussion.

SPECIMENS

Mr. SPANTON showed four [illegible] uterine myoma: hysterectomy: recovery. An [illegible] had noticed enlargement of abdomen for [illegible] and painful. She had had [illegible] from [illegible] and [illegible]. On [illegible] uterine tumour [illegible] the whole of the [illegible] reaching to the level of the umbilicus, lobed but even [illegible] small, hard and movable. [illegible] th, 1901, abdominal hysterectomy was perform[illegible] The whole of the tumour with the body of the uterus was removed, also the ovaries and appendages the cervix uteri only being left. The pelvis was quite dry at the end of the operation. A gauze tampon was left hanging into the vagina after being passed through the cervical canal. No drainage tube was used. She made an excellent recovery and gained considerably in weight and health, with disappearance of the stomatitis before leaving at the end of about a month. The tumour consisted of a single interstitial myoma, weighing 8½ lb., the ovaries undergoing cystic changes. Some portions of the tumour were in process of degeneration, but there was no sign of any malignant change. She was now quite well. (2) Gall stone in cystic duct: cholecystotomy: cure. A married woman of 47 had symptoms of gall stones a long time with recurrent attacks of jaundice—never passed a stone. Abdominal incision; gall bladder found very much thickened, containing only glairy mucus; gall stone the size and shape of a monkey nut found encysted in cystic duct, removed, and gall bladder fixed in abdominal wound. Patient made an uninterrupted recovery. (3) Right pyosalpinx with enlarged adherent ovary, and left hydrosalpinx removed by abdominal section from a lady aged 30, who had been married two years, with a previous history of pelvic peritonitis seven years before. She had been in the Transvaal, and done much rough-riding, to which her troubles were attributed. Recovery was rapid and complete. (4) A large mulberry calculus removed by suprapubic lithotomy from a member of the British Medical Association, aged 73, who made a good recovery five years ago. Two years after another large calculus, chiefly phosphatic, was removed by median lithotomy, and subsequently, after leaving the district, a third calculus was removed by lithotrity, ending fatally.—Dr. EDGE showed (1) a large single gall stone successfully removed from the gall bladder by cholecystotomy; (2) double dermoid tumours of the ovaries from a girl aged 21. The right one the size of a fetal head, had become gangrenous owing to torsion of the pedicle. The case was recent, and was doing well so far.—Dr. HUNT showed a bursa patellae removed for enlargement of four years' duration. It was very hard. The Roentgen rays had been used, and showed it was not the patella itself. It was solid with the exception of a very small cavity containing a little fluid.

HARVEIAN SOCIETY OF LONDON.—At a meeting held on March 6th, Mr. WATSON CHEYNE in the Chair, Dr. LONGRIDGE showed a girl, aged 7, with an irregular temperature of three months' duration for which no obvious cause could be found. Typhoid had been eliminated by repeated non-reaction to the Widal-Grünbaum test. No evidence of tubercle could be detected. The tuberculin test was disallowed on account of the irregularity of the temperature. The only evidence of disease that could be detected were König's sign which had lasted for six weeks, a transient erythematous rash, some pain and swelling of both wrists, the temperature, and wasting. The child was not anaemic, there was some leucocytosis, and took her food very well. Dr. PENROSE considered the case to be an obscure rheumatic condition. Dr. CAUTLEY thought this might be an early case of osteo-arthritis, and he believed there was a little swelling about the wrist-joint. Dr. LONGRIDGE replied.—Dr. E. CAUTLEY showed a case of disease of the cauda equina. The patient, aged 26, had a chancre eight years before. He was quite well until October, 1901, when he had sudden retention of urine. Four days later he could not hold his motions. He was treated by catheterization and aperients, both as an out-patient and an in-patient at a hospital, but the disease was not diagnosed. Later on the actual cautery was freely applied to the sacral region when he was in the infirmary. In December he began to have some loss of power in the left leg and numbness in the buttocks. At present he exhibited some loss of power in the extensors of the left leg. The cremasteric and patellar reflexes were very active, while the plantar reflex was lost. The sphincter ani did not grasp the finger on examination. There was diminution of sensation to touch, pain, and temperature, with a feeling of numbness over a considerable area of the buttocks, the perineum, penis, and scrotum. Testicular sensation was impaired. He now had partially regained control over the bladder. Stools were occasionally passed unconsciously. The probable diagnosis was syphilitic disease of the cauda equina, that part from which the second, third, and fourth sacral nerves arose. He was treated with mercury and potassium iodide. Dr. Cautley also showed a clinically typical instance of primary lateral sclerosis in a man, aged 25. No possible exciting cause had been found, except gonorrhoea about three years before the onset, which took place three years ago. The cases were also discussed by Dr. SUTHERLAND, Mr. JAFFRAY, and Dr. LONGRIDGE. Mr. P. L. DANIEL read a paper on some rare cases of sarcoma of the thyroid gland, and exhibited a large number of pathological and microscopical specimens from cases which had suffered from this disease. The PRESIDENT was interested in the statement that out of six cases of malignant disease of the thyroid at Charing Cross Hospital, four were sarcomata. He had not generally

examined such cases histologically, but had accepted the statement of the books as correct that sarcoma was much more rare than carcinoma. He had not yet encountered a case of malignant disease of the thyroid which he felt justified in operating upon; and those cases which did not seem to benefit under treatment were not kept in hospital, so that no opportunity of necropsy was afforded. The most interesting question was that of treatment, because malignant disease of the thyroid was one of the most terrible forms, on account of the great distress it caused. In one case which was diagnosed as sarcoma of the thyroid a good deal of benefit resulted from the use of Coley's fluid. One case went on for more than a year; it was injected with Coley's fluid, and apparently there was a complete cessation of the growth. But she had influenza, and it lighted up again. In reply to Mr. Campbell Williams, Dr. Cautley, and Dr. Longridge, Mr. Daniel said the skin was not pigmented. He showed a specimen in which there were secondary nodules affecting both lobules of the thyroid. With the exception of the spine in one case, there had been no tumour of bone or lung in any of the cases, although the walls of the subclavian vein were undoubtedly involved. On section, the new growths in the spine were seen to be simply pure sarcomata.

Epidemiological Society.—At a meeting on February 21st, Dr. P. Manson, C.M.G., F.R.S., President, in the chair, a paper was read by Dr. C. Killick Millard, M.O.H. of Leicester, on the supposed infectivity of desquamation in scarlatina. The traditional belief that infection persisted so long as any desquamation was present was accepted unconditionally by the Committee of the Clinical Society in 1892 on incubation periods and infectivity on wholly insufficient evidence, since desquamation was not even mentioned in more than 3 of the 209 cases of scarlatinal infection, and they admitted that this might occur long after desquamation had ceased. With a view to elicit the opinions of the most competent authorities he had addressed a number of questions to the superintendents of twenty-five of the larger fever hospitals; sixteen of these expressed in decided and almost identical terms their disbelief in the old doctrine, while nine gave a more or less uncertain and qualified adhesion thereto. Weighing the arguments for and against the popular notion, he suggested that the frequent prolongation of so striking a feature as the peeling after complete convalescence, and the occasional persistence of infectivity for indefinite periods easily led to their being looked on as standing in a causal relation, and the supposed confirmation of this view by experience, when the conditions of the nasal mucous membrane were not recognized, was but an instance of the *post-ergo-propter* argument, while the belief in the greater infectivity of scarlatina during convalescence probably arose from the greater difficulty in maintaining isolation when the patient was no longer confined to bed. The analogy to small-pox was apparent only, and lay rather in differences than in resemblance. He did not deny that the desquamation might, like an article of clothing, be a vehicle of infection, but it was the patient not the epithelium or the fomite that was *per se* infectious. Not only was there was no positive evidence in favour of the old notion, but there was some direct evidence against it; thus the streptococcus conglomeratus of Klein, which was very generally regarded as the specific organism of scarlatina, had not been found in the desquamation, and the "striking distance" of scarlet fever was very short, though the dusty desquamation must be diffused far and wide through open windows. In this respect it contrasted strongly with small-pox, the scabs of which were the product of dried pustules containing the microbes, whereas the erythema of scarlatina pointed rather to the action of a poison the product of bacteria than to that of the microbes themselves, and the erythemata of drug poisons were often followed by a similar desquamation; indeed, the shedding of the epithelium was more profuse in the non-specific erythema scarlatiniforme desquamativum than in scarlatina itself. So far as he could ascertain from his experience at Birmingham, and subsequently at Leicester, where the period of detention averaged but four weeks, the percentage of return cases following the discharge of patients while still desquamating, though otherwise apparently healthy, was certainly no greater than that among others, and it must be remembered that a renewed process of desquamation often appeared some time after the primary desquamation had entirely ceased. Recrudescence of infectivity, however, often followed the occurrence of a naso-pharyngeal catarrh induced by an ordinary chill, when the microbes were probably still present in the fauces, though until this accident in a dormant and inactive condition. Dr. Caiger referred to two return cases received ten days subsequent to the discharge after 8½ weeks in hospital of a patient apparently quite well. In the report of the Metropolitan Asylums Board five years ago, naso-pharyngeal discharges were noted in connexion with 80 per cent. of return cases, and desquamation in 3.4 per cent. only. Dr. Goodall complained of the attitude of some practitioners and even medical officers of health who looked on desquamation in itself as evidence of a patient having suffered from scarlatina, even, in one case, in which the medical superintendent knew the disease to have been enteric fever. He used to keep scarlatina patients for eight weeks, but now, in the absence of throat symptoms, sent them out in six, irrespective of desquamation, with no ill results, each case being judged on its own merits. He was sceptical as to the claims of streptococcus conglomeratus, which, though present in the throat, had not been found in the discharges. Dr. C. B. Ker preferred an eight weeks' detention, considering six weeks too short for safety, since the chance of infective discharges appearing after leaving the hospital was greater. Dr. Gordon had found another streptococcus in these, though not in the desquamated cuticle. The non-extension of the disease to houses around the hospitals was a strong argument against the old view. After remarks by Dr. F. M. Turner, Mr. Shirley Murphy said his own experience of a fever hospital was many years ago when scarlatina was of a far severer type than at present, and presumably more infectious; but he had seen it communicated from patients who had had no desquamation whatever. They knew that haemorrhagic small-pox without pustulation was the most intensely infectious form, and like differences might obtain among cases of scarlatina, for which no rule could be laid down. After remarks from Dr. W. A. Bond, Dr. Willoughby said he had for many years been more than doubtful of the infectivity of the desquamation, of which he had availed himself merely as a something which the friends could see, though he himself looked to the throat: he had little faith in official disinfection of rooms by sulphur fumes, always insisting on sublimate sprays or washing, and had seen infection occur through kissing and when there was absolutely no desquamation or other possible vehicle. Dr. Washbourn believed that there was no evidence whatever of infection by the desquamation, but that the period of infectivity varied from three weeks to eight or even longer, and the actual duration of this period or its termination would never be known till they had determined the specific microbe, which they had not done as yet. The President referred to the fact that scarlatina was almost unknown in the tropics, and if imported never spread. This, he said, pointed to the influence of external conditions and suggested a haematozoon rather than a bacterium. Dr. Millard replied.

The Endowment of Medical Research in America.—President Eliot, of Harvard, in his last report, states that the invested funds of Harvard Medical School have increased from $45,136.54 in 1870 to $1,098,489.74 in 1901. He says that research is more and more endowed, and that in endowing professorships recent donors wish the professors to have leisure for original research. The gifts of various pious founders have also enabled the University of Pennsylvania Medical Department to begin the building of extensive laboratories which are estimated to cost $600,000. It is a proof of the well-grounded faith of the authorities of the university in the enlightened generosity of their countrymen, that only half the amount required has yet been subscribed.

A Bill has recently been introduced into the United States Congress providing for the punishment by fine and imprisonment of all persons subject to the jurisdiction of the United States who are convicted of supplying arms, opium, or alcohol in any form to the aboriginal natives of Pacific possessions of the States.

REVIEWS.

HOSPITAL ADMINISTRATION.

To praise a new annual volume of *Burdett's Hospitals and Charities*[1] is wholly superfluous. It has taken its place as an indispensable part of the library of every philanthropic institution, as far as its official returns and summaries are concerned. But Sir H. BURDETT very wisely and properly prefixes a few chapters of a more general character; and these contain matter which admits of a good deal of difference of opinion, being largely coloured by the author's own theories and views of hospital administration. We are quite prepared to give Sir Henry the highest credit for his services to our hospital system, but we are not compelled to adopt all his pronouncements. If, however, we hesitate in any matter to follow his authority, we are always alive to the great risk of error implied in such hesitation.

We cannot spare the space which would be required to review this book as if it were newly issued, nor is any such review required when the work is so well known. We shall only select a very few topics from the introductory chapters.

The first chapter deals mainly with the effort which is to be made this year, by means of the "Coronation Gift" to put King Edward's Hospital Fund in a position to distribute at least £100,000 annually to the London hospitals. Comment on this would be impertinent. We can only say that if His Majesty succeeds in this benevolent effort he will have accomplished a very remarkable work.

In Chapter II Sir Henry treats of capital expenditure and shows forcibly how great has been the outlay necessarily incurred in modernizing old hospitals, and in providing the premises necessary for those special departments which are an outgrowth of modern progress in medicine and surgery. We are tempted to quote one short passage.

> We would urge everybody who has time to make it their business to visit St. George's Hospital and ask to be taken over the whole of that institution as it is to-day in its modernized and renovated condition; to pass on the London Hospital, see there the works in progress, try to realize what these mean in added labour and difficulty to the staff and in future benefit and comfort to the patients, then to visit Guy's Hospital, go over that, and see what the work of renovation has accomplished there so successfully in a building which has been used as a hospital for close on 200 years. P. 71.

Experts like Sir H. Burdett know, of course, what immense changes have been wrought by the progress of the healing art, what enormous expense this entails, and what a rich reward it brings in the saving of human life and suffering; but it is well to bring the matter constantly before the public, for "the man in the street" knows little and cares little about it, and thinks it is all "a doctor's question," while there are a few fanatics—though very few, we hope—who would like to stop all progress whatever because much of it rests on "experiments," and their imaginations are so filled with the unreal sufferings of dogs and cats that they can spare little attention for the means by which human suffering—which is only too real—has been so largely mitigated within the lives of men now living. That mitigation has been effected, perhaps not wholly but in a very large proportion, by the researches carried on in our hospitals. The resulting improvements in practice necessarily involve a great deal of reconstruction in hospitals built many years since, and hence the need for great expenditure of capital.

It is not, however, only the capital expenditure which has been affected by the progress of modern medicine. The annual cost of working a hospital has also immensely increased, and this point our author brings out forcibly in his third chapter. This chapter sets out, in the first place, the indubitable fact that the class of cases treated in the hospitals of to-day is much more acute than it was some thirty years ago, when a large proportion of cases were chronic. "The true principle," as our author says, "for the conduct of an efficiently-administered hospital is to strive to cure the greatest number of patients in the fewest possible beds in the shortest possible time" (p. 75). But this, of course, involves increased expense in many ways, and the chief of these is the nursing. A table is given (on p. 81) which shows the cost of nursing at the ten London hospitals with medical schools in the year 1900. Though this table is not quite complete—for at King's College and Charing Cross the details for the nursing department appear not to have been kept separate from the general accounts—the main result seems to be that, whereas the old scale was about 1 nurse to every 4 beds, the present proportion is about 1 nurse to every 2¼ beds: and, besides this great increase in numbers, the rate of pay and the scale of accommodation of the nurses has much risen, while they have been relieved of much of the work that they used to do in the wards, and thus it has become necessary to hire more servants. On the whole, the conclusion is inevitable that the hospitals at present are obliged to face a large increase in both capital and annual expenditure, and that this increase is well repaid by the increased comfort and safety of their inmates.

We now turn to more doubtful matters. Sir H. Burdett is known to be an advocate of the pay system as applied to our general hospitals. On p. 113 of this book he says: "We welcome the tendency to admit paying patients into all classes of hospitals." Now this is a very important question in hospital administration; and we would earnestly deprecate the idea, which might easily be adopted by the general reader, that such an opinion is universal, or even general. For our own part, while we do not deny that pay hospitals may be useful or even necessary in large cities, we hold that the gratuitous character of our general hospitals ought to be carefully maintained: and we regret much the introduction of the "part-pay" system in the out-patient department of some general hospitals. Still more should we regret any system of the same kind among the in-patients. It is, as we hold, impossible to keep such "part-pay" systems free from grave abuse; and, surely, if anything is paid for, the most important of all the things supplied to the patient should be—and that is the medical treatment which he receives. The BRITISH MEDICAL JOURNAL of March 1st contains an article on Australian Hospitals, which showed how strong and apparently well founded are the complaints to which the pay system there has given rise, both from medical men and from the public; the former complaining that persons are admitted to the hospital for some insignificant payment who are well able to become private patients on the usual terms, while they themselves receive no part of the sums paid by the patient; while on the part of the public it is alleged that the admission of persons able and willing to pay keeps out the poor for whom the hospitals are founded. Pay hospitals, in our opinion (and that opinion is shared, we believe, by many persons of experience) should be kept completely separate from the hospitals which have medical schools attached; the payments should be on an adequate scale; and either the medical officers should have a definite share of the fees, and should have a veto on the admissions, or else the medical and surgical treatment should be kept apart from all other matters—that is, from the nursing, feeding, accommodation, and the supervision of the resident medical officer; and then the patient should choose his own physician or surgeon, and make what terms he pleases with him. But the latter plan hardly differs from that of the nursing homes, and under the former there would be required a constant vigilance if grave abuses are to be avoided. The fact is that it is very difficult to mix up charity and business without spoiling one or both.

In Chapter IV Sir Henry chronicles the establishment in Southampton Street, Strand, of the Hospital Library and Charities Bureau, which he describes as "the most important event of the year 1901, in our judgement." He must have meant the most important in regard to hospital management, and even taken in that sense the assertion seems a strange one.

We regret to see (on p. 85) that the constitution recently adopted by the governors of the National Hospital for the Paralysed and Epileptic does not meet with his approbation. Under that scheme of government there is to be a secretary, a senior house-physician, and a superintendent of nurses, and each of these is to "be endowed with sole authority over their respective departments," of course (though Sir Henry does not specify this) under the Board of Management. His objection to this scheme rests mainly, as it would appear, on the assumption that the senior house-physician will "presumably be fresh from the schools, holding office for a few months only." What grounds there are for any such assumption we know not. The office will be a paid one, and it should be the

[1] *Burdett's Hospitals and Charities*, 1902. 15th year. London: The Scientific Press. (Crown 8vo, pp. 992. 5s.)

business of the Board of Management to see that its emoluments and position are such as to attract and keep competent men. It is true, as Sir H. Burdett points out, that in this, as in other hospitals without schools, the patients have not the protection afforded by "the criticism of an active, constantly changing, alert and quickened intelligence represented by a body of students," and also that at such a hospital "each individual member of the staff.....may have uncontrolled discretion in the treatment of the cases assigned to him." Is not this the case at every country hospital now? We shall watch the progress of the National Hospital in Queen Square with the greatest interest; but we are ready so far to agree with Sir H. Burdett as to admit that it would, in our own opinion, have been better to make the resident medical officer head of the household; if, however, this turns out to be desirable, it is a change that the governors can at any time make.

We ought not to conclude this notice without again expressing our sense of the great obligations that all connected with hospitals are under to Sir H. Burdett for the series of which this year-book is a good specimen.

VACCINATION AND SMALL-POX.

Dr. Kübler, of the Medical Department of the Prussian War Office, has contributed to the von Coler Library, edited by Dr. Otto Schjerning, Surgeon-General, a *History of Small-Pox and Vaccination*.[2] Dr. Kübler has for years been responsible for the statistics of small-pox issued by the Imperial Health Office, and is a master of his subject. In an introductory chapter he gives a minute clinical description of small-pox, and expresses the opinion that Sydenham and others, for example, Heim and Hufeland, were possibly correct in speaking of "abortive small-pox" (febris variolosa sine variolis). The ancient history of the disease recorded by Greek, Latin, and, especially, Arabian writers, is reviewed. The "Attic pest," described so minutely by Thucydides, which birds and dogs took from men, cannot be identified with any known infectious disease. Doubtful, too, is the Antonine pest (Galen's pest) of which Marcus Aurelius died. Moore's references to ancient Chinese writings are all vague, and so is the story of an Indian goddess of small-pox, all is for Dr. Kübler uncertain, till we come down to Arabian writers, especially Rhazes (A.D. 880). All known writers on small-pox are mentioned, and many criticized. Luther applied the term "schwarze Blattern" (black pox) in translating the Bible. The term "small-pox" is mentioned in a letter dated July 14th, 1518, in which Wolsey is informed that Henry VIII is leaving Wallingford on account of the "small-pokkes" and "mezils" and the "great sickness" (plague) there. The term "variola" is first met with in a writing of Bishop Marius von Avenches (Lausanne)....."et variola Italiam Galliamque afflixit," in the year 570. Portraits of Sydenham, Boerhaave, Lady Mary Wortley Montague, Jenner, etc., are given. The hand of Sarah Nelmes is also reproduced. Abundant statistics are presented, and the pandemic outbreak of 1870-74, as well as all recent epidemics, are thoroughly discussed. Dr. Kübler is pained and astonished at the apathy shown by England, while Italy and Hungary have already imitated Germany, and France is contemplating similar action. Our last vaccination law is called a dead letter, not quite justly, perhaps, and future epidemics are confidently predicted, and with justice, it is to be feared, for our present system is absurdly insufficient, without revaccination. The opponents of vaccination are by no means ignored, on the contrary, their assertions are carefully given and answered. The theories of the "degeneration of lymph" to account for the lapse of protection in vaccinated persons show how very slowly it came to be recognized that the protection given by vaccination requires renewal. Hodenpyl, in Rotterdam (1818) and Elsässer in Stuttgart (1820) were the first to recognize this. Gregory thought the protection lapsed in about 35 per cent. of the vaccinated. Varicella is still a stumbling block to some, but the mortality statistics exclude varicella as a matter of course. This work is, in fact, a storehouse of information on every subject connected with small-pox. It is encyclopaedic in character. Even the recent vaccination laws of Japan find mention. They are, it is said, inefficiently applied, and small-pox is still severe there as viewed by a German authority so familiar with the efficiency of the system of the Fatherland as is Dr. Kübler. The actual deaths in Japan from small-pox during 1890-5, as reported in their medical journals, were 25,721, 8,409, 11,852, 3,342, and 268. The Japanese call this a slight mortality compared with what previously existed. A wonderful map of Europe, coloured according to the degree in which each country is affected by small-pox, is reproduced from the *Denkschrift* of the Gesundheitsamt (Berlin), a work reviewed in the British Medical Journal some time ago. The chief literature is given at the end of each chapter, but the work would gain vastly by a good index; at present it has no index at all. At the same time it may be observed that some chapters teem with isolated facts that seem to require a connecting thread on which to string them; in other words, the wealth of material has embarrassed the author. But a great service has been performed by this book, which deserves translating, and Dr. Kübler may be congratulated on his success in condensing a vast library into one volume.

The first volume of an "authorized translation" of Nothnagel's *Encyclopaedia of Practical Medicine*,[3] which is being edited by Sir John Moore, opens with a masterly monograph on variola and vaccination by H. Immerman, of Basel. It is brought fairly well up to date, though the subjects are too much subdivided for comfort. We are told of Pfeiffer's theory that the secondary fever in variola is not exclusively due to suppuration, but to the specific variolous infection. Pfeiffer cites Van der Loeff to the effect that the specific parasite (Cytorrhyctes variolae) circulates again in the blood in the second week. It need hardly be said that these are as yet only the views of individual observers. The "specific parasite" is being found continually. The article on vaccination is very good, and especially valuable from the copious list of authors given. The protection we are told first fades gradually, secondly that for most people "little or nothing is left of this originally absolute protection after a period of about twenty years. Revaccination is consequently a most urgent necessity," repeated at intervals. But a great mistake is made by the author in asserting that revaccination is practised in the British navy but not in the army. On page 44, in giving the deaths from small-pox in Germany, the word "death-rate" is misleading, and in the same sentence the deaths are called "cases." Still the meaning is clear on reflection. Körösi's comparative method is properly appreciated in this work. Altogether 279 pages are devoted to variola and vaccination; in excellent English which reveals its faithfulness to the original, most comprehensive information on these subjects is given from the scientific standpoint. In the same volume Dr. Th. von Jürgensen, of Tübingen, writes on varicella. Dr. H. Lenhartz, of Hamburg, describes erysipelas with much detail, and also gives an account of "erysipeloid," a peculiar wound infection to which Fr. J. Rosenbach gave the name of "zoonotic finger erysipeloid." Dr. Liebermeister, of Tübingen, writes on cholera, and provides an amazing bibliography. Dr. G. Sticker, of Giessen, discusses whooping-cough, and writes on hay fever under the name of "Bostock's summer catarrh," which reminds us that we owe the first classic account of this malady to Dr. John Bostock, of London, who read a paper upon it before the Royal Medical and Chirurgical Society in 1819, a paper based on personal experience. The opinion here expressed is that true summer catarrh is not dependent on pollen irritation. The print of the volume is good, but the headlines of various subdivisions are perhaps too prominent in some cases, producing a disturbing effect on the reader, and the editor repudiates responsibility for the spelling.

Dr. E. Brown, the author of a pamphlet entitled *The Case for Vaccination*,[4] makes no claim to originality. Though the

[2] *Geschichte der Pocken und der Impfung.* [History of Small-Pox and of Vaccination]. Von Dr. P. Kübler, Senior Staff Surgeon and "Referent" in the Medical Department of the Royal Prussian War Ministry. Berlin: A. Hirschwald. 1902. (Demy 8vo, pp. 498; 12 illustrations and 1 table. M. 8).

[3] *Variola, Vaccination, Varicella, Cholera, Erysipelas, Whooping-cough, Hay Fever.* By H. Immerman, Th. von Jürgensen, C. Liebermeister, H. Lenhartz, G. Sticker. Edited with additions by John W. Moore, F.R.C.P. [Nothnagel's Encyclopaedia of Practical Medicine: Authorized Translation]. Philadelphia and London: W. B. Saunders and Co. 1902. (Demy 8vo, pp. 685, 218.)

[4] *The Case for Vaccination.* By E. Brown, M.R.C.S., L.R.C.P. London: Baillière, Tindall and Cox. 1902. (Demy 8vo, pp. 48. 1s.)

pamphlet is intended mainly for the public the author expresses the hope that it may be of some little use to medical men. It contains a good deal of useful statistical matter culled mainly from the pages of the Royal Commission's Report. The statistics of the six towns dealt with specially by the Commission—Sheffield, London, Leicester, Gloucester, Dewsbury, and Warrington—are given at some length and should be convenient for reference. The pamphlet appears to have been written in haste and to have been very insufficiently revised for the press, so that there are a good many slips. For example, at p. 7 we read that "the results of several 100,000 cases were investigated"; at p. 8 something is set down "as a result of the report of the Royal Commission's Report"; at p. 10 there is a quite incomprehensible statement regarding the small-pox mortality in London in 1745-65; at p. 11 the words "fatal" and "fatality" are used ambiguously; at p. 24 statistics are given of which the details fall short of the total. If a second edition is asked for the writer will no doubt correct all such blemishes; indeed, any one setting out to guide his brethren on this subject has a special duty to be careful. Even as it is however, the pamphlet contains much matter which, duly sifted, should be of some value to any one who has no time to refer to fuller sources of information.

PULMONARY DISEASE.

DR. BRÜGELMANN, the fourth edition of whose work on "Asthma, its Nature and Treatment" [5] is before us is already well known in Germany by his writings on the subject. Asthma, he says, is bronchial spasm, which may depend on very different causes. No two attacks resemble each other perfectly. The cause of the symptoms is to be sought in the nervous respiratory centres. The spasmodic inspiratory position of the thorax, characteristic of an attack of asthma, can be imitated at will, and chloroform and morphine, by their action on the nervous system, can cause the thorax to sink back to its normal position and let out the collected carbonic acid gas. When an asthmatic patient believes that owing to some peculiar smell he cannot breathe properly, an alteration in the brain (anxiety) occurs, the respiratory centre is secondarily irritated, and the patient spasmodically draws up his shoulders and struggles for breath. If, however, the patient is reassured and encouraged by suggestion and by having his attention turned, he will breathe easily again. The exciting causes of the attacks must be sought out and if possible removed. There is no difference between "bronchial asthma" and "nervous asthma." The bronchial tubes are the seat of every asthma, just as the skin is of urticaria, whatever be the cause of the attack. Every asthma is nervous. Brügelmann divides asthma into three groups; traumatic, reflex, and toxic. The reflex asthmas are grouped accordingly as the "asthmogenic" sources lie in the respiratory, digestive, sexual, circulatory, or other systems. Neurasthenic asthma is, according to the author, a form in which the irritation of the respiratory centres is reflexly induced from any spots in the nervous system, but in which this irritation can only be brought about when either the connecting portions of the nervous system, or the centres themselves, or both, have become damaged or worn out (neurasthenic). As traumatic asthmas he classes those cases in which the susceptibility of the respiratory centres has been altered by a physical or psychical injury. Toxic asthmas (cardiac, renal) are assigned to a general nutritional disturbance by which the respiratory centres are affected. To the psychical factors in treatment Brügelmann continues to attach special value. In regard to the peculiar effects of different climates on asthmatic patients, he thinks that "asthmogenic" points in the respiratory tracts may be soothed or irritated by the air of the place, but that the effects are chiefly due to auto-suggestion and faith in the local medical man. The book is certainly an important work on the subject, and should become better known in England.

The various physical signs and the examination of the blood and excretions, as far as they can be of service in the early diagnosis of pulmonary tuberculosis are considered in turn by Drs. JOURDIN and FISCHER in a small book on the early diagnosis of pulmonary tuberculosis.[6] Due importance is attached to the occurrence of haemoptysis in the absence of definite physical signs. In regard to the tuberculin test, it is recommended that only very minute doses should be employed—one to three decimilligrams, that is, 0.0001 to 0.0003 eg., according to Grasset and Vedal—and it is held not to be free from danger. The patient must be free from fever before the experiment, and the rise of temperature must be greater than 1° Celsius in order that the reaction may be termed positive. In old cases of tuberculosis the reaction may not occur, whilst it is sometimes obtained in affections other than tuberculosis (cancer, actinomycosis, etc.). Considerable value has been attached to the serum test by some French authors, and it is at least harmless.

M. HENRI BARBIER has written a very interesting and complete treatise on the physical examination of the chest with reference to the condition of the respiratory organs.[7] It is obviously the result not only of experience in the practical examination of the chest, but of careful thought and consideration of the significance of the physical signs met with. The methods of examination—inspection, palpation, percussion, and auscultation—are first considered in relation to the physical conditions of the parts to be examined, and the anatomical conditions are then detailed. The physical signs elicited by the application of the various methods of examination in the healthy condition—the normal or physiological phenomena—are fully examined, and finally, the abnormal or pathological phenomena furnished by examination of the chest. The arrangement of the matter is good, the language clear and explicit, and the diagrams simple and helpful.

Dr. MEISSEN has brought together in one volume [8] some of the results of his observation and experience as the head of a large institution for the treatment of consumptives and has incorporated some articles by his colleague, Dr. G. Schröder. The first article is devoted to a description of the establishment at Hohenhonnef, its origin, and the plan of treatment carried out. The ways in which tuberculosis is spread, the fever of chronic tuberculosis of the lungs, mixed infection in chronic phthisis, the diazo-reaction and bacteria in the blood of consumptives are amongst the other subjects discussed. The two final articles deal respectively with "The Supposed Alterations of the Blood in the Mountains," and with "Marriage and Tuberculosis." It will be thus seen that the range of subjects is wide, and justifies the author's remark in the preface that the physician to a large sanatorium has a valuable field of observation, which rightly used may serve to increase the general knowledge of this important disease. Dr. Meissen considers that one of the important functions of the specialist is to teach patients how to live hygienically, so as to get well and to keep well after they have left the sanatorium. It is interesting also to note that in discussing the spread of tuberculosis primary importance is given to predisposition rather than the mode of infection. It seems rather a pity in a work like this that attempts should be made to write complete essays on the subjects under discussion, for the results of the personal observations of the writer become obscured by the mass of references to the well-known work of other authors.

Professor RUATA has published in English a small book on *Pulmonary Tuberculosis*,[9] chiefly, as it would seem, in order to make a method of treatment, which he advocates and has practised with satisfactory results, more widely known. The first half of the work is occupied by a description of the anatomical and physiological conditions bearing upon the sub-

[5] *Das Asthma, sein Wesen und seine Behandlung.* [Asthma, its Nature and Treatment.] Von Dr. W. Brügelmann. Fourth Edition. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1901. (Roy. 8vo, pp. 239; M. 4.)

[6] *Le Diagnostic Précoce de la Tuberculose Pulmonaire.* [Early Diagnosis of Pulmonary Tuberculosis]. Par Dr. Ch. Jourdin and Dr. G. Fischer. Paris: A. Maloine. 1901. (Cr. 8vo, pp. 148. Fr. 2.50.)

[7] *Sémiologie Pratique des Poumons et de la Plèvre* [Practical Symptomatology of the Lungs and Pleura]. Paris: J. B. Baillière et Fils. 1902. (Crown 8vo, pp. 252, 20 plates. Frs. 4.)

[8] *Beiträge zur Kenntniss der Lungentuberculose.* [Contributions to the Knowledge of Pulmonary Tuberculosis]. Von Dr. Ernst Meissen, Medical Director of the Sanatorium of Hohenhonnef. Wiesbaden: J. F. Bergmann, and Glasgow: F. Bauermeister. 1901. (Roy. 8vo, pp. 356. 4s. 9d.)

[9] *Pulmonary Tuberculosis.* By Professor Carlo Ruata, M.D., University of Perugia. Bristol: John Wright and Co. 1901. (Crown 8vo, pp. 150. 8)

ject, and by a consideration of the causes of tuberculosis, especially as affecting the lungs. The second half is concerned with treatment. Professor Ruata uses as the basis of his treatment continuous inhalations of some antiseptic. The antiseptic liquid is dropped on the sponge of an oro-nasal respirator, which is worn day and night, being removed only at meal times and when absolutely required by the necessities of life. The respirator must be used for a year even in slight cases, and in one case it was necessary to continue its use for seven years. The book is written in a clear and fluent style.

Dr. Seytre's little book on *The Fever of the Tuberculous and its Treatment*,[10] though it contains nothing new, is interesting. He maintains that, though all cases of tuberculosis are accompanied by fever even from their commencement, the fever is not directly due to the tubercle bacillus but to infection with other micro-organisms, especially the pneumococcus. The height of the temperature bears no direct relation to the stage of the tuberculosis. The fever has its origin at the seat of the tuberculous lesion. Treatment may be by direct antipyretic measures—the administration of antipyrin or sponging with spirit lotion, or by attacking the disease. In the general treatment injections of cacodylate of soda and open-air methods are advocated.

Taken as a whole, the teaching of the British Congress of Tuberculosis of 1901 was pre-eminently practical. It was not only practical but it was of universal applicability. But to bring its practical and useful teaching into a plain form so as to be understanded of all the people to whom it is applicable required special treatment. Such treatment it has received at the hands of Dr. Dennis Vinrace, in his booklet entitled, *The War Against Consumption*,[11] of which a second edition has just appeared. The author describes his work as a small handbook giving in popular language a summary of the proceedings of the Congress, and he expresses the hope that it may prove of service in propagating among the general public more accurate information concerning the present state of medical knowledge as to the origin and treatment of the disease, and more especially the means by which the dissemination of the infection can be effectively checked, and in particular that it may prove of value to the very large number of persons who are engaged in public work as members of municipal bodies, or other authorities dealing with sanitary matters. We believe that this hope is well founded, and that the book will prove of real value also to heads of households. It contains much of the best thinking and best teaching available on the subject of the fight against consumption presented in a form suitable for immediate assimilation by the non-medical and even the non-scientific mind.

Dr. Charles Denison, of Denver, Colorado, has reprinted a paper on *Devitalised Air Toxæmia a Prime Cause of Tuberculosis*[12] read at the recent British Congress on Tuberculosis. He protests against what he calls the "germ-limited vision" of the subject of the causation of tuberculosis. He advances a theory of rearrangement of the molecules of oxygen, through the breathing of air, which devitalizes the air. The re-breathing of this devitalized air he thinks causes a condition in the lung which "could be so bad without germ infection that it could not be much worse with it, so near to a created toxaemia is the dyscrasia existing." He concludes that the medical profession has assumed an accompaniment to be a prime cause, and that in consequence we are all wrong in our methods of administrative control of tuberculosis. The paper is not at all convincing, for, whilst omitting from consideration some important well-established facts, its argument assumes much that is unknown.

In *The Care of the Consumptive*[13] Dr. C. Fox Gardiner gives in a clear and practical way the rules which should govern the consumptive in the matter of fresh air, sunlight, food, rest, and exercise. All the hygienic requirements are discussed and explained in simple language, and evidently by one who has practical experience in their application. The last chapter, which fills up about a quarter of the book, is devoted to the consideration of Colorado, where the author has lived for sixteen years. He concludes with some very practical "Dont's for pulmonary invalids in Colorado," the last of which, at least, is of universal application—"Don't expect to get well in six weeks." A good bibliography and index complete the book.

Dr. Mortimer's small book, *Tendencies to Consumption*,[14] is intended for the family practitioner to place in the hands of those interested in the subject, and so convey to them information which there is hardly time or opportunity to impart in the course of ordinary professional visits. For this is it eminently suitable, as it gives in simple language the main facts on the causation and prevention of consumption. The author disclaims any originality or "special" knowledge, but has exercised judgement in the selection and arrangement of his material, with the result that he has produced a very useful guide to the general hygienic management of those with consumptive tendencies.

Dr. Diver's pamphlet on *Consumption*[15] is a strong protest against indiscriminate expectoration, simply and forcibly written, and eminently suitable for wide distribution amongst the people, especially those afflicted with consumption. The essential factors in the causation of consumption are clearly stated, and there is not a sentence beyond the understanding of any one who is able to read. By a misprint the date of Koch's discovery of the tubercle bacillus is put ten years too late.

Messrs. Bale, Sons, and Danielsson, Ltd. have published a second edition of the book on *British Sanatoria*, edited by Mr. Percy Dunn, and reprinted from the *West London Medical Journal*. They propose to issue a new edition every year bearing the name of *The British Sanatoria Annual*, which will contain a full and revised list of the sanatoria open in this country for the reception of consumptive patients. The second edition is considerably increased in size, and is rich in illustrations.

NOTES ON BOOKS.

Otology.

Professor Broca's small work on the *Surgical Anatomy and Operative Surgery of the Middle Ear*[16] is already well known to all actively concerned in the operative treatment of diseases of the middle ear. The translation by Mr. Yearsley should result in its being in the hands of every student and practitioner in this country. Brief, clear, and sufficient descriptions are given of the anatomy of the temporal bone. The methods of reaching the antrum, of opening up cerebral and cerebellar abscesses are sketched, and the illustrations are abundant and informing. They are, indeed, so good that the letterpress, excellent though it is, might almost be dispensed with. On some of the points we are hardly in complete accord with the author. The spine of Henle is not "a constant landmark," nor of equal value with the suprameatal triangle as a guide; and we do not agree that the "only suitable instrument" for opening the antrum is "the cold chisel driven by a small leaden mallet." Where the practice of English surgeons differs widely from that of the French school, a useful footnote is added by the translator. The

[10] *La Fièvre des Tuberculeux et son Traitement.* Par Dr. Pierre Seytre. Paris: Vigot Frères. 1901. (Crown 8vo, pp. 76. Fr. 1.50.)

[11] *The War Against Consumption.* A popular handbook of the Proceedings of the British Conference on Consumption held in London, 1901. By Dennis Vinrace, M.R.C.S., L.S.A., Councillor of the Royal Borough of Kensington. London: Century Printing Co. 1901.

[12] *Devitalised Air Toxæmia a Prime Cause of Tuberculosis.* By Charles Denison, A.M., M.D.

[13] *The Care of the Consumptive.* By Charles Fox Gardiner, M.D. New York and London: G. P. Putnam's Sons. 1900. (Crown 8vo, pp. 182. 5s.)

[14] *Tendencies to Consumption: How to Counteract Them.* By J. D. E. Mortimer, M.B., F.R.C.S. London: The Scientific Press. (Crown 8vo, pp. 146. 2s. 6d.)

[15] *Consumption: Its Causation, Prevention, and Treatment.* By E. W. Diver, M.D., Resident Physician to the "Belle Vue" Sanatorium. London: John Bale, Sons, and Danielsson. (Crown 8vo, pp. 29. 6d.)

[16] *The Surgical Anatomy and Operative Surgery of the Middle Ear.* By A. Broca, Surgeon to the Trousseau Hospital, Supernumerary Professor to the Faculty of Medicine of Paris. Translated by Macleod Yearsley, F.R.C.S., Surgeon to the Royal Ear Hospital, etc. London: Rebman, Limited. 1901. (Demy 8vo, pp. 68, 56 illustrations. 3s. 6d.)

book is authoritative, and we can confidently promise that its perusal will afford quicker and more accurate information upon the surgical anatomy of the middle ear than any other work with which we are acquainted.

The volume on *Otology*[17] in the series of atlases published by Lehmann, of Munich, consists of 39 plates, containing in all 244 coloured figures illustrative of normal and pathological anatomy. About three-fourths of the illustrations depict naked-eye appearances, and the remainder refer to microscopic sections. A judicious selection of subjects has been made, and the execution of the plates is most excellent. In clearness and accuracy of detail they excel anything of the kind we have seen. Considering the small size and comparatively complicated structure of the middle ear, it is not an easy organ to treat in this way, and we congratulate the authors, and also the artist and the publisher, upon the large measure of success they have achieved. The *Outline of Otology* is from the pen of Dr. BRÜHL, and is well done though necessarily condensed.

Every one who attended the International Otological Congress in London in 1899 will agree, we think, that the most memorable feature of that very successful gathering was the museum, and will be interested to know that a full and accurate record of the collection exists in this admirable descriptive catalogue,[18] which we owe to the labours of Dr. JOBSON HORNE and Mr. CHEATLE. The descriptions of specimens are full and clear, and their value is much enhanced in many instances by the addition of clinical histories. The source from which each specimen was obtained is also carefully recorded. Very notable is the Toynbee Collection from the Museum of the Royal College of Surgeons. Of Toynbee it may be said, *Monumentum exegit aere perennius*, yet we believe that comparatively few even amongst British surgeons have any adequate idea of the extent and comprehensiveness of his famous collection. The permanent value of this catalogue is very considerable, and it reflects the greatest credit on the compilers.

ORTHOPAEDIC SURGERY.

SEVERAL textbooks and treatises on orthopaedic surgery have appeared during the past few years, but while a work of this nature from the pen of Dr. ROYAL WHITMAN must command attention, yet we cannot help thinking that the author laboured under a sense of difficulty in presenting a further *Treatise on Orthopaedic Surgery*[19] and justifying its appearance. In order to leave no part or adjunct of the subject untouched, completeness of description has been sacrificed to brevity, and as examples the account of the symptoms of Pott's disease, the etiology and pathology of scoliosis, and the description of syphilitic disease of the spine may be mentioned. Now it is just on some recent methods of treatment and in the elucidation of by-paths of orthopaedic surgery that we look for an authoritative and personal opinion, and we do not always find it. If in some places the work appears unsatisfying, in many others this feeling gives way to one of pleasure arising from the clear and pithy manner of writing, and in this connexion we may mention the chapters dealing with disabilities and deformities of the foot, the new work on tendon grafting, and on arthrodesis. The remarks on the physiology of the foot particularly merit attention. The volume contains numerous excellent illustrations.

The *Atlas* of the elements of orthopaedic surgery[20] in the series published by Lehmann of Munich has been edited by Drs. LÜSING and SCHULTHESS. The volume merits the highest

(Atlas and Outline of Otology.)

Von Dr. ... tion of Professor Politzer. Munich ... pp. 264; 39 coloured plates; 244 ...

[18] ... *the Sixth International Otological Congress*, 1899. Compiled and Edited by W. ... and Arthur H. Cheatle, Honorary Secretary to the Museum. Revised Edition. London: J. and A. Churchill. (Dem. ...

[19] *A Treatise* ... pman, M.D., Adjunct Professor of ... York Polyclinic, etc. London: Henry ... 17 Illustrations.)

[20] *Atlas* ... *Aerzte*. ... 1901. (C...

praise, and orthopaedic surgery is illustrated in a manner which has never been attempted before. The chromo-lithographs depicting morbid conditions of the spine are particularly beautiful. We wish that some of the illustrations of "machines" for the treatment of deformities had been dispensed with, and that more space had been given to clinical and pathological pictures, or, perhaps better still, that the letterpress had been fuller, for the value of the work would thereby have been enhanced.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Saloquinine and Rheumatin.—Messrs. Widenmann, Broicher and Co. (33, Lime Street, E.C.) forward samples of these new quinine compounds, which are manufactured by Messrs. Zimmer and Co. Saloquinine is the quinine ester of salicylic acid, and its chemical properties are very different from those of quinine salicylate; for instance, saloquinine dissolves in dilute sulphuric acid, forming a soluble salt, whereas similar treatment of quinine salicylate results in the liberation of salicylic acid. This is simply an instance of the different behaviour of the two compounds as a result of their different constitution. Saloquinine occurs as colourless crystals, which are tasteless and insoluble in water, though soluble in dilute mineral acids, the solutions are bitter, and therefore the compound is best prescribed in the form of powders, the dose being about double that of quinine sulphate. It has been recommended in the treatment of typhoid fever, as an antipyretic in acute diseases, and for neuralgia and neuroses, but we are unable to express any opinion as to its value. Rheumatin is the neutral salicylate of salicylic quinine ester—that is, saloquinine salicylate. It also occurs in colourless crystals, which are tasteless, and sparingly soluble in water. It is recommended as an antirheumatic, but we are not able to give any opinion on this statement, and we regard the selection of this catch-name as unfortunate. The usual dose is stated to be 15 gr. three times a day; it is also best prescribed in the form of powders.

SOME NEW APPLIANCES FOR INTRAUTERINE MEDICATION.

DR. ERNEST W. HEY GROVES, M.D., B.Sc.Lond., (Bristol), read the following notes before a recent meeting of the Bath and Bristol Branch of the British Medical Association: In the direct application of drugs to the uterine mucous membrane, two technical difficulties are encountered. In the first place repeated manipulations are very objectionable to the patient, and no local remedy can act efficiently unless it is applied to the diseased surface for a certain length of time. In the second place, a comparatively large uterine cavity is often entered through a small cervical canal and even if the cervix has been artificially dilated, the mere contact of a styptic solution, such as, tincture of iodine, causes it immediately to contract and makes it difficult to apply the solution thoroughly to the cavity of the fundus. I have adopted two simple appliances to overcome these difficulties which have been so successful in my limited experience that I venture to bring them before the profession in the hope that they may prove useful to others.

Gelatine-coated Laminaria Tents.—The ordinary hollow laminaria tents are coated with hard gelatine containing some active antiseptic or astringent agent. When such a tent is introduced into the uterine cavity, the inner surface of the central perforation absorbs moisture, and the tent expands and gradually presses the gelatine covering into all the irregular recesses of the uterine cavity. The gelatine is of such a consistency as to require about six hours for its complete solution, and the laminaria takes about four hours to fully expand. By this means therefore any chemical can be forcibly applied for five or six hours to every crevice of a

diseased mucous membrane. And when the superficial parts of the mucosa have been eroded by the chemical, the deeper parts are still reached by the expansile action of the suppository. If, on the other hand, a solid bougie made up with wax or gelatine be placed in the uterus, however tightly the bougie fits at first, as it melts it exerts little or no pressure on the deeper tissues, which are moreover effectively protected from its action by a layer of superficial epithelial *débris*. I have prepared the tents myself in the following way: A weighed quantity of hard French glue or powdered size is liquefied by heat over a water bath or in a glue pot, and kept at boiling point for one hour, water being added from time to time to compensate for evaporation. Then a weighed quantity of the chemical used is added to the gelatine solution and well mixed. The laminaria tents are then dipped once or twice into the solution and allowed to dry. The thickness of the gelatine coating when dry is about ¼ inch. The formulae which I have actually used are (1) hydrarg. biniodi 0.2 per cent. (1 in 500), and (2) hydrarg. biniodi 0.2 per cent., zinci sulphas 20 per cent.; the former being simply antiseptic and the latter antiseptic and escharotic. Dr. Odery Symes has very kindly tested several samples of the tents thus prepared with broth cultures of streptococci and staphylococci, and finds that both kinds are sterile and powerfully bactericidal. I thought this test necessary, as some chemical combination might have occurred which would have rendered the antiseptics inert. I have found these tents specially useful in treating cases of chronic septic endometritis. In a woman complaining of constant leucorrhœa and a heavy dragging pain in the sacrum, the cervix is probably congested and its canal patulous, and muco-pus will be seen oozing from the external os. This is the result of gonorrhœa or some other form of septic endometritis, and often follows abortion or incomplete involution of the uterus. In either case if the patient is not willing to undergo the operation of curetting, or if the case is not suitable for this operation, the treatment by the expanding antiseptic tents is eminently satisfactory. The bowels are opened by an aperient, followed by an enema, and a vaginal douche of 1 in 2,000 mercuric biniodide having been given, one of the tents is introduced after lubrication with a 1 in 500 solution of mercuric biniodide in glycerine. A vaginal wool tampon is inserted to keep the tent in place, and a hypodermic injection of morphine is given if necessary. But in cases where the os is patulous there is seldom much pain. Both tampon and tent are removed in six hours' time and the patient remains in bed for two days. It is generally advisable to repeat the treatment in a week's time, and again in a fortnight, the vagina being douched daily with the biniodide solution every day for the three weeks. In addition to the advantage of having the chemical applied with pressure upon every part of the mucous membrane the expanding action of the tent exercises a most salutary tonic effect upon the muscular tissues of the uterus.

An Intrauterine Three-Bladed Vulsellum Forceps.—In cases of intrauterine disease in which actual digital exploration or curetting or other operation is necessary, I have used an instrument which Messrs. Ferris and Co., of Bristol, have made for me. It is a three-bladed vulsellum forceps, which is intro-

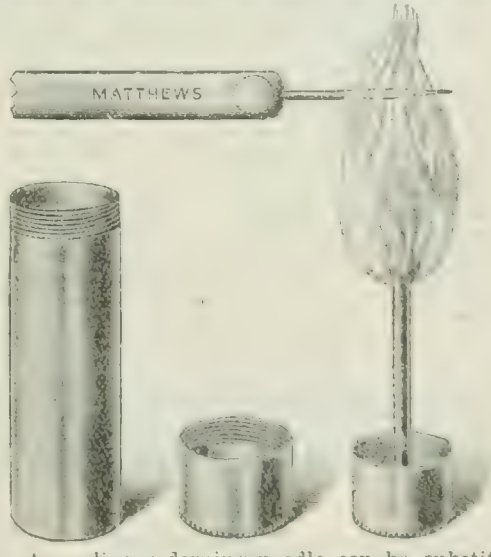


duced into the cervical canal closed. When in position it is opened, and two of the blades hook themselves into the substance of the uterus well above the internal os. The third blade keeps the cervical canal open, so as to admit a finger or instrument. When in this position the instrument serves the purpose of an ordinary vulsellum, affording a handle by which to draw down and steady the uterus. But in addition to this it maintains the body of the uterus in the same axis as the cervical canal, and by keeping the cervix open it gives much greater freedom for intrauterine manipulations. The third blade is hollow, and can be attached to a tube and douche, by which the cavity of the uterus can be irrigated during any stage or all of the operation. In the final stage of nearly every intrauterine operation the cavity is swabbed out with an antiseptic solution such as tincture of iodine. Without such an appliance as this, the greater part of this solution is squeezed out of the pledget of cotton wool with which it is applied by the contraction of the cervix, and the greater part runs down into the vagina, and the wool is almost dry before it reaches the uterine cavity.

The vulsellum can be made of any size, corresponding to any specified size of uterine dilator when fully open. Messrs. Ferris and Co. of Bristol are prepared to supply the gelatine-coated laminaria tents according to the above or any other formula.

MEDICAL AND SURGICAL APPLIANCES.

Vaccination Case.—Dr. L. Harman (Public Vaccinator for the Ham and Coombe District, Kingston Union) writes to draw attention to a vaccinating case which he has designed. It has, he claims, the advantages of extreme simplicity and portability, and yet fulfils all the requirements of the Local Government Board in their instructions to public vaccinators. The outfit consists of an aseptic holder with vaccinators, a special portable spirit lamp, metal cases for the lymph tubes, and blower. He uses Stevens's vaccinating needles, which he have had made to fit into the holder with a set screw which allows them to be instantly adjusted to project any length



desired. An ordinary darning needle can be substituted if preferred. The vaccinator is thoroughly sterilized by heating in the spirit flame. The same instrument can be used many times, but spare ones are carried in the handle of the holder, and can be renewed at a trifling cost. In this way the instrument is very quickly and efficiently sterilized immediately before use. The holder is oval in form and of sufficient thickness; it is steady in the hand, and requires no grip to hold. The whole apparatus is packed complete in a small soft leather case (6 in. by 3 in.), easily carried in the pocket. The set has been made for him by Messrs. Matthews Brothers, of 10, New Oxford Street, London, and is very moderate in price.

Weight Charts.—A series of weight charts, designed by Mr. H. D. Kelf, Dispenser to the Southwark Infirmary, is published by S. Maw and Sons of Aldersgate Street. The series is made up of three charts, the first from 2 to 3 stones, showing gradations of half a pound for the weights of children; the second and third charts are for 3 to 9 and 8 to 14 stones respectively, each stone being divided into pounds only. These charts, which are ruled on the plan of the temperature chart, will be useful in cases of consumption and other illness where a record of gain or loss of weight is important. We would suggest that much more space should be given between the vertical lines. Weights are rarely taken day by day and a fourth of the number of spaces would suffice for ordinary cases.

Portable Urine-Testing Apparatus.—We have received from Mr. W. H. Martindale, Ph.D., who has succeeded to the

pharmaceutical business of his father, specimens of a urea apparatus and a urine-test case designed by him. The urea apparatus consists of a small wooden box containing two bottles, fitted with perforated rubber corks, connecting tubes, a graduated pipette, and a graduated measure. Two solutions are also supplied in the box ready to mix to make up the hypobromite fluid. The whole forms an apparatus for the quantitative estimation of urea in urine. In practice, the nitrogen liberated by the hypobromite displaces the water in one of the bottles, the quantity of water so displaced is measured, and the volumes of nitrogen and water being equivalent, the quantity of water displaced forms a measure of nitrogen evolved. From this the calculation of the percentage of urea is easy, and a table on an enclosed card shows at a glance the equivalents in grains per ounce and per pint. Very little practice will enable any one to perform the estimation with this apparatus, and we have found that in working, the margin of error is not more than 2 per cent. of the correct result. The urine-test case is exceedingly ingenious and well contrived; it contains the requisite apparatus for ordinary urine testing in a very compact form. The box measures 6 by 3 by 4½ in., and comprises two bottles of solutions for Fehling's fluid, a bottle of Esbach's picric acid test, and another of hypobromite. There are four test tubes in a "nest:" one is graduated as the ordinary Esbach's tube and also for the quantitative estimation of urea, which is performed by fitting in a bulb with ground-glass junction, and using it in the same way as Doremus's ureometer. The box also includes a graduated pipette for this purpose. The other articles are a spirit lamp, urinometer, glass funnel, packet of filter papers, some broken glass (for use in the boiling tube to prevent "bumping"), and last but not least, a cloth for drying and cleansing. It will be seen from this enumeration that the adjectives "ingenious and well contrived" are justified. On the lid is pasted a table of the equivalents for the estimations of sugar and urea. The price is not extravagant. The apparatus can be obtained from Mr. W. H. Martindale, 10, New Cavendish Street, London, W.

Southey's Capillary Drainage Tubes.—Dr. T. GARRETT HORDER (Cardiff) writes: I daresay other surgeons have experienced, like myself, some difficulty in fixing the tubing on Southey's capillary drainage cannulas, and it may interest such to know that Mr. Stainforth, of Cardiff, has, at my suggestion, made a pair of forceps which makes the fixing of the tubing an easy matter. The forceps have the ends bent over at right angles, and I am convinced that the invention is worth the attention of surgeons who are in the habit of using Southey's trocar.

SANITARY APPLIANCES.

A Sanitary Paper.—We have received from the Toilet Novelties Company, Bristol, some specimens of what they call "toilet requisites." The chief novelty is the so called toilet pocket book; this consists of a small bundle of thin paper, such as is ordinarily supplied in waterclosets, fixed by a simple and ingenious contrivance in a stout coloured paper cover, so that the whole looks like a pocket book. The paper appears to be of good quality. As the books lie flat and occupy but little space, and as they are inexpensive, they will probably be found useful, especially for travellers. There is a larger size, price 4d., containing sheets of thin paper, which the makers suggest might be used as handkerchiefs. Sir Rutherford Alcock, in his book on Japan published a good many years ago, said that the Japanese were horrified at the European plan of carrying linen pocket handkerchiefs which were returned to the pocket after use; they, he said, would as soon think of returning a paper handkerchief soiled with nasal secretions to their pocket, as they would paper which had been used for another purpose. At the present time, when influenza is rife, we are inclined to think that the use of such paper handkerchiefs, which could be immediately burned in the fire, would be a simple precaution well worth taking. The same company supplies a larger handkerchief of tough semi-transparent ornamental paper, very like the Japanese napkins which may be seen in some restaurants. These are quite cheap—2s. 6d. per 100—and may be recommended to persons suffering from any form of infective catarrh.

A SUMMARY AND ANALYSIS OF RECENT OBSERVATIONS AND THEORIES

AS TO

THE PROCESSES OF INFECTION AND PROTECTION IN THE ORGANISM.

By H. W. ARMIT, M.R.C.S.Eng., L.R.C.P.Lond.,

I.—OLDER THEORIES OF IMMUNITY.

Older Theories.

No time need be wasted on the consideration of the theories put forward at the period when the disease germ was believed only to be capable of existing in a "suitable nidus," for they carry no conviction with them, and on careful examination it will be found that they merely consist of the changing of one set of vague terms into another.

Some infective processes (for example, scarlatina, diphtheria, measles), are characterized by an incubation period, a prodromal stage, a stage of acute illness of varying length, and in non-fatal cases, a spontaneous recovery. In others the course of the acute illness is of a definite length (for example, typhoid fever, pneumonia), while others do not tend to spontaneous recovery. Why do some of these diseases spontaneously come to an end? What is the meaning of the incubation period? Again, we frequently observe that some diseases are communicated to only certain individuals and not to others. This is believed to depend on individual predisposition. In other cases nearly all those who come into the range of infection acquire the disease, which occurrence is said to depend on racial predisposition. Again, certain diseases may protect the individual attacked against a subsequent infection. How can individual and racial predisposition and natural and acquired immunity be explained? To understand the processes lying at the bottom of the phenomena an exact knowledge of the nature of infection is necessary, and therefore to the questions to be answered must be added: in what way does a micro-organism gain a foothold in the tissues, and how does it exert its toxic effects?

Natural and Acquired Immunity.

Natural immunity was taken as a starting point from which the study of these problems was attempted, and as a typical example of this the insusceptibility of Algerian sheep to anthrax as compared with the susceptibility of ordinary sheep to this disease, and the absolute immunity of dogs towards tetanus, may be instanced. Pasteur noted that a non-fatal attack of fowl cholera was followed by complete or partial immunity in proportion to the severity of the attack, and, by keeping cultures of the virus for a considerable time before inoculation, he obtained an attenuated form, so that the disturbance produced by inoculation was slight, but nevertheless the immunity acquired was for the time absolute. He believed that the attenuation was due to the oxidation of the microbe or its products, but Chauveau showed that it was due to the effect of temperature, and that cultures could be attenuated by heating to 42° C. in a short space of time, even in the absence of oxygen. The subject was considerably widened by the discovery of antitoxin by Behring. Salmon had previously shown that immunity might be produced by injecting the toxic products of bacteria freed from the bacteria themselves. Pasteur's explanation of immunity, in special reference to his anti-rabies inoculation experiments, was that side by side with the growth of the microbe a chemical substance was produced which arrested the development of the micro-organism. This substance would be a secretion product of the microbe, and it would be conceivable that if it were deposited in the organism it could be of use to prevent a future infection; but to explain natural immunity on this theory it had to be supposed that the substance might be normally present in certain individuals. This theory was unsatisfactory and others were formulated. In one the bacteria were supposed to use up the store of substances necessary for their existence, and that fresh injection was impossible from the lack of nutrient material; in another the action of the living cells was supposed to offer resistance to the growth of a micro-organism, which varied in different organisms and

towards different germs. In support of this theory, Kanthack[1] pointed out that every organism has special cellular mechanisms to ward off an infection. He instanced the fact that the acidity and proper supply of gastric juice proved in some cases too strong for the cholera vibrio, and quoted from Loeffler's experiments on the epithelial resistance against diphtheria, and from Orth and Wyssokowitsch, who showed that traumatic lesions destroyed this resistance of the cells towards certain infective processes. That these theories are not satisfactory is evident, but that they contain some germs of truth will be apparent from what is said later on.

Phagocytosis and Paraplasmic Action.

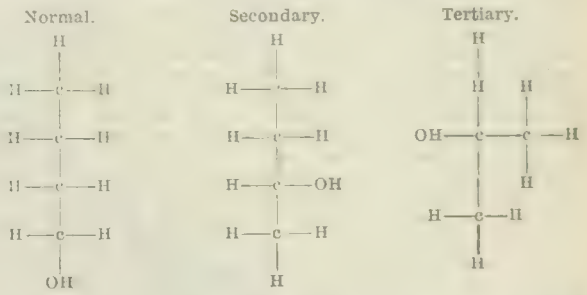
Two other theories have next to be considered.

The first was the result of Ehrlich's study of the chemical changes of the cells. He[2] found that the protoplasm of the cell is a body which contains no free oxygen, and the paraplasm of the cell is a body which carries oxygen. Micro-organisms which require oxygen (aërobic) can exist in paraplasm, but must suffocate when they find themselves in true protoplasm. He suggested that certain forms of immunity might be explained by supposing that the protoplasm has the property, acquired by practice, of quickly taking up certain bacteria in itself, which have found their way into the paraplasm.

The other theory, which is better known chiefly because it is supported by visible biological rather than chemical changes (although Ehrlich rendered the latter visible with the aid of his colour reactions) is that of Metchnikoff, and is known as the "phagocytosis theory." Certain white blood corpuscles (polynuclear leucocytes) are endowed with the property of attacking, incorporating, and finally destroying certain bacteria, for example, anthrax bacilli. Metchnikoff did not explain how the phagocytes succeeded in killing the bacteria. The latter are supposed to exert a special action on the phagocytes, either attracting them "positive chemiotaxis" or repelling them "negative chemiotaxis." It must be assumed that in natural or acquired immunity there is positive chemiotaxis, and the phagocytes, being called into close contact with the bacteria, are then able to perform their special function. In order to explain the reason of this positive chemiotaxis, Roux has suggested that some forms of toxins are at times capable of converting the natural negative chemiotaxis into a positive chemiotaxis. There is reason to believe that the action of the polynuclear leucocytes (as phagocytes) has but little to do with the production of actual immunity, although they probably do play a part in assisting to protect the body against local infection. The position of Metchnikoff's theory in the protective regulations of the organism appears to be that of a temporary hindrance to the micro-organisms seeking to infect the body, acting during the early period before the more complex and more powerful neutralization regulations have come into play.

The Side Chain Theory.

It may be accepted as proved, without further argument, that bacteria gain a foothold at the chemical expense of the body organism, that they produce a chemical product which acts harmfully toward the organism, and that a second chemical product appears during the infection which suffices in some cases to neutralize the harmful products of the bacteria or to destroy the bacteria, or both. The second product, if stored up in the organism, will protect against a further infection. The chemical products of the bacteria are responsible for the symptoms of the disease, although a minor part is at times played by the mechanical effect of the bacteria. The method of action of the bacterial product or toxin has been worked out by many observers, and is now known to be analogous to that of the enzymes. E. Fischer[3] has shown that toxins are unstable ferment-like bodies which possess a peculiar chemical constitution, having a configuration which renders them easily bound (in the sense of a true chemical reaction) to the proteids. The descriptions toxalbumen, toxoglobulin, etc., are only to be accepted for the substances made up of toxin bound to albumen, globulin, etc., and therefore ready for action. Between the molecules of the highly-organized organic compounds of the body cells (protoplasmic molecules) and the toxins there exists a specific affinity which is of a selective character. Ehrlich[4] has shown that this selective affinity is comparable to that of certain acids to alkalis. If to a mixture of hydrochloric and acetic acid an alkali is gradually added, it will be found that the hydrochloric acid is first completely neutralized before the acetic acid is attacked, so that a selective affinity exists between the hydrochloric acid and the alkali, which is stronger than the affinity which exists between the acetic acid and the alkali. This affinity, the firm permanent binding of the ferment-like body to the protoplasm, the difference between the behaviour of the toxins and of defined chemical bodies, such as alkaloids, and the bio-chemical action of the fixed body led Ehrlich to formulate in 1897 his "side-chain theory." This theory depends on the assumption that the complex molecule of the protoplasm is a compound structure like other organic chemical bodies, consisting of a central radical and groups of more or less complex nature attached in such a manner that these lateral groups or side chains are capable of combining with other formed chemical bodies, or of being replaced by other complexes. That an analogous process occurs in organic chemistry is generally accepted to explain the relations of isomeric compounds and the various series of carbon compounds. The formulae for butyl alcohol—normal, secondary, and tertiary—have been expressed thus:



Ehrlich contends that the protoplasmic molecule is capable of forming a vast number of various side chains, and that a separate chain can be formed for every blood or cell poison which exists. The nutrition molecule is attached to the normal side chains. To the objection that the number of side chains would have to be very large, it is replied that there are many conditions in Nature in which a large number of chemical bodies or offshoots arise, even from a simple structure. Ehrlich points out that from the cells of the cinchonaceae, at least twenty different alkaloids can be obtained. The protoplasmic molecule he suggests forms a large variety of these side chains or "receptors," and each receptor is capable of anchoring one single body, be it albumen, peptone, toxin, or other body. The atom arrangement, or group in the toxin, which corresponds to the receptor, he calls the "haptophoric group." The toxin molecule, however, must consist of more than a simple arrangement with one atom group, for he found that certain conditions modified the toxin, suspending its toxic action, without disturbing its power of attachment to the protoplasmic molecule. The toxin molecule therefore must possess a second group which he calls the "toxophoric group," through which the physiological function of the toxin acts. The modified toxin[5] consists of a molecule with a haptophoric but no toxophoric group, and is called "toxoid." The evidence of the existence of these groups will be dealt with later on.

Before following the chemistry of the toxin further, it may be as well to turn to one of the questions, namely, "What is the meaning of the incubation period?" and to formulate the reply according to the side chain theory. The process which has to be gone through after infection consists in the manufacture of toxin, the carrying of it off, the attracting of suitable receptors of sufficient affinity to its haptophoric groups, and lastly the acting of the toxophoric group, through the

[1] Kanthack, *Contagion, Infection, and Predisposition*, 1892.
[2] Ehrlich, *Die Sauerstoffbedürfnisse des Organismus*, 1885.
[3] Pfeiffer, *Deut. med. Woch.*, 1896, Nos. 7 and 8.
[4] Ehrlich, Ueber Toxine und Antitoxine, *Therap. der Gegenwart*, 1901.
[5] Compare the attenuation of Pasteur.

toxin molecule to the protroplasmic molecule, which is evidenced by a definite defect in the molecule. This process must occupy some time, especially if one considers that the toxophoric group possesses a ferment-like action. The haptophoric group possesses a great affinity to the receptor, so that but little of the incubation period is used by the anchoring of these two, but the slow action of the toxophoric group has to answer chiefly for the loss of time.

Effect on the Cell.

The effect of the anchoring of the toxin molecule to the cell molecule is ascertained to be a defect in the molecule. The receptor is no longer capable of receiving nutrient molecules; and, therefore, not only its own nutrition but also its function as a carrier of nutrient material is interfered with. The amount of damage done to the cell varies according to the quantity of activity exercised by the toxophoric group. If the action is small at first, and is gradually increased, the result is a stimulation of the molecule to throw out more receptors of the same type, which will not only compensate the defect but may even over-compensate it. The excess of newly-formed receptors is unnecessary for the molecule. They are therefore cast off. They retain, however, their affinity for the toxin molecule, but cannot be reattached to the cell molecule. When toxin is now introduced into the organism it is anchored by the free receptors, and thus prevented from being bound to the cell. *These cast-off receptors are what is known as antitoxin.*

The products of the bacteria will therefore, under most circumstances, be neutralized after the cell molecule has passed through the stages of reproduction, compensation, overcompensation, and casting off, in reply to the stimulation caused by the initial defect, and antitoxin will result. It would be difficult to explain in this way the secondary or late symptoms of certain diseases (for example, diphtheritic paralysis), without the help of a further regulation. Ehrlich[6] Madsen, and others have shown that a variation of bacterial products occurs, which acts much more slowly on the cell molecule, and which, therefore, does not call forth any overproduction of receptors for a considerable period of time. Ehrlich has named this variety "toxon." He claims, however, that the haptophoric groups of toxon are identical with those of toxin, since he says they are entirely covered by the introduction of normal antitoxin. This is open to criticism. The injection of diphtheria antitoxin does not prevent the occurrence of post-diphtherial paralysis, and this, I believe, is due to the haptophoric groups being incapable of combining with the thrown-off receptors, produced in the covering of the cell defect which has been caused by toxin. If this were not so, then early injections of normal antitoxin would prevent a very marked effect of toxon on the cells of the nervous system in most cases. As a rule, this does not occur.

Mode of Destruction of the Bacteria.

It appears that the bacteria, having gained an entrance into the body, seek a suitable resting place. Aërobic germs find this in paraplasmic tissue, and anaërobic germs in protoplasmic tissue. Once safely ensconced (they have only to evade the action of the phagocytes), they behave in exactly the same manner as they do when artificially grown on nutrient media, forming colonies. The natural length of life of any one bacterium, bacillus, or coccus is probably the same inside the body as in the culture tube, and the process of multiplication is certainly carried on in the same manner. The bacteria produce toxin and toxon by a process of secretion, which varies with certain species within narrow limits. An interesting observation has been made by Bulloch and others, that the toxin of the tubercle mycobacterium is contained in the bodies of the bacteria, and probably is not carried out into the blood or lymph streams until the particular micro-organism has finished its career, has produced its share of the succeeding generation, has died and become disintegrated. In this case a wholesale destruction of the bacteria without an accompanying protection of the organism by antitoxin would inevitably lead to the death of the host.

(To be continued.)

[6] Ehrlich, Werthbestimmungen des Diphtherieheilserum, *Klin. Jahrb.*, 1897.

THE PREVENTION OF CONSUMPTION.

Austria.

The Imperial Royal Medical Society of Vienna has appointed a committee for the study of the tuberculosis question. The Committee includes, in addition to several other members, Professors Benedikt, Gruber, Monti, Mosetig, Neumann, Neusser, and Nothnagel.

Belgium.

The King of the Belgians has asked a well known architect to submit to him a design for a sanatorium for tuberculous patients which he intends to build on his estate of Passable, near Saint Jean-sur-Mer. The sanatorium is intended for the reception of Belgian subjects.

Italy.

The Directing Council of the Association for the Prevention of Tuberculosis at Milan has recently adopted resolutions to the following effect:

1. To take steps to make the propaganda against tuberculosis more active among the working classes.
2. To distribute as widely as possible among the people cards inscribed with the words "Do not spit on the ground."
3. To appoint a committee consisting of Professor Bertazzoli, Dr. Massaglia and others, to approach Cardinal Ferrari, to request him to ask parish priests to allow these cards to be posted up in their churches, and to impress on their flocks from the pulpit the duty of taking the necessary hygienic precautions against the dissemination of tuberculous infection.

United States.

A Bill for the creation of a tuberculosis commission in Maryland is likely to pass the General Assembly without opposition. The commission is to be appointed by the Governor, and is to consist of five members, of whom three are to be physicians. All institutions having medical officers, and supported in whole or in part by the State, are required to furnish the commission certain kinds of information concerning tuberculosis. The commission will be given powers for two years, after which it will cease to exist unless it is given a fresh lease of life by the Legislature.

THE PLAGUE.

Prevalence of the Disease.

India.

The deaths from plague in India during the week ending March 12th reached the enormous total of 21,789. Compared with the previous week, when they numbered 14,946, the increase is very great, and still more marked is it when compared with the corresponding week in 1901, when the number was 6,991. The chief increase is in the Punjab, where 10,525 persons died of plague during the week ending March 18t.

In the towns and districts of India chiefly afflicted the deaths from plague during the week ending March 18t were:—In Bombay City 750, against 701 during the previous week; Bombay districts 5,303, against 4,373; Calcutta 349, against 176; Bengal 1,101, against 863; North-West Provinces and Oudh 2,143, against 1,351; Punjab 10,525, against 5,922; Kashmir (Jammu) 530, against 317; Madras Presidency 456, against 543; Mysore State 426, against 507.

It will be observed that in the more southerly parts of India the plague mortality is lessening, whereas in the north the figures are larger in every instance. In the Punjab, the most seriously affected districts are Jullundur, where 808 deaths from plague occurred; Hoshiarpore with 808; Gurdaspore 570; Sialkot 1,850; Ludhiana 2,431; Ferozpore 294; Umballa 1,622; Patiala State 1,510; Kemultola 63; Nabha 525; Bahawalpore 21; and Patiala City 175. At Karachi the plague shows signs of increasing, and at Hyderabad (Sind) as many as 52 deaths from plague occurred on February 28th, and 44 on March 1st.

In Calcutta, during the four weeks ending March 15th 1,488 persons died of plague.

Cape of Good Hope.

On March 18t but 1 case of plague remained under treatment in the Plague Hospital of Cape Colony. There were no fresh cases nor any deaths from the disease during the week ending March 18t in any district of the Cape.

Mauritius.

During the week ending March 20th, 6 fresh cases of plague were reported in Mauritius and 3 deaths from the disease.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

Dr. Calwell, 1, College Square North, Belfast, Honorary Secretary of this fund, begs to acknowledge the following late subscriptions:

	£	s.	d.
Dr. A. W. Eslor, Victoria, Australia	0	10	—
Dr. W. S. Ross (per Dr. Whitla), Wairarapa, New Zealand	1	0	0
Captain E. B. Barnett (per Messrs. Holt and Co., London)	1	1	0



BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 29TH, 1902.

THE NEW ARMY MEDICAL WARRANT.

The new Warrant of the Army Medical Service, the promulgation of which has been so anxiously expected, was signed by His Majesty the King on March 24th. The text is published at page 813 of this number of the British Medical Journal. It must be admitted that on first reading it is a somewhat disappointing document, for there is no reference to be found in it to several of the points as to which definite information is most eagerly looked for by the Service and by young members of the profession who are thinking of the army as a possible career. The details as to the various examinations to be passed for entrance and promotion are not yet forthcoming. Nothing is said as to any projected increase in the strength of the Royal Army Medical Corps, and the vital question of Indian pay is not touched upon. The explanation of this latter omission is, we understand, that in a legislative sense India lies outside the scope of Royal Warrants. The regulations as to examinations, with which the question of study leave is bound up, will, we believe, be published at once. The provision of a remedy for the present undermanned condition of the Corps, and the proposal that junior officers should for the first few years of their service be attached to regiments are, we presume, among the matters which are left to the discretion of the Secretary of State for War. It will be noted, further, that no mention is made of the Advisory Board, which has been in active existence for some months. That body, in fact, would appear to resemble the Cabinet, which theoretically has no place in the British Constitution.

It is impossible here to give a critical analysis of the Articles of the Warrant. And until the fullest information has been furnished as to matters not dealt with in the Warrant, it would be rash, and might be misleading, to express a definitive judgement on the value of the scheme of reorganization of the Army Medical Services as a whole. All that can profitably be done at the present stage is to give a rapid summary of the more important points of the document before us. For the sake of convenience we follow the order of the Warrant, though the Articles might have been more logically arranged.

As regards rank, the Director-General is to be the equal of a Lieutenant-General, instead of a Major-General as heretofore. But this advance in title only partially expresses the higher position in the military hierarchy to which the Director-General has been raised. He is now placed on an absolutely equal footing with the heads of departments on the headquarters staff. In the *Monthly Army List* for March the office of the Director-General of the Army Medical Service is printed in the same type as is used for those of the Director General of Mobilization and Military Intelligence, the Adjutant-General to the Forces, the Quartermaster-General to the Forces, the Inspector-General of Fortifications, and the Director-General of Ordnance. This question of typography may appear trivial, but to the military mind the promotion from "pearl" to "long primer" has a world of meaning. The Director General is now a member of the War Office Council, and also of the Army Board. The head of the Army Medical Service has now, therefore, a position in the army corresponding to the dignity of his office and to his responsibility. This in itself constitutes a reform of the most far-reaching importance.

Passing next to the other end of the scale of rank we are able to state positively, as has already been intimated in the British Medical Journal, that the entrance examination is to be confined to clinical medicine and surgery. By this means it is hoped to secure a class of sound practical men, likely to make efficient officers, who would be deterred from offering themselves as candidates by disinclination to go through the drudgery of getting up the details of anatomy, physiology, and other elementary subjects. The commissions of officers entering the service are in future to bear the date of their appointment as lieutenants on probation; this means that the time spent at Netley will be reckoned towards promotion, so that an officer may attain the rank of captain on the completion of three years and a-half service. In accordance with the principle of attracting a class of men who have hitherto been to a large extent kept out by the inelastic rules previously in force, candidates who at the time of passing the entrance examination hold or are about to hold resident appointments in civil hospitals may be seconded for the period during which they hold such appointments. The interminable vista of examinations for promotion which was so objectionable a feature in the scheme drawn up by Mr. Brodrick's "Committee of Experts" has been reduced to limits which need not terrify a well-trained medical officer, even if he has little taste for the "bookish theorick." For promotion to Captain a test in knowledge of the administrative duties of a medical officer is required. For promotion to Major an examination must be passed in medicine, surgery, hygiene, bacteriology, and one special subject selected by the candidate. If an officer passes this examination "with distinction" his promotion to the rank of Lieutenant-Colonel will be accelerated by a period varying from three to eighteen months; this period of service will count towards the pension to which the officer becomes entitled on retirement. For promotion to Lieutenant-Colonel an examination in military law and other administrative subjects must be passed. Beyond the rank of Lieutenant-Colonel promotion will be entirely by selection, or for distinguished service in the field.

A novel and very important point in the new warrant is that officers of the R.A.M.C. are now eligible for promotion to brevet rank as a reward for special service. Hitherto this

system of promotion, which exists in the combatant ranks of the army, has been unknown in the Royal Army Medical Corps; hence a man could not be promoted for distinguished service except by passing over the heads of a certain number of officers, and thus inevitably creating a feeling of dissatisfaction among them. It is also satisfactory to note that in the case of an officer of the Royal Army Medical Corps regard may be had to "distinguished service of an exceptional nature other than in the field," which may be held to qualify for selection for promotion to the rank of Colonel. Promotion to the rank of Surgeon-General is to be made from Colonels by selection or in recognition of distinguished service in the field.

In regard to pay, the proposals made in Mr. Brodrick's scheme have been generally adhered to. It will be noted that the titles of the Headquarters Staff have been altered so as to assimilate them to those of the corresponding officers in the other departments of the War Office. The Surgeons General are not to receive consolidated pay as originally proposed. The increase of pay in all the other ranks except that of Colonel remain substantially as recommended. It may be mentioned that a brevet Major gets 2s. a day in addition to his captain's pay. Officers who qualify as "specialists" in obstetrics, ophthalmology, laryngology, and so forth receive 2s. 6d. a day in addition to the pay of their rank. Charge pay is given as in the scheme, but with this important modification, that it is to be drawn by officers in charge of a general or other hospital or *of a division of a general hospital*. The Senior Officer of the Medical Service with an army in the field will receive charge pay in accordance with the magnitude of his charge.

As regards retirement, the Director-General is appointed for a term of three years, which may be specially extended for a further period not exceeding two years. Surgeon-Generals are compulsorily retired at the age of 60; Colonels, if promoted to the rank on or after the date of the Warrant, at 57, or if before, at 60; other officers at 55. A Major must retire on completion of twenty-five years' service, or if he fails to qualify for promotion, after twenty years. This provision safeguards the pension of £1 a day to which so much importance is justly attached by the service. It was the ambiguity as to this essential point that more than anything else made Mr. Brodrick's original scheme unacceptable. Officers who do not qualify for promotion to the rank of Captain or Major at the proper time are to be placed on the supernumerary list till they succeed in doing so; if they fail after six months' service on the supernumerary list they are to be compulsorily retired. The rates of retired pay of the various ranks and of gratuities to officers of the rank of Major are set forth in the Warrant; the only remark that need be made is that a gratuity of £1,000 is given after five years' service in the rank of Captain, making the total period required to qualify for the gratuity a little more than eight years.

These are the main features of the new Warrant. Our view of it may be conveyed in a paraphrase of the opinion of Falstaff's doctor about the fat knight's water. For the Warrant itself, it is a good Warrant as far as it goes; but all depends on the spirit in which it is administered by the War Office. We have said that it is good "as far as it goes"; but it must be admitted that it does not go very far. Before we can honestly say that the Medical Service of the Army in its reorganized condition offers a fair career to young men who have in them the capacity for achieving professional success, we must have definite assurances that the strength of the Corps will be raised to a degree sufficient to allow a reasonable amount of leave to all officers, and that the long-standing grievance as to Indian pay will be removed. In this matter no vague promises, no optimistic trust in official statements will serve. The Indian Government, if it cannot be compelled by Royal Warrant to be equitable to medical officers, must have *force majeure* applied to it in some other way. Mr. Brodrick may take it from us that no scheme of reorganization of the Medical Services of the Army will be accepted by the profession which does not include provisions for the removal of this gross injustice—provisions that cannot by any official shuffling or obstinacy be evaded.

THE GENERAL MEDICAL COUNCIL AND "MEDICAL AID."

NEARLY four months have now elapsed since the condemnation by the General Medical Council of the methods employed by the National Medical Aid Society in its business at Great Yarmouth, and already it is possible in some degree to take stock of the situation thus produced. In general terms it may be said that the events of this interval have confirmed the first impression of the very important influence which that decision was likely to have in improving the status of the medical men chiefly concerned, and their capacity for professional usefulness. From various quarters we hear of practitioners escaping from their bondage to this and similar commercial organizations, and therefore from those openly hostile or strained relations with the general body of the profession in which they had been placed. An excellent example of the good thus accruing is afforded by the movement in Norwich in the direction of local unity.

As our readers may have seen from the report published last week, success has been rapidly attained, the former officers of the Medical Aid Society are brought into amicable relations with the general body of medical practitioners, and the members of the public directly interested share appreciably in the benefits.

It would not be right, however, to affect to ignore the fact that the action of the General Medical Council in the Yarmouth, as also in the Birmingham, case has been made the subject of some unfavourable comments in the lay press and in Parliament. The criticisms are due to a want of acquaintance with the constitution and nature of the General Medical Council, the reasons on which its decisions were based, and the spirit animating the profession in its opposition to such institutions as the Birmingham Consultative Institute and the National Medical Aid Society.

It has been said that these decisions of the General Medical Council were instances of "trades-unionism," that the matters involved were mere questions of "medical etiquette," that the Council was not justified in applying such a term as "infamous" to the conduct of the practitioners concerned, that these practitioners were being

"persecuted" by their professional neighbours, and that the acts for which they were thus "persecuted" were committed through their connexion with a benevolent effort to provide cheap medical attendance for the poor; the Press Association, indeed, was responsible for a paragraph implying that the whole affair was an attack on the Friendly Societies, who were represented as about to promote a Bill in Parliament to curb the alleged tyranny of the General Medical Council.

The use of the term "trades-unionism," where it has not been a mere piece of vituperation, has been due to misconception, either of the constitution of the Council or of the principles underlying its exercise of disciplinary powers. Persons generally well informed are often hopelessly at sea with regard to the General Medical Council, which is sometimes confused with the Council of the British Medical Association. The General Medical Council is, in fact, a body created by statute, and the majority of its members are appointed by the Crown or by bodies (the Universities) in which the lay element predominates. Its functions, as defined by the constituting Act, may be summarily stated to be the maintenance of a proper standard of education and conduct of those whose names are admitted to or suffered to remain on the *Medical Register*. In brief, its duty is not to defend but to control the profession; and in this sense we believe it will be found consistently to have understood and exercised its powers. In the Yarmouth case an examination of the proceedings before the Council[1] shows clearly that the charge against the practitioner involved was not one affecting the material interests of the profession, such as rate of remuneration, but one touching the standard of professional conduct which the public, not less than the profession, is concerned in maintaining, which the General Medical Council is charged by Parliament with the office of maintaining, and from which the practitioner in question was found to have derogated. The National Medical Aid Society itself in a circular to its medical officers has since pointed out that the charge held by the Council to be proved was not as to rate of payment, but as to canvassing.

As regards "etiquette," the word in ordinary life is taken to cover certain niceties of behaviour which in many cases are purely conventional, and which only occasionally touch points of true honour or morals. Many obligations resting on medical men are somewhat of this nature, but the General Medical Council has never taken cognizance of offences against such regulations; it only deals with those which come within the domain more correctly described as that of medical ethics. Of this nature is the offence of canvassing. The rule against all forms of advertising is one of the oldest and most salutary of those binding on the medical profession, and it is difficult to see how the public interest could be served by its relaxation.

As to the application of the term "infamous" to the offence in question, it is enough to point out that this word was not chosen by the Council, and is generally regarded by the profession as unfortunate. It is the term employed in the Medical Acts to designate those offences which, while they may involve no breach of the ordinary law, yet render the offender unfit to hold a place on the *Medical Register*. Until an amendment of the Medical Acts can be obtained, the phrase "conduct infamous in a professional respect" must be accepted as a technical term signifying "conduct unworthy of a registered medical practitioner."

The remaining criticisms can be briefly disposed of. There is no "persecution" of a practitioner involved in requiring him to conform to the rules of his profession. No attack on "cheap medical attendance for the poor" is involved in the prohibition of practice by canvassing companies, nor can charity be said to be involved in rates admitted to be as high as those of the Friendly Societies—bodies which emphatically deny that they are recipients of charity. Lastly, we cannot see how the Friendly Societies are injured by the removal of the competition of purely commercial companies, not based in any sense on the mutual and self-governing principles of the Friendly Societies themselves.

The best answer to these absurd charges of "persecution" and "inhumanity" to the poor, however, is the one afforded by such object lessons as that given at Norwich. It is said that the National Medical Aid Society will give up its operations there, and that the bulk of the members will probably join the new Public Medical Service. They will be attended at the same rates as before; they will have a free choice of medical attendant, not among the officers appointed by an outside society, but from all practitioners who are willing to act, in this case twelve or fifteen medical men in future, as against five hitherto. The medical men will not be sweated by a commercial body trading in medical practice for its own profit, or subject to dismissal by such a body. That the service is managed by the medical profession is a guarantee that the staff will be composed of men in harmony with the body of the profession, an advantage which we are glad to learn that the working classes are beginning to appreciate. In the face of such facts what shred of plausibility remains for the charges of trades-unionism, of medical selfishness, of persecution of practitioners, and of inhumanity to the poor which have been brought against the profession?

[1] An almost verbatim report of the proceedings before the General Medical Council in the Yarmouth case, reprinted from the British Medical Journal, can be obtained, price 2d. (post free), from the Secretary of the British Medical Association, or from the Medical Defence Union, 4, Trafalgar Square.

THE TREATMENT OF EXTERNAL TUBERCULOSIS IN CHILDREN.

Appeals for help towards the support of our hospitals are almost of daily occurrence, and the cause has benefited greatly by the effective advocacy of the highest in the land. While we trust that there may be no diminution in the steady flow of pecuniary assistance, yet it is well for us to ask ourselves as administrators and, in a sense, trustees, of the public beneficence, if there are not some questions requiring consideration, particularly in reference to what is know as external tuberculosis, as it comes under the notice of the surgeons of the children's hospitals of our large cities.

We may fairly ask two questions: Is the pecuniary assistance from the public being used to the best advantage? Is it possible to obtain better results with the means at present at the disposal of the managing com-

mittees of the hospitals? Modern civilization demands that the frail and the diseased shall be cared for so that they shall be cured and equipped for life's battle, or, failing this, that their suffering shall be mitigated to the utmost. The objects of modern philanthropy are achieved when the treatment is the best that is known and the largest number of cures are effected. How far, then, does the treatment of surgical tuberculosis in city hospitals fulfil these requirements? We regret to be compelled to say that there is a good deal lacking in the method of treatment. Certainly it is not from want of skill, attention, or energy, but it is from the insurmountable disadvantages under which the work is done. Sunshine and sea air are lacking, and no skill and no effort can compensate for these. It not seldom happens that operation wounds refuse to heal soundly owing to the bad climatic conditions, and cases of tuberculous disease of bones, joints, and glands occur too often in which the infection has been temporarily arrested by the operative removal of the local focus of disease: but when the child has been at home for a variable time the wound breaks down, the disease lights up in the old place, or there is an outbreak elsewhere. This is followed by more operations, and the end is too often failure and death. There are some surgeons who feel tuberculosis of bones and joints cannot be efficiently treated in urban hospitals. The disease is not grappled with in the best possible way at its commencement, and so the hope of permanent cure is lost.

Further, owing to the chronic nature of the cases, beds in the hospitals which could be turned to more profitable uses, are occupied for weeks and months. Consequently, our present methods must be regarded as wasteful and extravagant, while the final result is too often deplorable. The contact, too, of tuberculous with non-tuberculous children is a distinct source of danger to the latter. Reflection on these facts must raise grave doubts whether the charity of the public is being put to its best use so far as this disease is concerned.

As to the second question, Is it possible to obtain better results with the means at present at the disposal of the managing committees of the hospitals? We are disposed to reply that there is reason to think that the money spent in maintaining beds which are occupied by tuberculous cases in the town hospitals may be better devoted towards the cost of establishing a branch hospital at the seaside. Such a hospital must be staffed with skilled surgeons provided with operative facilities, and fully equipped in all details. In fact, the city hospital should be simply a receiving house for such cases, which could be drafted at once to the seaside hospital, where the whole treatment from beginning to end must be conducted. It may be urged that it is impossible financially for each children's hospital to maintain its own seaside branch. But there can be no reason why two or more should not combine for the purpose, and the objective must be clearly and distinctly realized. It is the complete cure of those cases that are admitted. It may be impossible in all cases to realise this ideal, but it is towards this that we should strive. The administration should be conducted on the widest basis, and its essential points are: there should be no age limit, children of the tenderest years being eligible, for the hope of cure is the greater the younger the patient when he comes under treatment; the duration of the stay should not to be limited by the exigencies of subscribers' letters, but by the possibility of cure; and priority of application should give way to the hopefulness of the individual cases. The present system is ineffectual and fallacious, because it results in a large number of partially cured or "relieved" cases—an ambiguous expression dear to hospital officers. Relief or partial cure in tuberculosis is no cure at all.

This aspect of the subject has been grasped to a limited extent in this country, and there are fortunately some institutions already in existence attempting to remedy it. Notable among these is the Royal Sea-Bathing Hospital at Margate, and others are in process of establishment such as the hospital planned for 200 beds at Heswall, near Liverpool. But we are grievously behind France, and are rivalled or surpassed by Italy and Germany. It therefore behoves us to press these considerations upon lay committees, for, after all, the prime responsibility is with the medical profession, and we shall fail in our duty if we do not point out to the governing bodies of children's hospitals where leakage and waste of resources are going on.

THE ANNUAL MEETING AT MANCHESTER.

WE are enabled to publish in another column (page 801) a preliminary account of the arrangements which are being made in Manchester for the reception of the British Medical Association, when it holds its annual meeting in that city, under the presidency of Mr. Walter Whitehead, Consulting Surgeon to the Manchester Royal Infirmary, at the end of next July. As we are reminded in the article mentioned, the Association, when it last met in Manchester, a quarter of a century ago, did its scientific work in six Sections; this side of the Association's activity has grown so much that there will be at the coming meeting seventeen Sections, all of them, with one exception, more or less directly concerned with scientific, clinical, or hygienic aspects of professional activity. The one exception is the Section of Ethics, which has been revived on this occasion after being for several years in abeyance; it is hoped that the discussions in this Section may bring much-needed light to bear upon many questions which affect the relations of practitioners of medicine to each other and to the public. A Section which finds a place in the list for the first time this year is that of Industrial Hygiene and Diseases of Occupation: every one will recognize the appropriateness of this innovation in a great industrial centre such as Manchester, where for more than a century attention has been given both by the medical profession and by enlightened members of the public to the precautions which should be taken to diminish the toll of life and health which has to be paid for industrial prosperity. The noble pile of buildings with which the generosity of many benefactors has endowed the Owens College will provide ample accommodation for the large assembly of members which is expected, and for all the numerous Sections. The fine Whitworth Hall, named after one of the chief benefactors of the College, was described last week in connexion with its opening by the Prince of Wales, and is illustrated from a photograph in the present issue. In it the President will give his inaugural address to the Association on July 29th, and we may be sure that under the presidency of Mr. Walter Whitehead, who is well known throughout the surgical world as a surgeon of great originality and resource, and with the co-operation of the energetic Sectional committees which have been appointed, nothing will be

left undone to render the Manchester meeting full of instruction for all members who may be able to attend. The brief summary of the arrangements for the social entertainment of members, and for excursions which have been made by the local committees charged with these matters, show that in this respect Manchester will not only rival any other great centre in the hospitality of its citizens, but also that some of the most beautiful and interesting scenery in England is within easy reach.

MOLLUSCUM FIBROSUM AND ELEPHANTIASIS.

MR. WALTER WHITEHEAD'S paper, which will be found on page 757 of the present issue of the BRITISH MEDICAL JOURNAL, is one of great interest, especially as regards Case I, in which the upper limb and scapula were removed for a huge molluscum fibrosum (or fibroma pendulum). The remarkable features of this case have been well brought out by the author, and there is no doubt that many of those who attend the forthcoming Manchester meeting will make a point of seeing the apparently unique specimen, an excellent coloured drawing of which appears in this number. It is hoped, too, that Mr. Whitehead will be able to bring the microscopical preparations before the Section of Dermatology. The case appears to be unique, for nothing of the kind is depicted in von Esmarch and Kulenkampff's exhaustive monograph on *Die elephantiastischen Formen*, which includes fibromata. Nor is any such case mentioned by Virchow in *Die krankhaften Geschwülste*. Large pendulous fibromata usually affect the body or lower limbs, the upper limbs being rarely involved. As to the history of injury in Mr. Whitehead's case, it is interesting to note that Dr. Radcliffe-Crocker[1] gives an account of an enormous fibroma pendulum which developed in a man who had fallen down a ship's hold and had suffered as a result of the accident from a large abscess about the buttocks and paraplegia. A noteworthy feature of Mr. Whitehead's case is the mixed nature of the growth. In the condition which passes under the name of von Recklingbausen's disease, in addition to the multiple fibromata there is pigmentation of the skin, and in some instances it has been complicated with sarcomatous growths. The condition presented by his third case, and shown in Fig. 12, is also very interesting owing to the history of recurrent attacks of an erysipelatous nature. Bockhart, Sabouraud, and others have indeed found the streptococcus in the tissues. In other cases presenting a similar appearance the overgrowth has followed chronic varicose ulcers with dermatitis. In describing the condition of which Mr. Whitehead's case is an extreme example, dermatologists appear disposed to drop the qualification "pseudo," and to use the term "elephantiasis" to include all those hypertrophies which are the result of interference with the lymphatic circulation, whether caused by the filaria sanguinis hominis, or by recurrent attacks of erysipelas, lymphangitis, chronic dermatitis, and so forth. The aspect of the limb in Mr. Whitehead's second case (Figs. 10 and 11) is unusual. He remarks that the growth had some few resemblances to molluscum fibrosum. This is conveyed by the photographs. The elephantiasis in this instance was accompanied by a more than usual amount of fibro-lipomatous hypertrophy. It may be mentioned that ligation of blood vessels has been employed in a number of cases (of which von Esmarch and Kulenkampff give a list), among them one of elephantiasis of the right hand and arm (Sondén of Upsala).

THE METROPOLITAN ASYLUMS BOARD.

FROM time to time we have had occasion to point out that the position occupied by the Metropolitan Asylums Board in the sanitary administration of the metropolis is anomalous. While recognizing that, broadly speaking, its work in restricting infectious disease in London has been performed with energy and a fair amount of success, we have not hesitated to point out that the unrepresentative constitution of the Board is an anachronism, and that its expenditure has been lavish to the degree of prodigality, and, indeed, of wanton extravagance. Last Saturday, out of the mouth of the Chairman of its own Finance Committee proceeded an indictment such as the most unsparing outside critic of the Board would have hesitated to make, and of such a character that, after "a protracted and heated discussion," it was deemed prudent in the first instance to circulate Mr. Helby's statement only amongst members of the Board. Doubtless there will be counter-statements made on behalf of the various subcommittees which the Chairman of the Finance Committee roundly accused of performing their duties in a "perfunctory manner," and against whom a case of want of uniformity in administration appears prima facie to have been established. From the published figures it seems that in 1896, with a daily average of 10,496 patients, the total expenditure was £625,123, and in 1901, with a daily average of 10,595 patients, the total expenditure was £867,607. Those additional 99 must have lived like Sybarites to occasion an additional expenditure of no less a sum than £242,484. Such figures are reminiscent of the "claret scandal" which occurred at one of the Board's fever hospitals some years ago, in which the expenditure on medical comforts bore no very obvious ratio to the number of patients who were supposed to consume them. We shall await with interest the rejoinders from the various subcommittees to the accusations of Mr. Helby and the explanations which will be vouchsafed to the allegation that to maintain a patient for a week costs at the North-Western Hospital £1 9s. 10d., and at the Grove Hospital £2 11s. 6d. Not less serious is the stricture passed by Mr. Helby on the recent expenditure for temporary small-pox accommodation. He is reported to have said: "The necessity for the large expenditure on temporary buildings was certainly not creditable to the Board; and at least £300,000 of the ratepayers' money had been wasted consequent upon the dilatoriness of the Board in providing increased permanent accommodation." The managers, it appears, have 300 beds at the ships and 400 at Joyce Green, and regarded 1,192 beds at Gore Farm as available at short notice for small-pox in case of necessity. This was the provision made in 1900 when small-pox was quiescent. Last December the Hospitals Committee, in view of the epidemic, reported that within a few weeks 1,740 beds would be ready for persons suffering from small-pox. Now so long ago as 1882 the Royal Commission on Infectious Diseases indicated 2,700 beds as a safe or more than safe estimate of the permanent accommodation that should be available at a time when the population of London was 13 per cent. less than it is to-day, and when the extent to which the Board's accommodation would be utilized by extra-metropolitan authorities was hardly conjectured. The present hurried provision now being made is leading to a good deal of uneasiness in the neighbourhood and not unnatural apprehension and might have been avoided by a little more foresight and a little more regard for the advice of the Royal Commission. The result to the ratepayers is a rise of another penny in the pound for the ensuing half-year, an increase of nearly 50 per cent. We are not surprised that our contemporary, the *Observer*, is led to remark that "the Metropolitan Asylums Board is one of those composite Boards to the constitution of which exception is sometimes taken on various grounds, having reference to their inefficiency and administrative shortcomings." It reminds us opportunely that "the Metropolitan Board of Works, a similar composite body, had some years ago to be dissolved on account of dissatisfaction with its work," and finally it draws a

[1] *Diseases of the Skin*, second edition, p. 591.

moral full of foreboding when it adds. "The Government proposes to create another similar composite body to deal with the London water supply, but the experience the metropolis has had in the past does not inspire confidence in authorities so constituted. It would seem as if the Metropolitan Asylums Board were about to supply another object lesson of the same kind."

HEALTH IN THE HOUSE.

WE shall be curious to learn the result of the microbe hunt the other evening in the House of Commons. The intentions of the First Commissioner were laudable, but we cannot say that his methods were calculated to lead to conclusive results. For the capture was effected after the Speaker had left the chair, when the Chamber was empty, and fresh air had been let in to stimulate the vitiated atmosphere. Far better would it have been if salt could have been laid on the mischievous little imps' tails in the midst of a crowded debate, when the air was at its worst; or, still better, in a Committee room upstairs, when you might almost cut through the complicated blend of gases with a knife, and when respiration nearly gently glides into asphyxia. As Mr. Akers Douglas remarked the other day, in private conversation, "It is all largely a housemaid's question." The green benches are kept in a way which would disgrace any private mansion. dust and dirt linger about in every nook and cranny, and the elaborate Gothic ornamentation which delights the eye of the artist is suspicious to that of the sanitarian, as providing happy resting nooks for the microbe, which then finds its hunting grounds down below. To adopt Banquo's words, "No jutty frieze, buttress, no coigne of vantage, but this bird (beast) hath made his pendent bed and procreant cradle." But we fear we cannot complete the quotation by saying "where they most breed and haunt, the air is delicate." The great drawback to the ventilation arrangements of the House of Commons is that they are controlled by three distinct and sometimes conflicting authorities; under this complex plan the Sergeant-at-Arms' centurions will not take orders from the First Commissioner and *vice versâ*. To clear all this up once for all and put matters on a firm sanitary basis, Mr. Akers Douglas has most wisely decided to appoint a committee about the size of that formerly so ably presided over by Sir Henry Roscoe, working on the same lines, and composed of names which will carry weight—Sir Michael Foster, Sir Walter Foster, Mr. Penn, Dr. Farquharson, Sir John Tuke, Mr. Goddard, and Dr. Macdonnell.

EXPERIMENTS ON DISINFECTION.

THE London County Council has issued a report containing the results of experiments conducted for them by Drs. Klein, Houston, and Gordon in connexion with the subject of disinfection. Both gaseous and liquid disinfectants were tested, the actual process of disinfection being, in the former case, supervised by Dr. Newman. Unvarnished or unpainted wood, cloth, linen, and wall paper were the materials selected for treatment. The organisms experimented with were: Spores of B. anthracis, human B. tuberculosis, and fresh cultures of B. diphtheriae, B. pyocyaneus, V. cholerae Asiaticae, staphylococcus pyogenes aureus B. typhosus. In the case of B. tuberculosis human sputum rich in the bacilli was applied directly to the articles to be tested; in the other cases the organisms were first distributed in broth, milk, or melted gelatine, and the mixture then freely applied. After exposure to the action of the disinfectant the material was examined in the laboratory. It was first immersed in sterile broth or water to remove traces of disinfectant and then cultivated. When growths ensued they were identified microscopically by subculture and by animal experiment. In the case of sputum the material was scraped off, distributed in salt solution, and injected into guinea-pigs. The results were as follows: *Formalin Vapour:* Thirty formalin tablets, each weighing 0.034 oz., were burnt in a room containing the infected articles, of 1,344 feet cubic capacity, with window, fireplace, and door sealed. The time of exposure was five hours. It was found that all the microbes exposed on linen were killed and, with the exception of anthrax spores, all those on paper. In only three cases did the organisms on the wood and cloth survive. One of these was in the first experiment with typhoid; but as, in two later experiments, typhoid was completely devitalized, the investigators think the first result was due to some accident. Anthrax spores and tuberculous sputum provided the second and third cases of incomplete disinfection. *Sulphur Dioxide:* 3½ lb. of sulphur were burnt in a room with a capacity of 1,075 cubic feet. The articles were exposed to the gas for twenty-four hours. The sulphur dioxide failed to disinfect any of the samples of sputum, even those spread on linen and paper; it also failed to kill the anthrax spores on wood and cloth. All the other organisms it destroyed. *Carbolic Acid:* Infected material was soaked in 5 per cent. aqueous solution for twenty-four hours. In every experiment the anthrax spores survived; all other bacteria were killed. *Condy's Fluid:* Twenty-four hours' soaking in a solution containing a teaspoonful to the pint proved quite useless, and a solution five times that strength gave only slightly better results. The investigators suggest that the organic matter submitted with the microbes may have interfered with the disinfecting power of the fluid. *Corrosive Sublimate:* One in 1,000 solution destroyed all organisms in twenty-four hours. *Bleaching Powder:* In 1 per cent. solution this substance gave very poor results with one hour's exposure, somewhat better with twenty-four hours', but on the whole was only efficacious with the less resistant organisms. Somewhat exceptionally, however, it was more successful with anthrax spores than carbolic acid, destroying them on paper even in one hour. Special points brought out by the report are the difficulty of disinfecting cloth and unvarnished wood, and the unsatisfactory action of Condy's fluid and bleaching powder. For tuberculous sputum phenol and corrosive sublimate were the only thoroughly efficacious disinfectants; formalin vapours did not destroy the bacilli on wood or cloth, and sulphur dioxide proved altogether ineffective. Both gases, however, were successful with B. diphtheriae and staphylococcus pyogenes aureus.

VENETIAN SANITATION IN THE FIFTEENTH CENTURY.

VENICE, in the days of its prosperity, was, by its geographical position, and its flourishing commerce, peculiarly liable to be invaded by the plague and other epidemic diseases which reigned in Asia and Africa. In 1347, the black death carried off in a short time very nearly two-thirds of the inhabitants. As a result, three patricians were appointed to take such measures as were necessary. They were given the titles of *Savii all'apparire della peste* or *Provveditori alla sanità*. In 1485, three more patricians were added to the commission. They were called *sopra provveditori alla sanità*. Their jurisdiction extended to all matters concerning the public health—food-stuffs, scavenging, contagious diseases, prostitution, and so forth. They also supervised mendicity. The Venetian ambassadors and consuls reported to them on the diseases prevalent in various parts of the world, whether they affected man or beast. Moreover, the contamination of natural products was also notified to the Republic. The *provveditori*, by their vigilance, were able to prevent, as far as Venice was concerned, the occurrence of epidemics, which so frequently scourged the other Italian states in the fourteenth and the fifteenth century. The manuscript *Rubrica delle Leggi del Magistrato Excellentissimo alla Sanità* contains these regulations. In the second volume the orders from 1493 to 1500 as to com-

munication with suspected cities and countries and so forth will be found. These details are taken from a note by Hesnaut in a little-known work on syphilis, entitled. *Le Mal Français* (Paris, 1886, p. 204). It contains various extracts from the regulations issued on the subject of prostitution, including the laws made by the Council of Ten against prostitutes, bullies, and vagabonds. There is also a reference to an essay by Da Lago, *Sulle Relazioni della Republica di Venezia coll' Oriente* (1872). It is needless to insist in this place on the activity of the ambassadors and agents of the Venetian Republic in the various countries to the courts of which they were accredited. They knew everything that was going on, and took enormous pains to examine into details. Venice owed much to her Argus-eyed envoys, who were apparently men selected for their keen intellect, ready resource, and unfailing industry.

WATER DIVINING AND ITS CONSEQUENCES.

A RECENT case in the King's Bench Division serves to illustrate the consequences which may result from belief in the supernatural powers of a water diviner, or "dowser" as he is sometimes called. A lady residing at Ipswich heard rumours of the extraordinary success which had attended the efforts of a dowser in the neighbourhood. Being in need of a well on her estate she employed this gentleman, who combined the trade of a miller with the "profession" of a dowser to point out the most likely spot. This he did for a fee of 25s., giving an undertaking that if a well was sunk 20 or 30 ft. below the spot indicated, an abundance of water would be found. Acting upon this representation, the lady caused a well to be sunk at a cost of £60. No water being found at the depth indicated she went down another 10 ft., but still without success. In these circumstances she commenced two actions against the dowser, claiming the return of her 25s., and the cost of the excavations by way of damages. In the first action the defendant admitted his liability, and in the second the county court judge having found as a fact that the representations were made, judgement for a sum of £42 was entered for the plaintiff. On appeal to the Divisional Court, the judgement of the lower court was affirmed; but it is only fair to say that in giving his opinion the Lord Chief Justice said that if he had been sitting as a judge of first instance he would have had some difficulty in coming to the conclusion that an express representation had been made by the defendant to the effect that water would be found at a particular depth. The county court judge, however, cannot be overruled on a mere question of fact. We are not sorry to witness the exposure of "dowsing," which has nothing but age to make it respectable. No doubt the powers of a water diviner sometimes appear to be magical; but those who are duped forget that a slight knowledge of the lie of the land and the nature of the underlying rocks enables the depth at which water may be found to be guessed with some degree of accuracy. Further, those who marvel at the water diviner's success forget or have no knowledge of the scores of times when he fails. The case in the Divisional Court has given publicity to one such failure.

SUN PLAYROOMS ON CITY ROOFS.

DR. W. P. NORTHRUP recently told the American Pediatric Society that for fifteen years he had been eyeing the city roofs in New York "thinking how fine the air, how free from dust, how exposed to the sun, and wondering why they have never been used for the children's playhouses." This has been a favourite scheme with many children lovers, and something in this direction has been done in some hospitals. Whether it has been done in many private houses we do not know, but to Dr. Northrup, at least, belongs the merit of giving very practical directions for the making of such a room. The room he describes was built on the roof of a house in Madison Avenue, New York, of sheet iron, pine, and glass, built for the use of a delicate child in winter. There was a gas stove, but as a rule the room was heated at all seasons mostly by the sun. On cold, bright, sunny days in winter there was no difficulty in keeping the room in a fit condition for the child to play in. The advantages in towns where the houses are a great height, as in New York, are that in addition to sunshine and light these playrooms are well above the noise and dust, and away from all the other dangers and disagreeables that render crowded streets undesirable airing-places for children. Dr. Northrup also described other less extensive erections which he had had built with the same idea, such as the enlargement of a dining-room, or a temporary sun-room built in the angle of a wall, which he had been able to devise for the treatment of other sick children. He also suggested that for the treatment of whooping-cough or other diseases needing isolation in the open air these sun-rooms might be put to excellent use.

HYPODERMIC INJECTIONS OF QUININE IN MALARIA.

WE have received from Captain Charles A. Johnston, M.B., I.M.S., a copy of a memorandum on the use of hypodermic injections of quinine in malaria, which he drew up last year at the request of the P.M.O. of H.M.'s Forces, India. The memorandum affords valuable evidence of the certainty of the results obtainable by this method. Captain Johnston recommends hypodermic injection of 4 gr. of the neutral quinine sulphate on five consecutive days, and under this treatment none of his cases required sick leave or change of climate. Such results are highly gratifying, and as the diagnosis in his cases was confirmed by microscopic examination of the blood there is no room for error. He sums up the advantages of the method as follows: (1) Quicker and more permanent recovery; (2) less necessity for invaliding; (3) a saving from the financial point of view, in that (*a*) one-fifth the amount of quinine is required, (*b*) a consequent saving as compared to the administration of ordinary sulphate by the mouth of two and a-half times the value of the drug, (*c*) on account of the diminished bulk a saving in carriage and the smaller space required in a field equipment. We consider that the author proves his points, and he appends a series of charts illustrative of his method. A further statement that he makes is that under the hypodermic method of treatment the formation of crescents is prohibited. Too little is known of the causes which result in abundant formation of crescents, and the numbers formed are so variable, even without any treatment, that this point cannot be said, on the evidence adduced, to be proved. When full doses of quinine are given by the mouth early in an attack of fever, crescents are usually scanty or not to be found. In some of Captain Johnston's cases, particularly that of Syed Hussain, crescents were formed and persisted, in spite of small hypodermic doses (1 gr.) of quinine. Inadequate doses, therefore, either by the mouth or hypodermically do not have much influence on crescent formation. No injurious effects are mentioned as a result of any of the injections, and it seems to be now well established that if sufficient care be taken there are no risks. In view of past experiences, we should prefer to see some warning given as to these possibilities and the precautions required to prevent them.

AUTOBIOGRAPHIES OF MENTAL AND NERVOUS DISORDERS BY PATIENTS.

IN a recent issue of the *Münchener medicinische Wochenschrift* there is recorded an account of the interesting experiences of a lady who some years previously had been a sufferer from acute mania, which persisted a considerable time, but from which she eventually recovered. The literature of psychiatric medicine is especially full of such cases, but autobiographies of disease are not unknown in other departments of medicine. Thus, the astronomer

Herschell was a sufferer from migraine, and published an interesting account of his symptoms, with especial reference to the usual hallucinations (zigzag spectral lines) attending upon or following the attacks; and Airy, the Astronomer Royal, is also said to have been a sufferer from migraine, and to have left behind him a memoir describing the symptoms and the associated optical disturbances. Dr. Victor Kandinsky, a gifted but unfortunate physician who died insane in 1889, was superintendent of an asylum at St. Petersburg, and had been a sufferer from insanity for two years. During the first months of his illness he suffered from mental confusion, to which succeeded a condition of melancholia, with hallucinations of all the senses except that of taste. Dr. Kandinsky, after his recovery, published an important and lengthy treatise, in which his own experiences and the progress of his disease through its various stages are recorded with wonderful completeness and clearness. A brief account of Kandinsky's hallucinations is given by Dr. W. Ireland in his work *The Blot upon the Brain*. The botanist Nägeli, as the result of a severe scalding of the eyes by boiling spirits, was kept in a darkened room. After twenty-four hours the usual hallucinations began to develop—houses, rooms, persons, and landscapes. This lasted thirty hours. Subsequently other hallucinations returned, the figures being as a rule devoid of bright colours. A descriptive summary of Nägeli's experiences is given by Professor Jolly in the fortieth volume of the *Zeitschrift für Psychiatrie*. The autobiography and other writings of Swedenborg are full of his experiences of "visions" and other hallucinations—both of sight and hearing. Paranoiacs are especially minute and prolix delineators of their illnesses and symptoms. Two detailed and interesting autobiographies of paranoiacs are given, one by Dr. Petersen (in his *Textbook of Mental Diseases*, 1900, *sub voce* Paranoia), and the other by Dr. Noyes in a recent issue of the *American Journal of Insanity*. Such records (of lengthy and prolix character) are not unknown in most asylums, and it is possible that with judicious pruning something might be done to make them instructive as in the case of the first autobiography referred to above.

PRESENTS FROM PATIENTS.

THE case of Radcliff *v.* Price, which was heard by Mr. Justice Swinfen Eady last week, illustrates a principle of law with which every practitioner ought to be acquainted. The action was brought by the executors of an old lady who, during 1899 and 1900 had given her medical attendant a sum of £800, in three separate amounts of £500, £100, and £200. The executors claimed to recover these sums, setting up the legal presumption of influence and the absence of independent advice, but there was no suggestion of any misrepresentation to, or pressure put on, his patient by the defendant, or that the lady was, at the time of making the gifts, in any way incapable of managing her business transactions, or of weak intellect. The learned judge, in giving judgement for the executors, said: "It has been laid down that the relation of patient and physician is a confidential relationship, and where it exists as it did in this case, the donor must have had competent and independent advice before a gift can be supported. There is no exception to this rule." In the result, he ordered the defendant to refund the whole amount, and to pay the costs of the action. There was no dispute with regard to the sums in question having been mere presents, as this was frankly admitted by the defendant. The case is of interest because it shows that the onus of proving the absence of undue influence is placed upon the medical man. As soon as this issue is satisfactorily proved, the Court will allow a gift to stand. In an old case,[1] a patient 80 years of age, who was subject to frequent attacks of the gout, executed a voluntary deed in favour of a surgeon who had attended him for a long time, and who had been in the habit of receiving dividends for him at the bank. There was evidence adduced by the attorney who drew the deed, and who had before acted as the attorney of the grantor, as to the free will of the grantor. This witness also explained that the grantor perfectly understood the difference between a deed and a will with respect to the disposition of his property; that he anxiously preferred the deed in order that the legacy duty might be saved. The Court refused to set aside the deed.

THE BURGH POLICE AND PUBLIC HEALTH (SCOTLAND) BILL.

A BILL under the above title has been introduced into the House of Commons by certain of the burgh representatives of Scotland. It follows the ill-omened precedent of the original Burgh Police and Public Health Bill in seeking to establish a separate public health code for burghs in Scotland. That Bill was adversely criticized by us at the time of its reintroduction in 1892, on the ground that to have two separate sanitary codes, one for burghs and another for non-burghal districts, was contrary to public policy and would lead to confusion, the more especially as there are in Scotland many non-burghal centres with much larger populations than the smaller burghs. As the result of the opposition with which the promoters of the Bill of 1892 were confronted the public health clauses were dropped, as well as the words "Public Health" from the title, and the Bill became the "Burgh Police Act, 1892." The final result was the introduction of a general public health statute for Scotland—the Public Health Act of 1897. That measure was so carefully considered, and so thoroughly discussed, through a couple of parliamentary sessions, and it has so recently been added to the Statute Book, that it seems altogether premature to commence tinkering at it already. In any case, if there is to be an alteration in the law of public health, it should be of general application and not limited to burghs. If the promoters desire to see their Bill pass, they should follow the precedent of 1892, and drop the sanitary clauses and correspondingly amend the title.

THE TECHNIQUE OF LUMBAR PUNCTURE.

IN a recent number of the *Semaine Médicale* (No. 9) Professor Juvara gives a good description of the topographical anatomy of this little operation. The seat of election is generally regarded to be the fourth lumbar interlaminary space. The precise spot is determined by finding the spinous process of the fourth lumbar vertebra which is on a line with the highest parts of the crests of the ilia. Below the spinous process is the interspinous space, and just to one side of this is the point at which the needle should be introduced. He recommends that the position of the puncture should be more precisely defined by pressing with the edge of a pair of dissecting forceps into the interspinous space, the point of introduction of the needle being about a centimetre to one side of the middle line just below the forceps. The needle should be directed slightly obliquely towards the mesial plane, so as to reach the latter at a depth of 25 to 30 millimetres. In order to reach the spinal canal the needle must traverse the skin, the superficial and deep fascia, the mass of lumbar muscles, the yellow ligaments (ligamenta subflava), the epidural space, the dura mater, the subdural space, and penetrate the subarachnoid space, where it should stop. If it goes further it may penetrate the anterior layer of dura mater and wound the plexus of veins situated upon the anterior surface of this membrane. In performing the operation the patient may be seated; in that case he should be at the edge of the table or bed with his back bent, resting his head upon his hands with his elbows upon his thighs; but Professor Juvara prefers the latero-ventral position, the patient lying on either side near the edge of the table or bed, with the back arched and the thighs and head flexed. He has

[1] Pratt *v.* Barker, 4 L. J. Ch., 149.

lately operated with the patient in the prone position, the pelvis being slightly raised by a pillow. He enjoins the most careful aseptic precautions in the preparation of the patient's skin, the hands of the operator and the instruments, and recommends that the needle should be pushed boldly into the canal in one movement without any hesitation. The interlaminary spaces are the crevices between the laminary arches, and are in the form of triangular or lozenge-shaped openings, with their greatest breadth towards the mesial plane, where they join the interspinous spaces, and it is this broader portion at which we should aim in order to allow the needle to penetrate easily into the spinal canal. The yellow ligaments which close these spaces are several millimetres thick, and are sufficiently dense to oppose a resistance to the needle almost identical with that afforded by a layer of india-rubber. The paper, which is worth consulting, is illustrated by several good drawings.

THE RATING OF METROPOLITAN HOSPITALS.

On March 4th, at the London County Council, Dr. Collins drew attention to the question of the exemption of hospitals from rating, in connexion with a report from the Local Government and Taxation Committee upon the recommendations of the Royal Commission on Local Taxation. The Committee recommended that no further exemptions from rating should be allowed, and that existing exemptions should be abolished as opportunity offers. Dr. Collins pointed out that up to some forty years ago hospitals had been exempted from rating, and that many other institutions, such as drill halls, voluntary schools, scientific institutions, etc., which could not establish as good grounds as hospitals to be regarded as rate-saving institutions, at the present time enjoyed exemption. The hospitals not only received no support from rates, but, though rate-saving institutions, yet contributed more than £20,000 a year to the rates of London. The Council agreed to add hospitals to the exempted list. On March 18th the matter again came up for consideration, and the Committee suggested that it would be a more logical procedure, instead of striking hospitals out of the valuation lists, to do as the Select Committee of the House of Commons presided over by Mr. T. W. Russell had hinted, and repay, from a central fund, the amount locally collected from each hospital. The Council accordingly resolved that all rates levied on metropolitan hospitals should, subject to a certificate by the London County Council, be paid out of the Metropolitan Common Poor Fund.

SURGEON-CAPTAIN CREAN, V.C.

Surgeon-Captain T. J. Crean, V.C., was entertained at dinner on Thursday, March 20th, by the members of the Football Club of St. Vincent's Hospital, Dublin. He had been a pupil of this hospital, and had been captain of its football club for four years. For several years he was one of the most powerful forwards of the Irish Rugby International fifteen, and was a member of the team at the time when under the captaincy of the late much lamented E. J. Forrest, M.B., the Irishmen won the triple crown. Captain Crean obtained the Licences of the Conjoint Irish Colleges in 1896, and soon after accompanied the English Rugby team that went to play football in South Africa. There he distinguished himself at the game and made so many friends that he resolved to remain and practise his profession in the Transvaal. He soon secured an excellent practice, but on the breaking out of hostilities in 1899 he volunteered for active service. It was, however, as surgeon to the Imperial Light Horse that his conspicuous gallantry was shown. On December 18th last, during the action with De Wet at Tygerskloof, Captain Crean having been already wounded, remained under heavy fire at 150 yards while attending to the wounded who were lying in the firing line. A second severe wound caused him at length to desist, but for this bravery the King has bestowed upon him the Victoria Cross. The Council of the Royal College of Surgeons in Ireland have agreed to confer upon this distinguished Licentiate the highest honour in their power to bestow, namely, the Honorary Fellowship of the College. This is the fifth time that the Victoria Cross (since its inception) has come to medical men holding Irish qualifications—W. Bradshaw 1857, Temple 1861, Reynolds 1870, Cremin 1889, and Crean 1901.

We are requested to state that the meeting of the Pathological Society of London, announced to be held on April 1st, will not take place. An additional meeting of the Society will be held on April 29th.

The following are the members of both Houses of Parliament to whom the London Water Bill has been committed: Lord Balfour of Burleigh, Viscount Llandaff, the Earl of Crewe, the Earl of Harrowby, and Lord Ludlow for the House of Lords; and Sir W. Arrol, Sir W. Houldsworth, Sir James Kitson, Mr. M'Crae, and Sir E. Vincent for the House of Commons.

We understand that Major Bruce Morland Skinner, R.A.M.C., has been appointed Secretary to the Advisory Board for Army Medical Services. Under the Royal Warrant just issued this appointment carries with it additional pay of £100 a year.

Our Berlin Correspondent writes: For the first time after his accident Professor Virchow left his house on Palm Sunday. He drove to the Pathological Museum, where his assistants and some of his students awaited him, and where he was greeted with a handsome bouquet of roses. Virchow looked fairly well and walked without difficulty. His satisfaction in visiting his favourite creation was evident, and he was much pleased to see that work had gone on steadily during his illness.

The Goldsmiths Company has resolved, in commemoration of the Coronation of the King, to make a special grant of £5,000 to the fund required by the Royal Colleges of Physicians and Surgeons to carry into effect their scheme for the investigation of the causes, prevention, and treatment of cancer. The only condition which attaches to the grant is that the carrying into effect of the scheme shall remain under the supervision and control of the two Royal Colleges. Mr. H. L. Bischoffsheim has also offered to contribute £5,000 to the fund, and another donation of the same amount, as well as other smaller amounts, have been promised. An account for the Cancer Research Fund has been opened at the London and Westminster Bank, Marylebone Branch, 1, Stratford Place, Oxford Street.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Midwives Bill was on the paper for Monday last, but was postponed to Wednesday, June 4th, when it will have first place on the paper and come on for discussion on the report stage. On this stage it is possible to move amendments which have been rejected in Committee and also to raise fresh amendments. A long debate may therefore be anticipated, for already fifteen amendments have been handed in by eight members. Mr. Griffith-Boscawen will move to insert the words "habitually and for gain attends women in childbirth" in the second line of Clause 1 after the word

"shall," and also later on in the next subsection. The scope of the Bill thus extended might be held to include midwifery nurses. He also proposes a penalty for the employment of a substitute who is not certified under the Act. Clause 2 it is also proposed to amend, so as to require certificates of good character and evidence of practice for at least one year before a woman can be certified. Mr. T. P. O'Connor proposes to leave out the words recognizing the certificates of the Royal College of Physicians of Ireland and the Obstetrical Society of London. In the constitution of the Midwives Board the claim of the British Nurses' Association will again be advanced, and two Irish members have given notice to give the control of the Board to the General Medical Council. A destructive amendment to leave out Clause 7, which provides for the local supervision of midwives, shows that there is likely to be prolonged debate before the Bill will be allowed to pass the report stage. The Bill has been issued with the amendments made by the Standing Committee in Law.

The Army Estimates.—By an arrangement, Friday in last week was devoted, on the vote for War Office salaries, to a general discussion on Mr. Brodrick's scheme of army reform. There were many points touched on of considerable interest, and it was argued from both sides of the House that the soldier, as Sir Charles Dilke put it, ought to receive from the State sufficient food to live and do his duty upon. The necessity of providing the soldier with more than two shirts for night and day wear was also pointed out as a matter important to health and cleanliness. Dr. Farquharson, in the course of the debate, urged that the increased pay should be given to the recruit as well as the soldier, in order that he might increase his dietary. He also urged the importance of the examination of recruits being performed by medical officers of special experience, and said that he was surprised that the spirometer was not used as a means of testing chest capacity. He finished by congratulating the Secretary of State on what he proposed to do for the Army Medical Department. He regarded the plan as a great improvement on the original Warrant. He further expressed his opinion that good doctors would not be induced to join the army unless there was some sort of return to the old regimental system. Sir Walter Foster, later in the evening, pressed the question of the soldier's dietary, and pointed out its special importance in the case of recruits who were at an age when plenty of food was necessary for development. He expressed his opinion that many more recruits of a better class might be obtained if more attention was paid to the general comfort and well-being of the soldier. He then drew special attention to the excessive wastage going on in the army in South Africa from preventable disease. He said that on high medical authority it had been calculated from the published returns that there were more cases of enteric fever among the troops this year in January and February than last year; the deaths in the two months of 1901 being 756, while for the same time in 1902 they exceeded 800. This mortality meant at least 5,000 cases of disease, and he contended that the authorities were not taking matters seriously enough. He had been officially told that notification of enteric fever had been stopped because the disease was endemic, but that was all the greater reason for taking every administrative step that could help in preventing it. Enteric fever was prevalent in more than sixty places all over the annexed territories, and he said that the recommendations made by the Hospitals Commission for the employment of special sanitary officers ought to be adopted and steps taken to provide every column and every camp with proper apparatus for boiling the drinking water. The War Office ought to be advised not only by "civilian doctors in the best practice in London," but by special authorities on public health. Mr. Brodrick in reply said that the hon. member had spoken very seriously, and he was quite justified in doing so; but he thought that Sir Walter Foster laboured unduly under the belief that this fever might have been checked in South Africa as it could be in England by proper regulations and appliances. The difficulty was to enforce regulations. It might be done in a civil community, but it was impossible to do so completely with an army distributed over so large an area as South Africa. The best precautions were upset with columns moving about from place to place. Soldiers tired and thirsty would drink water when they came across it, even when it was prohibited. He said he appreciated the force of the remarks made, and his best efforts and attention would be given to the subject. In the course of the discussion Captain Jessel referred to the new departure of the Army Vaccine Department, which provided lymph not only for the army but the navy. He was able to bear testimony to its success and had seen returns of vaccination with the lymph supplied by the department, and 95 per cent. of the cases were successful. The debate only finished at midnight and the vote, as had been agreed, was allowed to stand over.

Special Sanitary Officers in South Africa.—In connection with the statement of the Secretary of State that special sanitary officers had been sent to South Africa, Sir Walter Foster, at the end of last week, asked for the names of the officers who had been sent out, the dates of their appointments and the length of time spent by them on these duties. Mr. Brodrick, replying, said that three persons had been specially employed in August, 1900, to inquire into the origin and spread of enteric fever, etc., namely, Dr. Simpson, Colonel Notter, and Major Bruce. Dr. Simpson served till November, 1901, with an interval of five months, when he was employed on plague duties; he had now gone to Hong Kong to investigate the recurrence of plague there. Colonel Notter served till October, 1901, when he returned to England; he was now acting as Principal Medical Officer at Aldershot. Major Bruce served till October, 1901; he was now serving on the Advisory Board for Medical Services. Captain Beveridge and Captain Cooper, R.A.M.C., who were already in South Africa, had been also employed on the same work. The recommendations of these officers were being carefully carried out by the responsible medical officers on the spot.

School Children and Vaccination.—Mr. Round last week called the attention of the President of the Local Government Board to the danger of infection in schools from children who had not been vaccinated. Mr. Long said he was aware of the danger, but it mainly affected children who were not protected by vaccination. He might point out, however, that under the Code of Regulations made by the Board of Education the managers of any public elementary school must comply with a notice of the sanitary authority of the district, or of two members acting on the advice of the medical officer of health, requiring them for a specified time to exclude any scholars from attendance. He understood that in one case unvaccinated children had been excluded under the Code.

The Medical Staff of Refugee Camps.—Mr. Lambert asked the Secretary of the Colonies on Friday in last week if any of the medical staff of the refugee camps had complained of their treatment by the chief superintendent, and whether they had been dismissed by him without notice or reason assigned. Mr. Chamberlain said that he had not received any complaint, but that he thought he ought to say that he had absolute confidence in Sir W. Maxwell, the Superintendent of the Concentration Camps and Military Governor of the district, and he should not think of interfering with his discretion in dealing with his subordinates.

The Plumbers Registration Bill, which has passed the Lords, was down for second reading in the Commons on Tuesday, but was blocked by three notices of rejection in the names of Mr. Caine, Mr. Henry Hobhouse, and Mr. Whittaker. Its prospects after Easter are therefore not very satisfactory. The Bill has been put down for Monday, April 28th.

Colonels of the R.A.M.C.—In answer to Captain Norton on Tuesday the Financial Secretary to the War Office (Lord Stanley) stated that the pay and allowances of a colonel on the staff was £880 and forage, of a colonel on the staff Royal Engineers £1,063 and forage, and of a colonel R.A.M.C. £880 and forage. The recent Commission on the reorganization of the Army Medical Service had not recommended any increase to the emoluments of colonels of the R.A.M.C., and no increases, therefore, had been provided for officers of this rank in the forthcoming Warrant.

THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

The third annual general meeting of the members and subscribers of the Medical Graduates' College and Polyclinic was held at 22, Chenies Street, London, on March 25th. The President of the College, Sir W. H. Broadbent, Bart., was in the chair.

The annual report of the Council recorded a gratifying and steady increase in all departments of the College work, showing that the polyclinic filled a very real and long-felt want. The attendances at the practical classes had been very considerably augmented, and on one or two occasions the entries had been so numerous that a duplication of the course was necessitated. The register showed the total number of life members, members, subscribers, and temporary subscribers to be for the year 1901 as many as 825. The register was 615 for the year 1899 and 674 for the year 1900. The Special Committees formed for dealing with leprosy, yaws, climatology, and tuberculosis had held several meetings during the past year, which had been well attended, and two new special committees for the study of cancer and vaccination were in course of formation. The short courses on special subjects which were inaugurated in October, 1900, proved so attractive that their number during the past year had been doubled. The vacation session of three weeks which was held in September was an unqualified success, all the classes were filled to overflowing, and it had therefore been determined to hold a similar course in 1902. The work of the Consultation Department was stated to be steadily increasing, and it was pointed out that a great many more members availed themselves of its opportunities than formerly. In the past year 150 clinical investigations had been carried out in the laboratory, and it was hoped that as the facility afforded for pathological research became more widely known among the members a very considerable increase in the number of specimens submitted for examination would result. The Museum had been enriched during the year by many valuable additions. It was hoped that members would assist in providing recent and more modern textbooks for the library. The scheme of hospital association had been duly completed at the commencement of the year and nine institutions were associated with the Polyclinic. Dr. C. O. Hawthorne was appointed sub-editor to the *Polyclinic Journal* in September last. The net profit that accrued to the College funds as a result of the dinner held at the Hotel Cecil on May 22nd last was £1,163. The Council looked forward with confidence to a near future when the finances of the College would be on as assured a basis as its professional position was.

The Chairman, in formally moving the report and balance-sheet, said that the College filled an acknowledged gap and want on the part of the profession. He referred to the festival dinner to be given on June 5th, and said they were fortunate enough to have secured Mr. Asquith as Chairman. They hoped that his able advocacy would be a further stimulus to the public to give the support which the Polyclinic deserved in its endeavour to secure the further instruction of medical men in technical and clinical work. The Polyclinic really rendered a very important service to the public, and it had a right to appeal for funds.

Mr. Jonathan Hutchinson seconded the motion, and said that the Polyclinic had a great and legitimate claim on the public. The members of the Polyclinic were not engaged in any selfish object: they were occupied in the attempt to diffuse medical knowledge for the benefit of the poor.

Dr. Theodore Williams explained the items in the balance sheet and accounts in detail, and said that though it had to borrow from time to time from their bankers, the condition of the institution was satisfactory.

Dr. Hawthorne addressed the meeting on the advisability of members of the Council becoming members of the College, after which the report and balance sheet were declared adopted.

Sir William Kynsey proposed, and Dr. M. Bayne seconded, a vote of thanks to the retiring members of the Council.

The following gentlemen were elected members of the Council:—Dr. T. B. Crosbie, Mr. Reginald Harrison, Mr. E. Jessop, Dr. H. Tilley, and Mr. T. J. Hitchins.

After a vote of thanks to the Chairman, the proceedings terminated.

THE EPIDEMIC OF SMALL-POX.

The Spread of Small-Pox from the Extra-Metropolitan Hospitals.

The deputation which Mr. Long received in March 22nd at the House of Commons let in a flood of light upon the difficulties attending the isolation of cases of small-pox. London on the whole undoubtedly derives great benefit from the removal of cases of small-pox from the metropolis, but the urban councils of Dartford, Bexley, Erith, Northfleet, and Gravesend had something to say about the results on their districts of the treatment of London cases of small-pox outside London. Sir William Hart Dyke told Mr. Long that there had been in the Dartford Urban District 190 cases of small-pox, of which no fewer than 117 were directly traceable to the hospitals of the Metropolitan Asylums Board: the rural district of Dartford had had 60 cases, many of them traceable to the workpeople in the hospital, which was in close proximity; Bexley Urban District had had 45 cases, 20 of them so traceable; Erith Urban District 195 cases, of which 75 were so traceable; Northfleet 34 cases, 7 of which were so traceable; and Gravesend 35, of which 18 were so traceable. The fact came out beyond dispute that the workpeople engaged upon the erection of the temporary hospitals had become infected, and as a result small-pox had been widely diffused in this part of England. Some suggestion was made that fences might have been used which would in some mysterious way have limited the spread of the disease, or by some equally effective method the passage of coins used in payment might have been made subject to control, and infection prevented thereby. The fact remains that a vast number of workpeople have been employed in the neighbourhood of wards occupied by small-pox patients; that no effectual steps have been taken to secure the immunity of these people from small-pox by vaccination. Hence small-pox has spread among them, and the result is the deputation which Mr. Long has just received. We may put the fences and coins on one side; they are interesting only as showing the impression which still exists in the minds of the public as to the manner in which small-pox hospitals cause disease in their proximity. Mr. W. H. Power's investigation years ago should have made the true lesson of the influence of small-pox hospitals understood. The question which now will interest the public is, why this lesson has been neglected. What account has the Metropolitan Asylums Board to give of the omission to secure the revaccination of the workpeople working for them in proximity to occupied wards? The difficulties of the Board have no doubt been great; its members may have done their best, but it is due to themselves that this should be publicly stated. Mr. Long would do good service by having the facts stated by one of his capable staff. The sooner the public really understand the results of neglect of vaccination the sooner will they appreciate the necessity of depending upon the one means of protecting themselves against small-pox.

Concealment of Small-Pox.

Some of the difficulties which occur in a large city in endeavouring to control outbreaks of small-pox are strikingly illustrated by two cases which recently came before one of the sheriffs in Glasgow. In one, a workman was prosecuted for failing to notify the authorities of the occurrence of small-pox in his house in January. It appeared that a neighbour had heard that there was a case of measles, and on calling to inquire he at once saw that the patient—a little girl—was suffering from small-pox. He told the parents and also the police, who informed the health authority. Next morning an inspector called at the house and was told by the wife of the accused that no one was ill, and on being questioned further she produced another daughter who, she said, had been unwell. The inspector went to the complainer and told him of his visit. He then discovered that the wrong person had been shown him. On returning, he was told that there was only one daughter in the house, but, on searching, a girl aged 10 was found hidden in a bed and completely covered

with bedclothes. It further appeared that the parents had told the School Board officer (who, owing to the absence of the child from school had called two days before the inspector from the Health Office) that the absentee had gone to Ireland. The house was of two apartments with eight inmates. The other case prosecuted had reference to a small-pox death, the victim being a lodger in a two-roomed house where there were three other lodgers besides the accused and his wife and step daughter. The body of the dead man was lying in a bedroom, the bed consisting of a door balanced upon two boxes. The defence was that the householder had not been aware of the nature of the disease, but it was stated that the sick man himself had asked that no doctor be sent for lest he should be removed to hospital. We are informed that both these cases were unvaccinated. In imposing in these cases the full penalty of 40s. with the alternative of thirty days' imprisonment, the sheriff strongly animadverted on the weakness of the law in not enabling a heavier punishment to be inflicted. A dairyman watering his milk or a publican watering his whisky might be fined £20, but a careless citizen deliberately spreading small-pox could be fined only 40s. We have the fullest sympathy with the sheriff in his indignation.

GLASGOW.

The number of cases of small-pox in Glasgow was reduced on March 24th to 194. The number of fresh cases is steadily diminishing, while many patients are being dismissed from the hospital cured. In Govan there still remain under treatment 66 patients. Notwithstanding the extent of the present outbreak the medical authorities of both Glasgow and Govan still complain of the difficulty of persuading even "contacts" to allow themselves to be revaccinated.

CONTRACT MEDICAL PRACTICE.

FREE BOTTLES!

J. F. F. writes: A propos of the recent circular sent out by the Chief Medical Officer of the Post Office, and your remarks thereon, in the BRITISH MEDICAL JOURNAL of March 22nd, I should like to say that the postmaster of the town in which I practise was sent here in 1898 with advanced phthisis, and was attended under the contract rate of 8s. 6d. per annum. The attendance was almost continuous for many months, and he was supplied with bottles which (when they had amounted to several dozen) I was asked to purchase at a sum which would in all have exceeded the amount received for a year's attendance. This is not the only occasion on which I have been asked to buy bottles which I have gratuitously supplied, and I have even known contract patients eager to have frequent supplies of medicine in order that they might make a good sum by the sale of their bottles.

LITERARY NOTES.

A TALE of thrilling interest to lovers of books might be written on the fate of volumes which are borrowed and never returned, stolen by rival collectors, destroyed by carelessness or wanton mischief, or lost. The story of the narrow escape from such a fate of a precious old volume was told some time ago in the *Philadelphia Medical Journal*. In a large paper mill in Philadelphia a great pile of wastepaper was being passed into a machine in order to be reduced to pulp. One of the proprietors, who happened to be standing by, saw a rather dilapidated old book on the heap, and picking it up observed that it was a Latin work on surgery. Thinking it might be of value, he rescued the old tome and brought it to the editor of the *Philadelphia Medical Journal*. It proved to be a copy of the second edition of the Latin translation of the complete works of Ambroise Paré. The title page was unfortunately torn out, and the old vellum binding had been torn off, but otherwise the book was in excellent preservation. It was published at Frankfort in 1594, and its full title (which has been verified by comparing the book with the copy in the Library of the College of Physicians) is: "Opera Chirurgica Ambrosii Paraei * * * A Docto Viro, plerisque locis recognita et latinitate donata, Jacobi Guillemeau. Francofurti, MDXCIIII." The first edition of Paré's collected works was in French, published in 1575 at Paris. There were at least twelve editions issued in the original French up to 1664, besides the editions in Latin, German, Dutch, and English.

The *London Hospital Gazette* for March contains a portrait of Sir William Blizard and a sketch of his career. Blizard was born at Barn Elms, Surrey, in 1743. He was the son of the village barber, who, like many of his craft at that day, practised the art of bleeding. He was apprenticed to a surgeon at Mortlake, and afterwards worked at the London Hospital. Later he attended the lectures of Percevall Pott at St. Bartholomew's. He was for many years a member of the Council of the College of Surgeons, of which he was elected President in 1822. It was during his presidency that Thomas Wakley had his historic battle with the College. Complaints have sometimes been made as to the acrimony of medical controversies in recent times. But it would probably be difficult to find in any medical journal of the present day a note like the following taken from the *Lancet* in its early volcanic days:

Malformation.

The following case of misplaced viscera is particularly curious; we believe, however, that several examples of a similar kind are to be found among the members of the Court of Examiners at the College in Lincoln's Inn Fields. We anticipate, for example, that when a *post mortem* of Sir William Blizard shall be instituted, that the liver of the bitter knight will be found in his cranium, for during the whole of Sir William's life his mouth has been performing the office of a Ductus Communis Choledochus.

This Hogarthian pleasantry is said to have annoyed Blizard so much that he would not allow the journal in which it appeared to be brought into the hospital. Blizard continued to discharge his duties as a member of the Court of Examiners when upwards of 90 years of age. Like Frederick the Great and other notable men of action, Blizard cultivated the Muse with indifferent success. He died in 1835, just two years after his retirement from the staff of the London Hospital, on which he had served for fifty-three years.

In the *Providence Medical Journal* for March Dr. Donald Churchill gives an account of the early history of medicine in Rhode Island. Just before the Pilgrim Fathers landed in America the way for them had, according to pious persons who profess to be in the counsels of the Almighty, been prepared by a devastating epidemic among the natives. This view is expressed by Cotton Mather with characteristic sympathy and loving-kindness in the following passage:

The Indians in these parts had newly, even about a year or two before, been visited with such a prodigious pestilence, as carried away not a tenth but nine parts of ten (yea, 'tis said nineteen of twenty) among them, so that the woods were almost cleared of those pernicious creatures to make room for a better growth.

The "pestilence" was probably small-pox. The pilgrims had at first no medical practitioners among them, and sickness was treated by household remedies which they had brought with them, and such simples as they could gather. Probably the first regular physician to arrive in Boston was Dr. John Clark, a native of Bedfordshire. Born in 1609 he left England in 1631, and lived in Boston till 1638, when he was driven from Massachusetts. He then went to Rhode Island and settled at Portsmouth, and afterwards at Newport. In 1651 he returned to England, where he remained for twelve years, practising his profession. He procured the Charter of Rhode Island, granted by Charles II in 1663. This charter continued in force in 1842, when it was superseded by the present State Constitution. He then returned to Newport, where he officiated as pastor of the first Baptist Church, at the same time continuing his medical practice. His portrait, in a close-fitting skull cap, with long locks and venerable flowing beard, is familiar to the eyes of the medical men in Boston. His left hand rests upon a skull, his right hand holds an instrument, as to which Dr. Oliver Wendell Holmes makes the following remarks:

It is a trephine, a surgical instrument for cutting round pieces out of broken skulls, so as to get at the fragments that have been driven in and lift them up. It has a handle like a gimlet, with a claw like a hammer to lift with, I suppose, which last contrivance I do not see figured in my books. But the point I refer to is this: the old instrument I refer to, the trepan, had a handle like a wimble—what we call a brace or bit stock. The trephine is not mentioned at all in Peter Lowe's book, London, 1634; nor in Wiseman's great work on Surgery, London, 1676; nor in the translation of Dionis published by Jacob Tonson in 1710. In fact, it was only brought into more general use by Chesselden and Sharpe so late as the beginning of the nineteenth century. As John Clarke died in 1676 it is remarkable to see the last fashion in the way of skull-sawing contrivances in his hands—to say nothing of the handle—and a Hey's saw, so-called in England, lying on the table by him, and painted there more than a hundred years before Hey was born. This saw is an old invention, perhaps as old as Hippocrates, and may be seen figured in the *Armamentarium Chirurgicum* of Scultetus, or in the works of Ambroise Paré. Dr. Clarke is said to have received a diploma before he came for skill in lithotomy. He loved horses, as a good many doctors do, and left a good property as they all ought to do.

He died April 20th, 1676, in the 68th year of his age. It is

only recently that the practice of medicine has been regulated in Rhode Island, but in the early days of the settlement the authorities seem to have kept a sharp eye on the exercise of the art of healing. In 1641 Robert Jeffries was authorized by the Government of the Island "to exercise the functions of surgery," and some years later John Cranston seems to have applied for the like privilege, for among the records of the General Assembly is found the following:

Whereas the Court have taken notice of the great blessing of God on the good endevers of Captayne John Cranston of Newport both in phissicke and chirurgery, to the great comfort of such as have had occation to improve his skill and practice, etc. The Court doe theretore unanimously enacte and declare that the said Captain Cranston is lycenced and commistioned to administer phisicke and practice chirurgery throughout this whole Collony and is by this Court styled and recorded Doctor of Physsick and Chirurgery by the Othority of the Generall Assembly of this Collony.

This document bears date March 1st, 1664, and is believed by Dr. Churchill to be the very earliest record of a licence to practise medicine in Rhode Island. Dr. Churchill gives a number of interesting extracts from local records, in regard to several other early practitioners, bills for medical attendance, inquests, the treatment of the insane, small-pox, inoculation and vaccination, epidemics of yellow fever, etc.

Dr. R. Watson, of Hamilton, writes with reference to a passage under the heading of Literary Notes, which appeared in the British Medical Journal of March 8th (p. 617), in which it was said that one would like to know what Ronsard wrote of Rabelais:

Rabelais had scoffed at the Pléiade and their literary methods, and after his death they took their revenge. What Ronsard wrote of him appears in his *Epitaphe d'un bon Biberon*, written seven years after the death of the great "dissimulator of divine wisdom." The following lines from Besant's version may serve:—

> O stranger, when thou passest here,
> With cups, not tears, salute his bier;
> Erect a tomb with flagons crowned,
> Spread hams and sausages around;
> Fitter for him these tributes are
> Than lilies fresh and roses rare.

We have already called attention to the interest taken in the study of medical history in the United States. This interest is particularly keen in Baltimore. At a recent meeting of the Book and Journal Club of the Medical and Chirurgical Faculty of Maryland, Dr. David Hunt, of Boston, gave an address on the value of the study of medical history, urging that it should be dealt with from the standpoint of evolution as an integral part of general progress. He criticized sharply the too conventional aspect of the subject taken in modern days, and made a strong plea for its introduction into the medical schools as a part of the curriculum. At the same meeting Dr. E. F. Cordell showed, on behalf of the Library Committee, a set of about 120 volumes from the library of Dr. Upton Scott, the first President of the Medical and Chirurgical Faculty, which had been presented to the library of the Faculty by one of his collateral descendants, Dr. Clotworthy Birnie, of Taneytown, Maryland. Dr. Scott was a graduate of Glasgow University, and practised for many years most successfully at Annapolis. At the outbreak of the revolutionary war he took the Tory side and went to London. He subsequently returned to Annapolis, and again became one of the most trusted and beloved physicians in the State. The library consists of standard works of the eighteenth century, many of them of value, and a number of them were not on the shelves of the library of the Faculty.

Another proof of the interest in everything relating to medicine that is being taken in Baltimore may here be related. At the Johns Hopkins Club Dr. Osler showed an interesting collection of the work of Boerhaave which he had secured during the past summer in Holland. A majority of them had come from the library of one of the descendents of the only daughter of Boerhaave. Besides a set of original editions of the orations, the work of most value was the second edition of the *Index Plantarum*, with numerous annotations by Boerhaave himself, and many slips of corrections, and in the second part, which was interleaved, copious notes for a subsequent edition. There was also a very remarkable old-fashioned quadrant, with which tables of latitude and longitude had been constructed for Boerhaave's country house, Oud-Poelgeest, in the neighbourhood of Leyden.

NOVA ET VETERA.

A MEDICAL TRACT BY JOHN WESLEY.

It will come as a surprise to most people that the famous divine, John Wesley, found time to dabble in medicine.

Under the title of "Primitive Physic, or an Easy and Natural Method of Curing most Diseases" Wesley collected no fewer than 824 "cures," arranged in alphabetic order, numbered, indexed, and annotated. This medical "Tract," as he calls it, was first published in 1747, and ran through twenty-six editions in sixty years, a fact which bears eloquent testimony to the success of the little volume. Few books in medicine, whether produced within or without the pale of the profession, can boast a circulation so widespread.

Its title is, indeed, too modest; for although it only promises to cure "most" diseases, very few of the ills that the flesh of the eighteenth century was heir to are not included in the list. The value of many of the methods of treatment is enhanced by Wesley's brief notes—"tried," "it seldom fails," "I know nothing like it," etc.—inscribed after his favourites. Evidently the worthy divine did not hold himself aloof from the experimental method.

A glance at the book runs us straight from these days of the modern treatment of disease by antitoxins, into the times when the humoral pathology, tempered with the clinical observation of divers wise women of the shires, held full sway in medical and lay circles.

The diseases are conveniently arranged in alphabetic order, beginning with "1. Abortion, to prevent," and winding up with "287. Wounded Tendons." Several methods of "curing" the same complaint are given when it is deemed necessary, yet the whole volume comprises only 108 pages, the subject being handled in a light-hearted manner that modern writers are not disposed to imitate.

Some of his cures have safely run the gauntlet of latter-day criticism and are still with us, but few of us would venture to advise a person subject to ague to "Go into the Cold-Bath just before the cold fit," or expect a scirrhus of the mamma to yield to the application of "Goose-dung and Celandine," heated well together, and "spread on a fine rag." Nor in these days of prosecution for malpraxis would any physician treat "Green Sickness" with "an ounce of Quicksilver every morning."

The book provides fifteen separate and distinct cures for "A Consumption" starting with "Cold bathing has cured many deep consumptions. Tried." In one the sufferer is advised to "Every morning cut up a little turf of fresh earth, and lying down, breathe into the hole for a quarter of an hour. I have known a deep consumption cured thus." In another we are gravely bidden "In the last stage suck a healthy woman daily. This cured my father."

Five pages are devoted to ophthalmic diseases. "Dull sight" is made clear by instilling into the eye "two or three drops of juice of rotten apples" often. A "Pearl in the Eye" (cataract) is removed by a drop of the juice of "three-leaved grass" which "commonly cures in a few days." "Hot or sharp humours" of the eye can be rendered cool and mild in several ways, including this "lay a thin slice of raw beef on the nape of the neck. Tried." Blindness even is often cured by "cold bathing," which is good news indeed.

For "The Falling of the Fundament" we are recommended to "Boil a handful of red Rose Leaves in a quarter of a pint of red Wine; dip a cloth in it, and apply it as hot as can be borne."

Modern writers are silent as to the best means of dealing with "Fleas and Bugs," but nothing savouring of disease in the broad sense comes amiss to Wesley.

Live animals were still employed in his day in the treatment of disease. "The Iliac Passion," which probably was intestinal obstruction, seeing that "in this violent form of Cholic the excrements are supposed to be thrown up by the mouth in vomiting", may among other methods be treated by holding "a live puppy constantly on the belly."

In "Raging Madness...set the patient with his head under a great water-fall as long as his strength will bear; or, pour water on his head out of a tea-kettle." The word "or" is in this paragraph pregnant with meaning. The same disorder may be treated by giving the patient nothing to eat "but

apples, for a month." "Lunacy" gives way to rubbing "the head several times a day with vinegar, in which Ground-Ivy Leaves have been infused."

The following measures are suitable in that obstinate complaint "Old Age":

"Take Tar-water, morning and evening.—Tried.
Or, decoction of nettles; either of these will probably renew their strength for some years;
Or, be Electrified daily.
Or, chew cinnamon daily, and swallow your spittle."

For "A Windy Rupture—Warm Cow-dung well; spread it thick on leather, strewing some Cummin seeds on it, and apply it hot. When cold put on a new one. It commonly cures a child (keeping its bed) in two days."

"The Quinsy," which we are told is "a fever attended with difficulty of swallowing and often of breathing," is to be treated by the application of "a large White Bread Toast, half an inch thick, dipt in Brandy, to the crown of the head till it dries." Wesley is seldom so vague in clinical portraiture as in the foregoing instance. What, for example, could be more terse and true to fact than the following?: "A Diabetes is a frequent and large discharge of pale and sweetish urine, attended with a constant thirst and a wasting of the whole body."

We are bidden "make an issue in the thigh, (this cures)" for a "Quinsy in the breast" the symptoms of which bear some resemblance to angina pectoris. This is one of the few instances in which the author recommends an issue, in which respect he is in advance of the medical practice of his day.

For "a White Swelling (on the joints)" you may "Hold the part every morning under a pump or cock. It seldom fails. Tried. Or, pour on it daily a stream of warm water." Which is very like blowing hot and cold, and so the good man seems to think, for with a wisdom surely perfected in theological controversy he adds:

"Or, a stream of cold water one day, and warm the next, and so on by turns."

"Lethargy," our readers will be glad to hear, is removed by snuffing "strong vinegar up the nose."

If a patient is hoarse he is to "rub the soles of the Feet before the fire, with Garlick and Lard, well beaten together, every night. The hoarseness will be gone the next morning. Tried." One feels inclined to ask why, if the trouble "will be gone next morning," it is necessary to use the remedy "every night."

Those suffering from "a Flux" are directed to "put a large brown Toast into three quarts of water, with a drachm of Cochineal powdered, and a drachm of salt of Tartar. Drink it all in as short a time as you conveniently can. This rarely fails to cure all Fluxes, Cholera Morbus, yea, and inflammations of the bowels.—Tried."

Like many other physicians, amateur and professional, the worthy clergyman has his favourite remedies upon which he relies in treating quite a multitude of ailments. They are "Cold-bathing," "Electrifying," "Water-drinking," and last but not least "Fasting-Spittle." With that commendable method so characteristic of the book a summary is provided of all the diseases susceptible of cure by these various specifics. Thus:

"FASTING-SPITTLE outwardly applied every morning has sometimes relieved and sometimes cured, Blindness, Contracted Sinews from a Cut, Corns (mixed with chewed bread, and applied every morning), Cuts, (fresh,) Deafness, Eyelids red and inflamed, Scorbutic Tetters, Sore-legs, Warts, etc.

Taken inwardly it relieves or cures
Asthmas, Cancers, Falling-sickness, Gout, Gravel, King's Evil, Leprosy, Palsy, Scurvy, Stone, Swelled Liver."

For all the world like Somebody's Pills.

Such are a few of the quaint ideas and practices dealt with in this old book of popular medicine. It is only fair, however, to note the fact that the author's strong common sense has guarded him from many of the more absurd and disgusting prescriptions of his day. The great majority of his "Cures" are certainly "Easy and Natural." The same cannot unfortunately be said of some of the remedies of the faculty of that period.

BARONESS ROTHSCHILD, of Frankfort, has given a million of marks for the erection of a sanatorium for consumptives on the Taunus.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 16th day of April, at 2 o'clock in the afternoon.

March, 1902. FRANCIS FOWKE, *General Secretary.*

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—**The next meeting of the above District will be held at Rochester on Tuesday, April 15th. Dr. E. C. Warren will preside. Members intending to read papers, etc., or to bring any communication before the meeting are requested to give early notice to the Honorary Secretary, LUDFORD COOPER, 19, Victoria Street, Rochester.**

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held on Tuesday, April 8th, at 3.30 p.m., at the Taunton and Somerset Hospital, under the presidency of Mr. J. P. Johnstone. After the usual business Mr. David Brown will read a short paper on Some Results of the Open-air Treatment of Consumption, and will show cases which have been so treated. It is hoped that other members will bring forward cases of interest, especially such as are of a tuberculous nature, in order to make the meeting of clinical interest. Notice of intention to take part in the meeting should be sent to the Honorary Secretary before April 2nd. Tea will be provided during the meeting through the kindness of the hospital staff.—W. B. WINCKWORTH, Taunton, Honorary Secretary and Treasurer.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at the King's Arms Hotel, Lockerbie, on Friday, April 4th, at 2.15 p.m. The Council will meet at 2 p.m. Order of business: Minutes of last meeting; election of new members. Dr. Hamilton (Hawick): The Treatment of Internal Haemorrhage. Dr. Ormrod (Workington): Concealed Haematemesis. Dr. Ogilvy-Ramsay (Carlisle): Notes on Three Cases of Difficult Labour. Dr. Maclachlan (Lockerbie): (1) A Case of Pyelitis in an Infant 10 Months old; (2) A Case of Tapeworm. Dr. Donald (Carlisle): Notes on Cases in South Africa. Dr. Farquharson (Carlisle): A Case of Melancholia associated with Visceral Lesion. The members will dine together in the Hotel after the meeting. Those intending to be present at the dinner are requested to notify Dr. Bell, The Green, Lockerbie, by April 2nd at latest.—W. F. FARQUHARSON, M.D., Garlands, Carlisle, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Red Lion Hotel, Truro, on Tuesday, April 8th. The chair will be taken at 3 p.m., by the President, Mr. G. Thom. Luncheon will be provided from 1.30 to 2.30 p.m., and tea will be served after the meeting.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

STAFFORDSHIRE BRANCH.

THE second ordinary general meeting was held at Stafford on Thursday, February 27th, Mr. W. H. FOLKER, President, in the chair.

Confirmation of Minutes. The minutes of the last ordinary general meeting and of the special general meeting of December 27th, 1901, were read, approved, and signed.

New Member. — Edgar Somerville, M.D., B.Ch., F.R.C.S.Edin., Derby Street, Leek, was elected a member of the Branch.

Alteration of the Dates of the Annual Meeting and the Third General Meeting. It was resolved that By-law No. v be altered so that "last week in October" read "first week in June;" and By-law No. xv so that "and May" read "and April."

[A report of the scientific proceedings will be found at page 775.]

British Medical Association.

SEVENTIETH ANNUAL MEETING, MANCHESTER, 1902.

Just a quarter of a century has elapsed since the British Medical Association met in Manchester. Those who were then present will remember the enthusiasm excited by Professor Charcot's demonstrations, and the interested delight with which packed audiences received Dr. Lewis Sayre's humour and "jacket," nor will they have forgotten the dignified scholarly oration delivered by Mr. Spencer Wells, and Dr. Wm. Roberts's masterly, logical Address in Medicine on The Doctrine of Contagium Vivum and its Applications to Medicine, the closing prophecy of which has been so amply fulfilled. Truly death has gathered a rich harvest in twenty-five years, and amongst those who by their labours contributed most largely to the great success of the meeting in 1877 none will be more sincerely and widely missed than the senior Local Secretary of that day, the late Professor D. J. Leech, whose portrait now occupies a well-deserved place of honour in the Christie Library, Owens College. Nevertheless there is reason to believe, as coming events cast their shadows before, that the Association will never have had a heartier welcome than that which it will receive when it revisits Manchester next July.

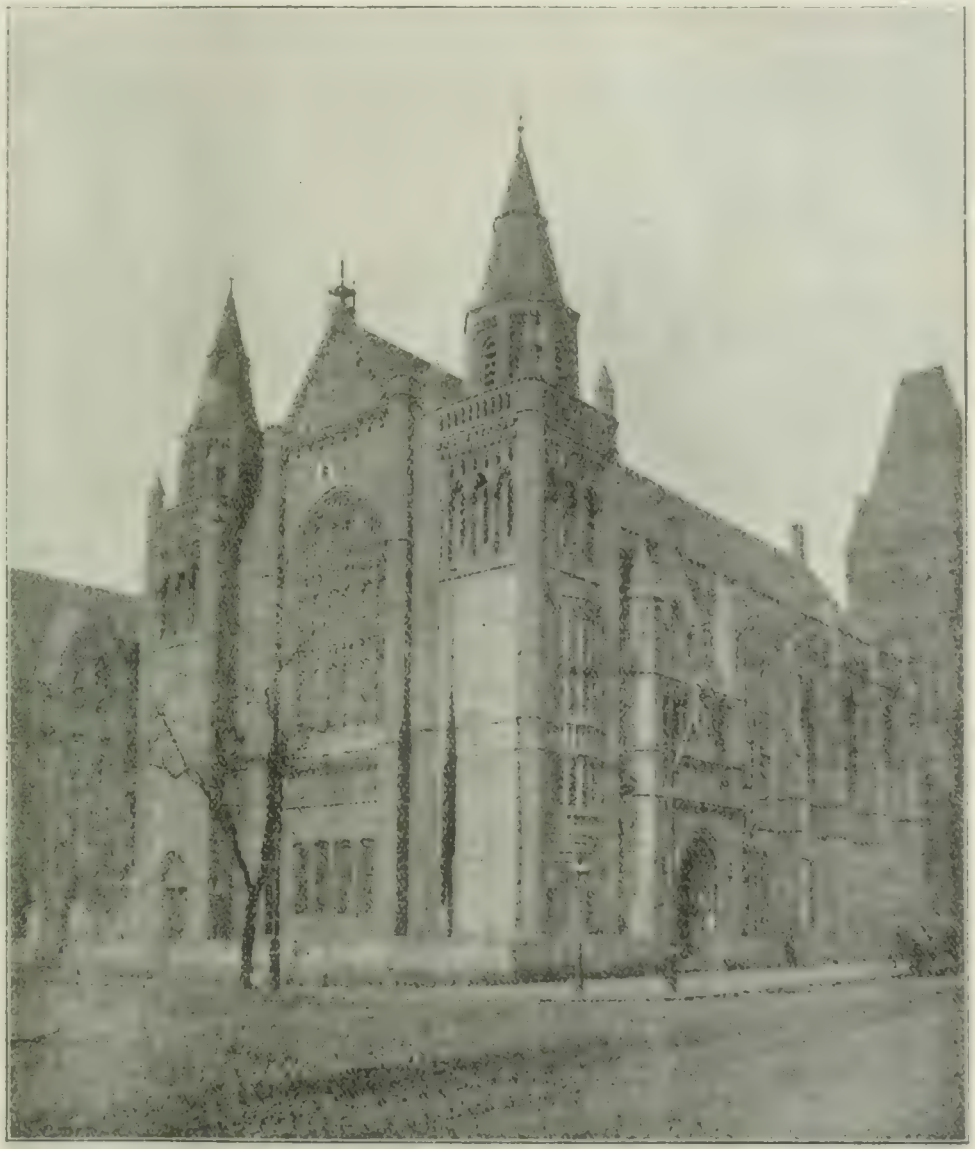


Fig. 1.—The Whitworth Hall.

Much has occurred in the interval. The town has become a city and a seaport, and an approach by water is possible to men of leisure and high tastes. The new Town Hall, to which the Association on the last occasion gave its house-warming prior to its formal opening, is now well seasoned, and will again open its hospitable doors to the members. Amongst the many municipal and private undertakings which have brightened and improved the city, we can only refer to that palace of literature, the John Rylands Library. This building, which with its contents is the gift of Mrs. John Rylands, at a cost approaching, if not exceeding, a million pounds sterling, is acknowledged to be the finest modern example of decorative perpendicular, a style of architecture in which the severity of the Gothic is beautifully relieved. It is a "poem in stone," and no member should miss visiting this Mecca of the lover of rare books. Its stately beauties and unique literary riches will be shown to members by its accomplished librarian on presentation of their cards.

The Owens College.

The chief interest of the meeting will, however, be centred in Owens College, the authorities of which have kindly provided the needful accommodation for the general, sectional, and some of the social meetings. Those who have not seen Owens College since 1877 will hardly recognize the handsome pile of building now bearing that name, as the older portion, forming the back of a quadrangle, is quite hidden by the modern frontage, consisting of the spacious Museum, the Central Tower, and the new Whitworth Hall, between which and the Chemical Theatre is the Christie Library.

The Museum.

The Museum buildings, opened in 1888, contain the old Manchester Museum, which under the fostering care of Mr. W. E. Hoyle, M.A., has developed into one of the finest geological, zoological, and botanical collections in the provinces, and plays no small part in the scientific education of Manchester and district. Here also is housed the Flinders

Petrie collection of Egyptian antiquities. The beautiful Christie Library, erected 1895-8, is the gift of the late Chancellor Richard Copley Christie, LL.D., whose own valuable collection of books now enriches its shelves.

The Whitworth Hall.

The Whitworth Hall, opened by H.R.H. the Prince of Wales (accompanied by the Princess) on March 12th, when the jubilee of the College was celebrated, completes and crowns Mr. Alfred Waterhouse's architectural design; now indeed for the first time Owens College can be seen to full advantage. The new building is also the gift of the late Mr. Christie as one of the Whitworth legatees. Its stately design and fine proportions are shown in the accompanying reproduction of a photograph by Mr. Chas. Ireland of Manchester. The hall itself forms the upper part of the building, and is 130 ft. long, 50 ft. broad, and 65 ft. high. All the woodwork, including the magnificent ceiling, is of oak. "The organ is one of the masterpieces of Messrs. Willis of London, and is the gift of Mrs. Rylands." Here the address of the President-elect, Mr. Walter Whitehead, will be delivered on the evening of Tuesday, July 29th, when also a *soirée* will be held, and the whole of the College will be thrown open to the members. An opportunity will then be afforded to inspect the Beyer zoological and botanical laboratories, the Whitworth engineering department, the fine new physical and chemical laboratories, etc. The evening programme will include interesting scientific demonstrations in the various theatres and laboratories, and an outdoor musical *fête* in the quadrangle.

During the meeting of the Association the reception room will be in the Whitworth Hall, and here also the Address in Medicine by Sir Thomas Barlow and the Address in Obstetrics by Professor William Japp Sinclair will be delivered. The double suite of rooms on the ground floor will be utilized for executive purposes, ticket office, postal and telegraph department, etc.

The Medical School.

The Medical School, though in the background geographically, and in consequence ill adapted to display its good qualities to the external photographer (Fig. 2), has quadrupled its original size, and now presents as complete and extensive laboratories, museums, theatres, library, etc., as any in this country. Space will not allow of a special description, but some interesting details will be found in the Guide-book referred to below. It must suffice to name the fine physiological theatre, which seats 400; the dissecting room, 78 × 32 ft.; the splendidly-equipped laboratory for histology, 94 × 34 ft.; for morbid histology, 78 × 22 ft.; for bacteriology, 60 × 23 ft.; and so forth. The increase in the number of students has kept pace with the growth of the premises, and recently all the classes at the College and the Infirmary have been thrown open to women students, who have, however, their own dissecting and common rooms. Adjoining the Medical School is the large College gymnasium, which must be mentioned in order to draw attention to the extremely fine and extensive athletic ground recently acquired within the city boundaries at Fallowfield. Arrangements have been made for the cricketers and athletes of the profession to put their skill to the test during the Association week.



Fig. 2.—The Medical School.

The Sections.

In 1877 the British Medical Journal noted the "industry and dispatch" and great success of the meetings, "notwith-

standing the elaborate subdivision" into six Sections! This year the Owens College will accommodate no fewer than seventeen Sections, together with their special museums, demonstrations, etc., as follows:

Medicine.

President: Professor Julius Dreschfeld, M.D. *Vice-Presidents:* John Dixon Mann, M.D.; Robert Charles Brown, M.B.; Graham Steell, M.D.; Wilmot Parker Herringham, M.D. *Honorary Secretaries:* Arthur Thomas Wilkinson, M.D., 22, St. John Street, Manchester; William Calwell, M.D., 1, College Square North, Belfast; Edward Mansfield Brockbank, M.D., 3, St. Peter's Square, Manchester.

Surgery.

President: James Hardie, F.R.C.S. *Vice-Presidents:* Frederick Armitage Southam, F.R.C.S.; Professor George Arthur Wright, F.R.C.S.; William Thorburn, F.R.C.S. *Honorary Secretaries:* Henry Alexis Thomson, F.R.C.S.E., 32, Rutland Square, Edinburgh; Herbert Lund, F.R.C.S., 22, St. John Street, Manchester; John Edward Platt, F.R.C.S., 28, St. John Street, Manchester.

Obstetrics and Gynaecology.

President: David Lloyd Roberts, M.D. *Vice-Presidents:* Samuel Buckley, M.D.; William Walter, M.D.; Archibald Donald, M.D.; James Henry Targett, F.R.C.S., *Honorary Secretaries:* Thomas Arthur Helme, M.D., 3, St. Peter's Square, Manchester; Arnold Wm. Warrington Lea, M.D., 274, Oxford Road, Manchester; Wm. Edward Fothergill, M.D., 10, St. John Street, Manchester.

Public Medicine.

President: James Niven, M.B., M.O.H. *Vice-Presidents:* Thomas Carleton Railton, M.D.; John Milson Rhodes, M.D.; William Leslie Mackenzie, M.D., D.P.H.; Thomas Harris, M.D. *Honorary Secretaries:* Thomas Walter Harropp Garstang, D.P.H., Englefield, Altrincham, Cheshire: William Heaton Hamer, M.D., 73, Dartmouth Park Hill, Highgate, N.; George Newman, M.D., Town Hall, Finsbury, E.C.

Psychological Medicine.

President: George Wm. Mould, M.R.C.S. *Vice-Presidents:* Judson Sykes Bury, M.D.; Thomas Sterle Sheldon, M.B. *Honorary Secretaries:* Ernest Septimus Reynolds, M.D., 2, St. Peter's Square, Manchester: Charles Tidbury Street, L.R.C.P., Haydock Lodge, Newton-le-Willows, Lancs.

Physiology and Anatomy.

President: Professor Wm. Stirling, M.D., F.R.S.E. *Vice-Presidents:* Professor Alfred Harry Young, F.R.C.S.; Arthur Robinson, M.D.; J. Sydney Edkins, M.B. *Honorary Secretaries:* James Acworth Menzies, M.D., Winter's Buildings, 30, St. Ann Street, Manchester: Peter Thompson, M.D., Anatomy Department, Middlesex Hospital, W.

Pathology.

President: Professor Sheridan Delépine, M.B. *Vice-Presidents:* Professor J. George Adami, M.D.; Robert Maguire, M.D.; George Newton Pitt, M.D. *Honorary Secretaries:* Frederick Craven Moore, M.D., 96, Mosley Street, Manchester; Edward John Sidebotham, M.B., Erlesden, Bowdon, Cheshire.

Ophthalmology.

President: David Little, M.D. *Vice-Presidents:* Charles Edward Glascott, M.D.; Wm. Thomas Holmes Spicer, F.R.C.S.; Angus McGillivray, M.D. *Honorary Secretaries:* Alex Hill Griffith, M.D., 17, St. John Street, Manchester; Edward Roberts, M.R.C.S., 44, Deansgate Arcade, Deansgate, Manchester; John Gray Clegg, M.D., 22, St. John Street, Manchester.

Diseases of Children.

President: Henry Ashby, M.D. *Vice-Presidents:* Joshua John Cox, M.D.; Henry Richmond Hutton, M.B.; Joseph Collier, F.R.C.S.; Bertram Mitford Heron Rogers, M.D. *Honorary Secretaries:* Richard Walter Marsden, M.D., Taitlands, 4, Swinton Grove, Manchester; James Stewart Fowler, M.D., 68, Northumberland Street, Edinburgh; John Howson Ray, F.R.C.S., 22, St. John Street, Manchester.

Laryngology.

President: Alexander Hodgkinson, M.B. *Vice-Presidents:* Edward Law, M.D.; Siegmund Moritz, M.D.; George Walter Ridley, M.S. *Honorary Secretaries:* Eugene Stephen Yonge, M.D., 3, St. Peter's Square, Manchester; Charles J. Heath, F.R.C.S., 3, Cavendish Place, W.

Otology.

President: William Milligan, M.D. *Vice-Presidents:* Frederick John William Cox, M.D.; Richard Lake, F.R.C.S. *Honorary Secretaries:* Arthur Henry Cheatle, F.R.C.S., 117, Harley Street, W.; Frederick Hibbert Westmacott, F.R.C.S., 8, St. John Street, Manchester.

Navy, Army, and Ambulance.

President: Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, M.R.C.S. *Vice-Presidents:* Surgeon-General John Butler Hamilton, M.D. (A.M.S. ret.); Colonel Alexander William Duke, M.D., R.A.M.C.; Fleet-Surgeon Gilbert Kirker, M.D., R.N. *Honorary Secretaries:* Captain John Bently Mann, R.A.M.C. (Vol.), 26, St. John Street, Manchester; Captain William Bridgett Pritchard, R.A.M.C. (Vol.), 272, Oxford Street, Manchester; Captain William Alfred Ward, R.A.M.C., c.o. Messrs. Holt and Co., 17, Whitehall Place, S.W.

Dermatology.

President: Henry Ambrose Grundy Brooke, M.B. *Vice-Presidents:* William Dale James, M.R.C.S.; Norman Walker, M.D.; Professor Thomas Caspar Gilchrist, M.R.C.S. *Honorary Secretaries:* George Herbert Lancashire, M.D., Winter's Buildings, St. Ann Street, Manchester; Arthur Whitfield, M.D., 12, Upper Berkeley Street, Portman Square, W.

Pharmacology.

President: Nestor Isidore Charles Tirard, M.D. *Vice-Presidents:* Professor Robert Briggs Wild, M.D.; Hector William Gavin Mackenzie, M.D. *Honorary Secretaries:* Francis Whittaker Tunnicliffe, M.D., 6, Devonshire Street, W.; Albert Hopkinson, M.B., Parsonage Nook, Withington, Manchester.

Ethics.

President: Sam Woodcock, M.D. *Vice-Presidents:* Thomas Garrett Horder, M.R.C.S.; Matthew Arden Messiter, M.R.C.S.; Alexander Brown Ritchie, M.B.; James Smith Whitaker, L.R.C.P. *Honorary Secretaries:* James Brassey Brierley, M.D., Alma House, Old Trafford, Manchester; Samuel Crawshaw, M.B., Trafalgar Square, Ashton-under-Lyne; Alfred Cox, M.B., Cotfield House, Gateshead-on-Tyne.

Industrial Hygiene and Diseases of Occupation.

President: Arthur Whitelegge, M.D. *Vice-Presidents:* Henry Hammond Smith, M.R.C.S.; Colin Campbell, M.R.C.S. *Honorary Secretaries:* William Francis Dearden, M.R.C.S., Oak Leigh, Crumpsall Park, Manchester; Thomas Morison Legge, M.D., 2, Mitre Court Buildings, E.C.

Tropical Diseases.

President: Sir William R. Kynsey, C.M.G. *Vice-Presidents:* Professor Rubert Boyce, M.B.; Max F. Simon, M.D., C.M.G. *Honorary Secretaries:* Brian Melland, M.Sc., M.D., Ashley Road, Bowdon, Cheshire; C. W. Daniels, M.B., Seamen's Hospital, Albert Dock, E.

The Annual Museums.

The annual museums will include a large collection of medical and surgical photographs, to which members are asked to contribute. The exhibition of new drugs, instruments, books, etc., in consequence of the exceptional space required, will be held in the large Drill Hall in Burlington Street, just behind the College, and will be opened with special ceremony and musical accompaniments on Monday, July 28th. Members arriving on that day will therefore be able to spend a pleasant and profitable evening before the official work of the Association begins.

The Hospitals of Manchester and District.

Of the hospitals of the city we cannot speak at length. The Manchester Royal Infirmary, in spite of internal alterations

and external additions, is practically unchanged. There is, however, reason to hope that after thirty years of consideration, during which modern palaces of healing have arisen in almost every other large town, certain plans now under discussion will be realized, and the city at last have a central pavilion hospital suited to its needs and architecturally worthy of the site. Then perhaps we may revise the political proverb of the district, and, without extracting its self-laudation, say, "What England does well to-day, Manchester does better to-morrow."

Most of the other hospitals in the city and district have largely increased their accommodation and modernized their arrangements, some of the new operating theatres being as complete and beautifully finished as present knowledge and taste can make them.

Of the local additions to the medical charities, we can only mention the Eye Hospital in Oxford Road, the Cancer Pavilion in Stanley Grove, and the new St. Mary's Hospital, designed by Mr. Waterhouse, which, though unoccupied, will be almost complete by July and open to the inspection of members.

LOCAL COMMITTEES.

The profession of Manchester and District are showing keen interest and great activity in connexion with the arrangements for the reception and entertainment of the Association, and the following are the names of those more specially in charge.

Chairman: Mr. Walter Whitehead (President-elect).

Treasurer: Dr. Glascott.

Honorary Secretary to the Executive Committee and Honorary Local Secretary, Mr. William Coates.

The three other *Honorary Local Secretaries*, Dr. T. Arthur Helme, Dr. A. Brown Ritchie, and Mr. J. W. Smith.

Dinner and Lunch Subcommittee.—President, Mr. G. W. Mould; Secretary, Mr. William Thorburn.

Excursions Subcommittee.—President, Dr. Emrys-Jones; Secretary, Mr. Alexander Wilson.

Finance Subcommittee.—President, Dr. Glascott; Secretary, Mr. T. W. H. Garstang.

Foreign and Colonial Subcommittee.—President, Professor Julius Dreschfeld; Secretary, Dr. H. A. G. Brooke.

General Purposes Subcommittee.—President, Professor Dixon Mann; Secretary, Dr. E. S. Reynolds.

Ladies' Reception.—Mrs. Walter Whitehead.

Local Entertainments Subcommittee.—President, Dr. David Little; Secretary, Mr. F. A. Westmacott.

Museum and Exhibition Subcommittee.—Chairman, Dr. Woodcock; Secretary, Dr. A. Brown Ritchie.

Pathological Museum Subcommittee.—President, Professor Sheridan Delépine; Secretary, Dr. F. Craven Moore.

Printing and Publishing Subcommittee.—President, Dr. Harris; Secretary, Mr. J. Howson Ray.

Reception Subcommittee.—President, Professor Young; Secretary, Mr. J. Collier.

Soirée Subcommittee.—President, Dr. Donald; Secretary, Dr. Milligan.

In addition to the social entertainments already mentioned, the Lord Mayor has expressed his intention to hold a reception at the Town Hall, and the Local Entertainments Subcommittee has in preparation an interesting and extensive programme the details of which will be made known later on.

The annual dinner of the Association will take place on Thursday evening, July 31st. As a large number of members and guests are expected to attend this banquet, the Subcommittee has arranged for the erection of special marquees on the Platt Hall Estate, one spacious marquee will be used for the dinner, and other marquees will be arranged for use as reception rooms, smoking rooms, etc. The marquees will also be used for a ball which will be given by the local members of the Association on Friday evening.

EXCURSIONS.

Although the arrangements of the Excursions Subcommittee are not yet complete a most interesting programme is already in hand. The Mayor and Corporation of Blackpool will provide special trains to and fro, adequate entertainment, and fresh air, at their popular health resort for 200 members. Under the genial supervision of the President-elect and Mr. Mould 100 to 150 may visit Colwyn Bay. Dr. Jones Morris tempts the adventurous mountaineer with a trip to Llanberis and an ascent of Snowdon. Dr. Pritchard provides for 50 at artistic Conway. A hundred are invited to view the antiquities, or revel on the river, at Chester; 50 to historic Lancaster, 150 to Southport, whilst Windermere, Northwich, Castleton, Haddon Hall, Chatsworth and other places will claim their quota. For those who need rest after the meeting long date excursions to the Lake District are being arranged. Indeed the prospects of a pleasurable termination to the week are as good as could be desired.

GUIDEBOOK.

The memento of the meeting this year will take the form of a handsome Guidebook of about 300 pages, illustrated by upwards of eighty half-tone blocks specially prepared for the work. In addition to a description of Owens College and the Medical School it will contain articles, undertaken by experts, on the history, antiquities, churches, hospitals, libraries, public buildings, manufactures, etc., of Manchester and district, including an account of the Ship Canal. Armed with the official *Daily Journal* and this guide, a copy of which will be presented to each member on arrival, every one will be able to take full advantage of the many meetings, sights, festivities, and excursions available.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: "Arrhenal" in Consumption.—Inaugural Lecture of Professor Gilbert.—The Celebration of the Centenary of the "Internat."—New Law as to Conscripts predisposed to Tubercle.

PROFESSOR GAUTIER recently called the attention of the Académie de Médecine to a new organic preparation of arsenic, called "arrhenal," which he said possessed the great advantage over sodium cacodylate that it could be given by the mouth as well as hypodermically, without giving rise to dyspepsia, gastritis, the garlic odour in the breath, or congestion of the kidneys, which might follow the toxic modification of cacodylic salts in the intestine. Arrhenal is disodium methyl arsinate ($AsCH_3O_3Na_2 2H_2O$). Professor Gautier said that an adult might take up to 15 cg. without any toxic symptoms or serious enteritis ensuing, but there was no necessity to exceed a dose of 5 cg., in which quantity arrhenal produced its maximum effect, and was most efficacious in tuberculous patients. In febrile cases of phthisis too large doses might be followed by a rise of temperature of 1° F. at least and the patient slowly lost weight. If the drug was then entirely stopped, the temperature fell to a lower level than before the treatment was commenced. If the dose of 5 cg. was exceeded the patient might have some colic, some congestion of the face and lungs, a slight feeling of chill, and a little fever. Arrhenal was to be given for five consecutive days, always followed by an intermission of five days. If given for too long a period, even in diminishing doses, the organism contained an excess of arsenic which it had no time to assimilate or to eliminate. With these precautions arrhenal might be given by the mouth for months without giving rise to any disagreeable symptoms. It has been given in cases of phthisis since July, 1901, by Dr. Letulle, at the Boucicault Hospital, by Dr. Pujade of Aix-les-Bains, and since October, 1901, by Dr. Albert Robin, at the Pitié Hospital. In Professor Gautier's paper will be found a detailed description of all these cases, and also the results of treatment by arrhenal in emphysema, asthma, chorea, pernicious anaemia, vomiting in pregnancy, malaria, skin diseases, etc.

Professor Gilbert, recently appointed to the Chair of Therapeutics in the Faculty of Medicine, gave his inaugural lecture in the Ecole Pratique on March 8th. The large amphitheatre was filled with his teachers and friends, including Professor Brouardel and Professor Debove, the Dean of the Faculty of Medicine. After giving a historical retrospective summary of therapeutics, and rendering homage to Alibert, Grisolle, Trousseau, Gubler, Germain Sée, his illustrious predecessors, Professor Gilbert passed on to the actual study of therapeutics, and pointed out that this

science was becoming more and more pathogenic, its only rational form, although in the actual state of knowledge we were frequently obliged to adopt symptomatic treatment. Certain symptoms—such as haemorrhage in the course of uraemia—were better left alone. Should fever be treated unless there was hyperpyrexia? Some day doubtless a hyperpyretic treatment would enter the lists against antipyresis. Professor Gilbert concluded with a rapid review of the progress in pharmacology.

The fêtes to celebrate the centenary of the Internat have been definitely fixed for May 24th and 25th, 1902. Thanks to the energy of the committee, under the chairmanship of Professor Brouardel, 1,260 present and past internes out of a total of 1,800 members have subscribed a sum of 52,000 francs. The cost of the fêtes being estimated at 30,000 francs, at least 22,000 francs will be added to the funds of the Association for some philanthropic purpose not yet decided upon. The programme is complete. The fêtes commence with an inaugural meeting in the large Salle des Fêtes of the Trocadéro at 2 p.m. on May 24th, followed in the evening by a banquet. On May 25th, at 2 p.m., will be unveiled in the courtyard of the Hôtel Dieu a monument by the celebrated sculptor Denys Puech to the memory of all "Internes" who have died victims of their professional duty during their period of residence. In the evening a performance will be given at the Opéra Comique, the proceeds of which will be given to the Association of Internes past and present. A *livre d'or* is to be published giving a history of the Internat, in which will be inscribed the names of all who have held the post of resident in the Paris hospitals since February 23rd, 1802.

The Chamber of Deputies has recently adopted the law proposed by Dr. Lachaud modifying the law of 1889 on recruiting in the army, and giving to the councils of revision the power to eliminate young conscripts recognized as being predisposed to contract tuberculosis. A certificate signed by the family physician, and legalized by the mayor, calling the attention of the medical board to any particular organ, shall be sent post free by the prefect of the department to the medical board, and bacteriological laboratories are to be formed for the complete examination in doubtful cases.

BERLIN.

Increased Mortality from Cancer in Germany.—Immunization against Foot and Mouth Disease.—Pollution of Water in the Neighbourhood of Berlin.

DR. WUTZDORFF, one of the heads of department in the German Imperial Board of Health, has just published a paper containing important statistics with regard to the prevalence of cancer in Germany. His figures deal with (*a*) the statistics of public and private hospitals, and (*b*) with the statistics of the causes of death. The first part cannot, of course, be pronounced completely conclusive, since a large percentage of cancer cases are not brought into hospital at all. Still, these figures, though incomplete, are most striking. It appears that in the year 1879, the number of cancer cases in German hospitals was 6,630 (2,732 male and 3,898 female), whilst in the year 1898 the number had increased to 24,166 (10,100 male and 14,166 female) that is an increase of 266 per cent. And since the total number of hospital patients had doubled (or increased 100 per cent.) in the twenty years, the real meaning of these figures is, that—as compared with other diseases there were more than twice as many cancer cases in 1898 as in 1879. The "cause of death" lists show the increase of cancer from 1892 to 1898. In 1892 2.6 per cent. deaths were accounted for by "new growth," and in 1898, 3.5 deaths per cent. Of 100,000 inhabitants, 59.6 died of carcinoma in 1892, and 70.6 in 1898—an increase of 18.5 per cent. in six years.

In one of the late sittings of the Prussian Budget Committee Privy Councillor Kirchner, of the Prussian Cultusministerium, informed the Committee members that a research, directed by Professor Loeffler, of Greifswald, had terminated successfully in the discovery of a sure immunizing process against foot and mouth disease. There was every hope, he said, that ere long every cattle owner would be able to protect his animals against the disease by a comparatively small outlay. Herr Kirchner added that Loeffler had tested Baccelli's process, which he had found dangerous and ineffectual.

Voices of warning are being raised in the press concerning water pollution near Berlin. The astonishingly rapid growth of the city itself and of its suburbs has an undesirable result in the increasing pollution of its rivers and watercourses. This, say the experts, is in great part due to the overflow outlets in the drains, which come into action at times of exceptionally heavy rainfall (severe thunderstorms, etc.), when it is impossible for the drainpipes to carry away all the water that pours into them. There are at present 120 such overflow outlets in Berlin proper, of which 53 open on the river Spree, 6 on its arm the Panke, and 61 on the canals. Charlottenburg and the other suburbs have similar, though of course far fewer, overflow outlets. In former years, when there was far more uncovered garden ground in Berlin than at present, when the majority of the house courtyards were unpaved, when the streets had a rough, permeable paving, a great part of the falling rain-masses sank direct into the earth. But now almost the whole street area is covered with impervious paving, the courtyards are nearly all firmly paved, and house gardens are a negligible quantity, so that when a heavy rainstorm bursts, nearly the whole mass of water finds it way into the drains, and thus the overflow outlets come into action to a far greater extent than they did even a few years ago. When, in addition to this, the constant pollution from manufactories, chemical works, etc., is taken into account, it is very evident that the condition of the watercourses in and near Berlin is anything but satisfactory, and that—unless radical reforms be undertaken—it will in time become positively dangerous. The river baths, for instance, in which nearly two million baths were taken in the course of last summer, are perhaps, even now, not quite unquestionable blessings.

EDINBURGH.

Bacteriological Examinations for the City.—Electrical Room of the Skin Department, Royal Infirmary.

FOR a considerable number of years the bacteriological work for the city of Edinburgh has been done at the Laboratory of the Royal College of Physicians. It has been done in such a way as to merit the praise both of the Public Health authorities and of the medical profession. Some time ago the Committee in charge of the John Usher Institute of Public Health suggested that this work should be transferred from the Physicians' Laboratory to the Usher Institute. On February 15th last a largely attended meeting of the medical profession in Edinburgh unanimously expressed approval of the manner in which the work had been done in the past by the Physicians' Laboratory, and requested the Public Health Committee to continue the arrangement. Subsequently the Public Health Committee unanimously advised the Town Council to continue the old arrangement, and to decline the offer of the Usher Institute Committee. To the amazement of everybody the Town Council set aside the recommendation of their Public Health Committee, and by a very large majority decided to transfer the future investigations to the Usher Institute. In the discussion that led up to this decision some inaccurate statements were made, no doubt in ignorance. It was said, for instance, that there was almost unanimity of opinion in the medical profession in favour of the transference. As a matter of fact, the unanimity of opinion in the medical profession is to the opposite effect. The last stage of the question was entered on by the Edinburgh Branch of the British Medical Association at a large meeting of the practitioners of Edinburgh on Tuesday, March 18th, presided over by Dr. George A. Gibson. At this meeting the following motion was unanimously adopted:

> This meeting of the medical practitioners of Edinburgh, called under under the auspices of the Edinburgh Branch of the British Medical Association, views with great regret and dissatisfaction the decision arrived at by the members of the Town Council in opposition to the recommendations of the Public Health Committee, and the expressed wishes of the medical profession as to the pathological diagnosis of infectious disease, and resolves that steps be taken to bring the views of the profession on this subject before the members of the Town Council individually, by deputation, and by circular letter.

A Committee was appointed to form a deputation to the Town Council to lay before them the views of the medical profession in Edinburgh on the subject. The Secretary was in-

structed to write to the Town Clerk to request that the deputation be received by the Town Council.

At the weekly meeting of the managers of the Edinburgh Royal Infirmary, held on March 17th, a letter was read from Dr. Allan Jamieson as to the new electrical room in connexion with the skin department. Dr. Jamieson reported that the room was now completely furnished and in working order. The coil which had previously been used in the general electrical department had been removed to the room in the main corridor, and had been fitted with the motor interruptor. Greatly increased energy and a steadier and more forcible discharge of *x* rays were thus obtained, so that a shorter exposure and better results in lupus and rodent ulcer could now be attained, with less risk of mishap to the coil. The arrangement worked mechanically, and the close and constant watching was now not needed on the part of the operator. The apparatus for the treatment of lupus by the Finsen rays made by Messrs. Marshall and Woods was most satisfactory, and already in the ten days since it had been ready for use a considerable number of patients had had several exposures. It was yet too soon to look for any definite alteration in the cases, but they promised well.

LIVERPOOL.

Medical Officer of Health's Report on Small-Pox: Vaccination.—How Variola may be Spread.—The Hospital for Chronic Diseases of Children.

AT the request of the Local Government Board the medical officer of health (Dr. Hope) has issued a report on small-pox in the city. From this it appears that the total number of cases from December 6th, 1901, up to the date of the report was 112, including those which had been imported. Two cases (unvaccinated) died, and 69 were still under treatment. There were no cases during November, 1901, and the present outbreak originated on December 6th, 1901, when the ss. *Volta* arrived with 11 convalescents from small pox on board. From that time onwards importations continued to take place, numbering no fewer than 30 cases in all. All cases which have been imported or have arisen on the spot have been energetically dealt with, so that it would appear that none of the limited outbreaks have got beyond control. When a case is discovered it is removed to hospital, and the house is disinfected; the state as regards vaccination of all the inmates, visitors, and neighbours is ascertained, and full particulars of contacts are sent to the vaccination officers. Every effort is made to induce the inmates to be revaccinated, and those who are likely to be kept off work in consequence of it are paid at the rate of £1 a week. A remarkable instance of the value of prompt vaccination of contacts is recorded. In a certain lodging house three men were found to be suffering from small-pox, and the house was closed against newcomers, there being 85 lodgers remaining at the time; 71 of these were vaccinated, as were also 14 of the staff; 13 refused on the ground that it would interfere with their work. Of those who were vaccinated not one took small-pox, while of the 13 who refused, 9 were ultimately removed to hospital with the disease. Two lodgers who refused at first to be vaccinated changed their minds when it was too late, and developed small-pox. No fewer than 35 000 persons, other than infants below 6 months of age, have been vaccinated or revaccinated during the last three months. There can be little doubt that the more enlightened part of the public in Liverpool is, on the whole, well aware of the importance of this question, though it is to be feared that much ignorance and some prejudice with regard to it still exists among large bodies of the working classes. There is, however, a notable improvement going on in this respect, and it is quite common to see working men wearing the well-known ribbon on the arm.

As an instance of the danger incurred by the unvaccinated in consequence of the presence of unrecognized cases of variola going about at large, the following may be cited. On March 9th a woman went to visit her husband who was a patient in one of the large general hospitals, and remained with him for an hour. It was noticed that she had some kind of eruption on her face, but no special heed was given to it. On March 13th the medical officer of health notified the hospital that the woman in question had been for some days suffering from variola. The husband had been revaccinated a few weeks before; all the men in the ward were revaccinated, and as soon as possible all the patients in wards which were likely to have any communication with the infected ward. After the lapse of more than a fortnight no case of variola has occurred.

That excellent institution, the Country Hospital for Chronic Diseases of Children, has lately held its annual meeting. The work is still carried on in the wards of the West Kirby Convalescent Home. The sum of £18,286 has already been raised for the building fund of the new hospital, for which, together with the maintenance fund, £30,000 is required. An anonymous donor of £5,000 has made it a condition of his gift that the building shall not be begun until the whole sum is raised, so that the Committee are most anxious to obtain the balance of nearly £12,000 which will enable them to erect a commodious hospital holding 200 cots; 19 patients have been discharged during the year, the greater number of them having been inmates for over twelve months. Some were discharged quite well, and in only two was there no improvement. There were also two deaths; 22 cases are still under treatment, the majority of whom are doing well.

CORRESPONDENCE.

THE USE OF THE SETON.

SIR,—Dr. Fentem's interesting case[1] suggests the mention of another in which a still more serious state of things has been relieved, if not cured, by the seton so strongly recommended by Mr. Walter Whitehead in cases of migraine.

Last July I was called to see Mrs. B., aged 48. Her history was, shortly, as follows:—Hysterectomy had been performed at Manchester some two years previous for cancer. For the last eighteen months she had suffered from tinnitus with attacks of vertigo, increasing in severity and frequency. She had fallen down in the street and frequently in her home; attacks of vomiting were frequent. It was not, however, for these symptoms that I was called in. She had now been confined to bed for three months, and persistently vomited all food. She was much emaciated, distinctly cachetic in appearance, whilst the gastric region was painful to the touch and as hard as a board. This all looked very like recurrent cancer of the stomach. However, all the gastric symptoms subsided under the influence of that "gold cure," rest applied to that organ, and again the old tinnitus and vertigo came to the fore, and one realized that it was a case of Ménière's disease with exaggerated gastric symptoms. Of course, these may have been due to something else; "arsenical neuritis" was at that time much the fashion. A course of quinine having failed to give relief, I inserted a seton in the back of the neck last November. She has worn one now four months, and all symptoms of Ménière's disease have disappeared.—I am, etc.,

Southport, March 24th. COLIN CAMPBELL.

ARMY REPORTS ON ENTERIC FEVER.

SIR,—In an interesting article on Typhoid Fever in South Africa, its Cause and Prevention, which appeared in the BRITISH MEDICAL JOURNAL of February 15th, Dr. Turner, towards the end, makes some complimentary allusions to his colleagues, the officers of the R.A.M.C., upon whom, he says, he does not wish to cast any reflection. Although referring to South Africa, and stating that "the following remarks must be taken as applying only to South Africa," he says, "I do not know what may happen in India, never having been there, but I do know that the reports are remarkably inconclusive, and I felt while reading them that if the epidemics in question had been investigated by any man accustomed to that work a different conclusion would *perhaps* have been arrived at." The italics are mine.

What reports, and of what epidemics, does Dr. Turner refer to? Surely it is not too much to expect that, when making a sweeping statement of this kind, that particulars should also be given.

Is Dr. Turner aware that the special sanitary officers, to whose reports he probably refers, namely, those attached to

[1] BRITISH MEDICAL JOURNAL, March 8th, p. 587.

the chief military districts in India, are all officers of the R.A.M.C., specially selected for their knowledge of sanitary science, and all with many years' experience of disease and epidemics at home and abroad? Has Dr. Turner read carefully the sections dealing with enteric fever in the *Annual Report of the Sanitary Commissioner with the Government of India* for the years 1898 and 1899? If not, I should recommend him to do so before making general statements of this kind. The volume may be obtained from Messrs. Constable and Company, 2 Whitehall Gardens, S.W.—I am, etc.,

K. BRUCE BARNETT, M.B.,
Captain R.A.M.C.

Jubbulpore, Central Provinces, India, March 7th.

CANCER AND MEAT EATING.

SIR,—I see that at the clinical debate of the Chelsea Medical Society, Sir William Banks suggested as the cause of the increase of cancer "the great increase in the amount of food (and notably of animal food) consumed by those who were now alive, or who had lived during the last forty years." And again: "In his opinion, the increase in the eating of meat had something to do with the causation of cancer."

Now, this dictum seems to me to be founded on too narrow a geographical and historical survey. Of the former I can hardly speak certainly, but I know that cancer (although a disease of temperate and cold climates) is by no means unknown among Hindus; while in China (where from the poverty of the people meat eating is limited), we are told "that cancer in various forms, but principally scirrhosis or cancer affecting the female breast was of great occurrence."[1] While, on the other hand, we have no evidence that malignant disease is common among the exclusively meat-eating races of the world. It was this very want of geographical and historical purview which caused some vegetarian writers fifteen or twenty years ago to declare that cholera, of all diseases, was caused by flesh eating, and was never found in vegetable feeders. The points, however, to which I wish to draw attention in Sir William Banks's remarks are (1) a fallacy in argument; and (2) a misstatement of fact—at least, so I venture to think.

The fallacy of argument lies in the statement that because vast numbers of persons eat meat daily who never ate it fifty years ago, and because the importation of cattle from foreign countries has become enormous, therefore cancer has increased. Now it is admitted that meat eating has increased among the working classes with their prosperity in an enormous ratio, but it is just among this class that cancer has not increased; while the fact that much foreign meat is imported is largely due to the fact that while the cultivated and grazing land of Great Britain has rather diminished in area than increased, the population has grown to an enormous extent, necessitating food importation of all kinds, and not of meat only.

The misstatement of fact lies in the inference that wealthy people are greater devourers of meat than they used to be. I believe the truth to be directly otherwise. Captain Gronow, for instance, writing of the early part of the last century, says:

> Even in the best houses when I was a young man the dinners were wonderfully solid, hot, and stimulating. The *menu* of a grand dinner was thus composed: Mulligatawny and turtle soups were the first dishes placed before you; a little lower the eye met with the familiar salmon at one end of the table, and the turbot, surrounded by smelts, at the other. The first course was sure to be followed by a saddle of mutton or a piece of roast beef, and then you could take your oath that fowls, tongue, and ham would as assuredly succeed as darkness after day .....A prime difficulty to overcome was the placing on your fork, and finally in your mouth, some half-dozen different eatables which occupied your plate at the same time. For example, your plate would contain, say, a slice of turkey, a piece of stuffing, a sausage, pickles, a slice of tongue, cauliflower, and potatoes .....How all this eating and drinking ended was obvious from the prevalence of gout, and the necessity of every one making the pill box their constant bedroom companion.

It would be difficult nowadays to find a compeer of Lord Westmoreland of that period, who, on the same authority, "made nothing of a respectable joint or a pair of fowls." On Gronow's first entry into Paris after Waterloo, he assures us that, "of course, according to English predilections and tastes, he ordered at the Café Anglais a beefsteak and *pommes de terre*."

Even the luxury of "the galloping gin-palace" is not an invention of the twentieth century and its amateur soldiers. The Hon. W. Dawson, of the Guards (only an ensign, and not very wealthy) carried with him in the Peninsular campaign innumerable hampers of wine, liqueurs, potted meats, hams, and all other good things, which he brought from England. Any one who has read the literature or the periodicals of the eighteenth and early part of the nineteenth centuries must conclude that they were ages of the most excessive gluttony and drunkenness, as far, at least, as the middle and the upper classes were concerned, and that the gluttony lay in the direction of solid meat-eating, which Sir William Banks lays (most comparatively unjustly) to the charge of our own times.

The English from the Middle Ages have always held the reputation of being the fiercest fighters, because they were the greatest meat-eaters in Europe.

Let the pathologist examine, the statistician record, the medical geographer map out comparative prevalence of disease, and the cause of cancer will one day be discovered, but never by theorization.—I am, etc.,

Exeter, March 23rd. W. SYKES, M.D., F.S.A.

[1] Hirsch, vol. iii, p. 506.

ON THE CAUSAL RELATIONSHIP BETWEEN "GROUND-ITCH" OR "PANI-GHAO" AND THE PRESENCE OF THE LARVAE OF THE ANKYLOSTOMA DUODENALE IN THE SOIL.

SIR,—As the author of the first article on "pani-ghao" or "sore feet of coolies" in the *Journal of Tropical Medicine*, December 15th, 1900[1], I should like to be allowed to make a few remarks on Dr. Bentley's interesting paper in the BRITISH MEDICAL JOURNAL, January 25th, 1902.

Dr. Bentley ascribes ground-itch to the entrance of the larvae of the ankylostoma duodenale through the unbroken skin of the foot. His article is ingenious, and so far convincing, but I do not feel quite satisfied. He fails to demonstrate the presence of the larvae, dead or alive, in the lesion itself, and a scraping of an erythematous patch would be likely to contain the same things as a scraping from any other part of the foot. He does not seem to have tried whether the larvae themselves in a pure cultivation would cause a similar eruption. He says:

> It appears probable that the acuteness of the inflammation attending an attack of ground-itch is largely governed by the nature of the organisms which accompany or follow the larval ankylostoma in its passage through the skin.

If these organisms can be shown to so largely affect the severity of the lesion, they may even cause it, and have some independent mode of entry; this would explain certain facts which do not quite harmonize with Dr. Bentley's argument. I think it is generally conceded that contaminated earth is in some way the cause of the disease; but if the ankylostoma larva is guilty, one would expect to find the disease most prevalent where ankylostoma is rife. I have not found this to be the case in the gardens under my care. At Talap, a 1,500 acre garden, the percentage of "sore feet" cases was greatest, but ankylostomiasis gave less trouble than on other gardens. At Khobong, immediately adjoining Talap, ankylostomiasis was very prevalent, but the percentage of sore feet cases was little more than half the percentage at Talap. A large portion of this garden was new; Talap was nearly all over 20 years old. Budla Beta, when I first knew it (1896) had half its labour force crippled by anaemia (ankylostomiasis), but cases of "sore feet" were not numerous. When the garden was largely extended I specially noticed that the coolies working amongst the dark, evil-smelling soil, newly reclaimed from the forest, suffered heavily from "sore feet" and also from malaria. Nowadays, the manager tells me, anaemia has been largely got under, but "sore feet" are very troublesome.

Mr. Driberg, who was for thirty years in the Assam Commission, tells me that in Kachar he has known the disease to exist amongst the Kacharis when ploughing their fields in the submontane tracts, where the earth is extraordinarily fertile, black, and foul smelling, the local name for it being "gela matti" (*vit* rotten earth). The disease, or a similar one, is prevalent amongst the cultivators of Bengal (so several native doctors have assured me) and also amongst the villagers of

[1] My original article was inserted anonymously owing to a misunderstanding.—W. E.

Assam, though it is not common (testimony of villagers themselves), and it would be interesting to know if the distribution of the disease is in every case coextensive with that of the ankylostoma duodenale. Of course, the conditions found on a tea garden—the constant cultivation, and consequent soakage of the coolies feet in the warm, moist soil, are peculiarly conducive to the appearance of the disease.—I am, etc.,

WILLIAM E. LLOYD ELLIOTT, M.D.,
Late Medical Officer of the Assam Frontier Tea Co.
Dibrugarh, Assam.

Crowborough Beacon, Sussex, March 16th.

A NEW METHOD OF DEALING WITH THE PERITONEUM IN OPERATING FOR RADICAL CURE OF UMBILICAL AND INGUINAL OR FEMORAL HERNIA.

SIR,—In his lamentation in the BRITISH MEDICAL JOURNAL of March 15th over my failure to have noticed his description of Kocher's method of investigating the sac in inguinal and femoral hernia, published in the *Bristol Medico-Chirurgical Journal* of December, 1898, Mr. Thomas, of Cardiff, possibly overestimates the attention which his paper attracted at the time. For, in spite of its having "been quoted by American and Continental surgeons," Vol. II of the *International Textbook of Surgery*, published in 1900, and edited by Messrs. Gould and Warren, makes no mention in the chapter on hernia, written by Messrs. Bull and Coles of New York, of invagination of the sac, but still describes as Kocher's operation his method of extraperitoneal displacement. So that if I have sinned so heinously it would seem that I have at least sinned in good company.

As regards the relative merits of Kocher's special forceps and the aneurysm needle, inasmuch as the former requires that the muscles should be incised before the sac can be pushed through the abdominal wall, I still, for the reason stated in my paper, prefer the latter or some similar instrument which will find its own way through the muscles without incision. Rigidity, and in the case of a fat abdominal wall, a larger size than usual are the only essential points in connexion with it.

The history of science in all its branches abounds in instances of rediscovery of fact and re-enunciation of principles, by independent workers, and at the present rate of increase of current medical literature, inasmuch as there is no equivalent increase in the length of human life, these instances in our branch of science are bound to increase. Nor should they be regarded in any other light than a tribute to the value of the discovery, and consequently also to the original discoverer. I am still expecting and hoping to hear that my operation for radical cure of umbilical hernia, the subject of the first and principal part of my paper has also been anticipated.—I am, etc.,

Swansea, March 24th. W. F. BROOK.

A POOR-LAW ABUSE.

SIR,—It may interest district medical officers who act as surgeons to cottage hospitals to hear that if they perform operations on their pauper patients in a cottage hospital they must forfeit the "extra medical fees" which otherwise would be payable by the guardians. This question has recently been raised here, where it has been the custom of two district medical officers to treat their pauper patients in the hospital. An appeal to the Local Government Board has elicited the reply, a copy of which I now enclose. It will be seen that no fees are payable to the medical officer if the patients are treated away from their own homes. The guardians may, however, forward a fee to the managers of the hospital.

It would appear that wherever possible the law takes advantage of the humanity of the medical profession to deprive its members of fees which are justly due (witness the Coroners Act), and when a medical man gives his services to a charity he is liable to be penalized.—I am, etc.,

Brackley, March 24th. JOHN S. FENTON.

Copy.
Local Government Board, Whitehall, S.W.
March 22nd, 1902.

SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 26th ultimo with reference to the question of the payment by the guardians of the Brackley Union of fees in respect of operations performed by district medical officers on pauper patients in Brackley Cottage Hospital.

I am to state for the information of the guardians that the Board are advised that where district medical officers perform operations in a cottage hospital such as those mentioned in Article 177 of the General Consolidated Order, upon patients who are paupers chargeable to the Union, it is open to the guardians to make a payment to the managers of the hospital similar to the fee which would have been payable to the district medical officer if the operation had been performed at the patient's own house.

I am, Sir,
Your obedient servant,
W. E. KNOLLYS,
Assistant Secretary.

The Clerk to the Guardians of the Brackley Union.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,849 births and 5,015 deaths were registered during the week ending Saturday last, March 22nd. The annual rate of mortality in these towns, which had been 23.3, 20.5, and 19.6 per 1,000 in the three preceding weeks, further declined to 17.6 per 1,000 last week. Among these large towns the death-rates ranged from 7.5 in Handsworth, 9.2 in Ipswich, 9.7 in Hornsey and in Grimsby, 9.8 in Barrow-in-Furness, 10.0 in Aston Manor, and 10.4 in West Hartlepool to 21.1 in Sunderland, 22.1 in Stockport, 22.9 in West Bromwich, 23.0 in Rochdale, 25.1 in Merthyr Tydfil, 27.1 in Devonport, and 29.7 in Burnley. In London the death-rate was 18.8 per 1,000, while it averaged 17.1 in the seventy-five other large towns. The death-rate from the principal zymotic diseases in the seventy-six large towns averaged 1.9 per 1,000; in London this death-rate was equal to 2.4 per 1,000, while it averaged 1.7 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.2 in Blackburn, 3.4 in West Ham, 3.7 in Smethwick, 3.9 in Willesden, 4.1 in Walsall, 5.0 in South Shields, 5.3 in York, and 9.0 in Burnley. Measles caused a death-rate of 1.6 in Warrington and in Grimsby, 1.8 in Northampton, 1.9 in Rotherham, 2.0 in Great Yarmouth, 3.0 in Willesden, 3.3 in York, and 7.9 in Burnley; scarlet fever of 1.0 in Burton-on-Trent, 1.1 in Burnley, and 1.4 in Reading; diphtheria of 1.1 in West Ham, 1.2 in Salford and in Blackburn, and 1.6 in West Bromwich; whooping-cough of 1.1 in Liverpool and in Middlesbrough, 2.0 in Aston Manor, and 4.0 in South Shields; "fever" of 1.8 in Smethwick; and diarrhoea of 3.0 in Walsall. Of the 68 fatal cases of small-pox belonging to these towns, registered last week, 53 belonged to London, 5 to West Ham, 2 to East Ham, 3 to Tottenham, 2 to Swansea, 1 to Willesden, and 1 to Leyton. The number of small-pox patients in the Metropolitan Asylums Hospitals at the end of the week was 1,567, against 1,309, 1508, and 1,542 on the three preceding Saturdays; 449 new cases were admitted during the week, against 369, 554, and 450 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had decreased from 3,137 to 2,206 at the end of the twelve preceding weeks, had further declined to 2,185 on Saturday, March 22nd; 258 new cases were admitted, against 215, 277, and 266 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 22nd, 1,006 births and 767 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 25.4 and 23.6 per 1,000 in the two preceding weeks, rose again last week to 23.7, and was 6.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.5 in Perth and 18.2 in Greenock to 25.8 in Aberdeen and 26.3 in Paisley. The zymotic death rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Dundee and Greenock. The 363 deaths registered in Glasgow included 6 from small-pox, 6 from measles, 15 from whooping-cough, 2 from "fever," and 12 from diarrhoea. Four fatal cases of whooping-cough were recorded in Edinburgh; 2 of measles, 2 of diphtheria, 3 of whooping-cough, and 2 of diarrhoea in Dundee; 4 of whooping-cough and 4 of diarrhoea in Aberdeen; 2 of whooping-cough in Paisley; and 3 of scarlet fever in Greenock.

THE R. B. ANDERSON FUND.

THE following is the detailed list of subscriptions to this fund acknowledged under the head of "Per Dr. R. H. Wolstenholme for Medical Guild, Manchester," published in the BRITISH MEDICAL JOURNAL of February 22nd, 1902, p. 466:

	£ s. d.		£ s. d.
The Medical Guild, Manchester ...	5 5 0	R. H. Wolstenholme ...	0 10 6
Individual subscriptions by some of its members:		F. H. Worswick ...	0 10 6
G. H. Broadbent ...	0 10 6	W. G. Booth	0 5 0
J. J. Cox	0 10 6	Alex. Fraser	0 5 0
S. Crawshaw	0 10 6	T. W. H. Garstang... ...	0 5 0
J. Staveley Dick	0 10 6	J. Wilson Hamill... ...	0 5 0
C. C. Heywood	0 10 6	Wm. Graham	0 5 0
R. M. Marshall	0 10 6	D. Owen	0 5 0
A. Stewart	0 10 6	Alle Phillips	0 5 0
		Leyland Roe	0 5 0
		J. W. Wood	0 5 0

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ADVERTISING.

JUNIOR B.M.A.—We have frequently pointed out that care should be exercised to see that such circulars are sent only to persons who are bona fide patients of the practice in which the change is taking place, and we agree that the paragraph complained of is open to the objection made by our correspondent, and should not have been included in a circular of this kind.

APPOINTMENTS VACANT ON TRANSFER OF PRACTICE.

NEWCOMER asks if it is not considered a breach of good medical manners to take or apply for any of the appointments of a practice sold to another practitioner.

*** If, on the sale of a practice, the appointments that up to that time had formed part of it, are publicly advertised, or openly put up for competition, it is no breach of medical etiquette for other practitioners to become candidates.

FEES OF MEDICAL WITNESSES.

H. S. (Dublin).—The person on whose behalf our correspondent was subpoenaed is alone responsible for the fee. As "H. S." was not in court at the time the action was tried, it is exceedingly doubtful whether he could recover a fee, especially as he had no right to leave the court under the circumstances detailed without the consent of the judge.

DEATH CERTIFICATES.

ENQUIRER.—By 37 and 38 Vict., c. 88, every medical practitioner is bound to give a certificate stating to the best of his belief the cause of death of any patient whom he may have attended during his last illness without any fee for the same. Such certificate, however, is only for the use of the district registrar; any other the practitioner may lawfully charge for.

INCOME TAX.

SIGMA.—A correspondent asks our opinion on the following case: A., B., and C. were partners in an old-established credit practice, the major portion of the accounts being rendered in January for the preceding year; the larger portion of the income being consequently for work done the year before. A. retired on December 31st, 1901, his share of the goodwill being bought by B. and C., A. still retaining his share of the outstanding debts, which are now being collected in the name of the old firm. A. claims that because he ceased to earn on December 31st he is not liable to pay income-tax for the full year April 5th, 1901, to April 5th, 1902, but only three-fourths of it, the remainder becoming a liability of the new firm, although the receipts of the practice to a very large extent go to the old firm during the last quarter of the year.

*** As A. ceased to be a member of the firm at the end of December, 1901, he will only be liable to pay income-tax for three-quarters of the last year, but he will have to pay income-tax on his share of all money earned during those nine months, whether received before his retirement or at any time afterwards.

UNTRUSTWORTHY ASSISTANTS.

A "SUFFERER" writes that he has recently discharged his assistant, and since his departure has discovered that his conduct has been very unsatisfactory in various ways. "Sufferer" has been informed that this assistant has been engaged by another medical practitioner. Is it his duty to inform the latter of his experience?

*** Not unless specially solicited by his late assistant's present employer. In that case it would be his duty to give a true report of his own experience; but if he were to volunteer such information, he would undoubtedly lay himself open to an action for defamation.

PARTNERSHIP AGREEMENTS.

(1) It is impossible to answer this question without a knowledge of all the clauses of the deed of partnership. If the house and surgery of the outgoing partner is his private property, and does not belong to the firm, his control over it is not altered by his ceasing to be a member of the firm, but he would be debarred from practising within the prescribed limit. In nearly all such cases, however, a clause in the partnership deed stipulates that the outgoing partner shall neither practise, nor assist another to practise, that is, by letting his premises to another practitioner. (2) By "good book debts" are meant all debts due to the firm that are likely to be recoverable.

ANXIOUS.—The matter is one upon which we should recommend our correspondent to consult his solicitor.

UNIVERSITIES AND COLLEGES.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary Council was held on March 20th, Mr. Henry G Howse, President, in the chair.

The Fellowship of His Majesty the King.

The President reported that he had ascertained that it was the pleasure of His Majesty the King to continue an Honorary Fellow of the College, and that on behalf of the Council he had written to express appreciation of this mark of His Majesty's continued favour.

The Jubilee of the Owens College, Manchester.

The President reported that in accordance with the wishes of the Council, he had attended as the Delegate of the College at the celebration of the jubilee of the Owens College, Manchester, and that on behalf of the Council he had presented an address of congratulation.

The Board of Examiners in Surgery.

Sir William Henry Bennett, K.C.V.O., was re-elected, and Mr. Frederick S. Eve and Mr. William Watson Cheyne, C.B., were elected in place of Mr. Page and Mr. Walsham, lately retired.

International Conference on Venereal Diseases.

Mr. Alfred Cooper was appointed to attend as Delegate at the above Congress, to be held at Brussels from September 1st to 6th.

Bodleian Library.

The President was appointed to represent the College at the ceremonies on October 8th and 9th, to be held to commemorate the 300th anniversary of the opening of Sir Thomas Bodley's Library, Oxford.

University of Birmingham.

The President, Mr. H. G. Howse, was appointed Representative of the College to serve on the Court of Governors of the above University for the remainder of the term (that is, to the end of 1902), for which the late Sir William Mac Cormac, Bart., was appointed.

ROYAL COLLEGE OF PHYSICIANS.

An extraordinary comitia of the Fellows was held on Monday, March 24th, the President, Sir W. S. Church, Bart., in the chair.

President's Address.

The President, in accordance with custom, delivered his annual address, making special reference to the fact that the College for the first time in its history included upon its roll of Honorary Fellows the name of the reigning Sovereign. The address contained short notices of the eleven Fellows deceased during the past year.

Sir Samuel Wilks, in moving a vote of thanks to the President, conveyed a request of the Fellows that the address might be printed, and spoke in cordial terms of the ability with which Sir William Church had on all occasions represented the College, and of the assiduity with which he had fulfilled the duties of the chair.

Re-election of Sir William Church.

The President having vacated the chair, the ballot for a new President was taken, when Sir William Church was elected by a practically unanimous vote. The insignia of office having been delivered to him by the Senior Censor, the President gave his faith to the College, and expressed his deep sense of the honour thus for the fourth time conferred upon him.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ANNUAL DINNER OF THE VOLUNTEER MEDICAL OFFICERS.

We are informed that the annual dinner of the Volunteer Medical Officers will take place at the Hotel Cecil, London, on Wednesday, April 9th, under the presidency of Surgeon-General Taylor, the Director-General. Among those who have accepted invitations are Sir Henry Trotter, K.C.V.O., commanding the Home District, Surgeon-General Keogh, C.B., Lieutenant-Colonel Babtie, V.C., Major Macpherson, Lieutenant-Colonel Wilson, C.M.G., Colonel Gubbins, P.M.O. Home District, and Captain Molyneux Montgomerie. It is hoped that there will be a good attendance. Medical officers who have inadvertently not received notice can get particulars from Surgeon-Major J. J. de Zouche Marshall, Shortwood, Teddington, S.W., who has undertaken the duty of honorary secretary.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

We are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Lieutenant-Colonel E. A. H. Roe	1	1	0
Colonel F. W. Moore	0	10	0
Sir J. Fayrer, K.C.S.I.	2	2	0
Previously acknowledged in the BRITISH MEDICAL JOURNAL	19	9	0
Total ...	23	2	0

OBITUARY.

WE regret to announce the death of Dr. W. TOWLSON KAY, late of Gateshead, which occurred at Eastbourne on March 9th. Dr. Kay was born in Yorkshire in 1849, and was a student at the Newcastle-on-Tyne College of Medicine, where he had a distinguished career. He took the diploma of M.R.C.S. in 1871, and that of L.R.C.P.Edin. in 1873. After qualifying he was appointed Medical Tutor to his College. He joined the late Dr. Dixon, of Gateshead, in partnership, afterwards commencing on his own account. He soon secured a large and good class practice, and was appointed Surgeon to the Gateshead police, a post which he held for twenty-five years. Three or four years ago his health began to fail, and in October, 1900, he retired from practice and went to live at Eastbourne. For a time his health improved, but in the autumn of last year he had a relapse, which ended fatally on March 9th. Dr. Kay was a great favourite with his patients, owing to his genial manner and assiduous attention to them. He took no part in public life, but was a member of all the medical societies in the district. He leaves a widow, but no family.

MEDICAL NEWS.

SUCCESSFUL VACCINATION.—Dr. W. H. Kerbey, Public Vaccinator for the No. 5 and Charmouth Districts of the Bridport Union, has been awarded, for the eighth time in succession, the grant for successful vaccination.

LEPROSY IN GREECE.—According to a statement made by Professor Hadjimichalis, of the University of Athens, to the first Panhellenic Medical Congress, the total number of lepers in Greece does not exceed 200. This estimate was accepted by Dr. T. Mitaftsis, of Athens, who, however, expressed the belief that a certain number of cases were concealed.

A MEETING of the Northern and Midland Division of the Medico-Psychological Association will be held at Shaftesbury House Asylum, Formby, near Liverpool, on Wednesday, April 16th. The business meeting will be held at 3 p.m., when papers will be read by Dr. F. V. Simpson on Calcification of the Pericardium, and Dr. T. P. Cowen on Pupillary Symptoms in the Insane and their Import. The members will be the guests of Dr. Gill.

WE are asked to state that in order to suit the convenience of the majority of the members of the St. Luke's Medical Lodge of Instruction, it has been decided to change the day of meeting from Monday to Tuesday. The first meeting under the new arrangement will be held at 9 p.m. on Tuesday, April 8th, in the Masonic Temple of the Criterion Restaurant, where after this date all the meetings will take place. April 8th being an officers' meeting, the various offices will be filled by the members of the Executive Committee, the chair being taken by W. Bro. T. Wakley, jun., W.M. of the Cheselden Lodge.

BEQUESTS TO LIVERPOOL CHARITIES. The residual estate of the late Miss Olivia Atherton, amounting to £20,250, has recently been allocated to Liverpool charities. Under her will the Royal Infirmary, the David Lewis Northern Hospital, the Southern Hospital, and the Liverpool Country Hospital for Chronic Diseases receive £1,000 each; the Liverpool Hospital for Women, the Eye and Ear Infirmary, the Liverpool Dispensaries, the Children's Infirmary, the Bootle Hospital and the Stanley Hospital receive £500 each; while the Wirral Children's Hospital, the Children's Convalescent Home, and the Hospital for Consumption receive £250 each.

CHRISTIAN SCIENCE IN GERMANY.—Berlin is by no means the only city of Germany in which Christian Science finds a congenial soil to flourish. The superstition has also struck root in Hanover, Königsberg, and Stettin. In Hanover the Chief Priestess is the widow of a physician; in Königsberg a lady belonging to the inner circle of "Society." In Stettin the hierophants of the cult are a pastor and his wife, whose establishment, it is said, has shown such signs of increasing prosperity since they have taken up the practice of the Eddy treatment as to suggest that their ministrations are not paid for as those of Mark Twain's healer were with imaginary cheques.

A SCIENTIFIC TOUR TO GERMAN HEALTH RESORTS.—At a general meeting of the Committee for the Promotion of Study Tours to the Baths and Health Resorts of Germany and Austria-Hungary, held recently under the presidency of Professor von Leyden, the following programme was arranged: The party will start at the beginning of September from Dresden, and proceed to Schandau, Königsbrunn, Bilin, Teplitz, Giesshubel, Elster, Franzensbad, Lobenstein, Steben, Marienbad, the tour ending at Carlsbad, which the members are timed to reach the day before the opening of the German Congress of Scientists and Medical Practitioners to be held in that city from September 21st to 28th.

INTERNATIONAL CONFERENCE ON SYPHILIS.—The second International Conference on the Means of Prophylaxis against Syphilis and Venereal Diseases will be held under the patronage of the Belgian Government at Brussels from September 15th to 20th. Governments and municipalities will be asked to send delegates, and invitations will be sent to members of the medical and legal professions, public officials, and sociologists who have given special attention to questions of hygiene and administration relating to prostitution and venereal diseases. The Permanent Committee consists of MM. Jules le Jeune, Minister of State; Emile Beco, Secretary-General of the Public Health Service; and Dr. Dubois-Havenith, Member of the Superior Council of Public Hygiene. All communications should be addressed to Dr. Dubois-Havenith, 19, Rue du Gouvernement Provisoire, Brussels.

MEDICAL VACANCIES.

The following vacancies are announced:

BEDFORD COUNTY HOSPITAL.—(1) Senior House-Surgeon. Salary, £100 per annum, with apartments, board and washing. (2) House-Physician. Salary at the rate of £60 per annum, with board, lodging, and washing. Applications to the Secretary (1) by April 2nd; (2) by April 4th.

BIRMINGHAM AND MIDLAND SKIN AND URINARY HOSPITAL.—Assistant Surgeon. Applications to the Secretary by April 2nd.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth; unmarried. Salary, £120 per annum, with furnished apartments, rations, washing, etc. Applications on forms provided to be sent to the Clerk to the Guardians, Union Offices, Isleworth, by April 1st.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence. Applications to Mr. Johns Coombs, Honorary Secretary.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN.—House-Surgeon; unmarried and under 30 years of age. Salary, £80 per annum, with furnished apartments, board, etc. Applications to the Clerk, 76, West Street, Brighton, by April 4th.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer; unmarried. Appointment for six months. Salary at the rate of £100 per annum, with furnished apartments, board, etc. Applications to the Secretary by April 8th.

CITY OF LONDON UNION INFIRMARY.—Assistant Medical Superintendent at the Infirmary, Bow Road, not more than 35 years of age. Salary, £150 per annum, with furnished apartments, rations, washing, etc. Applications on forms provided to be sent to the Clerk to the Guardians, 61, Bartholomew Close, E.C., by April 7th.

COLCHESTER: ESSEX AND COLCHESTER GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, washing, and residence. Applications to the Secretary.

DOWN COUNTY INFIRMARY.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to Dr. Tate, Downpatrick, by April 3rd.

DUBLIN: RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—Assistant Physician. Applications to the Secretary by April 7th.

DUBLIN: ROYAL UNIVERSITY OF IRELAND.—Extern Examiners in Surgery, Midwifery, Pathology, and Ophthalmology. Remuneration, £50, £35, £25, and £20 respectively, with usual travelling, etc., allowances. Applications to the Secretaries by April 15th.

DUMFRIES: CRICHTON ROYAL INSTITUTION.—Assistant Medical Officer, not exceeding 30 years of age. Salary, £150, and all found. Applications to Dr. Rutherford, Medical Superintendent.

DURHAM COUNTY HOSPITAL.—(1) House Surgeon. Salary, £100 per annum. (2) Assistant House Surgeon. Salary, £65 per annum. Board and lodging provided in each case. Applications to the Secretary, 68A, Saddler Street, Durham, by April 4th.

EDINBURGH: CRAIGLOCKHART POORHOUSE AND HOSPITAL.—Medical Officer. Salary at the rate of £100 per annum, with board and apartments. Applications to the Clerk, Parish Council Chambers, Castle Terrace, Edinburgh, by April 7th.

EDINBURGH: DEACONESS HOSPITAL.—Medical Officer. Appointment for six months. Salary at the rate of 40 guineas per annum. Applications to the Secretary, 22, Queen Street, Edinburgh.

FOLKESTONE: VICTORIA HOSPITAL. House Surgeon. Salary, £100 per annum, with board, residence, and laundry. Applications to the Secretary by April 5th.

GUY'S HOSPITAL.—Demonstrator of Bacteriology and Bacteriologist to the Hospital. Salary, £180, rising to £300 per annum. Applications to the Treasurer by April 12th.

GUY'S HOSPITAL DENTAL SCHOOL. Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians. Appointment for six months. Honorarium £25. Applications to the Secretary by April 8th.

LEEDS: GENERAL INFIRMARY. Honorary Dental Surgeon. Applications to the General Secretary by April 17th.

LONDON UNIVERSITY.—Demonstrator in the Physiological Laboratories. Initial salary, £150. Applications to the Principal by April 10th.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary by April 5th.

MONTROSE ROYAL ASYLUM, Sunnyside. Senior Assistant Medical Officer. Salary, £200 per annum, with usual allowances. Applications to the Medical Superintendent by March 31st.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E. House-Physician. Appointment for six months. Salary at the rate of £50 per annum, with board residence, and laundry allowance. Applications to the Secretary, 27, Clements Lane, Lombard Street, E.C., by April 5th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon; unmarried, and not more than 30 years of age. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by April 1st.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon, unmarried. Salary, £150 per annum, increasing £10 yearly, with furnished apartments, etc. Ladies not eligible. Applications to the Secretary, Mr. M. J. Preston, Journal Chambers, Nottingham.

OLDHAM INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum, with board, residence, and washing. Candidates to state if willing to accept Junior post at £75 per annum, etc. Applications to the Hon. Secretary by April 12th.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not exceeding 30 years of age. Salary, £100 per annum, and £50 in lieu of rations, with furnished apartments, etc. Applications to the Resident Superintendent by April 9th.

PADDINGTON INFIRMARY.—Clinical Assistant and Second Assistant to the Medical Superintendent, unmarried, between 21 and 30 years of age. Appointment for six months. Board, lodging, and washing provided, and honorarium of £36. Applications to the Medical Superintendent at the Infirmary, 287, Harrow Road, W.

SHEFFIELD: UNIVERSITY COLLEGE.—Demonstrator in the Bacteriological Laboratory. Salary, £150 per annum, increasing to £200. Applications to the Registrar by April 7th.

SOUTHAMPTON INCORPORATION.—Resident Assistant Medical Officer at the new Infirmary, Shirley Warren; not exceeding 28 years of age. Salary, £100 per annum, with apartments, rations, washing, and attendance. Applications, endorsed "Resident Assistant Medical Officer," to be sent to the Clerk to the Guardians, Workhouse, Southampton, by April 7th.

TOTTENHAM HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, residence, and laundry. Applications to the Chairman of the Joint Committee, Tottenham Hospital, N., by April 7th.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board, furnished apartments, etc. Applications to the Assistant Secretary by April 1st.

MEDICAL APPOINTMENTS.

ARMOUR, Donald John, B.A., M.B., M.R.C.P.Lond., F.R.C.S.Eng., appointed Assistant Surgeon to the Belgrave Hospital for Children.

BRETON, Lancelot M., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator to No. 3 District of the South Stoneham Union.

BULLMORE, C. Cecil, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Falmouth and Truro Port Sanitary Authority, *vice* Wm. King Bullmore, M.D.St.And., resigned.

BUZZARD, E. Farquhar, M.A., M.B.Oxon., M.R.C.P.Lond., appointed Assistant Physician to the Belgrave Hospital for Children.

CHIPPERFIELD, T. J. B., L.R.C.P.Edin., M.R.C.S.Eng., appointed District Medical Officer of the Liskeard Union.

CRUICKSHANK, R. W., M.D., C.M.Aberd., appointed District Medical Officer of the Witney Union.

DALY, F. J. P., M.R.C.S., L.R.C.P., appointed Honorary Anaesthetist to the Tottenham Hospital.

EVANS, J. Jameson, M.B.Edin., F.R.C.S.Eng., appointed Ophthalmic Surgeon to the Birmingham Workhouse and the Marston Green Cottage Homes.

GREEN, Albert, M.B.Lond., L.R.C.P., M.R.C.S., appointed Coroner for the Hundred of Scarsdale, North East Derbyshire, *vice* C. B. Busby, resigned.

JONES, Helena G., M.B.Lond., appointed Assistant Medical Officer to the District Asylum, Mullingar.

LAW, A. T., M.B., C.M.Edin., appointed District Medical Officer of the Penrith Union.

PHILLIPS, Hubert C., M.R.C.S.Eng., M.& L.S.A.Lond., appointed Anaesthetist to the Female Lock Hospital, Harrow Road, W.

SOLTAU, Grace, L.R.C.P.&S.Edin., appointed House-Surgeon to the Belgrave Hospital for Children.

STEVENSON, Robert, M.B.Glasg., appointed District Surgeon of Prince Albert, Cape Colony.

WILKINSON, T. B. P., M.B., B.Ch.R.U.I., appointed District Medical Officer of the Plymouth Incorporation.

EDINBURGH ROYAL INFIRMARY.—The following gentlemen have been appointed for six months from April 1st:

Resident Physicians.—A. Mortgomerie Bell, M.B., Ch.B.; Andrew Hunter, M.B., Ch.B.; W. H. Prentice, M.A., Ch.B.; James Brownlee, M.B., Ch.B.; R. M. Rowe, M.B., etc.; C. W. Saleeby, M.B., Ch.B.; G. Duncan Whyte, M.B., Ch.B.

Resident Surgeons.—Arthur W. S. Christie, M.B., Ch.B.; A. Murray Wood, M.B., Ch.B.; P. F. M'Farlan, M.B., Ch.B.; L. Turton Price, M.B.

Non-Resident House Physicians.—James A. Sadburn, M.B., Ch.B.

Non-Resident House Surgeons.—C. M. Pearson, M.B., Ch.B.; D. W. Maclagan, M.B., Ch.B., M.R.C.P.E.; Charles J. Hill Aitken, M.D.

Clinical Assistants.—A. M. Malcolmson, M.B., Ch.B.; F. Gardiner, M.B., C.M., B.Sc.; W. Leslie Lyall, M.B., C.M.; Ralph de Bosniere, L.R.C.P.&S.; Wm. T. Ritchie, M.D.; Alex. Goodall, M.D., M.R.C.P.Edin.; Henry Grey Brown, M.D.; John W. L. Spence, M.R.C.S.; J. Graham M'Bride, M.B., Ch.B.

DIARY FOR NEXT WEEK.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Drs. Fairbairn, Williamson, Berkeley, Munro Kerr, and Arnaud Routh. Paper: Dr. Lewers: A case of Primary Tuberculosis of the Cervix Simulating Cancer, Treated by Vaginal Hysterectomy.

THURSDAY.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Ch. Leonard, of Philadelphia: X-ray Diagnosis of Renal Calculus (forwarded).

FRIDAY.

British Electro-Therapeutic Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Hugh Walsham: On the Diagnosis of Thoracic Aneurysm by the X-rays illustrated by the lantern. Dr. Sequeira: On the Finsen Treatment of Lupus, Rodent Ulcer, etc.; illustrative cases will be in attendance at 8.15.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.45 p.m.—Discussion on Anaesthetics, to be introduced by Dr. Bellamy Gardiner.

POST GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Thursday, surgical; Friday, throat.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

MUIR.—On March 20th, at the Limes, New Cross Road, London, S.E., the wife of Robert Douglas Muir, M.D.Brux., a daughter.

DEATH.

PEARSON.—On the 21st inst., at Alicedale, South Africa, the infant son of Maurice Grey Pearson, M.B., B.Sc., F.R.C.S.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

INCOME TAX.

X. S. writes: In this district the surveyor has lately been making a separate and additional assessment for notification fees, which I am now objecting to pay, on the ground that my return included income from all sources. Would you allow me to ask if the practice exists in any other district of making such a separate assessment, and if there is any authority for so doing?

ANSWERS.

TREATMENT OF POISONED WOUNDS.

DR. JOHNSON (Blackpool) writes, in answer to "A. G. I.": Wherever there is a poisoned wound, or any suppurating wound accompanied with inflammation of the surrounding tissues, hot applications are decidedly the best, preferably hot boracic lint. Boric acid causes destruction of low organisms, without endangering the vitality of the living tissues; it also checks suppuration when applied locally by paralysing the white blood corpuscles as they emerge through the vascular walls (Kurz). I never apply linseed to an open wound, because as a rule it is a dirty dressing, and may do more harm than good. Lead lotions, or lead and opium (which I always prefer) are better than hot fomentations when applied to inflamed parts where there is no suppuration.

LETTERS, NOTES, Etc.

A WARNING.

DR. STEPHEN SMITH (Forest Gate) writes: The canvasser of a trade directory is calling at the houses of medical men at an hour when these are probably out, and interviews their wives or housekeepers. He represents that the name of the medical man was in the last edition of his directory, and asks sometimes two, sometimes three shillings for a reinsertion. His manner is plausible, and he generally gets the money.

AIRBORNE INFECTION IN TYPHOID.

DR. ARTHUR POWELL, B.A., M.B., late Captain and Medical Officer Lumsden's Horse, writes: I beg to offer my mite to the discussion on this subject. While agreeing that typhoid under normal circumstances is mostly waterborne, I cannot deny either the possibility or the frequency of infection by windborne particles. In South Africa "devils," or "dust spouts" are very frequent. One suddenly sees a little whirlwind (or a "waterspout of dust," as an Irish trooper called it) get up and career about the veld, picking up and depositing in its track any light object it meets with. While messing in the open, my comrades and I have on many occasions had to abandon our dinner in disgust owing to one of these dust spouts, which had first passed over the trenches, covering our food with dust and toilet paper which gave ocular demonstration of faecal contamination. Many a time food must have been eaten covered with dust from the same quarter, when there was no tell-tale paper to betray its origin. These trenches contained the faeces of many enteric patients.

LIEUTENANT-COLONEL R. H. QUILL, R.A.M.C. (S.M.O. Ceylon) writes: With reference to my paper on airborne typhoid, which appeared in the BRITISH MEDICAL JOURNAL on February 15th, I wish to make the following corrections: (*a*) Between September 21st, 1900, and December 31st, 1900, 691 cases of typhoid occurred among the prisoners of war, not 800 cases; (*b*) during the same period, no cases were diagnosed as simple continued fever; (*c*) the medical care of the prisoners of war is entirely in the hands of the Principal Civil Medical Officer of Ceylon, Dr. Allan Perry.

TOTAL SUPPRESSION OF URINE DUE TO THE OBSTRUCTION OF BOTH URETERS BY RENAL CALCULI.

DR. F. GRAHAM CROOKSHANK (Barnes, S.W.) writes: In the BRITISH MEDICAL JOURNAL of March 22nd, there is an article by Dr. W. M. Stevens on suppression of urine from obstructed ureters. In Section IV of this article Dr. Stevens puts forward an explanation of the clinical differences between cases of obstructive and non-obstructive suppression of urine which is based on a distinction drawn between the excretory and meta-

bolic—or internal—secretion functions of the kidneys. This explanation was first, so far as I am aware, put forward by me in a paper which appeared in the *Lancet* of September 18th, 1897, a marked copy of which I enclose. It will be seen that the similarity between Dr. Stevens's paper and mine is not confined to ideas, but extends to the language employed. For instance, Dr. Stevens writes: "In cases of obstructive suppression the excretory function only is in abeyance, whereas in non-obstructive suppression some other function ..... is seriously affected, and ..... every function of the kidney would be practically in abeyance when we consider the severe inflammatory processes present." My words were: "In obstructive suppression it is the excretory function only or chiefly that is in abeyance, while in non-obstructive suppression all renal functions are suspended."

MONILIFORM HAIRS ASSOCIATED WITH ALOPECIA AREATA. PRELIMINARY NOTE.

DR. DAVID WALSH (London, W.) writes to state that he found some of the scalp hairs of a female patient, aged 42, suffering from alopecia areata to be of a regular moniliform character. They differed, however, from typical monilethrix in the fact that the nodes had no regular relationship to the pigment. Further investigation revealed hairs of moniliform type in four other female patients under treatment for alopecia areata, one of whom had a chronic seborrhoeic dermatitis and scale seborrhoea of scalp. In all except the first case the nodes were irregular in length, while in all the distribution of pigment was irregular. A full account of these cases will be published later.

[SYPHILIS IN CONNEXION WITH FATAL CASES OF ENTERIC IN SOUTH AFRICA.

LIEUTENANT-COLONEL F. J. LAMBKIN, R.A.M.C. (South Africa) writes: In the BRITISH MEDICAL JOURNAL of October 12th, 1901, under the heading, "Scientific Reports by Medical Officers, R.N.," are some extracts from a paper by Surgeon James Grant Fowler, R.N., on some medical facts concerning the experiences of the Naval Brigade during the siege of Ladysmith, and, writing of enteric, he says: "The syphilised patients succumbed to the fever in greater numbers than others," and no one will be surprised at this. But if syphilis has been such a factor in bringing about fatal results in cases of enteric in the navy, to what an extent it must have played a like part in similar cases in the army during the last two years in South Africa. Personally, I cannot help feeling that it has been the indirect cause of fatal cases in hundreds of cases of enteric. In speaking of "syphilised cases," I presume Surgeon Fowler means old cases of syphilis, as fresh cases would be hardly likely to occur during the siege. Why should there be "syphilised cases" in the navy or army?

At the annual meeting of the British Medical Association at Portsmouth in 1899, during a discussion on the "Prevention and Treatment of Syphilis in the Navy and Army," in which I took part, I stated that "syphilis, generally speaking, goes practically untreated, for, as a rule, the patient is kept under treatment only as long as he shows any active manifestations of it. Should he be in the navy or army, as soon as he is rid of them he is discharged to duty, and all treatment has to cease. He may then go abroad to the tropics, where he falls an easy prey to the diseases common in those regions; and should he contract enteric, what chance has he?"

At the same meeting I pointed out that "we know syphilis can be eradicated from the system under certain conditions, the chief of which being prolonged and continuous treatment lasting over several months, and that knowing this it was our bounden duty to see that our patients got it. In speaking of the treatment of syphilis as regards the services, I stated that "hitherto it was well nigh impossible to give this prolonged treatment unless we were prepared to keep men in hospital for months, but that all difficulties had been removed through the introduction of the 'intramuscular method' of giving mercury." I advocated that when a syphilitic case was discharged from hospital, arrangements should be made for his regular attendance at hospital or elsewhere once a week for supervision and treatment, the latter consisting of an intramuscular injection of mercury. This attendance could be extended over the period thought necessary, and it would take the man away from his duty for only a few minutes once a week. In this manner the soldier would have a good chance of being cured of his disease, and the State would have the benefit of his services during the time he was under treatment.

I suggested that it should be laid down as hard-and-fast rules, that any man who contracted undoubted syphilis should have at least eight months' treatment, and that no such man be permitted to embark for service in the tropics unless he had undergone such treatment, and not even then if he showed any active signs of the disease. I brought forward the intramuscular method, knowing that it was the only mode of treatment unless we were prepared to keep our patients in hospital for months.

I feel certain that if these rules were carried out the admission and death-rates of the army and navy would be much reduced, and fatal cases of enteric greatly lessened. To my mind to discharge a case of syphilis from hospital as cured after a few weeks' treatment, with no intention of giving further, is absolutely wrong and unscientific.

INDENTATION OF FRONTAL BONE IN DIFFICULT LABOUR.

DR. J. LINDSAY, M.D. (Lesmahagow, N.B.) writes: This has happened twice before in my long experience, and always in using the long forceps for difficulty at the brim. In all the cases the impression of the forceps has been on the opposite side. These cases were not corrected, and the children did not suffer in any way, but I did not like to see them. This time the head caught at the brim, and I had to use the long forceps through the dilated os. The help required was not great, and I was astonished to see the indentation on one frontal bone, and as before the distinct impression of the forceps on the other side. Before I separated the child I pressed firmly inwards on the edges of the bone, and was greatly pleased to feel the bone take its natural shape with a kind of crunch, something like a bone going into its socket. I believe that a good deal more force than I applied in this case might be used with all safety, and most if not all these cases be corrected at the moment.

FLUORESCENCE AND THE LIGHT TREATMENT.

L. M. writes: In the EPITOME of the BRITISH MEDICAL JOURNAL of March 22nd, Par. 187, a very suggestive paper by A. F. A. King is mentioned. In this it is stated that the peculiar bluish fluorescence of quinine is interesting in connexion with its (hitherto enigmatical) curative action. This reminds me that the lupus sores on the faces of some of the patients at St. Bartholomew's Hospital have been noticed to fluoresce under ultra-violet rays. This is probably due to traces of ointment containing mineral oil applied elsewhere. I have sometimes wondered whether the better results obtained by the "light" treatment in some places than in others could be due to the fluorescing properties of the ointment that happened to be used. By impinging on a mineral oil, the wave length of the invisible rays is lengthened sufficiently to make them visible, and their penetration must therefore be greatly increased. One side of a patient's face might be treated with fluorescing oil and the other not, and the relative rapidity of the cure noticed.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Dr. R. Y. Aitken, Blackburn; A. C. E.; Messrs. Arnold and Sons, London; A. E. B.; Accent; Anxious; Army Medical Service, Director-General of, London. **B** Dr. F. T. Bond, Gloucester; Mr. L. A. Bidwell, London; Mr. W. B. Bennett, Liverpool; Dr. A. Brindley, Bury; Mr. W. H. E. Brand, Hounslow; A. C. Barron, M.B., Dalby; S. T. Beggs, M.B., Belfast; Dr. J. R. Bradford, London; Mr. W. F. Brock, Swansea; Mr. F. B. J. Baldwin, Rotherham; Dr. L. L. Burton, Longton; Dr. A. Bruce, Edinburgh. **C** Mr. L. Cooper, Rochester; S. Cameron, M.B., Glasgow; Dr. A. Craigmile, Liscard; Dr. J. S. Cameron, Leeds; Dr. J. M. Clarke, Clifton; Dr. F. G. Crookshank, London; Mr. F. W. Collingwood, London; Dr. G. Carpenter, London; Dr. A. H. Copeman, Cowes, Isle of Wight; Mr. H. Case, Chorley; Mr. A. B. Clarke, Shebbear; Chough. **D** Delirium Tremens; Dr. G. H. M. Dunlop, Edinburgh; Dr. F. Dittman, Glasgow; Mr. L. Demetriadi, Huddersfield; Dr. H. D. Didama, Syracuse; Mr. E. Davies, Swansea. **E** Enquirer; Mr. G. S. Elliston, Ipswich; Mr. F. Elvy, London; E. P. P. **F** Dr. D. Fairweather, London; Dr. G. B. Flux, London; Dr. C. F. Forshaw, Bradford; Dr. E. J. Farmer, Carlow; Dr. W. T. Freeman, Reading; Mr. J. F. Fry, Shepton Mallet; Dr. J. S. Fenton, Brackley. **G** A. Green, M.B., Chesterfield; Mr. E. Glenny, Dublin; Mr. P. T. Goodman, London; Mr. J. E. Gofton, North Shields; A. Green, M.B., Gateshead-on-Tyne; Mr. G. T. Gifford, Darwen; Mr. M. Gabe, Merthyr Tydfil. **H** Mr. T. G. Horder, Cardiff; Dr. J. P. Henry, London; Dr. A. M. F. Harra, Habana; Hylax; Dr. F. Hollinshead, Birmingham; Dr. C. K. Hitchcock, York. **I** Mr. S. Infield, Hyde; Injured. **J** Mr. R. W. Jubb, Coventry; Mr. J. Johnson, Blackpool; Mr. F. Jaffrey, London; Mr. A. Johnson, Liscard. **K** Mr. W. H. Kerbey, Charmouth. **L** Mr. J. E. Lane, London; W. Lyle, M.B., Newtonstewart; Dr. J. Lindsay, Lochanbank; F. H. Low, M.B., London; L. M.; Dr. T. G. Lyon, London. **M** Dr. W. L. Mackenzie, Edinburgh; Messrs. C. Midgley, Limited, Manchester; B. G. A. Moynihan, M.B., Leeds; Dr. F. H. Morison, West Hartlepool; Mr. J. MacOscar, Woking; Dr. H. Malet, Wolverhampton; A. E. Maylard, M.B., Glasgow; Member B.M.A. (nearly 40 Years); A. A. Martin, M.B., Howick, S.A.; W. Mitchell, M.B., Bradford; Dr. J. H. Moir, Burton-on-Trent; Mr. K. Monsarrat, Liverpool; Dr. E. Magennis, Dublin; Mr. C. A. Morton, Clifton. **N** Mr. P. W. G. Nunn, Bournemouth; Dr. E. R. Nicholson, St. Leonards-on-Sea; Dr. E. P. Norman, Yardley-Hastings; Dr. M. Neuburger, Vienna; Dr. A. Newsholme, Brighton; Northern Medical Man. **O** One Twelve. **P** Dr. G. Parker, Clifton; Mr. H. O. Pilkington, Preston; Public Vaccinator; Dr. F. C. H. Piggott, Teignmouth; Mr. A. Powell, Bombay; Puzzled; Mr. G. W. A. Parker, Liscard. **R** Mr. R. B. Rees, London; Messrs. Rebman, Limited, London; R. B. W.; Dr. A. Robinson, Rotherham; Dr. H. B. Robinson, London; Dr. R. Row, Byculla; Dr. R. R. Rentoul, Liverpool; Mr. A. Roberts, London. **S** Mr. R. J. Swan, London; Dr. A. T. Schofield, London; Dr. E. H. Snell, Coventry; Mr. A. M. Stirling, Glasgow; Dr. S. Smith, London; Dr. W. Sykes, Exeter Surgeon-General; A. A. S. Skirving, C.M.G., Edinburgh; Dr. S. Sunderland, London; E. J. Sidebotham, M.B., Manchester. **T** Dr. J. C. Thresh, Chelmsford; Mr. J. J. Tisdall, Liverpool; Mr. B. Thornton, Margate. **W** Mr. H. W. S. Williams, Holywell; Dr. J. Wheatley, Blackburn; Dr. E. Walford, Cardiff; Dr. H. Waldo, Clifton; J. R. Williamson, M.B., Mirfield; A. S. Wilson, M.B., St. Leonards-on-Sea; Mr. H. Walker, London. **X** X. T. R.; X. S. **Y** Dr. E. S. Yonge, Manchester.

BOOKS, ETC., RECEIVED.

Handbook of Obstetric Nursing. By F. W. N. Haultain, M.D., F.R.C.P.E., and J. H. Ferguson, M.D., F.R.C.P.E., M.R.C.S. Fourth Edition. Edinburgh and London: Y. J. Pentland. 1902.

The Clinical Pathology of the Blood. By Dr. R. v. Limbeck. Translated from the Second German Edition by A. Latham, M.A., M.R.C.P., and J. Nachbar, M.A., M.D. London: New Sydenham Society. 1901.

The Ready Reference Handbook of Diseases of the Skin. By G. T. Jackson, M.D. Fourth Edition. London: Henry Kimpton. 1902. 12s. 6d.

Ueber die Beziehungen zwischen Spiritismus und Geistesstörung. Von Dr. R. Fiennoberg. Berlin: August Hirschwald. 1902. M.1.20.

The Causes of Death among the Assured in the Scottish Widows' Fund, 1874-1894. Reported by C. Muirhead, M.D., F.R.C.P.E. Edinburgh: R. and R. Clark. 1902.

Sinus et Sinusites Maxillaires. Par J. de Crocq. Paris: A. Maloine. 1902.

Traité de Bactériologie pure et appliquée à la Médecine et à l'Hygiène. Par MM. P. Miquel et R. Cambier. Paris: C. Naud. 1902.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
Each additional line ...	...	...	...	0 0 6
A whole column ...	...	...	...	1 17 6
A page ...	...	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Reorganization of the Army Medical Services.

ARMY ORDER.

SPECIAL.

War Office.

The following Royal Warrant and Instructions are promulgated to the Army with the approval of the Secretary of State for War.

Royal Warrant.

Army Medical Service.

Whereas We deem it expedient to amend the Regulations relating to the Appointment, Promotion, Pay, and Non-effective Pay of Officers of our Army Medical Service:

Our Will and Pleasure is that the Warrant of Our late Royal Mother, dated the 26th October, 1900, shall be amended in accordance with the following provisions:—

1. The following shall be substituted for Article 315 and the first five lines of Article 320.

315. The Director-General of Our Army Medical Service and the other officers of our Army Medical Staff shall hold the substantive rank of SURGEON-GENERAL.

320. The undermentioned officers shall rank as follows in relation to combatant officers for the purposes specified in the King's Regulations:—

As lieutenant-general.....	Surgeon-general holding the appointment of Director-General, Army Medical Service.
As major-general	{ Chaplain-general. Surgeon-general.

2. The following shall be substituted for Article 327:

327. In cases of distinguished service in the field a departmental officer may, with the concurrence of the Lords Commissioners of Our Treasury, be promoted from any rank or class to that next above it, and shall, if promoted to a rank or class having a fixed establishment, remain supernumerary in such rank or class until the occurrence of the vacancy to which, in the ordinary course, he would have been promoted.

An officer so promoted into a rank or class, with progressive rates of pay, shall not receive a further increase of pay in that rank or class until he becomes entitled thereto by service.

In a case of distinguished service in the field for which an officer may merit special reward, although there may not be sufficient grounds for his promotion, Our Secretary of State shall, if the officer is serving in a rank or class with progressive rates of pay and is not already in receipt of the highest rate, have the power, with the concurrence of the Lords Commissioners of Our Treasury, to grant him a higher rate of pay in his rank or class, but without alteration of his seniority.

3. The following shall be substituted for Articles 347 to 373:—

Appointment.

347. Commissions as lieutenants in Our Royal Army Medical Corps shall be given, on the recommendation of our Commander-in-Chief, to persons duly qualified under regulations approved by Our Secretary of State. The commissions shall bear the date of the officers' appointment as lieutenants on probation.

348. Commissions as quartermasters in Our Royal Army Medical Corps shall be conferred upon warrant officers of that corps under the conditions of Article 8.

Seconded Officers.

349. A lieutenant on probation who, at the time of passing the examination for admission to Our Royal Army Medical Corps, holds, or is about to hold, a resident appointment in a recognized civil hospital may be seconded for the period, not exceeding 1 year, during which he holds the appointment. While seconded he shall not receive pay from Army funds, but his service shall reckon towards promotion, increase of pay, gratuity, and pension.

Promotion.

350. An officer shall be eligible for promotion to the rank of captain on the completion of 3½ years' service, and to the rank of major on the completion of 12 years' service, provided that in each case he has previously qualified in such manner as may be prescribed by Our Secretary of State.

351. Promotion to the rank of lieutenant-colonel shall be made by selection from officers who have completed at least 20 years' service, and have qualified in such manner as may be prescribed by Our Secretary of State.

352. If an officer has passed with distinction the examination qualifying for promotion to the rank of major, the period of service required by Article 350 or 351 to render him eligible for the rank of major or lieutenant-colonel may be reduced as follows:

	Months.
If he obtained a "special certificate"	18
If he passed in the 1st class	12
If he passed in the 2nd class	6
If he passed in the 3rd class	3

353. *A lieutenant in Our Royal Army Medical Corps, promoted to the rank of captain before the date of this Our Warrant, on account of distinguished service in the field, shall be eligible for further promotion to the rank of major, and subsequently to that of lieutenant-colonel, when the officer next below him in the rank of captain or major completes 12 or 20 years' service respectively. A*

captain so promoted to the rank of major shall, on the same conditions, be eligible for promotion to the rank of lieutenant-colonel.

354. An officer who may in the opinion of Our Secretary of State have been prevented, under very special circumstances, from qualifying for promotion as laid down in Article 350 or 351, or who, having failed to qualify, may have been debarred from further opportunity of qualifying, may be provisionally promoted. If, however, he fails to qualify on the first available opportunity his promotion shall be cancelled, and he shall be retired from Our service.

355. An officer of Our Royal Army Medical Corps, who has exchanged or been transferred from Our Indian Military Forces under Article 364, shall reckon, subject to the conditions of that article, his previous service with the said forces towards promotion, increase of pay, gratuity, and pension.

356. An officer of Our Royal Army Medical Corps shall be eligible for promotion to brevet rank under the conditions laid down in Article 36.*

357. Promotion to the rank of colonel shall be made by selection from lieutenant-colonels who have been specially selected for increased pay, and from lieutenant-colonels, or surgeon-lieutenant-colonels of Our Household Troops, specially recommended to Our Secretary of State for distinguished service in the field.

358. Promotion to the rank of surgeon-general shall be made by selection from colonels.

A colonel may also be promoted to the rank of surgeon-general for distinguished service in the field.

359. The promotion of an officer under Articles 357 or 358, for distinguished service in the field, shall be governed by the conditions laid down in Article 327.

360. The appointment of director-general of Our Army Medical Service shall be for 3 years, unless the term is specially extended by Our Secretary of State for a further period not exceeding 2 years.

Supernumerary List.

361. An officer who does not qualify for promotion to the rank of captain or major, within the periods specified in Article 350, shall be placed on the supernumerary list until he qualifies or is retired from Our Service under Article 557. Service on the supernumerary list shall not reckon towards promotion, increase of pay, gratuity, or pension.

King's Honorary Physicians and Honorary Surgeons.

362. Six of the most meritorious officers of Our Army Medical Service shall be named Our Honorary Physicians, and six Our Honorary Surgeons. On appointment as one of our Honorary Physicians or Honorary Surgeons, an officer under the rank of colonel in Our Royal Army Medical Corps may be promoted to the brevet rank of colonel.

Exchanges and Transfers.

363. An officer of Our Royal Army Medical Corps shall be permitted to exchange with another officer of such corps, or with a medical officer of Our Household Troops, under such conditions and regulations as may from time to time be made us Us.

364. Exchanges between officers of Our Royal Army Medical Corps under the rank of major and medical officers of Our Indian Military Forces, and transfers of such officers from either of the above services to the other, shall only be permitted subject to the approval of Our Secretary of State for India in Council, and on the following conditions:

(1.) That the officers have less than 7 years' service.

(2.) That the senior officer exchanging takes the place of the junior on the list, and shall not be promoted until the officer next above him has been so promoted.

(3.) That the junior officer exchanging is placed for seniority next below all medical officers whose commissions have the same date as his own.

(4.) That the officer transferred is placed for seniority below all medical officers holding the same rank at the time of his transfer, and shall not be promoted until the officer next above him has been promoted.

Pay, Additional Pay, and Charge Pay.

The following shall be the rates of pay, additional pay, and charge pay of the officers of Our Army Medical Staff and Royal Army Medical Corps, etc.

365. *Pay.*

	Inclusive of all Allowances except Field and Travelling Allowances.
Army Medical Service.	**Yearly.**
At Headquarters.	£
Director-General	2,000*
Deputy Director-General	1,500
Assistant Director-General ...	850
Deputy Assistant Director General ...	750

	Exclusive of Allowances.
	Daily.
At other Stations.	£ s. d.
Surgeon-General	3 0 0
Colonel	2 0 0
Lieutenant Colonel	1 10 0
Lieutenant-Colonel specially selected for increased pay after at least 8 years' service abroad...	1 15 0
Major	1 3 6
After 3 years' service as such	1 6 0
Captain	0 15 6
After 7 years' total full pay service ...	0 17 0
After 10 years' total full pay service ...	1 1 0
Lieutenant on Probation and Lieutenant	0 14 0
Adjutant of Our Royal Army Medical Corps (Volunteer)	The pay of his rank.
Quartermaster	As a quartermaster of infantry.

366. A lieutenant-colonel appointed one of Our Honorary Physicians or Honorary Surgeons, *shall receive pay at the rate* laid down for a colonel of Our Royal Army Medical Corps when qualified for promotion to that rank.

A captain of Our Royal Army Medical Corps holding the brevet rank of major shall receive pay at 2s. a day in addition to the rates laid down for a captain in Article 365.

* *Secretary of State's Instructions.*—Distinction in original investigation or research may, in the case of an officer of the Royal Army Medical Corps, be regarded as "distinguished service of an exceptional nature other than in the field," within the meaning of Article 36.

* The increased rate of pay for the Director General shall be allowed from December 1st, 1901.

367. *Additional Pay.*

Officer not serving on the headquarters staff appointed a member of the Advisory Board...	£150 a-year.
Officer serving as Secretary of the Advisory Board and Nursing Board...	£100 a-year.

	Daily. s. d.
Officer under the rank of lieutenant-colonel holding an appointment as specialist ...	2 6
Quartermaster in charge of the medical stores at Woolwich	2 6

368. *Charge Pay.*

(*a*) Officer in charge of a general or other hospital; or of a division of a general hospital—

	Daily. s. d.
If in charge of at least 50 beds	2 6
,, ,, 100 ,, ...	5 0
,, ,, 200 ,, ...	7 6
,, ,, 300 ,, ...	10 0
(*b*) Officer in command of the depôt, Royal Army Medical Corps	5 0

(*c*) The senior officer of Our Army Medical Service with an army in the field—

A rate to be fixed by Our Secretary of State according to the magnitude of the charge.

	s. d.
(*d.*) In a command abroad—	
The senior medical officer, if the number of soldiers is 1,500 or upwards	5 0

Extra-Duty Pay.

369. An officer of Our Royal Army Medical Corps, appointed to act as adjutant or quarter-master of Our Royal Army Medical Corps (Militia) during preliminary drill or training, shall receive extra-duty pay at the following daily rates:—

	s. d.
Acting adjutant	2 6
Acting quartermaster	2 0

Reserve of Officers.

370. On the completion of 3 years' service, an officer of Our Royal Army Medical Corps may be permitted by Our Secretary of State to become an Army Reserve officer for a period of 7 years, and while so serving he shall receive pay at the rate of £25 a year.

With the sanction of Our Secretary of State, such officer may be allowed to return to the active list, and if the period he has been in Our Reserve of Officers amounts to at least 1 year, and not more than 3 years, he shall be allowed to reckon one-third of such period towards promotion, gratuity and pension.

Pay during Sick Leave.

371. An officer of Our Army Medical Staff or Royal Army Medical Corps may be allowed full pay during sick leave of absence under the conditions of Articles 298 and 299.

Medical Officers of the Regiments of Household Troops.

4. The following shall be substited for Articles 382 to 388:—

Appointment.

382. A major or lieutenant-colonel of Our Royal Army Medical Corps may, on the nomination of the titular colonel of the regiment, be transferred from his corps into the rank of surgeon-major or surgeon-lieutenant-colonel respectively in one of Our regiments of Household Troops.

Promotion.

383. A surgeon-major shall be eligible for promotion to the rank of surgeon-lieutenant-colonel on completing 20 years' service (*see* Artice 352), provided that he has previously qualified in such manner as may be prescribed by Our Secretary of State.

Promotion to the rank of brigade-surgeon-lieutenant-colonel shall be made by seniority on the medical establishment of the brigade.

384. A surgeon-major may be promoted to the rank of surgeon-lieutenant-colonel for distinguished service in the field, under the conditions laid down in Article 327.

Exchanges.

385. A medical officer of Our Household Troops may be permitted to exchange with an officer of Our Royal Army Medical Corps, provided that an officer exchanging into Our Royal Army Medical Corps has fulfilled any conditions as to service abroad required of officers of such corps.

Pay.

386. The rates of pay of medical officers of Our Household Troops shall be as follows:

	£ s. d.
Brigade-surgeon-lieutenant-colonel ...	1 15 0
Surgeon-lieutenant-colonel	1 10 0
Surgeon-Major	1 3 6
After 3 years' service as such	1 6 0

387. A medical officer of Our Household Troops shall be eligible for extra pay under the provisions of Articles 367 and 368.

General Regulations.

388. In all matters not provided for by Articles 382 to 387 and 555 to 562, the medical officers of Our Household Troops shall be governed by the general regulations for regimental officers of Our Army.

RETIREMENT.

5. The following shall be substituted for Articles 555 to 564:

(*a*) Voluntary Retirement.

Conditions of Retirement.

555. An Officer of Our Army Medical Service, or a medical officer of Our Royal Malta Artillery, may be permitted to retire, in cases in which such retirement may be deemed expedient by Our Secretary of State.

Scale of Retired Pay.

556. *Army Medical Staff.*

	Daily. £ s. d.
Surgeon-General	2 0 0
Royal Army Medical Corps and Medical Officers of Household Troops.	
Colonel...	1 15 0
Lieutenant-Colonel, or surgeon-lieutenant-colonel of the Household Troops—	
After 20 years' service	1 0 0
,, 25 ,, ...	1 2 6
,, 30 ,, ...	1 5 0
Lieutenant-Colonel, after having been in receipt of the increased pay allowed by Article 365 for 3 years, or brigade-surgeon-lieutenant-colonel of the Household Troops	
Under 30 years' service	1 7 6
After 30 ,, ...	1 10 0
Major, or surgeon-major of the Household Troops—	
After 20 years' service	1 0 0
After 25 years' service, if his service reckoning for promotion is insufficient to qualify him for promotion to the rank of lieutenant-colonel under Article 351	1 2 6

Major or Captain—

	Gratuity.
After 5 years' service in the rank of captain	1,000
After 10 years' service, if the officer was commissioned before the date of this Our Warrant	1,250
After 3 years' service in the rank of major, *or, if the officer was commissioned before the date of this Our Warrant, after 15 years' service*	1,800
After 6 years' service in the rank of major, *or, if the officer was commissioned before the date of this Our Warrant, after 18 years' service*	2,500

Surgeon-lieutenant-colonel or surgeon-major of the Household Troops— £

After 15 years' service 1,800
,, 18 ,, ... 2,500

Medical Officers of the Royal Malta Artillery.

All ranks—retired pay equal to the half-pay of the officer's rank.

Except in the case of a lieutenant-colonel, an officer of Our Army Medical Service, who, on voluntary retirement, has served for less than 3 years in the rank from which he retires, shall be entitled only to the gratuity or retired pay assigned to the next lower rank.

(*b.*) RETIREMENT ON ACCOUNT OF AGE, OR LIMITATION OF PERIOD OF SERVICE.

Conditions of Retirement.

557. The Director-General of Our Army Medical Service shall retire on completion of the term of his appointment; and the retirement of other officers of Our Army Medical Service (except quartermasters) shall be compulsory at the following ages:

Surgeon-general 60
Colonel, *promoted to the rank on or after the date of this Our Warrant* 57
Colonel, promoted to the rank before the date of this Our Warrant (*subject to Article* 558) 60
Other officers 55

A major shall retire on completion of 25 years' service; or, if he fails to qualify for promotion, on the completion of 20 years' service.

A captain or lieutenant shall retire on completing 6 months' service on the supernumerary list.

A medical officer of Our Royal Malta Artillery shall be compulsorily retired on attaining the age of 55.

558. It shall be competent to Our Secretary of State to place a medical officer on the retired list after 30 years' service.

559. **Scale of Retired Pay.**

DIRECTOR-GENERAL ARMY MEDICAL SERVICE—

	Yearly. £
After 3 years' service as director-general—	
With 30 years' service	1,125

OTHER OFFICERS OF OUR ARMY MEDICAL SERVICE AND MEDICAL OFFICERS OF OUR ROYAL MALTA ARTILLERY.—Same rates as under "(*a*) VOLUNTARY RETIREMENT," except that the condition of 3 years' service in the rank shall be omitted, and that, in the case of a surgeon major of Our Royal Malta Artillery, his retired pay, if retired on account of age, shall be 17s. 6d. a day, irrespective of service.

(*c.*) RETIREMENT ON ACCOUNT OF MEDICAL UNFITNESS.

Conditions of Retirement.

560. An officer of Our Army Medical Service, or a medical officer of Our Royal Malta Artillery placed on the half-pay list on account of medical unfitness shall, if not previously retired, be retired from Our Army at the expiration of 5 years from the date on which he was placed on the half-pay list, or, if reported by the regulated medical authority to be permanently unfit for duty, on the officer's application, at such earlier date as may be decided by Our Secretary of State.

561. An officer, whether on full or half pay, placed in detention as a person of unsound mind, shall be retired from Our Army, with the retired pay to which he would be entitled if reported by the regulated medical authority to be permanently unfit for duty. If his disability was not caused by military service, and he is not entitled to permanent retired pay by length of service, he shall receive temporary retired pay equivalent to the half-pay, and temporary retired pay, if any, which he would have received if his disability had been other than insanity.

562. **Scale of Retired Pay.**

DIRECTOR-GENERAL ARMY MEDICAL SERVICE.

	Yearly. £
Under 3 years' service as director-general, and after not less than 30 years' service..	875

OTHER OFFICERS OF OUR ARMY MEDICAL SERVICE AND OF OUR ROYAL MALTA ARTILLERY.—Same rates as under "(*a*) VOLUNTARY RETIREMENT," except that the condition of 3 years' service in the rank shall be omitted; and that in the case of a surgeon-major of Our Royal Malta Artillery his retired pay, if retired on account of medical unfitness, shall be 17s. 6d. per day, irrespective of service.

Rates for Officers not Qualified for Retired Pay on Voluntary Retirement.

If the unfitness was caused by military service—retired pay equal to the half-pay of his rank.

If not so caused, provided the officer has at least 12 years' service—retired pay equal to the half-pay of his rank, for such period only, not exceeding 5 years from the date of the officer's retirement from Our Army, after 5 years on half-pay under Article 306, as Our Secretary of State shall determine according to the merits of the case.

QUARTERMASTERS.

563. The retirement of quartermasters shall be governed by the regulations laid down in Articles 529, 531, 532, and 534.

Given at Our Court at this *24th* day of *March* 1902, in the 2nd year of Our Reign.

By His Majesty's Command,

Secretary of State's Instructions.

The term "rank," when used in the foregoing Royal Warrant, means "substantive rank" unless otherwise stated.

Officers who have served with the Royal Army Medical Corps (Militia) when embodied, or who, as officers of the Royal Army Medical Corps (Militia) or Royal Army Medical Corps (Volunteers), medical officers of Yeomanry or Volunteers, or as civil surgeons, served with an army in the field, after the 1st October, 1899, may be allowed to reckon such service towards retired pay and gratuity.

Commander-in-Chief.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

By E. H. EMBLEY, M.D.,

Honorary Anaesthetist to the Melbourne Hospital.

(From the Physiological Laboratory of the University of Melbourne.)

Purposes of the Investigation.

To those in the habit of administering and supervising the administration of chloroform, the physiological investigations hitherto made into the action of chloroform upon the organism have not furnished a satisfactory explanation of the phenomena that are apt to occur during the induction or early period of anaesthesia in chloroform administration.

Efforts have frequently been made towards reconciling clinical experience with the results of physiological research. These have been too frequently in the direction of belittling clinical experience by declaring that when clinical experience failed to coincide with the results of experiments upon animals, clinical observation was erroneous.

It was evident to clinicians that the heart did stop in occasional instances when the respiration was efficiently performed, and that in some of these cases the heart started again, in others it did not. It was also evident that early heart failure was rarely, if ever, attended by a regular falling off to imperceptibility in pulse volume, but that when observed the stoppage of the pulse was sudden and absolute, and the recovery, when such happened, was attended by a slow pulse often of good volume. It was therefore difficult in view of these observations to reconcile the respiratory failure theory as the cause of all deaths from chloroform. It was equally difficult to conceive that vasomotor paralysis could be responsible for the failure of circulation, as the first heart beats in cases which recovered often gave a fair to good tension pulse.

The investigation of the cause of death in early anaesthesia was chosen for particular research in consequence of the greater tendency to death at this period. The greater frequency of deaths before the surgeon has started to operate has been well recognized. During 1899, out of 83 cases of death that occurred in England, 68 happened before the operation was started.[2] In another year it was 39 out of 41.[1] My own experience at the Melbourne Hospital has convinced me that the period of early anaesthesia by chloroform is the period of by far the greatest danger.

The research was carried out at the Physiological Laboratory of the University of Melbourne. To Professor C. J. Martin I am under great obligations. It is in consequence of his generous assistance and advice and his aid in designing new apparatus, that I have been enabled to carry out the investigation.

Historical Review.

The diversity of opinion resulting from previous physiological investigations into the question of the causation of death from chloroform may be gathered from the brief outline given below.

Snow[3] found that the respiration failed before the heart when low percentages of chloroform vapour in air were employed, and that the heart may cease before the respiration when high percentages were administered.

Ringer[4] found that the heart of the frog passed into a state of paralytic dilatation when chloroform was introduced into the circulation.

The Glasgow Committee[5] concluded that retardation of the heart's action occurred under and in recovery from chloroform, and that stoppage of the heart from this cause was dangerous. The Committee were led by these effects upon the heart to say that the action of chloroform was capricious. They[5] also observed that respiration sometimes continued after the blood pressure had fallen to zero.

Wood[6] concluded that the heart may be paralysed by chloroform, and that respiration may continue for some time after circulation ceased.[6] He found that chloroform abolished the power of the circulatory mechanism of adjusting for the influence of gravity in altered positions of the body.

MacWilliam[7] found that chloroform always caused dilatation of the heart "even with low percentage vapour," whether the vagi were cut or not: that the fall of blood pressure was caused by vasomotor and cardiac paralysis combined: that respiration generally ceased before circulation failed, but that the circulation at times failed first, in which case respiration continued for some time after circulation ceased: that slowing of the heart occurred from vagus action, and that it was not a source of danger.

The Hyderabad Commission[8] conclude from their results that interference with or paralysis of respiration is the only means by which the heart's safety is jeopardized: that in ordinary inhalation the chloroform is never taken in sufficient quantity to stop the heart before the respiration. They[8] also formed remarkable theories regarding vagus inhibition. They credit Dr. Bonford with the "great discovery" that "stoppage of the heart by vagus action is a natural safeguard against the distribution of chloroform, and that it is therefore beneficial." They deny that chloroform impairs the heart. They think that the fall of blood pressure from chloroform is from vasomotor paralysis, and is beneficial to the heart. They declare that the effects of the Glasgow Committee were asphyxial, and they impute defective methods and erroneous inference to the Committee.

Hare and Thornton[9] concluded that the fall of blood pressure from chloroform was from vasomotor paresis and heart paralysis combined, with the former as the chief factor: that[9] vagus inhibition was never sufficient to permanently stop a sound heart, but that it may stop a diseased heart in frightened persons, with the assistance of vasomotor paralysis; that[9] heart failure never occurs before respiratory failure.

Dastre[10] states that the syncope which occurs occasionally in man and animals in the beginning of the chloroform administration is due to reflex stimulation of the pneumogastric nerves, and emphasizes the trigeminal (the nasal mucous membrane) and the superior laryngeal (larynx) as sensory nerves, stimuli from which are particularly prone to occasion fatal reflex inhibition of the heart during the early period of anaesthesia. Dastre and Morat[21] found that postponement of death is effected by using atropine or by section of the vagi. This they thought to be due to the abolition of vagus reflexes. They considered that cessation of the respiration is one cause of fatal arrest of the heart. Dastre argues that chloroform causes vaso-constriction.

Morat and Doyen[11] find that the principal danger of chloroform is during the induction, and that it results from a tendency to syncope by arrest of the heart; that this is due to the excitation of the pneumogastric nerves: that the excitability of these nerves before it is diminished by chloroform along with the rest of the nervous mechanism is temporarily exalted.

Gaskell and Shore[12] concluded from the results of their research that the fall of blood pressure in chloroform narcosis was caused by heart failure alone: that the vasomotor system was not paralysed, but actually stimulated: that the fall of blood pressure was dangerous: that the heart may fail before the respiration, and that respiratory failure was mainly determined by the fall of blood pressure. They[12] did not think that chloroform produced local paralysis of the arterioles.

Richet[13] concludes that respiratory failure is never dangerous as long as the heart continues to beat, if artificial respiration is resorted to: that asphyxia never causes death of the heart in less than four or five minutes, and he considers it absurd that a patient should be supposed to remain unobserved without breathing for all that time. He states in support of this contention that a "chloroformed animal supports asphyxia as well as, if not better than, a normal animal." He goes so far as to state that "death never occurs by failure of respiration." He concludes that danger of death is solely cardiac: that when cardiac syncope occurs, artificial respiration never restores it, and cardiac syncope results from a profound intoxication of the myocardium or the intrinsic ganglia. As regards reflex syncope from the stimulation of sensory nerves, he[11] finds that slowing of the heart occurs, and possibly actual syncope, but he does not believe that such syncope is ever fatal under chloroform.

Hill[14] concluded that the fall in blood pressure was due to

vasomotor paralysis combined with heart paralysis; that[1] the fall in blood pressure was the greatest factor in the causation of respiratory failure, that is, that circulatory failure was the cause of respiratory failure, even though the respiration may have failed before the circulation ceased; that[1] vagus inhibition was never sufficient to permanently arrest the heart.

Waller[15] made some observations on safe and unsafe percentages of chloroform by experiments upon isolated nerve, and found that the effects produced by different percentages of chloroform in the air upon the excitability of nerves, led him to the same conclusions as Snow,[3] Paul Bert,[22] and Dubois,[23] namely, that 2 per cent. chloroform vapour in the air is too much, and that 1 per cent. to 1.5 per cent. is sufficient to maintain anaesthesia by continuous inhalation.

Further research by MacWilliam[7] has led him to conclude that the cardio-inhibitory mechanism is very excitable in the early stage of chloroform anaesthesia. He found that the excitability varied in different animals. He obtained reflex inhibition of the heart, which, however, was not fatal. He found that during deep chloroform anaesthesia the inhibitory mechanism was still irritable.

Duplay and Hallion,[16] investigating the time relations of respiratory and circulatory failure, concluded that deaths from chloroform were never due to failure of respiration; that the cause of syncopal deaths was cardio-vascular paralysis, and that this happens about the same time as respiratory failure.

The Hyderabad Commission[1] were unable to obtain fatal inhibition of the heart by vagal stimulation under chloroform anaesthesia.

Hill[1] was unable to obtain fatal inhibition of the heart from chloroform anæsthesia alone.

Brodie and Russell[17] obtained reflex cardiac inhibition from the stimulation resulting from the administration of chloroform vapour by respiration. The reflexes were found to result from the stimulation of the nasal, laryngeal, and tracheal mucous membrane, and especially from the pulmonary alveoli.

The Committee appointed by the British Medical Association[17] to investigate the clinical evidence regarding anaesthetics concluded that "when danger occurs under chloroform, whatever its exact nature may be, there is abundant evidence that in a large proportion of cases the symptoms that are observed are those of primary circulatory failure."

These different views are more briefly stated in the following synopsis:

1. Chloroform has a paralytic effect upon respiration.—All.
2. Chloroform causes a fall of blood pressure.—All.
3. Respiratory failure the cause of circulatory failure.—The Hyderabad Commission and Dastre (one of the causes).
4. Respiratory failure mostly the result of circulatory failure.—Gaskell and Shore, MacWilliam, the Glasgow Committee, and Hill.
5. Uncomplicated respiratory failure never causes death if artificial respiration is resorted to.—Richat and Duplay and Hallion.
6. Respiration always fails before the circulation.—The Hyderabad Commission and Hare and Thornton.
7. Circulation sometimes ceases before respiration.—Snow, the Glasgow Committee, MacWilliam, Gaskell and Shore, Wood, Hill, Richet, Dastre, Duplay and Hallion, Morat and Doyen.
8. Fall of blood pressure due to heart failure alone.—Wood, Gaskell and Shore, Richet.
9. Fall of blood pressure due to vasomotor paralysis alone.—The Hyderabad Commission.
10. Fall of blood pressure due to vasomotor and heart paralysis combined.—MacWilliam, Hare and Thornton, Hill, Duplay and Hallion.
11. Vasomotor system [not paralysed.—Gaskell and Shore, Dastre.
12. Vagus inhibition never causes death.—MacWilliam, the Hyderabad Commission, Wood, Hill, Richet.
13. Vagus inhibition dangerous.—Glasgow Committee, Hare and Thornton (conditionally), Dastre, Morat and Doyen.
14. Reflex vagal cardiac inhibition produced by inhalation of chloroform.—Dastre and Brodie and Russell.

The Hyderabad Commission report a large number of accidental deaths during their experiments.[26] Nine deaths out of 154 experiments occurred in the period of early anaesthesia.[8] They attributed these occurrences to neglect in administration. There is no tracing furnished of them. This similarity to the fatalities in surgical cases does not appear to have attracted the attention of the members of the Commission, otherwise they would scarcely have completed their investigations without endeavouring to obtain tracings of this dangerous period of the administration. Their dogs were generally anaesthetized by chloroform in a box," then taken out and operated upon under this anaesthesia, for connexion with the recording apparatus. The graphic records of the Commission, therefore, only represent the comparatively safe period of chloroform administration in dogs. The Commission were unable to inform us concerning the interesting phenomena that occurred in the box.

The tracings of the Hyderabad Commission as far as they go, no doubt represent the succession of events that occur in the deepening narcosis, in this later and comparatively safe period of chloroform anaesthesia, but their inferences from these results to the sudden deaths of early anaesthesia of surgical cases are invalid. Transient recoveries and reinductions, as will be shown later, by no means represent the conditions of the primary induction. The experiments which the Commission performed without graphic records, though including the induction period, were faulty and misleading in consequence of the defective methods[8] of observation, as was clearly pointed out by Hill.[1]

Hill, Dastre, and Morat and Doyen have drawn attention to the fact that fatalities usually occur, in surgical cases, in the early period of anaesthesia, and each has suggested an explanation, but they do not seem to have experimentally investigated the matter.

It does not appear that either Gaskell and Shore, Hare and Thornton, Wood, the Glasgow Committee, MacWilliam or Richet paid any more attention to the dangers of early anaesthesia than did the Hyderabad Commission.

METHODS OF EXPERIMENT.

The details of experimental methods will be dealt with in treating of the various sections, but those methods which have been generally applied may be briefly mentioned here.

Artificial Respiration.

In experiments in which artificial respiration was employed this was effected by means of the Cambridge Scientific Instrument Company's apparatus.

Apparatus for Regulating the Percentage Strength of Chloroform Vapour in the Air used in Experiments with Artificial Respiration.

In most previous experimental work a knowledge of the exact strength of chloroform in the air which was delivered to the animal has not been forthcoming. Snow,[3] Paul Bert,[20] and Dubois[19] ascertained this with accuracy, but their experiments were directed to discovering what was the net effect of different quantities of chloroform, and not to an analysis of the phenomena.

In the present work percentages of chloroform vapour in the air were regulated in the following way: Air coming from the artificial respiration apparatus passed through tube A (Fig. A), whence it reached A' by passing through B and C. C has a constant resistance E. In the course of B was placed the chloroform bottle, also a variable resistance D in the form of a screw tap provided with a graduated dial. The proportion of the total air passing over the chloroform was regulated by varying the resistance in B. The air passing along B was dried in the sulphuric acid bottle S to prevent condensation of water on the chloroform. The combined air and chloroform vapour was then warmed in the bath H before reaching the dog by the tracheal tube I. By means of the resistance tap K efficient aëration was attained for small and large dogs alike. The total volume of air and chloroform vapour was then measured by the meter M.

To ensure regular volatilization of the chloroform, its temperature had to be maintained constant. To do this the chloroform cylinder was constructed of copper, as being the best conductor of heat available, and immersed in a water bath and maintained at a constant temperature by means of a thermostat.

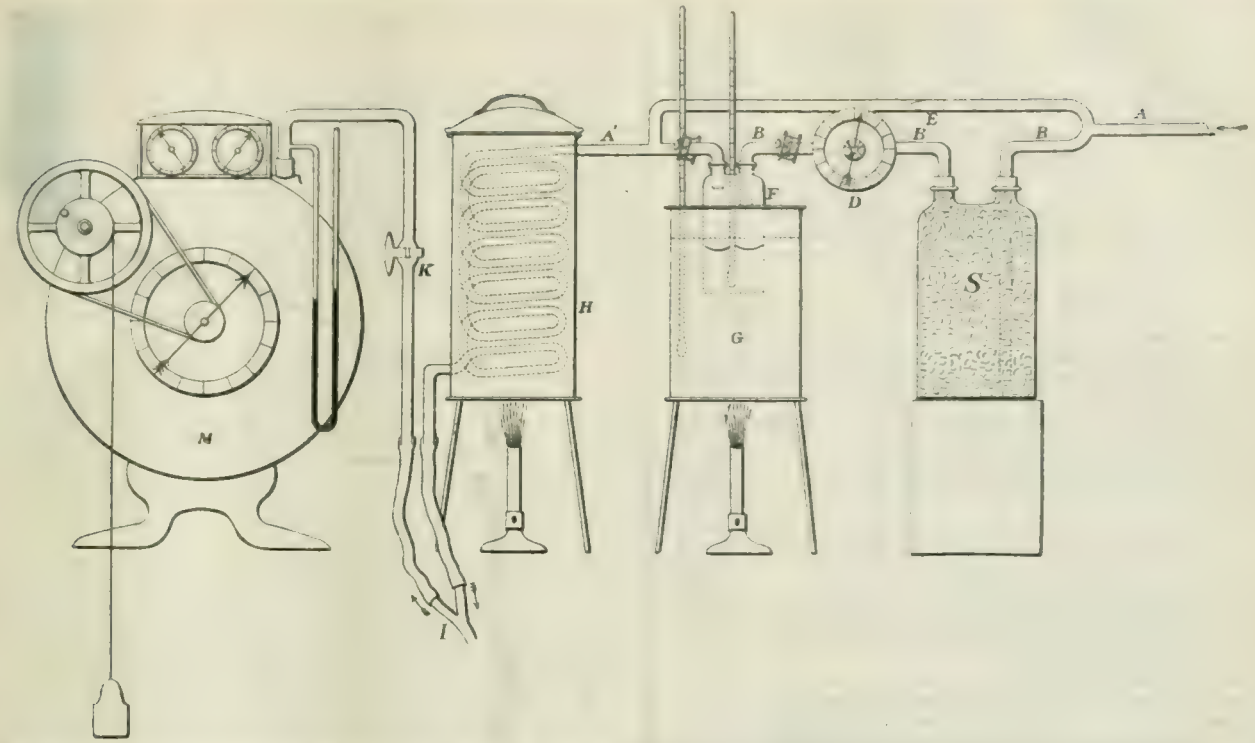


Fig. A.—A A', delivery tube from artificial respiration apparatus; B B B, loop tube; S, drying bottle containing H_2SO_4 on pumice; D, screw tap fitted with graduated dial; E, resistance tube; F, copper Woulff's bottle containing the chloroform; G, water bath; H, bath for heating air delivered to dog; I, trachea tube; K, resistance tap for adjusting the apparatus for different sizes of dogs; M, meter.

The value of the graduations on the dial of the screw-tap in terms of percentage of chloroform in the air administered was ascertained by passing air through the apparatus, and through the meter for ten minutes at a time, with the tap opened to different degrees 10, 15, 20, etc. The chloroform bottle was weighed before and after the passage of the air. The difference gave the weight of the chloroform which had been evaporated. The volume of the combined air and chloroform was read on the meter. Chloroform vapour corresponding to the weight of the chloroform evaporated was calculated by taking 1 gram of chloroform as affording 200 c.cm. of vapour at the temperature and pressure employed.

Having found the value of some of the divisions of the tap scale in terms of percentage chloroform in the air, these were plotted as ordinates against the corresponding divisions of the tap scale along the abscissa and the curve Fig. B drawn.

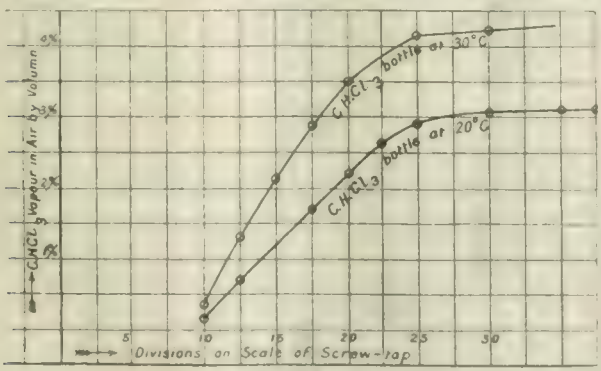


Fig. B.

From this curve the value of the intermediate positions of the tap scale can at once be found by interpolation.

This was done:

(1) With the temperature of the chloroform at 20° C.

(2) With the temperature of the chloroform at 30° C.

For ordinary purposes the chloroform bottle was at 20° C., but when high percentages of vapour were required 30° C. was necessary.

To start the administration of chloroform the screw tap was set for the percentage required and the clamp removed from the tube on the proximal and distal sides of the chloroform bottle. To ensure greater accuracy the chloroform bottle was weighed both before and after the experiment, and the meter read at the same times. The percentages were thus actually determined for each separate experiment.

Apparatus for Administering Known Percentages of Chloroform in Air in Natural Respiration Experiments.

For this purpose the meter was placed between the tube A (Fig. A) and the warming apparatus H. Through H a stream of chloroformed air was delivered into a dry gasometer.

The dog breathed from the gasometer. The expired chloroformed air was directed into the external air by gut valves. The surplus escaped from the gasometer by a valve.

The apparatus was always set working some time before the experiment began, in order that the water of the meter might attain the same vapour tension of chloroform as that of the air passing through it. In this manner possible error arising from the water of the meter abstracting chloroform from the air administered to the dog was obviated.

Recording Apparatus.

The mercurial manometer was used for most of the blood-pressure tracings. The rubber (Von Frey) manometer was used where long tracings were required.

The Von Frey manometer was calibrated against a mercurial manometer. It was found that for the range used the excursions of the lever were directly proportional to the pressure, and that 49 mm. excursion of the lever of the Von Frey manometer equalled 200 mm. of mercury pressure, or, roughly, 1 mm. of the former equals 4 mm. of mercury pressure.

PRESENT INVESTIGATION.

Particular attention was devoted to recording changes in the circulation during the early period of chloroform administration in animals which had not previously received chloroform. This was accomplished in two ways:

1. By performing all operative procedures necessary for studying the circulatory changes under morphine narcosis, either alone or with curare.

2. By inserting the cannulae, etc., under ether anaesthesia, and eight or twelve hours after, when the effects of the anaesthetic had passed off, connecting with the recording apparatus. The chloroform was administered off a towel.

In consequence of the known liability of dogs to die suddenly in the early stage of chloroform anaesthesia, when the chloroform is given by the towel method—a liability to which human beings are also subject in a less degree—these animals were chosen for the experiments.

In the whole investigation 289 dogs were employed, and 284 graphic records were obtained.

I.—THE EFFECTS OF CHLOROFORM UPON THE HEART ISOLATED FROM THE CENTRAL NERVOUS SYSTEM.

Blood-pressure tracings of the effect of chloroform upon the heart isolated from vagus, vasomotor, and respiratory influences, were obtained by the method of Hering.[21]

By this method the clamped carotid artery is connected directly with the clamped jugular vein by means of a U cannula, the other carotid being used for recording the blood pressure. The aorta is then ligatured just beyond the left subclavian artery, and when the blood pressure has become constant the artificial circuit is unclamped and the two subclavian arteries tied proximal to the vertebrals. The vagi are cut, and artificial respiration is then started. When the blood pressure again becomes constant the chloroform is administered.

Nineteen experiments were performed with the isolated heart. Tracing 1 is a typical blood pressure tracing by Hering's method, of the effect produced upon the heart by chloroform. The other tracings differ only in the steepness of the fall in blood pressure, the degree of steepness depending upon the percentage strength of the chloroform used. In tracing (1) the chloroform vapour in the air inhaled was 1.2 per cent. The blood pressure is seen to commence to fall almost coincidently with the administration. The high blood pressure at which the heart was working when the administration was started makes the former part of the fall in blood pressure more marked than the latter. There was no preliminary small rise of blood pressure such as is usually seen in experiments on the intact animal.

The heart is very sensitive indeed to the action of chloroform. When there was in the air inspired 0.8 per cent. chloroform vapour, blood pressure fell to zero in 16 min. 22 sec.; with 1.2 per cent. chloroform vapour, blood pressure fell to zero in 9 min. 45 sec.; with 2.0 per cent. chloroform vapour, blood pressure fell to zero in 1 min. 25 sec. The rapidity with which these quantities (0.8 to 2 per cent.) paralysed the isolated heart was surprising, for so far I have not succeeded in killing an intact animal by artificial inhalation and the vagi cut with 0.8 and 2 per cent. in less time than 5 to 6 and 1 to 2 hours respectively.

The amount of circulating blood in Hering's method of performing this experiment is very limited, probably not more than

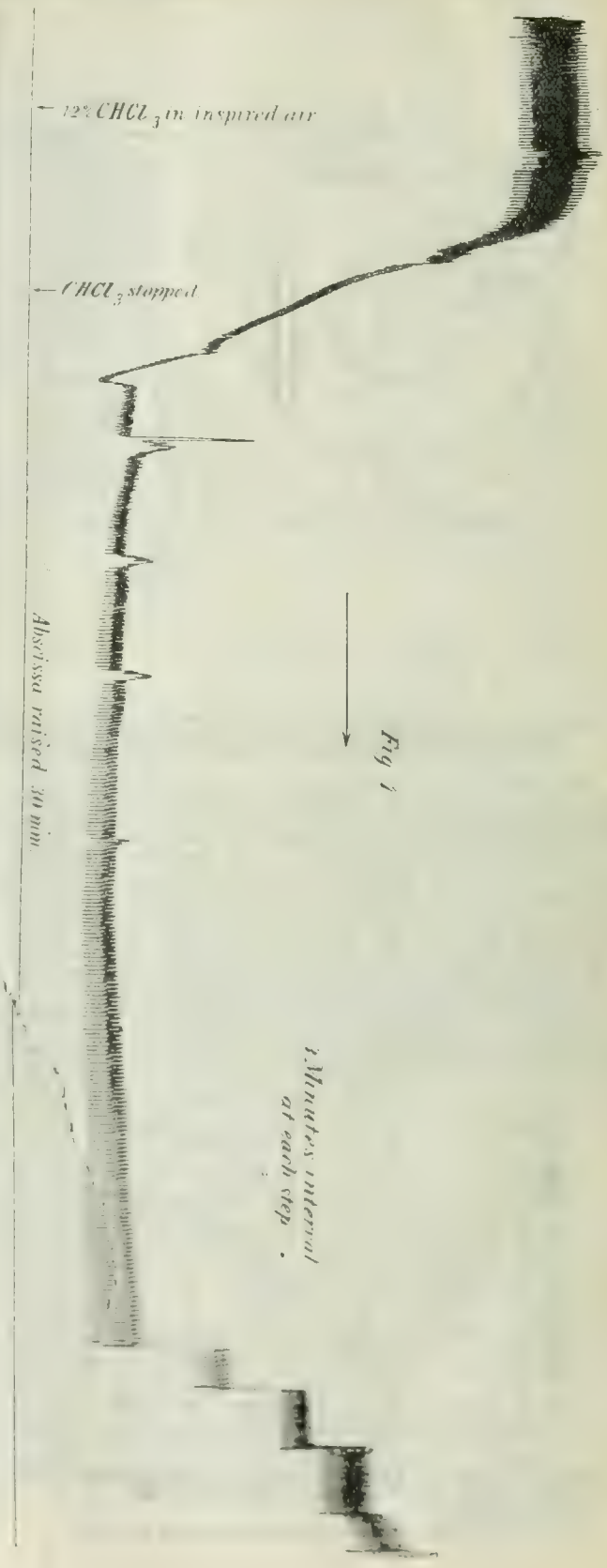


Fig 1

Tracing 1.—(Isolated heart, recovery.) Dog, weight 8 lbs. Morphine, 0.25 gram; 0.7 per cent. solution of chloroform in normal saline at 40° C injected into beside by the carotid artery for the anaesthesia during operation. Hering's method for artificial circulation. Vagi cut. Artificial respiration established 212 mm. of mercury. Chloroform, 1.2 per cent. in inspired air at "on" continued for 45 sec. Artificial respiration. Blood pressure tracing. Blood pressure 88 mm. of mercury. In recovery blood pressure rose again to 180 mm. of mercury in 16 min. 40 sec. from time of cessation of administration. The drum was stopped for three minutes each during recovery.

one-tenth* of the animal's blood being contained in the circuit.

That 0.8 per cent. of chloroform vapour in the inspired air produced paralysis of the heart under these circumstances in 16 min. 25 sec. must be due to the rapid rise in vapour tension of chloroform in the small and isolated quantity of circulating blood. This small quantity of blood cannot give its chloroform to the tissues and lymph. For the same reason the rapidity of recovery when chloroform administration was suspended in these experiments corresponds to the rapidity with which the heart is affected. This is seen in tracing (1). No sudden failure occurs from the action of chloroform on the isolated heart. The fall of blood pressure is gradual or steep according to the percentage of chloroform vapour in the air administered, but there were no abrupt variations in the rate or efficiency of the heart such as occur in an animal with an intact nervous system.

Experiments with the Heart Oncometer.

Twelve experiments were performed with the view to recording the changes in the volume of the heart produced by chloroform administration. The instruments used were air oncometers. Several sizes were neceesary to accommodate different hearts. It consisted of a hollow metal vessel, larger than the heart for which it was used. The top was closed, with the exception of a small opening into which was let the tube for connexion with the tambour. The bottom was open, but constricted into a neck with a turned-out lip. The opening in the neck was about two-thirds the diameter of the vessel.

In applying the oncometer to the heart, the sternum, with about 3 inches of rib from each side, was removed, after the intercostal and internal mammary arteries had been secured. The pericardium was then opened wide enough to admit the neck of the oncometer. The heart was next raised into the vessel, and the pericardium drawn up firmly and secured around the neck of the oncometer by an elastic band. The heart was thus enclosed in an almost unyielding chamber, the interior of which was in communication with the tambour. Artificial respiration was, of course, necessary throughout. Simultaneous records of arterial blood pressure were taken.

The heart was found to undergo rapid dilatation when the air respired contained 3 per cent. chloroform vapour and upwards. Slower dilatation occurred when lower percentages were employed; at the same time marked diminution occurred in the contraction volume *pari passu* with the fall of blood pressure. Dilatation happened, also, when the vagi were cut. The diminution in the contraction volume tailed off to imperceptibility as the blood pressure reached zero. When the vagi were intact, however, inhibition often terminated the circulation suddenly, and both tracings simultaneously ceased.

These results correspond with those of MacWilliam.[7]

Conclusions regarding the Effects of Chloroform on the Heart isolated from the Central Nervous System.

1. Chloroform has an immediate and progressively paralytic effect upon the heart muscle. There is no preliminary period of stimulation. There is no abrupt change in the rate or efficiency of the heart.

2. Heart muscle is very sensitive to the poisonous effect of chloroform—a tension of chloroform in blood corresponding to 0.8 per cent. chloroform vapour in the air inhaled kills the isolated mammal an heart in sixteen minutes.

3. In the administration of chloroform by inhalation to the intact animal, the vapour tension of chloroform in the blood only slowly reaches that of the inspired air.

(To be continued.)

* Six attempts were made to determine this quantity. They gave widely varying results. One estimation gave as high as one-sixth and another as low as one sixteenth of the total blood. The lowest value was obtained in an experiment in which the heart was vigorously contracting prior to the ligaturing off, and continued to beat well afterwards, driving the blood from the left to the right side through the coronaries only; the highest value when the heart was dilated and beating feebly before the last ligature was tied. These estimations were effected in the following manner: The morphinized dog was curarized. A standard was then made by diluting 1 c.cm. of the dog's blood with 99 c.cm. of distilled water. Artificial respiration was then commenced. The thorax was next opened by section along the sternum. The exposed aorta was tied close up to the left subclavian artery. The inferior vena cava and the azygos vein were next tied. The left subclavian was next tied, followed by the trunk of the right subclavian and carotids, simultaneously with the superior vena cava. The lungs and heart were then removed, and water run through from the inferior vena cava and out by the aorta until the washings came out colourless. The washings were then measured, and 10 c.cm. taken and diluted to match the colour of the standard. From the data thus obtained the amount of dog's blood in this portion of the circulation in relation to the total blood was readily calculated. The total blood was assumed to be one-thirteenth of the body weight.

A CONTRIBUTION TO THE STUDY OF THE PRESENCE AND FORMATION OF AGGLUTININS IN THE BLOOD.

By

M. ARMAND RUFFER, M.A., M.D. Oxon., President of the Sanitary, Maritime, and Quarantine Council of Egypt.

and

M. CRENDIROPOULO, M.D., Medical Director (1st class) Sanitary, Maritime, and Quarantine Council of Egypt.

(From the Port Vieux Laboratory, Alexandria.)

The origin in the animal organism of substances antagonistic to microbes has for a long time attracted the serious attention of observers, and many have endeavoured to solve a question which from so many points of view is so intensely interesting. Although special researches with a view to localizing the origin and the formation of agglutinins in the animal organisms are numerous, observers unanimously recognize that of all organs of the body the blood is richest in agglutinins, though these peculiar substances are also present in the lymph, in the pericardial and pleuritic fluids, and even in oedematous exudations which contain but very few cellular elements.

Previous Researches.

Nevertheless, it is by no means clear in what organ or organs agglutinins originate. Achard and Bensaude, Arloing, Widal, and Sicard endeavoured to ascertain whether, before passing into the blood, agglutinins were formed in the inflammatory fluid found at the point where a given microbe had been inoculated. Their conclusions were either negative or uncertain. Achard found the agglutinating power of pleuritic serous fluid sometimes greater, occasionally smaller, and at times equal, to that of the serum. Paul Courmont thought that occasionally agglutinins might be formed even in serous membranes. Pfeiffer and Marx, however, were the first to seek systematically for the place of formation of agglutinins. They injected cholera vibrios into young rabbits, killed the animals at varying times after inoculation, and observed that agglutinins were formed early in the lymphoid organs, the medulla of the bones, the lymphatic glands, and more especially in the spleen. Nevertheless, this fact was not sufficient to warrant them in drawing definitive conclusions.

Later, van Emden studied the distribution of the agglutinins of the bacillus aërogenes in the animal organism. According to this author, agglutinins were formed in the spleen, in the medulla of bone (which is able to compensate the spleen when that organ is removed), in the lymphatic glands (which, indeed, were sometimes richer in agglutinins than the spleen), and in the liver. But these organs contained more agglutinins than the blood only very soon after the injection of specific microbes. Later on, the blood was richer in agglutinins than these organs. These results were not confirmed by Rath who, however, used the bacillus typhosus for his experiments.

In the course of his researches on the resorption of cells Metchnikoff observed several times that agglutinins appeared first in the peritoneal exudations, and in the blood several days afterwards. Later on, the peritoneal liquid became less active than the serum. Metchnikoff was inclined to attribute a preponderating share in the production of agglutinins to the cells found in the peritoneal inflammatory fluid.

Deutsch observed in his interesting researches on anti-typhoid bodies that in immunized animals the liver, the kidneys, and the suprarenal bodies contain traces of agglutinins merely; whereas varying quantities of agglutinins could be obtained from the lymphoid organs spleen, medulla of bones, lymphatic glands—though these organs

never contained as much agglutinin as the serum. Strangely enough the lungs of non-immunized guinea-pigs were the only organs which in the majority of cases possessed agglutinating properties greater than those of the serum. But this action was not a specific one, and must be considered as quite independent of the action of the specific agglutinins of immunized animals.

Gengou, when studying the agglutination of an attenuated anthrax bacillus by organs and fluids of non-immunized guinea-pigs, found that the largest quantities of agglutinins were found in the blood, the organs showing but a feeble and inconstant agglutinating action. As extracts of leucocytes proved less active than blood and oedematous fluids, Gengou concluded that agglutinins were not to be considered as products of the cells of the animal organism.

Thus, as already stated, experimenters are unanimous in recognizing that agglutinins are constantly present in the blood, and that blood contains more agglutinins than do other organs of the animal organism. Almost all observers, however, noticed that the lymphoid and blood-forming organs contained a certain though varying amount of agglutinins.

Applying to agglutinins Deutsch's conclusions with regard to antibodies, one might conclude that there are no agglutinin-producing organs, but that there are parts of the body in which agglutinins are formed; and, further, that the one characteristic sign common to all these parts is a great wealth of leucocytes.

The researches recited above led us to consider whether the agglutinins were not formed in the formed constituents of the blood, and more specially in the red corpuscles.

We may mention here Nolf's researches. This author, with another object in view, disintegrated the red blood corpuscles of fowls, and injected their contents and their stromata into rabbits. The injection of the stromata of the corpuscles caused agglutinating properties to appear in the serum, the injection of the contents of the red corpuscles, on the other hand, being followed by the appearance of globulicidal properties in the blood. These experiments, however, give us no information regarding the possible agglutinating effect of the stromata themselves. Apart, also, from Gengou, whose researches on leucocytes have been quoted above, we do not known that any observer has endeavoured to study the formation of agglutinins in the formed constituents of the blood. In his beautiful work on immunity, Metchnikoff has pointed out that Gengou killed his animals at a time when their blood had well-marked agglutinating properties already, that is, when agglutinins might already have passed from the formed constituents into the

The question, therefore, of the possible origin of agglutinin in the formed constituents of the blood has hardly been touched upon. In order to work it out systematically we first ascertained the agglutinating power on several microbes of the white and red blood corpuscles of non-immunized animals. We then investigated the agglutinating effect of the same constituents of the blood of immunized animals.

Before entering into the main question, however, we deemed it necessary to ascertain whether the liquid cultures of a given microbe had or had not agglutinating properties for microbes of the same species.

Methods and Objects of Present Research.

In order to measure the agglutinating action of a given liquid we chose as a standard the minimum dilution which still gave rise, in two hours time and in each field of the microscope, to the formation of at least four to six microbic agglomerations. Emulsions in distilled water of agar culture twenty hours old were prepared and allowed to rest for a few minutes in order to allow any small flocculi to settle. As a rule three platinum loops were diluted with 10 c.cm. of distilled water, the emulsion holding just enough bacilli to render the liquid slightly opalescent. At first we used hanging drop preparations and dilutions in tubes. As far as possible the tubes were of the same size, and the dilutions were made in such a way that all the tubes contained about the same number of drops. Later on, however, we noticed that microbes agglutinated much more easily in hanging-drop preparations than in tubes, and after this we used the former only, the preparations being kept at the ordinary temperature of the laboratory.

Agglutinating Properties of Cultures freed from Microbes.

Malvoz was, we believe, the first who, studying the first anthrax vaccine, recognized the agglutinating power of the liquid in which the bacillus anthracis had proliferated after the liquid had been freed from microbes by centrifugal force. More lately, Macfadyen and Rowland have found that the juice from the bodies of typhoid bacilli, when very weakly diluted, markedly agglutinated the typhoid bacilli.

Our experiments were made with cultures of bacillus pyocyaneus and typhosus on various media. The following table gives the main results of our experiments:

Series I.

Age of Culture.	Name of Microbe.	Agglutinating Power.	Medium and Preparation of Liquid Tested.
5 days ...	B. pyocyaneus	1 in 2	Bouillon culture filtered.
15 ,, ...	,,	1 ,, 10	,, ,, ,,
17 ,, ...	,,	1 ,, 40	Culture in glycerinated peptone water and centrifugalized.
30 ,, ...	,,	1 ,, 20	Bouillon centrifugalized culture.
30 ,, ...	,,	1 ,, 20	,, culture filtered.
53 ,, ...	,,	1 ,, 20	,, ,, dialyzed through collodion.
53 ,, ...	,,	1 ,, 20	Culture in urine filtered.
3 months	,,	1 ,, 10	Bouillon culture centrifugalized
20 days ...	B. typhosus	1 ,, 5	,, ,, ,,
35 ,, ...	,,	1 ,, 10	,, ,, ,,
49 ,, ...	,,	1 ,, 20	Bouillon culture filtered.

It will be noticed that in all experiments the agglutinating effects were comparatively feeble but distinct. The culture possessing the most marked agglutinating powers was one of the bacillus pyocyaneus on pepto-glycerinated water which had grown for 17 days. This result may possibly have been due to the viscidity of the liquid or to the comparative ease with which glycerine dissolves most soluble ferments, and therefore possibly also agglutinins. The origin of these substances in cultures we have to leave unexplained, and we are content to point out that they exist.

The mode of sterilization of the culture does not appear to have any special effect on the quantities of agglutinating substances present. Filtered cultures have the same agglutinating power as centrifugalized or dyalized cultures, provided all be equally old. The age of the culture and the constitution of the medium appear more specially to influence the quantity of agglutinins present.

Experiment also shows that agglutinins pass through collodion sacs (though they do so with difficulty), and further that they dialyze almost entirely if the dialysis be prolonged. This is opposed to Gengou's assertion; he, however, allowed the cultures to dialyze for 24 hours only.

Agglutinating Properties of the formed Constituents of the Blood of Non-immunized Animals.

The question which we endeavoured to solve was whether the formed constituents of the blood of non-immunized animals contained agglutinins or not. An animal (rabbit or guinea-pig) was bled with aseptic precautions, and the blood thus obtained divided into two parts. The first was left to clot and the serum allowed to separate at a low temperature; the second was defibrinated and centrifugalized. The supernatant liquid of the second part was decanted, and the corpuscles remaining at the bottom of the tube were washed with physiological salt solution (0.65 per cent.), until the wash water exhibited no trace of agglutinating properties. As a rule, two or three washings sufficed for this. Then twice or thrice as much distilled water as there was blood in the original liquid was added to the washed corpuscles. Care was taken to add the water gradually and in small quantities, the tube being forcibly shaken meanwhile in order to dissociate the corpuscular agglomerations which had formed during centrifugalization. Whenever necessary a platinum loop—or, better, a small pipette—was used for the latter purpose. Nevertheless, there always remained a few flocculi which could not be broken up. The corpuscles having been thus emptied of their contents as far as possible, the stromata were separated from the liquid by a fresh centrifugalization.

The stromata of the corpuscles, after one or two washings, were then allowed to macerate at 37° C. in distilled water or various saline solutions, such as sodium chloride (10 per cent.), magnesium sulphate (5 per cent.), or sodium sulphate (5 per cent.) for a period varying from forty-eight hours to eight days. The amount of liquid in which the stromata macerated was equal to or double the primitive volume of the blood. The macerations were then centrifugalized and the liquid examined for agglutinating properties, and always compared with the pure original solution.

The agglutinating properties of the following liquid were examined: (1) The serum obtained by allowing the blood to coagulate at a low temperature; (2) the serum obtained by centrifugalization; (3) the contents of blood corpuscles; and (4) the macerated stromata. For brevity sake we omitted to indicate in the following table the salts used for macerating the stromata, as the results were identical with all the salts.

Series II.

No. of Animal.	Microbes Used.	Agglutinating Power of Serum.	Agglutinating Power of Centrifugalized Serum.	Extract of Blood Corpuscles.	Macerated Stromata.
Rabbit, No. 3 ...	B. typhosus	1 in 40	1 in 40	0	0
	B. coli	20	20	0	0
	B. pyocyaneus	70	70	0	0
Rabbit, No. 4 ...	B. typhosus	1 in 40	1 in 40	1 in 5	0
	B. coli	25	25	—	0
	B. pyocyaneus	100	100	0	0
Rabbit, No. 5 ...	B. typhosus	1 in 25	1 in 25	0	0
	B. coli	10	10	0	0
	B. pyocyaneus	40	40	0	0
Rabbit, No. 6 ...	B. typhosus	1 in 25	1 in 25	0	0
	B. coli	30	30	0	0
	B. pyocyaneus	40	40	0	0
Rabbit, No. 7 ...	B. typhosus	1 in 10	1 in 10	0	0
	B. coli	25	25	0	0
	B. pyocyaneus	20(?)	50	—	0
Rabbit, No. 8 ...	B. typhosus	1 in 20	1 in 20	0	0
	B. coli	15	15	0	0
	B. pyocyaneus	80	80	—	0
Rabbit, No. 9 ...	B. typhosus	1 in 25	1 in 25	1 in 3	0
	B. coli	10	10	0	0
	B. pyocyaneus	70	70	0	0
Rabbit, No. 10 ...	B. typhosus	1 in 10	1 in 10	0	0
	B. coli	10	10	0	0
	B. pyocyaneus	50	50	—	0
Guinea-pig, No. 1	B. typhosus	1 in 10	1 in 10	0	0
	B. coli	5	5	0	0
	B. pyocyaneus	20(?)	50	0	0
Guinea-pig, No. 2	B. typhosus	1 in 20	1 in 20	0	0
	B. coli	30	30	0	0
	B. pyocyaneus	—	—	—	—

It was clearly useless to proceed further with these investigations, as the 10 observations tabulated above uniformly showed that the agglutinating properties of the contents of the blood corpuscles and the macerated stromata were practically *nil*. We have also studied the agglutinating properties of stromata dissolved in a solution of 1 per cent. caustic soda, but the experiments were unsatisfactory and not clear owing to the effects of the caustic soda itself.

The agglutinating effect of the serum of some animals (especially big rabbits) on the bacillus typhosus is as high as 1 in 40. Similar facts have been observed by Koeller for the normal serum of men and dogs. Needless to say, this is of some practical importance in serum diagnosis. It will be noticed also that the bacillus pyocyaneus always agglutinated very easily.

Agglutinating Properties of the Formed Constituents of Immunized Animals.

We followed the same methods as for non-immunized animals. The formation of specific agglutinins was obtained by the injection into the peritoneum of 1 or 2 c.cm. of a culture sterilized by chloroform or, more often, by heat (100° C. during a quarter of an hour). Sometimes one injection only was made, sometimes several injections at different intervals, the blood being taken at varying dates after the injection. Our experiments were made with the bacillus typhosus and the bacillus pyocyaneus.

Series III.

Number of Animal.	Microbe Used.	Agglutinating Power of Serum before Injection.	Number of Injections.	Date of last Injection.	Serum obtained by Clotting.	Serum obtained by Centrifugalization.	Extract of Blood Corpuscles.	Macerated Stromata.
Rabbit No. 1	B. typhosus	1 in 10	1	24 hours	1 in 10	1 in 10	0	0
,, 2	,,	,, 25	1	48 ,,	,, 30	,, 30	0	0
,, 3	,,	,, 20	2	48 ,,	,, 30	,, 30	1 in 5	0
,, 4	,,	,, 15	1	3 days	,, 40	,, 40	0	•
,, 5	,,	,, 10	1	6 ,,	,, 80	,, 80	0	0
,, 6	,,	,, 20	1	12 ,,	,, 120	,, 120	1 in 2	0
,, 7	,,	,, 25	2	17 ,,	,, 120	,, 120	0	0
,, 8	,,	,, 40	3	19 ,,	,, 100	,, 100	0	0
,, 9	B. pyocyan.	,, 50	1	3 ,,	,, 90	,, 90	0	0
,, 10	,,	,, 70	1	? ,,	,, 120	,, 120	0	0
,, 11	,,	,, 80	2	12 ,,	,, 250	,, 250	0	0
,, 12	,,	,, 40	3	23 ,,	,, 150	,, 150	0	0

It follows clearly from these experiments that the formed constituents of the blood of immunized animals contain no agglutinins at any time during immunization. It is true that the extracts from red corpuscles sometimes showed slight traces of agglutinins, but this was probably due to the fact that during the process of washing, some of the clumps of red corpuscles were not entirely disintegrated.

We add now some details of some of our experiments.

Rabbit No. 3.—On July 31st a rabbit was inoculated intraperitoneally with 1 c.cm. of typhoid culture heated at 100° C. during a quarter of an hour. The serum of this rabbit, when experimented on before inoculation, agglutinated the typhoid bacillus when diluted 20 times. On August 10th the animal received another injection of 2 c.cm. of the same culture. The animal was killed on the 12th. The blood was divided into two parts; the first was allowed to stand at a low temperature; the other (5 c.cm.) was defibrinated and centrifugalized. The serum of this latter was then decanted, and the red corpuscles washed twice with salt solution and centrifugalized. The wash water contained no agglutinins. We now added to the centrifugalized corpuscles 10 c.cm. of distilled water, in small quantities at a time, taking care to shake the tube forcibly after each addition of water, and the larger part of the flocculi further dissociated by means of a pipette. The stromata, washed and centrifugalized at two different intervals, were then left to macerate in distilled water for forty-eight hours at a temperature of 37° C. The serum obtained by clotting and that obtained after defibrination and centrifugalization agglutinated at the end of two hours in a dilution of 1 in 30. In each preparation one saw several small groups of 7 to 10 bacilli or more, several of the groups being still motile; free bacilli were still numerous. The contents of the blood corpuscles gave only very few agglutinated heaps, when 5 parts of extract were added to 1 part of emulsion of bacillus typhosus. The stromata gave no agglutination whatever. The slight effect of the extract of the blood corpuscles was probably due to the fact that they could not be washed thoroughly as they could not be dissociated.

Rabbit No. 6.—On September 10th this rabbit was inoculated in the peritoneum with 1 c.cm. of a culture of typhoid bacillus sterilized by chloroform. The agglutinating power of the serum before inoculation was 1 in 20. Thirteen days after the inoculation, on September 23rd, the animal was killed and its blood submitted to the same treatment as the blood of the preceding rabbit. The stromata from 2 c.cm. of blood were left to macerate at 37° C. in distilled water during seven days, but several small clots were still present, and these could not be dissociated. The serums still showed feeble agglutination in a dilution of 1 in 120. The extracts of red blood corpuscles showed very feeble agglutinating power in a dilution of 1 in 2.

Rabbit No. 8.—On July 31st this rabbit received intraperitoneally 1 c.cm. of a bouillon culture of typhoid bacillus killed by heat. On August 10th this rabbit received a second injection of 1.75 c.cm. of the same culture, and a third injection of 2 c.cm. on the 16th. On September 4th, nineteen days after the last injection, the animal was killed and the blood treated in the way described above. The blood corpuscles from 4 c.cm. of blood were dissolved in 12 c.cm. of water. The stromata washed twice were left to macerate in a 5 per cent. solution of sulphate of magnesia at 37° C. during forty-eight hours. The two serums still showed feeble agglutination in a dilution of 1 in 100; the extract of blood corpuscles and stromata showed no agglutinative action whatever.

Rabbit No. 12.—This animal received in the peritoneum 1 c.cm. of culture of bacillus pyocyaneus heated at 100° C. during a quarter of an hour. Ten days afterwards the animal received 1.75 c.cm. of the same culture, and six days afterwards a third injection of 2 c.cm. The animal was killed twenty-three days afterwards, and its blood treated in the manner described above. The blood corpuscles from 3 c.cm. of blood were dissolved in 6 c.cm. of distilled water, and the stromata macerated in 3 c.cm. of sodium sulphate solution (5 per cent.) at 37° C during six days. The serums still showed fairly marked agglutinating action in a dilution of 1 in 150. The aggregations of bacilli were rather voluminous though motile. The other liquids showed no agglutinating action whatever.

Agglutinating Properties of Polynuclear Leucocytes of Non-immunized Animals.

We obtained a large number of leucocytes by injecting gluten-casein into animals, thus following the method of Buchner. The mode of preparing the solution to be injected was Gengou's, with this difference, that we used pure and

commercial gluten-casein. A 10 per cent. solution was made in ½ per cent. solution of potash heated to 100° C. After half an hour, the mixture was placed on the water bath at 55° C. for two to three hours, and then sterilized for a quarter of an hour at 100° C. on two consecutive days. Twenty-four hours after injecting this liquid into the pleural cavities of rabbits, one or two cubic centimetres of inflammatory liquid were found in the pleura. This varied somewhat in clearness, viscidity, and thickness, and contained a certain quantity of fibrin, and polynuclear leucocytes in enormous number.

This inflammatory fluid was pipetted off aseptically from the pleura and centrifugalized. The leucocytes at the bottom of the tube were then washed two or three times with physiological salt solution, and, after being centrifugalized once more, suspended in a quantity of bouillon equal in amount to the primitive exuded fluid. This emulsion was frozen according to Buchner's method by plunging it in a mixture of salt and sodium chloride. After staying half an hour in this mixture, the fluid was quickly removed to an incubator at 37° C., so far as to facilitate the breaking up of the leucocytes. After remaining for twelve hours in the incubator, the mixture was centrifugalized, and the liquid, which had become more or less ropy and tenacious, decanted off. It was then examined and compared with the serum of the same animal.

Whenever possible, we also tested the centrifugalized liquid of the pleural inflammatory fluids for agglutinins. Unfortunately, the inflammatory fluid sometimes contained such a quantity of fibrin that it coagulated *en masse* immediately after removal from the pleura. When this occurred the leucocytes were repeatedly washed until the mucin-like coagulum was completely dissolved and the last traces of it disappeared. We also always examined the last washing in order to make sure that it had no agglutinating power.

Series IV.

Rabbit A.—*Pleuritic Inflammatory Fluid very Viscid; Coagulates en Masse on Removal. Repeated Washings. Deposit composed almost Exclusively of Polynuclear Leucocytes.*

Microbe Tested.	Agglutinating Power of Serum.	Agglutinating Power of Leucocyte Extract.
B. typhosus	1 in 20	1 in 30
B. coli	1	10
B. pyocyaneus	[illegible]	15

Rabbit B.—*Pleuritic Inflammatory Fluid Abundant. Ratio of Polynuclear Leucocytes 70 per cent. Several Lymphocytes Present.*

Microbe Tested	Agglutinating Power of Serum.	Agglutinating Power of Leucocyte Extract.	Agglutinating Power of Pleural Liquid.
B. typhosus ...	1 in [illegible]	1 in 20	1 in 1[illegible]
B. coli	[illegible]	15	1
B. pyocyaneus ...	[illegible]	10	20

Rabbit C.—*Very Liquid Inflammatory Fluid, Poor in Cells. Ratio of Polynuclear Leucocytes 62 per cent., several Mononuclear Lymphocytes and various other Cells present.*

Microbe Tested.	Agglutinating Power of Serum.	Agglutinating Power of Leucocyte Extract.	Agglutinating Power of Pleural Liquid.
B. typhosus ...	1 in [illegible]	[illegible]	1 in [illegible]
B. coli	[illegible]	[illegible]	[illegible]
B. pyocyaneus ...	[illegible]	[illegible]	[illegible]

Rabbit D.—*Inflammatory Fluid Rich in Cells, composed almost entirely of Polynuclear Leucocytes.*

Microbe Tested.	Agglutinating Power of Serum.	Agglutinating Power of Leucocyte Extract.	Agglutinating Power of Pleural Liquid.
B. typhosus	1 in 10	1 in 20	1 in 5
B. coli	—	—	—
B. pyocyaneus ...	1 in 100	1 in 15	15

Rabbit E.—*Viscid Inflammatory Fluid Containing a large amount of Fibrin, the Liquid Coagulating en Masse. Very Rich in Cells. Several Washings. Ratio of Polynuclear Leucocytes about 90 per cent.*

Microbe Tested.	Agglutinating Power of Serum.	Agglutinating Power of Leucocyte Extract.	Agglutinating Power of Pleural Liquid.
B. typhosus	1 in 10	1 in 20	1 in 5
B. coli	25	20	2
B. pyocyaneus ...	50	10	25

Whenever, therefore, the pleural exudation contained a large proportion of leucocytes, the cellular extract had an agglutinating effect on the bacillus typhosus and bacillus coli equal to or greater than the serum. We may presume, therefore, that the substances normally present which agglutinate these two microbes are possibly formed, but certainly found most abundantly, in the polynuclear leucocytes. But the case is different with the bacillus pyocyaneus, for the agglutinating power of the cellular extract on this microbe has always shown itself to be inferior to that of the serum. There is no reason, therefore, to suppose at present that for this microbe, the leucocytes are the source of the agglutinins present in the blood of non-immunized animals.

We venture to think, therefore, that each agglutinin present in the serum of non-immunized animals is a specific one, and that they need not necessarily have the same origin.

Agglutinating Properties of the Polynuclear Leucocytes of Immunized Animals.

Each animal received only one peritoneal injection of 2 c.cm. of a culture sterilized by heat, a quantity which is usually found to be sufficient to produce the formation of agglutinins. The introduction of gluten-casein into the pleurae of rabbits was made at varying intervals after the inoculation of the dead cultures. The following table gives the results of our experiments:

Series V.

Rabbits.	Microbe used.	Agglutinating Power of Serum before Inoculation.	Number of Days after Inoculation.	Agglutinating Power of Serum.	Agglutinating Power of Leucocyte Extract.	Agglutinating Power of Pleural Liquid.
No. 1	B. typhosus	1 in [illegible]	24 hours	1 in 40	1 in 15	1 in 30
,, 2	,,	15	24 ,,	20	20	—
,, 3	,,	20	48 ,,	20	60	1 in 10
,, 4	,,	15	48 ,,	60	120	—
,, 5	,,	10	48 ,,	20	0	—
,, 6	,,	15	3 days	25	80	1 in 15
,, 7	,,	20	5 ,,	80	80	10
,, 8	,,	20	9 ,,	40	80	—
,, 9	,,	15	10 ,,	80	90	1 in 15
,, 10	,,	10	15 ,,	70	40	—
,, 11	,,	20	17 ,,	120	90	1 in 20
,, 12	,,	20	10 ,,	110	25	10
,, 13	B. pyocyaneus	20	48 hours	70	140	25
,, 14	,,	[illegible]	days	10	[illegible]	[illegible]
,, 15	,,	2[illegible]	[illegible] ,,	1[illegible]	[illegible]	1 in 80
,, 16	,,	[illegible]	17 ,,	[illegible]	[illegible]	[illegible]

We may draw from these experiments the conclusion, that the quantity of agglutinins increases the living leucocytes and especially polynuclear leucocytes before it does in the serum, and that, therefore, the specific agglutinins are probably formed in the leucocytes of animals immunized against particular microbes, just as frequently the agglutinins of non-immunized animals are probably often formed in them. The increased amount of agglutinins in these cells begins to show itself between the thirtieth and forty-eighth hours, but varies somewhat in different animals. Between the tenth and fifteenth day the amount of agglutinins present in the leucocytes begins to diminish; but it increases in the serum; and though no doubt the increase of the agglutinating action of the serum may be noticed already on the third day, it is relatively small, and, in any case, is far inferior to the increase in the leucocytic extract.

It is therefore not astonishing that Gengou found but a feeble agglutinating power in the leucocytic extracts he experimented with, for in several animals he raised the agglutinating property by repeated injections; thus the agglutinins had time to pass into the serum long before he examined the leucocytic extract.

The next question is whether this agglutination power which is so markedly developed in leucocytes after the inoculation of a specific microbe is really a specific increase or simply an increase of some pre-existing substance acting on all microbes without distinction.

If we measure the agglutinating value of the serums and leucocytic extracts of animals immunized against one particular microbe for other microbes, we find that at first all microbes are agglutinated in an increased degree by the leucocytic extracts. But this effect lasts a short time only, namely for three or four days; then the quantity of non-specific agglutinins falls suddenly to the normal level, and the agglutinating power on the microbe inoculated, alone persists during a fairly long time. The following table explains our meaning more clearly. The microbe inoculated was always the typhoid bacillus.

No. of Animal Used.	Microbes Tested.	No. of Days after Inoculation.	Agglutinating Power of Serum.	Agglutinating Power of Leucocyte Extract.	Agglutinating Power of Pleural Liquid.
Rabbit No. 3 ...	B. typhosus	48 hours	20	60	10
	B. coli		10	10 (?)	10
	B. pyocyaneus		50	70	15
Rabbit No. 5 ...	B. typhosus	48 hours	20	50	—
	B. coli		15	30	—
	B. pyocyaneus		110	40	—
Rabbit No. 7 ...	B. typhosus	5 days	80	80	10
	B. coli		20	60	2
	B. pyocyaneus		100	80	20
Rabbit No. 8 ...	B. typhosus	9 days	40	80	—
	B. coli		20	20	—
	B. pyocyaneus		40	10	—
Rabbit No. 10 ...	B. typhosus	15 days	70	40	—
	B. coli		15	15	—
	B. pyocyaneus		50	20	—

Comparing the agglutinating power of the leucocytic extract of non-immunized animals with that of the animals in the above table, we find that the extract of the former agglutinates only at most in the proportion of 1 in 20, whereas the extract of the latter possesses two or three times the power even for microbes other than those used for inoculation. This increased agglutinating power, however, lasts but for a short time. It will be noticed also that the agglutinating effect of the leucocytic extract on the bacillus pyocyaneus, though increased (compare the other tables), still remained low, and always much below the agglutinating power of the serum.

Conclusions.

From all the facts recited above we draw the following conclusions:

1. The cultures of a microbe freed from that microbe by filtration, dialysis, or centrifugalization have a distinct, though feeble, agglutinating effect on that particular microbe. The age of the culture and the constitution of the medium are important factors in determining the quantity of agglutinins present in such cultures.

2. The red blood corpuscles of non-immunized and immunized animals contain no trace of agglutinins.

3. On the other hand, the polynuclear leucocytes of non-immunized animals always possess an agglutinating power greater than, or more rarely equal to, that of the serum. They may therefore be rightly considered as the producers, or at any rate the carriers, of the agglutinins.

4. In immunized animals the specific agglutinins appear in the polynuclear leucocytes, and are therefore probably formed in them. The quantity of agglutinins begins to increase thirty to forty-eight hours after the injection, and goes on increasing up to the tenth day or thereabout. They then passed into the serum, the agglutinating power of which increases correspondingly.

5. The formation of specific agglutinins in polynuclear leucocytes and in the serum is preceded and accompanied during the first three or four days after the inoculation of a given microbe by an increase of agglutinins for other microbes. This latter increase is of short duration and stops suddenly, whereas the increase of specific agglutinins persists for a much longer time.

Bibliography.

Achard et Bensaude, *Archives de Médecine Expérimentale*, 1896, p. 759. Arloing, *Comptes Rendus de la Société de Biologie*, 1897. Widal et Sicard, *Annales de l'Institut Pasteur*, 1897. Pfeiffer et Marx, *Zeitschrift für Hygiene*, 1898. Van Emden, ibid., 1899, N. 1. Rath, *Centralblatt für Bacteriologie*, 1899. Metchnikoff, *Annales de l'Institut Pasteur*, 1899, N. 10. Paul Courmont, *Province Méd.*, 1898. Achard, *S. Médicale*, October 15th, 1898. Gengou, Agglutinines et Lysines, *Annales de l'Institut Pasteur*, Juillet, 1899. L. Deutsch, *Annales de l'Institut Pasteur*, September, 1899. Malvoz, ibid., Juillet, 1899. Nolf, ibid., Mai, 1900, P. Courmont, *Archives de Médecine Expérimentale*, 1900. F. Valagussa, *Annales d'Hygiène Expérimentale*, Fase 1, 1900. Dr. Koehler, *C. f. Bacteriologie*, N. 17, 1901. E. Maurel, *A. M. Expérimentale*, 1901. Pr. O. Loew, *C. f. Bacteriologie*, N. 17, 1901. Macfadyen and Rowland, *C. f. Bacteriologie*, N. 20, 1901. Metchnikoff, *L'Immunité dans les Maladies Infectieuses*, 1901, Paris: Masson et Cie. editeurs.

PROGRESS REPORT UPON THE BIOLOGICAL TEST FOR BLOOD AS APPLIED TO OVER 500 BLOODS FROM VARIOUS SOURCES.

TOGETHER WITH A PRELIMINARY NOTE UPON A METHOD FOR MEASURING THE DEGREE OF REACTION.

By GEORGE H. F. NUTTALL, M.A., M.D., Ph.D.,
University Lecturer in Bacteriology and Preventive Medicine, Cambridge.
(From the Laboratory of Preventive Medicine, Pathological Department, University of Cambridge.)

In view of the extended character of the investigation I am engaged in, I deem it advisable to present a brief summary of the main results obtained up to the present, reserving a detailed publication for a future occasion. I have already reported from time to time upon some of my results, and I refer the reader to my other papers for further information.[1]

Results of Biological Tests.

I have now tested some 46 bloods of apes and monkeys by means of "antihuman" serum, the results being in accord with those previously published, that is, the bloods of the *Simiidae* give a precipitum apparently equal in quantity to that of human blood, the bloods of *Cercopithecidae* give less precipitum, whilst the least precipitum is given by bloods of *Hapalidae* and *Cebidae*. The bloods of three species of lemur have given a negative result. By means of the volumetric method of measuring the different degrees of reaction, to which I shall presently refer, I hope to be able shortly to give the different degrees of reaction in figures, not only for these bloods, but also for others tested by different antisera.

Dr. Grünbaum of Liverpool having kindly sent me some "antichimpanzee" serum which he had prepared, I have been able to test a series of human, ape, and monkey bloods with it. The results coincide with those obtained with antihuman serum upon the same bloods. Some antigorilla serum which was also sent me by Dr. Grünbaum was unfortunately too weak to give any results which are worth recording.

"Antihorse" serum has been tested with negative result on 499 bloods, only the blood of the horse and donkey reacting. "Antidog" serum has given a precipitum with the

bloods of eight species of *Canidae*, but not with other bloods. "Anti-ox" and "antisheep" serums have continued to give reactions similar to those already reported; that is, they act upon the bloods of other true ruminants, to a greater degree upon the bloods of more closely allied species. I shall presently refer to certain slight reactions observed in other bloods.

At a recent meeting of the Cambridge Philosophical Society I reported briefly upon the results obtained with antiserums for the bloods of the pig, fowl, alligator, turtle, frog, lobster, and for the egg-albumen of the fowl. I have since succeeded in obtaining antiserums for the bloods of the ostrich and bear, and am preparing still other antiserums, upon the action of which I shall be able to report in due course.

One of the two "antipig" serums has proved to be especially powerful. It yielded a voluminous precipitum even in high dilutions of pig's blood. On the other hand, it produced a marked clouding in a number of other mammalian bloods, especially when the tubes were allowed to stand for some time. The bloods in which these cloudings, or slight reactions, took place were those of man, several species of monkey, bear, dog, raccoon, cat, coati, genet, stoat, rat, mouse, antelope, deer. Faint clouding was, moreover, produced after half an hour or after up to two hours in the bloods of bats (six species), three species of Edentates, and eight species of Australian marsupials. It is especially interesting to note that the blood of the porpoise immediately gave a slight clouding upon the addition of antipig serum, a well-marked though slight deposit being formed within twenty-four hours.

The more general action of this particular antipig serum on other mammalian bloods may at first appear to contradict what has hitherto been claimed with regard to the relatively specific character of these antiserums; but this is actually not the case. I have already noted elsewhere the occasional occurrence of clouding in non-homologous bloods upon the addition of an antiserum. This is frequently noted if a time limit is not put upon the test; but it may take place immediately with what we have termed "powerful" antiserum for want of a better word. In the absence of any standards it has been impossible hitherto to define the various grades of power possessed by antiserums. I have shown that a relatively weak antihuman serum will produce a precipitum in the blood of man and the anthropoid apes, less in that of the *Cercopithecidae*, but none in that of the *Hapalidae*, etc. A more powerful antiserum will include the *Hapilidae*, but confines itself to the group. A still more powerful antiserum will extend out beyond the group, and may include other mammals, the reaction in all cases being very much slighter and progressing very much more slowly than with homologous or closely-allied bloods. The occasional action of non-homologous antiserums upon bloods has been noted by other observers, but its significance has not been appreciated. I find that a powerful antiserum for any mammalian blood will produce a varying amount of clouding in all mammalian bloods. I have referred to this as the "mammalian reaction." In some cases this mammalian reaction begins to appear long after a well-marked precipitum is formed in a homologous blood dilution, and frequently it does not lead to any deposit, or but to a trace of deposit, after twenty-four to forty-eight hours.

These slight reactions would never be mistaken for a full reaction, such as a homologous blood gives. I think I am justified in thus speaking of a mammalian reaction, for the reason that I have not observed an antimammalian serum to produce even the slightest clouding in avian, reptilian, batrachian, and crustacean bloods.[2] There appear, then, to be different properties in blood, a common mammalian property, besides properties pertaining to groups and species. By the method of measuring the reaction which I describe below, I expect that we shall be able to define these degrees of reaction by figures.

"Antifowl" and "antiostrich" serum have been found to act to a greater or less degree on all bird bloods tested, but not on any non-avian bloods. The first has been tested on 510 bloods, of which 153 were avian, the second on over 100 bloods. "Antiegg" serum (very powerful) only produced a marked reaction with egg-white of the fowl, a feeble reaction only being obtained with fowl's blood, more or less clouding in some avian bloods. It had no action on any non-avian bloods with the exception of the bloods of *Alligator sinensis*, *A. mississippiensis*, *Chelone midas*, and *Testudo ibera*, in the first and last of which it produced marked clouding, producing faint clouding in the other two. It is perhaps premature to draw any conclusion from this interesting observation; it is, however, very suggestive in view of the reptilian origin of birds. It is not impossible that a more powerful antiserum for avian blood will also bring about this slight, possibly "reptilian-avian" reaction.

"Antialligator" (*A. mississippiensis*) serum tested on over 500 bloods only produced a reaction with its homologous blood, and that of *A. sinensis* a faint clouding in the blood of the green turtle (*Chelone midas*).

"Antiturtle" (*Chelone midas*) serum produced a reaction with its homologous serum, a marked clouding with that of *Testudo ibera*, a faint clouding with that of *A. mississippiensis*. Both this and antialligator serum produced no effect whatever on any non-reptilian bloods.

"Antilobster" (*Homarus vulgaris*) serum, also tested on over 500 bloods, only produced a precipitum in dilutions of lobster serum. It, however, produced marked clouding in the blood of the crayfish, and in that of five species of crab. This antiserum produced no effect whatever on 503 non-crustacean bloods.

"Antifrog" (*Rana temporaria*) serum formed a precipitum with its homologous blood, and with that of *Rana tigrina*. Some toad bloods which have been collected on filter paper, having proved insoluble in salt solution, have not yet been tested. This antiserum produced no effect on 508 non-batrachian bloods.

I continue to receive numerous blood samples from all parts of the world, being aided at present by the kind co-operation of some forty gentlemen at home and abroad. On a later occasion I shall thank them personally in print, but in the meantime I must express my great appreciation of their efforts on behalf of this research. In most cases the blood samples are sent to me dried upon filter paper, as directed in a circular letter which I have been sending out during the past year, this being the most convenient method I have found for obtaining a supply of a large variety of bloods. Dilutions made from these dried bloods give approximately accurate results, and serve very well for purposes of preliminary study by way of surveying the field for future work.

MEASUREMENT OF DEGREE OF REACTION.

In earlier papers I have dwelt upon differences in the degree of reactions obtained with different antiserums, noting in several instances that the reaction is less and less marked as we come to testing the bloods of more distantly-related animals. It occurred to me at an early date that a method might be devised for the quantitative determination of the amount of precipitum. I believe that I have discovered a very simple method of doing this, and it therefore follows that we actually appear to possess a means of measurement for the degree of blood relationship. To work by this method exact dilutions of fresh fluid serums are used to which accurately measured quantities of antiserum are added.

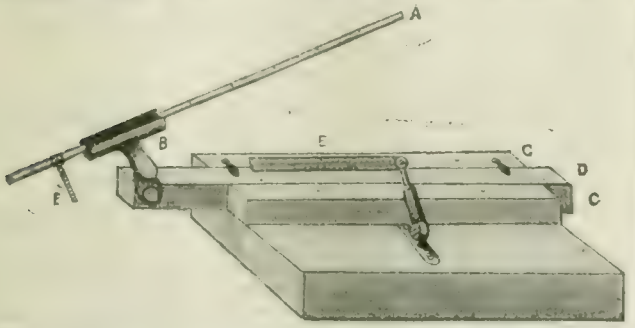
Method for the Measurement of the Degree of Reaction.

Dilutions of the serums to be tested quantitatively are made with 0.6 per cent. normal salt solution to the degree desired—namely, 1 : 100, 1 : 200, etc. The solutions must be perfectly clear and free from suspended matter. Accurately-measured quantities—usually 0.5 c.cm. of the dilution—are transferred into a series of clean dry test-tubes, having a capacity of about 1 c.cm. and a lumen of about 5 mm. The dilution is allowed to run into the tubes along a fine, freshly-drawn, sealed capillary tube in order to avoid the formation of bubbles or of overflow in filling the tubes. Each tube is supplied with a sealed capillary, which is left in place after the introduction of the dilution, subsequently serving a similar purpose when adding the antiserum. An accurately-measured quantity of antiserum is now added to the dilution, in the proportion of 20 : 1 to 200 : 1 or more of the blood in dilution. After the antiserum has been added to the series of tubes, the capillaries are removed and the mixture of dilution and antiserum is effected. This can be done very satisfactorily by applying the tip of the clean finger to the mouth of the tube and shaking it up and down. By using the fingers of both hands in rotation eight tubes can be shaken in succession, after which the hands must be cleansed before proceeding to the next set of tubes. This is only mentioned because it saves time. With a little practice it will be found easy to bring about complete mixture without the formation of troublesome air bubbles, and if the fluid is shaken down to the bottom of the tube before removing the finger the loss of fluid entailed by contact with the finger is practically negligible, the finger-tip remaining apparently dry after some practice. The mixture is now

left standing at a desired temperature, the rate of precipitum formation, etc., being noted.

After twenty-four hours have elapsed, the precipitum has become deposited upon the bottom of the tube. Should any adhere to the walls of the vessel, it may be dislodged by gently tapping or rotating the tube upon its vertical axis. The particles thus displaced soon sink to the bottom of the tube, provided it does not contain too much serum, which through its viscidity impeded their gravitation. The clear supernatant fluid is now pipetted off by means of a conveniently-bent bulbed capillary pipette, the tip of which is allowed to slide down along the inner wall of the test tube, the precipitum not being disturbed, the clear fluid being aspirated into the bulb as the tip of the pipette slides down a little beneath the receding surface of the column of fluid in the tube. The bulk of precipitum and clear fluid left is so small that it can now be readily drawn up into the capillaries.

The capillaries used for measuring the precipitum volumetrically are made of fairly thick glass, are about 12 cm. long, and have a lumen of about 1 mm. The ends should be cut off square by means of a diamond, this being essential, as it is thus possible to practically remove all the fluid and precipitum in the bottom of the small test tube. The end of the capillary is placed against the bottom of the tube, and the deposit and fluid are well mixed by being drawn backwards and forwards into the capillary. It is imperative that bubbles should be avoided. The fluid is now drawn up a little way into the capillary, and the end of this is drawn out and sealed in a very small flame. The sealed end should be blunt to avoid possibility of breakage; the other end of the tube, which can now be cut down to a convenient length, is left open. After a number of capillaries have been thus prepared, they are placed vertically in a cool place. After twenty-four hours the height of the column of precipitum is marked upon the capillary with a glass pencil. After forty-eight to seventy-two hours it will be seen that the column of precipitum remains constant. The amount of precipitum may now be measured.



The accompanying figure shows a little apparatus which I have made in the laboratory, and have found very convenient for making these measurements of the amount of precipitum. A fairly large thermometer tube (A) is used which is graduated in tenths of a c.cm., the calibre being chosen so that a fine steel scale of 10 cm. (E) subdivided into 0.5 mm. corresponds to the length of column of fluid measuring 0.1 c.cm. in the tube. The tube is filled with pure water up to the graduation mark, the mouth being wiped dry with filter paper. The tube is fixed in a spring clip which is attached to the wooden rod (D) so that it pivots in a vertical plane, thus permitting the tube to rest in a horizontal position or at any desired angle. The rod (D) slides horizontally between the rods C and C', which are nailed to a solid block of wood beneath. Two small brass plates attached to rod C prevent rod D from being displaced. The steel cm. measure is attached to a metal support, which is screwed to the block beneath. By a lucky chance I happened to have an old "peep sight" from a sporting rifle which served admirably for carrying the metal scale, as it can be inclined at any angle and be screwed up or down. By pivotting the scale on a screw passing through the eyehole of the sight, the scale can be placed and retained at any angle on its support, thus making it possible to closely apply the fine scale to the thermometer tube in any position desired.

The height of the volume of precipitum having been marked upon the capillary tube, the latter is cut square by means of a diamond at the lower meniscus, a small quantity of air having been left in the lower end of the tube when it was sealed. The contents of the tube are blown out, the tube is drained as far as possible by blowing out the moisture it contains on to filter paper, or it can be washed out and dried. The mouth of the capillary is now brought in contact with the end of the thermometer tube, which has been slightly raised at one end (A), and fluid is allowed to pass into the capillary up to the pencil mark previously noted. The amount of fluid which has passed into the capillary is now read off on the scale. The thermometer tube is moved by means of the handle (F) so as to prevent expansion of the fluid through the heat of the hand. Where it is desired to know the actual quantity of precipitum, it is necessary to note the temperature and calculate accordingly. This may be disregarded when a simple comparison is being made with different quantities of precipitum in a given series, the measurements being made in rapid succession under similar outward conditions. If it is desired to make simply comparative measurements a diamond scratch on any suitable tube is sufficient, only the measurements on the steel scale being recorded.

I am at present engaged, with the aid of Mr. T. Strangeways-Pigg, in making measurements of the degree of reaction, etc., by means of this method, and we shall very shortly report upon our results, which are certainly striking. We hope to succeed in standardizing our antiserum by this method.

I have described my method thus in detail, so as to give others an early opportunity of putting it to the test. We have so far obtained what appear to be remarkable results. If we count the amount of precipitum, measuring about 0.03 c.cm., obtained from adding 0.1 c.cm. of an antiserum to 0.5 c.cm. of its homologous dilution (1 to 100 or 1 to 200) as 100, then we obtain figures somewhat as follows:

Antisheep Serum.		Antipig Serum.	
Sheep	100	Pig	100
Ox	80	Horse	16
Antelope	50	Hog deer	14
Hog Deer	47	Cat	14
Reindeer	30	Dog	13
Pig	20	Sheep	13
Horse	16	Wallaby	5
Cat	12		
Dog	7		
Wallaby	5		

In both series we observe the occurrence of what I have termed the mammalian reaction, both antiserums being very powerful. I do not wish these numbers to be taken as final, nevertheless they very definitely show that the results which I have published, based upon cruder methods of experimentation, are essentially correct. To obtain a constant it will be necessary to make repeated tests with the bloods of each species and with different antiserums of one kind, making the tests with different dilutions and different proportions of antiserum. I am inclined to believe that with care we shall perhaps be able to "measure species" by this method, for it appears from the above results that there are measurable differences in the reactions obtained from related bloods, in other words, determinable degrees of blood relationship which we may be able to formulate.

NOTES.

[1] British Medical Journal, May 11th, 1901, vol. i, p. 1141, September 1st, vol. ii, p. 669; *Journ. of Hygiene*, July 1st, 1901, vol. i. pp. 367-587; *Proc. Roy. Soc.*, vol. lxix, pp. 150-153 (paper read November 21st); *Journ. Trop. Med.*, December 16th, 1901, pp. 405-408; *American Naturalist*, vol. xxxv, pp. 927-932; *Proc. Phil. Soc.*, Cambridge meeting of January 20th, 1902.

[2] In 2 instances out of 510 tests a faint clouding was observed to take place in a dilution of avian blood, tested by means of an antimammalian serum and vice versâ. In both cases the blood samples had been collected with other bloods. In one case I received samples of avian and mammalian bloods collected on the same day by a sportsman, and I have no doubt but that the filter-paper strips came in contact with each other in a moist state, a possibility against which I have sounded a warning in my circular letter. As I was the first to show, these reactions come off, even in mixtures of several kinds of blood. Such accidents can be prevented by the use of paraffined envelopes, which I have sent out with my blood-collecting "outfit."

THE DIAGNOSTIC VALUE OF THE VARIATIONS IN THE LEUCOCYTES AND OTHER BLOOD CHANGES

IN TYPHOID AND MALARIAL REMITTENT FEVERS RESPECTIVELY.

By LEONARD ROGERS, M.D., M.R.C.P., I.M.S.,
Officiating Professor of Pathology, Medical College, Calcutta.

During the last few years much attention has been paid to the blood changes in the specific fevers, and the great diagnostic value, especially of the variations in the numbers, of both the total and individual leucocytes has been fully recognized. At the same time the discovery of the serum test for typhoid and Malta fevers and the great progress in our knowledge of malarial parasites has placed in our hands valuable aids in the differentiation of the still far too little known tropical fevers.*

Recently, through the kindness of the medical officers in charge of the different Calcutta hospitals, I have been able to study the blood changes in some fifty cases of continued and

* More than four years ago I made arrangements for applying these modern methods to the study of fevers in a large military station in India, but at a day's notice was whisked off to a frontier expedition, and until a few months ago was prevented by the exigencies of military and special duty from pursuing this interesting field of study, a fact which I only mention because too little allowance is made for the difficulties and interruptions of scientific work in India by those who criticize the paucity of results obtained in this country.

TABLE I.

Number of Case.	Nationality.	Age.	Sex.	Day of Disease.	Dilution of Serum with Typhoid Reaction.	Percentage of Haemoglobin.	Haemoglobin Value or Colour Index.	Red Corpuscles per Cubic Millimetre.	White Corpuscles per Cubic Millimetre.	Ratio of Red to White Corpuscles.	Percentage of Polynuclears.	Lymphocytes.	Large Mononuclears.	Remarks.
1	E. I.	15	F.	7	1-100	72	0.75	4,790,000	4,375	1-1095	65.0	31.4	2.8	Average severity.
				16	—	59	0.77	3,855,000	4,000	1- 964	55.0	42.0	3.0	
				25	1-500	68	0.81	4,185,000	5,500	1- 761	47.6	48.6	3.6	
2	E.	22	M.	10	1-100	78	0.75	5,190,000	4,500	1-1153	59.0	38.2	2.8	Severe.
				30	1-200	69	0.77	4,450,000	9,500	1- 467	47.0	50.0	2.4	
3	N. Ch.	14	F.	20	1-100	63	0.73	4,320,000	7,500	1- 576	58.2	35.4	6.4	Severe.
4	N. Ch.	16	F.	14	1- 40	58	0.80	3,620,000	1,250	1-2896	51.0	43.3	4.7	Mild.
				25	1-100	59	0.73	4,010,000	1,250	1-3208	48.6	41.8	5.2	
5	M.	23	M.	20	1-100	78	0.70	5,530,000	6,250	1- 885	73.4	22.0	4.0	Severe: no fever 6 days.
				44	—	60	0.60	4,480,000	4,500	1-1106	49.8	46.2	2.2	
6	M.	20	M.	17	1-500	67	0.75	4,465,000	2,500	1-1786	45.6	49.0	4.2	No fever 14 days.
				35	—	—	—	—	—	—	61.6	33.6	4.4	
7	H.	30	M.	23	1-100	71	0.68	5,255,000	6,625	1- 793	47.6	47.8	4.4	Relapse.
				66	1-500	—	—	—	—	—	53.2	42.4	4.2	
8	H.	20	M.	17	1- 20	46	0.66	3,460,000	1,750	1-1977	52.0	40.5	6.0	Previous malaria.
				24	—	44	0.68	3,220,000	3,625	1- 888	54.5	39.5	5.5	
9	Ar.	14	F.	14	1-100	55	0.63	4,375,000	4,875	1- 897	44.8	48.8	5.6	Mild.
10	C.	26	M.	23	1- 40	51	0.75	3,380,000	3,125	1-1082	50.0	45.5	4.5	Mild; no fever 3 days.
				33	1-100	49	0.70	3,500,000	3,250	1-1076	68.0	34.0	3.6	
11	G.	25	M.	35	1- 40	56	0.62	4,350,000	3,500	1-1300	46.0	46.0	—	Severe, with relapse.
				85	—	67	0.73	4,590,000	6,000	1- 765	51.0	42.8	5.2	
12	H.	23	M.	?	1- 20	48	0.61	3,915,000	4,875	1- 803	37.8	57.6	4.4	Admitted in relapse.
				?	1-100	—	—	—	—	—	45.2	48.2	6.6	
Complicated Cases.														
13	N. Ch.	8	F.	26	1-100	54	0.70	3,850,000	6,250	1- 786	87.6	8.8	3.2	Local peritonitis.
14	N. Ch.	12	M.	9	1-500	62	0.63	4,945,000	5,500	1- 829	79.4	17.6	2.4	Ditto.
15	H.	27	M.	18	1-100	80	0.78	5,115,000	10,125	1- 505	81.0	15.4	3.2	Pneumonia.

Abbreviations used in Tables:—E. I., East Indian or Eurasian a person of mixed blood. E., European. N. Ch., Native Christian. M., Mohammedan. H., Hindu. Ar., Armenian. C., Chinaman. G., Goanese. M. T., Malignant Tertian.

remittent fevers among both Europeans and natives. The first result has been the discovery that typhoid fever is really quite common among natives of India, and they are very far from presenting any degree of immunity from the disease as held by at least one recent writer,[1] but this part of the subject I have already dealt with in another place.[2] Further, it has been found that the alterations in the blood which take place during attacks of typhoid and malarial remittent fevers respectively differ in certain important respects, and that these differences are sufficiently definite and constant to be often of diagnostic value, while they are so easily tested as to be of practical use; and it is with this part of the subject that I propose to deal in the present paper.

In India, and probably also in many other tropical climates, by far the commonest fevers, and in their earlier stages, at any rate, the most frequently confused continued and remittent are typhoid and the severer forms of malaria. The latter frequently do not come under observation until after they have been liberally dosed with quinine, as a consequence of which parasites are often absent from the peripheral circulation, while it has recently been shown[3] that they may not be found after long and repeated search, even when no quinine has been taken. Moreover, facilities for carrying out Widal's test for the former fever are only too often not available in tropical stations. Any easily detected blood change which will differentiate between these two forms of fever may, then, be of the utmost practical value. Such, I believe, we have in the variations in the proportions of the different kinds of leucocytes. It has long been known that the total leucocyte count is decreased in both typhoid and malarial fevers, this change often being very marked in malarial cases as I show elsewhere.[4] More recently it has been pointed out by Drs. Stephens and Christophers of the Royal Society's Malaria Commission[5] that the percentage of large mononuclear white corpuscles is considerably increased in malarial fevers, this change being most marked during the intermissions or remissions of the fever, and the counts recorded by Turk[6] confirm this observation. In typhoid, on the other hand, the last named observer gives figures showing an increase in the lymphocytes as the most marked change, the large mononuclears showing no increase, although Cabot says these last are also increased in typhoid.

The question, then, arises whether these differences in the two forms of fever are sufficiently constant and marked to be of diagnostic value, and whether there are any other changes in the blood which may be of service in the same way. In order to test this a series of cases of both forms of fevers have been submitted to the following examination. The percentage of haemoglobin and the number of red and white corpuscles respectively per cubic millimetre have been estimated with Gowers's instruments. From the first two data the haemoglobin value or amount of haemoglobin in each red corpuscle compared to unity is obtained, and from the last two the proportion of white to red corpuscles is worked out. The percentage of the different forms of leucocytes is estimated from a count of 500 in a blood slide stained by Romanowsky's method, this being also used for searching for malarial parasites. Lastly, every case has been examined for Widal's serum reaction for typhoid fever, and most of them also for Malta fever, although the latter has invariably given negative results. Four-hour temperature charts and clinical notes have also been obtained from the hospital records.

THE BLOOD CHANGES IN TYPHOID FEVER.

In Table I the results of the blood examinations in a series of cases of typhoid fever are given, and can be contrasted with those of another series of malarial remittent fevers, which are recorded in Table II. The nationality, age, and sex are also given, the day of the disease when the blood was examined, and the highest dilution in which the serum gave a complete agglutination reaction with a one-day broth culture within one hour, this having been tested in each case in dilutions of 1 in 20, 1 in 40, and 1 in 100, and sometimes in higher ones. Cases with complications are placed at the end of the table. The cases are a consecutive series, although they have been arranged in accordance with the day of the disease when first examined, beginning with the earliest dates. Nearly as many more cases might have been given, but they show precisely similar results, and the general features are so constant that those revealed afford sufficient data for comparison with the malarial series in Table II.

Table II.

Number.	Nationality.	Age.	Sex.	Temperature when Blood was Taken.	Highest Temperature Previous Evening.	Percentage of Haemoglobin.	Haemoglobin Value or Colour Index	Red Corpuscles per Cubic Millimetre.	White Corpuscles per Cubic Millimetre.	Ratio of White to Red Corpuscles.	Percentage of Polynuclears.	Lymphocytes	Large Mononuclears.	Parasites Found.
				°	°									
1	H.	12	M.	103.0	—	72	0.64	5,620,000	6,875	1-817	68.2	15.6	16.0	*Nil.*
2	E.	17	M.	98.4	98.4	80	0.79	5,040,000	5,375	1-937	50.4	33.0	16.4	*Nil.*
3	E. I.	32	F.	103.0	103.4	—	—	4,410,000	5,250	1-840	69.0	11.4	19.2	M. T.
3*a*	H.	30	M.	99.6	101.4	56	0.72	3,910,000	8,250	1-433	66.0	19.2	14.8	*Nil.*
4	H.	45	M.	100.8 / 97.0	104.0 / 99.0	68 / 65	0.89 / 0.71	3,835,000 / 4,560,000	4,500 / 5,125	1-852 / 1-889	55.4 / 66.4	36.6 / 18.6	8.0 / 14.8	*Nil.*
5	M.	22	M.	100.6	104.0	50	0.65	3,825,000	1,275	1-3000	28.6	62.4	13.6	M. T.
6	M.	21	M.	103.6 / 98.6	103.6 / 100.0	53 / 51	0.71 / 0.81	3,745,000 / 3,161,000	3,875 / 5,250	1-976 / 1-602	35.2 / 45.4	44.0 / 27.0	23.8 / 27.4	M. T.
7	M.	25	M.	105.4 / *	105.4 / *	50 / 60	0.97 / 0.73	2,565,000 / 3,430,000	750 / 1,625	1-3430 / 1-2111	66.0 / 54.5	25.8 / 25.0	7.4 / 19.6	M. T.
8	H.	30	M.	†	†	75	1.15	3,250,000	4,500	1-722	67.6	20.6	11.8	*Nil.*
9	H.	60	M.	101.6 / ‡	102.6 / ‡	54 / 55	0.97 / 0.98	2,790,000 / 2,830,000	750 / 1,000	1-3720 / 1-2830	53.5 / 59.5	40.5 / 11.0	5.0 / 29.0	M. T.
10	N. Ch.	11	F.	98.0 / 104.0	101.0 / 103.0	24 / 22	0.56 / 0.51	2,165,000 / 2,165,000	1,000 / 1,000	1-2165 / 1-2165	39.8 / 48.5	42.0 / 39.0	20.0 / 11.5	*Nil.*
11	H.	24	M.	100.6	103.0	38	0.88	2,150,000	2,000	1-1075	26.4	61.4	11.6	M. T.
12	N. Ch.	33	M.	100.4	103.8	39	0.99	1,960,000	3,500	1-560	48.8	38.2	12.6	*Nil.*
13	H.	35	F.	—	—	—	—	—	—	—	34.4	46.4	18.8	*Nil.*
14	H.	28	M.	98.2	103.6	47	1.22	1,925,000	1,500	1-1283	39.0	48.2	12.2	—

* Normal 3 days. † Normal 5 days. ‡ Normal 1 day.

Degree of Anaemia.—Secondary anaemia, usually of a medium or slight degree, is a well-known result of typhoid fever, and gradually increases in the later stages of the disease. High counts of red cells may be met with as a result of concentration of the blood produced by diarrhoea. Those cases in my table which have been examined more than once show this progressive decrease of both the red corpuscles and the percentage of haemoglobin, the loss having been in proportion to the severity of the cases. In estimating the degree of anaemia it must be remembered that most of the patients were natives, in whom about 70 per cent. of haemoglobin (Gowers's standard) is about the average met with in healthy persons; while in Europeans who have been any length of time in the tropics 70 to 80 per cent. only is commonly found. On the other hand, I have found the number of red corpuscles in health in the tropics to be quite up to the European standard, being usually about 5,000,000, or slightly more, per cubic millimetre. It follows from this that the normal haemoglobin value or colour index will be about 0.7 in a native, and 0.7 to 0.8 in a European not recently arrived in the country. Allowing for these differences from the European standard it will be seen that the haemoglobin is reduced in about the same or in slightly greater proportion than the red corpuscles, the colour index being normal or slightly reduced, having been between 0.6 and 0.8 in the cases tabulated. This is in agreement with the statements of Cabot. The degree of anaemia met with has been comparatively slight, the number of red corpuscles not having fallen below 3,000,000; while it was seldom below 3,500,000 before the end of the third week, by which time there will usually be little doubt about the diagnosis of the case. Further, the haemoglobin seldom falls below 50 per cent. (from a normal of 70 to 80 per cent.). Case No. 8, which is an exception to this rule, had previously suffered from repeated attacks of malarial fever, which was the cause of the greater degree of anaemia. In these cases of typhoid, then, the degree of anaemia was comparatively slight as compared with that often met with in malaria, as will be seen by glancing at Table II.

Total Leucocyte Count.—It is well known that the leucocytes are decreased in both typhoid and malarial fevers, and it is usually stated that no guidance can be obtained from the number met with. This is often so, yet the degree of the decrease may be of diagnostic value in some instances, for in typhoid the white corpuscles are seldom reduced below 3,000 per cubic millimetre and rarely below 2,000. Cabot records only 7 cases out of 491 in which they fell below the latter, and 40 (less than one-tenth) in which they were below the higher one. That is also my experience in persons who have not previously suffered from marked malaria, as was the case with No. 8 in Table I and possibly also with No. 4. On the other hand Table II shows that half the malarial cases gave counts of 2,000 or under, and I have frequently found such low counts to be distinctly a point in favour of a diagnosis of malaria as against typhoid. In a similar way the proportion of white to red corpuscles in typhoid is but little less than normal, there being seldom much less than 1 white to 1,000 red in cases not complicated by antecedent malaria.

The Blood Changes in Malarial Remittents.

Table II shows the blood changes in a series of cases of malarial remittent fever. The temperature at the time the blood was examined is given, as well as the highest temperature recorded within the previous twenty-four hours, so that it can be seen whether the blood was taken during the height of a paroxysm or during a remission. The result of an examination of a specimen stained by Romanowsky's method for the malarial parasite is also noted, from which it will be observed that in several cases they were not found in spite of a careful search, no doubt on account of the quinine having been given freely before the examination. Yet in these cases also the clinical features, temperature charts, progress of the disease, and other blood changes left no doubt as to their being malarial fevers. In every case negative results were obtained by Widal's test for typhoid, and in all that were tested also for Malta fever.

Degree of Anaemia.—The cases have been arranged in accordance with the degree of anaemia met with, beginning with the least and ending with the greatest, as the changes vary somewhat in the different stages. Thus in the first 2 cases no anaemia was present when the examination was made, and in the next 4 the degree is as slight as that often found in typhoid, so that in these cases no help is derived from the degree of anaemia. In the last 5 cases the degree of anaemia is greater than is commonly met with in typhoid, and this may not infrequently be of some diagnostic importance.

High Haemoglobin Value or Colour Index.—Another important point is the high haemoglobin value not infrequently met with in malarial remittents, especially in those cases which present a considerable degree of anaemia. Thus out of the last 8 cases, in which this figure is entered in Table II, 6 show a haemoglobin value considerably above 0.7 (the normal for a native), namely from 0.88 to 1.22, although in the typhoid cases 0.81 is the highest figure recorded. I have elsewhere[1] pointed out that the haemoglobin value may remain high in malaria, although during convalescence the red corpuscles may for a time be replaced quicker than the haemoglobin, and the value may fall, and consequently values lower than normal may sometimes be met with in malarial anaemia. The low value in Case 10 may be accounted for by the patient having suffered from malarial fever for two and a-half months a year before the attack during which the blood count was made, at the beginning of which she showed a chronic enlargement of the spleen and anaemia due to the previous malaria. The haemoglobin value in malarial cases, then, may vary from a

few points below the normal to as many above it, in which respect the disease differs from typhoid with its nearly normal figures. The values above the normal are, I think, of most diagnostic value.

The Total Leucocyte Count.—In malarial remittents with little or no anaemia the total leucocyte count shows only a slight reduction as in typhoid, and is consequently of no help in differentiating the two diseases. On the other hand, in those malarial cases with marked anaemia the total count of white corpuscles is nearly always lower than is commonly met with in typhoid. Counts of below 2,000 per c.mm. are in favour of a diagnosis of malarial as against typhoid fever, while, when only 1,000 or fewer are found, the case has always proved to be malarial in my experience. Further, if the proportion of white to red falls below 1 to 2,000, the case is nearly always malarial or the patient has also suffered fairly recently from that disease to a marked degree.

Parasites.—In every case in which parasites were found they were of the malignant tertian variety, which is the usual form met with in malarial remittents in Calcutta. The cases in which none could be found had been treated with quinine before they were examined by me.

THE DIFFERENTIAL LEUCOCYTE COUNTS IN TYPHOID.

There is a general agreement that the mononuclear leucocytes are increased in uncomplicated cases of typhoid, this change becoming more marked towards the later stages of the disease, and during early convalescence. There appears, however, to be some difference of opinion as to whether it is the small mononuclears (lymphocytes), or the large mononuclears which are found in greater numbers than normal. Thus both Cabot and Coles state that the large mononuclears show the greatest increase; while, on the other hand, Turk's very carefully recorded and complete figures show a marked increase in the small mononuclears, while the large ones are never increased, but more often approach the lower than the upper normal limit, and another observer[6] has recorded similar counts. When we remember that the line drawn between the small and large mononuclear corpuscles is a purely arbitrary one, which may vary with different workers, such differences of opinion are easily understood, and the necessity of stating exactly how the counts are made is obvious. In health the small mononuclears, averaging according to Cabot 7.5 μ, are fairly well defined from the large ones, averaging 13 μ, intermediate sizes being comparatively few. When, however, the mononuclears are considerably increased, as in typhoid, then intermediate sizes shading insensibly from the small into the large form are comparatively numerous, and their differentiation correspondingly difficult. In order to get over this difficulty, and to get comparative results in the series of typhoid and malarial remittents respectively, I have adopted the simple expedient of taking advantage of the fact that the average size of the large mononuclears is very nearly that of the polynuclears (13 μ to 13.5 μ, according to Cabot) and counted all mononuclears, which are distinctly smaller than polynuclears, under the head of lymphocytes, or small mononuclears, and all which were about the same size as, or larger than the polynuclears, as large mononuclears. The closeness with which my figures correspond to those of Turk in each disease lends some support to the correctness of this method, while those who have found the large mononuclears to be increased in typhoid probably counted most of the intermediate sizes under that heading, whereas I should class the majority of them under that of lymphocytes. The division adopted by me has the advantage of simplifying the differentiation of the two forms, as the polynuclears are sufficiently numerous and nearly constant in size to form a convenient standard of comparison, while if the number of large mononuclears is somewhat low this will not affect the comparative value of the figures in the two diseases, in both of which the counts have been made in a similar manner.

The Increase of the Lymphocytes in Typhoid Fever.—In Table I the percentage of the different forms of leucocytes worked out from counts of 500 is given, with the exception of the eosinophiles, which were too few and inconstant in their variations to be of importance. The first two cases well show the gradual change from a nearly normal count at the end of the first week, through a slight increase of the lymphocytes at the expense of the polynuclears during the second, to a most marked change in the same direction in the later stages of the fever until the lymphocytes may equal or even exceed the polynuclears. In uncomplicated cases this change is remarkably constant, although its appearance may occasionally be delayed, as in Case 5. Moreover, in the cases at the end of the table, in which there was no increase of the lymphocytes, complications such as pneumonia in No. 15, and localized peritonitis in the right iliac fossa due probably to perforation in No. 14, which ended fatally, accounted for the large number of polynuclear leucocytes. In Case 13 also there were marked abdominal symptoms pointing to an exceptional degree of local inflammation, so that the few cases in which the lymphocyte increase is wanting are just those in which as a rule the localizing symptoms of typhoid fever are peculiarly well marked and the diagnosis is not in doubt. On the other hand, in several very mild cases recently examined the lymphocyte increase has been well marked and of great diagnostic value, while I have also seen it in an abortive case with fever for only two weeks, but a strong serum reaction. This lymphocyte increase also persists during the early stages of convalescence, having been found in a well-marked degree as long as five weeks after the termination of a relapse in Case 11, but possibly a late periostitis in this case may have had something to do with its persistence. In another case it was well marked two weeks after the termination of the fever, although at this date the serum reaction was no longer obtainable. Once more this lymphocyte increase has been found well marked in several cases clinically identical with typhoid, but which gave no serum reaction with Widal's test, as is sometimes the case in true typhoid (especially in South Africa, according to recent experience), so that in such cases the corpuscle count may be of great service as a means of confirming the diagnosis. Table I, however, only includes cases which gave the serum reaction. The large mononuclears, on the other hand, were always within the normal limit (4 to 8 according to Cabot, or 3 to 6 as stated by Coles) or were slightly reduced, the figures in my table being very similar to those of Turk,[6] who records figures ranging from 0 61 to 7.05 per cent., the majority of the cases showing percentages below the mean normal figure, and differing widely in this respect from what is met with in malarial remittents, as will be seen from a glance at Table II.

THE DIFFERENTIAL LEUCOCYTE COUNT IN MALARIAL REMITTENTS.

In Table II the percentages of the different forms of leucocytes in a series of cases of malarial remittents are recorded, the data being arrived at in precisely the same way as in the typhoid fever cases, many of the counts having, indeed, been made before either the serum test or search for malarial parasites had been carried out, with the result that whenever a well-marked lymphocyte increase without any excess of large mononuclears was found, the case proved to be one of typhoid, while whenever a well-marked large mononuclear increase was met with a diagnosis of malaria was correctly indicated. The exact changes, however, depend largely on the degree of temperature and stage of the fever paroxysm when the blood is taken, as well as on the acuteness or chronicity of the case, the degree of anaemia present, and whether the total leucocyte count is slightly or greatly below the normal, so that the figures present a much less degree of uniformity than do those of the typhoid table. It will, therefore, be most convenient to begin with the most constant and important change.

The Increased Percentage of Large Mononuclears.—Every case in the table shows a considerable increase of the large mononuclear corpuscles in some stage of the fever, this increase being most marked during the remissions of the fever or shortly after the temperature has fallen to normal, as already pointed out by Stephens and Christophers.[3] In the present series the percentage varied from 11.5 to 29. As a rule, this increase is such a noticeable feature that it can be detected after some practice by a very short inspection of a stained slide with an ordinary high power. It is worthy of note that in Cases 7 and 9, when there was no increase of the large mononuclears during the first examination when the temperature was high, there were other features in the blood changes which served to exclude typhoid and to strongly indicate the

presence of malarial fever. Not only was there a marked degree of anaemia, but the total leucocyte count was below 1,000 per cubic millimetre, and the proportion of white to red corpuscles less than 1 to 3,000, these being figures which we have already seen are very rarely, if ever, met with in typhoid fever, although not very uncommon in malarial fever of long duration. Just, then, in those cases where the increase of the large mononuclears fails, other changes which are of diagnostic value are present, while in the cases which present little anaemia (so that the other blood changes are similar to those which obtain in typhoid) the large mononuclear increase is most marked. The low figure of 8 per cent. at the first count in Case 4 is an exception to this rule. Stephens and Christophers consider that the presence of 15 per cent. or more of large mononuclears is diagnostic of malarial fever, in which opinion I concur, only with the method of counting mentioned above I think the limit might be fixed even lower, such as at about 12 per cent. In the absence of parasites, due generally to previous dosage with quinine, this large mononuclear increase is of the greatest diagnostic value, and can be easily and quickly ascertained from a stained slide.

Presence of Myelocytes.—Another point which has attracted my attention in the present research is the frequency of the occurrence in malarial fevers of very large mononuclear corpuscles with a darkly-stained nucleus and deep blue stained protoplasm with Romanowsky's stain, which appear to be myelocytes. That myelocytes are often present in marked anaemia of malarial origin is mentioned by Cabot, the highest count found by him being 3 per cent. In the tables they are included with the large mononuclear corpuscles, as unfortunately it is only in the most recent cases that they were counted separately, but in the second count in Case No. 6 they formed no less than 5 4 per cent. of the white corpuscles, and in several others from 1 to 3 per cent. of them have been met with. On the other hand, in typhoid an occasional myelocyte has only very rarely been met with in a count of 500 corpuscles. These bodies are so striking that when 2 or 3 per cent. are present they are easily detected on examining a stained slide, and as far as my experience yet goes their presence in these numbers during a continued fever is diagnostic of a malarial remittent, while they may occur in cases with no very marked degree of anaemia. For example, in Case No. 3*a* with nearly four million red corpuscles, 2.4 per cent. of them were found. If these observations are confirmed by further experience, the presence of myelocytes in any numbers will prove to be of considerable diagnostic value in malarial remittents.

Decrease of Polynuclears and Increase of Lymphocytes.—Lastly, we have to deal with the changes in the proportion of the other leucocytes, namely, the decrease in the polynuclears and a proportionate increase in the lymphocytes. This change is met with in a very variable degree, being most marked as a rule in those cases which present a high degree of anaemia, and least marked or entirely absent in those with little or no anaemia, as illustrated by the first four cases in the table. The increase of the lymphocytes is also most marked in those cases in which the total leucocyte count is lowest, as illustrated by the latter part of the table, but it is just in these that the high degree of anaemia and great proportional decrease in the total number of leucocytes excludes uncomplicated typhoid fever, while the increased percentage of large mononuclears will still be present if malarial fever persists or has only ceased within a few days. On the other hand, I have found a marked increase in the lymphocytes without any excess of large mononuclears in some cases of greatly enlarged spleen, due to malarial cachexia in which no recent fever of a malarious nature has occurred, but these could not possibly be confused with typhoid fever. The extreme decrease of the polynuclears to below 40 per cent. shown in cases, several of the cases in Table II I have only yet met with in chronic malarial fevers.

Leucocytosis.—Although there may be a relative increase in the leucocytes at certain stages of a malarial paroxysm, true leucocytosis very rarely occurs in malaria, not even when it is complicated by broncho-pneumonia, in several cases of which disease I have found a very low leucocyte count in malarial subjects. The presence of marked leucocytosis in cases of intermittent and remittent fevers is, then, of great value in excluding malaria and uncomplicated typhoid fever and pointing to some form of local inflammation, the most important of which, in my experience in India is liver abscess. On three occasions within the last few months I have found a very high degree of leucocytosis, from 30,000 to 40,000 white corpuscles per cubic millimetre, in cases which were being treated for malaria, and in each case the suspicion of the fever being due to liver abscess thus aroused proved to be correct. Moreover, I have found that the presence of leucocytosis can be detected by a short examination of a stained blood slide, for from twenty to forty white corpuscles may be seen at once in the fields of an ordinary high power all along at the edge of the smear, about 90 per cent. of which will be polynuclears, a condition never met with when the white corpuscles are not increased in numbers, and one which may be taken as evidence of leucocytosis without the necessity of counting the white corpuscles with a haemocytometer.

Conclusions.

1. The percentage of the different forms of leucocytes counted in a stained blood film is of great diagnostic value in differentiating typhoid and malarial remittent fevers, and is easily ascertained.

2. An increase of the lymphocytes to 40 per cent. or over, without any increase in the large mononuclears, points to typhoid as against malarial fever.

3. An increase in the large mononuclears to about 12 per cent. and upwards, especially during the remissions of the temperature, strongly indicates malaria as against typhoid fever. This change is of great value when parasites are absent from the blood.

4. The presence of myelocytes in any number such as from 1 to 5 per cent. points to malaria as against typhoid fever.

5. A high degree of anaemia, such as a reduction of the red corpuscles to below 3,000,000 per c.mm., is much more frequently met with in malarial than in typhoid fever.

6. A very great reduction in the total leucocyte count, such as to below 2,000 per c.mm., is much more frequently met with in malarial than in typhoid fever, while the proportion of white to red corpuscles in malaria is not infrequently less than 1 to 2 000, which is rare in typhoid fever.

7. Leucocytosis can be detected by the presence of a great excess of white corpuscles, upwards of 80 per cent. of which are polynuclears, in a stained blood film, and is often of service in excluding malaria in intermittent fever due to liver abscess or other local inflammation.

References.

[1] *Indian Medical Gazette*, 1893, p. 176. [2] Ibid., 1902. [3] *Royal Society's Malaria Committee Reports*, Fifth Series, 1901. [4] *Jour. of Path. and Bact.*, 1898. [5] *Klinische Untersuchungen ueber das Verhalten des Blutes bei acuten Infectionskrankheiten.*

THE CONDITION OF THE BLOOD IN FILARIASIS.

By G. LOVELL GULLAND, M.A., B.Sc., M.D., F.R.C.P.E.,

Assistant Physician to the Royal Infirmary, Edinburgh, etc.

About two years ago Mr. D., a Eurasian student, consulted Dr. Charles Kennedy of this city with regard to a swelling of the left inguinal glands, which was giving him a good deal of pain and discomfort. All the ordinary causes of bubo could with certainty be excluded, and, as the swelling was increasing in size, the patient consented to have the glands excised by Mr. H. J. Stiles. While the operation was being performed a quantity of chylous fluid escaped, and this at once determined the true nature of the case. Some of the fluid was collected and sent to me for examination. I could find no filariae, but it was obvious that the fluid was chyle, and it was resolved to examine the blood in the evening. This was done, and numerous filariae were found. I may remark here that the wound healed by first intention without any further escape of chyle.

In examining stained films of the blood I was struck by the large number of leucocytes in the films, and especially by the high percentage of eosinophiles present. This led me to make a differential count of the leucocytes (films taken on November 28th, 9.20 P.M.), when I found the percentages in 500 cells to be as follows:

Polymorphonuclears	63.5
Lymphocytes	28.5
Eosinophiles	8.0
	100.0

As the normal percentage of eosinophiles in the blood is 1-4, this constituted a distinct eosinophilia, and I determined to examine the blood more thoroughly and at different hours of the day, in order to see whether there was any relationship between the eosinophilia and the presence of the embryos in the blood, and whether there was or was not a leucocytosis in addition. On December 1st, at 4 p.m., when there were very few embryos in the blood, the leucocytes were 6,800; at 11 p.m., when they were numerous, the leucocytes were 12,500. The percentage of eosinophiles rose from 7 at 4 p.m. to 12 at 11 p.m. On December 12th at 10.15 a.m., when no filariae could be found, the leucocytes numbered 4,600, with 6 per cent. of eosinophiles; at 11.30 p.m. with many filariae, the leucocytes were 13,100, the eosinophiles 9.5 per cent. On January 31st, at 10 a.m. (no filariae), the leucocytes were 5,000, the eosinophiles 3 per cent.; at 3 p.m. (no filariae), leucocytes 6,300, eosinophiles 4.5 per cent.; at 10.20 p.m. (numerous filariae), leucocytes 10,100, eosinophiles 8 per cent. On February 8th, at 10.10 p.m. (many filariae), the leucocytes were 10,600, eosinophiles 7 per cent.

During this time Mr. D. was in perfect health; indeed, more observations would have been made, had it not been that he was attending classes at the University, and as he lived at the other side of the town, and I was very busy at the time, it was very difficult to make arrangements for meeting. The evening leucocytosis could not have been due to digestion, for he took his principal meal at 1 p.m., and the evening meal was a light one.

Table of Percentages of different Varieties of Leucocytes in Blood in Filariasis.

	Nov. 28th, 9.20 p.m.	Dec. 1st, 4 p.m.	Dec. 1st, 11.10 p.m.	Dec. 12th, 10.15 a.m.	Dec. 12th, 11.30 p.m.	Jan. 31st, 10 a.m.	Jan. 31st, 3 p.m.	Jan. 31st, 10.20 p.m.	Feb. 8th, 10.10 p.m.
Polymorphonuclears...	63.5	68.5	55.5	57.5	59.0	65.0	66.0	61.0	67.0
Lymphocytes ...	28.5	24.5	32.5	36.5	31.5	32.0	29.5	31.0	26.0
Eosinophiles ...	8.0	7.0	12.0	6.0	9.5	3.0	4.5	8.0	7.0

I have tabulated the whole of the differential counts, which were of 500 cells in each case, for it is to be noted that in addition to the evening eosinophilia, there was a constant high proportion of lymphocytes, which did not show much variation throughout. This may have been an individual peculiarity, but there are many conditions in which eosinophilia and lymphocytosis are associated. In contrast to this is the low proportion of the polymorphonuclears, which never reached the normal minimum percentage of 70. The relation between lymphocytes and polymorphonuclears remained fairly constant, and of course both varieties must have been increased absolutely in order to produce the high evening counts of leucocytes. The increase of eosinophiles is brought out better if, instead of taking the percentages, the total number present in the cubic millimetre is calculated. We then find—

Between 10 and 11 a.m.	276 and 150
at 3 p.m.	284
,, 4 ,,	479
,, 10.10 ,,	742
,, 10.20 ,,	868
,, 11.10 ,,	1,[illegible]
,, 11.[illegible] ,,	1,244

The red corpuscles showed no abnormality in number or otherwise during the observations. These were brought to a close by the patient's return to India soon after the last date.

I was unwilling to publish an isolated observation, and have been in hopes of being able to examine other cases in the same way, but have had no opportunity of doing so. I therefore read a note of the case at the November meeting of the Edinburgh Pathological Club last year. The attention of workers in countries where filariae are found seems to have been directed entirely to the embryos, and no observations similar to the above have been published until January of this year, when, in the *Johns Hopkins Hospital Bulletin*, Dr. Calvert gives a preliminary note on two cases of filariasis in Filipino prisoners. In both of these he found leucocytosis and eosinophilia, and in both, also, the lymphocyte percentage was fairly high in the two differential counts which he gives, though not so high as in my case. He seems, however, to have made no attempt to ascertain whether there was any association between the time of day when the blood was examined, or in other words, the number of filariae present in the blood and the amount of leucocytosis and eosinophilia. It seems to me that that is the most interesting point in my case, that the percentage of eosinophiles rose steadily from a normal figure in the early morning, when no filariae could be found (though, of course, a few may have been present) to high figures just before midnight, when the number of embryos in the blood was at its highest point.

These observations, incomplete as they necessarily have been, bring filariasis into line with several other parasitic infections. It has long been known that several intestinal parasites—ascaris, oxyuris, ankylostoma, and taenia—produce eosinophilia, though not in every case, while Cabot and Brown have recently shown that very extreme eosinophilia may be produced in trichiniasis, though here again different cases differ in the amount of reaction produced. I may note also that in some observations I made some time ago on the intestines of salmon and trout, I found that where intestinal parasites were present, and they were rarely absent, the walls of the intestine were packed with eosinophile leucocytes.

All these facts go to prove that the eosinophiles are concerned in protecting the body from the toxins of parasites, whether these are absorbed from the intestine or are actually elaborated in the blood. That the other varieties of leucocytes have also to do with this would seem to be indicated by the general leucocytosis which I have described as concurrent with the increase of filariae, but observations are wanting as to whether other parasites produce a leucocytosis of this kind.

Note.—Since the above lines were sent to the Editor I have seen another case, with Mr. J. M. Cotterill, of varicose inguinal glands from filariasis. The condition was of four years' standing. As yet I have only made one examination of the blood, at 9.30 p.m. Very few filariae were present; the leucocytes were not increased in absolute number, but there was distinct eosinophilia and also a high lymphocyte percentage—polymorphonuclears 52.5, lymphocytes 40.5, eosinophiles 7. I am glad to have had this confirmatory observation, and hope to publish full details of the case later.

OBSERVATIONS ON THE STATE OF THE VASCULAR SYSTEM AFTER DEATH BY ASPHYXIA AND BY CARDIAC FAILURE.*

By J. A. MACWILLIAM, M.D.,

Professor of Physiology in the University of Aberdeen.

[From the Physiological Laboratory of the University of Aberdeen.]

Asphyxia.

The characteristic distribution of the blood in the heart and great vessels after death by asphyxia has been ascribed to various causes, and a glance at the textbooks now in use will show that different opinions are still held as to why, on examination of the body some hours after death, the right side of the heart and the great veins opening into it are usually found to be largely distended with blood, while the left heart is empty or contains little blood.

Among various causes that have been assigned there may be mentioned as the chief ones: (1) The greater distensibility of the right heart; (2) the influence of violent respiratory movements and muscular spasms in drawing and driving blood into the great veins and right heart; (3) an alleged strong contraction of the pulmonary arterioles opposing the discharge of blood from the right ventricle, and so leading to an accumulation of blood in the right heart and great veins and a state of comparative emptiness on the left side; (4) the influence of rigor mortis coming on in the left ventricle after death.

Before entering on a brief consideration of these causes, it is important to determine the actual condition of the heart at

*Read in the Section of Anatomy and Physiology at the Annual Meeting of the British Medical Association at Cheltenham.

the moment of death. This is a subject on which there is still a certain amount of contradictory assertion, though there is really no room for doubt as to the facts. It is quite certain that when death occurs from asphyxia the whole heart stops distended with blood—both auricles and both ventricles. This is the case whether asphyxia has been caused by occluding the trachea during natural breathing (in an anaesthetized animal), and then opening the thorax and examining the heart when death has occurred; or whether the thorax has first been opened—artificial inflation of the lungs being performed—and then asphyxia induced by stoppage of the artificial inflation. In the latter case the condition of the heart may be watched during the whole process of asphyxia; it is seen (as has often been described) that in the earlier phase of asphyxia when the great rise of arterial blood pressure takes place, the left heart becomes greatly distended in consequence of the inability of the left ventricle to empty itself against the enormously increased peripheral resistance caused by the contracted state of the small arteries. Distension of the right heart speedily supervenes—mainly dependent on the backward pressure arising from the inability of the left heart to pump on its blood efficiently. The whole organ thus becomes greatly distended in all its parts, and when after a time it ceases to beat both sides are still distended—though often not quite so largely over-filled as during the convulsive stage.[1]

Blood Pressure on the Right and Left Sides of the Heart immediately after Death.

As there seems to have been no determination of the condition of the right and left chambers as regards the pressure in their interior when death occurs, I have made a number of observations on this important point.

1. By introducing a cannula into the right and left sides respectively, and connecting the cannula with a mercurial manometer in the usual way.

2. By introducing the point of a vertical glass tube of small calibre into the right and left chambers, and observing the height to which the blood rose in each case, precautions being taken as to exact levels, capillarity, etc.

By these methods I have found equal pressures on the right and left sides, a slight positive pressure of a few millimetres of mercury (commonly about 3 mm. in the cat and rabbit) being constantly present. Thus it is evident that differences in the state of the two sides cannot be accounted for by differences of pressure.

As regards the relative amounts of blood on the right and left sides various conflicting statements have been made, one observer describing a preponderance on the left side as compared with the right (in the proportion of 3 : 2), while another finds as the result of an experiment a great preponderance on the right side—in the ratio of 16 : $2\frac{1}{2}$.

The method of determination adopted has been to ligature the great vessels, taking care to close the coronary arteries, and then evacuate the contents of the right and left sides separately and measure them. I have always found a large amount of blood on both sides, but always a greater amount on the right side; this is evidently due to the greater distensibility of the right heart, since the pressure on the two sides is equal.

Remarks on Alleged Causes of the Characteristic Distribution of the Blood.

1. The greater distensibility of the right heart, while apparently the cause of there being more blood on that side, would by no means account for the left ventricle being empty or nearly empty. Further, the greater distensibility of the right side is present in death from other causes—syncope, etc., so that this factor could not account for the characteristic asphyxial condition recognized at the necropsy.

2. The influence of respiratory movements and muscular spasms in leading to an accumulation of blood on the right side as has been affirmed, is clearly not a necessary condition, since the state of the heart does not essentially differ whether (*a*) those movements have been prominent during asphyxia, or (*b*) have not occurred at all in consequence of a depressed condition of the medulla, administration of curare, etc.

3. The hypothesis that extreme constriction of the pulmonary arterioles arrests the circulation and is the immediate cause of death in asphyxia has been strongly advocated by the late Sir George Johnson.[2]

But this view is entirely negatived by a variety of evidence.

(*a*) Direct observation of the heart during asphyxia or immediately after death. As above stated the whole organ becomes greatly distended during asphyxia and is still largely distended on both sides when death occurs—a condition prior to death are apparently unessential—for example, the great rise of systemic blood pressure, and consequent strain upon the cardiac muscle; for when the usual rise pressure almost empty) during the later phase of asphyxia—on account of an arrest of the circulation through the lungs. It seems to me that an early development of rigor mortis in the left heart may have been concerned in producing such appearances. For rigor sometimes does begin very early in the left ventricle; I have seen the left ventricle contracting in incipient rigor as early as nine minutes after closure of the trachea in the rat, twelve minutes in the rabbit, and fifteen minutes in the cat, though the time is, as a rule, much longer than the periods stated.

(*b*) There is a considerable pressure of blood in the peripheral end of a pulmonary vein at any stage of asphyxia—transmitted from the pulmonary artery, through the capillaries and showing that the blood flow is not arrested in the lung.

(*c*) The blood pressure in the left auricle during asphyxia does not show any indication of an arrest of the circulation in the lung.[3]

(*d*) The hypothesis that extreme constriction of the pulmonary arterioles is excited by asphyxial blood acting through the vasomotor nerves can be tested by a form of experiment in which the vasomotor effects of asphyxia can be produced apart from the complicating action of asphyxial blood upon the heart itself. This can be done by closing the arteries to the head (carotids and vertebrals), and so producing an asphyxial condition in the brain, medulla, and upper portion of the spinal cord. The usual exaggerated respiratory movements and convulsive spasms of asphyxia speedily develop, and after passing through the usual stages all these movements cease. Meanwhile the great asphyxial rise of blood pressure has taken place, in consequence of the excitation of the vasomotor centre by asphyxial blood, and the whole heart becomes distended in the usual fashion. But if the blood circulating through the heart (and body, excluding the head) is prevented from becoming asphyxial by artificial inflation of the lungs, the circulation does not become arrested, in spite of the vasomotor spasm excited as usual by the asphyxial condition of the medulla, etc. On the contrary, the heart goes on beating, and in a few minutes the vasomotor spasm passes off—with the death of the vasomotor centre—the excessive blood pressure falls, the over-distended heart is relieved, and if means are taken (pressure on abdomen, etc.) to maintain a fair blood pressure by compensating for the loss of the normal vasomotor tone, the heart action and circulation go on well for many hours. Here it is evident that extreme vasomotor spasm does not arrest the circulation as long as the heart is supplied with arterialized blood; the essential cause of failure in ordinary asphyxia is plainly due to the asphyxial character of the blood supply to the heart itself.

(*e*) The circulatory phenomena in asphyxia are quite different from what is seen when the pulmonary vessels are actually obstructed. The injection of lycopodium spores into the jugular vein so as to plug the pulmonary vessels is a method that I have adopted in order to study the effects of undoubted pulmonary obstruction. When this is done, the respiratory movements speedily assume the asphyxial character, convulsive contraction occurs in the skeletal muscles with constriction of the systemic arteries due to vasomotor spasm, etc. But the changes in the heart and the pulmonary circulation are very different from those seen in ordinary asphyxia. The pulmonary artery quickly swells up in consequence of the excessive pressure in its interior due to the obstruction in the small vessels; the right ventricle and auricle become over distended, while the left auricle and ventricle become small and look almost empty—as immediate consequences of the pulmonary obstruction. (Some time later the left ventricle comes to contain a good deal of blood, while the left auricle remains very small).

Changes in the Heart after Death.

The characteristic asphyxial condition of the heart as seen some hours after death is a *post-mortem* development, due to rigor mortis in the cardiac muscle.

With regard to the causation of the change which occurs, certain prominent features in the process of asphyxia seen which persists for some time after death—this period varying in different circumstances. Johnson on the other hand describes the left heart as becoming collapsed and empty (or fails to occur (from excessive dose of curare, etc.) the asphyxial distribution of the blood may still be found. Thus on weighing the clots obtained from the two sides in such a case, the right ventricle clot was 1,120 mg. (in a rabbit), while the left one was 490.

Graphic Records of the Expulsive Action of the Left Ventricle in Rigor.

In studying the influence of rigor in emptying the left ventricle I have obtained tracings of its expulsive action by tying a cannula into the aortic orifice of a heart immediately after death, and connecting the cannula in the usual way with a mercurial manometer recording upon a slow drum. The rise of pressure caused by the contraction of the ventricle as it enters into rigor was often about 30 mm. Hg. in the cat, and in some instances curious features were evident in the form of slow secondary oscillations, indicating minor contractions and relaxations of the ventricular wall.[4]

It is evident that the expulsive power of a strongly-marked rigor contraction is much more than would be necessary to expel its contents against the very low resistance present after death—a pressure in the aorta of a very few millimetres of mercury. When the state of the heart is watched for some time after death, the gradual contraction and the expulsion of the ventricular contents may be directly observed, together with the development of the other signs of rigor—increased firmness of the muscle, change in colour, etc.

Why is the Right Ventricle not Emptied?

After asphyxia the right side of the heart dies slowly and gradually, much later than the left side. Rigor in the right ventricle has very little expulsive power on account of its lateness in development, its gradual onset, and unequal distribution. As a muscle exerts no contractile pull after rigor has been established, but only between the commencement of rigor and its establishment, it is evident that, if the period of attempted shortening does not coincide in the various fibres little result can be produced.

Variations in Time of Onset and Strength of Rigor.

Lateness in the appearance of rigor is unfavourable to the expulsion of blood from the cardiac chambers; for the resistance increases on account of changes in the blood, increased adhesiveness, occurrence of coagulation, etc.

In some instances of death by asphyxia, where rigor in the heart has come on early and been strongly marked (rabbit and rat) I have found *both* ventricles empty after death.

In some other cases again, where rigor has been feeble even in the left ventricle, I have found that the usual distribution of blood was not present, both ventricles containing much blood.

When death is caused by the gradual inhalation of weak chloroform vapour, and the respiration has stopped before the heart beat, the usual asphyxial condition is found in the heart and great vessels after death.

CARDIAC FAILURE, ETC.

When death is caused by primary cardiac failure, prior to the cessation of respiration, the heart usually stops beating distended with blood in all its parts. Immediately after death the blood pressure in the right and left chambers is found to be equal; the amount of blood is greater in the more distensible right heart, though there is much blood in the left heart also.

Important changes commonly occur in the condition of the organ and the distribution of the blood after death.

Chloroform Syncope.

Cardiac failure, while the respiration went on for some time, has been induced in several animals (cats) by the rapid inhalation of chloroform during quick deep respiration. The thorax being opened as quickly as possible after cardiac collapse had occurred and while respiratory movements were still going on, the whole heart was found to be largely distended and showing only feeble and entirely ineffective attempts at contraction.

Some hours after death the left heart was rigid and small, while the right side was still distended, that is, an asphyxial distribution of the blood was present. Hence such a *post-mortem* condition is no indication as to whether death had been initiated by cardiac or by respiratory failure.

Results similar to the preceding were obtained when cardiac paralysis was caused by means of chloroform vapour added to the air used in artificial inflation of the lungs, instead of natural inhalation. The heart may in this way be rapidly paralysed.

In some instances both ventricles were found rigid and nearly empty after the heart had been paralysed by chloroform; in some others both ventricles contained a good deal of blood a number of hours after death. It would obviously be a mistake to expect that a heart paralysed by chloroform should be found in a relaxed and distended condition on examination some hours *post mortem*.

Ammonia and Lactic Acid.

Either of these substances injected into the jugular vein quickly paralyses the heart in the distended condition; the respiration soon stops. Necropsy some hours later shows the condition of the heart and great vessels usually associated with asphyxia.

Sodium Carbonate and Morphine Acetate.

When cardiac failure is caused by injection of either of these into the jugular vein, the heart, stopping in the usual state of distension, changes very strikingly soon after death; both ventricles contract and become practically empty; the left auricle also contracts and contains little blood.

Potassium Salts.

The heart poisoned by an overdose of a potassium salt injected into the circulation commonly remains more or less distended after death. On examination twenty-four hours *post mortem*, a large amount of blood (clots) is usually found on both sides of the heart, in the left ventricle as well as in the right ventricle.

From the foregoing observations it is evident that after cardiac failure the *post-mortem* condition found some hours later varies widely according to the means used to paralyse the heart: (1) The condition usually associated with asphyxia may be present; or (2) both ventricles may be contracted and practically empty while the left auricle contains little blood; or (3) the heart may contain much blood on both sides.

Death from Haemorrhage.—After death both ventricles go into marked rigor, and are found contracted and almost empty. Left auricle very small. Right auricle contains a fair amount of blood.

Death from Embolism of the Pulmonary Vessels.

Post mortem, the right heart is found to be distended, the left ventricle contracted and nearly empty, left auricle small.

I have to thank Dr. A. H. Mackie, University Assistant in Physiology, for assistance in some of the most recent experiments of this investigation.

NOTE AND REFERENCES.

[1] All experiments referred to in this paper were performed on anaesthetized animals. [2] *An Essay on Asphyxia*, London, 1809. [3] *Cf.* Martin, *Proc. Roy. Soc.*, xlix, p. 145; Bradford and Dean, *Journ. of Physiol.*, xvi, p. 74. [4] *Journ. of Physiol.*, xxvii.

THE COCAINE HABIT IN AMERICA.—A Bill is to be introduced in the Ohio State Legislature absolutely prohibiting the sale of cocaine by druggists or any one except on the prescription of a regularly registered and accredited physician, and for medical purposes only. The offence is punishable by a heavy fine, or imprisonment, or both, and there is an increased penalty for a second offence. In Cincinnati alone the number of victims of the cocaine habit is estimated at not fewer than 10,000.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

POWDERED MALT EXTRACT AS A NUTRIENT.

Desiccated malt extract consists of the extract prepared in the usual way from fine barley malt, the evaporation *in vacuo* at a low temperature being continued until a dry product is obtained, which requires little treatment by pulverization, etc., to form a stable powder, sweet to the taste and having a rich malty flavour.

I have found this powder very serviceable as a nutrient, and as it seems to be insufficiently known, draw attention to it here. Its effects are shown by gain in weight, as well as in some cases by the relief of dyspeptic symptoms. Thus, in atonic dyspepsia, when a moderate meal containing some carbohydrates, taken at midday, is followed by drowsiness, flatulence, and abdominal discomfort, if a couple of teaspoonfuls of the powdered malt extract be taken with the food, digestion is rendered much more comfortable. It is also an elegant preparation, easy to deal with and pleasant to take, in contrast with the sticky liquid generally in use. It can be dissolved in milk, spread on bread and butter, or taken like sugar with farinaceous puddings and the like at a meal. The dose is a dessertspoonful or more.

The following are instances of its use noted within the past three months:

1. A tall, thin woman, aged about 28 years, with tachycardia and subacute bronchitis, weighed 7 st. 6 lb. She was ordered the powdered extract, one teaspoonful in warm milk three times a day, as well as rest, quinine, and other remedies. In twenty-eight days she had increased 6½ lb.; in fifty-eight days more, 3¼ lb.

2. A boy of 20 years, who had grown rapidly and had "influenza heart," height 6 ft., weight, 9 st. 1½ lb., was sent to live on a farm and take the powdered malt as in the last case. In thirty-nine days the weight had increased 4½ lb.; in thirty days more 5¾ lb.

3. Chronic albuminuria. Weight had dropped from 12 st. ¼ lb. to 11 st. 3¾ lb., and tuberculous trouble was feared. Under the use of the powdered extract the weight rose in 22 days 5 lb.

4. Male, aged 26 years, 6 ft. 2 in., 9 st. 10¾ lb., had had empyema. He had been taking cod-liver oil freely. Added the malt: in fourteen days increased 2½ lb.

5. Female, 31 years, functional heart disorder. Weight, 7 st. 11¼ lb.; whilst taking the malt she increased 2½ lb. in twenty-five days.

6. Male, 27 years, mitral damage. 5 ft. 10 in., 10 st. 3 lb. To take two teaspoonfuls of the extract every morning. In 77 days increased 3½ lbs.

7. Healthy male, 5 ft. 10 in., 11 st. 3½ lb. A large teaspoonful of the extract was taken generally twice daily. In twenty-one days increased 2 lbs.

In some of these cases the results were partly due to other measures used; nevertheless, I am convinced that the extract powerfully aided in the cure. I have used Messrs. Allen and Hanburys' preparation.

Gordon Square, W.C. R. Hingston Fox, M.D.

DIAGNOSIS OF A TOOTH IN THE LUNG AND VERIFICATION.

E. H., a female, aged 29, came under my care in April, 1901, for haemoptysis, with some slight amount of fever (100-101° in the mouth). She had a very irritable cough, which was constant day and night, and could not be relieved by any kind of treatment. She had been sent to Bournemouth, having had an attack of pleurisy on the right side. This, together with the haemoptysis, caused her to be regarded as an early case of phthisis. The haemorrhage in April was rather sharp, and continued for some weeks. Beyond the fever and haemoptysis I could find no distinct evidence of any lung mischief, nor were any tubercle bacilli ever found in the sputum. When she was better I examined her throat, but could find nothing in the upper air passages to account for the cough. On my advice she entered a sanatorium, and remained there for two or three months. During the whole time her cough persisted and the sputum remained blood-stained. Her temperature during her stay in the sanatorium was that of a typical phthisical case, being 98° to 99° in the mouth and 100° to 101° in the rectum. In October, 1901, on going into the history of her case more carefully, I discovered that she had had, in October, 1900, nearly all her teeth taken out under chloroform. I at once became convinced that she had probably inhaled a tooth during the operation, and that it had lodged somewhere in the lung. I therefore told her what I thought, and advised her to go to see a physician in London, to whom I wrote mentioning that I thought her symptoms were due to a tooth having got into the lung. He wrote back to me stating that he thought "she had some dilated bronchi in the right lung produced probably by chronic bronchitis, and that these are the cause of her principal symptoms. The history of the tooth extraction is curious. It is possible that she got a tooth into her bronchus though she denied it. This would account for the symptoms."

On her return I examined her chest with the Roentgen rays but failed to discover any sign of a tooth. The symptoms continued much the same until January 26th, 1902, when she came to my house and brought a nasty ragged crown of a tooth which she said she had coughed up that day and which had been in her lung fifteen months. Since then her cough has softened and lessened in frequency and she is quickly losing it.

Cases of foreign bodies in the lungs are not uncommon; but it is generally known to the patient or his friends that it is there. It is not often that a patient is met with giving such an indistinct history and with symptoms so closely resembling an early case of phthisis.

Bournemouth. William T. Gardner, M.B.Lond.

CULEX LARVAE DEVOURING EACH OTHER.

While recently engaged in breeding some species of mosquito I have been struck with the following fact, which has not, I think, been sufficiently dwelt upon in connection with the larvae of *Culex*. I refer to diet.

The larvae of *Culex* are to be found in almost every collection of stagnant water in ponds, cisterns, etc., in which the mosquito deposits her boat-shaped eggs. The eggs hatch out in great numbers after one or two days, and increase in size until ready to undergo the nympha or pupa development. The question suggests itself, What do they live upon? Their diet, we are told, consists of anything eatable, but by choice animal matter of all kinds, sewage, etc., upon which they feed greedily. Frequently the water in which they are to be found contains very little organic matter, in fact, in cisterns, water-butts, etc., they grow and develop in water which may be described as potable. Mr. Christy, on page 36 of his small work on *Mosquitos and Malaria*, 1900, recently reviewed in your columns, says, "I have, on several occasions, watched the older and stronger ones devour the younger or more sickly." I can go further than this after a careful study of the larvae of *Culex* in test tubes of ordinary cistern water for several weeks, and my experience has been that they invariably feed upon each other, the older and larger devouring all the smaller ones until none but the big ones remain—a survival of the strongest—when these often attack and succeed in eating each other. They do this both when swimming free in the water, and also when hanging head downwards at the surface. The head is always the part first attacked at its junction with the thoracic part of the body, and when once a grip has been obtained it is not let go till the captured larva has disappeared into the interior of its captor, the process of deglutition often occupying several minutes. It would be very interesting to have further experimental evidence of what happens when the larvae of *Culex* and *Anopheles* are placed together in the same water.

The larvae of *Anopheles* are also said to be cannibalistic. Possibly, instead of destroying the larvae of the harmless *Culex* along with the larvae of *Anopheles* in measures undertaken to stamp out malaria, it might be useful to try what effect would be produced by the introduction of *Culex* larvae into *Anopheles* pools. The introduction of small fish (minnows) has been already suggested. Most things in the economy of Nature have their natural antidotes. The larvae of these two genera are not usually found in the same places, one being a vegetable and the other an animal feeder. *Culex* is supposed to select sewage and foul water to breed in, but as often as not it is met with in numbers in water of comparative purity in close proximity to bungalows.

K. Bruce Barnett, M.B., B.Ch.

Jubbulpore, Central Provinces, India.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

STAMFORD INFIRMARY.

CASE OF OVARIAN TUMOUR COMPLICATING ADVANCED PREGNANCY.

(Reported by J. J. Dunne, L.R.C.P., L.R.C.S., House-Surgeon to the Infirmary.)

Through the courtesy of Dr. Newman, Consulting Surgeon to this Infirmary, I am enabled to publish the following interesting case:

A. G., housewife, aged 37, was admitted at noon on September 3rd, 1901, under the care of Dr. Newman. The patient was an emaciated, anaemic woman of rather cheerful disposition. She had been married eleven years, and the present was her fourth pregnancy. Her family consisted of two full-time children, one still living. Between these two labours she had had, moreover, an abortion at the third month. Her last pregnancy dated five years back, and her present occurred in December, 1900.

Menstrual History.—Catamenia established at about the 16th year. She "saw very little for years," but at first the periods occurred regularly at intervals of a month. About a year previous to admission menstruation became irregular, sometimes only a fortnight intervening, at other times as long as seven weeks. At the same time the discharge became very scanty, the condition lasting only a day or a day and a-half. She never suffered from dysmenorrhoea. The last period occurred at the beginning of December, 1900.

History of Present Illness.—During the summer of 1900, together with the menstrual irregularity previously mentioned, the patient, when standing for any considerable length of time or performing household duties requiring unusual exertion, suffered from abdominal pain. This was not localized to any particular region, and at times seemed to shoot towards the vulva and down the front of the thighs. In November, 1900, an increase in size of the abdomen was noticed. The enlargement seemed to her, no doubt incorrectly, to have been universal, and to have had no fixed starting point. The increase progressed rapidly till May of the present year, when she thinks the process ceased. Meantime the pain had been increasing in severity and frequency. When walking she suffered from dyspnoea, and when standing for any length of time, from incontinence of urine. The bowels had always been constipated. During the six months previous to admission she had been losing flesh.

State on Examination.—Abdomen greatly distended, measuring 42½ inches at umbilicus and 42 inches at a point 2 inches higher up. Two distinct swellings visible, separated by a well-marked groove. The one on the right side (tumour) looked the larger, was soft and fluctuating; that on the left (uterus) smaller and hard. There is absolute dulness over the abdomen front and flanks, excepting a small area in the epigastric region. Fetal heart sounds were heard at a point midway between the umbilicus and the anterior superior spine on the left side. On vaginal examination the os was found to be soft and patulous, admitting two fingers with ease, a distinct bulging in the right lateral fornix, and the fetus palpable *in utero*, the vertex presenting. The urine was faintly acid, specific gravity 1020, no albumen, no sugar.

Operation.—On November 4th, labour being imminent, it was decided to operate at once. Accordingly the abdomen was opened by a small incision 2 inches long to the right of the umbilicus. The peritoneum was opened and the finger easily swept round, there being no adhesions. The cyst was punctured, clear yellow fluid escaping rapidly. The incision was now lengthened by an inch and the cyst slowly delivered, its pedicle secured, and the abdominal cavity washed out with hot weak boracic lotion. During the process the fingers could recognize the floating small intestines, but not once during operation was any intestine visible. The peritoneal toilet was made in the usual way. As uterine contractions were noticed during the operation morphine gr. ¼ was administered hypodermically with a view to retarding matters.

Progress.—On November 5th the patient had a restless night; she passed flatus, and vomited once. Her temperature was normal; the first stage of labour was progressing normally. As the os was dilating rapidly Nature was not interfered with. When dilatation was complete the membranes were ruptured, the bladder emptied, and Nevill's axis-traction forceps applied. Delivery was effected without difficulty, the patient not being permitted to "bear down." When the head reached the perineum the forceps were not removed, but the perineum was permitted to glide back gently from around the head, and a male, full-time fetus, was delivered at 1.30 P.M. The placenta was removed digitally, and a copious iodine douche administered. Steady suprapubic pressure was maintained during and after delivery, a large pad of cotton wool and firmly applied binder having been placed over the dressings on the parietal wound previous to the application of the forceps, the binder being drawn tighter when necessary to maintain regular intra-abdominal pressure, and at the same time to adapt the dressings to the wound as the abdomen decreased in size. The perineum was intact, and the patient smilingly expressed herself comfortable and happy. The further progress of the case was quite uneventful; mother and baby doing well. No milk appeared in the breasts. The lochiae were normal in appearance and odour, but somewhat scanty. The patient was discharged on October 22nd, seven weeks after the operation.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Alfred Willett, F.R.C.S., President, in the Chair.

Tuesday, March 25th, 1902.

Surgical Treatment of Obstruction in the Common Bile Duct by Concretions.

Mr. Mayo Robson communicated a paper on this subject, which was read by the Senior Secretary. When once gall stones had reached the common duct they could not satisfactorily be removed, with few exceptions, by medical means. From an experience of some hundreds of cases of cholelithiasis on which he had operated, he had found that the common bile duct had to be attacked in 1 out of every 5 or 6 cases. In 10 cases he had been able to manipulate stones back into the gall bladder, and then to remove them by cholecystotomy. In over 30 cases he had crushed the stone in the the common duct; this method was only suitable for soft stones and in cases where it was plainly possible to remove the fragments. Cholecystenterostomy or short circuiting the obstruction was inadvisable seeing that it left the cause untouched. Uniting the gall bladder to the colon was as efficient as uniting it to the duodenum and simpler. Opening the common duct through the opened duodenum, besides introducing a greater danger of sepsis, was not a necessary operation. Choledochotomy was the only operation to be relied on. By his improved methods it was possible to complete the operation in from thirty to forty minutes. The operation was then described in detail. Of the causes of mortality in operations on the common duct haemorrhage (either immediate, consecutive, or secondary) and shock were the more important; the methods he employed of meeting these risks were described. The mortality in the cases of choledochotomies performed before 1900 was 23.8 per cent., since January 1st, 1900, 7.4 per cent., and it was reasonable to assume that with due precautions the mortality of the operation should be reduced to 5 per cent. or under. Clinical abstracts of a series of cases of choledochotomy were given, and another series of 21 quite recent cases were referred to in which no death had occurred.

Sir Dyce Duckworth referred to the alleged methods of dissolving or promoting the expulsion of gall stones none of which had been, so far as his experience had gone, in any degree successful. Accurate diagnosis was of great importance; there might be much pain from movement of stones within the hepatic ducts without any symptom of obstruction; moreover, small calculi in the common bile duct might give great pain without producing jaundice. The gall bladder

might be full of stones and yet it might not be palpable and the liver might not be enlarged, so, although these signs might be absent, an exploratory operation should not be unduly postponed. The results of modern surgery in gall stone cases were eminently satisfactory. Although gall stones could not be removed by medical means yet their formation might be prevented. A useful guide for the time of operation was a rise in temperature indicating inflammation.

Mr. Rickman Godlee thought Mr. Mayo Robson was to be congratulated on the results of his cases. The method of putting a sandbag under the spine was a useful one. The incision adopted by the author was a combination of the older oblique and the newer vertical one; it would be interesting to know how long an incision was made by the author to enable the liver to be pulled down and the gall bladder up. The plan of connecting the gall bladder with the colon was probably not so good as connecting it with the duodenum, inasmuch as the influence of the bile was lost in digestion. Four cases of obstinate bleeding after operations on the liver were recounted, in some of which calcium chloride had been given without any appreciable effect. In not a few cases bleeding ceased spontaneously with the jaundice. It was important not to sew the gall bladder up in all cases after extraction of a large stone on account of the smaller ones still to be evacuated. Material found its way very easily from the duodenum into the gall bladder after such operations.

Dr. Keay thought operation for gall stones might be had recourse to too soon in view of the fact that they sometimes were passed under rest and medical treatment. It was an important question how long a term of waiting should be allowed to elapse. Relapse after apparent recovery due to operation was, moreover, not rare.

Dr. H. A. Caley alluded to the employment of heroic doses of calcium chloride described in the paper, and asked was it possible that too small doses had hitherto been ordinarily given in the human subject to produce a maximum effect?

Mr. Butler-Smythe considered that thirty to forty minutes was a very short time for such an operation. The amount of strychnine employed by the author was extraordinarily large.

Dr. H. J. Paterson referred to the remarkable freedom from sepsis in the operations described. Shock was probably not due to an excess of the anaesthetic but inversely proportional to the depth of anaesthesia. Ether was not suitable for abdominal sections.

The President emphasized the difficulty of diagnosing the presence of stone in the common bile duct, and instanced a case in which there was great emaciation. He would have liked to have learned from the author how often the abdomen had been opened without his finding a removable cause for the jaundice.

CHELSEA CLINICAL SOCIETY.

Annual Clinical Debate.

C. A. Morris, C.V.O., F.R.C.S., President, in the Chair.

Tuesday, March 25th, 1902.

Cancer: Its Nature, Origin, and General Principles of Treatment.

The adjourned discussion on this subject was opened by Mr. D'Arcy Power, who said that although he was a surgeon he appeared before the Society as one concerned more with the origin than with the cure of the disease, for the cause once found it might not be difficult to effect a cure on rational lines. At the beginning of his work he had concerned himself with the microscopic appearances, but the information thus acquired at a disproportionate expenditure of time and energy had brought them no nearer to the solution of the problem, and he had, therefore, recently turned his attention to ascertain whether by chance an intermediate host might convey the cancer germ, should there be one. In certain districts cancer was more prevalent than in others, and so far as was known at present these districts lay in a well-wooded country where there were stagnant pools and sluggish streams. He therefore suggested that flies might be capable of carrying cancer. Dr. Howard Tooth, writing of his experiences of the war, said:

> It is impossible not to regard them as most important factors in the dissemination of enteric fever. Flies seemed to have a special attraction for enteric fever patients, so that in a tent full of men, all apparently equally ill, one may almost pick out the cases of enteric fever by the masses of flies they attract. This was very noticeable at Modder River, for at that time there were in many tents men with severe sunstroke who resembled in some ways enteric patients, and it was remarkable to see how the flies passed over them to hover round and settle on the enteries. The moment an enteric patient put out his tongue one or more flies would settle on it. Moreover, as the flies are killed off by the cold weather, so typhoid fever declines.

Flies, too, were a well-known cause of cholera. They carried tubercle bacilli on their feet or voided them in their excreta. During the last year he had treated three patients for carbuncle who unhesitatingly attributed their condition to the bite of a house fly. Knowing these facts he had applied for information to Dr. B. T. Lowne, who quickly resolved his difficulties by pointing out that there were two kinds of house flies nearly resembling each other whose larvae actually lived together in some cases—the common house-fly and the stomoxys. The house-fly had harmless mouth parts and the stomoxys was armed with a complete set of lancets. It was not easy to distinguish the two flies from each other, except that the house-fly was a little the larger, and held its head downwards when at rest, while the stomoxys had three interrupted whitish stripes on its back, and held its head erect. Mr. D'Arcy Power suggested that all who were interested in the question should notice whether it was the house-fly or the stomoxys which abounded where cancer was prevalent, and should ask their cancer patients whether they could recollect being nipped by a fly which had many of the appearances of an ordinary house-fly. He would be glad to have sent him living specimens of stomoxys from cancer houses that he might preserve them for microscopic examination.

A communication from Drs. H. R. Gaylord and C. H. Zink, D.V.S., from the New York State Cancer Laboratory, University of Buffalo, entitled A Note on the Presence of Cancer in Swine was read. The authors considered that malignant tumours were not as rare in swine as had previously been supposed, and microscopic slides were shown at the meeting in support of their contention.

Professor R. T. Hewlett said that with regard to Dr. Beatson's theory it was only another way of saying that "something" must cause the growth of a cancer, but of that "something" they were profoundly ignorant. If Sir Mitchell Banks's suggestion was that the germ of cancer was conveyed by meat then the great meat-eating races, such as the Esquimaux, would be more subject to cancer than other races, but this he thought was not the case. In his opinion the geographical distribution of cancer merited renewed study. He gave statistics to prove that the incidence of cancer among fishermen and seamen was directly opposed to the salt diet theory. The influence of irritation as a cause of the development of cancer could hardly be doubted, yet in twenty-five cases of carcinoma in the horse, Professor McFadyean had pointed out that in no case did the neoplasm start from a place subjected to much irritation. There was no absolute line of demarcation between the non-malignant and the malignant new formations. The metastases which were the dominant characteristics of carcinoma were completely simulated by the metastases which occurred occasionally in chondromata and lipomata. He urged that the analogies which had been drawn between infective diseases caused by bacteria and cancer were far from being true analogies. With regard to the hypothetical parasite, the idea that it was protozoon in nature seemed to be largely abandoned at the present time. The best proof of the parasitic theory would be furnished when a parasite was cultivated from a typical carcinoma of some lower animal, and the disease produced with the pure cultures in a healthy individual of the same species. In dealing with the supposed production of cancer by inoculation of cancerous material the possibility of the coincident development of cancer in the experimental animal should not be lost sight of. Personally he inclined to the view suggested by Mr. Marmaduke Sheild that the mystery of cancer was bound up in the mystery of cell proliferation in general. In uterine life cell proliferation in the embryo must proceed at an extraordinary rate, and he asked what caused the cessation of that rapid rate of proliferation? Further, in the adult what controlled and regulated the necessary normal proliferation required for physiological repair? "Something" must, but

he feared that any guess to unravel that "something" would lead to the region of wild theorizing.

Mr. FREDERIC EVE mentioned some of the changes antecedent to carcinoma with a view to inquiring how they acted as determining causes of cancer—mechanical causes, such as smoking clay pipes; chemical causes, namely, tar and petroleum, inflammatory and septic processes, and granulomata and other lesions due to tubercle and syphilis. He thought the majority of these processes were associated with an ordinary pyogenic or specific organism, whose products acting for long periods as continuous and abiding irritants to the epithelial cells, stimulated them to active proliferation, altered their potentiality, and ultimately, under the favouring conditions in the subjacent connective tissues, led to their assuming what might be described as parasitic habits. The practical bearing of these facts was the cure, if necessary by operation, of chronic septic or specific lesions which might constitute precancerous conditions. Some examples of carcinoma not associated with irritation might be explained by Cohnheim's theory. This was undoubtedly true as regarded many innocent tumours and certain malignant congenital tumours. Its applicability to the carcinomata of later life seemed improbable, since the "rest" must have remained latent for so many years, though he (Mr. Eve) had recently removed a rectal dermoid from the perineum of a man aged 62 who had noticed a swelling for only three years. A remarkable example of epithelioma originating in a "rest" was the cystic epithelioma of the jaw, and melanomata originating in moles constituted another example. Melanomata might be considered as originating from imperfectly differentiated epithelial cells, such cells possessed a proliferative capacity comparable to embryonic tissue. The cell was the carrier of malignant disease, and in its change of nature must be sought the source of cancer. Their hope for the future rested with serumtherapy, they would not be far from the discovery of a substance which would destroy cancer cells when a serum or cytotoxin had been produced which would kill spermatozoa and arrest the movement of ciliated epithelium.

A communication from Professor J. G. ADAMI, of McGill University, Montreal, was then presented. From a study of the syncytioma malignum, he considered that it might be legitimately deduced that there existed one form of tumour of highly malignant type in which the infiltrating cells were not those of the organism itself, but were derived from another organism. The infiltrative and invasive properties of these cells were not a new acquirement, but were an exaltation of properties normally possessed by them, or more exactly under normal conditions it was observed that there was an interaction of two forces—one the invasive properties of these cells, and the other the protective properties of the surrounding maternal tissues, by which interaction the extent of invasion of the cells was strictly limited to the placental site. Dr. Adami's view was that the development of the syncytioma malignum must therefore be attributed to either an increase in the invasive properties of the syncytial cells or a lessened resistance on the part of the maternal tissues or a combination of the two. It was concluded, therefore that if microparasites played any part in the production of the tumour that must be either by exalting the infiltrative powers of the one or by lowering the resistant powers of the other. Dr. Adami pointed out that proof positive of the existence of such specific microparasites was still wanting, and in its absence he found it difficult to conceive how specific microparasites could bring about those results. If it was admitted that microparasites and their products were capable of inducing cell proliferation it had also to be admitted that other external agencies had the same capacity, so that it followed that microparasites at the most might be one of the causes of aberrant cell growth. The prevalent conception of cancer parasites as existing within the cancer cells involved the idea of malignant growths being the product of parasites acting within parasites, because, as shown by the study of the syncytioma malignum, the tumour cells themselves were essentially parasitic in the organism. In short, according to Dr. Adami, if the present popular idea was traced to its legitimate conclusion the most that could be said for it was, as the association of parasitic ideas might already have occurred to some, that the theory was in harmony with the great generalization of the poet who wrote that

> Great fleas have little fleas upon their backs to bite them,
> And little fleas have lesser fleas, and so *ad infinitum*.

Dr. Adami wanted to know if that generalization was also to be applied to explain the action of pathogenetic bacteria. He was willing to recognize in the long-continued action of microparasites a process which might, like other modes of stimulation, initiate aberrant and neoplastic cell growth, but beyond that point he contended that they seemed to be asked to contemplate a most extraordinary condition of affairs.

Dr. J. F. PAYNE, in a communication to the debate, said that he restricted himself to the consideration of carcinoma. If cancer was to be regarded as a specific disease the discovery of its microbe would be a most convincing argument, but other evidence might be held to be adequate. Such evidence, if forthcoming, would fall under three heads—first, evidence of an initial lesion, secondary lesions arising from this, and of general intoxication; secondly, evidence of communication of the disease from one human being or animal to another, whether of the same species or not, by contagion, inoculation, or any experimental method; thirdly, evidence of a specific local or geographical distribution. It had been demonstrated that cancer was in the beginning a local process, but it had not been sufficiently considered that the primary seat of cancer had many of the characters of the initial lesion of a specific disease. In his opinion the process of forming secondary cancerous foci was by metastasis of cells. In regard to general intoxication, the cancerous cachexia was clearly secondary to the absorption of something from the cancer itself. Further it had to be remembered that multiple primary cancer was almost unknown, that is to say when cancer was once established no new cancer could be acquired. With reference to transmission it might be taken for granted that cancer was not as a rule a contagious disease. It had not been shown that cancer was not communicable from one person to another as were for instance threadworms. Dr. Payne proceeded to discuss the hypothesis of cancer as a specific disease by considering whether the modes of its supposed entrance into the human body justified such a theory. In his opinion it was evident that if there was any infective cause of cancer the skin was one of the channels by which it invaded the body. There was another possible channel of invasion, namely by the internal surface of the body, especially by the alimentary tract. Primary cancer of the lung was almost unknown and he concluded that if there was an infective cause of cancer it did not pass through the air. There remained a large class of internal cancers of which the possible connexion with external infection could not be traced. It might be said broadly that less than 16 per cent., or less than one-sixth of all cancers, began on the external surface of the body. Not less than 56 per cent. of fatal cancers began on the internal surface of the body, and if it were supposed that nearly 16 per cent. affected the external surface, then it could be concluded that in the male sex about 70 per cent. of cases of cancer actually began on a surface internal or external—a fact which was entirely consistent with an external infection. In regard to uterine cancer, the climacteric had to be considered, and it had to be remembered also that any parasite with an accustomed mode of entrance to the body also had an accustomed method of exit. Dr. Payne proposed the hypothesis that the cancer germs might be eliminated at the climacteric, and if this were done speedily and completely no cancer resulted. Another confirmation of his theory of uterine cancer was, in his opinion, to be found in the growth called deciduoma malignum, which appeared to be pure carcinoma, of which it might be conceived that the germ was extruded with uterine blood, and not being able to escape a growth was set up. He suggested that mammary cancer was a form of sebaceous cancer, and put forward the speculation that the sebaceous gland represented the excretory path by which cancer germs were eliminated from the body. In uterine and mammary cancer, their special localization was due to abortive elimination of germs, which, if arrested on the outward path, produced a primary cancer. Broadly, the hypothesis was that the primary cancers represented either an initial lesion on the surface internal or external where the germ entered the body—or an abortive attempt at elimination

which lodged the germ at some point in the excretory path. The latter was what produced the predominant cancers of the female sex, and was of subordinate importance in the male sex. It was quite conceivable that these might represent two species of cancer produced by different causes. Concerning the geographical distribution, there was a good deal of evidence to show the local specific prevalence of cancer. The distribution of cancer, like that of malaria, seemed to be governed by specific and not merely by general physical laws. Referring to Dr. Tatham's statistics that the increase in mortality from cancer in England was progressive, Dr. Payne remarked that that meant the rate of increase was itself increasing. Further, the rate of increase in cancer of the digestive organs was higher than the average for all organs. The most plausible explanation was the more abundant diet of the working classes, and the increased consumption of meat in England, but cancer was increasing in other countries where the economical conditions were not the same. It was disheartening to see that material prosperity possibly tended to favour the spread of cancer.

Dr. Manders showed a case of abdominal tumour described as malignant in which improvement had resulted from the treatment by the high frequency current.

Dr. Leeson (Twickenham) having addressed the meeting, The President in a short speech summarized the points raised by the various speakers. He said they could not but feel that the day was not far off when they would obtain the means of preventing the incidence of cancer as they now could prevent an attack of the gout.

Manchester Medical Society.—At a clinical meeting held on March 19th, Dr. Thomas Harris, President, in the chair, Mr. Joseph Collier showed the following surgical cases: (1) A man with excision of the left knee-joint for rheumatoid arthritis; (2) a boy with excision of the upper half of the fibula for central sarcoma; (3) a woman in whom the dilated and enlarged vermiform appendix had been adherent to and communicated with the bladder, so that faeces passed *per urethram*; laparotomy had been performed and the appendix removed, the patient making a complete recovery; (4) a girl with erasion of the knee-joint, where the patella had been kept freely movable and the extensors had consequently retained full control over the joint.—Dr. Joshua J. Cox showed a boy, aged 7, and his sister, aged 9 years, both suffering from infantile myxoedema, and recovering rapidly under "thyroid treatment."

When the children came under observation at the Clinical Hospital five months ago they were exceedingly dwarfed, lacked intelligence, did not play like other children, could not dress themselves, and had the facial and other signs of infantile myxoedema. Their parents were healthy and well-grown, had five other children, all normal, and no tuberculous or neurotic family history could be obtained. The mother stated that all her pregnancies and labours had been natural, and that she had no fright while carrying the two children now suffering from sporadic cretinism, who were intelligent, and of average height and weight, until 4 years of age, after which time they developed neither mentally nor physically. Each child was now 6 in. shorter and 14 lbs. lighter than the normal child at a corresponding age.

The progress made under thyroid treatment was remarkable. The children were growing, increasing in weight, were rapidly becoming more intelligent, could dress themselves, and this week had been admitted to the School for Defective Children, recently established by the Manchester School Board. Dr. Cox remarked that it was unusual to find sporadic cretinism in males, and still more unusual to find two cases in one family.—Dr. J. Gray Clegg showed a series of ophthalmic cases, including optic neuritis, optic atrophy, thrombosis of the central artery of the retina, tuberculous keratoiritis, and central choroidal opacity of the lens.—Mr. J. Howson Ray showed: (1) A man treated by laparotomy for general septic peritonitis the result of gangrenous appendicitis with perforation; the peritoneum had been washed out with sterilized saline solution and the appendix removed; the latter contained two concretions; (2) a girl with excision of the elbow for tuberculous arthritis, where the disease had divided each of the three bones at the usual saw line, so that the operation needed only scalpel, forceps, and spoon; (3) a case of recurrent molluscum fibrosum of the face, scalp, and orbit, with arterial angeioma in the diploë and lymphatic obstruction; (4) a child, aged 7 months, successfully treated six weeks ago by laparotomy for acute ileo-caecal intussusception of four days' duration.—Mr. C. Roberts showed the following surgical cases: (1) A case of traumatic aneurysm of the dorsalis pedis artery, the treatment proposed being to excise the sac; (2) a case of psoas abscess pointing in the groin, and simulating a femoral hernia; (3) a case of tumour of the abdominal wall, probably of a malignant nature, arising beneath the scar of an operation for the radical cure of a left scrotal hernia; and (4) a case of epithelioma of the tongue illustrating the difficulty of early diagnosis from syphilitic disease of that organ, and the misleading initial improvement after administration of potassium iodide.

Glasgow Southern Medical Society.—At a meeting held on March 20th, Dr. John Stewart, President, in the chair, a discussion took place on the curability of phthisis pulmonalis. Professor T. McCall Anderson spoke approvingly of the use of tuberculin in the treatment of pulmonary consumption. He had long been an advocate of the open-air treatment. With reference to long sea voyages he remarked that cases for such treatment should be chosen with discrimination. He believed in the efficacy of a residence in a high mountain valley where pure air could be breathed. Sanatoria for the treatment of phthisis pulmonalis ought to have a site readily accessible, with a soil dry and porous, and in an atmosphere as pure as possible. Dr. George Middleton, while admitting that sanatorium treatment was on the right lines, contended that a definite statement as to its utility could not in the meantime be given with confidence. He advocated fresh air, cod-liver oil, good food, and could recall many cases of phthisis that recovered by this method of treatment. As for tuberculin he was of opinion that the injection of this substance was not without risk. Dr. James Hamilton had seen many cases of phthisis pulmonalis in which recovery had undoubtedly taken place. Dr. Charles E. Robertson strongly objected to the constant preaching to the public of the curability of phthisis. With regard to sanatoria he welcomed these buildings not because of the curative effect of treatment therein, but because they were a means of preventing the spread of the disease. Dr. L. Burges had seen cases in which tubercle bacilli were found and where a cure resulted under treatment.

REVIEWS.

SURGERY.

Mr. Bland-Sutton's well-known work on *Tumours, Innocent and Malignant*,[1] is eminently readable and instructive, and this second edition is, if possible, an improvement on the first. The plates have been omitted or in part incorporated with the drawings in the text, which have been increased by over fifty. Some of the author's special views will be read with interest. He holds that the sebaceous gland is the point of origin of rodent ulcer. He ably demonstrates the nature of rare but definite and important types of new growth, such as plexiform neuroma. Much fresh information is given in this edition concerning tumours of practical interest to the hospital surgeon. Mr. Bland-Sutton maintains that a close study of myelomata indicates that they differ histologically, pathologically, and clinically from sarcomata, with which they have hitherto been grouped. He places deciduoma malignum under the heading "sarcoma of the uterus," and points out that there is at least no doubt on the clearest clinical evidence that these "so-called decidual tumours" are only equalled in malignancy by the deadly sarcomata which arise in the periosteum of the femur and humerus. He is somewhat at variance with leading German authorities about the relative frequency of sarcoma and carcinoma of the ovary. We refer the reader to p. 123 and p. 346: on the latter page he implies that alleged "cancer" of the ovary must be accepted with reserve. The Germans believe that in true malignant ovarian tumours cancer is the rule, the common bilateral semicystic tumour being cancerous, not sarcomatous. It must be remembered, on the other hand, that they have in view the

[1] *Tumours, Innocent and Malignant: Their Clinical [illegible] Treatment.* By J. Bland-Sutton, Surgeon to the [illegible] Hospital for Women; Assistant Surgeon to the Middlesex Hospital. New Edition. London: Cassell and Company, 1901. (Demy 8vo. pp. 550; 9 plates; 300 illustrations. 21s.)

fact that many tumours registered as "solid sarcoma" are simply big, oedematous fibromata. Mr. Bland-Sutton lends some support to the German theory when he insists that a skilled histologist cannot always be sure that a connective tissue tumour is malignant. This controversy has demonstrated one fact of practical interest—a solid ovarian tumour is often not so bad as it looks.

The book on *Gastro-intestinal Surgery*,[2] by Professor HARTMANN, of Paris, contains little that is new. Some time ago he wrote along with Professor Terrier a work on the *Surgery of the Stomach*, and with Dr. Quénu another on the *Surgery of the Rectum*. Both these works are largely quoted, and many figures are taken from each. Professor Hartmann's work is, however, sufficientiy good to merit repetition. His technique in gastro-enterostomy, gastrectomy, and intestinal anastomoses is admirable. He employs for all forms of anastomosis two sutures, an inner embracing all the coats of the viscera, is haemostatic; an outer, taking up only the serous and part of the muscular coat, secures a wide area of coaptation. This we believe to be the best practice. Mechanical aids —bobbins, buttons, plates—are not employed. The method of suturing, difficult to describe, is rendered perfectly clear by some good figures. The mortality in all gastric and intestinal operations is shown to be diminishing. Of 23 cases of gastro-enterostomy for simple disease performed in 1899 and 1900, 3 died, a mortality equivalent to 13 per cent. The book is deserving of careful study, and for guidance as to operative methods is perfectly sound and authoritative.

The *Atlas and Epitome of Hernia*,[3] by Dr. G. SULTAN, is one of the series of hand atlases published by Messrs. Lehmann of Munich. The illustrations are excellent throughout, and the text furnishes a treatise on hernia which merits a more ambitious title than *Epitome*. The book is divided into two parts. In the first, a series of pictures illustrate the anatomy of the abdominal parietes and of the parts concerned in external herniae; following these is a consideration of the principles of diagnosis and treatment, and of the various complications. The chapters on strangulation are of high merit. In the second part the various forms of external and internal herniae are described and illustrated, but with somewhat unequal success; the discussion of the operative treatment of umbilical and ventral herniae is too brief to be of much value, no mention is made of the plan of dealing with the latter extraperitoneally. Generally speaking, the author is more successful in his descriptions of the common than of the rarer forms of the condition, but the volume as a whole will increase the already high reputation of the series.

The third edition of Professor STIMSON'S *Treatise on Fractures and Dislocations*[4] has undergone very careful revision and alterations at the author's hands. The most notable addition is a section on traumatic haematomyelia, describing the method of production, and pathology of the disease and indicating the treatment and prognosis. In describing "congenital dislocations" there appears to be some confusion between veritable cases of dislocation and those cases of injury to the brachial plexus during delivery which are known as "birth palsies." Many new illustrations have been added and all are extremely well done. This edition unquestionably represents the most authoritative teaching, and is now probably the most trustworthy work on the subject in the language.

Professor SENN'S book on *Practical Surgery*[5] is written avowedly for the general practitioner. Its use to him will be diminished by the size of the volume, by the irrelevance of much of the material it contains, and by a want of aptness in the selection of methods. For example, a discussion as to the question of bony union in intracapsular fracture of the neck of the femur, with a tabulated list of all the cases recorded up to 1883 where the diagnosis was verified by necropsy, occupies 15 pages—a lavish estimation of the practical interest of the subject to the general practitioner. The subject of omental grafting, also, occupies three pages; and many accounts of experiments now of little interest or value, are included. Apart from the obvious lack of discrimination and sense of proportion, the work is of considerable merit. In very many instances the descriptions of diseases, the diagnosis and the treatment are carefully and vividly described, and are illustrated by a wealth of personal experience and literary gleanings, which add very considerably to the interest with which the pages may be read. The chapters on abdominal surgery may be mentioned as being especially worthy of commendation.

A condensed edition of the large *Treatise on Surgery*,[6] edited by Professor ROSWELL PARK, has been published. It has many of the defects inseparable from a treatise compiled by several authors. The subjects which lie on the border-line between two well-defined diseases are not dealt with by the writer of either, and the relative importance of subjects is not always made plain. Thus the whole subject of goitre is dealt with on one page—a wofully inadequate allowance. The articles by Dr. Roswell Park are excellent, and we may note for especial commendation Part I on Surgical Pathology, particularly the chapters dealing with the surgical pathology of the blood, and the section dealing with the surgical diseases and injuries of the head. The article on hernia by Maurice J. Richardson is unexpectedly very poor. The definitions of "congenital," "infantile-encysted," and other forms of hernia are incorrect, and the illustrations are absolutely wrong. Dr. Lovett's article on orthopaedic surgery is not such as we might have expected. In fact, the work throughout is uneven. The general appearance of the book is excellent, and the photographs are extremely good. The coloured plates, on the other hand, are poor.

Professor BOURGET and ROUX, of Lausanne, have contributed to a series of clinical monographs now being published by the well-known house of Masson, of Paris, an essay on gastro-enterostomy.[7] It is divided into two sections, a medical and a surgical. In the former, the symptoms and diagnosis of pyloric obstruction are considered. The methods of investigation, lavage, test meals, distension with carbonic acid gas or with air, are described, and illustrative cases are freely cited. Special emphasis is given to nervous dyspepsia, a condition in which operation has proved futile or harmful. Professor Roux describes in the surgical section the preparation of the patient, the anaesthetic, and the technique he usually adopts. In the great majority of cases the operation known generally as "Roux's operation," or the "operation en Y," is practised, but when the utmost speed is desirable Murphy's button is used. Roux's operation has one great advantage over all other methods of gastro-enterostomy, in that regurgitant vomiting cannot occur. Recent experience, however, has shown that, for example, given in Mayo Robson and Moynihan's work—that when von Hacker's method of posterior gastro-enterostomy is adopted, regurgitation is infrequent and very rarely serious. The disadvantage of Roux's operation is that the time occupied in its performance is 10 or 15 minutes longer than by the usual method. Roux himself allows 40 to 45 minutes for an operation. Unfortunately no statistics are given of the operations—almost 100 in number—which are casually referred to throughout the pamphlet. It is nevertheless well worthy of study. It gives in a brief compass most of the information necessary to an adequate knowledge of the subject.

[2] *Chirurgie Gastro-intestinale.* [Gastro-Intestinal Surgery.] Par Henri Hartmann, Professeur Agrégé à la Faculté de Médecine, Chirurgien de l'Hôpital Lariboisière. Paris: G. Steinheil. 1901. (Roy. 8vo, pp. 152; figs. 121. Fr. 6.)

[3] *Atlas und Grundriss der Unterleibsbrüche.* [Atlas and Epitome of Hernia.] Von Dr. G. Sultan. Munich: J. F. Lehmann. 1901. (Crown 8vo, pp. 264; 9 coloured plates and illustrations. M. 10.)

[4] *A Practical Treatise on Fractures and Dislocations.* By Lewis A. Stimson, M.A., M.D., LL.D., Professor of Surgery in Cornell University Medical College, New York, etc. Third edition. London: Henry Kimpton. 1901. [illegible] plates in monotint. 25s.

[5] *[illegible] for the General Practitioner.* By Nicholas Senn, M.D., Ph.D., LL.D., Professor of Surgery, Rush Medical College, etc. London: W. B. Saunders and Co. 1901. (Roy. 8vo, pp. 1,133; 600 illustrations, many of the[illegible]

[6] *A Treatise on Surgery.* By American Authors. Edited by Roswell Park, A.M., M.D., Professor of the Principles and Practice of Surgery in the University of Buffalo. New York, London: Henry Kimpton. 1901. (Royal 8vo, pp. 1362; 625 engravings, and 37 full page plates in colours and monochrome. 25s.)

[7] *Monographies Cliniques sur les Questions Nouvelles.* No. 28. La Gastro-entérostomie. Par Bourget, Professeur de Clinique Méd cale et Roux, Professeur de Clinique Chirurgicale à l'Université de Lausanne. Paris: Masson et Cie. 1902. (Demy 8vo, pp. 51. Fr. 1.25.)

Dr. Hermann Engel's small volume on first-aid dressings,[8] treats of the matters indicated by the title and also of some other points of minor surgery. He considers that there is a tendency to overlook the importance of care in first dressings, and points out how in a variety of ways much damage may and has been done by treatment thoughtlessly applied. He first considers wounds of the soft parts and the two principles of their proper treatment, arrest of haemorrhage, and maintenance of surgical cleanliness. Following this he touches on the application of bandages, on fractures and dislocations, on whitlow and other superficial inflammatory affections, on plaster of paris bandages, and on the use and care of bougies and catheters. The volume is professedly elementary, and the writer passes from one subject to another on no ascertainable principle; it contains, however, many useful hints on small matters, which not uncommonly attain to importance through inattention to the first stages.

Professor Hofmeister's little work on *Bandaging*,[9] prepared under the auspices of Professor Bruns, is a good example of a useful and abundant class of elementary textbooks. It contains full descriptions of the ordinary forms of splint and bandage, with clear illustrations, and its utility for purposes of occasional reference, as well as of daily study, is enhanced by a copious index.

MALARIA AND THE MOSQUITO.

The *Monograph of the Culicidae*, compiled by Mr. F. V. Theobald,[10] has been issued by the trustees of the British Museum in three volumes. They contain the results of the systematic examination of the numerous collections of mosquitos sent from all parts of the world to the British Museum in response to circular letters from the Colonial, Foreign, and India Offices. The most important feature of the work is the method of classification. Mr. Theobald has departed from the systems of classification previously used by making the scale structure an important generic characteristic. By this method he finds that the unwieldy older genus *Culex* can be subdivided into several genera. He finds that in some instances at least the eggs and larvae in the new genera are so different from each other that on that basis a similar subdivision might be made. This similarity in the results of the two methods lends support to both. The subdivision of *Culex* into several genera is a great advance, and will simplify work amongst these groups. The enormous amount of material available, the thorough method of examination adopted, and the entomological knowledge of the author render it probable that this method of classification will be found to be sound in the main, and will, we hope, be generally accepted. Modifications of this classification will no doubt be requisite with more extended knowledge, and Mr. Theobald in his preface to volume ii expresses the opinion that a further subdivision of the genus *Culex* will probably be necessary, and instances amongst others *Culex dorsalis* as one species which may require to be placed in a separate genus. As the eggs of this mosquito differ from those of the *Culex* type such a separation will probably be correct. In the earlier part of the first volume the author deals with the general characters and structure of eggs, larvae, and pupa in the different genera. Much further information is required on these points, as the author indicates. He summarizes the descriptions given by various writers of the life-history and habits of the mosquitos, and supplements these descriptions from his own observations. Mr. Theobald does not take a sanguine view of the possibility of materially diminishing the numbers of these disease-carrying pests, but this important question is now being decided by large experiments on broad practical lines. The work is profusely illustrated with drawings, which are usually good. Maps are given showing the distribution of the different genera and the more important species of mosquitos, particularly those which have been shown to carry disease. The third volume is composed of coloured plates and photomicrographs. The coloured plates illustrate 148 mosquitos, and these will prove of great value in the identification of species. They are drawn enlarged several times, and lines presumably indicating the natural size are drawn at their sides. The photomicrographs show the structure of the wing scales in representatives of the different genera. To those interested in the tropical aspects of disease Mr. Theobald's work will be invaluable. The author is to be congratulated on the successful termination of this part of his arduous labours.

In a further report to the Malaria Committee of the Royal Society,[11] Mr. Christophers has given a description of the structure of the adult female mosquito. It is divided into two parts. In the first the gross anatomy of the exoskeleton and the muscular, nervous, and tracheal systems are described, as well as the alimentary canal and its appendages and the reproductive system. A clear account of the relations of each part and its general structure is given, and is illustrated by excellent drawings. In the second the histology of the internal organs is fully considered. It is of great interest. The methods of examination were by dissection of the fresh mosquito and serial sections of hardened specimens. The variations in the epithelial lining of the alimentary canal in different parts and under varying conditions is described in detail. Sporozoa were found in the ova, and other parasites in other parts of the body, but the descriptions are too brief to be of great value. It is not stated what species of *Culex* was studied. The identification of the mosquito would add to the value of the report.

The paper on the structure and biology of *Anopheles maculipennis* contributed by Dr. Nuttall and Mr. Shipley to the *Journal of Hygiene* has been reprinted,[12] and in this form ought to prove convenient to students of malaria. The structure of *Anopheles maculipennis* (Meigen) is described minutely. The description of the head appendages and mouth parts is the clearest we have seen, and is illustrated with good drawings. The function of each part is described, and the mode of action in the penetration of the skin of the different elements of the proboscis fully considered. The authors describe a minute canal running the whole length of the thickened median portion of the hypopharynx, which they consider to be the continuation of the salivary duct, so that the saliva is injected into the depth of the puncture made by the mosquito. The blood passes up the tube formed by the close apposition of the hypopharynx to the deep grove in the labrum-epipharynx. According to the authors, therefore, the two tubes, that by which the saliva is ejected and that through which the blood is sucked up, are quite distinct. The difference in the mouth of the male is fully considered, the absence of mandibles and the truncated termination of the hypopharynx are the points most dwelt on. A full description of the exoskeleton of the thorax is given, but as those parts are of little value either for differentiation of species or for other practical importance, they are of less interest than the cephalic appendages. In the description of the wings the authors follow the scheme of nervuration of the wings given by Comstock and Needham (1898). It is sincerely to be hoped that some general scheme may be adhered to. A knowledge of the nervuration is essential to the differentiation of species, but hardly two entomologists use the same terms in their descriptions.

Major Ronald Ross in *Mosquito Brigades and How to Organise Them*[13] has produced a volume well adapted for the purposes for which it is intended. The air of good-humoured dogmatism can hardly fail to impress the lay reader, and technicalities

[8] *Technik des Ersten Verbandes* [The Technique of First Aid Dressings.] Von Dr. Herman Engel. Berlin: *Die Medicinische Woche*. 1901. (Crown 8vo, pp. 68; 17 illustrations. M.2)

[9] *Verbandstechnik*. Von Dr. F. Hofmeister, a. o. Professor der Chirurgie an der Universität. Tübigen: H. Laupp. 1901. (Demy 8vo, pp. 106; 107 illustrations. M.3)

[10] *A Monograph of the Culicidae or Mosquitos*. By F. V. Theobald, M.A., F.E.S., etc. London: Trustees of the British Museum, and Longmans, Green, and Co. 1901. Three volumes. (Demy 8vo, pp. 542. Numerous illustrations, maps, and coloured plates. £3 3s.).

[11] *Royal Society: Reports to the Malaria Committee*. Fourth Series. The Anatomy and Histology of the Adult Female Mosquito. By S. R. Christophers, M.B.Vict. Printed by Harrison and Sons, St. Martin's Lane, London. 1901. (Pp. 20; 6 plates. 3s. 6d.).

[12] *Studies in Relation to Malaria. Part II. The Structure and Biology of Anopheles (Anopheles maculipennis)*. By G. H. F. Nuttall, M.A., M.D., Ph.D.; and Arthur E. Shipley, M.A. Reprinted from the *Journal of Hygiene*. Cambridge University Press. (Demy 8vo, pp. 34.)

[13] *Mosquito Brigades and How to Organise Them*. By Ronald Ross, F.R.C.S., D.P.H., F.R.S., Walter Myers Lecturer in Tropical Medicine, Liverpool School of Tropical Medicine; Major I.M.S. retired. London: George Philip and Son; and Liverpool: Philip, Son and Nephew. 1902. 3s.

are so carefully avoided that the main outline of the arguments will be understood by him. A brief account of the life-history of mosquitos and the part they play in spreading disease is given, and the author then proceeds to show how, in some places, the numbers can be readily reduced. Some space is given to a discussion of the numerous objections and misunderstandings that have arisen as to the intended scope of such operations; and Major Ross is careful to explain that the object is not the extermination of mosquitos in a continent, but in a town and its suburbs. Extermination in the strict sense of the word is not anticipated, but great diminution is expected. In a general way, but making exceptions, Major Ross criticizes severely what he calls the "Imperial sanitary services." The operations of these bodies, he considers, have resulted in sanitary anarchy. In an appendix he gives the "History of the War against Mosquitos" in various countries. Detailed criticism of a work of this character would be out of place. India or Sierra Leone should be substituted for "tropics" in many connexions. Persons who live in any of the numerous countries where mosquitos bite freely in the open may be led to doubt the more important facts by such statements as "The fact is that, in the tropics at least, mosquitos rarely bite out of doors," etc. Slips of this nature will strengthen the hands of doubters and sceptics.

Dr. FRITZ KERSCHBAUMER has succeeded in giving in his handbook on *Malaria*[14] a clear, concise account of the parasitology of malaria, its mode of transmission, and the means which can be taken to prevent this transmission. It contains little new material of importance, and the author states that he has avoided matters in dispute, and it is probably on this ground that he has described only the three species of human malaria parasites now practically universally admitted. He adheres to the term "plasmodium" as the generic name of the human parasites; that of quartan fever he calls "plasmodium malariae," of benign tertian "plasmodium vivax." and of autumno-aestival "plasmodium praecox." The duration of the asexual cycle of plasmodium praecox he describes as variable. On page 5 he gives it as twenty-four to thirty-six hours, and on page 8 as twenty-four to forty-eight hours. We suspect that he would find it difficult to give undoubted instances of so short a period as twenty-four hours. He does not sufficiently emphasize the fact that the greater portion of the cycle of this parasite takes place in the internal organs and not in the peripheral blood—an important characteristic of the species. An excellent account is given of the part played by various observers in the elucidation of the malaria-mosquito theory, and full credit is given to Ross for his researches. A considerable portion of his book is devoted to mosquitos, and the author rightly insists on the paramount importance of a complete study of the entire life-history of these insects. He describes many interesting observations of his own on the life-history of *Anopheles maculipennis*. He gives *maculipennis* in places as an alternative name, but usually employs *claviger* as the descriptive name. As *Anopheles maculipennis* has been clearly shown to be the correct name, *claviger* should not be used. His observations on the classification of mosquitos might have been omitted with advantage. The matter is for entomologists such as Mr. Theobald, whose monograph is reviewed above, to decide, and amateur attempts only cause confusion. Dr. Kerschbaumer greatly underestimates the number of known species of *Anopheles*, which he gives as twenty-seven; quite fifty are known. With regard to prophylaxis, he believes that the diminution in the number of breeding grounds of *Anopheles* is practicable and of great importance, but does not appear to be aware that rivers have been shown to be important breeding ground of *Anopheles maculipennis* as well as of other mosquitos. The measures he advocates are too strictly based on his observations of this mosquito to be of general application in districts where other *Anopheles* are of most importance. The plates are original, and show clearly the differences at various stages of growth between *Culex pipiens* and *Anopheles* misnamed *claviger*. The bibliography, though not exhaustive, is good and well selected.

[14] *Malaria. Ihr Wesen, Ihre Entstehung und Verbreitung.* [Malaria, Its Nature, Origin, and Prevention.] Von Dr. Fritz Kerschbaumer, Wien. Wien and Leipzig: Wilhelm Braumuller. 1901. (Demy 8vo. pp. 170; 12 plates. M 7.)

Dr. R. RUGE, of the German Naval Medical Service, has written a useful introduction to the study of malarial diseases, with special reference to technique.[15] It is intended to serve as a guide to naval and colonial practitioners, and is well suited for this purpose, as the descriptions are clear and the technique is simple and good, few alternative methods being given. The author closely follows Professor Koch and other German writers on most points. His articles on the quartan and benign tertian parasites are particularly clear, but when he comes to the more difficult malignant tertian or, as he prefers to call it, "tropical fever," his descriptions become somewhat involved. We note that he gives the number of spores formed by the parasite of "tropical fever" as 15 to 20, though fewer than half the lowest number given is quite common. He does not make clear what he imagines to be the relation between the large ring forms and sporulation. The charts are good and are limited to first attacks of fever. These, he assumes, show the real characteristic even of this form of fever better than later attacks. With both tertian and quartan fever the first attacks often show irregular curves, whilst subsequent attacks give the typical curve. The assumption that the contrary is the case in tropical fever requires some justification. We do not consider that the relationship of the temperature curve in this fever to the stages of the parasite is satisfactorily determined. He states that the small ring forms are scanty and the large ring forms more abundant in the peripheral blood. Exceptions to this are so common as perhaps to form the rule. He considers that in blackwater fever there are two main features—a predispositien due to malaria, and the onset due to quinine. His article on chronic malaria is not very good. That on pathological anatomy is brief, but especially for acute malaria, good. He does not make clear either the nature or diagnostic value of the "orange brown" pigment. Except for the demonstration of flagellation he objects to the use of moist fresh blood films, and states that their employment is mainly responsible for numerous errors. He ignores the historical fact that most of the errors made by competent observers have been due to working with dried stained preparations only. For the preparation of moist films he advocates mixing a small drop of blood with a large one of normal saline solution. This is not necessary. He adheres to the belief that quinine acts on the parasites during sporulation, and in his treatment of all forms of malaria selects his time for the administration of the drug accordingly. He gives no warning of the danger of delay to give quinine in cases with marked cerebral symptoms. The dose he advocates for children (1 gr. for each year of life) will be found futile in the commonly fatal convulsive attacks of children. He advocates large rather than small doses of quinine for prophylaxis, but gives these doses every seventh or eighth day. He discusses the various methods suggested for the prevention of infection by mosquitos. He considers the use of the mosquito net of great importance. The mosquito-proof house, destruction of mosquitos or their larvae, and segregation of Europeans from natives, he contends are under many circumstances so impracticable as to be worthless. In discussing these methods he lays stress on the impossibility of complete success, but ignores the great advantages of the partial success which is all that the most ardent advocates of the measures anticipate. He recommends the detection of all cases of malaria by periodical blood examinations and the extermination of the parasites in those infected. This method is in certain conditions, as on military expeditions, at least as impracticable as any of the others.

DR. VAN GOORKOM, a medical officer at Tosari, Borneo, has attempted in a small book on *Malaria and Mosquitos*[16] to set forth in a semi-popular fashion all that is known of the relations existing between malaria and mosquitos. It is presumably intended for the study of Dutch medical men and colonists in the possessions of the Netherlands beyond the

[15] *Einführung in das Studium der Malariakrankheiten mit besonderer Berücksichtigung der Technik: Ein Leitfaden für Schiffs und Colonialaerzte.* Von Dr. Reinhold Ruge, Marine Oberstabsarzt 1 kl. Kommandiert zum Institut für Infektionskrankeiten in Berlin. Jena: Gustav Fisher. 1901. (Royal 8vo. pp. 140, 3 plates, 10 Illustrations. M. 4.)

[16] *Over Malaria en Muggetjes.* (Concerning Malaria and Mosquitos.) Door W. J. van Goorkom, Gouvernesser to Tosari. Malang: A. J. Jalm. (1901. Demy 8vo, lithographic Illustrations, pp. 75.)

seas. It places before the reader in a succinct and attractive manner the gradual discovery of the part played by the mosquito in the dissemination of malaria among the inhabitants of tropical lands; and it gives clear directions as to the lines along which treatment must proceed in the new conditions of propagation thus made evident. Full credit is given to Laveran, Manson, Ronald Ross, and to the Liverpool School of Tropical Medicine for the part played by them in carrying out the long series of researches which has resulted in the identification of the *Anopheles* as the carrier of the malaria parasite. The illustrations are taken from the works of the above-mentioned authors, and from those of Koch, Bonebakker, Celli, Sambon, and others. The work ought to be of use to the medical profession in Java and other Dutch possessions in the Far East.

The actual observations in Major Andrew Buchanan's *Malarial Fevers and Malarial Parasites in India*[17] are remarkable for having been made by Burmese prisoners who were trained in the use of the microscope by the author. The first part of the book is a description of the parasites. This is clear, concise, and well illustrated. The illustrations of the unstained parasites in particular are remarkably good. Experiments made to test the effect of arsenic and a native medicine called "atthis" showed that these drugs were without appreciable effect. In Chapter VIII the author describes a secondary fever in malignant tertian, which he believes to be due to flagellation taking place in the blood. We do not consider, in face of the numerous observations in all parts of the world which show not only that flagellating bodies are not found in freshly shed blood, but also that the alterations in shape of the crescent which precede flagellation are not met with in quite fresh blood, that the author has proved his case. The author believes that halteridium and proteosoma are the benign tertian and quartan parasites modified by their environment, and adduces some interesting observations which, however, are not conclusive. He proved the transmission of tertian malaria by *Anopheles*, but failed with quartan. The book is decidedly interesting, and shows much originality as well as careful observation. Major Buchanan gives full credit for the observations made by the prisoners, of whose intelligence and accuracy he speaks in the highest terms.

Dr. Charles F. Craig has written a handbook on the *Estivo-autumnal Malarial Fevers*,[18] which deserves careful study, as it is no mere compilation. He divides these fevers into quotidian and tertian, and describes differences in the parasites in the two classes These differences in the main are in the size of the parasites, in the arrangement of the pigment in the young forms, and in the shape and size of the crescent body; the differences are minute as compared with other classes of haemamoeba. The temperature charts illustrating the author's views are well selected, and show the great range of variation in the clinical symptoms. The chapters dealing with the clinical manifestations of infection by these parasites is particularly good, and the absolute necessity of blood examinations, both in obscure cases of fever and in other diseases in persons exposed to infection, is ably illustrated. Though some of the author's views may not meet with general acceptance, they are clearly stated; illustrative cases are given, and there is an entire absence of special pleading in the arguments adduced.

NOTES ON BOOKS.

The little collection of *Hospital Sketches*[19] by Lucas Galen is dedicated to the junior members of the medical and surgical staffs of the London hospitals, but is worthy of a far wider circle of readers. Every one who has had experience in the out-patient department of a hospital—and especially of a children's hospital—will feel the realistic touch of the author. Indeed, he will possibly say to himself, "Why, the same incident occurred to me!" Very likely it did, but either he failed at the time to appreciate the humour of the thing, or else he had not the energy to jot it down. The sketch (p. 24) of the philanthropic lady who disturbed the out-patient physician at his work because she wanted her charwoman's child to be taken into the hospital at once is not a bit overdrawn. And that entitled A Slip of the Tongue (p. 113) might have happened to any one. "Enter a mother beaming affectionately at the doctor: 'This is little Tommy's brother, sir!' Doctor (heartily), 'No, is it, though? And how is little Tommy?' Mother (reproachfully), 'Why, sir, don't you remember little Tommy—'im that was under you three years ago last Whitsuntide? Why, you took 'im into the 'orspital and 'e died next day, and you opened 'im yourself to see what 'e died of!'" Probably by this time "Lucas Galen" has been promoted to the senior staff of his hospital. If so, we hope that he may still have opportunities for adding to his collection of "sketches," and that they may prove as well worthy of being "framed and glazed" as are those which form the subject of this notice.

The "A 1" Cookery Book,[20] by H. N. L., claims to contain everything essential for those who wish to have plain food daintily prepared, and to be written in the simplest possible manner to help the inexperienced. It fulfils these objects extremely well. In addition to an introductory chapter giving general hints on housekeeping, there are sections devoted to the preparation of every kind of food, including sauces, breakfast dishes, and odds and ends. Not only plain cookery, but a considerable knowledge of the higher branches of the art may be learned from this book, which appears to be one of the best of its kind. The new edition of Mrs. Beeton's *Cookery Book*[21] is a still further improvement upon the older editions. Many new dishes from foreign sources have been added, and a price list of provisions and cook's time-table prepared. The illustrations are exceedingly good.

Professor Lassar-Cohn's *Introduction to Modern Scientific Chemistry*,[22] is a delightful book, clearly and well written. It is intended to be both scientific and popular. He has succeeded in making it interesting and readable and an essentially difficult subject as simple as it can well be. Mr. M. M. Pattison-Muir has made a thoroughly good translation from the German, and the book is bound to be useful both to students and teachers. Many of the latter might learn much from its methods.

The Transactions of the International Medical Congress in Paris.

We have received the *Comptes Rendus*[23] of the work of the Sections of the Thirteenth International Medical Congress, held in Paris in 1900, which have been published, under the direction of M. A. Chauffard, Secretary-General of the Congress. There are seventeen volumes as follows: Anatomy, descriptive and comparative; Histology and Embryology, Physiology, Physical and Chemical Biology; Pathology, general and experimental; Pathological Anatomy, Bacteriology and Parasitology; Internal Pathology; Medical and Surgical Diseases of Children; Therapeutics, Materia Medica, and Pharmacology; Neurology; Psychiatry; Dermatology and Syphiligraphy; General Surgery; Urinary Surgery; Ophthalmology; Laryngology, Rhinology, and Otology; Stomatology; Obstetrics, and Gynaecology; Legal Medicine; and lastly Military Medicine and Surgery, Epidemicology, Hygiene, and Naval and Colonial Medicine. Each volume is sold separately for 5 francs, or the whole 17 may be pur-

[17] *Malarial Fevers and Malarial Parasites in India.* By Major Andrew Buchanan, I.M.S. Nagpur: Central Jail Press. 1901. (Demy 8vo, pp. 118; 36 illustration, 25 charts. Rs. 4)

[18] *The Estivo-autumnal (Remittent) Malarial Fevers.* By Charles F. Craig, M.D.Yale. London: Baillière, Tindall, and Cox. 1901. (Demy 8vo, pp. 221, 2 coloured plates, 21 charts. 10s. 6d.)

[19] *Hospital Sketches.* By Lucas Galen. London: Grant Richards. 1902. (Crown 8vo, pp. 158. 1s.)

[20] London: Simpkin, Marshall, Hamilton, Kent and Co. Pp. 159.

[21] *Mrs. Beeton's Cookery Book.* A Household Guide to all cookery, household work, marketing prices, provisions, trussing, serving, carving, etc., etc. New Edition. Pp. 311. Coloured and other illustrations. London: Ward, Lock and Company, Limited. 1901. Price 1s.

[22] *An Introduction to Modern Scientific Chemistry in the Form of Popular Lectures, suited for University Extension Students and General Readers.* By Dr. Lassar-Cohn, Professor in the University of Königsberg. Translated from the second German edition by M. M. Pattison Muir, M.A. London: H. Grevil and Co. 1901. Pp. 384, 58 illustrations.

[23] *XIIIe Congrès International de Médecine.* Paris, 1900. Comptes Rendus. Publiés sous la direction de A. Chauffard, Secrétaire Général. Paris: Masson et Cie.

chased for 50 francs. The volumes form a very mine of recent information, for in addition to the original papers important discussions on them are recorded in full.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

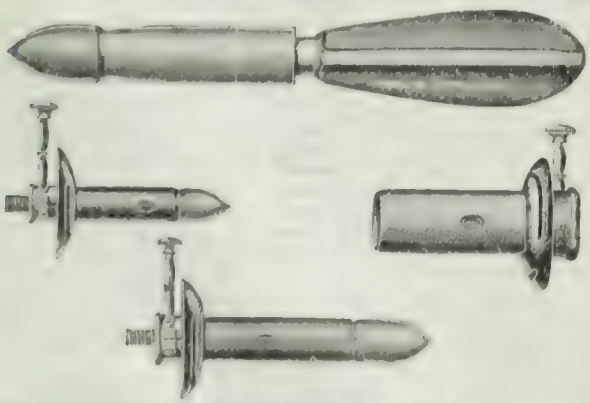
Banana Malted Food.—A preparation called "Boyd's Banana Malted Food," and stated to be a combination of banana meal, wheat flour, "wheat phosphates," and casein, is put forward as a specially suitable food for children and for dyspeptic adults. The inventors urge that all travellers in the tropics concur in praising the nourishing properties of cooked bananas, which form in some parts of the world practically the staple food of the people. We are told that "in composition the banana is similar to the potato except that in the former sugar and dextrine take the place of the starch of the potato, and is therefore more nourishing than the latter." It is now admitted that there exist physiological differences in starches and sugars derived from various plants, as shown in their greater or less capacity for being assimilated, so that it is possible the banana may possess advantages over other farinaceous substances. Our analysis of pure banana meal gives the following results:

	Per cent.
Moisture (212° F.)	10 00
Mineral matter...	2.40
Nitrogenous matter	4.66
Fat	0.70
Carbonaceous substances (mainly starch)	82.24

The proportion of the meal soluble in cold water after twelve hours' maceration was 8 per cent. The examination of the meal under the microscope shows that practically all the granules turn blue on the addition of iodine, so that we can hardly regard it as a fact that the starch of the banana is for the most part converted into sugar and dextrine. It is, however, quite possible that banana starch does possess a higher nutritive value than other starches with which we are more familiar, but this is a question which must be decided by clinical experience. The preparation can be obtained from the Medical and General Specialities Company, 300, Clapham Road, London, S.W.

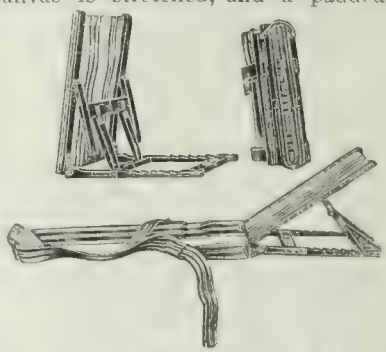
MEDICAL AND SURGICAL APPLIANCES.

Set of Trocars and Cannulae for Empyema.—Mr. WILLIAM TURNER, M.S.Lond, F.R.C.S., Senior Assistant Surgeon, Westminster Hospital, writes: Messrs. Arnold and Sons, London, have made for me a set of special trocars and cannulae for use in certain cases of empyema. They are flattened from side to side



and not circular as usual in other trocars, to enable them to pass through an intercostal space with greater ease. The cannulae are made of silver, and can be left *in situ* for ten days if necessary. The trocars are of very hard steel, and in consequence of their shape the end and the cutting edge project further than in the ordinary form. To minimize the danger to deep parts when the instrument is used each cannula is fitted with a movable shield, being fixed at any depth by a screw as in Durham's tracheotomy tube. The shape of the shield is similar to that of a bivalve tracheotomy tube, but is perforated by two long slots placed in such a manner that whatever be the inclination of the ribs the tube can be kept in position by tapes threaded through these slots and passed straight round the chest. The set consists of three, with one handle which screws into all the trocars. The sizes are as follows: (1) Small, $\frac{5}{16}$ by $\frac{1}{8}$ in. and $1\frac{9}{16}$ in. long; (2) medium, $1\frac{7}{16}$ in. by $\frac{3}{16}$ in. and $1\frac{9}{16}$ in. long; (3) large, $\frac{5}{8}$ in. by $\frac{1}{4}$ in. and $1\frac{9}{16}$ in long. The sizes of the cannulae are inside measurements; the length is the effective length, namely, from the shield to the end of the cannula. The chief use I have put this instrument to, and have found it act extremely well, is to drain an empyema after incision of the skin under eucaine administered hypodermically in those cases where the administration of a general anaesthetic is especially dangerous on account of the condition of the patient.

A Bed-Rest.—The special features claimed for the "Princess Christian" bed-rest are its portability and its adaptability to any degree of recumbency of a person in bed, on a couch, or mattress, or lying on a rug on deck, in the garden, or on the beach. It consists of a light wooden, adjustable framework on which canvas is stretched, and a padded foot-rest i



attached to the framework by straps in such a way that the user is prevented from slipping down. It can readily be cleaned, and in district nursing can easily be carried from house to house. It is supplied by the patentee Miss L. Ealand Todd, of 31, Grosvenor Terrace, York, at prices ranging from 25s. to 31s. 6d. A small size can be made for children's cots.

A SUMMARY AND ANALYSIS OF RECENT OBSERVATIONS AND THEORIES

AS TO

THE PROCESSES OF INFECTION AND PROTECTION IN THE ORGANISM.

By H. W. ARMIT, M.R.C.S.Eng., L.R.C.P.Lond.,

(*Continued from 786.*)

II. BACTERIOLYSIS AND HAEMOLYSIS.

Lysin Action.

IN the majority of infective processes, to wit, those which spontaneously come to an end, the natural termination depends on the manufacture of antitoxin, and a concurrent arrangement for the destruction and removal of the bacteria. Pfeiffer[7] discovered that the latter process depends on the production of a body which is capable of dissolving the bacteria, and which is known as bacteriolysin. He found that if cholera vibriones were introduced into the peritoneal cavity of a guinea-pig immunized by increasing doses of the vibrio, the micro-organisms were immediately dissolved *in situ*. This also occurs under various modifications. Metchnikoff[8] showed that when the serum of the immunized

[7] Pfeiffer, *Deut. med. Woch.*, 1896, Nos. 6 and 7.
[8] Metchnikoff, *Ann. de l'Inst. Pasteur*, June, 1895.

guinea-pig, a small quantity of the peritoneal exudation and the vibriones are brought together in the test tube, the same solution takes place. Bordet[9] further showed that the experiment could be carried out without any peritoneal exudation, provided that the serum be fresh, and that if older serum be used, and no solution resulted, the addition of the serum of a normal guinea-pig would bring about the solution. Pfeiffer (loc. cit.), following the subject up, came to the conclusion that the immune serum contains a body which produced the first stage of the bacteriolysis, and that a "something" existed in normal serum which is capable of completing the solution, and possesses a ferment-like action.

To understand the processes of bacteriolysis, and, in fact, to demonstrate by analogy the correctness of the side-chain theory, it is necessary to study these changes minutely. This was rendered possible by the happy discovery by Bordet[10] that the injection of defibrinated rabbit's blood into guinea-pigs leads to the appearance of a body in the serum of the guinea-pig which is capable of dissolving rabbit's red blood corpuscles.[11] This body is called haemolysin, and since its action—as far as it could be ascertained of bacteriolysin—is analogous to the latter, Ehrlich and Morgenroth[12] have studied the various phenomena which take place both in artificial and acquired haemolysis. The subject is complicated, and the interpretation of many of the appearances have been so varied that in order to gain a clear idea of the process each set of phenomena must be separately considered and the opposing arguments stated as briefly as possible. All the workers have adopted almost identical methods, and the technique of each experiment is so clearly detailed in nearly every report that it will be unnecessary, as a rule, to give an account of these details.

Erlich and Morgenroth found that normally haemolysis artificially produced by the injection of the blood of an animal of one species (A) into the subcutaneous tissue of an animal of another species (B), whereby the serum of B is rendered capable of dissolving the erythrocytes of species A, depends on the presence of two bodies, one of which is specifically produced by the injection and is heat-resisting, and the other is normally present in the serum of the animal and is destroyed by heat. The first he names "amboceptor," or immune body, and the second "complement."[13] Some immune serums appear to exercise an agglutination of the red cells immediately before the lysin action. This has nothing whatsoever to do with the haemolysin, and is due to a specific agglutinin,[14] which is not disturbed by heating to 55° C. Agglutinin is also occasionally present in bacteriolytic serums, though this is by no means a constant find.[15]

Immune Body or Amboceptor.

According to the side-chain theory, if a toxin, a toxoid, a ferment, a portion of a bacterium, or of a red blood cell has the capability of joining with the side chains of the protoplasm, the production of an antibody must be possible. In the case of toxin we are dealing with a soluble body, the substance produced by it joins with the soluble antibody, and the chemical combination takes place in solution. But in the case of the red blood corpuscle, we are dealing with a body not directly soluble, which produces an originally insoluble substance: when it joins the antibody, which is dissolved in the blood, it takes the latter out of solution and anchors it to the cell. To apply this reasoning to haemolysis, the immune body (amboceptor) must be anchored to the red cell. This was proved to be the case by Ehrlich and Morgenroth[12] (II). A mixture of sheep's blood cells and a haemolytic serum of a goat, rendered inactive by heating to 56° C., was centrifugalized, and the fluid and sediment were separately tested. To the former fresh sheep's blood cells were added as well as normal serum (complement), but no solution resulted; therefore there was no immune body in the fluid. To the sediment was added normal serum, and complete solution resulted. The immune body is anchored by means of a definite affinity toward the red cell, and therefore is not a mere absorption process. Later on it will be shown that the combination takes place as a stereo-chemical combination, and not as a "level attraction," as is the case with carbon compounds. The junction of two bodies in the former case is much firmer than in the latter, and they cannot be separated by attraction from other bodies.

Haptophoric Group: Receptor.

The immune body, therefore, joins with the cell chemically, and this can only be carried out by means of suitable and corresponding atom groups. The group of the immune body is called the haptophoric group and the group of the red cell molecule the receptor. Ehrlich proved experimentally that the complement was incapable of directly attaching itself to the red cell, and that its influence could only be exerted through the intermediation of the immune body. To 5 c.cm. of a 5 per cent. suspension of sheep's blood cells in saline solution 1.3 c.cm. of inactive (heated) immune serum (serum of a goat, injected previously with sheep's blood) and 10.5 c.cm. of normal goat's serum quantities of inactive immune and active normal serum just sufficient to dissolve all the blood cells used, were added at a temperature between 0° and 3° C. The immune body was anchored to the red cell but no solution of the corpuscles took place. The mixture was warmed after centrifugalization, and the sediment suspended in saline solution was tested, as was the fluid. It was found that the blood cells had an excess of immune body and only a little complement anchored to it, while the fluid contained scarcely any immune body but an excess of complement. The deduction from this and many other observations of a similar nature is that the immune body is endowed with another atom group, which corresponds to an atom group of the complement, and which possesses a certain affinity for the latter. The affinity between immune body and complement, however, is much less strong and less regular than that existing between the former and the red cell. It therefore appears that the immune body possesses two atom groups—one a haptophoric cytophile group of greater and the other a complementophile group of less affinity. For this reason Ehrlich speaks of it as amboceptor.

Schemata (after Ehrlich).

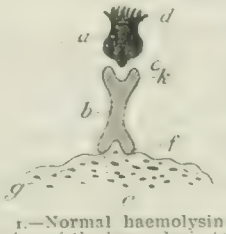


Fig. 1.—Normal haemolysin. The above figure represents the anchoring of the haemolysin to the cell, in a purely pictorial form.

Complement.

The complement is a ferment-like body easily altered by heat, and possesses an atom group (haptophoric) corresponding to the complementophile group of the amboceptor, and a zymotoxic group analogous to the toxophoric group of the toxin (see schema). The action of the complement in haemolysis, although in some respects like that of the toxin, differs from it, inasmuch as the latter corresponds, chemically speaking, with a more simply constructed side chain (the receptor). The giant protoplasmic molecule can only be taken up by such a receptor when split into chemical fragments by the action of some ferment. In the case of haemolysis the receptor is of a much more complex construction, and is only reached by the complement by means of an

[9] Bordet. *Ann. de l'Inst. Pasteur*, June, 1895.

[10] Bordet, ibid., vol. xii, No. 10.

[11] When this serum is heated to 55° C. no solution takes place, but on the addition of normal guinea-pig's serum the power of solution reappears, in analogy to the reactivizing of bacteriolyzin.

[12] Ehrlich and Morgenroth, Zur Theorie der Lysinwirkung, I, *Berl. klin. Woch.*, No. 1, 1899; Ueber Haemolysine, II, ibid., No. 22, 1899; III, No. 21, 1900; IV, No. 32, 1900; V, No. 10, 1901; VI, Nos. 21 and 22, 1901.

[13] In order to prevent confusion, only these names will be adopted until the views of Buchner, Bordet, Gruber, and others are discussed, when the terms "substance sensibilisatrice" and "preparator" will be used for the former, and "alexin" for the latter. Ehrlich at first distinguished between intermediate body of natural and immune body of artificial haemolysis. Buchner speaks of this as helping body (*Hilfskörper*) and Metchinkoff as philocytosis. Ehrlich at first spoke of the ferment-like body as addiment, and later as complement. Buchner and Bordet introduced the name alexin (protective substance) before Ehrlich published his views on haemolysis, when they were dealing with the early bacteriolysis investigations.

[14] Gruber, *Wien. klin. Woch*, No. 12, 1896.

[15] Pfeiffer and Koller, *Centralbl. f. Bakt.*, vol. xx, Nos. 4 and 5, 1896.

amboceptor of definite constitution. The whole side chain in this case can take up and dispose of the giant molecule. It has been found experimentally that different serums contain complements which differ from each other, that some have the same complements in common with other serums, and that most serums contain a large variety of complements. Ehrlich and Morgenroth[12] (II) obtained a haemolytic serum of a goat, immunized with sheep's blood, which possessed a complement that could not be rendered inactive by heating to 55° C. The complement and amboceptor were both found tied to the red blood corpuscle, after twenty-four hours at 0 °C., when tested by centrifugalization. The addition of hydrochloric acid was found to render the serum inactive—that is, destroy the complement, and normal goat's serum was found to contain a suitable complement, which was capable of rendering the amboceptor again active. Thus they were enabled to demonstrate two very different forms of complement—one a thermo-unstable and the other a thermo-stable: the former is usually present, but in a number of goats they found varying quantities of the latter, as well as (in some cases) the former. The varieties of complement can also be shown by its specificity. If an animal of Species A be immunized by the blood of Species B, and the serum of A be rendered inactive by heating, it can be made active again by the serum of normal animals of Series A, and at times of C, E, etc., but not by that of Species D. The existence of two forms of complement in one serum can be demonstrated by the following experiment:

Normal goat's serum is capable of dissolving both guinea-pigs' and rabbits' blood cells. The inactive serum of a goat can be made active by normal horse's serum. Normal horse's serum contains no amboceptors, but only complement. If normal goat's serum be passed through a Pukall's filter, and the filtrate be tested separately on the two kinds of red cells, it appears that, whereas the serum is still capable of dissolving guinea-pig's erythrocytes—just as unfiltered serum is—its power towards the rabbits' cells is greatly diminished. The addition of horse's serum completes the solution, but the addition of amboceptor produces no change.

It is clear, therefore, that the complement in the goat's serum, specifically active towards rabbit's blood cells, is kept back in the filter, while the complement, specific towards guinea-pig's blood cells, can pass through it. Thus there are two forms of complement in goat's serum (normal), and, since inactive goat's serum can be rendered active by normal horse's serum, these two forms are also present in horse's serum.

Anticomplement.

According to the side chain theory, when the complement of one species is introduced into the organism of another species, an antibody must be formed. Von Düngern[16] found that if bacteriolysin, derived from a certain animal, be introduced into the tissues of another animal, the cells of the new host are capable of interfering with the complement and rendering it inactive. Ehrlich and Morgenroth (fourth communication),[12] and Bordet[17] found that this and analogous appearances in haemolysis were due to the formation of an anticomplement. The serum of a goat which has received injections of the serum of a horse (which is very rich in complements) contains a body which neutralizes the



Fig. 2.—Anticomplement.

action of haemolysin. That this is due to anticomplement can be shown by the fact that if rabbit's red blood cells are brought into contact with inactive goat's serum,[18] and excess of inactive antiserum,[19] and the mixture be centrifugalized, it will be found that the sediment will be dissolved by the addition of normal horse's serum. The antiserum is, therefore, incapable of attacking the sediment, which contains red cells and amboceptors, but can only act by diverting the other part of haemolysin, that is, the complement.

It has been shown that the complement possesses two atom groups, a haptophoric and a zymotoxic. The anticomplement must anchor itself to the haptophoric group, for if it anchored itself to the zymotoxic group, the addition of fresh complement would be incapable of joining the complementophile group, which is not the case. The dissolving dose of amboceptor (inactive serum) was brought into contact with a given quantity of erythrocytes, and the dissolving dose of complement together with a neutralizing dose of anticomplement was added. The sediment, obtained by centrifugalization, was saturated with fresh complement, and was completely dissolved. The complementophile group of the amboceptor was, therefore, not anchored to the haptophoric group of the complement, as would of necessity be the case if the anticomplement were attached to the zymotoxic group.

Since it has been shown that the complements exist in great variety, and that not only different species may have different complements, but the same animal frequently contains a large number of different complements, the possibility of a large number of anticomplements must be admitted. The partial analogy of the complement to the toxin has been pointed out, and another instance of this occurs in the formation of antibody. Just as the complement and toxin are specific ferment-like bodies, each acting only when in the presence of a group, adapted solely for itself, it must be accepted that the anticomplement, also, is a truly specific body.

Complementoid.

The analogy between complement and toxin can be carried further. Both in haemolysis and bacteriolysis thermic and certain chemical influences inhibit the dissolving action. That this is due to the destruction of the zymotoxic groups (the carriers of specific action) can be shown experimentally. By heating a serum to 60° C. for fifty minutes, it is found to be free from all traces of complementing action, but an anticompliment can be produced and its presence demonstrated. Ehrlich and Morgenroth prove this by various experiments. One of these is as follows:

A dog was injected with inactive goat's serum, and the inactive complement formed an anticomplement, which was capable of diverting a somewhat larger dose of active complement than was neutralised by the control anticomplement obtained by injecting a dog with active goat's serum.

The altered (heated) complement is the analogue of the altered toxin, which has lost its activity and is called toxoid. Ehrlich, therefore, calls the former complimentoid. Now, since the zymotoxic group is alone absent in complementoid, it would be expected that the haptophoric group would anchor itself to the complementophile group of the amboceptor, and thus prevent all possibility of its being again made active, but this is shown not to be the case. The affinity between the complementophile group of the amboceptor and the haptophoric group of the complement is not great, and the explanation of this phenomena is that by the destruction of the zymotoxic group this slight affinity is greatly lessened or even destroyed. Neisser and Wechsberg[20] have shown that the same loss of affinity takes place in the toxoid of staphylococcus, but Ehrlich[21] found that with the toxoid of diphtheria bacilli no loss of affinity can be ascertained.

(To be continued.)

[16] Von Düngern, *Münch. med. Woch.*, No. 20, 1900.
[17] Bordet, *Annal. de l'Inst. Pasteur*, May, 1900.
[18] As has been stated, normal goat's serum contains normal haemolysins, active toward rabbit's and guinea-pig's blood.
[19] The antiserum in an active state contains complement as well as anticomplement. By heating to 56° C. the former can be removed, and this is done in order to free the original mixture from all traces of this body

HOUSE-TO-HOUSE VACCINATION IN AMERICA.—Free vaccination from house to house by a corps of 134 physicians sent out by the Board of Health has been instituted in Boston, U.S. The districts were divided into sections and a physician assigned to each. Little opposition was encountered.

AN ARSENIC FIND IN AMERICA.—A mountain of arsenic has been discovered fifty miles south-east of Tacoma, Washington. This is claimed to be the first important body of arsenic ever found in America. The supply heretofore has come from Cornwall. The United States now imports nearly £200,000 worth yearly.

[20] Max Neisser and Wechsberg, *Münch. med. Woch.*, No. 37, 1900.
[21] Ehrlich, Werthbestimmungen des Diphtherieheilserums, *Klin. Jahrs*, 1897.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st, 1902. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 5TH, 1902.

CIVIL SANITATION IN INDIA.

The contents of the fifth volume of the report of the recent Plague Commission and a report of a paper on Indian sanitation read by Dr. Dhingra at the Imperial Institute remind us that much still remains to be done in India in this branch of administration. It is only too evident that the sanitation, both of the urban and of the rural districts, of that country is in an unsatisfactory condition. It is true, and is well-known to our readers, that much sanitary work has been accomplished in India during the last twenty years, especially in the direction of improving water supplies and drainage systems, but, owing no doubt to financial difficulties, the beneficial effects of some of this work has been lessened by incompleteness. The work remaining to be accomplished is indeed gigantic; and when plague was introduced into India in 1896, it soon became evident that the prevailing insanitary conditions were eminently favourable for the diffusion of any infectious disease whose infectivity and virulence are enhanced by insanitary conditions.

It may legitimately be asked what are the dominant factors existing in India which impede sanitary progress and the amelioration of existing conditions. We are disposed to think that the poverty and ignorance of the masses, coupled with a regrettable adherence to old-world methods of sanitary administration on the part of the governing classes, are sufficient to account for the present state of affairs. The poverty of the greater number of the inhabitants of India is unappreciated in this country, and, as in our own land, the problem of sanitation is really the problem of poverty; the two are inseparable. Nine-tenths of the population of an Indian city or village cannot afford to pay the rent of a really sanitary building; they are forced to live in miserable shanties or "chawls"—dark, low, small, and built on insanitary sites without plinth; houses and streets are crowded together on small areas, people and cattle dwell under the same roof, and the pollution of the soil, air, and water follows as a natural result. Another question which has an important bearing on sanitation is that of education. Everybody knows that education is rapidly spreading in India, and that her universities are turning out hundreds of young men annually more or less highly endowed with academic knowledge. We doubt whether this higher education helps much to spread the gospel of sanitation. Elementary sanitation is taught in many native schools, but the subject is crammed for examination purposes into those whose thinking faculties are but imperfectly developed, with the result that it leads to no practical results. The study of sanitation is not only a subject fit for India's children, but is worthy of the serious consideration of her adult men and women.

A further matter for consideration is whether the present system of sanitary administration in India is in accord with either the spirit of the times or of the actual circumstances of that country. We are fully prepared to admit that the present sanitary department in India has done much and is doing now probably all that it is capable of doing with existing *personnel* and arrangements. But the existing organization is defective in some very important particulars. In the first place the system of selecting Sanitary Commissioners and their deputies, who are the chief inspecting officers of the department, seems to be faulty. There is no guarantee that an officer selected has made a special study of sanitary science; moreover, the districts supervized by these officers are so extensive that it is not possible for them to visit in any one year more than a small number of the villages and towns which call for inspection. In all provinces, excepting Bombay, the civil surgeon or medical officer of the district or unit of civil administration is also the health officer, and in most instances is not a specially trained sanitarian. In his capacity as health officer he is hampered by the numerous professional duties at headquarters, which prevent him from travelling about his district, and by the fact that he has no subordinates with technical knowledge whom he could utilize for making visits of inspection in the interior. In the presidential cities and larger towns, too, the health department is not sufficiently strong in medical officers for the duties which it has to perform, and, moreover, is at a disadvantage by reason of its health officer not being sufficiently independent or endowed with power or means to carry into effect sanitary measures of essential importance if the municipal authorities are not favourable to them. These are some of the more obvious defects in the sanitary organisation of India, but a serious defect exists also at the central fount of government. The office of Sanitary Commissioner with the Government of India is combined with that of Director-General of the Indian Medical Service. The incumbent may be an excellent administrative officer, but there is no guarantee that he is an expert in sanitation. At the time of writing the office is vacant, so that our remarks cannot be suspected of any personal application. Further he is not in and of the Council which governs the country. He can advise the Government of India on sanitary matters, to whom all his reports are made, but, except through this channel, he has no authority over officials in the sanitary departments serving under the local governments of provinces.

We think we have called sufficient attention to some of the more important defects of, or sources of weakness in, Indian sanitary administration: and we hope that the Government of India will take steps to place its sanitary organisation on a proper footing, as it is evident that the longer its allows its public health administration to proceed on the present cumbrous, imperfect, and casual system the greater become the dangers and difficulties of

coping with infective disease in the areas over which it rules. The first reform which we suggest is the formation of a proper health bureau or secretariat with and constituting a part of the Central Government. Its head should be a competent sanitarian and *ipso facto* a member of the Governor-General's Council. This official should be the presiding and controlling head of an Indian sanitary service working over the whole of that peninsula, appointing or supervising not only health officers of cities, towns, and districts, but also port sanitary officers, bacteriologists, chemical examiners, vaccination officers, and statistical registrars for births and deaths. Such a bureau could then take co-ordinate action and exercise efficient sanitary control over the whole land, collecting and scrutinising vital statistics as well as organizing measures against plague and other infectious diseases.

A further essential for sanitary progress in India is the development of a greater practical interest in these matters, not only among the people themselves but among the ruling class. So long as the latter are apathetic, how can we wonder that the former are content to let things be as they are? Take the elementary question of housing; every one admits that it is the insanitary and squalid hovel in which the average Indian lives which is at the root of plague dissemination. Are the dwellings in which the better class Europeans house their own servants proper object lessons to those people to guide them as to how they should plan or construct their own homes in the villages? Do the lines, which the Government helps the sepoy to build, and authorize him to live in while in military employ, furnish the native soldier with a proper idea as to what his house should be when he returns to his village on pension? Certainly not: if such things be and continue to be, can we wonder that India is as it is? A great opportunity was lost to show the native of India how a native city should be planned and houses built in accordance with hygienic principles, when Lyallpur was laid out and virtually sprung into existence under Government aid and control upon the reclaimed area of the Rechni Doab. A visitor to that new town built, within the last ten years, upon what was formerly a desert, will find the same violations of elementary sanitation existing as in the oldest town and city of the land. We have heard often of the white man's burden, we doubt whether the white man is carrying that burden quite as well as he ought in India. The time has come for stimulation from highest to lowest in these matters, and we hope that the Governor-General and his Council will attempt to grapple with this sanitation question, and not only so reorganize its public health bureau but introduce a Health Act for India, with compulsory clauses for making suitable by-laws for the control of buildings, streets, and sale of food. We do not advocate a complex or elaborate Act, as the people are not yet advanced enough, but we earnestly plead for some effort to be made to improve the present condition of things, especially in the large towns and rural villages. We believe that such action is not only urgent but possible on the lines we have laid down.

Dr. ANGEL PULIDO, head of the Spanish Department of Public Health, has under consideration a scheme for the regular medical inspection of schools.

HEROIC OBSTETRIC SURGERY.

THE days are not far off when rupture of the uterus was held to be a very deadly complication. This was true, for its management was misunderstood; present experience makes it possible to save many cases. At the date to which we refer a distinguished authority made out that oxen were the most successful operators in Caesarean section, as the mortality of cases performed by human obstetricians was higher than that of cases in which the abdomen and uterus had been ripped open by the horn of an ox or a cow. Hence operators were shy and left many cases to their fate.

How and why it is now otherwise is pretty well known. Dr. J. A. Amann reported at the November meeting of the Gynaecological Society of Munich, a case which shows what modern surgery may do for women in desperate straits through accidents in parturition.[1] A woman, aged 30, was in her fifth labour; the presentation was transverse. A practitioner attempted version under chloroform; then he called in a colleague, who found the right arm presenting, and detected on the right side a deep laceration, through which intestine was beginning to prolapse. The lower extremities of the child could be felt through the parietes. The child was easily turned and delivered, the placenta was detached manually, and as there were signs of internal haemorrhage a gauze tampon was pressed into the laceration. Then the patient was dispatched in an ambulance to hospital. Dr. Amann operated; free haemorrhage followed the removal of a gauze plug from the vagina, and so the disinfection of that canal was not possible. The patient was placed with the pelvis elevated, and a great rent was detected in the uterus; through it issued a gauze tampon as big as a fetal head, mixed up with coils of intestine that stuck to it. The laceration ran from the point of attachment of the bladder, upwards and to the right, the anterior fornix was laid open, and the right round ligament torn through, the outer end of the rent included the right broad ligament and the peritoneum around the caecum, which was completely loosened from its attachments and lay almost as high as the umbilicus. The bladder was completely torn away from the uterus, the peritoneum contained much fluid blood, and some meconium was found near the liver. The gauze was drawn out through the vagina; then a branch of the right uterine artery was seen spouting and was ligatured. Total extirpation of the uterus was performed. In the course of that operation the ureters were dissected up in order to see them safe and to make sure that the right duct was not damaged. This dissection proved easy. The peritoneum was washed out with saline solution, and after closure of the abdominal wound venous infusion of saline solution was practised. Next day urine escaped through the vagina and continued to do so for a fortnight. There was no fever and within three weeks the patient was able to go home.

Such is obstetric surgery in the beginning of the twentieth century. Caesarean section is performed successfully by numerous living obstetricians, whilst patients sinking from the shock and haemorrhage due to laceration of the uterus are saved by bold surgery

[1] *Centralbl. f. Gynäk.*, No. 5, 1902, p. 129.

which does not hesitate to remove the whole organ. Panhysterectomy under such circumstances is a bolder step than Caesarean section performed on a woman free from any injury. Dr. Amann's case, as a case of rupture of the uterus, was remarkable on account of certain unfavourable conditions and of the extent of the lesion, as given above. For rupture of the uterus alone it may be quite unjustifiable to resort to abdominal hysterectomy. Dr. Herbert Spencer, in an interesting communication read before the Obstetrical Society of London in January, 1900, insisted on the evidence of his experience that all incomplete tears implicating the broad ligament and most complete tears should be treated by packing the rupture through the vagina with iodoform gauze after removing clots and fluid blood. In the discussion on this paper[2] most of the speakers favoured packing. Dr. Amann's case reminds the obstetrician that this process demands some care, but let it be remembered that the private doctors had one aim—to stop the haemorrhage until the patient was in hospital and under a skilled operator, and that aim was attained and the patient saved.

THE PROPOSED LIVERPOOL UNIVERSITY.

The Liverpool town's meeting which was held two months ago to inaugurate the scheme for establishing a university in Liverpool has now been followed by a public appeal from the Lord Mayor for funds to enable the project to be carried out. The entire amount required is estimated at about £330,000, of which £150,000 has already been secured. When the whole has been guaranteed steps will be taken to obtain the necessary charter to form the university, but for the present the whole energy of the promoters is to be concentrated on the raising of supplies. That nearly one-half of the total amount should have been raised privately is a satisfactory feature of the situation, but it must also be remembered that the large givers are generally the early givers, and that if the project is to be successful the co-operation of a large number of less wealthy citizens is likely to be required. It appears that at present some sixty names only appear on the subscription list—a mere handful in a vast community such as Liverpool, and they include a considerable proportion of members of the medical profession. Having regard to the present feeling in the country as to education generally, it is not believed that these figures represent the sentiments of Liverpool as to the importance of having a local university, but rather that they indicate that the matter has not yet been thoroughly considered. In the course of his appeal the Lord Mayor says that it has long been felt that if this country is to compete successfully with others in trade and commerce it must have a complete system of education under which young people can have a thorough training, beginning in the schools and ending in the university, so that clever boys and girls may, at a moderate cost, and while living at their own homes, obtain degrees in arts and sciences. The gifts which University College has received during the last twenty years in land, buildings, equipment, and endowments amount to half a million pounds, exclusive of books in the library and apparatus in the laboratories. The sum which is now being raised is to provide for studies which ought to find a place in any complete system of university education, and which are of especial importance to the great commercial and industrial community. It is proposed to endow chairs or lectureships in electrotechnics, geology, and chemistry, and in connexion with the study of commerce, engineering, and medicine. It is also desired to provide additional buildings, more particularly to extend the College library, to complete the Medical School, and to erect a hall for examinations and for public ceremonies. It is intended that the University of Liverpool shall be essentially a university for the people, and although it will not neglect the more abstruse subjects generally studied in universities in the past, it will be largely concerned with the pressing problems of modern life and the material progress of the country and the race. Such a university ought to appeal strongly to all classes of the community among whom its work will lie, and we trust that the present appeal will awaken a generous response on the part more especially of business men of all degrees, whose interests are indissolubly bound up with the education and intelligence of those who are to be the citizens of the future.

[2] *Obstetrical Society's Transactions*, vol. xlii.

THE MEDICAL AND DENTISTS REGISTERS FOR 1902.

The *Medical Register* for 1902[1] has again this year appeared about a month earlier than in many recent years. It is still a portly volume, although its size has been reduced from 1,841 pages in 1901 to 1647. The total number of registered practitioners has slightly increased from 35,836 in 1900, and 36,355 in 1901, to 36,912, but the total number of names added during the past year has fallen to 1,318 from 1,345 in 1901, 1,351 in 1900, and 1,579 in 1893. The difference in the net result is explained by the smaller number of names removed during the past year than in the previous year—877, as compared with 938. This is traceable to the fewer removals from the *Register*, not on account of death, but from failure to notify change of address under Section xiv of the Medical Act (1858). The number of Colonial practitioners has risen in the present *Register* to 96, from 79 in that of 1901, and for the first time there appears a heading "Foreign List." This list as yet contains but one name—that of a graduate of the University of Padua. The *Dentists Register* for 1902[2] shows that those registered in virtue of a qualification now amount to 2,009, or nearly half of the whole number on the *Register*, and of these no fewer than 1,166 have obtained their qualification from the English College of Surgeons. The number of Licentiates of the Royal College of Surgeons of Ireland alone does not increase, and a reference to the tables contained in the Minutes informs us that only seven persons obtained this licence in the year 1900, the latest return which is to hand. The number of those registered as having been in practice prior to the passing of the Act in 1878 is reduced from the initial 4,806 (which was subsequently considerably increased) to 2,587, some 360 having disappeared during the last two years. After the lapse of twenty-four years since their registration, a higher death-rate than this—which is about 50 per 1,000—might have been expected: and it seems to support the belief that the Act was abused by the registration of a very large proportion of exceedingly young persons, thereby reducing the average age. The number of dentists holding medical and surgical qualifications has ceased to increase, a result possibly due to the five-years curriculum.

[1] London: Spottiswoode and Co. 6s.
[2] London: Spottiswoode and Co. 3s. 4d.

THE WORKING OF THE REFUGEE CAMPS.

The papers on the Working of the Refugee Camps in South Africa recently issued show a steady improvement in the organization and management of these camps; and it is satisfactory to note that a rapid improvement is being manifested in their mortality statistics. The mortality among all the white inmates of these camps stated as an annual rate per 1,000 inmates was 198 in July, 1901, 284 in August, 263 in September, 339 in October, 285 in November, and 265 in December. In January of the present year it had fallen to 164, and in February to the still more satis-

factory figure, 67. Among white children under 12 years of age the figures show a corresponding improvement. In July, 1901, the annual death-rate was 291 per 1,000 such children, in August 355, in September 434, in October 573, in November 470, and in December 407; while in January of the present year it had fallen to 214, and in February to 93. The detailed reports contained in the published papers show that as regards food and medical comforts, isolation of the sick, sanitary arrangements, and the improvement of educational and social circumstances, a large mass of valuable work has been and is being accomplished. Special provisions are being made for better housing during the coming winter, though it may be hoped that counsels of peace may render these provisions to a large extent unnecessary.

THE BIDDENDEN MAIDS.

In the little church of Biddenden, near Staplehurst, in Kent, the "Biddenden Maids" were commemorated on Easter Sunday, according to ancient custom, by the presentation to each visitor of a little hard, dry cake bearing the impression of two quaint figures united at the hip and at the shoulder. The "Biddenden Maids" are said to have been born at Biddenden in 1100. Their names were Mary and Eliza Chulkhurst, and their parents were fairly well-to-do people. The story runs that they were united at the hips and the shoulders, and lived until 1134. At the death of one it was proposed to separate them, but the remaining sister refused, saying, "As we came together we will also go together," and in about six hours she died. The sisters bequeathed to the churchwardens of the parish and their successors twenty acres of land, now yielding about £20 a year. Ballantyne, discussing the matter, says that while the remoteness of the date assigned makes the story somewhat doubtful, the chief difficulty is the nature of the alleged monstrosity. All the records, he says, agree in stating that the Maids were joined together at the shoulders and hips, and the impression on the cakes and the pictures on the "broadsides" show this peculiar mode of union, and represent the bodies as quite separate in the space between the above-named points. The maids are shown with four feet and two arms, the right and left respectively, whilst the other arms (left and right) are fused together at the shoulder according to one illustration, and a little above the elbow according to another. While admitting that it is not safe to say that such an anomaly is impossible, Ballantyne does not know of any case of this peculiar mode of union; but it may be that, as Professor A. R. Simpson has suggested, the maids had four separate arms, and were in the habit of going about with their contiguous arms round each other's necks, and that this gave rise to the notion that these limbs were united. If this be so, then the teratological difficulty is removed, for the case becomes perfectly comparable with the well-known but rare type of double terata known as pygopagous twins, which is placed by Taruffi with that of the ischiopagous twins in the group Dicephalus lecanopagus. Similar instances are the Hungarian sisters (Helen and Judith), the North Carolina twins (Millie and Christine), and the Bohemian twins (Rosalie and Josepha Blazek). Ballantyne suggests that the interspace between the thoraces may have simply been the addition of the first artist who portrayed the Maids (from imagination?); then it may be surmised that they were ectopagous twins. Pygopagous twins are fetuses united together in the region of the nates and having each its own pelvis. In the recorded cases the union has been usually between the sacra and coccyges, and has been either osseous or (more rarely) ligamentous. Sometimes the point of junction was the middle line posteriorly, at other times it was rather a postero-lateral union. It is, in Ballantyne's opinion, probable that in the Biddenden Maids it was of the latter kind; and it is likely, from the proposal made to separate the sisters after the death of one of them that it was ligamentous in nature. The case would therefore have been a favourable one for cinematographic surgery had that latest "evolution of civilization" been dreamed of in the twelfth century.

HOMICIDAL WOUNDS OF UTERUS: SUCCESSFUL CAESAREAN SECTION.

We are growing accustomed to remarkable cases of Caesarean section with recovery, though the patient's condition appeared hopeless. Dr. Nikouoff (*Vratch*, No. 15, 1901), however, fairly astonishes us in his relation of an instance of severe wounding of the uterus where the unfortunate patient was rescued from the jaws of death. She was but 16 years of age, and her brother attempted to murder her, "to avenge the family honour." He stabbed her in fourteen places. Two wounds involved the lung and three the abdominal cavity. One of the abdominal wounds was 4 in. long, running obliquely downwards from right to left below the umbilicus. The uterus protruded in part through this wound and bore a wound in its own walls through which a shoulder of the fetus projected. The second abdominal wound was transverse, 4 in. in length and lay just above the right iliac spine. Several coils of intestine lay hanging out of it, amidst these coils one hand of the fetus, completely detached, was found. These coils were simply covered by the patient's underlinen which was very dirty. The skin of the abdomen was also unclean. Nikouoff operated quickly, after covering the abdominal walls with sterilized compresses. The median parietal wound and that in the uterus behind it were enlarged and the fetus was delivered. Then the placenta and membranes were detached, after which the uterus contracted well. The wound whence the fetal shoulder had protruded was sutured, the same was done to two other penetrating wounds in the uterus, corresponding apparently with the wound on the right side of the abdomen and the third abdominal wound, the precise site of which is not given. No wound was found in the prolapsed intestines, which included the caecum and the ascending colon. They were washed free from sandy dust and dirt with salt water; the peritoneal cavity was cleaned by sponges, flushing not being employed. Then the abdominal wounds were sutured, and, lastly, those in other parts of the body were attended to; 1,000 grams of artificial serum were injected, and next day a smaller injection was administered. One wound above the clavicle suppurated, and pleurisy without empyema set in around one of the stabs in the lung. The lochia were normal, and the patient was quite well at the end of two months. The pregnancy had advanced to the seventh month. We fancy that the supporters of conservative Caesarean section will parade this extraordinary case as a strong argument on their side. The patient was depressed, dirty, and covered with wounds, several dangerous in character, and three involving the uterus. The stabs were clearly inflicted with violence, and the knife must have been sharp, as one fetal hand was cut off and displaced into the uterine cavity, yet the uterus was saved. Perhaps the patient would have been lost had hysterectomy been attempted. Truly the pregnant uterus is very tolerant, as the annals of Caesarean section amply demonstrate.

JACOB BIGELOW.

It often happens when two members of a family attain a great reputation within a generation or less of each other that the fame of the one eclipses that of the other. It was so with William and John Hunter, and to an even more marked extent with Jacob Bigelow the physician and his son Henry Jacob, whom all the world knows in connexion with dislocations of the hip and the modification of lithotrity. The foundations to the remarkable growth of higher medical education in the United States were chiefly

laid by Jacob Bigelow, and it is in great measure the outcome of his teaching that there exists at the present time such a magnificent series of medical institutions as is typified by the Johns Hopkins Hospital. Dr. Mumford has lately contributed a most interesting sketch of Jacob Bigelow to the Johns Hopkins Historical Club,[1] from which the following details are taken. Jacob Bigelow, of New England ancestry, was born on February 27th, 1787, and died on January 10th, 1879, nearly 92 years old. His father, who was a Congregational minister, by dint of much self-denial, enabled him to enter Harvard College, where he graduated in 1806, not without having obtained some reputation as a poet. At the age of 23 he obtained the degree of Doctor of Medicine, and in 1815 he was appointed Lecturer on Materia Medica and Botany at Harvard, a post he held for forty years. He was also appointed the first Rumford Professor and Lecturer on the Application of Science to the Useful Arts, with an annual salary of a thousand dollars. It was in this position that Bigelow both created and developed the popular taste for a demonstration of the elements of science. Bigelow's eminence as a botanist was recognized by his appointment, at the age of 33, as an associate editor of the *United States Pharmacopœia*, a publication which was distinguished from that of Great Britain by the simplicity of its nomenclature. The second chapter in his life began at the age of 38, when he performed his first conspicuous public service, in founding the Mount Auburn Cemetery, which gave the death blow to intramural burial. This was carried out in the face of much opposition. He laid out the grounds; he thinned the trees; he surveyed the roads paths, and hedges; he supervized its ornamentation; he designed its classic gateway and approach; and forty years later, to crown and complete his work, he planned and presented to the trustees the famous Mount Auburn Sphinx, a memorial to the Union soldiers who fell in the Civil War. During the great cholera epidemic of 1832 he went to New York as a Commissioner to inquire into the outbreak, and with such advantage to his native city that, whilst the deaths in New York from cholera were 3,000, the deaths in Boston were only 100. In 1833, at the age of 43, he came to Europe for the first time, a young graduate who afterwards attained great fame in literature and medicine, Oliver Wendell Holmes, being his companion on the voyage. A large consulting practice and the engrossing duties of a hospital physician occupied Bigelow's middle age, but did not exhaust his energies, for he advocated far and wide the development of special instruction, and the laboratory training of medical students, which to-day is bearing such fine fruit. His educational essays caused widespread discussion both at home and abroad. Lecky dissented; Lyell, Huxley, and Herbert Spencer were earnest in their commendation. The work for educational reform was Jacob Bigelow's last great work, but he had a useful and busy old age, filled with travel and intercourse with men. In 1817, when 30 years old, he married Mary Scollay, a daughter of Colonel William Scollay, of Boston, by whom he had five children, and at the age of 83 he went a pleasure trip to California with his wife and some friends. In old age he amused himself with playful extra-professional writings, the best known of which is *Chenodia*, a rendering of the rhymes of Mother Goose into Greek and Latin, and a volume of fugitive humorous poems. For nearly five years at the last he was blind, and for a time he was bedridden, but his mind remained undimmed until the end.

THE HUMAN SKIN AS A COMMERCIAL PRODUCT.

Trade is always finding new markets, and as new wants make themselves felt new means of supplying them must be found. As skin grafting on a large scale comes into more extensive use in surgery it becomes more difficult to procure the best material for the purpose. A week or two ago we related how the men of an American regiment had been ordered by their colonel to supply portions of their integument to repair a large denuded area on the body of one of their comrades. But such a method is scarcely available under ordinary circumstances in civil practice. The difficulty has recently been met in America by treating the skin as an article of commerce and buying the amount required. Five dollars, we learn from the *Philadelphia Medical Journal*, was the price paid by Dr. A. L. Buchan, Racine, Wisconsin, for sufficient skin to put on the limb of a little boy who had been badly scalded. The doctor asked a healthy man to sell a patch of his integument. A bargain was made, and the skin removed from the man and grafted on the boy, whose injuries are said to be healing.

[1] *Johns Hopkins Hospital Bulletin*, January, 1902.

STRIKE OF AMERICAN ARMY NURSES.

According to the *New York Medical Journal* a number of the female army nurses concerned in the recent strike at the General Hospital in Manila reached San Francisco recently on the transports *Rosecrans* and *Hancock*, and are now at the General Hospital awaiting further orders. The cause of the strike was an order obliging them to wash dishes in addition to their other duties. At the time they left Manila the situation was very tense, about 100 of the women on duty as nurses in the hospital having refused to go on with their regular duties unless the obnoxious order was rescinded. By this time some change of a radical nature must have taken place, as Colonel B. F. Pope, who was Chief Surgeon at Manila at the time of the strike, has died since the *Hancock* and *Rosencrans* left Manila. The nurses said they were perfectly willing to wash dishes if it were necessary, but that they had spent both money and time on a special form of training, and they thought their duties should be confined to nursing, while the dish washing should be done by hired Filipino servants. The strike began by their holding a mass meeting and resolving to leave in a body for the United States proper unless the order was revoked. Mrs. Kinney, the chief nurse in the army, who is on a tour of inspection in the Philippines, supported the nurses in their strike, and public sentiment in Manila is also said to be strongly in their favour.

THE MOSQUITO NET IN THE TROPICS.

The Foreign Office in Germany has received opinions from its medical officers in Africa as to the advantage of the employment of the mosquito net in warding off malaria in the tropics. Dr. Steuber found that by the use of wire netting his house, situated near the harbour of Dar-es-Salam, and a thick shrubbery could be kept free from these insects. He recommends a mesh of 2.5 mm., wide enough for ventilation and not too wide for the stoppage of mosquitos. A brass netting withstands the moist air best. As regards the value of this means of protection, Steuber points out that it is not so absolute as was found in Italy, for mosquitos will sting in Africa in the daytime when the net is not in use; and, moreover, Europeans require exercise in the early evening when the netting is enjoined to be put into use. Children and native servants also are with difficulty protected thus. He sums up by stating as follows:—That mosquito nets afford a certain amount of protection. It should be employed in hospitals where most of the patients are those suffering from malarial fever. The best method of prophylaxis, however, is to treat the different cases with quinine and kill off the mosquitos at the same time. Plehn does not believe in the efficacy of protection against mosquitos on the ground that it is not yet proved that mosquitos are the only agents. He recommends quinine. Beyer thinks the use of gauze nets and woollen gloves,

though theoretically advisable, yet in practice not of any use; for at 6 p.m., when they are to be used, arrives the hour for exercise, games, and recreation. Exercise must be taken to withstand the effect of the climate, and is only practicable in the evening. If the European refrains from it he falls a victim to *ennui*. Another objection is the impossibility of keeping the netting unimpaired over the door, chimneys, etc. As regards Togo, where Beyer was located, the sea breeze of itself was strong enough to prevent the resting of mosquitos. Lastly, Schillung's experience was to the effect that so long as the breeze from the sea blew strongly and was not artificially stopped from entering the houses, mosquitos were prevented from doing harm. In the Hinterland, however, where there was no sea breeze, the conditions were different. Swarms of mosquitos abound, and a netting is requisite. Care must be taken that the netting is sound; that one's servants regularly close it at the necessary hour. It should be of copper. However, on account of the strong personal will necessary to shut one's self up in the early evening, thereby denying one's self all intercourse with one's friends, and on account of the negligence of native servants, Schillung concludes that it is not admissible for general use in the tropics, and advises rather the obligatory use of quinine. Thus the general trend of the reports, which appears to support or, perhaps, to reflect the views of Professor Koch, is against the practical value of wire netting on account of the necessity for exercise in the open air at the hour when it would be desirable that the inhabitants should retire within it, and on account of its cost. The prophylactic use of quinine is therefore recommended as of greater value.

PELLAGRA AS A CAUSE OF MENTAL DISEASE IN EGYPT.

THE existence of pellagra in Egypt has been pointed out within recent years by Dr. F. M. Sandwith in the *Journal of Tropical Medicine* (October, 1895). As a cause of insanity in Egypt pellagra seems to have attracted little notice till 1895, when its existence was noted in patients in the Cairo Asylum by Dr. John Warnock, the medical superintendent. Since then a considerable number of cases of pellagrous insanity have been admitted—namely, 11 cases in 1896, 23 in 1897, 39 in 1898, 33 in 1899, and 35 in 1900. Of this total of 141 cases there were 92 males and 49 females. In commenting on these cases in the *Journal of Mental Science* Dr. Warnock observes that most cases came from the Delta, few from Upper Egypt. "The country districts produce practically all the cases of pellagra in contrast to the towns, which (free from pellagra) send almost all the general paralytics and hasheesh cases." Pellagra is never uncomplicated in the stage in which it is seen in asylum patients. Favus producing baldness is frequently present; the ankylostoma is always present, and the patient exhibits considerable anaemia and prostration. There is weakness of the legs, intermittent diarrhoea, and melancholic depression, which soon passes into dementia. Many patients are also affected by the bilharzia worm in the rectum or bladder. The patient has a dried-up, wizened look suggesting that of a mummy. Their skin exhibits pale areas bordered by darker areolae left after exfoliation of the pellagrous rashes, but later the skin gets brownish and shrivelled, and its texture becomes thinner, especially around the neck. The knee-jerks are much exaggerated (40 out of 45 cases), and the patient walks with the legs well apart, and usually tends to fall over. General wasting occurs during the dementia of pellagra, there is intermittent and uncontrollable diarrhoea, and spongy, bleeding gums are frequently present. Dr. Warnock thinks the form of mental disease in pellagra is peculiar to it, melancholia, apathy, and delusions of persecution and poisoning being the symptoms, but sometimes grandiose delusions are present, as in general paralysis. It occurs in both Arab and Copt fellahs.

CANCER IN HOLLAND.

AN investigation into the prevalence of cancer in Holland has been made on the lines of that recently instituted in Germany, and the results are published in a recent issue of the *Weekblad van het Neederl. Tydschr. voor Geneeskunde*. A census was made of all the patients under treatment throughout the country on October 15th, 1900. Unfortunately medical practitioners did not co-operate as much as they might have done, and the results are therefore to be accepted with caution. The percentage of cases to population was 0.0286; the proportion of males to females was 1 to 1.205. In regard to age, the largest number of cases occurred between 61 and 70, next came the periods 51 to 60, and then 71 to 80. In only 3.53 per cent. of the cases was the age of the patient over 80. The situation of the cancer was in 49.88 per cent. the intestinal tract; in 20.20 the breast, including 1 case in a man; in 12.74 the female genitals; in 7.15 the face; in 3.87 the under lip; in 5.58 per cent. other parts. Of 438 cases of cancer of the intestine 275 were in men, 163 in women. Among 372 male patients, in 73.9 per cent. the disease affected the digestive organs; whilst in women the proportion was only 32.2 per cent. As to the increase of cancer in recent times no certain conclusions could be drawn. In 18.1 per cent. of cases cancer had occurred in several members of the family. The following example is given by Professor van Iterson: Among 14 members of two related families 8 certainly and 3 more probably were the subjects of cancer. Professor Korteweg saw cancer of the rectum in two sisters, and cancer of the breast in grandmother, mother, and daughter. Professor J. Veit saw two sisters with cancer of the cervix. Similar observations were made by two other practitioners. On the whole, hereditary disposition was found in 19.7 per cent. of the cases. The coexistence of cancer in husband and wife was noticed in 11 cases, and the percentage of cases in which infection from person to person might be assumed was 10.92. As regards dwelling, Dr. Wostra in Anna Paulowna, from January, 1896, to February, 1901, among 3,030 inhabitants living in 500 houses, treated 28 cases of cancer, of which 26 were in the western part of the town with bad soil drainage as against 2 in the east where the soil drainage was good. Previous syphilis was noted in 9 cases, injury in 36, alcoholism in 87, abuse of tobacco in 125. Taking alcoholism and tobacco in relation to the numbers of male patients, the percentages were respectively of 23.4 and 33.7.

THE NEGRO AS A SURGICAL SUBJECT.

IN the *New Orleans Medical and Surgical Journal* for February, Dr. Lucien Lofton, who, in his own words, has had "a varied surgical experience, comprising many years, upon the Afro-American race," discusses what may be called the surgical tolerance of the negro. He says that, although the environments of the negro are anything but inviting, surgically speaking, and while septic conditions abound on every hand, no more brilliant recoveries are ever seen than those which are found in negro cabins and hovels. Sepsis really appears to be an unknown quantity with the negro. In the first place, his ignorance regarding his own condition helps the course of recovery. Then again, he is generally obedient; and further, he is by nature an optimist. Grease, dirt, and filth do not assert their septic influences in the coloured patient as they do in the white, though the negro is decidedly more susceptible to contagion than the white race, and contaminated blood is the rule rather than the exception in the negro. Few, if any, who contract syphilis ever take the trouble to have the disease fully eradicated; marriage and intermarriage apparently have no ill results in the progeny. Dr. Lofton has operated upon negro syphilities when recovery seemed out of the question; but splendid results followed irrespective of any constitutional treatment. Being as a rule

very phlegmatic, incisions and wounds of whatever description generally close rapidly by primary union. The generous blood supply and heavy pigment, no doubt, help Nature in the process of repair. Rarely does a stitch abscess present itself. Wounds of the cranial, thoracic, or abdominal cavities do not produce in the negro the amount of shock noticed in white subjects. He cites several instances, among them that of a negro farmer who was shot by another negro with a pistol ball of a 0.32-calibre just above the left superciliary ridge which glanced around the skull and imbedded itself behind the ear. The blow did not render the recipient even "sick at his stomach." On the contrary, he remarked: "If it had not been for the blood flowing in my eyes I would have fixed him." The day following the accident he was walking about in his cotton field. To satisfy the patient's curiosity Dr. Lofton extracted the missile in about ten days, and found the bullet a great deal more flexible than the skull; it was flattened to such an extent as to resemble a pewter five-cent piece. The bone was not shattered in the least. While the soft parts heal with great rapidity in the coloured race, the bony structures unite less readily. The average negro is inclined to be meddlesome, "to see if the bone has knit." Dr. Lofton records a case in which a negro train hand had received an ugly comminuted fracture of the femur, a transverse fracture of the humerus, besides a crushed frontal bone, who thought it a test of his "nerve" to ascertain daily the amount of weight he could lift with a broken arm, and compare strength in his lower extremities; in fact, the splint applied to his broken thigh bone was utilized in making a "rabbit box." Not being in a position to use his head as a battering ram, the frontal bone healed without interruption. In spite of all, the man was walking without assistance in about twenty-seven days, while the splint which supported the arm was kept in position only about ten days. Negroes rarely suffer from appendicitis, unless during an epidemic of influenza, when they are peculiarly liable. Piles are rare, as are calculi of all kinds; while malignant disease, with the exception of osteosarcoma, is very unusual. Negroes are, however, especially prone to neuromata and keloid growths. The immunity from sepsis enjoyed by the negro may, Dr. Lofton thinks, be due to profuse and continued excitement of the emunctories, and in some degree to the cold food he eats, and the airy clothing he wears.

MILK DISPENSARIES.

Recent discussions on the infant mortality in some of the Concentration Camps have directed attention to the mortality among infants in our large towns which is almost as great and infinitely less excusable. One of the most important factors in the causation of this high death-rate is the difficulty which is experienced by the poor in obtaining good milk. Ignorance on the part of the parents of the principles of infant feeding is of course responsible for much of the evil; but it is, we believe, the experience of most physicians at children's hospitals that in the majority of cases the parents, if handled properly, are willing to learn, and will faithfully carry out the instructions which are given to them. Unfortunately the milk which the poor mother buys for her child bears but a superficial resemblance to that which is supplied by the cow, and too often acts as a poison rather than a food. The efforts of those who are interested in the maintenance of public health in this country have in this matter been directed mainly to the protection of milk from dilution with water, from adulteration with chemicals, and from contamination with the virus of specific diseases. The question of infection with other microbes has been somewhat neglected. Various methods of dealing with the problem have been suggested, but the one which appears to give most promise of immediate success is that which has been adopted in Paris and elsewhere—namely, the establishment of dispensaries (either in connexion with children's hospitals or separately) at which sterilized milk is sold to the poor. In a recent number of the *Revue Scientifique*,[1] Dr. M. G. Variot gives an interesting account of the work which is being done at the Belleville Dispensary in Paris. The majority of infants who are brought to the dispensary suffer in some degree from atrophy and from gastro-intestinal disturbances caused by improper feeding. Each child is first of all weighed, and a record of its weight, notes of its condition, etc., are kept on a card which is handed to the mother. These cards are found to be useful in sustaining the interest of the parent in her child's progress. Any digestive derangements which may be present are corrected by appropriate treatment, and the child is then given undiluted sterilized cow's milk. The dairy company supplies the dispensary with milk which has been sterilized in bottles closed by paraffin corks, at 6 sous per litre (about 3½d. per quart), at which rate it is sold to the patients. The children attend once a week or oftener according to the state of their health. As a result of the experience gained during the distribution of some 300,000 litres of milk, Dr. Variot states first that undiluted sterilized cow's milk agrees with the children very well as a rule; only occasionally does he find it necessary to dilute the milk with water. Secondly, that it is rare for any of the children who are dieted by the dispensary to suffer from affections of the gastro-intestinal canal. Thirdly, that no case of scurvy and very few of rickets have occurred among the children who have been fed on sterilized milk only. The children are treated for a year at least, and should it seem desirable, for eighteen months or two years. Dr. H. de Rothschild[2] is enthusiastic in his advocacy of undiluted sterilized cow's milk as a satisfactory food for infants of two months old and upwards. While even younger children frequently thrive on this diet, it is safer, he considers, to begin with asses' milk and gradually introduce that of the cow. The milk at the dispensary with which he is connected is sterilized before it enters Paris, and is delivered in flasks of a capacity of from 2 oz. to 16 oz. We are not told what is the cost of having milk supplied in these small bottles. The importance of having the milk sterilized and the bottles sealed in the country will be evident from a glance at the statistics which the author gives as to the extent to which milk is tampered with after it has reached Paris. In no fewer than 16 out of 46 samples, for example, which the author analysed, the percentage of fat was found to be below 2.5. Milk dispensaries have been established not only in different parts of Paris but in Rouen and other provincial towns in France, and have proved eminently successful. The need for such institutions is not less urgent in this country than in France.

THE PHYSICAL AND MORAL INSENSIBILITY OF THE CRIMINAL.

Dr. W. Norwood East, Deputy Medical Officer of His Majesty's Convict Prison, Portland, has published in a recent issue of the *Journal of Mental Science* the results of observations made on 100 convicts in regard to physical sensibility. Control observations were made on 10 normal men. The senses examined included visual acuity and colour sense, hearing, smell, taste, cutaneous (tactile) sensibility, and occasional observations on sensibility to pain. The last class of observations referred to tooth extraction, wounds or fractures sustained, and the performance of minor surgical operations; in all these respects criminals seemed less susceptible to pain than the normal man. The sane criminal belongs to one of three classes—accidental, occasional, or professional. Of all sane criminals,

[1] February 22nd, p. 225.
[2] *Le Progrès Médical*, February 22nd, p. 113.

moral sensibility is least developed in the professional class, who are apprenticed to crime from early youth, and continue in crime year after year. In accidental criminals the level of moral sensibility is nearly that of the normal man, the occasional criminals occupying an intermediate grade. Considered as classes, the accidental, occasional, and professional criminal also represent three degrees of physical insensibility, most marked in the professional criminal. The influence of education on moral or physical insensibility appears to be unimportant. Crimes against the person, commonly crimes of passion, are associated with a very low degree of physical and moral sensibility. The least degree of moral and physical sensibility is exhibited by criminals who have been given to rape and sexual assaults, bestiality, arson, and bigamy. Sensation is generally found to be impaired in the criminal, and the mind to be lacking in ideas of the social kind, and hence most commonly the criminal is characterized by his moral incapacity and insensibility.

THE HEALTH OF HAVANA.

Major Gorgas's last report dated January, 1902, shows that during the last nine years of Spanish rule in Havana (1890-1898) the minimum deaths for December occurred in 1893, when there were 519 deaths, a rate of 28.32. The maximum was 1,824 in 1897—a rate of 100.08 per thousand citizens. During the three years of American occupancy there were 534 deaths in December, 1899, 485 deaths in December, 1900, and 463 deaths in December, 1901, showing a progressive decrease, and placing Havana in the class of healthy cities having an equal population. The city, it must be remembered, has been increasing in population. No case of either yellow fever or small-pox occurred in December. The last case of yellow fever occurred in September, 1901. Although Major Gorgas considers that there is practically little likelihood of yellow fever occurring this season, he says that nevertheless the mosquito work is to be kept up. For this purpose a "*Stegomyia* brigade" works in the city, and an "*Anopheles* brigade" works in the suburbs. The entire absence of yellow fever during the three months October, November, and December, is an event unparalleled in the previous history of Havana.

LEPER COLONY IN THE PHILIPPINES.

The island of Kulion, distant from Manila about twenty hours' sail by steamer, was recently visited by the Commissioner of Public Health and the Sanitary Engineer of the Philippines Commission in order to complete arrangements for the establishment of a leper colony there. The island is about twenty miles long, ten miles broad, and contains many fertile valleys suitable for agricultural purposes; it is also well watered and timbered, and well adapted to stock raising. It is the intention of the Commission that the colony, after its establishment, shall be self-supporting. It was expected that about 600 lepers would be established on the island before April 1st, but the thorough carrying out of the plan as contemplated will require a number of years.

THE INTERNATIONAL CONGRESS OF MEDICINE, MADRID.

We are asked to state that the present rate of exchange makes it worth while for all those who propose to attend the International Medical Congress at Madrid in April, 1903, to pay their subscriptions at once, as the value of the peseta varies from time to time and it is now low. The necessary forms of application for membership can be obtained from the Honorary Secretaries of the National Committee for Great Britain and Ireland—namely, Mr. D'Arcy Power, 10A, Chandos Street, Cavendish Square, London, W., and Dr. P. Horton-Smith, 15, Upper Brook Street, Grosvenor Square, W., who are prepared to transmit the subscriptions to Madrid and supply receipts and cards of membership, as soon as they are issued, in return for a postal order of £1 a member. Ladies, if they accompany members, pay 6s. 8d. for their tickets, which are said to entitle them to reductions of fare on the Spanish railways (probably a useless concession for English travellers), and gives them admission to the various fêtes held during the Congress.

The annual dinner of the Royal Army Medical Corps will take place on Monday, June 16th, at the Hôtel Métropole, Whitehall Rooms, at 7.45. Further particulars can be obtained from Lieutenant-Colonel E. M. Wilson, R.A.M.C., Honorary Secretary, Junior Army and Navy Club, St. James's Street, S.W.

The Medico-Legal Society will hold a general meeting on Thursday, April 10th, at 5.30 p.m., at 20, Hanover Square, for the purpose of adopting rules and appointing officers. All who are interested in the work of the Society are invited to attend; particulars may be had from the Secretaries, Dr. McCallin or Mr. R. Henslowe Wellington, 20, Hanover Square, W.

A course of twelve lectures on experimental pathology will be delivered during the summer session in the Physiological Theatre of Guy's Hospital School by the Gordon Lecturer, Dr. E. W. Ainley Walker. Four lectures will be devoted to inflammation, five to infection, and three to fever. The first will be given on Thursday, May 8th, at 4 p.m., and the remainder on subsequent Thursdays at the same hour. All internal students of the University of London, and also any members of the medical profession, may attend the lectures.

We are informed that the proposal to commemorate the late Professor Alfred Hughes by the erection of an obelisk or column at Corris, his native parish, has received generous support locally, but the resources of a small mining community are found inadequate to the completion of the undertaking. It is hoped that some of the friends of the late Professor Hughes, whose death was due to enteric fever contracted while establishing the Welsh Hospital in South Africa, will make contributions which may be paid to the Professor Alfred W. Hughes Memorial Fund, National Provincial Bank, or London and Provincial Bank, Machynlleth.

It is authoritatively stated that no part of the £2,000,000 or the income therefrom, recently given by Mr. Carnegie for the foundation of an institution for the promotion of scientific knowledge, is to be used in the erection of buildings or the acquirement of real estate. The Carnegie Institution is merely to exist in Washington in offices. There will be no corps of instructors and no college buildings. If a scientific worker at Yale, Harvard, Princeton, or any other university reaches a point where he is unable to continue for lack of funds, the money necessary to complete his work will be supplied. Washington will be merely the headquarters of the institution, where the Board of trustees and officials will hold their meetings.

Long-Lived Triplets.—According to *American Medicine* the oldest triplets living in the United States are said to be Mrs. Mary Fossett and Mrs. Sarah Fossett, of North Union, Me., and Mrs. Martha Hagar, of Somerville, Mass. They will celebrate their seventy-ninth birthday next June.

THE NEW ROYAL MEDICAL WARRANT.

[From a Correspondent.]

The Royal Warrant, so far as can be judged, has neither surprised nor falsified expectations. Although it was known that certain of the strongly-condemned recommendations of the Committee would be omitted, yet it was not known which of the doubtful ones would be retained.

Mr. Brodrick himself had raised expectations by promising such terms as would popularize the Army Medical Service among the most desirable class of young medical men. Whether he will succeed in this laudable object has yet to be proved: but it would be ungenerous not to recognize that at least a sincere attempt has been made to fulfil his promise. It is to be hoped the good points in the Warrant will not be marred by subsequent injudicious instructions and regulations.

In reviewing the clauses of this new charter care should be taken to discriminate, broadly, wherein distinct advances have been made; where something still to be desired is omitted; and where new departures of doubtful expediency are made.

The Advisory Board.

There are certain real or apparent omissions which have already attracted comment. One is the absence of all mention of the Advisory Board, which is certainly remarkable; for, even if that body were officially considered to represent merely a temporary expedient it is none the less a very present factor in the administrative machinery, and the connecting link between it and the Secretary for War is none else than the Director-General himself.

Undermanning.

Again, exception is taken to the fact that there is no reference to the undermanned condition of the service on which so much hinges—the amount of foreign service, leave, study leave, etc.

So far, as appears in the Estimates for this year, there is an increase of 67 medical officers, but it might easily be shown that such an increase is not only quite insufficient as a contribution towards general efficiency, but is probably inadequate to carry out with success even the initial stage of the change produced by the new Warrant.

India.

Further, it is urged that the all-important question of Indian pay is untouched; but, as you pointed out, that too lies outside such warrants. The Indian Government claims and exercises complete autonomy in establishments and pay within its jurisdiction, and all Royal troops are, in theory, merely "lent" to it; it is, however, bound to legislate for such troops within the four corners of warrants under which they serve at home.

It is just because the Indian Government has failed to do so in the case of army medical officers, although granting some limited and inadequate advances in pay, that so much dissatisfaction has been caused among the 335 medical officers "loaned" to it.

It is understood that a mixed committee is now considering the general question of army medical pay in India, which is so important in itself, that unless equitably settled the new Warrant will no more provide a solution of the army medical difficulty than the old.

The new Warrant, unlike many of its predecessors, takes the form of substitution, alteration, and revision of articles in the existing Pay Warrant, retaining the old numbering of the paragraphs; the alterations vary from a complete substitution to a partial recast.

The Director-General.

The advancement of the Director-General (Art. 320) to the rank of Lieutenant-General, together with the increase of his salary and his appointment to be a member of the War Office Council and Army Board are of the highest importance. So obviously do they tend towards army efficiency, that nothing but want of ripeness in the military mind could have prevented their being effected long ago.

He will now be able to make himself heard in the highest military courts of the nation to the advantage of the army at large and of his own branch of the service.

Appointment, Promotion, Exchange.

Articles 347 to 373, bearing on appointment, seconding, promotion, exchanges, pay, etc., are entirely recast. The old regulation as to qualifications open competition, nomination, probation, etc., are expunged under the general explanation that commissions in future will be given to "persons duly qualified under regulations approved by the Secretary of State." These regulations are not yet published, but it is obvious that much will depend upon their general practicability and judiciousness. They will be very closely scrutinized by the medical profession at large.

The substituted Arts. 350 to 360 bearing on promotion are likely to meet with general approval. It is surely an advance to get out of the rut of pure seniority promotion; to have something which can stimulate ambition and exertion. Under Art. 352 a medical officer may by his own exertions, under examinations framed and conducted on reasonable conditions of fair play, be a major at 10½, and a lieutenant-colonel at 18½ years' service. What a change from former days! There are not a few grey beards still living on the retired list who, thirty years ago, at fifteen years' service, were still toiling on in the despised rank of assistant-surgeon, hopelessly waiting for vacancies which never seemed to come, for promotion to the rank of surgeon.

Under Article 350 service as lieutenants is extended to three and a half years, presumedly to meet regulations as to their disposal during that time; but whether that is to include service at home only or attachment to regimental units does not appear. In any case, should either of these recommendations of the Committee be attempted, the gravest embarrassment to administration during peace and a complete upset in war must occur.

Promotion by selection (Art. 351) from major to lieutenant-colonel at twenty years' service is a reform which will be welcomed by all having an interior knowledge of the service. Still more will judicious reformers be glad of the institution of brevet rank (Art. 356) in the medical service; it will afford many possibilities to capable and ambitious medical officers.

The articles on exchanges and transfers do not require comment, being merely an amplification of existing regulations; but it may be asked, has ever an exchange between a R.A.M.C. and an Indian medical officer been effected?

Pay.

Article 365, containing the new scales of pay, will be eagerly scanned, and generally admitted to be both liberal and judicious except, perhaps, in the rank of Colonel. The same will be said of the articles granting charge and extra duty pay. No longer will the gross anomaly be witnessed of an officer who, through the accident of slight seniority, is saddled with the anxious duties and financial responsibility of a big station hospital, yet is only drawing the same nett pay as the officer next in seniority who has merely medical charge of a ward or two.

Reserve.

Art. 370, Reserve of Officers, will not probably meet with much acceptance. The conditions under which lieutenants are to serve are still undisclosed, but it is impossible to see how the proposed retirement at three years can be carried out without grave dislocation of the foreign service roster.

If the lieutenant applies for and is granted retirement, is he thereby forced into a reserve for seven years on a nominal retaining fee of £25 per annum? Is the right to resign his commission altogether taken away? Such an option has not yet been refused to any commissioned officer under service safeguards as to time and place. The necessity for a medical reserve is, of course, great; but it is very doubtful if it can be successfully formed by attaching liability to recall to service to officers who retire on gratuities; such liability very heavily handicaps them in settling down in civil medical practice.

Household Troops.

The appointment of medical officers to regiments of household troops, on the nomination of the titular colonel of the regiment (Art. 382) is still to go on; as well as the compound titles; the majority at present of medical officers doing duty with these regiments are merely attached from the R.A.M.C.

Retired Pay.

The scale of retired pay (Art. 556) is practically unaltered; but the pension of £1 a day, even to an unqualified and unselected major, is secured, which is a matter of very great moment.

The other Articles, as revised, do not seem to call for special comment.

THE AUSTRALASIAN MEDICAL CONGRESS.

[From Our Melbourne Correspondent.]

The work done at the Medical Congress now sitting at Hobart has been very commendable.

The Water Supply and Drainage of Melbourne.

Dr. Cherry, Lecturer on Bacteriology at the Melbourne University, read a paper on the improved water supply of Melbourne. The average number of germs per cubic centimetre was 50.

Dr. Jamieson was sceptical of the improved water supply reducing the number of cases of typhoid. The decrease in the rate, which was now as low as that of London, he attributed to the introduction of the deep drainage system.

The Tubercle Bacillus in Milk.

Another paper read by Dr. Cherry dealt with the discovery of the tubercle bacillus in the Melbourne milk supply. The result of his investigations showed about 4 per cent. among unsuspected cows, and 2 in 36 of suspected ones. The tests were made with guinea-pigs by subcutaneous injection into the peritoneal cavity.

Lunatic Asylums.

Dr. Joske dealt with the needs of the metropolitan lunatic asylums. He proposed an efficient body of commissioners, the appointment of official visitors having extended powers, the appointment of a medical officer to each 200 patients, and a distinct uniform for male and female nurses, who should be efficiently trained. The patients, he urged, should be subdivided, and suitable cases treated in a separate hospital.

Pseudo-Tuberculosis of Sheep.

Another address by Dr. Cherry was on pseudo-tuberculosis (caseous lymphatic glands) in sheep. Probably the inoculation took place from cuts and scratches at shearing time. The disease was spreading, and was important because of the relation of the micro-organisms to that of glanders. Should the horse become infected, it would be exceedingly difficult to diagnose it from glanders, and unless care was taken it might be confused with the plague bacilli, which it was not unlike.

The Increased Prevalence of Cancer.

A discussion on cancer was opened by Professor Allen, who, after an exhaustive review, stated his opinion that cancer was pre-eminently a disease of declining life, and in this respect different to all known parasitic diseases. The origin of cancer he believed to be not parasitic. The current classification of cancer into two groups, carcinoma and sarcoma, he regarded as satisfactory. Savage races were less affected than civilized ones. Among the Australian aboriginals it was very rare, and equally so among the Maoris of New Zealand. The Chinese in Victoria suffered severely. The number of deaths in Australia from cancer had risen in thirty years from 458 to 2,165, and in New Zealand in twenty years from 138 to 430. The registered deaths from cancer in Australia in 1900 were 1,407 males and 1,188 females. During the twenty-five years as pathologist to the Melbourne Hospital he kept notes of 4,459 necropsies. During the first five years 6.8 per cent. of the deaths were due to cancer, during the second five years 6.9 per cent., during the third 9.1, during the fourth 10.2, and during the fifth 10.2 per cent. In Australasia there had been a striking increase in the number of old people, that is, of persons in the cancer period—both an absolute increase and an increase in proportion to the whole population. Since the year 1871 the old men in Australasia had nearly doubled in numbers in relation to the whole community, while the old women had far more than doubled. A large portion of the increase in cancer was explained in this simple way. In conclusion, Professor Allen remarked: "While I am not prepared absolutely to deny that there has been any increase in the prevalence of cancer, I can state positively that malignant tumours in young people show no recent sign of increase; that among the external cancers which are easily recognized, those of the face and lip in males appear to be less frequent than formerly, while cancer of the breast in women has also decreased; that uterine cancer has only slightly increased, the rates for women under 55 being lower than they were thirty years ago; that the apparent increase of cancer is most marked in old people, and particularly in women of 75 and upwards; and I am strongly of opinion that most of this apparent increase is fictitious, being due partly to changes in the age distribution of the population, and partly to more regular medical examination, better diagnosis, and more explicit registration."

Mr. Fred. Bird dealt with the general results of radical operations—of the hopefulness of such cases due to the encouraging of early diagnosis and early operation.

Mr. Finch Noyes read a paper with statistics on the cancer records for the principal hospitals of Victoria. This showed that there was an increase in cancer cases which exceeded the increase of population.

Future Meetings.

On the closing day of the Congress the proposal came up to establish an Australasian Medical Association. An amendment on this was moved that the name of the Congress in future should be the Australasian Medical Congress, and that the Secretaries in each State should be the representatives of the British Medical Association. It was thought this would be productive of a closer union all round. A resolution was moved to amend the amendment by only resolving that the name of the Congress should be altered to the "Medical Congress of Australasia." This was ultimately unanimously agreed to.

The next meeting was fixed for 1905 at Adelaide, and Professor T. C. Stirling was elected President.

The Conference then closed.

LABORATORY OF THE SCOTTISH ASYLUMS.

Report of the Pathologist.

The fifth annual report by the Pathologist states that a large part of his time had been occupied with the study of the material sent for special report. Twenty-seven cases had been reported on; two assistant medical officers of associated asylums had been given a laboratory course of instruction; a large number of books and journals had been lent out from the library; a lantern demonstration set illustrative of the present position of knowledge of the pathological anatomy of insanity was being prepared for the service of those who wished to utilize demonstration sets of microscopic preparations.

Six gentlemen, one assisted by two ladies, had been carrying out investigations in the laboratory during the year. The intracranial lymphatic system, the pathological alterations affecting the general vascular system in paralytic dementia, the cerebral capillary changes in this disease, the pathological anatomy of Mongolian idiocy, tabes dorsalis and certain forms of nervous disease in horses had been studied by these gentlemen. Dr. Lewis C. Bruce and the Pathologist had been seeking to elucidate the pathogenesis of paralytic dementia.

Arrangements were being made by which bacteriological observations might be carried out upon cases of insanity by workers connected with the laboratory. Definite progress in the research upon the acute insanities was hoped for from this. Nervous tissues, instead of having any special insusceptibility to the action of bacterial toxins, were often among the first to be injuriously affected by them. The application of bacteriological methods to the study of the pathology of insanity seemed to be on the high road to preventive and therapeutic measures of an important character.

The Report of the General Board.

This report states that the successful institution and conduct of the conjoint laboratory had gained the expressed approval of the General Board of Lunacy, and had attracted the favourable attention of the public bodies; while the high standard of the scientific work which had been effected by its means had been greeted with appreciation in England and other countries. Dr. Ford Robertson's textbook on the

Pathology of Mental Diseases was being translated into two foreign languages.

Out of twenty-three Scottish asylums there were now only six that did not contribute to this scheme. Dr. Clouston had kindly offered to furnish the Pathologist with any material required for the purpose of bacteriological observation, and work would forthwith be begun.

An application had been made by the Board to the Carnegie trustees for a contribution from the Trust to the Laboratory Fund.

The receipts for the year amounted to £726 8s. and the expenditure to £721 11s. 7d.

The following members of the Board would now form the Executive Committee: Drs. Urquhart, Oswald, Watson, Keay, Bruce, and Marr, Dr. Urquhart to be Chairman. Sir John Batty Tuke was re-elected Chairman of the General Board and Dr. Clouston Secretary and Treasurer.

In an appendix the remarks in the forty-third report of the General Board of Commissioners in Lunacy for Scotland were quoted. These have already been referred to in the British Medical Journal.

THE CHOLERA IN ARABIA.

[From the British Delegate to the Ottoman Board of Health.]

The outbreak of cholera among the Moslem pilgrims in the Hedjaz continues to be a matter of some anxiety. Already as many as 1,129 deaths from the disease are known to have occurred, and it is probable that this figure is below the truth.

The origin of the outbreak is entirely unknown. The earliest cases were observed among pilgrims arriving in Medina from Mecca on March 1st. They had sickened at a point on the road between the two cities, somewhere between Rebouk and Medina. Other caravans continued to arrive by the same road, and each reported that the disease had broken out after passing Rebouk. Among the infected caravans was the Holy Caravan with the sacred carpet (the Mahmel-i-Sherif), and another composed of Javanese pilgrims.

About March 7th or 8th the flow of pilgrims northwards from Mecca to Medina ceased, and the return flow southwards set in. The mortality in Medina rapidly lessened, but as the residents of the city have not altogether escaped the disease a few deaths still occur there daily. In Mecca cholera appeared at some uncertain date—about the end of February. The mortality there increased slowly but steadily until March 21st. The great festivals at Mecca, and the culminating point of the pilgrimage, take place on the three days of Courban Bairam. They began this year on Thursday, March 20th. The sacrifice of sheep and the stoning of the pillars at Mina and Arafat, so graphically described by Burton fifty years ago, are performed now under exactly the same conditions as they were then. The effect of this great course of pilgrims, camped out for from one to three days under circumstances which render sanitary control almost impossible, was at once seen in a great rise in cholera deaths. On March 20th and 21st the reported deaths only amounted to 31 for the two days together. On March 22nd the figures suddenly rose to 220, and on the 23rd to 247.

The present Haj is much more numerously attended than those of the last few years have been. This is largely due to fact that Russia has this year, after several years of prohibition, permitted her subjects to undertake the pilgrimage. It is thought that the total number of pilgrims of all nationalities amounts this year to some 250,000. The dispersal of this large number of persons to all parts of the Moslem world will of necessity offer considerable risk of the spread of cholera. The risk, however, must be faced. Any attempt to retain the pilgrims in Mecca or Medina, or even in the entire Hedjaz, in the hopes that the disease would die out amongst them, would probably lead to far worse results than those it was intended to prevent. The measures adopted by the Ottoman Board of Health have therefore been directed to the rapid dispersal, under precautions, of the pilgrims.

The great land caravans going eastwards, northwards, and southwards will be started from Mecca at once, instead of remaining there for ten or fifteen days, as in other years. Pilgrims leaving the Hedjaz by sea will do so only by the ports of Jeddah and Zambo. Before entering these towns, and again before embarking, they will be subjected to a medical inspection, and any sick persons will be isolated and their clothes and effects disinfected or burnt. Pilgrims going southwards by sea will undergo a preliminary quarantine of five days at Camaran. Those coming northwards will undergo a quarantine of ten days at El Tor. Instructions have been given to embark, as far as practicable, the Russian pilgrims and the Turkish pilgrims returning north upon separate vessels. All of these will undergo quarantine at El Tor. They will then pass the Suez Canal "in quarantine," that is to say with guards on board and without communicating with the shores. The Turkish pilgrims will have to undergo a further period of ten days' quarantine in a Turkish lazaret before landing; while the Russian pilgrims will be forbidden to land anywhere on Turkish soil, and will pass the Dardanelles, the Sea of Marmora, and the Bosphorus "in quarantine," just as they had passed the Suez Canal.

THE DIFFUSION OF PLAGUE.

[From our Sydney Correspondent.]

An important paper on the Diffusion of Plague has just been issued by the Board of Health, Sydney, in the form of a report by the President, on the case of the troopship *Antillian*, which arrived at Sydney from Capetown infected with plague on March 2nd, 1901.

The vessel left Capetown, S.A., on February 1st, 1901, with a clean bill of health issued at that port. She did not touch at any port until arrival at Albany, West Australia, on February 22nd, and no case of sickness had occurred on board. After leaving Albany 15 dead rats were found during the process of cleansing the holds under the supervision of the mate and the boatswain. One of the deck hands who was employed in this work fell ill on February 27th. On arrival at Sydney on March 2nd a diagnosis of plague was made by the City Health Officer, Dr. W. G. Armstrong; the patient died the next day. On March 2nd and 4th some more dead rats were found on board, and on examination these were found to be infected with plague. Another case occurred on March 12th in the person of the storekeeper who had supervised the removal of the ship's stores to a lighter during which process 10 more dead rats were found in the storeroom.

A fact of important significance is brought out by this case; namely, plague communicated to the rats which infested a vessel of 3,686 tons, to the number of about 100, continued among them for 29 days, and yet at the end of that time had killed but a minority of them, although food was easily accessible to them only in one circumscribed part of the ship. From this it may be inferred that length of voyage, within the limits common with steamships at the present day, does not avoid the risk of infection run by clean ports which are in communication by sea with infected ports.

Another fact of even greater importance is revealed by it; it is that a ship may become infected at a port which lay under no suspicion of plague at the time she took her departure from it. Under certain circumstances, which fortunately did not obtain in the present instance, communication of such a ship with any clean port at which she arrived would necessarily be unrestricted. There is every reason to believe that the epidemic at Sydney in 1900 originated in this very way, free communication with a foreign port having continued after it had become infected, either from want of knowledge on the spot that plague was present, or from undue delay in notifying its presence in accordance with international conventions. From this it is apparent that measures aimed at restricting the export of plague rats cannot be effectual unless they are universally and constantly taken; they must be directed to preventing interchange of rats without reference to the presence or supposed absence of the disease among them; and they must be taken at all times and as a matter of routine, because, if their application be deferred until the presence of plague has been ascertained, they will often (or, in all probability, usually) be taken too late.

The most important point in the prevention of importation by sea is one which was sufficiently well established by the experience gained here during the recent epidemic, namely,

that ships can be kept free from rats by the judicious use of sulphur fumes, applied at suitable intervals. This need entail neither great trouble nor expense worth mention, nor important interference with the course of trade. Much would be done to prevent interchange between ship and shore rats if the slight precautions in mooring vessels prescribed by the regulations of the Board of Health were universally taken.

THE PLAGUE.

Prevalence of the Disease.

India.

The number of deaths from plague in India during the week ending March 8th was 23,715, as compared with 21,789 in the previous week and 7,900 in the corresponding week of last year. This huge total is chiefly contributed to by the severe epidemic prevailing in the Punjab, where during the week in question 12,544 persons died of plague, against 10,525 during the previous week. The reports from other parts of India are as follows:—Bombay City, 888 persons died of plague during the week ending March 8th, against 750 during the previous week; Bombay districts 4,806, against 5,393; Calcutta 462, against 349; Bengal districts 1,235, against 1,101; North-West Provinces and Oudh 2,187, against 2,143; Kashmir (Jammu) 553, against 530; Madras Presidency 361, against 456. Mysore State 414, against 426.

A decline in the death-rate from plague is observable in the Southern Provinces of India. In the more northerly districts and cities the deaths from plague increased during the first week of March, but as the rise in temperature with the advancing spring extends further north a fall in the death rate from plague may be confidently expected as heretofore.

The districts of the Punjab most seriously affected are Ludhiana, where during the week ending March 8th 3,112 died of plague; Umballa with 1,870 deaths; Sialkote 1,356, and Patiala State 1,004 deaths from plague. For several weeks the deaths from plague in the Punjab stood at about 1,000 deaths daily, and during the first week of March at 1,500.

A Reuter's telegram dated Simla, March 31st, states that in the Punjab the deaths from plague are averaging nearly 70,000 monthly.

Egypt.

The Director-General Sanitary Department reports that during the week ending March 16th 12 cases of plague and 7 deaths from the disease occurred in Egypt. Of these, 1 case and 1 death occurred at Tantah; 1 case at Nahtai near Zifteh; 6 cases and 3 deaths at Koum-al-Nour; 4 cases and 3 deaths in the Deshneh Province of Keneh, Upper Egypt. None but natives were attacked. A Reuter's telegram dated Cairo, March 31st, states that in Lower Egypt during the week ending March 24th 9 cases of plague and 2 deaths from the disease occurred; and that in the Keneh district, Upper Egypt, there were 13 cases and 8 deaths from plague during the same period. This is the first official notice of plague in Upper Egypt.

Mauritius.

During the week ending March 28th, 5 fresh cases of plague and 4 deaths from the disease occurred in Mauritius.

Cape of Good Hope.

No fresh cases of plague were reported in Cape Colony during the week ending March 8th, nor were there any deaths from the disease. One case of plague only remained under treatment in the plague hospital in the Cape Peninsula.

THE PREVENTION OF CONSUMPTION.

Dublin.

On March 25th Sir C. J. Nixon, President of the Royal College of Physicians of Ireland, laid before the Council of the Dublin Branch of the National Association for the Prevention of Consumption the details of a scheme for the establishment of a sanatorium for consumption in the immediate neighbourhood of Dublin.

The Sisters of Mercy having purchased a demesne called Beaumont containing about 110 acres, and situated about four miles from the centre of the city in the neighbourhood of Santry, on which they have already established a convalescent home in connection with the Mater Misericordiae Hospital, have offered a large portion of this demesne free of charge on which a sanatorium may be erected and maintained out of the City rates. Further, the Sisters of Mercy offer to give their services for the purpose of nursing and management, so that the outlay on the sanatorium when equipped would be almost confined to the actual cost of feeding the patients. A hope was expressed that His Majesty the King might see his way to devote a portion of the fund entrusted to him by Sir E. Cassel towards the equipment of this much-needed sanatorium in Ireland.

The following resolutions were unanimously adopted:

1. That the Council of the Dublin Branch of the National Association for the Prevention of Tuberculosis has heard with deep interest and sympathy of the probability of the establishment of a sanatorium in the vicinity of Dublin, in which the destitute poor of the city and suburbs afflicted with pulmonary consumption may be satisfactorily treated in the early and remediable stages of that complaint.

2. Resolved: That the Council are of opinion that the advantage likely to accrue to the public health from the establishment of the proposed sanatorium are of a twofold kind: first, far-reaching benefit to the patients themselves; secondly a widespread influence for good from an educational standpoint, patients and their families being taught how to prevent the spread of the infection of tuberculosis.

Proposed Consumption Sanatorium for Newcastle and Northumberland.

In Newcastle-upon-Tyne and Northumberland there has been no successful attempt made, so far, to provide the open-air treatment for those suffering from pulmonary consumption. In this respect Northumberland and Newcastle are behind the neighbouring county of Durham, which for some time past has been in possession of two sanatoria, one of which, that at Stanhope, is financed by the Benefit Societies of the county, and has already proved itself to be a boon to many working men. At the annual meeting of the Northern Counties Hospital for Consumption in Newcastle last week, the Committee of the Hospital announced that it had been taking steps to give practical effect to the magnanimous offer made by a Newcastle merchant, himself a sufferer for many years from the malady for which he pleaded. It was an offer of £100 as a donation and the promise of £20 as an annual subscription on condition that £1,000 were received to found such a home. The receipts meanwhile from all sources have reached £800. A fresh appeal is about to be made. The Committee of the Hospital is hopeful that some generous friend will step forward and at his own personal cost build a sanatorium or give a site. Severe as the winters often are in the north, and bleak the spring months, there are yet many delightful spots in Northumberland where the open-air treatment of consumption could be successfully carried out.

Bovine and Human Tuberculosis.

In the report of the Royal Veterinary College for 1901, Professor McFadyean has pointed out that it was a matter for regret that there had been a distinct slackening of voluntary effort to deal with tuberculosis of domesticated animals, both at home and abroad. This was to be attributed to the doubts raised by Professor Koch in regard to the causal connexion between the human and the bovine disease. This result was natural, although regrettable; but it was satisfactory that foreign importing countries had not shown any tendency to relax their regulations designed to prevent the introduction of tuberculous cattle. It might be doubtful whether the milk yielded by the tuberculous udder of a cow was dangerous in any degree to human beings, but it had been clearly proved by experiment that such milk was capable of infecting other domesticated mammals. To render such milk innocuous for feeding purposes, it was safer to raise it to boiling point before distributing it for consumption. Experiments conducted in the College appeared to prove that a high degree of immunity against tuberculosis could be conferred on cattle; and although it could not be claimed that this immunity was absolute, it was satisfactory to learn that animals could have a certain immunity conferred on them, and further experiments were being conducted.

THE MIDWIVES BILL.

Dr. Robert R. Rentoul (Liverpool), in the course of a letter on this subject, writes: As one who has all along refused to accept the opinion that the mere registration of midwives will settle the question of the supplying of efficient medical aid to the poorer classes of pregnant women, I would like to point out to those who have often stated they have supported the Midwives Bill because it will prevent ignorant, uneducated, and unregistered women from acting as midwives, that the present Bill does not propose to make it an offence if unregistered midwives practise midwifery. We have no need for midwives. There are more than sufficient practitioners, male and female. Let the Local Government Board send out an order to Boards of Guardians instructing them to give any poor woman a "ticket" to any local medical practitioner, the fee to be paid by the poor-rate. Let the Board also again instruct that their Nursing Order which empowers

guardians to appoint and pay outdoor midwifery nurses to nurse poor women be enforced, and all the difficulties are at once met. Many seem to forget that this country's birth-rate is falling. It is certainly on the down grade, and will markedly continue to fall. Is it not worth while to try to preserve and develop that which has made this country so great—its surplus population? I think there is yet time for the Council of the British Medical Association and for members of the Association to take action upon the above lines. I shall be glad to hear from members who are actively and financially willing to summon a special general meeting of the Association to take action forthwith upon the above suggestions.

THE FOURTH ANNUAL MEETING OF THE ITALIAN SOCIETY FOR THE STUDY OF MALARIA.

At the fourth annual meeting of this Society, which was held on March 20th at the Institute of Hygiene of the University of Rome, under the presidency of Signor Fortunato, Professor Celli described the results obtained in the study of malaria by the members of the Society during the year 1901. Epidemiological investigations had been conducted at the following stations: Rome, Lecce, Foggia, Ferrara, Mantua, Cremona, and Milan: Sondico, Padua, Marano, Lagunare, and Carlino (Udine); Bagnolo di Lonigo (Vicenza), Grezzano and Vigasio (Verona), Pisa and the surrounding regions of Tuscany, Ravenna, and in Southern Italy at Marcianise (Caserta); in Melfese (Basilicata), Calabria, and finally at Pachino in the province of Syracuse.

The epidemic year of 1901 was in general milder than that of the preceding year. The parasites of the aestivo-autumnal fevers were found during the year in every part of Italy, but their diversity in number and virulence from those of the mild tertian enable them to say with Fortunato that there were two malarial Italies—a milder in the north and centre and a more severe in the south.

As a rule the mild tertian was characteristic of the milder malaria, while the aestivo-autumnal fevers were characteristic of severe malaria. The quartan was the most scarce and most uniformly distributed of all. Recurrence even with long intervals, and not rarely in spite of all treatment, was a fundamental characteristic of malarial fevers.

The *Anopheles* were never absent where malaria existed; nevertheless their quantity in every place was not in direct proportion with the intensity of the epidemicity: on the contrary, it was very often in inverse proportion.

Further, in Central and Northern Italy there were numerous places with paludism and anophelism, but without malaria, notwithstanding that cases of malaria were introduced there from other places.

The culture of rice in its relation with malaria deserved further study, also the exceptions to the fact, fully confirmed at Marcianise, that the maceration of hemp was a cause of diminishing instead of increasing malaria. It had been confirmed that severe tertian, mild tertian, and quartan each had a special epidemic course; the severe tertian was precisely aestivo-autumnal; the mild tertian in the north was the first to develop in the spring, and elsewhere it was generally the form prevailing at the commencement of the fever season; the quartan was entirely or principally an autumnal epidemic.

The existence of various epidemic types had been confirmed: (1) South Italian with great predominance of the aestivo-autumnal parasites and high virulence; (2) North Italian with predominance of the parasites of the mild tertian, having its onset in the spring; among these types were some varieties which formed in Central and Northern Italy a large intermediate zone; (3) North European type with very many mild tertians, precocious development of the epidemicity in the spring, and no aestivo-autumnal fever.

The relations between the temperature and these types, between the haemosporidic infection of *Anopheles* and the epidemicity of malaria, the annual periodic oscillations, the pandemic recrudescences, the disappearance and sometimes the reappearance of malaria in those places where the local state, palustral and anophelic, was marked were still ill explained.

Concerning the investigations on the pathology of malaria Dr. Caccini, among the various aestivo-autumnal fevers, had observed, besides the severe tertian, the true quotidian already described by Marchiafava and Celli. Researches had also been made for finding a positive method for the diagnosis of latent and recurrent malaria, hitherto without success.

In regard to prophylaxis, it had been confirmed that some fevers were refractory to treatment by quinine alone or combined with arsenic and iron, and even with the best and most abundant treatment in the pre-epidemic period the development and extension of malaria could not be prevented, so that in practice it would be more difficult to eradicate malaria from an extensive locality by quinine than was supposed.

On the other hand, much better results had been obtained from preventive treatment by bisulphate and hydrochlorate of quinine; thus in 208 persons they had barely 2 per cent. of cases. These readily soluble salts of quinine, even in large daily doses, were better tolerated, and for a longer time than would have been expected. Then, for peasants in malarious districts during the harvest, the prevention of malaria by means of these salts of quinine, suitably prepared in the form of *confetti*, would have a beneficial application. In this preventive sense the value of ethyl carbonate of quinine (euchinin) had been confirmed.

In suitable control experiments the hydrochlorate of quinine had shown a preventive power superior to that of the mixture of iron, arsenic, and quinine, and therefore both for preventing and treating the fevers it was to quinine that recourse must be had.

The mechanical prophylaxis, especially in the protection of houses, gave brilliant results everywhere in Italy. In the past year, through the initiative or with the aid or advice of the Council of the Society, 5,165 persons were thus protected from malaria. In places specially selected of severe malaria in 4,363 individuals completely protected they had from 0 to 4·5, or a mean of 1.9 per cent. of cases of primary fevers; in 802 not completely protected from 8.2 to 14 7, or a mean of 10.9 per cent.; and thus many poor families, after having suffered for many years from the fevers, found themselves restored, as it were, to a new life by means of mechanical prophylaxis, either alone or associated with the treatment of the recurrent fevers.

On the initiative of the members of the Society a law had been passed by which quinine in the coming malarial season would be given gratuitously and abundantly by the employers to their workmen, and the State would set the good example of protecting from malaria all those who either directly or indirectly worked for it. The new principles of antimalarial hygiene were already admitted in the new conditions of contract of public works, and served as a guide in the projects and the execution of works of sanitation in unhealthy places.

To influence the habits of the people, without which sanitary laws could never be efficacious, the Society had distributed in all the country districts of Italy more than 40,000 copies of pamphlets describing the new principles and the methods of protection from malaria.

Professor Celli concluded by stating that the cost of this large amount of work which had been so fruitful was only a little over 16,000 lire.

THE EPIDEMIC OF SMALL-POX.

Neglect of Vaccination and Concealment of Small-Pox. At the weekly meeting of the Liverpool Health Committee on March 27th, Dr. Hope, M.O.H., stated that the decline of small-pox had been satisfactory and the progress slight and slow, but that the 2 last cases were deserving of mention. They originated with the father of a family who had been removed to hospital on March 7th. The remaining members of the family were in the usual course urged to be vaccinated, and the patient himself sent a message urging the family to comply. Every effort was made by the officers of the Health Committee and the vaccination officer to induce the members of the family to be vaccinated, but they refused, for what reason did not appear. Subsequently two were attacked—one a child who had never been vaccinated, and had died. There was one incident in the case which presented a parallel with that reported from Glasgow last week. Notwithstanding that visits had been paid to the house every day, the chil

tenant denied absolutely that there was, or that there had been any sickness at all in the house, and this denial was given even when the child was actually dying of small-pox and the mother of the child was ill. This sufficiently illustrates the necessity for some additional powers to deal with people of this class.

LITERARY NOTES.

The Cambridge University Press will shortly publish an English translation of Professor Metchnikoff's *Immunity in Infectious Diseases*. The translator is Mr. F. G. Binnie.

It is announced that Messrs. Chatto will publish "soon after Easter" a new volume of fiction by Dr. Squire Sprigge, entitled *An Industrious Chevalier*.

An English translation of a French book dealing with the last days of Napoleon at St. Helena is announced. The original appeared in France about a year ago; the author is M. Frémeaux, whose work is largely founded on papers and letters which had not previously been made public. These were written by or to Dr. John Stokoe, surgeon on H.M.S. *Conqueror*, the British flagship at St. Helena. Miss Edith Stokoe, a great-grandniece of Dr. Stokoe, is the translator of M. Frémeaux's book, which is to be published by Mr. Lane.

The late Dr. William Smyth, of Burton Port, whose heroic death from typhus, contracted during his self-sacrificing ministrations to the stricken poor folk of the Island of Arranmore, was recorded in the British Medical Journal a few months ago, has already found a biographer. His life is, it is stated, being written by Mr. F. D. How, who has already recorded the life of another devoted labourer in the service of humanity in the person of his own father, Dr. Walsham How.

A new quarterly devoted to the interests of field naturalists is to be published by Messrs. Blackwood, under the editorship of Dr. Gerald Leighton. The journal will deal with all the subjects that come within the sphere of field clubs and kindred societies.

A sixth edition of Roth's *Klinische Terminologie* has just been published by G. Thieme of Leipzig.

A recent number of the *Indian Medical Gazette* contained an interesting account of the career of Horace Hayman Wilson, the famous Sanscrit scholar, who was an officer of the Indian Medical Service. He was born in 1786, and began the study of medicine at St. Thomas's Hospital in 1804. In 1808 he was nominated an assistant surgeon on the Bengal Medical Establishment. While on the six months' voyage out to India he began his Oriental studies by learning Hindustani. He appears, before entering the service, to have given special attention to chemistry and metallurgy, as he was almost immediately appointed assistant to John Leyden at the Calcutta Mint, and in 1816 he became assay-master. He was early drawn to the study of Oriental languages by the example of Sir William Jones. In 1813 he published his first Sanscrit text, and in 1819 completed the first Sanscrit-English Dictionary, which for half a century remained the standard work on the subject. During nearly the whole of his life in India Wilson was secretary to the Asiatic Society of Bengal. He retired in 1832, having been selected to fill the chair of Sanscrit at Oxford. He was elected a Fellow of the Royal Society in 1834, and was a member of numerous foreign learned societies. He died in London in 1860. Most of his valuable Sanscrit manuscripts are now in the Bodleian Library.

The name of Professor Loeb, of Chicago, has lately figured conspicuously in the newspapers in connexion with certain marvellous but somewhat mysterious discoveries on questions relating to the abstruser chemistry of life. For the premature, erroneous, and altogether undesirable publicity which has been given to his researches, we believe that Professor Loeb himself is in no way responsible. Notwithstanding the incoherent nonsense which has been attributed to him, he is a serious worker, as appears from the following list of his papers given in a recent issue of *American Medicine*: The preliminary paper on the Toxic and Antitoxic Effects of Ions appeared in *Pflüger's Archiv*, Bd. lxxxviii, pp. 68-78, Heft 1 and 2, November 21st, 1901; the full paper was published in the *American Journal of Physiology*, vol. vi, pp. 411-433, No. 6, issued February 1st, 1902. His paper on the Prolongation of the Life of the Unfertilized Eggs of the Sea Urchin by Potassium Cyanide, appeared in the *American Journal of Physiology*, vol. vi, pp. 315-307, No. 5, issued January 1st, 1902. In the same journal, vol. iv, No. IX, January 1st, 1901, pp. 423-459, is the contribution entitled, Experiments on Artificial Parthenogenesis in Annelids (Chaetopterus) and the Nature of the Process of Fertilization. In the same periodical, vol. v, No. VI, July 1st, 1901, there is a paper On an Apparently New Form of Muscular Irritability (Contact Irritability) produced by Solution of Salts (preferably Sodium Salts) whose Anions are Liable to Form Insoluble Calcium Compounds. It is the opinion of those whose studies have fitted them to judge that Professor Loeb's researches possess not only special value in themselves, but that they have greatly stimulated biological research, and promise to do so still more in the future. It is, however, necessary, says our contemporary, to distinguish sharply between his experimental facts and hypotheses founded on them. For instance, the observations on which he bases the conclusion that sodium ions are the essential thing for the automatic contractions of the heart muscle are doubtless correct. But, as Howell has recently pointed out (*Amer. Journ. Phys.*, vol. vi, p. 181), they may equally well be interpreted as showing that the essential thing is calcium.

Professor Bie Silva, of the University of Turin, has recently put forward a claim on behalf of Agostino Bassi as the real founder of the parasitic theory of disease. Bassi was born at Mairago, Lodi, on September 26th, 1773, took his degree in law at Parma in 1798, and followed with special interest there courses in mathematics, physics, chemistry, natural history, and medicine. In reference to his manifold labours in agriculture, Professor Silva specially mentions those on contagions in general, on pellagra, and on "muscardine," a disease of silkworms, which caused great losses at the beginning of the past century. On "muscardine" Bassi published various papers, the two first of which appeared in 1835-1836. At that time the opinion of Dandolo that "muscardine" arose spontaneously held the field, but Bassi could not succeed in producing it independently, and so the idea came to him that it might be caused by an external germ. He noted that the disease attacked the caterpillar at all ages and in all states, and he proved by experiment that it was a contagious disease transmitted by inoculation and by contact with infected objects. He found that in the embryo enclosed in the ovum the malady did not develop, that it was not hereditary, and in all the epidemics observed the first origin could be definitely ascertained, observing how flies might be the bearers of many if not all contagions. Bassi pointed out that the pathogenic agent must be a cryptogamic plant, a parasitic fungus, and he minutely described the manner in which it penetrated into the organism of the animal, there developed, and killed it, continuing afterwards to develop outside. Bassi made attempts at cultures, and recommended a method of disinfection and prophylaxis, especially insisting on the disinfection of the surroundings. He insisted that the disinfectant, while noxious to the morbid germ, should be harmless to the animal as well as to man. Among the most powerful disinfectants he mentioned the sun, the open air, electricity, heat, boiling water, chlorine, alcohol, potash, mineral acids, creosote, mercury, iodine, quinine, tobacco, valerian, turpentine, camphor. In regard to hygiene and prophylaxis, he recommended measures similar to those in use at the present day. Bassi surmised that all contagions were produced by parasitic vegetable or animal agents. He attempted to apply to human pathology the results of his researches on silkworms, and enumerated the infectious diseases which affected mankind, discussing the predisposing causes of each, and the method of cure to be followed. He recommended that the lancet should be flamed with alcohol before the inoculation of vaccine lymph. Bassi's observations, according to Professor Silva, might be taken to have been written to-day. They gained for him numerous distinctions in Italy and abroad. Special testimonies of regard were conferred on him by the King of France, the Emperor of Austria, and the Czar. But he was soon forgotten by his own countrymen, and now his name is recorded in Italy only in an inscription over his tomb, and a memorial stone erected by the municipality of Lodi.

OBITUARY.

EDWARD LONG FOX, M.D.Oxon., F.R.C.P.,

Consulting Physician to Bristol Royal Infirmary.

By the death of Dr. Edward Long Fox which occurred on Friday, March 28th, Bristol loses one of her best-loved and most prominent citizens. Dr. Fox's health had been failing for some time prior to the illness which definitely commenced nearly a year ago. Rallying for a time, he persevered in his professional work, preferring death in harness to seeking the complete rest he sorely needed. In July of last year he went to West Malvern, returning but little better for the change from which so much was hoped, and from that time to the date of his death he became gradually weaker owing to the increasing development of gouty glycosuria. For many weeks he suffered acutely from neuritis of the sciatic nerve, but towards the close of his illness he was fortunately free from pain.



He was the eldest son of the late Dr. Francis Ker Fox, of Brislington, near Bristol, where he was born in 1832. He was educated at Shrewsbury School, under Kennedy, and at Balliol College, Oxford, where the late Professor Jowett was his tutor. Here, too, Dr. Long Fox became the pupil and friend of the late Sir Henry Acland, with whom in later life he became associated as examiner in medicine to the University. Having taken a first class in the then newly-instituted Natural Science Schools in 1854, he proceeded to London to the College of Chemistry where he worked under Dr. Hoffmann, and entered as a student at St. George's Hospital, where later he acted as ward clerk to Dr. Bence-Jones. He also came under the influence of Dr. Marshall Hall and Dr. Charles West at the Great Ormond Street Hospital for Children; and at that time the late Sir Andrew Clark, then living at Bloomsbury, was among his most intimate companions. He took the degree of M.B. in 1857 and of M.D. in 1861. Shortly after graduation he started practice in Bristol, and was elected Physician to the Bristol Royal Infirmary, a post which he held for twenty years, when he was elected Consulting Physician. He was for several years also Lecturer on Medicine and on Pathological Anatomy at the Bristol Medical School. Dr. Long Fox always exhibited the keenest interest in his work amongst medical students; and his excellent teaching and influence were deeply appreciated by many who are now in active practice. When Clifton College was established, Dr. Percival, now Bishop of Hereford, appointed him physician to the school, where old and fast friends now mourn his loss, though his active connexion with the school ceased years ago.

In the earliest days of practice, he found his ideal physician and most intimate medical friend in the late Dr. John Addington Symonds, with whom in his high standard of medical ethics and his courtliness of manner he had himself so much in common.

Dr. Long Fox was a member of the Royal Medical and Chirurgical and Neurological Societies, and a past-President of the Bristol Medico-Chirurgical Society and of the Bath and Bristol Branch of the British Medical Association. When the British Medical Association held its annual meeting in Bristol in 1894, Dr. Fox was elected President, his professional popularity and genial presence adding greatly to the success of the meeting. His address on The Medical Man and the State was marked by nobility of thought and graceful composition, and embodied the highest and best traditions of the profession in its duty to the commonwealth. "As a profession," he said, "we are above party. Our highest aspirations tend to the formation of a pure commonwealth. The poor, the sick, the criminal, are our daily study, primarily for the relief of the individual, but with nobler and further-reaching aims, namely, that poverty may be mitigated by more healthy surroundings, that sickness may be diminished by the education of the nation on the wiser laws of health, by increased temperance, and by a knowledge from an early age of the common facts of physiology, and that the criminal class in the future may occupy narrow limits, because no longer the victims of a debased heredity. Poverty, disease, and crime—these are the objects of our investigation as a profession; these are the foul blots in the State for which we seek amelioration."

Dr. Fox published many original papers on various topics in the medical journals, and wrote several articles in *Quain's Dictionary of Medicine* and in the *Dictionary of Psychological Medicine*. His larger works were *The Influence of the Sympathetic in Disease* and *The Pathological Anatomy of the Nervous Centres*, both of which give evidence of original thought and careful research and are of lasting value and interest.

But Dr. Fox's energies found other outlets, for he was an enthusiastic advocate of the temperance movement from its earliest days, and in 1894 was the President of the National Temperance League. Yet, though taking an active part in temperance work almost to the last year of his life, his generous regard for the opinions of those who differed from him and a natural breadth of mind prevented his taking any narrow view of the problems involved, and led him to advocate reliance on the education and enlightenment of the people rather than on ill-considered or one-sided legislative interference.

It was Dr. Fox who initiated the movement which resulted in the formation of the Gloucester, Somerset, and Wilts branch of the National Association for Prevention of Consumption, and he was the Chairman of the Committee up to within a few months of his death. No one took a keener interest in the promotion of this work, or was more anxious to see the completion of the sanatorium at Winsley, which, it is hoped, will prove a boon to many a poor consumptive.

The greater part of his life was spent at Church House, Clifton, where he loved to dispense hospitality and receive his numerous friends. Not the least of his pleasures was the annual gathering of medical practitioners and students in

his garden, which he continued for many years. His geniality was perennial, and no one had a keener appreciation of the humorous in life. A charming companion and an excellent conversationalist, he always enjoyed a good story, and was never happier than when recounting some good tale in his bright and cheery way.

He married Jane, daughter of the late Rev. Charles Bradley of Glasbury and Clapham, and sister of the present Dean of Westminster, and leaves one son and several daughters.

Last Sunday, at the Cathedral, the Dean of Bristol, alluding to the death of Dr. Long Fox, said that "he was a type of the Christian physician. He was never drawn aside from the truths in which he so earnestly believed and lived out, by the tendency in medical men to favour materialism. He was skilled in healing, and those of them who knew him would never forget how humble he was in the midst of his worldly prosperity; how diffident in spirit; how humble and faithful a believer in his Lord and Saviour; and how interested he was, in the midst of all his various professional engagements, in encouraging everything that was right and good in his Master's cause. No one, he thought, could have desired that the illness should have been in his case further prolonged, who was so prepared for his end—an illness which so crippled and enfeebled, and made such havoc of the life that was once so full of interest, of energy, of activity. Bristol, famed for her medical men, would mourn his loss as she mourned Symonds and Budd, and Greig Smith and Marshall and Aust Lawrence, who had passed away in our own time."

Throughout his whole career Edward Long Fox manifested an intense enthusiasm for the profession he adorned and so dearly loved, and it may truly be said of him that he consistently acted up to the highest traditions of the ideal physician. His tender sympathy for suffering humanity, and gentle, courtly demeanour, extended to rich and poor alike, endeared him to all who were brought into contact with him, and many will recall his ever-ready generous help and acts of self-denial in their days of difficulty and distress.

The funeral service took place on Thursday, April 3rd, at Clifton Parish Church, where he had long been a worshipper, and the interment at Arnos Vale Cemetery.

A BRISTOL PHYSICIAN writes:

In Dr. Fox's death the profession of the West of England has lost an able and courteous physician. For many years he had worked with indefatigable zeal in the discharge of his professional work, and though he had lived to the limit of threescore years and ten, many looked on him as not having reached the limit of his professional career. For some considerable time the state of his health had given grave anxiety to his family and friends, and the announcement of his death on Good Friday was not altogether unexpected. It is, perhaps, pardonable to refer to Dr. Fox's appearance. Though short in stature, no one who had once seen him could forget his handsome, thoughtful face, or the pleasant genial smile that lit it up in conversation. Much of his popularity, apart from his professional ability, which of itself endeared him to all, was due to his exceeding gentleness and courteous manner. He bore no one ill-will, and was ever ready to do a kindness to any one. It may almost be said he was kind to every one but himself, for he spared himself no trouble or labour if he thought he could thereby relieve any of his numerous acquaintances and friends. For many years it was his custom to ask to his house as many of his medical brethren as could come for a strawberry tea party. From small beginnings the party grew to be looked upon as quite an institution, and many medical men in and around Bristol will long remember the pleasant afternoons spent at Church House, and regret the loss of the genial host.

A colleague on the Council of the British Medical Association contributes the following appreciation of Dr. Long Fox's work as a member of that body:

Clifton, beyond doubt, mourns a great loss in the death of Dr. Edward Long Fox. As a citizen, as a physician, and a member of her society, his loss cannot but be greatly felt. Familiar as his presence was in her streets, in her councils, in her hospitals, and in her houses, always as the friend in need, Dr. Long Fox cannot fail to be missed and his death greatly deplored. His genial presence and his kindly greeting had endeared him to all those among whom his daily life was passed, and it is for those who knew him best in those capacities to record his private virtues and to acknowledge his professional worth. The writer is kindly permitted to add a word or two as concerning his loss to the British Medical Association.

Having known him and worked with him in the best interests of the Association for many years he speaks from personal knowledge, and he says that in him the Association has lost a friend whom it can ill spare. In its early years, when the Association was encompassed by debts and a cloud of difficulties of all kinds and on all hands, Dr. Long Fox was better known among the rank and file of its members than he was in later years. In those old days, when the affairs of the Association were in the hands of twenty elected members of the Council (the old "Committee of Council"), the names of Clayton, Husband, Long Fox, and a few others were names better known than they are to-day—the names of those who volunteered to raise what had practically become a wreck, and who so successfully carried out the work they undertook, that to their efforts the condition it has now attained is largely due. Clayton openly and boldly declared its insolvency, and laid bare the sores from which it suffered; and, while he undertook on behalf of the Committee of Council to probe to the bottom the evils which had fastened upon it, Dr. Long Fox audited the accounts on behalf of the members; and those duties they severally carried out so faithfully that the wreck was refloated, placed under new command, and so equipped that she has since sailed into every known corner of the world.

This was the kind of friend the Association knew in Dr. Long Fox, and as such will mourn him; and those who knew him longest will most keenly feel the loss the Association has sustained.

He was a kindly gentleman, a warm friend, a talented physician, a first-rate business colleague, and as such the Association, as well as Clifton, must feel his loss.

Dr. Thomas English Dunn, author of the famous song "Ben Bolt," of which such good use was made by Mr. Du Maurier in *Trilby*, died in New York on April 1st, at the age of 83. Dr. Dunn's career was somewhat erratic. After graduating in medicine he studied law, and was called to the Bar. He soon gave up the law, however, and for some years made a living by his pen. In 1859 he returned to medicine, which he practised at Newark till advancing age compelled him to retire. Dr. Dunn was not particularly proud of the authorship of "Ben Bolt," which he used to refer to as "that unfortunate indiscretion of mine."

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Johann Lasarewitsch, sometime Professor of Obstetrics and Gynaecology in the University of Kharkoff, author of a textbook on midwifery and an atlas of gynaecological and obstetrical instruments, aged 72: Dr. Crouzat, Professor of Clinical Obstetrics in the Faculty of Medicine of Toulouse; Dr. Adolf Jarisch, Professor of Dermatology in the University of Graz, aged 52; Dr. B. Mircoli, Professor of Clinical Medicine in the Medical Faculty of Camerino; Dr. Fleurot, Professor in the Medical School of Dijon, and sometime Surgeon to the civil hospital of that city; and Dr. J. Deschamps, Surgeon to the civil hospitals of Liége.

British Medical Association.

SEVENTIETH ANNUAL MEETING, MANCHESTER, 1902.

ANNUAL EXHIBITION.

Chairman: Dr. Woodcock.

Secretary: Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester.

Telegraphic Address: Annually Manchester.

Telephone No.: 2376 Manchester.

The Annual Exhibition in connexion with the above meeting will be held in the Drill Hall, Burlington Street, Manchester, on July 28th, 29th, 30th, 31st, and August 1st, and will comprise the following Sections:

A. Foods and Drugs, including Prepared Foods, Chemical and Pharmaceutical Preparations, Antiseptic Dressings, etc.

B. Medical and Surgical Instruments and Appliances, Books, Diagrams, Charts, etc.

C. Sanitary and Ambulance Appliances, Consulting-room Fittings and Furniture.

The Drill Hall affords excellent accommodation for the purposes of the Exhibition, the dimensions of the main building being 169 ft. long by 85 ft. wide, and affording a total floor space area of about 14,500 sq. ft. The Hall is situated well within 300 yards of the Owens College, where the Sectional, business, and other meetings of the Association are to be held.

The Committee have also had placed at their disposal ample space for the erection of large marquee, etc., for the accommodation of exhibits of carriages, etc., and also for motor cars, on trial and for sale, suitable for the use of medical men for professional and other purposes.

Arrangements are also being made on Exhibition premises for lounge and smoking room, writing room, ladies' tea and retiring room, lavatories, cloak room, etc.

Exhibitors in Sections A, B, and C (other than members of the Association) will be charged for table space at prices from 5s. and upwards per square foot according to position.

Tables 3 ft. 6 in. wide will be provided, the central tables 7 ft. wide, being divided by partitions carried to the height of 3 ft. 6 in. into two tables of 3 ft. 6 in. wide.

In Section C, floor space will be provided at prices from 6d. to 1s. 6d. per square foot according to position. On floor space no erection, stands, or tables for the display of goods will be allowed, but exhibitors may at their own cost put down a platform in height not exceeding 6 in. from floor.

Electric current and gas supply can be arranged for if due notice is given to Secretary by exhibitors requiring same. The use of spirit lamps, etc., will not be allowed in the building.

Plan of hall, particulars, and regulations will be ready on April 15th, after which date they may be obtained upon application being made to the Honorary Secretary for the Exhibition.

Copies of prospectus and regulations in full can be obtained upon application.

A catalogue, giving short description of exhibits, and of which 2,000 copies will be printed, will be distributed free to members of the Association attending the meeting. Applications for advertisements in the same should be made at an early date.

Communications on all general matters connected with the exhibition and all applications for space should be addressed to the Honorary Secretary, Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester, to whom all cheques are to be made payable. Telegraphic address, Annually, Manchester.

Space will, as far as possible, be allotted as it is applied for, and all applications will be dealt with in the order in which they are received.

Exhibits will only be received conditionally upon the regulations and conditions being strictly complied with; and, further, that in any question that arises the decision of the Honorary Secretary shall be final and binding upon all parties.

An official Guidebook will be presented to members, which will consist of 300 pages (cloth bound) illustrated with upwards of 80 half-tone engravings specially prepared for the work. In addition to description of the Owens College, Medical School, and the usual maps, plans, etc., it will contain about twenty special articles written by experts on the history, antiquities, churches, hospitals, charities, public buildings, parks, manufactures, etc., and also an account of the Manchester Ship Canal. 3,000 copies will be printed and a selected number of advertisements will be admitted. Prospectuses giving full particulars may be obtained from the Exhibition Secretary.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street) London, on Wednesday, the 16th day of April, at 2 o'clock in the afternoon.

March, 1902. Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

Meetings of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 18th and October 1st.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them the office.

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held on Tuesday, April 8th, at 3.30 p.m., at the Taunton and Somerset Hospital, under the presidency of Mr. J. P. Johnstone. After the usual business Mr. David Brown will read a short paper on Some Results of the Open-air Treatment of Consumption, and will show cases which have been so treated. It is hoped that other members will bring forward cases of interest, especially such as are of a tuberculous nature, in order to make the meeting of clinical interest. Tea will be provided during the meeting through the kindness of the hospital staff.—W. B. WINCKWORTH, Taunton, Honorary Secretary and Treasurer.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Red Lion Hotel, Truro, on Tuesday, April 8th. The chair will be taken at 3 p.m., by the President, Mr. G. Thom. Luncheon will be provided from 1.30 to 2.30 p.m., and tea will be served after the meeting.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—**The next meeting of the above District will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, April 15th. Dr. E. C. Warren will preside. Dr. Blacker (Assistant Obstetric Physician to University College Hospital) will read a paper entitled, Some Remarks on the Mechanism and Management of the Third Stage of Labour. Members intending to read papers, etc., or to bring any communication before the meeting are requested to give early notice to the Honorary Secretary, LUDFORD COOPER, 19, Victoria Street, Rochester.**

NORTH-WALES BRANCH.—The spring intermediate meeting of this Branch will be held at the Owain Glyndwr Hotel, Corwen, on Wednesday, April 9th, at 1.30 p.m. Luncheon at 12.30 p.m. After Branch business, Mr. Jones Morris will read a paper as an introduction to a discussion on the Club System and Medical Aid. The following communications will also be read:—W. R. Williams (Machynlleth): Notes of a Successful Case of Colotomy for Congenital Defect of Rectum. Robert Jones, F.R.C.S.Edin. (Liverpool): On Some Common Injuries of the Upper Limb; he will also exhibit a collection of radiographs. G. P. Newbolt, F.R.C.S (Liverpool): A Case of Abscess of Liver successfully Opened through the Chest Wall. Professor Rushton Parker, F.R.C.S. (Liverpool): Cases of Vesical Calculus and Lithotomy. E. T. Davies, M.D.: Case of Stone in the Female Bladder.—W. JONES MORRIS (Portmadoc) and H. JONES ROBERTS (Penygroes), Honorary Secretaries.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—A meeting of this District will be held at the Station Hotel, Sandown, on Friday, April 18th, at 3.45 p.m. Members intending to read papers, or show cases, etc, and gentlemen desirous of joining the District are requested to communicate as early as possible with the Honorary Secretary, G. BENINGTON WOOD, M.B., Newlands, Sandown, I.W.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of the session was held at Bristol on March 26th, Dr. G. C. TAYLER, President, in the chair. Thirty-six members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Morphine in Uraemia.—Dr. F. H. EDGEWORTH read a paper on the use of morphine in uraemia. He said that medical authors showed a wide divergence of opinion on this subject. Professor Osler, for instance, was in favour of its use, whilst Dr. Dickinson cautioned against the use of opium or morphine in any form of kidney disease, except possibly lardaceous disease. The most modern opinion was a little more favourable to the employment of morphine, especially in puerperal eclampsia. He gave notes of a case of contracted granular kidney with uraemia in which morphine in gr. ¼ doses hypodermically was used with the best results, at first for delirium, subsequently for various uraemic manifestations always with good effects and without diminishing the amount of urine. He thought that the prejudice against morphine was due to the fact that in subacute nephritis it diminished flow of urine and did not relieve symptoms; he would not therefore employ it in these cases, but only in chronic nephritis. Dr. SHINGLETON SMITH said the prejudice against morphine in nephritis was based on its hindering elimination; he thought that this objection was well founded, but that the drug might occasionally be cautiously used with advantage. Dr. WATSON WILLIAMS alluded to the growing practice of employing morphine in puerperal eclampsia, where it might frequently be used with advantage. Its chie value in uraemia would lie in overcoming the nervous phenomena. Dr. ELLIOTT, recalling the twofold action of morphine as stimulant and narcotic, thought that if used in uraemia the stimulant and not the narcotic effect should be aimed at. Dr. MICHELL CLARKE considered that morphine might with caution be employed occasionally with good results in uraemic manifestations, though probably in most cases at some risk; the dose, at any rate at first, should be small. Dr. FISHER alluded to the varying effects of the uraemic poisons, and to the experiments of Bouchard on this subject, and suggested that morphine might be most safely used in those cases with excitement and dilated pupils. Mr. T. M. CARTER said the case reported by Dr. Edgeworth was for a long time under his care, and there could be no doubt of the great benefit derived from injections of morphine, which were always shortly followed by profuse sweating. The PRESIDENT narrated a case of contracted granular kidney seen by him many years ago in which ♏x of liq. opii sedativi produced alarming symptoms of threatening coma, which however passed off. Dr. EDGEWORTH in reply alluded to the necessity of further observations on the subject.

Ascites in a Child.—Dr. T. FISHER reported a case of ascites in a child aged 3.

The abdomen was uniformly distended, with large superficial veins, and was universally dull. There were two attacks of haematemesis. Three and a half pints of fluid were removed by tapping. The liver was enlarged. The duration of the illness was about three months, the child dying after an attack of diarrhoea. *Post mortem* the liver showed advanced nutmeg change; the orifices of vena cava and hepatic vein could not be found: the peritoneum was normal; the vein of Sappey was persistent to umbilicus and greatly dilated. Microscopically the terminations of the hepatic vein in the liver were filled with organised thrombus; the liver cells were necrosed in places, and there were patches of thrombosis. He gave a short account of other published cases of this very rare affection. Dr. WALDO and Mr. MUNRO SMITH discussed the case.

Hepatopexy.—Mr. PAUL BUSH gave an account of the case of a man, aged 53, in whom he had performed hepatopexy.

The patient suffered from advanced cirrhosis of liver, with ascites, albuminuria, oedema of legs, etc., and was fast going downhill. The operation was done in 1899, and was followed by relief of all the symptoms, the patient dying in 1902 of double pneumonia. *Post mortem* the superficial abdominal veins were large, the liver was firmly adherent to the surrounding parts, the great omentum was adherent to the liver and the abdominal wall, and in the adhesions there were veins the size of a lead pencil connecting the superficial and deep veins. At the operation the upper surface of the liver, the lower surface of diaphragm and peritoneal lining of abdominal wall were scraped with a sharp spoon, and a bunch of omentum attached to prepared surface.

Mr. Bush gave the history of the operation, and of the conditions under which it was indicated, and said that further experience, since he had done his case in 1899, had shown that a slighter procedure was sufficient.

SPECIMENS, ETC.

Mr. CARWARDINE showed: (1) A gall stone, which he had removed from a woman, weighing 1 oz.; there were no symptoms except indigestion; the gall bladder was greatly dilated; (2) a spindle-celled sarcoma of rectum, followed by a secondary growth in the liver three years after excision of rectum; (3) cancer of ileo-caecal valve removed from a woman of 60, for symptoms of intestinal obstruction. The patient lived one month after the operation, and died of extensive secondary growths. Mr. MORTON mentioned a similar case to the last one, in which he had removed the growth.—Dr. COTTON exhibited a number of beautiful radiographs by ordinary and by the reflecting stereoscope. He explained the various ways of taking stereoscopic radiographs. He said that in order accurately to determine the position of a foreign body or the seat of disease it was necessary to take skiagraphs from two points of view, and then to combine them to obtain a stereoscopic picture. He gave an illustrative case, in which by this means the position of a needle in the hand was readily and exactly determined.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE sixth ordinary meeting of the session was held in the Birmingham Medical Institute on March 13th, Dr. MALINS, the President, being in the chair. Forty-nine members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Nomination of Officers for 1902-1903.—The following nominations were received, namely:—*President-elect:* Mr. Jordan Lloyd. *Treasurer:* Mr. F. Marsh. *Honorary Secretaries:* Mr. J. T. J. Morrison and Dr. T. Sydney Short (Dr. Stacey Wilson having expressed his wish to retire). *Representatives on the Council of the Association:* Mr. Langley Browne, Mr. W. F. Haslam, Mr. Jordan Lloyd, Mr. E. B. Whitcombe. *Representatives on the Parliamentary Bills Committee:* Mr. S. H.

Agar, sen.; Mr. Gilbert Barling, Mr. J. T. J. Morrison. *Country Members of Council:* Dr. E. Deansly, Mr. A. Freer, Dr. J. H. Joy, Mr. M. A Messiter, Dr. Milner Moore, Dr. E. N. Nason, Mr. J. F. G. Pietersen, Dr. T. W. Thursfield, Mr. F. W. Underhill, Dr. T. E. Underhill. *Town Members of Council:* Mr. H. Eales, Dr. A. Foxwell, Mr. G. Heaton, Dr. E. D. Kirby, Dr. H. R. Leech, Dr. R. F. C. Leith, Mr. Christopher Martin, Mr. Bennett May, Mr. R. A. Newton, Dr. E. Rickards, Dr. J. W. Russell, Dr. R. Saundby, Dr. T. Stacey Wilson. *Ethical Committee:* Mr. Langley Browne, Mr. M. Hallwright, Mr. W. F. Haslam, Mr. M. A. Messiter, Mr. A. Oakes, Dr. R. Saundby, Mr. Priestley Smith, Dr. T. W. Thursfield, Mr. P. Whitcombe.

Sarcoma of Ovary.—Mr. Smallwood Savage showed a solid ovarian tumour which he had removed from a patient, aged 48. The youngest of her eight children was born ten years ago. The menopause occurred when aged 40, and after an interval of six years and a-half menstruation began again, and continued regularly until the operation. A swelling of the abdomen had been noticed five months, and a firm tumour was felt rising out of the pelvis, and reaching 1 in. above the umbilicus; it was distinct from the uterus. Ovariotomy was performed on August 28th, 1901, the patient making a satisfactory recovery. The tumour was almost completely solid, and contained only a few cysts: it was bilobed, and about the size of an adult head; there was one adhesion to the rectum. On section there was seen a fibrous capsule, below which the surface had a granular or "ripe-pear" appearance. Microscopically the growth showed a fine reticular meshwork containing small angular or oat-shaped cells. There were no epithelial cells. Only the left ovary was affected; the right one, being small and normal in appearance, was not removed.

Popliteal and Gluteal Bursae.—Mr. Jordan Lloyd showed a bursa which he had dissected out entire from the ham; and a similar specimen removed from under the ischial tuberosity.

Sarcoma of Fibula.—Mr. Jordan Lloyd also showed a specimen of sarcoma of the lower end of the fibula which he had treated by free excision of the affected bone.

Modification of Scarpa's Shoe.—Mr. W. E. Bennett showed the apparatus he had devised for increasing the efficiency of Scarpa's shoe.

Rectal Carcinoma and the Prolongation of Life by Colotomy.—Mr. F. Victor Milward read a paper on this subject, and gave statistics of 100 cases of rectal carcinoma admitted to the General Hospital, Birmingham, during 1895-1900. Mr. Jordan Lloyd and Mr. Heaton took part in the discussion, and Mr. Milward replied.

Phthisis and Sanatoria.—Mr. Alfred Freer read a paper on this subject, which was discussed by Dr. Kauffmann, Dr. Kirby, Mr. Oakes, and Dr. Rickards.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A meeting of these Districts was held at the Grand Hotel, Brighton, on March 20th, Mr. W. S. Simpson, President of the Branch, in the chair. Twenty-one members were present.

Confirmation of Minutes.—The minutes of the Eastbourne meeting were read and confirmed.

Resignation of the Honorary Secretary.—A letter was read from Dr. Batterham, resigning the Honorary Secretaryship for the Eastern Division of the county. Dr. Merry (Eastbourne) was elected to the vacant post. A hearty vote of thanks was accorded Dr. Batterham for his past services.

Communications.—Dr. Walter Broadbent showed a case of splenic leucocythemia in a man aged 60. He complained first of recurrent black eyes. Subconjunctival haemorrhages followed, and the spleen became enlarged. The liver dullness remained normal. The leucocytes were increased to 1 in 10, and consisted mainly of eosinophiles and megalocytes.—Dr. Hinds read a paper in which he advocated the more frequent performance of tracheotomy in diphtheria in the poorer classes. He read the notes of 5 cases in which he had operated in most unfavourable surroundings, all of which recovered.—Dr. Whittle read a paper on a case of laryngeal diphtheria in a child aged 10 months. No membrane was seen. Tracheotomy was performed and the child recovered.—Dr. Mackey read a paper on the treatment of acute rheumatism with aspirin. He claimed that it was superior to the salicylates, producing no unpleasant symptoms, and was not so quickly eliminated. He read the notes of 17 cases, the charts showing that the temperature quickly fell after the administration of aspirin.—Dr. Mabel Jones read a paper on direct examination of the female bladder, and showed instruments used by Dr. Kelly at the Johns Hopkins Hospital, Baltimore.—Dr. Wray exhibited a new form of test type.

Dinner.—After the meeting eleven members and friends dined together.

SPECIAL CORRESPONDENCE.

BERLIN.

Professor von Leyden on the Micro-organisms of Cancer.—The Organization of Ambulance Work.—Lectures to District Health Officers.—Cremation of Plague and Cholera Corpses.—Professor von Leyden's Seventieth Year.

The Research Committee on Cancer held a meeting on March 21st to hear and discuss a paper by Professor von Leyden on the micro-organisms of cancer. Leyden exhibited numerous diagrams and microscopic preparations, and claimed the discovery of a specific cancer micro-organism. He concluded by the assertion that "cancer is an infectious disease, dependent on parasitic organisms (protozoa) identical with those discovered by him and exhibited to the meeting." As may be imagined, an animated discussion followed, and von Leyden's assertions were not left unchallenged. A publication on the subject may be expected within the next few weeks.

Following a suggestion of Ministerialdirektor Althoff (of the Prussian Cultus-ministerium) representatives of nearly all the large towns of the Monarchy, and delegates from numerous corporate bodies, met together in Berlin on March 24th to organize a central committee for ambulance work in Prussia. Professor von Bergmann, who has already done so much in unifying and rendering efficient the Berlin ambulance stations, presided. A paper had been prepared giving guiding principles and actions for the organization of centralized work. These principles, with trifling alterations, were carried by the meeting. A central committee was elected, with Professor von Bergmann as president, and Professor G. Meyer as honorary secretary.

The Prussian Government has voted 26,000 marks (£1,300) for lecture courses in hygiene, forensic medicine, and psychiatrics which are to be held in Berlin for the benefit of the district health officers. There will be double courses, 25 hearers at a time. Professor Koch and his assistants will take charge of the hygiene course (chief stress to be laid on the prevention of epidemics); Professors Jolly and Moeli will undertake psychiatrics, the former in his department at the Charité, the latter in the Herzberge Asylum, of which he is director-in-chief. The courses are to be gratis, of course, and the hearers will receive a fixed sum for travelling and lodging expenses. If these courses should prove as successful and useful as is hoped, they are to be repeated, and may grow into a permanent institution.

A petition signed by a large number of doctors in all parts of the German Empire, demanding cremation for plague and cholera corpses, has been presented to the Imperial Parliament. "Medical and hygienic researches have proved," so runs the text, "that well-planned and properly-cared-for churchyards present no actual danger to public health. But it must be borne in mind that several months must always elapse before the parts of a corpse subject to decay have entirely disappeared in the earth grave; and, out of consideration for public health, it is advisable to shorten as much as possible this space of time where corpses are concerned that harbour great quantities of specially dangerous carriers of infection for instance, plague corpses and cholera corpses. In such cases it is urgently desirable that the corpses, together with the pathogenic germs they contain, should be destroyed by fire."

On April 20th Professor v. Leyden will complete his 70th year. An influential committee has been formed to celebrate

the day with all the pomp and circumstance due to the distinguished clinician of whom the medical profession is so justly proud. The programme embraces a mid-day reception in the large hall of the Philharmonic, and a banquet—in which ladies will take part—in the evening. Besides all the present and past assistants of von Leyden, the Leyden Committee numbers amongst its members the head Burgomaster of Berlin, Dr. Kirschner; Ministerial-direktor Althoff; Dr. Becker, the President of the Berlin Brandenburg Aerztekammer; Army Surgeon-in-Chief v. Leuthold, and other names of distinction.

EDINBURGH.

The Town Council and the Examination of Bacteriological Products.—The Town Council and the Notification of Measles. Remarkably Low Death-rate.—Chair of Bacteriology for the University of Edinburgh.—The Cattle Market and Slaughter House.

AT a meeting of the Town Council on Tuesday, March 25th, a deputation from the Edinburgh Branch of the British Medical Association appeared with reference to a decision of the Council to transfer the bacteriological work of the city from the laboratory of the Royal College of Physicians to the John Usher Institute of Public Health. The deputation consisted of Drs. George Gibson, Norman Walker, James Ritchie, R. Mackenzie Johnston, Michael Dewar, and Charles Kennedy. It was pointed out that the bacteriological work of the city had been done at the laboratory of the College of Physicians during the past two years at a cost of between £120 and £130. The cost of doing the same work at the Usher Institute would be not less than £300 per annum. After the deputation had been heard, questioned, and thanked, the Convener of the Public Health Committee moved the disapproval of the minutes of March 11th, which minutes contained the resolution that the city should now send its bacteriological work to the John Usher Institute of Public Health instead of to the College Laboratory. He did so because he believed the decision of the Council was not in the best interests of the city. Under the arrangement with the Usher Institute, they were to pay £300, whether there was only one specimen or a thousand specimens. This was not a proposal to pay for work actually done, but was of the nature of a subsidy or endowment to the institute. The Convener's motion was seconded on the ground that the present arrangement with the Royal College of Physicians worked efficiently, satisfactorily, and economically. Mr. Clark challenged the statement that the deputation heard from the Edinburgh Branch of the British Medical Association had a mandate from the medical profession on this subject. After a discussion, which was not to the credit of some of the speakers, the minutes were approved by 22 votes to 19. The final stage, however, is not yet reached. A third vote is necessary before the matter is irrevocably closed. In the meantime, the medical profession of the city is having an opportunity of expressing its opinion by signature. It is to be hoped that the signatures will be so numerous as to convince even Mr. Richard Clark, and those who think with him, that he has not a mandate to speak for the profession.

At the same meeting of the Council, Dr. Matheson Cullen moved that the magistrates and Council as local authority consider the subject of passing a resolution that the Infectious Diseases (Notification) Act, 1889, shall apply to measles, but only in respect of the first case of that disease occurring in each family or house during the month. The motion came up as a recommendation of the Public Health Committee. The medical profession was in favour of continuing notification. The Convener of the Public Health Committee (Mr. Lang Todd) regretted having to differ from Dr. Matheson Cullen, not so much on the merits of the question, as on the grounds of expediency and expense. Since the Edinburgh Act came into force in 1880 its cost to them had been £16,446, of which £10,316 had been expended for the notification of measles, and, looking to the unsatisfactory results, it was matter for consideration whether it was worth the expenditure. He moved accordingly. Dr. Matheson Cullen's motion was lost by 27 votes to 7.

In the week ending midday Saturday, March 29th, the death-rate of Edinburgh was the lowest ever recorded. In that period of seven days only 78 persons died within the city, and of these 12 were not usual residents in it, so that the net number is 66, equivalent to 10.62 per 1,000 of the population per annum. In the corresponding week of 1901 the number of deaths was 136—more than double—while the average weekly deaths for 1901 was 107, or 41 above the figure for last week. The nearest approach to the low figure of last week was that of October, 1901, when the rate was 12.92 after deducting the deaths of those not regularly resident in the city. The Registrar-General gives the figure of 16.3, but this presumably includes all deaths without exception. Another remarkable point about last week's record is that not a single death was caused by zymotic disease. For a considerable number of months there has been much less zymotic disease than usual. Last week only 28 cases were reported, and 15 of these were scarlet fever. There has, we understand, been a good deal of measles, but no accurate statistics are now available.

By his last will and testament the late Mr. Robert Irvine, Granton, Edinburgh, who was for a quarter of a century Chemical Director to Messrs. A. B. Fleming and Company, Limited, ink manufacturers, Caroline Park, has left instructions to his trustees to set apart a portion of his estate for founding a chair of bacteriology in the University of Edinburgh. It is understood that the portion of his estate in question consists of shares in a business with which Mr. Irvine was intimately connected; and it is his wish that his trustees should accumulate the annual interest on this stock until it reaches the sum of £25,000 or £30,000, and then hand that sum over to the University authorities for the purpose indicated. Afterwards it is his desire that the remaining proceeds of the stock should go to Edinburgh charities.

At last there seems a hope that the cattle market and slaughter house will be removed from the crowded localities they now exist in to the suburbs. The slaughter house has for long been little short of a scandal to the city of Edinburgh. There are few large cities in the kingdom where cattle and sheep are for two days in the week, and at all hours in these two days, driven to and fro, to the discomfort, annoyance, and alarm of foot passengers, and sometimes to the absolute dislocation of carriage traffic.

CORRESPONDENCE.

RESULTS OF ANTITYPHOID INOCULATION IN THE CASE OF THE FIFTH BATTALION, MANCHESTER REGIMENT, IN SOUTH AFRICA.

SIR, In view of the dearth of statistics bearing on the incidence of typhoid fever in South Africa in inoculated and uninoculated soldiers respectively, the following, for which I am indebted to Lieut. J. W. West, R.A.M.C., Winburg, Orange River Colony, may not be entirely without interest. The statistics here in question give the results obtained in the case of the 5th Battalion, Manchester Regiment, for six months, dating from their landing in South Africa. The figures, which relate to a total strength of 747 officers and men under observation, are as follows:

	Number.	Cases of Typhoid Fever.		Deaths from Typhoid Fever.		Case Mortality.
		Number.	Per-centage.	Number.	Per-centage.	
Uninoculated ...	547	23	4.2	7	1.3	1 in 3.3
Inoculated ...	200	3	1.5	0	0.0	0 in 3.0

The three attacks in the inoculated are reported to have been of an exceptionally mild type, contrasting in a striking manner with the severe attacks which occurred in the uninoculated. At the time of sending in the report some of the uninoculated patients were "not yet out of danger."—I am, etc.,

A. E. WRIGHT, M.D.,
Professor of Pathology, Army Medical School, Netley.

Netley, March 28th.

TYPHOID FEVER IN SOUTH AFRICA: ITS CAUSES AND PREVENTION.

Sir,—I have read Dr. G. Turner's papers in the British Medical Journal with great interest, and agree with what he says, but I think he does not go far enough. Dr. Turner warns us against attributing epidemics of enteric to dust and flies: but if we shut our eyes to other possible causes of the spread of enteric and devote our whole attention to the water, I think that we shall run into the danger against which he wishes to guard us: that is, in devoting our attention exclusively to one cause, we shall neglect other causes.

I would not think of writing about this subject, much less of differing with an authority like Dr. Turner on a subject in which he is an expert, but having lived some years in a part of South Africa where fever was very prevalent, and having for a period of two years during this campaign seen continuous service in the field and in various dépôts, I think that I may, without presumption, offer the result of my experience on this very important subject.

There are two things to be considered in enquiring into an outbreak of enteric fever in South Africa: First, the difference of climate and conditions in South Africa compared with England; secondly, the different conditions and surroundings of a soldier on a campaign compared with the conditions and surroundings of a civilian in ordinary life. What may be the rule as regards spread of enteric in a moist climate like that of England may not be so absolutely the rule in a dry rarified atmosphere like that of a great part of South Africa. The civilian takes his food in one room, sleeps in another, and his clothes are placed in drawers or wardrobes. The soldier on active service sleeps, eats, drinks, and stores his clothes in a tent or hut shared by other soldiers.

I think that we shall agree that the germ of enteric is swallowed, that is, taken with the food or drink. Now, although the disease is no doubt in a majority of cases spread by contaminated water: still, cases no doubt arise where the water is pure. I believe that these cases may arise from infection contained in the clothes of men who have suffered from enteric; from flies going from latrines and settling on the food of the men; from dust containing germs from desiccated faecal matter settling on food and water. I have been able on two occasions to trace the commencement of enteric to infection from the clothes of men recently recovered from enteric having come into previously healthy camps.

With regard to prevention, I should look first to the water supply, and if that is above suspicion, be satisfied to prevent infection during storage, cartage, etc. If there is any doubt about the purity of the water supply, I should advise boiling. Boiling is a simple process, and certain. Do not trust to filters on active service; filters all require a certain amount of care in management, are liable to break or get out of order. Of course, if aërated waters and milk are procurable the purity of these should be tested. Care should be taken that latrines are properly situated, and earth and disinfectants are freely used; and that the contents of the buckets are properly disposed of. All food and drink should be carefully protected from flies and dust; for this purpose, in dépôts, I have always advised that the men should be supplied with separate rooms, or tents, for taking their meals, and that a good supply of safes and cupboards be kept for storing food, etc. I should also advise that all clothes, bedding, etc., of persons who have recently recovered from enteric should be destroyed or carefully disinfected. This I think cannot be too strongly insisted upon, as from experience I feel convinced that the germs of enteric continue active in clothing and bedding for a considerable time, and can be easily spread about in the dry climate of South Africa; especially will this be likely to happen when the men live so closely together, eating their food, storing their clothes, etc., in the same tent or hut, as is the case on active service.—I am, etc.,

J. Augustus Lea, M.B., F.R.C.S.E.,
Major, Sr. Med. Off., I.Y.

Capetown, March 11th.

THE DRINKING WATER SUPPLY OF TROOPS IN THE FIELD.

Sir,—Dr. Childs's valuable paper in the British Medical Journal of March 15th is an important contribution to the question of water supply in the field with reference to enteric fever. I beg to offer the following minor contributions to the discussion:

1.—"*Water Discipline.*"

I propose to use the word "water discipline" for all that implies the personal control of the individual soldier in his water-drinking habits in war time. The soldier to-day may be considered to be an undisciplined recruit in all that refers to this special training. He has to be taught, and so also has his company officer. That teaching duty is the function of the army medical officer in peace in the routine of barrack and camp life so as to train them for war. I suppose that in three or four lectures on personal hygiene much could be taught the men and the officers. I am often astonished at the intelligence as to water supply of the men returned from South Africa after they have been through the mill. Had they gone to the front equally wakened up much good might have resulted. The sanitary requirements for troops in the field would form part of a series of sanitary lectures on general and personal hygiene which must in future form part of every soldier's annual instruction, and which must be given by the medical officers of the army.

2.—*The Soldier's Water Bottle.*

The water bottle of the soldier carried by the man himself holds 32 oz. of water and weighs empty about 19 oz. The men complain:

(*a*) That the enamel breaks off—exposing the metal surface which then rusts and affects the contents.

(*b*) That the loops of metal through which the strap that slings the bottle is passed are rivetted and constantly get broken so that the rivet draws out and the water goes to waste through the vacant rivet hole. Many complaints arise on this head.

(*c*) The regulation bottle has a cork with a pin run through it, and to the pin is attached the chain that holds the cork from being lost. The metal pin rusts through the corks, and when one pulls it the cork is left in the bottle and the pin is drawn out. Very many cases of this kind occur. The Indian pattern bottle has a metal screw fastener and no cork—a far better arrangement.

(*d*) The regulation water bottle has an oval bottom and cannot stand upright on the ground. The Indian bottle has a flat bottom and stands firm on the ground. The web sling is in the Indian bottle sewn on to the bottle cover of felt, and no rivet pierces the actual bottle itself. It is desirable therefore to introduce the Indian pattern for Colonial service.

(*e*) There is only one size of water bottle, namely, the 32 oz. bottle, although the soldier has to serve in many varying climates. A bottle suitable for Aldershot is probably too small for a dry climate like South Africa. I have already in a paper published many years ago on the water bottle of the Afghan soldiery pointed out its almost excessive size by comparison with an English one. It resembled the water bottle issued to the R.A.M.C. for use with wounded in the field which weighs 35 oz., and carries when filled some 60 ozs. of water.

(*f*) The officer's water bottle recommended in the Dress Regulations for the army weighs 14 oz., holds 2¼ pints and costs, at the Army and Navy Stores, 8s. It is made of aluminium.

(*g*) Bad smell from the bottle is much complained of, and need of disinfection is very much pressed for by all the men.

3.—*Water Carriage on the March.*

The water for marching troops needs to be dealt with exactly like the ammunition. There should be the water carried by the individual soldier—that is, the "personal ration of water"; next, the regimental "expense supply" to replenish this: then the regimental "reserve supply": and no doubt in many cases a column supply, under the Army Service Corps.

All who served in the Suakin Soudan will remember the "water transport" organized there as a special service, and will also remember that every drop of water used at MacNeil's zereba and at Tambook was carried on camels for the troops; and that, in addition, all the water was condensed water made from the sea water in Suakin harbour.

All the elements for a regular "Handbook of Water Supply in the Field" exist if they could be put into a code as a regular "Water Supply Code for the Army." The subject is of vital

importance, and well worth any expenditure on such a book.

4.—*The Indian Bihisti or Water Carrier.*

Every company in the field in India has a water carrier, and over the whole of the water carriers is a "jemadar," constituting the elements of a "water section" for each battalion. Their many services in war and peace are well known. There is also in addition to the *bihisti*, the *puckal bihisti*, who, with leather bags hung across a bullock or a mule, follows the army everywhere, even into the most mountainous regions of the Indian frontier. I have myself written of the need of organizing these men many years ago. In the Soudan, metal water receptacles hanging on the transport saddles of the mules were used for water carriage.

5.—*The Number of Water Carts.*

This matter needs careful study. The general opinion is that they are too few. It is very important to note that where troops are likely to be attacked or surrounded, officers commanding may endeavour to keep back the "expense" water and refuse to issue it, and this arises from the absence of any "reserve" water with the column. Four water carts per battalion are claimed as necessary.

6.—*Officers' Share of Water.*

This needs very careful attention. If officers use up water for baths it becomes a serious matter when the supply is small. The officers' water ration for all purposes needs to be defined to safeguard the water.

7.—*The Use of Natives as Superintendents of Water Boiling and Filters.*

It is a real sin against light to allow ignorant natives to undertake these duties. I have seen a Chinaman placed in charge of the filters of an important garrison with a view to sending his English predecessor to duty as a soldier, but in the end nothing is gained, as grave neglects and thefts of boiling or filtering materials result. It seems essentially the duty of a reliable English soldier who has been taught his work. A non-commissioned officer of the R.A.M.C. would suit.

8.—*The Chagul or Canvas Water Holder of India.*

This is a canvas water holder by which the water is held fairly safely. It holds about three pints, or perhaps more. The water oozes through the canvas and evaporates, and keeps the water in the bag very cool. I would issue one or more to every tent of a field hospital. They are invaluable on field service; they keep the water very cool, and the bags can be easily washed out.

9.—*The Cavalry Soldiers' Canvas Water-holder slung under the Horse's Belly.*

These I have seen used on the Indian frontier. They are fastened to the saddle-girths and hang under the belly of the horse. They hold enough to water the horse for a time. Some of the cavalry that went from India to the Cape had these water-holders with them.

10.—*Water Distribution.*

In dealing with the watering of masses of men a regular parade routine is essential, and a regular watering "bugle call." All this is a great test of self-restraint and discipline. I have seen great disorder in the fight for water on field service, and have also seen perfect order—the men kept in their companies and the supply issued out as if it were ammunition, the men standing in their ranks. No doubt that the army which takes up "water discipline," and by training and education teaches its officers and men to keep their appetite for water in control, has many points in its favour in a long campaign. The men will need to be as carefully watered as the cavalry chargers are to-day.

11. *Medical Supervision.*

I regard it as an almost hopeless work for the single medical officer now allowed with a battalion of 900 men to keep a good check over water indiscipline on field service. The strain of work, the disturbed rest at night, the physical fatigue falling on a single medical officer, perhaps with a stupid lance-corporal as his only help, precludes any good work being done. In war time at least two medical officers should be with each battalion, one being of field officer's rank; and in addition a non-commissioned officer of the R.A.M.C. as assistant is essential, and probably four orderlies R.A.M.C. Above these battalion medical officers, and quite separate and absolutely distinct from either bearer company or field hospital, should be the "brigade surgeon" on the staff of the Brigade Commander, his sanitary adviser, mainstay, and helpmate, whose absence to-day in our army is the saddest of its shortcomings in a sanitary sense. The good that such a brigade sanitary officer could do is boundless, and the want of him is irreparable.

It will thus be seen that the words "damned rot" which Colonel Lonsdale Hale stated to be the summing-up of many military officers on the whole question of "water discipline" in the field is an expression very wide indeed of the mark of what will one day be an accepted routine in every civilized army. The persons who fill the post of officers in the future must have as clear a perception of sanitary needs and precautions as is possible, and be almost medical men in their views as to prevention of disease.

12.—*Increase of Transport.*

The arguments constantly put forward against increase of water carts is the fear of increasing the transport of the army. A rigid control of the transport by checking the carriage of irregular and needless impedimenta will make room for so essential an article of army equipment as a water cart, and no doubt at once on attention being drawn to water cart construction, newer and lighter models will appear, tending less and less to encumber the army. It has to be borne in mind that up to the present time all army carriages are produced at the Carriage Department in Woolwich Arsenal. There the artillery gun carriage tradition is strong, and the tendency is to produce an article as heavily built as is a gun carriage. We see this daily in the army ambulance wagons, which are excessively heavily built, and being so, all concerned in their management treat the vehicles roughly, thinking they can stand the roughest use. With lighter-built constructions the treatment would be more in accordance with the lighter structure, and the gain in mobility would be considerable.

The water cart and ambulance wagon in future wars will be as different in character of structure from the present as the modern magazine rifle is from the smooth-bore flint-lock firearm which disappeared from our army in 1845. No doubt a furnace fixed under the water will facilitate the boiling of the water.

The whole discussion that has arisen on the prevention of enteric fever on field service points out the need of giving a very free initiative to the trained military medical service in sanitary matters, and tends in my opinion greatly to break down the lines of distinction drawn between the medical and executive officers of the army. That both must unite in the struggle for war and peace efficiency is evident, and the empire loses greatly by any want of co-operation on either side.—I am, etc.,

March 3rd. GEORGE EVATT.

OPACITY OF THE CORNEA IN NEW-BORN INFANTS.

SIR, In the Glasgow Maternity Hospital a little over a year ago we noticed opacity in the cornea of a new-born infant a few hours after birth. The delivery had been a difficult forceps one through a contracted pelvis. Three weeks later a more marked case occurred. Both eyes were affected. The promontory had caused a marked depression of the temple, and evidently a fracture through the orbital plate, as there was considerable haemorrhage into the orbit. Dr. W. Ernest Thomson kindly investigated the cases, and read a paper on them before the Ophthalmological Society.

Ten days ago I saw another case after a very difficult delivery, and to-day I noticed a fourth one. In the one ten days ago I found a marked linear opacity in the centre of the cornea running up and down, and a few fainter spots to the side within a few minutes of birth. There was considerable haemorrhage into the anterior chamber. To-day's one, which is very slight, has only shown itself three days after delivery.

The opacity is evidently due to pressure, as in all the cases the delivery with forceps was very difficult, and in most of them accomplished in the Walcher position. Very little seems to have been written on the subject; and, as far as I know, these cases, and another one which Dr. Thomson saw subsequent to my first ones, when his attention had been drawn to the condition, are the only ones which have been reported in this country.

My object in writing this note is not to discuss the condition but to draw the attention of obstetricians to it, and to ask them to make a careful examination in all cases where the head has been subjected to excessive pressure to see if the cornea has been affected.

In all of the cases Dr. Thomson found the opacity gradually cleared up except in the eye of the second case, in which the orbital plate had been fractured. In all, however, a linear opacity persisted.—I am, etc.,

Glasgow, April 1st. ROBERT JARDINE.

STATE VACCINATION BY PRIVATE PRACTITIONERS.

SIR,—Of a surety the resolution passed by the Council of the Lancashire and Cheshire Branch at its last meeting, and recorded in the BRITISH MEDICAL JOURNAL of March 22nd, p. 746, does more credit to its good nature than to its wit. The major premiss of the argument presented to us in the resolution is, "Vaccination is made compulsory in the interests of public health." And from this it is rightly argued that, if the British public forces the individual to be vaccinated for that public benefit, it is its duty to pay the cost. But surely, Sir, if the British public is content to pay the piper, we must concede to it not only the right to choose the tune, but also to choose the piper.—I am, etc.,

Liverpool, March 22nd. JOHN J. TISDALL.

THE MEDICAL SERVICES OF WEST AFRICAN COLONIES AND PROTECTORATES.

SIR,—In the BRITISH MEDICAL JOURNAL of February 8th you praise the new arrangements made by Mr. Chamberlain regarding the civil medical service in West Africa. They certainly seem liberal to any one who has had no experience of this part of the world. Allow me to criticize them in their essential features.

First, a man newly appointed is to receive £400 not £350 as hitherto, which would only have come to him after three years' service under the old regulations, that is, £150 to his credit.

Secondly, the leave of absence is to be cut down about a month.

Thirdly, he may receive £1,000 gratuity after nine years' service, which he may invest to bring him in £40 to £50 a year. How magnificent—£50 a year! just sufficient to keep his soul in his malaria-stricken body in a garret in the East End.

Fourthly, he is as likely as not never to survive even to gratuity age, as this climate deserves all that can be said against it, and sanitation, in the light of recent discoveries, can only be attempted at isolated places, and is still very far from what it ought to be. The man who induces any young man to come out here is a party to a murder.

Fifthly, the want of ordinary home comforts, constant ordering about, and general careless way of living is not only most prejudicial to health, but to the general stamina of the European. The hothouse atmosphere induces a lazy and often a dissipated habit of life which ruins men for any work in other parts of the world. West Africa is a whirlpool of doom to many a promising young man who, coming out here with the idea of making money to do something with elsewhere, finds himself hopelessly drawn out of his moral path by the deleterious influences of the place.

Sixthly, owing to the great increase of mining here, prices have risen three or four times what they were a few years ago. The mining companies pay much better than the Government and find a man everything, so that their employees do not hesitate to pay their domestic servants absurd rates, and we in the service must perforce follow suit.

In conclusion, the service here is no catch for any young medical who can get an assistantship at home, and the new regulations are scarcely any improvement on the old regulations, especially here on the Gold Coast, where the cost of living has greatly increased owing to the mining companies.—I am, etc.,

March 10th. ONE WHO KNOWS.

THE WORSHIPFUL COMPANY OF SPECTACLE MAKERS.

SIR,—Referring to the letter of Mr. Bullar, F.R.C.S., which appeared in the BRITISH MEDICAL JOURNAL of March 22nd, may I be permitted to say that he is perfectly correct in stating that there is nothing in the agreement signed by holders of the Spectacle Makers' diploma to prevent them adapting and selling spectacles, as they have done since spectacles were first made and sold? The certification scheme of the Spectacle Makers Company was not, I need hardly say, instituted for such a prohibitory purpose. Moreover, the company has no power, or at least right, that I know of, to regulate prices or restrict the sale of any kind of optical goods by any one, whether a freeman of the company or not.

Mr. Aitchison's letter criticising the Spectacle Makers Company's certification scheme, which appeared in the same number of the BRITISH MEDICAL JOURNAL, requires no comment, seeing that he was, as he states, a member of the company's committee which formulated and arranged the syllabus and examination—as it exists to-day; and he set an example to the rest of the trade by, as he mentions, entering for the examination and gaining the company's diploma.

Mr. Aitchison brings charges against me that I teach optics, and that I receive fees for tuition, and that I "cram" students. As a teacher of optics I plead guilty unreservedly to the first two, and I have even committed the third crime when I have found it necessary.—I am, etc.,

Birkbeck Bank Chambers, W.C., March 27th. LIONEL LAURANCE.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE

FLEET-SURGEON R. W. ANDERSON has been placed on the retired list, February 20th. He was appointed Surgeon, August 25th, 1881; Staff Surgeon, August 25th, 1893; and Fleet Surgeon, April 26th, 1901.

The following appointments have been made at the Admiralty: A. T. GAILLETON, M.B., Surgeon, to the *Duke of Wellington*, additional, for disposal, lent to the *Boscawen*, for the *Seaflower*; DOUGLAS V. LOWNDES, Surgeon, to the *Boscawen*, for the *Dolphin*; G. S. DAVIDGE, Surgeon, to the *St. Vincent*, for the *Martin*; P. T. NICHOLLS, Surgeon, to the [illegible], for the *Nautilus*; JOHN THORNHILL, M.B., Surgeon, to the *Impregnable*, for the *Pilot*; WILLIAM BASTIAN, Surgeon, to the *Vivid*, for disposal, and to the *Lion*, for the *Liberty*; PERCY F. ALDERSON, Surgeon, to the *Duke of Wellington*, additional, for disposal, and to the *Boscawen*, for the *Wanderer*; all the foregoing are for the cruising season, March 20th; HERBERT W. E. SHEWELL, M.A., M.B., Surgeon, to the *Ramillies*, March 24th; JOHN P. H. GREENHALGH, M.B., Surgeon, to the *Victorious*, March 24th; JOHN D. HUGHES, Staff Surgeon, to the *Cruiser*, March 24th.

Deputy Inspector-General JOHN TURNER CADDY, M.D., died at Richmond, Surrey, on March 21st, at the age of 80. He entered the Royal Navy as Surgeon, March 31st, 1845; became Staff Surgeon January 26th, 1855; and Fleet Surgeon July 7th, 1867. He retired, with the honorary rank of Deputy Inspector-General, December 28th, 1876.

Deputy Inspector-General WILLIAM HENRY STEWART, M.D., died at Rugby on March 28th, aged 59. He was appointed Surgeon, February 20th, 1865; Staff Surgeon, September 6th, 1877; and Fleet Surgeon, March 25th, 1885. He retired from the service with the honorary rank of Deputy Inspector General, May 31st, 1897.

ROYAL ARMY MEDICAL CORPS.

COLONEL SIR T. J. GALLWEY, M.D., K.C.M.G., C.B., is appointed Principal Medical Officer, His Majesty's Forces in India, with the local rank of Surgeon-General, February 22nd.

Colonel ROBERT COLEMAN EATON died at Spezia, Italy, on March 16th, aged 60 years. He was appointed Assistant-Surgeon March 31st, 1866; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1878; Brigade Surgeon, September 6th, 1892, and Surgeon-Colonel, July 9th, 1896. He was in the Afghan War in 1878-80, and had the medal for that campaign.

INDIAN MEDICAL SERVICE

COLONEL B. FRANKLIN, K.H.P., C.I.E., Bengal Establishment, is promoted to be Surgeon-General January 1st, 1902. He was [illegible] Surgeon, April 1st, 1860, and became Surgeon-Colonel [illegible], but has no war record in the Army List. He was appointed Honorary Physician to Queen Victoria March 23rd, 1898.

Lieutenant-Colonel W. OWEN, M.D., C.M.G., C.I.E., Bengal Establishment, has retired from the service from March 15th. He joined the Department as Surgeon, March 31st, 1877, and was made Surgeon-Lieutenant Colonel, March 31st, 1897. He was in the Afghan War in 1879-80, and was in the actions at Ahmed Khel and Urzoo, receiving the medal with clasp.

Lieutenant-Colonel A. N. ROGERS-HARRISON, Madras Establishment, has also retired from the service from January 6th. He was appointed

Assistant Surgeon, October 1st, 1872, and Brigade Surgeon-Lieutenant-Colonel, April 7th, 1896.

Captain W. MOLESWORTH, M.B., Madras Establishment, is appointed Surgeon to the Governor of Madras, February 15th.

IMPERIAL YEOMANRY.

MR F. W. MOIR is appointed Medical Officer to the 26th Battalion, with the temporary rank of Captain, February 7th.

Mr. A. F. KENNEDY, M.B., is appointed Medical Officer to the 33rd Battalion, with the temporary rank of Captain, January 20th.

The undermentioned officers resign their commissions and receive new commissions subject to the Militia and Yeomanry Act, 1901, retaining their rank and seniority: Surgeon-Captain J. H. WATERS, M.D., Berks; Surgeon-Lieutenant M. B. STEUART, M.B., Royal 1st Devon; Surgeon-Captain H. BRAMWELL, M.D., Gloucestershire (Royal Gloucestershire Hussars); Surgeon-Major D. HARRISSON, Lancashire Hussars; Supernumerary Surgeon-Captain (Honorary Major in the army) C. STONHAM, C.M.G., Middlesex (Duke of Cambridge's Hussars); Surgeon-Captain A. BRUMELL, Northumberland (Hussars); Surgeon-Lieutenant-Colonel G. R. T. PHILLIPS, Surgeon-Lieutenant J. WILSON, M.D., Pembroke; Surgeon-Lieutenant-Colonel J. D. LLOYD, Shropshire; Surgeon-Lieutenant-Colonel S. FARRANT, West Somerset; Surgeon-Captain O. C. MAURICE, Royal Wiltshire (Prince of Wales's Own Royal Regiment).

Surgeon-Lieutenant-Colonel R. HEWETSON, Yorkshire Hussars (Princess of Wales's Own) resigns his commission, retaining his rank and uniform.

VOLUNTEER GARRISON ARTILLERY.

SURGEON-LIEUTENANT D. L. ANDERSON, 1st Banff, resigns his commission, March 26th.

Mr. CHARLES G. WATSON is appointed Surgeon-Lieutenant in the 3rd Middlesex, March 26th.

VOLUNTEER ENGINEERS.

MR. THOMAS H. CHITTENDEN, M.D., is appointed Surgeon-Lieutenant in the 1st Middlesex, March 26th.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN C. R. WHITTY, M.D., 3rd Volunteer Battalion the Norfolk Regiment, is promoted to be Surgeon-Major, March 26th. Surgeon-Lieutenant G. B. MASSON, of the same corps, is promoted to be Surgeon-Captain, March 26th.

Surgeon-Lieutenants W. N. EVANS and G. A. COHEN, M.B., are promoted to be Surgeon-Captains, March 26th.

Mr. CHARLES C. HEYWOOD, M.B., is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Manchester Regiment, March 26th.

Mr. WILLIAM M. MACKAY, M.B., is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Durham Light Infantry, March 26th.

Surgeon-Captain J. MASON, 3rd (Renfrewshire) Volunteer Battalion the Argyll and Sutherland Highlanders, resigns his commission, March 26th.

ROYAL ARMY VOLUNTEER MEDICAL CORPS.

SURGEON-LIEUTENANT-COLONEL W. COLLINGRIDGE, M.D., late Militia Medical Staff Corps, is appointed Honorary Colonel of the Woolwich Companies, March 26th.

VOLUNTEER INFANTRY BRIGADES.

SURGEON-LIEUTENANT-COLONEL R. B. SMITH, 1st Volunteer Battalion the Leicestershire Regiment, is appointed Brigade-Surgeon-Lieutenant-Colonel while holding the appointment of Senior Medical Officer to the Leicester and Lincoln Brigade, March 26th.

Surgeon-Lieutenant-Colonel T. JOYCE, 2nd (the Weald of Kent) Volunteer Battalion the Buffs (East Kent Regiment) is appointed Brigade-Surgeon-Lieutenant-Colonel while holding the appointment of Senior Medical Officer to the Sussex and Kent Brigade, March 26th.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Surgeon-General J. A. Marston, C.B., K.H.S. ...	1	1	0
Colonel G. Leake	1	1	0
Colonel H. Comerford	1	1	0
Lieutenant-Colonel C. McCreery	5	10	0
Lieutenant-Colonel Odo Cross	1	1	0
Surgeon General J. L. Jameson	2	2	0
Colonel F. Scott, C.M.G.	1	1	0
Colonel W. McWatters	1	0	0
Major G. E. Moffett	0	10	0
Surgeon-General J. Jameson, C.B.	1	1	0
Lieutenant-Colonel W. Johnston	1	1	0
Major S. G. Allen	0	7	6
Previously acknowledged in the BRITISH MEDICAL JOURNAL	24	2	0
Total ...	34	16	6

CIVIL SURGEONS AT HOME.

B. writes: In July 1901, I was appointed civil surgeon to the station hospital here at a salary of £270 per annum. For the first three months I lived in barracks in the mess, paying £15 a month, inclusive of everything. As I considered this too much, I moved into rooms, where I have everything I want for £10 a month. The Principal Medical Officer now orders me to live in barracks again. Am I bound to do so? and has the Principal Medical Officer any right to dictate where I am to live?

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN ACTION FOR SLANDER.

ON March 19th the case of Guy *v.* Green was heard at the Leeds Assizes before Mr. Justice Lawrance and a special jury. The action was brought by Miss Ethel Guy, a barmaid, against Dr. Albert Green for a slander alleged to have been uttered by him at the Arcade Hotel. The defendant denied that he uttered the words, and in the alternative that they were uttered on a privileged occasion.

Mr. H. T. Waddy appeared for the plaintiff; Mr. Tindal Atkinson, K.C., and Mr. Compston, instructed by the solicitor to the Medical Defence Union, represented the defendant.

It appeared that the plaintiff had been employed as a barmaid at the Arcade Hotel, Leeds. On October 16th, 1901, the defendant was asked by the manager to see her. She complained of suffering from the effect of wearing tight combinations. After a careful diagnosis he told her in the presence of the matron that she was suffering from a venereal disease, and he repeated this allegation to one Auckland, to whom the plaintiff was engaged to be married. It was further alleged that he also told Annie Snowden, another barmaid at the hotel.

At the close of the plaintiff's case, Mr. Tindal Atkinson submitted that the statements made to the manageress of the hotel and to Auckland were privileged.

His Lordship ruled that these statements were privileged, but that the question of malice must go the jury.

The defendant admitted having communicated the result of his diagnosis to the matron and Auckland, but denied that he had ever said anything to Annie Snowden. He said that he had never known the plaintiff before he saw her in September, and that he came to an honest opinion on the best judgment he could form that she was suffering from a venereal disease.

A number of witnesses having been called for the defence,

Mr. Justice Lawrance said that with regard to the statements made to Mrs. Anderton, who as matron was *in loco parentis*, and Auckland, who had passed himself off as the plaintiff's husband, these were clearly privileged. To make the defendant liable it was necessary to show malice. It was for the jury to say whether, in making the statements alleged, the defendant showed any resentful feeling towards the plaintiff. It was a question of fact whether he had made any statement to Annie Snowden or not.

The jury returned a verdict for the plaintiff, with £75 damages.

THE RELATION OF MEDICAL OFFICERS OF HEALTH TO THEIR PROFESSIONAL COLLEAGUES.

H. W.—Assuming our correspondent's statement to be correct, we must express our regret that a medical officer of health should have acted in such a manner. We have dealt with this question on previous occasions (see BRITISH MEDICAL JOURNAL of November 10th, 1900, April 6th, 1901, September 28th, 1901, October 12th, 1901). In our opinion a medical officer of health violates professional etiquette by visiting a patient under the care of another medical practitioner without giving the latter notice of his intention to do so. We think he has no right to introduce a medical friend without asking permission. And lastly, to take a clerk with him into a lady's bedroom is indefensible. In order to prevent a recurrence of such an intrusion, our correspondent would, we think, be justified in advising his patient to refuse, except in his presence, to see the medical officer of health, and to refer the latter to him.

MIDWIFERY ENGAGEMENTS.

J. B. B. writes that Mrs. A. engaged Dr. B. to attend her in her confinement, but a month before it was due notified to him that he would not be required, and engaged Dr. C. Can Dr. B. claim a fee under the circumstances?

"*" Dr. B. would be entitled at law to recover his fee; he might further sue Mrs. A. at once for breach of contract, and is not bound to wait till after she has been confined (Hochster *v.* De La Tour, 2 E. and B. 678). This is the legal aspect of the matter, but it is not customary in the profession to sue for a fee under such circumstances, as the practitioner is not usually put to any inconvenience, and where the patient does not desire his services, he consents to the cancelling of the contract. It is otherwise where the practitioner has received no notice till after the case is over, and another practitioner has been called in.

G. B. writes: A lady calls to engage A. for her confinement. A. gives her his card, but tells her he will not put her name down in his book. Is A. under a legal obligation to attend her?

"*" If the intention of A. and his patient was to make a contract, A. would be bound, but if there was no such intention it would be otherwise. The giving a card, or entering the patient's name in a book is not material, and is only useful as evidence of a contract. Unless a contract were intended, it is obvious that the proceedings between A. and his patient were altogether futile, and if the latter understood this, she would probably go to another practitioner.

E. P. P. writes to suggest that "Perplexed" (BRITISH MEDICAL JOURNAL, March 22nd, 1902, p. 752), when booking an engagement, should make a stipulation that neither of the parties were bound in any way.

"*" Such a stipulation would, of course, nullify the contract, but patients when engaging a medical man to attend them in their confinement wish to make a contract and not to invalidate it. Our correspondent's suggestion would not, we think, be conducive to a large midwifery practice.

PUZZLED is recommended to consult a solicitor.

COMMISSION FROM TRADESPEOPLE TO THE MEDICAL PROFESSION.

A CORRESPONDENT writes to say that an instrument maker, who had supplied a surgical appliance upon his recommendation to a patient, sends him a sum of money called "trade discount," and he asks whether this may be accepted.

*** Similar questions have frequently been answered. (See BRITISH MEDICAL JOURNAL, February 23rd, 1899; September 12th, 1899; March 2nd, 1901; April 6th, 1901.) There ought to be no doubt about the matter. The money must be returned, and our correspondent might fittingly express his sense of the impropriety of the offer.

MEDICAL DISPUTES IN THE LAY PRESS.

A "NORTHERN Medical Man" draws our attention to letters that recently appeared in the *Aberdeen Daily Journal* from Drs. Bruce and Adam (Dingwall), in which the disputes in connexion with the medical management of the Ross Memorial Hospital are again brought before the public.

*** We have frequently in the BRITISH MEDICAL JOURNAL referred to this dispute, and we agree with our correspondent that medical men generally, and especially the direct representative of the medical profession in Scotland, should settle any medical dispute that may arise without appealing to the public press.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

FIRST PROFESSIONAL EXAMINATION.—The following candidates have passed this examination in the subjects undernoted:

Zoology.—M. Ahmed, D. W. Anderson, E. Banks, I. W. Brebner, H. F. Briggs, Mary Brown, C. H. Burgess, S. T. Champtaloup, A. E. Chisholm, R. D. Clayton, W. Core, I. H. Cornelius, F. S. Cumming, J. S. Daniell, J. T. Dickson, T. H. Dickson, J. C. Drysdale, J. D. C. Duncan, J. Eaves, C. N. Finn, W. G. Frohlich, J. F. Gallagher, W. L. Gordon, W. H. Gowans, C. M. Hall, Mary D. Hancock, F. O. Inglis, T. B. Johnston, A. M'Donald, W. O. S. M'Gowan, D. F. Mackenzie, J. M. MacLaughlin, J. B. M'Morland, R. P. M'Morland, K. M'Murtrie, K. W. D. Macrae, R. E. Marwick, A. H. M. Maxwell, F. C. Mills, H. J. More, R. H. Nolan, G. Y. Richardson, J. Ritchie, R. M. Robb, A. H. M. Robertson, W. G. Robertson, T. H. Scott, H. G. Smith, W. S. Stevenson, P. Stewart, J. A. Taylor, W. A. A. Taylor, J. M. Turnbull, V. A. Vijayakar, A. S. Walker, G. F. C. Wallis, R. H. Walton, W. C. Whiteside, E. D. Wilmot, Emily C. Wybourne, and A. W. Young.

Physics.—J. H. Aikman, J. A. Ainscow, W. Ashworth, E. Banks, D. M. Barcroft, A. J. Beattie, J. A. Belcham, J. H. Bell, J. H. Bennett, H. W. Binks, E. H. Black, F. G. H. R. Black, G. Blair, F. Blamire, J. D. Bowie, D. F. Buist, E. Burnett, W. T. Cameron, A. E. Chisholm, J. M. Christie, W. I. M. Clark, R. Cotter, Agnes M. Cowan, J. Y. Craig, R. G. Cunningham, J. A. Currell, J. Dass, R. Davidson, R. B. Davidson, A. Davies, A. N. Dick, A. M. Drennan, J. C. Drysdale, R. Duncan, D. D. Dunn, E. W. Dyer, S. S. Dykes, D. Eakin, J. S. Edwards, V. L. Evans, C. J. Faill, T. Y. Finlay, Mary S. Finlayson, J. C. Fleming, M. S. Fraser, R. Fraser, J. W. Frew, J. F. Gallagher, W. J. Geale, E. C. Girling, J. E. Gordon, W. H. Gowans, G. R. Gray, K. K. Grieve, E. R. Grieveson, G. F. Grogan, G. Gunn, Nettie D. Hendrie, J. R. Hill, J. M. Hill, A. S. Holden, W. P. Holden, R. F. Johnson, Blanche M. Z. Johnston, H. C. Johnston, T. B. Johnston, W. L. Johnston, W. C. A. Jolly, J. O. Jones, H. W. Kerrigan, J. H. Lamb, A. G. K. Ledger, S. B. Legge, A. Leitch, G. L. Little, N. F. Lloyd, P. Lornie, D. M'Cracken, J. M'Cutcheon, J. Macdonald, W. K. Macdonald, T. M'Ewen, G. B. Macgregor, G. D. M'Ivor, W. R. Mackenzie, M. Mackinnon, D. R. C. Maclagan, I. R. MacLeod, R. J. A. Macmillan, R. F. M'Morland, G. M'Mullan, A. C. B. M'Nurtrie, W. J. Nacnab, J. M. Macphail, K. W. D. Macrae, J. M. M'Turk, Paula Naier, S. D. Main, E. P. Maitland, J. du T. Malan, D. Mann, J. S. Manson, R. E. Marwick, A. H. M. Maxwell, H. Miller, C. J. Milne, J. E. Nordon, Isabella Morley, J. Morrison, J. E. Murray, M. A. D. Naoroji, H. S. Nicolson, E. F. Niven, J. P. Nowell, Ethel A. Orchard, A. S. Paterson, J. L. H. Paterson, B. B. Phillips, G. Pollock, H. B. Porteous, A. Priestman, C. Pycroft, Edith Pycroft, G. Raubenheimer, W. H. Riddell, W. R. Ridley, W. G. Ryley, W. G. Rivers, W. A. Robertson, M. J. Da Rocha, A. Rose, F. Ross, J. M. Ross, Z. M. H. Ross, E. Russell, P. H. Salmond, A. Sandison, H. L. Sells, E. Sharpe, J. O. Shircore, A. G. H. Smart, L. D. Stephen, W. S. Stephenson, W. J. P. Sutherland, D. R. Taylor, L. R. Thomson, E. R. Thompson, H. H. Thorburn, S. G. Tibbles, A. E. Turnbull, Anne D. Urquhart, V. A. Vijayakar, G. F. C. Wallis, A. Wight, O. H. Williams, W. E. R. Williams, Maria P. Winning, Ethel Wiseman, A. F. Wright, Emily C. Wybourne.

Botany.—M. Ahmed, R. S. A. Bagnall, J. H. Bennett, W. I. M. Clark, A. J. Davin, M. C. E. Grahame, C. N. Hall, Mary C. Hamilton, A. J. Harpur, A. S. Hendrie, E. F. Johnston, Blanche M. Z. Johnston, W. L. Johnstone, P. J. M'Ardle, J. D. M'Kelvie, D. F. Mackenzie, K. W. D. MacRae, D. Mann, G. M. Melville, J. Morris, Janet M. Murray, J. S. Orwin, W. G. Robertson, A. Sandison, H. G. Smith, H. V. Taylor, W. A. A. Taylor, J. A. R. Thompson, S. G. Tibbles, V. S. Valiathan, C. R. Wille, H. Woll.

VICTORIA UNIVERSITY.

DEGREE CEREMONY.

THE following candidates having passed Part II of the Final M.B. Examination were presented on Wednesday, March 26th.

Bachelor of Medicine and of Surgery.—E. M. Ashcroft, Owens; F. H. S. Ashworth, Owens; H. M. Berry, Univ.; A. T. Blease, Owens; J. B. Cook, Owens; R. B. Fletcher, Owens; J. E. Floyd, Owens; J. Hindshaw, Owens; H. L. Jenkins, Owens; J. A. Johnson, Univ.; C. P. Lapage, Owens; H. F. Lee, Owens; W. L. Maccormac, Yorks.; H. S. McLellan, Owens; W. Parker, Owens; C. A. Ricketts, Owens; E. E. Roberts, Univ.; G. Taylor, Owens.

FINAL M.B. EXAMINATION.—The following candidates have satisfied the Examiners:

Part I.—J. W. Anderton, Owens; P. W. Ashmore, Yorks.; J. P. Bligh, Univ.; L. R. Braithwaite, Yorks.; R. Coates, Yorks.; E. Cundall, Yorks.; A. J. Edmonds, Owens; A. H. Gregson, Owens; G. Heathcote, Owens; B. Herald, Owens; W. E. Hewitt, Univ.; B. H. Hirst, Yorks.; A. S. Hopper, Univ.; A. E. Johnson, Owens; B. E. Knowles, Univ.; W. G. Lloyd, Univ.; H. F. McManus, Univ.; H. Maffin, Yorks.; W. B. Ramsden, Owens; F. H. Salisbury, Univ.; P. K. Steele, Yorks.; J. C. Teasdale, Yorks.; A. B. S. Todd, Yorks.; D. Walker, Owens; A. Wharton, Owens.

SECOND M.B. EXAMINATION.—The following candidates have satisfied the Examiners in the subjects undernoted:

Anatomy and Physiology.—F. Bailey, Yorks.; F. P. H. Birtwhistle, Yorks.; W. Calverley, Owens; Catherine Chisholm, Owens; R. Collier, Owens; W. E. Cooke, Univ.; Catherine L. Corbett, Owens; G. D. Dawson, Owens; R. L. Ferguson, Owens; J. Fletcher, Owens; R. R. Flint, Yorks.; E. S. H. Gill, Univ.; F. W. M. Greaves, Yorks.; W. L. Hawksley, Univ.; P. Hick, Univ.; F. C. Hudson, Owens; E. E. Hughes, Owens; E. Hulme, Owens; L. Hutchinson, Univ.; T. L. Kenion, Univ.; C. E. Lea, Owens; T. W. P. Leighton, Owens; J. T. R. MacGill, Owens; H. Mackenzie, Owens; H. E. Moore, Owens; G. C. Scott, Univ.; J. Smalley, Owens; J. F. Smith, Owens; *P. Talbot, Owens; H. Thorp, Owens; H. Tomlin, Yorks.; A. M. Walker, Owens; T. E. Walker, Univ., H. W. L. Wailer, Univ.; F. J. Walton, Owens; W. D. Wilkins, Owens; J. S. Young, Owens.

Materia Medica and Pharmacy.—A. W. Byrne, Univ.; A. Cambell, Owens; P. C. Garrett, Owens; E. F. Hoare, Univ.; S. E. McClachey, Owens; S. W. McLellan, Univ.; H. G. Thompson, Univ.; S. H. West, Owens; W. A. Wheeldon, Owens; H. V. White, Owens.

* University Scholarship.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, March, 1902.—The following candidates passed in:

Surgery.—C. R. Bradley (Section I), St. George's Hospital; S. J. H. M. Eastwick-Field, Royal Free Hospital; J. W. Elliott (Section I), St. Mary's Hospital; H. S. French (Sections I and II), Oxford and Guy's Hospital; K. Heanley (Section I), Royal Free Hospital; E. O. Libbey, Leeds; S. C. Wilkinson (Sections I and II), Leeds.

Medicine.—F. G. Bennett (Section II), University College Hospital; W. T. Colyer, Cambridge; H. S. French (Sections I and II), Oxford and Guy's Hospital; R. Gauld (Sections I and II), London Hospital; K. Heanley (Section I), Royal Free Hospital; W. St. A. F. Hubbard (Sections I and II), Charing Cross Hospital; O. Millauro, Section I), Westminster Hospital; H. H. Sloane (Section II), St. Bartholomew's Hospital; W. P. Taylor, Sheffield and Bristol; J. E. Turle (Section I), University College Hospital; A. F. Van Dijk (Sections I and II), St. Bartholomew's Hospital.

Forensic Medicine.—H. S. French, Oxford and Guy's Hospital; W. St. A. F. Hubbard, Charing Cross Hospital; W. P. Taylor, Sheffield and Bristol; J. E. Turle, University College Hospital; A. F. Van Dijk, St. Bartholomew's Hospital; J. H. Williams, London Hospital.

Midwifery.—D. Cotes-Preedy, Cambridge and St. George's Hospital; G. M. Crockett, Royal Free Hospital; E. F. Forjett, Edinburgh; H. S. French, Oxford and Guy's Hospital; H. M. Jones, Royal Free Hospital; J. A. Kilpatrick, King's College Hospital; M. E. Martin, Royal Free Hospital; H. H. Sloane, St. Bartholomew's Hospital; G. B. S. Soper, Guy's Hospital; S. Zweiback, Königsberg.

The diploma of the Society was granted to W. T. Colyer, S. J. H. M. Eastwick-Field, H. S. French, E. O. Libbey, S. C. Wilkinson, and J. H. Williams.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN 1901.

IN the accompanying table will be found summarized the vital statistics for 1901, relating to the thirty-three large English towns, including London, dealt with by the Registrar-General in his weekly returns issued during last year.

The 336,712 births registered during 1901 in these thirty-three large towns were equal to an annual rate of 20.4 per 1,000 of their aggregate population, estimated at nearly eleven and a-half millions of persons. This rate was 1.7 per 1,000 below the mean rate in the ten preceding years 1891-1900. In London the birth-rate last year was 20.0 per 1,000, while it averaged 29.8 in the thirty-two large provincial towns, among which it ranged from 22.5 in Halifax, 22.7 in Huddersfield, 23.1 in Bradford, and 24.2 in Brighton to 33.3 in Hull, 35.2 in West Ham, 35.5 in Sunderland, and 36.8 in Gateshead.

The 212,572 deaths registered last year in the thirty-three towns were equal to an annual rate of 18.0 per 1,000, against an annual rate of 19.2, 20.5, and 20.0 per 1,000 respectively in the three years 1898, 1899, and 1900; in the ten years 1891-1900 the death-rate in these towns averaged 19.8 per 1,000. The rate of mortality in London during the year under notice was 17.6 per 1,000, while in averaged 19.2 in the thirty-two large provincial towns, among which it ranged from 12.9 in Croydon, 15.2 in Derby, 15.8 in Cardiff, and 15.9 in Leicester to 21.7 in Salford, 21.9 in Newcastle, 22.1 in Manchester, and 22.3 in Liverpool.

During the year under notice 30,678 deaths were referred to the principal diseases in the thirty-three towns; these deaths were equal to an annual rate of 2.68 per 1,000, against an average rate of 2.75 per 1,000 from the same diseases in the ten pre-

Analysis of the Vital Statistics of Thirty-three of the Largest English Towns during the Year 1901.

Towns.	Estimated Population middle of 1901.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœal Diseases.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	12,464,959	336,712	212,572	29.4	18.6	2.68	30,678	242	4,952	1,916	3,476	4,133	1,916	14,043	168	1.1
32 Provincial Towns	7,919,976	205,434	132,648	29.8	19.2	2.97	20,475	13	2,994	1,332	2,132	2,524	1,368	10,112	180	1.6
London	4,544,983	131,278	79,924	29.0	17.6	2.25	10,203	229	1,958	584	1,344	1,609	548	3,931	149	0.3
West Ham	268,963	9,435	4,874	35.2	18.0	4.11	1,106	4	175	33	175	111	86	522	171	0.6
Croydon	134,097	3,548	1,728	26.4	12.9	1.52	203	—	21	1	22	25	11	123	141	—
Brighton	123,688	2,979	2,039	24.2	16.5	1.77	217	—	11	1	64	25	6	110	161	0.4
Portsmouth	189,114	5,267	3,367	27.9	17.0	2.90	548	—	14	15	72	23	42	312	163	1.0
Plymouth	108,117	2,839	1,920	26.8	17.9	1.53	164	1	10	—	12	34	19	38	149	0.4
Bristol	329,990	8,877	5,250	27.0	16.0	1.67	549	—	7	37	124	194	40	147	131	0.4
Cardiff	165,245	5,206	2,597	31.6	15.8	1.69	279	1	3	29	78	86	9	73	148	0.6
Swansea	94,646	2,838	1,760	30.1	18.6	1.88	177	—	6	9	18	85	17	42	174	1.6
Wolverhampton	94,490	2,990	1,592	31.7	16.9	2.37	222	—	44	10	12	30	17	109	163	0.6
Birmingham	523,391	16,735	10,769	32.1	20.5	3.15	1,643	—	306	156	84	219	113	765	187	2.2
Norwich	112,025	3,177	2,090	28.4	18.7	2.73	305	—	112	6	30	4	14	139	183	1.1
Leicester	212,537	6,155	3,306	29.0	15.9	2.38	547	—	18	6	154	71	19	279	175	1.8
Nottingham	240,431	6,812	4,442	28.4	18.5	2.85	683	—	98	11	29	101	83	361	193	0.7
Derby	106,121	2,939	1,607	27.8	15.2	1.80	191	—	—	17	20	29	22	103	154	—
Birkenhead	111,209	3,219	2,076	29.0	18.7	2.96	328	—	46	11	28	62	26	155	181	0.3
Liverpool	686,454	21,986	15,204	32.1	22.3	3.66	2,504	6	462	187	182	164	165	1,338	188	3.9
Bolton	168,785	4,627	3,070	27.5	18.2	3.03	510	—	110	50	27	48	38	237	172	0.5
Manchester	544,923	15,866	12,012	29.1	22.1	3.44	1,867	—	295	126	132	223	86	1,005	199	1.0
Salford	221,503	6,457	4,786	29.2	21.7	4.28	946	—	114	166	140	91	74	421	204	0.7
Oldham	137,413	3,374	2,092	24.6	19.6	2.33	319	—	73	41	13	30	9	153	173	0.1
Burnley	97,310	2,657	1,845	27.4	19.0	2.77	269	—	3	12	40	31	5	178	226	0.9
Blackburn	127,836	3,381	2,486	26.5	19.5	3.66	466	—	99	61	65	22	18	201	193	3.7
Preston	113,142	3,432	2,305	30.4	21.0	3.63	410	—	31	90	18	40	26	205	216	2.9
Huddersfield	95,038	2,175	1,581	22.7	16.7	1.38	131	—	15	0	6	2	17	85	132	1.2
Halifax	105,134	2,353	1,718	22.5	16.4	1.40	147	—	31	17	18	19	13	49	127	3.8
Bradford	280,163	6,464	4,096	23.1	16.8	1.85	518	—	16	37	33	126	58	248	168	0.6
Leeds	439,575	12,897	8,274	30.0	19.3	3.13	1,343	—	248	81	174	142	80	618	183	0.5
Sheffield	382,269	12,586	7,781	33.0	20.4	4.10	1,562	—	214	56	242	128	119	803	201	2.6
Hull	241,753	8,017	4,488	33.3	18.6	3.24	782	—	122	18	43	98	66	435	175	1.8
Sunderland	146,461	5,189	3,136	35.5	21.4	3.75	547	—	63	44	30	107	43	260	182	2.5
Gateshead	110,521	4,050	2,380	36.8	21.6	4.11	453	1	86	15	13	47	11	281	197	4.9
Newcastle-on-Tyne	215,972	6,968	4,714	32.1	21.9	2.50	539	1	71	43	34	107	16	267	178	1.3

ceding years. The zymotic death-rate in London last year was 2.25 per 1,000, while it averaged 2.97 per 1,000 in the thirty-two large provincial towns, among which the rates ranged from 1.38 in Huddersfield, 1.40 in Halifax, 1.52 in Croydon, and 1.53 in Plymouth, to 3.75 in Sunderland, 4.10 in Sheffield, 4.11 in West Ham and in Gateshead, and 4.28 in Salford. The 30,678 deaths referred to the principal zymotic diseases included 242 which resulted from small-pox, 4,952 from measles, 1,916 from scarlet fever, 3,476 from diphtheria, 4,133 from whooping-cough, 1,916 from "fever" (principally enteric), and 14,043 from diarrhœal diseases. The fatal cases of small-pox in the thirty-three large towns, which had been 13, 145, and 57 in the three preceding years, increased last year to 242, of which 229 belonged to London, 6 to Liverpool, 4 to West Ham, and 1 each to Plymouth, Cardiff, and Newcastle. The death-rate from measles, which had been 0.57, 0.47, and 0.44 per 1,000 in the three preceding years, further declined last year to 0.43, and was 0.12 below the mean rate in the ten years 1891-1900. The measles death-rate in London corresponded with the average rate in the thirty-three large towns, while in the thirty-two provincial towns the highest rates were recorded in West Ham, Birmingham, Norwich, Liverpool, Bolton, Blackburn, and Gateshead. The death-rate from scarlet fever, which had been 0.14 per 1,000 in each of the three preceding years, increased to 0.17 per 1,000 last year, but was slightly below the average during the ten preceding years. In London the death-rate from scarlet fever was only 0.13 per 1,000, while it averaged 0.19 in the thirty-two large provincial towns, among which it was highest in Birmingham, Bolton, Salford, Oldham, Blackburn, Preston, and Sunderland. The death-rate from diphtheria, which had been 0.31, 0.41, and 0.36 in the three preceding years, further declined to 0.30 last year, and was 0.04 below the average. The diphtheria death-rate in London was 0.30 per 1,000, which was also the average rate in the thirty two large provincial towns, among which this disease was proportionally most fatal in West Ham, Brighton, Leicester, Salford, Blackburn, and Sheffield. The rate of mortality from whooping-cough, which had been 0.42, 0.39, and 0.46 in the three preceding years, declined again to 0.36 last year, and was 0.11 below the average rate in the ten preceding years 1891-1900. In London the death-rate from this disease was 0.32 per 1,000, while among the thirty-two large provincial towns the highest proportional mortality from whooping-cough was recorded in Bolton, Cardiff, Swansea, Birkenhead, Sunderland, and Newcastle. The death-rate from different forms of "fever" (including typhus, enteric, and simple continued fever), which had been 0.20, 0.22, and 0.20 in the three preceding years, further decreased to 0.17 per 1,000 last year, and was 0.04 below the average rate in the ten years 1891-1900. In London the fever death-rate was 0.12 per 1,000, while it averaged 0.26 in the thirty-two large provincial towns, among which the highest rates were recorded in West Ham, Nottingham, Salford, Sheffield, Hull, and Sunderland. The rate of mortality from diarrhœal diseases, which had been 1.97, 1.26, and 0.99 in the three preceding years, rose again last year to 1.71 per 1,000, and was 0.24 above the average rate in the ten years 1891-1900. In London the death-rate from these diseases was equal to 0.87 per 1,000, while it averaged 1.47 in the thirty-two large provincial towns, among which the highest rates were recorded in West Ham, Liverpool, Manchester, Salford, Burnley, Sheffield, and Gateshead.

Infant mortality, measured by the proportion of deaths under 1 year of age to registered births was equal to 168 per 1,000, against an average rate in the ten preceding years of 172 per 1,000. In London the rate of infant mortality was equal to 149 per 1,000, while it averaged 180 in the thirty-two provincial towns, among which it ranged from 127 in Halifax, 131 in Bristol, 132 in Huddersfield, and 141 in Croydon, to 201 in Sheffield, 204 in Salford, 216 in Preston, and 226 in Burnley.

The causes of 2,420, or 1.1 per cent. of the deaths in the thirty-three towns during 1901 were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon and in Derby; in the other towns the lowest proportions of uncertified deaths were registered in London, Birkenhead, and Oldham; and the highest proportions in Liverpool, Blackburn, Preston, Halifax, and Gateshead.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including **London**, 8,130 births and 5,175 deaths were registered during the week ending Saturday last, March 29th. The annual rate of mortality in these towns, which had been 20.5, 19.6, and 17.6 per 1,000 in the three preceding weeks, rose again last week, to 18.2 per 1,000. Among these large towns the death-rates ranged from 6.2 in Hornsey, 7.8 in Reading, 9.7 in Grimsby, 10.8 in Walthamstow, 11.3 in Burton-on-Trent, 11.7 in Bury, 12.1 in Leyton, and 12.2 in Handsworth, to 21.3 in Manchester, 21.8 in Rhondda, 22.0 in Huddersfield, 22.1 in Stockport, 25.4 in Burnley, 26.0 in Walsall, 26.1 in St. Helens, and 34.6 in Merthyr Tydfil. In London the death-rate was 18.4 per 1,000, while it averaged 18.1 in the seventy-five other large towns. The death-rate from the principal zymotic diseases averaged 2.1 per 1,000 in the seventy-six large towns; in London this rate was equal to 2.6 per 1,000, while it averaged 1.9 in the seventy-five other large towns, among which the highest zymotic death-rates were 4.5 in Bootle, 3.6 in St. Helens, 3.7 in Merthyr Tydfil, 3.0 in Willesden, 4.4 in Blackburn, 4.5 in Barrow-in-Furness, 5.0 in Stockton-on-Tees, and 8.5 in Burnley. Measles caused a death-rate of 2.2 in Merthyr Tydfil, 2.4 in St. Helens, 2.7 in Barrow-in-Furness, 2.8 in Blackburn, and 7.4 in Burnley; scarlet fever of 1.1 in Middlesbrough, 1.2 in Walsall, and 1.7 in King's Norton; diphtheria of 1.3 in Rhondda, and 1.9 in Birkenhead; whooping-cough of 1.5 in South Shields, 1.9 in Plymouth and in Wallasey, 2.0 in Leyton, and 5.0 in Stockton-on-Tees; and "fever" of 1.8 in Northampton, and 2.6 in Bootle. The 68 fatal cases of small-pox registered last week among persons belonging to these towns included 61 belonging to London, 2 to Tottenham, 2 to West Ham, and 1 each to Croydon, Leyton, and Liverpool. The number of small-pox patients under treatment in the Metropolitan

Asylums Hospitals, which had been 1,508, 1,542, and 1,567 at the end of the three preceding weeks, had declined again to 1,526 on Saturday, March 29th; 389 new cases were admitted during the week, against 554, 450, and 449 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital at the end of last week was 2,147, against numbers decreasing from 3,137 to 2,185 on the thirteen preceding Saturdays; 250 new cases were admitted during the week, against 277, 266, and 258 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 29th, 989 births and 655 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.6 and 23.7 per 1,000 in the two preceding weeks, declined again last week to 20.3 per 1,000, but was 2.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.1 in Edinburgh and 14.1 in Perth, to 25.8 in Leith and 28.4 in Aberdeen. The zymotic death-rate in these towns averaged 1.8 per 1,000, the highest rates being recorded in Paisley and Greenock. The 330 deaths registered in Glasgow included 12 from measles, 2 from scarlet fever, 4 from diphtheria, 6 from whooping-cough, and 11 from diarrhoea. Two deaths from diarrhoea occurred in Dundee; 4 from whooping-cough in Aberdeen; 3 from diarrhoea in Paisley; 2 from whooping-cough and 2 from diarrhoea in Leith; and 2 from diarrhoea in Greenock.

INCREASED MORTALITY FROM CANCER IN GERMANY.

OUR Special Correspondent in Berlin, in his letter published in the BRITISH MEDICAL JOURNAL of March 29th, p. 805, gave some account of the communication made by Dr. Wutzdorff to the Berlin Committee for the Investigation of Cancer. The following additional statistics will be read with interest, as they deal with the suggestion that the improved hygienic conditions and other modern alterations have increased the average length of life, and that, as cancer is a disease of advanced life, the disease has apparently become more frequent. That this theory is incorrect becomes plain when the increase of population for different ages is compared with the deaths from cancer at corresponding ages.

The deaths from cancer have increased in males 5 times and in females 4⅔ times more rapidly than the population during the period from 1875 to 1895. Dealing with the increase of both factors according to age, Dr. Wutzdorff shows that the increase per cent. of cancer deaths during the 20 years was—

Between the ages of 20 and 25, 1¼ time for males and 3⅔ times for females.
Between 25 and 30, twice for males and 3 times for females.
Between 30 and 40, 6 times for males and 3 times for females.
Between 40 and 50, 10½ times for males and 5½ times for females.
Between 50 and 60, 6⅔ times for males and 3½ times for females.
Between 60 and 70, 3½ times for males and 2⅔ times for females.
Between 70 and 80, 4½ times for males and 2⅔ times for females above the age of 80.

It is, therefore, clear that the increase in cancer is real, and cannot be explained away as apparent. This increase appears to be more marked in males than in females. During the period from 1876 to 1898, the yearly average shows that for every 100 males dying of cancer there were 122 females dying of it. The census in 1875 shows that for every 100 living males there were 103 females, and in 1895, for every 100 males, 104 females. In 1876, for every 100 males dying of cancer there were 128 females, while in 1898, to every 100 males there 113 females dying of this disease. The same has been noted in England even more markedly. Wutzdorff next deals with the distribution of cancer deaths in different parts of Germany. His maps show that those districts, in which a large number of deaths occurred in 1892, have been the site of a still larger number of deaths from cancer in 1898 in direct proportion. The increase is most marked in Würtemberg, Hamburg State, Posen, and Bavaria, and least marked in Hanover, Saxony, Westphalia, Hessen, and East Prussia. In Hohenzollern, Saxony, and Coburg-Gotha the deaths from cancer have actually decreased. He further points out that the disease tends at the present time to attack the population at an earlier age than formerly. In conclusion, he mentions that in other countries, that is, England, Holland, Switzerland, and America, the same appalling increase of the dread disease has made itself felt.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THE fiftieth anniversary of the formation of this Association will be celebrated on April 24th and 25th, when a conference on Sanitary Reform will be held in the Town Hall. The Bishop of Manchester, who is President of the Association and of the General Committee of the Conference, will deliver an address. Dr. Arthur Ransome, F.R.S., a former Chairman of the Committee, will relate the history of the Association, and Sir James Crichton-Browne will speak on Light and Sanitation. The next meeting will be devoted to Women's Work in Sanitary Reform, on which subject Mrs. H. J. Tennant will speak. Vital Statistics and their Relation to Sanitary Reform will be dealt with by Dr. Arthur Newsholme, Medical Officer of Health, Brighton. Mr. T. C. Horsfall, President of the Citizens Committee for the Improvement of the Dwellings and Surroundings of the People, will read a paper on the Housing Question. An address on the Prevention of Tuberculosis will be delivered by Sir William H. Broadbent, M.D. Dr. A. Bostock Hill, Professor of Hygiene and Public Health at Birmingham University, will deal with the Relation of Voluntary Effort to Constituted Authority in Promoting Sanitary Reform; the Earl of Meath will speak on Physical Training; Dr. Niven, Medical Officer of Health, Manchester, on the Economics of Health. Amongst others who will preside at meetings are Professor Dixon Mann, M.D., present Chairman of the Association; Sir Wm. H. Houldsworth, Bart., M.P., Mrs. Moorhouse, Dr. Henry Simpson, a former Chairman of the Committee; Alderman Walton Smith, J.P., Chairman of the Sanitary Committee, Manchester Corporation; Mr. W. J. Crossley, C.C.; the Principal of the Owens College, the Mayor of Salford, Sir J. T. Hibbert, K.C.B., Chairman of the Lancashire County Council; and Councillor Huddart, Chairman of the Salford Health Committee.

The Association has not only been the pioneer of important sanitary improvements in Manchester, but its influence has also been felt beyond the Manchester district; and many municipalities, urban district councils, and other public bodies have appointed delegates or intimated that they will be otherwise represented at the Conference.

THE MAINTENANCE OF INEBRIATES.

THE Home Secretary, in a letter to the Secretary of the Inebriates Reformation and After-Care Association, makes the following statement respecting the treatment of habitual inebriates: "If destitute persons are sent by Boards of Guardians, on the recommendation of a medical officer, to an establishment for inebriates for remedial treatment, the general powers of guardians to relieve destitute poor enables them to contribute towards the maintenance of such persons."

FREE SUPPLY OF ANTITOXIN BY NEW YORK STATE.

THE Department of Health of the State of New York announces that it now prepared to furnish diphtheria antitoxin free. Those entitled to treatment with the State's product are the inmates of State or other charitable institutions, hospitals, and asylums, and any persons suffering from or exposed to the disease who are not able to purchase this remedy. In the cities and large towns, and in any locality during epidemics, it is the intention of the department to allow the local health authorities to keep a supply of serum on hand for distribution.

THE INVESTIGATION OF VACCINATION IN THE UNITED STATES.

A BILL has been introduced in the Legislature of the State of New York providing for the creation of a State Commission, which is to investigate into and report on the history, nature, and pathology of small-pox, and also of vaccination as a preventive of the disease. The Commission is also authorized to investigate antitoxin and other serums alleged to be prophylactic against diphtheria, hydrophobia, phthisis, and other infectious diseases. The Bill gives the Commission unlimited power to inspect hospitals, laboratories, etc., and to subpœna and examine witnesses who may be summoned from any section of the State.

DISTRICT MEDICAL OFFICERS AS MEMBERS OF RURAL DISTRICT COUNCILS AND COUNTY COUNCILS.

QUAESITOR asks whether a district medical officer can legally hold the office of rural district councillor or county councillor for the same district as that for which he is medical officer.

*** A district medical officer cannot be elected a member of a rural district council if any portion of his own Poor-law district is within, or forms any part of the same union as that in which the rural district council has jurisdiction. He is not meligible to become a county councillor.

FEES FOR VACCINATION OF SERVANTS.

G. E. D.—If governesses, trained nurses, or servants reside at the houses of their employers, a public vaccinator is, we are advised, entitled to 5s. a case for vaccination, and this fee could be recovered from the guardians at the county court.

H. C.—A fair charge for the revaccination of a hundred mill hands, the ordinary vaccination and revaccination fees being 3s. 6d. to 5s., would be at the rate of 2s. 6d. each.

MEDICAL APPOINTMENT TO THE ISOLATION HOSPITAL OF URBAN DISTRICT COUNCIL.

G. A. J.—(1) We know of no standard of remuneration. (2) We are not aware of any law or regulation which would prevent a medical man whose partner is on an urban district council being appointed medical officer to the same council's isolation hospital, with proper remuneration, and in the absence of any such rule we do not think it likely that the Local Government Board would decline to confirm such an appointment.

PUBLIC VACCINATOR.—Free vaccination or revaccination could be claimed under the circumstances mentioned, but we should regard it as the duty of the public vaccinator to acquaint his private patients with the circumstances.

HOSPITAL AND DISPENSARY MANAGEMENT.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

THE directors of this hospital have appointed Mr. Stuart McDonald, M.B., C.M., M.R.C.P.Edin., to be pathologist to the institution. They have also elected Drs. A. I. de Spiganovicz, Lionel C. Peel Ritchie, and Norman Glegg to be resident medical officers for six months from April 15th next.

A CONGRESS OF ANATOMISTS IN FRANCE. The Congress of the Association of French and Foreign Anatomists opened at Montpellier on March 24th under the presidency of M. Sabathier, Dean of the Faculty of Science. About sixty delegates from various parts of France and from Switzerland, Belgium, Spain, Italy, and Germany took part in the proceedings. A number of interesting papers were read. The principal feature of the Congress seemed to be a desire to establish a closer union between anatomy and physiology, between the study of the structure of an organ and its function.

MEDICAL NEWS.

THE first lady to become a parish medical officer in the Highlands has just been appointed, Dr. Jane Boyes, who studied at Queen Margaret College, Edinburgh, having been elected Medical Officer for the Island of Coll, Argyllshire, in succession to Dr. William Henry Smith, deceased.

THE scheme for the foundation of a medical institute for women at Moscow does not make progress. The report of the Society founded to promote its establishment shows that the total capital so far available for the purpose is only 2,408 roubles. It is estimated that a million roubles will be needed. The membership of the Society is about 200, but there would appear to be a lack of enthusiasm in the payment of subscriptions.

WE are asked to state that a post-graduate course of clinical demonstrations will be given at the Westminster Hospital during the coming summer session. The demonstrations will be given on Tuesdays at 4.30 p.m., and will commence on May 13th. The fee for the course will be one guinea, but holders of the post-graduate conjoint ticket will be admitted without extra payment.

DONATIONS TO HARVARD MEDICAL SCHOOL.—Harvard has lately been exceptionally fortunate in attracting the benevolence of the pious founder. Mrs. C. P. Huntington, widow of a railroad magnate, has given £50,000 to the Medical School for the erection of a pathological and bacteriological laboratory, to be known as the Collis P. Huntington Laboratory. This makes a total of about £565,000 given to the school since last June. There were ten gifts of £12,000 each, twelve of £1,000 each, two of £400 each, and seventeen of £200 each, besides many of smaller figures.

CONGRESS OF FRENCH ALIENISTS AND NEUROLOGISTS.—The annual Congress of French Alienists and Neurologists will be held this year at Grenoble, from August 1st to 8th, under the presidency of Dr. E. Régis, Professor of Psychiatry in the University of Bordeaux. The questions proposed for discussion are: (1) Nervous Pathology; Tics in General (to be introduced by M. Noguès, of Toulouse); (2) Mental Pathology: Anxious States in Mental Maladies (to be introduced by M. Lalanne, of Bordeaux); (3) Forensic Medicine: Self-accusers from the Medico-Legal Point of View (to be introduced by M. Ernest Dupré, of Paris). The Secretary-General of the Congress is Dr. Bonnet, Physician of the Asylum of Saint-Robert, Isère.

THE CONTINENTAL ANGLO-AMERICAN MEDICAL SOCIETY.—A proposal by Dr. F. H. Barton Brown (of Rome) was laid before the annual meeting of the Continental Anglo-American Medical Society, that a luncheon of the Society be held every year at the meeting of the British Medical Association. A special committee was then appointed to consider how far the proposition can be carried out with a prospect of success. Any members of the Society who propose to be present at the annual meeting of the British Medical Association to be held at Manchester, in July, 1902, are requested to write to that effect, before leaving their winter quarters, to one of the members of the special committee: Dr. D. W. Samways, Place St. Roch, Mentone; Dr. Leonard Robinson, 1, Rue d'Agues-seau, Paris; Dr. StClair Thomson, 28, Queen Anne Street, London, W.

CONGRESS OF FRENCH PHYSICIANS OF AMERICA.—At the beginning of March a large gathering of French-Canadian physicians of the Province of Quebec was held at Laval University, Montreal, when it was unanimously decided to hold a congress of the French physicians of America on the occasion of the jubilee celebration of Laval University, Quebec, which will take place in June next. Dr. Brochu, Professor of the Medical Faculty of Laval, Quebec, was elected President; Dr. E. P. Lachapelle, Vice-President for Montreal and the Province of Quebec; Dr. C. Provost, Ottawa, for the Province of Ontario; and Dr. Archambault, of Cohoes, New York, for the United States. Dr. A. Simard, of Quebec, and Dr. Le Sage, of Montreal, were elected General Secretaries. It was also decided to ask the following to become honorary presidents to represent the universities in the Province: Dr. Craik, of McGill; Dr. F. W. Campbell, of Bishop's; Dr. Rottot, of Laval, Montreal; and Dr. Simard, of Laval, Quebec. A general committee was appointed to make all arrangements.

A BILL is to be introduced into the United States Congress which provides that all persons in charge of hospitals, prison, gaol, and morgue in the District of Columbia shall deliver all bodies, which would otherwise have to be buried at the public expense, to a Board vested with authority either to allow the use of such bodies for the promotion of anatomical science under certain definite restrictions, or to cause such bodies to be buried. Under the present law bodies cannot be delivered to any Board for use in anatomical examinations, and numerous bodies have been buried at the public expense which might have been utilized for the advancement of medical education.

PAN-HELLENIC MEDICAL CONGRESS.—The second Pan-Hellenic Medical Congress will be held at Athens from May 17th to 21st, 1903. The Committee of the Congress, of which Professor Michael Hadjimichalis is President, has issued an invitation to all medical practitioners in Greece and to many in other countries to take part in the proceedings. The subjects proposed for discussion are: (1) Changes in the circulatory system resulting from malaria; (2) malaria in its relations with neuritis and polyneuritis; (3) alcoholic affections in Greece; (4) the relations of malaria to malignant growths; (5) the surgery of the central nervous system; (6) subphrenic abscesses; (7) the best surgical treatment of abscesses and hydatid cysts of the liver; (8) the effects of the surgical treatment of hernias (and particularly inguinal hernia) from the point of view of their complete cure; (9) the relations of malaria with pregnancy, parturition, and the puerperal state, and vice versa; (10) disturbances and changes of vision in arterio-sclerosis; (11) the mineral waters of Greece; (12) the most effectual means of combating the development and diffusion of infectious diseases in Greece.

EDINBURGH ROYAL INFIRMARY.—At the nurses' annual gathering held recently in the Edinburgh Royal Infirmary, all the members of the large nursing staff of the hospital were present, in addition to numerous nurses from the various other Edinburgh institutions, such as the Sick Children's Hospital, Leith Hospital, Maternity, etc. Several of the directors and a considerable number of the members of the staff and their wives attended, in addition to other guests. This year also more elaborate decorations were carried out than had been done in previous years, and a portion of the principal corridor, as well as the corridor leading from it to the Nurses' Home, was most tastefully draped. Refreshments were served throughout the evening in the nurses' dining hall, and musical and vocal selections were given in the recreation room of the Nurses' Home. In the large theatre the prizes for the past year gained by the nurses were presented by Mr. Patrick Blair, W.S., one of the directors. Following this, in the same theatre, two cinematograph exhibitions were given by Messrs. Fraser and Elrick, as well as a couple of one-act comediettas in which Miss Clouston and Miss Fuller and Drs. McRae and Webber took part. All of these entertainments were thoroughly appreciated, and the whole gathering was perhaps the most successful that has been held in the infirmary of late years.

CENTRALIZATION OF ASYLUM MANAGEMENT IN NEW YORK.—A Bill providing that the Local Board of Managers of the New York State Hospitals for the Insane be abolished, and that these hospitals be placed under the immediate jurisdiction of the State Commission in Lunacy, has recently been signed by the Governor of the State. By this Bill the State of New York removes all Boards of Managers from these hospitals, and hands these institutions over to a Commission appointed and established in Albany. The Bill is severely criticized by the leading medical journals. The Commission will, it is pointed out, control the destinies of many thousands of insane patients; will appoint a small army of employés in far-distant parts of the State; and will have the expenditure of millions of dollars. It will practically be an appanage of the Governor, who can at his option control its policy, its appointments, and its expenditure. The Bill, in short, unifies the State hospitals, and makes of them a political engine of great power.

MEDICAL VACANCIES.

The following vacancies are announced:

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications, on forms to be obtained from the Medical Superintendent of the Infirmary, to whom they should be returned by April 15th.

BOOTLE: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum, with board, residence, and laundry. Applications to the Secretary.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence. Applications to Mr. Johns Coombs, Honorary Secretary.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Honorary Surgeon. Applications to the Secretary by April 25th.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer as House-Physician for first six months, and House-Surgeon for ensuing six months. Salary, at the rate of £80 and £100 per annum respectively, with board, lodging, and washing. Applications to the Secretary by April 11th.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer; unmarried. Appointment for six months. Salary at the rate of £100 per annum, with furnished apartments, board, etc. Applications to the Secretary by April 8th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Refraction Assistant. Salary, at the rate of £50 per annum. Applications to the Secretary.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer, unmarried. Salary, £120 per annum, rising to £150, with board, furnished apartments. Applications to the Medical Superintendent by April 25th.

COSFORD UNION.—(1) Medical Officer and Public Vaccinator for the Bildeston District. Salary, £72 per annum, and fees. (2) Medical Officer of the Workhouse. Salary, £50 per annum, and fees. Applications to be sent to the Clerk to the Guardians by May 1st.

DUBLIN: RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—Assistant Physician. Applications to the Secretary by April 7th.

DUBLIN: ROYAL UNIVERSITY OF IRELAND.—Extern Examiners in Surgery, Midwifery, Pathology, and Ophthalmology. Remuneration, £50, £35, £25, and £20 respectively, with usual travelling, etc., allowances. Applications to the Secretaries by April 19th.

EDINBURGH: CRAIGLOCKHART POORHOUSE AND HOSPITAL.—Medical Officer. Salary at the rate of £100 per annum, with board and apartments. Applications to the Clerk, Parish Council Chambers, Castle Terrace, Edinburgh, by April 7th.

GUY'S HOSPITAL.—Demonstrator of Bacteriology and Bacteriologist to the Hospital. Salary, £180, rising to £200 per annum. Applications to the Treasurer by April 12th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HANLEY, STOKE, AND FENTON JOINT HOSPITAL BOARD.—Resident Assistant Medical Officer at the Infectious Diseases Hospital, Bucknall. Salary, £80 per annum, with board, residence, and washing. Applications to the Clerk of the Board, Town Hall, Hanley, Staffs.

HEREFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £35 per annum, with board and residence. Applications to the Secretary-Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Appointment for six months. Honorarium £25. Applications to the Secretary by April 8th.

LEEDS GENERAL INFIRMARY.—Honorary Dental Surgeon. Applications to the General Secretary by April 17th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum, with board, apartments, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by April 14th.

LINCOLN: HOSPITAL FOR THE INSANE.—Assistant Medical Officer. Salary, £100 per annum. Applications to the Medical Superintendent, The Lawn, Lincoln.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Salary, 60 guineas per annum. Applications to the Chairman of the Medical Board by April 5th.

LONDON UNIVERSITY.—Demonstrator in the Physiological Laboratories. Initial salary, £150. Applications to the Principal by April 14th.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, £180 afterwards. Applications, on forms to be obtained from the Resident Medical Officer, to be sent to the Honorary Secretary, Mr. Joseph Carr, 41, Mosley Street, Newcastle-on-Tyne, by April 21st.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Assistant Medical Officer for six or seven months. Salary, 3 guineas a week, with board, lodging, and washing. Applications to the Medical Superintendent.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon, unmarried. Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc. Ladies not eligible. Applications to the Secretary, Mr. M. J. Preston, Journal Chambers, Nottingham.

OLDHAM INFIRMARY.—Senior House Surgeon. Salary, £100 per annum, with board, residence, and washing. Candidates to state if willing to accept Junior post at £75 per annum, etc. Applications to the Hon. Secretary by April 12th.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not exceeding 30 years of age. Salary, £100 per annum, and £50 in lieu of rations, with furnished apartments, etc. Applications to the Resident Superintendent by April 9th.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W. Honorary Surgeon. Applications to the Honorary Secretary, Mr. H. P. Bodkin, 23, Gordon Street, Gordon Square, W.C., by April 11th.

SHEFFIELD: UNIVERSITY COLLEGE.—Demonstrator in the Bacteriological Laboratory. Salary, £150 per annum, increasing to £200. Applications to the Registrar by April 7th.

SOUTHAMPTON INCORPORATION.—Resident Assistant Medical Officer at the new Infirmary, Shirley Warren; not exceeding 28 years of age. Salary, £100 per annum, with apartments, rations, washing, and attendance. Applications, endorsed "Resident Assistant Medical Officer," to be sent to the Clerk to the Guardians, Workhouse, Southampton, by April 7th.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Assistant Physician. Applications to the Secretary before April 9th.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon. Appointment for six months. Salary, at the rate of £40 per annum, with board, washing, and residence. Applications to the Secretary by April 8th.

TEIGNMOUTH HOSPITAL.—House-Surgeon. Salary, £70 per annum, with board, lodging, and washing, and £6 per annum in lieu of stimulants or mineral waters. Application to the House Committee.

TOTTENHAM HOSPITAL.—House Surgeon. Salary, £50 per annum, with board, residence, and laundry. Applications to the Chairman of the Joint Committee, Tottenham Hospital, N., by April 7th.

TYNEMOUTH INFIRMARY.—Two House-Surgeons, one on May 1st and the other on October 1st. Salary, at the rate of 52 guineas per annum, with rooms, board, and washing. Appplications to Dr. F. O. Means, 11, Northumberland Square, North Shields.

WEST END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—Honorary Dental Surgeon. Must be L.D.S.Eng. Applications to the Secretary by April 22nd.

MEDICAL APPOINTMENTS.

ANDERSON, D. L., L.R.C.P., L.R.C.S.Edin., D.P.H., appointed Certifying Factory Surgeon for the Doncaster District of the West Riding of Yorkshire.

ANGUS, H., M.D.Aberd., appointed Medical Officer of Health to the Bingley District Council, *vice* G. R. MacGregor, M.D.Aberd.

BARFORD, A. M., M.D., L.R.C.P., M.R.C.S., appointed Assistant Anæsthetist to the Royal Dental Hospital, Leicester Square.

BARNES, Arthur Stanley, M.D.Lond., M.R.C.P.Lond., B.Sc., appointed Senior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* Dr. Singer, resigned.

BLAKE, A. F., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the West Grays District of the Orsett Union.

BOYES, Jane, L.R.C.P., L.R.C.S.Edin., L.F.P. & S.Glasg., appointed Medical Officer for the Parish of Coll, Argyleshire, *vice* W. H. F. Smith, M.R.C.S.Eng., deceased.

DENNING, Charles Ernest, L.R.C.P., L.R.C.S.Irel., appointed Medical Officer to the Epping Union Workhouse.

EVANS, Arthur, M.S.Lond., F.R.C.S.Eng., appointed Assistant Surgeon to Westminster Hospital.

FOWLER, A. H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Lower Ward of Tilbury of the Orsett Union.

GARDNER, R. I., M.B., C.M.Glasg., appointed Medical Officer and Public Vaccinator for the Enfield Town, and Medical Officer for the Enfield Workhouse of the Edmonton Union.

GILBERT, C. W., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the East Grays District of the Orsett Union.

GREENWOOD, Alfred, M.D.Vict., appointed Medical Officer of Health for Blackburn, *vice* James Wheatley, M.D.Lond., resigned.

HUNTER, Mitchell, M.D., L.S.A., appointed Certifying Factory Surgeon for the Magherafelt District of the County of Londonderry.

LLOYD, F. S., M.B.Lond., M.R.C.S.Eng., appointed Certifying Factory Surgeon for the Luton District of Bedfordshire.

LOUDON, J. Livingstone, M.B., C.M., appointed Physician to Burgh Hospital for Infectious Diseases, Hamilton; Police Surgeon to Burgh of Hamilton; and Medical Officer to Hamilton Combination Poorhouse.

MCLEAN, C. J. R., M.D.Edin., D.P.H., R.C.P. & S.Irel., appointed Medical Officer of Health to the Doncaster Rural District Council.

PALLETT, T. E., M.D.Brux., L.S.A., appointed Certifying Factory Surgeon for the Barl's Colne District of Essex.

STEWART, Thomas Grainger, M.B., Ch.B.Edin., appointed Junior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* A. S. Barnes, M.D.Lond.

TUKE, G. M., M.R.C.S.Eng., reappointed Medical Officer of Health to the Hollingbourn Rural District Council.

VERNON, Ethel M., M.D., B.S.Lond., L.S.A., appointed Pathologist to the New Hospital for Women, Euston Road.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. F. J. Poynton and Dr. Alexander Paine: A Contribution to the Study of Malignant Endocarditis. Dr. William Ewart and Mr. A. S. Morley: The Possibility of Recovery from the Active Stage of Malignant Endocarditis illustrated by Cases and Specimens.

WEDNESDAY.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Clinical Evening.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

Sanitary Institute, Parkes Museum, Margaret Street, W., 8 p.m.—Discussion on the Prevention of Malaria, to be opened by Dr. Patrick Manson.

THURSDAY.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Papers—Dr. R. Bowles: The Practical Treatment of Functional Vasomotor Disturbances. Mr. Raymond Johnson: Some Points in the Treatment of Tuberculous Disease of the Knee.

British Gynæcological Society, 20, Hanover Square, W., 8 p.m.—Dr. H. Macnaughton-Jones: Specimens. Dr. J. Halliday Croom: On the Secondary Aspects of Deciduoma Malignum.

FRIDAY.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, W.C., 7.30 p.m.—Discussion on the Tenure of Office of Medical Officers of Health.

Laryngological Society of London, 20, Hanover Square, 5 P.M.—Cases and Specimens will be shown by Dr. Wyatt Wingrave, Dr. W. H. Kelson, Dr. StClair Thomson, Mr. A. H. Cheatle, Dr. Lack, and others.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Mr. Thomas Carwardine: Cases illustrating the Mode of Origin of certain Cysts of the Neck. Dr. W. J. Tyson: Case of Intestinal Obstruction due to Embolism of a Branch of the Superior Mesenteric Artery. Mr. A. E. Barker: Cerebellar Abscess with Sudden Paralysis of the Respiratory Centres. Mr. H. L. Barnard: The Simulation of Acute Peritonitis by Pleuro-Pneumonic Disease.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical. Thursday, surgical; Friday, ear.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

HAYNES.—On March 27th, at Clifton Lodge, Stockton-on-Tees, the wife of E. L. Haynes, M.R.C.S., L.R.C.P., of a daughter.

MACMILLAN.—On March 31st, at Monsall Lodge, Prestwich, the wife of D. Macmillan, M.D., of a son.

SWAINSON.—On March 25th, at Sandes Avenue, Kendal, the wife of E. A. C. Swainson, M.B.Camb., of a son.

MARRIAGES.

ADDISON—GRAY.—On Tuesday, March 25th, at Trinity Presbyterian Church, Kensington Park Road, by the Rev. Hugh Falconer, M.A., B.D., Christopher Addison, M.D., F.R.C.S., youngest son of the late Robert Addison, sen., of Stallingboro, Lincolnshire, to Isobel, youngest daughter of the late Archibald Gray, of 57, Holland Park, W., and of Mrs. Gray, St. Mary's Tower, Birnam, Perthshire.

PLATT—HOOKE.—On April 2nd, at All Hallows Church, Bispham, Poulton-le-Fylde, by the Rev. G. Leighton, M.A., Rector, John Edward Platt, M.S.Lond., F.R.C.S., of Manchester, to Ellen Dorothea, only daughter of Richard Hooke, of Kersal Dale, Higher Broughton, Manchester.

DEATH.

HAMILTON.—March 26th, at Bordighera, Italy, FitzRoy Howard, the darling son of Giulio and Charlotte Hamilton, aged 4½ years. "Jesus called a little child unto Him."—Matthew, chap. xviii, 2nd verse.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

METEOR wishes to know the climatic conditions in Jamaica in August.

ANSWERS.

X. T. R.—The child appears to be a dangerous lunatic. Probably the best course would be to obtain her admission to the county lunatic asylum.

THE TREATMENT OF LOCOMOTOR ATAXIA

W. L.—The subject of the systematic treatment of locomotor ataxia is fully discussed by Dr. Parkes Weber in Vol. IV. of Solis-Cohen's *System of Physical Therapeutics* recently issued. We may also refer our correspondent to the discussion on the relation of tabes to general paralysis, which took place at the Pathological Society of London in 1899, and was reported in the BRITISH MEDICAL JOURNAL of that year, vol. ii, p. 1475, 1604, 1734. The Aachen treatment can be obtained at Bath, but whether it can be used at home must depend on the occupation of the patient, the facilities for home treatment, and his constitutional vigour. It depends, in fact, upon the question how much hygienic treatment, in the fullest sense of the term, is required in addition to ordinary treatment with the view not only to immediate results, but to preventing later on the onset of tertiary symptoms, cachexia, etc.

INCONTINENCE OF URINE.

DR. ANDREW M. T. RATTRAY (Portobello, N.B.) writes: Several troublesome cases of the above—in both sexes—have come under my care for some years. Careful examination of the urine is most desirable—if over-acid small doses of liq. potass. and if alkaline tr. nucis vom., tr. belladonnae, acid. nitrohydrochlor. dil., assist greatly towards a recovery, *plus* firmly tying a few cotton reels over the spinal column, which should awake the patient, as sleeping on the back favours the incontinence. I have also seen benefit result from careful regulation of diet—light and early supper (the less the better), cold douches, hip baths, and last, but not least, keeping a look-out for worms, pruritus ani, etc., as a remote cause.

DRUGS IN THE TROPICS.

HYLAX.—Bonny in Southern Nigeria is in a highly malarious district, and all possible precautions against malaria should be taken. There is also a certain amount of dysentery, as well as the minor diseases incident on residence in the tropics. There is a medical officer stationed at Bonny, and we would not advise a layman to take any drugs beyond quinine. Serious mischief may result from unregulated self-medication in the tropics. Quinine, however, is required so frequently that a supply of this drug should be taken.

ENTERIC FEVER.

WALTON AND J. H.—Osler's *Principles and Practice of Medicine*, fourth edition (Edinburgh and London: Young J. Pentland. 1902. 18s.), gives an excellent summary of recent knowledge with regard to enteric fever. For fuller accounts of details the medical journals should be consulted. Horton-Smith's Goulstonian Lectures on the Typhoid Bacillus and Typhoid Fever, abstracts of which were published in the BRITISH MEDICAL JOURNAL of April 7th, 1900, p. 827, are valuable; he discusses the action of urotropin on the urine.

LETTERS, NOTES, Etc.

THE DUFFIN FUND.

DR. HECTOR LEAR (Winsford, Cheshire), Honorary Treasurer of this fund, writes that he has received the following subscription on behalf of the family of the late Mr. Robert John Duffin, M.B., M.Ch.R.U.I., in addition to those already announced. Full particulars of the case will be found in the BRITISH MEDICAL JOURNAL of February 22nd, p. 470:

	£	s.	d.
Dr. F. Godfrey, Scarborough	1	1	0

CIRRHOSIS OF THE LIVER IN A CAT.

DR. R. H. WILSON (Resident Medical Officer, the Jaffray Hospital, Gravelly Hill, Birmingham) writes: Perhaps the following case of cirrhosis of the liver in a cat may be worth recording. The liver showed microscopically a generalized multilobular cirrhosis of an early and fairly acute variety—that is, there was a good deal of cellular infiltration intermingled with the fibrous tissue. The secondary signs of emaciation, enlarged spleen, and ascites were extremely well marked. The cat—so far as I can make out, and I have made very careful inquiries—had never had any alcohol, but it had lived on a good deal of butcher's meat; it was a pet and had lived a sedentary life. The cause seems to me obscure.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Messrs. Arnold and Sons, London; Ajax; Dr. R. Y. Aitken, Blackburn; Mr. S. Andrews, Basingstoke; Alpha; A. Ashby, M.B., Reading; Almaden. **B** H. Blake, M.B., Great Yarmouth; Mr. G. F. Bashford, London; Mr. T. W. W. Bovey, Abbotsbury; Mr. A. E. Barker, London; G. A. Bruce, M.B., London; Mr. H. A. Baines, Brighton; J. B. Bell, M.B., King's Kettle; Dr. W. L. Bight, Cardiff; Mr. T. W. N. Barlow, Bootle; Mr. C. H. Bloxsome Fairford; Mr. A. E. Barrett, London; Mr. H. N. Barnett, Knock; Dr. J. S. Bury, Manchester. **C** Mr. F. W. E. Courtenay, Sale; Consulting Physician; Dr. J. M. Clarke, Clifton; Dr. E. O'Croft, Leeds; Mr. A. W. Cadman, Waltham Cross; Dr. J. Cater, London; Mr. L. Cooper, Rochester; Dr. R. Carter, Bath. **D** Dr. L. Dobson, London; J. Donelan, M.B., London; Dr. J. Dreschfeld, Manchester; Dr. J. C. Davie, Victoria, B.C.; A. F. Dixon, M.B., Cardiff; Dr. G. H. M. Dunlop, Edinburgh; Mr. H. M. Dowler, Mysore. **E** Dr. J. W. H. Eyre, London; Dr. A. Eddowes, London; A. C. Elsmore, M.B., Woodstock; Dr. F. Edge, Wolverhampton; A. McC. Erskine, M.B., Goole; Dr. J. Edmunds, London; Etiquette; E. S. **F** Dr. W. F. Farquharson, Carlisle; N. McI. Falkiner, M.B., Dublin; Dr. W. Fearnley, Harrogate; F. T.; Mr. J. H. Fardon, Birkenhead. **G** G. E. D.; Mr. C. T. Griffiths, Birmingham; H. W. M. Gray, M.B., Aberdeen; Dr. J. Galloway, London. **H** G. Halley, M.B., Dundee; Dr. W. S. Hedley, London; J. W. Hyslop, M.B., Menston; J. Hutson, M.B., Barbadoes; Dr. W. J. Hadley, London; Mr. F. Hounslow, Redhill. **I** Inquirens; Mrs. C. S. Ivens, Bildeston. **J** Mr. W. F. M. Jackson, Smethwick; Mr. H. Jones, Hereford; Dr. R. Jardine, Glasgow. **L** Dr. R. F. Licorish, Barbadoes; J. A. Lea, M.B., Capetown; Lieutenant-Colonel, R.A.M.C.; Dr. C. F. Lillie, San Remo; Mr. L. Laurance, London; Mr. H. Leak, Winsford. **M** Mr. W. J. D. Murford, London; Dr. P. McBride, Edinburgh; H. C. Mactier, M.B., Wolverhampton; M.R.C.S., L.R.C.P.; Dr. F. W. D. McGachen, Littlehampton; Mr. J. McClure, Middlesbrough; Mr. A. McMillan, Nice. **N** Mr. J. Y. Newing, Nottingham. **O** Omega; One Who Knows. **P** J. R. Prytherch, M.B., Llangefni; F. S. Pitt Taylor, M.B., Liverpool. **R** Mr. C. A. Roberts, Tewkesbury; Dr. A. M. T. Rattray, Portobello; Radius; A. B. Ritchie, M.B., Manchester; J. H. Ray, M.B., Manchester; A. Robertson, M.B., Musselburgh; Dr. R. R. Rentoul, Liverpool. **S** Dr. H. B. Shaw, London; Miss H. W. Stanley, Birmingham; Dr. J. H. Swanton, London; Dr. D. W. Samways, Mentone; Dr. L. J. Serin, Charleroi. **T** Mr. M. W. Travers, London; Mr. J. J. Tisdall, Liverpool; Mr. A. F. Tredgold, Guildford; Mr. J. Taylor, Chester; Mr. T. Tibbett, Dunstable; Mr. J. L. Thomas, C.B., Cardiff; Dr. H. Tilley, London; Miss Todd, York; J. H. Targett, M.B., London. **W** Mr. P. S. White, Weedon; Mr. R. H. Wilson, Birmingham; Dr. E. L. Walford, Pau; Dr. P. W. Williams, Clifton; A. Wauchope, M.B., Glasgow; R. B. Wallace, M.B., Ledbury.

BOOKS, Etc., RECEIVED.

A Treatise on Pharmacy. By Charles Caspar. London: Henry Kimpton. 1902. 19s.

Contributions to Practical Medicine. By Sir James Sawyer. Birmingham: Cornish Brothers. 1902.

The Treatment of Injuries by Friction and Movement. By Wharton P. Hood, M.D., M.R.C.S., L.S.A. London: Macmillan and Co., Limited. 1902. 4s. 6d.

Climates and Baths of Great Britain: Being the Report of a Committee of the Royal Medical and Chirurgical Society of London. Vol. II. London: Macmillan and Co., Limited. 1902. 12s. 6d.

Introduction to Dermatology. By Norman Walker, M.D. Second Edition. Bristol: J. Wright and Co. 1902. 9s. 6d. net.

A Peste. Por Angelo Fonseca. Porto: Typographia Occidental (A. Vapor). 1902. 12mo, 800 rois.

Excess of Salt in the Diet, with Three Other Factors, the Probable Causes of Cancer. By James Braithwaite M.D. London: J. and A. Churchill. 1902. 1s.

A Synopsis of Surgery. By R. F. Tobin, F.R.C.S.I. Second Edition. London: J. and A. Churchill. 1902. 6s. 6d.

The Standard Medical Directory of North America. 1902. Chicago, Illinois: G. P. Engelhard and Co. 16 folds.

The Principles of Pathological Histology. By H. R. Gaylord, M.D., and L. Aschoff, M.D. London: Henry Kimpton. 1902. 31s. 6d.

Hare Lip and Cleft Palate. By R. W. Murray, F.R.C.S. London: J. and A. Churchill. 1902. 3s.

Les Fonctions Hépatiques. Par A. Gilbert et P. Carnot. Paris: O. Naud. 1902. Fr. 5.

Grundsätze der Behandlung der Neurasthenie und Hysterie. Von Dr. T. Dunin. Berlin: A. Hirschwald. 1902.

Ueber die Aetiologie des Carcinoms. Von Dr. G. Fütterer. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1902. 3s.

Die Bernfskrankheiten des Ohres und der oberen Luftwege. Von Dr. P. Röpke. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1902. 5s.

Arbeiten aus der pathologisch anatomischen Abteilung des Königl. Hygienischen Instituts zu Posen. Gewidmet von Dr. O. Lubarsch. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 9s.

Vier Vorlesungen aus der allgemeinen Pathologie des Nervensystems. Von F. W. Mott, M.D., F.R.S. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1902. 3s.

Les Oxydations de l'Organisme. Par E. Enriquez et J. A. Sicard. Paris: J. B. Baillière et Fils. 1902. F. 1.50.

Cliniques Médicales Iconographiques. Par MM. P. Haushalter, G. Etienne, L. Spillmann, Ch. Thiry. Paris: O. Naud. 1902.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line		0	6
A whole column	1	17	6
A page	8	0	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

Observations

ON

A SERIES OF CASES OF FRACTURE OF THE SEMILUNAR CARTILAGES OF THE KNEE TOGETHER WITH OTHER CASES OF OPERATION FOR LOOSE CARTILAGE.

By A. W. MAYO ROBSON, F.R.C.S.,

Senior Surgeon to the General Infirmary at Leeds; Emeritus Professor of Surgery in the Yorkshire College of the Victoria University.

Nothing could demonstrate more aptly the change in recent years that has occurred in our views regarding cases requiring operation than the present treatment of the diseases of the knee-joint here related, for whereas at one time, when saving of life was practically the only object of surgery, all these cases were treated by palliative methods, which really meant that the unfortunate subjects of internal derangements of the knee were seriously handicapped in the struggle for existence, whereas now, though saving of life takes the first place in our thoughts, we feel justified in operating on cases where the patient through his infirmity is incapacitated from pursuing his ordinary occupations or pleasures, or where he is in any way seriously incommoded by his disability.

The very name—Hey's internal derangement of the knee—gives us the claim in Leeds to speak on this subject, for, as is well known, it is due to the surgical acumen of our illustrious predecessor on the staff of the Leeds Infirmary that the attention of the profession was drawn to the subject, and that a method of treatment was pointed out and generally adopted, though Mr. Hey probably never conceived it possible that a time would arrive when we should be able to open the knee-joint, directly examine and ascertain the exact cause of the derangement, and remedy it with almost absolute certainty and safety.

Although, thanks to the kindness of my house-surgeons—Drs. Greenwood, Gough, and Forsyth—I am able to give a record of all the cases of internal derangement of the knee-joint on which I have operated since my first case in 1886, the intention of my paper this evening is to show what a large proportion of the so-called internal derangements of the knee are truly ruptures or fractures of either the internal or external semilunar cartilages, and that, though this accident may occur in many other occupations or in case of any sudden strain on the knee when flexed and suddenly extended, yet it so frequently occurs in miners or quarrymen that it might not inaptly be termed miners' knee. I do not think that the association has been hitherto specially remarked on, though I feel sure that other surgeons will have noted the relationship, and it is probably because Leeds lies so close to a large colliery district that we see so many cases.

The explanation is quite simple, and is dependent on the cramped position in which the miner follows his occupation, either kneeling or with the knees partly flexed. Now flexion and extension of the knee are always accompanied by some rotation, inwards during flexion, outwards during extension, and during flexion the ligaments are relaxed, and the semilunar cartilages alter their relation with the femur and tibia. If any violent or sudden movement occurs, for instance, sudden extension of the joint, the cartilage may be caught in its wrong position and nipped, like a nut between a pair of crackers, with enormous force owing to the length of the levers, leading to its fracture transversely or antero-posteriorly, or to rupture of the anterior or posterior attachment of the coronary ligament.

In by far the greater number of cases of internal derangement, there is a history of some slip or sprain or of some accident more or less severe, as in playing football; but in many cases, as in fact occurs so often in miners, simply extending the knee after flexion in a cramped position is responsible for the rupture.

Although after replacement by manipulation, rest and ordinary treatment soon relieve, and if persevered in sufficiently long may cure, yet in many of these cases relapses occur so frequently that relief by surgical treatment has to be sought.

The operation is one of the simplest—an oblique incision is made from the inner border of the lower end of the patella downwards and backwards, down to and through the synovial membrane, so as to open the joint freely without dividing either the ligamentum patellae or the internal lateral ligament of the knee. If the external cartilage be displaced, then the incision is of course on the outer side of the joint. On retracting the edges of the incision and flexing the knee the displacement at once becomes manifest. To seize the loose portion of cartilage and snip it off by means of scissors is the work of a few moments, after which, the synovial membrane, capsule of the knee, and skin are separately sutured. The whole operation is carried out under the strictest asepsis. It is both unnecessary and inadvisable to insert the finger into the joint or to syringe the articular cavity.

In many of my earlier cases I did not venture to cut away the loose fragment of cartilage, but spent some time in trying to fix it in position by sutures. For several years, however, I have been accustomed to cut away the fractured displaced cartilage, which is frequently so distorted as to no longer represent the semilunar pad that once served a useful purpose.

A sufficient time has elapsed since I adopted this method of treatment to enable me to speak with confidence in stating that in no case has any inconvenience been experienced by the loss of the cartilage, and that the functions of the knee-joint have on recovery been as perfect as before the accident originally causing the disability.

For the completed list of cases I am indebted to my house-surgeon, Dr. Forsyth.

It will be seen that nine of the displacements occurred in miners and quarrymen, and that in nearly all the other cases the cause of the trouble was a violent and irregular movement in the knee. The number of times the external cartilage was injured gives a much larger proportion than is usually acknowledged in textbooks or than is given by recent writers.

The outcome of my experience in this branch of surgery would lead me to advise, in case of any recent injury with signs of internal derangement, treatment of the case as if it were a fractured bone, first replacing it by the ordinary method long ago described by Hey, and then fixing the knee in a splint until all effusion has subsided, afterwards applying a plaster or starch bandage, and allowing the patient either to rest completely for a month or six weeks, or to go about on a Thomas's knee-splint, then securing a return of function in the knee by massage and gentle movement. If after this thorough treatment there should be any tendency to weakness or to recurrence of displacement, I would unhesitatingly advise operation.

If thorough treatment has not been followed out in the first instance, and the patient seeks advice for recurring displacements, I advise operation at once, and, as shown by the list of cases, the operation is one that can be recommended both for its safety and efficacy.

Dr. Forsyth has furnished me with the reports of my cases of detached cartilage in the knee, along with the fractures, and I am venturing to publish them with the special cases under discussion, which they resemble in many respects. They afford a means of comparison, and do not confuse the issues.

Of the 33 cases operated on:
21 were for fractured cartilages.
4 were for loose cartilages
8 were for loose bodies in the knee-joint.
In 21 cases the internal cartilages were affected.
In 4 cases the external cartilages were affected.
In 1 case both internal and external were displaced.
In 20 cases the fractured cartilage was excised, my first excision being January 29th, 1880.
In 5 cases the displaced cartilage was sutured.

In only 7 of the cases was there no history of injury, and all these, except one of loose cartilage in a woman, were cases of detached bodies in the joint. In all the semilunar cartilage cases except one, there was a clear history of injury. Nine of the patients were miners. All except one were men, mostly quarrymen or labourers.

CASE 1.

Displaced External Cartilage Sutured.

G. S., aged 17, dyer, Earlsheaton. Admitted February 18th, 1885, with

weak knee. Says it first began to trouble him about two years ago. Knee used to let him down when walking. No history of injury. Patient also had tuberculous hip disease on same side (left).

Operation (February 23rd).—Tourniquet applied and limb semiflexed. Horizontal incision just above head of tibia on outer side. Joint opened and explored with finger. External cartilage found to be loose and much hypertrophied. It was stitched by catgut sutures to the periosteum of the head of the tibia. Joint drained. Wound healed well. The patient came into the infirmary in September of same year. The head of the femur was excised for the tuberculous disease. The knee was quite well.

CASE II.

Fractured Internal Cartilage Sutured.

J. M., aged 48, joiner, Leeds. Was kneeling at his work August 25th, 1885, when suddenly he felt pain in his left knee. The pain returning, he came to the infirmary and was admitted with a diagnosis of dislocated semilunar cartilage which was reduced under ether. He went out wearing an elastic kneecap, but returned a week later complaining of pain in the left knee, which was manipulated under ether, and he was discharged wearing a leather kneecap. Patient came into infirmary again on October 2nd, 1888. He complained of acute pain while kneeling, and of being unable to straighten the limb on rising. Knee was partly flexed. Reduction attempted but not successful.

Operation (October 4th).—Semilunar incision across inner side of knee at level of upper border of tibia. Joint opened. Internal semilunar cartilage found to be fractured and displaced. Cartilage only attached at its anterior part. Upon this, as a pivot, the whole cartilage was rotated outwards, so that the inner part of the upper surface of the tibia (normally covered by cartilage) was bared. In addition, the posterior end of the cartilage was turned over upon the anterior. Cartilage was placed in normal position and stitched to head of tibia. Wound healed well. Patient went out wearing Thomas's knee splint. When heard of later he was quite well.

CASE III.

Ruptured External Cartilage Excised.

J. S., aged 26, labourer, Low Wortley. He injured his knee while playing football six years before (January 29th, 1889). Since then he had pain in the knee when walking, the knee very often letting him down.

Operation.—Incision made over outer side of knee, joint opened, loose external cartilage found and removed. Wound healed by first intention. Good recovery.

CASE IV.

Loose Bodies in Joint.

J. R., aged 38, seaman, Goole. Admitted November 13th, 1890, with swelling of right knee. Two years before he had an injury to the right knee. He was laid up for sixteen weeks, and then went back to work. Pain became worse, and a sudden pain in the kee from time to time used to cause him to fall. General fullness about the knee joint, the hollows being filled up. At the inner side of the joint there was a distinct swelling about the size of a cocoanut. It fluctuated and seemed to communicate with the joint.

November 27th. Swelling above the knee aspirated on inner side. Nothing withdrawn. From outer side 4 oz. of yellowish thick fluid were taken. A solid body about as big as a hen's egg could then be felt within.

December 4th. Incision made on inner side of joint. Joint opened. Three fibrous masses found within: one, 2½ by 2¾ in., one as big as a small nut, the other 1½ in. 1¾ in. After the loose bodies were removed the joint was closed round a drainage tube. Good recovery.

CASE V.

Loose Body.

T.S., age 25, draper, Bridlington. No history of injury. First noticed the left knee to be stiff about two years ago. About 18 months ago he felt something loose move about in his joint. The knee became very much swollen at times, and he was then unable to walk.

Present Condition (November 24th, 1891).—Limited movement in knee which becomes locked if moved much. Loose body felt at inner side of knee and by working the knee he can make it evident to the touch.

November 23rd. Patient having worked the loose body from the interior of the joint it was fixed by a needle and excised. Good recovery.

CASE VI.

Loose Body in Joint.

W.L., aged 25, miner, Rothwell, admitted January 11th, 1892, complaining of inability to freely use his right knee, with occasional pain in it. No history of injury, but states that he has been working for some time in a thin seam—2 ft. by 9 ft. This necessitates the whole of his work being done on his knees. He first had pain in his knee about ten weeks before admission. The knee swelled at times after much usage, but went down with rest. Six weeks ago he first felt the sensation as if something loose were in the joint.

Present Condition.—On admission the knee was not swollen. A looser body could be felt to project from the joint at the outer and upper border of the patella.

Operation.—Incision made along outer side of the patella for about 1½ in. over the loose body which was expressed from the joint. Its appearance gave the impression that it had been broken off the articular cartilage. Good recovery. Cured.

CASE VII.

Loose Body in Joint.

W. W., aged 22, grocer's assistant, Thirsk, admitted August 24th, 1892, complaining of something hard in left knee-joint. Was operated on at Thirsk three months ago, when a hard, round, white body was removed from inner side of knee-joint.

Present Condition.—On manipulation, a small, hard mass can be made out just above outer border of patella. It easily slips back.

Operation.—Incision over mass, which was expressed. It was a white cartilaginous structure about the size of a large bean. Healed by first intention. Cured.

CASE VIII.

Fractured Internal Cartilage Excised.

J. T., aged 52, watchmaker, Wakefield, admitted February 25th, 1893, with pain in left knee-joint and inability to extend it. Three years ago he received a severe blow upon the inner side of the left knee-joint with a cricket ball; there was no swelling, however. Since then, if patient has turned suddenly or knelt down, the knee has suddenly given way and been painful for a time. Sometimes he has been unable to straighten the leg except by forcibly moving it.

Present Condition.—Knee slightly flexed; hamstrings tense; no apparent abnormality. Painful spot just above margin of internal tuberosity of tibia close to the edge of the patella. The joint cannot be fully extended.

Operation.—Incision made along margin of internal tuberosity of tibia. Internal semilunar cartilage ruptured anteriorly and posteriorly. Intervening portion, which was loosely attached to tibia, was removed. The limb was then manipulated, but the remaining portions of the cartilage curled up into lumps, which prevented the joint from being fully extended; these portions were therefore also removed. Wound healed by first intention. Patient cured.

CASE IX.

Loose External Cartilage Sutured.

S. E., aged 22, labourer, Carlton, admitted October 25th, 1894, complaining of pain in the left knee. No history of injury. Had pain in joint for two years. Sometimes he noticed clicking in joint on bending. Knee often let him down. Much worse during last six weeks.

Present Condition.—Knee joint appear normal. Patient can flex the joint well, but on extension just before the limb is straightened, a loud crack is heard and the patient has the sensation as if something had slipped. On placing the finger on the outer side of the joint over the position of the external semilunar cartilage something can be felt to slip everytime the joint is flexed or extended.

Operation.—Incision on outer side of joint. External cartilage found to be loose. Stitched in position. Wound closed, healed by first intention. Patient cured.

CASE X.

Loose Body in Joint.

J. A., aged 29, dyer, Bramley, admitted June 25th, 1896, complaining of something loose in his knee joint.

Three weeks previous to his admission when patient was going down stairs his right leg suddenly gave way and he fell down. He afterwards had great pain in the joint. The knee let him down several times afterwards.

Present Condition.—A small hard body can be felt sometimes on the inner side of the knee above the patella. When it is pressed it passes into the joint.

Operation.—Vertical incision made on the inner side of the joint. Loose body found and removed. It appeared to be part of the articular cartilage. Wound closed. Patient up on July 9th. Could walk well.

CASE XI.

Fractured Internal Cartilage: Excision.

M. D., aged 26, grocer's assistant, Wakefield, injured his knee at football nine years ago. He was able to walk home after the accident, but was in great pain and unable to completely straighten his leg. He was treated by rest, bandages, and extension. Since then he has had frequent attacks of sharp pain in the knee. A small lump appears at the inner part of the joint. The limb remains flexed, and is only straightened with considerable pain and difficulty.

Present Condition.—November 4th, 1897. There is no swelling or evidence of fluid in the joint. The cartilage cannot be felt.

Operation.—Oblique incision on inner side of joint. Coronary ligament found very lax. Internal cartilage found splintered into several pieces, having loose aponeurotic attachment to each other, and all freely movable within the joint. The loose pieces of cartilage were all removed. Wound healed by first intention. Patient cured.

CASE XII.

Fractured Internal Cartilage: Excision.

W. L., aged 36, boiler maker, Leeds. Fourteen weeks previous to admission, on May 20th, 1897, he slipped on a grate. He fell with his right knee under him, and was unable to walk afterwards.

Present Condition.—On inspection, a slight swelling is observed just below and internal to right patella. On attempting to completely flex the knee upon the thigh, patient suffers great pain. Just as knee is regaining its normal position something is felt to slip within the joint.

Operation.—Incision on inner side. Synovial membrane found, injected and pulpy, especially towards the anterior part. The internal semilunar cartilage was found to be fractured anteriorly. This portion which was loose was removed. It was 1¼ in. long, and ¾ in. broad. Wound closed. Healed by first intention. In answer to letter, December, 1901, "As well as ever I was. No further trouble. No limp."

CASE XIII.

Fractured Internal Cartilage: Excision.

J. B., age 26, miner, Morley, admitted July 1st, 1897, for injury to the right knee. He was playing football on October 24th, 1896, when a player fell across his right knee knocking him down. He was unable to walk, and had to take to his bed for eight or nine weeks. He tried to walk after Christmas, but he had little use in the limb. He has pain on inner side of knee which is aggravated by walking.

Present Condition.—Wasting of thigh. No fluid in joint. On complete flexion upon thigh patient experiences a sharp, stabbing pain. On extension, especially when nearly complete, something is felt to click. Nothing can be made out on palpation.

Operation.—Incision on inner side. Synovial membrane inflamed. Anterior portion of internal cartilage fractured and doubled back upon posterior. This fractured portion was removed. Length, 1¼ in., breadth, ¾ in. (same as in above case). Healed first intention. Patient cured.

CASE XIV.

Fractured External Cartilage: Excision.

W. H. R., aged 22, fitter, Wakefield, first hurt his knee while kneeling at his work six years ago. On getting up he was unable to walk, as his knee pained him so much. Two years later he slipped going down an engine room ladder.

Present Condition (July 7th, 1898).—The knee is slighly fuller than the other. There is no limitation of movement. Nothing abnormal to be felt.
Operation.—External incision. Anterior portion of external cartilage found fractured. This portion removed. Wound closed.

CASE XV.
Loose Body.

T. C., aged 26, miner, Normanton, received a blow three weeks ago on the right knee-cap, falling down and twisting the leg, which bent under him. He had severe pain on outer side of joint. He continued at his work for four days, but was then obliged to "knock off and go and see a doctor."
Present Condition (October 20th, 1898).—Mass as big as a cherry can be felt in joint.
Operation.—Internal incision. Joint opened. Foreign body expressed. In size about as big as an almond. Wound closed, healed by first intention. Patient up on eleventh day. Cured.

CASE XVI.
Fractured Internal Cartilage: Excision.

E. I., aged 22, miner, Rotherham, admitted December 15th 1898, complaining of locking of his knee on bending it. Patient was hit on the left knee by a large lump of coal about four months ago. He had pain for several days, and on the third day after the accident, when he attempted to bend the knee, it locked. This has occurred very frequently since. At first he could "unlock" the knee easily; but this has become more difficult, until on December 11th it remained locked two and a-half hours before he could straighten the leg.
Operation.—Internal incision. Joint opened. Internal cartilage found detached. Only fixed at extremities. The detached portion cut away. Joint closed. Would healed by first intention. Patient cured. In answer to letter of inquiry December, 1901, "Well; no further trouble; no limp."

CASE XVII.
Fractured Internal Cartilage Excised.

W. W., aged 29, coremaker, Leeds, in his employment has a great amount of kneeling. He never to his knowledge knocked, strained, or twisted his knee. About four months before (January 21st, 1899), when trying to get up from his knees he had great pain in the left knee which prevented him standing on that leg. The knee was always flexed when he had the pain. Knee has several times let him down. He has worn an elastic kneecap and a plaster bandage, but they have not done him any good.
Operation.—Inner incision. Internal cartilage found ruptured in middle. Anterior portion very loose. Cut away with scissors. Wound closed. Healed by first intention.

CASE XVIII.
Fractured Internal Cartilage Excised.

W. R., aged 49, engineman, Leeds, admitted March 2nd, 1899, complaining of attacks of pain in the knee, followed by swelling. Patient first felt the pain on October 25th, 1898. He was attending to his engine, and on suddenly straightening the knee on rising from a crouching position he struck it against a rail. He had severe pain in the joint, with inability to bear the slightest weight on it, in fact he fell over. The knee was considerably swollen within an hour. The swelling went down with rest in a fortnight. The same thing has occurred three times since, the last time being on February 15th.
Present Condition.—No swelling of the affected joint. On moving the joint slight creaking can be felt. Movement causes no pain. There is marked tenderness just above the inner tuberosity of the tibia, but nothing abnormal can be felt.
Operation.—Incision on inner side of joint. Internal cartilage found to be free from coronary ligament in its middle third, and fractured at junction of posterior third with anterior two-thirds. The anterior two-thirds was removed. Joint closed. Wound healed by first intention. Patient cured.

CASE XIX.
Loose Body: Early Osteo-arthritis.

J. W. S., aged 21, cabinet maker, Kirby Moorside. He first had trouble in the knee in January, 1898. While playing football he began to have shooting pains in the joint. Thought it was cramp. In March he had his knee twisted, swelled considerably afterwards, and he was laid up for fourteen days. Had several attacks since.
Present Condition (March 23rd, 1899). Joint is slightly swollen, puffiness at sides of ligamentum patellae. When he flexes his knee a body is forced out from interior of joint, and can be made to travel about anywhere. It feels to be about the size of a small hazel nut.
Operation.—Joint opened on inner side. Loose body felt. In attempting to remove it it slipped into synovial pouch in upper part of joint. With difficulty it was brought into the wound and extracted. The synovial membrane was found rather inflamed, and the edges of the cartilages were lipped. In fact the condition resembled that met with in early osteo-arthritis. The loose body was irregularly oval, ¾in. long at diameter. It was creamy white in colour, and of consistence of hyaline cartilage. Wound closed. Healed by first intention.

CASE XX.
Fractured Internal Cartilage.

G. N., aged 26, miner, Allerton Bywater, admitted November 10th, 1899. On June 15th, while working, he slipped and fell backwards. His left knee was violently flexed, and bore the weight of the whole body. He says he felt something tear, and he had acute pain in the knee immediately. The knee soon became red and swollen, and was very tender. Several times after he had pain in the joint, with swelling.
Operation.—Incision on inner side. Internal cartilage found fractured longitudinally. On flexing and extending the joint the inner part was seen to catch between the articular surfaces. The fractured portion was removed, and the corresponding part of cartilage which remained was also snipped away. Joint closed.

CASE XXI.
Fractured Internal Cartilage: Excision.

G. R., aged 27, miner, Morley. Nine weeks before admission, on November 30th, 1899, when working in the pit he caught his foot against a rail, and sprained his knee. Since then the joint has been weak, and has let him down on many occasions. After the fall the knee is "locked." He can straighten it by fully flexing the leg on the thigh, and gradually extending the joint.
Present Condition.—On manipulating the joint a click is felt.
Operation.—Incision on inner side of joint. Internal cartilage found to be fractured along inner margin. Inner loose portion removed. Wound healed by first intention.

CASE XXII.
Fractured Internal Cartilage: Excision.

S. S., aged 41, miner, Featherstone, admitted January 4th, 1900, complaining of pain in the right knee and inability to completely extend the right knee since the accident. On May 16th he was walking down a steep incline in the coal pit. He slipped, and was then thrown violently forwards. The right knee was flexed, and he fell with his whole weight upon it. His knee struck an iron rail. On attempting to rise he found he could not straighten the limb, and it remained bent until an ambulance man forcibly extended it. Patient took to his bed, and has not been to work since.
Operation.—Internal cartilage found fractured longitudinally. This part removed. Wound healed by first intention.

CASE XXIII.
Fractured Internal Cartilage: Excision.

J. C., aged 50, farm labourer, York, admitted January 18th, 1900. In October, 1899, he was standing on a heap of turnips, when he slipped and injured his right knee.
Operation.—Joint opened by vertical incision on inner side. Internal cartilage found fractured and twisted into the joint. The projecting part was removed. Wound closed.

CASE XXIV.
Ruptured Coronary Ligament: Loose Internal Cartilage: Excision.

H. L., aged 20, fireman, Barnsley, admitted April 4th, 1900. About Christmas, 1899, he was attempting to kick a nail in the wall about four feet from the ground. He missed the nail and fell backwards. He was immediately attacked with acute pain in the left knee. The joint quickly swelled, and remained so for about twelve days. He has had several attacks since.
Present Condition.—Clicking felt on moving the limb. Tenderness on inner side of joint.
Operation.—Vertical incision on inner side. Joint opened. Internal semilunar cartilage found separated from coronary ligament. On moving joint it slipped between the bones. The cartilage was cut away with scissors. Wound closed. Healed by first intention.

CASE XXV.
Displaced Internal Cartilage Sutured.

M. A. L., aged 44, Idle, first noticed pain in her knee about five years ago. No history of injury. Since then the knee has let her down several times. Knee has never been swollen.
Present Condition (June 28th, 1900).—Knee moves well. Nothing abnormal can be seen or felt. No tenderness: no loose body.
Operation.—Vertical incision on inner side; internal cartilage found to be very loose. Securely stitched to internal lateral ligament. Wound closed; healed by first intention.

CASE XXVI.
Fractured Internal Cartilage: Excision.

J. R., aged 39, joiner, Skipton, four years before admission, September 20th, 1900, slipped on a plank. Since then he has always been troubled by weakness of the right knee. Something "slips out of place."
Operation.—Internal cartilage found detached anteriorly. Anterior two-thirds removed. Wound healed by first intention.

CASE XXVII.
Fractured Internal Cartilage: Excision.

B. B., aged 29, labourer, Barnsley. Twenty weeks before admission (November 19th, 1900) he fell into a coke oven and injured his left leg. He was treated by a doctor at home but the knee remained weak.
Operation.—A portion of the internal semilunar cartilage, which was found fractured, was removed. The wound healed by first intention.

CASE XXVIII.
Fractured Internal Cartilage: Excision.

F. D., aged 22, quarryman, Hillwith Bridge, admitted on December 17th, 1900, complaining of pain and swelling of right knee. Injured his knee twelve months ago while playing football. While the leg was extended in the act of kicking the ball, a man charged him and fell across the leg. The knee swelled immediately, and for a fortnight patient was unable to bend his leg. He then returned to work, but several times since, on slightest twisting of leg, the swelling has returned.
Present Condition.—Knee swollen. Distinct fluctuation. Tenderness on pressure on inner side of patella.
Operation.—Joint opened by oblique incision. Anterior portion of semilunar cartilage which was fractured was removed. On inner condyle of femur a small area was seen devoid of cartilage. Wound healed by first intention.

CASE XXIX.
Loose Body.

J. L., aged 17, soldier, Wakefield, admitted complaining of pain in the left knee letting him down suddenly. The knee was injured while playing football fourteen months previous to admission. He fell upon the leg which was bent outwards. He had severe pain at the time and was unable to walk. He was taken to a local hospital and was an inmate for over five weeks. When discharged he was unable to straighten the leg and could not walk properly, the toes only touching the ground. With rest, hower, he was able to get about wearing an elastic knee cap. Since then the knee has let him down three times, once while walking in the street and twice in the barrack room.
Present Condition.—Complained of pain in the joint. He states that he often feels two small bodies like marbles which come down on each side of the patella and cause him pain. He is able to push them back (they

never come down together?—as to one or two). Some puffiness below patella. Grating felt on moving joint. Movement limited.

Operation.—Loose body brought down on inner side of joint. Incision made over it and body expressed. Found to be of size and shape of an almond. White and cartilaginous in nature and highly polished. Wound closed.

After-History.—Patient came up to out-patients for some time. He very soon walked with the quick military step.

CASE XXX.

Loose Cartilages, Internal and External: Excision.

J. H., aged 39, miner, Grimethorpe, admitted March 20th, 1901, complaining of pain and swelling on inner side of right knee. He states that on December 27th, 1900, he slipped with his leg under him. The joint began to swell immediately after. Could not bend the knee or bear any weight on the leg. Doctor called in who moved the leg freely. Made patient keep the leg straight for some time supported by sling from shoulder, the patient going about on crutches. Had several attacks since. Been unable to work, as leg did not support him.

Present Condition.—Much swelling of joint. Enlarged semi-membranous bursa. Swelling considerably diminished with rest in bed. By March 26th the two knees were the same size. There was pain over the outer side of joint. On flexing the knee the leg becomes locked. A grating sensation is felt on moving the knee.

Operation.—Joint opened on inner side by oblique incision. Synovial membrane found to be inflamed. Internal cartilage found to be more mobile than normal, but there was no fracture. Similar condition of synovial membrane and cartilage on outer side, cartilages stitched down to head of tibia. Joint closed. Wounds healed by first intention. Complete recovery.

CASE XXXI.

Fractured Internal Cartilage: Excision.

H. P., aged 24, miner, New Marske, admitted August 8th, 1901, complaining of attacks of pain in left knee. Eighteen months ago he had his knee injured by a fall of earth in the pit. The knee swelled up, and he was unable to walk for three weeks. Since then it has never been strong, and he has been subject to attacks of severe pain and swelling.

Present Condition.—Left knee swollen. Contains some fluid. Tenderness over inner side of joint.

Operation.—Oblique incision. Internal cartilage found fractured at junction of middle and posterior thirds. Fractured portion removed. Coronary ligament noticed to be ruptured. In response to letter, December, 1901: "As well as ever; no further trouble; no limp."

CASE XXXII.

Fractured Internal Cartilage: Excision.

A. S., aged 31, quarryman, Morley, admitted on October 7th, 1901, complaining of his right knee letting him down. Six months ago patient, when walking at ordinary pace, felt a "click" in his knee, accompanied by very sharp pain. He found his leg was bent, and was only able to straighten it by great effort, when the clicking was noticed again. The joint began to swell soon after; has pained him since. This letting down has recurred at frequent intervals. The last attack was a month ago.

Present Condition.—Knee swollen, especially on inner side. Has slightly inflamed appearance. At beginning of flexion and completion of extension there is soft crepitus. Some fluid. No thickening of synovial membrane. There is slight springing on pressing suddenly on extended limb.

Operation.—Oblique incision into joint. Excess of fluid. Synovial membrane reddened. Internal cartilage found fractured at junction of middle and posterior thirds. Anterior portion removed. Wound closed. He had some pain in the joint after operation with some elevation of temperature on fifth day. Dressed on seventh day, and wound found healed. Joint contained much fluid and was tender. Then temperature began to run higher, and swelling increased. Joint incised on outer side on eleventh day. Turbid fluid evacuated. Cavity syringed out with 1 in 6,000 biniodide solution, and then with saline solution. Tube inserted for two days. Inflammation soon cleared up. The fluid contained diplococci. Patient discharged on November 16th.

After-History.—Seen on December 28th at infirmary. Leg quite well. Able to walk without any trouble or pain. Considerable movement in leg, but full flexion not yet complete. No clicking.

CASE XXXIII.

Fractured Internal Semilunar Cartilage: Excision of Cartilage.

Three years ago was thrown at football, and hurt his left knee. Synovial effusion followed, and he rested for two or three weeks. Since the accident he has been subject to something slipping in the joint, leading to synovitis, of which he had had eight distinct attacks.

Present Condition.—Great wasting of muscle of left thigh. No effusion in joint. Tenderness over the internal semilunar cartilage felt.

Operation, June 15th, 1901.—Oblique incision. Transverse fracture of internal cartilage found. Both ends removed by scissors. Healed by first intention.

December 21st.—Letter to say knee quite well, and muscles have regained their former size.

THE METRIC SYSTEM IN AMERICA. A Bill to adopt the weights and measures of the metric system as the standard for the United States has been favourably reported by the House Committee on Coinage, Weights, and Measures. It provides: "That after January 1st, 1904, all the departments of the Government of the United States in the transaction of all business requiring the use of weight and measurement, except in completing the survey of public lands, shall use only the weights and measures of the metric system, and after the first of January, 1907, the weights and measures of the metric system shall be the legal standard weights and measures of and in the United States."

THE COMPOSITION AND NUTRITIVE VALUE OF BILTONG.

BY W. D. HALLIBURTON, M.D., F.R.S.,
Professor of Physiology, King's College, London.

IN July, 1900, Major F. A. Saw, R.A.M.C., sent to the Editor of the BRITISH MEDICAL JOURNAL some samples of biltong from South Africa, accompanied by a letter from which the following are extracts:

The biltong was made from some kind of buck, probably the hoodoo. It has not changed since I bought it about a year ago. The Boers scrape it with a knife. When grated on a nutmeg grater it is much more palatable than you would imagine from its appearance. I have never seen an analysis of biltong in any book, and I think if you can get one made it might be of interest to the profession generally.

Shortly after this the Editor sent on the specimens to me, but pressure of other work has prevented my attending to the analysis until recently. The material has kept quite well all this time; its appearance is certainly not appetizing; the strips of dried meat look very much like leather thongs. I have had it reduced to powder by means of a nutmeg grater, and the grated biltong has been kept in well-stoppered bottles. The powder from various pieces has been thoroughly mixed together, so that samples taken for analysis may give a more correct average. Although I have not actually tasted it, I can confirm Major Saw's statement that the grated material has not the unattractive appearance of the original strips.

In W. L. Sclater's *Fauna of South Africa*[1] the following account of the manufacture of biltong is given:

The great trek-bokken, a periodical migration, is still to be witnessed in portions of Cape Colony. In 1896, for instance, on the borders of the Prieska and Hope Town divisions, the trekking spring-boks completely covered an immense extent of country, their numbers being estimated at the very lowest computation at 500,000 head. During the trek an enormous destruction takes place; all the neighbouring farmers and their people turn out and kill thousands, the skins are cured, and the flesh made into biltong, or sun-dried and cured meat for future consumption.

In carrying out the analysis I have received assistance from Miss M. Christine Tebb, Mr. C. H. Barber, B.A., and Mr. W. E. Blackall, B.A., whom I have to thank for their valuable aid. Messrs. Barber and Blackall carried out the preliminary grating and mixing of the material, the estimation of the proportion of water and solids, of inorganic and organic solids, and the examination of the ash. The estimations of nitrogen and of fat, and the experiments relating to artificial digestion, were executed by Miss Tebb.

It will not be necessary to enter fully into all the methods adopted which were the ordinary ones commonly in use. But before giving a statement of results, I purpose giving a brief account of the analyses in a few cases. In all cases two, and sometimes three, analyses were made and the numbers given represent the average.

Proportion of Water and Solids.

Fresh meat roughly contains 75 per cent. of water. The small amount of water found in the biltong shows how very effective sun-drying is. When the total solids had been weighed after drying to constant weight at 110° C., the residue was incinerated, and the ash weighed; the organic solids are obtained by subtracting this from the total solids. The following are the figures obtained:

Water	19.41	per cent.
Total solids	80.59	,,
Inorganic solids	6.592	,,
Organic solids	73.998	,,

Constituents of the Ash.

The inorganic solids were examined qualitatively, but only a rough quantitative examination of them was made. Phosphates are the most abundant salts, then chlorides, while sulphates are present in quite small amounts. The metals present are potassium and sodium, and of these potassium is the more abundant. Calcium and magnesium are present in only small quantities, and of the two, magnesium is the more abundant; traces of iron are also found.

The organic solids are of more interest, and were examined in greater detail.

Nitrogen Determinations.

The fresh biltong was found to contain 12.445 per cent. of nitrogen; this corresponds to 15.445 per cent. of the dry material. Bernard Dyer's very simple modification of Kjeldahl's method was used.

Biltong after thorough extraction with alcohol contains less nitrogen; in the calculations this is taken to represent the proteid nitrogen[2]: the nitrogen which is present in the form of extractives soluble in alcohol is found by subtracting this from the total nitrogen. The following are the figures obtained:

	Parts Per Cent. in	
	Fresh Biltong.	Dry Material.
Nitrogen from proteids—Analysis 1	11.080	13.750
,, ,, Analysis 2	11.130	13.810
,, Average	11.105	13.780
Total Nitrogen—Analysis 1	12.440	15.440
,, Analysis 2	12.450	15.450
,, Average	12.445	15.445
Nitrogen in extractives—Average	1.340	1.665

The percentage of proteid calculated from the nitrogen is 65.866 for the fresh biltong, or 81.732 per cent. of the total solids

Estimation of the Carbohydrates.

The carbohydrates (sugar and glycogen) were estimated by making hot aqueous extracts of weighed quantities of the biltong. The successive extracts were mixed together and then concentrated. Sugar was estimated in this by Fehling's solution. Another portion of the solution was then treated with sulphuric acid and another sugar estimation made. The increase of sugar was taken as the basis for calculating the amount of glycogen.[3] The fluid gave the iodine test for glycogen, though it was not markedly opalescent. The large proportion of glycogen present is an indication of the rapidity of the drying produced by the South African sun.

The mean figures in percentages of the fresh biltong are:

Sugar	0.090
Glycogen	0.133
Total carbohydrate	0.213

Estimation of the Fat.

The numbers given as fat represent the quantity of material extracted by ether in a Soxhlet's apparatus. After a first extraction in this way the remaining undissolved material was subjected to gastric digestion[1] and again extracted in a Soxhlet's apparatus. The numbers that follow represent the total amount of ethereal extract before and after gastric digestion. They are:

Analysis 1	5.26 of fat per cent.
,, 2	5.02 ,, ,,
Average	5.14 ,, ,,

This number (5.14) is the percentage of fat in the fresh material; it corresponds to 6.477 per cent. of the dry residue. This is a fairly low number; the Boers evidently select lean strips of meat for the preparation of the material; there is an absence of greasiness in the grated biltong.

Composition of Biltong.

Putting all these facts together we can now present the following table. The other organic substances which were not estimated are roughly grouped together as extractives, and their amount is obtained by subtracting the sum of the solids estimated from the total.

Water	19.410 per cent.
Solids	80.590 ,,
Inorganic solids	6.592 ,,
Organic solids	73.998 ,,
Proteids	65.866 ,,
Fat (ether extract)	5.140 ,,
Glycogen	0.133 ,,
Sugar	0.090 ,,
Extractives (by difference)	2.769 ,,

Digestibility of Biltong.

The preceding figures show that chemically biltong is a valuable food; the loss of water by rapid drying renders it portable and concentrated. The large percentage of proteid points especially to its high nutritive value. Experience, moreover, has shown that it is not prone to undergo decomposition.

But mere chemical analysis is never an absolute criterion of the nutritive value of any food material, unless at the same time experiments to determine its digestibility are made also. There are many preparations which, from the chemical point of view, are highly nutritious, but which are really comparatively valueless, because their indigestibility renders it difficult for the body to utilize them.

The most satisfactory experiments from this standpoint are those performed *in vivo* upon animals, or, better still, upon man himself. Here the food taken in must be carefully analysed, the excreta thoroughly examined, and the body weight, etc., observed. We are not aware that such experiments have ever been performed with biltong, and the small amount of material at our disposal prevented us from performing them. Still, although experiments of this nature made with scientific exactitude are lacking, an experiment on a vast scale *in vivo* is being made in South Africa, where the Boers, and to some extent our own troops, use biltong as their staple meat food. This experiment has shown that biltong at any rate possesses no marked disadvantages as an article of diet.

We have necessarily been limited to experiments made *in vitro* with artificial gastric and pancreatic juices. As a rule such experiments form a good guide to what occurs in natural digestion.

We found, as one would anticipate from *a priori* considerations that biltong is readily digestible in both varieties of artificial juice, and we can therefore safely say that it is a valuable and nutritious food.

Numerous observers have pointed out that various forms of cured meat are less easily digested than fresh flesh: the same is true for cooked meat. But the natural digestive juices of healthy people are sufficiently powerful to overcome this disadvantage.

It was therefore a matter of interest to see quantitatively whether this is also the case for biltong.

We took the usual standard of comparison, namely, fibrin. This was first dried at 40°C. until it became something like biltong in appearance; it was powdered and kept in stoppered bottles from which samples were taken for analysis (determination of water and solids), and for artificial digestion experiments.

Approximately equal weights (usually about 1 gram) of the fibrin and biltong were taken; each was subjected to the action of the same amount of artificial juice; at the end of a given time, the residue was collected, washed, dried and weighed. The numbers given are percentages of the dry residue in proportion to the dry material of the original substance.

Experiment 1.—Digestibility of fibrin and biltong in artificial gastric juice compared: the digestion was stopped at the end of forty minutes, the temperature of the warm bath in which digestion took place was 38° C. At the end of this time 0.60 per cent. of the fibrin, and 7.91 per cent. of the biltong remained undigested.

Experiment 2.—Repetition of experiment 1; time of digestion thirty-five minutes—1.86 per cent. of the fibrin and 10.37 per cent. of the biltong remained undigested.

Experiment 3.—In this experiment artificial pancreatic fluid was employed instead of gastric juice. At the end of thirty-five minutes 2.76 per cent. of the fibrin and 7.40 per cent. of biltong remained undigested.

These experiments show that more residue occurred in all cases when biltong was used. The comparison, however, is not perfectly fair, because fibrin is a nearly pure proteid, and biltong contains a considerable proportion of solids which are not proteid in nature; this will in part account for the comparatively large residue. The difference is not so marked in the case of pancreatic digestion; this is what one would expect.

A further experiment was therefore made in which the digestibility of biltong was compared with that of another form of flesh. Miss Tebb had in stock some rabbit's muscle, which had been dried at a low temperature (30° C.) and subsequently powdered. This contained 10 per cent. of water.

Experiment 4.—Gastric digestion of dried rabbit's muscle compared with that of biltong. Time of digestion 45 minutes. At the end of this time 3.63 per cent. of the rabbit's muscle remained undigested and 13.50 per cent of the biltong.

We here see that the digestibility of the biltong is less than that of rabbit's muscle; this probably indicates that the tropical sun had some coagulating influence on the proteids of buck's flesh.

After all, however, biltong is readily digestible, and a residue of even 13 per cent. is by no means large for a brief digestion in a flask. As stated before, digestion *in corpore* is more effective, and so our experiments, both from the

chemical and physiological standpoints, show the valuable nutritive properties of the substance under investigation.

NOTES AND REFERENCES.

[1] London: R. H. Porter. 1900. [2] The number so obtained was used for calculating the amount of proteids on the basis of Chittenden's (*Zeitschr. f. Biol.*, vol. xxv, p. 358) analyses of myosin, which showed it to contain 16.86 per cent. of nitrogen. [3] Probably what is taken as glycogen includes also intermediate substances between glycogen and dextrose. [4] Dormeyer (*Pflüger's Archiv*, vol. lxi, p. 341, lxv, p. 90) has pointed out the importance of this precaution. If gastric digestion is omitted, all the fat is not extracted.

FOUR CASES OF RODENT ULCER TREATED BY X RAYS.

BY JOHN WILLIAMSON PUGH, M.D.LOND.,
Brighton.

THE following cases of rodent ulcer successfully treated by *x* rays are placed on record, as the number of such cases hitherto published is very small. The treatment is so successful



Fig. 1.—A.

that if applied at an early stage the ravages of this disease ought to be almost completely prevented. The danger of dermatitis is almost absent if the treatment is carried out under proper supervision, including an efficient arrangement of masks. There can be little doubt that the exaggerated fears of dermatitis which prevail have led to this efficacious form of treatment not being utilized to anything like the extent which it deserves, and which is desirable in the best interests of the patients. As a matter of practical detail I do not advise a sitting beyond fifteen minutes for cases of rodent ulcer. I am, however, at present giving longer sittings for a patient suffering from carcinoma of the breast, for which operation has been refused, special precautions being taken in this case against dermatitis. There can be no doubt, in my opinion, that the *x* rays have a marked destructive effect upon lowly organised and rapidly growing cells, as seen in the following cases of rodent ulcer and in recorded cases of ulcerating carcinoma. I have applied the same treatment to boils, and in several instances have noticed that the course of the suppuration was much curtailed.

CASE I.—Mr. S., aged 70, gardener, for his time of life enjoys very good health.

History.—Three years ago a small pimple was noticed on his left cheek. A year later he struck the pimple when chopping wood, and from that date it began to grow and ulcerate, and also to pain him at times.

State on Examination.—At the beginning of December, 1900, the ulcer was nearly circular, about an inch in diameter, the edges considerably raised (one sixteenth to one-tenth of an inch) and depressed in the centre (crateriform). The discharge was blood stained.

Treatment.—I commenced treating him with the *x* rays on December 11th, 1900, using a coil which gave a 10-in. spark, and was worked by a 12-volt battery. At first the rays were applied for 5 minutes twice a week, keeping the ulcer 6 in. from the focus tube. The face was covered by a mask of lead foil with a hole opposite the ulcer. The time of exposure was gradually increased to 10 minutes, and the tube was brought within 4 in. of the ulcer.

Progress.—Up to the middle of January, 1901, there was not much encouragement; at that time the ulcer was a little smaller and the edge not quite so raised.

On February 11th, and up to the 18th, I gave him a daily sitting of ten minutes, and by that time the mask had become too small through the edges tearing away, and thus the greater part of the right side of the face was exposed to the rays. The result was that the patient had a sharp attack of dermatitis over the exposed part, but the effect on the ulcer was most marked. The discharge and pain almost ceased, and the edge was considerably reduced. Lotio plumbi c. op. was applied and the dermatitis rapidly disappeared. From February 18th to March 11th the rays were applied every other day, the edge gradually disappeared, the ulcer acquired a healthy appearance, and healed up from the sides

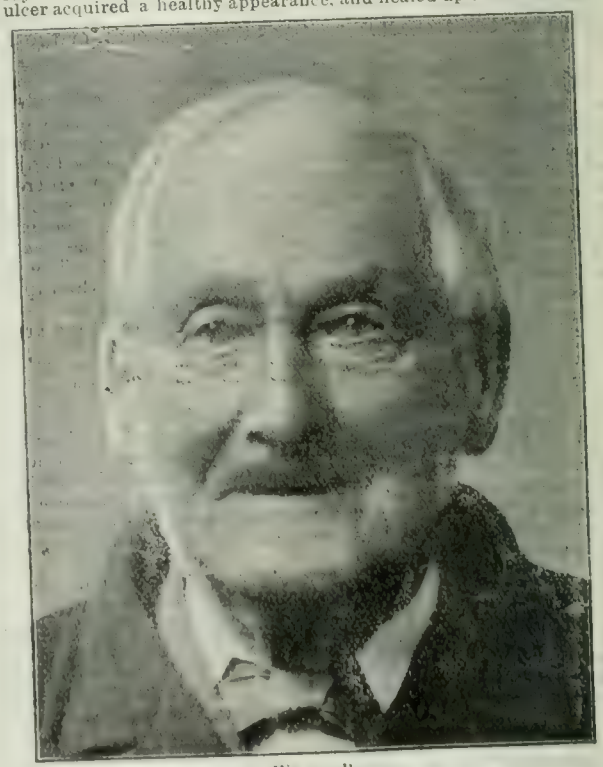


Fig. 1.—B.

The process was complete by March 18th, 1901, and the treatment was then discontinued. The scar at the present time (March 25th, 1902), is perfectly sound, and looks better than it did at first. (See Fig. 1.—A and B.)

The rays were applied about thirty-six times altogether. The hairs were destroyed over the exposed part where he had dermatitis. The same thing happened to my own finger while attempting to intensify the effect of the rays by holding a convex lens between the focus tube and the ulcer. This was a useless proceeding, as the rays, I understand, are very slightly, if at all, refracted by an ordinary convex lens.

CASE II.—Mr. T., aged 83, was treated for a rodent ulcer upon the left temple, 1½ in. by 1 in.

History.—It commenced about thirty years ago, and for many years it had been too tender to allow him to lie upon that side. During the last two years he had suffered very much from severe darting pains. The discharge was very abundant and blood-stained.

Treatment and Progress.—The treatment was commenced on March 18th, 1901. After a few sittings the first improvement noticeable was the disappearance of the pain and the lessening of the quantity of the discharge, which became of much lighter colour. Owing to the infirmities of the patient the rays could not be applied from April 27th to May 11th. Then a slight improvement was noticeable in the ulcer, the edge on one side was less raised, and its circumference was diminished. The tube had hitherto been placed about 4 in. from the ulcer, and the rays applied for seven and a-half minutes. As the ulcer was healing from the sides the distance of the tube was increased to 6 in., and the hole in the mask

lessened so as to protect the new skin. Whenever there was any sign of dermatitis around the edges lead and opium lotion was applied. By the middle of July the ulcer was about ⅔ in. in diameter. There was no pain, and he was able to lie on his left side. After the above date no rays were applied. (See Fig. II.—A and B.)

On returning from my holidays a month later I went to arrange for further application, but to my great surprise the ulcer had healed up, thus showing that the diseased tissue had been destroyed, and also showing that there is no need to apply the rays until all vestige of such an ulcer has disappeared. The number of sittings was thirty-four.

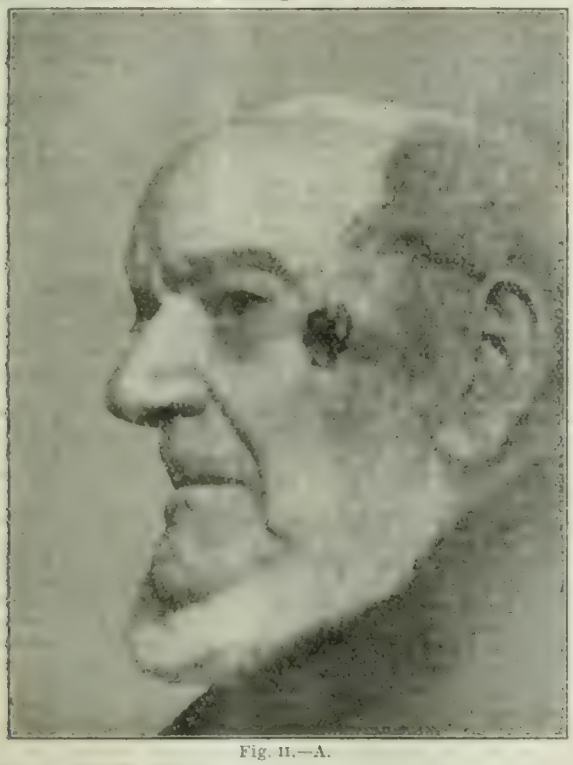


Fig. II.—A.

CASE III.—Miss P., aged 48.

History and State on Examination.—A little over two years ago a small spot appeared on her forehead. By the time she came to me (April 22nd, 1901) it had gradually increased to ½ in. × ⅜ in. and projected considerably beyond the surface. The proliferations were large and the veins showed very much on the surface. There was no ulceration or discharge, but she had darting pains radiating from the growth.

Treatment and Progress.—The rays were applied to the growth for the first time on April 22nd, 1901, the rest of the face was protected by tea lead. A ten minutes sitting was given every day. After the tenth sitting its appearance gradually changed, the veins disappeared, and a scab formed on the surface. The scab came off showing a raw surface with some bleeding, but each time the place was smaller. The sitting was then reduced in duration to 5 min. and the distance of the tube increased to 6 in. The last application (the 28th) was given on May 24th, and a fortnight later the wound had entirely healed, and on December 14th, 1901, there remained a slight flat scar as if from an old burn.

The growth in this case had a year previously been regarded as a keloid. There was no ulceration until the use of the *x* rays, but the growth presented the appearance of soft reddish nodules, projecting from the skin. It was probably rodent ulcer prior to the stage of ulceration.

CASE IV.—Mrs. M., aged 70.

History and State on Examination.—This was a very old case of rodent ulcer of the nose. Owing to the ravages of the disease, and the use of knife and caustics, a considerable amount of the nose had disappeared. The rodent ulcer recurred in the scar on the nose and a spot of an apple jelly appearance showed on the cheek about ½ in. beyond the scar.

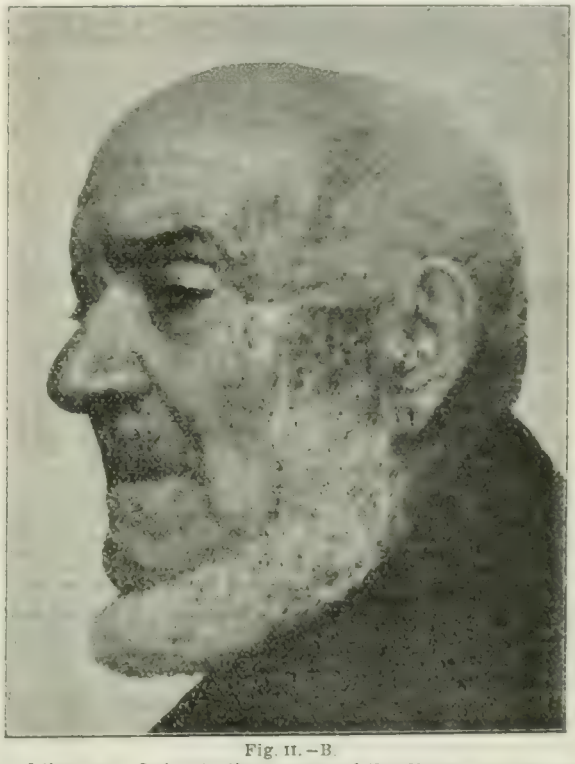


Fig. II.—B.

Treatment and Progress.—After a few applications the ulcer on the nose soon began to heal. The spot on the cheek at first broke down into an open ulcer, and then healed up in the usual way. The number of sittings altogether were twelve. The parts were quite healthy, nearly three months after the last application of the rays.

In all these cases I have never used full power of the coil, only sufficient to produce fair penetration as shown by the screen, and as the tube became weaker the sparkage was increased.

FIVE CASES OF MONILIFORM HAIR ASSOCIATED WITH ALOPECIA AREATA.

By DAVID WALSH, M.D.,

Honorary Physician, Western Skin Hospital, London, W.

THE interesting congenital condition of beaded hair known as monilethrix is one of great rarity. It may be of interest, therefore, to publish a note of some cases in which hairs were found of moniliform type, although differing from the sharply-defined condition of monilethrix. The latter is congenital, and runs in families, while those affected have the hair of the head short and scanty, so that they are more or less bald. Lastly, the eyebrows and any part of the hairy body may be affected. That description differs widely from the following cases, in which the hair, although alopecia patches were present, was not short and scanty. The peculiarity was found only in hairs that had turned or were turning white. It did not involve hairs on other parts of the body. Lastly, the nodes were of irregular length, except in a few hairs of the first case, which showed a fairly uniform beading, and the pigment had no distinct relation to the internodes unlike monilethrix, in which the pigment is found gathered in the internodes.

CASE I.—A.B., female, aged 42, came to the Western Skin Hospital complaining of hair falling out in patches. There were several rounded spots on the crown and occiput covered with fine downy hairs, evidently a lanugo growth on areata spots. The surface layer of hairs of the head were white, while the hairs beneath retained their original dark colour. Attention was drawn to the refraction of some of the grey hairs, some of which were examined under the microscope, and found to be moniliform shape with irregularly distributed pigment. The white hairs were all more or less moniliform, but the change was not found in the eyelashes or eyebrows, nor, after repeated examination, in any of the original dark hairs. The pigment had no uniform distribution in relation to the nodes. In that way it differed from monilethrix, in which the pigment is collected at the internodes, and is general on the hairs of the head and other parts of the body. A hair shown at the Dermatological Society of Great Britain and Ireland is figured in illustration (No. 1.) In some of the hairs the pigment was carried right through the nodes and internodes, while in others it was broken up irregularly.

CASE II.—The patient volunteered the statement that her sister had bald patches and similar hairs. Some of the hairs sent for examination showed irregular refraction, as in the foregoing case. In some of the grey hairs there were some long, slender, moniliform narrowings.

CASE III.—M. S., aged 40, domestic servant, came to the hospital on February 14th, 1901, with an alopecia areata patch over the right ear. The surface hair contained a surface layer of white hairs spread over the original black hair beneath. This appearance, together with the bald patch, resembled the first case so nearly that some of the hairs were examined under the microscope. The latter showed moniliform structure with pigment broken up and distributed in nodes as well as internodes. (See No. 2 in Fig.)

CASE IV.—H. D., female, aged 51, came to the hospital on March 7th, 1901, complaining of a chronic skin trouble. On one knee was a circumscribed patch of seborrhoeic eczema, the size of a hand, that had been there for fourteen years. The scalp was scaly; there were several "nits" in the hair, a few papules on the margin of the hairy scalp; two or three scattered bald patches of areata, and signs of old eczema in the ears. Some of the grey hairs and brown hairs turning grey showed a characteristic moniliform arrangement. (No. 3 in Fig.)



CASE V.—A. C., aged 35, female, came to the hospital on October 4th, 1901, complaining of loss of hair in patches. Two of her children suffered from ringworm, but had been well some five months. An aunt who visited them said she was losing hair in patches, and used patient's hairbrush. Some of the grey hairs showed a moniliform arrangement, chiefly with long and tapering nodes, the pigment being broken up and distributed independently of internodes (No. 4 in Fig.).

These cases suggest that a moniliform condition of the hair may be acquired and associated with alopecia areata. Case IV fits in with Sabouraud's theory of the common origin of seborrhoea of the head and body, and of alopecia areata of the scalp. Possibly some varieties of moniliform hair may be entitled to a place on his list. Assuming a toxic disturbance of the nutrition of the hair shaft due to the invasion of the micro-organisms of seborrhoea, the traction upon the weakened hair in the daily brushing might be a mechanical cause of the beading. In the nails one often meets with a beading of a longitudinal ridge that appears to correspond closely with the moniliform beading of hair.

CASE OF COMPLETE BALDNESS FROM ALOPECIA AREATA.

(IN PROGRESS OF RECOVERY UNDER TREATMENT.)

BY BALMANNO SQUIRE, M.B.LOND.
Surgeon to the British Hospital for Diseases of the Skin.

THOSE who take interest in noting the peculiarities of people they meet, and who live in London or any large city, have opportunity for recognizing again and again a type of person presenting a certain peculiarity which once noticed rivets the attention by its quaintness. These people have a strong family likeness to one another, and their points of resemblance are so striking as in some measure to outweigh their points of difference, so that any one who has once taken to noticing them is apt to think, in this or that case, that he has come across that person before although he may have never previously seen him. To any observer not specially interested in these people it seems that persons of this type are limited to the male sex, but a very slight experience of them soon assures him that they are not limited to any social grade. They are not, for example, like pock-marked people (who in their way have some uniformity of type), to be met with mainly amongst the humbler class. Nor does the appearance of the people I speak of suggest, as in the latter case, pre-existent disease or look at all unhealthy.

Men of the type in question, one and all, present the aspect of having very faint eyebrows; the edges of their eyelids look puffy, as if slightly swollen. In addition, they are always clean-shaven, and the hair of their head looks odd, does not seem to grow in the same way as that of most people, is not arranged in any customary way, and yet looks pretty much the same in all these persons. As a matter of fact they have no eyebrows; the rounded-off edges of their lids are the consequence of the complete absence of eyelashes. They look clean-shaven because they have no more hair on their face than a woman has, and the odd appearance of their hair is due to their wearing a wig. When, not so very long ago, it was common for middle-aged and old men to wear wigs, one looked out for them more than one does nowadays, and suspected them more readily.

Men of the sort I have described have not a hair on their body anywhere, and yet were once normally hirsute. It may naturally, and indeed correctly, be assumed that efforts made to remedy the condition they present have in their case failed, and a further conclusion may with equal justice be arrived at—namely, that attempts to arrest the progress of their depilation in its earlier stages have also failed.

In every case, or at all events in 99 cases out of 100, the condition of these persons is due to one cause only, and that is that they have been the subjects of alopecia areata. And yet alopecia areata is not so very common a disease. It constitutes about 2 per cent. of the total number of cases presenting themselves at a skin clinic. To compare the frequency of its occurrence with that of another disease which has been very much under discussion of recent years, it is just about as common or as rare as lupus. But the disease seems to be less relatively rare than it really is, owing to the circumstance that the subjects of complete or universal alopecia areata are always on view for the rest of their lives.

Women are as liable as men to this disease, but in them it is far less noticeable. A wig is much less obvious in the case of a woman than of a man, and what with the aid of veils, of the shadow cast by artificial hair brought well down over the forehead, and other devices, the absence of eyebrows is less remarkable. Often enough women, the subjects of complete alopecia, will wear cunningly-constructed eyebrows such as avert notice except at close quarters, and others are clever in the use of burnt cork or the *crayon noir*.

Enough has been said to show that the condition is not extremely uncommon, and that the resources of art often fail to arrest its progress, and *a fortiori* to remedy it when complete.

As a matter of fact, complete alopecia areata is a condition extremely difficult to improve, and it is possibly correct to say, although the assertion may seem bold, that no one has ever succeeded in remedying complete alopecia areata, unless, may be, in very rare instances indeed. It might perhaps be said that any notable improvement of complete alopecia is of itself an extremely rare event. If this be so, it may be of interest to record an example in which, under somewhat exceptional conditions, very notable improvement has been obtained. These conditions were furnished by the patient himself; they were exceptional hopefulness, endurance, and patience. From a condition of complete baldness he has succeeded in bringing his head to the condition represented with careful accuracy in the illustration, and he still continues to improve, but it has taken him more than a year to attain this result. To be accurate he has had precisely thirteen months and twenty days of almost continuous treatment. It may be interesting to state that, in the patient's view, the whole business up to now is a satisfactory one that he thinks the game worth the candle.

When first seen by me (on December 8th, 1900) the patient, a man aged 37, had no dark, no coloured hair at all, on his scalp, but only a little, very short, colourless, fluffy down at the top of his head, and a little of the same "down" over a limited region on each side of the head. At the back of the head (occipital region) the scalp was quite polished in appearance. His eyebrows were completely absent, and he had no eyelashes. The hair of his moustache, beard, and whiskers was patchily affected very considerably so. I prescribed for him, as an application: Hydrargyri iodidi rubri gr.xxx; yellow vaseline, 1 oz. He has applied this ointment to his head right through the whole of the period from December,

1900, to January, 1902, except for six weeks in the summer, namely, during the hottest weather (July and August), and he omitted it then because wearing the linen skull cap, which I recommended him, made his head uncomfortably hot, at all events at night.

In using the ointment he has persistently done as directed—that is to say, he divided the hairy scalp into eight imaginary divisions or regions, and has applied the ointment to one of these divisions on one day, to another the next day, thus going over the whole of the hairy scalp in a period of eight days, and then reverting to the division or region first treated, and so on so that the whole of the scalp in this manner had ointment applied to it once in eight days with undeviating regularity. This ointment, of course, produced a sensation of heat with redness of the skin, followed by desquamation, so that during the whole period of treatment some part of his head was tender. He was not directed to have any internal treatment, but only ointment.



It was quite six months (after I first saw him in December, 1900) before any hair showed itself—that is, before he saw any difference at all, and his hair has only made anything like the show it now makes about three months ago—that is, dating back from January 28th, 1902.

January 28th, 1902. Now his head is patchily furnished with dark brown hair, some of which is quite 3 in. long—namely, as seen in the illustration. His hair is about the same on both sides of the head. It may be said that pretty well half the total superficies of the scalp is furnished with dark brown hair, and that at no part is the scalp absolutely hairless. His eyebrows and eyelashes, which when he was first seen by me were entirely wanting, are now complete, although somewhat scanty in general appearance. The hair of his face is more abundant, although, because of his shaving his whiskers and beard, the condition of these does not show in the illustration.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

By E. H. EMBLEY, M.D.,

Honorary Anaesthetist to the Melbourne Hospital.

(From the Physiological Laboratory of the University of Melbourne.)

(Continued from page 821.)

II.—Vagus Inhibition as a Cause of Circulatory Failure.

As experience showed that circulatory failure was most prone to occur in the early stage of chloroform administration, it was essential to be able to study the phenomena occurring during this period. To attain this end two methods were employed:

(*a*) Connecting the carotid artery with the manometer under morphine anaesthesia only. The air containing the chloroform was administered through a trachea tube, and therefore did not come into contact with the nose or larynx.

(*b*) Preparing the dog for connexion with the manometer under ether anaesthesia eight or ten hours previously, so that, when the effects of the anaesthetic had passed off, the carotid artery had only to be connected with the manometer. By this method the nervous system of the dog was in its normal condition when the record of the induction was started.

(1) *Results of Experiments with Morphinized Dogs.*

One hundred and twenty experiments were performed. It was found that when air containing more than 2 per cent. of chloroform vapour was administered, slowing of the heart ensued, and that when higher percentages were employed the degree of the inhibition was rapidly intensified.

The slowing of the heart was accompanied by a steady fall of blood pressure, which rose rapidly on section of the vagi. (See Tracing 2, pp. 886-887).

When the percentage was raised to 2.5 per cent. the inhibition of the heart was so marked as frequently to stop it suddenly and completely. With this percentage strength, however, the heart always recommenced.

With 3 per cent. or upwards the recovery of the animal was not constant, for the inhibition lasted several minutes (as long as seven and a-half minutes), and although the heart escaped ultimately to some extent, in these prolonged inhibitions such escape was often too late. The circulatory system was too nearly paralysed by chloroform and the asphyxia consequent upon cessation of circulation to admit of recovery being possible. Artificial respiration was maintained till after the heart had permanently ceased. (See Tracings 3, pp. 888, 889, and 4, p. 890).

This slowing or cessation of the heart beat was due to stimuli passing down the vagi, for:

(*a*) It never occurred in animals in which the vagi had been divided.

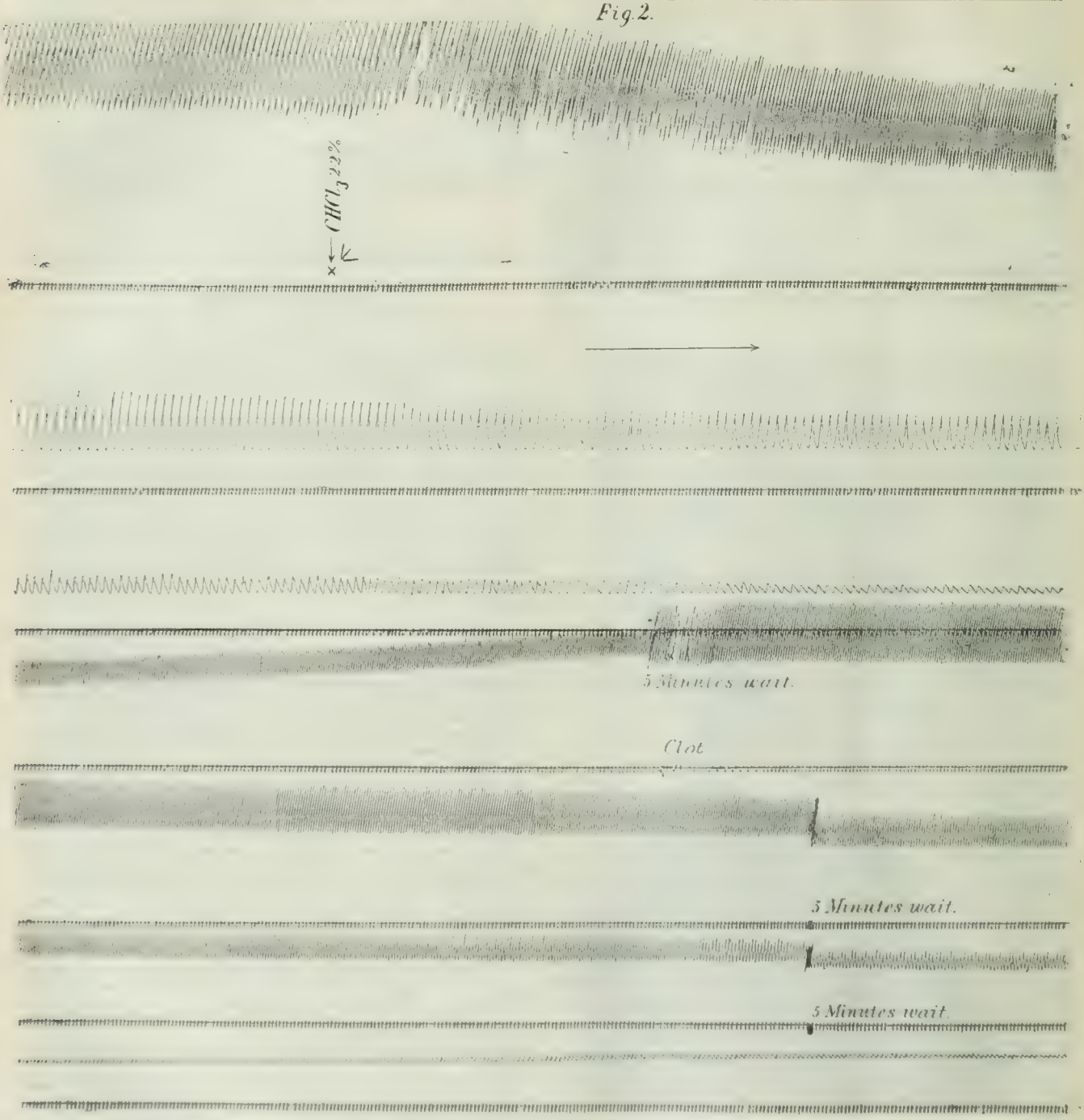
(*b*) When occurring in animals with intact vagi, it immediately disappeared upon section of both of them. (See Tracings 2 and 4).

In non-fatal cases, when the heart recovered from the inhibition, the blood pressure usually rose rapidly, the pulse often being quick as though the vagi had been cut

The possibility of the heart's recovery appears to depend upon the extent of the damage that it has sustained from the chloroform ere the inhibition came on.

The effects of a persistent vagus arrest of the circulation is seen in Tracing 3. In this experiment, in which artificial respiration was employed throughout, it is seen that the vagi have arrested the heart's action at a time when the blood pressure has been brought down to 40 mm. of mercury pressure by the chloroform. The vagal inhibition was fatal. The

Fig. 2.



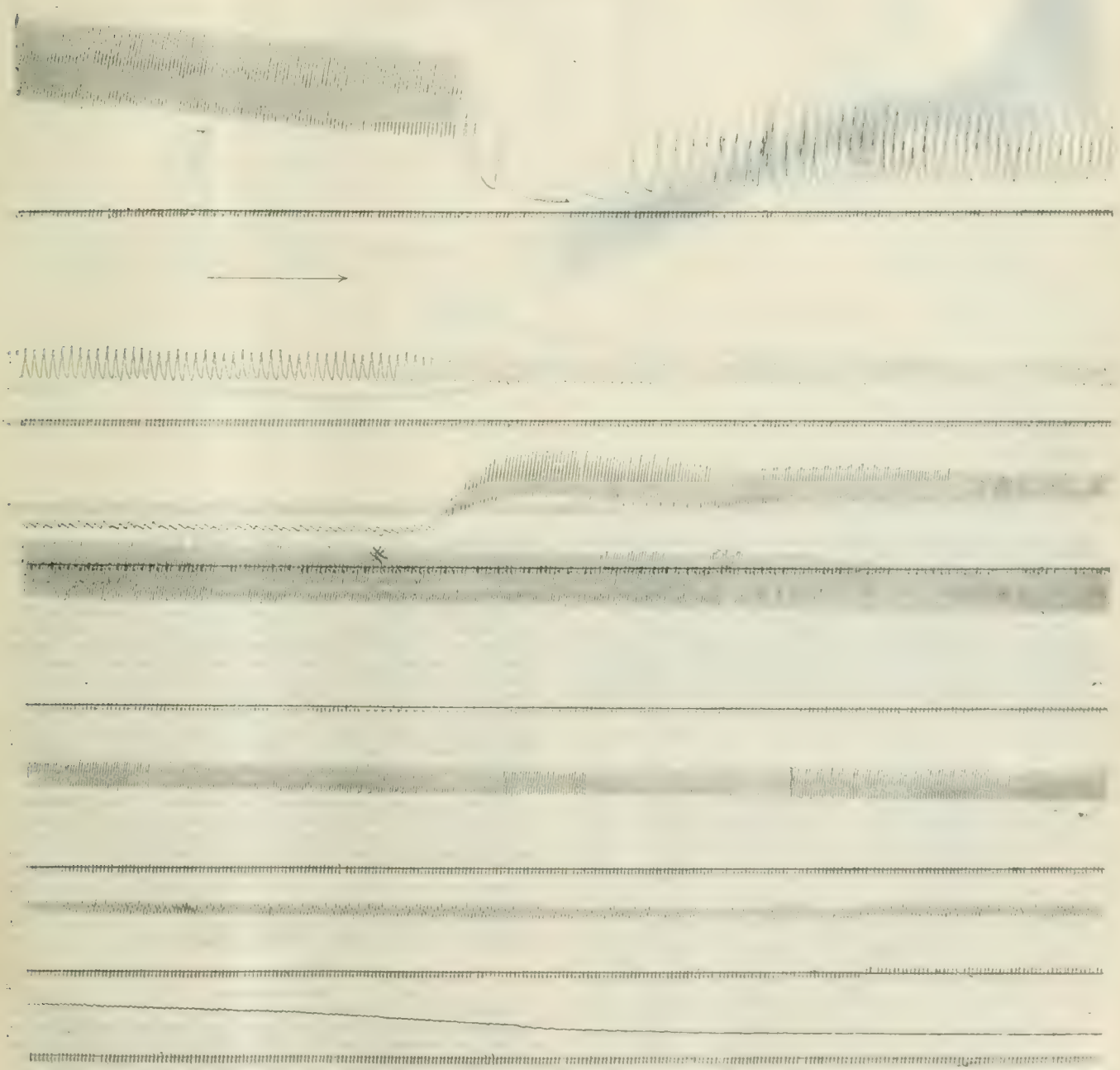
rise of pressure in the first temporary escapes of the heart shows the asphyxia consequent on cessation of circulation has brought on vaso-constriction. The vasomotor system was obviously not paralysed when syncope occurred. The vagus control was exhausted after 6 min. 45 sec., but the circulatory mechanism was by this time so much impaired that the heart did not recover.

The following is an analysis of 54 cases in which vagus inhibition was sufficiently pronounced to stop the heart; 2·3 per cent. and upwards of chloroform vapour in the air was employed. The proportion of fatal to non-fatal administrations was:

	Non-Fatal.	Fatal.	Total.
With artificial respiration...	18	8	26
With natural respiration	4	24	28
	22	32	54

In the twenty-six experiments with artificial respiration this was performed throughout the inhibition period also, so that the animals were getting chloroformed air throughout.

Fig. 2 (Continued).



In the natural respiration experiments no artificial respiration was performed when the respiration ceased. In the four recoveries the blood pressure rose in consequence of the exhaustion of the vagi and the asphyxial rise. As the blood pressure rose the respiration returned.

Experiments with the Vagi Previously Divided or in which these Nerves were Cut when Slowing of the Heart Ensued.

Forty-nine experiments were made with the vagi cut. It was found that sudden circulatory failure never occurred from inhalation of chloroform after the vagi had been divided. The respiration ultimately ceased, and this was followed by no sudden fall of blood pressure. A rise in pressure usually occurred from vaso-constriction due to asphyxia.

In other experiments the vagi were divided after the administration of chloroform had brought on arrest or slowing of the heart. The consequence was the same in every instance: the heart recommenced and the blood pressure rose at once. Tracing 4 shows the type of blood-pressure curve obtained by such experiment.

Intravenous injection of atropine before the administration of chloroform began was found to have the same effect in preventing inhibition of the heart as section of the vagi. Absolute arrest of the heart by vagus inhibition in mer-

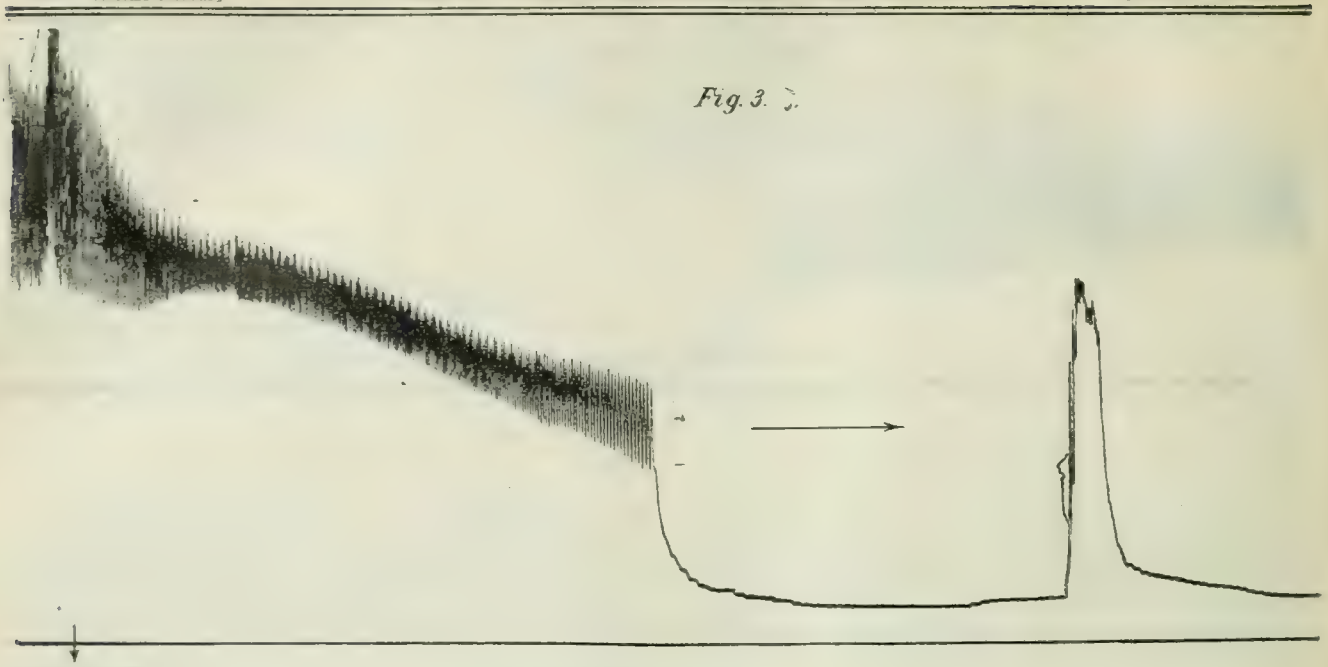


Fig. 3.

phinized dogs could be obtained at will by causing them to inhale 4 per cent. chloroform vapour in the air, and the heart could be released and the circulation restored by vagotomy, providing there was not too long a delay before the section of the vagi.

The results of six experiments in which the same strength of chloroform vapour in air was administered by artificial respiration, first with the vagi intact, and subsequently with the vagi cut, are collected below in tabular form. It contrasts the interval before circulatory failure ensued under these two conditions.

	Percentage of Strength of Chloroform used.	Blood Pressure before the Administration began.	Time of Administration to cause Syncope.	Blood Pressure when Syncope occurred.	Recovered by Vagotomy	Blood Pressure upon Readministration.	Duration of Administration before Death occurred.
Experiment 101	4%	120 mm.	2' 25"	40 mm.	—	140 mm.	20'
,, 140	4%	130 mm.	2' 15"	40 mm.	—	140 mm.	13' 45"
,, 149	3.5%	120 mm.	2' 30"	40 mm.	—	130 mm.	30' 20"
,, 162	3%	130 mm.	3' 10"	30 mm.	—	130 mm.	13' 15"
,, 181	3.8%	140 mm.	2' 54"	56 mm.	—	160 mm.	28' 44"
,, 202	4.2%	160 mm.	[illegible]	20 mm.		170 mm.	15' 20"

In some experiments the vagi have been found to completely arrest the heart in as short a period as 1 min. 40 sec. In morphinized dogs the vagi are capable of arresting the heart, upon raising the strength of chloroform vapour to 4 per cent. in the air inhaled, after 39 min. 30 sec. of light anaesthesia.

It has been stated by the Hyderabad Commission," MacWilliam,[7] Wood,[6] and Richet,[11] that it is impossible to permanently arrest a chloroformed heart by vagus excitation. This is absolutely opposed to my experience. I have never succeeded in doing this with a heart that has not been chloroformed; but, on the other hand, I have never failed (5 cases) to occasion fatal syncope in a sufficiently chloroformed animal by excitation of one or both vagi with the interrupted current.

Upon faradizing one vagus only without chloroform, the inhibition usually lasted about sixty seconds, and when both nerves were stimulated simultaneously the inhibition lasted about 100 seconds. Recovery was complete, notwithstanding continued stimulation of both vagi. If chloroform was then administered until the blood pressure had fallen to 40 mm. of mercury, and then both vagi faradized with a stimulus of the same strength as before, the heart was always completely and permanently arrested. There was no escape. Artificial respiration was maintained throughout in these experiments.

Tracing 5 (p. 890) furnishes further evidence of the necessary conditions of fatal inhibition. In this experiment chloroform was administered until the blood pressure fell to 80 mm. of mercury pressure, then the right vagus was faradized and the heart arrested. The heart escaped from the inhibition (chloroform was being administered by artificial respiration meanwhile). When the blood pressure had fallen to 40 mm. mercury pressure, the peripheral ends of both vagi were stimulated and the heart arrested permanently.

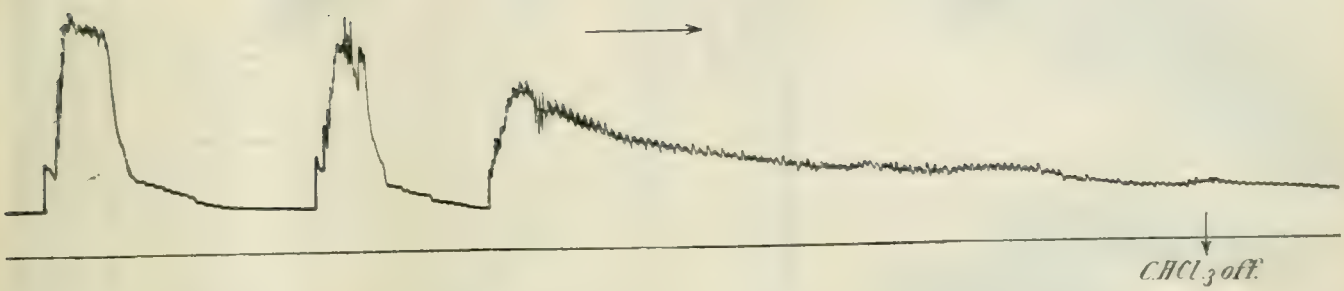
(B).—Results of Experiments with Dogs not Morphinized.

The dog's carotid was connected with the manometer by a thick-walled flexible tube. The animal was supported in the air by an assistant, so that struggling might not kink the tubes connecting it with the manometer and the respiration tambour.

Twelve experiments were performed, of which Tracing 6 (p. 892) is typical.

The amount of chloroform administered in this experiment was uncertain, as it was given on a cloth, but it was considerable. Thirty seconds after the chloroform was given the pulse-rate was greatly diminished, and after one minute the pulse became intermittent, with short stoppages and slowing, due probably to reflex inhibition. The longer intermissions were followed by struggling, which resulted in a rise of blood pressure. Following this rise the blood pressure began to permanently fall with a rapid heart beat free from vagus

Fig. 3 (Continued.)



control. After two and a-half minutes the anaesthetic was discontinued.

Tracing 7 (p. 891) is another experiment of the same kind. It will be seen that the excitement, etc., of the induction has resulted in a great increase in the pulse-rate, which was maintained till the blood pressure began to fall, when the inhibitory action began to come on, causing slowing of the heart-rate. This slowing increased till the heart's action was suddenly arrested. This occurred after three minutes thirty-five seconds of the administration, when the blood pressure was at 25 mm. of mercury. It will be noticed that the heart was arrested fifteen seconds before the respiration ceased. The respiration became deeper and more gasping with an expiratory pause after the inhibition occurred. The heart was arrested for one minute thirteen seconds, after which the inhibitory mechanism failed and the heart recommenced. The heart was able to raise the blood pressure to 40 mm. of mercury, but this rise was unsustained, and the blood pressure gradually fell to zero.

The Cause of Vagal Inhibition in Chloroform Anaesthesia.

Inhibition of the heart might be brought about by chloroform inhalation:

1. As a reflex excitation by the chloroform vapour of the sensory terminals in the respiratory passages—nose, larynx, and lung.

2. By the chloroform in the blood occasioning a preliminary increase in the excitability of the vagus mechanism, so that the usual control exercised by the vagi is increased.

It is conceivable that the paralytic effect of chloroform upon cardiac muscle, which has been shown to be so considerable, is such that stimuli reaching the heart through the vagi are more effective than in the case of a heart not poisoned by chloroform.

Reflex inhibition of the heart from the stimulus of strong chloroform vapour upon the nasal mucous membrane, the larynx, and lungs, has been shown to occur by Dastre and Morat,[21] Morat and Doyen,[11] and by Brodie and Russell.[17] In most of my experiments the chloroform was delivered through a tracheal tube, so that it did not come into contact with the nose or larynx.

To ascertain whether reflexes from the lower respiratory passages or the alveoli of the lungs were alone responsible for cardiac inhibition, which I have shown to be such a constant occurrence in the administration of strong chloroform vapour to dogs, two series of experiments were performed.

1. Chloroform was administered by inhalation to a morphinized dog through a tube secured low down in the trachea. The vagi were then divided below the heart branches. The pulmonary branches being thus eliminated, all sources of reflex from the lungs and respiratory passages were cut out. Upon the administration of chloroform the heart was inhibited in seven out of ten experiments. The inhibition was fatal.

2. Slowly injecting normal saline containing 0.7 per cent. (by weight) chloroform at a temperature at 40° C. into a vein in continuity. The 0.7 per cent. chloroform solution was injected from a pressure bottle slowly and continuously into the external jugular vein (in continuity) of a morphinized dog.

The resulting records were close representations of blood-pressure tracings from chloroform inhalation experiments under the same conditions.

Six experiments were performed. The blood pressure in each experiment fell slowly and regularly. When the pressure had fallen to an average of 45 mm. of mercury pressure, the heart was arrested and blood pressure fell to zero. When section of the vagi was performed the heart always recovered.

In all my experiments the *dangerous* stoppage of the heart by the inhibitory mechanism, occurred, not at the very commencement of administration, but after the effect of chloroform upon the cardiac muscle had been sufficient to reduce the pressure to about 40 to 50 mm. of mercury pressure. Extreme slowing or arrest of the heart came on sooner and with higher blood pressure the stronger the tension of chloroform in the air breathed.

In those experiments in which no morphine was given, but in which the animal was prepared eight or ten hours before under ether, intermissions and slowing occur quite early. The heart would suddenly stop and blood pressure fall, upon which struggles ensued with a great rise of blood pressure, followed again and again by further intermissions (see Tracing 6).

Whether the inhibition was in this case brought about re-

Fig. 4.

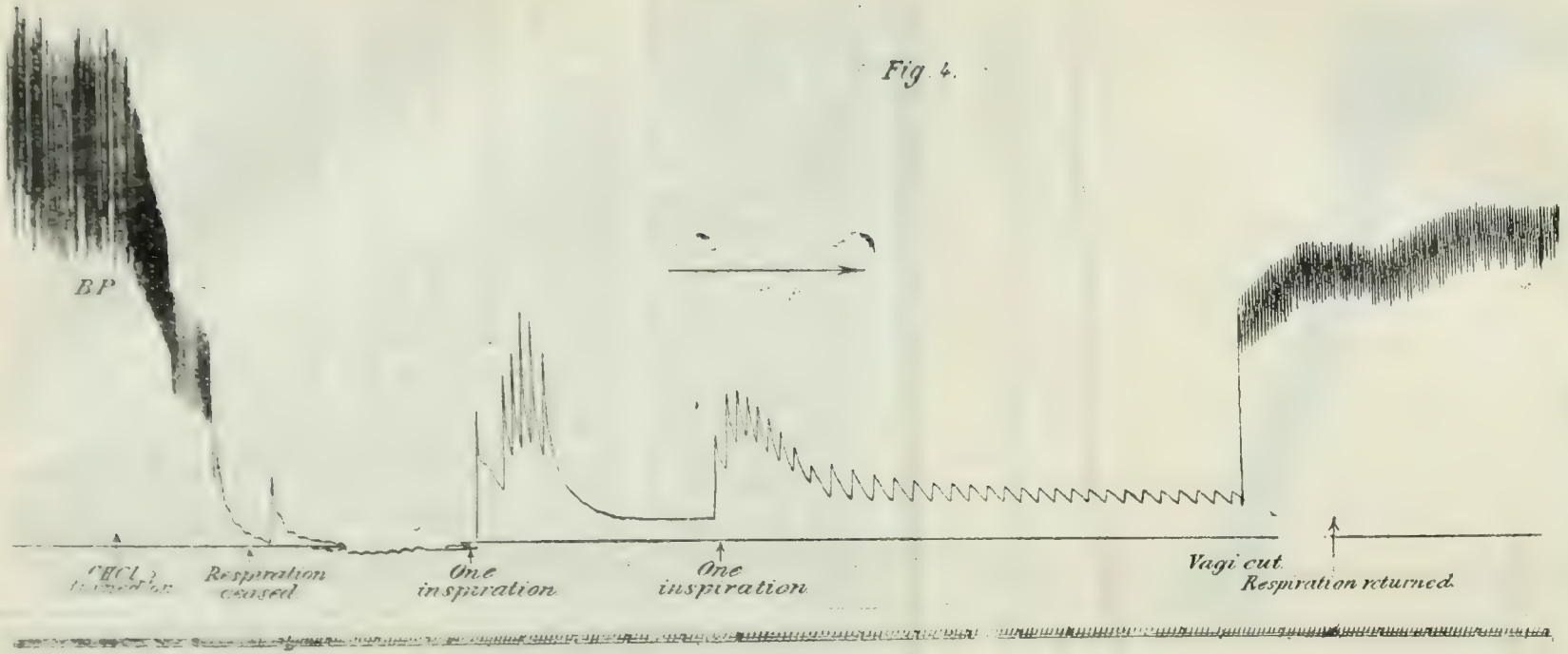
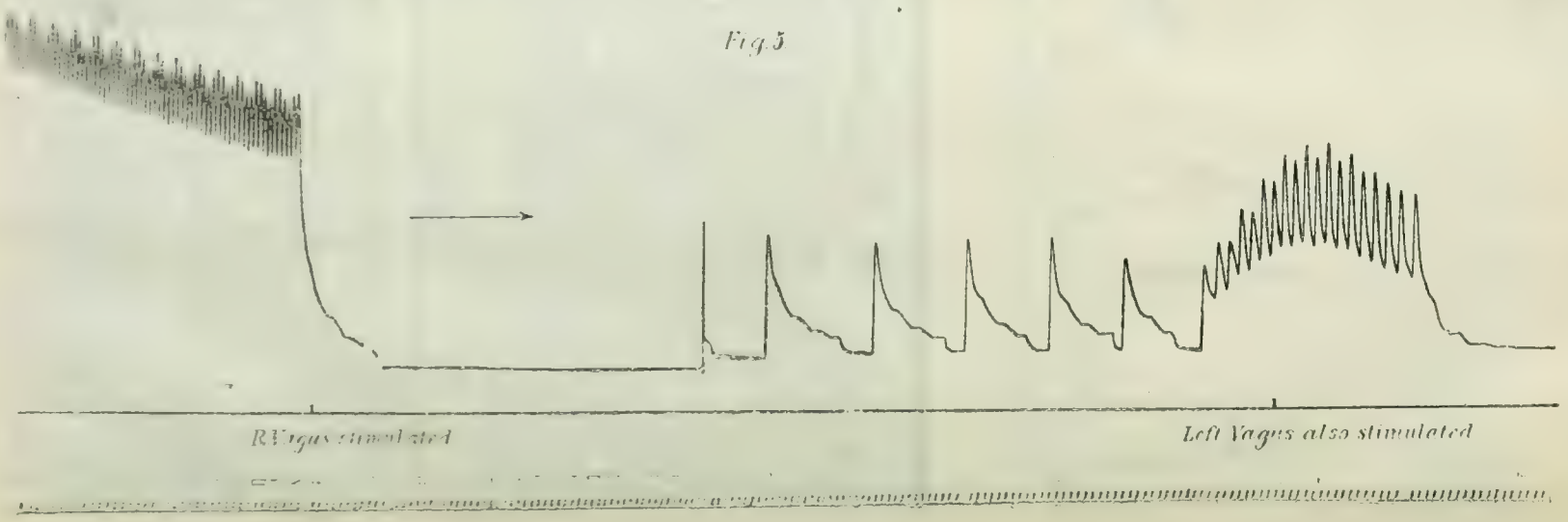

BP
CHCl3
Respiration ceased
One inspiration
One inspiration
Vagi cut
Respiration returned.

Fig. 5


R Vagus stimulated
Left Vagus also stimulated

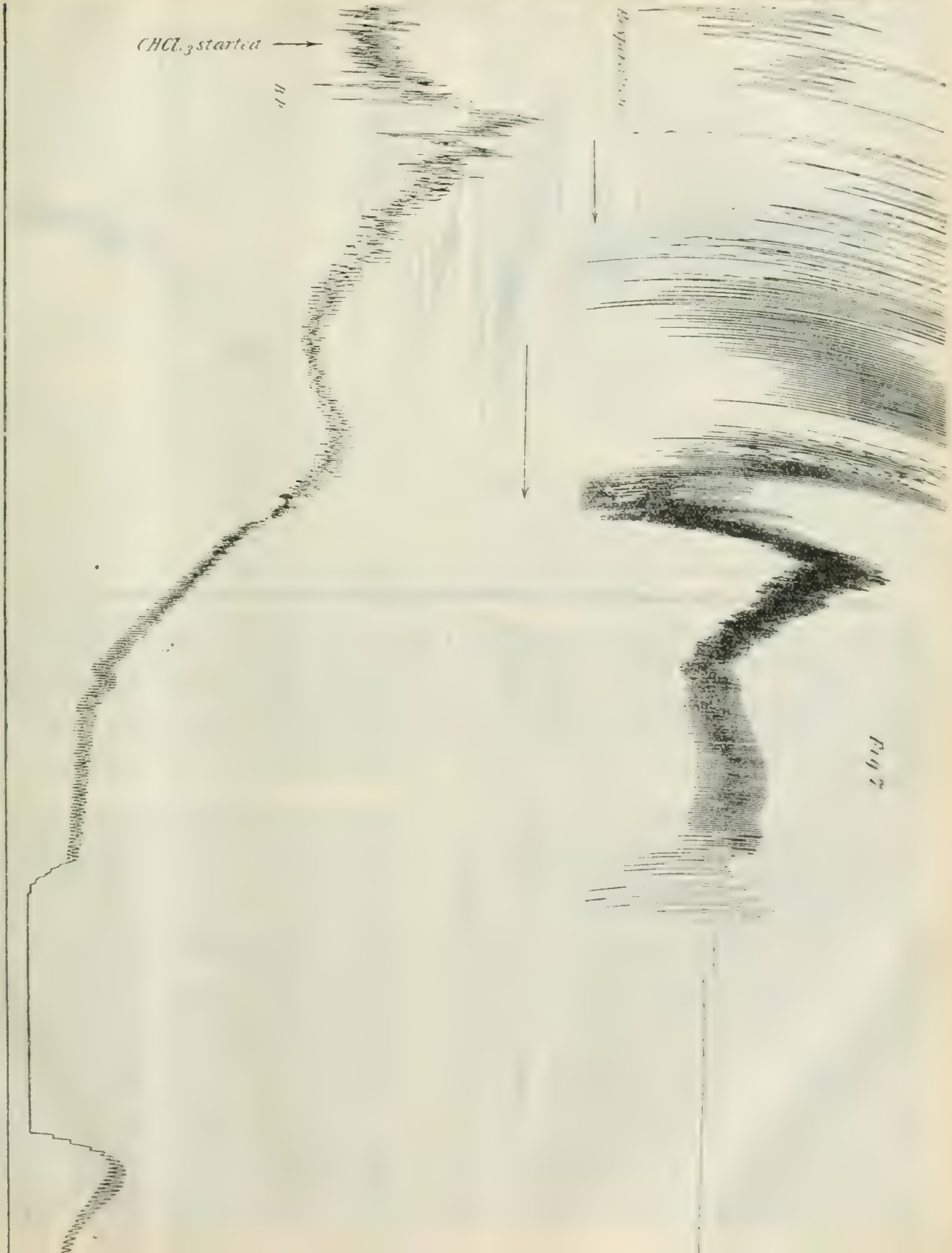
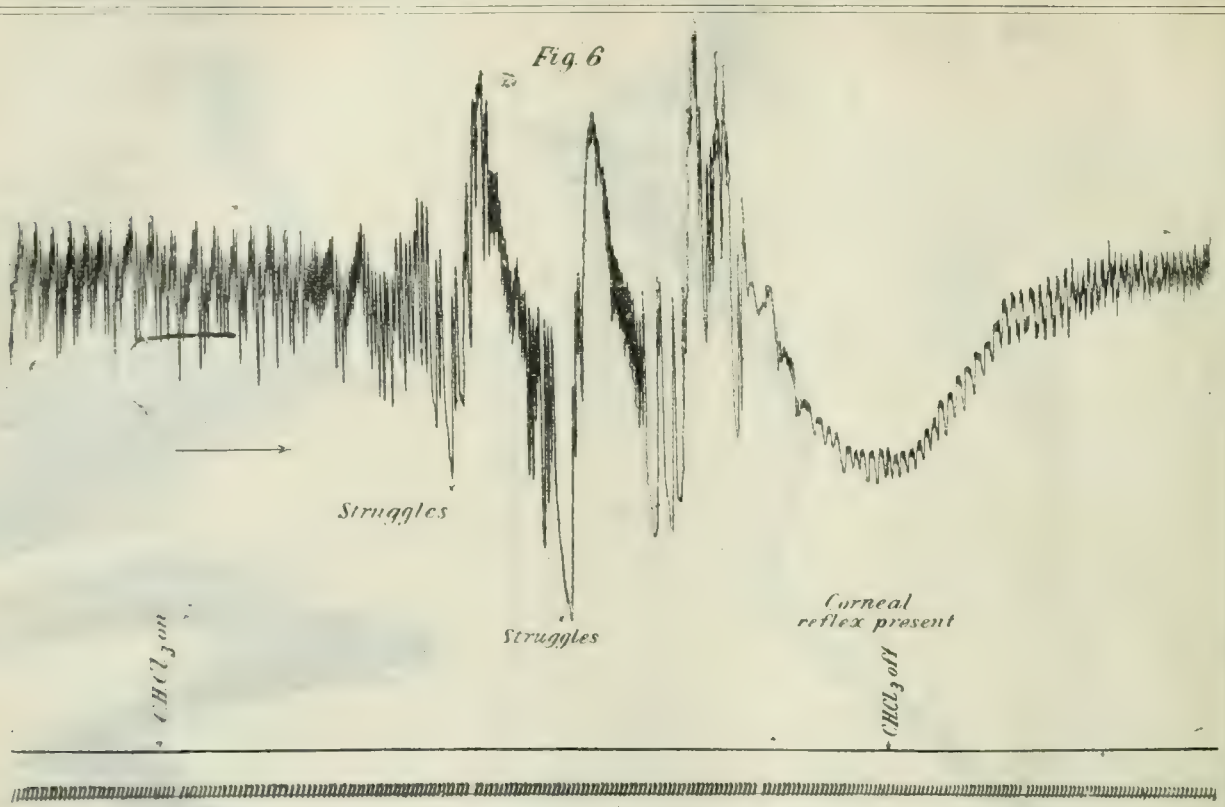

CHCl3 started
Fig. 2

Fig. 6



flexly from the nasal or respiratory surfaces I am unable to say, but it is very probable. The later and often fatal inhibitions are, from the evidence adduced above, apparently not reflex, but appear to be caused by an increased excitability of vagus nervous mechanism acting upon a heart, the spontaneous excitability of which is diminished by the action of chloroform. When the heart is poisoned by chloroform it undoubtedly has less power of escape from the restraining influence of these nerves, for, as mentioned above, stimulation of both vagi never failed permanently to arrest a chloroformed heart.

Summary of Conclusions of the Effect of Chloroform upon the Cardiac Inhibitory Mechanism.

It was soon found during the course of the work that the sensitiveness of the inhibitory mechanism varied greatly with the methods employed for preparing the animals for connexion with the manometer, etc., and that if the animal had been anaesthetized by chloroform without morphine in order to perform the surgical work, normal vagus control was more or less completely abolished by the time the record was started. On the other hand, when morphine alone was used prior to the establishment of the connexion with the manometer, the vagus control was found to be unimpaired.

One hundred and twenty experiments were made to ascertain the part played by vagus inhibition in chloroform poisoning. In 54 cases vagus inhibition embarrassed the circulation to a more or less dangerous extent, and in 33 experiments was the immediate cause of death. To sum up:

1. A heart which has been poisoned by inhalations of chloroform of strength 2 per cent. and upwards can always be permanently inhibited by stimulation of the vagi with the faradic current when the blood pressure has fallen to about 40 to 50 mm. of mercury pressure.

2. Chloroform raises the excitability of the vagus mechanism, particularly in the early part of the administration.

3. The increased excitability of the vagus mechanism is due to the action of chloroform on the vagus centres, and the inhibitory action is more intense from being exercised upon a heart whose spontaneous excitability is diminished by the action of the chloroform upon it.

4. Chloroform administered to morphinized dogs in air containing not more than 1.5 per cent. of the vapour, after a period of mild excitation, slowly depresses vagus excitability. The excitability may again be raised with more or less readiness according to the duration of the administration and the endurance of the vagi, by increasing the percentage strength of the chloroform, or by asphyxia.

5. Vagus inhibition is, in dogs, the great factor in the causation of sudden death from chloroform.

6. Dangerous inhibition is liable to occur whenever the strength of chloroform in the air inhaled rises above 2 per cent.

EXPLANATION OF TRACINGS.

Tracing 2.—(Effects of slowing of heart-rate by vagus action.) Blood-pressure tracing from Von Frey manometer (1 mm. equals 4 mm. mercury pressure). Dog, weight 16 lbs. Morphine, 0.25 gram. Artificial respiration. Time line, 3 mm. below zero. Chloroform vapour, 2.2 per cent. in the air administered throughout the whole period of the tracing. 5', 5', 5', 15' indicate the minutes the recording drum was stopped at intervals. Circulation nearly failed at 25 min. 50 sec. of administration. The vagi were then divided at *, whereupon blood pressure recovered, and the heart continued for 60 min. 30 sec. longer.

Tracing 3. (Vagal effects.) Dog, 24 lb. weight. Morphine, 0.5 gram. Artificial respiration throughout. Blood-pressure tracing. Blood pressure, 120 mm. mercury at starting. Five per cent. chloroform vapour in the air inspired at "on" and continued to "off." The vagi arrested the heart in 2 min. 40 sec. when the blood pressure was equal to 58 mm. of mercury pressure. The inhibition lasted 2 min., then the heart was released for 22 sec. and the blood pressure was higher than at the start of the inhibition, that is, to 92 mm. mercury pressure. The heart was then again inhibited for 2 min. and again released, the blood pressure only rising to 60 mm. of Hg. A third time the heart was inhibited for 1 min., the blood pressure rising to 52 mm. of mercury on release. A fourth time the heart was inhibited for 45 sec. On release, the blood pressure rose to 40 mm. mercury pressure. The blood pressure was at zero in 13 min. 35 sec. after the first inhibition.

Tracing 4.—(Vagi cut after inhibition.) Dog, weight 16 lb. Morphine, 0.4 gram. Natural respiration. Blood pressure tracing only. Chloroform, 6 per cent. in air administered. Chloroform started at "on" stopped when inhibition occurred. Gasping liberated the heart twice. Respiration failed after the inhibition occurred. Vagi were then cut. Respiration returned 20 sec. after the vagi were cut, being 190 sec. in abeyance. Blood pressure had risen again to 74 mm. of mercury pressure.

Tracing 5.—(Faradizing vagi.) Dog, weight 26 lb. Morphine, 0.5 gram. Artificial respiration. Blood pressure tracing. Chloroform, 4.5 per cent. vapour in air administered throughout. Time line at zero pressure. Right vagus stimulated with blood pressure at

80 mm. mercury pressure, heart recovering. Both vagi stimulated, heart permanently arrested.

Tracing 6.—(Process of vagus exhaustion during induction with chloroforma lone.) Dog, weight 24 lb. Blood-pressure record. Chloroform administered on a cloth. Period of administration indicated between vertical lines. Natural respiration. Dog was supported off the table to prevent kinking of manometer connexions by the struggling. Struggling ensued upon the sudden short falls of blood pressure. Chloroform administration was stopped while corneal reflex was still present.

Tracing 7.—(Vagus inhibition in non-morphinized dog, including the induction period.) Weight 15 lb. Blood-pressure and respiration tracing. Chloroform administered on a towel from "started" till cessation of respiration. Much struggling with intermittent heart beats in early part of induction. Respiration continued 15 sec. after the heart was arrested.

(To be continued.)

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

URTICARIA ACUTA.

At this season the young stalks of the rhubarb plant are in very general use for tarts and other dishes. It is common knowledge that the ingestion of large or even moderate quantities of this vegetable in susceptible persons will give rise to severe attacks of intestinal colic; but I am not aware that any skin rashes have been described as due to this form of toxaemia. Two cases of urticaria acuta in children have recently been under my observation, which certainly point in that direction. In both the type was severe and lasted three or four days. The convex elevations, with their pink areolae, were scattered all over the body, but chiefly on the limbs. The irritation caused by the rash was intense. Both the children had marked facial erythema, with a decided rise of temperature on the third day, and in each the distressing symptoms were promptly relieved by a full dose of castor oil, after other more elegant but less efficient aperients had failed to sweep away the irritant from the alimentary canal. Careful inquiries into previous errors of diet and other known causes of indirect irritation met with a negative reply; but it has been since ascertained that the nurse in each instance has admitted giving the children some stewed rhubarb on the day previous to the attacks. An examination of the urine for albumen was made in both the cases without result, but not for any excess of oxalates, which would be suggested on another occasion.

FREDERICK S. PALMER, M.D., M.R.C.P.

London, W.C.

KAFFIR THERAPEUTICS.

On reading in the BRITISH MEDICAL JOURNAL of November 23rd, 1901, page 1529, Dr. W. A. Densham's letter on "Kaffir Treatment of Gunshot Wounds," I thought a few notes I have made on native treatment of disease might prove interesting. The observations extend over five years' residence in Rhodesia, and for the greater part of the time in close relationship with native life.

CASE I. *Pneumonia.*—The witch doctor treated this by making incisions on the outer sides of the calves, and inserting the tips of cows' horns, about 2 inches long; there were three stuck in each leg. The patient died from blood poisoning.

CASE II. *Wound of Palm.*—I saw this, caused by a native axe, about ten days after the injury. The hand had been dressed by a Mashona with a plug of cowdung. The hand was swollen, and pitted on pressure; and, on removing the cowdung plug, the blood squirted out in jets, showing that most probably the palmar arch had been injured. I replugged with boric lint, gave chloroform, and then enlarged the wound, endeavouring to find the wounded artery; I was unable to do so, and therefore tied the brachial. I cleaned the wound of the hand thoroughly, dressed it antiseptically, and the patient recovered rapidly, with a perfectly useful hand.

CASE III. *Dropsy of Legs and Feet.*—Here incisions were made in both legs, and goats' horns inserted, having had the tips sawn off; these seemed to act fairly well as drainage.

Cowdung is also used for "smearing out" (applied like paint) the mud floors and walls of huts. This is done weekly and is very beneficial, as it destroys the fleas and other pests that much abound.

A bracelet or anklet made from the hair of a cow's tail is an infallible Mashona remedy for rheumatism. The operculum of a shell to be found only on the Zambesi is worn by those natives who can afford them as a charm against disease and death. It is almost impossible to buy these charms. I offered a Shuna a sovereign for one the other day, and gradually increased the offer to two pounds, but it was ineffectual. I ascertained the history, and though the native had inherited it from his father who had died, the confidence of the son in its virtues was not lessened.

The Dutch settlers in Rhodesia are not much more advanced in medical knowledge than their Mashona brethren, inasmuch as they give a decoction of goat's dung in water as an internal remedy in any abdominal complaint from stomachache to peritonitis. Also in convulsions they give children blood from a dog's ear; this is caught fresh in a spoon, and the unfortunate youngster has to drink it, willy-nilly. For bronchitis, pneumonia, and kindred complaints they kill and skin a goat, often in the bedroom of the patient, and clap the hot skin on the inflamed part; this is left on about half an hour, and the hair or wool on the skin is pulled; if this comes off easily another unfortunate animal is killed and the fresh skin applied, and so on until the hair remains firm on the skin after it has been applied to the sick person. Fresh cowdung is universally used amongst the Dutch as a poultice to "draw" an abscess.

These are absolute facts.

A. DUNLEY OWEN, M.R.C.S.Eng., L.R.C.P.Lond.,
Clerk in Holy Orders.
Wreningham Mission Station, Enkeldoorn, Rhodesia, S. Africa.

TORTUOSITY OF INTERNAL CAROTID ARTERIES.

SEVERAL papers have appeared in the BRITISH MEDICAL JOURNAL of late describing the above condition. I may state that tortuosity of these vessels is of not infrequent occurrence in the subjects examined in the anatomy department of Glasgow University. We find, as Dr. Moorhead has stated, that a condition of atheroma or arterio-sclerosis of the vessel wall is very frequently present.

S. CAMERON,
Junior Demonstrator of Anatomy, Glasgow University.

MIXED SCARLET FEVER AND MEASLES INFECTION.

INSTANCES of mixed infection—scarlet fever and measles—are perhaps sufficiently rare to make the record of the following cases interesting.

Mrs. B. has three children; a girl, M., aged 8 years, and two boys, A. and J., aged 6 and 4 years respectively. The girl and the elder boy are at school, while the younger boy is at home.

On January 18th, 1902, the two elder children became suddenly sick and vomited, and, according to their mother, were "feverish" then and on the 19th, when the girl complained of sore throat. Mrs. B. then examined her daughter's skin, and found a slight rash on the chest and back. On the 20th the boy A. appeared all right, and was sent back to school; but, as the girl was no better, I was called in. On examining M. I found her temperature to be 104° F. She had a typical sore throat and tongue; her skin was dry, and covered on the chest, abdomen, back, and limbs, with a well-marked scarlet fever rash. I had no doubt in my mind as to the diagnosis, and at once reported the case as scarlet fever, and ordered the brother A. to be brought back from school, and kept under observation. My next visit was paid on January 22nd, when I found the lad A. to be suffering from a typical attack of measles, the measles rash having first shown itself on the 21st. I was also surprised to find the girl M. had now all the symptoms of measles (her measles rash also appeared on the 21st) in addition to those of scarlet fever. Her attack of measles was quite as typical as her scarlet fever, the measles rash on the face being unmistakeable, as were also the cough, coryza, etc. On the body the two rashes were commingled, so that the measles papules were there somewhat lighter in colour than usual, and tended to be confluent in patches.

The younger boy, J., had slept with his sister on the nights of January 18th and 19th, and thus constituted himself an involuntary control experiment. Accordingly, as I was prepared to find, he became suddenly ill on January 23rd, and when I saw him on the 24th he had all the symptoms of scarlet fever, including a very definite rash. It only remained for him to develop a measles rash on February 1st to make my case complete. This he did in due time. His attack of

measles was as typical as his scarlet fever. Both cases, M. and J., desquamated freely, and are still doing so. With regard to the elder boy, A., I am not certain as to whether he has had scarlet fever or not, as neither rash nor sore throat were seen by his mother, and I did not see him till five days after his illness began, and he then had measles. I think it probable, however, that he had scarlet fever, as he has not developed it since, though fully exposed to the infection, and he has now developed suppurative otitis media, but I have not yet detected desquamation.

Measles is at present epidemic in the village where the above cases occurred, while sporadic cases of scarlet fever are not infrequent.

Mauchline, Ayrshire. JOHN POLLOCK, M.B., C.M.

IS INFECTION OF THE UTERUS A CAUSE OF MAMMARY ABSCESS?

THE following cases may be of interest to your readers, and raise a point which is at least debateable.

CASE I.—A multipara, aged 32, in her first two confinements had stillbirths, and each time the placenta was adherent; the puerperium was not remarkable, except for a slight fever, and the breasts were hard and very painful. Of this I was informed by the patient herself, I at that time not being her medical attendant. Her last two confinements, however, I can speak of from personal experience. In the first of these the second stage of labour was natural and easy, but the placenta was firmly adherent, and had to be removed by introducing the hand into the uterus. The uterus was thoroughly explored for retained particles, and all was removed as far as could be ascertained. The puerperium was natural till the third day, when the temperature rose to 101°, and the lochia almost ceased. Hot douching was resorted to, and although the lochial discharge became more abundant, it was not natural, but of a serous nature, with slightly offensive odour. Temperature kept ranging from 99° to 101.2° till the eighth day, the breasts in the meantime becoming hard and tender. On the ninth day the patient had a rigor, her temperature rose to 103°, and suppuration was discovered in the right mamma. She made a good recovery after the abscess was opened.

In her next confinement labour was very similar in character to the previous one; the placenta was again firmly adherent, and removed in a similar way. The temperature remained normal till the fourth day, when a very severe rigor occurred, her temperature rising to 104°, and the lochia almost absent. The uterus was again carefully explored and scraped. Hot douching, antipyretics, antistreptococcus serum all failed to reduce the temperature, which ranged from 104° to 106°, the patient dying on the seventh day. The breasts in this case were free from pain and hardness.

CASE II.—This was a multipara whom I attended in all her confinements, three in number. In all the second stage of labour was natural and easy, but the placenta was adherent in each case—in the first slightly, in the second and third firmly adherent, and had to be removed by introducing the hand into the uterus. The puerperium in her first confinement was uneventful, except for the first four days, when there was a slight rise of temperature; the lochia diminished in quantity, and the breasts were hard and tender. In her second confinement her temperature rose to 100°, and kept fluctuating between 99° and 101° for ten days; there was a slightly offensive discharge which disappeared on the tenth day, but the breasts got hard and very painful. Hot douching, salines, and massage to the breasts were employed, and relieved her condition. In her last confinement her temperature was 99° to 101° for the first four days, and the lochia not very abundant, slightly serous, and slightly offensive. On the fourth day her breasts were hard and tender; on the fifth day the patient had a slight rigor, the lochia being almost absent, and a temperature of 102.4°. A little pus was discovered in the right mamma; the abscess was opened and evacuated. Douching was kept up till the eighth day, when the temperature fell to normal, after which she made a good recovery.

From these cases I think one might infer that as well as a "puerperal" fever being caused by retention and decomposition of secundines in the uterus, a mammary abscess may be produced by the same cause. When suppuration of the mamma occurred in those cases and pus evacuated, the "puerperal" symptoms cleared up.

In Case I when the abscess of the mamma occurred, I believe it saved the patient's life, the poison being got rid of from the system by the breasts, and I think that there is no doubt the uterus was the primary seat of infection.

I have not noticed in any textbook on midwifery or gynaecology that infection of the uterus is stated to be a cause of mammary abscess.

Comrie, Perthshire. FREDERICK PORTER, M.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GENERAL HOSPITAL, NOTTINGHAM.

REMOVAL OF A NAIL FROM THE RIGHT BRONCHUS OF A CHILD AGED 2½ YEARS.

(Reported by A. R. ANDERSON, F.R.C.S., Surgeon to the Hospital.)

History.—G. N. was brought to the out-patient department by his parents on September 14th, 1901, with the statement that he had "swallowed" a nail six months previously, and directly after had a fit of coughing and difficulty of breathing. This was repeated a few days later, when he coughed up some blood-stained mucus, and had continued to do so at intervals ever since.

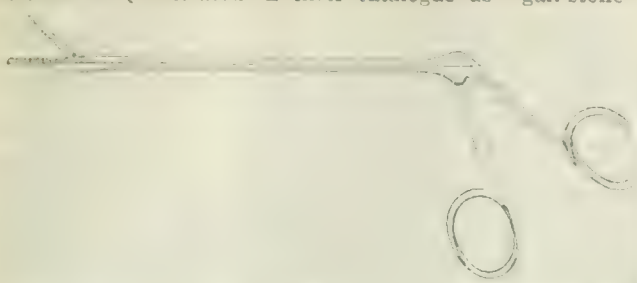
State on Examination.—The child was *x* rayed, and a large nail was seen a little to the right of the middle line, passing downwards and outwards from the level of the third costal cartilage. He was pale, thin, and badly nourished, and the time between his admission and the date of operation was spent, successfully, in trying to restore his general health. He had at this time occasional attacks of dyspnoea, vomiting, and a frequent irritable cough. With rest in bed and suitable diet all these symptoms subsided, and indeed he became remarkably free from symptoms of any kind, with the exception of a slight amount of fever, the temperature each evening reaching 100°, or rather more.

Operation.—By October 31st the child's condition had markedly improved, and on this date I operated, doing a high tracheotomy, the trachea being opened from the cricoid cartilage, downwards, for ¾ inch. Two silk threads were passed through either side of the margin of the wound in the trachea, and the ends left long to act as retractors. A quantity of greyish black frothy mucus was coughed up into the wound. A probe was then passed down the trachea, and at a distance of 3¼ inches from the wound the nail was plainly felt. Unsuccessful attempts were made to remove it with Durham's and other forms of tracheal forceps. It was afterwards extracted without difficulty by means of the forceps shown in the figure. The nail lay head downwards in the bronchus and was thickly coated with rust and mucus. The tracheal wound was not sutured, that in the skin was partially closed with gut sutures and dressed with gauze.

Progress. The following day the child was sitting up in bed playing with his toys, and quite comfortable. The subsequent progress was uneventful. The temperature fell to normal at night, and remained so, and on November 13th, a fortnight after the operation, he was discharged with the wound healed, looking fat and well.

REMARKS. The points of interest in this case are the absence of both symptoms and physical signs while the child remained at rest, and the success attending the use of the forceps shown above. I was unable to discover any physical signs which would enable me to say in which bronchus the foreign body had lodged, and several other medical men who examined the chest were equally unsuccessful, so, in the absence of the *x* rays, it is possible it might have been left unrelieved. I can only explain this by supposing that the nail had become impacted obliquely in the tube, allowing free access of air to the lung. At the time of operation I had obtained from Messrs. Down several ingenious forceps which it was hoped might aid in extraction. They all proved useless. Before the operation I had selected the forceps above

referred to (illustrated in their catalogue as "gall stone"



forceps) as being a likely instrument to prove of service, and they more than fulfilled my expectations. They have the following advantages for the removal of all but rounded bodies such as cherry stones, buttons, etc.: (1) Tenacity of grip to an extent that is not shared by any of the special forms of tracheal forceps; (2) a length of blade amply sufficient to reach any part of the main bronchi through a high tracheotomy wound; (3) sufficient thinness of stem to allow of respiration during the intratracheal manipulation; (4) easy manipulation of the blades. Much time is often expended in these operations in trying various forceps, bent wires, coin catchers, etc. I can strongly recommend these for the purposes of any operation such as that required in this case.

NEW PROVIDENCE ASYLUM, NASSAU, BAHAMAS.

CASE OF INTUSSUSCEPTION OF THIRTY-SEVEN FEET OF SMALL INTESTINE.

(Reported by L. D. Parson, M.B., Ch.B.Edin., Resident Surgeon-Superintendent to the Asylum.)

History.—E.S., a coloured lad, aged about 15, was admitted into the asylum from one of the out-islands on November 16th, 1901. He had been ill for three weeks previous to admission, and had been administered to by himself and his friends. When seen by me on the morning of November 17th he presented all the symptoms of obstruction of the bowels, and was very ill indeed. He had an enema (which brought away nothing) and morphine. At 2.30 P.M. that afternoon he died.

Necropsy.—A *post-mortem* examination was made a couple of hours later (we cannot wait long here), and on opening the abdomen large distended semitransparent coils of large intestine were seen to fill the whole cavity, with only the duodenum and a part of the ileum visible. The stomach was removed first and then the duodenum, and after removing the latter from its attachments I found that on gentle traction being made the small intestine began to unravel itself out of a large tympanitic portion of gut, which was much attenuated and semitransparent. I went on pulling out this cord-like gut until 35 ft. 6 in. came and then the end broke off. At two points there was a large round worm which could be both felt and seen through the gut; and the small intestine itself could be seen through the transparent large intestine. The cord-like small intestine did not always lie towards the mesenteric attachment, but at times, when pulling it out, seemed to lie right near the middle.

Remarks.—The case was one on which a coroner's inquest was held, and the coroner, who was present, being satisfied that no one was to blame for the boy's death, I proceeded no further with the examination, although I much regret that the large intestine was not opened and examined. At all events, the total length of small intestine measured was 37 ft., of which 36 ft. 6 in. was pulled out in the way I described. The full importance of the case did not dawn on me till later on, when I found out that 31 ft. 6 in. was the extreme length of a case reported by Treves, whereas the total length of the small intestine here was 37 ft.

The Medical Profession in Russia.—According to statistics issued by the Medical Bureau of Moscow, the total number of medical practitioners in Russia at present is 20,092. Of these, 19,450 are men and 642 are women. There are besides 1,824 dentists. The number of pharmacists is 3,781. The proportion of medical practitioners to population is 1 to 6,500, and of pharmacists 1 to 35,000.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Alfred Willett, F.R.C.S., President, in the Chair.

Tuesday, April 8th, 1902.

Malignant Endocarditis.

Dr. F. J. Poynton and Dr. Alexander Paine gave a communication on this subject. The relationship between malignant endocarditis and rheumatic fever was a very close one, and this was especially true of certain cases of malignant endocarditis which were associated with a previous history of rheumatic fever, and during the course of which rheumatic manifestations might occur. Their observations had led the authors to the conclusion that there was a group of cases of malignant endocarditis rheumatic in origin. Clinical experience favoured the assertion; the study of the morbid anatomy of the diseases was in its favour; bacteriological and experimental investigation were also in accord with the view for a diplococcus was a cause of rheumatic fever; a diplococcus could be isolated from cases of malignant endocarditis which could be grown in pure culture, and would reproduce the disease in rabbits; the diplococcus of rheumatic fever and this diplococcus resembled one another in their morphology and cultural characteristics; the diplococcus of rheumatic fever would produce malignant endocarditis in rabbits; the diplococcus from certain cases of malignant endocarditis would produce rheumatic fever in rabbits; every grade of valvulitis, from simple to malignant and vice versa, could be produced by these two diplococci. Details of the investigation were given. The tendency of malignant endocarditis to occur in damaged valves was not, they thought, the affinity of the diplococci for such damaged tissues, but the lack of resistance of the damaged tissues. Bacteriologically, so far as the authors had ascertained, the two diplococci only differed in the smaller size and more rapid growth of the diplococcus in malignant endocarditis. These distinctions were not sufficient to constitute them as different organisms. Allusion was made to the acid-producing properties of these organisms, and the possibility that these played some part in the rheumatic processes. The onus of proof that rheumatic fever might result from varied infections lay with those who upheld that view. The authors did not think that rheumatic valvulitis was the only manifestation that might become malignant, but that both pericarditis and arthritis might also take this course.

The discussion on this paper was postponed to the next meeting of the Society.

MANCHESTER CLINICAL SOCIETY.

Herbert Lund, M.B., in the Chair.

Tuesday, March 18th, 1902.

Cases.

Dr. R. W. Marsden exhibited the following cases:

(1) A child with apparently pure mitral incompetence, compensation being perfect. The rapidity of the pulse was only slightly increased, its volume and tension being very good, and beyond a marked accentuation of the second sound in the pulmonary area, no further evidence of change. (2) A girl with mitral obstruction and incompetence, the former being the more marked lesion. The rapidity of the heart beat, and the signs of hypertrophy of the right ventricle showed the absence of any great amount of reserve power, and prepared one for the occasional failure of compensation which occurred, though at the time it was perfect, as evidenced by the loud second sound in the pulmonary area and the absence of any signs of venous stasis. (3) A girl with mitral obstruction and incompetence, associated with adherent pericardium, due to a previous attack of rheumatic pericarditis. (4) A boy with mitral incompetence and adherent pericardium. The previous pericarditis had apparently extended to the left innominate vein, producing partial obstruction, as there was dilatation of the veins on the left side of the neck, over the upper part of the chest on the left side, over the left shoulder and the left upper arm.

Fibroma Uteri.

Dr. Walls (for Mr. Wilson and himself) introduced a patient with fibroma uteri, whose case presented several features of interest.

Three months earlier the tumour caused much abdominal enlargement, there being multiple tumours each about the size of two fists, or of a fetal head, and one such occupied almost the whole of the pelvic cavity, and caused the peritoneum to bulge considerably. The cervix could just be reached high up above and behind the symphysis pubis. The patient was, too, according to history, some four months pregnant, but the

physical signs of this were not clear owing to the fibroid complication. Nothing operative was done because of a recent and active infection with syphilis, and treatment was directed to this. A month ago premature labour came on spontaneously, and a putrid 6-months fetus was delivered by Dr. Walls with difficulty.

In showing the convalescent patient to the Society, Dr. Walls drew special attention to the rapid involution of the tumours *post partum*. The retro-vaginal tumour was rather less than a tangerine orange in size, and the other masses were diminished in corresponding degree, the uterus and tumours together being now entirely pelvic.

MULTILOCULAR OVARIAN CYSTOMA.

Mr. STANMORE BISHOP showed an unusual case of multilocular ovarian cystoma. He remarked that ovarian cysts were usually easy to diagnose and to treat, since they most commonly developed afterwards into the general abdominal cavity, and therefore did not disturb the relations of the parietal peritoneum, but that occasionally, as in this case, they appeared to develop downwards, separating the leaflets of the broad ligament, and embedded in the connective tissue beneath, raised in their growth the pelvic peritoneum and the organs with which it was connected.

The patient, aged 54, was seen with Dr. Knapton, of Moss Side, in October, 1901. The emaciation of her chest and limbs contrasted characteristically with the enormously distended abdomen on the upper half of which well-marked veins were seen. Dullness on percussion was found over the whole of the abdomen, extending to the renal dullness in the right flank, and leaving only two points at which resonance could be obtained, namely, just below the xiphoidcartilage, and very posteriorly in the left flank. A thrill could be obtained extending right across the abdomen. The possibility of an immense hydronephrosis was considered, but negatived, because there had been no symptoms connected with the renal function, and the urine itself was normal. This doubt, however, somewhat unpleasantly recurred during the operation, when it was found that the mass extended far upwards behind the ascending colon. On November 20th abdominal section was performed, and the tumour, which was cystic and multilocular, enucleated from behind the pelvic and abdominal peritoneum. The main cyst contained 27 quarts of fluid. Over it the caecum, with an appendix 6 in. in length, and hypertrophied to the size of the little finger, was found. The latter was amputated. The large cavity left was partially obliterated by the falling back of the internal organs; the remainder being drained by gauze, removed gradually during the next six days. She made a good recovery, but on December 16th paralysis of the left arm and leg supervened, with a large and deep sacral bedsore. These symptoms, however, again gradually improved and on January 10th, 1902, the patient left the surgical home with the bedsore healed but with some paralysis still remaining.

ABDOMINAL SECTION FOR SOLID OVARIAN TUMOUR.

Dr. ARTHUR HELME read a communication upon abdominal section for a solid ovarian tumour, with primary tuberculous peritonitis and ascites, and made some remarks on the differential diagnosis in such cases.

OBSTETRICAL SOCIETY OF LONDON.

PETER HORROCKS, M.D., President, in the Chair.

Wednesday, April 2nd, 1902.

PRIMARY TUBERCULOSIS OF THE CERVIX SIMULATING CANCER.

Dr. LEWERS read a paper on a case of primary tuberculosis of the cervix simulating cancer, which he had treated by vaginal hysterectomy.

The patient, a married woman, aged 36, had never been pregnant. For nine months before she came under observation there had been a vaginal discharge, [illegible] and slightly offensive. Bleeding had been produced by the use of the vaginal syringe. She had suffered from pain for about three months. This did not prevent her working. The catamenia had been regular, lasting five days and not attended by any special pain. She had been quite well up to twelve months before coming under observation, and herself beginning to get thin. She had suffered from the local symptoms about nine months, and had lost flesh. One of her sisters died of phthisis; otherwise the family history was unimportant. The condition of the vaginal portion was what is found in many cases [illegible] to be the seat of "a growth," but on examination the uterus was found to be free from cancer of the cervix and body. She underwent vaginal hysterectomy [illegible] recovery. He had seen her [illegible] ber on November 20th, 1901, [illegible] fairly good health, and has had no [illegible] s in the hospital there was no [illegible]

When portions of the supposed malignant growth were sent to the Clinical Research Association for examination, the report came back that there was no evidence of cancer but that the structure was tuberculous. Brief reference was made to the writings of Pozzi, Cullen, and Whitridge Williams, from which it appeared that primary tuberculosis of the cervix was an exceedingly rare condition.

Specimens of tuberculous disease of the body of the uterus, the cervix, and vagina were shown by Dr. RUSSELL ANDREWS, Dr. WILLIAMSON, Mr. TARGETT, and Dr. CROFT, and discussed in connexion with Dr. Lewers's paper.

Dr. HANDFIELD-JONES narrated a case which had come under his observation.

A multipara, aged 30, had suffered for several years with strumous disease of both hands. Several fingers and parts of the metacarpal bones had been removed at different times, owing to the presence of tuberculous disease of the bones and joints. For months the patient had been suffering with excessive menstrual losses and in the intervals from a foul vaginal discharge. Examination showed that the cervix was deeply excavated by tuberculous ulceration, and that the mischief had extended to the upper part of the vaginal wall on the left side. As the patient would not submit to any radical operation, the ulcerated cervix was thoroughly scraped, and then Paquelin's cautery freely applied to the base of the ulcer. Cicatrization followed, and two years later the patient was found to be free from any further spread of tuberculous disease in the genital tract, but she had commenced to develop tuberculous lesions in her lungs.

The good effect of the curettage and use of the actual cautery was very manifest, and might certainly be used with advantage for cases in which extirpation of the uterus was deemed undesirable.

Dr. E. O. CROFT remarked on the importance and difficulty of diagnosing cases of tuberculous cervicitis. There was a closer resemblance of the symptoms in Dr. Lewers's case to those of cancer than in the case described by himself. Dr. Lewers's patient had had bleeding, pain, and some offensive discharge. Dr. Croft's case had absolute amenorrhoea for many months, bleeding only taking place when examined. The growth was softer than in cancer, and did not break away in the same crumbling manner. The papillary masses were easily detached, and were more of the consistence of mucous polypi than of the vegetations of cancer. Dr. Croft, on his first examination of the case, concluded that the growth was not of the nature of any of the ordinary forms of cancer of the cervix, but kept in mind the possibility of an early condition of botyroidal sarcoma, or myxoma of the cervix. The tuberculous nature of the lesion was, however, established by microscopic examination before operation was decided on.

In reply to a remark of Dr. LEWERS, Dr. CROFT said that tubercle bacilli had not been definitely demonstrated.

The PRESIDENT was surprised to hear that tubercle in the uterus in the majority of cases was confined either to the cervix or to the body; for in the only two cases that had come under his observation, the whole mucous membrane, from the os externum to the top of the uterus, was affected, and he had thus been led to think that tubercle differed essentially in this respect from cancer. Also, in his own case and in that of Dr. Lewers, the patients had never been pregnant. He was surprised to hear Mr. Targett say that it was easy to diagnose tubercle. Certainly it might be so in the lungs, either clinically or *post mortem* with the naked eye; but in the tubercle of the uterus he thought it was difficult, and even where a piece had been cut out and investigated microscopically, it had been pronounced to be sarcoma. He was under the impression that the specimen shown by Mr. Targett from the Guy's Hospital Museum was the same one to which he had referred. She was in a medical ward, and he (Dr. Horrocks) had seen her and had diagnosed from the condition of the swollen cervix, which seemed filled with ovulæ Nabothi, a follicular inflammation of the cervix. She was transferred to the care of Dr. Galabin, who cut a piece out, and after careful microscopical investigation, came to the conclusion that it was sarcoma, and removed the uterus by vaginal hysterectomy. The whole of the uterine mucous membrane was greatly thickened and diseased throughout. It was examined at the Royal College of Surgeons by Dr. Goodhart and someone else, and tubercle bacilli were found.

The paper was also discussed by Mr. TARGETT and Dr. MUNRO KERR, and Dr. LEWERS briefly replied.

PSEUDO-INTRALIGAMENTARY CYST.

Dr. FAIRBAIRN showed a unilocular ovarian cyst, containing in its wall large solid masses undergoing necrotic change. The cyst itself showed no evidence of any twisting of the pedicle, and was in fact a sessile cyst enucleated from underneath the broad ligament. The solid masses were of a deep purple colour, and projected into the interior as a number of rounded bosses; on section they were very firm and hard, and

cut more like a fibroma than the solid adenomatous structures of an ovarian cyst. When fresh they were full of blood, and had an appearance very like that of liver. Microscopically they proved to be adenomatous, with a papilliferous arrangement. There was a very extensive extravasation of blood with thrombosis of vessels into the necrosed parts. The partial necrosis affecting only the solid masses was somewhat difficult to explain. As there was some calcification at the base of the cyst this might have interfered with the blood supply.

Tubal Gestation.

Dr. Amand Routh showed a specimen of a Fallopian tube ruptured towards its fimbriated end in two places.

The patient was a multipara, aged 25, who, when about six weeks pregnant, was seized with collapse and all the signs of intra-abdominal haemorrhage. When the abdomen was opened the peritoneal cavity was found to be full of blood, and the ovum in its intact membranes was found to be adherent to the edge of a rupture on the posterior aspect of the right Fallopian tube near the fimbriated end. The tube was ligatured off and removed, and was then found to be ruptured both anteriorly and posteriorly. The patient rallied well from the operation and made an easy convalescence. When examined the ruptured tube showed the following features: The tube measured 7 cm. in its long axis. At the cut uterine extremity it was normal in size for 1 cm. of its length, but its lumen was impervious; 1 cm. from the cut end the tube widened out into a thin-walled sac, the distension reaching as far as the fimbriae, which appeared as so many finger-like processes proceeding from the sac; the abdominal ostium having been closed, it was no longer traceable. The tubal gestation sac measured 6 cm. in length by 2·5 cm. in width through its greatest diameter. The sac tapered at either extremity, being more or less fusiform in shape. The walls of the sac had ruptured both anteriorly and posteriorly, the one tear in the distended condition measuring 1 cm. by 2 cm., the other being 2 cm. by 2 cm. in extent. Both tears proceeded to within 2 cm. of the fimbriated extremity of the tube.

Dr. Russell Andrews, having shown a photograph, two drawings, and the pelvic organs from a case of congenital or rather infantile prolapse of the uterus, associated with spina bifida, Dr. Blacker commented on the case.

Dr. Williamson showed a specimen of umbilical cord containing four umbilical arteries and only one umbilical vein, and Dr. McCann showed a specimen of a tubal mole.

LIVERPOOL MEDICAL INSTITUTION.

Pathological and Microscopical Section.

Dr. W. B. Warrington in the Chair.

Thursday, March 20th, 1902.

Bacterial Investigations of the Water of Public Swimming Baths.

Dr. E. E. Glynn read a paper on this subject. He had directed his attention to the following points: (1) The total number of bacteria present in the water of the first and second class baths at the beginning and end of the day; (2) the number and nature of the pathogenic organisms present; (3) the source of the organisms. Samples of water were taken in sterilized flasks, and plated on agar within an hour of leaving the bath; these plates were incubated at 37° C., and the number of bacteria present in a cubic centimetre of the bath water estimated. The colon bacillus was demonstrated by the method of Dr. McConkey—that was, culture on the bile salt agar. The majority of the observations were made at baths which were filled with fresh water every morning always derived from the same source. This water was practically sterile, containing fewer than 3 bacteria per cubic centimetre. An hour after the baths were opened the water gave 46 bacteria per cubic centimetre: these were derived mainly from the air and the walls of the baths, as a series of experiments showed that at the temperature of the baths (21° C.) the organism concerned, that was, those which grew on agar at 37° C. did not multiply to any considerable extent. During the eight hours of the night the number of bacteria, therefore, rose from 3 to 46 per c.cm.; if this rate of increase were maintained at 9 p.m. the number should be about 200 per c.cm. The examination of the water in the first-class plunge bath at 9 p.m. on five different occasions during the months of June and July gave an average of 4,676 bacteria per c.cm., the average number of bathers being 292; samples collected in the second-class baths on three occasions contained an average of 11,970 per c.cm., the average number of bathers being 186. A calculation based on the capacity of the baths showed that the water removed from the skin and hair of each bather between four and six thousand million bacteria, excluding moulds and others which did not grow at 37° C. One source of pollution of the bath arose from a tiled corridor about 4 feet wide running round between the edge and the dressing boxes; on this both the bathers and those waiting to bathe walked, with the result that soon after opening this was more or less muddy. To avoid this a bath should have two corridors—an inner one between the bath and the boxes, another outside the boxes, the latter being open back and front. With regard to the organisms discovered in the water, streptococci were never found; staphylococcus aureus and citreus very rarely; staphylococcus albus was abundant in three varieties, pyogenes albus, epidermidis albus, and cereus albus. B. coli was present in the bath at the end of the day to the number of 8 per litre for each bather in the first class, and 48 for each bather in the second. Probably typhoid was never contracted in baths such as those investigated, and the swallowing of water of the type analysed was quite innocuous. Various complaints had from time to time been ascribed to infection in baths, but with doubtful accuracy; some who bathed constantly in the open complained of lassitude after swimming in a public bath; this could not be due to the quality of the water but to its temperature and to defective ventilation. Liverpool was peculiarly fortunate in the number of its baths and the excellence of the water supplied to them.

In the discussion which followed the following speakers took part: Drs. Permewan, Barr, Anderson, Grünbaum, Matthews, Kelly, Grimsdale, and Bennett.

Specimens.

Dr. Arthur Wallace showed a specimen of tuberculosis of the body of the uterus removed by vaginal hysterectomy from a married woman, aged 40. The endometrium was chiefly affected, but the disease had also extended into the muscular layer. There was no evidence of tuberculosis in any other part of the body, so that the condition was probably the rare one of primary corporeal tuberculosis.—Dr. J. P. Martin showed a hydrocephalic brain from a boy aged 1½ year; the circumference of the head was 23 in., the weight of the brain 17 oz.—Dr. Warrington showed a specimen of tubercle connected with a small artery in the Sylvian fissure in a case of tuberculous meningitis: in the cerebro spinal fluid withdrawn by lumbar puncture from the case lymphocytes were numerous, and no other type of leucocyte. He also showed a specimen of blood from a typical case of pernicious anaemia: megaloblasts were present but few in number, and also red cells with many granular particles deeply stained with methylene blue. These were regarded as degenerating megaloblasts.—Dr. R. J. Ewart showed specimens from cases of bronchiectasis and atrophy of the cerebellum.—Dr. Warrington, Dr. A. J. Campbell, and Dr. Grünbaum took part in the discussion on the various specimens.

Harveian Society of London.—At a clinical meeting held on March 20th, Mr. W. Watson Cheyne, President, in the chair, Mr. Roughton showed a child seven months old after operation for intussusception. Four weeks ago the child was brought with the complaint that it had been sick more or less continuously since last Christmas, and that on the previous evening it was taken considerably worse and began to pass blood and slime. The condition was at once suspected, and on palpation a small swelling was found above and to the right of the umbilicus. Injection was not resorted to, but the abdomen was at once opened and an intussusception of the ileo-caecal variety was found, which had only travelled as far as the hepatic flexure of the colon. It was reduced with ease. He afterwards noticed that the vermiform appendix presented a bruised appearance in its distal 1½ in., and he accordingly removed it. The President said he had taken a fancy to combining the two methods, that of injection and of abdominal section. He opened the abdomen and located the intussusception, then injected fluid slowly *per rectum*. Then if the fluid did not seem to be doing good the bowel could be brought out and the intussusception removed. Mr. Roughton showed another case in a child 13 months old, who was operated upon at the age of 4 months, when the symptoms had lasted twenty-four hours. He reduced the trouble easily, except the last two inches, but that occupied a quarter of an hour and was very troublesome.—The President showed a man who had fractured both patellae, one of which had been treated by wiring and the other not, and remarked that the secret was not to put the leg in a splint, but to make the patient walk as soon as possible. The President also showed a boy who a year ago fell from a parapet a distance of 20 ft. and fractured the left femur above the condyles. When seen the lower end of the upper fragment was in the lower part of the popliteal space, behind the tibia. Reduction was tried, but every time the force was relaxed it shot back again. The

application of heavy weights was also tried, but without permanent success. Eventually he made a long incision, turned back everything and exposed the bones. It was found that not only was the femur fractured across, but the condyles were down in the joint, and the ends of the bones went in between the condyles, separating the two halves. He therefore nailed on the outer side a plate of aluminium, fastening it with silver tacks. The leg was put into a splint and kept there for a long time, because the bone was so thin. For a time the lad had a stiff knee, but he could now bend it to a right angle. The plate was still *in situ*. He found the use of the plate an excellent measure in such cases, and he had treated several by it. It would be an advantage to have the plate and the nails of the same metal, to obviate any possible electric action.—Mr. Jackson Clarke showed a boy the subject of severe spastic paralysis one year after operation. He had shown the boy before operation, and shortly afterwards. The right leg had been particularly stiff, but was now more useful, though he still walked plantigrade. There had been a lot of clonic movement, and he did an elongation of the tendo Achillis on the right leg, which caused the stitches to give way over that. Instruments had been left off during the day, but were resumed at night. He did not believe tendon transplantation had been very useful for the condition.—Dr. Leonard Guthrie showed a case of Charcot's disease in both hip-joints in a woman, aged 44. Twelve years ago she had slight pains in the limbs which did not last long. Three years ago they were much worse and of a lancinating character, and there was numbness about the soles of the feet. At about that time a sudden swelling arose in the neighbourhood of the right hip, but it was painless. She thought the bone was out because she could hear the bones rattle. Six months ago the other hip was similarly affected. Dr. Guthrie also showed a case of arrested growth of the forearm following fracture, with ischaemic paralysis, in a man aged 58. The condition of Volckmann's ischaemia was of fifty years' duration. At 9 years of age he fractured both bones of his left forearm, and tight bandaging and subsequent ulceration resulted in firm flexion of the wrist when the splints were taken off. The fingers were bent into the palm of the hand, and there was no use in the fingers. Operations had since been performed with the view of increasing the length of the contracted tendons. There was a difference of 2½ in. in the measurement of the two sides. The bones of the left forearm were small, infantile in appearance, and delicate. The fingers were dwarfed and stumpy and somewhat glossy. Reaction to faradism could be obtained in both flexors and extensors. The condition had been known to follow the application of Esmarch's bandage. Volckmann thought the condition was due to rigor mortis produced by stoppage of circulation, others that it was a purely nervous phenomenon. The previously described cases had been in children, and had not been watched long enough.—Dr. Cayley, Mr. Raymond Johnson, Mr. Jackson Clarke, Dr. James Taylor, and Dr. Cautley took part in the discussion.

Society of Medical Officers of Health.—At a meeting on March 13th, Mr. Wynter Blyth, President, in the chair, Dr. James R. Kaye, M.O.H. West Riding, read a paper entitled Scarlet Fever: How Far do Statistics Prove or Disprove the Utility of Isolation Hospitals? a rejoinder to one read by Dr. Millard, M.O.H. Leicester, last year, whose tables he severely criticized. In one, for example, Dr. Millard had arranged 9 towns in two groups of 3 and 6, the aggregate populations being about equal. The former had during the eighteen years, 1882-1899, isolated 64 per cent. of their cases, but showed no better results than the latter that had isolated, on an average, 28 per cent. only. Dr. Kaye maintained that the influence of disturbing factors, local conditions, epidemic cycles, etc., would be more marked in 3 than in 6 communities, the equality of total population being of less importance than the number of units, yet to obtain this equality Dr. Millard had included in the latter group towns that isolated a larger percentage than did any of the former. An average thus attained was utterly misleading. If the eighteen years were divided into two periods of nine years it would be seen that each group had increased its isolation—from 54 to 71, and from 16 to 39 per cent.—with good results, but the latter period was not a fair one for comparison, since in it the first group had two curves of maximum and one of minimum prevalence, and the second group one maximum and two minimum, making the results naturally less favourable for the first, in which, too, 32 per cent. of the population lived in tenements of one or two rooms only, as against 17 per cent. in the second group. Dr. Kaye took 93 towns with a total population of over 10 millions, which he divided into four groups A, B, C, and D, respectively, isolating between the years 1891 and 1899, under 20, 20 to 50, 50 to 80, and over 80 per cent., in populations of about 1½, 5½, 2¼ and one million. Groups A and D were probably the most consistent and uniform in their practice, and therefore the best for comparison, since otherwise they would have fallen into B or C; the good results in D were evident, and the low mortality and fatality with a high attack rate in A was probably due to the mild character of the disease, since municipal activity was mostly the result of severe visitations. In another table Dr. Millard selected 23 towns only out of 93 for which statistics were available in the period 1891-99, dividing them into three groups of 9, isolating over 40 per cent., 9 isolating on an average under 45 per cent., and 4 with practically no isolation. Now the populations of the groups differed widely, and while none of the first group isolated over 50 per cent. and could not correctly be considered as "good isolators," most of the second group isolated more than 40 per cent., and should have been included in the first group; this average again being most unfair, and since one at least in each group for some time notified first cases only, and others had had isolation for but a part of the time, the conclusions were altogether fallacious. Again, Warrington, among the towns with isolation and Preston without it, were not comparable, for Preston was in an open healthy country and Warrington in the centre of a thickly-populated manufacturing district, the hospital, too, was overcrowded and the accommodation so inadequate that many cases waited a week or fortnight for admission and were yet described by Dr. Millard as "isolated" meanwhile! The population of Preston had been overestimated, and contained, as the last census showed, a considerably smaller number of susceptible individuals. But Warrington, recognizing the good results of isolation, imperfectly as it had been carried out in the past, was largely extending the accommodation, while the medical officer of health of Preston was so dissatisfied with the present system that the corporation had decided on erecting a hospital; and this was but to be expected, for while in 1900 the attack-rate and death-rate per 1,000 had been 4·4, and 0·284, respectively, and the case mortality 6·4 per cent., they had in 1901 risen to 15·4, and 0·761, though the case mortality had fallen to 4·9. The social conditions of the two towns were very different and wholly in favour of Preston; thus, while the number of persons per acre was practically identical, the proportion per 1,000 of one or two roomed tenements in Preston was 32 and in Warrington 88, occupied respectively by 19 and 58 per 1,000 of the population; while the proportion of children under 10 years of age—the susceptible material for scarlet fever—was 239 in Preston and 270 in Warrington, where also the schools were overcrowded, there being for every 100 children on the registers but 107 seats as against 150 in Preston. After remarks by Dr. Malet (M.O.H. for Wolverhampton), Dr. Armstrong (M.O.H. Newcastle), Dr. Robinson (M.O.H. Leicestershire), and Mr. Beale Collins (M.O.H. Kingston-on-Thames), Dr. Millard (M.O.H. Leicester) defended his tables, and objected to some of Dr. Kaye's conclusions, though he fully admitted the importance of local conditions. He regretted having included towns where isolation and notification had been but imperfectly carried out, and denied having compared Warrington and Preston save as members of large groups. Referring to Dr. Malet's careful analysis of families invaded, he admitted that "it stood to reason that when the first cases were removed the chances of other children contracting the disease must be less."—Dr. Kaye, replying, said that in his closing sentence Dr. Millard had conceded the whole question, and he justified his comparison of Warrington and Preston as involving every point at issue between Dr. Millard and himself. He insisted on the unfairness of including in one group towns that, on Dr. Millard's own showing, ought to have been placed in another, but

above all he deprecated the indiscretion of Dr. Millard in giving the publicity of a congress to views the soundness of which was, to say the least, far from established, but which had made a great and dangerous impression in some quarters. Indeed, several of the Yorkshire borough authorities had in consequence seriously entertained the closure of their hospitals, and but for his intervention might have actually taken the step.

West London Medico-Chirurgical Society.—At a clinical meeting held on March 7th, Mr. Alfred Cooper, President, in the chair., Dr. J. B. Ball showed a case of hysterical mutism in a man, aged 37, who had been completely aphonic since he accidently fell over a dog in the dark some six months previously. Applications of the faradic current had been used without avail. Dr. O. Grünbaum suggested that a cure might be effected by placing the patient under the influence of hypnotism or of alcohol. Dr. R. W. Lloyd suggested that the same result might be obtained with less objection by means of an anaesthetic. Mr. T. D. Patmore pointed out the necessity for the patient to realize that he had regained his speech, and recommended, therefore, that a better method would be to excite a reflex reply from the patient by such means as an alarm of fire or a carefully-prepared ghost.—Mr. Keetley showed and gave a description of his extension splint for the lower limbs, by means of which active extension could be applied.—Mr. Swinford Edwards showed a man, aged 45, from whom he had removed a large amount of villous growth of the bladder by suprapubic cystotomy some four months previously. The patient was now in good health, and able to walk his four miles a day without discomfort. In reply to Mr. Keetley, Mr. Swinford Edwards said that in his experience such cases, when non-malignant, did well after operation, and that the urinary symptoms were, as a rule, completely and permanently relieved. Mr. Swinford Edwards also showed a case after wiring of transverse fracture of the patella. The patient, aged 24, broke his patella on January 18th, 1900. Forty hours later Mr. Swinford Edwards operated, exposing the joint by an external semilunar flap. The fracture ran transversely at the junction of the upper three-quarters with the lower quarter. The fragments were united with silver wire. Gentle passive movement was commenced on the eleventh day, and in three weeks the patient was allowed to walk.—Mr. L. A. Bidwell showed two cases of rodent ulcer treated by the *x* rays; in the one the ulcer had completely healed, while the other was still under treatment. Mr. Bidwell stated that he regarded scraping followed by treatment with the *x* rays as the best method.—Mr. McAdam Eccles showed a case of the right testis in Scarpa's triangle in a patient, aged 32. The right testis was one-fifth the size of the left, and possessed testicular sensation. The spermatic cord could be traced from the gland up to and through the superficial abdominal ring. The right side of the scrotum was developed, but empty. The patient had also a slight double inguinal hernia.—Dr. Seymour Taylor showed an omnibus driver, aged 40, who was abnormally stout, and often fell asleep while driving. The organs were healthy, with the exception of feeble heart's action and a little chronic bronchitis. He had much improved under treatment by depletion and a modified Tufnell diet.—Dr. Arthur Saunders showed: (1) A case of cretinism:

When first seen in December, 1901, the patient, a boy aged 12, was but 3 ft. 0½ in. in height, and weighed 3 st. 1 lb. He presented the typical appearance. His skin was very dry and rough, and much subcutaneous fat was present, especially about the shoulders and above the clavicles. His hair was coarse, sparse, and dry. He had been placed on dried thyroid for a month in December, and again for the last month. In this time he had grown 1 in. and had lost 7 lb. in weight. His skin had become soft, velvety and elastic, and his feet had peeled. There had been but little alteration in the hair. The boy had also become much more lively, and was generally brighter and more intelligent. No trace of the thyroid gland could be made out, and the rings of the trachea were easily felt.

(2) A case of organic nervous disease:

The patient, a girl of 16, showed in her facies and teeth signs of congenital syphilis. In the right eye there was also a vitreous opacity and a patch of choroidal atrophy. There was, too, double optic atrophy, secondary to papillitis. There was considerable weakness of muscles. She walked with a "swaying" gait, and had some difficulty in standing with her feet close together and her eyes closed, and was inclined to fall on turning suddenly. The pupils acted to light. The knee-jerks were absent. There was no nystagmus, tremor, or affection of speech, no pain, and no local paralysis. There was no vomiting or visceral crises, and though there had been occasional slight headache and vertigo these symptoms were never marked.

Dr. Saunders pointed out his reasons for regarding the case as one of tabes dorsalis resulting from congenital syphilis coupled with some intracranial affection of like origin.—Dr. H. W. Chambers exhibited a case of anencephalus. This was accompanied, as was so often the case, by a condition of hydramnios, and birth was delayed until the end of the tenth month.

Pathological Society of Manchester.—At a meeting on March 19th, Mr. Collier, President, in the chair, Dr. Walter showed a solid tumour of the right ovary removed from a multipara, aged 39. The pedicle was fleshy and vascular. When drawing the tumour through the abdominal incision one's finger penetrated the capsule, which was friable over a small area, where the tumour was soft like putty, and of a pink colour. The other ovary was atrophied, and there was no ascites. On section the tumour was of the consistence of a pear, yellowish-white in colour, with a pink streak in the centre. Microscopically the stroma of the ovary was found extensively infiltrated with round cells resembling closely in appearance a sarcoma testis, but the arrangement of the cells permitted the possibility of a carcinomatous origin.—Dr. Cowen and Dr. Orr described a case of syringomyelia, with symptoms of progressive muscular atrophy only, without sensory symptoms or spastic paralysis. The spinal cord was wasted and softened in its upper half. There were two cavities in the grey commissure, surrounded by gliomatous tissue, extending from the first cervical segment to the upper lumbar segments. The anterior one was the real central canal and was partially obliterated for almost its whole length, but with occasional dilatations. The posterior one, a large cavity, had enlarged by gliomatosis and softening, so as to invade almost the whole of the grey matter, especially in the mid-cervical and dorsal regions. There were marked ascending and descending degenerations.—Dr. Moore showed two specimens of unsymmetrical kidney, and referred to compensatory hypertrophy of the kidney.—Mr. W. M. Smith (Leeds) showed two specimens: (1) Solid tumour of ovary:

E. H., female, 44, history of ill health for three years. At the commencement of that period a probable tumour was diagnosed. No history of previous illness was elicited. The growth was pedunculated, had few adhesions, was easily removed. The patient did well after the operation. The growth weighed 2 lb. 4 oz., and to the naked eye it had the appearance of an ordinary fibromyoma. The ovarian tissue was completely replaced by the growth. Histologically the tumour was composed of fibrous tissue with a few non-striped muscles. In addition throughout the whole growth were alveoli of epithelial cells. The spaces in which they were contained had no lining membrane. They showed nothing to indicate their origin from Graaffian epithelium. The structure bore the stamp of malignancy, although the encapsulation of the growth, its naked-eye appearance, its want of adhesion to neighbouring parts favoured a benign origin.

(2) Tumour of broad ligament:

A. H., 35, married, came much observation during fourth month of pregnancy. A hard swelling was felt on left side of abdomen and to occupy the space between iliac crest and costal margins. Gestation proceeded to the seventh month, when the patient aborted. Then the growth was felt to proceed from the pelvis. A week later Dr. Hellier cut down on the swelling and removed a large tumour which was found to be growing in intimate relation to the left ovary and left cornu of uterus. It was slightly adherent to the amentum. The patient made a good recovery. The growth weighed 4 lb. 2 oz., was almost solid. It was found to be covered by the expanded layer of the broad ligament, and to carry the ovary and Fallopian tube on its upper surface. The tumour growth was seen to invade the ovary by the hilum. Histologically the growth was composed of alveoli of epithelial cells in a stroma of fibrous tissue. Myxomatous degeneration was taking place at the centre. Some of this tumour growth was seen in the left ovary; also the right ovary which was found to be enlarged at the time of operation and was removed.

The growth had the appearance of a carcinoma, had apparently originated from embryonic remnants of the Wolffian duct and had growth and expanded the layers of the ligament.

Society for the Study of Disease in Children.—At a meeting on March 21st, Dr. H. Ashby (Manchester) in the chair, Dr. A. E. Sansom showed a case of Hodgkin's disease in a girl aged 8 years. The glands on the left side of the neck were greatly enlarged, and the spleen occupied the left half of the abdomen. The child was anaemic, and the leucocytes were deficient. The disease started four years previously, subsequent to measles. Dr. Morison and Dr. Kelson commented upon the case; and Dr. Sansom replied.—Dr. Harcourt Gervis showed a case of double aortic disease in a boy aged 13

years, in whom a presystolic murmur was present at the apex. Dr. SANSOM thought the presystolic murmur did not indicate mitral stenosis, but was an example of Flint's murmur. Dr. MORISON was of opinion that pericardial adhesions were partly responsible for the enlargement of the heart, and spoke of the propriety of surgical interference in selected cases. Dr. THEODORE FISHER (Bristol) considered that pericardial adhesions to the chest wall did not produce cardiac enlargement, and consequently thought surgical interference would be inadvisable, even if the case could be diagnosed. Dr. HARCOURT GERVIS replied.—Mr. ARNOLD LAWSON showed a case of congenital proptosis in a child of three years, and thought it due to imperfect development of the base of the skull and the orbital plates. Mr. W. H. JESSOP agreed with the diagnosis. Dr. HUTCHISON said he had a similar case under his care. Dr. CAUTLEY referred to the high palatine arch in the case. Dr. SUTHERLAND thought whatever mental defects were present were only apparent, and were due to defective hearing, consequent upon the presence of post-nasal adenoids.—Dr. CAMPBELL POPE showed a case of infantile scurvy in a female infant aged 8½ months, which had been fed on patent foods, and had developed haematuria, periosteal haemorrhages, and gingivitis. The symptoms had started three months before. The existence of haematuria had suggested the presence of a renal calculus, and the child had been examined by the *x* rays.—Dr. GEORGE CARPENTER read a paper on a case of scurvy in a rickety boy aged 5½ years. He called attention to the difficulty which was experienced in arriving at a definite conclusion as to the exact causation of these cases. Dr. SUTHERLAND said that in his experience the prognosis was often grave. Dr. CAUTLEY discussed the question from the point of view of infant feeding, and thoroughly endorsed the remarks made by Dr. Sutherland on the injurious effects of patent foods. Dr. C. W. CHAPMAN called attention to the value of fresh milk. Dr. H. ASHBY (Manchester) spoke as to the obscurity surrounding the causes of infantile scurvy. Dr. THEODORE FISHER thought that in fatal cases death might be due to secondary infection. Dr. CARPENTER replied.—Mr. W. P. MONTGOMERY (Manchester) showed a specimen of an inverted Meckel's diverticulum which had formed the apex of an ileo-colic intussusception. The condition was, he stated, a rare one, there were not more than six cases on record.—Dr. THEODORE FISHER showed (1) a specimen of congenital disease of the heart from a child aged 4 months, in which a wide communication was present between the aorta and pulmonary artery, and attached to both pulmonary and aortic valves were large vegetations; (2) a stomach from a case of diphtheria in a child aged 3 years, which was dotted over with numerous petechiae; there were no petechiae elsewhere, the large intestine excepted; there had been haematemesis two days before death.—Dr. H. ASHBY read a paper upon a case of combined empyema and purulent peritonitis. A girl, aged 8½ years, was seized with vomiting and diarrhoea, followed by pleuropneumonia and peritonitis. An empyema and suppurative peritonitis followed. Pneumococci and the micrococcus tetragenus were found in the pus of the empyema and the micrococcus tetragenus in the peritoneal pus. The girl made a good recovery. Dr. A. E. SANSOM complimented Dr. Ashby on his paper.—Dr. FISHER said that he had made *post-mortem* examinations of cases of combined pleural and peritoneal infections due to the pneumococcus and other organisms.—Dr. DAVID NABARRO called attention to the pathological records of the Evelina Hospital for the past year of cases in which peritonitis was associated with empyema. After remarks by others Dr. ASHBY replied.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting held at Liverpool on February 21st, Dr. S. BUCKLEY, *President*, in the chair, Dr. T. ARTHUR HELME (Manchester) showed: (1) Carcinoma of the cervix uteri, with double pyosalpinx removed *per vaginam* from a nullipara aged 23. The patient had been married 12 months. The husband had gonorrhoea a few months before marriage. The symptoms of menorrhagia and discharge had existed about six months. The points of interest in the case were the early age for cervical cancer, its occurrence in a nullipara, and the [illegible] gonorrhoeal pyosalpinx. The growth consisted of columnar carcinoma. (2) Polypoid carcinoma of the corpus uteri, removed by vaginal hysterectomy from a virgin aged 41. The operation was rendered difficult by the smallness of the vagina, and incision of the perineum was required, and also median section of the anterior uterine wall. The ligaments were clamped. The growth was gland-celled carcinoma. It originated in the right side of the body of the uterus, forming a large polypoid mass, protruding into the vagina. (3) Solid ovarian tumour and primary (?) tuberculous peritonitis with ascites. Wasting, ill-health, and abdominal enlargement had been noticed for some months. There was an evening rise of temperature which was subnormal in the morning. The signs were those of a considerable amount of free fluid in the peritoneal cavity, together with the presence of a solid ovoid tumour in the right ovarian region. The uterus was not enlarged. The history, general condition, and physical signs suggested tuberculous peritonitis rather than simple ascites associated with the tumour. The abdomen was opened, and the tumour removed. It was a fibroma of the right ovary. There was no evidence of malignancy. The whole of the posterior surface of the right broad ligament and uterus were covered with a thick caseous, tuberculous-looking material, and the pelvic peritoneum generally showed the usual evidences of tuberculous peritonitis. Both Fallopian tubes appeared healthy. The ascitic fluid was removed and the abdomen closed. The patient has completely recovered health at the present time (nine months after operation). The specimens were discussed by Dr. E. T. DAVIES and others.—Dr. LLOYD ROBERTS (Manchester) showed a large uterine polypus removed from a married woman, aged 52. There was commencing necrosis with offensive discharge and bleeding. The pedicle, about twice the thickness of a thumb, sprang from the posterior uterine wall, above the internal os. In addition to the polypus, the posterior cervical lip and adjoining vaginal fornix showed superficial ulceration. The appearance of the polypus suggested malignancy, but examination failed to reveal such a condition. A further investigation would be made.—Dr. W. WALTER (Manchester) showed a solid tumour of the right ovary removed by abdominal section from a multipara whose periods suddenly ceased five years previously. The other ovary was small and atrophied, and no ascites was present. At the outer end of the tumour, which was the size of a small cocoanut, the capsule was very thin and friable, and over a small area the contents were pink and of a putty consistence. The remainder of the tumour was firm, and cut like a pear. Some parts looked like a fibroma, but microscopically the ovarian stroma was found extensively infiltrated with round-celled sarcoma. Dr. BRIGGS, Dr. DONALD, and the PRESIDENT (Dr. Buckley) discussed the difficulty of distinguishing benign from malignant connective tissue tumours of the ovary, and Dr. WALTER replied.—Dr. A. DONALD and Dr. W. K. WALLS (Manchester) related a case of spontaneous rupture of a uterus bicornis unicollis during pregnancy. The first four confinements were tedious or instrumental. The fifth occurred in St. Mary's Hospital, and was described by Dr. Walls in the Society's *Transactions*, 1899. The present labour commenced with pain and haemorrhage. The placental edge was felt just within the cervix. Plugging the cervix and vagina failed to induce pains; the bleeding recurred and the os was rigid; the fetal skin was peeling, a leg having been brought down under chloroform. No further progress taking place, multiple incisions of the cervix were made and the base of the skull perforated. The cervix tore, the laceration involving the broad ligament through the peritoneum. On passing the hand to remove the placenta the two horns were found to have separated, the thin intervening tissue having given way. The abdomen was opened and panhysterectomy done. The patient made a good recovery.—Dr. H. BRIGGS (Liverpool) exhibited (*a*, *b*, *c*) three examples of solid ovarian carcinomata; (*d*) necrobiosis of fibroma of ovary; (*e*) double ovarian cystoma and pregnancy; (*f*) vaginal nodules in case of adeno-carcinoma of the cervix. Remarks were made by Drs. DONALD, LLOYD ROBERTS, WALTER, RAW, and HELME; and Dr. BRIGGS replied.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—At a meeting on April 3rd, Mr. HERBERT LUND read a paper on Failures and Successes in Urinary Surgery. He described cases illus-

trating the difficulty caused by a large lacuna magna in catheterizing and also in the treatment of gonorrhoea, the distensibility of the female urethra for the removal of calculus, the evils caused by white wax in urethral bougies, and the advisability of sounding the bladder when performing circumcision in children. The dangers attendant upon even such a simple operation as circumcision were emphasized by reference to the case of an elderly man who had cerebral haemorrhage with hemiplegia the day after the circumcision was performed. As regarded enlarged prostate careful catheterism was usually sufficient to give relief. The advantage of operation was immediate and only transient. Freyer's operation probably really consisted in the removal of an adenomatous mass which compressed the prostate. The suprapubic operation was the best in all cases of vesical calculus. Syphilitic ulceration of the bladder might be difficult to diagnose, but yielded to grey powder and potassium iodide. Varicocele was best treated by the open method, with excision of a length of vein. The most certain cure for hydrocele was excision of the sac. All these points were illustrated by reference to actual cases, and Mr. Lund also mentioned cases of renal calculus, hydatids of the kidney, and a case of intermittent hydronephrosis treated by nephrorrhaphy, where a large granulating surface was left, and the patient was kept at rest in the dorsal position for three weeks with a successful result. The President (Mr. R. Burdett Sellers), Mr. J. Melvin, Mr. W. Stanwell, and Dr. W. J. Kerr made remarks, and Mr. Lund was warmly thanked for his most interesting paper.

Glasgow Southern Medical Society.—At a meeting on April 3rd, Dr. John Stewart, President, in the chair, the adjourned discussion on the curability of phthisis pulmonalis was resumed by Dr. Ebenezer Duncan, who reviewed the treatment of the disease in the earlier part of the nineteenth century. He pointed out that the open-air treatment—so much lauded to-day—was advocated in England by G. Bodington as early as the year 1840. He gave a detailed account of cases he had seen in private practice and in hospital in which undoubted cures had taken place. He had known patients completely restored to health in whom there had been found all the signs of pneumonic consolidation and excavation, and in whom tubercle bacilli had been found abundantly in the sputum. Particular examples were described in which even in a short space of time remarkable improvement had taken place. With regard to treatment, he believed that a persistent germicidal course was very efficacious. Carbonate of guaiacol in large doses was of great service, and he often gave creosote and cod-liver oil (mv of the creosote to ʒj of oil). He strongly recommended inhalations of pinol and eucalyptol, and in the absence of catarrh of the bronchi he used formalin in 10 to 20 per cent. solution. As regarded diet he believed in high feeding. In addition to the ordinary diet his patients received four pints of milk per day. He believed in the advantage to be gained by the open-air treatment and carried it out systematically in his practice. Dr. Thomas Forrest had noticed that when haemoptysis was present the treatment seemed to be more favourable and the same result was found in phthisical patients with the rheumatic diathesis. He was inclined to think that by overfeeding there was some danger of nephritis. Dr. Kirkpatrick Monro spoke of the different types of pulmonary phthisis in which experience had shown that a favourable prognosis might be given, and cited the haemorrhagic form as an example. He gave details of some cases that had come under his observation in which recovery had taken place in a remarkably short space of time. Contributions to the debate were made by Drs. W. Watson, A. Tindal, Coulson, Howie, and T. Russell. The President briefly reviewed the discussion, and remarked that from the evidence laid before them the conclusion seemed to be that only to a limited extent could phthisis pulmonalis be regarded as a curable disease.

Midland Medical Society.—At a meeting on March 19th, Mr. Oakes, President, in the chair, the following officers were nominated for election: *President*, Mr. Langley Browne; *Treasurer*, Mr. J. Garner; *Secretaries*, Mr. Christopher Martin and Dr. Stanley.—Mr. Jameson Evans showed a woman, aged 59, who had been under his care since the end of January. She was suffering from a typical diffuse keratitis over the lower half of the right cornea. At one part it was infiltrated with fine vessels forming a distinct "salmon patch."

The anterior chamber was shallow, but in view of the diminished tension and a tendency to iritis, the patient was given atropine to drop in the eye night and morning. This, with potassium iodide and mercury internally, were the only means of treatment adopted at the time, but during the more acute stage she had been having hot fomentations as well. She was making satisfactory progress towards recovery under this treatment. Her family history was interesting. She had had six children and two miscarriages. Two of the children had suffered from eye troubles, one of these, a girl, aged 22, was shown at the meeting. She showed corneal nebulae, the result of interstitial keratitis for which she had been under treatment at the Eye Hospital eight years ago. She had marked Hutchinson's teeth and was deaf.

—Dr. McCardie showed Rickard Lloyd's paper bag for Clover's inhaler. The advantages claimed for this bag were that being cheap it could be burned after being used once, and therefore a clean one was used for every case; lightness; and that, unlike the rubber bag, it would keep in any climate. On trial it was found that the paper crackled in an annoying way during respiration, and that the stiffly projecting paper was somewhat in the way during operations on the neck and upper part of the trunk. For septic, cancerous, tuberculous, or foul-mouthed patients the paper bag would be very useful. —Mr. Gamgee showed a kidney, the pelvis of which was completely filled by a villous papilloma. The patient was a man, aged 50, who had suffered from attacks of profuse haematuria for eight years. The kidney was removed by the lumbar route, and the patient made a good recovery.—Mr. Milward read a paper on localized intraperitoneal suppuration and its treatment by drainage, which was illustrated by a series of wax casts of the various intraperitoneal spaces.—Dr. McCardie also read a paper on a case of faintness, and another of vomiting after operation under ethyl chloride narcosis.

REVIEWS.

GYNAECOLOGY AND OBSTETRICS.

Drs. Tandler and Halban are to be congratulated on their atlas of the topographical anatomy of the ureters in the female[1] which has been prepared with the full support of Professors Schauta and Zuckerkandl who, as well as the authors, felt that it supplied a want. A knowledge of the normal course of the normal ureter is of importance to the surgeon and gynaecologist, but the subject is beset with practical difficulties. The more the surgeon knows about the normal course of the ureter and the less he sees of that duct during an abdominal section the better it will be for the patient. The ureter is not always normal in development; its course may be abnormal, and certain pathological conditions far from rare may cause great displacement in any part of its course. The authors have made a long series of anatomical preparations; they have not resorted much to freezing or to the zinc chloride method. In most cases the arteries were injected with a 1 per cent. solution of chromic acid, and in some specimens a 1 per cent. solution of hydrochloric acid was used to soften the bones, though in many the saw was employed without damage to the soft parts. A mixture of formol, glycerine, and alcohol was employed for fixation in some cases. The plates are finely drawn and coloured. Plate II shows very clearly the uterine arteries entering the cervix, the broad ligaments having been laid open horizontally. The ureters lie far from the arteries, where the latter approach the sides of the cervix. Plate III is of great importance, as it demonstrates how the ureter may be unexpectedly displaced in a young virgin where the uterus happens to lie abnormally towards the left; the left parametrium being very short, though not from any visible morbid change. Then follow some instructive plates giving lateral preperitoneal and retroperitoneal views of the course

[1] *Topographie des weiblichen Ureter* ... *pathologischen Zustande und der* ... raphy of the Female Ureter especially in ... Gynaecological Operations]. Vol. Dr. ... der I. Anatomischen Lehrkanzel in Wien, und Dr. Joseph Halban, Assistant der I. Universitats-Frauenklinik in Wien. Wien und Leipzig: Wilhelm Braumüller. 1901. (Roy. 4to. 32 plates, with letterpress. M. 30.)

of the ureter. The next group of plates are from dissections which show the stages of total abdominal hysterectomy with or without preliminary laying bare of the ureter in its lower course, as a precautionary measure. The advocates of vaginal operations will be interested in half a dozen good drawings of the position of the ureter and uterine vessels in relation to the incisions and displacements of parts necessary in vaginal hysterectomy. Unfortunately the operator cannot see the parts displayed in sections; in this sense Plate XVIII is perhaps the most useful, as it shows the position of the ureter when the partially detached cervix is being drawn out of the vulva. Plate XIX represents an anatomico-pathological preparation of high interest. The subject was a woman who underwent total abdominal hysterectomy for rupture of the uterus during labour. On the twelfth day urine escaped involuntarily, owing to a uretero vaginal fistula on the right side, and the patient died from tuberculosis three months after the operation. Thus the relative abundance and looseness of the pelvic connective tissue in a woman at term, though they may facilitate the separation of the uterus from its connexions, do not ensure the ureters against damage, much more probable in hysterectomy for fibroids. After this plate was drawn the parts were divided vertically, and a lateral view of the bladder and ureteral fistula obtained (Plate XX). Two plates illustrate the relations of the ureter as concerned in the questionable sacral operation popular with some authorities. The topography of the ureter in a subject who died of rupture of the aorta close on term forms the subject of Plates XXIII and XXIV. Puerperal inversion and cystocele are illustrated in the succeeding plates. Let the student, of any type or age, remember that the ureter may be greatly dilated in cystocele (Plate XXVII), and that when the bladder is fairly prolapsed the ureteral orifice is no longer behind but some distance below the opening of the bladder into the urethra. The position of the ureter when the cervix is drawn downwards in a case of cystocele is represented in Plate XXVIII, its insertion into the bladder lies, under these circumstances, quite outside the vulvar cleft—a fact to be remembered by the surgeon who attempts the removal of a prolapsed uterus where cystocele is also marked. He must also bear in mind the relations of the ureters to the urethra mentioned above. Ureteral fistula in cancer of the cervix forms the subject of Plate XXIX; the concluding drawings representing double ureter (one greatly dilated would be certain to puzzle an operator) and a dissection of a remarkable condition, detected for the first time at a necropsy, in an adult, namely, intraligamentary position of the bladder without, it would seem, any evidence of urinary disease or trouble. The bladder was invested laterally, posteriorly, and above (except near the middle line where the peritoneal relations were normal), by the layers of the right broad ligament, the Fallopian tube running over its upper surface as in a parovarian cyst, but the ovary was pushed up as well. As the plates measure 13 by 11 in., they are quite large enough to display what they were designed to demonstrate with clearness.

Dr. JAROSLAV FRANTA, Clinical Assistant in the Faculty of Obstetrics and Gynaecology in the Bohemian University of Prague, has published a treatise in the Czech language on hydatid cysts during pregnancy, labour and childbed.[2] The Czech text includes almost complete reports of collected cases, some of which are original, while a supplement in French contains summaries of cases and tables. A chapter is devoted to the subject of operations for hydatid cysts during pregnancy; it contains a full clinical report of 22 cases, including Mr. Knowsley Thornton's and others familiar to us. We fear, however, that very few Englishmen can master the language of Bohemia. The French summary of the same subject is of relatively small value, for we find that the cyst operated upon during pregnancy lay in almost every possible situation between the diaphragm and the vulva. A cyst in the liver of one pregnant woman and a cyst in the pelvic connective tissue of another imply two cases of an utterly different type to the obstetrician and operator; even pathologically they are dissimilar. Some of the cysts lay in the great omentum, a very favourable situation for the surgeon, others retroperitoneally below the liver, others in the kidney, spleen and broad ligament. Some cysts were solitary, others multiple. What we seek in reading of an operation for cyst of the spleen during pregnancy is a full note of each case; we cannot expect instructive tables of so rare a disease. The table of 37 cases of dystocia is of some direct value, as there is one constant factor, difficult labour, whilst in all cases but three or four the hydatid cysts lay in the pelvis. These exceptions demand study of the case in full, which in this work is given in an unfamiliar tongue; thus, in Gemmell's patient there was a cyst as big as a cocoanut in the great omentum and another of the size of a walnut on the posterior wall of the uterus. Obstetrically this complication is quite different from labour impeded by a large pelvic hydatid cyst below the uterus, as is the rule in this series. The obstetric surgery of this group is instructive. We are gratified to find that the author carefully states that only on one occasion was the cyst successfully pushed up above the pelvic brim. We trust that no obstetrician will ever attempt such a proceeding on the strength of diagnosis of hydatid cyst obstructing labour, nor is it considered justified in these days when the cyst is clearly ovarian. Several cases of rupture of the uterus, spontaneous and during turning, etc., are included in the tables, but that accident occurred under very varied conditions in different cases. We are informed, just as we might guess, that suppuration of the cyst is relatively very common in childbed, sometimes after paracentesis, sometimes from puerperal infection of the unruptured cyst. Lastly, pregnancy, Dr. Franta shows us, exercises, according to statistics, an evil influence on hydatid cysts, suppuration is frequent, rupture not rare, sudden increase of growth the rule, and often the pregnancy leads to diagnosis of the cyst. This treatise is very creditable to the author, a clinical assistant in the faculty of obstetrics and gynaecology in the Bohemian University of Prague, and also reflects credit on that institution itself, which favours research and can claim such keen workers as Professor Pawlik and Dr. Franta. The main text is, for reasons already stated, so important that we hope some English-speaking writer will undertake to translate it. (Since this review was written a complete translation of the clinical reports of the cases of labour impeded by hydatid cysts has appeared in the March number of the *Annales de Gynécologie et d Obstétrique*).

Professor MAX RUNGE'S *Lehrbuch*[3] is the latest textbook of gynaecology for the German student; and it is a very good one. The author's aim has been to present what is known of the subject in as compact a form as possible; and he has succeeded. The information given is full, and the advice judicious. We may take, as an example, a question about which much difference of opinion and practice at present exists, namely, the treatment of uterine fibroids. The author states simply that fibroids causing no symptoms require no treatment. Submucous fibroids are to be removed by avulsion. If too large for this they should be cut up, and removed piecemeal. Of this the author says—and his words deserve consideration—"Such enucleation may be uncommonly troublesome, and one may be almost inclined to give it up, when suddenly the last piece of the tumour unexpectedly comes away. If strict antisepsis is observed, and the operator has had experience in such a procedure, such an operation, even with a large fibroid situated high up, is attended with hardly any danger." We have known specimens exhibited at our societies in which it might have been better for the patient if Dr. Runge's precept had been in the operator's mind. The mortality of abdominal hysterectomy our author puts at 5 per cent. He distinguishes between different operations. Removal of stalked myomata is the safest: next myomectomy; next to that supravaginal amputation; then total extirpation (so-called panhysterectomy); and, most dangerous of all, removal of intraligamentous fibroids. If the tumour is not larger than a child's head, that is, not too large to be dragged down into the pelvis, the author advises vaginal hysterectomy by *morcellement*, that is, by cutting up the uterus in the same way as a projecting submucous fibroid can be cut up and removed. Of this he says: "Such *morcellement* is difficult, tedious, and

[2] *Kysten Hydatidiques pendant la Grossesse, l'Accouchement, et les Suites de Couches.* By Jaroslav Franta. Prague: University Press. 1901. (8vo, pp. 274. Including a supplement in French.) The Czech title is not reproduced.

[3] *Lehrbuch der Gynäkologie.* [Textbook of Gynaecology.] Von Max Runge, Ord. Professor der Geburtshülfe u. Gynäkologie und Director der Universitäts-Frauenklinik zu Göttingen. Berlin: Julius Springer. 1902. (Demy 8vo, pp. 468. M. 10.)

unaesthetic; but adds to the risk of operation in no way. After the most difficult and prolonged operations there is generally a smooth convalescence.' If we turn to another controverted question, the treatment of retroflexion, we find the author rationally conservative. No operation is to be thought of if a pessary will relieve, the objection to operation being the danger. Ventrifixation is attended with the most danger, but does not produce trouble in the event of subsequent pregnancy. It is the only treatment of retroflexion with fixation. Alexander's operation is often followed by return of symptoms. Vaginal fixation entails trouble in the event of pregnancy. These quotations will illustrate the author's point of view, and show that he does not countenance the kind of operating which is not surgery. The illustrations are not too numerous or too ambitious. The style is concise and clear to a degree unusual in German books.

Dr. Arthur E. Giles has written for the "Medical Monograph Series" a short essay on *Menstruation and its Disorders*,[4] which is, we are told, the precursor of a larger treatise on the same subject, in the preparation of which he has been engaged for some years. For this reason he has not thought fit to "burden its pages" with references, authorities, or illustrative cases. We hope that the larger work, when it appears, will be a solid contribution to medical science—a description which we cannot apply to this little book. It contains, first, an account of normal menstruation, which is good, but not better than is to be found in many other books. Then come chapters on the disorders of menstruation. These contain nothing that is novel, unless it be an attempt at the resurrection of some exploded theories of thirty years ago. The author explicitly says that flexion of the uterus causes dysmenorrhoea, and that there is stenosis of the canal due to "kinking." When his large book comes out we hope he will demonstrate this by reference to some specimen. At present we know of no museum specimen of a flexed uterus that shows any more kink than a bend of the river Thames. The author candidly says that he doubts if "accumulation of menstrual products behind the obstruction with dilatation of the body of the uterus" is ever found. He also states that many women menstruate painlessly in whom the uterus is markedly flexed. The only attempt at reconciliation of these facts with his hypothetical pathology is the phrase that "the cause is probably complex."

Dr. Henri Fischer's little book is really a *Vade Mecum to the Operations of Obstetrics and Gynaecology*.[5] These two subjects are to the author branches of surgical science; and the book is a brief description of operations and the conditions which, in the author's opinion, call for operative treatment. Being what it is, we should question also the suitability of the book for the ordinary practitioner who is called upon to apply medical methods of treatment far more frequently than he is to operate. The most original part of the book is the description of new operations devised by the author for fixing the spleen or kidneys when these organs are abnormally movable. Instead of using stitches the author inserts beams of decalcified bone, by means of which he supports the organ in the position which he considers it ought to occupy. A translation of the book into English is promised; should the promise not be kept we shall not be greatly disappointed.

The German custom amongst the pupils and junior colleagues of a distinguished teacher of preparing a *Festschrift* is well known. The best proof of its popularity lies in the steady increase, both in number and merit, of this kind of publication. Such a volume has been issued to honour the twenty-fifth year of Professor Landau's career as a teacher.[6] It is written by assistants past and present, and old pupils, and contains original contributions to gynaecology and obstetrics by authorities so well known as Abel, Falk, Fraenkel, and Ludwig Pick. The separate papers are very solid, and so varied as to subject that they cannot be noticed here in detail, but abstracts of the more important have appeared or will be published in our Epitome. All have recently been issued in the *Archiv für Gynäkologie*. We may note here articles on Pelvic Inflammation (Theodore Landau), Early Diagnosis of Uterine Cancer (Abel), New Growths in the Malformed Uterus (Josephson), a very complete treatise on the Diagnosis and Operative Treatment of Advanced Ectopic Gestation with Living Fetus (Sittner), and useful communications on the Removal of Uterine Fibroids and Ovarian Tumours in Pregnancy, by Thumim and Orgler.

The first edition of Dr. Dorland's *Modern Obstetrics*[7] was reviewed five years ago. It is not an epoch-making book, but an agreeably-written compilation by a writer, who has not had time to study things for himself or to refer to original sources of information. The pages are full of proper names in brackets, quoted as authorities, many of which carry no weight to those who understand the subject. In our review of the first edition, we referred to an inaccurate statement as to the mortality of placenta praevia. This has been corrected, but the section on treatment is still unsatisfactory: the reader is given a choice between several methods, some of them long abandoned, labelled with proper names; but the treatment which has stood the test of trial, and is, with one possible exception, undoubtedly the best, is that of Braxton Hicks. This is referred to in a sentence; but the author does not appear to have read Hicks's paper, which is an obstetric classic. The possible exception is the use of Champetier de Ribes's bag. This is not referred to. Some think it will give still better results than the method of Hicks, but this has not yet been proved. As further illustration of the author's fondness for quotation, and, if we may be pardoned for saying so, want of discrimination, we may refer to page 97, "Beccaria's sign of pregnancy, an intense pulsating pain in the occipital region." "Jorisenne's sign of pregnancy is the absence of acceleration of the pulse-rate noticed when the patient assumes the erect posture after resting for some time in the recumbent position. It is of doubtful accuracy." We agree with the author: but why quote such rubbish? We are sorry to find fault; we admire the author's industry, and when increased experience has ripened his judgment and lessened his readiness to take open-mouthed anything that anybody (especially if blessed with a German name) chooses to print, his book will be very much better; as it is, it is interesting. We perhaps suffer from insular prejudice, but we cannot but think that a course of reading in the best English obstetric literature—Burns, Denman, Ramsbotham, Braxton Hicks, and Matthews Duncan—would help Dr. Dorland to improve his book.

A work that has reached its eighth edition evidently supplies a want. As we reviewed the seventh edition of the *Manual of Obstetrics*,[8] by Professor King, of Washington, in the British Medical Journal of March 4th, 1899, p. 539, we need not say much about the eighth. The chief difference is that forty-one illustrations have been added. It remains what it was—a readable elementary work, a digest of larger American books, by an author who has not yet tested by practice many of the methods he describes. Many of the illustrations are very familiar, having been borrowed (without acknowledgement) from English books. One (Fig. 229) of English origin, is attributed to an American.

As we have already reviewed former editions of Dr. Jellett's *Short Practice of Midwifery* in the British Medical Journal of September 30th, 1899, p. 854, we need not say much as to the present. The book has been enlarged by the

[4] Medical Monograph Series No. 5, *Menstruation and its Disorders*. By Arthur E. Giles, M.D., B.Sc., F.R.C.S., M.R.C.P., Surgeon to Out-patients, Chelsea Hospital for Women, etc. London: Bailliere, Tindall, and Cox. 1901. (Crown 8vo, pp. 100. 2s. 6d.)

[5] *Vade Mecum d'Obstétrique et Gynécologie des Médecins-praticiens* [*Vade Mecum* of Obstetrics and Gynaecology]. Par Docteur Henri Fischer. Paris: L. Boyer. 1902. (Crown 8vo pp 321. Fr. 4 50.)

[6] *Beiträge zur Gynäkologie und Geburtshilfe*. Festschrift. Professor Dr. Leopold Landau. Gelegentlich seines 25 jährigen Docentenjubiläums gewidmet von ehemaligen und jetzigen, Assistenten und Schülern. With Portrait of Professor Landau: 4 lithographic plates and 47 drawings with the text. Berlin: Hirschwald. 1901. (Pp. 706.)

[7] *Modern Obstetrics, General and Operative*. By W. A. Newman Dorland, A.M., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania, etc. Second edition London and Philadelphia: W. B. Saunders and Co. 1901. (Roy 8vo, pp. 707. 201 illustrations. 16s.)

[8] *A Manual of Obstetrics*. By A. F. A. King, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D.C., etc. Eighth Edition. London: Henry Kimpton. 1901. (Cr. 8vo, pp. 620; 264 illustrations. 12s. 6d.)

addition of chapters on pregnancy and its phenomena, the ovum, and obstructed delivery, and many new illustrations have been added. The general character of the work remains unchanged. It is not an encyclopaedic or an epoch-making book, but a clear and readable guide to practice, representing the views accepted at the Rotunda Hospital. These are expressed didactically without discussion. It is hardly to be expected that they will be endorsed by every obstetrician in every detail. We should take exception, for instance, to the recommendation of creolin, a proprietary nostrum of unknown composition, and, according to Martindale, "an unreliable disinfectant, weak antiseptic, and more poisonous than supposed," in preference to such tried and proved antiseptics as corrosive sublimate and biniodide of mercury. In a *Short Practice of Midwifery for Nurses*[10] by the same author, parts of the larger work which he considers unsuitable or unnecessary for nurses have been eliminated, and some matters added which are superfluous in a book for students and medical men. These changes have made the little book an excellent one for nurses. If it errs, it is in the direction of telling them too much rather than too little.

DR. CULLINGWORTH'S *Short Manual for Monthly Nurses*[11] is now well known, and needs no commendation from us. Its author's name is a guarantee of the soundness of its teaching. He has taken the trouble to revise it, and so it is now quite up to date. Nurses cannot do better than study it.

BIOLOGY.

HETEROGENESIS.

WHEN a writer advances views which are at variance with those ordinarily accepted, it is inevitable that the evidence tendered in their support should be narrowly scrutinized; and, though we would approach with every respect anything that Dr. CHARLTON BASTIAN, who has won so much distinction in another field, may advance, we cannot say that the thesis of his *Studies of Heterogenesis*[12] is established by the facts and inferences he has published. His endeavour is to prove that in the lower forms of animal and vegetable life there is so little stability that one form arises abruptly from another. To produce conviction in his readers the defender of this hypothesis must be able to produce very strong evidence; but unfortunately the photographs, many of which are very good, cannot in the nature of things prove anything; they merely eliminate the personal equation in the delineation of stationary conditions, whereas sequence of events is the essence of the question. One point advanced is that the protoplasm of certain conferva cells, after prior division, gives rise to amoebae, or, as it is in one place expressed, becomes "animalized." Even granting the correctness of the observation, it is difficult to see wherein it differs, either in fact or significance, from what has for many years been accepted by botanists, namely, that in the case of a vast number of cryptogams the cell contents do escape as naked protoplasm (with or without prior division), and that this escaped protoplasm sometimes takes on the form of creeping plasmodia bodies, and sometimes of ciliated or flagellated embryos, this being one manner of reproduction (*vide* Kerner and Oliver's *Natural History of Plants*, p. 28, *et passim*). We cannot see that Dr. Bastian is justified, in this and many similar instances, in saying that he has selected examples of such a kind as to eliminate the interpretation that he has had under observation life-stages in the history of the same organism; on the contrary, careful perusal of what he records seems to indicate that in many instances this was the case. Thus he states that a euglena cell becomes transformed into a number of flagellate monads; now, apart from its own methods of reproduction, it so happens that euglena is liable to the attacks of a parasitic fungus (polyphagus euglenae), which enters its cells, and this fungus reproduces itself by means of free-swimming flagellate spores which are indistinguishable in appearance from true monads, so that this observation is open to a suspicion of error. It would be possible to criticize in detail each of the observations and the conclusions which are drawn from them were any useful purpose to be served by so doing; but enough has been said to indicate some at least of the reasons why any incomplete investigation of the life-histories of the objects seen cannot be accepted as establishing a view so subversive of all that is known with any degree of certainty on the subject of reproduction. It is the duty of the man of science to preserve an open mind, and not to reject that which does not accord with his own ideas merely because it does not do so, but he is fully justified in requiring that the more improbable the view asserted, the more complete shall be the chain of evidence in its support.

THE PROTOZOA.

The protozoa play so important a part in the causation of human disease as well as in those of the lower animals that a work devoted solely to them may be of great value to all students of disease. Dr. CALKINS'S book[13] is well arranged, clearly written, and the illustrations are good. The parasites more closely connected with disease are described and the various phases in the life-history of closely-allied organisms are fully discussed. The cycles of the malaria parasite and coccidia are compared, and the close similarity between the two in their complicated alternations of generations well elucidated. In considering the pathogenetic properties of the malaria parasite the author points out that no other protozoon is known to produce poisonous growth products. A work of this kind must, to a considerable extent, be highly technical, but the chapters on reproduction and sexual phenomena in the protozoa, and those on physiology are sufficiently free from technicalities to be readily understood by any one, and deserve careful reading. The necessity of sexual reproduction is fully discussed by the author, and the various conditions which appear to favour this method of reproduction are considered. He doubts whether conjugation is absent in any group of protozoa, though in some it has not yet been observed. The chapter on the special morphology of the protozoan nucleus is of great interest. It is shown to be extremely variable both in structure and in its methods of division. A book of this kind is a necessity to those studying diseases caused by protozoa, and this volume can be confidently recommended as thoroughly up to date and containing the more important results of recent research.

ZOOLOGY.

A REALLY excellent work upon the snakes of Britain, a book which will be found useful to naturalists and interesting to many other people, has been written by Dr. GERALD R. LEIGHTON. Too many books nowadays are compiled in the library, but this is a complaint which cannot be urged against the *Life History of British Serpents*.[14] Not only has Dr. Leighton given us old material, such as there was, but he has given us the results of his large practical experience, and has also by means of an extensive correspondence with naturalists and collectors brought together a mass of information as to the snakes in all parts of the country. As there are only three—perhaps four—species of snakes in England only one of these—the adder—occurring in Scotland, and none in Ireland, the subject seems a small one to write a book of nearly 400 pages upon. But these species are dealt with in the first 200 pages which constitute Part I. Part II is a very detailed account of the local distribution of our snakes, in which Dr. Leighton has used his correspondents' notes to the fullest advantage.

[10] *A Short Practice of Midwifery* embodying the treatment adopted in the Rotunda Hospital, Dublin. By Henry Jellett, B.A., M.D., etc., ex-Assistant Master, Rotunda Hospital. With a preface by William Smyly, M.D., F.R.C.P.I., late master of the Rotunda Hospital. Third Edition. London: J. and A. Churchill. 1901. (Crown 8vo, pp. 533, 124 illustrations and an appendix containing the statistics of the hospital for the last eleven years.)

[11] *Practice of Midwifery for Nurses*, embodying the treatment adopted in the Rotunda Hospital, Dublin. By Henry Jellett, B.A., M.D., [illegible]. 1901. (Crown 8vo, pp. 345. 5s.)

[illegible] By Charles J. Cullingworth, M.D., F.R.C.P., [illegible] St. Thomas's Hospital. Fifth edition, revised with the assistance of M. A. Atkinson, Matron of the [illegible] London. London: J. and A. Churchill. 1901. (Fcap. 8vo, pp. [illegible]. 6d.)

[illegible] By H. Charlton Bastian, M.A., M.D., F.R.S., [illegible] reproductions of photomicrographs. (Williams and Norgate

[12] *The Protozoa*. By Gary N. Calkins, Ph.D., Instructor in Zoology, Columbia University. No. VI of the Columbia University Biological Series. London and New York: Macmillan and Co. 1901. (Demy 8vo, pp. 466. 12s. 6d.)

[13] *The Life History of British Serpents*. By Gerald R. Leighton, M.D. Edinburgh and London: William Blackwood and Sons. 1901. (Cr. 8vo, pp. 400; 49 illustrations. 6s. net.)

England and Wales are divided into ten provinces, and the occurrence of any or all the species, their frequency or rarity, habits, etc., are dealt with. The distribution of the adder in Scotland is also fully discussed. As to what Dr. Leighton says with regard to the specific distinctness of the small red viper which he wishes to call Vipera rubra, it does not seem to us that he has sufficiently proved his case. With regard to the common adder, it seems to have been satisfactorily demonstrated that "brown or brick-red specimens with the markings of a more or less dark brown are females." Dr. Leighton took one small red viper in Dorsetshire, which was a male, and apparently this is the only male he has found of what he wishes to call a species. He says "the small red viper resembles the common adder in the arrangement of its head plates and in the number of belly shields, and is therefore put in the same species. It differs from the adder in most other respects; but the differences, by an arbitrary arrangement, are not regarded as essential. These differences are, however, constant, which to my mind is an all-important point." We think it would have been more satisfactory had Dr. Leighton dealt more fully with this matter, and as we have said we are not yet convinced as to the specific distinctness of the small red viper. On the vexed question as to whether or not the adder swallows her young to protect them in time of danger, Dr. Leighton gives an excellent review, but refrains from expressing an opinion. The book is well got up, and some of the photographs are good and of considerable interest; others, however, seem often badly focussed, and do not convey what is intended. But for this small blemish we have nothing but praise for the work, and can heartily recommend it to field naturalists, to whom it is dedicated, and to all those who are interested in natural history.

Dr. Hans Gadow's *Amphibia and Reptiles*[15] will take a high place in that fine series the *Cambridge Natural History*. The author points out that the work is intended to appeal to the field naturalist and to the morphologist, and it is eminently suited to the requirements of both these classes of readers. The first three chapters deal with general matters relating to the amphibia, the second treating of the comparative morphology and anatomy, and covering about 50 pages. This chapter is very complete and important, and it is perhaps a pity that there is not a similar chapter dealing with the reptilia. It would no doubt have been a much more difficult chapter to arrange, owing to the diversity of reptilian forms, and Dr. Gadow has thought fit to treat of the morphology and anatomy of each subclass separately. In dealing with such an immense group as the reptilia there is danger of becoming wearisome in detail or of enlarging on some groups at the expense of others. The author, however, is never wearisome, nor can he be accused of over or under valuing any group, and we congratulate him on his very successful manipulation of the work. The small maps which occur all through the book, showing the distribution of the various groups, are an admirable thought, though they are not always easy to decipher. We can speak very highly of Miss M. E. Durham's illustrations, which are beautifully executed; and although Dr. Gadow says apologetically that the selection was to a great extent determined by the living specimens obtainable, we think the apology unnecessary. The student will find much material brought together in this book as well as plenty of new matter, and we know of none better suited to be a groundwork for study of herpetology. At the same time, the style of the writing is so attractive that the general reader cannot fail to be interested, and we can confidently recommend the book to him.

The principle on which Mr. Shipley and Dr. MacBride have constructed their elementary textbook of *Zoology*[16] is excellent. As a rule, textbooks on zoology and botany introduce each group or phylum by a kind of summary of that group, and discuss the occurrence in the group of sexual and asexual reproduction or nephridia, or such like general characters, giving examples, and thereby confusing the student with a multiplicity of names. As far as possible, this method has been avoided in the book under consideration, each group being dealt with by means of types, and the student is led on from one type to the next, and given an insight into his subject by what appears to us an ideal method. For instance, in dealing with the protozoa, one of the hardest groups to write clearly upon from an elementary point of view, this system of types shows to the utmost advantage. After a few introductory remarks separating the protozoa from the metazoa we are introduced to amoeba, which is dealt with fully. From amoeba we are led on to the allied forms, difflugia and arcella, thence to examples of the Foraminifera and Radiolarians, and so on until we have sufficient types to give us a grasp of the whole group of the protozoa. Not only are we led from type to type but also from group to group, so that the book is one which requires to be read straight through by those who are learning zoology, and many things in the later chapters may appear unintelligible to the tiro unless he has previously mastered the earlier ones. After dealing with a group, a short classification of that group, not complete but embracing all the forms referred to, is given. The first chapter, an introduction to zoology, is clear and concise, and the student would do well to master that chapter thoroughly before he proceeds to discuss the various groups of the animal kingdom.

We cannot speak in similar terms of praise of Mr. Mudge's *Textbook of Zoology*.[17] It is a somewhat scrappy compilation, and contains not a few serious misprints and inaccuracies. "Phyllogeny" occurs on pages 7 and 13 instead of "phylogeny," "intersusception" on page 18 for "intussusception," "contact with a sudden body" appears on page 25, etc. On page 369, referring to telegony, the case is given of a cat which, having had kittens to a Manx cat, produced tailless kittens to a cat of her own breed, and the statement is made that "it is popularly thought that some of the unused sperm cells of the Manx cat had lived for a greater or longer (sic) period in the oviduct of the tailed cat, and had subsequently fertilized her ova at about the time she was crossed with a tomcat of her own breed." Weismann suggested that if telegony occurred, it was probably due to the retarded action of spermatozoa, but to give this as the popular explanation is misleading. On page 378 it is stated that "The common mole .....is blind, for the eyelids are permanently closed....." The common mole (*Talpa europoea*) has eyes which are certainly sensitive to light, and they are covered by a transparent skin, but it is somewhat misleading to speak of this film as permanently closed eyelids. Such expressions as "multicellular organisms of comparitively fairly complex organization" (p. 26), "natural selection would operate to preserve the blind and eliminate the blindless forms" (p. 378), are not such as one expects to find in a scientific work. What is good in the book is spoilt by the feeling, which faults such as those indicated produce, that anything which the student may see for the first time in the book requires authentication elsewhere, which is not what ought to be the case with a textbook.

NOTES ON BOOKS.

Textbooks on Medicine.

A fourth edition of the classic *Textbook of Medicine*,[18] begun by the late Charles Hilton Fagge, and completed after his death by Dr. Pye-Smith, and since revised or rewritten by him, is in course of publication, and the first volume is before us. About a score of the sections have been more or less rewritten for the present edition. The deservedly high character of this work, which in its class is *facile princeps*, is too well known to require any elaboration here and now.

A similar remark applies with equal force to the work on the *Principles and Practice of Medicine*, by Dr. William Osler,

[15] *Amphibia and Reptiles*. By Hans Gadow, M.A., Ph.D., F.R.S. London: Macmillan and Co. 1901. (Demy 8vo, pp. 668, 181 illustrations. 17s. net.)

[16] *Zoology*: an Elementary Textbook. By A. E. Shipley, M.A., and E. W. MacBride, M.A.Cantab., D.Sc.Lond. Cambridge Natural Science Manuals. Biological Series. University Press Cambridge. 1901. (Demy 8vo, pp. 654, 349 illustrations. 10s. 6d.)

[17] *Textbook of Zoology*. By C. P. Mudge, A.R.C.Sc.Lond., F.Z.S. London: Edward Arnold. 1901. (Cr 8vo, pp. 416, illustrated. 7s. 6d.)

[18] *Textbook of Medicine*. By the late C. H. Fagge, M.D., F.R.C.P., and P. H. Pye Smith, M.D., F.R.S. Fourth edition. Vol. I. London: J. and A. Churchill. 1901. (Roy. 8vo, pp. 1,142. 21s.)

a fourth edition[19] of which has been published apparently simultaneously by two distinct publishing houses. Many and important changes have been made in this edition. The author, in rewriting several of the chapters on infectious diseases, has especially kept in mind the needs of physicians practising in the tropics. Practically new articles have been written on some sixteen diseases. This may be taken as one of the best representatives in English of the modern side of medical education.

A third American edition of Dr. Strümpell's *Textbook of Medicine*[20] has been translated from the thirteenth German edition by Dr. H. F. Vickery and Dr. P. C. Knapp. So far this book has been translated into French, Italian, Spanish, Russian, modern Greek, Turkish, and Japanese, as well as into English. Editorial notes have been added by the translators, together with a chapter on plague, while other editorial notes have been added by Dr. F. C. Shattuck. The work remains as one of extreme value from representing as it does the individual conspectus of medical science by a master mind.

We have received the second revised edition of a *Manual of the Practice of Medicine*,[21] by Dr. G. R. Lockwood, which purports to give, and succeeds fairly well in doing so, the elements of medicine in a readable form. It should appeal especially to American medical students in the earlier stages of their training in medicine proper.

Important additions have been made to the ninth edition of Dr. Da Costa's well-known and highly valued work on *Medical Diagnosis*,[22] principally on diseases of the stomach, on the blood and on fevers. As a book on clinical medicine, kept within moderate limits, there are but few to equal it, and, in our opinion, none to surpass it. It will, however, perhaps, be held by some that the ideal work on this subject should be more profusely illustrated, as profusely, indeed, as is compatible with limits of space.

After an interval of three years, a third edition of Dr. Oppenheim's *Textbook of Diseases of the Nervous System*[23] has been issued. We have so recently expressed our high opinion of this work, both in regard to previous editions and to a still more recent translation of the second edition, that we need do no more than remark that we know of no book better fitted to impart a real and well-balanced knowledge of neurology to those already well versed in general medicine.

A review of a previous edition of this book on *Nervous and Mental Diseases*,[24] by Drs. Church and Peterson, appeared so recently in the British Medical Journal that we may be excused from anything more than a passing appreciatory notice. The third edition has been well revised, and a number of illustrations and diagrams have been added to what was already a long list. Without any pretensions to classic rank, it is, and is likely to remain, a useful book.

Surgery and Dental Surgery.

We have received a second edition of the book written by Mr. W. McAdam Eccles on *Hernia: its Etiology, Symptoms and Treatment*.[25] Except for the addition of some new illustrations but little alteration has been made, the size of the book remaining as in the first edition, which was reviewed in the British Medical Journal of November 10th, 1900, p. 1383.

The second edition of the work on *Diseases and Injuries of the Teeth*,[26] by Mr. Morton Smale and Mr. J. F. Colyer, has been revised by one of the joint authors, and is in many respects improved; some mistakes noticed in the first edition have been corrected; and it has been brought up to date by the inclusion of recent material, in which task considerable care is evidenced. The help of those who have made a special study of portions of the subject has been enlisted to ensure accuracy: thus an excellent summary of the bacteriology of the mouth, from the pen of Mr. Kenneth Goadby, has been added, and due prominence is given to the modern idea that many infections may have their origin in the mouth. An account of the incidence of dental caries on different races has been introduced, and the book, as a whole, can be recommended as an excellent and reliable guide to the student. For its further improvement we would suggest that, especially in parts, the style is unpleasantly jerky, perhaps owing to the excessive use of very short sentences, and that a little more guidance with regard to methods which are still upon their trial would not be out of place. The distinction between the two physical states of gold known as "soft" and "cohesive," which is of much practical importance, might be more clearly set forth; whilst many of the illustrations are of high excellence, there are others which are a little disfiguring to the pages on which they occur.

The fourth edition of Mr. Henry Sewill's *Dental Surgery*[27] has been edited by Mr. W. J. England and Mr. J. S. Sewill. The first 58 pages are devoted to dental anatomy, and it is a question whether it is worth while in a work on dental surgery to enter upon a subject which can hardly be adequately treated within such limits. In a laudable endeavour to avoid what may be termed hackneyed illustrations, the authors have introduced some process reproductions of photomicrographs; of these, some are good, but others, notably Figs. 10, 12, 26, and 29, are quite worthless, and would have been far better replaced by diagrammatic drawings. No small pains have been bestowed on bringing the book up to date, and it is, upon the whole, well written. The account of dental caries is very good, though exception may be taken to the statement that the amount of organic matter in dentine is "comparatively so small." This is only true as regards its weight, but owing to the low specific gravity of collagen as compared to the lime salts, it is not true of its bulk, and the statement is thus misleading as it stands. The advice to leave in some cases a large accumulation of tartar round loose teeth is open to exception, for many will agree that the patient had far better at once lose the teeth than retain a filthy septic mass in the mouth. A short, indeed rather too short, appendix on the bacteriology of the mouth has been added from notes supplied by Dr. W. Bulloch. Though there are other points of detail which are open to criticism had we space to enter into them, the book is essentially a good one, and is a useful contribution to the literature of the subject.

Any extended notice of Mr. Caird and Cathcart's well known *Surgical Handbook*,[28] which has now reached an eleventh edition, would be out of place. It has been brought up-to-date by the description of several new methods of treatment and otherwise.

[19] *The Principles and Practice of Medicine.* By William Osler, M.D., F.R.C.P., F.R.S. Fourth edition. London: Young J. Pentland and Henry Kimpton. 1901. (Demy 8vo, pp. 1200. 18s.)

[20] *Textbook of Med...* By Dr. A. Strümpell. Third American Edition, translated from the Thirteenth German Edition by H. F. Vickery, A.B., M.D., and P. C. Knapp, A.M., M.D., with editorial notes by F. C. Shattuck, A.M., M.D. London: H. K. Lewis. 1901. (Roy. 8vo, pp. 1266. 24s.)

[21] *A Manual of the Practice of Medicine.* By George Roe Lockwood, M.D. Second Edition. Philadelphia and London: W. B. Saunders and Co. 1901. (D...

[22] ... *Special Reference to Practical Medicine.* By J. M. Da Costa, M.D., LL.D. Ninth Edition. London: Smith, Elder and Co. 1901. (Demy 8vo, pp. 966. 24s.)

[23] *Lehrbuch der Nervenkrankheiten.* Von Professor Dr. H. Oppenheim. Dritte Auflage. Berlin: S. Karger; and London: Williams and Norgate. 1901. (Roy. 8vo, pp. 1232. 27s.)

[24] *Nervous and Mental Diseases.* By Archibald Church, M.D., and Frederick Peterson, M.D. Third edition. London and Philadelphia: W. B. Saunders and Co. 1901. (Demy 8vo, pp. 870, 292 illustrations. 21s.)

[25] *Hernia: its Etiology, Symptoms and Treatment.* By W. McAdam Eccles, M.S., F.R.C.S. Second Edition. London: Bailliere, Tindall and Co. 1902. (Demy 8vo, pp. 244, 118 illustrations. 7s. 6d.)

[26] *Diseases and Injuries of the Teeth.* By Morton Smale, M.R.C.S., L.S.A., L.D.S., and J. F. Colyer, L.R.C.P., M.R.C.S., L.D.S. Second Edition. Revised and Enlarged by J. F. Colyer. London: Longmans, Green, and Co. 1901. (Demy 8vo, pp. 698; 645 illustrations. 21s.)

[27] *Dental Surgery.* By Henry Sewill, M.R.C.S., L.D.S. Fourth edition. Edited by W. J. England, L.D.S., and J. S. Sewill, L.R.C.P., M.R.C.S., L.D.S. London: Bailliere, Tindall, and Cox. 1901. (Crown 8vo, pp. 634. 281 illustrations. 10s. 6d.)

[28] *A Surgical Handbook.* By F. M. Caird, M.B., F.R.C.S., and C. W. Cathcart, M.B., F.R.C.S. Eleventh Edition. London: Charles Griffin and Co. 1902. (Fcap. 8vo, pp. 116. 3s. 6d.).

Medical Students in France.—On January 15th, 1902, the number of students who took out their "inscriptions" in the medical faculties of the several universities in France were as follows: Paris, 1,360; Lyons, 603; Bordeaux, 422; Montpellier, 307; Toulouse, 211; Nancy, 155; Lille, 125.

THE GERMAN SURGICAL CONGRESS.

[Specially Reported for the British Medical Journal.]

The thirty-first yearly meeting of the German Surgical Society took place in Berlin on April 2nd to 5th. The sessions were held in the fine "Langenbeck House," and were well attended, over 600 members and visitors being present. Two sittings were fixed for each day, and a special evening (Wednesday, April 2nd) was reserved for demonstrations by limelight pictures. The latter began at 9 a.m., and should have ended an hour later, but, in view of the large number of projections exhibited, lasted until nearly midnight.

President Address.

The President (Professor Kocher, Berne) opened the proceedings with an address, in which he dwelt on the past thirty years, with reference to German surgery, and especially to the Langenbeck House, which was to be regarded as the home of the German Surgical Society. He wished prosperity to the newly-formed Society for Orthopaedic Surgery, which, as he put it, had outgrown the mother house, and had separated itself in order to obtain a wider field. He next touched on the subject of the library and museum. Both deserved a continued endeavour on the part of the members and others to bring it nearer to completion, and he considered that one should regard the Hunterian Museum in London as a model in this endeavour. The list of members who had been removed by the hand of death was large, and included many who had attained great eminence. The loss sustained by the Society would be deeply felt. He added short biographical eulogies of a few of the best known. These included the late Surgeon-General von Coler, Professor Heinecke, Sir Wm. MacCormac, General-Rath G. Wolff, Professor Löhlein, and one or two others. The President called on those present to pay the usual respect to the dead, by rising to their feet. In recommending a few names to be added to the list of honorary members, Herr Kocher briefly recounted the chief work which, so to say, characterized each one. The names were von Bergmann and König, two of the most celebrated surgeons in Berlin, Guyon of Paris, Macewen of Glasgow, Keen of Philadelphia, and Durante of Rome.

First Dressing of Wounds on the Battlefield.

After the business of the day had been gone through, the programme was begun by Professor von Bruns (Tübingen), who spoke on the primary dressing of gunshot and other wounds on the battlefield. He gathered his data for the present day conditions from the experiences of the South African campaign, and attributed the changes in gunshot wounds to the small calibre bullets in use. In former days the question how to treat wounds on the battlefield was decided in favour of antisepsis. From a bacteriological point of view, indeed, the wounds were never quite free from micro-organisms; but experience had taught that in practice one might regard them as aseptic at first. Von Bergmann was the first who had the courage to dispense with disinfection of the skin, even in the neighbourhood of joints. The tendency of modern bullet wounds was to heal without suppuration, and therefore the aim of the field surgeon must be directed toward preventing secondary infection. No disinfection, no irrigation, and no drainage were required, and a suitable dressing, capable of protecting the wound, was all that was necessary. Dry dressings were ideal for bullet wounds. The wounds did not, as a rule, heal by first intention, and thus it was evident that if the dressing could take part in the formation of a scab, the conditions of clean healing were fulfilled. Iodoform and boracic acid were not quite satisfactory, and in their stead v. Bruns preferred a paste that would adhere to the surface and take the place of a scab. At the same time, the paste was capable of absorbing the exudation from the wound. He next dealt with the method of supplying dressings, and strongly advised the use of dressing packets containing gauze, etc., and strips of adhesive plaster, by means of which the dressings could be kept in place instead of the usual bandage. Bandages were apt to come loose and to allow the dressings to shift; apart from this, a great advantage was gained in the use of strapping in that the patient need not be undressed. In conclusion, he recalled the fact that in the sixteenth century Ambroise Paré found it possible to dispense with the cautery in the treatment of wounds in the battlefield, which might be likened to the dispensation of antisepsis in favour of asepsis, if this were employed early, in the present day.

Herr Bertelsmann (Hamburg) gave his experiences of Mafeking. The bullet wounds which he dealt with all healed without suppuration, and he ascribed this to the dry climate, and to the fact that in no case was the wound touched by the finger. He dressed his wounds with an antiseptic gauze, and fixed this with strips of strapping in such a way that the dressing admitted of a certain degree of ventilation which allowed the wounds to remain dry.

Professor v. Bergmann showed two patients who had received shot wounds at home, whom he had treated on the modern lines. The first patient had been shot in the leg, and sustained a splintering of the tibia. The shot (42 in number) had healed in the wound without producing any untoward symptoms. This was illustrated by a skiagraph. The second patient received a charge of shot from a pistol in the neighbourhood of the right knee. The shot remained *in situ*, and with the exception of some stiffness of the joint, but little trouble had ensued. The case was first dealt with by another surgeon, who had probed the wound. V. Bergmann failed to understand the reason of such a procedure, and pointed out that it was responsible for the swelling which ensued on the fifth day. A simple incision, however, released some sterile fluid exudation, and the wound healed as had already been stated.

In the discussion Herr Küttner (Tübingen) disagreed with Bertelsmann's contention that climate had any influence on the favourable healing of wounds. He regarded the type of wound and the improved treatment as the responsible factors. The wounds should be treated as soon as possible, and if the conditions were favourable, a disinfection of the remote skin surface should be undertaken, but not of the skin in the immediate neighbourhood of the wound. He also added a few words on the effect of transport on the course of wounds.

Herr Majenski (Berlin) spoke on the newer antiseptic preparations. His remarks did not meet with much approval.

Herr Perthes (Leipzig) showed a method of preparing sterile packets of dressings.

Herr König (Berlin) did not approve of wound paste. He would have a dressing which allowed free exit for exudation and the possibility of evaporation. He also considered that one should not prepare "dressing" packets without bandages.

Herr Kortewег (Leyden) showed a very ingenious dressing, so folded that if one only held two protruding lappets, the whole dressing unfolded itself, and thus the dressing surface was ready to be applied to the wound, without having been touched by hand, while the external part took the shape of a bandage. This arrangement had recently been introduced in Holland.

Herr Ziemssen (Wiesbaden) discussed the conditions of attending to wounds in the various parts of the battlefield.

Herr Scholze (Berlin) described a new stretcher, which could be used either as a light portable or as a wheeling stretcher.

Professor Trendelenburg (Leipzig) showed a patient, who had been shot in the chest by a 6 mm. gun (1¼ in.). The discharge took place quite close to the patient.

The patient became insensible at first, but rapidly recovered, and the wound healed without further difficulty. The heart sounds at first were faint but clear, but after two or three weeks, a marked intermission of the pulse was noticed. On the screen, illuminated by Roentgen rays, the bullet was seen to be tossing about in the right ventricle of the heart. Later the pulse became regular again, and the bullet was seen to be quietly swaying a little to and fro. It was probably encapsuled.

Trendelenburg described some experiments which had been undertaken to imitate this condition, but the bullet, which was introduced through the large veins, passed through the right ventricle into the lungs.

Herr Hildebrandt (Berlin) spoke on abdominal wounds caused by small encased bullets. He found that the general mortality was still very high, and placed it at 70 per cent. In discussing the question of treatment by laparotomy, he never to get bad results obviously did not require to operate,

pointed out that the surroundings of warfare offered great difficulties, and influenced the results materially. He gave the indications for operation.

THE TREATMENT OF FRACTURES.

Herr VOELKER (Heidelberg) spoke on the treatment of fractures by suture. He reported six cases in which he employed this method. In four he obtained ideal results, and in the remaining two fair results. The cases were all compound or complicated by being very oblique. He considered that when reposition of fragments was difficult, and when two bones (that was the tibia and fibula) were simultaneously fractured, that the method was advisable. There were no very great dangers in operating as long as the wound was kept aseptic. The actual union took place more slowly when the bone was wired, on account of the pressure of the two ends. Of the technique of the operation he had practically nothing new to relate.

Mr. ARBUTHNOT LANE (London) dealt with results of primary wiring of fractured bones. To make his paper more intelligible reprints with diagrams and skiagraphs were handed round. He dealt first with the changes in the bony skeleton, induced by various occupations. Apart from these changes he mentioned that the fractures which he had met with in the *post-mortem* room were unsatisfactory as far as position was concerned, and that changes in the joints were met with, which corresponded to the mechanical pressure exercised by the abnormal direction of the united fractured bone. The conditions differed in youth, before the epiphysis and diaphysis were united, from those in later life. Functionally, he found, the patients suffered severely. Under these circumstances he considered that primary wiring of fractured bones was the only method of obtaining really satisfactory results. By means of leverage, extension, and bone-forceps he was able to procure exact apposition of the broken ends, even under adverse conditions. He used either thick silver wire or ordinary screws to fix the bone when in apposition.

In the discussion, Herr KÖNIG (Altona) mentioned the difficulties of reducing the misplacement in some cases, and advised operative treatment, especially in intracapsular fractures. Roentgen rays were of great service in the treatment of difficult cases. He showed two cases, one of fracture of the humerus, and one of fracture dislocation of the elbow, both of which were treated by operation. The results were excellent, all movements being possible save complete extension in the second case. He considered that all fractures in the neighbourhood of joints should be treated by operation.

Professor TRENDELENBURG (Leipzig) spoke of a case of fracture of the neck of the femur (intracapsular) in which he had some difficulty in securing the head of the bone. He used the outer border of the quadriceps as a guide, and succeeded in wiring the fracture in good position.

Herr PEHL-SCHNEIDER (Schönebeck) stated that he had long since recommended operative treatment of fractures. He preferred screws to wire, and pointed out that the screws made of nickel or other metal always worked loose, and never could be induced to be healed over. He spoke of a case in which, fourteen days after operation, he had again to undertake the procedure for a second fracture. In this case the screw was quite loose.

Professor KÖRTE (Berlin) believed in the ordinary method of procedure, but occasionally operated. He detailed a case of fracture of the olecranon, in which he fixed the broken pieces by an ivory peg.

Herr HENLE (Breslau) obtained good results with extension. He remarked that this must be properly carried out.

Herr LAUENSTEIN (Hamburg) agreed with what König had said. He only used wire in cases of patella fracture. The best method, in his opinion, was to use a row of screws. With regard to massage, he warned the surgeon to use discretion.

Professor PEHLANOR (Hanover) considered that silver wire was absolutely satisfactory.

Professor BIER (Greifswald) advised the use of a bone perforator with an expanded cutting surface.

After some remarks from Herr BARDENHAUER,

Professor KOCHER (Bern) recommended that each case should be dealt with on its own merits. Those who claimed but the others must operate at times. He was quite satisfied with wire as a material for suture; at times he used silk, and also screws. He further showed a specimen of a thigh bone, the neck of which showed osseous union.

Professors SCHEDE and KÖNIG argued as to the mechanism of the union in Kocher's specimen.

AMPUTATION STUMPS, ETC.

Herr HOUSELL (Tübingen) read a paper on the capability of amputation stumps bearing the weight of body. He obtained excellent results by stripping off the periosteum, clearing out the medulla, and covering the bare bone with four cornered flaps.

Professor KÖNIG (Berlin) stated that he obtained excellent results, likewise, by his method, which he described years ago. He sawed the fibula off, shorter than the tibia and made use of periosteal flaps.

Herr BUNGE (Königsberg) practically repeated what he said at last years' Congress.

Professor BIER (Greifswald) disagreed with König. He considered that it was difficult to obtain good stumps by any method.

Herr SULTAN (Königsberg) closed the first day's proceedings by speaking of the implantation of dead bone in soft tissues.

THE ETIOLOGY OF CANCER.

Herr GUSSENBAUER (Vienna) opened the subject of the etiology of cancer. He dealt exclusively with the histogenetic side of the question. His observations were made by preparing consecutive sections of growths in series, and he had exercised a great deal of care in the preparation of his sections. In the first place he spoke of the proliferation of endothelial cells, which he regarded as being of primary importance. The whole of the growth was produced by proliferation of tissue cells of various kinds. He spoke of the appearance of these proliferation changes as being that of infiltration. Although he was prepared to believe in the parasitic nature of carcinoma, no parasites had as yet been demonstrated in the growth which could be accepted as causal organisms.

Herr v. KAHLDEN (Freiburg) dealt with the subject of recurrence, which, he said, could only occur when a trace of endothelial cells was left behind after operation, or when the vascular system (including lymph vessels) contained actual carcinoma cells. At times isolated cancerous cells might be found in the lymphatics at some distance from the primary growth. Recurrence could further be produced by embolic process. This was carried out by the blood or lymph stream. Much more rarely did inoculation bear the responsibility of the return of the growth. As a fourth possibility for the recurrence of a cancer after removal, he mentioned the multicentral cancers. Cancers might start from more than one centre, but these starting points need not be of the same date. In very late recurrences a multicentral cancer must be accepted. He further dealt briefly with the question of secondary growths.

Herr PETERSEN (Heidelberg) considered that, although they were theoretically possible, inoculation recurrences did not actually take place. Even if parasites be present, recurrence could only take place if there were carcinoma cells in the tissues. Cancers either started from one centre (unicentral or monocentral) or from many centres (multicentral or plurocentral). If a unicentral growth were removed completely no recurrence took place. If a multicentral cancer were removed recurrence might take place, because there were other starting points not recognizable as such in the apparently healthy tissue. Recurrence in a clinical sense might be (*a*) a real beginning of a new growth (this was very rare); (*β*) a true recurrence. (*a*) Direct: (1) local, (2) carried off by blood or lymph stream; (*b*) indirect. He next spoke of the latent period of new growths. That carcinoma cells could die off he showed by means of diagrams and microscopical drawings. He regarded the giant cell as a protective cell which the organism used to kill off the cancer cells. That this was possible he demonstrated in one specimen when an early secondary infiltration was in the course of disintegration, while the giant cells were developing. These conditions produced a picture extremely like a tuberculous lesion, but differing in the fact that no bacilli were ever to be found, that caseation did not take place, and that there was no spread of tuberculosis elsewhere. Turning to the practical surgical side of the question, he believed that growths should always be removed, even when infiltrated tissue was left behind, because these secondary foci were frequently dependent for their existence on the centre of beginning.

(To be continued.)

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 12TH, 1902.

PLACENTOPHAGY AND PLACENTAL OPOTHERAPY.

A remarkable communication of high biological interest was published in the March number of *L'Obstétrique*. M. Bouchacourt, the author, makes public some clinical notes on the effect of "chorionine," a preparation from sheep's placenta, in cases of absent or defective lactation in parturient women. The principle on which he acts is explained by the title of his short treatise, which is De l'Utilisation Naturelle de la Partie Extra-embryonnaire de l'Œuf. This utilization of the extra-embryonic portion of the ovum is understood very literally by many of the lower animals. Birds naturally eat up the eggshells of the offspring they have hatched. Bouchacourt observed for years a large dovecote which lodged about 200 pigeons. Never could he find a trace of an eggshell outside or inside the nests. Hens also devour their chickens' eggshells, and for various equally bad reasons farmers' wives in many countries endeavour to prevent the fowls from following a natural instinct; yet the shells of eggs eaten at table in the very same farms are thrown on to the dunghill, where the hens soon find them and devour them. Amongst the mammalia the eating of the placenta by the mother is a very usual custom. We will not go so far to suggest, as M. Bouchacourt seems to do, that this habit can be traced to the female spider, who eats up the male, if she can catch him, directly after impregnation. He seems to be useless, like a drone, after he has discharged the only duty for which he is fitted, and so is made by his lady into aliment for the benefit of the future of the species. Though female mammals do not eat up their swains, they often devour their young, and M. Bouchacourt notes that this is common in captivity. Cats and sows are very prone to this vice, also prevalent amongst rabbits and guinea-pigs. Countrymen fancy, apparently with reason, that the sucking-pig is not safe from his mother's jaws till it has taken the teat. Our author believes that the sow, feeling an appetite for something uncertain, sometimes makes an error in diagnosis and eats one of her young instead of the placenta, but when lactation is excited by the litter her appetite guides her more correctly.

Amongst our own species placentophagy is not unknown. It is practised chiefly of course amongst certain interesting tribes which have no manners and whose customs are objectionable. Amongst the Yakouts the father and his friends used to eat the placenta ceremonially, but this practice was recorded in 1719 by Carreri, so it may have fallen into desuetude like many other more picturesque customs. Dr. Raynaud, of Algiers, writing as lately as January, 1902, declares, however, that in certain parts of the Soudan placentophagy is habitually practised, though the peasantry of Morocco and Algiers know nothing of it. The origin of this instinct has been much disputed. In our own species it has nothing to do with the sacrifice of infants, which is a well-known practice designedly for propitiation, and traceable in the early history of Aryan, Semitic, and other nations.

On the other hand, the notion that there is some virtue in a caul or in an afterbirth is very general in civilized nations. We may set aside the alleged protective power of the caul and the strange notion that the "hippomanes" or the placenta and membranes of a mare is a powerful aphrodisiac. Old-fashioned practices based on the theory that the placenta is a galactogogue need not be detailed; none the less, M. Bouchacourt insists, is it true that ingestion of placenta favours the flow of milk. Dried and powdered sheep's placenta is a very old remedy. M. Lepinois has prepared placenta powder by the most approved modern methods, but M. Bouchacourt now employs pure placental juice—"chorionine." The placenta is minced, washed in running water, and then submitted to pressure without heat. The juice thus expressed is made palatable with syrup after being sterilized by the addition of a little ammonium fluoride. M. Bouchacourt took large doses himself, to make sure that the compound is innocuous, before turning it to clinical use.

M. Bouchacourt reports M. Brindeau's experience and a series of cases in Professor Tarnier's wards. In nearly every instance doses of 1 or 2 grams daily favoured lactation. In patients where the breasts were well developed suckling could be continued, even when the milk did not rise until the new compound was repeated. When the breasts were distinctly atrophied, however, the results were not permanent. Even in these failures some milk at least was secreted. Doses were given to a married woman with dysmenorrhoea. The menstrual pain was but little abated, but the mammae became swollen, and a little colostrum escaped. This patient had borne one child, but similar results followed in the case of a sterile married lady also subject to dysmenorrhoea. Colostrum flowed freely from the nipples of the swollen breasts, whilst the painful menstruation was but little influenced.

Evidently therefore there is something powerful in placental juice, and we may hear more about it. No doubt deficient supply of milk is a very great evil to mother and child, and if "chorionine" can save the offspring from the bottle so much the better for humanity. We want, however, a great deal more evidence as to its value.

THE MOSAIC CODE IN ITS SANITARY ASPECTS.

M. Paul Garnault in a recent article in the *Revue Scientifique*, entitled Bovine Tuberculosis and the Talmud, denies the fact that the dietary laws laid down in the Pentateuch, and enforced by specific regulations in the Talmud are intentionally hygienic, or indeed that they have any practical value for the preservation of public

health. The contrary opinion has been so long and so generally held, many even thinking that it is to an observance of these laws that the Jewish race owes its preservation, that it seems worth while briefly to consider the evidence. The short and simple commands and prohibitions of the Pentateuch give no indications as to the motives which dictated them, but there are not wanting regulations so obviously hygienic in character that none but the most prejudiced could fail to recognize their purpose.

As instances we may cite certain verses in Deuteronomy[1] concerning the removal of excrementitious matter outside the camp, and covering it with earth; those in Numbers[2] declaring that everything contained in an uncovered vessel in a tent which covers a corpse is unclean; and the extraordinarily minute directions in Leviticus[3] as to the examination by the priest-physician of cases of suspected leprosy. In considering with M. Garnault the special dietary laws of the Pentateuch we find four classes of prohibited food:

1. Blood, which is absolutely and always forbidden.

2. Terifah, that is animals torn by wild beasts or otherwise.

3. Nevilah, that is animals which have died of themselves.

4. Animals held to be essentially "unclean."

The first of these prohibitions would appear to owe its origin chiefly to ritual considerations, the phrase "for the blood is the life thereof" seeming to indicate an idea widely held by the ancients that by consuming the blood something of the psychical nature of the animal might be absorbed. On the other hand, it is not impossible that the legislator had in his mind the prevention of the disgusting and unhealthy practice of drinking raw blood, a practice common among the ancients and not unknown to the Egyptians.

The second division is always held to mean animals which have been torn by wild beasts; but it is likely that the prohibition was intended to apply to animals injured or damaged in any way. In this connexion it is interesting to note that the word "Terifah" soon became the phrase by which was described the whole class of unhealthy or unclean animals forbidden for food; food prohibited to the Jews is so described at the present day.

In considering the third class we come to a prohibition which, whatever its object, must be admitted to have been of the greatest value for the preservation of public health. Be the intentions of the legislator what they may, it is evident that a distinct progress in sanitation is shown when animals which have died a natural death are no longer to be consumed as food. So far we have been dealing with a description of food which all civilized nations are now agreed to avoid. The fourth class, however, comprises many animals which are largely used for food by most of the peoples of the world. Of these unclean animals the most notable example is the pig, which, regarded by the Jews even to-day as the very type of the unclean, is in many western countries a chosen dainty. Many reasons, more or less fanciful, have been suggested for the Mosaic prohibition of pig's flesh. M. Garnault seems to favour the idea often put forward that the pig is a totem of one or more of the tribes from which the ancient Hebrews were descended, and that for this reason it was taboo to them as an article of food. This is an explanation, however, which ignores the fact that not Jews alone, but many nations of the East, refused to partake of pig's flesh. It is especially noteworthy that in ancient Egypt it was rarely eaten, and was absolutely forbidden to the priests; and in this last fact we may perhaps find a clue to the origin of this part of the Mosaic legislation. Recent Egyptian research has taught us that the priests of ancient Egypt had at their command a large amount of knowledge of a very advanced character which stands in remarkable contrast to the almost childish ignorance of the common people.

Assuming that the laws set forth in the Pentateuch were derived from the traditional teachings of Moses, who spent his early life in Egypt, it can be easily understood that much of that teaching represented knowledge, hygienic and other, which was at the time the all-but-exclusive property of the Egyptian priesthood. The pig, dirty in its habits, was especially prone in Egypt to skin affections as well as to the other dangerous maladies, such as trichinae, from which it is well known to suffer; this fact may well have been observed by the priests, and may explain why it was held by them in abhorrence.[4]

Finally, it may be noted with regard to the whole class of unclean animals that they were almost without exception forbidden to the Egyptian priesthood, and they are mostly considered unwholesome in Egypt to the present day. The legislation of the Hebrew lawgiver differed only from that of Egypt in the fact that the prohibited food was forbidden equally to the entire nation.

The simple directions in the Pentateuch as to the avoidance of blood, of animals which have been torn "Terifah," of those which have died "Nevilah" were elaborated in the Talmud into a long list of minute directions for the slaughter of animals destined for food, and for the inspection of their carcasses. This inspection is of a far more rigid character than M. Garnault implies, and the tendency at the present day is to reject in any doubtful cases.

The great principle which is laid down is that it should be certain that the animal has died solely from being slaughtered, and that neither disease, malformation, nor injury has contributed to its death. Hence certain diseases of the cerebral meninges, stomach, kidneys, heart, or intestines, or considerable atrophy of the liver, render the animal unfit for food, or even destruction of the skin, if it be of a certain extent or depth.

The organ most diligently to be searched and most severely tested is the lung; and although it is true, as M. Garnault states, that "warts" in the lung are not sufficient cause for rejection, by which no doubt some tuberculous animals may be passed, nevertheless, it is impossible to doubt that the inspection ensures the rejection of any advanced case of tuberculosis. It is quite a mistake to suppose that only perforations in the lungs are sought for; any induration, any matter in or about the "grapes" or "warts," or the smallest amount of pleuritic adhesion is sufficient to cause rejection. One point that cannot be lost sight of in considering the value of the Talmudic

[1] Deut. xxiii, 13.
Numb. xix, 14 et seq.
[2] Levit. xiii.

[4] Wilkinson's *Ancient Egyptians*.

regulations is the remarkable freedom of Jews from phthisis. This is very striking in London, where among Jews the percentage of deaths due to phthisis is less than half of that found among the general population, and it is the more noteworthy as from the age distribution of the Jewish community we should expect the proportion of deaths from phthisis to be distinctly higher than the average. The Talmud, like the Pentateuch, exhibits such a curious medley of laws apparently of purely ceremonial importance with others of undoubted hygienic value that it may easily have misled a critic more unprejudiced than M. Garnault into thinking that religious purity alone was aimed at. This view, however, shows little appreciation of the genius of an Oriental race among whom religion played, and still plays, so large a part in everyday life that even washing the hands becomes a matter of ritual importance.

No one would wish to claim for the authors of the Pentateuch or the Talmud a complete knowledge of modern sanitation, but some of their laws make a valuable move in that direction; and even while disease may have been thought to be a direct result of the wrath of God, still it was recognized that unwholesome food and unclean dwellings would surely bring down that wrath upon the transgressors. After all there is not so much difference between the view of the twentieth-century sanitarian that disease inevitably results from a refusal to obey natural laws and the statement of the Jewish lawgiver that disobedience "shall cause the Lord to bring great plagues upon you, even all the diseases of Egypt."

THE OXFORD MEDICAL SCHOOL.

One of the most interesting passages in Mr. Rhodes's will is that in which he suggests that the University of Oxford "should try and extend its scope, so as if possible to make its medical school at least as good as that of Edinburgh." The suggestion is a good one, and it is a little remarkable that Mr. Rhodes, while giving money lavishly in scholarships, should not have seen fit to help Oxford to extend its scope in the direction indicated. The scholarships may, of course, be bestowed on young men who intend to study medicine, but as they are to be held only for three consecutive years, while the course required for a medical degree at Oxford extends over six or seven, the income will be cut off just when it is most needed. Oxford still awaits a benefactor who understands what is required to make its medical school equal to its academic reputation. Considerable progress has, however, already been made, and it is no longer possible to reproach Oxford with its "lost medical school." As is pointed out by Sir John Burdon-Sanderson in the *Times*, the University has within the last few years created several new departments and provided as many suitable buildings for their reception exclusively for the instruction of medical students. A physiological department was established some fifteen years ago, the equipment of which will bear comparison with any other in the country. The department of human anatomy was completed ten years ago. It has a museum, a commodious dissecting room, with all modern improvements, and all other adjuncts required for the teaching of a subject so important to medicine. The pathological laboratory was opened by the Vice-Chancellor six months ago. As regards the building and the internal arrangements, it is all that could be desired, but the funds available for its complete equipment are indequate, nor has the University as yet been able to provide sufficient remuneration for the teaching staff. The only branches of medica science for the teaching of which special departments have not yet been established are pharmacology and public health. These facts fully justify Sir John Burdon-Sanderson's statement that Oxford has already extended the scope of its medical school, as Mr. Rhodes recommends, and he adds that it is prepared to extend it further. It is earnestly to be hoped that the Alma Mater of Christopher Wren, Lower, Sydenham, Acland, and so many other luminaries of medical science will before long be able to take its proper position as one of the leading medical schools in the Empire.

THE GLASGOW DISASTER.

The most appalling disasters may, if wisely pondered, afford instruction and warning; from a consideration of the causes which led up to the calamity it may be possible to extract useful lessons for future guidance. The terrible catastrophe which attended the England *v.* Scotland football match at Ibrox Park, Glasgow, is no exception to this rule. The structure of the grand stand, which so unaccountably collapsed, had presumably passed the inspection of the authorities responsible for licensing such temporary erections. Clearly its stability was not equal to the strain to which it was subjected: it would be interesting to know the nature of the tests to which the component materials of the faulty terracing were submitted. The current year is likely to be unique in regard to the massing together of large volumes of people in celebration of the great event which is to be consummated in June. The route of the Coronation processions in London on June 26th and 27th will doubtless be girt about with an endless variety of wooden stagings. At the time of the Diamond Jubilee in 1897 the London County Council won a chorus of approbation for the manner in which it discharged its then duties in the licensing of stands, in precautions successfully taken against fire, and in the locations provided for the volunteer ambulance associations to carry on their beneficent ministrations. We learn with some apprehension that by the operation of the London Government Act, 1899, the supervision of the Coronation stands will not now rest with the County Council, but will be in the less experienced hands of the new borough councils. No doubt they will perform their novel duty with zeal and energy, but it is doubtful policy to divide a service requiring uniformity of performance among some four or five separate authorities. We note that at Glasgow ambulance provision was lamentably deficient: we could wish that London was already provided with the rapid ambulance system which we are promised. It seems to require an appalling catastrophe to secure reforms the need of which has been long recognized, but whose execution has been long delayed. It was the *Princess Alice* disaster which led to the reform of our mortuary accommodation. We trust that the ambulance system we are promised may not be further procrastinated.

ARMY NURSING BOARD.

Under the scheme of reorganization of the Army and Indian Nursing Services the new post of Matron-in-chief has been bestowed upon Miss Sydney Brown. Miss Brown received her earliest training at St. Bartholomew's Hospital, and entered Netley in 1883. Miss Brown has the decoration of the Royal Red Cross, and has for a long time past done good service in South Africa, from which she recently returned. As Matron-in-Chief she will be the medium of communication between the Director-General of the Army Medical Service and her own department. She will receive confidential reports from the matrons of the military hospitals as to the efficiency and conduct of their own staffs, and will be expected to keep herself acquainted with the general details of nursing administra-

tion in these various institutions. On her will devolve the important responsibility of appointments, promotions, and retirements, and a new duty will be that of maintaining a sufficient staff of special nurses, who will be detailed for duty in cases of emergency or for service in the smaller hospitals. The newly-constituted Board has not, we believe, yet met, but is expected to do so shortly. The matrons of three large civil hospitals are also to have seats on the Board. Two of these have already been appointed, Miss Gordon, of St. Thomas's, and Miss Monk, the Matron of King's College Hospital. One of the two members nominated to the Board to hold office for three years by the Queen, in her capacity of President, is the Hon. Sydney Holland, Chairman of the London Hospital. Countess Roberts has accepted the Vice-Presidency of the Board.

THE USE OF DIPHTHERIA ANTITOXIN IN COLCHESTER.

AT a meeting of the Colchester Town Council, held on April 2nd, Alderman Laver, speaking as the only medical man on the Sanitary Committee, entered a vigorous protest against the attitude adopted by their medical officer, Dr. Brown, in the treatment of diphtheria. Referring to Dr. Brown's annual report, he expressed his inability to understand the table which it contained concerning mortality from diphtheria, and found it impossible to reconcile it with data officially supplied by the sanitary inspector. It seemed an extraordinary circumstance that, according to the medical officer's report, the death-rate was very much higher in cases where the antitoxin treatment was adopted than in those where it was not. As this was contrary to almost universal experience, he thought the explanation must be that either there was only a very perfunctory application of the remedy, or it was not given until just before the death of the patient. He noted that in every case where, before admission to the hospital, antitoxin was administered by an outside practitioner, the patient recovered. Dr. Brown, however, although admitting that, in order to be successful, antitoxin should be administered on the earliest possible occasion, had not in the majority of his cases, of which Mr. Laver quoted several instances, applied the remedy until from two to ten days after admission. Mr. Laver passed some stringent criticisms upon the results of a peculiar "spraying" treatment of Dr. Brown's own, which the latter seemed to think vastly superior to the use of antitoxin. These pretensions, however, according to the statements which Mr. Laver brought forward, have proved untenable. Mr. Laver further charged Dr. Brown with constantly thwarting instead of trying to help the Sanitary Committee. In conclusion, he "felt strongly that the report was unfair and one-sided, with an animus clearly shown, objecting to the use of antitoxin." In his reply, as reported in the *Essex County Standard* of April 5th, Dr. Brown appears to have entered into a disquisition upon the virtues and success of his spraying system which, he said, ensured "the poison being taken away at once from the seat of the disease, so that it did not enter the system." He complained that latterly this treatment could not be properly carried out because, owing to changes on the staff, "they had a new matron and nurses who knew nothing whatever of the washing away of this poison." He declared that antitoxin had had a fair trial from him and that, after the Council had ordered it, it was the sole remedy adopted. We have had occasion, in previous numbers of the BRITISH MEDICAL JOURNAL, to express our opinion on the sanitary administration of Colchester. In our issue of February 23rd, 1901, p. 477, we commented unfavourably upon the medical officer's preparation of the diphtheria statistics and his deductions from them, and pointed out the apparent absence of many obvious precautionary measures. We also indicated our opinion as to the propriety of his adopting a private remedy of his own for the treatment of diphtheria in preference to the use of antitoxin. Again, in the BRITISH MEDICAL JOURNAL of August 17th, 1901, p. 425, it was pointed out that the medical officer was the reverse of helpful to the cause of sanitary progress, and recorded the steps which had been taken to have the outbreak of diphtheria in Colchester thoroughly investigated by others. Considering all the circumstances, we think that Alderman Laver's strictures are on the whole fully justified. There can be no reasonable doubt that antitoxin treatment, when properly administered, is as efficacious at Colchester as it is elsewhere. Dr. Louis Cobbett, who has investigated the epidemic at the request of the municipal authorities, and of whose competence and absolute impartiality there can be doubt, found the diphtheria mortality "with antitoxin" to be 5.6 per cent., whereas "on the other system" he found it came out at 28.9 per cent. This diminution of mortality on the introduction of antitoxin treatment was, he shows, not due to an abatement in the severity of the disease. The change was not gradual but abrupt; the introduction of the new treatment was followed by 60 cases without a single death. Indeed, it is difficult not to feel that there are strong grounds for the belief which exists amongst many of the inhabitants of Colchester that if more rational counsels had been adopted from the first the mortality from diphtheria amongst them would have been less. We have had the opportunity of examining for ourselves the full report presented by Drs. Cobbett and Graham-Smith to the Sanitary Committee, and find that it fully justifies the strong local feeling it has created in favour of the thorough application of the antitoxin treatment, and provides a very satisfactory refutation of the many disparaging remarks of Dr. Brown as to the utility of the method. We have also read the abstract of Dr. Brown's annual report published in the *Essex Telegraph* of April 5th, and note with amusement the air of patronage with which he expounds the superiority of his spraying system, which he styles "the rational and physiological system," over the antitoxin method, which is labelled by the somewhat invidious title of "the mechanical and pathological system of treatment." To enter into a discussion of his views would be a waste of space. It is merely necessary to say, for the benefit of the general public who naturally do not feel competent to estimate for themselves the value of Dr. Brown's opinions on technical matters, that that gentleman's statements do not in the slightest degree invalidate the generally-accepted medical opinion as to the therapeutic value of diphtheria antitoxin. It is very satisfactory to note that there is promise of a speedy reformation. Despite a somewhat misleading paragraph which recently appeared in the *Daily News* to the effect that the medical men disagreed as to the value of antitoxin, and that therefore the sanitary authorities of Colchester found it very difficult to decide the point, there is an obvious disposition on the part of Colchester to treat these foolish fears with contempt. It was definitely announced at the meeting of the Town Council that the Sanitary Committee intend to have all patients properly treated with antitoxin as soon as they got the new medical officer whom they were about to appoint. Each of the two statements contained in this announcement is eminently satisfactory. We have no doubt that when their new officer is appointed the treatment of diphtheria will be efficiently conducted on rational and scientific lines, and that the inhabitants of Colchester will no longer be exposed to the dangers arising from the idiosyncrasies of an individual who fails to appreciate the general consensus of enlightened medical opinion.

THE CONGRESS ON VENEREAL DISEASES.

THE Second International Congress for the Prophylaxis of Syphilis and of Venereal Diseases will, as already

announced in the British Medical Journal, be held at Brussels on September 1st to September 6th, 1902. The following is the programme of the subjects chosen for discussion:—I. Public Prophylaxis: Whereas, on the one hand, it is the duty of the public authorities to safeguard society against contagious diseases, which, by their frequency and by the facility with which they are spread, constitute a public danger, while, on the other hand, quite apart from the sanitary point of view, it is their mission to protect minors abandoned by their parents: (*a*) What measures of public prophylaxis, under the form of legal provisions, should be taken against venereal diseases, specially with reference to the following points? Relative to prostitution: (1) The prostitution of minors: (2) the action of public bodies, whether in the interest of public morality and tranquillity or from a sanitary point of view: (3) procurers and bullies. Not associated with prostitution: (1) The protection of minors of both sexes; (2) the organization of measures of relief for those suffering from venereal diseases: the duties of charitable institutions to those so suffering; (3) suckling by wet nurses; contagion by midwives and nurses; arm-to-arm vaccination; contagion in factories and workshops by means of instruments of labour; registry offices, etc. (*b*) Is it necessary to apply the principles of civil and penal responsibility for the transmission of venereal diseases? II. Individual Prophylaxis: Taking into consideration that if the public authorities have to take prophylactic measures against venereal diseases, the duty of self-preservation is incumbent on every one; on the healthy, by the avoidance of all dangerous contact with an infected subject, and on the diseased by avoiding the possibility of infecting others: (1) What are the best means of enlightening the youth and the general public on the social and individual dangers of syphilis and gonorrhoea, as well as the methods of contagion of these two diseases, direct or indirect? (2) How can one best facilitate individual prophylaxis by means of charitable institutions (dispensaries, refuges, etc.), and the medical treatment of patients of both sexes suffering from syphilis or gonorrhoea? III. Statistics: What should be the uniform basis on which the statistics of venereal diseases in all countries should be formulated? IV. Personal Communications: In conformity with the decision of the first Conference, personal communications may be introduced, with the consent of the Committee, on subjects not dealt with in the programme, and a special sitting will be devoted to their consideration. Mr. J. Ernest Lane, of 42, Queen Anne Street, W., as Honorary Secretary for Great Britain, will be glad to give any information to British practitioners who may wish to take part in the proceedings.

THE PROPHYLAXIS OF VENEREAL DISEASES.

In view of the fact that the International Congress of Social Hygiene meets again this autumn in Brussels, it is of interest to note the conclusions of a report drawn up by a Committee of the Medical Society of the County of New York, which was appointed early last year to consider this question. In approaching the study of the subject, the Committee found at the outset that there were absolutely no statistics of venereal diseases in New York, and they attempted to supply this want by addressing a circular to the medical profession in the city and neighbourhood. Unfortunately only 20 per cent. of those to whom circulars were sent took the trouble to reply, and the plan adopted by the Committee of multiplying their results by five, on the assumption that the other 80 per cent. would have given identical figures, is not to be commended. The Committee was equally embarrassed in seeking information from the hospitals, as these diseases are not officially recognized by them, and if they are admitted are "disguised under a variety of aliases." The Committee says: "While it may be true that a respectable syphilis does not exist, they (the hospitals) give the public the impression that it is almost as disgraceful to treat syphilis as to contract it." We fear this part of the Committee's labours was barren, not from any lack of well-directed industry, but from circumstances over which it had no control. We turn, therefore, to the latter part of the report to see what the Committee has to say about prophylaxis, and it is interesting to note that regulation is dismissed as not only impracticable but inefficient. "Regulation cannot be effectively applied against the large body of private or clandestine prostitutes, it cannot reach the great mass of masculine spreaders of contagion." The "most feasible" plan in the opinion of the Committee "is to compel all prostitutes to inhabit houses by themselves," but no information is afforded as to the means by which such a measure could be enforced, or how it would evade the difficulty of clandestine prostitution. Even if such a law could be enforced we are not sure that it would do good, as the more the prostitute is made a pariah the less chance is there of escaping from her miserable way of life. These women were not offenders against the law, and all special laws to their prejudice are unjust, and, as experience shows, are unavailing. The Committee recommends notification without giving the names and addresses of patients, the establishment of a "distinct bureau, with a special corps of sanitary inspectors chosen for proficiency in the knowledge of this class of diseases, with a bacteriological laboratory," etc., but we are not told who or what is to be inspected or examined. The keepers of disorderly houses are to report all cases of disease "under penalty of a heavy fine," but how they are to obtain the necessary knowledge of the existence of the disease is not explained. That there should be increased hospital facilities for the reception and treatment of these diseases is a better point made by the Committee. A further recommendation is to penalize the transmission of syphilis by "a heavy fine." This reminds us of what was said by an American witness before Mr. Dalrymple's Committee of the House of Commons upon the Inebriates Bill. In answer to a question he said: "Our people are sanguine. They think you have only to pass a law and it will execute itself." While the wilful transmission of syphilis is an abominable act, which could certainly be punished under existing laws, any simplification of the procedure would probably merely serve the purposes of blackmailers and do no good to the public health. The Committee adopts the recommendation of the Brussels Congress respecting minors, but we doubt whether the proposal that "prostitutes of minor age, when apprehended, should be sent to a protectory or reformatory and detained until the age of twenty-one," would be practicable. Does "when apprehended" mean arrested for prostitution, or when brought under the notice of the police for disorderly conduct, drunkenness, etc.? If the former, the law would have to be altered, and there is neither in this country nor the United States any certain means of ascertaining the age of a given person. The Committee reaches firmer ground again in desiring that the law should be enforced, and if need be strengthened against procurers and procuresses, and in urging better instruction in our medical schools in this department of pathology, but it slides off again into quicksands with proposals to establish "marital quarantine," and to instruct the young in schools and villages on the dangers of promiscuous intercourse. The report is doubtless a sincere attempt to deal with a very difficult problem, but we cannot honestly say that the proposals put forward possess any great merit or are likely to aid in its solution.

MEDICAL EDUCATION.

The *Times* of April 4th contains a long article devoted to the General Medical Council considered in its relations to

the public and to the profession, and particularly dealing with the issues which have arisen between it and the two Royal Colleges of England. The position taken up on this question is almost identical with that which has been repeatedly urged in our columns, so that it is only necessary here to allude to certain points touched on or implied. Emphasis is laid upon the fact that nineteen distinct bodies—a number shortly to be increased by the establishment of new provincial universities—now compete for the fees of aspirants to the medical profession, and that it is not desirable that they should be able to shake themselves free of any control in the direction of ensuring uniformity of requirements. The Acts clearly indicate that it was intended that the General Medical Council, their representative body, should concern itself with such uniformity of study and examination, and, whilst no very precise powers were conferred upon the Council, short of the extreme measure of recommending the Privy Council that the degrees be not recognized, the intention appears to have been that through the general control of the Council some considerable approach towards the uniformity attainable by a one-portal system of entrance, under State control, should be secured without depriving the Corporations of their separate right to confer an entrance qualification. But if they decline to walk along the *via media* thus opened out for them, it is obvious that a much stronger case is afforded for the establishment of a one-portal system, and thus it is by no means clear that Corporations which refuse absolutely to be guided by the majority are really acting in their own interest, although their course may have been, and presumably is, guided by the motive of self-protection in the competition which exists. It appears to us that an indirect advantage hitherto not noticed would accrue to the profession were a State control and a one-portal system established. The indifference of Parliament and of Ministries to medical matters, and particularly to infringements of the intentions of medical legislation, is unhappily only too familiar a fact. But if the entrance to the medical profession were under State control this indifference could not logically continue; if the State determined the qualifications to be called for in a medical man, it would be morally bound to see to their enforcement, and to prevent those who were not possessed of them from assuming the privileges conferred by them, which is not so fully the case so long as such privileges are conferred by a number of independent corporations.

INTERNATIONAL CONGRESS FOR THE WELFARE AND PROTECTION OF CHILDREN.

THE arrangement for the approaching Congress in London are being rapidly proceeded with, and there is every prospect of a very large and influential gathering. As there is only a week between the close of the International Congress and the annual meeting of the British Medical Association, it might be well for the latter to invite some of the distinguished members of the profession abroad who are expected to take part in the proceedings, to visit the north country, where there is much to show as to the best methods of dealing with dependent children. The Congress will be divided into three sections: (A) Legal, (B) Medical, and (C) Educational. We think it might be well to divide the medical section into two parts, one dealing with physical, and the other with mental diseases. There is no doubt that one of the crying wants of the age is better provision for the feeble-minded and epileptic children, and we sincerely trust that this question will be dealt with at the coming Congress. We are glad to see that one part of the proposed Congress is an exhibition of the work done in the various institutions, and also of all kinds of appliances useful in such places. The latter should be of very great use, especially to guardians of the poor, as they will be able to see the newest and best appliances brought together, instead of having to wander all over the country to obtain information.

THE PROPOSED MEDICAL COUNCIL FOR CANADA.

DOMINION registration, as provided for in the Bill presented by Dr. Thomas G. Roddick, M.P., has, according to the *Philadelphia Medical Journal*, passed its second reading in the Canadian House of Commons. It will now be referred to a special committee composed of the medical members of the House and three lawyers. Some objection was offered to the second reading of the measure on constitutional grounds as the question of education in Canada is, according to the British North America Act, vested in the different provinces. Dr. Roddick now proposes that the Dominion Medical Council when formed shall consist of thirty-nine members. The homoeopaths are to have three members, elected by that body generally throughout Canada. Each university engaged in teaching medicine shall have one representative, an additional one being allowed for Laval. Dr. Roddick proposes nine for Ontario and Quebec, four each for Manitoba and Nova Scotia, three each for New Brunswick, British Columbia, and the North West Territories, and Prince Edward Island two. The medical population of the North West Territories has grown from 110 to 211 in the past year.

THE PREVENTION OF SMALL-POX IN CHICAGO.

AN effort in preventive medicine on a scale of considerable magnitude was recently undertaken by the Chicago Health Department. Its field is an area of some 600,000 square miles of territory in the ten States of which Illinois is the southern centre and the remotest boundaries of which are within a few hours' railway travel from Chicago. Among the 25,000,000 people living in this area the number of cases of small-pox has increased more than 900 per cent. since the first day of the year over the number reported during the corresponding period of 1901. That is to say, between December 28th, 1900, and January 24th, 1901, there were only 1,070 small-pox cases reported in this territory, while during the similar period ended January 24th, 1902, there were 10,820 cases reported—an increase of 911 per cent. The health commissioner, Dr. Reynolds, being convinced that the disease was still spreading unchecked and that its continuance seriously threatened not only the public health but the material interests of this vast area by the certainty of "shotgun quarantines" sooner or later and consequent costly and vexatious interference with travel and traffic, urged these views at a conference with the representatives of the leading railways centering in Chicago, and asked for their co-operation with the department in a concerted effort to "stamp out" the pestilence. Ready assent was given and the necessary men and means were provided. The plan contemplated wholesale vaccination and revaccination in every infected locality; the provision and maintenance of suitable isolation hospitals where necessary; thorough disinfection of small-pox premises and belongings; strict inspection of all persons offering to travel from infected localities, and refusal to carry those who do not comply with the requirements. This measure which is fully within the power of the railways to enforce was relied on to control the objectors, "conscientious" or otherwise. It was determined that special attention should be paid to the condition of employés in manufacturing establishments particularly those of textile fabrics; and that the railways should set the example by still more rigorously making recent vaccination a condition of further employment; that competent vaccinators and supplies of pure, tested vaccine lymph should be furnished gratis in all proper cases; and that the work along each railway line should be under the direct charge of the medical director or chief surgeon of the company, and a central office should be maintained in the city for the

receipt of reports, requisitions, etc., from those engaged in the campaign. Dr. Reynolds volunteered to take charge of the central office. This action was not taken solely or even chiefly in the interest of Chicago, where the situation has never been alarming at any time during the three years of the epidemic. The results of this well-organized campaign will be awaited with interest.

AN ANTIVACCINATION EXPERIMENT.

Dr. Immanuel Pfeiffer, of Boston, one of the strongest opponents of vaccination in Massachusetts, appeared some time ago before the Legislative Committee to urge repeal of the compulsory vaccination law. Having the courage of his convictions, he went to Galloupes Island and exposed himself to small-pox, with the result that he contracted the disease in its worst form and lay for some time in peril of his life. An attempt seems to have been made by those about him to conceal the fact that he was ill, but in due course the case was brought to the notice of the Boston Board of Health. The experiment, which was made by Dr. Pfeiffer with the avowed object of demonstrating the non-contagious character of small-pox, has had the beneficial result of greatly stimulating the use of the vaccinating lancet in Boston. On Dr. Pfeiffer's own mind the incident has had the effect that might have been expected; he says, "nothing has happened to change my views on the subject." The real difficulty in convincing your antivaccinist is to find a mind that is open to conviction.

THE PATENT MEDICINE HABIT.

In a paper read not long ago before the Philadelphia College of Pharmacy, Dr. Albert Robin, bacteriologist and pathologist to the Delaware Board of Health, delivered a strong indictment against what he termed the "patent medicine habit." Patent medicines, he said, demoralize the people by engendering constant dread of disease, a condition which might be called pathophobia. He stated that a vaunted remedy sold at a dollar a box, was composed of granulated sugar; that certain opium "cures" contain morphine, and that tonics, especially recommended for inebriates, are largely made up of alcohol. Other patent medicines contain cocaine and narcotic substances as their active ingredients. There can be no doubt that the habit of self physicking, often with powerful drugs, is on the increase. The evil has reached such a height in America that the insurance offices are beginning to take cognizance of its existence. Already one company requires that the medical examiner shall ask the applicant, "What patent medicines have you used in the last five years?" This action is dictated by plain common sense. A man who doctors himself may truly be said to have a fool for his physician; even if his nostrums do him no harm, they are likely to engender in him an unwarranted confidence in their protective or curative power. If on the other hand he habitually indulges in strong drugs, he is certain to damage his constitution, and is likely at any time to commit involuntary suicide. In either case he is not a desirable candidate for life assurance. If all assurance offices were to follow the example of the American company mentioned above, the "patent medicine habit" might be in some degree abated. Legislation making it compulsory for the manufacturers of patent medicines to publish the formulæ of their preparations on the bottles would do more. But the most effectual remedy would be the removal from the sight of the ignorant public of the continual incitements to buy patent medicines afforded by the lying advertisements which even respectable newspapers are not ashamed to publish.

THE SAMPLE NUISANCE.

One of the minor afflictions of modern life is that curious form of commercial enterprise which manifests itself in the wholesale distribution among householders of samples of products, medicinal, dietetic, disinfectant, and what not. Doctors are naturally marked down by dealers in such wares as their natural prey. Sometimes the samples are sent by post, sometimes they are left, like superfluous babies, on the doorstep. The thing is a distinct nuisance, and might easily become a danger. We are glad to see, therefore, that America, from which this mode of advertisement comes, is taking the initiative in attempting to check it. To stop the indiscriminate distribution of patent medicine samples the district commissioners of Washington have decreed that a fine of not less than £1, or more than £5, shall be imposed upon any person who shall "throw, deposit, drop, scatter, or leave, or cause to be thrown, cast, deposited, dropped, scattered, or left upon any public highway or place in the District of Columbia, any medicinal or toxic substance, either in package or in bulk, except officers, employés, and agents of the United States or the District of Columbia distributing such material for the purpose of disinfecting or cleansing." Provision is also made that the medicinal or toxic substances must not be left "in or upon any premises in the District of Columbia without the consent of the owner or occupant of said premises, except officers, employés, or agents of the District of Columbia."

THE "TWIN-SISTERS OF FOSCOTE." AND THE "SCOTTISH BROTHERS."

Although the "Biddenden Maids" have acquired a special historical importance due in no small measure to the Easter bequests associated with them, there have been other national teratological phenomena of a similar kind of which traces are forthcoming in out-of-the-way places. Among these must be reckoned the "twin-sisters of Foscote," about whom Hissey writes in his *Through Ten English Counties*: "Strolling down the village street (Norton St. Philips, about thirty miles from Salisbury in Wilts), we found ourselves close to the church, and whilst we were making a sketch thereof, an old body came to us and asked if we would like to see over it, 'it is very curious,' etc. Just as we were coming out, the worthy body appeared with an old and much-thumbed book in her hand. 'Have you seen the heads of the two ladies?' 'Not seen them? Why they's the great curiosity here, they stands on the top of the cupboard under the tower.' Then the old woman brought forth her treasured book and wanted us to read through some twenty pages or so of small print, giving, we noticed by the heading, 'a true account of the twin maidens of Foscote'; but we felt disinclined to wade through this, and therefore said that we would rather hear all about them from her. 'The two heads is carved in stone quite natural like, with the hair down their sides; they are about a foot in diameter.' 'They used to be on a tombstone that stood a long while ago in the floor of the chancel beneath which the ladies were buried; they had two heads and only one body. All of which is down in the book, and if you will only read their history in it you will find its all true, and a lot else about them.' We glanced over the account of these twin maidens of Foscote, as given therein, and found that she had given us the correct particulars as there recorded. On our return to London we sought for further and, if possible, authentic particulars on this matter. In *Pepys's Diary*, edited by Lord Braybrooke, we came upon the following quotation, taken from Collinson's *History of Somersetshire*, and this is all we could discover: 'In the floor of the nave of the church of Norton St. Philips are the much mutilated portraitures, in stone, of two females, close to each other, and called by the inhabitants, "the fair maidens of Fosscot," a neighbouring hamlet, now depopulated. There is a tradition that the persons they represent were twins, whose bodies were at their birth conjoined together, that they arrived at a state of maturity, and that one of them dying, the survivor was compelled to drag

about her lifeless companion till death released her of the horrid burden.'" The twin maidens of Foscote, if we may trust the old tradition, must have been not unlike the Biddenden Maids; but the slight details that are forthcoming may also be taken as signifying that the heads alone were duplicated and that there was only one body (dicephalus). Perhaps they resembled even more closely the "Scottish Brothers" who lived in the reign of James IV. of Scotland, and about whom Lindsay of Pitscottie wrote in his inimitable fashion: "In this mean Time there was a great Marvel seen in Scotland. A Bairn was born reckoned to be a Man-Child; but, from the Waste up, was two fair Persons, with all Members and Portraitures pertaining to two Bodies, to wit, Two Heads, well-eyed, well-eared, and well-handed. The two Bodies, the One's Back was fast to the Other's; but, from the Waste down, they were but one Personage, and could not know by the Ingyne of Man, from which of the two Bodies the Legs and Privy Members proceeded. Notwithstanding the King's Majesty caused take great Care and Diligence upon the Upbringing of their two Bodies in one Personage, caused nourish them, and learn them to sing and play upon Instruments of Musick; who, within short Time, became very ingenious and cunning in the Art of Musick; whereby they could sing and play two Parts: the one the Treble, and the other the Tenor; which was very dulce and melodious to hear. The common People who treated them also, wondered that they could speak diverse and sundry Languages; that is to say, Latin, French, Italian, Spanish, Dutch, Danish, English, and Irish. Their two Bodies long continued, to the age of twenty-eight years; and the one departed long before the other, which was dolorous and heavy to the other; for which many required of the other to be merry. He answered, How can I be merry, that have my true Marrow as a dead Carrion about my Back, which was wont to sing and play with me. When I was sad he would give me Comfort, and I would do the like to him: But now I have nothing but Dolour of the Bearing so heavy a Burden, dead, cold, and unsavoury, on my Back, which taketh all earthly Pleasure from me in this present Life: Therefore I pray to Almighty God, to deliver me out of this present Life, that we may be laid and dissolved in the Earth, wherefrom we came."

A TRAINING SCHOOL FOR NURSES IN TURKEY.

The great scarcity of nurses in Turkey has led to a proposal, made by the authorities of the American College for Girls in Constantinople to its trustees in Boston, that in connexion with the academic course a medical department in the form of a hospital and training school for nurses should be established. It is urged that there is a splendid opening for nurses in taking charge of the native women, who lead idle, aimless lives, and take very little air or exercise, and who consequently develop many real or imaginary diseases. These women greatly need someone to instruct them in the simple laws of hygiene and the care of the body, and nurses would be heartily welcomed by them. The Turkish hospitals import their nurses from Germany.

TUBERCULOSIS IN HAVANA.

The Health Officer of Havana, Major W. C. Gorgas, Surgeon United States Army, has recently had a sanitary census of the city taken, which shows the existence of 1,187 cases of tuberculosis. The patients have been urged to apply to dispensaries for relief as out-patients, to sleep with bedroom windows open, to avoid confining occupations, and to take proper precautions relative to the disposal of the sputa. Special attention has been given to the cigar manufactories in this respect, particularly since tubercle bacilli were found in cigars which had been made by a consumptive. For this purpose cigar workers are required in finishing cigars to moisten the tips of them with sponges, instead of with the lips, as was formerly done, and work benches are placed so as to face the same way instead of toward each other. The public reader—a peculiar institution common to all Cuban cigar factories—who is hired to read newspapers, novels, etc., to the hands while at work, will in future be required to devote a portion of his time to reading matter relating to elementary hygiene and the prevention of disease. The work is essentially educational and persuasive rather than coercive, and is meeting with hearty support from the Cubans.

THE PREVENTION OF YELLOW FEVER IN HAVANA.

With the object of preventing any fresh importation of yellow fever into Havana, where, as already stated in the British Medical Journal, it has been practically stamped out, General Wood has issued an order to the following effect: "All persons non-immune to yellow fever, coming to the city of Havana from places infected with yellow fever, shall report at such time and place as directed by the chief sanitary officer of the city of Havana. The chief sanitary officer shall be the judge as to immunity and infection, and shall serve proper notice upon persons concerned." Violations of this order are to be punished by either a fine or imprisonment.

AN INTERNATIONAL COMMISSION FOR THE STUDY OF CANCER.

A number of well-known members of the medical profession of Western Pennsylvania, with Dr. Roswell Park, of Buffalo, recently held a meeting in Pittsburg to discuss the pathology and cure of cancer, and also to devise ways and means of raising funds for an international commission for the study of cancer. A meeting is to be held later in Buffalo to organize a permanent society, elect officers, and arrange to hold regular meetings from time to time.

LONDON LICENTIATES AND MEMBERS SOCIETY.

More than 450 signatures have been attached to the petition from the London Licentiates and Members Society to the Royal Colleges of Physicians and Surgeons, the text of which was published in the British Medical Journal of January 11th, p. 106. The documents sets forth the disadvantages under which the petitioners labour in comparison with the graduates of Scottish, Irish, and provincial universities, owing to their inability to style themselves "Dr.," and pray that the Colleges should either approach the governing body of the new University of London, or some other British university, with the view of obtaining for them the privilege of offering themselves as candidates for the final examination for a degree in medicine, or take some other and independent step for the removal of the disabilities under which the petitioners labour.

The second annual dinner of South African civil surgeons will be held at the Hotel Cecil on Monday, June 9th, at 7.30 p.m. Sir Frederick Treves, K.C.V.O., will take the chair.

The King has granted Mr. H. M. Crookshank, F.R.C.S.Ed., British Controller of the Daira Sanieh Administration, permission to accept the Grand Cordon of the Medjidieh, presented to him for services to the Khedive of Egypt.

Dr. James C. White, a pioneer in the study of skin diseases in the United States, has resigned the Professorship of Dermatology at the Harvard Medical School, which he has held for thirty years. In 1861 Dr. White delivered his first lectures on skin diseases to a class at the medical school. In 1864 he gave a course of university lectures on skin diseases, and was also instructor in dermatology in the summer school. In 1866 he was appointed Adjunct Professor of Chemistry, a position which he held until 1871,

when he was made Professor of Dermatology. Dr. White has fully earned the title of Emeritus Professor which the University in which he has laboured so long and so faithfully has conferred upon him.

The Danish Royal Society of Sciences has conferred its honorary membership on Sir John Burdon-Sanderson, M.D., D.C.L., F.R.S., Regius Professor of Medicine in the University of Oxford.

The bills for medical attendance on the late President McKinley have been formally presented. The sum total is said to be about £20,000. Senator Hanna will present the bills to Congress for payment.

We regret to announce the death of the well-known bacteriologist, Professor Hans Buchner, who died at Munich on April 5th, in the 52nd year of his age. Professor Buchner, who was President of the Hygienic Institute at Munich, is well-known for his contributions to our knowledge of immunity and the pathology of infectious diseases.

Dr. John B. Murphy, of Chicago, has had the Lætare medal for 1902 conferred on him. This medal was instituted by the University of Notre Dame nineteen years ago, and is awarded annually to a Catholic layman for distinguished services in the cause of his Church and of humanity.

A meeting of the Otological Society of the United Kingdom will be held at 11, Chandos Street, W., on April 14th, at 4.30 p.m., when a report by Mr. Arthur H. Cheatle On the Examination of the Ears of 1,000 School Children will be presented and discussed. Members of the profession, on presentation of their cards, will be welcomed to take part in the debate.

The Ingleby Lectures will be delivered in the Medical Lecture Theatre of the University of Birmingham by Mr. F. Marsh, F.R.C.S., Surgeon to the Queen's and Ear and Throat Hospitals of that city, on Tuesday, May 27th, and June 3rd, at 4 p.m. The subject of the lectures is Chronic Hypertrophy of the Faucial and Pharyngeal Lymphoid and Adenoid Tissues.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Licensing Bill.—When the House of Commons met on Monday last after the Easter Holidays there was only a sparse attendance, which grew, however, as the evening advanced. The questions were few in number, and the debate on the second reading of the Licensing Bill came on early and lasted nearly all the evening. The Bill in its first part deals with some of the points advocated by the Bishop of Winchester in his Bills of last year, and provides for a black list of habitual drunkards who are not to be served with liquor under penalties, and also punishes any person found intoxicated when in charge of a child. In the fifth clause power is given to the husband to obtain a separation order from a wife who is a habitual drunkard as defined by the Habitual Drunkards Act, 1879. A similar protection is also given to the wife as against the husband. In the second part of the Bill there are some amendments of the licensing law, and in the third part a scheme for the registration of clubs. The second reading was agreed to without a division, and the Bill referred to the Standing Committee on Trade.

The Local Government (Scotland) Amendment Bill (No. 2).—This little Bill which the Government has introduced to amend the provisions of the Act of 1889 as to grants for medical relief and pauper lunatics, has a much wider interest than appears on the surface for the profession in Scotland. It is a measure on which some Scotch members hope in Committee to graft a new clause giving parochial medical officers greater security of tenure than they now possess. This would be germane to the Bill, as it seeks to extend the powers of the Local Government Board in Scotland. The Lord Advocate tried to get a second reading at ten minutes before midnight on Monday, but Mr. Caldwell was on the watch, and he discussed the Bill till 12 o'clock, when the debate stood adjourned till Thursday, or more probably some later day.

Vaccination Statistics.—Mr. Corrie Grant on Tuesday asked Mr. Long whether an infant born on March 1st on the hospital ship *Atlas* was vaccinated on that day and died of small-pox on March 12th, and whether many other similar cases occurred in the returns; whether in view of these results he would consider whether vaccination of such children after infection should be abandoned; and whether, as in several cases of death from small-pox after vaccination, the dates of vaccination had been omitted, and the words "vaccinated during incubation or after infection" employed, he would direct the hospital authorities to supply exact particulars to the Registrar-General so as to obtain uniformity in these statistics. Mr. Long said the answer to the first paragraph was in the affirmative, and with regard to the second he could not undertake to recommend the course suggested. As to the third paragraph, he had conferred with the Registrar-General, who stated that it was impossible to obtain uniformity in all cases, and that under the circumstances he considered the terms employed were the best that could be devised.

Surgical Instruments in Indian Hospitals.—Mr. Weir's recent journey to the East has given him an opportunity of discovering many subjects that require attention on the part of those responsible for administration, and one of these suggested a question on Tuesday on the use of old-fashioned instruments in hospitals in India. Lord George Hamilton, in reply, said that he was informed that all instruments sent to India in recent years have had metal handles, but he would inquire more fully into the matter; and if there was any reason to suppose that a large proportion of the surgical instruments now in use in India were not of the most approved patterns, the Government of India would, no doubt, be anxious to replace them with as little delay as possible.

The Cost of the Small-pox Epidemic.—In answer to a question by Mr. Bartley, the President of the Local Government Board said that he understood that the epidemic had involved the expenditure of about £280,000 on the part of the managers of the Metropolitan Asylums District during the six months to the end of March. This amount included a sum of £225,000 in respect of special expenditure in connexion with small-pox accommodation and transport. He had no information as to the amounts expended by Boards of Guardians and other local authorities in London in connexion with the epidemic.

Monkeys and Vaccination.—Mr. Corrie Grant on Tuesday asked the President of the Local Government Board whether the lymph obtained by Dr. Copeman from the inoculation of small-pox on monkeys had been used in general practice for vaccination, and if so, to what extent; and whether the parents and medical men had been aware of its origin. Mr. Long, in reply, said that all lymph obtained in the manner referred to in the question was passed through calves and properly glycerinated before it was used for vaccination of human beings. He understood that the medical men using the lymph were made aware of the circumstances connected with it, but he could not say whether the parents knew. He was informed that the amount manufactured was small, and that whatever remained in store was destroyed nearly two years ago.

The Supply of Glycerinated Calf Lymph.—Mr. Long was able to state on Tuesday that since the early part of last month he had been able to meet all the demands made by public vaccinators for lymph, not only for primary vaccination, but for revaccination. He regretted, however, that after careful consideration of the matter, he had not been able to see his way to supply private practitioners as well as public vaccinators with Government lymph, as suggested by Mr. Bartley.

A SUMMARY AND ANALYSIS OF RECENT OBSERVATIONS AND THEORIES AS TO THE PROCESSES OF INFECTION AND PROTECTION IN THE ORGANISM.

By H. W. ARMIT, M.R.C.S.Eng., L.R.C.P.Lond.,

(*Continued from p. 856.*)

III.—BACTERIOLYSIS AND HAEMOLYSIS.

Characters of Amboceptor.

THE immune body has been spoken of as amboceptor because it anchors the complement and the red cell. Its action is merely that of a coupler, but it is specific in a sense, inasmuch as only a suitable receptor can be made use of by a single type of complement. The specificity depends further on the presence of a specific binding group, which anchors it to the red cell. The amboceptor is produced specifically by the introduction of the blood cells of a species into the organism of another, or it may exist normally in the blood of certain species.

Now it has been shown that antibodies are nothing more than receptors cast off from the cells, and as the amboceptor is a side chain produced by the red corpuscle, it must be accepted that what was previously spoken of as a receptor of the blood cell, after being cast off, becomes an amboceptor. This applies to bacteriolysin as well as to haemolysin. Bel-



Fig. 3.—Varieties of amboceptor. b', b'' = Varieties of amboceptors; c = part of red blood cell; g', g'' = varieties of receptors.

fanti and Carbone[1] were the first to show that the injection of the blood cells of one species into another produced a product derived from the red blood cells, which rendered the serum of the injected animal highly poisonous. Bordet[2] showed that this poisonous product corresponded to haemolysin, and von Düngern[3] and Langsteiner[4] confirmed this. All cells are capable of giving rise to an amboceptor. Thus Langsteiner,[4] Metchnikoff,[5] and Moxter[6] produced a serum active against spermatozoa (spermotoxin); von Düngern,[3] a serum active against ciliated epithelium; and Metchnikoff,[5] a serum active against leucocytes and renal epithelium (leucotoxin). Thus it can be seen that the amboceptors are the analogues of the haptophoric groups of toxin. They occur in variety, according to the source of production, and are not uniformly similar bodies. The polyvalence of the amboceptor would be more difficult to understand if the whole doctrine of lysin action did not point to the fact that in normal serum there may be a very large number of freed side chains which correspond to agglutinins, ferments (enzymes), antiferments, cytolysins (for example, haemolysin, bacteriolysin), etc; and, under pathological conditions, a still larger quantity may be formed. Every normally functionating cell throws off large numbers of side chains, either as isolated complexes, or in connexion with complement. These side chains are spoken of as haptines (Ehrlich[7]).

Since amboceptors exist specifically, they are capable of forming antibodies, and the existence of these (anti-immune bodies) can be readily demonstrated. Before detailing this, however, it is necessary to consider the variations of specific effect, which are due to peculiarities of production of the amboceptor.

Isolysin.

By the injection of a red blood cell of a strange species a specific side chain is formed as soon as the cell is absorbed. It would therefore appear that if the red blood cells of the animal were absorbed by any inherent means (for example, after haemorrhage into the body cavities, tissues, etc.), a specific side chain would be formed. Were this so, there would be a greater danger to the organism from endogenous poisons than from heterogeneous ones, unless some special regulation process, which can neutralize it, existed. That such a process is theoretically possible can be shown by analogy; that it actually exists can be proved. By injecting a goat with the blood of another goat a haemolytic serum is produced, which is active toward the blood cells of other goats. Ehrlich calls the lysin thus produced isolysin. He has succeeded in obtaining twelve different varieties, each presenting some anomalous or individualizing feature; but in no case did the specific body act as autolysin, that is, they were incapable of dissolving the blood cells of the injected goat. The possible explanations for the absence of autolytic action are:

1. That the red cells produce no corresponding receptors; in this case the amboceptors would accumulate in the serum, but being unattached to the cells of the blood would produce no harmful effect, while on being transferred (in the serum) to a mixture containing cells with corresponding receptors (goat's blood), the conditions for the production of haemolysis (isolysin) would be present.
2. There may be suitable receptors, but these may be easily thrown off, and thus anti-autolysin will be at once produced. Ehrlich failed to demonstrate this latter possibility, but could not exclude it.

Bulloch[8] refers to Michaeli's case of a woman who was attacked with haemoglobinuria after a profuse hæmorrhage into one of the body cavities. The extravasated blood was resorbed, and autolysis actually took place.

Some forms of haemoglobinuria and of very severe anaemia may be due to special poisons, and quite recently Ehrlich has returned[9] to the regulation arrangements which prevent the occurrence of autolysis. He points out that since resorption of body cells (liver, kidney, etc.) frequently takes place, and yet autolysin in the form of hepatotoxin, nephrotoxin, haemolysin, etc., is rarely if ever found, some antibody must be formed (as described above) to prevent this.

Metchnikoff[10] discovered in the blood of a guinea-pig which had been injected with the spermatozoa of guinea-pigs a body which was capable of destroying the spermatozoa of the injected animal, and therefore could be called autospermotoxin. This, however, only occurred in the test tube, and not in the living body; it is probable that only a specific amboceptor, and no complement corresponding to it, was present in the serum, and thus the autolysin was incomplete. Max Neisser and Wechsberg[11] found that an analogous condition was present in the serum of rabbits in connection with certain bacterial amboceptors, for example, those of typhoid fever, Metchnikoff's vibrio and Nordhafen's vibrio. When injected in large quantities the serum did not render the specific amboceptors of these bacteriolysins active. Loeffler and Abel[12] found that an overdose of the immune serum of bacteria coli communis is as incapable of protecting an animal against infection as is an insufficient dose. Pfeiffer[13] also found that medium doses of immune serum against cholera were the most active, and Leclainche and Morel[14] found the same for the serum against malignant oedema. In Neisser's experiments a quantitative examination was made of the dose of inactive rabbit's immune serum (against the micro-organisms mentioned above) which, in addition to a given dose of normal rabbit's serum, was capable of destroying a definite quantity of a twenty-four hours' old culture, and a quantitative estimation was made of the dose of normal serum, which would render a certain quantity of inactive immune serum active. In every case it appeared that no bacteriolytic action occurred with large doses. M. Neisser and Wechsberg suggested that this would be due to all the complement added in the form of normal serum, being anchored to those amboceptors which, being formed in excess, were free in the serum; while those amboceptors which were anchored to the bacterial receptor found no complement. If this were true the addition of more complement

[1] Belfanti and Carbone, *Ann. de l' Inst. Pasteur*, 1896.
[2] Bordet, loc. cit.
[3] Von Düngern, *Münch. med. Woch.*, Nos. 20 and 38, 1901.
[4] Langsteiner, *Centralbl. für Bacteriol.*, Nos. 10 and 11, 1900.
[5] Metchnikoff, loc. cit., and *Revue Générale des Sciences*, No. 1, 1901.
[6] [illegible] Bd. xxvi.
[7] Ehrlich and Morgenrath, loc. cit., fourth communication.
[8] Bulloch, *The Practitioner*, December, 1900.
[9] Ehrlich, 73 Versammlung Deut. Naturforscher und Aertze in Hamburg, *Münch. med. Woch.*, 1901.
[10] Metchnikoff, *Ann. de l'Inst. Past.*, No. 0, 1900.
[11] Max Neisser and Wechsberg, *Münch. med. Woch.*, No. 37, 1900, and No. 13, 1901.
[12] Loeffler and Abel, *Centralblatt für Bacteriologie*, vol. xix, 1896.
[13] Pfeiffer, *Zeitschrift für Hygiene*, vol. xx, 1895.
[14] Leclainche and Morel, La Serotherapie de la Septicaemie Gangreneuse, *Ann. de l'Inst. Past*, No. 1, 1901.

would be capable of completing the action. E. Neisser and Doering[15] show by analogy that the want of action in this case is due to the presence of antilysins.[16] It is therefore very likely that the action of autolysin is disturbed by the production of anti-auto complement.

The following observations of Ehrlich and Morgenroth further strengthen this view. A normal rabbit's serum is capable of dissolving guinea-pig's red blood cells, and contains a complement which can render active the amboceptor produced in the rabbit by injection of ox blood. But if a rabbit is injected with goat's serum (that is, complement), these characters are lost. This process will, according to the side-chain theory, lead to the production of an anti-complement, and as this will exert its antibody functions in the organism of the injected rabbit, it must be regarded as an auto-anti-complement. The production of such a body varied in quantity in different experiments. On the one hand, there might be complement in excess and a small amount of the antibody, in which case the complement remaining untouched after the antibody had neutralised as much as it could cover, would exert a certain amount of lysin action; and, on the other hand, the excess might be of anticomplement, in which case, all the complement would be neutralised, and thus all action prevented. The matter is, however, somewhat complicated by the fact, that, when a complement is introduced into the organism of a strange species, the serum of which contains an identical complement, no anti-complement is formed. An example of this is observed, when the serum of a goat is injected into a sheep. The complements must, however, be identical, and the same restriction does not apply to those which have identical haptophoric groups, but which are otherwise different. These related complements are capable of forming auto-anti-complements. It has so far not been possible to definitely determine the exact factors at work, which prevent the occurrence of autolysin.

There are conditions under which no antilysins can be formed, as may be observed when a dog is injected with the serum of a sheep which has previously been treated with dog's blood. In some cases, this is due to the peculiarities of the receptor of the red cell. The receptor may be "sessile," so that the casting off necessary for the production of antibody does not take place, or may be altogether absent. In the latter case the antibody may be produced, if another organism in which the red cells possess the capability of forming suitable receptors is chosen to supply the serum.

Further Varieties of Amboceptor and Anti-Immune Body.

In bacteriolysis anti-immune body is less likely to be produced, because the cells of the body are not stimulated to throw out the receptor by the injection of amboceptor into the organism, while the natural antagonistic groups to the amboceptor will be found in the bacterial cells themselves. In this way bactericidal serum rarely contains inhibitory bodies, save where a great excess of amboceptor is used.

Experiments with ox blood injected into rabbits[17] show that varieties of amboceptor exist, in which two or more kinds may possess their complementophile groups in common, but may differ in respect of their cytophile groups, and, therefore, require special receptors of the red cells. There are exceptions to this specificity of the receptor and amboceptor, inasmuch as it has been shown that the injection of a certain amboceptor may call into existence a side chain which is capable of anchoring another amboceptor beside the one introduced. For example, von Dungern has shown that the injection of ciliated epithelium produces an amboceptor which can be used as a haemolytic as well as against ciliated epithelium. Weigert[18] showed that certain forms of receptor have a very wide distribution in the various animal species. Ehrlich found that receptors capable of taking up ricin, crotin, ganglion cells, etc., are also suitable for tetanus plasma and the botulismus poison. Wassermann showed that tetanus toxins are capable of being anchored to a variety of cells in the remote organs of the body. Ehrlich and Morgenroth succeeded in obtaining a very active immune serum by injecting a goat with the inactive serum of a rabbit which had previously been treated with ox blood. The action of this immune serum depended on anti-immune body, and in the experiments with it, it was shown that when the complement supplied was derived from the guinea-pig the antilytic action was maximal, but when this was derived from the goat it was *nil*. The experiments were conducted as follows:

0·4 c.cm. of inactive (anti-immune body) serum was added to varying quantities of inactive serum of a rabbit treated with ox blood. The mixture was brought up to a certain volume by the addition of normal saline fluid, and was then brought into contact with 1 c.cm. of a 5 per cent. suspension of ox blood cells and 0·15 c.cm. of normal guinea-pig's serum—that is, to a serum containing anti-immune body was added amboceptor and red blood cells of the specific kind, and this mixture was rendered active by a complement. For the control experiment normal inactive goat's serum was used instead of anti-immune body serum. In the experiment 0·0175 c.cm. of amboceptor was capable of causing complete solution in spite of the presence of anti-immune body, while 0·0018 c.cm. was completely neutralized. In the control 0·001 c.cm. of amboceptor produced complete solution, and 0·005 produced "moderate solution." When the complement was derived from the goat instead of guinea-pig 0·051 c.cm. of amboceptor in both experiment and control produced complete solution, and with 0·014 c.cm. or less no solution occurred in either case.



Fig. 4.—Amboceptors with antiamboceptors attached, leaving other amboceptors with different haptophoric groups undiverted. a = Complement; a' = a second variety of complement; b = amboceptor; B = a second variety of amboceptor; h = antibody.

In a variety of attempts they found that ten to thirty times the quantity of goats' complement as compared with guinea-pigs' was required to complete the solution. They proved that this was not due to lack of complement, and therefore assume that the immune serum contained two varieties of amboceptors, which were present in the ratio 10 : 1. The cytotoxic groups of these amboceptors differed from each other, as may be readily understood from the schema.

The action of the varieties of amboceptors depends largely on the haptophoric group and on the receptor of the red cell. Buchner[19] and Nolf[20] have shown that the amboceptors have a specific affinity for the protoplasm of the red cell and none for the paraplasm, as represented by the haemoglobin; but they, as well as Nicolli,[21] regard the affinity in the light of a level attraction, like that of the carbon molecule, while Ehrlich likens it to the selective affinity of the diazo group to the phenols on the one hand, and the aldehyd group to the cyanogen bodies on the other. Diazo-benz-aldehyd is capable of binding phenol and prussic acid through itself, although these substances alone do not enter into chemical combination.

Ehrlich and Morgenroth further proved that varieties of amboceptors could be produced by the injection of ox blood into rabbits and into goats. In the serum of dogs and of rabbits treated with ox blood they found that certain amboceptors of each corresponded except as to their cytophile groups. The same variation also exists in bacteriolytic amboceptors.

Amboceptors may be homologous save for differences in their complementophile groups. In some cases these groups may be multiple, and then the immune body will consist of one cytophile and two, three, or more complementophile groups—triceptor, quadriceptor, etc. The multiplicity of the complement has already been spoken of, and corresponding forms of complementophile groups of the immune body exist. Further, certain complements exist as partial complement, which are identical, as far as their haptophoric groups are concerned, in different animals. Corresponding to the partial complements, partial amboceptors are met with.

The whole importance of the complementophile groups of amboceptor turns on the multiplicity and variety of complement and of its haptophoric group. It is possible that the complementophile group may be produced by the mere presence of complement of a strange species. The variety of this

[15] E. Neisser and Doering, *Berl. Klin. Woch.*, No. 22, 1901.

[16] These observers carried out experiments with human blood, and showed that the laws of haemolysis applied equally to the human as they do to other species.

[17] Von Dungern, *Münch. med. Woch.*, No. 20, 1900. Ehrlich and Morgenroth's Fourth Communication.

[18] Weigert, Lubarsch-Ostertag's *Ergebnisse der Pathologie*, 1897, p. 141.

[19] Buchner, *Ann. de l'Inst. Past.*, 1900.

[20] Nolf, Ibid.

[21] Nicolli, *Revue Générale des Matérielles Colorantes*, Nos. 43 and 44, 1900.

relationship between the latter and the receptor of the red blood cell, while the various kinds of complement whose haptophoric groups are of such a constitution as to be fitted for a certain kind of amboceptor will, generally speaking, find the possibility of anchoring themselves to that body, be it by means of a pre-existing side chain or be it by means of a side chain called into existence for the purpose.

RECEPTORS.

While agglutinin and haemolysin are independent of one another, they in all probability act at times side by side. The same laws, to a certain extent, hold good for both, but a very marked difference of the active group must be recognized, in that the action of agglutinin, unlike most haemolysins, is not disturbed by heating to 55° to 60° C. There is no amboceptor as such, but the body consists of a zymophoric group (*cf.* complement) and a haptopheric group (*cf.* cytophoric group of the amboceptor). Grüber attaches much too much importance to the part played by agglutinin in connexion with bacteriolysin and haemolysin.

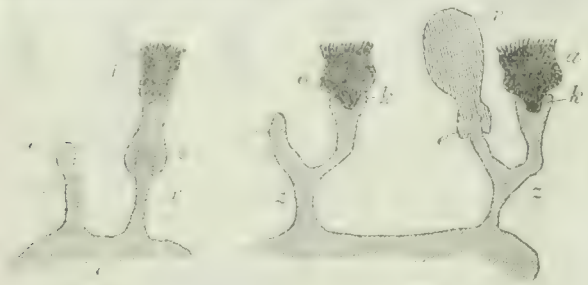


Fig. 5.

Fig. 7.



Fig. 6.

The above figures (types of receptors) represent the anchoring of lysins, toxins, etc., in a pictorial form.

a = Complement.	*x* (in Fig. 5) represents a receptor of the first order, corresponding to toxin, etc.
c = Part of a cell.	
r = Haptophoric group.	
k = Complementophile group.	*y* (in Fig. 6) represents a receptor of the second order, corresponding to agglutinins, etc.
l = Toxophoric group.	
m = Zymotoxic group.	
n = Nutrient molecule.	*z* (in Fig. 7) represents a receptor of the third order, corresponding to haemolysin, etc.

We have three distinct varieties of receptor formations which are represented diagrammatically in the accompanying schemata. The first order, which is capable of anchoring toxins, ferments, and simple cell secretions, consists of an arrangement for the reception of the haptophoric groups of the toxin, etc. The second order is adapted for the anchoring of coagulins, agglutinins, etc. This one consists of a haptophoric group for the reception of a nutrient molecule (fraction of the giant molecule), and a second group, to which the ferment attaches itself. The third order is more complex, and is the arrangement which enables haemolysins, bacteriolysins and the like to become attached to the cell. It consists of a haptophoric group for the reception of a nutrient molecule, and a second haptophoric group which, on being cast off, functionates as the amboceptor or immune body.

That the production of receptors depends on the nutrition and vitality of the cell is obvious, since it has been observed group is of less importance than that of the cytophile group, for the great chemical affinity necessitates an exact specific that certain receptors[22] which were present at one time, may be wanting at a later date; that is, new receptors of the same kind are not made by the cell, after the old ones have been cast off, and, inversely, new receptors may appear of a type which had previously not been present. Ehrlich explains the interesting observation of Kossel that rabbits which are used for the production of immune serum against eel's blood lose their susceptibility toward the poison by assuming that the receptors for the poison are no longer manufactured. He points out that the receptors are naturally called into existence for the purpose of anchoring certain products of metabolism. They are produced in excess by the injection of the poison, and therefore form antibodies, some of which anchor the poison, while others anchor that product of metabolism, and in this way prevent the necessary cell stimulation, which can call forth a further production of these receptors. This occurs more readily when the product is one which the tissue economy can easily dispense with—for example, sugar—which can be replaced by fats. They found that the blood cells of newly-born rabbits were incapable of anchoring eel poison. This can only be explained by the assumption of such an absence of receptors.

Taking haemolysis as a type of the processes in question, we must accept that the same laws hold good for the action of other cell poisons. Uhlenhuth[23] (whose work on the medico-legal recognition of the blood of various species has attracted much attention) deals with precipitins, Metchnikoff[24] with spermotoxins and leucotoxins, von Düngern[25] with trichotoxin, Lindemann with nephrotoxin, and Enriquet and Sicard with neurotoxin. Widal and Durham described the occurrence of agglutination, and Grüber[26] applied this exactly to the requirements of the side chain theory (*cf.* the action of some of the phytalbumoses). Of the secretions of bacteria the lysins (corresponding in their actions to haemolysins) have attracted much attention since Pfeiffer first described the process. Ehrlich and Madsen have studied tetanolysin, van de Velde, M. Neisser, and Wechsberg staphylotoxin, von Lingelsheim the poison of streptococci, and Bulloch that of pyocyaneus. The last-mentioned poisons, as well as tetanus toxin (studied by Wassermann) deal with the toxin group, while the first, as well as typholysin, the lysin of cholera (Wassermann, Pfeiffer, and Marx) belong to the lysin group. It rests with Wassermann to have first clearly shown beyond doubt that the side chain theory could be demonstrated in his experiments with tetanus toxin.

(*To be continued.*)

[22] Ehrlich, Schlussbetrachtungen, Nothnagel's *Specielles Pathologie und*

[23] Uhlenhuth, *Deut. med. Woch.*, No. 6, 1901.
[24] Metchnikoff, *Ann. de l'Inst. Past.*, 1900.
[25] Loc. cit.
[26] Grüber, *Munch. med. Woch*, 1896; *Wien. klin. Woch*, 1896

CONTRACT MEDICAL PRACTICE.

PRIVATE MEDICAL CLUBS.

DR. F. W. D. MCEACHEN (Littlehampton) writes to express the opinion that private medical clubs are even more objectionable than medical aid companies; the latter, he says, do their work openly, while canvassers of private clubs work quietly, and get as much both for new business and for collections. He thinks that the General Medical Council should include the private medical clubs, in which canvassers to whom commission is paid are employed, in any condemnation of canvassing.

INTERNATIONAL CONGRESS OF ELECTRICITY IN MEDICINE.—The Second International Congress for Electricity in Medicine and Radiography will be held at Berne, September 1st to 6th, 1902. The following questions are proposed for discussion:—(1) The Present State of Electrodiagnosis (to be introduced by Dr. Cluzet, of Toulouse, and Dr. Mann, of Breslau); (2) Surgical Electrolysis (to be introduced by Dr. Guilloz, of Nancy); (3) Radiography and Radioscopy of the Internal Organs (to be introduced by Dr. Bécère, of Paris, and Professor Grunmach, of Berlin); (4) Accidents caused by X Rays (to be introduced by Dr. Oudin, of Paris); (5) the Danger of Industrial Electric Currents (to be introduced by Dr. Battelli, of Geneva). An international exhibition of all electrical instruments of physiological, electrotherapeutic and radiographical interest will be held in connexion with this Congress. All communications should be addressed to the Secretary, Dr. L. Schnyder, 38, Rue Fédérale, Berne.

CANCER RESEARCH.

The Scheme of the Royal Colleges.

The following is the text of the draft scheme of organized research on cancer which was formally adopted by the Royal College of Physicians of London on March 24th, and received the general approval of the Royal College of Surgeons of England on April 10th:—

I. Objects of the Fund.

In order to promote investigations into all matters connected with or bearing on the causes, prevention, and treatment of Cancer and Malignant Disease, steps shall be taken:

1. To provide, extend, equip, and maintain laboratories to be devoted exclusively to Cancer Research.

3. To encourage Researches on the subject of Cancer within the United Kingdom or in the British Dominions beyond the seas.

3. To assist in the development of Cancer-Research Departments in various Hospitals and Institutions approved by the Executive Commitee.

4. And generally to provide means for systematic investigation in various other directions into the causes, prevention, and treatment of Cancer.

Should the object of the Fund be attained by the discovery of the cause and nature of Cancer, and of an effective method of treatment, the Royal Colleges, with the consent of the Trustees, shall be empowered to utilize the Fund either (*a*) for equipping with the necessities for such treatment such Hospitals as they may select, or (*b*) for forwarding research into other diseases.

The Fund shall be administered by a President, Vice-Presidents, Trustees, Honorary Treasurer, General Committee, and Executive Committee.

II. The President, Vice-Presidents, Trustees, and Treasurer.

1. The first President shall be
2. The first Vice-Presidents shall be
3. There shall be five Trustees of the Fund.
4. Of the first Trustees, three may be nominated by the Donors of sums of £1,000 and upwards, and one each by the Royal College of Physicians and of Surgeons.
5. In the event of vacancies occurring by death, resignation, or other cause, the General Committee may nominate new Trustees, and shall be called upon to do so in case the number shall fall below three.
6. All moneys other than annual grants or subscriptions, or sums specially given for definite objects, or under special conditions, shall be invested as capital in the names of the Trustees.
7. The first Honorary Treasurer shall be
8. In the event of a vacancy in the post of Honorary Treasurer, the General Committee shall appoint some person to that office.
9. The Honorary Treasurer may be one of the Trustees.
10. The Honorary Treasurer shall be responsible for the receipt of all moneys on behalf of the Fund.
11. The Honorary Treasurer shall pay over to the account of the Executive Committee all annual grants and subscriptions, as well as any sums specially given for definite objects or under special conditions.

III. General Committee.

1. The General Committee shall consist of:
   - (*a*) The President.
   - (*b*) The Vice-Presidents.
   - (*c*) The five Trustees.
   - (*d*) The Honorary Treasurer.
   - (*e*) The Executive Committee.
   - (*f*) One Member to be nominated by the Local Government Board.
   - (*g*) One Member to be nominated by the Colonial Office.
   - (*h*) One Member to be nominated by the Royal Society.
   - (*i*) One Member each nominated by the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the Royal College of Physicians of Ireland, and the Royal College of Surgeons in Ireland.
   - (*j*) One Member each nominated by the Royal Veterinary College, London; the Royal Veterinary College, Edinburgh; and the Royal Veterinary College of Ireland.
   - (*k*) Donors of sums of £1,000 and upwards, whether given in one sum or more.

   With power to add to their number.

2. The General Committee shall nominate two Members of the Executive Committee, who shall hold office for three years, and shall be eligible for re-election.

3. The General Committee shall meet from time to time to receive Reports from the Executive Committee on the general progress of the Scheme, an account of Expenditure, and the Audited Financial Statement.

4. The Office of the General Committee shall (with the consent of the Royal Colleges) be at the Examination Hall, Victoria Embankment.

IV. The Executive Committee.

1. The Executive Committee shall consist of:

(*a*) The President (for the time being) and two Fellows of the Royal College of Physicians of London	3
(*b*) The President (for the time being) and two Members of the Council of the Royal College of Surgeons of England	3
(*c*) Two Members of the Laboratories' Committee of the Royal Colleges of Physicians and Surgeons	2
(*d*) Two Members nominated by the General Committee	2
(*e*) One Member nominated by the Royal Society	1
(*f*) One Member nominated by the Royal Veterinary College, London	1
	12

The Members of the Executive Committee shall hold office for three years, and shall be eligible for re-election.

2. The Executive Committee shall have control of the income of the Fund, which shall be expended in furthering the objects stated in Section 1, including the assignment of Funds,

   - (*a*) For the erection or extension of Laboratories, or for the equipment of any existing Laboratory in which investigations are or shall be pursued;
   - (*b*) For grants to individual Workers in other Laboratories, or elsewhere;
   - (*c*) For investigations other than those in Laboratories;
   - (*d*) For the collection of Statistical, Dietetic, Topographical, and other information;
   - (*e*) For the salaries of any officials who may be appointed.

3. The Executive Committee shall be charged with the general supervision and management of the arrangements to carry out the objects of the Fund, and shall be required to report their proceedings from time to time to the General Committee.

4. The Executive Committee may seek the advice of the Members of the Working and Consultative Staff on any questions relating to the objects of the Fund, and may appoint Committees to conduct investigations, or to collect statistics and information, and may provide funds for the expenses of these investigations and for the remuneration of the Members of these Committees.

5. The Executive Committee shall appoint the Working and Consultative Staff under such conditions as they may think desirable.

6. The Executive Committee may make arrangements for investigating methods of treatment in cases of Cancer and Malignant Disease.

7. The Executive Committee may make arrangements to establish a system of correspondence with Foreign and Colonial Laboratories and Workers.

8. The Executive Committee may appoint a General Superintendent of the Investigations, who may be Director of the Central Laboratory, and such Assistants as may be considered necessary.

9. The Executive Committee shall draw up the regulations under which the work of the Staff shall be conducted, and

shall determine the conditions under which Laboratory accommodation at the Examination Hall, or elsewhere, may be provided.

10. The Executive Committee may appoint a Secretary or other official to conduct the correspondence, summon and attend the Meetings, keep the accounts, write the minutes, etc.

11. The Executive Committee may make contributions towards the development of the Cancer Research Department of the Middlesex Hospital, or a similar Department of any other Hospital, if established.

12. And generally the Executive Committee shall make such arrangements as shall seem to them best for the thorough investigation of this disease in all its aspects.

V.—WORKING AND CONSULTATIVE STAFF.

1. The Working staff shall consist of:
   (*a*) A general Superintendent of the investigation who may be the Director of the Central Laboratory.
   (*b*) Assistants to the General Superintendent and Director.
   (*c*) Any other persons who may be appointed to make special investigations.

2. The Consultative Staff shall consist of persons skilled in Scientific investigations, Representatives of various Home and Colonial Government Departments, Physicians and Surgeons attached to Hospitals, Statistical Experts, and others appointed by the Executive Committee.

3. The Consultative Staff may receive fees for attendance at Meetings, and may be remunerated for any services performed in connection with the objects of the Fund, on such conditions as the Executive Committee may determine.

It will be noted that the scheme is in its general features identical with the outline which we were enabled to lay before our readers in the BRITISH MEDICAL JOURNAL of January 25th. Certain alterations have been made in the details of the administrative machinery. The governing bodies are made more representative in character. The Royal Colleges of Edinburgh and Dublin are to be represented on the General Committee, and the Colonial Office and the Royal Society are each given the right to nominate a member. We note with special satisfaction that the Veterinary Colleges are represented both on the General and on the Executive Committee. When we published the outline scheme, we pointed out that, although several promises of substantial contributions to the capital sum of £100,000 required to carry the scheme into effect had been received, at that time not even the nucleus of a fund was in actual existence. Since then, as has already been announced in the JOURNAL, the Goldsmiths Company has resolved to make a special grant of £5,000 to the fund in commemoration of the Coronation; Mr. H. L. Bischoffsheim has offered to give £5,000, and another donation of the same amount and several of smaller sums have been promised. An account for the Cancer Research Fund has been opened at the London and Westminster Bank, Marylebone Branch, 1, Stratford Place, Oxford Street. The scheme may therefore now be regarded as definitely "in being." The money will doubtless be forthcoming; there could be no more useful method of celebrating the occasion of the King's Coronation, and we hope that other City Companies may be moved to follow the lead of the Goldsmiths Company. His Majesty's patronage is, we believe, assured. But if private benevolence does not suffice, we think the State may fairly be called upon to help in a matter which closely concerns the public weal. The German Government has made a grant of 53,000 marks for the furtherance of research in cancer, and an appropriation of 15,000 dollars has just been made by the New York State Senate for the same purpose. Why should not Great Britain show an equally enlightened liberality?

There is every prospect, therefore, that before very long the pressing problems of the causation, treatment, and prevention of cancer will be seriously grappled with in this country by the systematic and co-ordinated efforts of a body of specially skilled investigators. Hitherto research on cancer, as on other subjects, has been left, so to speak, to private enterprise. The work, therefore, has been intermittent, and sometimes misdirected, owing to ignorance on the part of the workers of what has been done elsewhere. The want of co-ordination has led to great waste of power. The scheme, by placing research on a co-operative basis, will prevent this, and will make it possible to collect the scattered rays of research, and focus them on a given point.

The widely representative character of the Committees to which the direction of the scheme is entrusted is a guarantee that it will be carried out in the most catholic spirit. The largest possible scope must be given to the investigation; no line of research that promises the smallest addition to knowledge must be neglected. The results obtained in the laboratory must be controlled by clinical observation, and we therefore note with satisfaction that in addition to the research staff there is a consultative staff consisting, among other experts, of various kinds, of physicians and surgeons attached to hospitals.

An excellent point in the scheme is the provision made for the establishment of a system of intercommunication with workers in other countries. Pathological research would be greatly helped if the observations made in every recognized laboratory were regularly communicated to others all over the world, just as the astronomer notifies fellow workers in other observatories when a new planet swims into his ken. At the present time a collective investigation of cancer is being made in Germany under the direction of Professor von Leyden, and an effort to organize an international Commission on the subject is being made in the United States by Professor Roswell Park, of Buffalo, and others. Would it not be possible to co-ordinate these movements with the one now set on foot among ourselves? As Mr. Balfour once said, combination is one of the characteristics of our time, and it is a power that has never yet been fully utilised in scientific research. The problem of cancer is one to which the combined power of the scientific world might most profitably be applied.

It is to be hoped that the glory of solving the problem may fall to our own country. But the scourge affects all mankind, and we should hail with joy the discovery of a means of protection of it wherever it may come from.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

THE plague returns for the week ending March 15th shows 25,655 deaths from the disease, against 23,715 in the week preceding. The Punjab is again the most seriously affected district, no fewer than 15,090 deaths from plague having occurred in this province alone during the week ending March 15th, against 12,544 during the week ending March 8th, and 10,525 during the week ending March 1st. In the Punjab the districts most seriously affected by plague are: Jullundur, 988 deaths during the week ending March 15th; Hoshiarpur, 698 deaths; Sialkot, 1,356; Ludhiana, 3,112; Umballa, 1,918; Patiala, 1,904; Nabha, 778.

In other towns and districts of India the returns for the week ending March 15th were: Bombay City, 856, against 888 during the previous week; Bombay districts, 4,779, against 4,806; Calcutta, 501, against 462; Bengal, 1,289, against 1,235; the North-West Provinces and Oudh, 2,335, against 2,187; Mysore State, 304, against 414.

It will be observed that in all districts south of the Punjab and North-West Provinces plague is declining. The improvement began in the most southerly parts of the Indian peninsula, and is gradually extending northward.

We hope at an early date to hear that as the warm weather increases to the north the death-rate from plague in these districts will soon show a decrease.

EGYPT.

The Director-General Sanitary Department reports that in Egypt during the week ending March 23rd 7 cases of plague and 2 deaths from the disease were reported. All the cases and deaths occurred amongst the native population, and were distributed as follows: Kom el-Nour, 1 case; Dechneh, 3 cases and 1 death; in nomadic camps near Benha, 3 cases and 1 death. In a Reuter's telegram dated Cairo, April 7th, it is stated that since the plague reappeared in Egypt in April, 1901, just twelve months ago, there have been 382 cases and 228 deaths from plague; 17 cases only remained on April 7th, 1902, under treatment: 13 of the deaths were reported from Upper Egypt; the remainder occurred in Lower Egypt. This limitation of the disease is greatly to the credit of the Sanitary Department of Egypt.

MAURITIUS.

No case of plague was reported in Mauritius during the week ending April 3rd. This is satisfactory news; it will be noted that it is now the late autumn in Mauritius, and as season and temperature seem to exercise a direct influence on plague, the future behaviour of the disease in Mauritius will be observed with interest.

CAPE OF GOOD HOPE.

The Medical Officer of Health for Cape Colony reports that there remained in Cape Colony but 1 case of plague under treatment on March 15th. No fresh case of plague and no death from the disease has been reported in the Cape for six weeks.

LITERARY NOTES.

If we may judge from the contents of the monthly magazines, the subject of tuberculosis excites a good deal of interest in the public mind. To the *Fortnightly Review* for April Dr. Hillier contributes an article entitled, Tuberculosis and Public Action. The action demanded is, he says, the control of all tuberculous sputum. The systematic use by sufferers of a portable spittoon, as recommended in a resolution passed by the London Congress on Tuberculosis, is urged. Great stress is also laid on the suppression of the disgusting and dangerous habit of indiscriminate expectoration in public places. Dr. Hillier advocates the notification of all cases of phthisis, and the establishment of open-air sanatoria for the treatment of consumptives. He expresses his disagreement with Professor Koch's oracular pronouncement as to the non-transmissibility of bovine tuberculosis to man. Finally, he makes an appeal to the public to support the movement against the "white plague."

In the *Westminster Review* Mr. J. A. Gibson instructs the King and his Advisory Committee how Sir Ernest Cassel's munificent gift should be applied. Mr. Gibson gathers that it is intended "to have erected a populous palace hotel sanatorium on the lines of some of the monster sanatoria on the Continent, in which no adequate supervision could be exercised, and in which, as in its prototypes, other than natural means, which alone are needed and which alone are beneficial, would be relied upon for cure." His Majesty is therefore exhorted to use his own judgment, "for there is no mystery about this disease—consumption." Mr. Gibson knows all about it: "it is simply ..... but an aggravated attack of 'run-downness.' The ideal conditions under which the patients' systems can be brought back to normal health are natural country rest and quiet, and these certainly cannot be enjoyed at a crowded sanatorium where for the patients there are to be 'recreations and exercises of various kinds.'" Mr. Gibson therefore holds that the money should not be spent in building one great sanatorium, but "in the erection of a number of small and inexpensive sanatoria—sanatoria which in every case would be under the eye of the doctor in charge, and where the more rational individualizing treatment could at its best be successfully carried out, for where the number of patients at a sanatorium is too large to be under the direct control of the one capable man at its head—where cases are left to assistants or others—there is sure to be disaster in results." Mr. Gibson suggests the following scheme for the application of the money: "Let the entire sum be divided into two equal parts—£100,000 to be used for the building of sanatoria, the remaining £100,000 to be invested, and the interest arising therefrom used for the payment of the doctors in charge of these sanatoria. Let us take £80,000 of the first portion, and use it for establishing eight small sanatoria in different suitable parts of the country, and so situated as to cover, as far as possible, the ground of the three kingdoms. Each of these eight sanatoria would have accommodation for forty patients, and for the building or conversion of each there would be available the sum of £10,000. Such sum would be ample to establish, furnish, and equip such a sanatorium, and provide a stock of cows, pigs, horses, carriage, van, and all else necessary. Numerous sites, suitable in every respect, are to be rented in all parts of the country; while on these sites are usually houses which, by the spending of not large sums, could be converted into splendid sanatoria. It would be a mistake to buy sites. That would be putting the money to the smallest possible use. Within a generation most sanatoria will no longer be needed for the treatment of consumption. What is wanted for a sanatorium is not a demesne or ducal park, but a surrounding suitable country over which the consumptives may have liberty to roam." It is not, adds Mr. Gibson, advisable to build lying-out verandahs to a sanatorium, for they encourage lazy habits in those who are recovering, and conduce to over-excitement in those who are ill. Next comes the cost of carrying on the eight sanatoria. Of the £100,000 invested, £80,000 is to be taken and divided into eight parts, £10,000 being allotted to each sanatorium. This will provide a salary of £350 for the doctor; the sanatorium itself is to be self-supporting. This end can, according to Mr. Gibson, be attained without the necessity of having recourse to well-to-do patients by taking in such as can pay thirty shillings a week. The balance of £40,000 is to be applied for the training of medical men in the best methods of treating consumption. "There should no longer exist the anomaly of doctors treating a disease they understand little about; there should be established a Medical Training Sanatorium." Mr. Gibson would doubtless be prepared to draw up a detailed scheme for such an establishment, and might possibly be induced to direct the training and thus help in removing the "anomaly" which he points out. But there is another "anomaly," as to which we should be glad to have some explanation: If consumption is nothing more than "an aggravated attack of 'run-downness,'" how is it that an elaborate training is required for its treatment? Or are we to understand that it is only Mr. Gibson and the oracle of Nordrach who understand the pathology and treatment of "run-downness?"

In the February number of *Knowledge* Sir Samuel Wilks gives the following history of the origin of Fahrenheit's thermometer, which is generally used in this country. Although the instrument appears inexplicable and unwieldy, there is great interest attached to its history, when we learn that it was really invented by Sir Isaac Newton, and that the starting point of his scale was the heat of the human body. Newton's paper is to be found in the *Philosophical Transactions* for the year 1701. He describes his instrument as a glass tube filled with linseed oil, and to it he attached a scale to measure the degree of heat of the liquid into which he plunged it. His lowest point was that of freezing, as his highest was that of boiling water. He chose for the starting point on his scale the heat of the human body, and this he called by the round number 12, the duodecimal system being then in use; that is, he divided the space between the freezing point and the temperature of the body into twelve parts. He further stated that the boiling point would be about 30, as it was nearly three times that of the human body. A few years afterwards, when Fahrenheit was working at the subject of heat, he took Newton's instruments for his experiments; but, finding the scale not minute enough, he divided each degree into two parts, and so made it measure 24 instead of 12. He also did more, for finding he could obtain lower temperatures than freezing, and notably that of ice and salt mixed together, he took this for his starting point. It was from this point he began to count 24 degrees up to body heat. This made, by his measurements, 8 the point of freezing. Boiling point he made 53. It then became zero, freezing 8, body heat 24, and boiling water 53. This was really the same as Newton's, only the scale started lower and the numbers were doubled. Later on, finding that he could measure increments of heat more minutely, Fahrenheit divided each degree into four parts. It will now be seen that if the numbers just mentioned are multiplied by 4, we have the thermometer which is now in use. Beginning with zero, freezing becomes 32, the body heat 96, and boiling point 212. This is the scale which Fahrenheit made, and the reasons for his doing so. It is the one which has been in use ever since.

In a letter published in a recent issue of the *Boston Medical and Surgical Journal*, Dr. F. B. Stevenson calls attention to a curious parallelism between Christian Science and Buddhism. In the *Transactions* of the Asiatic Society of Japan, vol. xxix, Part I, there is an article by the Rev. D. C. Greene, D.D., of Tokyo, Japan, concerning the Remmon Kyō Kwai, one of various sects of Old Buddhism. Its manifestations are similar to those of the so-called Christian Science: testimonies of marvellous cures, direct answers to cries for help to their various deities, the use of certain phrases such as "Ji no Myōkō," and similar procedures.

The *Philadelphia Medical Journal* of March 8th contains the following notelet *à notre adresse:*

> The British Medical Journal makes merry over the New Jersey mosquito, and the scheme of State Entomologist Smith to eradicate the pests by legislative enactment. It says the mosquito is good for rheumatism. If the British editor and his rheumatic friends wish to take a course of New Jersey mosquito, we think we can give them the post-office address of some of the insects.

The matter is a trifle, but it is as well to be accurate, even in trifles. We therefore venture to point out to the American editor that we did not say that the mosquito is good for rheumatism. That pious therapeutic opinion was attributed

to a citizen of the great Republic of which he is a conspicuous ornament. The fact that the said citizen is a member of the New Jersey Legislature seemed to us to make his opinion interesting, if not exactly instructive. If our contemporary has access to a postal directory of mosquitos, we venture to suggest that a knowledge of the addresses contained therein would be of more use to State Entomologist Smith and the members of the New Jersey Legislature than to us.

A new periodical, *Mittheilungen zur Geschichte der Medicin und der Naturwissenschaften*, devoted, as its title indicates, to subjects connected with the history of medicine, has recently appeared under the auspices of the recently-founded German Society for the Study of the History of Medicine. It is edited by Professor Kahlbaum of Basel, Dr. M. Neuberger of Vienna, and Dr. K. Sudhoff of Hochdahl. It is published by Voss of Hamburg. The first part just issued contains, besides numerous reports and notices, two original papers entitled Klaudios Galenos, by Dr. Cronert of Bonn, and one on the early history of the thermometer, by Dr. Wohlwile of Hamburg. The numbers will be published at irregular intervals.

In the current number of the *Nineteenth Century and After* Miss M. F. Johnston presents "the case against hospital nurses." She says that notwithstanding the great reform that has taken place in recent years the nursing profession is curiously unpopular and the feeling against it is steadily on the increase. "There are many people who positively dread to have a nurse inside their doors." Nurses are given to talking "shop" in public and private, and the gruesomeness of their "shop" makes it and them a terror to their friends. Close acquaintance confirms the unpleasant impression; "any fond illusions we may have entertained regarding hospital nurses who had taken up the care of the sick and suffering as their life's work, possessing among other qualifications, a fund of sympathy and unselfishness is (*sic*) rudely dispelled." To the patient she is a hired attendant rather than a ministering angel; to the household she is an added burden. She is callous to suffering and indifferent even in the hour of death. Lastly she gains undue influence over her patients. The last charge is rather inconsistent with the others, but it is admitted by the writer herself to be true only in exceptional cases. The others, however, are, according to Miss Johnston, "characteristic of the profession as a whole, and the exceptions to this rule are in a small minority." One gathers that the reason for this unsatisfactory state of things is to be found in the present system of training. Nurses are systematically overworked in hospitals. The probationer is a beast of burden, and is snubbed and illtreated by everybody. The nurse has to put up with many small tyrannies and petty annoyances, and overwork completes the souring of her temper; therefore the first reform indicated is, according to Miss Johnston, the reduction of the nurses' working day to eight hours instead of twelve. There is a modicum of truth in Miss Johnston's sweeping indictment, but we are inclined to think that overtraining has more to do with the development of some of the less pleasing characteristics of the "new nurse" than overwork.

The *Nineteenth Century and After* also contains an interesting article by Dr. Edridge-Green on Colour Blindness. He traces the evolution of the colour sense, propounding the hypothesis that primitive man saw all objects of a uniform hue, just as they appear in a photograph, but that he had a very acute perception for differences of luminosity. In course of time a new faculty of the mind, a colour-perceiving centre, became developed. Dr. Edridge-Green thinks it probable that though we have gained in colour perception we have lost in acuteness of sight.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, on March 26th. There were present Dr. de Havilland Hall (in the chair), Dr. J. B. Ball, Mr. J. Brindley James, Mr. H. P. Symonds, Dr. M. Greenwood, Dr. F. R. Mutch, Mr. F. S. Edwards, Dr. F. S. Palmer, Dr. St.Clair B. Shadwell, and Dr. F. J. Allan.

The accounts presented showed an exceptionally long list of sickness claims, but they were of the kind always experienced by the Society in the early months of the year, and for the most part presented no serious features. Nearly all are of short duration, and the disbursement of sickness pay in respect of them will make no appreciable inroad into the ample reserve of the Society.

Although many of the members are now dropping out of the Society, some by reaching the age of 65 years, some by death, and a few by lapsing their benefits, the total number is more than kept up by the influx of new members. During the autumn of last year and the spring of this the number of applications for membership in the Society has been in excess of the average. The large number of sickness claims brings the business under the notice of many members of the profession who might otherwise not be aware of the advantages offered by the Society. No money is ever spent in advertisement, and the steady growth of the business is therefore the more gratifying.

Another very satisfactory feature is the increasing number of members who avail themselves of the right to apply for an increase of sick benefit. At joining the limit is £4 4s. per week, but after five years a member may apply to have this increased to £6 6s., and the number of those who do so increases every year.

A desire has often been expressed that the benefits of the Society should be extended beyond the age of 65. The Committee cannot at present recommend that ordinary sickness pay should be allowed after that age, but by an arrangement with the Rock Life Office, they offer to the members deferred annuities commencing at the age of 65, and continuing until death at the lowest rates for which such annuities can be safely obtained.

Prospectuses and all information on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

MADRAS MEDICAL AND SANITARY REPORTS FOR 1900.

Sanitary.—This report is submitted by the Sanitary Board, the reports of the sanitary commissioner and sanitary engineer being bound in the same volume and the whole three passed under review in one Government resolution. This is a convenient and good plan. The order for abbreviation had not reached in time to admit of letterpress and tables being curtailed according to the new rule. As compared with other sanitary reports of the year, this, therefore, contains much redundant material, mainly arithmetical. The year was fairly healthy. The north-eastern monsoon gave a reduced rainfall and the price of food stuff was high, but there was no famine. The birth-rate was 31.8 and the death-rate 23.4 per 1,000 of population, calculated on the 1891 census. The recent census revealed an increase of some 2½ millions. The area of compulsory registration has been extended, but vital statistics are still very faulty. Cholera, small-pox, and fevers were in excess. Rural areas suffered more than urban from small-pox on account of defective vaccination. Some action has been taken towards exterminating the *Anopheles* mosquito and reducing the number of the infected by quinine. There were 895 cases of plague, with 665 deaths. Credit is taken for limiting the disease by suitable precautions. Sanitary works, large and small, are actively encouraged and pushed; and Lieutenant-Colonel King, the sanitary commissioner, continues to train and certify sanitary inspectors and soldiers.

Hospitals and Dispensaries. The reports of these, drawn up by Surgeon-General D. Sinclair, M.B., are very brief. The provincial institutions numbered 404 at the close of the year having undergone an increase of 3 during the year; 4,448,887 patients were treated an increase of 222,573 on the preceding year. The death-rate among indoor patients was 7.7 per cent., indicating an unhealthy year. The number of surgical operations performed was considerably higher than in the preceding year. There was a large increase in the number of cases of cholera treated, also in diseases of the eye. The number of midwives employed was 321 and 25,793 cases of labour were attended. Government contributes 8.69 per cent. of the cost of these institutions which amounts to about 10¾ lakhs of rupees; local and municipal funds contribute over 8½ lakhs.

The medical institutions of the City of Madras are separately reported on. They are 14 in number, including 3 general hospitals, 3 for women and children, an ophthalmic hospital, a leper hospital, a voluntary venereal hospital and 5 dispensaries. The death-rate of Madras was 46.2 per 1,000 of population. Fevers, cholera and bowel complaints were in excess; 19,553 indoor and 217,319 outdoor patients were treated—a considerable increase on 1899. The death-rate was 7.68. In the three maternity hospitals 2,462 cases of natural labour were attended. The number of surgical operations was larger. The education and training of nurses and midwives continues. Government contributes 72.39 per cent. of the total expenditure, which amounts to about 4½ lakhs of rupees.

Government Maternity Hospital.—The official reports of hospitals and dispensaries have hitherto included some professional information; but under the orders issued for abbreviating them they have become purely administrative. This is very proper; but the important medical and surgical work done in many of the larger institutions ought to be made known in some other way. We therefore welcome the record of the excellent practice carried on in this great lying-in and gynaecological hospital. The facts are displayed by the Superintendent, Lieutenant-Colonel A. J. Sturmer, M.D., in great detail, and with admirable clearness, on the plan initiated by his predecessor, Dr. A. M. Branfoot. There were 2,304 deliveries during the year 1900, of which 67 per cent. were natural, and the remainder difficult, preternatural, complex, or abortions. The statistics of these are most elaborately set forth. 60 deaths of mothers took place, and of 2,257 children, 2,012 were living and 175 stillborn. The proportion of male to female births was 111 to 100. There were 70 cases of septic disease, with 12 deaths. Many important gynaecological operations were performed, including 43 abdominal sections, with 5 deaths. The report is most interesting and valuable.

Lunatic Asylums.—There are three asylums for the insane in the Madras Presidency—one at Madras, receiving Europeans, Eurasians, and natives; one at Vizagapatam, and one at Calicut, both for natives. Criminal lunatics are interned at Madras only. The inmates numbered 399, 71, and 89 respectively on December 31st, 1900—559 lunatics in a population of some 38 millions. Females constituted 25 and criminals 28 per cent. The percentage of recoveries on average strength was 15.40 and of deaths 8.98. The number of lunatics employed in various ways during the year was 235. The chief employments were gardening, weaving, dairy farming, and working in tin, and the accounts of manufactures show a profit of 7,272 rupees. The annual cost per head was Rs. 151-15-8. Various sports and recreations are provided, and several native gentlemen are thanked by Government for contributing to the amusement of the inmates.

Vaccination.—This report is for the year ending March 31st. 1901, and has been drawn up by Captain J. W. Cornwall, I.M.S., Deputy Sanitary Commissioner. There was an increase of 85 per cent. on the operations of the preceding year, which were impeded by the plague scare; the total of successful vaccinations, primary and secondary, being 1,053,202, or 30.6 per 1,000 of the population of the Presidency. The number of vaccinations of children under 1 year was 348,774. The percentage of success in primary and secondary vaccination was 91.9 and in revaccinations (74,615 in number) 77.0. Animal lymph is employed solely. The lymph taken directly from the calf gave a higher percentage of success than that mixed with glycerine and lanoline.

Antitobacco Legislation in the Isle of Man.—At a recent meeting of the Manx Legislature Court the Bill passed by the House of Keys prohibiting the sale by licensed persons of tobacco to boys under 14 years of age under a penalty of £2, and providing a fine not exceeding £1 on boys under 14 years of age found smoking or using tobacco, was considered in committee. The clause providing against the sale was passed, an amendment making it applicable to any person giving tobacco being negatived. The majority of the court rejected the clause making the boy liable to a fine, and the Bill, as passed, will only restrict the sale by licensed persons to boys under 14 years of age.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 16th day of April, at 2 o'clock in the afternoon.

The following Committees will also meet:—

Tuesday, April 15th.—2.0 p.m. Premises and Library Committee (Committee Room No. 1).—3.0 p.m. Preliminary General Education Committee (Committee Room No. 2).—3.30 p.m. General Practitioners and Ethical Committee (Committee Room No. 1).—5.0 p.m. Parliamentary Bills Committee (Council Room and Library). *Wednesday, April 16th.*—10.0 a.m. Journal and Finance Committee.

April 7th, 1902. Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

Meetings of the Council will be held on April 16th, July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting—namely, June 18th, and October 1st.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: West Kent District.—A meeting of the above District will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, April 15th, at 4 p.m., Dr. E. C. Warren in the chair. Agenda: Minutes of the last meeting. Place, date, and chairman of next meeting. Dr. George Blacker, Assistant Obstetric Physician to University College Hospital, will read a paper on Some Remarks on the Mechanism and Management of the Third Stage of Labour. Dr. Gossage, Assistant Physician to Westminster Hospital and to the East London Hospital for Children, will read a paper on Some Important Points in the Rheumatism in Children. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce professional friends.—Ludford Cooper, 19, Victoria Street, Rochester, Honorary Secretary of the District.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting of this District will be held at Walthamstow Hospital on Thursday, April 17th, at 4.30 p.m. Mr. H. E. Powell, in the chair. Dr. Herbert R. Spencer will read a paper The Diagnosis of Pregnancy with limelight illustrations. Visitors are invited.—C. J. Morton, 56, Orford Road, Walthamstow, Honorary Secretary.

Staffordshire Branch.—The third ordinary general meeting of the Session will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 24th. The President, Mr. W. H. Folker, will take the Chair at 5.30 p.m. Business: Minutes of the last General Meeting. Correspondence. Exhibition of Living Cases. Mr George Heaton: Notes of Five Cases of Perforated Gatric Ulcer treated by Abdominal Section and Suture. Exhibition of Pathological Specimens. Dinner, 7.30 p.m. Charge, 5s.—G. Pentrave Johnson, Stoke-on-Trent, General Secretary.

East Anglian Branch.—The spring meeting of the East Anglian Branch will be held at Southwold on Thursday, April 17th. 12.30, Meeting of the Council at Grand Hotel. 1 p.m., Luncheon at Grand Hotel, 3s. 6d. (Members are requested to intimate to Dr. Francis Ward, not later than April 14th, if they intend to be present.) 2.30 p.m., General Meeting at Grand Hotel. Agenda: To consider report on Wage Limit as

applied to Clubs, etc. To consider report on the resolution passed at Clacton-on-Sea regarding the free distribution of diphtheria antitoxin to medical practitioners. Mr. T. H. Morse, F.R.C.S., of Norwich, will read a paper on Hysterectomy—Vaginal and Abdomino-Vaginal—with notes on 27 cases, and show specimens. Mr. S. G. Longworth, of the County Asylum, Melton, will read a paper, Clinical Observations on the Action of some Suprarenal Preparations. 5 p.m., Afternoon Tea, by kind invitation of Mr. S. N. Woollett, J.P., at the Swan Hotel, to members and friends.—B. H. NICHOLSON, M.B., General Secretary, East Englian Branch.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—A meeting of this District will be held at the Station Hotel, Sandown, on Friday, April 18th, at 3.45 p.m. Members intending to read papers, or show cases, etc., and gentlemen desirous of joining the District are requested to communicate as early as possible with the Honorary Secretary, G. BENINGTON WOOD, M.B., Newlands, Sandown, I.W.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.

A MEETING of this District was held on March 21st at the West End Hospital for the Diseases of the Nervous System (by kind permission of the Board of Management), Mr. S. AIRD JOLLY, L.R.C.P., Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Cases.—Dr. OUTTERSON WOOD showed two cases of paralysis successfully treated by forcible extension of the spine. Mr. CANTLIE demonstrated the method he used in the forcible extension.—Dr. DUNDAS GRANT showed a case of hyoglossia with post-nasal adenoids, and a case of idiocy with adenoid physiognomy. Dr. HARRY CAMPBELL, Mr. CANTLIE, and Dr. DUTTON asked some questions as to the origin and treatment of these cases, and Dr. GRANT replied.—Dr. SIMSON (for Dr. FLETCHER BEACH) read some notes, and exhibited two cases, one diphtherial paralysis, and the other a case of infantile paralysis.

Votes of Thanks.—Hearty votes of thanks were unanimously passed to Sir Lennox Napier, Bart., Chairman of the Board of Management; to the staff for getting together so many interesting cases; and to the Vice-President for so ably presiding.

Tea.—Afternoon tea was provided for the members.

BORDER COUNTIES BRANCH.

A MEETING of this Branch was held at Lockerbie on April 4th. Dr. BLAIR (Jedburgh), the President, occupied the chair, and 17 members were present.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the President.

Epsom College.—It was resolved that the votes of the Branch at the forthcoming elections to the Royal Medical Benevolent College, Epsom, be left in the hands of the Secretary as usual.

Votes of Condolence.—The SECRETARY read letters from Mrs. Connel (Peebles), and Mrs. Macdonald (Kirkoswald) expressing thanks for the votes of condolence passed at the last meeting.

New Members.—Dr. W. C. Speirs (Whitehaven) and Dr. J. R. Watson (Peebles) were elected members of the Branch.

Apology for Non-Attendance.—An apology from Dr. Hamilton (Hawick), for inability to attend the meeting, was intimated, and the paper standing in his name was not read.

Papers.—Dr. ORMROD (Workington) read a paper on concealed haematemesis, and detailed the symptoms of a case recently under his care. A discussion, dealing chiefly with the treatment of gastric haemorrhage, followed. The PRESIDENT, and Drs. MACLAREN, IRVING, GILROY, SCOTT, BOWSER, and THOMSON spoke; and Dr. ORMROD replied. Dr. Ogilvy-Ramsay was not present to read his paper on three cases of difficult labour.—Dr. DONALD (Carlisle) read notes on cases in South Africa. The paper was of extreme interest. The speaker gave a graphic account of many cases that had come under his care both as regimental surgeon and when attached to a field hospital. The PRESIDENT, and Drs. MACLAREN, THOMSON, ORMROD, and MARTIN made brief remarks, and the thanks of the meeting were accorded to Dr. DONALD for his paper.—Dr. MACLACHLAN (Lockerbie) read notes of (1) a case of pyelitis in an infant 10 months old; and (2) a case of tapeworm. The PRESIDENT, and Drs. ORMROD, MARTIN, and DONALD discussed the cases.—Dr. FARQUHARSON (Carlisle) read notes of a case of melancholia associated with visceral lesion. Special reference was made to toxaemia as a factor in the causation of insanity. The PRESIDENT, and Drs. DONALD, ORMROD, and MARTIN discussed the case.

Dinner.—After the meeting the members dined together in the King's Arms Hotel.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE 162nd meeting of this District was held at Dover, on March 27th, Dr. ROBINSON, of Dover, in the chair. Twenty-five members attended.

Confirmation of Minutes.—The minutes of the last meeting, held at Canterbury in November, were read and confirmed.

Chairman of the Annual Meeting.—It was proposed by Dr. HACKNEY, and seconded by Dr. DODD, and carried unimously, that Dr. Larking, of Folkestone, should take the chair at the annual meeting to be held at Canterbury in May.

Representatives of the Branch upon the Council of the Association.—Dr. PARSONS proposed that the existing representatives: Mr. Verrall (Sussex), Dr. Galton (Surrey), and Dr. Tyson (Kent) be nominated. Surgeon-General O'DWYER seconded. This was unanimously carried.

Attendance at Meetings.—The CHAIRMAN made a brief but earnest appeal to the members of the medical profession to support the meetings of the Association, and dwelt on the advantages that must result from interchange of thought and from the cultivation of friendly relations among medical men, not only only to themselves but to the profession at large and the whole community.

Peripheral Neuritis.—Dr. HALSTEAD (Ramsgate), President-elect of the South-Eastern Branch, read a paper on peripheral neuritis and an imperfectly recognised cause of the disease. He related a case in which a severe attack of the disease was apparently due to septic absorption from an alveolar abscess which communicated with the antrum. An interesting feature of the case was that repeatedly the early threatenings of paralysis were recovered from by means of rest, but recurred after each renewed exertion. Finally, after attention to the alveolar disease and rest in bed, complete recovery ensued.

Broad Lines of Treatment.—Dr. TYSON (Folkestone) read a paper on broad lines of treatment. He briefly reviewed the great changes that had taken place in the practice of medicine and surgery during the last twenty years. He then compared the advantages of practising general medicine with those of special medicine, and finally spoke of the necessity of taking a broad view of many cases and treating them accordingly, giving examples of disease supporting this view.

Variola or Varicella.—In the unavoidable absence through illness of Dr. Howden, who had promised a paper on variola or varicella, a discussion on this subject was opened by the CHAIRMAN and the HONORARY SECRETARY. Dr. ROBINSON gave instances of the difficulty in differentiating between varicella and modified small-pox. On January 27th a man was supposed to have influenza. He resumed work on February 2nd, and on February 12th his wife was taken ill, her case being diagnosed as varicella. On February 24th her unvaccinated mother, who lived in the same house, was notified as suffering from variola, and died. Two children of the first patient were also notified on March 3rd, and one of them, an unvaccinated infant, died on the 12th. The doctor in attendance was an experienced man. Other cases showing the difficulty in distinguishing between varicella and variola modified by vaccination were cited. Mr. RAVEN enumerated the chief points of difference between varicella and variola, dwelling upon the distribution of rash, and the unilocular vesicle of varicella and the multilocular vesicle of variola. Severity of symptoms was not to be relied upon. He had known cases of varicella with temperatures of 105° and even 106°, whereas small-pox, modified by previous vaccination, sometimes presented scarcely any constitutional disturbance whatever. The successive crops of eruption in varicella were often characteristic of the disease, but such diagnostic evidence could not be waited for. Cases must be diagnosed, notified, and removed after the first visit. Dr. COOPER FENN (visitor) narrated cases of small-pox which in a striking way exemplified the value of vaccination and the completely protective effect of revaccination. Two cases were of especial interest. In each the patient had been vaccinated during the

incubation period of small-pox, and in each the disease began severely, but on the maturation of the vaccine vesicles suddenly aborted.

Vote of Thanks.—A vote of thanks to the Mayor of Dover for his kindness in allowing the members the use of the Council Chamber was cordially agreed to.

SPECIAL CORRESPONDENCE.

MELBOURNE.

Difficulty at the Women's Hospital.—The Fever Hospital.—The Prevention of Consumption.—The Administration of Asylums for the Insane.—The Prevention of Plague.—"Cures" for Inebriety.—The Inter-State Medical Congress.—The Victoria Branch of the British Medical Association.

An unusual and deplorable trouble has recently arisen in the administration of the Women's Hospital, which formulated itself in a conflict of opinion between the Committee of Management and the Medical Staff. It appears that a woman was admitted to the midwifery department and that she developed septicaemia, from which she died about nine days afterwards. The ward was scientifically disinfected, but within a fortnight afterwards five midwifery cases which had been placed in the isolated cottage developed a temperature. The cases were reported by the senior physician to the Committee, and a Subcommittee was then appointed to investigate the matter. The Committee, feeling the responsibility of the position, without obtaining the opinion of the Honorary Medical Staff, ordered the extreme step of closing the institution against admission of all cases for one month, and further ordered that all applicants holding tickets should be sent to private establishments. The resident and honorary medical officers then declined to obey these instructions of the Committee and justified their action by declaring that there was really no cause for alarm and that they would not take it upon themselves to refuse any case presenting itself at the doors of the hospital. Although a placard was placed outside the door notifying that the institution was closed, the medical resident officers insisted on keeping the doors open and admitting urgent cases. The next step the Committee resolved on was promptly to discharge the secretary of the institution and both resident medical officers. Since this action by the Committee a public meeting of subscribers has been held which gave each side an opportunity of explaining their various views, and a vote of censure disapproving the action of the Committee in closing the midwifery department against the unanimous advice of the honorary medical staff was lost by but a few votes. The positions rendered vacant by the dismissal of the resident medical officers have been advertised in the press, but so far no applications have been received. The public opinion is very much divided on the points at issue, and had a better understanding between the staff and the Committee existed all this deplorable scandal might have been avoided. Although the present struggle appears for the time being to have ended, it threatens to reveal itself again in August, when a number of vacancies on the Committee will necessitate an election. The Committee, which consists of laymen and women, might have acted less impulsively had they in a calmer spirit conferred with the honorary staff before exercising their powers.

The Fever Hospital, for which £20,000 have been obtained by public subscription, has been languishing for a further sum of £4,000 for the necessary internal fittings, and has not so far been declared open for the reception of patients. The completion has now been arranged for, as the Government has come forward to grant sufficient funds to set the institution in working order. The overcrowded state of the metropolitan hospitals will be relieved by the opening of this institution.

A conference of various public bodies and institutions has been held for the purpose of organizing a national movement for the prevention and cure of tuberculosis. A great public meeting has been held at which the Governor-General presided, and resolutions were moved in favour of the establishment of a national association. At this meeting it was declared that in 1900 910 deaths had been caused by tuberculosis, and that 698 of those were from consumption of the lungs. In Melbourne, in 1880, there had been 310 deaths per 100,000 of the population. In 1890 the mortality from this cause had decreased to 240 per 100,000, and in 1900 the death-rate had been still further reduced to 185 per 100,000 from consumption. The objects aimed at in establishing this association are to educate the public, to collect information at a public office, and distribute it by means of leaflets and lectures; to secure the co-operation of health societies and the press; to hold conferences; to establish district branches; and influence Parliament, and public bodies, and hospitals.

A public Bill is now being drafted with the object of securing reform in connection with asylums for the insane. A plan which meets with most favour is that the various asylums should be transferred from the Public Service Board to Commissioners of Lunacy, with enlarged powers to the superintendents. A receiving house for patients, apart from the asylums, is to be established, and provision is to be made for special treatment of paying patients.

Dr. Gresswell, the Chairman of the Board of Public Health, who has always recognized the responsibilities of his high position by the exhibition of great zeal in fulfilling the duties of his office, is concerning himself with the protection of the State from the invasion of bubonic plague. The community possesses every confidence in his foresight and thorough knowledge of all matters connected with hygiene, and readily supports him in observing those directions in matters of health which are periodically issued from his office. Dr. Gresswell proposes to have the plague regulations carried out with regard to vessels from Sydney, and to have a medical inspection of the passengers. He does not consider it necessary to subject people coming by train from Sydney to inspection. He considers the risks of infection are from the shipping and cargo. In consequence possibly of our improved sanitary conditions, we have escaped so far an outbreak here.

Amongst the favours which an enlightened democracy bestows on the State is the election of a Royal Commission to solve every problem, economic and otherwise. Just now we have an Inebriate Cures Committee sitting which is composed not of scientific experts but altogether of laymen. All kinds of extraordinary alleged cures from most varied sources are explained to the Committee, who sit and wonder at the resources of the human mind. The report of the Commission should be interesting reading, and if the Secretary has but a vein of natural humour it may be possible that his report may escape being pigeon-holed.

The sixth session of the Inter-State Medical Congress of Australasia has been opened in the Town Hall at Hobart. The meeting was fairly well attended, and the President-elect, Dr. Butler, M.L.C., conducted the proceedings. He read the inaugural address in the evening at the Town Hall in the presence of the Governor and the Premier of the State. A reception and *conversazione* followed. One of the matters to be brought forward during the meeting is the consideration of a proposal to establish an Australasian Medical Association. It is unlikely, in view of the objection to the proposal raised by the New South Wales Branch of the British Medical Association, that any progress in the development of this scheme will be reported.

At the annual meeting of the Victorian Branch Dr. Neild read a most interesting presidential address, remarkable for its high tone and sympathetic hopefulness. The Honorary Secretary, Dr. Vance, through whose soundness of judgment and tact the Branch has been steered through much of its embarrassments, read the Committee's report, which indicated the prosperous position of the Branch and the cheerfulness of its fortunes. Dr. Macansh was elected President, and the Council was re-elected.

SYDNEY.

The Bubonic Plague.—Leprosy.—Population Statistics.

Sydney is once more threatened with an extensive outbreak of the bubonic plague. After a quiescence of about fifteen months, a case occurred last November, and since the following month some nineteen cases have occurred in different parts of the city and suburbs. The Health officials have had a difficulty in tracing the source of infection in all the cases.

One of the most recent cases was that of a boy, a fruit hawker at Her Majesty's Theatre. The theatre has been closed by order of the Board of Health, and is now being thoroughly disinfected under their supervision. The mortality of the present outbreak has so far not been very great. Inspection of some parts of the city where most of the cases have occurred has revealed the usual condition of accumulation of filth and rubbish and serious sanitary defects. These areas are being quarantined and dealt with by the Government, and active steps are being taken to destroy the rats. Dr. Tidswell, the acting President of the Board of Health, and Dr. W. G. Armstrong, the City Health Officer, have been kept at their posts, and thus prevented from attending the Intercolonial Medical Congress at Hobart, which is now in session.

Under the Leprosy Act all persons suffering from leprosy and certified as such by two medical practitioners are confined for life in the Leper Lazaret at Little Bay, unless they choose to leave the country. It is recognized that in some cases of pure nerve leprosy the danger of infection is practically *nil*, and Dr. Tidswell is now endeavouring to arrange for these cases to remain at their own homes under proper medical surveillance. This is certainly a more rational proceeding than keeping these unfortunates confined in the lazaret for life.

The Government Statistician has prepared a statement relative to the estimated population of this State on December 31st last. During the period from July 1st to December 31st there were 19,199 births, and 8,418 deaths. The total increase in the population during that period was 13,480, thus making the total population on December 31st, 1,379,890.

INDIA.

The Robert Harvey Memorial Fund. The Septic Tank in India.—Plague Officers for the Indian Medical Service.

THE *Indian Medical Gazette* has opened a subscription list for a memorial to the late Surgeon-General Harvey, I.M.S., the form which the memorial will take to be decided at a meeting of subscribers when the total amount received is known. All such subscriptions should be endorsed "Harvey Memorial Fund," and sent to the Editor, *Indian Medical Gazette*, care of Thacker, Spink and Co., Calcutta, and they will be acknowledged in the columns of that paper. There will doubtless be some beyond the ranks of the Indian Medical Service who will desire to join in this memorial.

Owing to the much less crowded condition of the houses of most Indian cities, with the exception of the Presidency towns, the disposal of sewage presents less formidable and urgent problems to sanitary authorities than in the large cities of Europe. The water carriage system is almost confined to the large seaports, while the commonly employed method of disposal of sewage is by trenching it. During recent years the shallow trenching system, combined with cultivation, has been greatly extended, and when the night soil is carried sufficiently far from inhabited sites this is both a good and economical method, although it has the disadvantage of necessitating the cartage of much filth through the streets, with the attendant abominable odours. Further, where native workmen have to be entirely relied on to carry out the work through the dark hours of the night, abundant opportunities of disposing of small quantities of night soil within the extensive compounds and open waste ground which abounds on all sides, must lead to great contamination of the soil in the course of years, and the steady increase of typhoid fever in Indian cantonments is very generally attributed to such pollution of the soil. The work of the late Professor von Pettenkofer for so many years at Munich, which has recently been well illustrated by the chart published in the last volume of the proceedings of the Epidemiological Society, serves to emphasize the importance of the prevention of soil pollution at a time when some writers are insisting on a pure water supply being the only, or at least by far the predominating, factor in lessening the prevalence of typhoid fever, for in Munich it was the doing away with cesspits and slaughterhouses which stopped the epidemics of typhoid, and that too before a pure water supply was introduced. The success of the septic tank in England has led to a trial being given to this method in India, and a large installation is being constructed in Bombay, the final effluent of which will be used for irrigating cultivated land. A small experimental tank has been started in Calcutta, in connexion with which some bacteriological investigations are being carried on. The military authorities are also interesting themselves in the matter, and recently constructed a small septic tank in the fort at Calcutta, while the subject has been ably discussed in an article by a service medical officer in the *Scientific Memoirs*, by medical officers of the army of India some months ago. The writer advocated the use of waste water in the barracks for the purpose of carrying all faecal matter through pipes to a small septic tank instalment, where it would be disposed of at a safe distance from the buildings. In several places latrines have been erected over tanks in which the anaërobic process takes place, the first effluent being run through oxygenating filter beds, and the final outflow from these into drains or tanks which are not used for drinking purposes. It is preferable, however, to utilize the effluent for irrigating cultivated soil, as it contains the most valuable manurial products of the night soil. If the Royal Commission now sitting should be able to show that the pathogenic organisms likely to be contained in faecal matter are destroyed by the septic tank process, then this method of disposal of sewage may prove to be of great value in preventing the pollution of soil by the germs of disease, and so rendering Indian towns and cantonments more healthy than they are at present.

Sixteen selected medical officers, who came out for plague duty, have been given commissions in the Indian Medical Service, which will help to make up the increase of numbers recently sanctioned. They are being sent home to go through the course at Netley, although some of them already hold the Diploma of Public Health, but doubtless it is thought necessary that they should learn the discipline and customs of the branch of military service which they have entered. They will rank after the batch which has recently passed out of Netley, but will count their plague service towards their pensions. As there appears no ground for thinking the plague is likely to die out just yet, but rather the contrary, these experienced officers will be a useful addition to the service, and will do something to relieve the present pressure on the medical department.

CORRESPONDENCE.

THE TERM "HAFFKININE."

SIR,—I regret very much to write to you on this subject, but Lieutenant-Colonel King's letter in No. 2145 of the BRITISH MEDICAL JOURNAL induces me to repeat here what I assured him of before, that I have only gratitude to express to him for the honour he did me by his initiative. It is hardly to be imagined that I could have any other feeling in the matter. Surgeon-General Hooper, who was consulted on that occasion, and the Madras Government, to whom Colonel King suggested the term, approved of it: but it could hardly be expected that everybody would do so. Major Bannerman did not approve of it; and it stands, I think, to this officer's credit that on one or two occasions he frankly said so to me, giving his reasons. It could not, however, be considered to be part of mine to defend the term, and I readily acquiesced in what might be said against it. The term "haffkinine," if adopted, would form a small linguistic puzzle; for it would be derived from one of the first two Hebrew names recorded on the pages of the Bible, which, pronounced "Hâve" by my own people, and subsequently changed by the addition of "kin" into my Russian family surname, was spelt for me, by the late M. Pasteur, in the French manner, and would now reach its final form as an English technical word in connexion with the fight against the plague. The word is full of associations to me, melancholy and gratifying; but it has suffered considerably from the long metamorphosis. However, as far as I am concerned, Colonel King may rest assured that I have appreciated cordially his spontaneous act of regard towards me, a man whom he has hardly ever met, and whom he wished to honour from a purely chivalrous impulse, as a fellow worker, with whose efforts and struggles he sympathized from afar.

Regarding the effect of the material which Colonel King

recommends to call by the above name. I certainly take the responsibility for the assertion that it does not aggravate an incubating attack of plague, but, on the contrary, tends to arrest it, and when attack occurs tends to mitigate its issue. I knew at the time of making the statement that it was contrary to expectations; and it has been, and still is, rejected by some of the best authorities in bacteriology. I have, however, no doubt whatever that that statement is perfectly correct, and that probably every observer who will get the opportunity will confirm it from personal experience, as a number have done already. Major Bannerman defends the thesis not on my authority, but because he has seen the working of the system during the time that he has been with me.

The points regarding inoculation in its relation to ailments different from plague, as well as the late Indian Plague Commission's discussion of this matter, are to be found in that Commission's report, vol. i, p. 338, 2nd column; p. 18, paras. 199 and 200; and vol. v, pp. 261 and 262, para. 469. It would be too long to reproduce or to discuss these passages here, and for the present it does not seem necessary.—I am, etc.,

Bombay, March 22nd. W. M. HAFFKINE.

THE TREATMENT OF DEAFNESS OF MIDDLE-EAR ORIGIN.

SIR,—In the BRITISH MEDICAL JOURNAL of March 22nd there appears a communication from the pen of my friend Dr. Chalmers Watson on the treatment of middle-ear deafness. As my name is mentioned somewhat prominently, I feel sure that Dr. Watson will forgive me for making a few critical remarks upon the views he expresses.

In his second paragraph he states that the broad outline of his theory is that bone marrow produces "an internal secretion of vital importance to the economy; that this substance is a powerful prophylactic against the injurious action of various bacteria which in health are present as saphrophytes in different tissues; and that defects in this active ingredient are liable to be followed by pathogenic action of these same micro-organisms, etc." I must admit that it seems to me regrettable that Dr. Watson did not first bring forward evidence as to these properties which he claims for bone marrow, and then deduce facts from such evidence as he might be able to adduce.

I cannot encroach on your valuable space to such an extent as to criticise in detail the points to which I take exception. I shall, however, permit myself to call attention to one or two of them.

Dr. Watson states that the voice tests in ordinary use are not of value; he would exclude low whispers, but seems to have great confidence in loud ones. Again, he does not think a low ordinary voice test of any value, but attaches great importance to the ordinary voice. He does not, however, supply us with any very satisfactory reasons for these views. I must say that, after twenty years' experience, I have found the whispered, low ordinary, ordinary, raised and loud voices equally useful—the louder tones being used only where the lower ones were not perceived, or only heard in immediate proximity.

These being my views, it will not surprise you when I state that I had no evidence as to the improvement which Dr. Watson believes to have taken place in the case of the hospital patient whom I sent him. It must be remembered that many persons with middle-ear thickening afford strong evidence of a functional element in their deafness. I have only to call the attention of experienced aurists to the increase of deafness which follows fatigue, worry, loss of blood, etc., and to the improvement which is often derived from residence in a bracing climate, and occasionally from the passage of the faradic current (as in the present instance, that is, the patient quoted by Dr. Watson). It is also necessary to call attention to the hopefulness of many patients and their surroundings. Every experienced physician knows how readily those who are afflicted with incurable maladies believe that an improvement has occurred, and how frequently they are corroborated in their belief by relatives. Given then a patient who is desirous of cure, a family who are anxiously ready to grasp at any point of evidence in favour of improvement, and a somewhat optimistic medical attendant, it is not difficult to see how the supposed result may be of such a nature as to be unable to withstand the stern light of scientific analysis.

I am far from wishing to detract from Dr. Watson's work. I merely state that I have had as yet no evidence of the success of his method; that it would have been better advised to have first adduced a working basis of fact to support his theory as to the value of bone marrow; and, lastly, that it is not wise to accept the statements of patients and relatives where more accurate tests are available.

As I understand Dr. Watson's method of applying bone marrow, he employs massage as part of the treatment. I think it quite possible that such massage may be more beneficial when the ear contains an oleaginous fluid, and possibly bone-marrow oil may be better than others for the purpose. Dr. Watson states that he employed intermittent pressure as advocated by Lucae. This, I think, must be an inadvertence, as it would be hardly possible to use the pressure probe with the ear full of fluid. I presume that Dr. Watson refers rather to some such instrument as Delstanche's, Breitung's, or Nobel's. These are employed more extensively on the Continent than here, and it may be that British aurists have not sufficiently appreciated their value. It may also be that by employing bone-marrow oil, as suggested by Dr. Watson, their effects may be enhanced. If this should prove to be so his work will not have been in vain.—I am, etc.,

Edinburgh, March 23rd. P. MCBRIDE.

PROCESSES OF INFECTION AND PROTECTION.

SIR,—In Dr. Armit's very interesting paper he lays down as the basis of his reasoning a wide general proposition which is of great importance in our humoral physiology and pathology—if true. In the BRITISH MEDICAL JOURNAL (p. 785, column 2, lines 5 to 11) Dr. Armit writes:—

> If to a mixture of hydrochloric and acetic acid an alkali is gradually added, *it will be found that the hydrochloric acid is first completely neutralized before the acetic acid is attacked*, so that a selective affinity exists between the hydrochloric acid and the alkali, which is stronger than the affinity which exists between the acetic acid and the alkali.

1. As to the fact which I have ventured to italicize, how will the fact be "found"?

2. Does not the inference which follows confuse chemical potential with selective chemical affinity?

Of course it is easily shown that in a solution containing hydrochloric and other acids, the dropping in of a solution of silver precipitates every particle of chlorine before any other allocation of the silver takes place. This is so also in the presence of a large excess of free nitric or sulphuric acid, or of both acids together. Yet an alkali chloride, if heated with sulphuric acid, has its chlorine displaced by the sulphuric acid, and, when the excess of sulphuric acid has been volatilized, alkali sulphate alone remains. If now the alkali sulphate be heated with phosphoric acid the sulphuric acid will be driven off and alkali phosphate alone remains. This proves that chemical energy or potential is not necessarily coextensive with selective chemical affinity.

In the above use of silver a true selective chemical affinity first appropriates the whole of the chlorine; and the resulting compound, being an extremely insoluble precipitate, is altogether withdrawn from the solution. But, in the case given by Dr. Armit, we have acids and an alkali, all the possible combinations of which are perfectly soluble, and remain in solution together. In this case mass action comes in to influence the distribution of the alkali between the acids. Is not the distribution, therefore, a resultant of mass action as well as of chemical potential and chemical affinity?—I am, etc.,

Brighton, March 31st. JAMES EDMUNDS.

INTRATRACHEAL INJECTIONS.

SIR,—Since you published my letter in the BRITISH MEDICAL JOURNAL on March 22nd on the above subject, I have heard from Dr. Colin Campbell.

In stating that Sir Grainger Stewart used the intratracheal method in 1892, my object was to indicate that he was the first to introduce the method, as far as I knew. However, from Dr. Campbell's letter, I find I am mistaken, as Dr. Rosenberg of Vienna tried the method as early as 1884, and even he was anticipated by a man who injected something into the larynx percutaneously.

Dr. Campbell's treatment differs from Sir Grainger Stewart's, as he points out in three important details:

1. The use of glycerine as the vehicle instead of oil.
2. The much larger quantity injected.
3. In the exhibition of the powerful germicide Izal.

These seem to me all-important advances on the old treatment, and it might be well if this treatment were given a more general trial.—I am, etc.,

Cromer, April 8th. R. EDDOWES LEGAT.

SCHOOL ATTENDANCE AND PULMONARY CONSUMPTION.

SIR,—The national efforts to check the ravages of consumption appear to be directed to the effects rather than the cause of the dissemination of the tubercle bacillus. There is one factor in the dissemination of tubercle bacilli which has not received, so far as I am aware, its due attention. I refer to the presence of those suffering from phthisis pulmonalis at schools. Compulsory school attendance must needs bring a tuberculous child into close contact with others. Infection by dried sputum, by dried particles of dust raised by drill exercise, by finely divided particles of sputum produced by the act of coughing, produce around the child a halo of infected dust. That ventilation of schools is efficient—though this is doubtful—is no reason why risk should be courted. If an adult who knows from what he suffers, and is subject to the control of nurses and physicians, is a source of infection in the well-ventilated and hygienic surroundings of a hospital—so much as to necessitate special accommodation, or at least render such desirable[1]—how much more is a phthisical child, knowing not from what he suffers, filthy in habits and clothing, and subject to no hygienic control, a source of infection to those who are crowded around him. Such crowding is unavoidable in the infant classes of elementary schools. The teacher himself may not be aware that the child is ill, and until periodical examination of school children and notification of phthisis is compulsory the evil must continue.

That milk is a source of infection is as yet unproved. Let investigation proceed, and, if the matter be proved, acted upon stringently. Much attention is given to, and expense incurred by, tuberculin tests, destruction of affected cows, and inspection of cows for signs of tuberculosis, and even legislation proposed to render such compulsory. All this is aimed at a possible, but as yet uncertain, cause of the dissemination of tubercle. Yet a child suffering from tuberculosis may attend our public and elementary schools with impunity, and such attendance is even compulsory, unless the child happens to be under the immediate care of a doctor, and we well know that they come to us only when the disease is advanced. Such a child is a known and certain cause of dissemination, and yet there is no movement to provide separate schools or even accommodation for such. It is no more the physician's duty to protect those under his charge from possible infection than to prevent them from being a source of infection to others. What is his duty towards a child suffering from slight phthisis? Clearly the child should be prevented from attending school. What is to become of his education? That he should receive some education is desirable, but that he should not be a source of infection to others is more so, as the few must be sacrificed to the many; and by depriving them of education they would be driven to the wall. Is this justifiable?—I am, etc.,

JOHN R. PRYTHERCH, M.B., Ch.B.Edin., M.R.C.S., L.R.C.P.Lond.

Llangefni, Anglesey, March 24th.

ORIGIN OF "ZOSTER" IN HERPES ZOSTER.

SIR,—All the medical writers to whom I have been able to refer derive the word "zoster" in herpes zoster from "zoster," a girdle, "because it passes round the body like a girdle." They do not, however, explain what sort of a girdle was indicated. In looking over some old volumes of the *Gentleman's Magazine* that pleasant storehouse of antiquities I find a description of some Greek and Roman antiquities, the property of the Chevalier Brönster, Chargé d'Affaires from the Court of Denmark to that of Rome, who was in England in December, 1824,[1] among them of a "zooster" or girdle, which is thus described:

"A zooster or girdle of the same metal [that is, bronze], which reaches *half round the body* [the italics are mine], having originally had a leathern belt attached to one end of it, which by means of a ring was fastened to a hook at the other end of it. This is 4 in. wide in the centre, and gradually diminishes to the sides, where the width is about 1½ in. A small pattern runs round it, and *it is ornamented with studs about half an inch in diameter*, the inner cavities of which may have served to secure the padded lining."

From this it seems as if the "zoster" or "zooster" was a metal half-belt completed with leather, only (so far as the metal went) encircling half the wearer's side, and bearing outstanding studs upon it. Can we not see the applicability of the name "zoster" to the disease? As soon as the ancient physician saw the disease encircling only half the side, with outstanding vesicles like the studs of the belt, it would irresistibly remind him of the "zoster," and he would give it the name.

Dr. Pye-Smith[2] tells us that the ancients recognized the limitation of the disease to one lateral half of the cutaneous surface, quoting Pliny the Elder as predicating of this affection, "*enecat si cinxerit*—it kills if it encircles."—I am, etc.,

Exeter, April 6th. WILLIAM SYKES, M.D., F.S.A.

EXTERNAL TUBERCULOSIS IN CHILDREN.

SIR,—I am rejoiced to see your well-timed leading article on External Tuberculosis in Children. Surgical consumption requires as much attention as medical consumption, and we are in need of a number of small convalescent homes for the reception of cases of tuberculous disease of the different joints and of the spine and bones generally, so that patients before and after operation may receive the necessary amount of feeding and fresh air either to arrest the disease or effect its cure after suitable operation. These convalescent homes could be under the care of the medical men of the districts, who could be informed by the surgeons where operations have been necessary in the larger hospitals, as to their nature, and who could carry out any local treatment required.

Operations could also be performed in these homes, and suffering ones helped, and the larger hospitals might thus be relieved of a number of cases where the country would accelerate cure. These homes could be under the directorate of central hospitals, and students in practice in country districts could be kept in touch with their old hospital and their teachers, to the advantage of all concerned.—I am, etc.,

J. CRAWFORD RENTON,

Glasgow, April 1st. Surgeon to the Western Infirmary, Glasgow.

SANITATION IN INDIA.

SIR,—Every well-wisher of India owes you a debt of gratitude for your leading article on the above subject published in the last issue of the BRITISH MEDICAL JOURNAL. It would, indeed, be impossible to improve on the admirable suggestions it contains. But a close study of this question has convinced me, that, before any idea of reform is seriously entertained, it would be necessary to impress, both on the rulers and the ruled, the importance of sanitation itself. Such a proposition may seem an obvious truism to most of us: but one has to live in India to find out the prevailing ignorance in sanitary matters.

The ignorance of the masses I can well understand: but I fail to see why Indian authorities do not show a greater acquaintance with the subject. There are eminent administrators who, at solemn gatherings, do not hesitate to declare, that "sanitation is a mere fad" and "what India needs is not sanitation, but nursing." These words are actually sent over all the way to India, and duly appear in serious newspapers as important contribution to our knowledge of Indian sanitation. Should a humble sanitarian, however, tell them that facts the were otherwise, they merely shake their wise heads and say nay.

Now, if such be the attitude observed in the higher quarters, it is small wonder if Indian sanitation has not hitherto re-

[1] BRITISH MEDICAL JOURNAL, February 22nd, 1902, p. 445.

[1] *Gentleman's Magazine*, vol. xciv, Pt. II, p. 483, 1824.

[2] Fagge and Pye-Smith, *Principles and Practice of Medicine*, 2nd edition, 1888, vol. ii, p. 1095.

ceived the consideration it deserved. To my mind, what seems most necessary is, first of all, to educate our own educators. And to ensure this nothing could be more welcome than a renewal of that vigorous crusade, first initiated by the late Mr. Ernest Hart, and with which his name is so honourably associated. I am, etc.,

London, April 7th. M. L. DHINGRA, M.D.

DIET AND CANCER.

SIR,—Sir William Banks still adheres to his contention that because the increase in the flesh food consumed in the Western world is commensurate with the increase in the incidence of cancer mortality that therefore flesh eating is a cause of cancer.

In a paper that I read before the British Medical Association at Ipswich I compared the cancer mortality among some of the flesh-eating races and flesh-eating animals with those races and animals which were more or less fruitarian, and the result seemed to show that flesh eating *per se* is not a cause of cancer. I ventured to add that the evidence, both theoretical and practical, tended to show that it was the overfeeding of animals, and the retention in their tissues of the products of decomposition, which made the eating of the animal food at present upon the market, productive of an unstable cell equilibrium, which was the forerunner of the cancer incidence. That the same thing applied in a lesser degree to vegetables, and that therefore the aim of the future should be to produce healthy animals and healthy vegetables, and to discontinue entirely the present system of overfeeding both, merely to secure the maximum of market weight in the minimum of time.

My late tour in India has strengthened my opinion that this view is correct, because I found that cancer was practically nonexistent in all those areas where the vegetation was sparse and where the animals used for food had had to live hardly, while it was more prevalent where the vegetation was ranker and where animals used for food were more highly foddered.—I am, etc.,

Harley Street, W., April 3rd. JOSIAH OLDFIELD.

CRICKET ARRANGEMENTS FOR THE ANNUAL MEETING AT MANCHESTER.

SIR,—At a meeting held yesterday of the Cricket Subcommittee of the Local Entertainments Committee, it was decided that the annual fixture, Manchester Medicals *v.* Liverpool Medicals, which occurs alternately at Manchester and Liverpool, should take place this year on the Wednesday, July 30th, in the week which the British Medical Association meets here, and also that a match be arranged for Friday, August 1st, between the Owens College Club and members of the Association.

I should be glad if members coming to Manchester, and willing to play in the latter match, would write to me at their earliest convenience.

The Owens College Club is a "strong" one, and it is to be hoped that we may be able to raise a team capable of giving them a good game.—I am, etc.,

W. H. HENSHAW,
Honorary Secretary Cricket Subcommittee.

30, Swan Street, Manchester, April 8th.

SOUTH AFRICAN CIVIL SURGEONS.

SIR,—The second annual dinner of South African civil surgeons will be held at the Hotel Cecil on Monday, June 9th, at 7.30 p.m. Sir Frederick Treves, K.C.V.O., will take the chair. The price of tickets will be half-a-guinea. On account of the difficulty of obtaining the names and addresses of civil surgeons who have returned from the war, we hope that all who intend to be present will communicate with us as soon as possible, and urge others to do the same. Arrangements are being made, as last year, to seat 200.—We are, etc.,

C. GORDON WATSON, } Hon.
FRANCIS E. FREMANTLE, } Secs.

39, Moore Street, Lennox Gardens, S.W., April 8th.

PELLAGRA is said to be becoming increasingly prevalent in South Tyrol. Quite recently the *Neue Freie Presse* recorded three cases of suicide due to mental disorder which had developed as the result of brain lesions caused by pellagra.

OBITUARY.

CHRISTIAN FENGER, M.D.,

Professor of Clinical Surgery, Rush Medical College, Chicago.

DR. CHRISTIAN FENGER, the well-known surgeon of Chicago, died recently of pneumonia, in the 62nd year of his age. He was of Danish origin, and was born in Copenhagen in 1840. While still a medical student he served as Surgeon in the Schleswig-Holstein campaign in 1864. He took his degree at the University of Copenhagen in 1867, and then served as assistant in Dr. Wilhelm Meyer's ear clinic for two years. He afterwards served throughout the Franco-Prussian war as Surgeon in the Red Cross Ambulance Corps. From 1871 to 1874 he was Prosector and from 1873 to 1874 *Privat Docent* in the Copenhagen City Hospital. In 1875 he accepted the post of Surgeon to the Khalifa district of Cairo, and became a member of the Sanitary Council. In 1877 Dr. Fenger went to the United States and settled in Chicago, where he became a member of the County Hospital Staff. Two years later he was appointed Curator of the Rush Medical College Museum, and in 1884 he was elected Professor of Clinical Surgery in the College of Physicians and Surgeons. In 1895 he became Professor of Clinical Surgery in the Chicago Medical College, and in 1899 he was appointed to the chair of Clinical Surgery in the Rush Medical College. At the time of his death he was President of the Chicago Medical Society, and was a member of various American and European medical associations. During his residence in Chicago he served on the staff of nearly all the leading hospitals.

Before leaving Denmark Professor Fenger contributed several valuable papers to the *Nordiskt medicinskt Arkiv*, one of his earliest contributions being on stenosis of the pulmonary artery in 1873. During his residence in the United States he contributed a number of articles to the American medical journals, most of them being on purely surgical topics. In conjunction with Dr. Samuel C. Stanton, he wrote the chapter on diseases of the ureter in the *American Textbook of Genito-urinary Diseases*.

According to *American Medicine*, Fenger, next to the elder Gross, probably did more to advance surgical pathology than any other one man in the United States. Much of the conservative treatment of renal and ureteral conditions practised by American surgeons can be traced to him. One of the honours of which he was proudest was the decoration of the Knighthood of the Danish flag conferred upon him by Christian IX of Denmark.

BONVILLE BRADLEY FOX, M.A., M.D.Oxon.

IT is with sincere regret that we have to announce the death of Dr. Bonville Fox, of Brislington, only a few days after that of his more widely known brother, Dr. E. Long Fox. The deceased was the son of Dr. Frances Ker Fox by his second wife, the eldest daughter of the Rev. Charles Bradley, and sister of the wife of Dr. Long Fox.

Born on July 29th, 1852, Bonville Fox was first sent to Mr. Hudson's school at Manilla Hall, Clifton, and subsequently to Marlborough College in 1865, though his stay there was of brief duration owing to illness. After receiving further education at the house of his uncle (William Bradley) at St. Leonards, he matriculated at Christ Church, Oxford, in 1870, taking his M.A. in 1879. His medical course was taken at St. George's Hospital, and in 1878 he took the diploma of the Royal College of Surgeons. The following year he took the M.B. at Oxford, and in 1882 the M.D. All Dr. Fox's training, as well as his inclinations, were towards the treatment of mental disorders. His father was a very successful proprietor of Brislington House, and it was only natural that one of the sons should follow.

Dr. Long Fox having started as a physician in Clifton, it fell to Dr. Bonville Fox to first assist and subsequently follow his father in partnership with his brother Charles in the charge of the private asylum. As a preliminary, Dr. Bonville Fox spent six months as Assistant Resident Medical Officer at the Bethlehem Hospital, and afterwards became Resident at Brislington. On the death of his father he became joint proprietor with his brother Dr. Charles Fox, and, since the retire-

ment in 1894 of the latter, has been proprietor. Dr. Bonville Fox had been in very indifferent health for a considerable time, and his death on April 2nd at the age of 49 years was not unexpected. He leaves a widow, two sons, and one daughter.

Dr. Bonville Fox occupied a high position in the special branch of medicine to which he had devoted himself; his opinion was frequently sought by medical men troubled with the intricacies of the law on lunacy or with the mentally affected. To them Dr. Fox was able to give sound advice, founded on a wide experience and matured with sound common sense.

With the responsibilities of the private asylum, Dr. Fox was yet able to spare time for public matters. He was for many years a Poor-law Guardian, and acted as Vice-Chairman for a considerable period. He also was interested in agricultural matters, being on the Committee of the North-East Somerset Farmers Club, took part in politics, and was always ready when possible to play cricket with the village club.

He will be much missed in Bristol, and particularly in the village in which three generations of Foxes have been proprietors of the asylum.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. George M. Warner, Professor of Materia Medica and Therapeutics in Louisville Medical College, and for five years editor of the *Louisville Medical Monthly*, aged 44; W. W. Johnston, Professor of the Theory and Practice of Medicine in the Columbian University, Washington, aged 59; Dr. John E. Richardson, a prominent surgeon of Brooklyn, New York, aged 51; Dr. George W. Cushing, a well-known gynaecologist of Brooklyn, aged 53; Dr. O. D. Pomeroy, an eminent ophthalmologist of New York, and author of numerous writings on diseases of the eyes and ears, aged 68; and Dr. Hewet, corresponding member of the French Academy of Medicine, sometime Professor in the Medical School of Rheims, aged 73.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL ARMY MEDICAL CORPS EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 2s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Major R.A.M.C., home from South Africa, where he has been two and a-half years and will have to return shortly, wishes to exchange with a Major ordered to India.—Replies to be sent to Major Healey, care of Holt and Co., 3, Whitehall Place, London, S.W.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Walter H. S. Stabbartt, M.D., Staff Surgeon to the *Medusa*, April 10th; John McElwee, M.D., Staff Surgeon to the *Hannibal*, April 10th; George Wilson, M.B. Staff Surgeon, and Thomas F. O'Keeffe, M.B., Surgeons to the *Doris*, undated.

ARMY MEDICAL SERVICE.

Colonel W. F. Beevor, R.A.M.C., is promoted to be Surgeon-General, *vice* J. Jameson, placed on retired pay June 1st, 1902. Surgeon-General [illegible] entered the service as Assistant-Surgeon, March 31st, 1866; became Surgeon-Major March [illegible], 1878; Brigade-Surgeon, October 6th, 1892, and Surgeon-Colonel, July 9th, 1896. He served in the Zulu war in 1879 (medal with clasp); in the Afghan war of 1878-80 (medal and with the Kabul to Kandahar Field Force, including actions at Ahmed Khel and Arzoo, and

Surgeon-Major W. D. Waterhouse, 1st Tower Hamlets Volunteer Rifle Corps, to be Brigade-Surgeon-Lieutenant-Colonel while holding the holding the appointment of Senior Medical Officer to the 2nd London Brigade, April 5th.

Surgeon-Lieutenant-Colonel W. Gandy, 2nd Volunteer Battalion the East Surrey Regiment, to be Brigade-Surgeon-Lieutenant-Colonel while holding the appointment of Senior Medical Officer to the East Surrey Brigade, April 5th.

Surgeon-Major F. R. Russell, 2nd Volunteer Battalion the Queen's (Royal West Surrey Regiment), to be Brigade-Surgeon-Lieutenant-Colonel while holding the appointment of Senior Medical Officer to the West Surrey Brigade, April 5th.

VOLUNTEER RIFLES.

Surgeon-Lieutenant R. G. Worger, 1st Volunteer Battalion the Somerset Light Infantry, is promoted to be Surgeon-Captain, April 5th.

Mr. John A. K. Renshaw, M.D., is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Manchester Regiment, April 5th.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

We are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Major R. H. Clement	0	5	0
Major H. S. Peeke	0	5	0
Lieutenant Colonel Allport	0	10	0
Lieutenant-Colonel W. T. Martin	0	10	6
Colonel A. W. Duke	0	10	0
Previously acknowledged in the British Medical Journal	34	16	0
Total ...	36	16	6

VENEREAL DISEASES AND ALCOHOLISM AMONG TROOPS IN THE PHILIPPINES.

With the object of counteracting the increasing frequency of alcoholism and venereal disease among troops in the Philippines and at other tropical stations, the United States War Department has issued an order of which the following is an extract. "The only really efficient way in which to control the diseases due to immorality is to diminish the vice which is the cause of these diseases. Excessive indulgence in strong drink is absolutely certain to ruin any man, physically and morally; while diseases due to licentiousness produces effects which are quite as destructive and even more loathsome. It is the duty of regimental, and particularly of company officers to try, by precept and example, to point out to the men under their control, and particularly to the younger men, the inevitable misery and disaster which follow upon intemperance and upon moral uncleanliness and vicious living. The officers should, of course, remember always that the effect of what they say must largely depend upon the lives they themselves lead."

THE MEDICAL SERVICE OF THE JAPANESE NAVY.

The following sketch of the organization of the medical service of the Japanese Navy is founded on a detailed account given in a recent number of the *Sei-I-Kwai Medical Journal*. The headquarters of the service are at the Bureau of Medical Affairs which forms part of the Navy Department in Tokyo. At the head of the service is the Surgeon-General of the Navy who has the relative rank of Vice-Admiral or Rear-Admiral. The Bureau of Medical Affairs is divided into two sections. The first section, which is under the direction of a surgeon inspector, deals with (1) matters relating to the service of medical officers and apothecaries in general; (2) matters relating to medical officers and apothecaries sent abroad; (3) matters relating to the physical condition of officers and men in the navy; (4) medical examinations with regard to pension, or the discharge of officers and men for disease or injury; (5) the prevention of infectious diseases; (6) medical and surgical supplies; (7) the management of naval hospitals. The second section, which is under the direction of a surgeon inspector, deals with the hygiene of (1) ships, buildings, clothing, diet, water supply, and drainage; (2) medical and sanitary statistics; (3) the education of medical officers and apothecaries; (4) climatology and endemic diseases in ports, home and foreign; (5) the collection of information as to the medical and sanitary affairs of foreign navies; (6) the management of the naval medical school.

The Naval Medical School.—The Naval Medical School is established in Tokyo, and is under the control of the Bureau of Medical Affairs. Advanced instruction is given to medical officers, and probationary assistant surgeons are trained for the duties of medical officers. Sanitary examinations of clothing and food for use in the navy are also performed at the school. The president of the school is a surgeon inspector.

Naval Stations.—At each of the naval stations, Yokosuka, Kure, Sasebo, and Mayezuru, there is a Medical Board, which is under the control of the Commander-in-Chief of the station. At the head of it is a surgeon-general or a surgeon-inspector. The Board has the medical and sanitary supervision of vessels, barracks, and other buildings, clothing, diet, and water of the station; of the physical condition of the men belonging to the station; it also examines medical certificates for pension, superintends the Naval Hospital, and deals with all matters relating to the education and discipline of the members of the Medical Department belonging to the station.

Naval Hospitals.—The naval stations have each a naval hospital which is equipped with a chemical laboratory. The preparation and issue of medical supplies; the sanitary examinations of clothing, food, and medicines; and the instruction of sick barth attendants and assistants is carried out in the hospital.

Standing Squadrons.—There is a chief surgeon with the rank of a surgeon-inspector on the staff in each squadron. He has general medical and sanitary charge of the squadron under the direction of the commander in-chief, and superintends all the chief surgeons of the ships of the squadron.

Chief Surgeons and Surgeons of Ships.—Each ship belonging to the squadron has a chief surgeon and one or two surgeons attached (only a chief surgeon with a small ship). The rank of a chief surgeon may be a fleet surgeon, staff surgeon, or surgeon, according to the number of officers and men on board. The chief surgeon, under the direction of the captain, has medical and sanitary charge of the ship; he is also responsible for the receipt, distribution, and preservation of medical supplies, the keeping of accounts, and the reporting of them.

Number of Medical Officers and Apothecaries.—The actual number of medical officers and apothecaries in the Japanese navy in October, 1901, was as follows:

Active List	
Medical officers...	220
Probationary assistant-surgeons	16
Apothecaries	13
Probationary assistant apothecaries	4
Total	253
Retired List:	
Medical officers	23
Apothecary	1
Total	24

THE NEW WARRANT AND CIVIL SURGEONS.

M.D. writes: The new Royal Warrant for the R.A.M.C. entirely ignores the men who have been, and still are, of the greatest service to the corps during the South African war—namely, the civil surgeons employed at home. Their position, never too good, now becomes intolerable, as they are expected to do the work of officers in the corps whose equals they are socially and professionally, whilst their pay is to be £1 per week less than the most junior officer. If their pay was the consolidated pay of a lieutenant under the old scheme, surely it should be increased to the same rate now. I think that a very obvious slight is put upon the civil surgeons by paying them less than other qualified members of the medical profession who are doing exactly the same work and who are counting their service towards a pension as well.

Lieutenant-Colonel, R.A.M.C.—We are advised that it would be inadvisable to put forward such a proposal at the present time.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE TEMPERATURE CHART AS AN ADVERTISING MEDIUM.

A correspondent sends us a copy of a temperature chart used by the Male Nurses' Temperance Co-operation, the back of which is ruled with columns for notes of the administration of food, etc. One of these columns is headed "virol," a dietetic speciality which suggests to our correspondent that the chart in question is supplied by the company interested in the sale of that article. He goes on to speculate whether "bile beans," "pink pills," and other similar things may not find a place in the temperature chart of the future if no protest is made.

THE PUFFING OF DOCTORS IN LAY NEWSPAPERS.

A correspondent writes to draw attention to an article on Modern Bath, which appeared in the *Daily Telegraph* for March 28th. The article is a very laudatory one, perhaps excessively so, but the objectionable feature, from the point of view of medical ethics, is its reference to two members of the local medical profession, one of whom is credited with a very large share in the revival of the prosperity of the city. It would be, however, very unfair to suggest that the gentlemen named have had anything to do with this publication, and we can only regret that the newspapers show such utter disregard of professional feeling in their references to medical men.

MEDICAL ETIQUETTE.

Radius asks whether when a doctor removes from one house to another in the same town he may be permitted to notify the removal by a circular to his patients.

*** Yes, so long as care is taken that the circulars are sent only to bona fide patients of the practice, and that they contain merely an intimation of the change of address.

A Company's Doctor.—Our correspondent is not under any obligation to disclose the fact; indeed his duty to the company is not to do so. He should report it to the company's solicitor, and let him say whether, as a matter of policy, it should be communicated to the other side.

TOUTING FOR PATIENTS.

Etiquette writes to complain of a neighbour who was formerly a chemist and druggist, but who has recently obtained a medical qualification. Our correspondent alleges that he has opened a dispensary and has been calling upon people to induce them to join it.

*** There can be no doubt that touting for patients is exceedingly improper, and if our correspondent can prove what he alleges, he should bring the case before the local Ethical Committee, or he might complain to the body from which the practitioner of whom he complains obtained his licence. He would certainly be justified in declining professional relations with the person concerning whom he is satisfied such charges are true.

ADVERTISING HYPNOTICS IN THE LAY NEWSPAPERS.

A CORRESPONDENT asks our opinion of an advertisement in *Lloyd's Weekly News* by a well-known firm of chemists, headed, "Sleeplessness is cured with chlorobrom. No opium. No hurtful drug. Harmless. No sleeping-draught habit set up."

*** According to Martindale and Westcott, chlorobrom contains 30 gr. each of chloralamide and potassium bromide. The compound is certainly not one which should be indiscriminately recommended to the public in such terms.

MEDICAL ADVERTISING.

JOHN MCGOWN, M.D.—We have referred the matter to the corporation from which the offender holds his licence.

VACCINATION FEES AND CERTIFICATES.

VACCINATOR writes that he vaccinated an infant a short time ago, and, as the father declined to pay his fee, he refused him a certificate. Since then the registrar of the district has written to him requesting that he will fill up duly signed a vaccination certificate which he encloses: as he (the registrar) understands the child was successfully vaccinated by our correspondent. Is "Vaccinator" legally bound to fill up such certificate for the registrar? Ought not the registrar to demand such certificate from the father?

*** Our correspondent is legally bound under the Vaccination Acts to give the scheduled certificate to the parents or guardians of any child he may vaccinate, to be by them transmitted to the registrar, under a penalty. It is true the registrar might have demanded the certificate from the parents, but he preferred to write to the medical man instead. If he had not done so, our correspondent might have been fined for a breach of the Vaccination Laws (30 and 31 Vict., c. 84, Ss. XXIV, XXX).

MIDWIFERY ENGAGEMENTS.

W. D. writes: In a working-class practice, where it would be quixotic to sue for an unfulfilled midwifery engagement fee, I charge a half-crown booking fee to be deducted if my services are required later. Thus, if I am called the woman pays 18s 6d. to make up the guinea. If I am not called, I have 2s. 6d. to cover the chance of being sent for at inconvenient times, or having to make arrangements with a brother practitioner to act for me, while she, on her part, has for her half-crown the assurance that professional assistance is to be relied on if required. Though not applicable to better class houses, it works well among the cottages, and particularly among the poorer class of these.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

FIRST PROFESSIONAL EXAMINATION.—The following candidates have passed this Examination as under:

In Chemistry.—J. H. Aikman, J. H. Ainscow, D. W. Anderson, W. H. Armistead, W. Ashworth, D. M. Barcroft, E. H. Black, C. E. Blair, F. Blamire, I. W. Brebner, H. F. Briggs, D. F. Buist, C. H. Burgess, E. Burnet, S. T. Champtaloup, W. I. M. Clark, W. Core, R. Cotter, Agnes M. Cowan, F. S. Cumming, R. B. Davidson, A. Davies, A. M. Dick, M. G. Dill, A. M. Drennan, J. D. C. Duncan, R. Duncan, J. Dundas, D. D. Dunn, E. W. Dyer, S. S. Dykes, J. S. Edwards, Mary S. Finlayson, C. N. Finn, M. S. Fraser, R. Fraser, J. W. Frew, J. F. Callagher, M. Gavin, W. J. Geale, L. Gibson, E. C. Girling, G. A. Gordon, J. E. Gordon, W. L. Gordon, M. C. R. Grahame, J. Green, G. A. Grierson, J. C. Grieve, K. K. Grieve, E. R. Grieveson, G. F. Grogan, G. Gunn, Nettie B. Hendrie, J. R. Hill, G. A. Hodges, H. S. A. Hogg, R. F. Johnson, H. C. Johnston, T. B. Johnston, W. L. Johnston, W. C. A. Jolly, J. T. G. Jones, R. L. Jones, J. H. Lamb, W. Landells, A. G. K. Ledger, S. B. Legge, A. Leitch, N. F. Lloyd, P. Lorne, R. D. M'Alister, J. M'Cutcheon, A. M'Donald, G. B. Macgregor, G. D. M'Ivor, J. B. Mackenzie, G. M'Mullan, A. C. B. M'Murtrie, K. M'Murtrie, W. J. Macnab, A. S. Mactavish, J. N. M'Turk, P. Maier, D. Mann, J. S. Manson, G. M. Melville, C. J. Milne, J. E. Moudon, H. J. More, J. K. Murray, M. A. D. Naoroji, A. S. Paterson, J. L. H. Paterson, B. B. Phillips, G. Pollock, H. P. Portcous, O. E. Powell, A. Priestman, C. A. Purnell, C. Pycroft, Edith Pycroft, G. Y. Richardson, W. H. Riddell, W. R. Ridley, W. G. Riley, W. G. Rivers, R. M. Robb, W. A. Robertson, F. Ross, E. Russell, J. Scott, T. H. Scott, H. L. Sells, E. D. Simson, H. Smith, R. S. Steuart, P. Stewart, W. J. P. Sutherland, J. A. Taylor, E. R. Thompson, J. A. R. Thompson, J. N. Turnbull, Annie D. Urquhart, P. Vickerman, A. G. Visser, R. H. Walton, W. E. R. Williams, Ethel Wiseman, Emily C. Wybourne, A. W. Young, J. T. D. Young.

SECOND PROFESSIONAL EXAMINATION.—The following candidates have passed this Examination as under:

Completed the Examination.—R. G. W. Adams, E. A. Aylward, J. W. H. Babington, J. M. Barkley, R. B. Barnetson, B. Baty, W. P. Beattie, D. Bell, L. H. I. Bell, A. R. Berry, J. M. Beyers, A. S. L. Biggart, F. T. Bowerbank, D. Brown (with distinction), T. E. Carlyle, V. T. Carruthers, M. M. L. Cathels, J. W. Cathles, J. Craw, J. S. Clark, M.A., A. C. Coullie, W. B. A. K. Cullen, G. Cunningham, M.A., W. H. Cusack, J. M. Darling, J. R. Dobbin, C. E. Dumanoire, T. H. Easton, N. C. Fischer, J. M. R. Flament, N. C. Forsyth, R. H. Fothergill, L. Fourie, N. Fraser, W. J. Fraser, L. Gavin, M. J. H. Gavin, H. M. Gillespie, A. C. Glass, M.A., W. Godfrey, J. M. Graham, W. W. Green, J. Grieve, P. A. Harrow, E. Henderson, M.A. (with distinction), A. W. Hogg, J. S. Hogg, P. B. Hole, G. S. Husband, K. U. A. Innes, Ada Jackson, W. Jarvis, S. A. Johnston, J. H. H. Joubert, J. Kirk, G. F. S. Lauder, B. W. S. Leary, A. J. Lewis, J. Lochhead, M.A. (with distinction), J. B. Lockerbie, A. D. M'Callum, J. Macdonald, J. P. M'Gowan, M.A., Amy M. Mackintosh, H. R. Macintyre, R. J. Mackessock, M.A., D. P. Marais, A. E. Mills, M.A., B.Sc., L. S. Milne, T. B. Mouat, W. M. Mimby, D. S. Murray, C. C. Flaherty, A. Oliver, C. D. O'Neal, R. G. S. Orbell, G. Ormrod, F. M. S. Price, H. S. Reid, M. H. Robertson, S. M. Ross, C. S. Ryles, F. R. Sinton, L. H. Skene, C. J. Smith, G. M'C. Smith, W. A. W. Smith, R. A. L. Van Someren, P. Steele, H. A. Stewart, A. C. Strain, K. A. Moody-Stuart, A. F. Theobalds, H. M. Thompson, R. C. Townend, G. H. Ussher, F. L. de Verteuil, R. W. L. Wallace, D. C. Welsh, D. P. D. Wilkie, F. A. Wille, W. B. Wishart, C. H. Wright, B.A., M. C. W. Young, M.A.

In Anatomy and Physiology.—D. M. C. Church, M. L. Cohen, B.A., A. MacRae, G. D. Mathewson, J. B. Mears, H. P. Milligan, O. M. Mirylees, H. L. Morrow, A. J. Patterson, W. Patton, J. Saffley, F. H. Stewart, M.A., G. H. Winch.

THIRD PROFESSIONAL EXAMINATION.—The following candidates have passed this Examination as under:

Completed the Examination.—R. T. G. Aickin, D. Allison, J. A. Anderson, W. W. Anderson, F. L. Atkinson, Agnes Balfour, C. M. Begg, A. W. Beveridge, T. C. Blackwell, J. Brennon, Edith C. Brown, J. E. M. Brown, G. L. Brunton, A. Buchanan, H. Caird, T. P. Caverhill, R. A. Chambers (with distinction), J. S. Katherine Clark, Elizabeth L. Colby, C. H. Craig, R. W. Craig, C. S. Crichton, D. H. Croom, F. D. Crossthwaite, W. B. Cullen, A. Dangerfield, J. M. Darling, H. S. Davidson, J. Davidson, W. H. Davidson, D. E. Derry, A. C. Devereux, J. M. Dewar, J. Donaldson, M.A.; A. M. Dryden (with distinction), Alice M. Ebden, G. I. Farie, J. Findlay, H. N. Fletcher, J. Fortune, C. R. Gibson (with distinction), J. H. Gibson, J. D. Giles, J. Girdwood, J. M. Glasse, A. Gray, M.A., Elizabeth C. Gunn, A. Mabel Gurney, A. A. Hall, M.A.; C. R. F. Hartley (with distinction), G. W. Hasty, G. Henderson, M.A.; A. E. Hodgson, A. F. Hughes, J. P. P. Inglis, J. M. Johnston, R. W. Johnstone, J. H. Jones, J. H. Kay, J. W. Keay, I. C. Keir, E. A. King, J. M. Kirkness, L. A. H. Lack, F. F. C. Linton, C. D. Lochrane, Isabella Logie, J. M. Loveth, A. Lundie, H. MacCormac, J. R. M'Gregor, N. D. Mackay, B.Sc.; T. A. Mackenzie, Violet C. M'Laren, W. MacLaren, J. J. M'Millan, J. B. M'Neill, J. M. Macrae, H. C. Martin, R. H. Martin, P. W. Mason, A. G. M. Middleton, A. S. Millard, B.Sc.; G. H. S. Milln, W. S. Milne, C. R. P. Mitchell, G. J. Moriarty, C. H. Müller, H. L. Munro, D. M'K. Newton (with distinction), T. Nicol, W. H. Nutt, D. D. Paton, M.A.; T. Peebles, J. A. Pottinger, Julia L. Pringle, W. L. Pritchard, W. Readman, Eva A. Robertson, W. S. Robertson, Amy Robinson, L. C. Robinson, J. A. Ross, Mabel Ross, J. A. Roux, A. C. Rutherford, G. D. A. Scott, D. J. Scott, J. E. Scott, M.A.; W. M. Selby, G. H. Skinner, J. H. Smith, S. W. Smith, C. W. Smyth, Eva M. Snowball, J. Tait, E. J. Taylor, T. T. Thomson, G. C. Trotter, E. A. Turpin, R. Veith, J. A. L. Wallace, W. R. S. Watkins, E. J. Wentzel, L. West, R. M. M. White, C. H. Wright, B.A.; W. D. Wright (with distinction), and G. W. Young.

In Pathology.—S. Burns, M.A.; L. Ram, W. J. D. Robertson, W. Sanderson, Ellie Stewart.

UNIVERSITY OF GLASGOW.

THE following have passed the First Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (B., Botany; Z., Zoology; P., Physics, C., Chemistry):

G. V. Anderson (P., C.), J. M. Anderson (Z., C.), A. H. Arnott (P), G. D. M. Beaton (P.), D. P. Brenner (Z., P.), W. A. Campbell (Z., C.), D. L. Carmichael (C.), C. G. A. Chislett (B., C.), H. H. Christie (Z., C.), J. S. Clark (Z., C.), A. D. Cowan (B., P.), T. L. Craig (Z., C.), A. M. Crawford (Z., C.), R. Donald (Z.), R. J. Driscoll (B.), J. Dunbar (B.), A. Dunsmuir (Z.), E. J. Dyke (P.), E. M. Eaton (Z., C.), W. M. Fairlie (Z., C.), T. S. Forrest (P., C.), J. W. Georgeson (Z., P.), W. Gilbert (Z., C.), W. Gilfillan (C.), P. F. Grant (Z., C.), A. H. Gray (B., Z., P.), R. N. Guthrie (Z., C.), J. Hammond (P.), W. T. Hardie (Z.), R. M'C. Hill (P.), J. Keys (Z., C.), J. D. Kidd (Z.), G. H. Logan (B., P.), A. Macaulay (B.), A. M'Call (Z., C.), J. M'Cartney (P.), T. M'Cosh (P., C.), D. MacDonald (Z., C.), J. M'Farlane (Z., C.), J. R. M'Gilvray (Z., C.), W. A. M'Kellar (Z.), T. C. Mackenzie (Z.), W. F. Mackenzie (Z., C.), W. Macleod (B., P., C.), J. M'Millan (B., Z., P., C.), A. A. C. M'Neill (Z., C.), C. J. C. Macquarie (Z., C.), A. Maguire (Z., P.), R. Marshall (B., Z.), R. May (P.), A. F. Miller (C.), J. Miller (Z., C.), R. S. Miller (Z.), W. Miller (Z.), P. Mitchell, M.A. (B., Z.), R. W. Mitchell (Z.), W. S. Moore (B., P.), A. Naismith (B., Z.), P. J. O'Hare (B., P.), J. Oswald (Z., P.), J. H. Paul (Z., C.), D. M'K. Reid (Z., P.), J. Reid (B., P.), F. G. Robertson (Z., C.), J. H. A. Robertson (Z., P.), M. M. Rodger (B.), W. J. Rutherfurd (Z., C.), J. Sharp (Z., C.), R. W. Simpson (P.), R. A. Slater (C.), T. B. Smith (Z., C.), J. Stevenson (C.), J. Stevenson (Z., C.), A. Stewart (Z., P.), J. T. W. Stewart (B., Z.), T. Strain (P.), D. L. A. Tate (B., Z.), C. S. Thomson (Z., C.), H. White (Z.), D. J. Williams (Z.), G. H. Wilson (Z., C.), S. Wilson, M.A. (Z., C.), W. A. Wilson (P.), T. Winning, M.A. (B., Z.).

Women.—J. M. Andrew (P., C.), A. R. Bird (P., C.), R. I. Hudson (P., C.), A. M'Phun (Z.), E. Oversby (P., C.), V. D. Reis (P., C.), M. B. Taylor (C.), C. G. Thomlinson (B., Z.).

The following have passed the Second Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics):

S. C. Adam (A., P.), A. C. Amy (A., P., M.), H. G. Anderson (A., P.), J. R. S. Anderson (A.), J. W. Arthur (M.), A. R. Barrowman (A., P.), G. Beattie (P. M.), R. D. Bell, M.A. (A., P.), D. Blackley (A., P., M.), G. T. Bogle (M.), R. G. Bradford (A.), F. Brechin (A., P., M.), T. Brodie (P., M.), C. Brown (P., M.), J. Brown (A.), G. Y. Caldwell (A., P., M.), P. Carrick, M.A. (A., P., M.), R. B. Carslaw, M.A. (A., P.), J. A. Cowie, B.A., B.Sc. (A., P., M.), J. C. Crawford (P., M.), T. T. M. Dishington (A., P., M.), H. M'M. Donaldson (A.), G. H. Downie (A.), C. M. Drew, M.A. (A., M.), H. H. Fulton (A., P.), W. H. Gillatt (A., P.), J. Glover (M.), D. L. Graham (A., P.), J. Graham (A., P.), D. J. G. Grant (A., P., M.), G. M. Gray (A., P.), L. L. Greig (A., P.), A. R. F. Hay (A., P.), J. C. Henderson (A., P.), A. Innes (A., P.), A. Jamieson (A.), R. D. Ken-

nedy (A.), J. Kerr (M.), G. N. Kirkwood (A., P.), R. T. Leiper (A., P., M.), T. S. Macaulay (A., P.), D. C. M'Cormick (A., P.), J. G. M'Cutcheon (P.), J. F. Macdonald (M.), J. B. M'Ewan (A., P.), T. D. M'Ewan (A., P.), D. Macfadyen (A., P.), J. M'Farlane (A., P.), R. Macfarlane (A., P.), R. C. M'Guire (A., P., M.), J. M'Houl (A., P.), M. M'Intyre (A., P., M.), R. Mackinnon (A., P., M.), D. J. M'Leish, M.A. (A., P.), R. MacLeod (M.), N. S. MacNaughtan (M.), A. B. M'Pherson (P., M.), W. Main (A., M.), A. Meek (A., P., M.), P. Millar (A.), G. D. Muir (P.), J. Muir (A., P.), M. Munro (A., P.), A. H. Napier (A.), G. C. Nielson (A., P.), T. Orr (P., M.), H. H. Patrick (A., P.), A. G. Paxton (M.), J. C. Pickup (A., P.), A. M'M. Pollock (M.), A. M. Pollock (A., P.), J. Porter (A., P.), W. M. Rae (A., M.), D. R. Reid (A., P., M.), D. S. Richmond (A.), J. W. Richmond (A.), B. H. Robertson, M.A. (A., P.), R. T. C. Robertson (P.), C. Ross (M.), J. Samson (P.), L. D. Shaw (A.), M. A. Sinclair (P., M.), G. G. Smith (A., P.), J. A. Somerville (P., M.), J. Stewart (P.), N. B. Stewart (M.), W. C. Stewart (A., P., M.), M. R. Taylor (A., P., M.), W. Templeton (A., P.), J. W. Thomson (A., P.), R. Watson (A.), A. C. West (A., P.), G. H. Wildish (A.), G. Wilson (P., M.), R. M'N. Wilson (M.), J. Wyner (P., M.), W. Young (A.).

Women.—J. Auld (A.), A. A. Baird (A., M.), A. M'C. Black (A.), A. W. Cameron (A.), R. Campbell (A., P., M.), E. L. Chapman (A., M.), J. H. M'Ilroy, M.A., B.Sc. (A.), J. S. M'Lauchlan (A., P., M.), A. W. Maclean (A., M.), M. W. Millar (M.), J. E. Munro (P.), C. R. Park (A., M.), E. J. M. Pryce (A., M.), J. R. Shaw (A., P.), L. Smellie (A., P.), E. T. Talbert (M.), A. M. Yates (P.).

The following have passed the Third Professional Examination for the degrees of Bachelor of Medicine (M.B.), and Bachelor of Surgery (Ch.B.), in the subjects indicated (P., Pathology; M., Medical Jurisprudence and Public Health):

R. Adam (P., M.), W. K. Anderson (P., M.), T. Ballantyne (M.), A. F. Bell (M.), T. Bennett, M.A. (M.), A. G. Bisset (P., M.), A. Blair (P., M.), J. C. Bringan (P., M.), R. Bruce (M.), D. L. Carmichael (M.), A. E. Clark (M.), A. Connal (P., M.), H. C. Davies (P., M.), M. I. Dick (P.), D. Dickie (P., M.), D. G. Dykes (P., M.), J. Eadie (P., M.), C. C. Finlator (P., M.), E. D. Gairdner (P., M.), J. R. Gilmour (P.), J. Hanson, M.A. (P., M.), W. Harvey (P.), L. C. B. Head (P., M.), N. M'C. Hutchison (P., M.), M. Hutton, M.A., B.Sc. (P., M.), J. M. Kelly (P., M.), A. D. Kennedy (M.), R. Laurie (P., M.), A. Leitch (P., M.), T. W. Love (P., M.), D. Macaulay (P.), J. D. M'Culloch (P., M.), D. D. F. Macintyre (P., M.), J. M. Mackellar (P.), N. A. Macleod (P.), J. A. Macvea (P., M.), H. S. Martyn, M.A. (M.), A. Matheson, M.A., B.Sc. (P., M.), S. Mort (P., M.), G. Muir (P., M.), B. Penman (M.), W. Rankin, M.A. (P., M.), D. F. Riddell, M.A. (P., M.), P. H. Robertson (P.), F. D. Scott (P.), W. G. Shand (P., M.), J. B. Stevenson (P.), W. D. H. Stevenson, M.A. (P.), W. Stewart (P., M.), A. W. Sutherland, M.A. (P., M.), J. W. Sutherland (P., M.), P. L. Sutherland (P., M.), J. R. Thomas (P.), J. Turnbull (P.), J. Walker, M.A. (P.), H. F. Warwick (M.), W. N. W. Watson (P., M.), R. T. Wells, M.A. (P.), J. F. Weston (P.), G. J. Williams (P., M.), J. Wilson (P., M.), E. Wright (P., M.).

Women.—M. C. Cameron (P., M.), J. Campbell (P., M.), J. G. Duncan (M.), K. Fraser, B.Sc. (P., M.), M. L. M'Neill (M.), A. P. Martin (P., M.), E. J. Miller (P., M.), I. D. Mitchell (P., M.), M. H. Smart (P., M.), J. M. Stewart (P., M.).

CONJOINT BOARD IN SCOTLAND.

THE quarterly examinations of the above Board, held in Edinburgh, were concluded on April 27th, with the following results:

First Examination (Four Years' Course).—J. H. Allan, and I. Charan.

First Examination (Five Years' Course).—E. Averell, H. G. G. Mackenzie, H. Bower, H. A. Pascoe, W. W. Dunlop, J. Sullivan, R. J. Martin, Elizabeth Mary Cardozo, D. Kennedy, P. R. Eskell, and J. Noonan. Three passed in Physics, and 3 in Chemistry.

Second Examination (Four Years' Course).—G. Charan, R. Gibson, L. P. Anderson, A. Wood, and E. A. J. Ersser.

One passed in Anatomy and Physiology.

Second Examination (Five Years' Course).—J. J. Gillis, G. H. van Zyl, A. D. Fox, J. Watson, E. Gaunt, M. A. Gibbs, J. G. Cormack (with distinction), J. Wilson, M. M. Fitzgerald, Elizabeth Mary Cardozo, R. M. Fraser, J. A. Robertson, G. W. Meade, E. H. E. Coghlan, E. H. Knowles, and E. Reboul.

One passed in Anatomy.

Third Examination (Five Years' Course).—F. G. Heyer, D. Cameron, W. E. O'Hara, A. M. Laurie, L. B. Hopper, M. King, W. J. Shorten, J. A. Turnbull, W. B. Hendry, J. van S. Taylor, W. J. Purves, T. McM. Glen, T. Owens, P. Shaw, M. S. Naidu, J. Cullen, L. F. Bianchi, A. M. Walsh, Minnie Green, G. A. Paulin, W. C. M. Burnside, T. Russell, B. B. Bharucha, E. Claye, Eileen FitzGerald, and K. J. Bhamgara.

Final Examination.—Alice Esther Gilford, W. E. Knight, F. E. McGee, H. F. Everett, H. A. Chaplin, J. L. Johnston, J. W. Cross, E. P. Mead, A. L. Fielding, P. H. Mules, R. W. J. Pearson, M. F. Cusack, A. T. Hoskins, F. N. Jaboor, H. H. H. Hurdman, D. P. Johnstone, A. L. White, L. B. Hopper, J. Q. Donald, T. A. Mendes, R. M. Stimpson, R. H. Brierley, W. A. Wilson, T. R. Griffiths, D. R. Gonsalvez, R. L. Williams, S. L. Clindinin, V. G. Ffrost, E. Bidie, Edith Boomgardt, L. W. Thomson, T. L. Ashforth, T. G. Davies, D. Banerji, T. J. Evans, T. F. Heas, D. Burrows, and J. A. F. Mutch.

Three passed in the division of Medicine and Therapeutics, 2 in Surgery and Surgical Anatomy, 7 in Midwifery, and 11 in Medical Jurisprudence.

ANDERSON'S COLLEGE MEDICAL SCHOOL, GLASGOW.

At the formal closing of the winter session of the Anderson's College Medical School, Glasgow, Lord Provost Chisholm, after distributing the prizes, certificates, and medals to the successful students, in the course of an address referred to the influence of a medical education in the making of good citizens. He said that it was not for him to enlarge on the nobility and the beneficence of that field of effort and enterprise which they had chosen for their future lot, but he would say, as one of the great cloud of witnesses by which they were surrounded, that they who merely stood outside, looked on with affection and admiration—affection for the men and admiration for the efforts and triumphs of the men who had had been engaged in the fields of medical and surgical science, and had by their efforts and labours produced results so marvellous and so delightful achievements for the relief of the sufferings and sorrows of the world. He was most entitled to, and in the long run most received the honour of his fellows and the honour of the world who most or all served his common kind, and he was remembered more than kings, or conquerers, or millionaires.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART I.—The following candidates passed in:

Biology.—S. F. H. Everill, Birmingham; C. E. Pring, Royal Free Hospital.

Chemistry.—S. F. H. Everill, Birmingham; J. C. Fletcher, Royal Free Hospital.

Materia Medica and Pharmacy.—M. S. Jevons, Royal Free Hospital; T. Lea, Glasgow and Bristol; J. G. Lewis, Cardiff; E. H. Price, Birmingham; E. Sergeant, Royal Free Hospital.

PRIMARY EXAMINATION, PART II.—The following candidates passed in:

Anatomy.—G. H. Almond, Cambridge and Leeds; A. Bernfeld, Royal Free Hospital; E. P. J. Dawes, Birmingham; L. Doudney, Guy's Hospital; A. G. C. Findlay, University College Hospital; A. G. Gamble, Leeds; H. S. Gettings, Birmingham; G. P. K. Grey, Middlesex Hospital; C. Homer, St. Mary's Hospital and Bristol; L. J. Paterson-Clavier, Guy's Hospital; J. W. Peatt, London Hospital; J. O. Sergeant, Leeds; F. A. K. Stuart, St. Mary's Hospital; R. J. C. Thompson, St. Thomas's Hospital; J. A. R. Wells, St. Thomas's Hospital; P. B. Whitington, London Hospital.

Physiology.—A. Bernfeld, Royal Free Hospital; L. Doudney, Guy's Hospital; F. C. M. Gabites, Edinburgh; H. S. Gettings, Birmingham; J. C. Johnson, Middlesex Hospital; J. G. Lewis, Cardiff; G. B. Messenger, Westminster Hospital; L. J. Paterson-Clavier, Guy's Hospital; J. W. Peatt, London Hospital; R. J. C. Thompson, St. Thomas's Hospital; J. A. R. Wells, St. Thomas's Hospital; P. B. Whitington, London Hospital.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,862 births and 5,010 deaths were registered during the week ending Saturday last, April 5th. The annual rate of mortality in these towns, which had been 19.6, 17.6, and 18.2 per 1,000 in the three preceding weeks, declined again to 17.6 per 1,000 last week. Among these large towns the death-rates ranged from 9.3 in Bournemouth, 9.9 in York, 10.5 in East Ham, 10.8 in Leyton, 11.0 in Hornsey, 11.2 in West Hartlepool, 11.3 in Bootle, and 11.7 in Tottenham, to 21.5 in Liverpool and in Leeds, 21.8 in Middlesbrough, 22.0 in Tynemouth, 22.2 in Merthyr Tydfil, 22.9 in Wigan, 26.5 in Plymouth, and 29.2 in Burnley. In London the rate of mortality was 17.9 per 1,000; while it averaged 17.4 per 1,000 in the seventy-five other large towns. The death-rate from the principal zymotic diseases in the seventy-six large towns averaged 2.0 per 1,000; in London this death-rate was equal to 2.4 per 1,000, while it averaged 1.8 in the seventy-five other towns, among which the highest zymotic death-rates were 3.2 in Birkenhead, 3.3 in Aston Manor, 3.4 in Willesden, 3.5 in South Shields, 3.6 in Barrow-in-Furness, 3.8 in Croydon and in Handsworth, 5.8 in Rhondda, and 12.2 in Burnley. Measles caused a death-rate of 1.6 in Huddersfield, 1.7 in Willesden, 1.8 in Barrow-in Furness, 2.0 in Stockton-on-Tees, 2.2 in Merthyr Tydfil; and 10.6 in Burnley; scarlet fever of 1.2 in St. Helens; diphtheria of 1.1 in Croydon and in Swansea, and 2.7 in Rhondda; whooping-cough of 1.2 in Northampton and in Walsall, 1.3 in Aston Manor, 1.8 in Barrow-in-Furness, and 1.9 in Handsworth and in Wallasey; "fever" of 1.3 in Aston Manor, 1.4 in Birkenhead, and 1.9 in Handsworth; and diarrhœa of 1.2 in Walsall. Of the 77 fatal cases of small-pox registered during the week 54 belonged to London, 10 to West Ham, 4 to East Ham, 2 each to Croydon, Tottenham, and Leeds, and 1 each to Leyton, Walthamstow, and Southampton. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 1,542, 1,367, and 1,526 at the end of the three preceding weeks, had declined again to 1,522 on Saturday, April 5th; 376 new cases were admitted during the week, against 450, 449, and 389 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,120, against 2,206, 2,185, and 2,147 at the end of the three preceding weeks; 298 new cases were admitted during the week, against 266, 258, and 250 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 5th, 1,003 births and 687 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.7 and 20.3 per 1,000 in the two preceding weeks, rose again last week to 21.3 per 1,000, and was 2.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 16.0 in Paisley, and 17.2 in Perth, to 23.4 in Dundee and 26.3 in Greenock. The zymotic death-rate in these towns averaged 1.8 per 1,000, the highest rates being recorded in Dundee and Greenock. The deaths registered in Glasgow included 2 [illegible] 2 from scarlet fever, 3 from diphtheria, 7 [illegible] "fever," and 9 from diarrhœa. Two fatal cases [illegible] recorded in Edinburgh; 5 deaths from measles and 2 from diarrhœa occurred in Dundee; 2 from whooping-cough and 2 from diarrhœa in Aberdeen; and 4 from scarlet fever in Greenock.

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1902.

BOROUGHS.	Estimated Population middle of 1902.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhœal Diseases.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,579,107	34,009	24,291	29.8	21.3	2.34	2,683	734	730	154	356	464	—	107	1	137	2,095	132
Paddington	145,107	831	737	23.0	20.4	2.86	103	9	74	1	10	1	—	4	—	4	46	152
Kensington	177,605	968	849	21.9	19.2	1.98	87	6	60	9	7	2	—	2	—	1	54	140
Hammersmith	114,210	816	595	28.7	20.9	1.94	55	8	35	2	5	2	—	—	—	3	47	126
Fulham	143,102	1,236	768	34.7	21.5	3.43	123	8	79	5	13	8	—	2	—	8	59	138
Chelsea	74,018	458	419	24.8	22.7	0.91	17	1	3	2	3	4	—	1	—	3	30	144
City of Westminster ...	180,800	876	964	19.4	21.4	1.93	87	33	25	3	9	3	—	5	—	9	98	124
St. Marylebone ...	132,069	1,007	803	30.6	24.4	3.37	111	17	69	3	9	3	—	6	—	4	69	116
Hampstead	83,743	415	305	19.9	14.6	1.11	23	2	6	4	3	2	—	4	—	2	17	96
St. Pancras	235,596	1,624	1,314	27.7	22.4	2.51	147	41	28	18	33	18	—	7	—	2	134	146
Islington	337,268	2,378	1,798	28.3	21.4	2.22	186	17	53	15	48	36	—	9	—	8	156	131
Stoke Newington ...	51,700	258	229	20.0	17.8	1.73	22	5	1	2	2	9	—	—	1	2	16	132
Hackney	221,926	1,641	1,081	20.7	19.5	1.99	110	25	17	2	27	30	—	5	—	4	99	121
Holborn	58,535	408	403	28.0	27.6	4.19	61	43	3	4	2	5	—	1	—	3	57	135
Finsbury	100,487	959	689	38.3	27.5	3.72	93	26	36	1	14	11	—	3	—	2	62	147
City of London	25,598	93	169	14.6	26.5	1.41	9	3	3	1	2	—	—	—	—	—	17	140
Shoreditch	117,980	1,041	758	35.4	25.8	4.69	138	61	27	1	9	29	—	3	—	8	60	167
Bethnal Green	129,889	1,186	828	36.6	25.6	3.62	117	33	17	6	10	43	—	6	—	2	80	143
Stepney	300,551	3,039	1,838	40.6	24.5	4.16	311	172	28	6	23	57	—	8	—	17	144	133
Poplar	169,214	1,561	972	37.0	23.0	3.03	128	50	17	4	12	29	—	8	—	8	90	145
Southwark	206,825	1,748	1,232	33.9	23.9	2.58	133	39	27	10	21	21	—	6	—	9	144	144
Bermondsey	130,218	1,120	781	34.5	24.1	1.58	51	7	4	3	7	20	—	1	—	4	77	145
Lambeth	305,102	2,292	1,645	30.1	21.6	1.56	119	35	25	7	11	28	—	4	—	9	130	127
Battersea	171,401	1,278	775	29.9	18.1	1.44	62	14	24	6	3	10	—	1	—	4	67	115
Wandsworth	241,810	1,533	1,006	25.4	16.7	1.61	97	16	34	4	21	12	—	8	—	2	63	126
Camberwell	262,775	1,893	1,233	28.9	18.8	1.40	92	17	—	14	23	27	—	4	—	7	116	115
Deptford	111,577	877	506	31.5	18.2	1.59	44	18	1	5	6	5	—	4	—	5	35	112
Greenwich	98,013	706	492	28.9	20.1	1.59	39	9	12	3	5	8	—	—	—	2	37	153
Lewisham	132,432	819	539	24.8	16.3	1.69	56	5	2	4	15	25	—	3	—	2	34	109
Woolwich	119,556	948	563	31.8	18.9	2.08	62	14	20	4	3	16	—	2	—	3	57	122

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1902.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

In the accompanying table will be found summarized the vital statistics of the cities and boroughs in the County of London, based upon the Registrar-General's returns for the first, or winter, quarter of the year. The mortality figures relate to the deaths of persons actually belonging to the various metropolitan boroughs, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various boroughs in which the deceased persons had previously resided.

The 34,009 births registered in London during the three months ending March last were equal to an annual rate of 29.8 per 1,000 of the population, estimated at 4,579,107 persons in the middle of the year; this rate was 0.3 per 1,000 below that recorded in the corresponding period of the previous year, and was 1.5 below the average rate in the first quarters of the ten years, 1892-1901. The birth-rates in the various boroughs ranged from 14.6 in the City of London, 19.4 in the City of Westminster, 19.9 in Hampstead, 20.0 in Stoke Newington, and 21.9 in Kensington to 35.4 in Shoreditch, 36.6 in Bethnal Green, 37.0 in Poplar, 38.3 in Finsbury, and 40.6 in Stepney.

The 24,291 deaths of persons belonging to London, registered during the quarter under notice, were equal to an annual rate of 21.3 per 1,000, against 20.3, 23.1, and 18.6 in the corresponding periods of the three preceding years; the mean death-rate in the ten preceding first quarters was 21.7 per 1,000. The lowest death-rates last quarter in the various metropolitan boroughs were 14.6 in Hampstead, 16.3 in Lewisham, 16.7 in Wandsworth, 17.8 in Stoke Newington, and 18.2 in Deptford; the highest rates were 24.5 in Stepney, 24.8 in Shoreditch, 26.5 in the City of London, 27.5 in Finsbury, and 27.6 in Holborn.

During last quarter 2,683 deaths resulted from the principal zymotic diseases in London; of these, 734 were referred to small-pox, 730 to measles, 154 to scarlet fever, 356 to diphtheria, 464 to whooping-cough, 107 to enteric fever, 1 to simple continued fever, and 137 to diarrhœa. These 2,683 deaths were equal to an annual rate of 2.34 per 1,000, against an average of 2.21 per 1,000 in the corresponding periods of the ten preceding years. In the first quarters of the three preceding years the rates had been 1.71, 1.83, and 1.54 per 1,000 respectively. The lowest zymotic death-rates last quarter were 0.91 in Chelsea, 1.11 in Hampstead, 1.40 in Camberwell, 1.41 in the City of London, and 1.59 in Deptford and in Greenwich; the highest rates were 3.62 in Bethnal Green, 3.72 in Finsbury, 4.16 in Stepney, 4.19 in Holborn, and 4.69 in Shoreditch. Small-pox showed the highest proportional fatality in Holborn, Finsbury, Shoreditch, Bethnal Green, Stepney, and Poplar; measles in Paddington, Kensington, Hammersmith, Fulham, St. Marylebone, and Finsbury; scarlet fever in Kensington, St. Pancras, Holborn, Bermondsey, and Camberwell; diphtheria in St. Pancras, Islington, Hackney, Finsbury, Southwark, and Lewisham; whooping-cough in Stoke Newington, Shoreditch, Bethnal Green, Poplar, Wandsworth, and Deptford; "fever" in St. Marylebone, Hampstead, Bethnal Green, Poplar, Wandsworth, and Deptford; and diarrhœa in Fulham, the City of Westminster, Holborn, Shoreditch, and Stepney.

During the first quarter of the year 2,095 deaths from phthisis were registered, equal to an annual rate of 1.84 per 1,000, against 2.00, 2.07, and 1.82 in the corresponding quarters of the three preceding years. Among the various metropolitan boroughs the lowest phthisis death-rates last quarter were recorded in Kensington, Hampstead, Stoke Newington, Wandsworth, Deptford, and Lewisham; and the highest rates in Holborn, Finsbury, the City of London, Bethnal Green, Southwark, and Bermondsey.

Infant mortality, measured by the proportion of deaths under one year of age to registered births, was equal to 132 per 1,000 last quarter, against 129, 138, and 126 in the corresponding quarters of the three preceding years. The rates of infant mortality during the quarter under notice were lowest in Hampstead, Hackney, Battersea, Camberwell, Deptford, and Lewisham; while the highest rates were recorded in Paddington, St. Pancras, Finsbury, Shoreditch, and Greenwich.

VACCINATION LEGISLATION IN MASSACHUSETTS.

A BILL making the vaccination laws more strict and permitting exemption certificates to be issued only by registered physicians after a personal examination, and stating the reason for the exemption, has been allowed to go to a third reading in the Massachusetts Legislature without opposition.

MEDICAL NEWS.

QUEEN VICTORIA MEMORIAL HOSPITAL AT NICE.—At a public meeting held on March 8th at Nice it was decided, on the motion of Dr. Gilchrist, which was seconded by Mr. Woodall and warmly supported by many persons of influence in the British and American colonies, that the memorial to be established in Nice in honour of the late Queen Victoria should take the form of a cottage hospital conducted on unsectarian lines. Dr. Gilchrist stated that a similar institution had been a marked success in Cannes. Her late Majesty Queen Victoria was keenly interested in all works of medical beneficence, and there was ample evidence of the high value which the King placed upon all measures which could arm them for the struggle against physical inefficiency, disease, and death. Many donations towards the building fund have already been announced, including one of £400 from an English visitor to Nice, and it is intended that an entertainment in aid of the memorial funds shall shortly be given.

The late Mr. William Martindale.—At a meeting of the former colleagues and friends of the late Mr. William Martindale, held at the Pharmaceutical Society, March 4th, it was resolved that steps should be taken to procure a bust of the well known pharmacist who was a past President and Treasurer of the Society, to be placed in the house of the Society. It was further resolved that in the event of the response being satisfactory, a medal or some other encouragement for the advancement of pharmacy should also be provided.

The Pathological Study of Insanity.—At a meeting of the Committee of Management of the Down District Asylum, held on March 15th, Dr. M. J. Nolan, Resident Medical Superintendent, having submitted the statement by the Special Committee (of which he is a member) of the Medico-Psychological Association of Great Britain and Ireland on the necessity for the establishment of a central laboratory in Ireland for the more particular investigation of the pathology of insanity, the Committee of Management expressed warm approval of the proposal, and stated its readiness to affiliate the Down District Asylum with such an undertaking when it assumed a practical shape, and to contribute towards its maintenance a sum of £25 per annum.

The New Medical Officer of the London School Board.—Before the departure of Dr. Kerr, the late Medical Officer of the Bradford School Board, to take up his new appointment in London, the office staff of the Bradford School Board presented him with a rosewood clock. Mr. Garbutt, the Clerk of the Board, in making the presentation, testified to the amicable relations that had always existed between the staff and Dr Kerr, and conveyed to him the expression of their good wishes on his behalf. The clock bore the following inscription: "Presented to Dr. Kerr by the officials of the Bradford School Board on his appointment as Chief Medical Officer for the School Board of London." Dr. Kerr said that the kindness of the officials had touched him deeply, and he would find stimulus in his new work in the Bradford memories he would carry with him.

Female Parish Medical Officers in the Highlands.—In the British Medical Journal of April 5th we stated on the authority of an evening newspaper which is usually well informed, that Dr. Jane Boyes was the first woman parish medical officer appointed in the Highlands. Miss Kathleen Olga Vaughan, M.B.London, writes to point out that this statement is inaccurate. Orkney has had women parish medical officers for several years. The first was Dr. Hannay for the island of Flotta, Orkney, succeeded by Dr. Kate Hogg, who afterwards held the islands of Eday and Pharay, and was herself succeeded in Eday and Pharay by Dr. Caroline O'Connor. Dr. Eleanor Hodson held Longhope, succeeded by Dr. Baker, and the island of Papa Westray has had Dr. Alice Craig. Dr. Jeannie Traill, who now holds an appointment in one of the Western Isles, was succeeded by Dr. Prudence Gaffikin, who in turn was succeeded by Dr. Jeanie Newton, who now holds the post. We understand that Papa Westray always advertises for a lady. Dr. Jane Boyes, therefore, is the tenth woman parish medical officer in the Highlands and islands.

"Surra" in the Philippines.—According to the New York *Medical Record*, a circular issued by the Military Governor of the Philippines, dated January 11th, 1902, states that an Army Medical Board, ordered to inquire into and investigate a disease of animals known as "surra," has found that liquor potassii arsenitis, injected intravenously, in nearly every case destroys the parasites in the blood recently shown by Captain A. M. Smith, Assistant-Surgeon, U.S.A., to produce this disease. Animals so treated are doing well, but the results are not yet conclusive in regard to the prospects of permanent cure. The circular recommends that this treatment should be tried at all points where animals are infected. The Board having also found that common house flies taken on sick animals are frequently full of the blood parasites of "surra" the Military Governor has ordered that hereafter all abrasions or wounds of sick animals are to kept covered, to prevent the possibility of transmitting the disease by means of these insects. As "surra" has become widely prevalent throughout the Philippine Islands, and by the mortality (85 to 100 per cent.) which it causes not only seriously interferes with the stock-raising industry and the supply of fresh animal food, but also severely impairs the efficiency of the army transportation service, this latest scientific discovery of the United States Army Medical Department is regarded as of high economic as well as military importance.

Memorial to the late Dr. William Longstaff White Walker.—When news came from South Africa in February, 1901, that Dr. W. L. W. Walker, son of Dr. Allan Walker of Seaton Burn, Newcastle-upon-Tyne, had been killed in action at Modderfontein on January 31st, 1901, no time was lost in gathering funds to erect a memorial as a mark of esteem to the gallant young civil surgeon. On April 5th there were gathered together in the quiet little cemetery at North Gosforth, not far from Newcastle-upon-Tyne, many friends to witness the unveiling of a granite monument to the memory of the late Dr. Walker, who lost his life while endeavouring to save a wounded orderly. His courage on the battlefield drew from the Boer Commandant Smutz expressions of regard and commiseration. The body of the deceased was buried in the same grave as that of the orderly whom he tried to save. The sad duty of unveiling the stone concealed by the Union Jack fell to his friend and teacher, Professor Sir George Hare Philipson, who in a few well-chosen and appropriate words alluded to the many excellent qualities of his former pupil as well as to the kindly actions he did to those by whose hands he received his fatal wounds.

MEDICAL VACANCIES.

The following vacancies are announced:

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications, on forms to be obtained from the Medical Superintendent of the Infirmary, to whom they should be returned by April 15th.

BIRMINGHAM PARISH WORKHOUSE INFIRMARY.—Assistant Resident Medical Officer. Salary £100 per annum, with furnished apartments, rations, etc. Applications to the Clerk to the Guardians, Parish Offices, Edmund Street, Birmingham, by April 18th.

BOOTLE: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, with board, resid nce, and laundry. Applications to the Secretary.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to be sent to the Secretary.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools, unmarried. Salary, £120 per annum, with furnished apartments, rations, washing, etc. Applications on forms provided to be sent to the Clerk to the Guardians, Union Offices, Isleworth, by April 23th.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence. Applications to Mr. John Coombs, Honorary Secretary.

CAMBRIDGESHIRE, Etc., LUNATIC ASYLUM, Fulbourn.—Assistant Medical Officer, unmarried. Salary, £150 per annum, with board lodging, and attendance. Applications to the Clerk to the Visitors, 18 Emmanuel Street, Cambridge, by April 24th.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Honorary Surgeon. Applications to the Secretary by April 25th.

CARLISLE: CUMBERLAND AND WESTMORLAND ASYLUM, Garlands.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £130 per annum, rising to £150, with board and lodging. Applications to the Medical Superintendent.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer. Salary, £120 per annum, with board and residence. Applications to the Clerk, Cleveland Street Asylum, Cleveland Street, W.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer, unmarried. Salary, £130 per annum, rising to £150, with board, furnished apartments, etc. Applications to the Medical Superintendent by April 25th.

COSFORD UNION.—(1) Medical Officer and Public Vaccinator for the Bildeston District. Salary, £72 per annum, and fees. (2) Medical Officer of the Workhouse. Salary, £50 per annum, and fees. Applications to be sent to the Clerk to the Guardians by May 1st.

DUBLIN: ROYAL UNIVERSITY OF IRELAND.—Extern Examiners in Surgery, Midwifery, Pathology, and Ophthalmology. Remuneration, £50, £35, £25, and £20 respectively, with usual travelling, etc., allowances. Applications to the Secretaries by April 19th.

DURHAM COUNTY ASYLUM, Winterton, Ferryhill.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180, with apartments, board, laundry and attendance. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Medical Officer for the Electrical Department; must be M.R.C.P.Lond. Applications to the Secretary by April 19th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HANLEY, STOKE, AND FENTON JOINT HOSPITAL BOARD.—Resident Assistant Medical Officer at the Infectious Diseases Hospital, Bucknall. Salary, £80 per annum, with board, residence, and washing. Applications to the Clerk of the Board, Town Hall, Hanley, Staffs.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon; unmarried. Appointment for six months. Salary, £20. Washing allowances, £2 10s., with board and residence. (2) Medical Registrar. Honorarium, 50 guineas per annum. Applications on forms provided to be sent to the Secretary by April 26th.

ISLE OF MAN: KING WILLIAM'S COLLEGE.—Medical Officer. Applications to the Secretary by May 1st.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, residence and washing. Applications to the Chairman of the Weekly Board by April 25th.

LEEDS: GENERAL INFIRMARY.—(1) House-Physician. Appointment for six months. Board, lodging, and washing provided. Applications to the Secretary of the Faculty by April 22nd. (2) Honorary Dental Surgeon. Applications to the General Secretary by April 17th.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—Non-Resident House-Surgeon. Appointment for six months, but eligible for re-election. Salary at the rate of £125 per annum. Applications to the Secretary of the Faculty by April 17th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum, with board, apartments, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by April 14th.

LINCOLN: HOSPITAL FOR THE INSANE.—Assistant Medical Officer. Salary, £100 per annum. Applications to the Medical Superintendent, The Lawn, Lincoln.

LISCARD: WALLASEY DISPENSARY AND VICTORIA CENTRAL HOSPITAL.—House-Surgeon, unmarried. Salary, £100 per annum, and board. Applications to Mr. Andrew Lindsay, Newbold, Liscard, Liverpool, by April 29th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Hon. Treasurer by April 25th.

LIVERPOOL STANLEY HOSPITAL.—Third House-Surgeon. Salary, £70 per annum, with board, residence, and washing. Applications to the Chairman of the Medical Board by April 16th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of 50 guineas per annum, with board, residence and washing. Applications to the Secretary by May 1st.

LONDON UNIVERSITY.—Demonstrator in the Physiological Laboratories. Initial salary, £150. Applications to the Principal by April 14th.

NATAL: BOROUGH OF DURBAN.—Medical Officer of Health, must possess public health qualification (B.Sc. or D.P.H.). Salary at the rate of £700 per annum. Applications to Messrs. Webster, Steel and Co., 5, East India Avenue, Leadenhall Street, E.C.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, £180 afterwards. Applications, on forms to be obtained from the Resident Medical Officer, to be sent to the Honorary Secretary, Mr. Joseph Carr, 41, Mosley Street, Newcastle-on-Tyne, by April 21st.

NEWCASTLE AND GATESHEAD WATER COMPANY'S CATCLEUGH WATER WORKS.—Medical Officer. Salary, £200 per annum, and drugs found. Applications to Mr. G. C. Henzell, C.E., Resident Manager.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon, unmarried, and not more than 30 years of age. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by April 15th.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon, unmarried. Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc. Ladies not eligible. Applications to the Secretary, Mr. M. J. Preston, Journal Chambers, Nottingham.

NOTTINGHAM PARISH INFIRMARY.—Assistant Medical Officer. Salary, £160 per annum, and furnished rooms. Applications to the Clerk to the Guardians, Poor Law Offices, Shakespeare Street, Nottingham.

RAINHILL: COUNTY ASYLUM.—Assistant Medical Officer; unmarried, and not more than 30 years of age. Salary, £150 per annum, with prospect of rising to £200 and further increase according to promotion, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Four Examiners in Elementary Biology, first examination; (2) Four Examiners in Anatomy, second examination, must be F. or M.R.C.S.; (3) Three Examiners in Physiology, second examination; (4) Four Examiners in Midwifery, third examination; (5) Examiner for Part I. and Examiner for Part II. for the Examination in Public Health; (6) Four Examiners in Anatomy; (7) Four Examiners in Physiology. Vacancies 1 to 5 are for Conjoint Examining Board, and 6 and 7 are for the Fellowship. Applications to the Secretary by April 28th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Clinical Pathologist. Salary, £75 per annum. (2) Assistant Pathologist. Salary, £25 per annum. (3) Resident House-Physician. (4) Resident House-Surgeon. (5) House Physician. (6) House-Surgeon. Candidates for (1) (2) (3) and (4) must be qualified medical women. Board, etc., provided for (3) (4) (5) and (6). Applications to the Secretary by April 19th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried, and about 30 years of age. Salary, £150 per annum to commence. Applications to Dr. Finch.

TEIGNMOUTH HOSPITAL.—House Surgeon. Salary, £70 per annum, with board, lodging, and washing, and £6 per annum in lieu of stimulants or mineral waters. Application to the House Committee.

TYNEMOUTH INFIRMARY.—Two House-Surgeons, one on May 1st and the other on October 1st. Salary, at the rate of 52 guineas per annum, with rooms, board, and washing. Applications to Dr. F. C. Mears, 11, Northumberland Square, North Shields.

WARLINGHAM LUNATIC ASYLUM.—Medical Superintendent. Salary, £450 per annum, with unfurnished house, etc. Applications, endorsed "Applications for Medical Superintendent, Lunatic Asylum," to be sent to the Clerk to the Visiting Committee, Town Hall, Croydon, by May 7th.

WEST END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—Honorary Dental Surgeon. Must be L.D.S.Eng. Applications to the Secretary by April 22nd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Honorary Officer in charge of X-Ray Department, must be registered. Applications to the Secretary-Superintendent by April 23rd.

MEDICAL APPOINTMENTS.

BUTLER, Hon. G. H., M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Medical Officer to the Hobart Hospital, Tasmania.

BYTHELL, W. J. S., B.A., M.B., Ch.B., appointed Junior Anæsthetist to the Manchester Royal Infirmary, *vice* J. Turville Smith, M.R.C.S., L.R.C.P., resigned.

CLAYHAM, Lucy B., M.B.Lond., appointed Obstetric Physician to the New Hospital for Women, Euston Road; and appointed Assistant Anæsthetist to the Royal Free Hospital.

COLLINS, James C., M.B., B.Ch., Trin. Coll., Dub., appointed Senior Medical Officer at the Auckland Hospital, New Zealand.

COX, Harris, M.B.Syd., appointed Government Medical Officer and Vaccinator at Warren, New South Wales, *vice* J. H. Wilson, L.R.C.P., L.R.C.S.Edin., resigned.

DAVY, T. G., M.R.C.S., L.R.C.P., appointed Honorary Medical Officer to the Fremantle Hospital, Western Australia, *vice* Dr. Hope, resigned.

EBSON, Edward G. L., L.R.C.P.Edin., L.M., appointed Health Officer at Peak Hill, Western Australia, *vice* O. Flaherty, L.R.C.P., L.R.C.S.Edin., resigned.

GILBERT, W. H., M.D., reappointed for 3 years as Medical Officer of Health for the Urban District of Buckhurst Hill, Essex.

HARMAN, N. Bishop, M.A., M.B.Cantab., F.R.C.S.Eng., appointed Ophthalmic Surgeon to the Belgrave Hospital for Children, *vice* E. Treacher Collins, F.R.C.S.Eng., resigned.

HARRIOTT, Charles J., M.D.Lond., M.R.C.S., L.R.C.P., appointed Honorary Assistant Visiting Surgeon to the Royal Sea-bathing Hospital, Margate.

HODGSON, R. E., M.R.C.S., L.R.C.P., appointed Senior Resident Surgeon to the Royal Sea-Bathing Hospital, Margate.

HUNTER, W. M., M.B., B.Ch.R.U.I., appointed Certifying Factory Surgeon for the Cromlin District of Antrim.

LARWILL, John, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer at Boonah, Queensland, *vice* J. H. Finnemore, L.R.C.P., Edin., L.S.A., resigned.

MITCHELL, James Thomas, M.D., Cn.M.Aberd., M.R.C.S.Eng., appointed Resident Medical Superintendent Government Asylum and Lying-in Home, *vice* Thomas Logan, resigned.

[illegible], M.B., C.M.Edin., appointed Government Medical Officer and Vaccinator at Mudgee, New South Wales, *vice* R. Lamb, M.B., C.M.Edin., resigned.

REID, W. H., M.B., C.M.[illegible], appointed Junior Medical Officer in the Department of Lunacy, New South Wales.

[illegible], M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Royal Sussex County Hospital and East Sussex Hospital for Children.

[illegible], appointed Health Officer under the Public Health Acts for [illegible].

SEABROOK, L. L., jun., M.B., Ch.B.Adelaide, appointed Resident Medical Officer of Broken Hill Hospital, New South Wales.

SPENCE, John W. L., L.R.C.P., L.R.C.S.Edin., appointed Non-Resident House-Physician and Surgeon to the Deaconess Hospital, Edinburgh; and reappointed Clinical Assistant to Electrical Department, Royal Infirmary, Edinburgh.

TURNER, E. R., M.B., C.M.Aberd., appointed Medical Officer and Vaccinator for the Parish of Kinellar, *vice* J. Cameron, L.R.C.S.Edin.

WHITE, Margaret, M.B., Ch.M.Syd., appointed House-Surgeon to the Children's Hospital, Adelaide, South Australia.

WILLIAMSON, Oliver K., M.A., M.B., B.C.Cantab., M.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Registrar to the Middlesex Hospital.

WOHLMANN, Arthur S., M.D., B.S.Lond., appointed Official Balneologist to the Government of New Zealand.

YEOMAN, Charles, M.B., appointed Medical Officer for the Hollington District of the Battle Union.

DIARY FOR NEXT WEEK.

MONDAY.

Otological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 4.30 p.m.—Presentation and discussion of report by Mr. Arthur H. Cheatle On the Examination of the Ears of One Thousand School Children.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical Evening. Dr. Parkes Weber: The Infantile Form of Rheumatism associated with Chronic Changes of Spleen, Liver, and Lymph Glands. Dr. W. Ewart: Case of Chronic Nephritis illustrating the Treatment by Drainage and Feeding. Dr. Bertrand Dawson: (1) Fibrosis of Lung, probably Syphilitic; (2) Aortic Incompetence with Marked Diastolic Thrill; (3) Tuberculous Disease of Lung and Knee-joint in Conjunction with Albuminuria and Paralysis of the left Sixth and Seventh Cranial Nerves; (4) Hypertrophic Osteo-arthropathy. Dr. StClair Thomson and Mr. A. Carless: Epithelioma of Epiglottis and Back of Tongue; removal by Transhyoid Pharyngotomy. Dr. H. D. Rolleston: Pigmentation (Blue Line) of the Lip. Dr. StClair Thomson: Ulceration of the Left Ala Nasi, probably Syphilitic, but Unchecked by Treatment.

TUESDAY.

Pharmaceutical Society of Great Britain, 17, Bloomsbury Square, W.C., 8 p.m.—Dr. Augustine Henry: On Chinese Drugs.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Mr. A. G. R. Foulerton: A Case of Tuberculosis in a Sheep. Mr. H. J. Waring: A New Method of Separation of the Toxin of Tetanus from the Solid Viscera of the Human Body. Dr. F. W. Andrewes: The Recognition of Tetanus after Death by the Isolation of the Toxin from the Viscera. Drs. J. W. Washbourn and J. W. H. Eyre: The Pathogenic Action of Strains of Pneumococcus Isolated from Various Sources. Mr. N. Bishop Harman: Further Contribution to the Bacteriology of the Veld Sore.

WEDNESDAY.

Royal Microscopical Society, 20, Hanover Square, W., 7.30 p.m.

Royal Meteorological Society, Institution of Civil Engineers, Great George Street, Westminster, S.W., 7.30 p.m.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 p.m.—Discussion adjourned from the last meeting, on Chronic Affections of the Kidney, and Morbid Conditions of the Urine arising therefrom, in Relation to Balneological, Climatic, and Dietetic Treatment.

FRIDAY.

Society for the Study of Disease in Children, 11, Chandos Street, Cavendish Square, W., 5.30 p.m.—Cases by Dr. Edmund Cautley, Mr. Sydney Stephenson, and Dr. Dan McKenzie. Specimens by Dr. J. H. Thomson Walker. Papers:—Mr. R. H. A. Whitelocke (Oxford): Notes on a Case of Double Inguinal Hernia in a Female Child, each Sac containing an Ovary-like Organ. Dr. G. Carpenter: A Case of Malignant Endocarditis which developed Optic Papillitis, Sub-retinal Haemorrhages, and Simulated Choroidal Tubercle, and other Changes in the Fundus Oculi.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ALLISON.—At Portrush, Ireland, on April 2nd, the wife of Lieutenant-Colonel H. Allison, M.D., I.M.S., of a son.

SHAW.—On Easter Day, at 32, New Cavendish Street, Cavendish Square, W., the wife of John Shaw, M.D.Lond., M.R.C.P., of a daughter.

MARRIAGES.

BARNBY—DAVISON.—On April 2nd, at the Parish Church, Stokesley, Yorkshire, by the Rev. J. Groves, Vicar of Redcar, William Henry, L.R.C.P. and S., youngest son of the late John Enger Barnby, of Great Yarmouth, to Hilda, second daughter of the late Robert Davison, Southfield Villas, Middlesbro'.

BASSANO—HOLMANN.—On April 2nd, at the English Church, Geneva, Switzerland, by the Rev. J. F. Christie, Harold Frederic Bassano, M.A., M.B., B.C.(Cantab.) etc., of Grove House, Ventnor, I.W., youngest son of Walter Bassano, Esq., of Old Hill, Staffs., to Lydia Lucil, younger daughter of Herr Rud. Holmann, of Lucerne, Switzerland.

BROWN—MORTIMER.—On April 3rd, at the Parish Church, Matson, by the Rev. Canon Bazeley, Rector, assisted by the Rev. A. Richmond (uncle of the bride), Walter Brown, M.B., of Gloucester, to Mary Eliza, daughter of G. H. Mortimer, of Beddington, Surrey.

COLLINSON—CLARKE.—On April 3rd, at St. Alkmund's Church, Derby, by the Rev. A. F. Hunt, M.A., Vicar, assisted by the Rev. S. E. Collinson, the bridegroom's brother, Frederick William Collinson, M.D., of Preston, to Clara, daughter of the late Thomas Clarke, of Derby.

CRAWLEY—BLICK.—On April 3rd, at Christ Church, Forest Hill, Herbert E. Crawley, M.R.C.S.Eng., L.R.C.P.Lond., to Agatha, daughter of the late Thomas E. Blick, M.R.C.S., of Islip, Oxon.

FOWLER—HUDSON.—At the Cathedral, Bangor, on April 2nd, by the Rev. William Edwards, M.A. Oxon, Vicar of the Parish, James Stewart Fowler, M.D., F.R.C.P.Ed., second survivor son of the late J. S. Fowler, M.D., Demerara, to Edith Isabella Hudson, M.B., eldest daughter of the late P. S. Hudson, C.E., Deccan, India.

HENRY—FARR.—On April 5th, at Immanuel Church, Streatham Common, by the Rev. H. P. B. Adams, M.A., Vicar, Geo. Nicol Henry, M.B., fourth son of the late Andrew Henry, of Macduff, N.B., to Mary Louise, youngest daughter of the late Dr. George Frederick Farr, of Kennington and East Twickenham, and Mrs. Farr, of Oakdale Road, Streatham.

DEATH.

CHILTON.—On April 2nd, at 14, Cambridge Park, Redland, Bristol, Reginald Horace Chilton, M.R.C.S., L.R.C.P., aged 31, third son of Horace Chilton, Esq., Solicitor and Under-Sheriff of Bristol.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Original Articles and Letters *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the Editor of the British Medical Journal is *Aitiology, London.* The telegraphic address of the Manager of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Enquirer wishes to know where he can obtain reliable pathological microscopical specimens.

G. S. L. would feel obliged for information regarding the holiday course in laryngology in Berlin from one who has had experience of the same.

East Anglian would be glad of the opinion of the profession as to the propriety of a medical man in practice being the local registrar of births and deaths.

Cancer would be glad to learn the experience of any professional brother in the use of the violet in cases of carcinoma, particularly with regard to (1) the preparation employed, and (2) the method of administration, both external and internal.

Dr. Richard M. Hugo (Purley, Surrey) writes: I would be much obliged if any one would inform me through the medium of the British Medical Journal where a boy, who is deaf and dumb, can be educated at the public expense. His parents, who are cottagers, dwell in the Reigate district of Surrey. This child is not mentally deficient.

H. M. C. writes: A gentleman, aged 29 years, has suffered since July, 1900, from attacks of vomiting. These attacks last about nine days, and come on about every eight or nine weeks, there having been ten attacks in all. There is no gastric or abdominal pain. In June, 1901, it was noticed that his gait was uncertain, and that he had difficulty in walking in the dark. Since then he has developed most of the signs of locomotor ataxia, Argyll-Robertson pupil, loss of knee-jerks, lightning pains, etc., so I look upon the attacks of sickness as being gastric crises. The pulse is mostly quick, about 130 per minute. Could any of your readers suggest anything to stop the almost ceaseless vomiting?

C. C. S. writes: I shall be glad to hear the experience of any fellow practitioner who has used a locomobile. Have they been sufficiently perfected to justify the giving up of one's horse and carriage for one? What is the average monthly working cost, and how does it compare with a petrol car in this respect? My practice is suburban, flat country, and no long distances. I like the quietness of the steam car and the comparative freedom from smell. I shall be glad to hear what the relative advantages and disadvantages are. Any hints as to the choice of a car, etc., will be appreciated.

Alpha asks to be referred to a description of Frenkel's treatment (exercises with cross boards) for ataxia.

*** Several articles with illustrations have appeared in the *Zeitschr. f. diät. u. phys. Therapie*, and there is the book on the subject by Frenkel himself (Dr. Frenkel of Heiden, in Switzerland). There is an article by Professor H. Oppenheim on Uebungstherapie in *Therap. Monatshefte*, 1899, No. 1. Also Professor Goldscheider, Ueber Bewegungstherapie bei Erkrankungen des Nervensystems in the *Deut. med. Wochenschrift*, 1898, Nos. 4 and 5. It is well to remember that the Berlin physicians—v. Leyden, Goldscheider, Jacob—took a somewhat different view of the theory of the method from that of Frenkel.

ANSWERS.

Accent.—The pronunciation "urótropine" is in conformity with the tendency of English speech to throw the accent in nouns as far back as possible.

We would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided.

Student.—The *Progrès Médical*, 14, Rue des Carmes, Paris, or the *Semaine Médicale*, 18, Rue de l'Abbé de l'Epée, Paris, would probably meet our correspondent's requirements. A knowledge of German would certainly be useful.

Almaden.—The trades in which chronic mercurialism is apt to arise are described in *The Hygiene, Diseases and Mortality of Occupations* by the late Dr. J. T. Arlidge (London: Percival and Co., 1892) which is a standard work on the subject of diseases of occupations.

Medical Practice in the Riviera.

Quo Vadis.—For practice on the French Riviera a French degree is required. On the Italian side it is advisable, but not yet absolutely necessary, to possess an Italian qualification.

Removal of Superfluous Hairs.

Student.—Electrolysis is the only effectual and satisfactory means of removing superfluous hairs. Properly carried out, no disfigurement follows. The duration and expense of treatment depend on the number of hairs to be got rid of. Every case must be taken on its merits. The treatment takes time. The Roentgen rays cannot be recommended; their effect is uncertain, and the disfigurement caused may be extreme.

Books on the Examination of the Blood.

Dr. J. F. Smith (Whithorn) would probably find one of the following books suitable for his purpose: *A Guide to the Clinical Examination of the Blood for Diagnostic Purposes*, by R. C. Cabot, M.D. (London: Longmans, Green and Co. 1897. 16s.); *The Blood: How to Examine and Diagnose its Diseases*, by A. C. Coles, M.D. (London: J. and A. Churchill. 1898. 10s. 6d.); *A Manual of Clinical Diagnosis by means of Microscopic and Chemical Methods*, by C. E. Simon, M.D. Second edition. (London: Henry Kimpton. 1898. 16s.).

Treatment of Nocturnal Enuresis.

Mr. A. E. Barrett (Holland Park Avenue) writes in reply to the query by "M.R.C.S." on this subject, that he has had completely successful results from the administration of atropine, $\frac{1}{100}$ gr. for a patient aged 15 is the most he has given on one evening. He has found the undesirable throat effects of a large dose of the drug obviated by giving it in divided portions, well diluted, during the evening. He refers to the valuable indications given for the use of this drug in this condition by Mr. Edmund Owen, in the Lettsomian Lectures for 1890, p. 82.

Books for Examination.

Enquirer might find the following suitable for his purpose, but there is no small work on anatomy that can be recommended which corresponds with his description: *Surgery, its Theory and Practice*, by W. J. Walsham, 7th edition (London: J. and A. Churchill, 1900, 15s.); *Manual of Operative Surgery*, by H. J. Waring (Edinburgh and London: Young J. Pentland, 10s.); *Handbook of Physiology*, by W. D. Halliburton, 4th edition (London: John Murray, 1901, 14s.); *Manual of the Practice of Medicine*, by F. Taylor, 6th edition (London: J. and A. Churchill, 1901, 16s.); *Diseases of Children*, by J. F. Goodhart and G. F. Still, 6th edition (London: J. and A. Churchill, 1899, 10s. 6d.); *Outlines of the Diseases of Women*, by J. Phillips, 3rd edition (London: C. Griffin and Co., 1901, 7s. 6d.).

Vaccination of Syphilitics.

A Correspondent asked questions under this head a short time ago, but no answers have been received; we may therefore express the following opinions: (1) That it is advisable to vaccinate a syphilitic patient, if several years (seven to ten) have elapsed since the last vaccination, especially during an epidemic period; (2) that the vaccination may be expected to run its course as usual; (3) that it is not established whether persons suffering from syphilis are more likely to contract any infectious diseases than healthy persons. The acute infectious diseases, measles and scarlatina, render a person less likely to contract small-pox, that is, they confer a certain degree of immunity, until the stage of convalescence is reached (Dr. Immermann of Basle in Nothnagel's *Cyclopaedia*, English Edition), but the more chronic infectious diseases do not appear to exert a similar influence.

LETTERS, NOTES, Etc.

Bad Oleate of Zinc.

Dr. Alfred Eddowes (London, W.) writes: The occasions on which medical men can justly complain of the way in which their prescriptions are dispensed, I am glad to think, are few. It is essential for the welfare of the public and the reputation of our profession that chemists and druggists should exercise the greatest care that the drugs they supply are sound and of the kind prescribed. Fortunately the occurrences of which I have to complain caused no serious damage to my patients, although much irritation and inconvenience. Oleate of zinc, especially in the shape of powder, is of great value for many skin affections, such as trade eczemas, but I have had almost to abandon prescribing it, as I find my patients are so frequently receiving from druggists wherever they go a coarse, rancid-smelling powder which is useless and sometimes injurious. The dispensers try to persuade me that the powder is good, but not fine enough, and that it should be applied as a dust through muslin. Several months ago I secured a very satisfactory powder prepared by a certain chemist, called the oleopalmitate. For a while there were no complaints when I prescribed this preparation and sent my patients to one particular firm of chemists acting as agents for it; but to-day I have received a complaint and find it is due to this firm again giving my patients the ordinary oleate of zinc (*B.P.*) instead of the preparation which I had specially prescribed. Two months ago, in order to prove whether the objectionable smell and appearance of the *British Pharmacopoeia* preparation were due to some chemical decomposition which might be common to the oleates, I made some experiments. Several samples were placed in different boxes and

bottles and some of the oleo-palmitate was placed in a chip box still containing a little of the ordinary rancid smelling oleate to see if it would take on the same decomposition. An examination of the various samples gives to day the following results: The oleo-palmitate in bottle perfectly good; the same in box containing some of the *British Pharmacopoeia* oleate, a shade yellow but otherwise unchanged: all the samples of this preparation were neutral, whereas all of the ordinary oleates, including a fresh sample from a shop as well as another supplied to a patient this week, were unfit for use. The latter not only felt gritty, sticky (and therefore unsuited for a dusting powder) but smelt rancid and gave a strongly acid reaction. I am well aware that some oleates are unstable, but this fact does not justify dispensers supplying a decomposed article or casually substituting another preparation for the one prescribed.

THE VALUE OF QUININE AS A PROPHYLACTIC OF INFLUENZA.

L.R.C.P.I. writes: Permit me to add my personal experience to that of "M.B.Cambridge," whose letter appeared in the BRITISH MEDICAL JOURNAL of March 15th. I also am a constant sufferer, and have had three or four attacks every winter since 1890. Regularly in the second week of January I was seized with the first attack, and was generally laid low for three weeks or a month; this was followed by two or three milder ones, lasting about a week, during the succeeding three months. Withing the past five years a condition of neurasthenia has supervened, which quite incapacitates me for taking any form of exercise, a walk of half an hour's duration tiring me out completely. This winter, contrary to custom, I had my first and severe attack early in November, and was confined in the house for three weeks. On recovering I commenced in December, and have continued ever since, to take 2 gr. quinine bisulphate twice daily. I got through January and February without a recurrence of the disease, and was congratulating myself on the success of the "prophylactic," when, suddenly, on March 6th, I went down again, and was laid low for a week, after which I went to Brighton to recruit, and there a fortnight later had another attack, making up to the present a total of three this winter. Thus, in spite of the quinine, I have had my usual number of attacks, and am patiently awaiting and expecting a fourth. In view of these two cases what value can be assigned to quinine as a prophylactic?

AIR OF OPERATING ROOMS.

DR. FRED EDGE (Wolverhampton and District Hospital for Women) writes: I have noticed when the air has been confined in an operation room and the potassium permanganate and oxalic acid method of disinfecting the hands has been employed, that the patient has suffered from congestion of the air tubes, with exudation and frothing at the mouth, cyanosis, and subsequent lung trouble, generally slight. There is an irritating vapour in the air which catches the glottis. The gas has been used under the sterilizer and sometimes to warm the room, and perhaps some sulphurous acid may be present, but, so far as I can tell, the vapour comes off the oxalic acid basin. I do not now refer to ozone produced when two solutions are reacting. It is probable that the gas is the real offender, but I wish to draw attention to the facts and suggest that the gas and the solutions should be as far away from the anaesthetic and patient as possible. The irritating vapour and the gas may decompose the chloroform and ether, and the vapour may also irritate the bronchial tubes and lungs, so that pure chloroform and ether may then become irritant poisons.

THE CLERGY AS DISPENSERS OF PILLS.

A CORRESPONDENT forwards to us in its original enclosure a circular addressed to a clergyman by a well-known firm of pill manufacturers. The circular says that as frequent inquiries for pills have been received from clergymen in rural districts, and as they believe the pills are mainly dispensed gratuitously amongst the poor, a list of the pills in most general demand for ordinary ailments is enclosed, together with their reduced prices. Then follows a price list containing such pills as "pil. aperiens," "Blaud pills," "pil. hydrarg., *P.B.*," "pil. hydrarg.," "little liver pills," "phosphori pur.," "pil. quininae sulph.," and "pil. tussi" at prices varying from 10d. to 2s. 3d. per gross! Indications are given for the use of these pills. For example, so-called "pil. hydrarg." contains colchicum, aloes, and hyoscyamus, and is labelled "gout and rheumatics"; "pil. quininae sulph." is labelled "neuralgic," and "pil. tussi" "cough." The composition of the last-named pill is not given, but it certainly does not seem wise to place in the hands of the clergy such drugs as mercury, phosphorus, and colchicum without warning. We trust few clergymen nowadays are in the habit of prescribing medicine to the poor without medical advice.

A CURE BY "ABSENT TREATMENT."

THE following instructive story is taken from the *American Homoeopathist*: A young woman, a devotee of Christian Science, had observed with growing pity a cripple who passed her house daily. His efforts to walk were so evidently painful that she determined to try the "absent treatment" on him. After the first few days of her self-imposed task she thought she noticed signs of improvement, and one day she was delighted to note that he had discarded his crutch, and walked with hardly a limp. She was so overjoyed that she rushed into the street, seized the man's hand, and said, "my dear friend, you must excuse me, but I cannot refrain from rejoicing with you over your cure. I have used faithfully the 'absent treatment' for your infirmity, and I cannot tell you how happy I am to see by your walk that you have recovered." When the man rallied from the bewildering effect of this revelation he replied, "Thank ye kindly, ma'am, for your interest in me. I don't suppose it has hurt me any. But I may as well say I have just got a new wooden leg with rubber foot, and it works splendid, ma'am. The other old wood-foot-thing always did make me limp."

CIRRHOSIS OF THE LIVER IN A CAT.

DR. C. O. HAWTHORNE (Weymouth Street) writes: Your correspondent, Dr. R. H. Wilson, will find a parallel experience to the one which he reports recorded in the *Manual of Pathology* by the late Professor Joseph Coats (Third Edition, p. 895). The animal is described as the subject of a typical cirrhosis, with the usual secondary phenomena, and the suggestion is offered that as it was a butcher's cat, it may have indulged in excess of eating than of drinking. The author further notes that Professor Greenfield has also recorded two cases of cirrhosis in the cat.

REMARKABLE FECUNDITY.

DR. G. PEARCE BALDWIN (Kumara, N.Z.) writes: The following history given me by a patient recently is an instance of remarkable fecundity. In December, 1898, she had twins; September, 1899, twins, 7½ months; January, 1900, a miscarriage, about eight weeks, followed by an attack of septicaemia; July, 1900, triplets, 4½ to 5 months; January, 1902, one. The miscarriage in January, 1900, was brought on by drugs, and it is probable the miscarriage of the triplets was partly caused by the same drugging and was partly the effect of the attack of septicaemia following the January miscarriage. A sister lately delivered of twins is the only other instance of plurality of conceptions that she knows of in her family.

PRIZE ESSAY.

THE Catalonian Academy of Medicine offers a prize of 2,500 pesetas (about £100) for the best essay on the "comparative histology of the fovea centralis." The competition is international. Essays, which may be written in French, Italian, Portuguese, or Spanish, must be in the hands of the General Secretary of the Academy, Barcelona, on or before December 31st, 1902.

COMMUNICATIONS, LETTERS, ETC., have been received from:
A A.W.S.; A.B.C.; Dr. T. D. Acland, London; Mr. F. Addiscott, London. **B** Dr. E. Bovill, Bedford; Mr. A. E. Barrett, London; Dr. A. Buckell, Chichester; Dr. W. Bramwell, Liverpool; Mr. G. P. Baldwin, Kumara, N.Z.; British Iron Milk Syndicate, Managing Director of London; Mr. F. Boehm, London. **C** Country Practitioner; Mr. T. R. Clougher, London; Dr. R. Carter, Bath; Company's Doctor; Caspar; Mr. G. Cecil, London; Dr. J. Cater, London; Mr. L. Cooper, Rochester; Sir W. S. Church, Bart., London; Cancer; Mr. H. M. Cade, Langworth; C.C.S. **D** Dr. T. Dutton, London; D.P.H.; Dr. M. L. Dhingra, London. **E** Mr. J. Ewing, Leeds; Mr. F. W. Eurich, Bradford; Eyemes; Enquirer; East Anglia. **F** N. McI. Falkner, M.B., Dublin; Dr. W. S. Fenwick, London; Rev. E. H. Fellowes, Windsor; Fracture; Dr. B. Foster, St. Paul, Minn.; Dr. W. F. Farquharson, Carlisle; F.H.S. **G** G.S.L.; Mr. J. B. Gabe, Morriston. **H** Dr. J. W. Hamill, Manchester; Mr. R. M. Hugo, Pudsey; Mr. W. M. Halliday, Bombay; H.W.; Dr. W. J. Horne, London; A. Hall, M.B., Sheffield; Dr. C. O. Hawthorne, London; Mr. E. A. Hunt, Colchester; Dr. J. P. Henry, London; Mr. W. H. Henshaw, Manchester. **I** Mrs. C. S. Ivens, Bildeston. **J** Mr. M. S. Jevins, London; Dr. G. P. Johnson, Stoke-on-Trent; Dr. G. H. Jameson, Leamington Spa. **K** Mr. B. Kuhn, London. **L** Mr. H. K. Lewis, London; H. E. Littledale, M.B., Aldermaston; R. E. Legat, M.B., Cromer. **M** Mr. A. Murdoch, Hythe; Meteor; M.D.; Dr. J. McGown, Millport; Mr. E. D. Marriott, Nottingham; Dr. J. L. Maxwell, London; Dr. J. A. Menzies, Rochdale; M.D.; A. A. Martin, M.B., Howick, S.A.; Mr. W. F. Morley, Bedford; Mr. D. M. Muir, Glasgow; Dr. C. J. Morton, Walthamstow. **N** R. B. Ness, M.B., Glasgow; Nightshirt. **O** Dr. J. Oldfield, London; Obstetrical Society, Secretary of, London. **P** Puzzled; F. S. Pitt Taylor, M.B., Liverpool; Dr. W. A. Pott, Birmingham; Mr. F. Payne, London; Pensions; Dr. F. S. Palmer, London; R. Parker, M.B., Liverpool; Dr. H. C. Pattin, Norwich; **Q** Quo Vadis. **R** Dr. J. C. Renton, Glasgow; R.A.M.C.; Mr. T. F. Raven, Broadstairs; Dr. J. M. Rhodes, Didsbury; Mr. A. A. Rostant, London. **S** Sir J. Sawyer, Birmingham; Dr. P. Stewart, London; Dr. J. F. Smith, Whitburn; Dr. W. Stirling, Manchester; F. A. Southam, M.B., Manchester; Student; Dr. W. Sykes, Exeter; Mr. G. M. Smith, Clifton; Mr. W. D. Stokes, Brighton; S. Stephenson, M.B., London; Rev. G. Sutherland, Tovosay; Dr. S. Sunderland, London Mr. H. R. Spackman, Wolverhampton. **T** Mr. M. O. Thomson, Stirling; Dr. R. Turner, Liverpool; Sir F. Treves, K.C.V.O., C.B., London; Mr. A. R. Taylor, Perth, W.A.; Mr. G. S. Taylor, London. **V** Miss K. D. Vaughan, M.B., Lampert. **W** Dr. R. N. Willson, Philadelphia; G. B. Wood, M.B., Sandown, I. of W.; A. Wauchope, M.B., Glasgow; Mr. J. A. Whitty, London; Dr. T. J. Wood, Bradford; W.; Dr. D. Walsh, London; W.D.; West London Medico-Chirurgical Society, Secretary of, London. **Y** Y.; A. Young, M.B., Glasgow.

BOOKS, ETC., RECEIVED.

The Waters of Plombieres. By Doctor André Broechi. Paris: F. and M. Moreau.

A Concise History of Small Pox and Vaccination in Europe. By E. J. Edwardes, M.D. London: H. K. Lewis. 1902. 2s. 6d.

Lehrbuch der Kinderkrankheiten für Aerzte und Studirende. Von Dr. Adolf Baginsky. Leipzig: Verlag von S. Hirzel. 1902. M. 16·50.

Les Cirrhoses Biliaires. Par Dr. P. Lereboullet. Paris: Masson et Cie. 1902. Frs. 6.

The Study of the Pulse, Arterial, Venous, and Hepatic, and of the Movements of the Heart. By J. Mackenzie, M.D. Edinburgh and London: Young J. Pentland. 1902.

Das Licht als Kraft und Seine Wirkungen. Von W. F. Frankenhäuser. Berlin: A. Hirschwald. 1902. M. 2.

The Operations of Surgery. By W. H. A. Jacobson, F.R.C.S., and F. J. Steward, F.R.C.S. Vols. I. and II. Fourth edition. London: J. and A. Churchill. 1902. 42s.

The City of London Directory for 1902. Thirty second edition. London: W. H. and L. Collingridge. 12s. 6d.

*** Inforwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	1 17 6
A page	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Remarks
ON
A SERIES OF CASES OF EXTERNAL OPERATIONS ON THE LARYNX,*

BY A. MARMADUKE SHEILD, M.B., B.C.CAMB., F.R.C.S.,
Surgeon to St. George's Hospital.

THE operation of thyrotomy is one of considerable antiquity, though we question whether its full scope and utility have been recognized until within the last few years. The late Mr. Durham stated that Ehrmann in 1844 first performed this operation for laryngeal growths, which he diagnosed, of course, without the aid of the laryngoscope.[1] Since then a number of operations upon the air passages by external incisions have been performed, particularly in Germany, and Hahn especially greatly improved the technique of the operation of thyrotomy, introducing the well-known inflatable tracheal tube which bears his name.

THE OPERATION.

The following series of cases seem of sufficient interest to warrant their publication, as they illustrate the scope and excellent results which are to be obtained by thyrotomy and other external operations upon the air passages. As a preliminary I would describe the method of operation, which differs, in some small particulars, from that usually adopted. In the first place, the services of a highly-skilled anaesthetist are essential, and no surgeon should attempt one of these cases without such aid. Chloroform is, I think, the best agent to employ. A good light is needful, and in dark weather the aid of a forehead electric lamp is often highly advantageous.

When I first commenced to perform these operations I followed the usual rule, and made two incisions; one for the preliminary tracheotomy, the other for the division of the thyroid cartilage. The somewhat limited area thus exposed rendered the checking of all haemorrhage very tedious, and thus materially increased the difficulty and length of the operative procedures. I now strongly advise that the larynx and trachea should be exposed by one longitudinal incision from above the thyroid cartilage to a point 1½ in. below the cricoid. This incision is deepened until the cartilages are reached, and on retraction of the edges of the wound the whole field of operation is laid bare in a remarkably advantageous manner. The haemorrhage is always profuse, but in this large wound the veins are caught with pressure forceps, and tied or clamped with ease and alacrity. Indeed, the checking of haemorrhage by this method effects an agreeable contrast to the small incision, where the perpetual "welling up" of venous blood is a serious inconvenience to the operator. At the lower extremity of the wound the thyroid isthmus is seen, and this may be drawn downwards, so as to uncover an additional ring of the trachea; if large it may be divided between two clamp forceps. During all these proceedings the patient's head is well thrown back and steadied by an assistant.

The second stage of the operation—that of opening the trachea—has now arrived. This is done easily and deliberately below the cricoid cartilage, and the tube is inserted. Personally I prefer the tube covered with compressed sponge. This I powder with iodoform before introduction. I usually allow 8 minutes to elapse for the sponge to swell and the anaesthetist to adapt himself to the new conditions of administration. The methods of administering the chloroform vary with different authorities. Personally, I prefer the administrator to blow the vapour into the tube by means of a small bent cannula. This allows any blood or mucus to be instantly cleaned out of the tube by means of feathers or a brush. It may here, too, be pointed out that the tube, whether covered with compressed sponge or surrounded by the usual inflating rubber bag, should be tested by the surgeon with scrupulous care, to ascertain for himself that the accessory materials are properly secured. When the sponge, for example, swells in the trachea, some difficulty is experienced at the end of the operation in withdrawing the tube from the tracheal wound, and if badly constructed, the sponge may easily become detached—an awkward and alarming accident. All brushes should in like manner be well made, so that any possibility of their heads "coming off" is out of the question. The tube being secured by tapes, if the thyroid cartilage be calcified, as is common in adults, it may be divided by a fine saw—a very fine saw[2]—or by strong scissors curved on the edge. If possible, the extreme upper border of the cartilage should be left intact, so as not to interfere with the petiolus of the epiglottis. The assistant now grasps each cut margin with artery forceps and thoroughly everts and retracts them. Some surgeons prefer sharp hooks for this purpose. The growth or foreign body at once comes into view, in a remarkably clear manner. If a growth, the novice will be surprised to find that it is always more extensive than he was led to anticipate from laryngeal examination. The decision is now arrived at as to the extent of the operation to be performed. Whether the growth is alone to be removed, the tissues at its base, or the lateral ala of the thyroid cartilage itself. The operation is usually done for what may be termed potential epitheliomata, warty growth with cellular infiltration at the base in adults, or for actual epithelioma of one or other of the cords. The tissues from which the growth springs are generally freely removed. It is now my practice to paint the growth with a 20 per cent. solution of cocaine, to which is added 10 gr. of suprarenal extract dissolved in half a drachm of cold water. The extract must be freshly made. The diminution of troublesome local oozing by this means is highly advantageous and striking. A small and carefully purified Turkey sponge is pressed into the trachea at the lower angle of the laryngeal wound. It should have a piece of silk attached. This is an additional preventative against blood passing down the air passages; I regard it as an invaluable aid, and shall relate a case where I relied upon it alone, an ordinary tube being inserted below. The growth is now grasped with "mouse-tooth" forceps, and

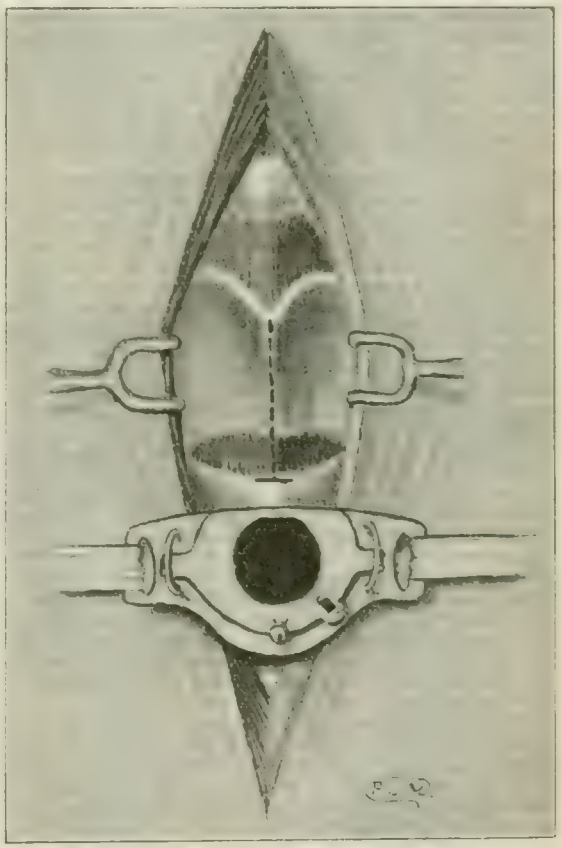


Fig. 1.—The long incision for thyrotomy; the dotted lines show the position of section of the cartilage; the tracheotomy tube is in position. (After Moure).

* Read before the Medical Society of London on March 10th, 1902.

freely cut away. I do not hesitate to sacrifice all the soft parts down to the cartilage beneath. Pressure is made on the wound inside the larynx with minute sponges held on forceps, and wrung out in spirits of turpentine. I next apply a fine and sharp curette, and finally the galvano-cautery at a cherry-red heat, sparing no pains to render extirpation as free and as extensive as possible. The application of the cautery finally checks all oozing. A little finely-powdered iodoform is dusted upon the part, and the thyroid cartilage is united with strips of kangaroo tendon. Here the use of a fine drill must be employed if the cartilages be markedly calcified.

The incision is accurately united with fishing gut and horse-hair right down to the tracheotomy tube, and here a point of great importance has to be considered, the question of withdrawal or retention of the latter. As a rule, I now remove the tube so soon as ever the patient has recovered his "coughing reflex" and partial sensibility. Any blood which may then enter the air passages is readily expelled by coughing. The lower part of the wound, after the withdrawal of the tube, is not closed, but covered with a pad of iodoform gauze and kept carefully cleansed. The diagram (page 941) shows the extent of the incision, the position of the suture in the thyroid cartilage, and the tracheal tube in position.

Treatment after Operation.

The dressing of the neck is very simple, and mainly consists of collodion to the upper part of the wound and iodoform to the tracheal opening. About the fourth day the margins of the latter are approximated by adhesive strapping. The patient keeps the sitting posture in a "steam tent," and occasionally inhales the vapour of creosote. Three times a day a spray of "Listerine" mixed with equal parts of tepid water is used for the larynx. No use of the voice is to be permitted. The patient must be provided with a slate to write his wishes and replies. I have found that patients swallow with surprising ease after this operation. I usually employ rectal alimentation for two days. I then commence to administer meat lozenges, which are gradually sucked. Thirst is relieved by small lumps of ice. At first swallowing is best performed by the patient lying upon his side, the tube of the feeder being placed in the dependent cheek. Should any slight fetor be noticed in the breath, and this is not normal on the third or fourth day, I add a little carbolic acid to the "Listerine" spray. In about fourteen to twenty days convalescence is established; indeed, the recovery is very easy and quick. I never allow the voice to be used for a full month, and then only in a quiet whisper. The recovery of the vocal functions is ultimately quite surprising though the intonation is always hoarse. The following cases may now be related:

Case i. *Fracture of the Larynx, Dyspnoea, Tracheotomy, Obstruction of the Glottis by Cicatricial Tissue, Thyrotomy and Removal, Complete Recovery.*—This case has already been reported very fully in the *Lancet* for November 14th, 1896, but to make the series complete I reproduce its main features. A woman, aged 23, sustained a severe fracture of the larynx, which was asserted to have been caused by her walking in her sleep and falling over a chair. I always looked upon this statement with suspicion, and a belief that the injury was sustained from personal violence. She was admitted into St. George's Hospital on July 10th suffering from dangerous dyspnoea, and the house-surgeon, Dr. Fison (now of Salisbury), performed tracheotomy, and thus saved her life. She was discharged to all appearances well, on July 29th, the tube having been removed on July 20th. She had complete aphasia, but breathed well. On July 31st, however, an attack of dyspnoea came on. She returned to the hospital, where the wound was opened, and the tube again inserted. The case was watched through August, and the larynx gradually became stenosed. The cords were thickened, and beneath them some cicatricial formation could be plainly seen. In September thyrotomy was performed, and the larynx below the cords was nearly closed by a cicatricial web, which was continuous with a collar of indurated tissue and the cartilage externally. This was obviously due to chronic inflammatory action about the fracture. No projecting part of cartilage could be felt. The tissue was cut away with scalpel and forceps and the larynx strongly stretched open with the finger. The operation was done in the usual way and there was nothing to note about the after-treatment. By August 23rd all the parts were healed and she was walking about the ward. She made a good recovery and was seen two months after. She breathed well and her intonation was a little hoarse, but surprisingly good, considering the extensive operation done. The cords remained greatly thickened.

Case ii. *Syphilitic Stenosis: Ultimate Result Unfavourable.*—A man, aged between 30 and 40, was admitted into St. George's Hospital in May, 1897, and had tracheotomy performed on account of sudden and urgent dyspnoea. He was suffering from manifestations of tertiary syphilis, and was placed upon full doses of iodides. The appearances with the laryngoscope were as follows: Great swelling all round the aperture of the larynx; anteriorly a glimpse could be obtained of a growth smooth on the surface, which seemed to originate very far down below the cords. Both cords moved imperfectly and remained widely abducted, as though nerve lesion were present. After taking iodides for several months the swelling greatly reduced, and the formation could then clearly be seen; it was smaller than before, and uncertainty still existed as to its distinct nature. The cords were still widely abducted and motionless. On stopping the tracheotomy wound urgent dyspnoea was at once produced. Doubt occurred in this case as to whether the dyspnoea, especially marked during inspiration, was due to abductor paralysis or to the presence of a neoplasm, and accordingly it was decided to perform thyrotomy. This was done in June, 1897. There was a special difficulty about the operation, owing to calcification of the thyroid cartilage, which had to be divided with fine cutting forceps. On opening the larynx, no distinct growth was found; there was a swelling below the cords, consisting almost entirely of inflammatory thickening, covered with a prominent and rugous fold of mucous membrane. This was cut away with curved scissors. Recovery from the operation was uneventful, but no benefit was obtained, and the patient was discharged still wearing the tube. The wound at the site of operation persistently contracted, with the formation of much scar tissue. Under cocaine the larynx was thrice dilated, and once under anaesthetics the parts were stretched with the finger. The patient became intolerant of further proceedings, and preferred to wear his tube. When relating a series of cases of any operation, it is, perhaps, as important to relate the failures as the successes, and I should not be disposed to repeat this operation for syphilitic stenosis unless a very distinct neoplasm or "web" of tissue could be removed.

We next come upon a series of 4 cases where this operation was performed for growths of the larynx, with results only to be described as excellent.

Case iii. *Recurrent Papilloma: Thyrotomy and Excision of Growth: No Recurrence.*—I wish to relate this case very shortly, lest the identity of the patient be discovered. A cleric, aged 54, began to suffer in 1898 from dyspnoea and hoarse intonation. A growth was discovered on the left cord, and a portion of this was removed with forceps, and was stated to be papillomatous. It was then removed in three separate sittings by a skilled laryngoscopist, and after some applications of a caustic nature a cure was reported. The patient stated that he recovered his voice and breathing well. In three months fresh symptoms arose, and he went abroad, when, so far as could be made out, similar operations were performed again with benefit. I saw him towards the end of 1893. He then had a growth on the left cord, which looked the size of a pea, and was of a pink colour. The larynx was swollen and inflamed, and a complete view of the growth difficult to obtain. He was hoarse and had some slight inspiratory dyspnoea; he was a stout "full-blooded" man. No induration or glands could be felt in the neck. I treated him with leeches and iodides for a fortnight, and then performed thyrotomy. The growth on exposure was, as usual, more extensive than could be estimated from above. It was the size of a cherry, sessile, and implicating both the cord and the side of the larynx. I cut it away freely, curetted the side of the larynx, and applied the galvano-cautery. The bleeding was very free, and I employed the manœuvre before spoken of—namely, plugging the trachea below the growth and above the tube with a small Turkey sponge. The only special remark I have to make about this case was the freedom of

extirpation. The whole of the soft parts on the left side of the larynx were removed. Parts of the growth were sent to three good observers. One stated it was epitheliomatous, another papillomatous, and a third called it a degenerative papilloma, potentially cancerous. The fact was that the growth was inflamed, and its true characters difficult to determine. I informed the patient that the prognosis of his case was dubious. He made a rapid recovery, and the only after-anxiety was some bronchitis with fetor of the breath on the fourth day. He recovered his voice sufficiently to articulate hoarsely, but never to do his duty. He remained perfectly well for four years. I saw and examined him at intervals. He died in 1898 from "influenza and pneumonia," but there had not been any return of laryngeal disease. I purposely omit the names of the medical men who were concerned in this case, but I may state that the highest skill was brought to bear on the previous laryngeal efforts, and they were probably performed as well as it is possible to execute such operative proceedings by the way of the natural passages.

Case iv.—*Fibroma: Thyrotomy: Removal by Galvano-Cautery: Recovery of Voice.*—A single woman, aged 33, came to St. George's Hospital in March, 1897. She had had good health until three years previously, when she gradually began to suffer from dyspnoea and loss of voice. The aphasia got worse and worse, so that she could only use her voice a little in the summer. She had occasional severe attacks of coughing with dyspnoea, which lately had been increasing, and had alarmed her.

On examination of the larynx, a pale, lobulated, rather sessile growth, the size of a large pea, could be seen to the right side and a little below the cords. It seemed to spring from the left cord, and narrowed the aperture of the larynx to a mere "chink." Dr. Whipham saw this case with me in consultation, and agreed as to the desirability of thyrotomy. The operation was performed on March 23rd. Dr. Dickson administered chloroform, and a preliminary tracheotomy was done. There was much venous oozing, and an enlarged layer of thyroid tissue lay in front of the trachea, which made the operation very difficult. A Trendelenberg's tube was inserted. The thyroid cartilage was split in the middle line, and pulled apart with sharp hooks. There was at this stage troublesome and profuse venous oozing, checked by pressure with a turpentine sponge. The growth, about the size of a large pea, now came into sight; it grew from the left cord. On being seized with the cold wire snare, its base was very tough and resistant, and it was found impossible to pull it away. Accordingly its base was slowly severed with the galvano-cautery. A tracheotomy tube was left in for a week, the parts being often sprayed with hydrogen peroxide solution. The tube was removed finally on April 1st, when the parts above were soundly healed. The final result of this case was excellent. In August, 1897, the patient had entirely regained her power of speech, which she had lost for six years. This was the more remarkable as great puckering and deformity occurred. The pathologists pronounced the tumour to be a fibroma and innocent in nature. It was thickly covered with a stratified epithelium.

The principal difficulties in this case were the profuse bleeding, which much obscured the parts. The Trendelenburg's tube acted well, no blood getting down into the bronchi. There can be no question that the bulk of this tumour could have been removed *per vias naturales*. There can equally be no question that its base could not be so dealt with. It was peculiarly broad and to a large extent incorporated with the right vocal cord.

Case v.—*Removal of Large Papillomatous Growth from the Larynx, together with the "Cord" and all the Soft Parts.*—The patient was a Catholic ecclesiastic, aged 45. He came under my care in the summer of 1898. Hoarseness had gradually supervened for three years, and lately had progressed to almost complete aphonia. These symptoms had been much worse lately, and, in addition, "suffocation spasms" had recently been experienced. The case was under the care and inspection of Mr. Edward Blackett. The patient was a pale, ascetic-looking man. His voice was harsh and raucous, sometimes disappearing entirely. The left side of the larynx was occupied by a growth the size of a peach stone, which was lobulated, livid in colour, and seemed to have a broad base. There was no glandular enlargement in the neck. Under cocaine the mobility of the growth was freely examined with a curved probe, and it was found to be very sessile. Dr. Whipham also examined the case on several occasions, and the question of attempted extirpation *per vias naturales* was much discussed. Finally, thyrotomy was determined upon, and was performed on August 10th, 1898. There was nothing very special about the operation excepting that the growth was very extensive; and I was uncertain as to whether the half of the larynx also should not be removed *in toto*. The bleeding was also profuse and troublesome. He made a good recovery without complications. Dr. Lazarus-Barlow kindly examined the growth, and found it to be of the usual nature—a warty papilloma, with abundant cell proliferation, but not truly epitheliomatous. For many months this gentleman's voice remained only a whisper, but his phonation gradually improved, and I have had a chance of examining him two years and four months after the operation. His voice is so surprisingly good that it is difficult to make observers believe he has had an operation done, and this is again borne out by the extraordinary changes in the larynx itself. The right cord is so mobile as to come over to the left side of the middle line, and here exists a ridge of mucous membrane or scar tissue, which looks at first sight exactly like a vocal cord. There is no sign of return of the tumour, but the aperture of the larynx is a little oblique or deformed. The result of this case has made a great impression on my mind as to the beneficial effects of this operation.[3]

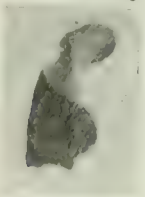
Case vi.—*Sessile Papilloma removed by Thyrotomy: Recovery with Improved Voice.*—The next case is equally satisfactory, though at the time of writing this paper only nine months have elapsed since the operation, so that one can hardly pronounce the certainty of a permanent cure, yet I believe such a result is exceedingly probable.[4] A gentleman, aged about 40, strong, plethoric, "thick set," and given to field sports, saw me in February, 1900. He had used his voice a great deal in hunting, and had noticed hoarseness and dyspnoea gradually creeping on for about three months. An examination was made with great difficulty. He was unable to open his mouth to the full extent, and any introduction of the mirror caused violent spasm and retching. The tongue could not be protruded. Feeling sure that some serious laryngeal trouble existed much patience was exercised, and the patient practised opening his mouth and breathing. Ice was applied to the pharynx, and a 5 per cent. cocaine spray. At length with a small mirror I distinctly saw a growth. It was only a momentary glimpse, and, beyond the fact that it was on the left side, I was unable to study its characteristics. I therefore administered iodides in full doses, and repeated examinations of the throat were made. By the middle of March I was able to see the growth mass distinctly, and it had obviously not diminished in size. Moreover the patient had had one severe attack of dyspnoea, which caused him to start up in bed with a sense of suffocation.

I afterwards learnt that during this time the patient had taken other opinions both in London and the provinces. I need not enlarge on the treatments advised as they were quite inapplicable to the case. I felt certain that personally I was quite unable to remove this growth by the natural passages, for even after weeks of patience and practice it could only be seen with great difficulty. By my request Mr. Butlin saw the patient with me in March. He recognized the difficulty of good inspection of the growth, but concurred with me in advising thyrotomy. The operation was done in the usual way and no difficulty was experienced. As the neck was short, thick, and plethoric, I made the superficial incision unusually free, from the hyoid bone to the sternum, and the fierce venous bleeding, easily checked, showed how materially a too small opening would have delayed the future steps of the operation. After opening the larynx, I passed a small Turkey sponge on a piece of silk down the trachea for about an inch, and saturated the growth with a strong solution of cocaine and suprarenal extract. I was surprised at its size. I had estimated it at that of a pea. It was quite as large as a cherry, and very sessile. After extirpation the cautery and curette were vigorously applied, and on withdrawing the little sponge a small clot was brought up on its superior surface. The

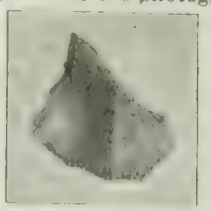
Hahn's tube was removed so soon as "coughing reflex" was restored, and the patient was convalescent in fourteen days. The wound healed at once. He had no bad symptoms. Microscopically the growth was a papilloma, but there was much cellular infiltration at its base, and one observer was confident it was cancerous. Recovery of voice is in this case confined to a loud whisper, but the patient is in the best of health.[4]

CASE VII. *Thyrotomy for Foreign Body (Bone).*—On December 28th, 1899, I was called to see a young man suffering from dyspnoea. His face was dusky and covered with sweat; his respirations distinctly laboured, with evident inspiratory stridor, and his voice reduced to a hoarse whisper. He stated that four days ago he had accidentally "swallowed" a large piece of bone, that it "stuck in his neck," and he brought up some bright blood. The difficulty of breathing and the pain in swallowing had apparently only been severe enough to frighten him in the last twenty-four hours. His condition was one of distress and danger.

Laryngoscopic examination was attended with the greatest difficulty. The parts were much swollen, having indeed an erysipelatous appearance. In the narrow "chink" between the swollen thyro-arytenoid folds a distinct glimpse was obtained of a piece of bone; it appeared like a spicule of osseous substances, stretched across the larynx antero-posteriorly. The difficulty of seeing it, and the spasmodic and dangerous dyspnoea of the patient, made, in my judgment, any attempt at removal from the mouth very unwise. Seeing the perilous and urgent nature of the case, I at once made arrangements for operation. Chloroform was carefully administered by Dr. Blumfeld. I exposed the whole front of the larynx and trachea to the root of the neck by a free median incision, which was rapidly deepened; the very free venous bleeding was readily checked by forcipressure, though so free an opening. Tracheotomy was performed and a Hahn's tube was introduced. On opening the trachea a quantity of pus was ejected from the wound, showing that the foreign body was already doing grave local mischief. The thyroid was calcified, and I had to divide it with powerful curved scissors. On opening the larynx, I could not see the bone, but by the finger it was detected lying firmly impacted below the cords, and extending downwards to the body of the cricoid. Apparently it was tilted on its edge. So firmly was the bone impacted, that it required considerable force to extract it with forceps, and this demonstrated how hopeless would have been any attempt to remove it from above. The piece of bone was of the extraordinary size and shape shown in the photograph.



Side view; actual size.



Front view; actual size.

It is hard to believe that so large a foreign body could have passed the glottis, and yet the patient survived, and was moreover able to breathe. Silk sutures were passed and not tied, and the wound was tamponaded with iodoform gauze. The operation occupied about 15 minutes, being much expedited by the free median opening.

The tube was removed in twelve hours, and the wound, covered by lymph, was drawn together by the sutures, which had been previously passed. Thymol inhalations were employed. The patient made a good recovery. His voice long remained "low and gruff" but ultimately it quite recovered, and was literally as strong as ever.

CASE VIII. *Suprathyroid Pharyngotomy.*—The next case is not one of thyrotomy proper but may be termed suprathyroid pharyngotomy. It affords an excellent illustration of how a growth near the superior aspect of the larynx may be reached and dealt with through an external incision.

A widow, aged 57, came to the Throat Department at St. George's Hospital in July, 1897. She had total aphasia and some dyspnoea. The aphasia had come on about eighteen months ago and had gradually become worse. She was a stout woman, inclined to emphysema, with a short thick neck. It was only after repeated examinations with the laryngoscope that I was able to clearly distinguish and define the position of a new growth. The neoplasm apparently sprang from the anterior surface of the thyroid and extended a little way along the surface of the stalk of the epiglottis.

On July 5th, the following operation was performed under chloroform, ably administered by Dr. Menzies. A transverse incision was made in the thyrohyoid space, and another at right angles to it along the front of the thyroid cartilage. The anterior jugular veins were divided and tied, and the sternohyoid and thyrohyoid muscles were also divided. Here an error took place in the operation, and I found myself working above the hyoid bone instead of beneath it. This part of the operation was unexpectedly difficult owing to the profuse venous oozing and depth of the neck. At length the thyrohyoid membrane was exposed and divided, and the epiglottis, after dividing the glosso-epiglottic ligament, was drawn out of the wound by a ligature passed through it with a sharp curved needle. By this means the larynx was drawn right out of the incision and the growth readily came into view. It was more extensive than was thought, and some small irregular tuberculated masses extended along deeply into the epiglottis. It was readily removed with a snare, and the curette and galvano-cautery were deeply applied to the site of origin on the epiglottis so as utterly to destroy the tissues in immediate relation. The larynx was then replaced and the wound sutured. The growth was a papillary epithelioma. To the naked eyes it appeared epitheliomatous.

The patient was very ill after the operation, and a severe attack of pneumonia came on a week after the operation. The wound discharged at one spot, and some fluid food passed out. For the first four days she was fed by nutrient enemata, but afterwards managed to swallow by lying on the side with the head hanging over the bed. By August 17th the wound had nearly healed, and she was breathing well and commencing to recover her voice. On November 19th the patient was well and strong and had no dyspnoea. Her voice was "shaky" and uncertain, but she could well make herself understood. There was still some swelling about the arytenoid cartilages. There was no trace of return of the growth. I last saw her in 1899, two years after the operation. She was in good health and could speak well. The epiglottis was depressed, but there was no return of the growth.

I feel sure that in these cases it is an error to suture the external wound immediately. Sepsis occurs from the pharynx, and it is wiser to stuff with iodoform gauze and merely pass the sutures, not tie them, until granulations and plastic lymph appear in the wound. I believe that this method is far safer to employ in all operations upon the neck where a communication has taken place with the gullet or pharynx.

CASE IX. *Case of Laryngeal Cancer: Removal of One Half the Larynx with Temporary Great Benefit.*—There are many remarkable features about this case, which I shall incidentally allude to in the relation of it. A night watchman, aged 60, had suffered from sore throat and hoarseness for about three months. He was a pale, thin man, and when he came to the hospital in September, 1901, was suffering from dangerous and increasing dyspnoea. Examination was difficult, but a lobulated growth could plainly be seen filling the larynx and springing from the right side. It was ulcerating, and seemed to spread to the pharyngeal region behind. On September 7th chloroform was cautiously administered, and a low tracheotomy carefully performed. This relieved all danger of dyspnoea, and the larynx was repeatedly examined and the growth touched to estimate the possibility of removal. I may here point out, that time is well spent in these difficult cases in repeated examinations, and the operation of tracheotomy ought never to be postponed, as is so often the case, until the dyspnoea is urgent and death actually impending. On September 23rd I performed thyrotomy. I stuffed the trachea above the tube with a small Turkey sponge attached to silk, and it acted perfectly. I found the growth very extensive, and removed the whole of the right ala of the thyroid, with raspatory and scissors. I unfortunately found distinct signs that the pharynx was involved. The galvano-cautery was applied freely. Bleeding was very profuse. After operation the wound

was tamponaded with gauze, and a fresh sponge was placed in the trachea. The tube was removed in ten days. The patient could then breathe well. The result of the operation has been complete relief from dyspnoea, and the patient can articulate in a whisper, though half his larynx has been removed. Recurrence of growth in the pharynx I looked upon as certain

I last saw the case in January, 1902. The growth was returning in the depths of the wound. Dyspnoea was entirely relieved. The main interest of this case is the great difficulty of estimating the actual extent of growth in advanced laryngeal cancer. I spent a fortnight over the study of this case, and concluded it was free of the pharynx, in which I was wrong. The case also affords a striking contrast to the others. It illustrates forcibly a clinical truth which all of us may lay to heart. That if an adult, especially a male, should suffer from abiding hoarseness and laryngeal irritation, no time should be lost in getting a careful laryngeal examination, so that if a growth exists it may be detected and dealt with in its earliest stages. The results, as shown by the cases detailed to night, are as good as neglected cases are disastrous and unsatisfactory.

Notes and Reference.

[1] Holmes's *System of Surgery*, 3rd edition, vol. xi, p. 697. [2] The blade should be flexible and the teeth minute. [3] The patient was present at the meeting and read aloud with a good and distinct voice. [4] Recently seen (February, 1902), quite well, voice much improved.

SOME OBSERVATIONS ON THIRTY-FIVE CASES OF CHRONIC SUPPURATION OF THE MAXILLARY ANTRUM.

By HERBERT TILLEY, M.D., F.R.C.S.,
Surgeon to the Throat Hospital, Golden Square.

The following observations are based upon the notes of 35 cases of chronic antral suppuration seen in private practice during the past two years.

A far greater number might have been brought forward had my hospital cases been included, but the difficulty in following up the result of treatment in such patients is so great that no excuse is needed for presenting a comparatively small number as the basis of the present communication.

It has long been my conviction that empyema of the maxillary antrum is of greater frequency than is usually supposed and that it will frequently account for symptoms which at first sight do not suggest any connexion with the nasal accessory sinuses. In making this statement I am fully aware that those who make a special study of any branch of medicine or surgery, perhaps not unnaturally fancy or even believe, that a disease is common because their peculiar opportunities allow them to see many examples of it, and that this conception tends to grow "in spite of ourselves." But while making every allowance for this mental tendency I would still maintain and hope to show in what follows that such a conviction has not been arrived at without due consideration and a fair estimate of the results of experience.

Anatomy.

Both in the same as in different individuals the antra vary as much in size as they do in the thickness of their component walls. From the points of view of etiology, symptomatology, diagnosis, and treatment, it must be remembered that the antrum communicates with the middle meatus of the nasal cavity by an opening situated near the roof of the antrum at the upper border of its inner wall, a disposition which renders drainage of the sinus a difficult matter except when the patient is lying down. Under the last-mentioned circumstances the contents of the antrum will flow backwards towards the naso-pharynx. The opening into the nasal cavity (maxillary ostium) is overhung by the middle turbinal bone, and therefore a purulent discharge issuing from the antrum would be seen in that cleft between the middle and the inferior turbinal bodies, known as the middle meatus of the nose.

Finally, an examination of a series of maxillary bones will show that the roots of the molar teeth, and often that of the second bicuspid tooth approach more or less closely to the floor of the antrum, and that not uncommonly the apices of the fangs form mammilated projections in the floor of that sinus. Such projections may be separated from the lumen of the cavity by a thin layer of bone, or only by mucous membrane. Under such circumstances the liability of the antrum to become infected by septic inflammation around the roots of the teeth is very obvious.

Etiology.

Whilst it was formerly maintained that antral suppuration was almost invariably due to infection from a carious tooth, it is now universally agreed that some cases are infected by way of the nasal cavities, and that the majority of these are met with as complications of one of the acute specific diseases.

During recent years influenza has been a somewhat prolific source of suppurative inflammations in the nasal accessory sinuses, while scarlet fever, typhoid, pneumonia, and diphtheria have accounted for a smaller number of cases. Under such circumstances the inflammation, which at first may be acute, passes gradually into the chronic phase. This transition may be due to the virulence of the primary inflammation inducing chronic congestion and increased secretion from the nasal mucosa which, in many cases, undergoes stagnation and provides a suitable medium for the growth of septic organisms. This tendency will be promoted when such pathological obstructions are present as postnasal adenoids, well-marked degrees of hypertrophic rhinitis, or difficulties of efficient drainage such as are met with in the antrum.

My own experience leads me to believe that dental caries is by far the most frequent cause of chronic antral empyema. Not only have diseased teeth been present in every one of the 35 cases herein considered, but in the scores of cases seen in hospital practice during the past ten years, I cannot remember having seen three cases in which evidence of past or present disease in the corresponding molar or bicuspid teeth was not present.

And here I would point out that although the crown of a tooth may appear perfectly healthy, a condition of pyorrhoea alveolaris may extend the whole length of one or more of the roots, and thus carry infection to the antrum. Furthermore, an abscess may be present between the roots of a tooth which possesses a healthy crown. I have exhibited specimens of both these conditions at the Laryngological Society of London.[1] Again, an isolated area of caries on the crown of a tooth must not be regarded as incapable of evil influence on the antrum, for septic infection may undoubtedly spread through the lymphatics of the healthy bone. In the two cases referred to my suspicions were attracted to the apparently healthy teeth because on exploration of the antrum for diagnostic purposes, the patient immediately complained of toothache in the first molar tooth.

It may be argued that the dental caries is secondary to antral suppuration and spreads from the root towards the crown of the tooth, but such a course of infection must be exceptional, for careful inquiry will nearly always elicit a history of dental trouble which preceded the antral symptoms. Then again, the rapid improvement of antral empyemata which often takes place when a septic tooth is removed would suggest a causal relationship; improved drainage will not explain the improvement, because efficient intranasal drainage is often ineffectual until the suspicious tooth has been extracted.

Four of my cases are of interest in that the frontal, ethmoidal, and sphenoidal sinuses were also in a state of chronic suppuration, but I have been unable to ascertain what was the primary source of inflammation in any one of these patients. It may be that all the sinuses were infected simultaneously, or that the higher sinuses were alone primarily diseased, and that the antrum acted as a receptacle rather than as a generator of pus. Finally, and not improbably, the antrum was primarily infected, and in course of time its septic contents contaminated the anterior ethmoidal cells, and ultimately the frontal sinus. In one patient whom I have been able to watch for nine years this was certainly the course taken by the disease.

Three cases presented all the features of fetid atrophic rhinitis ("ozaena"—that is, the formation of fetid crusts in abnormally wide nasal cavities, the symptoms dating from

childhood). Michel maintained that this disease was due to suppurative lesions in the nasal accessory cavities, and Grünwald's experience lends some support to this view. I have never been able to convince myself of the relationship of these lesions. If atrophic rhinitis be caused by suppurative inflammation within the nose or its accessory cavities, how is it that we meet with so many cases of empyema which have lasted for years (5 to 20), in which extensive degenerations of mucous membrane and of the bony framework of the accessory cavities have taken place, and yet the characteristic features of atrophic rhinitis are absent?

In the three cases of fetid rhinitis included in my present list there was a small nummulus of muco-pus in the antral cavities, but it was quite different in appearance and consistence from the yellow, liquid, fetid discharge met with in the majority of antral empyemata.

In none of my patients have I met with any instance of antral suppuration arising from traumatism, although the careless application of the galvano-cautery to the ethmoidal region, and the use of septic instruments for intranasal operations, have been recorded as factors inducing the lesion under discussion.

Symptoms.

The diversity of symptoms, and the frequency with which they sail under false colours, are the most striking features of chronic antral suppuration.

Briefly stated, it may be said that a straightforward case of antral suppuration manifests itself by a purulent nasal discharge, the patient alone being cognisant of any unpleasant smell. In many instances the continued irritation of this discharge induces a congested or polypoid state of the nasal mucosa, and various degrees of nasal obstruction become an additional feature in the case. During sleep the discharge tends to pass backwards into the pharynx and throat, so that on waking "hawking," "screeding," and "sniffing" become habits which are unduly exercised during the earlier hours of the day.

If no examination of the nasal cavities be made it is only too likely that the patient will be told he is suffering from "chronic postnasal catarrh," and possibly a lotion will be prescribed for him to "sniff up the nostrils," or "change of air" may be advocated.

No improvement takes place, and the deferring of that hope which springs eternal in the breast of both physician and patient is only too likely to cause a nausea which has been stated on good authority to affect the cardiac region.

We may now pass on to those symptoms which often drive the patient to seek relief, and yet they are of such a nature as not to suggest any connexion with the nasal discharge.

Headache and Neuralgia.

These symptoms may be so distressing that no mention is made of any nasal trouble which, by comparison, is only looked upon as an inconvenience. The frontal discomfort may be a true neuralgia, that is, limited to the area of distribution of the supraorbital division of the fifth nerve, the trunk of the former being painful on pressure. The attacks are commonly worse during the earlier hours of the day, and the pain may be very severe. If the patient has lived in malarial regions the periodicity of the neuralgia will suggest "brow ague" and (as I know to have been the case) the sufferer will probably be saturated with quinine, but to no advantage.

It will sometimes be noted that the headache alternates with a free discharge of pus from the nose.

In other instances diffused frontal headache is the complaint, less commonly it may be located in the temporal, vertical, or even the occipital region, and sometimes deep-seated pain is referred to the orbit.

Of my 35 cases, headache or neuralgia was the chief symptom in 9 patients.

In one young man who was sent to me in the hope that I might find something to account for his headache, this symptom came on about once every ten days and was so severe that he was obliged to leave his work and go to bed until the boat passed. He made no mention of any nasal discharge, but both antra were full of pus. The headaches have entirely ceased since these were drained. In another patient the headache was intolerable if she leant over to write a letter or to lace up her boots.

In five cases the symptoms were defined as a "dull heavy feeling" over the forehead which prevented any concentration of thought and rendered the patient devoid of energy. Such expressions as "weight on the head," "as if the brain was in a fog," "can't take interest in anything," are not uncommon ways by which these patients seek to translate their feelings into words.

Gastric Symptoms.

Some of my patients complained of loss of appetite, dislike of the sight of food, various forms of indigestion, nausea, etc. Such individuals often have a sallow, unhealthy, cachectic appearance, such as we are familiar with in certain forms of abdominal malignant disease. Probably these symptoms are the result of a septic gastritis, which as Dr. William Hunter has shown, may be due to the constant swallowing of septic matter from the mouth and neighbouring regions. The immense improvement which immediately takes place in these cases when the supply of pus is cut off is nothing short of marvellous.

Pharyngeal and Laryngeal Irritation.

Cough is a not uncommon symptom of antral empyema; it is often worse in the morning owing to inspissation of pus which flows during the night into the pharynx and larynx. Various degrees of chronic inflammation of the pharyngeal and laryngeal mucosa are caused by the irritation of the purulent discharge issuing from the antrum, for example, hoarseness may be produced either by a chronic congestion of the vocal cords or by a swelling of the mucosa in the inter-arytenoid fold which prevents the normal apposition of the cords when phonation is attempted.

A most striking illustration of these effects occurred in a patient who had spent one and was ordered to spend a second winter in Egypt because of a weakened state of the pharyngeal and laryngeal mucosa, which there was some reason for thinking might be the early stage of tuberculous laryngitis. In former years there had been some suspicious physical signs in the left apex. Astringent topical applications with outdoor exercise produced no relief. On one occasion when examining his throat I noticed a tiny speck of pus on the mucous membrane which transillumination suggested might have come from the antrum. Exploration showed this sinus to be full of pus, and since draining it by the alveolar method the symptoms have entirely disappeared. The patient never complained, suggested, or showed any intranasal signs of antral disease.

Aural Symptoms.

Two of the 35 cases were sent to me for relief of ear symptoms—the first for tinnitus in the right ear together with right nasal obstruction.

The latter was due to a very large moriform hypertrophy of the mucous membrane of the right inferior turbinal. The soft redundant mucous membrane was removed, but the ear symptoms remained unabated until the pus in the right antrum was discovered. After four months of alveolar drainage the patient wrote saying that she had removed her tube, and "since the discharge from the nose has stopped the noises in the ear have quite gone."

In the second case the deafness was due to serous exudation in the tympanum. The right antrum was full of pus, and the corresponding nasal mucosa were in a very wet, boggy condition. I have reason for believing that in both these cases the aural symptoms were due to extension of catarrhal inflammation from the nasal mucous membrane which was set up by the purulent discharge in the antrum. The second patient made no mention of his nasal symptoms until directly questioned on the point.

McBride has already recorded cases where aural suppuration proved intractable until a purulent antral discharge was efficiently treated.[2]

Haemorrhage.

In one instance the symptom which led the patient to seek my advice was the occasional discharge of blood into the mouth from the back of the nose. I found a number of unhealthy, easily bleeding granulations in the right mid-meatus, associated with antral suppuration. Since this cavity has been drained, the "blood-spitting" has entirely ceased.

I venture to think the above instances justify me in stating that antral suppuration is more frequently present than it is supposed to be, and that many cases are overlooked because the symptoms of which the patient complains do not suggest any connexion with suppuration in the maxillary sinus.

Were further proof of this statement necessary, I would draw attention to the fact that out of 169 necropsies made by Lapalle, in 55 of them pus was found in the sinuses, the antrum being most frequently affected. We can scarcely believe that in all these cases the disease arose during the patient's fatal illness.

Prognosis.

If antral suppuration be uncomplicated by similar disease in the ethmoidal or frontal sinuses, by nasal polypi, or by such gross lesions as carious areas of the bony walls of the

sinus, the prognosis as regards relief of symptoms is good, but one must speak with reservation when a "cure" or total cessation of discharge is being considered.

In forming a prognosis we must weigh the following points:

1. Source of original infection. Pure dental cases would seem to be more amenable to treatment than those of intranasal origin.

2. The length of time which has elapsed before treatment is undertaken. The longer that time the more advanced will be the degenerative changes in the antral mucosa.

3. The general health of the patient. Two of my patients were most positive that the discharge absolutely ceases when they go to the seaside, but returns when they resume their city life. A third tells me he can at once increase the discharge by indulging in alcohol, excessive smoking, or any disregard of the ordinary rules of health.

4. The persistence and regularity with which the patient will follow the prescribed treatment.

Diagnosis.

If in conjunction with the symptoms already noted, a purulent discharge be seen in the middle meatus, and if after careful removal of this pus by means of a wool mop, it reaccumulates after the head has been held for a few moments, so that the maxillary ostium becomes the lowest point of the antral cavity, then it may be presumed that the pus comes from the antral cavity. These suspicions would be strengthened if on transillumination the suspected antrum was less translucent than its fellow.

Transillumination of the antra is effected by placing a 6-volt electric lamp within the closed mouth; if the sinuses be healthy both cheeks and infraorbital regions appear translucent, if one antrum be unhealthy the corresponding infraorbital region will be rendered opaque or considerably less translucent than that upon the healthy side.

Finally, intranasal exploration and irrigation of the antrum by means of a fine trocar and cannula (Lichtwitz's) passed backwards and outwards through the inferior meatus, and piercing the inner antral wall about 1 in. beyond the anterior end of the lower turbinal bone, will in any case give conclusive proof as to the presence or absence of pus in the antrum.

With the exception of the last, the value of the foregoing tests will vary very much in different cases. As already stated, when the patient is examined, it occasionally happens that no pus is to be seen anywhere in the nasal cavity, which may appear quite normal. This may be due to a free use of the handkerchief immediately prior to the examination. Even the posture test may fail to induce a flow of pus into the middle meatus, especially if there be much swelling of the soft parts in the region of the "ostium," which prevents the free discharge from the antrum.

Transillumination is a most valuable diagnostic measure if it be taken in conjunction with other signs. I have already described cases illustrating its value, and am of opinion that unilateral opacity, irrespective of present or past disease, and produced merely by abnormal thickness of the bony walls of the sinus, is uncommon—it did not occur in any of my 35 patients. In one case of four weeks' duration the opacity was very slight, and only sufficient to raise a suspicion of disease, which, however, was verified by exploration.

In connexion with this valuable test the inexperienced should remember:

(*a*) That it is the infraorbital translucencies rather than those of the cheek which must be compared.

(*b*) The opacity is caused by the thickened mucous membrane of the antrum and not by an accumulated discharge, for the opacity is equally great after thorough irrigation, and many months after the discharge has ceased the absence of translucency is still very definite.

(*c*) A toothplate not removed from the mouth will on transillumination produce opacity in the corresponding (and possibly healthy) antrum.

(*d*) Intense opacity in an adult extending from the orbit to the lower part of the cheek, and associated with pain and distension of the cheek, should suggest the possibility of malignant disease of the antrum.

Treatment.

One of two methods is usually adopted in the treatment of chronic antral suppuration:

1. By drainage and irrigation through an opening in the alveolus, which is kept patent by means of a silver tube. The opening is generally made by a simple perforator or awl, through the socket previously occupied by a molar or second bicuspid tooth. Twice daily the tube should be removed, and some simple antiseptic lotion, for example, boracic or Condy's fluid injected by means of a suitable syringe. The best form of the latter is a modification of Higginson's enema syringe. As the discharge diminishes in amount the irrigations are less frequently carried out, and when after an interval of a week no discharge returns with the lotion, the tube may be removed and the case considered as cured.

In three of my cases the alveolar puncture was followed by free arterial haemorrhage from the nose and mouth. One patient fainted after losing three-quarters of a pint of blood, and the bleeding was only checked by plugging the antrum through the alveolus and applying counter-pressure by a plug of gauze packed into the nasal cavity. In the second case the haemorrhage ceased just as I was about to carry out these measures. In the third patient the bleeding set in eight hours after perforation, and seemed to arise from the socket of the tooth rather than from the floor of the antrum.

In four patients intense neuralgia has followed the insertion of the silver tube, but in every case this was almost instantly relieved by the removal of the tube and its substitution by one of smaller calibre. It would seem wiser, therefore, always to use a tube appreciably smaller than the opening which one makes in the alveolus. The inflammatory swelling around the tube will nearly always be sufficient to prevent it from slipping into the mouth, but in one case much alarm was caused in the household by the patient accidentally swallowing her tube whilst talking. In a hospital case I remember an anaesthetist suffering considerable anxiety on account of the patient's continual coughing during a prolonged anaesthesia. It was soon ascertained that this was due to the wanderings of an antral drainage tube in the sensitive regions around the glottis.

The method of alveolar drainage I followed in 34 of the 35 cases here discussed. In 13 the tube was removed within three months; in 9 the discharge has so diminished as to have practically ceased, but the patient prefers to keep in the tube "in case the discharge should return." In 8 cases I have been unable to ascertain the result of the treatment. In 1 the discharge is as free as before the drainage tube was inserted. Two patients refused any treatment, and 2 were complicated by suppuration in the other sinuses (frontal, ethmoidal, or sphenoidal).

2. In one case only, and that of a medical man who was tired of the profuse discharge through the alveolus, which persisted in spite of irrigation, the radical operation was carried out at his own request. This procedure involves the exposure of the anterior surface of the antrum through an incision made along the gingivo-labial fold extending from the level of the first molar to the canine tooth. A portion of the anterior antral wall, the size of a sixpence, is removed by means of gouge and mallet, and the whole extent of the diseased mucous membrane lining the sinus is thoroughly curetted away. A counter-opening is made into the inferior meatus of the nose which should be as large as that made in the anterior antral wall. After thorough disinfection of the parts the sinus is plugged with a strip of antiseptic gauze, the proximal end of which is passed through the naso-antral opening and cut off level with the nostril. The bucco-antral wound is united by fine sutures, or allowed to close by granulation as rapidly as possible.

The packing is removed from the nose in forty-eight hours, and irrigation kept up through the naso-antral opening for some three or four weeks, by which time the purulent discharge should have entirely ceased.

The results obtained in these cases lead me to the conviction that the alveolar method should always be advised in the first instance for the following reasons:—(*a*) It is simple, and affords drainage from the lowest point of the suppurating cavity. (*b*) The small operation can be easily performed under "gas" anaesthesia, and the patient, after one or two visits to the surgeon, can carry out the treatment himself with the greatest ease. (*c*) In many cases the result will be successful, in practically all relief and diminution of symptoms will take place, and in those few instances where it fails to do

much good, the surgeon can always fall back on the more radical measure.

Here we must not confuse the terms radical operation and radical cure; in both instances the adjective will be correctly used, but in the second case we cannot guarantee that the term "cure" will be justified by results.

Those who have frequently performed the operation (the so-called Caldwell-Spicer operation) will agree with me that in spite of all care taken to explore every nook and cranny of the antrum and to remove the pyogenic membrane hidden therein, yet some small portions may escape the curette, which will ultimately infect the newly-grown granulating surface and so rob us of our desired result. The operation is one of some magnitude, and necessitates a prolonged anaesthesia of at least thirty to forty minutes, and the patient will be laid up for a week or more, during which his convalescence may be rendered unhappy by considerable pain, swelling and oedema of the soft parts over the antrum. Hence it seems obvious that at least a fair trial should be given to a simpler proceeding (alveolar puncture), which even in long-standing cases sometimes gives a perfect result. The only exception I would make to this rule would be for a patient whose circumstances demanded as short a treatment as was possible, and in whom one found the nasal mucosa in the middle meatal region in such a state of advanced polypoid degeneration as rendered it practically certain that a similar condition was present in the antrum. In such a patient only careful curettage, combined with free drainage, would offer any prospect of success. This point would not be insisted on were it not for the fact that from time to time it has been advised that the radical operation should be adopted in the first instance in all cases of chronic antral suppuration.

References.
[1] *Proceedings of the Laryngological Society*, November 1st, 1901. [2] *Lancet*, 1901.

THE TREATMENT BY ASCH'S OPERATION OF DEVIATIONS OF THE NASAL SEPTUM.

By EUGENE S. YONGE, M.D.Edin.
Honorary Assistant Physician, Manchester Hospital for Consumption and Diseases of the Throat.

In view of the common occurrence of deviations of the nasal septum in healthy persons, it is almost a work of supererogation to mention that treatment of the condition is only required in the minority of cases; in fact, in those instances where definite symptoms are found, which are referable to the displaced structure. In certain individuals the deflection is largely concerned in producing not only marked nasal symptoms, but also in bringing about disabilities which are not confined to the nasal cavities themselves, but affect correlated organs and induce grave discomfort or even suffering. The condition is usually most marked in the triangular cartilage of the septum. The cartilage may be more or less displaced into one or other nostril, or the deformity may be of a sigmoid character, obstructing alternately the right and left passages; there may be an angular deflection, an obtuse bending or a combination of these conditions, possibly combined with distinct spurs or outgrowths.

In marked degrees, then, of nasal obstruction caused by one or other of the above forms of deviation, it may become necessary to advise an operation for the rectification of the distorted structure. A large proportion of the operations, which have from time to time been recommended with this object, have been far from universally successful; indeed, their very number is almost an index of the generally unsatisfactory nature of treatment as applied to this disease. The septum, like the habitual criminal, is a confirmed "recidivist," and by reason of its resiliency is most apt, after a straightening operation, to creep back to its old malposition. The destruction of this quality of resiliency appears to be thoroughly effected by the operation suggested by Dr. Morris Asch, and communicated by him to the American Laryngological Association in 1890. The method has met with a very considerable measure of success, and its essential objects are accomplished by making a crucial incision in the nasal partition, breaking down the resistance of the segments so formed at their bases, and by this means coercing the now flaccid structure into a new situation, where it is imprisoned by splints until it has become fixed.

Asch's operation has now been performed by a large number of surgeons, especially in America, and the consensus of published opinion, so far as I have ascertained it, has been strongly favourable. A number of modifications and "improvements" have been suggested, but, with one or two exceptions, I have not been able to convince myself of their usefulness. In fact, in certain instances the collection of "improvements," added to the remnants of Asch's original method, has appeared to connote an operation—possibly one of some value—but not that which was recommended by the original suggester, although labelled with his name; moreover, my own experience of the operation points to the conclusion that extremely good results are to be obtained by a pretty close adherence to the method as described by Asch himself.[1]

The technique of the operation is very briefly as follows: The patient, with the head drawn over the edge of the table, is anaesthetized to a point bordering on complete insensibility. The little finger is introduced into the stenosed nostril, and the point of greatest convexity of the cartilaginous septum determined. Also the presence, nature, and location of any adhesions which may exist between the septum and the lateral wall of the nasal fossa are decided upon. After breaking down the adhesions, if present, either with the finger or a curved gouge, Asch's cutting forceps are inserted, the narrow blade being in the stenosed nostril and the wide, cutting blade in the opposite one. An incision is then made parallel to the floor of the nasal cavity, and, if feasible, across the greatest convexity of the deviation. The haemorrhage for a few minutes is decidedly brisk, but there need be little delay in making the second incision, which should intersect the first at right angles and as nearly as possible at its centre. The patient is now turned over on his side and the accumulated clots of blood are allowed to flow from his pharynx and nasal fossae. After the return of the patient to his former position a little more anaesthetic is administered, and by means of the finger introduced into the stenosed nostril, the segments which have been formed by the crucial incision are thoroughly broken down at their bases and pushed into the non-stenosed nostril. On this point depends, to a great extent, the success of the operation, for unless the fracture of these segments is assured, the resiliency of the cartilage will not be overcome and the operation will fail. The septum is then thoroughly straightened with Adam's forceps, and the nasal cavities are sprayed with ice-cold Dobell's solution, or some similar alkaline and antiseptic wash. The finger is then felt to pass easily to the posterior nares through the formerly narrowed cavity. A well-fitting Mayer's splint is introduced into the previously stenosed nostril, and a smaller one, with a view to controlling haemorrhage, into the other. The smaller splint is removed on the following day but the larger one is not removed for two days, after which it is cleansed and removed every day for five weeks. The nares, for the first two weeks at least, should be sprayed daily with a mild detergent solution.

A pair of cutting forceps with blades bent at a right angle are convenient for making the horizontal cut but they are not essential.

The chief difficulty appears to be the accurate performance of the two incisions in relation to the floor of the nose, to the greatest convexity of the deviation and to each other; and, as visual inspection is in my experience impracticable, it is necessary to be guided by external landmarks. There may also be, especially in narrow nostrils, some little difficulty in introducing the broad blade of the cutting forceps. A gentle boring movement of the wrist, employed as the blades are being passed into position, has usually been sufficient to overcome this.

As I have indicated above, my personal experience of this method has been very favourable, and I mention below some representative instances in which the improvement has been sufficiently prolonged for the cases to be reasonably looked upon as successful ones. I have not had occasion to note, either in these cases or in any others, untoward effects of any kind, except a minute perforation of the septum

which occurred in Case II which has not given rise to any symptoms.

Case I.—Male, aged 16: was sent to me in February, 1901, for obstruction and deformity of the nose and excessive nasal discharge. The obstruction and nasal discharge had been noticed for about a year, and had caused the boy a great deal of discomfort. The external deformity appeared to have existed from early childhood. The extremity of the nose showed a marked curve upwards and to the left, whilst the inferior border of the triangular cartilage of the septum was displaced in the opposite direction, and presented about the middle of the right nostril (Fig. 1). There was almost complete stenosis of the right naris



Fig. 1.—Case I before operation. Marked septal deflection associated with external deformity. A portion of the lower end of the triangular cartilage of the septum is seen presenting in the right nostril.



Fig. 2. Case I five weeks after operation, showing patent right nostril.

owing to the presence of the deflection. Asch's operation was performed about three weeks after first seeing the patient. There was, after the operation, neither pain, reaction, nor abnormal temperature, and the patient was discharged from hospital in about eight days, he having learnt to withdraw and insert the nasal plug himself. Fig. 2 is from a photograph taken some weeks after the operation. When seen in December, 1901, he had a clear breathing passage on both sides, and the improved condition produced by the operation ten months ago persists. The excessive nasal discharge ceased soon after the operation.

Case II.—Female, aged 38, consulted me in December, 1900, complaining of marked obstruction of the right nostril (but occasionally of both), headaches, and attacks of hoarseness. The septum was bulging into the right nostril, and synechiae existed between the former structure and the outer wall of the fossa. There existed in addition some catarrhal pharyngitis and laryngitis. Asch's operation was followed by the disappearance of the nasal stenosis, and at the last interview the voice was clear and the larynx healthy. The headaches had also very much improved. In this case there was a small perforation of the septum.

Case III.—Male, aged 9½, was sent to me at the hospital for a very pronounced obtuse deflection of the septum which projected into the left nostril, and could be seen without a nasal speculum as a pinkish mass. There was a complaint of nasal obstruction on both sides, that on the left being caused by the septum and that on the right by the hypertrophied inferior turbinal. The cautery was applied to the inferior turbinal on the right side in order to reduce it, and the septum was straightened by Asch's method. The patient can now breathe comfortably through both nostrils, and he remains well six months after operation

Case IV.—Male, aged 23. Consulted me principally for nasal obstruction, especially of the left nostril and deafness in the left ear. There was an angular bend of the septum obstructing the left nostril, and a condition of catarrhal rhinitis and also of naso-pharyngitis. He was operated on three months ago, and informs me at the present date (December, 1901) that he can breathe freely through both nostrils, and that his hearing has much improved. On examination, it was found that he was still somewhat deaf in the left ear; but considerable improvement was noted in the condition of the nasal cavities (apart from the freeness of the left nostril) and of the naso-pharynx.

The operation is suitable for almost all varieties of deviation of the cartilaginous partition, but more especially for the obtuse form. It is unsuitable for spurs and outgrowths, unassociated with an unduly-curved septum, and also for most cases where the stenosed nostril is already too narrow. And except in those instances where it is a prelude or an adjuvant to other nasal or accessory-sinus treatment, as in a case at present under my care, it should not be recommended unless there is a marked degree of obstruction associated with definite symptoms.

It appears, in view of the evidence which up to the present has accumulated in its favour, that Asch's method, if accurately performed, is one of considerable value. But a careful study of numerous anatomical preparations, and of the operation on the cadaver as well as on the living subject, has convinced me that unless the operator is very clear as to the topographical anatomy of the nasal cavities, the procedure is one which runs a great risk of being imperfectly carried out—in short, of failing and of becoming discredited. It is of course by no means sufficient to make, in the septum, two incisions which are believed to be somewhere in the desired direction; nor even when these are accurately effected should the surgeon be satisfied until the recalcitrant segments are thoroughly broken at their bases. Finally, it is not sufficient to insert the plug and, as it were, let the patient look after himself; the case should be seen every day for at least ten days, and afterwards at frequent intervals until the septum has become consolidated in its new position.

I am much indebted to Professor A. H. Young, of Owens College, Manchester, for kindly allowing me to examine a number of specimens in the anatomical department.

References.

1 De Schweinitz and Randall, *Diseases of the Eye, Ear, Nose, and Throat*, London, 1899.

THE INFLUENCE OF NASAL AND NASO-PHARYNGEAL OBSTRUCTION UPON THE DEVELOPMENT OF THE TEETH AND PALATE.

By A. L. WHITEHEAD, M.B., B.S.Lond.,
Ophthalmic and Aural Surgeon to the Leeds General Infirmary.

Nasal or naso-pharyngeal obstruction to respiration may be defined, according to Mayo Collier,[1] as follows: "If, by day or by night, nasal respiration must be supplemented by oral respiration, then there is nasal or naso-pharyngeal obstruction." Nasal obstruction is due to abnormal conditions of the turbinate bones by bony or soft tissue hypertrophy, to deviations or exostoses of the septum, to congenital stenosis of the nares, foreign bodies, rhinoliths, new growths, to contraction by growth or inflammatory swelling outside the nose. Naso-pharyngeal obstruction is due to the presence of adenoid

vegetations, new growths, enlarged tonsils, prominence of the atlas, or inflammatory swelling.

In the naso-pharynx of all children a certain amount of adenoid tissue known as Luschka's tonsil is normally present, and in certain cases the tissue is prone to active inflammation and hypertrophy. The cause of this hypertrophy is not clearly known. It is essentially an affection of childhood and has been found in the earliest months of life. I remember assisting the late Mr. Hewetson to remove a mass of adenoid tissue from a child 10 days old, where the obstruction to nasal breathing was complete. Wurdemann, of Milwaukee,[2] in an analysis of 247 cases with sufficient hypertrophy to necessitate operation, finds this affection most common from 4 to 12 years of age, especially at 7 and 10, and rare after 17. My own experience coincides with this, but I have also found that cases occur in young adults from 16 to 20, without symptoms of nasal obstruction, but causing deafness.

Corwin[3] remarks that owing to the small size of the respiratory passages in children functional interference occurs from the hypertrophy. The increase in the dimensions of the postnasal and pharyngeal spaces which takes place rapidly during adolescence may overcome a marked obstruction, should this remain stationary or only slightly increase in size. This may in part account for the opinion that adenoids invariably disappear or rapidly decrease in size at puberty. Boys are more frequently affected than girls, and frequently several members of the same family are affected. Other causes favouring adenoid hypertrophy are conditions of the general circulation favouring venous turgescence, such as intestinal irregularity, the strumous diathesis, damp and cold climate (Massei states that adenoids are very rare in Italy), diphtheria, whooping-cough, influenza, the acute infectious fevers, anterior nasal obstructions, and cleft palate, where probably the irritation from food and cold air is the direct exciting cause.

Nasal and naso-pharyngeal obstruction occurring during the period of growth has many and far-reaching consequences upon the development of the child. The typical picture of such a case is familiar: The vacant face, open mouth, hanging jaw, the curiously-toned voice, nasal discharge, the history of snoring at night, diminished hearing, and recurring headaches, and in older children the high palate, irregular teeth, and deformed chest.

It is to this special action on the development of the dental arches to which I wish to draw attention. So long ago as 1876 Michel had observed and pointed out the association of habitual mouth breathing with the presence of a high-arched, narrow, hard palate. Some of the earlier writers were inclined to regard it as a hereditary manifestation or as associated with rickets.

But the lesions due to rickets occur in early infancy, and manifest themselves more in the lower than in the upper maxilla, and although the congenital influence on certain types of nose, or on the formation of the face, cannot be denied, still it plays a minor part in producing the changes under consideration. Mayo Collier has seen children whose parents were possessed of remarkably well-formed upper jaws and regular features, and in early life had symmetrical dental arches, and has seen the same children in later years after a period of obstruction to nasal breathing. The jaws had then become altered to the type to be described shortly, showing clearly that the deformity was brought about not by any hereditary influence, but by the obstruction to nasal respirations produced by the presence of adenoid vegetations. Naso-pharyngeal obstruction is so frequently found in the postnasal passages of children of one family that such influence as heredity exerts is probably manifested in this direction.

Körner has pointed out that two varieties of deformity of the maxilla are found dependent upon the presence of adenoid vegetations before or after the second dentition. When nasal respiration is obstructed in a growing child before the second dentition the palate assumes a higher elevation in course of time, and appears in section dome-shaped instead of slightly curved. The alveolar process forms an ellipse instead of a semicircle, and the lateral portions are approximated, the whole growth of the maxilla is retarded, but the milk teeth are in their normal position. But after the second dentition, if the adenoids have not previously been removed, the maxilla undergoes much more pronounced changes. The alveolar processes become still more approximated, the palate more elevated, even resembling a Gothic arch, the anterior part of the alveolar process becomes inclined forward, the lateral halves form an angle at their median junction, and the jaw assumes the V-shaped form so well known.

These changes necessitate alterations in the position of the teeth. The median incisors are turned so that their lingual surfaces look towards each other. If the growth has been much retarded by prolonged obstruction, the teeth are crowded out of their normal places. The lateral incisors, and frequently the bicuspids as well, are pushed inwards, whilst the molars turn outwards. Since the lower maxilla develops at the normal rate, it frequently happens that the outer edges of the upper bicuspids strike against the inner ones of the bicuspids of the inferior maxilla. In consequence of the elongation of the antero-posterior axis and of the oblique position of the incisors, it frequently happens that the incisors do not approximate. The V-shaped superior maxilla and the anomalous position of the teeth have been well known for some years, and many appliances have been suggested to rectify the deformity. The consideration of these is beyond the province of this paper.

The direct method in which the obstruction to nasal respiration brings about these changes is a matter for speculation, but that they are brought about by this agency is quite certain. Ziem has produced similar changes in young animals by blocking the nose for a long period with cotton wool. The alterations produced when only one nostril was blocked were obvious. There was a general arrest of development, not only of the upper jaw, but of the palate bone, frontal bone, the ear, and the whole side of the face.

Three explanations have been suggested. The first is based on the interference which obstructed nasal respiration necessarily has upon the development of the nose. As Freeman has pointed out, the hard palate in the infant is normally highly arched, so that in the ninth month of fetal life the hard palate lies above the level of the Eustachian tubes, at birth it is on the same plane, and later on considerably lower. This is due to the downward growth of the hard palate, so that one factor in the production of a highly-arched palate is a lack of development of the walls of the nose, more especially of the sphenoid and the septum, while the alveoli and the rest of the face develop at the ordinary rate. This descent of the hard palate is made still more evident when we recollect that in the infant the posterior nares are almost round, while in the adult they measure twice as much in the vertical meridian as in the horizontal. If, therefore, any factor interferes with the development of the child and of the nasal cavities, it will retard the proper development of the hard palate and its consequent descent.

The second theory is one about which the most divergent opinions are held, that is, the lateral pressure which the cheeks, aided by the weight of the lower jaw, exert against the maxilla when the mouth is kept open. By some authors this is regarded as the chief agent in the production of the changes in the upper jaw, and their explanation is as follows:

The position of the tongue is altered in the habitual mouth breather. Normally when the mouth is closed the tongue lies against the teeth, the palate, and the alveolar processes, but when the mouth is open the tongue lies in the lower maxilla and there is no pressure against the upper maxilla. Before dentition the unopposed lateral pressure of the cheeks produces a narrowing and lengthening of the alveolar process, and during both periods of dentition, especially during the second, the processes are still more closely approximated, the maxilla becomes more elongated, the descent of the palate is still further retarded, and the resultant changes in the position of the teeth follow, whereas the lower maxilla develops in the ordinary way and remains practically normal. The loss of the milk teeth and the greater vascularity of the maxilla during the period of growth of the permanent teeth are regarded by Körner as the causes of softening of the maxilla, which explains the marked character of these changes during the second dentition.

Mayo Collier's[4] theory that the air stream passing through the mouth and past the naso-pharyngeal space produces a negative pressure in the nose, and therefore a positive upward

pressure on the lower surface of the hard palate, while ingenious, cannot be regarded as a complete explanation.

It seems very probable that each of these theories is to some extent correct, but that no single one is sufficient to fully explain the mode of production of these deformities. It is, however, quite certain that interference with nasal respiration is capable of producing serious and extensive deformity of the teeth and jaws, and that by the restoration of nasal breathing this disfigurement of the maxilla can be prevented, and if seen at an early stage considerably alleviated, the constant stream of air expanding and developing the upper jaw. There are many cases of V-shaped deformity of the maxilla with anterior protrusion due to other causes, but interference with nasal respiration is so common a cause that the condition of the nose and naso-pharynx should be investigated in all these cases.

Breathing exercises as advised by Mr. Arbuthnot Lane are undoubtedly valuable in some cases of naso-pharyngeal obstruction produced by the presence of an abnormal quantity of adenoid tissue, especially if the obstruction to nasal respiration is a first attack or the repetition of a previous one with a history of free nasal breathing in the interval. But when the obstruction is chronic, especially if acute exacerbations also occur, when secondary aural affections exist, and more especially when the deformities in the teeth and palate above described are present, it will be found that breathing exercises, unless preceded by operative measures, will be almost invariably ineffective, and valuable time will have been irretrievably lost.

References.
[1] *Medical Press*, 1900. [2] *Laryngoscope*, 1898. [3] *Journal Amer. Med. Assoc.*, 1900. [4] *Mouth Breathing*, 1901.

FOREIGN BODY IN OESOPHAGUS.

By JOHN McKENZIE, M.A., M.B., Ch.B.,
House-Physician, West London Hospital.

Case.

J. W., a girl aged 12, was admitted into one of Mr. Paget's wards in the West London Hospital on December 13th, 1901.

History.—She stated that about 1 p.m., on coming home from school, she seized and swallowed hurriedly a piece of cake which was lying on the counter in her mother's shop. She felt something hard pass over the throat, and found that she was unable to swallow anything more. Neither the child nor her mother having any idea of the nature of the obstruction, various domestic remedies were employed to "get it down." All attempts to swallow pieces of crust, etc., were followed by their prompt return, and about 5 p.m. the child was brought to hospital.

Condition on Examination.—With the *x* rays a dark-coloured disc about the size of a penny was seen lying, as it were, in the episternal notch, the lower edge of the disc being just behind the upper edge of the manubrium. On looking from the side, a dark line was seen lying almost vertically just in front of the vertebral column. The case was obviously one of a coin impacted in the oesophagus.

Treatment.—All attempts to remove it with coin-catchers and probangs failed, although a small oesophageal bougie was passed into the stomach, and gave a grating sensation on withdrawal. It was decided to attempt its removal under an anaesthetic by means of a laryngeal forceps, and with the help of the *x* rays. The child was placed on a table lying on her back, and with the vacuum tube close to the left side of the neck. Chloroform was given, and a crocodile-bladed laryngeal forceps was passed into the oesophagus. With the screen placed close to the right side of the neck the blades of the forceps were passed down until they were seen to touch the upper end of the black line; they were then opened slightly and passed down so as to get a firm hold. On putting on light traction the coin refused to move, and I imagined for a moment that the wall of the oesophagus must have got caught in the blades; but with the employment of a considerable amount of force (less has been used in extracting a tooth) the resistance was overcome; and the interesting picture was visible of the coin enclosed in the blades of the forceps moving up towards the mouth and being finally removed. After the first pull no more force was necessary, and the coin was removed with great ease. It turned out to be a penny.

After-History.—The patient was discharged from the hospital on the following day. Two days after the operation all that remained was a little discomfort on swallowing.

Remarks.

It appears likely, from all the circumstances of the case, that it would have been impossible to remove the coin by any other means than those employed. Without the *x* rays it might have been possible to lay hold of the coin, but the force employed was so great that one would have hesitated to employ it without actual demonstration that the coin, and nothing but the coin, was within the blades of the forceps, again, it was so tightly impacted that coin-catchers and probang must have utterly failed to dislodge it, even with the help of the screen.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

By E. H. EMBLEY, M.D.,
Honorary Anaesthetist to the Melbourne Hospital.
(From the Physiological Laboratory of the University of Melbourne.)

(Continued from page 893.)

III.—The Cause of the Fall of Blood Pressure from the Administration of Chloroform.

All previous investigators agree in finding that chloroform causes a gradual fall of blood pressure, but they mostly disagree in their conclusions as to the cause.

Some of these conclusions are summarized in the following scheme:

The Hyderabad Commission maintains that the fall of blood pressure is due to vasomotor paresis alone.

Wood,[6] Hill,[1] Hare and Thornton,[9] MacWilliam,[16] Duplay and Hallion,[17] conclude that it is due to vasomotor and heart paralysis combined.

Gaskell and Shore,[12] Richet,[13] conclude that the fall of blood pressure is due to impairment of cardiac muscle alone.

The possible causes o this gradual fall of blood pressure are:

1. Diminution in the heart's output per second.
2. Increase in the outflow from the arterioles, either from:
   - *a.* Loss of central vasomotor control, spinal and medullary.
   - *b.* Diminished efficacy of the muscular fibres of the arterioles themselves.
3. Increase in the bed of the circulation by relaxation of arteries and veins.

Excepting Gaskell and Shore, the other investigators do not appear to have sufficiently considered the possibility of chloroform directly influencing the muscle tissue in the walls of the vessels themselves, as it does cardiac muscle.

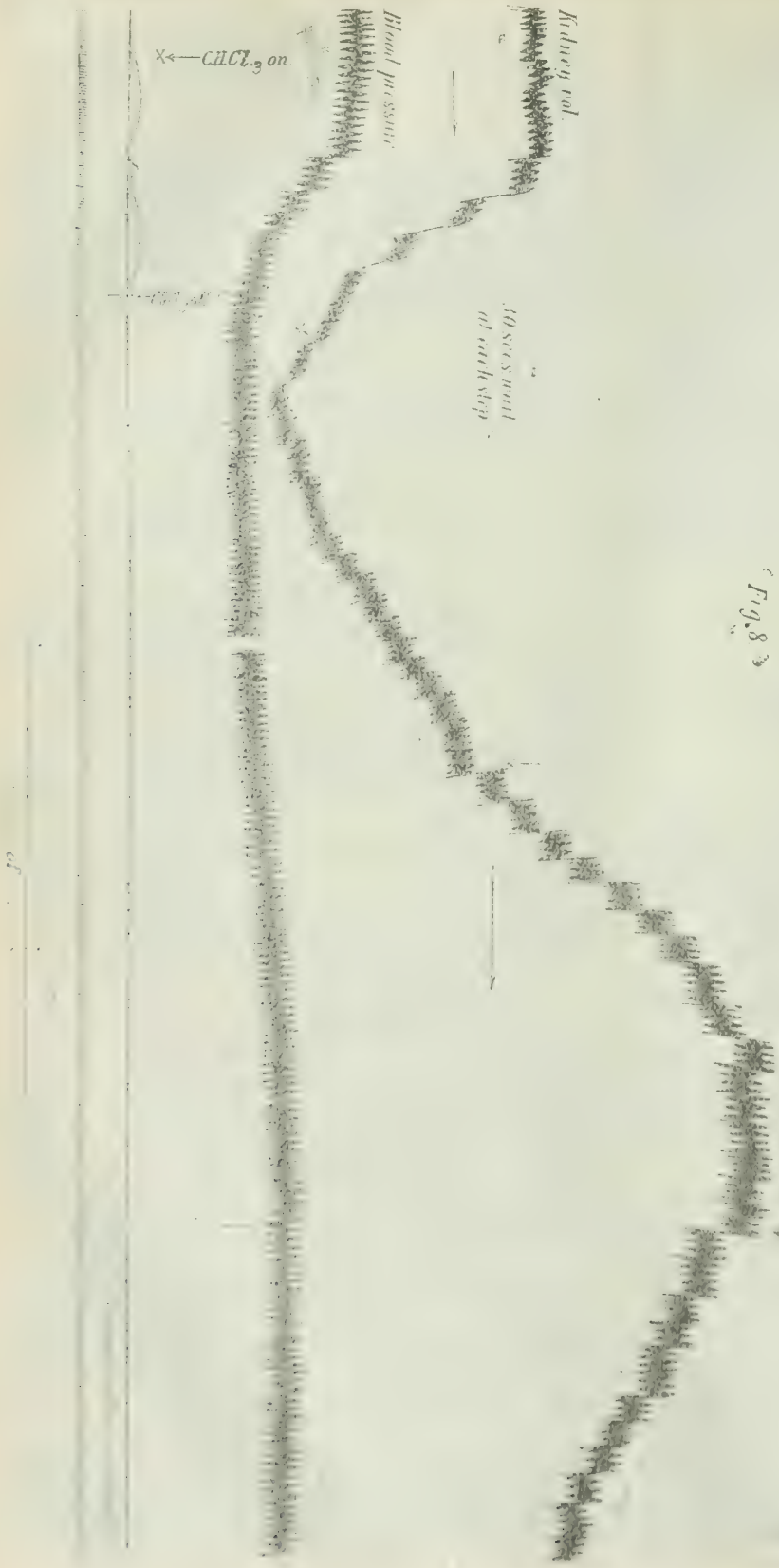
Lister,[13] experimenting upon the web of a frog's foot, found that the application of chloroform or of chloroform vapour caused hyperaemia of the part. This suggested a local paralytic effect upon the muscle of the arterioles.

1. *Changes in the Force of Cardiac Contractions.*

It has been shown above that paralysis of the heart occurs from chloroform in the blood circulating through it, corresponding in vapour tension with small percentages of chloroform vapour in the inspired air. When the circulating blood reaches a vapour tension of chloroform the same as that of 0.3 per cent. vapour in the inspired air, the heart steadily becomes paralysed, and the blood pressure falls.

2. *Changes in the Rate of Cardiac Contractions.*

That vagus slowing of the heart may be a factor of considerable importance in depressing the circulation is readily seen in those blood-pressure tracings of morphinized dogs in which the percentage strength of chloroform vapour in the air inhaled has been enough to raise the irritability of vagi to the stage of slowing the heart, but not to that of stopping it.



Tracing 2 is an example. In this experiment 2.2 per cent. chloroform vapour was contained in the air inspired by the dog. The heart's rate is seen to slow down from 41 to 30 per minute, and the blood pressure to fall from 136 to 12 mm. mercury pressure in 25 min. 30 sec. The vagi were then divided, whereupon the blood pressure rose steadily to 80 mm. mercury pressure, although the same percentage chloroform was being administered all the time by artificial respiration. The blood pressure does not begin to fall again until 12 min. 5 sec. of further administration, and does not reach zero until 94 min. 30 sec. after the commencement of the experiment.

Two factors are evidently contributing to the fall in blood pressure from this vagal slowing of the heart's rate, namely:

1. The slowing of the heart's contractions and consequent diminution in the heart's output.

2. Further diminution in the force of the heart's contractions consequent upon the increase in the vapour tension of chloroform in the blood to the heart, resulting from the slower passage of blood through the lungs.

The slower the passage of blood through the lungs the more nearly will the vapour tension of the contained chloroform approximate to that of the inspired air.

3. Changes in central vasomotor control.

4. Changes in the efficiency of the muscular walls of the arterioles.

These two questions were investigated by employing simultaneous plethysmographic (bowel, kidney, and spleen) and blood-pressure records of the effects of the inhalation of chloroform of known strength: (*a*) With brain arteries open; (*b*) with all brain arteries clamped (including ascending cervical). Similar records were also taken of the effect of injecting blood or saline containing from 0.07 per cent. to 0.7 per cent. by weight of chloroform into the vertebral or internal carotid arteries: (*a*) With brain arteries open; (*b*) with brain arteries clamped.

The effects of deepening chloroform narcosis upon the vasomotor response to stimulation of the central end of the sciatic nerve, and upon the vasomotor adjustment to rotation of the animal from the horizontal to the vertical position, were also investigated.

In performing the experiments for obtaining organ volume records, it was found that whereas morphine narcosis was sufficient for small operations, curare or ether anaesthesia was necessary to avoid shock when more extensive operative procedures were required. In obtaining organ volume records, air oncometers were employed. These oncometers were made of guttapercha. The kidney and spleen oncometers were of the simple form devised by Schäfer. The bowel oncometer was of the form suggested by Edmonds.[3] A considerable improvement was made in these oncometers by securing upon the lip of the open part of each oncometer a broad flat ring of brass or glass, ground perfectly true for the adaptation of the glass cover.

Chloroform Administered by Respiration (Brain Arteries Open).

Fifty-nine dogs were experimented upon

Fig. 9.



in obtaining the various organ volume records. The vagi were divided in order to eliminate cardiac inhibition. Artificial respiration was employed.

(*a*) *Kidney Volume Changes.*

Twelve animals were used in kidney oncometer experiments. Tracing 8 (p. 952) is representative of the results. It shows that upon the administration of air containing 2.7 per cent. of chloroform vapour, the kidney volume compensated against the falling blood pressure until the fall equalled 14 mm. mercury pressure. As the fall in blood pressure continued the organ volume diminished, so that at the expiration of 3 min. 53 sec., when the administration of chloroform was stopped, the blood pressure had fallen equal to 40 mm. mercury pressure and the tambour lever had fallen 43 mm.

During recovery a considerable increase occurs in the volume of the kidney, so that at the expiration of 17 min. 12 sec. after cessation of the administration of chloroform, the tambour lever indicates a rise of 80 mm., that is, 37 mm. above the normal, whilst the blood pressure rose equal to 16 mm. mercury pressure only. This increase in the volume of the kidney then began to undergo diminution, so that at the expiration of a further 27 min. 12 sec. it had come down to 7 mm. above the normal. The vessels had recovered. The dilatation of the kidney that occurred during recovery was obviously due to the recovering heart driving blood into the still relaxed

vessels and, notwithstanding the low arterial pressure, overfilling them. That this relaxation of the arterioles began to occur early in the course of the administration of the chloroform is to be seen in the compensatory dilatation of the kidney volume that occurs before the excessive fall of blood pressure obscures it.

(*b*) *Bowel Volume Changes.*

Thirty animals were used in measuring bowel volume changes. Tracing 9 (p. 953) is representative. It shows that compensating dilatation occurred in the bowel vessels for the fall of blood pressure, from the administration of air containing 25 per cent. chloroform vapour. The compensation is more complete than was the case with the kidney. The relaxation of the bowel vessels compensated against the fall in blood pressure for 72 sec. During this period the blood pressure had fallen equal to 40 mm. mercury pressure. The bowel



Fig. 10.

volume then began to diminish. The diminution, however, was not great, as the lever of the tambour indicated a fall of only 28 mm., whilst the fall of blood pressure was equal to 156 mm. mercury pressure at the time when the administration of chloroform ceased. The recovery, on the other hand, was attended by a greater increase in volume than that which occurred in the case of the kidney. The lever indicated a rise of 80 mm. above the level of normal volume at the expiration of 2 min. 44 sec. after the administration of chloroform had ceased. During this time the blood pressure had recovered to within 58 mm. mercury pressure of its normal level. As the blood pressure continued to rise the bowel volume began to contract, so that the lever of the tambour fell slowly as the vessels were recovering their tone.

(*c*) *Spleen Volume Changes.*

Seven experiments were made with the inhalation of varying percentages of chloroform in air, during which simultaneous records of the blood pressure and volume of the spleen were taken. The results corresponded with those obtained with the bowel and kidney. The rhythmical contractions of the organ diminished and ultimately ceased as the anaesthesia progressed.

The records show that upon discontinuing the administration of chloroform in each instance the heart recovers before the vessels. The organs at first always continued to increase in volume as the blood pressure rose. The period during which dilatation of the organ continued to occur before the onset of constriction or recovery varied with the duration of the administration. If the administration had been continued for 20 or 30 sec. only, the recovery in blood pressure and organ volume was almost simultaneous. If, on the other hand, the administration was continued for 4 min. the vessels did not begin to constrict until 17 min. 12 sec. after administration had ceased. Meanwhile the heart had recovered, and had been distending the vessels with blood.

(*b*) *Brain Arteries Clamped.*

This was accomplished by clamping the carotids, the vertebrals, the ascending cervical arteries, and the thyroid axes. The four jugular veins were also tied and the vagi were cut. The animals were curarized, and artificial respiration was performed throughout.

In these experiments chloroform was largely excluded from the brain. A small amount of chloroform reaches the brain by way of the foramen magnum. Changes occurring in the organ volumes are less complicated by the influences of chloroform on the medulla.

When chloroform was administered under these conditions the fall of blood pressure was always accompanied by a simultaneous increase in organ volume, indicating even more marked relaxation of the arterioles.

(*a*) *Kidney Volume Changes.*

Five animals were employed in obtaining simultaneous tracings of blood pressure and kidney volume.

Tracing 10 is typical. It shows that at the expiration of 25 sec. after the administration of air containing 3·5 per cent. of chloroform vapour, the organ volume had increased so that the lever of the tambour indicated a rise of 7 mm., whilst the blood pressure had fallen 50 mm. of mercury pressure; that at the expiration of 62 sec., at which time the administration of chloroform vapour was stopped, the lever indicated a rise of 15 mm., whilst the blood pressure had fallen 98 mm. of mercury pressure. The volume then began to diminish and to rise again with the recovery of the heart and blood pressure, so that at the expiration of 44 sec. after the administration had ceased the tambour lever was 5 mm. above its normal and the blood pressure had risen 6 mm. mercury pressure.

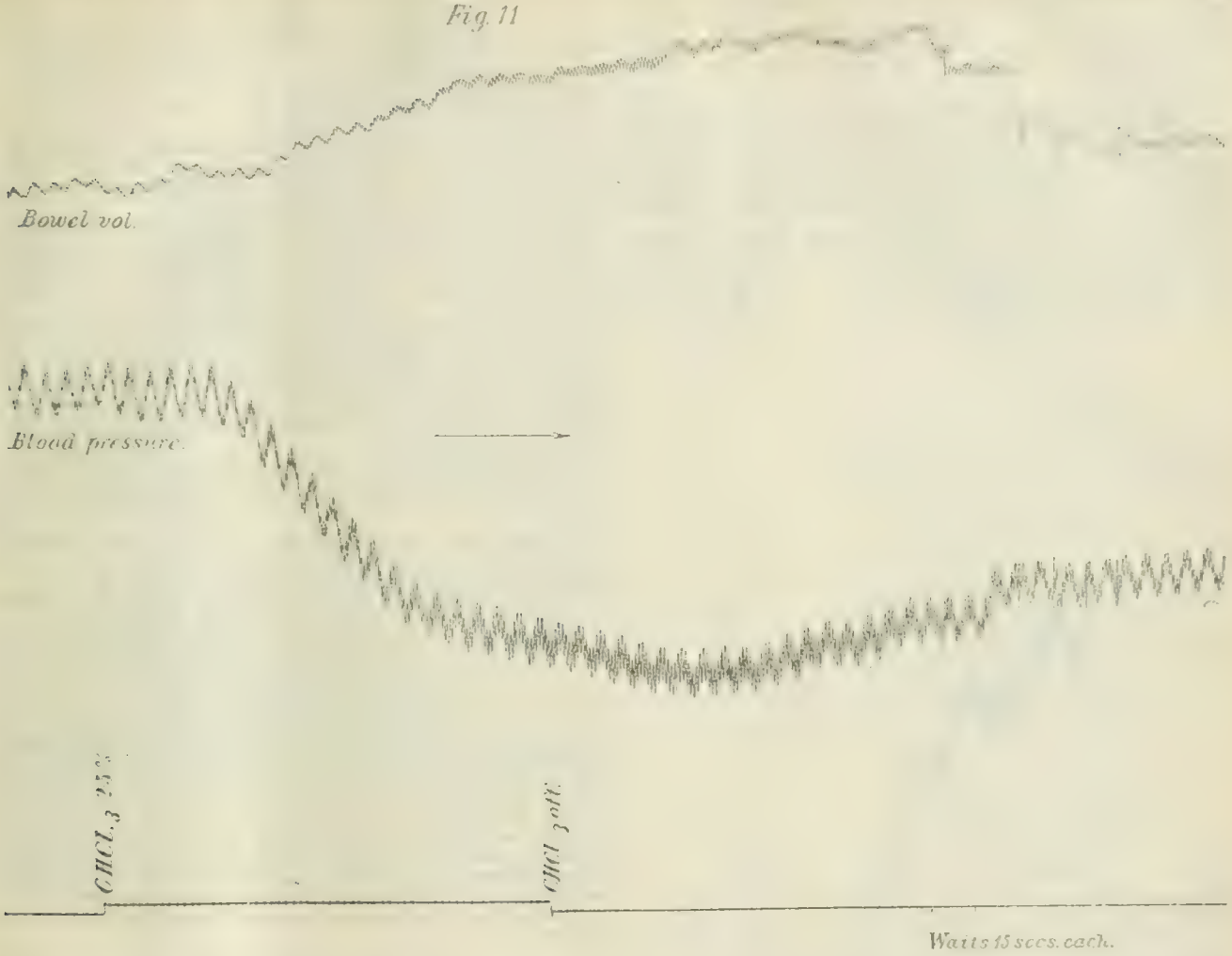
In this tracing the Traube-Hering curves are more than usually marked.

(*b*) *Bowel Volume Changes.*

Five animals were employed in obtaining this class of record, of which Tracing 11 (p. 955) is typical. It is the result of administering air containing 2.5 per cent. of chloroform vapour. The increase in volume of the bowel occurred simultaneously with the fall in blood pressure, and corresponds with that which occurred in the experiments with the kidney volume. It shows that in 42 sec. of administration the increase in bowel volume had raised the lever of the tambour so that it indicated a rise of 6 mm., whilst the blood pressure had fallen 20 mm. mercury pressure; that in 94 sec., when the administration of chloroform was stopped, the lever indicated a rise of 16 mm., while the blood pressure fell equal to 70 mm. mercury pressure; that in 35 sec. after the administration of chloroform had ceased, the lever indicated a rise to 19 mm., while the blood pressure fell another 10 mm. mercury pressure. The blood pressure then began to recover, but the bowel volume continued to increase for 42 sec. more before it began to fall; then the blood pressure began to rise more rapidly, so that 66 sec. later the lever had fallen 12 mm., whilst the blood pressure had risen 12 mm. mercury pressure.

The results obtained indicate a decided increase in organ

Fig. 11



volume during a great fall in blood pressure. The increase in organ volume was distinctly more than occurred when the brain arteries were open. As this greater dilatation occurred when the chloroform was practically excluded from the brain, it is obvious that the dilatation is not due to any medullary vasomotor paralysis. It must therefore be due to paralysis of the spinal vasomotor centres or to paralysis of the muscle cells in the walls of the arterioles.

Further experiments were then performed with a view to elucidating the matter further, in which chloroform was delivered directly to the brain by injection into the vertebral or internal carotid arteries.

In these experiments the direct effects of chloroform on the vasomotor centres in the medulla were studied. The object aimed at was to deliver chloroform to the brain alone and observe the effects produced upon the vasomotor centres in the medulla uncomplicated by any heart or peripheral vascular effects.

Gaskell and Shore [12] performed a number of this class of experiment. They injected undiluted chloroform into the internal carotid or vertebral arteries. They obtained a decided rise of blood pressure. These results, together with those of their cross circulation experiments, led them to conclude that chloroform inhalation did not paralyse the vasomotor centres in the medulla.

Hill,[1] who concluded from his experiments in vertical rotation of animals that the vasomotor system was paralysed by the inhalation of chloroform, inferred that the injection results of Gaskell and Shore were produced by anaemia of the bulb. He advances, in support of this contention, that nitrite of amyl, in the hands of Cash and Dunstan, produced the same result as chloroform when injected into the carotid artery. This, however, by no means supports his contention. I find, with Cash and Dunstan, that nitrite of amyl actively stimulates the vasomotor central system—for example, 4 c.cm. of 1 per cent. in normal saline at 40° C. injected into the internal carotid artery caused a rise of blood pressure equal to 100 mm. mercury pressure; that, on the other hand, when the brain arteries were clamped and the nitrite was given by inhalation, there was a great and prompt fall of blood pressure accompanied by very marked peripheral dilatation of the vascular system, as shown by oncometer measurements of the kidney and bowel. Its effect upon the vascular system is, in fact, the same as that of chloroform, but much more rapidly paralytic upon the peripheral vessels. This accords with the conclusions of Brunton [28] in respect to nitrite of amyl.

In order to avoid the possibility of the bulbar anaemia charge being advanced to account for the results of these experiments, very weak solutions of chloroform in normal saline

or defibrinated blood were for the most part used. Controls were also made by injecting normal saline solution or defibrinated blood alone. In no instance were such control injections found to produce any effect upon the blood pressure.

The lowest percentage strength of chloroform used was 0.075 per cent. by weight. Injections of 20 to 40 c.cm. were employed. Further dilution to an uncertain extent by the cerebral blood took place. Such diluted chloroform produced a decided rise of blood pressure, with simultaneous constriction of organ volume, both of which passed off with equal rapidity.

Solutions of chloroform in defibrinated blood could not safely be made stronger than 0.15 per cent. Higher percentages had the effect of laking the blood and causing masses of haemoglobin crystals to occur.

Fig 12



In most of these experiments the carotid and vertebral arteries were clamped and the vagi were cut. The internal carotid artery or arteries were connected with a pressure bottle containing the chloroform solution maintained at 40° C. by a water bath. When the blood pressure had become constant after the rise due to the clamping of the brain arteries, the chloroform solution was injected at approximately the systemic blood pressure. In a few of the experiments the injections were made into the vertebrals. The same result was obtained.

The [illegible]unt of arterial blood that finds its way to the medulla by way of the foramen magnum in no way impairs the results of this class of experiment. The same experimental results are obtained, if, in addition to clamping the four arteries mentioned, the thyroid axis and the ascending cervical arteries be tied and the aorta clamped just beyond the subclavian artery. By these measures the circulation is carried on by the brachial arteries only and the blood supply is cut off from the brain. The blood pressure promptly rose upon the injection of chloroform under these conditions as readily as when the injections were made with the aorta and small arteries open.

The small amount of blood that reaches the medulla through the spinal canal is an advantage on the other hand, for it prevents actual asphyxiation of the vasomotor centres during the necessary operative procedure.

The remarkably free venous anastomosis along the spinal canal is important, however, since by its means chloroform which has passed through the cerebral circulation is easily carried into the general circulation, though the four jugular veins are tied.

Tracing 12 illustrates the effect of injecting 20 c cm. of 0.7 per cent. chloroform in normal saline solution at 40° C. The injection of this amount extended over 8 sec. It produced a rise of blood pressure equal to 90 mm. mercury pressure. Simultaneously with this rise in pressure the bowel volume constricted so that the lever of the oncometer tambour fell 15 mm.

In an experiment with 0.3 per cent. solution of chloroform in normal saline, 25 c.cm. were injected, it caused a rise of 80 mm. mercury pressure and a fall of 18 mm. in the tambour lever.

An experiment in which 40 c.cm. of 0.075 per cent. solution of chloroform in defibrinated blood was injected, a rise of blood pressure equal to 50 mm. mercury pressure resulted.

These experiments were performed upon 36 animals. A rise of blood pressure occurred in every one.

The response to the stimulus of chloroform injection into the brain by the vasomotor centres in the medulla is not one occurring only in the initial stage of the administration. I have found it to occur upon the injection of 0.7 per cent. chloroform solution after 103 min. of sound surgical anaesthesia, the brain arteries being open meanwhile. The effect of the injections at the expiration of 103 min. was, of course, much less marked than it was at the commencement. The vasomotor system was then by no means paralysed, as the blood pressure was still equal to 84 mm. mercury pressure. Since the effect of chloroform upon the vasomotor centre in the medulla is stimulative for a considerable time, whereas the actual effect upon the vessels is relaxation, it would appear that the paralytic effect is due to the action of chloroform upon the muscle cells or spinal centres.

Faradizing the Sciatic Nerve under Deepening Chloroform Narcosis.

The reflex vasomotor effects produced by faradization of the sciatic nerve showed progressive failure as the chloroform narcosis deepened.

Faradizing the sciatic nerve of a curarized dog after 7 min. 5 sec. of the administration of air containing 2.4 per cent. chloroform vapour, caused a rise of blood pressure equal to 30 mm. mercury pressure. After a period of 9 min. 30 sec. administration, the same stimulus caused a rise of pressure equal to 22 mm. mercury. The administration was now stopped for 5 min. 30 sec. Air containing 3.5 per cent. chloroform vapour was then administered, and after 1 min. 10 sec., faradization of the sciatic nerve caused a rise of blood pressure equal to 14 mm. mercury, and after 3 min. 10 sec. a rise equal to 9 mm. mercury pressure. The administration was then stopped, and after 2 min. 10 sec. faradizing caused a rise of blood pressure equal to 12 mm. mercury pressure.

Experiments upon the Effects of Vertical Rotation under Chloroform.

The results of vertical rotation experiments corroborated those of Hill.[1] There does not appear to me, however, to be any grounds for necessarily assuming central vasomotor paralysis from these rotation experiments. Paralysis of the muscular tissue of the arterioles would equally account for the failure of adjustment on rotation, such as occurs in animals not chloroformed. Another factor was found in these experiments which Hill does not appear to have observed,



that aids in depressing the circulation upon rotating the chloroformed animal, namely, that the heart's rate does not increase on rotation as it does when the animal is not narcotized by chloroform. The increased rate that occurs upon rotating a dog merely morphinized helps by increased output to sustain the blood pressure. When the animal is being chloroformed this compensatory factor is rapidly lost, as the chloroformization deepens. This may be due to the effect of chloroform in increasing vagal irritability, but a complex reflex adjustment will naturally become less adequate and ultimately abolished under the influence of chloroform.

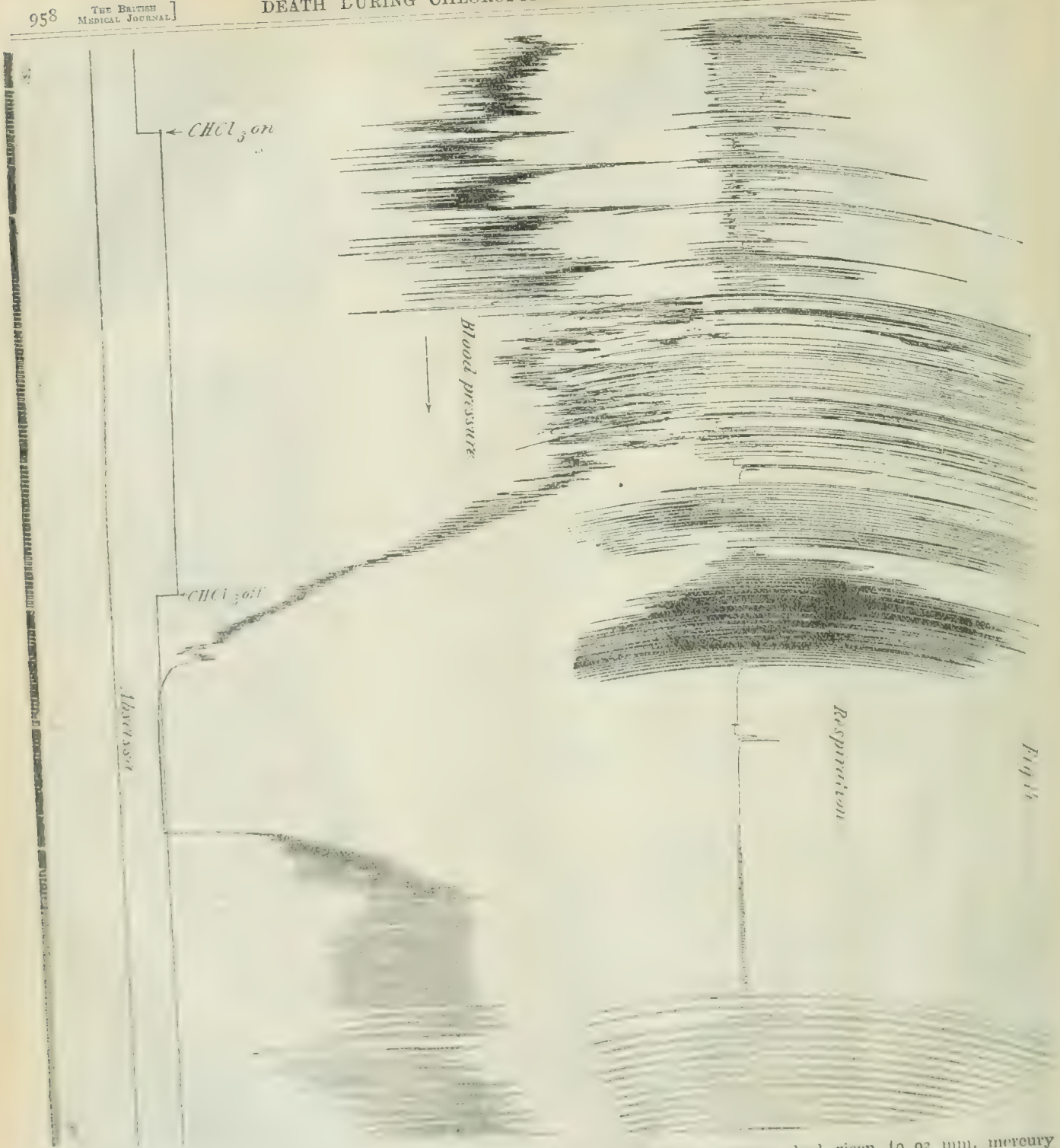
Conclusions.

1. Chloroform causes a diminution of vascular tone of the arterioles.
2. Diminution in the vascular tone of the arterioles is most obvious when chloroform is practically kept out of the brain.
3. The central vasomotor system is stimulated, at any rate for a time, by chloroform.
4. The cause of the fall of blood pressure from the administration of chloroform is paralysis of the muscle cells of the heart and of the arterioles (provisional). The fall may be further augmented by slowing of the heart's rate, or suddenly brought to zero, by vagus inhibition of the heart.

IV.—The Relation of Asphyxia to Syncope and the Causes of Respiratory Failure.

Analysis of 38 blood-pressure and respiration tracings which were obtained in investigating this section shows that fall of blood pressure contributes to respiratory failure. Chloroform may paralyse the respiratory nervous mechanism independently of a fall in blood pressure, but such results have never occurred in any of my experiments in which the chloroform was administered by inhalation. Analysis showed that in 31 out of 38 experiments the blood pressure was below 50 mm. of mercury pressure before respiration failed. Of the 6 other experiments the highest blood pressure was 70 mm. mercury pressure when the respiration ceased. Most of the failures of respiration occurred when the blood pressure was about 44 mm. mercury pressure.

The part which fall of blood pressure plays in conducing to respiratory failure is illustrated in Tracing 14 (p. 958). In this experiment the dog was not morphinized preliminarily. The connexions for the manometer and the respiration were prepared with the dog under ether, eight hours previously. It shows that respiration failed 15 sec. after blood pressure had, from vagus inhibition of the heart, reached zero. Further, it shows that after 90 sec., the vagus mechanism failed longer to inhibit the heart, and the blood pressure rose.



When the blood pressure reached 100 mm. mercury pressure the respiration returned.

Tracing 13 (p. 957) further illustrates the effect of fall of blood pressure in conducing to respiratory failure. It is another case of vagus inhibition of the heart. In this experiment, however, the vagi were divided at the position indicated, in order to raise the blood pressure. The respiration had failed when the blood pressure was at 16 mm., and returned when the blood pressure had risen to 92 mm. mercury pressure. Chloroform was inhaled so long as the animal breathed.

Further confirmation was obtained by performing rotation experiments. The results so obtained corroborated those of Hill.[1] Respiration was found to fail when the blood pressure of a chloroformed dog fell upon rotating the animal vertically into the head-up position, and to return when the blood

pressure rose after rotating the animal back into the horizontal position.

Explanation of Tracings.

Tracing 8.—(Organ volume measurements.) Oncometer and blood-pressure tracing. Upper tracing is kidney volume, the lower tracing is blood pressure. Brain arteries open. Vagi cut. Dog, weight 16 lb. Morphine 0.25 gram, curare 0.016 gram. Artificial respiration. Chloroform vapour 2.7 per cent. in the air administered. Administration continued for 3 min. 55 sec., as indicated by the bracket sign. Drum was stopped 20 times for 30 sec. each, 15 times for 1 min. each—that is, between the first and second arrows—and 12 times for 2 min. each afterwards. Zero line is 2.5 mm. too low.

Tracing 9.—(Organ volume measurements.) Brain arteries open. Bowel oncometer (B. V.) and blood-pressure (B. P.) tracings. Dog, 20 lb. Morphine, 0.3 gram. Curare, 0.02 gram. Vagi cut. Chloroform vapour, 2.4 per cent. in the air administered by artificial respiration during the period of elevation of the zero line. Recording drum was stopped 20 times for periods of 30 sec. each. The lever of the tambour rose 15 mm. over the drum during the heart's recovery.

Tracing 10.—(Organ volume measurements with brain arteries clamped.) Kidney volume (K. V.) and blood-pressure (B. P.) tracings. Both carotids and vertebrals and the other ascending arteries clamped, and the vagi cut. Chloroform 3.5 per cent. vapour in the air administered by artificial respiration during the period of elevation of the zero line. Drum stopped 3 times for intervals of 30 sec. each at end of tracing.

Tracing 11.—(Organ volume measurements with brain arteries clamped.) Bowel volume (B. V.) and blood-pressure (B. P.) tracing. Brain arteries clamped and vagi cut, as in 10. Morphine, 0.4 gram. Curare, 0.02 gram. Chloroform, 2.5 per cent. vapour in the air administered by artificial respiration during the period indicated by elevation of zero line. Six times the drum was stopped, 15 sec. each, denoted by "waits."

Tracing 12.—(Effect of chloroform delivered to brain.) Bowel volume (B. V.) and blood pressure (B. P.) tracings. Dog, weight 25 lb. Morphine, 0.4 gram. Curare, 0.025 gram. Vagi cut. Artificial respiration. Injecting 20 c.cm. of 0.7 per cent. (by weight) chloroform in saline solution at 40° C. into the internal carotid artery, during the interval of time between the arrow heads. Time line is zero line.

Tracing 13.—(Relation of respiration to circulation.) Respiration the upper, and blood pressure the lower, tracing. Dog, weight 33 lb. Morphine 0.5 gram. Chloroform, 6 per cent. vapour in air taken in respiration at "started," and continued till the respiration ceased. Respiration ceased when the blood pressure was equal to 16 mm. mercury pressure. Vagi were cut when the blood pressure rose. Respiration recommenced when the blood pressure had reached 92 mm. mercury pressure.

Tracing 14. (Relations of respiration and circulation.) Respiration upper, blood pressure lower, tracings. Non-morphinized dog. Tracings include the induction period. Dog, weight 24 lb. Chloroform given from a towel during a period indicated between arrow heads marked "started" and "off." Much struggling during early part of administration. Respiration ceased 16 sec. after blood pressure had fallen to zero by vagus inhibition of the heart. Respiration recommenced when the heart, having recommenced, had raised the blood pressure to equal 102 mm. mercury pressure.

Spontaneous Recovery of Respiration.

In 8 experiments out of the 38 the respiration recovered spontaneously. In 6 of these spontaneous recoveries vagus inhibition of the heart had dangerously lowered the blood pressure before respiration ceased.

The blood pressure in these eight experiments was:

0	when respiration failed, and	60 mm. Hg.	when it returned.
[illegible]	..	72	..	..
0	..	102	..	..
34	..	60	..	..
16	..	[illegible]	..	..
[illegible]	..	120	..	..
44	..	70	..	..
[illegible]	..	0	..	..

Continuance of respiration under chloroform anaesthesia, therefore, greatly depends upon the maintenance of the blood pressure. This result is in accord with the conclusions of Gaskell and Shore, and Hill.

In 24 of the 30 cases in which respiration did not recover, the combined stimulus of chloroform and asphyxia occasioned permanent inhibition.

Asphyxia, as is well known, greatly increases the irritability of the vagus centres under chloroform. So much so is this the case that when the vagus mechanism has become irresponsive to even 6 or 7 per cent. chloroform vapour in the air administered, the additional stimulation of asphyxia from arrest of respiration often raises the vagus irritability to the extent of arresting the heart in morphinized dogs.

Conclusions in Respect to the Relations of Respiration and Circulation in Dogs, and the Cause of Respiratory Failure.

1. Failure of respiration is mainly due to fall in blood pressure. With a good blood pressure, failure of respiration by inhalation of chloroform is practically impossible.

2. Restoration of failed respiration is dependent upon restoration of blood pressure.

3. Failure of respiration occurring in the induction or early period of anaesthesia happens as frequently after as it does before the heart stops.

V.—The Effect of Varying Percentages of Chloroform Vapour in the Air Breathed upon the Results.

Snow,[9] Paul Bert,[22] Dubois,[23] and more recently Waller,[15] have by various methods of investigation determined that 1 per cent. to 1.5 per cent. (by volume) chloroform vapour in the air breathed may be regarded as the anaesthetic range for chloroform, and that percentages above 1.5 per cent. become lethal. In my own experiments these figures represent an approximate guide for fairly continuous administration.

Considerable difference of time occurs before anaesthesia is attained in different animals, even when using the same percentage chloroform vapour in the air inspired. Old dogs, for instance, take a much longer time to become anaesthetized than do young dogs of the same weight. Similarly, and from obvious physiological reasons, big dogs take longer to anaesthetize than little ones. The difference in the time taken to anaesthetize a big and old dog on the one hand and a small puppy on the other with the same percentage chloroform is very great.

The results, moreover, show that there is no actual line between anaesthetic and lethal percentages. It is a question of time only for percentages lower than the anaesthetic ones to kill by continuous inhalation. Dastre[10] has already pointed this out.

The question of what is the fatal saturation point in the whole body never occurs in practical anaesthesia. In fact, during inhalation the venous blood probably never, under any conditions of practical administration, reaches the same vapour tension of chloroform as the arterial.

The consideration of the effects of varying percentages of chloroform vapour in the air inspired has a practical bearing, and that is in its relation to the occurrence of sudden deaths under chloroform, The vapour tension of chloroform in the arteries therefore is the question involved. This is so because the tissues of the body are for a considerable time the receptacle into which the arterial blood discharges most of its charge of chloroform.

Tracing 1 demonstrates the effects of arrest of distribution of chloroform, and therefore the rapidity with which the vapour tension of chloroform (1.2 per cent.) in this small amount of circulating blood attains that of the air inspired. By the experimental method in which this tracing was obtained, the circulating blood passes either by one carotid artery through a short artificial circuit to the corresponding external jugular vein, or through the coronary circuit. By this means the disposal of chloroform by the arteries is arrested and the circulating blood rapidly obtains the same vapour tension of chloroform as that of the inspired air. In this experiment with 1.2 per cent. (anaesthetic percentage of Paul Bert[22] and others) chloroform vapour in the air, the heart was paralysed in 9 min. 45 sec. of administration.

By the same method the effect of other percentages was ascertained. The results of three experiments with different percentages are here given, and are placed in contrast with the effects of nearly similar percentages administered with the whole circulation of the animal open. The anaesthetic was administered by artificial respiration in each series.

Chloroform Vapour in the Air Inspired.	Artificial Circuit through Lungs and Heart only.			Chloroform Vapour in the Air Inspired.	General Circulation.			
Per Cent.				Per Cent.				
0.8	Caused death in	..	..		Caused death in	5	53	30
1.0	..	..	..	1.2 (a pup)	..	1	3	25
2.0	..	1	..	..	..	1	33	10
				2.5	..	1	18	35

In the experiments with 2.2 per cent. and 2.5 per cent. chloroform vapour in the air inspired and the general circulation open, inhibition of the heart occurred at the expiration of 15 and 24 min. respectively, so that vagotomy had to be performed.

With the small quantity of blood in this limited circulation the effect is very rapid, and as seen in Tracing 2 recovery is correspondingly quick. The contrast indicates that blood in the lungs does not rapidly acquire the same vapour tension as the air breathed, in ordinary chloroformization, by once traversing the pulmonary capillaries. In normal conditions it parts with much of what it has taken up in the lungs, to the lymph and tissues of the general circulation, so that a considerable time, depending upon the size of the animal, must ensue before equilibrium between air and blood obtains. With the limited circulation and small quantity of blood on the contrary, this equilibrium occurs within a few minutes.

The relative excitability of the vagus mechanism to the stimulation of chloroform appears, however, to be an important varying factor in all questions of percentages. It has been found that 2 per cent. chloroform vapour in the air inspired is liable to bring on fatal vagus inhibition in the dog.

Conclusions.

1. The blood of the lungs, by once traversing the pulmonary capillaries, does not attain to nearly the same vapour tension of chloroform as that of the air inspired.

2. The vapour tension of chloroform in the arteries is the important practical question. As this rises and falls with the volume of chloroformed air inspired, also with variation in vapour tension of the chloroform in the air, it follows that the effects of chloroform upon the animal will vary with the depth and rate of the respirations, just as much as with the percentage strength of chloroform vapour in the air administered.

3. Chloroform in arterial blood is largely discharged into the tissues at first—that is, the vapour tension of chloroform in the venous blood is equal to that of the tissues. As the arteries continue to pour more chloroform in, the vapour tension of chloroform in the tissues and venous blood would gradually approximate to that of the arteries.

4. The range of percentage of chloroform vapour in the air inspired, for inducing chloroform anaesthesia in the same period of time in different dogs, varies between 0.8 per cent. and 2.5 per cent.

5. Two per cent. or upwards of chloroform vapour in the air inhaled is liable to bring on dangerous vagus inhibition.

VI.—Summary of Conclusions and Brief Discussion of Results.

1. Heart muscle is very sensitive to the poisonous effects of chloroform.

These conclusions are in accord with those of Ringer[4] Wood,[6] MacWilliam,[7] Hare and Thornton,[9] Gaskell and Shore,[12] Richet[13] and Hill.[1] They emphatically refute the assumption of the Hyderabad Commission[5] and Lawrie[27] that chloroform by inhalation never impairs the heart.

2. Chloroform raises the excitability of the vagus mechanism particularly in the early part of the administration.

This has been recognised by the French investigators Morat and Doyen[11] and Dastre[10] also by MacWilliam[7] and Brodie and Russell.[15]

The increased excitability of the vagus mechanism is due to the action of chloroform on the centres.

This is in agreement with the conclusions of Morat and Doyen[11] and MacWilliam.[7] Dastre,[10] however, attributes it to reflexes arising from stimulation by chloroform of the sensory terminals, particularly, of the nasal and superior laryngeal nerves along the respiratory tract. Brodie and Russell[17] attribute it to the same cause as Dastre, but they emphasize, in addition, the vagus terminals in the pulmonary alveoli as the cause of the vagus effects. Reflexes such as Dastre and Brodie and Russell obtained, do occur, but I have, I think, demonstrated above that the fatal inhibitions which occur when the blood pressure has fallen considerably are not so produced.

The inhibitory action of the vagus is more intense and fatal in its effects from being exercised upon a heart whose spontaneous excitability is diminished by the action of chloroform upon it.

Chloroform vapour, not stronger than 1.5 per cent., in the air administered to morphinized dogs, after a period of mild excitation, slowly depresses vagus excitability. Above 2 per cent. in the air inhaled, may occasion dangerous or persistent inhibitions in dogs.

The failure of many experimenters to recognise the importance of vagus inhibition of the heart appears to depend upon the fact that the inhibitory mechanism was paralysed or exhausted by the previous induction of chloroform anaesthesia before the records of the experiments were commenced. This especially applies to the Hyderabad Commission[5] and Richet.[13] A dog becomes, in fact, quite another animal after the induction of chloroform anaesthesia without morphine; from being an animal with a very sensitive vagus control of the heart, he becomes one almost wholly devoid of this function, that is, if he lives through the induction. Consequently vagus inhibition from chloroform alone, or from chloroform and asphyxia combined, or from reflexes arising from surgical procedures, are difficult to demonstrate in dogs so prepared.

Similarly the inferences of the Hyderabad Commission with respect to the time relations of cardiac and respiratory failure, although true for their experiments, do not necessarily apply for animals in which the vagus mechanism, the cause of sudden circulatory failure, is not exhausted. They did not take any records of the induction period of chloroform anaesthesia, the period in which the vagi are active.[5]

The fall of blood pressure has been shown to be largely due to the direct effect of chloroform upon the heart. Heart failure begins with the fall of blood pressure. All blood-pressure tracings, those of the Hyderabad Commission as well, show that this precedes failure of respiration.

Richet,[13] on the other hand, and curiously enough from results obtained from experiments performed upon animals with similarly exhausted vagi, concluded that clinical deaths never result from failure of respiration. He found that after failure of respiration the circulation continued from 3 to 5 mins. Richet[13] evidently did not obtain even the feeble vagus effects that the Hyderabad Commission got.

The recovery of vagus function after the depression resulting from the induction of chloroform anaesthesia, is slow, and I wish to emphasize the fact that transient recovery followed by reinduction does not represent the conditions of a primary induction.

Section of the vagi or atropinization of dogs absolutely abolishes sudden heart arrest from chloroform. The heart under such conditions fails slowly with rapid pulse, slowing as the blood pressure approaches zero. Under these conditions the respiration fails when the blood pressure falls sufficiently, and invariably long before the heart stops.

This conclusion coincides with that of Dastre,[10] Morat and Doyen,[11] but not with that of Richet.[13] Richet evidently, as was pointed out above, experimented with animals whose vagi had already been exhausted, so that section of them or atropinization could not make any difference.

The vagi of dogs vary considerably in their relative excitability and endurance. This constitutes the important personal factor in dogs.

Vagus inhibition is, in dogs, the great factor in the causation of sudden death under chloroform.

This is in accord with the conclusions of Morat and Doyen,[11] Dastre,[10] Hare[9] and Thornton[9] (conditionally).

3.—The central medullary vasomotor system is stimulated, at any rate for a time, by chloroform.

This is in accord with the conclusions of Gaskell and Shore,[12] and Dastre.[10] It is opposed to the views of every one else.

Oncometer experiments show that the net result of chloroform on the vessels of the spleen, bowel, and kidney shortly after the commencement of inhalation is dilatation. The effects of chloroform on the peripheral mechanism is paralytic, and on the central vasomotor system is stimulative, so that the effect upon the intact animal is some algebraic sum of the increased stimulus reaching the muscle cells, and of their diminished power to respond. At the very beginning of inhalation the second factor may predominate.

Gaskell and Shore[12] found that when chloroform was delivered to the brain alone vascular constriction ensued, and they concluded that chloroform did not paralyse the vasomotor centres. Hill,[1] on the other hand, found that when

chloroform was delivered to the intact animal vascular relaxation ensued, and inferred that vasomotor paralysis occasioned it. My experiments demonstrate that the results of both of these investigations are correct. They further show that Hill's results were from peripheral and not central paralysis, and that the amount of vascular relaxation that Hill demonstrated was the resultant of these two opposing factors. There appears nothing to justify the assumption of Dastre[19] that vascular constriction is a result of the administration of chloroform.

The cause of the fall of blood pressure from the administration of chloroform is paralysis of the muscle cells of the heart and of the arterioles, the fall may be further augmented by slowing of the heart's rate.

4.—Failure of respiration in inhalation experiments is mainly due to fall in blood pressure. With a good blood pressure, failure of respiration by inhalation of chloroform is practically impossible.

Restoration of respiration is dependent upon restoration of blood pressure.

These conclusions are in accord with those of Gaskell and Shore[12] and Hill.[1] They are opposed to those of the Hyderabad Commission.

Failure of respiration occurring in the induction or early period of anaesthesia happens as frequently after as it does before the heart stops.

This is in accord with the observations of Wood,[6] Snow,[3] the Glasgow Committee,[5] MacWilliam,[7] Gaskell and Shore,[12] Dastre,[10] Morat and Doyen,[11] Richet,[13] Hill,[1] Duplay and Hallion.[16] It is opposed to the conclusions of the Hyderabad Commission[8] and Hare and Thornton.[9] Since sudden circulatory stoppage is due to the vagi inhibiting the heart, it is readily perceived that this may happen before the respiratory mechanism fails, as Tracings 8 and 9 show. In consequence of the Hyderabad Commission having taken no records of the period of induction or early anaesthesia, they obtained no instances of sudden heart stoppage from chloroform alone. For the same reason they never got an instance of heart stoppage before the respiration failed.

I have emphasized above (1) that the chances of dangerous vagus inhibition in chloroform administration are greatly increased by imperfect respiration; (2) that respiration fails when the blood pressure falls greatly from cardiac inhibition or other causes.

In these two series of phenomena we have material for the formation of a vicious circle, for example, supposing (as happened in some cases) that from the inhalation of too strong vapour of chloroform cardiac inhibition occurs, this occasions (1) dangerous fall of blood pressure; (2) cessation of respiration, and the asphyxia consequent thereupon itself increases the inhibition. Or supposing (as happened in some other cases) the administration of too strong vapour occasions by its direct action upon cardiac muscle a rapid fall of blood pressure. This is followed by cessation of respiration, and the ensuing asphyxia is very liable to produce sudden and often fatal inhibition of the heart, which of course still further depresses the blood pressure.

I do not wish to discuss the practical application of these results at present, but one obvious moral is, use only weak vapour of chloroform (less than 1 per cent.) in the early stages, until the initial increased excitability of the vagus mechanism has given place to diminished excitability; in other words, take time in putting the patient under.

In conclusion, most gratefully I acknowledge my indebtedness to Professor C. J. Martin for his valuable advice and assistance throughout the course of this investigation; also for the use of his laboratory and his generous aid in the devising of the various new pieces of apparatus required in the course of the work.

REFERENCES.

[1] British Medical Journal, April 17th, 1897, p. 960. [2] *Lancet*, January 17th, 1900. [3] Snow, *On Anaesthetics*. [4] Ringer, *Practitioner*, vol. xxvi, p. 436. [5] British Medical Journal, 1880, vol. ii, p. 970. [6] Wood, *ibid.*, August 16th, 1890, p. 385. [7] MacWilliam, *ibid.*, October, 1890, p. 949, and *Journal of Physiology*, vol. xxv, No. 4. [8] *Report of the Hyderabad Commission*. [9] Hare and Thornton, *Lancet*, 1893, p. 997. [10] Dastre, *Les Anesthésiques*, Paris, 1890. [11] Morat and Doyen, *Traité de Physiologie*, vol. i, p. 108. [12] Gaskell and Shore, British Medical Journal, 1893, pp. 106 and 171. [13] Richet, "Anesthésie," *Dictionnaire de Physiologie*, 1895. [14] Richet, *Archives de Physiologie*, 1894, p. 653. [15] Waller, British Medical Journal, 1898, pp. 1050-1060. [16] Duplay and Hallion, *Arch. Gén. de Méd.*, August, 1900. [17] Brodie and Russell, *Journal of Physiology*, vol. xxvi, Nos. 1 and 2. [18] *Lancet*, January 26th, 1901. [19] Dastre, *Les Anesthésiques*, Paris, 1901, pp. 104-109. [20] Dastre, *ibid.*, pp. 68-69. [21] Dastre, *ibid.*, 1890. [22] P. Bert, *Arch. f. exper. Path.*, vol. xxi, pp. 5-8. [23] Dubois, *Pflüger's Arch.*, Band lxxvi, p. 219. [24] Hering, *ibid.*, Band, lxxii, Heft 2 and [illegible] *Journal of Physiology*, vol. xxii, p. 380. [26] Brunton, *Report*, p. 208; British Medical Journal, March 10th, 1893, p. 507. [27] Lawrie, *Chloroform*, 1901, p. 38. [28] Brunton, *Phar*[illegible]

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE SETON IN MIGRAINE.

I have read with interest the article bearing on the use of the seton in obstinate cases of migraine, and can endorse the opinion on the value of the treatment. Some three months ago I had a chronic and obstinate case of migraine under treatment, a case where the pain had persisted in spite of all the drugs that had been used, and they had been many and various.

The patient was a peon in the Forest Service, and had been given six months leave on account of migraine. When he came under my care he was in a very reduced state of health on account of the almost constant and severe pain which he suffered and from want of sleep. He had also lost all appetite, and was very thin and weak. After the introduction of a seton in the back of his neck improvement was most marked and decided, and in three weeks he was almost well, had lost all pain, was able to sleep at night, his appetite had returned, and he was a different man. The seton was then removed; he was kept under treatment for about ten days afterwards, and was then returned to duty perfectly cured. He has come back to report once since then, and at that time had had no return of the old pain, and was looking in excellent health. This is the only case of the sort I have had, but is, I think, worth recording in the hope that others with more opportunities may give the treatment a trial in those obstinate cases of migraine which one gets occasionally.

Palamcottah. T. E. Watson, M.B., Captain I.M.S.

THE TREATMENT OF CHOREA BY LARGE DOSES OF FOWLER'S SOLUTION.

Dr. Murray, of Newcastle-upon-Tyne, speaks highly of large doses of liquor arsenicalis in the treatment of chorea, and the following case may be cited as bearing out the correctness of his conclusions.

A boy, aged 9 years, of nervous disposition and rheumatic family history, was sent home from school by the teacher "because he could not sit quiet with the St. Vitus's dance." For eight days afterwards he attended the out-patient department of one local hospital, and for fifteen days at another, without much benefit, according to the mother's account.

When I saw him at the end of this time his movements were almost violent as regards the arms and head. He was at once put on 12-minim doses of liq. arsenicalis in sodium bicarbonate and syrup with his meals. He had a good appetite, and vomited only once on the third day. On the fifth day the eyes were affected, and there were slight cramps in the bowels, but the choreic movements were abating rapidly. "He could now feed himself without spilling, he did not knock his head against the furniture, and could now be left alone in the house." The dose of arsenic was then reduced to 5 minims, and discontinued on the eighth day. There were no further toxic signs, and the symptoms of chorea had entirely gone. The boy has now returned to school.

Bootle. Robert Turner, M.A., M.D.Aberd., F.R.C.S.Edin.

ENTERIC FEVER IN AN INFANT 4½ MONTHS OLD.

On December 10th, 1901, I was called to see a Dutch girl aged 17 years, and found her to be suffering from enteric fever at about the tenth day. She was then suckling a male child aged 4½ months: the child looked strong and healthy at that time. It was weaned at once, and I did not see it again till fourteen days later, when it looked extremely ill, had a temperature of 103°, a pulse of 112, very soft and compressible. There was a systolic murmur over the mitral area; the spleen

was enlarged, and could be palpated below the ribs; there was tympanites and tenderness over the right iliac fossa, and violent diarrhoea, about twenty motions in the twenty-four hours; the child also had acute bronchitis. These symptoms did not yield to treatment, and two days later five small rose-pink coloured spots appeared on the abdomen, and the child died the same night.

I may add that the child's aunt, a girl of 13, also had enteric at the same time, and the grandfather had it eleven months previously, both in the same house.

This case is of interest because, on looking up the literature on the subject, I find there have only been two recorded cases of enteric in infants under 1 year old.

R. J. Love, L.R.C.P.& S.Edin., L.F.P.& S.Glas.

Indwe, Cape Colony.

NOTCHING THE SOFT PALATE FOR CURE OF POST-NASAL OBSTRUCTION IN ADULTS.

I have been very much struck with the fact that while children are greatly benefited by a well-planned operation for the removal of adenoids and excision of tonsils, adults suffering with similar symptoms of obstruction are seldom much relieved by a like operation. I propose to describe a simple operation I have found greatly beneficial to two patients who have come under my care during last year.

The symptoms persisting in spite of local and general treatment are, chiefly, dryness of the throat with constant desire to clear it, hoarseness, and a dry cough which gives no relief. These symptoms are trying enough during the day, but it is at night that the real trouble and terror begins: after sleeping for a few hours the sufferer is awakened by a feeling of tightness in the throat, choking and suffocation, which then usually lasts more or less for the remainder of the night, with perhaps occasional snatches of sleep. After a few weeks this interference with rest naturally produces serious results, the patient loses weight, is anxious and depressed, and is before long unfit for daily work.

The only instruments required are a mouth gag, tongue depressor, straight uterine vulsellum (or other form of catch forceps) and a pair of blunt-pointed scissors. The patient having been anaesthetized, the mouth is held open by an assistant with gag, the operator uses a tongue depressor with the left hand, so as to get a good view of the soft palate, the margin of which is seized midway between the anterior pillar of the fauces and the uvula, with the vulsellum forceps held in the right hand; then, with the vulsellum forceps in the left hand and taking the scissors in the right, the soft palate is cut through on either side of the vulsellum, removing a wedge-shaped piece, the apex extending upwards for fully half an inch into the substance of the soft palate; this frees the vulsellum, which is removed, holding the portion so cut away, and there is a good-sized notch to be seen on one side of the soft palate. The postnasal space can then be scraped if this is deemed needful.

After operation there has been no more difficulty in swallowing than occurs with a slight sore throat, but for a few days mild antiseptic mouth washes may be used. The patient is instructed to breathe through the nose. After two or three days in bed he can be allowed to get up; in a week the cut edges of the soft palate have healed. The voice loses much of its hoarseness; the most marked symptom that the patient notices is that he can sleep (even the first night after the operation) better than for weeks previously.

A cleft palate of small degree is produced by the above operation, and it will be instructive to know if those born with a similar degree of cleft palate are free from postnasal obstruction, and also much less liable to asthma or hay fever than other people. In some instances asthma is cured by scraping adenoids from the postnasal space and for some obstinate cases of asthma or hay fever, especially where the postnasal space is contracted, I venture to think that performance of this operation is likely to relieve the nasal obstruction which may cause these diseases. The effect of the operation is to increase the width of margin of the soft palate and to shorten its length from below upwards, thus affording a freer passage for nasal respiration, and making it much less likely that the postnasal space will be glued up with tenacious mucus and so obstruct respiration through the nose.

Retford, Notts. J. M. Thorne, M.R.C.S., L.R.C.P.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. MARY'S HOSPITAL.

FRACTURE OF FIFTH CERVICAL VERTEBRA IN A HAEMOPHILIC WITH FATAL BLEEDING INTO POSTERIOR MEDIASTINUM.

(Under the care of Edmund Owen, F.R.C.S.)

[Reported by Mr. Hugh Raven, House-Surgeon.]

A carman, aged 49 years, was brought in on March 23rd at midnight with a history that he had fallen backwards downstairs and cut his head, and that he had been unconscious about ten minutes. He was found to have a scalp-wound over the left parietal bone, which was bleeding freely. He was somewhat under the influence of drink, and gave a rambling statement that he always bled a lot when he was cut. The wound was sewn up, but the haemorrhage was difficult to arrest; it was stopped eventually, however, by gallic acid applied under a firm dressing. The man was then well enough to return home.

Next day he walked up to the hospital complaining that his bandage was too tight round his neck, and also that he had a cough; there was difficulty in breathing and some haemoptysis. His tongue, which had been bitten, was still bleeding, as were his gums, and he was expectorating a little blood-stained mucus. His neck was a good deal swollen. He now gave a clear history of haemophilia, and he said that all the males of his family suffered from that condition. He was kept under observation, and in a few hours the neck was found to be much more swollen. The swelling, which extended from the lobes of the ears down to the clavicles, was hardish but not tender. The difficulty of breathing was especially marked with inspiratory stridor. On examining the throat all the tissues were markedly oedematous, the tonsils almost meeting across the middle line; the pharyngeal wall was bulging. There was oedema of the glottis, and his voice was husky. The knee-jerks were present, and he could walk and could turn his head freely. He complained of no pain. The urine was free from albumen; the temperature was 98° F., the pulse 100 and feeble, and the face pallid.

During the night of March 24th he had an attack of dyspnoea which called for instant laryngotomy. This was done under cocaine by a very small incision. He was better after that, but his pulse and strength were failing, and in spite of feeding with milk and brandy by an oesophageal tube—a proceeding made very difficult by the oedema of the parts—he died next evening.

Necropsy.—There was a transverse fracture of the body of the fifth cervical vertebra, with no displacement and no damage to the spinal cord, and with only a little meningeal haemorrhage. Blood had been extravasated, however, behind the retropharyngeal layer of cervical fascia, and had found its way down into the posterior mediastinum, into which he had bled to death. There was also an enormous blood clot in the neck, preventing the return of blood from the pharynx and larynx.

BETHNAL GREEN INFIRMARY.

SUDDEN DEATH DURING CATHETERIZATION: NECROPSY.

(By W. H. Peile, M.R.C.S., L.R.C.P., Senior Assistant Medical Officer.)

A man, aged 82, was admitted on December 29th, 1901, on account of being unable to pass water. On examination the bladder was found to be distended and the prostate enlarged, but no abnormal physical signs could be detected in the other organs; a coudé catheter of moderate size was passed without difficulty, and a quantity of light-coloured but perfectly healthy urine was drawn off.

From this date the catheter was used regularly night and morning until January 9th, 1902, when after the instrument had been passed, and about half a pint of urine had escaped,

the patient was seized with clonic convulsions, affecting chiefly the lower limbs, and resembling a violent rigor: he was then noticed to be unconscious, with a pale face, widely dilated pupils, fixed eyeballs, and insensitive corneae; the convulsion lasted about thirty seconds, after which the pulse and respiration failed, and death ensued in two minutes and a-half from the onset of symptoms.

At the necropsy great general enlargement of the prostate was found, and the bladder was dilated and fasciculated: there was no instrumental injury of the urinary tract; the kidneys were of normal size, and the capsule stripped off readily; the renal substance was tougher than normal, and on the surface of each organ were a few small cysts. The brain and lungs were normal; the heart was empty, but its valves were competent, and both they and the myocardium gave remarkably little evidence of the patient's advanced age.

Remarks.—Since there was no discoverable gross lesion to account for death, I am inclined to ascribe it to syncope caused reflexly by the passage of the instrument, though it is remarkable that this should have occurred with a fairly healthy patient who was already becoming habituated to catheterization. Such cases are fortunately rare.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Howard Marsh, F.R.C.S., President, in the Chair.

Friday, April 11th, 1902.

Mode of Origin of Certain Cysts of the Neck.

Mr. T. Carwardine (Bristol) read a paper in illustration of the mode of origin of certain cysts of the neck. Cysts and fistulae arising from the thyro-glossal duct, he observed, usually had a pedicle which passed through the thyro-hyoid membrane in the middle line, below the hyoid bone, between the body and the thyroid cartilage. These, he suggested, might be termed thyro-hyoid cysts. He related the case of a man, aged 31, deaf and dumb and one of twins, with a fluctuating, superficial median tumour of the neck, overlapping the episternal notch and manubrium sterni, and a hard cord which could be traced upwards from it, in front of the cricoid cartilage. The pedicle was found to pass through an interval in the cervical fascia into the middle of the crico-thyroid membrane. It was evidently what he would call a crico-thyroid cyst. Two years later he met with a similar and homologous cyst in the space between the lower jaw and the hyoid bone in a lad aged 12, who had noticed a lump in his throat for six months. The diagnosis of hyo-mandibular cyst proved to be correct at the operation. There were thus three median cysts—hyo-mandibular, associated with the first cleft; thyro-hyoid, associated with the second cleft; and crico-thyroid in the succeeding cleft. He related a case of cystic hygroma in a baby a few weeks old, in which the cyst, like a ranula, projected under the tongue. He described the anatomical relations of the cyst, observing that it appeared to have originated in a lateral diverticulum of the first, or hyo-mandibular, cleft, though, in a similar case of Treves's, the orgin appeared to be from the second branchial cleft. He also referred to a tumour below the left angle of the lower jaw in a young man, which proved to be a chondro-adenoma, also a dermoid cyst of the whole of the first branchial cleft (*Bristol Medico-Chirurgical Journal*). His last case was that of a man, aged 33, who had had a swelling on the right side of the throat for two years, which he took to have for origin a diverticulum of the sinus pyriformis, that is, from the third or fourth visceral cleft. He discussed the classification of these cysts according to their origin, into median and lateral, corresponding to the visceral clefts, and alternating with the visceral arches.

Mr. A. A. Bowlby described a cyst of the neck of an epitheliomatous nature. He inquired if the author had met with any such, and whether they should not be included in the classification. He also remarked on the difficulty of treating fistulae resulting from operation in these cases.

Mr. A. E. Barker suggested that cysts of the neck were sometimes of the nature of lymphatic naevi.

Mr. Stanley Boyd described cases similar to that of Mr. Bowlby.

Dr. StClair Thomson inquired if any of the speakers had tried the efficacy of dividing the hyoid bone in those cases in which it was very difficult to effect a cure.

Mr. Carwardine, in reply, said he had met with great difficulty from fistulae. He had not gone fully into the question of epitheliomatous cysts: and did not deny the existence of cysts like those described by Mr. Barker.

Intestinal Obstruction Due to Embolus of a Branch of the Superior Mesenteric Artery.

Dr. W. J. Tyson (Folkestone) related the case of a woman, aged 66, who came complaining of slight pain over the liver, sickness, constipation, and some epigastric tenderness, her temperature being normal. The symptoms gradually became worse, and ultimately the vomit became "coffee-ground." Laparotomy was done by Mr. W. W. Lindington, and the small intestine was found to be slightly congested and adherent in the right fossa, where about a foot of gangrenous bowel, greatly thickened, was seen. The part, which was obviously affected with thrombosis, was freely excised and the end united with a Murphy's button. She died thirty-six hours after the operation and at the necropsy atheromatous erosion of the descending aorta was found, with blocking of a branch of the superior mesenteric artery. Dr. Tyson discussed the symptomatology of the condition, remarking that the symptoms were at first those of ordinary colic with a gradual change in the vomit. Constipation was the rule, but diarrhoea was often present, and later tympanites. The prognosis was always grave but not absolutely fatal.

Mr. J. R. Lunn had described before the Royal Medical and Chirurgical Society in 1885, a somewhat similar case, in which the symptoms were caused by an aneurysm spreading from the coeliac axis. Compression for four and a-half hours cured the aneurysm, but the patient eventually died.

Mr. H. L. Barnard cited a case of thrombus of the portal vein, which produced gangrene of nearly the whole of the small intestine.

The President described the case of a gentleman thrown from his horse on to a heap of stones, and alighting on his abdomen. No grave symptoms arose for 48 hours, when collapse occurred. The abdomen being opened nothing was to be seen but gangrenous intestine. The patient died, and at the necropsy the superior mesenteric artery, which had been injured, was found to be entirely blocked.

Mr. A. A. Bowlby mentioned the case of a man with gangrene of two fingers, apparently due to frost bite, in whom, after a few days intense abdominal pain, collapse and death ensued. At the necropsy he was found to have an *ante-mortem* clot in the left heart, with emboli in the arteries going to the gangrenous digits; also in the superior mesenteric artery, from which gangrene of almost the whole of the small intestine had resulted.

Dr. E. P. Paton referred to the case of a woman, aged 25, whose death was caused by thrombosis of the superior mesenteric artery, but in whom no cause for the thrombus could be discovered. In response to a query he said that there was no sign of gout discernible.

Dr. Tyson, in reply, said that no albuminuria was discovered in his case. Haemorrhage from a bowel in which there was obstruction might, he thought, suggest a blockage in the superior mesenteric artery.

Cerebellar Abscess with Sudden Paralysis of the Respiratory Centre.

Mr. A. E. Barker related the case of a girl, aged 14, who, three months before admission, had had scarlet fever with otitis media. A fortnight before admission she complained of earache followed by great weakness and vomiting, and rigors. The limbs were flexed and the head retracted, with dulled intelligence. There was profuse fetid discharge from the ear, but no swelling over the mastoid. The pupils and discs were normal. He diagnosed intracranial abscess with thrombosis of the lateral sinus and deep jugular vein. It was decided to operate, but when the patient was lifted to be taken into the theatre respiration ceased, and in spite of artificial respiration and the inhalation of oxygen there was no sign of normal respiration, though the heart continued to beat strongly. Artificial respiration was kept up for an hour, when, as normal respiration did not return, he made a small

incision through the skull into the temporo-sphenoidal lobe. No pus was found, but on passing the needle into the lateral ventricle a large quantity of almost clear fluid was evacuated. He then opened over the lateral front of the cerebellum, and after a few punctures reached foul gas and pus anteriorly. This, however, had no effect on the respiration or heart. Artificial respiration was kept up for another hour, but the patient was obviously dead, though the heart continued to beat as before for two hours and thirty-five minutes after natural breathing had ceased. *Post mortem*, a large cerebellar abscess was found in the usual situation, which had been partially emptied by the operation.

Sir DYCE DUCKWORTH had recorded 3 or 4 such cases at the International Medical Congress at Moscow, in which, in consequence of intracranial pressure the respiratory centre failed some time before the cardiac centre—and died, in fact, sooner than the latter centre.

THE SIMULATION OF ACUTE PERITONITIS BY PLEURO-PNEUMONIC DISEASES.

Mr. H. L. BARNARD, in a paper on this subject, stated that Andral appeared to have recognized this condition clearly in 1836, and narrated several typical cases. Fagge gave one case. Modern writers for the most part were vague in their description, and did not include peritonitis in the differential diagnosis of pleurisy or *vice versâ*. The thoracic conditions which had given rise to these abdominal signs in the writers' cases were always basal in the lung or pleura: (1) Two cases of pleuro-pneumonia; (2) two cases of pyo-pneumothorax apparently originating in the apex of the lower lobe; (3) one case of traumatic pleurisy with fracture of the left lower ribs. The abdominal signs and symptoms which resulted might be divided conveniently into (*a*) parietal and (*b*) visceral. (*a*) Parietal. The abdominal wall was acutely tender and painful. This tenderness might be general or one-sided, and was frequently more marked below in the right or left iliac region (10-12 D. areas) so as to simulate appendicitis. The muscles were in spasm, so that the belly was bound like a hand. The deepest anaesthesia was necessary to relax this spasm. Respiration was of the costal type. (*b*) Visceral. The patient frequently suffered from nausea, hiccough, and vomiting, which might be urgent and bilious. The intestines became distended. Constipation was usually present, and enemata might be retained. In some cases the onset was sudden, with collapse like that of perforative peritonitis. The diagnosis was easy if once suspicion was aroused. The chief points were the rapid respiration (40 and up), the slow good pulse (under 100), the absence of the abdominal facies, especially of rings round the eyes, and the fact that the abdominal wall softened momentarily at each respiration. Direct signs of the thoracic condition were often wanting for twenty-four hours. The pathology was one of referred pain, and divided itself into three heads: (1) Irritation in continuity of the lower six dorsal nerves would explain abdominal hyperaesthesia and spasm. (2) Referred visceral pain (Henry Head) explained the abdominal and head pain of an early pneumonia not involving the pleura. Visceral impulses passing into the root ganglia of 7, 8, and 9 D. exalted their excitability so that impulses from the skin to those ganglia became painful. Reflex spasm followed in the distribution of the nerves. (3) The visceral signs must be explained either by some reversal of this reflex or by direct involvement of the splanchnic nerves (from 6 to 12 D.) above or in the diaphragm.

After remarks by Sir DYCE DUCKWORTH, Dr. J. A. HAYWARD referred to a case exactly the converse of those mentioned by Mr. Barnard, in which a laparotomy was not performed on a boy, aged 7, because the symptoms of peritonitis exactly resembled those of acute pneumonia with a pleuritic rub. After death, a rupture of the appendix was found, but the pleura and lung were both quite healthy. The pleuritic rub had apparently been simulated by the movement of the inflamed upper surface of the liver against the under surface of the diaphragm and the conduction of the sound through the lower part of the lung.

AN International Congress for the Relief of the Blind is to be held in Brussels, August 6th to 10th, 1902.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

Friday, March 21st, 1902.

Professor BENNETT, M.D., in the Chair.

GENITO-URINARY TUBERCULOSIS.

DR. T. PERCY KIRKPATRICK exhibited a specimen of genito-urinary tuberculosis. The lungs were healthy; no tubercle bacilli could be found in the sputum. Examination by *x* rays gave a negative result. As the symptoms pointed to the kidney the abdomen was opened: the left kidney was found enlarged and cystic. The necropsy showed the left kidney to be a semisolid caseous mass, with little or no renal structure left.

After remarks from Mr. H. G. CROLY and Dr. L. SYMES, Professor BENNETT said he thought we had still a good deal to learn about the *x* rays. Of his own knowledge they failed to detect fracture of the clavicle, ribs, sternum, and pelvis. But this was from no fault in the *x* rays: the fault was in themselves; it was due to their want of knowledge.

Dr. KIRKPATRICK replied.

TUMOUR OF SPINAL CORD.

Dr. J. B. COLEMAN exhibited a tumour of the spinal cord, which he had diagnosed and localized during life. It grew from the inner spinal membranes at the level of the eleventh and twelfth dorsal segments of the cord on its right dorso-lateral aspect. It was about the size and shape of a sweet almond. A microscopic section showed it to be a myxo-sarcoma. He also exhibited a horseshoe-shaped kidney, the bond of union being at the lower end of the organs.

FRACTURE OF BOTH BONES OF FOREARM.

Mr. H. G. CROLY having taken the chair,

Professor BENNETT exhibited a specimen of a fracture of both bones of the forearm immediately above the epiphyses. The case was unique.

The patient was a girl aged 15. The injury was caused on December 8th, 1900. The deformity somewhat resembled that of a Colles's fracture or an epiphyseal separation of the lower end of the radius. He reduced it as well as he could, but he did not do it to his satisfaction, and put it up in splints. She came the following day to his study and he found the splints all right, and she now told him that at the time of the accident she distinctly heard the bone break. After six weeks he took off the splints and found the bones united. On February 10th, 1901, he found that the deformity had returned. He had the wrist skiagraphed. A transverse fracture of both bones just above the epiphyseal line was plainly marked: a cast (which was exhibited) taken had some considerable resemblance to Colles's fracture. The fracture was easily reduced, and the patient left hospital on May 5th, 1901. On February 8th, 1902, she died of pernicious anaemia.

From the time she left Sir P. Dun's Hospital in May, 1901, the deformity of the wrist-joint had gradually but steadily increased. The necropsy revealed no rickety condition; there was no trace of osteomalacia, nothing telling of bone-softening. All the characteristics of pernicious anaemia were present, and, as might be seen from the specimen exhibited the fracture was well marked and the posterior inferior extremity of the radius ended in a convexity, which was well marked, and extended to its inferior articular surface. A diligent search on the subject of fractures failed to reveal any record of a similar case. The most recent books were as silent on the subject as the oldest. In scurvy, as they knew, fractures did not unite, and old ones came apart; but this patient's deformity returned when she was apparently in good health.

Dr. KNOTT thought the case had some resemblance to that recorded by Anson during the severe outbreak of scurvy during his second voyage.

Dr. KIRKPATRICK considered neither scurvy, anaemia, nor malnutrition could account for the case.

Mr. H. G. CROLY said that on first looking at the cast, he felt inclined to call it an epiphyseal separation of the wrist-joint. And again, it somewhat recalled Colles's fracture, from which, however, the deep sulcus on its anterior surface differentiated it.

Professor BENNETT, speaking on the frequency of scurvy, said that he might just remind them that in 1660 Sir Charles Hawkins stated that he lost 6,000 sailors from scurvy during his twenty years at sea. That anaemia was not the cause of the separation of the fragments was beyond question, for it occurred when the patient was not suffering from anaemia

during her stay in a school, where the feeding was good. He put forward no theory, and sought information on this obscure and unique case.

Colles's Fracture.

Professor Bennett having taken the chair,

Dr. Knott exhibited a specimen of Colles's fracture, in which the displacement was to the opposite side to that which usually takes place.

Professor Bennett said it was an interesting fact that Mr. R. W. Smith, from the study of specimens of Colles's fracture, completely changed his views, consequently his published views were the exact opposite of those he held at the time of his death.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Andrewes, M.D., in the Chair.

Tuesday, April 15th, 1902.

A Case of Tuberculosis in the Sheep.

Mr. Alexander G. R. Foulerton read a note on the above. The specimens were obtained from an animal which had been seized by Dr. George Newman, the Medical Officer of Health for Finsbury. The carcass was much emaciated, and there were extensive tuberculous lesions in the lungs, spleen, liver, and kidneys, and in the lumbar, dorsal, sternal, anterior mediastinal, mesenteric, and cervical glands. These lesions showed various stages of degeneration and calcification. No acid-fast bacilli could be demonstrated on microscopic examination. The inoculation of guinea-pigs, however, showed the nature of the case. Two animals inoculated died respectively twenty-eight and thirty-five days after infection with typical tuberculosis. Tuberculosis of sheep was extremely rare in this country; a case by Professor John McFadyean of the Royal Veterinary College in 1900 having been apparently the first case of the sort published in this country, in which complete bacteriological proof of the infection had been given. This case showed that the sheep was susceptible to a natural infection in a high degree, and infection could be experimentally conveyed by feeding or inoculation. The freedom which sheep enjoyed from tuberculosis was to be explained by their open-air habit of life—the factor which determined the freedom from tuberculosis amongst, for instance, Highland cattle when compared with the excessive prevalence of the disease amongst dairy cattle which were housed in confined, ill-ventilated byres.

Dr. F. W. Andrewes remarked that the importance of close confinement as a factor in bovine tuberculosis was recognized by veterinary surgeons. In the bull the percentage of tubercle was very low as compared with the cow, for the reason that bulls were exempt from the herding which obtained in the case of cows.

Mr. S. G. Shattock observed that the rarity of tuberculosis in the sheep was pointed out some years ago at the meeting of the International Congress of Hygiene when held in London. At that time the subject of alexins was brought into prominence by Büchner, and the suggestion naturally arose that the immunity in the sheep might be due to the presence of an alexin in the serum. The speaker had treated tuberculous guinea-pigs with subcutaneous injections of the extract prepared from sheep spleen, one of the organs then supposed to be largely concerned in the production of alexin, but the results were negative. The sheep in fact was not really immune, adopting Mr. Foulerton's explanation, but owed its freedom from tuberculosis to the circumstances of environment only.

A New Method of Extracting Tetanus Toxin from certain Solid Viscera of the Human Body.

Mr. H. J. Waring described a new method of extracting the toxin of tetanus from the liver and other solid viscera of the human body. The details of the method were as follows: As soon as convenient after death, the viscera which were intended for experimentation were removed from the body, and as much blood as possible squeezed out of them by pressure. The material was then cut into small pieces either with a knife or a mincing machine. It was then weighed and mixed with an equal quantity of pure glycerine in a closely-stoppered glass jar. The process of mincing and mixing should be carried out in a dark room or away from direct sunlight, since the latter soon rendered the toxin inert. The jar was then placed in a cool, dark cupboard, and left there for three or four days. It was recommended that the jar be occasionally shaken so as to bring the material and glycerine into closer contact. At the end of several days the mixture was filtered through glass wool so as to separate the glycerine and the substances soluble in it from the solid and insoluble débris. Details were given of a series of experiments on mice in which varying amounts of the glycerine extract were injected into the tissues. These in most cases were followed by the development of symptoms which appeared to be those of mouse tetanus. Five cases of acute traumatic tetanus which terminated fatally in St. Bartholomew's Hospital provided the material for these investigations. The author drew attention to the difference of the time of appearance of ordinary mouse tetanus and that induced by large doses of the glycerine extract, and explained the absence of the incubation period in these cases by suggesting that the toxin in the liver was probably in the form of a toxigen. He drew attention to the possible application of this method of investigation to the establishment after death of a correct diagnosis, in those cases of patients who had presented indefinite symptoms of tetanus, and in whom a bacteriological diagnosis had not been possible, or had been negative.

Dr. F. W. Andrewes read a paper upon the same subject. He said: So far as I am aware, the employment of glycerine as a solution for tetanus toxin is a new departure for which Mr. Waring is entitled to the credit. The facts which he has brought forward are extremely striking, and are in some respects in opposition to current views concerning tetanus toxin. But I am in a position to confirm their accuracy from some independent observations of my own. When I became aware, more than a year ago, of the important results which Mr. Waring had obtained with glycerine extracts of the organs from fatal cases of tetanus, it seemed likely we might have in this method a very valuable means of diagnosing cases of the disease after death, which, during life, had been equivocal in nature. During the past year I have met with two such cases, and have employed Mr. Waring's method with satisfactory and, to my mind, conclusive results. In one case the results were negative, and there were good grounds for explaining the symptoms apart from tetanus infection. In the second case the results were positive and striking, and no cause of death and no explanation of the symptoms during life other than tetanus were forthcoming. The one case serves as a foil and as a control to the other. The first case was that of a young man admitted to St. Bartholomew's Hospital under the care of Dr. Howard Tooth, suffering from rigidity of the jaw and trunk, with spasmodic attacks which had some resemblance to tetanus. He had, however, a marked curvature in the dorsal spine, of recent date, which increased while he was under observation. Considerable difference of opinion existed during life as to the nature of his disease; some thought it was tetanus; others opposed this view. *Post mortem* he was found to have tuberculous disease of the dorsal vertebrae, and the symptoms seemed reasonably explained by irritation of the nerve roots from rapidly-increasing displacement of the vertebrae—a displacement so recent that it almost entirely disappeared after death. But in view of the tetanus theory I prepared glycerine extracts of the brain and of the spleen, and after keeping them in a dark cupboard for some days proceeded to inject a mouse with 1 c.cm. of the brain extract. The animal was rendered ill for a few hours but then recovered and remained well; it presented no convulsive symptoms of any sort. I also injected a mouse with ½ c.cm. of bile from the case; it died in twenty-four hours, but without tetanus. I therefore did not proceed with any further experiments, having already, on other grounds, come to the conclusion that the case was not one of tetanus. The second case was one of a girl, aged 11 years, who on the eighteenth day after a successful revaccination developed trismus and risus sardonicus, and died of broncho-pneumonia and respiratory failure four days from the onset of nervous symptoms, without having presented all the classical symptoms of tetanus, though this infection was strongly suspected. The organs were fresh, and no cause of death was

apparent at the necropsy; aërobic cultures from the heart blood and spleen remained sterile. I chopped up the spleen, and covered it with about an equal volume of pure glycerine, the same sample of glycerine as I had used in the previous case. After three days, during which the mixture had stood in a dark cupboard, I injected mice with the extract. A mouse which received $\frac{1}{2}$ c.cm. of the glycerine extract died with typical tetanus convulsions in half an hour. A second mouse, which received a much smaller dose developed the peculiar tonic spasm of the tail so characteristic of the affection in mice, but recovered. Later, after a further injection of $\frac{1}{2}$ c.cm. of the extract, it developed typical tetanus, and was killed with chloroform. On the following day I obtained some of the "antitetanus serum" issued by the Institut Pasteur in Paris; it was of unstated strength, but had not been long in stock. I made a mixture of one part of this serum with two parts of the spleen extract, and injected 1 c.cm (containing $\frac{2}{3}$ c.cm. of the spleen extract) into a mouse. At the same time I injected $\frac{1}{2}$ c.cm., that is, a smaller dose, without any antitetanus serum, into a control mouse. The latter animal developed severe tetanic convulsions in fifteen minutes, and was killed by chloroform. The mouse which had received the antitetanus serum developed a little stiffness of one hind leg in forty-five minutes, which was more marked after two hours. No violent spasms or general convulsions occurred, though after three hours there was a little twitching of the head. It died quietly in a little over four hours. The very marked difference in the symptoms of these two mice convinced me that the phenomena were truly those of tetanus, in spite of the imperfect protection conferred by the antitetanus serum. The splenic extract retained its toxic properties for only a short time. After ten or twelve days I tested it again on a guinea-pig and found it wholly inert. As the result of these experiments I felt no doubt whatever that the patient had died of tetanus. In considering the points raised by Mr. Waring's communication, and by these few confirmatory experiments of my own, the one striking and novel fact which is prominent is the absence of the usual incubation period after the injection of tetanus toxin as usually prepared. At a meeting of the Medical Research Club, at which I mentioned the facts I had obtained, a considerable amount of scepticism was exhibited as to whether the phenomena in mice were truly those of tetanus. Mouse tetanus is an extremely characteristic thing, and it would not appear an easy thing to be mistaken about it: no one who witnessed the phenomena had any doubt as to their tetanic nature. The antitoxin evidence, though the experiment was imperfect, points strongly in the direction of tetanus, and so does the very rapid loss of potency of the spleen extract, which indicates a highly unstable, convulsant poison. If, as I personally am convinced, the disease induced is genuine tetanus, there seems to me only one reasonable explanation of the absence of the usual incubation period of twenty-four hours or so. It is this, that the substance formed by the tetanus bacillus and present in its filtered cultures is not in its crude state the actual toxin, but its precursor. If one may use the term, it is a "toxogen" rather than a toxin. The incubation period is occupied not merely by the absorption of the poison and its fixation by the nervous elements, but in large part by the elaboration of the ultimate toxin from its precursor. One of the most valuable points in Mr. Waring's communication seems to lie in his application of glycerine as a convenient solvent for the surplus true toxin remaining in the blood and tissues after death. It is sometimes alleged that tetanus toxin is present in the blood only after death. One cannot wholly explain Mr. Waring's results on this supposition, though blood must naturally be present in the solid organs, for he obtained toxic effects from the bile. Dr. Ritchie has confirmed these results at Oxford upon a case of acute tetanus in the human subject; the spleen was well bruised in glycerine, a subcutaneous injection of 1 c.cm. of the fluid killing a mouse in two hours with the symptoms of tetanus.

Dr. GEORGE DEAN commented at length upon the conclusions arrived at by Mr. Waring and Dr. Andrewes. It was necessary to be sure (1) that none of the substances used in the extraction produced a tetanic condition; (2) that the dead body itself did not furnish tetanizing substances. Now it had been fully shown that substances of the last named kind could be extracted from dead muscle, etc. This had indeed led to the hypothesis that the tetanus poison was a ferment which set free such bodies, but the view was no longer held. As bearing on the subject, it was important to notice, secondly, that glycerine alone ($\frac{1}{2}$ c.cm.) would kill a mouse, producing rigidity of the tail, etc., as in tetanus. Strong solution of salt was as efficient, as the speaker could confirm from his own experiments; a subcutaneous injection would kill mice with all the symptoms of tetanus. Very dilute solution of ammonium sulphide would produce similar results. One important point in regard to the tetanizing substances in dead muscle, etc., was that they were not neutralized by antitetanus serum.

Dr. WILLIAM BULLOCH pointed out that the amount of antitetanus serum used by Dr. Andrewes (and also by Dr. Ritchie) was greatly in excess of what should be required to neutralize the true tetanus toxin supposed to be present in the glycerine extract; it would be necessary to test a much smaller quantity to be certain of the specificity of the neutralization. He had made glycerine extract of spleen in three cases of typical human tetanus; $\frac{1}{2}$ c.cm. of the extract in one of the three cases was fatal to a mouse within five minutes; in the other two cases the extract was quite inert.

Mr. WARING, in reply, stated that the injection of pure glycerine into mice had not in his hands produced tetanus. The amount of tetanus toxin in the spleen was small, and possibly Dr. Bulloch had used only minute doses.

THE PATHOLOGICAL CHARACTERS OF VELD SORE.

Mr. N. BISHOP HARMAN communicated the results of an investigation into this now well known lesion. Clinically it arose as a blister alongside some abrasion of the epidermis; it exuded a serous fluid, did not cause either marked damage to the dermis, lymphatic infection, serious pain, or constitutional symptoms. Microscopic sections of the sore showed the organism penetrating the stratum lucidum in advance of the blister formation. The sore was only found in the high veld. Evidence went to prove that the sore was of a scorbutic nature, being difficult of treatment in the field, but healing without treatment on return to camp or town. In the treatment thereof emphasis was laid on the necessity for stripping off the surrounding epithelium beyond the blister; dusting with calomel and dry dressing was then found most efficient. After healing a stain was left, the hair regrew in part, and there was no permanent cicatrix or deformity. The organism in the blister fluid was a coccus 0.8 μ in diameter arranged in pairs, with signs of capsulation; it stained with aniline dyes and by Gram's method. In culture it grew readily, producing yellow colonies of cocci in masses, and an acid reaction. It was very resistant of destruction—surviving drying for 61 days, dry heat at 110° C. for 5 minutes, moist heat at 86° C. for 5 minutes, mixing with excess of 1 in 1,000 solution of $HgCl_2$ for 40 minutes. The author produced the lesion by inoculation of the blister fluid on himself, and again to a lesser extent from the inoculation of remote subcultures (10 and 14). Inoculation on animals produced no particular results. By reason of the distinctive features of the lesion, the appearance of the organism in the blister, the luxuriance of the growths, and the great resistance to destruction exhibited by the organism, it might be considered to differ from the staphylococcus pyogenes aureus, and be distinguished as the "micrococcus vesicans."

Mr. G. PERNET suggested that the lesion was an aberrant form of impetigo contagiosa, and

Dr. WILLIAM BULLOCH remarked that care was needed not to subdivide the possible strains of staphylococcus too artificially and sharply.

MEDICAL SOCIETY OF LONDON.

CLINICAL EVENING.

W. H. ALLCHIN, M.D., F.R.C.P., President, in the Chair.

Monday, April 14th, 1902.

INFANTILE FORM OF ARTICULAR RHEUMATISM, WITH CHRONIC ENLARGEMENT OF THE SPLEEN, LIVER, AND LYMPHATIC GLANDS.

DR. F. PARKES WEBER showed a boy, aged 4$\frac{3}{4}$ years, as an example of the group of cases of rheumatoid arthritis in

children. There was swelling of the elbows, knees, and joints of the hands and feet, chiefly due to infiltration round the joint. The spleen, liver, and lymph glands were enlarged. There was also cervical rigidity. There had been endocarditis suggesting, with the pericardial adhesions of other cases, close affinities with acute articular rheumatism.

Dr. Sansom thought the case either rheumatism *plus* something else, or not rheumatism at all. The arthritis in the case was probably not rheumatic, inasmuch as there was little or no effusion into the joints, and the heart lesion was probably of no pathological importance.

Dr. E. Cautley considered the case one of osteo-arthritis, and that the enlargement of the liver and spleen were concomitants of rickets.

Dr. Rolleston believed that the case was like those described by Dr. Still. The heart lesion was probably a separate phenomenon.

Dr. Alexander Morison thought the signs derived from the heart were mainly ascribable to rachitic changes in the thorax.

Dr. Poynton also considered the case one of rheumatoid arthritis like those described by Dr. Still.

Dr. Paine, considering the small amount of fluid exudation, had not been surprised to obtain negative bacteriological results: this was according to rule. Similar joint changes followed in rabbits after injection of the rheumatic diplococcus, and suggested an infective origin of the disease.

After remarks by the President, Dr. Parkes Weber replied.

Chronic Nephritis treated by Drainage and Feeding.

Dr. W. Ewart described the case of a woman, aged 31, suffering from chronic nephritis, who under the restorative treatment, by drainage and a liberal mixed diet, improved in general health, and showed a diminution in the amount of albumen in the urine, and a marked lessening in the oedema of the lower limbs. The drainage lasted for four and a-half months.

The President and Dr. Sansom discussed the case.

Three Obscure Cases of Intrathoracic Disease.

Dr. Bertrand Dawson showed a case of fibrosis of the lung, probably syphilitic; one of aortic incompetence, with a well-marked diastolic thrill widely felt over the pericardium: and a third of phthisis, associated with albuminuria and paralysis of the left sixth and seventh cranial nerves.

The cases were discussed by Dr. Voelcker (who suggested a gumma of the bronchus as an explanation of the first case), Dr. Rolleston, Dr. Parkes Weber, and Dr. A. Morison.

Epithelioma of Epiglottis and Back of Tongue.

Dr. StClair Thomson and Mr. Albert Carless brought forward the case of a man, aged 60, on whom, on September 4th, 1900, a transhyoid pharyngotomy, preceded by a tracheotomy, was performed. The growth was removed, including a portion of the root of the tongue. A second operation for removal of enlarged glands of the neck was done on October 11th, 1900. The patient had remained well since, and there had been no sign of recurrence. He could swallow well, and his voice was only a little husky.

Pigmentation (Blue Line) of the Lip.

Dr. H. D. Rolleston showed a man, aged 40, a french polisher, who had a pigmented blue line on the mucous membrane of the lower lip, and also on the gums. He had abdominal pain and constipation. The pigmentation was attributed to lead.

The case was discussed by Dr. Parkes Weber, Dr. Voelcker, Dr. Poynton, and others.

Ulceration of the Nose of Uncertain Origin.

Dr. StClair Thomson showed a case of ulceration of the left ala nasi, which, although probably syphilitic, was not checked by active specific treatment.

Folkestone Medical Society.—At a meeting on April 4th, Dr. T. Eastes, President, in the chair, several cases were shown by members, among them being a gumma of the soft palate, by Dr. W. J. Tyson; a case of obscure nervous disease, by Dr. P. G. Lewis; cases of supposed Addison's disease and epithelioma of larynx, by Dr. A. E. Larking; and sarcoma of femur, by Mr. H. Braund. Pathological specimens were also exhibited.

LIVERPOOL MEDICAL INSTITUTION.

Rushton Parker, B.S., F.R.C.S., President, in the Chair.

Thursday, April 10th, 1902.

Caesarean Section.

Dr. Arthur Wallace related two cases of the Caesarean operation which he had performed on two consecutive days.

The first patient was a primipara, aged 39, who had multiple fibromyomata, one of which, 7 in. in diameter, occupied the right broad ligament. The pelvis was flattened, its conjugate measuring 2½ in. The patient's condition did not permit immediate supravaginal amputation of the uterus, but this was successfully carried out six months later, when the woman was two months pregnant. The second patient, aged 27, also a primipara, suffered from syphilis. The pelvis was flattened and generally contracted as the result of hip disease in childhood: its true conjugate measured 2¼ in. A layer of greenish tenacious material lay between the membranes and the uterus, presumably diseased decidua. The feeble infant developed pemphigus on the sixth day and survived three months. The patient was again pregnant and had elected to have a second Caesarean section.

The President, Drs. E. T. Davies and Stansfield discussed the cases; and Dr. Wallace replied.

The Sanatorium Treatment of Phthisis.

Dr. C. J. Macalister read a paper entitled A Criticism of the Sanatorium Treatment of Phthisis, in which he emphasized the necessity for inquiry into the after-histories of cases in order to obtain data concerning the permanence of the benefits undoubtedly derived by the majority of patients while under treatment. In his own experience a large number had relapsed after periods varying from months to a few years. His impression from this fact, and from the statistics of the German Imperial Health Bureau was that, while the immediate results were good, the ultimate results were disappointing. He considered that in order to establish permanent benefits to the large majority who evidently relapsed and swelled the percentage of those who became incapacitated or died—a percentage which grew in a direct ratio to the number of months succeeding their dismissal from the sanatoria—it would be necessary for them to live in conditions and surroundings similar to those to which they were subjected while under treatment.

Drs. E. T. Davies, Warrington, Carter, and Barr spoke; and Dr. Macalister replied.

Infantile Spastic Paralysis.

Mr. Robert Jones read a paper on the treatment of infantile spastic paralysis. The symptoms and pathology were discussed, and the subject divided into clinical types having reference to the suitability or otherwise of treatment. He maintained that the affection was strictly surgical, and that in suitable cases very marked improvement followed operative measures. In the hemiplegic variety the hand and arm were more seriously involved than the lower limb. If the paralysis was complete, and voluntary relaxation of the spasm impossible, treatment was futile. If the fingers of the affected hand could be moved only in conjunction with those of the opposite side the results were generally discouraging. Wherever any degree of voluntary relaxation was possible, apart from associated movement on the opposite side, treatment was strongly urged. Tenotomy, tendon transplantation, and hyperextension of contracted muscles combined with and followed by special exercises were the indications. For the limbs in spastic paraplegia exsections of portions of the adductor longus and brevis, the horizontal fibres of the adductor magnus, the gracilis and any other structures opposed to free abduction should be practised. Exsections or division of portions of the hamstrings, and each tendo Achillis were necessary. The limbs were then kept in extreme abduction for three months. Mr. Jones described the exercises to be subsequently prescribed, and the methods in which walking should be attempted. A very large number of cases had been operated upon, varying in age from twelve months to 20 years, the benefit resulting was very great, and most children could be made to walk steadily without spasm and for long distances in from twelve months to two years. The classes outside emedial art were the idiot, the microcephalic, and the

irritable diplegic with incontinence of urine. Irremediable paralysis of the hands deprived the patient of an essential aid to walking. The effect of tenotomy and mechanical restraint in checking spasm and athetosis were discussed. The treatment of spastic paralysis should resolve itself into a system. It involved operative, mechanical, and educational stages. Operations not followed by careful and prolonged after-care were disappointing. Division of tendons followed merely by massage and electricity was worse than useless. Mr. Jones, in conclusion, advocated scholastic institutes for the paralytic children of the well-to-do, where both mind and body could be developed under the scientific auspices of specially-trained instructors.

The PRESIDENT noted the laborious character of the treatment, which would demand special hospitals and specially-trained nurses.

YORKSHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

DR. MAJOR, President, in the Chair.

Wednesday, March 19th, 1902.

BLISTERING IN SYPHILIS OF THE BRAIN AND SPINAL CORD.

DR. CHURTON (Leeds) read a paper on the use of repeated blisters in the treatment of syphilitic diseases of the brain and spinal cord. Brief reports of five cases were given in which blistering had been used in addition to ordinary anti-syphilitic treatment with marked benefit. In one case, a man aged 40, with syphilitic meningo-myelitis in the lower cervical region, this treatment had been resorted to in a large number of attacks occurring during the last six years, and on every occasion recovery had been very rapid. In two cases in women with cerebral syphilis, blisters on the scalp had produced haematuria. Dr. Churton especially laid stress upon the marked relief of pain in these cases. In some of the cases he had used subcutaneous injections of sozoiodol and had been impressed with its value.

The PRESIDENT, Mr. JESSOP (Leeds), Dr. ARBUCKLE (Thorne), Drs. GOYDER and BRONNER (Bradford) spoke; and Dr. CHURTON replied.

SPORADIC CRETINISM.

Dr. ARTHUR HALL (Sheffield) showed a case of sporadic cretinism which had first come under his care six years ago. Treatment had not been continuous, and several photographs were shown taken at different dates to show the effect of thyroid treatment. The history of the case was as follows:

The patient was first seen in February, 1896, when he was 15 months old. During the first six months of the boy's life he had a goitre, which gradually grew less and disappeared. During the following nine months he developed into a typical cretin. He was given thyroid extract in tabloid form, taking ¾ gr. daily. In five months he had greatly improved, and in October, 1896, eight months after the commencement of the treatment, he was a healthy-looking and very bright child. He was then lost sight of and not seen again until June, 1898. The parents had stopped the treatment in the previous January, and in the intervening six months he had speedily relapsed. Treatment was recommenced, but was only persevered with for a few months. The following was the patient's present condition: He is 7 years old, and weighs 53 lb. His height is 38 inches. He is amiable and docile. He has the characteristic features of the cretin; his hair is coarse and dry; his hands and feet spade-like. He feels the cold very readily. He suffers from incontinence. The thyroid gland is appreciable.

Dr. Hall showed the case to illustrate how readily these patients relapsed if treatment were discontinued, and pointed out that nothing short of perpetual use of the thyroid extract could be of any use in such cases.

The PRESIDENT, Drs. GOYDER and CAMPBELL (Bradford), and Dr. GORDON BLACK (Harrogate), also spoke; and Dr. HALL replied.

CARCINOMA OF THE RECTUM.

Mr. SINCLAIR WHITE (Sheffield) showed a specimen of columnar carcinoma of the rectum removed from a patient by the sacral route.

[illegible] man aged 43 years, came to him with the usual history of spurious diarrhoea and pain. There was an ulcerating mass in the rectum 3 in. from the anus. The finger could not be passed through it. Partly with the object of obtaining further information, and partly with a view to colotomy, the abdomen was opened in the left iliac region. The mass was found to be fairly movable, and a preliminary colotomy was done. Two weeks later excision by Kraske's method was performed. The patient made a good recovery.

A peculiar feature of the specimen was a small cord-like body, not unlike a vermiform appendix, which was attached to its posterior aspect. This had not yet been examined, but its appearance suggested that it might be a remnant of the post-anal gut. So far as his personal experience went, Mr. White was not disposed to advocate preliminary colotomy in these cases. Valuable time was lost by its performance, and he felt sure that with many of these patients the additional operation proved a considerable strain on their recuperative power. Up to the present he had performed Kraske's operation eight times. Three patients had died, one from shock, one from mania, and one from volvulus. In three cases there was recurrence, one in four months, one in a year, and one in eighteen months. One patient was alive and well four years, and another two years after operation, and the remaining three cases had been operated upon during the last fifteen months, and were so far without recurrence.

BELLADONNA IN BRONCHO-PNEUMONIA.

Dr. CAMPBELL (Bradford) read a paper on the treatment of broncho-pneumonia by large doses of belladonna. He briefly mentioned a number of cases which had been treated by this method with decided success. Although the numbers were too small to deduce any trustworthy statistics from them, the response to the treatment was so marked as to lead him to believe that the method was a most valuable one. The drug must be pushed until a distinct physiological effect was obtained, when a rapid fall of treatment and disappearance of dyspnoea occurred. He believed that the drug acted chiefly as a powerful respiratory stimulant.

Dr. GODFREY CARTER (Sheffield) spoke to a considerable experience of the drug in the broncho-pneumonia of whooping cough, and in this form of the disease he could corroborate Dr. Campbell's views. He had the greatest faith in its efficacy when given in full doses.

Dr. CAMPBELL replied.

INTRANASAL TREATMENT IN ASTHMA.

Dr. BRONNER (Bradford) read notes on some cases of asthma and hay fever cured by intranasal treatment. He thought that nasal reflexes could be divided into three classes: (1) In which there was some local irritation of the terminal fibres of the fifth nerve; (2) in which the nasal changes were not primary but were themselves the outcome of central neuroses; (3) in which nasal obstruction was the direct cause. He described the various methods of local treatment. The most useful drugs were potassium iodide and tincture of belladonna. Dr. Bronner was of opinion that in some cases asthma and hay fever could be permanently cured by intranasal treatment, and he recorded numerous cases which had been treated and watched for several years, and in which there had been no recurrence of the symptoms. He thought that the newest theory that no cases of asthma could be permanently cured by intranasal treatment was absolutely wrong; and he believed that in all cases of asthma and hay fever the nose should be carefully examined and, if necessary, treated. If this were done a large number of cases could certainly be greatly relieved, if not cured. He related the following cases:

(1) Mr. S., aged 35, was seen in 1888. He had had asthma since he was 7 years old. The chest was much deformed. There was nasal obstruction. This was removed, and the asthma gradually disappeared in two or three years, and he had been practically free from it for the last twelve years. (2) Mr. G. was seen in 1888. He had had asthma for five or six years. There was polypoid degeneration of the mucous membrane of the lower turbinals. This was removed by the galvano-cautery. There was no recurrence of the asthma for three years. The galvano-cautery was again applied, and there had been no recurrence since. (3) Miss E., aged 32, was seen in 1892. She had had frequent attacks of asthma for five years. A nasal polypus was removed, and there had been no asthma since. (4) Mr. G. was seen in 1890. He had suffered from hay fever for twelve years. There was some hypertrophic rhinitis. After the application of the galvano-cautery the attacks diminished and disappeared in three years. (5) Mr. H., aged 19, was seen in 1898. He had suffered from asthma and bronchitis for eight years. He had consulted several physicians, who told him that he should not live in England, and must go abroad. His nose had never been examined. There was thickening of the mucous membrane of the lower turbinals, and these were also enlarged. Turbinotomy was performed. During the winter of 1898 the attacks of asthma were much improved, and he had been practically well since. Another case was mentioned in which the patient suffered from asthma, spasm of the diaphragm and the glottis. After the removal of several nasal polypi and the application of the galvano-cautery the symptoms had completely disappeared.

In conclusion the author drew attention to the great frequency of nasal disease in Yorkshire. Very few cases were treated. This was probably one of the causes why deafness was so prevalent.

Harveian Society of London.—At a meeting held on April 10th, Dr. Robert Maguire in the chair, Dr. R. L. Bowles read a paper on the practical treatment of functional vasomotor disturbances. As examples of such disturbance he cited the dilatation of the large vessels after severe exertion, the pulsating dilatation of the abdominal aorta in neurotic women, pulsating dilatation of the carotids in the anaemic, and of the temporal arteries in headache and neuralgia. The venous system and the heart were liable to similar partial and temporary fluctuations. Vague pains and loss of power in the lower limbs, so often ascribed to sciatica, were shown in some instances to be due to functional disturbances of the blood supply. Other functional disturbances, such as blushing and pallor, the symptoms often present at the "change of life," the effects of vasomotor action on the central nervous system, the vasomotor symptoms in exophthalmic goitre and myxoedema, and intestinal phenomena due to similar causes were also referred to. In some cases Dr. Bowles thought that the symptoms were due to toxins acting through the nervous system, in others to derangement of function arising from fatigue. Many other vasomotor effects were lightly touched upon, such as chilblains, dead fingers, and Raynaud's disease. For treatment Dr. Bowles insisted upon the importance of heat, light, electricity, massage, baths, change of scene and surroundings, and so forth. He did not bring forward any wonderful novelty or so-called specific, but, as the result of a great many years' trial and experience, he strongly recommended the persistent use of valerianate of zinc in doses of 1 gr. three times a day. In those due to neurasthenia he had had most favourable results from the effects of valerianate.

He quoted a remarkable instance of nerve deafness in a lady who had been stone deaf for eight years, and had been told by several of the leading aurists that there was no hope of recovery. After two and a half years of the persistent administration of the valerianate of zinc the lady completely recovered her hearing.

He had also found the drug of great use in the treatment of tinnitus aurium and in many other nervous conditions; so much so, that he had come to rely upon the drug very largely in all cases of the neurasthenic type.—Dr. Alexander Morison said Dr. Bowles appeared to have seen a good number of specimens of local vascular change in the carotid, the subclavian, and the veins of the lower extremities. Some of those conditions might be described as intermittent claudication, a subject which had been vigorously worked at by some French physicians, and applied largely to some visceral disturbances which were regarded by some as of vasomotor origin, but without acknowledging the fact that the idea was due to Burns, of Glasgow, seventy or eighty years ago, whose work would now repay careful perusal, as it was the origin of several twentieth century theories. He agreed with Dr. Bowles's judicious remarks in distinguishing cases of claudication from those of neurasthenic origin. He was glad to hear of such good results from valerianate of zinc, as he was himself somewhat sceptical of its therapeutic value. But in the case of a drug taken persistently for two years, as mentioned by Dr. Bowles, the factor of time, and the altered circumstances and conditions possible, must not be lost sight of.—Dr. Parkes Weber said it had been proved by microscopical examination that veins could so contract that the lumen was almost obliterated. If the blood was not circulating properly in the foot or hand, there was evidently plenty of blood there, and as there was no sign of arteries being contracted, the suggestion was that the small veins were contracted. In some typical cases of Raynaud's disease only the small arteries were contracted.—Dr. Cautley asked what was Dr. Bowles's experience in the matter of age in cases of local dilatation of arteries, and what was the prognosis, apart from the results for the time being. Was there any tendency to atheroma or aneurysm later? He was sceptical about the value of a drug which required to be persisted in before any definite results accrued. But such a case as that quoted showed that treatment was of benefit, because the patient was of that age at which her deafness would tend to increase rather than disappear.—The Chairman drew attention to disorders of the cerebrum due to vasomotor disturbance. Those who had seen many cases of general paralysis of the insane would appreciate that a case might show itself not by melancholia or grandiose ideas, but by sudden aphasia for a moment or two. That was certainly a functional vasomotor disturbance, and its occurrence was very suspicious. Men suffering from Bright's disease, or from high arterial tension from any cause, would suddenly have loss of consciousness and of speech, and as suddenly recover. He had not seen much benefit result from valerianate of zinc, although he had generally given it in larger doses than had Dr. Bowles. Two drugs of great value were musk and castoreum. The first was too expensive to be within the reach of ordinary patients, but, in doses of 5 gr. three times a day its effect was very good. Castoreum was obtained from the preputial glands of the beaver, musk coming from the same glands of the musk ox. Castoreum should be given in 10 to 20 m. doses with an alkali. It was unpalatable and bad smelling, but very useful.—Dr. Bowles replied.

REVIEWS.

CLINICAL MEDICINE.

The third volume of Dr. Allchin's *Manual of Medicine*[1] occupies a somewhat different place from the others. It forms a complete treatise on diseases of the nervous system of handy size and reasonable price. The list of contributors is shorter than in the preceding volumes, and it has hence been easier to obtain the desired homogeneity of treatment. The volume indeed affords every evidence of extreme editorial care and skill, though Dr. Allchin's own contributions are limited to excellent practical articles on headache and the trophoneuroses. He has been fortunate in securing the services of Professor Sherrington as the writer of the physiological introduction to the subject, an admirable and concise essay of 33 pages. Professor Sherrington is a whole-hearted believer in the neuronic hypothesis, which, although not a little shaken by recent investigations, is unquestionably of the greatest value for teaching purposes. It need hardly be said that his statements as to the anatomy and physiology of the nervous system are as accurate and complete as the present state of knowledge will allow. His table of spinal localization inserted between pp. 210 and 211 is beyond question the most complete and scholarly scheme which has as yet been published. Dr. Aldren Turner's article on the neurone in relation to disease of the nervous system is a praiseworthy attempt to grapple with a difficult subject; the plates of sections through the spinal cord are not quite up to date, as will be seen by comparison with Professor Sherrington's. Dr. Turner's account of the organic diseases of the brain and its membranes is also on the whole satisfactory, though a somewhat excessive love of classification leads him occasionally into a dogmatism which can hardly be justified. The description of diseases of the spinal cord has been entrusted to Dr. Ormerod, and is well and thoughtfully written, particularly from the clinical point of view. Dr. Ormerod contributes also the account of muscular dystrophies, which is somewhat sketchy and deficient from the pathological point of view. Functional diseases of the nervous system are treated by Drs. Colman and Collier, and diseases of the peripheral nerves by Dr. Purves Stewart. Dr. Collier has also written an admirable article on aphasia, in which, however, we miss any reference to theories other than that by Dr. Bastian. Dr. James Taylor's account of medical ophthalmology is clear, succinct, and in every way to be commended; it is illustrated by some excellent plates from Mr. Adams Frost's *Ophthalmoscopic Atlas*. The section on electricity in its application to medicine has been entrusted to Dr. Bertram Abrahams, who takes the opportunity of warning students against the indiscriminate advocacy of this therapeutic agent which has of late been too common. On the whole, we may say that there is no work of similar size which we can recommend with equal cordiality.

When what was known about the blood and its pathology only comparatively a few years ago is recalled, the advances made will be very evident to the reader of Dr. Rebuschini's small manual[2] on *Diseases of the Blood*. Even the termino-

[1] *A Manual of Medicine*. Edited by W. H. Allchin, M.D. Lond., F.R.C.P., F.R.C.S.Ed., Senior Physician and Lecturer on Clinical Medicine in Westminster Hospital, etc. Vol. III.—Diseases of the Nervous System. London: Macmillan. 1901. (Crown 8vo, pp. 411, 6 coloured plates and 27 illustrations. 7s. 6d.)

[2] *Le Malattie del Sangue*. Per Dr. E. Rebuschini. Milan: U. Hoepli, 1901. (Fcap. 8vo, pp. 440. L.3 50.)

logy is largely new, at any rate as far as the intimate changes in the blood are concerned, and no upholder of the ancient saw, that the "blood is the life," could complain that this special fluid was deprived of its due share of appreciation in modern pathology. The author deals with anaemia (of various kinds), chlorosis, plethora, leucocytosis, leukaemia and pseudoleukaemia, haemoglobinuria, splenic anaemia, haemophilia, purpura, acute scurvy, toxaemia, parasitaemia and malaria. The chapter on chlorosis is particularly good, and the suggestion that much of the inframammary pain so often complained about is possibly a referred pain, due to the increased work done by the spleen in attempting to restore the blood balance seems worthy of consideration. Although the book is largely a summary of published writings, and excellent in that respect, yet the reader sometimes wishes for some more pronounced opinion from the author, after he has given the more or less conflicting views of different writers on the questions at issue.

The pathological chemistry of the urine in its relation to the chemistry of the blood and serous exudations is a subject of rapidly-growing importance; consequently, the work of Dr. STRAUSS on *Chronic Inflammations of the Kidneys in their Influence on the Circulation and their Treatment*[3] is particularly opportune. Some little interest has recently been aroused with regard to the question whether the discovery of an abnormality in the osmotic pressure of the blood, as determined by the freezing-point method, can be regarded as a clinically useful indication of the degree of autointoxication, or as a reliable measure of renal inadequacy. For an answer we cannot do better than refer our readers to the present book. Dr. Strauss, as the result of much patient work, which bears all the evidence of sound method and accurate detail, finds that there is no correspondence between the degree of molecular concentration of the blood and the intensity of the uraemic symptoms. It is interesting to note that quite recently Bicker has come to practically the same conclusion. But Dr. Strauss has done very much more than work out a single line of experiment. He treats the chemistry of the blood and exudations in all its important bearings on his subject, carefully collecting the work of others and supplementing it with his own observations. Osmotic pressure is only one out of many factors in the problem, and, without exaggeration or disparagement of its significance, is placed in its proper relationship with the rest. Physicians who are studying the subject of renal pathology would do well to profit by this very thorough and comprehensive treatment of a subject highly important both to pathological chemistry and clinical medicine.

Dr. SUPINO's elementary manual on *Clinical Chemistry*[4] should give all the information necessary for students. It follows the usual lines of such books, but has no illustrations, which, however, is no great drawback, as microscopic appearances are not treated, and moreover it spares the reader the painful experience of looking at prehistoric woodcuts of watch glasses, balances, etc., which too often form the staple in the illustrations of these books.

The authors of the articles in the ninth volume of the *Encyclopaedia Medica*[5] are largely of the younger school and, as would perhaps have been expected, the standard textbook is rather more in evidence than in previous volumes, for however facile the pen it can hardly in such case be the instrument of ripe experience. What should have been one of the most valuable of the articles of the present volume is yet to seek—the article "Plague," by Professor T. R. Fraser, the President of the Indian Plague Commission. This is however to appear, it is stated, as an appendix to the last volume of the work. Among other articles especially worthy of notice are those by Dr. Francis Warner, on the Physiognomy and Expression; on Diseases of the Ovaries, by Mr Alban Doran; two on the Physiology and Diseases of the Pancreas, by Dr. J. A. Milroy and Mr. Mayo Robson respectively; a group on the Clinical Examination and Diseases of the Pharynx and a group on the Physiology of Pregnancy. There is an interesting contribution on Pellagra from the pen of Dr. F. M. Sandwith, of Cairo, and a learned article on the Pigments of the Body and Excreta by Dr. A. E. Garrod.

[1] *Die chemischen Blutveränderungen in ihrer Entwickelung und ihre Bedeutung.* Von Privat docent Dr. H. Strauss. Berlin: August Hirschwald. 1902. (Roy. 8vo, pp. 150. M. 4.)

[2] *Chimica Clinica.* (Clinical Chemistry.) Per Dr. R. Supino. Milan: U. Hoepli. 1902. (Fcap 8vo, pp. 168. L. 2.)

[3] *Encyclopaedia Medica.* Under the general editorship of Chalmers Watson, M.D., M.R.C.P.E. Vol. ix. Osteo-arthropathies to Pregnancy (Physiology). Edinburgh: William Green and Sons. 1901. (Roy. 8vo, pp. 548. 25s.

NOTES ON BOOKS.

THERAPEUTICS AND ELECTRO-THERAPEUTICS.

We have received a copy of the third edition of *Kimpton's Pocket Formulary*[6], compiled by Dr. E. QUIN THORNTON, Demonstrator of Therapeutics, etc., in the Jefferson College, Philadelphia. The book is to our mind too much of an *omnium gatherum*, but if the prospective readers are prepared to supply the necessary modicum of discrimination it may supply them with useful suggestions as to what drugs or combinations of of them are likely to be of benefit in different diseases.

Dr. E. T. QUIN THORNTON has also produced a second edition of a work entitled *Dose Book and Manual of Prescription-Writing*,[7] which seems very much on the lines, if rather ampler, of the well-known book on prescription-writing by Dr. Griffiths. It is chiefly meant for American readers, but would probably be of practical help to all who desired to consult such a work.

A third edition of Dr. LUDWIG FREYBERGER'S *Pocket Formulary for the Treatment of Disease in Children*[8] has been published. It has undergone careful revision, and some additions have been made, particularly on poisoning and its treatment.

A second edition of Mr. C. J. HIGGINSON'S book on *Food and Drugs*,[9] being a consolidation of the four Acts dealing with the sale of food and drugs, has been called for only eighteen months after the first edition appeared. The cases in it have been brought up to date, and some of the subjects have been slightly extended. The first edition was reviewed in the BRITISH MEDICAL JOURNAL of March 9th, 1901, p. 583.

The first edition of *An International System of Electro-therapeutics*[10] published in 1894 was reviewed in the BRITISH MEDICAL JOURNAL of February 23rd, 1895, p. 425. This, the second edition, contains four entirely new articles—on the galvanic current, the electrical treatment of aneurysm, the Roentgen rays, and on a method of treating cancer by the cataphoresis of mercury. The rest of the book has been brought into line with our present knowledge of electro-therapeutics. Among many excellencies it has one main defect—that it is too large for the general practitioner, and not quite elaborate enough for the specialist.

CHEMISTRY AND PHYSICS.

The third edition of *A Short Manual of Inorganic Chemistry*,[11] by Drs. A. DUPRÉ and H. WILSON HAKE, is to be welcomed chiefly on account of its earlier introductory chapters dealing with such general principles as the conditions favouring chemical action, thermo-chemistry, and chemical affinity. But the sections dealing individually with chemical substances are thoroughly reliable, concise, and well arranged.

[6] *Kimpton's Pocket Formulary for 1901.* By E. Quin Thornton, M.D. Third Edition. London: Henry Kimpton. 1901. (Fcap., 8vo, pp. 280. 7s. 6d.)

[7] *Dose-Book and Manual of Prescription-Writing.* (By E. Q. Thornton, M.D., Ph.G., Demonstrator of Therapeutics, Jefferson Medical College of Philadelphia. Second Edition. London and Philadelphia: W. B. Saunders and Company. 1901. (Crown 8vo. Pp. 362. 6s. 6d.)

[8] *The Pocket Formulary for the Treatment of Disease in Children.* By Ludwig Freyberger, M.D., M.R.C.P., etc. Third revised and enlarged edition. London: Rebman, Limited. 1901. (Fcap. 8vo, pp. 276. 7s. 6d.)

[9] *Food and Drugs:* A Manual for Solicitors, Public Analysts, Inspectors, Traders, and others. By Charles James Higginson, Barrister-at-Law. Second Edition. London: Effingham Wilson. 1902. (Cr. 8vo, pp. 224. 3s. 6d.)

[10] *An International System of Electro-therapeutics.* Edited by H. R. Bigelow, M.D. Second edition edited by G. B. Massey, M.D. London: Henry Kimpton. 1902. (Demy 8vo, pp. 1,157. 25s.)

[11] *A Short Manual of Inorganic Chemistry.* By A. Dupré, Ph.D., F.R.S., etc., and H. Wilson Hake, Ph.D., F.I.C., F.C.S. Third Edition. London: Charles Griffin and Co. 1901. (Demy 8vo, pp. 400. 9s.)

The authors of a book entitled *Chemistry and Physics: a Manual for Students and Practitioners*,[12] have done a bold thing in attempting to provide "everything necessary" for medical students in 359 pages on the following subjects: Inorganic chemistry; organic chemistry; physics, including sound, heat, light, magnetism, electricity, meteorology, and climatology; and if they have succeeded, all the worse for the particular "medical students." The book seems to be a cram book of the worst type. Even the inclusion of a page and a-half on wireless telegraphy does not redeem it.

Whoever, not being a specialist either in electricity or in mathematics, wishes to obtain a real knowledge of the scientific basis underlying the latest miracle of modern times, cannot, we think, do better than read Mr. G. W. de Tunzelmann's book on *Wireless Telegraphy*.[13] It claims to be a popular exposition of the subject, but it is by no means a superficial one, and it will doubtless give an appreciable amount of active intellectual exercise to all who are not experts.

Public Health.

Less then two years ago, in the British Medical Journal of July 28th, 1900, p. 226, we pointed out at considerable length the great and outstanding merits of Dr. Rideal's book on *Sewage and the Bacterial Purification of Sewage*.[14] In the present edition, by judicious condensation in places, room has been found for substantial additions of new matter. What was said then, at the above reference, of Dr. Rideal's work still remains true. He has brought everything so well up to date that all who have studied the subject will be able to see much more clearly what is wanted than if they had to wade through the mass of literature Dr. Rideal has focussed so admirably.

A clearly written and copiously illustrated description of the *Continuous Sewage Filter*,[15] and its advantages as compared with the intermittent filter or contact bed, has been produced by Mr. F. Wallis Stoddart. The pamphlet should be of interest to all interested in problems of hygiene, whether laymen and others.

As a handbook dealing in a general way with the subject of *Water and its Purification*,[16] nothing could be more satisfactory than the second edition of Dr. Rideal's book bearing this title, a review of the first edition of which appeared in the British Medical Journal of February 27th, 1897, p. 535. The new edition has been well brought up-to-date and additional matter dealing with recent water epidemics and sand filtration has been included.

Reports and Transactions.

A Descriptive List of Specimens revised and added to the Museum of St. Bartholomew's Hospital during the year ending September 30th, 1901, has been prepared by Dr. F. W. Andrewes and Dr. H. Morley Fletcher. An especially large number of specimens illustrating diseases of the eye have been added. The fact that corresponding with most of the specimens there is a report of a microscopical examination greatly adds to the value of the descriptive catalogue.

The twentieth volume of the *Transactions of the Epidemiological Society of London*,[17] for 1900-1901, contains as of yore valuable papers on abstract questions. In addition to Dr. Manson's presidential address on Problems in Tropical Epidemiology, other noteworthy contributions on plague and enteric fever form the chief part of the volume.

The second annual volume of the *Transactions of the Otological Society of the United Kingdom*[18] for 1900-1901, with the principal exception of a discussion on the operative treatment of cerebral abscess, consists of the clinical records of important cases. It is hence essentially of the storehouse variety of book.

The thirty-seventh volume of *St. Bartholomew's Hospital Reports*,[19] edited by Dr. Norman Moore and Mr. D'Arcy Power contains an unusual number of contributions having a general interest. Among others deserving special notice are those on the Pathogeny of Chorea, by Sir Dyce Duckworth; a Year's Abdominal Operations, by Mr. D'Arcy Power; a lengthy paper by Dr. Langdon Brown on Pylephlebitis (being his M.D. thesis); on the results of Operations for Primary Cancer of the Breast, by Mr. H. T. Butlin; and on the Surgery of the Gall Bladder and Bile Ducts, by Mr. W. J. Walsham.

The *Report of the Surgical Registrar* of the North London or University College Hospital for 1898[20] has been issued comparatively recently. It illustrates well the advantages of the careful record of a relatively small number of cases. The table dealing with the fatal cases, and giving an abstract of the results of the necropsies is a valuable portion of the report.

The fifty-seventh volume of the *Journal of the Royal Agricultural Society of England* for 1901[21] contains an interesting paper on the relationship between human and bovine tuberculosis by Professor J. McFadyean, and another by the same author on epizootic or contagious abortion.

The *Reports of the Medical, Surgical, and Pathological Registrars of the Middlesex Hospital* for the year 1899 comprise well-digested records of interesting clinical cases and necropsies. They are so arranged and written as to lend themselves well to the chief object of such compilations—the deduction of general principles from multitudinous data.

The *Transactions of the Dermatological Society of Great Britain and Ireland* for 1900-1901 find room in a quite slim volume which is the seventh of the series. In it there is contained the interesting presidential address of Dr. A. J. Harrison, entitled, Should not Erythema Nodosum be regarded as a Distinct Disease? With the exception also of a paper on Seborrhœa and its Results, with a subsequent discussion, the volume is mainly occupied with the details of individual cases.

The twenty-first volume of the *Transactions of the Ophthalmological Society of the United Kingdom* for the session 1900-1 contains a full account of the communications to the Society, abstracts of which have been from time to time published in the columns of the British Medical Journal, and, in addition, it contains beautiful coloured representations of fundus and other eye changes, with many valuable microscopic and other illustrations in black and white. The present volume seems to be a distinct advance on its predecessors.

The thirteenth volume of the *Transactions of the Southern Surgical and Gynecological Association* of America contains papers on such general surgical subjects as appendicitis, operations for gastric cancer and gall stones, on the Gasserian ganglion and cervical sympathetic and on traumatic gangrene, together with papers on such gynæcological subjects as operations for uterine tumours, for vesico-vaginal fistulæ, and normal menstruation.

---

[12] *Chemistry and Physics: a Manual for Students and Practitioners.* By Walton Martin, Ph.D., M.D., and William H. Rockwell, jun., M.D. London: Henry Kimpton. 1901. (Demy 8vo. pp. 374. 7s. 6d.)

[13] *Wireless Telegraphy: a Popular Exposition.* By C. W. de Tunzelmann, B.Sc., Consulting Engineer. Second edition. London: The Office of *Knowledge*. 1902. (Crown 8vo. pp. 104. 1s. 6d.)

[14] *Sewage and the Bacterial Purification of Sewage.* By Samuel Rideal, D.Sc. Lond. Second edition. London: The Sanitary Publishing Company Limited; New York: John Wiley and Son. 1901. (Roy. 8vo. pp. 320. 14s.)

[15] *The Continuous Sewage Filter.* By F. Wallis Stoddart, F.I.C., F.C.S., Public Analyst; Lecturer on Hygienic Chemistry in University College, Bristol. Bristol: J. Wright and Co. 1901. (Demy 8vo. pp. 40.)

[16] *Water and its Purification.* By Samuel Rideal, D.Sc.Lond. Second Edition. London: Crosby, Lockwood and Son. 1902. (Demy 8vo, pp. 360. 9s.)

[17] London: Shaw and Sons. 1901. (Demy 8vo, pp. 134.)

[18] London: J. and A. Churchill. 1901. (Demy 8vo. pp. 175. 10s.)

[19] London: Smith, Elder and Co. 1902. (Demy 8vo. pp. 674. 8s. 6d.)

[20] London: James Truscott and Son. 1901. (Demy 8vo. pp. 298.)

[21] London: John Murray. 1901. (Demy 8vo. pp. [illegible])

ISOLATION HOSPITALS FOR INFECTIOUS DISEASES.

Provision for the isolation and proper care of persons suffering from infectious ailments constitutes so important a part of preventive medicine that every sanitary authority in the kingdom ought to have its isolation hospital.

In the great majority of cases, except in the larger towns, the superintendence of the isolation hospital and the treatment of the patients admitted falls within the duties of the medical officer of health, whose salary covers such attendance. In certain districts the isolation hospital would appear to be but little used, and only exists as a precautionary provision in case of need. In towns or districts with numerous inhabitants, on the other hand, the isolation hospital may rarely be unoccupied, and a resident medical officer is required, as well as the necessary nursing staff.

Though the isolation hospitals are primarily intended for patients whose circumstances make isolation and proper care at home impossible, they are often utilized by patients in a better position, who prefer to avoid the inconvenience and the risk to other members of the household, of remaining in their own homes during an infectious illness. These persons can afford to pay for the accommodation and nursing, and might prefer to be attended by their usual medical adviser. In most cases such persons are allowed to use the isolation hospital on payment, and in some they have the option of choosing their medical attendant. It is, however, worthy of note that even where this choice is permitted the patients rarely express a wish to be treated by any but the medical officer attached to the institution. In a very few instances, although a hospital building is provided by the sanitary authority, no special provision is made for medical attendance, and a patient must then be visited by his own doctor. During the last year or so we have received many inquiries from members as to the nature of the arrangements usually made for providing medical attendance at such hospitals, and as to the system of remuneration. As the information did not appear to have been published by the Local Government Board in any comprehensible form we recently addressed a letter of inquiry to the medical officers of health of most of the principal towns in England and Wales, and the answers which they have been good enough to return enable us to give in the following table the arrangements made in some sixty districts for the care of infectious cases. In most of these special provision is made separately for small-pox patients, but in others such cases are taken into special wards or pavilions in the general isolation hospital.

Infectious Disease Isolation) Hospital	Is there a Resident Medical Officer?	Is there a Visiting Medical Officer?	How is he Remunerated?	Can a Patient be treated by his own Medical Attendant?	Is there a Special Small-pox Hospital?	How is Medical Attendance Provided and Remunerated?	Remarks.
Hastings Borough Sanatorium (47 beds)	No	Yes (telephonic communication)	£150 per annum	Yes (paying patients)	Yes	As required	
Brighton	Yes	Yes	£150 per annum	Yes	Yes	M.O.H. (no special fee)	
Portsmouth	No	Yes	Annual salary	Yes (paying patients)	Yes	M.O.H. (no special fee)	
Bournemouth	No	Yes, M.O.H.	£100 per annum	Yes (on request)	Contemplated	—	
Southampton	Yes (the assistant to the M.O.H.)	Yes, M.O.H.	Annual salary	No (never asked for)	Yes	M.O.H.	
Reading	—	—	—	—	Huts	M.O.H. (2 guineas per patient)	The only provision for other infectious cases is a building which will take 2 scarlet fever patients.
Ipswich	No	Yes	£100 per annum	No	Yes	Included in attendance at the isolation hospital	
Great Yarmouth	No	Yes, M.O.H.	Part of his duties	Yes	Yes	M.O.H.	
Norwich	No (contemplated)	Yes, M.O.H.	Part of his duties	Yes, under regulations	Yes	M.O.H.	A paid assistant for the small-pox hospital will be provided if necessary.
Plymouth	No	Yes, M.O.H.	£50 per annum	Yes	Yes	M.O.H. (included with infectious hospital)	
Devonport	No	Yes, M.O.H.	Part of his duties	Yes	Contemplated	—	
Bristol, Ham Green (fever)	Yes	—	—	Yes (on request)	—	—	
Bristol, Novers Hill (small-pox) ..	No	Yes	Annual salary	—	Yes	Paid visiting medical officer	
Bristol, Clift House (diphtheria) .	No	Yes	Annual salary	—	—	—	
Bristol, Avonmouth	No	Yes	Paid by fee		—	—	
Hanley, Stoke and Fenton (joint)...	No	Yes	Fee for each case	Yes	Temporary—being erected	Not decided	A lady resident medical officer is to be appointed.
Burton-upon-Trent	No	Yes, M.O.H.	Part of his duties	Yes (never done)	Yes	M.O.H.	
Wolverhampton (scarlet fever only)	No	Yes, M.O.H.	Part of his duties	Yes	Yes (14 beds)	M.O.H.	
Handsworth (Staffs)*	—	—	—	—	—	—	
West Bromwich	No	Yes	21s. each case	Yes (never done)	No	—	One pavilion in the isolation hospital is reserved for small-pox.

Birmingham	Yes (several)	No	...	Yes (rarely done)	Yes	The superintendent of the isolation hospital visits when necessary	Only one small-pox case in six years.
West Heath, King's Norton	No	Yes, M.O.H.	£100 per annum	No	Yes	M.O.H.	
Smethwick (small pox)	—	—	—	—	Yes	M.O.H. and patient's own doctor	
Coventry	No	Yes, M.O.H.	Annual salary	No (consultation if desired)	Yes	M.O.H.	
Leicester	Yes	No	—	No	Yes	M.O.H.	The M.O.H. is nominally superintendent of the isolation hospital.
Grimsby	No	Yes	£100 per annum	No	Yes	Included in attendance at isolation hospital	
Nottingham City	Yes	Yes, M.O.H.	Annual salary	Yes (rarely done)	Yes	Included in attendance of isolation hospital	
Derby	No	Yes, M.O.H.	Part of his duties	No	No	—	
Stockport	No	Yes, M.O.H.	Part of his duties	Yes (never done)	Yes	M.O.H.	
Birkenhead	No	Yes, M.O.H.	Part of his duties	Yes (in consultation)	Yes	M.O.H.	
Wallasey (Mill Lane, Liscard) ..	No	Special arrangements		—	—	—	
City of Liverpool (six)	Yes, at each	Yes	Annual salary	Yes (never done)	Yes (680 beds)	Resident M.O. and Visiting M.O., annual salary	
Bootle	Yes	Yes, M.O.H.	Annual salary	No	No	—	A special block in the isolation hospital is used for small-pox.
St. Helens	No	No	—	All patients are treated by their own doctors	Yes	Patient's own doctor	
Wigan	No	Yes	Annual salary	Yes	Yes	Included in attendance at isolation hospital	
Warrington	No	Yes	£150 per annum	Yes	No	—	
Bolton	No	Yes, M.O.H.	Part of his duties	No	No	—	A special pavilion in the isolation hospital is used for small-pox cases.
Bury	No	Yes, M.O.H.	Part of his duties	Yes (by request)	Yes	M.O.H.	
Manchester (Monsall Hospital) ..	Yes (4)	No	—	No	Yes	M.O.H.	If many cases a medical officer would be appointed at a salary.
Salford	Yes (2)	No	—	No	Yes	Same as the isolation hospital	
Oldham	No	Yes, M.O.H.	Part of his duties	No	Yes	M.O.H.	
Burnley	No	Yes	Annual salary	Yes	A cottage for tramps	M.O.H.	
Blackburn	Contemplated	Yes, M.O.H.	Part of his duties	No	Yes	M.O.H.	
Preston (small-pox only)	—	—	—	—	Yes	M.O.H.	
Barrow-in-Furness	No	Yes, M.O.H.	Annual salary	Yes	Being erected	—	
Huddersfield (120 beds)	Yes	Yes, M.O.H.	Annual salary	Yes	Temporary	M.O.H.	
Halifax	No	Yes, M.O.H.	Part of his duties	Yes	Yes	M.O.H.	
Bradford	Yes	Yes	£50 per annum	Yes	Yes	M.O.H.	
Leeds	Yes (2)	No	—	No	Yes	Same as the isolation hospital	
Sheffield (2 hospitals)	Yes	No	—	Yes	Yes	Same as the isolation hospital	
Rotherham	No	Yes	£50 per annum	Yes (paying patients)	Yes	M.O.H.	
York	No	Yes	Annual salary	Yes	Not yet built	—	
Hull	Yes	No	—	Yes	Yes	M.O.H.	Should there be an epidemic of small-pox, a resident medical officer would be appointed.
Middlesbrough	No	Yes, M.O.H.	Part of his duties	No	Yes	M.O.H.	
West Hartlepool	No	Yes	Fee for each case	No	No	—	
Sunderland	No	Yes, M.O.H.	Part of his duties	Yes	No	—	A pavilion of the isolation hospital is used for small-pox.
South Shields (24 beds)	No	Yes, M.O.H.	£20 per annum	Yes (little used)	Yes (20 beds)	M.O.H.	
Gateshead	No	Yes, M.O.H.	Annual salary	Yes (little used)	Yes	M.O.H.	
Tynemouth (small pox only) ...	—	—	—	—	Yes (12 beds)	Special arrangements	
Newport (Mon.)	No	Yes, M.O.H.	£25 per annum	Yes	Yes	M.O.H., no extra fee	
Cardiff (120 beds)	Yes (salary £150)	No	—	Yes	Yes (40 beds)	Resident M.O. of isolation hospital	
Rhondda (40 beds)	No	Yes, M.O.H.	Part of his duties	No	No	—	
Myrthyr Tydfil (2 hospitals)	No	Yes, M.O.H.	Part of his duties	No	Yes	M.O.H.	
Swansea	No	Yes, M.O.H.	Fee for each visit	Yes	No	—	Isolation hospital used for small-pox if necessary.

[a] Arrangement with West Bromwich Borough Infectious Hospital.

Note.—In several instances in this table it is seen that the medical officer of health visits the infectious hospital or the small-pox hospital, and is remunerated by "annual salary." When these words are used, it has not been stated whether this remuneration is in addition to the salary of the M.O.H. or is included in it.

NOVA ET VETERA.

THE NAVAL MEDICAL SERVICE IN 1790 AND AFTER.

WHEN reform of the Naval Medical Service is being called for it may be interesting to point out that considerable reform has taken place since Surgeon Thomas Trotter, R.N., an early authority on scurvy, published in 1790, *A Review of the Medical Department of the British Navy with a Method of Reform Proposed*, in a letter to the Right Honourable the Earl of Chatham, First Lord of the Admiralty.

The *Monthly Review* of June, 1790, in reviewing this pamphlet, remarks as follows:

The medical department of the navy, although it speaks but little in praise of the wisdom of those who planned it, is certainly an excellent proof of the patience of their posterity who have so long suffered it to remain unimproved. It was bad in its first institution, and it has been gradually growing worse.

Surgeon Trotter's reforms have in the main been established long ere this, and the necessity for them has doubtless been forgotten. Trotter deprecated the examination for entry being conducted by a Board of Examiners of the Corporation of Surgeons in London, and advocated that surgeons of the fleet, royal hospitals, and dockyards should conduct them; this change was made early in the nineteenth century. He also objected to the fee of four guineas charged for the examination, inquiring "if a master wishes to hire a servant, but chooses for his own security to employ an agent, who shall previously inquire into the servant's qualification, would he demand that the agent should be paid by the servant?"

The Admiralty realized the force of his proposal early in the nineteenth century, but until the Sixties required the colleges to certify, when feed by the officer, that their licentiates or members were fit for promotion to the medical charge of His Majesty's ships; this absurdity was also abolished about 1867. According to Surgeon Trotter, the supply of medicines in his time was thus carried out:

Every surgeon in the navy is obliged to provide a chest of medicines, furnished by the Company of Apothecaries in London; the contents of the chest are said to be chosen by the Company, and not by the surgeon, who also pays more for them than what he would pay for similar articles in other places

To remedy this, Trotter proposed "to establish dispensaries in the different dockyards which should supply the ships with medicines, instruments, etc., in the same manner as with other naval stores." The medicines were long ago supplied from medical depôts at the hospitals and elsewhere, and quite recently the instruments have also been supplied. Again he states:

Another mischief attends the present mode of furnishing medicines; it is that the surgeon pays for them, who is reimbursed by a stated sum, called the King's bounty, together with some perquisites from the seamen. In consequence it becomes his interest to give little medicine, and that little of as cheap a quality as possible, when perhaps the nature of the disorder may require expensive remedies in large quantity. This would be prevented by allowing a fixed and suitable salary to the surgeon, while the medicines were supplied by Government.

The fixed salary is now of old date, but its sufficiency is at present questioned. A further advantage which Surgeon Trotter saw would follow the grant of a fixed salary was that some perquisites paid by the seamen should be lessened; particularly in venereal cases, for every cure of which the patient paid fifteen shillings. This fine, in his opinion, should be diminished to five shillings, "but this is only to lighten the evil and not to remove it."

He, however, in his classic *Observations on Scurvy* (London: 1792) remarked on the baneful results of these fines or perquisites sanctioned by the Admiralty, and stated that they led to concealment of the disease, and that the affected men became the victims of unqualified practitioners and quacks ashore, with at times fatal results. But he adds, "If the surgeons are blamed for still receiving the fine, they may justly answer with the Apothecary in Romeo and Juliet, 'Our poverty, but not our will consents.'" He then furnishes the following interesting history of these fines:

Since the introduction of the venereal disease into Europe it has in a peculiar manner been a scourge of the profession of arms; the roving life of the soldier and the sailor has singularly subjected them to its virulence, and the difficulty of cure, as it was till lately thought to be, induced the surgeons of His Majesty's Navy to petition the Board of Admiralty for some perquisite annexed to their office for every cure performed on shipboard. This was actually complied with, and the King in Council ordered fifteen shillings to be paid by marines and thirty shillings by seamen, which were to be charged to their wages. The surgeons, however, not content with this allowance, some time afterwards petitioned Government afresh to double the fine, as it did not indemnify them, but their rapacity was checked by the then First Lord of the Admiralty, who, much to his credit, reduced the fine of the seamen to an equality with the marines, where it remains to this day.

The *Monthly Review* maintained "that perquisites of all kinds ought to be abolished," and they are indeed ancient history. Surgeon Trotter also recommended "the appointment of a physician-general, who shall make remarks on the surgeon's practice and correspond and remonstrate with him on the subject for which purpose the physician is to be furnished by each surgeon with a journal." But his critic of 1790 did not approve this suggestion. "Who," he exclaims, "in the name of common sense would ever think of composing learned essays in so propitious an asylum for study as the cockpit of a man of war?" The physician or director-general was however ultimately appointed and the surgeon's journal established.

Early in the Fifties, senior assistant-surgeons, and in 1859 those on entry, obtained wardroom privileges, but not from the first was cabin accommodation always secured, a right however soon recognized and established.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

THE chief centre of plague at the present moment in India is the Punjab. For the week ending March 15th some 20,000 fresh cases of plague were reported, and the total number of deaths from the disease reached 15,000 and upwards. As yet the city of Lahore has practically escaped, but as plague exists everywhere in the districts around, it is only a question of how long the city may be spared an outbreak. The districts of the Punjab most seriously affected are Sialkot, Ludhiana, Umballa, and Patiala.

In Bombay city the number of fresh cases of plague on March 20th, 21st, 22nd, 23rd, 24th, and 25th were 152, 115, 110, 167, 70, and 95; and the number of deaths from the disease 110, 95, 102, 108, 100, and 125 respectively. During the week ending March 22nd, the total number of deaths from plague amounted to 743. During the corresponding week of 1901 the fatal plague cases numbered 1,196. On March 21st, it was reported that there were 10 European patients in the plague hospital in Bombay—4 males and 6 females.

In Karachi the plague figures reported for the week ending March 22nd show 85 fresh cases and 75 deaths from the disease.

Plague first broke out in the Punjab in 1897, when by great exertions, which were kept up for three years, the disease was limited to two districts. During the first year of this régime 3,500 cases were reported; during the second year, 423; and during the third, 859 cases only. During 1900-01 plague extended and got out of hand, no doubt owing to the fact that the disease reached two Native States, and 10,000 cases were reported. During the winter of 1901-02 the disease has advanced by leaps and bounds, and up to the end of February, 1902, some 90,000 cases have occurred. There is no sign of any abatement in the virulence of the disease, for half of the total number of cases occurred during the month of February. At the present moment there are eight districts and five Native States infected, and it seems as though it were only a question of time before the whole province is attacked. It is interesting to note that it is since precautionary and prophylactic measures have been laid aside that the disease has gained so marked a hold in the Punjab.

EGYPT.

The Director-General Sanitary Department reports that during the week ending March 30th 22 fresh cases of plague and 10 deaths from the disease occurred in Egypt. These were distributed as follows: Abousir, 1 case; Kom-el-Nour, 4 cases; Dechneh, 13 cases and 8 death; villages near Benha, 2 cases and 1 death; Korachieh, 2 cases and 1 death.

Korachieh is a village in the Santa Markuz of Churbieh, and from inquiries made in the village it is evident that infection was carried there from Tantah, and that during February it broke out amongst some Bedouins. The Domains Inspector failed to report the fact to the sanitary authorities, but instead dispersed the people and destroyed the huts in which plague cases occurred.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN. A quarterly Court of the directors of the Society was held on April 9th at 11, Chandos Street, the President, Mr. Christopher Heath, in the chair. Seven new members were elected, and the deaths of 4 members reported. Applications for the renewal of grants were read from 52 widows, 11 orphans, and 5 recipients from the Copeland Fund, and a sum of £1,282 was voted to be given at the next Court: 2 fresh applications from widows were read and grants made. Donations amounting to £221 15s., including £200 from the executors of Miss C. A. Birch, were announced. The annual general meeting will be held on May 21st, at 5 p.m. The report for 1901 was read. Nine members were nominated for election at the annual general meeting to fill the vacancies in the Court of Directors. The expenses of the quarter were £58 5s.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 19TH, 1902.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

The cause of death during anaesthetization with chloroform is a problem of such practical importance that no apology is necessary for the publication of the paper by Dr. Embley on this subject. Previous work of a physiological kind can hardly be said to have settled the matter, for the number of opinions expressed regarding it is almost the same as the number of committees, commissions, and individual experimenters who have worked at it. In the majority of cases, however, the conclusions arrived at are contrary to those of the Hyderabad Commission, who looked upon respiratory failure as the primary cause of death: most of the other researchers look upon this as secondary to failure in the circulatory apparatus. The Hyderabad Commission deserves much credit for pointing out the importance of watching the respiration during anaesthetization, and for indicating the most appropriate methods of administering the drug, but from the scientific point of view no impartial observer can maintain that they proved its main contention.

Dr. Embley's contribution to the subject marks a distinct advance in knowledge, and we can heartily recommend our readers to peruse it carefully and study the numerous tracings by which he supports his conclusions. Dr. Embley is the anaesthetist at the Melbourne Hospital, and we understand that the impetus to his work was given by the occurrence of a number of unfortunate mishaps during the use of chloroform among the patients. The fact that such accidents have ceased since he has derived knowledge of their cause from his experiments is the best testimonial that can be adduced in favour of their value and trustworthiness. In performing the laborious and extensive piece of work, Dr. Embley had the advantage of the co-operation and advice of Professor C. J. Martin, whose experience in physiological method, clear grasp of experimental problems, and ingenuity in devising apparatus are second to those of no other physiologist: Professor Martin's hand and mind are clearly traceable through Dr. Embley's writing.

A clinical observer would roughly divide the deaths he has witnessed from an anaesthetic into two main groups. There are those which occur during the later stages of the operation; the patient has been an hour or more under the influence of chloroform, the anaesthetist gets anxious as he sees an increasing condition of weakness both in heart and respiration, and he knows that unless the surgeon makes haste, and unless suitable restoratives are applied, this condition of exhaustion may culminate in death. The other group of cases, which are much more difficult to treat and on account of their suddenness cause much more consternation, are those which occur in the induction or early period of chloroform anaesthesia, very often before the surgeon has touched the patient. It is these cases which have been the special object of study by Drs. Embley and Martin, and it is curious that in no previous piece of experimental work has this group of cases been investigated. The animal is usually anaesthetized in a box, and when it is fully under it is transferred for observation to the experimental table, but as Professor Martin put it when he gave recently a short account of the work to the Physiological Society and to the Society of Anaesthetists, all the interesting things that occur in the box have been neglected. Dr. Embley very appropriately selected dogs for his observations, for they, like human beings, are very susceptible to chloroform, especially in the induction period, and he overcame the difficulty of observing the effects of the drug from the very commencement of its administration by preparing the animal some time beforehand under the influence of another anaesthetic. The dosage of chloroform was estimated by a simple but very ingenious piece of apparatus, and the safe limit of the amount of chloroform vapour in the air was determined with accuracy. This is the practical outcome of the work; sudden death in the early stage never occurs if this limit is not exceeded, and Dr. Embley's subsequent success with human beings tends to prove that what is true for the dog is equally true for man.

We do not propose to follow Dr. Embley into all the intricacies of the scientific part of his work; it is sufficient to say that he has used the most improved forms of physiological method to determine the action of the drug on the isolated heart as well as upon the intact animal; the plethysmographic method has been utilized, as well as the kymograph, for the investigation of vasomotor phenomena, and the volume changes dependent thereon in various peripheral organs. We may, in conclusion, draw attention to what is after all the most important result, and the one which was the main object of the research, namely, the cause of the sudden deaths in question. Dr. Embley has proved that it is due to vagus action on the heart. Stoppage of the heart is rapidly followed by failure of respiration, and directly the heart is released from vagus control by cutting the vagi the heart resumes activity, the circulation is immediately re-established, and respiration soon follows suit. The only point which is left in a rather undecided condition is whether this excessive action of the vagus nerve is due to the influence of the chloroform on the vagus centre, or is produced reflexly. Drs. Martin and Embley have sought for evidence of the reflex nature of the action, but with negative results; they therefore provisionally assume that the drug acts directly on the vagus centre.

It is a truism that the discovery of the cause of any pathological phenomenon is a guide, or should be a guide, to the discovery of the way in which to treat it. Dr. Embley has shown how this particular occurrence may be prevented, and prevention is better than cure. Still acci-

dents will sometimes occur, and the unlucky anaesthetist will be confronted with the question how to treat this one. The heroic remedy of cutting the vagi, though practicable in a dog, is naturally not to be recommended for a man. Happily it is possible to abolish vagus action without recourse to such an operation. Atropine is a drug which quickly and temporarily paralyses the vagus endings in the heart, and a subcutaneous injection of a small dose of atropine is therefore clearly indicated as the correct treatment.

In conclusion we have to congratulate Dr. Embley and Professor Martin on the successful completion of a painstaking and most useful piece of work. They have been rewarded for their three years' labour by being able to see its direct application for the alleviation of suffering: in the case of many physiological discoveries the discoverers have often to wait many years before their results are shown to be of direct utility.

THE FUNCTIONS OF THE PLACENTA.

All recent research has gone to enhance the physiological dignity of the placenta, and to raise it to a high place among the organs of the body. In this respect it bears some resemblance to the thyroid gland, once little or nothing accounted of, now regarded as the cause of so many diseases, and the cure for so many more. For long the placenta was looked upon merely as the medium through which nutritive materials and oxygen passed from the mother to the fetus, and effete particles and carbonic acid from the fetus to the mother; it was considered to be simply a fine sieve through which percolation took place, or a diffusion membrane obeying the laws and regulations of osmosis. Now there is a tendency to regard the afterbirth as physiologically capable of performing the most intricate vital processes, and to see in the epithelial covering of its villi a highly differentiated tissue with almost miraculous powers of selection, elaboration, and digestion. The truth doubtless lies, as it so often does, somewhere between these two extremes.

It would seem to be almost certain that the placenta has the property of selection, for it has been found that there is more glucose in the maternal than in the fetal blood; this fact may be held to prove that even eminently soluble substances do not pass from mother to fetus or from fetus to mother by the simple laws of osmosis. There is no evidence to suggest that red blood corpuscles can pass through the placenta either in the matrifugal or in the matripetal stream, but there is some reason to suppose that leucocytes can do so, for the blood of the umbilical vein has been observed to contain an average excess of 4,000 leucocytes per c.mm. over that of the umbilical arteries.[1] Further, while eosinophilic leucocytes have been met with both in the vein and the arteries, and while the blood of both gives the iodophilic reaction, this reaction is more marked in the blood of the vein, and the leucocytes which contain iodophilic granules are more numerous in it. It would appear, therefore, that not only is there a migration of white corpuscles from the maternal to the fetal blood, but also that these cells are retained in the fetal tissues and carry with them certain substances having a certain importance as yet undefined.

[1] Varaldo, *Arch. di Ostet. e di Ginec.*, vii, 723, 1900.

Few analyses of the placenta have been made, but from these few[2,3] it appears that it has a neutral reaction, and that it contains a large amount of water (nearly 84 per cent.), standing in this particular midway between renal tissue with 82.7 per cent. of water and the grey matter of the cerebral cortex with 85.8 per cent. Further, of the matters removed by extraction, most are albuminous in their nature, and only a small part is true extractive. It is not clear whether these albuminous substances come from the mother or are formed in the placenta itself. As to the ashes of the afterbirth, there is a large amount of phosphorus, an excess of soda over potash, and a large amount of lime. It would seem that most of the phosphorus-containing matters are easily extractible with water. Experiments have been made with sterilized infusions of the placenta, from which it would appear that the organ is not toxic in the ordinary sense of the word. These experiments, however, have been very few in number.

Some evidence[4,5] of an indecisive kind has of late been brought forward to show that the placenta has an internal secretion which passes to the maternal organism. In or on the epithelium covering the villi clear droplets have been recognized, and have been regarded as the placental secretion on its way through the efferent vessels to the circulation of the mother. The droplets have been considered to be albuminoid in nature. It is, of course, quite conceivable that they simply represent dead epithelium from the surface of the villi. There is also some evidence that the placenta has a power of storing up in its substance mineral poisons and perhaps toxins and microbes, and so of saving the fetus from their malefic influence. In this respect it would seem to resemble the liver in the adult. Whether or not this be the manner of its action there can be no doubt that the placenta is a protective agency in antenatal life. Why it sometimes succeeds and sometimes fails to protect the fetus is an enigma yet to be solved, for the easy explanation that it becomes permeable by microbes and toxins when its own tissues are diseased, and when more especially there are haemorrhages into its substance, is insufficient. At present we know not the laws that regulate placental permeability, but we know that there are laws.

A most interesting side of the placental activities is that concerned with the nature of the minerals and other substances which pass through it at the different months of pregnancy. New light has been thrown on this difficult subject recently by the chemical analyses[6] that have been made of the fetus at different ages of intrauterine life. From these it would appear that the transplacental interchanges vary considerably with the epoch of pregnancy. For instance, the fixation of minerals in the fetus occurs chiefly in the third trimester of gestation. This is specially true of the iron, and there would appear to be a storing up of that metal in the fetus during the last three months of antenatal life—a fetal hypersiderosis which is accompanied by a marked maternal hyposiderosis.

In the first half of pregnancy there is a great pro-

[2] Grandis, V., *Arch. Ital. di Biol.*, xxiii, 429, 430, 1900.
[3] Sfameni, P., *Ann. di Ostet.*, xxi, 851, 1899; xxii, 1009, 1900.
[4] Nattan Larrier, *Compt.-rend. Soc. de Biol.*, iii, 1111, 1900.
[5] Letulle, *ibid.*, iii, 5, 1901.
[6] Hugounenq, L., *Journ. de Physiol. et de Path. Gén.*, i, 1899, 701; ii, 1900, 1509.

dominance of the soda over the potash, but in the last weeks the potash evidently passes over in abundance, for in the full-time fetus the two elements are present in nearly the same amount—a result which is due, no doubt, to the development of red corpuscles and striped muscle. There is little or no increase in the fixation of phosphoric acid in the last months, but there is a great increase in the lime in association with the formation of phosphate of lime; evidently the unborn infant does not assimilate all its phosphate of lime in that form, but fixes first the phosphoric acid, as nuclein or lecithin, and then the lime. There is a very great increase in the amount of fat in the fetus in the last month of antenatal existence, but whether this substance passes through the placenta or is formed in the fetus is by no means clear.

It is evident, then, that the substances passing through the placenta differ not only in quantity but also in quality at the different stages of intrauterine life. It is evident, also, that if the fetus be expelled prematurely from the uterus, as happens, for example, in the induction of premature labour, it comes into extrauterine life without having experienced all the varied physiological experiences of its intrauterine existence. The loss of some of these experiences may be compensated by the new influences which come to play upon the organism in its post-natal environment, but it is difficult to imagine how others can be counterbalanced. For instance, there would appear to be enough potash in human milk to make up for the loss suffered by the infant in leaving the uterus before the great transference of that substance through the placenta took place; on the other hand, the quantity of iron in the milk is quite insufficient to raise that metal to the amount which is stored up in the fetal tissues in the last three months of pregnancy. It would seem, then, that among the several means that are adopted to keep the prematurely born infant in life and health should be the administration of iron in some easily absorbable form, such as the peptonate.

SYPHILIS IN AFRICA AND ASIA.

A paper by Dr. Quennec, a French military surgeon, in the *Archiv für Schiffs und Tropen-Hygiene* (vol. vi, No. 4, 1902) contains some interesting details with regard to syphilis. The disease is very common among the Moors inhabiting the regions north of the Senegal River. They diagnose syphilis when a venereal sore is followed by iritis, retinal haemorrhages, and neuritis, with or without amyotrophy. These localizations may be explained by the exposure to heat and light, and muscular work. The race as a whole does not, however, appear to suffer greatly as a result of the disease, and abortion is uncommon. The treatment of syphilis by mercury perchloride is well known to all the tribes occupying the regions lying between Morocco, Algeria, and Senegal. Dr. Quennec never observed salivation, a fact which he attributes to the scrupulous care the Moors take of their teeth. Gonorrhoea is also of frequent occurrence.

With regard to the negroes south of the Senegal, the author concludes from his observation that the black race is more resistant to the syphilitic virus, but that half-castes are more prone to the disease. The more European blood the worse the disease. A negress who has escaped infection from a syphilitic European may contract syphilis from a mulatto. Conversely, a negro who has been infected by a half-caste woman may be troubled with little more than a hard sore and adenitis, and get well without treatment. The European, however, infected from the same source will run through the whole gamut of symptoms.

According to Dr. Quennec, Port Said is a hotbed of syphilis. The prostitutes suffer greatly from the disease, and he complains that the Egyptian authorities tolerate the pornographic traffic of the Levantine scum, which lives on the Levantine prostitutes. He is of opinion that Saïgon and the island of Réunion have been contaminated by Port Said, and possibly Colombo and Singapore also. When Port Said has become too hot for them, the infected women are sent on to Japan.

From his observations in the Comoro Islands, Nossi-bé, and the west coast of Madagascar, the author concludes that syphilis affects the pure Arabs and the Hindus in the same way as it does Europeans. Both Arabs and Hindus, he found, responded very rapidly to specific treatment. In the negroes the disease is attenuated, as in those of the West African coast. The Sakalaves, like the negroes, do not suffer from secondary symptoms, but they are more prone than the latter to tertiary manifestations. The Sakalaves have been wrongly accused of spreading syphilis among the French troops, for in 1894-95, when Dr. Quennec was attached to the Majunga Hospital, not a single case of syphilis came under his care, although the garrison amounted to 3,000 men. But when Creole women arrived from Réunion a great many cases occurred. According to Dr. Lacaze, syphilis is very rife among the Hovas, of Malay origin, who occupy the highlands of Madagascar. It may be said that the Sakalaves avoid intimacy with the Hovas. The chief foci of syphilis on the East Coast of Africa are the villages of Steamer-Point and Cœur-Saignant in the Island of Réunion. At one time these villages contaminated Australia, but now the French mail steamers call at Colombo instead of Réunion.

As to syphilis in China and French Indo-China, the disease contracted in those parts by a European is particularly severe and very resistant to treatment. Dr. Quennec does not agree with Professor Fournier that this increased virulence is due to the climate. In his opinion it arises from the greater virulence of the disease when it occurs in half-castes (Chinese and Annamite for instance). This racial exaltation of the virus is an interesting point, on which he insists.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

At the meeting of the Council of the Royal College of Surgeons of England on April 10th, Dr. G. B. Ferguson, Surgeon to the Cheltenham General Hospital, and President of the British Medical Association, was elected a Fellow. Dr. Ferguson became a Member of the Royal College of Surgeons in 1873, and his election to the Fellowship has been made under the provisions of the charter of 1852, and of the by-laws which empower the Council to admit yearly to the Fellowship without examination, on the nomination of six of its members, two Members of the College of not less than twenty years' standing. We are sure we are only expressing the feelings of every member

of the Association when we congratulate Dr. Ferguson on an honour which every one will feel to have been well deserved, and which may be in some sense taken as a compliment to the Association, which is honoured by this recognition of the distinguished position which its President holds as a surgeon. Mr. W. H. Power, the Chief Medical Officer to the Local Government Board, who became a Member in 1864, was also advanced to the Fellowship on the same occasion. We are glad to congratulate Mr. Power on this professional recognition of the eminent services which he has rendered to preventive medicine.

THE UNIVERSITY OF LONDON.

THE Earl of Kimberley, K.G., who died last week in his 70th year, was for more than forty years a member of the Senate of the University of London, and succeeded the late Lord Herschell as Chancellor in 1899. By his death therefore a vacancy has arisen in the Chancellorship of the University. By the new constitution of the University the Chancellorship will, for the first time be filled by Convocation voting as at a senatorial election by voting papers. The date of election has been fixed for May 13th, at 5 p.m., nominations will be receivable by the Clerk of Convocation on or before April 22nd. The University has hitherto been fortunate in its Chancellors, who under the old charter were chosen by the Crown, and were always selected from the peerage. The first Chancellor was the late Duke of Devonshire, who was succeeded by Lord Granville, their terms of office being from 1835-55 and 1855-91 respectively. The last decade witnessed the rapid succession of Lord Derby, Lord Herschell, a graduate of the University, and Lord Kimberley. Several names have already been canvassed for the august position. Lord Rosebery has shown an interest in the new life of the University and made a speech at Presentation Day last year which excited much comment. Lord Avebury has also been suggested as a fitting candidate in view of his long services to the University as its representative in Parliament. Lord Lister, as a graduate of the University as well as on many other grounds, would commend himself to medical graduates. Should there be a contested election the University of London may rival the sister Universities of the north in the excitement which similar contests at rectorial elections have elicited.

THE VOLUNTEER MEDICAL ASSOCIATION.

THE annual dinner of the Volunteer Medical Association was held at the Hotel Cecil, on April 9th, when Surgeon-General W. Taylor, C.B., K.H.P., Director-General A.M.S., occupied the chair. About seventy-five members and guests were present. Amongst the latter were Surgeon-General Keogh, Colonel Babtie, V.C., Major Macpherson, and Colonel Gubbins, P.M.O. of the Home District. Of the members, Brigade Surgeon Lieutenant-Colonel Andrew Clark, the chairman of Council of the Association, was supported by Brigade-Surgeon-Lieutenant-Colonels Russell, Gandy, Waterhouse, Raglan, Thompson, Danford Thomas, Surgeon-Lieutenant-Colonels Kiallmark, Baines, Humphreys, A Cooper, Boyce, Adams, O'Callaghan, and Surgeon-Majors Godson, Dundas Grant, Culver James, Fenton, Norton, Robinson and Marshall, as also by Surgeon-Captains Cantlie, Macgregor, Harnett, Openshaw, Goullett, Sharpe, etc. After the usual loyal toasts had been proposed and heartily responded to, Mr. Howard Marsh proposing "The Imperial Forces," the Chairman proposed the toast of the evening, and in the course of his remarks alluded to the recent letters from the War Office sanctioning certain changes in respect to the Volunteer Medical Service, stretcher bearer companies, etc. All that had been asked for had not been granted, but in future the bearer companies were to be separate units and become an integral part of their respective brigades, the channel of communication being through the senior medical officer of the brigade. These units would draw their own capitation grants and other allowances, and a sergeant-instructor of the Royal Army Medical Corps, would be attached to each company. An ambulance wagon would also be issued for drill purposes to each company. Should a bearer company find it convenient to make its headquarters the same as any particular battalion in the brigade and become attached to the same, and satisfactory arrangements were made, it might do so, but the members thereof would be supernumerary in every respect to the authorized establishment of the battalion. These arrangements would not interfere with the regimental medical officers who would continue to train regimental stretcher bearers in the proportion of two men per company. With the exception of the Royal Army Medical Corps Volunteers, the compound titles would still continue to exist. With regard to increasing the number of brigade stretcher bearers to 110 rank and file so as to provide for a field hospital, no order had yet appeared; but, added the Director-General, he would do anything he could do to support this proposition, as he appreciated the necessity and advisability of the increase suggested, and the provision for field hospitals. He expressed the opinion that the Volunteer Medical Association was doing and had done much good service in effecting the changes already mentioned, and the hope that every volunteer medical officer would become a member of it. In conclusion, he gave the toast of "Success to the Association." Brigade-Surgeon-Lieutenant-Colonel A. Clark, who replied as Chairman of the Council, thanked the Director-General for his kind promises of help in perfecting the volunteer medical organization, and referred to the work of the Council during the past year, which he believed had in a great measure led to the changes which had been described by the Director-General. The Association would be glad to have as members all the volunteer medical officers, and he looked forward to an increase in numbers in the course of the present year. Classes of instruction were arranged for those officers who wished to present themselves for examination, and a very handsome challenge shield was competed for annually by regimental stretcher bearers. The Council was always ready to receive and consider all communications from members, and when occasion required take active steps towards obtaining improvements or reforms; this could often be done more effectually by an organized association than by individual effort only. Brigade-Surgeon-Lieutenant-Colonel Danford Thomas proposed the toast of "The Visitors," which was most cordially received. Colonel Gubbins, R.A.M.C., Principal Medical Officer of the Home District, responded. The toast of "The Chairman" was then given by Surgeon-Lieutenant-Colonel A. Cooper, and was drunk with musical honours. The Director-General replied, and in proposing a toast to Surgeon-Major Marshall, the Secretary, thanked him for the able manner in which he had arranged all the details of the entertainment. This was warmly responded to. During the evening selections of vocal music were given by the members and their friends.

EAR DISEASE IN SCHOOL CHILDREN.

THE report which Mr. Cheatle presented on April 14th to the Otological Society on the examination of the ears of 1,000 school children attending the Hanwell District School is most instructive reading. The author describes his results as "startling," and this is a perfectly fair description of them, showing as they do what a large amount of unregarded aural disease of a serious kind exists amongst the children of the poorest class. The following is a summary of Mr. Cheatle's general results: In 43 per cent. of the children the ears were approximately "normal"—that is, capable of hearing a quiet whisper at 18 feet distance. In 50 per cent. there was disease of the middle ear causing deafness. The composition of this 50 per cent. is of great

interest, it is made up of three great groups of cases. The first of these comprises non-suppurative cases, in which the deafness was due to Eustachian obstruction, with depression of the drum-head. One third of the middle-ear cases belonged to this class—16½ per cent. of the 1,000 examined. Of this 16½ per cent. 6½ was associated with enlarged tonsils and adenoids, 7½ with adenoids alone, while in 2½ the throat and naso-pharynx were free. The second group consists of cases in which chronic suppuration of the middle ear was actually present. This group only included about one-sixth of the middle-ear cases, or 9 per cent. of the 1,000 examined. Of this 9 per cent. it was found that enlarged tonsils and adenoids were present in 2 per cent., adenoids alone in 5 per cent., and that the throat and naso-pharynx were free in the remaining 2. In the third group are classed post-suppurative middle-ear troubles. This group included one-half of all the middle ear cases, an enormous total—24½ per cent. of the 1,000 examined. This 24½ per cent. was made up of 5½ per cent. associated with enlarged tonsils and adenoids, 11½ per cent. associated with adenoids alone, and 7 per cent. in which neither form of growth was present. If present and past suppurative troubles be considered together it will be seen that one-third of all the children examined were affected. Of the children in group 3 Mr. Cheatle remarks "88 children were suffering from chronic suppuration from one or both ears." It is needless to point out that all these, while having deficient hearing, were also in danger of their lives. At the very least six wanted the complete post-aural operation performed at once, curetting and ossiculectomy were required in many, and 71 had adenoids. No cases of severe deafness are admitted to the schools, and all cases of acute otitis are at once sent to the infirmary, so that the report does not concern cases recognized as bad ones, but only children considered to be well enough to attend school and not regarded as very deaf. Mr. Cheatle's report is particularly valuable as being that of an expert, and it shows conclusively the need for further inquiry. In Germany the Government, on the suggestion of Dr. Arthur Hartmann, has taken the matter in hand. Their attention was, we believe, first directed to the subject by the serious loss entailed upon the army by the rejection of recruits otherwise able-bodied, but incapacitated for military service by deafness or ear disease. In many German towns medical officers have been appointed to look after the eyes and ears of school children, and with a view to the prevention of aural disease attempts have been made to disseminate knowledge on the subject by the distribution to parents of simple printed directions regarding the care of the nose and throat during illness, and especially in the infectious fevers of childhood. We do not yet know what success has attended these measures, but at all events they are a serious attempt to cope with a recognized evil.

BREAD AND THE BUDGET.

Probably the first thought of every medical man in the country, when he read the proposals for additional taxation contained in the Budget, was one of regret, but not of surprise that the Chancellor of the Exchequer should again have had recourse to the facile expedient of adding to the income-tax. This is a form of direct taxation which bears hardly upon professional men, who have only their own energy and health to depend upon to provide a living for themselves and their families and a competence for their old age. But the basis of taxation has been very much narrowed during the past thirty or forty years: and the second thought will probably have been as to the effect upon the resources and habits of the people of the registration duty to be imposed on corn and flour. This is to be 3d. a cwt. on imported corn and grain, and 5d. a cwt. on imported flour and meal. One cwt. of flour will, we believe, make about 38 quartern loaves. In an estimate of a good standard diet for a man doing a moderate amount of muscular work, and living according to English habits, Waller put the amount of bread at 1 lb. a day. A fairly liberal allowance a head would therefore be 2 quartern loaves a week, or 104 a year; allowing a little for flour used for other purposes in the diet, we may perhaps assume that a man will consume about 3 cwt. of flour a year. Upon this basis each individual would pay about 15d. more in a year than in the past if he consumed foreign flour alone. Taking the population of the United Kingdom at 42,000,000, this would amount to £2,800,000 a year, which is very little more than the estimate which the Chancellor of the Exchequer made as the probable yield of the duty. Even, therefore, if the whole of the flour consumed in the United Kingdom were to be subject to the import registration duty, which, of course, is not the case, the actual increase in the cost of flour to the baker must be so small that there can be on that ground no cause for increasing the price of bread, and it is, therefore, not to be anticipated that the duty will have any appreciable effect whatever upon the dietetic habits of the population.

ANTIVACCINIST TACTICS.

According to a report in the *Warwickshire Advertiser and Leamington Gazette*, a complaint was recently made against the public vaccinator to the Southam Guardians at one of the ordinary Board meetings, when several parents asserted that he had forced children to be vaccinated. It was objected that evidence ought only to be taken in the presence of the officer incriminated; but in the end it appears to have been received. One witness, a labourer, stated that, without sending a notice, the doctor visited his house, and expressed his intention of vaccinating the child. In spite of witness's objections, the operation was performed. The second witness, the wife of a labourer, stated that the doctor called at her house, and, on her objecting, said, "I will do him." It appeared, however, that the baby was not, as a matter of fact, vaccinated. On this being pointed out to the witness, she admitted that was so, but asserted that the operation would certainly have been done had her husband not been at home. A third witness, the wife of another labourer, asserted that the doctor said, in reply to her objections, "the child will have to be done to-day," that he finally did vaccinate it in six places, and that the child had subsequently broken out into a rash, and was "not fit to be seen." After some discussion, it was decided that the matter should be adjourned to the next meeting. At the next meeting Dr. Rice, the public vaccinator in question, appeared before the guardians, and after hearing him the Board came to the conclusion that there was no cause for passing any censure on him. It is satisfactory to find that Dr. Rice was fully exonerated from all the charges made against him. At the same time, it is to be regretted that public bodies should allow themselves to be drawn into procedures setting the ordinary rules of justice at defiance. It ought not to have been possible for a few antivaccinists to overrule the correct sentiment of one of the guardians that complaints of this kind ought not to be heard in the absence of the party implicated—an elementary principle of law. Much harm, and no possible good, was likely to arise from such irregular procedure. Idle gossip publicly put forth as evidence, mixed up with false statements, though contradicted later, may do mischief that cannot be remedied. In commenting on this case, the *Advertiser* says: "It is very desirable that vaccination officers should do their duty in a conciliatory and considerate spirit, otherwise vaccination will become very unpopular in the country." These sentiments are unexceptionable. We quite agree that it is the duty of every public vaccinator to use the utmost tact and courtesy in carrying out his duties.

THE SURVIVING XIPHOPAGOUS TWIN.

In the British Medical Journal of February 22nd there was published an article headed the Separation of Xiphopagous Twins. It was based upon M. Doyen's operation performed on Radica-Doodica on February 9th. The operator has submitted his report to a highly competent tribunal—the Académie de Médecine—and an interesting abstract has appeared in the *Semaine Médicale* for April 9th. The treatment of the pedicle was described in the paragraph to which we have just referred. M. Doyen finds that the union at the ensiform cartilages was immediate, the pedicle simply existing on traction, as when the twins stood as much shoulder to shoulder as was possible. The most original part of the recent report is of much value. It shows that Radica developed considerably at the expense of Doodica, owing to the arrangement of the anastomosing arteries at the line of union being favourable for Radica and very unfavourable for her sister. In short, Radica received a considerable amount of arterial blood from Doodica which she did not return. This condition is clearly similar to the well-known phenomenon in an acardiac fetus. As in their case that form of monster is a one-yolk twin, but its fellow twin, through communication of their placental vessels, gets an unfair supply of blood; indeed the circulation is reversed in direction in the less favoured brother, who thus cannot develop, and becomes an oedematous mass sometimes reduced to a single limb; Doodica was much the weaker of the sisters and did not long survive the operation. She had at the time tuberculous peritonitis. Radica had suffered for long from strumous glands and possibly the tubercle had passed from them to Doodica's peritoneum, though the tuberculous peritonitis in the latter might well have been of independent origin. Just before the operation Doodica's temperature was 102.2°F., whilst Radica's was but 99.4°. This fact is set forth by M. Doyen as proof that the humoral theory of fever, not entirely discredited, is quite untenable. For the blood passed freely into Radica's circulation, too freely indeed for the nutrition of Doodica. Yet though Doodica had a big stercoral tuberculous abscess in the pelvis, her sister was but little the worse, having next to no fever. Doodica succumbed to peritonitis due to rupture of the pelvic abscess into the peritoneum already universally affected with tuberculous peritonitis of the dry type. Radica has rapidly gained weight, the strumous glands in the neck and axilla have been removed and her health is now very good. The radiograph shows that her heart is in its normal position, whilst there is very marked lateral curvature in the dorso-lumbar region of the vertebral column. The operation certainly saved her and she has a chance of recovering more or less completely from her spinal deformity.

A POINT CONCERNING THE DIAGNOSTIC VALUE OF TUBERCULIN FOR CATTLE.

The Agricultural Department of Aberdeen University has issued a short report bearing upon the question as to the most suitable times for taking the temperature of cattle after inoculating them with tuberculin. In an investigation reported by the department in 1899 the results of the tuberculin test did not appear satisfactory, as out of 42 animals proved to be tuberculous, 17 had failed to react. The temperature of the tested animals had been taken at 10, 11, 12, and 13 hours after inoculation. The interval between successive observations was not long enough, and it is surprising to hear that Professor Nocard pointed out that if intervals of 3 hours had been allowed, commencing with the twelfth hour, the results would probably have been more satisfactory. Accordingly, Mr. Young, F.R.C.V.S., F.R.S.E., has recently conducted a supplementary investigation for the department, taking the temperature of the cattle at 12, 15, 18, and 24 hours after administering the dose. Out of 17 animals afterwards proved tuberculous he found that only 4 failed to react, and that of these the first had no active disease, whilst the other 3 presented a suspiciously undulating temperature suggesting that a larger dose might have proved diagnostic. The general conclusion is that the characteristic reaction is to be expected between the ninth and eighteenth hours after inoculation.

THE GEOGRAPHICAL DISTRIBUTION OF GOITRE.

M. Lucien Mayet, a few weeks ago read before a Paris society a paper on recent researches into the geographical distribution of goitre and cretinism. He finds goitre frequent in the departments to the extreme south of France; in a group of departments to the south-east, from the Vosges on the north to the Alpes Maritimes on the south, and the Dordogne on the west; and in the Orne and the Aisne, in the north of France. Grouped around these are departments where it is rare, and in a number of Departments to the north-west and that of Var on the south it is almost unknown. In general, it is most frequent in the mountainous regions of France, as it is in those of Switzerland, Italy, and Germany. The distribution of cretinism among the Departments is in many respects different. It has many causes other than those which induce goitre, and the relation between the two is to be established not by general statistics, but only by the clinical observation of particular cases.

THE BACTERIOLOGY OF SCHOOLS.

In the *Centralblatt für Bakteriologie*, November 17th, 1901, Dr. Ernesto Cacace gives the result of a definite and suggestive bacteriological inquiry, an abstract of which is given in the *Albany Medical Annals*. Dr. Cacace points out that outside of a few observations in Germany and England very little attention has been paid to the bacteriology of schools. His investigations took the form of examination of dust from various parts of a normal school at Capua at different times of the year. He investigated particularly the number and variety of bacteria, the influence of the seasons, and of the presence of the pupils on their development, the occurrence of pathogenic bacteria, particularly tubercle bacilli, and the suggestions for improved school hygiene to be drawn from the results. The school was several stories high, and contained some three hundred pupils of different grades, from the kindergarten upwards. The dust was examined both culturally and by animal inoculation. Besides blastomycetes and moulds many bacteria were found, the pathogenic ones most commonly present being the bacillus coli communis, and the staphylococcus aureus and albus. The pneumococcus was only once observed, and then in an inoculation experiment. The colon bacilli were usually virulent for animals. The number of bacteria per gram of dust varied from 6,500,000 to 103,000,000. The largest number was constantly found in the kindergarten department, which was on the ground floor and opened on a dusty street. The development of bacteria was about the same in the different departments. They developed more rapidly in June than in any other month. The dust was richer in bacteria by from two to five millions at the end of a session than at the beginning. As far as animal injections were concerned it was found that none of the animals died of tetanus, and that no tuberculosis developed in any of them. As a result of these observations the author suggests that thorough cleaning of all schoolrooms by scrubbing of the floors, and the use of a moist cloth on the furniture should be frequent, and that the rooms should be chemically disinfected at stated intervals. On account of the greater susceptibility of young children the kindergarten department should not be on the ground floor or open on a dusty street.

CHILDHOOD SOCIETY.

At the annual meeting of this Society held recently, Earl Egerton of Tatton was re-elected President, and Mr. R. B. Martin, M.P., Treasurer. From the annual report we find that the number of members is now 86, including 14 honorary corresponding members. The Society has brought under the notice of the Government several matters bearing upon educational problems, such as the desirability of a scientific commission of inquiry into the mental and physical conditions of our school population, on the lines of the committee formerly working under the auspices of the British Medical Association; and in a recent memorial to the President of the Board of Education attention is drawn to the necessities of the feeble-minded class, as well as of blind and deaf children. With regard to the former it is gratifying to observe that advantage has been taken by a large number of school authorities of the provisions of the Act of 1899, which enables them to make special arrangements for the discrimination and special instruction of such children. The Act, however, is not compulsory, and it rests with school authorities to adopt it or not as they please. The consequence is that there are still large areas where no facilities are offered for the special instruction of exceptional children, much to the detriment not only of these last, but also of the normal children with whom they are associated in the ordinary classes. Sufficient has, however, been done, more especially in large towns, to furnish a basis of inquiry as to the results that may reasonably be expected from an extension of a system of "special instruction" throughout the country; and at a period when our legislators have under consideration the establishment of a comprehensive supervision of all classes of school arrangements, it is well to put in a plea for the unfortunate children who are handicapped by mental or physical infirmities from even taking the first step on the ladder of graded education which it is sought to construct. In the public interest it seems necessary to afford assistance not only to the clever children who will climb to distinction, but also to give a helping hand to those who without such aid will inevitably sink deeper and deeper into the mire of misery and misdoing. The neglect of such children constitutes, indeed, a grave social danger; for defectives, if untrained, are but too apt to pass into the ranks of delinquents. There are many problems which an association such as the Childhood Society, consisting largely of medical and educational experts, may help to elucidate; and we are glad to see that by the provision of public lectures (which we are told have been well attended), as well as by the institution of prizes for essays upon practical subjects, popular as well as professional interest has been stimulated in matters making for the welfare of the rising generation. A new departure has this year taken place in the publication of a volume of *Transactions*, which will make it possible for those unable to attend the meetings to participate in the benefit of the communications made to the Society, the offices of which are at the Parkes Museum, Margaret Street, London, W.

THE PROPHYLAXIS OF MALARIA IN CORSICA.

A Commission composed of Drs. Vallin, Kelsch, Raillet, Blanchard, and Laveran has recently issued a report on the means of the prevention of malaria in Corsica. The island is practically divided into two parts by a mountain chain running from N.E. to S.W. The portion turning to the west is healthy. The east coast is unhealthy, being low-lying and marshy. The immense plain of Aleria is uninhabitable during the summer, all the inhabitants resorting to the mountains as soon as the harvest is finished; even then many are seized with ague. An appeal was made to the Government in 1838 and again in 1886 to drain the marshes, but to no purpose. The *Anopheles maculipennis* has been found in all the unhealthy localities examined. The report reviews the methods of preventing malaria (1) by the treatment of cases promptly and efficiently; (2) by the destruction of the *Anopheles*; and (3) by protecting individuals from the bites of these insects. In regard to quinine prophylaxis, it is suggested that at the beginning of the summer season all persons who have previously suffered should take quinine; in very unhealthy places all the inhabitants should do so. The so-called latent cases, that is, people harbouring the parasite, but without showing rise of temperature, must especially be sought out. In this respect children must be looked after with special strictness. The administration of quinine in fever must be thorough and prolonged, and should be continued after the parasite has disappeared from the blood. Lastly, the drug should be given gratuitously to poor people, and also should be capable of being procured at the lowest price from vendors other than chemists, as there might be no chemist's shop in any given locality. The destruction of the mosquito is indeed impracticable in the case of large marshes. It is possible, however, in houses and their immediate neighbourhood. To destroy the larvae, 10 to 15 c.cm. of petroleum oil per square metre of surface are sufficient: this spreads over the water, and thus gets into the tracheae of the larvae during their respiration, and asphyxiates them. The process should be repeated after fifteen days, as the oil evaporates. Where the amount of water is larger, stocking it with small fish is a good measure. Houses, again, should not be surrounded with shrubbery to form a refuge for the mosquito by day. The *Anopheles*, however, is harmless where the sick have been treated efficiently with quinine. As regards the mechanical means of defence against the mosquito, metallic netting should be placed over the windows, chimneys, and all other orifices. An automatically-shutting frame with metallic wire should close the doorway. If it is necessary to go out at night, a veil must be worn over the head by harvest labourers and grape gatherers, etc. Thick gloves and gaiters should be worn, or the bottom of the trousers should be tied close round the legs. No good results have been obtained from the use of pomades of camphor or naphthalin. In conclusion, the Commission observes that no one method is applicable for all places. As regards Corsica, quinine holds the first place, mechanical protection against mosquitos the second, and destruction of larvae the third. The formation of a sanitary society is recommended for the purpose of making known the mode in which the disease is propagated, and how it can be guarded against, by short directions and lectures by the medical men of the district; for providing quinine during the sickly season, both for prophylaxis and treatment; and for installing wire netting in windows and doors; distribution of netting generally, and destruction of larvae.

THE CIGARETTE AND THE DEPOPULATION PROBLEM.

The list of ill effects attributed to tobacco is already longer than Homer's catalogue of the ships. That pleasant poison is held accountable for intermittency of the pulse and palpitation of the heart; for dyspepsia, gastralgia, and loss of appetite; for angina pectoris, various disorders of vision, tendency to vertigo, loss of memory, blunting of sensibility and impairment of motor power. Tremor and obstinate cough are also reckoned for unrighteousness to the herb nicotian. The hardened smoker is even said to bear the mark of his vicious habit stamped upon him in the most intimate part of his anatomy, colouring his bones as he does his pipes. But he defies all the vaticinations of medical oracles, and indeed as he generally feels no wound he can afford to jest at scars. A new Cassandra has, however, recently arisen, in the person of Dr. Le Juge de Segrais, of Luchon, who in the current number of the *Archives Générales de Médecine* foretells what many smokers

will regard as a worse doom than any yet pronounced upon them. He holds that among the baleful effects of tobacco on the nervous system is one which makes it unlikely that the smoker will see children of his own about his knees. Carlyle tells a story of a squire of dames who was wounded in a duel in such a manner that although he lived many years afterwards and broke most of the commandments, one he observed with the strictest fidelity, for the good and sufficient reason that a breach of it was beyond his power. If we are to believe Dr. Le Juge de Segrais, a rigid obedience to the same commandment is sometimes imposed on the devotee of My Lady Nicotine. He cites two cases from published records, and several more from his own practice, in which impotence resulted from inordinate smoking. The patients for the most part smoked cigarettes and swallowed the smoke, and Dr. Le Juge de Segrais's theory is that the tobacco, being absorbed by the lungs and the stomach, acted as a slow depressant poison on the nerve centres. Abstinence from tobacco sufficed to bring about recovery, but some of the victims were so wedded to the cigarette that they could not give it up. In one case death is said to have resulted from immoderate smoking, but the genital apparatus was not examined. Dr. Le Juge de Segrais, however, refers to a communication presented by Dr. Georges Petit, General Secretary of the French Anti-Tobacco Society, to the Congress of Scientific Societies in 1901 on changes in the organs of generation produced under the influence of tobacco. He made experiments on a number of animals—dogs, cocks, guinea-pigs, rabbits (male and female)—which were exposed to the action of tobacco smoke, fed with tobacco leaves, and treated with enemata of nicotine solution. In some cases acute intoxication was produced, and the testicles were found congested, the tubuli seminiferi being the seat of cell proliferation and epithelial desquamation. In other animals in which chronic intoxication had been produced the testes were the seat of a true atrophic sclerosis approximating to the cirrhotic type, the vesiculae seminales were, as it were, withered, and no spermatozoa could be discovered. In the female rabbits the ovaries were shrunken and atrophied. These facts may, perhaps, help us to regard the war of the tobacco trusts with satisfaction as likely to result in a diminished consumption of tobacco. If tobacco is really a cause of sterility, as is suggested by Dr. Le Juge de Segrais's facts and Dr. Georges Petit's experiments, the matter is a serious one. Our population has in recent years ceased to increase at the rate which formerly prevailed. Various causes have been assigned for this, but among them, no one, as far as we know, has included the cigarette. It would be curious if that unconsidered trifle were shown to be a factor in depopulation, hitherto unsuspected by political economists.

NEW *PHARMACOPOEIAS*.

MOST European countries are putting their houses in order in a pharmacopoeial sense. The first edition of the Swiss *Pharmacopoeia* appeared in 1865; it was followed by a second in 1872. A supplement to the second edition was issued in 1876. In 1893 a third edition appeared in French, Italian, and German (the previous editions having been published in Latin) under the title of *Pharmacopoeia Helvetica*. A new edition has now become necessary. The work, which it is estimated will take about three years to complete, will be carried out by an official committee consisting of a pharmaceutical section of from nine to twelve members, a medical section of seven to eight members, and a working committee of five members, acting at the same time as an editorial Committee. The cost of this work to the Republic is calculated at £480, which will be divided among the budgets for the three years. A new Austrian *Pharmacopoeia*, being the eighth edition, is now in preparation, and it is announced that a new Croatian *Pharmacopoeia* will come in force on January 1st, 1903. A Standing Committee is now at work on a revision of the Dutch *Pharmacopoeia*. It was hoped that the new French *Pharmacopoeia* would have been issued in 1901, but, although the work of revision is well advanced, there has not yet, as far as we are aware, been any public intimation of its approaching issue. A scientific Committee is at work on a new edition of the Italian *Pharmacopoeia*, but progress is slow, and the date of issue indefinite. A new edition of the Swedish *Pharmacopoeia* is in preparation, and, although it was announced that it would appear during the past year, it has not yet been printed, and there seems to be reason to believe that some time may elapse before its publication. It may be mentioned that the fourth edition of the German *Pharmacopoeia* came in force on January 1st, 1901. The seductive idea of an International *Pharmacopoeia*, which was favourably received by the late International Congress of Pharmacy, appears to be almost as far from realization as Mr. Rhodes's millionaire millenium.

THE ANTIMOSQUITO CAMPAIGN IN SIERRA LEONE.

THE Liverpool School of Tropical Medicine has been urging the Government to assist the Expedition of the School, under Dr. Logan Taylor, which is at present endeavouring to improve the sanitary condition of Freetown. Mr. Chamberlain has informed the Committee of the School that the Governor of Sierra Leone has now reported on the subject of their suggestion that the Colonial Government should increase the number of the workmen lent by them to the Malaria Expedition which is now working in Freetown under the superintendence of Dr. Logan Taylor. Sir C. King-Harman states that he is anxious to give every possible assistance to Dr. Logan Taylor in the useful and important operations which he is conducting in Freetown; but that, after consultation with him and with the Principal Medical Officer, he has decided that the best form in which that assistance can be given is for the Government to undertake by degrees the surface drainage of those parts of the city which are most infested by mosquitos. In this proposal Dr. Taylor cordially concurs, recognizing that such work cannot be adequately performed by his staff, and that the result cannot fail, not only to relieve him of engineering responsibility, but also to effect a permanent improvement in the sanitary condition of the infested areas. Arrangements have accordingly been made for the immediate surface drainage of a swampy portion of the Grassfields district, in which Dr. Taylor has already operated to a considerable extent. The cost of the work is estimated at £460, and the amount has readily been voted by the Legislative Council. Mr. Chamberlain has approved of the Governor's action, and has sanctioned the expenditure of the vote of £460.

AN OBSTETRICAL AND GYNAECOLOGICAL REUNION.

ARRANGEMENTS have been made for holding a *réunion* of the obstetricians and gynaecologists of the empire on Tuesday, June 24th, in the week of His Majesty's Coronation. A reception will take place in the afternoon at 20, Hanover Square; and in the evening a dinner at the Whitehall Rooms, Hotel Métropole, under the presidency of Sir John Williams, Bart., M.D. Among those who in response to invitations issued by Sir John Williams and the Presidents of the Obstetrical Society of London (Dr. Horrocks) and the British Gynaecological Society (Dr. Halliday Croom) have consented to act as stewards of the dinner are Drs. W. Alexander (Liverpool), Boxall, F. H. Champneys, C. J. Cullingworth, W. Duncan, T. W. Eden, A. L. Galabin, W. S. A. Griffith, A. Helme (Manchester), G. E. Herman, Macnaughton-Jones, W. S. Playfair, A. R. Simpson (Edinburgh), W. J. Sinclair (Manchester), and Messrs. Alban Doran and Bowreman Jessett. All medical practitioners of the United Kingdom and the British

Dependencies interested in obstetrics and gynaecology who intend to be in London during Coronation week are invited to communicate with Sir John Williams or any of the stewards. Details of the reception will be announced later. Applications for dinner tickets (£1 1s.) should be made to Dr. Eden, 26, Queen Anne Street, Cavendish Square, W.

THE MEDICO-LEGAL SOCIETY.

The new Medico-Legal Society, to which reference was made in the British Medical Journal of April 5th, was formally constituted at a meeting held at 20, Hanover Square, on April 10th, when the rules were adopted and officers were elected. The following are the officers for the ensuing year:—President: Dr. W. J. Collins, L.C.C.; Vice-Presidents: Dr. M. Hay, Professor of Medical Jurisprudence in the University of Aberdeen; Dr. Bostock Hill, Professor of Medical Jurisprudence in the University of Birmingham; Mr. A. J. Pepper, of St. Mary's Hospital; Dr. George Danford Thomas, Coroner for London and Middlesex. Council: Mr. S. B. Atkinson, M.A., B.Sc., Barrister-at-Law; Dr. C. O. Hawthorne, Dr. T. N. Kelynack, Dr. Risien Russell, Professor of Medical Jurisprudence in University College, London; Dr. F. J. Smith, Lecturer on Medical Jurisprudence at the London Hospital; Dr. W. R. Smith, Professor of Medical Jurisprudence, King's College, London; Dr. F. J. Wethered, Lecturer on Medical Jurisprudence at the Middlesex Hospital; Dr. H. W. Williams. Honorary Treasurer: Dr. W. Wynn Westcott, Coroner for North-East London. Honorary Secretaries: Dr. W. McCallin, M.R.C.P., Barrister-at-Law, Inner Temple; Dr. R. Henslowe Wellington, L.R.C.P., etc., 2, Essex Court, Middle Temple. The object of the Society is the furtherance of medico-legal knowledge in all directions. At the present day, when medicine is taking a place of steadily-growing importance in the machinery of social life, and is called upon to make itself heard with increasing authority before the tribunals of the law, there is distinct room for such a society. We wish it all success in the useful duty which it has undertaken to discharge.

It is announced that Mr. C. T. Ritchie, M.P., has expressed his willingness to stand as Unionist candidate for the Lord Rectorship of Aberdeen University. Mr. Asquith has already been adopted as the Liberal candidate.

A convocation of the University of Durham will be held in the University of Durham College of Medicine, Newcastle-on-Tyne, on Saturday, April 26th, at noon: afterwards the President and members of the College of Medicine will give a luncheon.

The Town Council of the City of Edinburgh has now finally decided, by a majority of one vote, to dispense with the excellent services of the Laboratory of the Royal College of Physicians, and to transfer the bacteriological work to the John Usher Institute of Public Health.

The Secretary for Scotland has appointed Dr. James Craufurd Dunlop to be inspector of certified inebriate reformatories in Scotland under the provisions of the Inebriates Acts, 1879 to 1900, and also inspector of licensed retreats in Scotland.

The Honorary Secretaries of the International Congress for the Welfare and Protection of Children, which, as already announced, is to be held in London on July 15th, 16th, 17th, 18th, 1902, are Dr. Milson Rhodes, of Didsbury, and Mr. G. E. Lloyd Baker, J.P., of Hardwicke Court, Gloucester. The Secretary is Mr. W. G. Lewis, of 8, Wells Street, Gray's Inn Road, London, W.C.

The next meeting of the Epidemiological Society, London, will take place at 11, Chandos Street, Cavendish Square, W., on April 18th, at 8.30 p.m., when Dr. Thresh, County Medical Officer of Essex, will read a paper on Small-pox Hospitals and the Spread of Infection.

The Managers of the Central Sick Asylums, Cleveland Street and Hendon, have decided to establish a department for the light treatment of lupus. There are about 25 cases in the metropolitan area, and, with the permission of the Local Government Board, these can be sent to Hendon at a certain charge.

The annual dinner of the Royal College of Surgeons of Ireland, which will be held on May 10th, will be attended by His Excellency the Lord Lieutenant. The honorary Fellowship of the College will be presented on this occasion to Surgeon-Captain Thomas Joseph Crean, V.C., to whom this honour has been voted in recognition of his distinguished services in South Africa.

Our Hong Kong Correspondent writes that during the week ending March 15th there were 12 cases of cholera in the colony, 9 of which proved fatal. The cases included 4 Japanese and 8 Chinese. During the same week there was only 1 case of plague, and it proved fatal. The other communicable diseases notified for the same period were 1 diphtheria, 1 enteric fever, and 4 cases of small-pox.

The foundation stone of the new medical institute for Belfast, the gift of Professor Whitla, President of the Ulster Medical Society, was laid by Professor Redfern on April 12th. It is to form the local habitation of this Society, and will contain a large reception hall, a library, reading room, a lecture hall, private consulting rooms, a billiard room, and kitchens. The estimated cost is about £5,000.

The appeal on behalf of University College, London, which, as we stated a few months ago, has been in preparation for some time, has now been issued, and the first-fruits is a gift of £20,000 from Mr. Astor. As already announced, the Drapers Company has offered £30,000 under certain conditions to free the College from debt, and a former student of the College has promised a like sum. The total amount asked for is one million sterling.

The German School Hygiene Association will hold its third annual meeting at Weimar on May 19th, 20th, and 21st. Among the subjects to be discussed are School Hygiene and the Prevention of Consumption; the Training of Future Teachers in Hygienic Knowledge; the Cure of Commencing Scoliosis; the Work of Medical Inspectors of Schools in Towns and Rural Districts; the Reform of Elementary Education from the Hygienic Point of View; the Cure of Stammering in School-children; Modern Tendencies in Pedagogy in the Light of School Hygiene.

In the eight Universities of Austria the total number of medical students in the winter semester just terminated was 3,299, of whom 66 were women.

Mr. John Sidney Turner, M.R.C.S., F.L.S., who was recently appointed by the Lord Chancellor a Justice of the Peace for the County of Kent on the recommendation of the Lord Lieutenant, Earl Stanhope, took the oaths at the Maidstone Quarter Sessions on April 10th. Mr. Sidney Turner was President of the South-Eastern Branch of the British Medical Association for the years 1894-95.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Budget.—Sir Michael Hicks-Beach had a very full and attentive House when he rose early on Monday to make his annual statement as to taxation. The rumours as to the possibility of an early termination of the war gave additional interest to the occasion, and the leader of the Opposition even went so far as to inquire if the Chancellor might not prefer to postpone his statement in view of the possibility of peace. The Chancellor of the Exchequer, however, thought one postponement quite enough; and although it was evident by his voice that he had not quite recovered from his cold, he manfully tackled his task and made a very interesting speech, which lasted for nearly two hours. The general feeling afterwards was that the addition of a penny to the income tax and the extra penny to be charged on the stamp for all cheques would prove very irritating to the professional and trading classes. The income tax bears hardly enough now on medical men, whose profits depend on their personal skill and whose business is too often a purely life business, and to them and all others in a similar position the addition will be a hardship. The increase of the stamp on all cheques, irrespective of the amount for which they are drawn, will also prove a burden on many professional men as well as traders. The other impost of a duty of 3d. a cwt. on grain and 5d. a cwt. on flour and meal was generally regarded as a tax which, if retrograde in character, would nevertheless not generally be felt to any serious extent. The calculation of the Chancellor is that the additional penny on the income tax will produce £2,000,000, the increase of a penny on all cheques and bills at sight will produce £500,000, while the duty on grain and flour, it is estimated, will produce £2,650,000. The balance of the deficit, some £32,000,000, will be raised by loan.

Rural Postmen and Medical Certificates.—Mr. James O'Connor inquired on Monday why suboffice rural postmen, who are not allowed free medical attendance, were required to furnish a weekly medical certificate at their own cost when on the sick list, and suggested that when the illness was of long duration the weekly certificates might be dispensed with and the cost of certificates refunded to the men. The Secretary for the Treasury in reply said that all servants of the Department were required to furnish weekly certificates, when absent through illness, and at places where there was no medical officer attached to the Post Office the certificates must be obtained from the patient's own medical adviser. The Postmaster-General was not prepared to alter the rule which required the medical certificate to be furnished nor could he undertake to refund the cost of them to those officers who were obliged to obtain them at their own expense.

The Results of Antityphoid Inoculation.—Captain Norton inquired early in the week if the Secretary of State for War could state whether the report on the results of antityphoid inoculation had been received, and if so, whether it showed a diminution in mortality in the inoculated attacked by the disease as compared with the uninoculated. Lord Stanley said in reply that the report had been received. It dealt with only 4,138 cases, and the aggregate results showed a mortality of 8.2 per cent. in inoculated persons as against 15.1 per cent. in the uninoculated. The report, however, did not appear sufficiently conclusive in itself, and it seemed expedient to obtain further statistics from the admission and discharge books before publishing it.

Plague in the Punjab. In answer to Mr. Caine the Secretary of State for India stated on Monday that he did not receive daily returns of plague deaths. The telegraphic reports were for a period of four weeks and these were subsequently supplemented by certain weekly returns and details. The numbers of plague deaths in the Punjab since the autumn of 1901 had, he regretted to say, greatly increased. They were as follows: For the four weeks ending January 18th, 1902, 9,438; for the four weeks ending February 15th, 16,748, and for the four weeks ending March 15th, 42,788. No later reports had yet been received. Regulations enjoining measures based on the recommendations of the Plague Commission and designed to avoid coercion and to attract the co-operation of the people as much as possible, had been adopted, and a specially-qualified medical officer had been deputed to supervise the arrangements.

The Kilt as a Medical Appliance.—There was quite an exciting scene at question time on Friday in last week, when one Scotch member after another asked questions as to the rumoured abolition of the kilt in the Highland regiments. Among others Mr. Weir was well to the front, and when the Secretary of State for War had declared that the kilt was not to be abolished, he asked whether it was not a fact that the Highlanders suffered less from stomachic troubles than other soldiers through wearing the national dress. The Secretary of State for War was obliged to admit that he was not sufficiently well up in abdominal pathology to answer the question.

The Local Authorities Officers' Superannuation Bill.—The object of this Bill is to extend the provisions of the Poor-law Officers' Superannuation Act, 1896, to certain local authorities which are set out in the second schedule of the Bill. Power is given to other local authorities to adopt the Bill, so that in time, if the Bill were passed, the system of superannuation might become general. The Bill follows closely the Act of 1896, and provision is made to save existing rights. The Bill is introduced by Mr. Hay, Mr. Jas. Bailey, Mr. Galloway, Mr. Atherley Jones, Sir Seymour King, Sir Blundell Maple, Captain Norton, Major Rasch, Sir Albert Rollit, Mr. Sinclair, Mr. Wanklyn, and Mr. Freeman Thomas. It has been down for second reading on several Thursdays, but has little chance of passing at present.

The Ventilation of the House of Commons.—Surmise as to the constitution of the Select Committee to inquire into the ventilation of the House is now set at rest by a notice of motion placed on the paper by Sir William Walrond, the Chief Government Whip. The Select Committee is to consist of Mr. Akers-Douglas, the First Commissioner of Works, and who has charge of the House of Commons and other public buildings; Mr. Dillon, Dr. Farquharson, Sir Michael Foster, Mr. Goddard, Mr. Penn, and Sir John Tuke. Mr. Akers-Douglas will be chairman, and he will have as usual a Government majority on the Committee. The medical profession is well represented by Dr. Farquharson (who served on the last Committee appointed for this purpose), Sir Michael Foster, Sir John Tuke, and Mr. John Dillon, who is a Licentiate of the Irish College of Surgeons. Mr. Penn and Mr. Goddard are engineers.

The Small-pox Hospital Ships. Colonel Tufnell last week asked the President of the Local Government Board if his attention had been drawn to the resolution passed by the Essex County Council against the use of hospital ships for small-pox cases, and urging (if they must be retained) that they should be used only for convalescent cases. Mr. Long replied that he understood such a resolution had been passed. The number of small-pox cases under treatment was still very large, and he did not propose to interfere with the discretion of the managers of the Metropolitan Asylums District as to the use of hospital ships. The managers were endeavouring to provide adequate hospital accommodation on land, but he could not at present say that it would be found practicable to restrict the use of the ships to convalescents only.

The Cremation Bill. This Bill, which occupied a good deal of time in the Commons last year, and was finally lost in its last stage, passed the Lords early and easily this year. In the Lower House it has been blocked on several occasions when the second reading was moved after midnight. Sir Walter Foster has, however, persevered, and at Thursday's sitting, soon after midnight, he succeeded in getting a second reading for the Bill and its reference to the Standing Committee on Law. The Bill has now a much better chance of passing this session, as the amendments of last year have removed most of the objections to the measure.

THE GERMAN SURGICAL CONGRESS.

[Specially Reported for the British Medical Journal.]

(Continued from page 908.)

The Etiology and Treatment of Cancer.

The discussion on this subject was continued by Professor v. Mikulicz (Breslau), who related his experiences with carcinoma and sarcoma of the intestines. His material consisted of 146 cases. From a clinical point of view he considered that this form of new growth frequently remained latent for a longer period than others. In one case he found that no symptoms were present for three years. The degree of stenosis was in many cases in direct proportion to the symptoms. In 83 cases not complicated by intestinal obstruction he was able to record a mortality of 30 per cent. after operation. He operated in two stages, a method which presented less technical difficulty, and practically excluded the possibility of peritonitis. In 5 out of 12 cases recurrence was known to have occurred.

Herr Hochenegg (Vienna) spoke of the results of carcinoma of the large intestine. His material consisted of 282 cases, of which 237 were rectal cancers. For rectal growths he performed a sacral operation. The death-rate was given at 9.19 per cent., which compared well with the mortality-rate at the hands of other surgeons, which was in some cases as high as 32.5 per cent. In 25 per cent. of his cases he succeeded in obtaining a lasting cure.

Herr Krönlein (Zürich) compared the results of surgical and medical treatment of cancer of the stomach. He operated on 264 cases, while 67 were left unoperated. Of the former, 75 were subjected to an exploratory incision, 74 to gastro enterostomy, and 50 to gastrectomy. He lost 7, 18, and 14 respectively in each of these classes. The large number of exploratory operations was due to the fact that he only employed gastro-enterostomy when there was stenosis and stagnation in the organ, while he carried out gastrectomy whenever possible. The exploratory incision cases lasted about the same length of time as the inoperable cases. Those in which he performed gastro-enterostomy survived the operation on an average three months, and those treated by the radical method fourteen months; 13 cases were still living, of which 1 had survived six years, 1 four years, 2 three years, and so on. He considered it advisable to operate as frequently as possible.

Herr Lengemann (Breslau) dealt with the difficulties of removing all the infiltrated tissue in stomach cancer. He described the usual distribution of the lymphatic glands on both curvatures, and gave his experiences of removing all those which were capable of being reached. In many cases the glands nearest the growth were free while the remote ones were infiltrated.

In a series of communications on the etiology of cancer, Herr Nöske (Leipzig) expressed the view that in every instance when a parasite had been discovered there was absolutely no ground for the contention that it was either a usual occurrence in the growth, or that it could be causal. He dealt at some length with Plimmer's parasites, which he likened to the parasite causing hernia in cabbage.

M. Doyen (Paris) described his micrococcus neoformans.

Herr Schüller also exhibited some parasites.

Herr Oscar Israel (Berlin) refused to accept any parasites as having any connexion at all with carcinoma.

The President humorously asked if any other gentleman happened to have any cancer parasites, and requested that the discussion be kept to this theme.

A few speakers added their opinions.

Peritonitis and Perityphlitis.

Herr Körte (Berlin) read a paper dealing with 60 cases of subphrenic abscess on which he had operated; 27 of these cases arose from inflammatory conditions of the appendix. He lost 9 of them. The spread of infection was mostly through the retroperitoneal channels. In 9 cases the suppuration started from the stomach; 4 of these died. In no case did he find any contents of the stomach in the abscesses; 1 fatal case started from the duodenum, 4 from the liver, including 2 gall stones and 2 echinococcus affections. These all recovered. The rest started from the pleura (empyema), the spleen, the pancreas, the perinephric tissue, and from inflammatory conditions of the ribs. In 2 cases the origin could not be traced. In all, 20 deaths occurred, giving a mortality of 33 per cent. The diagnosis at times presented a considerable amount of difficulty, especially when there was empyema as well. As a rule the liver was depressed, the lower part of the thorax protruded, and there was absolute dullness on percussion. He opened the abscess 41 times through the pleura, and found the pleura adherent in 14 of these cases: in 15 cases he incised the skin at the costal margin, and 4 times he let the pus out through a median incision.

Herr Rehn (Frankfurt) considered that early operation was the only way to deal with suppuration in the abdominal cavity, and that there was great danger in operating late. He was not disposed to regard all deaths which occurred after operation as being due to the operation. He dealt with his methods, and related the nature of the cases on which he had operated.

Herr Sprengel (Brunswick) supplemented what he had said at the last year's Congress. He had collected material of over 500 cases. The operations performed during the acute attack gave a mortality of 20 per cent. Of those operated on during the interval only 1 per cent. died. He obtained nearly as good results, however, in cases in which the condition was operated on very early in the attack, when the inflammation was localized. He considered that there was sufficient reason to operate during the interval or very early.

Herr Sonnenburg (Berlin) dealt with lung complications of appendicitis. Pneumonias were not as a rule produced, but the complications which he had met with were mostly of embolic nature. Further, he did not find any ground for blaming ether (anaesthesia) or cold. Thrombus in the pulmonary veins were seen in 14 cases. He regarded a defect in the circulatory organs as a predisposing cause of lung complications, and dealt briefly with the subject of therapy and prophylaxis.

Professor Roux (Lausanne) also dealt with perityphlitis. He had a material of 670 cases of appendicotomy during the interval to report on: 130 of these were incised during the attack. In a number of cases he combined the ordinary operation with other procedures such as removal of the uterine appendages, excision of uterine tumour, gastro-enterostomy posterior, etc. In 79 cases he employed drainage: in several cases he had to remove parts of the gut. He only lost 2 of the patients.

M. Doyen (Paris) gave his opinion and experience of general peritonitis and its treatment. He spoke chiefly of the technique of the operations, including the question of drainage. He considered it essential in each case to determine the bacteriological nature of the infection.

Herr Friedrich (Leipzig) also spoke on the same subject. He also laid stress on the necessity of a bacteriological diagnosis. The cases took the form of toxaemia. The admission of air into the peritoneal cavity was to be regarded as a therapeutic agent. He recorded some experiments which he had undertaken with injections of mixed saprophytic cultures.

Abdominal Surgery.

Herr Riedel (Jena) related a case of an abdominal tumour, which presented a great likeness to an appendicitis. The patient was a 14 years old female. There was frequent micturition, abdominal pain, slight pyrexia, and an ill-defined swelling was felt in the right iliac fossa. At the operation he found a tumour attached to the small intestine (ileum) and to the bladder. This tumour was twisted on its own axis several times. He believed it to be a diverticulum, although he could trace no lumen or any glandular structure. In another case simulating appendicitis he found a mass of hypertrophied omentum, also twisted on its axis. In a third case the tumour occurred in a patient who had recently been ill with typhoid fever. The tumour found in this case was a mass of enlarged lymphatic glands, communicating with a perforation in the intestine. The microscopical appearances showed that it was of a typhoid nature, and not tuberculous.

Professor von Eiselsberg (Vienna) dealt with the operative treatment of prolapse of the rectum. He always attempted "massage" first, and only operated when this failed. In 12 cases he performed a fixation operation. They all did well at first, in 8 he failed to learn the ultimate result, in 1 there was

recurrence which was permanently cured by a second operation, and in 2 others there was also recurrence. In 1 case he resected portions of the bowel, and carried the anastomosis out later by means of Murphy's button. The case was fatal but at the necropsy the local conditions were satisfactory.

Herr HELFERICH (Kiel) agreed with von Eiselsberg that many cases could be treated satisfactorily without operation. In other cases he at times split the prolapsed bowel in two and removed it in halves.

Herr SPRENGEL (Brunswick) spoke of 4 cases operated on for disturbances in the mesenteric veins. The vascular affection gave rise either to haemorrhagic infarcts or to anaemic gangrene, according to the implication of artery or vein. He recognized a theoretical possibility of simultaneous occlusion of both vessels producing anaemic gangrene. In this form the symptoms were early intestinal obstruction, early pain, and no bleeding from the rectum, while the haemorrhagic infarct produced no obstruction, at all events at first, but bloody stools, and assumed the same type of clinical picture as peritonitis. In one case there was thrombosis in other parts of the body as well. The prognosis in haemorrhagic infarct was very bad, for in resecting the part there was great difficulty in removing all the affected vessels.

Herr BUNGE (Königsberg) described Talma's operation and some modification of it. The operation consisted in suturing the omentum and other organs to each other and to the abdominal wall as a therapeutic procedure in ascites. The pressure on the portal system was thereby lessened. He preferred doing the operation extraperitoneally. The operation, especially if carried over to the spleen, intestines, or other abdominal organs, was not free from danger. He found it of use in some of his cases in preventing symptoms such as haematemesis, and in preventing ascites.

Herr F. FRANKE (Brunswick) spoke of a danger of the same operation. He had lost a patient after this procedure from kinking of the intestine. He thought that the upper surface of the spleen was a more suitable site for the suture than the intestine.

Herr KOCHER (Bern) produced a specimen of a peptic ulcer of the jejunum following gastro-jejunostomy. The primary operation had been performed twelve months previously, and the perforation of the ulcer necessitated a resection, from which the patient recovered. He regarded the ulcer as being due to the effect of gastric juice, which was retained in the first part of the jejunum by a contraction of the muscular wall. In this part of the gut there was an absence of bile.

Herr PAYR (Graz) discoursed on diverticula, and on the causes of axial twisting of intraperitoneal organs. In some experiments he showed by introducing magnesium balls into the omentum that a twisting occurred as a direct result of the weight, and that the balls became encapsuled in a cystic tumour.

Herr EHRHARDT (Königsberg) dealt with experimental work relating to liver wounds. Large portal arteries could be tied without danger, but tying of the hepatic artery was a fatal procedure, and even tying of the branches of this vessel was not free from danger.

Herr PFUTZ (Königsberg) related the results of experiments of removing portions of intestine and replacing them in the reverse direction. The peristalsis was not disturbed, but there appeared marked disturbances of digestion and indican in the urine.

Herr REERINK (Freiburg) spoke on transplantation of portions of intestinal wall into the stomach. These grafts "took," but even after the lapse of thirteen months the part could still be distinguished. He did not meet with any ulcerations in his experiments.

ULCER OF THE STOMACH.

Herr PETERSEN (Heidelberg) started a good discussion on the operative treatment of haemorrhage due to ulcer of the stomach. He regarded that it sufficed to clear the abdomen and unite the stomach and intestine artificially. He did not consider it necessary or advisable to seek for the bleeding point, nor yet to deal with it in any way. He claimed for gastro-enterostomy that it produced no gastric stagnation and no obstruction. His material consisted of 300 cases, and he had only lost 3 per cent.

Herr HEIDENHEIM (Worms) also preferred gastro-enterostomy.

Herr KRÖNLEIN took a more careful view of the matter, and advised local treatment of the ulcer at times. He quoted a case in which the anastomosis operation had to be repeated, and the symptoms were returning again.

Professor EISELSBERG (Vienna) agreed in the main with Petersen.

Herr BUNGE (Königsberg) also took this view.

Herr KÖRTE (Berlin) very emphatically considered that one must seek the bleeding point. In a case of ulcer ventriculi, without haemorrhage, posterior gastro-enterostomy was performed, and there was no long loop of intestine hanging from the stomach, such as Petersen regarded as liable to cause stagnation. Nevertheless, the patient was attacked by a fatal haemorrhage a little later.

This opinion was further shared by Herr KÜSTER (Marburg).

Herr HAHN (Berlin) inquired into the question of operation—whether anterior or posterior gastro-enterostomy was the better for dealing with haemorrhage. He considered the posterior operation to be the sounder one as a surgical procedure.

Herr REHN (Frankfort) occasionally excised the ulcers.

Herr KOCHER (Bern) thought that it would be worth while to collect material to discuss the subject again next year. He was very careful in not laying too great importance on statistics.

RENAL SURGERY.

Herr KÜMMEL (Hamburg) presented an interesting communication on the limits of successful nephrectomy and the indications of these. He had carried out a number of experimental tests. In 265 persons, 137 possessed healthy kidneys. The depression of the freezing point (= δ) of the urine was 0.56° C; 51 had one-sided kidney disease (δ=0.56°), 77 had double kidney trouble, δ varied between 0.58 and 0.81° (average 0.6° C.) In 157 cases he performed nephrectomy. He dealt with his cases by regarding it safe to operate when δ was normal (0.56°) or not exceeding it by much. When δ = 0.6° he waited, and at times found that it sank to 0.56°-0.58°, under which circumstances he performed nephrectomy. When δ=0.64°, he incised the kidney, according to Israel, but did not remove it. The results which he obtained with this guide and with careful observation of clinical symptoms were very satisfactory.

Herr FRIEDRICH STRAUS (Frankfurt) considered that the functioning of normal kidneys was an alternating condition. He dealt with the diagnosis of kidney disease by chemical analysis of urine obtained by ureteral catheterization.

Herr HILDEBRAND (Basel) related a case of hydronephrosis which he treated successfully by dividing the ureter and sewing it to the wound. The cause of the hydronephrosis lay in the ureter. In a case of malignant disease he felt a large tumour in the site of the kidney. On opening the abdomen this tumour proved to be the suprarenal capsule, while the spleen lay immediately above and the kidney was found in the pelvis.

Herr LOEWENHARDT (Breslau) demonstrated an apparatus which tested the electrical conduction of urine. Variations from the normal conductibility were, in his opinion, the most delicate test of renal insufficiency yet met with.

Herr PELS-LEUSDEN (Berlin) described a case of renal tumour. The patient was a woman aged 72. Haematuria was the first symptom, and this was followed by pain in the right side of the abdomen, where a swelling could be felt. The urine contained albumen, leucocytes, and casts. He removed the kidney and found the structure to be that of a papilloma. Although he regarded the tumour as a benign one at first, it proved by the later history to be malignant. He further dealt with the pathology and clinical appearances of other surgical renal affections.

Herr LANGEMAK (Rostock) spoke of nephrotomy. He regarded incision of the kidney in an unfavourable light, and believed that the scar caused contraction of the parenchyma in its neighbourhood.

Herr KÜSTER (Marburg) took part in the discussion on cryoscopy. He also spoke of some renal growths, which

could not be diagnosed as malignant by the microscope, but which proved to be so clinically. He disapproved of incision of the kidney.

Herr König (Berlin), however, was glad that one could at times incise kidneys with good results.

Cerebral Surgery.

Herr Rehn (Frankfort) showed a patient who had received a bullet in his skull. The patient had normal optic discs, but some retinal haemorrhages near the papilla. The trigeminal and facial nerves on the right side were paretic, and there was a loss of function in the auditory nerve. The position of the bullet was localized in the temporo-sphenoidal lobe. On the seventh day severe epileptic attacks set in. Rehn thereupon opened the skull by a large bone flap, and removed the bullet with some difficulty. The paretic signs had almost all disappeared. The bullet had been found in the cavernous sinus, and a large quantity of extravasated blood was found in the cerebral tissue. The bullet at first had completely plugged the sinus, but later on it had worked loose, and allowed haemorrhage to take place.

Herr Thiem (Cottbus) demonstrated a case of cyst of the occipital lobe removed by operation. In describing the history he stated that the localization of the tumour was determined by the various symptoms—for example, papillitis, blindness of the right half of the field of vision, changes in the pulse, etc. The cyst occupied the second occipital convolution, and after removal the symptoms rapidly disappeared. Some of these were obviously due to a circumscribed seromeningitis.

Herr Sänger (Hamburg) spoke of the advisability of simple trephining and opening of the dura mater in all cases of inoperable malignant cerebral tumours. He related cases in support of this suggestion. He found that the excessive headache, the changes in vision, and other distressing symptoms frequently diminished or disappeared after trephining.

The same view was taken by Herr v. Bramann (Halle) while Herr Hahn (Berlin) related a case in which this procedure was not successful. After death a tumour was found in the aqueductus sylvii.

Herr v. Bergmann (Berlin) stated that Sänger's suggestion was not new. In discussing Dr. Thiem's case he regarded it as an exceedingly rare occurrence to meet with a cerebral cyst which was not a part of a sarcoma.

Herr Kümmel (Hamburg) showed a patient who had shot himself through the right temple. A stereoscopic skiagraph (orthograph) localized the bullet, and admitted of its removal.

Laryngeal Surgery.

After a few communications of minor importance had been disposed of, Herr Gluck (Berlin) showed a series of patients from whose larynges he had removed malignant growths. In one case the voice was almost clear; half of the larynx had been extirpated for cancroid four years ago. In other cases longer periods had elapsed, some of the patients having good or fairly good voices. He discussed the instrumental after-treatment, and showed the tubes, etc., which he usually employed. He also showed some patients illustrating the methods he employed for treating ankylosis of the maxillary joint. He interposed a flap of muscle between the cut ends of the bone, and obtained good results.

Acute Thyroiditis.

Herr de Quervain (Chaux de Fonds) discussed the pathology and etiology of acute non-suppurative thyroiditis. He believed in the infective origin of these cases, although he had failed to demonstrate the parasite in 4 cases. Bacterial toxins were capable of producing changes in the thyroid-gland cells.

Herr Krönlein agreed in the main with the last speaker, and regarded the condition as an infective one.

Antistreptococcus Serum.

Herr Tavel (Berne) dealt with the action of antistreptococcus serum. He believed that the serum should be derived from animals treated by a variety of cultures of different sources. He regarded the action of the serum as a purely antibacterial one, and not an antitoxin. The material on which he based his observations included streptococcus infection in erysipelas, suppurative perityphlitis, pneumonia, meningitis, etc., and staphylococcus infection. The serum proved itself to be capable of acting in these cases.

Herr Brunner (Münsterlingen) reported his experimental studies on peritonitis produced by the contents of the stomach. He found that the normal gastric hydrochloric acid was capable of diminishing the poisonous properties of the gastric contents in one hour and a-half. In cases of perforation of the stomach the degree of virulence of the escaped material depended on the length of time during which that material had been subjected to the influence of the gastric juice and from the degree of acidity of the latter. In such cases it was of primary importance to close the gastric wound and wash the peritoneum out early, but the success of this always largely depended on the presence of a sufficient amount of hydrochloric acid.

Plastic Surgery of the Bile Duct.

Herr Kehr (Halberstadt) related his method of treating defects in the common bile duct by plastic operation. He used a flap consisting of the serous and part of the muscular coat of the stomach. The results were good, and in no case had he had any trouble from a fistula. The flap must be free from inflammatory changes. As suture material he employed catgut or silk. He further dealt with the dangers of stricture in small-sized ducts.

Humero-Scapular Periarthritis.

Herr Küster (Marburg) discussed the subject of periarthritis humero-scapularis. He had collected reports of 80 cases. The condition was either acute—acute bursitis subacromialis—in which there was pain and limitation of active movement. The chronic form was more common. There were symptoms of ankylosis, atrophy of the supraspinatus and infraspinatus and of the deltoid, and pain. He stated that complete recovery occurred after suitable treatment by rest and cautious passive movements when all pain had disappeared.

Magic Lantern Demonstrations and Cinematographic Pictures.

The exhibition of projection pictures was rendered less useful by the fact that the majority of those who showed their preparations insisted on dealing with their subject at length instead of simply demonstrating the peculiarities.

Joachimsthal (Berlin) showed a series of photographs and skiagraphs depicting anomalies of the patella and the comparative anatomy of the sesamoid bones around the knee-joint. Of special interest were a case of absence of the patella, without functional defect, and a few pictures of the upward displacement of the same bone in Little's disease.

Albert Schonberg (Hamburg) demonstrated a new instrument for examining for renal calculi by x rays. He further exhibited skiagraphs of sternal tumour, syphilitic disease of the fibula, the same of the cervical spine, calculi in the kidney, foreign body in the right bronchus, fracture of the inferior maxilla, secondary carcinomatous growth of the radius, and an indistinct picture of the interior of the skull.

Perthes (Leipzig) demonstrated by means of photographs, diagrams, and skiagraphs the method of crippling the feet as is carried out by Chinese females. The whole series was very complete and of considerable interest.

Sudeck showed skiagraphs depicting atrophy of bones as a secondary condition to severe injuries.

Petersen gave some illustrations to his paper on cancer recurrence.

J. Israel threw a series of slides on the screen, showing the results in operating on long noses and prominent ears. The pictures were exhibited in pairs, giving the appearance of "before" and "after." Many of these caused considerable merriment among the spectators.

Alb. Stein showed some plastic results obtained by injection of paraffin, and a microscopical specimen showing the effect of the injections on the tissues.

Doyen (Paris) exhibited, first, a series of photographic slides, showing his method of operating, instruments, and the like, and two sets of joined twins. He then brought his cinematograph into action. The technique of each operation could be clearly seen, and the field of operation was amply brought into view. Seven films were shown. The first was an opening of the skull by means of bony and skin flap, and suture after exploration; the second, resection of the knee-joint; the third, ovariotomy for a cystic tumour; the fourth, hysterectomy for a large growth, with ascitic fluid in the peritoneum; the fifth, removal of a goitre; the sixth, reduction of a dislocated hip-joint; and the last, the division of the joined Hindu twins, Radica and Doodica. All these operations were shown within seventy-five minutes.

A Medical "Non-Combatant."—According to the *Boston Medical and Surgical Journal*, Captain Harry L. Lemen, assistant surgeon, with two infantry privates, trailed a small party of Filipino insurgents into the swamps near San Filipe Laguna on the night of January 1st, and captured three insurgent officers armed with revolvers. This is considered a very daring feat, as the chances were favourable for the Americans being ambushed and killed by the insurgents.

INTERNATIONAL CONFERENCE OF THE MEDICAL PRESS.

At the International Medical Congress held in Rome in 1894, a meeting of medical journalists representing various countries was held, at which the opinion was generally expressed that it would be useful to form an international committee. Nothing definite, however, was done until July, 1900, when the First International Congress of the Medical Press was held in Paris. Numerous papers were read at this Congress, and prolonged discussions took place which were subsequently published in a volume, but the Congress failed to arrive at any definite decisions.

At the suggestion of Dr. Blondel of Paris it was determined that before another Congress was held a meeting should take place of delegates of various countries, in order to draw up rules and regulations for an International Association. This meeting took place on April 7th, 8th, and 9th, at Monaco, at the invitation of the Société Médicale de Monaco, under the honorary presidency of His Serene Highness the Prince of Monaco. The Prince, who, as is well known, is an enthusiastic student of marine phenomena, is building a magnificent Maritime Museum on the hill of Monaco, where already certain laboratories are installed; eventually this will become without doubt one of the most important of the maritime stations for the study of marine organisms.

The first meeting was held on the afternoon of April 7th, in one of the large halls of this museum; the chair was taken by Professor Cornil, of Paris, and the Prince of Monaco was present. The countries represented were Austria, Belgium, Bohemia, Denmark, England, France, the German Empire, Holland, Italy, and Norway. The proceedings were opened by the Governor-General of Monaco, who delivered an address of welcome. He was followed by Dr. Godineau, President of the Société Médicale de Monaco. Professor Cornil then thanked the Prince for the interest which he had shown in the subject and for his hospitality to the delegates. Dr. Blondel, the Secretary-General, indicated the scope of the work before the meeting, and delegates representing each country then expressed the thanks of the several nations to the Society and to the Prince. Subsequently a visit was paid under the guidance of the Prince to the various parts of the museum which are already completed. The delegates were received by the Prince at the Palace on the same evening.

Four prolonged meetings for the transaction of business were held on the two following days, and the proposals put forward on behalf of France, Germany, and England were thoroughly discussed, every disposition being shown by all the delegates present to arrive at useful conclusions, and to this end to make mutual concessions. The utmost cordiality prevailed, and the good relations established will, there is every reason to hope, bear good fruit in the future. That this was so is largely due to the courtesy and impartiality displayed by the Chairman, Professor Cornil, and to the energy and organizing ability of Dr. Blondel. On the proposition of the Spanish representatives, it was resolved to hold a meeting at the time of the International Medical Congress which is to assemble at Madrid in 1903.

At the concluding meeting the Prince was again present, and invited the delegates to attend the opening of a new hospital for Monaco which has been erected at his cost upon the slopes of the Tête de Chien which rises behind the town of Monaco. This hospital is built on the pavilion system in one story, and is in every respect complete, every regard being given to modern opinions concerning the necessity for aseptic precautions. Each large ward will contain 12 beds. There are also numerous isolation rooms, and a special department for surgery, with an excellent operating room. There is a maternity department with a lying-in room and separate small wards, and a pavilion for paying patients. The hospital altogether will accommodate about 100 patients, and is provided with disinfecting appliances, *post-mortem* rooms, laundry, and mortuary, as well as with a chapel. The nursing will be carried out by a sisterhood.

In the evening a dinner was given by the Société Médicale de Monaco, at which the Prince presided, and speeches were made by the Prince, Professor Charles Richet of Paris, and others representing the various nationalities. On April 10th a visit was paid to the Observatory of Nice, and on the same evening a large party, including not only the delegates, but also representatives of the medical profession from most of the towns on the Riviera, were entertained at a banquet by the municipality of Nice under the presidency of the Mayor.

For the admirable arrangements made for the business of the Conference and the comfort of the delegates the best thanks are due to the Société Médicale de Monaco, and to its courteous and energetic secretary Dr. Guimbail. We venture to add that the medical profession generally is indebted to the Prince of Monaco for the interest which he has displayed in a department of medical work that seldom receives much attention from rulers or governors. The Prince has published an admirably illustrated series of reports on the scientific results of his investigations into the flora of the sea, directed by men of science who are afforded every opportunity for prosecuting their studies in the Prince's yacht, the Princess Alice, which is specially fitted with laboratories for the study and immediate preservation of marine organisms. The delegates had the opportunity of visiting this yacht, over which they were conducted by Captain Carr, R.N.R., her commander.

A SUMMARY AND ANALYSIS OF RECENT OBSERVATIONS AND THEORIES

AS TO THE

PROCESSES OF INFECTION AND PROTECTION IN THE ORGANISM.

By H. W. Armit, M.R.C.S.Eng., L.R.C.P.Lond.,

(*Concluded from page 920*).

IV.—Criticism and Adaptation of Side-Chain Theory.

Objections and Criticisms of Ehrlich's Views.

Various observers have taken exception to parts of the teaching of Ehrlich. Bordet (loc. cit.) denies the specificity of the immune body. He calls it *substance sensibilisatrice*, and ascribes to it the function of rendering the red cell capable of being directly attacked by the poison, and regards it as incapable of exercising any specific chemical affinity. Buchner[1] has given his support to Bordet's views, and is largely responsible for their development. According to these two investigators, the activity of a haemolysin depends on the presence of alexin. They presuppose that a normal serum contains a protective body, which acts in destroying any foreign cell (blood cell, bacterium, and the like), and has the character of a protolytic enzyme. This body is alexin. It is destroyed (functionally) by heating to 55° C. Each species contains but one alexin, and each alexin is peculiar to the species in which it exists. Bordet[2] performed the following experiment. (Ehrlich and Bordet have each repeated the other's experiments, and only differ in their interpretations.) Two equal mixtures were prepared, each containing 0.2 c.cm. of the serum of a guinea-pig previously treated with rabbit's blood, and 1.0 c.cm. of rabbit's serum previously treated with hen's blood rendered inactive by being heated to 56° C. Each mixture would contain two *substances sensibilisatrices* and one alexin. To one part was added rabbit's blood cells first, and then hen's blood cells; to the other the hen's blood cells were added before the rabbit's. Only the red cells, which were first added, were dissolved in each case. This, he argued, was contrary to what would have taken place were Ehrlich's theory correct. In this experiment, however, each mixture would contain a specific amboceptor, which would attach itself to the red cells of the rabbit, and another which would attach itself to the red cells of the hen, and a number of complements normally present in guinea-pig's blood. When the red cells of either species were introduced into the mixture, solution would occur. It appears, therefore, that besides the complement which is capable of anchoring the amboceptor, specific towards rabbit's blood, there must be another whose haptophoric groups are capable of binding the complementophile groups of the amboceptor specific for hen's blood. Such appearances have been noted and have been dealt with. Now the red cells of the second species are added. Since no solution takes place, it follows that the amboceptors of the two haemolysins are possessed of

[1] Buchner, *Münch. med. Woch.*, No. 9, 1900; *Berl. klin. Woch.* No. 33, 1901.
[2] Bordet, *Annal. de l'Inst. Pasteur*, May, 1901.

identical cytophile groups, and therefore both series were anchored to the cells first introduced. Analogous conditions have already been mentioned. It appears, therefore, that Bordet's last argument is not of much value. He[3] also brought forward another experiment. A guinea-pig was injected with rabbit's blood. Its serum, therefore, could dissolve rabbit's red blood cells. After being rendered inactive by heating, it could be rendered again active by the addition either of normal guinea-pig's or of normal rabbit's serum. He argued that each serum possessed its own alexin, and that the *substance sensibilisatrice* merely prepared the red cell for alexin action. Carrying the experiment further, he produced an antiserum in a rabbit by injecting the guinea-pig's serum. This serum contained chiefly antialexin, and its action was only present toward the alexin of the guinea-pig's serum, but failed entirely against the rabbit's alexin. There was also a slight diverting power toward the alexin of pigeons, which pointed to Bordet's contention against the absolute specificity of the alexins. He argued that against each alexin an antialexin could be set up which protected the sensitized red cell against the action of the corresponding alexin. Ehrlich and Morgenroth tested this, and arrived at results incompatible with Bordet's views.

Ehrlich and Morgenroth further investigated the behaviour of the inactive immune serum, and found that ten times the quantity was required to dissolve a given quantity of rabbit's blood cells when complemented by rabbit's serum, as compared with the quantity required when guinea-pig's complement was used. According to Bordet, this would mean that the blood cells, in order to be prepared for the alexins of rabbit's serum, would require ten times as strong a sensitizing as it would for the alexin of guinea-pig's serum. This is a highly improbable arrangement, but if true the ratio 10 : 1 should be constant. This is not so, and the two investigators found a ratio of 3.5 : 1 in an analogous experiment. Buchner[4] and M. Wilde report a series of experiments intended to prove that no specific action can be ascribed to the amboceptor. They experiment with various haemolytic serums, and attempted to carry out saturation experiments. Having determined that 2 c.cm. of the serum of a rabbit treated previously with ox blood was just capable of dissolving 1 c.cm. of a 20 per cent. dilution of ox blood cells, they attempted to determine what quantity of inactive serum must be added to 1 c.cm. of the active serum in order to obtain various degrees of solution. They found that 2.5 c.cm. of inactive serum produced the greatest quantity of solution, while 5 c.cm. produced less. In the cases of the serum of a rabbit treated with dog's blood and that of a second dog active towards guinea-pig's blood, the largest amount of heated serum added gave the greatest degree of solution. In no case is complete solution reported. In the first case the addition of a greater excess of amboceptors to half the dissolving dose of complete haemolysin produces less action than the addition of a smaller excess. The available amount of complement suitable for the lysin action must be limited in the active serum, and therefore the larger the quantity of free amboceptors the larger will be the amount of complement attached to these. The fastened amboceptors find less complement for themselves in proportion to the amount used by the free amboceptors. Max Neisser and Wechsberg[5] (loc. cit.) apply this argument to another condition.

Stereo-chemical Combination.

Bordet,[6] Buchner,[7] Nolf,[8] and Nicolli[9] take exception to Erhlich's views as to the nature of the chemical fixation of the amboceptor, as may be deduced from what has been said. They consider that between the red cell and the amboceptor (immune body) there exists only a "level attraction," as against the view that the combination is stereo-chemical. Bordet likens the haemolytic action of the serum of a guinea-pig treated with rabbit's blood to a colour experiment. If filter paper is dipped into a solution of methylene violet all the colouring matter may be extracted; the filter paper will assume a definitely and uniformly intense colour. If, however, the filter paper is torn into strips and gradually dipped into the solution, the first strips become more darkly coloured, and those added last find no more colour to extract. Ehrlich refuses to accept the simile, but prefers to deal with the behaviour of the amboceptor of the immune serum. The arguments in favour of the anchoring of the amboceptor to the receptor of the red cell being a chemical combination have already been given. He gives extra weight to his arguments by contrasting the specific binding of these bodies to a specific binding of certain chemical bodies, showing the possibility of a selection in the binding, according to the available reagent. He instances the formation of monazo and diazo compounds from the mixture of dioxy-naphthalin and diazo-benzol.

Roux,[10] Metchnikoff,[11] and Pohl[12] also offer objections, which have arisen partly from misunderstanding, and which partly have been disproved. In the case of Metchnikoff the objection has been withdrawn.

The writings of Müller,[13] Max Neisser and Wechsberg[14] (comprising the actions of the haemolysis of staphylococci, and of haematolysin, leucolysin, nephrotoxin, etc.), Bulloch,[15] von Dungern,[16] and Dönitz[17] stand in favour of Ehrlich's views, and afford fairly conclusive evidence against the alexin theory.

Gruber has recently[18] attacked the whole question. Some of his generalities may be passed over, to consider his criticism of Wassermann's proof of the truth of the side-chain theory. Wassermann found that the central nervous system of a susceptible animal contains a substance (receptor) which is identical with tetanus antitoxin, and showed that an emulsion of fresh brain tissue and spinal cord of a guinea-pig is capable of neutralizing the lethal dose of tetanus toxin. Now, von Behring found that if to a definite dose of tetanus toxin a sufficient quantity of brain emulsion is added to neutralize it, and some antitoxin, the animal, instead of having an excess of antitoxin, dies of tetanic symptoms. Gruber makes deductions from this fact, which, however, do not carry conviction with them. Max Neisser and Wechsberg (loc. cit.) have already pointed out that excess is just as incapable of covering toxin as insufficiency of antitoxin. In his speech[19] at the Berlin Medical Society, Ehrlich met all the objections raised by Gruber, and brought strong evidence against his deductions.

Gruber, further, turns his scepticism toward the "defect" in the cells. He presumes that if the cell were damaged its nutrition must be affected, that reproduction, compensation, and over-compensation would be impossible. This is so when the defect in the molecule is very great, but when the defect is less then regeneration is possible. A fractured bone—a typical defect—does not remain ununited, and does not die, but there is a regenerative process called forth by the defect.

The second part of Gruber's criticism is less vague. He tries to explain away Pfeiffer's observations of bacteriolysis in the living animal, by presuming that agglutination had taken place, and that the clumps of bacteria had been rapidly carried away, and claims that the bacteria disappeared in this way, but were not dissolved. The best reply to this is to compare the test-tube experiments of Bordet with Pfeiffer's results. Allowing that haemolysis and bacteriolysis do take place, he partly joins the Bordet-Buchner school in accepting alexin, but denies that this is a proteolytic enzyme, but he brings forward no new facts. The experiments from which he argues in favour of the view that alexin is a single substance have recently been put to a further practical test by Hans Sachs[20] in Ehrlich's laboratories. Sachs found that, by adopting the method of delaying action by keeping the blood mixture at 0°C, as described by Ehrlich in the second communication (loc. cit.), in some cases, and by using the minimum temperatures for rendering the serums inactive in other cases, all these apparently irregular haemolytic actions

[3] Bordet, loc. cit., 1900.
[4] Buchner, *Berl. klin. Woch.*, No. 33, 1901.
[5] Max Neisser and Wechsberg, *Munch. med. Woch.*, 1901.
[6] Bordet, *Annal. de l'Inst. Pasteur*, No. 1, 1900.
[7] Buchner, *Münch. med. Woch.*, 1900.
[8] Nolf, *Annal. de l'Inst. Pasteur*, 1900.
[9] Nicolli, *Revue Générale des Matériales Colorantes*, Nos. 43 and 44, 1900.
[10] Roux, *Annal. de l'Inst. P*
[11] Metchnikoff. Lo
[12] Pohl, *Annal. de l'Inst. I*
[13] Müller, *Centralbl*
[14] Max Neisser and Wechsberg, *Z* . vol. xxxv, No. 22.
[15] Bulloch, *I* .
[16] Von Dungern, *M* . 28, 1900.
[17] Dönitz, *Klin. Jahrbu* .
[18] Gruber, *Münch. med. Woch.*, Nos. 40, 47 . 1901.
[19] Ehrlich, *Verein für inn. Med.*, December 16th, 1901.
[20] Hans Sachs, Giebt es einheitliche Alexinwirkungen? *Berl. klin. Woch.* Nos. 9 and 10, 1902.

became absolutely regular. Ehrlich's teaching, founded on intelligent deductions from a series of the most ingenious experiments, emerges from this storm of opposition stronger, if possible, than it was before.

Application of the Theory.

Interesting as haemolysis is, for the present purpose it is not necessary to discuss the process any further, but merely to use it as a type for bacteriolysis. Agglutinin can also be left out of the arguments, for as far as our knowledge at present carries us, it plays no part in the process of immunity.

In considering the factors at work which produce infection, susceptibility to toxic influences, recovery, and natural and acquired immunity, one may suppose the case of an individual whose body cells are capable of functionating normally and who comes into contact with an infecting micro-organism and follow the course of events in the light of Ehrlich's researches. The bacteria gain an entrance into the body, be it by way of the respiratory passages or in any other way, are attracted to the paraplasmic tissue, and grow. They secrete a poison, which is carried off by the circulation. This poison consists of α toxin and β toxon. The toxin has to undergo certain chemical preparation before it can be used in the body. In the form in which it is secreted it attacks the various cells of the body—for example, blood, nerve, organ cells, etc. Finding suitable receptors, it anchors itself to the cells, and as soon as the toxophoric group can act, it produces a defect. There is always an attempt on the part of the cells to cover this defect by the production of an excess of like receptors. If the toxin is a virulent one and present in sufficient quantity, this attempt is but feebly carried out; the cell becomes destroyed or changed, and, if a large number of cells of vital importance are so attacked, the individual dies. But in the case of the attempt at covering the defect being more successful, a quantity of receptors are cast off and circulate as antitoxins. These antitoxins can and do divert fresh supplies of toxin which are seeking suitable receptors. The regeneration continues as long as the toxin remains anchored and active, and thus at times the production of antitoxin is almost limitless. No fresh poisoning of the tissue cells can now take place, and therefore the life of the organism is no longer in danger. This process must take place if the defect in the cells is not too great. In tuberculosis, for instance, recovery—be it spontaneous or influenced by treatment—must depend upon this process, and in long cases ending fatally one must consider that the defect in each set of cells is too complete to allow of sufficient overproduction of receptors which would be necessary to neutralize fresh supplies of toxin.

Since the toxin does not exert its action immediately, but some time elapses, corresponding to the incubation period, before it produces the first defect of the cell, one must suppose that a further period has to pass before the regeneration and over-compensation has been performed and the receptors have been cast off. In this way there exists in the course of illness a pre-antitoxin stage, which is longer than the incubation period. It can be seen that the toxin acts in precisely a similar manner as the haemolytic complement. No further explanation is required to explain those very mild attacks of infective illness beyond the mention that the toxoid practically produces no destructive defect, but still does stimulate the cell to form antitoxin.

The bacteria themselves, at the time when the supply of antitoxin has prevented fresh symptoms, produce a body which acts in destroying them. Their presence in the body causes certain cells to throw out an excess of side chains, which usually are used for the reception of nutrient molecules for the cells. The excess thus produced is useless for nutritive purposes, and therefore a casting off occurs. The freed side chains are found to have a specific affinity toward certain receptor groups of the bacteria. They now appear as free amboceptors of bacteriolysin. Anchoring themselves to the receptors of the germs, they attract the ferment-like bodies (complement) normally present in the blood, and these after the lapse of a definite time dissolve the bacteria. Again there comes the question of covering the defect, but rarely occurs under ordinary conditions in the case of [illegible]. The variations of complement and amboceptor which have been described may be present in the bacteriolysin, but usually the action is smoothly performed. The individual is now freed from symptoms (toxic effects) and from bacteria. In his serum, beside the antitoxin is a greater or less excess of bacteriolysin, which is capable of attacking any new-arrived bacteria, and dissolving them.

A rational explanation of the spontaneous recovery, of the incubation period, of the effect of toxin, and of acquired immunity is thus gained.

If one follows the recovered individual a little further, one may find that after the lapse of time the antitoxin and remains of bacteriolysin disappear from his serum. Thus the individual may become susceptible again, but there is a further regulation which may yet protect him. The receptors corresponding to the haptophoric group of the toxins may no longer be present. In such a case, bacteriolysin may be manufactured and the bacteria got rid of in this way, without any disease symptoms having appeared. The same condition is probably the cause of natural immunity in most cases, but Ehrlich[21] has recently pointed out that antitoxin can arise without a previous introduction of toxin into the organism. In this case one must suppose that certain cells—molecules—have the habit of producing more receptors than are required for the nutrition, and that the excess of these are cast off, and according to the formation of their atom groups, act as antitoxin toward various toxins. In one of these two conditions the requirements for natural immunity are found.

THE EPIDEMIC OF SMALL-POX.

London.

The epidemic of small-pox in London has begun to show signs of abatement. The following table shows for the four weeks ending April 12th the number of cases admitted to the hospitals of the Metropolitan Asylums Board and the number under treatment on the last day of each week:

Week Ending	Admissions.	Under Treatment.
March 22nd	449	1,568
March 29th	389	1,526
April 5th...	376	1,522
April 12th...	274	1,437

The number of cases under treatment at midnight on April 16th-17th was 1,410.

Essex.

The epidemic in Essex does not show any signs of diminishing. The following table shows the number of fresh cases for the four weeks ending April 12th:

Week Ending	Fresh Cases.
March 22nd	40
March 29th	64
April 5th	60
April 12th	62

The Treatment of Contacts.

Dr. Collingridge in his report, as Medical Officer of Health for the City of London, for the four weeks ending March 15th refers to a letter issued by the Local Government Board which confirms the advice he had previously offered as to the proper method of dealing with persons occupying houses where a case of small-pox had occurred. The Board considers that under ordinary circumstances it is not necessary, provided that proper precautions be taken, for such persons, other than those actually suffering from the disease, to be detained in quarantine. The precautions recommended consist in the removal of the actual patients to hospital, the disinfection of the dwelling and all articles in it that have been exposed to infection, including the clothes worn by the other inmates, and the immediate vaccination or revaccination of the latter. The persons exposed to infection are, further, to be kept under medical supervision for a fortnight and are to be examined with especial care at the end of the second week with a view of detecting possible signs of the disease. An arrangement of this sort, which interferes with the liberty of the individual as

[21] Ehrlich, Schutzstoffe der Blutes, Versam. Naturforscher und Aerzte, Hamburg, 1901.

little as is consistent with public safety, is obviously the correct method to adopt. It would be practically impossible to enforce a prolonged detention in every case of exposure to contagion and, moreover, the fear of such a restriction would do more harm than good by deterring people, who thought they had incurred the danger, from coming forward to avail themselves of the protection afforded by disinfection and vaccination. The value of these prophylactic measures is shown by the fact that during the four weeks covered by the report 459 visits have been made to City firms and houses where employés suffering from small-pox, or having been in contact with such cases, are engaged. As a result of the recommendations of the medical officer of health, 5,410 persons have during that period availed themselves of the protection afforded. Under exceptional circumstances more stringest regulations are necessary, as, for example, in cases where the disease has invaded a laundry or when the business or habits of the inmates of an infected house are such as to make it difficult to keep them under proper medical observation. In such contingencies the Local Government Board are prepared to sanction a reasonable expenditure to secure the retention of such inmates in their own houses.

Vaccination and Antivaccinists in Glasgow.

Our Glasgow Correspondent writes: During the last few weeks there has been a steady reduction in the number of cases of small-pox in Glasgow, the last report giving only 93 cases under treatment. The antivaccinators are again in evidence, however, and last week held two meetings, at which there were said to be large attendances. The principal speakers were Mr. Alfred Milner and General A. Phelps, who indulged in the usual misleading statements and a general denunciation of the practice of vaccination, while additional interest was given to the proceedings by the appearance on the platform of a Mr. William Robertson—a veritable martyr, who had just regained his liberty after undergoing ten days' imprisonment for failing to have his child vaccinated, or, as the advertisement of the meeting put it, "for defending his child from the pollution of vaccination." This gentleman had refused to pay the fine, and had therefore been committed to prison. The absurdity of all this talk against vaccination has, of course, been demonstrated times without number during the present epidemic, but conclusive proof of the value of vaccination had been published only two weeks ago in a paper which Dr. Fullerton, late Acting Superintendent Glasgow Small-pox Hospital, read before the Royal Philosophical Society of Glasgow. In this paper a summary was given of the statistics regarding small-pox and vaccination in the cases that occurred in Glasgow between April, 1900, and June, 1901. During this period 1,810 cases of small-pox were dealt with; 1,643 had been vaccinated in infancy, 122 were unvaccinated, and in 45 the evidence of vaccination was doubtful, no scars being discovered. Of the vaccinated persons, 8 had been revaccinated at periods varying from 4 to 32 years before their attack of small-pox. Six cases of undoubted second attacks of small-pox had occurred. Among the vaccinated the illness in the great majority of cases (82.8 per cent.) was of mild character, while among the unvaccinated the majority of cases (56.6 per cent.) were severe. The death-rate for the vaccinated was 9.13 per cent., for the unvaccinated 51.64 per cent., and for the doubtfully vaccinated 55.55 per cent. During the period referred to there passed through the small-pox hospital 740 persons other than the patients suffering from small-pox, all of whom had been successfully revaccinated either before or immediately on admission to hospital, and of those only 2 contracted the disease, and that in its mildest form. Of 13 workmen who refused revaccination and who were employed within the hospital precincts, 5 contracted the disease, and 1 died. Such statistics as these, dealing with a comparatively large number of cases, afford fresh evidence of the efficacy of vaccination and revaccination.

Swansea.

Small-pox at Swansea showed a marked diminution some weeks ago, and it was hoped that the disease had died out, but a small increase has again taken place, and several fresh deaths have occurred. Up to March 15th, 28 cases in Swansea had been notified, while for the two following weeks only two fresh cases in all occurred, but for the week ending April 5th seven cases were notified and one for the last week. During the outbreak seven deaths have taken place, the last death being on April 9th.

Antivaccinists in South-West London.

The report of the Medical Officer of Health for the Borough of Wandsworth on the results of the examination of the arms of the children in the elementary schools in Clapham, Balham, and Tooting reveals a discreditable disregard on the part of many of the inhabitants of those districts for the interests of public safety. Out of 16,142 children attending the schools dealt with 8,967 were examined, and of these 1,138 (or 12.69 per cent.) were found unvaccinated; 1,943 failed to present themselves on the day of examination; and the parents of the remaining 5,212 refused to allow the inspection to be made. The medical officer is probably well justified in his surmise that out of this last number the percentage of unvaccinated would have been considerably above 12.69. The general result of the inspection bears out the vaccination officers' returns, from which we learn that in the parish of Clapham 21.2 per cent. of the children were unaccounted for. The Medical Officer calls attention to the fact that the percentage of unvaccinated is highest at the lowest age, and further remarks that "the percentage of children unvaccinated has, in this borough as well as in London generally, increased during the last ten years." This is one more piece of evidence of the powers for mischief that may accumulate from the adoption of a policy of indulgence towards the type of person who is generally described as a "conscientious objector."

THE PREVENTION OF CONSUMPTION.

The Open-air Treatment at Hampstead.

The medical report of the Mount Vernon Hospital for Consumption and Diseases of the Chest, Hampstead, mentions some changes made during the past year in the arrangements for carrying out the open-air treatment of consumption. The previous half year was marked by the addition of 20 beds to the 80 already in the hospital, so that throughout the year just closed it was able to accommodate nearly 100 more patients than during any similar period up to the present, and it had maintained a daily average of a fraction over 98 during that time. The number of patients on the hospital records for the year was 578, of whom 528 were admitted for pulmonary tuberculosis, being 120 in advance of previous annual admissions for this disease. It was found possible to increase the number of beds in the open air by transferring the patients from the wards on the entrance corridor to the lowest balcony, the vacated rooms becoming available to provide much-needed accommodation for administrative purposes. Thus there are now 35 beds occupied on the large balconies, which, with 4 on the small ones make it possible to keep 39 patients day and night in the open air. The change was much appreciated by the patients. Of the remaining beds, 41 are under almost the same condition as those on the balconies though in the wards, neither balconies nor wards being artificially heated in any way. While other 12 are in wards of constant warm temperature, the remainder (8) are available for patients who are unable to undergo full open-air treatment on occasion arising, though not generally kept warm.

It is noted with satisfaction that a smaller proportion of patients left during the year without completing a three weeks' stay than had previously been the case. The patients on leaving often express their intention to "carry on the treatment" at home, and this had actually been done in many cases. As an example it is mentioned that one patient whose bedroom window at home abutted on the roof of a projecting roof arranged to sleep out on this projecting roof, merely protecting himself from rain by means of a temporary shelter. In the majority of instances that have come under notice those patients who have failed to derive more than temporary benefit have been those who were unable, owing to stress of circumstances, to continue treatment at other institutions or in the country on leaving the hospital; for as far as possible, when necessary, patients are advised on leaving to apply for admission to other hospitals and sanatoria in succession, where they may gain prolonged experience

of open-air living. In a year or so there will be an opportunity of drafting off suitable cases to the new hospital at Northwood.

The efficiency of the institution in regard to the hygienic education of patients has been increased during the past year by the adoption of another method of collecting the sputum, and one which can be carried out by the patients themselves later. Each patient is now provided with a Dettweiler's sputum flask during the day, and these are thoroughly disinfected each night in order to be ready for use the following day, the patients retaining their respective flasks throughout their stay. The paper handkerchiefs formerly given out for the purpose of receiving the expectoration are still provided for more limited use, and all the patients are required to use them in place of their own. Sputum and handkerchiefs alike are burned each day to ensure thorough destruction of all possibly infective matter. The patients are thus taught to use these flasks and keep them clean while in hospital, so that, when on leaving they obtain one for their own use at home, as they are all urged to do, they are able to observe the same methods, and so to avoid risk to their friends and further danger to themselves. A steam disinfector has been provided, in which all personal and bed clothing is efficiently rendered innocuous before being sent to the laundry. Of 448 cases under open-air treatment, 103 were much improved, some of them being practically cured and leaving the hospital without any symptoms or physical signs of disease; in 206 there was distinct improvement, in 79 slight improvement, 33 were discharged *in statu quo*, 22 were worse, and 5 died.

SOUTH WALES AND MONMOUTHSHIRE.

An appeal has been sent out widely by the Executive of the South Wales and Monmouthshire Branch of the National Association for the Prevention of Tuberculosis to people in the counties of Glamorgan, Monmouth, Brecknock, and Radnor, and has been responded to in a very encouraging way. The following have become donors to the branch, each of five guineas: Colonel H. Davies-Evans (Lord Lieutenant of Cardiganshire), Dr. A. Garrod Thomas (Newport), Mr. Clifford T. Cory, Mr. F. W. G. Gore (Courtyrala), Colonel H. Oakden Fisher, Dr. Lewis W. Morgan, J.P. (The Hafod, near Pontypridd); and the two following gentlemen each sent a guinea: Dr. D. J. Richards (Risca), and Dr. Evan Jones (Aberdare). There is also an addition of forty to fifty fresh "ordinary" subscribers. Circulars have been sent out relative to spitting to managers of railway, omnibus, and tramway companies, and to sanitary authorities, urging the adoption of the voluntary notification of phthisis.

ADIRONDACK COTTAGE SANATORIUM.

In the seventeenth annual report of the Adirondack Cottage Sanatorium, Saranac Lake, New York, dated November, 1901, Dr. Edward L. Trudeau, to whose efforts the sanatorium owes its origin and continued prosperity and usefulness, states that two new buildings have been erected during the year. The Louise Childs Memorial will accommodate ten bedridden patients who can undergo the open air treatment on its broad, sheltered verandah. A new cottage, the Eugene Hoffman Memorial, accommodates four patients. The number of patients treated during the year ending November 2nd, 1901, was 263, of whom 124 were discharged apparently cured or with the disease arrested after an average of about six months' residence. Only 1 patient died, 5 failed to improve, and in 4 the result was doubtful. Five patients were treated by injections of "modified" tuberculin in conjunction with the usual open air and climatic plan, and all improved, the disease being arrested in four of these. The number of applicants for admission has continued to increase, and there has been a long waiting list almost throughout the entire year.

THE CONSUMPTION OF TOBACCO. According to recent statistics, the average consumption of tobacco by each person in the various countries of the world is as follows:—Netherlands, 3,400 grams; United States, 2,110; Belgium, 1,552; Germany, 1,485; Australia, 1,400; Austria and Hungary, 1,350; Norway, 1,335; Denmark, 1,125; Canada, 1,050; Sweden, 940; France, 933; Russia, 910; Portugal, 850; England, 680; Italy, 635; Switzerland, 610; and Spain, 550.

THE NEW ROYAL WARRANT FOR THE ARMY MEDICAL SERVICE.

THE following report of the Subcommittee of the Parliamentary Bills Committee on the Royal Medical Warrant of March 24th, 1902, was accepted by the Council of the British Medical Association on April 16th, and directed to be printed in the BRITISH MEDICAL JOURNAL:

The Subcommittee are glad to report that, taken as a whole, the new Royal Medical Warrant offers distinct advances in the organization of the Army Medical Service.

They view with satisfaction that several of the more important of the recommendations made by this Committee in December last to the Council of the British Medical Association, and submitted to the War Office, have been adopted; while other of the recommendations of Mr. Brodrick's Committee, to which they took strong exception, have been omitted.

They do not now propose to analyse the provisions of the Warrant in detail, but remark that, where adverse criticisms are not herein expressed towards any of the Articles, general concurrence may be inferred.

They, however, express much satisfaction in the enhanced status of the Director General in rank, position, and emolument. As a member of the War Office Council and Army Board, he will now be able to exercise an important and beneficial influence not only on the efficiency of his own department, but of that of the Army at large in all that relates to its sanitation.

They commend the endeavour to lift promotion out of the dead rut of seniority, and to place it better within the reach of the more capable and energetic members of the medical service.

They regard the increase of pay, with one exception, as liberal and equitable: especially is charge, special, and brevet pay an immense advance on previous Warrants.

The points on which the Subcommittee would offer specific criticism are as follows:

Article 347.—Appointments will be made on the recommendation of the Commander-in-Chief to duly-qualified persons under regulations approved by the Secretary of State. It is hoped that under this regulation only a thoroughly eligible class of men will be nominated, and that the regulations promised will be judicious.

Article 349.—It is hoped that in the seconding of Lieutenants herein proposed, due provision will be made that the establishment of officers is not thereby unduly reduced. Otherwise, certain less favoured officers may, in an undermanned establishment, be made to do the duty of men who receive a gratuity of a year's service towards promotion and pension, etc.; thereby, while of doubtful value to the State, likely to cause much heart burning and discontent in the service.

Article 349*a*.—In order to provide for the wastage due to the employment of Lieutenants on probation as Resident Medical Officers in Civil Hospitals (par. 349), to the possible failure of Lieutenants on probation to take up their commissions, to non-effectives from sickness and other causes, two or three additional Lieutenants on probation should be appointed above the number required to complete the establishment any excess being absorbed as vacancies occur.

Article 351.—This seems indifferently drafted; an officer need not "complete at least 20 years' service" to be selected for Lieutenant-Colonel; he may have attained it in 18½ years through examination as in the paragraph following.

Article 352.—The Subcommittee think the "distinctions" herein made in the quality of the examinations passed are too distinctive, and that instead of four there should only be two or three

1st. A special certificate.
2nd. A pass—first class.
3rd. A pass.

Also that brevet promotion and extra pay would be fairer than substantive promotion, as many men might not have the same opportunities for study as others, and would thus be superseded through no fault of their own.

Article 354.—They consider that an officer in his examina-

tions herein should be placed in no worse position than another under Article 361, and that a recasting of the Article is desirable.

Article 357.—They consider that, viewing the privileges of medical officers in the Household troops, when one is promoted to the rank of Colonel for distinguished service in the field, he should be seconded, and in italics, in order that a step may not be lost to those in the general medical service who bear the burden of service abroad.

Article 360.—They offer no comment on the limitation of the appointment of the Director-General for 3 years, provided such is the rule in other branches of the War office, but object to it if it is an exception.

Article 365.—In this very important Article the point to which the Committee take strong objection is the pay of Colonels. All ranks have shared in an increase of pay except this important one. The result will be, and they believe already is, that a Lieutenant-Colonel in charge of a hospital of 100 beds draws equal pay to the Colonel under whom he may be serving, that is, the P.M.O. of the district; one in charge of 200 beds 2s. 6d. more daily; and one in charge of 300 beds 5s. a day more. It must also be remembered that in the future Colonels unpromoted at 57 are to be retired, thus depriving them of three years' full pay, or about £1,200. To meet this very obvious anomaly they propose the daily pay of a Colonel should be £2 5s.

Article 370.—They consider that this Article will, in all probability, prove futile towards the formation of a Reserve; but if it should possibly come into operation, it will be found absolutely unworkable. Past experience has shown that few medical men who enter the Army desire to leave it at an early stage of their career therein. The attempt some thirty years ago to get medical men to enter the Army and retire on £1,000 gratuity after ten years' service, thereby saving pensions, proved a total failure. They cannot think this regulation will now prove different; no man, with foresight, would elect to retire at three years' service on a nominal retaining fee of £25 per annum, to be handicapped for seven years with liability of recall, in any settlement of civil practice. If he wished to leave the service he would probably resign his commission altogether, for it cannot be supposed this right hitherto is to be denied, and men forced into a Reserve. But, supposing Lieutenants did so elect to retire, unless they are to be kept at home, which seems an impossibility, the dislocation of the foreign service roster would seem complete. Supposing a Lieutenant elects to retire at three years and is serving abroad, who is to pay his passage home, and of his relief going out? Such a vista opens up endless confusion and expense, with no prospect of advantage either to individuals or to the State.

Article 383.—It may well be asked, If promotion in the general service to Lieutenant-Colonel is to be made strictly by selection, why should it be by "seniority" in the Household troops? Are these officers to be "privileged" so as not to be subjected to the same tests as their brethren?

The above criticisms apply strictly to the terms and provisions of the Royal Warrant itself, which the Subcommittee are aware cannot embrace collateral issues, even if of much importance.

Among these which will largely affect the efficacy of the Warrant are the regulations and instructions promulgated from time to time.

One of the most important is the fixing of Establishments, so vitally affecting the incidence of foreign service, general duty, ordinary leave, and study leave. No Warrant can popularize an undermanned service.

Another is the question of Indian pay, which constantly affects one third of the entire Army Medical Service, or no less than 335 officers. There can be no effective rehabilitation of the service with this question unsettled.

Finally, they feel compelled, with regret, to advert to matters affecting the social status of medical officers. On two recent ceremonial occasions the rank even of Surgeon-General was entirely ignored; a service so treated can never be popular; while again the King's honorary surgeons and physicians (members of the Household) are never invited to State functions.

J. B. Hamilton,
April 14th, 1902. *Chairman.*

ROYAL NAVY MEDICAL SERVICE.

New Regulations for the Entry of Candidates for Commissions.

We have been favoured with an early copy of these new regulations, and propose in the first instance to deal with some of the most important of them for the information of the profession as a whole, and especially of possible candidates for entry into the Medical Service of the Royal Navy, reserving for subsequent consideration a more detailed examination and comparison of them with those for the Army Medical Service, as indicated in the recent Royal Warrant for that service.

The regulations as to professional and personal qualifications for admission into the Medical Department of the Royal Navy are unchanged, and will be found in our Educational Number of August 31st, 1901.

Examinations.

The examination for entry has, however, been reformed in accordance with modern ideas as to the examination of qualified medical men. The changes are indicated in the accompanying table:

Subjects for Examination for Entry.

Old.	*New.*
The entrance examination consists of two parts; in Part I, *Compulsory*:	*Compulsory*: Marks.
(*a*) Medicine, including therapeutics and the diseases of women and children (marks 1,200).	(*a*) Medicine, Materia Medica, Therapeutics, and General Hygiene... ... 1,200
(*b*) Surgery (1,200).	(*b*) Surgery and Surgical Anatomy 1,200
(*c*) Anatomy and Physiology (600).	The examination in Medicine and Surgery will be in part practical, and will include, beyond papers, the examination of patients, the examination of pathological specimens, a knowledge of bacteriology, the performance of operations on the dead body, and the application of surgical apparatus. The attention of candidates is especially drawn to the importance of the section of Operative Surgery, as a competent knowledge in this subject is essential in order to qualify for a commission.
(*d*) Chemistry and Materia Medica, with a practical knowledge of drugs (600).	No candidate shall be considered eligible who shall not have obtained at least one-third of the maximum marks in each of the above compulsory subjects.
The examination in Medicine and Surgery will be in part clinical, and include the examination of pathological specimens and Operative Surgery on the dead body to which great importance is attached. The examination in Chemistry will be limited to the elements of the science, and to its application in medicine, pharmacy, and practical hygiene, and that in Materia Medica will include a knowledge of the physiological actions and therapeutical use of drugs.	*Voluntary*: Candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable will be: Marks.
Part II. *Voluntary*, consists of two divisions:	Natural Sciences:—Chemistry (300); Physiology (300); Zoology (300); Botany (300); Geology and Physical Geography (300) 600
(*a*) French and German (200 marks each); a knowledge of modern languages being considered of great importance, all candidates are urged to qualify in them.	No candidate will be allowed to present himself for examination in more than two of these subjects.
(*b*) Natural Sciences (Zoology, Botany, Physics, Geology, and Physical Geography (300 marks each); the two latter subjects are combined for the 300 marks.	French and German (300 each) 600
Candidates will be examined in not more than two of these sciences. Candidates who qualify in the compulsory subjects by obtaining a minimum of one-third of the maximum marks attainable will be allowed to count marks in those of the two *voluntary subjects* only in which they obtain one-third of the maximum marks for each.	A number less than one-third of the marks obtainable in each of these voluntary subjects will not be allowed to count in favour of the candidate who has qualified in the compulsory subjects.
	The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German.

The new regulations specify also that

The examination in Chemistry will include the general principles of inorganic and organic chemistry; the preparation and properties of the chief non-metallic and metallic elements and their compounds; the preparation, properties, and classification of the more important compounds, such as marsh gas, ethylene, acetelyne, methyl and ethyl alcohols, glycerine, ether, formic, acetic, lactic, and oxalic acids; cyanogen and cyanides; carbohydrates; fats; proteids.

The examination in Physiology will comprise the minute structure and functions of the various tissues and organs of the body; the physiology of the blood; the nature of food and the processes of its digestion; the mechanics of the circulation and of respiration; the physiology of nutrition, secretion, and excretion; animal heat, the nature of sensation, volition, reflex action, inhibition, and influence of the nervous system on other organs and their functions.

8. The appointments announced for competition will be filled from the list of qualified candidates, arranged in order of merit; but should it at any time be considered expedient to grant commissions beyond those periodically competed for, the Admiralty have power to admit annually—

(a.) Two candidates—proposed by the governing bodies of Schools of Medicine in the United Kingdom—who have satisfactorily filled the office of house-surgeon in a large civil hospital for at least six months.

(b.) Not more than six candidates, according to requirements, specially recommended by the governing bodies of such Colonial Universities as may be selected and whose qualifications are recognized by the General Medical Council.

Candidates so proposed are to be approved by the Director-General of the Medical Department of the Navy, and are to be certified by the governing body proposing them as duly qualified according to the regulations in force for the entry of candidates.

In cases of Colonial nominations, registration of professional qualifications, as required by Clause 2 of these regulations, may be deferred until after the arrival in England of a candidate who has been passed on the Station—but the commission as surgeon will not be granted until the certificate of the Registrar of the General Medical Council has been produced at the Medical Department of the Navy.

Candidates for schools at home will be required to pass a physical examination in London, which will be arranged for by the Medical Director-General. Colonial candidates will have to pass a physical and test examination before a Board of Naval Medical Officers on the station.

9. Successful candidates, immediately after passing the examination in London, will receive commissions as surgeons in the Royal Navy, and will undergo a course of practical instruction in Naval Hygiene, etc. at Haslar Hospital. Three prizes of the approximate value of £10 each will be awarded at the close of each session at Haslar to the students who have shown the greatest proficiency.

10. A fee of £1 will have to be paid by each candidate to entitle him to take part in the competition.

11. Surgeons on entry are only required to provide themselves with a pocket case of instruments, a stethoscope, and three clinical thermometers. All other instruments are provided at the public expense.

Promotion.

As previously, promotion to the inspectorial ranks is to be by selection. It is possible, however, that the promotion to fleet surgeon's rank also may in future be more by selection than hitherto. For promotion to the rank of staff surgeon a written examination in medicine, surgery, pathology, and general and naval hygiene is retained.

Earlier promotion to the rank of staff surgeon may be granted to those surgeons who before entry have held the post of house-surgeon to a civil hospital of not less than 100 beds for a period of not less than six months, provided that their conduct and professional abilities have been favourably reported on during the time they have served in the navy. They may be granted from six months to one year's seniority, according to the time they have held their civil appointments as house-surgeon, but in no case will more than one year's seniority be granted.

Full Pay.

The pay of a surgeon on entry is to be 14s. a day; after four years' full-pay service, 17s.; after eight years' full-pay service, 20s. Staff surgeon, on promotion, 24s.; after four years' full-pay service in rank, 27s. Fleet surgeon, on promotion, 30s.; after four years' full-pay service in rank, 33s.; after eight years' full-pay service in rank, 36s.

These rates of pay indicate an increase of about 3s. a day in all cases over former rates of pay; it will also be noted that the periodical increase of pay in the various ranks depends on full-pay service, half pay from sickness or non employment, consequently delays such increase of pay. The full pay of deputy-inspector-generals is, as previously, 42s. a day; while that of inspector-generals is £1,300 yearly, an increase of some £200 over their former pay and allowances.

The inspector-generals at Haslar and Plymouth Hospitals, and the corresponding officer at Chatham Hospital, when the new hospital is completed, will be granted an allowance of 10s. a day as charge pay.

The following charge allowances may be granted to medical officers in charge of hospital ships: If above the rank of fleet surgeon, 5s. a day; if of the rank of fleet surgeon or junior, 3s. 6d. a day.

The fleet surgeons and staff surgeons serving at the Admiralty and the Marine Rendezvous will be granted the hospital allowance of £53 a year in addition to the usual lodging allowance.

Retired Pay.

Half pay, retired pay, and gratuities on retirement, with less than twenty years' service, are unchanged.

Cabins.

A special cabin will be appropriated to the fleet surgeon or staff surgeon in charge of the medical duties in each ship.

This question of cabins, if it be now satisfactorily settled, as we hope it may be, will add another very necessary reform to the many that have been effected under the administration of the present Medical Director-General R.N.

Mess Expenses.

Special regulations have been made as regards the mess expenses of medical officers appointed to the several divisions of Royal Marines for limited periods.

Courses of Instruction.

Every medical officer will be required to undergo a post-graduate course of three months' duration at a metropolitan hospital once in every eight years (should the exigencies of the service permit), and this as far as possible during his period of service as surgeon, staff surgeon, and fleet surgeon. While carrying out this course the medical officer will be borne on a ship's books for full pay, and will be granted lodging and provision allowances, and travelling expenses as for service under the regulations to or from his home or post, but he will be required to pay the necessary fees for each course. The medical officer will be required to produce separate certificates of efficient attendance in the following: (1) The medical and surgical practice of the hospital; (2) a course of operative surgery on the dead body; (3) a course of bacteriology; (4) a course of ophthalmic surgery, particular attention being paid to the diagnosis of errors of refraction; (5) a practical course of skiagraphy.

This is a most important new regulation. It is to be regretted, however, that the expense of this necessary instruction is not provided for by the Admiralty. We believe that naval officers requalifying in gunnery and torpedo drill, or when studying at the Naval College, Greenwich, obtain all instruction free; all such instruction being in the best interests of the naval service.

CONTRACT MEDICAL PRACTICE.

FRIENDLY SOCIETIES' MEDICAL ALLIANCE.

ABOUT one hundred delegates from all parts of the country attended the twenty-third annual conference at Derby of the Friendly Societies' Medical Alliance.

In the report of the Council the following is to be noted: "It is highly gratifying to know that there has been no open attack upon our organisations by the vested interests of private practitioners during the past twelve months." The report continues, however: "That the Council fails to see any reason to relax their efforts for the consolidation of the various societies, as in their opinion it would be highly presumptuous to suppose that the sentiments of the General Medical Council towards our own institutions have ceased to exist." It further draws attention to its innocence of all systems of canvassing.

If the above report is true it is to be hoped that there has been some abatement in the touting, advertising, and other unprofessional practices of which many of these societies have sought in the past to strengthen themselves, and which are objected to by the profession. The absolute eradication of canvassing reads fairly enough, but we should like some more definite information. It is difficult to understand how some of these societies could exist without canvassing.

SOCIETY REGULATIONS.

M. E. N.—A registered Friendly Society can in practice compel a member to pay to any one medical man by refusing all benefits unless he obey the rules. The only remedy for the member is to leave the society.

DARLINGTON.

ACCORDING to a report in the *Darlington Echo* the profession at Darlington, having recently taken steps to organize themselves, have demanded an increase of 25 per cent. in medical fees. As a response the various Friendly Societies of the district have held a meeting, and are considering the advisability of employing a medical man in common.

Our contemporary, in its issue of April 8th, under the heading of Friendly Societies and Medical Men, reviews some correspondence on the subject recently appearing in its columns. We find once more put forward the gain likely to accrue to the club doctor through being called to attend the families of members at ordinary rates, as something *per contra* when considering the small fees paid by the members themselves. This is altogether visionary. In the experience of most club doctors it is found that they are rarely, if ever, called to the member's family. At the present day the latter not infrequently have their own club.

Much more worthy of consideration is another suggestion that the clubs should supply sick allowance only, and leave it to the member to choose his own doctor.

Sick Clubs and Medical Aid Associations.

At the spring intermediate meeting of the North Wales Branch of the British Medical Association, held at Corwen on April 9th, a discussion on Sick Clubs and Medical Aid Associations took place. The resolution of the Shropshire and Mid-Wales Branch was read as follows:

That this meeting of the Shropshire and Mid-Wales Branch having discussed the whole question of club practice within its area desires to place on record its conviction that the present system of contract practice is inadequate and considers that no medical man residing in the district ought to accept less than 5s. per annum per adult member.

Mr. Jones Morris opened the discussion, and pointed out the disadvantages to the profession of the underbidding for these clubs, and also most adversely criticized the conduct of those medical men who started private clubs with canvassing agents, which now, under the recent decision of the General Medical Council, rendered them open to a conviction "for infamous conduct in a professional sense." The remedy for all these grievances rested with the profession itself, and he counselled friendly co-operation with a view to harmonious and beneficial action in those districts where this question was a source of friction among the medical men. In the course of his address he pointed out that since the divorce of the Barber-Surgeons into two distinct branches the benefit seemed pecuniarily to be with the Barbers. Every working man indulged in the luxury of a shave once a week at a cost of a penny, whereas in some clubs at 3s. 6d. and 4s. a year per member the surgeon's remuneration did not reach that paid to the barber.

In the course of the discussion Professor Rushton Parker pointed out the advantages of the provident dispensary scheme as carried out at Kendal.

Dr. Hugh Jones gave a minute account of the action taken by the profession at Dolgelly when this question became a very burning one: all the clubs there paid 3s. 6d. each member, but the profession insisted on 5s. per annum. This was resisted by the clubs, who opened up negotiations with a medical man to take them all at the 3s. 6d., but owing to the action of the British Medical Journal in advising in this juncture and the co-operation of one or two members of the Branch, this gentleman declined, in the face of the evident displeasure his action in accepting would invoke, to accede to their request. The result was that some of the clubs paid what was demanded, but others would not, although in each case a substantial increase was made in the remuneration.

[It is to be regretted that some members of the profession did not follow the determined and straightforward course adopted by Dr. H. Jones.]

Dr. R. Jones, of Corwen, stated that the few clubs he had had for over forty years paid him 4s. per annum, and he was satisfied, but if any negotiations were attempted to lower the sum he would resign the appointments.

Dr. Richard Jones, of Blaenau Festiniog, gave an account of the clubs of the populous quarry district of Festiniog, which were, on the whole, satisfactory and of mutual benefit.

Mr. Price Morris also gave his experience of the quarry clubs in his district. He regretted to say that a sick club with no wage limit had been inaugurated in his district, which comprised some members with as good an income as his own. He absolutely declined to have anything to do with it.

Dr. Samuel Griffith regretted that in his district some of his patients had been canvassed by the agents of his brother practitioners to become members of the clubs with which they were connected, and doubted the professional correctness of appearing on platforms when the advantages of medical clubs and combinations were publicly discussed.

The President hoped that such conduct would be brought before the Ethical Committee of the Branch.

It was resolved, on the motion of Mr. Jones Morris, seconded by Mr. H. Jones Roberts:

That this meeting of the North Wales Branch begs to record its thorough acquiescence in the resolution of the Shropshire and Mid-Wales Branch, and recommends the attention of the members to its purport, with the strong hope that they will do all in their power to put it into practical effect.

A Request for Information.

Borax writes: As the present system of club practice in this town has proved to be unsatisfactory both to the surgeons and their patients, a meeting is being arranged between the local medical practitioners and representatives of the clubs, to discuss the matter and attempt to come to some satisfactory solution of the difficulty. I should be greatly obliged if any practitioner who has made any satisfactory arrangement with his club patients would give us the benefit of his experience, either through the office or columns of the British Medical Journal.

The club patients at present pay 4s. per annum a member within a 3-mile limit, and this includes surgical operations as well as medicine, and only one club pays for certificates of admission. There is the usual abuse by wealthy club patients, unnecessary night-calls, and disregard of surgery hours, and rules respecting the supply of bottles.

The lodge surgeons suggest either (1) that the contract price should include medical cases only (except dressings of minor injuries), whilst surgery, night-calls, out-of-town cases and admission certificates should be charged extra, and that Friendly Societies should be requested to supply printed rules to their members respecting bottles, surgery hours, etc.; or (2) as suggested by Dr. A. E. Larking and Baillie McKee, in the Journal of November 2nd and February 8th, that each visit and bottle of medicine, etc., should be booked and paid for by the club at the end of each quarter or year, the charges to be about half the fees charged for work done for the other members of the club patient's family.

If any medical man has had practical experience of working a club practice on similar lines to either of the above suggestions, I should be glad if he could advise us.

Private Medical Clubs.

Dr. P. V. Timothy (Longton, Staffs) hopes that the communication by Dr. McGachen (Littlehampton) concerning the private medical clubs of the halfpenny and penny value—with the unwholesome collecting touts—may open the question for general discussion. In Longton the system is rampant, and men holding magisterial and municipal offices are conspicuous offenders.

LITERARY NOTES.

To the *Bristol Medico-Chirurgical Journal* for March, Mr. L. M. Griffiths contributes an interesting historical account of the Bristol Hotwells as a fashionable health resort. The reputation of the Hotwell water goes back to the middle of the fifteenth century, when it was mentioned by William Wyrcestre, who was a Bristol man. From the beginning of the seventeenth century the virtues of the Hotwell water have been proclaimed by various authorities, medical and other. Dr. Tobias Venner of Bath in his *Via Recta ad Longam Vitam* (1638) said that the water of Saint Vincents Rocks neere Bristolle "is in great request and use against the stone," provided it is taken under the advice of a "judicious physician." Without such guidance "the ill and preposterous use thereof will weaken the stomach, subvert the liver, annoy the head and brest, occasion cramps, paine in the joynts, breed crudities, rheumes, coughs, Cachexies, the Dropsie itselfe, and Consumption." Dr. Thomas Johnson, in *Mercurius Botanicus*, published in 1634, stated that the water was of repute both inwardly and outwardly. In Fuller's *Worthies of England* (1662) it is declared that "St. Vincent's Well is sovereign, for sores and sicknesses, to be washt in, or drunk of," and the statement is made that "experience proveth that beer brewed thereof is wholesome agains the spleen;" and it is related that Dr. Samuel Ward, of Sidney College, Cambridge, who "was afflicted with that malady, was prescribed the constant drinking thereof, though it was costly to bring it through the Severn and narrow Seas to Lin, and thence by the river to Cambridge." The Hotwells received the first royal visitor in 1667, when Queen Catherine, the wife of Charles II, after dinner in Small Street, drove to see the Avon Gorge and drank some of the water. A doctor who is known as Claromontius, which was probably a Latin version of an English name, visited the Hotwells, and in 1672 gave his experience of the water in a book entitled *De Aere, Locis, et Aquis Terrae Angliae*. Although he records its good effects generally in "the gravel and obstructions of the intestines," he did not get much personal benefit; the waters "made him puke, and did not pass as they should do by urine,' and if this result did occur there was a danger that they might "gripe the bowels and cause ruptures." Dr. Thomas Guidott, of Bath, writing in 1676, considered that the Hotwell water "may be as effectual as Tunbridge waters in any diseases that water is proper for." In his *De Thermis Britannicis Tractatus*, published in 1691, Guidott has a chapter, De Thermis Bristoliensibus, in which he refers to the great value of the water in diabetes. In 1695 a company made an agreement with the Merchant Venturers, who were lords of the manor, for the erection of a pump-room and other facilities for visitors. From this time its popularity grew rapidly, and

was promoted by much further medical testimony. A Bristol doctor named John Underhill, who Latinised his surname into Subtermontanus, published in 1703 a collection of cases which has received benefit from the use of the water, and the records of which had been kept at the Well House. The water he considered to be "the true medela in that fatal dejection by urine and dispiriting the Diabetes, as appears by the Autography in the Hot-Well House." In 1706 Dr. Benjamin Allen instituted some experiments on the qualities of the water, and in *The Natural History of the Mineral Waters of Great Britain*, published in 1711, he declared it to be "worth trying in Diabetes, and where Warmth is useful, and Steel not proper, to make a Constitution firm, as in most Phthises of the Lungs, and wilting Decays: and perhaps in common Hypochondriacal Cases." In a work published in 1725 Dr. J. Wynter recorded what he professed to be a comparison between the waters of Bath and Bristol, the latter of which he believed to consist "principally of Chalk, Lapis Calcarius and Calaminaris, and some lixivial Salt." The well-known *Enquiry into the Medicinal Virtues of Bristol-Water*, by Dr. George Randolph, of Bristol, appeared in 1745. Randolph's examination of the water led him to conclude "that Bristol Water, and Lime-water are two different things, as free from Recrements as any Water whatsoever; which appears from its carrying uncorrupt round the whole World, and receiving no Alteration, as other Waters will, from hot Climates"; and that its virtues did not "depend upon any Impraegnation of the Water, but upon impraegnated Air, which it is very full of, as may be observed at the Pump, by the numerous Air-bubbles that are in it." Dr. Diederick W. Linden, in a book of which a third edition appeared in 1759, called the water "the second medicinal spring in the kingdom." Linden appears with a very thin disguise in Dr. Smollett's *Humphrey Clinker*, in which the social life of the Hotwells is viewed from very different standpoints; the scene of a good deal of Miss Burney's *Evelina* is also laid at the Hotwells. Dr. John Fothergill had seen "many persons recover from pulmonary diseases after drinking the Bristol water, whose cure seemed to be doubtful from any other process." Dr. John Elliot, of London, in 1781 had a long list of the disorders in which the Bristol water had been recommended. He describes the mode of taking the water as follows:

> The usual method of drinking the water is a glass or two before breakfast and about five in the afternoon. The next day three glasses before breakfast and as many in the afternoon, and this to be continued during the patient's stay at the Wells. A quarter or half an hour is allowed between each glass. A course of these waters requires no preparation further than to empty the bowels by some gentle purge; and, if heat or fever requires, to take away a few ounces of blood; costiveness, however, should be avoided during the course.

At the end of the eighteenth century the reputation of the Hotwell water was at this time so great as to become itself a danger, for as a last resource consumptive patients in a dying state were often sent there.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th, and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting—namely, June 18th and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The third ordinary general meeting of the Session will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 24th. The President, Mr. W. H. Folker, will take the Chair at 2.20 p.m. Business: Minutes of the last General Meeting. Correspondence. Exhibition of Living Cases. Mr George Heaton: Notes of Five Cases of Perforated Gatric Ulcer treated by Abdominal Section and Suture. Exhibition of Pathological Specimens. Dinner, 7.50 p.m. Charge, 5s.—G. PETGRAVE JOHNSON, Stoke-on-Trent, General Secretary.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

THE spring meeting of this Branch was held at Upper Norwood on March 13th, F. G. SWAYNE, M.B., in the chair.

Confirmation of Minutes.—The minutes of the Reigate meeting were read and confirmed.

Next Meeting.—On the proposition of Dr. J. H. GALTON, seconded by Dr. C. O. FOWLER, it was resolved that the next meeting should be held at Croydon, on Thursday, May 8th, and that Dr. J. R. Adams be invited to take the chair. It was also resolved that at this meeting the usual papers should not be given, and that the experiment of a purely clinical meeting should be tried.

The late Dr. Hetley, J.P.—Surgeon-Major POOLE moved, and Dr. J. H. GALTON seconded, a vote of sympathy with the widow of the late Dr. F. Hetley, J.P. Dr. MILLER spoke to the resolution, which was carried unanimously.

Election of Officers.—Mr. Prangley was re-elected Honorary Secretary on the proposition of Dr. SWAYNE, seconded by Dr. J. H. GALTON. The following were nominated as representatives on the Council of the Association: Dr. J. H. Galton for Surrey, Dr. Tyson for Kent, and Mr. T. Jenner Verrall for Sussex.

Papers.—Dr. WASHBOURN read a paper on small-pox, and Mr. J. BLAND-SUTTON a paper on inveterate retroflexion of the uterus.—Drs. GALTON, FOWLER, POOLE, RICHARDS, GANDY, and the CHAIRMAN joined in the discussion which followed these papers.

Demonstration of Phototherapy.—Dr. G. B. BATTEN gave a demonstration of phototherapy and allied forms of treatment. He showed the working of *x*-ray apparatus, also the new ultra-violet light lamp made by Mr. Miller, and then the Lortet-Genoud arc lamp. He then showed the high frequency current from a Dean-Oudin resonator, and also his own rectifier for obtaining direct current for working coils and charging accumulators from alternating current mains.

Dinner.—After the meeting fifteen members and visitors dined together.

SOUTH-WESTERN BRANCH.

A MEETING of this Branch was held at Truro, on Tuesday, April 8th, Dr. WILLIAM HAMMOND (in the unavoidable absence of the President) in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The late Dr. William Smyth.—The HONORARY SECRETARY announced that in accordance with instructions received at the last meeting he had forwarded £5 5s. towards the fund that was being raised for the widow and family of the late Dr. William Smyth, of Ireland.

Communications.—Mr. R. H. LUCY read a paper on the treatment of lupus. He contended that early and wide excision of the affected area, whenever feasible, was the most satisfactory treatment, particularly when the neighbouring lymph glands were also affected. Failing this, exposure to the rays from Dr. Sequeira's modification of the Lortet-Genoud electric lamp promised the most lasting results. For lesions of the mucous membranes the application of a 4 per cent. solution of chromic acid gave very permanent scars. A discussion followed in which Drs. CRESSEY HAMMOND, WALKER, BUTLIN, and LIMONT took part.—Mr. C. H. WHITEFORD showed: (1) A new form of lithotomy strap; (2) a camel-hair sponge; (3) an improved ligature reel; (4) a combined Junker and blood evacuator for intraoral operations; (5) an instrument for evacuating intraperitoneal fluids during colotomy.

Specimens.—Mr. LUCY showed several specimens of the appendix vermiformis and stercoliths, which he had removed by operation; after which he showed, for Dr. WEBBER (in his absence), a myxosarcoma arising from the external intermuscular septum of the arm in a man aged 56. A small nodule had been noticed at the site of the growth for eight

years, and rapid growth to the size of a cocoanut in the last six months. Dr. Webber had removed this in the South Devon Hospital four months previously, and so far there had been no recurrence.

New Member.—Mr. Malcolm Bell Hay, M.R.C.S., L.R.C.P., North Devon Infirmary, Barnstaple, was elected a member of the Association and South-Western Branch.

WEST SOMERSET BRANCH.

The spring meeting of this Branch was held at the Taunton and Somerset Hospital on April 8th, Mr. J. P. Johnstone, President, in the chair. There were present eighteen members and one guest.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Communications.—Dr. David Brown read a paper on Some Results of the Open-air Treatment of Consumption, and showed statistics and diagrams relating to his experiences with the open-air treatment as carried out at Timbercombe, on the Quantock Hills. He also showed some patients who had benefited from the treatment. A short discussion followed.—Mr. R. Morton showed a case of lupus in a lad on whom he was using the Roentgen rays.—Mr. W. B. Winckworth, with the permission of Mr. Malcolm Morris, showed a girl who had recently returned from St. Mary's Hospital, London, where she had been similarly treated for the same complaint.

Tea.—Tea was kindly provided during the afternoon by the honorary staff of the hospital.

Votes of Thanks.—The usual votes of thanks terminated the proceedings.

NORTH WALES BRANCH.

The spring intermediate meeting of this Branch was held at Corwen on April 9th, Dr. Robert Parry, President, in the chair. The attendance was eighteen members and two visitors.

New Members.—The following were elected members of the Association and Branch:—Messrs. D. R. Edwards, M.R.C.S., L.R.C.P., Corwen; Robt. Jones, L.S.A., Dolgelly; Thomas O. Jones, L.R.C.S.Edin., L.R.C.P.Edin., Ruthin; and George E. Williams, M.R.C.S., L.R.C.P., Rhostryfan. Mr. J. R. Prytherch, M.B., M.R.C.S., L.R.C.P., Llangefni, was elected a member of the Branch.

Epsom College.—It was resolved to support the claims of H. Glyn Hughes, son of the late Dr. H. G. Hughes of Johannesburg and of Criccieth, a former active member of the Branch, as a candidate.

Professor Alfred Hughes Memorial at Corris.—It was resolved to increase the Branch subscription from £3 3s. to £5 towards this object.

Proposed Excursion to North Wales at the Annual Meeting.—It was resolved that the President, Honorary Treasurer, Dr. Samuel Griffith, the Honorary Secretaries, Messrs. W. Jones Morris, and H. Jones Roberts, and Mr. Wells Roberts, F.R.C.S.Edin., C.M.G., be a committee to arrange in conjunction with the Excursion Committee at Manchester to carry out the arrangements in connexion therewith.

Sick Clubs and Medical Aid Associations.—A report of the discussion on this subject will be found at p. 995.

Communications.—Dr. W. R. Williams read notes of a successful case of inguinal colotomy for congenital defect of the rectum.—Professor Rushton Parker read notes of cases of vesical calculus and lithotrity, remarking on the unusual absence of cases of stone in the North Wales district as evinced from the statistics of the Liverpool Royal Infirmary, where a large number of patients from the northern Principality were admitted. This was confirmed in the subsequent remarks of Drs. Samuel Griffith, Rich. Jones, and Jones Morris.—Mr. G. P. Newbolt read notes of a case of abscess of the liver opened through the chest wall, which after one or two periods of pyrexia made an excellent recovery.

Demonstration.—Mr. Robt. Jones gave a demonstration on the treatment of some common injuries of the upper limb, which was highly appreciated, and for which he was thanked. His demonstration was illustrated by an excellent and numerous collection of radiographs.

SYDNEY AND NEW SOUTH WALES BRANCH.

A special general meeting of this Branch was held at the Royal Society's Room, Sydney, on March 7th, Dr. Foreman, President, in the chair. There were ninety-three members present. The Honorary Secretary read the circular convening the meeting.

Australian Natives' Association.—The President explained that the business of the evening would be confined to the consideration of the resolution dealing with the Australian Natives' Association.—Dr. G. E. Rennie proposed:

That the Branch having reconsidered the question of contract medical attendance on the members of the Australian Natives' Association hereby reaffirm the decision of the Council meeting of August 7th, 1900, in declaring the Australian Natives' Association prejudicial to the interests of the medical profession.

—Dr. Gordon Craig seconded the resolution.—A discussion ensued in which Drs. Beeston, Spencer, D. Kelly, Binney, Charles MacLaurin, Taylor Young, A. L. Kerr, Clarence Read, Levy, G. L. O'Neill, Browne, Newmarch, Finlay, Hankins, Worrall, and Foreman took part. The resolution was carried unanimously.—Dr. Gledden proposed:

That all press correspondence on the subject be left in the hands of the Honorary Secretary.

—Seconded by Dr. G. L. O'Neill and carried.—Dr. Arthur suggested that marked copies of the *Gazette* be forwarded to all medical men throughout the State who were not members of this Branch.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Resolution in Favour of Prophylactic Serum Injections in Diphtheria.—"Exeats" to Relieve Overcrowding in Paris Hospitals.—Federation of French Societies for Prevention of Tuberculosis.—Proposed Sanatorium for Paris Hospital Nurses.

With regard to preventive inoculation in diphtheria the Académie de Médecine has recently passed unanimously the following resolutions:

1. Preventive serum injections at a dose of 5 c.cm., or at the most 10 c.cm. (5 c.cm. = 1,000 antitoxic unities) have a manifest action; they render children who are exposed to contract the disease immune. They have never given rise to serious accidents, and at the most, in a certain number of cases only, cause temporary eruption, or still more rarely some articular pains. Unfortunately, the period of immunity is of short duration, three or four weeks at the most. In the rare cases, where in spite of the injection diphtheria nevertheless developed it was particularly mild in character.

2. Preventive injections of serum are specially indicated in families in which a case of diphtheria has occurred, to protect the other children from contagion.

3. Preventive injections are equally indicated for children in such agglomerations as schools, crèches, hospital wards, in which a case of diphtheria has been noticed.

4. Even in the absence of a declared case of diphtheria, they may be indicated in certain special conditions (measles and scarlet fever wards, etc.); in measles at least the preventive action seems less certain: the doses of serum must be stronger and repeated more often.

5. The practice of preventive injections in no way precludes other prophylactic measures (disinfection and isolation), but it renders these at the same time more easy and efficient.

The above resolutions were the result of a report by M. Sevestre on a previous communication by Drs. Netter, Bourges, and Bergeron. From statistics collected by M. Netter, he found for diphtheria that contagion in the family is more frequent than is generally believed: secondary cases must be estimated at over 10 per cent. In 540 children belonging to the families of patients with diphtheria, M. Bourges found the bacillus in the mouths of 157 children—more than 25 per cent. These considerations amply justify prophylaxis. At the Trousseau Hospital from March 16th to December 31st, 1901, 502 children, belonging to 251 families in which there had been a first case of diph-

theria, received preventive injections. Of these, 13 children developed diphtheria; in 7 cases diphtheria appeared in less than twenty-four hours after the injection; in 6 cases more than twenty-eight days after; no case occurred in the intermediary period. M. Netter has by counter-proof shown the value of his investigations, for at the same time as the above families other parents sent their children affected with diphtheria to the hospital without their brothers or sisters having received any preventive inoculation. In this second category, among 491 children belonging to 200 families, there were 87 secondary cases of diphtheria in 69 families; the deaths were 18 in number, and there were 20 grave though not fatal cases, whereas in the inoculated series the cases had always been more or less mild. In the above two groups outside of the immunization all the conditions were the same; they came from the same social class, inhabited the same districts, etc.

Overcrowding in the Paris hospitals has reached such a pitch that no room is left for the admission of urgent cases. In order to remedy this, the Director of the Assistance Publique has decided that "exeats" will be given to patients as soon as their condition will allow of their being taken back to their homes, where they will receive medical attendance from the physician to the various *bureaux de bienfaisance*, and during one month an allowance of 1 franc a day. On the advice of the attending physician this allowance may be continued for two additional months. The above measures will only be carried out in the case of patients whose homes will permit of such treatment.

All the societies in France for the prevention of tuberculosis were recently formally federated at an inaugural meeting in the Hall of the Society of Civil Engineers, the President of the Republic being present. Professor Brouardel is the President of the new federation. Its object is to favour the spread of knowledge about tuberculosis and its prevention. Representatives from seventy-six societies and thirty-seven cities were present, and their power will now be increased by combined action on a systematic plan. It is proposed to organize a system of relief for patients to which the Friendly Societies will be asked to contribute; the railway companies will be asked to subsidize sanatoria in the districts served by their systems for the treatment of their servants, many of whom suffer from tubercle; and in the same way it is hoped that sanatoria will be provided for soldiers in their territorial districts.

At its last meeting the Municipal Council placed before a special Commission a proposal to fit up on one of the properties belonging to the Assistance Publique a sanatorium of fifty beds for the exclusive use of nurses who may have contracted tubercle in their service.

CORRESPONDENCE.

THE EVIDENCE FOR HETEROGENESIS.

SIR,—With many of the remarks of your reviewer in the BRITISH MEDICAL JOURNAL of April 12th, p. 904, concerning Part I of my *Studies in Heterogenesis*, I thoroughly agree. I am seeking to establish views "at variance with those generally accepted," and it is my wish that "the evidence tendered in their support should be narrowly scrutinized."

When he says "the more improbable the view asserted the more complete should be the chain of evidence in its support" I also agree; but then I recognize perhaps more fully than he does that the evidence brought forward ought not to be lightly tossed aside after mere superficial consideration.

If it had not been for the great strength and prevalence of the preconceptions opposed to my views, and the consequent difficulty in getting a serious consideration for them, I should not trouble you with these few lines.

The reviewer cites only two of the cases which I bring forward as instances of heterogenesis. He dismisses them for wholly inadequate reasons, and implies that a similar fate might be allotted to "each of the observations and the conclusions which are drawn from them." It may be useful therefore to see what value is to be set upon his criticism.

He takes first the alleged transformation of the contents of certain large confervoid cells into amoebae, and suggests that the changes seen and described are only instances of reproductive processes of a kind very common among cryptogamic plants—the existence of which are, of course, perfectly familiar to me. He does not state, however, that I watched the changes in question off and on for nearly a month in successive cells, and that I had the authority of Dr. Cook, author of the great work on the *Fresh Water Algae*, for saying that the specimens in question were vegetative and not reproductive cells of a conferva (p. 4).

The next case to which the reviewer refers is that of the alleged transformation of the substance of euglenae into flagellate monads (p. 13), and he strongly suggests that I have here confused the flagellate monads produced within the euglenae with the wholly different and typical zoospores of the fungus which so commonly attacks them—Polyphagus euglenae. But the zoospores of this fungus, as I may tell him, are not produced within the euglenae, but in characteristic outgrowths therefrom, many thousands of which I have seen and examined.

If the possible criticisms of other cases to which your reviewer alludes are similarly superficial, they might mislead some of your readers as to the value of my evidence, but they would not be likely to convince me as to the error of my views. I have devoted much of my leisure time during the last four years to the investigation of these questions, and have accumulated much evidence, the first instalment of which is soon to be followed by a second. I trust that the illustrations, from photographs, of the successive changes in several of the transformations cited will by many persons, if not by your reviewer, be regarded as strong evidence tending to show the reality of the occurrence of heterogenetic processes—the establishment of which is beset by many difficulties, both intrinsic and extrinsic.

By the proof of the occurrence of such processes, and in this way only, as I contend, can the fact of the existence of all the forms of infusorial organisms at the present day be logically harmonized with the general doctrine of evolution. Their presence otherwise seems to be a stultification of this general doctrine which the world of science has almost unanimously accepted.—I am, etc.,

H. CHARLTON BASTIAN.

Manchester Square, W., April 14th.

*** We have referred this letter to the writer of the review, who has sent the following note:

I am sorry that Dr. Bastian should think that his researches have been "tossed aside after mere superficial consideration," but I must remind him that in a matter of this kind the burden of proof lies wholly with him, and even if his facts and inferences be correct, it is still necessary that they should be supported by such evidence as shall carry conviction before he can hope that they will gain credence. Now, after carefully reading and re-reading his monograph, with as open a mind as I can command, such conviction is not borne in upon me.

I do not pretend to more than a general acquaintance with these low forms of life, far less to an expert acquaintance with them, but approaching the matter from the standpoint of a biologist, it does not appear to me that the sentence in the preface that "examples, however, have been selected for this memoir of such a kind as obviously to eliminate the first of these interpretations" (namely, that the forms described may be normal stages in the life-history of the same organism) is justified so fully as Dr. Bastian assumes. Nor do I agree with his application of another sentence in the preface, to the effect that "the substantiation of such modes of origin of the organisms in question—which is my main object—far transcends in importance the following out of their subsequent fate, so long as we can be reasonably certain that the first of the three possible interpretations above referred to has been legitimately excluded." I fail to see that its exclusion is legitimate until the life-history of everything under observation has been pursued to the fullest extent, which has not, on Dr. Bastian's own showing, been attempted. Surely, conceding for the purpose of argument that the observations are not open to sources of error, it is just as possible that Dr. Bastian has discovered hitherto undescribed transformations in the life-history of individual forms. If heterogenesis, which according to Dr. Bastian is of rather general occurrence and not difficult to

light upon, has been entirely overlooked, is it not at least as likely that the life-history of these organisms is similarly imperfectly known? My respect for Dr. Bastian's attainments makes me very reluctant to criticize his methods adversely, but personally I may say that one single instance worked out with completeness would have gone further towards convincing me than a much larger number of observations which lack that completeness; and if I may venture to make a suggestion, it would be that he should select some one of the cases which he regards as typical, and devote himself to following that out to the utmost.

It is a minor matter, perhaps hardly worth alluding to, but in quoting in his letter the authority of Dr. Cook that the conferva cells under observation were vegetative and not reproductive, the wording used is rather stronger than the statement in his memoir, which is thus qualified: "he was only able to inform me that it was probably 'some vegetative form of one of the Confervaceae.'"

I may add that the facts cited in the review were not so much quoted as being possible actual errors into which the investigator had fallen, but as representative of a group of facts which call for great care in observation and caution in interpretation.

HEALTH IN SCHOOLS.

Sir,—At the last meeting of the British Association a Special Committee was appointed to consider the conditions of health essential to carrying on the work of instruction in schools.

The Committee consists of Professor C. L. Sherrington (Chairman), Mr. E. W. Braybrook, C.B., Dr. C. Childs, Dr. Clement Dukes, Miss Findlay, Dr. C. W. Kimmins, Miss A. Ravenhill, Mr. J. Russell, B.A., Professor L. C. Miall, Dr. Sydney Stephenson, Dr. C. Shelley, Professor H. L. Withers, Dr. W. H. R. Rivers, and Mr. W. White Wallis (Secretary).

In the first instance the Committee is collecting information upon the following subjects:

A collection and tabulation of records of original observations on the periods of day appropriate for different studies, the length of lessons, and the period of study suitable for children of different ages.

A collection and tabulation of anthropometrical and physiological observation forms in use in various schools, with a view to preparing a typical form for general use.

A collection and tabulation of anthropometrical and physiological observations recorded in different schools for a series of years on the same children.

A collection and tabulation of recorded investigations into the causes of defective eyesight in school children, and a definition of the conditions necessary for preserving the sight.

An inquiry into the practical knowledge of hygiene possessed by school teachers.

As the subject is one of general interest and importance, the Committee hopes that you may be able to find space in your columns to bring these investigations under the notice of your readers, and asks their co-operation in obtaining information on the several points; any facts or references relating to the subject under consideration, if sent to the Chairman or myself, will be very helpful.—I am, etc.,

E. White Wallis,
Secretary.

The Sanitary Institute, 72, Margaret Street, W., April 16th.

THE COURT AND THE ARMY MEDICAL SERVICE.

Sir,—With reference to the letter of "One of Them" in the British Medical Journal of March 15th, permit me to state that a similar occurrence took place at the King's visit to Portsmouth, and that the Surgeon-General there was omitted from the invitation, though several officers junior to him were asked. Of course it must be clearly understood that His Majesty, like all his subjects, has a clear and definite right to invite whom he chooses to the royal table, but on the other hand, custom lays down that senior officers on the staff are always invited, and the omission to do so is looked on in military circles as a grave slight.

In the present instances it happens that both the officers are Irishmen, but have most distinguished records of service, one being a Companion of the Bath, while the other was twice recommended for it, and was over and over again mentioned in dispatches.

These incidents have caused the very deepest feeling of grief and despondency in the medical service, and it is openly said that Mr. Brodrick's warrant may as well remain in its pigeon-hole as be promulgated, for no "self-respecting gentleman" will (as "One of Them" truly says) enter the service to be snubbed and insulted by Court officials and military clubs that take their cues from them.—I am, etc.,

April 15th. Another of Them.

HORSE SICKNESS IN SOUTH AFRICA.

Sir,—In the British Medical Journal of February 22nd, in an address by Mr. C. B. Ball on the reorganization of the Army Medical Service, and in the last paragraph of that address appears: "Lieutenant-Colonel Bruce, F.R.S., of the Royal Army Medical Corps, the discoverer of the cause of Malta fever and of horse sickness in South Africa."

Seeing that as a result of this statement it may be widely thought that the honour of priority of discovery of the cause of this devastating disease rests with Lieutenant-Colonel Bruce, I would ask you, in fairness to those engaged in the endeavour to ascertain the cause of horse sickness, to give prominence in your journal to a statement of the fact that the cause of horse sickness is as yet undiscovered, either by Lieutenant-Colonel Bruce or by any other worker.

What Lieutenant-Colonel Bruce did discover is the cause of tsetse fly disease, a disease prevalent in certain parts of Africa, near the coast, and so universal and so fatal that horses cannot live in the "fly belt."

Horse sickness is the common term in use for a definite and apparently specific disease of the horse in South Africa, is totally distinct from the tsetse fly disease, and much more widely distributed. Of this Mr. Ball may be unaware.—I am, etc.,

Ernest Hill, M.R.C.S., L.R.C.P., D.P.H.,
March 18th. Health Officer for Colony of Natal.

THE TREATMENT OF DEAFNESS OF MIDDLE-EAR ORIGIN.

Sir,—The letter of my friend, Dr. McBride, in the British Medical Journal of April 12th, has suggested to me the possibility that a number of your readers may have misapprehended the scope and purpose of my recent communication on the treatment of middle-ear deafness (March 22nd, 1902). I should, therefore, like to emphasize one or two points which I thought had been already indicated with sufficient clearness.

The object of my paper was to bring to the knowledge of practitioners a method of treatment pursued for nine months with a decided measure of success. Having regard to the prevalence of this type of deafness, the grave consequences of its onset, and the confessed inability of practitioners to cure it or retard its development, I felt that publication had come to be a duty on my part. But although I had treated a fairly long series of cases, and had secured a fairly uniform result, the time was not ripe for an exhaustive communication dealing with the etiology of the disease and the *rationale* of my treatment. From this it follows that it would have been premature for me to make definite statements regarding the conditions best suited to the treatment and the limits of its efficacy. Any communication, therefore, which I could make was necessarily preliminary in character, and it was sufficient if the preliminary note was a statement of facts set forth with due caution and exactness. I cordially endorse Dr. McBride's caveat that special care must be taken to eliminate as far as possible all the elements which might vitiate an induction from the cases subjected to a particular course of treatment. Accordingly, as stated in my paper, a man was selected by Dr. McBride and myself as a subject of observation unlikely to be afflicted by a neurotic element. The figures provided by his case have therefore a particular value for the estimation of the results which may be expected from the use of myelocene; and the import of these figures is magnified when their evidence is supported by the independent testimony of the man's employers as well as of his wife and friends.

I cannot too strongly emphasize the fact that it would have been out of place in a preliminary note either to offer an estimate of the value of the net results obtained, or to expound the ratio upon which the treatment proceeded. I did, indeed, give a broad outline of the theory which underlay the application of bone marrow to middle-ear deafness, but I m sure that careful readers of my paper must have observed

that the theory to which I gave expression had an origin entirely independent of aural practice. I will expound this theory and explain its origin at a later date, after fulfilling my promise of "indicating the existence of a therapeutic agent in myelocene" by a record of the results obtained from its use in other departments of medicine. With regard to the judgement which may be passed upon any method of treatment, I would only say that it would hardly be scientific to pronounce either a favourable or an adverse opinion after reading a brief record of bare facts or after the personal observation of its effects in a few cases. In my view, the approval which wins appreciation must depend upon one or both of the following conditions: Either it must be due to a record of properly authenticated facts, for which a reason is provided that irresistibly commends itself to the mind of the scientist, or it must follow an independent and adequate personal investigation, the results of which establish the value of the treatment employed. In this connexion I may express my regret that I have been unable to satisfy the numerous correspondents who have asked me to direct them where they can obtain a reliable supply of myelocene. The preparation is not yet *in medio*, and as it requires a competent knowledge of the qualities of bone marrow, it cannot be procured with the ease that is desirable. But it is within the reach of all who are fortunate in their selection of bones and who follow with care the directions which I have set forth in my communication.

I ought not to conclude this letter without thanking Dr. McBride for drawing my attention to the fact that I had inadvertently attributed to Lucae the method of intermittent pressure advocated by Hommel.—I am, etc.,

Edinburgh, April 14th. CHALMERS WATSON.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE UNDERMANNING OF THE ARMY MEDICAL SERVICE.

THE following is the distribution of medical officers employed on the Active or Reserve Lists, according to the *Army List* for April:

Distribution in April Army List.

Ranks.	Home.	South Africa.	Other Foreign Stations.	Not Posted.	Total.	Remarks. Seconded.	Remarks. Reserve of Officers.
Surgeon-Generals ...	3	1	2	—	6	—	—
Colonels	11	5	10	—	26	4	—
Lieutenant-Colonels...	70	67	84	1	222	6	24
Majors	42	122	108	3	275	3	3
Captains	29	109	111	—	249	12	4
Lieutenants	18	121	64	3	206	1	—
Total...	173	423	379	7	984	26	31

The total number is the same as for March, with a few less at home and a few more in South Africa. The Surgeon-General establishment of 10 has been completed by the promotion of 4 colonels since the list was made up. The number unposted is considerably fewer, and is very small in such large numbers, seeing that it probably chiefly represents officers on sick leave. Deducting 57 for those seconded, and the reserve of officers employed, the effective active list is 927. The number of retired officers employed is 64, exclusive of the reserve of officers shown in the active list.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: T. B. SHAW, M.B., Surgeon, to the *Duke of Wellington*, for disposal, April 9th; GEORGE D. TWIGG, Fleet Surgeon, to the *Duke of Wellington*, additional, April 14th; ANTHONY KIDD, Fleet Surgeon, to the *Benbow*, additional, April 14th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL H. J. W. BARROW is promoted to be Colonel, *vice* E. Townsend, promoted, September 5th, 1901. Lieutenant-Colonel Barrow's previous commissions are thus dated: Assistant-Surgeon, September 30th, 1871; Surgeon, March 1st, 1873; Surgeon-Major, September 30th, 1883; rank of Lieutenant-Colonel, September 30th, 1891; and Brigade-Surgeon-Lieutenant-Colonel, May 7th, 1896. He was in the Soudan campaign in 1885 (medal with clasp, and Khedive's bronze star), and with the Soudan Frontier Field Force in 1885, including the action at Giniss.

Lieutenant-Colonel R. O. CUSACK retires on retired pay on account of ill health, April 16th. Appointed Surgeon, March 6th, 1880, he became Surgeon-Major twelve years and Lieutenant-Colonel twenty years thereafter. He was Senior Medical Officer with the column under General Graham during the Manipur expedition in 1891, was mentioned in dispatches, and received the Frontier medal with clasp.

Lieutenant Colonel G. H. LE MOTTÉE, M.D., also retires on retired pay, April 16th. His commissions are thus dated: Surgeon, March 31st, 1875; Surgeon-Major, March 31st, 1887; rank of Lieutenant-Colonel, March 31st, 1895; and Brigade Surgeon-Lieutenant-Colonel, June 22nd, 1898. He was engaged in the Boer war in 1881.

Lieutenant-Colonel R. W. E. H. NICHOLSON likewise retires on retired pay, April 16th. He was appointed Surgeon, July 31st, 1880; Surgeon-Major, July 31st, 1892; and Lieutenant-Colonel, July 31st, 1900. He served in the operations in Chitral in 1895 (medal with clasp), and in the current South African war.

Lieutenant GEORGE EDWARD LEARY died at Aden on March 14th, at the age of 28. He joined the department May 30th, 1900.

ARMY MEDICAL DEPARTMENT.

DEPUTY SURGEON-GENERAL WILLIAM MACNAMARA, M.D., retired pay, died on February 11th. He was appointed Assistant Surgeon, October 6th, 1854; Surgeon, May 16th, 1867; Brigade Surgeon, November 17th, 1878; and Honorary Deputy Surgeon-General on retirement, July 21st, 1880.

Brigade-Surgeon JAMES PARR, retired pay, died at Sevenoaks, February 9th. He entered the service as Assistant-Surgeon, May 28th, 1857, and became Surgeon May 31st, 1871; Surgeon-Major March 1st, 1873; and retired with the honorary rank of Brigade-Surgeon July 29th, 1885.

INDIAN MEDICAL SERVICE.

CAPTAIN W. HENVEY, Bengal Establishment, is transferred to temporary half-pay, from March 4th. He was appointed Surgeon-Captain July 28th, 1891, and served with the Isazai Expedition in 1892.

Inspector-General HUGH MARTIN MACPHERSON, late Bengal Establishment, died on the April 4th, at 6, Arlington Street, Piccadilly, aged 81 years. He was appointed Assistant-Surgeon September 18th, 1842, and became Inspector-General July 27th, 1870.

IMPERIAL YEOMANRY.

THE undermentioned officers resign their commissions and receive new commissions subject to the Militia and Yeomanry Act, 1901, retaining their rank and seniority; Surgeon-Captain J. R. HARPER, Royal North Devon (Hussars); Surgeon-Captain T. F. DEWAR, M.B., Fifeshire and Forfarshire; Surgeon-Captain L. DRAGE, M.D., Herts; Surgeon-Major R. E. WOOD, Lanark; Surgeon Captain J. F. G. DILL, M.D., Norfolk (King's Own); Surgeon-Captain R. BULLOCK, Warwickshire; Surgeon-Lieutenant F. E. MARSTON, Montgomeryshire; Surgeon-Lieutenant-Colonel J. J. SAVILLE, North Somerset.

Mr. JOHN J. SCANLAN is appointed Medical Officer to the 35th Battalion, with the temporary rank of Captain, April 7th.

Mr. GEORGE THOMSON, M.B., is appointed Surgeon-Lieutenant in the Nottinghamshire (Sherwood Foresters), April 16th.

Mr. EDWARD M. KNOTT is appointed Surgeon-Lieutenant in the Northamptonshire Imperial Yeomanry, April 12th.

Surgeon-Captain C. FLEMING, Nottinghamshire (Sherwood Rangers), resigns his commission, April 12th.

VOLUNTEER GARRISON ARTILLERY.

Mr. NORMAN DAVIDSON, M.B., is appointed Surgeon-Lieutenant in the 1st Banffs, April 12th.

Surgeon-Lieutenant R. B. PORVES, M.B., 1st Edinburgh (City), is promoted to be Surgeon-Captain, April 16th.

VOLUNTEER ENGINEERS.

Mr. JOHN W. T. WALKER, M.B., is appointed Surgeon-Lieutenant in the East London (Tower Hamlets), April 16th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT P. L. W. WILLIAMS, 2nd Volunteer Battalion the Prince Albert's (Somerset Light Infantry), resigns his commission, April 12th.

Surgeon-Lieutenant J. ORR, M.B., 1st Volunteer Battalion the Manchester Regiment, is promoted to be Surgeon-Captain, April 12th.

Messrs. FREDERIC H. ALLERY, M.B., and HENRY S. WALKER, M.D., are appointed Surgeon Lieutenants in the 2nd Cadet Battalion the King's (Liverpool Regiment) and the 3rd Volunteer Battalion the Lincolnshire Regiment respectively, dated April 16th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

SUPERNUMERARY LIEUTENANT J. CLARKE is promoted to be Captain, and to remain seconded, January 11th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Mr. JOHN M. ROGERS-TILLSTONE is appointed Lieutenant in the Maidstone Companies, April 12th.

Lieutenant T. W. BARTLETT, the Woolwich Companies, is promoted to be Captain, April 16th.

Supernumerary Lieutenant M. TAYLOR, M.B., the Woolwich Companies, is promoted to be Captain and to remain supernumerary, April 16th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

Surgeon-Captain A. C. Tunstall, M.D., from the 1st Tower Hamlets Volunteer Rifle Corps, is appointed Surgeon-Captain in the 4th London, and to command the company, under Paragraph 55a Volunteer Regulations.

Surgeon-Captain F. H. Thompson, from the 1st Hereford Volunteer Rifles, to be Surgeon-Captain in the Welsh Border Brigade, and to command under Paragraph 55a Volunteer Regulations, March 11th.

Surgeon-Lieutenant J. McK Harrison, M.B., from the 1st Hereford Volunteer Rifles, is appointed Surgeon-Lieutenant in the Welsh Border Brigade, March 11th.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month :

	From.	To.
Colonel J. F. Supple, M.B.	Bombay	Bengal.
,, N. B. Major	Punjab	Bombay.
,, W. E. Saunders, C.B.	Madras	Punjab.
Lieutenant-Colonel W. L. Lane, M.B.	—	South Africa.
,, P. J. Dempsey, M.D.	—	Portsmouth.
,, W. A. Parker, Res.	Portsmouth	Exeter.
,, E. North	Bermuda	Chatham.
,, A. Peterkin, M.B.	Madras	South Africa.
,, R.W.E. H. Nicholson	South Africa	Lichfield.
,, S. Townsend, M.D.	,,	Chatham.
,, W. C. T. Poole, M.B.	Devonport	South Africa.
,, G. E. Weston	—	,,
,, J. C. Haslett, M.D.	Bengal	Netley.
,, H. J. Barratt	South Africa	Canterbury.
Major V. E. Hunter	Madras	Punjab.
,, D. R. Hamilton, M.B.	South Africa	Eastern Dist.
,, C. T. Blackwell	Punjab	South Africa.
,, C. H. Melville, M.B.	,,	Madras.
,, D. M. O'Callaghan	South Africa	Lichfield.
,, A. Y. Reily, M.B.	Belfast	South Africa.
Captain R. C. Lewis	Shoeburyness	,,
,, F. M. Mangir	Punjab	,,
,, C. E. Pollock	Glencorse	,,
,, J. R. McMunn	—	,,
,, J. Grech	South Africa	Aldershot.
,, A. H. Waring	York	Madras.
,, F. S. Penny	—	South Africa.
,, R. S. H. Fahr, D.S.O.	South Africa	Home District.
,, F. J. C. Heffermann	—	Mauritius.
,, A. R. O'Flaherty	—	South Africa.
,, H. S. Taylor	—	West Africa.
Lieutenant H. E. M. Douglas, V.C., D.S.O.	South Africa	London.
,, H. Ensor, M.B., D.S.O.	,,	Egyptn. Army.
,, P. G. Hyde, M.B.	Dublin	Bengal.
,, A. W. Sampey	,,	West Africa.
,, L. Cotterill	—	Aldershot.
,, W. J. S. Harvey	—	,,
,, B. A. Craig	—	,,

Lieutenant-Colonel P. J. M'Quaid, M.D., retired pay, has been transferred from Portsmouth to Exeter, and Major W. H. Lewis, retired pay, has been placed in medical charge of troops in the Home District.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

We are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Lieutenant-Colonel U. A. Jennings	0	10	0
Major E. F. Boult	0	10	6
Major A. Wright	0	10	0
Lieutenant Colonel Ruttledge	0	10	0
Lieutenant Colonel Jerome	0	5	0
Major Dodd	0	5	0
Major Yarr	0	5	0
Lieutenant Fletcher	0	2	6
Lieutenant Lelean	0	2	6
Major Alexander	0	5	0
Brigade-Surgeon J. McKinnon	1	1	0
Colonel A. T. Sloggett	1	1	0
Lieutenant-Colonel C. E. Harrison	1	0	0
Colonel B. M. Blennerhassett	2	2	0
Lieutenant-Colonel T. B. A. Tuckey	0	10	6
"An Old Friend"	1	1	0
Lieutenant-Colonel Andrew Duncan	2	2	0
Lieutenant E. J. Fairland	1	1	0
Colonel W. L. Gubbins	1	1	0
Surgeon-General T. O'Farrell	1	1	0
Lieutenant-Colonel Swabey	0	10	0
Major D. V. O'Connell	0	5	0
Major A. de C. Scanlan	0	5	0
Lieutenant J. S. Bostock	0	2	6
Lieutenant-Colonel W. W. Kenny	0	10	0
Lieutenant-Colonel J. D. Brodie	0	10	0
Captain H. W. D. O'Reilly	0	5	0
Previously acknowledged in the British Medical Journal of April 12th	36	16	6
Total	54	9	6

VOLUNTEER MEDICAL SERVICE.

The following letter from Sir E. W. D. Ward, Permanent Secretary of the War Office, has been received by the Honorary Secretary of the Volunteer Medical Association, in reply to a communication addressed by the Council of that Association to the Secretary of State for War :

War Office, April, 1902.

Sir,—I am directed by the Secretary of State for War to inform you that he has carefully considered the various points raised in the communication received from the Council of the Volunteer Medical Association, dated January 10th last, and in reply I am to state :

1. That while the Volunteer Medical Staff Corps officers and men have been affiliated to the Royal Army Medical Corps, under the title of the Royal Army Medical Corps (Volunteers) by Army Order 28 of 1901, and the compound title of the officers abolished, Mr. Brodrick does not consider it advisable to interfere with the position of medical officers belonging to regiments or corps. The position of these officers is quite different from that of officers of the Royal Army Medical Corps (Volunteers). The latter are of officers of a medical corps, the former are medical officers of their respective units, and the maintenance of the compound title is essential to indicate their position in their corps, and the nature of the duties upon which they are employed. Similar titles exist for the medical officers of the Brigade of Guards and Yeomanry.

2. If there is any general desire to abbreviate the title of Brigade-Surgeon-Lieutenant-Colonel, Mr. Brodrick has no objection to the omission of the word "Brigade." An officer's appointment as "senior medical officer" of a Brigade being shown in the Army List by a separate date.

3. The selection of Senior Medical Officers for duty solely on the Staff of Brigades is approved, and all such officers can in future be seconded whilst so employed, if they so desire, thus creating vacancies on the establishments of the units to which they belong. Seconded officers cannot draw capitation grant but are eligible for camp allowances.

4. Mr. Brodrick does not consider that there is any necessity for the appointment of a Volunteer Medical Officer to the office of the Director-General or as a member of the Advisory Board for Army Medical Services, as the interests of the Volunteer Medical Services are already carefully considered and safeguarded.

5. The Secretary of State does not consider it necessary to introduce additional examinations for promotion. He is, however, of opinion that the period of service required for promotion of Surgeon-Major or Major in the Royal Army Medical Corps (Volunteers) should be reduced from fifteen years to twelve, and steps will be taken accordingly.

6. The formation of the bearer companies of the Volunteer Infantry Brigades as independent units has been authorized, and Mr. Brodrick trusts that this step may be to the advantage of the whole Volunteer Medical Service and that it will add to the efficiency of the Brigades themselves.

A sergeant-instructor from the Royal Army Medical Corps will be provided for each bearer company.

Pending such appointments the temporary employment of a qualified Volunteer non-commissioned officer as instructor, with pay at 2s. a day, can be sanctioned by General Officers Commanding, under authority of War Office letter No. 0061/1044, dated February 28th, 1900.

7. The questions of the provision of equipment and the allotment of Volunteer Medical Officers for duty on mobilization are now being carefully considered,

8. The proportion of regimental stretcher bearers to each unit will remain as at present, and these men should be instructed by their own medical officers.

9. The regulations regarding uniform of all Volunteer Officers are clearly laid down in the Volunteer Regulations, and the Secretary of State sees no reason to make any alterations.

10. The rates of pay and allowances for Volunteer Medical Officers of all branches of the service have been arrived at after careful consideration, and there does not seem to be any necessity for departing from the scales approved.

Cases of an exceptional nature can always be submitted for special consideration.

11. The Secretary of State is prepared to approve of the granting of a step of honorary rank (on retirement only) under the same conditions as those in force for other branches of Volunteers up to and including the rank of Honorary Surgeon-Colonel or Colonel in the Royal Army Medical Corps (Volunteers).

I am, Sir, your obedient servant,
(Signed) E. W. D. Ward.

The Honorary Secretary,
Volunteer Medical Association,
20, Hanover Square, W.

SOUTH AFRICAN DISPATCHES.

The *London Gazette* of April 12th contains a dispatch from Lord Methuen, dated Kierksdorp, March 13th, reporting on the engagement which took place on March 7th between Tweebosch and Leeuwkuil, in the Lichtenburg district.

After describing the ends aimed at and the measures taken to ensure success, Lord Methuen describes the attack delivered by the Boers, and its results, and concludes by bringing to notice the services of officers deemed worthy of special mention. Amongst these, "Civil Surgeon Prentice," he says, "with the rearguard, and Captain Thurston, R.A.M.C., with the guns, continued bandaging the wounded throughout the engagement. Colonel Townsend, C.B., D.S.O., R.A.M.C., remained with the firing line until he had received three wounds; he has, from the commencement of the campaign, always acted most gallantly."

RANK ON RETIREMENT.

A correspondent sends us a cutting from a morning contemporary, wherein a "Retired Colonel" writes that the colonels of the combatant branches should receive on retirement the rank of major-general; as

"what annoys us colonels of the combatant branch is that we are placed in the same category as medical, veterinary, militia, and volunteer colonels by the general public, who do not know the difference." He says truly that this fully explains itself.

THE RESERVE AND THE NEW WARRANT.

A CORRESPONDENT asks what has become of the officers of the Old Reserve in the New Warrant? There is no mention of them, yet they have come up well in the time of great need and done much good work. Should they not receive some recognition from the War Office?

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN UNCOMMON DENTISTRY CASE.

A CASE of considerable interest came before Mr. Justice Kennedy and a special jury on April 10th at the Glamorgan Assizes in the form of a claim for damages against Mr J. C. Oliver, consulting dental surgeon at the Cardiff Infirmary, for alleged unskilful extraction of a tooth. The tooth in question was an upper canine, and it was alleged that "unnecessary force was used, with the result that the tooth was forced upwards into the cavity of the cheek, and became embedded in the cheek bone and the cartilage of the nose, just below the lachrymal duct." There was no doubt subsequently that the tooth was not extracted, but the forceps slipping over the conical part of the tooth, forced it up under the skin near the corner of the eye. Swelling and pain followed, and the patient was seen by several medical men, who at first failed to diagnose the unique condition, and were, moreover, misled by the statement of the patient that the tooth had been extracted. The use of the Roentgen rays, however, clearly demonstrated the condition, and the tooth was removed by a simple skin incision. The evidence of the four medical men who examined the patient was against there having been any negligence in the attempted extraction, though it appears that the dentist in question had not ascertained whether the tooth was out or not.

His Lordship held that if there was no negligence in the operation proper it did not matter about the failure to find the tooth.

The jury gave a verdict for the defendant.

PROSECUTION UNDER THE NOTIFICATION ACT.

ACCORDING to a report in the *Tottenham Weekly Herald* of April 4th, Dr. Andrew Rostant, of Northumberland Park, Tottenham, was summoned at the instance of the Edmonton Urban District Council for wilfully aiding and abetting a man named Woods in exposing himself while suffering from small pox. According to the prosecution, the man Woods had attended at the defendant's surgery for three days, on the last of which he was given a notification form to take to the house of the medical officer of health, stating that he was suffering from small-pox. It was alleged that the patient had not been told he was suffering from that disease, or given any directions as to precautionary measures. The defendant said he first formed the opinion that Woods was suffering from small-pox on January 16th, when he was attending at the surgery. Defendant then wrote out a notification form and told the man to drop it into the M.O.H.'s letter-box on his way home. He (defendant) thought thus to facilitate matters, so that the patient might be immediately removed. The Bench were of opinion that the case had been properly brought before them, but held that there could be no conviction under the circumstances.

*** The result is satisfactory, but before such prosecutions are instituted there ought to be at least evidence of gross neglect. If every practitioner who behaves, perhaps, a little unwisely, and in the hurry of professional work, gives a notification to the patient to drop into the post-box on his way home, or fails to tell him all the precautions he ought to take, is to be summoned before a magistrate, another worry will be added to professional life.

MEDICAL ETIQUETTE.

B. writes: 1. A person was suffering from scarlet fever, and was being attended at home. The medical officer of health, on making his call, informed the parents that there was an isolation hospital, and the parents desired to avail themselves of it. Has the practitioner in attendance any complaint against the medical officer of health? 2. A practitioner, A., being laid up, and his *locum tenens* not giving satisfaction, a certain patient calls in another medical man, B. Can B. continue in charge of the case after A. is about again?

*** 1. We cannot see that the medical officer of health in any way exceeded his duty. (2) If B. is attending the case for A., then it would be his duty to resign it into A.'s hands when the latter returned to his work. If, on the other hand, the patient, being dissatisfied with A.'s deputy, engaged B. to take over the case, B. would be justified in continuing his treatment of it, although it would be an act of courtesy on his part to offer to resign it to A. on his convalescence if the patient were willing.

EMPLOYERS' LIABILITY ACT.

D. W. asks: (1) Does a coachman living on his employer's premises come under the provisions of the Employers' Liability Act? (2) If not, can [illegible] the coachman at the ordinary rates, so as to be [illegible] on, as an act of charity, compensation in case of [illegible]?

*** (1) We believe that coachmen to medical practitioners do not come under the provisions of the Act. (2) It is doubtful whether our correspondent can do this; he had better let the coachman insure himself, and pay the premiums for him.

FEE FOR FRACTURE OF FOREARM.

FRACTURE wishes to know what would be a reasonable fee for putting up a fracture of the middle third of the radius, in a working man, earning about £2 per week, and for subsequent attendance at the writer's surgery, the number of attendances being 22.

*** If our correspondent were to charge an initial guinea for setting the fracture, and 2s. 6d. for each subsequent consultation, we think the charges would be reasonable.

PATENTING SURGICAL INSTRUMENTS.

R. T. T.—We should advise our correspondent to let the instrument maker register or patent the design, and secure by agreement with him his interest in it, in very much the same way as is done in the case of books with publishers. The instrument maker would probably be able to give him all the information he requires; but if he desires expert advice, he should consult a patent agent.

CONSULTATIONS WITH HOMOEOPATHS.

Y.—We believe it to be the rule for surgeons to meet homoeopaths in consultation.

UNIVERSITIES AND COLLEGES.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on April 10th, Mr. H. G. Howse, President, in the chair.

Court of Examiners.

Sir William H. Bennett, K.C.V.O., was readmitted and Mr. Frederic S. Eve, and Mr. W. Watson Cheyne, C.B., were admitted members of the Court.

Jacksonian Prize Essay.

The subject determined for the year 1903 is: The Various Forms of Conjunctivitis, their Pathology and Treatment.

Telephonic Communication.

It was determined that the College should be connected with the public telephone system, and that the arrangement of paying an annual fee of £5, with an additional charge for each message sent, be adopted (non-official messages being charged for at the time by the College).

The Holding of Special Classes by Examiners.

The following recommendations made by the Nomination Committee were adopted by the Council: (1) That it is inexpedient that any member of the Court, or of any Board, of Examiners of the College should conduct, or assist in conducting, any preparatory or special course of instruction or tutorial class—either with or without emolument—in the subject in which he is an examiner, other than his recognized and regular course. (2) That a copy of the resolution be sent to every member of the Court and of the Boards of Examiners of the College. (3) That on receipt of any application for an examinership the Secretary be instructed to forward a copy of the resolution along with the formal acknowledgement of the receipt of such application.

Examiners in Dental Surgery.

Sir William H. Bennett, K.C.V.O., and Mr. H. Cuthbert Golding-Bird were elected to the Court of Examiners in place of Mr. H. W. Page and Mr. W. J. Walsham, retired.

Members of Twenty Years' Standing.

The following were elected Fellows of the College, under Section V of the Charter of the 15th Victoria: William Henry Power, Whitehall; George Bagot Ferguson, Cheltenham.

Royal Institute of Public Health.

Mr. F. Richardson Cross was appointed delegate to represent the College at the meeting of the above, to be held in Exeter from August 21st to 26th, 1902.

Cancer Research Scheme.

The Council gave its general approval of the Draft Scheme for Cancer Research submitted by a Conjoint Committee and adopted by the Royal College of Physicians on March 24th. The scheme was published in the BRITISH MEDICAL JOURNAL of April 12th, page 921.

UNIVERSITY OF ABERDEEN.

AT the graduation ceremony on April 10th the following degrees and diplomas were conferred:

Degree of Doctor of Science (D.Sc.).—J. Moir, M.A., B.Sc. Thesis—Researches on (1) Amarine and (2) New Derivates of Pyridine.

Degree of Bachelor of Science (B.Sc.).—P. Fraser (with distinction in mathematics and natural philosophy); H. W. Malcolm (with distinction in mathematics and natural philosophy); W. H. Wishart, M.A.

Degree of Doctor of Medicine (M.D.).—A. C. Barron, M.B., C.M.—Thesis: Intestinal Sand, its Genesis and Clinical Interest; R. S. Black, M.A., M.B., C.M.—Thesis: Leprosy in South Africa, with Researches and Observations, Clinical and Pathological; H. Fraser, M.B., Ch.B.—Thesis: (1) Experiments with the Schumburg Method of Water Sterilization, (2) Hepatic Cirrhosis in Association with Multiple Adenomata [under the new regulations]; F. T. Keyt, M.B., C.M.—Thesis: Bush Therapeutics in vogue in British Honduras; A. G. Milne, M.B., C.M.—Thesis: Asthma and Allied Conditions considered with reference to Nasal Disease; J. W. Myers, M.B., C.M.—Thesis: Tobacco Amblyopia, with Analysis of 92 Consecutive Cases; J. F. Philip, M.B., C.M.—Thesis: Melancholia, an Analysis.

The Thesis of Mr. F. T. Keyt was considered worthy of "honours," and the Theses of Mess. S. R. S. Black and H. Fraser of "commendation."

Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.).—L. D. Cruickshank, First Class Honours; R. D. Keith, M.A., Second Class Honours; A. C. Reid, M.A., Second Class Honours; L. Coetzee, J. B. Elder, H. W. Elwell, G. B. Killoh, Jeannie Charlotte Macleod, A. Mahomed, J. B. Rae, A. Robertson, R. B. Robson, J. S. Rose, T. S. Slessor, M.A., J. Souter, M.A., A. Watt.

Diploma in Public Health.—W. F. Bisset, M.B., Ch.B.Aberd.; F. T. Keyt, M.B., C.M.Aberd.; E. H. Nash, M.B., Ch.B.Aberd. (with credit).

The Lord Rector's Prize in the Faculty of Medicine was awarded to H. O. Nicholson, M.D., and that in the Faculty of Science to C. M. Kerr.

UNIVERSITY OF BIRMINGHAM.

At the recent Second Examination for the degree of M.B., Ch.B., the following candidates were successful: F. T. H. Davies, F. N. Walsh, H. H. Warren.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

PAROCHIAL MEDICAL OFFICERS IN THE HIGHLANDS.

The *Northern Times* of March 22nd gives prominence to a report of a special meeting of the Parish Council of Clyne, Sutherlandshire, with reference to the request of certain ratepayers that the services of the parish doctor should be dispensed with. A deputation of the malcontents were present and stated their views in language not distinguished for its moderation. A second deputation of ratepayers was then received, who desired the services of the doctor to be retained. It appeared that a *plébiscite* of the ratepayers had been taken and that 200 voted for retaining the doctor, 14 were against and 32 neutral. The Chairman, in course of a statement read the following letter from the Local Government Board of Scotland:

Local Government Board, Edinburgh,
March 14th, 1902.

Dear Sir,—I have to acknowledge receipt of your letter dated 10th inst. in regard to the resolutions passed at public meetings against the medical officer, and to say that a parish council has no concern with their medical officer except in so far as he is medical attendant of the paupers under their charge; and, consequently, if the paupers are duly and punctually attended by the medical officer (which the Board gather from your letter is the case) they do not think that the parish council would be justified in summarily dismissing him. At the same time the parish council, from their knowledge of the circumstances, are quite entitled to consider whether it is desirable to retain any medical officer whose habits are irregular any longer than the end of the year for which he holds office; and if they consider that he should then cease to hold office, they may terminate his engagement on giving him due notice of say six weeks or two months. The parish council are not required to state their reasons to the medical officer for their action.—I am, Rev. Sir, your obedient servant,

(Signed) G. Falconer Stewart, Secretary.

A vote was taken, and by a majority the services of the doctor were retained.

We regret the terms of the letter of the Local Government Board to the Chairman. The first part of the letter was a complete and sufficient answer, and explained the position of that Board. We do not think it was necessary to refer to matters outside their cognizance, or to explain how simple a matter it is to get rid of a parochial medical officer. The grievances of Highland parochial medical officers are very many, and deserve the sympathy of all in authority.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 9,494 births and 4,971 deaths were registered during the week ending Saturday last, April 12th. The annual rate of mortality in these towns, which had been 18.2 and 17.6 per 1,000 in the two preceding weeks, further declined to 17.4 per 1,000 last week. The rates in the several towns ranged from 5.5 in Hornsey, 7.8 in Reading, 9.1 in Newport (Mon.), 10.1 in Leyton, 10.8 in Bury, 11.0 in Bournemouth, 11.1 in Wallasey, and 11.2 in Warrington to 22.1 in West Bromwich, 22.2 in South Shields, 22.3 in Barrow-in-Furness, 25.2 in Huddersfield, 25.9 in Hanley and in Merthyr Tydfil, 26.0 in Burnley, and 28.5 in Huddersfield. In London the death-rate was 17.3 per 1,000; while it averaged 17.5 in the seventy-five other large towns. The death-rate from the principal zymotic diseases averaged 2.1 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 2.6 per 1,000, while it averaged 1.9 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.3 in Hanley, 3.4 in Tottenham and in Middlesbrough, 4.0 in Stockton, 4.8 in Blackburn, 4.9 in West Ham, 5.4 in Barrow-in-Furness, and 8.0 in Burnley. Measles caused a death-rate of 1.9 in Oldham and in Rochdale, 2.1 in Willesden, 2.4 in Grimsby, 2.7 in Barrow-in-Furness, 2.8 in Blackburn, and 5.8 in Burnley; scarlet fever of 1.0 in Burton-on-Trent, 1.1 in Stockport, and 1.6 in West Bromwich; diphtheria of 1.1 in Portsmouth and in Burnley, 1.3 in Rhondda, 1.7 in Middlesbrough, and 3.3 in Hanley; whooping-cough of 2.1 in Wolverhampton, 2.4 in Devonport, 2.8 in Barrow-in-Furness, and 2.9 in Aston Manor, in Stockton, and in South Shields; and diarrhoea of 1.2 in Walsall, and 1.7 in King's Norton. The mortality from "fever" showed no marked excess in any of the large towns. Of the 94 fatal cases of small-pox registered last week, 72 belonged to London, 15 to West Ham, 3 to Tottenham, 2 to Swansea, and 1 to Walthamstow. There were 1,437 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday, April 12th, against 1,507, 1,826, and 1,522 at the end of the three preceding weeks; 274 new cases were admitted during the week, against 449, 389, and 376 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 3,137 to 2,120 at the end of the fifteen preceding weeks, had risen again to 2,140 at the end of last week; 264 new cases were admitted during the week, against 258, 250, and 228 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 12th, 1,030 births and 715 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.2 and 21.3 per 1,000 in the two preceding weeks, further rose to 22.1 per 1,000, and was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 13.9 in Leith and 20.1 in Edinburgh, to 25.1 in Aberdeen and 26.5 in Greenock. The zymotic death-rate in these towns averaged 1.7 per 1,000, the highest rates being recorded in Aberdeen, Leith, and Greenock. The 338 deaths registered in Glasgow included 2 from small-pox, 4 from measles, 4 from scarlet fever, 2 from diphtheria, 7 from whooping-cough, 3 from "fever," and 2 from diarrhoea. Three fatal cases of measles, 2 of whooping-cough, and 2 of diarrhoea were recorded in Edinburgh. Two deaths from measles and 2 from whooping-cough occurred in Dundee; 8 from whooping cough in Aberdeen; 3 from diarrhoea in Leith; and 3 from scarlet fever in Greenock.

A PUBLIC BACTERIOLOGIST FOR NOTTINGHAM.

In view of the increasing importance of bacteriological work for municipal sanitary administration, the Health Committee have recommended the City Council of Nottingham to create a special post for the execution of work of this kind. They point out the necessity for routine investigations in a bacteriological laboratory when dealing with samples of suspicious butchers' meat and other food supplies, and with a view to facilitating the diagnosis and notification of infectious diseases. Hitherto these duties have been carried out by the City Analyst and the Medical Officer of Health, who have been assisted for some time past by Dr. F. H. Jacob, Assistant Physician to the General Hospital, and have lately, owing to the pressure of other duties, been compelled to entrust the bacteriological part of the work almost entirely to Dr. Jacob. Acting on the recommendation of the Health Committee, the City Council has now appointed that gentleman bacteriologist and pathologist to the Corporation. At the Corporation Laboratory, which has already been opened, the bacteriologist is prepared to make, at the instance of registered medical practitioners, gratuitous examination of pathological material from cases of diphtheria, enteric fever, and tuberculosis (one initial examination) and such other diseases as the Health Committee may from time to time determine. Examination in respect of diseases, or suspected diseases, other than those scheduled on the gratuitous list, will also be made at a fixed scale of charges. Instructions are issued, for the benefit of those desirous of utilizing the laboratory, concerning the putting up of samples of suspected tuberculous sputum, the method of using diphtheria swabs, and the precautions to be observed in collecting blood from cases of suspected enteric fever. Outfits for the reception and transmission of infected material are to be obtained at the laboratory. For the performance of his duties to the Corporation Dr. Jacob is given a salary of £100 per annum.

COMMISSION ON ARSENICAL POISONING.

The Royal Commission on Arsenical Poisoning met on April 12th, under the presidency of Lord Kelvin, the other Commissioners present being Sir W. Hart Dyke, Sir William Church, Professor Thorpe, and Dr. Whitelegge. A representative of a Halifax firm of brewers, in the course of his evidence, stated that since the Manchester "scare" his firm had employed an analyst to analyse all the materials which had gone into the brewery, and since cases had occurred in Halifax they had taken further precautions in the way of using better fuel for malting purposes. He also stated that since the cases in Halifax they had had their beers analysed by different analysts, whose reports had differed considerably, and that brewers were dissatisfied with the present system of having a varying standard of analysis. The Medical Officer of Health for Halifax gave it as his opinion that the beer which was responsible for the cases of arsenical poisoning that occurred in the town about four months ago was contaminated by the malt, and that in the future great care should be exercised in regard to the fuel used for malting. The managing director of another firm of Halifax brewers stated that his firm were now only using anthracite for malting purposes. A maltster from Elland further said that there appeared to be a general opinion in the trade that gas coke was unsuitable for malting, and that since he had used anthracite his analysis had shown an improvement in the amount of arsenic present.

NOTIFICATION BY PRINCIPAL AND ASSISTANT.

W. writes: Two medical men meet in consultation at a case which they conclude is small pox. Should the case be notified by both of them where the medical men are: (1) Principal and assistant—principal receiving both fees; (2) principal and assistant—latter receiving his own notification fees; (3) partners; (4) working in different practices. If only one of them should notify which will be responsible for the notification, and is the one who does not notify liable to action by the public health authorities?

"*" Strictly speaking, the law requires every practitioner called to a case of notifiable disease to notify the same, and such practitioner is liable to a penalty for omitting to do so. Where, however, a practitioner knows that a case has been notified there is no occasion for a

second notification. A principal and his assistant might each notify the same case and claim a fee for so doing, but such conduct would scarcely look well in the eyes of the public.

FEES FOR MEDICAL EXAMINATION OF TRAMPS.

H. S. states that he has been requested by a Board of Guardians to visit their workhouse every evening during the prevalence of small-pox to examine the tramps before admission into the main building. He asks what we should suggest as being fair remuneration for each case; the numbers vary from two to ten a night.

*** Our correspondent does not say whether he is the appointed medical officer of the workhouse or not, nor does he tell us how far he has to travel to meet this request of the guardians; but, assuming that he lives quite near, we should think 2s. 6d. a case would be all or more than the guardians would expect to pay. Should our correspondent be the medical officer of the workhouse, it might become a question whether he could claim any extra fee for these examinations.

ISOLATION OF PATIENTS.

M.—It is the duty of the M.O.H. in all cases to offer means of isolation to those in his district. But in carrying out this duty he should always act in conjunction, as far as possible, with the patient's own medical attendant, who ought always to be informed of any such proposed removal.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL ORTHOPAEDIC HOSPITAL.

THE sixty-third annual meeting of the Royal Orthopaedic Hospital, Hanover Square, was held on April 10th, under the presidency of Mr. Harry Marks, Chairman of the Committee of Management.

Mr. Marks moved the adoption of the annual report as presented to the meeting. An amendment was moved by Mr. Reeves that the report be not adopted. After some discussion the amendment was negatived, and the original motion being put to the meeting was carried *nem. con.*

The officers for the ensuing year were then elected.

The meeting then resolved itself into a Special Court. Several proposed alterations in the rules of the institution were carried, and the Chairman moved the following resolution:

"That the agreement made by the Committee of Management for the disposal of the existing site, having received the approval of the trustees and of the Charity Commission, be ratified, and that the governors hereby authorize the Committee to take all necessary steps for the acquisition of a new site and the erection thereon of a new hospital."

He said it was probably within the knowledge of those assembled that the present building was old and ill adapted for hospital purposes. For the past six years the question of rebuilding the hospital had been under consideration, and the opinion of all who were interested in its welfare was that it was necessary. The work of the hospital had been seriously hampered, and they had on several occasions had to close wards or parts of wards owing to outbreaks of scarlet or other fever and diphtheria. During the past five years the average amount of money spent in repairs to the hospital was £432 per annum. He then gave detailed particulars of the proposals of the Committee as to the disposal of the site and the erection of a new hospital elsewhere. He said in the latter part of last year the Committee succeeded in opening negotiations with a probable purchaser of the present site, who had now offered to take it for a lease of 99 years at £1,400 per annum ground rent, the lessee to have the option of purchase within three years for the sum of £40,000. This offer the trustees considered favourable, and they recommended its acceptance; it was also considered favourable by the Charity Commissioners, who sanctioned its acceptance, and the matter was therefore for the court to decide.

The motion was seconded by Major Ricarde-Seaver.

Dr. [illegible] speaking in opposition to the motion, said that he did not impute bad faith, but he did impute unbusinesslike methods in the financial [illegible]. The reasons against the sale of the site were [illegible]. They were parting with a freehold of enormous value, [illegible] for £40,000, and a private valuation had put the value of the site at £63,000. Why not get a few distinguished men to make an inquiry, and give a verdict that could be above question? Any one buying the site would do so on insecure tenure; the trustees were responsible [illegible].

Mr. R. Biddulph Martin, Hon. Treasurer, spoke in support of the motion.

After a somewhat heated discussion in which Mr. Reeves, Mr. Flower, and others took part, Mr. Flower proposed that the question be now put, and the motion was carried. The Chairman's resolution was then put and adopted.

A vote of thanks to the Chairman for presiding brought the proceedings to a close.

OPENING OF MEDICAL WARDS IN THE CHESTERFIELD [illegible] HOSPITAL.

A NEW medical wing of the [illegible] and North Derbyshire Hospital was opened on April 9th by [illegible]. Hitherto there has been no provision [illegible] obtained from surgical, in this hospital. It was [illegible] when Alderman Edward Eastwood, J.P. [illegible] Derrant Road premises of the [illegible], and presented the structure [illegible] to the town as a hospital for [illegible]. It to be a necessity was [illegible] considerably exceeded the [illegible] males and females, [illegible]. The new wards [illegible]. The funds [illegible].

OBITUARY.

ALEXANDER MACGREGOR, M.D., C.M.,

Physician to the Mount Vernon Hospital for Consumption and Diseases of the Chest, Hampstead.

THE news of the sudden death of Dr. Alexander Macgregor at his residence in Queen Street, Berkeley Square, London, on April 12th, has come as a shock to his many friends in Aberdeen. Though a little over six years have elapsed since Dr. Macgregor left the town for London, the memory of his personality is untouched. His virile character, his personal charm, his activity in the numerous interests in which his abounding energy found vent, combined with his excellent professional skill, gave him a position among his colleagues and friends which will very long be remembered.

After graduating with honours in 1878, Dr. Macgregor spent a year as Demonstrator in Anatomy at the University; he then went abroad and studied special subjects on the medical side of the profession in Berlin and Vienna. In 1880 he settled in Aberdeen where his many qualities rapidly ensured him an extensive practice. From 1883 to 1893 he was connected with the University as assistant, first to the Professor of Medical Jurisprudence, and then to the Professor of Medicine. In 1893 he became Rector's Assessor in the University Court for the Marquis of Huntly. His power of teaching and interesting students was displayed both at the Dispensary and more especially as one of the medical staff at the Hospital for Sick Children, and his candidature for the Chair of Medicine at the University, though unsuccessful, received the warm support of a large number of graduates who had come under his influence.

There is no doubt that the Aberdeen Volunteer Medical Staff Corps is largely indebted for its success to Dr. Macgregor. For six years as Surgeon in Command of the corps he made unwearying efforts to obtain a high standard of proficiency, and by his keen interest and his own popularity introduced an excellent spirit among the men. As a Highlander he took a warm interest in the Aberdeen Highland Association, and as a politician he lent strength to the Aberdeen Unionist Association.

After removing to London he became attached to the North London Hospital for Consumption and to the Westminster Dispensary in Soho, and maintained his connection with the volunteers by joining the 19th Battalion of the Rifle Brigade.

In 1894 he married the daughter of Dr. Ackroyd, with whom and her infant daughter the deepest sympathy will be felt.

Dr. Macgregor's great popularity will be understood by all who had any acquaintance with him and his loss at the age of 48 brings a real sense of personal sorrow to many.

REGINALD HORACE CHILTON, M.R.C.S. L.R.C.P.,

Registrar to the Royal Hospital for Sick Children, Bristol.

IN the early death of Mr. Reginald Horace Chilton the profession of Bristol lose a very rising member, who, though he had yet to make his reputation, gave promise of being able to do good work in the future by his abilities and attractive manners. Only a few weeks previous to his contracting diphtheria while in discharge of his duties at the Royal Hospital for Sick Children in Bristol, Mr. Chilton had been appointed Registrar at that institution, and had thrown his energies whole-heartedly in the duties of that office. Under the care of his colleague, Mr. Frank Rose, he had successfully combated the disease in its acute stage, only to succumb to sudden cardiac failure when there was every prospect of complete recovery.

Mr. Chilton was the third son of Mr. Horace Chilton, the Deputy Sheriff of the City of Bristol, and received his medical education at the Bristol Medical School, and afterwards at Guy's Hospital, taking the diplomas of M.R.C.S. and L.R.C.P. in March, 1893. For two years 1894 to 1896 he served as House Surgeon at the Tiverton Infirmary. Intending to take the Fellowship of the College of Surgeons, he accepted a Demonstratorship of Anatomy at Cooke's School of Anatomy, and in November, 1896, passed the first examination for that diploma. He then took charge of a private patient on a voyage up the Nile, and in July and

August, 1897, acted as Medical Officer at the Pilgrim's Camp at El Tor, on the Red Sea. After holding appointments at the Bristol Royal Infirmary he acted as Demonstrator of Physiology and Lecturer on Practical Histology at the Bristol Medical School, and then entered at St. Bartholomew's Hospital to work for the Second Fellowship Examination. It was only in this year that he was appointed Registrar at the Children's Hospital, Bristol, where he contracted the disease which ended his career in such a sudden and distressing manner. Mr. Chilton had recently undertaken the duties of Secretary to the Bristol Branch of the St. John Ambulance Association.

Whereever Mr. Chilton went he was able to make himself popular, not only with his patients and among his colleagues, but by the poorer classes, among whom much of his work while in hospital practice was done; he was beloved for his kindness, forethought, and gentleness. His untimely death was greatly felt by his colleagues, who looked forward with pleasure to his assistance for many years to come.

HARRY CECIL CHAPMAN, M.B.Lond., M.R.C.S., L.R.C.P.,
Late Medical Superintendent, Mill Road Infirmary, Liverpool.

To many old Bart's men the news of Dr. Harry C. Chapman's death, though not unexpected, must have caused the most sincere regret. The deceased was one of the most brilliant students of his year, and, indeed, was an ideal student. Good at his work, good at play, Harry Chapman was one of the most popular men in a year which abounded with talent. He took one of the open scholarships in science at St. Bartholomew's Hospital in 1880, the Harvey Prize in 1882, and in the same year was Brunton Prizeman, the notes which he and others took being made use of by Sir Lauder Brunton in his well-known work on *Pharmacology and Therapeutics*. Having taken the diplomas of M.R.C.S., L.R.C.P.Lond. in 1884, he left London for Liverpool, and was appointed Junior and afterwards Senior House-Surgeon to the Stanley Hospital. Later he became Assistant Medical Officer to Mill Road Infirmary, and took the degree of M.B.Lond. In 1888 he was appointed Medical Superintendent of Mill Road Infirmary, a post which he held till 1897, when the state of his health compelled him to give up his work.

During his tenure of office the splendid infirmary and nursing home so well known amongst English Poor-law institutions was built, and there is no doubt that to Dr. Chapman much of the perfect organization of the new infirmary is due. He took the greatest interest in every detail during its erection, and his advice was made use of by the guardians, who had the fullest confidence in his judgment. Chapman's qualities gained for him a host of friends, and this was evident by the handsome testimonial presented to him when his failing health compelled him to leave England for South Africa. At most games Chapman excelled, and he was an enthusiastic exponent of the Rugby code. He played in his hospital fifteen, and was afterwards one of the finest forwards Lancashire possessed at a time when that county was most strongly represented.

For some time before resigning his duties at Mill Road his health began to give way, and at last he was obliged to retire from the post which he had filled so admirably, and with his wife and children sailed for South Africa. Here he eventually settled down at Estcourt, in Natal, as events turned out not the most comfortable place for an invalid on account of the restrictions brought about by the war. He lived there for four and a-half years, dying of the disease from which he never really rallied. His illness at the end was a painful one, but was borne with that patience and self-control which all who knew him would expect from one who in every sense of the word was a man.

Dr. Robert, a prominent member of the Spanish Chamber of Deputies, and formerly Alcalde of Barcelona, died suddenly on Thursday evening while speaking at a banquet of the municipal medical staff of Barcelona. Before he embarked on a political career Dr. Robert was Professor of Internal Pathology in the University of Barcelona. In politics he was an ardent "Regionalist," contending strongly for a very advanced form of "Home Rule" for Catalonia. He advocated not only the political administrative and economic autonomy of the province, with a local Parliament, but the official use of the Catalan language and the right of coining money. He was an eloquent speaker in Catalan, as well as in Spanish, and was greatly respected by men of all parties. In him the "Catalanista" party has lost its acknowledged leader. His death has caused universal mourning in Barcelona and throughout Catalonia.

It is with regret that we record the death of Dr. Richard Nell, of Penarth, Glamorganshire. He was born in Manchester and educated at King's College, London, where he obtained the M.R.C.S.Eng. in 1865. For over thirty years he was in practice at Penarth, where he was widely known and greatly respected, and where, in addition to a number of public appointments, he had an extensive practice. When Penarth became a separate local authority he was appointed Medical Officer of Health to the town, an office which he held until his death. He took a great interest in all public health matters, and constantly urged the erection of a permanent infectious diseases hospital for the town. Such a hospital is now about to be built. He was a past-President of the South Wales Branch of the British Medical Association. Dr. Nell had a serious illness three years ago, and never fully recovered. He died from heart failure after an illness of a week's duration.

It is with regret that we have to announce the death of Mr. Thomas Castley Bailey, M.R.C.S., L.R.C.P., J.P., which occurred on April 10th at Crewe somewhat suddenly from angina pectoris. He had been in poor health for nearly two years, and was known to have been suffering from a weak heart, but he was able to continue his work, and his death occurred while he was on his way to visit a patient. He was born at Penrith in 1840. He received his medical education in Dublin, Liverpool, and London, qualifying as M.R.C.S.Eng. and L.R.C.P.Edin. in 1867. After qualification he commenced practice in Welldon, Northamptonshire. In 1871 he removed to Crewe and became before long one of the best-known surgeons in the district. He was medical officer of health for Crewe for many years, until indeed the post was made a whole-time appointment. He was Medical Officer for the Southern Division of the Crewe District of the Nantwich Union, Certifying Surgeon under the Factory and Workshop Acts, Medical Officer to several Friendly Society lodges, and had an extensive practice not only in the borough but throughout a large surrounding district. He was for several years a member for the South Ward in the Crewe Town Council, and he was a Justice of the Peace for Crewe down to the time of his death. He was a liberal supporter of every philanthropic movement of the town, and was recognized as one of the leading townsmen, who had deservedly gained a widespread esteem. He leaves a widow, three sons, and a daughter. His eldest son is at present on active service as a surgeon in South Africa, and his second son, who had only just returned from South African service, had been assisting his father in his profession.

The death of Dr. Anderson at Stonehaven, Kincardineshire, on April 12th, at the age of 47, is regretted by a wide circle of patients and friends. For eighteen years he had practised in Stonehaven, and had held many official appointments. A useful and enthusiastic Volunteer, as well as an excellent cricketer, his position in the town was not connected only with his professional abilities, but with his excellent qualities as a man. Much sympathy will be felt for his widow and only child.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Giovanni Inzani, sometime Professor of Pathological Anatomy in the Medical Faculty of Parma; Dr. J. Schoebl, Professor of Ophthalmology in the Czech University of Prague; Dr. A. H. Gallatin, of New York, who after serving as a medical officer in the Civil War devoted himself to scientific pursuits, and at different times was Professor of Chemistry in Cooper Union, the Rensselaer Polytechnic Institute of Troy, and the University of the City of New York, aged 63; and Dr. Ivan Balinski, a leading authority on mental diseases in St. Petersburg.

MEDICAL NEWS.

THE annual dinner of the Pharmaceutical Society of Great Britain will be held at the Whitehall Rooms, Hôtel Métropole, London, on Tuesday, May 27th.

MEDICAL MAGISTRATE.—At the Cornwall Quarter Sessions held at Bodmin on Tuesday, April 8th, Mr. J. Telfer Thomas, L.R.C.P., M.R.C.S., of Penvean, Camborne, was sworn in as a Justice of the Peace for the county.

MIDWIVES IN NEW YORK.—The prevalence of the midwife in New York City is shown by recent statistical returns. In 80,735 births reported during the past year, the patients were ministered to in 42,253 cases by medical practitioners, and in 38,482 by midwives.

FRENCH MEDICAL CONGRESS.—At the close of the French Medical Congress held lately at Toulouse, it was decided that the next meeting should be held in Paris in 1904 under the presidency of Professor Jaccoud. The questions proposed for discussion are: (1) Mercurial injections: (2) clinical forms of obesity; (3) arterial pressure in disease.

THE SALE OF OPIUM AND DRINK TO SAVAGES.—According to *American Medicine*, negotiations are in progress between the American and British Governments, having for their object to extend an invitation to all commercial nations to forbid the sale of opium and all alcoholic liquors to savage and aboriginal peoples.

A NEW Royal Ark Mariners' Lodge was constituted by warrant from the Grand Lodge of Mark Master Masons of England at Umballa, India, on March 6th, under the title of "Lodge Blackham." The Lodge is named after its first Worshipful Commander N., Captain R. J. Blackham, Royal Army Medical Corps, who is the Master of the Mark Lodge to which the new Lodge is moored.

MCGILL UNIVERSITY, MONTREAL.—In McGill University there are 490 medical students in attendance on lectures during the present session. The Medical Faculty has decided to ask the Dominion Government in the present session of Parliament to enact a law making a five years' course in medicine compulsory. The present curriculum extends over four years.

PUBLIC WORK FOR WOMEN.—At a representative meeting recently held in Aberdeen, Dr. Farquharson, M.P., presiding, a resolution was adopted, on the motion of Principal Lang, declaring that women should be eligible to serve on educational Boards and authorities. A resolution was also passed in favour of women sanitary inspectors; and it was further agreed that an Association should be formed in Aberdeen for the formation and the enlarging of the sphere of women's public work. Officials and office-bearers were elected.

GERMAN OTOLOGICAL SOCIETY.—The German Otological Society will hold its annual meeting this year at Treves on May 16th and 17th. Among the subjects proposed for discussion are the Treatment of Acute Otitis Media (to be introduced by Professors Bezold of Munich and Korner of Rostock); Injuries to the Organ of Hearing and the Estimation of Damages for Loss caused thereby in relation to the Law of Assurance against Accidents (to be introduced by Dr. Ropke of Solingen). Communications should be addressed to the Permanent Secretary, Dr. Arth. Hartmann, 8, Roonstrasse, Berlin, N.W.

INTERNATIONAL CONGRESS ON ASSISTANCE FOR THE INSANE.—An International Congress on the Provision of Assistance for the Insane, especially in families, will be held at Antwerp, September 1st to 7th, under the presidency of the Belgian Minister of Justice, M. Van der Heuvel. Among the vice-presidents are M. Lejeune, formerly Minister of Justice; Count de Mérode-Westerloo, Senator and formerly Minister for Foreign Affairs; and M. V. Begerem, formerly Minister of Justice. All communications should be addressed to Dr. F. Sano, General Secretary of the Organizing Committee, 2, Rue Montebello, Anvers, Belgique.

THE report for 1901 of the London Mission Hospital and Leper Asylum at Hiau-Kau, Central China, states that the year began with famine, and that malignant small-pox followed. The resources of the hospital were quite inadequate, but patients would not go away and had to be accommodated on forms or on the floor, anywhere they could find room. Dr. Henry Fowler, the medical superintendent, treated some 3,000 persons as out-patients and nearly 200 in patients during the year. Though asepsis is quite foreign to Chinese notions, the surgical cases, over 600 in number, gave satisfactory results. The 53 cases of opium poisoning were the least satisfactory. The abuse of this drug causes a moral obliquity which makes it very difficult to keep the patient from the drug, and only one of the cases could be called cured.

THE SPITTING NUISANCE IN AMERICA.—The municipal authorities of New York appear determined to apply the system of "thorough" in dealing with the spitting nuisance. At the end of March fifty persons charged with expectorating in public places were tried at special sessions. Eighteen were discharged because at the time of the arrest they had been locked up for six hours or longer. The remaining thirty-two were fined 5 dollars (£1) each. A Bill is now before the Maryland Legislature which makes it unlawful for any persons to spit on the floors, sides, seats, or platforms of any railroad or railway passenger cars in the State. It provides a penalty of 3 dollars and costs, or imprisonment for a period not exceeding five days. When the fine is paid, one-half of it goes to the person furnishing the evidence upon which the offender is convicted. Conductors and brakemen are given authority to arrest offenders and take them before the nearest justice of the peace at the end of their run, and such justices are given final jurisdiction in the case.

PRESENTATIONS.—Dr. Mark Jackson was recently, on the occasion of his leaving Barnstaple, presented with an artistic address enclosed in a handsome album by the pastor and fellow-deacons of Barnstaple Congregational Church. The members of the church also presented to Dr. and Mrs. Jackson a handsome silver inkstand, with cut-glass bottles and silver pen, "as a slight expression of their esteem." A number of residents of Barnstaple presented a complete set of table silver and a beautifully chased silver tea kettle (with spirit lamp), contained in a handsome oak cabinet, with a plate on the top bearing the borough arms and the following inscription: "Presented to Dr. Mark Jackson, for sixteen years Medical Officer of Health for the Borough of Barnstaple, on his leaving North Devon, by residents in the town and district, as a token of personal esteem and in recognition of his numerous public services, as well as of his kindly and sympathetic discharge of his professional duties as a medical practitioner." The presentation was made by the Mayor.—On April 3rd, Dr. John Bernard Gabe, of Morriston, South Wales, was entertained by a number of his fellow citizens at a banquet, when an address expressing high appreciation of his services during a professional career in the town of twenty-eight years was offered to him. A presentation was made at the same time, consisting of a silver tea and coffee service, silver kettle and tea tray, a case of twelve silver spoons and sugar tongs, a silver-mounted ebony walking stick, and an album with the autographs of the subscribers.—At a public meeting held in Salen on April 2nd, under the presidency of The Maclaine of Lochbuie, Dr. Duncan Macdonald, late Medical Officer for the Parish of Tovosay, Isle of Mull, was presented with an illuminated address, and a purse of 102 sovereigns, on the occasion of his leaving the district for Oban.

MEDICAL VACANCIES.

The following vacancies are announced:

ARGYLL AND BUTE ASYLUM, Lochgilphead.—Assistant Medical Officer. Salary, £130 per annum, and all found. Applications to the Medical Superintendent.

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—House Surgeon; unmarried. Salary, £50 for first year, rising to £100, with board and furnished apartments. Applications to the Secretary by May 1st.

BIRMINGHAM AND MIDLAND SKIN AND URINARY HOSPITAL.—Surgical Assistant. Appointment for six months, but eligible for re-election. Honorarium at the rate of 50 guineas per annum. Applications to the Secretary.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools, unmarried. Salary, £120 per annum, with furnished apartments, rations, washing, etc. Applications on forms provided to be sent to the Clerk to the Guardians, Union Offices, Isleworth, by April 29th.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence. Applications to Mr. John Coombs, Honorary Secretary.

CAMBRIDGESHIRE, ETC., LUNATIC ASYLUM, Fulbourn.—Assistant Medical Officer, unmarried. Salary, £150 per annum, with board, lodging, and attendance. Applications to the Clerk to the Visitors, 18, Emmanuel Street, Cambridge, by April 21th.

CANCER HOSPITAL, Fulham Road, S.W.—Junior House Surgeon. Salary at the rate of £70 per annum, with board and residence. Applications to the Secretary by May 12th.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Honorary Surgeon. Applications to the Secretary by April 25th.

CARLISLE: CUMBERLAND AND WESTMORLAND ASYLUM, Garlands.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £130 per annum, rising to £150, with board and lodging. Applications to the Medical Superintendent.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Registrar. Honorarium, 30 guineas per annum. Applications to the Secretary by May 10th.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer, unmarried. Salary, £120 per annum, rising to £150, with board, furnished apartments. Applications to the Medical Superintendent by April 25th.

COSFORD UNION.—(1) Medical Officer and Public Vaccinator for the Bildeston District. Salary, £72 per annum, and fees. (2) Medical Officer of the Workhouse. Salary, £50 per annum, and fees. Applications to be sent to the Clerk to the Guardians by May 1st.

DUBLIN: SIR PATRICK DUN'S HOSPITAL.—Assistant Physician. No salary. Applications to the Secretary of the Medical Board before May 1st.

DUDLEY: GUEST HOSPITAL.—Assistant House Surgeon. Appointment for six months. Salary at the rate of £40 per annum, with residence, board, and washing. Applications to the Secretary by May 5th.

DURHAM COUNTY ASYLUM, Winterton, Ferryhill.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180, with apartments, board, laundry and attendance. Applications to the Medical Superintendent.

DURHAM COUNTY HOSPITAL.—(1) House-Surgeon. Salary, £120 per annum. (2) Assistant House-Surgeon. Salary, £65 per annum. Board and lodging provided in each case. Applications to the Secretary, 68A, Saddle Street, Durham.

GREENWICH UNION INFIRMARY.—Junior Assistant Medical Officer; unmarried. Salary, £100 per annum, with board, lodging, washing, and attendance, and £3 in lieu of beer. Applications, on forms provided, to be sent to the Clerk to the Guardians, Union Offices, Greenwich, S.E., by April 24th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HAMMERSMITH PARISH.—Visiting Medical Officer for temporary Infirmary at Ducane Road, Wormwood Scrubbs. Salary, £50 per annum. Applications, on forms provided, to be sent to the Clerk to the Guardians, 73, Fulham Palace Road, Hammersmith, W., by April 19th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Senior Clinical Assistant. Applications to the Secretary-Superintendent by May 10th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House Surgeon; unmarried. Appointment for six months. Salary, £20. Washing allowance, £2 10s., with board and residence. (2) Medical Registrar. Honorarium, 50 guineas per annum. Applications on forms provided to be sent to the Secretary by April 29th.

ISLE OF MAN: KING WILLIAM'S COLLEGE.—Medical Officer. Applications to the Secretary by May 1st.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, residence and washing. Applications to the Chairman of the Weekly Board by April 25th.

LISCARD: WALLASEY DISPENSARY AND VICTORIA CENTRAL HOSPITAL.—House-Surgeon, unmarried. Salary, £100 per annum, and board. Applications to Mr. Andrew Lindsay, Newbold, Liscard, Liverpool, by April 26th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Hon. Treasurer by April 25th.

LONDON COUNTY ASYLUM, Horton, near Epsom.—Junior Assistant Medical Officer; unmarried, between 23 and 30 years of age. Applications, on forms provided, to be sent to the Clerk of the Asylums Committee, 6, Waterloo Place, S.W., by April 19th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of 50 guineas per annum, with board, residence and washing. Applications to the Secretary by May 1st.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House-Surgeon. Honorarium at the rate of £50 per annum and board. Applications to Mr. George W. Fox, 53, Princess Street, Manchester, by April 24th.

NATAL: BOROUGH OF DURBAN.—Medical Officer of Health, must possess public health qualification (B.Sc. or D.P.H.) Salary at the rate of £750 per annum. Applications to Messrs. Webster, Steel and Co., 5, East India Avenue, Leadenhall Street, E.C.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, £180 afterwards. Applications, on forms to be obtained from the Resident Medical Officer, to be sent to the Honorary Secretary, Mr. Joseph Carr, 41, Mosley Street, Newcastle-on-Tyne, by April 21st.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon, unmarried. Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc. Ladies not eligible. Applications to the Secretary, Mr. M. J. Preston, Journal Chambers, Nottingham.

NOTTINGHAM PARISH INFIRMARY.—Assistant Medical Officer. Salary, £160 per annum, and furnished rooms. Applications to the Clerk to the Guardians, Poor Law Offices, Shakespeare Street, Nottingham.

PORTSMOUTH ROYAL HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum, with board and residence. Applications to the Secretary by April 25th.

PUBLIC DISPENSARY, 59, Stanhope Street, Clare Market.—Resident Medical Officer. Salary, £105 per annum, with furnished apartments, coals, and gas. Applications to Mr. J. Phillips, Secretary, 14 and 15, Portugal Street, Lincoln's Inn, W.C., by May 3rd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Four Examiners in Elementary Biology, first examination; (2) Four Examiners in Anatomy, second examination, must be F. or M.R.C.S.; (3) Three Examiners in Physiology, second examination; (4) Four Examiners in Midwifery, third examination; (5) Examiner for Part I. and Examiner for Part II. for the Examination in Public Health; (6) Four Examiners in Anatomy; (7) Four Examiners in Physiology. Vacancies 1 to 5 are for Conjoint Examining Board, and 6 and 7 are for the Fellowship. Applications to the Secretary by April 28th.

SCOTTISH PRISON SERVICE.—Resident Medical Officer at Peterhead. Salary, £250 per annum, with house. Applications to the Prison Commissioners for Scotland, Rutland Square, Edinburgh, by April 21st.

STOCKPORT INFIRMARY.—Assistant House and Visiting Surgeon. Salary, £80 per annum, with board, washing, and residence. Applications to the Secretary by April 20th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried, and about 30 years of age. Salary, £150 per annum to commence. Applications to Dr. Finch.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House Surgeon. Appointment for six months. Salary at the rate of £60 per annum, with board, lodging, and laundry. Applications to the Honorary Secretary.

TOWER HAMLETS DISPENSARY, White Horse Street, E.—Resident Medical Officer. Salary, £150 per annum, with furnished rooms, etc. Applications, marked "R.M.O.," to be sent to M. C. Corner, Esq., J.P., at the Dispensary.

TYNEMOUTH INFIRMARY.—Two House-Surgeons, one on May 1st and the other on October 1st. Salary, at the rate of 52 guineas per annum, with rooms, board, and washing. Appplications to Dr. F. C. Mears, 11, Northumberland Square, North Shields.

WARLINGHAM LUNATIC ASYLUM.—Medical Superintendent. Salary, £450 per annum, with unfurnished house, etc. Applications, endorsed "Applications for Medical Superintendent, Lunatic Asylum," to be sent to the Clerk to the Visiting Committee, Town Hall, Croydon, by May 7th.

WEST END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—Honorary Dental Surgeon. Must be L.D.S.Eng. Applications to the Secretary by April 22nd.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Second House-Surgeon; unmarried. Salary, £80 per annum, with board, residence, and laundry. Applications to the Honorary Secretary.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Honorary Officer in charge of X-Ray Department, must be registered. Applications to the Secretary-Superintendent by April 23rd.

WESTMINSTER HOSPITAL, S.W.—Surgical Registrar. Salary, £50 per annum. Applications to the Secretary by April 30th.

MEDICAL APPOINTMENTS.

ASHDOWN, Geo. W. W., M.D.Edin., appointed District Medical Officer of the Belper Union.

BALLACHEY, R. H., L.R.C.P.Edin., M.R.C.S.Eng., appointed District Medical Officer of the Sleaford Union.

BJORNSON, O., M.D., C.M.Manitoba, appointed Clinical Assistant to the Chelsea Hospital for Women.

BRANDSON, B. J., M.D., C.M.Manitoba, appointed Clinical Assistant to the Chelsea Hospital for Women.

HORNE, Maynard, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed Assistant Anaesthetist to the National Orthopaedic Hospital, Great Portland Street, W.

HUNTER, Miss Jessie S. B., M.B., appointed Assistant Medical Officer of the Lawn Hospital for Insane, Lincoln, *vice* Mr. K. D. Cooper, resigned.

JARDINE, Robert, M.D.Edin., M.R.C.S.Eng., F.F.P. & S.Glasg., F.R.S.Edin., reappointed Obstetric Physician to the Glasgow Maternity Hospital.

JEFFERY, H. Foster, M.B., Ch.B.Vict., appointed Honorary Surgeon to Bury Infirmary and Police Surgeon for Heywood.

JUDSON, J. E., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Ashton-under-Lyne Infirmary.

M'GREGOR, J., M.D.Glasg., appointed Medical Officer to the Kyle Union Poorhouse Board, *vice* G. M'Kerrow, M.B., C.M.Glasg., retired.

MATSON, J. A., B.A., M.D.Univ. Dub., L.R.C.P.I., appointed Assistant Physician to the Richmond, Whitworth, and Hardwicke Hospitals.

MOORE, J. T., L.R.C.P., L.R.C.S.Edin., appointed Assistant Medical Officer to the Liverpool Parish Workhouse.

ORMEROD, Arthur Latham, M.D., D.P.H.Oxon., appointed Medical Officer of Health for the City of Oxford, and Superintendent of the Corporation Hospitals.

ROBINSON, Edward S., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer of Health to the Stourport Urban District Council.

ROBSON, R. B., M.B.Durh., appointed Medical Officer of Health to the Alnwick Urban District Council.

SIMMONS, G. A., M.D.Lond., appointed District and Workhouse Medical Officer of the St. George's Union.

TAYLOR, F. E., M.B., Ch.B.Vict., M.A., M.Sc., M.R.C.S., L.R.C.P., appointed Pathologist to the Chelsea Hospital for Women.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. William Ewart and Mr. A. S. Morley: On the Possibility of Recovery from the Active Stage of Malignant Endocarditis, illustrated by cases and specimens. With adjourned Discussion on a Contribution to the Study of Malignant Endocarditis.

THURSDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 8 p.m.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Mr. R. Johnson: Some Points in the Treatment of Tuberculous Disease of the Knee. Dr. L. Guthrie: Congenital Hereditary Haematuria. Clinical Cases.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8 p.m.—Exhibition of Clinical Cases followed by Discussion. Patients will be in attendance from 8 p.m. to 9 p.m.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Thresh: Small-pox Hospitals and the Spread of Infection.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, throat.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

THOMSON.—On April 14th, at 14, Coates Crescent, Edinburgh, the wife of John Thomson, M.D., F.R.C.P.Edin., of a daughter.

MARRIAGES.

ADDISON—STUTFIELD.—On Saturday, the 12th April, at St. Lawrence, Wormley, by the Rev. P. W. Greenstreet, Rector, Hugh Cecil Addison, M.R.C.S.Eng., L.R.C.P.Lond., of 104, Midland Road, Bedford, only son of William Addison, of Broxbourne, to Marguerite Mary, oldest daughter of the late Barton Stutfield, of Wormley.

DAY—COCHRANE.—At St. Peter's Church, Dublin, by the Rev. S. Robinson, M.A., Lieutenant-Colonel J. D. Day, late R.A.M.C., son of the late A. M. Day, Dublin, to Margaret Louisa, daughter of Sir Henry Cochrane, D.L., [illegible].

RUTHERFORD—MITCHELL-WITHERS.—On the 10th instant, at St. Michael's, Retford, by the Rev. Canon Gray, M.A., assisted by the Rev. C. V. Collier, F.S.A., Allan Freer Rutherford, M.B., of Barrow-in-Furness, second son of James Rutherford, M.D., J.P., Crichton House, Dumfries, to Beatrice, younger daughter of the late J. B. Mitchell-Withers, of Parkhead, Sheffield.

SUTCLIFFE—SMITH.—On the 9th instant, at St. Catherine's Church, Old Colwyn, North Wales, by the Rev. J. Griffiths, M.A., assisted by the Rev. Ellis Davies, B.A., John Sutcliffe, Surgeon, Cheadle, Cheshire, to Antoinette Emma, only daughter of John Salmon Smith, Old Colwyn.

DEATHS.

ANDERSON.—At Lochengair, Stonehaven, N.B., on the 12th April, John Hector Anderson, M.D., Aberdeen, aged 48.

MACGREGOR.—Suddenly, at 8, Queen Street, Berkeley Square, London, on April 12th, Alexander MacGregor, M.D.Aberd., M.R.C.P., London, J.P.

MAYO.—On April 7th, at Spitalgate House, Grantham, Eleanor, wife of A. C. Mayo, St. George's Park House, Great Yarmouth, aged 59 year

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MEDICAL PRACTITIONER asks: Is there any philanthropic institution (preferably in the North of England), not an almshouse, where an invalid lady in reduced circumstances, requiring some nursing, could be admitted for a lengthened period as a patient, though unable to pay more than £15 to £20 a year?

INCOME TAX.

A CORRESPONDENT writes that he is an assistant in receipt of £100 per annum, but that he has also private means, so that this salary comes under assessment for income tax. His principal, in returning deductions from income tax, puts expenses of assistant at £200 per annum—namely, £100 for salary and £100 for board, etc. He wishes to know whether he has to pay on the £100 received, or on the £200 returned by his principal.

*** Our correspondent need not trouble about his principal's return. He will probably receive a demand assessed on the salary he actually receives.

ANSWERS.

CASPAR.—We have failed to obtain any information as to the secret remedy mentioned. It is unknown to a leading firm of chemists in the district.

N. S.—There is nothing in the chemical treatment, apart from the texture and the nap or fluffy surface of the cheap flannelette hitherto in use, that renders it liable to flare up quickly when lighted.

MR. G. F. SYDENHAM (Dulverton) writes: A patient, aged 15, has had an undescended testicle removed. Would this disqualify him for a commission in the Army?

*** We are advised that the condition described would not disqualify. But it would be well for the candidate to take with him a certificate as to the cause of the operation, in case questions should be asked.

REMOVAL OF SUPERFLUOUS HAIRS.

IF "Country Practitioner" will refer to p. 131 of the BRITISH MEDICAL JOURNAL for January 12th, 1901, and to p. 311 in the issue of February 1st, 1902, he will find information as to the removal of hairs by electrolysis. About 2 or 2.5 milliampères of a galvanic current are used, the negative electrode, a fine platinum wire, being introduced into each hair follicle.

LETTERS, NOTES, ETC.

ERRATUM.—In the BRITISH MEDICAL JOURNAL of April 12th, p. 920, the second and third lines from the bottom in column 1 were accidentally transposed. They should be the first two lines of the same column.

CASE OF TRANSPOSITION OF THE VISCERA.

DR. J. A. PARSONS (Market Overton, Oakham) writes: I have under my observation at present an interesting case of transposition of the viscera in a boy, aged 14. The apex beat of the heart is in the fifth interspace on the right side, 1 in. internal to the nipple line. The area of cardiac dullness is about equal to what it would be were the heart normally situated. The liver is also transposed to the left side; its lower edge reaches about 2 in. below the costal margin, and it extends further into the epigastric region than when in its normal position. The relations of the other organs I am unable to determine on account of rigidity of the abdominal walls under examination. Can any reader give me information as to the frequency and causation of the condition?

CANCER IN CATS.

CAPTAIN J. E. CARTER, R.A.M.C., writes: I should like to offer to investigators on this subject a line of thought which often occurs to me, and which I am not aware has received the attention it deserves. It is, I think, an acknowledged fact that cancer very seldom makes its appearance earlier than (or well on in) middle life. Now, if we accept this as a fact, how do the different theories of cancer stand? This fact seems to be inimical to all theories implying a "chance" infection, such as a bacterial theory, as exemplified in phthisis, pneumonia, cholera, etc. (though perchance it might not exclude an origin caused by a long course of septic absorption, constantly renewed, due to the agency of a bacillus).

On the other hand, this fact favours a theory which presupposes the effects of a poison long continued; the cumulative effect of a poison-cancer would then resemble goitre in its origin. The theory of cancer being caused by the ingesta (food or drink) would fall into line with this fact, as also would Pott's chimney-sweeper's cancer, for the same reason, though here perhaps we might substitute for "age" a "lengthy period of subjection to the poison."

To an inductive reasoner cancer offers, alas, only too few bed-rock facts; however, this seems to be one, and my object is, if possible, to expose it more to the daylight, for it appears to me that any theory which will not bear to be compared with this fact must *ipso facto* be rejected.

COMMUNICATIONS, LETTERS, ETC., have been received from:
A Messrs. Arnold and Sons, London: Associat on of Registered Medical Women, Secretary of, London; Mr. A. Aikman, Edinburgh; A.J.W. **B** Dr. R. L. Bowles, London; Mr. F. W. Bailey, London; Dr. A. Bronner, Bradford; Mr. J. B. Blackett, London; Borax; Dr. H. C. Bastian, London; Messrs. C. Barker and Sons, London; Mr. F. Boehm, London. **C** Mr. E. R. Coffey, Farnham; Dr. A. C. Coles, Bournemouth; Country Doctor. **D** Mr. W. H. Date, Culmstock. **F** E. R. Fotheringill, M.B., Tunbridge Wells. **G** G. Govan, M.B., Cockermouth; Mr. A. I. Garland, Oamaru, N.Z.; Mr. M. P. Gabe, Merthyr Tydfil; Guy. **H** Dr. G. A. Heron, London; J. W. Hyslop, M.B., Menston; The "Hairdressers' Weekly Journal," Editor of the, London; Mr. E. A. Hunt Colchester; Mr. E. Hill, Pietermaritzburg; H.D.; H H.; Mr. T. Hawksley, London. **J** Mr. F. Jaffrey, London; Dr. E. J. T. Jones, Aberdare; Jorbar; Dr. F. Jepson, Durham. **K** Dr. G. S. Keith, Currie. **L** Dr. L. Lyttle, Southport; Liverpool Medical Institution, Secretary of, Liverpool; L.A.H.L.; Mr. C. J. N. Longside, London. **M** Medical Practitioner; Mr. D. M. Muir, Glasgow; Mr. M. Mackenzie, Stornaway; Dr. J. J. Macan, Cheam; Mr. W. J. Middelton, Bournemouth; M.B., B.C.; Mr. J. C. McWalter, Dublin; M.O.H.; Dr. G. D. McReddie, Greenhithe; J. W. Miller, M.B. Liverpool. **N** G. P. Newbolt, M.B., Liverpool. **P** Mr. H. J. Prangley, London; Messrs. Parke, Davis and Co., London; Dr. J. J. Ridge, Enfield. **S** Mr. G. F. Sydenham, Dulverton; Mr. C. Spurrell, London; Dr. G. W. Scott, Sunderland; Dr. L. W. Sterne, London; R. W. I. Smith, M.B., Sheffield; E. G. Sworder, M.B., Folkestone; Mr. W. S. Stevens, Aldershot; Mr. T. W. Shephera, Launceston; J. P. Scatchard, M.B., Tadcaster; Swiss Milk Society, Director of, London. **T** E. Turton, M.B., De Aar; Mr. J. T. Thomas, Camborne; Miss M. Thorne, M.D., London; Mr. J. S. Turner, London; Mr. P. V. Timothy, Longton. **V** Dr. F. C. Valentine, New York; V.M.O. and A.M.R. **W** Dr. J. W. Washbourn, C.M.G., London; D. C. Watson, M.B., Edinburgh; Dr. R. R. Wade, Tunbridge Wells; Mr. C. Williams, London; Mr. W. B. Winckworth, Taunton. **Z** Zephyr.

BOOKS, ETC., RECEIVED.

The Law Relating to Factories and Workshops. Part I. A Practical Guide to the Law and its Administration. By May E. Abraham (Mrs. H. J. Tennant). Part II. The Acts, with Notes. By A. L. Davies, LL.B. Fourth Edition. London: Eyre and Spottiswoode. 1902. 5s.

Malarial Fever, its Cause, Prevention, and Treatment. By R. Ross, F.R.C.S., D.P.H., F.R.S. Ninth Edition. London: Longmans, Green and Co. 1902. 2s. 6d.

Tommy Cornstalk. By J. H. M. Abbott. London: Longmans, Green and Co. 1902. 5s.

Bullen's Campaign with the Natal Field Force of 1900. By E. B. Knox, B.A., M.D. London: R. B. Johnson, 1902. 10s. 6d.

Applied Religion. By W. W. Hall. London: R. B. Johnson. 1902. 3s. 6d.

Manual of Military Ophthalmology. By M. T. Yarr, F.R.C.S.I. London: Cassell and Co. 1902.

The Health Officer's Pocket-Book. By E. R. Willoughby, M.D., D.P.H. Second Edition. London: Crosby Lockwood and Son. 1902. 10s. 6d.

Diagnostic en Traitement des Maladies Infectieuses. Par Dr. J. Schmitt. Paris: J. B. Baillière et Fils. 1902.

An Industrious Chevalier. By S. Squire Sprigge. London: Chatto and Windus. 1902.

The Method of Cuignet or Retinoscopy. By E. H. Lendon, M.A., M.D. London: Baillière, Tindall and Cox. 1902. 10s. 6d.

Les Champignons Parasites de l'Homme. Par E. Bodin. Paris: Masson et Cie.; Gauthier-Villars.

La Syphilis. Par le Dr. Youzelle. Paris: Masson et Cie.; Gauthier-Villars.

Handbuch der Krankenversorgung und Krankenpflege. Von Dr. Georg Liebe, Dr. Paul Jacobsohn, Professor Dr. George Meyer. Berlin: August Hirschwald. 1902. M. 24.

Traité de Medecine et de Thérapeutique. Par MM. P. Brouardel et A. Gilbert. Tome Neuvième. Paris: J. B. Baillière et Fils. 1902.

The Education of the People and the Bill of 1902. London: P. S. King and Son. 6d.

Etude Critique sur le Tic Convulsif et son Traitement Gymnastique. Par Dr. René Cruchet. Bordeaux: G. Gounouilhou. 1902.

Encyclopaedia Medica. Volume X. Under general editorship of Chalmers Watson, M.B., F.R.C.P.E. Edinburgh: William Green and Sons. 1902.

"Le Mal de Mer." Sous la direction du Dr. Madeuf. Fr. 3.

Motors and Motor Driving. By Alfred C. Harmsworth. London: Longmans Green and Co. 1902. 9s.

*** Inforwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	£0 4 0
Each additional line	...	...	0 0 6
A whole column	...	...	1 17 6
A page	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

VACCINATION AND COMMON SENSE

*An Address delivered at the Annual Meeting of the Subscribers to the Hospital Saturday Fund at the Mansion House on March 22nd, 1902.**

By T. D. ACLAND, M.D.Oxon.,
Physician to St. Thomas's Hospital.

Ladies and Gentlemen,—A great responsibility has been imposed upon you: that of judging in what way you will endeavour to protect yourselves and your children against small-pox. It is a duty which you owe to the great community, of which each one of you is a member, to come to a right decision, and you cannot avoid the responsibility.

I can well believe that, with all the conflicting and inaccurate statements which are made about vaccination, you must find it difficult to arrive at any sound conclusion on the subject.

I thank you for the opportunity which you have given me of putting before you some of the evidence, which has been sufficient at any rate to convince myself, that of all the weapons which have been devised for fighting small-pox, vaccination is the most efficient and the least harmful, and that there is absolutely no known substitute.

It has been maintained that other means, such as sanitation and quarantine, are more effectual safeguards against the disease than vaccination, and that to these is due the diminution in the death-rate from small-pox which has taken place during the last century.

As I shall show you, this diminution in the fatality from small-pox is in this country mainly in the early years of life. If it were due to sanitation, the same beneficent results ought to be shown in the death-rate from other diseases which are rightly considered as infantile disorders. But this is not the case. On the contrary, although the share of small-pox mortality borne by children (under 5 years of age) diminished greatly between 1851-1880, during which years vaccination was made compulsory, there is no corresponding diminution in the share of the death-rate in children of the same age from other infantile disorders, such as measles, scarlet fever, diphtheria, etc. The actual figures are given in the following table, quoted from McVail,[1] which shows how the contributions made by children under 5 years of age to the total mortality from each disease have altered.

Table I.—*Showing that if the Death-rate as given at all Ages be taken as Unity, then the Death-rate for Children under 5 Years of Age will be as follows:* *

	1851-60.	1861-70.	1871-80.
From all causes	3.0	3.0	2.9
,, *small-pox*	4.7	4.0	2.2
,, measles	6.8	6.8	6.8
,, scarlatina	4.7	4.7	4.8
,, diphtheria	4.0	4.1	3.9
,, whooping-cough	7.2	7.2	7.1
,, fevers (including typhus, typhoid, and ill-defined)	1.5	1.4	1.3
,, diarrhœa	4.9	5.0	6.1

* Calculated from pp. 112-114 of the Registrar-General's Supplement to the Forty-Fifth Annual Report, 1871-80.

It will be seen that whilst the proportion of deaths from small pox contributed by infants has so greatly diminished, there is no corresponding diminution in the other infantile disorders mentioned, and in two the proportion is actually greater.

It would seem then probable, at any rate, that there must be some other agency than sanitation at work to account for the diminution in the infantile death-rate from small-pox. It has been suggested that quarantine and the isolation of all those who have been exposed to the infection of small-pox would suffice to stay a local outbreak; but in any large community such means are impossible and hopelessly inadequate, and must break down as they did under the very limited strain of the local outbreak at Leicester in 1893; and even if they were adequate, it is difficult to see why the protection should be exerted especially on the children and not on the adults, since small pox was, and now is, amongst the unvaccinated, a disease falling with special severity on the earlier years of life. There must be some other factor at work. I will endeavour to lay before you some of the evidence there is to show that this factor is vaccination.

You will hear all kinds of bad things said about vaccination of which I will tell you a few.

1. It is said that, as vaccinia and small-pox are totally distinct diseases, it is impossible for vaccination to protect against small-pox.

2. That vaccinia is nothing but small-pox artificially transmitted through the cow, and that statistics show that not only does vaccination not protect against small-pox, but that it actually causes that disease.

Now I think you will admit, in fact we must all admit, that these statements, being diametrically opposed to each other, cannot both be true: I will only, therefore, add a few words of practical criticism on each of them.

As to the first statement, "That vaccination cannot protect against small-pox because it is a totally distinct disease," every one who thinks at all will allow that, if it can be shown that vaccination does in fact afford protection, this objection falls to the ground.

As to the second point, "That vaccination does not protect against small-pox but actually causes the disease," I can speak with some confidence, since for seven years I was Medical Officer to the Royal Commission on Vaccination, and was engaged in making inquiries into vaccinal injuries throughout the length and breadth of the kingdom. During that period many millions of vaccinations were performed, and I have never seen or heard of an authentic case of small-pox resulting from vaccination in this country.

3. There is still a third objection which is frequently urged against vaccination, namely, that the harm done by it and the risks which it involves are so great that there is no justification for a practice productive only of evil and powerless for good.

If you will have patience with me, I will endeavour to show you how very far from the truth both these statements are. Before doing so, however, I should like to say that we know, even if all goes well, that a vaccinated child suffers something, and is an increased care and anxiety to an often overworked mother. No one can sympathize more than I do with the trouble and distress which may thus come to mother and child through the second week of even a normal vaccination. Sometimes, when all does not go well—when there is inflammation of the arm, or ulceration of the pocks—the burden thus imposed on the mother is heavier, and the suffering to the child is greater, and in some few instances the injury may be severe. It cannot be denied that in the case of a working man such trouble in the house may be a serious one, and it must be looked upon as a sacrifice, which he is asked to make for the good of the State as well as for the good of his child.

To return to the consideration of vaccinal injuries. Calculating from the cases which were brought under the notice of the Royal Commission on Vaccination during the years 1889-96, and from the cases inquired into during 1888-91 by the Local Government Board, it would appear that there was death or serious injury in one case in about 14,000 primary vaccinations.[2] You may say that even this amount of harm ought not to be, and the fact that it does occur is a powerful argument against vaccination. Before accepting this conclusion you must take into consideration that more than half (57.6 per cent.) of these cases resulted from preventable causes—

* This address is published by request, in the hope that it may prove useful to some who have not time to review the facts for themselves. In its original form it was delivered to a non-medical audience, and some alterations and additions have been necessary. Even with these it is felt to be very incomplete. It was illustrated by lantern slides of cases of small-pox, and by some of the diagrams which have been here reproduced. The writer owes and offers his thanks to many friends for much assistance, without which the work would have been impossible. Especially to Dr Bond, of Gloucester; Dr. Newsholme, Medical Officer of Health for Brighton; Dr. Copeman; Dr. Harley Brooks, of the Mile End Infirmary; Mr. Jones, of the Statistical Department of the Metropolitan Asylums Board; Dr. Dawson Williams, Dr. Edwardes, Dr. McVail and many others.

that is, from one or other of the various forms of inflammation. Further when you consider the ease with which the vaccine pocks may be injured, rubbed, or fouled, and when you consider the terrible conditions under which, unfortunately, thousands of our fellow working men have to live, it is hardly to be wondered at that an open wound like vaccination does sometimes go wrong.

All things occasionally go wrong in this imperfect world, and wherever you turn you will find a certain amount of penalty has to be paid for everything we have, however valuable and beneficent it may be. Gas explosions, railway accidents, shipwrecks, fires, all contribute something to the sorrow and suffering of the world, yet no one in his senses would give up gas, or railways, or ships, or houses because some injury is caused and some lives are lost by their use. Surely it is a question of degree. It is no use in the presence of an enemy discarding a weapon because you fear it may not be absolutely free from danger to yourself, unless or until you have something better to substitute for it. In the case of small-pox there is no substitute, and if you discard vaccination you are left defenceless and without any protection but flight in the presence of a relentless foe. It cannot even be pretended that the practice of vaccination hinders the adoption of every other useful means of combating small-pox.

When first I began to consider these questions seriously, I cast about for something with which the risk caused by vaccination (infinitesimally small though it really is) might fairly be compared, and I came to the conclusion that the use of anaesthetics (chloroform and ether) was on the whole the greatest blessing which my profession had ever been able to confer on suffering mankind. Now, as you are all aware, a certain number of deaths occur every year through the use of anaesthetics; this is quite unavoidable. The percentage number of deaths from chloroform is nearly seven times as great as that from the complications or accidents of vaccination. The deaths from ether are considerably fewer than from chloroform, but, even so, the total directly traceable to anaesthetics is considerably greater than that resulting from vaccination.

It is interesting to compare the numbers of vaccinal injuries with the fatality from small-pox (even in a mild epidemic) where the practice of vaccination has been allowed to lapse. In Leicester, during the outbreak of 1891-92, 100 unvaccinated children were attacked, of whom 12 died. Thus in this community (with an unvaccinated child population), with all the boasted safeguards of isolation and sanitation, as many children died from small-pox as, according to the calculation given above, might be estimated to die or to suffer from serious injury amongst a like number of children (100) in 1,680 years, or in about 169,908 vaccinations. During this same epidemic only two vaccinated children under 10 years of age were attacked by small-pox, neither of whom died.

In a severe epidemic, such as that at Gloucester (1895-96), no fewer than 279 unvaccinated children under 10 years of age died out of 680 attacked (41 per cent.). Such fatality would not occur in less than *three million* primary vaccinations, and a very little calculation will show that the risk of a fatal issue amongst those attacked was just 6,000 times as great as from vaccination. Comment is unnecessary, but the facts are deserving of serious study. They seem to me to show quite clearly that, although there is a certain amount of risk in vaccination, the risk is so small that it is one which should be readily faced if it can be shown that vaccination is for the good of the individual and for the benefit of the State. A great deal has been written and said about the serious nature of the risks, but they are in fact very small, and are such as the members of my own profession readily incur for themselves, their wives, and their children, for though they know them better than any one else can know them, they judge them to be, as they are, insignificant as compared with risks of small-pox.

It is the duty of every one of us, as far as in us lies, to prevent ourselves from becoming the centres of infection. As you are the judges in this case, and have to decide for yourselves whether vaccination is capable of affording protection against small-pox, it is only right that you should consider the credibility of the witnesses who bring forward their evidence for or against the practice. Every one will, I think, allow that if they want a good pair of boots they should go to a bootmaker, and if they want a good loaf of bread they should go to the baker; and similarly it might be expected that those who wish to learn about small-pox and its prevention would be wise to go to those likely to possess the most accurate knowledge of the disease, namely, those who have spent their lives in the practical study of small-pox.

You will find that the unanimity of opinion expressed by those who have so spent their lives as to the effect of vaccination is very striking, and that those who are opposed to vaccination are, almost without exception, those who have no very practical acquaintance with small-pox. There are arm-chair generals even in medicine, who prefer to sit at home and deal out what they consider destructive criticism to those who are in the midst of the fight rather than to be up and doing something for the good of the individual and the welfare of the community.

Means which might be adopted for Deciding the Question as to whether, and if so to what extent, Vaccination protects against Small-pox.

The question as to whether or not vaccination protects against small-pox, and if so in what degree, may be approached in various ways:

1. By vaccinating first, and inoculating with small-pox afterwards, a test which cannot, of course, be made in the present day, but I shall refer to this again.

2. By observing the effect of vaccination on particular groups of persons exposed to the contagion of small-pox under more or less similar conditions.

3. By observing the comparative frequency with which small-pox attacks the vaccinated and unvaccinated in large communities, the degree of the severity of the attack in each of these classes, and the resulting death-rate.

4. By observing the effect of vaccination upon the age at which small-pox is most prevalent amongst those who have been vaccinated in infancy and among those who have not.

May I here, in parenthesis, say what I mean by vaccinated? I mean efficiently vaccinated. It is well known that vaccination in infancy gives its most effective protection only for a certain number of years. It is necessary to bear this in mind, since there are many fallacies based on statements made to the effect that in adult life more vaccinated than unvaccinated persons suffer from small-pox. This statement is one of those falsehoods masquerading in the guise of truth, which, as I shall show later on, has but little justification, since a child vaccinated in infancy, although, in fact, vaccinated, does not continue to benefit to any large extent from the vaccination after from seven to ten years; and as regards liability to attack from small-pox, insensibly approximates to the condition of those who have not been vaccinated.

1. The method of testing the efficacy of vaccination by the subsequent inoculation of small-pox is, of course, now out of the question, since inoculation is forbidden by law; but it was frequently adopted by Jenner, who, in 1801, wrote "that upwards of 6,000 persons had been inoculated with the virus of cow-pox, and that the far greater part of them has since been inoculated with that of small-pox, and exposed to its infection in every rational way that could be devised, but without effect." This was, at any rate, an experimental inquiry on a sufficiently large scale, and, even if the problem was not capable of being finally solved in this manner, was sufficient to convince his contemporaries of the efficacy of vaccination.

2. The second method of attempting to estimate the utility or the reverse of vaccination is to study its effect upon limited communities living under approximately the same conditions. There cannot be any better illustration than the experience of the staffs of the various small-pox hospitals.

They are as follows:

In Highgate Small-Pox Hospital, from 1836 to 1896 a period of no less than sixty years—1 case of small-pox, and 1 only, occurred among the hospital staff, and he was the gardener, least exposed to infection, but not revaccinated.[3] During the years 1883-1896 there were 137 nurses and attendants employed; 30 of these had previously had small-pox, but none of the others had suffered from the disease.[4]

At the Sheffield hospitals the staffs numbered 143; of 80 who were revaccinated as adults, not one contracted small-

pox, whilst of 62 who had not been revaccinated 6 suffered from small-pox, as did one other who was not successfully revaccinated until he was sickening from the disease.

At Warrington, Homerton, and Fulham the experience has been similar. I will not weary you with the details of these: it would not serve any useful purpose, since they merely confirm the conclusion that even the nurses, who are exposed to a concentrated form of infection, such as probably we never have to encounter, can be and are protected against small-pox by the simple expedient of revaccination.

To come down to quite recent experience. During the third week in February of this year a statement appeared in the daily press to the effect that out of a staff of 43 nurses employed in the Mile End Infirmary, 35 were revaccinated and have not suffered from small-pox, whilst of the other 8 who were not revaccinated 7 had already contracted the disease.

Such a statement was not likely to be accepted without criticism and challenge, and, thinking it would be a good test case to put before you from the practical and common-sense point of view, I inquired into the facts, and I am sure that I may tender in your name, as well as my own, our best thanks to Dr. Harley Brooks, the medical officer of the infirmary, for the great amount of trouble which he has taken to reply fully to my inquiries.

The facts are as follows:

Early in January, 1902, there were 40 nurses and 2 matrons on the staff of the Mile End Infirmary, and 1 nurse on sick leave, a total of 43; not one of them had had small-pox previously: of these 31 had been revaccinated at various dates up to two years before the outbreak. Four were revaccinated on January 28th and 29th (2 of them unsuccessfully). None of these 35 contracted small-pox. Of the remaining 8, 1 was away on sick leave, leaving 7, who all suffered from small-pox. Of these, 3 were not revaccinated, and the remaining 4 all sickened with small-pox in two days (2 cases), three days, and six days respectively after vaccination. Thus these 4 cases were incubating small-pox at the time they were revaccinated, and though it may not be strictly correct to say that none of the vaccinated cases suffered from small-pox, it is certain that none of the cases who were revaccinated before infection contracted the disease, and all the cases who suffered from small-pox were either unvaccinated or revaccinated only during the incubation period of the disease.

I may say here that vaccination within a short time after exposure to the infection of small-pox may be of some use in mitigating the attack, but that if delayed until the incubation period is advanced it may be expected to exercise little or no influence on the result.

A similar and very striking object lesson may be learned from the records of the small-pox hospitals of the Metropolitan Asylums Board.

During the year 1901, amongst the patients admitted to these hospitals were 21 persons who had been employed in disinfecting work; not one of these had been revaccinated since infancy. I have made careful inquiries, and I am informed that not a single person, engaged in work similar to that of the 21 persons mentioned above, who had been properly revaccinated, is known to have been admitted during this period (1891). And further, that no official of the Board, all of whom are revaccinated when they commence their work, had suffered from small-pox during the year 1901.

Nine other cases were admitted to the Board's hospitals suffering from small-pox contracted in the discharge of their duties as sanitary inspectors, dustmen, and undertakers: of these, 5 had not been revaccinated, 1 was said to have been revaccinated forty and 1 nineteen years ago, and 1 without success four years ago.

Further, during sixteen years, 1884-1900, more than 2,000 persons have been employed in the small-pox hospitals of the Metropolitan Asylums Board; of this large number—some few of whom, no doubt, were protected by a previous attack—only 17 contracted small-pox, though constantly exposed to infection. Of these, 4 are known to have escaped revaccination, and the remaining 13 are known to have been revaccinated after having been exposed to infection. From the dates at which the eruption appeared in these cases it is practically certain that every one of them had contracted small-pox before their revaccination could possibly have taken effect. Lastly, not one of the staffs of the hospital ships has ever died of small-pox, and not one has even suffered from the disease for the last eight years (1893-1901).

During twenty years, 1881-1901, the Board's ambulance service has employed over 1,250 persons: of these, 4 have contracted small-pox, 1 was unvaccinated and died, 1 had been unsuccessfully vaccinated and died, 2 only had been duly revaccinated—they both recovered.

These are remarkable facts, and do not seem to me to justify any other conclusion than that these persons, constantly exposed to infection in a virulent form, were protected from the disease not by sanitation, not by isolation, not by any of the various remedies which have been suggested, but solely by efficient vaccination and revaccination such as is open to every one to obtain.

Before leaving this branch of the subject I should like, with your permission, to call your attention to three tables, which show the relative liability to contract small-pox, to suffer severely, and to die from it amongst the vaccinated and unvaccinated respectively.

N.B.—*In all the following tables, under "vaccinated" are included all cases vaccinated in infancy, although after the age of from 7 to 10 years they ought rather to be classed as "unvaccinated," because the protective influence of vaccination very rapidly diminishes.*

Table II.—*Showing Numbers of Attacks and Deaths amongst those Exposed to Small-Pox in certain Outbreaks inquired into by Dr. Coupland (Lancet, 1897, vol. i, p. 511).*

	Vaccinated.			Unvaccinated.		
	Exposed.	Attacked.	Died.	Exposed.	Attacked.	Died.
Under 1 year:						
Dewsbury	16	1	0	[illegible]	24	[illegible]
Leicester	1	0	0	[illegible]	7	[illegible]
Gloucester	14	0	0	133	80	56
1 to 10 years:						
Dewsbury	400	43	1	254	133	31
Leicester	77	2	0	251	93	10
Gloucester	258	24	1	1,178	537	192
10 to 30 years:						
Dewsbury	1,125	341	5	224	141	19
Leicester	438	104	0	[illegible]	47	[illegible]
Gloucester	1,649	539	30	102	55	18
30 years and over:						
Dewsbury	833	187	7	68	15	4
Leicester	321	64	1	9	3	1
Gloucester	1,465	465	64	42	17	9
Age uncertain:						
Dewsbury	21	—	—	—	—	—
Leicester	1	—	—	—	—	—
Gloucester	[illegible]	—	—	—	—	—

This table shows that in three separate towns children who had been vaccinated were far less liable to attack from small-pox, and, if attacked, to death from it, than those who were unvaccinated. After 10 years of age, as I have said, the protection becomes less, and revaccination is necessary. It will be seen that 766 vaccinated children under 10 were exposed to infection in the 3 towns, and that 70, or about 1 in 10, only were attacked, of whom 2 only died; whilst amongst the unvaccinated, 1,927 were exposed, of whom 874 were attacked, and of these 307 died; that is, proportionately, nearly 4 times as many unvaccinated as vaccinated were attacked, and 60 times as many died.

The next table shows much the same thing, in rather less detail, but in each case with an enormous advantage on the side of the vaccinated.

It shows that the vaccinated at all ages were in these places less liable to attack than the unvaccinated, and that under 10 years of age, when the vaccinated are *more fully protected*, the unvaccinated were about 7½ times more liable to *attack by* small-pox than the vaccinated.

TABLE III.—*Small-pox Attack-rate of Vaccinated and Unvaccinated Persons, under and over 10 Years of Age, in Five Towns in which Small-pox Epidemics have recently occurred.**

Towns.	Date of Epidemic.	Attack-rate under 10.		Attack-rate over 10.	
		Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.
Sheffield ...	1887-88	7·9	67.6	28·3	53.6
Warrington ...	1892-93	4.4	54.5	29.9	57.6
Dewsbury ...	1891-92	10.2	50.8	27.7	53.4
Leicester ...	1892-93	2.5	35.3	22.2	47.6
Gloucester ...	1895-96	8·8	46.3	32.2	50.0

* Final Report of the Royal Commission on Vaccination, p. 65.

The following diagram, lent by Dr. Newsholme, and taken from the figures given above, shows graphically the number of *attacks* and *deaths* in each 100 persons residing in houses known to have been infected by small-pox at Sheffield during the epidemic of 1887-1888.

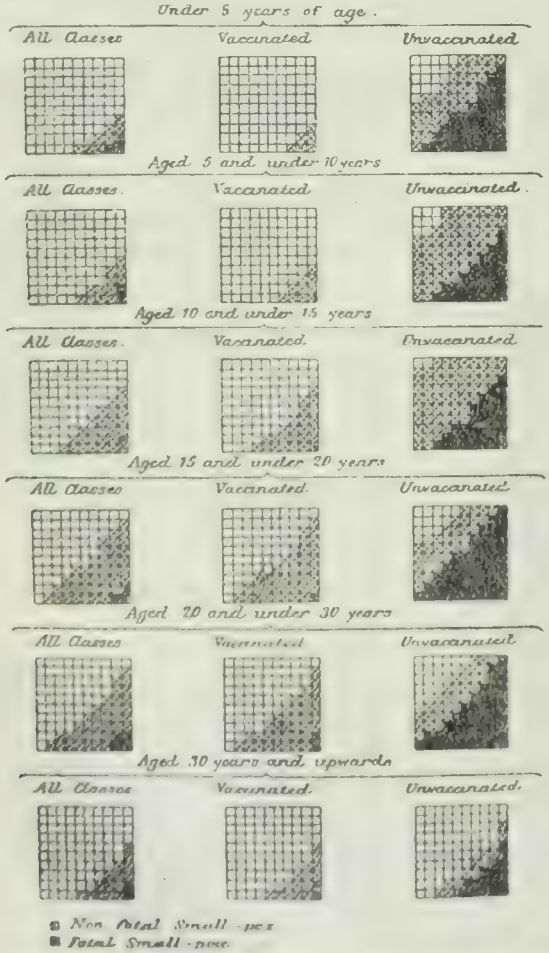


DIAGRAM I.—*Showing in regard of Persons residing in the Houses of Sheffield reported by the Enumerators to have been invaded by Small-pox, the Incidence of Small-pox Attack and of Small-pox Death, up to the Date of Enumeration, upon each hundred of All Classes, and upon each hundred Vaccinated and Unvaccinated respectively, at each of several Age-periods.*

In the following table and diagram the relative severity of attack amongst the vaccinated and unvaccinated are shown. The table is taken from the report of the Royal Commission on Vaccination, the diagram is from *A Study of 972 Cases of Small-pox;* by Dr. J. B. Russell, late Medical Officer of Health for the City of Glasgow.

TABLE IV.—*The Incidence of Mild and Severe Cases of Small-pox on each Hundred of Vaccinated and Unvaccinated Persons attacked during Five recent Small-pox Epidemics.**

Local Epidemics.		Mild.	Severe.
London	Vaccinated	89.0	11·0
	Unvaccinated	35.2	64.8
Sheffield	Vaccinated	82.8	17.2
	Unvaccinated	18.5	81.5
Dewsbury	Vaccinated	82.0	18.0
	Unvaccinated	23.1	76.9
Leicester	Vaccinated	81.4	18.6
	Unvaccinated	27.2	72.8
Warrington	Vaccinated	78.2	21.8
	Unvaccinated	29.4	70 6

* Final Report of the Royal Commission on Vaccination, pp. 69-70.

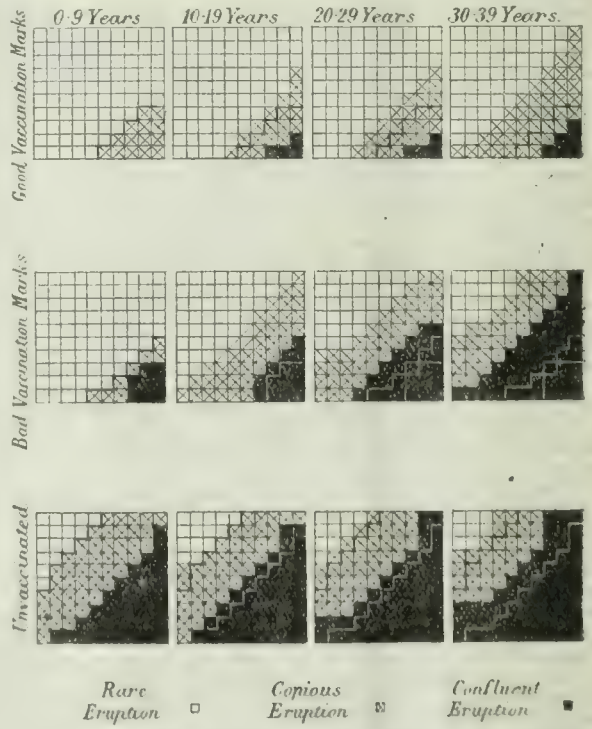
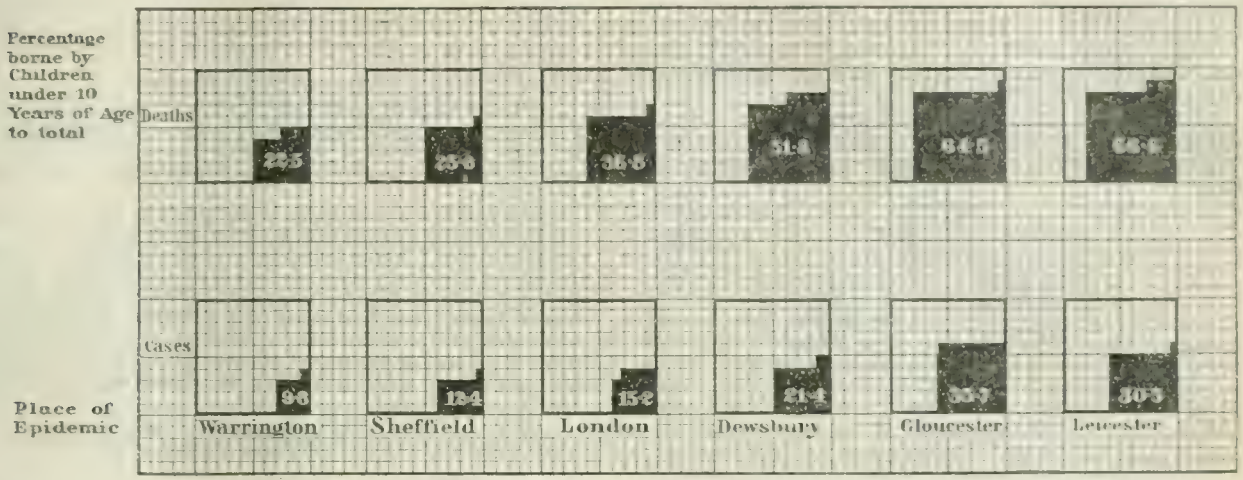


DIAGRAM II. *From Dr. J. B. Russell's "A Study of 972 Cases of Small-pox," showing the severity of the eruption of small-pox among patients with good vaccination marks, among patients with bad vaccination marks, and among unvaccinated patients, at each of the ages 0-9 years, 10-19 years, 20-29 years, and 30-39 years.*

There is, unfortunately in this country, no obligation on the part of an adult to be revaccinated; consequently, as might be expected, the maximum evidence of the protective influence of vaccination is shown in the early years of life. Small-pox used to be a disease of childhood, and is so now where there is a neglect of infant vaccination, as is shown by the next table and diagram, where it will be seen that the number of deaths in every 100 children under 10 years of age increased in direct proportion to the neglect of infant vaccination.

Diagram III.—*Showing that the Percentage of Cases and of Deaths occurring in Children under 10 Years of Age varied in the Towns named directly in proportion to the Neglect of Vaccination.*



Date of Epidemic		1892-3	1887-8	1892-3	1891-2	1895-6	1892-3
Dimensions of Epidemic	Cases	661	4677	2353	1012	1979	357
	Deaths	62	496	182	110	434	21

Table V.—*Child Mortality from Small-pox in Relation to the Neglect of Vaccination in Six Towns which have recently suffered from Small-pox Epidemics.**

Town.	Date of Epidemic.	Total of Small-pox Deaths.	Percentage of Total Deaths from Small-pox borne by Children under 10 Years of Age.	Vaccination Default.
Warrington	1892-93	62	22.5	Very slight.
Sheffield ...	1887-88	589	25.6	Very slight.
London ...	1892-93	182	36.8	In 1883-91, 10 per cent.
Dewsbury ...	1891-92	110	51.8	In 1882-92, 32.3 per cent.
Gloucester ...	1895-96	443	64.5	In 1885-94, 10.6 to 85.1 per cent.
Leicester ...	1892-93	21	71.4†	In 1883-92, 43.8 to 80.1 per cent.

* Final report of the Royal Commission on Vaccination, pp. 50 and 176.

† Excluding the deaths of 3 patients in a scarlet fever ward in close proximity to the Small-pox Hospital, this proportion would be reduced to 66.6.

The same facts are shown in a graphic form in Diagram III (see above) drawn up Dr. Newsholme from the above figures.

The importance of vaccination in infancy is well shown by what happened in London last year.

During the year 1901 there were admitted into the hospitals of our Metropolitan Asylums Board 113 children under the age of 10 years. Of these, 12 had been vaccinated, and not one of them died. Ninety-five were unvaccinated, and of these 52 died, whilst there were 6 doubtful cases, all of whom died.

The details are given in the following table:

Table VI.—*Showing the Number of Completed Cases of Small-Pox amongst the "Vaccinated" and "Unvaccinated" and "Doubtful" Treated in the Hospitals of the Metropolitan Asylums Board during the Year 1901.**

	Ages.	Vaccinated.		Unvaccinated.		Doubtful.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
London, 1901	0-5	1	0	61	39	2	2
	5-10	11	0	34	13	4	4
	—	12	0	95	52	6	6

* Report of Statistical Committee, Metropolitan Asylums Board, January 10th, 1902.

The same relative immunity amongst the vaccinated as compared with unvaccinated children is shown in Table VI. which gives the number of children under 10 years of age who were attacked and died in the epidemics at Gloucester (1896) and Middlesbrough (1898).

Table VII.

	Vaccinated in Infancy.			Unvaccinated.		
	Attacks.	Deaths.	Fatality.	Attacks.	Deaths.	Fatality.
Middlesbrough	43	0	0	62	29	46.7
Gloucester ...	26	1	3 8	513	215	41 9
	69	1	1 44	575	244	42 4

In Tables V and VI the number of attacks and deaths from small-pox in children under 10 in London, Gloucester, and

Middlesbrough are given, and it is shown that the proportion of deaths amongst the unvaccinated is enormously greater than amongst the vaccinated. But it will be also seen that whereas at Gloucester the number of cases amongst the unvaccinated was 26 times as great (680 to 26; see note 4 at end) as amongst the vaccinated; in London the proportion was about 8 times (95 to 12): and in Middlesbrough it was only 1½ times (62 to 43) as great. If the London cases under 20 are taken, it will be seen that the numbers are by some strange coincidence equal (161).

TABLE VIII.—*Showing the Cases of Small-pox under 20 Years of Age Admitted and Treated either to Recovery or Death in the Hospitals of the Metropolitan Asylums Board during the Year 1901.**

Ages.	Vaccinated.			Doubtful.			Unvaccinated.		
	Cases.	Deaths.	Mortality per Cent.	Cases.	Deaths.	Mortality per Cent.	Cases.	Deaths.	Mortality per Cent.
Under 1...	—	—	—	—	—	—	17	15	88.24
1— 5...	1	—	—	2	2	100.00	44	24	54.55
5—10...	11	—	—	4	4	100.00	34	13	38.24
10—15...	42	1	2.38	3	1	33.33	41	14	34.15
15—20...	107	2	1.87	3	—	—	25	13	52.00
Total under 20...	161	3	1.86	12	7	58.33	161	79	49.07

*From the Report of the Statistical Committee of the Metropolitan Asylums Board, January 10th, 1902.

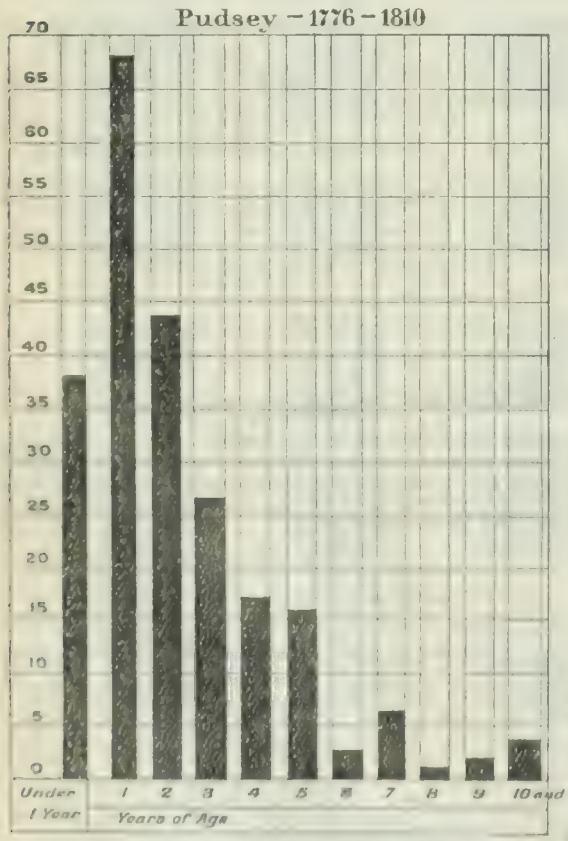


DIAGRAM IV.—(Hunter.)

Again, if reference is made to Table I, it will be seen that, as is generally found, if the cases at all ages are taken together, the number under the head of "vaccinated" is considerably greater than under "unvaccinated." This fact has not escaped the notice of those opposed to vaccination, and has been used as an argument to show that vaccination is useless. It really only shows that vaccination in infancy does not give (as is well known) life-long immunity from small-pox.

The following considerations deserve attention:

1. After the age of 10 the immunity afforded by vaccination in infancy has become materially lessened, consequently after that age an individual who has not been revaccinated is very imperfectly protected. This point has been touched upon above.

2. The better a community is vaccinated, the more nearly will the numbers of attacks in each class "vaccinated" and "unvaccinated" approximate to one another. A little reflection will show the probability of this if, in fact, any protection is afforded by the operation. For instance, if in a given town there are 1,000 children, of whom 900 are vaccinated and 100 are not—a vaccination default which was found in London for many years—and in each class there were 20 cases of small-pox, this number would represent 20

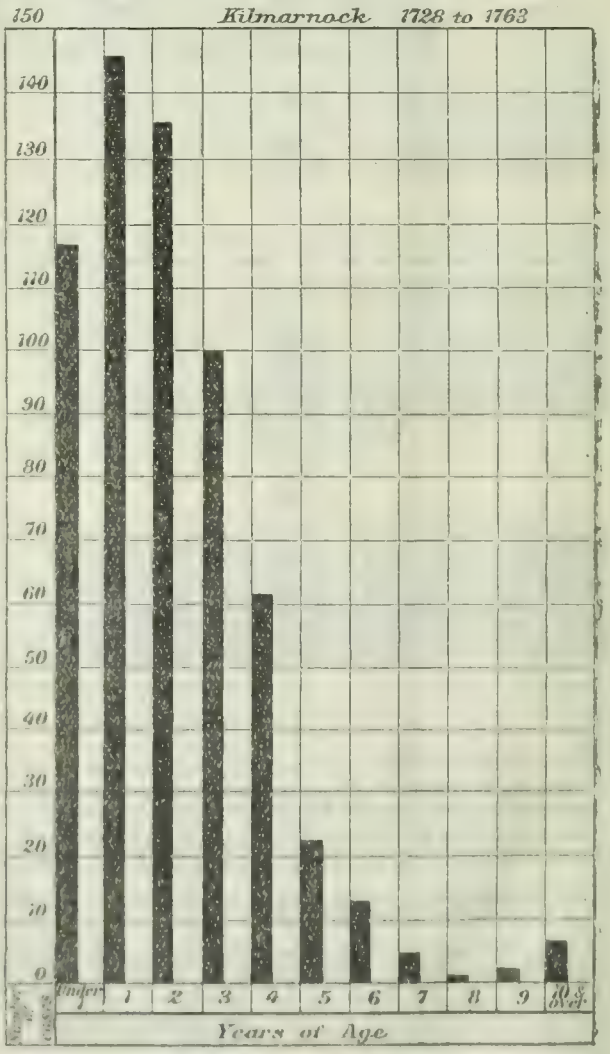


DIAGRAM V. (McVail.)

Showing the enormous proportion of deaths which occurred from small-pox in the earlier years of life in communities unprotected by vaccination.

England and Wales.—*Deaths from Small-pox at Certain Age Periods to 1,000 Deaths from Small-pox at all Ages.*

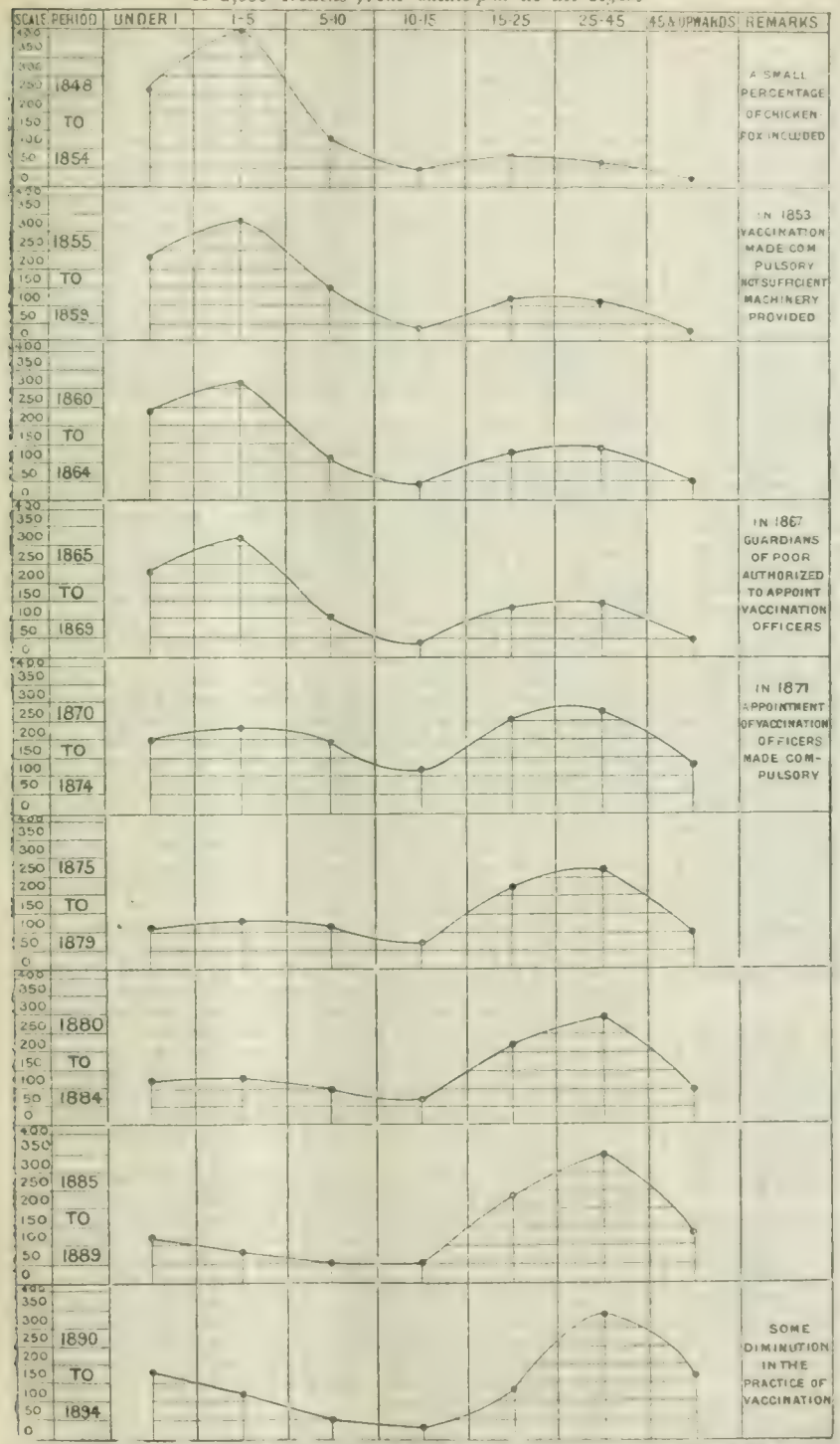


Diagram VI.—*Prepared by Dr. Newsholme from Data given in the Final Report of the Royal Commission on Vaccination, p. 47. It shows that in proportion as infant vaccination became more general, so did the deaths from small-pox decrease during the earlier years, and proportionately increase during adult life. The increased ratio of deaths in children corresponding to the increased vaccination default* 1885-94 *is well shown. The average vaccination default in London was as follows:* 1875-1879, 7.8; 1880-1884, 6.5; 1885-1889, 9.0; 1890-1894, 17.5. *These numbers are taken from the Report of the Medical Officer to the London County Council, 1900,* p. 17.

per cent. of the unvaccinated and rather more than 2 per cent. of the vaccinated; so that, although the actual number of cases of small-pox in the two classes was the same, the fact would be that proportionately ten times as many of the unvaccinated would be attacked as of the vaccinated.

Again, supposing the conditions were altered, and that the community was badly vaccinated, so that there were equal numbers of unvaccinated and vaccinated: If the ratio of attack were the same as before, there would be 100 cases amongst the unvaccinated and 10 amongst the vaccinated. This is the clue to the solution of the difficulty. In Gloucester the vaccination default between 1885-94 varied from 10 to 85.1 per cent. Middlesbrough was well vaccinated. In the former town there were 680 cases of small-pox with 279 deaths amongst the unvaccinated, and 26 attacks and 1 death amongst the vaccinated; in the latter town there were 63 attacks and 29 deaths amongst the unvaccinated, and 43 without one death amongst the vaccinated. In London, where the default of vaccination was intermediate between the two, there were 95 attacks and 52 deaths amongst the unvaccinated to 12 attacks with no death amongst the vaccinated.

The frightful mortality amongst the unvaccinated children attacked—namely, in round numbers, 46, 41, and 58 per cent.—shows that in these outbreaks amongst the infected children, at any rate, small-pox had lost none of its virulence; the mortality amongst children which occurred in prevaccination times may be gathered from the two diagrams (IV and V) which are given for comparison on p. 1014. These show the total number of deaths from small-pox at each age up to 10: at Pudsey, 1776-1810 (Hunter), and at Kilmarnock, 1728-63 (McVail).

The tables which have been quoted all tell the same tale in different ways. They show (1) that the vaccinated are less liable to attack after exposure to small-pox: (2) that they are less liable to suffer severely or to die if attacked: and (3) where the ages are specified they show that the maximum protection amongst the vaccinated is found in the early years of life, and that the maximum incidence of small-pox amongst the unvaccinated is in childhood. If, in fact, the diminution in the mortality from small-pox amongst children is due to the effect of vaccination, it should be possible to show that it is coincident with and proportionate to the efficient performance of the operation. This is comparatively easy.

Diagram VI gives the incidence of the deaths from small-pox at different ages from the year 1848 to 1894 inclusive. It does not indicate the actual number of cases of small-pox, but only the proportion out of every 1,000 cases which would fall on each age period. It will be seen at a glance that in proportion as vaccination was efficiently carried out, so did the maximum stress of small-pox cease to fall on the early years of life, and was being transferred to the later years, when the protection afforded by infant vaccination would in most instances have been lost. Diagram VI does *not* give the gross mortality from small-pox, which is shown for the years indicated in the following chart.

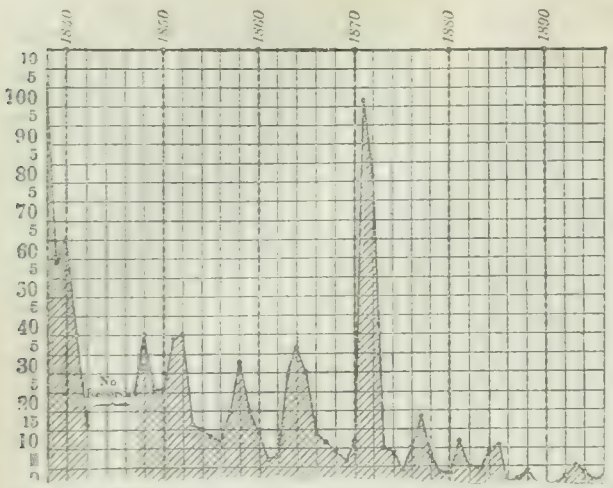


DIAGRAM VII.—*Showing Gross Mortality from Small-pox at all ages—from the time when the Official Registration of Mortality Commenced* (1838)—*in Proportion to every* 100,000 *Persons Living at the time. During the four years* 1843-7, *for some unexplained reason, the Causes of Death, including, of course, Small-pox, were not published by the Registrar-General. Quoted in "The Effects of Vaccination in Infancy," etc., Jenner Society, Gloucester, from Newsholme's "Vital Statistics,"* 1899 (*p.* 210).

The facts on which the above diagram is founded have never been disputed: they have, indeed, been used in the attempt to prove that "vaccination is a delusion." If the whole of the facts, or even the essential facts, are represented in the diagram, it would at first sight appear that there is ground for the contention, since in the years of the great pandemic, 1870 71, the total deaths from small-pox rose to a higher point than at any period during the last half of the nineteenth century, notwithstanding that vaccination was in 1853 made compulsory—without, however, the provision of any sufficient machinery for enforcing it—and that in 1867 the guardians were authorized—not compelled—to appoint vaccination officers. It required the severe lesson of 1870-71 to force on the executive the necessity for making the appointment of vaccination officers compulsory. Thus, at first sight it would seem as though vaccination had not really done anything to check the epidemic.

Now as to the facts:

1. The mortality in 1870-71, which was higher than at any period during the last fifty years, was exceeded in no fewer than ninety-three years during the eighteenth century (McVail); so that for some reason or other there has been a great diminution in the gross mortality from small-pox.

2. The diagram does not give any indication as to the incidence of the disease; it does not show whether the mortality was greatest amongst infants or adults, amongst the vaccinated or unvaccinated.

3. It has been shown that during the eighteenth century and at the present day amongst the unvaccinated small-pox is a disease falling with special severity on children (see Diagrams IV, V, and VI, and Tables VI, VII, and VIII).

4. Unless for some reason or other the age incidence of small-pox has altered, it should be found that, as was the case previous to the introduction of vaccination, the proportion of deaths amongst children in 1870-71 exceeded that amongst adults.

5. A glance at Dr. Newsholme's diagram shows that this is not the case; on the contrary, there is a steady diminution in the ratio per 1,000 of deaths borne by the early years of life, and a steady proportionate increase in the deaths borne by adults. This diminution continued as vaccination became more and more efficiently performed, and ceased again with the neglect of vaccination.[6]

More remarkable still is the fact that the proportion of adult deaths in the period 1870-74 (including the years of the epidemic 1870-72), was greater, and the proportion of infant deaths less, than at any previous period included in Dr. Newsholme's diagram.

The chart (Diagram VII) in reality shows nothing more than that there was during the years 1870-71 an enormous increase in the total deaths from small pox; it gives no indication of the fact that the stress of the disease did not, as formerly, fall chiefly upon the children, of whom a considerable proportion had been vaccinated, but that it fell on adults most of whom were either unvaccinated or had outlived the immunity which had been conferred by vaccination in infancy.

The foregoing statement and the facts and figures which I have laid before you show with great clearness that both in small and in large communities, in hospitals and out of them, those who are protected by vaccination not only resist infection from small-pox more easily, but suffer less severely when attacked, and more often recover than those who neglect this means of defence, which is offered freely to every one.

It has incidentally been shown that the so-called risks of vaccination are infinitesimally small, and that vaccination and revaccination at about the age of 10 years should be universally practised if the nation is to be effectively protected.

I have taken my evidence, not from foreign lands and from those who live under conditions different from our own, but from the every-day life of our own country and from the experience of those who are in charge of our own hospitals. They all tell the same tale. They all tell of a powerful means of defence against a relentless foe. It is for you to judge whether you will avail yourself of the protection which you have at hand, or expose yourselves without defence to the horrors of a disease of which, fortunately, so few of us have had practical experience.

I have very few more words to add, but they are worthy of your earnest consideration.

First, it is of the utmost importance that, if you or your children are vaccinated, the operation should be performed efficiently, that is, with a sufficient area of vesicles.

It is sometimes pretended that it does not matter whether there are one, two, three, or four marks. It matters a great deal. The amount of protection afforded by vaccination is closely related to the area of the vesicles, and the making of one, two, or three small pocks is not sufficient to give lasting protection; it is merely trifling with the operation, and many certificates of so-called successful vaccination are nothing better than an official sanction of what is known to be of very little value, and ought to be illegal.

Secondly, the lymph used should be pure and effective.

It can hardly be credited that a nation which is so very careful that the margarine tub shall not be labelled "butter" can be so indifferent and careless as to the source, manufacture, and sale of the lymph with which vaccinations are carried out by others than the public vaccinators. We should unite in demanding the establishment of laboratories adequate to supply all who require it, with a lymph prepared in the best possible way, by the most accomplished experts, and that inspection and inquiry into the source and manufacture of all lymph, whether imported or made in this country, should be made.

It is much to be desired that the nation should take up this matter and urge the central authority to make arrangements for an adequate supply of lymph. We are told by Mr. Long that the Government does not intend to supply lymph from the National Vaccine Establishment to all who require it. He says that an ample supply can be obtained from private makers. Much of this lymph may be very good, but in a matter of this kind, which is of national importance, it is desirable that the preparation, quality, and efficiency of the lymph should be under the strict supervision of that department of the Government which exists for the preservation of the health of the people.

NOTES AND REFERENCES.

[1] *Trans. Epidem. Soc. Lond.*, N. S., vol. xvi, 1897, p. 125. [2] It is stated, para. 4, Final Rep. R. C. V., "that it is not possible to fix with absolute certainty the number of deaths connected with vaccination," but during the years 1871-80, in England one death in 14,169 primary vaccinations was associated with vaccination in the certificate. In Scotland the proportion was much less. During the years 1883-90 it was only 1 to 38,875. [3] Final Report of the Royal Commission on Vaccination, p. 85. [4] There were 1,411 cases of small-pox at Middlesbrough, and the first 1,411 cases which occurred at Gloucester are taken for comparison. If the whole number at Gloucester—1,979 cases—were taken, the numbers under 10

years of age would be 680 cases and 270 deaths; fatality, 41.0 per cent. [5] The exact numbers indicating the extent of the vaccination default in London up to date are not available, so I have been obliged to take the vaccination defaults for twenty years previous to and inclusive of 1898. The average number of children not finally accounted for during these years as regards vaccination was in London 14.35 per cent. [6] The average vaccination default for London was: 1875-79, 7.5 per cent.; 1880-84, 6.5 per cent.; 1885-89, 9.0 per cent.; 1890-94, 17.5 per cent.

CONTRACT MEDICAL ATTENDANCE UPON SICK CLUBS.

By H. LANGLEY BROWNE, M.B., B.Ch.Birm., F.R.C.S.Ed.,
West Bromwich.

At the present time it may be of interest to many readers of the British Medical Journal if some suggestions were made as to how far the profession should go in its support of or opposition to the present very widely adopted system of contract medical attendance. Most of us will admit that it is perfectly legitimate and fair that the working classes should make some provision to ensure not only sick pay but also medical attendance in times when they are prevented by illness from following their usual employment. Living, as such vast numbers of them do, from hand to mouth, and spending each week the amount of their weekly wages, when illness comes they must run into debt for the necessaries of life and for their medical attendance unless they have previously made provision by joining some form of provident society.

The large Friendly Societies, such as the Foresters, Oddfellows and others, registered and working under definite rules, have very little of the objectionable element in their constitution. They seldom, if ever, employ canvassers and they are recruited by the efforts of the individual members of the different lodges into which they are divided. They seem to require reform in two ways: First, the sum paid per head for medical attendance is often too small; and secondly, they admit members who are to a certain extent above the class the Society was originally intended to benefit, and who are able to pay ordinary medical fees for their attendance. The sums paid per head per annum for medical attendance are generally settled by the local lodge, and are not fixed by the central governing body, and they vary in amount from 3s. to 6s. At the last conference of the Friendly Societies it was admitted that these fees were in many places inadequate, and there seemed to be a general disposition to favour a minimum payment of 5s. per head per annum for adults. If medical men resolved to take no less payment than this, not only for adults but for all members of the juvenile department, they would probably soon succeed in getting the Friendly Societies to grant it. On the second point, the admission or retention of members who are able to pay better fees, the only suggested remedy has been that of a wage limit, and this the Friendly Societies distinctly decline to discuss. A wage limit is by no means so easy a matter to fix as it looks.

The wages earned, perhaps, for many months of a year might exceed the limit, but in all trades there are large variations, and periods during which full time is made are followed by periods of depression, during which the men are only working two or three days in each week, so that to arrive at the rate of weekly wage the amount earned during the whole year would have to be taken into account and averaged. As the Friendly Societies are determined not to entertain the principle of a wage limit, it seems useless for the members of the medical profession to insist upon it. A compromise in the shape of a sliding scale, whereby the minimum rate of 5s. a year paid for medical attendance should be increased to men earning more than a fixed amount of wage, and in proportion to their wages might possibly have a chance of being accepted, as such a plan would only affect the medical fees, and not interfere with the admission to the society and the insurance of payments during illness.

Another form of provident society is often seen, where the employés of some large firm, either by themselves or aided by their employers, unite to form a club for relief in sickness and for providing medical aid. To these clubs no legitimate objection can be taken. There is no canvassing, the finances are controlled by a duly-appointed committee of workmen, and the management of them by this committee is generally excellent. There again arises the question of the capitation fees paid to the medical officer, and here also the minimum fee should not be less than 5s. a year for all employed—men, women, and juveniles. The custom of paying less for females and young persons is quite a wrong one, and unjust to the medical profession, as it is generally these who require the most medical attendance. The appointment of medical officer to these clubs is generally eagerly sought after. If the medical officer is paid entirely by the employers, they, of course, have the right to appoint whom they please, and if the medical officer is paid entirely from the contributions of the men, the same right should be conceded to them, and the appointment should be an annual one. As the men are seldom unanimous in their choice of a doctor, by far the best method is that a list of medical men should be agreed upon every year, and each workman should then make his selection of the doctor he wished to be under for that year. By this method much trouble would be saved to the profession, as such appointments are often the source of disputes between rival medical men.

Another class of clubs are the various provident dispensaries. These are either entirely self-supporting, maintained by charitable subscriptions, or composed of both these elements. They are the means by which medical attendance may be obtained, not only for men but for women and children of all ages. Properly managed, they are not open to any serious objection, and as they do not exist for any object except for the one of providing medical attendance, they should certainly be restricted to those members of the working classes who are not able to pay ordinary medical fees. Unfortunately this is not always done, and the chief abuse in connexion with these dispensaries is the fact that the admission of all classes of patients is permitted, and care is not taken to eliminate unsuitable cases. Admission should always be made subject to the approval of the medical staff. There should be no collectors or canvassers attached to these dispensaries, and the whole of the proceeds after the payment of expenses, provision of drugs, etc., should be allotted to the medical officers.

Insurance societies often have attached to their usual business a medical aid department; but as these societies employ canvassers and collectors, they should not be countenanced by the medical profession. Medical aid associations are open to the same objection, and to a further one, in that they generally pay their medical officers by salary and retain their profits for their own use, or else they make such deductions from the capitation fees as will ensure a good profit. This practice may be defined as farming or exploiting medical men, and sometimes a very good income is made by doing it.

Private medical clubs are now very numerous, and they are in most cases absolutely unjustifiable on the ground that the worst form of canvassing is there made use of. If a doctor starts or maintains a practice by engaging a collector to canvass for patients for his private club, he is guilty in a far greater degree than is a medical aid association, because the doctor must know that such canvassing is unethical, whereas the question of ethics is never known or thought of by the associations referred to. Such clubs will undoubtedly soon be condemned by the General Medical Council, and it would be well if they were discontinued before any action is taken. A private medical club in which the contributions are paid at the surgery in a district where there is an unopposed practice, and where, therefore, the club can do no harm to any other medical man, is, of course, legitimate.

In conclusion, one may point out that there is no part of one's professional work which gives rise to so much worry as club practice, because of the fact that it is contract work; and however conscientious a doctor may be in his attendance, there will always be some grumbler who will believe that he is not getting the best of it. The glaring evils of club practice may be removed by combination and co-operation between the members of the profession: and there is ample evidence of the growth of a spirit of concord and a regard for ethics in the ranks of our profession which must in time be attended with good results.

OBSERVATIONS ON "CAISSON DISEASE" AND ITS PREVENTION.

BY A. H. MUIR MACMORRAN, M.D.EDIN.,
Joint Medical Officer to the Greenwich Footway Tunnel.

WHILE the number of men who suffered from caisson disease in the construction of the Greenwich Footway Tunnel was fortunately small, and the whole time occupied in tunnelling with compressed air was very short, namely, slightly under thirteen months, several points of interest to the medical profession were observed from time to time, and some have not, as far as can be ascertained, been mentioned in the literature upon the subject, and the close observation kept upon all the workmen, fit and otherwise, has prevented, so far as possible, the occurrence of caisson disease due to previous illness or physical unfitness.

SELECTION OF MEN.

It may be well to point out, in the first instance, that the position of medical officer to such an undertaking is one of great responsibility. It is twofold. First, in the selection of the men and the after-supervision when they have been passed as fit to work in compressed air; the inclusion of a man who has a defective heart, and especially defective powers of elimination, may mean a most painful illness, or even death, to that individual; and, secondly, the illness of the men reduces the working powers of the gangs to which they belong, and means pecuniary loss to the contractors and to the authorities, who make themselves liable for sick pay to those suffering from caisson disease. This responsibility was especially felt in this case, and the very greatest care was taken in the selection of the men. The inspections of the various gangs of workmen both going on and coming off duty were scrupulously carried out, as the following table will show. Thus the occurrence of the few cases of illness due to compressed air may be taken to be due to the effects of compressed air alone, in a healthy man working eight hours a day with a break after four hours. Altogether there were examined, from the start to the completion of the work, 122 men, of whom 17 were rejected, and of the remaining 105 men 6 were afterwards rejected thus:

No. of Men Examined	Rejected at 1st Exam.	Rejected after having been at work	Percentage of Primary Rejections.	Percentage of After-Rejections.	Total Percentage of Rejections.
1...	...	...	13.9	...7	13...

From this it is apparent that a considerable proportion of otherwise able-bodied men were not considered fit to work in compressed air. Among those rejected were several who had worked in compressed air for varying periods prior to examination—to these reference is made below.

MEANS TO REDUCE AMOUNT OF CO_2.

To make the work still safer various experiments were made to reduce the carbonic acid gas as far as possible. Such were: the introduction of screens of caustic soda into the volume of air pumped into the tunnel and the establishment of a blow-off tube from the shield where analysis of the air showed the carbonic acid was found in the greatest quantity. The effect of these expedients was tested by careful analysis of the air before and after their use. The results were decidedly favourable to the adoption of the blow-off tube, and as a considerable proportion of the caustic soda underwent transformation it might be deemed advisable to give it a fair trial by introducing it into the plant at the commencement of the work, which could not be done in this case as the machinery had already been laid down and could not be altered without entailing serious delay. The percentage of carbonic acid gas in the tunnel before the above experiments varied in different parts of the works, as did the temperature, as in the following table:

Date.	Air Pressure lb. per sq. inch.	Temperature at Face compared with Engine Room.	Free Air Supplied per Man per Hour.	Percentage CO_2 in Engine Room.	Percentage CO_2 in Tunnel.	Percentage CO_2 in Shield.
Mar. 5	24	+ 10°	6,000	0.047	0.073	0.196
,, 11	21	+ 10°	5,280	0.053	0.097	0.218
,, 18	24	+ 15°	5,600	0.045	0.064	0.189*
,, 25	23	+ 15°	5,280	0.047	0.058	0.125†

* After blow-out tube had been used, 0.124.
† End of shift blow-out tube used four times, 0.098.

Analyses of the air were taken 14 times from May 15th to June 14th. The averages before the caustic soda purifier was used were:

22½	+ 6½°	5,774	0.0474	0.0786

The average after the purifier was used were:

19	+ 0°	5,330	0.0505	0.0688

In the last-named average it must be taken into account that the tunnel was longer, and therefore the carbonic acid gas more widely distributed.

HEALTH OF THE MEN.

There were 15 cases of sickness not due to compressed air, chiefly cases of chill (to which men engaged in this work are peculiarly liable), influenza, and rheumatism, and 1 case of malingering.

The health of the men generally was very good except one or two weeks during the completion of the concreting in the caisson on the south side of the river, when almost all of the men suffered from catarrh of the naso-pharyngeal and bronchial tubes, and during that time there were 3 slight cases of caisson disease, as compared with 6 cases for the whole of the rest of the time. In strict accordance with the rules laid down by the medical officers and enforced by the Resident Engineer to the London County Council, men suffering from colds should not have been allowed to go into the tunnel, but in the prevailing inclement weather, and in consideration of the heavy nature of the work in a confined space, at the time it would have been impossible to obtain a full gang of properly healthy men, and as the air pressure was not high, 8 to 12 lb., the risk was comparatively small.

The exemption from serious caisson disease was considered to be due to the ample supply of fresh air, for though the air pressure at no time exceeded 28 lb. and averaged 22 lb., the occurrence of one-third of the cases at the comparatively low pressure of 12 lb. in less favourable circumstances than in the case of those working under the higher pressures must place mere air pressure among the predisposing causes to the disease rather than the immediate cause. Similarly, the small number of such cases is to be attributed to the purity of the air, the uniform temperature, and the good health of the workmen. In the course of examination of the men, it was discovered that a large proportion of those who had previously worked in compressed air had a much lower pulse rate than the newer hands, and they did not perspire nearly so freely while at work; of 12 men, 7 had worked in compressed air for periods of over 12 months and 5 for only a few months. The pulse-rate of the former was much slower that that of the latter, averaging about 80 per minute to the latter's 104 immediately after work. They also showed a deviation from the normal in the sounds of the heart, usually in the pulmonary area, but often in the aortic; considering that these men must have come under examination frequently in the course of their previous work it might be puzzling how their condition did not attract attention on the part of the medical examiner, were it not for the very curious phenomenon observed in 3 or 4 of these who exhibited the deviations from normal alluded to, but to a much less extent, and who were allowed to go to work in the tunnel on condition that they presented themselves for re-examination after each shift until further notice. After each of these men had been at work in compressed air two or three days it was discovered that the heart sounds became absolutely normal in every respect; that this was actually so was placed beyond doubt (and here the advantage of having two medical officers was opportune) by the writer, after the first case came under his notice, taking care to ascertain his colleague's opinion (besides his own) of the conditions of the hearts of

2 men prior to allowing them to go to work; of 6 men who had previously worked in the Blackwall Tunnel or in the Waterloo and City Tunnel, 4 were summarily rejected for pronounced systolic murmurs, or reduplication of the second sound with diastolic murmurs; of the remaining 2, 1 had a diastolic murmur in the aortic area, the other had reduplication of the second sound. My colleague, Dr. Murray Leslie, confirmed these conditions, and also saw the men again with me the following Saturday, six days afterwards, when the heart sounds could not be said to differ from those of the other men, though examined immediately after work, and while still showing the effect of the exertion entailed by climbing the long ladder from the air lock to the top of the caisson. This, of course, only bears out the already well-known fact that often the best and most speedy remedy for a person suffering from caisson disease is his subjection to compressed air by putting him back again into it; and for this reason the medical lock is an absolute necessity in such work. But I have never before heard of an abnormal condition of the heart being so got rid of, and it must not be for a moment supposed that such a proceeding is safe, or to be followed in the case of former compressed air workmen who exhibit such symptoms, very much the reverse: as in the writer's opinion workmen with a history of previous work in compressed air should be more carefully examined than others, since as large a proportion as 27 per cent. will be found to have deviations from the normal in the sounds of the heart. Only the three or four who were exceptionally good workmen were permitted to go to work provisionally, for a few shifts, and were kept under very careful observation all the time.

Of the cases of caisson disease, 3 were serious, the others slight, all of them had giddiness as a symptom, only 1 had pain in the joints, 2 had the pain in the thighs and back, 3 complained of the pain being in the shoulders or arms, 1 had recurrent epistaxis with pain in the nape of the neck and forehead, shortness of breath and abeyance of certain functions. One became deaf. The most serious of all had a peculiar and instructive history.

Case I.—H. T., aged 27, had worked in compressed air for varying periods for two years, and never had caisson disease before; he commenced work on the day he was seized, at 2.30 p.m., and went off at 10.30 p.m. He missed the 10.30 boat across the river, and after having a cup of coffee, which was supplied to each man after work, he went to a public house to wait till the next boat was due; he had three glasses of beer but no food. Half an hour afterwards, while on the ferryboat, he was seized with giddiness, which made the ascent of the steps on the other side of the river a matter of difficulty. After proceeding about fifty yards further he fell down, and was removed to Greenwich Hospital, where he was detained seventeen days. He was unable to sit up for ten days, as he immediately became faint, he never had any pain, but there was marked continued failure of the heart's action, especially on assuming an erect posture. On coming out of hospital the following interesting fact was elicited from him. His duty was to open and shut the door leading from the tunnel into the air-lock; when neither trucks nor passengers were passing he had nothing to do; to pass the time he rolled a cigarette and began to smoke, inhaling as he was in the habit of doing. After inhaling a portion of the smoke twice, he became so giddy that he fell down, and could not rise for about five minutes, but he remained on duty till the end of the shift.

Case II.—J. J., aged 35, a well-developed muscular man of rather full habit of body, twelve months' previous work in compressed air. No former attack, had been suffering from a cold, finished work at half-past two, and at half-past six was seized with severe pain in the left hip and thigh, and then in the right thigh and the whole length of the spine, he went to bed and after vigorous rubbing the pain passed away, but on trying to get up in the morning it returned and did so at intervals for six days, after which he complained of weakness in the legs, loss of appetite, and restlessness; he continued on the sick list for three weeks. This man also told me that there had been entire abeyance of the sexual functions during the entire period of his illness, but thought nothing of that, as he was frequently in that condition before he was laid up, and further, that other men in the construction of Blackwall tunnel complained of the same thing.

Case III.—J. D., aged 50 years, a stout, plethoric man with a long history of compressed air work, complained of complete deafness, noises in the head and giddiness, and was taken off work for six weeks, during which time he was put under treatment for liver complaint and gouty dyspepsia. He recovered completely, and was allowed to return to work in the tunnel, where he continued to follow his occupation for two months; he then caught a chill and was not allowed to go into compressed air, a week afterwards he returned to work without permission and remained three days, after which he became quite deaf again; the hearing partially recovered, but after his discharge the case was lost sight of.

Pathology.

Considering the paucity of the cases and the comparatively short period there was for making observations it may appear presumptuous to offer any conclusions as to the causation of caisson disease, nevertheless, such as they are, the cases have borne out a theory that has been advanced by other writers, who, however, have put it down to causes which were inaccurate or non-existent. I will only mention one of these. Osler in the earlier editions of his *Practice of Medicine* attributes the disease to the disturbance of the ratio of nitrogen to oxygen in the compressed air inhaled into the lungs. This, we know now, is not so. Similarly, we must put out of consideration the accidental presence of other gases of a poisonous nature, such as carbonic oxide and marsh gas; these are not likely to have been present in sufficient quantity in all cases where caisson disease occurred, without their having been detected. What has been established conclusively is that the presence of carbonic acid gas in undue proportions in compressed air causes an increase in the number of cases of caisson disease, but the manner in which CO_2 so acts has been a matter of speculation. Now, I believe that workmen whose eliminatory functions are impaired or sluggish are more liable to the disease, hence the rejection of a certain proportion who showed signs of alcoholism and obesity, and that the attention of the medical officer to the functions of liver, kidneys, and stomach as evinced by pulse and tongue, etc., is of as great or greater primary importance as attention to the heart conditions and age of the candidate, as the increase of the proportion of CO_2 in the air must tell more powerfully on such men than on others whose powers of elimination are equally good. Thus, if a modification of Osler's theory be adopted—namely, that interchange of gases in the lungs is interfered with in such a way that, though the ratio between the oxygen and nitrogen is not upset, the pressure of the air breathed into the lungs diminishes the elimination of CO_2 from the body, and that the elimination of other waste products are similarly impeded, the cause of caisson disease is not far to seek. Added to that I believe in the hyperaemia of the deeper tissues. It is quite reasonable to suppose that a pressure of twenty odd pounds to the square inch compresses, however slightly, capillary and peripheral blood vessels, and that proportionately the circulation is retarded in the deeper tissues throughout the body; pathologists agree as to the effects of such hyperaemia on the nerve centres, especially the vasomotor and sympathetic. Interference with the functions of one or other or both of these systems will alone account for the symptoms in several recorded cases of caisson disease; and in the case No. 1 above, the sustained syncopal condition can only be accounted for by interference with the heart through the nervous system—that is, the sympathetic and vasomotor centres in the medulla. The man had no other symptoms except the giddiness when first seized; he also gave a history which discloses a valuable fact—namely, that the effects of inhalation of the smoke of a cigarette in compressed air were not got rid of for a much longer period than would have been the case in ordinary circumstances; in other words, by-products from the lungs are impeded in their discharge by the compression of the air.

I am aware that the theory of hyperaemia is not generally believed by observers of the disease, but I think it is put on one side without sufficient grounds for doing so: for instance, it is argued that there is not likely to be hyperaemia, because there is no constant effect on the pulse observable in the workmen; further, that pressure on capillary or peripheral vessels is not likely to act because in many instances after coming out of compressed air workmen have a slow, full beat in the radial artery. Now that condition of the circulation would be precisely what would be expected if the blood from the capillaries was kept in the deeper and larger vessels. It is certainly what happens when there is a larger amount of CO_2 in the air inhaled over a prolonged period. If we combine the two, hyperaemia of the nerve centres and accumulated impurities in the blood because of imperfect interchange of gases in the lungs, there is a double effect on the sympathetic and vasomotor systems, the consequences of which are not manifest till varying periods after the cause has been removed. When the affected centres resume their activity there is (quite in accordance with established physiological theories) a reaction and a reflex action manifested in the sensory and sympathetic nerves throughout the body. In this way the peculiar conditions described in cases Nos. 2 and 3 can be accounted for consistently; in the former the sexual functions were impaired for long periods at a time, and in the latter complete deafness from action on the labyrinth, but in

these instances the stage of irritation of the centres had passed farther into that of paralysis. Similarly the temporary restoration to normal when at work of disturbed heart functions from prolonged work in compressed air must be due to hyperaemia of the deeper vessels together with inhibition of the vasomotor centres and through the sympathetic nerve on the heart itself.

Concerning the treatment, I found that nerve sedatives such as bromides, especially ammonium bromide, were better than opiates, and in a severe case of pain cannabis indica gave great relief. Potassium nitrate, potassium acetate, and ammonium acetate are good in the convalescent stage, or when the pain diminishes, but may be given from the first with good results. By far the best treatment is the medical lock, into which, however, a purified air should be pumped till the pain goes, and then the pressure very gradually reduced. To effect this there should be attached to the medical lock an apparatus containing caustic soda in screens over which the air in passing would give up most of its CO_2. Similarly the prevention of the worst form of caisson disease would be effected by getting rid of the CO_2, where it collects in largest quantity, namely, in the shield where the men are working. This was done in the Greenwich Tunnel by running a blow-off tube down to the shield and blowing off the air every hour or oftener if necessary, if the analysis of the air in the tunnel and in the shield given above is examined it will be seen that the carbonic acid was reduced almost a half in volume by this expedient alone.

Finally, all workmen about to be employed in compressed air should be subjected to a most searching medical examination, all new hands should be examined after work each day for a week, and the gang going off and that going on twice each week, and those who are indisposed kept above ground till well; should the pulse have a high tension the man should be kept under observation every day, and should there be a booming sound in the heart or reduplication of the second sound he should be suspended altogether. This entails great labour on the part of the medical officer, but the responsibility of allowing men to work when unfit is infinitely greater, and the freedom of those under his care from a disease of such a distressing nature is a sufficient recompense.

COCAINE INTOXICATION AND ITS DEMORALIZING EFFECTS.

By KAILAS CHUNDER BOSE,
Rai Bahadur, L.M.S., C.I.E.

Besides the use of cocaine hydrochlorate as a therapeutic agent its consumption as a drug for intoxication is so great in Calcutta that unless stringent measures be adopted to control its sale, I have reason to fear that its demoralizing effects will soon spread amongst the juvenile members of respectable families, and that at no distant date special asylums will be required for the safety and treatment of cocaine inebriates.

Fortunately, however, the cocaine habit is at present confined to people who are more or less addicted to opium, ganja, or alcohol, but we occasionally come across cases where the victims have contracted the habit *de novo*. We do not know how the people of Calcutta have obtained their knowledge of the intoxicating property of a costly drug which has hitherto been only handled by medical men, but facts tend to show that they have got it from Bhagalpore, where cocaine has become a social necessity amongst the less thoughtful. Inebriates say that the hilarity it produces is almost instantaneous, and is followed by no deleterious results. Novices as a rule take it quite secretly during the early hours of the night, whilst confirmed and veteran eaters consume it during all hours of the day. It is generally taken in the form of tablets or powder and chewed with betel leaves (*Pan*, piper betel) and slaked lime.

Unlike ganja or bhang it requires no special preparation. The habit once acquired cannot be easily given up. The first symptom experienced by the victim after he has taken a dose of cocaine is loss of sensation in the tongue and lips, followed by dryness of the mouth and fauces. A thermometer placed under the tongue does not indicate any rise of temperature. The approach of the so-called hilarity is announced by a feeling of heaviness of the head, throbbing of the arteries of the neck, and palpitation of the heart. The pulse becomes slightly full and quick, but never exceeds 110. At this stage the inebriate likes to be left alone; he firmly closes his lips and avoids talking, lest, in his attempt to do so, the saliva flows out of his mouth. His ears become hot and red, whilst his cheeks become pale; the tip of the nose becomes cold, perspiration soon breaks out on the forehead and neck, and the height of intoxication is marked by coldness of the finger ends and dilatation of the pupils. This stage lasts from 30 to 45 minutes, after which the victim longs for a fresh dose, and unless he gets it he feels lifeless and dejected. This depression of spirits is more imaginary than real, for I have not noticed any fall of temperature or slowness of the pulse, but the respiration becomes slightly hurried. The tongue and lips now become moist again, and perspiration on the forehead ceases altogether, but the pupils remain dilated. The physiological effects of cocaine are most marked upon novices. The teeth and tongue of confirmed cocaine eaters turn jet black, and this is probably due to the chemical change produced by the action of lime and saliva upon cocaine.

The craving for an increase of the dose becomes irresistibly great, and in one case the dose was raised from 1 gr. to 12 gr. within the short space of a month. Unlike opium, it brings on insomnia and anorexia, soon followed by dyspepsia and diarrhoea. The dyspepsia of a cocaine inebriate is very obstinate and does not readily yield to treatment. Its prolonged use brings on some deafness. The quantity of urine is diminished, but in none of my cases was albumen detected. Delusions and hallucinations often occur, and cause dejection and dread. In some cases cocaine brings on acute mania, which is not amenable to treatment. Amongst numerous other cases I select the following in which the deleterious effects of cocaine upon the system were most marked.

Case I: *Cocainism following the Use of Opium and Bhang: Gradual Increase of Dose: Diarrhoea: Convulsions: Death.*—L. B. M., a promising boy, aged 20, very respectably connected, fell into bad company and contracted the habit of taking opium and bhang in their various forms. His friends remonstrated with him, and he gave up the opium habit altogether and took a fancy to try the effects of cocaine. A friend of his offered him 1 gr., and its effect, as the young man said, was simply pleasant. He continued to take 1 gr. daily for some time with apparent benefit to his physical health. He then began to take 2 gr. twice daily, and he went on increasing the dose until it was raised to 30 gr. a day. The demoralizing effect of the drug was soon marked upon him: he now avoided society and became solitary. He was honest and truthful before, but now he became a liar and a pilferer. He was fair and strong, but he soon became weak and dark. He suffered very badly from insomnia, and hypnotics failed to give him rest and sleep. He would take nothing for his food except milk in very small quantities. His heart beat was strong, but his hands and feet were cold and clammy. His pupils were dilated, and the conjunctivae looked pale and bloodless; his tongue and teeth were black. Obstinate diarrhoea supervened and carried him off. He had convulsions before death.

Case II: *Confirmed Cocainism: Plus Sulphonal: Ruined Life.*—S. B., aged 45, a Sanscrit scholar, and versed in Hindu philosophy, consulted me for insomnia, the result of the cocaine habit. As a priest he said he had to fast at least three days in a week. About a year ago he had occasion to go to Bhagalpore, where he met a learned Pundit, who advised him to take cocaine, which possessed remarkable power of sustaining vigour and life without food, and enduring fatigue of all kinds. This induced him to take cocaine. At the commencement he derived benefit from its use. Thinking he might further improve his health he raised the dose from 1 gr. to 3 gr. He felt weak and giddy, and consulted another cocaine eater, who advised him to take it twice daily and in pretty large doses. He raised the dose to 5 gr., which he took regularly for three months, when unpleasant symptoms began to make their appearance one after another. He soon felt himself dispirited and miserable; he suffered from anorexia and obstinate insomnia; he lost his memory, and

became dull and stupid. I strongly advised him to give up his cocaine altogether. He promised to do so. After a few weeks he returned to me again and asked for a harmless drug which would act as a substitute for cocaine, as he regretted he could not resist the temptation and had to use cocaine, although he knew well he was poisoning himself. I noted the following symptoms: Temperature, 97° F.; pulse, 110, soft and compressible; heart sounds feeble, regular, no *bruit*; tongue and teeth jet black; sight impaired, lachrymation, photophobia, pupils dilated but respond to light; considerable wasting of the muscles of the body. I gave him 20 gr. of sulphonal to take with milk at bedtime. The next day he reported that he had slept a little, and felt easy. I gave him another dose, and the effect was satisfactory. Now, I hear, he takes sulphonal daily, and has kept up his usual dose of cocaine. He has given up his priestly duties, and mixes freely with low-class people. He lives entirely upon the charity of his neighbours.

Case III: *The Cocaine Habit Acquired through the Medicinal Use of the Drug: Its Tenacity and Ruinous Power.*—G. A., aged 45, has been using cocaine for the last eighteen months. He was subject to facial neuralgia, and had several of his teeth extracted. He was advised by a cocaine eater to chew cocaine with betel leaf, and he did it with excellent results. This induced him to use it daily, and he thus acquired the habit. At present he takes 8 gr. twice daily. He wished to discontinue its use as he had no further neuralgia, and as the process was very expensive, but he could not do it. The following symptoms were recorded: Pulse 100, intermittent; respirations, 18; temperature, 97° F.; pupils dilated; general weakness of the body, anorexia, insomnia, constipation; mind clear; occasional vertigo and headache; tongue moist and clear, slightly tinged black; has lost all his virile power. To ascertain whether the craving of cocaine inebriates was more imaginary than real, I gave him 8 gr. of sulphonal, telling him that it was cocaine of the very best quality, and more exhilarating than the inferior kind of bazaar cocaine, and did not require any special preparation to produce the desired effect. He called again the next morning, and reported that the new drug had no effect upon him, and he had to take his bazaar cocaine, which gave him instant relief. He is impoverishing himself in order to procure his daily dose.

Case IV: *The Cocaine Habit in an Opium Eater: Delusions.*—S. L., Burman, aged 52, a confirmed opium eater, used to take 30 gr. of crude opium twice daily, but has now reduced his daily ration to 10 gr. He contracted the cocaine habit two years ago. He first took it for the relief of pain which he was subject to. From 2 gr. he has increased his daily dose to only a few grains less than two drachms. He prefers to take it in the crystal form; says he can take two drachms with perfect safety. He gets his supply from a *panwalla* (betel leaf vendor) to whom he he pays Rs. 2½ every day. When he cannot procure money by honest means he robs his wife and children of their jewellery. He was stout and strong before, but now looks pale, thin, and anaemic. He constantly feels a dull heavy pain on the head, and a sense of heat all over the body; perspires freely and suffers from insomnia, for which he sought my advice. Whilst giving the history of the case he suddenly stood up and looked bewildered; he walked to and fro for a few minutes and then sat down. He remained seated for about twenty minutes, and then hastened to hide himself behind an *almirah* which stood near. His friends, who accompanied him, stated that they had noticed this change in him for about a fortnight. I closely watched his behaviour, and did not allow anybody to disturb his movements. He soon came out and sat quietly on the floor. When questioned, he replied that for the last ten or twelve days an evil spirit had taken possession of him, and when he forgot to pay him his due he got annoyed and tried to kill him. He remained with me for more than an hour and a-half and then left the place. His pupils were slightly dilated, pulse 86 good, respiration normal, tongue dark black, pretty moist, cannot distinguish salt from sugar, muscles of the body flabby, tendon reflexes diminished. His urine was analysed, but nothing abnormal was detected.

Case V: *Physical and Moral Degeneracy.*—B. L. M., aged 33, has been using cocaine in 30 gr. doses twice daily during the last twelve months. He gets his supply from dispensaries. He was stout before, but has now lost his weight; suffers from anorexia; has not taken any food for the last four days; says he can tolerate fatigue very well; no constipation; absolute insomnia; disturbs his neighbours during night; talks too much, but coherently. Pulse 100, intermittent and feeble. Respirations normal. Hepatic dullness slightly increased. Tongue black; pupils normal; has lost all sexual appetite. At the commencement he was told by his friends that cocaine was a powerful aphrodisiac, but experience has taught him otherwise. He was a broker before, and at one time enjoyed the confidence of his clients. He has now brought ruin upon himself. He takes cocaine daily, about Rs. 2, and this amount he candidly confesses he raises by unfair means. He cannot give up the cocaine habit, although he is fully aware of its baneful results.

Case VI: *Opium Exchanged for Cocaine: Manner of Consuming the Latter.*—B. K., aged 30, a respectable Hindu gentleman, contracted the habit of taking cocaine for the improvement of his virile power. He was an opium eater before, but gave up his opium habit altogether since he became acquainted with the charming effects of cocaine. He gets his supply from his own medical adviser. From a very small dose of 2 gr. he has raised it to 30 gr. now, and says he cannot resist the temptation of increasing it still further. He consulted me for insomnia, but begged me not to curtail his ration of cocaine. I examined him carefully, and noted the following symptoms: Pulse, 100, weak and small; temperature, 97.5° F.; respirations 18; tongue and teeth black; pupils slightly dilated; lungs healthy; heart sounds normal; liver slightly contracted; no jaundice, spleen normal, urine scanty, but nothing abnormal was detected; has lost all his sexual appetite. It took me about twenty minutes to examine him, after which he became restless and asked me to leave him forthwith, as further delay would likely prove fatal to him. Saying this he sat up, and brought out his cocaine phial and the bowl in which he kept his betel leaves and slaked lime, and commenced taking his beloved cocaine. He took out a silver director, put its spoon end into his phial, and brought out a small quantity, say about 1 gr., put it on the dorsum of his tongue, and then, with the other end, he took out a small quantity of lime, spread it on betel leaf, and putting it in his mouth began to chew it. He then firmly closed his lips: the upper one overlapped the lower lip. He remained silent for about fifteen minutes, and then took out another grain of cocaine, and strictly followed the process observed before. He went on doing this until I left his room. His aunt said that he would not move from the place where he sat until he had taken his full ration. His father informed me that only the other month he had to pay Rs. 90 to his doctor for the supply of cocaine.

Case VII: *Cocaine in the Zenana.*—A healthy-looking young Hindu girl, aged 16, contracted the cocaine habit under peculiar circumstances. An elderly woman living in the same house advised her to take cocaine to get rid of dysmenorrhoea, which she was subject to. She also cited instances where cocaine proved a sovereign remedy for removing sterility. The foolish girl followed her advice, and took cocaine every day clandestinely in 1-gr. doses for six weeks. She then increased the daily dose, and one day she took 10 gr. Half an hour after she had taken the dose she complained of a choking sensation, and soon became unconscious. At this stage I was summoned to see her. The patient had all the symptoms of hysteria, and I prescribed for her accordingly. When I was about to leave the place the patient had a fit of convulsions, and the anxious father invited me to notice it. She had twitchings of the muscles of the face and general tremor of the body. The fit lasted for nearly three minutes, and was then followed by another after a pause of about ten minutes. It lasted for about three minutes and then left her altogether. Her pulse was 92, pretty good; temperature 99° F.; respirations shallow, 18; tongue, lips, and mouth dry. Pupils slightly dilated. The dryness of the mouth made me a little inquisitive, and I enquired whether she had taken bhang (leaves of cannabis indica) and the reply I received was in the negative. My next question was whether she had had any similar kind of fit before, and the reply was also in the negative. I examined her pulse again and found it to be soft and quiet. Profuse perspiration soon broke out on the forehead and neck and then gradually over the trunk and extremities. Her condition did not im-

prove much and she remained unconscious till the next morning. At about 10 a.m. the following morning marked improvement was noticed in her general condition. She could now understand questions and answer them correctly. Her bladder was full and had to be relieved by catheter. Her pulse and respiration improved and she appeared a different person altogether. At about 1 p.m. she became very cross and wanted to go to the adjoining room where she had her box containing betel leaves and spices. As her friends did not allow her to move she became very irritable. At this time the elderly woman came up and offered her a prepared betel leaf which she chewed; she then became absolutely quiet. During the evening she became again irritable and she herself sent for the old woman, who responded to her call and gave her another prepared betel leaf which instantly calmed her down. This roused suspicion in my mind, and next day when she became worse and wanted to see the old woman, her movements were closely watched. Her husband, under instructions from me, received the prepared betel leaf and made it over to me. On opening the folded betel leaf cocaine was discovered, and then on being questioned the girl made a clean breast of the whole thing, and further said that there were three more girls under the same roof who were taking cocaine in pretty large doses. The enormity of the mischief which cocaine has done and is likely to do can be better imagined than described. The old woman was turned out and the young ladies have ultimately recovered, but one of them has become a confirmed opium eater.

CASE VIII: *Complete Moral and Physical Decadence and Death.*—J., aged 21, a promising young Brahmin boy, living with his relatives, suffered from spermatorrhoea, and on the advice of a quack contracted the cocaine habit. He commenced with a very small dose, and gradually raised it to half a drachm. The pernicious effect of the drug was most vividly marked upon his countenance. He was fair and pretty healthy before, but under the influence of cocaine he became dark and greatly emaciated. He suffered from obstinate dyspepsia and insomnia, for which he sought my advice. He confessed that he had tried but failed to reduce his daily ration, and at last became desperate and determined to resign himself to his fate. His brother, who was his guardian, confined him to a room in his house, and stopped his cocaine altogether. The boy sold his wearing apparel to corrupt the domestic servants in order to get his regular supply through them. He was ultimately turned out of the house. He lived for some time upon the charity of friends. He lost all his energy and intelligence. He suffered from obstinate diarrhoea which did not yield to medicine. He was reduced to a skeleton, his voice was hoarse, pulse soft and quick, heart sounds extremely feeble. Respirations 32, hurried; no *râles* or rhonchi were detected. Conjunctivae pale, and pupils widely dilated; suffered from vertigo and noises in the ears. Slightly deaf, no inclination for any kind of food. He still takes cocaine, and says his generous relatives out of compassion supply him with funds. Every attempt was made to reform him, but none proved effective. The unfortunate boy eventually died.

CASE IX: *Chronic Dementia caused by Cocainism.*—H., aged 29, an intelligent man, lost his situation by contracting the cocaine habit. He has been addicted to its use for the last five months. Can now take half a drachm of cocaine without feeling any inconvenience. Says he can endure fatigue very well, and walk for miles without fatigue, or any kind of food or drink. Pulse 100, intermittent; tongue jet black. Says the excitement of cocaine is only temporary, and is not worth the expense and trouble. To quote his own words, "To eat cocaine is to court misery." He repents of his folly but cannot resist temptation. He cannot govern his ideas, and loses the thread of his conversation. Dread of being chased by the police maddens him. Whilst loitering on the streets, should he see any white powder he would carefully pick it up and put on his tongue and then throw it down, saying it is not the thing he wanted. He plucks flowers from plants and puts them on his head. He now lives entirely upon the charity of others.

CASE X: *Acute Mania Caused by the Cocaine Habit.* D., aged 27, a healthy Marwaree gentleman of Bhagalpore, was placed under my treatment for acute mania—the result of cocaine in which the patient indulged to excess. From his history it was found that previously he was addicted to ganja smoking. By the advice of his friends he gave up ganja and took a fancy to cocaine which at one time was considered a luxury amongst the youth of Bhagalpore. He commenced taking cocaine in 4-gr. doses, but soon raised it to a little less than a drachm. He now takes daily a phial worth Rs.2½. His friends say that they cannot curtail his dose, as the attempt has on more than one occasion been followed by disastrous results. The patient grew worse, and became more violent and furious. A big dose of cocaine given in the stage of excitement rapidly quietened the symptoms. His sense of taste was absolutely dull, and he could not distinguish salt from sugar, but it was most acute in detecting the adulteration of cocaine, which was at one time intentionally done by his friends to diminish the dose. He talks incoherently and becomes violent when contradicted. His best friends are those who can keep him well supplied with cocaine and betel leaves. He says that the mirth-giving power of cocaine is simply charming. He believes that an evil spirit has taken possession of him, and says that nothing short of sacrificing half-a-dozen men would extricate him from his clutches. His pulse was 86 good, respiration normal, pupils widely dilated, temperature normal. I advised his friends to keep him under restraint, and went to see him on the following day. He took about 10 gr. of cocaine in my presence, and I noticed the following changes. His forehead became hot, tongue and lips dry, temperature 99 F., pulse 86. He remained absolutely silent, and refused to give answers to questions. He was very irritable before, but became absolutely quiet. His constant and favourite attendant told me that he would remain for nearly half an hour in that attitude, and then become incoherent again. As his friends were not prepared to disallow cocaine I discontinued my attendance. It is now nearly twelve months since I saw him last, and I am sorry to hear that he is just as bad as before.

On analysing these cases we find that the action of cocaine upon the nerve centres is slightly stimulant at the commencement, but this effect is only temporary, lasting from fifteen to twenty minutes, and is then followed by a feeling of depression, which gradually passes into complete lethargy and inertia. The power of control is gradually lessened. The virile power is lost. The action of the drug upon the heart and vascular system is depressant. In all my cases irregularity in the rhythmic action of the heart was noticed. The circulation becomes languid. Loss of appetite and failure of digestive power is marked. Emaciation results from want of nutrition. The craving for increase of the dose becomes irresistibly great, the secretion of urine is greatly lessened, and effete materials are consequently retained; the impurity of the blood disturbs the functions of the brain, causing insomnia and loss of memory. Persistent functional disorder gradually leads to structural changes; the victims suffer from delusions, hallucinations, and mental aberration. So long as the inebriates take cocaine in moderate doses, they do not manifest toxic symptoms. Unlike opium, cocaine eaters soon become useless members of society, and at times their lives become a burden to themselves.

To attempt to break the cocaine habit by substituting sulphonal or chloral is to induce the inebriates to consume both. The only remedy lies in locking inebriates up in asylums, and stopping their cocaine altogether. My friend, Babu Brojo Lall Dey, Superintendent of the Metropolitan Institution and College, Calcutta, informs me that he knows instances where students of tender age, belonging to private schools, have become addicted to cocaine, and got so demoralized that they were ultimately expelled the institution. He also mentioned that two brothers, aged 14 and 18 respectively, and belonging to a very respectable Hindu family, contracted the cocaine habit, and indulged to excess. Both of them became insane; the father locked them up and stopped cocaine altogether. In course of time they recovered, and joined their class.

Information has also reached me that women dealing in fancy goods, who have access into private houses, carry cocaine clandestinely, and sell it to girls, who take it in very small doses with betel leaves. The time has come when measures ought to be taken to put a stop to the illicit sale of cocaine.

A NOTE ON THE APPLICATION OF LITHOLAPAXY OR LITHOTRITY TO STONE IN THE BLADDER IN THE CANINE SPECIES.

By REGINALD HARRISON, F.R.C.S.,
Surgeon to St. Peter's Hospital.

It has been said—perhaps without sufficient consideration—that though man has profited much from observations made on the lower animals, the converse in its relation to surgery is hardly true.

In this note I propose referring to a process of treatment, which having been thoroughly tried and perfected in the first instance in the human species, is now being extended to animals when placed under corresponding conditions of disease with equally satisfactory results. In the latter relationship I should state I occupied more the part of a privileged and interested spectator than that of a responsible operator. I refer to the treatment of vesical stone in the canine species by the most improved and modern methods of crushing, or lithotrity with evacuation of the fragments so triturated.

My attention was first called to this matter by my friend, Mr. A. J. Sewill, M.R.C.V.S., a few years ago. Since then, and in some instances conjointly with Mr. Sewill, considerable attention has been given by me to it. I have now before me a collection of stones illustrating calculous disorders in various positions taken from these subjects. These include two specimens of renal calculus *in situ* and others removed entire from the bladder by lithotomy. A letter from Mr. Sewill accompanying them says:

I am sending you a few specimens of calculi I have removed by suprapubic operation. The large one you will remember you removed one Sunday. I am not sending you any of the stones I have removed by crushing, as I do not suppose the pieces would interest you.

The animal referred to here upon which I performed the suprapubic operation unfortunately died of peritonitis. It was a bitch only 14 lb. in weight. The stone weighed 3 oz. and 2 drachms. This operation was a difficult one, and led me, conjointly with Mr. Sewill, to endeavour to substitute in these circumstances, as in man, a crushing for a cutting operation.

These crushing operations, Mr. Sewill now informs me, have been followed by a considerable success, both immediately and remotely, as the canine species does not appear to be so liable to recurrence of stone as is the case with adult males of the human kind.

In his work on the dog, Mr. Sewill,[1] in referring to the treatment of vesical stone, only speaks of the removal of the latter either by some form of lithotomy, or in the bitch by dilatation of the urethra under cocaine or an anaesthetic, and the withdrawal of the calculus by forceps if sufficiently small. In a further edition of this work the process known as litholopaxy, or crushing stones and evacuating the fragments at the same time as applied to man, with its small mortality and minimized suffering, will for the future find a place in veterinary surgery.

I will describe a recent operation at which, as the French say, "I assisted" with Mr. Sewill. The patient was a large and powerful collie bitch who had for some weeks been suffering from symptoms typical of stone in the bladder. A sound was first passed into the bladder, when a moderate-sized stone was readily detected. As the animal was so tolerant and showed so slight evidence of distress other than that occasioned by the inconvenience of being held with the buttocks elevated by a single attendant who was well acquainted with her, Mr. Sewill at once passed a small ordinary smooth-bladed lithotrite into the bladder. Being then asked to manipulate the instrument, I readily seized the stone, and, finding it was too large to withdraw it entire by the urethra, I rapidly broke it up into minute fragments. When sufficiently triturated to pass through the eye of an evacuating catheter, the particles were withdrawn with an ordinary aspirator charged with water until the bladder was clear. Thus the stone was reduced and the fragments removed as in the human species with practically no bleeding nor evidence of pain. The entire operation occupied seven minutes. We were quite prepared to give an anaesthetic had there arisen sufficient indication for its use either locally or generally. Not even any kind of muzzle was required, and the patient walked away with the attendant from my house as if nothing unusual had happened. I saw her a few days afterwards with but slight signs of any irritability of the bladder remaining. The stone proved to be phosphatic and of about the size of an ordinary brown hazel nut.

The after-treatment consisted in washing out the bladder once a day with some boracic lotion until all traces of vesical irritability had ceased. In contrast with the bitch, the dog presents anatomical distinctions which renders the performance of crushing more difficult. Mr. Sewill informs me that the dog is less liable to suffer from any considerable stone formations in the bladder than the opposite sex. He accounts for this partly by observing that the stone whilst small often becomes impacted behind the penal bone of the male urinary apparatus. This occasions a retention which may be and is promptly remedied by what I would speak of from the surgeon's point of view as a perineal lithotomy. The whole subject is of so much interest that, with Mr. Sewill's concurrence, I have thus ventured to write of it briefly in the way it has been presented to my notice. From the examination of the two specimens of stone in the kidney to which I have also referred, I see no reason, so far as the relations of the stone to the gland are concerned, why nephrolithotomy should not, as in the human species, be practised with success.

REFERENCE.

1 *Dogs and their Management.* By the late Edward Mayhew, M.R.C.V.S., and A. J. Sewill, M.R.C.V.S. London: 1897.

TWO CASES OF ACUTE INTESTINAL OBSTRUCTION SUCCESSFULLY TREATED WITH QUICKSILVER.

By J. McKEAN HARRISON, M.B., B.Ch.(R.U.I.),
Ledbury.

The two following cases of acute intestinal obstruction treated with quicksilver may be interesting to the profession, and may lead to this drug being given a trial in cases in which an operation is either refused or unjustifiable, and where the routine methods of medical treatment at our present disposal have failed.

History.—J. C., a man of 60, but looking considerably older, fell down some steep stairs on September 14th, 1901. The next day he complained of pain in the umbilical region. This pain increased from day to day, and at the end of a week was very severe. His bowels had not been moved, and he was sick. The abdomen was greatly distended, and there was great pain over the umbilical region. Many kinds of aperients were tried without success, and water and turpentine enemas high and low were given a fair trial. His friends were unwilling for any operation. At the end of the ninth day his condition was most serious, constant vomiting, hiccough, and great abdominal distension. Pulse weak and running, and tongue dry.

Treatment.—As a heroic remedy I gave him ½ lb. of quicksilver. He vomited about a tablespoonful of it immediately, which was washed and again taken; 1 gr. of opium was given every four hours.

Progress.—The following morning he felt easier—doubtless the opium—but he was not sick, and he was able to retain frequent nourishment in the way of Valentine's meat juice, coffee, and brandy. No action of the bowels. The next day his bowels were well moved and he felt and was greatly better. A mixture of sulphate of magnesia and belladonna was now given instead of the opium. His bowels were moved daily. No mercury appeared so far. His condition gradually improved, abdominal distension decreased, appetite improved, and he was able to leave his bed seven days after the administration of the quicksilver. He made a good recovery, and the mercury came away ten days after its administration. The man continued well during October and November, but on December 20th he suddenly developed hemiplegia, and died on December 26th. I was unfortunately unable to obtain a necropsy.

One of the difficulties in intestinal obstruction is the accuracy of diagnosis. The onset of the abdominal symptoms after the fall and the marked distension led me to lean to a diagnosis of volvulus of the bowel, which, if correct, the quicksilver, by its weight and fluidity, must certainly have unravelled.

Another apparently hopeless case in which I have tried quicksilver was the following:

History.—J. D., a man of 80, well nourished and enjoying good health, was taken suddenly ill with great pain in the epigastric region in the early morning of December 15th, 1901. When I saw him he complained of a sharp cutting pain at the pit of the stomach, and he had been sick. He was anxious and restless. His bowels had moved the day before, and he had eaten nothing to account for his symptoms. He had an easily reducible inguinal hernia, for which he wore a truss. I ordered some turpentine stupes, a bismuth and hydrocyanic mixture, and an aperient.

In the evening he was no better. He was suffering greatly from flatulency, but had passed no flatus, nor had the bowels moved. His temperature was 100° and his pulse good, but he had great pain over the epigastric and umbilical regions. He was given a mixture of sulphate of magnesia and small doses of belladonna. On the morning of the 16th his condition was worse. He had had a restless night and was sick frequently, bringing up at one vomit about half a pint of dark blood. His temperature was 101°, his pulse 100 and hard, the tongue dry. There was great thirst. I gave an enema, which brought nothing away, and was followed by a good deal of collapse and sweating. In the evening his bowels were greatly distended, but the pain was much better. His temperature was 101°, his pulse being fast and intermittent. He had a very restless night, with a good deal of delirium. In the morning of December 17th his symptoms were much the same as on the previous day—sickness, thirst, restlessness, and slight wandering. His bowels were greatly distended, and no liver dullness could be made out. His temperature was 101°, and his pulse fast and intermittent. No flatus passed, nor was there any action of the bowels. He was now taking 1 gr. of opium every five hours. He had a bad night. On the morning of December 18th his temperature was 100°, his pulse weak and running, his tongue dry, and constant sickness: there was delirium and great abdominal distension. In the evening I thought he was sinking. The vomiting of blood on the second day of his illness, the absence now of all pain, and marked tympanites over the entire abdominal region, made one fear gangrene of the bowel. His age and condition rendered any abdominal operation out of the question.

Treatment.—On mentioning the action of quicksilver to his friends, they were most anxious for its trial as a last resort. I must say I gave it with little hope and a good deal of misgiving. He had half a pound on the evening of the 18th and opium pills every four hours.

Progress.—Had a very restless and delirious night up to 6a.m., when his bowels were moved, and he passed a great quantity of flatus. On the morning of the 19th he was distinctly better, his mind clearer, his pulse better, the abdominal distension less, and he was able to keep down nourishment, which he had now at frequent intervals. He passed a fair day, and had another action of the bowels in the evening. He gradually improved from day to day, and was able to take and digest frequent nourishment. His temperature still remained about 99°, and his pulse was still fast. A digitalis and strychnine mixture was now given with considerable benefit, and a dose of castor-oil now and then, which always moved his bowels well. He got up for a short time on December 29th. A small quantity of mercury appeared in the motions on the 29th, and on December 30th a large, if not the entire, quantity came away. His temperature fell to normal, his appetite improved, and on January 20th, 1902, his condition was most satisfactory. He was enjoying his food and a cigar, was able to get out and take exercise, and, beyond some little difficulty in keeping his bowels regular, was quite well.

In neither of the two cases I have described was there the slightest symptom of mercurialism, nor did the drug produce any increased abdominal pain.

In the second case, the very acute onset of serious symptoms, the presence of blood in the vomit, and the rapid development of general abdominal tympanites, clearly pointed to some very acute intestinal obstruction.

A NOTE ON THE INFANTILE MORTALITY FROM TUBERCULOUS MENINGITIS AND TABES MESENTERICA.

BY HUBERT ARMSTRONG, M.D.VICT.,
Assistant Physician to the Liverpool Infirmary for Children.

THERE is an old axiom exhorting us to give the Devil his due, and another which asserts that that personage is not so bad as he is often painted. Substitute the tubercle bacillus for the author of evil, and the two proverbs form the text of this note.

By those who disagree with Koch's latest theories the infantile mortality from various forms of tuberculosis (of which the two diseases under notice form during the first year of life by far the greater half) is frequently used as an object lesson pointing to the extreme danger of a contaminated milk supply.

Milk forms the staple diet of infants; only too often it is cow's milk which takes the place of the mother's, the death-rate from tuberculosis is so-and so, milk is proved to be infected—what more is wanted? Only the verification of all the premisses; and it is the penultimate as I have given them which is the weak link in the chain, though on paper it may appear the strongest. Textbooks are fairly unanimous in stating that tuberculous meningitis, at any rate, is comparatively rare under the age of 1. In view of this the figures in the following table, compiled from the last available statistics of the Registrar-General, are remarkable. According to them approximately three-tenths of all cases occur in the first year, something like half as many again as in the second age period, the next most affected.

Deaths from Tuberculous Meningitis in England and Wales.

Year.	All Ages.	Under One.	One.	Two.	Three.	Four.
1898	6,681	1,985	1,397	693	485	344
1899	6,449	1,820	1,228	712	478	372

The second table gives the deaths from tabes mesenterica during the same two years, and it will be seen that the disproportion is even more marked.

Deaths from Tabes Mesenterica in England and Wales.

Year.	All Ages.	Under One.	One.	Two.	Three.	Four.
1898	6,357	3,265	1,135	394	160	96
1899	6,294	3,208	1,100	366	164	106

In the report of the Liverpool Medical Officer of Health for 1900 tuberculous meningitis, tabes mesenterica, and scrofula are classified together, and a similar, though less marked, ratio is seen: All ages, 430; under 1, 113; 1 to 2, 70; 2 to 5, 82. From these statistics, then, it would appear that both these diseases occur with greatest frequency during the first year of life, or at any rate are then most fatal, and the most optimistic physician will admit that in meningeal tuberculosis the death-rate is practically equivalent to the rate of incidence.

Such being the facts it would be strange if in a hospital like the Liverpool Infirmary for Children, with a monthly attendance of over a thousand new patients from which to recruit the wards, verified cases should prove extremely uncommon. Nevertheless a careful search through the *post-mortem* records for the last seventeen years shows that this is so. During that period there have been 85 necropsies where tuberculous meningitis was present, and while 10 of the subjects were in the second year, 18 in the third, and so on there was not a single case in the first year. Over 70 infants have come down to the *post-mortem* room, and 9 of these had meningitis, which in every instance was pronounced definitely not tuberculous, and I have been unable during the last four years to find one among the out-patients which was. At Guy's Hospital there were only three in forty years.[1]

Of tabes mesenterica I would not speak so positively. There is a *post mortem* record of one case only, that of a patient of Dr. P. Davidson, a male infant of 10 months, who had in addition an empyema; but very many more infants die with symptoms of intestinal disease where it would be impossible without examination to exclude tubercle than with those of meningitis. Still one necropsy in seventeen years hardly points to a mortality of more than half the total number of deaths.

I cannot help thinking that if these diseases were so fatal to young infants, we should find more instances recorded in the books of our hospitals, and that in very many of the deaths certified under these headings the tuberculous element was absent. The meningitis, for instance, may have been suppurative, syphilitic, the chronic basilar form described by Barlow and others, or the cerebro-spinal type, either epidemic or sporadic; or perhaps infantile convulsions, with their numerous causes, may have been misinterpreted. The error with tabes mesenterica possibly arises from the vagueness of the term, which in itself gives no clue to the fact that tubercle is involved. Hence the inclusion of many cases of "wasting," for which the bacillus is not responsible.

If my contention is right, greater circumspection in the signing of death certificates, and the avoidance of stating therein as a definite cause what is at best only a surmise, should result in an appreciable improvement in the death-rate from tuberculosis a highly desirable consummation, whether achieved by the efforts of our sanitarians, or only by the elimination of cases which should never have fallen under that heading.

REFERENCE.
1 Fagge and Pye-Smith, *Principles and Practice of Medicine*, 3rd edition, vol. i, p. 639.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE SETON IN MIGRAINE AND ALLIED AFFECTIONS.

THE following case may be of general interest as showing the striking effect of a seton in the neck, in the most severe and persistent case of headache I have ever seen.

The patient, a labourer, aged 25, had suffered from headaches as long as he remembered. At first vomiting used to accompany the attacks, but latterly the headaches had grown worse, but were less often associated with vomiting. In February, 1901, he fell whilst carrying a pole and struck the back of his neck. Since then the headaches have practically incapacitated him from work.

When first he came under treatment he was delirious for a fortnight and at times maniacal. His sole complaint was of his head, and he several times attempted to strangle himself in the paroxysms of pain. As he had no rise of temperature all this time and no abnormal signs were discoverable, one was able to exclude meningitis, pneumonia, cerebral tumour, uraemia, or typhoid. Icebags to the head, a blister to the neck, massage, bromide, salicylate, cannabis indica, and morphine, all completely failed to give relief. Ten grains of antipyrin hourly for three hours "took the edge off" his pain for a few hours, but it returned with all its severity. After three weeks in bed he so far improved as to be able to get up. His vision was $\frac{6}{5}$ with Hm. 0.5 in each eye, but he refused to wear glasses, and with reason, as his occupation was that of wood sawing.

As the patient hesitated to submit to Mr. Whitehead's seton he was sent to Herne Bay for a month (still with daily headaches), promising to let me "saw his head off" if he was not benefited by the change. Early in December he returned with the headaches as bad as ever. Antipyrin in rather larger doses still made life just bearable, but did not relieve him sufficientiy to allow of his returning to work, although he was sincerely anxious to do so.

He was so dejected about his condition that he now willingly allowed me to put the seton in under anaestile. From that day until now (more than four months) he has had but one slight headache (on Christmas night after a particularly festive meal), and from being gloomy and suicidal he has become bright and active, and he has been back at his work for a month. The tape is changed fortnightly, and the wound is dressed with one boracic fomentation a day by his wife, who gently moves the tape.

Although the three months are over he refuses to have the tape removed lest the pain should return. This result in a man with almost daily headache (though it is perhaps early to be too hopeful) is, I think, wonderful. I am convinced no "moral effect" can be invoked in this case; there is nothing of the neurotic in the patient (he has his living to get), and his family history is good. A large blister was of no use.

I imagine the seton acts much in the way that acupuncture does in lumbago and sciatica—by counter-irritation.

Dorking. SYDNEY CORNISH, M.D., B.S.Lond.

TRAUMATIC EMPHYSEMA OF THE LOWER EYELID.

LAST October J. W., 19 years of age, rivetter, came to me with emphysema of the right lower eyelid, and stated that on the previous day he had got a slight blow with a hammer, that the force was applied at the outer angle of the orbit, causing apparently a mere excoriation, and that as he blew his nose on the same night the eyelid became suddenly swollen.

The emphysema was slight and strictly limited to the lower lid, and was less than it had been; the upper lid had not been affected. As in Dr. Watt's case,[1] the violence was slight, and there was neither pain nor haemorrhage. The blow on the malar bone, I take it, caused a fracture indirectly of the orbital plate superior maxilla, so that when the air pressure in the maxillary sinus was increased some found its way through the crack.

Dundee. W. S. MALCOLM, M.B.

[1] BRITISH MEDICAL JOURNAL, March 15th, p. 655.

KERNIG'S PHENOMENON.

THE presence of Kernig's sign has justly been regarded by Osler (Cavendish Lectures, BRITISH MEDICAL JOURNAL, June 24th, 1899) and others as a valuable help in the diagnosis of epidemic cerebrospinal meningitis. Recently, however, I met with it in the case of a low-caste Hindu, who came to our dispensary four weeks ago and who presented all the classic symptoms of early spastic paraplegia. As I have not seen any other such case recorded it may be of interest as showing that the sign is by no means pathognomonic of meningitis, whether of the epidemic variety or not. The man had no history, nor did he present any symptoms of having had any meningitis.

J. RUTTER WILLIAMSON, M.B.

Mission Hospital and Medical School,
Miraj, S.M.C., Western India.

SUDDEN SYNCOPE OCCURRING AFTER THE INJECTION OF ANTITOXIN IN CASES OF DIPHTHERIA.

READING the report of a case of severe diphtheria in which sudden syncope occurred after the injection of antitoxin, published by Dr. Arthur Somers of Selby in the issue of the BRITISH MEDICAL JOURNAL for February 22nd, recalls to my mind two cases of my own which presented somewhat similar symptoms.

The patients were sisters, both of them being about the age of puberty and in poor circumstances and surroundings. The sufferers were seen by me upon following days: both showed clinically well-marked symptoms of a fairly severe attack of diphtheria with high temperature, albuminous urine, enlarged glands at the angles of the jaw, etc., in addition to the usual throat signs.

Case 1 received 1,500 units of antitoxin, was immediately notified and removed to the fever hospital, where she died shortly after admission from a sudden attack of syncope. Case 2 received a similar quantity of serum, was also at once notified and removed the day after her sister to the same institution, arriving there, as I was subsequently informed, in a state of extreme collapse, and only brought round with the greatest difficulty. The serum used was injected with all antiseptic precautions and in both instances was supplied by a well-known London firm of wholesale chemists, also the patients were removed with due care in the special infection ambulance.

Like Dr. Somers I wondered at the time whether the antitoxin produced these symptoms of syncope. I have not seen any similar cases recorded but shortly after the experience of my two cases a medical man informed me that he had noted similar symptoms in others, which symptoms he had placed to the credit of the serum employed.

Upper Norwood, S.E. ARTHUR H. M. SAWARD.

ENURESIS IN FEMALES.

IN an article on this subject in the BRITISH MEDICAL JOURNAL of January 11th, the writer recommended the treatment of this condition by dilatation of the urethra and the application of a strong solution of silver nitrate to it and to the neck of the bladder. This seems to me (judging from my experience of the complaint) a somewhat heroic remedy, and one would like to know what medical means had been tried in the various cases reported in that paper before the operation was resorted to.

In the textbooks incontinence is said to be due to various causes, of which a highly acid state of the urine is one. A report of the following case brings out that point well, and in addition, emphasizes the importance of medical means in its treatment:

History.—B. B., aged 8, was brought to me on December 31st, 1901, with the complaint that she could not (for more than two months back) hold her water above an hour at a time, and that it was getting impossible to live in the same house with her owing to the smell of her bed and body clothes. Her mother, under the belief that she had to deal with a bad habit (as in those patients of whom Professor Taylor writes in the JOURNAL of March 1st) whipped the child without pro-

ducing any change. There was no pain on micturition, but the calls of Nature were so urgent that the girl had just to obey them wherever she was. She was a small "wiry" creature, thin and nervous, a poor eater, but healthy herself and of a healthy stock.

Condition of Urine and Treatment.—The urine was dark in colour, slightly turbid, having no disagreeable odour, but highly acid and showing a copious deposit on cooling. Under the microscope this deposit was seen to consist mainly of crystals of uric acid, amorphous urates, pus, and mucus cells. Ten grains each of potassium bicarbonate and acetate in infusion of buchu, to be taken every four hours in Pitkeathly water was prescribed.

Progress.—On January 3rd the patient was decidedly better. On January 6th the incontinence was gone, the urine was clear, pale in colour, very faintly acid, and showed no deposit on cooling. The mixture was discontinued, but the patient was advised to go on with the Pitkeathly water. There has been no return of the incontinence. Patient is still (March 3rd) taking Pitkeathly water occasionally, and her diet has been changed somewhat. She is having less meat and more milk. The urine is pale, faintly acid, there is no deposit, and nothing abnormal is found microscopically.

D. HAMILTON KYLE, M.B., C.M.Glasg.
St. Andrews, N.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

No. 21 GENERAL HOSPITAL, DEELFONTEIN, CAPE COLONY.

CASE OF CONGENITAL DEFICIENCY OF CERTAIN PHALANGES.

(Reported by DONALD MONRO, M.B., C.M.Glasg., D.P.H.Camb., Civil Surgeon to the Hospital.)

THE following notes and accompanying radiographs illustrate a condition of probably rare occurrence.

W. S., aged 29, a trooper in Driscoll's Scouts, was sent into hospital suffering from bronchitis. While examining the patient it struck me that his hands seemed malformed. On examination the forefinger was found to be 1¼ in. shorter than the middle one, and the fourth finger about 1½ in. shorter than the third. There was only one interphalangeal joint in the first and fourth fingers of both hands. This condition the patient stated to be congenital.

Radiographs of both hands and feet were taken by Sergeant-Major A. Harwood, R.A.M.C., radiographer to the hospital.



These show that the bones of the thumb, second, and third fingers are normal. In the forefingers of both hands the second phalanges are absent. The proximal phalanx is normal. The terminal phalanx has the expanded basal portion longer and larger than usual. In the little finger, in the joint between the first and third phalanges, on its outer side, a small wedge-shaped bone is interposed, partially dividing the joint. This wedge is probably a rudimentary second phalanx. The missing bone of the forefinger in all probability forms part of the enlarged base of the terminal phalanx.

In the right foot the second phalanges are all rudimentary,



and differ in size and shape from the normal. In the left foot the second phalanges are absent from the second and third toes.

The patient states that he had a cousin (on the paternal side) who had a very short forefinger; his other fingers, however, being normal in size. Patient's father, mother, and other relatives have normal hands. His two children are also normal in this respect.

SALOP INFIRMARY, SHREWSBURY.

CASE OF BULLET WOUND OF STOMACH.

(Reported by R. S. C. EDLESTON, M.R.C.S., L.R.C.P., late Senior House-Surgeon to the Infirmary.)

J. O., aged 26, Volunteer Active Service Corps, was admitted on March 22nd, 1901, at 2.30 P.M., under the care of Mr. Jackson, Senior Surgeon, suffering from a perforating pistol-shot wound of the abdomen.

History.—The patient was trying to charge a small breech-loading pistol, and, having opened the breech, he placed the nose of the cartridge in the barrel, when it became jammed, and, in endeavouring to knock the cartridge home with his jack knife, it exploded, and he felt a sharp pain in the stomach. He was carried to the infirmary, and on admission to the casualty department vomited a small quantity of undigested food. He complained of some pain in the stomach, and appeared much frightened.

State on Examination.—The bullet was found to have taken a direction downwards, backwards, and towards the left through a woollen sweater, a shirt, and a thick box-cloth belt all of which were powder marked. His tunic, being open at the time, was not perforated. The bullet entered the abdominal wall half an inch below and to the left of the tip of the ensiform cartilage, making a round wound the size of the end of an ordinary lead pencil; the skin around the wound was blackened. On probing the wound the direction taken by the bullet was as above stated but no bullet could be felt. The patient was one of a batch of volunteers bound for South Africa on the following morning, and immediately preceding the accident had partaken of a hearty farewell dinner. The abdomen over the region of the stomach was distended, the epigastrium rising sharply above the level of the lower ribs. Abdominal respiration was not impaired. On removal to the ward he again vomited a small quantity of undigested food. He complained of some pain in the wound, but from time to time cried out with excruciating pain in the left shoulder, at the same time seizing the front of the shoulder with the opposite hand. These paroxysms of pain recurred several times but only appeared to last a few seconds.

Operation. The abdominal wound was slightly enlarged in the direction taken by the bullet and a search made for it, but without success. Some pieces of clothing were removed, and the wound cleansed and dressed. A hypodermic injec-

tion of ⅓ gr. of morphine was given, and no further pain or vomiting ensued. No food was given by the mouth.

Progress.—March 23rd. Some sloughing of wound. Boracic fomentations every four hours. Patient complained of thirst, and a large water enema was given; also nutrient enemata four-hourly, and a little ice to suck. No pain or abdominal distension. Pulse and temperature normal. Towards evening he became rather restless, and ⅓ gr. of morphine was given hypodermically. March 24th. 2 oz. fluid peptonized feeds given every two hours. Pulse and temperature normal. Bowels acted once. March 25th. 4 oz. feeds two hourly. March 26th. A little bread and butter without crust allowed. March 27th. Bowels again acted, and bullet found in the stool. March 28th. Fish added to the diet. March 31st. Full diet allowed.

Remarks.—Beyond the attacks of severe pain in the left shoulder, which did not recur after the patient was once under the influence of morphine, there were no symptoms. The large meal taken immediately prior to the accident evidently acted as an efficient buffer to the force of the bullet, thus preventing perforation of the posterior wall of the stomach. In its distended condition at the time of the accident, the point of entrance of the bullet must have been high up on the anterior surface, and this, together with the small size of the wound and the oblique direction taken by the bullet must to some extent account for the fact that no leakage took place. The wound healed by granulation, and when the patient left the infirmary on April 6th a firm cicatrix had formed. He was in excellent health, and proceeded to South Africa with a later draft.

BRISTOL ROYAL INFIRMARY.

A CASE OF APOPLEXY WITH HEMIPLEGIA, HEMIANAESTHESIA, AND HEMIANOPIA.

(By Henry Waldo, M.D., M.R.C.P., Physician to the Infirmary.)

A married woman, aged 60, was taking tea with a friend, after coming in from the country, when she quite suddenly dropped her teacup and fell on the floor. She vomited and was quite unconscious. There had been no premonitory symptoms, but six months previously there had been attacks of giddiness, and three years previously she had been slightly paralysed on the same side; this was followed by complete recovery.

On admission, five days after the attack, there were no signs of heart disease, but the radial arteries were much thickened. The pulse was regular and of moderate tension: respiration natural; no abnormal ophthalmoscopic signs. She had recovered consciousness, and did not complain of headache or giddiness: there was almost complete loss of power on the left side, the seventh and ninth nerves participating. Tactile anaesthesia was well marked on the paralysed side, with loss of sense to pain, localization, and temperature: left hemianopia was also present: the deep reflexes on the affected side were exaggerated. Of the superficial reflexes, that recently described by Babinski—namely, extension of the great toe instead of the customary flexion—was present. The sphincters were relaxed, everything being passed under the patient. There were no signs of bedsore. The speech was defective and the intellect clouded. Swallowing was good and a fair amount of nourishment was taken. The urine was acid, specific gravity 1025; a trace of albumen was persistently present.

The patient remained in the infirmary for two months, the affected side remaining in much the same condition as when admitted.

RADCLIFFE INFIRMARY, OXFORD.

CASE OF NAEVUS PIGMENTOSUS ET VERRUCOSUS.

(Under the care of Anglin Whitelocke, F.R.C.S., Surgeon to the Infirmary.)

[Reported by James Rooth, M.R.C.S., Senior House Surgeon to the Infirmary.]

W. P., a boy, aged 12, was brought to the infirmary in order to have a small tumour removed from the region of the left inguinal canal. On examination the skin was found to be pigmented over a large area (shown in the photograph), the greater portion of the pigmented skin was smooth, and the pigment was in islands separated by small strips of normal skin, giving a flake-like appearance. All around the margin was verrucose, deeply pigmented, with a thick crop of short soft hair growing from it. The skin was not abnormally vascular, but was thickened. Over the left inguinal canal was a nodule the size of a shilling, and about half-an-inch high. This was removed and found to be a soft fibroma, the skin surrounding it was thickened and fibrous, but healed without difficulty. The mother's account was that just before the birth of the child she was frightened by a pig, who rubbed against her leg.



Remarks.—This is one of those somewhat rare cases of naevi of nerves (naevus unius lateris of Barensprung: the papilloma neuropathicum of Gerhardt) which is ascribed to intrauterine trophoneurotic disturbance. Its formations, both smooth and verrucose, correspond to the distribution of certain nerves, namely, the anterior divisions of the second, third, and fourth lumbar nerves.

These verrucose naevi assume a papillomatous character, there is a hypertrophy of the corneous layer of the skin, and each papilloma is covered with a horny mass, generally covered with hair of a lanugo type, and actual tumours such as the one removed are occasionally met with. Anatomically the condition is a hyperplasia. Its cause most probably must be sought in a lesion of the central part of the nervous system.

The only difficulty in diagnosis lies between the verrucose mole and the papillomatous form of hysterical ichthyosis, which may also follow nerve distribution according to Tilbury Fox, Charcot, and others. In ichthyosis, however, there is always desquamation, which was quite absent in this case.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, April 22nd, 1902.

ADJOURNED MEETING.

MALIGNANT ENDOCARDITIS.

DR. WILLIAM EWART and Mr. A. S. MORLEY brought forward cases which seemed to show that extensive destructive changes in the heart might be survived, and that although the late consequences might lead to death, changes of repair might be proceeding at the original seat of disease.

CASE I.—C. B., aged 17, was admitted into hospital on April 1st, 1901, and died of syncope on December 29th. She was laid up in December, 1900, with severe pain in the left lower limb, and for the previous two months had had dyspnoea, palpitation, and progressive wasting, with a little redness and swelling of the ankles. There was slight cough and occasional night sweats. The case was diagnosed as one of phthisis with rheumatism and mitral stenosis, and she was treated with salicylates, potassium iodide, and quinine pills, and from April 10th to the 23rd she was given 1 gr. protargol in water three times a day, and 1½ drachm of Easton's syrup. At the necropsy a large patch of necrotic vegetations was found just above the mitral orifice. Several of the chordae tendineae had ruptured from ulceration. The heart was slightly dilated. There was no indication of any attempt at local repair. CASE II.—E. I., aged 14, was admitted on April 16th, 1901, complaining of pal[illegible] dyspnoea, and cough. She had had rheumatic fever two years previously. The teeth and gums were in a bad state. There was some dullness at the apex of the right lower lobe. There was a pre[illegible] and a diastolic murmur and a thrill, and a harsh double aortic murmur and a diastolic thrill. A provisional diagnosis of mitral stenosis with aortic regurgitation and phthisis was made, but in a few days the remittent pyrexia and the changeable murmurs, together with leucocytosis, identified the case as one of malignant endocarditis. Daily injections of 5 c.cm. antistreptococcus serum were given from May 2nd to May 24th, the chief effect being considerable general and mental depression. The pyrexia and the emaciation continued, and she was occasionally delirious at night. On May 24th daily inunctions of a 20 per cent. ointment of protargol were begun. On the 27th a mixture containing mercury and iron with digitalis and strychnine, and on June 10th a pill containing gr. ⅛ of nitrate of silver were ordered. The hectic temperature continued to the end, but during the last three weeks there was a decided improvement in the aspect and manner, in the strength and in the appetite, and she sat up in bed at frequent intervals during the day. Some hope of recovery was thus entertained but she died unexpectedly after a short period of dyspnoea. The necropsy showed a malformation of the heart and malignant endocarditis affecting the aortic orifice. With the exception of a long vegetation, which was brittle and slightly rough, the heart lesions appeared to be in process of healing. CASE III. H. B., age 32, a traveller, was admitted on April 28th, 1901. He had been ill since November, 1900. He had had rheumatic fever, from which he recovered thoroughly at 20. At first there were pyrexia, night sweats, and rapid wasting. He recovered sufficiently to get about, but was seized with severe pain in the splenic region, and this was followed by acute rheumatism in the right foot which yielded to salicylates. On admission the aspect was that of advanced phthisis, but on the strength of the symptoms and of the double aortic and systolic mitral murmurs malignant endocarditis was diagnosed. The mouth was in an exceedingly foul state. A fair trial was given antistreptococcus injections, although the blood had been found sterile, but without apparent results; 20 per cent. protargol ointment was then ordered to be rubbed into the skin twice daily. Under this treatment and a mercury and iron tonic a slight improvement took place. He died on June 9th, apparently from heart failure. At the necropsy the heart was found to present the aspect of vegetative endocarditis. There was no evidence of any progression in the lesions, but

The cases seemed to show that inunctions of protargol, which had been found of use by other observers, might prove beneficial, and the improvement encouraged a hope that effectual remedies might be found. It was suggested by Dr. Ewart that intravenous injection of antiseptic agents seemed to be

[illegible] ing the discussion on the paper contributed by Drs. Poynton and Paine at the last meeting of the Society and on the present paper, alluded to an opinion he had for long held that ulcerative endocarditis was not absolutely incurable. But it was to be remembered that with even massive vegetations there might be slight physical signs, and there was no characteristic temperature curve of this disease; it might rise but very little above the normal. He had himself seen attempts at repair in certain cases; even the profound depression of bodily forces might be recovered from. He had had two cases under his care which had been discharged in fairly good condition from hospital. In one of these, which ultimately came to necropsy, cicatricial changes were found in the valves. He had not been favourably impressed with the advantage of injections of antistreptococcus serum, particularly in view of mixed infections. Patients should be protected from accidental sources of septic poisoning. Allusion was made to the inappropriate name of septic as applied to the endocarditis. It was necessary to take into account the toxin as well as the organisms themselves. The fetus *in utero* might be affected with rheumatic conditions, while the mother remained free; this suggested a toxic influence. Ulcerative endocarditis was either a superadded affection, or the organisms of rheumatism under some conditions assumed an unusual virulence. It was probable that in many cases a septic infection was added to a rheumatic endocarditis giving the malignant form.

Dr. D. B. LEES thought that Drs. Poynton and Paine had established the point that rheumatism was one of the causes of malignant endocarditis; that acute rheumatism was an organismal disease, and due to a particular diplococcus; and that this diplococcus was one of the causes of malignant endocarditis. Clinically, in the human subject, the conditions met with in rabbits were sometimes seen—the evolution of malignant endocarditis from rheumatic fever. A case under his own care was described in which the pneumococcus was the organism occurring alone in the vegetations. The paper threw light on the pathogeny of so-called rheumatoid arthritis. It might be possible for the rheumatic diplococcus to remain localized to a single joint, and give rise to structural chronic changes. Similar reasoning applied to chronic chorea.

Dr. G. NEWTON PITT thought the paper of Drs. Poynton and Paine contained more conclusive evidence that acute rheumatism was due to a definite organism than had been produced before in this country. They had also brought forward good evidence that malignant endocarditis might be sometimes due to this organism. It was important that changes in the viscera differing in correspondence with the different pathological causes of malignant endocarditis should be distinguished. Allusion was made to a case apparently of typical acute rheumatism and with symptoms of wide embolism, which at the necropsy revealed small vegetations; cultivations of the blood showing streptococci. The case was malignant, but not fungating, and seemed to furnish a link between malignant endocarditis and acute rheumatism. In view of the pneumococcal and gonorrhoeal origin of the disease, the routine treatment by antistreptococcus serum was unsatisfactory. It was remarkable that the diplococci could be found in the nodules, pericardial fluid, joints, vegetations, and in acute chorea. But a stumbling-block had been that vegetations had not been experimentally produced by many observers; this probably depended on the low virulence of the organisms used. The streptococcus not being pyogenic was an important point in their paper; it had not been clearly determined whether infarcts never suppurated; most did not, but from thirteen years' *post-mortem* records of 110 cases in Guy's Hospital there were abscesses in 12, in 6 the disease had started from the source of suppuration, in other 6 there was no obvious association of the malignant endocarditis with the suppuration. In 2 cases the primary mischief was pneumonia. If the view that the diplococcus could not produce suppuration were accepted, in such 6 cases with suppuration a further etiological factor must be assumed. The uselessness of antistreptococcus serum was an argument in the same direction. Allusion was made to the frequency with which cases of malignant endocarditis occurred in groups suggesting an infective origin.

Dr. PARKES WEBER asked if Drs. Poynton and Paine had met with a condition in rabbits corresponding to the large white kidney of the human subject. This he had found in a case of malignant endocarditis. It was probable that many different kinds of microbes could produce large white kidney. It was an old observation that some infarcts in a case suppurated, and others did not, hence the occurrence or absence of suppuration had no great diagnostic value.

Dr. WALKER, referring to work by himself and Dr. Bentson, stated that in 4 cases of malignant endocarditis in Guy's Hospital they had found streptococci, and associated in 2 with non-pathogenic staphylococci. The streptococcus did not in all cases correspond in cultural and staining characters with the diplococcus of Drs. Poynton and Paine. Other streptococci had been found to cause death in animals with pleural, pericardial, and articular effusion which contained the organism. They had isolated a similar organism from a case of chorea with arthritis; this to some extent tended to be arranged in pairs.

Dr. J. H. Drysdale alluded to the difficulty of differentiating intermediate cases of malignant and rheumatic endocarditis, either clinically or pathologically. It was to be expected, that the ordinary organism of rheumatism would, under varying conditions, sometimes take on a malignant type. It was a point, as held by Singer, whether rheumatism might not be caused by several pyogenic organisms. Probably it would appear that rheumatism was not due to a specific organism.

Dr. Poynton, in replying, stated that in several cases large white kidney was associated in rabbits with malignant endocarditis.

Dr. Paine, in reply, said that the cause of the difficulty in producing valvular changes by injecting the diplococci was that sufficient quantity was not injected.

Dr. Ewart also replied.

EDINBURGH OBSTETRICAL SOCIETY.

James Ritchie, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, February 12th, 1902.

Symphysiotomy in Domestic and Hospital Practice.

Dr. R. C. Buist read a paper on this subject. Histories were given of four women from 20 to 25 years of age.

One with three previous futile confinements had her pelvis permanently enlarged from a diagonal conjugate of 9 cm., and had a subsequent easily-managed delivery of large twins. This was at her fifth confinement. Her fourth produced a living child after symphysiotomy by Frank's method. The second was that of a woman with a rachitic pelvis, with a diagonal conjugate of 10 cm., who had symphysiotomy in her first and third deliveries after forceps had failed. Her second confinement was spontaneous and normal. The third case was that of a woman with a diagonal conjugate of 8 cm., who had her first and second labours prematurely at seven months, and the third with symphysiotomy after failure of forceps. The fourth had a diagonal conjugate of 8.5 cm. The first three children were born after difficult labours, only one was alive, and with a permanently dinted head. The fourth was born after symphysiotomy.

Ayre's subcutaneous method was adopted in the last four operations. The after-treatment was simpler after this than after the open method. Two of the cases had femoral thrombosis; one, owing to an accident after the operation, had incontinence of urine, which had been successfully treated by operation. In none was there any impairment of gait, and all had been able to do their work at home, and two were at work in a jute mill within six weeks and three months of the operation.

The paper was discussed by the President, Drs. Berry Hart, Haig Ferguson, R. Jardine, and J. M. Munro Kerr; and Dr. Buist replied.

Diagnostic Help in Gynaecology.

A paper on this subject by Professor Fehling (Strassburg) was read by one of the Secretaries. The author referred to the fact that the success attending gynaecological operations had tended, especially among the younger gynaecologists, to depreciate the value of gynaecological diagnosis. While in many cases a definite diagnosis was not essential to a successful operation, there were many cases in which an accurate diagnosis might assist in the selection of the best operation, or at least in modifying the steps of the procedure. He indicated the various ways in which the aids to diagnosis were constantly improving. An exploratory incision was not as free from danger as was often supposed, and in certain difficult cases the exploratory incision and the necessary manipulation in making the diagnosis were almost as serious as the operation itself. In many tumours of doubtful nature an exploratory puncture through the vaginal roof was of very great value in determining the nature of the tumour and of its contents. Such a puncture might be made from the vaginal roof with proper aseptic precautions with scarcely any appreciable risk to the patient. He described the method which he had found most satisfactory, and gave a synopsis of the results in 81 cases in which vaginal puncture was employed by him in his clinical work, and concluded with notes of several cases of special interest. He concluded that the puncture of small tumours, especially those of the adnexa, was a harmless procedure, and was useful both for diagnosis and treatment. He thought exploratory laparotomy should be avoided as far as possible.

Drs. Haultain, Buist, and Haig Ferguson spoke on the paper.

Specimens.

Specimens were shown by Drs. Berry Hart, Haultain, Haig Ferguson and J. W. Ballantyne. The last-named gentleman also showed a cephalometer for antenatal mensuration.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Surgical Section.

Thomas Myles, F.R.C.S.I., President, in the Chair.

Friday, April 4th, 1902.

Cases.

Mr. Kennedy exhibited: (1) The vermiform appendix of a baby 5 months old, removed from the right inguinal canal during the operation for the radical cure of hernia; (2) a patient, 5 months old, on whom he had performed the radical cure operation for hernia on the right and left inguinal canals, excised the appendix, and performed circumcision.—Mr. Alexander Blayney exhibited a girl on whom he had operated two months previously for a perforated gastric ulcer. The operation was performed nineteen hours after the rupture. The opening was found near the lower curvature of the stomach, on the anterior wall close to the oesophagus. The patient made a good recovery, but a week afterwards the temperature rose, and on opening the wound a large abscess was found under the left wing of the diaphragm. This was drained by an incision between two of the lower ribs; the original wound was closed, and the patient made a complete, though somewhat tedious, recovery.

Ligation of the External Iliac Artery for Ilio-Femoral Aneurysm, and other Tumours.

Mr. Henry G. Croly read a paper on this subject. He began by giving a summary of the anatomy of the artery, especially its relation to its vein on the right side, and the presence of the fibrous septum that separates the vessels, and exhibited some beautifully coloured illustrations painted from Nature by Dr. Paul Carton. His incision was planned to allow of the artery being tied at least 1½ in. from the origin of the deep epigastric artery. It commenced on a level with the umbilicus, and curved downwards, outwards, and inwards, ending at a point midway between the symphysis pubis and the superior crest of the ilium. By making the incision superficial he avoided bleeding. The ligature used was ox-peritoneum or goldbeater's skin, as recommended by Lord Lister, and described by Messrs. Ballance and Edwards. He tied the ligatures in the "stay-knot" of Ballance, which he considered the most secure of ligation knots, and the one least likely to tear the inner coat of the vessel, which should never be allowed to occur. The arterial wall was healthy, and patient, who was exhibited, made a good recovery from the operation, which was an extraperitoneal one. A series of beautiful casts and photographs showing the aneurysm before operation, a few days after operation, and when the patient was convalescent, were exhibited.

The President quite agreed with Mr. Croly in selecting a site some distance from the deep epigastric artery for ligation; but he was not so sure that the secondary haemorrhages which were so common in the past were due to the site of ligation. The *locus in quo* did not account for everything. The good result was no doubt partly due to the better site of ligation chosen by Mr. Croly; there was something more to-day we had aseptic methods, aseptic ligatures, aseptic handling of the wound.

After some remarks from Mr. L. H. Ormsby,

Mr. Lane Joynt said that by the reference to the old surgeons and their methods he was reminded of a painting he saw not long since on the wall of a house in Pompeii, which represented a surgeon in the act of cutting down on the femoral artery in Hunter's canal. The line of incision was that followed by Hunter.

Mr. Lentaigne looked on secondary haemorrhages as the result of sepsis—sepsis by silk ligatures and ligatures of other absorbent material. They retained septic matter in close union with the arterial wall, which soon became infected.

Mr. Croly, in reply, said he prepared his ligatures by leaving them for twenty-four hours in ether, and then placing them in a solution of carbolic acid in water of 1 in 20 strength. He looked upon the fear of wounding the peritoneum as the reason the older surgeons tied the external iliac so near its distal end. This fear paralysed their action in cases of wounds

of the deep epigastric and internal iliac arteries; they looked on wounds of the peritoneum as necessarily fatal, and rather than open it they left patients to die of internal haemorrhage. He cut no muscular tissue by his incision: on coming down to the muscular tissue he pushed the transversalis fibres aside with his fingers and readily exposed the artery. He failed to find the posterior tibial pulse either after the operation or since, though, as was seen, the man made no complaint of any lack of circulation in the limb.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

A. G. BARRS, M.D., F.R.C.P., President, in the Chair.

Friday, April 18th, 1902.

NASAL SUPPURATION.

DR. BRONNER (Bradford) read a paper on the causes of and treatment of nasal suppuration. He drew attention to the frequency of nasal suppuration and to its many and dangerous complications: Laryngitis, gastritis, broncho-pneumonia, orbital abscess, meningitis, and general pyaemia and septicaemia. It might be the outcome of acute rhinitis or infectious diseases, especially scarlet fever, diphtheria, pneumonia, influenza, syphilis or foreign body. In most cases Fraenkel's pneumonia diplococcus was found. In children purulent rhinitis was often due to diphtheria, which could be confined to the nares. These cases were of great practical importance, were often overlooked, and were a fairly common cause of some of those mysterious outbreaks of diphtheria. Syphilitic rhinitis was often very dangerous and a frequent cause of meningitis, etc. These cases required most careful local treatment. In chronic nasal suppuration the turbinates and one or more of the accessory nasal cavities were generally diseased, and the suppuration could not be cured till these had been treated. The symptoms of disease of the maxillary antrum, frontal sinus, anterior and posterior ethmoidal cells and sphenoidal sinus, and the treatment of the same, were minutely described. In speaking of nasal polypi Dr. Bronner referred to the work done by Woakes, Hartmann, Grünwald, Paget, Lack, and others. He himself was convinced that in most cases of nasal polypi there was disease of the underlying bone or of the ethmoidal cells and middle turbinate. If these parts were not thoroughly examined and, if necessary, scraped most energetically, there was sure to be recurrence of the polypi. Dr. Bronner also referred to the great importance or using cocaine and suprarenal extract in all intranasal operations: they removed pain and swelling and prevented haemorrhage. A number of lantern slides were shown demonstrating the anatomy and pathology of the accessory nasal cavities.

ENOPHTHALMOS AND EXOPHTHALMOS IN THE SAME SUBJECT.

Mr. MICHAEL TEALE read a paper on a case of enophthalmos of the right eye becoming exophthalmos when the patient stooped.—Dr. A. BRONNER, Mr. A. L. WHITEHEAD, Mr. LAWFORD KNAGGS, Dr. T. W. GRIFFITH, Mr. PRIDGIN TEALE, and Dr. LONG took part in the discussion; and Mr. TEALE replied.

ANGIONEUROTIC OEDEMA.

Dr. WARDROP GRIFFITH read a paper on a case of angeioneurotic oedema.—The PRESIDENT, Dr. A. MANLEY, Dr. J. ALLAN, and Dr. T. JOHNSTONE took part in the discussion; and Dr. GRIFFITH replied.

EPIDEMIOLOGICAL SOCIETY.—At a meeting on March 21st, Mr. SHIRLEY F. MURPHY in the chair, Dr. DANIELS read a paper on Infantile Mortality among the Native Races in the Tropics, the economic importance of which as bearing on the stationary or decreasing character of the populations and the consequent difficulty in obtaining the labour necessary for the development of the resources of these regions by Europeans had not hitherto been fully recognized. In India the deaths in the first year of life were in few districts under 200 per 1,000 births, and in the Central Provinces reached 440, and in the Straits Settlements they averaged 330. In Fiji they furnished 35 per cent. of the total deaths and in Lagos and Freetown, Sierra Leone, between 35 and 40 per cent., while those of children from 1 to 5 years of age contributed also 35 per cent. of those of all ages. In British Guiana racial differences were conspicuous in the first year; for example, in 1895 the rate per 1,000 births was 205 among the negroes, 184 among Europeans, and 155 only among Indians. Then inquiries of 470 negro women who had borne about 1,500 children showed that 4.91 per cent. died in the first week, probably from deficient vitality, to which must be ascribed the 20.4 per cent. of stillbirths in the maternity practice of Georgetown Hospital, where the majority of the cases were normal labours in multipara. A high mortality occurred in the second week from trismus neonatorum; while in Freetown, Sierra Leone, of 100 children born alive, 9.1 died the same day, and 17.6 within the week. In Africa, as in British Guiana, the number of stillbirths registered was certainly far below the truth, while the very imperfect certification of the causes of death rendered the determination of those of the high infant mortality very difficult. Thus in Guiana small-pox and scarlatina were unknown, diphtheria very rare, and measles and whooping-cough extremely mild. Diseases of the respiratory organs were infrequent, and though the infants of the working classes were very generally fed with maize meal and other farinaceous paps, one did not meet with the acute forms of diarrhoea seen in Europe. Malarial fevers were, however, a fairly frequent cause of death after the sixth month, and even much earlier, the usual type being a pernicious cerebral attack rapidly fatal with coma and convulsions, or in the case of older children with coma only. The classical symptoms were absent at these ages, and if the cause of the convulsions were not diagnosed, the majority died within two or three hours, but when quinine was administered energetically recovery was as a rule speedy. Of 1,471 deaths under 1 year of age, 158 were ascribed to "convulsions," which up to the sixth year were largely of malarial origin. While the negro population was generally diminishing, that of Barbadoes, where there was no malaria, had increased by 6.3 per cent. in ten years, though its extraordinary density, 1,096 to the square mile, led to so large an emigration that natives of that island were found throughout the West Indies, and constituted a fifth of the negro population of British Guiana. In India the question of infant mortality was complicated by small-pox, cholera, plague, and famine, but the large proportion of enlarged spleens found in persons of all ages dying of other diseases indicated the prevalence of malaria in early life. In British Central Africa epidemics of small-pox occurred every five or six years, causing a heavy mortality among children, inoculation being extensively practised among adults, but inquiries showed that of 552 children born alive, 2 7 per cent. died on the first day. In a highly malarious district over 50 per cent., and in one less so 38 per cent. of the children died before reaching puberty, and enlarged spleens were very general. The birth-rate in British Guiana was, among the negroes, 30 to 35, but the death-rate was still higher. In India, that in the Punjab was no less than 43.9, but in Bengal, where it was 32.81, the deaths exceeded the births by 2 07 per 1,000. In Central Africa European administration had abolished the fearful sacrifice of life connected with the slave trade and reduced the deaths from violence, but the aggregation of the natives on engineering works and the overcrowding consequent on the adoption of European methods of housing, had led to an increase in tuberculosis and syphilis, so that the population showed a tendency to decrease. To ensure a permanent supply of labour in the tropics a steady growth of the population was necessary, and this could be effected only by reducing the infant mortality, the importation of labourers from other districts being but a temporary substitute. After some remarks from Dr. FRANKLIN PARSONS, Dr. HARFORD BATTERSBY said that Dr. Daniels had not referred to infanticide, which was very prevalent in Nigeria, where not only malformed infants, but twins and such as cut their teeth in a certain order were crammed into earthen pots and exposed to die; others were poisoned, as probably they were in Sierra Leone, where open violence would be punished. In the absence of breast milk the natives never gave that of cows or goats, but paps of maize, and the usual treatment of any febrile attack was to sweat the child before a large fire, and then lay it out in the shade or evening to cool. Dr. BULSTRODE said the want of available statistics of which Dr. Daniels complained showed the urgent need for the creation of an Imperial Board of Health on the lines of that at Berlin which had already done good work in connexion with the health of colonists and natives in East and West Africa. After some remarks by Dr. PERCY ADAMS and Mr MURPHY, Dr. DANIELS, in reply, said that

whatever might be the case in South Africa, the prevalence of infanticide elsewhere had been greatly exaggerated. Dr. Livingstone had denied its existence in the regions explored by him, and he had never noticed it in Central East Africa. Twins were, indeed, deemed unlucky, but among the children brought to be vaccinated the proportion of such was certainly greater than would have been found in Europe, and this not among those of Christian parents only, but of others beyond the influence of the mission. As to India, he emphatically denied the alleged practice of female infanticide. In Bengal there were 106 males to 100 female births, but the deaths per 1,000 were in the first year 234.38 for males, and 191.25 for females, and for those under 5 years 47.9 and 41.9 respectively.

British Gynaecological Society.—At a meeting on April 10th, Dr. J. Halliday Croom, President, in the chair, Dr. Macnaughton-Jones read notes of a case of miscarriage and difficult labour after ventrifixation. He described the firm and extensive adhesion of the uterus to the abdominal wall, as ascertained subsequently when removing an ovarian blood cyst from the same patient, and inferred that ventrisuspension, or fixation of the doubled round ligaments (Olshausen's operation) was, in women not past child-bearing, was a safer proceeding than ventrifixation, the legitimate field for which was a limited one.—The President read a paper on deciduoma malignum, as to the etiology of which he said that the latest view was essentially the same as that brought before the Society by Dr. Haultain in 1899, the consensus of opinion now being that it was an epitheliomatous new growth the result of pregnancy, and derived from the coverings of the chorionic villi, and not a sarcoma; this view was supported by the age of incidence of the disease—from 17 to 55, sarcoma being very rare before 35. In 60 per cent. of all the cases the disease followed that intense proliferation of the villous epithelium known as myxomatous degeneration of the placenta or hydatid mole; even when this was not the case, characteristic symptoms generally appeared within a few weeks, or at most months, of labour or abortion, though one instance had been reported two and another four years after the last known pregnancy. Haemorrhage, intermittent, but so profuse and frequent as to cause profound anaemia, was generally the first symptom, and in nearly all cases a characteristic feature, but exceptionally the primary area of active growth, owing to migration of the malignant villi, was deep in the uterine wall or even outside it, in the vagina, ovary, or elsewhere, and naturally haemorrhage then might not occur. A fetid discharge mixed with blood clots and shreds of tissue was common, and the early degeneration of the growth was followed by extreme cachexia from absorption of toxins of decomposition, and, in default of timely operation, the patient, if not carried off by metastases in some vital organ, rapidly succumbed to exhaustion. A case, exceptional in several respects, had been under his own care.

A woman, aged 44, had had amenorrhoea for four months, leucorrhoea with a foul watery discharge suggestive of ordinary malignant disease rather than deciduoma, and had been for some weeks conscious of a swelling in her hypogastrium which extended halfway up the umbilicus; in her left labium there was a tumour the size of a walnut, at first supposed to be a cyst of Bartolin's gland, but which proved to be solid and typical deciduoma malignum. The sound when passed into the enlarged uterus, seemed to touch friable tissue, but the haemorrhage on its withdrawal was of the slightest, and never since the onset of the amenorrhoea had she had any haemorrhage whatever; she was nevertheless extremely anaemic and cachectic, sank very rapidly and lung complications appearing, died before it was possible to operate.

Her last known pregnancy had terminated in an ordinary miscarriage six years previously, and it was hard to suppose that any products of conception could have remained latent in the uterus for six years, and then have undergone malignant proliferation. The only alternative was that her amenorrhoea was due to conception, though she never had any haemorrhage or other sign of abortion and except characteristic elements of deciduoma malignum no evidence of pregnancy was found in the uterus. Specimens of the disease from the uterus and metastases and sections under the microscope illustrated the case. The discussion turned chiefly on diagnosis, Dr Heywood Smith and Dr. Snow speaking, and Dr. Macnaughton-Jones reading notes of a case of incomplete molar abortion simulating deciduoma malignum, but apparently completely cured after two years, possibly to recur as malignant hereafter. The President briefly replied.

Society of Medical Officers of Health.—At a meeting on April 11th, Mr. Wynter Blyth, President, in the chair, Dr Herbert Jones opened a discussion on fixity of tenure of medical officers of health by reading extracts from a memorandum drawn up by the President and himself of the efforts of the Society in this direction, and the statements of several Cabinet Ministers and others on the question.—Dr. J. Groves said that no deputation had been received by any Minister since that introduced by Sir W. Foster to the President of the Local Government Board in 1895, and the Bill promoted by the British Medical Association had been blocked by Mr. John Burns, and had no chance of passing unless the Government should take it up, which it would not do until pressed by public opinion. The whole-time officer was not in so difficult a position as the "half-timer" who endeavoured to do his duty.—After remarks from Dr. J. R. Kaye, Dr. Garstang maintained that security of tenure would give a greater impetus to public health administration than any number of Acts of Parliament. At present members of Parliament were opposed to what they looked on as a medical monopoly, and it must therefore be urged from the standpoint of the public good. Even when their relations with the medical officer were happy, local authorities showed no inclination to extend the periods of appointment, but rather to shorten them from five to three, or even one year; and the Local Government Board refused to sanction a permanent appointment when the salary was under £50. Destructive criticism was, however, useless unless some definite constructive proposal could be offered; and he would, therefore, suggest that in place of the words "every medical officer of health" in the Bill, it should read "existing medical officers of health," with the further provision that, as the posts became vacant by death or resignation, the county council should make or control the next appointment with a view to the amalgamation of districts.—Mr. P. Targett Adams would prefer complete centralization, and contrasted the position of the surveyors of taxes, whose tenure and promotion depended on a close observation of their efficiency. He was inclined to distrust the county councils, which, he said, were gradually being filled by a lower class of men, owners of small house property and the nominees of petty tradesmen and the working classes.—Dr. Symons considered that spas and health resorts were, as a rule, the best administered since the authorities looked on the sanitary reputation of their towns as an advertisement.—Drs. Newman and Hemborough and Mr. Beale Collins having also spoken, the President summed up the discussion, and the consideration of the Bill was referred to the Parliamentary Committee.

British Balneological and Climatological Society.—At a meeting held on April 16th the adjourned discussion on chronic affections of the kidney and morbid condition of the urine arising therefrom in relation to balneological, climatic, and dietetic treatment, was resumed by Dr. Leonard Williams, who contended that it was idle to seek for an equable climate with a low relative humidity, because a high relative humidity was one of the chief factors in the causation of equability. It was a mistake to suppose that a high relative humidity was of necessity a bad feature in a climate. In the treatment of chronic renal disease it was not only not a bad thing, but was emphatically one of the elements of climate which should be most insisted upon.—Dr. Debout d'Estrées (Contrexéville) said, first, that at Contrexéville the diminution and disappearance of sugar in diabetes coincided with expulsion of uric acid; first under the form of a light cloud of small crystals visible only under a full microscopic examination, and later with uric acid visible to the naked eye; secondly, that at Contrexéville the elimination of uric acid was not limited to the time of the cure, but continued for ten to fifteen days after the cessation of the use of the waters.—Dr. Bezly Thorne advocated water drinking in albuminuria when complicated by oedema, provided the pathological condition of the vessels imposed no insuperable obstacle to vasodilatation. In such a condition it would, except under limitation, be inadmissible. He deprecated the ostracism of meat diet and albuminous foods, and expressed a doubt as to cow's milk being the best means of supplying the albuminous needs of the system in the greater proportion of adult patients.—Dr. Alexander Morison maintained that the more bland and less "mineral" the drinking water of kidney patients

the better for the latter, and looked forward to a modification of the attitude of the profession towards the theory of arterial hypertension, the importance of which had been exaggerated.—Dr. Bain (Harrogate) pointed out that serum globulin being excreted in excess of serum albumen in waxy kidney was a valuable diagnostic sign in differentiating it when of syphilitic origin from granular kidney. He disapproved of the Turkish bath in most cases of granular kidney, as the initial rise in blood pressure which invariably took place in the hot room tended to produce cerebral haemorrhage. He advocated the restriction of the nitrogenous element in the diet—which should be easily digestible and maintain the nutrition of the body, the prohibition of alcohol, gentle exercise, suitable clothing, plain water to drink, and the avoidance of mental worry.—Dr. Parkes Weber remarked that, without any active renal disease, albumen or casts, or both, might be present in the urine from functional defects due either to past diseases of the kidneys or to congenital inadequacy. This indirectly caused a difficulty in estimating results of treatment. In some renal cases the right amount of water and of albumen to be given in the diet was doubtless that on which the relative waste of albumen with the urine was least.—After some remarks from Dr. Solly (Harrogate), Dr. C. O. Hawthorne said he distrusted proposals to subject patients suffering from chronic interstitial nephritis with their prematurely senile tissues to extremes, climatic or balneological. Clothing was of the first importance, as chill might readily mean a bronchial catarrh which in these patients must have an anxious prognosis.—In reply Dr. Leonard Williams said that the enthusiasts on the subject of blood pressure as the chief causative factor in renal disease did not appear to have the courage of their convictions. If they had, they would practise blood-letting more systematically. That, after all, was the surest way of reducing undesirable pressure.

Ulster Medical Society.—At a meeting held on April 10th, Dr. Whitla, President, in the chair, Dr. Darling showed a patient suffering from a peculiar form of skin disease, which he diagnosed as a lichen planus, in a man aged 80; there were small pedunculated and keloid-like growths here and there, and a chronic lymphangitis of the left leg. Dr. Calwell agreed with the diagnosis, and pointed out that the duration of the disease of over a year, the comparative good health of the patients, the peculiar colouring, the arrangement in plaques and line, all pointed to a lichen planus, and not to a malignant disease of the cutis. Dr. Byers said a similar case had been figured in Hutchinson's *Archives*.—Dr. Darling also read notes of a case of cholecyst-duodenostomy. The man had suffered from jaundice for a long time. On operation a rough mass was felt, which gave rise to the suspicion of malignancy. After death a chronic ulcer of the duodenum was discovered, exposing the pancreas and cicatrising the bile and pancreatic duct.—Dr. Donnan read notes of a case of suspected Hodgkin's disease. The unusual points about the case were that the glands were not generally involved, the groin and abdominal glands escaping; there was some fluid in the right pleural cavity, and the patient, who had failed in health and strength far beyond any local signs would warrant, died suddenly. Dr. M'Quitty supplemented the notes from his observation of the patient. Mr. Robert Campbell described a case of colo-colostomy for stricture at the splenic flexure of the colon. The patient at first suffered from incontinence of the bowel, probably from the hypertrophied bowel driving the contents with great force through the short circuit.

Manchester Medical Society.—At a meeting on April 9th, Dr. Thomas Harris, President, in the chair, Dr. Joshua J. Cox read notes of a case of migraine, with associated nervous symptoms.

On March 18th, 1898, a lady, aged 25, married, and in the fourth month of her first pregnancy, was suddenly seized with feelings of "pins and needles" in the skin over the lower part of the abdomen. These sensations travelled up to the face, down into the neck, and along the right arm. She became aphasic, lost [illegible] power, and had some anæsthesia of the right arm and hand. The attack lasted about two minutes, after which the characteristic migraine headache developed, and continued for twelve hours. During the following month she had several similar attacks, and distinguished clearly these migraine headaches from the headaches of dyspepsia with which she had been familiar for years. Dr. Emry [illegible] n the right eye there was one-fourth of a dioptre of hypermetropia in the left eye, two dioptres of myopic astigmatism, 50°–, and ordered appropriate glasses.

It was interesting to note that the patient had been quite free from migraine since she began to use glasses, but that she still occasionally had the headache from dyspepsia.—Mr. Joseph Collier showed a patient who had been operated upon for intraperitoneal rupture of the bladder, and made some remarks upon the technique of operation in such cases.—Mr. Stanmore Bishop gave a short account of three cases of intestinal surgery, two cases of appendicitis, and one of intussusception.

Nottingham Medico-Chirurgical Society.—At a meeting on April 2nd, Mr. E. C. Kingdon, President, in the chair, Mr. R. C. Chicken showed: (1) Two cases of recovery from musculo-spiral paralysis. In one the humerus was fractured and the nerve involved in the resulting callus, and the other was damaged by extensive bruising. In both cases the nerve had been carefully dissected out and freed. (2) Several skiagraphs of fracture of the humerus involving the elbow-joint, also one of a case of atlo-axoid dislocation in a young man; no paralysis had followed the dislocation, and no inconvenience other than a stiff neck and pain on forced movements of rotating and nodding the head. (3) A prostate removed by Freyer's method. Mr. R. C. Chicken also read a paper on the opening of joints, contending that the beneficent advantages of aseptic surgery had not been so fully extended to the various arthropathies as it had to other serous cavities, and that with thorough aseptic precautions arthrotomy might be fearlessly performed for the relief of pain and tension in the more simple effusions; as an aid to diagnosis in all doubtful cases, and to restore nutrition where the trophic influences were impeded by pressure, in addition to those instances where it was urgently demanded for the relief of foreign irritants such as haemarthrosis, gonorrhoeal effusion, etc.; he deprecated the use of aspirators and acupuncture, preferring a thin, long-bladed knife. Cases were quoted in support of these opinions. The President and Drs. Wm. Willis, W. E. Tresidder, R. Wood, R. G. Hogarth, and J. Thompson discussed the paper; and Mr. R. C. Chicken replied.

REVIEWS.

SMALL-POX AND VACCINATION.

Though small in compass the *Concise History of Small-Pox and Vaccination in Europe*,[1] by Dr. E. J. Edwardes, is a really valuable addition to the most conveniently available literature of small-pox and vaccination. The distinguishing feature of the little work is its wealth of statistical material, referring not merely to the United Kingdom but to many Continental countries—Germany, Austria, Italy, Sweden, the Netherlands, etc. The statistics are clearly and convincingly set forth, and the lessons they teach are so striking that it is difficult to see how any fair-minded and competent reader can rise from their perusal without being filled by the fullest belief in the value and necessity of vaccination for the prevention of small-pox. To any medical man who has occasion to engage in controversy on the subject, this little book must prove simply invaluable as a storehouse of facts on which to base argument, and in presence of the renewed interest which small-pox is compelling the public to take in the whole question of vaccinal protection its publication is very opportune. Dr. Edwardes has availed himself of his excellent knowledge of German writings on small-pox to give his readers the benefit of facts and figures collected by various foreign authorities, including Dr. Kubler, whose *History* was reviewed in the British Medical Journal of March 29th. The German Vaccination Commission of 1884 concluded, *inter alia*, that "The vaccinated condition of the community increases the relative protection against small-pox acquired by the individual by vaccination, and hence vaccination is beneficial not only to the individual but generally." Regarding this Dr. Edwardes most properly points out the fact, of

[1] *A Concise History of Small-Pox and Vaccination in Europe.* By Edward J. Edwardes, M.D. Lond. London: H. K. Lewis, 1902. (Cr. 8vo, pp. 140, 3s. 6d.)

first sight surprising, as to the Prussian army, that "The law of 1874 made no difference in the army vaccination, but it made a difference at once in the army mortality" from small-pox. The army was already under a revaccination law, but the surrounding population was not, and hence there was opportunity for infection of any one in the army retaining or reacquiring susceptibility to small-pox. In 1840-69 there were 51 small-pox deaths in the army. But since 1874, the surrounding community being now also under compulsory revaccination, there have been in a quarter of a century only 2 small-pox deaths in the whole army—one in 1884 and one in 1898. That is a consideration which should be weighed by Parliament when fresh legislation on the subject is undertaken. Apart from statistics Dr. Edwardes in his first chapter gives a number of useful references to small-pox in early times, from the sixth century onwards. Most or all of these have, if we mistake not, been already collected and noted by previous writers on vaccination. "Vidus Viduus" in index and text obviously should be Vidus Vidius. "Bryan's Irish Dictionary" is a little puzzling, but probably O'Brien's is the correct reference. At page 64 there is a curious mistake as to the confusion of chicken-pox with modified small-pox. It is said by Dr. Edwardes that Thomson (spelt Thompson in the index) exposed this error, but the fact is that Thomson did just the opposite. He strongly held that the diseases are identical, and wrote at length in support of his belief. These (and a misprinted date, 1840 for 1740, at page 26, and the word *vaccination* instead of *revaccination* in line 7 of p. 126) are trifling flaws in so very useful a work, and we most heartily recommend it to the attention of every medical man (or, for that matter, every layman) desirous of having at hand a mass of clearly-stated and well-arranged statistical proof that vaccination and revaccination, and they alone, can be relied on to prevent and control the spread of small-pox.

SYPHILIS.

Dr. Iwan Bloch has issued the first part of an investigation into the origin of syphilis,[2] a subject of perennial fascination to all who have been tempted to look into the history of this disease. In this place it is only possible to skim the surface. Suffice it to say that a conscientious perusal of Dr. Bloch's contribution leads to the conclusion that the author has worked hard and perseveringly, leaving no stone unturned to get at the truth. Whether he has been successful is another story. The thesis he has set out to prove is that syphilis was introduced into Europe from America. He insists very much on the unreliability of Bodmann, who was apparently no more than a forger and falsifier, and of Peter Martyr, whose anachronisms are admitted. On the other hand, he places every confidence in Oviedo and Diaz de Isla, authorities rejected by other investigators on reasonable grounds.

Mr. de Méric's small book on *Syphilis and other Venereal Diseases*,[3] though neither systematic nor complete, contains some useful information on "simple local sores," balanitis, syphilis, and gonorrhoea. As regards syphilis it is chiefly the earlier and the more superficial lesions that are dealt with. The account of "tertiary symptoms" is scanty, and syphilitic affections of the viscera are barely touched. Within these limits, however, the subject is treated in a fairly satisfactory manner on the whole, though the description of a mucous patch as "an eruption without being a rash, and an ulceration without being an ulcer," is a strange one. But there are statements here and there to which decided objection must be taken. For example, that "a gumma or a gummatous infiltration nearly always runs its course in spite of treatment," is far from being generally the case; whilst any one who believes that the "coppery-brown" colour of syphilitic spots "when once seen can never be mistaken for anything else" will surely be not seldom led astray. That the hybrid term chancroid "would seem to be a diminutive of chancre" is also a curious statement on the part of a writer who, as we learn from this book, is also the author of a *Dictionary of Medical Terms*. The last two chapters deal with the prevention of venereal diseases, and the author advocates the application of the Contagious Diseases Acts in a modified form to all garrison towns and seaports, and for London and other large towns large venereal hospitals, and "the application to prostitutes of the ordinary laws with regard to begging and to annoyance."

Dr. Schaper[4] has brought together in a single volume twenty-one lectures on syphilis, gonorrhoea, and their sequelae, delivered by various Berlin professors and specialists to general practitioners. This post-graduate course was given by order of the Prussian Minister of Public Instruction by such well-known men as Gerhardt, Lesser, Jolly, Lassar, and Greeff. The idea was to bring before the general body of medical men the most recent work on the subjects. The lectures touch on the general pathology of syphilis and gonorrhoea, and their treatment and prevention. In addition, there is a lecture on prophylaxis of the venereal diseases, and another on the special treatment of diseases of the skin, with remarks on new remedies. As a matter of fact the multitude of remedies testifies to the difficulties experienced in the treatment of many cases of gonorrhoea.

The Students' Manual of Venereal Diseases,[5] by Drs. R. Sturgis and Cabot, though first issued more than twenty years ago, deservedly maintains its reputation as an excellent introduction to the study of the common and important diseases with which it deals. In the seventh edition it has been much improved by the successful endeavour to incorporate new material with old that seems to have been first suggested by Dr. Cabot. Much care and pains have evidently been taken in the revision of this manual. Dr. Sturgis, though uncertain about the true nature of the virus of both chancroid ulcer and syphilis and disposed to doubt the microbic origin of these affections, gives a good review of the researches of Ducrey, Krefling and Lustgarten on their bacteriology. The chief feature of this work is the excellent clinical teaching. With regard to therapeutics we are disposed to regard it as rather weak.

NOTES ON BOOKS.

Books of Reference.

We have received the fifteenth annual issue of the *School Calendar* being a *Guide to Scholarships and Examinations* for 1902.[6] It is full of information which would be most acceptable to parents having limited means and children of school age possessing intellectual capacity and physical energy. It includes, in addition to school and county council and other scholarships, others intended for more advanced students such as those entering or actually working in the medical schools of the country.

The *London Manual* for 1902[7] is the sixth edition of a useful work of reference for all dwellers in the metropolis and all interested in it. It contains a complete account of how London is governed, including descriptions of the work of all public authorities and departments of the public service—educational, hygienic, administrative, and other. It is full, and, as far as we have seen, accurate.

Miscellaneous.

Dr. Anna M. Galbraith has written on the subject of sexual hygiene for women under the title of *The Four Epochs of a Woman's Life*,[8] with a considerable amount of good sense and reticence. It is probable that the reading of this book would be of real service to many married women, which is

[2] *Der Ursprung der Syphilis* [The Origin of Syphilis]. Von Dr. Iwan Bloch. Jena: Gustav Fischer. 1901. (Roy. 8vo, pp. 315. M. 6.)

[3] *Syphilis and other Venereal Diseases*. By H. de Méric, M.R.C.S. London: Baillière, Tindall, and Cox. 1901. (Demy 8vo, pp. 172. 5s.)

[4] *Vorträge über Syphilis, Gonorrhoe* [illegible] Redigirt von Dr. Schaper. Berlin: A. [illegible] 78. M. 8.)

[5] *The Students' Manual of* [illegible] M.D., and Follen Cabot, M.D. Seventh edition, [illegible] rewritten. London: Rebman, Limited. 1901.

[6] *The School Calendar: a Year* [illegible] *tinctions* at Schools, Colleges, and Universities [illegible] year 3[illegible] London: Whittaker and Co. (Fcap. 8vo, pp. 216. 1s.)

[7] The *London Manual* for 1902 (sixth year of publication). Edited by Robert Donald. London: Edward Lloyd. 1902. (Crown 8vo, pp. 380. 1s.)

[8] *The Four Epochs of a Woman's Life: A Study in Hygiene*. By Anna M. Galbraith, M.D. Philadelphia and London: W. B. Saunders and Co. 1901. (Demy 8vo, pp. 200. 5s.)

much; and that it would do none, who were fairly healthy in mind, any harm, which is more.

The practical application of science to the art of brewing has added not a little to the clearness of our knowledge in regard to fermentative processes occurring within the body. Hence Mr. Charles Matthews's *Manual of Alcoholic Fermentation and the Allied Industries*[9] would probably prove to be suggestive reading to many who are outside the group of persons for whom it was primarily intended. Much of its subject matter must be reckoned as belonging to biological and chemical science.

THE CENSUS RETURNS FOR LANCASHIRE.

Age Distribution of Population.

The recent publication of the second instalment of the detailed abstracts of the census returns for England and Wales is a further important contribution towards the final report and summary tables of the results of the 1901 census, and its prompt appearance gives a favourable augury as to their comparatively early completion. The present report covered the whole of the County of Lancaster, with a population of nearly four millions and a-half (4,387,043). Taken along with the report already issued for the County of London, it completes the official statistics—detailed and summary—for nearly a third of the population of the county. The part relating to this important industrial and densely-populated county is replete with matters of local and general interest, concerning its area and houses, and the ages, conditions as to marriage, occupations, birthplaces, etc., of its inhabitants.

When the corresponding portion of the census was issued relating to the County of London, attention was drawn in these columns[10] to the considerable change which was then shown to have been taking place in the age-constitution of its population during the last two decades owing to the decrease in the proportion of children consequent on the decline in the birth-rate. Although the metropolis could not be taken as a fair sample of the country it was pointed out that it plainly indicated the trend of this disturbance.

These remarks are as applicable with equal if not greater force to the census results now available as to the numbers living at different ages in the county of Lancaster. It is the chief industrial county of England and Wales, and 4,154,571 of its population dwell in urban and only 232,424 in rural districts. The age-distribution naturally shows a considerable divergence from that of England and Wales and also of London at corresponding censuses, but the census results bring out quite as markedly as those of London that its child population has been decreasing in proportion to those at nubile and reproductive ages, and that the number of those at the higher ages have begun to accumulate in its population. The proportion living at ten different age-periods in the county of Lancaster at the last and the two previous censuses (in round figures and omitting details as to sex) was as follows:

Number of Persons per 1,000 at all Ages in 1881, 1891, 1901 (County of Lancaster).

Census.	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 20 Years.	20 to 25 Years.	25 to 35 Years.	35 to 45 Years.	45 to 55 Years.	55 to 65 Years.	65 and upwards.
1881	140	120	105	98	96	159	119	82	51	30
1891	124	116	[illegible]	104	95	160	120	86	51	33
1901	[illegible]	[illegible]	[illegible]	[illegible]	102	170	127	89	55	33

When these statistics are compared with the corresponding figures for London, it is evident that the disturbing movement has been somewhat greater in Lancashire, but has followed on the same lines. During the last twenty years the child population of London (under 10 years) has fallen from 24 to 21.7 per cent. of its whole population, and in Lancashire from 26 to 22.1 per cent. In the same period the proportion of those living at the reproductive period of life (20 to 45) has increased in London from 39.1 to 41.4 per cent., and in Lancashire from 37.4 to 39.9 per cent., while the proportion at the higher ages (45 and upwards) has risen in London from 17.6 to 18.9 per cent., and in Lancashire from 16.3 to 17.7 per cent. These far-reaching changes must be regarded as symptomatic of similar alterations in the age-constitution not only of the population of Great Britain, but of the rest of the English-speaking portion of the empire.

[9] *Manual of Alcoholic Fermentations and the Allied Industries.* By Charles [illegible], F.I.C., F.C.S., etc. London: Edward Arnold. (Cr. 8vo, pp. [illegible].)

[10] British Medical Journal, p. 664.

Population.

The population of the administrative county of Lancashire has increased during the last intercensal period 12.3 per cent., the population of the county boroughs 9.3 per cent., and of other parts of the county 16.8 per cent. The population in the urban districts has increased 12.6 per cent., and of the rural districts 6.3 per cent. It is clear, therefore, that the highest rate of increase has been in the non-county boroughs. Among the county boroughs, Bootle (19.0 per cent.), St. Helens (16.6 per cent.), and Warrington (16.2 per cent.) show the highest rate of increase, Oldham (4.4 per cent.) and Bury (1.4 per cent.) the lowest rate of increase. The watering places on the Lancashire coast—Blackpool and Morecambe, and some smaller watering places—show an enormous rate of increase, the two above named having nearly doubled their populations in ten years. Bacup, Widnes, and a few other towns, show a small decline of population.

Housing.

The total number of separate tenements in the county increased to the extent of 16.4 per cent., the number consisting of five or more rooms increasing 28.4 per cent., while those with fewer than five rooms only increased 6.3 per cent. The rate of increase of small tenements was therefore only about one-fifth of that of tenements of larger size. Stated in another way, the condition of matters still existing can scarcely be regarded as satisfactory, as the present percentage of tenements with fewer than five rooms is 49.5 of the total number. It is illustrative of the remarkable differences in housing in Lancashire and in London that the number of one-roomed tenements is only 1.6 per cent. in the former, as compared with 14.7 per cent. in the latter. In view of their relative death-rates, it is clear that the number of rooms per tenement is a guide as to relative sanitary and social condition which is not free from ambiguity. In Manchester the proportion of tenements with fewer than five rooms is 54.6, in Liverpool 43.9, while in the other county boroughs it ranges from 31.2 in Bootle and 33.8 in Barrow to 69.4 in Rochdale, 69.7 in Bury, and 73.3 in Oldham. The largest number of single-roomed tenements is in Liverpool, where it is 6.1 per cent. of the total. Even this proportion compares favourably with the metropolis.

Natural and Actual Increase of Population.

The population of Lancashire increased in the decennium 477,368, the excess of births over deaths was 436,417, giving a net gain by migration of 40,951 persons. The proportion of males to females in the population is 1,000 to 1,082, as compared with 1,000 to 1,118 in London.

Condition as to Marriage.

Out of every 100 at 20 years old and upwards the number unmarried among males was 29.2 in 1891 and 31.0 in 1901, and among females 27.9 in 1891 and 30.2 in 1901. This appears to indicate a tendency to postpone the age of marriage.

Occupations.

It is noted in the report that with each succeeding census occupations tend to be returned more definitely and more accurately, and that while this increases the value of the later figures, it impairs them for comparison with those of earlier censuses. The increases and decreases in certain occupations are interesting. Thus the entire population over 10 years of age increase 13.4 per cent. for males, 13.9 per cent. for females. Nurses increased 28.2 per cent. in the decennium, teachers 30.3 per cent. It is not without social significance that male indoor servants increased 21.1 per cent., female indoor servants decreased 9.1 per cent., the decrease being compensated for by an increase of 9.0 per cent. in charwomen. The laundry service increased 14.9 per cent. Clerks increased

204.5 per cent. In cotton manufacture there was a decrease of 8 9 per cent. among men, 2.6 among women, in woollen manufacture a greater decrease of 24.6 and 12.1 per cent. for the two sexes respectively, and in silk manufacture an even greater decrease.

SOCIAL CONDITIONS AND OCCUPATION.

One of the tables given throws valuable light on relative social conditions. The proportion of female domestic indoor servants to every 100 families varied from 2.7 in Oswaldtwistle, 5.9 in Burnley, 10.4 in Manchester, 11.5 in Salford, 16.6 in Liverpool to 53.4 in St. Anne's-on-the-Sea and 72.5 in Great Crosby. The proportion of married or widowed women per cent. who were occupied was 5.5 in St. Helens, 8.8 in Bootle, 14.5 in Liverpool, 19.3 in Manchester, 33.8 in Burnley, and 37 9 in Blackburn. The proportion of children per cent. aged 10 to 14 years engaged in occupations ranges among male children from 3.0 in Fulwood, 4.7 in Liverpool to 36-37 per cent. in Darwen and Haslingden, and 41.1 in Crompton; among female children from 0.7 in Widnes and 1.1 in Liverpool to 37.6 in Darwen and 40.3 in Great Harwood.

We congratulate the medical officers of health of the county of Lancaster on having available the complete census returns for their county at so comparatively early a date, and hope that the remaining volumes will follow this with all possible dispatch.

UNIVERSITY COLLEGE, LONDON.

FUND FOR THE ENDOWMENT OF UNIVERSITY EDUCATION AND RESEARCH.

WE have received the following letter:

[*To the Editor of the* BRITISH MEDICAL JOURNAL.]

Sir,—May I ask for space in the BRITISH MEDICAL JOURNAL to call public attention to the appeal now issued by University College for funds in aid of higher education and research in London?

By the new statutes of the University of London a teaching university has been created. It is impossible, however, for the University to exercise its proper functions with regard to teaching and research until it has capital funds and adequate buildings at its disposal. The part of the Imperial Institute allocated to the University does not more than suffice for the purposes of examination and secretariat.

University College, London, has from its foundation (75 years ago) been a seat of university education and research. Its yearly output of original work is not exceeded by that of any university in the land. Its buildings, freehold land, and endowments represent a capital value of at least £800,000, and its present accommodation could be trebled by the extension of the buildings in its own grounds. It is evident, therefore, that the policy of incorporating the College in the University is an important step in building up the Greater London University on existing institutions.

In order to aid the policy of incorporation the Drapers' Company have offered £30,000 to the University; and for the same purpose a former student has offered an equal sum to University College.

But these sums are quite insufficient. A further sum of £110,000 is required in order to free the whole of the existing College buildings for University purposes, and render incorporation possible. Much larger sums, amounting in all (including the £110,000 already mentioned) to over a million, are necessary in order to perfect and complete the College, and to render incorporation fruitful by placing at the disposal of the University funds sufficient to complete the College equipment for higher teaching and research. The estimated sums may be divided as follows:

(*a*) £250,000 for completing the College buildings, thus providing adequate accommodation for teaching and research in such important departments as modern languages, chemistry in all its branches, geology, physiology, botany, engineering in all its branches, advanced medical studies, etc.

(*b*) An annual income of £6,000 a year, or a capital sum of £200,000 for departmental expenses, including maintenance of laboratories, libraries, etc.

(*c*) A yearly sum of £20,000, or a capital sum of £700,000, for the endowment of existing unendowed chairs, and for the foundation of additional professorships and lectureships.

The great need of our country at the present time is an increase in the supply of men with trained brains, men who will act as leaders in the world of thought and of affairs and in the struggle for mastery over the forces of Nature. The recent industrial development of Germany, the growing ascendency of America, are largely due to the recognition of this fact, and to the provision by the State or by private individuals of the necessary means—of universities well equipped with laboratories and well supplied with endowments.

I earnestly appeal, therefore, to every one who has the interests of his city and country at heart to help in thus developing the University of London, so that it may be worthy of the capital and a fruitful source of power to the empire.

A public meeting has been arranged to take place in support of the scheme at the Mansion House on May 9th, and the Lord Mayor has kindly consented to preside. A detailed statement of the needs of University College, London, with some account of its previous history and the part it has already played in the increase of knowledge has been drawn up in support of the appeal, and may be had on application to the Secretary at the College.

Donations and subscriptions should be sent to the Treasurer, Sir R. Farrant, at the College.—I am, etc.,

(Signed) REAY,
President.

University College, London.
Gower Street, W.C., April 11th.

A large quarto pamphlet accompanies this appeal, and in it are set out the present position and future needs of the College.

As the College is at present constituted the departments of Physiology, Pathological and Morbid Anatomy, Pathological Chemistry, and Hygiene and Public Health, as well as those of Zoology and Comparative Anatomy, Botany, and Chemistry are included in the Faculty of Science, while Anatomy remains a constituent part of the Faculty of Medicine.

A joint Committee, composed of representatives of the Senate of the University of London and of the Council of the College, are now considering the conditions upon which the College may be incorporated with the University. Certain conditions have been insisted on by the University and accepted by the College. These are (1) that before incorporation the College must be free of debt; (2) that the University will not take over University College School, and (3) that the University will require extensive rearrangement in connexion with the medical school. The first condition has been met by the offer of the Drapers' Company to make itself responsible for the debt of the College to the extent of £30,000, while to provide for the second and third, and for refitting the premises of the boys' school so as to adapt them for university purposes, it is estimated that not less than £140,000 will be required, towards which the sum of £30,000 has been promised by an anonymous donor, a former student of the College. The total sum asked for is over £1,000,000, but the immediate appeal is for the sum of £110,000 to enable the College to meet the above-mentioned requirements of the University.

At the present time the College buildings form an imperfect quadrangle, the west side being incomplete while the whole of the south wing is occupied by the boys' school. The first necessity, therefore, is to remove the school to some site more suitable for the purpose than Gower Street has become. The cost of this is estimated at £60,000, and it is proposed that the department of Botany should be housed on the top floor of the school, the lower floors being allotted to the Faculties of Arts and Law, for the provision of research workrooms, and class-rooms for the Modern Language and History Schools, Teachers' Training, and other departments.

By erecting a building on the west side to complete the quadrangle, extra space would be found for the departments of Engineering, Applied Mathematics, and Geology, while in the northern half of this new wing room would be found for the Physiological department on the upper floor, for the department of Physiological and Pathological Chemistry on the first floor, and for Chemistry on the ground floor and basement. Space thus set free in the north wing would be altered to accommodate the new department of Pharmacology. By remodelling the north-east corner of the College increased accommodation would be provided for the Anatomical department, including the provision of an anatomical museum, as well as special laboratories for work in vertebrate morphology and embryology, and for the extension of the

Zoological department. The completion of this west wing and its equipment would cost £100,000, while the remodelling of the existing building would cost another £40,000.

With regard to advanced medical studies it is stated that "at the present time the lectures and classes in the subjects of advanced medical education are given in rooms belonging to other departments to the detriment of the work of both sets of departments. The provision for the teaching and study of pathology and bacteriology is inadequate, and at the same time takes up space in the College which is much wanted for other purposes. It would be of very great advantage both to the Medical Faculty and to the rest of the College if a separate building were provided in close proximity to the hospital, containing class-rooms and laboratories in the subjects of advanced medical study as well as a Pathological Museum, in which the rich store of material which is constantly accumulated would be displayed to advantage and made available for the purposes of study." According to the plans shown, this new medical department would be erected on a site now occupied by houses on the east side of Gower Street, abutting upon the College. A sum of £10,000 is asked for to enlarge and improve the library. Altogether it is estimated that a sum of a quarter of a million is required for the extension in laboratories, class-rooms, and libraries immediately necessary for the proper teaching and carrying out of higher research at University College, while in addition a sum of £6,000 a year, equivalent to a capital of £200,000, will be needed for the upkeep of the various departments of the University.

Lastly, an appeal is made for a total sum of £700,000, yielding an annual income of £20,000, for the endowment of teaching, out of which a minimum endowment of £300 a year for all chairs could be provided.

ENTERIC FEVER IN FOLKESTONE.

DR. THEODORE THOMSON has recently presented to the Local Government Board a report on the recurrent prevalence of enteric fever in the Folkestone Urban Sanitary District. He has formed the opinion that the facts for the years 1896, 1897, 1899, and 1900 show that a prominent factor in the dissemination of enteric fever in Folkestone was milk and that the same channel was responsible for a small share of the fever in 1898. Commenting upon the facts he says:

> The singular feature of these repeated occurrences of enteric fever associated with milk is that three distinct sources of milk supply should have been involved in this relationship within the short period under consideration. Each occurrence of the fever associated with the same milk would have been less remarkable, in so far as this would have [illegible] active material of enteric fever had established and [illegible] farm from which milk was furnished [illegible] common to many of the farms on [illegible] whence a large part of the milk [illegible] serve as a clue to there having existed in occurrences of the fever. [illegible] supply, leading to the storage and use of water of quality so suspicious as that derived from the surface of roadways; to the use of water from wells or springs open to risk of [illegible] failure or shortage of water [illegible] procured from other premises [illegible] recounted, one or more of [illegible] with the three milk supplies [illegible] of enteric fever in Folkestone in [illegible] brought with danger to the health of [illegible] such sources, and the Rural District [illegible] should take steps to secure a sufficient [illegible] such dairy farms within their districts as are now defective in this respect.

He adds, that milk cannot be accepted as a full explanation of the local increase of fever, for after deducting all cases definitely referable to infected milk or to shellfish, and those "imported" or infected in the local hospitals for infectious diseases, the years 1896-1900 inclusive show considerable more fever than years immediately preceding. In 1898, when 29 cases occurred in 22 houses, only 6 could be suspected of having contracted the disease from milk. He favours the view that the infective material of enteric fever, finding its way in considerable amount into Folkestone in 1896 by means of milk, and being on subsequent occasions reinforced in similar fashion, continued there in amount and under conditions that favoured the propagation of the disease. Among these conditions are to be reckoned the existence of faulty sewers and house drains, which by permitting soakage of their contents into the surrounding ground would facilitate access of the fever material to the neighbourhood of human habitations. He further adds:

> It is possible, too, that the enteric fever bacillus thus brought into near relation with the human population of Folkestone found the meteorological conditions of recent years more than usually favourable to its viability, since these years have been warmer than the average. Whether the unusually low rainfall in these years had a similar effect cannot be said, owing to want of definite knowledge as to the influence of this condition in Nature on the enteric fever micro-organism. Neither can the possibility of the fever material introduced into Folkestone having been exceptionally tenacious of life and more than usually virulent be overlooked. To one or other, or to a combination of these several conditions, the recurrences of so many cases of the fever not referable to milk in Folkestone in recent years may be attributed.

Commenting upon the sanitary administration, Dr. Thomson expresses the opinion that the internal administration of the Health Department is far from satisfactory, owing to the relations in which the medical officer of health and the inspector of nuisances stand to one another. He says:

> The latter officer, who is active and zealous in the discharge of his duties, is apt to deal with questions which are not within the province of the inspector of nuisances, and to take independent action in matters in which supervision by the medical officer of health is necessary. An illustration of this regrettable condition of affairs is afforded by the fact that the Medical Officer of Health and the Inspector of Nuisances have reported separately to the Health Committee as to the causation of the recent serious occurrences of enteric fever in Folkestone. These two officers differ in their conclusions: the medical officer of health attributing material amount of the fever in 1900 to defective conditions of sewerage and drainage in Folkestone, a view not shared by the Inspector of Nuisances. It is no part of the duty of an Inspector of Nuisances to report upon the etiology of questions involving medical considerations, and it is much to be deplored that the local authority should have allowed such a procedure. The division of authority that obtains in the Folkestone health department is not conducive to the proper discharge of the duties which devolve upon it; and, in the interests of the public health, the Town Council should see to it that the relations between these two officers are arranged upon their proper basis.

Dr. Thomson also calls attention to the fact that "there are no by-laws under the Public Health Acts Amendment Act 1890 in force in the district, nor are there any regulations under the Dairies and Cowsheds Order 1885. The by-laws with respect to new streets and buildings are defective, notably in regard to open space in the rear of new buildings" erected since 1880. There are many such buildings with insufficient open space in their rear. Though a good deal has recently been done by the local authority in the way of affecting improvement in the general sanitary circumstances of the district much yet remains to be done.

> There is still a considerable proportion of house drains that cannot be regarded as satisfactory and proper disconnexion of house drains from sewers is often lacking.

Dr. Thomson also considers that "the ultimate disposal of house refuse is a serious blot on the administration of the district. The present method is unsatisfactory and costly." "The sewerage of Folkestone likewise requires the serious attention of the Town Council." Although improvement has recently been effected "it is needful that like action should be continued until the whole sewerage system of the district can justly be regarded as in a satisfactory state," and in particular it is "desirable that the low-lying neighbourhoods where sewage is apt to flood cellars should be promply dealt with, and the present main sewer outfall should be altered so as to secure that there shall be no deposit of offensive matters in the harbour or on the foreshore." "The housing of the poorer classes is another matter which," in Dr. Theodore Thomson's opinion, "requires the attention of the Town Council."

PROFESSOR VON LEYDEN'S SEVENTIETH BIRTHDAY.

ON April 20th the celebration of the seventieth anniversary of E. von Leyden's birthday made an unusual stir in the world of medicine. Not only in Germany, nor yet in the German tongue alone were congratulations extended to the great clinician, but everywhere where the progress of medical science has insinuated itself, were his praises sung. In England the congratulations were not less warm or hearty than in other lands, and we would wish to join the rest in greeting E. von Leyden with a heartfelt "Many happy returns of the day" in the name of the British Medical Association. The genial face and figure of the Master will be well remembered by all who were present at the Congress on Tuberculosis held in London last year, and we feel sure that all these will join us in a kindly message.

E. von Leyden is no ordinary physician, nor have the fruits of his forty years of clinical teaching been of an ordinary type. In recognition of his distinction as a teacher the *Berliner klinische Wochenschrift* and the *Deutsche medicinische Wochenschrift* have dedicated their current numbers to his honour. In the former appear original articles written for the occasion by celebrated physicians of many countries—by Sir Dyce Duckworth on the Clinical Importance of the Personal Factor in Disease (a subject which will appeal to von Leyden); by Lépine, Pel, Sahli, von Petersen, and others on divers subjects. The latter journal devotes its pages partly to personal congratulations and personal descriptive eulogies from the pens of Renvers, Jolly, and G. Meyer, and for the rest to original articles written in honour of von Leyden. Spain is represented by Ramon y Cajal, England by Sir Wm. Gowers and Sir T. Lauder Brunton, France by Professor Charrin, Russia by Professor v. Bechterew, and so on.

At the Congress for Medicine recently held at Wiesbaden, as von Leyden took his place in his chair decorated with flowers, he was received with loud and enthusiastic cheers. The President, Professor Naunyn, delivered a speech in the name of the Congress in praise of von Leyden. In his reply, Professor von Leyden accepted the praises with the feeling that some of the works he had undertaken had turned out to be of use. He had taken a leading part in the founding of the Congress, as well as of the Society for Medicine, and the Journal for Clinical Medicine. All these had proved to be successes. In the medical journalistic world, von Leyden has been very prominent. He has always been an ardent supporter of the *Deutsche medicinische Wochenschrift*, and it was through him that it became the official organ of the Society for Medicine (Verein für innere Medicin). He founded and edited (with others) the *Journal of Physical and Dietetic Treatment* and the *Journal for Tuberculosis and Sanatoria*. The last-named deals with a subject which has always been dear to him, and although the chief editorial work is done by A. Moeller of Belzig, von Leyden always takes a large interest in its publications. He was actively instrumental in founding and working for the "Cancer Committee," in which the results which have so far been attained promise that the etiology of malignant disease will in the near future be exactly known.

As a teacher he stands almost alone; as Naunyn said, he possesses a true enthusiasm for his subjects, and he is capable of awakening it in his pupils. His clinical and pathological researches have been numerous and of great importance. It was he who definitely settled the question of the pathology of tabes dorsalis, which was up to that time much disputed; he, too, brought the clinical appearances and pathological changes of bulbar paralysis into harmony; he contributed largely to our knowledge of cerebral lesions and of diseases of the peripheral nerves. He wrote on cardiac diseases with especially good results, and on various diseases and symptoms of disease of nearly every system of the body. As a clinician he is particularly prominent in his scientific treatment. He is largely influenced by "the personal factor": he studies each patient individually, and inspires each one with full confidence. Another striking work which he has carried out is an indirect one. By his skilled teaching, by his thorough treatment, and by personal influence, he has succeeded in repressing a great deal of quackery. His publication, the *Journal for Physical and Dietetic Treatment*, was founded partly for this purpose.

Although von Leyden was a student up to 1854, he is still ready to advance with the times, and, indeed, it would seem as if he went ahead of them on occasions. One has but to recall the enthusiastic way in which he participated in the discussion held at the Congress of Medicine last year in Berlin on the Etiology of Rheumatism, when he threw his weighty vote in favour of a specific causal coccus, or to stand by when he is engaged in examining a specimen through the bacteriological microscope, to realize this fact. We are only echoing the wish of the whole medical world in expressing the hope that he may be spared for many a day to continue his valuable work, and to enjoy the high esteem in which his friends and followers hold him.

Er lebe, hoch!

Our Berlin correspondent writes:

Sunday, April 20th, was the Leyden day in Berlin. Not a newspaper but had its Leyden biography article, and the weeklies published his picture, with articles giving a popular account of his life-work. If further proof had been needed of the immense popularity which the great clinician enjoys, it might have been found in the distinguished and brilliant assembly which met in the large Philharmonic Hall at 12 o'clock to present congratulatory addresses. Ladies in multi-coloured, dainty summer raiment, with a sprinkling of uniforms, gave a bright note of colour in harmony with the brightness of a glorious spring day, and in harmony, too, with the genial and artistic temperament of the man they had come to honour. For von Leyden, serious and indefatigable worker as he has always been, is none the less a [illegible] the world, as popular and sought after in society as he is admired and respected in the profession which he has done so much to elevate.

On the platform, which was gracefully decorated with plants, sat the leaders of the different deputations (two ladies among them), at their head Professor Waldeyer, who was to preside over the proceedings. In the foreground Professor Nothnagel (Vienna), who was to deliver the official address, and Surgeon-General von Leuthold. A few minutes past twelve a trumpet call announced the coming of the "Jubilar," who, surrounded by the festal committee, and received by long-continued applause, mounted the platform stairs, and took the seat prepared for him with an alacrity and elasticity of movement that showed no trace of the septuagenarian. Then came a flood of addresses and ovations; for each, Leyden had an appropriate and graceful answer. Whether it was Professor Waldeyer and Professor Jaffé who evoked reminiscences from the times of work in common at Koenigsberg, or Robert Koch, who spoke as delegate of the Bologna Academy; whether Professor Posner, as spokesman for the Society of German Doctors in St. Petersburg, or the delegates from medical societies in Finland, Japan, the Caucasus, etc., not one but was answered with some special words of thanks. Addresses in handsome cases accumulated round Leyden's chair. But the event of the day was the presentation of 56,000 marks (£2,800) for the foundation of a "Leydenstiftung" for the assistance of medical research. Professor B. Fraenkel handed over the sum on behalf of the Committee, and he further gave notice that two well-wishers desired to place at von Leyden's disposal—one the sum of 100,000 marks (£5,000) for a foundling hospital, and the second the sum of 26,000 marks (£1,300) for the children's seaside sanatoria already in work.

Another important feature of the proceedings was the presentation of a book composed of papers by von Leyden's former and present assistants, the so-called "Festschrift." A long row of men—far famed many of them—Binswanger, Brieger, A. Fraenkel, Jaksch, Jaffé, G. Klemperer, Nothnagel, Renvers, etc., were led up by Oberarzt Max Michaelis, who in words touched with deep emotion did homage to the beloved teacher. Leyden's answer was characteristic. As in the dark ages of medicine, he said, it was thought that contact with youthful bodies gave the aged a second youth, so it had been with himself: the constant intercourse with youthful fellow-workers and friends had kept up in him—in spite of his 70 years—a certain youthful freshness. Then came delegates from the different sanatoria committees of which von Leyden has been and is still the moving spirit—the People's Lung Sanatoria Committee, the Children's Seaside Sanatoria Committee, etc. When the last speaker ended, von Leyden said a few heartfelt words of thanks to all present.

In the evening a large number of friends and colleagues assembled at a banquet in honour of the "Jubilar." Cultus-minister Studt and other official personages were present. Professor Waldeyer gave the toast of the evening, and there was a long list of speeches. A promenade concert followed, and the company did not separate till very late.

THE PLAGUE.

Prevalence of the Disease.

India.

During the two weeks ending March 15th and 22nd the deaths from plague in India numbered 25,655 and 26,108 respectively. The Punjab continues to be the chief seat of plague.

In Bombay during the weeks ending March 22nd and March 29th the

deaths from plague amounted to 743 and 909 respectively, showing a sudden and unexpected increase. The latter figures are the highest reached this season, and a marked recrudescence at so late a date is unusual.

In the Bombay districts the number of deaths from plague during the week ending March 22nd amounted to 3,705, against 4,779 during the previous week; in Calcutta 420, against 501; in Bengal 824, against 1,289; in the North-West Provinces and Oudh 2 057, against 2,335; in the Punjab 16,820, against 15,090; Mysore State 194, against 304.

A later report, dated April 2nd, states that in Calcutta the plague seems to be increasing; on April 1st, 114 cases of plague and 99 deaths from the disease were reported.

In several cities and districts plague continues to wax and wane and to appear and disappear. In Surat, which has been free from plague for two years, the disease has appeared again recently. In Delhi 1 case and 1 death were reported on March 22nd. In the Ludhiana district of the Punjab there was a noticeable improvement during the third week of March, the plague deaths falling in one week from 6,514 to 4,968. In the Sialkote district 1,000 fewer deaths from plague were reported during the week ending March 22nd.

Speaking at Jullundur, Sir Charles Rivaz said that, from October 1st, 1901, to April 1st, 1902, 100,000 people had died of plague in the Punjab alone. He stated that, so long as the Provincial Government was able to enforce repressive measures, the plague was kept within narrow limits, but the disease had now spread beyond the capacity of Government to control it.

EGYPT.

According to the report of the Director-General, Sanitary Department, during the week ending April 6th 13 cases of plague and 9 deaths from the disease were reported in Egypt. Of these numbers, there occurred at Kom-el-Noor 1 case and 2 deaths; at Deshneh 7 cases and 5 deaths; at Ezbehs, near Benha, 3 cases and 2 deaths; and at Sheblanga 1 case.

According to a Reuter's telegram, dated Cairo, April 21st, there occurred in Egypt during the fourteen days previous to that date 59 cases of plague and 34 deaths from the disease. Since April, 1901, to the present date 441 cases of plague were reported throughout all Egypt, and 266 deaths from the disease.

CAPE OF GOOD HOPE.

On March 22nd but one case of plague remained under treatment in Cape Hospitals. As this marks the practical termination of the initial outbreak of plague in Cape Colony, to which area the disease was confined, it is interesting to record the figures published by the Government concerning the visitation. The total number of cases in the Cape to March 22nd, 1902, amounted to 877, of which number 422 (48.1 per cent.) died. Of this total 221 were Europeans, 450 were coloured persons, and 206 natives. The disease prevailed with greatest virulence in the Cape Peninsula, 745 out of the whole 877 cases occurring there. The other places in which plague chiefly prevailed were Port Elizabeth 105 cases; Mossel Bay 13 cases, and in all other places 14 only. There were no fresh cases of plague during the week ending March 22nd.

REAPPEARANCE OF PLAGUE AT PORT ELIZABETH.

A telegram, dated Port Elizabeth, April 21st, states that there is a recrudescence of plague in that town, 10 fresh cases and 5 deaths having recently occurred.

MAURITIUS.

On April 3rd it was reported from Mauritius that no fresh cases of plague had occurred there during the previous week.

Later information is, however, less satisfactory. During the week ending April 10th 3 fresh cases of plague occurred in Mauritius and 3 deaths from the disease; and during the week ending April 17th 1 death from plague was reported.

AUSTRALIA.

A telegram, dated Sydney, April 21st, announces the occurrence of further cases of plague in the city, and that the disease has attacked the wallabies in the Zoological Gardens. Seeing that the wallaby is an animal widely spread throughout Australia, the fact that it is liable to plague makes it possible that the disease may spread independently of human intercourse and communication.

LITERARY NOTES.

DR. FRANK BELBEN (Bournemouth) writes:

> In the leading article on page 976 of the BRITISH MEDICAL JOURNAL of April 19th, I see with regret *fetal* and *fetus*. Has the BRITISH MEDICAL JOURNAL become the organ of an American trust? If not, let us have foetal and foetus as heretofore.

Dr. Belben will perhaps allow us, like Mr. Chucks in *Peter Simple*, to "say in the most delicate manner, just to hint,' that he is mistaken in thinking that "fetus" is an American spelling. It is good Latin, independent of "trusts," and almost as old as the Seven Hills, as he may see if he will take the trouble to refer to a dictionary of that classic tongue. We take the first that comes to hand to wit, that of William Smith, which is described on the title page as based on Forcellini and Freund (Sixteenth Edition, 1880), and on looking up "foetus" we are referred to "fetus." Under "fetus" we find that the root of the word is "Fe," for information about which we are referred to "fecundus." On turning to that word we are told that it is incorrectly spelt "fœcundus," and the root "Fe" is said to have the meaning "produce, bring forth," and to be traceable in "femina" as well as in "fetus." In the *New English Dictionary*, now being slowly delivered from the Clarendon Press with the skilled obstetric aid of Dr. James A. H. Murray, the word is said to be "incorrectly written *fœtus*," and the spelling with "e" is described as "etymologically preferable," though in actual use it is said to be almost unknown. But inasmuch as we are told at the same time that the spelling is adopted as the standard in several recent dictionaries, we confess that the utterance of the oracle, as is the way of oracles, strikes us as somewhat cryptic. On the whole, we prefer a spelling which has in its favour simplicity as well as etymology to one which is pronounced to be incorrect, even by the authorities who tolerate it in deference to "actual use."

We understand that within a few weeks the first of the new volumes of the *Encyclopaedia Britannica* will be published jointly by Messrs. A. and C. Black and the *Times*. The new publication will not only complete and bring up to date the ninth edition, thus forming in combination with the existing volumes the tenth edition of the *Encyclopaedia Britannica*, but will also constitute a distinctive and independent library of reference dealing with recent history and recent progress in all departments of knowledge. The editors-in-chief are Sir Donald Mackenzie Wallace, President Hadley of Yale University, and Mr. Hugh Chisholm. The contents will include more than 10,000 articles by more than 1,000 contributors, 150 full-page plates, 125 coloured maps, and 2,300 other illustrations, eleven volumes in all. The volumes will be published at, approximately, monthly intervals. The Departmental Editor for Medical Science is Dr. D. Noel Paton. Among the medical contributors are Sir Michael Foster, Sir T. Lauder Brunton, Mr. Edmund Owen, the late Sir William MacCormac, Sir Henry Thompson, Professor Clifford Allbutt, Professor G. Sims Woodhead, Professor Max Verworn, and Dr. F. W. Mott. Among the contributors on "Government and Administration," we note the name of the French Minister of Marine, M. de Lanessan, who was originally a member of the medical profession.

In *Denmark, Past and Present*, Miss Margaret Thomas, who is favourably known to readers of books of travel as the author of *A Scamper through Spain and Tangier* and *Two Years in Palestine and Syria*, gives an interesting account of a country "whose inhabitants," she says, "are akin to us in race and closely related in language, customs, and religion, whose literature resembles our own, and whose love for the perilous adventures of the ocean is as passionate as that of our own island folk, yet of which the average Englishman knows less than he does of Egypt, the Soudan, Australia, and of many another still more remote land." With Miss Thomas's help the average Englishman can now learn *cito et jucunde* what manner of men his kinsmen the Danes are, their physical environment, and their institutions. It may indeed be more agreeable for him to acquire a knowledge of Denmark in this way, at least at the present time, for Miss Thomas admits that the Danes are mostly pro-Boers. To us the most interesting part of Miss Thomas's book is a chapter in which she gives an account of Professor Finsen's Light Institute at Copenhagen. She perhaps allows herself to be somewhat carried away by enthusiasm when she speaks of his discovery as ranking with those of Jenner, Koch, and Roentgen, and we suspect that she is under a misapprehension when she states that Professor Finsen opened a sanatorium for the treatment of heart and liver diseases in 1901. At any rate, although many English practitioners now visit Copenhagen, we have heard nothing of such an institution. Miss Thomas's book, which is published by Messrs. Anthony Treherne and Co., contains a large amount of information conveyed in a pleasing style.

At a meeting of the recently-founded French Medical History Society held on April 9th under the presidency of M. Dureau, M. Alezais related some curious facts as to the regulation of medical fees by the French Parliament in the 18th century. Thus the physicians who at the beginning of the epidemic of plague at Aix in 1720 received a sum of 1,000 livres for attendance on those stricken with the disease, and the physicians to infirmaries who received 12,000 livres had their fees suddenly cut down by a decree of Parliament dated September 10th, 1720. M. Schapiro presented a communication on midwifery among the ancient Hebrews founded on the Bible and the Talmud.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

Subscriptions to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 26TH, 1902.

CONTRACT MEDICAL ATTENDANCE.

The indifference of medical men to their material interests and their apathy as a body in regard to the political and economic aspects of professional life have become proverbial. Possibly some of this indifference has been more apparent than real. If collectively there has been inaction, yet very many individuals have at least not failed to do their part in grumbling. The truth perhaps has rather been that, while we have really both cared and striven, our concern and our efforts alike have been misdirected; that as a profession we have neglected political weapons in what was really political warfare, and have attempted essentially economic investigation without adopting the accepted methods or learning the established truths of economics. For this attitude, which is to say the least unscientific, apologists may even now be found. There are still those who sneer at combination among medical men in defence of their common interests as "trades-unionism," and deprecate all attention to the economic aspects of medical practice as sordid.

But many members of the profession now recognize that their duty to themselves and to the public requires that they should give attention to political and economic questions, and in no respect has this been more noticeable than in respect to contract practice—probably because no other affects, or threatens to affect, so large a proportion of practitioners in the same degree. Our columns have during the last few years shown how steadily interest in the various aspects of such practice increases, how the attention paid thereto becomes constantly more searching, and how for the difficulties encountered solutions constantly of a more thorough and uncompromising kind are proposed. Long and laborious "spade work" remains of course to be done before the foundations of a sound structure can be laid, but already it seems as though, in one or two directions, bedrock begins to be found. This may, we think, be seen in at least two points dealt with by Mr. Langley Browne, in the interesting and useful paper published in this issue, which must command attention, both on account of the representative position held by the writer, and on account of his wide experience of general practice.

Mr. Langley Browne's avowed object in this paper is to consider how far the profession should go in supporting or opposing contract practice in the various forms which he discusses. If on some points, particularly as to the Friendly Societies, the writer's treatment of his subject leaves out of consideration certain suggestions recently put forward, and may therefore appear to some bold spirits unduly moderate, on other points, such as insurance medical aid societies, and private medical clubs, his position is firm enough for the most stalwart. The emphatic condemnation of these two forms of contract practice is now indeed very general in the profession, and here therefore we may consider, recurring to our metaphor, that bedrock has been reached. With respect to the other three classes of contract arrangements discussed by Mr. Langley Browne, agreement of course is by no means so general, as will be seen on comparing the opinions here advanced with those expressed by Dr. McKee, Dr. Larking, Mr. Moxon, and others in recent numbers of the British Medical Journal.

Mr. Langley Browne starts from the proposition that insurance by working men against the various expenses of sickness, including loss of wages and medical attendance is legitimate. This will readily be admitted. The question then arises, as several writers in the British Medical Journal have pointed out, though it is not discussed by Mr. Browne, whether the cost of the insurance against medical attendance should in effect be borne by the medical profession, or whether it should be borne by the Societies, as is the assurance of sick pay.

Accepting the general principle of existing contracts with Friendly Societies, Mr. Browne finds two reforms generally desirable: (*a*) Increase of rate; (*b*) some protection against abuse by persons of higher class. As to the first he is in general agreement with most students of the subject, including apparently the Societies themselves, in thinking a general increase of rate necessary. In any case we take it no given rate could be named as universally applicable. The rate for each district must be fixed with respect to local circumstances by agreement between the profession and the Societies. Such a general organization of the profession as would be furnished by the Divisions of our Association under the proposed new Constitution could best carry out negotiations of this kind.

As to (*b*), what is commonly known as the "wage limit" question, Mr. Browne takes a view which seems to be not altogether in accord with his general argument in favour of contract practice under proper conditions. At the beginning of his paper he argues that medical men ought to accept contract work, however irksome, in order to assist working men in a legitimate effort to guard against the dangers and hardships of their lot. But it may be urged that this obligation ceases, and the above argument therefore no longer holds, if working men insist on introducing along with themselves persons of a more fortunate class. Surely this sets the profession free to consider its own interest, and reply "Very well; if you say all or none, it shall be none." The argument that, because the Friendly Societies decline to discuss the wage-limit principle it is useless for the profession to insist upon it seems to grant too much. Moreover, the proposition is subject to some exceptions, for the Friendly Societies have not universally declined to entertain the principle. In some districts it has, we believe, been conceded by certain Societies. Some leading Societies which profess to be "unable" to grant it, are prevented by nothing but

their own constitution, which it is open to them to alter if they think proper. If they are obstinate, the question arises whether the profession is still bound to accept them on their own terms. A sliding scale arrangement is attractive at first sight, but it is open to the serious objection that it might tend to introduce contract arrangements into practice among classes hitherto free.

With the rest of this valuable paper there will, we think, be general agreement. Stress is rightly laid upon the inequity of paying lower rates for women and children than for men. Some, indeed, suggest that the rate for women should be at least double that for men; others that women and children should not be attended at contract rates except in provident dispensaries, and there only among the class bordering on pauperism.

The suggestion as to works clubs—that there should be a list of medical men, leaving a free choice to the persons in benefit—is of great importance in our view, and might, we imagine, be extended to Friendly Societies also. We are not aware, however, of any instance in which such a principle has been adopted by these Societies.

VACCINATION LITERATURE.

The question is sometimes asked by educated laymen why the medical profession is not at more pains to expound to the public the benefits of vaccination as a preventive of small-pox. The answer is not to be given in a single sentence, and must embrace various considerations. One can imagine a busy practitioner whose conscience pricks him on the subject asking himself, Why should I take trouble to expose the folly of antivaccination rather than of all the quackery which flourishes throughout the length and breadth of the land? If people choose to neglect protection against small-pox let them pay the penalty as Gloucester did. The fewer fools there are in the world the better, and where folly takes the form of antivaccination, let the punishment suit the crime, as it has done so frequently of late in London and Glasgow and elsewhere. Moreover, it is the duty of the State to deal with vaccination from the legislative side. If, for the sake of the votes of the ignorant, political parties are willing to truckle to faddism, why should the medical profession condescend to intervene? The thanks which a doctor receives for trying to educate his community in this matter, either in newspaper correspondence or on public platforms, are very likely to consist in all manner of abuse, and insinuations of mercenary and unworthy motives. Let the people who swallow the stories about Blank's pills swallow also the pills themselves, and pay for them. Let credulity, whether with regard to faith healing or Christian Science or antivaccination have its own course and inflict its own penalties.

All such reasoning bears the same taint in differing degree—the taint of the question, Am I my brother's keeper. It is the duty of medicine, in spite of slander, to try to save helpless children from the effects of parental neglect and folly. It is also a duty to try to save those who, though adults in years, are worse than children in their capacity for silly faith in falsehood and silly scepticism of truths which have been proved so a thousand times over. In short, where a member of the medical profession has time and opportunity to marshall and publish examples and illustrations of the historical and statistical and clinical evidences of the worth of vaccination as shown from one end of the world to the other, from the time of Jenner until the present day, he is right to embrace the occasion not merely for the enlightenment of the readers or audience who come directly before him, but also for the sake of the widening circles of influence which are thereby called into existence, so that those who are definitely put into possession of the facts may themselves, each in his own sphere, act as centres of information and education of their fellow men.

Two fresh illustrations of what may be done in this way are given in our present issue. One is indicated in our review of a little book by Dr. Edward J. Edwardes, which makes a really valuable addition to existing and conveniently available writings on the subject of vaccination. The other is a lecture by Dr. Theodore Dyke Acland, which we publish in full, with diagrams and statistical tables. Dr. Acland, it may be recollected, was one of the medical men appointed by the Royal Commission to make inquiry as to alleged evil results of vaccination here and there throughout England. He was therefore in a position peculiarly favourable to the formation of conclusions adverse to the practice, if sufficient evidence on which to base such conclusions could be found. It is needless here to indicate the findings to which his investigations led him, as they are sufficiently set forth in his admirable lecture. The lecture was delivered in response to a request to address the subscribers to the Hospital Saturday Fund at their recent meeting at the Mansion House, and Dr. Acland has done good work on the side of truth and common sense in fulfilling so well the task he undertook. The tables and diagrams which he used are excellently suited for their purpose, and should give useful guidance to any medical man who is asked to perform a similar service to the public of his neighbourhood. Meantime we have pleasure in commending the address to the attention not only of our ordinary readers, but also of Dr. Bond and the Jenner Society, who have already republished in pamphlet form many valuable contemporary contributions to the literature of vaccination.

TUBERCULOSIS IN INFANCY AND CHILDHOOD.

In the autumn of 1899 a correspondence as to the site and frequency of tuberculosis in childhood arose in our columns in connexion with a paper read by Dr. Still in the Section of Diseases of Children at the annual meeting at Portsmouth.[1] He concluded from a study of the morbid anatomy of 269 cases in children dying under 12 years of age, that the commonest channel of infection in childhood is through the lung, that infection through the intestine is less common in infancy than in later childhood, and that consequently milk cannot be the usual source of tuberculosis in infancy. Thereupon Dr. Walter Carr wrote a letter expressing the opinion that traditional beliefs die hard in medicine, and referred to a short paper which he had read to the same Section of the annual meeting in London in 1895, protesting "against the use of the term 'consumptive bowels' in the wasting

[1] British Medical Journal, 1899, vol. ii, p. 455.

diseases of infants." He then stated that of 257 consecutive necropsies on children under 2 years of age tuberculous peritonitis was observed only once (in a child aged 1 year and 9 months). Tuberculous disease of the intestines and mesenteric gland was more common, but was in nearly every case slight and recent, that is, it occurred as a part of general tuberculosis or in cases in which pulmonary lesions were evidently primary and more important. Tuberculosis was present in 53 of the 257 bodies examined, but intestinal ulcers of large size or old standing were present in 3 only, and only in 1 of these did it seem likely that the tuberculous process had started in the bowel.

Dr. Donkin gave a humorous turn to the subject by suggesting that of the "two medical Aunt Sallies" which Dr. Carr had "put up to throw down" the one that "it is a deeply-rooted belief that in young children tuberculous infection is more common through the intestines than through the lungs" was not traditional though erroneous, and the other that "there is a widely-spread assumption that 'tabes mesenterica' always means abdominal tuberculosis" was not only dead, but so long dead that "by this time it scarcely stinks."

Nevertheless it appears to be true that the belief that tuberculosis of the abdominal organs is a common disease in childhood and frequently fatal is very general. Evidence of this is afforded by the pride and surprise with which each new convert to facts announces his discovery of the truth. The belief probably rests not on the statement of textbooks but on the statistics of tabes mesenterica published by the Registrar-General. The late Sir Richard Thorne-Thorne, whose name was almost synonymous with accuracy, by appearing to adopt these figures as proof of the prevalence of abdominal tuberculosis, gave them a wider currency than they could otherwise have attained. But it is probable that in this instance he placed too much reliance on the official statistics; it is at least certain that medical men who have had much experience at children's hospitals have never been able to accept the conclusion that intestinal tuberculosis, or indeed tuberculous infection of any of the abdominal organs is a common disorder in children, or anything but very rare in infants. The note from Dr. H. Armstrong, of the Liverpool Infirmary for Children, which is published at page 1024, confirms previous statements on this head, and advances a doctrine as to the extreme rarity of tuberculous meningitis in infancy which possesses rather more novelty.

Most of the textbooks appear to recognize that the age at which tuberculous meningitis most often occurs is 2 to 10 years, and that it is comparatively rare in the first year of life.[2] As a rule, however, tuberculous meningitis is not an isolated lesion, but a part of a more general infection often, definitely, of general tuberculosis. Speaking generally, the fact appears to be that tuberculosis in any form is much less common in the first year of life than in the next four or five.

Geill[3] published as long ago as 1888 some interesting statistics drawn from the *post-mortem* records of the Blegdams Hospital in Copenhagen. He examined the reports as to 584 children under 15 years of age who had died of various acute infectious diseases, and down to the time of their attacks had in nearly all instances been in good health. Naked-eye evidence of tuberculosis in one or more organs was found in no fewer than 198 or 33.9 per cent. but the frequency at different ages was very different. There were very few cases in the first year of life, and altogether in 384 children under 2 years of age tuberculous lesions were present in 60 only, or 21.2 per cent., whereas in older children the proportion affected was from 46 to 47 per cent. In 1889 Brandenburg[4] prepared for Professor Hagenbach, of Basel, an analysis of the statistics for eighteen years of the Children's Hospital there. Only cases of tuberculosis in children under 4 years of age were considered: particulars were obtained of 141 necropsies, and of 162 cases of tuberculous disease of bone in which the diagnosis was confirmed by operation. Of these 203 children 18 per cent. were in the first year of life, 42 per cent. in the second, 21 per cent. in the third, and 19 per cent. in the fourth. Of the cases in the first year 8 per cent. were instances of tuberculous meningitis, 19 per cent. of miliary tuberculosis, 36 per cent. of pulmonary phthisis, and 31 per cent. of tuberculous bone disease. Tuberculous meningitis was most common in the fourth year of life.

We are inclined to think that the registrars of the children's hospitals might do a very useful piece of work if they would, perhaps through the Society for the Study of Disease in Children, draw up on a uniform system statistics for the last ten years or so showing the age incidence of tuberculosis in children dying from all causes, and the local distribution of the tubercle in these dying from or with tuberculous lesions of any kind or degree.

[2] British Medical Journal, 1895, vol. ii, p. 717.
[3] *Jahr. f. Kinderheilkunde*, Bd. xxxii., s. 165.

COCAINISM IN CALCUTTA.

The interesting paper by Dr. Kailas Chunder Bose, of Calcutta, which is printed on another page, supplies striking and graphic evidence of a very remarkable incident in the social life of Calcutta. Oriental races are peculiarly addicted to nervines; opium and cannabis have from time immemorial been the favourite intoxicants in India. Western races are addicted to alcohol, but its use among natives of India is limited, though there is reason to fear that in large towns among the youth of the wealthier classes alcoholic drunkenness is on the increase. In Bombay some years ago eau-de-cologne was largely imported for consumption as an intoxicant. This was a special and quite exceptional practice resembling the use of sulphuric ether in some parts of the North of Ireland for the same purpose. The consumption of cocaine as an exhilarant is quite a recent phenomenon in India. The vice—for such it unquestionably is—has grown rapidly and acquired such dimensions as to attract the attention of Government and necessitate special inquiry, which will probably lead to special legislation. It appears that the drug is imported in ounce bottles by certain Mohammedan and Marwari dealers. These bottles are sold for 2½ rupees each, but the material is more usually put up in small packets, costing 1, 2, and 4 pies, and retailed by the sellers of betel, the leaf of which is so universally chewed by Indians with

[4] Ibid., s. 159.

lime, areca nut, and other condiments. The law as at present existing cannot hinder importation or prevent cocaine being held in stock, but the excise authorities can place restrictions upon its retail sale, and it has been found necessary to render these more stringent and to forbid, under penalty, the sale of the drug except by approved druggists and chemists duly licensed, and for bonâ fide medicinal purposes. Unfortunately it appears that some of those addicted to the vice have obtained their supply from dispensaries and even from medical men. It is quite possible that in the first instance the drug has been prescribed for medicinal use, and has subsequently been supplied without sufficient inquiry or scruple when the habit of consumption has been acquired. The regulations recently issued for the control of the sale of cocaine ought, if carefully worked, to render the obtaining of the drug for vicious purposes difficult.

Dr. Bose's paper indicates very clearly what a strong hold the cocaine habit comes to lay upon its victim, and how the satisfaction of the cocaine craving leads to impoverishment and crime. The increase of dose seems to be an inevitable result of habitual consumption, and the amount of the drug which is swallowed daily—from 30 to 60 gr. or more by *habitués*—is startling. The paper also depicts graphically the depressing physical and demoralizing mental effects of the vice. A life once seized by this infatuation seems to be doomed to irretrievable ruin and perhaps to early extinction. Other nervines are rejected in favour of this imperious claimant, and the attempt to cure the cocaine habit by any effort of will or by substitution of other drugs, such as sulphonal or chloral, is evidently vain. The habit is a costly one, and this will probably prevent its spread among the lower classes in India; but it appears that it has become very prevalent among schoolboys, who belong mostly to the middle classes, and recruit the ranks of those professions and occupations for which education is necessary. Looking at the demoralizing and ruinous effects of the habit, it is eminently desirable that its spread among the more enlightened and useful members of the community should be sternly repressed. Dr. Bose's paper shows, however, that schoolboys are not the only victims, and that traders, brokers, priests, and even the inmates of zenanas succumb to this peculiar form of social contamination. Repressive measures must, therefore, be far-reaching as well as drastic if the evil is to be adequately dealt with.

THE UNIVERSITY OF LONDON.

Considerable interest has been manifest among University of London graduates as to whether there would be a contest for the Chancellorship in accordance with the provisions which are now for the first time operative under the statutes framed in accordance with the Reconstitution Act of 1898. It was the desire of many graduates that the Earl of Rosebery should be put in nomination for the position. He, however, was yachting off Italy, and it was not easy to ascertain his wishes. We understand that information was received from him which made it clear that while in no way desirous of contesting the headship of the University with any candidate who presented overwhelming claims, he would not be averse from occupying the position if elected, and left himself in the hands of his friends. A nomination paper containing the name of Lord Rosebery was accordingly handed to the Clerk of Convocation, signed by Mr. Fletcher Moulton, Dr. W. J. Collins, Sir Albert Rollit, Sir Joseph Walton, Dr. Mears, Dr. Napier, Dr. Benson, Mr. Sidney Webb, and others. No other nomination having been made, Lord Rosebery will accordingly be formally elected by Convocation at its meeting on May 13th. Lord Lister would, in the minds of many medical and science graduates, have made a most fitting Chancellor for the University of which he is himself a graduate. It was, however, we believe, understood that, owing to the state of his health, Lord Lister, who is now in his 76th year, was unwilling to undertake fresh duties. We are informed that had an official nomination of Lord Rosebery not been handed in, ten representative medical and science graduates were prepared to supply the necessary form. It is perhaps in every way better that the new Chancellor should take office without the heartburnings that a contest might have provoked and left behind it. The development of the reconstituted University is scarcely yet so far advanced as to need the extrinsic stimulation and excitement of a political or even an academic encounter. Lord Rosebery as a statesman of the first rank, an attractive orator, a graceful author, and a winning personality, will add lustre to the Chair which Lord Granville, Lord Herschell, and Lord Kimberley adorned. Speaking at the University on Presentation Day last year, he said, "I believe there is no University so determined to keep abreast of the varying wants and requirements of the age as this University of London." It is true Lord Rosebery on that occasion seemed to speak with scant courtesy of "original research," but he realized, he said, "that in large and increasing numbers the University is training men and women to be fit for the manifold requirements of the Empire."

SIR FREDERICK TREVES AND THE ANTI-VIVISECTIONISTS.

Sir Frederick Treves, whose name has for some years past been used by antivivisectionists in a manner which in any other controversialists we should call dishonest, but which in them is doubtless attributable to the mental perversity of which zoolatry is an expression, has at last considered it necessary to enter a strong protest. Writing to the *Times* of April 18th in reference to a letter from the Secretary of the London Antivivisection Society published in that newspaper on April 9th, in which it was stated that Sir Frederick Treves has testified to the fallacy of vivisection, Sir Frederick points out that his solitary utterance on the subject is contained in an address on Some Rudiments of Intestinal Surgery delivered before the Midland Medical Society at Birmingham, which was published in the British Medical Journal of November 5th, 1898. Speaking of the suturing of the intestine, he said that he had found that operations upon the intestines of dogs were useless as a means of fitting the surgeon for operations upon the human bowel. He adds that those who are familiar with the controversial methods of the antivivisection party will not be surprised that certain of his remarks have been cunningly isolated from the context, and have been used (in advertisements, pamphlets, and speeches) to condemn all vivisection experiments as useless. Sir Frederick Treves goes on to say that the fallacy of vivisection can hardly be said to be established by the failure of a solitary series of operations dealing with one small branch of practical surgery. He concludes by declaring that no one is more keenly aware than he is of the great benefits conferred upon suffering humanity by certain researches carried out by means of vivisection.

THE ILLNESS OF THE QUEEN OF HOLLAND.

It will have been observed with satisfaction that the most recent bulletins appear to indicate that the attack of enteric fever from which the Queen of Holland is suffering is of a mild type, and that the physicians in attendance, after a consultation on Tuesday with Professor Rosenstein of Leyden, were able to announce that the Queen's general condition is satisfactory. The inquiries hitherto made do not seem to have thrown any light upon the medium through which the infection was conveyed. The water is said to come from an irreproachable source, and the milk supplied is reported to have been "sterilized." For the present, therefore, the point remains unexplained, and it is astonishing that at this time of day a leading telegraph agency should be found to circulate the statement that "Her Majesty is supposed to have contracted the illness as the result of a chill during the recent cold weather," and a leading journal in this country to print such mischievous nonsense. On the contrary, we venture to express the hope that the source of the infection may be made the subject of a minute inquiry, and that one result of the sad illness of the Queen of Holland may be to direct the attention of her subjects to the need of sanitary reform, as was the case after the serious attack of the same disease which our present King suffered in 1871. We are not unacquainted in this country with the difficulties which are thrown in the way of medical officers of health by the indifference of the public and the mistaken economies of sanitary authorities, and we believe that very similar obstacles exist in Holland. Under the public health laws now in force the country is divided into districts, to each of which a supervising sanitary medical officer is appointed, whose duties and powers very much resemble those of medical officers of health to county councils in England. These officers advise the municipalities as to the measures which should be taken to improve the sanitary conditions of the towns, but their most persuasive eloquence sometimes fails to induce City Fathers to incur the necessary expenditure. No doubt the drainage of Dutch towns must often present considerable difficulties, and, if we may judge by the evidence of the olfactory sense, a good many sewers discharge into canals in which the water is nearly stagnant. Such a condition must react unfavourably upon the sources of water supply. The University of Amsterdam possesses a hygienic and bacteriological institute under the able direction of Professor Saltet; the University of Utrecht also has a small hygienic institute, and there are many zealous sanitary officers in Holland. In wishing the Queen of Holland a speedy and complete recovery, we may respectfully add the hope that her illness may afford to the sanitary reformers among her subjects a lever to move public opinion in the direction they desire.

COMPULSORY NOTIFICATION OF PHTHISIS.

On April 18th, before Sir Robert Gunter's Committee of the House of Commons, the question of the compulsory notification of phthisis as an infectious disease came up for consideration as part of the Halifax Corporation Bill. It was stated on behalf of the Local Government Board that application had been made in several cases for its approval under Section VII of the Infectious Diseases (Notification) Act, 1889, of the extension of the provisions of that Act to phthisis, but that it had not in any case approved of such extension. Phthisis was not, in the opinion of the Board, a disease to which the principle of compulsory notification could with advantage be applied, because many persons who would be notified as suffering from phthisis would be individuals in whom the disease was so little advanced that not a few of them might be expected to have many years of life in prospect, during which it would be imperative for them to gain a livelihood for themselves, and often also for their families. The medical officer of health for Halifax (Dr. J. T. Neech), in giving evidence, said that it had been abundantly proved that phthisis with expectoration was an infectious disease, the infection being carried by the sputum. This disease was the cause of more deaths in Halifax each year than all the zymotic diseases, most of which were notifiable, put together. The spread of phthisis could, moreover, be more readily controlled than that of any other infectious disease. A patient suffering from this disease, if he carefully collected and effectually destroyed his sputum, was not a danger to the public. If infected houses were thoroughly disinfected they would cease to be a danger to others dwelling in them, or to any new tenants who might occupy the houses in the future. The efficient disinfection of houses was absolutely necessary for the arrest of the disease, and this could only be ensured if compulsory notification were in force. It had been in operation in the City of New York since 1893; it was now in force in the State of Michigan, in several other cities and States in America, and also in Norway. Experience in New York had shown that the disease was chiefly confined to certain areas in the city, and that cases cropped up year after year in infected houses. The death-rate from phthisis had fallen there 30 per cent., and it was estimated that it would fall an additional 30 per cent. after four more years of the working of the notification ordinance. In regard to the objection of the Local Government Board that compulsory notification would harmfully affect the wage-earning capacity of those but slightly affected he pointed out, on the authority of the Secretary to the State Board of Health of Michigan, that in practice notification had not caused any inconvenience to patients in that State. In answer to a question by the Chairman of the Committee whether the matter should not be dealt with by the Government and made general, Dr. Neech gave it as his opinion that the best way was to move on the lines of the Infectious Diseases (Notification) Act of 1889 which was in the first place extended only to certain cities and boroughs. The Chairman stated, however, that the Committee considered that the principle ought to be enforced by general order and not by local order, and that while the members would be glad to see notification of phthisis made compulsory all over the kingdom, the clause in question must be disallowed.

BARRACK SCHOOL CHILDREN.

Another of those sad and horrible examples of what goes on within the high walls of a barrack school has been brought to light by Mr. Lees Knowles, M.P., who last week asked a question in the House of Commons, which drew from Mr. Long the statement that he had "decided to direct an inquiry on oath to be held on the subject." The school implicated is at Tottington. The guardians of Leigh, near Bury, have been in the habit of sending Roman Catholic children to it. It is stated that out of 230 children in the school only 84 were free from disease. The outward appearance of all of them was pitiable, and when the younger ones were undressed and bathed they screamed loudly, owing, as it would appear, to the presence of intertrigo. Among the elder children were found sore heads and ears, ringworm, eczema, and skin disease—all being in a filthy and neglected condition, as well as emaciated and pale. What the Local Government Board can have to say in defence of such a condition of things it will be interesting to see. The children state that their diet was:—Breakfast: Tea, without milk, and bread and butter, the tea being weak and the food insufficient. Dinner: Five days in each week potatoes mashed in the water in which they were boiled. One day in each week peas and pea water, and on the other day rice and water. Neither meat nor milk being given. Tea: Tea and bread and butter. Supper: Tea and bread and butter. The inadequacy of such a diet is obvious. The

Board which handed over the children to such an institution must be blamed, as also the Inspector who could pass such a dietary and fail to see the unhealthy appearance of the children. But reflection will result in the conclusion that it is the Local Government Board which is most to blame. It has been urged by its inspectors, by philanthropists, by medical men, by the press, by the Poor-law schools reports, by the State Children's Association, by the silent injuries inflicted on countless little ones, to abandon the barrack school life for children. But it still sanctions additional expenditure on these monster buildings. Since the report of the Poor-law Schools Committee was issued five years ago, showing the physical, mental, and moral consequences to the nation's children when reared under this system, the Local Government Board has permitted the Metropolitan Board to spend £500,000 on increased buildings or aggregated methods of providing for these children. It is behind their high walls that cruelty, neglect, or ignorant treatment can be carried on, and it is these scandals coming out, accidentally as they do, that are sad but vivid object lessons of the principle that we have for years persistently advocated—of home life for all and every child, in contradistinction to institutionalism.

SOME CURES FOR INSOMNIA.

THE following advertisement recently appeared in the *Church Times*: Sufferers from sleeplessness, who believe in the efficacy of prayer, are invited to join the Guild of Night Worshippers. No subscription. Address, etc." The soporific effect of sermons is so well known, that if the Guild of Night Worshippers wish to make their treatment almost certainly efficacious they will do well to make a sermon a part of their nocturnal exercises. Mr. Lecky, in his *Map of Life*, seems to pin his faith on poetry, and especially religious poetry. The idea of the historian of rationalism wooing sleep by the repetition of Watts's hymns may appear to the frivolous (if such there be among the readers of the BRITISH MEDICAL JOURNAL) somewhat comic, but the suggestion deserves to be welcomed were it for no other reason than that it indicates a possible use for a product of the human mind otherwise often unprofitable. Carlyle wrote to some one who had sent him a volume of verse: "If you have anything to say, why not say it in prose?" With the sentiment implied in that question we are, generally speaking, in agreement. But if verse acts as a drowsy syrup, to that extent it may be admitted to justify its existence. Dr. Shrady, of New York, confided to an American journalist how he put General Grant to sleep. The method has the simplicity of all works of genius. The dying veteran was told to imagine that he was a boy again; to curl up his legs, lie over on his side, and try to doze off as he used to do in the days gone by. When he had done this, he was tucked in again told to go to sleep like a boy, and did so. This seems delightfully easy, but unfortunately for the success of the method the patient must have an imagination equal to that of a devotee of Christian Science. The German grammar is recommended by Mark Twain as infallible. He describes the application of the remedy as follows: "I suffered much from that malady years ago. It does not trouble me now, though my work is still heavy and more exacting as the years steal on. I began the search for a cure by drinking a glass of beer on going to bed. This gave a little relief for a short time. Then I exchanged my beer for a little prescription of 2 ounces of whisky. This worked the desired cure. It proved the real remedy—so much so that I began to like my medicine. The 2 ounces of Scotch grew into 5 ounces. Then the trouble began again. It was the old story of taking too much of a good thing. The 5 ounces sent me off all right, and brought about a kind of angelic sensation in my head, but in a couple of hours sleep would leave me, and the old trouble came back to stay all night. I then sought another remedy and found it—yes, sir, an infallible remedy. I got hold of it by accident. It was a child's German grammar. I began to read it on lying down. I never got through a single page at a time. Sleep came along and never gave the grammar a chance. Try it and you will find it a dead certain cure. I tried hard to induce the late General Grant to adopt it, but I could not succeed. Otherwise he might not have died so soon." If one does not happen to have a German grammar at hand, a treatise on vital statistics or a recent novel of M. Zola or Mr. Hall Caine may be recommended as an efficient substitute.

A NEW FORM OF AN OLD FRAUD.

THE trade in bogus diplomas in America is not dead yet, notwithstanding the efforts made to crush it, for not long ago we received particulars of a diploma shop hailing from the West which we believe to be new—at all events, it is new to us. But our attention has quite recently been drawn to a new departure which does credit to the ingenuity of our Transatlantic cousins. This time it is not exactly a qualifying diploma which is offered, but a 'certificate' (19 in. by 25 in.) of membership of a hospital staff "St. Luke's Hospital, of Niles, Michigan, capital 100,000 dols." The certificate we are told is "a beautiful specimen of the lithographer's art," and costs 15 dols. on paper, 20 dols. on imitation parchment, and 25 dols. on the real thing. This being a trifle cumbrous for every-day use, a pocket membership ticket is likewise provided which, "if judiciously displayed, will pay for your membership certificate many times over during the course of a year." For those who affect personal decoration a red cross solid gold button lettered "Staff of St. Luke's Hospital" is obtainable, and, although "very costly," goes free with the membership. A further advantage offered to members is that they will receive 25 per cent. in cash for surgical operations, which they recommend to the hospital, and 10 per cent. on medical cases. A bait thrown out to dentists is that, apparently without their possessing any medical diploma, they may be inscribed as members of the staff of medical and dental surgeons. We forgot to add that, if preferred, the diploma may be had in Latin (of a kind), and that it has two pieces of ribbon and a gold seal, "giving it the general appearance of a regular hospital medical or dental college diploma." The motive would have been sufficiently obvious, we should have thought, but it is evidently desired that there shall be no misapprehension on the subject, so this is kindly and explicitly pointed out as a final inducement. But we are a little puzzled to reconcile this very naïve declaration with the statement to be found in another place that the qualification for membership is the possession of a diploma either in the United States or in any other country, or of a legal licence, or the actual practice of medicine or surgery for five years with registration under the Practice Act, whatever that may be.

THE EFFECTS OF HIGH ALTITUDES.

DR. R. SÜRING, of the Royal Meteorological Institute of Berlin, has published in the February number of *Harper's Magazine* an interesting record of the experiences of himself and his assistants at very high altitudes reached in a balloon. On one occasion the balloon rose to a height of 35,000 ft., if not slightly higher; but on this occasion the ink on the recording barograph froze, so that the registration of altitude at 33,000 ft. above sea level was imperfect, and at 36,000 it was so slight as to be barely discernible. Dr. Süring, who was accompanied by Mr. Berson, states that the effects produced by such high altitudes were dangerous. In spite of the inhalation of oxygen, with which the aëronauts were provided by means of generators, they became stuporous and somnolescent, being hardly able to keep awake except by shouting at and shaking

each other. The temperature at the highest altitude attained fell to 40° F. below zero. A failure of strength and a feeling of nausea were experienced, such as is felt at the tops of high mountains, and these were attributed by Dr. Süring to deficiency of oxygen in the air inhaled, the symptoms being relieved by inhaling the gas in long, slow gasps. The statement of some writers that bleeding from the ears and nose, from rupture of the small blood vessels, was a not uncommon occurrence at high altitudes could not be substantiated by Dr. Süring or his assistants, nor did they suffer from swelling or puffing of the limbs or body.

SCHOOLBOYS AND CIGARETTES.

Dr. H. F. Fisk, Principal of the North-Western University Preparatory School, has, according to *American Medicine*, put a ban upon cigarette smoking in the institution. Any boy who refuses to give up the habit will be obliged to leave, and his tuition fees will be refunded, as experience has proved to Dr. Fisk that "boys who smoke are no good to the school, learn nothing themselves, and set a bad example to the other students," and statistics prepared by him, covering a period of several years, show that of the boys who smoke only 2 per cent. are among the 25 per cent. of students who stand highest in class scholarship. On the other hand, 57 per cent. of the smokers are among the 25 per cent. lowest in class scholarship. The effect of cigarette smoking on schoolboys has been investigated by Professor Ogg, Superintendent of the Kokomo (Indiana) schools. He reports that out of 1,300 boys from the first grade through the high school, the 400 addicted to cigarette smoking are two years behind the others in their studies. Whether the dull mind is due to the smoking, or the cigarette is the accompaniment of an idle disposition, Professor Ogg does not decide.

CHOLERA IN ASIA.

Asia at its extreme eastern and western limits is at the present moment affected by cholera. From Canton in the east serious reports of the prevalence of cholera are to hand, and at Mecca, Jeddah, and Medina in the west cholera is notified. As to whether there is any connexion between these outbreaks it would be rash even to hazard an opinion; yet there are several geographical factors associated therewith to which attention may be profitably drawn. The home of cholera—Northern India—occupies a central position between the two centres of cholera mentioned and the intervening countries, between Northern India and Southern China on the one hand, and Arabia on the other, have but little contact with the outer world. It may be possible, therefore, that the intervening countries in both directions are infected. The Arabian outbreak may, however, be ascribed almost certainly to pilgrims from India, in which case the disease would consist merely of a locally-infected area in and around Mecca. The Canton outbreak may also be local and endemic. We have no information to justify the conclusion that the country inland from Canton is affected by cholera; but so little exact intelligence ever comes through from the Chinese provinces of Kwang-tung and Kwang-si, except by way of Canton itself, that it is possible cholera is widespread in these provinces. Seeing also that a large part of the two Kwang provinces is in a state of rebellion at present, our sources of information are even less than usual. In Canton cholera, to some extent, is well-nigh a yearly summer visitor: but it is seldom that it gains a serious hold during the colder months of the year, as it would appear to have done during this year. A few cases of cholera—for the most part imported—have occurred both in Hong Kong and Macao. In Hong Kong precautions have been taken, and notifications issued to the effect that unripe and over-ripe fruit is to be avoided, and that milk, water, and vegetables are to be boiled before being consumed. In Macao, a correspondent informs us that the authorities insisted on detaining the passengers from Canton and the West River on board their vessels and junks for twenty-four hours, but as this step dislocated traffic to a considerable extent the quarantine was withdrawn on petition from the Chinese merchants, and medical inspection substituted. So far, we have not heard of either Hong Kong or Macao being seriously affected by cholera; but the drought in both places, which has persisted for some seven months, is causing alarm to both the British and Portuguese authorities. An outbreak of cholera in the present insanitary state of these colonies, owing to the want of water, is to be particularly dreaded, and the possibility of its occurrence should be, and we have no doubt is being, guarded against by all available measures.

THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

The third annual report of the Liverpool School of Tropical Medicine, that for 1901, shows clearly the steady progress that this school has made. It is satisfactory to find that financial support has been freely forthcoming, but this appears to be merely for current operations. A brief account is given of the various important expeditions undertaken by this school with a view to improving the health and sanitation of West Africa. A scheme drafted by the staff of the School, and approved at a public meeting, was based on the evidence of the members of these expeditions. As a result, an important deputation from the Chambers of Commerce of Liverpool, Manchester, and London waited on the Secretary of State for the Colonies, and it was decided to send a joint commission to investigate the whole question. In the interval important practical measures were undertaken by, and at the sole expense of, the School to improve the sanitary conditions in certain places. In 1901 three fresh expeditions, the fifth, sixth, and seventh of the School, were sent to Sierra Leone, the Gambia, and the Gold Coast respectively, and important results obtained. During the year about a score of students from many countries attended the School. The Students' Hall of Residence has been a complete success, and the School appears to be in a flourishing condition. A list of the cases treated in the tropical wards of the hospital shows the amount of tropical material available for study.

THE ATMOSPHERE OF THE CENTRAL CRIMINAL COURT.

The statement of the First Commissioner of Works in the House of Commons on Friday to the effect that the Central Criminal Court was not in any way under the control of his department, and that therefore he could not be expected to undertake any test of the degree of atmospheric impurity in the Court, was perhaps strictly accurate, but not altogether ingenuous. We have on several occasions pointed out the serious sanitary defects which exist in this court, and it is a well-known fact that on several recent occasions judges who have been called upon to preside over long trials in it have subsequently suffered from severe indisposition. The City of London is pledged to erect a new court, and it seems probable that the work would have been undertaken before this but for the delays imposed by the Prison Commissioners. About a year ago, when the Lord Chief Justice had a serious illness after prolonged sittings in the Court, the Under-Secretary of State for Home Affairs stated that the Government was unable to surrender the site to the Corporation because the Prison Commissioners had not been able to complete the arrangements necessary for the discontinuance of the use of Newgate as a prison. This elicited from the Town Clerk a statement to the effect that the arrangements to which the Home Secretary obtained the consent of the Treasury in 1899, provided for the completion of the

necessary enlargement of Brixton Prison, and the consequent transfer of Newgate to the Corporation in September last, but owing to further difficulties made by the Prison Commissioners, the date at which the surrender was to take place was postponed until June 24th next. The City Lands Committee, however, offered a year ago to start the work before June if the Government would give up possession of the site. The Government would therefore appear to be primarily responsible for the delay which is taking place in erecting the new court, plans for which have, we understand, been ready for some time. The City, however, cannot be altogether excused, since it is obvious that during the construction of the new court some other provision will have to be made, and we fail to understand why, in view of the proved insanitary state of the court, this temporary provision has not been taken into use.

INSTRUCTION IN ANAESTHETICS.

FOR many years it has been urged by authorities on the subject of anaesthetics that no one should be allowed to qualify in medicine and surgery until he or she has shown a certain amount of proficiency in this very important branch of medical work. A paper On the Advisability of the Inclusion of the Study of Anaesthetics as a Compulsory Subject in the Medical Curriculum was read before the Society of Anaesthetists in April, 1901, by Dr. Dudley Buxton, in which the author gathered together many and various consideration which gave weight to his conclusions. The Council of the Society subsequently addressed itself to the General Medical Council, and urged "that the teaching of the administration of anaesthetics should be included in the schedule of compulsory subjects." The Education Committee of the Council, to whom the subject was referred, thereupon reported that they fully appreciated the importance of the proper teaching in the subject of anaesthetics, but were of opinion that it was not expedient that it should be compulsorily included as a separate subject of the medical curriculum. The Council itself in December last approved that report. Since that date, however, the matter has been considered by the Conjoint Board of the two London Colleges of Physicians and Surgeons, who have now adopted the following regulation: "That every candidate who passes the second examination of the Board or an examination at a university recognized in lieu of it, on or after the first of May next, will be required to produce before entering for the final examination a certificate of having received at a recognized medical school and hospital instruction in the administration of anaesthetics, to the satisfaction of his teachers." It is certainly satisfactory to find that the large number of students who in the future pass into the profession through the Conjoint Board must possess at least the minimum of experience in the administration of anaesthetics which is necessitated by the above resolution.

THE PREVENTION OF MALARIA.

AT the last sessional meeting of the Sanitary Institute, Dr. Farquharson, M.P., in the chair, Dr. Manson, C.M.G., delivered an address on the prevention of malaria. He stated that the prevention of malaria really resolved itself into the prevention of the introduction of the malarial parasite into man by mosquitos infected by man. That could be done either by preventing the infection of the mosquito by the man or the infection of the man by the mosquito. The former object could be accomplished either by curing all cases of malaria in man or preventing the access of mosquitos to infected men. The second could be attained by the destruction of mosquitos and preventing the access of infected mosquitos to non-infected men. In the way of medicinal prophylaxis he strongly advocated the use of quinine in cases of malarial disease, as that drug had the effect of destroying the specific parasite. In an experience extending over thirty years he had never seen a case of malarial disease which could not be cured by quinine properly administered. The drug, however, should be used as a prophylactic only in very exceptional circumstances. The best preventive of malaria was to keep the mosquito away from the body. He believed that the intelligent and persistent use of the mosquito net and mosquito-protected houses would reduce the risk of attacks almost to zero. All malarial patients should be protected from mosquito bites, or rather the mosquito should be protected from infection by malarial patients. The houses in malarial districts should be raised well above the ground, for the mosquito did not like high flights. Ventilation and lighting should be carefully provided for, and houses for Europeans should be built away from the native communities, as in malarious districts practically all the children were subjects of malarial infection. Europeans, moreover, should be most careful as to the admission of young natives into their houses. The only efficient and radical means of suppressing malarial infection over large areas was the complete destruction of mosquitos, and the only way in which that could be done was by the abolition of their breeding places, namely, collections of stagnant or semi-stagnant water. The experiments now being carried out in West Africa by the Liverpool School of Tropical Medicine under the supervision of Major Ross, if successful, would undoubtedly revolutionize the sanitation of native towns. He strongly urged the necessity of educating the masses of the people in malarious countries in the measures that should be taken to combat the disease, and he concluded by suggesting that some central association should be formed in this country on the lines of the well-known Italian Society, having for its object the propagation of correct ideas with regard to malaria, and encouraging the adoption of prophylactic and other measures for the suppression of malaria in the outlying portions of the empire.

THE MUMMY CASE.

THE extraordinary lawsuit which arose out of the non-delivery of a Peruvian mummy by the London and North-Western Railway came before the Court of Appeal on April 16th. It appears that the plaintiff, who had travelled in South America, procured a mummy which she desired to send to the Maison de Melle in Belgium. The mummy was put into a deal box and sent by sea. At Liverpool the box was delivered to the London and North-Western Railway Company, who received it with an acknowledgment on the consignment note that it was in good condition. The consignment note having been mislaid, the box lay for some days at Broad Street Station, after which it was opened by the railway officials, who wished to see what it contained before they sent it abroad. Finding a corpse, a clerk who was present sent for the police, who came to the conclusion that in all probability a crime had been committed, and communicated with the coroner, who thought it right to hold an inquest. The following verdict was returned by the jury: "That the woman was found dead at the railway goods station, Sun Street, on April 15th, and did die on some date unknown in some foreign country, probably sun-dried and cave-buried, and the jurors are satisfied that this body does not show any recent crime in this country, and that the deceased was unknown, and about 25 years of age." Owing to the public announcement thus made, the owner came forward and claimed the mummy, but the coroner only allowed it to go on the condition that it was taken straight out of the country. On arrival at Melle, the chief of the local police directed that it should be buried without delay in the public cemetery. The plaintiff then brought an action for damages against the railway company, alleging that by their negligence they had caused the mummy to be broken up and buried. The

company pleaded *inter alia* that if any damage was done to the mummy it was done by the metropolitan police authorities, acting under the orders of the coroner; and any injury which had resulted was due to an inherent defect—that is, decomposition in the mummy itself. It was also urged at the trial that inasmuch as there is no property in a dead body, no claim for damages could be made in respect of it. The jury awarded the plaintiff £75 damages, and this verdict was allowed to stand on appeal. The coroner who held an inquest in the above circumstances has been made the subject of much ridicule in the daily press; but to our mind it is clear that he did right. There are cases upon record where attempts have been made to dispose of dead bodies by sending them to an unknown address. In the case under notice the action of the coroner had the effect of so advertising the mummy that its owners were able to trace it and obtain damages from the railway company.

OVERCROWDING IN THE SWANSEA VALLEY.

Overcrowding is generally thought to be the prerogative of large and particularly of rapidly growing towns, but in Glamorganshire, where large villages spring up like mushrooms, owing to the opening and development of collieries, it is often a difficult matter to build fast enough, and even for years gross overcrowding is often present, while many of the houses which are erected are hurriedly put up, and huddled together without proper sanitary provision. A number of instances of overcrowding have quite recently been reported by the Sanitary Inspector for the Pontardawe District Council. Among others the following may be instanced: (1) A family of 8—parents, 3 boys, and 3 girls (ages from 4 to 21 years), have two sleeping rooms; (2) a family of 8—parents, 4 boys, and 2 girls, ranging from 5 to 20 years, occupy two small bedrooms; (3) six children, ages 6 to 20, occupy one small room; (4) a family of 9—mother, son, and wife, another grown-up son, five good-sized children, sleep in two rooms; (5) a family of 9—parents, 2 grown-up sons, and 2 married daughters (who live apart from their husbands), and their 3 young children, sleep in one common room; (6) a basement dwelling is occupied by a mother and a son of 20, daughter 22, daughter 15, and 4 young children, all sleeping in a room of about 800 cubic feet of space; (7) a family of 10 have one common room upstairs, occupied by 8 children, 6 of them being boys and 2 daughters, one of whom is 19 years of age. At Dowlais and Merthyr also overcrowding is frequent, and on April 19th two lodging-house keepers were each fined £5 for gross overcrowding; in the first case 28 people were found by the sanitary inspector where there was accommodation for only 13. The beds were occupied both day and night—by no means an infrequent practice in such colliery districts.

THE ROYAL PORTSMOUTH HOSPITAL.

The foundation of the Royal Portsmouth Hospital dates from 1846, when the Board of Ordnance presented the town with a piece of land. The foundation stone of the hospital was laid in the following year, and in 1849 a first block for 20 beds was opened. In 1853 another block was erected by the Government for use under the provisions of the Contagious Diseases Acts. Subsequently other blocks were added for the treatment of lock patients, until the number of beds in the hospital was raised to 250. On the suspension of the Acts the blocks were handed over to the Committee of Management, and, having been repaired and remodelled at a cost of some £3,000, were taken into use as a civil hospital. They have, however, been found ill-adapted to their purpose, and the inadequate nature of the out-patient and casualty rooms have long been a source of complaint by the medical and surgical staff. Plans were some years ago prepared for the erection of a new hospital consisting of four blocks, with administrative buildings and a nurses' home; so far, however, only two of the blocks have been built, and the old lock buildings are still in use for various purposes. The out-patient department is carried on under great difficulties in the offices originally built for the clerks, policemen, and medical officers charged with carrying out the provisions of the Contagious Diseases Acts: the rooms are quite unfitted for an out-patient department, and the matter has now attracted, not too soon, the attention of the public. Unfortunately, a good deal of heat appears to have been introduced into the discussion, and charges have been made by certain members of a subcommittee appointed to report on the matter which have appeared to reflect upon the outdoor medical officers, the assistant surgeons and physicians, whereas the persons really to blame are the Managing Committee of the hospital and the people of Portsmouth, who have failed to supply the funds for improvements which have been for years urgently demanded by the medical and surgical staff. The report of the special subcommittee shows that the work of the out-patient and casualty departments cannot be carried on satisfactorily under the existing conditions, and that the remodelling of the hospital is immediately necessary. The report also shows that serious abuses exist with regard to the position of patients who apply for treatment, and instances are given of persons applying for treatment at the hospital who were obviously in a position to pay for any medical or surgical treatment they required. We trust that no half measures may be adopted, but that the Committee of Management will at once face the necessities of the position.

THE TREATMENT OF LEPROSY.

Dr. Ashburton Thompson's report on leprosy in New South Wales for the year 1900 has just been received. On January 1st in that year thirteen patients remained under detention at the Little Bay Lazaret. During the year 1 suspected person only was reported to the Board under the Leprosy Act (1890), a Chinese cook, who had arrived in Sydney from Hong Kong six years before he was notified to the authorities. He was found to be suffering from leprosy and admitted. Three patients died, all natives of New South Wales of European descent. On December 31st, 1900, there were 11 cases remaining in the lazaret: 5 of these were natives of New South Wales of European descent, 1 European native of Fiji, 1 native of the United States of America, 1 Javanese, 1 native of Tanna, and 2 Chinese. The notification of leprosy was first made compulsory and the detention of lepers provided for by law towards the end of the year 1890. The total number of persons admitted to the lazaret since 1883, when patients first began to be received, is 69. The nationalities of these were as follows: Natives of New South Wales 19, of whom 13 have died and 1 was released; of Queensland, 1 deceased; of England, 2 deceased; of Ireland, 2 deceased; of New Zealand, 1 deceased; of Fiji, 1; of Germany, 1 deceased; of Belgium, 1 deceased; of the United States of America, 1; all of these were of European descent. There were also 34 Chinese, of whom 11 have died and 21 have returned to their own country; of India, 2 deceased; of the West Indies, 1 discharged in 1885; of Java, 1; of Tanna, 1; of New Caledonia, 1 deceased. The cost of maintenance of the lazaret amounted to £154 0s. 3d. per annum for each inmate. In 7 cases intramuscular injections of mercury perchloride as recommended by Dr. H. Radcliffe Crocker, were tried. The results were not encouraging, and the treatment was discontinued either on account of stomatitis etc., or the refusal of the patient to go on with it. In his paper on the subject,[1] Dr. Radcliffe Crocker pointed out that none of his cases had exhibited signs of salivation.

[1] *Berlin Lepra Conferenz Mittheilungen*, iii, 1898, p. 108.

The Little Bay patients for a long time expressed themselves as "feeling better." The treatment is well worthy of further persevering trials, for it is undoubtedly beneficial up to a certain point. The patients become more cheerful under its influence, and the infiltrated areas improve. That it will cure the disease is another matter. Further experience may show what modifications are necessary to obtain the good and avoid the bad effects of the mercury. Dr. Neish (Jamaica) reported favourably on it (1899).[2] Dr. Ashburton Thompson's report is accompanied by an interesting chart of the temperature and weight curves of patients during the intramuscular mercurial treatment.

The first conversazione of the Royal Society for this session will be given at Burlington House on Wednesday, May 14th, at 9 p.m.

The festival dinner of the Medical Graduates' College and Polyclinic will be held at the Criterion, Piccadilly Circus, on Thursday, June 5th, when the chair will be taken by the Right Hon. H. H. Asquith, M.P.

We understand that the first meeting of the new Nursing Board of Queen Alexandra's Imperial Military Nursing Service was held at the Horse Guards on Monday, April 21st.

The London County Council has given notice of an order, to come into operation on May 6th, requiring for a further period of six months the notification of chicken-pox in the administrative county of London.

The Legislature of New Jersey has passed a Bill appropriating 10,000 dollars for the support of an experiment station where scientific investigations are to be made into the habits and breeding-places of mosquitos and their relations to public health.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Atmosphere of the House. Dr. Farquharson on Friday asked the First Commissioner of Works to state the result of the recent examination of the air of the House of Commons, and also whether he would apply the same scientific test to the atmosphere of other public buildings, such as the Central Criminal Court and the British Museum Library. In reply Mr. Akers-Douglas said that the tests of the air of the Chamber showed a very good result as regards the amount of carbonic acid, which was only 5.2 volumes in 10,000, very little in excess of the quantity usually met with in the air of cities, and far less than what is generally present in places of assembly. The bacteriological test revealed an undue number of micro-organisms, but none of them were found to be disease producing. The full reports by Dr. Thorpe, the Principal of the Government Laboratory, would be laid before the Select Committee on the Ventilation of the House, and he proposed that further experiments should be made in order to discover the cause of the presence of so many microbes, with a view to taking suitable measures for improvement. He would consider the honourable member's suggestion as to testing the air of other Government buildings, but the Central Criminal Court was not in any way under the control of the First Commissioner of Works.

The Public Health Acts Amendment Bill is a measure introduced by Mr. Fielden, Mr. Mellor, and Sir Albert Rollit, to amend the Public Health Acts with reference to water supply and to Section xxxvi of the Act of 1875. It provides that any person may make a representation to a district or town council, that water, either stored or flowing, if such water is likely to be used for drinking, or for domestic purposes, or for making drinks for the use of man, is so polluted or liable to be polluted as to be injurious to health. The council, if satisfied that the representation is correct, may serve a notice on the owner or occupier of the premises on which such water exists, or through which it flows, requiring him within a specified time to remedy the pollution or prevent the use of the water. If he fails he may be summoned and ordered to remedy the pollution or close the water supply, and in case of default the council may be authorized by the court to make and charge for the necessary improvements. A third clause in the Bill provides that any person who neglects or refuses to comply with a notice given pursuant to Clause 36 of the Public Health Act, 1875, shall be liable to a penalty for each default not exceeding £10 and a daily penalty of £2 if the works ordered to be done are considered reasonable by the court of summary jurisdiction. The fourth and last clause proposes to repeal Section lxx of the Act of 1875. The second reading is down for April 29th.

The Cremation Bill has been referred to the Standing Committee on Law, which has been strengthened for the consideration of the measure by the addition of the following fifteen members, namely, Mr. Banbury, Mr. Black, Mr. Broadhurst, Mr. Jesse Collings, Sir Michael Foster, Sir Walter Foster, Colonel Kenyon-Slaney, Mr. Love, Dr. MacDonnell, Mr. Herbert Roberts, Mr. Seton-Karr, Dr. Thompson, Mr. Tomlinson, Mr. Luke White, and Sir Frederick Wills.

The Admiralty and Vaccination.—Captain Norton called the attention of the Secretary of the Admiralty to notices issued enjoining vaccination under penalty of discharge, and asked if the men temporarily employed would be allowed compensation if incapacitated for work. The Secretary of the Admiralty said no such notice had been issued. The men referred to were in the temporary employment of the Government only, and had been informed that it was desirable that they should take advantage of the gratuitous vaccination offered; over seventy had done so. The Admiralty could not undertake to grant compensation to men incapacitated by taking this precaution, but permission had been given to place any of them on light work as far as possible, so that they might not lose pay.

The Poor-law Superannuation (Ireland) Bill.—This Bill, which is of much interest to Poor-law medical officers in Ireland, is down for second reading this week, but is not likely to be reached. It proposes to treat the officers of local bodies in Ireland on the lines of the English Act, but it has excited strong opposition on the part of a section of the Irish members, and has little or no chance of passing this session. It is introduced by Mr. O'Malley, and backed by Sir James Haslett, Mr. Harrington, Mr. T. W. Russell, Mr. Clancy, Mr. James O'Connor, and Mr. Cogan.

The Butter Standard. In answer to Sir Edward Strachey, the President of the Board of Agriculture stated last Monday that regulations will be issued at once under Section 1v of the Sale of Food and Drugs Act, 1899, declaring that the presence of more than 16 per cent. of water in any sample of butter shall raise a presumption that the butter is not genuine. The regulation will come into force on May 15th. Mr. Hanbury is also watching the subject of milk-blended butter, but as the question whether the sale of this article is contrary to the provisions of the Margarine Act is now before the Law Courts on Appeal, he told Mr. O'Shaughnessy that he could not anticipate the decision. He further added that in his opinion the practice of adding water to butter was as objectionable as that of adding animal fat, and should the existing law be insufficient to deal with the practice, it would be the duty of the Board of Agriculture to consider whether fresh legislation was not needed.

[2] *Lepra*, vol. i, 1900, p. 65.

GERMAN MEDICAL CONGRESS.

The German Medical Congress held its twentieth annual meeting at Wiesbaden on April 15th and subsequent days. Wiesbaden strikes an observer as a model town as far as cleanliness is concerned; not only is this attended to in the daytime, but the streets, which are all asphalted or wood-paved, are thoroughly flushed and swept after midnight, dust and refuse being thus effectually prevented. In consequence the buildings retain their snow-white appearance, the trees their freshness, and the air its mountain purity. This year's Congress presented a little variety owing to the celebration of Professor von Leyden's 70th birthday. These ceremonies are in Germany accompanied by much display of sentiment, which on this occasion was partly due to the fact that von Leyden was the originator of these Congresses. Seated in an armchair decorated with flowers, he was presented with the freedom of Wiesbaden and the honorary membership of the Society among the acclamations of all present.

The Parasitism of Cancerous Growths.

Among the papers read one of the most important was one by Professor von Leyden on the parasitic origin of cancer. He said that the result of recent collective investigations tended to show that the present knowledge as to the causation of malignant disease could only be considered rudimentary. Of the many theories only two were considered to have a claim to serious consideration, namely, the histogenetic or cellular, the representatives of which were Hansemann and Ribbert, and the parasitic or biological. Leyden was distinctly in favour of the latter, which he also considered the most important to the clinical student. After a short consideration of the histogenetic theory, especially as upheld by Ribbert, he proceeded to discuss the biological view. In order to be intelligible the germ must be situated in the cells. No continuous increase of a cell unaccompanied by a continuous irritation was known. This could only be explained by the existence of a parasite. This would refute Ribbert's objection to so small an organism producing such profound changes. Von Leyden referred to a disease of plants recognized by Russian botanists presenting certain resemblances with cancer. Thus an enlargement had been found on the roots of cabbages which had been proved to have a connexion with an intracellular parasite. From this plasmodium groups of spores resulted whose change into amoebae had been observed outside the plant. A further argument in favour of parasitism he considered the influence of cancer on metabolism, namely, increase of urea excretion, cachexia, etc. As regarded infectivity it had not been proved directly. Human experiments were naturally excluded, but in animals of the same species they had several times succeeded. He considered such a transference possible in the human subject as evidenced by the occurrence of cancer in a hospital attendant who had two years previously accidentally swallowed a cancerous fluid. He finally described the parasites which he first discovered two years ago; of further great importance he considered that these parasites had lately been found locally in collections, as described in the case of the plant roots referred to.

Professor Naunyn, of Strassburg, described a similar case of transference of cancer in the case of a medical man.

Infection and Glycogen Reaction of Leucocytes.

Kaminer (Berlin) summed up his investigations into the relation between infection and glycogen reaction of leucocytes as follows: (1) The reaction is produced through culture and toxins of streptococci, staphylococci, pneumococci, Friedländer's bacilli, typhoid bacilli, bacterium coli, bacillus pyocyaneus, ricin, abrin, and diphtheria toxin; (2) it is not produced by tetanus toxin or varicella bacilli; (3) by means of very great immunization the normal appearance of leucocytes sensitive to iodine may even be prevented after diphtheria toxin; (4) normal bone marrow contains no cells sensitive to iodine but they can be found in marrow when they coexist in the blood; (5) of the various explanations as to the substance which assumes a brown colour with iodine, Ehrlich's view seems the most probable.

Ehrlich and others joined in the discussion.

Mediastinal Actinomycosis.

Professor von Schroetter (Vienna) related a case in which actinomycosis of the mediastinum had been discovered. Subsequently cardiac symptoms supervened, the action of the heart becoming progressively weaker and the patient dying ultimately of actual cardiac debility without secondary symptoms. A section of the heart was passed round which showed that the cardiac muscle had, to the naked eye, practically disappeared, whereas microscopically it did not appear affected, the interstitial tissue having suffered most by the invasion of the disease. He also pointed out the remarkable fact that the patient until shortly before his death was capable of bodily exertion. Von Schroetter had only on the previous day received particulars of a similar case from Chicago, photographs of which were also passed round.

Charcot's Crystals.

Professor Gumprecht (Weimar) read a paper on Charcot's crystals and described three properties of these substances, the refraction, the chemical and the physical solubility. As regarded the first, the crystals had a double refraction; with most acids or alkalies even one-tenth of saturation of solution sufficed in order to make the crystals disappear temporarily. A temperature of somewhere over 60° Centigrade produced physical solution. Numerous substances were capable of altering the main properties of the crystals. The prototype of these was the chloride which, when concentrated, showed no double refraction and altered the solubility. The chromates, etc., were similar. Further, the crystals were able to store up acid-colouring matters and had other properties which inclined the speaker to class them among the albumens, though the class to which they belonged was not yet ascertainable. He was also inclined to attribute to them the function of being a store for a reserve of albumen with which to produce cells. Thus in severe cachexias a deficient formation of crystals was noticed. These observations did not apply to other Charcot crystals, but only to those derived from bone marrow.

Uric Acid.

G. Klemperer (Berlin) discussed the conditions of the solubility of uric acid. He proposed answering the question how the urine succeeded in retaining in physical solution such large quantities of uric acid. He first tested the solubility of uric acid in viscous substances such as gum, glycerine, dextrine, etc., and found that these substances possessed the same property. He finally succeeded in isolating urochrom, which he found capable of sustaining an excess of uric acid. To prove this he prepared urines with and without urochrom. He thought it remarkable that the kidney should allow a colloidal substance such as urochrom to pass with the urine.

Clinical Haemometry.

Professor Sahli (Berne) presented a communication on a simple and exact method of clinical haemometrics. He described a method by which he ascertained the proportion of haemoglobin—namely, by the addition of hydrochloric acid; a brownish colour was produced, water was added, and the result was compared with a standard solution. Tubes showing the results were passed round.

The Pathology of the Kidney.

Dr. George Rosenfeld (Breslau) read a paper on this subject. He described the methods available for ascertaining the proportion of fat in the kidney. He gave the normal proportion as 18 per cent., the presence of which could not be observed microscopically. By means of diagrams obtained from actual specimens he showed that the naked-eye appearance was not reliable. Moreover, in the case of one specimen with 23 per cent. fat no morbid conditions due to the kidney were discoverable in the patient. Rosenfeld next made experiments with dogs to ascertain what [illegible] increase, diminish, or leave unaffected the fat of the kidney. Phosphorus and oleum pulegii did not affect the fat. Alcohol increased the fat, the liver becoming fatty at the same time. More obvious were the substances which [illegible] namely, cantharidin and chloroform, which produced a change to the extent of as much as 5 per cent. Relatively no increase of fat could be produced. Finally, he considered an experimental increase impossible, while any decrease was only apparent, being affected by the change in weight.

The Renal Functions.

Dr. Friedrich Straus (Frankfurt) reported his investigations into the physiology and pathology of the renal functions. He maintained that renal surgery now rested on a much more certain basis, owing to recent medical advances. This was due more particularly to modern methods of proving the function of each kidney which had thrown an entirely new light on our knowledge of surgical kidney affections. Straus then described his own investigations, which were all directed towards establishing the relative functions of both kidneys, both when healthy and diseased. Quantitatively his experiments showed, after analysis of the excretions, that in normal kidneys the function of each was exactly equal to the other. However, this function was subject to continuous momentary changes, which were equal in each kidney, this not being the case when one or other organ was diseased. The speaker then dwelt on the importance of these observations in face of surgical interference with either kidney. His experiments were performed with ureter catheterization and subsequent quantitative analysis of the secretions as regards phosphoric acid, chlorine, sugar after phlorizin injection. The molecular density was also ascertained by means of lowering the freezing point.

The Pathogenesis of Gastric Ulcer.

Professor Adolf Schmidt (Bonn) presented a communication on this subject. According to the author both mechanical and motor influence were of the utmost importance in the production of gastric ulcers. Lesions of the mucous membrane, erosions, etc., arose very frequently, but healed rapidly where the muscular tissues were unimpaired because the surrounding healthy mucous membrane rapidly roofed over the affected site, and protected it against deleterious influences due to the gastric contents. Should this motor reaction be absent harmless lesions might change into actual ulcers. He quoted his experiments in favour of this, which argument was also supported by the frequency of ulcers at the pyloric end and the lesser curvature, situations in which the mucous membrane showed fewer folds than elsewhere, as, for instance, in the fundus. Finally, the coexistence of chlorosis and gastric ulcer he considered as supporting his view, because in chlorosis atony of the stomach and other muscular organs existed.

Gastric Ulcer and Cancer of the Stomach.

Dr. Felix Hirschfeld (Berlin) read a paper on the relative frequency of gastric ulcer and gastric carcinoma. He gave statistics from numerous European cities showing that among hospital cases the proportion of these diseases varied very much. He maintained that gastric diseases were more prevalent in towns than in country districts. And that the convalescent after gastric ulcer was no more prone to gastric carcinoma than persons with normal stomachs.

The Effect of Mechanical and Thermal Influence on the Circulation and Tone of the Vessels.

Professor Pick (Prague) reported experiments performed by him to ascertain the effect of mechanical and thermal influences on the circulation and vascular tone by means of direct measurement of the venous haemorrhage in defibrinated animals. He also found that manipulations included under the name of massage and applied to the limbs produced in the extremities acceleration of the flow with diminished tone of the vessels but in the abdomen diminution of the flow. Abdominal massage produced accelerated circulation locally, but a diminished flow in the brain. Passive movements accelerated both. Cold applied to the extremities produced diminished circulation in them and the brain, and an increase in the abdomen: a cold pack round the abdomen, reduction locally, rapidly succeeded by acceleration. Warmth produced increased flow everywhere except in the case of the skull where no increase was observed in the jugular vein. Finally, the acceleration produced by division of the sciatic nerve persisted when followed by severe cold.

Is there an Acute Dilatation of the Heart?

Dr. August Hoffmann (Düsseldorf) discussed this question. Hitherto observations as to the area of the heart had been very much limited to percussion, but Hoffmann had latterly resorted to skiagraphy for this purpose. He proceeded to explain the mechanism of an apparatus which was employed in the case of 33 patients. He passed round photographs taken from different patients after various forms of excesses, alcoholic and muscular. In his opinion acute dilatation was often diagnosed when it really did not exist, and he thought any symptoms of illness were the result of other conditions. By such dilatation he meant an enlargement arising suddenly and disappearing as quickly, the patient being in perfect health before and afterwards, and having no valvular disease. Nevertheless, functional disturbances were undoubtedly present and accounted for the subjective symptoms produced. Hoffmann concluded by observing that a temporary dilatation did not exist unless there was an organic affection of the heart.

(To be continued.)

THE EPIDEMIC OF SMALL-POX.

The Age Distribution of Mortality from Small-pox.

The weekly return of the Registrar-General for the week ending April 12th contains an interesting summary relating to the 1,015 deaths from small-pox which have occurred in London during the present epidemic, the deaths being classified according to the ages of the patients and their condition in regard to vaccination. The classification according to vaccination which is adopted is one which strikes us as supremely fair, and as calculated to bring out the exact truth as to the influence of vaccination on death from small-pox. In the following table we have somewhat condensed the table given in the Registrar-General's report:

	Total No. of Deaths	Aged. Under 1.	1–5.	5–10.	Over 10.
Vaccinated	457	0	1*	0	456
Revaccinated: Over 10 years ago	4	0	0	0	4
Revaccinated: Less than 10 years ago	7	0	0	0	7
Revaccinated: After infection by small-pox	0	0	0	0	0
Not vaccinated until after infection by small-pox	13	0	0	0	13
Unvaccinated	53	24	11	3	18
Doubtful	398	56	112	58	172
	83	0	0	3	80

* Imperfectly vaccinated.

In order to give the unvaccinated all the credit that can possibly be claimed, we present the following shorter table, in which those about whose vaccination there is doubt have been added to the vaccinated group:

	Total No. of Deaths.	Aged. Under 1.	1–5.	5–10.	Over 10.
A. Vaccinated and revaccinated, and doubtful if vaccinated	564	0	1*	3	560
B. Unvaccinated	398	56	112	58	172
C. Not vaccinated until after infected by small-pox	53	24	11	3	18

* Imperfectly vaccinated.

The facts of the epidemic thus summarized must strike the most casual observer. In the first group only 4 out of 564, in the second group 226 out of 398, and in the third group 38 out of 53 deaths occurred in children under 10 years. Groups B and C may for all practical purposes be regarded as one group; then it can easily be calculated that only 0.7 per cent. of the deaths among vaccinated patients were at ages under 10, while among the unvaccinated and not vaccinated until after infection 57.3 per cent. were at ages under 10.

The alteration in the age-incidence of small-pox during the last 50 years was commented upon in the final report of the Royal Commission on Vaccination, and was ascribed to the influence of infantile vaccination causing almost complete immunity from death by small-pox during the first 10 years of

life. Dr. Collins and Mr. Picton, in their memorandum dissenting from the majority report, contended that this change of age-incidence was due to the fact that the abolition of inoculation for small-pox and the application of improved methods of preventing its spread had lengthened the intervals between epidemics, thus leading to a greater incidence of the disease on the higher ages. Although there was every reason to believe that this was not the real explanation of the altered age-incidence, it is satisfactory to have placed before us, as above, statistics in which this contention cannot be raised, as they refer to two groups of persons attacked during the same epidemic, and in whom the only known difference is their relationship to vaccination. If vaccination be not the cause of the difference, why is it that among the vaccinated attacked with small-pox during the present epidemic 99.3 per cent. of the deaths were among persons over 10 years of age; while among the unvaccinated the corresponding percentage of deaths over 10 years of age was only 42.7? There is no valid answer to this question which ignores the influence of vaccination.

The point under discussion did not escape the attention of Dr. Creighton.[1] He remarks: "The notable thing is not that small-pox should have of late been attacking adults.....but that it should have ceased to so large an extent to attack infants and children." He then proceeds to give what he considers to be the reason for the change. "It has ceased to attack infants and children because other infective and non-infective diseases more appropriate to the modern conditions of the population are attacking them instead," and he instances measles, whooping-cough, scarlet fever, diphtheria, and diarrhoea as among the diseases in question. There is, however, no evidence of any such substitution of diseases except what must necessarily occur when a given disease ceases to be a cause of death in infants and children. Necessarily the children thus saved will be prone to attack by other diseases, but there is no ground for thinking that they will be more prone to these diseases than those who have had non-fatal attacks of small-pox. Dr. Creighton's argument falls to the ground in view of the statistics already quoted. Two portions of the population exposed to the same "modern conditions" suffer from small-pox at such different ages as to leave one under compulsion to conclude that the presence or absence of the protecting influence of vaccination must be the cause of the difference between the two groups.

The statistics recently published by the Registrar-General deserves the widest publicity, and should do much to encourage both vaccination and revaccination.

One point may be noticed in conclusion, although it should scarcely need to be stated. It will be argued by antivaccinators that during the present epidemic more deaths from small-pox (564) have occurred than among the unvaccinated (398). This argument obviously ignores the relative numbers of vaccinated and unvaccinated in the population in which these deaths from small-pox occurred. In 1899 the number of births not finally accounted for by vaccination varied in London districts from 20.2 per cent. in Marylebone to 69.4 in Mile End. If we assume that one-fifth of the population is unprotected by vaccination, then the 398 deaths from small-pox among the unvaccinated ought to be represented by 1 990 among the vaccinated instead of 564, their actual number. This is making no allowance for the gradual diminution with lapse of time of the protection secured by vaccination. A glance at the first table in this article shows that no deaths from small-pox occurred among those who had been revaccinated within ten years, and only 7 among those who had been revaccinated more than ten years ago. The proportion of the population revaccinated is unknown, but it must be considerable, and these facts possess great significance.

Cause of Variations in Vaccine Fever.

Mr. W. Squire Stevens, M.R.C.V.S. (Ash, Aldershot), writes to express the opinion that the principal factors that affect the power of vaccine lymph may be summed up as two only: (1) The variation in strain and breed of the cattle from which the lymph is drawn; (2) the length of time the lymph is kept.

With regard to the second point he writes: "It is said that the glycerine with which the lymph is mixed has the effect of reducing in time the strength of the latter. At any rate, lymph kept over certain periods of time appears to become attenuated. The remedy then is: Do not let lymph be kept long enough for this to happen."

With regard to the first point he writes: "To deal with this matter it will be necessary to consider the disease cow-pox in an elementary way, for it is from the cow-pox lesions that the lymph is obtained. Now, among human and veterinary practitioners it is well known that the intensity with which a disease attacks individuals, and more especially nations and breeds, is a very variable factor. If we agree that this is the case (hundreds of instances can be enumerated), we can conclude that the cattle (from which our supply of lymph is maintained in different parts of the country and the Continent) experimentally inoculated with cow-pox are affected with the disease in different degrees of virulency. Is it not right, then, that a special select stud of cattle should be brought together and kept especially and only for producing lymph for vaccination?"

In conclusion he writes: "What I believe to have been the most satisfactory and reliable serum used for vaccination has been prepared for the army and navy at the laboratory at Aldershot under veterinary supervision, which is only right, considering that veterinary surgeons are the only people who really understand domestic animals and devote their lives to studying them. And they ought to have primary supervision in all places where domesticated animals are concerned."

Scotland.

The Local Government Board for Scotland has issued a paper showing the number of cases of small-pox intimated to it during the quarter ending March 31st, and a further paper showing the number intimated from April 1st to April 15th inclusive. We are informed that it is proposed to issue such papers twice a month while the outbreak lasts. The total figures for the first quarter of the year showed a rapid increase from month to month, the number of intimations in January was 75, in February 207, and in March 332, making a total of 614; of the 332 cases intimated in March, 249 were reported during the first fortnight in the month, and only 83 during the last fortnight. During the first fortnight of April, however, 75 cases have been notified. Of the total of 689 cases down to April 15th, 422 occurred in Glasgow and 92 in Govan; 25 occurred during the same period in Dundee.

The monthly reports of the Registrar-General for Scotland show that during January 1 death from small-pox was recorded in Glasgow, and that that occurred in a vaccinated person. In the same month 3 deaths were recorded as due to chicken-pox in Glasgow. In February, 20 deaths from small-pox were recorded, of which 19 occurred in Glasgow and 1 in Perth. In March, 15 deaths from small-pox were recorded in Glasgow. The total for the three months was thus 36 deaths, of which 35 occurred in Glasgow, as did also the 3 chicken-pox deaths.

It is of interest to compare the deaths in the first three months of 1901. Thus in January, 1901, there were 36 (of which 35 were in Glasgow and 1 in Greenock); in February, 1901, there were 57 deaths (of which 54 were in Glasgow, 2 in Paisley, and 1 in Aberdeen); in March, 1901, there were 74 (of which 73 were in Glasgow and 1 in Paisley). The total was thus 167, of which 162 fell to Glasgow.

[1] *History of Epidemics*, vol. ii, p. 627.

CANCER RESEARCH.

The following appeal to the public for contributions to the fund needed to carry into effect the scheme of Cancer Research under the auspices of the Royal Colleges of Physicians and Surgeons, which was published in the British Medical Journal of April 12th, has been issued:

Sir,—For some time past the Royal Colleges of Physicians and Surgeons have been developing a scheme for fully investigating the cause, prevention, and treatment of cancer. This scheme has now been completed, and is ready to be started as soon as the necessary funds are forthcoming. It provides for systematic research in laboratories, for the collection and tabulation of statistical, dietetic, and topographical information, for the clinical study of the disease, and for the trial of methods of treatment. The Executive Committee controlling the scheme will mainly consist of representatives of the two Royal Colleges, with whom will be associated representatives of the Royal Society and of the Royal Veterinary College. This Committee will appoint an acting and consultative staff of experts to carry out the work.

It is, of course, recognized that investigations into such an obscure disease as cancer will, in all probability, as in the case of tuberculosis, extend over a considerable number of years, and, in order to secure an uninterrupted continuity of research, it is hoped that a capital sum of, at least £100,000 will be forthcoming, so as to enable the work to be carried on without encroaching upon the capital. Up to the present rather more than £20,000 have been paid or promised, and the scheme might be put into force as soon as £30,000 are contributed, if it were thought desirable to spend the capital. But the Royal Colleges, from their knowledge of the difficulties and the uncertain duration of the investigation, are unwilling to set the scheme in action before securing the means for continuing the research to a successful issue.

The Presidents of the Royal Colleges will be responsible for any sums transmitted to them for the furtherance of the object in view until a Treasurer has been appointed by the General Committee under the

scheme; or donations may be sent to the "Cancer Research Fund," London and Westminster Bank, Stratford Place, London, W.

We are, Sir, your obedient servants.

ADELINE M. BEDFORD.	RALPH THOMPSON.
GWENDOLEN CECIL.	L. NEUMANN.
CONSTANCE LECONFIELD	THOMAS RUDD.
ELISE GLEN-COATS	P. E. SINGER.
RANDALL WINTON.	W. H. BROADBENT, M.D., F.R.S.
STRATHCONA.	THOMAS SMITH, F.R.C.S.
ARTHUR JAMES BALFOUR	R. DOUGLAS POWELL, M.D.
WALTER H. LONG.	JOHN WILLIAMS, M.D.
SYDNEY HOLLAND.	THOMAS BARLOW, M.D.

April 18th.

CONTRACT MEDICAL PRACTICE.

SICK CLUB AND MEDICAL AID ASSOCIATIONS.

A SENIOR MEMBER writes: In the discussion on club practice, etc., at the North Wales Branch, one of the speakers referred to the question of canvassing by club agents, which the President thought ought to be brought before the Ethical Committee of the Branch. That undoubtedly is the right course with every instance of gross professional misconduct, but when a number of the members are implicated it is better to refer the matter to the Medical Defence Union. In my Branch the following are the conditions in which practice is carried on in a district where there are seven practitioners, all members of the Association and the District Branch. Three have clubs with touting agents, and two of the three keep unqualified assistants. Two have clubs connected with works, one of whom has a qualified, another an unqualified, assistant. Two have neither clubs nor assistants.

Our correspondent considers that the General Medical Council should devise means to take upon itself the whole onus of investigating such instances without dragging in the names of those who may take the initiative. "From information received" is never divulged by the police when acting in their detective capacity, and should a Director of Medical Prosecutions be appointed by the General Medical Council, the same stoical reticence and silence would be observed, and in a few years, no doubt, our profession would be rid of these lowering practices, and our successors would commence practice "with clean slates."

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting namely, June 18th and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at Bath on Wednesday, April 30th, at 7.30 p.m., G. C. Tayler, M.D., President. The following communications are expected:—J. Michell Clarke, M.D.: Two cases of Necrosis of Lung, with recovery. T. W. [illegible], M.D.: A case of Septicæmic Nephritis. E. J. Cave, M.D.: A case of Landry's Paralysis. Mr. W. M. Beaumont: Paralysis of the Accommodation—an *a posteriori* view of Diphtheria.—W. M. BEAUMONT, Bath, J. MICHELL CLARKE, Clifton, Honorary Secretaries.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Croydon General Hospital, London Road, Croydon (quite close to the West Croydon Railway Station), on Thursday, May 8th, at 4 p.m., T. K. Adams, M.D. (Croydon), in the chair. The Committee has kindly offered to provide tea and coffee at the hospital. Agenda: Minutes of last meeting. To decide when and where the next meeting shall be held; and to nominate a member of the Branch to take the chair thereat. To visit the hospital wards, where cases of clinical interest will be shown and explained by members of the hospital staff and the honorary medical officers. Members will be invited. Members desiring to bring specimens or interesting notes of cases are invited to communicate with the Honorary Secretary not later than Monday, May 5th with the view to their being brought before the meeting. At the last Sanderstead meeting it was decided to read papers at Croydon, but to try as an experiment the plan of short communications; members are therefore particularly requested to bring cases for exhibition. The idea is for members to give a short history of each, and then to show the case. The next meeting will be held at the Croydon General Hospital, on the day of the meeting. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—HENRY J. PRANGLEY, Tudor House, Anerley, S.E., Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of this Branch was held at Rochester on April 15th, Dr. E. C. WARREN in the chair. Fourteen members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Next Meeting.—On the proposition of Dr. HOAR, seconded by Mr. PENFOLD, it was resolved that the next meeting should be held at Dartford at a date to be subsequently arranged by the Honorary Secretary, and that Dr. Ernest White be invited to take the chair.

Papers.—Dr. GOSSAGE then read a paper entitled Some Important Points in the Rheumatism of Childhood. Drs. HOAR, TRAVERS, PENFOLD, and COOPER joined in the discussion which followed.—Dr. GEORGE BLACKER, having unfortunately been prevented from attending, his paper on Some Remarks on the Mechanisms and Management of the Third Stage of Labour was read by the HONORARY SECRETARY, and was followed by a discussion.

Votes of Thanks.—Votes of thanks to the Committee of the Hospital and to the Chairman having been unanimously passed, the meeting terminated.

EAST ANGLIAN BRANCH.

THE spring meeting of this Branch was held on April 17th at Southwold.

New Members.—At a meeting of the Council the following gentlemen were elected members of the East Anglian Branch: Arthur Gardiner, M.B., King's Lynn; John Gutch, M.A., M.D., Ipswich; A. H. Meadows, Great Yarmouth; P. C. Campariole, M.B., Melton; and Malcolm Poignand, M.D., Rowhedge. Mr. H. D. Matthews, Halstead, was elected a member of the British Medical Association.

Annual General Meeting.—It was decided to hold the annual general meeting at Chelmsford in 1903 under the presidency of J. C. Thresh, M.D., D.Sc.

General Meeting.—The general meeting was held in the afternoon under the Presidency of Mr. W. E. Wyllys, of Yarmouth.

Discussion.—The subjects on the agenda were the consideration of the report on wage limit as applied to clubs, etc., and report on the resolution passed at Clacton-on-Sea regarding the free distribution of diphtheria antitoxin to medical practitioners.

Papers.—Mr. T. H. MORSE, F.R.C.S., of Norwich, read a paper on hysterectomy vaginal and abdomino-vaginal; and Mr. S. G. LONGWORTH, of the County Asylum, Melton, a paper on clinical observations on the action of some suprarenal preparations.

Afternoon Tea.—Afternoon tea was served by invitation of Mr. S. N. Woollett, J.P., at the Swan Hotel.

GLOUCESTERSHIRE BRANCH.

A MEETING of this Branch was held at General Hospital, Stroud, on April 15th, Mr. A. S. COOKE, in the absence of the President, in the chair.

Volkmann's Contraction.—Mr. F. W. STORRY read a short paper on Volkmann's contraction, excusing himself for doing so as no textbook, so far as he knew, either English or American mentioned, the subject, the only literature on the deformity being obtained from papers in the English and Continental periodicals. The causes of the contraction were given, with the different opinions of surgeons who had seen and operated on such cases. The various operations for the cure of the deformity were mentioned—electricity and massage, the late Mr. Davies-Colley's operation, and also that of Mr. Littlewood. Constant reference was made to Mr. Dudgeon's excellent paper on the subject in the *Lancet* for January 11th, 1902, but the author did not agree with Mr. Dudgeon's remarks, as expressed in his paper, that Mr. Davies-Colley's operation held out no prospects of the power of finger flexion, and proved this by showing to the meeting two cases, one his own and one of his colleagues

(Mr. A. S. Cooke), in which Mr. Davies-Colley's operation had been performed, the result being absolute and perfect power of flexion of the fingers. A discussion followed, in which Mr. A. S. Cooke, Mr. Ellis, Dr. Pruen, Dr. Ancrum, and Mr. Bower took part.

Papers.—The following papers were also read:—Mr. A.W. Waller: Notes on a case of intestinal obstruction relieved by opening the caecum.—Mr. A. B. Davies: Notes on a case of acute appendicitis.—Dr. H. M. Crosby: Notes on a case of acute inversion of the uterus.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council held in the Council Room of the Association, 429 Strand, W.C., on Wednesday, April 16th, 1902.

Present:

Dr. John Roberts Thomson, President of the Council, in the Chair.
Dr. George Bagot Ferguson, President.
Mr. Walter Whitehead, President-elect.
Mr. Andrew Clark, Treasurer.

Dr. Edgar G. Barnes, Eye.
Dr. Henry Barnes, Carlisle.
Dr. James Barr, Liverpool.
Dr. Rayner W. Batten, Gloucester.
Dr. Michael Beverley, Norwich.
Dr. Thomas Bridgwater, Framfield.
Mr. Langley Browne, West Bromwich.
Mr. Henry T. Butlin, London.
Dr. William Calwell, Belfast.
Mr. Colin Campbell, Southport.
Mr. James Cantlie, London.
Dr. Edward J. Cave, Bath.
Mr. Thomas H. Cheatle, Burford.
Mr. J. Ward Cousins, F.R.C.S., Portsmouth.
Dr. H. Radcliffe Crocker, London.
Dr. George W. Crowe, Worcester.
Dr. P. Maury Deas, Exeter.
Brigade-Surgeon-Lieut.-Col. E. F. Drake-Brockman, London.
Mr. George Eastes, M.B., London.
Dr. William Alfred Elliston, Ipswich.
Dr. Freeland Fergus, Glasgow.
Dr. John H. Galton, Upper Norwood.
Dr. Alfred Godson, Cheadle.
Dr. Bruce Goff, Bothwell.
Dr. C. G. Gooding, London.
Dr. Joseph Groves, Carisbrooke.
Surg.-Gen. J. B. Hamilton, M.D., London.
Dr. W. Morton Harman, Winchester.
Mr. W. F. Haslam, Birmingham.
Dr. T. Arthur Helme, Manchester.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.
Mr. R. H. Kinsey, Bedford.
Dr. W. A. Mackintosh, Stirling.
Dr. C. H. Milburn, Hull.
Sir John William Moore, M.D., Dublin.
Brigade-Surgeon T. B. Moriarty, M.D., Cork.
Dr. C. G. Drummond Morier, London.
Mr. W. Jones Morris, Portmadoc.
Dr. James Murray, Inverness.
Surgeon-General T. F. O'Dwyer, Ramsgate.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. Charles Parsons, Dover.
Dr. Robert W. Philip, Edinburgh.
Dr. Frank M. Pope, Leicester.
Dr. Alfred Sheen, Cardiff.
Dr. G. E. Shuttleworth, Richmond Hill.
Dr. E. Markham Skerritt, Clifton.
Mr. Henry Stear, Saffron Walden.
Dr. Robert Stirling, Perth.
Mr. C. S. Tomes, F.R.S., London.
Dr. W. J. Tyson, Folkestone.
Mr. T. Jenner Verrall, Brighton.
Dr. Norman Walker, Edinburgh.
Mr. Denis Walshe, Graigue.
Mr. E. B. Whitcombe, Birmingham.
Dr. W. L. Winterbotham, Bridgwater.
Mr. R. W. O. Withers, Shrewsbury.
Dr. S. Woodcock, Old Trafford.

The minutes of the last meeting having been printed and circulated, and no objection received, were taken as read and signed as correct.

Read letters of apology for non-attendance from Sir W. T. Gairdner, Dr. J. Brassey Brierley, Dr. R. C. Buist, Professor J. W. Byers, Dr. W. Dyson, Professor David W. Finlay, Dr. E. Lawrence Fox, Dr. H. Handford, Mr. Victor Horsley, F.R.S., Dr. R. Maclaren, Dr. James Murphy, Dr. H. H. Phillips-Conn, Dr. R. Saundby, Dr. R. Somerville, Mr. W. D. Spanton, and Dr. R. Stirling.

The President of Council reported the death of Dr. E. Long Fox.

Resolved: That the Council desires to record its deep sorrow on the death of an esteemed colleague, Dr. Edward Long Fox, who for upwards of forty years was a member of the Association. During this time he held many important offices in the Association, and rendered valuable assistance in its work, finally in 1894 filling the office of President of the Association with dignity and grace. Dr. Fox will long remain in the memory of all who knew him as a distinguished physician, a warm friend, and a valued counsellor. The Council desires to convey its sincere sympathy to the bereaved relatives.

The minutes of the Crown Colonies and Protectorates Medical Service Committee of February 10th, 1902, were then considered, together with continued minute of Council 5332, referring to a communication from the Colonial Office, regarding the qualification for admission to practise in the West Indian Colonies.

Report of Crown Colonies and Protectorates Medical Service Committee:

Resolved: That it be recommended that the following Report be made to the Colonial Office with regard to the application of the Howard University for recognition of its medical graduates in the British West Indies:—

We would respectfully point out that, although there has of late years been some improvement in this respect, the curricula and the examinations which confer the right to practise in the various States of the United States are of very unequal stringency, some being of low standard, and few, if any, fulfil the requirements universal in this country. Certain Indian and Colonial qualifications are recognized as entitling their possessors to admission to the British *Register*, but until the past year no foreign qualifications have been thus recognized. Recently certain Italian qualifications have been so recognized, but it must be remembered that in Italy the standard of medical education is high, the curriculum lengthy, and the examinations under Government control. Of Italy it may be said that there are not, and have not been for a long time, any bogus diplomas.

Under these circumstances we would submit that it does not seem desirable to press upon any of our Colonies the recognition of any American diploma, a step which would render it difficult to refuse similar recognition to any other on behalf of which application might be made.

The present application, as stated in the letters, has reference mainly to men of colour. This Committee is aware that in some of our Colonies and Protectorates the employment of men of colour has heretofore been indispensable. But experience has shown that it is at all events not desirable to give to men of colour greater facilities in obtaining a recognized qualification than are possessed by British subjects of unmixed European descent.

The Committee fails to see that any hardship is entailed upon West Indian medical students desirous of practising in a British Colony by requiring them to come to the British Islands to study medicine, although it is true that they can obtain a diploma in the United States after a shorter course of study.

For the reasons which we have adduced we would respectfully suggest that in this matter the local authorities of the Colony are in the best position to judge of local requirements, and that it should be left to them to frame such regulations as may appear to them best.

There would not appear to be any reason why the Society of Apothecaries rather than any of the other and more important qualifying bodies should have been referred to in the matter, and we would respectfully point out that the only body possessed of any general authority in this country is the General Medical Council, upon which each and all of the qualifying bodies are represented. So far as the United Kingdom is concerned the recognition of foreign or Colonial qualifications as admissible to the *Medical Register* rests with this body, in the first instance, subject in certain respects to the jurisdiction of His Majesty's Privy Council.

C. S. Tomes, Chairman.

Resolved: That the report of the Committee be received and approved and forwarded to the Colonial Office.

Resolved: That the minutes of the Journal and Finance Committee be received.

Resolved: That the financial statement for the year ending December 31st, 1901, as certified by the auditors as correct, be received and approved and published in the Journal in accordance with By-law 26.

Resolved: That the accounts for the quarter ending March 31st last, amounting to £9,373 14s. 4d., be received and approved, and it be recommended that the Treasurer be empowered to pay those remaining unpaid, amounting to £3,007 12s. 9d.

Resolved: That the report of the auditors be received and approved and entered on the minutes.

Resolved: That the Council vote a sum of £2 towards the funds of the International Committee of the Medical Press.

Resolved: That the Treasurer be authorized to subscribe a sum not exceeding 10 guineas towards the decoration of the line of route of the Coronation procession.

Resolved: That the sum of £55, as voted by the Premises and Library Committee towards the decoration and illumination of the premises on Coronation Day, be approved.

Resolved: That it be recommended that a further grant of £100 be voted to the Special Chloroform Committee.

Resolved: That the Editor be added to the Scientific Grants Committee.

Resolved: That the minutes of the Premises and Library Committee be received.

With reference to the following recommendation of the Premises and Library Committee:

That this Committee recommends to the Council an increase in the salary of the Librarian to £250 per annum.

The motion having been put from the Chair was declared to be carried.

Resolved: That the Library accounts for the quarter, amounting to £35 2s. 4d., be approved, and the Treasurer be empowered to pay them.

Resolved: That the Report of the Preliminary General Educa-

tion Committee be received and approved, and that the following be appointed a deputation to wait upon the General Medical Council: The President, the President-Elect, the President of Council, the Treasurer, Dr. Bridgwater, Mr. H. T. Butlin, Professor Byers, Mr. Cantlie, Professor Finlay, Sir Walter Foster, M.P., Mr. Jessop, Mr. Macnamara, Sir John William Moore, Dr. Philip, Dr. Pope, Dr. Roddick, Dr. Markham Skerritt, and Mr. Verrall, together with the following members of the Committee: Dr. Maury Deas, Mr. Haslam, Mr. Victor Horsley, F.R.S., Dr. C. H. Milburn, and Mr. Jones Morris.

Resolved: That the minutes of the General Practitioners and Ethical Committee be received.

Resolved: That the minutes of the Parliamentary Bills Committee be received.

The following recommendations of the Parliamentary Bills Committee were then considered:

Resolved: That the Parliamentary Bills Committee urges the Council to continue its efforts for the amendment of the Midwives Bill in all its stages.

Resolved: That the objections to the Bill be drawn up afresh and circulated to the members of Parliament in both Houses, and the same be also circulated to the lay press.

Resolved: That the President of Council, the Chairman of the Midwives Subcommittee, Mr. Victor Horsley, and the Editor be appointed a Subcommittee to deal with the matter.

Resolved: That it be an instruction to this Subcommittee that in the event of the Bill not being amended to make efforts to have the Bill thrown out on its third reading.

Resolved: That the Council be requested to appoint a deputation to wait upon the Chief Secretary of Ireland in support of the Irish Poor-law Officers' Superannuation Bill now before the House of Commons.

Resolved: That the following be appointed a deputation to the Chief Secretary for Ireland: The President, the President of Council, the Treasurer, Mr. Victor Horsley, Surgeon-General Hamilton, Dr. O'Sullivan, Mr. D. B. Balding, and the Editor of the JOURNAL. The deputation to be introduced by Sir James Haslett, M.P.

Resolved: That the Report of the Subcommittee on the Reorganization of the Medical Services be accepted and forwarded on to the Council.

It was moved by Surgeon-General Hamilton, seconded by Surgeon-General O'Dwyer, and

Resolved: That the Report of the Subcommittee of the Parliamentary Bills Committee on the Royal Warrant of March 24th, 1902, be approved by the Council (with the exception of the last paragraph but one relating to the Auxiliary Medical Services, which was deleted), and that the President of Council be authorized to forward copies of the same to the Secretary of State for War, the Commander-in-Chief, and the Director-General.

The election of candidates was then considered.

The General Secretary reported that he had received objection to one of the candidates, and that one had died since the application.

Resolved: That 190 of the 192 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

Read reply to the resolution of condolence passed upon the death of the late Mr. James R. Upton:

Huskards, Ingatestone, January 22nd.

Dear Sir,—Will you please thank the Council very much for their resolution of sympathy with me in my great sorrow? it is very pleasant to hear how much he was appreciated by everyone.

Believe me, yours truly,
CONSTANCE UPTON.

Resolved: That the same be received and entered on the minutes.

Read resolutions passed by the Executive Committee of the Manchester meeting:

That it be suggested to the Central Council that the Address in Medicine on Wednesday night should take place at 8.30 p.m., and not at 8 p.m. as stated on the Programme of Proceedings; and that the time of the dinner be altered to [illegible] 8 o'clock

Resolved: That both the requests, namely, to alter the time of the Address in Medicine and of the Dinner of the Association be acceded to.

Read resolution passed by the Lancashire and Cheshire Branch regarding the selection of the medical practitioner for vaccination:

1, St. Peter's Square, Manchester,
March 13th, 1902.

Sir,—I am requested by the Council of the above Branch to send to you a copy of a resolution adopted at the last Council meeting as follows:

That, in the opinion of this Council, seeing that vaccination is made compulsory in the interests of public health, the parent or guardian of a child should have the right to select any registered medical practitioner, who is willing to do so, to perform the vaccination, and that the cost of the same should be defrayed by the State at a fixed rate, provided always that the work so done shall reach the standard arrived at by the Local Government Board in the case of public vaccinators, and that no work falling short of this standard should be accepted for the purpose of public remuneration.

Yours very truly,
ARTHUR T. HELME,
Honorary Secretary.

Resolved: That the resolution passed by the Lancashire and Cheshire Branch be referred to the Public Health and Vaccination Subcommittee.

The By-laws of the British Guiana Branch were then considered.

Resolved: That the By-laws of the British Guiana Branch, with the exception of one or two amendments advised by the solicitor, be approved and confirmed.

Read reply of the Barbadoes Branch in reference to minute of Council 5269, referring a series of resolution on filaria nocturna, passed in the Section of Tropical Diseases at Cheltenham, to the Barbadoes Branch:

Merton Lodge,
Collymore Rock Road, Barbadoes, W.I.
January 29th, 1902.

Francis Fowke, Esq.

Dear Sir,—I have the honour to acknowledge the receipt of your letter of October 29th, 1901, requesting me to refer for the consideration of this Branch the resolutions *re* filariasis in Barbadoes, which were passed at the last annual meeting of the Association.

In reply I have been instructed by the Branch to forward you, for the information of the Council, a "pamphlet on filarial diseases," which has been lately issued by the local Government in accordance with the wishes of this Branch.

Any further suggestions that your Council may desire to make will received the earnest attention of the Branch.

The pamphlet is enclosed herewith.

I have the honour to be, Sir,
Your most obedient servant,
E. HOWARD BANNISTER, M.B., C.M.
Honorary Secretary Barbadoes Branch,
British Medical Association.

Resolved: That the same be received and published in the JOURNAL, and a warm vote of thanks be presented to the Branch and the Honorary Secretary for their admirable report.

Read resolution passed by the Burmah Branch:

Copy of resolution proposed by the Right Rev. Lord Bishop Strachan and seconded by Dr. Pedley, and carried unanimously at the 114th regular meeting of the Burmah Branch, held at Rangoon on 3rd February, 1902:

The Burmah Branch, B.M.A., desires respectfully to draw the attention of the authorities to the fact that medicine and sanitary science are not represented on the Council of the Viceroy of India or on that of the Lieutenant Governor of Burmah, while engineering, law, commerce, etc., are directly represented. In the interests of the public health this Branch of the Association is of opinion that medicine and sanitary science should also be directly represented on these Councils.

The President of Council reported that the resolution had been referred to the Crown Colonies and Protectorates Medical Service Committee by the Parliamentary Bills Committee.

Read communication from the Sanitary Institute, asking the Association to appoint delegates to attend the forthcoming Congress of the Sanitary Institute, to be held in Manchester from September 9th to September 13th, under the presidency of the Right Hon. the Earl Egerton of Tatton.

Resolved: That Mr. Langley Browne, Mr. Jones Morris, and Dr. Helme be appointed delegates to the Sanitary Institute Congress.

Resolved: That the President, the President of Council, and the Treasurer be appointed a Subcommittee to draw up the Annual Report.

Resolved: That a Committee be appointed to consider the present system of arrangements for the Annual Meeting, and to report to the Council on any alterations which they consider desirable.

Resolved: That the Committee consist of Dr. Ferguson, Dr. Roberts Thomson, Mr. Andrew Clark, Mr. Verrall, Dr. Barr, and Mr. Victor Horsley, for England; Dr. Stirling and Dr. Norman Walker for Scotland; and Sir John William Moore for Ireland.

Resolved: That Mr. W. E. Hempson be reappointed Solicitor to the Association for the ensuing year.

The Treasurer reported that a petition, sealed with the seal of the Association, has been lodged against the Central London Railway (New Line).

The Treasurer also reported that a petition, sealed with the seal of the Association, had been lodged against the Charing Cross, Hammersmith, and District Railway.

BRITISH MEDICAL ASSOCIATION.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31ST, 1901.

BALANCE SHEET.

LIABILITIES.

DR.	£ s. d.	£ s. d.
To Subscriptions paid in advance	712 17 9	
,, Advertisements ,,	652 0 10	
,, Library	22 0 7	
,, Contributions	676 5 11	
,, Reporting	84 0 0	
,, Engraving	48 5 0	
,, Printing Journal	364 6 8	
,, Paper for Journal	867 14 10	
,, Miscellaneous Printing	122 15 6	
,, Stationery	58 0 4	
,, Repairs	43 2 1	
,, Legal Charges	304 6 8	
,, Rates and Taxes, Insurance, and Electricity Supply	218 19 7	
,, Plant and Type	18 8 11	
,, Sundries	58 4 11	
,, Editorial Expenses	13 18 6	
,, Interest on Mortgage and Tax	186 3 6	
,, Parliamentary Bills Committee	5 5 0	
,, Special Chloroform Committee	100 0 0	
	4,556 16 7	
,, Loan on Mortgage of Freehold	38,000 0 0	
,, Less Paid off	28,000 0 0	
	10,000 0 0	
TOTAL LIABILITIES		14,556 16 7
,, Surplus Account—	£ s. d.	
Balance on Jan. 1st, 1901	82,464 11 2	
Profit for 1901 brought from Revenue Account	4,963 0 0	
,, Balance, being total of excess of assets over liabilities		87,427 11 2
		£101,984 7 9

ASSETS.

CR.	£ s. d.	£ s. d.
By Subscriptions—Amount due		1,672 3 2
,, Advertisements—Amount due		3,556 11 8
,, Sundry Sales—Amount due		135 17 5
,, Furniture and Fixtures at cost	2,684 18 11	
,, Amount written off Furniture to December 31st, 1900	1,642 9 11	
	1,042 9 0	
,, Library		2,262 16 4
,, Plant and Type		1,603 2 0
,, Rents accrued		154 0 0
,, Freehold of 2 and 3, Harvey's Buildings		4,640 0 0
,, Freehold of 429, Strand, 2, 3, 4, and 5, Agar Street	79,000 0 0	
,, Redemption of Land Tax	880 0 0	
	79,880 0 0	
,, Cash, namely:—		
At London and Westminster Bank current account	2,037 8 2	
Deposit account	5,000 0 0	
	7,037 8 2	
		£101,984 7 9

Revenue or Profit and Loss Account for Year ending December 31st, 1901.

	£ s. d.	£ s. d.
Editorial Expenses (Salaries, Contributions, Engraving, Reporting)	5,343 0 11	
Expenses of Printing Journal (Printing, Postage, and Paper)	21,913 11 1	
Office Expenses (Rent, Taxes, Office Postage, etc.)	2,213 17 1	
Office Salaries and Wages	3,236 9 0	
Association Expenses (Scientific Grants, Scholarships, Expenses of Committees, etc.)	3,775 12 1	
Library	456 5 9	
Interest on Mortgage and Tax	428 13 6	
Plant, written off towards Depreciation	500 0 0	
Cost of Purchase of Reversion of Lease, 2, and 3, Agar Street, written off	250 0 0	
	38,117 9 5	
Subscription Losses from Deaths, Resignations, etc.	649 10 9	
	38,767 0 2	
Profit for Year carried to Balance Sheet	4,963 0 0	
	£43,730 0 2	
Subscriptions		20,070 13 0
,, former years		508 8 2
Advertisements		19,537 16 11
Sundry Sales of Journal		1,761 18 7
Sundries—Reading and Binding Covers, etc.		118 10 2
Reprints		90 10 6
Interest on Investments and Rents		616 16 0
Scientific Grants unused and returned		73 11 11
Sale of Waste, etc.		18 13 0
Discount on Printing, Paper, etc.		913 1 2
Unexpended Grants to Committees		20 0 0
		£43,730 0 2

STEWART FUND.

Investment of £579 in 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

1901.		£ s. d.	1901.		£ s. d.
Jan. 1.	To Balance in hand	50 13 7	Aug. 4.	By Stanley Engrossing Certificate	1 17 6
Dec. 31.	,, Interest one year on £579	21 17 9	Aug. 6.	,, Award Dr. Patrick Manson, C.M.G.	50 0 0
			Dec. 31.	,, Balance carried down	20 13 10
		£72 11 4			£72 11 4

MIDDLEMORE FUND.

Investment of £666 13s. 4d. in 3 per cent. North British Railway Debenture Stock in the name of the British Medical Association.

1901.		£ s. d.	1901.		£ s. d.
Jan. 1.	To Balance in hand	21 0 8	Dec. 31.	By Balance carried down	69 18 8
Dec. 31.	,, Interest one year on £666 13s. 4d.	18 18 0			
		£69 18 8			£69 18 8

We certify, in accordance with the provisions of the Companies Act, 1900, that all our requirements as Auditors have been complied with. Having examined the above Balance Sheet, dated December 31st, 1901, with the books and vouchers of the Association, we report that it is in our opinion properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs as shown by the books of the Association.

March 25th, 1902.

(Signed) PRICE, WATERHOUSE & CO.,
3, Frederick's Place, Old Jewry, E.C.

PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on Tuesday, April 15th.

Present:

Dr. S. Woodcock, Chairman, in the Chair.
Dr. J. Roberts Thomson, President of Council.
Dr. G. B. Ferguson, President.
Mr. Walter Whitehead, President-elect.
Mr. Andrew Clark, Treasurer.

Mr. S. H. Agar, Henley-in-Arden.
Dr. T. R. Bailey, Bilston.
Mr. D. B. Balding, Royston.
Dr. James Barr, Liverpool.
Dr. R. L. Bowles, London.
Dr. T. R. Bradshaw, Liverpool.
Mr. George Brown, London.
Mr. Colin Campbell, Southport.
Mr. James Cantlie, London.
Dr. W. A. Carline, Lincoln.
Mr. J. Ward Cousins, Southsea.
Dr. Alfred Cox, Gateshead-on-Tyne.
Dr. P. M. Deas, Exeter.
Dr. H. E. Dixey, Malvern.
Dr. W. Douglas, London.
Brig.-Surg.-Lieut.-Col. E. F. Drake-Brockman, London.
Mr. George Eastes, London.
Dr. Bruce Goff, Bothwell.
Dr. J. Groves, Carisbrooke.
Surgeon-General J. B. Hamilton, M.D., London.
Mr. Victor Horsley, F.R.S., London.
Mr. Evan Jones, Aberdare.
Dr. W. A. Mackintosh, Stirling.
Dr. C. W. Marriott, Reading.
Dr. C. H. Milburn, Hull.
Sir John Wm. Moore, M.D., Dublin.
Brig.-Surg. T. B. Moriarty, M.D., Cork.
Mr. W. Jones Morris, Aberdare.
Dr. J. Murray, Inverness.
Dr. D. A. O'Sullivan, London.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. F. M. Pope, Leicester.
Mr. C. R. Straton, Wilton.
Insp.-Gen. A. Turnbull, M.D., London.
Dr. Norman Walker, Edinburgh.
Mr. Denis Walshe, Graigue, co. Kilkenny.
Dr. Dawson Williams, London.
Mr. R. W. O. Withers, Shrewsbury.

The minutes of the last meeting having been printed and circulated and no objection received were taken as read and signed as correct.

Letters of apology for non-attendance were read from Dr. Buist, Surgeon-General O'Dwyer, Dr. A. J. Harrison, Dr. James Murphy, Dr. Newman, Dr. Saundby, Dr. R. Somerville, and Dr. Stirling.

The Midwives Bill.

The minutes of the Subcommittee of the Medical Acts Amendment of the Midwifery Nurses Bill were then considered.

The Chairman said that the deputation appointed by the Subcommittee had not been able to arrange at the time with Sir John Batty Tuke to undertake the amendments desired, but Mr. Horsley saw him, and Sir John Tuke undertook to move the amendments. The Bill would come up on the report stage on June 4th, and notices of amendment had been given by several members of Parliament. These amendments were mostly on the lines suggested by the Subcommittee. It was also proposed to issue a whip to see if they could get some support to the amendments.

Mr. Horsley said the only member of the medical profession in the House of Commons with whom he could communicate was Sir John Batty Tuke; and in accordance with the instructions of the Subcommittee he had a long interview with him, and, as already mentioned, Sir John agreed to move the amendments which were absolutely necessary. As would have been seen in the report of the debate, the position of the profession was entirely ruined by the action of the recent Chairman of the Parliamentary Bills Committee, Dr. Farquharson. Dr. Farquharson knew perfectly well what the wishes of the Association were, and he had in his hands not only a copy of the Bill of the Committee, but also detailed objections to previous proposed legislation, which were formulated by the Committee. Mr. Horsley understood that on the report stage in the House there was not the slightest chance of any single amendment being brought forward; in fact the feeling of the House was evidently one of extreme irritation against the medical profession, and though members of Parliament had had the ideas of the Committee before them they would not look at them, and appeared to be in favour of the Bill as it stood.

Dr. O'Sullivan said he was present during the debate on the Bill, and was glad to see that there was a marked difference of tone among members of Parliament to speakers in support of the Bill after the excellent speech made by Sir Walter Foster.

Mr. George Brown said he had spent several evenings interviewing members of Parliament, and putting before them as forcibly as he could those amendments the Association wished introduced into the Bill.

Dr. Groves said the member of Parliament whom he had interested in the Bill, and who took an active part in the debate, told him that the medical profession seemed to be divided on the question, and that he would take no further interest in the matter. Dr. Groves suggested that the members of Parliament who had taken an interest in the matter ought to be thanked for the trouble they had taken.

The Chairman said that if a vote of thanks was sent it should come from the Council of the Association.

Dr. Norman Walker said he quite agreed with what Mr. Horsley had said about Dr. Farquharson, but he did not think that Dr. Farquharson need have been singled out, for some of the statements of Sir Michael Foster were positively appalling.

The President of Council said that all were agreed that the present Bill was a bad Bill, and should be amended. Speaking for constituencies in the country of which he had knowledge, he was sure that if any representative expression of opinion in opposition to the Bill were to go from the profession to members of Parliament it would be received with attention. If the Bill was carried in spite of that, they would have the satisfaction of knowing that they had done their duty in trying to get the Bill amended.

Dr. Cox moved, and Mr. George Brown seconded, the following resolution:

That the Council be requested to petition the House of Commons against the Midwives Bill in its present form, and that the Branches be asked by the Council to represent to the members of Parliament for the districts included in the Branches the grounds upon which the medical profession is opposed to the Bill.

Dr. Milburn said that there were two classes in the profession: one class which had said that the profession would have no legislation whatever—and that class appeared to have made most impression upon members of Parliament—and another class which admitted that there was room for improvement and wished to have a Bill passed for the benefit of the public at large. If they petitioned against the Bill now they would stultify themselves; but if they continued their efforts at every stage to pass amendments which the Association had adopted, then he thought they might meet the desires of the profession in improving the Bill. So as to put the Committee in order to continue that policy he would move the following amendment:

That the Parliamentary Bills Committee urges the Council to continue its efforts for the amendment of the Midwives Bill in all its stages.

The amendment was seconded by Dr. Barr.

The amendment, having been put from the chair, was carried.

On the motion of Dr. Douglas, seconded by Dr. Bradshaw, it was resolved:

That the objections to the Bill be drawn up afresh and circulated to the members of Parliament in both Houses, and the same be also circulated to the lay press.

Payment of Medical Referees for Life Insurance.

A communication from Dr. F. M. Rowland, of Lichfield, with reference to the payment of medical fees for examination for life insurance, which had been referred by the Council to the Committee, was next considered.

The Chairman said that he did not think the subject was one on which legislation could be suggested, and he should be disposed to recommend that the communication be referred back to the Council, with the suggestion that a letter should be sent to the writer stating that the question of medical fees in connexion with life assurance was entirely in the hands of the medical profession.

The President of Council said that some years ago he had a good deal of discussion with certain assurance companies, and he refused to examine any cases for a lower fee than one guinea.

Sir J. W. Moore said that he had received an application from an insurance company asking if he would consent to examine candidates. He replied that he would be most happy to certify, but the fee must be the uniform sum of one guinea. He heard no more from that society, but he was quite sure that certain lives were examined for it at reduced fee.

Dr. Cox said that a hard and fast rule that the fee should not be less than one guinea should not be laid down, because in some cases the insurances were only for £25 and the number of questions on the form to be filled were very few.

The Chairman's suggestion was adopted.

Medical and Sanitary Science in India.

A resolution from the Burmah Branch of the British Medical Association drawing attention to the fact that medical and sanitary science were not represented on the Council of the Viceroy of India or on that of the Lieutenant-Governor of Burmah, while law, commerce, etc., were directly represented, was referred to the Crown Colonies and Protectorates Medical Services Committee.

Irish Poor-law Officers' Superannuation Bill.

Dr. Walshe said the Irish Poor-law Officers' Superannuation Bill which was before the House of Commons was a measure of vital importance to nearly half the profession in Ireland. It followed the lines of the English Poor-law Officers' Superannuation Act already in operation. The amendment proposed to the Bill when before the Committee about twelve months ago that there should be a national instead of a union fund for pensions had not been adopted in the Bill at present, as it was thought that the Bill should be introduced simply as a copy of the English Act, so that it might pass as a non-contentious measure. He would move:

That the Council be requested to appoint a deputation to wait upon the Chief Secretary of Ireland in support of the Irish Poor-law Officers Superannuation Bill now before the House of Commons.

The resolution was seconded by Mr. Victor Horsley, and carried.

Army Medical Service.

Surgeon-General Hamilton presented the report of the Subcommittee on the Reorganization of the Medical Services on the New Royal Warrant, and moved:

That the report be accepted and forwarded on to the Council of to-morrow.

[The report was printed in the British Medical Journal, April 19th, p. 992.]

The resolution was seconded by Dr. Groves, and carried.

CORRESPONDENCE.

BIRMINGHAM CONSULTANTS AND THE WORKING CLASSES.

Sir,—As the difficulty created in Birmingham by the attempt to establish a consultative institution in the city excited a good deal of general interest in the profession, you may be glad to know that the scheme has been abandoned by its promoters. In the last report of the Birmingham Hospital Saturday Fund, where this is admitted, it is stated that "the claims of the more thrifty and self-respecting members of the community to obtain consulting advice at a fee of half a guinea, rather than be forced to obtain it at the hospitals for nothing, have been set at nought." This statement, like so many others which have originated from the same source, is not true. The consultants of Birmingham have all along maintained their willingness, under suitable conditions, to see working men for half a guinea.

Recently the Birmingham Ebenezer Provident Sick Society, one of the largest industrial organizations in the city, which had affiliated itself to the Consultative Institution, found itself obliged to look elsewhere, owing to the failure of that scheme. The officials applied to the representatives of the consultants, and the following correspondence shows the result.—I am, etc.,

Birmingham, April 19th. Robert Saundby.

[Copy.]

87, Cornwall Street, Newhall Street,
Birmingham.

(Letter addressed to Consultants in Birmingham.)

Dear Sir,—A short time ago the Consultants' Representative Committe was approached by the executive of the Ebenezer Sick Provident Society to ask whether members of their Society could be seen for half-a-guinea. In reply, the following letter was sent:

Dear Sir,—In reply to your inquiry whether the consultants of Birmingham would be willing to see your members for a fee of ten-and-sixpence, I am requested to draw your attention to the following passage from a letter which appeared in the Birmingham newspapers on May 18th, 1901, which was signed by all the members of my Committee, and which has been acted on repeatedly. The passage is as follows: "The consultants and specialists in Birmingham agree to see any persons whose circumstances justify it for the modified fee of half a guinea upon the recommendation of a medical practitioner, and where this cannot be obtained for any reason they will dispense with it only reserving the right to protect themselves against abuse."

If you should desire any further information, Dr. Saundby and I would be glad to talk the matter over with you some afternoon, and if you will let me know I have no doubt we can arrange a time of meeting convenient to each of us.—I am, yours faithfully,

Thomas Wilson,
Hon. Sec.

In consequence of this letter a meeting was held as suggested, and it was agreed that members of the Ebenezer Sick Society would be seen by the consultants and specialists of Birmingham for half a guinea on the condition that they should be people whose circumstances justified the concession, and it was further agreed to accept the recommendation of the Society as *primâ facie* evidence of this fact. It was promised on behalf of the Society that no patient will be sent to a consultant except on the recommendation of one of the medical officers of the Society, and that the Society will not allow the few well-to do persons who are members of the Society to obtain consultations under this arrangement. It was pointed out to the representatives of the Society that the Committee could not speak definitely for every individual consultant in Birmingham, but that it was able to do so for the great majority.

We shall be glad if you will kindly let us know before Saturday next should you not care to co-operate, so that we may take steps to preven your being troubled with applications under this arrangement.—We are Dear Sir, yours faithfully,

Robert Saundby, Chairman,
Thomas Wilson, Secretary,
Consultants' Representative Committee.

[Copy.]

BIRMINGHAM EBENEZER PROVIDENT SICK SOCIETY,
STEELHOUSE LANE, BIRMINGHAM.
Memorandum.

February 27th, 1902.

From Alfred Mole, Secretary,
16, Wretham Road, Handsworth, Birmingham. To Robert Saundby, Esq.

Dear Sir,—We cordially endorse the circular you propose sending to the consultants of Birmingham in reference to the above Society.

Josiah Cox, President.
Alfred Mole, Secretary.

[Copy.]

March 11th, 1902.

Dear Sir,—I have now pleasure in sending you the list of consultants which I promised to obtain for your private use. Enclosed is the complete list of all those consultants who are able and willing to undertake to see members of your club on the conditions laid down at our meetings.

Believe me to remain, dear Sir,
Yours faithfully,
Thomas Wilson.

Mr. Alfred Mole,
16, Wretham Road, Handsworth.

The result of the circular was to obtain a list of fifty-three consultants, including specialists in all departments.

[Copy.]

To Thomas Wilson, Esq.

March 13th, 1902.

Dear Sir,—I thank you very much for your letter and list of consultants; this I am sure will be very satisfactory to the Committee. This I have no doubt will be endorsed by resolution at the first meeting, in which case I will send you a copy. I venture to think that between us we have gone a long way in the settlement of a much vexed public question.

I am, Dear Sir,
Yours very respectfully,
Alfred Mole.

BIRMINGHAM EBENEZER PROVIDENT SICK SOCIETY,
STEELHOUSE LANE, BIRMINGHAM.

Committee Meeting. Held March 27th, 1902.

Copy of Resolution.

"That this meeting heartily expresses its warm appreciation of the manner in which the consultants and specialists of Birmingham have met this Society, whereby our members and their wives may receive expert advice for the nominal fee of 10s. 6d."

Signed on behalf of the meeting,
Alfred Mole, Secretary.

THE EVIDENCE FOR HETEROGENESIS.

Sir,—After I had revealed the weakness and irrelevancy of the objections raised by your reviewer concerning the two cases of alleged heterogenetic transformation to which he referred, he now says "that the facts cited in the review were not so much quoted as being actual possible errors into which the investigator had fallen, but as representatives of a group of facts which call for great care in observation and caution in interpretation." I doubt whether others will agree with him in regard to this. He led your readers to

suppose there was nothing new in the one and nothing true in the other alleged transformation, and thereupon complacently remarked: "It would be possible to criticize in detail each of the observations and the conclusions which are drawn from them were any useful purpose to be served by so doing." Of course it would be possible, but in the absence of the criticism one is unable to judge of its cogency as against my well-considered statements and careful observations.

As I pointed out in the preface to my *Studies in Heterogenesis* the only two possible interpretations of such phenomena as I have brought forward other than heterogenesis, would be that the organisms apparently produced from the substance of others were either (*a*) stages in the life-history of the parent forms, or (*b*) results of infection by parasites. Your reviewer does not dwell much upon the latter possibility, but both in his review and in his reply to my letter he questions the correctness of my statement that the examples I had selected were of such a kind as to eliminate the former of these possible sources of error. He even goes so far as to say, "I fail to see that its exclusion is legitimate until the life-history of everything under observation has been pursued to the fullest extent." Now I venture to state that, put in such an extreme form, this is an absurd requirement.

Take, for instance, one of the cases the strength of which he endeavoured to weaken—the conversion of the contents of certain large confervoid cells into specimens of amoebae and actinophrys. I showed some of these cells to Dr. Cook, wishing to know from him the name of the species to which they belonged. He was unable to give me this information, because, as he said, they were merely vegetative cells, probably of one of the Confervaceae. But has a vegetative cell of a conferva anything in common in its ordinary life-history with an amoeba? And if I find large numbers of the transformations in question occurring day after day, why need I pursue "to the fullest extent" the life-history of the conferva and of the amoebae?

Again, if I find the eggs of some rotifers, when exposed to certain unnatural conditions, becoming resolved in some cases into amoebae, in others into flagellate monads, and in others still into peranemata, and am able to photograph the different stages of such transformations, why need I pursue "to the fullest extent" the life-history of these amoebae, monads, or peranemata? Your reviewer, as well as others, would indeed have cause for surprise if I told them I had seen either of such organisms develop into rotifers! Who supposes that the ordinary life-history of either of these forms in any way related to that of a rotifer?

I feel that the labour I have bestowed upon these investigations, and the definite facts which I have recorded with the aid of pen and camera, ought not to be met by mere vague and general objections.—I am, etc.,

Manchester Square, W., April 21st. H. CHARLTON BASTIAN.

PROCESSES OF INFECTION AND PROTECTION.

SIR,—In the BRITISH MEDICAL JOURNAL of April 12th, 1902, Dr. J. Edmunds has questioned the truth of a statement made in my article on the Protective Processes in the Organism, and raises a doubt as to the correctness of my deductions. Before entering into the subject, I must confess that I am not a chemist, and that my knowledge of this science is but elementary. I have ventured to use as arguments such chemical data as were in my ken, and to draw inferences by a simple process of reasoning.

Dr. Edmunds first inquires, "How it can be found" that an alkali, when added to a mixture of hydrochloric and acetic acids, first neutralizes the former. I have performed the following experiment: A definite quantity of HCl and an excess of $C_2H_4O_2$ are mixed, and to this a quantity of NaOH in solution, just capable of neutralizing the dose of HCl, is gradually added. The mixture is then evaporated to dryness, and the residue tested for acetates. None were found. During the evaporation it was obvious the free acetic acid was being driven off. I therefore deduce that the residue was pure NaCl, and that the hydrochloric acid was neutralized, while the acetic acid was left untouched. The same applies to other acids. The alkali is used up in binding the stronger of any two acids before the weaker is attacked.

The second question deals with the inference. I fail to realise how chemical potential can be spoken of in this case. The alkali was added in solution to two acids, both of which possess a power of binding it. But only the stronger acid did enter into the chemical change. This constitutes a selective affinity which has no similarity with the chemical potential, of an alkaline chloride being transformed into the sulphate, when heated in the presence of sulphuric acid, or of the alkaline sulphate being transformed into a phosphate, when heated in the presence of phosphoric acid.

The chemical action was quoted in order to show that the affinity between the protoplasmic molecule and toxin could be likened to a selective chemical affinity of a simpler type. Dr. Edmunds's example of this affinity, as shown by dropping into a mixture of hydrochloric and other acids a solution of silver, in which case the whole of the chlorine will claim the silver before the latter can be used by any other body, would apply equally well for my purpose; but I wish to point out that "the fact can be found," and that it is only to be explained as a true chemical affinity.—I am, etc.,

Wembley, April 19th. H. W. ARMIT.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

SIR,—I venture most respectfully to protest against the indiscriminate praise bestowed on Dr. Embley's research on chloroform in the leading article in the BRITISH MEDICAL JOURNAL of April 19th. It is very doubtful, however, if even your applause of Dr. Embley's attempt to resuscitate the old Mahdi of inhibition of the heart will make it go down with the profession, though I can quite see that the subsequent Mahdis, the varied and fantastic chloroform hearts of the physiologists, have been such dismal failures that Dr. Embley and his friends, who belittle the findings of the Hyderabad Commission, are naturally anxious to get back to the old one. Your approval of Dr. Embley's endeavour to revive the theory of sudden death under chloroform through the vagus is accompanied by a recommendation to partially paralyse the heart with atropine as a precaution against the action of the vagi, the grounds for this proposal being that cutting the vagi—an operation which is lightly spoken of by the writer of the article as "the heroic remedy"—is practicable in a dog, and that in man it is "happily" possible to abolish vagus action without recourse to such a procedure. I should like to be informed by the writer of the article whether he considers it possible to abolish the action of the vagi, by cutting or with atropine, without killing the patient. Be this as it may, it is well known that vagus action cannot be called into play at all if chloroform is properly given, that it is, in fact, a sure sign of improper administration or overdosing. The remedy for this particular occurrence is therefore, on Dr. Embley's own showing, not to cut or paralyse the vagi, but to give chloroform with plenty of air. This simple precaution ensures regular breathing and the consequent safety of the patient. But there is nothing whatever in this method that is new either to science or to surgery. It was taught by Syme, and Syme's principles of chloroform administration were long ago proved to be physiologically correct by the Hyderabad Commission.—I am, etc.,

Harley Street, W., April 21st. EDWARD LAWRIE.

SIR,—In your article on Dr. Embley's paper in the BRITISH MEDICAL JOURNAL of April 19th you say towards the end, "Happily it is possible to abolish vagus action..... a subcutaneous injection of a small dose of atropine is therefore clearly indicated as the correct treatment." I had the pleasure of hearing Dr. Embley's paper at the Society of Anaesthetists, and gathered that his experiments proved that vagus inhibition was the cause of *sudden* death in the early stage of chloroform anaesthesia. This being so, I must say I entirely fail to see how, with the circulation arrested, a subcutaneous injection of atropine is going to reach the terminal fibres of the vagi and paralyse them.

Were the arrest of circulation gradual, or were atropine given previous to anaesthetization as a prophylactic, the usefulness of the method would be more apparent to me.—I am, etc.,

G. A. H. BARTON, M.D.Brux.,
Assistant Anaesthetist City Orthopaedic Hospital.
Burne Park Road, W., April 22nd.

Sir,—Dr. Embley's experiments demonstrate pretty conclusively that the danger in early chloroform anaesthesia arises from fall of blood pressure. This fall appears to be largely due to paralysis of the muscular fibres of the heart and of the arteries, aided, in fatal cases, by vagus inhibition. Now the points I wish to bring forward are these:

1. Is it wise in such cases to administer a drug like amyl nitrite, the characteristic result of which is a marked fall in the blood pressure?

2. Adopting your suggestion of atropine, would it not be advisable to inject a *full* dose subcutaneously in all cases of chloroform anaesthesia as a prophylactic?—I am, etc.,

Sunderland, April 21st. NOEL F. ROWSTRON, M.B.Durh.

CHILDREN'S COUNTRY HOLIDAYS.

Sir,—The 50,000 London children who look to spend their holidays in country cottages are threatened with disappointment on account of the fear of small-pox. If they are left for all August in the streets about their homes there will be a loss both in national strength and in childhood's joy. Medical officers are, of course, right in wishing to protect their own areas from disease; but I would, with your permission, submit some reasons why they should not altogether exclude London children:

1. The isolation of London is impossible. There is daily contact between people coming and going to the country. The tramps alone constitute a perpetual danger. The only security of an area from small-pox is in the vaccination of its own inhabitants; this is so effective that the disease is less dangerous than fever.

2. The small-pox is affecting only a very small proportion of the population. There are fewer small-pox patients than there are fever patients. The committee sending the children would be responsible that all sent are vaccinated, or if above 10 years of age, revaccinated, and that none go from districts known to be infected.

3. I would, therefore, ask country medical officers not to set their faces against our plan of sending children to country cottages. I would even go further and ask them, on national grounds, to forward the plan, and induce landlords and cottagers to welcome the children. The strength of the nation lies more and more in the town. If town life is not made healthy, our people cannot be strong either to labour or to fight. Town and country are parts of one whole. Country people making town children welcome in country families and interesting them in country pursuits and giving them the strength of country air and change, would take away some of the hardships of town life. I am, etc.,

Toynbee Hall, Whitechapel, E., April 16th. SAMUEL A. BARNETT.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: ARTHUR W. B. LIVESAY, M.B., Surgeon, to the *Orion*, April 21st; EDWIN FOLLIOTT, Surgeon, to the *Pembroke* for Chatham Dockyard, April 21st; FRANK BRADSHAW, B.A., Surgeon, to the *Hibernia*, April 18th, and to the *Hermione*, undated; PATRICK W. MACVEAN, M.B., Surgeon, to the *Bellona*, April 18th.

ARMY MEDICAL SERVICE.

THE following notification is substituted for that which appeared in the *Gazette* of October 1st, 1901: Surgeon-Major C. R. KILKELLY, M.B., C.M.G., Grenadier Guards, is granted the local rank of Colonel while in charge of the Imperial Yeomanry Hospitals, August 1st, 1900.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. D. EDGE is promoted to be Colonel, *vice* W. F. Burnett, promoted June 1st, 1901. Colonel Edge was appointed Assistant-Surgeon, September 30th, 1871: Surgeon, March 1st, 1873: Surgeon-Major, August 20th, 1873; was granted the rank of Lieutenant-Colonel, September 30th, 1891; and was made Brigade-Surgeon-Lieutenant-Colonel, January 8th, 1896. Colonel Edge was noted on December 3rd, 1872, "to be promoted Staff Surgeon, as soon as he has qualified for the superior grade, in recognition of his gallant services when engaged against the Indians, at Orange Walk, British Honduras," on September 1st, 1872. He was in the Zulu war of 1879, and was in the engagement at Gingindhlovu and at the relief of Ekowe (medal with clasp); in the Afghan war in 1879-80 including the engagement at Maiwand in charge of a Field Hospital, and in the defence of Candahar (received the thanks of the Government of India, medal); in the Egyptian war of 1882 with the Indian Contingent, and at the battle of Tel-el-Kebir (medal with clasp, 4th Class of the Osmanieh and Khedive's star); with the Burmese Expedition in 1887-89 (medal with two clasps); and in the South African war in 1899-1900 as Principal Medical Officer of an Infantry Division, and afterwards as Principal Medical Officer of a Section on the Lines of Communication and Johannesburg District.

Lieutenant-Colonel R. BLOOD, M.D., is promoted to be Colonel, *vice* R. H. Carew, placed on retired pay, August 10th, 1901. Colonel Blood's previous commissions are thus dated: Assistant-Surgeon, September 30th, 1871; Surgeon, March 1st, 1873; Surgeon-Major, September 30th, 1883; rank of Lieutenant-Colonel, September 30th, 1891; and Brigade-Surgeon-Lieutenant-Colonel, April 9th, 1896. He has no war record in the Army Lists.

Lieutenant-Colonel W. DONOVAN, C.B., is also promoted to be Colonel, *vice* W. H. McNamara, promoted, October 4th, 1901. He entered the service as Assistant-Surgeon, March 30th, 1872; became Surgeon, March 1st, 1873; Surgeon-Major, March 30th, 1884; was granted the rank of Lieutenant-Colonel, March 30th, 1892; and appointed Brigade-Surgeon-Lieutenant-Colonel, June 24th, 1896. His war experiences are as follow: Afghan war in 1879-80 with the Cabul Field Force, and afterwards with the Kooram Force, and with the Zaimusht Expedition under Brigadier-General Tytler in medical charge of the 81st King's Light Infantry including the assault of Zawa (medal); Boer war of 1881 with the Natal Field Force as a volunteer; Chitral Relief Force in 1895 (mentioned in dispatches, medal with clasp); South African war in 1899-1900 as Principal Medical Officer Cavalry Division (mentioned in despatches, *C.B.*).

ARMY MEDICAL RESERVE.

SURGEON-MAJOR D. L. ANDERSON, having resigned his volunteer appointment, ceases to belong to the Army Medical Reserve, April 19th.

Surgeon-Lieutenant C. T. GREEN is promoted to be Surgeon-Captain, April 10th.

Surgeon-Lieutenant-Colonel E. J. LLOYD, M.D., V.D., 1st Cheshire and Carnarvonshire Royal Garrison Artillery (Volunteers) to be Surgeon-Lieutenant-Colonel, April 23rd.

INDIAN MEDICAL SERVICE.

MAJOR L. F. CHILDE, M.B., Bombay Establishment, is appointed Professor of Medicine and Clinical Medicine and Therapeutics, Grant Medical College, and First Physician Jamshedji Jijibhai Hospital.

Major C. H. L. MEYER, M.D., Bombay Establishment, is appointed Professor of Pathology and Morbid Anatomy and Curator of the Pathological Museum, Grant Medical College, and Second Physician Jamshedji Jijibhai Hospital.

Captain L. T. R. HUTCHINSON, M.B., Bombay Establishment, is appointed Professor of Physiology, Histology and Hygiene, Grant Medical College.

Major R. W. S. LYONS, M.D., Bombay Establishment, is appointed Civil Surgeon and Superintendent of Dharwar Lunatic Asylum.

An examination for twelve Commissioners in H.M.'s Indian Medical Service will be held early in September. Regulations for the examination and rules regarding pay and retiring pension may be had on application to the Under Secretary of State, India Office.

IMPERIAL YEOMANRY IN SOUTH AFRICA.

MR. FRANCIS W. JACKSON, M.R.C.S., is appointed Medical Officer, 37th Battalion, with the temporary rank of Captain, March 24th.

IMPERIAL YEOMANRY.

SURGEON-LIEUTENANT R. M. MOYNAN, M.D., Glamorganshire, resigns his commission, and receives a new commission, subject to the Militia and Yeomanry Act, 1901, retaining his rank and seniority.

VOLUNTEER GARRISON ARTILLERY.

SURGEON-LIEUTENANTS H. W. WEBBER, M.D., 2nd Devonshire, and R. HANTON, M.B., 4th Durham, resign their commissions, April 23rd.

VOLUNTEER RIFLES.

SURGEON-MAJOR C. KNOTT, 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment, is promoted to be Surgeon-Lieutenant-Colonel, March 29th.

Surgeon-Captain C. F. SPINKS, 1st Dumbartonshire, resigns his commission, April 23rd.

Surgeon-Lieutenant J. S. SWAIN, 2nd Tower Hamlets, is promoted to be Surgeon-Captain, April 23rd.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

SURGEON-LIEUTENANT C. J. DENNS, from the 1st Bucks Volunteer Rifles, to be Surgeon-Lieutenant in the Home Counties Brigade, and to command under paragraph 55A Volunteer Regulations, March 26th.

DISPATCHES FROM WEST AFRICA, SOMALILAND, AND UGANDA.

A SERIES of dispatches relating to operations carried on last year in West Africa, Somaliland, and Uganda appears in the *London Gazette* of April 18th.

Writing on August 31st last, Sir Frederick Lugard, High Commissioner for Northern Nigeria, in summing up the services of officers against the large slave-raiding bands, brings to favourable notice Dr. Langley, Principal Medical Officer.

Mr. W. Wallace, Acting High Commissioner, in a dispatch from Jebba, Northern Nigeria, referring to the Yola expedition, dated September 28th, says: "Dr. Blair, Senior Medical Officer, performed yeoman service attending to the many casualties—he sucked the poison from Colonel Morland's wound—41 in all, and also saw to and attended the enemy's wounded." Dr. Blair is also mentioned with approval by Colonel Morland, Commandant of the West African Field Force in Northern Nigeria.

In a covering dispatch from Sir Ralph Moor, High Commissioner of Southern Nigeria, relating to operations in the Ishan and Ulla countries to the north-east of Benin city, that gentleman writes: "Dr. J. C. Whitley,

as the only medical officer attached to the expedition, had a tremendous lot of work, and his care and attention to the sick and wounded night and day without a relief was unceasing."

Reporting on the operations in Somaliland, Lieutenant-Colonel Swayne, commanding the Somali Levy, describes the task undertaken by his troops at considerable length, and speaks thus of his medical officer: "Lieutenant H. Boulton, Indian Medical Service, had sole medical charge of an expedition which at one time, if we include transport spearmen and others, consisted of 2,500 men. He was assisted by no other medical officer, and his work at Fardiddin, under fire, was heavy. He brought back the wounded some 340 miles to the coast, only losing one man."

The last report of importance is from Sir H. H. Johnston, His Majesty's Special Commissioner, and deals with operations in Uganda against the Suk and Turkana tribes. Sir Harry thus refers to wounds inflicted by the enemy: "The Medical Officer, in his report on the expedition, specially praises Captain Gorges for his prompt attention and skill in treating those of his men who were wounded by poisoned arrows. His injections of strychnine probably saved their lives. The Medical Officer himself (Dr. Drake Brockman) also, I consider, deserves great praise for his own assiduous attentions to the Europeans and Africans who were sick or wounded during the expedition, the general health of which was satisfactory, in spite of the badness of the drinking water in many places, and the malarial character of the countries traversed."

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
"H.A.M."	1	1	0
Lieutenant J. Crawford Kennedy	0	2	6
Captain J. H. Power	1	1	0
Colonel J. L. Notter	1	0	0
Lieutenant-Colonel T. B. Moffitt	1	0	0
Lieutenant-Colonel G. T. Langridge	1	1	0
Major J. J. C. Donnet	1	0	0
Surgeon-General A. F. Preston, K.H.P.	1	1	0
Major E. C. Freeman	0	10	6
Lieutenant-Colonel J. Lees Kall	1	1	0
Colonel Sylvester	1	1	0
Major A. Sutton, D.S.O.	0	10	0
Major J. M. Nicolls	0	10	0
Major W. T. Swan	0	10	0
Major R. J. Geddes, D.S.O.	0	5	0
Lieutenant-Colonel W. J. Macnamara	0	10	0
Captain and Quartermaster E. Thowless	0	5	0
Lieutenant and Quartermaster R. Hawkey	0	5	0
Lieutenant-Colonel W. L. Chester (2nd subscription) ...	1	10	0
Previously acknowledged in the BRITISH MEDICAL JOURNAL of April 19th	54	9	6
Total ...	68	13	6

Errata in last acknowledgement: For Lieutenant, read Lieutenant-Colonel E. J. Fairland; for the amount of Colonel Sloggett's subscription, read £1; and for that of Lieutenant-Colonel C. E. Harrison, £1 1s.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE annual dinner of the staff and members of the Volunteer Ambulance School of Instruction will take place at the Trocadero Restaurant, Shaftesbury Avenue, W., at 7.45 p.m. on Wednesday, May 7th, the senior medical officer, Brigade-Surgeon-Lieutenant-Colonel P. B. Giles, V.D., F.R.C.S., in the chair. Tickets may be obtained from Surgeon-Captain Callender, 40, Connaught Square, Hyde Park, W.

AN ACKNOWLEDGEMENT.

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from Sir William and Lady Church, Mr. Howse, the Director-General, Surgeon-General Hooper, C.S.I.; Lady Beetive, Lady Russell Reynolds (who also sends an "anonymous" lady's contribution), Sir Felix Semon, A "Well-wisher" (through Sir F. Semon), Professor McCall Anderson, Lieutenant-Colonel Drake-Brockman, Mrs. De Pass, Mrs. Giraud Cooke, Surgeon-General Keogh, C.B., Lieutenant-Colonel A. Clarke, Dr. John Anderson, C.I.E., Dr. Pye-Smith, Dr. Turney, Dr. Scharlieb, Dr. Tooth, Mr. C. Stonham, Mr. Vesey Holt, Mr. Thomas Wakley, jun., and the *Lancet*.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession, for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded, on application to Surgeon-General Muir, 26, Kensington Gardens Terrace, W.

THE NEW NAVAL MEDICAL REGULATIONS.

A NAVAL M.O. writes: I have read with much interest the new regulations for the Naval Medical Service as published in the BRITISH MEDICAL JOURNAL of April 19th, p. 993. May I offer the following remarks thereon?

1. The examination for entry appears to be an improvement on the previous form, as its scope is more suitable for men already qualified.

2. The question of early promotion is very vague, but most naval medical officers will agree that special merit should be met with special reward, but equal opportunities should be given to all.

3. The allowances to pay are liberal, but why should not the senior medical officers of the depôts at home and of the second flagships abroad receive the allowances which the other departmental officers receive? Why should there not be acting commissions in the medical department afloat as there are in the engineer and paymaster branches?

4. Cabins are already appropriated to medical officers in charge, whether the medical officer be surgeon, staff surgeon, or fleet surgeon. Frequently they are inferior in size and position to what might be reasonably expected. The new regulation is therefore retrograde, as no mention is made of a surgeon's cabin.

5. Medical officers are to attend a metropolitan hospital for three months every eight years if the exigencies of the service permit. I have rarely met a surgeon of eight years' seniority who has not desired to do so. I have never met a surgeon who has been allowed. The exigencies of the service will continue to prevent him unless he is a *persona grata*. Again, why must it be a metropolitan hospital? Surely if he has to pay he might be allowed to choose. Is it not expecting rather too much to enforce attendance on five different courses during such a short period?

6. I note with regret that no intention is expressed of giving all medical officers a turn of employment in naval hospitals, or in shore appointments; that no mention is made of establishing a roster, and that medical officers are still likely to be appointed abroad without due notice, and their appointments unnecessarily delayed.

As regards promotion to staff surgeon at the end of eight years instead of twelve, and earlier promotion to fleet surgeon, I imagine very few care, as relative rank is a recognised myth, and it makes little or no difference to us whether the midshipman or clerk of our earlier days has passed us in the race for stripes.

As the above is by way of criticism I have noted where the new regulations fail.

THE NEW WARRANT AND CIVIL SURGEONS.

V.M.O. AND A.M.R. writes: In view of the letter of "M.D." anent the New Warrant and Civil Surgeons, it would be interesting if you could ascertain whether the numerous volunteer medical officers employed at home and abroad are held by the War Office to be entitled to this increase of pay. When appointed for temporary duty with "troops in the United Kingdom" they were to "retain the status" and receive the pay and allowances of their "present military rank." It would thus appear, as there is no separate scale for the payment of volunteers as exists in the militia, that while employed with troops on these terms that they do so become entitled. Those serving abroad having received temporary army rank must also be in position to claim this addition to the pay of their "present military" status. Though the militia and volunteer officer are both authorised to claim the gratuity, the former receives over and above his ordinary pay and allowances what is termed "corps pay," which in the case of a subaltern amounts to 2s. 1d. per diem. It would be only justice if the civil surgeon's pay was raised to a corresponding amount.

*** We are informed by Sir E. W. D. Ward, the Under Secretary of State for War, that the subject of the application of the New Warrant for the Army Medical Service to volunteer medical officers employed at home and abroad is under consideration.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE CASE OF MR. C. A. BYNOE.

IT is impossible for members of the medical profession to restrain a feeling of sympathy with Mr. C. A. Bynoe, whose recent applications made by him in person have been refused by the Court of Appeal. That any one should be the victim of what appears to be a harsh law is a blot upon our system of jurisprudence; that a man who has served a term of penal servitude should be unable to obtain redress from those through whose carelessness he alleges his conviction to have been brought about seems to be little short of iniquitous. Great judges, however, have laid it down that no action shall lie against a witness for anything said by him which operates to bring the plaintiff to conviction, unless that conviction is set aside.

Before considering the question of hardship it is necessary to examine exactly what the facts of the case really are. A man is charged in a criminal court with forgery. In the course of the trial it is held material for the prosecution, in order to break down an *alibi* set up on the part of the defendant, to prove on what day and at what time certain notes of a specified value were returned to the Bank of England, and by whom. The judge who tries the case declares that the *alibi* is perfect up to 1 o'clock on the day in question. In order to disprove the *alibi* after 1 o'clock an officer of the Bank of England is called by the prosecution. He states that the notes were returned to the Bank from circulation at one and the same time and by the same person "after lunch" on the day in question. Owing to this evidence the judge explains to the jury that the defendant's *alibi* left just sufficient time for him to reach the Bank of England and cash the notes on the day in question. Upon this direction the jury find the defendant guilty and he is sent to penal servitude.

While the prisoner is serving his term, the following facts come to light. The statement that the notes were returned

after lunch is inaccurate, as it is shown by the books of the Bank that they were cashed in two batches, between 11 and 1 and between 3 and 4 on the day in question. In addition to this, it is shown, by reference to certain other documents, that the accused was at No. 1, Endsleigh Gardens from 12 to 12.45, and also from 3 to 3.40, on the day in question, his presence at this place being inconsistent with his attendance at the Bank. These facts having been brought to the attention of the jury who try the case, they memorialise the Home Secretary, describing their verdict as "a miscarriage of justice," and a "wrong one in fact," and attributing the miscarriage of justice to their having been misled by the false evidence given from the records of the Bank. The accused, having worked out his full sentence, brings suit in the High Court of Justice, claiming damages against the Bank and their officer for negligence, which he alleges gave rise to his conviction—the negligence alleged against the Bank being the keeping of false and erroneous records; the negligence of their officer, who gave evidence at the trial, being that he made false statements founded upon such entries.

On various occasions while the prisoner is undergoing penal servitude, the Bank is asked to furnish a written statement to the effect that the evidence upon which the plaintiff was convicted was erroneous; but the Bank refuse to supply any statement, although without the aid of such materials it was impossible for the defendant to obtain a reconsideration of his sentence by the Home Secretary or the restoration of his name to the *Medical Register*, from which it had been removed by the General Medical Council.

All the above facts are, *inter alia*, set out according to the usual practice in the plaintiff's statement of claim. The defendants apply to a judge to have the statement of claim struck out on the ground that it discloses no cause of action. This course is adopted by the judge, and his ruling is confirmed in the Court of Appeal, where the law is stated to be as follows:

"An action will not lie against a witness to recover damages for negligently giving false evidence in criminal proceedings, whereby the plaintiff was convicted, so long as the conviction stands unreversed."

The above are the material facts of Mr. Bynoe's case down to the date of his conviction. The doctrine upon which the Court of Appeal founded their decision dates from an early period in the history of English law. In a case entitled Vanderbergh v. Blake,[1] the plaintiff sought to obtain damages against a custom house officer for seizing goods which were afterwards condemned as forfeited by judgment of the proper court. Chief Baron Hale in giving judgment said: "If such an action were allowed the judgment would be blowed (*sic*) off by a side wind; and so in other actions, as if a man be convicted of perjury, an action upon the case lies not though the prosecution were malicious."

The above statement of the law is consonant with the well-known maxim, *Interest reipublicae ut sit finis litium*. The well-known action for malicious prosecution cannot avail Mr. Bynoe, for it is a condition precedent to that action that the plaintiff was acquitted. If ever the propriety of establishing a court of criminal appeal in this country comes to be seriously considered, this case may be cited in support of the view that such a tribunal is necessary in the interests of justice; for if the jury admit they were misled by evidence which subsequently turns out to be false, it is clear that there is a miscarriage.

MEDICAL ADVERTISING.

Two correspondents have sent us a copy of *Morton's Illustrated Guide to Woodhall Spa and Neighbourhood*, which contains, amongst other matter, a paragraph headed "The Medical Superintendent," written in the most laudatory terms, respecting not only his general character and popularity, but also his medical attainments. The gentleman so spoken of is Mr. C. J. Williams, L.R.C.P., L.R.C.S., and we hope that he will see that it is desirable, not only for his own sake, but for that of the dignity of the medical profession, to have this paragraph cut out or very much modified in future editions of the guide.

MEDICAL DISPUTES IN THE LAY PRESS.

Dr. William Bruce (Dingwall) informs us that he much disapproves of medical disputes being discussed in the lay press, or even in the medical press, and that the reason he wrote to the *Aberdeen Daily Journal* was to correct a mis-statement that appeared in a leading article in that journal, that in consequence of quarrels he resigned his position as one of the medical officers of the Ross Memorial Hospital.

[1] 1656, Hardres, 195.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Medical and Surgical Examinations.—The first and second examination for the degree of the Bachelor of Medicine will commence in the Examinations Schools of Wednesday, June 11th; the names of intending candidates must be sent in to the Secretary of the Board of Faculties not later than 10.30 a.m. on Wednesday, May 28th. The examination for the degree of Master in Surgery will commence on Thursday, June 19th; notice must be given not later than June 2nd.

UNIVERSITY OF BIRMINGHAM.

First Examination for the Degree of Bachelor of Medicine and Bachelor of Surgery.—The following candidates have satisfied the Examiners:

Class I.—H. C. H. Bracey.

Class II.—J. S. Austin, H. N. Crowe, L. C. Hayes, R. S. W. Hunt, G. F. Jotham, W. R. S. Roberts, S. G. Walker, E. S. Whitcombe.

Second Examination for the Degree of Bachelor of Medicine and Bachelor of Surgery.—The following candidates have satisfied the Examiners:

Class II.—F. T. H. Davies, F. N. Walsh, H. H. Warren.

CONJOINT BOARD IN ENGLAND.

The following gentlemen have passed the Second Examination of the Board at the quarterly meeting of the Examiners in the subjects indicated, namely:

Anatomy and Physiology.—H. W. Acton, Middlesex Hospital; J. E. Adler and C. S. Archer, London Hospital; F. C. J. Baker, St. Mary's Hospital; W. G. Ball, St. Bartholomew's Hospital; E. C. P. Barnes, London Hospital; H. G. W. Beckett, St Mary's Hospital; S. L. Benton, University College, London; A. O. Bisson, University of Lausanne, Switzerland; A. E. Blackburn, Yorkshire College, Leeds; R. O. Bodman, University College, Bristol; J. T. Bowker, Owens College, Manchester; R. A. Bowling and R. H. Bott, St. Bartholomew's Hospital; S. Bott, London Hospital; J. R. Briscoe, B.A.Camb., Cambridge University; J. Bryan, London Hospital; A. H. Burnett, Royal Colleges of Physicians and Surgeons, Edinburgh; J. G. Castellain, B.A.Camb., St. George's Hospital; C. B. D Butcher and W. R. Collingridge, St. Bartholomew's Hospital; V. Colmer, London Hospital; D. K. Coutts and R. J. H. Cox, St. Thomas's Hospital; A. D. Crofts, Guy's Hospital; C. H. Cross, St. Bartholomew's Hospital; F. S. Davies, St Thomas's Hospital; L. G. Davies, B.A.Camb., Guy's Hospital; P. A. Dingle, St. Bartholomew's Hospital; A. Dinnis, Charing Cross Hospital; M. O. Dollie, University College, London; C. Elliott, St. Bartholomew's Hospital; T. Evans, London Hospital; H. W. Farebrother, Charing Cross Hospital; G. E. Ferguson, St. Mary's Hospital; G. Finch, Yorkshire College, Leeds; G. W. M. Fletcher, University College, Bristol; J. Freeman, B.A.Oxon., Oxford University; C. J. Galbraith, and A. H. Gifford, King's College Hospital; L. Gray and J. P. Griffin, St. Bartholomew's Hospital; G. Hamilton, Guy's Hospital; J. C. L. Hingston, Middlesex Hospital; E. C. Hobbs and H. S. Hollis, St. Mary's Hospital; A. W. Hooker, St. Thomas's Hospital; W. G. Howarth, B.A.Camb., Cambridge University and King's College Hospital; J. B. Howell, University College, Cardiff; R. R. Huxtable, Charing Cross Hospital; F. S. Jones, University College, Liverpool; F. H. L. Jones, Guy's Hospital; G. F. Jones, University College, London; K. N. Karanjia, Grant Medical College, Bombay; J. R. Kemp, St. Bartholomew's Hospital; C. F. Kernot, London Hospital; G. J. Langley, St. Thomas's Hospital; A. E. Leapingwell and F. C. Lloyd, St. Mary's Hospital; W. A. T. Lloyd, London Hospital; W. S. C. McClure, Firth College, Sheffield; J. E. R. McDonagh, St. Bartholomew's Hospital; D. G. McGill, Owens College, Manchester; C. B. McNeile, Middlesex Hospital; C. L. Morgan, St. Thomas's Hospital; D. Macrae and J. F. Murphy, London Hospital; J. O. Musson, Guy's Hospital; R. C. Neil, University College, London; L. E. C. Norbury, St. Thomas's Hospital; A. B. O'Brien, Guy's Hospital; G. R. Plaister, London Hospital; V. G. J. Paul and W. H. Powell, St. Mary's Hospital; J. E. Prentice and W. P. Purdom, Guy's Hospital; A. G. L. Reade, Charing Cross Hospital; P. A. Reckles, Firth College, Sheffield; M. B. Reichwald, St. Bartholomew's Hospital; V. E. Ridewood, B.A Lond., London Hospital; H. C. Samuel, University College, London; J. D. Sinclair, Edinburgh School of Medicine; A. A. Smith, Charing Cross Hospital; A. Smith, Middlesex Hospital; C. M. Stevenson, Cambridge University and Guy's Hospital; T. Stordy and H. F. Strickland, Charing Cross Hospital; J. H. Sutcliffe, Yorkshire College, Leeds; R. J. C. Thompson, St. Thomas's Hospital; J. A. Torreus, St. George's Hospital; H. S. Vivian, Middlesex Hospital; H. R. S. Walford, St. George's Hospital; J. Wallace, B.A Oxon., Oxford University and St Thomas's Hospital; J. Warburton, Owens College, Manchester; H. F. Warner, Prelim. Sci., M.B.Lond., London Hospital; W. Welchman, Prelim. Sci., M.B Lond., Guy's Hospital; J. A. R. Wells, St. Thomas's Hospital; S. M. Wells, Guy's Hospital; C. F. O. White, B.A.Camb., Cambridge University; C. S. White, University College, London; R. O. Williams, Guy's Hospital; W. W. Williams, King's College Hospital; W. S. Williamson, Yorkshire College, Leeds; D. Wilson, Prelim. Sci., Lond., St. Thomas's Hospital; M. R. O. Wilson, University College, Bristol; H. D. Wyatt, Guy's Hospital.

Anatomy only.—J. W. W. Hogan, Madras Medical College and St. Bartholomew's Hospital.

Medical Women in Canada.—A female house surgeon will, it is stated, be appointed each year on the staff of the Toronto General Hospital. Two medical women will also be appointed as registrars.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

NEW LIST OF CAUSES OF DEATH,
AS USED IN THE ANNUAL REPORTS OF THE REGISTRAR-GENERAL FOR ENGLAND AND WALES.

DOWN to the end of last century—for a period extending for about sixty years—the list of causes of death used in the annual reports of the Registrar-General for England and Wales was that compiled by Dr. Farr.

With the beginning of the new century a revision of the list was made in accordance with the *Nomenclature of Diseases* of the Royal College of Physicians, and this is now being issued to all medical practitioners. By the courtesy of the Registrar-General we have been favoured with a copy of this revised list, which is subjoined, together with certain suggestions to medical practitioners respecting certificates of death. The list of causes of death, with the suggestions, are issued in the books of forms of death certificates supplied to all medical practitioners.

N.B.—The terms printed in *italics* being the names of symptoms merely, or being otherwise objectionable, should be used in medical certificates only when precise information is wanting.

GENERAL DISEASES.

Small-pox (Vaccinated / Not Vaccinated / Doubtful)
Cow-pox. Effects of Vaccination
Chicken-pox
Measles
Epidemic Rose Rash. German Measles
Scarlet Fever
Typhus
Plague
Relapsing Fever
Influenza
Whooping Cough
Mumps
Diphtheria, Membranous Croup
Cerebro Spinal Fever
Simple Continued Fever
Enteric Fever
Asiatic Cholera
Epidemic Diarrhoea, Epid. or Zym. Enteritis
Diarrhoea, Choleraic Diarrhoea
Dysentery
Malarial Fever
Hydrophobia
Glanders, Farcy
Anthrax, Splenic Fever
Tetanus
Syphilis
Gonorrhoea, Stricture of Urethra
Puerperal Septicaemia, Saprocmia
Puerperal Pyaemia
Puerperal Phlegmasia Dolens
Puerperal Fever
Infective Endocarditis
Epidemic Pneumonia, Pneumonic Fever
Erysipelas
Septicaemia (not Puerperal)
Pyaemia (not Puerperal)
Phlegmon, Carbuncle (not Anthrax)
Phagedaena
Other Septic Diseases
Tuberculous Phthisis (Pulm. Tuberculos s)
" Phthisis."
Tuberculous Meningitis
Tuberculous Peritonitis
Tabes Mesenterica
Lupus
Tubercle of other Organs
General Tuberculosis
Scrofula
Parasitic Diseases
Starvation
Scurvy
Alcoholism, Delirium Tremens
Opium, Morphia Habit
Ptomaine Poisoning
Industrial Poisoning (by Lead / by Phosphorus / by Arsenic and other Metals)
Rheumatic Fever, Acute Rheumatism
Rheumatism of Heart
Chronic Rheumatism
Rheumatic Arthritis, Rheumatic Gout

GENERAL DISEASES (*continued*).

Gout
Carcinoma
Sarcoma
Malignant Dis., Cancer
Rickets
Purpura
Haemophilia, Haemorrhagic Diathesis
Anaemia, Leucocythaemia
Diabetes Mellitus
Premature Birth
Congenital Defects
Injury at Birth
Atelectasis
Want of Breast Milk
Teething

LOCAL DISEASES.

Diseases of Nervous System.

Meningitis, Inflammation of Brain
Softening of Brain
General Paralysis of Insane
Insanity (not Puerperal)
Chorea
Epilepsy
Convulsions
Laryngismus Stridulus
Locomotor Ataxy
Paraplegia and Disease of Cord
Neuritis, Periph., Poly-Neuritis
Brain Tumour (not specific)

Diseases of Organs of Special Sense.

Nervous System, other Diseases
Otitis, Mastoid Disease
Epistaxis, Nose Disease
Ophthalmia, Eye Disease

Diseases of Heart and Blood Vessels.

Valve Dis. Endocarditis (not infective)
Pericarditis
Hypertrophy of Heart
Angina Pectoris
Dilatation of Heart
Fatty Degeneration of Heart
Syncope, Heart Disease (not specified)
Cerebral Haemorrhage, Emb. Throm.
Apoplexy, Hemiplegia
Aneurysm
Senile Gangrene
Embolism, Thrombosis (not Cerebral)
Phlebitis
Varicose Veins
Blood Vessels, other Diseases

Diseases of Respiratory Organs.

Laryngitis
Membranous Laryngitis (not Diphtheritic)
Croup (not Spasmod. or Membr.)
Larynx, other Diseases (not specified)
Bronchitis
Lobar, Croupous-Pneumonia
Broncho, Catarrhal, Lobular, Pneumonia

DISEASES OF RESPIRATORY ORGANS (*continued*).

Pneumonia
Emphysema, Asthma
Pleurisy
Fibroid Disease of Lung
Respiratory Diseases, other

Diseases of Digestive System.

Tonsillitis, Quinsy
Mouth, Pharynx, Disease (not specific)
Gastric Ulcer
Gastric Catarrh
Stomach, other Diseases (not Malig.)
Enteritis (not Epidemic)
Gastro-Enteritis
Appendicitis, Perityphlitis
Hernia
Intestinal Obstruction
Other Diseases of Intestines
Peritonitis (not Puerperal)
Cirrhosis of Liver
Liver and Gall Bladder, other Diseases
Digestive System, other Diseases

Diseases of Lymphatics.

Spleen Disease
Lymph. System other Diseases
Thyroid Body Disease
Suprarenal Capsules Disease

Diseases of Urinary and Generative Organs.

Nephritis, Acute
Chronic Bright's Disease Albuminuria
Calculus (not Biliary)
Bladder and Prostate Disease
Urinary System, other Diseases
Ovarian Tumour (not Malig.)
Other Diseases of Ovary
Uterine Tumour (not Malig.)
Other Diseases of Uterus and Vagina
Disorders of Menstruation
Gener. and Mam. Orgs. other Diseases

Accidents of Childbirth.

Abortion, Miscarriage
Puerperal Mania
Puerperal Convulsions
Placenta Praevia, Flooding
Other Accid. of Pregnancy and Childbirth

Diseases of Joints.

Caries, Necrosis
Arthritis, Periostitis
Other Diseases of Locomotor System

Diseases of Skin.

Ulcer, Bedsore
Eczema
Pemphigus
Skin Diseases, other

The Royal College of Physicians of London, in response to an earnest appeal for authoritative guidance concerning the certificates of death from diarrhoea, has now expressed an opinion which, if loyally adopted by medical men throughout the country, in granting certificates of death, will greatly improve the national records of mortality from this disease. The following is an extract from the proceedings of the College, dated January 23rd, 1902:

"The Royal College of Physicians is convinced, after careful inquiry (*a*) that various unauthorized and misleading terms, such as '*gastro-enteritis*,' '*muco-enteritis*,' '*gastric-catarrh*,' etc., are now commonly employed to designate the disease officially known as '*epidemic diarrhoea*,' while the specific character is in danger of being ignored, and great confusion ensue; (*b*) that the present confusion of terms renders it impossible to determine accurately either the prevalence of the disease in special places and at special times, the extent to which it influences the public health, or the effects produced by sanitary measures; (*c*) that there is a widespread objection on the part of medical practitioners to the employment of the term '*diarrhoea*' in certifying the cause of death, probably because that term is generally held by the public to imply a mild disease, insufficient by itself to cause death.

"The College, therefore, has sought to discover as an alternative for the authorized term (epidemic diarrhoea) some other name, which, whilst equally accurate, should convey to the public the idea of a more serious affection. But the College regards it as essential that the idea of specificity, intended to be conveyed by the term 'epidemic,' should be retained.

"As the result of much deliberation, the College has agreed to authorize the use of the term '*epidemic enteritis*,' (or if preferred by the practitioner, '*zymotic enteritis*'), as a synonym for epidemic diarrhoea. The College has further decided to urge upon practitioners the entire disuse, in medical certificates of death, of such terms as '*gastro-enteritis*,' '*muco-enteritis*,' or '*gastric catarrh*,' as synonyms of epidemic diarrhoea."

SUGGESTIONS TO MEDICAL PRACTITIONERS RESPECTING CERTIFICATES OF DEATH.

It is highly desirable that Medical Practitioners should use, in their Certificates of Death, only those terms which are recognized by the Royal Colleges of Physicians of London.

The lists of diseases now used in the Registrar-General's Reports—a copy of which is printed on the opposite page—is condensed from the Nomenclature of the Royal College of Physicians, with the addition of certain unofficial terms which are still in common use, but which are objectionable, either as being the names of symptoms merely, or as being otherwise indefinite. In the copy of the list here given, these objectionable terms are printed in *italics*: and it is hoped that Medical Practitioners will use them only when accurate information is wanting.

1. The cause of death should be stated precisely and briefly; English names for diseases being used in preference to their equivalents in other languages. Vague terms such as *decline*, *consumption*, *tabes*, *cachexia*, etc., should be avoided; and *haemorrhage* should not be assigned as the cause of Death without indication of its origin and probable cause. *Dropsy* should never be returned as the cause of Death without particulars as to its probable origin, *e.g.* in Disease of the Heart, Liver, Kidneys, etc.

2. Small-pox.—In certifying deaths from Small-pox, the patient's condition with respect to vaccination should be carefully stated—say, in one or other of the following forms:—(1) No evidence of vaccination. (2) Vaccinated in infancy only—Number of scars. (3) Vaccinated only after infection by Small-pox. (4) Stated to have been vaccinated but no scars. (If the patient has been revaccinated, the date should be given when possible.)

3. Puerperal Fever and other Septic Diseases.—The term "*Puerperal fever*" should no longer be used. Pyaemia, Septicaemia, or Sapraemia occurring in puerperal women should be described as puerperal pyaemia, p. septicaemia or p. sapraemia respectively (Nomen.: R.C.P., p. 11). In the new list of diseases provision exists for the separate entry of the several forms of septic infection.

4. Diarrhoea.—Attention is especially invited to the recent decision of the Royal College of Physicians advocating the use of authorized names for this malady.

5. Malignant Diseases.—Among Cancerous affections "Carcinoma" is now distinguished from "Sarcoma." This distinction should be observed wherever possible. A separate line is however still retained for those forms of malignant disease the nature of which cannot be specified precisely.

6. Tuberculous Diseases. "*Phthisis*."—When this condition is due to tubercle, the term "tuberculous phthisis" or "pulmonary tuberculosis" should be used instead of the ambiguous term *phthisis*, which is sometimes used to designate other besides tuberculous diseases of the lungs. "*Tabes mesenterica*."—The use of this term to describe tuberculous disease of the peritoneum should be discontinued, as it is frequently used to denote various other wasting diseases which are not tuberculous. "Tuberculous peritonitis" is the better term to employ when the condition is due to tubercle. *Hydrocephalus*.—In certifying deaths thus caused, it would be advantageous if those due to tuberculous affections were distinguished from those due to meningitis or to other affections of the brain. "Congenital hydrocephalus" should always be returned as such.

7. Convulsions.—It is hoped that this indefinite term will henceforth be restricted to those cases in which the true cause of convulsions cannot be ascertained. At present more than eleven per cent. of the total deaths of infants under one year old are referred to "*convulsions*" simply.

8. Paralysis.—The classification of deaths would be much facilitated if brain paralysis were always distinguished from paraplegia. In certifying deaths from brain paralysis, the terms "*hemiplegia*" and "*apoplexy*," which denote symptoms merely, might usefully be replaced by the names of such definite lesions as "cerebral haemorrhage," etc., etc.

9. Pneumonia.—Three separate forms of Acute pneumonia have now been added to the list, viz:—Croupous or lobar pneumonia, Broncho or lobular pneumonia, and Epidemic pneumonia; the old term for undefined cases of pneumonia being still retained. The term "*typhoid pneumonia*" should never be employed, as it may mean either Enteric fever, with pulmonary complications, on the one hand, or Pneumonia, with so-called typhoid symptoms, on the other.

10. Croup.—It were greatly to be wished that the use of the term "*Croup*" to designate non-diphtheric affections of the larynx or trachea were abandoned. Diphtheric croup or membranous croup should be returned as such.

11. Childbirth.—Whenever parturition or miscarriage has occurred within one month before the death of the patient, the fact should be certified, even though childbirth may not have contributed to the fatal issue.

12. Violence.—In every case of death by Violence, or by suspected Violence, the Medical Practitioner, in addition to stating the fact in his certificate, should advise the friends of the deceased to inform the Coroner forthwith.

13. When the cause of death has been verified by a post-mortem examination, the letters P.M. should be added.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,884 births and 5,224 deaths were registered during the week ending Saturday last, April 19th. The annual rate of mortality in these towns, which had been 18.2, 17.6, and 17.4 per 1,000 in the three preceding weeks, rose again last week to 18.3 per 1,000. The rates in the several towns ranged from 6.1 in Burton-on-Trent, 6.2 in Hornsey, 8.6 in Kings Norton, 9.3 in Bournemouth, 10.0 in East Ham, 10.7 in Hastings, 11.5 in Leyton, and 12.0 in Willesden and in Derby, to 22.9 in Newcastle, 23.1 in Huddersfield, 23.2 in Stockton-on-Tees, 23.7 in Liverpool, 25.0 in Merthyr Tydfil, 26.7 in Wolverhampton, 27.1 in Tynemouth, and 27.6 in Burnley. In London the rate of mortality was equal to 18.1 per 1,000, while it averaged 18.4 in the seventy-five other large towns. The mean death-rate from the principal zymotic diseases in the seventy-six large towns was 1.9 per 1,000; in London this death-rate was equal to 2.3 per 1,000, while it averaged 1.8 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.6 in Northampton and in St. Helens, 4.8 in West Hartlepool, 6.2 in West Ham, 8.0 in Barrow-in-Furness, and 8.1 in Burnley. Measles caused a death-rate of 1.4 in Gateshead, 1.5 in Croydon, 1.7 in Willesden, 1.8 in Northampton, 2.2 in Rhondda, 2.4 in St. Helens, 2.5 in Rochdale, 3.6 in in Barrow-in-Furness, and 6.9 in Burnley; diphtheria of 1.7 in Hanley; and whooping-cough of 1.2 in Newcastle, 1.3 in Aston Manor, 1.4 in Gateshead, 1.5 in Hull, 2.4 in West Hartlepool, 2.8 in Handsworth, and 3.6 in Barrow-in-Furness. The mortality from both scarlet fever and enteric fever showed no marked excess in any of the large towns. The 72 fatal cases of small-pox registered last week included 42 which belonged to London, 21 to West Ham, 3 to Walthamstow, 2 to East Ham, and 1 each to Tottenham, Willesden, Leyton, and Swansea. There were 1,431 small-pox patients under treatment in the Metroplitan Asylums Hospitals on Saturday, April 19th, against 1,526, 1,522, and 1,437 on the three preceding Saturdays; 328 new cases were admitted during the week, against 389, 376, and 274 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,126 and 2,146 at the end of the two preceding weeks, had further risen to 2,155 at the end of last week; 269 new cases were admitted during the week, against 250, 228, and 264 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 19th, 1,086 births and 795 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.3, 21.3, and 22.1 per 1,000 in the three preceding weeks, further rose last week to 24.6 per 1,000, and was 6.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 19.0 in Paisley and 21.2 in Dundee and in Leith, to 31.2 in Perth and 34.0 in Greenock. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Aberdeen and Perth. The 384 deaths registered in Glasgow last week included 1 from small-pox, 6 from measles, 3 from diphtheria, 7 from whooping-cough, 4 from "fever," and 6 from diarrhoea. Five deaths from measles and 2 from whooping-cough were recorded in Edinburgh: 8 from whooping-cough in Aberdeen; 2 from diphtheria in Leith; and 4 from measles in Perth.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1902.

[Specially Reported for the British Medical Journal.]

The vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns are summarized in the accompanying table. During the three months ending March last, 114,007 births were registered in these towns, equal to an annual rate of 30.8 per 1,000 of their aggregate population, estimated at 14,862,910 persons in the middle of the year. In London the birth-rate last quarter was 20.8 per 1,000, while it averaged 31.2 in the seventy-five large provincial towns, among which the rates ranged from 16.8 in Bournemouth, 18.4 in Hastings, 20.8 in Hornsey, 21.2 in Halifax, 21.4 in Bury, and 23.3 in Bradford, to 37.0 in Rotherham, 38.3 in West Bromwich, 39.4 in Wigan, 39.6 in St. Helens, 39.7 in Merthyr Tydfil, and 41.7 in Rhondda.

During the quarter under notice 73,780 deaths were registered in the seventy-six towns, corresponding to an annual rate of 19.9 per 1,000. In London the rate of mortality was 21.8 per 1,000, while it did not exceed 19.1 per 1,000 in the seventy-five large provincial towns, among which the lowest rates were 10.6 in Hornsey, 12.6 in Handsworth, 12.7 in Walthamstow, 13.7 in East Ham, 14.0 in Derby, and 14.6 in Ipswich and in King's Norton; the highest rates were 22.3 in Preston, 22.5 in Burnley, 22.9 in Liverpool, 23.0 in Rhondda, 23.6 in St. Helens, and 28.6 in Merthyr Tydfil.

The 7,118 deaths referred to the principal zymotic diseases in the seventy-six towns during the three months ending March last included 842 which resulted from small-pox, 1,852 from measles, 714 from scarlet fever, 1,151 from diphtheria, 1,513 from whooping-cough, 493 from "fever" (principally enteric), and 553 from diarrhoea. The death-rate from these principal zymotic diseases averaged 1.92 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 2.36 per 1,000, while it averaged 1.73 per 1,000 in the seventy-five large provincial towns, among which the rates ranged from 0.36 in Hastings, 0.42 in Ipswich, 0.66 in Nottingham, 0.68 in Hornsey, and 0.72 in Burton-on-Trent and in Derby, to 2.71 in St. Helens, 2.88 in Hanley, 2.90 in Preston, 3.05 in Rotherham and in Stockton-on-Tees, and 4.70 in Burnley. The 842 fatal cases of small-pox registered during last quarter, included 724 which belonged to London, 41 to West Ham, 22 to Tottenham, 11 to East Ham, 7 to Willesden, 5 to Croydon, 5 to Swansea, and 4 to Leyton. The 1,852 deaths from measles were equal to an annual rate of 0.50 per 1,000: in London the death-rate from this disease was 0.04 per 1,000, while in averaged 0.44 in the seventy-five other towns, among which measles showed the highest proportional mortality in Willesden, Burnley, Preston, Huddersfield, Rotherham, and Merthyr Tydfil. The 714 fatal cases of scarlet fever corresponded to an annual rate of 0.19 per 1,000; in London the death-rate from scarlet fever was only 0.13 per 1,000, while it averaged 0.22 in the seventy-five large provincial towns, and was highest in Birmingham, St. Helens, Middlesbrough, South Shields, and Gateshead. The 1,151 deaths from diphtheria (including membranous croup), were equal to a rate of 0.31 per 1,000: in London the death-rate from this disease was slightly in excess of the average in the seventy-five large provincial towns, among which diphtheria was proportionately most fatal in Willesden, Reading, Bristol, Hanley, Middlesbrough, West Hartlepool, and Cardiff. The 1,513 fatal cases of whooping-cough were equal to an annual rate of 0.41 per 1,000: the death-rate from whooping-cough in London corresponded with the average rate in the seventy-five other towns, among which the highest death-rates from this disease were recorded in Leicester, Liverpool, Leeds, Stockton-on-Tees, South Shields, and Rhondda. The 493 deaths referred to different forms of "fever" were in the proportion of 0.13 per 1,000 persons living: in London the "fever" death-rate was 0.10 per 1,000, while it averaged 0.14 in the seventy-five other towns, and was highest in Smethwick, Bootle, St. Helens, Middlesbrough, Stockton-on-Tees, and West Hartlepool. The 553 fatal cases of diarrhoea were equal to an annual rate of 0.15 per 1,000: in London the death-rate from this disease was 0.12 per 1,000, while it averaged 0.16 in the seventy-five other towns, among which diarrhoea was proportionally most fatal

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during the First Quarter of 1902.

Towns.	Estimated Population middle of 1902.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœal Diseases.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns	14,862,910	114,007	73,780	30.8	19.9	1.92	7,118	842	1,852	714	1,151	1,513	493	553	139	1.3
75 Provincial Towns	10,283,803	79,998	48,872	31.2	19.1	1.73	4,423	108	1,122	560	786	1,048	383	416	141	1.8
London	4,579,107	34,009	24,908	29.8	21.8	2.36	2,695	734	730	154	365	465	110	137	134	0.3
Croydon	137,917	875	640	25.4	18.6	1.08	37	5	17	—	9	3	1	2	135	—
Willesden	121,623	976	520	32.2	17.5	3.02	92	7	45	4	25	2	4	5	140	2.1
Hornsey	75,563	391	199	20.8	10.6	0.68	13	2	4	1	3	1	1	1	82	—
Tottenham	106,526	834	468	31.4	17.6	2.38	63	22	12	8	11	2	6	2	108	0.2
West Ham	275,408	2,467	1,317	35.9	19.2	2.10	146	41	16	16	35	18	12	8	141	0.3
East Ham	104,012	980	354	37.8	13.7	2.35	60	11	6	2	14	21	5	1	109	0.0
Leyton	103,470	835	382	32.4	14.8	1.49	38	4	2	3	6	18	2	3	113	1.0
Walthamstow	101,307	857	322	33.9	12.7	1.04	26	1	2	4	4	7	4	4	112	0.6
Hastings	65,893	303	324	18.4	19.7	0.36	6	1	—	—	2	2	—	1	152	0.9
Brighton	124,539	754	578	24.3	18.6	1.67	52	—	23	1	12	10	5	1	131	—
Portsmouth	192,158	1,237	834	25.8	17.4	0.85	41	—	1	2	25	4	8	1	128	1.0
Bournemouth	61,628	258	266	16.8	17.3	0.80	12	—	1	—	5	4	1	1	167	0.8
Southampton	107,833	796	482	29.6	17.9	1.11	30	—	21	—	3	3	2	1	146	—
Reading	73,802	524	316	28.5	17.2	1.35	25	3	5	2	12	1	—	2	151	2.8
Northampton	87,974	602	365	27.4	16.6	1.91	42	—	22	—	5	7	6	2	131	1.4
Ipswich	67,840	466	247	27.6	14.6	0.42	7	—	—	1	2	—	3	1	116	1.0
Great Yarmouth	51,610	366	257	28.7	20.0	1.94	25	—	14	—	4	1	3	3	158	—
Norwich	113,184	793	527	28.1	18.7	0.90	25	—	14	2	1	1	—	7	192	0.6
Plymouth	110,066	739	557	26.9	20.3	1.47	40	1	2	7	9	15	2	4	161	0.5
Devonport	72,308	515	338	28.6	18.8	0.94	17	—	3	—	4	7	2	1	142	—
Bristol	334,632	2,323	1,535	27.8	18.4	1.25	105	—	3	12	47	14	11	18	114	0.1
Hanley	62,452	553	296	35.5	19.0	2.88	45	—	2	1	36	—	3	3	134	1.7
Burton-on-Trent	50,973	360	196	28.3	15.4	0.72	9	—	3	2	2	1	—	1	131	2.0
Wolverhampton	95,712	778	419	32.6	17.6	1.64	39	—	7	7	3	9	4	9	109	0.2
Walsall	88,349	803	394	36.4	17.9	1.37	30	—	1	7	3	5	4	10	157	1.8
Handsworth	55,491	369	175	26.7	12.6	0.86	12	—	3	4	1	2	2	—	125	4.0
West Bromwich	65,938	630	319	38.3	19.4	1.27	21	—	1	4	3	1	3	9	151	1.3
Birmingham	528,181	4,260	2,781	32.3	21.1	2.56	338	—	63	75	24	106	34	36	159	3.3
Kings Norton	60,779	464	222	30.7	14.6	1.12	17	—	—	4	6	—	3	4	131	1.8
Smethwick	56,803	467	227	32.9	16.0	1.10	17	—	—	3	3	2	8	1	128	3.9
Aston Manor	78,481	580	311	29.6	15.9	2.56	50	—	15	5	2	23	4	1	152	3.5
Coventry	71,475	489	277	27.4	15.5	1.17	21	—	—	2	8	5	2	4	112	2.5
Leicester	216,389	1,609	1,027	29.6	18.9	2.29	124	2	41	4	11	47	4	15	158	0.6
Grimsby	64,608	428	240	26.6	14.9	1.86	30	—	13	4	4	6	2	1	145	0.8
Nottingham	243,193	1,654	1,120	27.3	18.5	0.66	40	—	1	6	6	8	9	10	157	0.8
Derby	116,869	813	407	27.9	14.0	0.72	21	—	—	3	4	7	3	4	116	—
Stockport	94,422	698	504	29.7	21.4	1.57	37	—	20	5	3	4	—	5	150	0.6
Birkenhead	112,396	937	492	33.4	17.6	1.32	37	—	3	6	8	11	7	2	122	
Wallasey	56,173	379	220	27.1	15.7	0.85	12	—	1	1	1	6	2	1	113	0.5
Liverpool	692,495	6,160	3,953	35.7	22.9	2.14	369	2	3	73	51	161	43	36	137	4.6
Bootle	59,776	516	295	34.6	19.7	1.74	26	—	—	2	4	9	7	4	124	3.0
St. Helens	85,986	848	506	39.6	23.6	2.71	58	—	21	13	5	4	8	7	169	6.1
Wigan	61,537	605	306	39.4	19.9	1.31	20	—	2	8	5	1	2	2	131	2.3
Warrington	65,419	568	272	34.8	16.7	0.91	15	—	9	1	1	3	1	—	125	7.4
Bolton	171,082	1,158	772	27.2	18.1	1.70	76	—	5	22	11	20	12	6	111	0.3
Bury	58,182	309	267	21.4	18.4	1.37	20	—	1	2	6	6	—	5	165	2.2
Manchester	549,169	4,768	3,010	34.8	22.0	1.79	245	—	63	36	32	67	12	35	132	0.9
Salford	224,007	1,973	1,056	35.3	18.9	1.82	102	—	24	14	22	17	9	10	116	0.7
Oldham	138,091	939	714	27.3	20.7	1.75	60	—	32	4	10	8	2	4	170	
Rochdale	84,057	502	425	24.0	20.3	0.82	17	—	4	—	2	8	2	1	125	0.9
Burnley	98,383	701	553	28.6	22.5	4.70	115	—	79	8	9	8	3	8	191	1.6
Blackburn	130,309	865	637	26.6	19.6	1.95	64	—	32	12	4	6	5	5	156	4.1
Preston	113,766	872	633	30.7	22.3	2.00	82	—	49	7	6	3	7	10	185	3.9
Barrow-in-Furness	58,371	476	224	32.7	15.4	1.24	18	—	7	1	6	1	1	2	147	5.8
Huddersfield	95,000	576	474	24.3	20.0	1.93	46	—	33	—	6	5	1	1	130	1.7
Halifax	105,932	559	519	21.2	19.6	1.34	38	—	15	5	—	4	5	6	186	3.7
Bradford	281,770	1,939	1,189	23.3	16.9	1.31	93	—	44	10	16	10	8	5	131	1.3
Leeds	437,036	3,277	2,080	30.0	19.1	1.60	171	—	22	5	29	89	17	11	151	0.3
Sheffield	418,177	3,581	1,918	34.3	18.4	1.95	203	—	100	13	48	22	13	7	136	2.9
Rotherham	55,934	528	252	37.9	18.1	3.65	51	—	39	2	4	2	2	2	125	4.4
York	79,114	579	388	29.3	19.7	2.18	43	—	23	2	1	10	4	1	136	0.3
Hull	245,955	1,966	1,056	32.1	17.2	1.16	72	—	1	4	11	22	4	8	131	1.9
Middlesbrough	93,355	691	451	36.6	19.5	2.20	53	—	2	13	11	9	7	9	150	1.8
Stockton-on-Tees	51,745	455	256	35.3	19.8	3.65	47	—	7	3	8	24	6	2	152	4.1
West Hartlepool	65,161	612	257	37.7	15.8	1.47	24	—	—	2	9	6	6	1	90	0.4
Sunderland	148,607	1,342	778	36.5	21.1	1.51	56	—	21	10	6	10	7	2	158	1.3
South Shields	103,308	964	542	37.1	21.0	2.55	66	—	17	18	1	27	1	2	142	5.5
Gateshead	113,024	1,035	547	36.7	19.4	2.24	63	—	12	19	5	21	2	4	130	3.1
Newcastle-on-Tyne	219,021	1,735	1,171	31.6	21.4	1.50	82	—	18	21	2	35	1	8	136	0.7
Tynemouth	52,046	430	248	33.1	19.1	0.93	12	1	—	3	5	1	2	1	142	2.4
Newport (Mon.)	68,921	541	316	31.5	18.4	0.94	16	—	6	2	2	3	2	1	150	0.0
Cardiff	168,909	1,306	735	31.0	17.4	1.45	61	—	2	13	34	11	—	1	154	—
Rhondda	117,097	1,217	674	41.7	23.0	2.51	73	—	14	9	14	25	6	5	214	0.7
Merthyr Tydfil	70,668	677	404	38.7	23.6	2.61	47	—	27	2	8	1	1	7	223	0.2
Swansea	92,111	08	437	28.7	17.4	1.20	29	1	1	6	7	1	1	6	160	1.4

in Wolverhampton, Walsall, West Bromwich, Preston, Middlesbrough and Merthyr Tydfil.

Infant mortality in the seventy-six towns, measured by the proportion of deaths of children under 1 year of age to registered births, was equal to 139 per 1,000; in London the proportion was 134 per 1,000, while it averaged 141 in the seventy five other large towns, among which it ranged from 82 in Hornsey, 90 in West Hartlepool, 108 in Tottenham, 109 in East Ham and in Wolverhampton, and 111 in Bolton, to 185 in Preston, 186 in Halifax, 191 in Burnley, 192 in Norwich, 214 in Rhondda, and 223 in Merthyr Tydfil. The causes of 940, or 1.2 per cent., of the deaths registered in these seventy-six towns last quarter were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Hornsey, Brighton, Southampton, Great Yarmouth, Devonport, Derby, Birkenhead, Oldham, and Cardiff; while the highest proportions of uncertified deaths were registered in Handsworth, Liverpool, St. Helens, Warrington, Barrow-in-Furness, Rotherham, and South Shields.

PURE FOOD LEGISLATION IN AMERICA.

An earnest effort is being made to secure the passage of a Bill introduced into the House of Representatives, Washington, intended to regulate the adulteration and misbranding of articles of food and medicines. This Bill has in the past been reported ninetimes to the House and eight times to the Senate, and has passed the Senate once. While many States of the Union have local laws regulating the sale of adulterated foods prepared within their own limits, these laws have been found ineffective, since articles of this character sold within the territory of one State are usually manufactured in another. The new Bill would render effective the local laws on this subject, since it would regulate inter State commerce in adulterated foods, and enable the authorities of a State to prevent the sale of food of impure or poor quality which had been shipped in from outside.

DRAINAGE OF BURIAL GROUNDS.

M.O.H. asks advice under the following circumstances: A new graveyard has been opened within the last twelve years. The subsoil, to a depth of 12 feet, is clay. There is no drainage. This extension of the churchyard is 40 feet from an elementary school, and a new building estate is being exploited around it. A sewer is being laid close by which could receive the drainage, but the local authority refuses to drain the churchyard, as it is private property, and the incumbent because it is "unnecessary."

*** The central authority for burial grounds is the Home Office not the Local Government Board, as our correspondent seems to assume. He should apply to the Medical Inspector, Burials Department, Whitehall.

FEES FOR VACCINATION.

SANITAS, who is a public vaccinator, asks whether he is entitled to a fee for the two following cases: (1) He vaccinated a child, whose parents removed by night within one week, so that the inspection was not completed for some months. "Sanitas" included the case in his next quarter's account, but the clerk refused payment on the ground that the case did not belong to the current quarter. (2) "Sanitas" vaccinated two children and as the parents were removing to London saw them on the fourth day when four vesicles were forming. He obtained the future address, and requested the clerk of the Union to apply to the public vaccinator for the district to visit the children and state whether the vaccination was successful, but "Sanitas" has heard nothing more about these two cases.

FEES FOR FRACTURES.

H. H.—Cases of fracture treated in a workhouse or Union infirmary do not carry any extra fee.

OBITUARY.

LIEUTENANT-COLONEL WILLIAM MOIR, I.M.S.

THE death took place at Edinburgh, on April 10th, of Lieutenant-Colonel W. Moir, A.M., M.B., Brigade-Surgeon I.M.S.(Retired). Lieutenant-Colonel Moir was educated at the Grammar School and King's College and University, Aberdeen, and had a very successful career both in arts and medicine.

Entering the Indian Medical Service in January, 1860, as Assistant-Surgeon, he was in due course promoted through the ranks of Surgeon and Surgeon-Major to that of Brigade-Surgeon, to which he was gazetted in April, 1888. He retired from the survice in 1891, under the age limit.

After his arrival in India, Lieutenant-Colonel Moir did military duty for upwards of two years, and was there transferred to the Civil Branch of the Medical Service under the Government of the North-West Provinces. He was appointed Civil Surgeon of Meerut, one of the largest and most important districts in the province. That appointment he held continuously till his retirement, except for about six months, when he officiated in the same capacity at Agra. In addition to the ordinary duties of civil surgeon, Lieutenant-Colonel Moir held for many years the responsible appointment of Chemical Analyst to the Government of the North-West Provinces.

On many occasions during his service both the local government and the Government of India, as well as the heads of the medical service, conveyed to Lieutenant-Colonel Moir their high appreciation of the zeal, judgement, and ability he brought to bear on the discharge of all his public duties. Professionally and socially Lieutenant-Colonel Moir was greatly respected and esteemed by the European community of Meerut, and his sterling worth of charater secured for him many warm and lasting friendships, while his careful and skilful treatment of the natives and his sympathetic bearing towards them made him very popular throughout the large district of which he had medical charge.

Lieutenant-Colonel Moir is survived by a widow, one son, and five daughters. The son, W. R. G. Moir, is a member of the Indian Civil Service, and is at present Sessions Judge, Sitapur, Oude. The third daughter is married to Major Pomeroy Holland-Pryor, 13th Bengal Lancers, who is now Assistant Adjutant-General at Kimberley, and has been in South Africa almost since the beginning of the war.

DR. WILLIAM S. MUIR, Truro, Nova Scotia, one of the foremost general practitioners in Canada, died recently after a three days' illness from appendicitis. He was born at Truro in 1853. The son of a doctor, he studied with his father and then entered the Halifax Medical College, where he graduated in 1874. After serving for a time in the Victoria General Hospital, Halifax, he went to Edinburgh in 1877. He was again in Edinburgh in 1879 and in London in 1891. Besides this, he frequently visited Boston, New York, and Philadelphia hospitals. Dr. Muir took a prominent part in the work of medical societies. He was elected Secretary of the Medical Society of Nova Scotia in 1887, and held the position until the time of his death. In 1901 he was President of the Maritime Medical Association. For a number of years before his death he was a conspicuous figure at the annual meetings of the Canadian Medical Association, and he had been local Secretary and provincial Vice-President for that organization. Dr. Muir was one of the most popular men in the Dominion.

DR. HANS RITTER VON HEBRA, son of the famous dermatologist, died after a long illness on April 13th at the age of 54. He was Senior Physician to the Wieden Hospital, Vienna, and Professor of Dermatology in the University of that city. He qualified as a *Privat-docent* in skin diseases and syphilis in 1876, and was appointed Extraordinary Professor of those subjects in 1896. Professor Hans von Hebra also took an active interest in public questions, especially in sanitary legislation. He was the author of a textbook on skin diseases and of numerous contributions to the periodical literature of the special field of medical practice to which he devoted himself.

DR. GEORGE ROBERT S. MACGREGOR, who died at Bingley, Yorkshire, on February 22nd, was the second of the three sons of the Rev. R. MacGregor, of Canisbay, Caithness, all of whom entered the medical profession. He received his medical education at the University of Aberdeen and the Royal College of Surgeons of Edinburgh. He took the degrees of M.B. and C.M. in 1876, and M.D. in 1884. After graduation he acted for a time as assistant to medical men practising in Wales and West Yorkshire, and then settled in Bingley, where he passed the rest of his life. In this district he speedily made a high reputation, not only on account of his professional skill, but also by his genial and kindly conduct and manner. He was up to the time of his death Medical Officer of Health for Bingley. It has been well said of him that although his day was short (he was only 46 when he died) he had been able to do much good and lasting work during that day. He leaves a widow and three children to mourn his loss.

THE members of the Ladies' Class of the St. John Ambulance Association, Coventry, recently made a presentation to Dr. Milner Moore as a mark of appreciation of his services as honorary instructor.

MEDICAL NEWS.

AT a meeting of the Institute of Actuaries to be held on Monday, April 28th, at 5.30 p.m., at Staples Inn Hall, Holborn, Mr. Burridge will read a paper on vaccination.

WE are asked to state that a matinée in aid of the funds of the Royal Dental Hospital of London will be given at the Queen's Gate Hall on May 2nd, when three original plays will be produced. Tickets can be obtained from the Secretary of the hospital.

THE Local Government Board in England has issued an order authorizing Boards of Guardians to make such modifications in the regulations in force with regard to the discipline and diet of the poor persons in workhouses and other establishments as may seem to be suitable for the due celebration of the public holidays on June 26th and 27th in connexion with the Coronation of His Majesty the King.

WE are requested to state that at the next meeting of the Medical Society of London on Monday, April 28th, a special demonstration illustrated by lantern slides, etc., will be given on the bilharzia parasite by Lieutenant Lelean, F.R.C.S., R.A.M.C. The demonstration will be preceded by a surgical paper by Mr. A. H. Tubby. As a large attendance is expected, intending visitors are reminded that they must be introduced by a member of the Society. The meeting will be held at 8.30 p.m. at 11, Chandos Street, Cavendish Square.

THE spring meeting of the South-Eastern Division of the Medico-Psychological Association will take place at the Surrey County Asylum, Brookwood, on Wednesday, April 30th. Dr. Barton invites the members to visit the asylum in the morning, and to luncheon at 1.30. Papers will be read at the meeting in the afternoon on the Treatment of Colitis by Dr. N. H. MacMillan, and on Melancholia as an Expression of Physical Disorder by Dr. H. Corner. A dinner will take place in the evening at the Café Monico, Piccadilly Circus.

MEDICAL MISSIONARY ASSOCIATION.—The annual meeting of this Association was held on April 18th, under the presidency of Dr. George Saunders, C.B. In the annual report, which was read by Dr. Maxwell, it was stated that although there had recently been a dearth of volunteers for this work, yet there had been many inquiries in regard to it indicating an awakened interest. During the year over 2,340,000 persons, including 85,169 in-patients in 379 hospitals had been under the care of medical missionaries, of whom at least 320 were from this country. The Association had now a home connected with which were 9 resident and 9 non-resident students. Affiliated medical missions were also being carried on in Islington and St. Pancras.

ON April 11th the members of the Darwen Medical Society presented Dr. Edgar Alfred Field with an illuminated address signed by all the members, together with a fitted midwifery bag, on the occasion of his leaving Darwen to practise at Owston Ferry, Lincolnshire. The presentation was made on behalf of the Society by Dr. J. T. Ballantyne, Deputy Mayor of Darwen, who said that the members of the Society desired to take that opportunity of expressing their appreciation of Dr. Field as a fellow practitioner and fellow member, and of the high esteem in which he was held. They wished him every success in his new sphere of labour. Dr. Field returned thanks and expressed his regret at the severance of his connexion with the district.

MEDICAL VACANCIES.

The following vacancies are announced:

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—House Surgeon; unmarried [illegible] £100, with board and furnished apartments. Ap[illegible]

BIRMINGHAM: MILD MAY AND SKIN AND URINARY HOSPITAL.—Surgical Assistant. [illegible] at the rate of £0 guineas per annum. Appointment for six [illegible] inspection. Applications to the Secretary, John Bright Street, Birmingham, by May 5th.

BRENTFORD: [illegible] Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools; unmarried. Salary, £120 per annum, with furnished apartments, rations, washing, etc. Applications on forms provided to be sent to the Clerk to the Guardians, Union Offices, Isleworth, by April 26th.

BRYNY WOOD: [illegible] COUNTY ASYLUM. Locum Tenens; not over 35 years of age. [illegible] guineas weekly, with board. Applications to the Medical Superintendent.

BURY ST. EDMUNDS: SUFFOLK GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary by May 5th.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second Assistant Physician. Applications to the Secretary by June 7th.

CANCER HOSPITAL, Fulham Road, S.W.—Junior House Surgeon. Salary at the rate of £70 per annum, with board and residence. Applications to the Secretary by May 12th.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer; unmarried. Salary, £100 per annum, and all found. Applications to the Secretary by April 29th.

CENTRAL LONDON SICK ASYLUM.—First Assistant Medical Officer. Salary, £120 per annum, with board and residence. Applications to F. W. Bailey, Clerk's Office, Cleveland Street Asylum, Cleveland Street, W.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Registrar. Honorarium, 20 guineas per annum. Applications to the Secretary by May 10th.

CHELTENHAM EYE, EAR, AND THROAT HOSPITAL.—Non-resident House-Surgeon. Applications to Dr. Bower, Portland House, Cheltenham.

COSFORD UNION.—(1) Medical Officer and Public Vaccinator for the Bildeston District. Salary, £72 per annum, and fees. (2) Medical Officer of the Workhouse. Salary, £50 per annum, and fees. Applications to be sent to the Clerk to the Guardians by May 1st.

DUBLIN: SIR PATRICK DUN'S HOSPITAL.—Assistant Physician. No salary. Applications to the Secretary of the Medical Board before May 1st.

DUDLEY: GUEST HOSPITAL.—Assistant House Surgeon. Appointment for six months. Salary at the rate of £40 per annum, with residence, board, and washing. Applications to the Secretary by May 8th.

GREENWICH UNION INFIRMARY.—Second Assistant Medical Officer; unmarried. Salary, £100 per annum, with board, lodging, washing, attendance, and £8 per annum in lieu of beer. Applications, on forms provided, to be sent to the Clerk to the Guardians, Union Offices, Greenwich, S.E., by May 8th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Senior Clinical Assistant. Applications to the Secretary-Superintendent by May 10th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House Surgeon unmarried. Appointment for six months. Salary, £20. Washing allowance, £2 10s., with board and residence. (2) Medical Registrar. Honorarium, 50 guineas per annum. Applications on forms provided to be sent to the Secretary by April 29th.

ISLE OF MAN: KING WILLIAM'S COLLEGE.—Medical Officer. Applications to the Secretary by May 1st.

KING'S NORTON AND NORTHFIELD URBAN DISTRICT COUNCIL.—Medical Officer of Health and Medical Superintendent of the Infectious Diseases Hospital. Salary, £500 per annum. Applications, endorsed "Medical Officer of Health," to be sent to the Clerk to the Council, 10, Newhall Street, Birmingham, by May 21st.

LISCARD: WALLASEY DISPENSARY AND VICTORIA CENTRAL HOSPITAL.—House-Surgeon, unmarried. Salary, £100 per annum, and board. Applications to Mr. Andrew Lindsay, Newbold, Liscard, Liverpool, by April 29th.

LIVERPOOL STANLEY HOSPITAL.—Third House-Surgeon. Salary, £70 per annum, with board, residence, and washing. Applications to the Chairman of the Medical Board.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of 50 guineas per annum, with board, residence and washing. Applications to the Secretary by May 1st.

METROPOLITAN ASYLUMS BOARD.—Male Assistant Medical Officer for the Asylum at Caterham; unmarried, and not to exceed 35 years of age. Salary, £150 per annum, rising to £170, with rations, lodging, attendance, and washing. Applications, on forms provided, to be sent to the Office of the Board, Embankment, E.C., by April 28th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £80 per annum, with board, attendance, and washing. Post tenable for six months, with prospect of election as Senior at £100 per annum. Applications to the Secretary by May 7th.

NORTHAMPTON: BERRYWOOD ASYLUM.—Junior Assistant Medical Officer; unmarried, and under 30 years of age. Salary, £150 per annum, increasing to £200, with board, lodging, washing, and attendance. Applications to the Medical Superintendent by May 6th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided, and honorarium £20. Applications to the Secretary by May 6th.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—(1) House Physician; (2) House-Surgeon. Appointments for six months. Salary at the rate of 50 guineas a year, with board and residence. Applications to the Secretary by May 2nd.

PUBLIC DISPENSARY, 59, Stanhope Street, Clare Market.—Resident Medical Officer. Salary, £105 per annum, with furnished apartments, coals, and gas. Applications to Mr. J. Phillips, Secretary, 14 and 15, Portugal Street, Lincoln's Inn, W.C., by May 3rd.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary at the rate of £30 per annum, with board, residence, and washing. Applications to the Secretary by May 5th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Four Examiners in Elementary Biology, first examination; (2) Four Examiners in Anatomy, second examination, must be M.B. or M.R.C.S.; (3) Three Examiners in Physiology, second examination; (4) Four Examiners in Midwifery, third examination; (5) Examiner for Part I. and Examiner for Part II. for the Examination in Public Health; (6) Four Examiners in Anatomy; (7) Four Examiners in Physiology. Vacancies 1 to 5 are for Conjoint Examining Board, and 6 and 7 are for Fellowship. Applications to the Secretary by April 28th.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £70 per annum, with board, lodging, and washing. Applications, endorsed "Application for the post of Junior Assistant House Surgeon," to be sent to the Secretary by May 10th.

STOCKPORT INFIRMARY.—Assistant House and Visiting Surgeon. Salary, £80 per annum, with board, washing, and residence. Applications to the Secretary by April 30th.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and laundry. Applications to the Honorary Secretary.

TEIGNMOUTH HOSPITAL.—House-Surgeon. Salary, £70 per annum, £6 per annum in lieu of stimulants or mineral waters, with board, lodging, and washing. Applications to the House Committee.

TRURO: ROYAL CORNWALL INFIRMARY.—House Surgeon; unmarried. Salary, £100 for first year, increasing £10 yearly, with board and apartments. Applications to the Secretary, 3, Parkvedras Terrace, Truro.

WARLINGHAM LUNATIC ASYLUM. Medical Superintendent. Salary, £450 per annum, with unfurnished house, etc. Applications, endorsed "Applications for Medical Superintendent [illegible] Asylum," to be sent to the Clerk to the Visiting Committee, Lewisham, on or before May 9th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W. Second House-Surgeon, unmarried. Salary £30 per annum, with board, residence, and laundry. Applications to the Honorary Secretary.

WESTMINSTER HOSPITAL, S.W.—Surgical Registrar. Salary, £50 per annum. Applications to the Secretary by April 30th.

WIGAN INFIRMARY. Male Junior House-Surgeon. Salary, £80 per annum, with apartments and rations. Applications to the General Superintendent by May 6th.

WORCESTER GENERAL INFIRMARY.—House Physician; unmarried. Salary, £70 per annum, with board, residence, and washing. Applications to the Secretary by May 10th.

MEDICAL APPOINTMENTS.

BYWATER, H. Haward, M.B.Viet., appointed House-Surgeon to the Central London Ophthalmic Hospital.

CARLESS, Albert, M.B., M.S.Lond., F.R.C.S., Consulting Surgeon to the St. John's Hospital, Twickenham, and Honorary Consulting Operative Surgeon to the Ealing Cottage Hospital.

EMRYS-ROBERTS, E., M.B., Ch.B.Viet., appointed Assistant Medical Officer to Mill Road Infirmary, Liverpool.

GEDDES, George, M.B., C.M.Aberd., appointed Medical Officer to the Heywood Post Office.

HARPER, Alexander, M.D.Durh., M.R.C.S., appointed Assistant Medical Officer to the Princess Alice Memorial Hospital, Eastbourne.

HOLMES, James, M.D.Edin., appointed Certifying Factory Surgeon for Heywood, *vice* J. S. Torrop, M.D.Edin.

LEMARCHAND, A. W., M.R.C.S., L.R.C.P.Lond., appointed Honorary Medical Officer to the North Devon Infirmary, Barnstaple.

LOGAN, R. R. W., M.R.C.S.Eng., L.S.A., appointed Certifying Factory Surgeon for the Ashby-de-la-Zouch District of Leicestershire.

MCKECHNIE, M. V., L.R.C.P., L.R.C.S.Edin., appointed District Medical Officer of the Forden Union.

NASH, J. T. C., M.D., D.P.H., reappointed Acting Professor of Hygiene at King's College, London, during the absence of Professor Simpson on special duty.

PRESTON, Lionel L., M.B., B.S.Durh., appointed Assistant Surgeon to the Royal Isle of Wight County Hospital.

RIDER, Alonzo G., M.B.Lond., appointed Surgeon to the Royal Albert Hospital, Devonport, *vice* T. N. Leah, M.B., B.S.Lond., resigned.

SINCLAIR, W. J. H., M.B., C.M.Aberd., appointed Medical Officer to the Barlinnie Prison.

SMITH, Reginald, M.R.C.S., L.R.C.P.Lond., appointed Honorary Assistant Surgeon to the Warrington Infirmary.

WILLEY, Florence E., M.B., B.S., B.Sc.Lond., appointed Pathologist to the Royal Free Hospital, Gray's Inn Road.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m. Mr. A. H. Tubby: The Quiescent Period in the course of Grave Abdominal Inflammation. Captain P. S. Lelean, R.A.M.C.: A Series of Cases of Bilharzia, illustrated by Lantern and Microscopical Demonstrations.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Communication by Mr. J. G. Turner. Paper by Mr. Kenneth W. Goadby.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Papers on Endotheliomata occurring in Various Situations, by Dr. Seligmann, Mr. Raymond Johnson and Mr. Laurence. Dr. Emmanuel, Dr. Rolleston and Dr. Grünbaum, Mr. Shattock, Dr. Corner and Mr. Scott, and Mr. Gask. Mr. Pernet: Congenital Multiple Sarcomata of the Skin. Dr. Fawcett: Chyle Cyst of Mesentery. Mr. W. Watkins-Pitchford: Pancreatic Tumour. Card specimens will be shown by Mr. W. G. Spencer and Dr. Malcolm.

THURSDAY.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical evening. Cases and specimens by G. Hartridge, H. Grimsdale, W. Adams Frost, E. T. Collins, L. V. Cargill, George M. Thomson, Wm. Lang, and G. M. Thomson and A. Bronner.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Mr. Ernest Payne will open a discussion on The Relation between "X" Rays and Allied Phenomena in Light and Electricity.

FRIDAY.

British Electro-Therapeutic Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Adjourned discussion on Dr. Sequeira's paper on The Finsen Treatment of Lupus, Rodent Ulcer, etc.

Laryngological Society of London, 20, Hanover Square, 5 p.m.—Cases, specimens, and instruments will be shown by Dr. Bronner, Dr. Walker Downie, Dr. Johnson Horne, and Dr. Donelan.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 p.m.—Dr. Blumfeld: On Some Points concerning Complete Relaxation of the Abdominal Walls under Anæsthetics. Dr. Flux: On the Use of the Open Stopcock

West Kent Medico-Chirurgical Society, Miller Hospital, Greenwich, 8 p.m.—President's Address on Migraine. Smoking concert to follow.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, ear.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BELL.—On April 17th, at The Green, Lockerbie, N.B., the wife of John Stothart Bell, M.B., C.M.Edin., of a son.

JAMIESON.—On April 16th, at Penang, the wife of Dr. T. Hill Jamieson, of a son.

MANSELL.—On Tuesday, April 15th, at Crofton, West Hill, Hastings, the wife of H. R. Mansell, M.R.C.S., of a daughter.

MARRIAGES.

BURNET—TWEEDIE.—At Christ Church, Edinburgh, on April 22nd, by the Rev. C. M. Black, Morton Burnet, M.D.Edin., Crieff, N.B., to Mary Dorothea, youngest daughter of Charles Tweedie, late of Jessore, Bengal.

WALKER—SECKER.—On April 24th, at All Saints, Daresbury, Cheshire, by the Rev. H. Milnes Walker, brother of the bridegroom, assisted by the Rev. F. Clifton Smith, Vicar, and the Rev. E. C. E. Carleton, Henry Secker Walker, F.R.C.S., of Leeds, to Elaine Mary Secker, only daughter of the late Rev. T. J. Secker, some time Vicar of St. Peter's, Bishop Wearmouth, and niece of John White, Esq., of Moore Hall, Cheshire.

DEATHS.

ACKERLEY.—On April 10th, at Naples, Eliza Helen (Lilie), wife of Richard Ackerley, M.B., of Surbiton.

BERNAYS.—On April 17th Herbert Leopold Bernays, M.R.C.S.Eng., L.S.A.Lond., of Rivoli, Old Charlton, Kent, second son of the late Edwin A. Bernays, M.I.C.E., of Chatham, aged 48 years.

COLEMAN.—On April 18th, at his residence, Salop Street, Wolverhampton, John Major Coleman, M.D., in his 71st year.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Allbutt, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

CARRIAGE LAMP

A COUNTRY PRACTITIONER IN IRELAND would like to know the best and most suitable lamps to use for driving at night in a country where roads are bad and dangerous and winds often very high. Would acetylene be suitable?

ANSWERS.

PHOS.—The rent received must, we apprehend, be reckoned as part of income, and the whole rent paid as part of expenditure, but the question is really one for a lawyer or expert.

PHYSIOLOGY OF THE NERVOUS SYSTEM

R. R. (Birmingham) could not probably find anything better for his purpose than in the last edition of Foster's *Textbook of Physiology*, vol. iii (London: Macmillan and Co., 1897, 7s. 6d.); or, if he wished the subject matter to include the special senses, vol. iv (1900, 10s. 6d.) in addition. If a shorter treatment of the subject were desired he would probably find Halliburton's *Handbook of Physiology*, Fourth Edition (London: John Murray, 1901, 14s.) suitable.

PASTEUR INSTITUTES AND THEIR STATISTICS.

ANXIOUS INQUIRER.—At the beginning of 1900 there were 8 Pasteur Institutes in France—at Paris, Algiers, Tunis, Montpellier, Marseilles, Bordeaux, Lille, Lyons; 5 in Italy—at Bologna, Milan, Naples, Palermo, Turin; 2 in Austria-Hungary—at Vienna and Buda-Pesth; 7 in Russia—at St. Petersburg, Moscow, Samara, Kharkof, Warsaw, Odessa, Tiflis; 2 in the Ottoman Empire—at Constantinople and Aleppo; 1 in Roumania—at Bucharest; and 1 in Malta. The Pasteur treatment is also carried out in the rabies station of the Charité Hospital, Berlin. A few other institutes have been established in other places in the last year or two. At the Pasteur Institute in Paris from 1886 to 1894 the total number of persons treated was 13,817, with a mortality of 0·5 per cent.; during the four succeeding years 5,814 patients were treated, and the mortality was 0.258 per cent. The number of persons treated in 1898 was 1,465; of these 3 died, a death-rate of 0.20 per cent. In 1899 the number treated was 1,614, of whom 10 died. The death-rate in previous years, taken separately, was as follows: 1886, 0·94 per cent.; 1887, 0.79; 1888, 0.55; 1889, 0.38; 1890, 0.32; 1891, 0.25; 1892, 0.22; 1893, 0.36; 1894, 0.50; 1895, 0.33; 1896, 0.30; 1897, 0.39. All these figures refer to the Pasteur Institute, Paris. With regard to other places it would be a somewhat laborious task to give full statistics. The following are a few particulars which we have been able to collect: At the Antirabic Institute of Marseilles the number of persons treated between December 10th, 1893, and July 31st, 1894, was 107; of these 2 died. At the Pasteur Institute of Buda-Pesth from April 15th, 1892, to April 14th, 1893, the total number of persons treated was 647. In 12 cases the development of hydrophobia was not prevented, but 6 of these came too late for effectual treatment. This leaves 6 cases of death in 641. The total number of patients treated in the Institute is given as 17,734. The total number of persons treated at the Antirabic Institute of Padua in 1891 was 57, in 1892 48. No death occurred. At the Alexander the Third Hospital at Moscow, to which a Pasteur Institute is attached, the number of persons treated during 1892 was 0·7; of these 6 died. At the Antirabic Institute of Jassy in Moldavia, the total number of persons treated in 1891 was 34 with no deaths; in 1892, 133 with 2 deaths; in 1893, 144 with 2 deaths; in 1894, 50 with 1 death. At the Pasteur Institutes in New York and St. Louis the number of patients treated in 1900 and 1901 was 241, of whom 1 died—a mortality of 70.41 per cent. The number of persons treated at the Chicago Pasteur Institute from its establishment on July 2nd, 1890, to December 31st, 1894, was 366, of whom only 2 died. The statistics of antirabic vaccinations performed at Saigon, in Cochin China, from May 1st, 1892, to May 1st, 1893, the total number of persons treated was 62. Only one of the 62 patients treated died of hydrophobia. From the establishment of the Institute on April 15th 1891, up to May 1st, 1893, the total number of persons treated was 116, with 2 deaths. In the Pasteur Institute at Kasauli, India, during the first year of its existence (1900-1901) 321 patients were treated, including 96 from the British army and 50 European civilians; no death occurred among the Europeans, but 2 natives died.

LETTERS, NOTES, Etc.

RECTAL SERUMTHERAPY.

DR. ALBERT I. GARLAND (Oamaru, New Zealand) writes: In the BRITISH MEDICAL JOURNAL, December 7th, 1901, Dr. Collins quotes a case of rectal serumtherapy. If he will refer to the *New Zealand Medical Journal* for July 31st, 1901, he will find a paper on the subject, in which I quote some satisfactory and successful cases.

UNTOWARD EFFECTS OF DIGITALIS ADMINISTRATION.

DR. A. T. SCHOFIELD (Harley Street, W.) writes: The point raised in the following case is one of interest, and a short account may elicit some information upon it. A weakly overgrown boy of 10 years had an attack of influenza with a temperature ranging to 104° F. As this subsided symptoms of patchy pneumonia set in, with an extremely irregular temperature, indicating its septic origin, and ranging in an hour from 97° to 104° F. as fresh foci of inflammation were formed. The heart's action was weak, and the first sound feeble, and the general condition resembled an average typhoid state in the third week. Stimulants were very freely used, as much as three or four drachms of brandy being given in two hours when the boy was lowest, with champagne at intervals. On February 22nd the temperature became normal, the pneumonic symptoms having cleared up after nine days, with the exception of some slight dullness at the right base. The stimulants were discontinued, and solid food carefully begun, the patient, of course, being kept strictly recumbent. On February 25th I was called to see the patient. I found the regular beat of the heart practically suspended. The action was not intermittent, but was a condition of spasm with irregular sound at uncertain intervals together with a semi-collapsed general condition. I found the boy had been taking daily for five days from 20 to 24 minims of tincture of digitalis: and this sudden arrest of the heart, with a normal temperature for two days, and no other symptoms save nausea that afternoon, seemed to point to the action (cumulative) of digitalis on a weakly boy. It seems that as long as stimulants were freely given nothing occurred to show the dose was too great; but on their discontinuance for forty-eight hours this condition set in; hypodermic injections of brandy and quinine soon improved the state of the heart, and brandy 5j and sp. am. co. 3ss every half hour through the night brought back the pulse in the morning to a beat of 84, with an intermission of 1 beat in every 4 or 5. All digitalis was discontinued. A fortnight after, on March 11th, I was sent for again to see if the boy, now quite convalescent, was well enough for a long journey by rail. I found a strong, regular pulse of 88 when lying in bed. I got the boy up, and made him move briskly twice up and down a long room, expecting to find the pulse about 140. Its beat, however, was still 22 to the quarter, or 88 to the minute. It had not varied. I do not remember every having seen before a pulse in early convalescence from severe acute disease remain unchanged under these circumstances, and I put it down to the prolonged action of the digitalis, which had been discontinued exactly one fortnight.

RHUBARB AND URTICARIA.

DR. G. NORMAN MEACHEN (London, W.) writes: The cases of urticaria acuta following the ingestion of stewed rhubarb, described by Dr. Palmer in the BRITISH MEDICAL JOURNAL of April 12th, is, I believe, unique. The various pharmacopoeial preparations of the plant are stated by the late Professor Kaposi in his *Diseases of the Skin* to be responsible for certain cases of toxic erythema. Dr. Herman Goldenburg (*New York Medical Journal* December 14th, 1889) records the case of a sailor, aged 64, in whom a symmetrical, papular eruption appeared upon the face and hands, following the administration of a rhubarb mixture. The papules became tubular, and ultimately dried up, leaving behind a slight brown pigmentation, but no scars. Dr. Palmer lays stress upon the "facial erythema," and in this connexion it may be noted that many of the symptoms closely correspond with the local manifestations produced by poisoning by chrysarobin, to which the toxic effects of rhubarb are, in all probability, due.

MR. GEORGE PERNET (London, N.W.) writes with reference to the same case: I think no Dr. Palmer is right in considering the stewed rhubarb as the [illegible]. I have myself seen urticaria occur repeatedly in adults after the ingestion of stewed rhubarb, especially the rough kind: the forced variety, on the other hand, giving rise to little or no rash. The wheals that formed appeared chiefly about the face. Of course [illegible] dishes are frequently at the bottom of urticaria [illegible] case the ingestion of other kinds of stewed fruit did not lead to wheals.

GERMAN CONGRESS OF SCIENTISTS AND MEDICAL PRACTITIONERS.

THE seventy-fourth [illegible] meeting of the German Congress of Scientists and Medical Practitioners will be held at Carlsbad, September 21st to 28th. According to an official intimation which we have received, communications may be delivered and discussions carried on in "English, American, French, German, etc," indeed, "in any language of the world." "It is estimated that between 6,000 and 8,000 representatives of natural philosophy and physicians will gather on that occasion at Carlsbad." "Nearly all the principal professors of of the Berlin, Vienna, Prague and [illegible] of the great Continental universities and high colleges will attend the present and twenty-eight different branches of modern and applied science will [illegible] the programme for the lectures and discussions. Inquiries or letters should be addressed to 'The seventy-fourth Congress of Natural Philosophers at Carlsbad,' and correspondents of a methodical turn of mind will learn with pleasure that "no stamp for reply need be enclosed."

RECURRENT PHLYCTENULAR OPHTHALMIA.

DR. WM. HARDMAN (Blackpool) writes: Phlyctenular ophthalmia is a [illegible] complaint usually seen in debilitated or strumous children and rare in adults. But, very rarely one comes across a [illegible] subjects in whom attacks may recur every few weeks for [illegible] sometimes the attacks may have only an interval of a week or two between, and sometimes the period of immunity may last many months. The attacks may be roughly divided into big and little. The big are attended by intense photophobia and lachrymation, much circumorbital pain, and even occasionally the iris may participate and become a bit muddy-looking. Sometimes I have even thought there has been some increase of ocular tension. The nervous irritation and constitutional derangement have been so severe in some cases that the patient has been confined to bed for two or three days. The female subjects of this depressing affection are apt to have most aggravated attacks coincidentally with a menstrual period. Often there is a good deal of swelling and redness of the lids, and the nose may be red and sore from the constant mopping with a handkerchief. The phlyctenulae are usually situated at the margin of the cornea, sometimes just within the margin, and a slight opacity may be left, at least for a time. A tendency to a skin eruption may coexist with this affection, consisting of a red discrete papular rash, almost confined to the face—a few spots which may become pustular. But the rash differs from acne or rosacea. The rash may sometimes be typical psoriasis with profuse production of scales. This may be easily curable by treatment, without, however, affecting the ophthalmia. The subjects of this condition have the soft thin skin so often seen in the subjects of psoriasis. I should very much like an interchange of views on this really important ailment, more especially with regard to treatment; it is very obstinate.

COMMUNICATIONS, LETTERS, ETC., have been received from:
A Ajax; Alpha; Mr. S. Alexander, London; Anxious Enquirer; Dr. T. D. Acland, London; A. G. **B** Dr. A. N. Boycott, St. Albans; Mr. W. M. Beaumont, Bath; Mr. W. Berry, Wigan; F. Belben, M.B., Bournemouth; G. C. Belcher, M.B., Birmingham; Mr. A. E. Barker, London; Mr J. S. Brown, Leeds; Dr. H. C. Bastian, London; Dr. W. Bruce, Dingwall; Dr. A. Baxter, Darwen; Mr. G. A. H. Barton, London; Dr. A. Brouner, Bradford. **C** Mr. R. C. Chicken, Nottingham; Dr. A. C. Coles, Bournemouth; Dr. E. M. Callender, London; Country Practitioner in Ireland; Cathay Tea Co., Manager of, London; Country Practitioner; Dr. J. M. Clarke, Clifton. **D** Dr. R. Dubois, Lyons; Dr. J. Donelan, London; Darwiniana. **E** Dr. O. C. P. Evans, Kidderminster; Messrs. Evans, Lescher, and Webb, London. **F** Dr. T. R. Fraser, Edinburgh; Dr. G. Flux, London; F.R.C.S.Eng.; Dr. B. Fenwick, London; Fiat Justitia Ruat Coelum; Mr. J. H. Farton, Birkenhead; Fleet Surgeon R.N.; Dr. H. M. Fletcher, London. **G** Mr. A. Gross, London; Dr. C. J. Glasson, London; Dr. R. J. Gladstone, London; Dr. W. W. Grosvenor, Gloucester. **H** H. H.; W. Hardman, M.B., Blackpool; J. B. Hall, M.B., Bradford; Mr. J. Hutchinson, jun., London; Mr. E. Henderson, London; Dr. A. H. Hart, London; Messrs. C. J. Hewlett and Son, London. **J** Mr. W. H. Jalland, York; Dr. W. M. Jones, Torquay. **K** Mr. S. K. Kapoor London; Dr. S. A. Knopf, New York; Dr. T. G. Kelly, Leicester. **L** Dr. C. J. N. Longridge, London; Lanco nia; Dr. G. H. Lancashire, Didsbury; Lieutenant Colonel E. Lawrie, I.M.S., retired, London; Dr. T. G. Lyon, London; Mr. A. D. H. Leadman, Pocklington. **M** Mr A. Maude, Westerham; Mr. S. W. Macilwaine, Redhill; Dr. L. P. Marques, Macao; Mr. J. H. Mummery, London; Dr. G. N. Meachen, London. Dr. R. W. Marsden, Manchester; Mr. H. May, Birmingham; Dr. E. F. Maynard, Hove; A. MacLennan, M.B., Glasgow; Mr. K. Monsarrat, Liverpool; Dr. J. Murphy, Sunderland; Messrs. J. Murray and Sons, Glasgow; Mr. W. J. Middleton, Bournemouth; M.B.Cambridge; Miss A. E. Midlander, Coventry; Dr. A. G. MacGregor, Wick. **N** Naval M.O. **O** H. D. O'Sullivan, M.B., Burton-on-Trent; One Indirectly Interested; Mr. M. O'Conor, Chatteris. **P** Mr. E. Pinman, London; Phos; Mr. C. A. Parker, London; Dr. F. M. Pope, London; Dr. B. Pierce, York; Mr. H. J. Prangley, London. **R** J. S. Riddell, M.B., Aberdeen; J. H. Ray, M.B.; Manchester; Dr R. R. Rentoul, Liverpool; R. R.; N. F. Rowstron, M.B., Sunderland; Dr. W. Robinson, Sunderland; Dr. A. McL. T. Rattray, Portobello. **S** Sanitas; Dr. S. Sunderland, London; Mr. C. Sanderson, Brighton; Mr. H. Sewill, London; Senior Member; Dr. W. Sykes, Exeter; Mr. J. S. Sowill, London; Sequelae; S. Stephenson, M.B., London. **T** H. P. Taylor, M.B., Mid Yell; Dr. E. F. Trevelyan, Leeds; Mr. J. L. Thomas, C.B., Cardiff. **W** Messrs. J. Weiss and Son, London; Mr. E. W. Wallis, London; Mr. H. S. Woods, Belfast; Mr. C. Williams, Blackpool; Dr. H. Waldo, Clifton; Mr. C. H. Whiteford, Plymouth; Dr. A. Whitfield, London; Mr. C. S. Wallace, London; Mr. H. C. Wilkins, Coventry; etc.

BOOKS, Etc., RECEIVED.

Charles Darwin. By Francis Darwin. New Edition. London: John Murray. 1902. 2s. 6d.

King's College Hospital Reports. Vol. vii. London: Messrs. Adlard and Son. 1901.

Denmark. By Margaret Thomas. London: Anthony Treherne and Co., Limited. 1902. 6s.

Les Aveugles à Travers les Ages. La Clinique National Ophthalmologique des Quinze-vingts. L'Hospice des Quinze-vingts Moderne. Par le Dr. Constantin Golescesano. Paris: A. Maloine. 1902.

Massage in Recent Fractures. By Sir William H. Bennett, Second Edition. London: Longmans, Green, and Co. 1902. 6s.

Venereal Diseases. By James R. Hayden, M.D. Third and Revised Edition. London: Henry Kimpton. 1902. 7s. 6d.

The Hair and its Diseases. By David Walsh, M.D. London: Baillière, Tindall, and Cox. 1902. 2s. 6d.

Life of St. Luke. By Edward Clapton, M.D. London: J. and A. Churchill. 1902. 1s. 6d.

Alimentation et Hygiène des Enfants. Par Dr. F. Cayla. Paris: Vigot Frères. 1902. Fr. 1.

Aliments, Boissons, et Condiments. Par Dr. F. Cayla. Paris: Vigot Frères. 1902. Fr. 2.

Essentials of Obstetrics. By Charles Jewett, A.M., M.D. London: Henry Kimpton. 1902. 10s. 6d.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
Each additional line ...	...	...	...	0 0 6
A whole column ...	...	...	...	1 17 6
A page	...	...	...	8 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication, and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restantes* addressed either in initials or numbers.

An Address
ON THE
SIGNS ON THE SKIN OF CERTAIN COMMON DISEASES.

Read at a Meeting of the South-Eastern Branch of the British Medical Association.

By JAMES GALLOWAY, M.D., F.R.C.P.,
Assistant Physician, Lecturer on Practical Medicine, and Physician to the Skin Department, Charing Cross Hospital.

The subject which I have chosen is one which is frequently brought to my notice in the wards of a general hospital: and as it is well to be able to note the general as well as the special manifestations of cases of disease, I have had no scruple in bringing it under consideration. I have no doubt that you have frequently been interested while attending cases of, let us say, renal or intestinal diseases, to see a skin eruption making its appearance, and sometimes producing seriously complicating effects.

The relationships between the functions of the skin and those of internal organs are now in certain instances understood, though many of the most important bearings are still obscure. That these relationships are of much importance physicians will be the last to gainsay. In the opinion of the public, as we are all aware, their relationship is widely recognized. Patients will come to you declaring that, when their asthma is well, the eczema from which they also suffer becomes worse, and vice versa; and I can recollect being taught when I was a student, by one of my teachers at least, that it was not advisable to attempt the complete cure of dermatitis for fear some internal disease might be excited or aggravated. The scientific basis for our belief in the interdependence of the cutaneous and many internal functions is, of course, well ascertained, but I do not suppose that any one now would fear to cure the eczema in case the bronchial catarrh should be made worse. It is clear that the healthier the skin the more likely are the internal organs to be in good condition also.

In the scope of this paper it is impossible to go over the whole series of the cutaneous signs of internal disorder, and I mean to refer to a very few only.

I.—Skin Eruptions in Renal Disease.

In the course of disease of the kidney the possibility of cutaneous phenomena naturally occurs to our minds. The kidneys and the skin have special relations to each other in function, which are impressed upon us by our daily experience, both in normal and in morbid conditions. In a case, therefore, of renal insufficiency or disease it is natural to think that the skin will be first of all affected in its function, and probably also show morbid manifestations. But, on watching cases of nephritis in the wards of a hospital, where a large number are constantly passing under observation, the point that is emphasized by experience, and is certainly unexpected, is that so very few of the cases, even of severe nephritis, show manifestations in the skin.

There are certain slight eruptions which occur not infrequently and which are only doubtfully connected with the renal disorder. Patients under treatment for albuminuria are frequently treated by internal medicines or by external applications for the purpose of producing sweat. Sweat rashes, therefore, are not uncommon, especially if proper care in drying the skin is not taken. As the result of the sweating, erythematous conditions are not infrequent, and if sudamina or miliaria are seen, distension of the sweat coils and their ducts must occur, papular lesions are manifest, and, if these are neglected, even eczematous dermatitis follows; but these classes of eruption cannot be fairly put down to the renal disorder. They are usually not severe, and may be prevented by drying the skin carefully after the use of vapour baths or diaphoretics, and can usually be rapidly cured when they do make their appearance, by means of the mildest forms of astringent or antiseptic remedies or by soothing applications. It is most important to recollect that in such cases of mild dermatitis greasy applications are as a rule not well borne.

But there is a form of eruption seen from time to time in cases of nephritis in which the skin manifestations are of different nature, and in which the prognostic significance becomes more grave with the severity of the eruption. The class of eruption to which I refer varies in its manifestations between those of urticaria and the varieties of erythema multiforme. The factor underlying the skin manifestation appears to be a vasomotor paralysis of the cutaneous capillaries in patches, followed by the effusion of serum or even of blood into the upper layers of the cutis. Let me give you two examples:[1]

A lad aged 16 was brought into the hospital, having developed nephritis at the age of 12. During the four years he suffered from symptoms of chronic nephritis with general oedema and gradually diminishing vitality. It was noted when he came into the hospital that his temperature occasionally rose one or two degrees. He developed a skin eruption consisting of erythematous papules, which tended to become confluent, producing a patchy erythema. The eruption continued for two or three weeks, and was followed by desquamation of the skin. At the end of the month after the commencement of the eruption he died, and the kidney was found to be seriously disorganized, showing advanced parenchymatous nephritis with much condensation and contraction of the fibrous tissue.

A young man, aged 22, was admitted with symptoms of anaemia, shortness of breath, a large amount of albumen in the urine with fatty and granular casts. In the middle of November he developed an erythematous papular eruption on the trunk, legs, arms, and back; on portions of the trunk it was urticarial in character, taking the form of large raised wheals running together and surrounded by hyperaemia. Desquamation was noted five days later, and in a fortnight the following note was made: Present condition resembles a subacute attack of general exfoliative dermatitis, erythema, fine and large desquamation with no distinct developments round the hair follicles form the main features of eruption. Much itching and irritation of the skin was experienced, and the eruption remained severe till the patient's death about a month after the commencement of symptoms. The kidneys were found to show chronic parenchymatous nephritis with commencing contraction of the cortex.

It appears, therefore, from the observations which I have made that various forms of skin lesions of evanescent character and very often commencing as disorders of the skin appendages, such as sweat eruptions, arise in the course of Bright's disease, and that the most of these are of no serious importance. But another type of lesion is not common, and this reproduces in character the various types of erythema multiforme with exudation. The occurrence of lesions of this nature is of much greater significance, and usually indicates serious renal and blood changes. If well developed, such an attack is of bad prognostic significance. This form of skin disease usually ends in desquamation of the epidermis to a greater or lesser extent, and in severe attacks the desquamation resembles an attack of acute exfoliative dermatitis. The last stage of Bright's disease is made infinitely more trying when this skin complication has made its appearance.

It is important to note that the converse of this condition has long been recognized as most serious by dermatologists. Cases of acute exfoliative dermatitis fortunately are rare, as they offer the most serious and difficult problems in treatment. But when in cases of acute exfoliative dermatitis albuminuria or renal disease develops, the prognosis is almost inevitably fatal.

II.—Skin Eruptions during Diabetes.

This subject is too important and too extensive to deal with in the amount of time at my disposal, yet there are one or two features to which I wish to draw attention. It is evident in the case of diseases of the skin arising during the course of diabetes that there are at least two factors concerned in their causation to be borne in mind. There is the general condition which predisposes, and the proximate cause which operates in nearly all cases of the skin disease in question. For it is clear that there are in all probability very few eruptions on the skin peculiar to diabetes. So that knowing the facility with which the skin of the glycosuric patient is infected by the pyogenic micro-organisms special care should be taken in guarding the patient against such infections, so as to avoid the very troublesome and even fatal boils, furuncles, and carbuncles which are the results. To these, to the occurrence of aphthous stomatitis and erythrasma—further evidences of the ease of parasitic infection in the case of the glycaemic patient—and to the very important and sometimes very terrible forms of gangrene which make their

appearance, I do no more than simply refer. They are usually recognized by all of us, and dealt with to the best of our ability. But there are two interesting conditions to which the diabetic patient is prone to which I would draw special attention.

Seborrhoeic Dermatitis.

The various forms of circinate scaly eruption now generally recognized by this name are of frequent occurrence in the case of patients suffering from the dietetic or so-called "gouty" form of glycosuria. The subjects of the disease are usually in middle age, are frequently too stout, and an eruption of circinate scaly and erythematous patches makes its appearance on their skin with much suddenness. It may cause troublesome pruritus, and, if neglected or irritated by scratching, lead on to the development of eczematous inflammation occupying very inconvenient positions, such as the axilla, perineum, groin, etc. It is well to remember this, so that we may be prepared to recognize the disease in its slighter as well as in its more severe manifestations. Fortunately treatment is as a rule satisfactory and efficient if chronic inflammatory lesions have not been induced. The first point in treatment is to recognize the glycaemic element and to advise a proper regimen in diet, the effect of which will be appreciated by observing the condition of the urine. The beneficial effects of an appropriate diet in such cases is frequently so appreciable to the patient himself that he willingly submits to deprivation of articles of food for which he probably has a strong liking.

Treatment.—For the skin condition warm medicated baths are of great service. Bran baths, alkaline baths, baths medicated with solutions of tar, of the ol. betulae albae are all of service. But a very efficient mode of treatment is to commence by means of weak sulphur baths, using for this purpose such a preparation as "sulphaqua," or a warm soap bath, using a neutral or alkaline soap containing 5 per cent. each of sulphur, camphor, and balsam of Peru. After the bath the skin should have applied to it a lotion containing prepared calamine gr. 20, zinc oxide gr. 15, lime water drachm 1½, glycerine drachm ½, rose water to oz. 1; to this lotion from ½ per cent. to 1 per cent. of the liquefied carbolic acid may be added if there is much pruritus.

Dermatitis of the Genitalia with Pruritus.

Every one who has been long in practice must have had experience of the treatment of this most distressing condition. Probably, in the first instance, the actual contact of the sugar-laden urine with the skin is sufficient to cause irritation, a condition also present in the forms of trade dermatitis found in those who handle sugar. But in the case of the diabetic patient fermentative changes take place which produce still more irritative effects. The acid reaction of the fermented secretions allows of the growth of numerous micro-organisms, and so the disease of the skin when initiated becomes more and more severe, As is well known, especially in the case of the female, atrophic alterations are at length brought about in the cutis and in the subcutaneous tissues, which in their turn are likely to produce pruritus, so that at length the phenomenon is permanent and the disease incurable. It is well, then, that it should be the rule in the case of all pruritus of the genitals, and of unexplained irritation or inflammation near the orifice of the meatus urinarius, that a careful examination of the urine should be made for sugar.

In the case of the male the first symptoms are itching about the mouth of the urethra followed by slight scaly inflammation of the extremity of the glans penis. This is succeeded by inflammation of the glans, its epithelium becomes thrown off, so that its surface is reddened and unduly moist, later the prepuce becomes affected and often much swollen, when it is redundant the orifice of the prepuce becomes narrowed, presenting the appearance of the mouth of a bag when the cords are drawn tight, the whole prepuce becomes rigid, and the typical diabetic phimosis is produced. When this condition is established it may be readily imagined that the balanitis become much worse. The irritating urine and the secretions are retained within the prepuce. Decomposition occurs causing the formation of ulcers, resembling chancroids, often of much severity. It is needless to emphasize the importance of recognizing the cause of a state such as this.

A short time ago an elderly and apparently healthy old man consulted me on account of a condition of the penis with phimosis such as I have described. Ulceration had evidently occurred under the phimosed prepuce, as there was a slight discharge of pus from its orifice. The patient had consulted his medical adviser, who unhappily made the diagnosis that the lesions were of venereal origin, and wished to treat him according to this hypothesis. The old gentleman was exceedingly indignant, and it was in consequence of his disease and the unpleasant relations induced between his doctor and himself that he consulted me. On examination it was found that he had as much as 5 per cent. of glucose in the urine without marked polyuria, and the reasons for the balanitis and phimosis became obvious.

Treatment.—The treatment of the condition is often satisfactory. The interior of the prepuce must be gently washed out by injecting warm, mild, antiseptic or astringent lotions. Weak solutions of the biborate of soda, of boracic acid, zinc sulphate, or even of silver nitrate, are of value. Gradually the prepuce must be retracted, taking care not to tear the stiffened skin nor to make the numerous small fissures already present bleed by rough handling, otherwise the evils which we desire to cure are likely to be perpetuated. When retraction has been successfully performed, treatment must be continued till the ulceration and inflammation of the glans are also cured. In the early stages, if recognized, and to prevent recurrence when cured, mild dusting powders containing oxide of zinc, starch, and talc, are of value. Sometimes an ointment is of more service, and this should be stiff and useful as a protective. The ointment of oxide of zinc will be of service stiffened by the addition of starch or of siliceous earth.

In females the conditions of the disease are, of course, fundamentally the same, but the much larger area of the muco-cutaneous margin gives a more extensive region for the changes to manifest themselves in, so that the disease is more severe, and, as a rule, more difficult to cure. Early in the course of the glycosuria there may be a sharp attack of eczematous inflammation about the vulva, spreading to the abdomen and to the adjacent surfaces of the thighs, associated with violent pruritus, but more commonly the inflammatory condition is subacute, and is confined to the labia and the adjacent surfaces. They may become swollen, stiff, cracked, and fissured, oozing blood and serum; or, on the other hand, the reddened or purplish surfaces seem to undergo a gradual shrinking owing to atrophy of the subcutaneous fat and connective tissues—a form of the disease in which the pruritus is by no means less severe. A peculiar form of the affection has come under observation in which the muco-cutaneous surface becomes dry and covered by a thick layer of imperfectly cornified epithelium, giving a whitened appearance to the vulva. One case of this form of the disease recently under my observation suffered most intolerable pruritus, which proved of a very intractable character.

Treatment.—In females the use of warm baths is especially to be recommended. If there is much inflammation present these may be alkaline or medicated with bran. Subsequently lotions containing from 20 per cent. to 50 per cent. of glycerine in water, to which may be added carbolic acid in the strength of from ½ per cent. to 1 per cent. seem to be of the greatest service. Even in such cases in which cure is not obtained the glycerinated applications serve to keep the surface less dry and hard, to prevent cracking, and at any rate to render the sufferers more comfortable. Occasionally a glycerinated ointment containing glycerine, vaseline, and lanoline is of service when the lotions fail, but as a rule ointments do not give great relief, and will be usually avoided.

In all cases it is most important to control the general disease by favourably altering the metabolism, and by appropriate diet. Indeed, the opinion is forced on one that the prognosis is better in cases of glycosuric pruritus in females than in certain cases in which no cause can be identified. For in the glycosuric variety, if the general disease improves, evidenced by the diminution or disappearance of glucose in the urine, the main cause of the local condition vanishes.

In the general treatment, if opium or its alkaloids are being used, it may be thought that these drugs might also control the pruritus, even if it should involve the administration of larger doses than is usual in the treatment of diabetes. Unfortunately this drug appears to exercise very little influence on pruritus unless when used in doses so large as to be rarely justifiable. In antipruritic treatment it should be recollected that the phenazone group of drugs and chloral hydrate are of occasional service.

III.—Lesions of the Skin in Certain Circulatory Disorders.

In Persons with "Low Tension" Circulation.

There is a series of skin lesions to which I would now draw your attention which present much difficulty, both in diagnosis and in treatment, and which are by no means uncommon. Let me first define the nature of the circulatory defect to which I refer, and as the result of which the injury to the skin arises. We are all familiar with a class of persons who are often tall or stoutly built, and very frequently with florid complexions. They complain usually of coldness of the extremities, and on examining their hands the skin is noted to present a flushed appearance, which is more or less permanent. Pressure produces white marks, owing to the ease with which the blood is expressed from the skin, and probably there is usually a slight amount of oedema of the cutis. This state of affairs may be only very slight, so that the hands or the feet, or both, do not show the condition in any troublesome degree, but it also occurs much more severely, so that the face is affected, and the whole surface of the skin may present the same symptoms as those commonly seen in the hands. In such cases no organic lesion of the heart is recognizable, but the condition of the superficial network of capillaries is such that they are constantly distended, and there is very little active power of contraction. In some clinical respects, especially when the extremities only are affected, there is a superficial resemblance between these individuals and cases of Raynaud's disease. But their nature seems to be quite different, and the phenomena described by Raynaud occur in a quite different class of patients. Speaking from the clinical aspect the underlying cause of the condition appears to be a fixed condition of depression of the vasomotor impulses, so that the whole of the capillary and venous area of the cutis is constantly flooded, without any recognizable lesion of the heart. Probably, as a rule, the pulse-rate is less frequent than normal, and may be diminished to from 36 to 50 per minute; but in certain severe cases of the disorder tachycardia is very noticeable, so that the normal frequency is over 100, and on the slightest excitement may run up to 150 or more.

These patients suffer severely from chilblains, and in cold weather, when the chilblain is well formed, it is very likely to become abraded and leave superficial ulcerations, which take a long time to heal. Another condition which occurs very frequently is the blotched or reticulated hyperaemia of dependent parts, especially the legs, owing to chronic congestion of adjacent groups of capillaries, resulting in pigmentation of a reddish-brown character, occupying the same areas. This state of affairs is also seen in persons who are in the habit of frequently exposing the legs before a warm fire, and under those circumstances the name of "ephelides ab igne" has been applied; but in the class of persons presenting the circulatory changes to which I have referred these so-called "ephelides" occur not only on the legs but on the arms, the lower part of the abdomen and buttocks, and on other parts of the body where the skin is dependent.

In one or two bad cases I have seen this state was so severe on the back, abdomen, and mammary regions as to resemble the reticulated lividity which one sees in the skin of a dead person after some hours. When a person suffering from this circulatory weakness receives an injury of the skin, it is quite intelligible that much more serious results attend than in conditions of health. For instance, a slight blow on the skin of the leg from the corner of a projecting article of furniture will cause an injury resulting in severe bruising and finally in sloughing of the skin, usually of a portion rounded in shape, sometimes so exactly as to suggest that the skin had been cut out by a punch. The granulation tissue which forms on the surface of these ulcers is naturally exceedingly oedematous, the ulcer oozes serum constantly, and the healing power of the granulation tissue is very feeble, so that it comes about that these ulcers when once caused are very slow in healing, lasting in some cases for months. So long as they do not become seriously septic healing does occur, and the scar produced is often a fine soft bluish scar slightly concave to the surface. It may be readily imagined that if several such scars are seen on the shins a diagnosis of syphilis or tuberculous disease is not infrequently made.

Resemblance between these Lesions of "Circulatory" Origin and certain "Tuberculides."

A point of very great importance arises in connexion with this type of circulatory skin disease. There are certain forms of disease of the skin which at the present time, and for want of more complete knowledge, are described as tuberculides. They vary considerably in their clinical appearances, but have two main characters which are nearly always present, namely: (1) the occurrence of passive localized congestion at points of the skin, or in slightly larger areas; (2) the occurrence of a certain amount, sometimes great, of cellular infiltration of the cutis or subcutaneous tissues.

The consequences of these two conditions is the occurrence of necrosis of the skin with production of scar with a minimum amount of ulceration when the infiltration is small, or with the production of deep punched-out ulcers which heal very slowly when the infiltration is large.

As an example of the first type we may take the condition known as necrosing dermatitis of the extremities and acne scrofulosorum; as an example of the second, the condition known as erythema induratum scrofulosorum, or Bazin's disease.

The condition which I have last mentioned is of special interest, because the localized infiltrations, the subsequent sloughing and ulceration are productive of depressed scars, occurring as a rule on the lower extremities, which have frequently given rise to erroneous diagnosis. In the group of tuberculides the histological evidence of tuberculous origin of the lesions is very strong, and a small amount of experimental evidence supports the view that this class of eruption is really an example of very chronic and non-virulent tuberculosis. If you will now recollect for a moment the type of injury which I have mentioned as occurring on the skin, especially on the extremities of those persons with low tension circulation, and bear in mind the chronic passive congestion during which slight injury produces bruises, inflammations, necrosis without much suppuration, and slowly-healing ulcers leaving fine depressed scars, you will readily believe that much difficulty arises in distinguishing the conditions one from the other. Mistakes have frequently arisen, and these are all the more excusable as the feeble form of circulation to which I have alluded seems to occur not infrequently in weakly subjects prone to or actually suffering from tuberculosis. I would emphasize the point then briefly by saying that there appear to be two classes of the disease producing inflammation and necrosis of the skin of the type described; one of them due to a peculiar disorder of circulation associated with low peripheral vascular tension, accompanied by the minimum of cellular infiltration of the affected part, the other closely associated with or actually the result of tuberculosis, and frequently associated with much infiltration of the characteristic tuberculous type.

Treatment.—In reference to the treatment of patients suffering from this vascular disease, it should be recollected that considerable benefit may be conferred by various hygienic and therapeutic measures; the nutrition of the patient should be carefully regulated and watched. In some of the most severe cases it is very remarkable that change in the character of the diet produces most striking changes in the general metabolism. In one case long under my observation, who might well be described as a "red girl," the excretion of urea in the urine could be made to vary between 1½ and 4 per cent. with the greatest certainty by changing the dietary from one in which carbohydrates were in excess to one in which the nitrogenous element was preponderant. The food should be carefully regulated so that the patients are kept in the best condition of nutrition. The utmost care of the skin is

necessary by scrupulous cleanliness, by frequent warm baths, careful drying of the skin, and by the use of warm and well-fitting clothing. The patients who are seriously affected suffer much inconvenience, become very much depressed, and require tonic treatment, both from the mental and from the physical aspect.

It is worth mentioning that the patient whom I have mentioned as the "red girl" declared that she was much more comfortable when on several occasions she took small doses of ergot for considerable periods of time. The treatment was adopted with a certain amount of misgiving, and only when she was in a position to be watched carefully. No bad results were noticed, and she certainly said that she felt, and she appeared to be, in better health.

In the milder cases the use of cardiac and nerve tonics, especially digitalis and strophanthus, and strychnine, either in combination or alternately, produce very gratifying results.

NOTE

Two cases of a series collected by Dr. Lindley Scott (*Brit. Journ. of Dermat.*, vol. xi, p. 276, 1899.)

A CASE OF CHLOROMA, WITH PATHOLOGICAL REPORT AND SOME NOTES DESCRIPTIVE OF THE DISEASE.*

By G. H. MELVILLE DUNLOP, M.D., F.R.C.P.E.,
Physician to the Royal Hospital for Sick Children, Edinburgh.

AT the November meeting of the Edinburgh Medico-Chirurgical Society I exhibited a little boy suffering from that exceedingly rare disease—chloroma. The child subsequently succumbed to the disease, and I propose in the following remarks to give a record of the case, together with an account of the necropsy, and some notes of the interesting condition from which the boy suffered.

J. D., aged 5 years, was admitted to my ward in the Hospital for Sick Children on September 30th, 1901, complaining of great weakness and "swelling of the face."

HISTORY.

Family History.—This was unimportant. The father had suffered from an attack of rheumatic fever, and the mother from repeated attacks of bloodlessness. Two children had died during infancy. There was no family history of tubercle or renal disease.

Previous History.—The child was born at full term, and was a healthy baby. He had whooping-cough at six months and measles at three years, and had suffered frequently from bronchitis, but, on the whole, the mother considered him a fairly healthy child until the commencement of his present illness.

PRESENT ILLNESS.

For fully a year patches of ecchymosis were frequently noticed under the boy's skin, which were attributed to bruises. In May, 1901, the attention of the mother was for the first time directed to the extreme pallor of the boy's complexion. For some months previous to this date it was observed that any scratch which he received appeared to suppurate almost immediately. At the beginning of June he was dipped into a horse trough by an older boy, and was wet through. He remained in his wet clothes for some hours, and in consequence got a bad chill and was confined to bed for some days suffering from fever and headache. The child was never the same after the wetting, and seemed to get more easily tired. He commenced to call out in his sleep, and to snore at night, which he had never done previously. His appetite became exceedingly poor, and he became steadily paler and thinner.

At the beginning of August he became dull and languid, ceased to care to play, or to desire to go out-of-doors. On August 16th the mother noticed for the first time that the eyes appeared prominent, and that the veins on the eyelids were dilated. This exophthalmos gradually increased. About the middle of September it was noticed that the boy was becoming deaf, and this symptom also became more marked. Ever since he was 3 years of age he had suffered much from toothache, and the teeth had always been bad.

At the commencement of October the child was treated for an abscess of the scalp, and had an attack of albuminuria, accompanied by pyrexia, which lasted a few days.

STATE ON ADMISSION.

The boy looked extremely ill. Development was fair, but nutrition was poor; weight, 39 lb. The complexion was very pale, of a waxy yellow tint. His attitude was normal, and he could stand, sit up, or walk. He was a quiet, placid, good-tempered child.

Cutaneous and Glandular System.—A large number of petechial haemorrhages, about the size and having the appearance of fleabites, were scattered over the skin of the neck, chest, back, abdomen, and all four limbs, the face only being exempt. There were in addition two larger haemorrhages situated over the dorsal portion of the spinal column and over the right knee, while there was a yellow discoloration, as if of an older haemorrhage, situated on the right shin. The skin was somewhat loose, but there was a fair amount of subcutaneous fat. The head was well shaped and the scalp healthy. The face was pale and pasty, with marked puffiness of the eyelids, especially on the left side. There was some oedema and marked anaemia of the conjunctivae. Considerable protrusion of both eyeballs was present, but the patient could close his eyes. The nose and ears were well shaped. There were a few slightly enlarged glands under the lower jaw on both sides, and also in the posterior triangles of the neck and in the groins. The axillary glands were not enlarged. The thyroid was normal in size. There was no dullness over upper part of sternum, pointing to enlargement of the thymus. The thorax was well shaped.

Respiratory System.—The breath sounds were normal all over, and there were no accompaniments. There was no dullness and no cough. The voice was rather low and whispering.

Circulatory System.—The apex beat was in the nipple line, fifth space. There was no pulsation in the neck or epigastrium. The upper border of the area of dullness was in the second space; the right border half an inch external to the right border of the sternum. The left border was in the left nipple line. The heart sounds were healthy in all areas. Loud haemic *bruits* were heard on both sides in the vessels of the neck, loudest on the left side.

Pulse, 110, was irregular in time and force, of fair volume and low tension. The vessel wall was not thickened. The temperature was 99 6° F.

The *abdomen* was sunken. There was no pain or resistance on palpation. No glands were felt, and no fluid was present. The liver and spleen were not enlarged. The note was resonant all over.

Digestive System.—The lips and gums were pale; the tongue dry with transverse grooving. The teeth were extremely bad, both in the upper and lower jaws, more than half of them being carious. The molars were chiefly affected. The breath was very offensive.

The *urine* was clear, amber and acid. There was a slight mucous cloud, but no deposit; albumen (0.4 gr.); urea, 8 gr. Centrifuged: no casts or blood corpuscles.

Blood.—Haemoglobin, 32 per cent. Red blood corpuscles 1,800,000; leucocytes, 24,500. Films showed a large number of lymphocytes, both large and small, the former preponderating, and numbering 73 per cent. Polymorphonuclear 17 per cent. Myelocytes 5 per cent. unclassified, and transitional forms resembling myelocytes 5 per cent. A few nucleated reds were also present.

AFTER-HISTORY.

October 15th. The weight remains stationary. Two fresh haemorrhages have appeared on the outer aspect of the right knee and one over left end of radius. The eyeballs are becoming more prominent and the left eye cannot now be covered with the eyelid without an effort. The deafness also appears to be increasing. The ears were to-day examined by Dr. Logan Turner, who reported that there was some drawing in of both membranes, but no sign of perforation or of other disease. On examining the inside of the mouth a hard indurated swelling of a purplish colour was observed occupying

* Read before the Edinburgh Medico Chirurgical Society.

the hard palate on both sides in its whole extent antero-posteriorly and extending laterally from the teeth nearly to the median raphé. The discoloration, however, extends to the middle line. A similar but smaller swelling has made its appearance on the right side of the lower jaw external to the teeth.

October 22nd. Since last report a smooth rounded swelling, not nodular, has appeared in each temporal region gradually shading off into the surrounding parts. The swelling reaches behind to about half an inch in front of the pinna and in front to the outer edge of the orbit and seems to be continued into the orbit. The swelling is firm but not of a bony hardness. It feels as if immovably fixed to the underlying bone in its deep attachments, but is unattached to the skin. The diagnosis of chloroma was made on this date.

October 25th. The eyeballs are decidedly more prominent and the veins on the eyelids more distinct. There is intolerance of light, especially of bright light, and the child lies with the head under the bedclothes. The upper eyelids are infiltrated, especially in their outer halves, with firm smooth swellings which seem to proceed from under the roof of the orbit in the region of the lachrymal gland and extend to the margin of the tarsal cartilage. They resemble the swelling in the temporal region in being firm, smooth and rounded, and unattached to the skin of the eyelid. There is a similar swelling in the right lower eyelid appearing to come from under the lower margin of the orbit, and it occupies the whole extent of the eyelid from canthus to canthus. The patient can still close his eyes with an effort, but the exopthalmos is so marked that during sleep the eyeball is not much more than half covered. There is considerable flow of tears from the eyes which runs over the face. An ophthalmoscopic examination of the eyes was made by Dr. Argyll Robertson, who reported: In right eye a minute extravasation of blood near the disc. Retinal veins tortuous and moderataly distended in both eyes. Exudation into disc and retina in both eyes. The vessels are lighter coloured than usual in optic neuritis, otherwise appearance is very much that of optic neuritis. Leucocytes have increased to 54,000. The child complains of no actual pain and appears to be happy and contented.

November 2nd. Exophthalmos is increasing and the veins on the face and eyelids are more prominent. The boy is much duller, and is taking less notice. Leucocytes, 68,000; red blood corpuscles, 850,000; haemoglobin, 20 per cent; swelling in temporal regions more prominent.

November 9th. A pale greenish yellow tumour of a jelly-like consistence made its appearance on November 6th at the inner canthus of the right eye and has gradually advanced over the eyeball, covering its lower half. To a smaller extent the left eye is becoming covered with a similar tumour. The boy is now complaining of severe pain in the frontal region, which he constantly presses with his hands. Photophobia is increasing, and the head is kept continuously under the bedclothes. The temperature, which previously seldom rose above the normal, has during the last ten days ranged from 99° to 101° F., the pulse also has increased in frequency from 110 to 140. The boy takes his food badly, and is becoming thinner and weaker. He has sleepless nights, and calls out frequently with pain. He complains especially of pain in his eye, which he constantly rubs with his fingers and handkerchief. The tumours in the temporal region appear to have diminished in size. Deafness is increasing. There is very marked optic neuritis in the right eye, and several linear haemorrhages near the margin of the disc to the inner side. The optic neuritis in the left eye is still more marked. There are several haemorrhagic spots opposite the lower margin of the disc. The vessels are still of a rosy colour.



Fig. 1.—Showing the exophthalmos, the infiltration of the eyelids, and the prominence in the temporal region.



Fig. 2.—Showing the tumours commencing to appear in front of the eyeballs.

November 12th. The tumour growth now completely covers both eyeballs. The corneae are apparently quite destroyed. The boy cannot discern objects, but can still distinguish light from darkness. The temporal tumours are much smaller. Leucocytes 107,000, red blood corpuscles 815,000, haemoglobin 12 per cent.

November 15th. The boy is much weaker, and has been vomiting at intervals all day. The tumour over the eyeballs is exuding a sanguineous serum. The eyeballs appear less prominent. Leucocytes 123,000. The waxy pallor of the face and engorgement of veins are very striking. The breath is most offensive, and there is a large amount of sordes on the teeth and lips. During the night coffee-ground vomiting occurred several times, and the boy died of exhaustion on the morning of November 16th.

NECROPSY.

The necropsy was performed on November 17th by Dr. Shennan, to whom I am much indebted for the following account of the examination and of the microscopic appearances subsequently found. The surface of the body was very pale. The eyeballs were prominent and pushed forwards out of the orbits so that the eyelids did not meet.

Mouth.—The gums were thickened, pale, soft, and greenish in colour; tongue pale.

Thorax.—On removing the sternum a greenish mass, thicker in the centre than at the periphery, and about the size of a shilling, was found on the posterior surface of the manubrium sterni, in the middle line. This mass was of a bright green colour, and gradually faded on exposure to air and light. On section it was found to be confined to the periosteum, and not to affect the dense bone immediately underneath it. The spongy bone of the manubrium sterni was of a dull greenish colour. The glands in the vicinity were not apparently affected.

The Thymus Gland was unaffected,

The Serous Cavities contained a small amount of clear, pale, straw-coloured fluid. The inner surface of the larynx was pale, and contained a little brownish mucus.

The Lungs, as a whole, were pale, but were interspersed with small irregular patches of congestion, and occasional haemorrhages. In the left lung there were small areas of firmly consolidated lung tissue. The large bronchi, and particularly those on the right side, contained greenish mucus.

Heart.—On the epicardium there was a small green patch near the base of the ventricle, a short distance to the left of the septum, and another smaller one to the right of the septum. All the cavities of the heart were somewhat dilated, and contained *ante-mortem* thrombi of recent formation, pale in the left ventricle but redder in the right. There was marked fatty degeneration of the myocardium of the left ventricle. The arterial valves were competent. On removing the thoracic contents the ribs were observed to be of a green colour throughout their whole extent, the colour being deepest just in front of the angles. The periosteum of the vertebrae from the neck to the pelvis was infiltrated with thickened greenish tissue, continuous with a similar deposit along the intercostal vessels and nerves. The colour was most intense in the neighbourhood of the intervertebral discs, and during the progress of the necropsy it visibly faded.

Abdomen.—There was general pallor of all the abdominal contents, particularly of the intestinal tract. The duodenum was dark from altered blood and green mucus. The stomach was distended and contained "coffee grounds." The small intestine in its lower part showed multiple minute haemorrhages, and contained a large amount of catarrhal mucus. The Peyer's patches showed no visible changes. The follicles of the large intestine were distinct and greenish; the mucous membrane of the appendix was thickened.

Liver.—Bile ducts patent, substance pale, otherwise fairly normal.

Spleen.—Firm, Malpighian bodies enlarged, prominent, and pale. Section brownish in colour.

Suprarenal Capsules unaffected to naked eye.

Kidneys presented very striking naked eye appearances; not much enlarged, but very pale of a general pinkish green colour, and dotted over with bright green spots under the capsule. On section, numerous bright green areas varying in size from a pin's head to a quarter of an inch in diameter were found. These patches were chiefly placed in the cortical area over the medullae. Both kidneys were similarly affected.

Mesenteric Glands were enlarged and pale. One or two enlarged greenish glands were seen near the head of the pancreas, and others in the same neighbourhood contained brownish pigment. No other green-coloured glands were found in the body.

Pancreas of a pale yellowish pink colour, and contained small greenish nodules scattered throughout its substance.

Urinary Bladder distended with clear limpid urine.

Cranium.—On reflecting the scalp green tissue was found extending along all the sutures, particularly the interfrontal, the coronal and lambdoidal extending from the latter to the mastoid process, and occurring in the irregular patches over the bones of the skull. These patches were easily detached to the pericranium, and could be stripped completely off the bone. On removing the calvarium it was observed that the diploë between the internal and external tables was filled with a dirty green material, which was evident in the anterior part of the skull. Underneath, and infiltrating the substance of the dura mater, were found numerous thin green patches, flat and irregular in outline. These were of various sizes, from a pea to an inch in diameter, and were accompanied by numerous small haemorrhages. These patches were of a bright green colour, and gradually faded on exposure to air, and were evidently had developed from the dura mater, being adherent to and evidently had developed from the posterior fossae, and extended deeply into the sphenoid maxillary fossae. Sections and scrapings were taken from these growths with negative results.

Dura Mater exhibited numerous thin green patches, flat, and irregular in outline. These were especially distinct in the posterior part of the cranium, and were accompanied by numerous small haemorrhages. It stripped off the bone easily, and left a worm-eaten appearance on the inner table of the parietal bones. A broad greenish band extended along the upper wall of the longitudinal sinus.

The Brain was pale and firm, but there was no evidence of any extension to it of the greenish growth.

Spinal Cord.—No morbid change visible.

Base of Skull, Sinuses, etc.—All the bones in the anterior part of the skull were infiltrated with dull green material, especially the spongy tissue. A green mass, the size of a split pea, was found on the anterior glenoid process (sella turcica), and another but smaller one immediately behind the left posterior process. Another was found on the posterior surface of the left lesser wing of the sphenoid. The whole of the frontal bones were green, and also the upper surface of the orbital plate. There was apparent erosion of the left side of the cribriform plate posteriorly, with greenish material appearing through it.

Ethmoid Sinuses.—The condition was one of thickening of the lining membrane of a dull green colour.

Left Orbit.—Green growth similar in colour and consistence to that found in the zygomatic fossae, but occurring in oval, flattened, and sharply defined masses surrounding the optic nerve and eyeball, particularly on upper and external aspects, but also to a less extent below, embracing the optic nerve and not attached to the eyeball, but extending under the conjunctivae. The masses evidently arose from the periosteum on the outer side of the orbital cavity, where it was adherent to the bone. Some haemorrhage in or immediately under the sclerotics. Cornea opaque and green conjunctiva thickened and of a purplish colour.

Right Orbit.—Appearances similar to those on the left side. Eyeball and nerve seem to be unaffected. There is a thick adherent mass on under wall of orbit. Right eye was incised; vitreous humour normal; small haemorrhages near exit of optic nerve, and what appear like tortuous thickened vessels over fundus.

Right Ear.—Semicircular canals and dense bone immediately around them apparently not affected, but middle ear, mastoid process, and periosteum on under surface of temporal bone and adjacent soft structures infiltrated with green material.

Left Ear.—Similar appearances.

Hard Palate.—Periosteum covering it thickened with greenish tissue, less dense than in the orbits and zygomatic fossae.

Soft Palate, Walls of Pharynx, Mouth, and Gums infiltrated with similar material.

The Tonsils were infiltrated with bright grass-green tissue. In the right tonsil there were some small bright-green parts, evidently forming plugs in the crypts. In the left tonsil the infiltration was more diffuse than in the right, and there was an appearance like necrosis. In the maxillary antrum the changes were similar to those in the ethmoidal cells.

Vertebral Bodies were infiltrated with same material as spongy parts of bones of head, having a dirty green colour.

Femur.—The periosteum was of a bright green colour, most intense posteriorly. The fatty marrow had evidently disappeared and its place been taken by greenish pus like material.

On the day following the necropsy the colour in all the tissues and organs removed from the body, and which were preserved in formalin solution had disappeared; but on subsequent treatment with reducing agents the colour partially returned, indicating the presence of an oxidizable pigment.

Microscopic Examination.

Orbital and Temporal Tumours.—These are composed of a closely arranged fasiculated connective tissue stroma, the spaces of which are packed with cells of uniform size, round in shape, or altered, either from mutual compression or to fit the spaces containing them (Fig. 3). The great majority of these cells correspond in size and structure to the large lymphocyte. This cellular tissue penetrates the muscle, dividing up its bundles and separating individual fibres. It also infiltrates the neighbouring fat. Scattered amongst the cells are rounded clusters of granules which stain faintly both with osmic acid and sudan iij, and are refractile. They disappear when the sections are treated with solvents of fat, for example, alcohol, xylol, or benzol, hence are evidently of a fatty nature. In all the tissues and organs examined the same cells appear even when no evidence of their presence existed to the unaided eye. They pack the intervesicular walls and septa of the lung, causing them to appear thick. The portal spaces and tissues of the liver are crowded with cells which also appear between the columns of liver cells in the lobules (Fig. 4). The kidney contains rounded areas in which the tubules are widely separated by the cells, an appearance corresponding to that sometimes seen in leukaemia. The tubular epithelium is cloudy and fatty. The sinuses and pulp of the spleen are full of the cells which dominate the field microscopically.

Lymphatic Glands.—The enlarged green glands from the neighbourhood of the head of the pancreas were examined microscopically. Their sinuses contain dense plugs of cells which *en masse* appear more deeply stained than the rest of the gland (Fig. 5).

The lymphoid tissue in the walls of the *intestine* throughout is increased, and clusters of the cells are seen deep in the submucous coat.

The *bone marrow* practically consists of round cells, with rounded nucleus and fair amount of protoplasm corresponding to the cells found in other organs (Fig. 6). The sections seem to indicate that the colour is due to the peculiar clusters of fatty nature, and possibly, in addition, to the presence of an oxidizable pigment. The theories of refraction due to arrangement of the cells and of decomposition seem untenable because in the case of the former the colour would not be lost *post-mortem*, and in the latter case it would increase, at least in the deeper parts.

LITERATURE.

The case which I have here described is a very typical one of the disease, both in the symptoms manifested during life and in the *post-mortem* appearances. Chloroma is an exceedingly rare condition; many of the encyclopaedias and recent works on pathology do not even mention the subject, and I

have only succeeded in finding the records of 27 recorded cases.

The first case was recorded by Alan Burns[1] in his *Observations on the Surgical Anatomy of the Head and Neck*, in 1823, who regarded it as a condition differing from any morbid affection hitherto described. He considered that the new growth originated in the lachrymal gland, and was propagated secondarily to the other regions of the head and body. Following Burns, the earlier cases were recorded by Balfour[2]



Fig. 3.—Tumour. Case of chloroma. × 300 diam.

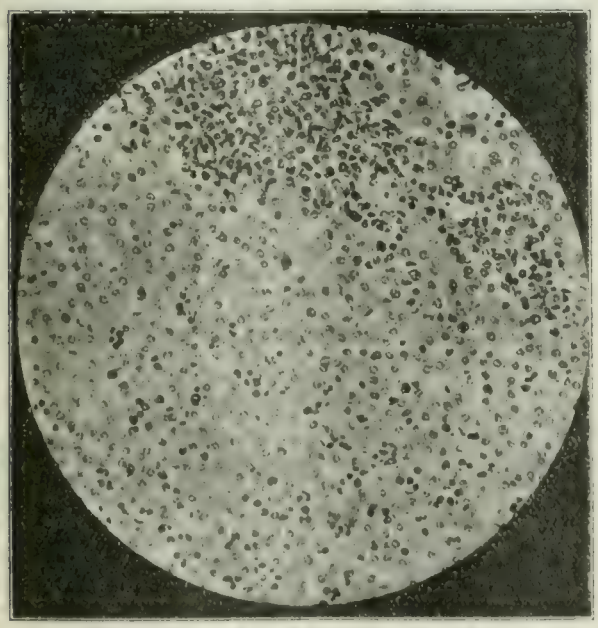


Fig. 4.—Liver. Case of chloroma. × 200 diam.

of Edinburgh, Mackenzie[3] of Glasgow, Durand-Fardel[4] of Paris, King[5] of Glasgow, and Dittrich[12] of Prague, between 1836 and 1855, while more recently Dock[6] of Michigan and Gustav Lang[7] of Nancy have written exhaustive monographs on the subject.

Pathology.

The tumours have been variously described as green cancer, fibroplastic tumours, amorphous fibrous tumours, pigmented myxo sarcoma or chloromyxo-sarcoma.

Huber[8] defines this condition as a metastatic periosteal sarcoma, a definition which was confirmed by many subsequent observers. He maintains that the tumours always originate in the bones of the head and face, and that the growths in other organs are secondary and originate by metastasis. Recklinghausen[9] in 1883 pointed out that the tumours found in cases of chloroma differed in many respects from periosteal sar-

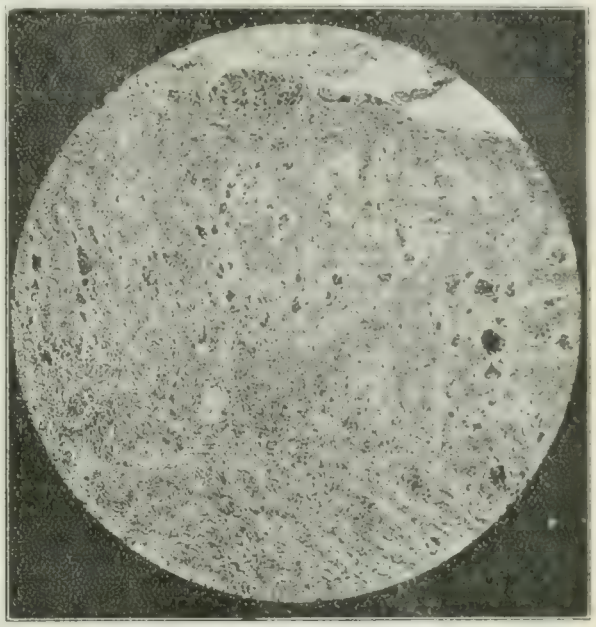


Fig. 5.—Lymphatic gland. Case of chloroma. × 450 diam.

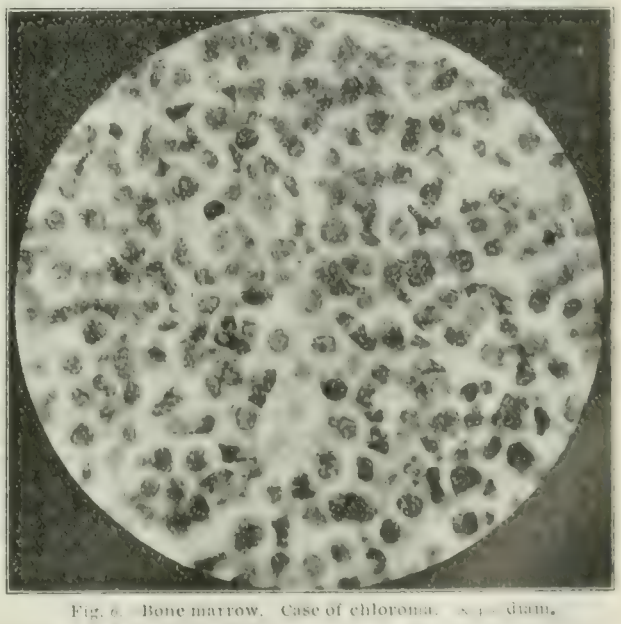


Fig. 6.—Bone marrow. Case of chloroma. × [illegible] diam.

comas, chiefly in their deficiency of bone formation and in their development from the outer layer of the periosteum. He insists upon the intimate relationship which exists between this affection and leukaemia. He demonstrated that the structure of all the tumours in his case was of a pure lymphomatous character, and in this belief he is supported by Höring,[10] Dock, and Chiari[11] and several other writers, with the result that the

growths are now pretty generally regarded as belonging to the class of tumours known as lympho-sarcomas. Lympho-sarcoma is probably the best definition of the growths found in chloroma resembling on the one hand lymphomas in their histological structure and sarcomas in the fact that they arise from the periosteum and that they spread by the metastasis. Recently the view has been advanced by Cordua and Ricker that a very close relationship exists between lymphosarcomas and tuberculosis.

Colour.

Regarding the cause of the colour of the tumours, which varies from a yellowish green to a bright grass-green, considerable diversity of opinion has prevailed, and the question is by no means satisfactorily settled yet. Balfour thought the colour was due to bile pigment, but no trace of bile has ever been discovered in any of the tumours examined. Dittrich[12] supposed that the colour was the result of decomposition, but this theory is quite untenable, as the green colour is confined to the tumour growths, the other tissues of the body remaining unaffected. Portions of the tumours removed during life have a green colour, and there is a very decided difference between the bright grass-green colour displayed by chloromas and the dirty green of decomposition. Huber made an elaborate series of investigations on fresh tumours to discover the source of the colour, which he ascribed to minute molecular granulations possessing great refractile power and of great brilliance placed in and between the cells, and which he considered communicated an intense colour to the tumours. He believes that the colour is due to the massing of cells while the cells singly are colourless. Virchow,[13] Dressler,[14] and Chiari are at one with Huber in considering that the colour proceeds from these adipose granulations found in and between the cells. It is still undecided whether the granules can be regarded as true fat granules, or only as an organic combination into which fatty acids enter. The colour quickly disappears from periphery to centre on exposure to air, or on immersion of the tumour in water, alcohol, chloroform, or ether. It is preserved for some days in glycerine and water, and it resists the action of acetic and hydrochloric acid for some hours. Waldstein's idea of the origin of the pigment is that it is a derivative of the blood pigment; but opposed to this view are the facts that it is present in tumours where no signs of extravasation have been detected. Finally, Dock, in giving his adherence to the fatty theory of the colour, considers that it is simply an exaggeration of the greenish tint so common in the neoplasms of leukaemia, and which he maintains is another proof that these conditions are closely allied. In view of the quick disappearance of the colour on exposure to air and on immersion in fluids that have no solvent influence on fats, the theory of the fatty granules being the cause of the colour appears to be a little difficult of acceptance, and it seems to me that the colour is more probably due to some chemical product allied to lipochrome hitherto undiscovered, which on exposure to light becomes oxidized and in the process of oxidation loses its colour.

Origin of Tumours.

It is pretty generally admitted that the tumours originate from the periosteum of the head and face, and that the growths met with in other organs are of secondary formation. Behring[15] believes that they generally arise in the ethmoid bone, and that infection is carried by the venous sinuses. Sauterau[16] and Landolt think that the growth usually originates in the lachrymal gland, and that it differs from other tumours of that gland in afterwards invading the sides of the orbits, the cranial dura mater, and distant parts of the body.

Metastasis.

All are agreed that the tumours subsequently invade the cavities of the skull, the marrow of the bones and the internal organs having a very rapid generalization and multiple metastasis in the body. Nearly every organ has been invaded in the cases recorded by secondary growths, with the exception of the nervous system, which forms a very striking exception to this rule. It is a striking fact that neither the brain nor the cranial nerves have been affected, although lying in closest proximity to the primary tumour. Huge tumours frequently completely fill the orbits, and are traversed by the optic nerves, which are found quite unaltered in structure. The brain may be, and frequently is, compressed, owing to pressure, but its substance is never invaded by the new growth. The kidneys of all the internal organs are the most frequently affected and infiltrated by the new growths. They most usually infiltrate the cortical portion of the kidneys, in large numbers, and owing to their bright green colour and small size give a mosaic appearance to the cut section. As Lang remarks, the tendency of the kidneys to suffer so frequently is probably due to their very active venous and arterial supply. I have only been able to discover the record of another case besides my own in which the muscular substance of the heart has been infiltrated.

The most characteristic pathological changes are to be found in the osseous system, which is irregularly destroyed at the site of the tumour, and in several recorded cases the bones were so thin as to be transparent. The changes are most pronounced, and always first detected in the bones of the head, commencing as a rule in the orbit, ear, nasal fossa, and temporal regions, and spreading subsequently to the periosteum of other parts of the head and to the dura mater. In the majority of cases green tumours have been found filling the orbits, infiltrating the lachrymal glands, the fat, and the connective tissue, and causing projection of the eyeballs, and tumours of a similar description are frequently found occupying the temporal fossae and replacing the temporal muscles, of which no trace can be found. The nasal fossa, the ethmoid sinuses, and the petrous portion of the temporal bone are frequently infiltrated with those green-coloured growths.

In the case recorded by Durand-Fardel a tumour was found in the auditory meatus completely filling the tympanic cavity. In King's case tumours were found in the mastoids and also in the inferior maxillary bone.

In the case recorded by Balfour green tumours of a cartilaginous nature were found under the scalp in the neighbourhood of the frontal, coronal, and sagittal sutures firmly adherent to the bone, and on removing the skullcap similar tumours were found attached to the dura mater, which had caused absorption and honeycombing of the inner table of the skull. This erosion or pitting is a marked feature in many of the cases. The dura and pericranium are generally most acutely infiltrated with the green colour corresponding to the site of the suture.

In many cases the periosteum of the long bones is of a bright pea-green colour, and the marrow is transformed into a semi-liquid green material resembling pus, both of which conditions were well-marked in my case.

Consistence.

The consistence of the tumours varies considerably, according as they are associated with fibrous, muscular, or osseous tissue. Sometimes they are soft, gelatinous, and elastic, exuding a greenish juice, and described by Balfour as resembling blancmange stiffened with isinglass, while at other times they are hard and cartilaginous, having almost the consistence of schirrus tumours. The cut surface is homogenous with or without fibrous septa, and no trace of blood vessels are to be seen.

Microscopic Appearance.

The tumours are found to consist of large round or oval-shaped cells, a little bigger than a white blood corpuscle, containing numerous nuclei and occasionally nucleoli. These cells are either embedded in an intercellular amorphous material of a very clear and transparent character or in a delicate network, while at other times the tumour is interspersed by coarse bundles of connective tissue forming lines of demarcation. In the midst of this network the granules with the highly refractile properties already referred to are found lying in and between the cells.

Age.

Chloroma appears to be chiefly a disease of children and adolescents, the great majority of cases occurring under 15 years. Of the 27 cases which I have collected, 16 cases were under 15 years, 7 cases between 15 and 20 years, 3 cases above 30 years, while the age of 1 case was not given.

Sex.

Boys seem to be more liable to be attacked than girls, for,

out of the 27 cases referred to, 19 were males and only 7 females, while the sex of 1 case is not recorded.

Relationship to Leukaemia.

Recklinghausen was the first to point out the very close resemblance between chloroma and leukaemia. He called attention to the lymphomatous structure of the new growth, to the condition of the blood in the cases in which it was examined, and to the organs affected, either primarily or secondarily, by chloroma, which are identical with those found in cases of leukaemia. Dock, in his article on the subject, points out a further resemblance in the similarity of some of the symptoms of the two conditions. Thus, deafness is common to both. In chloroma it is due to the pressure of tumours in the internal, middle, and external ear. In leukaemia, though sometimes ascribed to haemorrhage, in many cases it is caused by the pressure of leukaemic tissue in the ear. Exophthalmos is one of the most usual symptoms in chloroma, and a similar condition has been described in several cases of leukaemia. In both conditions anaemia of a marked and progressive nature is present, accompanied by petechiae, extravasations under the skin, epistaxis, and haemorrhages into the conjunctivae and retinae. The blood in every case of chloroma examined has been characterized by a very striking lymphocytosis and by a remarkable diminution in the red blood corpuscles. Dock is of opinion that in the rapidity of its course chloroma stands between ordinary cases of leukaemia and those described by Ebstein as acute leukaemia, a view which still requires confirmation. He considers that there is as strong evidence in favour of the new growths found in chloroma being the source of the lymphocytes as there is of the thymus, bone marrow, and spleen being their source in leukaemia.

Diagnosis

So far as I have been able to gather, the case which I have recorded is the first in which a diagnosis of the condition was made during life. Before the appearance of the tumours a diagnosis would be impossible, as we have then only the symptoms pointing to leukaemia to guide us in forming an opinion —namely, the anaemia, loss of strength, rapid pulse, haemorrhage into the skin and mucous membranes. When subsequently to those symptoms, exophthalmos, failing sight, deafness, tumours in the temporal regions, and other parts of the body supervene, the diagnosis of chloroma should always suggest itself.

Prognosis.

The termination is invariably fatal from exhaustion, the average duration of the case being five or six months, although cases have been recorded by Balfour and Durand-Fardel lasting two years and longer.

REFERENCES.

[1] Allan Burns, *Observations on Surgical Anatomy of Head and Neck*, 1st American edition, Baltimore, 1823, p. 386. [2] Balfour, *Edinburgh Med. and Surg. Journal*, 1835, xliii, p. 310. [3] Mackenzie, *A Practical Treatise on Diseases of the Eye*, Philadelphia, 1855, p. 122(?). [4] Durand-Fardel, *Hebd. des Prog. des Sciences Méd*, Paris, 1836, T. iii, p. 207. [5] King *Monthly Journ. of Med Sciences*, Edinburgh, 1853, vol. xvii, p. 97. [6] Dock, *American Journ. of Med Sciences*, New Series, vol. cvi, p. 152. [7] Gustav Lang, *Arch. Gén. de Méd.*, Paris, 1894, vols. i and ii, pp. 63, 555. [8] Huber, *Arch. de Heilkunde*, 1878, xix, p. 129. [9] Recklinghausen, *Allgemeine Path.*, 1883, p. 440. [10] Höring, *Arbeit aus d. path. Anat. Inst. zu Tübingen*, Bd. i, Heft 1, p. 180. [11] Chiari, *Prager.it. f. Heilk.*, 1883, Bd. iv, p. 177. [12] Dittrich, *Prag. Vierteljahr f. die Prakt. Heilk.*, 1846, Bd. ii, p. 104. [13] Virchow, *Pathology of Tumours*, T. ii, p. 216. [14] Dressler, *Arch. f. path. Anat.*, 1866, Bd. xxxv, p. 605. [15] Behring, *Klin. Woch.*, 1882, No. 33. [16] Sauterau, *Thèse de Paris*, 1870.

TUBERCULOSIS OF THE CONJUNCTIVA.

By SYDNEY STEPHENSON, M.B., C.M.,

Ophthalmic Surgeon, to the North-Eastern Hospital for Children, etc.

THE following account of two cases of tuberculosis of the conjunctiva that have recently been under my care at the North-Eastern Hospital for Children may not be devoid of practical interest. The facts are shortly as follows:

CASE I.—E. H.,[1] aged 17 months, was seen on October 23rd, 1901.

History.—According to the mother's statement, the baby was weaned at 13 months, and about two months later she "went off her food and began to lose flesh." "A sort of lump" was noticed at about that time in the right lower lid, and the mother found there was an ulceration inside corresponding to the external swelling. The patient was the younger of two children. There was a miscarriage between the two births. The father is living, and his relatives were said to be free from phthisis. The mother (chest not examined) had a cough and night sweats. The child's maternal grandmother was stated to have died from phthisis.

Present Condition.—A thin, pallid, bad-tempered child, weighing 15¾ lb. nude. The inguinal and cervical glands were slightly prominent; the spleen was palpable. Several small circular ulcers were present upon the buttocks—three on the right and one on the left side. The central depressed ulceration, which measured 2 mm. to 3 mm. across, was surrounded by a red areola. The masses appeared to be deposits of tubercle in the subcutaneous tissue. There were moist, broncho-pneumonic sounds over the back of the chest. In the right eye, towards the centre of the free edge of the lower lid, was a shallow notch, covered with a greyish deposit. On everting the eyelid (Fig. 1) a semicircular ulceration, coated



Fig. 1.

with greyish-yellow material, was seen to be continuous with the notch. The base of the conjunctival ulcer, which measured 7 mm. by 5 mm., was somewhat waxy-looking and nodular. Several tiny, pale, translucent elevations, which at once suggested the idea of miliary tubercles to my mind, lay in the conjunctiva near the ulcer. The cornea was clear. There was no lachrymal or nasal tuberculosis. The right preauricular gland was somewhat swollen.

Diagnosis.—A diagnosis of tubercle of the conjunctiva was made, and the child admitted into hospital. Scrapings from the conjunctival ulcer, after staining by the Ziehl-Neelsen and Ziehl-Gabbet methods, were found to include a limited number of scattered tuberclebacilli. As a rule, the organisms occurred singly, and, on account of their limited number, had to be searched for carefully.

After-History.—When the child was seen on November 13th she was found to have double optic papillitis, some stiffness of her neck, and a typical tubercle in the choroid of the right eye. The tubercle lay not far from the optic disc, to the upper and outer side. It was not well defined, had a fawn colour, was more or less circular, and was about half the size of the optic disc. Its edges, as it were, were moth-eaten. It was crossed by a retinal artery. The child's temperature was febrile, and had risen on more than one occasion to 103° F. It slowly sank into a semicomatose state, and the respirations became of the Cheyne-Stokes type. The temperature rose to 105.5° F., and she died quietly on November 17th—that is, twenty-five days after admission to the hospital, and about three months after the beginning of the illness. To my great regret, permission for a necropsy could not be obtained. For some of the notes of the case I have to thank Mr. J. P. Cullen, late house-surgeon to the hospital.

CASE II.—V. N., aged 15 months, came to my out-patients' on November 27th, 1901.

History.—It was stated that the child's left eye had been red and discharging for about four months, and the mother had lately noticed that the free edge of the lower lid was becoming notched. The mother had lost a brother, aged 18 years, and a sister, aged 6 months, from "consumption." A maternal aunt and uncle had also died from that disease. The child had suffered from a cough for two months, but no physical signs were found except a few rhonchi over the back of the chest. No enlargement of the spleen could be made out. The temperature was 98.6° F.; the weight (nude) 13½ lb.

Condition on Admission: Left Eye.—The lower lid was red and thickened on its outer half and its free edge eroded; this erosion was continuous, with a shallow, semicircular ulceration (10 mm. by 5 mm.) of the palpebral conjunctiva (see Fig. 2). The ulcer had a nodular, lardaceous base, with

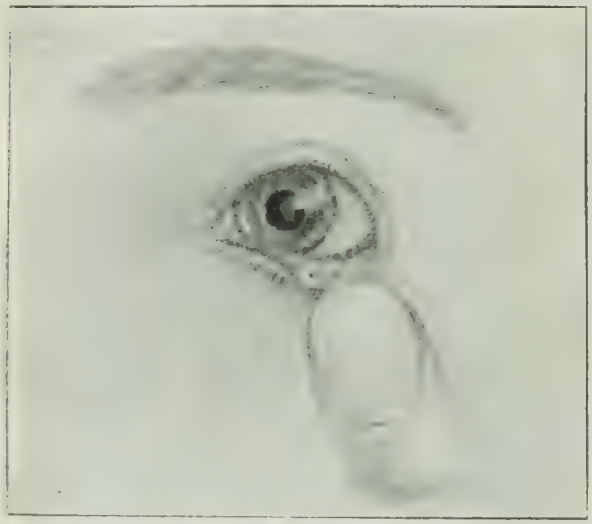


Fig. 2.

a few small reddish granulations forming its posterior boundary. A similar bunch of insignificant granulations were present on the free edge of the eyelid, at the junction of its outer and inner half. The child was admitted to hospital. Scattered tubercle bacilli were demonstrated in scrapings from the conjunctival ulceration.

After-History.—December 18th, 1901: During the last three days, the first phalanx of the little finger of the right hand has been thickened and painful, probably from a tuberculous dactylitis. Under chloroform, the conjunctival ulcer was excised with a Graefe's cataract knife, and its edges were thoroughly scraped with a small, sharp spoon. The resulting wound was filled with a graft taken from the skin of the left upper arm, carefully freed from fat, and kept in position by several sutures of fine China twist. January 8th, 1902: The skin graft has healed in position, and there is now no sign of any conjunctival ulceration. As the graft is not yet vascularized, it has a whitish look. January 15th, 1902: The graft is now becoming red at its edges. February 4th, 1902: Eyes examined under chloroform but no ulceration of the conjunctiva found. It may be added that the excised conjunctiva, when examined with the microscope, showed several miliary tubercles with typical giant cells. Unfortunately the sections (celloidin) were too thick to detect tubercle bacilli.

Remarks.

Tubercle of the conjunctiva is commonly thought to be one of the rarer affections of the eye, a view borne out by most of the published statistics. I am inclined however, to agree with the view put forward by Dr. J. W. H. Eyre,[2] who thinks that the rarity of the malady has been somewhat overestimated. He reaches this conclusion from the fact that amongst 31,000 ophthalmic patients he found tubercle in 11, or a ratio of about 1 in 2,700. Personally, amongst some 3,000 patients seen at the Children's Hospital, I have recognized the 2 cases detailed above—that is, a ratio of 1 in 1,500. An extraordinary variety of type is presented by the clinical appearances of conjunctival tuberculosis. Thus, Sattler described no fewer than four forms, namely: (1) Miliary ulcers, (2) miliary tubercles, (3) velvety granulations, and (4) "cockscomb" granulations. To these Dr. Eyre added a fifth group (5), characterized by the existence of a pedunculated tumour of the tarsal conjunctiva, closely resembling in appearance a papilloma or fibroma. My two cases furnish an instructive contrast with one another, inasmuch as the conjunctival ulcer in the first was clearly a symptom of general tuberculosis with pulmonary, meningeal, and choroidal manifestations, whereas the second case appears to be an example of primary infection. To judge from recorded cases, conjunctival tuberculosis generally belongs to the latter class. One case at least is known where the condition followed an operation for squint performed with instruments presumably contaminated with tuberculous material.

Note and Reference.

[1] The patient was exhibited at a meeting of the Society for the Study of Disease in Children on November 15th, 1901. [2] *Archives of Ophthalmology*, vol. xxix, 1900, No. 1, p. 12.

ON THE SUBCUTANEOUS INJECTION OF PARAFFIN FOR THE REMOVAL OF DEFORMITIES OF THE NOSE.

By WALKER DOWNIE, M.B., F.F.P.&S.Glasg.,
Lecturer on Diseases of the Throat and Nose, Glasgow University.

The two following cases were shown by me at a recent meeting of the Medico-Chirurgical Society of Glasgow. They are cases in which there was a disfiguring deformity of the nose, the result in each case of syphilitic intranasal ulceration, with destruction of portions of both the bony and cartilaginous framework.

The first case is a woman, aged 26. She first came under my observation at the Western Infirmary in October, 1900, when she had extensive intranasal ulceration and necrosis of the septal cartilage. There was also widespread ulceration of the alveolus of the upper jaw, with necrosis of the underlying bone.

Antisyphilitic treatment was prescribed, with local measures to cleanse the surface and stimulate healing, and this line of treatment was continued under the supervision of her own medical adviser in private. Two months later the necrosed alveolar process was discharged, and with the removal of this support the upper lip fell in.

She remained in good health till the end of 1901. Early in January, 1902, she observed that the shape of her nose was becoming altered, and very soon it assumed the shape shown in Fig. 1. At the same time gummata formed elsewhere—one under the inner canthus of the right eye, one at the angle of the right lower jaw, and one under the chin—and these rapidly broke down.

On February 14th the sore under the right eye was excised and the edges stitched—this healed by first intention—and the others were scraped and dressed. On February 26th, paraffin was injected into the subcutaneous tissue of the nose, with the object of restoring its shape. The paraffin used was "sterilized paraffin," with a melting point of 104° F., and the nose was prepared as for any other surgical operation. The paraffin in a molten condition was injected by means of a serum syringe, the nose being kept warm by hot dry sponge cloths, and the needle kept hot by an electric current. The needle was inserted at two places, one on either side of the nose immediately above the alae, while pressure was applied around the nose and at the inner canthus of the eyes to confine the fluid to the nasal region. The quantity injected in this case was a little over 2 drachms, and while solidifying was quickly moulded into the shape desired. Immediately after the injection of the paraffin the skin covering the material so introduced was intensely white and glazed, but no pain was complained of. The nose was covered with a layer of cotton wool.

On the following day the area which was blanched after the injection was bright red, and the skin remained glazed, but still there was neither pain nor discomfort, nor any rise in temperature. The redness slowly subsided, and the glazing disappeared. As a result of the injection, the deep depression immediately below the nasal bones has been filled



Fig. 1.—Case I, before operation.



Fig. 2.—Case I, after operation.



Fig. 3.—Case II, before operation.



Fig. 4.—Case II, after operation.

up, making a marked difference in her physiognomy, as may be seen on comparing the two photographs (Figs. 1 and 2), one taken before the other shortly after injection.

The second patient was a woman, aged 41. She was admitted to the Western Infirmary under my care on March 12th, on account of a marked depression of the nose (see Fig. 3). There was a history of syphilis having been contracted seventeen years ago, and five years ago she received a blow on the nose which was followed by a persistent purulent discharge. Two years later she noticed that her nose was "falling in," and she came to the department under my charge at the Western Infirmary, when it was found that the septal cartilage was wholly absent.

On March 14th sterilized paraffin with a melting point of 104° F. was injected in a fluid state into the subcutaneous tissue of the nose by means of a serum syringe. In this case the needle was inserted near the central point of the depression in the middle line. The paraffin was kept in a fluid state by means similar to those used in the first case; fully 1 drachm was injected, and the injected material was confined to the depressed area by digital pressure, and subsequently by the use of celloidin. The depression was so raised and the raised portion so moulded that now her nose is not only presentable, but is a well-shaped feature of her face (Fig. 4).

ON THE SPREAD OF LEPROSY AND AN EXAMINATION OF THE FISH HYPOTHESIS OF LEPROSY AS APPLIED TO KASHMIR.

By ERNEST F. NEVE, M.D., F.R.C.S.E.,
Joint Honorary Superintendent Kashmir State Leper Hospital.

It is difficult to estimate the exact amount of leprosy in Kashmir. It is possible that there may be 300 cases in a population of a million. The distribution of the disease is peculiar. It is rare in the City of Srinagar, uncommon in the other towns and villages of the alluvial plain, but is met with, in increasing frequency, in the uplands which skirt the valley and the tributary valleys which debouch into it. With but few exceptions the lepers of Kashmir are either herdsmen from mountainous districts, or agriculturists who have mixed freely with such herdsmen. The distinctive feature of the herdsman's occupation is close contact with cattle, sheep, and goats, and residence in small, crowded, very badly ventilated huts. With regard to sex, it is an interesting fact that the disease is rarer amongst women, who form only about 10 per cent. of the lepers. The disease is also very rare among Hindus, of whom there are about three in every hundred lepers. It is not altogether clear how the disease spreads. Heredity appears to play but a small part. Of 143 lepers 115 gave no such history. In travelling in different parts of Kashmir, if in a given district one leper is found, others will usually not be far distant. This points in the direction of contagion. One theory of the spread of leprosy—the fish hypothesis—has been adopted and put forward by Mr. Jonathan Hutchinson. The suggestion is "that leprosy is in some way connected with the eating of fish in an uncooked and often decomposing state." "It is suspected that fish food of this kind, uncooked, may either carry the bacillus itself or may be the stimulant which excites it to action."

In order to test this theory in Kashmir, let us look into the question of fish consumption. A large amount of fish is taken out of the lakes and rivers of Kashmir. This is consumed in three forms, namely, fresh, dried, and in sauces or powdered relishes.

How is this fish distributed? Large quantities are consumed by the extensive boating population. Very large amounts are sold in the city, where all kinds of fish can be seen exposed for sale. Even the Hindus, in spite of its being contrary to their religion to do so, are accustomed to eat prepared fish in various forms. A certain amount of dried fish finds its way to the villages, but it is not very common there, and the demand for it is relatively small owing to the abundance of vegetables and fresh meat. There is no ground for supposing that the fish consumed in Kashmir households is not partaken of as freely by women as by men.

The next point is the relationship of the distribution of leprosy to the distribution of fish. It has already been shown that thousands of people have eaten fish in various forms without developing leprosy, which is rarest in the districts of greatest fish consumption. (I have only met with one boatman who was a leper.)

The next question is, Are there any people who have not consumed fish who have nevertheless developed leprosy? In 1892 I completed an inquiry into the diet of 143 cases of leprosy; 79 had eaten fish, either frequently or occasionally, and 64 absolutely denied having eaten fish. In January, 1902, there were 65 lepers in the State Leper Hospital; of these, 22 stated that before developing the disease they had never eaten fish in any form; of the rest, 20 had taken fish in its three forms—namely, fresh, dry, and as a condiment; 1 had eaten it in chutnee, 3 had eaten it fresh or dried, and 19 had eaten fresh fish. Thus we see that quite a considerable number of lepers deny having eaten fish.

That there is nothing intrinsically improbable in the transmission of leprosy by fish may be admitted. Dried or salt fish contains, of course, a great number of putrefactive organisms. It might prove a suitable nidus for the leprosy bacillus. It seems, however, much more likely to be a carrier of leprous virus, with which it has been in accidental contact, than itself an actual cause *de novo* of the disease, and if the former, then it may be relegated to a minor place as a possible medium of conveyance.

It is possible that many nutrient substances might similarly become sources of danger, such as dried or salt meat, butter, cheese, or milk. It is easy to see that a leprous milkman might spread infection. Europeans who drink unboiled milk, if they chance to live in a district where leprosy is endemic, might contract the disease in this way. The water supply in many villages in Kashmir is scanty and liable to extreme degrees of contamination. It is well known that the lepra bacillus is frequently present in the saliva and expectoration of lepers. As in tuberculosis this must be considered as a very probable means of its spread. Many of the huts inhabited by lepers and non-lepers are absolutely without ventilation. Under these circumstances contagion or infection is by no means improbable. Children of lepers at birth are free of the disease; but unless separated from their parents they are almost sure to develop it within a few years. Here I believe contagion comes into play. It is true that lepers often deny the existence of any other case of the disease in their district. But a Kashmir peasant is not necessarily able to diagnose mild or early cases of leprosy.

The question of the spread of leprosy is one of great importance in those countries in which the disease is endemic. The measures which we take are, no doubt, governed by our theories. If acceptance of the fish hypothesis leads us to deal with the matter by aiming alone at the inhibition of unwholesome fish food, then it appears to me a mischievous theory. If the disease is to be stamped out the most important measures to be taken are, in my opinion, first, to separate healthy children from their leprous parents as soon as possible; secondly, to withdraw lepers from the general community as completely as possible; and thirdly, to use such proper sanitary precautions as shall prevent possible infection or contagion; such, for instance, as disinfecting dirty clothing by heat before washing, forbidding expectoration on floors or ground; exercising careful supervision over the free ventilation, exposure to sunlight and general cleanliness of the buildings, inside and out, and of their surroundings, and of the dispesal of dangerous refuse. It is important to regulate the contact of healthy attendants with lepers, bearing in mind the danger from their clothing and discharges. In fact, the disease should be treated as no less infectious than tuberculosis, to which it presents not a few points of resemblance.

CASE OF EPITHELIOMA COMPLICATING LUPUS ERYTHEMATOSUS TREATED BY SCRAPING AND HEALED BY THE X RAYS.

By G. G. STOPFORD TAYLOR, M.D.Durh.,
Honorary Physician, Liverpool Skin Hospital.

History. G. R., aged 59, a man of robust physique, formerly a sailor, but now a dock labourer, first came under my care in 1892 suffering from lupus erythematosus of the



Fig. 1.—Taken from a water-colour drawing by Peter Nairn in May, 1892.

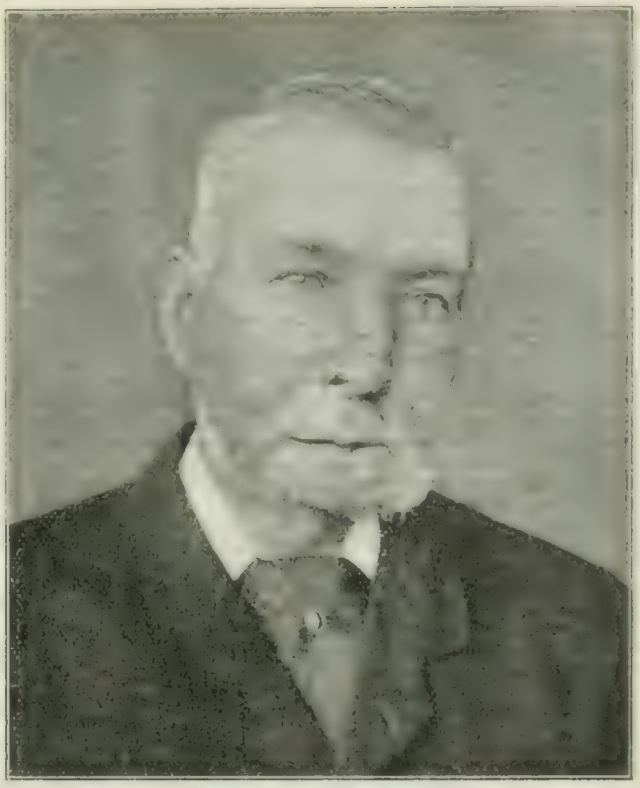


Fig. 2.—After excision of epithelioma.



Fig. 3.—Patient in July, with epithelioma of nose.



Fig. 4.—After-treatment by scraping and the x rays.

sebaceous variety affecting both cheeks and nose. The disease presented the most typical "butterfly" outline; its surface was covered by scales of a peculiar greyish, mortar-like character, and here and there horny excrescences were observed. The upper lip was perfectly healthy, but the lower lip was occupied by a huge epithelioma which overhung the chin (see Fig. 1, taken from a water-colour drawing). This was excised with a good result (see Fig. 2).

The patient returned in 1893 with an epitheliomatous ulcer originating from a horny excrescence on the tip of the nose. This was treated with potassa fusa.

The above particulars are taken from Dr. J. J. Pringle's article on multiple epithelioma which appeared in the *British Journal of Dermatology* of January, 1900, from notes supplied by me. I lost sight of the man until he appeared at my clinic at the Liverpool Skin Hospital on July 10th, 1901.

Present Condition.—The lupus erythematosus had not increased in area, was less scaly, and had none of the warty excrescences before mentioned, but was in no sense atrophic. His lower lip presented a well-marked red, glazed patch of the disease, but there was not the slightest evidence of a return of the epithelioma. On the nose, however, was a large, soft, cauliflower growth, involving the whole surface of that organ. This was extremely vascular, and had become so offensive to his fellows that he was compelled to seek advice (See Fig. 3).

Treatment.—Having had a fair experience of the *x* rays in dealing with malignant growths I decided, first, in order to save time, to remove as much as possible of the growth with a scraper and then submit the raw surface to their influence. On July 11th I thoroughly scraped the nose under nitrous oxide anaesthesia, and as soon as the bleeding was arrested began the treatment. This was confined entirely to the nose, the other portions of the face being protected with a lead foil mask. Ten-minute exposures were given daily, Sundays excepted, until August 21st, when the healing process, which had hitherto been rapid, became arrested, and the newly-formed epithelium melted away. This was evidence to me that the exposures were too long or too frequent, consequently they were postponed until August 31st, when five-minute exposures were given daily until September 7th; these were resumed again on October 5th, when ten-minute exposures were ordered twice weekly through a mere slit in the mask to a fine line of unhealed tissue. The nose was completely healed on October 26th (See Fig. 4). During the treatment an ointment of acid salicylic gr. x, ad. ℥j, and finally lotio rub. were used. At the request of the patient the lupus erythematosus was not exposed to the rays.

Microscopical Examination.—This was made by my colleague Dr. MacKenna. Portions of the tissues removed by the curette on July 11th were preserved in 2 per cent. formalin, hardened in alcohol, embedded in paraffin, and cut. The sections were stained with logwood and eosin, and on microscopical examination presented the following appearances. There was great proliferation of the epithelial cells, which penetrated deeply in long branching columns into the subjacent connective tissue. In the connective tissue surrounding the epithelial columns there was considerable leucocytic infiltration. Scattered about the field were homogeneous masses surrounded by closely-packed and flattened epithelial cells with elongated nuclei—the "cell nests" typical of a squamous epithelioma. The microscopical examination therefore confirms the diagnosis of epithelioma made from the clinical history and phenomena.

REMARKS.

The development of epithelioma on lupus erythematosus is a very rare disease, and I would refer those who desire further acquaintance with the subject to Dr. Pringle's article. But it is rarer still for any one to have the opportunity of treating three separate developments of this disease after intervals of six and three years as has fallen to my lot.

Of course exception may be taken to the line of treatment pursued—namely, that scraping was adopted as a preliminary, and that valuable and efficient dressings were used; but I would ask:—Would these have produced such an excellent result without the aid of the *x* rays?

MEMORANDA;

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ON HAEMORRHAGE INTO THE BURSA PATELLAE.

I HAVE lately had under my care a second case of what I believe to be a rare affection, namely, haemorrhage into the bursa patellae. Both examples occurred in Sisters of Charity, and were doubtless due to pressure. In both the swelling was large and painful, and the skin red and hot, so much so that many surgeons would have felt justified in making a free incision. I preferred to introduce a large aspirator needle and drew off bright liquid blood, and then carefully strapped the joint with plaster and applied a bandage. The interior of the bursa appeared to be rough when the two surfaces came together, and the haemorrhage was free, so that I had to empty the bursa a second time before I completed the strapping. I renewed the strapping in a week, and again three or four times at the same interval, and then dismissed my patient with a bandage.

CHRISTOPHER HEATH, F.R.C.S.,
Consulting Surgeon to University College Hospital.
Cavendish Square, W.

CASE OF DOUBLE DISLOCATION OF THE STERNAL ENDS OF BOTH CLAVICLES BACKWARDS.

I CANNOT find any case recorded of simultaneous dislocation of the sternal ends of both clavicles backwards. The accident occurred at the Royal George Mills, Greenfield, on February 4th, 1902, and is probably worth reporting.

On arriving at the scene of the accident, I found the patient—a heavily built man of 40—in a dazed condition. He would not answer questions, but kept repeating that he "could not breathe," and moaning as if in pain. Examination showed some scalp wounds situated rather behind the occiput, and what at first sight looked like a dislocation of the sternum, its upper edge being, apparently, projected forwards almost the width of two fingers. Of course in reality both clavicles were symmetrically displaced backwards. The accident was caused by a fall down a lift, and the man was seen to alight on the back of head and shoulders.

The reduction was accomplished by placing the man on his back, with his chest thrown upwards with pillows. His elbows were then drawn upwards and outwards, whilst pressure with the hand was exerted to press the upper edge of the sternum, downwards and backwards. The clavicles, with an interval of about a minute, snapped forwards into their places. Then a firm pad was applied, and the patient progressed, without incident.

It appears difficult to understand the backward dislocation of the claviculae, when the force was, apparently, delivered from behind the sterno-clavicular joint. I think this is the probable explanation: the man had a well developed chest, with a sternum bowed forwards. His head must have been bent forwards at the moment when he struck the floor. He fell 16 ft. and the weight of his body—177 lb., must have driven the sternal ends of the claviculae in the line of the least resistance—downwards—behind the sternum.

COLIN CAMPBELL, L.R.C.P.I., M.R.C.S.Eng.
Southport.

PINCE-NEZ IN OPHTHALMIC PRACTICE.

IN the BRITISH MEDICAL JOURNAL of March 22nd, p. 710, Dr. Joyce has drawn attention to a very important matter in connexion with pince-nez, namely, that epiphora is caused by the compressing force dragging on the tissues at each side of the nose, and so displacing the puncta.

Until we have a better appliance than the present nose piece the ophthalmic surgeon can prevent this displacement by directing the patient to close the eyes whilst adjusting the pince-nez. If one pinches up the skin on the nose between the finger and thumb, imitating the action of the compressing force of the pince-nez, he will find that when the eyelids are apart the puncta are visibly displaced, whereas when the eyelids are in contact no displacement takes place by this action. Those who have worn this form of frame for some time

discover this, and instinctively close the eyes when settling it on the nose.

I think it is a prudent precaution on the part of the surgeon to request the patient to let him see the pince-nez or spectacles when he receives it from the optician. In this way the point in question can be seen to, as well as that the optical centres are properly placed, whether for "near," "distant," or "constant" use, that there are no scratches or defects in the glass, no bends in the frame, no want of symmetry between the two sides, and that the lenses, whether spherical or cylindrical, are of the prescribed power. I have frequently found mistakes in the spherical lenses, due, I suppose, to the carelessness of the workman. The odium of any of these defects, which cause inconvenience and trouble to the patient, recoils, not on the optician but on the surgeon.

Dublin. E. MAGENNIS, M.D.

A CASE OF HARELIP WITH CLEFT NOSE.

THE accompanying photograph was taken after death from a child 3 months old, and shows a very curious congenital deformity. I have not been able to find any record of a similar case.

There was a cleft palate, harelip, and cleft nose. The nasal defect I am inclined to attribute to arrest in the



development of the right lateral nasal process, and perhaps also of the descending frontal process in the embryo due to some obstruction in the vascular supply. The child lived for three months, and then died of convulsions.

Sunderland. THOS. A. WATSON, M.B.Edin.

PING-PONG TENO-SYNOVITIS.

A GENTLEMAN, aged 30, of heavy build, came to me a few days ago complaining of acute pain in the left leg. I found considerable oedema of the lower third of the limb, obscuring the anterior border of the tibia. The swelling was tender and reddened, and the pain and general disturbance so great as to suggest the possibility of an acute osteomyelitis.

The patient was put to bed and appropriate remedies employed. The next day the oedema had in great part subsided, and it was obvious from the creaking and crackling sensations on examination that there was acute teno-synovitis, in connexion mainly with the tibialis anticus.

The patient attributed his condition to his daily avocation which involves much walking, but incidentally another and more material circumstance was elicited—that he had been devoting his evenings with much ardour to "ping pong," and had, moreover, played the game wearing his usual stiff buttoned boots. The pastime in question appears to necessitate many sudden alterations in position, while at the same time the weight of the body is supported chiefly on the anterior pier of the main pedal arch. The strain on the tibialis anticus muscle must under these circumstances be severe, and until in the fullness of time a costume and footgear appropriate to this national sport be evolved such cases as this will probably from time to time occur.

Barnes. F. GRAHAM CROOKSHANK, M.D.Lond.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

NO. 17 STATIONARY HOSPITAL MIDDLEBURG, TRANSVAAL.

CASE OF INTUSSUSCEPTION OCCURRING AS A COMPLICATION OF ENTERIC FEVER.

(Under the care of ALFRED E. ASH, M.B., M.R.C.S., Civil Surgeon, attached R.A.M.C.)

IRREGULARITY in the peristaltic action of the muscular coats of the intestine has long been accepted as the immediate cause of intussusception. Various authors have attributed this irregular action to diarrhoea, dysentery, flatulent dyspepsia, undigested food, polypoid growths in the intestine, severe physical exertion, and other causes.

In the case of a patient convalescing after enteric fever, the prolonged rest in bed and the light dietary to which he has been subjected should tend to render the above mentioned causes of intussusception conspicuous by their absence. On the other hand, the dense induration of the wall of the lower ileum in patches of considerable size, which so frequently obtains after severe enteric fever, might be expected to interfere with the action of the muscular coats adjacent to such indurated patches. This condition, in conjunction with the normal peristaltic movements, might act as a factor in the causation of an intussusception which, corresponding with the seat of the previous ulceration, would occupy the lower ileum, or pass through the ileo-caecal valve.

Lieutenant-Colonel Jennings, R.A.M.C. (commanding this hospital) informs me that during his previous experience of enteric fever in India he has seen two necropsies in which ileo-colic intussusception was present. In each case death had followed symptoms simulating those of peritonitis due to the perforation of an enteric ulcer. The following are notes of a similar case in which the existence of enteric perforation appeared to be almost certain. Laparotomy was performed, and ileo-colic intussusception was discovered.

Case.—Sergeant C., Royal Scots, aged 25, was admitted on October 4th, 1901, to the enteric fever division of the hospital under my medical charge.

History.—After a rather severe attack of enterica the temperature became normal on the twenty-fifth day of the disease, and remained normal until the fortieth day, when a relapse of low type set in and continued until the fifty-seventh day, the total duration of the relapse being eighteen days. On the ninth day of this relapse at 5 a.m., after a very good night, the patient was suddenly seized with acute abdominal pain, which passed off in a short time. The pain returned about an hour later; it was less severe than at first, but became continuous. Some bile and mucus was vomited. At 9 a.m. the pain was very severe. The tendency to vomit was almost constant. The pulse rose to 125 per minute.

State on Examination.—The expression of the patient was drawn and anxious; perspiration was profuse. The abdomen was not distended, the abdominal muscles were rigidly contracted, producing a board-like condition of the walls. The pain was referred by the patient to the umbilical and epigastric regions. Pain on palpation was most marked in the umbilical region. Deep palpation was absolutely impossible. I diagnosed the case as one of peritonitis due to the perforation of an enteric ulcer. The general condition of the patient being good, it appeared to be a suitable case for operation. Colonel Jennings kindly saw the case at once in consultation, and agreed as to the diagnosis and the indications for surgical treatment.

Having decided to operate one-third of a grain of morphine was given at once. Preparations for the operation were made in an adjacent empty E.P. tent, into which the patient was removed.

Operation.—Chloroform was administered at 11.30 a.m., about six hours and a-half after the first onset of symptoms. When the abdominal walls had become relaxed under the influence of the anaesthetic, a slight but distinct fullness of the right inguinal region was evident. The tumour was apparently spherical, firm on palpation, and dull on percussion. I opened the abdomen by oblique right inguinal incision. On opening the peritoneum it was at once obvious that it was a case of ileo-colic intussusception, the lower portion of the ileum passing through the ileo-caecal

valve. The intussusception formed a large sausage-shaped tumour, 6 in. long, intensely congested and hard. The portion of the ileum next above the intussusception was indurated in patches, formed by the healing of confluent enteric ulceration. Considerable difficulty was experienced in the reduction of the intussusception, the condition of enteric ulceration lending additional danger to the taxis employed. After reduction, the portion of the bowel which had been involved was found to be intensely congested and infiltrated. At the point of flexure of the entering and returning layers the peritoneal covering was rough, dull, and nearly black in colour. A small portion of omentum which had been involved had become torn in reduction, and, being also in bad condition from pressure, was ligatured and removed. The exposed bowel and the peritoneal cavity was thoroughly flushed with sterilized water. The abdominal wound was closed.

Progress.—For the first twenty-four hours after the operation the patient was kept under the influence of morphine. Nothing was allowed except water in small quantities. On the second day small quantities of eef-tea and Brand's essence were given. On the third day peptonized milk and beef-tea were taken well. The patient made an uninterrupted recovery, without further pain or vomiting. The pyrexial course of the relapse continued for nine days after the operation, but was entirely unassociated with abdominal symptoms. The bowels acted naturally two days after the operation. The wound was dressed on the eleventh day and was found to have healed entirely by first intention. No further dressing was required beyond a simple pad and bandages to support the abdominal wall. The sutures were all removed on the fourteenth day. The patient was finally discharged convalescent to Pretoria.

THE INFIRMARY, CARDIFF.

CASE OF EMPYEMA WITH THREE RETAINED DRAINAGE TUBES.

(By Owen L. Rhys, M.B.Edin., Resident Medical Officer to the Infirmary.)

The patient, a man aged 60, was admitted into the infirmary, under the care of Dr. Charles Vachell, complaining of pain in the right chest and constant coughing. There was a small wound discharging pus on the anterior aspect of the right chest about the fifth interspace.

History.—The illness commenced two years and a-half before, and a month later a small piece of the fifth rib on the right side was resected in the anterior axillary line. The patient stated that while the dressings were being changed by a nurse who attended him in his cottage, he noticed that only the end of the drainage tube, with the safety pin attached, could be seen amongst the dressings. His son searched very carefully, but could not find the missing portion of tube. On two subsequent occasions the same thing occurred, so that when admitted to the Cardiff Infirmary he stated that he had had three pieces of red rubber drainage tubing in his chest for two years.

Operation.—A few days after admission he was anaesthetized, and an incision made over the posterior part of the right seventh interspace, the finger being inserted into the pleural cavity. Nothing but pus could be found. The anterior wound, which discharged pus, was enlarged, its margins pared, and pieces of rib removed until a long-bladed sponge holder could be inserted. At first only blood clot was removed, but eventually the forceps brought away three pieces of drainage tube. They lay at the apex of the pleural cavity, and were in good preservation, excepting that they had become grey in colour and very hard. The lengths of the tubes were 4 in., 3 in., and 2½ in.

Progress.—A large drainage tube was passed through the pleural cavity connecting the two wounds, and the discharge becoming less the tube was gradually shortened, and eventually left out. When the patient was discharged, six weeks after the operation, he was in very good health and the wounds had entirely healed.

Factory Girls' Country Holiday. Fourteen years ago when the London Factory Girls' Country Holiday Fund was started 39 women and girls were sent away for country holidays during the year. In 1900, 2,680 were sent. Last year the number rose to 3,060 up to the middle of September, and during the whole year, 3,120 were sent. The very poorest London factory women who could not possibly afford any holiday at all unless their expenses were paid were the cases benefited, and help was given to others who had saved a little money which they did not know how to utilize to the best advantage. The committee is obliged to make weekly payments, and therefore will be glad if friends who mean to help will do so, if possible, by the month of June. Subscriptions and donations may be sent to the Honorary Secretary, St. Peter's Rectory, Saffron Hill, London, E.C.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Howard Marsh, F.R.C.S., President, in the Chair.

Friday, April 25th, 1902.

Parietal Meningocele or Cephalhydrocele.

Mr. H. Barnard showed a male infant, 2 weeks old, with a swelling on his head, which was noticed two days after birth, and had not increased in size. It was about the size and shape of half a small egg, and situated on the upper and posterior part of the left parietal bone, distinct from the anterior and posterior fontanelles and the sagittal suture. A bony edge could be felt around its site on the skull. It fluctuated and became more tense on crying and coughing. An attempt to reduce it led to cessation of respiration and pallor.

Multiple Chondromata or Osteomata, with Synostosis of the Lower Epiphyses of both Ulnae and Fibulae.

Mr. Barnard showed a lad with numerous tumours projecting from the ribs, scapulae, clavicles, and femora, etc. These were bony, hard, and fixed to the bones. The epiphyses were for the most part enlarged. The lower epiphysis of the ulna had undergone early synostosis on both sides, leading to ulnar displacement of the hand at the wrist-joint. The fibulae were in the same condition. The internal malleolus was on the same level as, or a little lower than, the external, and the foot was displaced outward, as in talipes valgus. For this condition the patient had to wear irons. He suffered from severe rickets when an infant.

Tumour of Abdominal Wall.

Mr. Barnard showed a woman, aged 45 years, who had a large tumour of her abdominal wall of many years' standing. It had undergone no recent change. It was the size of a large orange, lobulated, hard, uniform in consistency, and situated to the right of the umbilicus. When the patient raised her shoulders from the couch the tumour became partly fixed and more prominent. She had also an umbilical hernia.

Delayed Growth and Development.

Mr. Hastings Gilford showed a male dwarf, aged 28, who came of a healthy and well-grown family. It was first noticed that he was not growing when he was between 1 and 2 years old. When first seen, just five years ago, he was 3 ft. 6 in. in height, and he had since grown about three-quarters of an inch. His height and proportions resembled those of a boy of between 6 and 7 years. A radiograph of the hand showed that the ossification was no farther advanced than was usual at the age of 10, while the dentition was like that of a child of the same age, though the teeth were crowded and irregular. The contour of the body and the appearance of the head and face were all childish. The testes had not descended, and the external genitals were infantile. There was no hair on the body or face. The intelligence was good, but his behaviour and conversation were more like those of a child than of an adult. The voice was more treble than that of an adult, though not quite childish in tone and pitch. The thyroid gland could be felt. The imperfect development did not appear to be due to heart disease, syphilis, or defective action of the thyroid gland, or hypoplasia of the sexual organs. The condition was certainly not one of normal infantilism.

Ethmoidal Mucocele.

Mr. Anthony Bowlby showed a man, aged 26, who when 5 years old suffered from "an abscess in the left eye." This condition lasted for thirteen months, and was followed by a persistent swelling in the region of the upper part of the nose on the left side, remaining constant in size and free from pain. The swelling in the inner side of the right orbit he remembered to have had in its present state for the last ten to fifteen years: he had suffered no inconvenience from it whatever. On March 10th, 1902, he first noticed that he was unable to breathe through his left nostril, and at the same time he experienced pain at the inner side of his left eye, and noticed the swelling there to be increasing. Since then it

had progressively increased in size, become more tender and more painful. He had never had headache, vomiting, or diplopia, and saw as well with one eye as with the other.

Dr. HERBERT TILLEY, discussing the operations which might be attempted, said that to attack the swelling from the outside would be court non-success, so difficult would it be for the wound to heal, in consequence of the constant discharge of fluid. An opening through the nostril, carefully done, might be attempted; but best of all would be an opening into the antrum, through which the lateral mass of the ethmoid might be removed.

Mr. BOWLBY expressed a preference for the second of these procedures.

CONGENITAL ABSENCE OF NOSE AND ANTERIOR NARES.

Dr. ESSEX WYNTER exhibited a female infant, aged 6 weeks, the first child of healthy parents, with this very unusual deformity, but without hare-lip or deficiency of the premaxilla. The hard palate was drawn up so as to simulate cleft palate; the soft palate was perfect. The child suffered from difficulty in feeding and respiration.

The PRESIDENT had never seen a case of this kind before.

PROBABLE CONGENITAL ATELECTASIS.

Sir HUGH BEEVOR showed a single woman, aged 22, whose heart was on the right side, the apex or maximum impulse being in the third interspace in the axilla. The right lung appeared to have the upper lobe almost solid, the bronchi not being patent and the breath sounds being almost absent. No previous illness from birth. A double coloboma of the iris and developmental changes visible in the lens and retinae suggested that the case might be one of congenital atelectasis of the lung or apneumatosis.

EXCISION OF THE RIGHT WRIST FOR TUBERCULOUS DISEASE BY A POSTERIOR MEDIAN INCISION.

Mr. W. G. SPENCER showed a patient, aged 26, who three years ago was suffering from tuberculous disease of the right wrist, which had already broken down, the wrist-joint, the carpus, and the tendon sheaths of the lower forearm being involved. Excision of the wrist-joint and carpus by a posterior median incision was done in April, 1899. In March, 1900, some sinuses in the right forearm were scraped, and arthrectomy of the left knee performed. Since then the patient had remained in good health.

A CASE OF CONGENITAL MORBUS CORDIS, WITH EXTREME CLUBBING OF FINGERS AND TOES.

Dr. J. WALTER CARR showed a girl, aged 10, who had always suffered from cyanosis and much dyspnoea on exertion, and felt the cold so much that she had only been able to attend school in the summer. There had never been any oedema. She was fairly well developed and well nourished, but showed a high degree of cyanosis, notably of the fingers, toes, cheeks, lips, and tongue. Clubbing of the finger-ends was excessively marked: the toes, especially the great toes, were also clubbed, though to a less extent than the fingers. The heart was considerably enlarged transversely, mainly to the right, but the exact nature of the lesion was obscure, as the only murmur heard was a very faint systolic one over the left border of the sternum, and most distinctly heard at the inner end of the second and third spaces. The heart intermitted irregularly at times. The other organs appeared to be normal.

ARTHROPATHY IN A CASE OF PULMONARY BRONCHIECTASIS.

Dr. PERCY KIDD showed a man who also exhibited swelling of both hands and feet, the enlargement affecting the fingers and toes, as well as the various joints. He had had "gout" several times. The pulmonary trouble had lasted three years. In bronchiectasis the number of organisms in the lung was infinite; but which produced the arthropathy was not known. This man's lesions were probably not due to gout.

URTICARIA PIGMENTOSA.

Dr. BEVAN showed a child, the skin of whose trunk and limbs was covered with brown maculae, pinkish in some parts, which did not disappear on pressure. No irritation. Especially on the back, the spots became raised if the skin was rubbed briskly. No pigmentation of mucous membrane; no induration of skin; no blood change; no eosinophilia; no sign of visceral disease.

Dr. ARCHIBALD GARROD said this was an extreme case of a rare disease which had been first described years ago before the Clinical Society.

CHANCRIFORM ULCER OF THE TONSIL, OR VINCENT'S ANGINA.

Dr. STCLAIR THOMSON showed a boy, aged 12, illustrating an uncommon form of membranous ulceration of the tonsil which had received little attention, although it had been described on the Continent under such various names as "diphtheroid angina," "membranous amygdalitis," "ulcerating lacunar tonsillitis," and the "angina of Vincent." The latter name was given to it in consequence of the discovery by Vincent in the membrane of a spindle-shaped bacillus of 4 μ in length and 1 μ in width. He had previously discovered the same bacillus in the dirt of hospitals.[1] The boy had only been complaining of a little sore throat for four days. The right tonsil was seen to be occupied by an oblong greyish slough, the margin was vertical and not inflamed. The slough was made up of a pulpy or chalky membrane, which was easily detached, and exposed an irregular, ulcerating surface, which bled readily. The rest of the throat presented nothing abnormal. The margin of the ulcer was not indurated on palpation. The glands below the angle of the right jaw were slightly enlarged and painful. The temperature was only 99°, and the pulse 84. There was no general discomfort beyond a slight soreness in the throat. Time had not allowed of a bacteriological examination. The similarity of the condition to a syphilitic chancre was obvious.

MEDICAL SOCIETY OF LONDON.

W. H. ALLCHIN, M.D., F.R.C.P., President, in the Chair.

Monday, April 28th, 1902.

THE QUIESCENT PERIOD IN THE COURSE OF ACUTE ABDOMINAL AFFECTIONS.

MR. A. H. TUBBY, who read a paper on this subject, defined the period as one which was met with after an acute onset, when most of the symptoms had subsided, and the patient expressed himself as free from pain, and often said he was comfortable. This interval was a prelude to aggravation of the disease, with acute peritonitis and a fatal termination unless its significance was realized. The quiescent period was well marked in cases of injury to the intestines with or without rupture, intestinal perforation by ulceration, injury to the peritoneal connexions of the viscera with interference of their blood supply, acute lesions of the Fallopian tubes, and particularly in acute appendicitis, either ulcerative, perforating, or gangrenous. Cases of these diseases were quoted in which the latent period had occurred. But in the instances given it was noticed that the remission of symptoms was never quite complete, or the usual course of events differed by the persistence of one or other symptom. The cause of the quiescence of symptoms was then briefly alluded to. It was shown by a short summary of some of the most important signs, when conclusions could be drawn from the presence of any one of them in an apparently quiescent case. The importance of the altered proportional rate of pulse to temperature, of rigidity, of distension, of vomiting were dwelt upon, and particular emphasis was laid on the blood count and the presence of leucocytosis. Leucocytosis was present in all these cases of latent mischief, and blood counts in a suspicious case should not be omitted. It was of the utmost importance in determining the onset of acute peritonitis, and afforded justifiable grounds for surgical interference without delay.

Dr. T. D. SAVILL, from a recent experience of several obscure abdominal cases, held that if the pulse-rate were over 100, even if the temperature were not raised, there was danger. An excess of polynuclear cells was a more certain evidence of suppuration than a general leucocytosis. The films were easily made and Leishman's stain was easily applied. Any percentage of such leucocytes over 65 showed there was suppuration, which should be dealt with promptly and surgically.

Dr. J. H. BRYANT thought a blood examination was almost indispensable in obscure abdominal cases, particularly where

[1] Vincent, *Annales de l'Institut Pasteur*, 1895, p. 488.

operation was in question. Two cases of abdominal tumour were referred to, in one of which with great excess of leucocytes, there was found a large abscess; in the other there was slight leucocytosis and the inflammation subsided without suppuration. In his experience a high pulse-rate had seemed to indicate operation. There were cases of diaphragmatic pleurisy not associated with abdominal lesion.

Mr. Jonathan Hutchinson, jun., thought there were two groups of cases in which a quiescent period occurred. In one it was probably due to the action of sedative drugs; in these there had never been any serious symptoms. In others there had been such symptoms which had subsided. Reference was made to a case of gangrenous intestine in which there was little or no peritonitis, and the patient had but little discomfort, suggesting that the nerves might themselves have been strangulated. Rigidity of the abdominal wall was certainly not an unfailing test of peritonitis. There was conflicting evidence in regard to the value of leucocytosis as indicating abdominal suppuration.

Dr. de Havilland Hall also maintained that diaphragmatic pleurisy was often not associated with abdominal lesions, although such an association might occur.

The President thought the pulse-temperature ratio was of great importance in obscure abdominal cases, as Dr. Cayley and others had pointed out.

Mr. Tubby replied.

Bilharzia Haematobia.

Lieutenant Lelean, R.A.M.C., communicated a highly technical paper on this parasite, in which he gave details of its morphology, the substances which had a toxic effect on it, its development, pathology, channels of infection, and treatment; the only drugs he had found of use were atropine, benzoic acid, and methylene blue, the latter, in 4-gr. doses, being the most important.

Surgeon-General Keogh thought the disease would shortly become of much importance in this country. Cases that would probably occur would not unlikely be mistaken for haematuria from other causes or for chronic dysentery.

Colonel W. L. Gubbins, R.A.M.C. (P.M.O. Home District), referred to the prevalence of the disease in the Rustenberg district. He had also seen several cases of the disease invalided in this country, and most of these had been in that district or on the Swaziland border.

Dr. J. H. Bryant mentioned three cases he had met with, one from the Rustenberg district, the second from the Crocodile River in the Transvaal, and the third from the Zambesi, all of which could be traced to bathing. In one of the cases the glycerine of carbolic acid had seemed to be beneficial.

Lieutenant Lelean replied.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. Payne, M.D., Vice-President, in the Chair.

Tuesday, April 29th, 1902.

Endothelioma of Salivary Glands.

Messrs. Raymond Johnson and T. W. P. Lawrence read a paper on a series of specimens of endotheliomata of the salivary glands. The paper was brought forward as a contribution towards the solution of the question as to whether the so-called "parotid tumour" and others of identical structure were to be regarded as of epithelial or connective tissue origin. From their observations the authors of the paper were in agreement with Volkmann and other pathologists who regarded the tumours in question as of connective tissue origin—namely, endotheliomata. It was pointed out that in their relations to the stroma the tumour cells behaved like connective tissue and not epithelial cells, and that the general structure of the tumours, in the presence of solid and tubular cell columns, could most closely be compared with embryonic vascular formation. The substitution of the connective tissue for the glandular theory of the nature of the salivary gland tumours introduced the difficult question of their limited and well-defined distribution. Three tumours of the carotid gland of identical structure had been met with, and it was suggested that similar vascular formations might occur in other parts of the area of distribution of the carotid vessels from which the tumours in question arose.

Mr. T. Walker observed that the tumours which had been described arising from the carotid body did not appear to him to closely resemble this group.

Endotheliomata of the Soft Palate and of the Mesentery.

Mr. C. G. Seligmann said he wished to draw attention to three tumours which he regarded as endotheliomata. Two of these occurred in the soft palate in patients aged 56 and 43 respectively. In the latter case a complete clinical history could be given. A woman, aged 43, had noticed a small painless lump in her palate for two years. This had slowly increased in size, and shortly before removal its surface had ulcerated. The growth, which had no capsule, was removed by Mr. Clutton in October, 1901, but at the present time there were two small flattened masses in the neighbourhood of the cicatrix caused by the operation. Microscopically the growth consisted of columns and strands of more or less spheroidal cells. Many of these columns were disposed regularly round a central space containing an amorphous coagulum which was regarded as coagulated lymph. The cells forming the columns among which there were many areas of hyaline change were in direct continuity with the endothelial lining of these spaces. The stroma of the tumour, where not invaded by endothelial cells, consisted of rather loose connective tissue. The other palatal tumour was microscopically of a somewhat similar type, though here the column arrangement of the cell masses did not occur and the areas of hyaline change were less obvious; the stroma, too, was dense in many places, the endothelial lining of the connective tissue spaces was in a condition of active proliferation giving rise to masses of cells which constituted the main bulk of the tumour. Here and there the cells lining spaces were markedly columnar, indeed practically all transitional forms between columnar and spheroidal cells were to be observed. In neither of these cases were there any enlarged glands or other sign of metastasis. The third tumour occurred in a woman, aged 31, who had for a couple of months noticed that her abdomen had been growing bigger. On opening the abdomen in September, 1901, Mr. Pitts found two masses as big as a coccanut and a cricket ball respectively in the mesentery. Both these masses, which were in no way connected with each other, had enlarged and filled the Y-shaped space at the attachment of the mesentery to the bowel without invading the latter or the peritoneal surface of the mesentery, which appeared normal. The consistence of the growths when cut into was soft and very vascular, not unlike placental tissue. Both masses were as far as possible enucleated. No enlarged glands were to be seen or felt. In January, 1902, the patient began to complain of recurrent attacks of pain, and a mass, which rapidly increased in size, could be felt beneath, but not adherent to the scar of the old operation wound. She died exhausted in February. During the last month of her life the tumour increased greatly in size, but at no time was there any evidence of metastasis or of invasion of the abdominal parietes with which it was in close contact. No necropsy was allowed. Microscopically the tumours consisted of irregular columns and groups of cells, between which there was a small amount of loose connective tissue. There were also numerous spaces containing a granular coagulum bounded by more or less spheroidal cells, generally one or two layers thick. These cells in places extended more deeply into the underlying stroma, and direct continuity could be traced in many places between the cells forming the walls of the spaces and the columns of cells which formed the most characteristic feature of the tumour. A number of spaces lined by a single layer of flattened cells were also present. These often contained blood corpuscles, and were thus differentiated from the spaces already referred to, which were probably lymphatic in origin, the growths themselves representing the results of proliferation of subperitoneal lymphatics near the root of the mesentery. There was nowhere any sign of inflammation or hyaline change.

Endothelioma of the Stomach.

Dr. J. G. Emanuel recorded four examples of what he regarded as endothelioma. The stomach presented the macroscopic characters of the leather-bottle lesion, and portions of the intestine were similarly affected; in one case

metastatic formations were found. The mucosa was not ulcerated. Histologically the dense fibrous tissue contained endothelioid cells, scattered or in lines, and everywhere without lumen. The author could trace no continuity with the gastric epithelium.

Mr. J. H. TARGETT was inclined to regard the specimens as carcinomatous, and the lesions as arising in the deep part of the mucous membrane.

ENDOTHELIOMATA OF THE CHEEK AND LIP.

Drs. O. F. F. GRÜNBAUM and H. D. ROLLESTON described the microscopic appearances of four tumours, three from the cheek, one from the upper lip, belonging to the class of endothelioma. The first was derived from the endothelium lining a lymphatic vessel: the vessel could be seen dilating and becoming filled with a solid mass of proliferated cells. It appeared probable that the dilatation was due to proliferation of the cells in four directions in the same place, and that proliferation in six directions resulted in the formation of solid columns of cells. The growth presented alveolar spaces resembling gland tubes, which were formed in two ways: (1) by degeneration of endothelial cells in the middle of solid columns, and (2) by degeneration of connective tissue strands surrounded by endothelial cells: some of the alveoli were shown by the acid orcein stain to contain elastic tissue. The second specimen was a perithelioma, derived from proliferation of the endothelial cells lining the perivascular space around a vessel and had a papillomatous arrangement resembling a villous carcinoma. It was an example of the group of tumours recently termed blastoma by Powell White, in which the cells, originally all alike or "indifferent," eventually formed both epithelial and sarcomatous elements; such tumours had been termed carcino-sarcoma. The two other specimens, from the cheek and lip respectively, very closely resembled the ordinary parotid tumours, like them contained cartilage, and were derived from proliferation of the endothelium lining lymphatic vessels.

ENDOTHELIOMA OF LIP AND SUBMAXILLARY GLAND.

Messrs. E. M. CORNER and S. G. SCOTT showed sections of and described a tumour of the lip, and another one of the submaxillary gland. They were both of long-standing and benign, had a fibrous capsule, and shelled out easily. That from the lip was about 2 cm. by 3 cm. in size. It consisted of masses of cells, closely packed, and a fibrillar stroma, which became denser in places, forming true cartilage. The parenchyma consisted of cells of varying size, which could be seen in places to be joined by intercellular protoplasmic bridges. There was no evidence of degeneration or of active growth. Throughout it could be seen channels lined by cells identical with those of the parenchyma, and directly continuous with them. These cells varied in shape from flattened to cubical and columnar. All these varieties could sometimes be seen in a cross section of one channel. Inside the lumen of some of them red blood corpuscles could be seen, and in others a débris containing what appeared to be the remains of blood. No ordinary blood vessels were seen in the tumour. The submaxillary tumour was similar, but had little or no cartilage. In it, too, were these channels in the parenchyma containing blood. It differed from the other, however, in that the cells of the parenchyma had in many places undergone a hyaline degeneration, forming curious amorphous strands. The authors concluded that these tumours had originated from blood vessel endothelium from the following facts: The structure of the walls of the channels, their lining cells being continuous with those of the parenchyma, their containing blood, and the absence of ordinary blood vessels in the tumours.

MIXED TUMOUR OF THE LOWER LIP.

Mr. S. G. SHATTOCK discussed the nature of an encapsulated tumour consisting of cartilage and of blood channels lined with layers of polymorphous epithelium, in places of marked columnar form. The specimen had long been in the museum of University College, and he was able to bring it forward through the kindness of Mr. T. W. P. Lawrence. It belonged to the same group as those of the parotid and submaxillary glands and palate. The cartilage in these tumours he had once thought might indicate a reversion to a tissue normal in the glands of the mouth in lower ancestral forms. For besides the atavism which concerned the grosser forms of organs, an atavism of tissue, a teleplasia, as it might be called, was theoretically possible. But he had found no evidence of this; his examination of the parotid gland of the echidna and ornithorhynchus—the most likely mammalian forms to exhibit such modified structure—showed a stroma of common connective tissue only, supporting the lobules and acino-tubular elements of the gland: nor did Oppel in his *Lehrbuch* of comparative histology of vertebrates refer to any form of connective tissue in the different glands of the mouth other than the common kind. There was no alternative except to relate the cartilage in this series of tumours with that of Meckel, in the line of which they occurred, those of the lip being in proximity to its anterior termination. The blood channels, lined as they were in part with columnar cells, offered great difficulties. In no member of the whole animal series were the blood or lymph spaces normally furnished with a columnar epithelium. If the endothelium of the heart and great arteries was derived from the hypoblast or endoderm, the peripheral blood system arose from vasifactive mesoblastic cells. One suggestion the speaker could make was that the channels might arise in connexion with remnants of certain extensions of the primitive coelom. The pleuro-peritoneal or body cavity or coelom arose as a direct extension of the primitive alimentary canal, that is, it was of hypoblastic or endodermal origin. In the dogfish tubular extensions of the coelom, lined with columnar cells, lay in the branchial bars, the blood space, lined with flat cells, being alongside; these coelomic extensions in the dogfish normally disappeared. Was the system of channels in these tumours related to remnants of coelomic extensions in the branchial bars, the blood capillaries afterwards coming to communicate with them; or did blood vessels become invaginated into such a system, after the manner described by Professor Lankester as phleboedesis, the columnar cells of the channels in the tumour being furnished by these surrounding endodermal cells? Or was it simpler to assume that the mesoblastic cells which gave rise to the capillaries were mesenchyme cells of endodermal descent, and that in these tumours the columnar form was a reversion indicating their primary source?

CONGENITAL MULTIPLE SARCOMATA OF THE SKIN.

Mr. GEORGE PERNET read a paper on this subject. Briefly the case was that of a newborn female infant, full term, which at birth presented some seventy growths in the skin scattered about the face, back, and the flexor aspects of the limbs. There was also a growth in the left auditory meatus, and another protruding from the anus. The right eyeball was very prominent and its tension greatly increased. There were also large masses of growth in the substance of the calves. The infant lived only three days. No necropsy was allowed, so it was impossible to say positively whether the skin growths were primary or secondary. In so far the case was incomplete. Microscopically the skin growths proved to be of the small round-celled type of sarcomata. Congenital sarcomata of the skin were extremely rare.

PANCREATIC TUMOUR.

Mr. W. WATKINS-PITCHFORD showed a large multilocular cystic tumour removed from behind the peritoneum in the region of the pancreas by Dr. Thomas Wilson, of the General Hospital, Birmingham. The patient, who was a woman, 29 years of age, had made a rapid and satisfactory recovery. At the operation, which lasted two and a-half hours, the tumour was found to be presenting through that part of the great omentum which lies between the stomach and the transverse colon, and to have below it the transverse mesocolon. The tumour weighed 2½ lb., and had a small bunch of cysts attached to the front of the main mass by a slender pedicle. The tissue of the wall of the main growth was continuous throughout the whole with that of the secondary cysts in its interior. The tumour had evidently originated by the cystic distension of spaces scattered throughout a more or less homogeneous tissue. The cystic spaces varied greatly in size from a mere slit, kept closed by surrounding pressure, to a cavity 5 cm. in diameter. The liquid contained in the cyst spaces was transparent, olive brown in colour, albuminous.

and of a specific gravity of 1020. After detailing its exact chemical characters and constituents the author specially adverted to the absence of all pancreatic properties in the fluid, and also to the absence of mucin and pseudo-mucin. The main tissue of the tumour consisted of fairly dense fibrous tissue. The pedicle which connected the small cluster of cysts to the main mass, as also the connective-tissue covering of the latter, contained bands of plain muscle fibre. The cystic spaces were lined, more or less uninterruptedly, with a single layer of columnar cells. In the loose subepithelial tissue were numerous pigmented cells of varying shapes. It was pointed out that these peculiar pigmented cells could not be ordinary connective tissue cells because, though some were remarkably elongated, the nuclei were always small and spherical. In two of the sections typical gland tissue had been discovered, in one case appearing as a distinct lobulus, the cells in the loculi of the lobulus having clear bodies and polyhedral outlines. The author was of the opinion that this multilocular cystic tumour had originated, probably very early in life, from some outlying fragment of the pancreas. Its anatomical relations, but especially the character of its glandular traces, carried out this opinion. If the theory of a pancreatic origin of the tumour was correct the absence of all pancreatic characters in the fluid cyst-contents was to be noted. Tumours of the class of teratoma and included fetus were excluded by the simplicity of the construction of the growth, as also by the absence of cartilage, bone, striped muscle and cutaneous organs.

CARD SPECIMENS.

Mr. W. G. SPENCER: (1) Fibromyoma of the breast and carcinoma; (2 lymphatic naevus; (3) haemorrhagic cyst of pancreas.—Mr. J. D. MALCOLM Concretion on a pin lodged in the appendix: perforation, death.

HARVEIAN SOCIETY OF LONDON.

CLINICAL EVENING.

W. WATSON CHEYNE, M.B., F.R.C.S., President, in the Chair.

Thursday, April 24th, 1901.

ERYTHROMELALGIA OR SCLERODACTYLY.

DR. SAVILL showed a woman, aged 39, a cook, the subject of erythromelalgia, or sclerodactyly. She had had a general eczema of the hands, which started fifteen months ago. The skin was now cured of any eczematous element, but there was left a sclerotic condition which for some months had prevented proper movement of the fingers. The redness was almost limited to the digits. All her other skin was healthy. She could not resume her occupation because she was unable to close her hands. The fingers were tapered in the way usually observed in circulatory disorders.

Remarks were made by Dr. GUTHRIE and Mr. JAFFREY.

ENLARGEMENT OF VEINS OF HEAD.

Dr. ALEXANDER MORISON showed an infant, 7 months old, which exhibited a great enlargement of veins passing from the vertex of the head to the left ear. When the baby was quiet a venous pulsation could be detected. There was some tension of the fontanelle. Nothing wrong was noticed until the child was 3 months old. It was the third child of the family. A French physician had published a description of the condition, recounting 50 cases, and he stated there was a specific history in all the cases. The French author thought such children eventually got well. Dr. Morison thought the specific character of the condition was not made out. The present patient had been treated for syphilis and for rickets.

Dr. CAUTLEY was not prepared to accept the congenital syphilis theory of the causation. He had seen cases without such history, and where there was marked obstruction to the circulation. In one case of great obstruction the child developed hydrocephalus, and the obstruction was found to be due to a tumour. Assuming the syphilitic causation of the disease, what was the lesion which would produce such a dystrophy? The unilateral condition sometimes met with might be due to the fact that the communications between veins were more free on one side of the head than on the other.

Dr. MORISON replied.

TUBERCULOUS DISEASE OF THE TESTIS.

The PRESIDENT showed a man, aged 40, on whom epididymectomy was performed eleven years ago for tuberculous disease on the right side. Two and a half years ago he came with tuberculous disease of the left testicle. Mr. Cheyne excised the epididymis and vas deferens, leaving the body of the testicle, with the vessels going to and from it, intact. The result was that the body of the testicle remained well nourished, and on superficial examination there was not much missing apparently. The operation was done by clean cutting, not by scraping. Great care had to be taken not to injure the vessels supplying the testicle with blood in removing the globus major.

Mr. RAYMOND JOHNSON took part in the discussion.

The PRESIDENT replied.

IDIOPATHIC MUSCULAR ATROPHY.

Dr. RISIEN RUSSELL demonstrated a case of idiopathic muscular atrophy. The patient was a man of 45, the disability having come on three years ago, up to which time he had been a coal porter. Sixteen months ago his left arm began to give out; the face was also affected, chiefly in the orbicularis palpebrarum and the orbicularis oris. No other member of his family seemed to have been similarly affected.

Dr. CAUTLEY and Dr. SUTHERLAND made remarks.

Dr. RUSSELL replied.

TAGLIACOTIAN OPERATION.

Mr. STANSFIELD COLLIER showed a youth, aged 17, who five years ago was very severely burnt on both feet and legs, leaving a patch over the front of the left tibia which never healed, the ulcer having several times broken down. He performed the Tagliacotian operation, examples of which were seldom seen now. There were advantages in that operation when dealing with an ulcer the bottom of which was bone very thinly covered with very dense scar. He took the flap from the upper part of the back of the right leg, and left the flap attached to both limbs for a fortnight. The raw surface caused by the removal of the flap had been covered with Thiersch's graft, and had nearly healed.

TREATMENT OF TUBERCULOUS DISEASE OF KNEE-JOINT.

Mr. RAYMOND JOHNSON read a paper on some points in the treatment of tuberculous disease of the knee-joint. Doubts were expressed as to whether tuberculous disease of a joint was ever recovered from without some degree of fibrous ankylosis. It was pointed out that a considerable proportion of the cases of supposed tuberculous disease of joints, followed by perfect restoration of movement occurred in the hip, in which the distinction between early tuberculous disease and other affections was particularly difficult. In the knee the results of non-operative treatment were usually unsatisfactory, for a degree of mobility was often left which was detrimental rather than useful, in that a gradual flexion of the joint so frequently followed. Such a condition often called for operative interference, with the object of converting the partial into a complete ankylosis. For similar reasons, the operation of simple arthrectomy or erasion was often unsatisfactory, and it was advised that, even though the articular surfaces were healthy, these should be removed, in order to obtain with greater certainty firm ankylosis. After all operations a long period of fixation was necessary.

PAPER.

Dr. LEONARD GUTHRIE read a paper on idiopathic hereditary and family haematuria, which was discussed by Dr. SUTHERLAND, Dr. AITLEE, the PRESIDENT, and Dr. CAUTLEY.

PATHOLOGICAL SOCIETY OF MANCHESTER.—At a meeting on April 16th, Dr. COLLIER in the chair, Mr. SOUTHAM mentioned a case of fat embolism following a compound fracture of the tibia, due to direct violence, occurring in a man aged 43 years. For some days after the injury, he was extremely drowsy, being aroused with difficulty. Fat globules were present in the urine and also found in the expectoration, which was stained with blood; an area of consolidation was present at the base of one lung. After the sixth day, the fat disappeared from the expectoration and urine, the mental symptoms also subsiding, and he made a good recovery.—Dr. KNYVETT GORDON showed a continuous suture passed *per anum* on the tenth day after laparotomy, and suture of a perforation in

the lower end of the ileum, occurring in the second week of a relapse of enteric fever. The patient was a girl aged 8 years, who after the operation went through the remainder of the relapse of enteric fever, and made an uneventful recovery. The passage of the suture was not attended by any constitutional disturbance. In sewing up the ulcer, a continuous suture was used, and Dr. Gordon attributed the sloughing that had taken place to the pressure of the silk over the entire area sewn up, stating, however, that he was inclined to prefer the continuous suture on account of the rapidity with which the stitches could be inserted, a most important point in dealing with the lesion of enteric fever. In this case the duration of the operation was twenty minutes.—Other preparations were exhibited as card specimens.

REVIEWS.

SURGERY.

PROFESSOR LE DENTU, of Paris, has written a small book on cancer of the breast,[1] in which he gives a detailed analysis of 53 cases of operation performed in private practice for cancer of the breast, between the years 1872 and 1901. Of the 53 patients 36 are dead—31 from cancer, 5 from intercurrent disease. The 31 who died from cancer are divided into three classes: (1) Consisting of 13 cases who died with local recurrence; after one operation in 6 cases, after two operations in 6 cases, and after three operations in 1 case. (2) Consisting of 12 cases who died with local and general deposits; after one operation in 5 cases, after two operations in 5 cases, and after three operations in 2 cases. (3) Consisting of 6 cases who died from metastases without local recurrence. Of the 17 cases living, there are 7 operated upon less than three years ago—1 between three and four years ago, 1 between four and five, 2 between five and six, 1 between ten and eleven, 2 between twelve and thirteen, and 3 between thirteen and fourteen years ago. The operation practised by the author has varied with the development of knowledge. In the earlier cases only the breast was removed, the axillary glands not being exposed; in the latter the breast, lymphatic vessels, glands, and the pectoral fascia were always removed, and at times the greater part of the pectoralis major also. Professor le Dentu is sceptical as to the necessity or advisability of the removal of supraclavicular glands, believing that if these are enlarged the disease has probably spread to the mediastinal glands and is already generalized. He expressly states, however, that he is not opposed to the complete removal of the pectorals and the dissection of the supraclavicular triangle, believing that it is better to go beyond the mark than not to reach it. The one point not altogether satisfactory is the omission of an exact pathological account of all the tumours. In Case XVI, for example, the tumour is described as movable and clearly defined, the axillary glands were numerous, and the general health was good. The breast was widely removed and the axilla cleared. "The histological examination made by M. Damaschino has fully confirmed the clinical diagnosis." The patient is living, 13 years, 7 months, 15 days after the operation. The clinical diagnosis, on the evidence given in the history, should not have been one of malignant disease. Case XVIII, the patient being alive and well 13 years and 5 months later is also open to serious doubt.

Professor v. SCHRÖTTER has completed in two more parts[2] the work upon the diseases of the vessels which he has been writing as a part of Nothnagel's *Cyclopaedia*. The first part contains articles upon dissecting aneurysm, rupture of arteries, thrombosis and embolism, and a brief description of erythromelalgia and angioneurotic oedema and their allies. The injection of gelatine in the treatment of aneurysms as suggested by Dastre and Floresco, and adopted by Lancereaux and others, has been tried in too few cases to warrant any conclusion being drawn as to its efficacy. In the cases treated by the author no harm resulted, though an elevation of temperature was noticed. The second part deals with the diseases of the veins. The pathogenesis of varix is fully discussed, and the current views as to the effect of increased intravenous pressure, valvular aberration, and congenital misdevelopment are expressed. Phlebitis, thrombosis, tumours, sclerosis, lepra, syphilis, and tubercle are included in the volume. The pathological descriptions in all cases are precise, clear, and authoritative, but the remarks on treatment are frequently trivial (that upon haemorrhoids notably), and are always too brief to be of value.

A work which has been popular for a generation, and has reached its seventh edition, may almost be considered an established institution, indifferent to criticism and unaffected by it. Though we know the work on *Diseases of the Rectum*[3] by Mr. WILLIAM and Mr. HERBERT ALLINGHAM in its former editions, we cannot welcome the seventh edition with enthusiasm. The revision appears to have been carried out with a sparing hand, and much recent work has been ignored. The chapter on fissure and painful ulcer contains no mention of Ball's explanation, now generally accepted, as to the origin of fissure: and it is said that in operating for such a condition "there is no need to cut right through both sphincters into the cellular space beneath, as the older surgeons used to do, but the external sphincter must be completely divided." The chapters upon haemorrhoids and upon pruritus are both rather out of date. If, as we expect and hope, further editions of this work are called for, we venture to suggest a much more thorough revision, with unhesitating hand, than has been accorded to this.

Professor MENDES, of Bahia, has published a series of essays in *Clinical Surgery*,[4] in order to prevent what he justly regards as much instructive surgical material from running to waste. The series is made up partly of the records of surgical cases, partly of descriptions of novel plans of treatment. Of twelve original articles contained in the first and main portion of the book, five deal with "new methods" devised and practised by the author. We find one for the reduction of shoulder dislocation, one for circular intestinal suture, and others for amputation of the penis and for the radical cure of hydrocele and haemorrhoids. The paper on the surgical treatment of gluteal aneurysm, which will be found of interest in many respects, and which has been carefully worked out, includes a reference to an unfortunate incident which indicates that in Bahia, whilst surgical skill and knowledge are quite in accord with modern views, hospital administration urgently needs reform.

From time to time attempts have been made to obtain a view of the interior of the oesophagus by passing tubes down the canal and looking at it by direct or reflected light. Dr. GOTTSTEIN, in his book on the *Clinical Uses of the Oesophagoscope*,[5] gives a detailed account of the improvements which have been introduced into the instrument and of the method of using it. The various lengths and shapes of tubes which are useful under different conditions are discussed and illustrations of them are given; the position in which the patient should be placed is also described and illustrated. Numerous cases are quoted in which this method proved useful in the diagnosis of oesophageal conditions. It is not a method which is likely to come into very general practice, as the cases to which it is applicable are limited in number, and its employment is not unaccompanied by difficulties. Those who are interested in the matter will find it fully discussed in this work.

Professor KOCHER, of Berne, has been encouraged by the

[1] *Le Cancer du Sein. Etude Clinique et Statistique.* Par E. le Dentu, Professor de Clinique Chirurgicale à la Faculté de Médecine; Chirurgien de l'Hôpital Necker, etc. Paris: J. B. Baillière et Fils. 1902. (Demy 8vo. pp. 124. Eight illustrations. Frs. 3.50)

[2] *Erkrankungen der Gefässe.* Von Professor L. v. Schrötter in Wien. I Hälfte, II Abtheilung. Erkrankungen der Arterien (Schluss) II Hälfte. Erkrankungen der Venen. Vienna: Alfred Hölder. 1901. Demy 8vo. pp. 266. 39 Illustrations. M. 7.80).

[3] *The Diagnosis and Treatment of Diseases of the Rectum, being a Practical Treatise on Fistula, Piles, Fissure, and Painful Ulcer, Procidentia, Polypus, Stricture, Cancer, etc.* By William Allingham, F.R.C.S., and Herbert W. A. Allingham, F.R.C.S. Seventh Edition. London: Baillière, Tindall, and Cox. 1901. (Demy 8vo, pp. 482, 69 illustrations. 12s. 6d.)

[4] *Etudes de Clinique Chirurgicale.* Par le Dr. Antonio Pacheco Mendes, Professeur de Clinique Chirurgicale à la Faculté de Médecine de Bahia. Paris: O. Berthier. 1901. (Demy 8vo. pp. 200. 26 illustrations.)

[5] *Technik und Klinik der Oesophagoskopie.* [The Technique and Clinical Use of the Oesophagoscope.] Von Dr. Georg Gottstein, with an introduction by J. von Mikulicz. Jena: Gustav Fischer. 1901. (Roy. 8vo, pp. 241, 8 plates. M. 14.)

favourable reception of previous editions of his textbook of *Operative Surgery*,[6] to render it, by considerable additions and careful revision, a thoroughly reliable work of reference. The importance attached to many modifications in abdominal operations, especially those connected with the surgery of the stomach, is indicated by the increased space devoted to this portion of the work, and by the number of new illustrations. A full and clear description is given of the author's method of gastrectomy which, it is maintained, has of late been so much developed as to afford much improved prospects of security and success. A description is given of a further modification of the author's operation for the radical cure of hernia, which on account of its simplicity and the persistence of its good results is warmly advocated. The operation for the removal of the tongue so long associated with the name of Professor Kocher, may now be regarded as obsolete, as its description is replaced in this edition by one of a totally different procedure, in which median division of the mandible and the application of the thermo-cautery play considerable parts.

The tenth volume of the treatise on surgery,[7] edited by M.M. LE DENTU and DELBET, is published in two parts, and contains articles upon diseases of the testis and cord by P. Sebileau, upon the diseases of the female genital organs by Pichevin, Schwartz, le Dentu, and Bonnet, and upon the surgery of the extremities by P. Mauclaire. In the first of these the chapter upon the anomalies of the testicle is extremely good; it embodies all the information we possess tersely and clearly expressed. The remainder of the section, however, is poor. The discussions upon uninteresting and unimportant questions are tedious. That upon *orchite par effort* may be singled out as especially wearisome and unfruitful. The allotment of space is not proportionate—thirteen lines being given to diseases of the vesiculae seminales, and three pages and a half to a description of resection of the scrotum in varicocele, a method "in common usage." The gynaecology is in all respects well done. The final article by Mauclaire, especially that portion of it dealing with congenital deformities, is worthy of special praise. The illustrations in this volume, and indeed in all its predecessors, are bad. There is barely one single original figure in all the ten volumes that is well drawn or well reproduced.

It is satisfactory to note that Mr. WALTER PYE'S *Elementary Bandaging and Surgical Dressing*[8] has proved itself to be well adapted to meet the requirements of junior students and nurses of the present day. In this the ninth edition, the revision of which has been entrusted to the competent hands of Mr. CARWARDINE of Bristol, whilst endeavour has been made to retain as far as possible the stamp of the original author, the necessity of bringing it into accord with modern knowledge has been carefully observed.

LONGEVITY AND LIFE ASSURANCE.

THE book *On Centenarians*, by Mr. T. E. YOUNG, late President of the Institute of Actuaries,[9] is a thoroughly original piece of work, and is, we believe, destined to be the standard authority on a subject which has always excited keen interest, and in relation to which the most divergent views have been held. The first chapter contains an analysis of twenty-two examples of centenarians collected from two sources. The first is the investigation of the Institute of Actuaries into the mortality experience of life assurance and annuity societies established in this country; this comprises observations in round numbers, upon upwards of 800,000 lives accepted for life assurance, and about 25,600 persons upon whose lives annuities had been granted. The second source is the experience of Government annuitants embodying observations extending over a period of sixty-seven years (since 1808), upon 10,929 males and 19,859 females. The great rarity of centenarians is conclusively shown from the fact that out of all these lives a careful scrutiny revealed only 22 cases. The proverbial longevity of annuitants is well illustrated by the circumstance that out of upwards of 800,000 assurance lives there were only four centenarians, whereas there were 18 among the 57,000 odd annuitants. The greatest age was 105 years 8 months, attained by a female annuitant. Among the assured lives was Sir Moses Montefiore, whose age at death was 100 years 9 months and 4 days. After pointing out the difficulties which attend the investigations of the facts as to alleged instances of centenarians, Mr. Young analyses the works of former labourers in this field. He quotes Mr. Thoms as establishing beyond doubt the mythical character of three typical instances of abnormal longevity—namely, those of Henry Jenkins, Thomas Parr, and the Countess of Desmond. Professor Owen was of opinion the limit of human life has not been extended beyond 105 years; and he pointed out that all existing observations on the clearest authentic data suggest 103 years and a few months as its present ascertained boundary. The case of Mrs. Elizabeth Hanbury has, however, shown that there is no hard-and-fast line as regards the limit of life. This lady was born on June 9th, 1793, and died on October 31st, 1901, aged 108 years and 144 days. Her birth was duly registered in the register kept by the Society of Friends. This register is now at Somerset House. As collateral proof it may be mentioned that her mother died in 1795—that is, 106 years before her daughter; and it is known that another child, who only lived a few days, was born subsequent to the birth of Elizabeth. A chapter is devoted to the alleged longevity of the antediluvians, and contains a critical analysis of the most important works on the subject. The author sums up that, bearing in mind the cumulative sources of mistake and confusion inseparable in the history of human frailty from the perpetuation of primitive and original traditional records, it is not a subject of wonder that the final results of investigation must be that credibility cannot be attached in any degree to these alleged ages. The book contains so many scientific problems that it is impossible to do justice to it in a short review. The contents of Chapter V will give some idea of the wide range of the subjects treated therein; they are as follows:—"(1) The Order in Nature of Cases of Centenarians; (2) a Mathematical Analogy; (3) Divergent Exceptions in Nature; (4) the Probability of Error Curve; (5) the Law of Large Numbers; (6) the Possible Connexion between the Length of a Generation and the Number of Centenarians; a Distinction suggested between two Kinds of a Generation; (7) the Connexion of Bacteriological Research with Longevity; (8) the Formula of the Conservation of Force; (9) the Age-Relationship of the Human Race, the Earth, and the Sun." All who are interested in the question of centenarians will find the book a mine of wealth.

Dr. CLAUD MUIRHEAD, in his volume on *The Causes of Death among the Assured in the Scottish Widows' Fund*,[10] has produced a valuable contribution to the statistics of life assurance. A vast amount of material has now accumulated in the reports issued by various offices, and is ready to be collated so as to be of practical value in guiding the medical officers and actuaries of assurance offices, but up to the present time no one has ventured to grapple with the ever-increasing bulk of statistics, and to educe law from chaos. The limits of a review will only allow of some points of interest being touched upon. Dr. Muirhead's figures show that the average duration of life of the assured who died of rheumatic fever was only a little over nine years—less than one-third of their anticipated after-life. This represents a great loss to the company, and emphasizes the necessity for great care in recommending applicants with a family or personal history of rheumatism. All cases of acute rheumatism, however slight, require an addition, and an attack sufficiently severe to keep

[6] *Chirurgische Operationslehre.* Von Professor Th. Kocher. Fourth Edition. Jena: Gustav Fischer. 1902. (Roy. 8vo, pp. 628; 256 Illustrations.)

[7] *Traité de Chirurgie. Clinique et Operatoire.* Publié sous la direction de MM. A. le Dentu et Pierre Delbet. Tome dixième. Paris: J. B. Baillière et Fils. 1901. (Roy. 8vo, pp. 1,334, Figs. 332. Frs. 17.)

[8] *Elementary Bandaging and Surgical Dressing.* By the late Walter Pye, F.R.C.S. Revised by Thos. Carwardine, M.B., F.R.C.S. Bristol: John Wright and Co.; and London: Simpkin, Marshall, Hamilton, Kent, and Co. 1901. (32mo, pp. 214, 97 Illustrations. 2s.)

[9] *On Centenarians and the Duration of the Human Race: A Fresh and Authentic Inquiry with Historical Notes, Criticisms, and Speculations.* By T. E. Young, B.A., F.R.A.S., late President of the Institute of Actuaries. London: Charles and Edwin Layton. 1899. (Demy 4to. Pp. 147. 7s. 6d.)

[10] *The Causes of Death among the Assured in the Scottish Widows' Fund and Life Assurance Society, from 1874 to 1899, inclusive.* By Claud Muirhead, M.D., F.R.C.P.E. Edinburgh (Printed privately). 1902. (Roy. 8vo, pp. 100, and appendix containing tables.)

the patient in bed two or three weeks and to incapacitate him from work for six or seven weeks demands an addition of an equivalent to seven years at the age of 30, and we think that a period of at least three years must have elapsed since the attack. Should the applicant have had two attacks we would not recommend him for assurance until after ten years from the date of the last attack, and only then with a much enhanced premium. If this course had been pursued, the Scottish Widows' Fund would have escaped a considerable portion of the loss. One of the most interesting and carefully worked out of the divisions is that on cancer. Dr. Muirhead's tables show conclusively the large and progressive mortality from this disease. He has very carefully analysed the deaths due to internal cancer and those due to external cancer, and, contrary to what might have been expected, there has been an increase in the number of deaths due to the latter compared with those due to internal cancer. This would certainly militate against the view that the increase in the death-rate from cancer is in large measure due to the greater skill in the diagnosis of the disease. Another notable point is that, while the average age at death from all causes rose a little more than two years in the three septennia under consideration, the average age at death from cancer declined by two years. So that assurance offices are hit in two ways—first, by the increase in the number of cases of cancer; and, secondly, by the decrease in the length of life of the assured who die from this disease. Where there is a family history of cancer the best way of meeting the increased mortality from this disease is by granting an endowment policy payable not later than 55. The tables illustrating the mortality from consumption are of the greatest possible interest, and are satisfactory alike from the point of view of the Society and of the public at large. Dr. Tatham has shown that in the years 1870 to 1890 there has been a decrease in the deaths from phthisis among males by 25 per cent. But the experience of the society is even better than this, as the death-rate decreased 27 per cent. from 1874-80 to 1888-94. In no class of case is the benefit of a careful examination more noticeable than in phthisis, as it is from this cause that the greatest amount of premature mortality occurs. Another most favourable feature in the figures put forward by the Society is the advance in the average age of death from consumption. Dr. Muirhead takes a cautious and reasonable view of a family history of phthisis, and he is of opinion that because too much has been made of this inherited vulnerability in the past, we are not entitled wholly to ignore it and to treat it as a negligible quantity. For some cause, possibly the result of the influenza wave, the mortality from pneumonia appears to be on the increase, and in the last septennium it took rank as the fourth heaviest cause of mortality, consumption having fallen to the fifth place. It is curious to find no mention of deaths from appendicitis, and perityphlitis is only mentioned in the last septennium as causing three deaths. Fifteen deaths are recorded as having occurred from hernia; in 7 cases it is specifically stated that the members were not afflicted with rupture when they joined the Society; in the remaining 8 this point is not mentioned. They were all well advanced in years. These figures support the action of the assurance companies which have decided that under ordinary circumstances no addition is required for a history of rupture. These are a few of the points of interest we have culled from this most valuable addition to life assurance statistics, and we can only conclude with the hope that others will come forward and formulate some general laws from the great mass of facts now accumulated.

In a pamphlet on prognosis as to duration of life,[11] Dr. E. MORITZ, of St. Petersburg, has discussed many of the chief causes which tend to shorten life, and their bearings on life assurance. Like Humphry, of Cambridge, he concludes that the tendency to longevity is born with the individual, and it is no doubt true that a family history of longevity or the reverse is, as Sir H. Weber and others have pointed out, of very great importance in life assurance questions. Dr. Moritz believes with Thoma that localized arterial degeneration has a predilection for those parts of the body which have to do the most work, and for those vessels which are thereby subjected to the greatest and most frequent differences in the degree of distension; for instance, the radial arteries of labourers, the cerebral vessels of literary men, etc. The radial arteries are often much affected in old peasants in whom the aorta, coronary, and cerebral vessels show only relatively little sclerosis. With regard to the estimation of the pernicious influence of alcohol on the chances of longevity, and of the relative chances of total abstainers, it is held to be a difficulty that in the statistics of total abstainers many persons are included whose weakness of constitution has led them to abstain; any greater liability of such persons to disease or early death cannot justly be assigned to abstinence from alcohol. With regard to centenarians we may commend to Dr. Moritz the perusal of Mr. Young's work.

[11] *Ueber Lebensprognosen.* Von Dr. E. Moritz. St. Petersburg; K. Ricker. 1901. (Demy 8vo, pp. 51.)

NOTES ON BOOKS.

WE have received the third annual issue of the *British Sanatoria Annual.*[12] It gives particulars, with numerous views, of some forty sanatoria in the British Isles. There is evidence in the first line of page 44 that the revision is not quite complete to date. If, as seems to be the case, the book is intended as a guide to patients as well as to medical practitioners, the wisdom of publishing articles on medical details, such as the value of rectal temperatures or the inhalation of formic aldehyde in treatment, by medical men whose sanatoria are noticed in the book, appears open to criticism. The addition of these articles is a new departure which the editor proposes to extend in future editions. As a guide to sanatoria the book is to be recommended.

The twenty-sixth volume of the *Transactions of the American Gynecological Society* for 1901 contains a suggestive presidential address on the future of gynaecology as a special branch of surgery, a valuable series of papers on menstruation, and another series on Caesarean section. There are also several useful contributions dealing with technical points in abdominal surgery.

LECTURES BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Dr. W. D. HALLIBURTON has printed in a small volume the Croonian Lectures on the *Chemical Side of Nervous Activity*, which he delivered before the Royal College of Physicians of London in June, 1901. Abstracts of the lectures were published in the BRITISH MEDICAL JOURNAL at the time. The volume contains the full text and some excellent illustrations, including a series of coloured plates, showing the changes following transverse section of the nerves (London: John Bale, Sons, and Danielsson, Limited. 5s.). Dr. NORMAN MOORE has also printed in a volume the Harveian Oration, which he delivered before the Royal College of Physicians of London last year. The text was published in full in the JOURNAL at the time, but many will be glad to know that it can be obtained in a separate form (London: John Murray. 2s. 6d.). Dr. JUDSON S. BURY has also printed his Bradshaw Lecture on *Prognosis in Relation to Disease of the Nervous System*, which was published in the JOURNAL at the time of its delivery (Manchester: Sherratt and Hughes. 2s.).

[12] London: John Bale, Sons and Danielsson. 1902. (Demy 8vo, pp. 158. 2s. 6d.)

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

DR. ADAIR, of Belfast, being impressed with the fact that a subcutaneous injection of normal saline solution in threatened collapse from haemorrhage may often be required at a moment's notice, has devised a method of using a special form of stethoscope for the purpose, as shown in the accom-

panying drawing. The ear-piece opens, and 4 ft. of tubing with a needle attached drop out; one end is screwed into the small end of the stethoscope stalk, and the chest-piece of the latter being enlarged and bell-mouthed, a funnel is the result. It can, he states, be got ready in ten seconds. The combination with the binaural is more complex, and is thus described by Dr. Adair. The chest-piece is a spool, around which a length of tubing is wound, protected by a telescope cover. To use as an injector the cover is drawn nearly off the spool, letting the tubing with needle drop out, and forming in its changed position a funnel, the bottom of which is the diverging tubes of the chest-piece. One of them is closed with a plug. The conducting tube is allowed to remain in the other, and has its companion attached to its other end, and this has the tube first named with its appended needle attached to it, and becomes an injector. It can be got, he says, ready in twenty seconds. The instruments are made by Mr. John Weiss of London.



THE XIVTH INTERNATIONAL CONGRESS OF MEDICINE, MADRID, APRIL, 1903.

THE Executive Committee of the 14th International Congress to be held at Madrid have issued the following list of subjects proposed for discussion in the various sections.

Anatomy.

(1) Which is the best method for the didactic exposition of the nervous system? (2) What is the actual value of anatomical measures for the ethnic determination of individuals? (3) *The structure of the nerve cell. (4) The origin of fibroblasts in new formations of connective tissue both normal and pathological.

Physiology.

(1) *The physiological action of saccharin: Should it be prescribed with food and drink or should it only be employed as a drug? (2) The effect of glandular toxins upon muscular contraction. (3) A biochemical study of organo-metallic and metallic combinations. (4) Experimental pancreatic glycosuria.

General Pathology, etc.

(1) *Parasitism in new growths. (2) The origin of sarcoma. (3) Blastomycetic lesions. (4) *Suggested revision of the classification and description of recognized bacteria.

Therapeutics.

(1) The relationship of the chemical composition of drugs to their physiological action. (2) The dangers and emergencies of the so-called intensive or exaggerated medication in chronic affections, especially in tuberculosis. (3) The utility and dangers of intravertebral injections of cocaine in medicine and surgery. (4) The method of physiological and the remedial action of hypnotic and narcotic drugs.

Medical Hydrology.

(1) The physico-chemical study of the new gaseous elements argon and helium in mineral waters. (2) Syphilis and its hydromineral treatment. (3) Tuberculosis and its hydromineral treatment.

Pharmacy.

(1) The therapeutic standardization of antitoxic serum. (2) The importance of the colloidal state of the substance in the preparation of remedies and in their pharmacological action. (3) Hypodermic injections, their pharmacological significance, and the advantage of issuing a pharmacopoeia which consolidates the methods of preparing and preserving these preparations. (4) The necessity and utility for remedies of a definite therapeutic strength, by adopting in each case an identical method of obtaining them, of preparing them, and of estimating their value.

Internal Pathology.

(1) The cerebral, cardiac, and renal importance of infection. (2) *The etiology and prophylaxis of malaria. (3) The pathogeny of cardiac arrhythmia. (4) The application to clinical medicine of new investigations upon the physical and chemical properties of blood serum.

Neuropathy.

(1) Toxic and infective manias. (2) *The etiology and therapeutics of psychical conditions. (3) The centre of projection and association in the brain as determined by actual pathological anatomy. (4) The clinical study of agnosia and asymbolism. (5) The limitation of the pathological nature of crime. (6) The intervention of psychiatry in the reform of criminals.

Pediatrics.

(1) The therapeutic value of serumtherapy in diphtheria. (2) The treatment of clubfoot. (3) The treatment of tuberculous disease of joints. (4) Feeding of young children.

Dermatology and Syphilography.

(1) *Gonorrhoea from the medico-social point of view. (2) Parasyphilitic affections and the retrospective diagnosis of syphilis. (3) The treatment of pruritus. (4) The various forms of purpura.

Surgery.

(1) *Death after operation. (2) The indications for surgical interference in diseases of the stomach.

Urinary Diseases.

(1) The remote effects of surgical interference in cases of malignant tumours of the kidney. (2) The comparative value of the present means of learning the functional condition of the kidneys.

Ophthalmology.

(1) The surgical treatment of affections of the lachrymal tract. (2) The necessity for consolidating the various optometric scales. (3) *Optic neuritis in the course of acute diseases. (4) Investigations of the action of drugs upon the pupil, upon accommodation and intraocular tension.

Otology.

(1) The causes of deaf-mutism. (2) The anatomical and clinical study of cholesteatomata. (3) The after-treatment of operations on the ear.

Rhino-Laryngology.

(1) Is it advantageous from a medical and social standpoint to operate in every variety, in every phase and at all periods of malignant disease of the larynx? (2) The estimation of the local treatment of tuberculous disease of the larynx. (3) Is atrophic rhinitis always autochthonous? The necessity of establishing an exact diagnosis to determine the treatment in this condition.

Odontology and Stomatology.

(1) The treatment and stopping of teeth with diseased pulps. (2) Dental histology. (3) Bucco-facial and skeletal prothetic appliances. (4) The amount of knowledge which should be required to practise dentistry and the methods of teaching. (5) The nature and treatment of pyorrhoea alveolaris. (6) Local anaesthesia in dentistry.

Obstetrics and Gynaecology.

(1) The indications for hysterectomy in acute puerperal infection. (2) The treatment of placenta praevia. (3) The pathology and treatment of chronic pelvic cellulitis and peritonitis. (4) The indications and results of opotherapy in gynaecology. (5) Conservative surgery in affections of the uterine annexa.

Military and Naval Medicine.

(1) A method of solving the problem of tuberculosis in the army. (2) *The advantages and inconveniences of compressed drugs for distribution to an army in the field. (3) The influence of military life upon the development of affections of the nervous system, especially on neuroses. (4) *The hygiene of troops at sea and on land on the West Coast of Africa. (5) The prophylaxis of syphilitic and venereal diseases in the army. (6) *The cockpit in modern men-of-war.

Hygiene.

(1) The necessity to determine the prophylactic value of disinfection and a criticism of the proceedings usually. (2) The practical means, individual and collective, which are to be adopted to avoid the dissemination of dysentery. (3) The advantage of establishing sanitary *douanes* on the land frontiers of each country. (4) The advantage of antituberculous dispensaries as a means of increasing the vital resistance of the lower classes. (5) Hygiene and drains.

Forensic Medicine.

(1) The legal significance of wounds according to their cause, position and character. (2) The medico-legal idea of deformity. (3) Discretion and precocious criminality. (4) The capacity and responsibility of degenerates. (5) The localization of poisons.

Intending members of the Congress who are specially interested in the sections marked with an asterisk are requested to communicate with the Secretary-General of the Congress, Dr. Fernandez Caro at Madrid.

Forms of application for membership can be obtained from either of the Secretaries of the National Committee for Great

Britain and Ireland, Mr. D'Arcy Power, 10A, Chandos Street, Cavendish square, W., or Dr. P. Horton-Smith, 15, Upper Brook Street, W. For the present the subscription is £1.

THE REPORT OF THE INDIAN PLAGUE COMMISSION.

Introductory.

The subject of plague in India is of very much consequence to the welfare of that immense portion of the British Empire, and the mere possibility of the disease finding any footing in the United Kingdom is of very serious import at home. The Report of the Indian Plague Commission requires, therefore, much more than ordinary consideration on the part of the medical profession, and especially of all who are directly interested in the administration of public health. The report is, however, so enormously bulky, consisting of several great foolscap Blue Books, that there can be no hope of its being read through by almost any one. Even Volume V. which constitutes the Final Report, contains a mass of detail likely to militate against its complete perusal and study unless by persons exceptionally occupied with the subject. In these circumstances it has been deemed advisable to prepare a somewhat lengthened account of its contents for publication in successive issues of the British Medical Journal, so that readers who choose may, without undue labour, obtain a general view of the whole subject.

In any synopsis of such a work it is almost certain that some matters of consequence will receive insufficient attention or imperfect representation, but those who wish to go further will at least be guided to the parts of the Report which they may wish to follow up.

The Plague Commission consisted of the President, Professor T. R. Fraser, F.R.S., of Edinburgh University: Mr. J. P. Hewett, C.I.E., Secretary to the Government of India in the Home Department; Professor A. E. Wright, M.D., the Army Medical School, Netley; Mr. A. Cumine, I.C.S., a Senior Collector in the Bombay Presidency; and Dr. M. A. Ruffer, President of the Sanitary, Maritime, and Quarantine Council of Egypt.

Before proceeding with any account, either of the work of the Commission or of the measures actually taken to deal with plague, it seems desirable to give some slight indication of the enormous difficulties of health administration and disease prevention in India, and of the intricacy and perplexities attending the labours of the Commission in inquiring into and endeavouring to arrive at definite conclusions on the questions considered by them.

The character of the house accommodation of the poorer class in India, and especially in the large cities, has constantly to be kept in view in taking note of the measures which were adopted in dealing with plague. It is indeed almost a pity that a definite description with plan of one of the huge "chawls" or tenements, giving accommodation to hundreds of individuals in Bombay, was not prefixed to Chapter II. The picture which the reader gradually gathers as he goes on from one part of the Report to another is that of great warren-like buildings with numerous apartments opening off narrow passages or off each other in series. The apartments are small, dark, and almost without any intentional ventilation. The floors consist of a mixture of earth and cowdung plastered on weekly, the operation being in part a religious ceremonial. As a result the surface is above the level of the ground outside. Floors of this sort are said to afford a pleasant and cooling surface for the bare feet of the inhabitants. There is very little furniture in the rooms and not many recesses, and they are said to be kept fairly clean. It is suggested that the prevailing darkness is probably grateful to eyes wearied of the glaring sunlight of India; but it appears also that a desire for privacy of the women enters into the matter, and that the natives have a feeling of insecurity in presence of windows giving light and ventilation.

Another important feature is the extraordinary overcrowding of the houses at night, the floors being practically covered with recumbent human bodies. Extreme poverty is no doubt an important factor here, but even where a native Government official is provided with a roomy house, long habit is said to induce him to cram all the occupants into one apartment, where they sleep on the floor pretty much as in the "chawls."*

There are also religious objections and unreasoning fears with regard to the removal of patients to hospital, the destruction of infected clothing, the segregation of contacts, and almost everything else which ordinarily belongs to the practice of preventive medicine and sanitation. Complementary to these difficulties are the enormous size of the population requiring to be dealt with; the comparatively small number of Europeans available for an administrative staff; the ignorance and untruthfulness and venality of much of the native assistance which it is possible to obtain; the impossibility of anything approaching to complete notification of plague even where its nature is recognized; and the absence of regular or trustworthy returns of deaths and causes of death. Added to all this there is the fact that in modern medical experience plague epidemics have been practically unknown in the plains of India since 1836, though perhaps never wanting in endemic foci in certain places in the Hills. Such are some of the more prominent aspects and conditions of the problem which the Plague Commission was sent out to report on. As one peruses page after page of the large volume which contains the Final Report of the Commission, and glances at the huge amount of evidence contained in the other volumes, some of it by witnesses accustomed to think in and speak a foreign language, it seems almost surprising that the local Governments did not give up in despair their task of controlling the disease, and it is not to be wondered at that the conclusions of the Commission on some important points are wanting in unanimity.

Volume V is the most important of the Report of the Plague Commission. It contains seven chapters and appendices as follows:

Chapter I. Questions referred to the Commission and Proceedings of the Commission.
Chapter II. Account of Plague in India from 1896.
Chapter III. Character of Plague and the Means by which the Disease is Communicated and Spread from Place to Place.
Chapter IV. Haffkine's Antiplague Inoculation.
Chap. V. Serum Therapeutics of Plague, with Special Reference to the Antiplague sera of Yersin and Lustig.
Chapter VI. Measures for the Suppression of Plague.
Chapter VII. Recommendations Regarding the Organization of the Sanitary Department in India.

Appendices.

I. Statistics relating to certain Clinical Characteristics of Plague.
II. Description of the Clinical Features of Plague by the President.
III. Memorandum by the President on the influence of insanitary conditions upon the extension and virulence of plague in India, disagreeing with certain of the conclusions of the majority of the Commission.
IV. Measures for the discovery of plague deaths. Memorandum of dissent by Dr. Wright and Dr. Ruffer.
V. Note by the President regarding the efficiency of measures of disinfection which have been adopted, with a statement of the measures recommended by him for dealing with plague, disagreeing with certain of the conclusions arrived at by the majority of the Commission.

Chapter I contains mainly formal matter.

CHAPTER II.

Account of Plague in India from 1896.

The first subdivision of the chapter discusses the origin of the outbreak of plague in Bombay in 1896. Briefly, the Commissioners state that the manner in which the disease was introduced into the City is very obscure, and defies elucidation. It is fairly well established that cases occurred first in the Mandvi quarter as early as July, though official recognition dates from September 23rd, 1896. The view that infection came from the Hills is put aside as untenable, the conclusion being that its introduction to Bombay must have been by sea, but exactly whence there is no satisfactory evidence to show. Hong Kong had been infected for some time previously, and that importation thence is possible was proved in the third Bombay epidemic in 1899, but in 1896 the disease may have come not from Hong Kong but from some endemic focus in the Persian Gulf or Arabia. The Commissioners hold that there is no reason to think that the plague was present in Bombay before

* This would not be without precedent in Great Britain; houses of two rooms were the rule for generations in the north of England and south of Scotland. When landlords in Northumberland first began to build houses with several bedrooms for their tenants, the custom of using one only persisted. One sitting room and one sleeping room—but and ben—was an old established custom not lightly to be laid aside.

1896, and, indeed, with the exception of certain districts in 1853-4, plague is not believed to have been in the plains of India between 1836 and the rainy season of 1896. From that time onwards the disease was confined chiefly to Bombay City and the Presidency of Bombay and Sind, there having been three periods of increase and decline from September, 1896 till June, 1899, the time mainly dealt with in the Report. The city itself was continuously affected, and the disease entered every district in the great strip of land along the west coast of India which constitutes the Presidency of Bombay. The infection found its way also into many adjoining Native States.

Bombay: First Outbreak.

It is necessary to note the measures which were taken at successive times in Bombay City to deal with the plague. At first the responsibility was left with the municipal authorities, on whose Commissioner special powers were conferred under a local Act. On October 6th, 1896, the Commissioner issued a notification providing for the right of entry to buildings by authorized officers, for cleansing and disinfection, for removal of infected articles, for compulsory removal to hospital of any person certified by the health officer to be suffering from the disease, and finally for the isolation of infected houses. The provision for removal of cases to hospital caused much public excitement, and the order had to be modified, so as not to apply to cases in premises where, it was thought, proper segregation and treatment could be carried out. The practice at this time was that a patient in such premises was removed to the best lighted and ventilated room in his house, and was there isolated so far as possible. Other cases were taken to hospital. There was no general evacuation of infected houses nor segregation of healthy inmates, though in some instances where the disease was very virulent the residents were removed to camps provided for them, and this course was less objected to than hospital isolation of the sick. The Commissioner had no proper staff at his disposal for extensive disinfection, yet great efforts were made on the following lines:—

1. Cleansing and disinfection of infected rooms and overhauling and disinfection of drain traps and connexions.
2. The use of dry chloride of lime or carbolic acid powder for floors and passages of infected and neighbouring houses.
3. Thorough flushing of the infected building, and removal of all obstruction to light and air, including the opening of the house roof.
4. The burning of rags and rubbish, and the disinfection of more valuable articles in infected buildings.
5. Limewashing of whole houses before reoccupation.
6. Twenty days' closure of grain stores in which plague had appeared, exposure of grain, etc., to the sun, and the flushing and disinfection of the warehouse.
7. Closing, limewashing, and fumigation for three days of infected shops, and twenty-four hours' exposure to the sun of all goods in them.

In addition, disinfectants were distributed among the people along with instructions, which, however, may have been seldom followed. Flushing of sewers, and limewashing on a large scale were undertaken in some parts of the town, and many insanitary houses were demolished or improved.

A feature which is notable all through the Report is the extensive exodus of inhabitants from plague-stricken towns and cities. The normal population of the city of Bombay was estimated at 846,000. At the end of the year this was reduced by about 170,000, and in January, 1897, by about 187,000 more. By the middle of February the population of the city is believed to have been brought down to about 450,000.

From the beginning of the outbreak till about the middle of February the reported attacks and deaths from plague had steadily increased, the numbers being for November, 887 attacks and 643 deaths; for December, 1,655 and 1,160; for January, 2,374 and 1,835; for the first twenty-six days of February, 2,958 and 2,873. To all such figures, however, a very large addition has to be made for concealed or unknown cases - an addition of perhaps 35 per cent. on an average. In March the population began to return, along with many outsiders, including indigent and underfed victims of the famine year.

At this time Government relieved the municipal authorities of their plague duties, and appointed a Commission of five, of which General Gatacre was chairman, and which included one medical member, Surgeon-Major Dimmock, while Surgeon-Lieutenant-Colonel Weir, the health officer of the municipality, acted as Chief Medical Officer to the Commission. Over 9,000 plague deaths had been recorded from September 23rd, 1896, to March 31st, 1897, when the new Commission began its work, and it is supposed that more than half of the plague cases actually occurring had remained undiscovered. The objects aimed at by General Gatacre's Commission were three in number:

1. Discovery of all cases of plague.
2. Treatment of all cases in hospitals to be provided at convenient places for different castes.
3. Gradual segregation of persons living in the same room with, or in close attendance on, plague cases.

To carry out these purposes the town was divided into ten districts, each in charge of a medical officer, whose duties were (1) supervision of the districts, (2) supervision and attendance at the hospitals, (3) supervision of search parties in conjunction with the justices of the peace, (4) control of disinfection of areas and buildings, (5) inspection of segregation camps, (6) to call the attention of an appointed officer to insanitary buildings requiring condemnation, (7) to report on registration of burials and cremations and sanitary supervision of cemeteries, (8) to report daily to the Plague Commission and the health officer. Each of the ten districts was divided and subdivided for administrative purposes.

The employment of justices of the peace along with the search parties of soldiers was to allay religious alarms. Every sick person found by a justice was put under guard of a sepoy and then medically visited before removal to hospital. An endeavour was made to provide hospitals so situated as not to involve too much fatigue to patients through removal. Fifteen such hospitals were maintained by Government and twenty-eight private hospitals were sanctioned, but only on condition that the staff should be under the control of the district medical officer.

Disinfection of premises included the digging up of the floor to a depth of 4 inches, and its treatment by a solution of mercury perchloride not weaker than 1 in 1,000. In addition to limewashing, etc., steam-flushing engines were used to wash down the outside of the premises, and drains were flushed with disinfectants. Houses in which four or more cases had occurred were vacated, and, if very insanitary, were closed against habitation. General Gatacre's work on the Commission lasted for three months ending June 30th, 1897. By this time plague had very much declined, and the population was estimated to have remounted to 750,000. Unfortunately many insanitary houses had to be reopened, and there was much destitution.

Sir James Campbell took General Gatacre's place from July 1st. Owing to various causes, medical aid was difficult to obtain in July. In August there was immigration by sea from Cutch Mandvi, with risk of importation of plague, and camps were opened for ten days' detention of such arrivals. In September relapsing fever prevailed, and immigration from plague-infected districts increased. The disease itself increased in Bombay in the latter part of October, and owing to increase outside the city the Commission proposed quarantine, but the Chamber of Commerce objected, and the measure was not generally carried out at that time, though special steps were taken to prevent infection from two dangerous centres of population. Quarantine was enforced from November 19th.

Bombay: Second Outbreak.

After the middle of December the disease further increased, this being regarded as the beginning of the second outbreak. Two preventive measures were specially considered: (1) The segregation of the whole of the patient's family, and of all intimately associated with him; (2) the vacation of infected or unwholesome houses, with removal of the inmates to health camps. Up to that time, contacts had not been so extensively dealt with, and inmates of emptied houses had usually gone where they pleased. Even yet segregation could only be partial, as many tenement houses or "chawls" had many hundreds of inhabitants. Health camps to accommodate 40,000 persons were constructed on the Island of Bombay. In January 1898, the epidemic became much more serious, the deaths being 2,532 in the four weeks ending January 28th, 4,464 in the next four weeks, 5,512 from then till April 1st. A rapid decline began on May 18th, only 200 plague deaths being reported in June. In the early

part of the year Bombay was practically isolated, severe restrictions being placed on intending emigrants, including ten days' detention of persons leaving by railway, and prohibition of passengers by native crafts to any port between Karachi on the north and Bhatkal on the south. In March, inspection of corpses was considered by the Commission, but was not adopted, as being opposed to local customs and feelings. Notwithstanding this, the very rumour was sufficient to create a riot. Early in June the Plague Commission ceased to exist, and the municipal authorities resumed duty and made some alterations in the details of administration. Cases medically certified as unfit for removal without risk were left at home, and contacts were kept in camp for ten days. Other camps were formed for residents in badly-infected houses who had not themselves been in contact with a case.

Bombay: Third Outbreak.

The third outbreak began in August, 1898, and increased until March, 1899. Over 4,000 deaths were recorded in four weeks. The disease subsided so that there were only 88 deaths in the second half of June.

Bombay: Mortality.

The deaths recorded from plague between January, 1897, and June, 1899, were over 41,000, but it is believed that there were at least 30,000 more. Taking the excess mortality in the two years and a-half as due to plague, and calculating the population at 850,000, the rate was 83 per 1,000 for the whole period, or 34 per 1,000 per annum, which the Commission regard as remarkably low for so lengthened and uninterrupted a prevalence of the disease, even allowing for the diminished population. The story of the plague in July, August, and September, 1899, is given later on in the Report. There was again some increase after July, but not so great as in the previous year.

Bombay Presidency.

The Report proceeds to record the course of the disease in the Presidency, and it does so month by month from February, 1897, to June, 1899, inclusive. We do not propose to give details here, but one or two facts may be noted. In Karachi City, with a population of 105,100, 3,400 plague deaths were recorded in nine months ending July, 1897, and it spread the disease in three districts, Karachi, Hyderabad, and Shikarpur. About three-quarters of the 60,000 of population contained in Hyderabad City slept outside its bounds at this time, but returned to business daily. The attacks were not numerous, being a little over 8 per 1,000 of the census population, and the exodus had not been great. The measures taken were: House-to-house inspection, hospital isolation of the sick, and segregation of healthy inhabitants of infected houses. In the City of Poona, where there was a Plague Committee, the preventive measures caused much alarm and rioting, and two murders were committed, one of the victims being the chairman of the Committee. At Surat, with a population of 108,000, there was a slight outbreak early in 1897. After the middle of August a second outbreak occurred. Plague cases were sent to hospital each with one attendant, the inmates of infected houses were placed in one set of camps, and those of neighbouring houses in separate or health camps. General evacuation of infected localities was enforced as soon as the rains permitted, and at one time nearly 17,000 persons were in camps. All uncertified deaths were treated as plague deaths, and the whole of any locality in which more than one case occurred within a short time was evacuated. The reported cases amounted to 23 per 1,000 of the population, but it is considered that very many more were unreported.

Mysore.

Outside the Bombay Presidency and Sind and the adjoining Native States, the most serious epidemic began in the Mysore State in the rainy season of 1898. This State, Bangalore City, and the Civil and Military Station, have a population of about 180,000. From August 12th, 1898, to the end of March, 1899, the real plague mortality was probably 75 per 1,000 in the city and 54 per 1,000 in the station. Segregation was much resented and failed entirely. Many cases escaped detection, and most of those discovered were already dead, the other inmates of the infected houses having by that time departed. In Mysore City, with a population of about 80,000, plague broke out in November, 1898. By the end of January 28,750 of the inhabitants had been inoculated. The report states:

> A different system to that followed at Bangalore was adopted here. There was no compulsory removal to hospital or segregations of contacts. Patients were encouraged to go to hospital, but few went. They were permitted to be treated in their own houses, on condition that an infected house had to be disinfected on the death or recovery of the patient. In practice, houses were generally disinfected on the discovery of a case, except the room in which the patient was living. The result of this change of policy is stated to have been that the people were not disturbed, and plague spread more slowly; the neighbouring country was not so widely affected: cases were more strictly reported: business was not interfered with: the cost of the operations was much less.

Taking the difference between actual and normal mortality as representing the plague deaths, the rate was 35 per 1,000 in Mysore City up to the end of June, 1899. In the villages in Mysore, chemical disinfection was abandoned, and light and air, the burning of clothes, cleansing, etc., were relied on.

Madras Presidency.

Regarding the town of Vellore, in the Presidency of Madras, the Commissioners write:

> Nearly all the surrounding country is occupied by rocks, tanks, and wet cultivation. Evacuation on a large scale was in these circumstances impossible, and the people strongly objected to the transfer of contacts to the segregation camp. In most instances, in the early stage of the outbreak, home segregation was allowed. The result of this concession was, as appears from a statement made in the periodical reports relating to plague in the Madras Presidency, that the people were found more ready to help the authorities by giving information of sickness and accepting disinfection.

In the town of Arcot, general evacuation was found impossible and home segregation was allowed, but people were not so ready to help as at Vellore. In these and in two other towns, the sick and contacts were segregated under guards in their own houses. Later on, in Vellore, objection having diminished, the majority of contacts were taken to camp.

Bengal.

Passing by a short account of plague in the Central Provinces of India we come to its history in Bengal. In Calcutta it is not known how the disease was introduced, but the first outbreak was in April, 1898, and was never severe. Of a population of 700,000, from 150,000 to 200,000 left the town. In October, Calcutta was declared free from plague, but is believed never to have been really so, and the second outbreak is regarded as having begun in February, 1899. The sick were left at home, and disinfection was mainly relied on, but the Commission hold it impossible to assert that the abatement which followed was the result of disinfection. There was not much concealment of cases, and the plague mortality from February till the end of June, 1899, was 1.7 per 1,000. Not much extension of the disease took place from Calcutta as a centre.

The Punjab and the North-Western Provinces.

In the Punjab, villages were totally evacuated when plague was discovered, because partial evacuation was found to fail. Considerable opposition was met with in some places, but the adoption of strong measures brought this to an end. Houses were disinfected after the people had been ten days in camp: disinfection included the use of antiseptic solutions, cleansing, ventilation, and whitewashing. Detention in camp lasted until the people had been free from the disease for three weeks, and then a phenyl bath of themselves and their property was a preliminary to return to their houses. The disease was not severe here. In the North-Western Provinces evacuation was a prominent feature in the preventive measures. The most severe outbreak was in the town of Jawalapur, with 16,000 inhabitants, and the whole place was voluntarily evacuated, with the exception of a quarter occupied by about 600 persons. Plague was discovered early in January, 1898, and was practically stopped at the end of April.

Plague Mortality in India.

The variations in plague mortality in different places in India were very striking. In some small places the mortality was appalling. The Portuguese settlement of Lower Daman had 2,000 deaths in a population of 7,000 between the end of February and the beginning of June, 1897, and in other places from 30 to 50 per cent. of the population were attacked, and from 22 to 35 per cent. died. In Poona City and neighbourhood there were 23,262 reported cases and 18,063 deaths in

a population of 172,341; in Karachi, 10,498 cases with 8,156 deaths in a population of 105,199.

From the whole of Bombay Presidency and the connected Native States the reported plague deaths to the end of September, 1899, were 250,677, and from other provinces of British India and from other Native States, 36,300. The Commission believe, however, that as many as 35 per cent. of the plague deaths were assigned to other causes, and on this assumption the mortality in the three years ending September, 1899, was over 376,000 in Bombay Presidency, and about 54,450 in the rest of India. The population of Bombay Presidency in 1891 was 19,400,000, giving a plague mortality of 19 per 1,000 for the three years, or 6 per 1,000 per annum. The geographical expression India applies, of course, to an enormous territory, and the great prevalence of plague was confined to the sufficiently extensive Presidency of Bombay, so that in the whole of India, with its population of 287,000,000 in 1891, only 1.5 per 1,000 died of plague in the three years, or 0.5 per 1,000 per annum.

It is noted by the Commission that the average annual deaths from all causes in British India in the six years 1893, to 1898, were about 6½ millions in a population which was about 221,000,000 at the census of 1891, and that in the same period the cholera deaths in British India were about 370,000 per annum: but these huge figures do not diminish the gravity which attaches to the prevalence of plague in Bombay City and Presidency.

The Part played by Rats.

This completes our synopsis of Chapter II, and a reader of the report, in coming to the end of its account of plague in India from 1896, is likely to be struck by the trifling reference that is made to rats as a means of spreading the disease. It will be observed that in the notes of the measures taken by the several authorities in charge of plague measures there is really no mention of destruction of rats. In discussing the origin of the plague in Bombay the following paragraph is, however, to be noted, and the references to rats may be regarded as at least suggestive:

When first detected, plague was found to have obtained a hold upon the Mandvi quarter, and it remained confined to that quarter for some time. This quarter is that of the docks and of the warehouses in which imported merchandise and grain for export are stored. The fact that plague first broke out here manifestly favours the theory that the infection was imported by sea. No definite facts, however, have come to light to show that it was so imported. On the one hand, there is no record of the occurrence of plague among men or rats on board ships arriving at Bombay before the outbreak of plague in the city; on the other hand, there are no clearly established facts pointing to importation in clothes or merchandise. The only attempt to propound any definite theory regarding the first outbreak of plague in Bombay was that made by Mr. Ismail Jan Mahomad and the Honourable Mr. Bhalchandra Krishna. About August 15th, 1896, the last-named witness saw in one house two fatal cases of disease characterized by fever and pneumonic symptoms, which he afterwards concluded were cases of plague. The patients in question had been at Nasik for some days before they took ill, but Mr. Ismail Jan Mahomad thinks that the disease was in both cases contracted at Bombay, because "there was at that time no plague at Nasik," while in Bombay "there was already a case among men of the firm" to which the patients belonged, on account of [illegible] among them. From subsequent inquiries [illegible] told in which the cases were observed by Mr. [illegible] there were warehouses of Chinese goods—[illegible] and in Argyle Street, where plague was first detected, and where it was very severe, there were three warehouses [illegible] Chinese crackers imported from Hong Kong. In [illegible] in a granary at the back of that warehouse [illegible] before the middle of August, and Mr. [illegible] ts, to whom reference has just been made, [illegible] warehouse where rats died. [illegible] the house above the granary where rats [illegible] period in the early part of July, and in [illegible] ts that take place about that [illegible] on was imported in them from [illegible] to rats, and then by rats to men. [illegible] meets the Chinese crackers [illegible] on the landward. [illegible] and beyond the ever-rising [illegible] red first in the [illegible] to be shown by the evi[illegible] there as early as the month of July, 1896. The first cases officially recognized were, however, [illegible] November, 1896.

Later on in the chapter there are other occasional or casual references to rats, as in discussing the question of how the interval was bridged over between the first and second epidemics in Karachi (p. 25); how infection was carried from Hubli to Bangalore (p. 33); and how it was imported into Hinganghat in the Central Provinces (p. 39); but the amount of attention devoted to the question of rats in Chapter II is inconsiderable. The Commission were, however, under the great disadvantage of not having the opportunity of observing at first hand the beginning of outbreaks, but only of trying to trace them by evidence collected afterwards, and the chapter purports to be little more than a record of events; also it has already been pointed out that plague had been practically unknown in India for sixty years prior to the Bombay epidemic, so that to begin with there was no local experience of likely modes of origin and spread.

CHAPTER III.

Character of Plague, and the Means by which the Disease is Communicated and Spread from Place to Place.

Chapter III extends to 130 foolscap pages, and more or less closely related to it are Appendices extending to nearly 100 pages more.

General Survey of the Character of Plague.

The section with this heading contains brief historical references to Biblical records of "emerods in the secret parts," to the Black Death, the Great Plague of London, etc., and the disease known as Mahamari in the Himalayas from 1823 onwards, which has only been definitely identified with true plague in recent years. Suggestions of the ancient knowledge of the part played by rats in spreading the disease are given in the *Bhagavati Purana*, in which people are enjoined to abandon their houses when "rats fall from the roof above, jump about, and die," and from the Bible where the Philistines, with a view to staying the plague, made golden images of "the mice that marred the land."

The Clinical Features of Plague are dealt with by the President in Appendix II. In it the several varieties of the disease are treated of, and the symptoms, pathology, duration of fatal cases, mortality, incidence, diagnosis, prognosis, and treatment are separately discussed. The Appendix will be read with care by health officers and hospital physicians to whom diagnosis and treatment are of special interest. While our purpose is to follow Chapter III, and to attempt no synopsis of the Appendix, there is one point with regard to treatment of the disease which seems particularly worthy of note. In considering the serumtherapy of plague, Professor Fraser writes: "On the reasonable supposition that in bubonic cases the plague bacilli are for a time concentrated in the primary buboes, it is advisable to inject the serum into the buboes or the tissues immediately surrounding them; and it is probable that the best results will be obtained by this plan of administration, which, however, does not appear as yet to have been employed in practice." It would be very interesting to know whether this suggestion has now been given effect to in treating plague in any of the Indian hospitals, and if so, with what results.

The discovery of the plague bacillus in 1894 marked a new era in the relation of medicine to the disease. Plague is divided into four types: (1) Bubonic; (2) septicaemic; (3) pneumonic; and (4) pestis minor or ambulans.

Bubonic.—This is the most typical, and the glands affected are, in order of frequency, those of the groin, the axilla, and the neck.

Septicaemic.—When the bacteria reach the blood, the disease acquires the second type.

Pneumonic.—The third directly infects the lungs, and usually kills in a few days without buboes.

Pestis Minor.—In the fourth, the affection of the glands stops short of the septicaemic stage, and occasionally even the local symptoms are slight. This form appears to be common among persons who have been much exposed to the infection of plague.

As regards lower animals, rats, mice, guinea-pigs, squirrels, and certain species of monkeys are easily infected, rabbits less so, cats still less, while cattle and larger animals generally, and birds, appear practically immune. In rats the characteristic symptoms are thus described:

The rats come out of their holes in the broad daylight, the hair of their coat stands on end, they stagger about in a dazed condition, so much so that they can be easily killed, and when the disease terminates fatally they are seen to fall over on their side, death being preceded by general paralysis, or more commonly by a series of violent tetanic spasms.

Passing by much that relates directly to the bacteriology of plague, we come to Subsection iv:

Mode in which the Plague Bacillus effects an Entrance into the Human and Animal Organisms.

Inoculation.—In the bubonic and septicaemic forms, there is conclusive evidence of the possibility of accidental entrance through lesions in the skin, 13 cases being known to the Commission of direct inoculation at a necropsy. In only two of these cases, however, is local reaction mentioned, there being in these two a small phlyctenule at the site of inoculation. In one of these cases plague bacilli were detected in the vesicle. In certain cases not otherwise known to have been due to inoculation, some such local evidence was found. As an indication of the frequency with which the disease enters through the skin, attention is called to the fact that plague buboes practically always develop in connexion with lymphatics originating in the skin and not in the mucous membrane, and that the areas of skin draining respectively into the glands of the neck, axilla, and groin stand to each other in the ratio 1 : 1.8 : 5; while hospital statistics show that the recorded cases of cervical, axillary, and inguinal buboes are in the proportions represented by the figures 1 : 1.3 : 5.8. The skin, however, is not the only inoculative channel as the infection may occasionally enter through the mucous membrane of the nose and throat, and even by means of the conjunctiva, as in a nurse whose eye received some sputum coughed up by a pneumonic patient. There is no evidence of entrance through the stomach or intestinal canal, though the genital tract is a possible pathway. In pneumonic cases, the theory of a simple relationship between the entrance of bacteria into the lungs and the occurrence of the disease is inadequate. The bacillus is the same in both forms of the disease, but its virulence may differ, or there may be a mixed infection involving the presence of other pathogenic bacilli. The subject requires further investigation.

Rats.—Rats, like human beings, can be experimentally inoculated through the skin. Whether they can be infected by means of food appears doubtful; for though the German Plague Commission arrived at an affirmative finding, experiments by Dr. Gibson with moist bundles of corn soaked in a broth cultivation of plague failed to produce the disease, though subsequent hypodermic injection showed the rats to be susceptible. The moist condition of the poison in these experiments seems important, as preventing the likelihood of plague-infected dust being drawn on to the mucous membrane of the nostrils. It does not appear whether this point was attended to in the German Commission's experiments. It has been shown that bacilli placed on the uninjured mucous membrane of the nose have been effective, and such a channel would be obviously open to rats among plague-infected clothing.

Fleas.—The suggestion that plague may be conveyed by suctorial insects like fleas is not favoured by the Commission, in spite of the excessive prevalence of the disease among the Jains, a Hindu sect whose religion prevents them destroying any form of insect life. The experiments of Dr. Simond are criticized adversely, and it is pointed out that fleas which are parasitic to one animal are not necesessarily so to another. Experience in the plague hospitals in India is adduced as against the theory, the staff and attendants being bitten by insects, especially mosquitos, without transfer of the infection. In vol. xx of the *Transactions* of the Epidemiological Society just published we note that Dr. Tidswell of Sydney rather supports Dr. Simond's view, but agrees that investigation is incomplete.

Incubation Period.—The incubation period of plague is discussed at some length, and a number of cases are given. These are divided into classes and groups, Class I being cases which allowed both the beginning and the end of the incubation period to be fixed, Class II being cases giving a history of contact with infection on and after a particular day, and Class III cases in which persons were removed from infected surroundings into evacuation and segregation camps. The shortest incubation period seems to be twenty-four hours, and in some cases the disease certainly developed within forty-eight hours after exposure to infection. In a majority of cases the period is less than five complete days, and the Commissioners think that in an "average case" the extreme limit is probably well within five days. No facts were reported to them establishing a longer period, though, as regards conveyance of infection, they point out that pestis minor, afterwards developing typically, may quite exceptionally carry the disease to distant countries over sea. The importance of these conclusions as bearing on measures of quarantine is obvious, and they will no doubt receive full consideration in relation to the regulations laid down by the Venice Convention in 1897.

Infectivity.—The question of infectivity of plague patients is first of all discussed generally, without reference to bubonic and pneumonic types, and the discussion relates to hospital experience in India. The conclusion arrived at is

> that the danger of direct infection from plague patients is very small under conditions such as those of hospitals in India, where attention is paid to the proper ventilation and cleanliness of the buildings, where the floors are, in a considerable number of the hospitals, periodically treated with disinfectants, and where precautions, such as the wearing of shoes, are as far as possible insisted on. It must further be noted, as enforcing what has been said above with regard to the smallness of the risk that is incurred by direct contact with the sick, that in the hospitals under consideration personal disinfection was entirely neglected by the large majority of the staff, and that the relatives attending on the sick rarely took even the most elementary precautions against infection. Not only did these last remain night and day with the patients, but they in many cases ate and drank out of the same vessels with them, not to speak of the fact that they in some instances received the sputum of the sick with their hands.

These conclusions are supported by various witnesses with great experience.

Pneumonic plague is, however, "highly infectious," and cases given "very strongly suggest that the infective material derived from a case of pneumonic plague tends to reproduce the disease in the same form." The bacteria cultivate themselves in the lungs, and are thrown off in enormous quantities in the sputum, having usually been found there by Dr. Cayley for fourteen days after the lung symptoms developed, and occasionally longer, though many of these cases were probably secondary pneumonia. Even in primary pneumonic cases plague bacilli may be found long after convalescence appears established—in one case they existed thirty-three days after the temperature had fallen to normal, and nineteen days after the patient had been out of bed.

Bubonic plague, on the other hand, supplied no clear instances of direct infection, the agency generally being the soil of the dwelling-house or the patient's clothing. Where, however, in bubonic cases there is a primary affection of the mucous membrane of the nose, mouth, or throat, there is corresponding risk of infection. In ordinary bubonic cases the non-infectious period continues until the bacteria enter the blood, and therefore in many cases continues throughout, only ceasing if there is a septicaemic stage.

Escape of Plague Bacillus from Infected Organisms in Septicaemic and Bubonic Cases.

In discussing this question certain general considerations are mentioned *in limine*. Bacilli may become lodged in the capillaries of the skin or mucous membrane, causing an eruption, etc., which may give off bacteria, or they may lodge in the capillaries of the lungs, and the sputum may yield bacteria, or the intestinal mucous membrane may be reached and the discharge be thus infected, or similarly the urine may be the vehicle from the kidneys, or haemorrhages may afford an exit.

Coming to the actual facts, skin eruptions were exceptional in various epidemics, but were very common in one severe outbreak, and plague bacilli were found in ecchymoses and pustules. In pneumonia secondary to bubonic plague, the sputum must often be infected. Faecal matter is not regarded as infectious, and urine only rarely. The escape of infected blood will easily convey bacteria. In convalescent bubonic cases, suppurating buboes may or may not contain the bacilli, the whole disease being on the decline. Sputum may remain infective for a considerable time—in one case forty-eight days after the temperature had become normal. The saliva may be infective where the neighbouring glands have been attacked. In fatal cases of bubonic plague, the infective period may be stated roughly to be the last twenty-four hours of life.

Of the direct infectivity of rats, not much epidemiological evidence was brought before the Commission, and some of it was negative, some affirmative. The Commission incline to the view that casual contact with plague-infected rats is not specially dangerous, though bites by them are obviously very likely to convey the disease.

INFECTIVITY OF HOUSES.

The conclusion from universal experience in India is "that the houses into which the infection of plague has been imported, whether by men or by rats, are infective, this infectivity being so marked that many of the officers who have had most experience of the disease have come to the conclusion that the principal source of infection is, as would appear to hold true in the case of yellow fever, and possibly also of typhus, to be found in the houses into which the infection of plague has been introduced. The general experience on this question is summed up in the expression current in India that plague is essentially a 'disease of locality.'" Yet the plague bacillus has never been detected in the cowdung floors of the houses by any safe observer, though, as the Commissioners hasten to point out, this does not in any way establish its absence. Dr. Marsh has shown that in sterilized earth it may under certain conditions survive for thirteen days, and in sterilized cowdung its persistence was practically unlimited.

Infectivity of Clothes and Fomites.

That clothes may become infected is obvious, and has been quite sufficiently proved in India. As an example, in July, 1897, a case occurred in a locality after a considerable interval of absence of the disease. The patient had kept in a box for three months some clothing belonging to a fatal case, and had opened the box shortly before his own seizure by the disease. Evacuation of villages was accompanied by attempts to prevent introduction of infection into segregation camps by clothing from the villages, but where infected clothing was transferred from village to camp in an outbreak in the Punjab, cases continued to occur until this administrative defect was remedied. Ordinary merchandise is not likely to be infective, but rags are a special exception.

Summary of Conclusions as to Infectivity.

Summing up concerning the infectivity of plague, it is pointed out that the bubonic form is only as a rule dangerous from the excretions, and only in the last stages of the disease; that the primary pneumonic form is highly infective; that houses in which plague patients or plague rats have died, and in which clothing has been soiled by excretions are infective; and that there is much more danger from living in an infected house than from coming in contact with a plague patient.

The Commission are of opinion that the power of the disease was not fully disclosed in India owing to the success of the preventive measures.

CONVEYANCE OF PLAGUE FROM INFECTED TO UNINFECTED PLACES.

Here village experience is relied on, as in large cities the introduction of the disease has not been successfully elucidated, whether in China, Egypt, Spain, Australia, Glasgow, or the large towns of India. Concerning villages, the subject is dealt with under the headings of Human Communication, Infection by Rats, Infection by Clothing, and Infection by Merchandise. In many cases the first-mentioned cause was in operation, and numerous instances are given. As regards rats, the proof is much more difficult. Examples, however, have occurred in which plague-infected rats travelled out from a village and were found dead, in one case amongst heaps of corn a mile and a half away, with the result that six people camped around were infected. No evidence was obtained of general migration of rats following an outbreak of plague among them, but rather that they died where they were attacked. The Commission believe that in the great majority of instances infection was conveyed into uninfected places by human communication, and in view of this belief they require considerable evidence before they accept rats as the likeliest agency. Following this line, they say: "Even after the exclusion of all those cases where the possibility of the introduction of the infection by infected articles or by direct human communication does not appear to have been duly considered, there appears to us to be a residuum of cases in which there is sufficient evidence to make it probable that rats have carried the infection of plague from one village to another situated at no great distance from it." As to clothing, two stewards who arrived in London in September, 1896, contracted the disease from clothes which they had brought from Bombay, and kept in boxes until reaching England. No quite conclusive cases of spread from village to village by clothing were, however, brought before the Commission, the difficulty always being to exclude other possible sources of infection. As concerns merchandise, village opinion frequently attributed the spread of the disease to grain, but the Commissioners seem rather struck by the want of evidence of the agency of merchandise in carrying the disease from large towns; and it is pointed out that, in Bombay, the only likely articles are gunny bags, which are brought into Bombay with grain, and then returned to the country for refilling. One instance is given in which these gunny bags were open to suspicion, but even here there were other possibilities.

In concluding this part of the subject, the finding arrived at is that the chief agency for spreading the disease to uninfected places consists of travellers. The lines of human communication are followed by the infection, especially lines of steamships and railways. Even then the spread is slow, partly due to preventive measures, but partly also to the low degree of infectivity of plague, as if each town only became infected from a town near at hand sending it many incubating cases. In Armadabad there were in October, 1896, ten imported cases and two indigenous. In the next three months there were 62 other imported cases detected at the railway station or in the town, but no secondary infection resulted. In the next four months 27 fresh importations were responsible for only 26 cases occurring in the town, and then the importations became fewer and the indigenous cases died out. Various other examples are given.

The Spread of Plague over Sea to Countries outside of India.

The system of medical inspection in force makes it practically impossible for any person actually suffering from plague to embark on an outgoing vessel. Nothing short of quarantine can prevent cases incubating on board, but of these there have been exceedingly few, so that they are all mentioned in a paragraph or two of the report. So also as regards clothing, there is little risk. There were between September, 1896, when plague broke out in Bombay, and July, 1899, only 15 known instances in which the disease occurred on ships from India. In 11 of these it might have been contracted on shore. In 2, rats may have been the cause. In another instance, referring to two individuals, clothing may have been at fault; and in another, infected material of some unknown kind was the probable agency.

The Commissioners are of opinion that there is "no confirmation of the suggestion that plague may be conveyed on board by embarkation of plague-infected rats," but dead rats were found in the two instances above mentioned. Neither did plague spread rapidly on board ship. In 4 instances there was only 1 case; in 5 there were 2 cases; on board one ship there were 3 cases, and on another 8, this last vessel being crowded by coolies. From infected ships, merchandise may in rare cases introduce plague at the point of arrival, but as regards individuals on the voyage from India to Europe, the nearest port of call of mail steamers is five days sail from Bombay, and where necessary passengers can be kept under observation on shore for a few days. These questions are reverted to in Chapter VI, where the measures for the prevention of the spread of the plague to foreign countries are under consideration.

(To be continued.)

UNIVERSITY OF VIENNA.—The Lecture Catalogue of the University of Vienna just issued shows that during the forthcoming summer semester the courses of lectures and practical instruction to be given in the Medical Faculty number 304. The teaching staff includes twenty-eight ordinary and forty-six extraordinary professors, and 103 *privat-docenten* and assistants. In the winter semester recently concluded the number of medical students on the books of the University was 2,015, being a fraction over 26 per cent. of the total number. The number of medical students shows a slight falling off as compared with the corresponding period in the previous year.

MEDICAL MAGISTRATE.—Dr. George P. O'Connor, District Surgeon for the Alfred Division, Natal, has been appointed by His Excellency the Governor a Justice of the Peace for the Division.

GERMAN MEDICAL CONGRESS.

(*Continued from page 1050.*)

LIGHT THERAPEUTICS.

PROFESSOR BIE (Copenhagen), who had been invited to open a discussion on the therapeutics of light, read a paper in which he pointed out that two factors had to be dealt with—the heating and chemical properties of light. In particular he considered it necessary to dwell on the biological effects produced first on the skin. Finsen observed primarily a capillary dilatation. As regarded the blood, he considered it not yet certain whether more could be expected from light than from other treatments. In one carefully-observed case Finsen found no change in the number of corpuscles or quantity of haemoglobin. As regarded metabolism, Bie did not consider it proved that it was assisted by light, at least as far as the excretion of carbonic acid was concerned. Nevertheless he thought it possible that metabolism was to some extent affected. The embryos of animals of the lower order were next experimented on by Finsen, who found that the red light was preferred by those organisms which abandoned situations under glasses of other colours. As regarded psychic effects, red and yellow colours were found to be stimulating, blue and green depressing, these experiments having also been confirmed by several observers with regard to human subjects. All experiments tended to show that the human tissues were very permeable to all light rays. As regarded the bactericidal effects Bie looked on them as being due to the chemical properties of light. Even the blue and violet rays were active in this sense. On the other hand, even powerful arc light treatment could not penetrate any depth in order to reach the substance of the lung, and he did not consider it likely that phthisis would at any time be influenced by light treatment. The general principle was applied to 150 small-pox patients and latterly to a further series of cases where red light alone was admitted, the course of the vesicles being greatly modified. This latter property of red rays had also been observed by a French observer in the case of measles where, after an appreciable check in the rash, it reappeared after the removal of the red light. Nevertheless, Bie did not consider it proved that the course of the disease itself had been affected. As regarded the chemical effects of light, only these had been experimented with by others in cases of eczema, no definite result having yet been obtained. Incandescent light contained very few chemical rays, and their assumed effect on metabolism in patients subjected to light baths Bie considered doubtful, the good results being due to the perspiration produced as in a vapour bath. On the other hand, sunlight and arc light, especially the former, in his view possessed powerful chemical properties. Finsen proposed as genuine light baths either exposure to the sun or to a powerful arc light during the course of a whole night. He considered that the only absolute therapeutical results had been obtained by the treatment of lupus and other skin affections, the success being due partly to the chemical, partly to the bactericidal properties of the rays. As regarded technique, Finsen now relied on a deep chemical effect by rendering the surface as free from blood as possible. Bie quoted some hundreds (650) of cases of lupus treated by Finsen prior to 1900. Of these, 85 per cent. were absolutely benefited. Very rarely had cases to be abandoned as being incapable of improvement. The first treatment generally extended over three to four months. In addition, other skin diseases were treated, such as acne, which was improved, but not so strikingly as lupus. However, these cases had previously resisted every known treatment. Early cases of lupus were those ten to twenty years in existence, and these were the most amenable to treatment.

Professor v. JAKSCH (Prague) was pleased to hear a check placed upon the further use of electric light for bath purposes.

Professor QUINCKE (Kiel) was inclined to think that even the subjective benefits derived for patients from direct sunlight were more than psychic. This he attributed to some hitherto undiscovered property of the sun to assist oxidation. In this direction he had made some experiments with pus.

RUMPEL (Hamburg) advocated the incandescent light bath, even as a vapour bath, owing to its more rapid action. He applied the arc light to several erysipelatous patients, the principal point noticed being that they could submit to it longer than individuals with healthy skins.

THE LIGHT TREATMENT IN LUPUS ERYTHEMATOSUS.

G. HOLLAENDER (Berlin) read a paper on the treatment of lupus erythematosus, which he found was in no way benefited by light rays. On the other hand, he was successful with large doses of quinine internally and iodine externally. In many cases it produced a local reaction as after the use of tuberculin. Theoretically he viewed the disease as one of the glands of the skin. Several interesting photographs were thrown on the screen, showing remarkable cures; in the majority of cases doses amounting to 1 to 1½ oz. were given during the course of treatment, intoxication often resulting. Of one case, photographs of which after cure were shown, it was stated that the favourable result displeased the patient, a woman, as the numerous persons (presumably medical men) to whom she had submitted herself for treatment in turn contributed to her support. The subjects reacting most readily and most quickly to quinine were also the most successful cures. Iodine was applied two to three times daily, and within a few minutes of the administration of the quinine. Hollaender remarked that skin specialists had no confidence in any special treatment, and that he himself had tried all those known before arriving at the present one.

DIAGNOSIS AND TREATMENT OF GASTRIC ULCER.

A discussion on this subject was opened by Professor EWALD (Berlin), who dealt with the diagnosis, and more particularly with the diagnosis of rare and obscure cases. He observed that he did not share the view of van Yzeren that gastric ulcer originated in a spasm of the pylorus. In the majority of cases there was no evidence of this. Ewald thought there might be a confusion of cause and effect, as it was known that hyperacidity, even when not leading to gastric ulcer, occasionally produced lasting spasm of the pylorus. As regarded diagnosis, he maintained that statistics supplied insufficient data. In any given case one did not know whether one was dealing with exceptions or the rule. During a period of ten years Ewald had collected 1,030 cases of his own, and he proceeded to describe not the typical instances but those presenting abnormalities. When it became necessary to make a positive diagnosis, he did not hesitate to introduce a tube into the stomach, but in obvious cases he refrained from doing this. However, in cases of obstinate haemorrhage, the introduction of the tube and the use of ice water were indicated. He was struck by the number of cases in which there was no increase in the secretion of hydrochloric acid. Hyperacidity, nevertheless, existed in 34.1 per cent., normal acidity in 56.8 per cent. of the cases, while in the remainder the secretion was subacid. Moreover, individual cases showed considerable variations in the percentages, extremes of 28 and 44, 36 and 78, 38 and 54, 29 and 71, etc., being met with. Under these circumstances the change from ulcer to cancer had an unmistakable influence. Lactic acid was always absent, and, as a rule, but not invariably, long bacilli could not be found. Blood was frequently found in the extracted gastric contents, no vomiting having been produced and no other abnormality being present in the secretion. Blood, however, in itself was not necessarily an indication of ulcer. Haemoptysis existed 203 times among 364 cases (125 males and 78 females), equalling 54.5 per cent. The diagnostic value of this symptom was very great, but the numerous causes of haemorrhage must be considered very carefully. Ewald laid stress on three principal and probable causes of error, namely, (1) menstrual haemorrhages, (2) haemorrhages in the course of severe septic processes, (3) so-called parenchymatous haemorrhages. Each category was fully dealt with and suitable instances were quoted from the speaker's experience. As regarded the latter class, also termed haemorrhagic erosions, these were not considered as diseases *sui generis*. His own experience, derived from the examination of gastric contents and the existence of particles of mucous membrane, led him to the conclusion that the cause was partly due to easily-healing secondary erosions as the result of early but subsequently genuine ulcers. As

to the position of an ulcer, Ewald considered we were as ignorant as twenty years ago, our knowledge being entirely based on presumption. This question was most easily solved when a tumour could be felt in the neighbourhood of the pylorus and when other symptoms were present. Differentially the most important were: (1) Pyloric spasm, (2) muscular hypertrophy or cicatricial thickening, (3) carcinomatous secondary deposits. Frequently it was quite impossible, even after the most careful histological examination, to determine whether one was dealing with a benign or already degenerated tissue. Two cases of his own were cited, in which an apparently benign hypertrophy of the pylorus was excised and after years typical cancer developed. In connexion with this point Ewald again laid stress on what he had pointed out years ago, that minute carcinomatous branches radiated to a great distance into the apparently healthy mucous and submucous membranes, in consequence of which it was difficult to remove the whole of the growth. Pain when met with in gastric ulcers was not always absolutely typical. This was more evident in old cases which caused confusion with cardialgias due to other causes, and these errors could not be avoided. Attention was called to the pain which was present in the initial stages of phthisis and in tabes during the so-called preatactic stage. Hernia of the linea alba was also mentioned as having, in the speaker's experience, repeatedly led to faulty diagnosis. The evils due to a supposed gastric ulcer were readily cured permanently by means of a small operation. Great loss of weight and a cachectic appearance were said to be comparatively rare, though they might lead to diagnostic difficulties, on the one hand, in highly nervous and hysterical patients; on the other hand, among corpulent individuals who from fear of pain had reduced their food to a minimum. Glandular enlargements were of small value and unreliable, but the condition of the tongue was fairly constant, being red, moist, and but slightly, if at all, coated. Ewald remarked how important a correct diagnosis was, having regard to the dangerous complications of gastric ulcer. Perforations into the abdominal cavity would be easily recognizable. He, however, referred to a case of his own in which a simultaneous haematemesis and perforation of the vermiform appendix, leading to peritonitis, led to a diagnosis of gastric perforation. A threatening perforation could not be recognized, but an early operation was advisable if only because the difficulty might be much increased when one was dealing with an opening in an extensive and diffused ulcer. Among sequelae chronic in effect were the hour-glass contractions. Ewald referred to the diagnostic points, namely, the inability to draw off all the injected water, splashing sounds confined to the pyloric area, prominence of one side after injection of air, and finally the results of using the gastro-diaphan and inserting a rubber bag of the shape of the stomach subsequently inflated with air. The latter indicated the position of one portion of the organ, whereas the direct introduction of air would first inflate the other portion, both bulgings being noticeable in succession externally. Burrowing and extension of the ulcer into another organ were not always recognizable, in some characteristic symptoms resulted such as perforation into the pleural space, into the pericardium, into the colon, and the occurrence of subphrenic abscesses all of which were easily recognized. Such complications when supervening gradually were easily mistaken and termed functional neuroses, more especially in the case of old perigastric adhesions in which assistance could only be obtained from the history of constant and definitely localized pains, increased secretion of hydrochloric acid, frequent vomiting without dilatation, uselessness of ordinary therapeutic measures, etc. In such cases Ewald had often seen operation followed by complete and permanent success. In many cases, however, especially in anaemic and chlorotic persons, a differential diagnosis was practically impossible. In these a typical diet would materially assist in forming a correct opinion. With neurotic temperaments this would produce no relief or only temporary improvement due to suggestion. Ewald while briefly referring to the differential diagnosis between ulcers and inflammatory conditions around the gall bladder and duct, mentioned particularly the advisability of examining the gastric secretion and the existence of reflected intracostal or shoulder pains in cases of gall stones. Oesophageal ulcerations caused fewest difficulties which were cleared up if necessary by means of oesophagoscopic examination. This also applied to other diseases of the lower oesophagus. Finally as regarded the anatomical nature of the ulcer, namely, whether of the simple, tuberculous, syphilitic, diphtherial, or uraemic variety, the course of the illness and the period of the onset of gastric symptoms had to be considered. In the latter varieties the ulcer generally remained latent and was rather of pathological than clinical importance.

Professor Fleiner (Heidelberg) discussed the question of treatment. He referred to three principles: (1) Neutralization of the acid, (2) prevention of acid fermentation, (3) the onward movement of the gastric contents. In practice this was achieved by diet, rest, administration of alkaline waters and drugs, among the latter especially bismuth. Though not a specific it improved the chance of a cure, being an antiseptic and possessing mechanical and physiological properties. He considered modern success as due to the knowledge when the physician's work was ended and surgical measures became necessary. Finally, as regarded operative interference, he believed that gastro-enterostomy, that was, gastric fistula, would be most practised which might lead to a cure and also act in a prophylactic sense.

An animated discussion followed, lasting one hour and a-half, in which the principal speakers were Menkowski, Sahli, von Schroetter, Rumpel, and von Mering; Professors Ewald and Fleiner replying.

Healed Gastric Ulcers.

Dr. Rumpel (Hamburg) showed cicatrices of absolutely healed gastric ulcers, the duration of which could be proved by *post-mortem* evidence. Among them was the case of a woman, aged 65, who died of pneumonia, and on whom gastro-enterostomy had been performed ten years previously. At the time of the operation the ulcer was the size of a five-shilling piece with highly-raised edges; the serous portion was firmly grown to the surroundings. *Post mortem* the cicatrix was the size of a small pea. Another specimen of multiple tuberculous, and one of syphilitic, ulceration was shown. The latter case was fully described by E. Fraenkel in *Virchow's Archiv*.

The French Hospital, London.—The thirty-fourth annual dinner in aid of the funds of the French Hospital in Shaftesbury Avenue took place on April 26th, at the Hotel Cecil. The French Ambassador, M. Paul Cambon, was in the chair, and was supported by the Lord Mayor, the Belgian Minister (Baron Whetnall), the Swiss Minister (M. Boureart), the Servian Minister, and other members of the diplomatic and consular services. The Chairman, in proposing the toast of the evening, mentioned in terms of regret that the hospital had lost a warm friend and devoted officer in the person of Sir William MacCormac, for so many years honorary surgeon to the hospital. He spoke highly of the services rendered by Mr. Edmund Owen and Dr. George Ogilvie, and for the fourth time it was, he said, his pleasure to sing the praises of Dr. Vintras, whose two children the Hospital and the Convalescent Hospital at Brighton were now well on their feet. He added that the French Government had made a donation of Frs. 100,000 to the funds, which he hoped would largely benefit by the fêtes which were to be held at Earl's Court under the patronage of the Prince and Princess of Wales, thus clearing off the debts and placing the institution on a firmer basis. In proposing the Press (British and foreign), Dr. George Ogilvie, speaking in French, said the physicians of the hospital kept always before them the profound words of Louis: "Je sais que la vérité est dans les choses et non dans mon esprit qui les juge, et que moins je mets du mien dans les jugements que j'en porte, plus je suis sûr d'approcher de la vérité." He concluded with a delicately conveyed hint that if the press of Great Britain and France made fidelity to truth its main object, an *entente cordiale* between the countries would be easy, certain, and durable. The musical programme, which was deferred until after the toast list had been exhausted, comprised songs by Madame Helene Palacek, Signor Umberto Salvi, Miss Florence Venning, and Mr. G. Hodgson, under the direction of Chevalier Tito Mattei.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 3RD, 1902.

LICENSED VERSUS UNLICENSED INEBRIATE RETREATS.

IN the twenty-first report of retreats established under the Inebriates Acts, attention is drawn to the increase in the number of licensed retreats, and it is stated that many well-conducted and satisfactory homes have realized the advantages of inspection, and have applied for licences under the Act. The report says: "Unfortunately there are also many of apparently similar nature but of decidedly unsatisfactory character. It would simplify matters and effectually eliminate such questionable 'homes' if provision existed for the compulsory licensing of all persons accepting the care and treatment of inebriates and of all places designed for their reception.....It is to be hoped that in the near future all well-conducted homes now in existence in England but unlicensed will appreciate the advantage of early severance from the heterogeneous establishments with which they are at present connected."

Every medical man who has been requested to advise the friends of an inebriate patient about the choice of a home knows the difficulty of inducing them to realize the points on which that choice should depend. He also probably knows in how many cases an inferior home or course of treatment is chosen because of certain advantages which it appears to offer, advantages such as cheapness, seclusion, or the shortness of the term of treatment offered (the shorter the term the more absolute the cure generally promised); he also knows that these advantages are as a rule in favour of any one but the patient himself.

In order that the warning quoted above may be more generally appreciated, it may be as well to consider in what kind of keeping inebriate persons who are under treatment at all are really to be found. They are to be found in various places. Some, but no considerable number of the whole, are being duly cared for in licensed retreats. Some are in the excellent though unlicensed retreats mentioned in the report; others are in various homes which are not licensed, possibly because they do not come up to the requisite standard, or because their owners do not care to conform to the necessary regulations, or possibly because they would find the licensing fee a tax which they do not care to incur. In addition, there are a large number of persons of varying degrees of fitness or unfitness who take patients singly or in twos or threes. Some of these persons have secret schemes of treatment or methods of their own for drugging the patient; others administer quack remedies; others give their patients no treatment and very little attention. Some do not even control their drinking habits. Quack institutions receive some cases, a certain number are in penitentiaries, rescue homes, or under the care of other charitable institutions; others, probably a fair number of the more wealthy patients, are to be found receiving treatment in nursing homes for such periods as it is possible to keep them there.

In the case of the patients who are in licensed retreats, they are either in the actual care or under the professional care of medical men, their interests are duly safeguarded, and they personally have their own "say in the matter" under the Act of Parliament which exists for their protection. With regard to any or all of the rest they may or may not be receiving proper medical care. They may all be ostensibly treated under the supervision of a medical man (some of the vendors of secret remedies even boast that their methods are countenanced and supported by medical men), but the fact remains that in many homes any kind of medical supervision or treatment is merely nominal, and that the patients are really under the control and treatment of absolutely unqualified persons. This fact constitutes a strong reason in favour of the segregation by the licensing test of the superior and well-conducted homes from the heterogeneous set of indifferent and doubtful ones now unlicensed. The owners of homes, large or small, may, of course, though not licensees under the Act, be honourable and competent persons. But on the other hand they may not. If they are not, their power over their patients being what it is, it is evident that those patients are in a peculiarly defenceless position. For it is to be remembered that the victim of alcoholism is as a rule the victim of many other adverse circumstances. He is nearly always at enmity with his family, disliked by his friends and neighbours, trusted by nobody, as often as not uninteresting, dull, bad-tempered, or quarrelsome. He gets very little sympathy, and, in fact, by the time it becomes a question of placing him in a retreat he has become an open scandal and disgrace to his friends, and he is a person they are glad to get rid of. He seldom finds his way under any kind of control until he is pretty well "at the end of his tether," and bankrupt in friends, money, or capacity to do or enjoy any of the wholesome things of life.

Whatever may be said about the voluntariness of his submission to treatment, there is no doubt whatever that he submits to it only under actual or moral compulsion. The characteristics of his disease and disorderly activities force us to class him with two other groups of antisocial unfortunates—prisoners and lunatics. It has long been recognized that the position of these persons renders them liable to special disadvantages at the hands of their fellow men, and that a special protection in the form of inspection is necessary on their behalf. Very little reflection will suffice to show a similar state of disadvantage on the part of the inebriate with a corresponding necessity for some specially organized care of him on the part of the State. His case may very well be argued by analogy with that of the insane patient. The Lunacy Act at once suggests the remedy. It applies to all patients, and provides that private patients cannot be received into an asylum, hospital, or licensed house, nor can a single patient be received into

a private house without a reception order made by a county court judge, a magistrate, or a justice specially appointed. Proper medical certificates and a very searching form of official inspection are also provided. Any one who has read of the treatment and exploitation of the insane in the days when their position was legally only a little worse than that of the inebriate patient of to-day must believe that a certain levelling up of the law to meet the case of the inebriate is an urgent necessity. The fact that there is a certain publicity attached to the placing of an inebriate patient in a properly licensed home should not be allowed to weigh against the consideration that a larger number of patients would almost certainly be placed in conditions contributing more surely to their cure than is at present the case. Indeed, it would no doubt follow in the case of inebriates that many humiliating conflicts and grave family scandals would be the more easily minimized or prevented, and the law prove an ample blessing in disguise to those who most feared it, as it has been found to do in the case of the unfortunate victims of mental disease.

Another point deserves serious consideration. In many homes, among good ones as well as among the less reputable, the custom obtains of paying the patients' fees in advance for the term or part of the term agreed upon. Should the patient prove refractory, or be alleged to be refractory, or imperfectly amenable to discipline and treatment the keeper of the home may decide to dismiss him as an unsuitable case. But the agreement provides that the fees are not in such an event to be returned. One argument in favour of this rule is that the fees are a part of the hold the owner of the home has over the patient, and that the patient is more likely to behave well when he knows he will lose both treatment and money if he does not, while to allow him to take back his money and leave at his pleasure is to put a premium on bad behaviour and to encourage him to refuse treatment. Under the licensing system there could, however, be other means of securing the patient's detention and encouraging him to keep his contract, while in the case of non-licensed homes it will easily be seen that very great abuses may follow this procedure. Cases have occurred in which the patients have been turned out of homes at a very early stage of treatment without any redress whatever as to the money paid, while cases are known in which the expulsion of the patients was carried out because they did not cease to drink intoxicating liquor which they were not prevented from obtaining.

The system is therefore a very bad one, and is among the matters needing legislative reform. For the reasons stated inspection of all inebriate retreats would be beneficial. It would tend to the speedy weeding out of all doubtful or bad homes, the improvement of all those capable of improvement, and the establishment of the status of all those already known to be good.

POST-VACCINAL TETANUS.

Owing to the occurrence of a group of cases of tetanus following vaccination in Camden, New Jersey, and another group in Philadelphia, the subject of post-vaccinal tetanus has lately attracted a great deal of attention among medical men in the United States. Dr. Robert N. Willson,[1] of Philadelphia, has made a very valuable analysis of 52 cases, collected from a period of time beginning with the year 1839 and extending to the end of 1901. A short account of each, as far as obtainable, is given by Dr. Willson, and his general conclusions are afterwards stated. The diagnosis of certain cases is open to doubt, but this is not of consequence, as the great majority are obviously genuine tetanus.

The points considered by Dr. Willson include: (1) The manner of preparation of the vaccine, and the suddenness of the exceptional demands for it, the care used in testing it, and bacteriological and inoculation experiments made with it; (2) the method of vaccination, whether aseptic or otherwise; (3) the after-care of the wound; (4) the incubation period of the disease; (5) the clinical symptoms and the grouping of cases as to locality and frequency; (6) any sources of infection other than the vaccine wound and virus.

Of the 52 cases only 7 belonged to the period previous to the time when the infectious nature of tetanus was established. Subsequent to this discovery, but whilst humanized lymph was in use, no cases were recorded in America, while as to England the report of the Royal Commission is referred to, and it is thought that perhaps 7 cases recorded in it were really tetanus. The greatest number of cases belong to the third period since bovine virus has been widely used. For the period of humanized lymph Dr. Willson thinks that only one conclusion is possible, namely, that the infection came from other sources than the lymph itself, and that want of aseptic precautions gave quite sufficient opportunity for its transmission, as, for instance, during the Civil War. In the course of that war there were 246,712 wounded men, and among these 505 cases of tetanus were observed in men who also presented a deep vaccine ulcer. The total number of men amounted to about a million and a-half, all of whom had been under vaccination, and had at the same time been exposed to conditions very favourable to tetanus infection. The utmost possible or probable share of tetanus in any way related to vaccination, even under these exceptionally suitable circumstances, must therefore be regarded as exceedingly small.

Recently in the United States, owing to the prevalence of small-pox, "an enormous quantity [of lymph] has been called for without sufficient warning to avoid the carelessness of technique that appears inexcusable to-day, but would have been considered scrupulous overcare at the time of the Rebellion." Dr. Willson doubts, however, whether during the recent small-pox epidemic in the United States lymph vendors have always exercised sufficient care, and he thinks that "the virus itself was at times so dilute as to render a typical vaccination rather improbable than likely." From this we gather that if the author were in our country, he would support the appeals that have been made in the British Medical Journal for strict Governmental supervision of the manufacture and distribution of vaccine lymph. Yet, in spite of want of supervision in the United States, though many experiments have been made to discover the spores of tetanus in the vaccine virus, not one of these has been successful, though

[1] We are indebted to Dr. Willson for a copy of his paper, which he informs us appears in full in the *Journal of the American Medical Association* for April 26th.

the work has been carried on not only by Dr. Willson but by a number of others whose ability and conscientiousness could not be questioned. The tetanus bacillus, in fact, was never seen.

Inoculation experiments were also resorted to on white rats and guinea-pigs by numerous observers, and all with negative results. Not only so, but Dr. Willson says that he and two of his colleagues were forced by necessity to make many inoculation tests upon human beings. All the students of the University of Pennsylvania were compelled by a municipal regulation to submit to vaccination unless the operation had been successfully performed within five years. The circumstances allowed no choice but to employ one or all of certain brands of lymph which were under suspicion with relation to tetanus. The lymph was obtained while the cases of tetanus that gave rise to Dr. Willson's investigation were still in evidence. About 1,600 vaccinations were performed among the students. Careful aseptic precautions were attended to in every case. The results were thoroughly satisfactory, as no case of tetanus resulted, and the only case of small-pox among those vaccinated was the son of a homoeopath who himself was attending small-pox, and whose son was not vaccinated until far within the incubation period of that disease.

Reverting to the list of 52 cases, Dr. Willson points out that the disease appeared in groups with regard both to time and place, but far more with regard to place. In certain instances, the same tube of lymph was divided between two children, one of whom developed tetanus and the other remained free, the inference being that the infection was secondary and occurred through the vaccine wound.

The care of the wound, indeed, is regarded by Dr. Willson as being of very special importance. "In every instance in the series of cases included in this paper in which any information could be obtained whatsoever there has been found some gross breach in the care of the wound, and usually the presence of some active influence that would offer more than a likely means of entrance for tetanus or any other infection." Further, "Nearly every case showed for days a large open ulcer, burrowing deep into the tissue. Two cases were those of soldiers, sleeping anywhere and everywhere, and looking on a bath as a luxury. Several lived over and next to, and played continually in, stables, the hotbed of the tetanus bacillus. One slept in bed every night with her father, who had charge of the horses. Two at least are known to have forcibly maltreated the vaccine wound. Many removed the scab for inspection. Two threw or dropped the scab on the ground and replaced it in the wound, one wearing it for hours. One threw his bandage upon the ground and replaced it on the arm at a later time. Several wore a shield over the wound without cleansing or removing until it was full of pus and dirt and foul to the smell; one of these reached the eighteenth day, and the writer's case the twenty-eighth day, with the shield still in place. One, when tetanus developed, exhibited a merino shirt sleeve that had never been washed matted in the vaccine wound."

As indicating the importance of the wound, the writer points out that tetanus has been known to follow the extraction of a tooth, the sting of a bee, the application of a blister, the hypodermic use of drugs, and so forth. As regards the influence of locality, he quotes Bauer as stating that "According to the report of Holland the disease is rare in Iceland, while upon the neighbouring island of Heimaey the population would die out if it were not recruited by immigration, since almost all the children die of tetanus." And he goes on to state that in America Long Island is especially afflicted.

Very important evidence in the same direction is obtained by noting the interval between vaccination and the onset of tetanus. This was ascertained in 50 post-vaccinal cases. In 44 of these, fourteen days or more elapsed. In 31 the interval was twenty days or over; in 6 it was twenty-five days or more; in 1 it was twenty-eight days: in 1, seven weeks; and in another, eight months. "In only 5 cases was there any resemblance to the period of incubation ordinarily ascribed to acute tetanus." Two of these 5 had been vaccinated from arm to arm by a darning needle. As regards the incubation period of tetanus, Dr. Willson says that while it may vary from a few minutes to many weeks, yet in a large number of cases in the Civil War the average was eight days, and that all the writers agree that the usual incubation period, and invariably that of the acute or fulminant type, is comparatively short, averaging about ten days, and often amounting to only a few hours. In the post-vaccinal cases here considered he states that the disease occurred almost invariably about the twentieth day following the vaccination, so that the period of infection would just be when the vaccine wound was most exposed, through loss of or injury to the scab, and when the patient himself was most likely to be careless. Indeed, tetanus occurred just at the time when it would be expected as a secondary infection of the vaccine wounds. The clinical symptoms of the cases were very severe, and 41 of them proved fatal. This severity, taken along with the time of onset, also points to secondary infection, as in acute cases the incubation period is very short.

The large majority of cases of ordinary traumatic tetanus occur in boys or men for obvious reason of exposure, but in the post-vaccinal cases there was no great difference (28 males, 22 females, and 2 not stated as to sex). The reason given by Dr. Willson is that at the ordinary age of vaccination (childhood) both sexes are pretty equally exposed to moderate violence and contamination of wounds.

More than half of the cases, including all the recent ones, occurred between October 1st and March 30th. Dr. Willson holds, however, that the time of prevalence of the disease really depends on whatever cause prepares the way, and that the Fourth of July celebrations in America will yield more cases in summer owing to accidental firearm wounds than small-pox will in winter. In Cook County, Illinois, between June 25th and July 14th, 1900, there were 27 deaths from tetanus, and in 1899 in the same period 17 deaths. The blank cartridges used at the celebrations, however, and the wadding and so forth do not yield the tetanus bacillus, but samples of street dirt in Chicago furnish it abundantly. In Philadelphia, while the post-vaccinal cases were occurring, there were more cases of tetanus from other causes than from nearly a million open wounds due to vaccination. In New York in 1899 there were 73 deaths from tetanus, and in Baltimore in 1901 32 deaths, all independent of vaccination. Dr. Willson's main conclusion is that the infection has taken place in

most if not in all the cases at the site of vaccination, and that it has been secondary and not primary infection. The importance he attaches to ulceration of the wound has already been indicated, and he says that if glycerinized lymph were found to tend to cause ulceration, a substitute would have to be sought for. Dirt or earth being the source from which the tetanus bacillus comes, the micro-organism or its spores must frequently be present upon the skin, especially where the patient is uncleanly, or lives or plays in places like gardens or stables. Tetanus, he holds, is no more inevitable after vaccinia than haemorrhage after the tying of an artery. He denies that the vaccine virus has been infected in the cases referred to in his paper.

THE PREVENTION OF ENTERIC FEVER IN MOVING COLUMNS.

THE British troops in South Africa have again suffered severely from enteric fever during the four months December, 1901, to March, 1902. The official figures have not yet been published, but it will probably be found that the greatest number of deaths occurred in the months of January and February. Civil experience before the war and military experience since its commencement combine to show that this is the period of the year when the disease, which is undoubtedly endemic in many areas, is most likely to increase, and we observe that the number of deaths from diseases of all kinds, which had been 351 in December, numbered 536 in January and 525 in February, but fell to 382 in March. The daily casualty lists have shown that enteric fever has not been confined to one or two areas, for deaths have been reported from very many places throughout the Orange River Colony and the Transvaal.

The Secretary of State for War stated some time ago that special precautions were in force for the sterilization of water supplied to the men occupying the blockhouses, and we have reason to believe that when the official statistics appear it will be found that the prevalence of the disease in standing camps and in blockhouses has been comparatively slight, and that in a large majority of the cases which have occurred during recent months the infection has been contracted by men while forming part of the moving columns which, to the number of some seventy, have been scouring the country and have taken part in the extensive "drives" which Lord Kitchener has organized. This is satisfactory so far as it goes, inasmuch as it shows that suitable precautions may be trusted very greatly to diminish the incidence of enteric fever in camps, which at earlier stages of the war was so severe. The prevention of infection of troops on the march in an endemic area, especially of mounted troops moving rapidly, is obviously a much more difficult problem; but we are glad to be in a position to state that the War Office has framed, and is about to put into execution, a scheme which seems to be well devised to attain the end in view. Baldly stated, the object of the scheme is simplicity itself: it is to ensure that the soldier on the march shall be supplied with a sufficient quantity of "safe" water—that is to say, water which has been sterilized by heat or efficiently filtered—to fill his water bottle every day, or as often as may be necessary. If this can be done there need be no hesitation in predicting that the number of cases of enteric fever will be very largely diminished, and that therefore the cases due to personal infection, which, as a means of the dissemination of enteric fever during the campaign, has probably been only second in importance to impure water, will be correspondingly lessened.

The practical difficulties in the way are very serious and the attempt, which is now to be made to cope with them will be watched with great interest. We understand that the scheme elaborated in the office of the Director-General of the Army Medical Service has been fully considered by the other departments of the army, and has now received the approval of the heads of the War Office. The scheme appears to have been thoroughly well considered, and there is every reason to hope that when it is in full working order it will make the soldier independent of the pools and streams containing water of doubtful, or worse than doubtful, quality which may be encountered upon the march. Special water carts of the Lefebvre pattern are to be attached to columns in the proportion of two to each thousand men. These water carts, of French design, are of special construction. The type of cart adopted by the British army has a large square tank of wrought iron, holding 150 gallons, surrounded by an insulating jacket. A special feature of the cart is that it has at the back a small compartment holding an iron cylinder, in which are placed asbestos bags packed with a mixture of charcoal and potassium permanganate; this is the "clarifier"; it is provided with a suction pump worked by hand, by which water sucked up from pool or river can be forced through the charcoal into the reservoir. All the parts can be taken to pieces for cleaning; and the cart, which is mounted on two wheels, and weighs when full one ton, is drawn by mules. These carts are to be used for collecting the water, which, as it passes through the "clarifier," will be cleared of suspended matter. The water collected in these carts will then passed through an apparatus for sterilizing it either by heat or by filtration, and delivered into ordinary water carts, which will be used only for receiving this "safe" water. For sterilizing by heat it is intended to use an apparatus of the type of the Waterhouse-Forbes water sterilizer. The great advantage of this apparatus is that being constructed on the exchange principle, the amount of fuel necessary is reduced to a minimum, the economy being estimated to be in the proportion of 30 to 1. An examination of the apparatus made by a Board of medical officers of the United States army showed that water heavily charged with the typhoid bacillus, the colon bacillus, or the bacillus prodigiosus was freed from these organisms, though a few spores of other bacteria survived.[1] The water was free from lead or other substance which might have entered into solution from the alloy used in the construction of the apparatus, and there was no apparent loss of the natural gases. No water can be obtained from the apparatus until it has been boiled, but owing to the exchange principle the water obtained from the draw-off is only 4.5° F. above the temperature of that which entered the apparatus. A portable form designed for field use weighs only 90 lb., and one mule can carry the apparatus, and a

[1] Munson's *Military Hygiene*, London, 1901, p. 141.

supply of fuel for a considerable time. It can easily be taken apart for cleansing. The fuel used is petroleum, one quart of which will keep the apparatus going for five hours during which time it will yield about 125 gallons; but this portable apparatus has the disadvantage that the water delivered from the draw-off is at a higher temperature than in the larger apparatus, the difference being as much as 15° to 20°. This disadvantage is, however, considered to be compensated by the increased portability.

The particular form of water sterilizer, however, is really a detail in the scheme, and its application must to some extent depend upon local circumstances; the essential point is that the watercarts from which men are supplied with water for drinking should never receive other water than that which has been so treated as to satisfy the medical officers that is safe. Medical officers will be specially selected to superintend the working of the plan, which will afford to commanders in South Africa excellent facilities for providing their columns with wholesome water. Much, of course, must depend upon the view which the officers commanding columns, their staff officers, and the regimental officers take of the necessity for these precautions, and without their co-operation it is obvious that the scheme may break down at a hundred points. We hope, however, that Lord Kitchener may see the advisability of impressing upon all officers under his command that it is their bounden duty to give the scheme a thorough trial. We make no doubt that if this is done the results will be such as to convince all military officers of the advantages which it is capable of conferring upon the army, and we must congratulate Mr. Brodrick on the good judgement he has shown in approving the scheme and directing it to be tested on a large scale.

THE PHYSIOLOGICAL LABORATORIES OF THE UNIVERSITY OF LONDON.

THE fitting up of the laboratories of advanced physiology in the buildings of the University of London at South Kensington is progressing satisfactorily, and is now nearly sufficiently advanced to allow certain research work to be performed. The primary object with which the Senate has established the laboratories has been to afford the whole body of lecturers on physiology in London a place where they may present by means of lectures and demonstrations an account of the research work in which they are severally engaged. In addition to this, it is intended that the laboratories shall afford facilities to workers in the prosecution of researches whether for their doctoral theses or for other purposes. As already announced, all the lecturers on physiology in London have given their adhesion to the scheme, and arrangements have been made for courses of lectures, the lecturer in each case choosing some subject to which he has given special attention, and in the investigation of which he is at the time engaged. The lectures will be of such a character as may be attended with advantage by students desiring to obtain honours in physiology. The first course will commence in the week after next. Dr. Waller and Dr. Leonard Hill will give courses concurrently. Dr. Waller, whose subject is the Signs of Life, will give his first lecture on Tuesday, May 13th at 5 p.m., and the subsequent lectures of the course on succeeding Tuesdays at the same hour; Dr. Leonard Hill, whose course will be on the Physiology of Respiration, will give his first lecture on Wednesday, May 14th, at 5 p.m., the other lectures of his course will be given on subsequent Wednesdays at the same hour. The courses will continue from week to week during the summer session with the exception of the Coronation week. The administration of the laboratories is under the control of the Physiology Committee, which meets monthly under the chairmanship of Professor Rose Bradford. For the management of the laboratory, the University has determined to make one of its appointed teachers immediately responsible, and for the coming year this duty has been undertaken by Dr. Waller. The expenses of fitting up and carrying on the laboratory will be met out of a grant of £2,400; of this sum £2,000 has been provided by the generosity of Mr. Walter Palmer, M.P., while £400 has been voted from the University chest. Cards of admission to the lectures will be issued by the Principal, who will also, on the advice of the Physiology Committee, grant the right "to occupy a laboratory table" to approved applicants for stated periods. Work has already been commenced in certain of the rooms, and we believe that some of the earliest work done has been in connexion with the investigation of methods of quantitatively determining the presence of chloroform in the air and in the living body which is being conducted under the direction of a Committee of the British Medical Association, of which Dr. Waller is Chairman, Dr. Barr, Professor Sherrington, Mr. Victor Horsley, and Mr. Vernon Harcourt members, and Dr. Dudley Buxton Secretary.

THE UNIVERSITY OF LONDON.

THE Senate of the University of London met on Wednesday to consider further the question of the matriculation and other important matters. On a former occasion when the Senate had under discussion a report from the Advisory Board, to which by the statutes the question of the entrance examination was referred, there was an equal division of opinion on the propriety of establishing one matriculation for all alike, or two separate examinations for the internal and external students respectively. We understand that on Wednesday a decision was arrived at to require all students to present themselves for the same examination, but that wide options are to be permitted in the choice of subjects. Latin is to be no longer compulsory, and other considerable changes are in contemplation. The Board of Advanced Medical Studies has agreed upon a report which is in the main adverse to the conduct of conjoint examinations by the University and the Colleges of Physicians and Surgeons and also to the acceptance of certain examinations by one licensing body in lieu of those of another. We learn that a deputation of persons opposed to vivisection is desirous of waiting upon the Senate with a view to showing that the work carried on at the Brown Institution is not in accord with the provisions of the will of the founder of that institution.

POOR CHILDREN'S COUNTRY HOLIDAYS AND THE SPREAD OF SMALL-POX.

WE published last week an appeal by Canon Barnett to country medical officers of health not to set their faces against the Toynbee Hall system of sending London children to country cottages in spite of the present prevalence of small-pox in London. He asks, indeed, that on national grounds medical officers should forward his plan, and induce farmers and cottagers to welcome the children. If this appeal had been unaccompanied by any reference to care as to the vaccinal condition of the children sent there would have been difficulty in supporting it. Fortunately, however, Canon Barnett states that his committee will see that all sent are vaccinated, or, if above 10 years of age, re-vaccinated, and that none will go from districts known to be infected. This being so we have much pleasure in supporting his appeal, though as regards the persons appealed to we would have liked him to go further, and to extend it not merely to medical officers of health but to the sanitary authorities themselves, who might possibly be

directly approached by means of a circular letter. Of course, neither the local authorities nor their officers have any absolute control over the matter, but in present circumstances there is no doubt of the importance of having the good-will of both, and if formally approached the authorities would consult their medical officers, who, we trust, would be able to advise them favourably to the Toynbee Hall proposals. Indeed, in this matter it is not so much medical officers who require persuasion as their masters, whose want of knowledge may sometimes be the handmaiden of fear. There is no risk of children recently and efficiently vaccinated being attacked by small-pox, and they cannot, therefore spread small-pox in that way. Conceivably, however, dirty children living in an infected locality, though themselves immune through their vaccination, might convey the disease by their clothing; but Canon Barnett definitely states that children will not be sent from infected districts. When they do arrive at farms or cottages in the country, even if by any accident a child should have escaped examination before being sent from London, and should, owing to want of vaccination, develop small-pox, then only those who had neglected duly to protect themselves would have any cause to fear infection. That, however, is a point which cannot be pressed far, because in various rural districts in England vaccination, and especially revaccination, has been more or less neglected, and small-pox once introduced might find a suitable field for extension until the scare had sent the inhabitants to their medical men to be made small-pox proof by means of vaccination. It cannot be doubted that Canon Barnett and his committee are so thoroughly interested in their scheme as to run no risk from want of vigilance before dispatching batches of children to the country. They have to think not only of to day, but of the future, and carelessness would prejudice their appeals for years to come. In Glasgow last year, when small-pox prevailed, the excellent Fresh Air Fortnight Society there took precautions similar to those of the Toynbee Hall Committee, and we have not heard of a single case of the disease occurring in connexion with their operations, either among the children sent from the city slums, or in the homes to which they were dispatched.

ARROW POISONS.

PROFESSOR L. BRIEGER, who some time ago published the results of an investigation of the poison used by the Wakamba tribe for their arrow heads, has now examined[1] some of the poisons used by other natives of German East Africa for poisoning their arrows. The Wakamba poison, which is a whitish crystalline glucoside, with the formula $C_{30}H_{46}O_{8}$, is a cardiac poison, as are all the known arrow poisons, for example, Lewin's ouabaïn, strophanthus, etc. A fatal dose for rabbits was 0.0003 gram per kilo. weight. Warm-blooded animals showed laboured respirations, severe dyspnœa, and convulsions during the first quarter of an hour, and death ensued later. The drug, applied locally to the eye, produced anæsthesia of the cornea and dilatation of the pupil. Brieger has found that the cardiac symptoms produced by subcutaneous injection of the poison used by the Wagogo are identical with those already given, but when applied locally to the eye, the pupil contracted, but no corneal anæsthesia occurred. The poison is obtained from the acoconthera abessynica; the fruit of this tree is non-poisonous, but the stones of the fruit, the leaves and the branches are highly poisonous, and contain a deliquescent amorphous glucoside, which proved to be the active cardiac poison, and a crystalline substance, which was freely soluble in alcohol. The active poison is known as "Mshangu" and is usually gained by boiling the branches. Another arrow poison also met with is obtained from the Candelaber euphorbia. Its action is considerably slower than Mshangu. It has a strong pungent, objectionable odour, is opalescent, and contains gum. Injected subcutaneously, it produces local suppuration and necrosis. At first sight the action recalls that of the toxalbumens, but it differs from these in that no antibody can be produced. These poisons may prove useful in medical therapeutics.

[1] *Berl. klin. Woch.*, March 31st, 1902.

ARE SAFETY MATCHES POISONOUS?

A SOMEWHAT curious anomaly exists in regard to the manufacture of Swedish safety matches. To comply with the law, which disallows the sale of any drug of the slightest claim to toxic properties without a doctor's prescription, matches containing free yellow sulphur must not be manufactured for home consumption. For export, however, they may be produced to an unlimited extent. Naturally, the composition of the safety matches has given rise to much controversy. C. Th. Mörner[1] found that with phosphorus sesquisulphide Mitscherlisch's test gives more or less positive results, although no free phosphorus is present. When he administered 2 to 3 grams of the sesquisulphide to dogs there was slight loss of appetite for some days, but nothing more. With rabbits 2 grams caused death in twenty-four hours, 1 gram in forty-five hours, and 0.6 gram in forty-six hours. This, of course, could not be due to the phosphorus itself, but rapid oxidation of the phosphorus and sulphur to phosphoric and sulphuric acids probably caused a mineral acidosis, to which these animals are particularly prone. Mörner himself took 12 milligrams one day, on the next day 30 milligrams, and two days later 120 milligrams, without experiencing any symptoms of poisoning. Other workers have observed toxic conditions and death from very small doses of the sesquisulphide. Santesson[2] has lately worked out the whole question. Employing solutions of the ends of matches in toluol, gum, milk, liquid paraffin, and coffee, both cold and hot (to develop, if possible, any free phosphorus), and administering the same by the mouth through a catheter directly into the stomach, or subcutaneously to both frogs and rabbits, he was unable to obtain any loss in weight or toxic symptoms. Personally, he took 0.5 gram, and 1 gram of dry match ends, the former carefully ground up, and then boiled in starch solution, the latter suspended in coffee. There were no resultant effects, except marked diuresis during the following twenty-four hours. Each match-end contains about 5 milligrams of the sesquisulphide, so that about seven boxes, or 500 matches, were necessary to provide the dose of 1 gram. From these experiments it is fair to conclude that neither the phosphorus sesquichloride, nor the composition mass used in the manufacture of safety matches, is poisonous. The latter contains chlorides, chromates, and potassium as well as the sesquichloride. It would have been of interest to know the rate, extent, and manner of the phosphorus excretion in the human experiments. In the case of rabbits, Mörner found the usually alkaline urine and peritoneal fluid "acid," and inferred the rapid and thorough absorption of the drug. Examinations of the faeces and urine in experiments similar to those of Mörner and Santesson would be indicative of any possible effects following continued or cumulative doses, and perhaps suggest prophylactic measures for the use of the workmen employed in the manufacture of such matches.

[1] *Skandinavisk farmaceutisk tidskrift*, 1[illegible].
[2] *C. C. Hygiea*, p. 25, 19[illegible].

A HUMAN TRIPOD.

UNDER the singularly non-luminous title of a Congenital Malformation, Dr. Seabury W. Allan[1] has recorded a singularly interesting teratological phenomenon. The individual, a boy aged 14, a Sicilian by birth, has several well-formed brothers and sisters, but he himself has a third leg

[1] *Boston Med. and Surg. Journ.*, vol. cxlvi, p. 361, April 3rd, 1902.

attached to the back and side of the pelvis, and he can rest his body upon his three lower extremities very much in the manner of a three-legged stool. The third leg is somewhat atrophic in its musculature (through disuse), and near the knee is a small appendage which the Roentgen rays showed to contain a well-formed metatarsal bone and three phalanges. This appendage is connected with the femur of the third leg by means of cartilage. Anteriorly there is a normal penis and scrotum, but posteriorly between the middle and the third leg is a well-developed penis with a non-patulous urethra and a cleft scrotum containing two full-sized descended testicles. From the "vagina-like" cleft some urine occasionally trickles, suggesting the existence of a second bladder. There was one anal aperture. The case is evidently one of pygomelus, the accessory limb representing part of a fused twin. Although there were, in this case, two penises, the name diphallus ought not to be given to it, for in typical diphallus there are no other duplicated parts except the penis, as was pointed out by Ballantyne and Skirving in 1895.[1]

THE DERMATOLOGICAL HOSPITAL OF ANTWERP.

THE City of Antwerp, which has of late years been going forward by leaps and bounds, thanks to the energy and initiative of its citizens, and also to a great extent as a result of the inertia and shortsightedness of the Port of London, with its multiple conflicting and overlapping authorities, now possesses a special hospital for diseases of the skin. It was founded and built by Madame Nottebohm, who desired to alleviate the sufferings of lupus patients. The idea occurred to her in October, 1899, and the hospital in full working order was duly opened on October 20th, 1901. The following details are taken from a description by Dr. Paul François, the Medical Director of the institution.[2] The hospital is at Berchem, a suburb of Antwerp, and the photograph of the place shows that it is a handsome building, plain, but elegant in design, with graceful turrets, and high sloping roofs, in keeping with the Flemish national style of architecture. It faces south, and is protected from the north wind by screens of trees. The total area, including the garden, is 3,000 square metres, but only 987 are built upon. There are 50 beds, 25 for males and 25 for females. In each case the 25 beds are distributed as follows: 3 in private wards of 1 bed each, 18 adult and 4 children's beds in a general ward. There are also 6 beds for the nursing sisters and 10 more for the remainder of the staff. A photograph of one of the general wards shows it to be spacious, with plenty of windows, all on a level with the walls, and ample space between the beds. The mattresses are made of dried seaweed, and being cheap can be destroyed as occasion arises. The wardrobes in use in the hospital have slanting tops, to allow of their being thoroughly dusted. There are sitting and dining rooms for the patients. The windows are of white, ribbed glass, which cuts off sufficient of the heat rays without interfering with light, and does away with the need of blinds and curtains. All furniture is plain and easily cleaned. The angles of the rooms and wards are everywhere rounded off. The floors of the basement and ground floors are cemented, except in the chapel and the bath rooms, where they are of mosaic. In the operating room the floor is made of glass. On the upper floors linolith is used, which is incombustible, and its reddish colour is pleasant to the eye. Ventilation, warming, lighting, and so forth are all up to modern requirements. There are special rooms for electrotherapeutics (static electricity, high-frequency currents, etc.), for the light bath, for the Finsen light treatment, including a Lortet-Génoud apparatus, for hydrotherapeutics, and also a room for dressings. In addition to these there are two laboratories and a room for photography. The charges are for private wards 3 to 5 francs a day, exclusive of medical attendance, and in the general wards 1 franc a day inclusive for adults, and 50 centimes for children. The fees are either paid by the patients themselves, the town, or a friendly or benefit society, as the case may be. Out-patients are also seen, a small charge being made for advice and medicine.

[1] *Teratologia*, vol. ii, pp. 92, 184, 255, 1895.
[2] *Annales de la Société de Médecine d'Anvers*. October-November, 1901.

MOSQUITOS AND MALARIA.

UNDER this heading Major Buchanan, I.M.S., recounts the history of the conversion of his senior hospital assistant, Joongey Lal, to the belief in mosquitos as the agents for transmitting malaria. Joongey Lal had watched with great interest the dissections of mosquitos, and had observed the development of the malaria parasites in these insects, but still doubted. He asked to be given "fever" in this way, and then, said he, "I will believe." His request was granted, and he was asked to choose the form he desired. Benign tertian was his selection. *Anopheles* were fed on a case in which gametes of benign tertian were numerous, and, when sample mosquitos were found to contain sporozoites in their salivary glands, Joongey Lal allowed others of the same batch to feed on him. He was bitten by these mosquitos on January 21st, 22nd, 24th, and 25th. On February 3rd he commenced to be unwell, and a parasite was found in his blood. On February 5th and 7th his temperature was over 104° F., and abundant parasites were found and seen by the victim. At first he wished for further conviction in the shape of a dose of malignant tertian similarly administered, but was wise enough to change his mind. The experiment is striking and convincing, and was carefully worked out in all its details. At the same time we cannot help regretting that such experiments are still necessary, and hope that further repetitions will not be required. The benign tertian parasite is comparatively harmless, but it is difficult to eradicate, and there is no possibility of measuring the dose or intensity of the infection as transmitted by the mosquito.

THE TREATMENT OF PNEUMONIA.

ALTHOUGH all physicians will probably agree with Sir John W. Moore, who says in the clinical section on pneumonia which he has contributed to the *Encyclopaedia Medica* (vol. ix) that the "disease....is an essential or constitutional malady, self-limited in duration....To cure pneumonia is still, *malgré* the brothers Klemperer and their serum treatment, a feat as impossible of achievement as to cure typhus fever," still, unanimity of opinion as to drug treatment is as far to seek as ever. For instance, Sir John Moore says that digitalis is indicated in pneumonia when the pulse is rapid and of low tension, and when the kidneys do not act freely. He contends that this drug is well borne in pneumonia, and may be pushed. On the other hand, Sir William Gairdner, in the course of a letter which appeared in the last number of the *Glasgow Medical Journal*, says that he has rarely employed digitalis in the treatment of pneumonia, not because he had any special dread of the effects of moderate doses, but because he never met with any evidence or arguments leading to the expectation of good results. He still protests against the use of doses large enough to cause nausea and vomiting. Again, while admitting that narcotics like opium and morphine are best avoided in the treatment of pneumonia as tending to lock up the secretions and check expectoration, and while recommending the wet pack and bloodletting for hyperpyrexia and cyanosis respectively, Sir John Moore allows morphine (one-eighth to one-sixth of a grain) even in cases of heart failure where there is sleeplessness, in combination with strychnine. But Sir William Gairdner says that he has repeatedly seen what can only be regarded as poisonous effects from very moderate doses of opium in certain stages of pneumonia, and (especially towards the crisis) has learned to dread it more than almost

any other drug. He relates a case in which a man in the prime of life, and otherwise quite sound, had acute pneumonia of the lower lobe of one lung, which ran an average course up to the sixth or seventh day. The patient suffered considerable pain, and received a sixth of a grain of morphine subcutaneously. Shortly afterwards there was cyanosis, with slow intermittent breathing, feeble pulse, and somewhat contracted pupils. The patient had to be vigorously treated for morphine poisoning, and only just managed to pull through a perilous crisis.

BRAXY.

Professor D. J. Hamilton contributes to the *Transactions* of the Highland and Agricultural Society of Scotland, 1902, a record of the results of his investigations into the disease "braxy." This disease of the sheep is endemic in the West of Scotland as far south as Argyllshire, disappears in Ayrshire, to reappear in Wigtown and Dumfries. In England, except for an occasional case in the north of Cumberland, it is confined to Cornwall. Iceland is a hotbed of the disease, and it prevails along almost the entire coast of Norway, in the Shetland Isles, and in Mecklenburg. All these affected areas are more or less subject to the influence of the Gulf Stream, a fact which may have some bearing on its prevalence. The pecuniary loss caused by deaths among the flocks is enormous; for instance, there are few sheep owners in the West Highlands who lose less than 25 per cent. of their animals every year. The course of the disease is very rapid, from five to eighteen hours after the symptoms have declared themselves; the animal is first noticed to be off its feed and restless, the breathing becomes laboured, and the head hangs down; the belly then swells, the animal crawls away from its mates, and finally falls over on its side. Within an hour or two after this it is dead. By far the greater number of the sheep attacked are first year's animals, and there appears to be a progressive immunity with age; it is possible that this may be due to mild attacks in youth sufficient to protect for the rest of their lives: however, when the symptoms are marked, recovery is extremely rare. The disease prevails for the most part during the late autumn and early winter months. The *post-mortem* appearances in a typical case are characterized by the following features: There is no external manifestation of the disease, as in the case of the slough of quarter-evil; there is a great tendency, both during life and after death, to the production of gas; sero-sanguineous effusions are found in the various cavities and the subcutaneous areolar tissue, inflammatory manifestations being absent. The mucous membrane of the "reed," or fourth stomach, is occasionally, not invariably, infiltrated with blood, and this stomach is usually empty, while the first three contain food. The liquids and tissues of the body invariably exhibit the presence of the characteristic bacillus. The *post-mortem* appearances of experimental cases produced by inoculation of pure cultures of the organism correspond essentially with those of the natural disease. The organism was first isolated and described by Nielsen, a Norwegian Government veterinary officer; it is rod-shaped, 2 to 6 mm. or longer, with rounded ends; spores are common; in first cultures it is an anaërobe, and grows well on glucose broth and glucose agar at 37° C.; it is closely allied to the organisms of malignant oedema, and of quarter evil; the three form an isolated group and have intimate mutual relationships. A point of very great interest in the disease is the immunity of certain sheep. Aberdeenshire and Forfarshire enjoy such immunity that they are the great wintering grounds for animals from the West Highlands. Professor Hamilton was unable to produce the disease in Aberdeenshire sheep by the subcutaneous inoculations of the blood from typical cases in the West Highlands and of cultures; to what this resistance is due is not clear, possibly to a mild attack of the disease in the autumn or early winter, as lambs inoculated in August did not exhibit the same resistance. It is still quite uncertain how the bacillus gains access to the system of the sheep; most writers have considered the digestive system the channel of entrance, but no one has been able to produce the disease by feeding with infective material. It seems clear, however, that the disease is maintained and spread by the fouling of the ground from the carcasses and excreta of animals infected. Preventive measures designed to prevent this contamination are in contemplation, and a departmental committee of the Board of Agriculture, of which Professor Hamilton is a member, is at present engaged in making observations in this direction.

THE *ENCYCLOPAEDIA BRITANNICA* UP TO DATE.[1]

The *Encyclopaedia Britannica* takes all knowledge for its province. It deals with the developments of science, art, literature, history, sociology, industry, commerce, invention, medicine and surgery, in short with every field of intellectual inquiry and every department of human activity. The drawback inevitable in all such monumental productions is that the advance of knowledge, particularly in science, quickly leaves them behind, standing, like Egyptian pyramids, colossal landmarks in the history of progress. To keep them up to date by the issue of fresh editions is an undertaking from which the most enterprising publisher might well shrink. A happy inspiration has led Messrs. A. and C. Black to issue a series of supplementary volumes which, in combination with those of the ninth edition, constitute a tenth edition of the work. The new volumes are intended to complete the work and bring it up to date; they will also supply a new, distinctive, and independent library of reference dealing with recent events and developments. Eleven volumes will be issued which will contain some 10,000 articles written by 1,000 contributors, among whom are leading authorities not only British, but American and Continental, on the subjects of which they treat. The volumes will be illustrated by about 2,500 new plates, maps, woodcuts, and half-tones. The names of the general and departmental editors and a list of the principal medical contributors was given under the heading "Literary Notes" in the British Medical Journal on April 26th. The first of the new volumes, which is volume xxv of the complete work, was published on May 2nd. It extends from "Aachen" to "Australia," and contains several articles of medical interest, the principal being Ambulance, Anatomy and Anthropology. Under the heading "Ambulance," Lieutenant-Colonel Dodd, R.A.M.C., gives a concise but lucid description of the arrangements in the British military service for the care of the sick and wounded in war from the time they are injured or struck down by illness till they are able to return to duty or are invalided home. Some account of foreign methods and of civil ambulances is also given; and ambulances of various types, British and American, including a motor vehicle used in New York, are figured. The article on Anatomy is by Professor Alexander Macalister, and is a masterly summary of the results of recent research. The exposition of the latest discoveries in the minute structure of the brain and nervous system is particularly good. The busy practitioner who wishes to make himself acquainted with the general results of anatomical investigation in the last few years cannot do better than read this article, which gives the essence of what has been definitively added to the sum of knowledge without the details that would be confusing to all but specialists. If we may judge from the brevity of the article on Anthropology, by Sir E. B. Tylor, this particular branch has made no very great advance since the issue of the ninth edition. An article on Anthropometry is contributed by Dr. Arthur Shadwell, a gentleman whose

[1] The first of the new volumes of the *Encyclopaedia Britannica*, being vol. xxv of the complete work. Adam and Charles Black, Edinburgh, and London: *The Times*, Printing House Square, London. MCMII.

title to scientific authority, as far as can be discovered from the descriptive list of contributors, consists in the fact that he is the author of a book entitled *Tallerman Treatment by Superheated Dry Air*. To Dr. Shadwell has also been entrusted the article on Appendicitis: for a work in the production of which, according to the statement of the publishers, £100,000 has been spent, one might have thought it would have been worth while to engage the services of a man who could speak on this important disease with the special authority that comes of a wide experience. The articles on Adulteration and Algae, which are indirectly of medical interest, are readable as well as accurate. Among the biographical articles is one of the late Sir Henry Acland. The *Figaro* described the ninth edition of the *Encyclopaedia* as a literary monument in the erection of which all scientific Europe had collaborated. The supplementary volumes are the product of the New World as well as the Old. On the whole we congratulate the publishers on the successful completion of a work which may justly be called a national institution. It is one of the glories of British literature.

DISEASES IN ARCTIC ALASKA.

DR. ERNEST W. KELSEY, during a sixteen months' sojourn in Alaska, has made some interesting observations on the aspects of disease as seen in Arctic Alaska. Physically speaking, the region is either an iceberg or a swamp. It has a three months' summer and a nine months' winter, and so isolated and ice-locked is it in winter that comunication with the outside world is wellnigh impossible. The necessaries of life are often limited, and luxuries are scarcely procurable. Moreover, the climate is extremely inclement, even in summer. The diseases peculiar to the country are cerebro-spinal meningitis, scurvy, typhoid fever, the disorders due to imperfect digestion, neuralgia, nervous diseases, and the results of exposure to cold. Cerebro-spinal meningitis may be epidemic or sporadic, and it is often difficult to distinguish it from the cerebral form of typhoid fever. The mortality is high. The scourge of the white man in Alaska is scurvy, which is not different in type from that so often seen in the army and navy life in the early part of last century. Typhoid fever is characterized by absence of rash, and a not very high fever. Rheumatism is either neuralgic in type, or presents some of the symptoms of true neuralgia. The inflammatory type is never seen except in summer time when the patient exposes himself to involuntary baths in ice-cold water, as in fording rivers. The heart is rarely, if ever, attacked, no matter how severe the trouble. Pneumonia is practically unknown, and Dr. Kelsey from his own experience confirms the statements of Pepper and of Kane, the Arctic explorer, that pneumonia is more prevalent on the shores of the Mediterranean than within the Arctic Circle. Gastritis, constipation, intestinal indigestion, diarrhoea and other gastro-intestinal complaints are very prevalent. This is explained by the fact that the food consumed in Alaska is insufficient and poor in quality. Beans and bacon, canned foods (and occasionally as luxuries, dried fruits) are the staple articles of diet. Among the nervous diseases most often seen are neuritis, spastic paraplegias of various sorts, and changes in the skin due to perverted nerve supply. Locomotor ataxia and disorders of sensation are frequent. The disorders of sense organs are limited mainly to snow-blindness, and the results of dermal changes. The isolation and lack of occupation or amusement drive many to morphine, alcohol, or one of its substitutes; Worcester and tabasco sauce and red ink being among the things used when all else fails. These drinks, however, do not produce in the same proportion the disastrous results so often seen in civilization. Insanity is often seen in Alaska. It seems to develop only in the winter time, and is generally the result of home-sickness, the lack of occupation and of exercise, and frequent forced detention indoors, due to weather conditions, and the terrible isolation of Alaskan life. It exhibits itself generally as acute melancholia, almost invariably followed by acute mania. Delusions of persecutions are frequent, being the first sign of mental aberration. A suicidal tendency sometimes manifests itself and the fear of a maniacal outbreak is always to be dreaded. The diseases which affect the natives are mainly chronic bronchitis, consumption, pneumonia (in the rainy season), small-pox, scrofula, syphilis, measles, influenza and mumps. All these assume extremely severe forms when attacking an Alaskan Indian. The first-mentioned diseases already decimate them and will ere long exterminate them. Surgery in Alaska is attended with exceptional difficulties, the operator being often compelled to act in a general capacity, including that of anaesthetist.

CANCER RESEARCH.

A LETTER signed "Research," which appears in the *Times* of April 25th, contains a promise to contribute £5,000 towards the £70,000 required to complete the equipment of the Cancer Research Fund, if thirteen other subscribers will do the same before the Coronation. The Worshipful Company of Drapers has voted a sum of £250, to be paid in five annual instalments of £50, towards the fund of the Middlesex Hospital for the scientific investigation of the cause and cure of cancer, on the understanding that the hospital's director of research present year by year to the Presidents of the Royal College of Surgeons and the Royal College of Physicians a report of the work done in the laboratories by himself and his assistants, and on condition that this work is duly approved and the Presidents consider the object worthy of support.

DR. A. BROWN RITCHIE has been appointed Medical Officer to the Manchester School Board.

EIGHTEEN students have entered for the session of the London School of Tropical Medicine, which began on May 1st. Among them are several members of the Colonial Service. There are also two ladies, and one foreign physician—a graduate of the University of Berne.

NOTICES have been published stating that thirty commissions as surgeons in the Royal Navy will be offered as the result of an examination to be held early next month, and that not fewer than twelve commissions in the Indian Medical Service will be offered at an examination to be held early in September.

MAJOR RONALD ROSS, F.R.S., has been appointed the head of a new department of the Jenner Institute of Preventive Medicine, Chelsea. The department is to be devoted to the systematic study of the animal parasites of man and the lower animals, especially from the points of view of pathology and epidemiology.

AT an extraordinary meeting of the Senate of the University of London a resolution was adopted, and directed to be forwarded to the Earl of Kimberley, the son of the late Chancellor, expressing the Senate's deep sense of the loss which the University has suffered by the death of its Chancellor, who had been for forty-three years a member of the Senate, and who throughout that long period not only showed a strong personal interest in the progress of the University, but from his great experience in public affairs, his wisdom in council, and his characteristic moderation and candour, contributed materially to its welfare.

IN mentioning that Lord Rosebery was the only candidate nominated for the office of Chancellor of the University of London, and would, therefore, be elected at the meeting of Convocation on May 13th, we gave the names of some of those who signed one of the nomination papers. We now learn that the second nomination paper sent in was signed by the following: Sir W. Broadbent, Bart., M.D.,

Dr. P. H. Pye-Smith, Mr. R. J. Godlee, M.S., Dr. T. G. Foster, Professor E. H. Starling, M.D., Professor M. J. M. Hill, D.Sc., Mr. Bilton Pollard, M.B., B.S., Mr. H. G. Howse, M.S., Mr. Travers, D.Sc., Professor Herbert Spencer, M.D. Lord Rosebery will, therefore, have the satisfaction of feeling that he has been selected for the post by representatives of all sections of opinion within the University.

Professor Behring has this week issued a book giving the results of his investigations on tuberculosis. He is satisfied that he has proved conclusively by experiment that tubercle bacilli from human beings and from cattle are similar, morphological and biological differences in the appearance, growth, and virulence of the poison being occasioned by the adaptability of the bacillus to the conditions of life in the respective organisms. He states that he has rendered young cattle immune against virulent tubercle bacilli by means of previous inoculation with living tubercle bacilli of inferior virulence. He thinks this treatment will be of great value in combating the disease.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Public Health Bill.—This Bill, which seeks to amend the law relating to the qualification and tenure of office of medical officers of health and sanitary inspectors, and to make further provisions relating to superannuation allowances for such officers and inspectors, and for other purposes, was introduced on Friday in last week by Sir Francis Powell. The Bill is supported by Sir Walter Foster, Mr. Talbot, Dr. Farquharson, Mr. H. Hobhouse, Mr. Cripps, Mr. Heywood Johnstone, and Sir Michael Foster. It is put down for second reading on May 12th.

Soldiers' Guard Beds. Last week Captain Jessel asked the Secretary of State for War whether he would consider the advisability of abolishing the guard bed, which is a structure of sloping planks with a wooden head rest in lieu of a pillow, and which is at present in use in guard-rooms in the United Kingdom, and substituting barrack cots with mattresses and pillows; and whether he is aware that this change has already been carried out in India and China. The reply was hardly as full as was expected, but it was understood that the matter would be carefully considered.

Poor-law Children and Ophthalmia and Ringworm.—In answer to questions put on Monday last by Mr. Trevelyan and Mr. Ernest Flower, the President of the Local Government Board said that there were, according to last returns, in the metropolitan workhouses 1,235 children, and in the other Poor-law institutions 1,739; of these, 670 and 640 respectively were under 3 years of age. With reference to ophthalmia and ringworm, he said that in the Metropolitan Poor-law schools there were 413 children suffering from ophthalmia, and 325 from ringworm. In the workhouses and infirmaries the numbers were ophthalmia 351, and ringworm 294.

The Cremation Bill has at last passed another stage of its way to the Statute Book, but not without some perilous incidents. Last Friday week, when the Standing Committee on Law met to consider it, there were only a few amendments on the paper, and all looked well, but the minutes went by and the necessary quorum of members (twenty) could not be gathered. Member after member sought recruits, messengers searched other Committee rooms, but no more than nineteen could be collected, and so after wasting one hour the Chairman, Sir James Ferguson, was obliged to declare the Committee not formed. For a moment it seemed as if the Bill was lost, but the Chairman received a suggestion to call the Committee for Tuesday at 2 o'clock instead of 12, and so give the Bill another chance. As it seemed a pity that the Bill should be dropped after all the labour spent on it this year and last, this course was agreed to. On Tuesday at 2, the members mustered in good numbers in response to whips sent out, and the Bill passed through Committee with amendments, and was reported to the House. The amendments were nearly all moved by Mr. H. D. Greene, and were all favourable to the measure, and so were accepted by the Home Office and Sir Walter Foster, who had charge of the Bill. The Bill will be put down for the report stage on one of the first private members' days after Whitsuntide.

Sickness on the Training Ship "Impregnable."—In answer to Mr. Kearley, the Secretary to the Admiralty admitted that there had been a considerable amount of sickness on board the *Impregnable*, the average being slightly above that of the corresponding period of last year but below that of 1900. There had been an epidemic of scarlet fever of a mild form which was now on the decline. The number of boys on board had varied, but the minimum was 787. In February last, in view of the presence of scarlet fever, a rigid inspection of the ship was made by the Inspector-General of the Plymouth Hospital, who reported favourably of the sanitary conditions and the precautions taken. The last case of scarlet fever occurred on April 21st, and it was hoped that the disease had been stamped out by the measures taken. Further steps would be taken if found necessary for the health of the boys.

The Poor-law Officers' Superannuation (Scotland) Bill.—This Bill has been issued this week, and provides for the extension to Scotch Poor-law officers and servants of the benefits of the English Act of 1896, whereby superannuation was granted in return for a percentage contribution from salaries and emoluments, when the said officers and servants became unable to discharge their duties by reason of permanent infirmity of mind or body, or of old age. The rights of existing officials are safeguarded by Clause 15, and the power to retire an officer at 65 is given to the local authority. The Bill is introduced by Mr. Maxwell, and supported by Sir Lewis McIver, Sir Robert Reid, Mr. Nicol, Dr. Farquharson, Mr. Cross, Colonel Denny, Mr. Ure, and Mr. Renshaw.

The Army Medical Service.—Two Scottish members last week asked the Financial Secretary of the War Office quite a series of questions as to why an army medical officer attained the rank of captain and major in three and twelve years respectively, while a veterinary officer attained the same rank in seven and a half and fifteen years. This was Mr. Cross's question, and Mr. John Wilson followed it up by asking why there were such differences in rank, pay, and promotion between the medical and the veterinary services. Lord Stanley said, in reply, that a new warrant for the Army Veterinary Department had just been issued, giving considerable and additional advantages. Mr. Cross wanted a statement of the advantages, but the Financial Secretary referred him to the warrant, of which he promised him a copy.

Highland Parochial Medical Officers.—Mr. Weir, at the end of last week, asked how many parochial medical officers in each of the six crofter counties were without the public health diploma required under the Public Health Act, 1897, and why the Government continued to confirm the appointments of medical officers in Highland counties regardless of the conditions imposed by statute. The Solicitor General for Scotland said that the Secretary for Scotland was informed by the Local Government Board that the figures were as follows: Argyll County, 23 local medical officers, of whom 3 possessed statutory qualification; Inverness County, 10 local medical officers, of whom 1 possessed statutory qualification; Ross and Cromarty, 11 local medical officers, of whom 2 possessed statutory qualification; Sutherland County, no local medical officers; Caithness County, no local medical officers; Orkney and Shetland, 3 local medical officers, none of whom possessed statutory qualification. The medical officers who did not possess the public health diploma were appointed prior to the coming into operation of the Public Health (Scotland) Act, 1897, and consequently were not required to possess the qualification. The Local Government Board did not recognize new appointments of medical officers who did not possess the statutory qualification.

THE INSTITUTE OF ACTUARIES AND VACCINATION.

VACCINATION and the Act of 1898 was the title of an important paper read by Mr. A. F. Burridge before the Institute of Actuaries, of which he is a Vice-President, on Monday evening, April 28th. It is a gratifying fact that such a society, every member of which is a professed statistician, should devote an evening to the subject of vaccination. Several medical authorities on vaccination were present, and some of them assisted in the interesting debate which followed the paper.

Vaccination Law.

After a short account of inoculation, and of the introduction of vaccination, Mr. Burridge gave a clear and concise account of the various laws affecting vaccination in this country. These laws begin with the Act of 1840, and end with that of 1898.

The Act of 1840, which provided for gratuitous vaccination without making it compulsory, also abolished inoculation of small-pox. The Act of 1841 provided for payment of public vaccinations out of the parish rates, that is, the payment for those not previously successfully vaccinated, thus "revaccination was not contemplated." Also such public vaccination entailed no loss of privilege on the part of the parent. The Act of 1853 first made vaccination compulsory within three months of birth, under a penalty of 20s. The public vaccinator might (1) postpone vaccination; (2) give a certificate of insusceptibility thereto. The Act of 1851 empowered, but did not make necessary, the appointment of "persons to compel obedience to, and enforce penalties imposed upon defaulters by the previous Acts." The Act of 1867, which came into force on January 1st, 1868, practically continued the provisions of the previous Acts, at the same time providing for details of organization. Revaccination was specifically encouraged and paid for at the rate of two-thirds of that for primary vaccination. A Select Committee was then appointed, and the result was the Act of 1871, which now made it obligatory on Boards of Guardians to appoint an officer to enforce the provisions of the Consolidating Act of 1867, whereas before this it was optional. "Since 1871 the superintendence and direction of the work of vaccination has been carried on by the Local Government Board." Thus it was seventy years after the introduction of vaccination before it was placed, even partially, under a central authority! Lastly, we have the tentative Act of 1898, after the seven years' duration of the Royal Commission. This Act, which will expire at the end of next year—Parliament must make up its mind by then what to do with the question—enacted (1) extension of the period for vaccination to six months from birth; (2) exemption from penalty if the parent within four months from birth "satisfies" two justices or a stipendiary or metropolitan police magistrate that he conscientiously believes that vaccination would harm the child; (3) limitation to one conviction and one penalty in case of non-compliance with the Act; (4) an extension of the powers vested in the Local Government Board. It is only since the beginning of the present year that the recognition of that Board as the supreme authority has been decided by the test case Moore *v.* Keyte. This is certainly an extraordinary country in many respects. It has taken above a hundred years to put vaccination finally under a central authority, and it has required an action at law to settle the point.

Vaccination and the Mortality from Small-pox.

Mr. Burridge next gave a table of the dates when various countries adopted compulsory vaccination in its various aspects.

Compulsory vaccination of children was adopted in Bavaria 1807, Denmark 1810 (on admission to school), Norway 1811, Schleswig and Holstein 1811, Baden 1815, Kurhessen 1815, Sweden 1816, Württemberg 1818, Nassau 1818, Hanover 1821, England and Wales 1853 (not efficiently till 1871), Scotland 1863, Ireland 1863, Prussia 1871 (on admission to public schools; and 1874 infants in second year).

The influence of vaccination in reducing small-pox mortality was shown graphically in a series of diagrams. The first diagram dealt with London, and it must be borne in mind that the London of the Registrar-General is not the London of the old Bills of Mortality; the total mortality as given in 1841 after a break of several years, being more than twice as great as the previous total mortality. In another diagram various countries are compared; the comparison of Prussia with Austria was very striking, as showing the effect of the German law of 1874 which made vaccination obligatory in the second year of life, and also revaccination in the twelfth year for all school children in Prussia. The diagrams which represented the mortality at various ages in England clearly showed that primary vaccination chiefly affects the small-pox mortality of the earliest age classes, and that its influence gradually diminishes with age. Measles, diphtheria, and scarlet fever were also graphically brought before the eye. As Dr. Newsholme subsequently stated, "fever" meant almost anything in former times; thus a mere "fever" curve is fallacious, and there is no such curve in the paper. "It has been suggested," Mr. Burridge said, "that improved sanitation has accounted for the diminution in small-pox mortality; but if this were the case we should expect to find an equal improvement in the death-rates from other febrile diseases—for example, measles, diphtheria, and scarlet fever." But we do not, as the curves showed, measles being as fatal as it was fifty years ago, while diphtheria has slightly increased during the last thirty years, and the scarlet fever curve alone has fallen in recent years. Mr. Burridge gave, also, curves for the Sheffield epidemic, and observed that "the most striking features that are brought out by these figures and the curves that illustrate them are:

"1. The very large immunity from attack enjoyed by the vaccinated class as compared with the unvaccinated.

"2. The gradual approximation of the rates among the two classes as the groups at the higher ages are reached.

"3. The very much smaller percentage of fatal attacks among the vaccinated classes who had contracted the disease than among the unvaccinated."

As regards the unvaccinated population of Sheffield, Mr. Burridge increases the original figures by 38 6 per cent., not 28 per cent., as stated by Dr. Barry; the latter percentage is shown to be incorrect. In other words, the vaccinated and unvaccinated populations were originally given as 268,397 and 5,717 respectively; in the paper these figures become 266,190 and 7,922 respectively. A correction of some sort was, of course, required, as the census was taken during the epidemic, thus many previously unvaccinated were vaccinated about that time, and included as such in the returns, "thus unduly reducing the unvaccinated 'exposed to risk.'"

Now some people may say: Here you have a large city well vaccinated, and yet far more vaccinated contracted small-pox than unvaccinated, the number of the former being 4,151, of the latter only 552. Do you call that protection? The answer is obvious even to any child. It is that vastly more unvaccinated than vaccinated were attacked *in proportion to their respective population numbers.* As Mr. Burridge showed in the age-class under 10 years for every 100 unvaccinated attacked only 3.4 vaccinated were attacked, the vaccinated percentage rising with age, but even in late adult life—namely, "40 years and upwards"—remaining much below the unvaccinated, being 60 per cent. of the latter in the same age-class. So far as regards attack. As regards death, the influence of vaccination was clearly shown to persist in a much greater degree. The percentages of the deaths to the attacks amongst the two classes respectively were as follows at different ages: Under 10, 1.7 and 44 (not 36.7 as in the paper); 10 to 20 years, 1.9 and 47.3; 20 to 30 years, 5.5 and 70; 30 to 40 years, 10 and 67.5; above 40 years, 11.4 and 37.5. These differences are enormous. Other statistics of similar character are given from other countries, and, as the speaker said, the "cumulative evidence" must carry some weight.

Revaccination.

Both curves and tables were given for three great Continental armies—Prussia, France, and Austria. As our readers well know, small-pox mortality is virtually non-existent in the German army—two deaths in twenty-five years—and it has been rapidly reduced in the French and Austrian armies of late years by the adoption of strict measures for the vaccination of all recruits.

The following striking example of the protection afforded by revaccination was furnished to Mr. Burridge by Dr. Harley Brooks: "The nursing staff on duty at the Mile End Infirmary consisted of 40 nurses and 2 matrons. Of these, 29 nurses and the 2 matrons had been revaccinated at periods ranging from two days to two years prior to the outbreak in the institution, and 4 nurses were revaccinated immediately after the outbreak. *None of these 35 persons contracted small-pox.*" The remaining 7 nurses contracted small-pox; and of these 3 were not revaccinated, and the other 4 were revaccinated too late, only two or three days—in one case six days—before removal; *thus all 7 were not revaccinated persons* when they were infected by the disease, as shown by dates given.

The very important point was brought to light once more that "while the mortality in infancy has been reduced to one-fortieth of its former rate, the mortality for ages '45 and upwards' has not been diminished." This is the most important point in the whole paper.

The Value of Statistics.

Those people who appear to think that medical men do not understand statistics in their modern development should weigh the following words by a vice-president of the Institute of Actuaries, a perfectly independent authority: "We have now examined the evidence..... The conclusions arrived at point irresistibly to the value of vaccination as an agent in reducing both the rate of attack and the virulence of attack of small-pox. They also indicate the necessity of renewing the protection afforded by vaccination in infancy at a later period of life."..... "The virtue of revaccination is shown in the case of Prussia, where since 1885 not one person in 100,000, and since 1894 not one in a million, has died of small-pox."

Vaccination Default.

Mr. Burridge points out that the operation of vaccination has not as yet been legally defined. Tables of "marks" and their influence are given, also the vaccination default as a percentage of the births otherwise unaccounted for in England each year since 1872. This default was 4 or 5 in the Seventies, rising to 10 in 1889 when the Royal Commission was appointed. After this it rose steadily to 23 in 1896, 26 in 1897 (3.4 being the percentage due to conscientious objection), 26.6 in 1898 (5.1), and 20.8 in 1899 (3.6). The exemptions granted in 1896, namely, 203,413, mostly related to children born before 1898. In Scotland, where the people are hard-headed, the default is only 5; "in fact, there has never been any considerable opposition in Scotland to the practice of vaccination."

Certainly the opposition to vaccination, or the apathy towards it, is widespread, as was shown by a table of those unions in which the vaccination default is above 20 per cent. It is 34.6 in Gloucester, despite the bitter lesson of its last epidemic, 31 in Falmouth, 63 in Bedford (the unions are meant), very high in all the poorer districts of London, but even in Marylebone 20.2, 25 in Bradford, 63 in Halifax, 60 in King's Lynn, but Leicester is still highest in obduracy with 75. It is very curious that Radical Wales does not object to vaccination, so that Radicalism in politics cannot be said to be a factor in the case. Or are the Welsh really more intelligent than the English? It looks like it, and certainly they have now a better system of education.

The Future.

Mr. Burridge reminded his hearers that the tentative Act of 1896 expires on December 31st, 1903. "Possibly, however, the Act may not be modified at the end of five years, but its operation continued by including it in the schedule of the 'Annual Expiring Laws Continuance Act.' But it must be made an annual law for this to happen. The working of the Act should in any event be thoroughly examined in the near future by another Royal Commission, or by a Departmental Committee, or some other efficient form of inquiry."

"It has been shown in the course of the paper that by means of a thorough primary vaccination, in conjunction with revaccination at school age and on joining the army, small-pox may be practically exterminated, and immunity from epidemics given to a community thus protected. With this example, and with the experience of the present epidemic in London, the nation should surely not rest satisfied until primary vaccination has become the universal practice, and revaccination rendered compulsory." School age is subsequently mentioned as the suitable age for revaccination.

Vaccination and Life Assurance.

As to insurance offices, where the stern facts of life are treated without sentimentality, out of 71, only 2 make no inquiry *re* vaccination. If the life proposed is unvaccinated, 11 decline the case; all the rest except 7 which make no extra charge, and 1 with no fixed practice—either charge extra or insert conditions, or both together. "None of the nine industrial offices which furnished information make any inquiry or charge an extra premium."

Mr. Burridge may be heartily congratulated on his paper, which evinces a thorough grasp of the subject in all its bearings. It is, perhaps, the most comprehensive article of the kind ever penned by a non-medical man. There is not an unnecessary word in this paper, which preserves a scientific character throughout.

MANCHESTER AND SALFORD SANITARY CONFERENCE.

A conference on sanitary reform, in celebration of the jubilee of the Manchester and Salford Sanitary Association, was held in the Town Hall, Manchester, on April 24th and 25th, under the presidency of the Bishop of Manchester.

Presidential Address.

Speaking not as a sanitary expert, but as a public man interested in the welfare of his fellow citizens, the President said it was obvious that the nation was fast becoming a nation of town dwellers. Already 77 per cent. of the population dwelt in towns; thus the future strength and character of the race would depend largely on the health conditions of the towns and cities. He referred with approval to the dictum of the late Sir Spencer Wells that the death-rate in all large towns would be lowered if the municipalities carried out the recommendations of their sanitary officers. The death-rate of Manchester had declined during the last twelve years from 29 to 21.6, but this was still far from the 17 of London and the 14 of Nottingham. The saving of human life by sanitary means certainly meant an increase in the wealth of the nation, but the same sanitary changes which saved threatened lives increased the efficiency of all lives. Thus if sanitary improvements were continued there would not only be more men in the cities, but more efficient men—men who were likely to be stronger physically, mentally, and morally. The community which by its wilful carelessness or parsimony neglected to remove physical drawbacks of town life, such as a polluted atmosphere, defective dwellings, and inefficient drainage was fairly chargeable with a serious offence against the individual citizen. Not less, but even greater, was the offence of such a negligent civil administration against the nation, seeing that its wealth consisted in the quality of its citizens; if these were strong in body, alert in mind, and firm in character; if they were just, temperate, patriotic, and self-denying, the nation which bred them was rich. The object of the Conference was to help to generate a wholesome discontent with insanitary conditions; to demand that people should be compelled to obey the law; that no sanitary abuse should be tolerated which the law forbade; and that if there were any abuses which the law did not reach, new laws should be made to abolish them.

Scientific Work of the Congress.

The first session of the Conference was commenced under the chairmanship of Professor J. Dixon Mann with a paper on the history of the Manchester and Salford Sanitary Association, or half a century's progress in sanitary reform, by Dr. Arthur Ransome. After tracing in detail the history of the Association during half a century, he said that in the weekly returns of disease in Manchester and Salford, which were established through the efforts of the Association, collected as they were with much care by the self-imposed and unpaid labours of many medical men, they had the sum of all the evils which for nearly twenty years had affected the poorer population of the city. The medical officers in other large towns obtained similar returns, memorials in favour of the registration of disease were sent up to successive Governments, Ministers were waited on by deputations, and at last the subject was taken up by the British Medical Association and carried to a successful issue. There was secured, in fact, a notification of disease. The only pity was that it was limited to purely utilitarian purposes, and that therefore only infectious diseases were included in the schedule. Even with regard to these the scientific value of the returns was not recognized. They were not collated and analysed, and when they had served their immediate purpose were consigned to some Government limbo instead of being placed in competent hands.

Light and Sanitation.

Sir James Crichton-Browne then delivered an address on the beneficial effect of sunlight, Principal Hopkinson of the Owens College being in the chair. After referring to the inhibitory action of light on bacteria and to its employment in curative medicine, he said that light had still more deep and intimate human relations of a sanitary nature; it was a necessary condition of mental and bodily well-being. All

properly organized men and women loved the light, and it was not merely to children that darkness brought with it a sense of powerlessness, danger, and alarm. Light was indeed a sanitary agent of the first order, and it behoved all good sanitarians to spread the light, to conserve it, and to protect it from pollution. After alluding to the detrimental influence of the window tax, which was in force from 1696 to 1851, he said that it was for practical sanitarians to insist on the big window and the open window, and to teach that the light and air which these admitted sweetened and disinfected the house and prevented disease. Every human habitation, moreover, should be surrounded by a belt of light as inviolate as the streak of silver sea that surrounded our island. The evil influence of a smoke-laden atmosphere in intercepting light was of vital importance, it was to a large extent the offspring of culpable negligence and profligate waste, and it could be enormously abated if not abolished.

Women Inspectors and Sanitary Reform.

Mrs. H. J. Tennant, late Chief Woman Inspector of Factories, then read a paper on Women's Work in Sanitary Reform, Mrs. Moorhouse presiding. The enforcement of the laws of public health was a matter not only of municipal but of national importance. Insanitary conditions, both directly and indirectly, tended to crime. One of the worst and perhaps least recognized evils was the neglect of infant life. The work which was being done in the homes of Manchester by the women workers of the municipality and of the various voluntary societies could not be done properly by men. The number of women employed as inspectors was still absurdly inadequate, and this was not a matter on which the nation ought to economize. The economic waste which was caused by insanitary conditions—such, for example, as arose from the degradation through ill-health of men and women from the ranks of skilled to the ranks of unskilled labour—was of far-reaching significance.

Notification of Preventable Disease.

Dr. A. Newsholme, in the course of a paper on Vital Statistics and their Relation to Sanitary Reform, said that mere registration of deaths gave a very imperfect view of the prevalence of disease, and that, so far as communicable diseases were concerned, invaluable time was lost when preventive action could only be taken after the registration of the patient's death. Notification to the medical officer of health of preventable disease was the finger-post which indicated the places where sanitary investigation and action were peremptorily required. The time was ripe for asking for the compulsory notification of all cases in which there was reasonable ground for suspecting the existence of an infectious disease, and for the extension of the schedule of notifiable diseases.

The Housing Question.

Mr. T. C. Horsfall read a paper discussing the evils and remedies of defective housing. The remedy for overcrowding was the adoption by local authorities of a standard of population for a given land surface, not merely of floor space, of a system of careful inspection that this standard was not exceeded, and a police system for removing all discovered excess of population. For the supply of new houses to towns there should be an authority to make plans for the laying out of streets and open spaces, with power to buy land at reasonable prices, and to give financial help to associations and persons who were willing to build houses of the kind which the authority believed to be needed.

Prevention and Cure of Consumption.

Mr. W. J. Crossley, who was in the chair during the discussion of this subject, referred to the difficulty of getting in touch with consumptive patients in that stage of the disease in which real cure was probable. Individual effort and persuasion were needed. He raised the question of what should be done with patients in the last stage when they could not be received into hospitals, and when for them to go home to the family meant danger to all concerned. He considered that small homes of peace were necessary.

Sir William Broadbent, in giving an address on the prevention of tuberculosis, said that the country was hardly ready for the compulsory notification of consumption, but one form ought to exist even now, that, namely, after death in order to save the survivors from the risk of infection. The example of a sanatorium for the poor, set in Manchester, should be followed elsewhere. It was entirely due to the spread of hygienic knowledge—of the value of fresh air and cleanliness—that consumption had been reduced.

On the motion of the Chairman, seconded by Dr. Ransome, it was unanimously decided to establish in connexion with the Sanitary Association a Manchester Branch of the National Association for the Prevention of Consumption.

Concluding Communications.

A paper on the Relationship of Voluntary Effort to Constituted Authority in Promoting Sanitary Reform, with especial reference to Infant Mortality, was read by Professor A. Bostock Hill; a communication was read from the Earl of Meath on the Physical Training and the Needs of a Town Population; also one on Garden Cities, by Mr. Ralph Neville, K.C., and a resolution approving of the principle was moved by Mr. C. E. Schwann, M.P., seconded by Professor Chapman, and adopted. The last paper of the Conference was by Dr. Niven, the Medical Officer of Health for Manchester, on Economics and Health, in which he maintained that we were a physically progressing race.

THE HYPODERMIC INJECTION OF SOLUTIONS OF QUININE IN MALARIA.

The communications to the British Medical Journal of January 25th and February 22nd, on the treatment of malaria by the hypodermic injections of solutions of salts of quinine have excited a considerable amount of interest.

Captain P. Carr-White, I.M.S. (Mysore, India) writes in reference to one of them. This method of treatment is extensively used in many parts of India. My attention was first drawn to it by a paper read by Colonel Benson, I.M.S., at the Indian Medical Congress in December, 1894, and since then I have treated many hundreds of cases in this way. An immediate improvement after one or two injections of 5 gr. each occurred in many cases that had been treated for weeks with fair doses by the mouth. In some cases, however, it seems impossible to effect a cure while the patients remain in a malarious district; such cases have usually the crescent form of plasmodia. I have used many of the salts of quinine, dissolved in dilute sulphuric acid, tartaric acid, or plain water without ill effects beyond occasionally a little subcutaneous hardness. I usually inject gr. v of the bisulphate into the subcutaneous tissue at the angle of the scapula, and repeat it every three days. Very few cases, except those with crescents, resist two or three injections.

Mr. Arthur Powell, B.A., M.Ch. (Bombay), writing as one who has given thousands of such injections without a single abscess or accident of any kind, but with excellent results, combats the generally accepted idea that quinine solutions are antiseptic, and attributes the untoward effects sometimes described, such as abscess and tetanus, to the neglect of ordinary antiseptic precautions in giving the injections. He adduces evidence to show that solutions of quinine do not prevent the growth of moulds and other vegetable parasites, although they are fatal, he maintains, to the lower forms of animal life—for example, to the amoeba coli. He points out that strong acids, especially sulphuric acid, used to dissolve the alkaloid may produce a local necrosis without the agency of micro-organisms. The salt he has used most is the hydrochloro-sulphate, one part of which is dissolved in 3 or 4 parts of a 1 in 5,000 solution of perchloride of mercury. The solution is boiled at least twice. Carbolic lotion is not admissible, as it produces a glutinous precipitate with the quinine, and, if it be employed to purify the syringe, that must be rinsed with perchloride solution or sterile water before being used, otherwise the needle becomes clogged. In pernicious attacks of malaria the dose of 2 gr. (as recommended by Dr. Ferguson) is too small; Mr. Powell has always given at least 15 gr., and has, indeed, given as much as 36 gr. in one injection, while 18 gr. were given to a child of 9 with none but good effects. Deafness and tinnitus do not occur after injections of quinine in persons who suffer from these effects after the administration of much smaller doses by the mouth. He

would not give these large doses in the presence of haemoglobinuria, or to a person who had formerly had blackwater fever. He prefers to inject the solution deeply into the flank or buttock, the skin being previously purified. He deprecates the custom of using hypodermic tabloids of any drug as introducing risks of sepsis.

Mr. H. M. DOWLER, L.R.C.P., M.R.C.S. (Koppa, North Mysore), writes: During the past four or five years I have subcutaneously injected between 600 and 700 doses of quinine; in a few instances the ordinary sulphate dissolved in tartaric acid, in over 100 the neutral sulphate, and in the remainder the bi-hydrochloride which certainly gives far less pain. The skin is purified whenever possible (but this is not always practicable in the case of coolies), the solution is freshly prepared and sterilized for each case or batch of cases, and the needle is boiled in either water or oil. The ordinary dose of the bi-hydrochloride is 3 gr. (proportionately less for children) dissolved in 19 minims of water. There is smarting for a few seconds, followed sometimes by slight tenderness lasting days or even months, and rarely by subcutaneous thickening. Signs resembling those of the early stage of abscess formation sometimes seem to follow a too superficial injection. Dr. Ferguson's experience of the value of the method for malarial joints and rheumatism is entirely in accord with mine. The method is also of signal service in malaria of acute types and in blackwater fever where intense vomiting and straining make administration by the mouth or rectum entirely out of the question. I have found it also of great value in chronic malarial fever with splenic enlargement and so on. Many of such advanced cases may be greatly relieved and the vast majority of the less advanced cases may be cured by this means. Pleurisy, pneumonia, diarrhoea and dysentery occurring with malaria should be treated by giving quinine hypodermically. With the exception of one case (one of abscess formation in a syphilitic patient) none of my cases showed any signs of sloughing, suppuration, haemoglobinuria, tetanus, or other infective process. In blackwater fever no case exhibited a deeper degree of haemoglobinuria after its use and the majority made fairly rapid recoveries. It is in my experience most exceptional for cinchonism to follow the hypodermic administration of quinine. Mr. Dowler adds: I am not aware whether in conditions other than malaria for which quinine is prescribed any extensive use has been made of the hypodermic method; but if not, it might be worth while to give it a fair trial seeing the special advantages of its use in malarial conditions.

Captain K. BRUCE BARNETT, R.A.M.C. (Camp Katangi, C.P., India) writes: For several months past I have been in the habit of using a saturated solution of the soluble quinine bisulphate in the treatment of all bad and recurrent cases of malarial fevers in quarters, camp, and on the march. Three grains in 10 minims of sterilized water is the ordinary dose injected under the skin of the forearm once or twice daily. I have had no bad results from this treatment, which is economical, safe, certain, and rapid in its effects. Ten grains of quinine used in this way has about the same effect on the disease as 30 gr. administered by the mouth or by the rectum. It may be prepared as required, which is to be recommended, and then there is no possibility of contamination; or it may be stored, in the manner suggested by Mr. Barrow, R.A.M.C., in a sterilized test tube, which for travelling by rail or road should be hermetically sealed with rubber sheeting, and not plugged with cotton wool. When required for use the sterilized needle of the hypodermic syringe is carefully introduced through the seal, the required quantity drawn off, the needle withdrawn, and the puncture immediately sealed with a boiled mixture of sweet oil and tallow by inverting the test tube in it in the manner adopted in the use of serums.

CONTRACT MEDICAL PRACTICE.

We are asked to state that any practitioner who is invited to take the [illegible] on of clubs in the district [illegible] would be well to previously communicate either with Dr. Watt[illegible] or Mr. [illegible] of Dunfermline.

By the will of the late Mr. Thomas Rymer, of Calder Abbey, Wallasey, the sum of £3,000 has been bequeathed to the Manchester Cancer Pavilion and Home.

THE PLAGUE.

PRECAUTIONS AGAINST PLAGUE IN HOME PORTS.

DR. D. S. DAVIES, M.O.H. Bristol, has addressed a memorandum to medical practitioners, calling attention to the fact that no cases of human plague are known to exist in the British Isles. It is expedient to remember that the disease is still prevalent in many parts of the world, and that the possibility of introduction, especially into seaport towns, is ever present. He expresses the opinion that the introduction and diffusion of the common bubonic form of plague depends more on place infection than on direct transmission from person to person, and that the potency of place infection depends on rat infection. Brief descriptions of the forms of plague are given, and appear to be models of condensation. The risk of overlooking slight and early cases is insisted on. With regard to pneumonic plague it is observed that the symptoms are often misleading, and that the occurrence of any cases of pneumonia amongst sailors recently arrived, or amongst dock labourers recently engaged in discharging grain or other cargoes from suspected ports, is a reason for special care.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending March 29th and April 5th the deaths from plague in India numbered 23,843 and 23,286 respectively. These figures show a considerable decline upon the two previous weeks, when the returns stood at 25,655 and 26,108. The Punjab continues to be the chief centre of plague in India.

In the city of Bombay during the weeks ending March 29th and April 5th the deaths from plague numbered 816 and 947 respectively.

In the Bombay districts during the same periods the deaths from plague amounted to 3,142 and 3,170; in Calcutta 550 and 680; in the North-West Provinces and Oudh 1,550 and 1,570; in the Punjab 16,675 and 14,871; in Cashmere (Jammu) 416 and 263; and in the Mysore State 173 and 148.

The epidemic in the Punjab advanced at an extraordinary rate during the first three months of the year. In the three months ending December 31st, 1901, there were in all 14,475 ascertained plague deaths in the Punjab. In January of this year the number was 13,466; in February 29,493; and during twenty-two days of March 44,552. This large increase shows that the measures hitherto adopted have been ineffectual, but in the presence of so severe an epidemic it has been resolved that "no compulsion will be used to force the people to take measures they do not wish to adopt." Evacuation has come to be considered the most effectual method of combating plague, and in Bombay the people adopt this method of prevention with extraordinary alacrity. At Allahabad during the last six months more than 14,000 houses have been disinfected, and it is the opinion of experts on the spot that all houses in the areas infected should be cleansed and thrown open to sunlight and air, and if necessary disinfected.

In Goa the Portuguese authorities are taking precautions against an outbreak consequent upon a few cases of the disease which have appeared at Panjim.

CAPE OF GOOD HOPE.

On March 20th it was reported that a case of plague had occurred at Port Elizabeth, and that 2 cases remained under treatment. During the week 43 contacts were admitted into the shelters—a fact which proves the great care being taken by the authorities, who, on the development of a single case of plague, have isolated so large a number of people.

Later telegraphic communication, dated April 21st, that plague had reappeared in Port Elizabeth, 10 fresh cases and 5 deaths from plague having recently occurred in that town.

MAURITIUS.

No fresh cases of plague were reported in Mauritius during the week ending April 24th. This is an improvement upon the account received for the previous two weeks, when 3 cases and 4 deaths from plague were recorded.

HONG KONG.

During the week ending April 19th 7 fresh cases of plague were officially reported in Hong Kong, and 6 deaths from the disease. This is the period of the year during which plague has always made its appearance in Hong Kong, and it would seem as though a fresh outbreak of the disease was threatening. Hong Kong has had an epidemic of plague during the months of April, May, June, and July, ever since since 1894, with the exception of 1895. Professor Simpson has been asked to remain in Hong Kong during the coming summer, so as to witness and report upon the disease. It will be remembered that Professor Simpson went to Hong Kong last autumn, to advise and report upon the general sanitation of the island.

AUSTRALIA.

A letter dated Sydney, March 15th, states that Sydney has for the second time experienced an outbreak of plague. The first visitation from January 19th, 1900, till August 9th in the same year—thirty-one weeks in all—during which period 303 persons were attacked and 103 died of the disease. No plague appeared again until November 14th, 1901, when a case was reported, but for two months no further case occurred until January, 1902, with the exception of a single case on December 19th, 1900. The outbreak has so far proved of quite a limited character. A rat crusade has been carried on during the past five months in Sydney, and the sanitary authority reports, after an inspection of the city, that the dirt and overcrowding in some parts of Sydney were worse than in Whitechapel, and that a new and drastic Building Act was urgently required. A telegram from Sydney dated April 30th, states that the total number of plague cases since the recrudescence amounts to 100, of which 27 have ended fatally.

EGYPT.

During the week ending April 20th 31 fresh cases of plague were reported in Egypt, and 10 deaths from the disease. The cases of death were distributed as follows: Alexandria, 9 cases, 1 death; Mit Ghamr (district) [illegible] death; Mit Samanoud (district) 5 cases, 2 deaths; Dechneh, [illegible] Benha, 1 case, 1 death; Tala (district) 11 cases, 4 deaths; [illegible] case, 1 death.



Elephantiasis of the leg; case reported by the late Mr. George Southam (*Medico-Chirurgical Transactions*, vol. xxx, p. 68).

ELEPHANTIASIS.

An Extreme Case of Elephantiasis of the Lower Limb.

Since the publication of Mr. Whitehead's paper on Cases of Lymphangiectasis with Enormous Overgrowth of Cutaneous and Subcutaneous Structures, in the British Medical Journal of March 29th, Mr. Whitehead has called our attention to a remarkable example which was reported to the Royal Medical and Chirurgical Society in February, 1847, by Mr. George Southam, at that time Dispensary Surgeon to the Manchester Royal Infirmary.

As may be readily gathered from the abridged account here appended, the case belongs to the acquired form of elephantiasis, and the collateral evidence suffices to exclude a filarial origin. There is nothing peculiar in the clinical history, the dimensions of the limb being the striking feature.

Mr. Southam, in his remarks upon the case, was inclined to attribute the condition to venous obstruction, but of this there is not sufficient proof. The thickening and patulous state of the superficial veins mentioned by the author is met with in cases of acquired elephantiasis, and is due simply to the involvement of their walls in the general connective tissue overgrowth, the vessels so affected being those of the subcutaneous tissue, whilst the deep veins, like the subfascial structures in general, present no corresponding abnormality. The patulous condition of the superficial veins makes it clear that they still acted as carriers of blood, and although thrombosis of the internal saphena is described as having been present, this can hardly be regarded as in an essential way connected with the initial development of the disease; indeed, the author himself remarks that the venous trunks afforded no indication of being affected in the earlier stages of its progress. In the absence of more minute details, however, it would be unprofitable to discuss the morbid anatomy of the case further.

The patient was a woman who came under observation in 1843. The disease had then existed about twenty years, having commenced when she was 18. It appeared on the dorsum of the foot, the swelling in this situation being preceded by several attacks of deep-seated pain attended with febrile symptoms. The oedema slowly extended up the leg.

With the exception of an occasional return of the fever and pain, which she described as having been of a dull, throbbing character, and always followed by an increase in the swelling, she felt very little inconvenience for the first eight years beyond what was occasioned by the bulk of the limb. As it extended along the thigh, however, the pain became more severe, especially in the groin; and the integuments, which had hitherto preserved their natural colour, became the seat of frequent erysipelatous attacks.

These attacks were accompanied with increase of the swelling and the oozing of clear fluid from the skin. The pain became so continuous that opiates were resorted to. Before coming to Salford she had lived from birth at Bolton. No cause for the condition was assignable, though the catamenia suddenly ceased from cold, and never reappeared.

The accompanying drawing, taken in 1845, represents the condition present during the last four years of life. The measurement round the calf was 2 ft. 9 in; above the knee, 3 ft. 4 in.. and at the upper part of the thigh, including the nates, 5 ft. 6 in. Pressure did not produce the least indentation, nor was the part painful when touched, excepting below the knee and on the inner side of the thigh, seats of former erysipelatous attacks. The sole of the foot was alone unimplicated.

The patient was able to go about the house and to assist in ordinary household duties until within a few weeks of her death, which took place from dysentery.

An examination of the limb after death showed that the disease did not extend to the connective tissue and structures beneath the fascia, the muscles and bones being unaffected. The principal venous trunks were much larger than natural, and patulous. The smaller veins, where cut across, resembled arteries filled with coagula. The saphena was converted into a thick fibrous cord, and a large organized coagulum was found at its connexion with the femoral vein. The veins of the pelvic cavity were normal and the pelvic organs sound, with the exception of the left ovary, to which a cyst the size of a walnut was attached.

Mr. Whitehead has sent us also the following note:

In connexion with the cases I recorded in the British Medical Journal of March 29th, 1902 (p. 757), and with Mr. George Southam's remarkable instance of extreme elephantiasis, I may briefly refer to two others which I had under treatment in the Manchester Royal Infirmary.

Elephantiasis of Scrotum and Penis.

The patient was a painter, aged 36, who had always resided in Great Britain, but he had been in the habit of painting ships, and whilst on board had frequently eaten tropical fruits and drunk foreign wines. He first noticed small tuberculous growths on his prepuce nineteen years before he came under my notice, and from these growths he frequently observed a discharge of clear fluid. The growths increased in number, and eventually extended over the entire penis and scrotum, the skin at the same time became progressively more dense and less supple. The enlargement increased more rapidly during the two years previous to my seeing the patient than at any other period, and in consequence of the prepuce obscuring the glans penis it was shorn off at the Chester Infirmary in 1881. At no stage was there any ulceration associated with the tissue changes.

The scrotum ultimately acquired the dimensions of a child's head, the whole of the surface being covered with tuberculous elevations. The skin was densely thickened and studded with warty growths along the perineum and both sides of the anus. The skin of the thighs was also indurated. The testicles could be felt at the back of the scrotum, but the cords could not be isolated.

The operation consisted in making a median incision from the base of the glans penis to the verge of the anus, dissecting the integument and tunica vaginalis from the testicles, and leaving the penis denuded of its skin covering. The cellular tissue and the contained accumulated lymph had consolidated into a compact mass two inches in thickness. Sufficient skin was saved from the scrotum, with more borrowed from neighbouring parts, to form a new scrotum, in which both testicles were enclosed in a single pouch. No fewer than forty vessels were twisted during the operation.

Continuous water irrigation was carried out for five weeks, and at the end of that time complete cicatrization of the penis had taken place. There was union by first intention in the scrotal portion of the operation.

The patient left the hospital eight weeks after the operation with complete restoration of the function of the penis, which previous to the operation had been in abeyance for years.

Lymph Scrotum.

In another case which I once showed at the Manchester Medical Society, a lymph scrotum completely disappeared after I had divided, by a perineal section, an obstinate stricture of the urethra.

THE TORBAY HOSPITAL DISPUTE.

The difficulty between the medical staff and the Weekly Board of this hospital, which has resulted in the repeal of an obnoxious law, and the resignation in consequence of the majority of the Weekly Board, is of sufficient general interest for the facts to be briefly stated. At the annual meeting of the governors of the hospital in February, 1901, the rule relating to the election of the honorary medical staff was altered, at the instance of the Weekly Board, so as to make their election annual, and the duty of election was entrusted to a special Board consisting of the Weekly Board and the honorary medical staff. When the special Board was summoned this year in order to carry out the new law, the members of the medical staff preferred not to appear, as they were aware that there were no other candidates, and they thought it more dignified not to take part in their own re-election. At the meeting the procedure followed was unexpected. Instead of submitting the whole of the names *en bloc*, as is usual on the re-election of committees, each member present was supplied with a ballot paper upon which were printed the names of the medical staff, with columns marked "for" and "against," in which they were asked to indicate their vote. The result was that two members of the staff were declared to be not re-elected, and in consequence advertisements were inserted in the newspapers asking for candidates to fill these vacancies.

A meeting of the medical profession was called to consider the situation, and a resolution was unanimously carried that no application should be made for the posts until the new law had been rescinded; accordingly no candidates applied for the vacancies. In consequence of a formal requisition, a largely attended meeting of the governors was held to consider a resolution to repeal the obnoxious law, and practically to revert to the old rule. At this meeting the chairman made a long speech, in which he appealed to the governors not to allow themselves to be stultified by reversing the policy agreed upon a year since. He said that the claim of the medical staff to be elected for life was one which had no parallel in similar institutions elsewhere, and that the attitude of the medical profession showed that they were thinking more of their medical status than of the claims of the hospital. The governor who moved the repeal of the new law spoke with the authority of one who had been honorary secretary to the Board for five years. He said that he would not submit to such a rule himself, and therefore was not prepared to ask any other gentleman to submit to it; and he pointed out that such re-election by ballot subjected any medical man who had come into collision with the Weekly Board by criticizing any part of the administration of the hospital to the possible humiliation of dismissal, without any opportunity of defence or chance of redress. The seconder of the resolution said that in this way two senior surgeons, after twenty and eleven years' service respectively, had been dismissed without any reason, and that an attempt had been made to get rid of the senior physician. In the course of the discussion it appeared that the honorary consulting physicians were for some unexplained reason not summoned to the special Board meeting, an action for which the chairman of the Weekly Board said he took full responsibility, but failed in any way to justify. After a somewhat acrimonious discussion, in the course of which the chairman refused various amendments, it was agreed to adjourn the meeting for a month in order that there might be a conference between the members of the Weekly Board and an equal number of representatives of the Torquay Medical Society.

At the adjourned meeting, which was held on April 21st, it was announced that the conference had not been able to come to any satisfactory conclusion, and that the matter must be left for the decision of the governors. At this meeting the chief speakers were the members of the Weekly Board, who praised one another, abused the medical profession, and ended by resigning their seats upon the Board even before the resolution had been put to the meeting. The chairman, who was the same who had presided at the previous meeting, refused to accept any amendment, and finally the repeal of the law was carried by 47 votes to 26.

The governors of the hospital are to be congratulated upon this decision, as it would be impossible to carry on the work of the hospital if the rule in question were interpreted in the sense favoured by the late Weekly Board of the hospital. It is perfectly certain that a reasonable tenure of office must be secured to the medical staff of every hospital, as no self-respecting man will put himself in a position to be made the possible victim of a humiliating rejection at every annual meeting of a small special Board. In the few hospitals where the staff is annually re-elected this takes place at the annual meeting of the governors, where the whole staff is re-elected *en bloc* in the same way as the committees are reappointed, and any attempt to dismiss individuals after the Torquay fashion would undoubtedly bring the law into merited disfavour. The members of the medical staff of a hospital should be elected for a definite term of years, with an age limit which must vary according to local circumstances. The election should be by an election committee, consisting of the permanent committees of the hospital, with the addition of at least an equal number of governors selected each year by ballot. There should also be a law of the hospital giving power to the Board to call for the resignation of any member of the staff for gross misconduct or continued neglect of his duties, and also giving the Board power of dismissal if the resignation should not be forthcoming. Such power would not be likely to be abused, as it would only be justified by the occurrence of grave grounds for complaint.

We think that the members of the Weekly Board of the Torbay Hospital have not emerged from this controversy with credit to themselves. Their speeches showed a want of knowledge of the usual relations between the medical staffs and the administration in other hospitals, and displayed a good deal of personal feeling, for which there seemed little justification, in the published remarks of their opponents. The chairman took a very arbitrary course in refusing to accept amendments, and even to submit a motion for the adjournment of the meeting. He represented the attitude of the medical profession as that of a body of men who preferred their professional status to the interests of the hospital and of the suffering poor, yet he and his colleagues, who expressed an unbounded sense of their value to the hospital, withdrew their services even before the vote was taken which reversed the policy for which they were responsible. It is to be hoped that all these personal matters will be set aside, and that the public will assist the medical profession in Torquay to promote the interests of the hospital by resettling the question upon the lines we have already indicated.

LITERARY NOTES.

MESSRS. LONGMANS are about to issue a new work by Dr. Poore, entitled, *The Earth in Relation to Contagia*. This volume will include the Milroy Lectures of 1899, together with papers on the Sanitation of Camps, Disposal of Slop Water, Milk in Relation to Disease, etc.

Messrs. Knight and Co., Local Government Publishers, announce the publication of a second edition of the *English Poor Law System, Past and Present*, by Dr. P. F. Aschrott (Prussian District Judge), edited by Herbert Preston-Thomas, with the Preface by the late Professor Henry Sidgwick, of Cambridge. The new edition has been revised and thoroughly brought up to date by H. Preston-Thomas, who has added a chapter on Old-Age Pensions.

Messrs. Methuen will shortly publish a book entitled *Lights and Shadows in a Hospital*, which deals with the experiences of a nurse in a London hospital. The author is Miss Alice Turton.

The New York *Post-Graduate* for April contains some interesting reminiscences by Professor Andrew H. Smith. Professor Smith recalled the fact that in the winter of 1858 he had attended a course of lectures given by Professor Virchow at the Pathological Institute in Berlin. Virchow was at that time 38 years of age. Although he had already done enough to ensure him immortality in the history of science, he had just entered upon the career which has since brought him to the height of fame. In addition to his literary achievements he had the prestige of having triumphed over an arbitrary and reactionary Government, which, having practically banished him from Berlin, had, after seven years' absence, begged him to come back on his own terms. The Pathological Institute, which was built for Virchow, was a sort of annexe to the Charité Hospital. This hospital was itself an important centre of medical teaching; in it were held a number of important clinics. Schoenlein, although near the end of his career, still lectured to a crowd of students in the wards. Traube, then a young man, attracted a numerous following to his clinic, made celebrated by his researches on the heart. There was also a surgical clinic, under the direction of Professor Junken, whose fondness for the use of the actual cautery was such that the preparations for his clinic always included a charcoal furnace, in which were heated cautery irons as various in shape and as odd in name as the implements of the modern golf player. It is said that a student once asked, at the entrance to the hospital, to be directed to Professor Junken's clinic, and was told to follow the smell of burnt meat and he would get to it. The first time Professor Smith saw Virchow was in the mortuary of the Charité. He had of course seen necropsies in New York, but they were made solely with the object of discovering the cause of death. In Berlin for the first time he saw a necropsy made for the purpose of learning all the pathological knowledge which could be extracted from that particular body. At that time the *Cellular Pathology* had just issued from the press, and the young American was fired with the ambition to become its translator. He readily obtained the author's permission. The work was difficult and progress slow. After making some headway in his task Professor Smith wrote to a firm of publishers in Philadelphia; the reply was that a German speculative work of that kind would find no acceptance among practical Americans. He had to make the best of the situation and reported the failure of his venture to Virchow. To his relief the great pathologist seemed to consider it a matter of very little importance whether he translated the book or not. His only comment was contained in the question, Do they think in your country that nothing is practical except to write a prescription? This was in the spring of 1859, and in 1860 an English translation was made by Dr. Frank Chance and published in London. On the outbreak of the Civil War in 1861 Surgeon-General Hammond ordered that a copy of this translation should be furnished to every general hospital and to every brigade in the field. This order was of itself sufficient to ensure the success of the publication, and Professor Smith somewhat maliciously expresses a hope that the Philadelphia firm fully realized how sadly they had blundered in their own interests. Before he left Berlin Virchow gave him a signed portrait of himself on which the following characteristic sentence was written:

> The progress of medicine should be as the progress of humanity, and the measure of its practical and theoretical utility should serve at the same time as a measure of the correctness of what it accomplishes.

As a lecturer Virchow showed a ready command of language. His style was exceedingly simple and clear, being free from those involved sentences, so common among earlier speakers and writers, which at once suggested a nest of pill boxes. Speaking about these sentences he once said to Professor Smith that, German as he was, in reading some of the older German works he was sometimes obliged to analyse a sentence, and say to himself "This subject goes with that predicate and this relative with that antecedent and this auxiliary with that verb," just as if he were construing a difficult sentence in Latin. He was convinced that this involved style had in the past been a serious hindrance to the progress of German science, and he early determined to form a simpler style for himself.

VACCINATION IN NEW YORK.—During the first three months of this year the Department of Health of the City of New York vaccinated considerably over 250,000 people.

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

DR. CALWELL, 1, College Square North, Belfast, Honorary Secretary Belfast Committee, begs to acknowledge the receipt of the following late subscriptions:

	£	s.	d.
Herbert Tilley, F.R.C.S., London	2	2	0
Major D. Simpson, I.M.S., per Messrs. P. Macfadyen and Co., London	1	0	0
The Edinburgh Branch of the British Medical Association, per Dr. James Ritchie:			
Lothians and Fifeshire Branch B.M.A.	10	10	0
D. Argyll Robertson, Esq., M.D., Edinburgh ...	2	2	0
Norman Walker, Esq., M.D., Edinburgh... ...	0	16	6
G. C. Dickson, Esq., M.D., Carnoustie	0	5	0
G. W. Balfour, Esq., M.D., LL.D., Colintin ...	1	1	0
Dr. T. R. Ronaldson, Edinburgh...	1	1	0
R. W. Philip, Esq., M.D., Edinburgh	1	1	0
Andrew Balfour, Esq., M.D., Portobello	0	10	0
Mrs. P. Young, 25, Manor Place, Edinburgh ...	1	0	0
P. A. Young, Esq., M.D., Edinburgh	0	10	0
W. B. Dow, Esq., M.D., Dunfermline	1	1	0
George Gibson, Esq., M.D., Edinburgh	1	1	0
T. G. Nasmyth, Esq., M.D., Cupar, Fife	2	2	0
James Ritchie, Esq., M.D., Edinburgh	2	2	0
	24	16	6
	£27	18	6

As the trust deed is now signed the Committee will not receive any further subscriptions.

A statement in reference to this memorial fund has been published. The total amount collected is as follows: Dublin collection, £3,636 17s. 9d.; Derry collection, £1,705 10s. 8d.; Belfast collection. £1,546 14s.; London collection sent to Belfast, £779 10s. 2d.; making a total of £7,668 12s. 7d. The sum has been lodged in the Bank of Ireland to the credit of the trustees of the fund.

The names of the trustees are His Grace the Duke of Abercorn, Mr. John Herdman, D.L. (Strabane), Mr. Hugh Warnock, F.R.C.S. (Donegal), Mr. William Colhoun (*Derry Sentinel*). Mr. Thomas Myles (President, Royal College of Surgeons, Ireland).

The terms of the trust deed assign the interest on one-half of the whole sum to Mrs. Smyth for her life. The interest on the other half is assigned for the present to the maintenance of the children. The trustees have the power to utilize a proportion of the capital sum for the further advancement of the children, as they may from time to time deem advisable. Some interest was kindly allowed by the banks with whom the money was deposited.

THE PREVENTION OF CONSUMPTION.

SOUTH WALES.

THE antituberculosis campaign moves on steadily in South Wales, and since the formation of a South Wales Branch of the Association for the Prevention of Tuberculosis in October last, if progress has not been rapid, yet there has been no looking back.

On April 25th a conference was held in the Town Hall, Lampeter, under the auspices of the South Wales Branch of the Association, to appoint a Committee for Cardiganshire to act in conjunction with the Committees appointed by Pembrokeshire and Carmarthenshire. The Lord-Lieutenant presided, and after some interesting remarks a representative Committee was formed.

On April 26th a meeting to form a similar Committee for Carmarthenshire was held at Carmarthen, the Mayor of Carmarthen being in the chair. A Committee was formed after a few resolutions and remarks.

The three Committees appointed from Pembrokeshire, Carmarthenshire, and Cardiganshire will act conjointly, and will form a sub branch for West Wales, with Dr. Douglas Reid (Tenby) as Secretary.

At a meeting of the Radnorshire County County on April 27th, at Llandrindod Wells, Dr. Harding (the Vice-Chairman) proposed a by-law to prohibit spitting in public places under a penalty of £5. After a short discussion the motion was unanimously carried.

VOLUNTARY NOTIFICATION.

At a meeting of the Birkenhead Medical Society on February 14th, Dr. A. C. Ransome read a short note upon the question of the voluntary notification of phthisis. He considered that it was the duty of the medical profession to endeavour to prevent disease, and not to wait for its occurrence before taking action. As phthisis was an infectious disease, he advised that voluntary notification should be adopted in this town. If this were done, the houses of poor consumptive patients might be put into a more sanitary condition by the health authorities, and so the conditions under which these patients had to live would be improved. Voluntary notification had been adopted in Liverpool and Manchester with good results. The President, Dr. Pinkerton, Drs. Vacher, Harrington, Dixon, Floyd, and Brien spoke in the discussion which followed. A Subcommittee was appointed to consider the matter; and to draw up a report to be presented at a subsequent meeting; which report could be forwarded to the health authorities, if the Society saw fit to move in the matter.

The report of the Committee was read at the meeting of the Society on April 11th, by Dr. A. C. Ransome. The report stated that the results secured by voluntary notification in those towns in which it had been adopted were mentioned; and also the opinions of various medical officers of health, which were mostly in favour of it. The President, Drs. Harrington, Stansfield, W. R. Floyd, Ransome, Morris, and White joined in the discussion which followed.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting—namely, June 18th and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Croydon General Hospital, London Road, Croydon (quite close to the West Croydon Railway Station), on Thursday, May 8th, at 4 p.m., T. R. Adams, M.D. (Croydon), in the chair. The Chairman has kindly offered to provide tea and coffee at the hospital. Agenda: Minutes of Upper Norwood meeting. To decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. To visit the hospital wards, where cases of clinical interest will be shown and described by members of the hospital staff and also by other members, and discussion will be invited. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate as soon as convenient and certainly by Monday, May 5th with the Honorary Secretary. At the last Upper Norwood meeting it was decided not to have the usual papers at Croydon, but to try as an experiment a purely clinical meeting, and members are therefore particularly requested to note the change in the arrangements. The idea is for members to show cases of general interest, to give a short history of each, and for a short discussion to follow. The dinner will be held at the Greyhound Hotel at 6.30 p.m.; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. HENRY J. PRANGLEY, Tudor House, Anerley, S.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting for election of officers will be held at Brooke House, Upper Clapton, on Thursday, May 15th, at 8.15 p.m. At 8.30 p.m. Dr. Stephen Mackenzie will give a demonstration of cases of Skin Disease. Visitors are invited.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The annual meeting of this District will be held in the Board Room of Tottenham Hospital, N., on Wednesday, May 14th, at 4.30 p.m., Dr. Hooper May, Vice-President, in the chair. The officers for the session 1902-3 will be elected. Dr. Augustus W. Addiusell will read a paper on Sterility. The staff of the hospital will show interesting cases in the wards. The District Committee will meet at 4.15 p.m.—J. DYBART MCCAW, M.D., Coolard Lodge, East Finchley, N., Honorary Secretary.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—The spring half-yearly meeting of this District will be held at 5, Pembroke Road, Portsmouth, on Tuesday, May 20th, at 3.30 p.m. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate not later than May 10th with the Honorary Secretary, J. G. BLACKMAN, Poplar House, Kingston Crescent, Portsmouth.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Hexham on Thursday, May 15th, at 4.45 p.m. Further particulars will be given in circular. Members wishing to show cases, read papers, or bring forward resolutions should kindly send particulars at once to ALFRED COX, Cotfield House, Gateshead, Acting Honorary Secretary.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE twenty-second annual meeting of this District was held at Sandown on April 18th.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Member.—Lieutenant-Colonel G. H. Stokes, A.M.S., was elected a member of the District.

Accounts.—The accounts for the year 1901 were audited and passed.

The William Smyth Memorial Fund.—The PRESIDENT reported that he had received £12 12s. towards the William Smyth Memorial Fund.

Epsom College.—The sum of £2 2s. was voted from the funds of the District to the Royal Medical Benevolent College.

Election of Officers.—The following gentlemen were elected officers for 1902:—*President-Elect:* Dr. Castle (Newport). *Vice-President:* Dr. Cowper (Shanklin). *Honorary Secretary and Treasurer:* Dr. G. Benington Wood (Sandown). *Representative to the Branch Council:* Dr. Cowper.

Presidential Address.—The Presidential address was given by Dr. HOLLIS (Freshwater), who took as his subject Some Points regarding our Milk Supply; its power and chances of transmitting disease, the real danger there is, and the means that might be taken to provide against such danger.

Paper.—Dr. W. E. GREEN read a paper on Ulcer of the Stomach.

NORTH OF IRELAND BRANCH.

THE spring meeting of this Branch was held at Belfast on April 24th; Dr. J. SINGLETON DARLING (Lurgan), President, in the chair. Forty-two members were present.

Confirmation of Minutes.—The minutes of the winter meeting were read and confirmed.

New Members.—The Council reported that Miss Martha Adams, M.B.Glasg. (the Infirmary, Lurgan), Howard Stevenson, M.B.R.U.I. (Osborne Park, Belfast), John Wilson Dickson, L.R.C.P.&S.Edin. (Lisnaskea, co. Fermanagh), had been elected new members.

Communications.—The PRESIDENT read notes of a case of acute pernicious anaemia in a girl developing in six weeks. Dr. CLARKE (Bessbrook) read notes of two cases of a brother and sister, living in the same house, occurring successively within two years. Dr. LORRAIN SMITH and Dr. THOS. HOUSTON said that notes of 30 cases of pernicious anaemia had now been collected within two years in the district and neighbourhood of Belfast; this was a large number, and something might be gained as regards its etiology if members would communicate accurately the supposed causative factors in each case.—Dr. ST. CLAIR BOYD read notes of one, Dr. TENNANT of one, and Dr. DEMPSEY of two cases of extrauterine fetation, all of which had been successfully operated on, and showed the specimens.—Mr. T. SINCLAIR read notes of a case of simultaneous appendicectomy and transverse colectomy; the latter was performed on account of the discovery during the operation of appendicectomy of a malignant growth of the omentum apparently pressing upon the transverse colon. The patient recovered.—Mr. ROBERT CAMPBELL read notes of a case of acute intestinal obstruction by a band in an elderly woman, which was successfully relieved; he also showed a specimen of an appendix vermiformis containing a small polypus. Dr. MARTIN (Portrush), Mr. SINCLAIR, and the PRESIDENT spoke on the subject.—Dr. CALWELL read notes of: (1) A case of tetany in a patient suffering from chronic dilatation of the stomach; (2) of a case of two long intervals in relapsing typhoid, and of a case of a second attack in two months; (3) and on the nitro-propriol test for sugar in urine (100 examinations by Mr. Bright and Mr. Suffern, clinical clerks).

CORRESPONDENCE.

THE CASE OF DR. W. T. LAW.

SIR,—May I be allowed to direct the attention of the members of the Association to a meeting of friends and sympathizers of Dr. W. T. Law, which will be held at the King's Hall, Holborn Restaurant, W.C., on Friday, May 9th, 1902, at 2 p.m.?

The circumstances of the case are so recent that it is hardly necessary to recapitulate them. It is generally conceded that Dr. Law did his best for his patient. The *Lancet* says, in its issue of March 8th, 1902, that:

> It has seldom been our duty to comment on a more painful case.

And at the close of the article these words occur, which I trust will be duly weighed:

> Had Dr. Law rendered his services for a period of years for gain or profit—which is not customary when the patient is a nurse, there might have been more room for criticism; but what are the facts? He gave freely of his time, his skill, and his kind-heartedness, for no other reward than the satisfaction of feeling that he was discharging a charitable office with the hope of alleviating human suffering. He acted the good Samaritan—not wisely, perhaps, but too well, and what was his reward? Scorn and contumely were heaped upon him by some who were and are to be pitied, and by others who deserve severest blame. He will have the consolation which his merits deserve, given unstintedly by his professional brethren, and by a generous and just public opinion. His legal and moral acquittal was complete.

Notwithstanding that the costs of the action were awarded him there appears to be little doubt that, owing to the pecuniary position of the plaintiff, Dr. Law will have to defray his own heavy expenses, and as he is not a wealthy man, as is erroneously considered, there will be ample scope for the display of practical sympathy, and for that object the meeting will be held.

Sir Samuel Wilks, Bart., Sir Henry Thompson, Bart., the President of the Royal College of Physicians (Sir William Selby Church, Bart.), and many other distinguished and esteemed members of the profession have shown their sympathy for Dr. Law.

Unfortunately Dr. Law was not a member of either of the excellent medical defence societies; but it can be stated for the satisfaction of the gentlemen who object to lend a helping hand because he was not protected in that way, that two former Presidents of the Medical Defence Union (Dr. W. S. A. Griffith and Mr. Victor Horsley) have already given donations, and by their magnanimity and charity shown a good example to hesitators.

I am desirous to be able to announce the receipt of subscriptions at the coming meeting from members of a noble and generous profession which will be a credit to the profession itself, and to the satisfaction and delight of him who is said to have shown unwise benevolence. In this hard, cold, calculating world it is not usual to meet with men who display an excess of benevolence, either in thought or deed. When such a one is found, let us treat him as he richly deserves. Mr. John Langton writes to me:

> I hope the profession will show by their gifts that they have solidarity with their professional brethren in time of trouble.

I shall be glad to receive and acknowledge any contributions that may be sent to me on behalf of Dr. W. T. Law. Postal orders or cheques should be crossed "Law Fund, London and County Bank, Holborn."

I hope you will permit the publication of the lists of the subscriptions after the meeting of May 9th, 1902, in the BRITISH MEDICAL JOURNAL.—I am, etc.,

RICHARD PARAMORE.

2, Gordon Square, W.C., April 22nd.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

SIR,—I think that all anaesthetists are in substantial agreement with Dr. Lawrie that chloroform should be given with plenty of air. Dr. Embley has, by his quantitative experiments, ascertained exactly what this dilution should be in order to prevent the occurrence of those accidents which he studied in dogs, and which were attributable to the fact that the safe limit was purposely exceeded. I endeavoured to point out in the article which I wrote on the subject that Dr. Embley particularly studied the causes of death in the early period of chloroform administration, and that, although deaths from chloroform narcosis in man usually occur in the induction period, physiologists in the past had devoted more attention in their experiments on animals to the causation of the deaths which occur in the later stages of chloroform administration. Dr. Embley's experiments show most conclusively that the deaths which occur in the induction period are due to vagus action on the heart, and, if the vagi are severed, recovery takes place. I thought I made it clear that such an operation would not be justifiable in man, for it is well known that these nerves have other functions than those relating to the heart; and animals in which the nerves have been cut usually die some days or weeks later from pulmonary trouble. But temporary abolition of their cardio-inhibitory action by a dose of atropine is perfectly harmless, and does not lead to the fatal result suggested in Dr. Lawrie's letter. Of course, as your correspondent Dr. Barton points out, the subcutaneous administration of atropine would be useless after the circulation is absolutely arrested; but in cases where heart failure is threatened, or the vagal arrest of the heart is only incomplete (whether this is produced by improper administration of the anaesthetic, or abnormal susceptibility of the patient to chloroform), the suggested treatment by atropine is clearly indicated.—I am, etc.,

April 25th. THE WRITER OF THE ARTICLE.

SIR,—Many practitioners, I feel sure will, like myself, have read with much interest, the account published by Dr. Embley in the BRITISH MEDICAL JOURNAL, of his researches into the causation of death during the administration of chloroform. Interesting as the account of his experiments undoubtedly is, probably the average practical man will attach chief importance to the summary of his conclusions, particularly as regards the value of atropine as a counter-agent to the vagal inhibition that may so easily prove fatal. This point would call for nothing more than a passing allusion if the paper had been published in France, where chloroform reigns supreme and where its almost exclusive use probably leads to its more confident employment than in this country where it is regarded by many with considerable mistrust.

In dealing, however, with chloroform administration for protracted operations, I think we shall do well to keep in mind the advantages of a process of mixed anaesthesia, with morphine, atropine, and chloroform, which was devised by Dastre and Morat nearly twenty years ago. It is all very well from the theoretical standpoint to emphasize the value of atropine in counteracting the undue action of the irritated vagi, as was done by the writer of the leading article in the JOURNAL of April 19th. Nevertheless I think that practical anaesthetists will agree with me that prevention of untoward symptoms is all-important where chloroform is employed. The question receives careful and wise consideration in Professor Pozzi's *Treatise on Gynaecology*, an English translation of which was published by the New Sydenham Society in 1892. One paragraph especially in the account there given has determined my practice with regard to chloroform administration during the past six or seven years. It runs thus:

"I [illegible] Professor Dastre [illegible] to me that in his laboratory [illegible] chloroform, he used to lose one animal (dog) out of four which he put under an anaesthetic. During the last ten years (1879–1889) since, he has been using it for hundreds of animals [illegible] and to this [illegible] would be added that [illegible] ..When the operation is going to last a [illegible] good plan, [illegible] to administer [illegible] formula [illegible] Dastre-Morat (that is, [illegible] Distilled water 10 [illegible] of atropia 5 milligrammes [illegible] to be given fifteen or twenty minutes before [illegible] ... A much more copious [illegible] than in [illegible] and a much smaller quantity of chloroform [illegible] to watch the progress of the anaesthesia, and for protracted operations I can hardly say too much in favour of this process of mixed anaesthesia, which we owe to Dastre and Morat.

In France this method has passed into common surgical practice. Aubert, Senior Surgeon at l'Antiquaille, at Lyons, uses no other. He has given an account of its advantages in these words:

I know at present of no method preferable and more practical. The following are its advantages: (1) Safety; (2) the short time in which sleep is produced: (3) the absolute quietness of the patient; (4) the ease with which he is awakened; (5) the simplification of what follows, in the way of discomfort and sickness. Some of my colleagues in Lyons, and particularly Professors Gazet and Léon Tripier, have on my advice adopted this method of anaesthesia. The number of cases has to-day (1887) reached several thousands, without a single accident.

I have used this method regularly for some years, and have found it uniformly satisfactory. I was led to do so by learning upon good authority the striking fact that the well-known and marked intolerance of chloroform possessed by dogs could by this process be so effectually removed. All that one needs in addition to a piece of lint and a supply of chloroform is a hypodermic syringe and a soluble tabloid of morphine hydrochlorate and atropine sulphate, $\frac{1}{4}$ gr. of the former and $\frac{1}{150}$ gr. of the latter (supplied in combination by Burroughs and Wellcome). This is administered hypodermically whilst other preparations for operation are being completed. Ten or fifteen minutes later the chloroform administration is commenced. The patient obtains an ample supply of air when the chloroform is given on lint, which is separated from the patient's face by the outspread fingers of one hand, and anaesthesia is evenly and comfortably maintained. The morphine, I have no doubt, materially contributes to the diminution of shock. On the other hand, to have in readiness for a possible emergency the atropine solution side by side with the electric battery and other textbook desiderata is, in my judgement, a reversal of the proper order of things which courts disaster.—I am, etc.,

Wednesbury, April 28th. WALTER GARMAN.

CANCER AND MEAT-EATING.

SIR,—I have just seen Dr. Sykes's letter in the BRITISH MEDICAL JOURNAL of March 29th *re* cancer due to excessive meat-eating. With reference to cancer amongst Hindus, from very long service in India I can state that, alas! it is *not* true that cancer does not prevail amongst them. Many hundreds of cancers have I had the misfortune to operate on amongst Hindus in Upper India, but it is equally *not* true that Hindus do not eat meat, except a fraction of the Bhraminical caste, who rigorously adhere to a vegetable diet; all classes and castes of Hindus eat goat mutton when they can get it. With the upper and middle classes (that is, classed according to their incomes) meat is a daily article of diet; it is only goat mutton, as, of course, beef or poultry is not eaten by Hindus; but the peasantry and castes of poor virtually outside the pale of Hinduism eat meat whenever procurable, and even dead cattle are consumed by the poor outcasts. In recording cases of cancer in our hospitals and dispensaries we never questioned patients as to whether they ate meat or not; but I am sure I have had as many cancers from amongst those who ate meat only on rare occasions as amongst those who ate it daily.—I am, etc.,

Greenhithe, Kent, April 15th. G. D. McREDDIE, M.D.

CHRONIC SUPPURATION OF THE MAXILLARY ANTRUM.

SIR,—The excellent and interesting paper on chronic suppuration of the maxillary antrum by Dr. Herbert Tilley in the BRITISH MEDICAL JOURNAL of April 19th, p. 945, leaves in some obscurity, or perhaps rather confusion, the etiology of the dental causes on which he justly lays so much stress.

Dr. Tilley says: "My own experience leads me to believe that dental caries is by far the most frequent cause of chronic antral empyema." No doubt this is quite correct if we judge the effects by the cause, but the dental surgeon too frequently, and if I mistake not the medical world generally, regards—and in the vast majority of cases rightly regards—a tooth previously carious but presently stopped as equivalent to a sound and wholesome unit in the dental series. It is to this class of tooth that I wish to draw attention. A tooth well filled, and to all appearances healthy and sound, may be the *fons et origo* of a maxillary empyema. No fallacy can be greater than the expectation of a clear history of dental trouble, or that other than purely negative symptoms are discoverable on physical

examination, a continued low form of chronic inflammation of the pulp, due, say, to a metallic filling in close contiguity to it, without giving rise to symptoms sufficient to cause attention, may yet occasion the death of that organ. The pus finding its way easily into the antrum, there may be no abscess, no swelling, no pain, or only such transient pain as passes almost unnoticed, no suspicion on the part of patient or surgeon that a tooth is at fault. On examination the tooth may not be tender on percussion. The sole diagnostic point may be absence of sensation on the application of the test of heat and cold, and yet when such a tooth is extracted on suspicion alone it will often be found that one or several roots are denuded of periosteum—pericementum—perhaps necrosed, or exhibiting the signs of absorption attended by suppuration on a very small scale.

Such was the condition of a molar tooth which I removed recently in a case of maxillary empyema, and such was the condition of several which I had previously removed, and many I have seen in cases where I have assisted my colleague, Mr. England. In many cases the implicated socket communicates with the antrum. There is here hardly a question of caries except as a remote cause. It is this class of diseased teeth which I believe to be the most fertile of all purely dental causes of maxillary suppuration, and I think that all extensively-stopped teeth in the vicinity of the antrum, no matter how skilled the workmanship, should be objects of immediate suspicion.

Furthermore, as tending to show the general absence of dental symptoms, I would point to the fact that it is to the surgeon and not to the dentist that the vast majority of persons suffering from chronic maxillary empyema apply in the first instance.

One further point: in conclusion Dr. Tilley says: "It may be argued that the dental caries is secondary to antral suppuration and spreads from the root to the crown of the tooth." I venture to suggest that no person conversant with the pathology of dental caries would argue anything of the kind, but I would not be considered as imputing this want of knowledge to Dr. Tilley, for I feel that he has laid the dental profession under a debt of gratitude by the publication of his observations on thirty-five cases of chronic suppuration of the maxillary antrum.—I am, etc.,

London, W., April 21st. J. SEFTON SEWILL.

THE MALARIA PARASITE.

SIR,—Professor E. Ray Lankester states in paragraph 5 of his article on a convenient terminology for the various stages of the malaria parasite[1] that "it is not possible to distinguish with any certainty the male from the female crescents whilst they remain in the human blood vessels." I have made a careful study of the process of exflagellation, having frequently observed the changes that the crescent undergoes after removal from the circulation, and I have come to the conclusion that is by no means difficult, in the majority of cases, to distinguish the sex of the crescent.

In the female crescent the pigment granules are more concentrated, generally grouped in the form of a ring, and in the centre of the crescent body. The pigment granules of the male crescent are more scattered, are less intensely black, and as a rule are grouped eccentrically, being slightly nearer to one end of the crescent than the other.

This characteristic grouping of the pigment granules can also be observed as the crescent passes through the stages of "oval" and "sphere. Dr. D. C. Rees, in an article on the parasitology of malaria,[2] says:

> The difference in the sex of the crescents can be readily distinguished by the Romanowsky method of staining. The protoplasm of the female crescents stains more deeply; the pigment is more closely grouped together, generally in a ring form, in the centre of which will be seen one, occasionally two, large masses of chromatin. In the male crescent the protoplasm stains more faintly, the pigment is more scattered, and the chromatin matter arranged in four or five masses.

In the same paragraph of his article Professor Ray Lankester says: "The egg cell ..... apparently gives rise to one, and possibly to two, polar bodies, but the observations on this point are as yet insufficient." In nearly every case I have been able to make out *two* polar bodies. It should be remembered that the egg cell is not a disc like the red blood corpuscle, but a sphere, slightly flattened by the pressure of the cover glass, and that the polar bodies are not always seen in profile. Careful focussing, however, provided that the observer knows what to look for, will generally bring the two polar bodies into view, not necessarily at the same time, nor are they always at opposite sides of the sphere.

Sometimes the examination is facilitated by tapping on the cover glass with a needle, which may cause the sphere to roll over, so that all sides can be examined in succession.—I am, etc.,

ST. GEO. GRAY, M.B., B.Ch.,
Castries, St. Lucia, April 9th. Colonial Assistant Surgeon.

[1] BRITISH MEDICAL JOURNAL, March 15th, 1902, p. 652.
[2] *Practitioner*, March, 1901, p. 277.

GOLF MATCH, MANCHESTER, 1902.

SIR,—An international golf match will be played on Friday, August 1st, on the links of the Manchester Golf Club in Trafford Park—England and Wales *v.* All the other Britains. Residence (not birth) will be the qualification; the names entered will be drawn the day before the match, and players will receive their club handicaps. As Secretary of the local Subcommittee, I shall be glad to give any further information desired, and to receive the names of intending players.

The undermentioned gentlemen have kindly consented to help in making the match a success, and to receive the names of residents in the places and countries indicated who intend to join the match: London and the South of England, Dr. Dawson Williams; Ireland, Professor Symington, Belfast, and Professor W. H. Thompson, Trinity College, Dublin; Scotland, India, and the British countries beyond the seas, Dr. Norman Walker, Edinburgh.

Golfers will receive the privileges of members of the local golf clubs on presentation of their cards of membership of the annual meeting.—I am, etc.,

ALEXANDER STEWART, M.D.
12, Eccles Old Road, Manchester, April 29th.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE ROYAL NAVY AND ROYAL ARMY MEDICAL SERVICES COMPARED.

THE regulations for the entry of candidates for commissions in the Royal Navy, their promotion, pay, etc., dated March 26th, 1902, and the Royal Warrant Army Medical Service, dated March 24th, 1902, afford an opportunity for comparison between the two services, which may be of interest to recently qualified medical men.

TITLES AND RANK.

The titles in the two services are as under, and where placed on the same line, correspond in relative rank:

Royal Navy. ON ENTRY.	*Royal Army Medical Corps.* ON ENTRY.
	Lieutenant
Surgeon	Captain
Staff Surgeon	Major
Fleet Surgeon	Lieutenant-Colonel
Deputy Inspector General	Colonel
Inspector General	Surgeon-General.

PROMOTION.

In the Royal Navy Medical Service there is but one qualifying examination for promotion, that for the rank of staff surgeon, granted, subject to the approval of the Lords Commissioners of the Admiralty, to surgeons at the expiration of twelve years from the date of entry, unless in the case of special promotion, provided they are recommended by the Medical Director-General; should the surgeon fail to pass the qualifying examination, he will, should he pass subsequently and be promoted, be granted the seniority of staff surgeon he would have received in the ordinary course. He will, however, reckon service for increase of full and half pay only from the date of appointment to full pay as staff surgeon. If on half pay, or if placed on half pay when promoted, he will receive the lowest rate of half pay of the new rank from the date of passing the qualifying examination. Where delay in passing the qualifying examination may be due to unavoidable circumstances, special consideration will be given. In the Royal Army Medical Corps an officer will be eligible for promotion to the rank of captain on the completion of 3½

years' service, and to the rank of major on the completion of 12 years' service, provided in each case he has previously qualified in such a manner as may be prescribed by the Secretary of State for War.

Subject to the approval of the Lords Commissioners of the Admiralty, rank as fleet surgeon will be granted to staff-surgeons at the expiration of eight years from the date of promotion to staff surgeon (that would be twenty years from entry unless in the case of special promotion to this or the previous rank), provided they are recommended by the Medical Director-General, and have not declined service except for reasons which in the opinion of the Lords Commissioners of the Admiralty are satisfactory.

In the R.A.M.C. promotion to the rank of lieutenant-colonel will be made by selection from officers who have completed at least twenty years' service (unless in the case of special promotion to this or the previous rank), and who have qualified in such a manner as may be prescribed by the Secretary of State for War.

Special Promotion.

If an officer has passed with distinction the examination qualifying for promotion to the rank of major, the period of service required to render him eligible for the rank of major or lieutenant-colonel may be reduced by periods of from three to eighteen months, according to his success at the qualifying examination. The naval surgeon can gain no such special promotion on passing his qualifying examination for staff surgeon, though he may pass with distinction.

In both services distinguished service may secure special promotion, and in the navy conspicuous professional merit may also do so; such special promotions, however, are limited in the navy to one a year for surgeons, and one in two years for staff surgeons. It will thus be apparent that the army medical officer has more opportunities of obtaining special promotion by distinguished service in the field, or by distinction in passing his qualifying examination for the rank of major, as the Royal Warrant gives no limit to the number who may be so promoted.

Brevet Rank.

For the first time officers of the Royal Army Medical Corps are pronounced eligible for promotion to brevet rank as a reward for distinguished service in the field, and also for distinction in original investigation or research, which may be regarded as "distinguished service of an exceptional nature other than in the field." Brevet promotions are unknown in the navy; hence the army medical officer has a further advantage as regards special promotion.

Failure to Pass Qualifying Examinations.

Failure to pass these qualifying examinations at the appointed time in the army entails more serious consequences than in the naval medical service, as already indicated; as though an officer who may in the opinion of the Secretary of State for War have been prevented, under very special circumstances, from qualifying for promotion, or who, having failed to qualify, may have been debarred from further opportunity of qualifying, may be provisionally promoted. If, however, he fails to qualify on the first available opportunity, his promotion will be cancelled, and he will be retired from the service. Again, an officer who does not qualify for promotion to the rank of captain or major within the periods specified, will be placed on the supernumerary list until he qualifies, or is retired from the service, on completing six months' service on the supernumerary list, service on which list does not reckon towards promotion, increase of pay, gratuity, or pension.

Resident Officers in Civil Hospitals.

In the navy earlier promotion to the rank of staff and consequently of fleet surgeon, may be granted to those surgeons who, before entry, have held the post of house-surgeon to a civil hospital of not fewer than 100 beds for a period of not less than six months, provided their conduct and professional abilities have been favourably reported on during the time they have served in the navy. They may be granted from six months to one year's seniority, according to the time they have held their civil appointments as house-surgeon, but in no case will more than one year's seniority be granted.

In the army a lieutenant on probation who at the time of passing the examination for admission to the Royal Army Medical Corps, holds, or is about to hold, a resident appointment in a recognized civil hospital may be seconded for the period, not exceeding one year, during which he holds the appointment. While seconded he will not receive pay from army funds, but his service will reckon towards promotion, increase of pay, gratuity, and pension.

Full Pay and Allowances.

The full pay of the naval medical officer is now, as formerly, slightly superior to that of the army medical officer; this is due to the liability of the former to periods of compulsory half-pay, to which all naval officers are liable, and which, in his case, includes both loss of pay, and of time for increase of pay when he may be incapacitated from sickness for more than three months when in this country; sick leave is much more liberally granted in the army where half-pay rarely affects medical officers.

There is but one exception to the general increase of pay for medical officers in both services, and that is in the corresponding ranks of deputy inspector-general and colonel; this unaccountable exception has been much commented on, and it is to be hoped that such an anomaly may in equity be speedily remedied. Under the present Royal Warrant it is possible that a colonel as P.M.O. of a district, may have a lieutenant-colonel serving under him in charge of a hospital with charge pay receiving higher pay than his P.M.O.—an anomalous state of affairs.

The consolidated yearly pay of inspectors-general at Haslar, Plymouth, and the future Chatham hospitals, is £1,300, with an additional allowance of 10s. a day charge pay, amounting in all to £1,482 10s. yearly; the full pay of a surgeon-general is £1,095 yearly; his allowances are, however, not indicated.

In the navy, charge pay for officers in medical charge of hospitals is limited to the three inspectors-general mentioned, while in the army all officers in charge of general or other hospitals, or of a division of a general hospital, are given charge pay from 2s. 6d. to 10s., as the accommodation varies from 50 to 300 beds.

There are naval hospitals, sick quarters, marine infirmaries, and divisions of the larger hospitals with from 70 to 238 beds in medical charge of deputy inspectors-general, fleet and staff surgeons, but no charge pay is granted to these officers. This is the more inexplicable as charge pay from 3s. 6d. to 5s. may be granted to medical officers in charge of hospital ships, according to their rank.

The senior medical officers of certain admirals' and commodores' ships have also allowances of 5s. and 2s. 6d. a day. Similarly, the senior medical officer with an army in the field will be granted a rate of charge pay, to be fixed by the Secretary of State for War, according to the magnitude of the charge; and in a command abroad the senior medical officer, if the number of soldiers is 1,500 and upwards, will receive 5s. a day charge pay.

Additional Pay.

An officer under the rank of lieutenant-colonel holding an appointment as specialist, 2s. 6d. daily additional pay. No specialist in the navy, save the medical officer instructors at the Haslar Medical School, receives additional pay, but it would certainly be of great advantage for fleets, squadrons, and other naval hospitals to have the services of experts in bacteriology, ophthalmology, and skiagraphy, and such specialists should be remunerated by additional pay.

Retirement.

The gratuities and pensions are virtually the same in both services, and appear to have undergone but one change, and that a most important one—namely, the provision of a pension of £1 a day for majors after twenty years' service, and of £1 2s. 6d. after twenty-five years' service; as promotion to the rank of lieutenant-colonel is by selection, this provision for the pensioning of unpromoted majors is equitable. There is no such provision for staff surgeons with twenty years' full-pay service, if not promoted to fleet surgeon's rank, which from the regulation for such promotion appears to be a possibility.

Colonels promoted in future will be retired at the age of 57 years; deputy inspectors-general, however, can serve until the age of 60.

We have endeavoured to indicate the special points of comparison between the new regulations for the Royal Navy and Army Medical Services, and the special advantages of both therein indicated. On the whole, we consider the new rates of pay are calculated to attract desirable and well-qualified candidates for entry to both services. From representations to us from various correspondents, we gather, however, that there are questions not dealt with in these regulations which still require the favourable consideration of the Admiralty and War Office to render these services really popular.

THE NEW WARRANT, A.M.S.

MILITIA AND VOLUNTEER MEDICAL OFFICERS AND CIVIL SURGEONS.

WITH reference to a question raised by several correspondents in our columns recently as to whether Volunteer medical officers employed at home and abroad are held by the War Office to be entitled to the increase of pay granted under the New Warrant, we have received a communication from the Deputy-Director-General, Army Medical Service, written on behalf of the Commander-in-Chief. We are informed in this communication that "Militia and Volunteer medical officers employed with the Royal Army Medical Corps with full pay as laid down in the Pay Warrant will be entitled to the higher rates of pay provided in the Warrant of March 24th.

"Civil surgeons being employed under a specific contract are not affected by the New Warrant."

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: ALFRED M. PAGE, Staff Surgeon, and AUGUST J. WERNET, M.B., Surgeon, to the *Sutlej*, May 6th; GEORGE T. COLLINGWOOD, Surgeon, to the *Australia*, May 6th.

ARMY MEDICAL SERVICE.

THE King has been pleased, by Royal Warrant dated March 24th, 1902, to approve of the Surgeon-General who holds the appointment of Director-General Army Medical Service ranking as a Lieutenant-General.

Surgeon-General G. J. H. EVATT, who since his promotion has been Principal Medical Officer at Devonport, has been appointed Principal Medical Officer to the 2nd Army Corps, Salisbury, *vice* Surgeon-General C. McD. Cuffe, C.B.

ROYAL ARMY MEDICAL CORPS.

MAJOR SIDNEY OFFORD STUART died at Winburg, South Africa, on April 18th, from dysentery, aged 41. He entered the service as Surgeon, July 29th, 1882, and became Surgeon-Major, July 29th, 1894. He went to South Africa in November, 1901.

INDIAN MEDICAL SERVICE.

THE undermentioned Lieutenants, having completed three years' full pay service, are promoted to be Captains from January 28th: J. C. H. LEICESTER, M.D., H. INNES, M.B., W. S. WILLMORE, A. E. WALTER, C. HUDSON, L. T. R. HUTCHINSON, M.B., C. F. WEINMAN, M.B., H. M. CRUDDAS, A. M. FLEMING, M.B., E. L. WARD, J. N. WALKER, V. H. ROBERTS, J. E. ROBINSON, G. KING, M.B., T. S. ROSS, G. P. T. GROUBE, PUNDIT PIARAYLAL ATAL, W. McM. PEARSON, M.B., D. C. KEMP.

ROYAL ARMY MEDICAL CORPS (MILITIA).

MR. WILLIAM H. G. H. BEST is appointed Lieutenant, and to be seconded for service under the Colonial Office, April 30th.

IMPERIAL YEOMANRY.

SURGEON-LIEUTENANT-COLONEL H. P. SYMONDS, Oxfordshire (Queen's Own Oxfordshire Hussars), and Surgeon-Lieutenant J. H. BEILBY, M.B., Worcestershire (the Queen's Own Worcestershire Hussars), resign their commissions and receive new commissions subject to the Militia and Volunteer Act, 1901, retaining their rank and seniority.

Messrs. CHARLES W. EDWARDS, formerly Captain in the 3rd Volunteer Battalion West Yorkshire Regiment, and ERNEST M. ROOKE, are appointed Surgeon-Lieutenants in the Dorset (Queen's Own) and 3rd County of London (Sharpshooters) respectively, April 30th.

Surgeon-Lieutenant F. E. MARSTON, Montgomeryshire, is promoted to be Surgeon-Captain, April 30th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

LIEUTENANT C. J. W. HIRSCH, the Woolwich Companies, resigns his commission, April 30th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

MR. W. J. REID is appointed Surgeon-Lieutenant in the Sherwood Foresters Company, April 30th.

Surgeon-Captain J. W. DAVIES, from the 3rd Volunteer Battalion the South Wales Borderers, is appointed Surgeon-Captain in the South Wales Border Company, and to command under Paragraph 55a, Volunteer Regulations, April 30th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT COLONEL W. STEPHENSON, 2nd Volunteer Battalion the East Yorkshire Regiment, resigns his commission, retaining his rank and uniform, April 30th.

Surgeon-Lieutenant J. H. DOUGLAS, M.B., Galloway, resigns his commission, April 30th.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, dated April 30th: E. LEE and S. L. POTTER, 1st Volunteer Battalion the King's own (Yorkshire Light Infantry); C. H. MORRIS, M.B., C.V.O., 13th Middlesex (Queen's Westminster).

SOUTH AFRICAN DISPATCHES.

THE *London Gazette* of April 25th, contains a dispatch from Lord Kitchener, dated Pretoria, March 8th, bringing his report of operations in South Africa up to that time. At the conclusion of this dispatch Lord Kitchener adds a list of officers, non-commissioned officers, and men, whose good services he desires "to bring to favourable notice in connexion with recent operations." Among these he includes: Major R. Caldwell, R.A.M.C., "for good service in attending to the wounded under heavy fire in attack on Colonel Firman's Column on December 25th, 1901." Surgeon-Captain Leake, South African Constabulary, "for his devotion to duty in attending to wounded at Vlakfontein on February 8th, 1902, when he was wounded in three places." Civil Surgeon L. M. Wedderburn, "for his attention to the wounded in Damant's action, on December 20th, under very heavy fire"; and Civil Surgeon J. Munn, "for devotion to duty under heavy fire at Kaffir Spruit, on December 19th, 1901.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Lieutenant and Quartermaster J. Gillman	0	5	0
Captain F. E. Gunter	0	10	0
Lieutenant-Colonel J. R. Yourdi	1	1	0
Surgeon-General Cuffe, C.B.	0	10	0
Major J. Girvin	0	10	0
Major C. R. Bartlett	1	0	0
Surgeon-General W. H. Macnamara, C.B., C.M.G. ...	2	2	0
Colonel T. R. Lucas, C.B.	1	1	0
Lieutenant-Colonel R. J. D. Hackett	1	1	0
Previously acknowledged in the BRITISH MEDICAL JOURNAL of April 26th	68	13	6
Total ...	£76	13	6

AN ACKNOWLEDGEMENT.

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from Lord Rothschild, Sir Thos. Smith, Bart., Surgeon-General and Mrs. J. B. Hamilton, Colonel and Mrs. Clibborn, Mrs. Percy E. Cox, Mrs. Munkittrick, Mrs. Charters Symonds, "A Lady" (through Lieutenant-Colonel Drake-Brockman), Mr. Howard Marsh, Sir Jas. R. D. McGrigor, Bart., Mr. E. A. Biss, Dr. J. E. Squire, and the following officers of the R.A.M.C.: Lieutenant-Colonels Reynolds, V.C., W. Babtie, V.C., C.M.G., J. Anderson, J. Crean, Emerson, Major W. B. Leishman.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Gardens Terrace, W.

THE NEW REGULATIONS OF THE ROYAL NAVY MEDICAL SERVICE.

M.B., R.N., writes: The power to admit annually eight surgeons without examination is a diplomatic measure occasioned by the present state of "competition." There is no indication of promotion on the lines of that of other officers of equal relative rank, and promotion by seniority, varied by fortuitous special promotions for war service, seems likely to continue as heretofore. One would have thought that a three months' post-graduate course every three years abroad would have more efficiently fulfilled the requirements of medical officers than the suggested three months' course every eight years! There is as yet no indication of any intention to bring the medical equipment of ships into line with modern medical science. The attention of the authorities might be profitably devoted to the following:

The following drugs, etc., are not supplied to ships: Tincture of belladonna, vinum vel acetum ipecac.; chloride of ammonium; liq. ammon. acet.; any preparation of lithium; chloride of zinc; ferri et ammon. cit.; phosphoric acid; sulphurous acid; amyl, or any other nitrite; creosote; caffeine; Easton's syrup or its *B.P.* equivalent; any preparation of strophanthus, senega, salol, eucalyptus; any of the balsamic preparations; any preparation of buchu, sandal wood, cubebs, hamamelis; tragacanth; menthol; guaiacum; pepsin; pancreatin; thyroid gland; diphtheria, tetanic or any other antitoxin; benzoic acid or benzoates; oil of theobroma. No suppositories or medicated bougies are supplied. Hypodermic tabloids are two—(1) apomorphine, (2) sulphate of morphine and atropine. The iodides of metals other than potassium are not supplied. Five pill-masses are included; no made pills are issued; there is no recognized excipient, coating agent, and no pill-making machine. The ointments are limited to hydrarg., hydrarg. nit., and ung. gall. c op. The plasters comprise bellad.; saponis; ichthyocoll. Lister's unbleached antiseptic gauze is still issued. A microscope is not supplied,

nor the reagents for bacteriological diagnosis. There is no ophthalmoscope, no provision for estimation of colour blindness, no laryngoscope, eye speculum, nasal speculum, rectal speculum, cautery, or electric battery. Anaesthetic ether and chloroform are both supplied without any means for their administration.

All cases of venereal infection, specific or not, are included under primary syphilis. As a consequence of this looseness of nomenclature, the latent existence of syphilis is frequently lost sight of; there is no system for the continuous treatment of this disease, and the provision for the treatment of venereal diseases is not up to modern requirements. There is no efficient provision supplied for the transport of sick and wounded; the disposal of the latter in action has yet to be determined.

The Admiralty would do well, in this the twentieth century, to provide for the enrolment into the navy of qualified dentists, in accordance with the requirements of the General Medical Council. The dental equipment does not include a ball syringe; the escharotic, temporary fillings, and extractors required for the devitalization of an exposed pulp. As a sufficient argument for reformation, I would ask you to compare the contributions to the advancement of medical science made by the naval and army medical services respectively. Finally, the Admiralty will have to do much more for the betterment of the medical department of the Royal Navy than it at present contemplates to compete at all successfully with the infinitely greater attractions, from every point of view, of a career in the R.A.M.C.

MEDICO-LEGAL AND MEDICO-ETHICAL.

BROMIDIA.

ON April 28th, Dr. Waldo, Coroner for the City of London, held an inquiry respecting the death of Mr. Gerald Geoghegan, a well-known barrister. According to the evidence as reported by the *Morning Post*, Mr. Geoghegan, who was 48 years of age, was found dead by his clerk on April 23rd. Mrs. Geoghegan stated that her husband, who had suffered from sleeplessness, had been in the habit of taking a sleeping draught, and had been medically attended. The clerk stated that he noticed a paper containing some powder, and an empty tumbler on the table. The coroner drew the attention of the jury to a bottle which had been found on the table, and said that it had contained ¼ oz. of bromidia. The medical evidence was to the effect that death was due to syncope, the result of an overdose of the sedative mixture acting on a weak heart; the bottle bore the revenue stamp, and could be bought anywhere. The jury returned a verdict of death by misadventure, and added a rider urging that further restriction should be placed on the sale of opiates of the character of bromidia.

Messrs. Roberts and Co., the agents in this country of the manufacturers, Battle and Co., St. Louis, have written to us as follows: We think it only right to offer a little explanation on the subject of the exceptional conditions under which the late Mr. Geoghegan is supposed to have become possessed of an entire bottle of bromidia. This preparation is not a secret remedy, as the formula is published in all the pamphlets that have been issued to the medical profession for nearly twenty years. Bromidia is not a "popular remedy," and not intended to be supplied to the public at all; it is a pharmaceutical preparation put up in ½-lb. and ¼-lb. bottles only, and intended to be used solely for dispensing purposes. No circular or other printed matter accompanies the bottle, and beyond the plain bromidia label and a label giving the dose, there is no indication of its use. Every bottle is wrapped in a plain piece of paper bearing the imprint, "½ lb. Bromidia, Battle and Co.," and a label notice printed in red ink indicating that the preparation is supplied unstamped by the authorization of the Inland Revenue for dispensing purposes only, and that in the event of any part of it being sold to the public, it must be stamped in accordance with the value, and must be labelled "Poison," with name and address of the vendor.

Messrs. Roberts have been good enough to forward a bottle of bromidia for our inspection, and the wrapper is labelled as described. The bottle itself has two labels. The one bears the words, "Genuine. ½ lb Bromidia (Trade Mark). Battle and Co., Chemists, Saint Louis. Manufactured in Paris." The other has the following, and translations into French and German: "Dose.—Half to one teaspoonful in water or syrup, which may be repeated in an hour, and again in two hours if necessary. Not more than three teaspoonfuls to be taken in the twenty-four hours, unless by doctor's order."

In a pamphlet also forwarded by Messrs. Roberts the formula is stated to be as follows: "Every fluid drachm contains 15 gr. each of pure Chloral and purified Brom. Potas. and ½ gr. each of gen. imp. ext. Cannabis Ind. and Hyoscyam." The dose is here stated to be "one-half to one fluid drachm in water or syrup every hour until sleep is produced."

We do not see that Messrs. Roberts have afforded any very satisfactory explanation "of the exceptional conditions under which the late Mr. Geoghegan is supposed to have become possessed of an entire bottle of bromidia." According to the evidence in the report before us the bottle found in the deceased gentleman's room bore the Inland Revenue stamp, so that it seems most improbable that in this instance the sale had been made "for dispensing purposes." We cannot regard the mixture as other than dangerous when sold to the public.

EXPLOSION IN A PORTABLE VAPOUR BATH.

A case was heard last week in the King's Bench, before Mr. Justice Phillimore and a common jury, in which the plaintiff, a widow, sought damages for injuries caused by the explosion of a vapour bath purchased from the Burroughs Wellcome Company. It appeared, according to the report in the *Times*, that the patient, who was suffering from rheumatism, had purchased a bath, which was an enclosed cabinet, for 45s. The patient sat on a chair above a vaporizing pan heated by a lamp beneath; on the occasion when the accident occurred about half an ounce of turpentine had been added to a pint of water in the pan. While the patient was in the cabinet an explosion took place, and she was burnt. Dr. Mitchell, who gave medical evidence, described the patient's injuries, which he said might have been caused by an explosion of vapour. He had recommended the bath to other patients, but had never heard of an explosion. Evidence was given for the plaintiff to the effect that turpentine would begin to volatilize at about 120° F., and that a mixture of turpentine vapour with air was highly explosive. For the defence the secretary of the company stated that there had been a large sale of the baths, and he had never heard of an explosion before. Expert evidence was given to the effect that half an ounce of turpentine in a pint of water, used carefully, would not involve any danger, that 1 to 70 was the proportion of turpentine to air which would produce an explosive mixture, and only at 320° F., the boiling point of turpentine. In the cabinet the volume of turpentine to air would have been about 1 in 250. The jury found a verdict for the plaintiff, damages £100.

PENAL SERVITUDE FOR ILLEGAL OPERATION.

A WOMAN named Elizabeth Ann Holden, aged 35, was found guilty at the recent Manchester Assizes on a charge of performing an illegal operation upon Ada Hartley, at Brierfield. From the report in the *Manchester Courier* we note that Mr. Justice Wills, in passing sentence upon her, said that the offence was a very grave one, and there was extreme danger to the lives of those operated upon. The judges had for a long time decided upon a sentence commensurate with the offence, and he had tried in this case to consider whether he could find anything which could lead him to make the sentence less severe than usual, but he had failed to do so. By the medical evidence it was clear that the operation had been performed by a practised hand; therefore he should pass the ordinary sentence passed in such cases, namely, five years' penal servitude.

THE CASE OF MR. C. A. BYNOE.

A BARRISTER writes: One of the main objects of Mr. Bynoe is to have his name restored to the *Medical Register*, from which it was removed by the General Medical Council. He has exhausted the available means of having his cause reheard and failed, never having been met on the merits, but always on some hard-and-fast legal rule better adapted to the past than to the future. Under these circumstances why should not the General Medical Council rehear his case, and if satisfied of his innocence restore his name to the *Medical Register*? Why should they exclude a man from practising as a physician because he was wrongfully convicted of a crime in a country where no means exists for redressing a wrongful conviction? If Dr. Bynoe could have procured a legal rehearing the Council should require him to procure it, and agree to abide by the result; but if there is no legal tribunal before which the case can be tried, is a man who declares that he has been wrongfully convicted, and that he is ready and willing to prove it, to be permanently excluded from practising as a physician on account of a conviction which the jurors have almost unanimously pronounced to be erroneous? Let the General Medical Council hear the case which no other tribunal will hear, and decide it to the best of their ability; and let those who sympathize with Dr. Bynoe urge the Council to adopt this course. The Council might before taking action in the matter inquire whether the Government would institute an inquiry. If they declined to hold a public inquisition, one by the General Medical Council could hardly be regarded as intruding on their province.

MEDICAL ETIQUETTE.

PROVINCIAL.—Such interference with the patient of another practitioner as described by our correspondent is both improper and unwise, but it should be remembered that patients are not always to be relied upon in their account of such incidents.

ENQUIRER.—The ethical rule is that where one practitioner acts as substitute for another he must not take advantage of the introduction to the prejudice of the original medical attendant. Therefore the disability does extend to the wife and family living with X, and B would not have been right to retain the patient.

F.R.C.S.ENG.—We think that such a letter might be sent to the members of the medical profession in the Colony, without violating medical etiquette, but great care must be taken that it does not reach the public. We should advise our correspondent to supervise personally the sending out of the proposed letter. It would be better whenever possible to make the communication verbally.

FEES AT INQUESTS.

A CORRESPONDENT asks if a member of the honorary staff of a hospital is entitled to a fee if summoned by a coroner to give evidence on a case which had been under his care in the hospital.

"*" The medical officers to charitable institutions cannot claim fees for giving evidence at inquests on patients treated therein.

THE May dinner of the Edinburgh University Club of London will be held at the Criterion Restaurant on Wednesday, May 7th, at 7.30 p.m., His Grace the Duke of Argyll, K.T., in the chair.

THE next dinner of the Durham University Medical Graduates Association will be held at the Café Royal, Regent Street, W., on May 29th, at 7.30 p.m., when Dr. F. S. Palmer, President, will take the chair. Further particulars can be obtained from the Honorary Secretary for the South, Dr. T. Outterson Wood, 40, Margaret Street, Cavendish Square, W.

AT a recent meeting of the Cork Board of Guardians the resignation, on the score of health, of Dr. Denis D. Donovan as one of the dispensary medical officers was received. Great regret and much cordial appreciation of his twenty-six years of service was expressed by many influential members of the Board; and a resolution was carried that the Local Government Board should be requested to grant him the highest superannuation allowance, and for this purpose to add ten years to his term of service.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

THE following is the official list of passes at the recent professional examinations for degrees in Medicine and Surgery:

First Professional Examination.—Mukhtar Ahmed, B.A., R. G. A. Bagnall, E. H. Black, C. E. Blair, G. Blair, I. W. Brebner, S. T. Champtaloup (with distinction), W. I. M. Clark, Agnes M. Cowan, F. S. Cumming, R. B. Davidson, A. M. Dick, M. G. Dill, A. M. Drennan (with distinction), R. Duncan, J. Dundas, E. W. Dyer, S. S. Dykes, Mary S. Finlayson, C. N. Finn, M. S. Fraser, W. G. Frohlich, G. F. Gallagher, W. J. Geale, L. Gibson, G. A. Gordon, M. C. R. Grahame, J. Green, J. C. Grieve, G. F. Grogan, G. Gunn, Mary D. Hancock, A. J. Harper, A. S. Hendrie, H. S. A. Hogg, F. O. Inglis, R. F. Johnson, H. C. Johnston, W. L. Johnston, R. Lloyd Jones, A. M'Donald, D. F. Mackenzie, J. B. Mackenzie, I. R. Macleod, G. M'Mullan, A. C. B. M'Murtrie, W. J. MacNab, A. S. Mactavish, J. N. M'Turk, D. Mann, G. M. Melville, H. Millar, F. C. Mills, B.A., J. Morris, Janet M. Murray, J. K. Murray, R. H. Nolan, Ethel A. Olchard, J. S. Orwin, A. S. Paterson, H. B. Porteous, C. A. Purnell, G. Y. Richardson, W. H. Riddell, W. R. Ridley, W. G. Rivers, R. M. Robb, W. G. Robertson, F. Ross, A. Sandison, J. Scott, T. H. Scott, H. L. Sells, H. G. Smith, A. G. V. van Someren, H. V. Taylor, W. A. A. Taylor, J. A. R. Thompson, Annie D. Urquhart, V. S. Valiathan, B.A., P. Vickerman, R. H. Walton, A. Wight, W. E. R. Williams, J. T. D. Young.

Second Professional Examination.—R. G. W. Adams, E. A. Aylward, J. W. H. Babington, J. M. Barkley, R. B Barnetson, B. Baty, W. P. Beattie, D. Bell, L. H. I Bell, A. R. Berrie, J. M. Beyers, A. S. L. Biggart, F. T. Bowerbank, D. Brown (with distinction), T. E. Carlyle, V. T. Carruthers, Mildred M. L. Cathels, J. W. Cathles, G. S. Clark, M.A.; A. G. Coullie, J. Craw, W. B. Cullen, G. Cunningham, W. H. Cusack, J. M. Darling, J. R. Dobbin, C. E. Dumanoire, T. H. Easton, N. C. Fischer, J. M. R. Flamet, N. C. Forsyth, R. H. Fothergill, L. Fourie, A. N. Fraser, W. J. Fraser, L. Gavin, N. J. H. Gavin, H. M. Gillespie, A. G. Glass, M.A.; W. Godfrey, J. M. Graham, W. W. Greer, J. Grieve, P. A. Harry, E. Henderson, M.A. (with distinction); A. W. Hogg, J. S. Hogg, R. B. Hole, G. S. Husband, K. U. A. Inniss, Ada Jackson, W. Jarvis, S. A. Johnston, J. H. H. Joubert, J. Kirk, G. F. S. Landok, S. W. S. Leary, A. J. Lewis, J. Lochhead, M.A. (with distinction); J. B Lockerbie, A. D. M'Callum-J. MacDonald, J. P. M'Gowan, M.A.; H. R. Macintyre, R. J. Mackessack, Amy M. Mackintosh, D. P. Marais, Aimée E. Mills, M.A., B.Sc.; L. S. Milne, T. B. Mouat, W. M Mumby, D. S. Murray, C. O'Flaherty, A. Oliver, C. D. O'Neal, E. G. S. Orbell, G. Ormrod, Florence M. S. Price, H. S. Reid, Margaret H. Robertson, Shiela M. Ross, C. S. Ryles, F. R. Sinton, L. H. Skene, C. J. Smith, G. M. C. Smith, W. A. W. Smith, R. A. L. van Someren, P. Steele, H. A. Stewart, A. C. Strain, K. A. M. Stuart, Annie F. Theobalds, H. M. Thompson, Rose C. Townend, G. H. Usher, F. L. de Verteuil, R. W. L. Wallace, D. C. Welsh, D. P. D. Wilkie, F. A. Wille, W. B. Wishart, C. H. Wright, Margaret C. Young.

Third Professional Examination.—R. T. G. Aickin, D. Alison, J. A. Anderson, W. W. Anderson, F. L. Atkinson, Agnes Balfour, C. M. Begg, A. W. Beveridge, T. C. Blackwell, J. Brennan, Edith C. Brown, J. E. M. Brown, G. L. Brunton, A. Buchanan, H. Caird, T. P. Caverhill, R. A. Chambers (with distinction), Katherine J. S. Clark, Elizabeth L. Colby, C. H. Craig, R. W. Craig, C. S Crichton, D M'K. Crooks, D. H. Croom, F. D. Crosthwaite, W. B. A. K. Cullen, A. Dangerfield, J. M. Darling, H. S. Davidson, J. Davidson, W. H. Davidson, D. E. Derry, A. C. Devereux, J. M. Dewar, J. Donaldson, M.A.; A. M. Dryden (with distinction), Alice M. Ebden, G. J. Farie, J. Findlay, H. N. Fletcher, J. Fortune, C. R. Gibson (with distinction), F. H. Gibson, J. D. Giles, J. Girdwood, J. M. Glasse, A. Gray, M.A.; Elizabeth C. Gunn, A. Mabel Gurney, A. A. Hall, M.A.; C. R. F. Hartley (with distinction), G. W. Harty, G. Henderson, A. E. Hodgson, A. F. Hughes, J. P. P. Inglis, J. M. Johnston, R. W. Johnstone, J. H. Jones, J. H. Kay, J. W. Keay, I. C. Keir, E. A. King, J. M. Kirkness, L. A. H. Lack, F. T. C. Linton, M.A.; C. D. Lochrane, Isabella Logie, J. M. Lovett, A. Lundie, H. MacCormac, J. R. M'Gregor, N. D. Mackay, T. A. MacKenzie, Violet C. M'Laren, N. D. Mackay, W. MacLaren, J. J. M'Milien, J. B. M'Neill, I. M. Macrae, H. C. Martin, R. H. Martin, P. W. Mason, A. G. M. Middleton, A. S. Millard, G. H. S. Milln, W. S. Milne, C. R. P. Mitchell, G. I. Moriarty, C. H. Muller, H. L. Munro, D. M'K. Newton (with distinction), T. Nicol, W. H. Nutt, D. D. Paton, M.A.; T. Peebles, J. A. Pottinger, J. L. Pringle, W. L. Pritchard, W. Readman, Eva A. Robertson, W. S. Robertson, Amy Robinson, L. C. Robinson, J. A. Ross, Mabel Ross, J. A. Roux, N. C. Rutherford, D. G. A. Scott, D. J. Scott, J. E Scott, M.A.; W. M. Selby, G. H. Skinner, J. H. Smith, S. W. Smith, E. W Smyth, Eva M. Snowball, Effie Stuart, J. Tait, J. E. Taylor, T. T. Thomson, G. C. Trotter, E. A Turpin R. Veitch, J. A. L. Wallace, W. R. S. Watkins, G. J. Wentzel, L. West, R. M. M White, C. H. Wright, B.A.; W. D. Wright (with distinction), G. W. Young.

Third Professional Examination (New Regulations, Pathology only).—S. Burns, M.A.

UNIVERSITY OF GLASGOW.

GRADUATION CEREMONY.

THE classes in the medical and other faculties resumed work for the summer session on Wednesday, April 23rd.

On the previous day the usual Spring Graduation Ceremony took place in the Bute Hall, Principal Story presiding. There was a large attendance of students and their friends, and the proceedings were of the usual lively character. Amongst the honorary degrees conferred may be mentioned that of LL.D., which was given *in absentiâ* to Professor Paul Brouardel, the Dean of the Faculty of Medicine in the University of Paris, and President of the Comité d'Hygiène de France.

The following were capped M.D.: Alexander Robert Ferguson, M.B., C.M., with honours, thesis: The Leucocytosis of Variola with a Study of the Haematopoietic Organs in the Disease, and also of the Lesions of the Skin; John Knight, M.B., C.M., thesis: Small-pox: its Diagnosis and Public Health Administration; Dugald Campbell Watt, M.B., C.M., thesis: Variola as it affects the Native Races of South Africa, with a discussion on the Existence of Amaas or Kaffir Pox.

Among the University prizes presented was a Bellahouston Gold Medal for eminent merit in thesis for M.D., awarded to David Louis Cairns, M.D.

In connexion with the graduation ceremony a *conversazione* was held at the University in the evening. This is the first occasion on which such a function has been held. About 1,600 invitations were issued to the joint name of the Court and the Senate, and were sent to the graduates of 1900-1 and 1901-2, also to the members of Council who were registered in 1882 and 1883, and to the subscribers to the University Equipment Fund. To future functions of the same kind it is intended to invite the former graduates of the University in rotation. There was a large and interesting gathering at the *conversazione*, many graduates having come from a distance.

UNIVERSITY OF DURHAM.

GRADUATION CEREMONY.

UNTIL within the last four or five years Convocation of the University was always held in Durham; but, owing to the increasing importance of the Faculties of Medicine and Science, the privilege of holding each year one of the important biennial Convocations was conceded to Newcastle-upon-Tyne. So far, therefore, as the Faculties of Medicine and Science are concerned, Convocation is held once a year in Durham, and once in Newcastle, the Colleges of Medicine and Science sharing the honour alternately. On Saturday, April 26th, a large and brilliant gathering of professors, lecturers, graduates, students, and friends assembled in the large hall of the College of Medicine to witness the important ceremony of the conferring of degrees. There was the usual pleasantry indulged in by the students. The Rev. Dean Kitchin, as Warden of the University, presided.

The honorary degree of D.C.L. was conferred upon two distinguished members of the medical profession—Sir William Selby Church, Bart., M.D., President of the Royal College of Physicians, London; and Thomas Annandale, Professor of Surgery in the University of Edinburgh.

In presenting Sir William Selby Church to the Warden and Subwardens, Sir George Hare Philipson said: "I have the honour to present Sir William Selby Church, Baronet, the President of the Royal College of Physicians of London, to be the recipient of the Honorary Degree of Civil Law. This distinguished physician and scientist is a graduate in Arts and in Medicine of the University of Oxford, a Doctor of Laws of the University of Glasgow *honoris causâ*, and an Honorary Doctor of Science of the Victoria University. He is the Senior Physician and Lecturer in Clinical Medicine at St. Bartholomew's Hospital, London; Honorary Fellow of University College, Oxford; Fellow and Treasurer of the Royal Medical and Chirurgical Society of London, a member of the London Pathological Society, also of the Clinical Society of London, and of several other learned societies. Formerly he was Lees Reader in Anatomy at Christ Church, Oxford, and the representative of the University of Oxford in the General Medical Council. He has rendered valuable services to the State, having served on two Royal Commissions—namely, the South African Commission and the Arsenical Poisoning Commission. He has enriched medical literature by several important and valuable contributions. By patrimony, maternal, and uxorial ties he is connected with the county of Northumberland, and we welcome him in this threefold association. For these reasons the University is desirous of conferring upon Sir William Selby Church its highest distinction—that of Doctor of Civil Law, and of doing honour to itself by enrolling him in its list of honorary members."

In presenting Professor Annandale, Professor Page said: "I present to you for the honorary degree of Doctor of Civil Law the Regius Professor of Clinical Surgery in the University of Edinburgh, Thomas Annandale. Born in Newcastle-on-Tyne, the son of an eminent surgeon, he commenced his professional career in this School of Medicine. In the year 1860, the degree of M.D. was conferred upon him by the University of Edinburgh, and at the same time he received the gold medal for a thesis on the surgical diseases of the hip-joint. He is a Fellow of the Royal Colleges of Surgeons of Edinburgh and of England, Fellow of the Royal Society, Edinburgh, and Surgeon-General in His Majesty's Bodyguard of Royal Scottish Archers. A voluminous writer, he is the author of the Jacksonian Prize Essay of the Royal College of Surgeons of England and of numerous other valuable contributions to surgical literature. On more than one occasion he has acted as Extern Examiner in Clinical surgery in the University of Durham. He is one of the best known surgeons and teachers in Great Britain. There is hardly a corner of the King's dominions in which a pupil is not to be found practising the principles which Thomas Annandale has taught, and taught so well, during his long useful, and brilliant career.

Eight graduates in medicine were promoted to the Doctorate on their theses, and upon fourteen practitioners of fifteen years' standing the degree of Doctor of Medicine was conferred after examination. Two gentlemen received the Mastership in Surgery—J. W. Leech and W. H. Richards. As Mr. Leech is one of the Assistant Surgeons of the Newcastle Royal Infirmary, his popularity with the students and his success as a teacher were evidenced by the heartiness of the ovation he received. Among the nineteen Bachelors of Medicine and of Surgery were two ladies. Four gentlemen received the Diploma in Public Health.

THIRD EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners:

Honours—Second Class.—R. Bigg, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital.

Pass List.—F. D. Atkins, St. Thomas's Hospital; F. G. Armstrong, College of Medicine, Newcastle-upon-Tyne; J. A. Bell, St. Bartholomew's Hospital; H. L. Currie, College of Medicine, Newcastle-upon-Tyne; Margaret Douglas French, London School of Medicine for Women; W. Gibbons, College of Medicine, Newcastle-upon-Tyne; A. H. Heslop, College of Medicine, Newcastle-upon-Tyne; W. Howard, St. Thomas's Hospital; T. C. Hunter, College of Medicine, Newcastle-upon-Tyne; W. Hughes, Edinburgh School of Medicine;

W. H. Peacock, College of Medicine, Newcastle-upon-Tyne; W. H. Phillips, B.Sc., College of Medicine, Newcastle-upon-Tyne; D. M. Ross, St. Thomas's Hospital; Mary Raw, College of Medicine, Newcastle-upon-Tyne; Constance Charlotte Robertson, College of Medicine, Newcastle-upon-Tyne; D. R. Roberts, College of Medicine, Newcastle-upon-Tyne; F. Stoker, College of Medicine, Newcastle-upon-Tyne; A. Smith, College of Medicine, Newcastle-upon-Tyne; T. Y. Simpson, M.R.C.S., L.R.C.P., London Hospital; J. M. Shaw, College of Medicine, Newcastle-upon-Tyne; O. B. Travers, Guy's Hospital; W. F. Wilson, College of Medicine, Newcastle-upon-Tyne.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners in the subjects undernoted:

Anatomy, Physiology, and Materia Medica.—Honours—Second Class: Olga Schiele, London School of Medicine for Women; E. Young, St. Mary's Hospital: R. I. Douglas, St. Bartholomew's Hospital. Pass List: R. Bigg, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; G. N. Biggs, St. Thomas's Hospital; D. T. Birt, College of Medicine, Newcastle-upon-Tyne; W. H. H. Croudace, College of Medicine, Newcastle-upon-Tyne; J. Galloway, College of Medicine, Newcastle-upon-Tyne; J. H. Lewars, College of Medicine, Newcastle-upon-Tyne; H. L. Noel-Cox, St. Thomas's Hospital; R. B. Reed, College of Medicine, Newcastle-upon-Tyne; A. B. Raille, College of Medicine, Newcastle-upon-Tyne; R. J. Willan, College of Medicine, Newcastle-upon-Tyne.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners in the subjects undernoted:

Elementary Anatomy and Biology, Chemistry and Physics.—Honours—First Class: W. Fairclough, College of Medicine, Newcastle-upon-Tyne. Honours—Second Class: O. Shields, M.R.C.S., L.R.C.P., St. Mary's Hospital. Pass List: O. Arnott, College of Medicine, Newcastle-upon-Tyne; F. R. H. Laverick, College of Medicine, Newcastle-upon-Tyne; R. J. Weidner, College of Medicine, Newcastle-upon-Tyne.

Elementary Anatomy and Biology.—V. E. Badcock, College of Medicine, Newcastle-upon-Tyne; G. E. P. Davis, College of Medicine, Newcastle-upon-Tyne; W. Denham, College of Medicine, Newcastle-upon-Tyne; H. Denham, College of Medicine, Newcastle-upon-Tyne; G. Denholm, College of Medicine, Newcastle-upon-Tyne; N. A. Eddlestone, College of Medicine, Newcastle-upon-Tyne; A. Finlay, London Hospital; A. C. H. McCullagh, College of Medicine, Newcastle-upon-Tyne; G. Pybus, College of Medicine, Newcastle-upon-Tyne; W. Rollin, College of Medicine, Newcastle-upon-Tyne; R. W. Swayne, College of Medicine, Newcastle-upon-Tyne; L. L. Westrope, College of Medicine, Newcastle-upon-Tyne; J. B. Williamson, College of Medicine, Newcastle-upon-Tyne; T. L. Wormald, College of Medicine, Newcastle-upon-Tyne; F. Whitby, St. Bartholomew's Hospital.

Chemistry and Physics.—Helen Young Campbell, London School of Medicine for Women; H. Drummond, College of Medicine, Newcastle-upon-Tyne; Camilla Lucy Hecrath, London School of Medicine for Women; Florence Barrie Lambert, Edinburgh Medical School; A. A. Miller, M.R.C.S., L.R.C.P., Guy's Hospital; Jessie Margaret Murray, London School of Medicine for Women; S. L. McBean, College of Medicine, Newcastle-upon-Tyne; G. H. Spencer, M.R.C.S., L.R.C.P., London Hospital.

Elementary Anatomy.—Lillie Johnson, B.Sc., College of Medicine, Newcastle-upon-Tyne; J. C. Pearce, A.Sc., College of Medicine, Newcastle-upon-Tyne

UNIVERSITY OF DUBLIN.

AT the First Summer Commencements in Trinity Term, held in the Theatre of Trinity College on Friday, April 18th, the degree of Master in Surgery was conferred by the University Caput in presence of the Senate on Mr. Richard Smith *(in absentiâ)*.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT the ordinary quarterly comitia held on Thursday, April 24th, the President, Sir William S. Church, in the chair.

Election of Fellows.

The following members were elected to the Fellowship of the College: H. C. Maudsley, M.D.Lond., W. C. Wilkinson, M.D.Lond., F. M. Pope, M.D. Camb., E. Malins, M.D.Edin., W. A. Wills, M.D.Lond., T. H. A. Chaplin, M.D.Camb., W. P. May, M.D.Lond., A. G. Phear, M.D.Camb., G. F. Blacker, M.D.Lond., J. Fawcett, M.D.Lond., H. C. Thomson, M.D.Lond., A. S. F. Grünbaum, M.D.Camb., J. Barr, M.D.Glasg., J. J. Perkins, M.B.Camb.

Admission of Members.

The following gentlemen having passed the required examination were admitted Members of the College: J. S. Bolton, M.D.Lond., W. P. S. Branson, B.A., M.B.Camb., G. G. Gifford, L.R.C.P., C. H. Melland, M.D.Lond., L.R.C.P., S. V. Pearson, B.A., M.B.Camb., E. F. Potter, M.D.Brux., L.R.C.P., W. H. M. Telling, M.D.Lond., L.R.C.P.

Licences Granted.

Licences to practise physic were granted to 123 gentlemen. Of these, 7 [illegible] years curriculum and 1 only under the old regulations.

The Murchison Scholarship.

The report of the examiners on the Murchison Scholarship recommending that no award be made was received and adopted.

Date of Croonian Lectures.

The President announced that the Croonian Lectures to be delivered by Dr. J. W. Washbourn had been postponed until November.

Nominations.

The President made the following nominations, which were approved by the College, namely: Sir R. Douglas Powell, Bart., to represent the College at the Medical Congress to be held at Cairo in December next; Dr. J. F. Payne, the Harveian Librarian, to represent the College at the Tercentenary of the Bodleian Library at Oxford; and as a Committee to make arrangements for the Fellows and Members to view the Royal procession pass the College on June 27th, the College Officers, together with Dr. Theodore Williams, Dr. Allchin, and Dr. Oswald Browne.

Communications.

Communications were received from (1) the Secretary of the College of Surgeons, reporting certain proceedings of the Council on April 10th; (2) the General Medical Council, submitting certain questions with respect to the courses of study in chemistry, physics, and biology required of candidates for the conjoint diplomas, and announcing that the examinations of the Colleges in those subjects will be visited and reported on for the Council during the present year.

Licentiates and the Degree of M.D.

After a discussion in which Dr. F. J. Smith, Dr. Dawson Williams, Dr. Norman Moore, Dr. Allchin, Dr. Payne and the President, took part, leave was given to Dr. Smith to present to the College at a future date a petition from an Association of Licentiates of the College and of Members of the Royal College of Surgeons, with reference to the question whether any means could be found by which in virtue of their diploma they could become eligible for the degree of M.D.

Recognition of Institutions.

On the recommendation of the Committee of Management, the Municipal Science and Art Institute, Walsall, which has been visited and reported on as fulfilling entirely the requirements of the Examining Board, was added to the list of institutions recognized by the Board for instruction in chemistry, physics, and practical chemistry, and the instruction in lunacy given by Dr. T. Claye Shaw at St. Luke's Hospital, was recognized as fulfilling the conditions of Clause 10, Section 1, of the regulations of the Examining Board.

Restoration of Membership.

An application from Dr. William Wallis Ord praying that the Membership which he resigned in June, 1896, might be restored to him, was considered and granted.

Laboratories.

A report of the Laboratories Committee dated March 7th, 1902, was received and adopted.—(*a*) The superintendent of the Bacteriological Department had reported that during the preceding two months 8,450 doses of diphtheria antitoxin, each containing 3,000 units, had been supplied to the hospitals of the Metropolitan Asylums Board, making a total of 25,350,000 units. (*b*) During the quarter further batches of antitoxin supplied by Messrs. Parke, Davis, and Co. had been tested in the laboratory, and a certificate granted showing its strength, sterility, and freedom from excess of antiseptic. Upon the recommendation of the Committee Dr. T. Grigor Brodie was reappointed as Director of the Laboratories for another year.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have passed the examinations of the Board as under:

First Examination (Five-Years Course).—F. M. Murray, F. B. Elwood, A. F. Garrand, J. W. N. Roberts, F. J. Breakell, E. A. S. Shaw, E. F. Nyhan.

First Examination (Four-Years Course).—J. S. Farries, A. Jack, G. M. McLeod.

Second Examination (Five-Years Course).—G. Hart, C. Shaves, A. F. Spinks, A. R. M'I. MacIlraith, W. W. Dempster, S. R. Scott, E. E. Murphy, E. M. Franklin, F. W. March.

Second Examination (Four-Years Course).—A. Ardill, J. E. Mullan.

Third Examination.—A. Allan (with distinction), R. S. Walker, R. N. Macdonald, W. R. A. Coates, H. Armstrong, J. B. L. S. Scott, D. W. Purkis, Lizzie Denny, W. D. Cockburn.

Final Examination.—H. L. Jones, T. W. M'Cubbin, W. Thomson, E. N. de V. Dawson, H. Solomon, S. L. G. D. Maclaine, C. V. Craster, W. H. Duncan, H. Williams, T. A. Welch, P. Carroll.

CONJOINT BOARD IN IRELAND.

PRELIMINARY EXAMINATION.—Candidates have passed this examination as undernoted:

B. Bassett, W. I. Berne, P. Blake, F. G. Blood-Smyth, T. A. Buchanan, P. I. Cleary, I. D'Alton, T. Fitzgerald, B. Foley, H. D. Gilmore, W. J. Kennealy, W. Owens, C. W. C. Robinson, G. F. Shepherd, D. McC. Smith, I. F. Walsh, A. E. Weinstock.

FIRST PROFESSIONAL EXAMINATION.—Candidates have passed this examination as undernoted:

Honours (in order of merit).—I. I. Hogan, L. Lucas, T. P. Byrne, M. I. Coyne.

In all Subjects.—A. Hipwell, P. F. J. Leyland, R. Martin, E. P. Punch, P. J. Rooney.

Completed the Examination.—B. N. Blood, C. Gordon, E. I. Higgins, R. V. Murphy, N. E. Sampey.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Election of Examiners.—Notice is given that a meeting of Fellows will be held on May 6th, pursuant to the provision of the supplemental charter, to witness the election of examiners. All, with the exception of the examiners in subjects of general education, must be Fellows of the College. The notice paper contains the statement that "persons engaged in private teaching are not eligible to be examiners."

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, April, 1902.—The following candidates passed in:

Surgery.—W. Ball (Section I), Westminster Hospital; B. M. Dunstan (Section I), St. Thomas's Hospital; J. W. Elliott (Section II), St. Mary's Hospital; A. F. Heald (Sections I and II), Cambridge; A. Holroyde, Leeds; E. A. Houchin, Middlesex Hospital; W. St. A. F. Hubbard (Section II), Charing Cross Hospital; G. R. Lucas, Edinburgh and Charing Cross Hospital; S. A. Rowley, Bristol; T. Scatchard, (Section I), Leeds; P. Southan (Sections I and II), West

minster Hospital; J. A. W. Webster (Section I), St. Mary's Hospital.

Medicine.—A. H. Bell, Cork and Guy's Hospital; G. F. G. de Laubenque, Middlesex Hospital; A. Holroyde, Leeds; E. A. Houchin, Middlesex Hospital; T. G. Miles (Sections I and II), Guy's Hospital; O. Millauro (Section II), Westminster Hospital; G. Roper, Cambridge; C. J. Taylor (Sections I and II), Bristol; H. C. S. Woodward, St. Thomas's Hospital.

Forensic Medicine.—G. F. G. de Laubenque, Middlesex Hospital; A. Holroyde, Leeds; T. Scatchard, Leeds; C. S. Scott, St. Bartholomew's Hospital; C. J. Taylor, Bristol; W. H. Tomlinson, Manchester.

Midwifery.—G. R. Hannon, King's College Hospital; E. A. Houchin, Middlesex Hospital; W. St. A. F. Hubbard, Charing Cross Hospital; A. H. Hughes, Bristol; P. C. W. Laws, St. George's Hospital; C. H. Osmond, Glasgow; A. L. Walters, St. Thomas's Hospital.

The diploma of the Society was granted to A. H. Bell, A. Holroyde, W. St A. F. Hubbard, G. R. Lucas, and P. Southan.

OBITUARY.

THOMAS MORE MADDEN, M.R.C.P.I., F.R.C.S.EDIN., M.R.C.S.Eng.,

Obstetrical Physician, Mater Misericordiae Hospital, Dublin.

THE death of Dr. Thomas More Madden, which took place at his country residence in the County Wicklow on April 14th, was not unexpected, as he had received about a year ago while yachting a severe blow on the head, as a result of which cerebral symptoms developed, with the result that his practice had to be abandoned, and his professional residence in Merrion Square, Dublin, given up finally; months of illness were passed in his home in Wicklow. By his death one of the most prominent figures in Irish medicine in the present day was removed, for although Dr. More Madden had not attained to the Fellowship of either the Royal College of Physicians or the Royal College of Surgeons in Ireland he was such a constant contributor to gynaecological literature and a man of such strong convictions that his personality brought him continually into public notice.

He was born 64 years ago in Cuba, where his father at the time represented British interests at the International Congress for the abolition of the slave trade. The atmosphere in which he spent his early days, filled as it was with language that made for freedom, left an abiding influence upon young Madden which could be traced in the independence of his after-life. He began his medical studies in Dublin, but bad health sent him abroad immediately after he obtained his first qualification in 1859, that of L.F.P.S.Glasg. The following three years found him mingling a search for health with studies at Montpellier and Malaga. He travelled through Spain, Northern Africa, and even visited Australia. In 1868 he settled down in Dublin to the practice of midwifery and gynaecology; he became Assistant Master to the Rotunda Lying-in Hospital and at the end of his term of office he was elected Obstetrical Physician to the Mater Misericordiae Hospital—a position which he held until his death. In 1871 he organized an Irish ambulance company, and gave his services to the French Republic during the Franco-Prussian War. For this he received the bronze cross. In 1872 he was an honorary president of the first International Congress of Obstetrics and Gynaecology at Brussels. Previous to this he had been appointed examiner in midwifery in the old Queen's University in Ireland. His pen began about this time to show signs of that productive quality which later on became so manifest. In 1871 he was editor of *Dublin Practice of Midwifery*, in 1874 he wrote *On Change of Climate*, in 1875 *On the Spas of Germany, France, and Italy*. Then numerous papers appeared from time to time in the BRITISH MEDICAL JOURNAL, the *Dublin Medical Journal*, and other periodicals. He wrote also several of the articles in Quain's *Dictionary of Medicine*, and altogether the contributions to medical literature from this industrious author are much too numerous to mention in the space at our disposal.

Dr. More Madden was Consulting Physician for a long term of years to the Temple Street Hospital for Sick Children. In the diseases of children he took a great interest, and he entertained and frequently expressed strong views on the neglect of mental culture in children, and the effects produced in their bodies by the foolish and indiscriminate administration of alcohol.

He received many recognitions of his work from learned bodies and medical societies. He was M.D.Texas (*hon. causâ*), M.A.O.R.U.I., President Obstetrical Section R.A.M.Ireland, and Vice-President British Gynaecological Society. He was President of the Obstetrical Section at the annual meeting of the British Medical Association in Glasgow (1888). He was a J.P. for the Counties of Kildare and Carlow.

Dr. More Madden belonged to that class of men who can be kindly and courteous to all, but who make and retain both lasting friendships and enmities. He had the warm-hearted Irish temperament which is not tied down by exact rules or fear of criticism, and his devotion to his work led him to place money-making in a very secondary position in comparison to the good that he might do.

INSPECTOR-GENERAL ALEXANDER WATSON, M.D., R.N.

WE regret to announce the death of Inspector-General Watson at Liverpool on April 17th. He was a native of the North of Ireland, but graduated at Edinburgh in 1847. He entered the medical service of the Royal Navy in the following year. As Surgeon (to use the present titles) of H.M.S. *Highflyer*, he was mentioned in dispatches for services rendered during the outbreak of cholera in the fleet at Varna, in the early days of the Crimean war; subsequently he was present at the principal naval operations in the Black Sea, including the bombardments of Sebastopol and the capture of Kertch. He received the Crimean and Turkish medals, with the Sebastopol clasp. He was promoted Staff Surgeon in 1855, and was appointed as an additional medical officer to the flagship of the Commander-in-Chief of the Mediterranean station.

As Staff Surgeon of H.M. screw sloop *Cormorant*, Commander Thomas Saumarez, in 1858, he took part in the capture of the Peiho forts; the *Cormorant* led the way up the river, bursting through the stout bamboo boom defence, and drawing a heavy fire from the northern forts, which she subsequently silenced. After the capture of these forts, Lord Elgin proceeded up the river to Tien-tsin, and there signed the oft-quoted Tien-tsin Treaty. In the following year, when Sir Frederick Bruce, K.C.B., arrived off the Peiho forts to proceed up the river to Tien-tsin for the ratification of the treaty, the Chinese refused a passage. Rear-Admiral James Hope, C.B., with a flotilla of small vessels, including the *Cormorant*, then endeavoured to recapture the forts; they had, however, been greatly strengthened, while the river was obstructed by formidable stakes. Our naval attack suffered a serious repulse, the *Cormorant* and two other vessels were sunk by the fire of the Chinese, and over one-third of the force of some 1,200 officers and men were killed or wounded; Dr. Watson was among the latter. He received the China medal, Taku clasp. On recovering from his wound he was placed in charge of the seriously wounded, and accompanied them to England.

In 1886, as Staff Surgeon of the Commodore's ship, he proceeded to Australia, and in that colony made several lifelong friends. He was present when the attempt was made to assassinate H.R.H. the Duke of Edinburgh near Sydney, N.S.W., in 1868, and remained in attendance on the Duke until his recovery; the pistol-shot had been deflected by a rib and thus a fatal result avoided. He was promoted to the rank of Fleet Surgeon for this service, and appointed Medical Officer of the Duke's ship, the *Galatea*, early in 1869. He remained with him until the ship's return to England two years later.

In 1875 Dr. Watson was specially selected for appointment as Fleet Surgeon of H.M. Indian troopship *Serapis*, in which vessel His Majesty the King, when Prince of Wales, proceeded to and returned from India. He was promoted to the rank of Deputy Inspector-General in 1878, and appointed to Haslar Hospital in the following year. He remained there, in charge of a surgical division, until his retirement in 1881 with the honorary rank of Inspector-General of Hospitals and Fleets.

Dr. Watson was a most courteous, genial, kind-hearted officer, ever popular with his shipmates and with his patients; after his retirement he lived in London, a well-known member of the Army and Navy Club. His rooms were much frequented by former shipmates and friends, ever sure of a kindly and hospitable welcome. He was always ready to assist the necessitous. It was a surprise to many naval officers familiar with Dr. Watson's services that he received no special recognition of them from the Admiralty.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE REPORT OF THE REGISTRAR-GENERAL FOR SCOTLAND.

THE forty-seventh annual report of the Registrar-General for Scotland has been issued.

General Figures

The population of Scotland, as estimated to the middle of the year 1901, is 4,483,880, of which 2,179,870 are of the male sex and 2,304,010 of the female. During the year, 132,178 births were registered, 80,103 deaths, and 31 360 marriages. Hence for every 100 of the population there were 2.95 births and 1.79 deaths. The lowest average number of deaths registered daily was 188 in October, while the highest was 250 during February and April.

Deaths in Eight of the Principal Towns.

This rate was 201 in every 10,000 of the population as estimated. It was highest in Glasgow, with 212 in every 10,000, and lowest in Perth, with 173. The death-rate of 1901 was less than the mean of the preceding ten years. The death-rate in children under 5 was 61 per 1,000. It was highest in Dundee (70), and lowest in Perth (36). The death-rate from zymotic diseases in these towns was 0.311 per cent. of their population, and equal to 15 44 per cent. of the total deaths in the same. The highest zymotic death-rate was in Glasgow and the lowest in Perth; 18 88 per cent. of the total deaths were due to diseases of the respiratory organs, 19.0 to constitutional diseases, 8.89 to phthisis, 4.41 to whooping-cough, 2 84 to measles, 0.68 to scarlet fever, 0 74 to diphtheria, 0.57 to influenza, 3 05 to diarrhoea and dysentery, 4 35 to cancer, 8.29 to bronchitis, 8.72 to pneumonia, 3.78 to apoplexy, and 11.19 to diseases of the nervous system. In Glasgow, Edinburgh, and Paisley whooping-cough headed the list of deaths from zymotic diseases, the figures being 5.35, 4.74, and 4.38 in every 100 deaths. In all there were 1,457 deaths from whooping-cough in these eight towns. Diarrhoea and dysentery accounted for 1,007 deaths, measles for 939, scarlet fever 226, small-pox 205, influenza 187, and plague 1 death. To syphilis 140 deaths were ascribed, to erysipelas 112, and to puerperal fever 100. Violent deaths were 1,321 in number, of which 72 were suicides; 159 deaths were credited to intemperance—123 to chronic alcoholism and 36 to delirium tremens; 115 deaths were in persons of 90 years of age or upwards—36 men and 79 women. The oldest were all females, two being respectively 101 and 100, two 99, one 98, and four 97 years.

Marriages in these Towns.

Fourteen thousand five hundred and seventy-eight marriages were registered in these towns during the year, being at a rate of 88 in every 10,000 of the population. The rate was highest in Glasgow and lowest in Perth.

Weather and its Influence.

Dr. Buchan's notes, under the Council of the Scottish Meteorological Society, are given, and certain tables bringing out points regarding the meteorological conditions of the year and the mortality among the inhabitants of Scotland which occurred during each month of the same follow. The daily deaths were most numerous during February and April, becoming gradually less frequent until June, rising again in July, and falling until September, when they were at their minimum, after which they again gradually increased.

Of the 205 deaths from small-pox 193 occurred in the months of January, February, March, and April, 12 in the three following months, and none in the last five months of the year.

The deaths from measles were most frequently registered during November and December, least so during September. Scarlet fever was most fatal in July, but also high in October, November and December. Whooping-cough was the most fatal epidemic during the first half of the year. Diphtheria was most fatal during the first and last three months of the year. The greatest mortality from diarrhoea was 281 in August. April was the month of greatest mortality.

Vaccination.

The twenty-seventh annual report on the vaccination of children born in Scotland during 1900 and the usual detailed tables follow.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,582 births and 4,851 deaths were registered during the week ending Saturday last, April 26th. The annual rate of mortality in these towns, which had been 17.4 and 18.3 per 1,000 in the two preceding weeks, declined again to 17.0 per 1,000 last week The rates in the several towns ranged from 6.9 in Hornsey, 7.2 in Croydon and in Walthamstow, 8.5 in East Ham and in Handsworth, 9.9 in Swansea, 10.0 in Hanley, and 10.1 in Smethwick, to 21.1 in Liverpool, 21.4 in Salford and in Huddersfield, 21.8 in Grimsby, 23.3 in Burnley, 23.7 in Wigan, 24.3 in Great Yarmouth, and 33.3 in Merthyr Tydfil. In London the death-rate was 17.4 per 1,000, while it averaged 16.8 in the seventy-five other large towns. The mean death-rate from the principal zymotic diseases in the seventy-six towns was 1.9 per 1,000; in London this death-rate was equal to 2.3 per 1,000, while it averaged 1.7 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.1 in Burton-on-Trent and in Rochdale, 3.7 in Merthyr Tydfil 3.9 in Tottenham, 4.2 in Burnley, and 4.6 in Gateshead. Measles caused a death-rate of 1.8 in Barrow-in-Furness and in Rhondda, 2.0 in Great Yarmouth, 2.3 in Gateshead, 2.5 in Rochdale, 3.1 in Burton-on-Trent, and 3 2 in Burnley; diphtheria of 1.3 in Willesden, and 1.5 in Tottenham, in Leyton, and in Merthyr Tydfil; and whooping-cough of 1.7 in Bootle, 1.8 in Gateshead, 1.9 in Handsworth, and 2.0 in East Ham and in Aston Manor. The mortality from scarlet fever and that from enteric fever showed no marked excess in any of the large towns. The 55 fatal cases of small-pox belonging to these towns registered last week included 42 which belonged to London, 7 to West Ham, 4 to Tottenham, 1 to Walthamstow and 1 to Walsall. There were 1,515 cases of small-pox under treatment in the Metroplitan Asylums Hospitals on Saturday, April 26th, against 1,522, 1,437 and 1,431 on the three preceding Saturdays; 367 new cases were admitted during the week, against 375, 274, and 328 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,126, 2,146 and 2,155 at the end of the three preceding weeks, had further risen to 2,188 at the end of last week; 283 new cases were admitted during the week, against 228, 264 and 269 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 26th, 1,010 births and 682 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had risen from 20.3 to 24.6 per 1,000 in the four preceding weeks, declined again last week to 21.1 per 1,000, but exceeded by 4.1 per 1,000 the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 17.2 in Perth and 18.2 in Aberdeen, to 22.7 in Glasgow and 23.4 in Greenock. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Aberdeen and Perth. The 338 deaths registered in Glasgow included 1 from small-pox, 2 from measles, 3 from scarlet fever, 4 from diphtheria, 12 from whooping-cough, and 9 from diarrhoea. Four deaths from measles, 4 from whooping-cough, and 4 from diarrhoea were recorded in Dundee; 10 from whooping-cough and 2 from diarrhoea in Aberdeen; and 3 from measles in Paisley and in Perth.

ZYMOTIC MORTALITY IN LONDON

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during the first, or winter, quarter of this year. The fluctuations of each disease, and its relative fatality as compared with that recorded in the corresponding periods of recent years, can thus be readily seen.

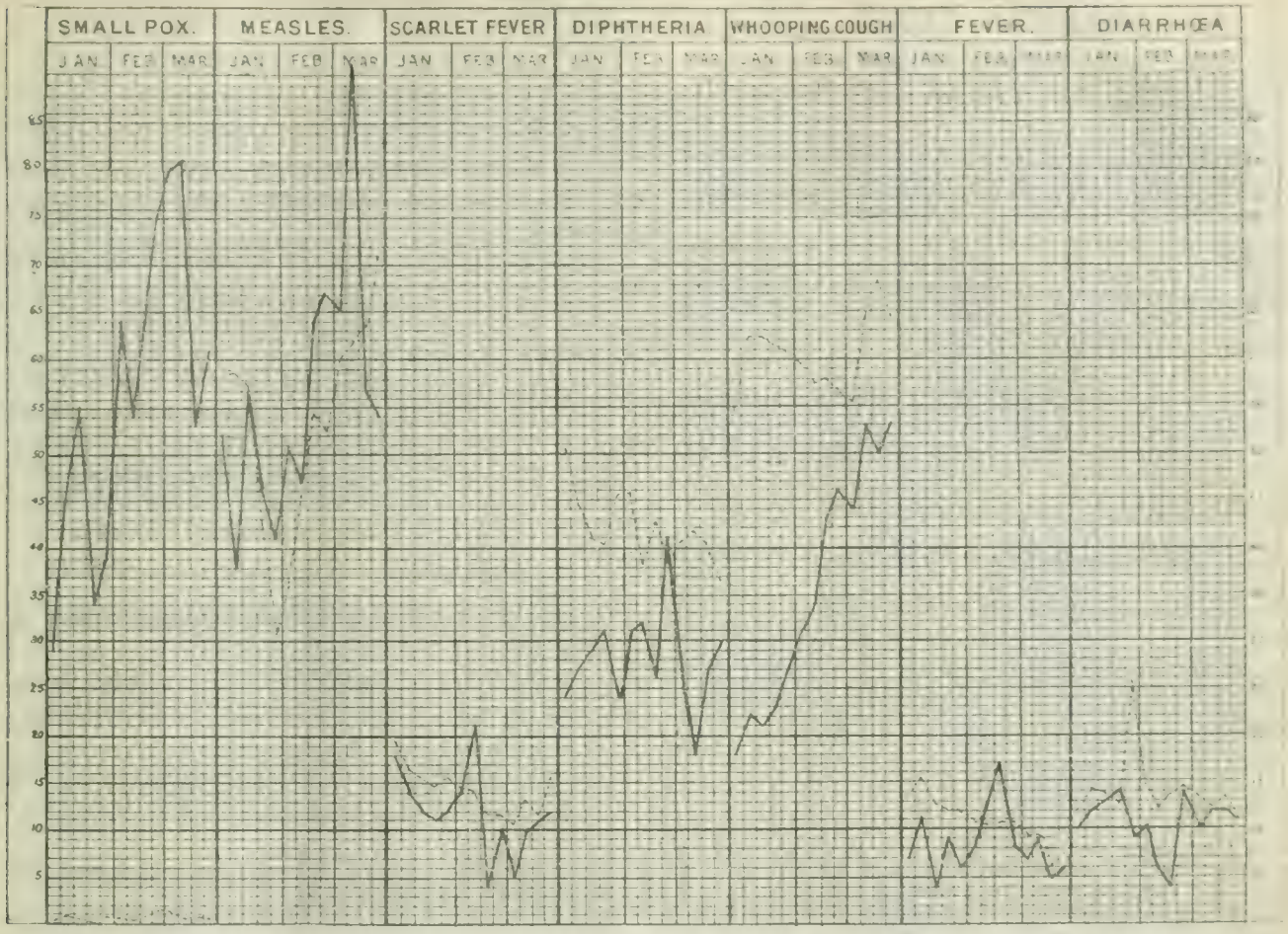
Small-pox.—The fatal cases of small-pox registered in London during last quarter amounted to 734, against 35 and 193 in the two preceding quarters, the corrected average number in the first quarters of the ten preceding years having been 8. These 734 deaths included 172 among persons belonging to the Borough of Stepney, 61 to Shoreditch, 50 to Poplar, 43 to Holborn, 41 to St. Pancras, and 39 to Southwark. The number of small-pox patients admitted into the Metropolitan Asylums Hospitals during the quarter was 4,873, against 6, 286, and 1,40; during the three preceding quarters; the number remaining under treatment on March 29th was 1,526, against 163 and 666 respectively at the end of the two preceding quarters.

Measles.—The deaths from this disease, which had numbered 545, 437, and 542 in the three preceding quarters, further increased last quarter to 730, and slightly exceeded the corrected average number. Among the various metropolitan boroughs measles showed the highest proportional fatality in Paddington, Kensington, Hammersmith, Fulham, St. Marylebone, and Finsbury.

Scarlet Fever.—The fatal cases of this disease, which had been 170 and 160 in the two preceding quarters, further declined last quarter to 154, and were 32 below the average number in the corresponding periods of the ten preceding years. Scarlet fever was proportionally most fatal in Kensington, St. Pancras, Holborn, Bermondsey, and Camberwell. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 2,752, 3,096, and 3,080 at the end of the three preceding quarters, had further declined to 2,117 at the end of March last; 3,299 new cases were admitted during the quarter, against 3,781, 4,572, and 4,594 in the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 234, 349 and 453, in the three preceding quarters, declined again to

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1902.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years, 1892-1901.

365 during the quarter under notice, and were 183 below the corrected average number. The highest proportional mortality from diphtheria was recorded in St. Pancras, Islington, Hackney, Finsbury, Southwark, and Lewisham. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter was 1,123 against 1,169, 1,499, and 1,369 at the end of the three preceding quarters: 2,075 new cases were admitted during the three months ending March last, against 1,969, 2,744, and 2,651 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 609, 240, and 166 in the three preceding quarters, rose again last quarter to 465, but were 320 below the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs, this disease was proportionally most fatal in Stoke Newington, Shoreditch, Bethnal Green, Stepney, Poplar, and Lewisham.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 171 and 157 in the two preceding quarters, further declined last quarter to 110, and were 29 below the corrected average number. These 110 deaths included 1 from typhus, but not one from any ill-defined forms of fever. The death-rate from these diseases was highest in St. Marylebone, Hampstead, Bethnal Green, Poplar, Wandsworth, and Deptford. The Metropolitan Asylums Hospitals contained 121 enteric fever patients at the end of March, against 202 and 195 at the end of the two preceding quarters; 249 new cases were admitted during last quarter, against 514 and 404 in the two preceding quarters.

Diarrhœa.—The 137 deaths from diarrhœa registered in London during the quarter ending March last showed a considerable decline from the number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Fulham, the City of Westminster, Holborn, Shoreditch, and Stepney.

In conclusion it may be stated that the 2,695 deaths referred to the principal zymotic diseases in London last quarter were more than 6 per cent. above the corrected average number in the first quarters of the ten preceding years, 1892-1901. The lowest zymotic death-rates in the several metropolitan boroughs were recorded in Chelsea, Hampstead, the City of London, Camberwell, Deptford, and Greenwich; and the highest rates in Bethnal Green, Finsbury, Holborn, Stepney, and Shoreditch.

PUBLIC VACCINATION.

A CORRESPONDENT writes that he is public vaccinator to district (1) of a union, and that a certain number of applicants for vaccination come to him from other districts of the same union. Hitherto he has vaccinated them, and placed their names on his register, but recently the auditor has disallowed all residing out of his district.

*** This we believe is unusual. It is generally understood that a public vaccinator to a union may lawfully vaccinate any person residing within the area of that union

COUNTRY VACCINATOR asks: (1) Are the guardians of my union liable to pay for revaccination of persons of 10 years and under? (2) Have they the power to pay, or could they be surcharged, if they did by the Local Government Board? (3) Having appointed no stations, does a school in the district constitute a station?

*** (1) The guardians must pay for all revaccinations of persons of 10 years and upwards, but may not lawfully do so for any under 10 years. (2) In the latter case they would be liable to be surcharged. (3) Schools in a district do not constitute vaccination stations, unless specially made so by the guardians with the consent of the Local Government Board.

AJAX asks: What charge might the regular medical attendant of a fever hospital and small-pox hospital make for each patient admitted to each hospital from outside his district? Or what proportion of the whole charge for treatment received by the local authority in each case should he claim?

SUCCESSFUL VACCINATION.—Mr. T. Messenger, Kirkbride, has been awarded the vaccination grant as Public Vaccinator or Bowness District, Wigton Union.

MEDICAL NEWS.

SUCCESSFUL VACCINATION.—Mr. C. Martin Mitchell of Empingham, Rutland, has received the Government award for successful vaccination in his district.

THE annual general meeting of the London and Counties Medical Protection Society, Limited, will be held at the offices, 31, Craven Street, Strand, on Thursday, May 8th, at 4.30 p.m., when the annual report and balance sheet will be considered, and the officers for the ensuing year elected.

THE annual meeting and May dinner of the Aberdeen University Club, London, will be held at the Trocadero Restaurant, London, W., on Wednesday, May 21st, when the chair will be taken by Sir John Anderson, K.C.M.G., at 7 p.m. Communications may be addressed to Dr. James Galloway, 54, Harley Street, London, W.

ROYAL NATIONAL PENSION FUND FOR NURSES.—At the annual meeting of this Fund recently held it was stated that during the past year a larger number of policies had been issued and a larger number of pensions had fallen due than in any previous year. The amount distributed in sick pay had been over £1,633; the working expenses had remained stationary at 3½ per cent.; and the total funds had increased during the year from £576,384 to £678,725.

THE annual general meeting of the Medical Defence Union, Limited, will be held at the offices of the Society, 4, Trafalgar Square, W.C., on Thursday, May 15th, at 5 p.m. The annual report and the accounts for the year 1901 will be presented: an election of three members of council will take place and an auditor will be appointed. Mr. M. A. Messiter, Senior Surgeon to the Guest Hospital, Dudley, the President of the Union, will occupy the chair. The annual report is now in the hands of the printers and will, we are informed, be circulated to the members in the course of a few days.

ST. MARK'S HOSPITAL FOR FISTULA, LONDON.—The festival dinner of St. Mark's Hospital, to celebrate the sixty-sixth anniversary of the charity, was held on April 24th, at the Whitehall Rooms, Hôtel Métropole, under the chairmanship of the Lord Mayor, Sir Joseph Dimsdale, M.P., who was supported by Mr. Alderman Sheriff Bell and Mr. Sheriff H. B. Marshall. The Chairman, in proposing the toast of "St. Mark's Hospital," referred to the increase that had taken place in the work carried on by that institution. In 1835 the in-patients numbered 131, and in 1901 the number was 485, with 1,314 new out-patients. The only reliable income was under £2,200 a year, and he appealed to the public to bring that sum up to £4,500 a year. The hospital thoroughly deserved support because of the useful work it was doing. The Treasurer, Mr. R. B. Martin, M.P., having replied, the Secretary announced a list of donations amounting to over £2,000. Mr. Alderman Sheriff Bell proposed the toast of "The Medical Staff and other Honorary Officers," which was responded to by Mr. D. H. Goodsall in a short but effective speech. Mr. F. S. Edwards also replied to the toast; and after Mr. E. F. Carey had given the toast of "The Visitors," which was acknowledged by Viscount Dungarvan, the proceedings terminated.

MEDICAL VACANCIES.

The following vacancies are announced:

ARGYLL AND BUTE ASYLUM, Lochgilphead.—Assistant Medical Officer, age not to exceed 30 years. Salary, £130 per annum and all found. Applications to the Medical Superintendent.

BANBURY: HORTON INFIRMARY.—House Surgeon and Dispenser. Salary, £50 per annum with board and lodging. Applications to the Secretary, 21, Marlborough Road, Banbury.

BARBADOES GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £210 per annum, with [illegible] and passage paid to Barbadoes and allowance for passage [illegible]. Applications to Mr. W. E. Sargant, School [illegible] Hospital, by June 10th.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—Surgeon. Applications to the Secretary by May 10th.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £70 per annum. [illegible] Senior and Junior House Surgeons are candidates for promotion [illegible] to state whether willing to accept office of Junior or House-Surgeon at £50 per annum if present resident's are promoted. Apartments, board, and attendance provided. Applications to the Chairman of the Medical Board by May 12th.

BIRMINGHAM AND MIDLAND SKIN AND URINARY HOSPITAL.—Surgical Assistant. [illegible] at the rate of 50 guineas per annum. Appointment for six months, but eligible for re-election. Applications to the Secretary, John Bright Street, Birmingham, by May 7th.

BRADFORD ROYAL INFIRMARY.—Junior House Surgeon; unmarried. Salary, £70 per annum with board and residence. Applications, endorsed "Junior House Surgeon," to be sent to the Secretary.

BURY ST. EDMUNDS: SUFFOLK GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary by May 5th.

CAMBERWELL: PARISH OF ST. GILES.—Locum Tenens at the Constance Road Workhouse. Remuneration, £4 4s. per week, with board and residence. Applications, on forms provided, to be sent to the Clerk to the Guardians, 29, Peckham Road, S.E.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second Assistant Physician. Applications to the Secretary by June 7th.

CANCER HOSPITAL, Fulham Road, S.W.—Junior House-Surgeon. Salary at the rate of £70 per annum, with board and residence. Applications to the Secretary by May 12th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Registrar. Honorarium, 20 guineas per annum. Applications to the Secretary by May 10th.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer; unmarried, under 32 years of age. Salary, £110 per annum, with board and lodging. Applications on forms provided, to be addressed to the Chairman of the Selection Committee by May 30th.

DUDLEY: GUEST HOSPITAL.—Assistant House Surgeon. Appointment for six months. Salary at the rate of £40 per annum, with residence, board, and washing. Applications to the Secretary by May 8th.

DURHAM COUNTY ASYLUM, Winterton, Ferryhill.—Junior Assistant Medical Officer. Salary commences at £150 per annum, rising to £180, with apartments, board, laundry, and attendance. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Officer for the Electrical Department. Applications to the Secretary by May 17th.

GREENWICH UNION INFIRMARY.—Second Assistant Medical Officer; unmarried. Salary, £100 per annum, with board, lodging, washing, attendance, and £3 per annum in lieu of beer. Applications, on forms provided, to be sent to the Clerk to the Guardians, Union Offices, Greenwich, S.E., by May 8th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £160. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Senior Clinical Assistant. Applications to the Secretary Superintendent by May 10th.

KING'S NORTON AND NORTHFIELD URBAN DISTRICT COUNCIL.—Medical Officer of Health and Medical Superintendent of the Infectious Diseases Hospital. Salary, £500 per annum. Applications, endorsed "Medical Officer of Health," to be sent to the Clerk to the Council, 10, Newhall Street, Birmingham, by May 21st.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman by May 7th.

LIVERPOOL STANLEY HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with board, residence, and washing. Applications to the Chairman, Medical Board, by May 15th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £80 per annum, with board, attendance, and washing. Post tenable for six months, with prospect of election as Senior at £100 per annum. Applications to the Secretary by May 7th.

NORTHAMPTON: BERRYWOOD ASYLUM.—Junior Assistant Medical Officer; unmarried, and under 30 years of age. Salary, £150 per annum, increasing to £200, with board, lodging, washing, and attendance. Applications to the Medical Superintendent by May 6th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided, and honorarium £20. Applications to the Secretary by May 6th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. Appointments for six months. Junior Officer eligible for senior post. Salary at the rate of £50 per annum each, with board, residence, and washing. Applications to the Secretary by June 2nd.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer; unmarried, and not exceeding 30 years of age. Salary, £100 per annum, £50 in lieu of rations, and furnished apartments, etc. Applications to the Resident Medical Superintendent by May 7th.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT, Bromley, E.—Assistant Medical Officer at the Sick Asylum at East Bromley. Salary, £100 per annum, with rations, furnished apartments, and washing. Applications on forms provided to be sent to the Clerk to the Managers by May 5th.

PUBLIC DISPENSARY, CLARE MARKET, W.C.—Resident Medical Officer. Salary, £105 per annum, with furnished apartments, coals, and gas. Applications to M. J. Phillips, Secretary, 14 and 15, Portugal Street, Lincoln's Inn, W.C., by May 3rd.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary at the rate of £50 per annum, with board, residence, and washing. Applications to the Secretary by May 5th.

ST. GEORGE'S HOSPITAL, S.W.—Assistant Dental Surgeon. Applications to the Secretary by May 10th.

ST. MARY'S HOSPITAL, Paddington.—Surgeon in Charge of Out-patients. Applications to the Secretary by May 6th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer, unmarried, and about 25 years of age. Salary, £150 per annum to commence, with board, lodging, and washing. Applications to Dr. Finch, Salisbury.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £70 per annum, with board, lodging, and washing. Applications, endorsed "Application for the post of Junior Assistant House Surgeon," to be sent to the Secretary by May 10th.

TOTTENHAM HOSPITAL, N.—House-Surgeon. Salary, £50 per annum, with board, residence, and laundry. Applications to the Chairman of the Joint Committee by May 12th.

TRURO: ROYAL CORNWALL INFIRMARY.—House Surgeon; unmarried. Salary, £100 for first year, increasing £10 yearly, with board and apartments. Applications to the Secretary, 4, Parkvedras Terrace, Truro.

UNIVERSITY COLLEGE HOSPITAL.—Radiographer and Photographer, must be legally qualified medical practitioner. Salary, £50. Applications, marked outside "Radiographer and Photographer," to be sent to the Secretary by May 5th.

WARLINGHAM LUNATIC ASYLUM.—Medical Superintendent. Salary, £450 per annum, with unfurnished house, etc. Applications, endorsed "Applications for Medical Superintendent, Lunatic Asylum," to be sent to the Clerk to the Visiting Committee, Town Hall, Croydon, by May 7th.

WIGAN INFIRMARY.—Male Junior House-Surgeon. Salary, £80 per annum, with apartments and rations. Applications to the General Superintendent by May 6th.

WORCESTER GENERAL INFIRMARY.—House-Physician; unmarried. Salary, £70 per annum, with board, residence, and washing. Applications to the Secretary by May 10th.

MEDICAL APPOINTMENTS.

HORTHWICK, Thomas, M.D., appointed Honorary Bacteriologist to the Adelaide Hospital, South Australia.

DODGSON, H., M.B., Ch.B. Edin., appointed Senior Assistant Medical Officer to the Cumberland and Westmorland Asylum.

EDDIS, J. B., M.B., Ch.B. Aberd., appointed Junior Assistant Medical Officer to the Cumberland and Westmorland Asylum.

FROST, Constance Helen, M.B., appointed Assistant Bacteriologist to the Adelaide Hospital, South Australia.

HORMAN, Andrew, M.B., Ch.M. Glasg., appointed Certifying Factory Surgeon for Williamstown, Victoria, *vice* J. Ellison, M.D.R.U.I., resigned.

HORROCKS, H., M.D. Lond., B.S., appointed Assistant Gynæcologist to the Perth Public Hospital, West Australia.

KELSALL, H. T., M.D., B.S.Lond., appointed Ophthalmic Surgeon to the Perth Public Hospital, West Australia.

LAIRD, Andrew J., M.D., D.P.H., Assistant Medical Officer of Health for the county of Lanark, appointed Medical Officer of Health for the Borough of Crewe.

LYNCH, Arthur Francis, M.B., B.S., appointed Honorary Pathologist to the Adelaide Hospital, South Australia.

LYNCH, Peter, L.R.C.P., L.R.C.S. Edin., appointed Certifying Factory Surgeon for Carlton, Victoria, *vice* J. de Burgh Griffith, M.B., Ch.M. Dubl., resigned.

MACKENZIE, Murdoch, M.B., appointed Port Health Officer for Westport, New Zealand.

MELLAND, Charles Herbert, M.D. Lond., M.R.C.P., appointed Honorary Physician to the Ancoats Hospital, Manchester.

MUIR, William Charles C., M.B., C.M. Glasg., appointed Health Officer for the Shire of Alberton, Victoria.

PARK, John S., L.R.C.P. Lond., L.A.H. Dubl., appointed Health Officer for the Shire of Cranbourne, Victoria.

RAMSDEN, Herbert, M.D. Lond., appointed Certifying Factory Surgeon for the Saddleworth District of the West Riding of Yorkshire.

ROBERTS, Edward, J., M.B., appointed Port Health Officer for Nelson, New Zealand, *vice* A. J. Leggatt, M.R.C.S. Eng.

ROSENTHAL, Jacob, M.B., appointed Health Officer for the combined Shire of Newham, Victoria, *vice* J. S. Thwaites, M.B.

SMITH, Margaret Merry, M.B., Ch.B. Edin., appointed Resident Medical Officer at Craigleeth Poorhouse and Hospital, Edinburgh.

STEVENSON, Robert, M.D., appointed Medical Officer to the Bootle Postal District.

TIPPETT, Sydney G., M.B. Lond., appointed Assistant Surgeon to St. Bartholomew's Hospital, Chatham.

TRATMAN, F., M.D. Lond., appointed Senior Surgeon to the Perth Public Hospital, West Australia.

TRETHOWAN, W., M.B., M.S. Aberd., appointed Assistant Surgeon to the Perth Public Hospital, West Australia.

WALLACE, J. Sim, M.D., D.Sc., L.D.S. Eng., appointed Honorary Dental Surgeon to the West End Hospital for Diseases of the Nervous System.

WILLEY, Florence E., M.B., B.S., B.Sc. Lond., appointed Clinical Pathologist and Assistant Pathologist to the Royal Free Hospital, W.C.

WILLIAMSON, R. T., M.D. Lond., F.R.C.P. Lond., appointed Honorary Assistant Physician to the Manchester Royal Infirmary.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, Middlesex Hospital, W., 8 p.m.—Laboratory Meeting. Cases, specimens, etc., will be exhibited by Dr. Klein, Mr. T. J. Bokenham, Mr. A. G. R. Foulerton and Dr. A. M. Kellas, Dr. A. F. Voelcker, Dr. Campbell Thomson, Mr. Leslie Milburn, Mr. N. Bishop Harman, Dr. Seligmann, and Mr. H. J. Curtis.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Mr. Alban Doran, Dr. McCann, Dr. Ralph Vincent, and others. Paper—Dr. John S. Fairbairn: Five specimens of Fibroid Tumour of the Ovary, with observations on their Pathological Anatomy.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Dr. Bedford Fenwick: Fifty Laparotomies. Specimens will be shown by Dr. A. J. Smith, Dr. H. Macnaughton-Jones, and others.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Discussion on the Early Diagnosis of Specific Fevers, opened by Dr. Sidney P. Phillips.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Mr. W. G. Spencer: Congenital Diffuse Lymphangioma terminating in Lymphosarcoma in a Child aged 4½ years. Mr George Turner: Sarcoma of the Ankle-Joint. Mr. C. B. Lockwood: Sarcoma of the Synovial Membrane. Dr. W. Ewart and Dr. Isambard Owen: A case illustrating the clinical features of "Horizontal" Dilatation of the Left Auricle. Dr. Isambard Owen: "Horizontal" Dilatation of the Left Auricle. Dr. W. Ewart: A note on Palpable Systolic Intercostal Pulsation in a case of Mitral Stenosis, with Dilatation and Thrombosis of the Left Auricle.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Cases in the Wards.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

HARVEY.—On April 27th, at Clarence Villa, Hartfield Road, Wimbledon, the wife of Joseph Harvey, M.B., of a daughter.

MOORE.—On April 28th, at South Hetton, the wife of Alfred A. Moore, M.A., of a daughter.

MARRIAGES.

COBBLEDICH—WHITTON.—April 24th at St. Luke's Church, West Hampstead, London, by the Rev. J. Salwey, Arthur Stanbury Cobbledich, M.D., B.S.Lond., M.R.C.S., L.R.C.P. Eng., second son of John Osborn Cobbledich, of Lyndhurst, Clifton, Bristol, to Jessie, fourth daughter of William Whitton, of Springfield, Stradbally, Queen's Co., Ireland.

FELCE—PENNEMORE.—On April 24th, at Widcombe Church, Bath, Stamford G. Felce, M.A., M.D., B.C. Cantab., of 1, Cricklewood Villas, N.W., to Edith, daughter of the late John Fenemore, of Alcester.

HAYES—DAWSON.—On April 24th, at Holy Trinity Church, Warton, by the Rev. Thomas Holland Pain, Vicar of Warton, George Constable Hayes, F.R.C.S., of Leeds, third son of George Horace Hayes, of Melbourne, Australia, to Renée Phoebe, second surviving daughter of Edward Storey, of Crossilands, Lancaster, and widow of Edward Howard Dawson, of Warton Hall.

MORICE—BUTLIN.—April 23rd, at St. Andrew's Church, Wells Street, by the Rev. H. Foster, M.A., of Malvern College, assisted by the Rev. W. T. Houlsworth and the Rev. Crosse Hodge, Norman fourth son of the late Charles Walter Morice and Mrs. Morice, of 8, De Vere Gardens, to Muriel Violet Trentham, younger daughter of Henry Trentham Butlin, F.R.C.S., D.C.L., of 82, Harley Street, W.

ROBERTSON—PENMAN.—On April 28th, at Chatsworth Road Chapel, West Norwood, by the Rev. W. Armstrong, James Robertson, M.B. Lond., M.R.C.S. Eng., L.R.C.P. Lond., third son of Dr. W. B. Robertson, of West Dulwich, to Elizabeth Taylor (Bessie), eldest daughter of William Penman, Esq., Ardlui, 5, Palace Road, Tulse Hill, S.W.

WALKER—SECKER.—April 21th at All Saints', Daresbury, Cheshire, by the Rev. H. Milnes Walker, brother of the bridegroom, assisted by the Rev. F. Clifton Smith, Vicar, and the Rev. E. O. E. Carleton, Henry Secker Walker, F.R.C.S., of Leeds, to Elaine Mary Secker, only daughter of the late Rev. T. J. Secker, some time Vicar of St. Peter's, Bishop Wearmouth, and niece of John White, Esq., of Moore Hall, Cheshire.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SANITARIAN would be pleased to know of a useful book on the chemistry of common things, for the purpose of popular lectures.

N. desires to know the most the most suitable residence in England for a gentleman suffering from lumbago and threatened with chronic rheumatism.

DARWINIANA will be glad to hear from any practitioner interested in the subject of reversion as to cases of physical abnormality which might be classified under this head.

PROLAPSE OF URETHRA.

DELTA would be grateful for information relative to prolapse of urethral mucous membrane, the size of a cherry, occurring in an elderly lady. It has been present several weeks, and causes no discomfort. (1) If left alone, is it likely to become worse? (2) If dealt with surgically is an anaesthetic required? (3) Is the removal by snipping it away with scissors as satisfactory as a "buttonhole" operation; and if so, what length of time ordinarily elapses before healing is completed? (4) If left untreated, is a ring pessary worn for cystocele harmful or the reverse?

ANSWERS.

TREATMENT OF GASTRIC CRISES.

DR. W. J. MIDELTON (Bournemouth) writes: I can strongly recommend "H. M. C." to try chloretone (P. D. and Co.) in the case of vomiting he mentions in the BRITISH MEDICAL JOURNAL of April 12th, p. 939. It is a powerful local gastric sedative, and also has some action on the central nervous system. He should commence with 5 gr., and push up to 20 gr., every few hours if necessary. I have successfully treated vomiting after morphine injection, vomiting of pregnancy, and also in my own person obviated sea sickness with this drug.

INCOME TAX.

A CORRESPONDENT who complains that he has no means of knowing what he may deduct from his income as expenses when estimating his income tax, is advised to consult an income-tax agency if he desires the greatest possible abatement.

CARRIAGE LAMP.

DR. ED. CURETON (Shrewsbury) writes in reply to "Country Practitioner in Ireland" as follows: May I suggest the use of a Deitz lamp, which burns paraffin, will keep alight for eighteen hours, will not blow out, and is cheap—namely, 12s. 6d.? I have used these lamps for some time at all hours on my motor car, where a reliable light is so essential; they can be purchased from Gamage, Holborn.

LETTERS, NOTES, Etc.

ERRATUM.—In the article on the Age Distribution of Small-pox in the BRITISH MEDICAL JOURNAL of April 26th, p. 1056, Table I. the figures in the *last* column (over 10) under "Not vaccinated until after infection by small-pox" should be *15* and not as printed.

ENTERIC FEVER IN INFANTS.

DR. JOHN G. OGLE (Reigate) writes: In the BRITISH MEDICAL JOURNAL of April 19th Mr. Love records a case of enteric fever in an infant 4½ months old, and states that there have only been two recorded cases of enteric in infants under 1 year old. In the *Lancet*, November, 1899, I published under the same heading an account of a similar case, and added, "Murchison makes mention of three cases in younger infants—namely, 8 days old, 15 days old, and in a fœtus of 7 months." There must be many more cases since then recorded in medical periodicals.

TREATMENT OF INFLUENZA.

DR. DOMENICO COMBA (Turin) has sent us a short account of his treatment of influenza based on certain views as to the treatment of infective disorders, which were expounded before the Italian Medical Congress at Pisa in 1901. It consists in the use of mercury perchloride in the early stages followed by potassium and sodium iodide in the later stages. He divides cases of influenza into two groups: (1) Those exhibiting general phenomena, but no localization: (2) those with localized symptoms of infection and more or less severe toxaemia. In the first group he

advises a draught containing mercury perchloride 6 centigrams, aq. dest. 100 grams, ac. hydrochl. dil. 10 minims, syr. tolu 30 grams. This is to be given in the space of three days in the case of an adult, and four days in the case of a child under 4. The patient meantime is kept on a milk diet, and no alcohol given. At the end of three days a mixture of sodium and potassium iodide is given to complete the cure. In the second group of cases, with severe localization of the infection, the mercury perchloride must be given in larger doses at intervals of six hours for two doses. It is best given in milk; where the perchloride is rejected by the stomach it may be given hypodermically, or epidermically by means of friction with an alcoholic solution of the drug. Under the above treatment the writer claims to have got the best results.

Rhubarb and Urticaria.

Dr. Frederick S. Palmer (London) writes: The evidence afforded by the instance quoted by Mr. Pernet in the British Medical Journal of April 26th is particularly valuable, and appears to confirm the suspicion that in susceptible persons urticarial troubles do occasionally follows the ingestion of rhubarb. The facial erythema I noted was, I believe, due to scratching or rubbing for the relief of the irritation produced by the wheals. Some years ago I gave Unna's treatment of tinea tonsurans by the local application of unguentum chrysarobini (so strongly advocated by Mr. Hutchinson) a fair trial, but it occasioned so much erythema and staining of the skin beyond the limits of its topical use that I was obliged to discard it for milder parasiticides. Whether the toxaemia of rhubarb be due to an excess of calcium oxalate or to its colouring matter, chrysophan, it is very difficult to say, but I incline to the opinion that the former is to a certain if not to a large extent responsible for some of its toxic effects. One of the most severe cases of intestinal colic which have come under my notice, and presented many of the symptoms of acute irritant poisoning, occurred after the consumption of a salad at dinner consisting largely of sorrel. I can assert very positively that the subject was in perfect health a few hours before the attack from the fact that he was playing tennis with me in his own garden the same afternoon, and I know that he had not partaken of any rhubarb. On looking over the clinical study of Dr. Prince A. Morrow on Drug Eruptions, edited by Dr. T. Colcott Fox in the New Sydenham Society's *Selected Monographs on Dermatology*, published in 1893, I find at page 525 various rashes attributed to rhuburb—scarlatiniform, erythematous, papulo-pustular, haemorrhagic tâches, and pemphigoid, described by Kucher, Litten, and Goldenberg, some of them accompanied by rigors, fever, and limb pain. Dr. Batten has called my attention to the following paragraph taken from Dr. Donkin's *Diseases of Childhood*, p. 105-6: "I may mention an interesting case, lately reported to me by Mr. Scott Battams, of a little boy who was brought to him suffering from profuse haematuria after eating for several days immoderate quantities of rhubarb supplied to him by his mother in the belief that it was very good for him. The extent and suddenness of the bleeding, which was a first attack, prompted inquiry as to diet, and this at once revealed the true cause—the oxalate of lime in the rhubarb. The haematuria rapidly and permanently disappeared on the discontinuance of this manner of feeding." These inferences are only small links in the chain of evidence, but I think they are sufficient to establish the fact that rhubarb is not quite the harmless vegetable which the laity regard with such health-promoting properties.

Association of Honorary Surgeons St. John Ambulance Brigade.

We are requested to state that an Association of Honorary Surgeons of the St. John Ambulance Brigade has been formed with the following objects:

1. To further civil ambulance work.
2. To aid and advance the interests of the Order of St. John of Jerusalem. (This is at present under discussion.)
3. To watch the interests of the honorary surgeons.
4. To promote social intercourse among its members.

Circular letters have been sent out to all the honorary surgeons throughout England and Wales, but should there be some who have not received them they are requested to apply to the Honorary Secretary, Dr. James O. Marsh, 104, Sloane Street, London, S.W., who will forward full particulars. The present annual subscription is 2s. 6d. The first annual meeting will be held at the Hotel Cecil on June 25th at 6 p.m., to be immediately followed by the first annual dinner, notices of which will be sent to each member.

Recurrent Phlyctenular Ophthalmia.

Dr. John P. Henry (Ophthalmic Surgeon, Italian Hospital; Oculist to the London School Board) writes: I quite agree with the remarks of Dr. William Hardman as to the rarity and obstinacy of cases of recurrent phlyctenular ophthalmia in adults. Within the last couple of years I have had three such cases, all agreeing in their main features with the picture drawn by Dr Hardman. One was a case of an English young woman whom I saw at the Italian Hospital; another was a young man whom I saw in private some months ago, and the third, a man of 32, was sent to me on April 24th by my friend, Mr. Ryall. In each of these cases the disease had been recurring for years at intervals of a few weeks. In the first case some eczema was present on the face, and in the other two there was a history of psoriasis. The third case has also suffered severely from boils. The first two recovered after prolonged treatment by tonics along with boracic lotion and yellow oxide of mercury ointment locally. I have only begun treatment with the third case, which has also two phlyctenular ulcers on the right cornea.

Case of Suicide from Gunshot Injury.

H. J. S. writes: A few weeks ago I was called to see a man who it was alleged had shot himself. I found him lying at the foot of his bed, with his legs under the bed and his head the distance of his trunk away from the bed in a pool of blood. The man was dead, and on inspection I found that the roof of his skull on the right parietal and frontal aspect was shattered and blown away with the contents of the skull, and that a wound extended like a ragged furrow from the right side of the roof of the mouth through the right side of the face and the right orbit into the skull, all the bones in that path having been shattered, and with the right eyeball and soft parts of the face blown outwards, a slender bridge of the upper lip below and of scalp integument above the forehead being all that were left to preserve continuity. The brains were blown out and lay near the head in a great pool of blood. The gun lay diagonally across the upper part of his thighs, the left hand near but not touching the trigger, and the right arm lay along his right side. His boots were off and he was in stockings. Lodged in the woodwork of the roof, in a line diagonally upwards and backwards, was a bullet, and the gun contained a discharged cartridge. It would appear from this fact that the man was sitting on the foot of his bed when he shot himself, and did so by putting the muzzle of the gun into his mouth and firing it with his left big toe or left hand. But yet there was not blood or brains on the roof or adjoining walls as one would have expected, and only a few spots on the foot of the bed, the great splash being confined to the floor around the head. Is it possible that the brains and the blood did not escape till the man fell? The act was done with a Lee-Metford, and every circumstance pointed to suicide.

COMMUNICATIONS, LETTERS, Etc., have been received from:

A Sir H. Adcock, C.M.G., Teheran; Dr. E. W. Adams, Sheffield; Dr. L. R. Amoedo, Antwerp; Mr. S. Andrews, Basingstoke; Ajax; Admiralty, Director-General of the Medical Department of, London; Dr J. H. Abram, Liverpool. **B** Mr. T. E. Bladon, Birmingham; Mr. G. F. Bashford, London; Mr. T. Bryant, London; F. Belben, M.B., Bournemouth; Barrister; Dr. W. Bramwell, Liverpool; Messrs. Bailliere, Tindall and Cox, London; Mr. J. Beaumont, London; Dr. J. G. Blackman, Portsmouth; Messrs. T. B. Browne, Limited, London. **C** Dr. H. Campbell, London; Mr. J. Cantlie, London; Dr. E. O. Croft, Leeds; Dr. W. Calwell, Belfast; Dr. E. Cureton, Shrewsbury; Mr. V. N. Chitale, Bombay; Dr. A. Copeman, Cowes, I. of W.; Mr. E. R. Coffey, Farnham; Mr. J. H. Chambers, Margate; A. Cox, M.B., Gateshead; Chir. **D** Dr. D. S. Davies, Bristol; Mr. J. G. Duncanson, London; Dr. P. J. Duncan, Bournemouth; Delta; Dr. S. Davidson, Helmsdale. **E** Enquirer; E. A. D.; Dr. J. Edmunds, London. **F** Fleet Surgeon; Messrs. H. Francis and Co., London; Dr. T. Fisher, Clifton. **G** St.G. W. Gray, M.B., St. Lucia; Dr. W. Garman, Wednesbury; Dr. J. Galloway, London; Dr. W. A. Gibb, Ipswich; Dr. T. W. Griffith, Leeds. **H** Dr. R. C. Holt, Burnley; Dr. E. W. Hope, Liverpool; Dr. H. Handford, Nottingham; H. C. D.; Mr. S. P. Hosegood, North Walsham; Dr. J. P. Henry, London; G. Heaton, M.B., Birmingham; Mr. B. W. Housman, Stockport; Dr. M. L. Hepburn Lowestoft; Dr. J. Highet, Workington. **J** Mr. R. P. Jefferson, Hove; Mr. F. Jaffrey London; Dr. J. D. Jenkins, Rhondda. **K** Kamptu. **L** L.R.C.S.; Dr. W. Lattey, Reading; Dr. B. Lamplough, Chatteris; Liverpool Medical Institution, the Secretary of, Liverpool; Dr. E. T. Larkam, Manchester; Messrs. J. B. Lippincott Company, Philadelphia; Dr. W. T. Law, London; Messrs. Sampson Low, Marston and Co., London. **M** A. MacLennan, M.B., Glasgow; Dr. C. A. MacMunn, Wolverhampton; M.B., R.N.; Dr. J. P. Marsh, London; Mr. T. Messenger, Kirkbride; M.O.H.; Mr. C. M. Mitchell, Stamford; Dr. W. A. Mackay, Southport; A. Murchison, M.R., Uig. **N** Mr. R. L. Norman, London; N. Z. **O** Dr. J. G. Ogle, Reigate. **P** Provincial; Messrs. Parke, Davis and Co., London; Mr. A. Powell, Bombay; Mr. A. Perry, Colombo; Dr. R. Paramore, London; Dr. F. S. Palmer, London. **R** W. Raine, M.B., Darlington; Dr. C. Robertson, London; Mr. E. J. Reid, London; R. S. **S** Dr. W. E. S. Scott, Withington; Mr. B. F. Smallman, London; Dr. J. H. Sequeira, London; E. J. Sidebotham, M.B., Manchester; Dr. J. H. Swanton, London; Messrs. W. B. Saunders and Co., London; Sanitarian. **T** Sir W. Thomson, C.B., Dublin; Dr. W. S. Tebb, London; Mr. D. Turner, Melbourne; Dr. P. Thompson, London; Dr. T. E. Thorpe, C.B., London. **V** V. V. V.; Vytalle Oil Company, the Manager of, London. **W** Mr. C. H. Whiteford, Plymouth; G. B. Wood, M.B., Sandown, I. of W.; Dr. W. Williams, Liverpool; Mr. A. Watts, London; A. Wauchope, M.B., Glasgow; Mr. G. Westby, Liverpool Dr. F. Willcocks, London; Mr. W. B. Warde, Tunbridge Wells; H. J. Walker, M.B., Monte Video; Dr. H. Watthews, Holmfirth. **Y** Yonikony; etc.

BOOKS, Etc., RECEIVED.

Neurasthenia. By Thomas D. Savill, M.D. Second edition. London: Henry J. Glaisher. 5s.

Annuaire des Eaux Minerales. Par le Dr. G. Morice. Paris: A. Maloine. Fr. 1.50.

Manual of Surgical Treatment. By W. Watson Cheyne, C.B., M.B., and F. F. Burghard, M.D. Part VI. London: Longmans, Green and Co. 1902. 18s.

A Laboratory Guide in Elementary Bacteriology. By W. D. Frost, M.S. Second edition. Madison, Wis.: Published by the Author. 1902.

Maladies Nerveuses. Par J. Vires. Paris: Masson et Cie. 1902.

Public Health and Preventive Medicine. By C. J. Lewis, M.D., and Andrew Balfour, M.D. Edinburgh: William Green and Sons. 1902.

The New Volumes of the Encyclopaedia Britannica, constituting, in combination with the existing volumes of the ninth edition, the tenth edition. Vol. xxv of the complete work. London: The "Times" Office; and Edinburgh: A. and C. Black. 1902.

Internationale Beiträge zur inneren Medicin. Von Ernst von Leyden. Band I und II. Berlin: August Hirschwald. 1902. M. 30.

Municipal Affairs. By Robert C. Brooks. Second edition. London: P. S. King and Son. 6s.

Falmouth. By G. W. May. London: Health Resorts Association. 1902. 1s.

Stricture of the Urethra and Hypertrophy of the Prostate. By P. J. Freyer, M.A., M.D. Second edition. London: Bailliere, Tindall, and Cox. 1902. 5s.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	1	17	6
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

Remarks
ON THE
SURGICAL TREATMENT OF ARTERIO-VENOUS ANEURYSM.

By SIR FREDERICK TREVES, K.C.V.O., C.B.,
Sergeant-Surgeon to His Majesty the King; Surgeon-in-Ordinary to His Royal Highness the Prince of Wales; Consulting Surgeon to the London Hospital.

ARTERIO-VENOUS aneurysms are of comparatively rare occurrence, and of recent years their rarity has become more and more marked. This latter fact has depended upon the circumstance that in past times the most common cause of arterio-venous aneurysm was an accidental puncture of the brachial artery during the process of bleeding from the median basilic vein. Since indiscriminate bleeding has ceased to be a feature of medical practice the unintended consequences of that measure have also ceased to be of frequent occurrence. It is apparent, moreover, from the records of the past that not a few examples of this aneurysm were due to stabs from knives and daggers, and since these weapons have been less frequently used in brawls and discussions the results of these unseemly wounds have also become less common. Bramann's often-quoted statistics show that in 144 cases no fewer than 108 were due to stabs and punctures, while 29 followed upon gunshot wounds, 5 upon contusions, 1 upon abscess, and 1 developed in a stump after amputation.

The introduction of the bullet of small calibre into warfare has once more made arterio-venous aneurysms as familiar as they were in the past, and in the surgical records of the war in South Africa numerous examples of this condition are to be found.

I have ventured to describe the following cases which have come under my care in connexion with the present war, because it would appear that the value of operative interference in aneurysms of this type is in need of fuller demonstration. Of the four cases two are examples of aneurysmal varix—that is, of direct communication between the artery and the vein, and two are instances of varicose aneurysm—that is, of indirect communication between the injured vessels through the medium of an aneurysmal sac.

From the reports of cases it would appear that the prognosis is more favourable in the varicose aneurysm than it is in the aneurysmal varix. It is, however, clear that in neither variety can the outlook be said to be other than unfavourable. Spontaneous cure in these forms of so-called aneurysm does not appear to occur.

The mortality from arterio-venous aneurysms is not nearly so high as is that depending upon those aneurysms in which the artery is alone concerned. Gangrene is quite rare in the arterio-venous form, and rupture is comparatively uncommon. On the other hand, the aneurysmal conditions now under notice lead to great functional troubles and to considerable and increasing local disturbances. This is especially seen when the lower limb is concerned. The muscles waste, the limb remains swollen and painful; it becomes more or less useless, and is apt to find itself rigid in a vicious position. Ulcers form, and other troubles fall upon the part which are the outcome of a greatly disturbed circulation. A condition of solid oedema, which occasionally merits the term "elephantiasis" is not unusual, and the uselessness of the limb, together with the pain and discomfort of which it is the seat, have in some instances led to amputation. It becomes a matter of necessity, therefore, that the patient should be relieved of this trouble at as early a period as is convenient. In some examples the condition is practically incurable or the relief given is of necessity incomplete. In the majority of instances, however, a cure of the condition may be anticipated. The only method of treatment is by operation.

Old records contain accounts of numerous cases treated by rest, posture, bandaging, and persistent compression. The results of these measures are negative, when not actually deplorable, for in more than one instance persistent compression has done harm. The Hunterian ligature, or ligature of the affected artery at a distance, has been attempted with sufficient frequency to establish the fact that the measure is to be condemned.

Dr. Curtis[1] gives an excellent summary of the results of operative treatment in arterio-venous aneurysms. It would appear that in 51 cases in which the Hunterian ligature was employed, 23 patients died, 18 were left unimproved, 2 were benefited, and 8 only were cured. It must be remembered that these records are mostly concerned with the operations of days before Listerism was established, and that they are, therefore, much exaggerated on the side of the mortality.

The only operative measure which is to be commended in these cases is ligature of the vessel or vessels at the wounded spot. The ideal procedure is that in which both the affected artery and the vein are ligatured above and below the point of the abnormal communication. It is obvious that this cannot always be done. When the condition is that of varicose aneurysm it is as well that the sac between the vessels should be excised. Dr. Curtis gives 15 examples from various records of ligature of the artery immediately above and below the wounded spot. Of these, 9 were cured, 2 relapsed, 1 recovered after amputation for gangrene, and 3 died. Here, also, it must be remembered that most of the collected cases belong to the period before antiseptics. He gives 7 instances of ligature of both artery and vein, with a result of 6 cases of cure and 1 of relapse. The same writer has tabulated 17 cases which were treated by incision of the sac and ligature of vessels; of these, 5 died, 11 were cured, and 1 recovered after amputation.

In the admirable article on arterio-venous aneurysm by Delbet in the *Traité de Chirurgie* by Dentu and Delbet (tome iv. 1897), a full analysis of the various methods of treatment is given, but the results differ little from those just detailed.

The four cases of arterio-venous aneurysm which are described in this paper were due to wounds received in the present war. In each instance the injury was inflicted by a bullet—by a Mauser bullet in 3 cases, and by a Lee-Metford bullet in the fourth. In all of the 4 examples the missile penetrated the part and escaped without damaging any bone, and the resulting wound healed by first intention.

The first 2 cases are examples of varicose aneurysm, while in the third and fourth cases an aneurysmal varix was discovered. It was quite impossible to diagnose the precise character of the arterio-venous communication before the part was exposed by operation. I venture to doubt if the precise differential signs which are detailed as means for distinguishing one form of arterio-venous aneurysm from another are met with, with any frequency, in actual practice.

In the first of the following cases the superficial femoral vessels were involved; in the second case the lesion concerned the popliteal artery at its point of bifurcation; in the third case the bifurcation of the common femoral was the part injured, and in the fourth example a branch of the external carotid artery had been damaged.

From the point of view of the actual operation case No. III presents the greatest interest. The problem here presented concerns the course which should be adopted when both the superficial and the deep femoral vessels are involved at their precise point of origin. This case and the last one of the series serve to show what satisfactory results may follow upon operative measures which are themselves short of perfection. In neither of these examples was it possible, for different reasons, to carry out the perfect measure and ligature the involved vessels both above and below the point at which they had been wounded.

THE CASES.

CASE I.—This case I have already briefly reported in the BRITISH MEDICAL JOURNAL, in one of the letters written from the seat of war. The man, a private, was wounded at the battle of Colenso on December 15th, 1899. After the evacuation of the camp at Chieveley he was taken to the Fort Napier Hospital at Pietermaritzburg, and here I saw him on December 23rd. He had been hit by a Mauser bullet about the middle of the thigh. The bullet had passed through the limb without injuring the bone. A considerable swelling of the thigh had followed the wound. There was great pressure of work in the field hospitals after the battle of Colenso, and the nature of the injury to the vessels in this soldier was not recognized until he reached Fort Napier.

When I saw him there was still a very large swelling of the thigh, especially about the middle and lower thirds. There was some oedema of the leg. No pulse could be felt at the ankle. The weather was very hot at the time, and no coldness in the limb was complained of. The whole of the extremity was absolutely powerless, and was the seat of considerable pain. The swelling in the thigh was situated over the main vessels, was very tense, gave a sense of fluctuation, and was of indefinite outline. It was the seat of a feeble pulsation, which could be only felt directly over Hunter's canal. In all parts could be heard the harsh buzzing *bruit* which indicates a communication between the artery and the vein. The characteristic vibratory thrill was also to be felt. At the invitation of the officer in charge of the case I operated upon the patient without delay. I first of all exposed the common femoral and placed a temporary ligature around that artery. It was evident that there had been a considerable extravasation of blood at the seat of injury, and I thought it probable that some difficulty would be experienced in finding the damaged parts of the vessels. The exact track of the bullet having been noted, I made a free incision in the line of the main artery from one end of the swelling to the other. A great quantity of extravasated blood was exposed. It was in no way encapsuled, and was cleared away after much sponging. The point at which the artery and vein had been penetrated was discovered, and here was a small enclosure which just merited the name of a sac, and which had without doubt limited further extravasation. The seat of the lesion was in the lower part of Hunter's canal. The holes in the artery and vein were made manifest. The artery was ligatured above and below the wound, and the vein on the proximal side only. The injury to the vein was of less degree than that to the artery. Before the incision was closed the temporary ligature on the common femoral was removed. I had occasion to visit Pietermaritzburg again fourteen days after the operation. The wound had then healed, and the patient was doing well in every particular. I heard of him some two months after the operation, and was told that he was "perfectly well."

Case II.—A cavalry officer, aged 21, was shot through the upper part of the right leg, at a range of 1,100 yards, on May 3rd, 1901. The bullet was probably from a Lee-Metford rifle in the hands of the enemy. The officer was mounted at the time, and his horse was killed. The wound bled very freely, but the haemorrhage was checked when the part was tied up. He mounted another horse and rode seven miles. There then followed a journey of four days in an army ambulance wagon until the most advanced base hospital was reached. By the twentieth day after the injury the wound was well healed, and the patient was up and on crutches. On the twenty-second day the signs of an arterio-venous aneurysm were discovered. From that day the patient took to the recumbent position and never put his foot to the ground. He came to England, and I saw him in July, 1901. The point of entrance of the bullet was just behind the head of the right fibula. The point of exit was close to the inner border of the tibia. The track of the missile was transverse, was behind the bone, and about on a level with the lower end of the tubercle of the tibia. A skiagraph showed that the bones were perfectly sound. The ankle was swollen and stiff, the knee was stiff, the muscles of the entire extremity were wasted. No definite swelling was present at the site of the injury, but pulsation was visible in the popliteal space and in the upper third of the calf. An intense buzzing *bruit* was to be heard, and the characteristic harsh thrill was to be felt. It was evident that there was an arterio-venous aneurysm at or about the bifurcation of the popliteal artery. The patient was in excellent health. The limb was free from pain, but throbbed on movement. The recumbent position had been most strictly observed. The operation was performed on July 23rd, 1901. A long median incision was made on the posterior aspect of the limb over the lower part of the popliteal space and the upper part of the calf. An arterio-venous aneurysm was exposed at the bifurcation of the popliteal artery. The sac was thin, was very well defined, and was about the size of a walnut. The vessels involved were the posterior tibial artery, the posterior tibial vein, and the anterior tibial vein. The anterior tibial artery had escaped. The sac was excised entire. The posterior tibial vessels were ligatured above and below the communication (four ligatures being therefore applied). The anterior tibial vein was also ligatured above and below the communication. The securing of the distal end of this vein involved some difficulty. The operation occupied one hour and forty-five minutes, and I had the great advantage throughout of the very able assistance of Mr. Charles Bond of Leicester. The patient made a perfect recovery, and when last seen, on December 7th, 1901, the limb was in excellent condition. The patient could walk many miles at a stretch, could play eighteen holes at golf, could ride, and, indeed, could report himself as well. When the artery was put on the stretch by extending the knee to the utmost, a very faint whistling sound could be heard over an area equal to that of a five-shilling piece. On the least relaxation of this forced position the sound vanished. It was evidently due to compression of the distorted, and no doubt narrowed, artery. There was not the faintest trace of any pulsation, and the limb was free from any sense of discomfort.

Case III.—A young officer was shot at the battle of Colenso on December 15th, 1899. The bullet—a Mauser—entered the left groin and passed out at the postero-external side of the limb without damaging the bone. There was considerable haemorrhage at the time. As soon as he reached the base hospital at Pietermaritzburg—some few days after the battle—an arterio-venous aneurysm in the left groin was discovered. I saw him at Pietermaritzburg during a visit made to that place between the engagements of Colenso and Spion Kop. There was a pulsating swelling in Scarpa's triangle, over the situation of the bifurcation of the common femoral artery. The veins were becoming prominent. There were the characteristic harsh buzzing *bruit* and the vibratory thrill which are associated with a communication between an artery and a vein. There was nothing to be felt like an aneurysmal sac. There was some pain in the limb, and it could not be used without discomfort. In due course the officer returned to England, the limb since the battle having been kept off the ground and the patient as much as possible in the recumbent position. When I saw him in June, 1900, the local condition had become in all particulars exaggerated. The swelling in the groin had much increased, pulsation was visible over a larger area, and the veins of the thigh were very prominent and varicose, and those nearest to the site of the wound showed pulsation. The limb had become powerless, largely, no doubt, from disuse; it felt cold, and if allowed to hang down soon became tense, purple, and painful. I operated upon the patient on June 7th, 1900. The condition found was that of an aneurysmal varix. The point of communication between the artery and the vein or veins was precisely at the bifurcation of the common femoral. I ligatured the common femoral artery above the communication and the superficial femoral artery below it. Owing to the large size of the veins at the injured spot and their disposition around the main arteries, a view of the profunda artery was very difficult to obtain. The two ligatures, when applied, entirely stopped all pulsation in the district, and caused the characteristic thrill to vanish. More precise examination, however, of the seat of injury made it almost certain that the bullet had damaged the main artery exactly at its point of bifurcation, and that the commencement of the profunda artery was involved in the arterio-venous communication. I was unable to determine whether two veins were implicated or only one. It was obviously out of the question to apply a ligature to the profunda artery, and having in view the future of the limb, I was not disposed to ligature any one of the veins exposed. The operation, therefore, consisted solely in the ligaturing of the common femoral and the superficial femoral arteries. The wound healed by first intention, and the cure appeared for a while perfect. At the end of fourteen days after the operation a careful examination of the groin revealed no sign of any arterio-venous communication. There was no pulsation below the upper ligature, the veins were no longer prominent, nor, indeed, visible; there was no *bruit* to be heard, nor could any thrill be felt. The limb, still kept at absolute rest, was covered up for another week. At the end of that time—that is, twenty-one days after the operation—an examination revealed a return of the *bruit* and of the vibratory thrill over an area 3 in. in diameter. A very faint pulsation could be felt, but none was visible. At the end of five weeks from the day of the operation the condition was unchanged, and the patient commenced to get up and to use the limb. He made rapid pro-

gress. I saw him on January 23rd, 1901. The *bruit* and the thrill were precisely the same. There was no increase in the area over which they could be noted. There were no prominent veins; the limb was free from oedema and from any discomfort. The patient could walk a moderate distance and could ride. The very faintest possible pulsation could be detected on close observation beneath the scar. An examination of the patient made on October 12th, 1901 (one year and four months after the operation), revealed a still better state of affairs. The very faint pulsation was still to be observed, but it had not increased. The *bruit* and the thrill were still present, but were still limited to an area with a diameter of 3 in. There was no swelling, no oedema, no evidences of any abnormality of circulation, and no discomfort. No prominent veins were to be seen. The officer was on remount duty. He could ride and could walk well. The only thing he complained of was that after long or unduly quick walking he experienced a pain in the calf.

CASE IV.—A private soldier was wounded in one of the engagements before Spion Kop, and was brought directly from the field into the field hospital to which I was attached. This was in January, 1900. He had been shot in the neck by a Mauser bullet. The point of entrance was over the ascending ramus of the right inferior maxilla, about 1 in. in front of the lower end of the lobe of the right pinna. The point of exit was over the second left rib, 3½ in. to the left of the median line of the sternum and 1 in. below the clavicle. The bullet had passed through the mouth, as shown by a wound just behind the right wisdom tooth. The inferior maxilla was not fractured. There was a considerable haemorrhage from the mouth, which continued at intervals for seven days. There was some loss of voice for three weeks. I saw the patient the morning after his admission. He said as soon as he could speak that he had been disturbed that night by the breathing of a man who was dying on the ground outside his tent. There had been no man lying outside his tent, and the noise he heard was the *bruit* following the injury to his vessels. This *bruit* had, therefore, made itself manifest to the patient within twenty-four hours of the injury. Before he was removed to the base, in the retreat which followed the battle of Vaal Krantz, he presented all the signs of an arterio-venous aneurysm about the upper part of the neck in the vicinity of the angle of the lower jaw. In due course he came to England, and I saw him in London in October, 1900. The right external jugular vein was enormously distended, and showed very distinct pulsation. The veins about the upper part of the neck and the whole of the right side of the face were also very prominent. A soft spongy and pulsating swelling (evidently made up of dilated veins) occupied the neck about the angle of the jaw. The right side of the face was puffy and of a purplish hue. A very distinct harsh *bruit* of a characteristic type could be heard in almost any part of the right side of the head and neck, and the typical vibratory thrill could be felt. Both the *bruit* and the thrill reached their greatest intensity about the angle of the jaw. The patient complained of headache, of severe neuralgic pains in the right side of the face, of giddiness, and of a frequent sense of confusion. Above all he complained of the incessant buzzing in his ears, which was worse when he stooped or when he was lying down, and which disturbed his sleep. The pulsation in the veins was very prominent, and extended beyond the temple upwards to the right eyebrow and eyelid and downwards to the clavicle on the same side. The man was totally unable to do work of any kind, and was much distressed by the constant noise in his ear, and by his giddiness and uncertainty of movement. I operated upon him on November 4th, 1900, a little more than nine months after he had been wounded. I made an incision the whole length of the neck. The involved veins were very large, and obscured every step of the operation. I was unable to determine from the symptoms that the internal carotid had escaped injury. I therefore, in the first place, exposed the bifurcation of the common carotid artery. I found that compression of the internal carotid artery had no effect whatever upon the pulsating mass in the neck, whereas compression of the external carotid artery at once arrested all the phenomena observed about the seat of injury. Carrying the investigation further, I found it next to impossible to locate the exact seat of the arterio-venous communication. The whole operation area was occupied by large thin-walled pulsating veins which were difficult to deal with. Following strictly the line of the external wounds—as made by the bullet—the damaged vessel should be close to or behind the ascending ramus of the lower jaw. This district was the least easy to investigate as it presented the condition of a vascular sponge owing to the numerous veins which covered the parotid region and filled the hollow of the neck below that area. I thought it best, as a preliminary step at least, to cut off the blood supply of the external carotid district so far as that was possible to be done. I placed two ligatures upon the external carotid on the distal side of the superior thyroid branch and divided the vessel between the ligatures. I then ligatured the superior thyroid and facial arteries. Knowing how free the collateral circulation is in this region no veins were ligatured. The patient was informed in due course that a second operation would have to be contemplated. The patient was for a time so much improved after this procedure that he regarded himself as cured. The pulsation, the *bruit*, and the vibratory thrill all vanished, and the distended veins were no longer to be seen. The headache and giddiness also left him. The operation had been performed in a private nursing home, thanks to the generosity of the lady who owned the home. The patient remained at the home many weeks and then wassent to the seaside, being still apparently quite cured. In time, however, the symptoms began to return, and when I saw him in March 1901 the phenomena of arterio-venous aneurysm were in full evidence. The manifestations, however, were very much less marked. The distension of the veins was comparatively trifling and the patient could only hear the *bruit* when he was lying down with the head upon the affected side. The second operation was performed on March 23rd, 1901. The centre of the incision made was opposite to the angle of the jaw. After some trouble I convinced myself that the arterio-venous commmunication concerned the internal maxillary artery at some distance behind the ramus of the jaw. It was impossible to reach the vessel without dividing the jaw, and it was a question if mere division would have sufficiently exposed the injured artery. It appeared to me that I was scarcely justified in interfering with the jaw. By means of a free dissection, and by drawing the ramus of the mandible forwards, I opened up the district behind the jaw, but not to an extent which enabled me to reach the damaged vessels. The whole area was obscured with dilated and pulsating veins, and an operation upon the jaw itself would have involved no little risk from haemorrhage. I therefore proceeded to cut off the blood supply from the area as far as was possible. The external carotid was ligatured on the proximal side of the origin of the internal maxillary. Ligatures were also placed upon the temporal arteries and upon the occipital and lingual arteries. The veins issuing from behind the mandible were also ligatured. The second wound healed, as did the first, without any complication. The patient's condition after the operation may be said to be satisfactory. I examined him last on March 18th, 1902, that is, a year after the second operation. The right side of the face is a little red, and a few small varicose veins are to be noticed in front of the pinna and at the outer angle of the orbit. No pulsation of any kind is to be seen or felt in any part of the affected area. No *bruit* is to be heard, nor is any vibratory thrill to be felt. In front of the pinna is a large vein or veins. This vessel is not visible, but it can be made out on palpation. Pressure on this vein with a stethoscope elicits a *bruit*, and when the patient lies upon this side of the face he can hear the *bruit*, but he recognizes that it is not the intense buzzing sound with which he was familiar before the operation. He has no headache, no noises in the ear, and no giddiness, and is in regular employment on some golf links. He describes himself as "very well indeed."

REFERENCE.
1 *American Journal of the Medical Sciences*, February, 1891.

DONATIONS AND BEQUESTS.—The late Miss Lydia Winterbotham Hale, of Blackheath, has bequeathed £200 each to St. Thomas's Hospital, Charing Cross Hospital, and the Central London Ophthalmic Hospital; also £100 each to the Blackheath and Charlton Cottage Hospital and the Central London Throat and Ear Hospital.

SPLENIC LEUKAEMIA AND PHTHISIS COMBINED IN THE SAME PATIENT.*

BY G. PARKER, M.A., M.D.CANTAB.,

Physician to the General Hospital; Lecturer on Toxicology, University College, Bristol.

THIS patient presents a condition of which apparently no example has hitherto been reported in this country. Close as the connexion is between lymphadenoma or pseudo-leukaemia and pulmonary tuberculosis, the combination of true leukaemia with phthisis is exceedingly rare, and, though a few instances have been met with where the lymphatic form was present in this combination, no case of pure spleno-myelogenous leukaemia had till recently been recorded in which phthisis also existed. Of late some interest has been excited in the subject by the report of two undoubted instances by American observers, who failed to discover any others in the literature of the subject except a mixed case described by Quincke.[1] Cabot, Stengel, Osler, Janeway, and Prudden had never met with an instance, and neither Bramwell nor Muir mentions it. Indeed, there is some reason to think that an antagonism does exist between the two diseases, and that tuberculosis can rarely gain a foothold in the presence of the blood state which is characteristic of leukaemia. Another reason for interest is the effect which acute and chronic intercurrent diseases have upon this blood state. Thus, various infections make the blood again normal, at least for a time. I shall refer to many remarkable instances of this later on, though in none has a permanent cure resulted. Cabot has collected 17 such cases, and in nearly all there was a great reduction of the leucocytes, with often a relative increase of the polymorphonuclear ones.

History.—J. L., aged 34, a well-built man, an engine fitter by trade, came under my care in Febuary, 1900, complaining of severe pain in the left side. The right side of the chest was remarkably flattened and contracted, which he had noticed for some ten years, but he had no recollection of any illness preceding it. However, seven years ago he was troubled with hoarseness and attended the Royal Infirmary under Dr. P. Watson Williams, who diagnosed laryngeal phthisis and treated him with success. He remained in vigorous health, weighing about 11 stone, his height being 5 ft. 9 in., until May, 1899, when he fell from a platform and his left side came into collision with the corner of a table. This was followed by dragging pains on the same side, but lower down, together with a feeling of weakness, for which he was attended by his club doctor. The family history was good, all brothers and sisters and his mother were alive and well; his father died suddenly from supposed heart disease at 40. One grandfather had suffered from chronic "bronchitis," and died at 50, but no relations had been known to be phthisical.

State on Examination.—The right side of his chest showed strong evidence of old phthisis, and of a cavity extending under the first two or three intercostal spaces. The breath sounds were altered in character, too, over a large part of the lung and were feeble everywhere; nor did the disease seem to be altogether inactive, though evidently it did not much affect his general health or interfere with his work. In the splenic region I detected a rather hard mass extending a short distance below the ribs, which did not present the usual outlines of a spleen. There was no tenderness or enlarged glands, and the abdomen was otherwise normal. Mr. Morton saw him in consultation with me, and as the nature of the tumour was uncertain, he was admitted to the General Hospital on March 26th for an exploratory operation. He remained there for three weeks under observation, and his blood was repeatedly tested. The possibility of leukaemia was apparently negatived by the findings, though, of course, the state of the blood is not an infallible guide. The large lymphocytes seemed at first to be more numerous than usual, but on further investigation nothing abnormal could be detected. While in the hospital some of the submaxillary glands became enlarged on both sides, which he said had happened before. The lung condition made little or no progress, the kidneys and heart were normal, but the temperature often showed an evening rise to 100° or 101°.

Exploratory Operation.—Finally Mr. Morton made an exploratory incision, and found that the tumour was formed by the spleen slightly enlarged, bound down by adhesions, and rotated on its axis. In other respects nothing abnormal could be discovered. The patient made a quick recovery, and afterwards his pains were greatly relieved.

Progress.—A fortnight later the irregular temperature returned, and a blood count made on May 3rd showed red cells numbering 4,000,000, white cells 16,560, haemoglobin 76 per cent., but he rapidly improved and gained weight.

On August 17th he reported that he had been at work for a month, and that there was still a little pain over the spleen, which now extended to the level of the umbilicus and to the linea alba. In the right lung there was bronchial breathing over the first right intercostal space and over the apex down to the level of the spine of the scapula with very few *râles*. Elsewhere the breath sounds, though weak, were normal. The last blood count showed 4,400,000 red cells. He was told to continue taking creosote and arsenic.

He remained well during the winter, but in March, 1901, a great change was found. The blood was completely altered. The red cells still numbered 4,000,000 but the white had gone up to 238,000, and a large number of myelocytes were present. The spleen was still more enlarged, and reached four fingerbreadths below the umbilicus, and three beyond the middle line. The cough became troublesome, and slight haemoptysis took place. Gastric disturbance made it difficult for him to take arsenic. This, however, subsided by April 18th, and he then took ½ gr. of sodium cacodylate three times a day. The spleen diminished, and extended only three fingerbreadths below the umbilicus, and two beyond the middle line.

April 26th. The cacodylate was increased to 1½ gr. daily, which was taken without difficulty. The spleen was slightly larger, but the patient felt fairly well and remained at work all the summer. The blood count in June showed the red cells were only 2,800,000, while the white reached the enormous number of 640,000. The arsenic had, however, about this time to be stopped for two months on account of a rash. A differential count of white cells for May is given below.

October 21st. Cough and hoarseness became troublesome, but the breath sounds in the right lung were nearly normal up to the first space. The spleen remained at the same size as in March, and he was taking a grain of cacodylate daily, which was now doubled. An effusion of blood under the conjunctiva of the right eye occurred about this date.

In November he had to give up work. Some heart failure came on with a rapid pulse and oedema of the legs. The red cells dropped again to 2,640,000, but the white were much improved, numbering only 100,000. He remained in bed a few days from a bronchial attack and cardiac weakness.

January 17th, 1902. He was now taking 3 gr. of cacodylate daily, but had occasional attacks of dyspepsia as before. The heart was normal and the oedema had disappeared. The spleen was unaltered in size. The cough continued troublesome, and at the left apex there was prolonged expiration and a few *râles*. At the right apex the signs were as before, in the second intercostal space prolonged expiration with a few *râles* were noted, and a few scattered *râles* were heard at times below this. The blood count showed 3,430,000 red and only 130,000 white cells. Some tenderness was found over the lower part of the sternum. No marked enlargement of the liver was recorded at any time. The sputa showed numerous tubercle bacilli.

Differential Blood Counts.—For the following differential counts I am indebted to Dr. J. Odery Symes, Bacteriologist to the General Hospital.

May, 1901—		
Polymorphonuclear	70.8	per cent.
Eosinophile ditto	3.0	,,
Large lymphocytes	2.5	,,
Small ditto	5.5	,,
Myelocytes	14.0	,,
Eosin ditto	2.0	,,
Nucleated red	1.6	,,
January, 1902—		
Polymorphonuclear	57.2	per cent.
Eosinophile ditto	3.9	,,
Large lymphocytes	6.6	,,
Small ditto	4.0	,,
Myelocytes	25.6	,,
Eosin ditto	1.2	,,
Nucleated red	1.0	,,
Basophile	1.0	,,

Thus during the period February, 1900, to January, 1902, the red cells varied in number from 2,640,000 to 4,500,000; and the white, having been approximately normal till March, 1901, varied from 100,000 to 640,000 for the last eleven months. The differential counts show clearly that we had to do with splenomyelogenous leukaemia, if we note the great number of myelocytes, the normoblasts, and even the number of eosinophiles and mast cells; while the evidence of phthisis is also unquestionable. It seems also clear that the phthisis preceded the onset of leukaemia, and made very little progress. This prevents us drawing any very definite conclusion as to the effect of phthisis in modifying the blood state. During the last few months, indeed, the lungs became worse, and the white cells fell to 100,000, but the myelocytes do not seem to have shared in this decrease, and moreover the patient was under the influence of large doses of arsenic. Where acute phthisis or other infections have supervened the results have usually been marked.

The only two cases known of phthisis complicating myelogenous leukaemia are one of Elsner and Groat, and another of Sturmdorf. The former occurred in a male aged 40, and the leukaemic condition apparently began first; the leucocytes in the earlier stages reached 320,000, and the myelocytes 38 per cent. The second case was that of a female aged 35, who had had a splenic enlargement for two years, but the phthisis only appeared three months before the report. There is indeed an instance recorded by Quincke and referred to by Elsner, but the leukaemia was of a partly lymphatic type. In all these the effect of the phthisis was very interesting. Elsner and Groat,[2] from a study of the case they record, state that as the tuberculous process advanced there was a steady decrease in the total number of leucocytes, but an increase in the percentage of polynuclear neutrophiles, a decrease in the number of myelocytes, and an increase in the number of lymphocytes. In three cases of lymphatic leukaemia with

* Read at a meeting of the Bath and Bristol Branch of the British Medical Association

tuberculosis to which they refer, the effect of the tubercle on the leukaemia was seen in a reduction of the leucocytes. In Lichtheim's patient the numbers became normal, and he adds that no one would have dreamed from the state of the blood that there ever had been leukaemia. A. Sturmdorf[3] mentions that as febrile temperature from phthisis came on the myelocytes decreased and polynuclear cells multiplied. Baldwin, however, gives an instance where the advance of tuberculosis failed to check the increase of leucocytes in general. The addition of septic or other infection usually causes a marked reduction, though the improvement may only be temporary. Elsner and Groat refer to instances of typhoid, sepsis, and influenza where this has been seen. In Kraus's case of pneumonia as a complication there was a fall from 393,000 leucocytes to 4,000 in a few days' time,[4] and M'Crae[5] gives a list of similar instances. Thus a lymphatic case with staphylococcus infection showed a fall from 89,000 to 6,000, and a second from 220,000 to 6,000 in a few days, also an acute leukaemia under Muller in a child with staphylococcus infection, where 109,600 cells were reduced to 6,800. M'Crae notices also a similar fall, often seen before death, and probably owing to terminal affections, but he remarks that in all reported cases where the leucocytes have been reduced by a second infection the effect is only temporary, and the number has risen again if the patient has survived. Thus in Eisenlohre's patient an attack of typhoid reduced the numbers to normal, but only during the fever. In no instance has a permanent cure of leukaemia resulted.

During such a temporary suppression of the blood signs it may be impossible to recognize leukaemia, and the question naturally arises whether my own patient's leukaemia did not exist in this latent form at the time of his operation. It is clear that splenic trouble had existed for some time, and even if the phthisis had no definite effect, such periods of latency have been noted in other cases after taking medicine, or without any known cause. M'Crae's patient in a single twelve months twice showed typical blood symptoms of splenic leukaemia, and twice the blood appeared absolutely normal, without any superadded infection.

We can hardly regard the history of the injury J. L. received as a mere coincidence, though how the disease is caused by a blow is entirely unknown. The same effect of an injury as a determining cause occurs, however, both in malignant disease and in the infectious fevers such as pneumonia, and to one or other of these two classes leukaemia has been referred by most pathologists. Muir thinks that the occurrence of an injury as the starting point of the disease is quite exceptional, and apparently regards it as a mere coincidence, but this opinion is not shared by all authorities, Ewing and Ebstein for instance.

Looking at the above-mentioned results of a second infection, it is only natural to inquire whether any curative measures might not be based upon an imitation of the process. So far little success has attended such attempts. Henck[6] brought about a reduction of the leucocytes by injecting tuberculin, and Jacobs reported an improvement for a time after injecting splenic extract, and Richter after injections of spermin. A more rational method would seem to be W. Hunter's treatment of pernicious anaemia by vigorous intestinal antisepsis. There are noticeable periods of gastro-intestinal irritation in the course of the disease which were evident in the present case, and often a peculiar condition of the mouth, together with an increase of iron in the liver, which show some analogy to the symptoms of pernicious anaemia. Indeed, one disease has replaced or been substituted for the other after a time in one or two instances. Yet the differences are wide and important. In leukaemia there seems to be an over-stimulation of the cell-producing organs; in pernicious anaemia a destruction or paralysis of them, at least in the later stages. It would be interesting to trace the effects of acute intercurrent disease on this anaemia. Stengel finds that the sufferers react to fresh diseases in a most uncertain manner, but I find no histories of the effects on the blood count.

Possibly the gastric troubles may lead to the origination of leukaemia in another way. As Mathes points out, there is a remarkable amount of deutero-albumose in the blood, and this may act by over-stimulating the cell-producing organs, but the attempts to produce the disease by injecting peptones have been against this, for they only resulted in a leucocytosis just as the superadded infections mentioned above may do, and not in an increase of the myelocytes.

One other point of interest must be referred to briefly. Phthisis is rarely found in gouty subjects. Can its rare occurrence in leukaemia be due to the excess of xanthin bodies in the blood, which several observers have held to be characteristic of the disease? This excess of xanthin bases is probably only secondary to the breaking up of the numerous white cells, but it may act, nevertheless, as a preservative against phthisis by rendering the ground less suitable for the growth of the bacillus. Where a chronic form of phthisis was in existence, as in this patient, very little inhibitory effect could be expected.

It is not necessary to discuss the pseudo-tuberculous lung affections sometimes found in leukaemia, for the previous existence of phthisis and the presence of bacilli suffice to prove the tuberculous origin of the lung trouble in the present case.

NOTE.—The patient appeared to be improving slowly till the second week in February, when cardiac symptoms reappeared, and death took place rather suddenly on February 15th.

REFERENCES.

[1] *Tageblatt der Naturforscher. u. Aerzte in Heidelberg*, 1889, p. 405. [2] *American Journ. of Med. Sci.*, 1901, vol. i, p. 275. [3] Ibid., vol. ii, p. 166. [4] Ewing, *Diseases of the Blood*. [5] BRITISH MEDICAL JOURNAL, March 31st, 1900. [6] *Deut. med. Woch.*, 1891, p. 747.

THE BLOOD IN CASES AFFECTED WITH FILARIASIS AND BILHARZIA HAEMATOBIA.

BY ALFRED C. COLES, M.D., B.Sc.,
Bournemouth.

I WAS particularly interested in Dr. Lovell Gulland's contribution to the BRITISH MEDICAL JOURNAL of April 5th, 1902, on the above subject.

Through the kindness of Dr. W. H. Best, medical officer to the Lagos Hospital, I have from time to time received dry blood films of malaria and on two occasions of filariasis. As the filaria can only be found in fairly thick film preparations, very little attention was paid to the variety of leucocytes present in the first set of specimens dated June 10th, 1901. In November of that year some more films containing filaria from a case of lymph scrotum arrived, and I was at once struck by the enormous proportion of eosinophile cells present. I looked up the literature on the subject, and found no mention of eosinophilia in the blood of this condition. As soon as I saw Dr. Gulland's paper I made a differential count of the leucocytes present in the specimen dated June 10th, and found a similar enormous increase in the number of these cells. In this, the earlier specimen, these leucocytes did not stain as conspicuously as in the last case, partly owing to the fact that they had been subjected to a prolonged staining with haematoxylin after treatment with eosine.

The following figures show the percentage of the leucocytes found in both cases, and also that found in normal blood:

	Case I. June, 1901.	Case II. Nov., 1901.	Normal.
	Per cent.	Per cent.	Per cent.
Multinucleated leucocytes ..	14	45	60 to 75
Lymphocytes	44	[illegible]	4 to 30
Large uninucleated	[illegible]	[illegible]	3 to 6
Eosinophile cells	15	17	2 (not above 3)

It is interesting to note that Da Costa in his recent book on Haematology states that "the relative percentage of mononuclear non-granular leucocytes is somewhat higher than normal, with a consequent decrease in the proportion of polynuclear neutrophiles. The eosinophiles either remain at a maximum normal percentage or may be distinctly in excess of this figure." In three cases of filaria he found the eosino-

philes 3.4 per cent., 9.5 per cent., and 4.33 per cent. respectively.

I may add that I find that in films stained with eosine for about one minute, and then in Delafield's haematoxylin for any time from five minutes to seven hours—the longer the better—the internal structure of the filaria is exceedingly well brought out.

After the above note was written, it occurred to me that eosinophilia might also be found in those affected with bilharzia haematobia.

I therefore examined the blood of a patient of mine on April 16th, 1902, who was, I knew, suffering from this disease, and I was not surprised to find that the eosinophile cells in the peripheral circulation were enormously increased. The examination was made at a time when he—an otherwise healthy athletic Englishman—was still engaged in his usual occupation, and was in his usual health.

His general blood condition was good, as he had for some time been taking iron as a tonic after a somewhat recent attack of influenza. The number of red blood corpuscles and the percentage of haemoglobin were practically normal, as was also the number of the leucocytes. The percentage of the leucocytes counted in films stained by eosine and haematoxylin, Jenner's and Leishman's stains respectively was as follows: Multinucleated leucocytes, 46 per cent.; lymphocytes, 27 per cent.: large uninucleated leucocytes, 7 per cent.; eosinophile cells, 20 per cent.

An increase in the number of eosinophile cells has been found in the blood of various forms of helminthiasis—for example, ankylostomiasis, infection with ascaris lumbricoides, oxyuris vermicularis, taenia mediocanellata, and especially in trichiniasis.

Dr. Gulland's observation, which I am able to confirm (*vide supra*), now includes filaria. My observation on the occurrence of eosinophilia in bilharzia haematobia is, as far as I can find, not mentioned in any of the literature relating to the subject.

I hope at some future date to give a detailed report of the blood in this interesting and rare condition.

CASE OF "INFECTIVE ENDOCARDITIS" TREATED WITH ANTISTREPTOCOCCUS SERUM.

By H. M. COOPER, M.B.Lond.,
Hampton-on-Thames;
WITH SOME REMARKS BY
CYRIL OGLE, M.B.Oxon., F.R.C.P.Lond.,
Assistant Physician to, and Lecturer on Therapeutics at, St. George's Hospital.

THE following case, although it had a fatal termination, is of interest on account of the results of a bacteriological examination of the blood and the effects of treatment:

History.—The patient, W. C. L., a man, aged 26, came under observation in the beginning of August, 1901. He gave a history of rheumatic fever four or five years ago, and said that for the last six months he had been feeling out of health, but the date of the onset of his present condition could not be fixed.

State on Examination.—He was markedly anaemic, wasted, and obviously very ill. His temperature was rather dry, and coated with a brown fur. No abnormality was detected in the lungs. His heart presented the usual signs associated with aortic regurgitation, an increase of size of the left ventricle, and a well-marked aortic diastolic murmur. In the mitral area there was a systolic murmur, heard also at the angle of the left scapula. The pulse was collapsing, the wave being of comparatively small volume. The liver and spleen were not enlarged. The urine was [illegible] coloured, and contained a little albumen.

Progress.—He was put to bed, and given stimulants freely, plenty of good food, and small doses of iron, arsenic, and strophanthus. A few days later the urine became porter-coloured, and there was evidently a considerable amount of renal bleeding, possibly due to infarction. He next had an attack of fairly copious haemoptysis, which lasted for three or four days. This was followed by an acute pain in one side of the head, he became heavy and stupid for a time, but without loss of consciousness, and with [illegible] aphasia or of motor paresis. He had also one or [illegible] of epistaxis. The temperature for the first three weeks was of a [illegible] type, rising to 101° or 102° in the evening and falling to [illegible] in the morning. No change took place in the aortic diastolic murmur, but the murmur at the apex varied in character; sometimes there was a [illegible] presystolic in addition to the systolic murmur. No petechiae, and no clubbing, redness, or tenderness of finger ends [illegible] of joint inflammation. The pulse-rate was usually about 116 to 120 at night, and 104 to 110 per minute in the morning.

Diagnosis and Bacteriological Examination.—The condition was regarded as one of infective endocarditis, and search was made for a possible source of infection, but none was found, except it might be from two carious teeth. No history of wound, otorrhoea, or gonorrhoea could be obtained. Although the patient rallied considerably in the earlier days of August, he subsequently became gradually weaker, and the question arose whether serum treatment would be of any avail, considering the obviously desperate condition of the patient. Dr. Cyril Ogle met me in consultation on September 5th. He agreed with my diagnosis, and was able to get a specimen of blood from the median basilic vein, which was at once mixed with sterilized bouillon and incubated not long afterwards. A pure culture of streptococci was found, and this was confirmed by Dr. H. Spitta, the Assistant Bacteriologist at St. George's Hospital.

Treatment.—Treatment by injections of antistreptococcus serum was at once begun (September 10th). Every other day 10 c.cm. were injected beneath the skin of the abdomen. The total amount used was 110 c.cm. in twenty-seven days. A solution (5 per cent.) of nuclein was also administered, in 1-drachm doses, by the mouth. The injections were always followed in a few minutes by a considerable quickening of the pulse and by feelings of faintness. On one occasion stimulants had to be freely given.

After-Progress.—The effect of the injections, after 30 or 40 c.cm. had been given, appeared to be most marked. The dry, cracked, brown tongue became moist and clean; the sordes disappeared from the teeth and fauces; the temperature on the day following the injection was considerably lower in the evening; food was well taken and a general improvement was manifest; the patient also said that he felt much better. The feebleness and rapidity of the pulse, however, remained a marked feature. Copious sweating often, but not always, followed the injections. No local inconvenience at all resulted from the injections. After the patient had had 100 c.cm. of serum the temperature became normal and remained so for seven clear days; the blood and all trace of albumen disappeared from the urine, but the pulse-rate did not diminish (120 to 130 per minute). Every effort was made to keep the heart stimulated, as it was thought that if the patient could rally from the past effects of the poison he might recover. Raw beef, parapeptone, plasmon and milk, strychnine and brandy were freely given and well taken. After the seventh day of normal temperature another evening rise took place, which was met by an injection of another 10 c.cm. of serum—for during the time the temperature had been normal the injections had not been given. The temperature again kept down for three days. The patient, however, was certainly weaker, and died quite suddenly on October 10th, after an illness of over two months. No necropsy was obtained.

Even although the result of the case was fatal, it seems worth recording for the following reasons: (1) That streptococci were definitely found in the blood, and that therefore the indication for treatment seemed clear; (2) that the serum undoubtedly did good, and certainly did no harm; (3) that if the treatment could have been begun in the earlier stages of the disease a good result might have been obtained.

Two series of serums were used. The second series seemed to have more effect than the first. This may be due to the fact that the second was more inimical to the particular kind of streptococcus in the blood, as I believe that Messrs. Burroughs and Wellcome, from whom the serum was obtained, prepare it from cultivations of mixed streptococci.

REMARKS BY DR. CYRIL OGLE.

Although with an unsuccessful result, I also think that this case worthy of being recorded, on account of the certain nature of the disease and of the organism associated with it. Dr. H. Spitta was so good as to make subcultures, and pure colonies of streptococci were obtained.

Many cases have been published of recovery under serum treatment from the gravest conditions of sepsis with living streptococci free in the blood stream; there are even a few where the same state of blood was most probably associated with valve implication, a condition which, one might say, would have been otherwise inevitably fatal, and one, no doubt, constituting a severe test of the value of the serum.

As regards the good effects in the present instance, Dr. Cooper is the more competent to speak, as he saw the patient once or twice daily; there certainly seems to have been an influence upon the temperature, and this, together with disappearance of discomfort, cleaning of the tongue, and increase of appetite, are fairly constantly observed in the accounts of this treatment by other observers.

It would have been of interest to have determined, by a second examination of the blood, whether the streptococci had disappeared when the temperature had been standing at a normal level for some days, as one is inclined to attribute the rather sudden death of the patient to exhaustion of the heart from free aortic regurgitation, combined with prolonged fever and poisoning.

Although the patient was extremely ill and very sensitive when the blood was taken for examination, the process did not apparently cause much more discomfort than an ordinary hypodermic injection.

Messrs, Burroughs and Wellcome inform me that the two lots of serum which we used were from different sources, but that both were prepared by aid of six different strains of streptococci from human subjects.

CASE OF FATAL ANAEMIA PRESENTING SOME UNUSUAL BLOOD CHANGES.

BY

O. K. WILLIAMSON and E. W. MARTIN,

M.A., M.B.Cantab., M.R.C.P.Lond., Physician to Out-patients (late Pathologist) City of London Hospital for Diseases of the Chest, Victoria Park.

M.B.Edin., Resident Medical Officer, City of London Hospital for Diseases of the Chest, Victoria Park.

G. E. C., male, aged 43, an insurance agent, was admitted to the Hospital for Diseases of the Chest, Victoria Park, under the care of Dr. Heron, on November 27th, 1900, complaining of weakness and shortness of breath.

History.—The symptoms had started insidiously during the hot weather of August, 1900, when he complained of fatigue and also of occasional giddiness when out walking, causing him to fall once. There was headache and shortness of breath, the latter specially marked on exertion. From the middle of October till the middle of November he had been able to do a little work, although his weakness and fatigue were gradually increasing, and he noticed that his hands and feet were slightly swollen. There had been a little cough for the last two months. Throughout the course of the illness he had at no time complained of vomiting, diarrhoea, melaena, haematuria or epistaxis. There was no history of any former illnesses. His father died of "fever," his mother of typhoid fever, the remainder of his family being healthy.

State on Examination.—The patient was found to be a well-nourished man, very pale, there being a slight suggestion of lemon colour about the nose, his mucous membranes also being extremely pale. He was obviously ill, lay flat in bed, being neither cyanosed nor in pain. There was some oedema of both feet and of the left leg, and slight puffiness about the eyes. There were no haemorrhages anywhere, and the gums, beyond being anaemic, were normal. The temperature was 99°. He had some cough, worse at night, but no expectoration. The lungs showed no abnormal physical signs. There was a short systolic murmur, heard at all the cardiac areas following the first sound, and not conducted into the axilla. Pulse 94. The tongue was furred, the appetite fairly good, the bowels regular. The abdomen was slightly distended, the liver and spleen not palpable. The urine was acid, specific gravity 1014, and contained neither albumen nor sugar.

Progress.—Patient's condition became steadily worse. On December 11th he was delirious, passing his urine and his faeces under him. He resented movement; took liquid nourishment well. There was percussion dullness over the right lung posteriorly, with some increase of vocal resonance. The knee-jerks were brisk. On December 12th, by ophthalmoscopic examination, haemorrhages were seen upon the fundus of the left eye. For the first week after admission the temperature was raised, varying between 99° and 102.2°, with frequent remissions of 1° or 2°. For the last four days of life it assumed the intermittent type, varying between 99° and 103.4°. Patient died on December 12th.

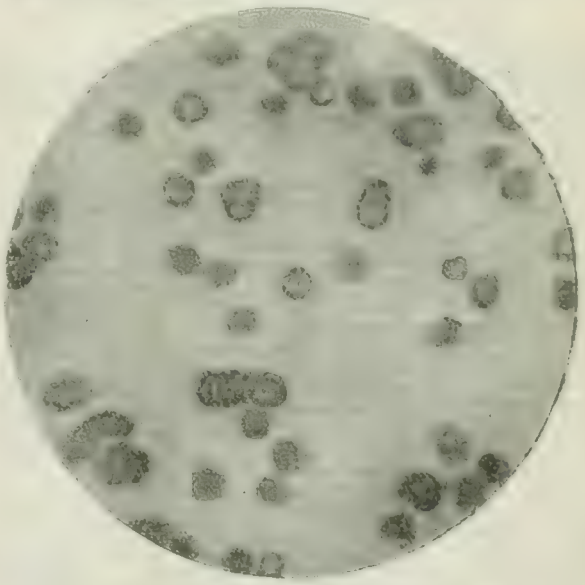
Blood Examination.—On December 8th the blood was distinctly pale in colour. On examination of a film stained with the triacid stain there was seen to be marked poikilocytosis, many of the corpuscles being larger than normal, but some much smaller. The colouring matter appeared not to be diminished. Many nucleated corpuscles were seen, by far the greater number of which were normoblasts, with, however, a few of the unnamed variety, and also one or two cells which were probably megaloblasts. There appeared to be less tendency than normally to form rouleaux. The white corpuscles were obviously markedly increased in number, and consisted almost wholly of lymphocytes, these showing all varieties of size, from that of small lymphocytes up to that of large mononuclear cells (large lymphocytes), so that it would have been impossible to separately classify these two varieties. The lymphocytes, moreover, were more faintly stained than normally. There were very few polymorphonuclear neutrophiles, and in all the films examined only one or two myelocytes were seen. On December 11th the poikilocytosis was seen to be more marked; one microblast was seen, and many normoblasts, the appearances otherwise being similar to those on December 8th. The red and white counts were made from liquid films, the differential counts from films stained by the triacid stain.

Differential Counts of White Cells

Date.	Red Cells.	Haemoglobin.	White Cells.	Lymphocytes.	Polymorphonuclear Neutrophiles.	Myelocytes.
	Per cm		Per cm increased			
Dec. 1st ...	900,000	20%		—	—	—
Dec. 8th..	480,000	12%	34,000	99.27%	0.55%	0.18%
Dec. 11th...	400,000	12%	45,000	99.06%	0.50%	0.37%
Dec. 12th...	300,000	—	[illegible]	[illegible]	[illegible]	None

Thus it will be seen that on December 8th the ratio of red to white cells was 14 to 1; on December 11th was 8½ to 1; and on December 12th was just under 8 to 1.

Necropsy.—The visceral pericardium showed many petechiae. The right pleural cavity contained ¾ xv of clear fluid, and the lower part of the pleura showed signs of recent inflammation: the upper part was thickened, and there were some fibrous adhesions. The left pleural cavity contained ¾ x of clear fluid, but the pleura was not inflamed. At the apex of the upper lobe of the right lung there was a small caseous tuberculous mass, and there was some fibrosis throughout this lobe, but the middle and upper lobes showed pneumonic consolidation. The left lung showed a small caseous and calcareous mass with some surrounding fibrosis near the apex of the upper lobe, and there was a similar mass at the lower lobe, with a small area of pneumonic consolidation at the base. The heart was large and fatty, the endocardium of the left ventricle showing "tabby cat" striation. The liver was not enlarged, but was fatty, microscopically showing advanced fatty degeneration with many lymphocytes between the liver cells. On treating a section with ferrocyanide of potassium, no trace of iron could be detected. The spleen weighed 12 oz., and was large and firm. The kidneys were fatty. There was an old tuberculous ulcer on the caecal side of the ileo-caecal valve. One mesenteric gland and one of the thoracic glands were enlarged to a slight degree, but on microscopical examination showed no changes. There was nothing else abnormal in the glandular system. The bone marrow showed no departure from the normal. The muscles were dark red. The thymus gland was not enlarged.



From a film stained with eosin and methylene blue × 500.

The case presents some very interesting features. The blood picture as regards the red blood corpuscles is practically that of pernicious anaemia, the diminution in the number of red cells being unusually great even for this disease, being less than one-tenth of the normal number, there being marked poikilocytosis and numerous nucleated cells, the colouring matter, moreover, being diminished only in proportion to the diminution in number of the red blood corpuscles. On the other hand, the white corpuscles exhibited typically the condition found in lymphatic leukaemia, their number being about four or five times the normal, and consisting of over 99 per cent. of lymphocytes, instead of the normal number of about 30, the neutrophiles being diminished to about ½ per cent., the normal number being about 70 per cent., and this although the patient was suffering from lobar pneumonia.

The extreme degree of the anaemia, together with the large number of nucleated red corpuscles, would seem to show that the process was an acute one, but the absence of any haemorrhages on the skin or sponginess of the gums, would apparently forbid the case being classified with those described as acute leukaemia. Westphal describes a case in which the blood picture was that of pernicious anaemia, the red cells being diminished to 816,000 per centimetre, and in which there was a leucocytosis amounting to 24,000, the greater number of these consisting of lymphocytes. This case, however, showed many haemorrhages on the skin and mucous membranes, and ran its course to a fatal

issue in about six weeks. Cabot[2] mentions two cases of lymphatic leukaemia, one with 912,000 red cells and 23,000 white cells (97 per cent. lymphocytes), the other with 700,000 red cells and 600,000 white cells (99.8 per cent. lymphocytes) per cm.

The absence of any notable enlargement of the lymphatic glands is interesting, although there are undoubted cases of lymphatic leukaemia recorded in which a similar condition prevailed.

We are indebted to Dr. Heron, under whose care the patient was, for permission to publish this case.

REFERENCES.

[1] Westphal, *Münch. med. Woch.*, 1890, p. 4. [2] *A Guide to the Clinical Examination of the Blood*, by R. C. Cabot, M.D., p. 171.

SPONTANEOUS GANGRENE OF BOTH LOWER LIMBS IN A MAN AGED 36.*

BY WILLIAM MITCHELL, M.B., C.M.EDIN.,

Bradford.

THE following case is of interest as presenting not only unusual features in itself, but also from the diagnostic point of view, as it baffled the most careful efforts of all who came in contact with it in its earlier stages:

History.—A man, aged 36, first came under my care in November, 1899, and was then suffering from what appeared to be an influenzal attack, with a slight pleurisy at the left base; he was not very ill, but had a persistent temperature of half a degree above normal, which took nearly six weeks to subside. At that time I examined him as systematically and as carefully as I could, and could find nothing to account for this persistent temperature except the slight pleuritic friction above referred to. In the spring of 1900 he had another similar illness, which did not last so long. In June of 1900 I examined him on behalf of a sickness and accident insurance company, and found the heart and lungs normal, chest expansion unusually good, and chest very well developed; urine normal, liver dullness normal, nervous system normal excepting for the presence of a fine tremor of the tongue and of the hands, the voice was also somewhat tremulous. The pulse was normal as to frequency, but small and compressible; radial arteries normal; temperature normal. I was unable to elicit anything unfavourable in his personal or family history. (I may here mention, however, that I attended his wife in confinement in October, 1899, and that a few ham-coloured maculae appeared upon her face and arms during the puerperium. The baby had "snuffles" for a few weeks. There was no history of any miscarriages, and there has been no further evidence of specific trouble in either.)

As regards the husband's personal habits, I was informed by himself that he had always been temperate as regards alcoholic beverages, and his partner in business also informed me that he had never known him indulge in alcoholic excess of any kind. He was an inveterate smoker. I had, therefore, considering all that, no hesitation in passing him for insurance, but, considering the tremors already referred to, I recommended that he be accepted at an increased premium. He was passed for life insurance by another medical man about the same time and as a first-class risk. From that time till the beginning of the present year he remained in his usual health and attended regularly to his business.

State on Examination.—On January 17th, 1901, I was called to see him at his home, and found him suffering from severe pain—which had been present for about a week before—over the ball of the little toe of the left foot; the pain was very much increased by touching the part, and it extended along the sole of the foot towards the heel. It also extended for a few inches up the posterior aspect of the leg, but was not very severe in that region. The pain was worst at night. Sensation to slight touches was diminished over the little toe. There was no marked tenderness on deep pressure of or on squeezing the muscles of the calf. The knee-jerks and other reflexes were normal. The tongue was slightly coated with a light yellowish fur. The appetite was poor; the pulse varied from 80 to 100, and the temperature was 99° F.

Diagnosis and Treatment.—My diagnosis, failing anything better and in absence of the usual signs of neuritis, was rheumatism, affecting the ligamentous structures of the sole of the foot. I accordingly put him on antirheumatic diet and drug treatment, cutting off alcohol in every form and also tobacco. (It was at this time that I first became aware that the patient had for several years been in the habit of taking several "pick-me-ups" of brandy or whisky every day, and that he was in the habit of having a glass of brandy in his coffee before going to business every morning. It was then obvious that this was the probable explanation of the tremors of hands and tongue.)

Progress.—During the first two or three weeks he improved somewhat under this treatment: the pain was not so severe, but he was still unable to walk. As he was anxious to return to business, I advised that he should go to a watering place and put himself under a medical man there with a view, if the latter thought it advisable, to having local hot-air baths. He therefore went to one on February 13th, placed himself under a medical man there, and was recommended to have the limb subjected to the [illegible] He was also put on a generous daily [illegible] [illegible] he gradually got worse, the hot-air [illegible] and [illegible] in the leg, he lost flesh generally, and became extremely weak, and the calf muscles of the affected leg wasted considerably. I next saw him on April 24th, when he was seen by a consulting physician who diagnosed neuritis, with which diagnosis I concurred, although even yet the knee-jerks were normal or only very slightly diminished, but at the time no other diagnosis seemed possible. The patient again returned to the watering place, changed his medical man there for another, and the latter asked me to see the case with him on May 11th, the patient still getting rapidly worse. We went again carefully over his case and agreed that it was one of neuritis, although a slight bluish tinge and slight coldness of the foot made us take the question of Raynaud's disease into consideration. Opinions and treatment alike, however, the patient gradually got worse, and about a week later the coldness and blueness of the foot had become more marked, and definite gangrene set in. On May 22nd he was brought home, and on arrival I could detect no pulse lower than in the common femoral at the groin. I accordingly called Mr. Horrocks in, and he amputated the limb about 7 inches above the knee, on the following day.

Operation.—The method used was short anterior and posterior flaps of skin, with circular section of the muscles. The main vessels were thrombosed above the seat of amputation, and there was practically no haemorrhage. The anaesthetic used was ether. There was a very moderate amount of shock following the operation, and the pulse, which before the operation had been 106 and the temperature 102.4°, fell respectively to 84 and 98° the same evening.

Subsequent Progress.—Two days later the temperature had fallen to 97.4° and the pulse to 73. The following day—that is, the third day after the operation—the patient began to complain of severe pain in the calf of the right leg, and of numbness and tingling pain in the right foot. On inspection the foot was found to be somewhat pale and cold, and pulsation could not be detected in the posterior tibial artery at the ankle, and was somewhat doubtful in the popliteal space. By the fifth day the pulse had again reached 110, but the temperature did not rise over 99°, and gangrene of the right foot was evident. I then advised amputation of the right leg, and made arrangements for Mr. Horrocks to operate the same day, five days after the first operation.

Second Operation.—The operation was done in the same way as the former one, only an inch lower down, that is, 6 inches above the knee, and ether was again the anaesthetic. The same condition of the vessels was found as in the left leg. The shock was much greater than on the former occasion, the temperature dropping that evening to 97°, and the pulse being 131.

After-Progress.—The following day the temperature began to go up, and on the second day after operation reached 102.2°, and it became evident that sepsis had occurred. I therefore took out some stitches and irrigated the wound, and by the fifth day the wound had become fairly clean and healthy in appearance. From that time on recovery was uneventful: the temperature never rose above 99.4°. To prevent a tendency to gaping of the wound, where it had been necessary to remove the stitches, I applied extension to the stump. The left stump healed in about three weeks after amputation and the right in about four weeks. Five weeks after the first operation the patient was able to sit up, the tongue had become clean, it had almost lost its tremor, and the appetite was better than it had been for several months; the pulse, however, still kept between 90 and 100. Insomnia was a prominent feature throughout, and I had to use hypodermic injections of morphine pretty freely. On July 31st he went to the seaside, and came back in the middle of September looking and feeling better than he had done for six or seven years; his appetite was excellent, and he had gained 2 stone in weight. Since his return he has resumed his business; at present a pair of artificial legs are being made for him.

On examining the amputated limbs I found thrombi filling all the arteries from the popliteal downwards, and on dissecting the right leg I found that the gastrocnemius was of normal appearance, but on reflecting that muscle and examining the soleus underneath I found that the latter had lost the usual red colour of healthy muscle, and had assumed a colour resembling yellow ochre. This I take to be an indication that the thrombotic process had started below and spread upwards, thus cutting off the blood from the soleus (which in its lower part is supplied by a branch of the posterior tibial artery), before the supply was cut off from the gastrocnemius, which is supplied by one of the crural branches of the popliteal higher up. On making a considerable number of sections of the arteries of this limb I failed to find any cause for the thrombosis, but on examining sections of the posterior tibial and popliteal arteries of the left leg I found well-marked calcareous degeneration of the middle coat of the artery, and here and there patches of atheromatous thickening of the intima. When placed in acid and examined under the microscope the sections give an effervescence of CO_2, thus verifying the diagnosis of calcareous degeneration.

As to the precise cause of atheroma everything is not definitely known; probably it is but part of that general fibrosis which, sooner or later, causes each one of us to "shuffle off this mortal coil"; and probably gout, rheumatism, syphilis, and alcoholism are simply accidental factors which accelerate its onset. Heredity in many cases is an important factor, as is evidenced by its appearance occasionally in children who are too young to have suffered from any self-contracted vice. Young found it an infant, Wilson in a young child, and Andral found it in the aorta of a child 8 years old.[1] It may be taken as an axiom in medicine that "a man

* Read before the Bradford and District Medico-Chirurgical Society.

is as old as his arteries," and that, comparatively speaking, it is possible for a man of 80, without atheromata, to be younger than a man of 30 who is the subject of it.

Atheroma is essentially a form of chronic arteritis affecting chiefly the middle and inner coats of arteries, but occasionally to some extent the adventitia as well. This chronic inflammatory process, like most inflammatory processes when chronic, leads to hyperplasia of the tissues affected, but chiefly to hyperplasia of the subendothelial connective tissues of the intima, giving rise to opaque, milky-looking, non-vascular patches, somewhat raised above the general surface of the intima. These patches may organize and become converted into dense fibroid tissue; or, on the other hand, the deeper parts may undergo fatty degeneration, break down and form a fluid, or semi-fluid cheesy mass constituting the so-called "atheromatous abscess." This may in time be entirely absorbed, leaving a thinned and weakened spot on the vessel wall. Sometimes an area which has undergone atheromatous degeneration may become impregnated with salts of lime, and form the calcareous plates so frequently found in the arch of the aorta. Instead of becoming absorbed or infiltrated with lime the atheromatous abscess may burst internally and its contents be discharged into the blood stream, leaving behind a raw surface on the intima known as an "atheromatous ulcer," on contact with which the blood will clot and form a thrombus.

Associated with this degenerative process in the intima, the middle or muscular coat of the artery frequently becomes thickened, and usually more so on one side than on the other, so that on transverse section it appears to be of a "signet ring" shape. Associated with this thickening of the media there may be a deposition of lime salts giving rise to calcareous degeneration of the middle coat. But this process, although present in the specimens shown, is no essential part of atheroma as such. It may be found quite independently of atheroma, and atheroma may be present where it is absent. It is met with as an independent disease, chiefly affecting the smaller arteries such as those of the limbs or viscera, converting the vessels into rigid tubes, through which the blood flows in a sluggish manner.[2] Generally speaking, however, it is a concomitant of atheroma, and gives valuable assistance in the diagnosis of the latter. It affects considerable tracts of the smaller arteries, and it may be present in one part of an artery and absent in another. Thus it may be present in the radial and absent in the brachial, or vice versa. It may exist in the femoral and be absent in the tibials, or it may be present in the tibials and absent in the femoral.

As regards diagnosis of atheroma, we are accustomed to associate it with cardiac degeneration and granular kidney, but as this case shows it may be independent of either. Most of the textbooks give the arcus senilis as one of the concomitant symptoms which may help us to form a diagnosis, but the arcus senilis is often seen in people with no suspicion of atheroma or vascular fibrosis of any form, and again it may be present, according to published cases in quite healthy young people, and absent as this case shows in cases of marked atheroma. Probably the most reliable sign of atheroma is the presence of calcareous degeneration of the radial, brachial, temporal, and tibial arteries or cerebral symptoms, such as hemiplegia due to thrombosis, where a sound heart enables embolism to be excluded, and when there is not the loss of consciousness usually associated with cerebral haemorrhage. Loss of memory for recent events may also be taken as one of the cerebral symptoms of atheroma.[3]

Then, again, a loud, prolonged, and purely systolic murmur heard over the aortic area, and conducted upwards towards the right clavicle, may reasonably be accepted as evidence of atheroma of the aorta, since pathologists tell us that narrowing of the aortic orifice due to endocarditis of the aortic cusps is of extreme rarity in the *post-mortem* room when contrasted with the frequency with which such murmurs are heard during life.[4] As in this case, numbness and tingling pains of the extremities, when persistent, may be due to progressive anaemia from atheroma of the vessels supplying the affected parts. The personal history and personal habits of the individual may also afford valuable information, as there appears to be no doubt that alcoholism is a most powerful factor in the production of atheroma; but, after all is said, cases like the present will probably occur when one can only be wise after the event.

BIBLIOGRAPHY.

[1] Hulke and Holmes, *System of Surgery*, vol. iii. p. 16. [2] *Textbook of Medicine*, Gibson, vol. ii. p. 168. [3] H. W. Syers, *Treatment*, vol. v., p. 215. [4] Ibid, p. 244.

ON TREATMENT OF HAEMOPHILIA WITH CALCIUM CHLORIDE.

By C. EDWARD WALLIS, M.R.C.S., L.R.C.P., L.D.S.,

Assistant Dental Surgeon, King's College Hospital; Dental Surgeon, Victoria Hospital, Chelsea.

In May, 1901, a patient, A. S., aged 25, came to the Dental Department of King's College Hospital for advice as to her teeth. It appeared from her story that two months previously a tooth had been removed for her at another hospital in London, and that the haemorrhage resulting therefrom continued for thirty-six hours. This so alarmed her that she was compelled to return to the hospital, where the bleeding was arrested by plugging, though even this procedure was not for some time successful. She was advised by the surgeon who attended her at that time that in future she must always warn any dentist of her tendency to excessive bleeding should he find it necessary to perform any further extractions. On investigation it was found that she gave a very definite history of haemophilia, which seemed to manifest itself on the very slightest provocation, though, as far as I could ascertain, the rest of her family were free from this diathesis.

Her appearance was very unhealthy indeed, that of a more or less chronic dyspeptic, which fact was entirely borne out by the foul condition of her mouth and general dyspeptic symptoms: she was not anaemic, and not subject to "purpura" or other condition associated with excessive haemorrhages except as stated. Her teeth were almost without exception carious and foul, many of them having abscesses, and all beyond hope of such conservative dentistry as we are able to employ in the dental department of a general hospital.

Before proceeding with a general clearance of her mouth, which the hopeless condition of her teeth necessitated, I decided to give her a preliminary course of calcium chloride internally, with a view to increasing the coagulability of the blood. She was ordered a mixture containing 10 gr. of this salt thrice daily for a week, and at the end of that time to return to the hospital, when, so as to be on the safe side, I contented myself with extracting one tooth only, and that an incisor, so that the socket could be very easily plugged if necessary. The haemorrhage resulting was, if anything, slightly more than one sees in the ordinary way, but at the same time nothing that could be regarded as in any way serious, and there was no recurrence on her return home.

She was directed to continue the calcium chloride, and after the lapse of another week I extracted three teeth, or rather what remained of them, with a similar satisfactory result as regards absence of excessive haemorrhage. She had then to leave London for three weeks, and, though she had been provided with a sufficient supply of the medicine to cover that period, for the last week of the three she neglected to take it. Hoping, however, that her previous dosing would at least have produced some effect, I extracted one tooth, and on this occasion the haemorrhage was more than on any of the previous ones, though at the same time not such as to require heroic measures.

I then increased the dose of calcium chloride to 15 gr., to be taken as before, and gradually removed all the remaining septic stumps, extracting as many as three or four at a sitting, each and every occasion being perfectly normal from the bleeding point of view.

Since the above case I have had one other typical haemophilic under my care who was treated in the same way, and with a similarly satisfactory result. Of course one cannot state positively that the absence of excessive haemorrhage in these two cases was due to the preliminary dosing with calcium chloride; but the fact remains that though previously both of these cases bled to excess on receiving the smallest wound, yet after a course of this calcium salt no trouble of this kind was manifested, except as stated above, when the patient neglected to take it for a week. Beyond the unpleasant taste,

and a certain amount of constipation which may or may not have been due to the use of this drug, the patient suffered no ill-effects, even after taking it for three or four weeks.

This means of increasing the coagulability of the blood was adopted in a puerperal case reported in the BRITISH MEDICAL JOURNAL in May, 1901, but, as far as I am aware, has not hitherto been employed as a preventive measure against the excessive haemorrhages of haemophilia, which are so troublesome and often serious in persons of this diathesis after the extraction of teeth.

NOTES OF CASES ILLUSTRATING THE USE OF ADRENALIN CHLORIDE IN OPHTHALMIC, NASAL, AND AURAL SURGERY.

BY A. STANLEY GREEN, M.B., B.S.LOND.,
Lincoln.

THE introduction of a solution of adrenalin chloride—1 in 1,000—has removed the difficulties which hitherto have been met with in using fluid extracts of the gland of having a fluid always ready and active. This difficulty was very great during the hot weather at a time when it was in great request in the treatment of hay fever.

The solution requires dilution to the extent of 1 in 5,000 for introduction into the nose and ear and to 1 in 10,000 for instillation into the eye. The diluent should be either boiled water or sterilized salt solution, and the diluted fluid should be put into coloured stoppered bottles. If exposed to the light, the fluid becomes pink and later brick-red, but does not lose its activity. In ophthalmic work I have found it chiefly of use in inflammatory conditions of the conjunctiva, and its use is indicated in pannus, iritis, keratitis, sclerotitis, and acute dacryocystitis. I have not used it much in operations on the eye, but I tried it in one case of enucleation without benefit. I was disappointed at this, as I had previously used liquid suprarenal and chloretone, and had removed an eyeball without any loss of blood. In aural work its use is indicated in chronic otitis media suppurativa with exuberant granulations or polypi, and acute inflammation of the membrana tympani.

In nasal work it is chiefly of use in swelling and hypertrophy of the mucous membrane, and in intranasal operations where a bloodless field is of importance, but the nose must always be plugged after the operation is finished, as haemorrhage may commence 30 to 40 minutes after the application of the fluid, and is then often troublesome. This is especially the case in partial turbinectomy, and for this reason I do not now use it in those cases. Of its value in the treatment of a stuffy nose from a cold in the head I have had the most pleasant personal experience, the relief being rapid and lasting. Patients can insert the wool themselves if instructed how to twist it on the end of a match so that the wool projects well beyond the end of the wood: it is advisable to warn them that the application will smart for about 40 seconds, and that the plug should be pushed up gradually, as after about a minute the mucous membrane shrinks and the wool slips in quite easily. The same advice applies to its use in hay fever, in which it gives most brilliant results.

CASE I.—A. M. had a severe cold in the head, and was quite unable to breathe through his nose. I placed a dossil of wool saturated with a 1 in 5,000 solution of adrenalin chloride in each nostril for five minutes. When the wool was removed he felt immediate relief, and nasal respiration was restored. In this case no further application was necessary.

CASE II.—H. M., aged 50, was sent to me with stenosis of the right nasal passage, which was due to an enormously enlarged anterior end of the middle turbinate bone, which was exerting considerable pressure on the septum. I applied 10 per cent. cocaine and 1 in 5,000 adrenalin chloride solution, and removed the anterior end with scissors and cold snare. There was no haemorrhage at the time, but although the nose was plugged with cyanide gauze, there was considerable oozing during the afternoon and night, which was increased the next morning when the gauze was removed. On another occasion I cocainized this patient's nose without adrenalin chloride; about three hours after she suffered from pain in the eye, lachrymation, restlessness, feeling of suffocation, and rapid pulse. After the combined use of cocaine and adrenalin chloride, though more of the former drug was used, she suffered from no unpleasant after effects.

CASE III.—N. F. was suffering from nasal stenosis, due to a thickened deflected septum. Cocaine 10 per cent., and adrenalin chloride 1 in 5,000, were applied, and a piece removed from the septum 1 in. in length with a Bosworth's saw, without any haemorrhage at the time. The nose was plugged with gauze soaked in iodoform emulsion; the haemorrhage during the rest of the day was only slight. In this case there was no bleeding when I removed the plug on the following day.

CASE IV.—N. V. was a patient with large inferior turbinate bones, and unwilling to have the galvano-cautery applied. Adrenalin chloride, 1 in 5,000 was applied by means of wool plugs. The nasal passages were free for the remainder of the day, and the patient continues to use the solution himself with great benefit.

CASE V.—J. T., aged 45, came to me on August 31st, 1901, complaining of intense headache and pain in the right eye of seven days' duration, which during the previous twenty-four hours had been of a stabbing nature. On examination there was found oedema of the upper eyelid, and a distinct bulging over the inner angle of the orbit, with tenderness on the slightest pressure. The right nasal cavity was full of crusts, and when these were removed the mucous membrane was found to be swollen and congested, especially in the middle meatus. Into this wool soaked in 1 in 5,000 adrenalin chloride solution was packed and left for five minutes, the nose was then sprayed with an alkaline solution, and she was instructed how to apply the solution thrice daily on wool, and ordered to spray the nose night and morning. Two days later she reported herself as quite free from headache and pain, and so far no relapse has occurred.

I have had several patients in whom frontal headache was almost immediately relieved by the application of adrenalin chloride to the nasal cavities.

CASE VI.—J. H., aged 45, had been suffering from chronic conjunctivitis for the previous three months. She had used various lotions with temporary relief. Guttae adrenalin chloride, 1 in 10,000, instilled thrice daily for ten days, produced an improvement which was rapid and permanent.

CASE VII.—A. W., aged 85, had been suffering for a long time with inflamed eyes and lids with lachrymation: the margins of the lower lids were everted and red. Guttae adrenalin chloride, 1 in 10,000, were instilled twice daily. At the end of a fortnight great improvement was noticed, especially in the condition of the lids, which now looked quite healthy.

CASE VIII.—A. D., aged 5 years. This patient came to me for interstitial keratitis, after having been under treatment elsewhere for three months. He had marked photophobia, and would hide himself in any dark corner. Both eyes were affected in the usual way, and circumcorneal injection was very well marked; in addition he had a purulent nasal discharge with some necrosis of the vomer, and enlarged submaxillary glands. He was ordered hydrarg., hydrarg. c creta, gr. i, ter die; guttae atropae, 1 per cent., and boracic acid lotion. As there was very little improvement, after a month's treatment I instilled 1 in 10,000 adrenalin chloride in the right eye only. At the end of a week there was very marked improvement in this eye, especially in the photophobia, but the left eye was more injected. Adrenalin chloride was therefore used in both eyes, and the left almost immediately commenced to improve, and at the end of three weeks the injection had disappeared, he could bear the sunlight, and his vision was improving.

CASE IX.—J. W. was sent to me on October 8th by Dr. Trumper, Market Rasen, with the following history. On October 4th he was standing behind a man who was shooting at a gallery and something from the rifle struck him on the right eye; it was not until the following morning that he went to Dr. Trumper, who removed some grains of gunpowder from the surface of the eye and instilled atropine drops; the lens was then becoming opaque. When I saw him there was marked iritis, circumcorneal injection being most intense at the inner and outer ends of the horizontal meridian. There was a small scar on the cornea in the outer part of the same meridian 3 mm. from the limbus, and opposite this was a posterior synechia. I examined him with the fluorescent screen and also took a skiagraph, but no foreign body could be seen, nor could anything be discovered with the opthalmoscope. V. = fingers at 12 in. The atropine was continued and pil. hydrarg. grs. 4 ter. die ordered. On the 11th the eye was more inflamed: V. = movement of hand: three leeches were ordered for the temple and belladonna fomentations to be applied every four hours. On the 14th there was a considerable exudation of lymph round the outer half of the ciliary body. On the 18th the eye was intensely injected and very painful. Gutt. adrenalin chloride 1 in 10,000 were instilled and ordered to be used thrice daily, and two leeches were given him to put on when he got home. On the 21st the eye was much quieter and less injected (the drops had given him such immediate and lasting relief from the pain that he had not applied the leeches), and he has had no pain since the adrenalin chloride was instilled. From this time on the eye made rapid improvement, and is now free from inflammation. The patient says that the relief from the drops was most marked.

CASE X.—J. G., a farm labourer, had had inflamed eyes for fourteen days. The conjunctivae of both eyes were velvety, with scabs along the lids and also around the nostrils. Gutt. adrenalin chloride (1 in 10,000) were ordered thrice daily, and ung. acid bor. to be applied along the lids at night. In seven days the eyes were quite well.

CASE XI.—P. M., aged 18, came with a history of sore eyes of twelve months' duration; the margins of the lids were inflamed and most of the lashes had fallen out. Ung. acid bor. was ordered to be put on the lids at night, and adrenalin chloride (1 in 10,000) to be dropped in thrice daily. In four days a great improvement was visible, and at the end of a week the lids were cured.

CASE XII.—A. S. was suffering from a polypus in the middle ear, and had had double otitis media suppurativa for many years. In March, 1901, I performed the radical mastoid operation on the right ear, grafting the cavity on the fourth day. The left ear continued to discharge off and on, and she came to me on October 28th with great pain in this ear, and on examination I found a large polypus blocking the perforation in the membrana tympani. As she was an extremely nervous patient, it would have been necessary to anaesthetize her for the removal of this growth, so I instilled adrenalin chloride (1 in 5,000). At the end of ten minutes the polypus had shrunk to one-third of its former size, and I was able to relieve the pain by syringing out the pent up pus. She has now been using the solution for three weeks; the polypus has disappeared; there is very little discharge and no pain. She will eventually require a mastoid operation, but the adrenalin chloride has given temporary relief.

Dr. W. H. B. Brook has kindly given me permission to

publish the notes of the following case, which shows in a very striking manner the effect of adrenalin chloride in relieving photophobia.

CASE XIII.—A. B., aged 68, was admitted into the Lincoln County Hospital on October 28th, 1901, suffering from acute conjunctivitis, of six weeks' duration, for which she had been under treatment. On admission there was intense photophobia of the right eye, so much that until cocaine was instilled it was impossible to examine the eye; the conjunctiva was inflamed, red, and swollen, and there were the remains of a phlycten on the cornea. Adrenalin chloride solution, 1 in 10,000, was instilled into the eye, with relief in less than a minute, the injection of the conjunctiva disappeared, and the photophobia was entirely relieved. There was no ciliary congestion. The signs returned in the course of a few hours, but in a less marked degree, the drops were repeated three times daily, and the eye irrigated with lotio hydrag. perchlor., 1 in 5,000. In the course of a few days the eye was well.

P.S.—Since writing the above I have had several very marked instances of the relief afforded by adrenalin chloride in photophobia due to conjunctival and corneal affections, but must utter a word of warning against its use in corneal ulcers as in these cases it does harm. I have also proved its great value in acute and chronic iritis, when combined with atropine the relief of pain being very rapid.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TWO CASES OF PARTIAL CRETINISM WHICH DEVELOPED SWELLING OF THE THYROID ON CESSATION OF TREATMENT BY THYROID EXTRACT.

THE two following cases appear to have a practical bearing on the treatment of simple goitre by thyroid extract. It is known that some of these cases of simple goitre improve under treatment with iodine, and also under treatment by thyroid extract. The inference is that some of these cases must be very closely allied to cretinism, an inference the more likely because it is also recognized that, in some instances, the condition relapses on cessation of this treatment. The two following cases may supply a link in the chain of evidence.

CASE I.—A girl, aged 8½ years, had been under treatment for partial cretinism at the Hospital for Sick Children, Great Ormond Street, for four years and a-half. Though backward, no one, I think, latterly could have recognized her as a cretin, but in the summer of 1901 she contracted diphtheria, and while she was being treated at a hospital for this disease the treatment by thyroid extract was omitted for five weeks. Her mother brought her back to me to recontinue the treatment, and said that the child had become more dull, slower in speech, and that the tongue had swollen. She had also noticed that the neck had swollen. With the history of the patient before me the explanation was quite clear, but had I seen the child for the first time I hardly think that I should have recognized her as cretinous. The swelling of the neck was a slight but quite obvious swelling of the entire thyroid gland, which at once subsided on renewal of the treatment.

CASE II.—A girl, aged 8, who had been under observation for five and a half years for partial cretinism, was attending the hospital for thyroid treatment. All cretinous symptoms had disappeared, and I thought it possible that the thyroid gland might have developed with the growth of the child. With caution the dose was diminished, and finally no thyroid was given. Two months after cessation the mother brought the child to me, with the history that she had become a little dull and rather slow in her speech, and that a large swelling had appeared in the neck. Again, had it not been that I knew the previous history, I doubt whether the diagnosis of cretinism could have been made. The thyroid swelling was very definite, and formed an obvious goitre. The swelling was a general one, and both lobes were equally affected. Treatment was promptly resumed, and the goitre rapidly disappeared. Since then the family had moved to the north, and the mother has told me that the treatment had been again intermitted. In February of this year they again returned to London, and I found that the gland was once more very easily palpable, though not large enough to be called a goitre.

I have but little doubt that such cases as these have been observed before, but in most of our textbooks the value of the treatment of simple goitre by thyroid extract is alluded to as a fact, without any very definite reason for the fact. These two cases cannot fail, I think, to increase our confidence in the trial of this method, especially in those cases in which perhaps iodine might have been used in preference. In both instances it will be noted that the diagnosis of simple goitre would probably have not been made had not the former history been known; and it is very possible that some of these cases of simple goitre may show slight symptoms of cretinism, which would be easily overlooked or misconstrued as signs of general ill-health.

F. JOHN POYNTON, M.D., M.R.C.P.,
Assistant Physician to the Hospital for Sick Children, Great Ormond Street.

CASE OF PROLONGED LACTATION.

WE were consulted in January, 1902, by M. E. S., with regard to her child, who was at that time suffering from bronchitis and constipation. An inquiry into the nature of the child's diet elicited the fact that "she still had the breast," although she was 5 years and 2 months old. The mother is 47 years of age, and well nourished, but somewhat sallow. She had been married 24 years, and of nine conceptions eight children have been born at term, and there was one miscarriage at five months.

Of the children, three—one male and two females—are living; three males and two females died of diseases common in children. The youngest child (a female) is now 5 years and 4 months old, and up to the time we first saw her was fed at the mother's breast three or four times every day, but for the past two years has had some additional food. The mother "always had plenty of milk." She commenced to menstruate at 16, but during the period of lactation under discussion had menstruated twice only (in August, 1901, and February, 1902). The breasts were full, and milk could be readily squeezed from them. The microscope showed this to contain nearly as large a quantity of fat as a specimen of fresh cow's milk with which it was compared. We advised that the child be weaned, and suggested a more suitable diet. This was done, and after seven days the secretion of milk ceased.

At the beginning of March the breasts were found to be small; the nipples and areolae deeply pigmented; and the child doing well. For permission to report this case—which in our experience is unique—we are indebted to Dr. Archibald Donald.

H. R. CLARKE, M.B. } Resident Medical
R. S. NICHOL, M.B. } Officers,
St. Mary's Hospital, Manchester.

THE COAGULATING POWER OF THE BLOOD IN PLAGUE.

DURING the last few weeks of my stay in India I was carrying on investigations as to the bactericidal and sedimenting power of the blood of plague patients, and was struck by a feature in this blood which I do not remember to have seen noted elsewhere.

I venture to publish my incomplete observation as I shall probably have no opportunity of continuing it, and hope that someone else working in the plague-infected districts will think it worth while to carry on the investigation.

The point that I allude to is the failure to coagulate of the blood taken during life from patients suffering from a virulent form of the disease, and I was led to observe it in the following way. From 32 patients who were at different stages of the disease I collected blood in the capsules recommended by Professor Wright of Netley. The blood was in each case drawn from the finger, and the capsule immediately sealed in the flame and kept in the erect position. Of these 32 patients 12 died within forty-eight hours of the examination, and of these 12 rapidly-fatal cases, the blood of 10 showed absolutely no coagulation at all. The capsules were kept for varying periods up to three weeks (one, in fact, is still in my possession), and at no time was a clot observed in them. With normal blood a well-defined clot suspended in a perfectly clear straw-coloured serum is observed in a short time. In the 10 cases alluded to there was no separation of the constituent parts of the blood at all. It remained a dark-red

treacle-like fluid which slowly trickled from one end of the capsule to the other when this was inverted. In some cases, including 2 of the fatal ones, and several which ultimately recovered, the clot formation was imperfect and the serum which separated out scanty and reddish. Of the 10 non-coagulating cases 4 died within twelve hours, 2 within eighteen hours, 2 within twenty-four hours, and 2 within thirty-six hours of the examination. The remaining 2 fatal cases died within forty-eight hours, and showed, as already stated, diminished power of coagulation. Of the 32 patients examined, 19, including 11 of the fatal cases were at the first to the fifth day of the disease; 5, including 1 fatal case, from the sixth to the tenth day of the disease; the remaining 8 were in the convalescent stage.

It would be interesting to observe (1) how far blood taken from patients in other acute fevers shows this absence of coagulation, and (2) the bearing of the sign, when present, on the prognosis and pathology of the disease.

ALICE M. CORTHORN, M.B., B.S.,
London. Late Special Medical Officer on Plague Duty, India.

PLACENTA PRAEVIA.

I HAVE not seen it recorded in any of the works on midwifery at my disposal that placenta praevia has occurred in the same person twice, and the following case may be of interest:

I was called on March 21st, 1901, to see Mrs. P., who was eight months pregnant. She had a severe attack of uterine haemorrhage, due to placenta praevia; the child was dead, and labour had commenced. With the usual aseptic precautions I separated the placenta, which was central, as high up as possible, and plugged the os and vagina with iodoform gauze. As soon as the os was sufficiently dilated I turned and delivered under chloroform. The placenta was attached to the anterior wall of the uterus for such a short distance that I was able to get my hand past it; on delivery I found the child showed signs of decomposition.

The patient had an attack of perimetritis subsequently, which proved a blessing to her under the circumstances, as it cured an old-standing procidentia uteri. She made a good recovery, and again became pregnant.

I was sent for on April 4th, 1902, and found her in a similar condition to the above, this time she was only six months pregnant. I adopted a similar line of treatment: the child was born alive, but only lived a few minutes. The patient is making a good recovery. It is instructive to observe the discrepancies of various observers as regards the frequency of placenta praevia, from Kaltenbach (who puts the proportion as 1 in 1,600) to the *Rotunda Hospital Reports* of 1 in 175.68.

I have personally attended 2,066 cases, extending over a period of 22 years, and have had 13 cases of placenta praevia. I had one death of the mother, three weeks after delivery, due to pelvic abscess. The mortality of the infants was very high naturally, owing to premature birth and intrauterine death from the continued haemorrhage.

Bromley, E. SAMUEL ALEXANDER.

ENTERIC FEVER IN INFANTS.

ON reading the note of a case of enteric fever in an infant 4½ months of age, recorded in the BRITISH MEDICAL JOURNAL of April 19th, I thought it might be of interest to mention that a case of enteric fever in an infant 5 months old came under my observation in February, 1900. This child suffered much from diarrhoea, the tongue was thickly coated with a white fur, and the temperature during a period of five weeks ranged from 99° to 102.4° F. The chief point of interest in the case, apart from the age of the patient, was the manner in which the skin suffered. Rose-coloured spots appeared about the tenth day of the illness over the abdomen and also in the lumbar region. On the twelfth day a large number of spots appeared on the legs and arms, and also the face and chest. In addition to the profuseness of the rash, the body was covered with sudamina, and during convalescence successive crops of boils made their appearance. The child remained anaemic and weakly for some months after the illness, but eventually made a good recovery.

Holmesdale, N.B. S. DAVIDSON, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON HOSPITAL.

TOTAL SUPPRESSION OF URINE DUE TO ACUTE NEPHRITIS.

(Reported by W. J. HADLEY, M.D., F.R.C.P., Physician to the Hospital.)

IN view of the article on Suppression of Urine, under Dr. Mitchell Stevens's name, in the BRITISH MEDICAL JOURNAL of March 22nd, 1902, the following case may be of interest as showing that the symptoms of non-obstructive suppression of the urine are not infrequently as remarkable for their "latency" as those in which the suppression is due to obstruction.

History.—B. F., female, aged 42, was admitted under my care on January 25th, 1902, with the history that she had been ill nine days with "cold on the kidneys:" that for the first two days there had been slight general oedema, vomiting and pains in the back, but that after that time (two days) these symptoms had passed off, although she had passed absolutely no water for five days before admission.

State on Admission.—There was no headache, very slight vomiting, a little giddiness and night starting; mental condition clear, intelligent, and quite cheerful. The lungs were clear; the heart sounds practically normal, there being a slightly exaggerated second aortic, although the pulse tension was low. Nothing abnormal to be felt in the abdomen. No urine passed, and the catheter showed the bladder empty. No history could be obtained of renal colic. No changes were visible in fundi.

Treatment and Progress of Case.—She was treated with hot-air baths and hypodermic injections of pilocarpin, and sweated profusely; the bowels were opened only slightly with elaterium and croton oil. Later she was bled 1 pint, and 4 pints of saline solution were infused. She lived three days in hospital, during which she passed absolutely no urine, making eight days in all of total suppression. She took plenty of milk, complained of nothing, and was bright and cheerful to the end. At her death she was talking to her friends whilst taking some milk, when suddenly her breathing ceased, although there had been no previous dyspnoea. There never was any headache, drowsiness, twitchings, or mental incapacity, and the vomiting was only trifling, and did not prevent a good amount of milk being taken. The pulse ranged between 80 and 95 per minute, whilst the temperature, although it once rose to 100.2°, was usually at or below normal.

Necropsy.—Body well nourished, no oedema. Right pleural cavity contained ℥x of fluid, both lungs being very oedematous. Heart uncontracted, left side dilated, not hypertrophied; valves healthy. Spleen enlarged (℥xiij), soft, not diffluent, capsule healthy, no infarcts. Kidneys enlarged (right ℥xjss, left ℥ijss). Capsules peeled fairly readily, leaving smooth surface, small haemorrhages into capsules. Substance of kidneys deeply congested, but not haemorrhagic; cortex much increased, and paler than medulla (acute nephritis of short duration). Bladder empty, no cystitis or other morbid condition. No stone or other obstruction in any part of the urinary tract, which was quite healthy from the pelvis of the kidney to the urethra. Liver enlarged, much congested, excess of fibrous tissue in parts, softened in others, but not fatty. There was slight congestion of the stomach, duodenum, and upper part of jejunum; no other morbid changes. The uterus was about the size of an orange, showed placental site, to which distinct membranes were loosely attached: no ovum seen, but it might easily have escaped, as the membranes had ruptured.

REMARKS. This case is unusual, but not unique, and, although one must acknowledge that cases of obstructive suppression, as a rule, live much longer and show much less "uraemic" symptoms than those of non obstructive suppression, yet there is a fair number of cases of suppression, arising

solely from the changes in the kidneys, in which the patients do not succumb "in a few hours or in a day or two," and of whom one cannot say "symptoms of uraemia are prominent;" indeed, as in this case (and in others I have seen) there may be no so called uraemic symptoms whatever. Whatever may be the ultimate decision with regard to the various theories put forward to explain the condition we call uraemia, it would, for many reasons, be most likely due to a toxaemia. Whether that toxaemia be caused by the retention of poisons, which should be excreted by the kidneys, or by the accumulation in the blood of poisons, the formation or accumulation of which should be prevented by an internal secretion of that organ; however we look at it, we must grasp the fact that there are a good many cases which are sufficiently poisoned to die, but who, nevertheless, present few or none of the usual symptoms of the poisoning.

ROTHERHAM HOSPITAL.

ECTOPIC GESTATION: RUPTURE: OPERATION: RECOVERY.

(Reported by F. B. JUDGE BALDWIN, M.R.C.S., Surgeon to the Hospital.)

History.—H. A. L., aged 23½, married at 19, had had four children, the second being a seven months child, and nothing unusual had occurred in the carrying of either. Her mother had sixteen children, all normal. The patient had been a healthy woman, without any illness of any moment in the past; her monthly periods had been regular, but profuse. She menstruated last in August, 1901. She suspected her pregnancy after the second week, from the morning sickness, which in previous pregnancies had always commenced at the same period. She was then nursing her last child, but weaned it directly she was aware of her condition. From time to time she had felt a sharp stabbing pain in the left side, and also in the womb. There was nothing else of moment until the night of November 1st, when she fainted, caused, she says, by a very sharp pain in the bowels, which felt as if they must be moved. Dr. Druitt was sent for in the night about 12 o'clock. He recognized the gravity of the case, and suspected ectopic gestation. Of the occurrence of internal haemorrhage there could be no doubt, on account of the pallor and faintness. Dr. Druitt took means to get her conveyed to the Rotherham Hospital, a distance of two miles. I was called at 3 a.m., and on examination agreed in the diagnosis, and the patient as soon as possible was put on the operating table.

Operation.—On opening the abdomen large clots presented: these were cleared as well as possible, and the hand was passed down into the pelvis, catching a loose fetus a little older than expected. A thin umbilical cord led down to the placental attachment. I removed the placenta—about the size of a florin—from the expanded Fallopian tube. A channel led down from the placenta to the fuller expansion in the broad ligament, evidently the resting place of the fetus. The muscular layer of the Fallopian tube was immensely hypertrophied, and the whole expansion was extraperitoneal. The situation of the expansion in the Fallopian tube was about 1 to 1½ in. from the cornua of the uterus, and the rupture at the superior margin of the tube. A clamp was placed on the broad ligament, which was ligatured and removed. The abdominal cavity was douched, and with hand work many large clots were removed. The abdomen was sutured and closed, a tube being left in for twenty-four hours.

Progress.—The patient hardly made an uninterrupted recovery, as the temperature kept up to 101° and 102° for some time with variations to normal, but she had no pain and seemed to be improving. Three days after the operation a lochial discharge commenced and continued for fourteen days. No membrane was discharged, but there were severe after-pains for the first forty-eight hours. After four weeks she was allowed up, when she complained for the first time of pain in the right leg, and it was found she had some slight phlebitis of the femoral vein. After resting for a further fortnight she was discharged cured at the end of eight weeks. On January 10th, ten weeks later, menstruation was re-established.

REMARKS.—I cannot too fully (if he will allow me) compliment Dr. Druitt on his rapid diagnosis and care in conveying personally his patient under such difficult circumstances and at such an hour.

REPORTS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Sir CHRISTOPHER NIXON, M.D., President, in the Chair.

Friday, April 11th, 1902.

CASE.

DR. J. G. COLEMAN exhibited a case of "sporadic cretinism" in a child, aged 5 years. The case was particularly well marked, all the classic symptoms of the disease being present.

PERFORATED GASTRIC ULCER.

Mr. R. F. TOBIN read a paper on some medical aspects of four consecutive cases of perforated gastric ulcer, successfully operated on, all of which were together in St. Vincent's Hospital at the opening of the present session. Three of the patients were young domestic servants. In all the cases the position of the ulcer was the same, namely, an inch or two in front of the oesophageal opening. This, he said, was the most common spot for the surgeon to find a perforation. Why was it so? He believed that perforation was the penalty the overworked anaemic class that furnished most cases paid for being obliged to carry themselves upright from early rising to late bedtime. The liver in such patients was not braced up owing to the laxity of tissue and their being on their legs all day long. The stomach, owing to its fixity to the diaphragm, was being continually drawn through a long range of movement in the breathing induced by journeys up and down stairs. Given congestion of the area under consideration—that which extended from the oesophagus under the liver—it was easy to understand how the pressure and movement referred to would in anaemic subjects cause congestion to pass to ulceration, and ulceration to sloughing; also how rest in the recumbent position was such a healing force in such cases. He referred to the disastrous effects of movement in cases of perforation, and laid down the rule that the surgeon should be called to the patient, and that no patient should be moved till the opening had been closed. The convenience of operating in hospital did not cover the loss from transportation. He narrated a case on which he operated successfully with the rudest appliances. Shock should not prevent immediate operation. It was not mere nervous shock, where nothing harmful was going on while one waited for the patient to come round. On the contrary, changes were going on that might lead to thrombosis of the mesenteric veins and render operation useless. As regarded prevention, he pointed out that doctors were constantly advising sufferers of the servant class to rest in the intervals of work, at the same time knowing that in most houses, short of going to bed, there was no means of carrying out the suggestion.

Remarks were made by Dr. REDMOND, Mr. H. G. CROLY, Dr. KENNEDY, Dr. WINTER, Dr. JAMES LITTLE, Dr. FINNY, Dr. O'CARROLL, and Dr. PARSONS, and Sir CHRISTOPHER NIXON ended the discussion with interesting remarks on gastric ulcer.

Mr. TOBIN, in reply, stated that the object of his paper was to try to induce physicians to bring the surgeon to the patient, not the patient to the surgeon: not to send a case of perforated gastric ulcer to hospital, but to keep it at home and have it operated on there. He looked on the shock as being occasioned by the extravasation, and to be proportioned to the amount of the extravasation. Every one of his cases was diagnosed by the physician in attendance. He had seen these cases within the past few months and they remained well. In two cases he flushed out the peritoneal cavity with sterilized water, and in one he used a mop of surgical wool on the end of a stick. He looked on the escape of gas on opening the abdomen as a most valuable sign of perforation. An ulcer on the posterior wall of viscus would undoubtedly, greatly add to the difficulties, but happily, perforating ulcers, were as a rule, found on the anterior surface. He had operated more than forty hours after perforation had taken place. On admission to hospital there was a diminution of the area of hepatic dullness in every one of the cases, though the symptom was absent in each one when first examined in their own home. He was in favour of keeping and carrying patients in the Trendelenburg position when circumstances permitted of it.

HUNTERIAN SOCIETY.

A. L. GALABIN, M.D., F.R.C.P., President, in the Chair.

Wednesday, April 9th, 1901.

LYMPHADENOMA.

DR. FRED. J. SMITH showed a case of lymphadenoma in a little girl, aged 8, with the following history:

She was admitted to the London Hospital in February, 1902, under the care of Dr. Sansom (by whose permission Dr. Smith was enabled to bring her before the Society) with a large swelling on the left side of the neck. Inquiry as to the family history showed that a brother, now aged 11, had lumps alleged to be similar to those of the patient, but no other member was or had been affected. She herself had had whooping-cough, chicken-pox, and measles, the last named at the age of 4, and it was subsequent to this illness that her mother noticed a lump in the left side of the neck, which had increased in size in an irregular manner. Condition on admission: She was a fairly healthy-looking child, and apparently enjoying pretty good general health except for some shortness of breath and cough on exertion. Examination of her blood showed 4,000,000 red corpuscles and 4,000 white corpuscles per c.mm. Digestive system: This in function seemed quite healthy, but the spleen was easily to be felt extending some 3 in. or so below the costal margin. Circulatory system: Some slight irregularity occasionally present in the heart's rhythm and a haemic *bruit* to be heard when patient lay down; the frequency of the pulse was also above the average, varying between 100 and 120 per minute. Respiratory system: Slight cough on exertion; considerably increased resistance on percussion over upper part of left chest, but air entered both lungs freely and without any adventitious sounds. Urinary and nervous systems without obvious abnormality. Temperature occasionally raised to 100°, but usually normal or slightly subnormal. Condition of neck: A large swelling about the size of a man's closed fist visible in left side of neck, with slight thickening of tissues of upper arm and pectoral region, though no pitting on pressure; to the hand the lump evidently consisted of enlarged cervical glands, the skin was freely movable over them, and they were freely movable amongst the deep connective tissue; the individual glands were easily to be felt without any matting together of glands and connective tissue. No other glands were enlarged. She had been treated during her stay in hospital with arsenic in increasing doses up to mvj of Fowler's solution ter die, and with extracts of malt, and under this had gained 10 lb. in six weeks.

Dr. Smith remarked that he would prefer to give a preliminary diagnosis of enlargement of lymphatic glands simply. Tubercle could be eliminated by the absence of adhesions of the glands to one another, or to the skin after a duration of four years; and the same argument would hold against any other local source of irritation—teeth, tonsils, ear, scalp, etc. From the duration of the case, he excluded any process that might be called sarcomatous; and, though this was so far favourable, he was driven to conclude that the patient was the victim of a disease which would ultimately destroy life, unless arsenic were able to hold it in check. One or other of the glands might be removed with a view to making the diagnosis more certain, as it was possibly a case of splenic anaemia in a child with some tuberculous glands.

In reply to a question by MR. KELSON,

DR. SMITH said the larynx had not been examined as a source of peripheral irritation, but he would have it examined.

HEMIPLEGIA IN A BOY.

DR. SMITH also showed a case of hemiplegia in a boy, aged 9 years, who was admitted under his care from Dr. Leon of Portsmouth, complaining of loss of power in the right arm and leg.

So far as could be ascertained there was nothing in the family history throwing any light on his case. His birth was a prolonged one, necessitating chloroform and instruments, but he turned out healthy enough during infancy, and remained healthy till about six or seven months previously when he was over 8 years old, when, without any special reason, he began to lose power in the right arm and leg; his mother first noticed the weakness by finding that he was not able to write a letter properly, as the pen kept slipping from his hand (he was a right-handed, typically healthy boy, rather fond of his school work, and quite up to the average in intelligence). During the next three or four months the condition of weakness in right arm and leg rather rapidly grew worse, so that on admission he could not walk owing to the foot bending in, and his right arm was practically useless. On admission it was found that his alimentary, circulatory, respiratory, and urinary systems were quite healthy, but his nervous system revealed the following peculiarities:—Motor side: Great weakness of all the muscles of the right hand and arm to the shoulder, also of the right leg to thigh accompanied by (1) no wasting or R.D in the muscles, (2) considerable spasticity of the muscles, so that in walking there was spasticity and rigidity and uncertainty of movement rather than mere dragging, (3) much uncertainty of sense of position, with eyes shut, both on active and passive movement, (4) complete freedom of movement on the left side. Sensory side: The perception of general sensation and its localization were fairly good over the affected areas (quite good over the non-affected ones), but he had very defective judgement indeed between heat and cold all down the right side, arm, trunk, and leg. Reflexes: Knee jerks increased on both sides above average, but on right very exaggerated and accompanied by ankle clonus; on tickling the soles the right toe was bent up (pathological), the left one down (normal). Bladder and rectum: Functionate normally. Cranial nerves: Seem to be quite healthy; he had lost his right eye from a blow with a ball, the left fundus was quite healthy. Mental condition: Very good, intelligence unimpaired, and no peculiarities of speech or emotions; no headaches.

Dr. Smith stated that the diagnosis of the nature of his trouble appeared tolerably easy, as tumour seemed excluded by the entire absence of convulsive movements of headache, of vomiting, and of optic neuritis, and the history at once excluded any of the ordinary causes for hemiplegia such as haemorrhage, thrombosis, or inflammation, so that degeneration of nerve fibres was at once arrived at, as the actual condition, but when he came to consider the reason for this, and also its locality, the case at once became very obscure. He thought at first it might have been due in some way or other to the difficult labour, but he could not find any foundation for the idea that an injury could occur at birth of such a nature that its effects remained latent for some eight years, to then show themselves a premature decay; at any rate he thought that it was a primary degeneration, either cortical or just sub-cortical that accounted for the "hemi" type of the disease. The curious alterations in the boy's appreciation of heat and cold were, he thought, suggestive of a syringomyelia of the cord. Such a condition was known at times to be of a unilateral type so that there would be no insuperable difficulty in accepting such a condition in the upper cord as a complete diagnosis of the case. But Dr. Smith finally concluded that the evidence, especially the spasticity, was on the whole in favour of a cortical lesion. He promised to bring before the Society any further information that might be obtained.

CASES.

DR. W. H. KELSON showed a case of enlargement of the right and middle lobes of the thyroid body of six years' duration in a woman aged 33. Slight tremor and palpitation were present, and patient suffered from menstrual irregularity and breathlessness. Dr. Kelson took the view that the symptoms were due to some abnormality in the thyroid secretion, and that in very varying degree symptoms were always present in all thyroid enlargements, the culminating point being a typical case of exophthalmic goitre, although microscopically the appearances differed considerably.—Sir HUGH BEEVOR showed a case of factitious urticaria.—Dr. DAVID ROSS showed a case of tetany in a labourer.—DRS. KELSON, GLOVER LYON, MILLIGAN, Sir HUGH BEEVOR, Mr. TARGETT, and the PRESIDENT discussed the case.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

S. BUCKLEY, M.D., F.R.C.S., President, in the Chair.

Friday, April 18th, 1902.

ADENOMA OF UTERUS.

DR. W. WALTER (Manchester) showed a specimen of adenoma of the uterus removed by vaginal hysterectomy in a single woman, aged 39. There had been uterine haemorrhage for three months which curetting had failed to arrest. He performed anterior colpotomy and incised the front wall of the uterus sufficiently to explore the condition of the endometrium. Finding a villous growth attached to the fundus, the uterus was removed. The after-history was uneventful. Histologically the growth proved to be an adenoma.

EXTIRPATION OF UTERUS FOR POLYPI.

DR. ARCHIBALD DONALD (Manchester) showed a uterus extirpated per vaginam from a widow, aged 47, for recurrent polypi. There had been metrorrhagia. Numerous polypi were found originating from the cervical wall. They were freely removed by scissors and scraping. Four months afterwards the polypi had returned, but were much larger and more numerous, almost filling the upper third of the vagina. Owing to the rapid recurrence the case was looked upon as clinically malignant and hysterectomy was therefore done. The patient made a good recovery. On opening the uterus several polypi were found in the true uterine cavity. On microscopical examination of the growths, in no part was there any appearance suggesting malignancy. The uterine wall was not involved in the growth.

PLACENTA DUPLEX.

DR. E. O. CROFT (Leeds) showed a placenta duplex from a single gestation. The specimen was obtained from a case of albuminuria and eclampsia at full term. The placental tissue was divided into two equal portions united by a membranous band about 2 in. wide. The cord entered the centre of this membrane, and its vessels then spread out in two groups to the placental portions. The fetus was small and still-born.

Paravaginal Hysterectomy.

Dr. W. J. Sinclair (Manchester) described a case in which he had extirpated the uterus for cancer of the cervix by the paravaginal (Schuchardt's) operation. The patient was a married woman, aged 46. The disease was somewhat advanced, and was on the boundary line for radical or palliative treatment. There was some induration of the parametrium on the left side. The bladder was free, and could be separated. Dr. Sinclair said that by the method adopted a larger accessibility to the disease was obtained by widely opening up the ischio-rectal fossa, and so reaching the parametric tissues. He was able to see the left ureter, and was able to clear it of some growth which was below it. The ovaries and tubes were removed with the uterus. A few stitches were placed in the peritoneal flaps to prevent prolapse of bowel, and a loose vaginal packing inserted. He thought tight packing harmful, and that it occasionally caused a sloughing perforation of the bladder. He considered that by the paravaginal method all could be done that was justifiable by way of radical operation for cancer of the cervix, and did not approve of extensive abdominal operations.

The case was discussed by Dr. H. Briggs, Dr. Grimsdale, and Mr. Stanmore Bishop; and Dr. Sinclair replied.

Solid Ovarian Tumours.

Dr. J. E. Gemmell (Liverpool) related two cases of double solid ovarian tumours.

(1) A nullipara, aged 45, had been said to have an ovarian tumour seven years previously, but it was not treated. For twelve months she had severe abdominal pain, much gastric disturbance, and floodings. There was much ascites: the liver was enlarged. An irregular solid mass was felt in the lower abdomen. A fibroid nodule was also felt in the posterior uterine wall. Owing to a history of indulgence in spirits and the condition of the liver, the ascites was thought to be possibly due to cirrhosis, but the existence of an ovarian tumour also suggested the possibility of fibroma or malignant tumour of the ovary. The presence of the fibroid nodule and metrorrhagia caused further difficulty in diagnosis. The gastric trouble was relieved and the abdomen opened. Much blood-stained fluid escaped and two ovarian tumours removed with difficulty: also the small fibroid was enucleated from the posterior uterine wall. The ovarian tumours were mainly solid, but contained some cystic portions. The growths were carcinomatous. Malignant deposits were seen on the intestines, omentum, and liver. The patient was much relieved of her symptoms, but died about three months later. (2) A married woman suffered from pelvic pain and much dyspepsia, which did not yield to medical treatment. The menses had become more profuse and frequent recently. A solid ovarian tumour was diagnosed. On opening the abdomen some clear ascitic fluid escaped, and a large solid ovarian tumour was removed from the right side, and a smaller growth of similar nature from the left side. The larger growth presented a cyst about the size of an orange at one part. The microscopical sections which were also exhibited showed the growths to be true fibroma.

Dr. Walter said that when the abdomen was explored and secondary malignant growths discovered, it was a question whether the primary growth should be removed. Such cases bear operation badly. When, as in Dr. Gemmell's first case, the tumour was partly cystic and could be removed with reasonable safety, it was better to do so. The cystic portions, if left, were liable to perforate speedily, and lead to acute peritonitis.

Mr. Stanmore Bishop also discussed the cases; and Dr. Gemmell replied.

Fatal Uraemia after Ovariotomy.

Dr. Lloyd Roberts described a case of death from uraemia after ovariotomy.

A patient, aged 58, a multipara, was found to have a large ovarian tumour extending to about 3 in. above the umbilicus. There was a considerable cloud of albumen in the urine. The patient was kept under treatment by diet and medicine until the urine contained a mere trace of albumen. Abdominal section was performed, and an ordinary multilocular ovarian tumour of the left side removed. After operation the quantity of urine decreased and the albumen increased again. The patient became restless and sleepless, and vomited frequently. Death from uraemic coma took place on the tenth day, only 8 oz. of urine loaded with albumen having been passed during the last forty-eight hours of life.

There were no signs of septicaemia or peritonitis. *Post-mortem* there was double nephritis, the other organs being healthy. The case demonstrated the gravity of the risk of performing major operations in cases of renal degeneration.

Dr. A. Donald and Dr. W. J. Sinclair made remarks; and Dr. Lloyd Roberts replied.

Pathological Society of London.—At a laboratory meeting held at the Middlesex Hospital on May 6th, Mr. W. Watson Cheyne, F.R.S., President, in the chair, the following communications were made: The Effects of High-frequency Currents upon Bacteria, by Mr. A. G. R. Foulerton and Dr. A. M. Kellas; Mr. T. J. Bokenham read a preliminary note on the same subject; Bacilli resembling the Plague Bacillus, by Professor E. Klein; Aneurysm of the Heart, by Dr. A. F. Voelcker: Hat-pin for many Months or Years embedded in the Heart, by Dr. Campbell Thomson; Pseudo-tuberculosis, by Mr. L. Milburn; Yeast Infection, by Mr. H. J. Curtis; Inhibitory Action of Fluid from Joints in Charcot's Disease upon the Growth of Bacteria, by Mr. C. G. Seligmann: Method of demonstrating the Track of Bullet Wounds of the Brain, by Mr. N. Bishop Harman.

STAFFORDSHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

W. H. Folker, F.R.C.S.Eng., President, in the Chair.

Thursday, April 24th, 1902.

Operation for Suppurative Otitis and Mastoid Disease.

Dr. Deanesly (Wolverhampton) showed two cases of complete operation for chronic suppurative otitis and mastoid disease, followed by skin-grafting (Ballance's method). The patients were both young women. In one chronic discharge and a large protruding polypus were the indications for the operation. In the other, in addition to chronic discharge and absolute deafness there was a discharging sinus over the mastoid. The first operation was performed in the usual manner, and consisted in removing the outer wall of the mastoid antrum and cells, together with the posterior wall of the bony meatus and outer wall of the attic. The skin incision was closed, and the gauze packing brought out through the meatus enlarged by a special plastic method. Ten to fifteen days later the wound was partly reopened, and the whole raw bony surface and inner aspect of the skin flaps were covered with large epithelial grafts. Healing had been rapid and complete, each case showing a smooth cavity completely lined with epithelium. Hearing in the first case was improved. Attention was called (1) to the method of enlarging the meatus; (2) to the plan of covering the skin from which the graft was to be taken, with a piece of adhesive plaster the size and shape of the graft required. The graft and plaster was then shaved off together. In this manner the troublesome curling of the graft was entirely prevented. The plaster with the adherent skin was easily placed in position, and the plaster was subsequently easily detached with the exfoliated superficial epithelium. By this method the use of a protective layer of goldfoil was also obviated.

Bony Ankylosis of Jaws.

Dr. Deanesly showed a case of absolute closure of the jaws by bony ankylosis of both temporo-maxillary joints, cured by excision of the condyles. The patient, a young woman, had a fall as a child and injured the jaw. This had become stiff and was small with a very receding chin. Attempts had been made by another surgeon to forcibly open the mouth, but without success. The right condyle and neck were excised on July 9th, 1901, the left a week later; both wounds healed readily and left a barely perceptible scar. After the second operation the mouth opened easily 1½ in. between the incisor teeth, free movement and power of mastication were permanently regained and appearance much improved. Sleep, however, was still frequently interrupted by a tendency of the lower jaw and tongue to fall backward, which was noticed immediately on the completion of the second operation while the patient was unconscious from the anaesthetic. The portions of bone removed were so distorted as to be quite unrecognizable.

Excision of Upper Jaw.

Dr. Deanesly showed a case of excision of the upper jaw for epithelioma of the antrum in a woman aged 47. The operation had been performed in the usual manner (after preliminary ligation of the external carotid) nearly two years previously. There was little deformity and no sign of recurrence.

Excision of Lower Jaw.

Dr. Deanesly showed a case of excision of lower jaw, floor of mouth, and two-thirds of the tongue for epithelioma. The patient was a man of 50, and the operation had been performed five weeks ago. The operation was a very extensive one, and

occupied nearly three hours. It began with complete clearance of lymph glands from the anterior triangle and the large vessels. The external carotid was then exposed, and the superior thyroid, lingual, and facial arteries ligatured close to their origin. The lower jaw was then divided at the angle on one side, and between the bicuspids of the opposite side, and the whole growth and a wide margin of healthy tissue cut away *en masse*. The remainder of the tongue was accurately sutured to the mucous membrane of the cheek and lips so as to form a new floor to the mouth and entirely shut off the mouth cavity from the neck wound. Feeding for the first fortnight was carried out entirely by a tube passed three or four times daily into the stomach. Recovery was rapid, and the patient was now able to swallow soft food and speak intelligibly.

HALSTED'S OPERATION FOR MAMMARY CANCER.

DR. DEANESLY showed a woman, aged 38, in whom the whole of the right breast, together with every vestige of both pectoral muscles, had been removed six months previously by Halsted's method for scirrhus affecting the breast and axillary glands. The case was shown to exemplify how little the movements of the arm and shoulder might be affected by the absence of the pectoral muscles. All movements, including overhead movements, were performed by this woman as perfectly, though less strongly, by the affected as by the unaffected arm.

CANCER OF COLON.

DR. DEANESLY showed a woman, aged 29, from whom twelve months previously about 6 in. of the transverse colon close to the splenic flexure had been removed for annular carcinomatous stricture. The ends of the divided bowel were brought out and an artificial anus established. One month later an attempt was made to close this by an extraperitoneal operation; but as this was not completely successful, six weeks later the abdomen was reopened, and a lateral anastomosis established between the transverse colon and sigmoid flexure by simple suturing. This was completely successful, the artificial anus closed, and the bowels acted normally. In January last the patient presented herself again on account of great enlargement of the abdomen. A large movable tumour was felt, and diagnosed as probably an ovarian cyst. The abdomen was opened and the diagnosis confirmed, cystomata of both ovaries being found, the larger on the right side. They were simple and uncomplicated by adhesions, and their removal was easy. The anastomosis between the transverse colon and sigmoid was examined and found free from external adhesions, except a few to the omentum. No trace of the silk sutures used could be seen. The liver was also examined, and no trace of secondary growths found. The patient was stout, well nourished, and in excellent health.

GASTRO-ENTEROSTOMY FOR ULCERATION OF PYLORUS.

DR. DEANESLY showed a man, aged 49, in whom nine months previously gastro-enterostomy had been performed for simple ulceration of the pylorus with great dilatation of the stomach. He had suffered from painful indigestion since 1899. In November, 1900, he was in the Wolverhampton General Hospital, and benefited considerably from systematic washing out of the stomach. He continued, however, to suffer from pain, lost flesh greatly, and became profoundly anaemic. In July, 1901, his appearance resembled that of a patient with cancer of the stomach. The latter presented obvious dilatation, but no tumour could be felt. The stomach was exposed and opened on the anterior wall 2 in. above the pylorus. A deep annular ulcer surrounded the interior of the stomach just above the pyloric orifice. The latter, however, was not greatly contracted, nor were there any external adhesions. A large plum-stone blackened by exposure was found in the stomach and removed. The first loop of the jejunum was then brought up, opened and sutured to the opening in the anterior wall of the stomach. No button or bobbin was used, but merely two rows of silk sutures, the first passing through all the coats, the second through peritoneum and muscular coats only. Convalescence was uninterrupted. There had been no trouble from regurgitation of bile. The patient was now at work as a gardener, in robust health, able to eat anything, had a healthy complexion, and had put on about 2 st. in weight since the operation.

RENAL CALCULUS.

DR. DEANESLY showed a boy, aged 12 years, in whom a calculus the size of a hazel nut had been removed from the pelvis of the right ureter in April, 1899. The kidney was brought out on to the loin, the stone removed through an incision in the ureter, which was then closed by fine silk suture. Three months later haematuria recurred, but passed off. One month ago the boy was brought again to the hospital with a history of sudden pain during micturition, followed by retention. A small oat-shaped calculus was found impacted in the urinary meatus and removed. It was found to consist of uric crystals deposited round the complete continuous silk suture used to close the incision in the pelvis of the ureter two years previously.

DRAINAGE OF ARACHNOID IN ACUTE MENINGITIS.

DR. DEANESLY showed a youth of 18 treated eleven months previously for acute meningitis by basal drainage of the arachnoid (fourth ventricle). This case had been already published with two others. The symptoms had been sudden, acute, and characteristic, including high irregular temperature, retraction of head, and double optic neuritis. The fourth ventricle was reached by raising the cerebellum from the posterior fossa of the skull and inserting a blunt probe. The youth was now in perfect health.

FRACTURE OF OLECRANON.

DR. DEANESLY showed a young man who, on falling backwards from his cab, had fractured his left olecranon in November, 1899. It was sutured, and he recovered perfect use and movement of the arm. Two years later he fell backwards while standing on slippery ground and fractured his right olecranon. In both instances the fracture was the result of violent muscular action, and not of a blow. The right arm also had been sutured, and the case was an example of a rare and perhaps unique double injury leaving no disability. There was, however, in the Wolverhampton Hospital at the present time an example of fracture of both patellae at different times.

PAPER.

A paper was read by MR. GEORGE HEATON on notes of five cases of perforated gastric ulcer treated by abdominal section and suture. The PRESIDENT, DRS. LYCETT, HIND, and DEANESLY took part in the discussion.

LIVERPOOL MEDICAL INSTITUTION.

PATHOLOGICAL AND MICROSCOPICAL SECTION.

RUSHTON PARKER, B.S., F.R.C.S., President, in the Chair.

Thursday, April 17th, 1902.

WARTY GROWTH OF LARYNX.

DR. A. C. RENDLE showed a larynx with a small warty growth filling both ventricles, and some erosion of the cords. The case had terminated fatally, after symptoms extending over five weeks, from asphyxia: the patient was the subject of early tertiary syphilis.

ADENOMATOUS GROWTHS OF PROSTATE.

DR. DOUGLAS CRAWFORD showed microscopic and macroscopic specimens of adenomatous growths removed from the prostate. Also sections of a secondary sarcomatous growth in the lungs of a child aged 3 years; the primary growth having been removed some months before and diagnosed as a congenital sacral fibrocystic tumour.

RODENT ULCER TREATED BY X RAYS.

MR. ARTHUR WALKER showed sections from the edge of a rodent ulcer healing under treatment by the *x* rays; the new growth was undergoing fibro-myxomatous degeneration.

VERMIFORM APPENDIX IN FEMORAL HERNIAL SAC.

MR. THELWALL THOMAS showed a vermiform appendix and piece of omentum removed from a femoral hernial sac. The tip of the appendix was gangrenous, and the history of the case indicated appendicitis, then adhesion to omentum, and lastly herniation of the mass into the femoral sac.

MEDULLATED NERVE FIBRES OF CEREBRAL CORTEX.

DR. A. W. CAMPBELL read a note entitled Some Considerations on the Medullated Nerve Fibres of the Cerebral Cortex. By means of lantern slides he illustrated the varieties of

arrangement of the medullated fibres in different cortical areas and the possibility of defining the areas associated with different functions on histological grounds.

DEVELOPMENTAL FAULTS IN SPINAL CORD, CEREBELLUM, AND PONS.

Dr. W. B. WARRINGTON and Mr. KEITH MONSARRAT read a note on a case exhibiting an extensive series of developmental faults in the spinal cord, medulla, cerebellum, and pons. The child from whom the specimens were obtained was aged 8 weeks. There was a healed spina bifida at the level of the fourth and fifth lumbar vertebrae, paralysis of the lower limbs, and double talipes varus. The cord was divided symmetrically in the dorsal region by an exostosis; it was embedded in a friable substance, which proved on examination to be a fine connective tissue containing a few muscle fibres. Medullated fibres were entirely absent from the lower part of the cord; in the upper part they were only found in Burdach's column and the anterior ground substance. There was also a condition of syringomyelia. In the brain the arrest of development had involved the cerebellum and its three peduncles with their nuclei of origin. The cerebellum itself was represented by an extremely rudimental organ, consisting of a few leaflets. Sections through the bulb showed that there were no myelinated fibres in the cerebellum, and that the transverse fibres of the pons with the nuclei pontis were entirely absent. The restiform body was hardly represented, the olives were entirely absent, as also were the external arcuate fibres, the superior cerebellar peduncles, the grey nuclei of the cerebellum, and the nuclei ruber tegmenti. There was a family history, which though not conclusive was strong evidence of a syphilitic taint.

THE HUMAN STOMACH.

Dr. E. E. GLYNN read a paper entitled Some Further Observations on the Normal and Pathological Anatomy of the Human Stomach. The material was derived from a series of seventy stomachs, in which *post-mortem* changes were prevented by the introduction of formol. The fact that *post-mortem* digestion destroyed the chief cells much sooner than the border cells was evidence that the latter secreted hydrochloric acid. The normal stomach, when preserved by formol, showed in addition to rugae a "mosaic" appearance due to the marking out of polygonal areas by depressions; the areas being from one-eighth to a quarter of an inch in dimensions, and the depressions representing linear thinning of the mucous membrane. In the dilated stomach the rugae were absent, the mosaic present, in chronic gastritis both disappeared and the surface was granular. Chronic gastritis was common, but was usually localized, and most frequently attacked the lesser curvature and the adjacent posterior surface near the cardia, less frequently it was found near the pylorus, while the fundus, the anterior surface, and the greater curvature were rarely affected, except when the gastritis was of the diffuse variety. The localization of the lesion at the lesser curvature was in all probability due to the fact that irritating ingesta first impinged on this part of the stomach. Microscopically destruction of the border cells was commonly present and mucoid degeneration. Nine cases of gastric cancer were analysed: in four there was advanced diffuse chronic gastritis, with almost total destruction of the border cells: in one of these cases free hydrochloric acid was absent clinically. If it was true that free hydrochloric acid was absent in 80 per cent. of cases of gastric cancer, this absence was due to associated advanced chronic gastritis, and this gastritis appeared to be in most cases antecedent to the cancer. He noted that according to Welch the fundus, the anterior surface, and the greater curvature were areas also free from chronic gastritis. In two cases it was demonstrated that cancer had originated in a previous chronic ulcer; chronic gastritis and chronic ulcer also appeared to be associated. Attention was drawn to six cases of modified hourglass contraction; in one case the result of a cicatrizing ulcer on the lesser curvature; in the other five the stomach was normal, and the condition was apparently due to excessive action of the circular muscular fibres upon the centre of the lesser curvature.

In the discussions on the various subjects the following members took part: The PRESIDENT, SIR WILLIAM BANKS, Mr. NEWBOLT, Dr. WARRINGTON, and Mr. MONSARRAT.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

A. G. BARRS, M.D., F.R.C.P., President, in the Chair.

Friday, May 2nd, 1902.

CARCINOMA OF THE PYLORUS IN A YOUNG MAN.

MR. G. P. ANNING read a paper on a case of carcinoma of the pylorus in a lad of 19. The earlier symptoms were those of chronic gastritis. Vomiting soon became troublesome, and emaciation and profound anaemia quickly supervened.

When the patient first came under Mr. Anning's observation he had been ill eight months. The stomach was dilated but the pylorus could not be palpated. The coronary glands arranged along the greater curvature were enlarged and indurated; these were not only palpated, but could be seen to move during respiration. Vomiting was frequent, and there was intense gastric pain. There was no evidence of haematemesis. Free hydrochloric acid was not, as was the general rule, absent. The diagnosis was not definitely made. One of three things probably existed: (1) Pyloric stenosis resulting from gastric ulcer, associated with simple enlargement of glands of an inflammatory origin; (2) tuberculous disease; (3) malignant disease of stomach. Mr. Littlewood opened the abdomen in the middle line and exposed the stomach. The pylorus which was fixed, lay under cover of the left lobe of the liver; it was invaded by growth and as large as a child's fist. Enlarged and indurated glands were studded about in the gastro-hepatic and great omentum. The march of invasion of the growth was apparently along the lesser curvature and to some extent along the greater. Confronted with an advanced case of cancer Mr. Littlewood decided upon a posterior gastro-enterostostomy in preference to any other means of surgical treatment; this was performed by simple suturing and the abdomen closed. Convalescence from the operation was unhindered. The vomiting and pain ceased at once. From the date of operation until his death took place, he never once vomited nor had a single symptom of gastric disease. Secondary growths in the liver soon manifested themselves. Ascites and oedema beginning about the ankles necessitated his confinement to bed during the last four weeks of life. At the necropsy the peritoneum was seen to be generally invaded by secondary deposits, the liver was of an enormous size and contained large secondary masses; further evidence of metastasis was found in the pancreas. The disease had invaded much of the stomach although it fell short by ½ in. of the oesophageal opening and had not yet reached the boundaries of the gastro-enterostomy opening; microscopically it was found to be scirrhus carcinoma.

The disease was very rare before the age of 20. Welch mentioned two cases of gastric cancer as occurring between the first and second decades, out of a statistical report of over 2,000 cases of gastric cancer.

Mr. MAYO ROBSON, Mr. LITTLEWOOD, Dr. EDDISON, Dr. TREVELYAN, Mr. CAMMIDGE and the PRESIDENT took part in discussion; and Mr. ANNING replied.

FOOD PRESERVATIVES.

Dr. A. E. PORTER read a paper in which he pointed out that nearly every article of food and drink which was liable to fermentative changes might be adulterated by the addition of boron compounds, salicylic acid, formic aldehyde, sulphites, or similar antiseptics. Dealing chiefly with the boron compounds he showed that this class of preservative was unlikely in the proportions usually found in foods to exert a prejudicial effect on the digestive ferments with the possible exceptions of rennin and amylopsin in the case of borax and boric acic respectively, though meat which had been exposed to a mixture of these preservatives was as easily digested by gastric juice. Feeding experiments on animals had usually given negative results, though Dr. Annett's observations on newly-born kittens suggested that in the very young nutrition might be impaired. No such result was, however, noted in the cases of three children between the ages of 2½ and 5, to whom boric acid and borax were given in quantities exceeding the relative medicinal doses. It appeared, nevertheless, that a considerable proportion of the population were liable to manifest toxic symptoms on account either of idiosyncrasy or deficient excretory powers, and to suffer from vomiting, diarrhoea, and skin eruptions of some severity, upon the administration of medicinal doses of boric acid. The largest daily doses would probably be taken in milk, and the result in the case of a patient suffering from Bright's disease or gastro-enteritis might therefore be disastrous. Milk had been found to contain as much as 80 gr. of boric acid per pint, probably on account of the opportunities which existed for the successive addition of the antiseptic at different stages of the milk traffic, a practice fostered by the misleading advertisements on some of the patent trade preparations. Amongst the other common articles of diet by means of which boron compounds might be unknowingly introduced were mentioned —cream, butter, margarine, ham, bacon, sausages, and pork-

pies. As there should not be the slightest necessity for such an addition in the majority of food substances, it was considered that the public were exposed to an unnecessary risk. Dr. Porter regretted that no effective legislation existed enabling local authorities to check a practice by which the public were liable to the indiscriminate administration of powerful drugs, which should only be taken under medical supervision.

The PRESIDENT, Mr. P. J. CAMMIDGE and Dr. EDDISON discussed the paper; and Dr. PORTER replied.

ANNUAL MEETING.

The annual meeting was held at the close of the ordinary meeting. The report showed the Society to be in a flourishing condition, the membership being over 350, and the average attendance nearly 60. On a motion to admit lady doctors to the membership of the Society, it was decided to obtain by circular the opinion of the members of the Society before proceeding further.

Election of Officers.

The following officers were elected for the next session: *President:* Mr. John Irving (Huddersfield). *Vice-Presidents:* Messrs. C. Richardson and A. Bronner, M.D. *Committee:* Messrs. C. J. Wright, F. W. Robinson, F.R.C.S. (Huddersfield), Gordon Sharp, M.D., D. Sanderson Long, M.D. (York), Priestley Leech, M.D. (Halifax), Gordon Black, M.D. (Harrogate), Edwin Roberts, A. H. Bampton, M.D. (Ilkley), Walter Thompson, J. W. H. Brown, J. G E. Colby (Malton), S. M. Hebblethwaite (Harewood), Powell White, F.R.C.S., and J. H. Woods (Batley). *Honorary Secretaries:* E. F. Trevelyan, M.D., and R. Lawford Knaggs, F.R.C.S.

EPIDEMIOLOGICAL SOCIETY.—At a meeting of this Society held on April 18th, Dr. PATRICK MANSON, President, in the chair, Dr. JOHN C. THRESH, M.O.H. to the Essex County Council, read a paper on small-pox hospitals and the spread of infection. Though there was, he said, in that part of the county contiguous with the East End of London a dense working class population of nearly a million, it was not there, but in the thinly-peopled district of the Orsett Union that in the epidemic of 1893-95, and again during the past winter that the heaviest incidence of small-pox had been; a fact that, whether one held the doctrine of the aërial diffusion of the infection or not, could not be explained otherwise than by the proximity of the hospital ships of the Metropolitan Asylums Board. On the former occasion there had been no inconsiderable amount of intercourse between the ships and the shore, but the Board had this time endeavoured, and he believed successfully, to prevent such communication. There was the possible danger of infection *en route* in the removal of patients to isolation hospitals, but though one driver of an ambulance had been attacked, the risk was extremely small. Several persons who had refused to be revaccinated when visiting friends in the hospitals had been attacked, but though at Dagenham persons often tried to communicate with convalescents by climbing the enclosing fence, he knew of but one case of infection in this manner. Many cases occurred among the men engaged in putting up the temporary buildings erected between and around the permanent hospitals of the Asylums Board, and at Orsett and Dagenham the men had also conveyed the infection to their families or those of their hosts without having been themselves attacked. In the Dartford Rural District, of 115 persons attacked, 24 had been thus employed at the hospitals of the Metropolitan Asylums Board; and of 221 cases in Dartford Urban, 95 were engaged on the hospital buildings, and 41 were inmates of houses where such workmen lodged; while of the remaining 85, only 5 could be definitely traced to other sources of infection. The question arose as to how these men who did not come into actual contact with patients contracted the disease. Dr. McVail had come to the conclusion that while aërial diffusion to considerable distances must be admitted, it was impossible to avoid personal communication, so that under either theory hospitals must be far removed from any populous places. He was convinced that large hospitals were a danger to the public and bad for the patients, but he had often treated cases at home or in hospitals with not more than eight beds, without any spread of the disease even to unvaccinated persons. He had three large hospitals under his observation—Orsett, erected for 20 patients, but with temporary additions accommodating 100, and Dagenham, originally intended for 60, but extended to receive 350. A number of workmen engaged on each had been attacked, but there were very few if any cases that could be traced to the hospitals. With the ship hospitals of the Asylums Board it was quite different. Of the 85 cases occurring in 1893-95, in the whole union with a population of 27,000, the parish opposite the moorings contributed 39 from its 2,540 inhabitants, an incidence nine times as heavy as that in the rest of the union, and twenty-six times that in the rural portions. In the present epidemic direct communication with the ships having been forbidden, the influence of mere proximity, and therefore, of aërial diffusion, was still more marked. The ratio of cases per million inhabitants in the Grays Urban and Orsett Rural districts and the Orsett Union having been as 19, 24, and 22 to 1 in the county as a whole. Within the Orsett Union the attack-rate in West Thurrock had been 45 per 1,000, but 10.5 in the remainder. Dividing still further the figures were for Purfleet 100 and West Thurrock 33 per 1,000, and, lastly, it was 15 and 131 per 1,000 in West and South Purfleet respectively, showing the influence of the prevailing winds as well as that of proximity which was felt up to a distance of about four miles, and was unaffected by the intervention of a belt of water seven hundred yards in width. The escape of the troops at West Purfleet and of the crew of the training ship, *Cornwall*, both within the three-quarters of a mile radius, was easily explained by their revaccination; but though vaccination had been of late much neglected by the Orsett guardians, nothing save aërial diffusion and conveyance of the infection by the winds could fully account for the remarkable incidence and distribution of the disease.—Dr. NEWSHOLME was not convinced by Dr. Thresh's paper, able though it was. More or less surreptitious intercourse did take place between the ships and the shore, and, as in the case of other hospitals, offered the most obvious explanation. He would like to have had the history of the first 10 or 12 cases, which, especially if any of them had been concealed, would do more than all other factors in determining the course of the epidemic. If this parish suffered more than others so did West Ham than the rest of East London. Mr. Power measured the diffusion by quarters of miles; Dr. Thresh gave miles, and spoke of prevailing winds, but did not state whether the direction for the time being corresponded with the successive outbreaks. Dr. Thresh would allow forty patients to a hospital, but Mr. Power saw possible danger in ten. These theories of distant aërial diffusion and of concentration of the infection were fast reducing the question of hospital provision to an absurdity and an impossibility.—Dr. L. PARKES considered it proved that the spread of small-pox was different from that of other fevers; and he believed in aërial transmission up to perhaps one mile. One could not imagine that all the men employed on the buildings had come into contact with the patients. If, however, the German system of universal vaccination and revaccination were adopted, there would be no need for hospitals at all. Dr. GOODALL pointed out that if Mr. Power's comparison of a small-pox hospital to a fire were good, the wisdom of piling up all our infective material in one place was doubtful. Mr. Power had published reports on the distribution of small-pox in London since 1860, and he would like to know whether this had been appreciably altered by the closure of the hospitals, or if the disease still favoured the same localities. The question of other fevers and the workmen was essentially one of age incidence. Mr. Power believed that diffusion was favoured by calm and fog, Dr. Thresh by winds, but in Warrington no evidence of aërial diffusion could be made out.—Major MCPHERSON, during his service at Gibraltar, had seen and traced to its source every case of small-pox in the epidemic of 1804. The infection was always introduced by personal means from Spain or Africa, and all cases were treated in a building in a crowded quarter of the town, until the appearance of Mr. Power's report led to their removal to one 400 yards outside; but in neither situation had he seen any evidence of aërial diffusion. The spread of the disease was invariably the result of delayed notification, home nursing, or concealment of the first case, and, when

this was promptly removed, secondary cases were unknown. Infant vaccination was strictly enforced. — Dr. RICHMOND, Medical Officer of Health of Dartford, and another medical man from that town, pointed out that, of the 200 cases in that district, 60 at Swanscombe and to the windward of the hospital ships were mostly traced to labourers and the like from London, 95 were employed as tradesmen or workmen in or about the Gore Farm Hospital, and altogether there were not 40 unaccounted for by ordinary personal exposure and contact.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—At a meeting on May 1st, Dr. DAVID LITTLE, President, in the chair, Mr. H. GRIMSDALE showed a case of paralysis of the cervical sympathetic. There was slight enophthalmos: the pupil was small, and reacted very badly. Vision was bare P. L. T −3. Cocaine had no action on the pupil nor on the eyelid, and there was a grey reflex in the pupil, possibly a detached retina. Mr. HOLMES SPICER thought that a purulent retinitis would explain all the symptoms, and he thought the case was one of those usually called pseudo-glioma. Mr. GRIMSDALE thought that the failure of the reaction of cocaine proved it to be a paralysis of the sympathetic.—Mr. GRIMSDALE also showed a case of congenital unilateral ptosis in which movements of the eyelid were associated with suction.—Mr. ADAMS FROST showed a case of multiple ruptures of the choroid caused by a blow from the buckle of a belt. Some of the lesions seen were more like haemorrhages than ruptures. Mr. ROCKLIFFE had recently seen two similar cases due to a blow with a steel hawser. Mr. FISHER said that, if some of them were haemorrhages, they were in the choroid, and that, therefore, a rupture of some part of the choroid must have taken place in order to produce them.—Mr. FROST also showed a case of an unusual retinal reflex. The fundus was unusually dark, and the patient's father had retinitis pigmentosa. Mr. Frost looked upon this case as physiological. Mr. TREACHER COLLINS showed a case presenting unusual opacities in the central part of each cornea. The patient was a carman, aged 33, whose sight had been failing for two years. There had never been any real keratitis, but in the central part of each cornea were numerous white radiating lines of opacity; the periphery of the cornea was quite clear. Mr. Collins thought that these opacities were in the anterior layers of the substantia propria, and were due to infiltration and degeneration with small calcareous deposits. Dr. BRONNER thought they were very superficial, and might be scraped. Mr. LAWFORD had a somewhat similar case in a woman, aged 21, who had had recent ulcerative keratitis. This had given rise to a central corneal opacity without injection, but with great photophobia. He scraped the cornea, and this was now being examined bacteriologically. He suggested that this might be done in the present case.—Mr. L. V. CARGILL showed a case of corneal opacity after instrumental delivery. The case was a difficult brow presentation in which great force had been used with the forceps. The condition was clearing, and only a slight band of opacity now remained across the cornea.—Mr. G. W. THOMPSON showed a case of obliteration of a retinal artery following attacks of temporary amblyopia. The patient was a woman who for the last ten years had suffered from severe headaches, with temporary loss of vision. In September last she had an attack from which the vision had never properly recovered, the dullness she then noticed persisting to some extent. As a rule the vision returned after the attack had passed off. The disc was now partially atrophied. Mr. LAWFORD thought this represented a most important class of case, seeing how common temporary loss of vision was in association with migraine, and how seldom it was that ophthalmoscopic changes were seen in connexion with it. Some of them might be caused by spasm of the vessels, which left the artery no less patent than it was before. He had recently had under his care a man, aged 35, who habitually overworked himself, and who after being much underfed during Lent had developed dimness in the right eye which had persisted. For many years he had had temporary attacks of dimness, but now there was partial obliteration of one of the retinal arteries with haemorrhages, and at other places were seen old changes which apparently indicated lesser lesions of a similar nature in times gone by. Mr. A. H. THOMPSON asked if it were a case of endarteritis obliterans, as he hardly thought spasm would last for so long a time. Dr. JAMES TAYLOR thought that this case was similar to cases of temporary loss of function of some portion of the brain. This sometimes led to permanent changes. Dr. R. D. BATTEN described a somewhat similar case. Mr. ROLL drew a parallel between this condition and Raynaud's disease. Mr. FISHER thought the tendency of opinion was that arterial degeneration was always present. This he did not consider was the case. Mr. THOMPSON, in reply, was inclined to the opinion that there was endarteritis present.—Dr. BRONNER showed some sections of a conjunctivial lipoma in an infant.—Mr. ROCKLIFFE showed a case of very rapidly recurring glioma of the orbit.—Mr. LANG showed a child whose orbit had been wounded with a pitchfork. The ophthalmoscope showed a white patch of exudation where the disc should be, and he thought that the optic nerve was torn across close behind the globe.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a meeting held on April 18th, Dr. LEONARD GUTHRIE in the chair, Dr. DAN MCKENZIE showed a case of cystic lymphangioma of the neck, which was undergoing spontaneous cure. At birth it had been the size of a small orange, but when shown, at the age of 11 months, was barely perceptible.—Dr. EDMUND CAUTLEY showed a case of the peroneal type of muscular atrophy in a girl, aged 7 years. She was the third of five living children. There was no history of similar atrophy of muscles or of nervous disorders in the family except epilepsy in a brother and sister of the mother. The child showed a "claw-like" deformity of the hands, due to paralysis and atrophy of all the intrinsic muscles, and "club-foot" due to atrophy of the corresponding muscles in the feet, of the peronei, and of the extensors of the toes. The other muscles below the knees, the vasti interni, and to a less extent the hamstrings, tensor fascia femores, and glutei, were also involved. The affection began in early life, and was, perhaps, secondary to measles at the age of 6 months. The CHAIRMAN said there could be no doubt that the condition was one of myopathy. Dr. FLETCHER BEACH discussed the question of operative treatment of the club foot, and thought massage might be of some value. Dr. DAWSON WILLIAMS asked whether Dr. Cautley was prepared to accept the theory of peripheral neuritis. He was glad to hear that Dr. Cautley drew attention to the probable influence of measles in starting the disease, and thought it easier to believe that such cases were due to the action of toxins upon the nerves than upon the central nervous system. Mr. H. J. CURTIS thought that surgical treatment would not be of much value, and Dr. G. A. SUTHERLAND expressed the same view. Dr. CAUTLEY replied.—Mr. SYDNEY STEPHENSON showed a case of tubercle of the choroid in a child aged 8 years. There were slight signs of phthisis at the apex of the left lung. The CHAIRMAN asked about the prognosis in these cases. Dr GEORGE CARPENTER referred to a paper which he and Mr. Sydney Stephenson had read before the meeting of the Society held at Liverpool. He thought there were two classes of cases; one in which tubercles of the choroid were associated with general tuberculosis, and the other in which they were associated with chronic tuberculous lesions such as spinal caries. He had watched such a case for twelve months. Mr. CURTIS confirmed Dr. Carpenter's observations. He had seen one of Mr. Sydney Stephenson's cases of tubercle of the choroid and had excised the knee for tuberculous disease. The child recovered and was well three months later. Mr. SYDNEY STEPHENSON, in reply, said he had met with a case of tubercle of the choroid which had apparently dated back for thirty years.—Mr. THOMSON WALKER showed a specimen of tuberculous nodule the size of a walnut arising from the dura mater and imbedded in the upper and inner part of the left cerebellar hemisphere. Death was due to acute meningitis. Dr. Walker also showed an osteoma of the floor of the third ventricle, with the formation of a cyst at one part. The symptoms were those of left cerebellar disease, and an exploratory operation had been performed. Only 11 other examples of this tumour were found in literature. The CHAIRMAN remarked upon the misleading symptoms in the second case. She had right-sided headache, and kept her head turned to the right side. There was double optic neuritis, slight right facial paralysis, tremors of the right arm, and the right knee-jerk was exaggerated. When placed upon her feet she reeled

towards the right. The right side of the cerebellum was, however, found quite healthy. Dr. SUTHERLAND referred to the first case, and said that while in the hospital the symptoms were those of meningitis; there was no evidence of tumour. Mr. EDMUNDS commented upon the fact that optic neuritis was present in one eye, and thought it suggestive of the presence of a tumour. Dr. THEODORE FISHER (Bristol) thought a tumour in the floor of the third ventricle might have another clinical interest. It had been thought that the infundibulum and upper part of the pituitary body had an influence upon the nutrition of the nervous system. He had seen a case where a gumma of the floor of the third ventricle and pituitary body were present, yet there had been no symptoms suggesting a brain lesion, and the patient had slowly died, and was thought possibly to have contracted granular kidneys. Dr. BURGESS asked whether the urine of the second case showed anything abnormal. Dr. THOMSON WALKER replied.—Mr. R. H. A. WHITELOCKE (Oxford) read a paper upon a case in which an ovary-like body was removed from a supposed strangulated hernia in a girl aged 4 years. During the operation a similar body appeared in a hernia upon the opposite side, but was returned to the abdomen. Microscopic section showed the ovary-like body to be a testis. Photographs of the external genitals were shown which appeared to be those of a normal female child. Dr. GEORGE CARPENTER spoke of the value of rectal and bimanual examination in such cases. He said that taking the utero-sacral ligament as a guide it was easy to determine whether the ovaries were present. He referred to a case in which both ovaries had been removed from apparent inguinal herniae, and thought that a rectal examination might have led to such a catastrophe being avoided. Dr. SUTHERLAND remarked upon the difficulty of deciding as to the way the child should be brought up, and thought she should be treated as a girl. The CHAIRMAN agreed with Dr. Sutherland. Mr. WHITELOCKE, in reply, said the question of sex was a difficult one. He had heard of a case where a hermaphrodite, if considered a male, was entitled to considerable property.—A paper by Dr. HAWTHORNE and Mr. CURTIS was then read upon a case of trans-peritoneal nephrectomy for small round-celled sarcoma in a boy aged 4 years. The tumour removed weighed 3 lb. 15 oz. It appeared to have commenced in the loose connective tissue of the hilum of the left kidney. The wound healed, and the stitches were removed. Death, however, occurred on the fifteenth day after the operation from extensive bilateral pleurisy with effusion. The CHAIRMAN congratulated the authors upon the partial success of the operation. Dr. NABARRO asked whether any enlarged lymphatic glands were present in the abdomen. Dr. PORTER PARKINSON thought the left kidney was most often affected. Dr. THEODORE FISHER had met with one of those cases where both kidneys appeared to be simultaneously affected. Dr. THOMSON WALKER thought that statistics following operations for sarcoma in the kidney in children and in adults should be kept separate. Dr. BURGESS inquired as to the cause of the pleural effusion. Mr. CURTIS in reply agreed with Dr. Walker that statistics of nephrectomy in children and in adults should be kept separate, but said that during recent years more cases of recovery in children had been recorded; no enlarged glands were present.—Dr. GEORGE CARPENTER then read notes of a case in a child of 8 years which proved at the necropsy to be malignant endocarditis, but during life had commenced with an attack of coma while in apparent health. The coma passed off and various other cerebral symptoms presented themselves. At one time the child was thought to be dying of tuberculous meningitis but the serious symptoms passed away. Then a cerebral tumour was thought possible. Just before death thrombosis occurred in the right common iliac artery.

ASSOCIATION OF REGISTERED MEDICAL WOMEN. At a meeting held on April 8th, Mrs. STANLEY BOYD, M.D., President, in the chair, Miss COCK, M.D., and Miss ELLABY, M.D., showed a case of probable cerebellar tumour in a girl, aged 20, under their care in the New Hospital for Women. Miss ELLABY, M.D., showed a case of total unilateral paralysis of the third nerve. Miss MABEL JONES, M.D., gave a description of Dr. Kelly's method of examination and treatment of the female bladder and urethra. Its value to the general practitioner was particularly insisted on in treatment of symptoms of cystitis which often depended on lesions limited to the trigonum or upper end of the urethra, and which could be directly treated by applications with long forceps through the cystoscope. Short notes of some cases were read, and a brief account given of the treatment of severer cystitis, secondary to infection from the kidney, by removal of the source of infection when possible, the formation of vesico-vaginal fistula to put the bladder at rest and constant irrigation, the patient being kept in a tub all day.—Miss THORNE, M.D., reported a case of operation for pyosalpinx, which will be published.—Miss FITTER, M.D., gave an account of a visit to the bathing resorts of Rhenish Prussia.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 10th, Dr. C. H. WILLEY, President, in the chair, Mr. S. SNELL gave particulars of third nerve palsy recurring in a baby when 7 weeks old. At birth nothing wrong had been noticed. The child was first seen when the palsy had been present for two weeks.—Dr. J. W. MARTIN showed a large cystic fibroma taken from a woman aged 24

Pregnancy was strongly suggested by the general appearance, by the presence of milk in the breasts, by the character of the abdominal swelling, which was partly resisting, partly semifluctuating, and by amenorrhoea of four months' duration. On examination per vaginam there were no changes in the cervix, and the sound passed for the normal distance. Operation was performed on December 11th, 1901. On opening the abdominal cavity it was found that the tumour was uterine, and that it sprang directly from the fundus for its whole breadth. Anterior and posterior flaps were made, the tumour amputated, bleeding arrested, and the flaps carefully sewn over.

Microscopical examination showed the tumour to be cystic fibroma. The patient made a good recovery. Fibromata of the uterus were fairly rare at such an early age.—Mr. G. WILKINSON read a paper on fractures of the leg, and described a new method of applying a plaster-of-paris case.—Mr. R. J. PYE-SMITH opened a discussion on the treatment of inflammation of the appendix, and maintained that the safest course in nearly all cases, whether mild or severe, was to operate as soon as the diagnosis could be made. He thought diagnosis could generally be made within twenty-four hours, whereas prognosis at that stage was very uncertain. Perforation rarely occurred before the end of the second day, and abscess did not form till later still, so that by operating during the first twenty-four hours perforation and abscess were forestalled. On the other hand, mild cases were nearly as safely operated on at a very early stage, as in the latter quiescent stage, and if early operation were the rule the difficult dissections now often encountered in operating during the quiescent stage would not be met with. Nearly all surgeons agreed in recommending operation during an attack in severe cases, and after a single attack (if not during it) in mild cases, so that the adoption of the rule of early operation in all cases would involve scarcely any extra operations. The operation, which would almost invariably consist of excision of the appendix, would be a preventive one and the general result of this early radical treatment would almost certainly be a saving of life and health. Almost the only contraindications would be the impossibility of obtaining efficient assistance or the presence of such conditions as haemophilia or severe cardiac or other disease.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 15th, Mr. PHILIP MIALL in the chair, after an exhibition of cases and specimens by Dr. EURICH, Dr. BRONNER, Mr. ALTHORP, and Dr. T. JASON WOOD, Mr. W. H. HORROCKS read a paper on the remains of the hymen. He pointed out that in a certain number of women the tags of the hymen, instead of being insensitive, became acutely tender and inflamed. The inflammation was perpetuated by marital intercourse and by any discharge or moisture that might be about the parts. Great pain was caused when the parts were touched, and when the patient walked about smarting was set up. A state of spasm might be induced, which was called by Marion Sims vaginismus. The treatment was free stretching of the vaginal orifice, together with removal of the inflamed tags of hymen. This was usually quite successful. A number of cases were detailed which had been cured by the treatment advocated. Mr. C. F. M. ALTHORP read notes of a case of hydatidiform mole expelled after dilatation and packing of the uterine cavity with gauze.—Mr. E. PROTHEROE SMITH read notes of a case of chronic inversion of the uterus:

A married woman, aged 24, was admitted to the Bradford Royal Infirmary in January, 1902, complaining of menorrhagia and metrorrhagia. She had had good health with regular menstruation till her first and only pregnancy in 1899. She was delivered of a child in November of that year; she lost a good deal of blood shortly after the child's birth, but did know much about it, as she was under chloroform at the time. Three weeks after confinement, nothing unusual having previously occurred, the "womb came down," and she had to press it back. The same thing had happened five or six times since. Menstruation had occurred every three weeks since the confinement and had been excessive. There was no pain except on sexual intercourse. In November, 1901, she began to have frequent floodings. Under an anaesthetic an inversion of the uterus was discovered which could not be reduced by manipulation. On admission she was pale and complained of constantly losing blood per vaginam. Examination by the vagina showed a smooth rounded tumour projecting through the os uteri, which bled readily when touched, but was not tender. The finger and sound could be passed through the external os to the base of the tumour, but could not be passed beyond the cervix. Rectal examination showed that the body of the uterus was not in its usual position. A dimple could be felt at the top of the tumour. Galabin's modification of Aveling's repositor was applied on January 26th at 1 p.m. She complained of pain nearly all the time it was on, and twice during the afternoon of the next day she said that she felt something slip in her inside. The repositor was removed at 8 p.m. on January 27th. The tumour was found to have disappeared from the vagina. The os was dilated, and a finger passed through it felt no tumour, but a rough surface on the left side of the internal os. The body of the uterus was felt in the normal position. The temperature rose to 101.2° in the next three days and then steadily fell. On February 8th some offensive discharge was followed by a cast of the uterine cavity.

She left the hospital on March 4th, the cervix uteri still being rather softer than normal.

REVIEWS.

PSYCHOLOGY AND SOCIOLOGY.

THERE is scarcely any branch of medicine which even the most intelligent student finds more difficult of first attack than insanity. This is mainly due to the fact that the subject-matter is chiefly disorder of mind and conduct, and is lacking in such precise and demonstrable data as anatomy and physiology so largely supply for the basis of all other departments of medical knowledge. The result is that the student often feels that he has to choose between being content with a minimum of such scrappy information as may haply satisfy examination needs, or devoting such an amount of time to the study of really good books as must be regarded as out of proportion to his confessedly formidable curriculum. Dr. MERCIER'S *Textbook of Insanity*,[1] which contains little more than 200 pages, seems therefore to supply a real want, and to give the student, both in quantity and quality, the kind of information which he has a right to look for, and is already amply furnished with in other branches of medicine. It is at once logical in arrangement, remarkably comprehensive, clear, concise, and practical, and is further marked by a notable amount of originality. We entirely agree with Dr. Mercier's remark in his preface that the forms and varieties of insanity should be described as types, without having recourse to descriptions of illustrative cases; and most students will recognize the advantage of the omission of such descriptions which always seem to cause much of the confusion and cross division that characterize so many books on this subject. The absence, moreover, of a mass of "cases" serves not only to preserve the elementary and systematic nature of the book, and to differentiate it from a collection of clinical lectures, but also, incidentally, to assist in confining it within the limits of a really practicable handbook. The book is divided into three parts, named respectively the "Institutes of Insanity," the "Forms and Varieties of Insanity," and the "Legal Relations of Insanity." In the treatment of the matter of the first two parts there is much that is both new and important in arrangement, and will, we think, be accepted by the student as a considerable improvement. The Institutes of Insanity includes two chapters on Conduct and Mind, in which the author shows the paramount importance of disorder of conduct as the proper clinical material for study, just as types and symptoms in bodily disease are the primary object matter of the practical student of general medicine. A very useful chapter follows on the causes of insanity considered as a whole, wherein, as well as in the chapter on Mind, there is just so much of normal psychology set forth as is necessary to the scope of the work. Throughout the book the author insists on the study of the abnormal in relation to the normal; and this particular part is happily named the "Institutes of Insanity," recalling the well-known title of the "Institutes of Medicine" accorded to physiology at the University of Edinburgh. The second part, dealing with what the author terms the Forms and Varieties of Insanity, is a new departure as regards classification, and certainly reduces to a minimum the cross-divisions in this subject of which no authors have succeeded in steering quite clear. By a "form of insanity" is meant a "certain aggregate of symptoms that a case of insanity presents at one time; by a 'variety' is meant a specific course that a case may run from beginning to end usually combined with an assignable cause. Thus a 'form' of insanity may be regarded as a symptom, while a 'variety' corresponds with what is so called a disease, which may exhibit different symptoms or forms at different times or at the same time." By this arrangement we are glad to see that the time-honoured divisions of insanity—mania, melancholia, etc.—are swept away, and, by being relegated under other names to subordinate positions, need be no longer as stumbling blocks to the beginner. Another practical improvement in description and nomenclature which seems both important and true to Nature is the elevation into a class by itself as one of the varieties of insanity, of *acute insanity*, under which the author ranks various subdivisions such as acute mania, acute melancholia, nymphomania, acute suicidal insanity, etc. Of course it may be said that this clinical affection thus grouped may be regarded almost as much a form as a variety of insanity, but we are inclined to agree with the author in placing it as he has done, even if thereby strict logical classification be postponed in some degree to clinical utility. In the third part of the work we note that the author has inserted an account of the legal procedure in Scotland and Ireland, which will doubtless be found of advantage. After a careful study of the book, we think that it is of very high value. Dr. Mercier has shown that, besides writing larger and more elaborate works for advanced students of science, he is capable of supplying the practitioner and the beginner with a remarkably small and remarkably full manual, without making any sacrifice either of clearness or utility.

The comprehensive work on *Dependent, Defective, and Delinquent Classes*,[2] by Professor C. R. HENDERSON of Chicago, which has already had a large circulation in America, discusses the classes named in the title, both from the theoretical and the practical standpoints. Philanthropy, it is rightly urged, should rest upon principles, and these should be founded upon a study of human nature. Considering, first, the phenomena of dependence, the biological conditions bearing upon the production of inferior and antisocial elements are pointed out; and it is urged that, in the struggle for life, fewer places in the normal social economy are, as civilisation advances, left for the half capable. Dependence is, however, not necessarily the result of degeneracy; there are unsocial habits, unfavourable industrial conditions, defects in education, which drag down into the rank of dependents even those whose personal helplessness is not an inborn quality. Inheritance may, indeed, be regarded as a powerful factor in the evolution of human beings who manifest less than average fitness for normal conditions of life; but it is argued that, by the withdrawal of children of bad heredity from depraved surroundings at a sufficiently early age (before 6), "the influence of good education and example may predominate over inherited tendencies." The major portion of the book is devoted to a consideration of the practical social arrangements for dealing with persons who are in some degree a charge upon the community. The respective merits and demerits of outdoor and indoor legal relief are discussed; and, in connexion with the latter, the view is strongly urged that discharge should not be at the option of the inmate, especially in the case of feeble-minded women and of broken-down inebriates. The care of dependent children is discussed at length, and the superiority of boarding out in

[1] *A Textbook of Insanity*. By Charles Mercier, M.B., M.R.C.P., F.R.C.S. London: Swan Sonnenschein and Co.; and New York: The Macmillan Company. (Cr. 8vo, pp. 230. 6s.)

[2] *Introduction to the Study of the Dependent, Defective, and Delinquent Classes, and of their Social Treatment*. By Charles Richmond Henderson, D.D., Professor of Sociology in the University of Chicago. First English edition. London: D. C. Heath and Co. 1902. (Demy 8vo, pp. 397. 7s. 6d.)

families to congregation in institutions properly insisted on. A chapter is devoted to medical charities, and though the abuses to which these are liable is alluded to, but little is said as to the best means of checking them. The advantages of a well-managed charity organization society are, however, strongly urged. The social arrangements for the education, relief, care, and custody of defectives form the subject of the third portion of the volume. In connexion with the education of the feeble-minded it is stated that the formation of permanent custodial homes for such cases is necessary in order to secure economical advantages from their training and to prevent the propagation of degenerates. A few of the American commonwealths "have already adopted this principle, and with the others it is simply a question of time and earnest effort when they will do their duty." With regard to the care of the insane, detached cottages are recommended in preference to asylums of the corridor type, both on the grounds of increased comfort and decreased cost. Perhaps the most valuable portion of the work is Part IV, which treats of criminal sociology. The so called "indeterminate sentence" now in vogue in some of the American States, and conditional discharge under parole, seem to be penal principles much more efficacious than the prescription of a certain term of imprisonment for a certain crime, the desideratum being not so much how to make the punishment fit the crime as to apply it so as to be effective with each individual criminal. With regard to juvenile offenders it is urged that they should be dealt with in a special court apart from adult and hardened prisoners, and that all under 16 should be regarded as under reformatory education and not as criminals. Education, protective restraint, and social selection by humane elimination sum up the author's views of the duties of society towards the classes which he describes.

There seems to be a consensus of opinion amongst modern writers on criminal anthropology that, setting aside political criminals and those who are demonstrably insane, the vast majority of the remainder are to be regarded as sick men, whose criminal impulses and acts are the result of their organization. Mr. Havelock Ellis, in his work on *The Criminal*,[3] without going the full length of the school of Lombroso, according to whom criminals are degenerates, and foredoomed by their physical structure to be what they are, gives many photographs and drawings of them, and seeks to show that certain characteristics are common amongst them. But, like all writers on the subject, he does not lay sufficient stress upon the well-ascertained fact that, the facial muscles being one of the means of expression, habitual frames of mind will in the course of years write their record unmistakably on the face, a fact very well known to artists, who oftentimes are constrained to leave out this record so far as they can without losing the likeness, a by no means easy task. Sundry curious facts come out from the investigations which have been made in prisons in this country and abroad. Thus, some will learn with surprise that prisoners are very frequently conspicuously religious, without the smallest evidence of insincerity. The emotional temperament which many of them possess apparently lies at the bottom of this unexpected fact. Criminal slang is a very curious perversion of language, often teeming with coarse humour, and presenting in different languages a remarkable community of character. The book is temperately and well written, and, although some will not be so fully convinced as the writer would desire, it is well worth perusal both by medical and lay readers, who will find in it an excellent summary of the very voluminous literature of the subject.

The small book which Dr. Maurice de Fleury has written on *The Criminal Mind*,[4] may be briefly described as an attempt to apply the doctrine of automatism to criminal and, indeed, to other actions. According to the author, every action, whether purely mental or mental resulting in action, is of the nature of a reflex, more or less inhibited. In proportion as the brain is stored with memories and associations of a good kind will the inhibition of any vicious impulse be strong and complete. On the other hand, a feebly-acting brain in which few associations are stirred, and in which little accumulated knowledge is stored, will act more simply, and will be apt to let the first and simplest impulse result in its reflex without controlling it. Self control, then, becomes a question of inhibition of first impulses, and the degree and kind in which it will be exercised will depend on the activity of the brain; that is to say, on the number and extent of the associations aroused before the mandate to act is sent out, and on their nature. The adoption of such a doctrine necessarily involves the rejection, at all events to a large extent, of the degeneracy theory, except in so far as it leads to a weakened brain, and the born criminal of Lombroso and theorists of his school is not admitted to be a reality. On the contrary, more hope is held out of the prevention of crime by education, by storing the brain with wholesome associations, and also of reformation of a person who has committed a crime. But the author does not push this so far as to deny that there are many utterly depraved criminals who should be removed from the possibility of inflicting injury on the community. For him they are still in a sense sick persons with enfeebled brain power, but they are sick persons who must be isolated for the good of others. The idea of punishment in a vindictive sense is, he urges, a relic of barbarism; punishment should be deterrent, curative, and protective to the community, and if a man is to be shut up for life it should not be as the revenge of society for his crime, but as a necessary preventive of his committing further crimes, which from his mental constitution he would be sure to do, nay, could not help doing. Capital punishment he would not abolish because of its deterrent effect, which is valuable; but he would have all sentences made of indeterminate length, their duration to be governed by the improvement effected in the criminal during his detention.

[3] *The Criminal.* By Havelock Ellis. Third edition. The Contemporary Science Series. London: Walter Scott. 1901. (Crown 8vo, pp. 438, 40 Illustrations. 6s.)

[4] *The Criminal Mind.* From the French of Dr. Maurice de Fleury. London: Downey and Co. 1901. (Demy 8vo, pp. 196. 3s. 6d.)

NOTES ON BOOKS.

The thirty-second annual edition of the *City of London Directory*[5] has been issued by Messrs. W. H. and L. Collingridge. The many good features of this compilation are so well known that they need not now be enumerated. It contains so much information of a special character not appearing in any other publication that its possession by those having interests in the business and administrative parts of the metropolis is almost a necessity. The large coloured map of the City is not the least important of its special features. It is full of sound and recent information.

[5] The *City of London Directory for 1902.* London: W. H. and L. Collingridge. 1902. (Demy 4to, pp. 1,221. 12s. 6d.)

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

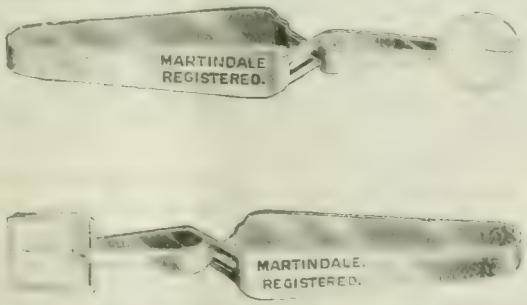
A Form of Light Splinting.—Dr. G. B. Batten (Dulwich) writes: As a general practitioner, I have often felt a need for some form of light, cheap splinting easily cut when wanted into any desired shape and size. Gooch splinting is good and convenient, but many splints, such as right-angled ones, cannot be made from it. Poroplastic also is good, but rather heavy, expensive, and requires moulding. Some time ago, I made some splinting from corrugated boards, that is, corrugated paper fastened between two sheets of cardboard. By fastening two such corrugated boards together, with the corrugations at right angles, I obtained a splinting having the following advantages: It is light, easily and quickly cut into any desired shape, quite strong enough for any ordinary splint except a long hip splint; requires little or no padding, as the material itself is comfortable against a limb; it is transparent to *x* rays; and it is cheap. It may be strengthened as much as can be desired by the insertion of wires.

such as bicycle spokes, into some of the corrugations, and in right-angled splints some of the spokes will go one way in one set of corrugations and some at right angles in the other, and in splints longer than bicycle spokes, the spokes can be inserted from each end overlapping in the middle of the splint. By cutting the splinting into the desired shape, then inserting a sufficient number of spokes or other wires, this splinting can be then bent into many shapes suitable for orthopaedic purposes; for instance, I have used it successfully for splints for talipes plantaris to be worn at night instead of a Scarpa's shoe. The footpiece being forcibly bent round at right angles to the legpiece, and the angle can be easily strengthened by another piece glued on to the outside. Tapes or elastics are easily fasted between the wires or spokes to hold down the toes in cases of hammer toes, etc. The bicycle spokes, which are very strong and tough, are easily cut into desired lengths by a special cutter or simply nicked with a file and then broken off. For x-ray purposes these spokes can be withdrawn from all ordinary splints if desired without taking the splint off the limb and again inserted. Messrs. Arnold and Sons have recently made some of this splinting covered with white paper cardboard, in sizes of 30 inches square and they can also supply the bicycle spokes and spoke cutters.



An Improved Clinical Thermometer.—Messrs. Arnold and Sons (West Smithfield) have brought out a form of clinical thermometer for which is claimed that it is less fragile than some others. It is of the ordinary round pattern, but is strengthened by a small ridge running the whole length of the stem on the side opposite the index. This not only obviates breakage when setting the index, but also effectually prevents rolling when the instrument is placed on an inclined surface.

Bacteriological Forceps.—Mr. W. Harrison Martindale (New Cavendish Street, W.) has sent us a form of bacteriological forceps constructed on the principle of Cornet's spring clip forceps; the novelty consists in the attachment, to the extremity of one of the blades, of a shallow metal tray large enough to contain a coverslip and the staining fluid in which it is immersed, the coverslip being clipped between the



tray and the extremity of the other blade. The main object of the invention appears to be, by keeping the coverslip completely immersed, to prevent the formation of dried-up "blobs" of stain, such as may arise when the stain is simply placed as a drop on the film surface. In ordinary bacteriological work, where the clip forceps method of staining is employed, this difficulty does not usually arise. Possibly some persons might like to try the present invention for volatile or slow staining as a substitute for the watch-glass method. It must be pointed out, however, that the great advantage for bacteriologists of the Cornet forceps is that they can be used for the routine manipulations of the coverslip above and in the flame, as well as to hold it while staining. The addition of a metal tray would interfere with the former uses. The samples sent us have not a very satisfactory grip, and the price (2s. 6d. each) appears high.

The Italian Ophthalmological Association will hold its sixteenth annual meeting this year at Florence from October 12th to 16th.

THE REPORT OF THE INDIAN PLAGUE COMMISSION.

(*Continued from p. 1098.*)

Agencies by which Plague is Disseminated within the Limits of an Infected Place.

Infected human beings and infected clothing play an important part. Attendance at funerals has repeatedly been the means of spreading the disease. The only point in connexion with merchandise is that retail grain shops appear to have a special influence, probably by rats frequenting them for food, and spreading the disease after becoming infected. The influence of rats is discussed at some length here, and is held to be much greater within infected places than as a means of carrying disease from one infected town or village to another. Sometimes when the disease is introduced into a place it breaks out first among rats, and then attacks human beings. At other times the order is reversed. Again, in some places an outbreak among rats has not spread to human beings, and so also infection among human kind has sometimes not affected rats. The causes of these differences are unknown.

The Commissioners are of opinion that though some other animals, such as squirrels, monkeys, mice, and cats, may be attacked by plague, they need not be regarded as likely disseminating agents, while dogs, jackals, and birds are insusceptible.

Agency of Human Beings and Rats.

No other agencies, indeed, than man and rats are considered of importance, and the question as to the comparative influence of these two agencies is discussed in detail. The result is summarized in the following conclusions:

1. In some places, where severe epidemics have occurred among men, rats have not been affected at all, and in many places where there have been plague epidemics among men the disease has not appeared among rats in epidemic form.

2. Occasionally, where there has been considerable mortality among rats there has been an absence of plague among men.

3. Even when there has been the largest amount of plague among rats, the risk to the persons who came in contact with these infected rats appears not to have approached that undergone by persons entering houses in which there have been plague patients, or persons coming into contact with pneumonic plague. There are, however, cases, such, for instance, as the case of Mahlgahla and the case of Chak Kalal, where a very considerable number of plague cases in a village has been directly attributable to the dissemination of infection consequent on an epidemic of plague among rats.

4. Since the number of plague bacilli escaping from the infected human organism must be presumed to be greater than the number which escape from a plague-infected rat, *a priori* it would seem clear that a single infected man must constitute a greater danger than a single infected rat; but, on the other hand, seeing that the excreta of rats may be deposited anywhere throughout a house, and that the number of rats which are affected may many times exceed the number of men who are affected, a severe epidemic among rats must, we think, tend considerably to the spread of infection.

5. The chief importance of rats in the epidemiology of plague seems to us to arise in connexion with the first outbreak of the disease in an infected place, for we have seen that in many instances rats become infected before men, and they scatter plague broadcast over an uninfected place.

6. When plague is once established in a place we have no doubt that human agency is a more important factor in spreading the disease than the agency of rats.

It will be noted that the Commissioners are very guarded in their conclusions regarding rats. In our own view, seeing that rats can "scatter plague broadcast over an uninfected place," there can be no question of the great importance of their extermination in any town, and especially in any port, threatened by plague, but that subject belongs to another chapter. The slow rate of spread from one part to another of infected localities is not held by the Commissioners to indicate infection by rats rather than human beings, but, as before, is set down to the necessity for a considerable stream of infection flowing through a town, or from one part of it to another, before the disease can establish itself.

Circumstances which Influence Individual Liability to Plague.

The circumstances are considered under the following headings:

Age.—The incidence on children under 5 years old is much less than at other periods of life, and there is indication of some diminution of prevalence in old age. The rate of

attack in children varied considerably in different places—1 to 5.7 being affected in Bombay City, and 1 to 2.3 in certain villages in the Punjab; but there seems doubt as to the correctness of the estimates of population on which the Bombay figures are based.

Sex.—Inquiry into the influence of sex was rendered difficult by concealment of cases among women in Bombay and Calcutta, but it seems probable that women were attacked in larger proportion than men, and this may have been owing not to sex, but to the greater confinement of the women to their houses.

Race.—The rate of attack among Europeans was very trifling, ranging from 0.08 to 3.6 per 1,000. Among Eurasians the range was from 0.92 to 18.4 per 1,000, and among natives of India from 2.4 to 42.5. Clothing and education are regarded by the majority of the Commissioners as an important factor in this differentiation, but the President does not attach much weight to these explanations, and he regards the difference in sanitary conditions as of chief importance.

Religion.—As between the Hindu and Mohammedan religions, the respective customs seem to make little difference in plague prevalence, though cases among women are more likely to be concealed by Mohammedans, and so may spread the disease. On the other hand, Mohammedans are stronger and better off, and so have a better chance of recovery. The Hindu sects of the Jains has already been referred to. Animal life is sacred among its members, and to protect such life they refrain from sweeping sleeping-rooms and staircases. Their bodies are said to be infested by parasites, and they foster animals by providing them with food. Rats may therefore frequent their houses to an exceptional degree, but, whatever be the explanation, the plague mortality-rate was 38 per 1,000 among them as compared with 22.5 per 1,000 among other Hindus.

Occupation.—In certain places dealers in grain and food stuffs had more than their share of the disease. Many persons engaged in disinfecting houses were attacked. These contributed no fewer than 36 in a total of 188 cases in one group, and 29 in a total of 165 in another, but on the other hand, in the Punjab they were only 50 in 3,407. House disinfection, however, is obviously a dangerous occupation. Washermen have a more than average attack-rate, but, at least in Bombay, scavengers were not specially seized on by the disease. Their occupation, it may be noted, is an outdoor one.

Habits.—The influence of habits is exemplified by the native practice of sleeping on floors, going bare foot, etc.

Epidemiological Questions which suggest Themselves in Connexion with the Spread of Plague.

The questions discussed by the Commissioners under this head are as follows:

1. *Whether there is a Prolonged Interval between Importation of the Infection and Outbreak of the Disease?*

Evidence is given which shows that, in many cases, a considerable interval, such as a month or two, does elapse. It was urged before the Commission that this time was bridged over by a prevalence of the disease amongst rats, but they think the infection more frequently persists in soil or in clothes. The practical lesson is that the risk of spread of plague is not to be regarded as at an end for many weeks after the last known human case has occurred.

2. *Whether Plague manifests itself at the Outset of Epidemics in Atypical Clinical Forms?*

This question, as the Commissioners observe, is both of of theoretical interest and of practical importance. In certain instances there have been observed prodromal epidemics of "mumps," and it is possible that these may have been due to an attack by attenuated plague bacilli on the mucous membrane of the mouth, causing local buboes. There is a suspicion that one plague epidemic was set on foot by a group of Parsees who had suffered from coryza with high temperature, though laboratory investigation failed to detect the bacillus. Pestis minor has also been suspected of initiating epidemics, but only one definite case came before the Commission. Increased mortality from respiratory diseases has been repeatedly noted as a preliminary to plague outbreaks both in ancient and modern times. The plague at Avignon in the year 1348 was an example. Before the third epidemic at Poona the deaths from respiratory diseases, which in the three last months of 1898 had averaged 99 cases, rose to 172 in January, 1899, immediately before the plague epidemic began. In other places the disease has showed itself in septicaemic form and this has been observed in endemic centres like Kumaun and Garhwal. The Commissioners think that where an outbreak is set up directly from a pre-existing case the type developed will be that of the case, but where there is a break in continuity, the bacillus may be attenuated during its absence from the living body, and such attenuation may account for the mildness of the disease in places like Oporto and Glasgow.

3. *Variation of the Fatality in Plague in different Phases of an Epidemic.*

The main fact in this connexion is that the fatality of the disease corresponds with its prevalence. When the number of cases was increasing, so was the case-mortality, and when the number of cases diminished, so also did their fatality. The most reliable figures are those from the Arthur Road Hospital in Bombay, taken along with the total deaths occurring in the city. When the deaths in the city in October, 1896, were only 3,000, the fatality rate in the hospital was about 53 per cent. From December to February the deaths mounted to 6,000 and 7,000 in the city, and the hospital fatality-rate was from 70 to 80; while in June the epidemic had diminished so that the deaths were a little over 2,000, and at the same time in the hospital the mortality-rate among admitted cases was only 22 to 23 per cent. The correspondence, of course, is not always quite exact, but it is the one notable fact in this connexion, and the experience of plague officers, concerning places where exact statistics were not available, was, in all but one instance, to the same effect.

4. *Whether there is any Inter-relation between Meteorological Variations and the Increase and Diminution of Plague Mortality?*

This matter is discussed in an interesting but necessarily inconclusive fashion. Plague mortality in India is characterized by marked seasonal variations, there being two high periods, one of them rising through February into March and April, and the other in autumn, reaching its highest point in October, and sometimes November. The least prevalence is in June and July, and the disease is also at a low ebb in December and January. There are, however, no salient features distinguishing the weather as between the periods of high and low mortality. As concerns the influence of temperature and humidity, Professor Hunter Stewart, of the University of Edinburgh, who examined the meteorological data for the Commission, concluded that

> In the areas affected by plague:
> 1. The temperature conditions are suitable for the epidemic appearance of plague at all seasons, and
> 2. The amount of moisture in the atmosphere has little, if any, influence.

In Bombay City the periods of highest mortality in the five years 1896 to 1901 are principally in the first three months of the year; there is a rapid fall to a minimum in June, and then a smaller rise, which in one year reached its acme in the beginning of August, in another near the end of August, and in another near the end of September. The mortality in October and November is very low, though not so low as in June. The absence of correspondence between the annual curves of temperature and the plague mortality is such that in the opinion of the Commissioners it would be as easy to interpret the occurrences to show that a rise of temperature coincided with a rise of mortality as in the opposite sense. Various theories regarding the seasonal variation of plague in Bombay are considered, and Dr. Buchan, Secretary to the Meteorological Society of Scotland, to whom the meteorological returns by Mr. Moos, Director of the Government Observatory in Bombay were submitted, rather regards what has already been ascertained as a basis for further research, which he says "is all the more likely to lead to good results when it is kept in mind that the principal maximum mortality of the year occurs when the weather is coldest and driest, and the secondary maximum when the weather is moistest and wettest, and the temperature very high." Attention is drawn to the indirect influences of temperature and rainfall on the spread of plague, by driving the people into their houses in cold or wet weather; and Professor Hunter Stewart's conclusion

here is that "the rainfall seems to exert its effects chiefly or entirely by interfering with remedial measures." The plague bacillus itself can survive exposure to the winter frosts of Russia and the heat of an Indian summer. Atmospherical humidity might be expected to be an important factor, but plague has spread in hot dry weather, and has diminished when the rains came. On this point attention is called to the fact that weather conditions which favour the plague bacillus also favour the saprophytic bacteria which have an adverse influence on pathogenic organisms.

(5) THE INFLUENCE OF INSANITARY SURROUNDINGS ON THE SPREAD AND PERSISTENCE OF PLAGUE.

The section of the report which deals with this subject is of special interest and importance. Unfortunately it is one as to which the Commissioners have not been unanimous, the President, Professor Fraser, having found it necessary to state his dissent in a long and cogent appendix. The Commissioners' opening paragraph dealing with this subject is as follows:

Outbreaks of plague have in India, as elsewhere, often been brought into relation with the existence of insanitary conditions in and about the dwelling houses. Among the conditions which have been brought into relation with plague in India are overcrowding, absence of ventilation, damp, defective lighting of the dwelling rooms, the character of the floor (this consisting in India for the most part of a mixture of earth and cowdung), and lastly, defective cleanliness, and in particular defective arrangements for the removal of the night soil. Among the conditions external to the houses which have been brought into relation with plague are sewage pollution of the soil, excess of moisture—gauged by the high level of the subsoil water—narrow streets, and a deficiency in open spaces. In short, every circumstance, excepting only the character of the food supply and of the drinking water, has been brought into relation with the prevalence of plague.

The various conditions here mentioned are then discussed in detail.

Sanitation Inside Dwellings.

Overcrowding is almost universal, especially in the towns.

At night the floor space in the chawls in which the working population of Bombay is housed is, in the cold weather, when the people sleep indoors, covered with sleeping forms to such an extent that the floor is almost hidden from view.

Ventilation is hardly at all provided for. In the ordinary sleeping-rooms in villages there are no windows, and the only connexion with the outer air is through other rooms. Cattle are often stabled within the houses. In the towns, especially in the chawls of Bombay, ventilation is often worse than in the villages, partitions and curtains abounding. Though most rooms have opening windows, they often look out on dark and narrow gullies and are rarely opened. These things belong to the habits of the people, and in such chawls there is often an entire absence of sanitary supervision. Damp is not regarded as a striking feature of the village houses, except in the rainy season or where cattle are kept in the dwelling house. There is also of course the damp given off from the bodies of the inhabitants, and in Bombay an unlimited water supply results in lavish use and waste. Light in the majority of village houses finds access only through the doors, and though windows are more numerous in Bombay chawls, their outlook is into obscurity. As already noted, the floors are of beaten earth covered with cowdung plastered on wet every week among the Hindus. Curiously enough, this weekly treatment of the floors is regarded by the majority of the Commissioners not merely as consistent with surprising cleanliness, but as partly accounting for it.

Taken as a whole the dwelling rooms in India are surprisingly clean. This is due to the fact that the floors are periodically cleaned and renovated with cowdung, that there is hardly any furniture in the rooms, and that the walls are generally not recessed in such a manner as to allow of the collection of dirt. Even where cattle are kept in the houses, the houses are not necessarily dirty, as the animals are not stalled in the dwelling rooms. What applies to the general cleanliness of the houses all over India, applies also to some extent to the chawls in Bombay. In these the majority of the dwelling rooms—such at least as are in the occupation of single families—are kept neat and clean. On the other hand, the windowless rooms where the very poor are crowded together, are naturally in a very filthy condition. Moreover, the passages and other portions which are used in common by the tenants, and for the cleanliness of which the landlord is responsible, are very much neglected, the walls and the woodwork being begrimed with smoke and grease, and the earth floors being in the wet weather trodden into mud.

In Indian villages there is no accumulation of faecal matter in the houses, the universal practice being resort to the fields. In the drainage districts of Bombay there are drains for fluid excreta, and night soil is removed in baskets on the heads of sweepers and is shot into the main sewers, while in the undrained districts there are cesspools for fluid refuse, and night soil is dealt with as above.

Conditions Outside Dwellings.

The Commissioners state that the frequent opinion that plague is a filth disease is largely due to the knowledge that the soil in Bombay is polluted with sewage, and that the level of the subsoil water is high.

Attempts have been made to combat plague since the middle of the century in Kumaun, where it is a rule that the cattle be housed separately from human beings. In Bombay in the most infected quarters some small part of the population has been removed to health camps, but without appreciable relief to the overcrowding. As to ventilation, whole villages have been unroofed, and in others openings have been made in the roofs and walls. In Bombay, houses regarded as insanitary were partially untiled, and in chawls partitions were more or less removed, and holes were made above the doors or in the ceilings. The openings, however, were closed again by the inmates both in towns and in villages. To check damp in Bombay, the water supply was in many cases made procurable only from stand-pumps in the streets. Houses were whitewashed, but sometimes only outside, sewers were flushed and disinfectants freely discharged into drains.

Overcrowding.

Such are the existing conditions and such have been the efforts made. The Commission say that though *a priori* reasoning would lead to the conclusion that crowded houses favour the transference of the disease from person to person, yet such association of overcrowding with plague has not been statistically established. Referring to diagrammatic representation of figures submitted to the Commission, it is said:

These curves show clearly that there is no inter-relation between the density of the population in the different wards of Bombay as estimated on the basis of Lieutenant-Colonel Weir's figures and the severity of plague in those wards.

And it is held that, generally speaking, plague is shown to have

been most severe in the wards where the density of the population (as judged on the one hand by the number of people dwelling in each house, and, on the other hand, by the number of inhabitants per unit of superficial area) has been least.

It is admitted, however, that the criteria of density of population are open to criticism, but importance is attached to the statement that in the suburbs there is less overcrowding than in the heart of the towns, and that no interrelation between density and plague prevalence is there shown.

Regarding ventilation, the majority of the Commission do not even *a priori* appear to consider it of any certain value. All the length they go is to say that:

A priori it would appear possible that an absence of ventilation may exert an effect upon the spread of plague by reducing the vitality of the inhabitants who live in a vitiated atmosphere. It is, in other words, conceivable (though we have no data for arriving at a decision on this question) that persons living in a vitiated atmosphere may be rendered more susceptible to contract the infection.

And again they say:

It would seem possible that the absence of ventilation may to some extent be favourable to the spread of plague.

Proof, we are told, can be adduced to show that freedom from plague is not always associated with the existence of good ventilation. As concerns the greater freedom of evacuation camps from a tendency to the spread of plague within them as contrasted with unevacuated villages, it is held to be impossible to determine how far the advantage is due to an unvitiated atmosphere; how far to the spacing out of the people in camp; how far to the more rapid dissipation of infected material; and how far to the removal of people from the sources of infection in their houses.

Many sanitarians will not be convinced by this line of reasoning. The analogies of plague do not appear to be with those infectious diseases like measles, whooping cough, smallpox and influenza, which, so far, have shown little evidence of being much under the influence of sanitary measures. Rather, plague might be classed along with what Dr. Archdall Reid would describe as the heavy infections—related to the soil—or with typhus fever, which has repeatedly in the past been clinically compared with plague, and which, though airborne, is so only for a short distance, or in such atmospheric conditions as are found within dirty, unventilated, and overcrowded houses, but not in conditions of atmospheric purity which are found outside of houses.

Apart from the theoretical explanations of admitted facts

which may most commend themselves to individual inquirers or readers, when we come to the recommendations made by the Commission, we learn that they agree with Professor Fraser (who objects to the findings of his colleagues as to the small value of sanitation), in recommending the prevention of overcrowding in houses as an important plague-preventive measure. At the same time they draw a distinction between the diminution of overcrowding and the improvement of ventilation, attaching much less importance to the latter measure. In practice, however, it is generally impossible to separate the two. Diminution of overcrowding must, in its measure, improve the condition of the air in a house, and in the same way improvement of ventilation diminishes the bad effects of overcrowding. The prevention of overcrowding and the provision of ventilation are indeed complementary to each other, the one being a negative and the other a positive way of improving the air supply, though the latter is usually considered more important than the former, because in the absence of ventilation in such places as the Bombay chawls it cannot take long before the atmosphere gets into an abominably foul condition even with practically the smallest number of occupiers. Perhaps the Commission—or rather the majority of them—in refraining from insisting on great improvements in ventilation may have insensibly been influenced by the facts to which they call attention—that openings made in the walls are soon closed up by the natives, and that the temporary removal of the roofs of the houses is a radical measure opposed to the feelings of the inhabitants. These, of course, are important practical considerations, but they do not influence the correlation which must necessarily exist between ventilation and density of population within dwellings. In attaching importance to overcrowding, as distinguished from bad ventilation, the Commission have no doubt also hoped that diminution of closeness of contact between individuals might tend to check the spread of plague, but the contact in these native dwellings, as described by the Commission, must in any case be so close and frequent as to afford endless opportunity for conveyance of infectious disease by such means. Whatever be their reason, it is certainly very satisfactory that though they hold the association of plague with overcrowding not to have been statistically established, and though there has been no inter-relation between density of population and prevalence of plague in Bombay wards, yet the Commission do attach much importance to cure of overcrowding as a preventive of spread of plague. It would have been still more satisfactory had they been so consistently inconsistent as to take the same line with regard to ventilation, and there seems no sufficient reason why they should have put statistics aside in the one case and not in the other.

Construction of Houses.

Concerning the effects of damp in dwellings, the Commissioners say that while it implies a condition favourable to the survival of the plague bacillus, yet in damp surroundings, "influences might make themselves felt which, by allowing of the freer growth of saprophytic miro-organisms, would be hostile to the survival of the plague bacillus." Evidence as to the relative influences of light and darkness is regarded as insufficient to enable a judgment to be formed.

The floors of cowdung and earth soak up discharges, retain moisture, permit of the burrowing of rats, and render disinfection by chemicals more difficult and uncertain than it would otherwise be. The Commissioners remark:

> We have, however, practically no data which would enable us to arrive at a definite conclusion as to whether plague has actually been more rife in houses with cowdung floors than in similar houses provided with cement or stone floors.

It is no doubt wise to be cautious especially in an official report, but most people we apprehend would prefer the cement floor to the cowdung as a protection against plague.

Continuing their argument the Commissioners say:

> Taking the [illegible] with extreme difficulty in [illegible] in conjunction with the fact [illegible] there is an average of over [illegible] of dirt scraped from the [illegible] ation for the belief [illegible] the case that the growth of the bacillus is [illegible] dirt. If, therefore, dirt is contributory to the [illegible] be when, owing to its association with moisture, it plays a part [illegible] retarding the destruction of the plague bacillus by desiccation. Except in so far as dirt in a house may exert an effect in this direction, its presence would appear, from the point of view of the spread of plague, to be a matter of indifference, unless possibly as an indication of the absence of any efforts on the part of the inhabitants to purge their houses of infective material, supposing such to have been introduced. On the other hand, from the point of view of the sanitarian a clean room manifestly may constitute as dangerous a nidus of infection as a dirty room, inasmuch as the specific micro-organisms of the disease may effect a lodgement or remain in the room in spite of any amount of sweeping and cleaning.

Usually in a dwelling house in this country cowdung would be regarded as dirt, but it is not so thought of by the majority of the Commissioners. Apart from exclusion of cowdung, they do not define dirt, but if we take it to be organic matter, animal or vegetable, in which saprophytic micro-organisms can grow, then, following the reasoning of the report, it seems a pity to interfere with dirt, and the proper cure rather appears to be increase of dirt, so as to foster the organisms which slay the plague bacillus. It is indeed somewhat confusing to find that later on the Commissioners attach great importance to chemical disinfection. Why should saprophytic organisms be slain by mercury bichloride or other such agencies, when one of their functions is to destroy the plague bacillus? Is it hoped that absolute sterility can be achieved?

The Commissioners are of opinion that faecal contamination does not exercise any very important influence upon the spread of plague, and that wide streets and open spaces are not factors in prevention, and further that no combinations of any of the sanitary defects referred to "exercise any marked favouring influence on the spread of plague," and that these views are supported by consideration of plague in Calcutta, Mysore, Oporto, Canton, and Hong Kong.

They proceed to refer to the opinions of numerous plague officers on the influence of sanitary conditions, and the great majority of these are quite against the Commission, their view being, shortly, that insanitation and spread of plague may be considered pretty much as cause and effect. A minority however take quite a different view. The Commission think that these opinions, though apparently contradictory,

> can be harmonized if we assume, as we must, even in face of the fact that the plague was severest in the less crowded districts of Bombay, that the factor which more than any other is likely to determine the introduction and spread of plague in a house is the crowding together of a number of inhabitants in that house. While the more frequent occurrence of plague in the crowded, dark, ill-ventilated houses which serve as dwelling places for the very poor would be easily explained in accordance with this view, we are very far from suggesting that in certain of these houses there may not be some special insanitary condition which may be contributory to the spread or persistence of plague.

It thus turns out that, in spite of statistics, the Commission cannot get away from attaching importance to sanitation, and on this point it is satisfactory to observe that there is a very real and important community of view between themselves and the President. He, in the appendix referred to, points out that in considering the influences of density and other conditions, it is necessary to distinguish very thoroughly between influences within and influences outside of dwelling houses. Plague he regards as a disease which is specially favoured by insanitation *within the walls of houses* as contrasted with insanitation outside of houses, relating for example to drainage and removal of refuse. We think it quite possible that in future this conclusion of Professor Fraser's will come to be regarded as one of the most valuable parts of the Plague Commission's Report. Here again the resemblance to typhus fever suggests itself. Unlike small-pox, for example, typhus is a disease attaching itself to insanitary dwellings, and the separate agencies of dirt and overcrowding and defective ventilation and debility of body owing to the want of proper food and clothing cannot profitably be distinguished as to individual influence in favouring the disease.

The Commission are no doubt right in saying:

> It would be impracticable to enter on a scheme for rebuilding all India and for bringing it into conformity with modern sanitary ideas, by enacting that every room should be provided with windows, and that cemented or paved floors should be substituted for earth and cowdung floors. Even if it were possible to carry out such a scheme of reform as this—and it has already been seen that reforms involving large rebuilding schemes have in particular places been carried through in connexion with measures taken against plague—it would not be possible without a legion of inspectors to insure that the people did carry out the improvements required, and that there was no subsequent backsliding. How necessary it would be to attend to this last point will appear from the fact that, where measures for improving the ventilation of the houses were carried through in connexion with plague measures, the people for

the most part closed up the ventilation openings at the earliest opportunity.

We have great sympathy with the natural desire of the Commissioners to propound a scheme which could within reasonable time be carried out in practice. It certainly seems easier to deal in some measure with the overcrowding than it is to introduce air and light into the Bombay chawls or to uproot the prejudices in favour of cowdung floors. Yet there can be no harm, but only good, in keeping in view the introduction of ventilation as well as the abatement of overcrowding. Even in this country the health officer, in the exercise of his duty, is continually met with the objection that, though baths are introduced, people will not wash themselves, and that, though windows are hung or hinged, they will not be opened. The first duty is to provide the structural elements of sanitation. It is another and an additional duty to endeavour to make people use the facilities afforded them; but the fact that the latter is difficult is no reason for omitting the former. In India the problem may be ten or a hundred fold more difficult, and the remedy may take all the longer. That is a great pity, but the duty is there all the same to judiciously advance sanitation as opportunity offers, not only in one particular but in all—of course with due regard to poverty and race prejudices and other relevant considerations. The Commissioners are therefore right in suggesting that the medical officer of health in each large town should have power to veto the erection of grossly insanitary buildings or the rebuilding in an insanitary manner of houses which now exist.

The President's Memorandum, in which he states his reasons for disagreeing with certain conclusions of the Commissioners, has been referred to repeatedly in what has already been said, and will receive special attention from every student of the Report. He begins by giving various striking examples of the insanitary condition of towns, villages, and houses in India. Concerning general insanitary conditions, however, he calls attention to the evidence of Lieutenant-Colonel Fawcett, R.A.M.C., regarding the limitation of the powers of plague infection:

Most fortunately, it cannot be carried to any appreciable extent by water or air, and the bacillus which causes it, though capable of multiplication with extraordinary rapidity in a suitable nidus, has neither power of resistance, locomotion, or spore formation.

He next procee is to emphasize the view already discussed, "That the spread and virulence of the plague are chiefly due to insanitary con litions within dwellings."

After referring to the immunity experienced in the evacuation camps, he points out how little infection was spread in hospitals. In the course of this argument he says:

The latter is a prominent circumstance in the experience of all plague hospitals: and it was displayed in some of them, although the ward servants went about barefooted, and in nearly all, if not all, plague hospitals, even although ward servants and numerous friends of patients were brought daily and nightly into the closest personal contact with pneumonic as well as bubonic cases of plague.

Comparing this immunity with the extension of the disease in native houses, Professor Fraser says (par. 28, p. 466):

Plague is well known to spread in them with appalling rapidity, although the inhabitants of the houses are actually the persons who, when transferred to hospitals, remain unaffected even when surrounded by more numerous sources of human infection than are present in their houses. The introduction of an infected person into one of these houses has been known frequently to cause four or five cases of plague among the limited number of the inmates, and, less frequently, seven, eight, nine ten, and twenty inmates, and even the whole of the inmates of the house have become infected, although some of the houses had been disinfected on the death of the first patient, and although in many of these instances the infection was communicated by patients suffering from the more common bubonic, and not from the less common and more infectious pneumonic type of plague.

In particular he attributes great liability to become infected by remaining for the night in insufficiently ventilated chambers containing infective material. Plague, however, he admits "cannot justly be regarded as a filth disease in the ordinary acceptation of the term." The moisture and warmth required by its bacillus are found in unventilated rooms.

In an occupied and insufficiently ventilated room, the former is abundantly supplied by the exhalations from the lungs and skin of the inmates, and the latter by the heat radiating from their bodies. Thus it happens that plague flourishes in India in all conditions of climate, in the snowy altitudes of Kumaun and Garwhal as well as in the tropic heat of the plains, in the moist atmosphere of Bombay as well as in the dry and arid sands of Karachi. It is independent of outside and general climatic conditions, because it finds those elements of climate which are conducive to, or even necessary for its vitality and virulence, within the houses of the people in all places and seasons.

(6) *Endemic Foci in the Hills.*

Departing from the discussion of the influence of insanitary conditions, and returning to the epidemiological questions considered in Chapter III, the next subject is the existence of an endemic focus of plague in the foot-hills of the Himalayas. The conclusion is that there can be no doubt as to the existence of this focus. The disease was first officially reported on in 1834 to 1835, and was called by the name of "mahamari," that is the grave disease. It was originally looked on by Dr. Renny as a malignant form of typhus, accompanied by external glandular tumours—a "very fatal disease, generally terminating in death within three or four days after attack."

The non-bubonic form of plague is much commoner in the Hills. The disease seems to be very deadly. Of 291 cases reported by Surgeon-General Planck, 277 ended fatally. The pneumonic form appears to be unknown, but there is frequently diarrhoea in the districts of Kumaun and Garwhal. Serious epidemics occur only at prolonged intervals, but sporadic cases in widely scattered villages are not infrequent. The absence of intercourse between these is regarded as requiring some other factor than the distribution of infection from sporadic cases to account for the endemicity of plague. There is no evidence that it is due to a succession of cases of pestis minor. The best theory is held to be that the infective material lies dormant for prolonged periods in the soil or in the houses, and the climatic and housing conditions may favour this.

It is said that where a rule preventing the housing of cattle along with human beings has been strictly enforced, there have been periods of comparative immunity from plague, but when this regulation, owing to pressure of circumstances, has fallen into desuetude, considerable mortality has followed. Recrudescence of plague due to infection remaining in the soil would help to account for seasonal periodicity, though it is impossible to establish that outbreaks in India generally have ever occurred apart from an importation of infection.

(7) *Whether the Infective Material of Plague must Undergo a Preliminary Process of Adaptation or "Acclimatization" before it can Spread in any Locality.*

This question need not detain us, as the evidence is most inconclusive and unconvincing, and we have already called attention to the one outstanding fact of practical importance, namely, that a considerable interval often elapses between the introduction of plague and its subsequent extension.

CHAPTER IV.

HAFFKINE'S ANTI-PLAGUE INOCULATION.

This chapter was issued in advance of the rest of the report in February, 1900, and was noticed and criticized in our columns at that time.[1]

CHAPTER V.

SERUM THERAPEUTICS.

Investigations Conducted by the Commissioners.

They examined in all two samples of Yersin's serum and two of Lustig's. Yersin's serum, which they obtained from the Pasteur Institute in Paris, had been derived from horses inoculated first with dead and finally with living plague cultures, and had been heated to 60° C. before being sent out. Lustig's serum was prepared for them in Bombay by Dr. Galeotti. The horses which furnished it had been inoculated with a solution of nucleo-albuminous substance obtained by growing mass cultures of B. pestis on agar, scraping them off, dissolving them in 1 per cent. potassium hydrate, and collecting the precipitate which formed on subsequent acidification.

The Commissioners first endeavoured to find experimentally whether the serums contained any specific antibacterial substances. On this point their results were negative. On adding the serum to fresh plague cultures and introducing the mixture into the peritoneal cavity of normal guinea-pigs, "we saw nothing which reminded us, even in the remotest degree, of the striking results which were obtained when cholera bacteria were introduced into the peritoneal cavity in association with the serum which contains the corresponding specific antibacterial substances." Again, plague bacteria

[1] Vol. I, p. 455-461.

seemed to find both Yersin's and Lustig's serums excellent culture media. With guinea-pigs inoculated with $\frac{1}{75}$ agar tube of B. pestis, it was found that the simultaneous injection of serum in the opposite side of the body in doses of as much as 2 c.cm. in no case prevented death. Yersin's serum, however, appeared sometimes to prolong life a few days; Lustig's accelerated death. The Commissioners then endeavoured to see if the serum contained toxic substances in sufficient quantity to produce a fatal result in normal guinea-pigs. Their experiments showed that when guinea-pigs were injected with as much as 30 c.cm. of Yersin's or Lustig's serum they in every case survived.

As Yersin's serum appeared innocuous in every respect they determined to administer it to hospital patients. They did not feel justified in putting Lustig's to a similar use owing to its disastrous effect on plague-infected guinea-pigs. At the South Camp Hospital, Bangalore, they treated 49 cases, administering the serum to every plague patient admitted who was neither convalescent nor absolutely *in articulo mortis*. The case-mortality of the adjoining North Camp Hospital served as a control. In Bombay, also, they treated 28 cases in the Modi Khana Hospital, selecting every second patient admitted and using the intermediate cases as controls. Both at Bangalore and Bombay the advantages of serum treatment were only slight. The case-mortality showed a diminution of not more than 4 to 5 per cent. Life was not prolonged nor convalescence accelerated, nor was there any well-marked alleviation of symptoms.

Investigations of Others.

Animal Experiments.

The German Plague Commission examined two samples of Yersin's serum obtained from the Pasteur Institute, Paris. Their results with plague-infected monkeys appeared to show that in some cases the survival of the animal was due to the effect of the serum.

Captain Mason, R.A.M.C., also investigated the effects of two samples of Yersin's serum on various animals inoculated with plague, and found they exerted a favourable influence.

Dr. Galeotti treated eight plague infected animals with Lustig's serum. Six survived.

Therapeutics.

Captain Mason, R.A.M.C., treated 100 patients with Yersin's serum, obtained from Paris, during the epidemic in Cutch. These cases gave a mortality of 59 per cent., whereas 100 control cases showed a mortality of 83 per cent. But most of the serum cases occurred during a declining epidemic, whereas the controls occurred when the epidemic was at its height.

Dr. Simond used Yersin's serum, prepared in Paris. Up to February, 1898, he recorded 300 cases treated at Karad and elsewhere with a case-mortality of 58 per cent., which he contrasted with the mean mortality of 75 per cent. registered by him "in the same hospital for the cases not treated with serum." In May and June, 1898, he treated 70 cases at Karachi with a mortality of 53 per cent., the epidemic being during that period apparently on the decline.

The German Plague Commission conclude from their use of Yersin's serum, prepared in Paris, that "the only certain inference which can be drawn is that the injections of serum have had no perceptible, immediate, or remote harmful results."

The Russian Plague Commission tried a serum prepared at St. Petersburg on similar lines to those followed in Paris. Adopting the principle of alternate selection, they found that 50 serum cases showed no diminution in case-mortality, and concluded that the serum was "an absolutely indifferent substance, with no influence either for good or evil on the course of acute plague."

Mr. Haffkine prepared a serum by inoculation of various animals with plague cultures, but found it useless therapeutically. After dealing with 200 cases on the alternate system at Poona, he says, "I expect it was an accident, but the mortality amongst the treated was higher than amongst the untreated."

Dr. Choksy made three series of observations at the Arthur Road Hospital, Bombay, on patients treated with Lustig's serum: (1) The mortality of 257 serum cases—moribund patients not being treated—was 22.7 per cent. less than that of the remaining 752 hospital cases, which included the untreated moribunds: (2) 403 serum cases, admitted in the acute stage of the disease and in a non-moribund condition, showed a diminished mortality of 18.7 per cent. as compared with the residual 1,190 patients admitted during the corresponding period: (3) the alternate system was adopted for 968 patients, the difference in favour of the serum group being 11.5 per cent. If, however, the numbers of deaths and recoveries referable to convalescent and moribund patients respectively were subtracted from both the serum and the control groups, the difference in favour of the serum group would be 20 per cent.

Comments of the Commissioners.

Of the comments, criticisms, and preliminary considerations which occupy the great bulk of the chapter, the following points appear worthy of mention:

As regards the preparation of serums they suggest that heating to 60° C may interfere with their therapeutic power, and they doubt whether "substances which are specific to the plague or any other bacillus would resist the disintegrating action of the strong caustic soda which comes into operation in Lustig's process." The feebleness of the therapeutic effects of the serums used by them they think may be partly due to their age and consequent absence of unstable non specific antibactericidal substances, and to the presence of unneutralised poisons. Whilst they admit that the more favourable results obtained by some other observers may be partly due to their employing stronger serums, or serums more freshly prepared, they lay the chief stress upon the fallacies resulting from an improper selection of control cases. Their lengthy and laboured criticisms on this matter are uninteresting. It is quite obvious that some of the statistics above quoted are unconvincing. The only important point the Commissioners bring out is that the one indisputable guarantee of the efficacy of a serum is its success when applied on the "alternate method," every personal factor in the selection of cases being rigidly excluded.

Conclusions and Recommendations.

They think that Yersin's serum, as received from Paris, "contains therapeutically useful substances in greater or smaller quantity," but that some samples, at all events, are too weak to be of much benefit to plague patients. Speaking of the more favourable experiences recorded by some other observers, they are prepared to admit that "a certain amount of advantage in all probability accrued to the patients, both in the case of those injected with Yersin's serum, and of those injected with Lustig's serum." Notwithstanding the disappointing results hitherto obtained, they hold that serum-therapy is "the only method which holds forth a prospect of ultimate success" in the treatment of plague. They recommend further study, in the case of animals furnishing the serum, of "the blood changes which are associated with the incorporation of the plague toxins, and with the elaboration of antidotal and bactericidal substances," and, in the case of human plague subjects, of the blood changes brought about by the administration of the serum. They also advise that therapeutic serums should be prepared in India by Yersin's method, and urge that all serums, with a view to excluding deleterious samples "should, before they are brought into therapeutic application on man, be exhaustively tested upon animals."

Reviewing the chapter as a whole, it appears that whilst making some reasonable and obvious suggestions as to the work which ought to be done, the Commissioners did not do much to advance the serum therapeutics of plague. Their experiments upon animals merely showed that the particular samples they used were very weak and possibly impure, and the application of these serums to a small number of hospital patients did not get any decisive evidence. If the rigorous standard of criticism which they enforce for other investigators be applied, it will be found that the sum total of their serum cases treated, with an admittedly unsatisfactory sample, on the "alternate" system, is only 28. Beyond pointing out obvious and often unavoidable deficiencies in statistical data, they have done nothing towards solving the fundamental problems of serum therapeutics which are raised by the discrepancies in results of the various workers who have dealt with antiplague serums on an extensive scale. The

length of time required to prepare a serum (from a few months to a year or more), and the possible difficulty in obtaining sufficient supplies from elsewhere, no doubt account for the deficiencies of the Report under this head.

(To be concluded.)

NOVA ET VETERA.

SORCERY, MEDICINE, AND SURGERY IN ANCIENT MEXICO.

The *Bulletin of the Johns Hopkins Hospital* for April contains an interesting paper by Miss Zelia Nuttall on Sorcery, Medicine, and Surgery in Ancient Mexico. She says that we owe the greater part of our knowledge of native sorcery, medicine, and surgery to the monumental work of Bernardino de Sahagun, a Spanish Franciscan friar of remarkable intellectual gifts, who went to Mexico soon after the conquest, and left the most valuable work in existence on the customs and history of the ancient Mexicans. An unpublished manuscript portion of this work preserved at the Royal Library at Madrid, where she studied and copied it in 1892, contains descriptions in the Nahuatl language of the various functions of sorcerers, fortune tellers, jugglers, and medicine men. A critical study of the passages relating to the so-called sorcerer shows that his office was much the same as that of the "rain maker" of the Pueblo tribes at the present day. He is described as being a sorcerer, a prophet, and one who could avert hailstorms. He was a priest, who lived in strict seclusion in the temple, and fasted. He alone had the power to protect the people from the evil sorcerers, who, when animated by hatred, strove to destroy a village and its chieftain. There were means by which it was possible to protect a house from a sorcerer. A bowl of water, containing an obsidian knife, was placed behind the door or in the courtyard at night-time. When the sorcerer gazed into the bowl and saw his own reflection in it, crossed by the obsidian knife, he turned and fled, and never ventured to return. The power to rob their victims of consciousness was particularly ascribed to those sorcerers who, bent on robbery, made use of a potent charm, consisting of a dried human arm. These sorcerer thieves were known as the *tomamacpalitotique*, a name which is said to mean "a thief who steals and robs by means of enchantments or sorcery."

An anonymous Hispano-Mexican MS., discovered by Miss Nuttall at the Biblioteca Nazionale Centrale in Florence, which she is about to publish under the title *The Life of the Mexican Indians*, contains an interesting illustration of what the text describes as "a kind of diabolical medicine which was practised by the Indian women doctors." It will be seen from the following passage that this so-called diabolical rite was really no more than an attempt at prediction or "fortune-telling":—

When some one was ill they called the medicine woman or man in order to ascertain how the illness would end, and placed an idol in front of the patient. This idol was named Quetzalcoatl, or "Plumed Servant." A mat was laid upon the floor and the medicine woman placed herself on this and spread a white cotton cloth. She then took 20 grains of maize in her hand and cast them upon the white cloth, just as the Spaniards cast dice. If the said grains fell in a circle, leaving an empty space in the centre, it was a sign that the patient would die of his illness and would be buried, the empty space being regarded as the sign for a grave. If the grains fell on top of each other it signified that the illness had been caused by sorcery or witchcraft; but if, in falling, the grains divided into two parts, one half being on one side and one on the other, so that a straight line could be drawn through the middle of the group without touching a single grain, it was a sign that the disease would leave the patient, and that he would recover.

In Sahagun's work one kind of medicine man was designated as "he who takes something out of a person." The text reads:

When any one is ill he is called, so that he should remove the illness. He first chews a bitter herb named iztauhiati, sprinkles its juice on the person and rubs him over with it. Then he feels him all over. Wherever he finds a sore spot he removes from the flesh a pebble or an obsidian knife, a roll of paper, or a splinter, or something else. After he has done this some persons get well, others do not.

In the sacred books of the Quiches a historical medicine man is recorded as stating that he "drew worms from the teeth or from the eyes." Another class of healer is separately described as "he who sucks out illness," and the text says:

When a child has a sore chest the sorcerer uses the herb iztauhiati, and sucks out blood or matter. Some children get well, others do not.

A curious mode of treatment for children is also described by Sahagun:

The child patient, or the patient child, was held head downwards and its head was shaken to and fro, its mouth being pressed close or stopped with cotton-wool. Of this prescription it may be surmised that some may have recovered but that the majority did not.

While these records appear to show that the medicine man of ancient Mexico was identical with the North American Indian medicine man of the present day, other details that have been preserved show that they also possessed remarkable knowledge of the curative properties of the native herbs. Old Spanish writers repeatedly refer to the remarkable knowledge of the medicinal properties of the native plants possessed by the Mexicans, and near Montezuma's palace there was a garden in which medicinal herbs from all parts of the country were cultivated, for the use of the population of the City of Mexico. The Mexican medicine man had, moreover, discovered the properties of certain plants, and employed them as stimulants, in order to produce hallucinations, visions, and ecstasy in connexion with their religious rites. The native tobacco was used in this way. Its leaves were bruised and mixed with some alkaline substance, such as lime, or with charcoal. This paste was then formed into tiny pellets, which seem to have been chewed or eaten, and were carried by the priests in a small gourd or calabash, suspended from their necks. In the form of pellets tobacco was called "ye-qualli," "tobacco food," was designated as a "strengthener or sustainer," and, like the coca of Peru, was used by those who set out on long forced marches. Tobacco was also smoked by the ancient Mexicans.

In the treatment recommended for the preservation of the teeth, for toothache and inflamed gums, charcoal and the capsicum were used for the same purposes as in modern dentistry. The following prescription for the relief of inflamed gums is quoted by Miss Nuttall:

Inflammation of the gums is cured by lancing them with an obsidian knife and rubbing in a little salt with the finger. For toothache it is necessary to look for a certain kind of maggot, and to grind it with some resin from the fir tree. This is to be applied to the gum. Then heat a red pepper or capsicum, and press it and a grain of salt as tightly as possibly upon the painful spot. Then lance the gum and apply a certain herb called tlalcaoatl. If these remedies do not suffice, draw the tooth and put a little salt into the hollow place.

The following specimen of preventive dentistry is found in the old manuscript:

In order to avoid the above disease of the teeth, it is well to avoid eating very hot food. If hot food is eaten, do not drink very cold water immediately afterwards. Always clean the front and back teeth after eating, also employ a wooden toothpick. Use cold water and salt for cleaning the teeth, and rub them frequently with a cloth and some finely-ground charcoal.

The ancient Mexicans placed the highest value on the temazcalli or sweat-house as a curative agent, and Miss Nuttall says it was prescribed for all kinds of illnesses. It was resorted to by mothers immediately before childbirth, a custom still adhered to by Indian women in various parts of Mexico. The sweat-house was associated with the cult of the "earth-mother," the "grandmother of all," and many superstitious rights were associated with its use. The disapproval with which it was consequently regarded by the Spanish missionaries gradually restricted its hygienic usefulness. Its employment was accompanied by an intelligent use of massage, and various forms of massage treatment were prescribed after the sweat bath. Thus:

A swollen neck or sore throat is to be rubbed with the hand. A stiff neck or shoulder is to be pinched and squeezed.

For a cough, however, the throat is to be rubbed with a finger only. Sprains are to be treated by rubbing very gently with the hand. The treatment for headache is somewhat more heroic:

Smell a certain herb named ecusco, or the pepper plant, when it is young and green. Tie up the head with a cloth and inhale the smoke of certain different kinds of incense. If the headache should get worse pulverize the dry leaves of a certain herb named cocoiatic and use it as a snuff. If, however, the pain increases, take some drops of the juice of a certain plant, mix these with a little water, and sniff it up the nose. If after this the pain is not allayed, take an obsidian knife and lance and bleed the head.

The mode of treating wounds may be gathered from the following directions:

Wounds or cuts of the lip are to be sewn up with a human hair and then bathed with the juice of the agave plant. If after the wound has healed it leaves an ugly mark, it is necessary to reopen and burn it, and sew it up again with a hair and cover it with melted ulli—that is to say, the juice of the indiarubber plant.

A peculiar mode of treating wounds is described by Sahagun in a chapter devoted to the medicinal use of different stones, but Miss Nuttall suspects Spanish influence in these cases. It is, however, interesting to learn what ideas were prevalent

among the Spanish missionaries in Mexico about the year 1570. After describing the different kinds of obsidian Sahagun adds:

I believe that this stone is a kind of black emerald, as experience has taught me that it possesses particular virtues. When ground to a powder as fine as flour and applied to open wounds or sores, it cures them very quickly and prevents festering .....Catarrhs are cured, the voice is rendered clear, and internal heat is abated by taking two or three pills made by mixing powdered obsidian with quince cheese or some other thick preserve which absorbs a great deal of the powder.

The friar goes on to say:

In this country the blood-stone is also found, and it is green, with what look like drops of blood. This stone has the virtue of stopping the nose bleeding; I have had experience of the virtue of this stone, because I possess one which is about as large as a fist and is rough and uncut, just as when broken from the rock.

In the year of 1576, during the pestilence of nose-bleeding, this stone is said to have saved the lives of many who, as the chronicle quaintly says, "were losing their blood and their lives through their noses."

On taking it into their hands and holding it tight for a while, the nose-bleeding ceased and they were cured of this disease, of which many have died and still die in New Spain.

The friar concludes with the statement that in the village of Tlatelolco, of Santiago, there were many living witnesses of the above remarkable cures. From Sahagun we learn that, in cases of fractured bones, splints made of pine wood were used by the native surgeons.

Miss Nuttall mentions the existence in ancient Mexican codices and manuscripts, of representations of two kinds of what may, by courtesy, be called surgical operations. One of these consists of the ceremonial piercing of the nostril of a warrior by an ancient Mexican priest, in order that he may wear the turquoise nose ornament, which was the equivalent to the Victoria Cross in Montezuma's time, and a mark of highest rank. The pictures represent the warrior on the pyramid temple, resting his head on a kind of stone altar, while the high priest is piercing his nostril with the sharp point of an agave leaf. The second operation is that which was performed by the high priest when sacrificing the lives of animals or human beings in the temples, and constitutes the most repulsive feature of ancient Mexican life. The native chronicles relate that the ritual sacrifice of human beings had only been in use for a comparatively short period in native history, and had been adopted by the Mexicans for the purpose of intimidating the tribes which they subjugated and forced to yield tribute. Fray Duran gives a graphic description of the rite. The victim, who had been drugged and was in an almost unconscious condition, was placed with his back resting on the summit of a high conical stone. Assistant priests held his limbs and pressed them downwards, which caused his chest to protrude and to be at a high tension. The head priest then made a deep incision with a large flint knife, which, as Duran says, "caused the victim's chest to open like a ripe pomegranate." The priest then inserted his hand in the opening, seized the victim's heart, tore it out, and held it aloft.

Miss Nuttall's conclusion is that whereas the ancient Mexicans had rain makers and medicine men, whose professional attainments were on a par with those of other American tribes of the present day, they also possessed an excellent knowledge of the hygienic uses of the sweat-house and massage, and of the medicinal properties of various plants and natural products, and put some of them to sensible and practical uses. Besides having acquired, through experience a certain rudimentary knowledge of surgery, they also practised upon human and animal victims by means of a stone knife, a form of operation which, although peculiar and extremely repulsive, appears to have been methodical and effective, and to have demanded a certain amount of surgical skill and practice.

GERMAN MEDICAL CONGRESS.

(Concluded from page 1100.)

Aortic Aneurysm.

O. ZIEMSSEN (Wiesbaden) gave an account of two cases of aortic aneurysm, both having a specific basis, both having come under treatment at the same time, and distinguished by rapid growth and course. In the first case the patient was 43 years old. Syphilitic infection took place seventeen years ago, and the early symptoms were asthma, then excessive dyspnoea, irritable cough, and expectoration of small blood clots. The physical signs were extensive dullness and pulsation between the second and third right ribs, the right epigastric vein being visible. A skiagraph was also taken. Under treatment there was marked improvement during the first three weeks, during the next three weeks disappearance of all subjective symptoms, and after further three weeks death due to softening of the aneurysmal sac, pleuritic exudation and parenchymatous haemorrhage but no perforation. Half of the sac was already filled with a coagulum. The other patient was 47 years old. Among the symptoms were intercostal neuralgia, aphonia, syncopic attacks, discoloration and swelling of the left arm. On examination there were the usual physical signs and paralysis of the left vocal cord. During a four months' treatment the symptoms disappeared, reappeared, and the patient again improved. In both cases the treatment consisted of inunction with maximum doses and potassium iodide.

Treatment of Hemiplegia.

PAUL LAZARUS (Berlin) pointed out that in cases of hemiplegia Nature sought to maintain a compensating activity in the remaining nerve tracts, and further to establish new channels for nerve stimuli. A therapeutic principle could be based on this and the fact that the pyramidal tract was not the only channel for conveying motor stimuli. In addition, there were several reserve tracts passing downwards through the subcortical ganglia. Further, the sound hemisphere could act for the diseased one by means of the uncrossed anterior fibres. All ganglion cells of the brain were also in direct and indirect communication with each other, and this could be improved by means of methodical exercises. These should be innervation exercises, as every excitation of the motor will increased and ultimately improved motor power. These exercises should commence as soon as possible after the termination of the reaction stage in cases of apoplexy.

The Cumulative Action of Digitalis Preparations.

ALBERT FRAENKEL (Badenweiler) stated that animal experiments with small doses of digitalis might be said to be non-existent. There were no proofs that the circulation could be permanently influenced in animals as in man. He had succeeded during several weeks in producing in healthy cats with various pure preparations a striking augmentation of the palpable heart's action and a reduction in the pulse-rate. When the doses were increased the described effects remained for a time only when they were followed by toxic symptoms. This was the case with all digitalis preparations, more particularly with digitoxin, which was therefore least suitable for a prolonged treatment. The reverse was noticed with pure digitalin. Strophanthus was quicker in action than digitalis. No preparations used could be said to lose their efficacy through habitual use. The results were stated to have a special value owing to the frequently-recommended use of small but prolonged digitalis treatment, especially during recent years. All experiments were with cats. The pulse frequency was registered with the cardiograph, the animals not being chained up.

Multiple Trophoneurotic Gangrene of the Skin.

JULIUS MUELLER (Wiesbaden) referred to cases of this disease shown at the London Congress in 1881. It was then unknown what the condition was due to, but latterly 7 more cases had been published, the last one by Joseph (Berlin). Generally it was surmised that the process was trophoneurotic, though there was uncertainty whether the origin was peripheral or central (syringomyelia). The course was generally identical. In connexion with a burn or other lesion round gangrenous patches appeared during periods up to ten years or more. In Mueller's case there had been a scald of the thigh three years ago, since when there had appeared during five periods about thirty gangrenous patches, all situated on the extensor surface of the right leg. The onset was rapid, there being redness, vesicles, and gangrene within seven or eight hours. The diagnosis rested between herpes zoster of the gangrenous form, embolisms, hysteria, syringomyelia, and multiple trophoneurotic gangrene of the skin. Mueller thought that the first three conditions could be excluded absolutely.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 10TH, 1902.

THE MIDWIVES BILL.

THE new rules of procedure for the business of the House of Commons came into operation on Monday last, and the Order Book issued on that day showed the changes made in the order of business after Whitsuntide in consequence of Mr. Balfour's proposals. Private members' Bills will be taken in future on Fridays at 12 instead of on Wednesdays, and as all the Fridays after Whitsuntide, except the third and fourth, are reserved for Government business, there remain only these two sittings of the House, namely, June 6th and 13th, for all the private members' Bills that have passed through the Committee stage.

The Midwives Bill stands at the head of the list on June 6th, and next to it is the Cremation Bill, while the Shop Clubs Bill is first for the 13th, and one or two other Bills may yet reach the same position. The rule is that the Bills take precedence according to the progress made, and consequently the Midwives Bill, if it gets through the report stage on June 6th will be down as first order for June 13th for its final stage of third reading. The way is clear for it to come on for the report stage on June 6th, and there are at present no great number of amendments down for consideration. Mr. Griffiths-Boscawen stands first with a proposal to add in the second line of the first clause the words "habitually and for gain attend women in childbed," and later he proposes to insert the same words to prevent any woman so acting who is not certified under the Act. The same hon. member also proposes a penalty for any woman certified under the Act who employs an uncertified person as a substitute. Later on Mr. Harwood will propose to omit Subsection 6 of Clause 1, which would prevent an uncertified woman from recovering fees.

Other amendments require a certificate of good character from women now practising as midwives who wish to be certified under the Act, and Mr. T. P. O'Connor will raise the question of the recognition of the diploma of the Obstetrical Society. The substitution of the General Medical Council for the Privy Council as the controlling body, and the constitution of the Midwives Board, will also be discussed. There are at present no amendments down in the name of Sir John Tuke, who was understood to be the representative of the General Medical Council when the Bill was in Committee. Although it is likely that a few more amendments may appear on the paper later on, there does not appear to be enough matter for serious controversy to occupy the five and a-half hours of the Friday's sitting, and, unless the opposition develops, the Bill is pretty certain to pass report stage on June 6th and get a third reading on June 13th. All those members of the profession—and they are not few—who are opposed to the measure and who are convinced that on public grounds it is a dangerous proposal, will do well to utilize the time between now and June 6th in writing to their representatives in Parliament and setting forth their objections to the Bill. The argument against the measure as it stands which seems likely to have most weight is that it creates, contrary to the provisions of the Medical Act, 1886, a new class of midwifery practitioners less trained than medical men, and in no degree abolishes the untrained and dangerous persons who practise midwifery and act as midwifery nurses among the very poor. It is these persons who add to the mortality in childbed, and whom the law ought to supervise and control in the public interest if any real progress is to be made. We believe, if this point was strongly and temperately placed by private correspondence before members of Parliament, many who do not now understand the question would hesitate to support the third reading. Every member of the profession who holds these views should put them before his own parliamentary representative and any other member of Parliament whom he can influence.

Not many petitions have been presented against the Bill, and it is rather late in the day now to present them; but strong representations should be made to Mr. Ritchie the Home Secretary, and to Mr. Jesse Collings, the Under-Secretary of the Home Department, as they will represent the Government when the Bill comes on for consideration. The Subcommittee appointed by the Council of the British Medical Association has asked the Home Secretary to receive a deputation at an early date, in order to lay before him the serious objections to the Bill in its present form. The Subcommittee has also, under the authority given to it by the Council, drawn up a very brief memorandum setting out the main defects of the Bill. Copies of this memorandum, which is printed at page 1173, can be obtained by any member of the Association who may desire to send one to the member for his constituency or to any other M.P. with whom he may have influence.

Under the new arrangements, the Fridays sittings of the House of Commons are not likely to be largely attended, and it is therefore of urgent importance that every effort should be made to secure a large House on June 6th. The supporters of the Bill will muster in good force, and it is incumbent on those who oppose the narrow and somewhat crude proposals of the amended measure to use every effort to secure an adequate debate before the Act of 1886 is partially repealed, and a dangerous and defective addition made to the Statute Book.

THE annual dinner of the Indian Medical Service will take place at the Café Monico, Piccadilly Circus, London, W., on Thursday, June 12th, at 7.45 o'clock, when the chair will be occupied by Dr. William S. Playfair. Officers intending to be present at the dinner should communicate as soon as possible with the Honorary Secretary, Mr. P. J. Freyer, 46, Harley Street, W.

UNIVERSITY COLLEGE AND THE UNIVERSITY OF LONDON.

The appeal of the University College, London, which was published with some explanations in the British Medical Journal of April 26th, p. 1035, affords an illustration of the attractive force which the reconstituted University of London is exercising upon institutions of university rank within the metropolitan area. It was the ambition of the original founders of University College that it should constitute a university for London; but owing to various reasons, which it is unnecessary to recapitulate, that ambition was never fulfilled, and down to the present time the connexion between University College and the University of London has been shadowy and undefined.

The College desires incorporation in the University because it is calculated to afford "the best realization that is now possible of the plans of those who, three-quarters of a century ago, founded the College with the intention of creating a university in London," and also because it will be a step "towards the building up, in connexion with the present University, of a great organization of university teaching and research" in London. Early this year a joint Committee representing the University and the College was appointed to consider and report upon the details of incorporation, and certain preliminary points have already been agreed upon. These points are that the College before incorporation must be free of debt, that University College school must be left outside the incorporation, and that extensive rearrangements shall be made with regard to the medical school. As already announced, the Drapers Company have by a gift of £30,000 freed the College from debt, but to fulfil the two other conditions a sum of £110,000 is required, £60,000 for the removal of the school to some place in the outskirts of London, and the remainder to fulfil the third condition laid down by the University.

The appeal now made by the University goes, however, much further than this, and is not wanting in at least one element of success, for it is bold to the verge of audacity. The sum which the public is asked to subscribe in order to enable the College to maintain and extend its educational work is £1,150,000, for although the Committee making the appeal appear to look to annual subscriptions to supply a part of the income necessary, it would undoubtedly be far better that the College should not be subjected to the humiliation of annual appeals for money. This huge total is made up of a sum of a quarter of a million for extensions in laboratories and class-rooms and in the library, declared to be immediately necessary for the proper carrying out of higher teaching and research in the College, a capital sum of £200,000 to provide an income of £6,000 a year for the upkeep of the various departments, and a fund of £700,000, which is the amount estimated as necessary for the endowment of each Chair in the College to the amount of £300 a year, and to provide for the payment of assistants and lecturers.

The capital sum asked for and the annual income desired are both undoubtedly large, but we are far from suggesting that the money is not needed; and this may perhaps best be understood by considering the income of university institutions in other countries. University College is of course not directly comparable with foreign universities, in which the functions of what we understand in this country as a college are combined with those of a university; but University College desires to be complete in all departments, and to achieve this it must provide a teaching staff and laboratories similar to those which exist in at least the smaller universities on the Continent. The expenditure of the University of Greifswald in Prussia, which is, we believe, the smallest of the German universities, would appear to be about £46,000 a year; that of Marburg in Prussia £49,000, and that of Strassburg over £50,000. Prague in Bohemia has two universities; the expenditure of the German University appears to be about £43,000 a year, and of the Bohemian about £41,000. The Royal Hungarian University of Buda-Pesth has an income of over £98,000 a year, the University of Bucharest in Roumania of about £80,000, the University of Padua of about £28,000, the University of Madrid of about £32,000 a year.[1] If therefore an appeal were made by the University of London for a capital sum such as that now asked for by University College, there could be no difficulty in recognizing that it was wise and reasonable.

The question is, however, how far the issue of this appeal at the present moment and in its present form by one of the constituent colleges of the University is in consonance with the general policy which the University itself as a whole proposes to follow. During the whole of last year the Faculty of Medicine of the University, which includes teachers in all the medical schools of London, had under consideration the question of how the University may best secure common courses of instruction for internal medical students in the preliminary and intermediate portion of their studies under approved and recognized teachers at one or more centres. As a result of these deliberations the faculty made a report to the Senate,[2] recommending it to take steps to secure funds to enable it to establish in the near neighbourhood of the University a school of preliminary and intermediate medical study. After considering this report, the Senate asked the Faculty of Medicine to make a further report giving estimates of the capital, outlay, and annual cost of maintenance, stating the accommodation and staff necessary, and making suggestions for the administration of the proposed Institute of Medical Sciences. Subcommittees were appointed by the Faculty to report on the financial aspects of the scheme, and on the extent to which, if at all, existing institutes at South Kensington could be utilized for giving instruction in certain sciences to medical students.

The Faculty has not yet, we understand, been able to present its report to the Senate. Some regret may therefore be felt that University College has not limited its appeal to a sum which would have met the actual necessities of the moment and enabled the College to fulfil the conditions laid down by the University before incorporation. It must, however, be observed that the meaning of the term "incorporation" has not been defined. It would seem to imply that the College was to become an integral part of the University, and not that it should be merely a constituent college ranking with other colleges of the University, but perhaps by reason of the completeness of

[1] These figures are taken from *Minerva*, 1902.
[2] British Medical Journal, December 21st, 1901, p. 1837.

its equipment *primus inter pares*. King's College, which also aspires to be completely equipped in all departments, has given notice that it will shortly make an appeal, and there are colleges or bodies of university rank bearing other names which have single departments more or less completely equipped, and these institutions may well consider that they stand in need of increased endowments. The question, therefore, inevitably suggests itself whether it would not have been wiser and more politic in the interests of London as a whole had an appeal been made by the University itself, or at least had the wants of the colleges and other similar bodies been sent out in one coherent and comprehensive scheme.

FIXITY OF TENURE FOR SANITARY OFFICERS.

As we announced last week, the Public Health Bill of the British Medical Association, which seeks to amend the law relating to the tenure of office of medical officers of health and sanitary inspectors, was introduced by Sir Francis Powell and read a first time in the House of Commons on Friday, April 25th. It is down for second reading on Monday, May 12th.

The question of security of tenure of sanitary officers was the subject of discussion at the April meeting of the Incorporated Society of Medical Officers of Health. During this discussion sufficient evidence was adduced of the pressing necessity of attaining the object sought by the Council not only in the interests of a large number of members of the Association, but of the public generally.

The medical officer of health is appointed for a definite term of one, three, or five years, as the case may be. The sanitary inspector is appointed for one year. Until the appointment has received the sanction of the Local Government Board, who pays half the salary, it is not valid. At the end of the term of office of the medical officer of health or the sanitary inspector his post becomes vacant, and if another be appointed to it he has no redress, the dominant partner declining to interfere even though the reappointment be refused because the officer has carried out the orders of the Local Government Board.

What is sought by the Bill is that an officer of a sanitary authority shall not be deprived of his office without the sanction of the Local Government Board, whose sanction is necessary to his appointment. At the same time, provision is made in the Bill that none but properly educated and qualified men shall become sanitary officers.

It is difficult to imagine an arrangement better calculated to prejudice the interests of the public good than the present, especially having regard to the composition of many of the sanitary authorities. The sanitary officer, whether he be the medical officer of health or the sanitary inspector, may have to report upon the insanitary condition of properties belonging to certain owners, or upon breaches of the by-laws by certain builders, or upon the filthy conditions under which milk is collected by certain dairymen, all of whom may be members of his council. He is threatened with dismissal when the term of his appointment ceases, and if the aggrieved members can persuade a sufficient number of their colleagues to form a bare majority—not a very difficult matter—to act with them he is dismissed. So glaring is the anomaly of the exceptional nature of the appointments to office in the sanitary services of this country, in which the conscientious and fearless discharge of duty is absolutely essential to efficiency, that the Local Government Board has intimated to local authorities outside London—in which the appointment to the office of medical officer of health, but not to that of sanitary inspector, is permanent—its willingness to sanction, if they see fit, the appointment of the medical officer of health during good behaviour, as it is expressed, instead of for a short term: but this suggestion has not been acted upon save in a few instances.

It has been said that the sanitary service is in a state of evolution, that a large majority of medical officers of health are in practice, that many of them receive very small salaries, and that some of them are inefficient and do nothing, and that it is undesirable, therefore, to alter the terms of appointment. But if it is uncertain what the future of the sanitary service may be, its evolution should take place under the most favourable conditions. If the great majority of medical officers of health are in practice, so also are the great majority of the lawyers who hold public appointments in connexion with the magistracy, the sanitary authorities, and local administration in the provinces generally, and they are appointed during good behaviour. Moreover, the social influence of men in practice is often of great service to the interests of the public health in different localities. Great sanitary advance is taking place under present conditions, and this advance is due to the present medical officers of health. It is true many of them receive small salaries, but the excellent sanitary conditions of many towns and country districts is the result of the public-spirited labours of members of the medical profession in the past who received no salary whatever while acting as medical officers of health. The late Mr. Barrow, for example, a former President of the Association, was for many years medical officer of health of Ryde, Isle of Wight, without salary, and its sewerage and water supply were due to his initiative. At the present time some of those who receive small salaries are doing most excellent work, and many of those who receive larger salaries would do far better work if the constant fear of losing their posts did not oppress them. But those who are not willing to fulfil their obligations under the law or who are inefficient and incapable, are probably secure enough in their office already.

It is not for them, however, that the Bill of the British Medical Association is being promoted, but for those who suffer disability in a responsible office who as public servants are placed in an exceptionally disadvantageous position. And whatever militates against the maintenance of a high standard of duty among medical men holding public office prejudices the whole body of the medical profession, every practitioner is interested, therefore, in this Bill becoming law; and each one may assist to this end by urging members of Parliament to attend and vote for its second reading on Monday next.

A BILL has, according to *American Medicine*, been passed by the New York Legislature, and signed by Governor Odell, providing that medical students admitted to preliminary State examination must be at least 19 years of age.

ARTERIO-VENOUS ANEURYSM.

One of the surgical conditions, at one time almost obsolete, that has been brought again under the notice of surgeons owing to the present war is that in which an abnormal communication between a large artery and vein has been established by traumatism. In the days when bleeding was a part of the routine of existence, an accidental wound of the brachial artery when, as was the rule, the median basilic vein was opened, was not one of the curiosities of this minor surgery. Such a wound was commonly followed by an arterio-venous aneurysm. In the conditions of modern warfare, the small-calibre bullet, travelling with an extremely high velocity, may pass through a limb, divide an artery, a vein, a nerve, or all three of these, and the external wound may heal by the first intention. As time passes, the signs of arterio-venous aneurysm become manifest. It has always been the custom since the day of William Hunter, who gave the first clear description of this condition, to distinguish two chief varieties of such aneurysm: The aneurysmal varix in which the artery and vein communicate directly, and at the point of fusion and for some distance on each side a wide dilatation of the vein occurs; and varicose aneurysm, in which the union of the two vessels is through the medium of an aneurysmal sac placed between them and opening into both.

Sir Frederick Treves, in a paper which we publish to-day, relates two cases of each variety, which have been under his own care. These records illustrate as completely as possible the distressing clinical picture, and the methods of treatment to be adopted in such cases. The local conditions are always serious, prone to progressive increase, and apt to entail serious functional restrictions and trophic disturbance if a limb, and especially the lower limb, be involved. Surgical intervention becomes, therefore, imperative; the question at once arises as to what is best to be done. The Hunterian ligature is condemned by all surgical authority, a condemnation now endorsed by Sir Frederick Treves. In some of the published cases and in others yet unreported it has been followed by gangrene, and amputation of the limb has been necessary. In others no improvement has resulted, the signs recurring as soon as the collateral circulation has been established. The only operative measure to be commended is the ligature of the vessels at the wounded part, and, in the instance of varicose aneurysm, excision of the sac between the vessels. This, the method of "quadruple ligature" (ligature above and below of both vessels) is the ideal treatment, but the difficulties in the way of carrying it out may be insuperable. They probably reached the limit of their capacity to harass and impede in the fourth case related in the paper.

The publication of these cases by one who has perhaps the amplest experience, will give a weighty authority to the treatment which is advocated. The opinions he expresses appear to be open to criticism on one point only. He states: "the mortality from arterio-venous aneurysm is not nearly so high as is that depending on those aneurysms in which the artery alone is concerned." The treatment by excision of aneurysm, as distinguished from the Hunterian ligature, has been followed by a success hitherto quite unattainable, and the statement which Sir Frederick Treves makes, though in strict accord with established teaching, will probably need revision in the light of surgical experience.

THE NEW REGULATIONS FOR ADMISSION TO THE R.A.M.C.

The new regulations for the admission of officers to the Royal Army Medical Corps which are printed at page 1180, fill in many of the details left undecided by the Royal Warrant of last March. This important document will need careful study, and we can do no more here than draw attention to its most salient features. In the first place it will be observed that the entrance examination to be passed by candidates for commissions differs very materially from that hitherto enforced, and the changes appear to us to be altogether for the better. The examination will be one calculated to test a man's real knowledge of medicine and surgery, and opportunities for the crammer will be very much diminished, although it would be rash to predict that that ingenious person will be altogether eliminated. The examination will be, in fact, almost purely clinical, and the number of marks to be gained is divided equally between medicine and surgery; five-eighths of the total will be given for written work and the remainder for the oral examinations. The written work will consist in taking and recording one medical and one surgical case in a hospital, and in writing commentaries on a medical and on a surgical case. A candidate successful at the entrance examination will immediately receive a commission as lieutenant and will receive the pay and allowances of the rank, but the commission will be given "on probation," and will be confirmed only when the candidate has passed two further examinations. The first of these will be held at the termination of a two months' course of instruction in hygiene and bacteriology; the second after a three months' course in the technical duties of the corps. This course will be held at Aldershot, and will include, in addition to the ambulance drill and military law previously taught at Aldershot, lectures and practical instruction in hospital administration, the making of requisitions, invaliding, and meat inspection. Having passed the examination in these subjects at the termination of the course, the officer's commission as lieutenant will be confirmed, and he will in the ordinary course of events proceed on a tour of foreign service. His position in the seniority list will be determined by the combined results of the entrance examination and of the examinations held during the period of probation, except in the case of a candidate seconded in order to enable him to hold a resident appointment in a civil hospital. His position will be determined by the result of the entrance examination alone, that is to say, if he is, for example, fourth in that examination, he will remain fourth in the batch whatever changes may occur among its other members. At any time after completing eighteen months' service a lieutenant may apply to be examined for promotion to captain; this examination will be in purely military duties and is analogous to that passed by officers of similar rank in other branches of the service before promotion to captain. The new regulations for promotion to major are of an altogether different nature and involve the provision of a Medical Staff College, adequately officered and equipped. The examination may be passed at any time after completing five years' service, and the intention is that on coming home after his first tour of foreign service the officer should be sent to the Medical Staff College for six months. During this period he will have the opportunity of studying medicine and surgery, including the special departments and midwifery and gynaecology, and also of taking special classes in hygiene, bacteriology, and tropical diseases. He will be required to pass in medicine, surgery, hygiene, and bacteriology, and in tropical diseases,

and in one of a long list of special subjects. It is at this point that the officer will have the opportunity of specializing, and if he passes with credit in one of the special subjects he will be eligible for one of the appointmens as specialist which carry extra pay under the provision of Paragraph 367 of the Royal Warrant. Further, it will be remembered that under Paragraph 352 of the Royal Warrant an officer who passes this examination with distinction may have his future promotion accelerated. A rather long section of the regulations is devoted to defining the conditions under which this acceleration comes into force, the object being to prevent any officer now in the service from being examined again, and to obviate the injustice which might be inflicted were officers now joining able to obtain so much accelerations as to pass in front of members of an earlier batch. A further examination awaits the major who desires promotion to lieutenant-colonel, but this, if conducted on reasonable lines, ought not to present any formidable obstacle to a competent officer. It is entirely on administrative subjects, and is held to be comparable to the examination in tactical fitness imposed upon officers of other branches for a corresponding promotion. After confirmation of his commission as lieutenant an officer will thus have to pass three examinations before promotion to lieutenant-colonel, the first will be purely military, the second purely professional, third after a period of study in a special Staff College, and the purely administrative. We have not yet had an opportunity of examining the new regulations minutely, but they seem to be conceived in a wise and liberal spirit, and appear to be calculated to encourage zeal and efficiency.

THE LAST EPIDEMIC OF ENTERIC IN SOUTH AFRICA.

THE interesting statistics which Mr. Brodrick gave to the House of Commons on Tuesday last, in reply to a question put by Sir Walter Foster, can hardly fail, we think, to attract public attention. It will be observed that for the three months—December, 1901, to February, 1902—6,379 cases of enteric fever were admitted into hospital from the troops in South Africa, and that 953 deaths occurred. These figures may be compared with 5,905 cases admitted and 1,042 deaths during the like period of the preceding year. There is not here, then, any evidence of decline in the prevalence of enteric fever, although we are glad to observe that the case mortality appears to have fallen from 17.65 per cent. in 1900-01 to 14.94 in 1901-02. Mr. Brodrick confirmed the statement made in our columns last week to the effect that most of the cases during the last few months have come from the moving columns, and that comparatively few are now occurring in the camps and stationary garrisons, where special precautions have been enforced for the boiling of water under the direction of special medical officers. But if this is so, then, in view of the fact that the total number of cases has increased, it is obvious that the amount of enteric fever in the columns must be very large. Mr. Brodrick briefly mentioned the scheme, of which we were able to give a full description last week, for providing these columns with "safe water," and we are glad to see that he has taken a step which we then pointed out was necessary, and has issued special instructions to regimental officers with regard to the necessity of preventing their men from drinking water from unsafe sources. We regret to observe, however, that he detracted from the force of his statement by expressing the opinion that no instructions would prevent thirsty men from drinking any water which they came across. We regret this for two reasons, first of all, because we think that such an expression of opinion from the Secretary of State for War is calculated to diminish the zeal with which the new scheme will be worked, and in the second place because we should like to see a little more faith displayed in the efficacy of the scheme. We trust that it will be given a fair trial, even at what all hope may be the last stage of the war. It must always remain a matter of profound regret that the War Office did not at the earliest stage accept the advice given by Sir Walter Foster in the House of Commons, supported as it was by the whole body of sanitary experts outside its walls. It was recommended that intemperofficers should be appointed to make inquizens. They special circumstances of warfare in South ites. After a conditions which would favour the spne to the confever in a country where that disewho came under to be endemic. We cannot helpat about half of great many lives have been sacrific. As soon as the failure to make such inquiries, and toinclude these cases, date some such schemes as those wb contained thirteen or shortly to be put into force, both e does not hesitate to the moving columns. It is difficu dequacy of the Inthe War Office set its face so hard y a more hopeful class posal to investigate the matter on eatment in the Home, water was poured upon every sug a subcommittee to concautions. It would appear to be ment of the Act. The happy-go-lucky way in which it the internal working of takings; it is sometimes perhaps The Glasgow Committee in war, but not if it can be replac report of its medical sight. We would recommend to hich, though necessarily the War Office, in that leisure a scientific method of approaching for them, a cour s patients which we have graphies of Napoleon, who us r. Cunningham evidently work was done before a war aces them in four main campaign was a holiday. ls them—hysterical, moral or periodic drunkards. He each, while the commoner itions associated with these attention. We shall look for s and conclusions from Dr. on the clinical aspect of these o the present time would not from those in charge of these t deserves.

THE LONDON WA

TRULY the London water q the patience of Governn and Mr. Long's latest upon the rocks. The B through a second reading Committee, composed in porters and opponents of a Cabinet Minister in the was no ground for app to the Statute Book r the uninitiated. But Committee Room A. contrary to the view columns, the purchas politan water supply Long's Bill, in a Boa the 29 borough cour accorded representation. Joint Committee created ing their decision to elim borough councils from the the Local Government Boa Board of about thirty-five me same august Committee, hav the inclusion of the borough as to why the councils, rather Council, should represent the in in the proposed Water Board. T borough councils are the sanitary fore, more naturally concerned wi water supply is essentially a centr vice; and it was for such service Council was created. Moreover, for fess we have, generally speaking, a alacrity and enterprise which the habitually exhibited over the more di spirit which has too frequently chara and their successors. To fix and concen is the secret of successful municipal hygienic; and Mr. Long's Bill, as introdu

SMALL-POX PATIENTS.

Justices of Surrey (a short reed at p. 1187) illustrates very ers with which the magisterial ion to the removal of suspicious sication was made to the Surrey he removal of a patient alleged to ox. The only evidence in support certificate of the medical officer his certificate the justices made patient's father, who had had no for the order, obstructed the to carry out the removal, for On May 2nd he applied to is conviction set aside on the en made on insufficient evi- edical officer had made no order to find out whether ommodation" within the ublic Health Act or not; er had small-pox. The jurisdiction to review s a matter entirely for Justice also intimated accept the certificate mentioned that the er of this kind upon practitioner. In natter it has been is entitled to take ion to others; and poor alike if the r. if he acts under

division and distribution of responsibility in a way that any impartial Committee could not fail to condemn. If the Water Board is to be set up at all, it must be of reasonable dimensions, and in its composition the London County Council must bulk large.

MEDICAL ASPECTS OF THE ROYAL ACADEMY.

communicat.
established by
was a part of the
of the brachial ar
basilic vein was op
this minor surgery
lowed by an arterio-
of modern warfare,
an extremely high vel
divide an artery, a vein,
the external wound ma
time passes, the signs of
manifest. It has always
William Hunter, who gav
this condition, to distingu
aneurysm: The aneurysma
vein communicate directly,
for some distance on each
vein occurs; and varicose an
the two vessels is through th
sac placed between them and

Sir Frederick Treves, in a
day, relates two cases of eac
under his own care. These re
pletely as possible the distressing
methods of treatment to be ado
local conditions are always seri
increase, and apt to entail seriou
and trophic disturbance if a limb,
limb, be involved. Surgical inter
fore, imperative; the question at
best to be done. The Hunterian li
all surgical authority, a condemn
Sir Frederick Treves. In some of
in others yet unreported it has beer
and amputation of the limb has be
no improvement has resulted, the
as the collateral circulation ha
only operative measure to be con
the vessels at the wounded p
varicose aneurysm, excision o
sels. This, the method of "q
above and below of both ve
but the difficulties in the wa
superable. They probably
capacity to harass and in
in the paper.

The publication of thes
the amplest experience,
the treatment which
expresses appear to
point only. He s
venous aneurysm
depending on thos
alone is concerned
aneurysm, as distin
has been followed

We have felt it our duty, as guide, philo-
nd of the medical profession, to run our
ls of the Royal Academy, and see which
ad any bearing on our craft. This year,
a sad disappointment, for only two of the
passed the scrutiny of the Hanging
direct bearing on the subjects with
familiar. The first of these, 190, is
hardson, and it tells a terrible tale
orce and admirable technical skill.
e dinner of four, in the open air,
trees, and a sky from which the
just beginning to fade. Two of
third perforce remains, and the
ith a subtle and most impressive
atisfied ambition, tinged perhaps
ret. The victim has fallen for-
d convulsively grasps the cloth,
convulsive movement has flung
her dead, or rapidly nearing the
turns the mind to consider
n employed in this case. The
Borgias had the guilty know-
rugs, mostly vegetable and
ally dissolved in wine, and
fied the rude methods of
Some of them may be
ated natural physiological
to give rise to no suspicion
ated into practical action
family. In this case the
ms to be—looks as though
a carouse, and in due time
his forefathers, away from
temptations of mediaeval
to "The Plague" under
Collier, who has painted
of a smart lady of the
ift thunderbolt of that
all her finery with her
while her terror-stricken
the door. In cheerful
is the genial face of
whose beaming optimism,
of the earth, and now trying
ill to mount aloft, is success-
d by Ouless's practised hand.
areful search can discover, and
n can produce a single bust on
although one feels inclined to
A Doctor's House, Winder-
character about it, and might
m lived in by Brown, Jones,
any other profession or trade.
may we refer to the works of one
nailed, as so many do, to turn the
century, for the works of the late
distinct physiological interest, as
ular, virtuous, industrious, and sober
erve the best faculties of eye and hand
ired up to the age of 99. And then
, who is now well over 80, and yet who
ear his sunny seas, and curling waves,
with all his old charm and with much of

"PERSONAL PURITY" AS THE GRAND PROPHYLACTIC.

MRS. GAMP scarcely comes up to the ideal of an inspired Sybil, but she spoke with greater truth than most oracles when she declared that "we live in a wale." And the "wale" is haunted not only by formidable shapes that can be seen, and to a certain extent avoided, but by invisible enemies which swarm around us, ever on the watch for an opportunity to do us a mischief. Against some of these we have learnt how to protect ourselves, but in spite of the progress that has been made in the last half century, sanitary science might still apply to itself the dying words of Mr. Rhodes: "So little done; so much to do." There is solid ground for hope that it will do much more than is yet dreamt of by most. But in the meantime its efforts are mocked by many diseases, some of which, though theoretically preventable, are not in fact prevented, and are, indeed, the mere despair of the sanitarian. In the discouragement bred of this reflection, a nervous person may be tempted to cry, *Quem patronum rogaturus?* He will find no want of "patrons" if he is not particular as to quality. There is, for instance, our contemporary *Light*, which will tell him that the sovran'st thing on earth against microbes is "personal purity." If he should ask what this is, the explanation will be given in the words of a wise man, Dr. Rodermund (whose wisdom like his name we have to take on the guarantee of *Light*), who teaches that "an epidemic of disease is only one of Nature's laws adapting you to the existing conditions." "Nature," continues the wise man, "does not recognize what the human being calls disease; Nature's universal law is continual change. These changes are brought about in many ways, but the law by which they are brought about is always the same. The results, which are health or disease, brought about by the atmospheric changes, depend entirely upon the condition in which your body is kept. The impurities or poisons eliminated from the body through the lungs, kidneys, skin, etc., are what? Animal matter in a state of disorganization. Any action or influence of the atmospheric conditions that will cause the gradual retention of these systematic poisons by checking the eliminating functions of the body will produce some form of a so-called blood disease. It will depend upon the treatment, constitution, and general make-up and condition of the person whether these outside influences will be able to cause the sufficient accumulation to develop what we call small-pox, etc." The learned doctor, however, vouchsafes no information either as to the nature of the atmospheric conditions which cause disease, or how we are to protect ourselves against them. He goes on to declare that what we have been taught to regard as disease is really its cure. This cure, it would seem, is "Nature attempting to throw out of the system, in a large quantity, the same identical poisons which the body is eliminating every day of our lives." Dr. Rodermund for some reason fails to draw the logical inference from his remarks, namely, that "what we call small-pox, etc.," instead of being dreaded, should be enthusiastically welcomed as means of bodily purification and salvation. "Personal purity" is doubtless a most valuable thing, but if it is to be acquired only by having the diseases to which it is supposed to make us invulnerable, we cannot help feeling that a certain peculiarity in the "constitution, general make-up, and condition" of the mind is required to appreciate its value as a prophylactic.

ANOPHELES AND MALARIA IN INDIA.

THE sixth series of the *Reports to the Malaria Committee*[1] of the Royal Society contains three reports by Dr. J. W. W. Stephens and Mr. S. R. Christophers which are each of interest. The first report is on the Relation of Malarial Endemicity to Species of *Anopheles*. The authors have

[1] London: Harrison and Sons. 1902. Pp. 23, 3 sketch maps, 1 page of Illustrations. 1s.

taken a series of observations in a northerly direction from Calcutta to the foot of the Himalayas, a distance of 300 miles, which show that in passing in this direction they pass through districts in which the species of *Anopheles* vary and the "endemic index" also varies. They define the "endemic index" as the figure representing the proportion of children under 10 years of age who harbour parasites of malaria. As a complementary method they advocate the determination of the proportion of infected *Anopheles*. This, they state, gives the actual risk of infection in a district. The number of infected *Anopheles* would probably be a more accurate guide. A point of particular interest is the confirmation of previous observations that *Anopheles Rossii* does not carry either the parasite of benign or of malignant tertian fever, and in Calcutta, where this was the prevalent *Anopheles* and occurred in large numbers, the endemic index of malaria was zero. In other districts, where *Anopheles Christophersi* was present, the endemic index varied from 40 to 72 per cent., and 4 out of 64 specimens of this species were found to harbour sporozoits. The second report is on the Biology of the Species of *Anopheles* found in Bengal. Six species in all are considered, and of these *Anopheles Rossii* was the most widely distributed. In habits the different species varied. *Anopheles Rossii* is a foveal species, and can breed in foul water, whilst *Anopheles nigerrimus* was found quite apart from human habitations and only bred in marsh water. The observations on the natural enemies of mosquito larvae are of great interest, and it is to be hoped that similar observations on an extensive scale will be made in other countries. The larvae were devoured more rapidly by some species of fish than by others; insect and beetle larvae also devoured them, but tadpoles did not. The third report will excite more general interest. The subject is the Relation between Enlarged Spleen and Parasite Infections. The main observations are, as the authors state, not new, but the conclusions arrived at are not generally admitted, particularly in India, where the "spleen test" has been relied on as the test of the prevalence of malaria. The authors formulate four conclusions. First, that a high endemic index may exist without an appreciable spleen rate (Africa). To this conclusion exception can be taken as the spleen rate as well as the endemic index is high amongst the native children in Africa. The second conclusion is that a high spleen rate may exist in adults without a corresponding parasite infection. The third is that in India the spleen rate amongst children is a fair indication of the parasite infection. This we consider might have been made more general, as it applies also to Africa. The fourth conclusion is that the spleen rate increases with age, and may be high when the parasite rate is *nil*. To this exception should have been made in the case of the African negro as in that race splenic enlargement is rare when the parasite rate is low. These reports are clearly written and concise. In some instances the number of observations might have been larger with advantage, but in the main the evidence adduced warrants the important conclusions drawn.

THE GIRGENTI INEBRIATE REFORMATORY.

The first report of the certified inebriate reformatory known as the Girgenti Home, owned by the Corporation of Glasgow, is very interesting reading. Following the plan which has already proved itself satisfactory south of the border, the Glasgow Corporation leased a large country house, with farm and garden attached, and, after adapting it to its new purpose, opened it for the reception of patients in December, 1900. Accommodation was provided for twenty-eight male and thirty female inmates, but the certificate was cancelled in September, 1901, and the Home then licensed for fifty-eight female patients. It may be observed that the Scotch male inebriate would seem to keep as clear of the clutches of the law as does his English brother. This is a rather remarkable fact seeing that street drunkenness is probably as common in the large towns of Scotland as in those farther south. The managers of the Girgenti Home after conference with the sheriff, magistrates, police, and others, agreed generally as to the class of persons who should be received, and it was decided to give preference to persons who, if cured of their intemperance, would again become self-supporting citizens. They proposed to exclude criminals and prostitutes. After a few months' experience the Committee came to the conclusion that the great bulk of the women who came under the Inebriate Act were paupers, and that about half of them had been convicted of importuning. As soon as the conditions of admission were altered to include these cases, the Home, which had previously contained thirteen patients began to fill. The Committee does not hesitate to give it as its opinion that the inadequacy of the Inebriates Act furnishes the reason why a more hopeful class of subject does not come under treatment in the Home, and has lost no time in appointing a subcommittee to consider and report as to the amendment of the Act. The part of the report connected with the internal working of the Home is very satisfactory. The Glasgow Committee is to be congratulated on the report of its medical officer, Dr. John Cunningham, which, though necessarily very brief and general, shows a scientific method of estimating the condition of his patients which we have not found in other reports. Dr. Cunningham evidently studies his patients. He places them in four main divisions according as he finds them—hysterical, moral paralytics, alcoholic dements, or periodic drunkards. He has something to say about each, while the commoner functional and nervous conditions associated with these states have duly engaged his attention. We shall look for some interesting statistics and conclusions from Dr. Cunningham in the future on the clinical aspect of these cases, an aspect which up to the present time would not seem to have commanded from those in charge of these patients the full attention it deserves.

REMOVAL OF SMALL-POX PATIENTS.

The case of Quelch *v.* the Justices of Surrey (a short report of which is published at p. 1187) illustrates very forcibly the plenary powers with which the magisterial Bench are vested in relation to the removal of suspicious cases. An *ex parte* application was made to the Surrey justices for an order for the removal of a patient alleged to be suffering from small-pox. The only evidence in support of the application was the certificate of the medical officer of health. Acting upon this certificate the justices made the necessary order. The patient's father, who had had no notice of the application for the order, obstructed the officers who were directed to carry out the removal, for which offence he was fined. On May 2nd he applied to the Divisional Court to have his conviction set aside on the grounds that the order had been made on insufficient evidence. He stated that the medical officer had made no examination of the house in order to find out whether there was "proper lodging or accommodation" within the meaning of Section cxxiv of the Public Health Act or not; and that, in fact, the patient never had small-pox. The Court, however, held that it had no jurisdiction to review the magistrates' decision, as it was a matter entirely for their discretion. The Lord Chief Justice also intimated that the justices were quite right to accept the certificate of the medical officer. It should be mentioned that the justices are entitled to grant an order of this kind upon the certificate of any legally-qualified practitioner. In arriving at a conclusion upon this matter it has been decided that the medical practitioner is entitled to take into consideration the danger of infection to others; and he may order the removal of rich and poor alike if the exigencies of the case require it. Further, if he acts under

the direction of the local authority, he is protected by Section CCLXV of the Public Health Act, 1875, from any consequences which may follow upon an erroneous diagnosis.

"MORE LINKS."

THE pithecanthropus erectus is threatened with quite a serious number of rivals. Whether this particular skeleton link is maintaining its full original interest and reputation after the repeated examinations and criticisms to which it has been subjected is a little doubtful, and for the present also it would not do to dogmatize when speaking of the newest discoveries. Four sets of human remains have already been discovered in the grottos near Mentone during the researches lately ordered by the Prince of Monaco. They are stated to have belonged to the quaternary period, and they were found at no great distance from the surface. Dr. Verneau, President of the Anthropological Society of Paris, has examined them and considers them to be paleolithic. The skeletons are small, and the skulls are described as strongly developed, and of the dolichocephalic type. There were large nasal orifices. The race they represent is believed to have had low-pointed features. The arms were long and distinctly negroid. The summary of the examination so far by Dr. Verneau seems to favour the idea that these human remains belonged to creatures holding a place between the baboons and negroes. The paleolithic age, geologically speaking, is not so very far away from the existing period, and Quatrefages believed that man had seen the miocene period, but he goes further than this. In his *Human Species*, chapter xiii, division viii, he says: "We know that, as far as his body is concerned, man is a mammal and nothing more. The conditions of existence which are sufficient for these animals ought to have been sufficient for him also; where they lived he could live. He may then have been contemporaneous with the earliest mammalia, and go back as far as the secondary period."

PHYSICAL CULTURE IN ITALY.

THE Royal Commission, consisting of Professor Angelo Mosso, Chairman, Deputy Luigi Credaro, and Commendatore Gennaro, appointed by the Italian Government some time ago to investigate the means of improving physical training in Italy, has finished the first part of its labours. In their report the Commissioners unanimously recommend that the Minister of Education should order an inquiry into the existing conditions of physical education in Italy. They have drawn up a schedule of questions to be sent by the Minister to heads of institutions, asking why effect has not been given to the De Sanctis law of 1878 which made gymnastics compulsory. The Commissioners also call the attention of the Minister to the fact that the law of 1878 no longer corresponds to the standard required by the progress of medicine, hygiene, and social pedagogy. They lay stress on the need for new legislation, as in the old law there is no provision for the physical education of the people. They urge that Italy should follow the example of other civilized nations in which universities are the most active centres for the development of physical education. They propose that every pupil should have a book in which his physical condition at different periods may be recorded. This is necessary in view of the ordinance making gymnastic compulsory, and as a means of prophylaxis against infectious diseases, and obtaining a better knowledge of the physical development in youth. The Commissioners further urge that the Government should exercise a more active supervision over physical education in private schools, and suggest that strict rules should be established as to meals and other things connected with the maintenance of health in schools.

THE OVERCROWDING OF THE MEDICAL PROFESSION IN GERMANY.

MR. OLIVER J. D. HUGHES, United States Consul-General to Germany, makes the following report to the Assistant Secretary of State at Washington concerning the prospects of the German medical students: "The *Aerztliche Central-Anzeiger* publishes an article according to which the prospects for the average German physician are by no means hopeful, if not gloomy. The article says that in 1880, on an average one physician was counted for every 3,400 inhabitants, in 1900 there was one for every 2,000, and in all probability in 1906 the proportion will be one to 1,850. At present the total number of physicians in Germany amounts to 28,500, only 6 per cent. of whom are in the employment of the State. The remaining 94 per cent. get no pension, are not freed from municipal taxes, and most of them are compelled to pay a big house rent. Up to 1906, about 500 physicians will die every year, while 1,350 young physicians will come from the universities, so that their number will be increased by 860 yearly. In future doctors will have to study for at least six and a-half years; the average student however, will want a longer time, and spend more than 12,000 marks (2,856 dols.) on his studies, rarely less. It is pretty certain that more than one-half of the German physicians make less than 3,000 marks (714 dols.) a year—an income which compares very poorly with the time and money spent on the medical career. Since about 1885, up to the present time, judges and philologists in Germany reached an average of between 30 and 40 years of age before they were permanently employed by the State, the natural consequence was that a good many of those who could not support themselves up to that age, either from their parents or their own private means, turned to the study of medicine. While from 1887 to 1896 the increase of the population amounted to 115 per cent., the number of physicians augmented during that time by 63.8 per cent."

A CRUMBLING PLATFORM.

THE annual meeting of the National Antivivisection Society was held on May 6th, Archdeacon Wilberforce in the chair. The principal speakers were the Chairman and the Hon. Stephen Coleridge, neither of whom had anything new to say. Though talking bravely of the progress of their cause, they betrayed a consciousness that the platform on which they have in previous years disported themselves with such evident relish is crumbling beneath their feet. While professing to glory in being called fanatics, they complained bitterly of the treatment that has been meted out to them by the press generally. We are glad to be able to agree with Archdeacon Wilberforce on one point. He declared that he and his brother fanatics are absolutely incorrigible. How little open to correction his own mind is he showed last year when we convicted him of reckless misstatements in regard to the discovery of the therapeutic properties of nitrite of amyl. We are willing, however, to give a charitable interpretation to his conduct by remembering that the darkness cannot understand the light. Mr. Coleridge moved a resolution "That this meeting affirms that the torture of animals for any purpose whatever is morally wrong, and that it should be made illegal by Act of Parliament." Every one, except perhaps noble sportsmen who mangle birds, and ladies who wear osprey plumes, will agree with this resolution; but the influence of those who inflict such tortures on animals is too great in Parliament to make us hopeful that any such measure would have a chance of becoming law. We are glad to see that Mr. Coleridge, in an assembly composed mainly of fashionable ladies and of the class of men whose chief business in life is the shooting of defenceless animals, had the courage to propose such a resolution. As Mr. Coleridge well knows there, is no "torture" of

animals in English laboratories; so "let the galled jade wince; our withers are unwrung." Mr. Coleridge gave a characteristic illustration of his methods in his recital of his efforts to get a return of the operations on the brain performed in the National Hospital for the Paralysed and Epileptic, and their results. He seems to think that an inquiry of this kind is a matter of auditing, and kindly offered to send an auditor to the hospital for the purpose. Mr. Coleridge complained of the attacks that had been made upon him in certain newspapers: so sublime is his belief in the loftiness of his motives that he appears to think any criticism of his methods an act of impiety. When his most discreditable tactics are exposed he shows no sign of shame. He still puts the responsibility for the appointment of a translator of the catalogue of vivisecting apparatus on the Librarian of the British Museum, and he still stands by his translator. Yet his translator has all unwittingly betrayed him. Mr. Coleridge says he is ignorant of German, but speaking confidently as he does of experiments on animals, he should not be ignorant of the elementary facts in anatomy. In a letter which appeared in the *Times* of April 22nd, the translator makes it painfully clear that he thinks the peritoneum is, to use his own words "tantamount to 'abdominal wall.'" *Risum teneatis!*

SUBSTITUTES FOR SUGAR.

IN the course of an interesting article on food adulteration, Dr. de Lavarenne, editor of *La Presse Médicale* (April 30th, 1902), refers to the manner in which the use of saccharin is being extended. It is one of the many bodies made out of coal tar, and is, of course, not a sugar at all, although many people are quite convinced it is. It is not only used to sweeten beer, but it is now also employed in the manufacture of syrups, jams, lemonades, wines (especially champagne), cider, brandy, pastry, and chocolate. Special substances of this nature are on the market for sweetening cider and brandy. Among these *sucramine* may be mentioned, which is said to be 700 times sweeter than cane sugar. Other products of the same kind are sugar extract (made in Switzerland), cannabin, etc. All these names are misleading, for the substances are only sugars in name, being all coal-tar derivatives. They are not foods. Moreover, their long-continued use may gravely affect the digestive functions. According to Professor von Bunge, of Basle,[1] saccharin reappears in the saliva after being absorbed, and in this way leads to a persistent sweet taste in the mouth, which interferes with the appetite. Dr. Plugge has shown that the addition of saccharin in artificial digestion experiments with various digestive ferments interfered with the breaking up of food substances. Dulcin, another sweetening body, which has been used as a substitute for saccharin, was given to a dog at the rate of 1 gram a day. The animal died in three weeks (Aldehoff).

FOREIGN PRACTITIONERS IN ITALY.

A WELL-INFORMED correspondent writes: The question of foreigners practising medicine in Italy without an Italian diploma was again raised in the Italian Chamber recently, when Signor Santini, the deputy who has always been the leader of the Opposition, questioned the Prime Minister (Zanardelli) and the Minister of the Interior (Giolitti) on the subject. Santini pointed out that the two preceding Ministries had brought in Bills for the suppression of this privilege, and asked whether the present Ministry would follow in their steps. The Prime Minister replied that he had always considered it one of the greatest glories of his country that foreigners had always had civil rights equal to those of its own citizens, and that he would not bring in any such Bill as the honourable member desired. It may be that the life of the present Ministry is not very assured; but in the face of this declaration, and having regard to the fact that our Privy Council has (rightly or wrongly) granted more than full reciprocity to Italians, it is considered likely that the matter will now drop.

[1] *Physiologie des Menschen*, 1901, vol. 1, p. 31.

LOSS OF LIFE BY LIGHTNING IN THE UNITED STATES.

MR. ALFRED J. HENRY, Professor of Meteorology of the Weather Bureau, United States Department of Agriculture, has published a bulletin relating to loss of life by lightning in the United States, an abstract of which appears in the New York *Medical Record* of April 12th. Statistics of the loss of life by lightning have been collected for a period of eleven years; but for the earlier part of that time the results of the inquiry were so incomplete as to be worth little as a means of accurate information. The number of persons killed by lightning in the United States during 1900 was 713; of this number 291 were killed in the open, 158 in houses, 57 under trees, and 56 in barns. The circumstances attending the deaths of the remaining 151 are not known. Nine hundred and seventy three persons were more or less injured by lightning during the year. There are three regions of maximum thunderstorm frequency, namely, one in the south-east, with its crest over Florida; one in the middle Mississippi Valley; and one in the middle Missouri Valley. The average number of days with thunderstorms annually in the first-named region is 45; in the second, 35; and in the last, 30. The greatest number of fatal cases occurred in the Middle Atlantic States, and the next greatest in the Ohio Valley and Tennessee, the Middle and Upper Mississippi Valley being a close third. The greatest number of deaths in any single State during the five years, 1896-1900, occurred in Pennsylvania—186—followed by Ohio, with 135, and Indiana, Illinois, and New York with 124 each. The greatest fatality from a single stroke occurred at Chicago, Illinois, where 11 persons, huddled together in a zinc-lined shanty, met instant death by a single bolt. The following rules are laid down for the treatment of a person struck by lightning: "(1) Make the subject breathe by artificially imitating the respiratory movements of the chest; (2) keep body warm; (3) send for a physician." In conclusion, it is noted that lightning frequently causes a temporary paralysis of the respiration and heart beat, which, if left alone, will deepen into death, but if intelligently treated will generally result in recovery.

DANGEROUS CONFETTI.

IN the last report of the Medical Officer of Health for the City of London attention is drawn to the proposed use of powdered mica as confetti during the Coronation festivities, and the Commissioner of Police has been warned of the danger to eyesight which this involves. We wish most strongly to support the protest made by Dr. Collingridge. The use of confetti, if they consist only of paper, though annoying to those on whom they pitch, may be harmless; but powdered mica would be certain to find its way into people's eyes, and produce abrasions of the cornea, which, besides causing great pain for several hours, can easily lead to actual ulceration. We know of at least one unhappy bridegroom who lost his sight after having been struck in the eye with a grain of rice when leaving the church in which he had just been married, and fragments of mica are capable of producing equally disastrous results. The indiscriminate throwing about of powdered mica ought to be absolutely prohibited, and we hope that the public attention called to the danger of this foolish practice may prevent its establishment.

Dr. William Hoffmeister, medical attendant to the Royal Establishment at Osborne, has been appointed a Member of the Fourth Class of the Royal Victorian Order.

A course of instruction in tropical diseases is henceforth to be included in the programme of the Marseilles School of Medicine. It is intended for medical men in the French Colonial Service.

The annual meeting of the American Medical Association will be held this year at Saratoga Springs, from June 10th to 13th. Arrangements for social entertainments are being made on a large scale.

In the list of names proposed by the Council for election into the Royal Society appear those of Professor Rubert Boyce, Professor of Pathology, University College, Liverpool, and Mr. William Bate Hardy, Demonstrator in Physiology at Cambridge.

We regret to notice the report of the death, in his 72nd year, of Mr. John Bellows, the well-known printer of Gloucester, whose *Pocket French Dictionary*—admirable alike for its plan and its printing, has been the familiar companion of many of us on holiday rambles. Mr. Bellows was an archaeologist of authority, particularly with regard to the history of the Roman occupation, and those members of the Association who were able to visit Gloucester at the conclusion of the annual meeting at Cheltenham last August will remember how admirably Mr. Bellows acted as a guide through the Roman remains of that ancient city.

There has been a good deal of discussion in the American press, lay and medical, on the question of the remuneration of the medical men who rendered professional services to the late President McKinley. It has been stated, apparently with authority, that the fees will be paid out of the national exchequer, and several statements have been made as to the amount of the charges sent in by the doctors. The statements have varied greatly as to the amount, some putting it at 250,000 dollars, others at various lower figures down to 50,000 dollars. Authorized statements have now appeared in *American Medicine* and in the *Journal of the American Medical Association* to the effect that no accounts have been rendered by the attending practitioners, who have had nothing to do with fixing the amount asked for in the Sundry Civil Appropriation Bill now before Congress. That amount is 25,000 dollars (£5,000) a sum which we agree with our American contemporaries in thinking ungenerous and inadequate.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Retired Officers, R.A.M.C, Re-employed.—Last week Mr. Lambert asked the Secretary of State for War if he would consider the advisability of enabling R.A.M.C. officers who had retired, but were now doing duty on one of the retired appointments, to reckon for pension ten years of such service as an equivalent of five years' full-pay service. Lord Stanley, who replied, said he did not think the Government would be justified in undertaking the increase in expenditure suggested. The officers referred to were regarded as being sufficiently paid for the services they performed.

Cancer in India. Mr. Weir has brought home from his travels in the East a desire to know the statistics of cancer in India, and so last week he asked the Secretary of State for India to give him figures as to the prevalence of cancer in India, or, failing that, to make inquiries with a view to the preparation of statistics on the subject. Lord George Hamilton said he had no reliable statistics as to the prevalence of cancer in India, but that he would ascertain from the Government of India whether any information on the subject was available or could be procured.

Butter and the Margarine Act.—Sir Edward Strachey returned again to this question on Monday last, and asked the President of the Board of Agriculture whether he was aware that by a recent decision of the High Court butter may be sold to the public which has been adulterated with a large percentage of moisture without infringement of the Margarine Act, and whether he would introduce a Bill to put a stop to the sale of an article which is prejudicial to the interests of the dairy industry of Great Britain and of the retailers and consumers throughout the country. Mr. Hanbury said he was aware of the prejudice to the makers of genuine butter both in this country and the Colonies by the sale as milk-blended butter of an article loaded with 25 per cent. of water. The recent introduction of an authorized standard of butter would, he hoped, if standards in such cases were to be of any real value, have the effect of preventing such an article being so sold; but should that not prove to be the case, further steps ought, he thought, to be taken without delay to remedy the injustice done to the British and Colonial farmers.

Enteric Fever in South Africa and its Prevention.—Sir Walter Foster asked the Secretary of State for War on Tuesday last for the number of cases of enteric fever and the number of deaths from that disease which had occurred among the troops in South Africa in December, 1901, and January and February, 1902; whether he was able to give any particulars as to the incidence of the disease upon camps and moving columns respectively; and whether any special precautions were being taken to prevent the occurrence of the disease. Mr. Brodrick, in reply, said that the figures for the three months were as follows: December, 1,507 admissions and 224 deaths; January, 2,750 admissions and 396 deaths; February, 2,122 admissions and 333 deaths. The principal medical officer had reported that the enteric cases mostly came from the columns, but it was not possible to obtain the figures from the statistics to show this clearly. In the camps and stationary garrisons steps had been taken to have the water boiled and special officers selected to deal with the sanitary work of districts and the outbreaks of disease. For mobile columns a scheme of providing safe water to fill the soldiers' water bottles at all times had been prepared involving an increase in watercarts and measures were being taken to carry this out. Officers had been specially instructed as regarded the necessity of preventing the men from drinking water from unsafe sources; but it was not too much to say that no instructions would prevent thirsty men committing such indiscretion, and soldiers had admitted, when in hospital, that they preferred the risk to the otherwise unavoidable delay.

The Education Bill of the Government, which has occupied so much of the attention of the House of Commons during the present week, will probably, unless very materially modified, prove comparatively ineffective as regards secondary education, at least for some years to come. In many of the great towns it will make a change by leading to the transference of the control of elementary education to the Town Council and the abolition of School Boards; the same course may be pursued in many of the smaller boroughs, while in the rural districts the county council will control, through its educational committee and managers, all the public elementary schools, whether now under School Boards or the voluntary system. The funds proposed to be provided by the Bill for secondary education are generally regarded as insufficient to ensure the increased efficiency in this respect, which is one of the most urgent wants of the day. Whether any real progress is made in the organization of secondary education will, however, probably turn out to depend to a very large extent upon the nature of the schemes which, under the Bill, will have to be formulated by education committees in counties and submitted to the approval of the Education Department

THE MIDWIVES BILL.

THE Special Subcommittee appointed by the Council of the British Medical Association at its last meeting has, in view of the approach of the date of the report stage of the Midwives Bill in the House of Commons, which has been fixed for June 6th, requested the Home Secretary to receive a deputation to lay before him the objections to the Bill in its present form.

Acting upon the authority given to it by the Council, and having regard to the resolution of the Parliamentary Bills Committee desiring that the objections to the Bill should be drawn up afresh and circulated to members of Parliament, the Subcommittee has drafted the following memorandum. This memorandum is studiously brief, since at the present stage it appears essential to concentrate attention on a few points only. As is pointed out in the article published at page 1163, it will be well that every member of the Association who considers that the Bill requires amendments of great importance and ought not to be passed unless such amendments are inserted, should address the member of Parliament for his constituency upon the subject. Any member desiring a copy of the following memorandum can obtain one on application to the General Secretary of the British Medical Association, 429, Strand, London, W.C.

MEMORANDUM.

The Council of the British Medical Association is of opinion that the Midwives Bill, 1902, will fail to afford the public the protection desired for many reasons, of which the following are the most important;

1. That the measure as it stands creates, contrary to the provisions of the Medical Act, 1886, a new class of midwifery practitioners less trained than medical men, and in no degree abolishes the untrained and dangerous persons who practise midwifery and act as midwifery nurses among the very poor. It is these persons who add to the mortality in childbed, and whom the law ought to supervise and control in the public interest if any real progress is to be made. The provision, contained in the Bill of 1900, and then approved by the Standing Committee on Law, which prohibited, under penalty, the practice of midwifery by uncertified midwives, has been omitted from the Bill of 1902. Clause 1, Subclause (2) of the present Bill prohibits only the assumption of title, and will not stop the practice of ignorant and incompetent women which it should be the object of the Bill to prevent.

2. That the constitution of the Midwives Board is unsatisfactory, and that having regard to the fact that the conditions of practice of midwives differ in various parts of the country, the Board should contain representatives from different parts of England and Wales.

3. That, having regard to the short period of training of women to be admitted as certified midwives to the Midwives Roll, which appears to be contemplated by the Bill owing to the retention of the certificate of the Obstetrical Society as a qualifying certificate for admission to such Roll, the provisions as to local supervision of midwives are inadequate.

It is intended that amendments to meet these objections shall be moved. Should they not be adopted, the Council of the British Medical Association believes that the Bill would tend to aggravate the evils now existing, and hopes that it may be rejected.

THE SAMARITAN (FREE) HOSPITAL FOR WOMEN AND CHILDREN.

WE have been asked to publish the following letter:

Samaritan Free Hospital for Women and Children,
Marylebone Road, N.W.,
April 16th, 1902.

Dear Sir,—The Committee of Management of the Samaritan Free Hospital understand that some misapprehension has arisen as to the circumstances attending your provisional appointment as Honorary Physician to the hospital, and the subsequent election of another candidate.

The Committee willingly state that your non election permanently was not attributable to any fault or shortcoming on your part. You gave your valuable services to the hospital for some weeks, and the Committee had no reason whatever for dissatisfaction.

The Committee take this opportunity of expressing their regret that the letter to you, and the communication to the *Medical Directory*, notifying your appointment, omitted to state that it was provisional only.

I am, dear Sir,
Yours faithfully,
W. GUNTRIP KING,
Secretary.

To J. A. Shaw-Mackenzie, Esq., M.D., etc.,
31, Grosvenor Street, W.

THE EPIDEMIC OF SMALL-POX.

THE STATISTICS OF A SMALL-POX HOSPITAL.

DR. REA CORBET, Medical Officer, Orsett Joint Hospital District, has sent us the following interesting statistics of cases recently treated in the Small-pox Hospital of the Orsett and Grays District:

Record from September 23rd, 1901, to March 31st, 1902.

	Under 1 Year.	1—5	5—10	10—15	15—25	25—65	Over 65	Total Cases.	Total Deaths.	Percentage
1 *Unvaccinated*	5	25	30	11	1	9	1	82	—	—
DEATHS	2	7	3	1	1	6	1	—	21	25%
2 *Primarily Vaccinated*: Within 16 days of admission to hospital	5	7	6	2	1	—	—	21	—	—
DEATHS	1	1	—	—	—	—	—	—	2	10
3 All other	0	0	8	17	92	152	3	272	—	—
DEATHS	0	0	0	0	3	9	—	—	12	4½
4 *Revaccinated*: Within 16 days of admission to hospital	—	—	—	2	7	13	—	22	—	—
DEATHS	—	—	—	—	—	1	—	—	1	4½
5 All other	0	0	0	0	1	12	2	15	—	
DEATHS	0	0	0	0	0	1†	—	—	1†	
6 *Stated to be Vaccinated*: But no marks visible	—	—	—	1	4	13	1	19	—	—
DEATHS	—	—	—	1	—	5	1	—	7	30%
								431	44	

Among the vaccinated there was 1 case aged 5 years and 11 months, the others were all over 7 years of age.

There was no death among the vaccinated under 16 years of age.

† The only death among the revaccinated cases was George Murrell, aged 50, working with threshing machine, of no fixed abode. He was revaccinated 24 years ago.

There was 1 case of a soldier who was last vaccinated 15 years ago, which has been placed in Section 3 (primarily vaccinated), it being uncertain whether he was successfully revaccinated, as he only had three faint marks.

In the 15 revaccinated cases the operation was performed:

In 1 case over 6 years ago
In 1 „ 7 „
In 1 „ 8 „
In 1 „ 10 „
In 1 case over 12 years ago
In 6 cases „ 20 „
In 4 „ „ 30 „

A CASE OF SMALL-POX IN A GENERAL HOSPITAL.

As publicity has been given in the local press to the discovery of a case of small-pox in the Newcastle-upon-Tyne Royal Infirmary, the facts may be fully stated here.

On Sunday, April 27th, a man was admitted into the infirmary from the county of Northumberland for immediate treatment on account of appendicitis. He was operated upon the same day. After leaving the theatre he was placed among other patients in one of the long surgical wards of the hospital. On the following Thursday an eruption appeared on the concealed parts of the body, and when the case was diagnosed as small-pox the patient was removed to the special hospital on the Town Moor, and placed under the care of Dr. H. E. Armstrong, Medical Officer of Health, who states that the malady is of a mild type. Fortunately the surgical ward from which the patient was removed stands rather apart from the main building in the garden, and can with its patients, nurses, and house-surgeon be easily isolated. This has been done. The event has dislocated to some extent the ordinary routine work of the infirmary, but to a very much less degree than might have been expected. It is the loss of beds that is most felt by the surgeons. As the patient was a few days in the ward before the disease declared itself and was detected, anxiety as to the future will not be relieved until May 12th has passed

INTERNATIONAL CONGRESS ON THE PROTECTION OF CHILDREN.

THE International Congress for the Welfare and Protection of Children, which is to meet in London on July 15th, 16th, 17th, and 18th, will be divided into four sections: (1) Medical, (2) Legal), (3) Educational, (4) Philanthropic. The following is the preliminary programme:

BRITISH, AMERICAN, AND COLONIAL.

Medical Section.

(*a*) Treatment of children mentally and physically afflicted: for example, imbecile, feebleminded, and epileptic, tuberculous, crippled, blind, deaf, and dumb.

(*b*) Hygiene and sanitation—in the home and at school.

Legislative.

(*a*) How far parental authority and responsibility should be recognized after the State has had to take charge of a child.

(*b*) What pressure can be put on parents who neglect their children, so as to discourage others from a similar offence.

(*c*) Regulation of street trading by children.

(*d*) Extension of the area of reformatory and preventive work.

(*e*) The relation of the State towards migratory, destitute, neglected, and criminal children.

Educational and Philanthropic.

(*a*) Free and compulsory education.

(*b*) Technical education and industrial and physical training, etc., in State-aided institutions.

(*c*) Homes, orphanages, and refuges.

(*d*) The American system of probation officers.[1]

FRENCH.

Legislation to be recommended for children in moral danger (M. Passey).

The reclamation of vicious children (M. Albanel).

The reform of young criminals (M. P. Flandin).

The education of feeble and degenerate children (Dr. Boncour).

The assistance of families (M. Oudin).

Boarding-out (*placement*) in families (by M. "X.").

ITALIAN.

How to secure unanimity (of effort) between the school, the family, the nation, and humanity?

How to compel the Government to enforce compulsory education by providing schools to receive all the children of school age?

Tests as to fitness for secondary education, etc.

The Congress is to meet under the presidency of the Earl Beauchamp, K.C.M.G., and the Honorary Secretaries are Dr. John Milson Rhodes and Mr. Granville E. Lloyd-Baker. Papers proposed to be read at the Congress should be forwarded to the Assistant-Secretary, Mr. W. G. Lewis, 8, Wells Street, Gray's Inn Road, London, W.C., who will also receive the subscription, which, for ordinary members, is fixed at £1, but will be reduced to 10s. for the superintendents or officials of charitable or philanthropic institutions. English will be the official language of the Congress, but French, German, or Italian may be used.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

THE plague returns for the week ending April 12th showed an increase of [illegible] deaths over the previous week, the total mortality from plague in India amounting to 24,380.

In the city of Bombay during the week ending April 12th there has been a rapid decline of plague. On April 5th the number of deaths from plague in the city amounted to 947, but during the week ending April 12th the number fell to 672, a decline of no fewer than 251.

In the Bombay Presidency, exclusive of the capital, 2,093 persons died of plague during the week ending April 12th, against 2,170 during the previous week.

In Calcutta during the week ending April 12th the deaths from plague [illegible] during the week ending April 5th.

In Bengal the deaths from plague during the week ending April 12th numbered 603. In the North-West Provinces and Oudh, 1,660 against 1,570; in the Punjab, 16,281 against 14,871; in Cashmere, 212 against 416; in Mysore, 80 against 173. In Madras, during the week ending April 12th, 73 persons died of plague, in Hyderabad 28, Rajputana 10, the Berars 44, and at Karachi 104. The districts of the Punjab most seriously affected are Ludhiana, Umballa, Sialkot, and Patiala. At Simla there has been a considerable exodus of coolies owing to the rumour that inoculation for plague is to be introduced. Strict watch is being kept at all the inspection posts in the Simla approaches.

EGYPT.

The Director-General of the Sanitary Department reported that during the week ending April 27th 18 fresh cases of plague occurred in Egypt and 8 deaths from the disease. The cases and deaths were distributed as follows: Mit-Ghamr, 1 case; Mit-Samanoud, 3 cases; Dechneh, 3 cases, 2 deaths; Tala, 3 cases, 4 deaths; Tantah, 4 cases, 2 deaths; Maghaga, 4 cases. At Maghaga (Upper Egypt) the first case of plague was traced to a Bedouin woman who left Korachieh in March.

A telegram from Cairo dated May 5th states that 102 fresh cases of plague occurred in Egypt during the month of April and 58 deaths from the disease. The total number of cases since April 7th, 1901, when plague reappeared in Egypt, has been 484, of which number 281 ended fatally.

CAPE OF GOOD HOPE.

During the week ending April 5th 2 fresh cases of plague occurred in Cape Colony; both cases were found dead, showing that the natives are concealing the disease from the authorities.

During the week ending April 12th 5 fresh cases of plague occurred and 3 deaths from the disease. The total cases of plague to date number 885, with 427 deaths.

It is to be noted that all the recent fresh cases of plague occurred at Port Elizabeth.

HONG KONG.

During the week ending April 26th 5 cases of plague and 5 deaths from the disease occurred in Hong Kong. During the week ending May 3rd, 28 fresh cases of plague and 26 deaths from the disease occurred.

AUSTRALIA.

A telegram dated Sydney, April 30th, states that 109 cases of plague have occurred in Sydney during the present recrudescence, of which number 27 have ended fatally. Twenty-one animals, including 2 birds, have died of plague in the Zoological Gardens at Sydney. A telegram from Brisbane dated April 30th states that "a few cases of plague occur here daily." Plague amongst the animals at the Gardens in Sydney is of great interest, and the fact that some birds have been attacked is sufficient to cause alarm. The spread of disease by birds must prove a serious danger. All beliefs in this direction have been previously negatived on closer investigation, but if the report from Sydney is accurate, the rather mythical story of an infected crow bringing plague to Rome will become more credible, and if the Sydney reports are confirmed they are calculated to revolutionize our views as to the means of spread of the disease.

CONTRACT MEDICAL PRACTICE.

CLUB PRACTICE.

DR. EDGAR L. COLLIS (Stourcote, Stourbridge) writes: While fully agreeing with the principle so much advocated of abolishing all club work, I see many difficulties must be overcome before the reform can be carried out. Meanwhile, a compromise might improve the character of club work. I would suggest that advice only be given; no medicines, etc. Many a club patient comes for a bottle of physic for a cold because he has not had anything lately; he would hesitate to come if it entailed getting a prescription made up, and paying the chemist for the medicine. Then the medical man would feel that club money was at any rate clear profit, and not be left wondering how much he is at a loss for drugs, etc., supplied. All must be agreed, I think, that club work at best does little more than cover expenses if conscientiously carried out.

COMPETITION AND UNDERSELLING.

COLLIERY SURGEON writes: Having a large amount of contract work I am naturally interested in the correspondence on that subject in the BRITISH MEDICAL JOURNAL. I received a letter of which I append a copy.

"Dear Sir,—Herewith we have the pleasure to hand you cheque for 10s. 6d. for your report on the life of Mr. ——, and shall feel obliged if you will let us have your acknowledgement on the accompanying form. With reference to your letter regarding the fee we may say that had you informed us before making the examination that you could not accept a lower fee than £1 1s. we would have made other arrangements, and we find no difficulty in getting first class practitioners to examine for us on these terms."

I refused an American company that offered similar terms and they also "found no difficulty" in getting their work done as several people in my district have insured, and my colleague has passed them, although I told him I had declined the work on account of the small fees. A month ago a man called and said to me, "We have appointed you doctor to our new lodge." I asked the rate of payment, and refused to accept it, when he replied—not exactly as politely as the insurance company, but forcible and to the point—"Well if you won't, the other bloke will," and the "other bloke" did. The amount offered was 2s. 6d. per member and 2s. for juveniles. I am a member of a medical union, and when I raised the fee to a club I lost it, £80 per year out of my pocket. The club was taken by another member of the same union. Another member had a "bumper" imported and is, I believe, very seriously affected financially. I could bring forward other instances where the same thing happened, but the few given are quite enough. The remedy suggested in the medical papers by union. That would do if union could be got; but how can men such as myself, depending entirely on the working class, raise their fees, when it means losing all or part of [illegible]? In my opinion the only remedy is a court of discipline, where a man proved to act as some men do should be judged

[1] From a report issued by the Howard Association.

guilty of infamous conduct, and suspended or entirely struck off the *Register*. We shall never get union and never get properly paid until a man is afraid to undersell, or tout, or do the hundred mean actions that disgrace the medical profession.

Some years back the General Medical Council made it "infamous" to employ an unqualified assistant. I leave it to the bulk of the profession—which is the more infamous, a man employing an unqualified man, or one that, knowing the other men in the district are trying to improve their own position, and consequently the position of the profession, deliberately sets himself to reap an advantage by underselling?

There is plenty of money for every practitioner, and I believe that even the non union and touting individual would be glad to be protected against himself.

Is there any way of bringing the matter to the direct notice of the General Medical Council?

*** Our correspondent does not convince us that there is any available remedy other than union, but the union must be as widely embracing as possible. We do not think it likely that the General Medical Council would, or indeed could, take any action to regulate fees.

THE PREVENTION OF CONSUMPTION.

NOTTINGHAM.

THE Committee of the Nottingham and Nottinghamshire Association for the Prevention of Consumption is to be congratulated on the progress shown in the report for the year 1901. Twelve months ago a site had been given by the President for a sanatorium, but nothing further had been done; now they are able to point to a sanatorium at Mansfield, Sherwood Forest, with accommodation for 24 consumptives, ready for occupation. The building, which has been erected by the Portable Buildings Company, of Fleetwood, at a cost of about £2,500, is of wood on a brickwork foundation, with a long verandah which allows of patients lying out of doors. The furnishing, electric lighting, and laying out of the grounds, has brought the total cost up to about £5,300. The cost of construction has been fully met by donations, but subscriptions are now needed for the maintenance, which is estimated at about £75 a year for each bed. The institution is intended for patients of limited means, and it is hoped that subscriptions may allow of patients being admitted free on the nomination of subscribers. Although the provision of the sanatorium must for some time be the chief work of the Association, the Committee does not lose sight of other important lines of action, and leaflets dealing with several subjects have been prepared and distributed. The Duke of Portland, who moved the adoption of the report at the annual meeting, suggested the formation of an "after-care" committee to look after the patients when they have left the sanatorium, and endeavour to prevent them falling back into the mode of life which favoured the onset of the disease.

DERBYSHIRE.

At the last quarterly meeting of the Derbyshire County Council an important report with regard to the open-air treatment of consumption was under consideration. This report drew attention to the results which had been attained by the sanatoria of the German insurance societies demonstrating the hopeful possibilities of this treatment. Dr. Englemann's statistics were quoted to show that of 6,273 patients, mostly in the early stage of the disease, treated in sanatoria, 87.7 per cent. were dismissed as cured after an average stage of three months. Of 2,147 patients who had left the various institutions during the previous four years, 82.5 per cent. of those dismissed within one year, 70.6 per cent. of those dismissed between one and two years, 60.0 per cent. of those between two and three years, and 32.8 per cent. between three and four years were able to work. By far the greater number of these patients (85 per cent.) were working people who returned to homes on the work generally unsuitable to consumptives. Similar results might be anticipated if institutions were established in this country for early consumptives, if careful diagnosis enabled the cases to be admitted at a sufficiently early stage of the disease. The Public Health Committee stated that the Local Government Board had expressed the opinion that a county council could constitute its district into an area under the Isolation Hospitals Act for the special purpose of providing open-air treatment. The report concluded by stating that copies of the report of the county medical officer of health would be sent to the various Boards of Guardians asking for an expression of opinion, after receiving which the matter would be further considered and reported on. The report was received and adopted.

SOUTH WALES.

At the meeting of the Executive Committee of the South Wales Branch of the National Association for the Prevention of Tuberculosis on May 3rd, Dr. A. P. Fiddian moved:

That immediate steps be taken by this Branch to promote the erection of a sanatorium for Glamorganshire and Monmouthshire for the treatment of early cases of pulmonary tuberculosis.

Dr. Fiddian suggested a sanatorium of 100 beds. He also stated that the South Wales Branch of the British Medical Association, of which he is the President, were unanimously in favour of the proposal. Sir John Llewelyn seconded the motion, and in a short practical speech suggested the appointment of a subcommittee to take the matter up. The motion was carried, and then referred to the Financial and Education Committees. As a part of the educational work of the Branch the Secretary, Dr. Pratt, has had made a series of lantern slides which it is proposed to lend to medical men and others lecturing on the subject. At the close of the meeting the Secretary gave a short exhibition of these slides.

CANADA.

The question of aid in treating consumptives in Quebec is now before the Legislature of that province. There is only one sanatorium in the province devoted to the treatment of such patients. This is the Laurentian Sanatorium, situated at St. Agethe des Monts. An effort will be made to secure assistance in the work from the Government. According to a recent report published by Dr. Paul E. Prevost, recorder of vital statistics, there died in the province of Quebec in 1897 from tuberculosis 3,079 persons; in 1898, 2 876; in 1899, 3,085; in 1900, 3,015. Montreal had 71 deaths from consumption in 1900, which was 10.32 per cent. of the deaths from all causes.

The Canadian Association for the Prevention of Tuberculosis held its annual convention at Ottawa on April 17th and 18th. The programme of the first session included an address by the President, Sir James A. Grant, M.D., K.C.M.G.; the discussion of the constitution of the convention; the appointment of committees of the convention to consider and report upon the following and other matters: Committee I.—The permanent organization of and constitution for the Canadian Association. Committee II.—(1) The relation of governments and municipal bodies to the crusade for the prevention of tuberculosis; (2) legislation; (3) notification by physicians of the presence of the disease; (4) inspection of schools and examination of children; (5) inspection or warnings against dangerous meat, milk, etc. Committee III.—(1) The availability of general hospitals, sanatoria, seaside and other resorts; (2) the care of public conveyances (steamships, railway carriages, street cars, etc.) to prevent the spread of the disease. Committee IV.—The collection and publication of useful information for the education of the people toward securing their co-operation with the medical profession. Committee V.—Resolutions. At the second session, His Excellency the Governor-General of Canada in the chair, an address was delivered by Dr. S. A. Knopf of New York, on the Mission of Societies for the Prevention of Consumption in the Antituberculosis Crusade.

UNITED STATES.

The Legislature of New Jersey has before it a Bill for the creation of a State sanatorium for consumptives.

The Pennsylvania Society for the Prevention of Tuberculosis, which is now in the tenth year of its existence, has recently issued its annual report. It is the first association of the kind formed in the United States, and the second in the world, La Ligue Contre la Tuberculose en France, which was founded in Bordeaux in 1891, being the first. The Pennsylvania Society has done much good service by the publication of a series of tracts for gratuitous distribution, intended to educate the general public as to the best means of avoiding the infection of tuberculosis and to prevent the spread of the disease. During the past year the Society has reprinted over 30,000 copies of its tracts, and has printed a new one. In conjunction with the Free Hospital for Poor Consumptives it has acquired a site for a sanatorium. During the past year

the Society has renewed its efforts to have pulmonary tuberculosis included among the diseases notifiable to the Bureau of Health, but although endorsed by the Philadelphia County Medical Society, by the Bureau of Health, and by the Director of Public Safety, the measure was not adopted, owing to the adverse action of the Mayor. A proposal by the Society to abate the spitting nuisance in Philadelphia by proceeding by law against offenders was also disapproved by the Mayor, and consequently came to naught.

In the *North American Review* for March, Dr. S. A. Knopf discusses the tuberculosis problem in the United States. With reference to the recent declaration of the United States Government that pulmonary consumption is a dangerous contagious disease, and that all immigrants and visitors to the United States, whether paupers or not, must, if suffering from tuberculosis, be prevented from landing, he maintains that in the light of our present knowledge pulmonary tuberculosis is not a dangerously contagious disease, but only a communicable one. He says that in a sanatorium where proper precautions as to the disposal of sputum are enforced, one is perhaps safer against tuberculous infection than anywhere else. He points out that although the new regulations classifying tuberculosis as a dangerous contagious disease have been in operation only a few months, undesirable consequences have already followed. It has increased the fear of people to associate with consumptives. Healthy employés have been discharged because it had been reported that they were living with a consumptive relative. Whole committees, located in especially favourable climates, which formerly permitted their unsupervised boarding houses to be crowded with consumptives—which was unwise and unsafe—go now to the opposite extreme, and will not permit well-conducted sanatoria in their vicinity. Yet Dr. Knopf holds that sanatoria are not only healing institutions, but veritable schools of hygiene, and serve as examples to the community in which they are situated. If, he says, we exaggerate the danger of the transmissibility of tuberculosis, we only create a new disease, which we may justly call "phthisiophobia." Dr. Knopf cites the opinions of a number of American medical authorities in opposition to the ruling of the Government as to tuberculous immigrants. He urges that if we impose unnecessary hardship on the tuberculous patient the result will be that individuals feeling themselves in the earlier stages of the disease will shrink from seeking advice until they can no longer hide their condition, and then it may be too late. Dealing with the manner in which tuberculosis should be combated, Dr. Knopf makes the following suggestions: First, there should be in every city a tenement house commission to improve the dwellings of the poor by making them habitable, sanitary, and safe. Secondly, there should be a commission on factories and workshops to see that such places are sanatarily constructed and conducted, that the eight-hour law is obeyed, that a sufficient number of well-kept spittoons are placed throughout the buildings, that expectoration, except in spittoons, is punished, first by a fine and when repeated by dismissal. Thirdly, there should be decently kept places of amusement where light beers and non-alcoholic beverages should be sold at reasonable rates, and all rational movements to diminish alcoholism, which is one of the strongest predisposing factors of tuberculosis, should be encouraged. Fourthly, there should be a special tuberculosis commission to prevent the development of tuberculous and scrofulous diseases in children. Its work should consist (1) in disseminating knowledge by lectures and the distribution of literature to young mothers, to prevent the development of the disease in infants; (2) in the supervision of public nurseries, orphan asylums, schools, and colleges, in regard to their sanitary construction and management; (3) in supervizing the curriculum of schools to prevent too much mental work to the detriment of the physical development of the children; (4) in creating gymnasiums, playgrounds, and small parks, particularly in the densely settled districts; (5) in providing the school children of poor parents with a substantial lunch at noontime; (6) in preventing child labour; (7) in caring for and educating tuberculous school children in special schools or camps, situated near the seashore or in particularly healthy inland localities. Fifthly, there should be, of course, in every locality a Board of Health, whose special duty in regard to tuberculosis should be (1) to disinfect the premises inhabited by a consumptive, upon the request of the physician or family; (2) to distribute literature teaching the prevention of tuberculosis; (3) to keep statistics regarding the morbidity and mortality of tuberculosis; (4) to supervise slaughter-houses, dairies, and milk-shops, to prevent the spread of tuberculosis through infected food substances. Each case of tuberculosis should be reported to the health board by the attending physician; and, if the latter desires, a sanitary inspector should be sent to the patient's residence to give verbal instructions concerning prophylactic measures. The Board of Health should distribute gratuitously, or at cost price, pocket spittoons for the use of tuberculous invalids, and should also have under its observation the keeping in order of large fixed spittoons, which should be abundant throughout the city. These latter could be arranged so that they might be constantly flushed by running water, and would thus neither offend the aesthetic taste nor become a source of infection. Sixthly, each city should have a special tuberculosis commission for adults, composed of physicians and laymen, whose object should be to investigate all reported indigent cases of tuberculosis, to ascertain the financial standing of the patients, their sanitary and general environments, whether or not they should be treated gratuitously, and whether or not through the removal of the patient the family would become destitute, in which case the municipality would, of course, be obliged to care for them. Through this Commission, the other members of the family should all be examined, so that, in case infection has taken place, the patients may be treated as early as possible. Seventhly, every American city should have a sanatorium association or society for the prevention of tuberculosis. These societies should have for their object—besides the dissemination of knowledge through lectures and the distribution of literature concerning the prevention of tuberculosis—the furthering of the sanatorium movement, that is to say, to combine with the authorities in helping to create sanatoria for the consumptive poor adult and for those of moderate means in the various stages of the disease, seaside sanatoria for tuberculous and scrofulous children, and special tuberculosis dispensaries where ambulant pulmonary invalids can be treated. Eighthly, the physicians, statesmen, philanthropists, and thinking citizens should combine their efforts to counteract the ever-growing tendency of people to emigrate from the healthy rural districts and small cities to the crowded metropolises of the country. The family physician in particular has a great mission to perform in this connexion. He should urge the younger members of a family, where there is a tendency to tuberculosis, to emigrate from city to country and take up outdoor occupations rather than remain in or come to large cities and pursue sedentary occupations. Lastly, there should be a federal tuberculosis commission with its seat in Washington, in touch with all the Boards of Health and sanatorium associations and societies for the prevention of tuberculosis. It should constitute the supreme head of the antituberculosis movement in the United States. To it should be submitted for consideration and decision such subjects as: "Is bovine tuberculosis transmissible to the human race, and vice versa?" "What measures should be inaugurated to stop the spread of tuberculosis from cattle if this source of infection exists?" "Is pulmonary tuberculosis a dangerously contagious or only a communicable disease?" Such a commission should be composed of trained sanitarians, general practitioners, specialists, and competent statesmen. Dr. Knopf concludes with an appeal to American millionaires to provide the funds needed to carry out this plan of campaign.

LITERARY NOTES.

Miss Margaret Thomas writes:

In your appreciative little notice of my book, *Denmark, Past and Present* (for which I thank you), the reviewer remarks that "he suspects I am under a misapprehension when I stated that Professor Finsen opened a sanatorium for the treatment of heart and liver diseases in 1901." My authority for this statement is Dr Finsen's brother, whose letter containing further particulars is now before me.

The Cuban League against Tuberculosis offers a prize for the best thesis on the Prophylaxis of Tuberculosis in Cuba, under the following conditions: (1) The prize shall be 150

dollars in American money; (2) the thesis shall not cover more than fifteen pages and must be sent in by October 1st; (3) the theses are to be sent to the President of the League against Tuberculosis, Monserrate 2, Havana, and are to be signed with a motto: the author's name to be enclosed in a sealed envelope bearing the same motto. The prize is open to the whole world and the thesis may be written in any language. The prize will be awarded on October 10th, 1902.

Two champions come forth in the current number of the *Nineteenth Century and After* to do battle in defence of hospital nurses against Miss M. F. Johnston, whose attack on them in the April number of the same review was noticed in the BRITISH MEDICAL JOURNAL of April 12th. First, there is Mr. Sydney Holland, who is always ready to take up the gage of any challenger. He is fain to admit that the hours of nurses both in hospitals and in private houses are long, but he pleads in mitigation that they are not actually at work all the time they are on duty. He says it is grotesquely untrue that as a result of hospital work a large number of nurses collapse, and go home in a more or less shattered condition. The charges of inhumanity are dismissed in an equally summary fashion. Some nurses, of course, are selfish and inconsiderate, but these are a minority, and it is the bad ones who bring discredit on their fellow-workers. The real reason of many complaints against private nurses is, in Mr. Holland's opinion, that the public expect too much of them, and are vexed when they do not get it. "The nurse is expected at once to be an angel of comfort, a model of skill, of patience miraculous, of temper perfection." People complain that the nurse will not sleep in the patient's room, not realizing that this means simply that she is on duty all day and up all night. There is, says Mr. Holland, absolutely no exaggeration in *Punch's* picture a few weeks back, in which an indignant materfamilias cries, "What! you want to go to bed? Why, I thought you were a trained nurse!" Miss Isla Stewart, the second champion, while admitting that nurses are not angels, emphatically denies that they are the demoralized creatures Miss Johnston paints them. "They are for the most part hardworking womanly women, with the faults that belong to other women, but with the better part of their nature and character developed and strengthened by contact with much suffering, the exercise of much self-denial, and a cheerful submission to duty."

In the same review, Mr. Havelock Ellis writes with sympathetic insight of the "Genius of Spain." He has a good word to say about the proverbial leisureliness of the Spaniards. When we live with them, he says, we learn to recognize that the modern method of compressing the maximum of feverish haste into the day's work—"and for life's sake losing the reasons for living"—is perhaps less wholly desirable than we have sometimes imagined. "There is no need to haste after wealth in a land where men are agreed that poverty is not contemptible, and that the best things cannot be bought for money. The only worthy social end that can be reached by money is democratic equality, and that has already been attained more perfectly in Spain than in any newer civilization ever conceivable." Speaking of the women, Mr. Havelock Ellis says the typical daughter of Spain is grave, quiet, unfailingly dignified, simple and home loving, and singularly affectionate in her domestic relationships. It is common outside Spain to hear the Spaniard, and especially the Spanish woman, spoken of as lacking the virtues both of sincerity and cleanliness. This, says Mr. Havelock Ellis, is for the most part the reverse of truth. It may, he thinks, be accounted for by the general belief of the Northerner that the Southerner is false, and as regards cleanliness by national differences in sanitary and other habits.

Cecil Rhodes had a marked liking for members of the medical profession, among whom it is well known he found several of his most trusted agents. One of his medical friends, Dr. Hans Sauer, contributes to the *Empire Review* for May two interesting articles on the "Colossus," one dealing with him "as a man and a friend," the other telling "the story of the Indaba." Dr. Sauer made the acquaintance of Rhodes at Kimberley just twenty years ago. Speaking as an Afrikander born Dr. Sauer says that Rhodes to his South African friends was always "first an Englishman, a passionate lover of his country. . . . The greatest libel ever passed upon him was the accusation of ulterior motives in his policy of imperial aggrandizement." Money, as money, did not interest him in the least; he looked upon the making of it as the necessary evil for the furtherance of his ideas. Dr. Sauer thinks it probable that no man who has ever lived in South Africa has given away so much and so unostentatiously as Cecil Rhodes. Hundreds of women can testify to his generosity, and any charity, no matter of what religious denomination, had but to ask to receive. After the Matabele rebellion, when there was a financial crisis in Rhodesia and Rhodes himself was hard pressed for money, he gave away £17,000 in three days. Dr. Sauer testifies that Rhodes all through the score of years that he knew him lived the most regular and abstemious of lives. He gives the following account of Rhodes's mode of life: An early riser, he was usually up about 6 o'clock; he rode till 9, when he returned for his bath and breakfast. Immediately afterwards he would begin work and go straight on till lunch, which for him was a very small meal, his only drink being a glass or two of light wine. Work again occupied his time till dinner, when it was his pleasure to gather his friends around him; he was very hospitable, and liked to see his friends enjoy themselves, but for himself he ate and drank sparingly. After dinner he would converse with his guests, always about something great and interesting; loose conversation he disliked, and at 10 o'clock he invariably retired to bed. His personal expenditure was almost nominal, and his gear and outfit always of the simplest. The vital interest he evinced in everything made him the most charming companion, and withal he was of such a simple nature that he could be as happy as a schoolboy on a holiday. His kindness and consideration to his friends was unfailing; and when it is remembered that for many years he was fighting the onslaughts of an insidious disease which, while sapping his life, threatened all his hopes, the wonder is that he was able to do the vast amount of work he did, or that he ever had a kind word for anybody.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting—namely, June 18th and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting for election of officers will be held at Brooke House, Upper Clapton, on Thursday, May 15th, at 8.15 p.m. At 8.30 p.m. Dr. J. H. Sequeira will give a demonstration of cases of Skin Disease. Visitors are invited.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The annual meeting of this District will be held in the Board Room of Tottenham Hospital, N., on Wednesday, May 14th, at 4.30 p.m., Dr. Hooper May, Vice-President, in the chair. The officers for the session 1902–3 will be

elected. Dr. Augustus W. Addinsell will read a paper on Sterility. The staff of the hospital will show interesting cases in the wards. The District Committee will meet at 4.15 p.m.—J. Dysart McCaw, M.D., Coolard Lodge, East Finchley, N., Honorary Secretary.

Southern Branch: South-East Hants District.—The spring half-yearly meeting of this District will be held at 5, Pembroke Road, Portsmouth, on Tuesday, May 20th, at 3.30 p.m. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate not later than May 10th with the Honorary Secretary, J. G. Blackman, Poplar House, Kingston Crescent, Portsmouth.

North of England Branch.—The spring meeting of this Branch will be held at Hexham on Thursday, May 15th, at 4.45 p.m. Further particulars will be given in circular. Members wishing to show cases, read papers, or bring forward resolutions should kindly send particulars at once to Alfred Cox, Cotfield House, Gateshead, Acting Honorary Secretary.

South-Eastern Branch: East Kent District.—The annual meeting of this district will be held at the Kent and Canterbury Hospital, on Thursday, May 22nd, at 3 p.m., Dr. Larking, of Folkestone, in the chair. Agenda: A discussion on contract practice will be opened by the Chairman. Mr. Victor Horsley will be present and will speak. Dr. Harnett: Empyema and its Relation to Pneumonia. Mr. Moon: A group of cases of Acute Pneumonia simulating Meningitis. The annual dinner will take place at the County Hotel, at 6 o'clock. Charge, exclusive of wine, 7s. It is hoped that the dinner will be well attended, and members intending to dine are particularly requested to communicate with the Honorary Secretary by May 20th, so that adequate arrangements may be made. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—Thos. F. Raven, Barfield House, Broadstairs, Honorary District Secretary

South-Eastern Branch: East Sussex District.—A meeting of this District will be held at the Calverley Hotel, Tunbridge Wells, on Wednesday, May 21st, at 5 p.m. Dr. E. A. Starling will preside. The following papers have been promised: On Physiognomy, by Mr. W. Arbuthnot Lane; on The Early Signs of Insular Sclerosis, by Dr. E. Hobhouse; on Hydatid Tumour of the Liver, with notes of a case of Suppurating Hydatid of the same and Treatment, by Mr. J. B. Footner; on Fatal Subscapular Haemorrhage in a Floating Kidney, with specimen, by Dr. J. Elliott; notes on a case of Volvulus of the Caecum, by Dr. Francis Bisshopp: notes on a case of Retroflexion with Incarceration of the Gravid Uterus, by Mr. W. C. Aylward. Dinner at 7 p.m.—W. J. C. Merry, 2, Chiswick Place, Eastbourne, Honorary Secretary.

BATH AND BRISTOL BRANCH.

The sixth ordinary meeting of the session was held at Bath on April 30th, Dr. G. C. Tayler, President, in the chair. There were twenty-six members and visitors present.

The late Drs. Long and Bonville Fox.—It was unanimously resolved to send a letter of condolence to the family of the late Dr. E. Long Fox, expressing the sympathy of the Branch with them in their loss. It was also unanimously resolved to express to the family of the late Dr. Bonville Fox the feeling of sorrow which the Branch felt at his death.

Communications.—Dr. J. Michell Clarke read notes of Two cases of Necrosis of Lung with Recovery, and Dr. Shingleton Smith, Dr. Wilson Smith, Dr. Watson Williams, Mr. C. E. S. Flemming, Dr. Stack, and Dr. Parker commented upon them.—Dr. Wilson Smith described a case of Septicaemic Nephritis, and remarks were made upon it by Drs. Cave and Michell Clarke.—Dr. Cave recorded a case of Landry's Paralysis, and in the discussion which followed Dr. Waldo, Dr. Stack, and Dr. Michell Clarke took part.—Mr. W. M. Beaumont read a paper on Paralysis of the Accommodation—an *a Posteriori* view of Diphtheria. It was discussed by Dr. Watson Williams, Mr. Mole, Dr. Waldo, Dr. Wilson Smith, Mr. Willett, and Dr. Cave.

CORRESPONDENCE.

SUDDEN SYNCOPE OCCURRING AFTER THE INJECTION OF ANTITOXIN IN CASES OF DIPHTHERIA.

Sir,—It appears from his remarks that Dr. Saward is inclined to attribute the attacks of syncope, in one case fatal, to the injection of antitoxin. I notice, however, that Dr. Saward states that the first case was "removed to the fever hospital, where she died shortly after admission from a sudden attack of syncope"; and that the second case was also "removed .... to the same institution, arriving there, as I was subsequently informed, in a state of extreme collapse."

Now I venture to suggest that even though these patients "were removed with due care in the special infection ambulance," the mental and physical excitement accompanying the act of removal was quite sufficient to account for the syncope. Serious syncope occurring during or very soon after removal by ambulance, is by no means unknown, even though every care is taken, in patients who have not received antitoxin. I speak from experience. Besides, diphtheria is a disease which is, I think I may say, notorious for syncope, and was known to be so long before antitoxin was discovered.

Dr. Saward refers to a case reported by Dr. Somers in the issue of the British Medical Journal for February 22nd. I observe on turning to the account of this case that when Dr. Somers first saw his patient, and before the latter had received any antitoxin, the patient, a girl aged 14, was "suffering from dyspnoea, cyanosed, and with the extremities cold. The pulse was almost imperceptible at the wrists. She had been unable to swallow for six hours, and lay with her mouth open in a semi-comatose condition." There was abundant evidence of cardiac depression before any treatment had been applied.—I am, etc.,

Homerton, May 6th. E. W. Goodall.

Sir,—Deeply interested in diphtheria and its treatment by antitoxin, the note on the above subject published by Dr. Saward in the British Medical Journal of April 26th, p. 1025, impressed me very greatly. It occurred to me, however, to wonder whether something other than the antitoxin might not have been the cause of the symptoms.

Both patients had certainly been injected with serum: but because this was, of all the possible causes, the proximate cause, did it follow that it was, therefore, the *causa causans?* Was it not at least possible that the "credit" could be placed to the toxin of diphtheria? Are we not continually warned by our teachers and by our textbooks that diphtheria is a most treacherous disease: that, practically in every case, there is interference with the innervation of the heart: and that death, sudden and unexpected, from heart failure may occur even in the mildest cases, and follow a strain thrown on the organ by the slightest exertion?

Dr. Saward's cases showed "clinically well-marked features of a fairly severe attack of diphtheria," and presumably, therefore, there was present the diphtheria toxin, producing this weakening of the heart. In addition, the patients were in poor circumstances and surroundings, and it is likely that the resistance they could offer to the action of a poison so strong as that of diphtheria would not be of the greatest.

I note, moreover, that of the two girls it was the first to be seen who died. Is not the possible explanation of this that she had been longer ill than her sister, who suffered only from collapse, and that the poison had, therefore, been acting for a longer period on the heart? Diphtheria is so often insidious in its onset, and the symptoms so vague, that the parents of this girl may not have paid any heed to her complaints for some time. In the second case, however, frightened by the death of the other daughter, they would probably be on the watch for symptoms and seek advice at once.

Dr. Saward wishes to emphasize the fact that the time which elapsed between the administration of the antitoxin and the occurrence of the syncope was short; but, to my mind, this rather weakens the view that antitoxin was the cause. We rarely look for improvement in less than six or eight hours after an injection, since the serum has to be absorbed before it can get to work; surely, therefore, if it has to be absorbed to do good, it is not too much to suppose that it must be absorbed before it can do harm. Again, the amount of serum employed 1,500 units was, as doses go, so very small, that one may be forgiven for doubting its ability to do much harm, unless of course Dr. Saward means to imply there was present in the serum some foreign toxic substance very poisonous and very readily absorbed.

During the last five or six years I have had a fairly considerable experience of antitoxin. I have used it as a curative agent in diphtheria, and have seen nothing but good follow. I have given it as a protective to healthy people, and to persons suffering from other diseases, for example, scarlet fever, and have never seen any serious inconvenience result. I have seen death occur suddenly in diphtheria who with any experience has not?—sometimes less than an hour, sometimes a few hours, and sometimes a few days after antitoxin: but I

must confess that it never occurred to me to consider the serum injected the cause even in a single instance.

As regards the girl who reached hospital in a state of collapse, it is not at all uncommon to find diphtheria patients exhausted and even collapsed on admission; but, as most cases are not injected before removal, the excitement, etc., attending the removal are generally held responsible. It is the custom, in this hospital at least, for the nurse removing cases of diphtheria to carry stimulants with her for use in case of an emergency, and every nurse is made aware of the risks, and is warned to be on her guard.

On the whole, it seems to me that there are more reasons for believing that to diphtheria toxin, and not to diphtheria antitoxin, must the "credit" of producing the syncope be placed. The explanation of the death of the first case which offers itself to my mind is that, to a heart weakened and probably dilated as a result of the action of the toxin, the strain produced by the exertion of removal proved too much. In the second case the intoxication had not gone so far, and the patient, though more or less collapsed, was able eventually to fight down the toxin, assisted in all probability by the antitoxin, small in amount though it was.

Occurrences such as these make enemies to antitoxin, especially amongst the laity; as a compensation, one notes with pleasure that the parents of infected children are often quite eager for the remedy, and request the physician to inject the serum as soon as the diagnosis is made.—I am, etc.,

Leith Public Health Hospital, April 30th. CHARLES PORTER.

NON-TUBERCULOUS LUNG NECROSIS.

SIR,—The cases of "lung necrosis" described by Majors Birt and Matthias in the BRITISH MEDICAL JOURNAL of February 15th, are of intense interest. From the description, I think few who have seen typhoid as it appears in the Southern Hemisphere will have any doubt that the cases were a form of that disease. In my own experience in Australia, fully 20 per cent. of typhoid cases go through their course without bowel symptoms of any kind. But when the enteric symptoms are absent, usually we find the poison implicating some other organ of the body, generally the lungs or brain. For this reason I have been long of opinion that the name "enteric" should be discontinued.

But the main importance of such cases is the severe lung lesion, and that cavities can be formed without any tubercle bacilli, which raises the question that is at all events frequently in the minds of the older generation of practitioners, but which they do not often put into print—that is, Are the bacilli simply "feeders on the dead," or are they the *vera causa* of phthisis? In other words, Is there a preparatory stage in every patient before the advent of the bacilli, or can the bacilli take possession as in ordinary contagious diseases, by simply coming in contact with the individual?

There can be no question that the cases referred to, had they lived long enough, would have become tuberculous. In Australia, typhoid is well known as a forerunner of phthisis, and every practitioner has seen many cases start in this way. The tubercle bacilli seem to me to be always at hand when the conditions for their reception are favourable. Here, however, I am treading on debateable ground, and must be careful.

I think it is time that this question was treated from the clinical point of view, as well as from the standpoint of bacteriologists and medical officers of health. A few cases like those described by Majors Birt and Matthias would go a long way towards solving this problem, and I trust some of your readers will contribute something towards throwing more light on a difficult and important question. Within the last few years, clinical medicine has had to take a back seat, but surely we are not going to deliver ourselves, soul and body, over to the laboratory man.—I am, etc.,

Melbourne. DUNCAN TURNER, M.R.C.P.Lond.

PROCESSES OF INFECTION AND PROTECTION.

SIR,—The fact that heating sodium chloride with acetic acid leaves only sodium chloride does not show that the sodium is monopolized by the chlorine when the three substances are in solution together.

1. Salicylic acid has an extremely feeble chemical potential. Yet, if iron perchloride be dropped into a solution of salicylic acid, we get the violet colour of iron salicylate. If now we add a drop or two of neutral sodium phosphate, the iron is thrown out as white ferric phosphate, and the solution is left colourless. A fresh drop of iron perchloride restores the violet colour. Here the feeble salicylic acid divides up the iron base with the chlorine, while the phosphoric acid (a substance of intermediate chemical potential) appropriates all the iron by causing a new state of molecular aggregation and precipitating the iron from the solution.

If to 10 c.cm. of urine a few milligrams of salicylic acid be added, and then decinormal iron perchloride be slowly dropped in—the urine being actively stirred in a white porcelain basin—the salicylic acid does not strike its violet colour until all the phosphoric acid has been precipitated. I have used this as a study-table-measure of the amount of phosphoric acid in urines. The decinormal iron can be standardized with neutral sodium phosphate, and the volume used before the arrival of the end-point violet colour gives the measure of the phosphoric acid.

2. If a normal but neutral urine be heated, bubbles of CO_2 escape. As the CO_2 is boiled off earthy phosphates and carbonates come out. If the urine be now cooled, and then pure carbonic acid be bubbled through the urine—say, from a siphon of aërated Salutaris water—the earthy salts return into solution, and on again boiling off the CO_2 they again are precipitated. Here the feeble CO_2 divides up the earthy bases with the high potential phosphoric acid, producing bicarbonates and acid phosphates, all which go back into solution, and are again thrown out on boiling off the CO_2. If, in place of CO_2, we acidulate with acetic acid, we also redissolve the earthy salts, but we make a permanent solution. This combination is not broken up by boiling, though it is broken up by desiccating and igniting the salts, or by the addition of an alkali carbonate to the solution. On adding the acetic acid the CO_2 will be seen escaping from that part of the precipitate which consists of the earthy carbonates.—I am, etc.,

Kemp Town, Brighton, April 29th. JAMES EDMUNDS.

CAISSON DISEASE.

SIR,—There seems to me to be one very serious objection to Dr. Macmorran's theory of the cause of caisson disease, which appears in his article in the BRITISH MEDICAL JOURNAL for April 26th. His theory (page 1019, second column) practically amounts to this—that the mechanical pressure of the compressed air produces the symptoms of caisson disease in two ways: (1) By interference with the elimination of CO_2 from the system; (2) by the slight compression of the capillary and peripheral blood vessels leading to a retardation of the circulation in the deeper structures.

As the "shifts" during which the men have to work are generally from four to eight hours, both these effects, but especially the first, ought to be produced within this space of time, since any serious interference in the interchange of gases in the lungs manifests itself in a very few minutes. Putting aside for the moment the question of how this accumulation of CO_2 in the blood would influence the system physiologically, and the doubtful effect of an increased pressure of 8 lb. to 12 lb. on the square inch, how is it that caisson disease never appears in the caisson itself under these circumstances? I understand that it is only after having left the caisson, for a period varying from half an hour to a few hours, that the symptoms of the disease show themselves. In other words, it is when the pressure is diminished, and according to the rate at which it is diminished, that the development of symptoms is to be feared. Indeed, the men generally feel exceptionally well in the caisson, however long they may remain in the compressed air, and the liability to the illness is not thereby increased, provided the "lock-out" period be proportionally lengthened.—I am, etc.,

Lowestoft, April 28th. MALCOLM L. HEPBURN, M.D., F.R.C.S.

CHRONIC SUPPURATION OF THE MAXILLARY ANTRUM.

SIR, In reply to Mr. Sefton Sewill's courteous letter,[1] I would like to say that I heartily endorse all he says in refer-

[1] BRITISH MEDICAL JOURNAL May 3rd, p. 1120.

ence to the frequency with which an apparently well "stopped" tooth may be the *fons et origo* of antral suppuration. Since the publication of my paper I have advised the removal of a very innocent-looking and apparently successfully gold-crowned tooth underlying an antral empyema. Upon removal of the crown, a fetid collection of pus was discovered, and one of the carious roots communicated with the antrum.

Concerning Mr. Sewill's concluding paragraph, may I be allowed to state—and that emphatically—that I only mentioned the theory of dental caries being secondary to antral suppuration in order to refute it? Such a theory was advanced by one of the members at a recent meeting of the London Laryngological Society in order to explain the normal appearance of the crowns of two teeth whose roots were carious, which I had obtained from two cases of antral empyema. I have also met with the same statement in some work on nasal diseases, but have been unable to find it again and give the reference.

The sentence in my article reads thus: "It may be argued that dental caries is secondary to antral suppuration, and spreads from the root towards the crown of the tooth; but such a course of infection must be exceptional, for careful inquiry will nearly always elicit a history of dental trouble which preceded the antral symptoms." Other reasons are then given in refutation of the same view which Mr. Sewill so rightly condemns, and in connexion with which it might have been better had I been more dogmatic.—I am, etc.,

Harley Street, W., May 6th. HERBERT TILLEY.

THE NEW SYDENHAM SOCIETY'S CLINICAL ATLAS OF MEDICINE AND SURGERY.

SIR,—In view of the great interest which at present concerns the subject, it is proposed to publish as early as possible the fasciculus of the Society's *Clinical Atlas*, which illustrates the affections of the skin, etc., produced by arsenic. A considerable series of plates are already in the artist's hands. Will you allow me to use your pages in order to ask any of your readers who may possess drawings suitable for reproduction to be kind enough to allow our Council to inspect them? They may be sent either to the Polyclinic, 22, Chenies Street, or to my address, and will be taken great care of.—I am, etc.,

JONATHAN HUTCHINSON.

15, Cavendish Square, W., May 7th.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL ARMY MEDICAL CORPS.

NEW REGULATIONS FOR ADMISSION, 1902.

THE following new regulations for admission to the Royal Army Medical Corps, made in accordance with the provisions of the Royal Warrant of March 24th, 1902,[1] will be promulgated with Army Orders dated May 1st, 1902:

CANDIDATES FOR COMMISSIONS.

QUALIFICATIONS.

1. A candidate for a commission in the Royal Army Medical Corps must be 21 years and not over 28 years of age at the date of the commencement of the entrance examination.

2. He must possess, under the Medical Acts in force in the United Kingdom at the time of his appointment, a registrable qualification to practise.

3. He must complete the form of application and declaration shown in Appendix I, and submit it to the Director-General, Army Medical Service, in sufficient time to permit of reference to the medical school in which the candidate completed his course as a medical student.

4. The Dean, or other responsible authority, of such school will be requested by the Director-General to render a confidential report as to his character, conduct, professional ability, and fitness to hold a commission in the Corps, and to this report special importance will be attached.

5. After the form of application and the confidential report above alluded to have been received, the Director-General will decide if he may be allowed to compete for a commission in the Royal Army Medical Corps.

6. If approved, he will then be examined as to his physical fitness by a Board of Medical Officers in accordance with Appendix II.

7. If the candidate is pronounced to be physically fit for service at home and abroad, he will be eligible to present himself at the entrance examination, which will be held twice in the year, usually in January and July, for the admission of qualified candidates as lieutenants on probation.

8. The Secretary of State reserves the right of rejecting any candidate who may show a deficiency in his general education.

9. An entrance fee of £1 is required from each candidate admitted to the examination, and is payable at the conclusion of his physical examination, if pronounced fit.

10. Officers who have served with the Royal Army Medical Corps (Militia) when embodied, or who, as officers of the Royal Army Medical Corps (Militia) or Royal Army Medical Corps (Volunteers), medical officers of Yeomanry or Volunteers, or as civil surgeons, served with an army in the field, after October 1st, 1899, may be allowed to reckon such service towards retired pay and gratuity. [*Secretary of State's Instructions on Pay Warrant.*]

Candidates in any of these classes may be permitted to compete under the above rules provided they were not over 28 years of age at the beginning of their last period of service, and shall be allotted special marks for such service on a scale approved by the Secretary of State. The duration of service is to be reckoned from the date on which the candidate commenced such service, except in the case of candidates who have served for two or more periods at short intervals. In such cases the total period of service to be considered in granting marks at the entrance examination shall be specially determined.

APPOINTMENTS, ETC.

11. A candidate successful at the entrance examination will be appointed a lieutenant on probation, and will be required to pass through such courses of instruction as the Secretary of State shall decide, and, after passing the examinations in the subjects taught, and satisfying the Director-General that he possesses the necessary skill, knowledge, and character for permanent appointment to the Royal Army Medical Corps, his commission as lieutenant will be confirmed. The commission shall bear the date of the officer's appointment as lieutenant on probation.

12. Before the commission of a lieutenant on probation is confirmed he must be registered under the Medical Acts in force in the United Kingdom at the time of his appointment.

13. The precedence of lieutenants among each other shall be in order of merit as determined by the combined results of the entrance examination and the examinations undergone while on probation, except that the position on the list of a lieutenant on probation seconded under Article 349 Royal Warrant shall be determined by the place he has gained at the entrance examination. In the case of a lieutenant so seconded the subsequent examinations referred to in paragraphs 18 and 19 will be of a qualifying character, and will not influence his position on the seniority list of the Corps.

14. Lieutenants when appointed on probation will receive instructions as to the provision of uniform.

EXAMINATIONS.

Subjects for the Entrance Examination.

15. Candidates will be examined by the examining board in medicine and surgery. The examination will be of a clinical and practical character, partly written and partly oral, marks being allotted under the following scheme:

Medicine (written).

	Maximum Marks
A. Examination and report upon a medical case in the wards of a hospital	125
B. Commentary upon a case in medicine	125
(Three hours allowed for A and B together.)	

Medicine (oral).

A. Clinical cases; clinical pathology	75
B. Morbid Anatomy and Morbid Histology	75
(One quarter of an hour allowed for each table.)	

[1] BRITISH MEDICAL JOURNAL, March 29th, 1902, p. 813.

Surgery (written).	Marks.
A. Examination and report upon a surgical case in the wards of a hospital	125
B. Commentary upon a case in surgery	125
(Three hours allowed for A and B together.)	
Surgery (oral).	
A. Clinical cases, including diseases of the eye; surgical instruments and appliances	75
(One quarter of an hour allowed for this table.)	
B. Operative surgery and surgical anatomy...	75
Total marks	800

The following headings are published as a guide to candidates in drawing up their reports on cases:

(*a*) A brief history of the case as given by the patient, including such points only (if any) in the family or personal history as have a distinct bearing upon the present illness or incapacity.
(*b*) A detailed account of the subjective symptoms and physical signs elicited by the candidate's personal examination of the patient, noting the absence of any which might be expected to be present in a similar case.
(*c*) Where there is any reasonable doubt in the mind of the candidate as to an exact diagnosis, he is to give the alternatives, with his reasons for making the selection.
(*d*) A commentary upon the case as a whole, pointing out the symptoms which may be considered typical, and those which appear to be unusual or only accidental complications.
(*e*) Suggestions as to treatment, both immediate and possibly necessary at a later date.
(*f*) A forecast of the progress and probable termination of the case.

Similarly the commentary on the report of a case submitted to the candidate should discuss:—

(*a*) The family and personal history and other conditions preceding the development of the condition described.
(*b*) The relative significance of the physical signs, symptoms, other indications of disease noted, and the general clinical aspects of the case.
(*c*) The diagnosis, with reasons for selection of the most probable, when a positive diagnosis cannot be attained.
(*d*) The treatment—dietetic, medicinal, operative, etc., including a criticism of the plan adopted, and alternative schemes of treatment in case of disagreement.
(*e*) The morbid appearances, and an account of the *post-mortem* examination (if any).

16. The examination will be held in London, and will occupy about four days.

17. The appointments announced for competition will be filled up from the list of qualified candidates arranged in the order of merit, as determined by the total number of marks each has obtained.

18. Having gained a place in this entrance examination, the successful candidates will undergo two months' instruction in hygiene and bacteriology, after which they will be examined in these subjects. The maximum number of marks obtainable at this examination will be 100.

19. On completion of the above course lieutenants on probation will be ordered to proceed to the Dépôt of the Royal Army Medical Corps at Aldershot for a three months' course of instruction in the technical duties of the Corps, and at the end of the course will be examined in the subjects taught. The maximum number of marks obtainable at this examination will be 100.

20. A lieutenant on probation who fails to qualify in either of these examinations will be allowed a second trial, and should he qualify, will be placed at the bottom of the list. Should he again fail in either examination his commission will not be confirmed.

REGULATIONS FOR THE EXAMINATION FOR PROMOTION IN THE ROYAL ARMY MEDICAL CORPS.

21. These examinations are intended to test the progress and proficiency of officers in those branches of knowledge which are essential to their continued efficiency.

Lieutenant before Promotion to Captain.

(For Lieutenants appointed after March 31st, 1901.)

22. This examination may be taken at any time after completing 18 months' service, and will be held in the military district in which the officer is serving.

The subjects of this examination, which are detailed in the *King's Regulations*, are as follows:

1. Regimental duties.
2. Drill.
3. Military law.
4. Duties and accounts connected with military hospitals and their supplies.
5. Other duties of executive medical officers.

Captains before Promotion to Major.

(For Captains promoted to that rank after 27th July, 1895.)

23. Captains will be examined under the rules laid down in paragraph 24, and will be eligible for acceleration in their promotion to the rank of major under Article 352 of the Royal Warrant, subject to the following restrictions—

(*a*) The acceleration which can be gained by a captain promoted to that rank in January, 1896, will be limited to 6 months, and an officer gaining this acceleration will take precedence after the last captain promoted major on completion of 12 years' service.
(*b*) The acceleration which can be gained by a captain promoted to that rank in July, 1896, will similarly be limited to 12 months, and an officer gaining this acceleration will take precedence next after the last captain promoted to that rank in January, 1896, who may have gained 6 months' service.
(*c*) A captain promoted to that rank in January, 1897, can gain the full acceleration, but will take precedence after any captain promoted to that rank in July, 1896, who may have gained 12 months' acceleration.
(*d*) Officers gaining acceleration under (*a*) will take precedence *inter se* in order as they have obtained a special certificate or passed in the 1st, 2nd, or 3rd class, and a similar course will be followed under (*b*) and (*c*).
(*e*) In all other cases an officer who gains accelerated promotion will be placed for precedence after the last officer (whether subject to acceleration or not) promoted approximately 3, 6, 12, or 18 months before him.

24. This examination, which may be taken at any time after completing 5 years' service, will be held in London on the termination of a period of special study. The examination will consist of written papers, essays, oral and practical examinations in the following subjects, which are detailed in the *King's Regulations*:

1. Medicine.
2. Surgery.
3. Hygiene.
4. Bacteriology and tropical diseases.
5. One special subject from the subjoined list to which additions may from time to time be made:
   (*a*) Bacteriology, including the preparation of antitoxins.
   (*b*) Dental surgery.
   (*c*) Dermatology.
   (*d*) Laryngology.
   (*e*) Midwifery and gynaecology.
   (*f*) Operative surgery, advanced.
   (*g*) Ophthalmology.
   (*h*) Otology.
   (*i*) Pediatrics.
   (*k*) Psychological medicine.
   (*l*) Skiagraphy.
   (*m*) Specific fevers.

25. Captains serving in that rank before July 27th, 1895, will be promoted under the old regulations contained in Appendix I, Regulations for Army Medical Services, and will not be eligible for acceleration.

Majors before Promotion to Lieut.-Colonel.

(For Majors promoted to the rank after March 31st, 1895.)

26. This examination, which may be taken at any time after 3 years in the rank of major, will be held in the military district in which the officer is serving at times which will be duly notified.

The subjects of this examination, which are detailed in the *King's Regulations*, are as follows:

1. Military law.
2. Army medical organization.
3. Sanitation of towns, camps, transports, etc.
4. Epidemiology and the management of epidemics.
5. One special subject from the subjoined list to which additions may from time to time be made:
   (*a*) Medical history of important campaigns.
   (*b*) A general knowledge of the Army Medical Services of other Powers.
   (*c*) The laws and customs of war in relation to the sick wounded.

NEW REGULATIONS.

"Extracts from the Royal Warrant for Pay and Promotion" follow the above text of the new Regulations for admission, and the documents are completed by two appendices.

Appendix I sets out the form of "application of a candidate for a commission in the Royal Army Medical Corps." This differs in some minor respects from that previously in force: in particular the candidate is required to give the name of the

Dean or other responsible authority of the school in which the candidate completed his course as a medical student, and he is invited also to mention academic or other distinctions which he may have received.

Appendix II sets out the regulations for the medical (that is, physical) examination of candidates for commissions in the R.A.M.C.

We understand that copies of the new Regulations and appended matter can be obtained by intending candidates on application to the Director General, Army Medical Service, 18, Victoria Street, London, S.W.

THE NAVAL AND MILITARY MEDICAL SERVICES COMPARED.

SIR,—The new scheme recently issued by the Admiralty for the medical department of the navy will improve the position of the medical officers in that service, and will no doubt serve to attract young medical men to join. The pay of the medical officer on joining and during the first twelve years of his service is satisfactory, and in no branch of work, whether in the public services or in civil life, is the young medical man more advantageously placed financially. In the senior ranks of the services the advantages are not quite so apparent, but, taken as a whole, the pay would seem satisfactory. On contrasting, however, the pay and allowances granted in the army with the pay and allowances in the navy, there appears to be a marked difference which to the civilian unacquainted with service ways must seem anomalous. It is well that these should be clearly stated, so that an intending candidate for the public service may make inquiries before entering either service, and have the meaning of allowances fully explained. So far as I can gather the pay and allowances of the two services are as given in the table below (if my statements are incorrect, perhaps some officer of the army or navy services will kindly point out where they are so).

Another "hardship" affecting the naval officer is, perhaps, inevitable, for service at sea is a thing apart from service on shore. Should a medical officer in the navy marry, his "home" life compared with his army *confrère* is very different. If, say, a junior staff surgeon is serving abroad, he is lucky if he sees his wife for three months in the year, and, indeed, he may not see her at all. Should his wife join him abroad, the officer must pay his wife's passage out and home. He must keep up two establishments—his own on board ship, and his wife's on shore. All this he has to accomplish on £438 a year. In the army service the medical officer of equal rank can live with his wife; the Government provides for her a passage out and home, and the expenses of the one establishment can be met by pay and allowances amounting to £587 12s. 10d., with possibly the addition of £45, or as much as £90, a year as extra pay in charge of a hospital. Some of these comparisons between the services are founded on "service exigencies," but it is well that they should be pointed out, so that they may be redressed, or that, at any rate, the candidates for the services may know exactly what is before them. I append a table which will show at a glance the relative positions of medical officers of the navy and army as to pay.—I am, etc.,

Devonshire Street, W., May 5th. JAMES CANTLIE.

THE ROYAL NAVY MEDICAL SERVICE.

OLD AND NEW RATES OF PAY COMPARED.

FLEET SURGEON R.N. sends us some comparative tables showing the pay to be earned by officers entering the Royal Navy Medical Service under the old and under the new medical services. He points out that, owing to the lengthening of the curriculum and other changes, few surgeons can now enter the service before the age of 24; and states that in former times many entered at the age of 21, and were therefore able to serve longer.

Old Rates of Pay.

			£ s. d.
Surgeon ...	... 4 years at 11s. 6d. daily	...	839 10 0
,, ...	... 4 years at 13s. 6d daily	...	985 10 0
,, ...	... 4 years at 15s. daily ...	...	1,095 0 0
Staff Surgeon	... 4 years at 21s. daily ...	...	1,533 0 0
,,	... 4 years at 24s. daily ...	...	1,752 0 0
Fleet Surgeon	... 4 years at 27s. daily ...	...	1,971 0 0
,,	... 4 years at 30s. daily ...	...	2,190 0 0
,,	... 3 years at 33s. daily ...	...	1,806 15 0
	31		12,172 15 0

New Rates of Pay.

			£ s. d.
Surgeon ...	... 4 years at 14s. daily ...	...	1,022 0 0
,, ...	... 4 years at 17s. daily ...	...	1,241 0 0
,, ...	... 4 years at 20s. daily ...	...	1,460 0 0
Staff Surgeon	... 4 years at 24s. daily ...	...	1,752 0 0
,,	... 4 years at 27s. daily ...	...	1,971 0 0
Fleet Surgeon	... 4 years at 30s. daily ...	...	2,190 0 0
,,	... 4 years at 33s. daily ...	...	2,409 0 0
,,	... 3 years at 36s. daily ...	...	1,971 0 0
	31		14,016 0 0

This shows a balance of £1,843 15s. in favour of the new scheme after 32 years of service. Our correspondent would add to to the possible earnings of an officer joining under the old rates a further sum of £1,806 15s., representing his pay during an additional period of 3 years which he might serve as fleet surgeon if, and when, he entered the service at the age of 21, as compared with the age 24 which he assumes to be the average age of entry at the present time. With this modification the balance in favour of the officer joining under the new rates would be only £36 10s., but it must, of course, be remembered his period of service would be 3 years less.

THE NEW REGULATIONS OF THE ROYAL NAVY MEDICAL SERVICE.

ANOTHER NAVAL MEDICAL OFFICER writes as follows to correct some of the statements of "A Naval M.O." in the BRITISH MEDICAL JOURNAL of April 26th. (The numbers refer to the paragraphs in this letter p. 1060.)

3. The medical officers of the second flagships do get the allowance in question of 2s. 6d. a day which other departmental officers receive. (See lines 8 and 9, page 6 of New Regulations). The medical officers have suffered in many ways from having the engineers and paymasters "tacked on to them." It has been a general source of complaint, but here, as your correspondent thinks he sees some benefit to be derived, he resorts to the undesirable comparison.

4. Cabins have never before been appropriated to either staff surgeons or surgeons in charge, but to fleet surgeons only. (See King's Regs. and Adv. Insts., Art. 537, para. 2.)

5. It is sheer nonsense to say that medical officers do not receive post

The Royal Navy Medical Service and the Royal Army Medical Corps under the New Schemes: A Comparison.

NAVY.

Rank.	Pay.	Allowances.
	£ s. d.	
SURGEON	255 10 0	—
SURGEON: 4 years' service	292 0 0	—
SURGEON: 8 years' ,, ...	365 0 0	—
STAFF SURGEON 1½ years' service ...	438 0 0	—
STAFF SURGEON: 16 years' ,, ...	492 15 0	—
FLEET SURGEON: 20 years' ,, ...	547 10 0	—
FLEET SURGEON: 24 years' ,, ...	602 5 0	—
FLEET SURGEON: 27 years' ,, ...	657 0 0	—
Deputy Inspector-General	766 0 0	With house and hospital allowances: £112 if abroad, £60 if at home
Inspector General	1,000 0 0	With house
Director General	1,500 0 0	With house

ROYAL ARMY MEDICAL CORPS.

Rank.	Pay.	Allowances.	Total.
	£ s. d.	£ s. d.	£ s. d.
LIEUTENANT	250 0 0	73 10 0	323 10 0
CAPTAIN: 3 years' service ...	287 0 0	92 15 2	379 15 2
CAPTAIN: 7 years' ,, ...	307 4 10	92 15 2	400 0 0
CAPTAIN: 10 years' ,, ...	385 0 0	92 15 2	477 15 2
MAJOR: 12 years' ,, ...	430 0 0	157 12 10	587 12 10
MAJOR: 15 years' ,, ...	475 0 0	157 12 10	632 12 10
LIEUTENANT-COLONEL: 20 years	547 0 0	166 15 4	713 15 4
Lieutenant-Colonel (50 selected)	638 0 0	166 15 4	804 15 4
Colonel	730 0 0	233 10 10	963 10 10
Surgeon-General	1,500 0 0	...	...
Director General	2,000 0 0	...	...

Extra Pay in Royal Army Medical Corps.

2. Charge pay for hospitals, 2s. 6d. to 10s. a day. 2. Specialist pay, 2s. 6d. a day. 3. Double pay and double time in West Coast of Africa. 4. Pay at Indian rates in India.

Extra Pay in Navy.

Except Flag allowances of 5s. a day to eight Fleet Surgeons and 2s. 6d. a day to three Staff Surgeons, there is no extra pay to medical officers of the Navy.

graduate courses, there are not at present certainly a sufficient number of officers on the list to allow the maximum number of twenty per annum, but twelve underwent such a course during the past year alone.

6. All medical officers are given a turn in home and shore appointments as much as possible and with the utmost fairness, but it is obvious that in the case of naval hospitals the most competent men in medicine and surgery must be selected. The establishment of a roster for foreign service has been tried, but for the navy it has been found utterly impracticable

CHIR writes: I desire to express dissent from the opinion of "A Naval M.O." in the BRITISH MEDICAL JOURNAL of April 26th, concerning early promotion to ranks of staff surgeon and fleet surgeon. Early promotion means half-pay, increased at eight years from £132 to £219 a year, and at sixteen years from £255 a year to £310—no small benefit.

FLEET SURGEON writes: In the BRITISH MEDICAL JOURNAL of April 26th, under the above heading, appears a letter from "A Naval M.O.," in six paragraphs. I quote the latter half of Paragraph 6:

"As regards promotion to staff surgeon at the end of eight years instead of twelve, and earlier promotion to fleet surgeon, I imagine very few care, as relative rank is a recognized myth, and it makes little or no difference to us whether the midshipman or clerk of our earlier days has passed us in the race for stripes."

The reasoning in the quoted paragraph depends on the assumption that relative rank is a recognized myth. Relative rank is the only rank possessed by civil officers—including the medical officers—in the Royal Navy. It is by no means a myth, but carries various privileges, some of which are of a sentimental nature—that is, such things as precedence, salutes, firing parties at funerals, etc.—which for the purpose of this letter may be disregarded. Others are of a substantial nature, and I need but instance one to show that relative rank is no myth. An officer's widow's pension and the compassionate allowances to his children depends on his relative rank on the active list; even the step of rank given on retirement—though it does not increase the widow's pension *per se*—does so should the husband be called out to serve in that rank and die while so serving; and in any case the step on retirement allows the widow to enjoy a higher private income, should she have it, under the "confidential scale," without forfeiting her pension. Other material benefits appertaining to relative rank are lodging allowances, eligibility of children for service cadetships (other requirements being fulfilled), eligibility of officer for C.B., etc. I leave your readers to judge whether this does not reasonably show that relative rank is no myth, and, if so, whether the contention based on that assumption is not fallacious.

I contend that naval medical officers desire earlier relative rank of major and lieutenant-colonel, in order to put them on an equality with the officers with whom they pass their lives, who get it earlier. At present the naval doctor, as regards rank, is more on a par with his military brother than with other naval officers.

The military medico has, age for age, the same rank as the officer he mixes with; but in the naval service these same ranks are obtained at an earlier age than in the army—for example, the naval subaltern ranks as lieutenant, the naval lieutenant as captain, and after eight years' seniority as major, and so on. The naval doctor therefore thinks he should be the same. Indeed, the principle is acknowledged, and the concession is granted during the first three years and a-half of his service; for he then ranks as captain, the army doctor being lieutenant. The army and navy doctors then run level till fleet surgeon's rank is reached, when the army doctor becomes lieutenant-colonel, and the naval one "lieutenant-colonel, but junior of that rank"—that is, the most junior lieutenant-colonel R.A.M.C. has precedence over the most senior fleet surgeon. Briefly, the naval doctor says, Give me the market value of my services as pay, and for my rank the same as my brother naval officers of the same age. Surely not an unreasonable request.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON I. H. ANDERSON, M.D., has been placed on the retired list, with the honorary rank of Deputy Inspector-General, April 23rd. He was appointed Surgeon, September 30th, 1871; Staff Surgeon, September 30th, 1883; and Fleet Surgeon, May 19th, 1892. He was Surgeon of the *Sphinx* during the Egyptian war in 1882 (medal and Khedive's bronze star), and during the operations near Suakin in 1884 (clasp). He "received the expression of their Lordships' approval for services rendered at the Cape of Good Hope Hospital during the fever which occurred after the Benin expedition."

Staff Surgeon W. J. MAILLARD, M.D., V.C., has been placed on the retired list, April 7th. He was appointed Surgeon, August 22nd, 1880, and Staff Surgeon, June 2nd, 1899. Dr Maillard was awarded the Victoria Cross for his conspicuous bravery during the outbreak at Candia on September 6th, 1898, as recorded: "During the landing of seamen from H.M.S. *Hazard*, Surgeon Maillard, who had disembarked and reached a place of safety, returned through a perfect deluge of bullets to the boat, and endeavoured to bring into safety Arthur Stroud, ordinary seaman, who had fallen back wounded into the boat as the other men jumped ashore. Surgeon Maillard failed to bring Stroud in only through the boat being adrift, and it being beyond his strength to lift the man (who was almost dead) out of so unstable a platform. Surgeon Maillard returned to his post with his clothes riddled with bullets, though he himself was unhurt." He was specially promoted to Staff Surgeon, June 2nd, 1899, for distinguished service.

The following appointments have been made at the Admiralty: GEORGE T. COLLINGWOOD, Staff Surgeon, to the *Sutlej*, May 9th; E. T. P. JAMES, Surgeon, to the *Jupiter*, May 1st; MATTHEW J. O'REGAN, M.B., Surgeon, to the *Seas Patrol*, May 8th; GEORGE S. SMITH, Fleet Surgeon, to the *Pembroke*, for Deptford Yard, temporary, May 5th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL C. MACD. CUFFE, C.B., is placed on retired pay, April 12th. His commissions are thus dated: Assistant Surgeon, September 30th, 1863; Surgeon, March 1st, 1873; Surgeon-Major, April 7th, 1880; Brigade Surgeon, September 1st, 1888; Surgeon-Colonel, July 7th, 1891; and Surgeon-Major-General, November 20th, 1896. He was in the South African war in 1877-79, including the operations against the Galekas and the Zulu war, being present at the battle of Ulundi (mentioned in dispatches, made C.B., and granted medal with clasp). He was also with the Burmese expedition in 1887-88 (medal with clasp).

Major T. MCCULLOCH, M.B., Royal Army Medical Corps, is appointed Deputy Assistant Director General, *vice* Major W. G. Macpherson, M.B., whose period of service in that appointment has expired, May 1st.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL R. H. QUILL, M.B., is promoted to be Colonel, *vice* R. C. Eaton, deceased, March 19th. Colonel Quill was appointed Assistant Surgeon, March 30th, 1872; Surgeon, May 1st, 1880; Surgeon-Major, March 7th, 1894; granted the rank of Lieutenant-Colonel March 30th, 1892; and made Brigade-Surgeon Lieutenant-Colonel, June 20th, 1896. He served in the Afghan war in 1879-80 in the Kuram Valley with the Royal Artillery, and had medical charge of the Depot Field Hospital during the Waziristan expedition (medal).

Captain F. SMITH, D.S.O., is promoted to be Major, March 29th, his first commission being dated March 30th, 1895. His war record has been the South African war in 1901, medal with clasp; the Boer war of 1881, the operations in Sierra Leone in 1898-99, including the Mendeland and Protectorate expeditions (medal with clasp); and the current South African war, for which he has been mentioned in dispatches and granted the Companionship of the Distinguished Service Order.

Lieutenant-Colonel R. DRURY, M.D., retires on retired pay on account of ill-health, May 3rd. He entered the service as Assistant Surgeon, September 30th, 1871; became Surgeon, March 1st, 1883; Surgeon-Major, September 30th, 1891; and Surgeon-Lieutenant-Colonel, September 30th, 1897. He served in the Zulu war in 1879, including the operations against Sekukuni (medal with clasp), and in the Boer war in 1881.

Colonel W. E. SAUNDERS, C.B., on being relieved of his duties as Principal Medical Officer, Mandalay District, is appointed Principal Medical Officer, Poona District.

INDIAN MEDICAL SERVICE.

THE undermentioned Majors, having completed twenty years' full pay service, are promoted to be Lieutenant-Colonels from April 1st: *Bengal*—R. H. CHARLES, M.D.; G. DUNCAN, M.B.; W. A. SYMES, M.B., D.S.O. *Madras*—E. W. REILLY, J. SCOTT, M.B. *Bombay*—R. W. S. LYONS, M.D.; J. P. BARRY, M.D.; A. V. ANDERSON, M.B.

The undermentioned Captains, having completed twelve years' full pay service, are promoted to be Majors from March 31st: *Bengal*—A. J. MACNAB, H. SMITH, M.D.; C. N. C. WIMBERLEY, M.B.; E. W. HOPE, M.B. *Madras*—W. D. SUTHERLAND, M.B.; P. C. WHITE, M.B.; E. H. WATCHE; W. MOLESWORTH, M.B.; C. F. FEARNSIDE, M.B.; C. A. JOHNSTON, M.B.; G. GIFFARD. *Bombay*—J. JACKSON, M.B.; A. STREET, M.B.; J. B. JAMESON, M.B.

The undermentioned probationers for the Indian Medical Service, having completed a course of instruction at the Army Medical School and being reported qualified, have been appointed Lieutenants, dated January 29th, the day on which they passed out of the Army Medical School: A. E. J. LISTER, Punjab; T. S. B. WILLIAMS, Punjab; S. H. L. ABBOTT, Punjab; A. W. GREIG, Bengal; R. E. LLOYD, Bengal; J. E. CLEMENTS, Bengal; H. B. STEEN, Bengal; E. BISSET, Punjab; R. J. BRAILEY, Punjab; J. WOODS, Punjab; A. W. OVERBECK WRIGHT, Bengal; D. MUNRO, Punjab; E. A. LOCH, Punjab; T. W. HARLEY, Madras; W. J. MCCOY, Punjab; E. L. HAGGER, Bombay; R. M. CAMPER, Bombay; R. D. WILLCOCKS, Madras; T. G. F. PATTESON, Bombay; D. G. R. S. BAKER, Bombay; J. R. J. TARRELL, Madras; D. G. RAI, Madras; R. M. BALROW, Bombay; W. R. J. SCROGGIE, Madras; L. P. FARRELL, Bombay.

PAY OF LIEUTENANT-COLONELS, INDIAN MEDICAL SERVICE.

EYEMES writes: In a late editorial comment you stated "there must be comparatively few lieutenant-colonels, I.M.S., drawing bare regimental pay." That is true, in so far that most are in civil employ; but even then their pay contrasts badly with lieutenant-colonels, Indian Staff Corps, commanding infantry regiments, and with officers of similar standing and service in other branches. In the Presidency town of Bombay there are six lieutenant-colonels, I.M.S., on the Civil List, drawing on an average Rs.1,233 per month, eleven as civil surgeons drawing Rs.1,134 per month; three in the Sanitary Branch drawing on an average Rs.1,[illegible] per month, exclusive of travelling allowances. The average, then, of these lieutenant-colonels, I.M.S., is Rs.1,[illegible] per month, or Rs.[illegible] less than that of a lieutenant-colonel, Staff Corps, commanding an infantry regiment, who, besides, frequently draws extra pay for station command.

In the Bombay Presidency there are only five first-class civil surgeoncies, the holders of which draw just Rs.50 more than a regimental lieutenant-colonel, I.M.S.; while all the rest are second class, and the holders draw on an average Rs.[illegible] less than the regimental lieutenant-colonel. Of 20 second class civil surgeoncies held by commissioned officers the average extra pay is only Rs.95 per month.

Compare these rates with those which pertain to other civil branches. The Indian Civil service officer of over 20 years never draws less than Rs.2,250 per month, and many very much more; in this branch officers of six and seven years' service draw the pay of a lieutenant-colonel, I.M.S., of 20 years. Police officers of 7 years' service average Rs.1,[illegible], with travelling allowances. Public works officers of the same standing draw similar pay. The new Veterinary Civil Service commence on Rs.[illegible]; the Indian Medical Service officer on Rs.[illegible]. Comment is unnecessary.

IMPERIAL YEOMANRY IN SOUTH AFRICA.

TEMPORARY CAPTAIN A. C. OLIVER, Medical Officer 24th Battalion, resigns his commission, and is granted the honorary rank of Captain, retaining his uniform April 30th.

IMPERIAL YEOMANRY.

SURGEON LIEUTENANT SIR F. TREVES, K.C.V.O., C.B., Suffolk (the Duke of York's Own Loyal Suffolk Hussars), resigns his commission, May 7th

VOLUNTEER GARRISON ARTILLERY.

SURGEON-LIEUTENANT T. H. THOMSON, M.D., 1st Argyll and Bute, is promoted to be Surgeon-Captain, May 7th.

The resignation of Surgeon-Lieutenant H. W. WEBBER, M.D., 2nd Devonshire, which was announced in the *London Gazette* of April 22nd, is cancelled.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE second annual dinner of the Volunteer Ambulance School of Instruction took place at the Trocadero Restaurant, London, on May 7th. Brigade-Surgeon-Lieutenant-Colonel P. B. Giles, V.D., F.R.C.S., who was in the chair, said that the school had held its first dinner a year ago to welcome back Major Sleman and Captain Ryan from South Africa. That dinner had been so successful that it had been determined to make it an annual event, and in responding to the toast of "The School," which was given by Leutenant F. W. Marlow, Canadian Army Medical Corps, Colonel Giles said that it had passed 498 medical officers and nearly 4,000 men. How many of its former pupils had served in South Africa he was unable to state, but he could say that eight medical officers and three non-commissioned officers and men had been mentioned in dispatches. The Chairman also gave the toast of "The Royal Army Medical Corps," which was acknowledged by Colonel Gubbins, Principal Medical Officer of the Home District, who expressed his great interest in the work of the school and in the Volunteer medical department. The toast of "The Advisory Board" was proposed by Surgeon-Major W. Culver-James, who said that he had little acquaintance with the duties of the Board, and passed on to review the lessons of the war, and to discuss the defence of the empire. He concluded by coupling with the toast the name of Dr. James Galloway, who, in response, said that the Advisory Board had come in for a good deal of criticism, and with regard to himself he had been astonished to see it asserted that he was not a Scotchman. For his own part, he had looked upon the invitation to join the Board in the light of a command. The Board would do its best to render useful service, and would be glad to receive suggestions from more competent bodies, such as the Volunteer Ambulance School of Instruction.

THE VOLUNTEER MEDICAL ASSOCIATION.

THE annual competition for the Ambulance Challenge Shield of the Volunteer Medical Association will take place at Wellington Barracks, London, on Saturday, June 7th, at 3 p.m. Copies of a circular giving the conditions of the competition has been posted to the officer commanding every Volunteer unit in the United Kingdom, and further particulars can be obtained on application to the Honorary Secretary of the Association, Surgeon-Major J. J. de Zouche Marshall, Shortwood, Teddington, S.W.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Major H. E. Winter	1	1	0
Lieutenant and Quartermaster G. A. Sellex ...	0	10	6
Captain F. W. Begbie	1	1	0
Brigade-Surgeon-Lieutenant-Colonel W. Creyk ...	1	1	0
Lieutenant L. Wood	1	0	0
Previously acknowledged in the BRITISH MEDICAL JOURNAL of April 26th	76	13	6
Total ...	£81	6	6

AN ACKNOWLEDGEMENT.

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from Sir W. Broadbent, Bart., Mrs. J. de Pass, Mrs. Parlonte, Miss Clibborn, Dr. J. St. G. Whitty, Mr. J. H. Morgan, Dr. G. Brown, Mr. W. H. Meredith, Deputy Surgeon-General Sinclair, and the following officers R.A.M.C.: Colonels Blood, Mathurin, and O'Connell; Lieutenant Colonels W. Johnston, E. A. Roe, J. Martin, H. A. H. Charlton, S. K. Ray, M. W. Kerin, R. W. Mapleton, A. Asbury; Majors G. E. Moffet, S. F. Alexander; and Captain P. H. Whiston.

The fund now amounts to £61.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Garden Terrace, W.

THE SURGEON-GENERAL OF THE UNITED STATES ARMY.

ON June 7th, 1899, the American Medical Association approved the following resolution:

"Whereas, the position of Surgeon-General of the United States Army involves great and grave responsibility, the direction of vast interests, the highest order of professional skill and learning, and executive ability; and whereas, the number of officers and soldiers under the direction of the Surgeon-General in an army organized as is the army of the United States is greater than the command of a division commander, Be it resolved.....That it is the sense of this body that the Surgeon-General of the army should have the rank, pay and allowances of a Major-General."

In accordance with this resolution a Bill has been submitted to Congress as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the President of the United States is hereby authorized to select one from the medical officers of the army who have served forty-one years or more, nine years of which as Surgeon-General, and, by and with the advice and consent of the Senate, appoint him a major-general of the United States army, for the purpose of placing him on the retired list."

This applies to Surgeon-General Sternberg, and is signed by Dr. H. L. E. Johnson of Washington, Dr. William H. Welch of Baltimore, and Dr. William L. Rodman of Philadelphia.

THE UNITED STATES ARMY MEDICAL SCHOOL.

ON April 4th the closing exercises of the United States Army Medical School for the session of 1901-1902 took place at the National Museum, Washington. Diplomas were presented to the twenty-three graduating medical officers by the Secretary of War, and addresses were delivered by Lieutenant-General Miles, head of the army, and Surgeon-General Sternberg, the founder of the school. Immediately after graduation the young medical officers of the class left for the Philippines, to which they have been ordered for duty. The course at the Army Medical School extends over a period of five months, and is so planned as to supplement the usual course of instruction given at the medical schools. The course comprises military hygiene, military medicine, military surgery, sanitary chemistry, and sanitary microscopy. Much attention is given to instruction in the special duties of army medical officers, hospital management, and first-aid and transportation of the wounded. A full course of lessons on military law is also given. On graduation (says the *Boston Medical and Surgical Journal*) the newly-appointed assistant surgeon is well qualified to undertake his new duties, many of which, from the nature of military service, are quite dissimilar from those of a practitioner in civil life, but which are, nevertheless, of the highest importance. It is in the prevention of disease that the army surgeon finds his field of greatest opportunity, and this is a subject which is, unfortunately, practically ignored by the majority of medical schools in the United States.

THE MEDICAL SERVICE OF THE RUSSIAN ARMY.

SOME time ago the Russian Minister of War announced at a meeting of the Academy of Military Medicine, St. Petersburg, that the Czar had decided to grant an increase of pay to all the medical officers of his army. The concession was made all the more gracious by the fact that by way of solatium for the necessary delay in giving official effect to the measure a sum equivalent to two months' pay was promised to each officer.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CHEMISTS AND PRESCRIPTIONS.

WE have received a further communication from the correspondent whose inquiry on this subject was published in the BRITISH MEDICAL JOURNAL of September 7th, 1901, p. 685. So far as we have been able to ascertain, the question of the property in a prescription given to a patient has never been authoritatively decided by a court of law. It seems probable, however, that the court would hold that, in the absence of any special stipulation by the prescriber, the prescription paper became the property of the patient.

THE CASE OF MR. C. A. BYNOE.

A MEMBER writes: It was with feelings of much satisfaction that I read your remarks in the BRITISH MEDICAL JOURNAL of April 26th, p. 1060, on the above case. That a grave injustice has been done to a member of our profession there can be room for little doubt. To my mind this is clearly shown by the repeated efforts of Mr. Bynoe in endeavouring to establish his innocence, and whenever he has attacked his maligners he has been met with "legal quibbles," and that, sir, in a country which boasts of its methods of justice. The very fact of the "honourable" Bank of England shielding itself behind a "legal quibble" should satisfy any reasonable individual that the Bank officials are satisfied, the evidence of their clerk (solely on which Mr. Bynoe was convicted) was false. However, sir, the question that concerns us as members of an honourable profession is the application of Mr. Bynoe to the General Medical Council to have his name restored to the *Medical Register*. It is clear, taking into consideration all the facts of this case, the Council would be more than justified in restoring his name. In doing this the Council would be fulfilling the traditions of the "noble profession," and the contrast between that "honourable body" and a more money-making concern as the Bank of England (which, for fear of being "mulct" in a few paltry pounds, is satisfied to cloak itself with a garment of legal injustice), would be strongly marked.

MEDICAL FEES AT INQUESTS.

L.R.C.S., L.R.C.P. writes to ask whether, under the circumstances he states, he is entitled to receive a fee for *post-mortem* examination and giving evidence in the coroner's court? It appears that our correspondent acted as *locum tenens* for the honorary medical officer of a local borough hospital, and in that capacity attended a woman who died

there the day before the *locum tenency* ended. It was after the termination of these duties that the coroner ordered the *post-mortem* examination to be made, and our correspondent, who had to travel six miles, was informed by the coroner after the termination of the inquest that, under the Act of Parliament which provides for the payment of medical witnesses, no fees could be allowed. The Act referred to states that, when an inquest is held on the body of a person who has died in a public hospital, the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution shall not be entitled to any fee or remuneration.

*** Whilst sympathising with our correspondent under the circumstances he has mentioned, we are afraid that he could not legally obtain the fees in the case in question, as it would be presumable that acting as *locum tenens* he must be prepared to accept and carry out all the duties and obligations undertaken by his employer or the medical man for whom he was acting: and although he had resigned his position when he received the coroner's order, yet that order had reference only to matters that occurred when the duties of his *locum tenency* were obligatory upon him. All medical fees at the coroner's court are paid under statute law, and the interpretation of the clause referred to above has frequently caused dispute, so much so that a Subcommittee of the Parliamentary Bills Committee of the Association has already drafted a Bill with a view to the amendment of the law on this subject.

A HOLIDAY ENGAGEMENT.

A COLONIAL correspondent sends the following query: A. takes a year's holiday. B. manages his practice (yielding £1,000 a year) during the time, and devotes himself heart and soul to it. B.'s wife doing the housekeeping during the time. What would be a fair remuneration for the services of B. and his wife?

*** This should be a matter for arrangement between the parties, and it is difficult to express any opinion. As a suggestion, it may be said that a fair remuneration for B. would be about £200. A claim could hardly be made for B.'s wife, as it may be a convenience for B. that she should reside with him, and she presumably receives her board and lodging free. If, however, she has any special duties to perform, there should be a contract between herself and A.

OBITUARY.

HENRY RENDU, M.D.,

Physician to the Necker Hospital, Paris.

DR. RENDU, one of the leading clinicians of Paris, who died recently in the fifty-eighth year of his age, was born in Paris in 1844. He came of an academic and artistic stock. One of his grandduncles was Grand Master of the University of France: his father was Inspector of Agriculture, and his mother was the daughter of a distinguished painter. He was at first intended to follow in the footsteps of his father, and with that view he studied for two years in the Agronomic School at Rennes, where he acquired a taste for physical science, especially geology and botany. At this early period of his life he produced an important work on the tertiary strata of the neighbourhood of Rennes. This gained for him the degree of Doctor of Science, but it is characteristic of the man that the fact was unknown to most of his colleagues. His taste for botany lasted throughout his life: he spent his holidays perambulating France in search of plants. He was the possessor of one of the finest collections in existence: begun by his grandfather and continued by his father it was largely added to by himself. From his mother he inherited a fine taste for art.

Turning to the study of medicine he became *externe* of the Paris hospitals in 1867, and won the third place on the list of *internes* in 1868, and the gold medal of the Internat in 1872. He took his doctor's degree in 1873, the subject of his thesis being the paralyses connected with tuberculous meningitis. The thesis was largely founded on personal observations, and is said to be the first systematic work on the subject. In 1877 he became a hospital physician, and he won the position of *professeur agrégé* in the following year. At the time of his death he was Physician to the Hôpital Necker. In 1897 he was received among the elect, becoming a member of the Académie de Médecine.

Dr. Rendu contributed much to medical literature, his total output amounting to more than a hundred publications. He collaborated with Potain in the article on the heart in the *Dictionnaire Encyclopédique des Sciences Médicales*, to which he also contributed the article on the liver. In 1897 he was awarded a prize by the Académie de Médecine for a monograph on the reciprocal influence of diseases of the heart and the liver. Of his other writings the principal is a course of *Clinical Lectures* in two volumes.

Though his practice was very large he found time to take an active part in the work of the Académie de Médecine and to discharge the duties of General Secretary of the Société Médicale des Hôpitaux de Paris, of which he was the animating spirit. He had the strictest sense of duty, doing whatever work he had to do with his might. The integrity of his character, together with his vast professional knowledge and his success as a teacher won for him the respect of all his brethren. He never stooped to ask for distinctions to which he was well entitled; he loved his work, and led a simple life with his family and a few chosen friends. When the Chair of Pathology was offered to him after the death of Hanot he refused it lest it might interfere with the clinical work to which he was devoted.

He was faithful throughout life to his religious convictions, combining with the largest tolerance an inflexible fidelity to his own principles. In obedience to his expressed wish no funeral orations were delivered over his grave, but there was a very large attendance of professional colleagues, pupils, and friends at his obsequies, which were held in the Church of St. Thomas Aquinas.

IT is with regret that we announce the death of Dr. JOHN DAVIES, of Maesteg, Glamorganshire, on April 13th. He was born in Cardiganshire, and educated at the Cardiganshire grammar schools and Carmarthen College: he received his medical education at Glasgow. In 1866 he obtained the degree of M.B., C.M., and in 1870 the M.D. degree of that University. Dr. Davies was then for some time Resident Surgeon to the Denbigh General Infirmary. He subsequently settled in Glamorganshire, where he became chief Surgeon to the Maesteg Iron Works, and, when that was taken over by North's Navigation Company, he became Surgeon to their workmen. He also held the appointment of Medical Officer for the Maesteg district of the Penybont Poor-law Union. Dr. Davies also took an active part in political and social movements of his district. He established the Mid-Glamorgan Liberal Association, and was its first president. He was also a member of the first Glamorgan County Council, and subsequently an Alderman, a position which held for nine years. His death, which was rather sudden, occurred in his 63rd year. Dr. Davies was well known and highly respected in his neighbourhood.

WE have to announce the death, on April 18th, of Dr. JOHN MAJOR COLEMAN, one of the oldest practitioners in Wolverhampton, and a member of the Staffordshire and Birmingham and Midland Branches of the British Medical Association. He obtained the diploma of M.R.C.S.Eng., in 1853, that of L.S.A. in 1855, and the degree of M.D.St.And. in the same year. After entering the profession he joined his father in an old-established practice, which he carried on in conjunction with his father until the latter's death in 1871. The late Dr. Coleman had a large practice including many of the county families. He was a sound and able practitioner, and kept himself well acquainted with modern methods. He was the trusted friend of his patients, by whom he was held in high esteem. His life was reserved and unobtrusive, and he took but little part in public affairs; some thirty years ago he served one term of office on the Board of Guardians, and more recently he became a member of the Town Council but did not seek re-election, as he found the duties made too great a call upon his time. He leaves a daughter and three sons, two of whom are members of the medical profession, the eldest being Dr. E. Hayland Coleman, of Wolverhampton.

DR. WILLIAM D. MIDDLETON, Professor of Surgery and Dean of the Medical Faculty of the State University of Iowa, and Surgeon-in-Chief of the Chicago, Rock Island, and Pacific Railway, died at his home in Davenport, Iowa, on April 5th, from acute septicaemia following a wound received while operating on a woman suffering from peritonitis, possibly of streptococcus origin. The operation was performed on March 30th. It is supposed that while tying an artery Dr. Middleton abraded the thumb of his left hand.

The next day he was seized with a rigor, which was immediately followed by intense oppression over the chest and high fever. There was no local affection until the fifth day, when the arm became oedematous, and was incised. Dr. H. W. Braunlich, who assisted him in the operation suffered from similar symptoms, and according to the *Journal of the American Medical Association* of April 12th, was not then expected to recover.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Arm. Janssens, President of the Provincial Medical Council of Antwerp, aged 53; Professor Giuseppe dalle Ore, Surgeon-in-Chief to the Ospedale Maggiore, Milan, and author of a monograph on diseases of the kidneys; Dr. R. M. Bruzelius, sometime Professor of Pathology and Therapeutics at Stockholm; Dr. Julius Bruck, Professor of Dental Surgery in the University of Breslau, aged 61; and Dr. Theodor Roempler, Director of the Goerbersdorf Sanatorium founded by him in 1875, and author of works on chronic pulmonary phthisis and the treatment of consumption at high altitudes.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Examiners.—Dr. D. MacAlister and Mr. Mansell Moullin have been appointed additional examiners in Medicine and Surgery respectively.

Degrees.—At the Congregation on April 24th the following degrees were conferred:—*M.D.*: H. B. Roderick, Emmanuel, and A. C. Jordan, Sidney. *M.B.*: F. H. M. A. Beckett, Selwyn.

Examination in Sanitary Science.—The following candidates have satisfied the examiners in both parts of the examination, and have obtained the diploma in Public Health:

G. H. S. Blackburne, J. A. H. Brincker, M.B., B.C. Joh.; I. A. Davidson, M. A. Ghany, H. A. J. Gidney, R. W. Gray, G. Haddow, J. R. Higson, J. Hunter, Alice Neville Vowe Johnson, P. W. Kent, S. T. Lewis, M.B., B.C. Joh.; W. J. Lindsay, M.B., B.C., Sid. Suss.; J. MacD. McCarthy, M.B., B.C., Non. Coll.; T. J. McDonogh, A. W. J. MacFadden, R. G. Murray, B. A. Nicol, E. J. O'Meara, D. D. Pandya, R. F. Rand, J. H. Rankin, F. Sanger, Joh.; W. C. P. Smith, Down.; G. Sowden, J. R. Watson, W. M. Willoughby, M.B., B.C., Gonv. and Cai.

Third Examination for Medical and Surgical Degrees.—The following candidates have satisfied the examiners in the subjects undernoted:

Part I.—H. W. Atkinson, M.A., Cai.; E. A. A. Beck, M.A., Cla.; W. V. Braddon, B.A., Trin. H.; W. H. Bradley, B.A., Queens'; W. F. Buckle, B.A., Cai.; H. N. Burroughes, B.A., Trin.; R. Butterworth, B.A., Christ's; J. G. Cooper, Trin.; H. A. Cutler, B.A., Cla.; H. B. Dale, B.A., Trin.; J. F. H. Dally, B.A., Joh.; R. S. Drew, B.A., Pemb.; G. G. Ellett, B.A., Cath.; E. A. Ellis, B.A., Down.; W. H. Fisher, B.A., Emm.; J. E. Frere, B.A., Pemb.; J. D. H. Freshwater, M.A., Trin.; H. L. Gould, B.A., Trin.; C. H. Gregory, B.A., Emm.; T. Guthrie, B.A., Kings'; C. F. Haedke, B.A., Queens'; W. L. Harnett, B.A., Joh.; E. T. Harris, B.A., Christ's; D. Holroyde, B.A., Trin.; W. W. Holtzmann, B.A., Christ's; C. R. Howard, B.A., Pemb.; B. Hudson, B.A., Cla.; K. H. A. Kellie, B.A., Cai.; F. S. Kidd, B.A., Trin.; P. W. Leatham, B.A., Cla.; H. D. Ledward, B.A., Trin. T. W. Mercer, B.A., Clare; H. D. Ledward, B.A., Trin. H.; J. E. W. Beckett, B.A., Kings'; T. St. Clair Smith, B.A., Trin. H.; J. E. Spicer, B.A., Trin. H.; H. Statham, B.A., Christ's; J. M. Stenhouse, B.A., Sid. Suss.; W. M. Strong, M.A., Trin.; W. B. Swete Evans, B.A., Cla.; Sid. Suss.; W. M. Strong, M.A., Trin.; W. B. Swete Evans, B.A., Cla.; [illegible] B.A., Christ's; J. M. Twentyman, B.A., Christ's; H. H. Thompson, B.A., Christ's; J. M. Twentyman, B.A., Christ's; H. Waller, B.A., Sid. Suss.; F. Whitaker, B.A., Trin.; J. H. F. Widgress, B.A., H. selw.; C. R. Worthington, B.A., Cai.; G. A. Wright, Christ's.

Part II (Medicine).—J. F. Alexander, B.A., Trin.; J. A. Andrews, B.A., Joh.; G. F. Barham, B.A., Cai.; B. L. T. Barnett, M.A., Joh.; J. Barnicot, B.A., Pemb.; J. M. Bennion, B.A., Joh.; L. Bousfield, B.A., Pemb.; A. S. Bradley, B.A., Cai.; H. C. Brown, B.A.; Emm.; H. S. D. Browne, B.A., Trin.; C. V. Bulstrode, B.A., Trin.; H. O. Butler, B.A., Emm.; F. R. Carroll, B.A., Trin.; H. H. Clarke, B.A., Trin.; G. L. Cram, B.A., Cai.; A. F. Elliott, B.A., Emm.; R. L. V. Foster, M.A., Caius, B.A., Cai.; A. F. Elliott, B.A., Emm.; R. L. V. Foster, M.A., Caius, B.A., Cai.; A. F. Elliott, B.A., Emm.; R. L. V. Foster, M.A., Caius, B.A., Cai.; A. F. Elliott, B.A., Emm.; R. L. V. Foster, M.A., Kings', G. D. Freeman, B.A., Kings'; E. H. Harrison, B.A., Cla., G. P. D. Hooker, B.A., Cai.; J. P. Hedley, B.A., Kings', H. T. Hopkinson, B.A., Emm.; W. W. Jenkinson, B.A., H. selw.; E. H. Hopkinson, B.A., Emm.; W. W. Jenkinson, B.A., H. selw.; E. H. Hudson, B.A., Emm.; A. P. Laurie, B.A., Joh.; G. E. Loveday, Emm., B.A., Cai.; A. P. Laurie, B.A., Joh.; G. E. Loveday, Emm., B.A., Cai.; J. McBride, B.A., Kings'; J. C. Matthews, B.A., Down., B.A., Cai.; J. McBride, B.A., Kings'; J. C. Matthews, B.A., Down., B.A., Cai.; J. McBride, B.A., King's; C. de C. Pellier, M.A., Cla.; B. B. P. D. Nicholson, B.A., King's; C. de C. Pellier, M.A., Cla.; B. B. P. D. Nicholson, B.A., King's; C. de C. Pellier, M.A., Cla.; B. B. [illegible], B.A., Cai.; C. H. Sedgwick, B.A., Sid. Sus.; F. E. [illegible], B.A., Cai.; C. H. Sedgwick, B.A., Sid. Sus.; F. E. Tapscott, M.A., Christ's; J. Shone, B.A., Emm.; J. E. B. Smith, B.A., Cai.; E. Spearman, B.A., Cai.; H. H. Stuart, B.A., Cai.; G. E. [illegible], B.A., Emm.; E. J. Thurlow, B.A., Cai.; H. L. Wright, B.A., Joh.; G. R. Wilson, B.A., Trin.; W. W. Wynne-Finch, M.A., Trin.

Professional and Conjoint Examination.—C. Akerman, B.A., Cai.; W. Hastings, B.A., Christ's; G. G. Hirst, B.A., Cai.; C. W. P. Metcalfe, B.A., Cla.; R. N. Polgnand, B.A., Cai.; R. E. Whitting, B.A., King's; R. G. Wills, B.A., Joh.

UNIVERSITY OF DURHAM.

At the Convocation holden on Saturday, April 26th, the following degrees and diplomas were conferred:

Doctor in Medicine.—L. J. Blandford, M.B., B.S., Durham; L. S. Davison, M.B., B.S.Durham; R. H. Dix, M.B., B.S.Durham; H. A. Fielden, M.B., B.S.Durham; J. R. Fuller, M.B., B.S.Durham; E. W. Joscelyne, M.B.Durham; E. Swainston, M.B., B.S.Durham; D. H. Weir, M.B., B.S.Durham.

Doctor in Medicine for Practitioners of Fifteen Years' Standing.—E. H. Armitage, M.R.C.S., L.R.C.P., D.P.H.; C. W. J. Bell, M.R.C.S., L.R.C.P.E.; A. Bowhay, M.R.C.S., L.R.C.P., L.S.A., D.P.H.; E. J. Day, M.R.C.S., L.S.A.; A. W. Fairles, M.R.C.S.; T. F. Gardner, M.R.C.S., M.R.C.P., L.S.A.; F. C. Goodwin, M.R.C.S., L.R.C.P., D.P.H.; W. Gosse, M.R.C.S., L.R.C.P.; R. R. Hunter, M.B., M.S.Glasg., M.R.C.S.; R. J. Morris, M.R.C.S., L.R.C.P., L.S.A.; J. L. Parke, L.K.Q.C.P.I., L.F.P.S.G., L.S.A., D.P.H.; J. W. Patrick, L.R.C.P. and S.; G. F. Pollard, M.R.C.S., L.S.A.; A. T. Rimell, M.R.C.S., L.R.C.P.; J. Rogerson, L.R.C.P. and S.E., L.F.P.S.G.

Master in Surgery.—J. W. Leech, M.D., B.S., F.R.C.S.E.; W. H. Richards, M.B., B.S.

Bachelor in Medicine (M.B.) and Bachelor in Surgery (B.S.).—E. B. Appleby, College of Medicine, Newcastle-upon-Tyne; W. R. D. Daglish, College of Medicine Newcastle-upon-Tyne; Mary Evelyn De Rusett, College of Medicine, Newcastle-upon-Tyne; H. W. Furnivall, College of Medicine, Newcastle-upon-Tyne; J. A. Giles, College of Medicine, Newcastle-upon-Tyne; J. H. Graham, College of Medicine, Newcastle-upon-Tyne; I. H. S. Hawes, St. George's Hospital; K. Manson, College of Medicine, Newcastle-upon-Tyne; Lucy Selina Moloney, London School of Medicine for Women; R. W. Nevin, College of Medicine, Newcastle-upon-Tyne; A. H. Proctor, College of Medicine, Newcastle-upon-Tyne; H. Reah, College of Medicine, Newcastle upon Tyne; R. S. Renton, College of Medicine, Newcastle-upon-Tyne; H. H. Ruffmann, College of Medicine, Newcastle-upon-Tyne; G. de B. Turtle, King's College; R. T. Vaux, College of Medicine, Newcastle-upon-Tyne; M. C. Wetherell, Guy's Hospital; H. Widdas, College of Medicine, Newcastle-upon-Tyne; T. Wilson, College of Medicine, Newcastle-upon-Tyne.

Diploma in Public Health.—C. V. Dingle, M.D., B.S., B.Hy.Durh.; R. A. Dunn, M.D., B.S., D.Hy.Durh., M.R.C.S., L.R.C.P.; A. Reid, M.R.C.S., L.R.C.P.; R. Walker, M.B., B.S.Durh., M.R.C.S., L.R.C.P.

ROYAL UNIVERSITY OF IRELAND.

SECOND EXAMINATION IN MEDICINE.—The examiners have recommended that the following candidates be adjudged to have passed the above-mentioned examination:

Upper Pass.—C. Armstrong, Queen's College, Belfast; R. Chambers, LL.B., Queen's College, Belfast; R. G. G. Croly, Queen's College, Cork; W. Irwin, Queen's College, Cork; R. L. Keown, Queen's College, Belfast; O'C. Sullivan, Catholic University School of Medicine; S. M. Walsh, Catholic University School of Medicine; H. C. Watson, Queen's College, Belfast; L. Welply, Queen's College, Cork; J. Wright, Queen's College, Belfast.

The above-mentioned candidates may present themselves for the further examination for Honours.

Pass.—W. J. McL. Band, Queen's College, Belfast; C. D. Bell, Queen's College, Belfast; S. Bradbury, Queen's College, Belfast; W. A. Burke, Catholic University School of Medicine; R. G. Clements, Queen's College, Belfast; W. J. Deighan, Catholic University School of Medicine; J. Dempsey, Queen's College, Belfast; M. F. Donovan, B.A., Queen's College, Cork; W. P. Farrell, Catholic University School of Medicine; J. Flack, Queen's College, Galway; A. Hill, Queen's College, Belfast; E. J. Kavanagh, Catholic University School of Medicine; J. Kelly, Catholic University School of Medicine; G. W. Knipe, Queen's College, Belfast; J. Lilley, Queen's College, Belfast; F. A. McCammon, Queen's College, Belfast; S. McMurray, Queen's College, Belfast; E. H. M. Milligan, Queen's College, Belfast; J. P. Moore, Catholic University School of Medicine; C. O. Robb, Queen's College, Belfast; H. S. Sims, Queen's College, Cork; J. K. Thompson, Queen's College, Belfast; J. Warnock, B.A., Queen's College, Galway.

M.B., B.Ch., B.A.O. DEGREES EXAMINATION.—The examiners have recommended that the following candidates be adjudged to have passed the above mentioned examination:

Upper Pass.—*J. Armstrong, Queen's College, Belfast; *A. L. Black, B.A., Queen's College, Belfast; S. R. Hunter, B.A., Queen's College, Belfast; *W. Phillips, B.A., Queen's College, Belfast; C. F. White, Catholic University School of Medicine.

Those marked with an asterisk (*) may present themselves for the further examination for Honours.

Pass.—D. R. Campbell, B.A., Queen's College, Belfast; J. Clements, Queen's Colleges, Galway and Belfast; T. F. Heas, Queen's College, Cork; J. P. Higgins, M.A., Queen's College, Cork; J. L. Lanham, Queen's College, Cork; M. J. Macauley, Queen's College, Cork, and Catholic University School of Medicine; F. H. McCaughey, Queen's College, Belfast; E. J. McKenna, Queen's College, Cork; F. C. Mann, Queen's College, Belfast; L. T. Moore, Queen's College, Cork; W. F. O'Connor, Queen's College, Cork; P. O'Doherty, Catholic University School of Medicine; J. J. O'Hare, Catholic University School of Medicine; F. W. Stewart, B.A., Queen's College, Belfast; W. A. Stoops, B.A., Queen's College, Belfast; W. J. Thompson, Queen's College, Belfast.

CONJOINT BOARD IN IRELAND.

CANDIDATES have passed the Second and Third Professional Examinations as undernoted:

Second Professional (Old Regulations).—W. H. Bournes.

Second Professional (New Regulations).—Honours in order of merit: J. Bradley, J. J. Connolly, Miss A. M. Barry, Miss I. C. Hargrave, J. Pratt, M. Lochrin (J. C. Murphy, J. S. Sheill, equal), J. C. Heolan, E. C. Mulligan. Pass alphabetically: E. B. Bird, A. J. Bracken, G. P. A. Bracken, A. N. Crawford, C. A. Cusack, F. O'D. Fawcett, P. E. Harrison, G. A. D. Harvey, R. W. D. Leslie, T. C. C. Leslie, W. F. E.

Loughnan, T. J. O'Donnell, E. J. Phillips, J. Quirke, R. E. J. Sheridan, W. J. Sullivan. Completed the examination: P. Kinsella, T. B. Moriarty.

Third Professional.—All subjects: P. McDermott, R. C. Nicholl, J. P. Ziervogel. Completed the examination: F. H. Cooke, R. Humfrey, J. Murray, O. F. M. Ormsby, R. G. H. Oulton, F. C. Yorke.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the first examination of the Board in the subjects indicated:

Chemistry.—C. J. Aveling, University College Hospital; B. R. Billings, London Hospital; J. E. M. Boyd, St. Mary's Hospital; L. D. Ching, St. Bartholomew's Hospital; J. Clarke, Firth College, Sheffield; B. M. Collard, London Hospital; D E. S. Davies, St. Bartholomew's and King's College Hospitals; F. C. Doble, King's College Hospital; J. McD. Eckstein, St. Bartholomew's Hospital; H. R. Elliott, Firth College, Sheffield; S. F. H. Everill, Mason College, Birmingham; J. R. Foster, University College Hospital; J. T. Fox, City of London School; E. A. Gough, Yorkshire College, Leeds; W. R. Greening, Guy's Hospital; W. B. Griffin and R. L. Haines, St. Bartholomew's Hospital; H. E. Griffiths, University College, Cardiff; H. J. Hills, Guy's Hospital; H. G. Hobson, Middlesex Hospital; T. Huddleston, Mason College, Birmingham, and Birkbeck Institute; A. R. Jones, University College, Cardiff; J. I. F. Knight and H. W. Latham, London Hospital; F. E. W. Meadows and G. N. Montgomery, Middlesex Hospital; G. H. Morris, Guy's Hospital; F. W. Murray, University College, Liverpool; G K. B. Neal, Charing Cross Hospital; M. K. Nelson, Queen's College, Belfast; E. Nuttall, Owens College, Manchester; G S. Parkinson, University College, Bristol; P. G. V. Pedrick, Guy's Hospital; L. Russell, King's College Hospital; G. N. B. Sebastian, St. George's Hospital; W. F. Skinner, Firth College, Sheffield; S. Slade, Middlesex Hospital; T. L. Smith, Yorkshire College, Leeds; H. McL. Staley, Owens College, Manchester, and Manchester Technical School; G. Stone, London Hospital; A. W. Swinburne, Yorkshire College, Leeds; T. Timothy, University College, Cardiff; S. Vosper, St. Bartholomew's Hospital; H. Wales, Yorkshire College, Leeds; F. W. Walker, Owens College, Manchester; C. Weller, Birkbeck Institute; J. D. Williams, Queen's College, Belfast.

Practical Pharmacy.—A. J. Ambrose, Westminster Hospital; S. E. G. Amoore, Charing Cross Hospital; U. M. Asplen, Cambridge University, and King's College Hospital; K. D. Bell, St. Bartholomew's Hospital; J. L. Blakie, Otago University and Middlesex Hospital; G. A. Bradshaw, St. Mary's Hospital; J. Butterworth, Owens College, Manchester; P. C. V. Bent, S. C. Bowle, W. H. Bush, and J. B. Copland, Guy's Hospital; M. J. Cromie, Westminster Hospital; E. S. Ellis, St. Bartholomew's Hospital; H. L. Evans, St. Thomas's Hospital; W. T. Finlayson, St. Mary's Hospital; H. B. German and G. F. Hardy, Guy's Hospital; J. W. F. Gillies, St. Thomas's Hospital; F. R. Harris, St. Mary's Hospital; W. H. Harvey, St. Bartholomew's Hospital; D. M. Humby, Middlesex Hospital; F. D. S. Jackson and F. C. R. M. Knight, Guy's Hospital; W. W. King and R. Lecky, University College, Bristol; W. Lovell and W. T. McCowen, St. Mary's Hospital; H. P. Margetts, St. Bartholomew's Hospital; A. Mavrogordato, Oxford University and St. Thomas's Hospital; H. E. Morris, Guy's Hospital; J. Morris, St. Bartholomew's Hospital; R. Moyle, Durham University and Guy's Hospital; J. P. Nettell, London Hospital; F. Rawsthorne, Owens College, Manchester; H. Round, Mason College, Birmingham; J. D. Staley, Owens College, Manchester; A. C. Story, University College, Cardiff, and St. Mary's Hospital; M. B. Taylor, Guy's Hospital; J. Turtle, London Hospital; R. H. Williams, University College, Liverpool and Owens College, Manchester.

Elementary Biology.—C. E. H. Adam, St. Bartholomew's Hospital; C. J. Aveling and R. Barragry, University College Hospital; W. K. Beaman, Charing Cross Hospital; W. H. Bennett, Owens College, Manchester; B. R. Billings, London Hospital; W. A. J. M. Briggs, St. Thomas's Hospital; C. H. R. Bryan, Guy's Hospital; M. B. S. Button, London Hospital; C. Cecil, St. Mary's Hospital; W. W. D. Chilcott, Charing Cross Hospital; J. Clarke, Firth College, Sheffield; H. G. Cole, St. Thomas's Hospital; E. V. Connellan and P. S. Connellan, University College, Bristol; C. F. Curtis, Owens College, Manchester; G. W. M. Custance, St. Thomas's Hospital; A. Davidson, Guy's Hospital; R. M. Dennys and J. McD. Eckstein, St. Bartholomew's Hospital; H. R. Elliott, Firth College, Sheffield; J. J. W. Evans, Westminster Hospital; L. Edwards, London Hospital; J. H. Fitzgerald, Charing Cross Hospital; A. Fleming, St. Mary's Hospital; J. T. Fox, City of London College; F. H. Fuller, Municipal School of Science and Technology, Brighton; E. W. Gandy, Cambridge University and Westminster Hospital; E. S. Goss, University College, Bristol; E. A. Gough, Yorkshire College, Leeds; C. D. Graham, London Hospital; H. Granger, St. Thomas's Hospital; V. B. Green-Armytage, University College, Bristol; M. Greer, University College, Liverpool; H. M. Grey, W. B. Griffin, J. H. Gurley, R. L. Haines, St. Bartholomew's Hospital; T. Haddleston, Mason College, Birmingham; G. M. Huggins, St. Thomas's Hospital; J. G. Ivers, Owens College, Manchester; T. A. Izard, St. Bartholomew's Hospital; C. C. Keates, St. Mary's Hospital; W. R. Kilgour, St. Bartholomew's Hospital; W. H. King, University College Hospital; J. J. Louwrens, St. Mary's Hospital; H. W. Latham and O. R. McEwen, London Hospital; G. N. Montgomery and F. E. W. Meadows, Middlesex Hospital; J. L. Meynell, London Hospital; R. A. Moxon, St. Mary's Hospital; F. W. Murray, University College, Liverpool; R. H. McGillycuddy, University College, London; H. W. Nicholls, Middlesex Hospital; R. B. Nicholson, Owens College, Manchester; P. S. O'Bryen-Taylor, St. Mary's Hospital; C. M. Ockwell, Guy's Hospital; F. B. O'Dowd, Mason College, Birmingham; F. W. O'Connor, R. D. O'Connor, M. Onslow-Ford, and F. G. Page, St. Bartholomew's Hospital; H. A. Pallant, Guy's Hospital; G. S. Parkinson, University College, Bristol; F. E. L. Phillips, London Hospital; L. L. Phillips, St. Bartholomew's Hospital; C. G. Plumley, University College and Merchant Venturers College, Bristol; E. C. Pope, St. Mary's Hospital; G. A. Russell, Mason College, Birmingham; E. A. Shirvell, London Hospital; L. E. M. Smith, Charing Cross Hospital; W. H. Smith, Owens College, Manchester; F. E. Sprawson, Birkbeck Institute; G. Stone, London Hospital; A. A. Straton, St. Mary's Hospital; W. F. Sutcliffe, St. Thomas's Hospital; E. J. F. Thomas, University College, Bristol; St J. A. M. Tolhurst and H. E. B. Turner, Guy's Hospital; W. G. H. M. Verdon, University College, Cambridge; H. F. Vellacott and L. M. Waldron, London Hospital; H. Wales, Yorkshire College, Leeds; H. B. Wickham, University College, Liverpool

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

REMOVAL OF SMALL-POX PATIENTS.

QUELCH *v.* THE JUSTICES OF SURREY.—On May 2nd an application was made to the Divisional Court for a rule *nisi* for a *certiorari* to bring up the case of one W. C. Quelch, who was convicted under Section CXXIV of the Public Health Act, 1875, for obstructing the removal of a small-pox patient. Mr. Schultess Young appeared for the applicant. It appeared that on March 3rd, 1902, the justices made the necessary order, acting upon the certificate of their medical officer of health. The applicant alleged that, before making his certificate, the medical officer had taken no steps to ascertain whether there was or was not "proper accommodation" within the meaning of the section. It was stated that, as a matter of fact, the room in which the patient was lying was isolated; that he was not then suffering from, nor did he afterwards develop, small-pox. In these circumstances it was said that the order was wrong, and that the conviction should be quashed.

The Lord Chief Justice: Is there any procedure by which an *ex parte* order can be questioned?

Mr. Young: Only on the dictum of Channell, J., in Reg. *v.* Davey, 1899 2 Q. B. 301. [In this case, after deciding that, upon the hearing of a summons for obstructing the execution of an order, the validity of the order could not be questioned, his lordship said there must be a mode of questioning such orders; probably *certiorari* or *habeas corpus* would be the proper remedy.]

In the course of his judgment, the Lord Chief Justice said: I am of opinion that *certiorari* does not lie in this case. The justices made an order for removal, acting upon the sworn certificate of the medical officer, and they are entitled to do so under Section CXXIV of the Public Health Act, 1875; the very existence of the certificate implies that, in the opinion of the medical officer, there was not sufficient accommodation. It is an established practice that *certiorari* does not lie to review the decision of the magistrates when they have exercised their discretion.

Darling and Channell, JJ., concurred.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,713 births and 4,724 deaths were registered during the week ending Saturday last, May 3rd. The annual rate of mortality in these towns, which had 18.3 and 17.0 per 1,000 in the two preceding weeks, further declined last week to 16.6. The rates in the several towns ranged from 7.6 in Hornsey, 8.5 in Reading, 8.6 in King's Norton, 9.4 in Devonport, 10.3 in Walthamstow and in Derby, and 11.1 in Leyton and in Wallasey, to 22.2 in Stockton-on-Tees, 22.5 in Hanley, 22.8 in Blackburn, 23.0 in Tynemouth, 23.7 in Wigan, 24.5 in Oldham, 24.8 in Rochdale, and 25.5 in St. Helens. In London the death-rate was 15.7 per 1,000, while it averaged 17.0 in the seventy-five other large towns. The death-rate from the principal zymotic diseases in the seventy-six large towns was 1.7 per 1,000; in London this death-rate was equal to 2.0 per 1,000, while it averaged 1.5 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.4 in West Ham and in Bolton, 3.5 in South Shields, 3.6 in Rhondda, 3.7 in Bolton, 4.0 in Grimsby, and 4.5 in Barrow-in-Furness. Measles caused a death-rate of 1.2 in Northampton, 1.8 in Rhondda, 2.0 in Burton-on-Trent, 2.2 in Merthyr Tydfil, and 3.6 in Barrow-in-Furness; scarlet fever of 1.2 in Bolton and 1.7 in Wigan; whooping-cough of 1.2 in Bolton and in Newcastle, 1.3 in Aston Manor, 1.4 in Gateshead, 1.5 in South Shields, and 1.6 in West Bromwich and Grimsby; and "fever" of 1.3 in Aston Manor. The mortality from diphtheria showed no marked excess in any of the large towns. The 74 fatal cases of small-pox registered last week included 43 which belonged to London, 13 to West Ham, 2 to Tottenham, 2 to South Shields, 1 to Willesden, 1 to East Ham, 1 to Oldham, and 1 to Rhondda. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 1,431 and 1,515 at the end of the two preceding weeks, had declined again to 1,442 on Saturday, May 3rd: 250 new cases were admitted during the week, against 274, 328, and 367 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,222, against 2,146, 2,155, and 2,118 at the end of the three preceding weeks: 258 new cases were admitted during the week, against 228, 264 and 283 in the three preceding weeks.

HEALTH OF IRISH TOWNS.

THE quarterly summary of births and deaths in the Dublin registration area and in twenty-one of the principal urban districts in Ireland for the thirteen weeks ending March 29th, 1902, is given on p. 1188. Although no deaths from small-pox were registered, there were 3 cases under treatment in hospital in Dublin during the quarter. The zymotic mortality calls for little comment. Galway with 3 deaths from typhus fever is somewhat exceptional in this respect. The phthisical death-rate remains more unsatisfactory than ever before. In Dublin there were 357 deaths from this disease, exclusive of 21 occurring in institutions and

Registration for the Quarter (13 Weeks) ended Saturday, March 29th, 1902.

Towns and Districts.	Population.	Annual Rate per 1,000 Living. Births.	Deaths. All Causes.	Deaths. Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Typhus.	Whooping-cough.	Diphtheria.	Simple, Continued, and Ill-defined Fever.	Enteric Fever.	Diarrhœa—Dysentery.	Phthisis.
Total of 22 Town Districts	1,092,322	28.9	23.6	1.1	—	50	14	5	83	31	6	56	67	941
Dublin Registration Area	379,003	29.4	25.6	1.2	—	23	9	—	20	13	—	24	21	357
Urban Districts.														
Belfast	358,693	31.0	27.9	1.4	—	15	1	1	41	16	2	24	24	291
Cork	75,978	27.0	28.0	1.4	—	—	3	—	16	—	—	3	4	97
Londonderry	40,729	25.8	21.5	1.0	—	1	—	—	1	—	—	—	8	28
Limerick	38,085	27.5	20.7	0.1	—	—	—	—	—	—	—	—	1	27
Waterford	26,743	18.8	17.2	0.4	—	—	—	—	—	—	—	1	2	16
Galway	13,414	31.3	36.7	1.2	—	—	—	3	—	—	—	—	1	11
Dundalk	13,067	25.4	21.7	0.3	—	—	—	—	—	—	—	—	1	12
Drogheda	12,765	25.7	24.8	0.0	—	—	—	—	—	—	—	—	—	4
Newry...	12,587	26.4	16.8	1.0	—	—	—	—	1	—	—	1	1	3
Lurgan	11,777	31.9	23.8	0.3	—	—	—	—	—	—	1	—	—	9
Lisburn	11,459	27.2	24.1	1.0	—	—	—	—	1	—	—	1	1	6
Wexford	11,154	22.2	24.0	1.8	—	—	—	—	2	—	1	1	1	7
Ballymena	10,880	23.2	20.2	1.8	—	5	—	—	—	—	—	—	—	6
Sligo	10,862	25.8	22.8	0.4	—	—	—	—	1	—	—	—	—	5
Kilkenny	10,493	27.8	18.7	0.8	—	—	—	—	—	—	—	—	2	6
Clonmel	10,209	24.3	24.7	0.4	—	—	—	—	—	—	—	1	—	13
Portadown	10,046	22.7	21.1	0.4	—	—	1	—	—	—	—	—	—	5
Tralee...	9,812	34.2	26.5	1.6	—	—	—	1	—	1	2	—	—	8
Newtownards	9,110	27.2	26.8	—	—	—	—	—	—	—	—	—	—	14
Queenstown	7,887	29.9	19.3	3.0	—	6	—	—	—	—	—	—	—	3
Armagh	7,569	26.4	16.9	0.5	—	—	—	—	—	1	—	—	—	6

admitted from outside the area. This is a rate of 4.0 per 1,000 of the population; 285 deaths were registered during the preceding quarter. In the twenty-one provincial town districts the deaths from phthisis for the quarter were 584, equal to an annual rate of 3.3 per 1,000, whereas in the preceding quarter the rate was equal to 1.6 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 3rd, 1,042 births and 612 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.6 and 21.1 per 1,000 in the two preceding weeks, further declined last week to 18.9 per 1,000, but was 2.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15.8 in Edinburgh and in Aberdeen to 21.1 in Paisley and 23.4 in Greenock. The zymotic death-rates in these towns averaged 2.4 per 1,000, the highest rates being recorded in Greenock and Perth. The 307 deaths registered in Glasgow included 1 from small-pox, 4 from measles, 2 from diphtheria, 16 from whooping-cough, 3 from "fever," and 14 from diarrhœa. Five fatal cases of measles and 2 of whooping-cough occurred in Edinburgh: 5 from measles and 3 from diarrhœa in Dundee; and 6 from whooping-cough in Perth.

SANITARY WORKS AT BUCKINGHAM PALACE.

THE drainage and other sanitary arrangements which were carried out at Buckingham Palace by the officials of His Majesty's Office of Works a few years ago have been thoroughly inspected and tested by Professor Corfield, M.D., the Consulting Sanitary Adviser to His Majesty's Office of Works, who has reported "that the drainage arrangements have been very well planned and carried out, and reflect credit on all concerned with them." He has, however, suggested a number of improvements in the sanitary arrangements generally, the most important of which have been already carried out under his supervision and to his satisfaction. The remainder, which consist chiefly of certain rearrangements, will be carried out in the autumn.

VACCINATION IN SCOTLAND.

A CORRESPONDENT from Shetland writes to us with regard to the right of a registrar to require from a private vaccinator a certificate of vaccination instead of proceeding against the parents or guardians of the child. He states that he has refused to give such certificate to parents who have not paid his fee for performing the operation.

"*" The registrar, by the law of Scotland, has apparently no right to demand from a private vaccinator a certificate of vaccination; his duty is confined (1) to communicating with parents or guardians; and (2) reporting defaulters after six months to the parish council of his district. The parish council then instruct the public vaccinator to see that all defaulters are vaccinated; but it would seem that if a child had been vaccinated by a private practitioner, and that the public vaccinator could not therefore vaccinate, the parish council could probably call on the private practitioner to grant the necessary certificate, seeing that the public vaccinator could not perform his statutory duty, owing to the previous vaccination. The private practitioner has his remedy by suing the parent for his fee, but he could hardly be permitted to stop the course of the law regarding vaccination by obstinately refusing to give a certificate which nobody but himself could grant.

PUBLIC VACCINATION.

DR. ALBERT E. COPE, Honorary Secretary of the Public Vaccinators' Association, writes with reference to an answer published in the BRITISH MEDICAL JOURNAL of May 3rd, p. 1129, to express the opinion that if a union be divided into districts for vaccination purposes, the public vaccinator is as much limited to his own district as he is limited to his own union, and the auditor had no option in the case in point, but is obliged to strike out the cases claimed for. In view of the present outbreak of small-pox in the metropolis, the Local Government Board is allowing the guardians, upon formal application, to pay for the vaccination of those employed in a particular district, but not resident therein; this arrangement, however, is simply to afford increased facilities for vaccination during an epidemic period, and is quite exceptional.

"*" Our correspondent speaks with authority, but in some of the London boroughs the vaccination fee has been paid to the public vaccinators for any vaccinations done within the borough, irrespective of districts, and no objection has been made by the Local Government Board's auditor.

GENERALIZED VACCINIA.

M.O.H.—If it be a fact that the generalized eruption did not begin to appear until the fourth week after vaccination and nearly a fortnight after the crusts had fallen off the vaccine pocks, it is extremely unlikely that the rash was directly due to vaccination, unless, in fact, the recrudescence of the original pocks was the starting point of a generalized eruption. A recrudescence of the pocks even at the end of three or four weeks is possible, and it is conceivable, though unlikely, that a generalized vaccinia might result from them. We cannot ascertain that any similar case has been observed or put on record. Generalized vaccinia may occur under various forms, but it generally commences early. The following varieties have been recorded:

1. Spontaneous general vaccinal eruptions occurring, as a rule, between the fourth and tenth days after vaccination and due to infection through the circulatory, respiratory, or digestive systems. The pocks appear in successive crops, which may continue for three or four weeks.

2. Vaccinal eruptions generalized by auto-inoculation, scratching, etc. The pocks in these cases may continue to develop for some weeks (four to six).

3. Vaccinal eruptions generalized by some pre-existing lesion of the skin—eczema, acne, etc.

The only real test as to whether such an eruption as that described was "vaccinia" would be to show that it was capable of being disseminated like "vaccination" by intentional or accidental inoculation of other individuals.

The moral of such a case seems to be that on application to the Local Government Board an inquiry should be made into the whole circumstances, including the source of the lymph, the method of its use, the circumstances of the child, and the result of vaccination on

other children who may have been vaccinated with the same batch of lymph. It is only by such an inquiry that even an approximately correct conclusion can be drawn as to the precise parts which the several agencies at work played in the production of the eruption, or how much was due to the idiosyncrasy of the child, or some pre-existing condition, such as eczema, etc., of which in this case there is no record.

PAROCHIAL MEDICAL OFFICERS IN THE HIGHLANDS.

DR. MURCHISON (Uig, Isle of Skye) writes informing us of not a few cases of injustice that have occurred to parochial medical officers practising in the Highlands, and makes the suggestion that the letter of the Local Government Board of Scotland, published on page 1003 of the BRITISH MEDICAL JOURNAL, should be discussed by the profession, and that steps should be taken to secure the justice of an ordinary citizen for a Poor-law medical officer.

APPOINTMENT OF M.O.H.

A CORRESPONDENT asks if in a small district it might not be an advantage if, in appointing an M.O.H. who is also to have charge of the isolation hospital, he were to be precluded from practising afterwards in the same neighbourhood. He asks if such an arrangement has ever been made before.

"*" As we conceive our correspondent's idea it is either (1) that an officer debarred from future practice would more readily receive the confidence of his medical brethren, or (2) that a man who did not intend to take private practice ultimately in the same place would be less likely to have his impartiality interfered with by his regarding property-owning magnates as possible patients. While giving our correspondent credit for a desire to secure efficiency, we cannot regard the proposal with favour. Not so much from its novelty—and we believe it would be quite a new departure—as because it inflicts a permanent disability, a thing to be carefully guarded against. If a fair salary be attached to the combined office there should be no difficulty in securing the services of a young practitioner anxious to enter on the duties of a health officer. He might quite well be required to hold the D.P.H. Such a man would be more likely to look for preferment in his own special branch of State medicine than to wish to embark in private practice and if he were debarred from the latter during the term of his appointment he would, we think, sufficiently receive the support of his colleagues. Such a man as we suppose would be little tempted to yield unduly to lay pressure. Any one, however, who would tie himself up helplessly for the future is not likely to be the independent kind of man needed for an efficient health officer.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE CITY OF LONDON HOSPITAL FOR MENTAL DISEASES NEAR DARTFORD.

THE Commissioners in Lunacy, at their inspection of this institution on June 20th, 1901, wrote: "We may express unqualified praise at the condition in which we find it," and they went on to say that "the accommodation generally is very good, and on the whole suitable for the large proportion of private patients whose reception here at the moderate rate of maintenance charged, namely, 21s. per week, is an undoubted boon to the class from which they are derived." All the new buildings were completed during the year, and the new hospitals afford most excellent accommodation, while the handsome and commodious new chapel was also finished and dedicated by the Bishop of the Diocese.

At the close of the year 1901 there were 512 patients in the institution, and the total number under treatment during the twelve months was 722. The number admitted was 210, the largest number in one year since the opening of the asylum. Of these, 7 male and 4 females were suffering from general paralysis, and there are now 7 females and 0 males in residence suffering from this disease. This is a high proportion of the female sex, among whom Professor White, the medical superintendent, thinks the disease appears to be steadily increasing; he pertinently asks whether this is in consequence of the greater mental strain to which women are nowadays subjected by education, avocation, and the struggle for existence, or can it be explained by specific causation? The number of patients discharged was 148; of these, 68 were recovered, giving a percentage of recoveries calculated upon the admissions of 40.48. The death-rate stood at 11.94 per cent. of the average daily number resident.

The scheme for receiving private patients at 21s. a week had continued to be an unqualified success, and a large number (94) of this class were admitted during the year, while 21 were transferred from the rate-paid to the private class, making a total of 125. At the close of the year there were no fewer than 196 private patients in residence, an increase of 47 in twelve months.

An incident occurred in October last which cannot but create a painful impression with regard to a serious flaw in the Lunacy Act. A patient was admitted on October 26th, and she signed a request to be seen by a magistrate. On November 2nd Professor White reported to the Commissioners the patient was insane, giving his reason for his opinion. On November 5th a magistrate saw her, who in the face of four medical certificates and the entry in the casebook took upon himself to report to the Commissioners that he did not consider the patient insane. In consequence of this report she was removed by her brother on November 26th. Professor White, considering that she was not only insane but suicidal, wrote her ordinary medical attendant when she left advising him to have her watched and placed under fresh certificates. This could not be accomplished, and within less than a fortnight after her discharge she committed suicide. Professor White, in commenting upon this unfortunate case, concludes by observing: "Thus a report by a young and inexperienced magistrate outweighs the opinion of two experts—the family medical attendant who had watched the case for months, and a fourth medical man who had signed the second certificate on admission. Surely this life was sacrificed through a defect in lunacy law!"

On May 18th, 1901, all the new buildings were inspected by the Lord Mayor and Lady Mayoress, the senior Sheriff, and members of the Court of Common Council, and duly declared open. The whole extensive establishment is now lighted by electricity, and the various departments are fitted with every modern appliance.

THE METROPOLITAN HOSPITAL SATURDAY FUND.

ACCORDING to the twenty-eighth annual report of the Hospital Saturday Fund the total income for 1901 was £21,547, being an increase of £1,266 on that of 1900. The total sum distributed was £19,244, an increase of £1,540 on the previous year, and of £1,134 on any former year. Of this sum 38 general and cottage hospitals received £7,194; 63 special hospitals, £5,774; 32 dispensaries, £962; 24 convalescent homes, £1,801; and 25 miscellaneous institutions, £3,513. During the year beds had been endowed at hospitals and convalescent homes so that phthisical patients might be promptly treated under the most improved conditions. Under this scheme 71 hopeful cases of consumption received treatment. During the year 1,162 patients were sent to convalescent homes, of whom 710 were free, and 452 paid £442 towards the cost of their maintenance. Some 3,140 surgical appliances were supplied during the year, of which more than half the cost was defrayed by the recipients. The expenses of management had been under 11 per cent.

INDIA AND THE COLONIES.

NEW ZEALAND.

HYGIENE IN NEW ZEALAND.—The recently created department of Public Health in New Zealand has issued the report for 1900-1, which was submitted by their Chief Health Officer, Dr. Mason, to the Minister of Public Health. So far the department has been mainly occupied with the preliminary work of organization, the division of the colony into six districts with a special officer attached to each, the arrangement of the officers' duties, and a general consideration of the sanitary requirements which have to be met. Apparently the first difficulty is to overcome the apathetic sense of security on the part of the general public, and to make them realize the necessity of submitting to a general and co-ordinated scheme of sanitary legislation; and it is probably with a view to conciliating the lay mind that the report is written in an amusingly popular and discursive style, redundant with colloquial metaphor and allegorical illustration. Evidently Dr. Mason finds it more politic to appeal to the genial common sense of the New Zealanders than to weary them, before the work is begun, with dry details of laborious officialdom. There certainly seems to be plenty of scope for reform. Neglect of elementary principles of drainage—even in such important towns as Auckland and Dunedin, contamination of water supplies, uncleanly and insanitary methods of dealing with meat and milk, and the primitive methods of disposing of nightsoil reveal a surprisingly backward state of affairs which would justify the suggestion that in the matter of sanitation, at all events, it is the colony rather than the mother country which imperatively needs "waking up." As regards the prevention of disease, the department has not yet been long enough at work to give us much in the way of results. Dr. Mason is a strong advocate of the open air treatment of consumption, and has recommended the erection of a sanatorium for that purpose. In designing the building the arrangement of the bed rooms has been made a special feature. "The plan I suggested," he tells us, "was to arrange the corridor so that the rooms, which are movable, could be unhooked in the morning, turned round so as to expose the occupant to the sun, and yet shelter him from the wind. With grounds properly laid out, the patient could be wheeled about, and as night came on his bedroom would be taken back and hooked on the corridor again." Consumption has been included amongst the list of notifiable diseases, and the authorities have been empowered to require every landlord in whose house a person suffering from consumption has lived to have it properly disinfected before it can be relet to another tenant. Dr. Mason naturally regards this as "one of the most important weapons granted us with which to combat the spread of the disease." Part of the report is occupied with a case of plague which occurred in Auckland in June, 1900, and terminated fatally, but fortunately did not lead to the infection of any other persons. Some investigations into plague amongst rats are also described. The spread of the disease amongst these animals was generally attributed to skin parasites, and it was observed that a healthy rat could devour an animal dead of plague without apparent ill effects. The danger of the transmission of the disease to human beings by means of these parasites is obvious.

AT the annual meeting of the Royal Institution, over which Sir James Crichton-Browne presided, the report of the Committee of Visitors for the year 1901, testifying to the continued prosperity and efficient management of the institution, was read and adopted, and the report on the Davy-Faraday Research Laboratory was also presented. Sixty-three lectures and seventeen evening discourses had been delivered during the year.

AMERICAN ASSOCIATION OF UROLOGISTS. The annual meeting of the American Association of Urologists will be held at Saratoga Springs on June 13th and 14th. The officers of the Association are: Dr. Ramón Guiteras, President; Dr. William K. Otis, Vice-President; Dr. John Van der Poel, Treasurer; Dr. Ferd. C. Valentine, Secretary; and Dr. A. D. Mable, Assistant Secretary.

MEDICAL NEWS.

THE forty-second annual dinner of King's College, London, will be held at the Café Monico, London, W., on Monday, June 16th, when the chair will be taken by the Bishop of London.

A DRAMATIC entertainment in aid of the funds of the Royal Dental Hospital of London was given on May 2nd at the Queen's Gate Hall, S.W. A large audience thoroughly appreciated the efforts of those who filled the various parts in the triple bill consisting of "Opposites," by Mr. Leslie Fomm; "A Successful Failure," by Mr. Frank Stanmore; and "The House Agent's Dilemma," by Mr. G. Hyde Lees.

THE King, the *London Gazette* states, has been pleased to give and grant unto the Honourable Lennox Hannay Lindley, M.B., His Majesty's licence and authority that he may accept and wear the insignia of the First Class of the Order of the Lion and the Sun, conferred upon him by his Imperial Majesty the Shah of Persia, in recognition of his services as Physician to his Imperial Majesty.

CHELSEA CLINICAL SOCIETY.—The annual dinner of the Society will be held in the Prince's Room, Criterion Restaurant, on Thursday, May 22nd, at 7.45. Members desirous of attending and accompanied by guests are requested to inform the Hon. Secretary, Dr. Austin Cooper, 104, Buckingham Palace Road, S.W., not later than Thursday, May 15th.

THE SHAH'S PHYSICIAN.—In the BRITISH MEDICAL JOURNAL of January 11th, 1902, it was stated on the authority of the *New York Medical Journal* that Dr. M. Elezarian Randolph, said to be well known in medical circles in New York, had been appointed personal physician to the Shah of Persia. In reference to this announcement we have received a communication from Sir Hugh Adcock, C.M.G., Consulting Physician-in-Chief to H.I.M. the Shah, who states that the gentleman in question has not been appointed to any position near the Shah.

A NEW HOSPITAL FOR CHICAGO.—At a banquet recently given by the National Medical University at Chicago to the faculty and the graduates for the quarter, the announcement was made that it was proposed to build a new hospital at an estimated cost of one million dollars (£200,000). Dr. Julia Holmes Smith, Dean of the institution, presided. The new hospital is to be incorporated as the National Hospital and Sanatorium. A site overlooking Lincoln Park, valued at 2,000,000 dollars, has been selected.

SICILIAN MEDICAL CONGRESS.—The first Sicilian Medical Congress will be held at Palermo from May 29th to June 1st. Professor Cervello is the President of the Organizing Committee. The subjects proposed for discussion are Typhoid and Pseudo-typhoids (Mediterranean fever, etc.), and Renal Surgery. The former discussion will be introduced by Professor Salvatore Tomaselli of Catania, and Professor Umberto Gabbi of Messina; the latter by Professor Iginio Tansini of Palermo, and Professor Gesualdo Clementi of Catania. There will also be a discussion on the overcrowding of the medical profession in Italy, and the means of remedying the evil and generally improving the condition of practitioners.

THE THIRTEENTH INTERNATIONAL MEDICAL CONGRESS.—The Organizing Committee of the Thirteenth International Medical Congress held in Paris in 1900 recently met in order to decide what should be done with a surplus of Fr. 40,000 (£1,600) remaining in their hands. It was decided that the Academy of Medicine should be the trustee of the fund and that the interest of the capital sum should for twenty-five years be given by the Academy every three years as a prize to some one named by the international delegates at each Congress. The prize is to be called the "Prize of the Thirteenth International Congress, Paris." After twenty-five years the capital sum is to become the property of the Academy of Medicine, but the interest is to be applied in the same way. The only difference will be that the international delegates instead of themselves selecting the candidate to whom the prize is to be awarded will propose him for adoption by the Academy. Practically this will come to the same thing.

AMBULANCE FOR CRIPPLED SCHOOL CHILDREN.—The system under which crippled children of the poor who have hitherto been unable to attend school on account of their infirmity are now being conveyed to and from their special schools in horse ambulances (which have been devised and constructed by Messrs. Carter, of New Cavendish Street), has already been mentioned in the BRITISH MEDICAL JOURNAL. Some crippled children, especially those suffering from the effects of anterior poliomyelitis, are often far above the average in brightness, intelligence, and gracious character. It would seem as if in them the vulnerability of the spinal cord to certain toxins were an index of a highly-specialised nervous system, the psychical manifestations of which may be taken as no small compensation. The neat carriages which may be seen in different parts of London with their freight of handicapped little ones may well serve as an object lesson that fitness to survive does not entirely depend on thews and sinews.

THE Friday evening lecture at the Royal Institution of Great Britain on April 25th was given by Mr. Mackenzie Davidson, who gave a sketch of the steps which led to the discovery of the x rays, and warmly praised the completeness of Roentgen's investigation. He observed that the x rays took their origin at the point where the cathode stream met a solid—that is to say, at the anticathode—but as this did not stop all the stream some of it passed on till it met the glass of the tube when more x rays were produced. Radiation was thus going on from a comparatively large surface, so that a sharp shadow could not be obtained. The defect might be obviated in practical work by stopping the stray rays by surrounding the tube with an opaque substance like red lead. An additional advantage of this was that the operator was protected from the unpleasant effects which the rays were capable of producing on the skin. The lecture was illustrated by experiments, including a demonstration of Mr. Mackenzie Davidson's method of obtaining an x-ray picture in stereoscopic relief.

THE ENDOWMENT OF CANCER RESEARCH.—The writer of the letter signed "Research," which appeared in the *Times* of April 25th, has, in order to clear up doubts which have been expressed as to his conditions, stated that he will give £5,000 to the Cancer Research Fund if thirteen other sums of like amount are subscribed before the Coronation, whether by individuals, groups of members of families, firms, or corporate bodies. "Research" has no wish to limit his condition to individual subscribers alone. If his proposal is taken up, the £70,0000 required to complete the equipment of the fund will be provided without further trouble. The Rev. James Chadburn has promised £1,000 towards the endowment of an additional bed for cancer at the New Hospital for Women. The Governors of the Middlesex Hospital have received a further donation of £500 from Sir Elliott Lees, M.P., half of which sum has been allocated towards the maintenance of the inmates of the wards in the special department devoted to incurable cancer patients, and the other half to the research department established in connexion with it for investigation into the cause of cancer.

MEDICAL VACANCIES.

The following vacancies are announced:

BARBADOES GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £270 per annum, with unfurnished house. If resident in England passage paid to Barbados and (after three years' appointment) back. Applications to Mr. W. E. Sargant, School Registrar of St. Bartholomew's Hospital, by June 10th.

BIRMINGHAM GENERAL DISPENSARY.—Resident locums for two or three months. Terms 4 guineas per week, with furnished apartments. Applications to the Secretary by May 20th.

BIRMINGHAM GENERAL HOSPITAL.—(1) Resident Medical Officer. Salary, £70 per annum. (2) Two House Surgeons. Appointments for six months. Salary, £50. (3) Aural Surgeon and Laryngologist. Residence, board, and washing provided for (1) and (2). Applications to the House Governor by May 31st.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—Surgeon. Applications to the Honorary Secretary by May 15th.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum. Present Senior and Junior House Surgeons are candidates for promotion. Candidates to state whether willing to accept office of Jun or House-Surgeon at £75 per annum if present residents are promoted. Apartments, board, and attendance provided. Applications to the Chairman of the Medical Board by May 12th.

BRISTOL CITY LUNATIC ASYLUM. Medical Assistant; unmarried. Salary, £140 per annum, increasing to £160, with furnished apartments, board and washing. Applications to the Secretary by June 7th, marked "Medical Assistant," by May 1st.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second Assistant Physician. Applications to the Secretary by June 7th.

CANCER HOSPITAL, Fulham Road S.W.—Junior House Surgeon. Salary at the rate of £70 per annum with board and residence. Application to the Secretary by May 12th.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon unmarried. Salary, £60 per annum, with board and lodging. Applications to the Secretary by May 30th.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer for duty at Cleveland Street, or Hendon. Salary, £120 per annum, with board and residence at Hendon Asylum. Applications to the Clerk, Cleveland Street Asylum, Cleveland Street, W.

COLOMBO MUNICIPALITY. Medical Officer of Health. Appointment for five years, with option of re engagement. Salary, £400 for first three years, and £500 for the last two years. First class passage provided. Applications to Dr. Perry, care of British Medical Association, 429, Strand.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer; unmarried, under 3 years of age. Salary, £110 per annum, with board and lodging. Applications on forms provided, to be addressed to the Chairman of the Selection Committee by May 30th.

DOWN COUNTY INFIRMARY.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to Dr. Tate, Downpatrick, by June 5th.

DURHAM COUNTY ASYLUM, Winterton, Perry Hill.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180, with apartments, board, laundry, and attendance. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Officer for the Electrical Department. Applications to the Secretary by May 17th.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Locum tenens for about 5½ months. Four guineas a week and board. Applications to the Medical Superintendent.

GRAVESEND HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary by May 20th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £160. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HAVERSTOCK HILL AND MALDEN ROAD PROVIDENT DISPENSARY, 182, Malden Road, N.W.—Medical Officer. Applications to the Honorary Secretary by June 1s

HULL ROYAL INFIRMARY.—Casualty Officer. Salary, £60 per annum, with board and lodging. Applications to the Chairman, House Committee, by June 5th.

ISLE OF MAN LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with board, furnished quarters, and washing. Applications to Dr. Richardson.

JERUSALEM: BRITISH OPHTHALMIC HOSPITAL.—Clinical Assistant for about eight months. Salary, £100, with travelling expenses and maintenance allowance. Applications, marked "Ophthalmic Hospital," to R. Gofton-Salmond, Esq., 72, Cheapside, E.C.

KENT COUNTY ASYLUM, Barming Heath.—Fourth Assistant Medical Officer and Pathologist; unmarried, and not over 30 years of age. Salary, £175 per annum, rising to £240, with furnished quarters, etc. Applications to Dr. F. Pritchard Davies Superintendent.

KINCARDINE PARISH COUNCIL.—Resident Medical Officer and Vaccinator. Salary, £77 10s. per annum and lunacy fees. Applications to Mr. David Ross, Inspector of Poor, Ardgay, by May 23rd.

KING'S NORTON AND NORTHFIELD URBAN DISTRICT COUNCIL.—Medical Officer of Health and Medical Superintendent of the Infectious Diseases Hospital. Salary, £500 per annum. Applications, endorsed "Medical Officer of Health," to be sent to the Clerk to the Council, 10, Newhall Street, Birmingham, by May 21st.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Junior Assistant Medical Officer Initial salary, £150, with furnished apartments, board, washing, and attendance Applications to the Medical Superintendent.

LISCARD: WALLASEY DISPENSARY AND VICTORIA CENTRAL HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board, apartments, and service. Applications to Mr. Andrew Lindsay, Newbold, Liscard, by May 20th

LIVERPOOL STANLEY HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with board, residence, and washing. Applications to the Chairman, Medical Board, by May 15th.

METROPOLITAN ASYLUMS BOARD.—(1) Male Assistant Medical Officer for the Asylum at Caterham. Salary, £150 per annum. (2) Male Assistant Medical Officers (Class II.) for the fever and small-pox hospitals. Salary, £120 per annum rising to £240. Board, lodging, attendance, and washing provided in each case. Candidates must be unmarried, and not to exceed 35 years of age. Applications, for forms provided, to be sent to the offices of the Board, Embankment, E.C., for (1) by May 21st, and for (2) by May 20th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Qualified Medical Woman to take charge of Roentgen Ray Department. Applications to the Secretary by May 28th.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Assistant Medical Officer for six or seven months. Salary, £3 4s. a week, with board, lodging, and washing. Applications to the Medical Superintendent.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. Appointments for six months Junior Officer eligible for senior post. Salary at the rate of £50 per annum each, with board, residence, and washing. (3) Second Honorary Anæsthetist. Applications to the Secretary by May 26th.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried. Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

OXFORD: RADCLIFFE INFIRMARY.—(1) House-Surgeon. (2) Junior House-Surgeon. Appointment for six months. Salaries, £40 and £20 respectively, with board and lodging. Must be unmarried. Applications to Dr. Ritchie, 28, Beaumont Street, Oxford, by May 17th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Hunterian Professors. (2) Erasmus Wilson Lecturer. (3) Arris and Gale Lecturer for the ensuing year. Applications to the Secretary by June 2nd.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants. Appointments for six months. Applications to the Secretary by May 31st.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer, unmarried, and about 25 years of age. Salary, £150 per annum to commence, with board, lodging, and washing. Applications to Dr. Finch, Salisbury.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—(1) Surgeon to in-patients at the Branch Hospital, Royal Victoria and Albert Docks. (2) Honorary Anæsthetist at the Dreadnought Hospital, Greenwich. Applications to the Secretary by May 24th.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—(1) Senior House-Surgeon. Salary, £120 per annum. (2) Jun or House-Surgeon. Salary, £60 per annum. (3) Honorary Dentist. Rooms, board, and washing found for (1) and (2). Applications to the Secretary by May 24th.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by May 19th.

TOTTENHAM HOSPITAL, N.—House-Surgeon. Salary, £50 per annum, with board, residence, and laundry. Applications to the Chairman of the Joint Committee by May 12th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Second House-Surgeon unmarried. Salary, £80 per annum, with board, residence, and laundry. Applications to the Honorary Secretary

WEYMOUTH AND MELCOMBE REGIS URBAN DISTRICT COUNCIL.—Medical Officer of Health, not exceeding 45 years of age. Salary, £300 per annum Applications, endorsed "Appointment of Medical Officer of Health," to be sent to the Town Clerk, Municipal Office, Weymouth, by May 17th.

WILTS COUNTY ASYLUM, DEVIZES.—Assistant Medical Officer. Salary, £140 per annum, rising to £180, with board, residence, attendance, and washing. Applications to the Medical Superintendent by May 15th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £100 per annum each, with food, lodging and washing. Applications to the House-Governor by May 27th.

MEDICAL APPOINTMENTS.

ALEXANDER, Victor Georges, M.B., Ch.B.Edin., B.Sc., appointed Senior Medical Officer, Concentration Camp, Standerton, Transvaal.

BABA, M. Singh Sodhi, M.B., Ch.B.Edin., Junior Assistant Medical Officer, appointed Senior Assistant Medical Officer, Portsmouth Asylum, *vice* John J. Glasgow, M.R.C.S., L.R.C.P., resigned.

BERKELEY, Comyns, M.B., B.C.Cantab, M.R.C.P., appointed Lecturer on Practical Midwifery at the Middlesex Hospital.

BROWN, Major E. Harold, M.D., I.M.S., appointed Clinical Assistant to the Chelsea Hospital for Women.

CASSELLS, A. H., M.B., Ch.B.Glasg., appointed Assistant Medical Superintendent of the Sunnyside Asylum, Montrose, *vice* Dr. Campbell, resigned.

CLARKSON, Wm., L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer of Health to the Morpeth Rural District Council.

GOUGH, William, M.B., B.Sc.Lond., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Hospital for Women and Children, Leeds.

IVENS, Frances, M.B.Lond., late Clinical and Assistant Pathologist, appointed House-Surgeon to the Royal Free Hospital.

JONES, Herbert, L.R.C.S.I., D.P.H.Camb., appointed Medical Officer of Health for the Bromyard Urban District.

LENEY, Lydia, M.D.Brux., L.R.C.P.Lond., L.R.C.S.Edin., appointed Oculist in the Medical Department of the School Board for London.

MCDOUGALL, Olive, M.B.Lond., appointed House-Physician to the Royal Free Hospital.

SNAPE, Harold, M.B., Ch.B.Vict., appointed Anæsthetist to the Manchester Children's Hospital, Pendlebury.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8 p.m.—General Meeting. Election of Officers and Council for Session 1902-3. 8.30 p.m., ordinary meeting. Dr. P. Manson: The Diagnosis of Malaria from the Standpoint of the Practitioner in England.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Mr. Thomas Bryant: An Analysis of Forty-six Tabulated cases of Cancer of the Breast which have been Operated upon and Survived the Operation from Five to Thirty-two Years. Mr. Rickman J. Godlee: A Contribution to the Study of Tropical Abscess of the Liver.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Waller: The Signs of Life.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Leonard Hill: The Physiology of Respiration.

FRIDAY.

Society for the Study of Disease in Children, North Eastern Hospital for Children, Hackney Road, N.E., 5.30 p.m.—Cases and specimens by Dr. James Taylor, Mr. Douglas Drew, Dr. J. P. Parkinson, Mr. H. Curre-smith, Mr. A. B. Roxburgh, Dr. J. H. Sequeira, Mr. S. F. Rose, and Mr. Sydney Stephenson. Paper by Dr. C. Hawthorne: A Note on a case of Arthritis accompanying Ophthalmia Neonatorum.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m.—Demonstration of Selected Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, throat.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C. Tuesday, 3.30 p.m. Lecture on the Value of the Tendon-jerks and Superficial Reflexes in Diagnosis.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstration on Some Clinical Aspects of Arthritis.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

EDWARDS.—On May 6th, at Shian, Penzance, the wife of E. C. Edwards, M.D., of a son.

HOWELL.—On May 5th, at Middlesbrough-on-Tees, the wife of R. E. Howell, M.B., M.R.C.S., of a son and daughter.

PEARSON.—At 17, Alva Street, Edinburgh, on April 29th, the wife of C. Mowbray Pearson, M.B., Ch.B., of a daughter.

TURNER.—On May 2nd, at Westbury, Purley, Surrey, the wife of S. Duke Turner, M.B., B.S., D.P.H., of a daughter.

MARRIAGES.

ALFORD—CLAY.—On April 8th, at the Parish Church, Hornsey, by the Rev. Preb. J. Jeakes, M.A., assisted by the Rev. St. Clair Donaldson, M.A., Herbert Thomas Marmaduke Alford, L.R.C.P.Lond., M.R.C.S.Eng., youngest son of the late Herbert Alford of Weston-super-Mare, to Edith Violet, youngest daughter of the late Richard Clay, of Muswell Hill.

HARRIS—SCALES.—On April 23rd, at St. Mark's, Hamilton Terrace, N.W., Herbert George Harris, M.D., B.S. Durd., son of the late W. J. Harris, of Worthing, to Hilda Mary, eldest daughter of G. E. Scales, of Schleton, Cambs.

HOLROYD—WHITEHEAD.—On April 30th, at St. Oswald's Church, Collingham, by the Rev. E. T. Gwynn, B. Holroyd, M.R.C.S.Eng., L.R.C.P.Lond., of Pannal, Yorks, to Emma, second daughter of Mr. T. Whitehead, of Collingham.

PEIRCE—VAUGHAN.—On April 23rd, at the Parish Church, St. Pancras, London, by the Rev. P. Bull, M.A., Vicar of Hounslow, assisted by the Rev. D. Collins, D.D. (father of the bridegroom) and the Rev. L. Paget, Vicar, James Arthur Lowal Peirce, L.R.C.P.Lond., M.R.C.S.Eng., eldest son of Dr. James E. Peirce, J.P., Newcastle, Redditch, to Mabel, youngest daughter of the late James Vaughan, of Fitzroy Square, W.

DEATHS.

COWIE.—At Bournemouth, on May 5th, John Cowie, M.B., C.M. (of Accrington, Lancs), aged 44.

KILLICK.—Arthur Killick, B.A., M.B., B.C.Cantab., on April 21st, at Seven Kings, Ilford, aged 35.

MACPHAIL.—On Tuesday, April 22nd, 1902, at St. Andrew's Hotel, New York, Georgina Burland, wife of Andrew Macphail, B.A., M.D., C.M., M.R.C.S.Eng., L.R.C.P.Lond., Professor of Pathology, University of Bishop's College, Montreal.

STEPHENS.—On April 30th, at Lynton, N. Devon, Daniel Robert Porritt Stephens, M.B.Camb., F.R.C.S.Eng., eldest son of the late Daniel Wolcott Stephens, of Hunter we Yorkshire

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MEDICAL SUPERINTENDENT asks for information in favour of or against the use of a nasal douche with antiseptic solution as a routine form of treatment in the convalescence of scarlet fever.

DR. THOMAS INGHAM MILLS (Easingwold, Yorkshire) desires to be recommended: (1) a midwifery record book; (2) a record book for eye testing; (3) weight charts.

H. C. D. desires to hear of a home where a man, aged 35, suffering from chronic epilepsy and paralysis, and who would only be able to pay a small sum weekly, could be admitted. He also asks for advice in the treatment of nocturnal epilepsy in a man aged 30, in whom the fits recur every three or four weeks, two to three then occurring in close succession.

CHYLOUS URINE.

DR. M. R. GOODING (Bideford, North Devon) writes: May I ask any member more conversant with the subject than I am kindly to inform me if it is possible for the "filaria sanguinis hominis" to remain latent for a period of twenty-six years in the blood without giving rise to any symptoms? I have "a case" in which about four weeks ago the urine became "chylous," but not in a very marked degree. He is 47 years of age, and lived until he was 21 in the West Indies, and came to this country twenty six years ago, never having since left it. The urine is perfectly clear when passed in the morning, with only a trace of albumen. That passed for the rest of the day up to bedtime is chylous. I should be obliged for suggestions as to treatment.

INCOME-TAX.

(1) A correspondent who has reason to think that the assessor of taxes in his district does not observe the secrecy which it is understood the Income Tax Acts require asks whether, should he apply to be assessed by the special commissioners, he would be likely to incur any trouble or inconvenience which would counterbalance the advantages of greater secrecy.

(2) Another correspondent who has been charged on a larger income than he has received wishes to know whether the surveyor is correct in informing him that he can only obtain repayment for one year

*** (1) The Income-Tax Repayment Agency, 6, Chichester Road, Paddington, W., to whom the queries were submitted, state that there is no trouble or inconvenience attending an assessment by special commissioners; in fact, they recommend it in all cases where district commissioners are swayed by the surveyor or their own clerk.

(2) Repayment can only be obtained on overcharged income-tax under Schedule D for one year. See Chapman's *Income: How to get it Refunded*, pp. 25 and 26. The price of the book is 2s. 2d. post free.

ANSWERS.

COURSES ON OPHTHALMOLOGY IN VIENNA.

A. G.—We have made inquiries as to courses of ophthalmology in English at Vienna, and we are informed that Professor Elsing, of Professor Schnabel's clinic, gives such courses on external diseases of the eye and on ophthalmoscopy, and occasionally courses on refraction and on operative work. Professor Elsing is said to speak English well, and has the reputation of being an excellent teacher. We understand that Docent Dr. Sachs, of Professor Fuchs's clinic, also gives similar courses.

TYPHOID FEVER.

T. M. W.—There are a few cases on record in which there was little doubt that typhoid fever was conveyed by fomites. The following example may be quoted from the report of a Committee appointed by the Clinical Society of London to Investigate the Periods of Incubation and Contagiousness of Certain Infectious Diseases (1802): A woman died in Toronto of typhoid fever; her husband carried her soiled clothes and bedding to a village in Oxfordshire; his brother and mother sickened with typhoid fever nine and ten days respectively after his arrival, and a woman residing in another village, who had taken away some of the clothes to wash, on the fifteenth day. We may refer also to the presence of the typhoid bacillus in abscesses six or seven years after the occurrence of typhoid in the patient, and also to the case observed by Dr. Houston (BRITISH MEDICAL JOURNAL, 1800, vol. i, p. 78), in which the typhoid bacillus was present in the urine of a woman who was not known to have suffered from typhoid fever.

LETTERS, NOTES, Etc.

AN OFFER.

DR. L. M. GRIFFITHS (11, Pembroke Road, Clifton, Bristol) writes: I have a set of the *British and Foreign Medico-Chirurgical Review*, which I shall be glad to give to any medical library that would like to have it.

THE SAMPLE NUISANCE.

TEMPUS writes: Your remarks *re* the sample nuisance (BRITISH MEDICAL JOURNAL, April 12th, 1902, p. 915) are very apposite; but a greater nuisance in my experience is the traveller with drugs, instruments, books, and what-not. I do not, however, include all in my condemnation, but the "pushful" ones. These are often an intolerable nuisance. One can examine a sample or not as one chooses, or at any time that is convenient; but not so is the traveller to be dealt with. I do not at all object to one who will show me new things, and leave it to oneself to buy or order or not. But that one who will almost force me to buy, who will hardly take a refusal, is a great nuisance. I had one a short time ago of this kind who took no notice when I told him I had no time—having to catch a train—and whom I had literally to show to the door and nearly lost my train in consequence.

COMMUNICATIONS, LETTERS, ETC., have been received from:
A Dr. J. Adam, Dingwall; Dr. T. R. Atkins n, Chadwell Heath; Ajax. **B** Mr. W. M. Beaumont, Bath; Dr. H. Belcher, Hove; Mr. W. G. Bott, London; Mr. T. E. Bladon, Birmingham; Messrs. Burroughs, Wellcome, and Co., London; Mr. W. N. Berkeley, New York; Mr. F. Bochin, London; F. J. Baildon, M.B., Southport; Dr. A. Baginsky, Berlin: Barrister. **C** E. L. Collis, M.B., Stourbridge; Dr. J. R. Clemens, St. Louis; Mr. R. Corbet, Orrett; Colliery Surgeon; C. Christy, M.B., Liverpool; Mr. P. J. H. Clarke, London; Dr. H. R. Crocker, London; Mr. A. V. Crossing, Plymouth; Mrs. J. Conn, London; Mr. J. Cantlie, London; Dr. A. E. Cooper, London; Mr. T. Clarke, London; Mr. J. Chapman, London. **D** Dr. G. H. M. Dunlop, Edinburgh; Mr. C. F. Dewey, London; Mr. E. A. Duffield, Portsea; Mr. C. J. Davies, London; A. B. Dunne, M.B., Bootle; Mr. Q. B. Freitas, George Town. **E** Dr. J. Edmunds, Brighton; Mr. T. S. Ellis, Gloucester. **F** Dr. P. J. Freyer, London; Dr. W. Frew, Kilmarnock; Miss A. E. Fridlander, Coventry; Mr. L. A. Francis, Uxbridge. **G** Mr. J. P. Gaunt, Alvechurch; Dr. J. Galloway, London; Dr. E. W. Goodall, London; Mr. L. M. Griffiths, Clifton. **H** Mr. A. Hope, London; Dr. R. Hansson, Christiania; Dr. J. S. Hooker, London; Dr. T. Houston, Belfast; Mr. C. Harrison, London; Dr. W. S. Handley, London; Mr. R. Harrison, London. **I** I.M.S. **J** Dr. J. D Jenkins, Rhondda; Dr. G. P. Johnson, Stoke-on-Trent. **L** Dr. T. G. Lyon, London; Miss C. M. Lohr, Potter's Bar; Life Governor; Lieutenant Colonel E. Lawrie, London. **M** Dr. C. J. Morton, Walthamstow; Medical Practitioner; Member; Dr. J. A. Menzies, Rochdale; Mr. W. J. Middleton, Bournemouth; Medicus; Dr. W. J. C. Merry, Eastbourne; Dr. H. Malet, Wolverhampton; A. MacLennan, M.B., Glasgow; Mr. T. J. Mills, Easingwold; Mr. M. J. McCartan, St. Heliers; Mr. J. Y. W. MacAlister, London; Medical Superintendent. **N** J. H. Nicoll, M.B., Glasgow; Mr. G. P. Newbolt, Liverpool; Mr. C. P. Newcombe, London; Mr. N. H. Nixon, London. **O** Mr. R. O'Callaghan, London; Mr. A. S. Olmstead, London. **P** Mr. C. Porter, Leith; P. V.; Mr. H. J. Prangley, London. **R** Dr. C. Robertson, London; Dr. J. M. Rhodes, Didsbury; Dr. W. B. Ransom, Nottingham; R.A.M.C.; Dr. C. A. Rayne, Lancaster; Mr. T. F. Raven, Broadstairs; Mr F. Reynolds, Leeds; Dr. W. B. Roue, Clifton; J. S. Riddell, M.B., Aberdeen. **S** Mr. G Stoker, O.M.G., London; Dr. J. A. Shaw-Mackenzie, London; Mr. E. H. Saunders, Yelverton; Dr. J. P. Stewart, London; Dr. B. C. Stevens, Rotherham; S. Stephenson, M.B., London. **T** Dr. J. Taylor, London; Miss M. Thomas, London; Mr. J. L. Thomas, C.B., Cardiff; Tempus; Dr. E. F. Trevelyan, Leeds; Dr. H. Tilley, London. **V** Mr. V. C. J. Vanderstraaten, Bellatta, Ceylon. **W** Dr. T. J. Wood, Bradford; W. C. G.; A. Wauchope, M.B., Glasgow; Dr. F. Willcocks, London; D. C. Watson, M.B., Edinburgh; Mr. T. M. Watt, Goxhill; etc.

BOOKS, ETC., RECEIVED.

Pocket Cyclopædia of Medicine and Surgery. By George M. Gould, A.M., M.D., and Walter L. Pyle, A.M., M.D. London: Rebman, Limited. 1902. 5s.

Manual of Ophthalmoscopy. By J. E. Jennings, M.D. London: Rebman, Limited. 1902. 7s. 6d.

Diagnosis of Nervous and Mental Diseases. By Howell T. Pershing, M.D. London: Rebman, Limited. 1901. 6s.

Theory and Practice of Medicine. By Henry Walter Syers, M.A., M.D. Vol. II. London: Rebman, Limited. 1902. 10s.

Report on Visit of Inspection to Colonies and Hospitals for Epileptics, Feeble Minded, and Insane in United States of America. By J. Milson Rhodes, M.D., and Edwin W. Marshall, C.A. London: P. S. King and Son. 1902.

Memoirs and Letters of Sir James Paget. By Stephen Paget. New edition. London: Longmans, Green, and Co. 1902. 12s. 6d.

Elements of Mind. By H. Jamyn Brooks. London: Longmans, Green, and Co. 1902. 10s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

				£	s.	d.
Eight lines and under	...	...	...	0	4	0
Each additional line ...	...	...	...	0	0	6
A whole column ...	...	...	...	1	17	6
A page ...	...	...	...	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

A Clinical Lecture
ON
DYSMENORRHOEA.

Delivered at the London Hospital.

BY G. ERNEST HERMAN, M.B.LOND., F.R.C.P.,
Senior Obstetric Physician to the Hospital.

DYSMENORRHOEA, according to common usage, means pain accompanying menstruation. Only about 40 per cent. of women menstruate without discomfort; 60 per cent. have some pain. In about 11 or 12 per cent. of young unmarried women the pain is bad enough to lay them up each month.

Menstruation is the expulsion of the broken-down endometrium. The endometrium is the essential part of the uterus. It exists for the purpose of receiving an ovum and then forming a placenta whereby that ovum can be nourished. It is provided with a thick layer of muscular tissue for the purpose of expelling the ovum when the proper time has come; but this is an appendage necessary for the delivery of a child: the mucous membrane is the part essential for its development. This mucous membrane is thin during childhood, and becomes thick and vascular at puberty. When it has reached its full development, if no fertilized ovum comes into contact with it, it is broken down into a pulp, haemorrhage takes place from vessels opened up by the breaking down of the tissue, the cervix is dilated, and the blood and broken-down mucous membrane are expelled, by uterine contractions like those which expel the fetus and the placenta, though less in extent.

Every month for some thirty years this mucous membrane is regenerated, and if not supplied with a fertilized ovum it is broken down again.

With this cycle of change in the endometrium there go other changes. Before menstruation there is an afflux of blood to the pelvic organs. From this fullness of blood, and from the growth of the mucous membrane, the uterus is a little larger before menstruation than after it. There is a similar afflux of blood to the breasts, which in consequence often ache before and during menstruation. There is before menstruation a slight rise in the blood pressure and a little rise in temperature, amounting on the average to about half a degree. There is some weakness and increased irritability of the nervous system. Women are usually conscious, when menstruation is coming on, that they are weaker, less inclined for exertion, more easily tired, both in body and mind, and more irritable. If the patient is subject to migrainous headaches, these are especially apt to recur just before or with menstruation. If she is epileptic she is at this time especially liable to fits.

There are two kinds of pain from which women may suffer when they menstruate. One pain is that produced by the physiological congestion of the pelvic organs which precedes menstruation. The other pain is caused by the contractions of the uterus which should expel its contents. The first pain is the commoner, and is felt more or less by most women when they menstruate.

The pain due to physiological pelvic congestion is a general aching diffused over the whole pelvic region—over the lower abdomen, lower part of back, and often down the thighs. It is often accompanied with aching in the breasts. It is a continuous pain, not one that comes in short, sharp paroxysms. You may be told that it comes and goes, but when you inquire as to the length of each attack and remission, the answer will be that the pain continues steadily for two or three hours at a time, and then remits for an hour or two. It comes on gradually; you are not told of its waking the patient in the middle of the night. It begins from a day or two to a week before menstruation, and is not relieved until the flow has become as copious as is customary for that patient. It is always better while the patient is lying down. It is never bad enough to produce objective evidence of severe suffering. The patient is in least discomfort when she is still; she does not writhe with pain, nor vomit, nor perspire, nor faint. She may look languid and tired; but there is no other external sign of suffering.

We know little as to the reasons why some women suffer much from the flow of blood to the pelvis which precedes menstruation, and others little. Women who menstruate copiously suffer more than those who menstruate scantily, and I hold it reasonable to think that a considerable monthly haemorrhage implies a considerable congestion preceding it, and that this is why the more copious menstruations are commonly the more painful.

In most morbid conditions of the pelvic organs which produce pain, that pain is worse just before menstruation. But it is not usual to apply the term "dysmenorrhoea" to a case in which there is pain not only preceding or with menstruation, but at other times as well.

There is one morbid condition which produces abnormal congestion of the uterus and consequent pain. If the uterus is bent back and the utero-sacral ligaments are well marked and firm—their characters differ much in different subjects—the veins which return the blood from the body of the uterus will be pressed upon by these ligaments, the return of blood will be hindered, the body of the uterus will become swollen and tender, and the patient will suffer pain before and during menstruation, and often at other times as well. This abnormal pain with menstruation is cured if the uterus is prevented from falling back. In these cases the pain is not usually limited to the time of menstruation, although it may be. Therefore such cases are spoken of as retroversion or retroflexion, not as dysmenorrhoea.

In some cases the patient refers her monthly pain especially to the situation of the ovary. She points to a spot about two inches internal to the anterior superior iliac spine, and says the pain is there; and she may add that it goes through to the back, and indicate a spot over the sacro-iliac synchondrosis of the same side. When your fingers on the abdomen press down on to the spot pointed to, the patient manifests more pain than when you press anywhere else. There is doubt whether when you press in this way you really exert pressure specially upon the ovary; but this is a side issue of small importance. Sir James Simpson applied to cases presenting this kind of monthly pain the name of "ovarian dysmenorrhoea." This is nothing but a name—a label. It conveys no information, and helps in no way in treatment. It would seem to imply that the pain is due to some condition of the ovary. A hypothetical pathology of the ovary has been constructed to account for such cases. It has been said that the tunica albuginea is too thick, so that the follicles cannot burst properly. Morbid conditions of the ovary have been described which have been supposed to cause pain, such as "cirrhosis," "congestion," "oedema," "dropsy of follicles," etc. In the most conspicuous and best-known disease of the ovary—cystic disease—there is as a rule no pain until the cyst is big enough to press upon something else. Concerning the other ill-marked morbid conditions that are supposed to cause such suffering, all I can tell you, and all I think I need tell you, is that if you were to put upon a plate half-a-dozen ovaries, not much enlarged or adherent, removed from women who had this ovarian pain, and put with them half-a-dozen other ovaries taken from the bodies of women who were accustomed to menstruate without pain, there are no criteria by which anyone could pick out the ovaries of those who had pain when they menstruated. So long as we cannot distinguish a painful ovary from one that is not painful, it is idle to say that we know anything of the morbid conditions of the ovary upon which pain depends.

The severity of pain depends not solely on its local cause, but also on the sensitiveness of the patient. One person will be prostrated by pain which another would hardly notice. We have no means of measuring pain; but if we had we should doubtless find that there is not only a personal equation which can be measured of the quickness of transmission of nerve impulses, but also a personal equation of the amount of pain necessary to upset the equilibrium of the nervous system. Very severe pain produces manifestations that can be seen, but if pain is not so bad as to do this, we are dependent for knowledge about it on what the patient tells us. The patient's statements are conditioned not merely by what she actually feels, but by her wish for sympathy, her faith in medication, and her command of language. For these reasons similar local changes may produce different manifestations in

different patients, and in the same patient at different times.

This fact is very important, for it is an always present source of error in diagnosis, prognosis, and treatment. You may be led into an erroneous diagnosis because the patient gives you an incorrect account of her pain. If there is nothing but the physiological monthly congestion of healthy pelvic organs, no treatment (except such as modifies the nervous tone) will affect the pain, and if the patient is so sensitive that she is prostrated by trifling ailments, you will not alter this idiosyncrasy by any treatment of dysmenorrhoea.

This general aching due to pelvic congestion is one kind of pain, and a common kind. Some women when they menstruate have another and different kind of pain, due to uterine contraction.

Contraction of the uterus, like that of most muscles, is not usually painful. Muscular contraction is continually going on in the alimentary canal, and is not felt by healthy persons; but in some morbid conditions it becomes painful, and is called colic. The uterus contracts and relaxes alternately throughout pregnancy, but the patient is not aware of it. The pain of labour is only in very small part, if at all, due to uterine contraction; it is due to the stretching open of the soft parts, and is acute in proportion to the sensitiveness of the parts that are being stretched open.

The uterine contractions which expel the menstrual flow are little or not at all felt by most women; but in a few they they are painful, and this is dysmenorrhoea in the literal sense of the word.

Cases occur in which painful uterine contractions accompany menstruation because there is obstruction to the exit of the flow. Very rarely this obstruction is in the canal, which may be contracted by cicatricial tissue formed after an operation on the cervix, or by a new growth bulging into it. Now that amputation of the cervix is seldom practised, cicatricial contraction of the cervical canal is a clinical curiosity, and the same may be said of blocking of the canal by a new growth.

In some patients the endometrium, instead of breaking down into a pulp, is shed in a large piece or pieces, and such a piece may stick in the cervical canal and provoke contractions which are painful. This is called membranous dysmenorrhoea. Some physicians, who have taken great pains to instruct their patients and nurses to search for these membranes have found them to be very common. The frequency with which they are found depends upon the care with which the patient's urine, and the napkins or pads used by her, are examined to find them. Unless they are looked for they are seldom found. In this form of dysmenorrhoea, the pain is not very severe. It depends much upon the tone of the patient's nervous system: often the patient will pass a membrane one month with pain and one the next month without pain.

It was at one time said by nearly all writers upon the diseases of women that anteflexion causes dysmenorrhoea. A theoretical explanation was given. It was said that the canal was bent at an angle and kinked, and so the menstrual flow could only get out with difficulty and pain. This explanation was plausible, and obtained wide acceptance for a time because it seemed in harmony with the fact that in women with dysmenorrhoea it is common for the uterus to be bent forward. But after a time, persons interested in the question began to look at specimens instead of diagrams. Specimens show no angle but a gentle curve of the canal, no more obstructing the flow of fluid along it than do the natural curves of the healthy male urethra. Twenty years ago the frequency of anteflexion was investigated by two independent observers in different countries, and it was shown that anteflexion is present with exactly the same frequency in women who menstruate without pain as in those who menstruate with pain. The result of both investigations was to show that more or less anteflexion is the natural shape of the uterus in the virgin; it is exceptional for it to be straight. No one has ever brought forward any evidence to controvert these statements. The persons who say that anteflexion causes dysmenorrhoea make the statement without any foundation in fact for it.

It was at one time widely taught that the common cause of menstrual pain was narrowness of the os externum. This idea was supported by the frequent cure of the pain by dividing the vaginal portion with scissors. But in most cases in which this treatment succeeded, the os uteri could not have been so very small, for it would allow the end of the scissors blade to enter, and a good deal of blood can quickly escape from a hole as large as a scissors point. And cases are now and then seen in which the os externum is so small that only a fine probe can be passed through it, and in some such cases menstruation is painless.

Stricture of the os internum has been said to cause dysmenorrhoea; but such a stricture has never been seen except in diagrams.

Dysmenorrhoea has been said to be a result of imperfect development of the uterus. The evidence for this is to my mind far from conclusive. I find that my cases of spasmodic dysmenorrhoea began to menstruate at about the same age as the generality of women. Cases in which the function was late in establishment are not among them more frequent than among women in general. It has been, in my experience, quite exceptional to find in spasmodic dysmenorrhoea a uterus appreciably smaller than it ought to be.

In some of the worst cases of painful menstruation there is neither narrowing of the canal nor the passage of membrane. The disease is a nervous one. In about two-thirds of the cases the monthly pain dates from the beginning of the function; in about one-third the patient, after menstruating for a time without pain, then comes to suffer. When acquired it is usually at an early age—in the great majority of cases before 25. It may be acquired later; I have known it begin as late as 37, and it may be acquired by women who have had children, but this is exceptional.

It is exceptional for such patients—for reasons that will readily occur to you—to seek advice early. Two-thirds of the patients whom I had treated had suffered for six years or upwards before coming for treatment.

There are no physical signs by which you may recognize spasmodic dysmenorrhoea. The diagnosis has to be made from the character of the pain. The pain due to uterine contraction differs from the diffused continuous aching of pelvic congestion. Some patients have both pains: first, the general aching of uterine congestion, and then the spasms of uterine colic.

There is, and with our present means of investigation must be, a certain amount of unavoidable error in the diagnosis of dysmenorrhoea, because we have no means of objectively determining the character of the pain, or even its presence. We are absolutely dependent upon the patient's statements—that is, we see the case through a distorting medium. I shall have to point out to you ways in which the patient may unintentionally mislead you.

The pain of spasmodic dysmenorrhoea is far more severe than any other kind of menstrual pain. It is common for patients to say that when it is present they cannot lie still; they roll about with pain, it doubles them up, keeps them awake at night, makes them perspire and sometimes faint. In about one-fourth of the cases it causes vomiting. When the pain is so severe as this the patient is incapacitated while it lasts. Cases of spasmodic dysmenorrhoea are not all equally bad; there are degrees in this kind of pain as well as in others. But menstrual pain of extreme severity is almost always of the spasmodic kind. This great severity is the most characteristic feature of spasmodic dysmenorrhoea. The pain of pelvic congestion is never so severe. A patient who has only this latter pain may lie down because she is more comfortable when doing so, but if any strong reason exists why she should not lie down she can keep about.

The pain of spasmodic dysmenorrhoea is of short duration. I have known it last ten minutes only, but during that time be so severe as to make the patient vomit. It comes on suddenly; sometimes wakes the patient in the middle of the night. Its duration is usually less than twenty-four hours, and it only exceptionally lasts longer than two days. Careful inquiry has to be made into this point. Patients who have two kinds of pain—the aching due to pelvic congestion, which may precede the flow by several days, and the spasms of uterine colic, which only last a few hours—may not differentiate their pains, but tell you simply that their pain begins so many days before the flow appears. Hence, before concluding from its duration that pain is not spasmodic, you must inquire into its kind.

The uterine contractions which cause the pain of spasmodic dysmenorrhoea are intermittent. Hence when you ask the patient what her pain is like she will tell you that it comes in sudden, sharp pangs, and between these twinges of pain there is either no pain or a dull, general aching in the pelvic region. Each attack of pain is of short duration, usually only a minute or two. To find out the character of the pain often needs careful inquiry, for often patients whose only pain is that due to pelvic congestion, will tell you that the pain is not constant, but comes and goes; and only on closer questioning you elicit that these attacks of pain last two or three hours at a time, and are not sudden and brief like uterine colic. This is an important character of spasmodic dysmenorrhoea, the pain is sudden, sharp, and short.

The pain of spasmodic dysmenorrhoea is not relieved by lying down. In the worst cases the patients say they cannot lie down, or if they lie down they cannot lie still. They roll about with the pain. This helps in distinguishing the pain of uterine colic from that of pelvic congestion. The continuous aching of the latter is lessened by recumbency and by lying still. But these statements, though true of most cases, apply not to all. Some patients with uterine spasm think they are better when lying down. Some have both pain from pelvic congestion and spasmodic pain, and then they will be more comfortable when recumbent. Although the pain of pelvic congestion is relieved, it is not always removed, when the patient lies down. Hence the two kinds of pain cannot always be differentiated by this sign alone. There are a few cases in which it seems as if the spasm were tonic; in which the patient complains of very severe, but persistent pain; not intermittent but continuous: and cured by dilatation of the cervix: but these cases are exceptional.

Spasmodic dysmenorrhoea has no tendency to spontaneous cure. I have known a patient suffer from it throughout the whole of her menstrual life. In cases of exceptional severity it may grow worse. About twenty-five years ago I saw a patient, then aged about 45, who had suffered ever since her catamenia began from pain every month so severe as to make her vomit. In her early youth she consulted Sir James Clark, who was at that time Physician to the Queen, and was by him advised not to have any local treatment. As she got older the monthly attacks of vomiting came to last longer and longer, till at length she was almost continuously sick. In some cases in which pain has lasted long and been severe it has seemed to me that the body of the uterus was larger than in most nulliparae, as if some hypertrophy had taken place. But it is so difficult to be sure of a slight increase in size that this is only a conjecture.

The natural cure of spasmodic dysmenorrhoea is by pregnancy. But the disease is often accompanied by sterility, which may be cured by the dilatation. In about one-third of my patients who were married and sterile the cure of the dysmenorrhoea was followed by pregnancy.

The best drugs for the relief of uterine colic are antipyrin and phenacetin. In slight cases these give adequate relief, and, as we know not of any harmful results from their occasional use, if these drugs relieve there is no need for further treatment. If these drugs fail, powerful narcotics, such as morphine or chloroform, will, if given in sufficient doses, quiet the pain, and I have known cases so bad that the pain could not be otherwise controlled. But it is a bad thing for a young woman to use these drugs every month, and, if this is necessary, local treatment which will remove the pain is preferable.

In a few cases I have found guaiacum remove the pain. I give 10 gr. of guaiacum resin in a tablespoonful of malt extract, twice or three times a day, beginning a week before menstruation is expected. I know not how this drug acts, nor know I how to pick out the cases that it will cure: but I know that it sometimes will cure.

The local treatment of spasmodic dysmenorrhoea is to dilate the cervix. This is best done by the passage of bougies. In most cases the cervical canal will admit a No. 6 bougie easily. A little resistance is usually met with when about No. 9 is reached. When a bougie has been passed which entered with difficulty and fits tightly, after it has remained two or three minutes in the canal it will be loosely held and a size larger can be passed. I have generally continued the dilatation until the bougie met with considerable resistance. This

ive metabolic
usually begins with the passage of No. 12 or t.ich in their
know not what is the minimum dilatation thanary respir-
to cure. I have known the passage of No. 8 bou, to be the
of spasmodic dysmenorrhoea and sterility, followmature
nancy. Before the introduction of dilatation as aloss of
treatment it was known that occasionally menstruatidevel.
be prevented from being painful by the passage of the uter
sound shortly before its occurrence. Hence extensive dilat.
tion is not always necessary. The enlargement of the canal
that dilatation produces lasts for some months, and one would
suppose that the larger the dilatation the longer will the
effect last, but I have few facts with which to support this
opinion.

The cervix does not always yield to the dilating agent with the same readiness. In about one-sixth of my cases I have it recorded that unusual resistance was met with. The fact of such unusual resistance does not in my experience modify the prognosis.

Dilatation does not invariably cure. I have gone through some records of cases to find out what proportion of cases are cured. I find that in at least two-thirds of cases benefit follows. That no relief followed in one-third of the cases dilated does not imply that one-third of cases of spasmodic dysmenorrhoea are incurable: it is partly accounted for by some cases having been dilated in which the dysmenorrhoea was not of the spasmodic kind. In some of these the patients' statements may have been misleading; in others, the diagnosis was known to be doubtful and the dilatation was done either because nothing else offered any prospect of benefit, or for some reason other than the cure of the dysmenorrhoea. But allowing for the inclusion of these cases, I think it must be admitted that some cases of spasmodic dysmenorrhoea are not cured by dilatation. Some cases are not cured even by pregnancy. If I say that cure follows in three-fourths of cases, I think I am within the truth. Among my cases in which the disease was primary (that is, dated from the beginning of menstruation), the proportion of cures was larger than among those in which the pain began to be felt at a later age. How long does the benefit last? It is so difficult, for reasons that I need not go into, to keep such patients in communication with their physician, that I cannot say anything very exact about this. The cure may last throughout the patient's whole menstrual life. One patient, whose cervix I dilated in 1878, she being then aged 27, I saw in 1900. She had menstruated with little or no pain ever since the dilatation, and the irregularity of the menopause had begun. This case justifies the assertion I have made. In some cases the cure is temporary only; the pain returns, and is again removed by a further dilatation.

As an example I may relate the following case. A patient began to have severe menstrual pain when aged 31. In June, 1893, she being then aged 35, the cervix was dilated, but not by me, so that I have no information as to the method or extent of the dilatation. After it she menstruated without pain till April, 1894, when it returned, and I saw the patient. Bougies from 7 to 11 were passed, and after this menstruation was painless till August. Then bougies from 8 to 12 were passed. Menstruation was again free from pain until November. In January, 1895, I passed bougies from 8 to 13, after which the patient menstruated without pain until August, 1896. In September bougies from 9 to 14 were passed. Ever since, up to the time I last saw her, in July, 1901, she has menstruated without pain. This case gives ground for thinking that the permanence of benefit may depend upon the amount of dilatation. Owing to the difficulty of watching a number of cases over long periods of years, I think it hopeless to attempt an estimate of the proportion of cases in which dilatation has to be repeated more than once.

I have told you about this treatment little that will be new to most English gynaecologists. It has so long been known to most of us, that it is surprising to find textbooks published in which it is not mentioned, and yet this is so. In the very latest German textbook, published in 1902, dilatation is not mentioned in the chapter on dysmenorrhoea. There are other methods of dilating the cervix, but the way I have just described is the best: so I need not speak of any other.

If all other treatment fail, and the dysmenorrhoea is so severe as to wreck the patient's life, as, for instance, by pre-

a earning a livelihood, it can be cured by different pat ovaries. This is so grave a measure, that it times. done without most careful consideration by the well as by her doctor. The risk to life of the This fac trifling. The reason against it is that it destroys source of bility of maternity, and lessens the patient's pro- may be of marriage. The younger she is the greater is the given injury thus done her, and the less she will be able to rightly understand its extent. Hence the proposition of this remedy should be postponed as long as possible, and its effects should be fully explained to the patient through her nearest female relative, or some female friend in whom she has confidence.

THE PROBLEM OF THE PREMATURE INFANT.*

By J. W. BALLANTYNE, M.D., F.R.C.P.EDIN., F.R.S.EDIN.,
Lecturer on Midwifery and Gynaecology, Medical College for Women, Edinburgh.

THE premature infant is born with the skin and the skeleton, and the organs of a seven-months fetus. He is called upon to play the part of a newborn infant with the *personalia* of a fetus. He is admirably fitted to continue living in the uterus, but is ill provided to meet the exigencies of an extra-uterine existence. He is suddenly forced into surroundings of a kind which impose upon him urgent calls to which he is little able to respond. His tissues have not had time to mature, and he is not ready for so complete a change in environment. He is like some dweller in the hot plains of India who has been transported in a moment of time on some "magic carpet of Tangu" to the chill summits of the "frosty Caucasus;" with no opportunity for acclimatization such as a gradual transit affords; he is suddenly submitted to the severe strain which so marked a change in surroundings entails; it is possible that the marvellous adaptive mechanisms of the human body will overcome the difficulties of adjustment of capabilities to requirements, but there will be danger till this condition of physiological equilibrium is reached. So the premature infant is quickly transferred from the warm fluid medium of the liquor amnii with its practically constant temperature to the variable circumstances of an extrauterine life; he loses the preparatory transition-time of the third trimester of intrauterine existence, and although he may react with extraordinary success to his new environment, yet in many instances he fails to do so, and pays the heavy penalty of premature death. In too many cases there is a defective adjustment of capabilities to requirements; this is almost inevitable, for the requirements are exacting and the capabilities inefficient; he may then escape death only to carry a debility with him which projects a baneful influence far into his postnatal life. This is the danger he runs, this is the price he has to pay for his earlier advent into the life that is after birth. Essentially the error is one of the time relations; if he had been a little longer in the uterus he had been better able to withstand the trying changes of birth; but he is an untimely birth. The problem is one of adaptation, of utilization of manifestly imperfect powers to obtain results which are not easily to be got. Life is full of such problems; the individual is often being brought into circumstances to which he finds it difficult and sometimes impossible to adapt himself; he is often called upon to discharge duties which he could have done better had he had a little longer for preparation. The strain and stress of life lie in these emergencies, and happily the requisite strength often emerges to overcome them; but the problem of the premature infant is peculiarly urgent, for he is so dependent upon conditions external to himself. Upon the obstetrician falls the responsibility of aiding the prematurely born child in his struggle with the exigencies of his new environment. The more thoroughly he understands the problem the more effective will his management of it prove. Let me therefore endeavour to set forth in detail the conditions which I have briefly indicated above.

VARIABILITY OF VIABILITY.

The premature infant differs from the immature fetus in the possession of viability, that is to say, he is capable of an independent existence outside the mother's uterus, an existence, it must be added, which is not limited to a few hours, but is potentially possible for months and years. Not only must his heart beat, his limbs move, and his lungs respire, but his digestive organs must also be capable of a certain amount of functional activity, and his tissues be able to assimilate nourishment brought to them through the alimentary canal. So much is certain; but when attempt is made to fix the uterine age at which viability may be said to be acquired difficulties are at once encountered. It is not easy, for instance, exactly to estimate the uterine age of any fetus; consequently, when one speaks of a premature infant born at the seventh month of pregnancy, one can only mean that the maternal symptoms and the physical examination of the mother and the infant pointed to that as the most probable date. Neither fetal size nor weight can be regarded as sure indications of fetal age, and the knowledge we possess of the chronology of the developmental processes is not exact enough to permit the drawing of accurate conclusions from them. Another difficulty exists in the fact that the maternal health during pregnancy has an influence upon the viability of the infant; thus, the seven-months fetus of a healthy mother may be altogether viable, whereas the seven-months fetus of a syphilitic mother may be absolutely non-viable. The age of attainment of viability will, therefore, vary with the state of health of the parents. Even if the exact uterine age of the premature infant could be determined with sufficient accuracy, there would still be the varying factor of the infant's vitality as influenced by the varying circumstances of intrauterine health; the viability of the child depends, therefore, not only upon the number of months spent in the uterus, but also upon the character of the life of these months.

It may, however, be asked whether it is not possible to fix some date which will take into account these factors of variability and give what may be regarded as a reasonable estimate of the uterine age when viability is attained. Let us, for instance, maintain that a fetus born of healthy parents, showing no obvious morbid state—either of disease or of deformity—and having an estimated age of 6½ calendar months, is viable. Such an assumption is perfectly reasonable, and will be accepted by every obstetrician; yet the statement cannot be regarded as final, for in ten years it may be possible to make a similar one with respect to the fetus of 6 or even of 5½ months. Improvements in the management of premature infants, such as have been made possible by the introduction of the incubator and the exclusion of sepsis, have already, so to say, pushed the age of viability back; it is probable that a better understanding of the problem to be solved may lead to the devising of therapeutic, dietetic, and hygienic measures which will push it still further back. Be this as it may, it is a fact of prime importance to remember that the age of viability is not a fixed but a variable date.

The variability of viability need not, however, be interposed here to delay the discussion of the problem of the premature infant, for in this contribution the type of prematurity which is considered is that of the infant expelled from the uterus at the seventh month of intrauterine life. Every one will admit the viability of a seven-months fetus. The difficulties such an infant encounters and the dangers he runs may be regarded as the average difficulties and dangers of prematurity; they will be fewer in the eight-months and greater in the six-months fetus, for of course prematurity passes by degrees into maturity at the ninth month of intrauterine life, and merges into immaturity at the fifth.

ANATOMY OF THE PREMATURE INFANT.

The premature infant, as has been already stated, possesses the skin and the skeleton and the internal organs of a seven-months fetus; but it is necessary to enter a little more into details, and to define the anatomical characters which are contained in this brief generalization. The weight of the premature infant varies from 3 to 4½ lb., and the length is about 16 in. The skin has a delicate, almost transparent, appearance, but has lost the bright red colour of earlier fetal life; there is little subcutaneous tissue, so that the face has still a somewhat senile look, and the outlines of the limbs and trunk are sharp and not rounded. The lanugo plentifully covers the extensor surfaces of the limbs as well as the face

* Read before the Edinburgh Obstetrical Society.

and back; there is now some hair on the scalp. The nails are thin and do not project beyond the finger tips, but they are quite horizontal as regards the underlying skin. In the eyes traces of the membrana pupillaris may still be seen, and the cranial fontanelles and sutures are large and wide. In the male infant the testicles will probably be found in the scrotum; but in a certain proportion of cases one of them may still be in the inguinal canal, and may be capable of being pressed back into the abdominal cavity. In the female infant the imperfect state of development of the labia will give to the vulva a gaping appearance.

These peculiarities of the anatomy of the premature infant are evident on external examination, but there are others which are revealed only by dissection or section. In the skeleton, nearly all the ossific nuclei which are found in the full-time infant are present in the premature one, but they are smaller in size both absolutely and relatively. The ossific nucleus in the lower epiphysis of the femur, that distinctive "blood-red spot in the midst of milk-white cartilage," is rarely to be seen, and there is none in the upper end of the tibia, in the cuboid, or in the hyoid bone. The brain shows very clearly its premature state, for its grey and white matter cannot yet be differentiated, its ventricles are relatively large, and its fissures and convolutions slightly marked. The island of Reil is still exposed to view, for the margins of the fissure of Sylvius have not approximated sufficiently to cover it in. The filum terminale of the spinal cord ends opposite the third lumbar vertebra instead of opposite the first or second, as in the full-time infant. The foramen ovale of the heart is widely open and the ductus arteriosus quite patent. The kidneys are distinctly lobulated, and the suprarenals and thymus are relatively large. The lungs, even in the premature infant that has breathed, are partly atelectatic. The caecum is seldom in its permanent position in the right iliac fossa. In other respects the anatomy of the premature infant resembles that of the mature fetus.

Anatomically, then, the premature infant is a fetus: yes, but a fetus without one of his most important organs. When the umbilical cord is tied and divided at birth the infant loses touch with his placenta—with that so essential organ of fetal life. With the rupture of the membranes he has already lost touch with the liquor amnii, that fluid environment of antenatal existence which we may call the fetal hydrosphere in contrast with the atmosphere which surrounds the newborn infant. The premature infant, therefore, is a fetus lacking the placenta, membranes, and liquor amnii, which together go to make up the fetal annexa. From the anatomical standpoint this is simply a loss; but from the physiological, as we shall see immediately, it is more than a loss, it is a distinct danger to the premature infant. It may be added that immediately after birth he loses another fetal covering, namely, the vernix caseosa, which is carefully and completely removed by the midwifery nurse.

Physiology of the Premature Infant.

While from the anatomical standpoint it may be said that the premature infant is a fetus without the structures which constitute the fetal annexa, the same generalization cannot be applied to the physiology of the child that is untimely born. Physiologically, the premature infant is partly a fetus and partly a newborn child. In him is seen fetal physiology endeavouring to cope with neonatal surroundings, but in him also is seen neonatal physiology hampered in its action by persistent fetal conditions. Some illustrations may be given in proof of this statement.

There is, for instance, the temperature of the premature infant. The fetus *in utero* has a temperature which is slightly higher than that of the mother; it is from one-tenth to two-tenths of a degree (Centigrade) higher than that of the containing uterus; the temperature of the liquor amnii is intermediate. The slight excess of fetal over maternal temperature is to be ascribed to the metabolism which is going on in the fetus independent of that which takes place in the placenta. No doubt fetal oxidation is feeble, possibly it is similar to that going on in hibernating animals; but it is certainly present. Immediately after birth the temperature of the infant falls, a result due in part to the action of the cold atmospheric air, and in part to the evaporation of the liquor amnii from the skin; but in the case of the full-time infant the loss is soon in part compensated by the more active metabolic processes going on in the body of the child, which in their turn are stimulated by the establishment of pulmonary respiration. In a day or two the temperature which is to be the normal for the rest of life may be attained. In the premature infant, on the other hand, the immediate postnatal loss of heat is great, and the temperature falls to a very low level, and, further, it may remain there for a comparatively long time. These facts are no doubt due to several causes, but among them must certainly be reckoned the defective action of the imperfectly expanded lungs, the absence of the thick layer of subcutaneous tissue which is to be found in the full-time infant, and the feeble metabolism which is going on in the organs and tissues of the premature child. Perhaps, also, the removal of the vernix caseosa and the want of an active heat-regulating mechanism may be subsidiary causes of this neonatal hypothermy. The fetus *in utero*, then, does not require to manufacture heat in order to maintain his body temperature: the newborn infant needs to do so, and generally succeeds well: but the prematurely-born infant is urgently called upon to do so, and has only the tissue metabolism of fetal life slightly reinforced by that of an imperfectly-established pulmonary respiration to aid him in his difficult task. Is it a matter for wonder that he often fails? Neonatal physiology is sadly hampered by persistent fetal conditions. The premature infant, however, can remain in life with a temperture lower than an adult can, and he can do so for a longer time. Here is the other side, the fetal side, of his physiology coming into play, and endeavouring to cope with neonatal surroundings.

Many other instances of the special characters of the physiology of the premature infant might be given. There is the liver which in the fetus is busily engaged in forming blood and does little in the elaboration of bile; it is suddenly called upon to form much bile, and to continue yet for some time its haematopoietic activities. There is the blood itself which contains more nucleated xanthocytes (erythroblasts) than in the full-time fetus, and very many more red corpuscles. It is not known exactly what special part these elements play in the physiology of fetal life, but the jaundice of the newborn infant, which has been ascribed to breaking down of the xanthocytes, is very common in the prematurely born infant. There is the circulation of the blood: at once its most active area (the placental) is cut off from all connexion with the heart, and that organ is called upon to send a specially large supply to the lungs. This it may or may not succeed in doing, but through the tendency of the foramen ovale and ductus arteriosus to remain patent longer than is normal in the full-time infant, the complete separation of the two currents of blood in the heart and throughout the body is not accomplished; the circulation, therefore, is partly of the fetal and partly of the neonatal type, and it is, in consequence, unsatisfactory. With regard to digestion, it is known that pepsine is present in the stomach of the fetus, for fibrine has been digested by a solution made from a scraping of the gastric mucous membrane of an infant that died in birth (craniotomy); the saliva, also, is active to some extent, and there is evidence that the pancreas secretes pancreatine and perhaps trypsine, although not the diastatic ferment; but all these digestive agents are present in small quantity, and although they are doubtless capable of answering the slight calls made upon them by the presence of liquor amnii in the alimentary tract in fetal life they fail often in the presence of the more exacting demands resulting from the ingestion of milk by the premature infant. The dry mouth and the weak digestion, and the frequency of gastro-intestinal disorders in the prematurely born are matters of every-day observation and need not be enlarged on.

Those are some of the signs of the difficulties that arise when the newborn infant attempts, so to say, to play the part of the full-time child with the functional possibilities of the seven-months fetus. These difficulties are to a large extent removed if the fetus is permitted to remain for a month or two longer in the uterus. In a general sense, they be said to be removed because the fetus matures during the closing period of intrauterine existence, the unborn infant becomes gradually less dependent upon its placenta simply because its tissues gain a greater functional activity. This is true, and yet it is not all the truth. The physiological experi-

ences of the last three months of fetal life are not simply a continuation of those of the earlier months, differing perhaps in degree but not in kind. Modern research upon the problems of fetal physiology goes to show that in the last trimester there is a functional activity peculiar to the period, an activity which differs distinctly from that which has characterized the middle trimester. It is during this time that fibrous changes are occurring in the chorionic villi, changes which prepare the way for the replacement of the placental activity by that of the various intracorporeal organs of the fetus. The placenta is becoming senile. Further, increased activity is manifest in the kidneys, as is shown by the presence in their tubules of uric acid infarcts, as they are called. But of more importance, probably, than these are the alterations in the transplacental interchanges. This subject, of course, is one of great complexity and difficulty, but new light has been thrown upon it by the chemical analyses of the fetus at different ages, and of the placenta; these are still few in number, but the results are strikingly suggestive.

Functions of the Placenta.

In the first place, there is some proof that leucocytes pass from the placenta to the fetus, for it has been found by Varaldo that the blood of the umbilical vein contains more white corpuscles than does that of the umbilical arteries. Apparently, the matrifugal stream carries more leucocytes to the fetus than the matripetal brings back; some of them must be retained in the tissues of the unborn infant. Possibly the leucocytes carry with them special chemical substances. In the second place, the analyses that have been made of the mineral constituents of the fetus at different ages by Hugounenq and others, show clearly that there is a great fixation of minerals in the last trimester of pregnancy. There is a very marked storing up of iron in this period with a corresponding diminution in the maternal reserve of that metal. Fetal hypersiderosis is accompanied by maternal hyposiderosis. In the last trimester, also, there would appear to be a great transference of potash salts from mother to fetus; in fact the soda salts predominate until the last three months, when the potash salts begin to pass in greater amount. There is also a flush of lime through the placenta in the last weeks, but this is not accompanied by a corresponding increase in the phosphorus transmitted: apparently, therefore, the phosphoric acid which is to combine with the lime in the bones of the fetus passes first, and, as it were, waits for the lime in the fetal tissues. All these observations support the belief that the placenta has great selective powers and is not the simple transmitting organ that it has often been supposed to be; indeed all recent research has gone to enhance the physiological dignity of the placenta, and to elevate it to a high rank among the tissues of the body. It has the power of selecting as well as of transmitting materials to the fetus; its epithelium may even, it is supposed, have a peptonizing effects upon proteids passing through it; it would seem to have the faculty of retaining in its tissues certain microbes, toxins, and poisons which if allowed to pass would harm the unborn infant, resembling in this property the liver in the adult; and it is possible that it has an internal secretion of some value to the maternal organism. The peculiarities of the transplacental interchanges of the last three months of intrauterine life would seem to be specially associated with the formation of red blood corpuscles, of striped muscle and of bone.

Doubtless there are other physiological processes of a distinctive kind going on *in utero* during this interesting and important epoch of antenatal life; the defences against the assaults of pathogenic microbes are being prepared, the myelination of the nerve tracts in the brain and cord is going on, and the renal epithelium is being made ready for its excretory function; but much research is needed before anything like a complete knowledge of the physiology of fetal existence and especially of the last three months of it, is available. Enough, however, is known to prove that the premature infant who by reason of his prematurity loses the physiological experiences of the last two months of fetal life suffers a great loss. The consequences of the loss are evident during, at, and immediately after birth. Birth is to the premature infant the more or less traumatic transition from an intrauterine to an extrauterine existence. All transition times are danger times; but Nature always tries to make transitions easy and safe by carefully preparing for them. *Natura non facit saltus* (Nature makes no leaps) is the old proverb, and the truth of it is very evident in connexion with the transition of birth. In the case of the premature infant, however, Nature is not allowed time enough to prepare for the sudden changes from a semi-parasitic life inside the uterus to a more or less independent one outside that organ. The absence of the preparatory two or three months with their distinctive physiological events introduces a large degree of extra danger into the occurrences of birth and of the neonatal period. The results of this will be stated in the next paragraph.

The Pathology of the Premature Infant.

In its pathology the premature infant stands midway between the fetus and the newborn child. In some respect its morbid processes develop as in the fetus, and in other respects they follow the lines of neonatal pathology. One or two instances may be cited in illustration. A fetus takes diseases, so to say, by the umbilicus; the germs of disease coming to him from his mother pass through the placenta and arrive in his tissues by the way of the umbilical vein and ductus venosus. A newborn infant, on the other hand, receives infection by the more usual avenues of entrance, namely, the gastro-intestinal tract, the lungs, and the skin; in his case the umbilical route is effectually closed in part by the ligature of the cord, but more especially by the obliterative changes which take place in the umbilical vessels. In the case of the premature infant the closure of the umbilical arteries and vein is apt to be incomplete, and septic and other pathogenic organisms find their way into the body on account of the persistent permeability of these vessels. The results of the infection are sometimes evident in the immediate neighbourhood of the umbilicus in the form of periumbilical inflammation of an erysipelatous type, but at other times the umbilical vessels may show no morbid changes save permeability, and the pathological consequences of the microbic invasion may be found in the liver, the heart, or in some distant organ such as the brain. In this respect, therefore, the pathology of the premature infant resembles that of the fetus.

Again, the premature infant is specially liable to attacks of thrush in the mouth, of diarrhoea, and of dyspepsia; these are generally due to infection through the gastro-intestinal canal, predisposed to by the defective secretions of the digestive organs; and in this respect his pathology resembles that of the newborn infant.

Again, the premature infant is like the fetus in the small degree of resistance he offers to pathogenic organisms when they once gain access to his body (this has been demonstrated very clearly in fetal tuberculosis); he is like the newborn infant, in that many of his morbid states can be traced to injurious pressure acting upon him during his passage through the birth canals.

The result of this combination of the pathology of the fetus and the newborn infant, which is witnessed in the prematurely born child, is greatly increased morbidity and mortality. I need not dwell upon this point; every obstetrician knows from sad experience that it is rare for a prematurely-born infant to escape illness, and that it is too common for death to occur before what ought to have been his birthday has been reached. Some have placed the morbidity of premature infants as not far from 100 per cent., and the mortality at 50 per cent.; there is only too much reason to believe that in some circumstances this is no exaggerated statement. The prognosis is better when the infant has a weight and a development not widely different from those of a full-time child, when he comes of healthy parents, and when his temperature is not much below that of a normal newborn infant; but, of course, this is saying little more than that his chances of living are greater when he shows fewer signs of prematurity. Too often the premature infant is the offspring of parents who are themselves seriously ill or gravely weakened by toxic agencies; the premature termination of pregnancy is itself one of the signs of these parental states; hence it comes that what may be called normal premature infants are rarely met with. Of course, if the best treatment can be obtained for such a child his chances of survival are greatly increased,

and it is gratifying among all this prognostic gloom to throw the beam of light which has come recently from two of the large obstetric clinics of Paris (the Maternité de la Charité and the Clinique Tarnier), where the mortality has been reduced to little over 6 per cent.

Enough has been said to prove that the problem that faces the premature infant on his advent into an extrauterine existence is no easy one, and that the risks of failure are great. Let me now devote some sentences to the consideration of the management of the infant born prematurely, dealing rather with general principles than with details.

MANAGEMENT OF THE PREMATURE INFANT.

The management of the premature infant consists in an attempt to attain a perfect adjustment of vital capabilities which have been shown to be generally inefficient to meet requirements which every one must recognize to be peculiarly exacting. The three leading principles which ought to guide us in the performance of this difficult task will be: First, to prolong the most useful and the best features of fetal life after birth; secondly, to supply some of the features which cannot be prolonged; and, thirdly, to awaken and strengthen the dormant or inefficient functions peculiar to post-natal existence.

In the first place, then, we ought to try to prolong the fetal phase of life after birth has occurred. We cannot, so to say, return the premature infant to its proper place of abode, the interior of the uterus; but we can with some success endeavour to create an environment for him which shall in some points at least resemble the intrauterine nidus. This environment is found in the incubator or *couveuse*, or "brooder." A gradual improvement in the construction of the incubator has taken place during the past few years, and the approved model of the present day, such as is to be seen in the Parisian hospitals and such as was on view at the Buffalo Exposition, meets in a fairly satisfactory fashion many of the requirements of the case. A temperature which can be with care kept constantly a little above that which the infant's body should register can thus be obtained, and the little patient can be kept in the dark and shielded from injury. Theoretically the perfect incubator should contain saline solution and not heated air, in order to imitate more closely the uterine interior in pregnancy: and the infant should be bathed in this fluid medium or hydrosphere and suspended in it save only the mouth and nose, but it is doubtful whether this could ever be carried out in actual practice, and one has to be satisfied with an atmosphere (saturated perhaps with moisture) instead of a hydrosphere. The *couveuse* is a satisfactory means of maintaining the temperature of the child, and it thus prevents one of the great dangers to be apprehended—namely, hypothermy.

Some of the features of fetal life cannot, as has been already said, be imitated. Among these, the peculiarities which are due to the presence and activity of the placenta will at once come into the mind. Some of the placental functions are performed by the awakened organs of the premature infant; thus the lungs endeavour to carry on the work of respiration, but the results are often unsatisfactory, and the organs may require to be aided artificially in various ways, as will be referred to immediately. Other of the placental activities, however, cannot be vicariously carried out. For instance, the function of preventing the ingress of germs, pathogenic or non-pathogenic, to the fetal body cannot be done efficiently. The best that can be accomplished is to render and to keep the *couveuse* as nearly aseptic as may be. Again, it is impossible to imitate the nutritive interchanges which go on between the fetus and the mother by means of the placenta: but experience has shown that if the mother is able to nurse, and if the infant is capable of drawing milk from her breast, a great deal can be done to improve the premature child's chances of survival. In the case of the fetus, nourishment passes to the internal organs directly through the blood of the umbilical vein, and reaches the liver at once: in the case of the premature infant that is unable to suck, it has been found to be of advantage to pass predigested food directly into the stomach by means of a tube or to drop it into the mouth with a dropper. This procedure, which has been termed "gavage," imitates, although not perfectly, the intrauterine method of feeding, and will often help to save life.

With regard to the composition of human milk as compared with that of the nutritive fluid which passes through the placenta to the fetus in the last weeks of pregnancy, it is necessary to pay some attention. Analyses of the ash of human milk show that it contains a relatively large quantity of potassium salts and of calcium. In respect of these two constituents, therefore, the mother's milk or that of a wet-nurse may be said admirably to make up for the loss which the infant has suffered through being deprived of the last two months of intrauterine feeding. Human milk, however, is known to be markedly deficient in iron; in this respect it differs from the milk of animals, and offers an exception to Bunge's law—resemblance between the ashes of the fetus and those of the milk of the mother animal. This exception has been physiologically explained by the flush of iron which takes place through the placenta in the last three months of fetal life in the case of the human fetus; it has been thought that enough iron is thus stored up in the fetal tissues to counterbalance the deficiency in the mother's milk. This excess of iron is, of course, wanting in the case of the premature infant that has lost the placental interchanges of the last two months of pregnancy.

It, therefore, seemed to me to be necessary to add iron to the food of the prematurely-born child. Theoretically, it might be well if we could give the iron through the skin; but the pharmacologist whom I consulted on this point did not regard the plan as feasible. It then seemed to me that we might give it through the mouth in an easily-absorbed and unirritating form. I accordingly tried the effect of the liquor ferri peptonatus, first in the case of full-time infants at the Maternity Hospital, and lately upon a premature infant in private practice. I gave it in doses of m v thrice daily in a few drops of water between nursings. In no case did the medicine apparently cause any gastric or other disturbance. Of course the experience is too limited to enable us to judge whether the iron will prove a help to enable the premature infant more successfully to cope with the requirements of its new environment; but, theoretically at least, the giving of it would seem to be justified, and, practically, it does not at any rate appear to do any harm.

If human milk is not available for the premature infant's feeding, then, as every medical man knows, the prognosis for the child becomes much graver. The food which is usually given is cow's milk, although asses' milk if obtainable would probably give better results. The amount given ought not to exceed four teaspoonfuls at a time, and the intervals between feedings ought not to be longer than one hour and a-half. Sterilization of the milk is a *sine quâ non*, for the tendency of microbic infection by the gastro-intestinal tract is very great. As to the exact modification of the milk opinions differ, but it would seem to be reasonable to limit the amount of sugar for the powers of the premature infant to digest this substance are small. In these cases, also, the iron would seem to be indicated.

To keep the infant much in the dark is also good, for the light may prematurely stimulate to inco-ordinated action the muscles of the eyeball, and so lead to the production of strabismus.

In the third place our treatment of the premature infant ought to aim at awakening or strengthening the dormant or inefficient functions of its organs. This applies specially to pulmonary respiration, and includes as a rule the resuscitation of the infant at birth, for such infants are generally born in an asphyxiated state. The Schultze swinging movements are not particularly suitable for the premature infant (they increase evaporation from the skin and chilling and may be traumatic), and I recommend rather one of the other plans of exciting respiration, such as the alternate flexing and extending of the trunk of the child as it lies upon the palms of the obstetrician's hands. The infant ought to be wrapped up in cotton wool while this procedure is being carried out. The inhalation of oxygen has been recommended upon the principle that as only a part of each lung is acting it will be advisable to supply to it a larger quantity of oxygen than is contained in ordinary air. The plan has not been specially successful, possibly because the tissues of the premature infant do not lack oxygen, but rather the power of combining with it.

URGENCY OF THE PROBLEM.

With all care, and with every precaution, the premature infant will often fail to survive birth. This is very specially the case when the prematurity is due to some active or chronic malady of the mother, or to a disease or deformity of the infant himself. The ideal management of the premature infant is, of course, prevention: and, no doubt, much is possible in this direction. But even if we could banish syphilis and alcoholism and lead poisoning, and the many other causes of the premature ending of pregnancy, there would still remain the infants born as a result of the therapeutic induction of premature labour. If this obstetric operation, which has always been a favourite in British practice, is to hold its own against symphysiotomy and the Caesarean section, it is essential that the infantile mortality and morbidity be greatly reduced. The problem of the premature infant is on this account a very real and a very pressing one. Further, the steady fall in the birth-rate in the British Isles as well as in some foreign countries and in our own colonies, has, so to say, caused an appreciation in the value, economic as well as sentimental, of the premature infant. When it is borne in mind that in England and Wales in 1871 the birth-rate was nearly 35 per 1,000 (34.7 was the exact figure), that it had fallen to 29.3 in 1899, to 28.9 in 1900, and that it was as low as 28.5 in 1901, it is evident that there is a pressing need to conserve the lives of the infants that are actually born, even although they are prematurely born. It may not be possible exactly to define their value to the State and the community, but manifestly it is greater now than it was when the birth-rate was 35 per 1,000. The problem of the premature infant is urgent.

AN ANALYSIS OF FORTY-SIX CASES OF CANCER OF THE BREAST WHICH HAVE BEEN OPERATED UPON AND SURVIVED THE OPERATION FROM 5 TO 32 YEARS,

WITH REMARKS UPON THE TREATMENT OF RECURRENT GROWTHS, INCLUDING THE DISEASE OF THE SECOND BREAST, OPERATIVE AND OTHERWISE,*

BY THOMAS BRYANT, M.CH., F.R.C.S.,
Consulting Surgeon to Guy's Hospital.

THE paper I ask your attention to this evening should be regarded as a sequel to a communication made by Mr. Marmaduke Sheild on January 25th, 1898, to this Society, when I had the honour to occupy the presidential chair; as it was from the interesting collection of facts which he had gathered from varied sources and analysed that I was led to search my own notebooks and to extract from them such material as might throw some light upon (1) the prospects of life after primary operations for cancer of the breast; (2) the question of recurrence of the disease at the seat of the primary operation and second breast; and (3) the nature and effects of operation upon the progress of the disease.

It must, however, be steadily borne in mind by the readers of this paper, that the cases tabulated include only such examples of cancer of the breast as have been under my care and have been operated upon, and have survived the primary operation five years and upwards; for I have always felt that the three years' freedom from recurrent disease after a primary operation, which has been so dogmatically laid down as a significant indication of a cure of cancerous disease, was not only unreliable but misleading.

In my book on *Diseases of the Breast*, published in 1887, I satisfactorily showed (page 152) the inaccuracy of such a view, and pointed out that if, after the primary operation for cancer of the breast, 40 patients out of 60 there tabulated died within this three years' limit, there were at least 20 patients who had survived the primary operation from five to ten years, for 4 of these 20 instances lived for eight or nine years, and 6 for ten years.

In the tables I now bring before you, many instances of much longer survival after the primary operation will be found recorded, and likewise many instances of recurrence of disease after prolonged periods of immunity which are very striking.

* Read before the Royal Medical and Chirurgical Society.

Group I.

This includes 17 cases of cancer of the breast relieved by operation which are now alive, or have died without evidence of recurrent disease, five or more years after operation; 4 have died, and 13 are living and in good health. Of the 4 which died—

Case 15 died from an accident, aged 62, five years after the primary operation.

Case 16 from old age, aged 80, twenty years after operation.

Case 14 from acute jaundice, aged 63, fourteen years after operation; and

Case 13 from intestinal obstruction due to gall stones, aged 79, thirteen years after operation. In both of these cases a necropsy was performed, and no evidence of recurrent disease was found.

Of the 13 cases which are now alive, 1 has remained free from recurrence for five years, 1 for six years, 3 for eight years, 3 for nine years, 2 for ten years, 2 for fourteen years, and 1 for sixteen years. Taking the whole group of 17 cases together, there was an absence of any evidence of recurrent disease from five to ten years after the primary operation in 9 cases, and from ten to 20 years in 8 cases, 13 of these patients being now alive and apparently well.

I should like here to say that the operation I now do, and have done for many years, is neither the one I was originally taught and have seen practised by my senior colleagues—which was certainly inadequate—where lymphatic glands were rarely removed, or anything more than the diseased breast itself, with the skin covering it when involved; nor is it the more modern operation known as "Halsted's," and made public in 1894, but which should be known as "Moore's" or Banks's, who advocated the principle of free removal in 1882, not only of the diseased breast with the fat and skin over it in every case, but also of the pectoral muscle, fascia, and lymphoid tissue from the axillary vessels, and which is now known as the complete or adequate operation. My operation is something between the two, but nearer the latter than the former, and I hold with the results before me that it is a complete and adequate measure under the most favourable conditions.

The Operation Adopted.

My routine operation is to remove the whole gland that is diseased with the skin and fat over the diseased area; when the axillary glands are enlarged to dissect out the axilla and subpectoral spaces, and in every case, for examination purposes, to cut into the axilla, and to take away glands or lymphoid tissue which appears to be suspicious, but otherwise not to dissect it out, my incision into the axilla skirting the axillary border of the pectoral muscle. I invariably drain the wound through the axilla for the first two or three days.

The pectoral muscle I dissect clean, but do not remove it, although should disease be found to have invaded the muscle, the diseased muscle must be freely taken away. I regard the removal of the muscle as a routine measure to be unnecessary, and the facts I now bring before you tend to support this view, for I am more impressed by accumulating experience that successful results in operations for cancer are more certainly to be secured by an early operation than by "performing tremendous operations upon practically hopeless cases."[1]

I may say at once that it was from the careful study of Moore's memorable paper on Inadequate Operations on Cancer, published in 1867 in the fiftieth volume of the *Transactions* of this Society, that I was led to deviate from the practice I had been taught, and to follow, as far as I thought right, in the lines of Moore's suggestions, which have been, without question, the basis of all recent operative procedures.

In more recent times the principle of free removal of cancerous disease has been well brought before the profession by Sir W. Mitchell Banks in papers of great importance published in 1877, 1882, and 1900 in the BRITISH MEDICAL JOURNAL, and it is to him more than to any other writer that Moore's views have become established.

What I regard as a point of more importance than so-called complete or adequate operations is early interference, and in my sanguine hours I have imagined, with Sir Mitchell Banks, what the results would be if all cancers were thoroughly

excised when they were no bigger than peas, or, as I would prefer to say, when the disease is in its very early stage.

Indeed, I am fairly sure that it has been from my acting upon this principle that I am enabled to bring before you to-day the satisfactory results of treatment which my tables indicate, for in Group I, in which there are 17 cases tabulated, the disease was in most of them in an early stage of development when submitted to operation. The disease appeared, when I first saw the cases, as a lump in the breast without skin implication or lymphatic glandular enlargement, and in which the question arose as to the lump being due either to the presence of a cyst or early cancerous infiltration, for at this stage of the tumour's growth the question could only be settled by an exploratory incision.

Under such circumstances an exploratory incision was made into the lump, and when cancer was recognized the gland was removed. Under these circumstances the good results which have been recorded are to be explained, and they are certainly satisfactory. They are, moreover, what I expected they would be when I operated, for in 1900 I wrote a paper for a sister Society [2] on Cysts of the Breast: their Relation, Frequency, Diagnosis, and Treatment, and in composing it I analysed 242 consecutive cases of breast disease, as they had recently appeared before me in private practice; 163 of these cases were registered as solid tumours or examples of cancer or sarcoma, and 67 as cases of cystic disease.

Of these 163 diagnosed as solid tumours, 126 were operated upon, and out of the 67 examples of cyst disease 44 were operated upon, the percentage of cyst disease to cancerous disease being 25 to 74; the conclusion becoming clear that out of every four cases of breast disease, more or less simulating cancer, one will prove to be an example of cyst disease.

I went, however, much further, and was able to show that if we eliminate from our consideration all such examples of cancerous tumours of the breast as are so well marked as to forbid an error in diagnosis being made, and apply our argument to those alone in which there is only a lump in the breast gland without any collateral symptoms to support a diagnosis of cancer, it would not be wrong to conclude that in every two cases of this kind one will be cystic and the other cancerous.

In these cases of early cancer an exploratory operation was undertaken, and when the tumour was found to be cancerous the gland was removed by the mode of operation I have described, the operation having been undertaken at the period of the tumour's growth, after which the most favourable result might be expected. In all of these the axilla was explored, but not dissected, the incision I adopt allowing the finger to explore the subpectoral spaces.

In all of these cases the whole gland was removed with the fat over it and integument. In all of these the pectoral muscle was well cleaned, but not removed. In a few of these only were enlarged lymphatic glands found. In all of those early cases microscopic evidence was sought and found to correspond with that which the naked-eye appearances had suggested. In fact, in the majority of the cases of this group, as well as in many in Group II, the same remarks are applicable. The disease in all was palpably cancer, and the success recorded is due to its complete and early removal.

Group II.

This group includes 19 cases of cancer of the breast relieved by operation, and followed by recurrence in the seat of the primary operation.

In 3 of the cases (Nos. 12, 17, 18) recurrence took place in the scar of the primary operation, and a second operation was performed one year after the primary; 2 of these 3 cases were well and in good health four years later, and in the third case ten years later.

In 9 cases recurrence occurred from three to seven years after the primary operation. In 3 of these no second operation was called for.

In one of the 3 cases (Case 4) the recurrent disease appeared as tubercles in the flaps three years after the primary operation, and spread slowly for nine years, when bladder disease appeared. In another (Case 1) the recurrence showed itself as a sternal growth six years after operation. In the third case (No. 2) chest symptoms appeared seven years after operation.

In the 6 other cases second operations were undertaken three, three, four, five, five, and seven years respectively after the primary. In one (19), three years after the first operation, a tumour was removed from the axilla, and the patient died six years later from lung disease, aged 65, having survived the first operation nine years. In Case 14, where a second operation was called for three years after the first, the patient was well six years later. In Case 15, where an interval of four years had passed between the first and second operation, the patient was well six years later. In a fourth case (6), where a second operation was called for five years after the first, a recurrence took place after a second five years, when chest symptoms appeared. In the fifth case (13), where a second operation was performed five years after the first, and a third small one two years after the second, the patient was active and in good health twelve years after the first operation and five after the last. In the sixth case (16), where a second operation in the scar was performed seven years after the first operation, the patient was well in all ways five years later, or twelve years after the breast was removed.

Of the 7 other cases of this section of the group the intervals between the first operation and a recurrence were from ten to thirty years.

In Case 10 a woman aged 52 was operated upon, and had no recurrence for ten years, when it appeared in the scar, and as the local disease gave her no pain and was of slow growth it was left alone.

In Case 8, where a woman of 50 was operated upon, a recurrence took place eleven years afterwards, when a second operation was performed upon the scar, and she was well two years later.

In Case 3 a woman, aged 60, had been operated upon, and a recurrence was suggested twelve years later by abdominal symptoms.

In Case 7, a woman, aged 30, a recurrence of disease in the flaps took place thirteen years after the primary operation. A second operation and small third were performed, and one year after the last she was well.

In Case 5 the woman, when 38, had her breast removed for cancer; twenty-five years later she had a recurrence in the skin over the seat of operation, which spread, but she was alive five years later.

In Case 9, where a woman, aged 46, was operated upon, no return took place for thirty-one years, when it appeared as a sternal growth, and five years later this patient was 82 and in good health.

In Case 11 the patient had been operated upon when 46 years of age, and 32 years later, when 78 years of age, she had a recurrence upon the sternum, but was otherwise well.

Group III.

This group includes 10 cases of recurrent disease after operation in which the second breast was involved, and 4 cases in which the breast disease was associated with cancer of other parts of the body.

In 4 of the 10 cases (Nos. 22, 24, 26, 29) the second breast was attacked about two years after the first had been removed. In 1 (No. 27) of the 6 other cases the second breast became diseased three years after the primary operation. In 2 others (25 and 28) ten years elapsed before the recurrence appeared, and in the 2 other cases (Nos. 21 and 23) the interval between the primary operation and the appearance of the disease in the second breast was respectively twenty-three and twenty-four years, the recurrent disease having in both these cases involved at the same time the scar of the first operation, this fact suggesting to the sceptical mind the truth of the view that the primary disease had been cancerous.

In 4 of these 10 cases the second breast was not removed, the local disease having been extensive and inoperable. In Case 21 the patient was 67 years of age, in Case 23 80 years of age, in Case 29 48 years of age, and in Case 27 only 38 years of age.

In the remaining 6 cases the second breast was removed. In 1 (20) no signs of return were to be traced six years later; in Case 24 no signs of return existed five years later; in Case 26 the patient was well two years later, and in Case 28 three years later. In Case 25 there was no recent history.

The four remaining cases in Group III have been added as cases of interest, but they do not form any part of my tables.

In Case 30 a woman, aged 60, had her breast removed for cancer, and came under care fourteen years later, when 74 years of age, for cancer of her hand, which was treated by amputation.

In Case 31 a patient who was treated for epithelioma of the nose at the age of 68 with success, returned for treatment five years later, when 73 years of age, with an acute cancerous affection of her breast, lymphatics, and skin, which was inoperable.

In Case 32 a woman, who came under treatment when 72 years of age with atrophic breast cancer of twenty years' standing, reappeared six years later with an epithelial cancer of her nose.

The last case (33) is one in which an annular cancerous stricture of the rectum coexisted with an extensive cancerous affection of the left breast of four years' growth.

I regard these cases as illustrative of coincidences in the history of cancer, and record them as such.

I propose now, in order to make the questions respecting these Groups II and III of recurrent cases clearer, to analyse them further, and to subdivide them into tables to show:

First, the length of the interval that existed between the first operation and the recurrence of the disease.

Secondly, as to the seat of the recurrence.

And thirdly, as to the duration of life after operative interference.

TABLE I, GROUP II.—*Duration, including Eight Cases of Recurrence not Requiring Operation.*

No. of Case in Group II.	Length of Interval between First Operation and Recurrence.	Age of Patient at Time of Recurrence.	Seat of Recurrence.	Subsequent History.
4	3 years	55	About scar	Spread slowly for 6 years, when bladder symptoms appeared.
1	6 years	56	Sternum	In good health.
2	7 years	61	About scar: chest symptoms	—
10	10 years	62	About scar	Very slow growth.
3	12 years	72	Abdominal symptoms	—
5	25 years	63	In scar	Atrophic cancer, alive 5 years later.
9	31 years	77	Sternum	Alive 5 years later, aged 82.
11	32 years	78	Sternum	In good health.

In this group of 8 cases 5 had survived the primary operation from six to thirty-six years, 1 had died from lung disease nine years after operation, 1 was evidently suffering from bladder disease twelve years after operation, and a third sinking with chest disease ten years after operation—all, it may be assumed, of a cancerous nature, the 8 cases having respectively survived the first operation six, nine, ten, ten, twelve, thirty, thirty-two, and thirty-six years, and 5 of these having apparently some years of life before them.

TABLE II, GROUP II.—*Including 11 Cases of Recurrence with Second and Third Operation.*

No.	Interval between First and Second Operation.	Age.	Seat of Return.	History.
12	1 year	51	In scar	10 years later well.
17	1 year	42	In scar	4 years later well.
28	1 year	48	In scar	4 years later well.
29	3 years	[illegible]	In axilla and scar	6 years later died of lung disease, 9 years after first operation.
14	3 years	[illegible]	In scar	6 years later well, or 9 years after first operation.
25	4 years	[illegible]	In scar	Third operation 2 years later; 6 years later was well, or 12 years after first operation.
6	5 years	[illegible]	In scar	5 years later another recurrence, with chest symptoms, 10 years after first operation.
13	5 years	[illegible]	In scar	Also third operation, after which was well 5 years later, or 12 years after first operation.
26	7 years	[illegible]	In scar	5 years later well.
8	10 years	[illegible]	In scar	2 years later well.
7	15 years	[illegible]	Also third operation in scar	1 year later well.

In this group of eleven cases—

Two had lived five years after the primary operation, and were in good health four years after a second operation. One had lived eleven years after the primary operation, and one was well ten years after the second. One had lived nine years after the first operation, and was well six years after the second. One had lived twelve years after the first operation, and was in good health five years after the second. A second had survived the first operation twelve years, and was well two years after the second. A third had survived the first operation twelve years, a second and a third operation, and six years later had no signs of return. One survived the first operation fourteen years, and was well one year after the third. One case had survived the first operation seven years, had endured a second three years after the first, and four years later died from chest symptoms. One case had no signs of recurrence for twelve years, when, at the age of 72, symptoms appeared suggestive of abdominal disease. One case had lived twelve years after the first operation, and, five years after the second, had some suspicious chest symptoms.

In three of the eleven cases death had taken place or was near at hand seven, twelve, and twelve years respectively after the primary operation. And in eight others there was every prospect of continuous health five, five, nine, eleven, twelve, twelve, twelve, and fourteen years respectively after the breast had been originally removed.

GROUP III.—*Seat of Recurrence, including Ten Cases in which the Second Breast became involved in the Disease.*

Case.	Interval between First Operation and Recurrence.	Operation.	History.
22	2 years	Yes, aged 55	1 year later recurrence in scar of last operation.
24	2 years	Yes, aged 57	5 years after second operation in good health.
26	2 years	Yes, aged 52	5 years after second operation in good health.
29	2 years	No, aged 50	Open cancer of scar of first operation, with disease of second breast.
27	3 years	No, aged 37	Open cancer of scar of first operation, with disease of second breast.
20	4 years	Yes, aged 54	6 years later no signs of recurrence.
28	10 years	Yes, aged 48	Breast and glands removed; 3 years later well.
25	10 years	Yes, aged 50	Did well after operation, but no recent report.
21	24 years	No, aged 66	Open cancer of second breast.
23	23 years	No, aged 80	Open cancer of original scar and second breast.

In 5 of these cases no second operation was performed, as in all of them an open cancerous ulcer existed, and it was evident that the sands of life's hourglass had nearly run out. In these cases, two, two, three, twenty-three, and twenty-four years respectively had passed before a recurrence of the disease had appeared, and the patients were, when seen with the disease of the second breast, 37, 50, 55, 66, and 80 years of age.

In the second 5 cases the second breast was removed. In 2 of these the interval between the removal of the first breast and the recurrence of the disease in the second breast was two years, and both patients, who were at the second operation 52 and 57 years of age, were well and free from disease five years later.

In Case 20, where the interval between the first operation and the recurrence in the second breast was four years, and the patient was aged 54, there were no signs of recurrence six years later.

In Case 28, where the interval of recurrence was ten years, and the second operation was performed when the patient was 48, the breast and enlarged axillary glands being cleared away, there were no signs of a return of the disease three years later; and

In Case 25, where the same period of ten years had passed before the second breast was removed, when the patient was 50, a good recovery followed the operation, but there is no later history.

Taking the 10 cases, however, as a whole, it appears that whilst in 3 instances where recurrence took place in the second breast within three years of the operation upon the first, surgical interference could do but little, as in 2 other cases where the subjects were 66 and 80 years of age.

It must be recorded that in 2 others where recurrence took place in less than three years, the patients respectively being 52 and 57 years, there were no indications of recurrence when last seen five years subsequently, or eight years after the primary operation. In Case 20, where the second breast was removed four years after the first, the patient was well six years later, or ten years after the primary operation; and in Case 28, where the interval between the removal of the first breast and the second was ten years, the patient was known to be well three years later, or thirteen years after the first operation.

Conclusions.

If we look at these tables as a whole it will be evident that

the interval which may take place between the primary amputation of a breast for cancer and its recurrence in the scar or second breast, when such occurs, is most uncertain. That whilst in half the cases tabulated recurrence took place in five years or less, in the second half the interval before recurrence appeared varied from six to thirty-two years; and that in at least two-thirds of these cases it occurred after ten years; and also that when second or third operations were undertaken the prospects of life were not bad (Table II, Group II and Group III).

With respect to the seat of the recurrence, it seems that such appeared in or about the scar of the original operation in 14 cases; in the scar and axilla in only one case; in the sternum in 3 cases; in the second breast in 10 cases, and in 5 of this 10 the scar of the first operation was likewise involved.

I would here ask the surgeons who advocate the clearing out of the axilla of all lymphoid tissue as a rule of practice in every case to consider the fact given above; in only 1 case was the axilla cleared out in an operation for a recurrent affection, and, as already described, it is not my custom to clear it out in all; and yet these results do not suggest an inadequate operation.

I bring this paper before the profession with no little pleasure, for it shows that operations for cancer of the breast, when undertaken at an early period of the disease, are not so unsatisfactory in their ultimate results as we have been led to believe. To have been able to tabulate in Group I 17 cases of operation without evidence of recurrence in 9 cases from five to ten years, and in 8 cases from ten to twenty years after the primary operation, and to add that 13 out of these 17 cases are now alive and well, with probably some years of enjoyable life before them, is somewhat startling.

To add to these conclusions the assurance that should recurrence of disease appear after the primary operation, the prospects of prolonged life without second or third operations, as shown in Table I, Group II, are neither unreasonable nor unsatisfactory; for only 2 of the 8 cases so tabulated had survived the first operation less than ten years, and 6 had survived from ten to thirty-six years, and 5 of these had apparently some years of life before them.

To show, moreover, as in Table II, Group II, when recurrence of disease takes place and has been treated by second or third operations much benefit may be conferred, is likewise encouraging, for the study of this table which I ask you to make will suggest that second, and even third, operations undertaken as soon as recurrences appear are often followed by fairly long periods of enjoyable life, for in five or six of the cases tabulated the patients were well and in good health five or six years after these operations.

Where the second breast has become involved a like principle of practice is also suggested. In 4 out of the 10 cases tabulated no operation was justifiable, but in 6 cases the second breast was removed, and in 4 of these cases there were no indications of recurrent disease five years, six years, two years, and three years respectively: so that it may fairly be said that operations on the second breast are not only justifiable, but conducive to prolonged life. For my own part, I am so much more satisfied with the results of my own practice since I have put together the materials embodied in the paper I have just read, and brought out the results of its analysis, that I do not feel disposed to deviate from it in any great degree unless the advocates of what I must describe as an over-zealous practice can prove to me that I am wrong and that they are right by the publication of material facts better than those I have now recorded.

By way of summary I should like to express my conviction that the results of operations for cancer, whether of the breast or elsewhere, would be much better than they now are if they could always be undertaken during the early development of the disease, as illustrated by the majority of the cases in my tables—Groups I and II: that every breast tumour, neither clearly inflammatory nor encapsuled, which seems to involve gland tissue, and may therefore be cancerous, should be at once explored and removed, if found to be cancerous, with the whole gland: and that recurrent growths when localized should be similarly treated.

In advanced and neglected cases, where the lymphatic glands and covering integument are involved, Moore's, Banks's, Halsted's, or Gould's so-called complete operation may be called for, but its results are not by any means so likely to be as favourable as those I have reported. Lastly, in cases of recurrence not favourable for operation, unless the removal of the ovaries can be shown in the future to be successful, the *x* rays should be employed, for the benefit which has been derived by this treatment when judiciously applied by men of understanding has, in my own experience, been so successful as to raise hopes which I hardly like fully to express, and at the same time seems to be free from danger or serious consequences when utilized by those who know the dangers of penetrating rays carelessly employed, and the difficulties with which the practice bristles. I must, however, add that the influence of the rays, to make them effective, must be maintained for several months after it has seemed to be beneficial; a three-months course, with about three applications a week, appears to be the shortest from which any permanent good is to be expected, and this treatment is full of hope.

References.

1 British Medical Journal, January 4th, 1902, p. 9. 2 *Transactions*, Medical Society of London, vol. xxiii; *Lancet*, April 28th, 1900.

A NOTE ON THE OPERATION FOR REMOVAL OF MALIGNANT DISEASE OF THE BREAST.

By DOUGLAS DREW, B.S., M.D., F.R.C.S.Eng.,

Surgeon to the Hospital for Women, Soho, and to the North-Eastern Hospital for Children.

Much has been written on this subject, but still considerable differences in practice appear to exist among surgeons who are in the habit of performing what has been termed the "complete operation" for removal of malignant disease of the breast.

While some authorities are strongly opposed to the removal of more than the fascia, with perhaps a thin layer of the fibres of the pectoralis major—on account, it is urged, of the subsequent impairment of the movements of the arm—others recommend that the sternal portion of the muscle should in all cases be removed, while they carefully preserve the pectoralis minor, or occasionally divide the latter muscle in order to more fully expose the axilla. Others, again, make a practice of removing both pectorals with the breast as a routine procedure. It is to the removal of the pectoralis minor that I wish to draw attention.

If it be considered necessary to remove the sternal portion of the pectoralis major (and this, I believe, is the practice most general at the present time) a great advantage is gained by removing with it the whole of the pectoralis minor; by so doing the operation becomes more thorough in that the clearing of the axilla from the clavicle downwards is greatly facilitated. Other advantages of the procedure may also be mentioned: (1) At all times it is difficult to close the wound owing to the extensive removal of the skin: this is rendered considerably easier in the absence of the pectorals. (2) When the pectoralis minor is left, the lower border of it is apt to form a prominent cord of indurated tissue which overhangs the axilla, and this at times is a cause of considerable discomfort to the patient.

During the last two years I have in almost all cases removed the sternal portion of the pectoralis major, and in the more recent cases it has been my practice to remove both pectoral muscles, but it is too early at present to note what improvement there is in immunity from recurrence.

The chief disadvantage that can be urged against it is that it renders an already extensive operation more extensive, but this is more than compensated for by the shortening of the time occupied in clearing the axilla, for instead of working in a limited space, the whole of it is laid open, and the fat and fascia cleared from the axillary vessels with greater precision and rapidity.

From the point of view of the subsequent movements of the arm, the pectoralis minor has practically no influence, owing to its insertion into the coracoid process, so that in this connexion there does not appear to be any reason for preserving it; and, for the same reason, the division of it and subsequent suture has little to recommend it.

It is important to inquire what the after-condition of these patients is when both pectorals have been removed. I have

been surprised at the slight amount of inconvenience they suffer; in fact, in many cases it does not appear to be greater than when the muscles have been left intact. The explanation of this, I believe, is that in the majority of the cases in which the pectoral muscles are preserved, the nerve supply of these muscles is cut off. If it is so important to preserve these muscles, on account of the impairment in the movements which results from their removal, it must be equally important to preserve the anterior thoracic nerves which supply them, yet this point is not emphasized in any of the recent articles or standard works on the subject.

It would be interesting to know in what proportion of the cases operated upon without removal of the pectorals these nerves escape injury when no precautions are taken to ensure their safety, and when the procedure of clearing the axilla is thoroughly performed. From my own experience—and I have paid particular attention to this point—I have found it anything but easy to avoid dividing these small nerves more or less completely when working in the hollow of the axilla. Now, if this frequently occurs, as I believe, it is an additional argument, if such is needed, in favour of the more thorough procedure of removing both the muscles as a routine measure.

CASE OF VESICO-VAGINAL FISTULA, CURED BY A METHOD BELIEVED TO BE NEW,

WITH REMARKS ON THE SURGICAL TREATMENT OF VESICO-VAGINAL FISTULAE.

BY FREDERICK J. McCANN. M.D., C.M.EDIN.,
F.R.C.S.ENG., M.R.C.P.LOND.,
Physician to In-patients, Samaritan Free Hospital for Women, London.

THE successful result of the method adopted in the case to be narrated has prompted me to put on record the full details of the operation. Reference to the literature of the subject will show how much ingenuity has been displayed in devising different methods of closing vesico-vaginal fistulae. Many, however, are modelled on what may be termed the "old operation" of Marion Sims and Simon, which was devised and practised at a time when operative gynaecology was in its infancy. The operations of vaginal hysterectomy and colpotomy have demonstrated the ease with which the bladder may be separated, both from the uterus and the vaginal wall, without any interference with its functions. This important fact gives the key to the treatment of vesico-vaginal fistulae.

In closing an opening in any hollow viscus two important surgical principles must be borne in mind: (1) To avoid all tension on the stitches; (2) to avoid passing the suture material through the inner lining of the viscus.

It is the absence of tension on the sutures, and the employment of Lembert's method of applying them, which has made the operation of closing the bladder in suprapubic cystotomy so successful in aseptic hands.

In operating in cases of vesico-vaginal fistulae the principle to be adopted should be a free separation of the bladder from the uterus and vaginal wall in order to remove all tension, and separate suture of the opening in the bladder with Lembert's sutures. The bladder sutures should be inserted transversely, whilst the vaginal walls should be stitched in a longitudinal direction. Transverse suturing has probably another advantage, for the majority of the muscular fibres at the base of the bladder run in a transverse direction; hence sutures so inserted will tend to produce more accurate apposition. This prevents the two lines of stitches being opposite, and is therefore less likely to favour leakage, should one or more of the stitches become loose.

The operation of paring the edges of the fistula (which frequently fails), should be given up even in fistulae of small size, and in those of large size the paring means the sacrifice of valuable tissue, and the increase of the size of the opening.

Where the fistula has existed for some time, the vesical and vaginal mucous membranes become continuous around the orifice and the bladder adherent in this situation. This adhesion of the bladder prevents the orifice of the fistula from closing, and therefore calls for free separation to promote union. In recent cases the absence of such adhesion in all probability

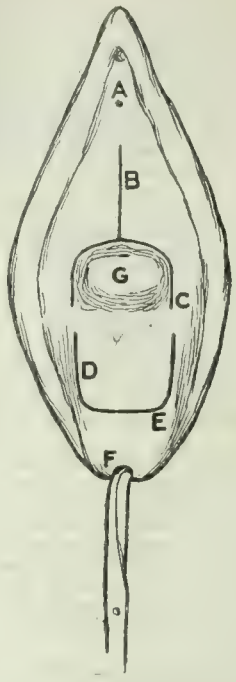


Fig. 1.

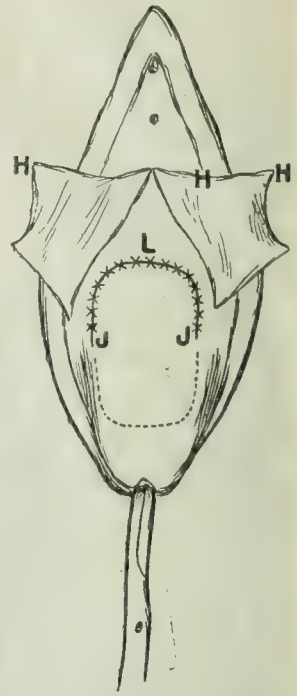


Fig. 2.

Fig. 1.—A, Urethra; B, C, line of incision; D, E, U-shaped flap; F, cervix drawn down by vulsellum; G, fistulous opening.

Fig. 2.—H, H, Flaps of vaginal wall, separated from the bladder; L, bladder; J, J, U-shaped flap stitched to orifice of fistula. The dotted line shows the position of the incision before the flap was turned up to close the fistula. Its mucous surface now becomes part of the lining of the bladder.

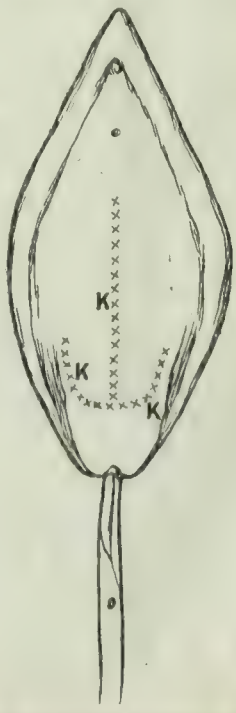


Fig. 3.—K, K, Line of stitches fixing the vaginal flaps to one another and to the cervix.

explains the occurrence of spontaneous closure where the outflow of urine through the urethra is maintained.

In 1850, A. J. Jobert de Lamballe[1] advocated broad denudation of the edges of the fistula, and their exact approximation by interrupted sutures. When the fistula was large, and the approximation difficult on account of the tension, he made incisions in the lateral vaginal walls parallel to the edges of the fistula so as to permit the tissues to be drawn together (*par glissement*).

Later, the methods of Marion Sims[2] and Simon[3] were employed.

Sims denuded the margins of the fistula in a funnel-shaped form down to but not including the vesical mucosa, and then sutured the edges with silver wire.

Simon, in addition to suturing the opening, used tension sutures at a distance from the wound, instead of the incisions employed by Jobert.

Since these methods were described, many modifications have been suggested by different operators. I find, however, that my advocacy of a free separation of the bladder has been anticipated by some of the German gynaecologists. Although its importance has not yet been urged in English books or papers, I was unaware of the existence of their work when I practised this operation for the first time in 1895, and only discovered it on searching through the literature of the subject, previous to writing an account of the operation performed in the following case.

S. R., aged 44, was sent to the Samaritan Hospital for Women on October 26th, 1901, suffering from a vesico-vaginal fistula.

Previous History.—She had had one child twenty years previously; labour natural. Six years later she began to suffer from "falling of the womb." This condition existed for four years before treatment by pessaries was commenced. An operation (perineorraphy) which was performed later only gave relief for a month and recourse was had to further treatment by pessaries. For two years she wore a Zwanck pessary which was removed every three months and replaced after being cleaned. She consulted Dr. Cashin, of Southsea, five months before admission into the Samaritan Hospital, and on removing the Zwanck pessary he discovered a vesico-vaginal fistula, the orifice of which was partially blocked by one segment of the pessary. The fistula had thus existed for five months before her admission.

State on Examination.—She was a spare woman, somewhat anaemic in appearance. All the urine was passed per vaginam mixed with a considerable quantity of purulent discharge. Blood was occasionally mixed with the urine. The urine collected by catheter from the bladder showed a copious deposit of pus. Before operating I decided to attempt to improve the condition of the bladder and vagina. For this purpose frequent douches of warm boracic lotion were employed and urotropine 5 gr. three times daily given by the mouth. The result of this treatment was a marked improvement in the local condition, and on November 6th, 1901, the operation for closing the fistula was undertaken.

Description of the Operation.—The patient being placed in the lithotomy position with the pelvis raised, the cervix was drawn down with a vulsellum. This exposed the opening of the fistula, which was situated high in the anterior fornix at the point of junction of the anterior aspect of the cervix and the vaginal wall. The orifice admitted the thumb with ease, and the bladder mucous membrane was extroverted through it. I intended to do the operation I had done in former cases, namely, free separation of the bladder and suture of the opening; but as the cervix was broad, I thought it would be best to take a U shaped flap from the front of the cervix, turn it over the opening, and stitch it in position. The operation was carried out in the following manner:—The anterior vaginal wall being put on the stretch, an incision was made in the middle line from close to the urethral orifice to the margin of the fistulous opening. This incision was prolonged around the fistula (see Fig. 1, p. 1204). The vaginal wall was then carefully separated from the bladder, and the two flaps thus formed held aside (as in Fig. 2). A small U-shaped flap was taken from the anterior surface of the cervix. This was separated up as in doing the operation of vaginal hysterectomy, in order to allow it to be stitched to the opening without any tension on the stitches. Whilst the flaps were being made a piece of absorbent wool was inserted into the bladder through the fistula to stop the flow of urine. The flap was stitched accurately to the margins of the fistula with chromic catgut sutures inserted after Lembert's method. A curved needle was used to insert the sutures. The opening having been closed, the vaginal flaps were stitched together in the middle line whilst their lower margins were stitched to the margins of the raw surface on the cervix (see Fig. 3). Chromic catgut was also used for these sutures. A gauze pack was inserted into the vagina, and the patient returned to bed.

After-History.—The catheter was passed every four hours for forty-eight hours. After this period the patient passed urine naturally, and has done so ever since. Urotropine was given three times daily for three weeks after the operation in order to get rid of all traces of cystitis. When the urine became free from pus the urotropine was discontinued. There was no leakage from the vagina at any time after the operation. The vaginal wound healed well.

Although I have used fine silk with which to stitch the bladder in my former cases I find chromic catgut properly sterilized so much better that I have now abandoned the former. It is important that one or two additional stitches should be inserted at each end of the line of sutures in order to minimize the risk of leakage.

Another objection to paring the edges of the fistula is the occurrence of intravesical haemorrhage. Two examples of this accident are recorded, one by Kelly[4] and another by Becker.[5] In cases associated with the formation of much scar tissue it is better to dissect it away as it heals badly, and marginal flaps made to close the opening on the principle adopted in cleft palate operations.

I may add that I have adopted this method of free separation of the bladder in the treatment of uretero-vaginal fistula, thus bringing the separated bladder towards the fixed end of the ureter, and implanting the latter into a new opening made in the bladder.

A word, in conclusion, may be said regarding the advisability of using a self-retaining catheter after operation. When such a catheter is used there is always an additional risk of cystitis; and, moreover, a certain amount of paralysis of the bladder results. It is best to use a catheter at regular intervals until the patient can pass urine naturally.

REFERENCES.

1 *Comptes Rend. de l'Acad. des Sci.* and *Traité des Fistules*, Paris, 1852. 2 On the Treatment of Vesico-Vaginal Fistula, *Amer. Jour. of Med. Sci.*, 1852, vol. xxiii, p. 59. 3 *Ueber die Heilung der Blasenscheidenfistul*, Giessen, 1854. 4 *Operative Gynecology*, vol. i, p. 340. 5 *Cent. f. Gyn.*, 1893, No. 38.

BIBLIOGRAPHY.

Milton, *St. Thomas's Hospital Reports*, New Series, vol. xvii, 1887. Dudley, *Chicago Medical Journal and Examiner*, May, 1886. McGill, *Lancet*, November 8th, 1890, p. 967. Freund, *Samm. klin. Vort.*, No. 118, 1895. Kelly, *Johns Hopkins Hospital Bulletin*, February, 1896. Mackenrodt, *Cent. f. Gyn.*, 1894, No. 8. A. Martin, *Zeit. f. Geb. und Gyn.*, No. 19, p. 394. Stanmore Bishop, *Lancet*, June 19th, 1897.

A CASE OF PREMATURE SENILITY OF THE UTERUS.

BY AUGUSTUS W. ADDINSELL, M.B., M.R.C.P.,
Assistant Physician, London Temperance Hospital.

A. B., aged 26, consulted me in 1894 for sterility.

Her history was that she had been married a year, and from the date of marriage had never menstruated. She was a well-developed woman; the breasts were fully formed and nipples prominent. The vulva and external genitals were normal; pubic hair abundant. She commenced to menstruate at 12½ years, was always regular every 28 days, had never missed a period up to marriage; it lasted 4 to 5 days, was occasionally somewhat copious, but never painful.

Vaginal examination revealed a perfectly normal state as far as one could determine: the ovaries were both easily felt; the uterus was freely movable. The cervix appeared healthy, and of normal length and size. The sound passed 2½ in. There was no discharge, either vaginal or uterine. It transpired that the honeymoon had been spent in Switzerland, and that within a fortnight of marriage she had sustained a great shock from what she feared might be a fatal accident to her husband. This occurred about the time that the period was expected. Since then she had never menstruated. I told her I had nothing to suggest beyond a visit to Schwalbach, which was undertaken for two consecutive years. In 1896 there was a slight show for one day only, but with that exception she has not had a period from the day she married, now nearly seven years ago.

I saw her again in July, 1901, after six years of amenorrhoea. She looked in good health: was strong and active, walked and played golf; she complained of heats and flushes at intervals, very irregular, but about every two months or ten weeks. Both ovaries were still apparently healthy, but no cervix could be felt, merely a dimple in the vaginal roof. Bimanually no uterus could be made out, but the sound passed just under 1 in. Sexual feeling was retained, and occasionally the breasts became tense and tender.

This case is unique in my experience. It cannot be described as superinvolution, for the uterus was never enlarged beyond the normal, and so had no chance of involuting. As far as one can see, it is directly due to nervous shock at the time menstruation was due. I have seen many cases where menstruation has apparently been suddenly arrested, sometimes with unpleasant sequelae, which have persisted for a long time.

There is now under my care at the hospital a woman, aged only 22, who, whilst menstruating, witnessed a tragedy of a woman's throat being cut and the victim falling dead at her feet; menstruation was arrested, and the next morning the whole of the hair of the pubes on the right side was pure white, while that of the left remained dark. All the pigment of the right labium majus has disappeared, and the inner side of the right thigh is bleached. In this case menstruation did not take place for nine months, but it is now quite normal; the absence of pigment, however, persists.

Other curious phenomena, the result of shock during

menstruation. I hope to record in the future; but the case, which for want of better explanation, I regard as premature senility, seems to merit a separate description.

One point is interesting. We used to be taught that menstruation and ovulation were necessarily coincident, and, indeed, interdependent. This view is now discarded. Heape of Cambridge, in his interesting study of menstruation in monkeys, has done much to destroy its vitality. In my patient ovulation apparently continues, though menstruation has ceased.

Dr. Percy Boulton, in the BRITISH MEDICAL JOURNAL, vol. ii, 1872, mentions two cases of atrophy of uterus after pregnancy; and refers to Dr. Whitehead's case, which was supposed to be a case of absence of uterus following pregnancy. Mr. Lawson Tait, however, thought that Dr. Whitehead had in reality punctured the fundus uteri, "that the sound was free in the peritoneal cavity."

We are all familiar with cases in which amenorrhoea has followed upon a great shock; in all instances that have come under my notice, recovery has taken place in some months, generally without any local treatment; but I am not aware of any recorded case of permanent amenorrhoea and complete atrophy following directly upon a nervous shock.

It is obviously impossible to prove positively that ovulation persisted here; to prove it to demonstration, it would be necessary that the woman should have become pregnant, or that an ovum should have been discovered in the uterus or Fallopian tube; but it would appear from the occasional swelling of the breasts and general sense of pelvic discomfort that ovulation was still going on. Cases are well known in which, with congenital absence of uterus or infantile uterus, there has been dysmenorrhoea severe enough to necessitate oöphorectomy, which has cured the pain. There are enough instances in which pregnancy has occurred before menstruation to show that ovulation and menstruation are certainly not synchronous, and not necessarily coincident. Again, though amenorrhoea generally accompanies lactation, yet plenty of cases are on record of fertilization taking place during the amenorrhoea of lactation—a clear proof that ovulation continues.

No one, I suppose, doubts the very close and intimate connexion between these two phenomena; but the general tendency of modern views is towards the belief that they are under separate influences, having independent cycles. Happening in many cases, however, to fall together, it presents the appearance of consequent coincidence. The late Mr. Lawson Tait in 28 coeliotomies found in 3 only indications of a ripe follicle. To those not particularly interested, and to the casual observer, when a blood-stained swelling is seen on the ovary it is at once assumed that it is a corpus luteum, or, at any rate, a ripe follicle; but this is not necessarily so, for a careful microscopical examination has revealed in many instances the fact that they are atrophied follicles; and in regard to the recent discussion at the Obstetrical Society on ovarian pregnancy, it is of primary importance that these should all be most carefully examined.

In the Obstetrical Society's *Transactions*, 1898, vol. xl, page 165, Mr. Heape of Cambridge deals with the question of ovulation and menstruation in monkeys. He finds that the Macacus rhesus, though menstruating regularly, yet only breeds at certain seasons (about October). Again, in Queensland certain native women, whilst menstruating regularly, only breed at certain seasons; and I believe there is evidence to show that even in civilized countries certain women, though menstruating regularly, only have a portion of the year in which they become fertilized.

In operating on 42 monkeys (Semnopitheeus entellus), all menstruating, he found no corpus luteum. In 22 Macacus rhesus, 14 menstruating, 8 not, he found no sign in either ovary. In 17 rhesus he found during menstruation signs of a corpus luteum in 3 only, and of these only 1 recent.

At Olympia, when Barnum and Bailey's hippodrome was here three years ago, I studied the menstruation of the famous chimpanzee Johannah. She menstruated every fourth Wednesday for three months that I watched her. During the six years the keeper had been with her he told me she only showed signs of suffering the approach of a male ape during the months of September and October, though she menstruated with the utmost regularity.

In three operations of abdominal hysterectomy on menstruating females of Macacus sinicus there was no indication of any ripe follicle in either ovary to the naked eye, though I carefully looked for them.

I have recorded this case, because it is at least unusual, and if, as I believe to be the case, though I cannot bring absolute proof, ovulation has continued after menstruation has ceased, then it may be regarded as a pebble thrown upon the heap of evidence in favour of the view that ovulation and menstruation are not coincident.

CASE OF INVERSION OF THE UTERUS.

By CECIL GRANTLEY HOYSTED, L.R.C.P.,
L.R.C.S.EDIN., L.S.A.LOND.
Swanley.

FOLLOWING the cases reported in the BRITISH MEDICAL JOURNAL (November 9th, 1901, p. 1408, and December 28th, p. 1865), and occurring at a period when the midwives question is occupying our minds very seriously, and moreover, in a district which has recently been brought into notoriety by a correspondence in the JOURNAL which has had bearing on the midwives question, the following case may present some interest.

An urgent message was sent to me on December 21st, 1901, in the words of the midwife in attendance, "to be as quick as possible; a bad case; something had gone wrong."

On arrival at the house I found the patient, a multipara, aged 33, in a state of collapse, the case being one of complete inversion of the uterus. The midwife stated that she was pressing hard on the abdomen to "push out the afterbirth," adding at the same time "she didn't pull the cord a bit," in a manner which led one to suspect that her conscience pricked her, "when it all came out."

Condition on Examination.—The woman was blanched, cold, clammy, and almost pulseless; the respirations were shallow and sighing, and she had that anxious ashy grey appearance which so often heralds death. There was a large swelling, the size of a very large cocoanut, protruding from the vulva, having at first sight the appearance of an enormous placenta. The first impression was that a large fibroid had been expelled with the placenta adherent, but on abdominal palpation no fundus uteri could be felt in the hypogastrium thus enabling one to form the diagnosis of complete inversion of the uterus.

The treatment of the case was commenced by quickly "peeling" the placenta from the fundus. The separation took place easily, but was followed by profuse haemorrhage from several points. This was controlled by pouring hot water on the inverted fundus, and by compressing it with towels dipped in hot water. The woman's condition being so bad I attempted reduction immediately, but, the operation causing her such intense pain, I administered chloroform to her, laying the piece of lint over her face with the anaesthetic on it while I went on with the reduction. The inverted mass was hard, with an irregular smooth surface; its upper part, however, felt quite regular and smooth, and was obviously due to partial inversion of the vagina. A finger passed between the inverted cervix and the vagina felt the remainder of the vagina as a tense, smooth mucous membrane. On attempting to reduce the mass by gentle pressure on the fundus upwards it became hard and contracted; so, in spite of the collapsed condition of the patient I pushed the anaesthetic a little more and the hardness of the fundus decreased. Then, inserting the fingers of the left hand into the uninverted part of the vagina, the dorsal aspect of the hand being towards the sacrum, I was able by gentle pressure upwards and forwards in the direction of the anterior abdominal wall, at the same time steadying the inverted mass with the right hand, also slightly compressing it so as to diminish its size with the right hand, to "tuck" in a fold of its posterior surface through the cervix. On the fold becoming bigger and deeper I exerted a little more pressure on the fundus, always keeping the direction of the general pressure exerted upwards and forwards, and the mass gradually disappeared through the vulva. Then, continuing to press the fundus upwards with the left hand and compressing it with the right through the anterior abdominal wall, the whole slipped through my hands, the feeling being that of an india-rubber ball after being turned inside out "righting" itself.

On abdominal palpation, the fundus uteri was felt in the hypogastrium, and contraction took place almost immediately, after this there was little or no haemorrhage. I then administered a hypodermic injection of ergotin with strychnine, and turned my attention to the general condition of the woman. She was in a truly desperate state, the pulse could hardly be felt, and she was apparently almost lifeless. Hot blankets, hot bottles, etc., were applied, friction to the extremities, and a large injection of hot saline solution into the rectum was made, about four pints in all being injected, about ℥ij. of brandy was added to the solution. Almost immediately the pulse improved, was a little fuller in volume, but the collapse continued, however, with perseverance in the use of the restorative methods during the next few hours, the condition of the patient improved.

From that time the progress of the case was slow but satisfactory, the lochia during the first few days were a little offensive, and a little elevation of temperature occurred, but on irrigation of the uterine cavity with a douche of hot water and tincture of iodine, the temperature at once abated and the lochia became normal. A mixture of liq. ferri perchloridi and potassium chlorate, administered three-hourly, gave an excellent result in reducing the anaemia and pyrexia and improving the general condition of the patient.

The previous confinements, five in number, had been normal, there was no rupture of the perineum, no displacement, nor prolapse before either pregnancy, and no history of fibroids.

This case presents several points of interest, showing the successful termination of an apparently hopeless case: the cause of the inversion was probably the combination of excessive force on the abdomen, combined with traction on the cords during the attempt to deliver the placenta, both examples of the ignorance of the untrained widwife.

The method of reduction employed was one recommended in some textbooks—on attempting reduction by pressure on the fundus only, contraction took place, and reduction was thus impossible.

By the method of "tucking in" the posterior part of the inverted mass, through the cervix, together with the application of pressure in the proper direction, that is, upwards and forwards, combined with the firm compressing force exerted on the fundus, this force, by compression and thus emptying the uterine vessels, at the same time reducing the size of the inverted uterus, and controlling the haemorrhage, which from the vessels at the placental site was always very profuse, the operation of reduction was much simplified. The removal of the placenta, by reducing the size of the inverted mass, also assisted the operation materially.

The reports of the last few cases show that the prognosis, although very bad, is not, if immediate reduction is practised, and followed by great attention to the urgent symptoms of collapse, quite so hopeless as mentioned in textbooks—the mortality given by some authors being about 75 to 85 per cent.

The value of saline solution injected into the rectum was very marked; a perceptible change took place in the volume of the pulse within a few minutes of the administration, absorption being very rapid after so severe a haemorrhage. The patient afterwards described her sensations when the injection had taken place, "as if something warm was going right through her veins."

The mixture administered of liq. ferri perchlor. and pot. chlor. I have found invaluable in cases of profound anaemia after haemorrhage, especially when complicated with elevation of temperature, the oxygenating power of the chlorate, together with the tonic action of the iron, being presumably both efficacious.

Lastly, the case is of interest as one of a few dangerous cases that one is called to in country practice, to follow the ignorant woman who is a self-styled "midwife." One is continually being called to such cases, often caused by the ignorance of these women. Often payment for one's services will be the last thing considered by the patient. One is obliged to go to the call to duty or run the risk of being considered by the general public, and even by one's neighbouring medical friends, as unworthy of the noble profession of which one is a member. Surely the time has come when two very important questions must be seriously taken up by the General Medical Council—those of the proper training and registration of midwives, and the question of State-aided midwifery.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CASE OF SPONTANEOUS CRANIOTOMY.

MRS. A. B., aged 32, expected her first accouchement about December 24th, 1901. She had never had any illness beyond slight attacks of gout. The catamenia had always been regular. A month before the anticipated event there was haemorrhage per vaginam following a "very bad dream," the patient leaving her bed during sleep. The child was then living, and occupied the left dorso-anterior transverse position. The external os barely admitted the finger tip. The haemorrhage ceased within forty-eight hours.

On December 6th labour pains commenced at 11 a.m., and at the time of my visit were occurring every thirty minutes. The position of the child was rectified without difficulty, and a firm binder was put on the abdomen. The nurse had administered a "good dose of castor oil" that morning. At 5 p.m. I attended in answer to a summons and found that the child was born. Pains came on stronger after applying the binder, the patient being kept upon her feet. The child (a female) was lying on its back with both legs and thighs flexed, the feet resting against the mother's left buttock. The cord was almost black and without pulsation, but there was no discoloration about the body. The skin (outer) was torn off the right shoulder and arm, the front of the thorax and abdomen. The eyes and tongue were protruded; the head presenting the appearance of craniotomy forceps having been employed. The frontal bone was fractured, the fracture extending from above the left orbit to the right malar bone. The occipital was in two unequal portions. Several pieces of bone could be felt within the scalp, while the scalp itself was uninjured. The child was full term, though it weighed barely 6½ lb. There was some difficulty in removing the placenta, which was small but very thick, and contained several fibrous nodules, two of which were the size of a small marble. The patient lost very little, but was considerably exhausted for the first half-hour after parturition. Her pulse was good, but the temperature was only 97°. She has since done remarkably well.

With a view to advising in the event of a subsequent pregnancy, Dr. Arthur E. Giles kindly saw the patient with me. The result of his examination gives the following pelvic measurements: Super. il. ant.. 9¾; cristae ilii. 11¼; conj. ext., 7½; conj. diag., 4¾; tuber. isch., 3½; Kelly's measurement, 4¾. Dr. Giles estimated the conjugate vera about 4¼.

It is evident, therefore, that pelvic deformity is not responsible for the crushing of the child's head. I can only suggest that the contractions were so powerful that the child was expelled with its head in hyperextension, the body passing into the pelvis before the head was completely clear. Even on this supposition it is difficult to account for the stripping of the skin off the child's right side. Any question of culpable violence could be entirely set aside. The case is an uncommon one, even if it is not unique.

Kensal Rise, W. J. CATER, M.D.

ANTISTREPTOCOCCUS SERUM IN PUERPERAL FEVER.

ON February 22nd, 1902, I attended Mrs. L., a primipara, aged 24. Labour was natural, and without difficulty. Everything progressed favourably until the fourth day, when she had rigors, and her temperature rose to 105°, and the pulse-rate to 160. There was no tenderness or distension of the abdomen. It was a case of puerperal fever without any symptoms save the high temperature and quick pulse. I put her on quinine, 5 gr. every three hours, and ordered intrauterine douches of perchloride of mercury, 1 in 2,000.

For four days the temperature kept above 104°, and on one occasion reached 105.6°, and the pulse ran from 140 to 160. As the quinine was badly borne, I tried three 10-gr. doses of sodium salicylate. Although this caused profuse perspiration the temperature was unchanged. I then returned to the quinine, and gave her a single large dose (gr. xx) daily, and ordered cold sponging. The lochial discharge and milk secretion entirely ceased on the third day of the fever. On February 28th, the fourth day of the fever, as the patient was apparently sinking, I injected 10 c.cm. of Burroughs and Wellcome's antistreptococcus serum.

The following day the temperature was 103.4°, and the pulse 132. She looked slightly better, and her respiration was natural, whereas on the two preceding days it had been sighing in character. As this was the fifth day without any sleep, I gave her a drachm of paraldehyde, and she slept an hour towards morning. On March 2nd her temperature was 100.5°, and her pulse 144 but very weak almost running. I injected one-fiftieth of a grain of strychnine, and put her on a mixture of tinct. digitalis, ♏ vijss: tinct. nucis vomicae, ♏v; and ammon. carb., gr. iij. She had improved somewhat at night, and I repeated the paraldehyde, but in divided doses, with an hour's interval. She slept well, and, after this, recovery was rapid and uneventful.

The patient took plenty of nourishment throughout—old whisky, milk, eggs, beef tea, chicken soup, etc.

I think there can be no doubt the antistreptococcus serum

saved her life. My only regret now is I did not use it two days earlier. As to the cause of the septicaemia, I cannot believe that the poison was introduced by my fingers, as I took every precaution before making an examination. The sanitary arrangements of the house were in a wretched state, and moisture simply poured down the walls of the bedroom.

DAVID WILSON, jun., L.R.C.P., L.R.C.S., etc.

Whiteabbey, co. Antrim.

AN INFANT WEIGHING TWO POUNDS FIVE OUNCES.

THE following case may be of interest as bearing on the subject of rearing extremely small children.

Mrs. M. was delivered in January last at 6½ months of a female child weighing 2 lb. 5 oz. A large fibroid situated at the fundus was the probable cause of the premature confinement.

The child was wrapped in cotton wool and placed in an incubator, the temperature of which was at first kept up to 90° F. and has been gradually reduced to 65°. She was kept clean by oil inunction only. The milk has been supplied by the Gordon Walker Laboratory, and with the exception of a slight convulsive attack about five weeks ago, she has shown no signs of indigestion. She was fed at first by means of a glass pipette, fifteen drops at a time, every hour, and at the end of a week was taking hourly one teaspoonful of milk of the following strength: 1 per cent. fat, 3.50 per cent. sugar, and 0.25 per cent. albumen. This has been gradually strengthened and the child is now taking every two hours 1½ oz. of milk of the following strength: 3 per cent. fat, 6 per cent. sugar, and 1.25 per cent. albumen, with 5 per cent. lime water added.

I think she owes her life to this modified milk and the assiduous care of Nurse Fone, who has been unremitting in her attention. The child is now taken out of the incubator occasionally and nursed before the fire, but always sleeps in the incubator at night, and it is hoped that in another month or so she will be sufficiently robust to dispense with it altogether.

Oxford Square, W. M. PRICKETT, M.D.

CASE OF PUERPERAL ECLAMPSIA.

Mrs. A. B., aged 29, multipara, engaged me to attend her at her confinement in the last week in April. She was a strong, healthy woman, and had had no trouble at her three previous labours. I received an urgent message to see her at 10 a.m. on February 16th. On arrival I found her in a state of clonic spasm and quite comatose. Her husband told me that a fit had come on without any warning at 9 a.m., and that several others had occurred since. I ordered an exclusively milk diet and gave chloral, gr. 30 every three hours. She was seen again at noon, but there was no improvement, the fits and coma still continuing. Ten more fits occurred during the afternoon, so, at 6 p.m., I decided to empty the uterus. Dr. Savege kindly administered chloroform, and I dilated the os digitally. At the end of three-quarters of an hour I was able to turn and bring down a leg. Forceps on the head and rapid expulsion of the placenta were considered necessary as the patient appeared in a moribund condition. Another fit came on immediately after the placenta was expelled. A very restless night followed, during which the patient was deeply comatose and quite unable to swallow. All treatment had therefore to be carried on per rectum.

The coma continued till 10 p.m. on February 20th, but from noon on February 17th, Mrs. A. B. was induced to swallow by shouting instructions to her. During the whole time both urine and faeces were passed involuntarily. I was fortunately able to obtain a small amount of the former and found it loaded with albumen.

Potassium bromide, gr. 40, had to be added to the chloral owing to the extreme restlessness; gr. 6 calomel were dropped on the tongue daily. After the patient had regained consciousness at 10 p.m. on February 20th, everything went well till February 22nd when she again developed fits and became comatose. This state lasted till 3 p.m. on February 25th, when consciousness returned.

Since the latter date there has been an uninterrupted convalescence. The albumen has quite disappeared from the urine, the patient eats and sleeps well, has got downstairs, and declares herself as well as ever she was. I may add that the child (male) was born alive, but died at the end of twenty-four hours.

The case seems to me to be of some interest (1) because of the unfavourable prognosis after the induction of labour, and (2) because of two such long periods of coma, for example, 108 hours and 69 hours.

Beverley. W. HERBERT GREGORY, M.D., C.M.Edin.

PERNICIOUS ANAEMIA.

THE case of fatal anaemia reported by Dr. O. K. Williamson and Dr. E. W. Martin is of exceptional interest, not only from its brief duration but from the exceptionally low blood count. In a case of acute Banti's disease recently under my care at the Westminster Hospital the patient died on the sixteenth day from the onset of the illness. The erythrocytes numbered 362,000 per c.mm., the leucocytes being 4,375, and the haemoglobin 20 per cent. It is stated on the authority of Hayem that anything under 300,000 red blood corpuscles is incompatible with life, but Quincke mentions a case in which there were only 143,000.

Welbeck Street, W. WILLIAM MURRELL.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LADY DUFFERIN VICTORIA HOSPITAL, CALCUTTA.

A CASE OF PUERPERAL SEPTICAEMIA OF TWO DAYS' DURATION, FOLLOWING THE DELIVERY OF A MICROCEPHALIC MONSTER, TREATED WITH ANTISTREPTOCOCCUS SERUM: RECOVERY; AND A CASE OF PUERPERAL SEPTICAEMIA OF FOUR DAYS' DURATION TREATED WITH ANTISTREPTOCOCCUS SERUM: DEATH.

(Reported by MARGARET M. TRAILL CHRISTIE, M.D., B.S.Lond., Medical Superintendent.)

THE following case is of interest both from the abnormality of the fetus, the difficulty of labour, the rapid onset of septic symptoms, and the success of the treatment with antistreptococcus serum. On January 5th I was summoned by a former in-patient to a neighbouring bhustie (or collection of huts) to see a patient said to have been thirty-six hours in labour, a primipara. A native untrained midwife was in attendance. The patient, a girl of about 20, had a temperature of 101° and pulse 120. The uterus was large and no contractions could be felt, nor could the outline of the child be made out. The midwife said the membranes had ruptured, but examination proved that this was not the case. No fetal heart sounds could be heard. The patient appeared very ill and was restless, and apparently in continuous pain; there was no oedema of the vulva. On vaginal examination the os admitted four fingers, but was fairly distensible. The membranes were felt bulging in fairly the shape of a head, but no fetal part could be felt. The membranes were ruptured with the finger with some difficulty, after first removing some dirty rags which the midwife had inserted as a home-made form of dilating bag. A large gush of liquor followed, and the outline of the child's body became apparent abdominally, though no fetal heart sounds could be heard.

On vaginal examination, the finger encountered a small body a little larger than the foot but not of that shape, and then slipped into a cavity, which closed on it, suggesting the fetal mouth. The uterus now contracted and expelled into the vagina this presenting part, which now suggested the idea of a microcephalic head. Gentle traction on this with the fingers in the vagina, combined with uterine massage, delivered the head and confirmed the diagnosis. Further traction and massage delivered the body of a full-term child, a typical anencephalic monster, with prominent eyes and a complete absence of cranial vault. The cord was pulsating very feebly, and the child drew about a dozen spasmodic breaths at intervals of about half a minute and then ceased

to breathe. I tried to persuade the family to allow me to remove it, but they insisted on keeping it for burial, being Mohammedans and being thoroughly persuaded that it was a most evil sort of monster and would haunt the house and bewitch them all, if not kill the mother. The placenta and membranes were thoroughly adherent, but otherwise appeared normal when extracted manually. A hot intrauterine douche with a hypodermic injection of ergotin caused good contraction.

When the patient was seen twelve hours later the temperature was 102°, and there were no lochia; next morning she presented the typical appearence of the septicaemic patient who, in Rotunda phrase, "looks better than she is." Temperature 104°, pulse 140; no lochia, no pain, vagina not offensive, due no doubt to douches administered by the hospital native nurse whom I had sent to attend her. In the afternoon the temperature was between 104° and 105°, the pulse 146. The patient's relatives informed me that she was going to die, as this unlucky monster had bewitched her. These Indian women are unfortunately only in too good a position to diagnose puerperal septicaemia; they call it "the dry disease"—that is, the one in which there is complete absence of lochia—and informed me that there was no use their sending her to my hospital, as "in this 'dry disease' English doctors could do nothing any more than native doctors." I prevailed upon them, however, to send her in (January 6th), and immediately on her arrival gave an intrauterine douche of perchloride of mercury 1 in 4 000, and an injection of 20 c.cm. antistreptococcus serum (Burroughs and Wellcome). On January 7th her temperature fell to 101° in the morning, when another injection was given. It remained 101° that evening, and a third injection was given. The next morning (January 8th) the temperature was 100°, and a fourth injection was given. The temperature was normal that night, and never rose again above 99°. The patient had slight sanguineous discharge during her convalescence, and made an uninterrupted recovery.

I have notes of another case of a normal and living child delivered by a native midwife four days before admission. Temperature on admission was 104 8° and pulse 148. There had been lochia, but they had stopped, and the genital canal was offensive. The uterus was gently curetted, and an intrauterine douche given. There was laceration of the perineum, and a foul slough at the wounded surface. An injection of antistreptococcus serum was followed by a fall of the temperature to 101° that evening (November 22nd). On November 23rd, the morning temperature was 101.6° and the evening temperature 99.6°, so the patient was merely douched, and the antistreptococcus serum not repeated. On November 24th, the morning temperature was 99.6°, but about 2 p.m. it went up to 101 4°, and the patient complained of pain in the abdomen which was distended. A further injection of the serum was at once given and repeated that evening. The temperature fell on November 25th to 100° in the morning, but the abdomen became increasingly tympanitic, in spite of carminatives, strychnine, rectal tube and enemata, and the respirations sank to 4 per minute, the pulse imperceptible, and the patient died on November 25th at midnight.

I have tried the antistreptococcus serum for several cases of puerperal septicaemia, and think it is of great use, as the first of the above cases shows, if used early and persevered with at the rate of two injections a day for at least two days. But in the second case, and others like it, the treatment was begun, unavoidably, too late; and in this particular case was stopped too soon because of the rapid fall of temperature.

MONKWEARMOUTH AND SOUTHWICK HOSPITAL.

OVARIAN CYST COMPLICATING PREGNANCY AT FULL TERM.

(Reported by I. G. Modlin, M.D., B.S., Honorary Surgeon to Hospital.)

M. J. A., aged 21, was first seen by me on July 20th, 1900. I was told she was pregnant and expected to be confined in about three weeks. Her friends had considered it an ordinary pregnancy, but had become alarmed owing to the extremely large size of her abdomen, and her utter inability to move out of bed at all, or even to lie on her side.

State on Examination.—On examining the abdomen a huge tumour was seen and felt. It appeared to completely fill the abdominal cavity, and was more marked on the right side. A dull note was present on percussion all over the abdomen, extending right up to the sternum and ribs. In the flanks a clear note was obtained, which was not altered on moving her to either side. Fluctuation was present. On vaginal examination, the os was high, patulous, admitting the tip of a finger, and through it the fetal head was distinctly felt. The uterus appeared pressed back by a tumour in front of it and extending to the right side. There was incontinence of urine owing to pressure on the bladder. *Ballottement* could not be made out. I diagnosed the condition to be one of pregnancy complicated by a large ovarian cyst and decided to wait.

Progress.—On August 9th slight pains came on, and I had her removed to the Monkwearmouth Hospital, as I feared rupture of the cyst, and the house she was in was not all that could be desired. In the evening the pains came on more severely. The patient was put under chloroform and the dilatation of the os was aided by gently inserting the fingers in the form of a cone. As soon as the os was fully dilated I applied the forceps and delivered her of a full-time female child. Full antiseptic precautions were adopted. The case went on all right for eight days, when the temperature went up to 102°. The abdomen was gradually increasing in size, at the rate of half-an-inch a day. At this time it was 46 in. in circumference. The patient was getting much weaker, the pulse and respirations quicker and feebler, and the temperature was keeping up; consequently I was afraid to wait any longer, and on August 30th, exactly three weeks after the confinement, I decided to remove the cyst.

Operation.—On opening the peritoneal cavity, a large cyst presented itself. This was tapped by a Wells trocar, and a large quantity of brownish, grumous fluid, turning purulent, was drawn off. It was a multilocular cyst of the right ovary, and floating in the fluid were several masses of caseous material. The cyst and ovary were removed, and the pedicle tied. The amount of fluid in the cyst was estimated at about fifteen pints. The left ovary was found to be healthy. The peritoneal cavity was washed out with saline solution, Keith's tube inserted, and the wound closed in the usual way.

After-progress.—The tube was removed in twenty-four hours, and the wound healed up by first intention. The evening after the operation the temperature was 100.4°; after that it was never higher than 98.8°. The patient was ready to go home a fortnight after the operation.

Remarks.—In this case I was afraid, first of all, that the cyst might rupture at, or obstruct, delivery. Hence my object in aiding that process as much as possible. Later, when the temperature rose, the lochia being normal in character and not offensive, and the size of the tumour increasing rapidly, I concluded that the cyst contents might be turning purulent and the cyst might rupture, so I determined to remove it by operation at once, instead of waiting longer as I originally intended. On January 14th, 1902, this patient was delivered again. She had a normal, easy labour.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Alfred Willett, F.R.C.S., President, in the Chair.

Tuesday, May 13th, 1902.

Cases of Cancer of the Breast which Survived Operation from Five to Thirty-two Years.

Mr. Thomas Bryant read a paper, describing 46 such cases, which is published at page 1200.

Sir William Mitchell Banks, in discussing the paper, said that statistics of his own cases collected in 1877 showed a mortality of 10 per cent. from the operation, which he attributed to defective hospital accommodation; this difficulty had in Liverpool been for long more than removed. Among the last 90 or 100 cases on which he had operated there had been only one post-operation death. Of a group of 58 of these cases 6 died from local recurrence, 4 living from 5 to 10 years and 2 living 12 and 14 years respectively. In a second group of 12 cases death resulted from general infection without local recurrence; 9 of these lived from 5 to 10 years, 3 died 10, 10, and 14 years respectively after operation. In a third group 12 patients died from other non-malignant disease, 9 from 5 to 9

years, and 3 respectively at 11, 16, and 18 years after operation. The remaining 28 cases were still alive, and, as far as had been ascertained, well, 14 after 5 to 10 years, 12 after 10 to 20 years, and 2 from 20 to 23 years respectively. These, with Mr. Bryant's cases, gave considerable ground for hope. The chief point was to operate early. Another point was to remove skin freely, as in his experience recurrence more frequently occurred in the skin near the scar. In reference to Halsted's operation, and Stiles and Heidenhain's researches, he had never seen recovery in a case with involvement of the cervical gland. Whether cure had or had not resulted from an operation could not be settled after an interval of three years after operation; a much longer interval was necessary.

Mr. BRYANT, in reply, claimed that these results were entirely confirmatory of his. He, however, emphasized the view that if cases were operated on early the major operation involved quite unnecessary risk.

TROPICAL ABSCESS OF THE LIVER.

Mr. RICKMAN GODLEE, who read this paper, made reference in the first place to some of its complications. Perihepatitis, which was usually peritonitis, was an element of safety in operation, as it localized abscesses when they reached the surface. It modified physical signs and accounted for some of the exceptional symptoms. It chiefly affected the convex surface. If it occurred on the under surface it might lead to displacement of the viscera and obstruct the bile ducts. In consequence all the bile might escape through the incision made in order to open the abscess. This accident might occur from other causes. Pleurisy, a common complication, was also a protection during operation and when the abscess penetrated into the thorax. Pleural friction was a useful diagnostic sign and a one of warning. Certain unrecognized methods of noting the presence and absence of adhesions were described and practical suggestions with regard to adhesions were offered. Pleurisy might lead to serous or purulent effusions. The dangers of rupture into the pleura were dwelt upon. Changes in the lungs, such as localized abscesses, might be met with in either right or left lung. The character of the pus resembled that from the original abscess. Extensive destruction of the lung was not uncommon, and fatal haemoptysis might occur. The lung condition might persist after the original abscess was completely healed. Secondary abscesses in the lung might be formed. Extreme chronicity was a frequent characteristic of tropical abscess; but some were very acute, some of which were very septic and multiple. These should be placed in a class by themselves. Most tropical abscesses were single, and some of those described as multiple were not really so, though some were. The best place to open the abscess, if this were possible, was in the lower axilla. The majority of abscesses in the right lobe could be reached in this situation. Those in the left lobe and some others must be opened in the epigastrium. The dangers of the posterior incision were pointed out, and the disadvantages of a lateral incision below the margin of the ribs. After the steps of the operation were given, the subject of haemorrhage was discussed, both as regards its significance and the method of dealing with it. Reference was made to Dr. Manson's instrument for opening an abscess in the liver. Eleven illustrative cases were described.

Dr. PATRICK MANSON said that his operation was intended for ordinary surgeons far from all assistance, as in tropical countries. He asked, Why did abscess of the liver extend upwards and not lead to depression of the organ like a pleural effusion? Also, if Mr. Godlee had ever seen serious consequences from the escape of hepatic pus into the abdominal cavity. He himself had not.

Dr. A. CROMBIE, after referring to the time when all liver abscesses were evacuated by the aspirator, said that small and recent abscesses were still successfully treated by this method. Even large abscesses were yet sometimes cured by repeated aspiration. During an experience of thirty years of the surgical treatment of liver abscesses he had never once seen any ill-result from their direct aspiration. The reason was probably because the pus was aseptic, for some usually did escape into the peritoneal cavity. The smart haemorrhage which was apt to occur was readily controlled by pressure.

Mr. CANTLIE still strongly upheld Dr. Manson's operation of aspiration as being most appropriate for inexperienced and unassisted surgeons. By this method haemorrhage was to a great extent obviated; cutting with the knife was its chief cause. A metal drainage tube was not so good as an india-rubber one. Among the many cases in which he had employed this method he had had only two fatal cases—the earlier ones.

Dr. W. G. ROCKWOOD had operated on 100 cases during twenty-five years. In the earlier he had used aspiration, in the later incision between ribs, and in the most recent he had removed a portion of rib. In chronic afebrile cases aspiration might suffice, in acute cases with thick pus nothing short of excision of rib would be effective, and even lateral incision might not be sufficient; a mesial incision might be required.

Mr. GODLEE replied.

CLINICAL SOCIETY OF LONDON.

HOWARD MARSH, F.R.C.S., President, in the Chair.

Friday, May 9th, 1902.

CONGENITAL LYMPHANGIOMA TERMINATING IN LYMPHOSARCOMA.

Mr. W. G. SPENCER read a paper on congenital diffuse lymphangioma terminating in lymphosarcoma after lymphangitis, with a continuous hectic fever for three months. The case was as follows:

A girl, aged 4, was born with the right leg longer than the left. It caused no uneasiness until, without any assignable cause, it became swollen by inflammation immediately before coming under observation. For the following three months until death there was marked and continuous hectic fever, an evening temperature of 103° F., with a fall to a subnormal morning temperature of 97° F. or even 96° F. The pulse throughout was about 130 to 140, on many days rising to 170 or even 180 per minute. The respiration was constant at 35 to 40 per minute (chart shown). First the leg, then the thigh, and finally the hip, loin and groin became swollen, with, in the latter stage, some decrease of size in the leg and lower thigh. There was no change in the skin, but small incisions allowed serous fluid to escape, with fibrinous casts of the dilated lymphatic spaces, white globular masses the size of peas and beans. Streptococci, and at other times staphylococci were found in the discharge, but there was no true suppuration or pus found until the day of death, when a small collection was present in the region of Scarpa's triangle. No chylous fluid ever escaped, nor did lymph vesicles form on the skin, nor did the skin become rugose. On necropsy the swelling of the thigh and hip region was found to be due to dilated lymphatic spaces with intercystic masses of lymphosarcoma, as shown in the microscopic sections. Other cases including macroglossia, in which congenital lymphangioma had terminated in lymphosarcoma were mentioned. The fever in this case was continuous, not remittent.

Dr. H. D. ROLLESTON suggested that the condition was rather one of lymphatic-gland sarcoma than of lymphosarcoma.

PRIMARY SARCOMA OF THE SYNOVIAL MEMBRANE OF THE ANKLE-JOINT.

Mr. GEORGE TURNER communicated this case.

The patient was a man, aged 28, who two months before admission into St. George's Hospital knocked his foot against a brass screw. Three weeks after this he noticed a swelling in front of the right ankle. This had slowly increased in size and measured about 1½ by 1½ in. There was no obvious connexion with the tendons. When removed, it was found to be growing from the synovial membrane of the ankle-joint. Dr. Rolleston reported the tumour to be a fibrifying and chondrifying mixed-cell sarcoma.

Attention was drawn to the rarity of primary sarcoma of synovial membranes of joint. Myelomata of tendon sheaths were much more commonly met with, and were innocent clinically, differing thus from a case recorded by Mr. Howard Marsh of primary sarcoma of the synovial membrane of the knee-joint. The patient was shown to the Society at a clinical evening early in the year.

SARCOMA OF THE SYNOVIAL MEMBRANE OF THE KNEE.

Mr. C. B. LOCKWOOD read a paper on the case.

The patient was a young married woman who had disease of the right knee of three years' duration. The joint was slightly flexed, but possessed almost its full range of movements. The capsule was slightly distended by a swelling of the synovial membrane, which made the circumference of the joint ½ in. greater than its fellow. The surface of the swelling was rather warm, and it was tender on pressure. A consultation was held, and the opinions were almost unanimously in favour of the disease being tuberculous. As no treatment had been tried, it was thought well to rest the joint and apply a splint. Nothing was seen of the patient for about a year, when she returned with what appeared to be well-marked tuberculous disease of the knee. A resection was performed, and the absence of carious material or of pus excited some suspicion. The material was independently examined by two pathologists, and pronounced to be "spindle-celled sarcoma" and "oval-celled sarcoma."

When first seen two points might have excited suspicion that the disease was not tuberculous: (1) the absence of muscular

wasting, (2) the free and painless mobility of the joint after having been the seat of supposed tuberculous disease for three years.

The PRESIDENT referred to the case alluded to by Mr. Turner, which he had reported in the thirty-second volume of the Society's *Transactions*.

The patient, a man, aged 21, was admitted into St. Bartholomew's Hospital on account of a swelling in the knee, which had existed for fifteen months. When the knee joint was opened the growth was found to be surrounded by synovial membrane. It was removed, and recurrence of the growth took place four times—the first time after three years, and the last time six years from the time he came under observation. On the last occasion the leg was amputated. It was remarkable to note how the growth successively affected different portions of the synovial membrane. Microscopical examination showed that it was a spindle-celled sarcoma.

The patient was at the present time alive, and free from any return of the disease. By a curious coincidence he was in the hospital a few days ago with consolidation in one lung. Knowing his history it was feared that the lung was the seat of growth, but it had cleared up. A short time ago the President had seen a young woman, aged 22, with a condition very like that found in Mr. Turner's case, except that the tumour was in the knee. When the joint was opened the growth was almost pedunculated. It proved to be a sarcoma. Mr. Lockwood had dwelt on a very important point, namely, the obscurity of the diagnosis in these cases. Mr. Lockwood had remarked that the temperature had led him to suppose that the disease was tuberculous, but this was not really a trustworthy guide in differential diagnosis, because malignant growths in joints were not infrequently found associated with high temperature.

Mr. W. G. SPENCER noticed that in the cases of Mr. Turner and the President the growth was localized, whereas in Mr. Lockwood's case it was diffused, a feature which rendered the diagnosis additionally difficult. The President's case resembled those of endothelioma. Mr. Hardy, of Manchester, in 1894 described a case of sarcoma of the synovial membrane of the knee-joint.

Mr. TURNER, in reply, said these sarcomata were of two kinds—the circumscribed and diffuse. In his case the diagnosis before operation lay between new growth and bursal cyst; tuberculosis was never suggested.

"HORIZONTAL" DILATATION OF THE LEFT AURICLE.

Dr. WILLIAM EWART and Dr. ISAMBARD OWEN contributed a paper illustrating some of the clinical features of "horizontal" dilatation of the left auricle. The authors premised that a complete account of the clinical features of this affection was not yet possible; but they had endeavoured to bring out some of the broad lines which might facilitate its identification by comparing the clinical record of the original case published by Drs. Owen and Fenton in the last volume of the Society's *Transactions* and that of the present case, which was exhibited before the Society in January of this year with a provisional diagnosis of the condition in question.

The patient, an omnibus driver, aged 32, subject to winter coughs, had had pneumonia in 1896, but denied any rheumatic, syphilitic, or other affection. He dated his admission from a "chest cold" one month before his admission on November 20th, 1901. In spite of palpitation and dyspnoea during the last fourteen days he had remained at work until unable to get up on November 19th. Condition on admission: Face slightly puffy with dusky lips and complexion; no ascites and hardly any anasarca: only slight enlargement and occasional pulsation of liver. External jugular veins filled, but not greatly distended nor visibly pulsating. Pulse irregular and quick with many small beats: respiration quick and without much distress. Coarse *râles*, slight cough, no expectoration. Extensive cardiac impulse in left precordium. A visible and palpable impulse was also perceived below the level of the right nipple and internal to to the latter—chiefly in the fourth intercostal space. This was the seat of the habitual pain described by the patient, and, together with the epigastrium, was the only tender part, the left precordium not being tender or painful. The apex beat was under the sixth rib, about 1½ in. beyond the left mid-clavicular line. Two murmurs, a slight and uncertain presystolic, and a distinct, steady, systolic, were audible at the apex; and they were also heard with almost undiminished clearness in the right inframammary region, where there was occasional thrill. Percussion yielded a considerably widened dullness anteriorly, and a characteristic increase in the auricular dullness in the back. Gradual improvement occurred under rest, tonics, and stomachics, and he was successfully treated for fistula. On December 30th, after a period of tympanitic abdominal distension, a free haemoptysis occurred, and on the 31st he was bled to 16 oz. with great relief. From that time he slowly gained strength, and was allowed up on January 7th. He was now able to walk slowly on the level without dyspnoea, and the pulsation in the right inframammary region was not perceptible except after hurried walking or stooping. The pulse had also improved, but was still weak and irregular.

The etiology of this apparently rare affection remained obscure. The chief clinical features were insidiousness of onset, gradual progression, long-continued latency, and remarkable toleration for the auricular dilatation which was permitted to grow without necessarily setting up severe pain, dyspnoea, or other urgent symptoms until loss of compensation supervened. By means of skiagraphy the diagnosis might perhaps in the future be made at a comparatively early stage, but not without help of dorsal percussion, and, in particular, of percussion of the left auricle. The leading objective signs noted were: (1) Systolic pulsation with or without thrill in the right fourth intercostal space; (2) synchronicity of this pulsation with the apex beat: (3) equality in the loudness of the existing murmurs at the pulsating area and at the apex; (4) great increase in the transverse diameter of the precordial dullness which might extend towards the right beyond the mammillary line: (5) increase of the postcordial dullness, with a characteristic enlargement (chiefly in the transverse diameter) of the postauricular dullness with a loss of its symmetry; (6) the liver might be at times the seat of an inconstant pulsation; (7) the absence in this case, in spite of the cyanosis and dyspnoea, of any advanced general or serious dropsies was remarkable; (8) the dyspnoea seemed to present an important clinical peculiarity in its association with cyanosis with quick breathing without any great respiratory distress. More striking still was the readiness of the present patient to lie almost flat, in marked contrast with the common type of orthopnoea seen in advanced cardiac cases: (9) lastly, an important confirmatory sign was the impairment of the respiratory movements and sounds on the right side of the chest. The subjective symptoms were above all the pain and tenderness localized to the right of the sternum in contrast with those special to ordinary cases of mitral stenosis in which the pain was referred to the ventricular or left parasternal region. As regarded prognosis and treatment, the inference was that the condition when fully developed was not likely to be cured. The observations in hand tended, however, to show that considerable alleviation might be effected by rest and by venesection, rather than by medicinal treatment.

Dr. ISAMBARD OWEN also contributed a paper on horizontal dilatation of the left auricle, with special reference to other cases and specimens besides the one he had shown in May, 1901. Inquiries at all the principal museums and medical schools in the United Kingdom had shown that only two other specimens were known to be in existence, namely, one in St. Bartholomew's Hospital and one in University College. These were briefly described, after which Dr. Owen compared and contrasted the most important clinical and pathological features of the three cases.

Dr. A. F. VOELCKER asked whether, in Dr. Ewart's case, there was a murmur in the tricuspid area. He suggested that the pulsation felt on the right side was due to dilatation of the right rather than dilatation of the left auricle.

Dr. HERRINGHAM also thought that the signs described by Dr. Ewart could be explained on the assumption that the right auricle was dilated.

Dr. EWART, in reply, stated his reasons for considering that the dilatation affected the left rather than the right auricle.

PALPABLE SYSTOLIC INTERCOSTAL PULSATION IN A CASE OF MITRAL STENOSIS, WITH DILATATION AND THROMBOSIS OF THE LEFT AURICLE.

Dr. EWART also read a short note, the purpose of which was to elicit further information concerning the significance of systolic pulsation felt over the region of the right auricle, the frequency of its occurrence, the various modes of causation, and the value which it might possess as a diagnostic physical sign. In this instance the systolic pulsation felt at the fourth and fifth intercostal spaces had been regarded during life as due to the direct pulsation of an enlarged left auricle. But it was found after death that the seat of the pulsation corresponded to the surface of the right auricle. The left auricle was, however, markedly dilated above a button-hole stenosis of the mitral valve, and was completely filled with a spongy thrombus which had partly broken down into a grumous fluid. The history of the case was then briefly related. The author considered that visible and palpable pulsation of the right auricle did not belong to the normal cardiac function; if capable of being felt the beat should presumably be diastolic

or presystolic in time. In the ordinary cases of dilatation of the right side of the heart he had not hitherto noted any pulsation to the right of the sternum. When the heart was displaced into the right chest the abnormal pulsation was systolic and to be regarded as a direct ventricular pulsation conveyed from the ventricular walls. If palpable systolic pulsation to the right of the sternum (not due to intrapericardial aneurysm) was as uncommon as he believed it to be, a study of its conditions of occurrence was of importance, and any definite observations by others on this point would be of value. Pulsation within the auricular area of the precordium had now been shown to be sometimes due to the left auricle when immensely enlarged. The present case showed that on the other hand a systolic pulsation might be transmitted through the right auricle when the left auricle was distended in such a way as to be incapable of performing its systolic contraction. To these modes of causation others might probably be added as the result of future inquiry.

MEDICAL SOCIETY OF LONDON.

W. H. ALLCHIN, M.D., F.R.C.P., President, in the Chair.

Monday, May 12th, 1902.

DIAGNOSIS OF MALARIA FROM THE STANDPOINT OF THE PRACTITIONER IN ENGLAND.

DR. PATRICK MANSON, the Fothergillian Gold Medallist of the Society, who read this paper, said that it was of the utmost importance to diagnose malaria accurately, because in quinine they possessed an almost infallible remedy, and if, in consequence of failure in diagnosis, the administration of the appropriate remedy was omitted, the patient suffered, and they as medical men grossly failed in duty. The pathognomonic indications of malarial infection were clinical, therapeutic, and microscopical:—(1) Clinical: There were many clinical signs and symptoms, such as fever, anaemia, icteric tinting of the skin and sclerae, enlargement of the spleen and liver, gastro-intestinal disturbance, tendency to spontaneous recovery and to subsequent recurrence which might lead to a suspicion of malaria. There was, however, only one clinical symptom that justified a positive diagnosis—periodicity, tertian or quartan, a rhythmical recurrence of symptoms every forty-eight or seventy-two hours. Quotidian periodicity was valueless in diagnosis, indeed, it was doubtful if it ever occurred. The parasites of malaria were either tertian or quartan in habit, and many of the symptoms they gave rise to were correspondingly tertian or quartan in their recurrence. Multiple infection by two kinds of parasites, or by two or three generations of the same species of parasite might give rise to double tertian or treble quartan infection with diurnal recurrence of symptoms; but this pathologically was not a true quotidian periodicity. A similar quotidian periodicity was usual in almost all febrile complaints. To make quotidian periodicity a ground for diagnosis was wrong and dangerous, and was perhaps the commonest cause of erroneous diagnosis. (2) Therapeutical: Whatever might be the case in certain malignant infections in tropical countries, quinine, properly given, never failed to arrest a malarial attack in England within forty-eight or at most ninety-six hours of its administration; therefore a periodic remitting fever, that persisted after adequate dosing with quinine—10 gr. of the drug three times a day for four days—was not malarial. The dose of quinine must not only be adequate, but it must also be absorbed. A catarrhal state of the gastric mucous membrane was usual in severe malarial attacks, and such a condition was very unfavourable to absorption; persistent vomiting was also common enough, and to get the therapeutic action and diagnostic value of quinine in such circumstances the drug must be given hypodermically or by enema. It was often given nowadays in tablet or coated pill form, which was a most dangerous method in serious cases, and a most unsatisfactory one for diagnostic purposes. (3) Microscopical: This was the most satisfactory of the three methods of diagnosis if undertaken by one with experience. A negative result by the amateur was valueless, and a positive result was not much more to be trusted. It took a large amount of practice to be able to recognize all forms of the malaria parasite, or to discriminate between them and vacuoles in the red corpuscles in fresh films, or dirt in dried and stained films. Although the medical man might not himself be able to diagnose malaria with the microscope, he should know how to prepare blood films for such an examination. The best method was that of Drs. Christophers and Stephens, which was described, or some modification of it. Malarial blood should not be fixed by heat. In stained films or in fresh blood it was practically always possible to find the parasite in those cases of malarial infection that came to England, but only if the patient had not taken quinine recently. Certain forms of the parasite might be found after full dosing with quinine, but the usual fever-causing forms as a rule rapidly disappeared after administration of the drug. In rare instances and at certain times in a considerable proportion of cases the parasite or its product melanin, even in severe infections, might not be detectable in the peripheral blood. Small doses of quinine, therapeutically insufficient doses, might cause its disappearance temporarily, or in the case of cure for good. It had been known for some years that during and for some time after malarial attacks the leucocytes were greatly diminished in proportion to the red blood corpuscles. Drs. Christophers and Stephens held that an increase beyond 15 per cent. of mononuclear leucocytes was proof of an actual or recent malarial infection. Captain Rogers, I.M.S., endorsed that opinion, and Dr. Daniels, Superintendent of the London School of Tropical Medicine, considered that the large mononuclear leucocytes were relatively increased to the other leucocytes in all forms of malaria after, and to a small extent during, the fever. Further, he was of opinion that the absence of this variation was of more value as a diagnostic point than its presence. Much value was to be attached to Dr. Daniels's views, which were based on a large experience. It was difficult to overrate the practical value of blood examination. Considerations of time and locality were of assistance, but he did not believe that the duration of any given infection exceeded three years, because in his experience a malignant tertian tended to die out in about two years, a benign tertian in two and a-half years, and a quartan in about three years. A chronic or recurring fever in a patient from Malta who had not visited a malarial place was probably Malta fever or enteric, certainly not malaria. He had never seen a case of indigenous English malaria; the plasmodium had probably died out in England like the wolf and the wild boar. The point was emphasized that although a positive diagnosis of malaria might be indicated in some given case, the presence of malaria did not exclude other diseases, but, on the contrary, it often predisposed to other infections, and that the development of a latent malaria was favoured by other infections, especially typhoid fever and tuberculosis.

The PRESIDENT having made some congratulatory remarks, Dr. T. D. SAVILL emphasized the importance of practitioners cultivating the art of making and staining blood films.

Dr. SAINSBURY asked what Dr. Manson considered an adequate dose of quinine by the hypodermic method in malaria.

Dr. C. E. BEEVOR referred to a case he had seen recently which was supposed to be malaria, but turned out to be a case of perineal abscess.

Dr. MANSON, in reply, thought 7 gr. to 9 gr. an adequate dose of quinine by hypodermic injection.

ELECTION OF OFFICERS AND COUNCIL FOR 1902-3.

President: A. Pearce Gould. *Vice-Presidents:* Thomas T. Whipham, Charles A. Ballance, Frederick S. Palmer, Henry Morris. *Treasurer:* David H. Goodsall. *Librarian:* Arthur Francis Voelcker. *Honorary Secretaries:* Jonathan Hutchinson, jun., Henry A. Caley. *Honorary Secretary for Foreign Correspondence:* Humphry D. Rolleston. *Council:* William Henry Allchin, Sir William M. Banks, Arthur E. Barker, J. Bland-Sutton, Charles W. Chapman, J. Walter Carr, Frederic Durham, William Ewart, Robert A. Gibbons, Samuel H. Habershon, Walter H. Jessop, Howard Marsh, C. W. Mansell Moullin, Isambard Owen, H. Campbell Pope, Arthur H. Robinson, J. S. Risien Russell, Edgcombe Venning, Herbert F. Waterhouse, Edwin F. White.

SOCIETY OF ANAESTHETISTS.—At a meeting on May 2nd, Mr. WALTER TYRRELL, President, in the chair, Dr. JOSEPH BLOMFIELD read a communication entitled, Some Points concerning Complete Relaxation of the Abdominal Walls under Anaes-

thetics. In the discussion that followed, the President (Mr. Walter Tyrrell), Dr. Low, Dr. Dudley Buxton, and Dr. Hervey Hilliard took part.—Dr. Flux submitted a further communication on the use and structure of his open stop-cock.—Dr. Millward showed a modification of Clover's inhaler, designed for the purpose of administering ether or chloroform, singly or together.

OBSTETRICAL SOCIETY OF LONDON.

Peter Horrocks, M.D., President, in the Chair.

Wednesday, May 7th, 1902.

Fibroid Tumour of Ovary.

Dr. John S. Fairbairn read a paper on five specimens of fibroid tumour of the ovary, with observations on their pathological anatomy. Attention was first directed to the descriptions of these growths as given in the textbooks and monographs on the subject. The general statement was that these tumours were formed by hyperplasia of the whole stroma, so that the organ was converted into a hard tumour retaining more or less the original shape of the ovary. Five specimens, varying in size from a small growth the size of a hen's egg up to a large tumour of over 4 lb. in weight, were described in detail. In all of them the new growth had arisen within the ovary, and affected only a portion of the stroma, leaving a considerable part of the organ as a separate and easily recognizable structure. The microscopic appearances were also noted, and a short clinical history of the cases from which they were obtained was added. After looking through a large number of recorded cases of fibroma and fibro-myoma of the ovary, some fifteen or sixteen were selected as similar to those described in the paper, and a short abstract of them was given. When such specimens had been shown at Societies, they had given rise to some discussion from the unusual persistence of a portion of the ovary. The number of instances quoted, together with the five specimens under review, was sufficient to show that the descriptions usually given were misleading. While the difficulty of detecting unstriped muscle cells among fibrous tissue cells was acknowledged, the evidence of a comparative examination of sections from these tumours appeared to be in favour of their being considered fibromata. The sections provided a very good opportunity of contrasting the minute structure of the growth with the ovarian stroma from which they had originated; the results of such a study were adduced in favour of considering these firm hard growths of the ovary as simple fibromata, and not as fibro-sarcomata. The question of these tumours arising from a chronic oöphoritis was discussed very briefly, and the importance of the tunica albuginea in forming a strong covering to ovarian growths was pointed out. In conclusion, the fibromata of the ovary were divided into three classes for purposes of description: (1) The ovary was entirely replaced by the new formation. This occurred in small as well as large growths, and therefore did not depend on the size to which the growth had attained. (2) A local growth of the stroma leaving part of the ovary unaffected, except by compression. The growth tended to remain within the capsule of the ovary. (3) Pedunculated fibromata, like subperitoneal fibroids of the uterus. These either might have originated in the stroma, and later been extruded, or they might be growths of the tunica albuginea.

Mr. Alban Doran maintained that the three specimens which he exhibited that evening in relation to Dr. Fairbairn's important paper implied that fibroma and myoma of the ovary were distinct diseases. The section of the large fibroma showed perfect wavy white fibre, as did the section of the little solitary fibroma not ½ in. in diameter. The myoma, unlike the two fibromata, was closely related to the ovarian ligament, which included muscular tissue derived from the uterus. On section it showed plain muscle cells, precisely as seen in a section of a myoma of the uterus. Œdematous fibroids were once taken for sarcomata of the ovary; subtracting these suspected malignant growths from the malignant solid tumours of the ovary, it would probably be found that carcinoma of the ovary was much more common than sarcoma, as Martin had demonstrated, whilst fibroma, innocent even when looking malignant, was by no means rare. There were plenty exhibited that night. Mr. Doran noted how the tube and mesosalpinx often underwent little or no hypertrophy in fibroma, so that when the tumour was large it was rather difficult to get at the pedicle.

Mr. Bland-Sutton congratulated Dr. Fairbairn on establishing the fact that the encapsulation of the tumour could be relied upon as a generic and distinguishing feature. When the fibroid was of moderate size as in the smallest specimen of his series, the disproportion between the ovary and the tumour was not so marked, but when the mass had a circumference of 20 or even 30 cm., or more, then the small bud-like remnant of the ovary at the uterine end of the tumour appeared very incongruous. The leading features of these tumours could be summarized thus: encapsulation; ovoid shape; intense hardness; and the whorled disposition of the tissue as displayed on the cut surface. These were a group of signs presented by no other tumour of the ovary, and their clinical value was equal to their simplicity. There was an important feature by which ovarian fibroids were distinguished from similar tumours in the uterus. It was well established that uterine fibroids did not arise after the menopause, whereas ovarian fibroids occurred in the aged, and on two occasions Mr. Bland-Sutton had successfully removed them at the ages of 64 and 66, and the clinical histories indicated that the tumours had been noticed only two years before removal. The extreme hardness of these tumours was a valuable clinical sign, and in one of the cases in Dr. Fairbairn's series, Mr. Bland-Sutton was able accurately to diagnose the character of the tumour from this sign alone. The paper was a valuable one, even if only regarded from the point of view that its author had rescued a genus of tumours from a group notorious for containing members with extremely bad characters.

Dr. Griffith fully agreed with the conclusion arrived at by Dr. Fairbairn. He had endeavoured to show, in the paper referred to by Dr. Fairbairn, that all tumours of the ovary, whether cystic or solid, were in the main structure of their solid parts connective tissue, derived from and having the essential character of the spindle-celled stroma of the normal organ. Corpora fibrosa were physiologically the ultimate stages of the corpora lutea, and where they were enlarged their structure appeared to remain of the special character of the normal bodies, and not spindle-celled.

Dr. Briggs said that amongst his original cases and amongst recent ones he had figured and noted circumscribed growths to which Dr. Fairbairn had paid conspicuous attention. The early writers were correct in alluding to both diffuse and circumscribed growths. Dr. Briggs suggested that Dr. Fairbairn had shown a want of courage in selecting fibroids and not fibromata, as the title of the paper founded on the 5 cases he had described. Mr. Alban Doran's specimen exhibited that night, if not actually a myoma, was the nearest approach in its microscopical character to a myoma of any he had ever seen. Dr. Briggs thought that would be a general opinion, which meanwhile, in the face of so much evidence to the contrary, might be held in reserve. The main danger had been, as Mr. Bland-Sutton said, in ascribing malignant properties to cellular structures without adequate clinical proof. In Dr. Briggs's experience this impeachment was not limited to gynaecologists. The proof of the innocence of cellular growths described as fibromata of the ovary had been substantiated by Mr. Alban Doran and himself in the published paper referred to by Dr. Fairbairn. Dr. Briggs cited the case in which he operated almost immediately after he had published his paper. In a girl, aged 17, there was a large, brain-like solid growth of the ovary. The girl was now an active hospital nurse. The tumour was proved to be a highly cellular growth, a myxoma. The rarity, as alleged, of fibromata of the ovary was not justified by facts which had now accumulated. Dr. Briggs added that all his patients from whom he had removed these tumours still lived.

Dr. Herbert Spencer was surprised at the number of writers cited by the author who regarded ovarian fibroids as diffuse growths involving the whole of the ovarian tissue. His own experience was opposed to such a view, for out of 5 cases under his own care, in 4 the growth was very definitely limited to a portion of the ovary, and in the fifth (a large tumour), he thought possibly the tumour was so limited, but without spoiling the museum specimen by a series of thin sections, it was impossible to settle this point. Ovarian

fibroids were certainly benign growths, and had much in common with uterine fibroids. The latter did not involve the whole tissue of the uterus, but sometimes displaced and compassed it to a remarkable extent. It seemed to him most unlikely that such a benign fibroid growth would invade and destroy the whole of the tissue of the ovary, and, as a matter of fact, in the 5 cases alluded to, and in several others he had seen, it did not do so. A most interesting point in connexion with these growths, not alluded to by any speaker, was their origin. Two of his cases suggested, and a third, he thought, clearly demonstrated, the origin of an ovarian fibroid in the tunica fibrosa of a Graafian follicle. This mode of origin had been mentioned by Rokitansky though he did not know upon what evidence. Patenka's corpora fibrosa were, as Mr. Doran had pointed out, merely degenerated corpora lutea and were entirely different in structure from the fibroids.

The PRESIDENT pointed out that these tumours, and also sarcomatous and malignant tumours generally, differed from fibroids in that the cut surfaces remained flat like a cut raw potato, whereas fibroids always became slightly convex on the cut surfaces immediately on being incised, and this convexity gradually increased in quantity owing to the shrinking of the elastic and muscular fibres. He considered that it was of great importance to be able to say that a given tumour was a fibroma and innocent, or a sarcoma and malignant, and he hoped the work of Dr. Fairbairn would assist in this direction. He mentioned a case he had shown himself as to which equally competent observers had expressed diametrically opposite opinions regarding the microscopic sections. So far as he had gathered, the chief distinction seemed to be that in fibromata the blood vessels were much more clearly defined, but he wished to know if this could be relied upon in deciding.

Dr. FAIRBAIRN briefly replied.

LYMPHANGITIS MAMMAE.

Dr. RALPH VINCENT made a communication on lymphangitis mammae, an affection of the breast arising about the tenth day of the puerperium, with well-marked clinical features. He brought forward the notes and temperature charts of 6 cases illustrating this condition. These cases showed the following clinical signs. There was a wedge-shaped area of inflammation, the apex being at the nipple, the base being at some part of the junction of the breast with the chest wall. This wedge-shaped area was red, slightly oedematous, hot to the touch, tender, and indurated, the induration being distinctly outlined and definitely corresponding with the redness. The inflamed area was raised above the general breast surface, but the inflammation was confined to the superficial structures, and did not involve the mammary gland. During the development of this condition the temperature rapidly rose, the patient complained of pain in the breast and of headache, whilst constipation was frequently present. The treatment required was simple. The infant was taken from the breast, hot fomentations were applied to the inflamed part, and the patient was freely purged. Within about forty-eight hours the affection disappeared. He attributed the condition to an infection conveyed to the nipple from the lochia serosa.

Dr. AMAND ROUTH asked if the author was sure that some of his cases were not small mammary abscesses which had opened suddenly into one of the larger milk ducts, thus accounting for the sudden cessation of all the symptoms.

SPECIMENS.

Specimens of fibroma and myoma of the ovary were shown by Mr. ALBAN DORAN, Mr. STANLEY BOYD, and Mrs. STANLEY BOYD.—Dr. VICTOR BONNEY showed a specimen of very early twin pregnancy, with fetuses of different dates; also a specimen of early pregnancy.—Dr. TATE showed a sarcoma of the uterus, complicated by glycosuria, and removed by vagino-abdominal hysterectomy. The case was discussed by the PRESIDENT, Dr. HANDFIELD JONES, and Dr. MALINS.

EDINBURGH OBSTETRICAL SOCIETY.

JAMES RITCHIE, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, March 12th, 1902.

THE PROBLEM OF THE PREMATURE INFANT.

Dr. J. W. BALLANTYNE read a paper on the problem of the premature infant, which is published at p. 1196.

The paper was discussed by Drs. MILNE MURRAY, KEPPIE PATERSON, HAULTAIN, MCKIE, and the PRESIDENT; and Dr. BALLANTYNE replied.

THYROID EXTRACT IN PUERPERAL ECLAMPSIA.

Dr. OLIPHANT NICHOLSON read further notes on the use of thyroid extract in puerperal eclampsia and the pre-eclamptic state. He gave details of a case of eclampsia in a primipara at the beginning of the eighth month of pregnancy. All the characteristic symptoms—headache, anuria, albuminuria, solid oedema, etc.—were present to a very marked degree. She was sent to bed and put on milk. At the first fit she was given hypodermically one-third of a grain of sulphate of morphine. A second fit soon followed, and when she recovered from the stupor she was given 10 gr. of thyroid extract, and this was followed by 5 gr. every four hours. There was only once a slight fit after this. A few days later she was delivered prematurely of a stillborn fetus. The urgent symptoms all subsided under thyroid treatment. As second case further notes on Dr. Oliphant's Nicholson first case of eclampsia treated by thyroid extract were given. The patient had reached the eight month of another pregnancy, and from its commencement had taken thyroid extract continuously. When seen at the seventh month she had no symptoms, and had never felt better in her life. The completion of her term was awaited with interest. The third case was that of a woman of 23 years in the seventh month of her pregnancy, who complained of headache and dimness of vision. There was firm solid oedema, a pulse-rate of 50, a greatly contracted artery, great diminution of the quantity of urine. She was sent to bed and put on milk for ten days. There was only slight improvement. She was then put on thyroid extract, 5 gr. thrice daily, and in six days there was marked improvement. She was then given 5 gr. every three hours; this was given for seventeen days, then stopped for a fortnight, and then begun with a dose of 5 gr. daily. The symptoms gradually disappeared, and she was able to resume her household duties. After a normal labour she was delivered of a still-born fetus, which had been probably dead for from 21 to 35 days. The fourth case was that of a 2-para, aged 39, first seen on February 27th, 1902, with headache, giddiness, vomiting, swollen legs, and albuminuria. Thyroid in 5-grain doses every four hours was given, and she was advised to rest in bed as much as possible, and to live mainly on milk and fish. On March 11th the patient was well, was passing a fair amount of urine with practically no albumen. Fetal movements were felt by palpation, and the fetal heart heard.

The paper was discussed by Drs. HAULTAIN, MILNE MURRAY, KEPPIE PATERSON, J. W. BALLANTYNE, MCVIE, and the PRESIDENT; and Dr. OLIPHANT NICHOLSON replied.

SPECIMENS.

Professor A. R. SIMPSON showed a fibroid uterus.—Dr. HAULTAIN showed: (1) A uterine fibroid with a greatly attenuated cavity; (2) a fetus ectromelus.—Dr. BERRY HART showed: (1) A fleshy tuberous mole; (2) cancer of the cervix; (3) hypertrophy of the cervix.—Dr. BREWIS showed: (1) Ovary, tube, and sac from an extrauterine gestation; (2) an ovarian tumour that had burst and healed over; (3) double pyosalpinx and ovarian abscess; (4) fibroid uterus; (5) right kidney and ureter removed for tuberculosis; (6) dermoids, one removed during pregnancy.

BRITISH GYNAECOLOGICAL SOCIETY.—At a meeting held on May 8th, Dr. HEYWOOD SMITH, a Vice-President, in the chair, Professor ALFRED SMITH exhibited a bilateral intraligamentary fibromyoma of 10 lb. weight, in advanced mucoid degeneration, removed on April 16th from a woman who till last November had been in good health. Dr. BEDFORD FENWICK showed a similar specimen, of which the lower part on the right side had been embedded in the broad ligament; the upper part on the left had extended right under the ribs, and was in extreme mucoid degeneration.—Dr. MACNAUGHTON-JONES related two cases of complete "absence of the internal genitalia": (1) In a girl of 8½ years. Abdominal symptoms led to recto-abdominal examination, as, even after consultation with a physician, no definite diagnosis could be made. A soft, sausage-shaped tumour was felt by the rectum, but no uterus could be detected. On operation, the tumour proved to be a sacculated sigmoid, doubled down on the rectum and containing faeces, but the appendix, 6 in. long, was bound down to the floor of the pelvis and contained pus; there was no uterus or any adnexa. The appendix,

which was ruptured in detaching it, was removed, and, in spite of a faecal discharge from the abdominal wound from the fifth to the eighth day and an intercurrent attack of cystitis, the child made a good recovery. (2) In a woman of 32 there had been persistent primary amenorrhoea with headaches and molimina from the age of 18; sexual instincts seemed to be present, as there had been a question of marriage, but the absence of the catamenia and uncertainty whether the marriage could take place had led to much mental depression and deterioration of health. The labia, clitoris, and urethral orifice were present, but no vagina; and bimanual, recto-abdominal, and recto-vesical examination proved the absence of uterus or of ovaries, and tubes, nor could any trace of such be found by exploration of an incision in the middle line into the fibromuscular tissue between the bladder and rectum. The patient's mental depression was much relieved by the removal of all uncertainty as to her position; her headache turned out to be dependent on eye strain due to hyperopic astigmatism which was completely relieved. Dr. C. ROUTH, Professor SMITH, Dr. S. AARONS, and Dr. HEYWOOD SMITH instanced similar cases, and concurred that absence of the internal genitalia was not quite exceptional in women well developed externally and with normal sexual instinct.—Dr. BEDFORD FENWICK read a paper on fifty laparotomies, which with thirty-five simple operations for the removal of ovarian cysts or uterine fibroids were the only cases in which he had opened the abdominal cavity from above during the last sixteen months. These fifty were all more or less difficult operations, and included the only fatal results he had met with in his abdominal sections for nearly three and a-half years, two deaths after hysterectomy for malignant disease and for degenerated fibroids of the uterus, both by a singular coincidence occurring in the first week of this month, but neither due, save indirectly, to the operation, the patients sinking from heart failure several days thereafter. The frequency with which fatty degeneration was caused by abdominal tumours, to which he had drawn attention some fifteen years ago, seemed now to be generally admitted. The 50 operations included 24 for ovarian growths, of which 5 were malignant, the disease being removed in 3, but in the other 2 too far advanced for extirpation; 14 for fibroid growths, in connexion with which he laid much stress on the importance of degeneration as an indication for interference, and of pain, in previously painless cases, as a symptom of inflammatory change consequent on such degeneration; 6 for bilateral, and 3 for unilateral (left), pyosalpinx, all associated with great and increasing pain, profuse menorrhagia, and marked loss of flesh and strength, and by vast improvement after operation; and 1 each for malignant uterine disease, extrauterine fetation, and abdominal hernia due to a fall down a flight of stairs after a previous abdominal section. Dr. MANSELL MOULLIN said that among 173 abdominal operations at the Hospital for Women, Soho Square, during last year, they had had only 8 deaths, of which 7 followed operations not properly gynaecological; 57 ovariotomies, 21 hysterectomies, and 5 myomectomies without any mortality, the single fatal case being one of 22 oöphorectomies. These figures showed the position of special gynaecological work at the present day, and would compare not unfavourably with the results of such work in general hospitals.

ASSOCIATION OF REGISTERED MEDICAL WOMEN. At a meeting held on May 6th, Mrs. STANLEY BOYD, M.D., President, in the chair, Miss MURRELL, M.B., B.S., showed (by kind permission of Dr. SAINSBURY) a case of spleno-medullary leukaemia in a married woman aged 39. The history dated back 3½ years, when she was accidentally found to have an enlarged spleen, but had no symptoms. She now had a tumour filling practically the whole of the abdomen; it extended 4½ in. to right of umbilicus, 5 in. to left of the same, and down into both iliac fossae from the costal margin. It was firm, smooth, and had two notches on its right border. The patient had no tendency to haemorrhages, but slight oedema of the feet and fairly constant but not very distressing vomiting, retching, and diarrhoea. The blood count made a week previously showed 1 white to 10 red corpuscles. Of the white, 57 per cent. were myelocytes, 30 per cent. were polymorphonuclear corpuscles, and 6 per cent. lymphocytes. The patient remained very well while on small doses of arsenic (mv to mviii t.d.s.), and the tumour for the last few months had increased very slightly if at all.—Miss LOVIBOND, M.B., read notes of a case of aortic aneurysm, and showed the *post-mortem* specimen.

A man, aged 55, married, blacksmith, admitted April 25th suffering from extreme cyanosis and dyspnoea. Bronchitis for fifteen months. No similar attack. Physical examination: Heart displaced outwards and downwards (H. A. B., sixth space, anterior axillary line: A. C. D., fourth, fifth, and sixth space, from left corner of sternum; H. A. B., over right first rib and space, bulging, pulsation, dullness, and [illegible]. Brassy cough, bloodstained expectoration, difficulty in [illegible], pain in right side of neck and over liver. Consciousness retained [illegible] half an hour before death, which took place about two days and [illegible] after admission. Necropsy: Sacculated aneurysm of first part of arch of aorta, size of tangerine orange, contained laminated clot. Whole aorta dilated. No atheroma of arteries felt.

—Mrs. WILLEY, M.B., B.S., read notes of case of intestinal obstruction following operation.

A woman aged 20 came to the Royal Free Hospital on March 4th suffering from complete prolapse of the uterus, complicated by a soft fluctuating swelling in the abdomen which reached to the umbilicus and bulged into the right and posterior fornices of the vagina. The swelling, which proved to be a broad ligamentous cyst, was removed by Dr. Hayes on March 15th. Many adhesions were broken down, and the cyst was incised, some fluid escaping into the peritoneal cavity. Ten days after the patient developed all the symptoms of intestinal obstruction, and adhesions were found binding the bowel to the scar. Twice subsequently obstruction occurred, and fresh adhesions were found each time on opening the abdomen.

The patient was now doing well.—Mrs. GARRETT ANDERSON, M.D., spoke on the causes of failure in the practice of medicine.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting held on May 2nd, Mr. E. CRESSWELL BABER, President, in the chair, Dr. A. BRONNER showed specimens of a large papilloma of the left maxillary antrum which had caused destruction of the bone, and was accompanied by an offensive discharge.—Dr. WALKER DOWNIE showed (1) a specimen of sarcoma of the right tonsil from a woman, aged 58; (2) a specimen from a man, aged 33, consisting of the soft palate, fauces, pharynx, larynx and gullet, the seat of an extensive round-cell sarcoma; (3) a large fibrous growth from the naso-pharynx of a boy, aged 11 years; (4) a large fibrous growth from the naso-pharynx of a boy, aged 14 years.—Dr. J. DONELAN showed (1) a case of laryngeal stenosis in a man, aged 50, resulting from a large syphilitic ulcer of the left side of the larynx; (2) a case of syphilitic contraction of the posterior pillars of the fauces in a man, aged 44.—Dr. H. TILLEY showed (1) a case of complete occlusion of the right nasal vestibule in a man, aged 32; (2) a case of advanced destruction of the intranasal structures associated with suppuration of the right maxillary sinus.—Dr. H. L. LACK showed (1) a case of great symmetrical thickening of the upper and anterior part of the nasal septum in a man, aged 33; (2) a case of inherited syphilis of the nose, pharynx, and larynx, with complete occlusion of the anterior nares, in a boy aged 14 years.—Dr. J. W. BOND showed a case of large laryngeal growth in a woman who had suffered from huskiness of the voice for ten months.—Dr. STCLAIR THOMSON showed a case of glosso-labial laryngeal paralysis, with complete paralysis of one cord and abductor paralysis of the other.—Dr. EDWARD LAW showed a case of excrescences or incrustations or chalky deposits low down in the trachea. Mr. E. B. WAGGETT suggested a diagnosis of papillomata, while Dr. LACK and Sir FELIX SEMON were both of the opinion that the excrescences observed were due to crusts.—Mr. R. LAKE showed (1) a case of tuberculosis of the larynx occurring in a man aged 30, in which the epiglottis had been removed; (2) a case of tuberculous perichondritis.—Dr. L. H. PEGLER showed a case of geographical tongue in a boy aged 14.—Mr. F. H. TOD showed a case of syphilitic necrosis of the intranasal structures. Mr. WAGGETT showed a case of cystic adenoma of the pyramidal lobe of the thyroid in a woman aged 43.

ULSTER MEDICAL SOCIETY.—At a meeting held on May 8th, Dr. WHITLA, President, in the chair, Mr. MITCHELL showed a radiograph of a very oblique fracture of the femur, which was interesting from a medico-legal aspect. Owing to a transverse sliding of the ends the radiograph gave the impression of about 3 in. to 4 in. of shortening, whereas there was at the time only ½ in.; and the boy walked perfectly well afterwards. Dr. Mitchell also showed three cases of abscess due to spinal caries successfully operated on by the heated glycerine emulsion of iodoform method.—Dr. LYNASS

showed a case illustrating the advantage of excision of the astragalus in severe talipes equinus; also photographs of a case of extensive epithelioma of the lower lip treated by excision and a plastic operation.—Dr. Thomas Houston showed a case which had been in hospital last summer, under Dr. Calwell, for pernicious anaemia. She had immensely improved in hospital, and the improvement had continued. Her lowest blood count had been 800,000 red corpuscles and 19 per cent. haemoglobin. When she stopped arsenic an irritative inflammatory condition of the tongue supervened, which disappeared soon after she recommenced the arsenic. Drs. Calwell, Lindsay, Byers, and Dempsey spoke on the case. It was the general experience that the course of pernicious anaemia, although fatal in the end, was very intermittent.—Dr. John Campbell showed several specimens of abdominal tumours, and read an exhaustive paper on the classification and treatment of dysmenorrhoea. Drs. Byers and Dempsey endorsed the views put forth in the paper. Dr. Byers referred to the nervous type in which the lesion apparently existed in the nervous system, as in a case where the pain regularly returned after both uterus and appendages had been removed.—Dr. Greenfield (Holywood) read a paper on some forms of peritonitis which considerably departed from the ordinary form; he gave illustrative cases with details of the treatment employed.

REVIEWS.

DISEASES OF CHILDREN.

Dr. Joukovsky has printed in a pamphlet a French version of *Rickets in Russia*,[1] read at the International Medical Congress at Paris in 1900. The author begins with a list of the more important works dealing chiefly with the geographical distribution of rickets in Russia. The frequency of the disease in that country is probably at least equal to, if it does not exceed, that found elsewhere. The results of the investigations of various Russians on the relative frequency and the forms of rickets met with in different cities and districts of Russia are briefly given, and the rachitic deformities of the skeleton are then discussed, and illustrated by a large number of interesting though roughly executed drawings. These include an excellent collection of deformed skulls. The illustrations of the changes in the thorax, spinal column, and limbs are instructive. Photographs are given of several cases of hereditary rickets. The work cannot be said to add in any way to our knowledge on the subject. It is very roughly printed, and contains a large number of printers' errors. The illustrations are the only feature of value.

Dr. Fischer, who has written a rather big book on *Infant Feeding*,[2] is of opinion that the most suitable food for an infant which has to be brought up on the bottle is "clean raw cow's milk." This, as trade milk goes, is a rather high ideal; but where milk can be obtained reasonably free from microbic impurities, he is, we think, right in holding that routine sterilization is a mistake, on the ground that more is lost by diminishing the digestibility of the child's food than is gained by protecting him against bacteria which may not be present in sufficient numbers to injure him. The author takes a gloomy view of the method of modifying milk by prescription, suggested by Rotch, as he finds that it induces not only various digestive disorders, but leads to a condition of general malnutrition. While we cannot but think that he has been unfortunate in his experience, we agree with him in believing that the food value of milk is appreciably lessened by destroying the "natural emulsion." There is a good deal of useful information scattered about this volume, but the author's careless style of writing and the confused arrangement of the book make the difficulty of finding it needlessly great.

Dr. Sommer's pamphlet on *The Principles of Infant Feeding*[3] is one of a series of articles on practical medicine by a number of writers which is in course of publication at Würzburg under the editorship of Dr. J. Müller and Professor Seifert. The object of the series, we are told, is to be a guide to the practitioner in those departments of medicine in which of late years new theories of disease and new methods of treatment have been adopted. Dr. Sommer's contribution to these articles is too limited in its scope to be anything more than an introduction to his subject, but while there is little that is new in what he says—and he has made no attempt to pack the small space at his disposal with facts—we can recommend the book to the student who wishes to read a thoughtful and lucid sketch of the principles, physiological and chemical, on which modern ideas of infant feeding are based.

Owing to the considerable progress made during the six years which have elapsed since the appearance of the first edition of his "concise" *Textbook of the Therapeutics of Children's Diseases*,[4] Dr. Seitz has had to rewrite much and to add several new chapters to his second edition. The size of the book, however, remains unaltered, owing to the liberal use of small type. The student will find the first of the two sections into which it is divided especially useful. In it the more important points in the anatomy and physiology of the infant are clearly described, and the general lines on which sick children should be examined and treated laid down. Into the subject of diet he enters in some detail, and gives the composition of a large number of foods suitable both for infants and for older children. The second and larger section is occupied with descriptions of individual diseases. These are well done for the most part, though a good deal is sacrificed to conciseness. The small-type paragraphs throughout the book are as full of valuable information as an egg is full of meat, and the work as a whole is a useful addition to the literature of children's diseases.

Professor Cattaneo's pocket-book on the *Treatment of Disease in Children*[5] should prove of service to those familiar with Italian. It is arranged alphabetically, a method which facilitates ready reference. There is no description of disease, as it is assumed the diagnosis is made in each case; a short summary of the chief known causes is given for each disease, followed by a selection of those remedies which have the sanction of general approval, or have been found especially useful by the author.

Dr. Marcus P. Hatfield's little book on *The Acute Contagious Diseases of Childhood*[6] does not call for detailed criticism. He lays no claim to original work, and the book is stated to be a "composite" of the various writers on the subjects discussed, care having been taken to embody the views of later French and German writers. The diseases dealt with are scarlet fever, measles, rötheln, mumps, varicella, variola, and influenza. The descriptions of each disease are succinct and clear, though we note the omission of some points that would be interesting to clinicians in this country. Thus but scant notice is taken of post-scarlatinal diphtheria; diphtheria itself and enteric fever remain undiscussed.

The infant, says Dr. W. B. Drummond, has an almost infinite capacity for education in either a right or a wrong direction. Its whole life is influenced by the character and extent of its early training, and yet so serious a matter is too often left to chance or the nurse. In *The Child: His Nature and Nurture*[7] he has written a thoughtful and suggestive introduction to the subject of how to educate a young child, using the term

[1] *Rachitisme en Russie.* Par Dr. Joukovsky. Third Edition. St. Petersburg: L'Imprimerie de la Société Naroduala Polza. 1900. (Demy 8vo, [illegible])

[2] *Infant Feeding in its Relation to Health and Disease.* By Louis Fischer, M.D., Attending Physician to the Children's Service of the New York German Poliklinik, etc. Philadelphia: F. A. Davis Company. 1901. (Demy 8vo, pp. 359, 52 illustrations and 23 charts and tables. Dol. 1 50.)

[3] *Die Prinzipien der Säuglingsernährung.* Von Docent Dr. Sommer. Würzburg: A. Stuber. 1901. (Roy. 8vo., pp. 23. M. 0.75.)

[4] *Kurzgefasstes Lehrbuch der Kinderheilkunde.* Von Dr. Carl Seitz, of Munich. Second edition. Berlin: S. Karger; and London: Williams and Norgate. 1901. (Royal 8vo, pp. 499. 11s.)

[5] *Terapia della Malattie dell' Infanzia.* By Professor C. Cattaneo. Milan: Ulrico Hoepli. 1901. (Fcap. 8vo, pp. 520. Lire 4.)

[6] *The Acute Contagious Diseases of Childhood.* By Marcus P. Hatfield, A.M., M.D. Chicago: G. P. Englehard and Co. 1901. (Cr. 8vo, pp. 144. Dol. 1.)

[7] *The Child: His Nature and Nurture.* By W. B. Drummond, M.B., C.M., M.R.C.P.E., Physician to the Western Dispensary, Edinburgh. London: J. M. Dent and Co. Temple Cyclopaedic Primer Series. (Post 8vo, pp. 146. 1s.)

education in its widest sense to include the training of its muscles, senses, intellect, and will. It is a book which any educated parent could read with advantage.

The first edition of *Manual of the Diseases of Children*, by Drs. TAYLOR and WELLS, of Philadelphia,[8] was published in 1899; since then it has been thoroughly revised, rewritten where necessary, and enlarged by the addition of several new chapters. The student will find the sections on infant feeding, diseases of the blood, and on those of the nervous system particularly useful. On its first appearance we were obliged to criticize this work somewhat adversely, and we are therefore glad to be able to acknowledge the great improvement which it has undergone. We can recommend it as an excellent introduction to the study of children's diseases.

Dr. SEIFERT'S pocket prescription book[9] gives a short descriptive list of drugs which may be employed in children's diseases, stating briefly indications for their use and convenient methods of prescribing them. It also gives directions for preparing medicated baths, tables of solubilities and a good deal of miscellaneous information. To the German student it will no doubt be most useful, and some hints may be obtained from it by the British practitioner.

The second edition of Dr. HAUSER'S *Elementary Handbook of Children's Diseases*[10] has not increased much in bulk as compared with the first. He describes succinctly the affections of childhood, and dwells at some length on the perennially interesting subject of infant feeding. He gives a clear account of the needs of the child in the matter of food, and a sketch, which is admirable so far as it goes, of the way in which these should be supplied. His experience of infant feeding, however, would seem to be limited in certain directions, for he disapproves of the addition of cream to milk, merely, apparently, because the two fluids do not mingle sufficiently to form a fine emulsion. The whole question of cream mixtures therefore remains undiscussed. In other respects the section on dietetics is excellent.

The latest volume from the prolific pen of Dr. A. STEFFEN, of Stettin,[11] consists primarily of the results of a series of 149 necropsies made by the late Dr. William Steffen (the author's son) at the Children's Hospital at Stettin. The author has arranged these, commented upon them, and added notes of cases observed both by himself and by others in illustration of important points. A number of different diseases are represented; and while there is little of unusual interest in the book, it gives a graphic idea of the complexity of the pathological conditions met with in the ordinary run of hospital cases which terminate fatally.

The first volume of the *Transactions of the Society for the Study of Disease in Children*[12] makes a very creditable appearance. The meetings of the Society are in the main devoted to the exhibition and discussion of clinical cases, and the volume reflects this commendable feature. The reports of some of the cases are illustrated by reproductions of photographs, skiagraphs, and drawings, among which special mention may be made of an excellent series of coloured drawings showing various stages of tuberculosis of the choroid to illustrate a paper by Mr. Sydney Stephenson, and Dr. George Carpenter.

Dr. EMMETT HOLT, of New York, has written an excellent little manual on the *Care and Feeding of Children*[13] in the form of a series of questions and answers relating to the care and feeding of children in health; the needs of the sick are not discussed. It is written clearly and concisely, and will be useful to any woman who has the charge of young children.

[8] *Manual of the Diseases of Children.* By John Madison Taylor, M.D., Professor of Diseases of Children, Philadelphia Polyclinic, and William H. Wells, M.D., Adjunct Professor of Obstetrics and Diseases of Children and Infancy, Philadelphia Polyclinic. Second edition. London: Henry Kimpton. 1901. (Demy 8vo, pp. 859. Illustrated. 21s.)

[9] *Receptitaschenbuch für Kinderkrankheiten.* Von Dr. Otto Seifert, Professor in Würzburg. Fourth edition. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1901. (Crown 8vo, pp. 216. Interleaved. 3s. 3d.)

[10] *Grundriss der Kinderheilkunde mit besonderer Berücksichtigung der Diaetetik.* [Outlines of Treatment in Children's Diseases, with special Reference to Dietetics.] Von Dr. Otto Hauser, Berlin. Second, completely revised, edition. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1901. (Roy. 8vo, pp. 433. 8s.)

[11] *Zur pathologischen Anatomie des kindlichen Alters.* Von Dr. A. Steffen, Stettin. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1901. (Roy 8vo, pp. 327. 8s.)

[12] London: J. and A. Churchill. 8vo, pp. 278.

[13] *The Care and Feeding of Children: A Catechism for the Use of Mothers and Children's Nurses.* By L. Emmett Holt, M.D., Professor of Diseases in Children in the New York Polyclinic. Second edition. London: Henry Kimpton. 1901. (Crown 8vo, pp. 104. 2s. 6d.)

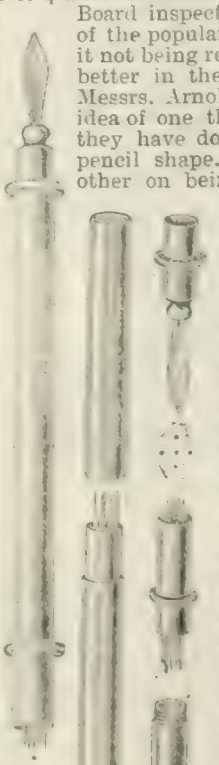
NOTES ON BOOKS.

The Lecture Agency Date Book (the Lecture Agency, Limited, Outer Temple, London, W.C., 1s., or 1s. 1d. post free) has been compiled for the use of lecturers, secretaries of societies, and other persons who are compelled to make arrangements a long time in advance before the ordinary diaries for the following year are available. It contains a space for every day from July 1st, 1902, to June 30th, 1904, a calendar running on to the end of June, 1905, and a table showing the dates of movable feasts to the end of 1908. The book, which is in the form of a thin pocket book, meets, we think, a real want.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

An Aseptic Vaccinator.—Dr. J. WILSON, Public Vaccinator, No. 4 District, Cheltenham, writes: As Local Government Board inspectors invariably find fault with the point of the popular Cooper-Rose instrument, on account of it not being readily cleansed, and there being nothing better in the market, I have been induced to ask Messrs. Arnold and Sons, London, to carry out my idea of one that would remedy that defect, which they have done most satisfactorily. It is the usual pencil shape. One end contains the spat, and the other on being pulled out and reversed reveals a small case perforated with five small holes at the end, through which five ordinary tailor's needles can be inserted from the inside of the case, projecting externally $\frac{1}{16}$ in., and kept in their position by a cap which screws on and off, thus allowing the needles to be renewed at any time, while also exposing sufficient of the points to allow effectual sterilizing by the flame of a spirit lamp. The needles, being removed from time to time, do their work most effectually, and so gently that children hardly feel the operation, thus avoiding the heavier and painful pressure that is required when immovable needles get blunted. It is a great advantage to have the needles so easily removable: one can thus accurately regulate the size of the scarifications by using only two or three needles, and these should be made as recommended by Dr. Renner, and not by twirling as when using the Cooper-Rose instrument. Being made wholly of metal, all or any part of it can be perfectly sterilized by boiling in an ordinary test tube. Needles for refilling are contained inside the instrument, which pulls apart in the centre. To arrange new needles in their place hold the small case up to the light, and with a pair of forceps they are easily put into the holes; when placed screw on the cap and fix it on the end



of the instrument. I may say this vaccinator has received the approval of the Local Government Board; and I invariably find that the use of it removes one of the great objections mothers have to vaccination—the ordinary lancet usually being a terrorto them.

A Handle for the Mounted Curved Needle.—Mr. ALEXANDER MACLENNAN, M.B., C.M., L.M. (Rotunda); Extra-Dispensary Surgeon, Western Infirmary: Extra Honorary Surgeon, Royal Hospital for Sick Children, Glasgow, writes: For the insertion, transit, and withdrawal of a curved needle, especially if a half-circle one, the force must be transmitted to the point always in the direction of the tangent to the circle. The movement which is therefore necessary cannot be well performed unless there is a knowledge of the position of the point. With the usual pattern of handle this is not easily gained. In the pattern shown in the diagram the short bar of the handle is on the same plane as the point, and is, indeed, in a line with it. Force applied at right angles to the handle is, therefore, transmitted to the point in the most advantageous way. The point of rotation is the centre of the circle of which the needle is the arc, so that by merely rotating the handle about itself (from pronation to supination), the curved needle is made to trace out and form the rest of the imaginary circle of which it is a part. This form of handle is applicable to all varieties of the mounted needle. To prevent the point being blunted when the instrument is on a flat surface, the needle is so made that in these positions the point is slightly raised above the plane of the handle. The "eye" may be slit or be an ordinary one, according to preference. The figure shows better than any explanation the principle of the handle. The needle has been made for me by the Medical Supply Association, and its cost is trifling.



An Eye Speculum.—Mr. WILLIAM LANG, F.R.C.S., sends a description of a modification of Clark's speculum, illustrated in the accompanying drawing, which has been made for him by Messrs. Weiss. It consists in the eyepieces being solid, to keep the lashes out of the field of operation during the extraction of cataract, iridectomies, discission of capsule, and similar operations. "This end," he states, "it fulfils perfectly, and, although the increase in the bulk of the eyepieces limits



slightly the width of the palpebral opening, still the surgeon soon accustoms himself to this trifling inconvenience, which is more than compensated for by the free way in which both knife and scissors can be used without cutting or touching the lids or the lashes. When the impossibility of rendering the lashes completely aseptic is considered, the advantage of the instrument, which keeps them completely away from the wound, will be recognized by every one who does not cut off the lashes before operating. Although the idea is not new, the manner in which it has been carried out differs from other instruments I have seen."

MEDICINAL AND DIETETIC PREPARATIONS.

Foods for Infants and Invalids.—Hovis Food for Infants (No. 1), Hovis Food for Infants and Invalids (No. 2), are stated to be prepared to meet the requirements of infants at different ages, and Food No. 2 is also put forward as suitable for invalids and the aged. Both are intended to be used with diluted cow's milk. The results of our analyses of the preparations show that the claims made with respect to their composition are correct. They are both made from grain by a malting process, and while No. 1 is free from starch and contains 93.6 per cent. of matters soluble in cold water, consisting mainly of maltose and dextrin, No. 2 contains about 7 per cent. of starch, and 90.16 per cent. of soluble matters. These articles are satisfactory preparations of their kind, and will, no doubt, be found useful where it is desired to administer soluble carbohydrates in large quantities.

Medicated Soaps.—Messrs. Charles Midgley, Limited (23, St. Anne's Square, Manchester) send samples of three soaps which they have lately introduced, namely, nicotine soap containing 10 per cent. of nicotine: traumatol soap, with 5 per cent. traumatol; and sulphur and carbolic acid soap, containing 5 per cent. of each of the active ingredients. All these are superfatted, and bear evidence of careful preparation.

THE REPORT OF THE INDIAN PLAGUE COMMISSION.

(Continued from page 1161).

CHAPTER VI.

MEASURES FOR THE SUPPRESSION OF PLAGUE.

The scope of this chapter is indicated in the following paragraph:

In addition to the steps taken for the discovery of cases of plague, the measures undertaken in India to suppress the disease were directed towards the isolation in hospital of the sick, the segregation of those who had been in immediate contact with the sick, the removal of the healthy from plague-infected places, inoculation with Mr. Haffkine's prophylactic, and the disinfection of infected houses. The measures taken to prevent the disease from spreading were directed to the supervision of travellers by railway and sea, and occasionally to interference with the movement of people from place to place by road. We have already referred to the value of inoculation as a measure for dealing with the plague. We shall now endeavour to indicate how far the other measures enumerated above have individually contributed to prevent the spread of plague.

METHODS OF OBTAINING INFORMATION OF THE OCCURRENCE OF PLAGUE CASES AND PLAGUE DEATHS.

The methods of obtaining information of the occurrence of plague cases and plague deaths are shortly dealt with. Before 1896 there was no machinery for the discovery of cases of infectious disease, though certain executive orders required reports regarding cholera from officials, and in the towns of Bombay and Calcutta local law called on every medical practitioner to report the existence of infectious disease. The measures which were adopted to obtain information of plague cases varied.

Notification of Sickness.—Sometimes private persons were required to notify: sometimes rewards were offered for information. In villages the headmen had usually the duty of reporting cases. The Commissioners' conclusions as to notification are as follow:

We think that it is not practicable to gain much, except at places well supplied with official medical establishments, by requiring reports of sickness to be made by private individuals during outbreaks of plague. There is the danger that medical attendants may omit to report cases owing to the fear that reporting them may injure their practice, and there is the danger that the relatives, friends, and neighbours of the sick will not report owing to the fear of consequences unpleasant to themselves. We think that the measure will be found useful only where the medical establishments employed are sufficiently strong to take advantage of it, and where the obligation can be efficiently enforced; and, when it is enforced, we think that a fee may well be paid to medical practitioners in recognition of their services in making a report.

Surveillance of Persons Coming from Infected Areas. As early as March, 1897, names and destinations of such persons were recorded at registration stations and forwarded to their places of destination. These measures have become important, owing to the impractibility of detaining such immigrants in observation camps. The Commission think that the system in the towns in the Bombay Presidency may often have at least deferred an outbreak. Though absolutely effective measures to prevent the entrance of strangers into towns are impossible, in villages the problem is not so difficult.

Rewards for Information.—The Commission speak very favourably of these, notwithstanding certain possible disadvantages, but they deprecate the employment of paid informers, unless where it might be necessary owing to the people refusing information.

Volunteer Agencies for the discovery of plague were taken advantage of in most infected towns in Bombay Presidency

and elsewhere. Such a system, whether the volunteers be natives or Europeans, requires official assistance and control, but where influential and trustworthy residents of a town collect information the practice is very useful, and there is less risk of concealment when the people see respected residents engaged in such duty. There is also advantage in keeping a special watch on the health of the inhabitants of places much exposed to infection, and in various places officials were specially sent to make inquiry in villages, the arrangements being very systematic in the North-West Provinces.

House to House Visitation and Searches sometimes excited distrust and alarm, and the practice was not in accordance with Indian ideas. Nevertheless, where official establishments were strong a thorough search, after a place had been discovered to be infected, was usually successful, but in many cases search parties did little good, and in Bombay City the results were not encouraging, so that the system was abandoned in March, 1898, and volunteer committees were substituted. The Commission think that on the whole the advantages are often more than counterbalanced by the disadvantages.

Speaking generally on the means of ascertaining cases of plague the essential difficulty is pointed out that no one will give information unless he hopes to benefit by it. In an infected house the inmates fear their own subjection to plague measures, and the medical man if he reports will lose his practice, while the neighbours are afraid that when their time comes, they will be informed about if they inform regarding others, so that the Commission arrive at the conclusion that as yet no satisfactory solution of the problem has been found.

Measures Adopted for Ascertaining Plague Deaths: Registration.—The system of registration, especially of causes of death, is not yet efficient, and differs in different places. There is often genuine difficulty in recognizing plague, and on the other hand, native officers, when once they do begin to report it, are very apt to debit other deaths to it, especially if death occurs within a week from the beginning of illness.

Corpse Inspection.—This was not tried in Bombay or Calcutta, but was from time to time in force in the cities of Karachi, Poona, Bangalore, Mysore, etc. In some places, no serious objection was made to it, but in others this was not the case, at least as to female bodies, and in Bombay the suggestion was abandoned lest ill feeling should be aroused. The Commission point out that there is difficulty in recognizing certain cases of plague, even by corpse inspection, though the great bulk of cases are easily known. There would, however, always be a residuum, even after inquiry, and the conclusion is:

This being so, and in view of the general repugnance of the people towards an examination of the body, we consider that corpse inspection is not to be recommended as a general measure, and that it should not be carried out anywhere except where Government sanctions it.

Concerning improvement in death registration, the difficulty is that in Calcutta, for example, one-third to one-half of the people have no medical attendant, and it is doubted whether 5 per cent. of the total population of India are seen before death, either by a European medical officer or by a native medical officer with a diploma obtained at a Government medical school.

Drs. Wright and Ruffer dissent (in Appendix IV) from some of the views of their colleagues regarding measures for the discovery of plague deaths. They are convinced that such discovery is necessary, and their assent to the recommendation to abandon compulsory removal to hospital was only given in view of their other opinion that plague deaths should be seriously searched for. They think that the discovery of such deaths, combined with the disinfection of houses, would successfully combat plague, that every effort should be made to improve the system of death certificates, and that where cases are medically attended this could be done if notification ceased to involve compulsory removal to hospital or segregation of contacts. Corpse inspection also should be insisted on where the presumption that death is due to plague is not negatived by a trustworthy medical certificate. The practice, however, of corpse inspection should only be resorted to where a place was being threatened with epidemic disease, and a percentage of error resulting from such inspection would not be a reason for rejecting the system. They differ from their colleagues as to the attitude of the people towards corpse inspection, and hold that in some populations it was regarded with favour, while in others it was at least not viewed with aversion. They regard it as essential in large towns where plague has to be seriously dealt with, and urge that there is little use in appointing a medical officer of health without providing him with the means of obtaining such necessary information.

MEASURES TO CHECK PLAGUE IN INFECTED PLACES.

Removal to Hospital.

Unfortunately this was everywhere unpopular, or even detested, the people in some places believing that they were taken to hospital in order to be poisoned. Fear of hospital removal and of other plague measures led to concealment of cases, and in Bombay and Calcutta and elsewhere plague-stricken patients were sometimes carried from house to house to avoid detection, so that centres of infection were increased. Government hospitals were specially feared, but private hospitals were less objected to, and in Bombay were regarded as distinctly successful, though they were little used in Calcutta. The Commissioners observe that—

In dealing with Orientals, many intricate questions relating to caste and race habits, food, religious scruples, and similar matters arise, and they require very careful treatment.

In some places compulsory removal to hospital was not insisted on, and in Mysore City it was abandoned apparently without excessive prevalence of the disease resulting. The conclusions are that where Government has had a sufficient staff to defeat concealment, compulsory removal has justified itself, but there has seldom been such a staff, and the measure, therefore, has been in many cases inexpedient. The question as to the policy to be adopted must be answered with reference to the circumstances of each place.

In dealing with imported cases, or with an outbreak in a small place upon which it is possible to concentrate a sufficiently strong establishment, there can, in our opinion, be no question that the first measure to adopt is the compulsory removal of the sick to hospital. In dealing with early indigenous cases the same policy may be advisable. But if this policy prove unsuccessful in a large place a point may soon be reached where the authorities will not succeed in getting the bulk of the cases. When this point is reached, the fact must be faced that the evils of leaving the sick in their house are being incurred, and that the attempt to remove to hospital may be superadding to these the evils that result from carrying about sick persons from house to house. At this stage the less the sick are interfered with the better. It appears to us that all that can then be done is to endeavour to palliate the evils that result from leaving people in their houses by arranging for continual visitation of the sick at home, the frequent disinfection of the infected room, and the encouragement of inoculation among persons left in the houses with the sick.

Segregation of Contacts.

Here, again, the question whether there is a sufficient staff to carry out the measure is important. To opposition or indifference on the part of the people may be added venality on the part of the guards. In its own degree, segregation is unpopular and sometimes leads to panic and to concealment of cases with the dispersal of contacts into places at a distance and into uninfected parts of towns. In Bombay the measure was repeatedly modified, so that in the second outbreak, the whole of the contacts were not taken into camp, and in the third outbreak they had to return to the camp only at night, being expected to sleep there, but allowed to attend their work in the town. In Poona City a somewhat similar course had to be adopted. Yet another modification referred to inoculated persons. At Calcutta, households the whole of whose members had been inoculated, were exempted from segregation, and similar concessions were made in some other places. In certain places segregation of contacts was practically abandoned, sometimes owing to climatic conditions, as in the height of the rainy season, elsewhere owing to physical difficulties, and occasionally independently of either difficulty. In no place was there a serious outbreak of plague in a segregation camp. The number of contacts to each case of disease was regarded as usually averaging four or five. The Commission's conclusions as to the value of segregation are as follow:

1. That where the infection is confined to so small an area that contacts can be actually known, and establishments can be provided sufficient to secure the detention of every contact, the measure, if it is combined with the disinfection of the infected house, is a most efficient one, in rural as well as in urban areas. It may be of the greatest value in dealing with imported cases where there is no indigenous plague.

2. That in urban areas where the infection of plague is widespread, segregation can easily be avoided, even where large establishments are kept up. In these circumstances it has, as a matter of fact, in consequence

of its extreme unpopularity, been so largely evaded as to be quite ineffective for the protection of the community. Where the infection of plague is widespread in a city, it would, therefore, be better not to make any attempt to segregate contacts.

3. That in rural areas it is useless to attempt to segregate contacts when the infection is present in more than a few villages, since it is impossible to provide the establishments necessary to prevent the contacts from mixing in camp with the rest of the population.

Evacuation.

Segregation, of course, refers only to contacts. Evacuation means the emptying of houses, "partial evacuation" the emptying and shutting up of single houses or groups of houses, while "total evacuation" includes all the houses in an infected place. People so dealt with were established in temporary camps in the open country.

In the largest cities—Bombay and Calcutta—circumstances, partly of number and employment, and partly of unsuitable surrounding country, made the measure impracticable. But the whole town of Sholapur, with a population of 62,000, and another town with 40,000, were entirely evacuated. People often objected at first, but were persuaded by plague prevalence, and one whole village went out on account of an epidemic among rats. Government or municipal authorities provided huts for the town populations, and the villagers provided their own. As in the case of segregation, the arrangements were sometimes relaxed to allow business men, mill hands, etc., to attend to their work, they returning to camp at night. The duration of evacuation depended on circumstances, and might, owing to the monsoon, or to thoroughness of disinfection of the emptied houses, be only ten days or even less, or might extend to a month, or in the absence of disinfection to two or three months. Heavy rains sometimes rendered the measure practically impossible.

Various tests of its value are considered at length by the Commissioners, but need not be detailed. Evacuation is regarded as a suitable policy only in the absence of any effective alternative, such as thorough disinfection, and "if it were possible to immunize the people so as to prevent them from contracting the infection.....evacuation would become unnecessary," but as yet this protection is not absolute. The Commission's conclusions are:

We consider that evacuation is generally beneficial, that it is highly beneficial when the safeguards necessary to its giving its best results can be maintained, and that it is beneficial even when they cannot be completely maintained. There are, however, two sets of conditions in which evacuation cannot be carried out without doing harm, which may more than compensate for its good results. Evacuation, in the first place, does more harm than good when amongst the people who are removed from their houses there is a considerable number who belong to the trading or artizan classes; for, inasmuch as traders and artizans may lose their occupation by being removed from the town, they are likely to run away and infect other places. Evacuation, in the second place, almost always does more harm than good during the rainy season, especially in certain tracts of country where the effects of the rains are most severely felt, and it is impossible to keep the people, after they have once been removed from their houses, from going back to them; and in such circumstances the evacuated people are exposed to great inconvenience and misery without deriving any countervailing advantages from evacuation.

Disinfection.

This is discussed at very great length and under many headings and subheadings.

Chemical disinfection is first dealt with, and the virtues of nine agents are considered—carbolic acid, phenyl, soft soap solution, lysol, mercury perchloride (in neutral solution), mineral acids, caustic lime, potassium permanganate, chloride of lime. Experimental results showed that carbolic acid in solutions of 1 per cent. or less is not very powerful, that caustic lime is not effective, but that mercuric chloride, mineral acids, potassium permanganate, and agents containing free chlorine are extremely effective. In other words, mineral acids and oxidizing agents are good, but caustic alkalies are not. These are experimental results. Their practical application is also considered, as, for example, the influence of the cowdung floors on potassium permanganate and mercury perchloride.

Direct sunlight has a very considerable devitalizing effect on the plague bacillus, especially if the experimental culture is in a thin layer, but the Commission did not observe any action exerted by diffused daylight.

Desiccation of the bacillus through exposure to the air is an important agency. Humidity of air retards it, while high temperature favours it. Ventilation is held by the majority of the Commission to act as a disinfectant only in so far as it promotes desiccation and removes infected material. The crowding out and destruction of the plague bacillus by the growth of other saprophytic organisms is pointed out as of much importance.

Coming in the next place to disinfection as actually applied to plague in India, it was a means evidently much resorted to, though often without any adequate knowledge, and the methods were altered as time passed. Sterilization of the cowdung floors by "kiln burning" was one notable measure in Hyderabad State, the material being removed to a depth of 1½ in. and burned in kilns for about forty-eight hours, and afterwards not disturbed till about the end of a week.

Unroofing of houses as a means of obtaining disinfection by sunlight and air was comparatively seldom complete, the commoner way in Bombay and elsewhere being the removal of alternate rows of tiles, while in villages roof openings were made into windowless rooms.

The attitude of the people towards such proceedings is spoken of as one of resignation, and disinfection was sometimes applied for as a means of getting back into the houses. Mercury perchloride was the agent most widely used, but there were often serious technical errors in preparing or applying it. The majority of the Commissioners are of opinion that where skilled and efficient control was available chemical disinfection exerted a preponderating influence in destroying infection, but the President inclines to differ, and thinks that the instances advanced in support of it are insufficient, and that the opening up of houses is of greater value. On this point the rest of the Commissioners call attention to their views about the want of efficacy of diffused light and to the incomplete access of direct sunlight through roof openings. The period required for the due effect of desiccation is spoken of as from one to three months.

Disinfection of Clothes and Persons.—The thoroughness of this obviously depended on the available means and the manner of using them. Experienced officers attached importance to sunlight though experimental data were rather to the contrary. Disinfection of the person was carried out at many places, as at Poona railway station, but though useful it was most unpopular.

The recommendations made with regard to disinfecting operations are fourteen in number. Supervision of the work should be entrusted to a member of the Sanitary Service. Chemical disinfection should be resorted to where possible. Mercury perchloride (strength not less than 1 in 1,000) is advocated; where chemical disinfection is not available desiccation should be relied on; boiling water or perchloride solution should be used for household effects; steam sterilizers cannot, as a rule, be conveniently used; articles such as silks which would be injured by boiling water should be long exposed to sunlight; stacks of corn should be spread out for desiccation or sunlight; disinfection of the persons of travellers should be abandoned; drains and cesspits need not be disinfected but only latrines; and ordinary merchandise need not be disinfected.

The President thinks the opening up of houses more useful than chemical disinfection, and urges the difficulties of thorough disinfection by chemicals. His views as to the measures to be taken are stated at the end of Appendix V. In towns and cities with over 10,000 inhabitants he would trust at the beginning of an outbreak to (1) hospital removal; (2) isolation of contacts; (3) evacuation of a considerable area surrounding houses first infected; (4) chemical disinfection of houses and effects; (5) exposure to sun and air of infected and evacuated interiors of houses, and of articles not suitable for disinfection; (6) wholesale destruction of rats; (7) inoculation of uninfected persons, promoted by the inducement of shorter residence in evacuation camps. "If unfortunately the discovery of the first few cases has not been effected..... it may be anticipated that the disease has extended by human communication, and, even more disastrously, because less under control by communication through infected rats." In that event efforts on the same lines should still be made to restrict the outbreak. In small towns and villages suppression is less difficult, and the measures would include complete evacuation. It will be noticed that these recommendations by the President include one measure—wholesale destruction of rats—to which it seems to us too little attention is paid by the Commission.

(To be concluded.)

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

ANNUAL GENERAL MEETING.

THE annual general meeting of the London and Counties Medical Protection Society was held on May 8th, at 31, Craven Street, Strand, London, under the chairmanship of Dr. G. A. HERON.

Annual Report.

The annual report of the Council stated that the steady growth which had proceeded year by year since the formation of the Society showed no signs of coming to an end. In order to deal effectively with the large amount of work that was now necessary in order to do justice to the requirements of the members, the Council had judged it best to rent new offices at 31, Craven Street, and to increase the working staff of the Society. On account of the want of space, the Council, unless they had extended their report to the dimensions of a pamphlet, were precluded from giving anything like a full account of the individual cases which had occupied their attention during the past year, and they stated that "a mere catalogue of the matters involved would be neither very interesting nor very instructive." Some cases briefly described in the report were to be regarded merely as examples showing the general character of the work which the Society undertook on behalf of its members. A considerable number of cases of slander were settled on the receipt of adequate apologies, with promises that the slanders would not be repeated. The Council felt that in such cases publicity was to be avoided as far as possible, lest the efforts made to suppress such slander might result rather in giving it a wider advertisement than its authors could obtain for it. There had been as usual a large number of cases in which patients had sought to justify their desire to leave the doctor's services unpaid by alleging that he had shown want of skill or had been negligent in his treatment. The results had been successful with wonderful uniformity, and a consciousness of the weakness of their causes had led the patients in the majority of cases to pay their debts and relinquish their charges rather than meet the Society in the Law Courts. The same method of attempting to evade payment for professional services by making charges of unskilled treatment appeared to prevail in dental practice, and the Society had dealt successfully with such cases for its dental members, who were properly qualified dental surgeons and not merely registered dentists. The following passage might be quoted from the report:

> A member having incurred the disapproval of the General Medical Council by his connexion with a provincial consultative medical and surgical institute, asked for the Society's advice. He was recommended to acquiesce entirely in the very reasonable views of the General Medical Council, and to pledge his word to that effect to the General Medical Council. The result was an amicable settlement of a matter which had roused very bitter feelings in influential quarters outside the profession.

Several cases of unqualified practice and quackery had been dealt with by the Society, and a long list of such cases in the East of London and elsewhere was in the hands of the Society with a view to such action as the unsatisfactory state of the law rendered possible. A member complained to the Society of the proceedings of an individual who had appropriated his name and address (apparently from the *Medical Register*), and after using it to procure certain positions for years finally brought discredit upon it by fraudulently buying a house and practice and then absconding. During his career the impostor had committed bigamy, and had otherwise broken the law of the land. The Society took steps to prevent any unpleasant consequences falling upon its innocent member, and instituted careful inquiries as to the whereabouts of the member's double, who had since been found, convicted of bigamy and fraud, and sentenced accordingly. The outbreak of small-pox had brought additional work to the Society as well as to its members, and all the cases in this connexion had been successfully defended. The Council stated that with regard to financial matters the little that was to be said was wholly satisfactory. The Society had every year for the last six years gradually increased its invested capital, and considered that the only way in which the interests of members could be absolutely guarded was by providing an ample money reserve for defence purposes. That result was the more satisfactory as the legal expenses (which amounted to £430) were heavy during the year in comparison with previous years.

Discussion.

The CHAIRMAN, in moving the adoption of the report and balance sheet, said that the membership of the Society was now just under 2,000 members. For reasons which were so obvious that they need not be mentioned the cases brought before the Society were not dealt with in the report at any length, and it was the intention of the Council that the report should contain no definite information about those cases which might lead to the identification of the persons concerned. The number of cases dealt with had been considerable, and he held in his hands a list of about 150 names. He had been astonished to find how often he had been asked by fairly astute men whether it would be worth their while to join the Society so that they might have their debts collected from their patients, but the Society had nothing to do with collecting debts; that was altogether outside its work, and he hoped it would never have anything to do with it. Referring to the case of Dr. Irvine, the Chairman said that Mr. Joseph Chamberlain had no right to say what he did in the House of Commons, and the most charitable interpretation was that he was, even for a party politician, speaking in gross ignorance of what he was discussing. He would not, however, have spoken of the medical profession as he did unless he had been aware of the fact that the profession as a whole was politically impotent. The Chairman concluded by a reference to the case of Dr. Law.

The resolution was seconded by Dr. J. COOK; and in answer to an inquiry the CHAIRMAN stated that the number of new members for the year was 256, of whom 10 were dentists.

Dr. W. G. DICKINSON drew attention to the form in which the report was issued. He said it was very much like an auctioneer's catalogue, and, apart from the form, he wanted to know if it would not be possible to make it a little more complete. Some of the cases were referred to fully; was it not, he asked, also possible to refer to all the cases and have them classified under different headings?

After some discussion the resolution to receive and adopt the annual report and balance sheet was carried unanimously.

Dr. DICKINSON moved the following resolution, which was seconded by Mr. J. S. E. COTMAN, and carried unanimously:

> That the Council be requested to consider the desirability of entering into arrangements with other professional societies which do not undertake medical defence whereby such of their members as desire to do so may join this Society.

Dr. HUGH WOODS explained that the Council had already acted on the principle of the resolution in the case of the Lichfield Practitioners Association.

The Council and officers of the Society having been re-elected the proceedings terminated.

THE CASE OF DR. W. T. LAW.

A MEETING of the friends and sympathizers of Dr. W. T. Law was held at the King's Hall, Holborn Restaurant, on May 9th.

Dr. GLOVER, who was voted to the chair, said he at first feared from the smallness of the meeting that it would have to be adjourned. This was due, doubtless, to the somewhat unusual hour. Fortunately, members of the profession had already sent to Dr. Paramore substantial proofs of their sympathy. They were met not to discuss the treatment of asthma, but to express sympathy with Dr. Law. The only use of such a trial as that to which Dr. Law had been subjected—a trial of which both judge and jury expressed strong disapproval—was to call forth proofs of the oneness of the profession, to show that when one member of it suffers all the members of the profession suffer with him. Their help should be not only efficient, but prompt. Dr. Law's expenses would reach the large sum of £700. It was a most satisfactory proof of the sympathy and solidarity of the profession that the generous subscriptions which had already been promised came from all parts of the United Kingdom and from representative members of every class in the profession—Presidents of the Royal Colleges, consultants, and general practitioners. He had much pleasure in calling on Dr. Theodore Williams,

who had done yeoman's service in the cause, to move the first resolution.

Dr. THEODORE WILLIAMS moved the following resolution:

That this meeting begs to express its sympathy with Dr. Law in the recent trial Forsyth *v.* Law, and has great pleasure in doing what it can to show that sympathy in a practical form.

He said that he need not go very deeply into the case because the facts were so well known. He himself was personally interested in the case because Dr. Law had been an old colleague of his, and he had come to know him very well. It so happened that the patient who was the cause of the action was one whom he had seen with Dr. Law. He knew that Dr. Law had been exceedingly kind to this patient, who was a nurse, and had never taken any fees for his services in the case. As a matter of fact, he had gone to great expense out of his own pocket for her, and he had himself told Dr. Law that he had never known a case of asthma in which so much had been done and so much had been attempted. Dr. Law was rewarded with nothing but ingratitude: the patient was ungrateful and so were her friends. When the case came for trial neither judge nor jury could stop it before the whole of the opposite party had given their account, and when only a few witnesses were brought forward for Dr. Law without any complete defence being attempted the case was stopped by the judge and jury. Unfortunately, though everything had been decided in Dr. Law's favour, and though he had been exonerated in every way, there yet remained the lawyer's bill to be paid. As Sir George Jessel had said, people might talk about the glorious uncertainty of the law, but there was one thing about which there was no uncertainty, and that was the bill of costs. Dr. Law had been shown to have conducted himself in the strictest professional manner possible, and the meeting was held to lighten his burden. Dr. Williams was glad to say that from inquiries he had made a large number of the medical profession were willing to help.

The resolution was duly seconded by Dr. INGRAM, and carried unanimously.

Dr. R. PARAMORE, the convener of the meeting, read letters from medical men expressing regret that they were unable to be present, and announced that the subscription list towards defraying Dr. Law's expenses amounted to over £360.

NOVA ET VETERA.

JOSEPH STRUTHIUS AND HIS STUDIES OF THE PULSE.

THANKS to the care of the Librarian the Library of the British Medical Association now contains upwards of 5,000 *Theses* for the Parisian Doctorate of Medicine. These theses are often valuable historical memoirs, and it is greatly to the credit of the Librarian that he has been able to make such arrangements as enable the Association to obtain so important a series of documents at a nominal cost.

One of these theses, written by Dr. V. Bugiel, a young Pole, tells the interesting story of an illustrious fellow-countryman, Joseph Strous or Struthius. Struthius, was the first modern writer upon the pulse; he held an academical position at Padua, and his work formed part of the substructure which was crowned by Harvey's brilliant demonstration of the circulation of the blood. Much good and original work was done at Padua during the sixteenth and seventeenth centuries both in anatomy and in physiology, and the work of Struthius is not the least important.

Strous was born at Posen in 1510 of a lower middle-class family. His father was a maker of combs, his elder brother became head master of the St. Magdalen School and rector of the church of the same name in Posen; his younger brother remained an undistinguished maker of combs, the family trade. Joseph was educated at the Lubranski School in Posen and in 1527 he entered the University of Cracow, then the capital of Poland, where Copernicus had studied astronomy and medicine from 1492 to 1496. Strous published several copies of elegiac verses during his undergraduate career, and graduated Bachelor of Arts in 1529 and Master of Arts in 1531. In the same year he issued a Latin translation of Lucian's Δίαν φωνήντων that is, Judicium Vocalium. Strous reached Padua in 1532, where there were already several Polish students, and attached himself to the clinic of Professor Francis Frigimelica, one of the best Greek scholars of the time. Strous made such good use of his opportunities that at the age of 25 he was appointed "Explicator extraordinarius medicinae theoreticae," which gave him an official teaching position in the great university. He turned his attention more particularly to the pulse, upon which he lectured, when in due course he gave up his demonstratorship and became an ordinary professor.

He resigned his professorship in 1545 and returned to Poland where he became physician to Andrew Gourka, a Polish general, living in Posen. Soon after his arrival at home he was summoned to treat Isabella, wife of John Zapolya, King of Hungary, whom he cured, and shortly afterwards he attended the Sultan Solyman II., at Constantinople, and was invited to Madrid by Philip II., King of Spain. This honour he declined and settled in Poland, where he became physician to his King, Sigismund-August, and was elected burgomaster of Posen in 1557. He died of the plague in his native town in 1568.

Like Harvey and Ambroise Paré, Strous's mind was always engaged on the work of his life, and he was constantly on the watch for interesting pulses. He says:

I met at Buda, in Hungary, when I was in the house of Queen Isabella, a mercenary of Italian parentage, whose pulse was always feeble. The feebleness, however, was not natural, but caused by wounds which he had formerly received some of which had involved the vessels. This he told me himself when he saw that I remained thoughtful after I had felt his pulse, for in truth the state of the pulse and the condition of the patient did not tally.

At another time:

When I was with Solyman, the Turkish Emperor, I was called to attend a Turkish warrior who had an acute fever. His pulse was dicrotic throughout the attack, but when he recovered his pulse was still dicrotic. It appears to me therefore that an abnormal pulse may exist even in a healthy person.

The following reply shows that Strous was not without a sense of humour:

There was a mountebank called Chaseus living at Posen in Andrew Gourka's house, and the mountebank was a fool by nature. Although he was in perfectly good health his arterial pulsations presented at different times all kinds of curious anomalies. His master once asked me what I thought of the fool's pulse, to which I replied, "Like man, like pulse. It's a regular fool of a pulse."

The *Ars Sphygmica* of Struthius contains many interesting physiological points which place the author high amongst working physiologists. The first edition appears to have been published in 1540 at Basel, but the editions of 1555 and 1602 are alone accessible. In the first place Struthius tried to represent different forms of pulse graphically by curves, much in the same way as they are now traced with the sphygmograph; secondly, he had discovered the principle of the sphygmograph, for he says, "If you put a leaf or a membrane over an artery where it lies beneath the skin you will see that it bends and straightens itself with the movements of the vessel." He knew, too, that the pulse dilated the arteries, for he says: "There are some who think that the pulse is a mere shock. But the artery actually dilates at the same time. The best proof of which is that one can see the dilatation very distinctly in thin people." He knew, too, which is still more remarkable, that the nerves influenced the arteries, for he says:

The cause of the spasmodic pulse is the spasm of the nerves. When the nerves contract the arteries contract also, for there is a close connexion between the nerves and the arteries. The arteries receive branches of the nerves; moreover, the finest ramifications of the arteries and nerves are in close contact, so that the nerves easily communicate their affections to the arteries.

Like Harvey, he had studied the heart's action in living animals, and had come to the same conclusion as regards the *ultimum moriens*, for he says:

The apex of the heart is the first to stop, then the intermediate portion, and afterwards the base. The auricles alone continue to contract and dilate, and their last diastole ends life. We have often seen this in living animals whose thoracic walls we have removed.

Like Harvey, too, the baneful doctrine of calidum innatum and the infancy of chemical science prevented Strous from gaining any real insight into the true nature of the pulse, and he is obliged to fall back upon the old Galenic definition of the pulse as "a peculiar action at first of the heart, afterwards of the arteries, consisting of their dilatation and contraction, and stimulated by the vital faculty to the double end: first to reduce the calidum innatum; and, secondly, to produce the animal spirit in the brain."

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 17TH, 1902.

THE ARMY MEDICAL SERVICE AS A CAREER.

IN our advertisement columns this week there will be found an announcement which must be looked upon as, in Carlyle's phrase, "significant of much." The Director-General of the Army Medical Service makes known to all whom it may concern that thirty commissions in the Royal Army Medical Corps are offered for competition to men possessing the necessary qualifications. It is a considerable time now since such an advertisement has been issued. In spite of the transformation of the Department into a Royal Corps, and the concession of real rank and corresponding military titles, the service had become so unpopular with the rising generation of the medical profession that the supply of candidates practically ceased. The causes of this unpopularity are too well known to readers of the BRITISH MEDICAL JOURNAL to need recapitulation. In the alienation of the medical profession from the service the War Office has only reaped what it had sown. And when wiser counsels began to prevail there came a "blind Fury" of hysterical denunciation and calumny which slit the thin-spun thread that already gave promise of drawing the profession and the army once more together. The charges were shown to be grossly exaggerated, and it was proved that the responsibility for such breakdown in the medical arrangements as did occur could not justly be laid on the shoulders of the Royal Army Medical Corps. But as Voltaire cynically said, "If dirt enough is thrown some of it will stick," and it is not surprising that self-respecting men should not care to expose themselves to the eruption of "mud volcanoes" of slander.

Mr. Brodrick has not always been happily inspired in his dealings with the medical service of the army, but he is entitled to the credit of having, through his somewhat nebulous scheme of "drastic reform," clearly perceived that the first step in the direction of betterment was to make the service more attractive. We have felt it our duty to criticize his methods, but we have always recognized the goodness of his intentions. The most hopeful feature in the attitude of the Secretary of State for War in regard to the question is that he has an openness of mind for which we confess we did not give him credit. He has practically adopted all the suggestions made to him by the JOURNAL and the Subcommittee of the Association, and in this way the crude, ill-drafted, and unworkable scheme framed by his Committee of amateur experts has been moulded into fairly satisfactory shape. Our readers have had an opportunity of studying the provisions of the Royal Warrant, and the new regulations for admission to the Royal Army Medical Corps. The time has now therefore come to consider the scheme as a whole, especially in regard to its vital point—the inducements which it offers to young men likely to be efficient officers to enter the service.

The examination for admission is of a clinical and practical character; this will open the door of the service to men of a type likely to make particularly good officers, but who do not care to submit themselves again to examination in the earlier subjects of the medical curriculum. Another marked improvement on the old order of things is the fact that service is counted from the date of entrance at Netley. The examinations for promotion are neither excessive in number nor too exacting in character; they are fair tests of an officer's fitness for the duties which he has to discharge, and they are so arranged that a man entering at 24 should be able to leave them behind him at 39. The scale of pay as far as the service generally is concerned is on the whole satisfactory, except for an unintelligible anomaly in the case of colonels, who not only get no increase but will actually in certain circumstances draw less than their immediate subordinates. We can only suppose that this is a freak of the mischievous sprite whose special delight it would seem to be to get the red tape of the War Office into a tangle. This is a matter that can be put right by a stroke of the pen. But there is another question of the gravest importance relating to pay which is still unsettled. Most junior officers of the R.A.M.C. have to spend five or six years in India, and whereas in every other part of the empire medical officers receive higher pay than those of other branches of the service, in India they are of all officers the worst paid. Though the unfairness with which the medical officers are treated is most conspicuous in the junior ranks, the pay of all grades with one or two exceptions compares very unfavourably with that of other officers. The Indian Government in its dealings with the Royal Army Medical Corps has always shown a disposition to what we must take leave to call sharp practice, and it cannot be too strongly urged on the Secretary of State for War that no scheme will be accepted by the profession which does not include a satisfactory settlement of this question.

Another point as to which explicit assurances must be received before the service can be recommended as a career to young men beginning professional life is the undermanned state of the Royal Army Medical Corps. All through the present war this has been a serious embarrassment to the authorities. At present the effective strength of the corps is little over 900, whereas at least 1,200 are required. The deficiency in number places an ever-increasing strain on the physical and mental energies of the officers in the service. It is matter of common knowledge that the undue pressure of work and responsibility on those now in South Africa is impairing the efficiency and undermining the health of many. But no relief is possible, for the simple

reason that there are no officers to take their place. The Director-General might, in fact, say with Napoleon when one of his marshals asked for reinforcements, "*Où veut-il que j'en prenne? Veut-il que j'en fasse faire?*" We have heard of more than one case of an officer coming home on leave after seven years' service in India, and being sent off to South Africa almost as soon as he landed in England. And even the peace, of which the dawn seems on the point of breaking, will not bring any relief to this severe tension, for a large army of occupation must necessarily be left in the Transvaal and the Orange Free States for a long time to come. For years past we have called the attention of the War Office to the undermanning of the Royal Army Medical Corps, and predicted collapse under the strain of a great war. Most fortunately, we have escaped the European complications which more than once seemed imminent, or the whole system of our Army Medical Service must have broken down. A man entering the Royal Army Medical Corps in its present attenuated condition has before him the practical certainty of abnormally long tours of service in tropical climates; and it is difficult to see how, under existing conditions, the exigencies of the service can allow him either the amount of leave necessary to keep him in health or the opportunity of furbishing up his professional knowledge in the Staff College which it is understood is to be established. Good as Mr. Brodrick's scheme of reorganization is, there are, therefore, two things of fundamental importance still wanting. These are: more men, and more pay in India.

There is another thing which has done much to make the service unpopular, but it is one that cannot be dealt with by Royal Warrants. This is the foolish policy of "snubbing the doctors," which under the fostering influence of the previous Commander-in-Chief has grown into a tradition in the War Office, and has thence spread into some of the military clubs. Medical officers, even those who have the honour to be honorary physicians and surgeons to the King, are constantly passed over when invitations to entertainments and functions are issued to other officers of all sorts and conditions. This could easily be remedied by a hint conveyed from the proper quarter. But the social ostracism inflicted by members of the military caste is a more subtle grievance though not less galling. Here, too, something could doubtless be done by the influence of the Secretary of State and the Commander-in-Chief exerted through non-officials channels. The grievance is a sentimental one, but as has been well said, a sentimental grievance is a real grievance. This is especially the case in the army.

We have indicated the points in which Mr. Brodrick's scheme still requires to be amended, and the direction in which further efforts must be made by the powers that be if the service is to be made attractive to capable and high-spirited men. With a corps of adequate strength, a proper scale of pay in India, and social equality with combatant branches, the medical officers of the army would have little to complain of, and we should feel justified in recommending the service as offering to young men of military tastes a career in which there was the certainty of acquiring a modest competence and the possibility of earning high distinction and solid rewards.

THE UNIVERSITY OF LONDON AS A TEACHING INSTITUTION.

It is very satisfactory to observe that University College, London, has already obtained, and, thanks to the cordial assistance of the Lord Mayor and other leading citizens of London, with remarkable ease, the sum of £110,000 which the appeal stated was required to enable the College to be incorporated in the University. We ventured to observe in the British Medical Journal of May 10th that the meaning of the term "incorporation" had not been defined, and that it would have been more satisfactory had an appeal been made by the University itself on behalf of a comprehensive scheme. On both of these points some information was given at the meeting at the Mansion House on May 9th, a report of which is published at page 1233.

The Duke of Devonshire, who moved the first resolution affirming the opinion that the incorporation of the College in the University would materially promote higher education and research in London, and that a fund should be raised to equip and endow the College adequately for such education and research, said that, by incorporation, the College would become merged in the University, and that the Senate of the University would acquire complete control over all the resources of the College, while Sir Michael Foster, who seconded the resolution, said that by the act of incorporation the College would disappear in the University. Further, the Duke said that the land and buildings of the College, valued at half a million, and the trust funds valued at nearly £300,000 would pass to the University.

Apparently, therefore, the scheme amounts to this, that University College is to cease as an independent body, and that the faculties of which it is composed are to become the first teaching faculties, and its departments institutes of the University. If this be so, then the appeal for a million sterling made by the Council of University College to enlarge its buildings and to endow its chairs is to be transformed into an appeal by the Senate of the University for this sum to endow university chairs and provide university institutes at a university centre in Gower Street. This proposal is sufficiently precise, but the Principal stated that it was only a part of a larger scheme. We cannot help feeling that it would be well if this larger scheme could be made public at an early date. London will certainly need more than one university teaching centre, and the claims of King's College to receive equal treatment with University College can hardly be ignored, any attempt to pass them over would undoubtedly raise most troublesome questions.

There is no existing pattern of a university organization which would exactly suit the needs of London. By reason of the mere extent of ground which it covers it demands exceptional treatment, and if there is an educational statesman on the Senate he has now a great opportunity. By Section lxxx of the statutes made by the Commissioners of 1898 the Senate of the University has power to make arrangements with the governing bodies of any schools of the University to provide common courses of instruction for matriculated students, so that the Commissioners no doubt contemplated concentration of teaching in subjects other than those included in the preliminary and intermediate portions of the medical curriculum.

The population of the metropolitan boroughs south of the river is estimated to be, in the middle of 1902, over a million and three-quarters (1,779,709), but there is no institution of university rank established within the area of these boroughs except the medical schools of Guy's Hospital and St. Thomas's Hospital. If there is to be concentration at South Kensington, and in Gower Street as appears to be foreshadowed by the report of the Faculty of Medicine published last December and by the proposal to merge University College in the University, then the question arises whether topographical conditions will not sooner or later determine the establishment of another university centre for the great population south of the Thames. An ideal solution of the difficulty which appears to exist would be afforded if King's College could see its way to transfer its work from the present cramped site in the Strand, to some suitable point on the south side where it would have room for free expansion, and where in time it would arouse a feeling of local patriotism. This matter of South London is only one of many questions which it is essential to have settled. Before the University can appeal to the public for funds with the best prospects of success a comprehensive scheme to provide for the needs of higher education in London generally is a necessity.

As will be seen by the abstract of the proceedings of the last meeting of the Senate, published at p. 1245, it has now been definitely decided that all students, whether internal or external, shall pass the same matriculation examination. This decision will probably meet with very general approval, although it will no doubt disappoint the more ardent friends of the external students and of the old order of things, as well as the authorities of some of the constituent colleges, who would have liked to have kept the matriculation of their students in their own hands.

The scope of the examination has also been altered chiefly by giving a candidate a somewhat wide choice in the selection of the subjects in which he prefers to be examined. Elementary mathematics, English, and one other language are compulsory, but this other language will not necessarily be Latin. If, however, a candidate does not take up Latin, one of four other subjects becomes compulsory, and as these include mechanics, physics, chemistry, or botany, the candidate who has some knowledge of French, German, Spanish, Portuguese, or Italian, to mention only the modern languages on the list, will be under a strong temptation not to take up Latin. For reasons which have already been stated, we regard this abolition of Latin as a compulsory subject as an unfortunate step, and one likely to react injuriously upon the standard of medical education. The decision has been come to, no doubt, after very full consideration, by a body which numbers among its members many men of great academic distinction in the old learning. It can hardly be doubted that it has been reached only after many searchings of heart, and it can only be hoped that, so far as medical students are concerned, the abandonment of Latin may not in practice take place before the secondary schools have adapted themselves to the new conditions by placing the study of modern languages on a satisfactory footing.

THE COMING MEETING OF THE GENERAL MEDICAL COUNCIL.

THE only available material upon which a forecast of the probable work of the ensuing meeting of the General Medical Council can be based is the last published volume of Minutes, as no programme is published in advance. In the Minutes may be found record of business commenced but not completed, sometimes because in the nature of the case it cannot be at once dealt with, but quite as often because it has come on at the end of a session and has been shelved more or less completely in order that a great many items in the programme may be got through somehow or other on the last day. This is a doubtful economy of time, as the business has all to be done again at the next session, at which it overloads the programme.

An especially unfortunate instance of this kind of thing is to be found in the new regulations for the diploma in public health, which, although they were challenged and although the date for their coming into effect was to have been January 1st this year, were shelved at the end of the last session. The amended rules were in no small part due to the initiative of the late Sir Richard Thorne, and gave effect to a laudable desire to ensure that the candidate should have had a longer and more thorough acquaintance with the practical work of public health officers. One objection raised was that thereby greater difficulties were put in the way of medical officers of the public services qualifying for this diploma during periods of leave. Though the experience of the war has strongly emphasized the desirability of officers in the services being well acquainted with hygiene, the convenience of these officers can hardly be allowed to weigh against a proposal to make the curriculum such as to ensure that the candidates' acquaintance with the subject shall be real and practical. A more serious objection was raised in a memorial, influentially signed by medical officers of health, who declared the new rules to be impracticable. The General Medical Council has, of course, no power to compel medical officers of health to take pupils, and they contend that they will be unable, consistently with the proper discharge of their duties, to give to their pupils the amount of practical work indicated in the new regulations; this should at least have been fully considered before the date on which the rules came into operation. In the preamble to the report of the Committee, which was adopted, it is assumed that the General Medical Council has full power in this case to determine the curriculum under Section XXI of the Act of 1868. But it is possible that their jurisdiction is less absolute than is assumed, as the wording is "if such diploma appears to the Privy Council or to the General Medical Council to deserve recognition" it shall be entered in the *Register*. Hence in this case the prior determination of its merits, subject to appeal to the Privy Council, does not appear necessarily to rest with the Council as in the case of other diplomas, for it would seem that a body conferring such qualification might appeal to the Privy Council direct in the first instance for its recognition.

Another subject which has hitherto secured but little attention at the hands of the Council generally is that of its finance, which, as we have repeatedly pointed out, is in a sufficiently doubtful position to call for prompt attention. As their reports will be presented from two distinct

Committees on this subject it can hardly be shelved again.

The case of Dr. Rendall, in which the decision of the Council upon the gravity of the facts proved was postponed, will come up for final decision. A precedent has been to some extent established that such postponements furnish a *locus poenitentiae*, and that, if the Council be satisfied that the practices complained of have been discontinued, no further action is taken. We shall await with interest the outcome of this case, as it will be remembered that it was very strenuously fought on behalf of the defendant and the canvassing Medical Aid Society by which he was employed. And from correspondence which has appeared in our columns it seems that an application will be made for the restoration to the *Register*, upon very unusual grounds, of a name which has been removed under Section XXIX.

The report of the Committee upon personation will also have to be considered and, it may be hoped, finally dealt with; it may be rembered that the report of this Committee was first received in 1899, and has been postponed on one plea or another ever since, although cases have cropped up in the interval to emphasize the existence of the evil and the necessity for finding a remedy.

It is hardly likely that much, if anything, will be heard of the dispute as to the curriculum between the Council and the two Royal Colleges at this session, as the time which has elapsed since certain returns were asked for under the terms of the Act is short. But it may be expected that the perennial question of entrance examinations to the profession will come before the Council as a result of Dr. Windle's motion that the memorial received from the Headmasters' Conference be forwarded to the Lord President of the Council, with a suggestion that it is a suitable question for the consideration of the Consultative Committee of the Board of Education.

We may expect to hear some account of the steps which have been taken with a view of introducing into Parliament the Bills in which the General Medical Council is interested—namely, the Disciplinary Bill and the Bills relating to company practice. Doubtless, also, some information will be given as to the attitude of the Council towards the Midwives Bill, and of the steps which have been taken with a view of bringing it more into accord with their expressed wishes. Down to the present no amendments appear on the paper in the name of Sir John Tuke, who may be presumed to be the mouthpiece of the Council in this matter.

THE VICTORIA CROSS.

THE official statement of the act of conspicuous bravery for which the Victoria Cross has been awarded to Surgeon-Captain Arthur Martin-Leake is printed elsewhere. It was a deed, or rather a series of deeds, in accord with the highest traditions of the medical profession; and there is a touch of old-world chivalry in his refusal, after receiving three wounds, to accept water until every one else had been served. Surgeon-Captain Martin Leake comes of a family well known in the South of Ireland, and his grandfather was a distinguished naval officer of the old great school. His family had settled in England, and he received his medical education at University College; he was Assistant Demonstrator there in anatomy and in physiology, and house-physician to the hospital. He obtained the diploma of L.R.C.P. and M.R.C.S. in 1898, and after leaving University College was house-surgeon to the West Herts Infirmary, Hemel Hempstead, and eventually settled at Ware in the same county. At an early stage of the war he joined as a trooper, subsequently took to the care of the wounded, and finally received a commission.—On May 10th, immediately before the annual dinner in connexion with the Royal College of Surgeons in Ireland, in the College Hall, the President (Mr. Thomas Myles) presented to Surgeon-Captain Crean, V.C., the diploma of Honorary Fellowship of the College in recognition of his conspicuous gallantry in the South African campaign. It will be remembered that Surgeon-Captain Crean, 1st Imperial Light Horse, was awarded the V.C. for his gallantry during the action with De Wet at Tygerskloof on December 18th, 1901. On that occasion he attended the wounded in the firing line under a heavy fire at 150 yards range, and only desisted when, having been already wounded, he was shot through the abdomen. The Lord Lieutenant of Ireland, when speaking after dinner, referred to the story of Captain Crean's deeds of valour as a story "which sent a thrill through their hearts and was worthy of the emulation of all young Irishmen."

THE ROYAL SOCIETY'S *CONVERSAZIONE*.

THE scientific exhibits at the Royal Society's *conversazione*, held on May 14th, included a rather smaller number which had an especial bearing on medical and biological questions than in some former years. Mr. Mackenzie Davidson again showed *x*-ray photographs and the methods for their stereoscopic representation, also a method of developing photographic negatives in ordinary light. Some very interesting examples of colour photography were shown; those which would probably appeal most to medical men being pictures obtained by this method of stained sections of tissues, specimens of malaria plasmodia, and of stained preparations of micro-organisms, in the latter of which spore formation was beautifully shown. This method seems to remove the great objection to photomicrographs as permanent records of microscopic objects, inasmuch as all the effect of selective staining is retained. Sir Henry Trueman Wood showed in the lantern pictures in colour produced by the three colour process, and Dr. R. D. Roberts a number of slides in natural colours of the Grand Cañon of the Colorado, the Sierra Nevada, and the Yellowstone Park. There were several interesting zoological exhibits by the Director of the Natural History Museum, by Mr. W. E. Hoyle, by Mr. E. A. Wilson, Assistant Surgeon and Naturalist to the National Antarctic Expedition, and others, including one from the Marine Biological Association, in which it was shown that the age of fishes could be determined by eccentric lines of growth on their scales which reminded one of the concentric age lines on the section of the trunk of a tree. Dr. C. A. MacMunn showed spectra of substances with portentous names. Professor Wyndham Dunstan, director of the scientific part of the Imperial Institute, showed poisonous fodder plants and food grains, specimens of Indian and Egyptian drugs and their constituents, and specimens of Indian and Australian gums and resins—all having bearings on materia medica. An important demonstration of film structure in metals and other plastic solids was given by Mr. George Beilby. Mr. A. Vernon Harcourt, F.R.S., showed an ingenious apparatus of his own design to graduate the amount of chloroform used in inducing anaesthesia with precision to about 2 per cent. of air. Dr. J. Everett Dutton showed, on behalf of the Liverpool School of Tropical Medicine, specimens of a trypanosome found in a man, a European in Government employ at Bathurst, and in a native child at the same place. The concomitant symptoms closely resembled those occurring in animals

suffering from tsetse-fly disease. An interesting group of exhibits was formed by those connected with the applications of light rays in medicine. Dr. Dawson Turner showed a modification of the Finsen light lamp, consisting not of an arc light, but of an electric spark from a condenser passing between iron electrodes, giving light very rich in chemical rays, but without any appreciable heat rays, thus removing the necessity of absorbing such by a cold water circulation apparatus, with the consequent loss of light rays. The substance he used to act as a compressor was a tablet of rock salt, which he had found even more transparent to ultra-violet rays than quartz. This fact was demonstrated by means of the power of ultra-violet radiation to discharge a charged electroscope. Mr. W. R. Pidgeon demonstrated a new electrical influence machine composed largely of "volenite" in place of glass or wax, thus giving an instrument capable of resisting hard usage, and consequently, when mounted on an iron frame, useful for *x*-ray work in the field or in hot countries in which induction coils deteriorate so rapidly. Mr. A. C. Cossar showed a new therapeutic *x*-ray tube in which only a small window of the tube, made of lead glass, is pervious to the rays, the remainder being made of German soda glass serving as a screen almost as efficient as metal itself.

THE PREMATURE INFANT IN HIS LEGAL ASPECT.

THE problem of the premature infant, so ably discussed by Dr. J. W. Ballantyne in this issue of the BRITISH MEDICAL JOURNAL, has from another point of view been exercising the legal mind in France. A case was tried before the Tribunal de la Seine the other day in which the plaintiff sought to recover the dowry which he had paid on his daughter's marriage, on the ground that she had died without leaving a child to inherit it from her. The lady, who had brought her husband a portion of £2,000, died in giving birth to a child aged 6½ months. The baby was placed in an incubator, where it lived twenty-five days, when it died. The question before the Court was whether the child was viable. According to French law, if the child was not viable the mother's father can claim the return of the dowry, but if it was viable it could inherit from its mother, and one-half of its inheritance would go to its father, the other half going back to the maternal grandfather. The Court granted the plaintiff leave to produce evidence as to the following points: (1) That the child was born after a gestation of 6½ months; (2) that at the time of its birth it weighed 1 kilo. 200 grams, and that afterwards it continued to lose weight; (3) that it had not fully-formed nails. If the plaintiff can prove these facts to the satisfaction of the Court he will probably win the case. The Court has appointed a jury of experts to consider the evidence. This is said to be the first time a legal tribunal has been called upon to decide whether an infant which lived twenty-five days after its birth, and was not the subject of any disease or constitutional taint other than extreme weakness, was or was not viable.

THE ETIOLOGY OF TYPHOID FEVER.

DR. THOMAS CHERRY, Lecturer on Bacteriology in the University of Melbourne, gave an address on the Etiology of Typhoid before the sixth session of the Intercolonial Medical Congress of Australasia, held in Hobart last February, in the course of which he observed that the study of the bacteriology of typhoid was rendered difficult from the fact that the disease was not readily transmissible to any of the lower animals. The bacillus coli communis and the typhoid bacillus had so many points in common that they produced similar reactions, and were to be regarded as members of the same group of bacteria. One of the marked characteristics of the group was the extent to which variation took place amongst the descendants of a single bacterial cell. Although there were several tests by which typical typhoid and colon bacilli might be distinguished from one another, the gap between the two was completely bridged over by a series of intermediate forms, amongst which was the B. enteriditis, or Gaertner's bacillus. Many cases were on record which went to show the long periods of time that typhoid bacilli could exist without causing symptoms. All recent work tended to show that many mild cases of fever, often classed as febricula, were really typhoid, and might be an unsuspected means of spreading the disease. The direct evidence as to the mode of entry of the infection into the body was scanty. From a recent analysis by Schüder of 650 epidemics occurring chiefly in Germany and England, it appeared that 462 epidemics were due to water, 110 to milk, 23 to other food stuffs, 12 to clothing or bedding, and 43 to other causes. Dr. Cherry stated that whilst there could be no question as to the origin of the great majority of epidemics of the disease, there was often difficulty in accounting for isolated cases. Some of these were so peculiar that it must either be assumed that the bacillus could exist in a virulent form in water or soil for several years, or else that the colon organism in the intestine became transformed into typhoid, or, at all events, into the intermediate forms, and thus the disease arose *de novo*, as Murchison taught. Several such difficult cases were quoted and discussed. The actual mode of conveyance of the bacilli to the patient might be by means of minute particles of faecal matter containing great numbers of bacilli which might get into water, or be carried on the feet of flies on to articles of food, or be carried about in the dust. Dr. Cherry's general conclusions were as follows: (1) Many mild cases of fever, often classed as febricula, were slight attacks of typhoid, and might serve to distribute the contagion; (2) typhoid fever itself might be a composite disease, or series of diseases, caused by closely-allied organisms; (3) while from the bacteriological evidence the *de novo* origin of the disease was not disproved, still a general survey of all the known facts enabled most cases to be explained without having recourse to this hypothesis; (4) typhoid fever at once disappeared from a community with the introduction of a proper system of disposal of excrement and household refuse; in towns this could best be done by a properly-constructed water carriage system of sewage; (5) the disease was spread chiefly by the contamination of water, milk, and other articles of food; in hot countries at least flies and dust had a considerable share in bringing about this contamination; (6) the length of time during which the bacilli could exist outside the body was unknown; there was evidence to show that the contagion hung about old cesspits and contaminated soil for several years.

THE DIAGNOSIS OF MALARIA IN ENGLAND.

AT page 1212 we publish an abstract of a remarkable paper on the diagnosis of malaria from the standpoint of the practitioner in England, which was read by Dr. Patrick Manson, F.R.S., the Fothergillian Medallist of the Medical Society of London for the year, before that Society on Monday evening. As will be gathered from our report, it contained several important points which have either not been previously brought under the notice of the profession or have not been heretofore sufficiently appreciated. Among the former was one which perhaps came home more closely than the others. In a noteworthy passage, and speaking as every one knows from a very wide experience, Dr. Manson said that he had never himself met with an indigenous case of malaria in England, and, further, that he believed malaria was now and had been for a considerable time as extinct in England as the wolf or wild boar. The importance of such a statement has not only a comforting influence on dwellers at home, particularly perhaps to the dwellers in those low-lying fen countries in Cambridgeshire, Lincolnshire,

Kent and elsewhere for so long reputed to be infested by ague, but to have a hopeful bearing on the efforts for the diminution of the prevalence of the disease in those countries where it is still rife. The disappearance of malaria from this country has occurred although *Anopheles* has not been totally exterminated. Another matter, of perhaps equal importance to the community and of greater importance to the individual, on which an authoritative opinion was given, was that sufficient evidence had been accumulated to show that no infection with malaria can persist more than three years; probably, indeed, malignant tertian dies out in two years; and, therefore, attacks with ague-like symptoms, occurring at intervals throughout many years (the possibility of reinfection being excluded), whatever they are, are not malaria. Dr. Manson further dwelt on the precision with which a diagnosis of malaria could be excluded from considerations of the locality in which the patient had dwelt. To take such a place as Malta, situated, as it may be held, in a malaria belt, chronic recurrent pyrexia, with visceral enlargement and other signs often considered characteristic of malaria in a person who had not visited a malarial place, might be typhoid fever, or was probably Malta fever, but was certainly not malaria. Similarly, ague-like affections occurring in Barbadoes could be positively dissociated from malaria; as a matter of fact, they were most often manifestations of the filariasis so prevalent in that country. As a noteworthy supplement to these clear, incisive, and confident, not to say dogmatic, statements, was the case of undoubted malaria described in the paper, in which the only occasion on which the patient could not prove an *alibi* was when he was on board ship lying at Brindisi. The lecturer insisted on the fact that all diseases arising in the tropics characterized by chronic recurrent pyrexia, a large spleen, and other conspicuous changes were not necessarily malarial, cases of leucocythaemia occurring in the tropics being instanced as likely to be wrongly diagnosed in the absence of ocular evidence of the presence or absence of the malarial parasites in the body.

THE CASE OF MRS. CATHCART.

THE inquiry which occupied the attention of Mr. Justice Grantham and twenty-four jurymen for several days last week has resulted in a declaration that Mrs. Cathcart is incapable of managing either herself or her affairs. No one who has glanced at a report of the proceedings can have any doubt as to the correctness of this verdict. Possessed of ample means, this poor lady showed eccentricity in a bent for litigation. Those who are unacquainted with her history may wonder how it has come about that one constantly before the public in the capacity of a "litigant in person," has not ere now been protected against herself. This is not, however, the first inquiry into her mental condition. In the year 1892 proceedings were instituted by her husband, which resulted in a verdict by the majority of the jury that she was capable of managing her own affairs. A cruel kindness, truly! According to the statement of counsel she had had the misfortune to employ a number of disreputable solicitors, some of whom were struck off the rolls and prosecuted for various offences, and in spite of her frequent personal appearances in the courts, incurred from time to time enormous bills. Her name has figured in the law reports on numerous occasions, but the reported cases are but a tithe of those in which she has appeared. Like poor Miss Flite, whose eccentricities in relation to the case of *in re* Jarndyce, Jarndyce *v.* Jarndyce were so vividly portrayed by Dickens in *Bleak House* she has long been a litigant in person at the law courts; testing, but not trying, the patience of the judges, and occasionally enlivening the dullness of legal procedure by her ready wit. It is said that upon one occasion she made an application to the late Lord Esher when he was presiding in the Court of Appeal. As the matter was one which ought to have been brought before a judge of first instance, his Lordship said: "Go to Mr. Justice ———. He is a good lawyer, and will try your case very nicely." "Yes, my lord," said Mrs. Cathcart, "but my case requires the exercise of so much common sense." Nor has she played an entirely useless part in litigation. We can recall at least one important point in the law of lunacy which has been decided through her instrumentality, namely, the answer to the question, Who is to pay the cost of an abortive inquisition? At the termination of the previous inquiry into her mental condition, the Court made an order to the effect that the costs of the inquiry should be paid as to one-third by the husband and as to two-thirds by Mrs. Cathcart out of her separate estate. This order was appealed against, but without success, the House of Lords being of opinion that if any person shows signs of mental derangement, those who institute proceedings for an inquiry shall not necessarily be mulcted in costs should the proceedings terminate in favour of the alleged lunatic. With regard to the verdict of the jury in 1892, the present Lord Chancellor said: "It was a verdict of the majority, and they had the advantage of seeing and conversing with Mrs. Cathcart. It may be that upon the issue with which they had to deal, namely, whether at the time of inquisition found, Mrs. Cathcart was capable of managing herself and her property, the jury were right; but that does not decide the question whether for months and years before that time her conduct and demeanour had been such as to lead to the reasonable belief that she required to be put under some restraint."

REGULATION OF THE SALE OF VIRUS AND ANTITOXIN.

A BILL to regulate the sale of viruses, toxins, serums, and analogous products in the District of Columbia, and to regulate inter-State traffic in these products, has been introduced into the United States Senate. It penalizes by fines or incarceration, or both, at the Court's discretion, the taking from one State to another, or the sale or exchange, of any virus, therapeutic serum, toxin, antitoxin, or analogous article for therapeutic use in the diseases of human beings, unless the same is produced at an establishment operating under a licence from the Treasury Department. Every package of such organic preparation which may be legally taken from one State or territory to another for sale or use shall bear the name, address, and licence number of its maker, and the date at which it may be expected to lose its therapeutic value. Establishments working under licence from the Treasury Department are to be at all reasonable times open to inspection by its authorized representatives or agents. The action of the Secretary in granting or revoking licences for the domestic production of such preparations is to be taken on the recommendation of the supervising Surgeon-General of the Marine Hospital Service, and none of foreign production are to be received into the United States unless the foreign producers permit the same inspection of their establishments as is provided in the case of licensed manufacturers in the States.

BOVINE AND HUMAN TUBERCULOSIS.

AT the last monthly Council meeting of the Royal Agricultural Society of England, Sir Nigel Kingscote presented a report which had been submitted to the Veterinary Committee by the Subcommittee appointed in July last to supervise the experiments conducted at the Royal Veterinary College as to the possibility of infecting bovine animals with tuberculous material from the human sub-

ject. These experiments were carried out on a cow, two young calves, and two yearlings. In the case of the cow the tuberculous material was injected into the udder, in the calves it was given by the mouth, and in the yearlings it was injected into the veins. The experiments proved the possibility of infecting cattle with human tubercle bacilli, for at least in the case of the cow the human bacilli had multiplied in the body, and had induced a manifestly diseased condition. In the other cases, also, reactions to tuberculin after the attempt to infect with human bacilli appeared to indicate that infection had actually taken place. The absence of distinct evidence of tuberculous disease when the animals were killed was held to indicate, on the other hand, that infection was of a temporary nature. It was noted, however, that in the case of the cow the recovery was not complete six months after infection. Taking all the facts into account, the experiments were held to indicate that the risk of cattle becoming affected naturally from consumptive human beings must be very slight. The Subcommittee did not feel justified in drawing from the results of the experiments any conclusion as to the risk of infection in the opposite direction—namely, from cattle to man. Upon this point we learn from *American Medicine* that Professor H. W. Conn has made a series of experiments extending over more than a year at the Storrs State Agricultural College of Connecticut. He claims to have demonstrated by those experiments that the risk of the spread of tuberculosis through the milk of affected animals is not so great as has been heretofore alleged. He confirms the conclusions of the first British Tuberculosis Commission to the effect that in the earlier stages of the disease when the udder is not involved danger from the milk appears to be limited, and that as it is practically impossible for the farmer to know with any accuracy when the tuberculous germs will affect the udder, the segregation of every animal which gives the tuberculin reaction is the only method of prophylaxis against the great danger which menaces the herds.

A LOOSE STATEMENT.

THE reckless manner in which statements are made and comparisons drawn has been remarkably illustrated by a correspondence recently published between a medical officer of health and a clergyman holding a living in one of the poor districts of the city of Bristol. The correspondence arose out of a statement made by the secretary of the Church Pastoral Aid Society at a meeting held in August last at Cheltenham, when the Rev. F. F. Despard said that the infant mortality in the Bristol slums was greater than in the concentration camps in South Africa. This appeared in a London paper having a large circulation, and the attention of Dr. Davies was called to it by a letter from the Secretary of the National Society for the Prevention of Cruelty to Children asking for information. Dr. Davies was told by Mr. Despard that his authority was the Rev. W. F. Jephson, Vicar of St. Luke's, Bedminster, who in reply to a letter stated that he had said he "had known woman after woman say to him: 'I have had 13 children, and now only 5 are alive,' 'I have had 11 children, and only 3 are alive now,'" etc., concluding that "I really believed that in some of these courts (that is, in Stillhouse Lane) the infant mortality was as bad as in a concentration camp." Dr. Davies, in reply, called attention to the fact that the statement was based on certain unsupported remarks made by sundry women as to their families, and that Mr. Jephson had publicly stated as a proved statistical fact that the infant mortality was excessive. He called upon Mr. Jephson to produce the evidence on which he based these facts, and to compare with statistics of the camps for children of similar ages for an equal period of time the infant mortality in Bristol. He further pointed out that the mortality at the camps occurred within a few months and concerned 194,000 or more children, while Mr. Jephson's instances only concerned 24 children over a much longer period, it being hardly "possible to bear 13 children in less than ten years." Further, he said, if a high dignitary of the Church lost several children in a few weeks from scarlet fever, this would not justify a generalization that the mortality amongst the children of Church dignitaries equalled or exceeded that in the concentration camps; or if a family lost one out of two children would it be justifiable to assert that the mortality in the district among children was 50 per cent.? Mr. Jephson, in his answer to this, said he did not say anything about Bristol, but the impression made on his mind by the remarks of women out of Stillhouse Lane on the deaths of the children was that in some courts the mortality must be as bad in one of the camps. He denied having any intention of stating a statistical fact. Dr. Davies, in comment, draws attention to specific mention of Stillhouse Lane, which is in Bristol, and that the words "infant mortality" are the recognized means of expressing the mortality of infants under one year per 1,000 children born during the year. As a matter of fact, the infant mortality of Bristol is low, for in 1900 it was 133, as compared with a rate of 172 for the 33 large towns. None of the subdistricts show any excess, Bedminster, where Mr. Jephson has his living, being 119, the lowest next to Clifton and Stapleton. One of the local papers, in a leading article, says that Dr. Davies simply annihilates both the statement and the halting apologies for it with a thoroughness and apparent enjoyment which will be deemed perfectly suitable in the circumstances. This is true, and it may be hoped that it will be a salutary lesson to persons who in public make statements they are unable to prove and cannot justify.

SIR FRANCIS LOVELL'S MISSION.

WE announced some time ago that Sir Francis Lovell had undertaken to make a tour of scientific evangelization through the tropics, with the object of securing practical support for the London School of Tropical Medicine. As Hannibal went about seeking to stir up enemies against Rome, Sir Francis is endeavouring to enlist combatants and helpers in the campaign against the mosquitos and microbes which make so many parts of the tropics graves of the white man. We hear of him at various places. Thus on April 3rd he was at Penang, where he addressed a meeting convened in the Governor's Office. He gave an account of the foundation of the school. When the school was erected and the staff provided, it was anticipated that the accommodation would be sufficient for twelve students. In the first session, however, that of October, 1899, the number of students exceeded the accommodation provided, and that has been the case ever since. In 1901 the number doubled, and in the last session of 1901 the number of students exceeded the accommodation by seven or eight more. The Board of Management of the Seamen's Hospital thereupon saw the necessity for increasing the size of the school. Mr. Chamberlain, on being made acquainted with the state of affairs, pointed out that as he had assisted the school in obtaining £20,000 from donors in London for the London School of Tropical Medicine, the time had arrived when some efforts should be made to obtain substantial contributions from people more directly concerned in the welfare of those labouring in the tropics than the people of London. It was therefore decided that some one should undertake a mission among the residents of the East on behalf of the school. That, said Sir Francis, was how he came to be there. In the year under review some 247 cases had been treated in the hospital attached to the school, cases of diseases peculiar to the tropics. So far the research work had been carried out most satisfactorily, and it was hoped that a higher standard of efficiency would be reached before very

long. There was only one scholarship at present—the Craggs scholarship—but it was absolutely necessary that there should be more, and scholarships could only be obtained by means of endowments. Before returning to England he hoped to be able to remit home sufficient money to allow the School Committee to make any necessary increase in accommodation of the building. In regard to endowments, he was still sanguine, but he did not know whether anything like the sum of £100,000 was likely to be obtained for some time. He had been very fortunate in India, and amongst the wealthy inhabitants of Bombay had raised Rs.125,000, which the Committee had considered very satisfactory. He had not been so successful in Calcutta, where the Government of India had started an Institute of Medical Research similar to the London School, and the Viceroy stated he did not think the time ripe for contributing to a similar school in England. In Ceylon the Governor (Sir West Ridgeway) had promised an annual contribution to the School for five years, the amount of which was not yet fixed. Attaching to the contribution was a condition made by the Governor that as long as the contribution was paid, any medical practitioner from Ceylon, irrespective of nationality, should have the privilege of going through a course of instruction in the London School without paying the usual fees. In the case of Ceylon practitioners, Sir Francis thought this was a very valuable concession, for as a rule they were not well paid, and could not afford to pay high fees. In Singapore the Governor had followed the example of Ceylon and promised to give a contribution of £200 a year for five years, with conditions attaching similar to those proposed at Ceylon. Turning to another matter Sir Francis said he had been through the Malay States and had visited the Medical Research Laboratory there. It was certainly far and away the best medical research institution in any of the Crown Colonies. There was every opportunity for scientific research there, and he had no doubt that as every three years men fully equipped with the latest knowledge continued to come from the London School to direct the institute at Kuala Lumpar, the work of that institute would be of increasing value. In conclusion, Sir Francis Lovell made a strong appeal to the Chinese community, and especially to its wealthier members, to support the school to the utmost of their ability. He added that it was a great gratification to him to be able to inform the meeting that, having telegraphed yesterday to the Chairman of the Committee formed by the Malaya Branch of the British Medical Association to collect subscriptions in Singapore asking him to "report progress," that gentleman, Dr. Mugliston, had just replied to the effect that "progress was favourable." A Committee was formed for the purpose of furthering the object of Sir Francis Lovell's mission.

A NEW CONSUMPTION SANATORIUM FOR LONDON.

On May 13th Princess Christian, who was accompanied by her daughter, Princess Victoria of Schleswig-Holstein, laid the foundation stone of a large country branch hospital in connexion with the Mount Vernon Hospital for Consumption, Hampstead. Their Royal Highnesses were welcomed by a Reception Committee which included Mr. B A. Lyon, Chairman of the Committee of Management, Lord Clifden, the Vice-Chairman, Sir Hermann Weber, the Consulting Physician, and the Rev. Brook Deedes, Vicar of Hampstead. The site covers 60 acres of ground; it is picturesquely situated, well wooded with beech and fir trees, and sheltered from cold winds. The sanatorium will provide accommodation for 50 men and 50 women patients. Arranged in line the wards will all face south; there is to be a separate nurses' home; the administrative block is to be placed centrally between the wings for male and female patients; there will be a common dining hall, which will also be detached; and there will be separate accommodation for laundries and the electric light plant. There will be about two and a-half miles of paths in the grounds graduated in slope to suit the differences in strength of the individual patients. The building will be in the Georgian style, of stone, red brick, and Luton greys. A design of the patients' block is now on view at the Royal Academy, after plans of Mr. Frederick Wheeler. An anonymous benefactor, an old Harrovian, has given £120,000 to the fund, £70,000 for the site and building and the remainder to form a nucleus of an endowment. The sanatorium will be within easy reach of London, and it is understood that it will form only the first instalment of a much larger scheme.

McCOY'S SYSTEM OF PHYSICAL EXERCISES.

On Tuesday last in the ballroom of Downshire House, Mrs. Conn, of Cromwell Road, gave a demonstration of a system of physical education which she learned from the late Sir Frederick McCoy, of the University of Melbourne, and which for the past four years she has been busily engaged in introducing to public notice. On the invitation of Mrs. Pirie and Lady Primrose, a large gathering assembled to see Mrs. Conn's pupils go through a variety of movements and exercises devised to develop the muscular system on what are claimed to be strictly scientific lines. The proceedings were opened with a short address from Mrs. Conn, in the course of which she strongly urged upon the general public the necessity for greater attention to physical development, which, in her opinion, has not yet had a fair chance as a health restorative. Presumably it is Mrs. Conn's intention to devote her energies mainly to the physical improvement of girls. A class of eighteen, in costumes more remarkable for their utility than their elegance, went through various evolutions. No fault can be found with the exercises which are taught and advocated; they are all excellent. If performed within the limits of the capacity of individual pupils, they may be approved as useful aids to those who from circumstances are debarred from the less formal but perhaps more desirable use of their muscles which is provided by such outdoor games and pursuits as those in which in the natural course of things every young person instinctively indulges as opportunity offers. We do not pretend to be censors of the value of corsets as an element of female apparel. Much stress was laid by Mrs. Conn on their undesirability and their aesthetic unloveliness; but what the wisdom of the ages taught our grandmothers, and theirs before them, is not likely to be readily controverted by the strong assertions of the enthusiast in "physical science" or by the success in the achievement of a graceful figure without artificial aid by an inconsiderable minority who are lucky enough to possess more energy and more capacity for muscular discipline than the bulk of womankind.

ROYAL UNIVERSITY OF IRELAND.

A MEETING of Convocation was held in Dublin on May 9th, when the following six members were elected to the Senate: Mr. Alex. Anderson, M.A., President Queen's College, Galway; Dr. J. Walton Browne, B.A.; Mr. Edward Cuming, M.A.; Rev. Matthew Leitch, M.A., D.Litt.; His Honour Judge Shaw, M.A., LL.D.; and Dr. Thomas Sinclair, M.A. This meeting, and the results of the election, are of rather exceptional importance. Some little time ago the Royal University Graduates' Association issued an appeal to the Members of Convocation to vote for the six successful candidates, as they had supported the principle of external examiners; and the result of the poll clearly indicates the trend of opinion among graduates of the University. The poll was an exceptionally large one, and the deciding question in the election was undoubtedly the principle involved.

CONTAGIOUS DISEASES IN THE PHILIPPINES.

IN a report on the contagious diseases of the Philippines, Major L. M. Maus, Surgeon U.S. Army, Commissioner of Public Health, Manila, says, as we learn from the New York *Medical Record*, plague first manifested itself in Manila in December, 1899, and since that date 778 cases have occurred, resulting in 618 deaths, or 79.4 per cent. Every case discovered in the city at present is sent to the Plague Hospital as soon as the diagnosis has been verified by blood examination, and the bodies of those found dead are sent there for cremation, unless the friends inter such cases in hermetically-sealed metallic caskets, in compliance with the directions of the Board. In order to exclude the possibility of any case escaping the vigilance of the Board, all deaths reported by practitioners in the city, where there is suspicion of plague, are examined by one of the medical inspectors of the Board. Great attention is being paid to the destruction of rats, a corps of native ratcatchers having been organized provided with buckets for holding disinfecting solutions, the collection of dead rats, vessels for rat-bane, etc. Houses or premises in which plague occurs, or where dead rats affected with plague have been found, are subjected to a rigid disinfection, such houses being closed for from thirty to sixty days, or until they are considered safe for reoccupancy. Small-pox has been very infrequent during the past year, only five cases having occurred in Manila during that period. Vaccination is efficient and universal, and the population is considered at the present time to be practically immune. Pulmonary tuberculosis is very prevalent among a certain class of the citizens, 160 deaths having occurred during the two months previous to the date of the report. This question is regarded as an exceedingly serious one, and in order to secure proper vital statistics in regard to this disease a blank form has been printed for circulation by the physicians, sanitary inspectors, and others of the city. It is believed that the ultimate organization of a consumptive colony outside of the city will become necessary in the near future, as the disease occurs principally among the very poor, and those who live in the crowded districts and under poor sanitary conditions. Scarlet fever and diphtheria are very rare in Manila, but measles occurs occasionally. The hospitals for the accommodation of lepers are situated in Manila, Cebu, Palestina, and Bacolod, and contain about 500 cases. A number of reports have been received from the Governors and Secretaries of the various provinces regarding lepers requesting assistance. With a view to the support of these isolated cases, an appropriation has been submitted to the Commission for necessary funds. Various estimates of from 10,000 to 30,000 have been placed upon the number of lepers living in the Archipelago, but Major Maus judges, from information received from various sources, that the number is less than 12,000. In order to secure definite statistics, a blank form has been forwarded to the Secretaries of the various provinces, and to medical officers and others, for the collection of data, and it is hoped that within a short time the approximate number will be ascertained. The care of lepers in the hospitals throughout the archipelago may be regarded as simply tentative, and it is anticipated that during the coming year a permanent colony will be established for them on some suitable island, sufficiently distant from the mainland to prevent their return to their homes.

THE INDIAN GOVERNMENT AND R.A.M.C. OFFICERS ON LEAVE

WE understand that officers of the Royal Army Medical Corps now on leave from India are, while in England, to be paid by the Indian Government on the scale laid down in new Royal Warrant. This concession, which to the non-official mind seems to be a simple act of justice, was not made voluntarily by the Indian Government: it had to be asked for by the officers concerned, and if the point had not been raised it may be taken as certain that the officers would have received pay on the old scale. The matter may seem trifling, but it is an illustration of the ungenerous spirit in which the Indian Government deals with the officers of the Royal Army Medical Corps whose services it employs.

SIR FREDERICK TREVES, K.C.V.O., will give the Cavendish Lecture before the West London Medico-Chirurgical Society on Friday, June 20th; the subject chosen is Certain Phases of Appendicitis.

MR. THOMAS JOSEPH STAFFORD, F.R.C.S.I., Medical member of the Local Government Board for Ireland, has been appointed a member of the Royal Commission on Sewage Disposal in the room of Mr. C. P. Cotton (resigned).

WE understand that the rumours which have been put into circulation to the effect that the removal of St. Bartholomew's Hospital, London, from its present site is contemplated are unfounded.

A *conversazione* will be given by the Medical Society of London at their rooms, 11, Chandos Street, W., on Monday, May 26th. The President will hold a reception at 8.30 p.m., and an oration will be delivered by Dr. Stephen Mackenzie at 8.45 p.m.

COLONEL EXHAM, C.M.G., R.A.M.C., has been deputed by the Secretary of State for War to proceed to Washington to be present at the annual meeting of the Association of Military Surgeons of the United States. The subject of discussion is to be the treatment of the wounded in war.

THE annual meeting of the Dermatological Society of Great Britain and Ireland will be held on Thursday next at 4.15 p.m., when an oration will be delivered by Dr. Unna. Dr. Unna will also give a demonstration at the Post-Graduate College, West London Hospital, on Friday, at 5 p.m.

THE Local Government Board for Ireland has decided to recognize the County Antrim Infirmary as efficient to entitle a nurse to recognition under Art. 2 (b) of the Nursing Order of July 5th, 1901. Dr. St. George is to be congratulated that his arduous work in this direction has been thus acknowledged.

A REPORT to the General Board of Commissioners in Lunacy for Scotland, by Dr. James Craufurd Dunlop, of Edinburgh, on the dieting of pauper lunatics in asylums and lunatic wards of poor-houses in Scotland, has been issued as a supplement to the forty-third annual report of the Board. In a covering letter the Board observes that in the great majority of institutions the diets may be regarded as satisfactory, and that there are only a few cases in which they can be said to fall considerably short of the scientific standard adopted by Dr. Dunlop.

THE Museums Syndicate of the University of Cambridge, in proposing arrangements for the allocation of the buildings at present occupied by the Botanical department, state that the provision of additional accommodation for the departments of human anatomy and physiology is rapidly becoming an urgent requirement. They regret that they are not in a position to provide for any extension on this occasion. The greater part of the Botanical buildings will be assigned to Engineering, of which there are now over 200 students.

WE are glad to learn from *Nature* that Professor Virchow has now recovered from his accident in what must be termed a highly satisfactory manner, and that he has been

able to leave Berlin for the country, where he will reside for some months to come. Leave of absence from his university duties has been granted to him for the whole summer term, his place being taken from his three principal assistants. It is announced in the German journals that he has resigned the presidency of the Berlin Medical Society. It is considered probable that he will be succeeded by His Excellency Professor von Bergmann.

MR. J. K. CAIRD of Dundee has offered the Royal Infirmary of that city a building to contain accommodation for patients suffering from cancer, as well as for patients in relief of the other departments of the institution, which have of late, we are informed, proved insufficient to meet all the demands upon them. The number of beds in the proposed extension is over 100, and the cost is estimated at £18,500. A sum of £5,000 to be devoted to research in connexion with the cancer department of the hospital has also been guaranteed by Mr. Caird. We shall hope to revert to this aspect of the subject in an early issue. Two years ago the gynaecological and maternity section of the Royal Infirmary, along with a home for nurses, was built and furnished by Mr. Caird at a cost of some £8,000.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The New Rules of Procedure, as regards questions, have so far resulted in a diminution of the numbers asked in the House. The consequence of this will be felt in the smaller number of points of medical interest answered publicly in the House of Commons. Many of these questions will come within the category of those to which "no oral answer is desired," and the information sought will be given in print in the papers circulated among the members on the next day. The new plan will prevent the expenditure of time on comparatively unimportant matters, but all questions of general public interest will no doubt be starred, and answered orally, and so find their way into the reports of the Parliamentary proceedings.

The Plumbers Registration Bill.—The promoters of this Bill are making a vigorous effort this year to get facilities given to the Bill by the Government. They have a good deal of support on both sides of the House, but, in face of the opposition to the second reading, it is not likely that the Government can take up the measure. The Bill is down for one of the last days before the adjournment for Whitsuntide, but in view of the fact that it is blocked by two Liberal members, one Conservative, one Liberal Unionist, and an Irish member, its prospects are decidedly doubtful.

The Cremation Bill seems likely to be lost again this year, as the amendments carried in Committee have developed serious opposition from the Nonconformist interest. Mr. H. D. Greene, the member for Shrewsbury, introduced in Committee an amendment to prevent a crematorium being erected on the consecrated portion of a cemetery. Mr. Goddard has given notice to oppose this, and as there may be a warm discussion on the point the prospects of the Bill are seriously menaced. The promoters of the Bill have no desire to retain the restrictions, and only accepted them to get the Bill through the Committee stage, but their omission may cause a good deal of difficulty.

The New Butter Standard. Sir Edward Strachey last week asked the President of the Board of Agriculture whether he would immediately after May 15th take such steps as might be necessary to test the value of the standard of butter set up by his Board, so that it might be determined whether after that date milk-blended butter containing a higher percentage of moisture than permitted by the standard could be sold. Mr. Hanbury in the printed answer stated that it had not been the practice of the Board to anticipate the action of local authorities for the purpose of testing the effect of statutes; and, in view of the full powers of local authorities, he did not think that any special necessity for doing so arose in this case. The authority given by statute to the Board had been fully exercised in issuing the regulations.

The Military Hospital at Vryburg.—Sir Walter Foster asked the Secretary for War, on Thursday last week, whether he had any information as to the insanitary and crowded state of the military hospital at Vryburg at the end of April, and the absence of tents for the use of the sick for whom there was insufficient accommodation in the hospital. The Secretary of State said that he had no information since the early days of April, and asked the hon. member to supply him with particulars as to the shortcomings of the hospital. Sir Walter Foster undertook to do this.

The Medical Officer of Health for Caithness.—Mr. Cecil Harmsworth obtained a printed reply at the end of last week to his question whether the Lord Advocate was aware that on March 8th last the County Council of Caithness appointed a duly-qualified medical practitioner to be medical officer of health for the county, and that this medical officer had not yet entered on his duties consequent on the delay on the part of the Local Government Board in intimating whether he would be allowed to have consulting practice. The Lord Advocate's printed reply was to the effect that on March 12th the Local Government Board were informed that the county council of Caithness had appointed a county medical officer with permission to engage in consulting practice. The Local Government Board did not interfere with the appointment nor hinder the new officer entering on his duties. It was necessary, however, to consider whether the grant in aid of the cost of medical officers should be payable to the county council in respect of this appointment. The rule was that where the medical officer engaged in consulting practice the grant was not given unless the Secretary for Scotland was satisfied that there were exceptional circumstances justifying this arrangement. The necessity of considering these circumstances in this case caused some delay, but the county council had now been informed that the grant would not be given.

Guard-room Beds.—The Secretary of State for War has informed Mr. Colston that the provision in military guard rooms of better sleeping accommodation than the plank bed and wooden bolster now provided for soldiers in the army will be considered in next year's estimates.

Milk blended Butter.—Sir Edward Strachey has called the attention of the President of the Local Government Board to milk-blended butter, and has asked whether the Board has decided that it is an impoverished article of food as defined in Section 1, Part VII of the Sale of Food and Drugs Act, 1899. The President has replied that the Board has no power to decide what is an impoverished article for the purposes of the section, but that the Board of Agriculture has in the exercise of its statutory powers made regulations for determining the proportion of water in butter that raises the presumption that it is not genuine. Mr. Long, however, has declined to direct that samples should be procured with the view of testing the value of the standard thus set up.

A Riverside Small-pox Hospital. The President of the Local Government Board has informed Sir Frederick Dixon-Hartland that he has instructed two officers of the Board to visit the site upon which a temporary hospital is being erected at Hanworth, Middlesex, for the use of the urban districts of Hampton, Teddington, and Hampton Wick, and to make a full report on the subject. The question involved the statement that the surface water from the site drains into the Thames at Hampton immediately above the intakes of the Southwark and Vauxhall Water Company, the Grand Junction Company, and the West Middlesex Water Company, and that the ground is sometimes under water from 4 to 9 in. Although Mr. Long appeared to accept some responsibility in the matter, he said that, as the cost of the hospital was not to be defrayed out of borrowed money, he had no authority to interfere.

UNIVERSITY COLLEGE, LONDON.

Meeting at the Mansion House in Support of the Fund for Higher Education and Research.

The Lord Mayor presided on May 9th at the Mansion House over a meeting held in support of the fund for higher university education and research in connexion with University College, London, and the University of London.

The Lord Mayor, in the opening speech, said that the meeting was unique because the City had never before been asked for a sum of money for the furtherance of the highest form of education and research in London. University College alone had offered to be incorporated with the University of London, and the result of the present appeal would assist that University. In the wealthiest city of the Empire university requirements ought to be attended to and the University of London should be second to none in the Kingdom.

The Duke of Devonshire moved:

That this meeting is of opinion that the incorporation of University College, London, in the University of London will materially promote higher education and research in London, and that with this object, a fund should be raised to equip and endow the College adequately for such education and research.

He said that the University Commission Bill of 1898 retained for the University of London its former powers of a general examining body, and also gave it a large share in the work of teaching and of research, at the same time granting it a controlling influence for the co-ordination of instruction given in the schools federated in the University. Further powers were bestowed on it to deal with the university needs of the great modern London. The University of London, however, had under the Act power to teach, but it had not the material means of doing so. To enable the University to become a teaching centre for mere affiliation there must be substituted incorporation, and by incorporating the University College in the University of London an important step would be taken towards supplying the necessary educational equipment required. By this incorporation University College would become merged in the University of London, and the Senate of the University would acquire complete control over all the resources of the College; the transfer would involve no menace to the continued existence of the other schools of the University. It was essential that the University should possess independent resources, while useful, but to a certain extent subordinate, functions were reserved to the affiliated and federated schools. Universities were no longer a necessity for one class alone, and the welfare of the nation demanded that all classes of men of high intelligence should be sought out and equipped with the highest training. Our success as a nation depended upon the possesion of trained men, and these were not procurable in sufficient number from any one class. The older universities could not supply them, and an opportunity was now afforded to London to repair past neglect, and to create a University for London adapted to the needs of the metropolis of the empire. The Duke of Devonshire then proceeded to discuss the financial questions. He said that under the provisional scheme settled between the College and the University, the site, buildings and equipments to be transferred were estimated to be to the value of £500,000, while certain trust funds amounted to nearly £300,000 would also pass to the University. He then proceeded to consider in detail the present requirements for the endowment of university education and research in connexion with the University College, which will be found described in the issue of the British Medical Journal, April 26th, 1902, p. 1035.

Sir Michael Foster said that in the great city of London there was most urgent pressing need of a successful and flourishing university for higher education and research, in its very midst and at its very door. It was true that in London there was the peculiar difficulty that there were so many who lived in it who were not of it, who were interested in other institutions elsewhere. He himself belonged to London and to Cambridge, but his heart was big enough for both. A powerful London University would only strengthen a similar institution at Cambridge. In the metropolis, which was so great a centre of industrial and commercial activity, it was most desirable that there should be, for the benefit of those using the results of knowledge, a band of men and women in their midst whose whole life should be devoted to extending the bounds of knowledge and to spreading it among all classes. It was an absolute necessity that there should be in that city a real and effective university, that was the idea of Sir Thomas Gresham 300 years ago, and later, at the beginning of the last century, the poet Campbell, in company with a band of earnest men, instituted the University of London in the building which was now called University College. London now had a teaching university. That University was, however, one of great complexity, unlike any other university in the world. it retained its old imperial function, and any lad or girl from any part of the empire, not only from Great Britain and Ireland, but also from all the Colonies, might repair to the University of London and receive from it the stamp that he or she had acquired a university training. That great function of the University still remained, but there had been added to it other distinct metropolitan functions limited to London and to a certain radius round. These functions again were complex. The University recognized certain teachers, and made as it were a bargain with those teachers, so that their pupils had certain advantages in entering into the University, whereby they were less disturbed in their studies by the mechanical trammels of examinations. There were also schools attached to the University—University College and others—which were institutions for education and research, which had entered into partnership with the University of London, retaining their autonomy, and only becoming part of the University under certain conditions. These conditions, again, were advantageous to the students, so that they might achieve a university degree under the most favourable circumstances. As a result, London had a many-jointed, a many-limbed, and perhaps a loose-limbed University. When compared with the more compact universities of other places, that very loose-limbness had the great advantage that it brought the University of London to bear upon all classes and upon all callings. But that flexibility and elasticity produced an idea of a certain amount of unsteadiness. Some fixed point, some fulcrum from which these limbs could become more effective was wanted, and the meeting was called to consider the offer of University College, which was a school with powers and privileges of its own, and which was in the old days the University of London. University College offered to give up its identity, and make itself that solid central point which was needed to make the great University of London truly and thoroughly effective. It would not only make it effective by giving it solidarity, but it would be the means of enabling the University to carry out its own ideas according to its own wishes. Over the affiliated schools the University had only limited power; it could only suggest this and that, but if University College became incorporated with the University of London it would be able to carry out without any difficulty all its most cherished ideas. He desired to impress on the meeting that this was an attempt on the part of University College to give strength to the University of London. It was not a wish to aggrandize University College above any other school. In the act of incorporation the College would disappear in the University; it was a sacrifice of the College for the good of the University at large. One of the conditions of the union was that the College should retain its own traditions as a place where every kind of learning was pursued. This was an age of specialization, and sometimes one kind of learning was pursued by itself in what might be called a hole-and-corner fashion. He was speaking from the result of the experience of all those who had to do with educational learning when he said that it was most desirable that each kind of learning should do its work in company with and in the face of learning of all other kinds for the benefit of each and all of them. That was the one main condition of the sacrifice contained in the offer which University College was making: that it should not be turned aside to develop any particular branch of knowledge, but that it should remain as an example of a seat of learning. The proposed incorporation would be for the benefit of the whole University of London, for all the professors, teachers, and students concerned, and for all outside the University of London, and also for all classes of people in that great city, whatever their position or calling.

He concluded by formally seconding the resolution proposed by the Duke of Devonshire.

Professor A. W. RÜCKER (Principal of the University of London) supported the resolution, and pointed out that the success of the scheme would obviate the necessity of developing the University by a number of awkward and ill-fitting compromises. The proposal now submitted was part of a larger scheme which might be submitted later.

The resolution was then put and carried unanimously.

The following resolution was proposed by Lord BRASSEY, seconded by Lord AVEBURY, and carried unanimously:

That this meeting urges on the citizens of London the importance of giving a generous response to the appeal now made for a million pounds to equip and endow University College, London.

Mr. LIONEL PHILLIPS, Mr. H. R. BEETON, and Captain H. M. JESSEL, M.P., also spoke in support of the above resolution.

Sir RICHARD FARRANT (Treasurer) announced that over £110,000 had been received in subscriptions. These included £30,000 through Sir Michael Foster, and a similar sum from the Drapers Company; Mr. Astor had subscribed £20,000, Messrs. Wernher, Beit and Co. £10,000, £5,000 was subscribed by Mr. M. Michaelis, £2,000 by Mr. Pierpont Morgan, and £1,000 by Professor Vaughan Harley.

A vote of thanks to the Lord Mayor was proposed by Lord REAY. He said that if London wished to have a University worthy of the metropolis, to which all pilgrims in search of learning would come from every part of the empire, then sympathy must be shown in a practical manner. There was no want of eminent men to teach; the difficulty was to get proper laboratories and adequate equipment on the same scale as in other places. They had the men, but not the money nor the plant.

Mr. A. PREVOST (Governor of the Bank of England) seconded the vote of thanks, which was carried with acclamation, and the proceedings then terminated.

It is announced that the Prince of Wales has graciously consented to be patron of the Fund.

THE UNIVERSITY OF LONDON.

PRESENTATION DAY.

AT this ceremony, held on May 14th, the great hall was crowded, and the men and women graduates, in academical costume, walked in procession to their seats near the platform, being followed by the Chancellor's procession, which included many mayors of the metropolitan boroughs and other guests of the Senate, officers of the University, the Senate, the Vice-Chancellor, and lastly, the new Chancellor, the Earl of Rosebery, all of whom wore their official robes, and proceeded to the platform.

The VICE-CHANCELLOR (Sir Henry Roscoe) first rose and offered the Chancellor a hearty academic welcome, and on the part of the Senate and all others interested in the University expressed the satisfaction with which they viewed the election of Lord Rosebery by the general body of graduates.

Sir E. H. BUSK, on behalf of Convocation, also congratulated Lord Rosebery, and stated that his election had been unanimous. At the Vice-Chancellor's request, the entire audience rose and expressed their welcome by cheering the Chancellor.

Lord ROSEBERY said that he was very grateful for his election, and for the manner in which the meeting had expressed its satisfaction. He was glad to be the first Chancellor of the University elected by the graduates under the new Act of Parliament, but could not help feeling how unworthy he was to fill the chair which had been occupied by so many of his illustrious dead friends. He remembered all the Chancellors of the University, from the first—the Duke of Devonshire—onwards. Three of them had been colleagues of his own in the Cabinet. Lord Granville, the second Chancellor, held the office for thirty-five years, and always had the interest and the honour of the University very much at heart. Lord Derby, the third on the list, was perhaps the most fair-minded man, and the most sincere and honest seeker after truth that he had ever come across in the political arena. Lord Herschell was, at the time of his lamented death, probably the most valuable servant of the Crown in the whole British Empire, and was called upon for every kind of arduous service if he could only find time to undertake it. Lord Kimberley, the late Chancellor, lived, perhaps not unhappily for himself, in the ante-platform and ante-advertising age. He was essentially humble and so little self-seeking that he was not so generally well known as he deserved to be. He was a great classical scholar, and in the last year of his life was found undertaking the arduous task for an old man of attacking Dante, which he did with the keenest relish.

The PRINCIPAL (Professor Rücker) then reviewed the work of the University during the past twelve months. The number of entries for the examinations was larger than in any former year, and the humbler classes of society were well represented: in fact the University was helping those who had the will and the ability to fight their way from the elementary schools upwards. As regarded the organization of the University, a new department for university extension and inspection of schools had been added; and Dr. R. D. Roberts, who had unexceptionable qualifications for the post of registrar of that department, had happily accepted that post. A scheme for a new matriculation examination had been decided upon, and an examination in accordance with that scheme would be held for the first time in September next for the convenience of candidates wishing to take up university studies in the following session. Regulations had been passed for the admission of post-graduate students from other universities to study for the doctorate in London. The matriculation examination would for the future be conducted by examiners other than those who undertook the intermediate and final examinations. A general scheme had been adopted regulating the method of selecting teachers, to be paid and appointed by the University. The Technical Education Board of the London County Council had placed at the disposal of the University the munificent sum of £10,000 a year, which would enable the University to begin work at once. Two chairs of Chemistry would be established at University College—one for General Chemistry, to be filled by Professor Ramsay, the other for Organic Chemistry. Up to the present time only two or three educational institutions in this country had more than one professor of chemistry, while in Germany even a university of the second class usually had several professors in that department. Full preparations had been made for the teaching of German both in the colleges and polytechnics. A professorship of pedagogy was to be established in connexion with the new Training College of the London County Council. The engineering departments of the City and Guilds Institute and of King's College would be under the control of the University, inasmuch as their professors would be appointed and paid by the University. The Drapers Company had given £30,000 in aid of the incorporation of University College in the University—a most important scheme, which would come to pass when an initial sum of £110,000 was raised. The leading physiologists of London had banded themselves together to give courses of lectures in physiology for advanced and post-graduate students, and Mr. Walter Palmer had generously given £2,000 to enable such lectures to be given. The University had contributed £400 to the scheme, and had placed a suite of rooms in the University buildings at the disposal of the teachers as laboratories and lecture rooms. Several students were already working in the laboratories, and more than sixty had entered for the first course of lectures. The question of courses of lectures at polytechnics had been carefully considered, and a scheme for the purpose, it was hoped, would shortly be published. Regulations for the Faculty of Law, and others for the organization of preliminary medical studies, were being prepared. He concluded by showing the amount of papers published by London teachers, their assistants and students during the past year, nearly half of which had emanated from the teachers in the Medical Faculty, and said that it was high time that London should realize that it was not the want of men, nor a dearth of intellectual effort which had hindered the University of London from taking its place as a great centre of teaching and research. Their needs were organization and funds to supply materials for the work.

The CHANCELLOR then distributed the prizes, and conferred the degrees obtained during the year, and in almost every Faculty several of the graduates presented were women.

The Vice-Chancellor congratulated those who had taken prizes and received degrees. Their new Principal had the esteem and confidence of every member of the Senate. The incorporation of University College with the University was within measurable distance of becoming a fact. But whatever changes might be made, the Senate was determined to maintain the value and standard of the degrees of the University.

Sir Michael Foster, M.P., also offered his congratulations to those who had been presented. He said the University was great and growing, and was trying to meet the present and future needs of the nation, the future welfare of which depended on education.

The string band of the Scots Guards, which was in attendance, played the National Anthem, and the proceedings closed.

THE UNIVERSITY OF WALES.

Installation of the Prince of Wales as Chancellor.

On May 9th H.R.H. the Prince of Wales was formally installed as Chancellor of the University of Wales.

The installation, which took place at Carnarvon in a large pavilion, was a brilliant ceremony. The Prince of Wales wore his robes as Chancellor of the University and the Princess those of the Doctor of Music degree.

The proceedings opened by the Registrar (Mr. Ivor James) reciting the deed of appointment, which was then presented to His Royal Highness.

Dr. Isambard Owen, as Senior Deputy Chancellor, then read the address from the University Court.

This was followed by an address from the Vice-Chancellor (Professor Roberts).

In a short speech the Prince thanked the University for its welcome, and, on behalf of the Princess, for the degree conferred on her. In emphasizing the utility of universities, he pointed out that "the empire has ample need of trained intellects to aid in the development of its vast inheritance."

A number of honorary degrees were then conferred, including that of Doctor of Music on the Princess of Wales. The honorary degree of Doctor of Laws was conferred upon the Chancellor of the University of St. Andrews (Lord Balfour of Burleigh), the Earl of Ross (Chancellor of the University of Dublin), Dr. Edward Caird, Sir R. C. Jebb, M.P.; Dr. John Rhys, the Right Hon. Sir Roland Vaughan Williams.

Afterwards the royal party drove to Bangor, where a luncheon was held. A large number of distinguished guests were present. Subsequently their Royal Highnesses inspected University College, Bangor.

The proceedings throughout were of a most enthusiastic character.

During the proceedings at the luncheon, Principal Reichel announced that Sir A. L. Jones (Liverpool) had offered to guarantee twelve scholarships of £30 each.

THE LATE R. B. ANDERSON FUND.

Mr. Walter Monnington, ex-Honorary Secretary of the Committee of this fund, now dissolved, writes: Sir C. C. Knollys, K.C.M.G., Colonial Secretary of Trinidad, in a letter bearing date April 19th, reports the receipt by him of the sum of £258 15s. 6d. subscribed to this Fund, and the expenditure of that amount in the purchase and repair of three removable wooden houses in Port of Spain by his instructions on behalf of Mrs. Anderson and her twin sons. In one of these houses she will reside, while from the other two she will draw an annual total net rental of about £50. He expresses his opinion that certainly the money could not have been expended to greater advantage.

Mrs. Anderson also writes to convey her sincere thanks to Lord Stamford and his Committee for their sympathy shown in the trouble they have taken, and her deep sense of gratitude to subscribers, and to the proprietors and editors of the medical journals for the great help they have given, which has relieved her of intense anxiety as to the future of her sons.

Dr. Cornelius Biddle, Surgeon to the Merthyr General Hospital, has been appointed High Constable for Caerphilly Higher.

CONTRACT MEDICAL PRACTICE.

The Organization of Medical Contract Work at Stockport.

The settlement of a scale of fees between the clubs and the medical profession has hitherto been a somewhat one-sided arrangement. No body of men know better what is to be gained by organized co-operation than the working classes, who in trades-unions have been taught to apply the principle that union is strength in advancing their interests. It is not to be wondered at if in a contract between a club and an individual medical practitioner the balance of advantage is often found to be in favour of the club. The correspondence which has been published in our columns shows that a large number of medical men have begun to feel that these club contracts are not advantageous to the profession. In Stockport the medical practitioners have, we are informed, attempted, with no little success, to act together in making arrangements with clubs. In 1895 there were in the town some forty clubs, the rate of pay being 2s. 6d. a head per annum. In that year proposals were made to the clubs to raise the rate to 4s. 4d. per annum, and to arrange various other conditions, including an examination fee on entrance, and a wage limit. Two clubs only accepted the scheme, and with these matters have run smoothly ever since. In 1896 all the medical men except two resigned from the thirty-eight other clubs. Since that time the clubs, except those which have accepted the higher scale, have been "doctorless." The clubs have found by experience that they can do very well without doctors, and the doctors have come to the conclusion that they are better without the clubs.

A so-called provident dispensary had existed in Stockport for ten years, and when an opportunity occurred this was taken over by the local medical society with the intention of keeping it to its avowed object, or, if this was not possible, of putting an end to it. After a four months trial the Stockport Provident Dispensary was disbanded at the end of 1901. The disbandment of the institution was due to the conclusion forced upon the medical officers that it was not truly a provident dispensary, that it was not conducted on business lines, and that patients who were able to pay the ordinary fees—and, in fact, had been in the habit of doing so—were entitled to join the dispensary and claim attendance at dispensary rates to the detriment of private practice. The medical men of Stockport have declared that contract practice of any kind is a mistake.

It has, we are informed, long been the practice in Stockport for medical men to employ collectors at a fee of 2s. 6d. in the pound to collect from the working-class patients their accounts, by instalments varying from 1s. a month upwards. This is done as a regular thing, and not only for the collection of bad or doubtful debts. In this way the patients are enabled to pay for medical attendance without difficulty, and preserve the self-respect which a man finds when he can pay for what he wants. The medical men are quite prepared to treat all cases as they present themselves, to make reasonable charges for their services, to afford means for payment by instalments and on extended credit, to make use of their professional knowledge in foreseeing the possibility of big bills for small means, and then to exercise a judicious philanthropy in advising how best to meet such a difficulty. The very small proportion of the community who cannot be treated under such circumstances must be referred to the purely charitable institutions of the town or to the Poor Law.

The action with regard to the Stockport clubs is fully justified by some careful calculations as to what it costs to see a patient of the class to which the members of the clubs belong. One medical man in the town, with a general working-class practice, had between 500 and 600 club patients, all at 2s. 6d. a head per annum. An analysis of two years showed that the average remuneration for each visit, including medicines, was 5¾d., whilst the average cost to the medical practitioner was 1s. 2d. each visit, thus showing a serious loss on the club practice.

The Friendly Societies declare that they ask no concessions from the medical profession, and disclaim any idea of charity in their dealings with medical men. The contract with the medical man is, from their point of view, entirely a matter of

business. In the matter of medical attendance on those who cannot afford to pay for it there has never been any stinting on the part of the medical profession, and never will be. But club contract practice is not a question of charity—the club patients would themselves resent any suggestion of this kind. The whole matter is, indeed, one of business and should be treated in a business manner, and the experience of Stockport tends to show that in order to arrive at any arrangement which shall be equitable, the best way is to meet co-operation by co-operation.

The Effect of the Medical Benefit System on the Prosperity of Clubs.

A correspondent of large experience in the Midlands has sent us an interesting note on the effect of the system of contract practice now prevalent on the prosperity of workmen's clubs providing sick pay for their members.

"Attention ought to be drawn," he writes, "to the loss incurred by clubs which have club doctors, and so much am I impressed with this that I should strongly dissuade any man from joining a club or friendly society that had a club doctor. When men can obtain the services of a medical man without any personal payment, it is a great inducement to some to be frequent and fairly regular attendants at the doctor's surgery, and both the medical officers and the club officials know that some members are seldom long off their books because they can get their medical attendance and sick certificate gratis. Now if these men had to pay for medical attendance they would not be so ready to consult a medical man for the slightest ache or pain, and their share of sick-pay would be materially lessened, and the prosperity of the club proportionately increased. I have, indeed, been surprised that the clubs have not of their own accord long since discontinued their medical officers. I am sure it would pay them to do so."

"Overlapping."

A conference was held recently at Clay Cross, near Chesterfield, between local medical men and representatives of Friendly Societies, to consider rates of pay to club surgeons, a request having been made by the latter for an advance from 2s. 6d. to 4s. a head per annum. The higher rate is that recently agreed upon between the members of the Chesterfield District of the Midland Medical Union and a conference of representatives of Friendly Societies of the district. As members of the Midland Medical Union, the medical men in Clay Cross were under obligation to ask the increased rate. The Clay Cross clubs, however, not having sent delegates to the Chesterfield Conference, were not parties to its decisions, and had to be separately approached.

In the proceedings at Clay Cross, as reported in the *Clay Cross Chronicle*, the medical men were first invited to state their reasons for seeking the advance in rate. These were the increased expense of medical education, the increased expenses of medical practice (including those due to the abolition of unqualified assistants, and the consequent rise of salaries of qualified assistants, to greater cost of drugs, and to general rise of prices and to greater cost of living), the greater amount of attention expected by club patients, and, finally, the capacity of the club member to pay a higher rate to-day, since he receives better wages, than thirty years ago, when present rates were fixed. The formation of the Medical Union was referred to as the immediately exciting cause of the demand.

Having regard to the issue of the meeting it is worthy of note that the chairman, a layman, at the conclusion of the speeches, commented explicitly on the calm, courteous, and argumentative spirit in which the medical men had presented their case. Judging from the report before us the compliment was fully merited, and these speeches, as contributions to an effort to arrange matters on a basis of reason and equity, stand in sharp contrast with the replies of the Friendly Societies' spokesmen. In these virtually no attempt was made to traverse the very pertinent contentions put forward by the club surgeons, or to deal with the proper economic bearings of the questions at issue except as to the matter of what was spoken of as "overlapping." It is asserted that a large proportion of members of Clay Cross clubs belong to two or more clubs each. The medical men are thus, it was said, paid in most cases twice, and sometimes even more than twice, for the same member, whose medical payment, through clubs, thus comes to be 5s., or even 7s. 6d. or more, per annum.

Apart from this, the speakers representing clubs showed no disposition to consider the merits and justice of the case, but were content barely to state their determination not to concede the advanced rate. On a vote being taken the advance was unanimously refused. This overbearing and arrogant attitude of indifference to any consideration other than the power which the Friendly Societies apparently believe themselves to possess of doing as they please with club surgeons, would be striking were it not so common. It furnishes a singular comment on the repeated assertions of leading Friendly Society representatives that they do not desire charity but to pay a fair rate for work done.

In the Clay Cross case there was indeed, as we have already said, some semblance of economic argument by Friendly Society representatives in the matter of "overlapping." But even this had no pertinence as a grievance against the medical profession, which is in no way responsible for the difficulty. The matter is entirely in the hands of the clubs, since it rests on the hard-and-fast requirement of many societies that every member shall pay into the medical attendance fund. The only concern of medical men with such rules is that the repeal thereof would be to their advantage, since these rules constitute an obstacle to the acceptance of the "wage limit," and operate prejudicially in other ways. That the repeal is possible is shown by the fact that many of the most prosperous Friendly Societies have no such rules. If, therefore, the Clay Cross societies deem it a hardship that a member should pay twice or thrice through different clubs for his doctor, the remedy is theirs to apply, and their surgeons should be the last to object. Indeed, the only ground on which the surgeon's interests might appear to suffer by such repeal is through the consequent reduction in total (nominal) membership of clubs. But the benefit of the existing arrangements in this respect is fallacious. It is one of those indefinite and incalculable collateral advantages which experience shows have usually an ultimately prejudicial effect on financial arrangements. Generally speaking, the simpler the terms of a bargain the better for all parties. Let medical men fix their rates on the basis that, whatever the rate, each individual club member will pay that rate once only for medical attendance, however many clubs he may join. This greatly simplifies the problem of calculating what rate is equitable. As to the arrangements by which this one medical payment principle shall be carried into effect—that is the concern of the clubs. If medical men decline to take into account the possibility of a club member paying the doctor more than once, and fix their price accordingly, the clubs may be trusted so to provide that there shall be no overpayment. But if members of the profession formally recognize "overlapping," and allow it to be taken into account in fixing rates, we do not see how reliable calculations can be made, and in the absence of such calculation they are the more likely parties to suffer in the bargain.

Live and Let Live writes: May I once again urge what I believe to be a remedy for club abuse? Let the medical men in every district meet and decide upon a minimum rate of payment, and let the club members select their own medical man, any medical man in the district being paid at the end of the quarter or half year for the number of patients upon his list at the beginning of the said quarter or half year. This is the case in this district, where we are paid 5s. a head per annum, and it has advantages. The patient can select his own doctor, and, what is more important, the doctor can decline to have any man to whom he objects placed upon his list. If a member be dissatisfied he simply changes his doctor. There is no meeting to discuss or dismiss the doctor. Last year a secretary wrote to me, saying, "I have placed A. B. upon your list." I replied: "No one can be placed upon my list without my sanction," and declined to attend A. B. as a club patient, with the result that I attended him as a private patient until he died some weeks later from malignant disease of the larynx.

A "well to do" job master came to my predecessor saying that he wished to join the club. My predecessor declined to attend him as a club patient, but continued to attend him as a private patient; and since the practice has been in my hands (eight years) I have also attended him as a private patient.

Last week a labourer called and said he wished to be placed on my club list. I said, "If your present account (which has been owing about two years) is paid and you are in good health, I will admit you from July 1st." The account is now nearly paid.

Had the clubs been open to any and all the medical men in the neighbourhood at 5s. a head, the probability is that the "other bloke" referred to by "Colliery Surgeon" in the British Medical Journal of

May 10th would not have taken them at 2s. 6d. I do not think that we shall ever have union in the profession until we are prepared to give as well as take, and I often think that men who hold appointments are not prepared to give equal privileges to others, but expect them to unite not to disturb or apply for similar privileges.

One cannot blame a struggling young practitioner for accepting a lower fee, whether club or private, than a successful colleague, especially since it is their only chance of obtaining appointments.

THE MIDWIVES BILL.

THE OBSTETRICAL SOCIETY OF LONDON.

WE have received from the Honorary Secretaries of the Obstetrical Society of London a pamphlet, dated May, 1902, issued by the Council of the Society. It consists of a statement of the work of the Society since its foundation in 1858, with special reference to its exertions on behalf of the education of midwives. The Council believes that the statement may be of use in discussing the merits of the Midwives Bill, and in determining the claim to recognition of the Society's certificate.

The pamphlet contains a list of past presidents of the Society, which includes the names of many of the most eminent obstetricians in London belonging to this and the past generation. It contains also a list of the members of the present Council and of the members of the Board for the Examination of Midwives, together with a list of the chairmen of that Board since its institution in 1872.

Public Work on the Midwife Question.

The following is the summary of the public work of the Society on the midwives question with which the pamphlet concludes:

Since its foundation, in 1858, the Society has always endeavoured to promote the knowledge of midwifery, both in medical men and in midwives.

Thus, in 1859 (vol. xii, p. 27), the Society memorialized the General Medical Council to make an examination in midwifery compulsory for all candidates for the diploma of the English Examining Boards. Up to 1871 the Society of Apothecaries was the only London Examining Board requiring this (vol. xiii, p. 31), and the Royal College of Surgeons did not make midwifery compulsory in its examination for the Membership till 1882 (vol. xxiii, p. 47).

In 1866, and many times afterwards, the Society urged the Home Secretary to appoint an Obstetrician on the General Medical Council (vol. xii, p. 27, and vol. xxiii, p. 47). This was not done till 1881, when Dr. McClintock, and, at his death, the late Dr. Matthews Duncan, a past President of the Society, were appointed as Crown nominees (vol. xxvi, p. 38). Sir John Williams, also a past President, is at present on the General Medical Council as a Crown nominee.

In 1869 Dr. Farr, of the Registrar-General's department, suggested that the Obstetrical Society should undertake the investigation of the causes of infant mortality, which was very great, especially among the newly-born (*Obstet. Trans.*, vol. xi, for 1869, p. 24). A Committee was appointed, and a paper of questions sent to every Fellow (vol. xxxvii, p. 86). It will thus be seen that the intervention of the Obstetrical Society in a matter concerning the public health was due to the express request of the Registrar-General's department.

The Committee made several reports upon the Causes of Infant Mortality in England and Wales (vol. xii, p. 380, and vol. xiii, p. 24). These reports led to the Council publishing, in 1870, a series of Rules for the Management of Newborn Children, which have gone through many editions, and have been frequently revised (vol. xii, p. 395, etc.).

In 1872 the Council, acting on the advice of this same Committee, began to examine midwives, and indirectly to enforce their better education and practical training.

In 1873 the Society memorialized Government to enforce registration of stillborn children, and in 1874, uniting for the purpose with the Parliamentary Committee of the British Medical Association, the Society urged that midwives should be educated and registered by the State.

In January, 1878, the principles of the Society's scheme for the education, examination, and registration of midwives not only met with the approval of the General Medical Council, but a provision for the permissive registration of midwives was actually embodied in the Medical Acts Amendment Bill by His Grace the Duke of Richmond. Trouble in the East, however, prevented the measure being considered in the House (vol. xxi, p. 5). In this Bill, midwives under the Act were alone permitted to use the term "registered midwife," whilst any woman might call herself midwife.

Since 1874 few years have passed without the Society directly or indirectly urging the Government of the day to legislate upon the midwife question; and though during late years the Council has thought it advisable to leave the initiative to others it is still as strongly in favour of legislation. It is also equally sincere in its desire to hand over the increasingly onerous task of the examination and registration of the midwives as soon as the Government have legalized an alternative Examining Board.

The Object of the Examination.

The following quotations from the *Transactions* of the Society are given amongst others to indicate the object which the Society had in establishing the examination.

"To test practically the competency of the candidates to practise as midwives, and their possession of such knowledge as would enable them to recognize the presence of difficulties, and the necessity for at once procuring competent professional aid for the patient" (vol. xiv, p. 22, 1872).

"It was never intended to create a new kind of medical practitioner."

"It would be most undesirable to raise a new kind of medical practitioner between a midwife for natural labour and a fully educated medical man or woman" (vol. xvi, p. 25, 1874).

The conditions of candidature which have already been published in the BRITISH MEDICAL JOURNAL, and a list of lying-in institutions which train midwives according to the present requirements of the Society, is given.

Results of the Examinations.

The following table is given to show the number of women examined by the Board, calculated for every five years between 1872 and 1902; women who withdrew from the examinations are included among the rejections:

Five Years.	Candidates.	Passed.	Rejections.	Percentage of Rejections.
1872—1876 ...	31	26	5	16.1
1877—1881 ...	91	82	9	9.9
1882—1886 ...	353	287	66	18.7
1887—1891 ...	915	726	189	20.6
1892—1896 ...	2,038	1,819	219	10.7
1897—1901 ...	4,025	3,355	664	16.5
Total ...	7,453	6,295	1,152	15.4

No candidate is examined by a physician on the staff of any lying in hospital where she has been trained, and it is claimed that this independence has given the Obstetrical Society's certificate its special value.

Number of Women on the Society's Register.

The number of successful candidates on the Society's *Register* in March, 1902, is stated to have been 6,520, and it is added that four have been struck off by the Council of the Society for misconduct. It is stated that every successful candidate receives the Society's certificate, which was amended at the instance of the General Medical Council in 1895, and then approved by it, and that the holders of such certificates are not allowed to use any other designation than "Certificated by the Obstetrical Society of London," or, in short, "Certif. Obst. Soc. Lond.," the title "L.O.S." (London Obstetrical Society), which they had used without any authorization having been misinterpreted and taken to mean "Licentiate of the Obstetrical Society."

It is stated also that since 1890 all successful candidates have had to sign a *sponsio*, by which they promise to abide by the rules laid down for their guidance by the Society, and to acquiesce on the resolution of the Council in the forfeiture of their certificate for misconduct.

The Percentage of Rejections.

Under this heading the following statement appears:

It was noted between 1890 and 1895 that the percentage of rejections was becoming less, and this was stated to be "owing to a continuous improvement in the class of women who presented themselves, in regard to their social positions, general education, and special knowledge, and not to any lowering of the standard of examination" (vol. xxxviii, p. 50, 1896).

Since 1895, although the majority of the candidates continued to be increasingly well trained and educated, there seems to be an increasing number of poorly trained, badly educated candidates who realise the advantages of the Society's certificate, and desire to obtain it. Such women are rejected, often more than once, and this has led to a greater percentage of rejections during the past six years, as the following table shows:

Years.	Percentage of Rejections.	Years.	Percentage of Rejections.
1895	7.0	1899	16.3
1896	9.6	1900	17.9
1897	10.4	1901	[illegible]
1898	12.2	1902 (first quarter)	22.1

The Board of Examiners is fully alive to the danger of passing any but fully trained and experienced midwives.

LOCAL ACTION.

DR. ROBERT R. RENTOUL (Liverpool) in the course of a letter on the Midwives Bill writes: There is no use in practitioners

thinking, or pretending to think, that this Bill can be fought by the Central Council of the Association alone: opposition to it must come from the practitioners resident in each parliamentary division. And if such local practitioners will write to their members of Parliament, induce their political acquaintances, and especially their lady patients, to write, then the Bill will not pass. I firmly hold that if the Bill be defeated this year it will not be reintroduced. It is not too much to be asked by those who have opposed this Bill for the last thirteen years that younger and fresher practitioners will now take their share in working against it. A very large number of Primrose League Lodges and Women's Liberal Associations have been working hard in favour of the Bill. It is exceedingly difficult for members of Parliament to oppose the Bill when nine-tenths of those who speak to them favour the Bill. If the majority of practitioners in each parliamentary division oppose the Bill then it cannot pass. The "Memorandum" fails to notice one most important point—that is, the Bill fails to make any provision for the payment of the Central Midwives Board.

THE EPIDEMIC OF SMALL-POX.

LONDON.

THE epidemic of small-pox in London continues to show slow signs of abatement after a slight increase in the third and fourth weeks of April.

The following table gives for the four weeks ending May 10th the number of cases admitted to the hospitals of the Metropolitan Asylums Board and the number under treatment on the last day of each week:

Week Ending	Admissions.	Under Treatment.
April 19th	328	1,431
April 26th	367	1,515
May 3rd	250	1,442
May 10th	248	1,419

The numbers of admissions for the previous four weeks were 274, 376, 389, and 449 respectively.

ESSEX.

The epidemic in Essex does not show any very appreciable signs of diminution. The following table gives the number of fresh cases for the four weeks ending May 10th:

Week Ending	Fresh Cases.
April 19th	45
April 26th	63
May 3rd	63
May 10th	46

The numbers for the preceding four weeks were 62, 60, 64, and 40.

SURREY.

Dr. Edward C. Seaton, County Medical Officer of Health for Surrey, in his summary of notification returns for the administrative county for April, 1902, states that 26 cases of small-pox were notified, and that of these 9 occurred in Godalming. As the last case was removed more than a fortnight of the date of the return, it is thought likely that the town is now free from infection. Some of the cases were severe, but happily, owing in a large measure to medical treatment, good nursing, pure air, and favourable surroundings, none of them proved fatal. Dr. Pierce has informed Dr. Seaton that all the Godalming cases, adults and elderly people, had been vaccinated once, in infancy, and with one exception had distinct marks. The only person who was revaccinated had the operation performed three or four days too late to prevent the small-pox attack.

Dr. Seaton further states that chicken-pox had been reported in twenty-two out of thirty-four districts in the administrative county, and he advised that arrangements should be made in all districts for the notification of cases throughout this year, the attention of medical officers of health being specially directed to the cases among adults, or to any circumstances which lead to suspicion of small-pox infection.

SOUTH WALES.

After an almost complete cessation of the disease a number of cases of small-pox have occurred in South Wales. At Aberdare 3 cases in all have been notified. The first case occurred about three weeks ago. On May 3rd the second case, a girl aged 16, was removed to the isolation hospital, and on May 5th the third case was notified and removed to hospital. The first case is probably to be traced to infection from London, and in the later cases from the first case. On May 9th the medical officer of health reported that the cases were going on favourably, and that there was probably no danger of further infection. Another case of small-pox was notified on May 5th at Swansea and removed to hospital, while a mild case is reported at Newport. At Llanfoist Isolation Hospital, near Abergavenny, 4 cases of small-pox have been admitted. The disease is said to have been introduced by a tramp. All precautions are being taken.

At the meeting of the Vaccination Committee of the Cardiff Guardians, held on May 8th, the cost of vaccination for each year since 1897 was shown. During 1897 it was £796, increasing yearly to £850, £817, and £1,857. A very considerable increase is shown for the last year. The sums, however, include general expenses. This is distributed among ten public vaccinators within the union.

THE PREVENTION OF CONSUMPTION.

AUSTRALIA.

A SOCIETY has been founded in Sydney, New South Wales, having for its object the prevention of consumption. At the inaugural meeting held not long ago Dr. G. J. Lamb-O'Neill was appointed Secretary.

HAVANA.

Major W. C. Gorgas, Surgeon U.S. Army, Chief Sanitary Officer of Havana, is engaged in an active campaign against tuberculosis in that city. Information as to the nature, treatment, and means of prevention of the disease is being diffused among the population by lectures, leaflets, etc. So far, 1,642 cases of tuberculosis have been found within the city limits, and the names and addresses of the patients have been arranged for easy reference. Estimating the life expectation of a sufferer from tuberculosis to be about three years, and multiplying the number of deaths from this cause (900) during the past year by three, Major Gorgas estimates that there are about 2,700 cases of tuberculosis in Havana at the present time. The average number of deaths from this cause per year since 1899 has been 1,555.09; while for the year 1901 it was reduced to but 900. It remains, however, the chief factor in the death-rate. Major Gorgas is, we learn from the New York *Medical Record*, promoting a scheme for the establishment of a public sanatorium for the tuberculous, situated near Havana, which has received the support of General Wood. This sanatorium is to be divided into two sections. Of these, one devoted to incurables will be situated at Hospital No. 1, on the outskirts of the city, while the other will receive patients in whom the disease appears to be curable, and will be situated about five miles out in the country. Negotiations are now in progress for the purchase of a hundred acres of land at the site selected for the latter, and the work will be pushed as soon as a title can be secured. The sanatorium will be supported by the Cuban Government, and will be entirely free to those unable to pay their way. It is established, in the interests of public health, with the idea of getting as many as possible of the infected poor out of the crowded tenement houses—particularly the bed-ridden poor, who are a great source of infection under present conditions. According to Major Gorgas, the negro is less suited to the climatic conditions of Havana than the white man. The black race, he thinks, would entirely disappear in a few years were it not for immigration.

PORTUGAL.

Under the law of Portugal as it stands tuberculosis is included among its diseases the notification of which is compulsory; disinfection is also ordered after death or change of residence. A special ordinance will shortly be issued by the Government in which more thorough-going measures for the prevention of tuberculosis will be made compulsory. In notifying the disease the practitioner will have to state

whether it is in the "open" stage. When a patient changes his place of residence, intimation of his intention must be sent to the disinfecting station at least twenty-four hours previously. In hotels, colleges, asylums, and similar establishments, the responsibility of notifying any case of tuberculosis and carrying out measures of disinfection is placed on the managers or superintendents. The use of suitable spittoons is made compulsory in churches, asylums, colleges, theatres, cafés, schools, hospitals, hotels, factories, barracks, dispensaries, and in general in all precincts, whether open or under cover, entrance to which is permitted to the public. Expectoration on the floors, sides, or any part of railway carriages, or of establishments in which the use of spittoons is obligatory is forbidden. The regulations as to spitting are to be promulgated by the civil authorities at the request of, or after consultation with, the health authorities. The civil government of Lisbon has already taken the initiative in this matter as regards the capital.

THE PLAGUE.

Prevalence of the Disease.

India.

The plague returns for the week ending April 19th show a large decrease of plague in India; the numbers of deaths from plague for the week were 10,412 compared with 24,380 during the previous week. The total, however, is much above previous experience in 1901; the deaths from plague during the corresponding week of the year were returned at 6,304.

In Bombay City during the week ending April 19th there were 658 deaths from plague, against 606 during the previous week.

In the Bombay Presidency, exclusive of the capital, the deaths from plague during the same period numbered 2,045, against 2,007; in Calcutta 588, against 603; in Bengal 760, against 603; in the North-West Provinces and Oudh 1,660, against 773; in the Punjab 14,145, against 16,281; in Karachi 136 against 104; in Mysore State 131, against 80; Hyderabad 37, against 28; Berar 79, against 44.

A case of plague imported from Calcutta died in the segregation camp at Rangoon.

In Portuguese territory (Goa) plague has subsided; but sporadic cases occur here and there throughout the districts; many infected rats have been found in several towns.

Egypt.

The Director-General, Sanitary Department, reports that during the week ending April 19th 22 fresh cases of plague occurred in Egypt and 15 deaths from the disease. The cases and deaths were distributed as follows: Alexandria, 3 cases and 1 death; Mit-Sumanoud, 1 case and 2 deaths; Deshneh, 2 cases and 2 deaths; Talu, 2 cases; Beni-Mazar, 1 case and 1 death; Benha, 1 death; Tookh, 2 cases and 2 deaths; Tantah, 1 case and 1 death; Maghagha, 8 cases and 1 death.

From Syaffa, in the Toukh Markaz, and from Ezhet, near Benha, cases of plague have been reported.

Cape of Good Hope.

During the week ending April 19th the Medical Officer of Health, Cape Colony, reports that 1 fresh case of plague, a European, was admitted into hospital. Four cases of plague were in hospital under treatment at Port Elizabeth, the only place in the colony where plague existed. Thirty-three contacts were under observation on April 19th. The total cases to date in Cape Colony are returned as 886, of which number 427 died.

Hong Kong.

During the week ending May 10th 24 fresh cases of plague were reported in Hong Kong, and 19 deaths from the disease. The number of deaths to cases in Hong Kong exceeds the returns from any other part of the world where plague prevails. This has been a noticeable feature of the plague epidemics in Hong Kong ever since the disease appeared in 1894.

Australia.

On May 7th 5 fresh cases of plague were reported in Sydney. On that date also there were 35 fresh cases of plague in hospital at Brisbane. Dr. Wray, medical officer of health, was himself reported to be seriously attacked by plague by the telegram received on May 8th, and we regret to record that subsequent information announces the death of this very able officer.

Argentine.

From Buenos Aires it is reported that plague prevails in some parts of the Argentine, but that the outbreak is quite restricted and the cases of a mild character.

LITERARY NOTES.

Among the many signs that Japan has taken her place among the great nations of the world is the fact that over thirty medical periodicals are now published in that country.

The paper by Mr. Butlin on Oöphorectomy in the Treatment of Cancer of the Breast, which was published in the British Medical Journal on January 4th, 1902, has been translated into French by Dr. P. Lacroix, and was published in full in *Le Concours Médical* of April 26th.

Dr. H. W. Drummond, the "habitant" doctor-poet of Montreal, is to have the honorary degree of LL.D. conferred on him at the June Convocation of Toronto University.

America can now boast of seven great medical weeklies, 260 monthlies, and some 25 other journals of various kinds. According to the *American Medical Journalist*, the following new journals came into existence within the past year: *American Medicine*, Philadelphia; *Detroit Medical Journal*; *Texas Medical Gazette*, Fort Worth, Texas; *Journal of New York Medical Association*, Albany; *Journal of Surgical Technology*, New York City; *Doctors' Magazine*, Alma, Michigan; and the *Regular Medical Visitor*, St. Louis.

According to the New York *Medical Record*, three hundred thousand copies of the German edition of *Tuberculosis as a Disease of the Masses*, by Dr. S. A. Knopf, of that city, to which was awarded the prize of the German Tuberculosis Congress, have been printed and distributed. The essay has been translated into English, French, Italian, Spanish, Portuguese, Dutch, Russian, Polish, Bulgarian, Roumanian, Hungarian, and Yiddish, and published in fifteen different countries. The right of translation and publication in any language is freely granted in the interests of humanity.

Sir Wemyss Reid contributes to the May number of *Harper's Magazine* an account of a visit paid to the United States by William Black, the novelist, during the autumn of 1876. One of his travelling companions was his friend, Sir Lauder Brunton, who in recalling the incidents of the trip, dwells with especial emphasis not only upon Black's wonderful powers of observation, the quickness and accuracy with which he could take a mental photograph of the component parts of a crowd, or the kaleidoscopic colours of a sunset or sunrise, but upon the extraordinary care that he exercised in order to obtain exact information upon any subject with which he had to deal, even if it were only incidentally, in his writings. Sir Lauder Brunton recalls the numerous inquiries which Black addressed to him on subjects of which the physician has special knowledge. If in the course of a story he had to afflict one of his characters with physical or mental illness, he always sought the most detailed and exact information regarding the particular disease, of which the fictitious person was to be the subject, from Sir Lauder Brunton. He had a horror of carelessness and scamped work; and just as the story of the journey of his imaginary people through the States was really, in almost all its details, the story of his own actual journey, so he never subjected one of his characters to any abnormal conditions without satisfying himself that his description of those conditions was scientifically accurate. Accordingly we do not find in Black's novels such absurdities as the use of the stomach pump in the treatment of poisoning by the hypodermic injection of morphine, as described the other day by the author of a story appearing in *Pearson's Magazine*, or "pyaemia" classed with the pleura, the thorax, and the clavicle as parts of the human anatomy, as is done in Mr. George W. Cable's latest novel, *The Cavalier*. It is not every novelist, of course, who can in any difficulty appeal to one of the shining lights of medical science. But all can use reasonable care not to go wildly wrong. Gustave Flaubert, who had himself studied medicine, took extraordinary pains to get medical details accurate, and M. Zola, as might be expected, laboriously gets up his facts. Thus, when he wishes to describe the death of Nana from small-pox, we find him writing to a friend for reference to detailed descriptions of the disease. But although his industry in collecting "documents" is beyond praise, in medical matters he is too apt to rely on the light of nature for their interpretation. Hence, as in *Lourdes*, his craving for "realistic" effect, unrestrained by practical knowledge or skilled advice, makes him draw pictures of disease which have no counterpart in clinical or pathological fact. In connexion with this subject it may be mentioned that not long ago an American novelist thought himself exceedingly ill-used because his family doctor, of whom he had sought counsel as to the right manner of disposing of one of the creatures of his fancy, afterwards sent him a bill for professional services. Would the novelist admit any right on the part of the doctor to ask him to write a short story for nothing? Lord Lytton, in the preface to one of his novels, states that he had taken legal opinion on a point on which the plot turned, and that counsel had been duly feed. This is as it should be.

But so deeply ingrained in the minds of the public is the notion that doctors must give the benefit of their special knowledge for nothing to any one who chooses to ask for it, that they look upon a request for payment as a contradiction of the eternal fitness of things.

In an article entitled Meditations of an Autograph Collector, by Mr. Adrian H. Joline, which appears in the same number, the following characteristic letter from John Ruskin is quoted. It is dated July 24th, 1871, and explains itself:

My dearest Tom.—Really your simplicity about naughty Me is the most comic thing I know, among all my old friends. *Me* docile to doctors! I watched them (I had three) to see what they knew of the matter; did what they advised, for two days; found they were utterly ignorant of the illness and were killing me. I had inflammation of the bowels, and they gave me ice! and tried to nourish me with milk! Another twelve hours and I should have been past hope. I stopped in the *middle* of a draught of ice-water, burning with insatiable thirst—thought over the illness myself steadily—and ordered the doctors out of the house. Everybody was in an agony, but I *swore* and raged till they had to give in—ordered hot toast and water in quantities, and mustard poultices to the bowels. One doctor had ordered fomentation: that I persevered in, adding mustard to give outside pain. I used brandy and water as hot as I could drink it, for stimulant—kept myself up with it—washed myself out with floods of toast and water—and ate nothing and refused all medicine. In twenty-four hours I had the pain under—in twenty-four more I had healthy appetite for meat, and was safe—but the agony of poor Johanna! forced to give me meat, for I ordered roast chicken instantly—when the doctors, unable to get at me, were imploring *her* to prevail on me not to kill myself, as they said I should. The poor thing stood it nobly of course; none of them could move me one whit. I forced them to give me cold roast beef and mustard at 2 o'clock in the morning! And here I am, thank God, to all intent and purpose quite well again—but I was within an ace of the grave—and I know now something of doctors that—well, I thought Molière had enough on them—but he's complimentary to what I shall be after this. Thanks for all your good love—but *do* try to understand me a little better—indocilest, when I choose, of human creatures—but yours, most affectionately, John Ruskin.

Mr. Joline's comment on this "screed," as he calls it, is that Mr. Ruskin is amusing and his supreme self-satisfaction is delightful. "We are all of us vain but not quite as vain as that."

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting—namely, June 18th and October 1st.

ELECTION OF MEMBERS

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual meeting of this District will be held at Bethlem Royal Hospital, at 4 p.m., on Friday, May 23rd. The election of officers for the next year will take place. Dr. Hyslop will read a paper on Delusions in the Insane. Cases of clinical interest from the wards of the hospital will be shown, and demonstrated on by members of the staff. All practitioners, whether members of the Association or not, will be heartily welcomed.—MAURICE CRAIG, Bethlem Royal Hospital, S.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—A meeting of this District will be held at the Metropolitan Ear, Nose, and Throat Hospital, Grafton Street, W. (near Gower Street Station), on Thursday, May 29th, at 4.30 p.m., Mr. Aird Jolly, L.R.C.P., Vice-President, in the chair. Agenda: Annual election of officers and District Committee. Dr Jobson Horne: A Lantern Demonstration of New Growths in the Upper Air Passages. Dr. Hemington Pegler, Mr. Lake, and Mr. Chaldecott: Short Papers. Dr. Frederick Spicer: Clinical Cases. Tea and coffee at 4.15 p.m.—THOMAS DUTTON, 7, Manchester Square, W., Honorary Secretary.

ABERDEEN, BANFF, AND KINCARDINE, AND NORTHERN COUNTIES OF SCOTLAND BRANCHES.—There will be a joint meeting of these two Branches at Elgin on June 11th. Further particulars will be sent each member by circular. As this is the first joint meeting the Branches have had for a number of years, the Secretaries hope there will be a full attendance of members. Arrangements are being made for a golf match between the two Branches. Members of either Branch wishing to play might kindly send in their names to the Secretaries—J. F. CHRISTIE, Aberdeen, or J. MUNRO MOIR, Inverness.

MIDLAND BRANCH.—*Preliminary Notice:* The annual meeting of this Branch will be held at Lincoln on Thursday, June 12th. Any member having a motion to bring forward, or communication to make, is requested to inform the Secretary of his District or the Secretary of the Branch, Dr. FRANK POPE, 4, Prebend Street, Leicester, without delay.

DORSET AND WEST HANTS BRANCH.—The next meeting of this Branch will be held at the Railway Station Hotel at Wimborne Minster, on Wednesday, May 21st, at 3 p.m. Agenda: Secretaries' accounts for 1901. Report of election of Branch Council. Election of a Representative of the Branch on the Council of the Association. Election of a Representative of the Branch on the Parliamentary Bills Committee. Election of New Members of the Branch. To receive the Report of the Committee on Tuberculosis. Dr. Lush to move: To rescind By-law 11, and substitute the following: 11. There shall be two meetings of the Branch yearly; the first in May, and to be called the annual meeting, the second in October, and other meetings at such times as the Council shall determine. Place of the next meeting. Address by the President: The Professional Outlook. Communications:—Dr. Le Fleming: Two Cases. Mr. Parkinson: Tuberculosis from a Public Health Point of View. Dr. Lawrie: Specimen from a case of Pyosalpingitis. Dr Ramsay: (1) A case of Large Neuroma; patient and specimen to be shown; (2) Patient after Removal of Sarcoma from Upper End of Sternum. Dr. Alderson: Specimen of Fracture of Neck of Humerus. Lunch at the Hotel at 1.30 p.m., charge 2s. 6d. each. Dinner at 6.30 p.m., charge 6s. Members wishing to dine must intimate their intention to Mr. Parkinson not later than Monday morning, May 19th, in order that arrangements may be made.—WILLIAM VAWDREY LUSH, M.D., Weymouth; C. H. WAITS PARKINSON, Wimborne, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The twenty-ninth annual general meeting of this Branch will be held at the North Stafford Hotel, Stoke-upon-Trent, on Thursday, June 5th, at 3.30 p.m., when an Address will be delivered by the President-elect, Dr. W. Hind. Agenda: Minutes of the last annual general meeting. Introduction of the new President. Election of new member. Correspondence. Address by the President. Report of the Council and Ethical Committee. The financial statement. To decide the place of holding the next annual meeting. Election of Officers and Council for the ensuing year. Members have the privilege of introducing friends. Dinner at 6 p.m.; charge 5s.—G. PETGRAVE JOHNSON, Stoke-upon-Trent, Honorary General Secretary.

SHROPSHIRE AND MID WALES BRANCH.—A meeting of this Branch will be held at the Salop Infirmary, on Tuesday, May 27th, at 3 p.m. Members who wish to bring forward any business, to read papers, to show cases or specimens, or to propose any new members, are requested to communicate with the Honorary Secretary not later than Monday, May 19th. Note.—An X-Ray and Screen Demonstration will form part of the meeting. Members are invited to bring any cases of bone lesion, foreign body, etc., in which the rays might prove useful.—HAROLD H. B. MACLEOD, College Hill, Shrewsbury, Honorary Secretary.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—The spring half-yearly meeting of this District will be held at 5, Pembroke Road, Portsmouth, on Tuesday, May 20th, at 3.30 p.m.—J. G. BLACKMAN, Poplar House, Kingston Crescent, Portsmouth, Honorary Secretary.

SOUTH EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will be held at the Kent and Canterbury Hospital, on Thursday, May 22nd, at 3 p.m., Dr. Larking, of Folkestone, in the chair. Agenda: A discussion on contract practice will be opened by the Chairman. Mr. Victor Horsley will be present and will speak. Dr. Harnett: Empyema and its Relation to Pneumonia. Mr. Moon: A group of cases of Acute Pneumonia simulating Meningitis. The annual dinner will take place at the County Hotel, at 6 o'clock. Charge, exclusive of wine, 7s. It is hoped that the dinner will be well attended, and members intending to dine are particularly requested to communicate with the Honorary Secretary by May 20th, so that adequate arrangements may be made. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—THOS. F. RAVEN, Barfield House, Broadstairs, Honorary District Secretary.

SOUTH EASTERN BRANCH: EAST SUSSEX DISTRICT.—A meeting of this District will be held at the Calverley Hotel, Tunbridge Wells, on Wednesday, May 21st, at 5 p.m. Dr. E. A. Starling will preside. The following papers have been promised: On Physiognomy, by Mr. W. Arbuthnot Lane: on The Early Signs of Insular Sclerosis, by Dr. E. Hobhouse; on Hydatid Tumour of the Liver, with notes of a case of Suppurating Hydatid of the same and Treatment, by Mr. J. B. Footner; on Fatal Subscapular Haemorrhage in a Floating Kidney, with specimen, by Dr. J. Elliott; notes on a case of Volvulus of the Caecum, by Dr. Francis Bisshopp; notes

on a case of Retroflexion with Incarceration of the Gravid Uterus, by Mr. W. C. Aylward. Dr. Batterham will move a resolution respecting the Midwives Bill now before Parliament. Dinner at 7 p.m.—W. J. C. MERRY, 2, Chiswick Place, Eastbourne, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT. A MEETING of this District was held at the Croydon General Hospital on May 8th, Dr. J. R. ADAMS (Croydon) in the chair.

Confirmation of Minutes.—The minutes of the Upper Norwood meeting were read and confirmed.

Next Meeting.—On the proposition of Dr. J. H. GALTON, seconded by Dr. P. J. DUNCAN, it was resolved that the next meeting should be held at Reigate on Thursday, October 9th, and that Mr. A. R. Walters be invited to take the chair.

Communications.—Mr. CRESSY showed (1) A case of cancrum oris successfully treated by excision and the cautery; (2) a case of early removal of shaft of humerus for necrosis after periostitis; (3) a case of excision of knee for old dislocation of thirty years' standing.—Mr. J. H. GLASSINGTON showed cases of (1) epithelioma of the maxilla; (2) fracture of the mandible; (3) model of maxilla after removal of epulis.—Mr. C. W. GLASSINGTON showed (1) cases of epulis showing the various causes from which they arose; (2) myeloid sarcoma of maxilla; (3) specimens of germination of teeth.—Mr. C. WRAY showed a case of ophthalmoplegia completa.—Dr. PEPPER showed cases of (1) verruca necrogenica of five years' standing, and (2) multiple exostosis illustrated by four *x*-ray photographs.—Mr. ST. GEORGE REID showed cultures of the various acid-fast bacilli which simulated B. tuberculosis: these included the various butter bacilli, Moeller's grass bacilli, and Markman's and Grassbergus bacilli; also Koch's human B. tuberculosis, B. tuberculosis avium, B. tuberculosis piscium, and B. tuberculosis from the blind worm.—Dr. HUGH WALSHAM demonstrated the ultra-violet lamp for the treatment of lupus, and showed a case of rodent ulcer cured by the *x* rays; and also showed some skiagraphs of thoracic aneurysm discovered by the *x* rays.—Dr. EVELYN ADAMS showed (1) a case of ovariotomy in a patient aged 74: (2) a case of high amputation for senile gangrene.—Dr. WAYTE showed (1) fractured patella wired; (2) fracture of femur below great trochanter, in a boy treated by wiring; (3) removal of half the tongue for epithelioma; (4) tuberculous disease of knee, 2 cases: (5) calculus removed by suprapubic cystotomy; (6) complete membranous case of uterus from membranous dysmenorrhoea.—Mr. G. NEWBY showed a case of carcinoma of the breast which had greatly improved after four months' treatment by *x* rays, the supraclavicular glandular enlargement having disappeared, and the tumour of the breast itself being now about half the size.—Dr. SHADFORTH MORTON showed a case of leucocythaemia treated, and with apparent benefit, by bone marrow.

Exhibit of Instruments.—Instruments, etc., were exhibited by Messrs. Allen and Hanburys and The Dental Manufacturing Company.

Dinner.—The meeting was attended by seventy of the members and visitors, and afterwards thirty-six dined together at the Greyhound Hotel. Amongst the visitors who dined were Mr. Page, Mayor of Croydon; Mr. Allen, Deputy Mayor; Sir Frederick Edridge: Mr. Baddeley, Chairman of the Croydon Hospital; and Alderman Thrift, a member of the Committee of Hospital.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

The Hartley Botanical Laboratories, University College: Description of the Building: Presentation and Formal Opening.

ON Saturday, May 10th, an important addition was made to the equipment of University College, when the new botanical laboratories, which have been presented to the College by Mr. W. P. Hartley, were formally opened by Sir William Thiselton Dyer, K.C.M.G., Director of the Royal Botanical Gardens, Kew. The building, which has been erected and equipped at a cost of more than £13,000, is situated on the west side of Brownlow Street, facing the Gossage Chemical Laboratories, and, like the other College buildings, is constructed externally of grey brick with terra-cotta facings. It occupies an area of about 3,000 square feet, the frontage in Brownlow Street being 35 ft., and that in Danzie Street 85 ft.: it consists of three main floors, broken on the Brownlow Street side by two mezzanines, giving accommodation in this way for museum, lecture theatre, and elementary laboratory behind, and for the advanced and research laboratories and workrooms in front. The plan has the great advantage of doing away with corridors, all the rooms opening off a central hall and well-staircase, lit from a lantern at the top of the building. The museum is a room 45 ft. long, 34 ft. wide, and 22 ft. high, communicating by means of a spiral staircase with a gallery 10 feet broad, placed at a height of 11 ft. from the floor. There are eight windows on the north and eight on the south side, and a museum case is placed between at right angles to the wall, so that the light strikes the glass sideways, and all shimmer on the glass is avoided. The accommodation thus provided will, it is anticipated, be sufficient to receive specimens illustrating plant life in all its aspects, varieties, and applications, and will not be fully occupied for many years to come. The herbarium, which already holds examples of about 20,000 species, and a nearly complete complete collection of British plants, is housed in a special room.

The first floor contains a lecture theatre, with seats for 150 students, and is fully equipped for lantern and other demonstrations. There is also a library, and the professor's private room and laboratory are on this floor. On the second mezzanine are the experimental physiology research laboratory with a dark room attached, and the anatomical research laboratory. The second story carries the demonstrator's private room, the advanced laboratory, and the elementary laboratory, in other words, the rooms devoted to the practical class teaching for ordinary university requirements.

The elementary laboratory is provided with fixed workbenches, fitted with water, electric light, etc., and will seat 65 students. The advanced laboratory is similarly fitted, and will accommodate 12 students. From the elementary laboratory access is provided to a small greenhouse on the roof, wherein aquaria and plants for physiological experiment will find accommodation.

The advantages which the provision of such a building are likely to yield are sufficiently obvious. In the first place Mr. Hartley's gift renders the teaching of large classes of university students not only possible but easy. In view of the probable early realization of a university for Liverpool, this is a matter of some importance. Not only has ample room been provided for all probable increase in the number of students, but the laboratories are provided with the necessary appliances both for elementary and advanced teaching. The chief desiderata at present are large additions to the teaching collections, particularly those housed in the museum. With regard to research, one great difficulty has been removed in the provision of rooms specially devoted to that purpose. Although the more important instruments have been obtained, many have still to be acquired, and must sooner or later be added to the equipment, while some will have to be manufactured on the spot as need arises.

The whole building has been designed with extreme care and attention to detail, and will undoubtedly do much to encourage the study of botany, both in its scientific and its economic aspects. These two aspects of the subject are fittingly recognized in the inscription over the entrance door, which declares that the institution has been presented by Mr. Hartley "for the study of Nature and the service of man."

The formal presentation and opening of the Botanical Laboratories took place in the Arts Theatre of the College, in the presence of a full staff and a distinguished gathering of strangers. The Chairman, Mr. E. L. Muspratt, having opened the proceedings,

Mr. Hartley said they were all proud of University College, and wanted Liverpool to be a city of light and leading in still higher respects than commerce. They wanted it to be distinguished by love of all that pertained to knowledge, the discovery of truth, and the encouragement of science in its pure as well as in its applied branches—knowledge which not simply made their wealth [more and their comfort greater, but

which improved the mind and developed higher faculties and functions. His object in providing that laboratory was to help in that direction. They had tried to make the new building as complete as possible, and he had the proudest pleasure in handing it over to the authorities of University College, in the hope that within its walls lovers of botany would find all they needed for study and research in its most delightful and fruitful form.

On the motion of the Chairman, seconded by Principal Dale, a resolution expressing the sincere gratitude of the members and friends of University College to Mr. W. P. Hartley was unanimously adopted.

Sir William Thiselton-Dyer congratulated Liverpool on the municipal spirit which it exhibited, and spoke of the great industries which had their rise in botanical discoveries, and of the value of the science in medicine.

In the evening a dinner of the University College Association was held in the Adelphi Hotel in celebration of the opening of the laboratories, the guests including Sir W. Thiselton-Dyer and Mr. W. P. Hartley. Sir Michael Foster telegraphed that he was unable to be present.

CORRESPONDENCE.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

SIR,—The writer of the leading article on chloroform in the BRITISH MEDICAL JOURNAL of April 19th, 1902, says in his letter published in the JOURNAL of May 3rd:

"I think that all anaesthetists are in substantial agreement with Dr. Lawrie that chloroform should be given with plenty of air. Dr. Embley has, by his quantitative experiments, ascertained exactly what this dilution should be in order to prevent the occurrence of these accidents which he studied in dogs, and which were attributable to the fact that the safe limit was purposely exceeded."

This plausible statement is only partially true, though I am glad to find that my critics are beginning to agree with some of my views. The Hyderabad Commission contended that safety under chloroform in the induction or any other period depends upon regular breathing, which alone ensures freedom from vagus effects. No quantitative experiments can determine the precise amount of air which is necessary to ensure normal respiration under chloroform, since it is regulated by factors which cannot be measured. For example, a concentrated vapour of chloroform which, if held close to the face, would in all probability cause dangerously irregular respiration and choking in an adult, compels perfect regularity of the breathing and safety in a young child. All that Dr. Embley's experiments show is the dilution which is necessary to avoid vagus effects when chloroform is administered to dogs through a tracheal tube. But this method of giving chloroform interferes with natural breathing, and substitutes for it an unnatural condition of artificial respiration; and this calls into play the protective action of the vagus, which both Dr. Embley and the writer of the article have erroneously attributed to overdosing. I further think it necessary to call attention to the opinion expressed by the writer of the article that Dr. Embley's experiments "show most conclusively that deaths which occur in the induction period are due to vagus action on the heart"—and my reason for doing so is that it seems to indicate that he has not quite grasped the significance of the Hyderabad Commission's findings on the safeguard action of the vagus under chloroform, findings which were subsequently confirmed by my own experiments and those of the late Professor Rutherford. It is of course, as I need hardly insist, impossible that death from "purposely exceeding the safe limit," that is, from overdosing, with chloroform, can take place in the induction period, although it is in this period that irregularity of the respiration is most likely to occur, and may, if not checked, lead to rapid and fatal overdosing in spite of vagus action. But it is easy to teach chloroformists how to avoid all possibility of danger from this source, without having recourse to the rash employment of atropine to prevent a condition which can only arise from interference with the breathing; and definite rules are laid down for this purpose in my book on chloroform.

The statement made by the writer of the article and Dr. Embley on the value of dogs in experiments with chloroform is remarkable for two reasons: (1) That their susceptibility is not specially marked in the induction period, and (2) that the statement is entirely inconsistent with what has been previously written by themselves on the subject.—I am, etc.,

Harley Street, W., May 12th. EDWARD LAWRIE.

A POOR-LAW ABUSE IN SCOTLAND.

SIR,—In the BRITISH MEDICAL JOURNAL of March 29th there appears a letter headed "A Poor-law Abuse." In the Highlands and islands of Scotland we can go "one better" than the experience of your correspondent. If he will accept an appointment up here he will find that any ratepayer who owes him an overdue account, and does not want to pay it, and again requires the doctor's services, has simply to approach the parish council, plead poverty, and apply for "medical aid," and that body magnanimously orders the "parish doctor" to give the patient the attendance and medicine he requires.

It is not necessary to place the patient's name on the poor roll, nor is it done, and the law does not sanction payment for medical attendance on non-paupers; hence the doctor must exercise compulsory benevolence at the command of his parish council, or get notice to quit. Temporary relief in the form of clothing and food are provided to non-paupers out of the rates, but neither medical attendance nor medicine.

Your correspondent is correct in saying that the law takes advantage of the humanity of the medical profession. Are there any cases on record where the law has compelled lawyers to give their services gratis?

"The bearings of the above observations lies in the application" of them.—I am, etc.

Shetland. H. P. TAYLOR.

RESTRICTION OF DIET IN DIABETES.

SIR,—A memorandum from Dr. Keith in the BRITISH MEDICAL JOURNAL of February 15th has attracted my attention. I have written in several papers on the subject, having made a special study in the treatment of diabetes for twenty-five years with an amount of success that is now acknowledged by many of our Colonial leading medical men. I cannot give a prescription for a bottle of medicine to be labelled "Cure for Diabetes," as each case possesses a peculiarity or complications *sui generis*: but, with regard to diet, I make no restrictions, except to point out that in most cases some one article of food may disagree, and, if so, it has to be abandoned. I long ago drew attention to the fact that diabetic coma, as the forerunner of death, is foreshadowed by the presence of diacetone (or diacetic acid) in the urine; that diacetone could not occur in a urine that has not contained acetone; and that, if you give a healthy person an exclusively meat diet for a few days, you can produce acetone in the urine. I will only add that a patient of mine, who is steadily recovering, I induced, when he was very bad and the specific gravity 1040, to take bread and honey for his morning and evening meals for a week without causing any alteration in specific gravity, quantity, or weight, to prove to some of my medical *confrères* how erroneous the old ideas of diet were.—I am, etc.,

F. A. MONCKTON, M.R.C.S.Eng.

Fielding, New Zealand.

DULLNESS AND FLATNESS.

SIR,—I should like to draw the attention of your readers to a time-honoured misuse of language in describing the sounds elicited by percussion a misuse which leads to serious confusion in the minds of students, and seems to have been accepted without question by the majority of teachers. I refer to the use of the term "flat" as applied to the sound elicited by percussion over consolidated lung or collections of fluid in the chest. Most authors use it as synonymous with dull, while Austin Flint employs the term "flatness" to express dullness which is absolute. Now, one of the characteristics of all degrees of dullness is that the pitch of the dull note is higher than that of the normal percussion note, and, as Austin Flint has well pointed out, elevation of pitch is the characteristic which best enables us to detect the slightest

degrees of dullness. But, in musical language a "flat" note is a note with a pitch below the normal. To employ the term "flatness" as in any way related to dullness is, therefore, not justified by analogy, and introduces a serious confusion into the mind of the student, who, if he be familiar with musical terms, naturally expects a "flat" note to have a lower pitch than a natural. I submit, therefore, that the terms "flat" and "flatness" should be entirely discarded in connexion with percussion. There is no advantage in retaining them, as the term dullness with, if necessary, a qualifying adjective such as slight, moderate, or absolute, is sufficiently comprehensive to include all degrees of impaired resonance,—I am, etc.,

Liverpool, May 12th. THOS. R. BRADSHAW, M.D.

THE MEDICAL PROFESSION AND INHABITED HOUSE DUTY.

SIR,—During the debate on the Budget is the time for medical M.P.s and the Parliamentary Committee to call attention to our long-standing grievance and pecuniary burden—namely, the unfair way in which the houses of medical men are rated. To all intents and purposes the medical man's house is a house of business. Why is he not rated as such? A medical man chooses his house, both as regards character as well as locality, from a purely business point of view. The schoolmaster is in precisely the same position. Why not combine with them to agitate for an alteration in the rating? This high rating is a direct tax upon our industry. The professional man pays all taxes and is exempt from none, and has a precarious income and livelihood withal.—I am, etc.,

Ilkley, May 12th. A. H. BAMPTON.

PROCESSES OF INFECTION AND PROTECTION.

SIR,—In the BRITISH MEDICAL JOURNAL of May 10th Dr. Edmunds does me the honour to again discuss the differences between chemical selective affinity and true chemical potential. Since a discussion on this subject has no longer any bearing on my article, and since the point raised is one which does not properly belong to the columns of a medical journal, I must respectfully decline to enter further into the matter.—I am, etc.,

Wembley, May 10th. H. W. ARMIT.

OBITUARY.

DR. MEREDITH CLYMER, a prominent physician in New York, and author of many medical works, died on April 20th, aged 86. He was a native of Philadelphia, and took his doctor's degree at the University of Pennsylvania. He afterwards studied in Paris, London and Dublin, and returning to his native country practised his profession in Philadelphia for ten years. During that time he was consulting physician in chief to the Philadelphia Cholera Hospital and Professor of the Practice of Medicine in the Hampton Sidney College at Richmond, Virginia. He went to New York in 1851 and turned his attention to the investigation of mental and nervous diseases. He was Professor of the Practice of Medicine in the University of New York, and Professor of Mental and Nervous Diseases in the Albany Medical College. During the Civil War he was a surgeon in the United States Volunteers, and medical director of the Department of the South. Dr. Meredith Clymer was a grandson of George C. Meredith, one of the signatories of the Declaration of Independence.

WE regret to announce the death of Mr. HENRY THOMAS BERRY at his residence, Pembridge Villas, W. He was born on September 30th, 1819, and studied at Guy's Hospital in the early Forties. He dressed for Mr. Aston Key, the late Mr. John Poland being a fellow dresser. He was also a fellow student of the late Sir William Gull, and always had a high esteem for his old school. He obtained the diploma of M.R.C.S. in 1842, and that of L.S.A. in the following year. He practised for forty years in the North of London, and retired in 1884. He was a member of the Hunterian Society, and of the Metropolitan Counties Branch of the British Medical Association. After his retirement from professional work he lived at Pembridge Villas, but still led an active life, and interested himself much in scientific and artistic pursuits, until about five years ago, when he suffered from an attack of hemiplegia. He subsequently, however, recovered to a certain extent. Death occurred on May 2nd. He was buried on May 5th at Nunhead Cemetery.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Florian Beely of Berlin, a prominent orthopaedic surgeon, aged 55; Dr. Fr. Frusci, Professor of Surgical Anatomy and Operative Surgery in the Medical Faculty of Naples; Dr. Nikolai Jalan de la Croix, Pathologist to the Hospital of SS. Peter and Paul, St. Petersburg, aged 50; Dr. Julius Wise of Chicago, sometime Professor of Materia Medica and Therapeutics at the Memphis Medical College, and known throughout the United States as an editorial writer in medical and religious journals under the pseudonym "Nickerdown," aged 50; and Dr. Henri Filhol, Member of the Paris Académie de Médecine, Professor of Zoology in the University of Toulouse, and afterwards of Comparative Anatomy in the University of Paris, aged 59.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

DEPUTY INSPECTOR-GENERAL C. A. LEES, M.D., has been awarded the Greenwich Hospital pension of £50 a year, vacant by the death of Deputy Inspector-General J. T. Caddy, M.D., on March 21st last. Deputy Inspector-General Lees joined the service as Surgeon, February 7th, 1857; became Staff Surgeon, August 4th, 1867; Fleet Surgeon, September 1st, 1878; and Honorary Deputy Inspector-General on retirement, September 12th, 1888. He was engaged in boat operations in the Gulf of Finland in 1855, and was at the action of Kolvitsko (medal). During the China war in 1857-9 he had charge of the garrison at Macao Fort; was off the Peiho Forts in 1858 in the *Belleisle*; and in 1859 he attended, until their arrival in England, the seriously wounded at the second attack on the Peiho Forts in 1859 (China medal).

The following appointments have been made at the Admiralty: JOHN H. LIGHTFOOT, Surgeon, to the *Formidable*, May 7th; ARTHUR R. THOMAS, Surgeon, to the *Hearty*, May 7th.

MR. DUNCAN MCNEILL, M.B., has been appointed Surgeon and Agent at Flamborough Head and Detachments, May 1st.

Surgeon STRATFORD DOBRÉE TOLLEMACHE HALLIDAY died at King Edward's Hospital, Grosvenor Crescent, on May 5th, aged 27. He was the third son of Lieutenant-Colonel S. C. Halliday, retired R.A., and entered the Royal Navy as Surgeon, May 23rd, 1898.

We regret to learn that the cause of the retirement of Staff Surgeon W. J. Maillard, M.D., V.C., is serious ill-health. All will regret that a career of so much promise should have been brought to a premature termination.

ROYAL ARMY MEDICAL CORPS.

MAJOR S. E. PHILSON, from the Seconded List, to be Major, *vice* R. E. Kelly, M.D., placed on half-pay, April 16th. Major Philson was placed on the Seconded List in May of last year, for service on the staff of the Governor-General of Australia.

Lieutenant H. ENSOR, M.B., D.S.O., is seconded for service with the Egyptian army, May 2nd.

THE UNDERMANNING OF THE ARMY MEDICAL SERVICE.

THE following is the distribution of medical officers employed on the Active and Reserve Lists, according to the *Army List* for May:

Distribution in May Army List.

Ranks.	Home.	South Africa.	Other Foreign Stations.	Not Posted.	Total.	Remarks. Seconded.	Remarks. Reserve of Officers.
Surgeon-Generals ...	3	2	4	1	10	1	—
Colonels	13	5	8	—	126	3	—
Lieutenant-Colonels...	71	63	75	6	215	1	24
Majors	42	122	108	2	274	3	3
Captains	30	110	108	1	249	12	4
Lieutenants	12	110	67	3	206	1	—
Total	170	421	370	13	980	25	31

The changes since last month are as follows:

The total is four less; a few more are at home, a few less in South Africa, and some more at other foreign stations.

The unposted have increased by six, while the seconded number one less, and the reserve employed the same.

Deducting the unposted, seconded, and reserve, the available effective strength on the Active List is 911.

These figures indicate a small but steady decrease during past months, a result inevitable without additions; the thirty vacancies which it is desired to fill, will merely make good recent losses, but cannot materially remedy undermanning.

The number of retired officers employed remains about the same.

THE VICTORIA CROSS.

THE *London Gazette* of May 13th announces that the King has been graciously pleased to signify his intention to confer the decoration of the Victoria Cross on the undermentioned officer, whose claims have been submitted for His Majesty's approval, for his conspicuous bravery in South Africa, as stated against his name:

"Surgeon-Captain A. Martin-Leake, South African Constabulary.—During the action at Vlakfontein on February 8th, 1902, Surgeon-Captain Martin-Leake went up to a wounded man, and attended to him under a heavy fire from about forty Boers at 100 yards range. He then went to the assistance of a wounded officer, and while trying to place him in a comfortable position was shot three times, but would not give in till he rolled over thoroughly exhausted. All the eight men at this point were wounded, and while they were lying on the veld Surgeon-Captain Martin-Leake refused water till every one else had been served."

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT C. F. SPINKS, having resigned his Volunteer appointment, ceases to belong to Army Medical Reserve, May 10th.

INTERPRETATION OF THE ROYAL MEDICAL WARRANT.

A CORRESPONDENT writing from India says that there is a point in the new warrant he has not seen touched on, namely, that the R.A.M.C. and I.M.S. serving together in India the senior, no matter of which service, becomes in a station the principal or senior medical officer as the case may be. Now, it appears from the warrant that a major R.A.M.C. who has passed the examination for lieutenant-colonel may be required to serve in the junior rank up to 25 years, whereas the Indian Medical Service officer becomes a lieutenant-colonel automatically, without any examination, at twenty years' service. The result would be supersession of the former, who at 24 years might be required to serve under an officer of the latter of only twenty years' service.

Another correspondent, "Ajax," writing from abroad, desires a ruling on the following point: Whether under the new warrant the senior medical officer in a command abroad receiving 5s. daily for being in charge of 1,500 soldiers would also be entitled to draw charge pay for beds if he were in charge of the station hospital?

*** In reply to our first correspondent, we fail to discover that a major who has passed or qualified for the rank of lieutenant-colonel could or would be made to serve on in the lower rank up to twenty-five years. If he had not qualified then he might be allowed to serve on as expressed in Article 556 under retired pay. Supersession, therefore, could only take place through failure to qualify. On the other hand, unless special provision is made, an I.M.S. officer might be superseded in seniority by 18, 12, 6, or 3 months by an R.A.M.C. officer, who had obtained accelerated promotion under Article 352.

On the query of "Ajax" we can of course give no ruling as to whether the S.M.O. of a foreign station, drawing 5s. a day for charge of 1,500 soldiers, Article 368 (*d*) would under the same Article (*a*) also draw bed pay should he be in charge of the station hospital. Should he be in double charge he would not probably draw pay for both, but select the greater, namely, 7s. 6d. for 200, or 10s. for 400 beds. But where such large hospitals existed, the two charges would not probably be combined, but a colonel or surgeon general would be the principal medical officer of the station.

INDIAN MEDICAL SERVICE.

Colonel G. C. HALL, Bengal Establishment, is promoted to be Colonel from January 1st, and is appointed Administrative Medical Officer and Sanitary Commissioner, Central Provinces, from March 2nd, and his services are placed at the temporary disposal of the Commander-in-Chief in India.

Lieutenant-Colonel JAMES YOUNG, M.B., Bengal Establishment, is permitted to retire from the service from March 1st. He was appointed Assistant Surgeon, March 30th, 1872, and became Brigade Surgeon Lieutenant-Colonel, October 24th, 1897. He was in the Burmese campaign in 1885-6, and has the Frontier medal with clasp.

IMPERIAL YEOMANRY IN SOUTH AFRICA.

MR. WALLACE POMEROY, is appointed Medical Officer 31st Battalion, with the temporary rank of Captain, April 18th.

MR. RICHARD AHERN, M.B., is appointed Medical Officer 36th Battalion, with the temporary rank of Captain, April 14th.

IMPERIAL YEOMANRY DEPÔT.

TEMPORARY MAJOR J. A. LEA, M.B., Medical Officer, relinquishes his commission, and is granted the honorary rank of Major in the army, retaining his uniform, May 4th.

VOLUNTEER GARRISON ARTILLERY.

LIEUTENANT G. N. WILSON, M.B., 1st Newcastle-on-Tyne, resigns his commission, and is appointed Surgeon-Lieutenant, May 14th.

MR. WILLIAM O. BEDDARD is appointed Surgeon-Lieutenant in the 1st Norfolk, May 14th.

VOLUNTEER RIFLES.

BRIGADE-SURGEON-LIEUTENANT-COLONEL W. WILSON, M.D., 1st Volunteer Battalion the Royal Scots Fusiliers, reverts to the rank of Surgeon-Lieutenant-Colonel on relinquishing the appointment of Senior Medical Officer to the late Clyde Volunteer Infantry Brigade on reorganization, May 14th.

Brigade-Surgeon-Lieutenant-Colonel H. W. KING, M.D., 2nd (Earl of Chester's) Volunteer Battalion the Cheshire Regiment, is seconded while holding the appointment of Senior Medical Officer to the Cheshire Volunteer Infantry Brigade, May 14th.

Surgeon-Lieutenant J. CAMERON, M.B., 1st (Ross Highland) Volunteer Battalion the Seaforth Highlanders, is promoted to be Surgeon-Captain, May 14th.

Surgeon-Captain G. C. MILLIGAN, M.B., 3rd (Morayshire) Volunteer Battalion the Seaforth Highlanders, resigns his commission, May 14th.

Lieutenant-Colonel T. R. MACDONALD, M.B., late Indian Medical Service, is appointed Surgeon-Lieutenant-Colonel in the 1st (Inverness-shire Highland) Volunteer Battalion Queen's Own Cameron Highlanders, May 14th.

MR. CHARLES WHISH, M.B., is appointed Surgeon-Lieutenant in the 3rd (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders, May 14th.

Surgeon-Lieutenant T. DIXON, 1st Volunteer Battalion the Prince of Wales's (North Staffordshire Regiment), resigns his commission, May 7th.

MR. WILLIAM RITCHIE, M.B., is appointed Surgeon-Lieutenant in the 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry, May 7th.

BEARER COMPANY.

MR. WILLIAM A. GIBB, M.D., to be Surgeon-Lieutenant in the Harwich Company, April 29th.

AN ACKNOWLEDGEMENT.

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from Sir John Rogers, K.C.M.G., Professor D. J. Cunningham, Drs. Murison, Robertson (Southsea), E. L. Fenn, Blandford, Frazer, Mrs. Snape, Mr. and Mrs. Gilbert Barling, Surgeon-General and Mrs. O'Farrell, and the following officers and ladies of the R.A.M.C.: Colonel and Mrs. Charlton, Colonel and Mrs. Stevenson, Lieutenant-Colonel and Mrs. Chester, Lieutenant-Colonel and Mrs. W. E. Webb, Lieutenant-Colonel and Mrs. Dick, Lieutenant-Colonel and Mrs. Alport, Lieutenant-Colonel and Mrs. Treherne, Lieutenant-Colonel Sir Jas. and Lady Clarke, Lieutenant-Colonel and Mrs. Tuckey, Lieutenant-Colonel and Mrs. Hill, Lieutenant-Colonel and Mrs. Swabey, Major and Mrs. Lynden Bell, Major and Mrs. O'Connell, Major and Mrs. Kennedy, Major and Mrs. Clarkson, Major and Mrs. H. M. Sloggett, Colonels Notter, Fawcett, Rooney, Leake; Lieutenant-Colonels C. A. Webb, Franklin, Rowney, Jerome, James, J. F. Brodie, Dundon, Stevenson, Grant, Alexander, Mitchell, U. Bourke, Wilkinson, Lamprey, Corker; Majors Stables, Yarr, A. Dodd, C. W. Allport, Barefoot, Hallaran, G. F. Alexander, Luther, Scanlan, Allen, Tuke, Reckitt, Cummins, Hickman; Captains Hardy, McK. Williams, McLoughlin, A. Pearse, J. Grech, Mansfield, Samman.

The Fund now amounts to £140.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Garden Terrace, W.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Lieutenant-Colonel H. Grier	1	1	0
Lieutenant-Colonel H. R. Forman	0	10	0
Lieutenant-Colonel G. S. Hughes	1	1	0
Major D. Semple	1	1	0
Colonel J. Supple	1	0	0
Colonel W. Allen May	0	10	0
Previously acknowledged	81	6	6
Total ...	£86	9	6

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE CASE OF MR. C. A. BYNOE.

THE following resolution has been passed by the Criminal Law Reform Committee of the Humanitarian League:

"That this Committee, without expressing any opinion on the merits of the actions recently brought by Dr. Bynoe, desires to call the attention of His Majesty's Government to the fact that innocent persons have frequently been convicted of crimes, and that in several instances this conviction has been due to the neglect or default of certain persons; while, according to the present law, as expounded in the Court of Appeal, the aggrieved person has no remedy against those who have thus injured him so long as the conviction stands. But at present the Home Secretary has no power to set aside a conviction, and in general there is no court to entertain an appeal against a conviction on the ground of its wrongfulness. We submit that this state of things ought to be remedied by the Legislature without delay."

MR. A. B. CLARKE, L.S.A., L.R.C.S.Edin. (Shebbear, North Devon) writes: I understand that an application by Mr. C. A. Bynoe will come before the General Medical Council at its next meeting for restoration to the *Medical Register*. I believe that the law has decreed in the Anderson judgement, for instance, that a lie endorsed by "justice" is necessarily an eternal truth. I submit that there is need of consideration for the General Medical Council to consider if they are compelled to act according to the idiotic lack of logic maintained therein?

INQUEST WITHOUT NECROPSY.

AN inquest was held lately by Mr. Coroner Culley at Horsford upon the body of Edith Alice Smith, aged 14 years. According to the evidence as reported in the *Eastern Daily Express*, Norwich, the child was noticed to be slightly unwell on Saturday but on Sunday morning was apparently better. In the evening, however, she suddenly became worse, and died about 7 p.m. before medical aid could be obtained.

A medical practitioner, Dr. R. J. Horn, who attended immediately in obedience to a summons but found the girl dead on his arrival, stated in his evidence that he had no reason to doubt that the death was a natural one. He thought it probable that there was some heart trouble. He knew the child though he had never attended her professionally. She was very thin, and he considered her delicate. From the scant information available as to her symptoms, he thought these might have been due to pneumonia, Bright's disease, or diabetes, but without a necropsy the actual cause of death could not be definitely stated. A verdict of death from natural causes was brought in by the jury.

As far as a judgement can be formed from the facts as stated in the report, the case was one in which the coroner should have ordered a necropsy to be made in order to ascertain the cause of the sudden death, and we do not understand on what grounds he decided not to do so.

CONVICTIONS FOR MANSLAUGHTER.

AT the Central Criminal Court on May 8th, Sarah Russell, aged 51, described as a nurse, was indicted for the wilful murder of Annie Thompson. The evidence, as reported in the *Times*, went to show that the prisoner carried on the calling of a nurse, occasionally acting as a midwife, and that on January 16th she performed an illegal operation upon the deceased. The medical evidence proved that the woman died from blood poisoning, the result of the operation. The jury convicted the prisoner of manslaughter, and the judge sentenced her to seven years' penal servitude.

At the Liverpool Assizes, before Mr. Justice Walton, a woman named Ellen Shorrock, described as a charwoman, was indicted for the murder of Annie Bott, a single woman at Preston. From the report in the *Liverpool Daily Courier* it appeared that the death of the woman Bott was the result of an illegal operation performed upon her by the prisoner. Bott made a statement when dying incriminating Shorrock, and this statement was accepted as evidence against her. After a long trial the jury brought in a verdict of manslaughter, and the judge, after commenting upon the gravity of the case, sentenced Ellen Shorrock to ten years' penal servitude. From the police evidence we gather that suspicion had repeatedly fallen upon the prisoner before, but that the evidence was not sufficient to justify her arrest. Incidentally it was mentioned in court that illegal operations were much practised in the district.

THE PLAGUE OF PUFFING PAMPHLETS.

A CORRESPONDENT sends us a large bundle of pamphlets generally of transatlantic origin, advocating the use of special drugs and preparations which he says he has received within the last week or two. All of us suffer in the same way, but generally provide against it by a capacious and substantial waste-paper basket which seems to be an efficient palliative remedy. Our correspondent, however, wants us to suggest some means of prophylaxis. We cannot but think that these pamphlets are sent because they constitute a paying form of advertisement, and that if the majority of recipients shared our correspondent's dislike of them and treated them as he does the senders would soon tire of the process.

CORONERS AND HOSPITAL OFFICERS.

A. B. D.—The senior house-surgeon of a public hospital has sent us a letter and a newspaper cutting concerning a recent inquest held respecting the death of an in-patient. Our correspondent seems considerably annoyed that he was not summoned by the coroner to give evidence in the case, and objects to one of the nurses being called for that purpose.

*** The deceased person, it appears, died in the hospital from the effects of burns, and the jury returned a verdict to that effect, and that the burns arose from an accidental cause. The coroner doubtless summoned such witnesses as he considered necessary to satisfy the jury of the origin and cause of death. He is not bound by law to summon a medical man; but, if the jury desire medical evidence, and are not satisfied without it, they can adjourn for that purpose. In the case referred to, no fee would have been payable to our correspondent, and, if he was not wanted at the inquest, he has been spared the inconvenience of attending. The coroner has very large discretionary powers, and, whilst it is usual and much more satisfactory that medical evidence should be taken on all occasions, there is no compulsory law on the subject. The court is an open one, and any one can attend and offer to give evidence if he considers it his duty to do so, but we should advise our correspondent not to wait until he is summoned to give evidence.

MEDICAL ETIQUETTE.

SAUER TEIG.—Where the patient puts himself under the care of a new medical attendant the latter has no right to demand from the former medical attendant details of the treatment followed by him, but it would be perfectly proper to ask for such information and we have no doubt that it would be in most instances courteously supplied. We think it preferable that the application should come from the medical attendant rather than from the patient.

A. V. C.—The advertisement in question should not include the name of the advertiser.

CHEMISTS AS OPTICIANS.

L.R.C.S.—The use of the letters F.S.M.C. (Fellow of the Spectacle Makers Company) has been the subject of a good deal of comment. In all probability the atropine is required not in order to enable an examination of the fundus to be made, but to paralyse accommodation completely so as to estimate refraction. We do not approve of medical men assisting opticians in this way; atropine should not be prescribed by a medical practitioner except for reasons which he fully understands and with which he concurs. It must be remembered that it is a dangerous drug, and may do great harm to the eyes, and that for this injury the medical practitioner who prescribes it would be held responsible.

THE RELATIONS OF MEDICAL PRACTITIONERS TO MIDWIVES.

A. E. W.—As the law stands at present, we think it possible that a medical practitioner who should undertake habitually to assist a certificated nurse practising midwifery in her bad cases might be held by the General Medical Council to be guilty of "covering." On the other hand, as neither the Committee nor the nurse come within the scope of the Council's jurisdiction, any "sanction" they may give to such a scheme could scarcely be held to be illegal.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on April 30th, when the Vice-Chancellor was in the chair.

Resignation of Vice-Chancellor.

The Vice-Chancellor announced that it was not his intention to seek re-election in June next, and expressed his acknowledgements of the kindness he had received from the Senate during his tenure of office.

The late Chancellor.

A communication was read from the Académie Royale des Sciences, des Lettres et des Beaux-Arts of Belgium, offering the condolence of that body on the occasion of the death of the late Chancellor, the Earl of Kimberley.

New Examiners.

Among the new appointments of examiners for the year 1902-3 were the following:—*Chemistry*, Dr. Alexander Scott, F.R.S.: *Obstetric Medicine*, Dr. A. N. H. Lewers; *Forensic Medicine*, Dr. H. J. Campbell.

Lord Davy.

Lord Davy has resigned his membership of the Academic Council, the Committee on Reorganization, and the University College Incorporation Committee.

Matriculation Examination.

Notice is given that the general scope of the new matriculation examination for all students will be as follows: Candidates shall not be approved by the examiners unless they have shown a competent knowledge in each of the following subjects, according to the details specified under the several heads:

(1) English. One paper of three hours.

(2) Elementary Mathematics. Two papers of three hours each.

(3) Latin, or Elementary Mechanics, or Elementary Physics (Heat, Light and Sound), or Elementary Chemistry, or Elementary Botany. One paper of three hours in each subject.

(4) Two of the following subjects, neither of which has already been taken under (3). One paper of three hours in each subject. If Latin be not taken, one of the other subjects selected must be another language from the list, either ancient or modern: Latin, Greek, French, German, *Arabic, *Sanskrit, *Spanish, *Portuguese, *Italian, *Hebrew, History, Ancient or Modern; Logic, Physical and General Geography, Geometrical and Mechanical Drawing, Mathematics (more advanced), Elementary Mechanics, Elementary Chemistry; Elementary Physics: (*a*) Heat, Light,

* Candidates for examination in these subjects must give at least two months' notice. No examination will be held in them in September, 1902.

and Sound, or (*b*) Electricity and Magnetism; Elementary Biology: (*a*) Botany, or (*b*) Zoology.

The full text of the new regulations will be published at the beginning of June, and the first examination under them will commence on September 15th next. An examination under the old regulations will be held in January, 1903, and under both sets of regulations in June, 1903.

MEETING OF CONVOCATION.

A general meeting of Convocation was held at the University, South Kensington, on May 13th.

Death of Lord Kimberley.—Sir E. H. Busk, Chairman, who presided, alluded to the great loss which the University had sustained by the death of the late Chancellor, who for forty-three years had been a member of the Senate, and was the fifth in order of the Chancellors. The late Duke of Devonshire first held that office for twenty years, then Earl Granville for thirty-five years, and under him the University was thrown open to women; next, the Earl of Derby was Chancellor for two years, Lord Herschell for six years, and, finally, Lord Kimberley for two years. The Chairman concluded by moving a resolution in which the great services of Lord Kimberley to the University and to the cause of higher education were duly expressed: and the sympathy of Convocation with the family of the late Chancellor was also affirmed. The resolution was carried unanimously, and the Chairman was requested to convey the resolution to the present Earl of Kimberley.

Deputy Chairman of Convocation.—Dr. Walmsley moved resolutions respecting this new office, namely, "That the Deputy-Chairman shall be a member of Convocation, and shall hold office for one year." Secondly, "That it is desirable that no retiring deputy-chairman shall be nominated for re-election more than once, until after the expiration of three years from the date of his retirement." These resolutions were carried; and Sir Philip Magnus being the only graduate nominated for the office was declared elected. He returned thanks for the honour and took occasion to observe that the Senate during the past year had made good progress in the organization of the University. A Principal, Professor Rücker, had been appointed, than whom no more suitable person could have been chosen. Heads of the various departments of the University had been appointed, and had instituted a department of University teaching; under which department he trusted that the inspection of schools would be considerably extended, with possibly a "leaving-school" examination. Sir Philip rejoiced that at the matriculation examination internal and external students would be placed on the same level; there would be one porch for all students, but, by means of a wise system of "options," more than one door in that porch. The examination also would for the future relate to the ordinary work of various kinds of schools, and would not need that those entering for it should attend special classes, which interfered sadly with the ordinary routine of school work.

Clerk of Convocation.—Mr. H. E. Allen, LL.B., was elected Clerk.

Chancellor of the University.—The declaration that the Earl of Rosebery, K.G., who had been nomiated to fill the vacancy caused by the death of the Earl of Kimberley, K.G., was elected was received with applause. The Chairman, in making the announcement, congratulated Convocation on the fact that at length it was able to elect the Chancellor of the University.

Report of the Standing Committee.—This report alluded to five small questions which had engaged the attention of the Committee during the past year; and Dr. R. M. Walmsley, in moving its reception and adoption, said that the Committee had been marking time during the year, whilst the organization of the University was quietly progressing.

Election of Members of the Standing Committee.—In the Faculty of Medicine there were six vacancies, for which the following graduates were elected, namely: H. M. Murray, M.D., M. A. Scharlieb, M.D., M.S., T. W. Shore, M.D., B.Sc., E. H. Starling, M.D., B.S., S. R. Wells, M.D., B.Sc., and W. H. Willcox, M.B., B.Sc.

UNIVERSITY OF CAMBRIDGE.

Degrees.

At a Congregation on May 8th the following degrees were conferred:

M.B.—H. P. Bradley and B. L. Thurlow, Caius; J. M. Brydone, Jesus.

B.C.—J. P. Hedley, King's; G. R. Wilson, Trinity; A. S. Bradley, G. L. Crimp, G. P. D. Hawker, J. E. B. Snell, and B. L. Thurlow, Caius; J. M. Brydone, Jesus; F. E. Shipway, Christ's; H. C. Brown, A. F. Elliott, and H. J. Shone, Emmanuel; C. H. Sedgwick, Sidney.

Third Examination for the Degree of M.B.: New Regulations.

The Registrary calls the attention of candidates for medical and surgical degrees to the new regulations which will come into force next term for those degrees, and points out that all such candidates, with the following exceptions, are now subject to those regulations:

1. Students who have already passed one part of the Third Examination.

Students who have passed in Surgery and Midwifery (old III M.B. Part I) are required to satisfy the examiners in Section (3) only of the new Part II (Physic).

Students who have passed in Physic (old III M.B. Part II) are required to satisfy the examiners in Sections (1) and (2) only of the new Part II (Surgery and Midwifery).

2. Students who shall have passed both parts of the Second Examination before October next.

These students are still permitted to present the same certificates on admission to Part I of the Third Examination as would have been required from them on admission to Part I under the old regulations; and to present the same certificates on admission to any section or sections of Part II as would have been required from them on admission to Part II under the old regulations.

Students who are now admitted to but have not passed either part of the Third Examination may present themselves for either, after, or together with Part II, pass the new Part I (Anatomy and General Pathology); but they require no certificates for admission either to this part or to the section or sections of the new Part II corresponding to the part of the old Third Examination in which they have already been admitted. A special examination in Pharmacology and General Pathology will be held on June 9th, 1902; the ordinary examination for Part I will be held in December, 1902, and in June and December of future years.

ROYAL UNIVERSITY OF IRELAND.

Third Medical Examination.—The examiners have recommended that the following candidates be adjudged to have passed the above-mentioned examination:

Upper Pass.—T. Barry, Catholic University School of Medicine; W. M. Crofton, B.A., Catholic University School of Medicine; H. P. Devlin, Catholic University School of Medicine; W. Egan, Catholic University School of Medicine; R. Johnston, Queen's College, Belfast; D. J. Keane, Catholic University School of Medicine; S. H. Whyte, Queen's College, Belfast; M. O. Wilson, Queen's College, Belfast.

The above candidates may all present themselves at the further examinations for Honours.

Pass.—Anna E. Adderley, Catholic University School of Medicine; R. J. Cahill, Catholic University School of Medicine; F. Coates, B.A., Queen's College, Belfast; W. H. Davis, Queen's College, Belfast; J. Dawson, Queen's College, Cork; E. Fitzgerald, Queen's College, Belfast; A. S. Gardiner, Queen's College, Belfast; D. P. H. Gardiner, Queen's College, Cork; Mary K. Gibson, Catholic University School of Medicine; H. Gill, Queen's College, Belfast; S. J. Killen, Queen's College, Belfast; F. McDonald, Catholic University School of Medicine; J. W. McFarland, Catholic University School of Medicine; R. H. McGiffin, Queen's College, Belfast; F. A. McOstrich, Queen's College, Cork; G. B. Moffatt, Queen's College, Belfast; E. J. O'Hanlon, Catholic University School of Medicine; J. S. O'Neill, Queen's College, Belfast; P. Quinn, Catholic University School of Medicine; J. T. Shanklin, Queen's College, Galway.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held on Thursday, May 8th, the President, Sir William S. Church, in the chair.

Admission of Fellows.

The following Members, elected to the Fellowship at the last meeting, were admitted as Fellows: F. M. Pope, M.D.Camb., E. Malins, M.D.Edin., W. A. Wills, M.D.Lond., T. H. A. Chaplin, M.D.Camb., W. P. May, M.D.Lond., A. G. Phear, M.D.Camb., G. F. Blacker, M.D.Lond., J. Fawcett, M.D.Lond., H. C. Thomson, M.D.Lond., A. S. F. Grünbaum, M.D.Camb., J. Barr, M.D.Glas., J. J. Perkins, M.D.Camb.

Communications.

Communications were received: (1) From the Secretary of the Brussels International Conference on the Prevention of Syphilis, praying the College to reconsider its resolution not to send a delegate. Upon the motion of Sir Dyce Duckworth, seconded by the Senior Censor, it was resolved that the College accede to this request, and the nomination of a delegate was left to the President. (2) From the Secretary of the Jenner Institute of Preventive Medicine informing the College that Dr. J. F. Payne, the representative of the College, was retiring by rotation from the Council of the Institute. The nomination of a representative was left to the President.

Admission of Fellows in Absentiâ.

The Registrar proposed the enactment for the first time of the following by-law: That Dr. Henry Carr Maudsley and Dr. William Camac Wilkinson, elected Fellows on April 24th, being resident in Australia, be admitted *in absentiâ*, any by-law to the contrary notwithstanding.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of the Royal College of Physicians of Edinburgh was held on Tuesday, May 6th, 1902, Dr. Fraser, President, in the chair.

Introduction of New Fellow.

Mr. J. R. Gilmour, M.B., C.M., F.R.C.P.E., was introduced and took his seat as a Fellow of the College.

Admission to the Fellowship.

Dugald Christie, M.R.C.P.E., L.R.C.S.E., The Hospital, Moukden, was admitted by ballot to the Fellowship of the College.

Admission to the Membership.

On a ballot, Charles Mowbray Pearson, M.B., Ch.B.Edin., was admitted to the Membership of the College after examination.

Admission to the Licence.

The Registrar reported that since the last quarterly meeting fifty persons had obtained the licence of the College by examination.

Hill-Pattison Bursary Award.

The Hill Pattison Bursary, which is in the gift of the College, was awarded, after a competitive examination in Anatomy and Physiology, to Mr. James Grieve Cormack.

Recognition of Lecturers.

Dr. William Fordyce, F.R.C.P.E., was, after examination, recognized as a Lecturer in Midwifery, and Dr. Charles J. Lewis, F.R.C.P.E., was similarly recognized as Lecturer in Public Health, the President conferring on them the Certificate of Qualification.

Election of Representatives on the General Medical Council.

Sir John Batty Tuke was unanimously re-elected Representative of the College on the General Medical Council for a period of five years from May 4th.

Trustee of the College.

The President was elected a Trustee of the College in the room of the late Dr. Peel Ritchie.

Conjoint Committee of Management of Triple Qualification.

The Secretary announced the re-election by the Council of Sir John Sibbald as representative on the Conjoint Committee of Management of the Triple Qualification.

Triple Qualification Examinations.

The draft regulations regarding the various Triple Qualification Examinations for the ensuing year were considered and approved.

Fees for Fellowship and Membership: Change of Laws.

On a motion by the Secretary it was resolved:

"That Law 2 of Chapter VI be altered so as to read as follows: 'The fee to be paid by a Member shall be thirty-five guineas.'"

"That Law 3 of Chapter VI be altered so as to read as follows: 'When a Licentiate shall be raised to the rank of Member he shall pay twenty-five guineas.'"

"That Law 4 of Chapter VI be altered so as to read as follows: 'When a Member shall be raised to the rank of Fellow, he shall pay thirty-eight guineas, exclusive of stamp duty.'"

Reporting on Morbid Specimens.

In consequence of the decision of the town to transfer the reporting on morbid specimens from the College Laboratory to the Usher Institute of Public Health, it was resolved:

"That the College decide to terminate the arrangement with the Town Council, and revert to the previous system of reporting, and remit to the Council of the College to act accordingly."

Annual Report Regarding the Laboratory.

The Curator submitted his report for the past year regarding the research and reporting work undertaken in the laboratory during the year, and the expenditure incurred. The report showed that 35 workers had been engaged in research, 1,480 specimens had been reported on, and the expenditure had amounted to £1,383 10s. 8d. The report was adopted by the College.

Laboratory Demonstrations.

The Curator of the Laboratory announced that a series of demonstrations of some of the investigations in progress in the laboratory had, on the proposal of the Superintendent, been sanctioned by the Council, and would be given in the laboratory on Fridays, May 16th, 23rd, and 30th

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council meeting was held on May 8th, 1902, Mr. H. G. Howse, President, in the chair.

Portrait of Benjamin Travers, F.R.S.

The Council accepted a portrait of the late Mr. Benjamin Travers, by Mr. C. R. Leslie, R.A., offered by Dr. Llewellyn Morgan, executor to the late Miss Travers. The best thanks of the Council were given to the donor.

The University of Oxford and the Oxford Eye Hospital.

The President consented to be an *ex-officio* member of a Standing Board for future elections to the combined appointments of a Readership in Ophthalmology to be held in conjunction with the Honorary Surgeoncy to the Oxford Eye Hospital.

Petition from the Licentiates and Members of the Colleges of Physicians and Surgeons.

A Committee of the Council was appointed to receive a deputation which would present a petition relating to the acquirement of a Doctor's degree by the Licentiates and Members of the Royal Colleges in London.

University of London and the Royal Colleges.

A Committee was appointed to consider and report as to whether or not the time has come for the two Royal Colleges, by joint action, to take such steps as may seem advisable for entering into combination with the University of London for a scheme of common examinations for the degree of M.B. of the University and for the qualifications of L.R.C.P.Lond. and M.R.C.S.Eng.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT the stated business meeting of the College, held on Friday, May 9th, the President (Sir Christopher J. Nixon, M.D.) admitted to the Licences in Medicine and Midwifery R. Allison, H. L. Becker, J. J. Bell, C. H. Browne, S. Browne, C. Cartwright, T. R. de Castillo, H. T. Cookman, C. Foley (Honours), J. J. Harty, R. G. M. Harvey, C. J. D. Odevaine, C. Waters, and J. M. Thomas, L.S.A.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Election of Examiners.

AT a meeting of the President, Vice-President, and Council, held on May 6th, the following Examiners were elected: In Anatomy—Ambrose Birmingham and Alexander Fraser. In Physiology and Histology—E. L'E. Ledwich and C. Coppinger. In Ophthalmology—Arthur H. Benson and P. W. Maxwell. In Pathology and Bacteriology—Arthur Hamilton White. In Pathology—Robert Allen. In Midwifery and Gynæcology—Frederick W. Kidd. In Biology—John J. Burgess. In Sanitary Law and Vital Statistics—H. Benson Goulding. In Engineering and Architecture—J. Charles Wilmot. In Dental Surgery and Pathology—Daniel Corbett, jun., and W. G. Story. In Mechanical Dentistry—George M. P. Murray and William Booth Pearsall. In Chemistry and Physics—Edward Lapper and R. J. Montgomery. In Languages—L. J. Woodroffe. In Mathematics, Physics, Dictation, and English Essay—J. W. Tristram.

The election of Examiners in Surgery was postponed.

CONJOINT BOARD IN IRELAND.

Final Examination.—Candidates have passed this Examination as undernoted:

Four Years' Scheme.—All Subjects: J. J. Bell, C. Cartwright, T. R. de Castillo. Completed the Examination: R. G. M. Harvey, C. J. D. Odevaine.

Five Years' Scheme.—Honours: C. Foley. All Subjects: H. L. Becker, J. J. Harty. Completed the Examination: R. Allison, C. H. Browne, S. Browne, H. T. Cookman, C. Waters.

Examination for the Diploma in Public Health.—Candidates have passed this examination as undernoted:

W. E. Burton, M.R.C.S.Eng., L.R.C.P.Lond.; F. I. de Lisle, L.R.C.P., L.M.Edin.; E. G. Gibbs-Smith, L.R.C.P.I., L.S.A.Lond.; L. R. More-O'Ferrall, F.R.C.S.I.; R. McCombe, L.R.C.P. & S.I.; M. McGrath, L.R.C.P. & S.I.; A. G. Robb, M.B., B.Ch., R.U.I.; A. Williams, L.R.C.P. & S.Edin.

SOCIETY OF APOTHECARIES OF LONDON.

INSTRUCTION IN ANÆSTHETICS.

AT a meeting held on May 13th the Court of Assistants passed the following resolution—namely: "That as from July 1st next every candidate for the examination in medicine shall be required to produce a certificate or evidence of having received instruction in the administration of anæsthetics to the satisfaction of his teachers at a recognized medical school and hospital."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths registered in the first quarter of 1902, and to the marriages during the three months ending December last. The marriage-rate was equal to 17.3 per 1,000, and was 0.3 per 1,000 below the average rate in the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter ending March last numbered 232,436, and were equal to an annual rate of 28.6 per 1,000 of the population, estimated by the Registrar-General to be 32,995,614 persons in the middle of this year. This rate was 1.6 per 1,000 below the mean rate in the corresponding periods of the ten preceding years. The birth-rates in the several counties ranged from 20.3 in Rutland, 21.5 in Sussex, 21.7 in Westmorland, 22.6 in Oxfordshire, 22.8 in Dorsetshire, and 22.9 in Cornwall to 30.6 in Essex, 31.2 in Nottinghamshire, 31.6 in Northumberland, 31.7 in South Wales, 34.5 in Staffordshire, 35.5 in Monmouth, and 36.3 in Durham. In seventy-six of the largest English towns, including London, the birth-rate last quarter averaged 30.8 per 1,000, and exceeded by 2.2 per 1,000 the general English birth-rate. In London the rate was 29.8 per 1,000, while it averaged 31.2 in the seventy-five large provincial towns, among which the birth-rates ranged from 16.8 in Bournemouth, 18.4 in Hastings, 20.8 in Hornsey, 21.2 in Halifax, 21.3 in Bury, and 23.3 in Bradford to 37.9 in Rotherham, 38.3 in West Bromwich, 39.4 in Wigan, 39.6 in St. Helens, 39.7 in Merthyr Tydfil, and 41.7 in Rhondda.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 81,161; this represents the natural increase of the population during that period. From returns issued by the Board of Trade it appears that 56,344 emigrants embarked during the three months for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 50,344 emigrants, 23,012 were English, 3,801 Scottish, and 3,803 Irish, while 25,728 others were of foreign origin. Compared with the averages in the corresponding quarters of the three preceding years the proportion of emigrants to the total population showed an increase in England of 30 per cent., and in Scotland of 44 per cent., while in Ireland the proportion decreased by nearly 11 per cent.

During the first quarter of the year the deaths of 151,275 persons were registered equal to an annual rate of 18.6 per 1,000, being 1.7 per 1,000 below the average rate in the first quarters of the ten preceding years. The lowest county death-rates last quarter were 15.3 in Westmorland, and in Rutland, 15.5 in Northamptonshire, 15.6 in Derby, and 16.1 in Huntingdonshire and in Bedfordshire; the highest rates were 10.4 in Devonshire and in Lancashire, 19.9 in Monmouth, 20.2 in South Wales, and in North Wales, 21.1 in Cornwall and 21.2 in Kent. In seventy-six of the largest towns, with an aggregate population of about fifteen millions, the death-rate averaged 19.9 per 1,000; in 103 smaller towns, containing about three million persons, the rate of mortality averaged 17.3 per 1,000: while in the remaining and chiefly rural parts of England and Wales, with a population of about 14½ millions, the death-rate was 17.5 per 1,000. In London the rate was 21.8 per 1,000: while among the seventy five large provincial towns the lowest death-rates were 10.6 in Hornsey, 12.6 in Handsworth, 12.7 in Walthamstow, 13.7 in East Ham, 14.0 in Derby, and 14.6 in Ipswich and in King's Norton; and the highest rates 22.3 in Preston, 22.5 in Burnley, 22.9 in Liverpool, 23.1 in Rhondda, 23.6 in St. Helens, and 28.6 in Merthyr Tydfil.

The 151,275 deaths from all causes registered in England and Wales during the three months ending March last included 2,908 which were referred to measles, 2,467 to whooping-cough, 2,234 to diphtheria, 1,207 to scarlet fever, 1,135 to diarrhœa, 1,121 to small-pox, and 938 to "fever" (principally enteric). The mortality from small-pox was above the average; while that from scarlet fever corresponded with it, and that from each of the other principal zymotic diseases showed a decline. Of the 1,121 fatal cases of small-pox registered last quarter, 734 belonged to London, 41 to West Ham, 37 to Edmonton, 22 to Tottenham, and 18 to Erith.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under 1 year of age to registered births, was equal to 140 per 1,000, against an average rate of 146 in the corresponding quarters of the ten preceding years. The lowest rates of infant mortality in the various counties were 58 in Rutland, 105 in Huntingdon and in Westmorland, and 120 in Bedfordshire and in Essex: while the highest rates were 162 in Cambridge and in Monmouth, 169 in North Wales, 186 in Cornwall.

and 187 in South Wales. In seventy-six of the largest towns the mean rate was 139 per 1,000; in London the proportion was equal to 134 per 1,000, while it averaged 141 in the seventy-five large provincial towns, among which the rates ranged from 82 in Hornsey, 90 in West Hartlepool, 108 in Totlenham, 199 in East Ham and in Wolverhampton, and 111 in Bolton to 185 in Preston, 186 in Halifax, 191 in Burnley, 192 in Norwich, 214 in Rhondda, and 223 in Merthyr Tydfil.

The mortality in England and Wales last quarter among persons aged between 1 and 60 years was equal to 9.3 per 1,000 of the population estimated to be living at this group of ages, and was 0.9 per 1,000 below the mean rate in the corresponding quarters of the ten preceding years. Among persons aged 60 years and upwards the death-rate last quarter was equal to 84.0 per 1,000 of the estimated population at this age-period; the average rate in the ten preceding first quarters being 90.8 per 1,000.

The mean temperature of the air at the Royal Observatory, Greenwich, was 40.5°, which was 1.6° above the average in the first quarters of 131 years; in January and March the temperature exceeded the average by 5.0° and 3.3° respectively, while in February it showed a decline of 3.6°. The amount of rain and melted snow measured during the quarter was 2.79 in., which was 2.15 in. below the average.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,602 births and 4,894 deaths were registered during the week ending Saturday last, May 10th. The annual rate of mortality in these towns, which had been 18.3, 17.0, and 16.6 per 1,000 in the three preceding weeks, rose again to 17.2 per 1,000 last week. The rates in the several towns ranged from 7.5 in East Ham, 8.5 in Reading, 8.6 in King's Norton, 10.1 in Stockton-on-Tees, 10.3 in Handsworth, 11.0 in Hornsey and in Bournemouth, and 11.1 in Leyton, to 21.6 in Bolton, 22.1 in Liverpool, 22.7 in Bootle, 22.9 in Middlesbrough, 23.1 in Newcastle-on-Tyne, 23.3 in Salford, 24.6 in Birkenhead, and 26.1 in Rochdale. In London the death-rate was 16.6 per 1,000, while it averaged 17.4 in the seventy-five other large towns. The death-rate from the principal zymotic diseases in the seventy-six large towns was 1.8 per 1,000; in London this death-rate was equal to 2.3 per 1,000, while it averaged 1.7 in the seventy-five other large towns, among which the highest zymotic death-rates were 2.6 in Oldham, 2.7 in Burnley, 2.8 in Birmingham, 3.0 in South Shields, 4.2 in Birkenhead, 4.9 in Tottenham, 5.0 in Hanley, and 7.1 in Barrow-in-Furness. Measles caused a death-rate of 1.6 in Burnley, Huddersfield, and West Hartlepool, 1.7 in Bournemouth, 1.8 in Gateshead, 1.9 in Oldham, and 5.4 in Barrow-in-Furness; scarlet fever of 1.1 in Middlesbrough; diphtheria of 1.5 in Coventry and in Merthyr Tydfil, 2.9 in Tottenham, and 3.3 in Hanley; whooping-cough of 1.2 in Liverpool, 1.4 in Plymouth, in Birmingham, and in Birkenhead, 1.5 in Leyton, 1.8 in Barrow-in-Furness, and 2.2 in South Shields; and "fever" of 1.9 in Birkenhead. Of the 62 fatal cases of small-pox registered last week among persons belonging to these towns, 44 belonged to London, 8 to West Ham, 4 to Tottenham, 2 to East Ham, and 1 each to Willesden, Leyton, Walthamstow, and Burnley. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 1,431, 1,515, and 1,442 on the three preceding Saturdays, had further declined to 1,419 on Saturday, May 10th; 248 new cases were admitted during the week, against 328, 367, and 250 in the three preceding weeks. The number of scarlet fever cases under treatment in these hospitals and in the London Fever Hospital at the end of the week was 2,212, against 2,155, 2,158, and 2,222 at the end of the three preceding weeks; 256 new cases were admitted during the week, against 269, 283, and 258 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, May 10th, 1,009 births and 586 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.6, 21.1, and 18.9 per 1,000 in the three preceding weeks, further declined last week to 18.1 per 1,000, but was 0.9 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 9.9 in Leith and 16.9 in Edinburgh, to 20.3 in Perth and 21.1 in Paisley. The zymotic death-rate in these towns averaged 1.4 per 1,000, the highest rates being recorded in Aberdeen and Perth. The 290 deaths registered in Glasgow included 3 which were referred to measles, 2 to scarlet fever, 3 to diphtheria, 8 to whooping-cough, and 6 to diarrhœa. Two fatal cases of whooping-cough and 4 of diarrhœa were recorded in Edinburgh. Two deaths from measles occurred in Dundee: 5 from whooping cough and 2 from diarrhœa in Aberdeen; and 2 from measles in Paisley.

ROYAL COMMISSION ON ARSENICAL POISONING.

At the meeting of this Commission, which was held on May 9th, under the presidency of Sir W. Hart-Dyke, M.P., the evidence of Mr. Fletcher Moulton, K.C., M.P., Chairman of the Expert Committee appointed to investigate the Manchester outbreak on the spot, was heard. After referring to the measures taken in regard to contaminated glucose, he emphasized the danger of contamination arising from the preparation of malt, and said that he should not be surprised if by directing the attention of the brewing public to this source a great difference would be made in the occurrence of "alcoholic neuritis." He was satisfied that there was now absolutely no danger arising from the use of glucose, and that malting would be rendered safe by better methods and tests and the selection of [illegible]. The only advantage of the brewer obtaining a warranty from the [illegible]er was the introduction of the word "arsenic," which kept it constantly before those concerned in selling the goods. He considered that beer should be brought under the Food and Drugs Act.

Mr [illegible], also a member of the Manchester Export Committee [illegible] the Manchester authorities came to the conclusion that one [illegible] of a grain of arsenic in the gallon was a dangerous quantity, and that anything less than one fiftieth might, as far as quick poisoning was concerned, be disregarded. But he himself would have the limit [illegible] than that. He favoured the making of periodical tests by the Government authorities; this would keep the brewer alert in regard to the materials he employed. The use of gas coke should be prohibited for the preparation of malt: it was merely used for economical reasons and was dangerous. During the last six months the amount of arsenic present in beer had been diminishing, and this he attributed to the use of other fuel than gas coke. Professor Thorpe, one of the members of the Commission, thought that if it were practicable there should be periodical testings for arsenic, at the Government laboratory, of samples of beer taken from all the breweries throughout the country, the brewers being informed as to the result. The use of coke in malting should be prohibited, and he believed that if properly selected anthracite were used, with cleanliness in the kilns and thorough brushing of the malt, the public would be amply safeguarded against arsenical contamination of beer.

EFFICIENT VACCINATION.

Dr. Everard Home Saunders (Yelverton) asks: In how many places should a person be vaccinated or revaccinated? Is one spot sufficient, provided it covers a certain area of surface? What are the Local Government Board rules, as laid down for number of punctures? It has always been my custom to revaccinate in at least three separate places, or, in the case of primary vaccination, four points, as I was taught by the late Dr. Marson (in 1868) to do.

*** The Royal Commission reported their conclusion on this point as follows: "That the beneficial effects of vaccination are most experienced by those in whose case it has been most thorough. We think it may be fairly concluded that where the vaccine matter is inserted in three or four places, it is more effectual than when introduced into one or two places only, and that if the vaccination marks are of an area of half a square inch they indicate a better state of protection than if their area be at all considerably below this." The Local Government Board's instructions to public vaccinators include the following: "In all ordinary cases of primary vaccination the public vaccinator must aim at producing four separate good-sized vesicles, or groups of vesicles, not less than half an inch from one another. The total area of vesiculation resulting from vaccination should be not less than half a square inch." Our correspondent will observe that the instructions include both points: (1) Four insertions of lymph; and (2) a total area of at least half a square inch.

In a letter to a public vaccinator, published in the British Medical Journal of April 13th, 1901, page 936, the Board, after quoting the above paragraph from the report of the Royal Commission, and urging public vaccinators to display these facts, and to enter into explanation with the parents, continues as follows: "If, however, notwithstanding this explanation, the parent in any particular case will only consent to the child being vaccinated in two places instead of four, the Board are not prepared to say that the public vaccinator should decline so to vaccinate the child. The Board may add that they would regard as a serious dereliction of duty failure on the part of a public vaccinator to use his best efforts to secure in all ordinary cases such adequate protection against small-pox as is contemplated by the instruction above referred to." We would strongly advise our correspondent to adhere to the present practice.

PAROCHIAL MEDICAL OFFICERS IN THE HIGHLANDS.

The Medical Officer, Kincardine, Ross-shire, writes with reference to the advertisement for a resident medical officer, issued by the Parish Council of Kincardine, Ross-shire, to state that the practice in question, which he is now about to leave, is a very fair one with good prospects; the Council people are pleasant to work with. He suggests that all intending applicants for parish appointments in the Highlands and Islands of Scotland should communicate directly with the outgoing officer whose address can usually be found in the local section of the *Medical Directory*.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE MARY WARDELL CONVALESCENT HOME.

The annual report of the Mary Wardell Convalescent Home for Scarlet Fever at Stanmore states that 217 patients were admitted during 1901 as compared with 165 during 1900. Two cases of roseola, 4 of chicken-pox, 2 of recurrence of scarlet fever, 11 cases of diphtheria, and 1 case of small-pox in a servant occurred in the Home during the year, and added greatly to the difficulties of the administration. The report contains the following passage with regard to the case of small-pox: "She and all the other members of the staff had been vaccinated in October, with satisfactory results, and every precaution had been taken to guard against the introduction of the disease into the Home by the suspension of visitors' privileges. The case was a very mild one, but the Home was necessarily closed to fresh admissions for some length of time till it was entirely empty, and had been thoroughly disinfected and cleaned."

A Medical Centre in Chicago. The medical practitioners of Chicago are considering a plan for the establishment of a home for the medical organizations of that city. The building will contain laboratories for research work, libraries, lecture halls, and rooms for social gatherings. The plan includes co-operation with the Crerar Library in the collection of a large reference library in medical science, and aims at the establishment of a medical centre in the West.

MEDICAL NEWS.

Successful Vaccination.—Mr. J. F. Cheesewright has received the Government grant for the second time for successful vaccination in the Rawmarsh District of the Rotherham Union.

We are asked to state that the sixth annual medical, surgical, and hygienic exhibition will be held at the Queen's Hall on May 20th, 21st, 22nd, and 23rd, and will be open on each day from 1 to 10 p.m.

Professor J. Rose Bradford, M.D., F.R.S., will give an address to the Medical Society of University College, London, on Wednesday next, on the Relation of Biology to Medicine. The chair will be taken by Mr. Victor Horsley, F.R.S., at 8.30 p.m.

Official reports show that from December 28th, 1901, to April 18th, 1902, the number of small-pox cases which occurred in the United States was 29,304, with 850 deaths. The total for the corresponding period in 1901 was 16,734 cases, with 225 deaths.

Jubilee of Laval University, Quebec.—By way of commemorating the jubilee of Laval University, Quebec, which will be celebrated in June, old students will contribute to the establishment of several new professorships. Already over 10,000 dollars have been offered for the purpose.

On February 15th the Russian Medical Society celebrated the hundredth anniversary of the birth of its founder, Dr. Fedor Inosemzeff, who died in 1869. Dr. Inosemzeff was Professor of Surgery in the University of Moscow till his death.

Sickness Insurance in Italy.—Signor Cabrini and other members of the Italian Chamber of Deputies have presented a motion representing the necessity for the enactment of a law of compulsory insurance against illness, however caused, on the lines of that which makes the insurance of workmen against accidents compulsory.

The Glasgow University Club, London, will on Tuesday, July 1st, give a dinner in honour of the Coronation, at the Trocadero Restaurant, Piccadilly Circus. The Very Rev. Dr. Story, Principal of the University of Glasgow, has promised to preside. Particulars can be obtained from Dr. C. O. Hawthorne, 28, Weymouth Street, Portland Place, W.

The first meeting of the newly-founded Association of French-speaking Physicians of North America will be held in Quebec on June 25th to 28th, in the buildings of Laval University. Over 600 medical practitioners from Canada and the United States have announced their intention to take part in the proceedings. France will also be officially represented.

Mr. H. Percy Dunn, F.R.C.S., will preside at the past and present West London Hospital Dinner (Post-Graduate College), which will be held at the Trocadero Restaurant, London, W., on Wednesday, July 11th, at 7.30 p.m. Further particulars can be obtained from Mr. L. A. Bidwell, F.R.C.S., 15, Upper Wimpole Street, W.

The opening lecture of the summer session at the Brompton Hospital for Consumption will be given on Wednesday, May 21st, at 4 p.m., when Dr. T. H. Green will speak on difficulties in the recognition of pulmonary tuberculosis. These lectures are open to students of the hospital and to all qualified members of the medical profession.

Sir W. Thomas Lewis, in a letter to the High Constable of Merthyr, has offered to erect and present to the Merthyr General Hospital, as a memorial of the Coronation, a children's ward capable of accommodating eight to ten cots, provided that the townspeople of Merthyr will subscribe the necessary funds for the similar extension of the men's ward.

Presentation.—On the occasion of the unveiling by Lord Newton of a bust of Queen Victoria erected by the scholars of the Earlestown District Schools, a silver rose bowl and a silver cup were presented to Dr. and Mrs. Handyside as a token of the excellent work Dr. Handyside had done in the Earlestown District for the cause of education during a term of sixteen years.

The Fund for the Family of the late Dr. William Smyth.—We are asked to state that the name of Dr. F. Sidney Gramshaw, of Stillington, Easingwold, should have been printed as here and not as it appeared in the list of subscribers. We are also asked to state that a subscription of £2 has been received from "Colonel, I.M.S. (retired)," and that the fund is now closed.

The annual meeting of the Association of Asylum Workers will take place at the house of the Medical Society of London, Chandos Street, W., on Thursday next, May 22nd, at 4 p.m., when the chair will be taken by Sir James Crichton-Browne, the President. Two gold and two silver medals, awarded by the Association for long and meritorious nursing services, will be presented.

The Sweet Girl Graduate in Italy.—From 1877 to 1900 degrees of one kind or another were awarded by the universities of Italy to 257 women. Of these degrees, 24 were in medicine and surgery. Of the rest, 6 were in law, 140 in arts, 37 in philosophy, 20 for proficiency in mathematics, and 30 for proficiency in physics and chemistry. In 1893 the number of female students on the books of the various universities was 98; in 1900 it was over 250.

The Dissemination of Disease by Public Telephones.—The public telephone having been pronounced an active and potent means of disseminating disease germs, the San Francisco Board of Health, in order to find means for the elimination of this danger, has (according to *American Medicine*) ordered that all inventors or manufacturers of telephone appliances that could disseminate disease germs shall forward working models of them for examination to the office of the Board within a period of sixty days.

Female Inebriates in Canada.—The provision of help for female inebriates has engaged the attention of the Local Council of Women at Ottawa. The Dominion Government will be asked to aid in providing cottage homes for inebriate women. In Ottawa during the past two years intemperance among women and girl prisoners is said to have increased by 75 per cent. In many cases women at or about 20 years of age are imprisoned for drunkenness and crimes committed while under the influence of liquor. Brief imprisonment to check the evil has proved an utter failure, some women having spent at least 20 out of 40 years in prison.

The next general meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at 11, Chandos Street, Cavendish Square, London, W., on Wednesday next, May 21st, at 4 p.m., under the presidency of Dr. Oscar T. Woods. A discussion on Sleep in relation to Narcotics in the Treatment of Mental Diseases will be opened by Dr. Henry Rayner, Dr. T. Claye Shaw will read a paper on the Surgical Treatment of Delusional Insanity, and Dr. Robert Jones will read Notes on the Treatment of Morphinomania. The members will dine together at the Café Royal, Regent Street, at 7 p.m.

The annual general meeting of the Governors of the Royal Medical Benevolent College, Epsom, will be held at the office, 37, Soho Square, London, W., on Friday, May 30th, at 4 p.m., when the results of the voting for the election of pensioners, foundation scholars, and Morgan annuitants will be announced. It will be proposed that Dr. Thomas Buzzard shall be elected to fill a vacancy on the Council, and that Dr. John H. Galton shall be elected vice-president. Certain alterations in the by-laws will also be proposed to provide regulations for the Pugh and France pensioners, for the Da Silva pensions, and for the France Pension Fund.

A Female Ambulance Surgeon.—Dr. Emily Dunning has been appointed an ambulance surgeon to Gouverneur Hospital, New York. Dr. Dunning is a graduate of Cornell, having been second in her class on June 6th, 1901. She became a competitor for the post last year, and came out at the top of the list of applicants at the examination, but was refused appointment because of her sex. She then became assistant to Dr. Mary Putnam Jacobi, in which capacity she continued till a new Board of Charities seemed to offer her more encouraging prospects in the contest for a post on the Gouverneur staff. She will undertake all the duties ordinarily required of an interne, which include ambulance service.

THE general meeting of the British Balneological and Climatological Society will be held at 20, Hanover Square, W., on June 3rd, at 5 p.m. The annual dinner of the Society will take place the same evening at Pagani's Restaurant, Great Portland Street, at 6.30 p.m., after which a *conversazione* will be held at 20, Hanover Square, at 9 p.m., when Sir Lauder Brunton will deliver an address.

THE ITALIAN HOSPITAL.—The annual ball in aid of the Italian Hospital, which was omitted last year out of respect for the memory of the late Queen Victoria, was held last week in Princes' Hall, Piccadilly, and proved an even greater success than on former occasions. Nearly 700 guests were present, including the Italian Ambassador, President of the Hospital, and Madame Pausa; the Lord Mayor and Lady Mayoress; the Austrian Ambassador and Countess Deym; the Swiss Minister, M. Bourcarts, Madame Ortelli (widow of the founder of the hospital) and representatives of the German and other Embassies. Amongst the medical staff, to whose efforts a considerable part of the success attained is due, there were present Sir Dyce Duckworth, Cavaliere Naumann, Cavaliere Distin Maddick, Drs. Donelan, Dickinson, Henry, and Cavaliere FitzGerald.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the Medical Sickness, Annuity, and Life Assurance Society was held on April 25th at 429, Strand, W.C. There were present: Dr. de Havilland Hall, in the chair; Dr. J. B. Ball, Mr. J. Brindley James, Dr. Frederick S. Palmer, Dr. F. J. Allan, Dr. W. Knowsley Sibley, Dr. Alfred S. Gubb, Dr. Walter Smith, and Mr. Edward Bartlett, and Dr. G. A. Heron, one of the Trustees of the Society. The Committee examined the draft report for 1901, and ordered it to be presented to the members at a general meeting to be held at the Medical Society of London, 11, Chandos Street, Cavendish Square, on Thursday, May 15th, at 5 o'clock. The report showed that the reserves were increased from £143,552 11s. 3d. to £154,353 17s. 3d. The number of new entrants was greater than in the previous year. There had been an increase in the number of members who availed themselves of the recent alteration in the rules to raise their sickness benefits to £6 6s. per week. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

MEDICAL VACANCIES.

The following vacancies are announced:

BARBADOES GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £200 per annum, with unfurnished house. If resident in England passage paid to Barbadoes and (after three years' appointment) back. Applications to Mr. W. E. Sargant, School Registrar of St. Bartholomew's Hospital, by June 10th.

BIRMINGHAM CITY ASYLUM.—Resident Clinical Assistant. Board, residence, and washing provided, and honorarium at the rate of £50 a year. Applications to the Medical Superintendent.

BIRMINGHAM GENERAL DISPENSARY.—Resident locums for two or three months. Terms 4 guineas per week, with furnished apartments. Applications to the Secretary by May 28th.

BIRMINGHAM GENERAL HOSPITAL.—(1) Resident Medical Officer. Salary, £70 per annum. (2) Two House-Surgeons. Appointments for six months. Salary, £50. (3) Aural Surgeon and Laryngologist. Residence, board, and washing provided for (1) and (2). Applications to the House-Governor by May 31st.

BRISTOL CITY LUNATIC ASYLUM.—Medical Assistant; unmarried. Salary, £140 per annum, increasing to £160, with furnished apartments, board and washing. Applications, marked "Medical Assistant," by May 21st.

BURY ST. EDMUNDS: SUFFOLK GENERAL HOSPITAL.—House Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary by May 20th.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second Assistant Physician. Applications to the Secretary by June 7th.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £60 per annum, with board and lodging. Applications to the Secretary by May 30th.

CARDIFF UNION.—Assistant Medical Officer for the Workhouse; unmarried. Salary, £130 per annum, with rations, apartments, attendance, and washing. Applications to the Clerk, Union Offices, Owen's Chambers, Cardiff.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications to the Honorary Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House Physicians. Appointments for six months. Salary at the rate of £30 per annum, with board, washing, and residence. Applications to the Secretary by May 19.

COLOMBO MUNICIPALITY.—Medical Officer of Health. Appointment for five years, with option of re-engagement. Salary, £400 for first three years, and £500 for the last two years. First class passage provided. Applications to Dr. Perry, care of British Medical Association, 429 Strand.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer; unmarried, under 32 years of age. Salary, £110 per annum, with board and lodging. Applications [illegible] to be forwarded to the Chairman of the Selection Committee by May 31th.

DOWN COUNTY INFIRMARY.—House Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to Dr. Tate, Downpatrick, by June 5th.

DURHAM COUNTY ASYLUM, Winterton, Ferry Hill.—Junior Assistant Medical Officer. Salary, £120 per annum, rising to £130, with apartments, board, laundry, and attendance. [illegible] W. A. Stoker.

ARY LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physician. Board, residence, etc., provided, and honorarium of £50 on completion of six months' approved service. Applications to the Secretary by June 14th.

GAIRLOCH PARISH COUNCIL.—Medical Officer for the Southern Division. Salary at the rate of £100 per annum up till February, 1903, increasing afterwards to £150. Applications to the Clerk of the Parish Council, Poolewe, by June 2nd.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Locum tenens for about 5½ months. Four guineas a week and board. Applications to the Medical Superintendent.

GLASGOW SAMARITAN HOSPITAL FOR WOMEN.—House-Surgeon. Applications to the Honorary Secretary, 89, West Regent Street, Glasgow, by May 20th.

GRAVESEND HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary by May 20th.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £160. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HAVERSTOCK HILL AND MALDEN ROAD PROVIDENT DISPENSARY, 192, Malden Road, N.W.—Medical Officer. Applications to the Honorary Secretary by June 1st.

HEREFORD COUNTY AND CITY ASYLUM.—(1) Senior Assistant Medical Officer, not over 30 years of age. Salary, £150 per annum. (2) Junior Assistant Medical Officer, not over 28 years of age. Salary, £100 per annum. Board, lodging, and washing provided in each case. Applications to the Medical Superintendent.

HOSPITAL FOR WOMEN, Soho Square, W.—Honorary Assistant Anaesthetist. Applications to the Secretary by May 31st.

HULL ROYAL INFIRMARY.—Casualty Officer. Salary, £60 per annum, with board and lodging. Applications to the Chairman, House Committee, by June 5th.

ISLE OF MAN LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with board, furnished quarters, and washing. Applications to Dr. Richardson.

KENT COUNTY ASYLUM, Barming Heath.—Fourth Assistant Medical Officer and Pathologist; unmarried, and not over 30 years of age. Salary, £175 per annum, rising to £240, with furnished quarters, etc. Applications to Dr. F. Pritchard Davies Superintendent.

KESTEVEN COUNTY ASYLUM.—Assistant Medical Officer for the new Asylum, near Sleaford. Unmarried. Salary, £150 per annum, with board, etc. Applications to the Medical Superintendent, Asylum, Grantham.

KINCARDINE PARISH COUNCIL.—Resident Medical Officer and Vaccinator. Salary, £77 10s. per annum and lunacy fees. Applications to Mr. David Ross, Inspector of Poor, Ardgay, by May 23rd.

KING'S NORTON AND NORTHFIELD URBAN DISTRICT COUNCIL.—Medical Officer of Health and Medical Superintendent of the Infectious Diseases Hospital. Salary, £500 per annum. Applications, endorsed "Medical Officer of Health," to be sent to the Clerk to the Council, 10, Newhall Street, Birmingham, by May 21st.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Junior Assistant Medical Officer Initial salary, £150, with furnished apartments, board, washing, and attendance Applications to the Medical Superintendent.

LISCARD: WALLASEY DISPENSARY AND VICTORIA CENTRAL HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board, apartments, and service. Applications to Mr. Andrew Lindsay, Newbold, by May 20th.

LONDON TEMPERANCE HOSPITAL, N.W.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of 50 guineas per annum, with board, residence, and washing. Applications to the Secretary by May 26th.

METROPOLITAN ASYLUMS BOARD.—(1) Male Assistant Medical Officer for the Asylum at Caterham. Salary, £150 per annum. (2) Male Assistant Medical Officers (Class II) for the fever and small-pox hospitals. Salary, £180 per annum rising to £240. Board, lodging, attendance, and washing provided in each case. Candidates must be unmarried, and not to exceed 35 years of age. Applications on forms provided, to be sent to the offices of the Board, Embankment, E.C., for (1) by May 21st, and for (2) by May 29th.

MOUNT VERNON HOSPITAL FOR CONSUMPTION, Hampstead.—(1) Physician (Senior Assistant Physician is a candidate, and if elected there will be a vacancy of an Assistant Physician); (2) Two Clinical Assistants for the Out patient Department, Fitzroy Square. Honorarium, £25. Applications to the Secretary, 41, Fitzroy Square, W., by May 31st.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—(1) House-Physician; (2) House-Surgeon; (3) Clinical Assistant for Out-patient Department; (4) Qualified Medical Woman to take charge of Roentgen Ray Department. Applications to the Secretary by May 28th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. Appointments for six months Junior Officer eligible for senior post. Salary at the rate of £50 per annum each with board, residence, and washing. (3) Second Honorary Anaesthetist. Applications to the Secretary by May 26th.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried. Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc. Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Appointment for six months, but eligible for re-election. Salary at the rate of £80 per annum, with board and residence. Applications to the House-Governor by May 30th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Hunterian Professors. (2) Erasmus Wilson Lecturer. (3) Arris and Gale Lecturer. For the ensuing year. Applications to the Secretary by June 2nd.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—(1) Assistant Obstetric Physician, must be F. or M.R.C.P.Lond. (2) Resident Medical Officer. Applications to the Secretary by May 27th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants. Appointments for six months. Applications to the Secretary by May 31st.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—(1) Surgeon to in-patients at the Branch Hospital, Royal Victoria and Albert Docks. (2) Honorary Anaesthetist at the Dreadnought Hospital, Greenwich. Applications to the Secretary by May 26th.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—(1) Senior House Surgeon. Salary, £130 per annum. (2) Junior House-Surgeon. Salary, £60 per annum. (3) Honorary Dentist. Rooms, board, and washing found for (1) and (2). Applications to the Secretary by May 23rd.

STAFFORD: STAFFORDSHIRE GENERAL HOSPITAL. Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the House-Surgeon by May 29th.

TORQUAY: TORBAY HOSPITAL.—House-Surgeon. Salary, £100 per annum, £5 for nurses' lectures, with residence, board, and washing. Applications to the Secretary by May 31st.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon; unmarried. Salary, £100 per annum, increasing £10 yearly, with board and apartments. Applications to the Secretary, 4, Parkvedras Terrace, Truro.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, S.W.—House-Surgeon. Appointment for six months. Honorarium, £25, with board and lodging. Applications to the Secretary by May 31st.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Second House-Surgeon unmarried. Salary, £8 per annum, with board, residence, and laundry. Applications to the Honorary Secretary.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £100 per annum each, with food, lodging, and washing. Applications to the House-Governor by May 27th.

MEDICAL APPOINTMENTS.

BUTLER-HOGAN, J. F., B.A.R.U.I., M.D.Brux., D.P.H.Camb., etc., appointed Medical Officer of Health for Tottenham.

BROUGH, Daniel, M.R.C.S., L.R.C.P.Lond., appointed Deputy Medical Officer of Health for the Borough of Devonport.

COOMBS, Rowland, M.D.Durh., M.R.C.S., L.R.C.P., appointed Medical Officer of Health for the Bedford Rural District.

DALY, F. J. P., M.R.C.S., L.R.C.P., appointed Medical Officer to No. 10 District of the Hackney Union.

DENNING, C. E., L.R.C.P., L.R.C.S.Irel., appointed Certifying Factory Surgeon for the Epping District of Essex.

DICKSON, W., M.D.Edin., appointed District and Workhouse Medical Officer of the Hungerford and Ramsbury Union.

LENNY, Edmund, L.R.C.P.I., L.R.C.S.I., appointed Senior House-Surgeon to Jervis Street Hospital, Dublin.

GREAVES, R. B., M.B., B.S.Durh., appointed District Medical Officer and Public Vaccinator of the Eccleshall Union.

HARMAN, N. Bishop, M.A., M.B.Cantab., F.R.C.S.Eng., appointed Demonstrator of Pathology in the Middlesex Hospital Medical School, *vice* C. H. Reissmann, M.A., M.D. Cantab., M.R.C.P.Lond., resigned.

HICKS, Charles, L.R.C.P., L.R.C.S.Edin., appointed Certifying Factory Surgeon for the Horsmonden District of Kent.

JONAS, Herbert Charlton, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P., appointed Honorary Medical Officer to the Barnstaple and North Devon Infirmary, *vice* Dr. Mark Jackson, resigned.

LITTLE Andrew, M.B., C.M.Aberd., appointed Honorary Surgeon to the Eye and Ear Hospital, Bradford, *vice* James Kerr, M.D.Camb., resigned.

RUSSELL, Matthew J., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the New Kilmainham Ward Dispensary District of the South Dublin Union.

RYAN, John P., L.R.C.P.I., L.R.C.S.I., appointed Junior House-Surgeon to Jervis Street Hospital, Dublin, *vice* Edmund Glenny, L.R.C.P.I., L.R.C.S.I., promoted.

SCHOLEFIELD, H., M.B., appointed Assistant Medical Superintendent of the Paddington Infirmary.

SHAW, Cecil Edward, M.D., M.Ch.R.U.I., Ophthalmic Surgeon to the Ulster Hospital for Children, and Assistant Surgeon to the Eye, Ear, and Throat Hospital, Belfast, appointed Consulting Ophthalmic Surgeon to the County Antrim Infirmary, Lisburn.

STEVENSON, Howard, M.B., B.S.R.U.I., appointed House-Surgeon to the Royal Victoria Hospital, Belfast.

STOTT, W. H., L.R.C.P., L.R.C.S.Edin., appointed Certifying Factory Surgeon for the Caton District of Lancashire.

VAUGHAN, Kathleen Olga, M.B.Lond., appointed to the Quarantine Office at Suez by the Sanitary Maritime and Quarantine Council of Egypt, in place of Miss Sheldon Amos, M.B.Lond., transferred to Alexandria.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Annual general meeting; election of officers and Council. The following papers will be read: Dr. Hunter: (Lantern demonstration) Infective Lesions of the Tongue, Stomach, and Intestines in Addison's Anæmia. Dr. Rolleston: Membranous Cholangitis. Mr. A. Lucas: Unusual Variety of Knee-joint in Haemophilia and Congenital Atresia of the Small Intestine. Dr. F. J. Smith: Disseminated Carcinoma simulating Tubercle. Dr. Fennell: Sarcoma of the Suprarenal Body.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Waller: The Signs of Life.

WEDNESDAY.

Royal Microscopical Society, 20, Hanover Square, W., 7.30 p.m.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Leonard Hill: The Physiology of Respiration.

THURSDAY.

Neurological Society of London, 11, Chandos Street, 8.30 p.m. (patients at the rooms at 8 p.m.).—Clinical evening. Cases will be shown by Mr. Richardson Cross, Dr. Parkes Weber, Dr. Farquhar Buzzard, Dr. Colman, and others.

Harveian Society of London, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Cases will be shown by Mr. Watson Cheyne, Dr. A. Whitfield, Dr. A. Morison, Mr. P. Jaffrey, and others.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Annual general meeting; election of officers for session 1902-1903. The following papers will be read: Sir Thomas Barlow and Dr. H. Batty Shaw: Inheritance of Recurrent Attacks of Jaundice and of Abdominal Crises with Hepato-spleno megaly. (Two cases will be shown). Dr. W. Hale White and Mr. C. H. Golding-Bird: On the Subsequent History of Three Cases of Colitis on whom Right Lumbar Colotomy was performed several years ago.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Difficulties in the Recognition of Pulmonary Tuberculosis.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m.—Demonstration of Selected Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, ear.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C. Tuesday, 3.30 p.m. Lecture on Cerebral Abscess.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows:—Tuesday: Heart Murmurs, their Significance and Treatment. Wednesday: Surgical Anatomy. Thursday: Treatment of Injuries. Friday: Cases of Diseases of the Skin.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstration on Some Surgical Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DEAS.—On May 11th, at Thorndale, Merton, Surrey, the wife of F. Deas, M.R.C.S., L.R.C.P., of a daughter.

MEAKIN.—On March 25th, at Cambridge, the wife of Captain Harold Meakin, M.D.Lond., Indian Medical Service, 2nd Bengal Lancers, of a son.

PRICE.—On May 5th, at Victoria Street, West Bromwich, the wife of T. H. Price, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

RUTHERFORD.—On May 13th, at 12, Newton Place, Glasgow, the wife of Henry Rutherfurd, M.B., of a son.

DEATHS.

ARCHER.—On April 30th, at Rapallo, Italy, in his 66th year, Surgeon-Colonel Samuel Archer, retired pay.

FREELAND.—On April 15th, 1902, at Parham, Antigua, West Indies, Freeland John Freeland, M.D., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., elder son of J. B. Freeland, M.R.C.S.Eng., and brother of Douglas L. Freeland, L.R.C.P.Lond., M.R.C.S.Eng., of Smodland, Kent, aged 40 years.

PEARSE.—On May 5th, at Brooklands, Dawlish, Reginald Thomas Pearse, late of Cardiff, in his 69th year.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be* [illegible] BRITISH MEDICAL JOURNAL [illegible]

AUTHORS [illegible] are requested to communicate with the Manager.

CORRESPONDENTS [illegible] communicate their names—of course not necessarily for publication.

CORRESPONDENTS [illegible] answered are requested to look at the Notices to Correspondents of the [illegible]

MANUSCRIPTS [illegible] TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES [illegible]

IN order [illegible] particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. writes: In the event of a large bottle of prussic acid being broken, say in any crowded room or place, would the persons in the room or place, or in its vicinity, be likely to expire instantaneously from inhaling the fumes?

*** The persons would not instantaneously expire, but after the lapse of a very few minutes they would probably become unconscious, and in the absence of ventilation or of artificial respiration in fresh air deaths might possibly occur.

HORSE HIRE AND HORSE KEEP.

BROUGHAM asks for answers from experience as to: (1) The comparative cost of "hiring" by contract *versus* keeping a horse of one's own; (2) of what would be a fair average cost per week of hiring a horse, trap, and harness, the medical man keeping the horse and feeding him in his own stable.

GENITAL NEUROSIS.

CESTRIAN would be glad of advice as to treatment of the following case: A previously robust man, aged 38, married, has suffered for the past twelve months from severe pain in the penis and spasmodic retractions of that organ; also from pain and a variety of "nervous" sensations in the testicles and perineum. There is great mental depression. Tonics, opium, bromides, and the continuous current have all been tried. Has any member had experience of the use of a seton in such cases?

INCOME TAX.

M.D. writes: I understand that in making my return for income tax I may deduct one-third of the amount of my house rent and taxes, if such a portion of my house is used for professional purposes. I pay as regards taxes, poor-rate, improvement rate, inhabited house duty, water-rate, and gas. Can I claim an abatement in respect of each of these, or if not on which?

*** As much as two-thirds may be deducted if the Commissioners will allow it. The allowances to medical men are enumerated in *Income Tax: How to get it Refunded*, p. 35. A set of professional balance sheets can be got from the Income Tax Repayment Agency, 6, Chichester Road, W.

ANSWERS.

WE would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided.

TYPHOID FEVER.

T. M. W.—In reply to our correspondent's further questions it may be said: (1) That there is no sufficient evidence of the need for exclusion from school of a child coming from a house in which a case of enteric fever exists under ordinary conditions. The regulations of the London School Board provide, however, for such exclusion in their instructions to teachers. (2) That there is not any recognized risk or conveyance of typhoid fever by healthy persons. Infected clothing is of course known to convey the disease.

THE NASAL DOUCHE AS A PROPHYLACTIC.

AN OLD R.M.O. writes, in answer to the inquiry in the BRITISH MEDICAL JOURNAL of May 10th, p. 1102, as to the routine use of the nasal douche in convalescence from scarlet fever: At one of the fever hospitals in Liverpool it was carried out for many months during my residence there under the guidance and with the sanction of the visiting physician. Our original idea was to use it as a prophylactic measure against otitis media, and in the hope that it might still further reduce the number of "return" cases. I cannot say that it seemed to reduce the number of otitis cases very materially, but it certainly did not increase them. The objections to its use seem to apply principally to the stage of acute rhinitis.

LETTERS, NOTES, Etc.

A WARNING.

DR. WILLIAM COLLIER (Oxford) desires to warn members of the British Medical Association against a man who is using his name as an introduction to medical men and states that Dr. Collier has recommended him.

MEDICAL GOLF TOURNAMENT.

THE fifth annual tournament will be held on May 29th at Northwood (by kind permission of the Northwood Golf Club). The regulations are as in last year's tournament—namely, 18 holes match play *v.* Bogey, competitors being divided into the usual two handicap classes—12 and under, and over 12. Members of Northwood deduct two from their handicap. There will be first and second prizes and a prize for the best last 9 holes *v.* Bogey in each class. Foursome sweepstakes *v.* Bogey will be played during the afternoon. No match may be started later than 3.15 p.m., and no previous play will be allowed on the day. Entries, stating lowest handicap and enclosing 5s. entry fee, should be made before May 26th to the Honorary Secretary, Rolf Creasy, Windlesham, Surrey.

CRANKS AND CANCER.

DR. HERBERT SNOW (London) writes: It is remarkable how many cranks, and even lunatics, turn instinctively to "cancer," as a sort of imaginative happy hunting-ground. To catalogue all the fantastic ideas, from the tomato to snails, or its supposed mysteries of causation, would need a large volume. A gentleman connected with the press has just kindly sent me three new ones which have come under his notice. The first appears so deliciously original, that I forward a copy of the letter in its entirety.

1. Dear Sir,—From facts within my own knowledge, I have for some time thought the origin of cancer connected with either the illicit or accidental entry of semen into the circulation. I think you would be doing a service to humanity if you could direct the trend of scientific investigation in this direction. If I am right, the wide publicity of the advice given in Bradlaugh's *Fruits of Philosophy* may account for the increase of the disease. Yours, etc., X.

2. Jenner's original fount of vaccine was taken from the "cancerous hoof of a horse."

3. The seeds of cancer are distributed by means of cheap cigarettes.

ABSENCE OF THUMBS.

MR. ALAN MURDOCH, M.R.C.S. (dythe, Kent), writes: I recently confined a woman of a female child with very bad talipes varus in both feet, and a total absence of both thumbs, including the metacarpal bones. The rest of the hands and fingers are well formed, and in all other ways the child is normal, and appears quite healthy, though very small. It has struck me that the latter deformity must be very rare, and I should be glad to know if it has been observed before. The infant was full-term. There is no history of any deformity in any of the family of either its mother or father, nor of any fright, shock, or untoward incident to the mother while carrying it.

ADRENALIN—THE ACTIVE PRINCIPLE OF THE SUPRARENAL GLAND.

DR. GEORGE FERDINANDS (Aberdeen) writes: Since the publication of my Notes on Adrenalin Chloride Solution in Ophthalmic Practice, (BRITISH MEDICAL JOURNAL, March 22nd, 1902) I have had from Messrs. Parke, Davis and Co., a sample of adrenalin itself. Dr. Takamine has described this as "a light white micro-crystalline body, showing itself in five or more different forms. It has a slightly bitter taste and is sparingly soluble in water, but perfectly stable in the dry form." (*Scottish Medical and Surgical Journal*, February, 1902.) The specimen sent me has, however, a greyish tint possibly due to slight oxidation. The preparation of solutions of adrenalin is attended with some difficulty, and for this reason adrenalin chloride solution (1-1000) is recommended as being the most convenient form for practical use. I desire to make this amendment as some may wish to use a stronger solution of the "alkaloid" itself in other branches of surgery and because I was under the impression that the salt was not to be had commercially.

ATRESIA VAGINAE.

DR. HERBERT J. WALKER (Uruguay) writes: A. G. came to consult me on account of not being able to have any family. She had been married fourteen years, and told me she experienced considerable pain on coitus. The family history was excellent and the patient was a well-nourished, robust woman. On making an examination, I discovered that although the hymen had been ruptured there still remained some nodular growths about the size of a large pea, which were extremely sensitive. They apparently corresponded with the former attachment of the membrane. The vagina was so constricted that it with difficulty admitted the index finger. The uterus and appendages were normal. With the patient's consent I thoroughly removed all the nodular sensitive growths, and gradually began the dilatation of the vagina by graduated bougies. So great was the resulting dilatation of the parts that I was finally able to introduce two fingers into the vaginal canal. About twelve months after this course of treatment I was called to deliver the same patient of a fine female child, and although a high forceps application was necessary, with subsequent abstraction of the placenta, she made an uninterrupted recovery.

INTERMEDIATE SCHOOLS OF WALES.

W. writes: The question of cheap and efficient education affects many of your readers, and a word about the above may be useful to them. There are over ninety of them in Wales and Monmouthshire; some are for boys, others for girls, and others dual. They prepare for the universities, professions, and for the Central Welsh Board certificates, the senior of which exempts from the Welsh matriculation, and is recognized by the General Medical Council. The fees amount to about £5 a year in all the schools, and a number of scholarships are attached to all. Towyn, Merionethshire, may be taken as an example. This is a dual school. Pupils are prepared for the London and Welsh matriculations chiefly. They have here the finest chemical laboratory in Wales. Perhaps the headmaster takes boys as boarders. Girls would be well taken care of also. The writer is not connected in any way with this or any other school, but he would strongly urge upon parents the superiority and cheapness of these schools, and special advantages in the nature of scholarships.

COMMUNICATIONS, LETTERS, ETC., have been received from:

A Messrs. Arnold and Sons, London; Mr. F. Addiscott, London; Association of Registered Medical Women, The Secretary of the, London. **B** F. J. Baildon, M.B., Southport; Mr. E. Berdoe, London; Mr. H. N. Barnett, Knock; Mr. T. E. Bladon, Birmingham; Dr. W. Bramwell, Liverpool; Dr. A. H. Bampton, Ilkley; Brougham; Mr. L. A. Bidwell, London; Mr. C. E. G. Bateman, Walsingham. **C** Mr. E. G. Clayton, London. Mr. A. B. Clarke, Shebbear; Messrs. W. H. and L. Collingridge, London; Mr. J. F. Cheesewright, Rawmarsh; Dr. A. E. Cooper, London; Cestrian; Mr. R. Creasy, Windlesham; Dr. M. Craig, London. **D** Dr. T. Dutton, London. **E** Mr. T. S. Ellis, Gloucester. **F** Miss Fridlander, Coventry; Dr. G. S. P. Ferdinands, Aberdeen; Dr. G. B. Flux, London; Mr. C. M. Fegan, Croydon; Mr. J. H. Fardon, Birkenhead; Dr. C. Franks, Jarrow-on-Tyne; Dr. H. E. Fraser, Dundee; Dr. H. M. Fletcher, London; Dr. W. Fearnley, Harrogate; Father of Public School Boys. **G** Dr. W. D'O. Grange, Harrogate; Dr. J. G. Glover, London; Mr. A. H. M. Grays, London; G. P. **H** Mr. J. Hutchinson, jun., London; Mr. H. Hilliard, London; Dr. J. Highet, Workington; Dr. C. O. Hawthorne, London; Mr. S. P. Hosegood, North Walsham; Dr. S. H. Habershon, London. **J** Dr. L. R. Jones, Manchester; Mr. A. F. Jeffreys, London; Dr. E. Jones, Woodford Bridge; Mr. F. W. Jollye, Alresford. **L** Dr. T. Lumsden, London; L.; Live and Let Live; Dr. W. V. Lush, Weymouth. **M** Mr. J. J. de Z. Marshall, London; Mr. R. Montgomery, Dublin; Dr. C. J. Morton, Walthamstow; Medicus; Mr. F. L. Monckton, Feilding, N.Z.; Dr. W. A. Michie, London; Mrs. Maillard, Bournemouth; M.D.; Dr. H. Mitchell, Cockermouth; Mr. W. L. Muir, Glasgow; Dr. J. J. Macan, Cheam; Mr. W. Monnington, London; Dr. W. J. C. Merry, Eastbourne; Mr. H. M. Morgan, Lichfield; Dr. W. Murrell, London; Messrs. Mayer and Meltzer, London; Dr. W. C. Minchin, Keils. **N** Dr. D. Newman, Glasgow; Dr. T. North, London; Nottingham Medico-Chirurgical Society, The Secretary of the, Nottingham. **O** Olim; Old R. M. O.; Obstetrical Society, The Secretary of the, London. **P** Practitioner; Dr. J. E. Purdon, Stockton; Dr. F. M. Pope, Leicester; Mr. C. A. Parker, London; Mr. W. T. Porter, Boston, Mass.; P. M. O. E.; Mr. H. J. Prangley, London. **R** Mr. C. A. Roberts, Tewkesbury; Dr. W. R. Rice, Coventry; Dr. R. R. Rentoul, Liverpool; R. J. Riddell, M.B., Barnet. **S** Mrs. P. Smith, London; Mr. G. S. R. Stritch, Ardgay; Dr. S. Sunderland, London; Dr. H. Snow, London; S. M. V.; Dr. W. Sykes, Exeter; Dr. H. Smith, Bromley, Kent Mr. C. N. Saldanha, London; Dr. G. Sharp, Leeds; Mr. E. N. Smith, London; Mr. A. G. L. Smith, Crick; Messrs. G. Street and Co., London. **T** Messrs. P. Tobin and Sons, Waterford; Tout ou Rien. **W** Dr. H. Woods, London. Mr. A. E. Wilmot, Maidenhead; Mr. S. W. Wilson, Dublin; D. C. Watson, M.B., Edinburgh; Mr. J. Willoughby, Southwell; Mr. C. Williams, London; Dr. F. Willcocks, London; Mr. W. B. Warde, Tunbridge Wells; Mr. T. M. Watt, Gosbill; Messrs. J. Weiss and Son, London; Dr. H. V. Wurdemann, Milwaukee; Mr. W. Watkins-Pitchford, London. **Y** York Street Flax Spinning Company, The Manager of the, London, etc.

BOOKS, Etc., RECEIVED.

Agricultural Bacteriology. By H. W. Conn, Ph.D. London: Rebman, Limited. 1902. 11s.

Questions and Answers for Dental Students. By Ferdinand J. S. Gorgas, A.M., M.D., D.O.S., London: Rebman, Limited. 1902. 25s.

A System of Physiologic Therapeutics. Edited by Solomon Solis Cohen, A.M., M.D. Vol. VI. Dietotherapy and Food in Health. By Nathan A. Davis, jun., A.M., M.D. London: Rebman, Limited. 1901. 12s. 6d.

Clinical Hematology. By John C. Da Costa, jun., M.D. London: Rebman, Limited. 1902. 22s. 6d.

Diseases of the Intestines. By John C. Hemmeter, M.D. Vol. II. London: Rebman, Limited. 1902. 25s.

Transactions of the Royal Academy of Medicine in Ireland. Edited by John B. Story, M.B., F.R.C.S. Vol. xix. Dublin: Fannin and Co., Limited. 1901.

Elementary Textbook of Zoology. By Arthur T. Masterman, M.A. Second Edition. Edinburgh: E. and S. Livingstone. 1902. 12s.

Die Krankheiten des Ohres. Von Dr. Arthur Hartmann. Berlin: H. Kornfeld. 1902. 7.50.

Dr. Therne. By H. Rider Haggard. London: George Newnes, Limited. 1902. 6d.

The late Sir Frederick Metcey, K.C.M.G., F.R.S., D.Sc., and His System of Physical Economy. By Annie Conn. London: John Bale, Sons, and Danielsson, Limited. 1902.

Manuale di Chimica Legale. Professor Cav. Nicola Valentini. Milan: Ulrico Hoepli. 1902. L.2.50.

La Pellagra. Del Dott. G. Antonini. Milan: Ulrico Hoepli. 1902. L.2.

Il Medico Pratico. Del Dott. Carlo Muzio. Terza Edizione. Milan: Ulrico Hoepli. 1902. L.5.

Weiterer Nachweis über die Unschädlichkeit und heilende Wirkung des Chromwassers gegen Syphilis. Von Dr. J. Edmund Gantz. Leipzig: E. Haberland. 1902. Pf.60.

The Searchers. By Margaretta Byrde. London: T. Fisher Unwin. 1902. 6s.

General Index to Transactions of Pathological Society of London for Vols. XXXVIII to L., 1887-99. London: Smith, Elder, and Co. 1901.

Handbuch der pathogen Mikro-organismen. Von Professor W. Kolle und Professor Dr. A. Wassermann. Text and Atlas. Jena: Gustav Fischer. 1902. M.6.

"Harnsäure." Von Alexander Haig, M.A., M.D. Berlin: Otto Salle. 1902.

Recherches Bactériologiques sur les Gangrènes Gazeuses Aiguës. Par le Dr. G. Logros. Paris: C. Naud. 1902.

Bericht über die vom Komitee für Krebsforschung am 15 Oktober, 1900, Erhobene Sammelforschung. Herausgegeben von dem Vorstand, Professor Dr. E. v. Leyden, Professor Dr. Kirchner, Dr. Wutzdorff, Professor Dr. v. Hansemann, Professor Dr. George Meyer. 1. Ergänzungsband vom Klinischen Jahrbuch. Jena: Gustav Fischer. 1902. M.10.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
Each additional line ...	...	...	...	0 0 6
A whole column ...	...	...	...	1 17 6
A page ...	...	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

Remarks
ON
MYASTHENIA AND OPHTHALMOPLEGIA.*

BY SIR WILLIAM R. GOWERS, M.D., F.R.S.,
Consulting Physician to University College Hospital; Physician to the National Hospital for the Paralysed and Epileptic.

THE mysterious malady commonly called "myasthenia," or "myasthenia gravis," is a rare disease, the special characters of which have only been discerned during recent years. Indeed, it is still not known, even by name, to many members of the profession. It is met with chiefly in the first half of adult life, and is characterized by general feebleness of the muscles, and also by their quick exhaustion on use, and the quick renewal by rest of what power they possess. The same feature is often, but is not always, conspicuous when the muscles are stimulated by electricity, the effect of a tetanizing faradic current of given strength soon, as a rule, ceases, but returns after a brief rest. This weakness is not attended by definite wasting, or loss of electrical excitability. Although general, it is especially marked in the lips, palate, pharynx, and often in the muscles of mastication, and in those of the eyeball. The "bulbar" weakness, indeed, first attracted notice, and the condition has hence been termed also "myasthenia bulbaris."

The course of the disease presents curious variations, but is seldom definitely progressive, nor has great improvement been often seen, except as a transient event. Death has been the result of intercurrent disease, and has yielded no clear indication of the nature or even the seat of the malady. In the absence of fact theories have abounded. Treatment has seldom had marked effect.

The symptoms vary in different cases, and in some there has been considerable loss of power in the eye muscles. The object of this paper is to describe three cases in which this feature was very marked, and also to call attention to another symptom which each presented, a peculiar alteration in the smile, due to the absence of the normal action of the zygomatic and risorius muscles.

The general features of the disease will be perceived from the account of the cases; the special symptoms can be afterwards described and an attempt made to discern what indications they suggest regarding the nature of the disease.

CASE I.—This patient came under my observation long before myasthenia became a clinical conception. Indeed, had it been published at the time, it would have been one of the earliest recorded cases. But the combination of ocular, facial, and bulbar symptoms chiefly attracted my attention, and I waited until I met with another like it, and I had to wait long. She was a girl of 23, and was seen first in 1874, and from time to time during the following four years. Soon after this she died from some intercurrent disease. My notes are incomplete, but they record the chief features of the case.

No family history of neuroses could be ascertained, no preceding disease, nor any exciting cause for the affection. Beyond a tendency to headache she had been well until the age of 21, when her symptoms were first noticed; they commenced gradually, and slowly increased until she came under treatment at the National Hospital for the Paralysed and Epileptic two years later. During the next six months they increased slightly, but afterwards were almost stationary, some indeed diminishing. The aspect of the patient at once attracted notice by the stiff look of the eyes, and the unnatural expression of the lower part of the face. On closer observation, it was seen that the latter depended on the absence of any natural smile. Instead of a movement outward of the angle of the mouth, when she smiled or laughed, there was only an elevation of the upper lip. There was no action of the zygomatics or risorius, but the levators raised the upper lip, causing a furrow above it beside the nose, and even wrinkling the skin there. Thus there was only an unpleasant snarl as the expression of a pleasant emotion. There was slight drooping of the eyelids, greater in the left. Movement of the eyes was much lessened. That of the left eye, outwards and inwards, was reduced to one-eighth of an inch. The right could be moved inwards to the full extent, but not outwards beyond the mid-position, to which it was brought back. Hence an attempt to converge caused an excessive movement of the right eye. Both moved downwards freely; upwards there was a very slight movement of the right eye above the mid-position, none in the left. The fundi were normal, and so was vision. The pupils acted to light. She complained of difficulty with the lips, but could articulate fairly. She could not narrow the mouth to whistle as she formerly could. The voice was nasal. The arms were weak, the grasp with the dynamometer being only 10 kg. each. Extension of the fingers was the only movement distinctly deficient. They could not be straightened if the wrist was over-extended. Her legs were readily tired, but she could walk a mile.

Eighteen months later the movement of the eyes was the same, except that she had become able to move the left eye halfway to the outer canthus, and upwards ½ in. But the left eye moved outwards only when tested separately; on looking to the left with both eyes the right moved freely, while the left remained in the mid-position. The same feebleness of the hands continued, but there was no muscular wasting or defect of faradic excitability. She was seen subsequently at long intervals. Four years after she first came under observation, although her general state was the same, her grasp had improved to right 22 kg., left 14 kg. But the difficulty in extending the fingers continued the same, neither more nor less. She could walk further, but not much, and her knee-jerks were found normal. (The knee phenomenon had then (1878) just risen above the medical horizon.) The facial movements presented the same peculiarity. The movement of the eyes was almost the same. Each was moved up ½ in. Neither moved to the right. To the left the right eye still moved well; the left eye only ½ in. Movement downwards was good, in each eye it was attended by a rotation proving the superior obliques to be unaffected. Soon afterwards, as already mentioned, she died, away from observation.

CASE II.—A girl, aged 29, was sent to me on account of general muscular feebleness, which was first noticed three years before, at 26. The feebleness had come on gradually, in arms and legs, without change in sensation or affection of the sphincters. Her aspect at once attracted notice. There was double ptosis, so that the lids concealed a third of the cornea, but the lids were sometimes fully raised. The eyes could not be moved upwards, and very little downwards, the right eye could only be moved outwards to half the normal distance, the left eye still less. Convergence was lessened, and there was slight nystagmus on looking to the left. The pupils acted to light, and slightly on convergence, but accommodation was normal. The eyelids could be closed, but only feebly. The smile consisted only in elevation of the upper lip, the zygomatic muscles being apparently inactive, but a slight furrow occurred on the left side, perhaps from the risorius. The lips were weak, and she had lost her old ability of whistling. The voice was somewhat nasal, and the palate was but little raised on phonation. When the patient was tired, swallowing was difficult, and liquids occasionally regurgitated through the nose. The muscles of mastication were so readily fatigued that the patient had often to rest two or three times during a meal. The muscles of the neck were weak, and the head was kept upright with difficulty, tending to fall backwards or forwards. The arms were feeble, and if used quickly, became still more so. The legs were also weak, and she could only walk two or three hundred yards. A movement requiring force, such as flexion of the hip, could not be sustained for more than a few seconds. The knee-jerks were normal, and there was no foot clonus. There was no wasting. The electrical irritability of the muscles was normal and so was sensation.

Besides nourishing food, she was treated with gentle massage, tonics, and the hypodermic injection of strychnine. The result has been a slight but distinct improvement during the three years up to the present time. I have seen her at intervals of about six months, and without giving

* An English version of a contribution to the special issue of the *Deutsche med. Wochenschrift* in honour of the 70th birthday of Professor v. Leyden. With the exception of the description of the cases it has, however, been entirely rewritten, and only one of the illustrations has before appeared.

the details of her variations, I may describe her present state as observed in March, 1902.

The patient's general condition was the same, but the improvement in many symptoms was conspicuous. The smile, levator only, was little changed except that on the left side in laughing, there was the same slight outward movement of the angle of the mouth. The naso-labial furrow, on smiling, still extended from the nose to just above the corner of the mouth (see Fig. 1). The lips were distinctly stronger; although she could not whistle even a year ago, she had done so on several occasions, loudly enough to call a dog. The tongue was protruded well, and the palate was raised a little better than nine months before. Fluids had ceased to regurgitate through the nose, the voice had lost its nasal character, and choking on swallowing had quite ceased. The masseters contracted strongly, but were soon tired, and the patient had still to rest from eating several times in the course of a meal. The ptosis continued and the eyelids could not be raised higher by the will, although still when she was interested, they were raised excessively, enough to show the sclerotic above the cornea. This was not attended by any overaction of the frontales, but the patient could contract these slightly by an effort of the will. The orbicularis could close the eyelids, but still with little force; the contraction could be easily overcome. The movements of the eyes were as follows (in their observation Mr. Marcus Gunn kindly took part): Upward movement was absent in each; the downward movement was only a little less than normal (eighteen months before it was very slight). The right eye moved outwards (external rectus) about three-quarters of the normal distance, and the associated movement of the left eye (internal rectus) was about half the normal. The two eyes were moved to the left only about one-sixth of the normal, the same degree in each. The lateral movement of each eye separately was the same as when tested together. The lateral movements were attended with a curious disposition of the eyes to move downwards, greater when tested separately than together. No nystagmus could now be observed, but on looking to the left, the left upper eyelid presented up and down nystagmoid movements. (I first noted this two years before in the same degree.) Convergence was weak; for an object 6 in. away the movement was only half the normal: it did not increase when the object was brought nearer, and soon diminished, the right eyeball first moving outwards. The pupils acted well to light and on convergence. Accommodation was fair, but seemed to be sooner exhausted in the right eye than in the left; there was slight hypermetropia. No weakness in the neck could now be observed, conspicuous as it was at first. The fingers could be completely extended, but the grasp was weak, although only slight evidence of exhaustion could be ascertained, successive efforts with the dynamometer resulting in a pressure of 15, 16, 17, 21, 14, 12, 13, and 14 kg. She had become able to write a long letter without fatigue, which was impossible two years before. In the legs, flexion of the hip was difficult; when sitting, the patient could only keep the foot a few inches from the ground for two or three seconds. The flexors of the knee had fair power, although less than the extensors. The knee-jerks were active, and six repetitions caused no diminution. It was not practicable to test thoroughly the "myasthenic reaction," but the application of a tetanizing current to the extensors of the fingers for about a minute caused little indication of diminished irritability. In the zygomatic muscles, no contraction could be obtained on the left side, but only a slight trace on the right, and this may possibly have been due to stimulation of the risorius. The patient presented nowhere any local muscular atrophy, either in the trunk or limbs. She was thin, her weight being 98 lb. and height 5 ft. 6 in.—about two-thirds of the average weight for her height.

These two cases present a striking resemblance, being of the same sex, not far apart in age, and alike in general and local symptoms, and in the course of these. Muscular exhaustibility was not noted in the first case, probably because it was not looked for.

The last case differs from the others in the later age of the patient, and the fact that the defective power in the limbs was much less prominent. Nevertheless, the resemblance in the slight bulbar symptoms, in the condition of the face, and the defective movement of the eyes was so close as to make it certainly of the same nature.

Case III.—The patient, a woman, had married at 23, and had one healthy child. But when 29 the cervix uteri was removed by Sir John Williams for carcinoma. She subsequently had two miscarriages in the sixth month of pregnancy, which is, I am told, very common after this operation. I saw her first in June, 1895, when she was 39 years of age. The symptoms had been observed for two years, commencing gradually without apparent cause. Her expression at once attracted notice from the fixed aspect of the eyes and the apparent absence of the power of smiling; these were recognized as the same as presented by the first case. The smile was confined to the region beside the nose; there was the furrow above the lip, and some wrinkling of the skin beside the nose; but even a laugh caused no furrow outside the corner of the mouth. Her lips had become weak so that she was unable to whistle as she could previously. The tongue was well protruded but the voice was nasal, and the palate was raised very little in phonation. The vocal cords moved well. Slight occasional difficulty in swallowing was complained of, and the contraction of the masseters was not strong—the right distinctly the weaker. There was marked double ptosis, equal, the lid covering the upper part of the iris. The left eye was used in fixing, and there was slight divergence of the globes, which increased on looking upwards. The upward movement was about one-half the normal, a little better in the right eye. In lateral movements, that of each external rectus was about one-half the normal, of each internal rectus only one-fourth, and the defect on convergence was in the same proportion. I have no note of the downward movement, but my recollection is clear that it was good. Injections of strychnine were ordered. Six weeks later the right ptosis had increased, so as to conceal half the pupil. The left external rectus could now move the eye out to almost the full extent, but the right external rectus had lost most of its power. The other movements remained the same. After another month (as I afterwards learned) the patient felt so much better that the injections were discontinued, but she came to me again six months later, being weaker. The right eye moved in and out fairly well, the left much as before, and still diverged outwards. The upward movement of the left was only half that of the right, which was about two-thirds the normal. Convergence was still defective, the effort only brought the divergent left eye to the mid-position. The injections were resumed and two months later the ptosis was a little less; movements of the right eye the same, of the left eye to three-quarters of the normal both in and out, but no better upwards. Her smile had improved a little, and her laugh was much more natural, with distinct movement outwards at the angle of the mouth. But in the laugh there was still excess of the elevation of the upper lip and this was much greater on the right side. The voice was scarcely nasal and the palate well raised. A year later (after very irregular injections) the voice was again nasal, scarcely any movement of the palate could be produced, and closure of the eyes was more difficult. Both internal recti were almost powerless. The smile had again become purely levator. Otherwise there was little change. But at the end of another three months she was not so well, and came to me for the last time. She had suffered from profuse menorrhagia and had become very pale. The blood corpuscles and haemoglobin were reduced to one-half the normal. I do not know the state of the uterus; I had then no knowledge of the previous operations for cancer. She was weaker and complained of pains in the limbs after exertion. She died soon after, I am told, from influenza and bronchitis, and inability of her weak thoracic muscles to expel the mucus. All through, the opportunities for observation were rare and not favourable.

Remarks.

The *nasal smile* is, perhaps, the most convenient designation for the peculiar character of the smile presented by each of these patients, although it might also be called the "levator smile." Its feature is the absence of the normal movement at the corner of the mouth, which either carries the furrow from the nose around the corner of the mouth or produces a separate depression there. In these patients the furrow of the smile was entirely above the upper lip, ceasing

outwards above the angle of the mouth. It is less marked in Case II than in either of the others, although I am only able to give an illustration of this case (Fig. 1). Its abnormal



Fig. 1.—From a photograph by Dr. Batterbury, of Berkhamsted, of the patient Case II, showing the limitation of the smile to elevation of the upper lip and the absence of movement outwards of the angle of the mouth.

Fig. 2.—From a photograph by Dr Farquhar Buzzard, showing the similar furrow caused by isolated stimulation of the levator labii superioris.

character may not be so conspicuous at first as when it is observed more closely, and especially when it is compared with the normal smile in a person of the same general aspect. Fig. 2 is from a photograph, which has been kindly taken for me by Dr. Farquhar Buzzard, of the effect of gentle faradic stimulation of the levator labii superioris in a patient whose face was anaesthetic in consequence of the removal of the Gasserian ganglion by Krause's operation. The slight contraction of the orbicularis palpebrarum is due to the fact that some of the branches to this muscle cannot be avoided. It will be seen that the furrow produced corresponds in position to that of the patient's smile. In Cases I and III the limitation of the contraction to the muscles raising the upper lip was even more marked, and their contraction was greater in degree, as if by an over-action consequent on the absence of the normal effect of the zygomatic and risorius muscles.

In the case figured, on an energetic laugh, there was a slight movement on the left side of the mouth, probably by the risorius, which only made more conspicuous the absence of the normal movement. The fact that this nasal smile was so conspicuous in each of the cases raises the question whether it may not be a common feature of the disease. It does not seem to have attracted attention, but it might easily escape notice. In several recorded cases "weakness of the lower facial muscles" is mentioned without being definitely specified.*

The Ophthalmoplegia.—Loss of power in the eyeball muscles has been mentioned as among the symptoms of many cases of myasthenia, but unfortunately has seldom been carefully described. In these three cases it was a most conspicuous and enduring symptom. It presents, at first sight, a strong resemblance to the ophthalmoplegia from nuclear degeneration. Yet there are some noteworthy differences, possibly of much significance. One of these is the greater escape of the muscles moving the eyes downwards, and the implication in various degree of those moving the eyeballs upwards. Not less striking is the constant and irregular affection of the lateral muscles, the fact that this was different in degree in associated muscles, and that in some muscles it presented extraordinary variations at different periods. In order to present better these features, I have brought together the conditions in the three cases in a diagrammatic form which will be readily understood. Each outer circle represents the normal extent of movement of the eye, and the length of the lines indicated the proportion which the actual movement bore to the normal. Where two or three lines are together they represent the variations of power at different times.

In all cases the light-reflex of the iris was perfect, and I believe that this has been the case of all recorded cases. The condition of accommodation was not easy to ascertain, on account of the presence of hypermetropia, but in two it seemed impaired, and the action of the pupil on accommodation seemed impaired with it, but the hindrance to convergence made the observations on this point uncertain.

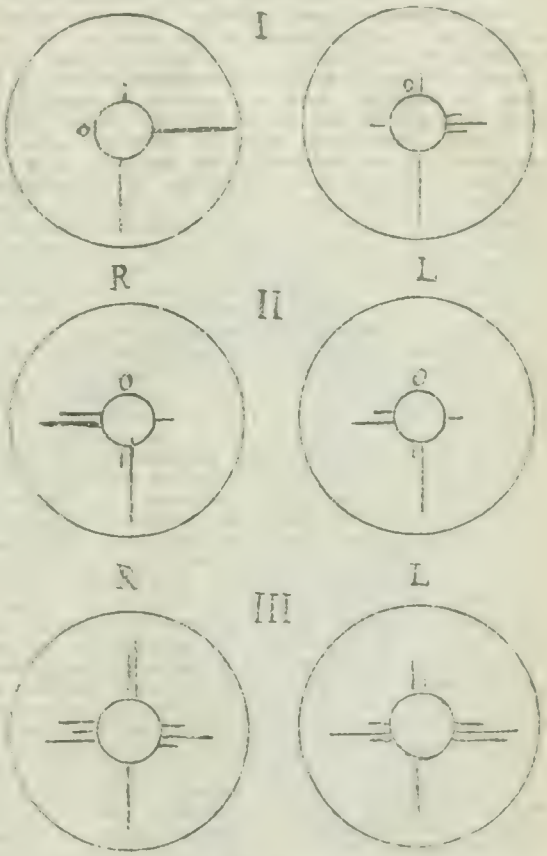


Fig. 3.—Diagrams to indicate the amount of movement of the eyes, R and L, by the recti, in Cases I, II, and III. The outer circle represents roughly the normal extent of movement in each direction. The lines of different length placed together indicate the variations in the degree of the same movement at different periods of the case.

Ptosis was a marked feature, as in most cases, but there was no correspondence between its degree and the impairment of the upward movement of the eyes. Equally common was the weakness of the orbicularis palpebrarum, which was so marked in the second and third cases, while in the second case the weakness of the frontales was also conspicuous.

My chief object is to call attention to the peculiar effect of the facial weakness, in altering the smile, and to the peculiar characters of the ophthalmoplegia, in the hope that future observers may ascertain how far these are common. I do not propose to discuss the pathology of the disease generally, but I may point out the possible bearing of the facts on the nature of the malady, a subject which remains altogether mysterious.

The pathological problem is whether the symptoms depend upon a change in the muscles or in the nervous system, or both. The "nasal smile" is only one feature of the distribution of the weakness of the facial muscles, and the significant

* This nasal smile, or nasal snarl as it might be called in its extreme form, bears a curious resemblance to the movement of the face by which most monkeys express pleasure. This is well seen in the figures in Darwin's *Expression of the Emotions*. It raised the question whether animals possess zygomatic muscles. By the kindness of Mr. Beddard, of the Zoological Gardens, Dr. Finny has made some dissections for me, which show that the zygomatic muscles are present in the animals, although they have not quite the same form as in man. How far their inaction in expression is the result of a difference in their direction, consequent on the different shape of the face, is a question still to be decided.

fact regarding this is that it corresponds more closely to that met with in idiopathic muscular atrophy (muscular dystrophy) than to known affections of the nervous system. This correspondence (which has been insisted on by Toby Cohn) is seen in the weakness of the frontales, the orbiculares palpebrarum and of the zygomatic muscles. The resemblance is strikingly shown by a comparison of the facial symptoms of myasthenia with the condition of the face in the case figured in my *Manual*, 3rd edition, vol. i, p. 589, which is certainly a case of muscular dystrophy of the facial type (the type called that of Landouzy-Déjerine). It is equally striking in the remarkable case of this type which was described by Duchenne in 1872, and also by Landouzy and Déjerine in 1886, and of which the pathological condition has only recently been described by Spiller.[1] The frontales and orbiculares were entirely degenerated, and the zygomatic muscles almost entirely. Complete as was the degeneration of a large number of the muscles, the motor nerves were absolutely normal. This fact is of great importance, because it shows that idiopathic muscular atrophy, however long its duration, does not involve of necessity any secondary changes in the motor nerves. Slight changes might, indeed, have been expected from the absence of function, but they are apparently not such as to be recognizable by any method of investigation. It is important to call attention to this fact, and the absolute weight of evidence of it presented by Spiller's case (among others), because it is very rare for a case to be so carefully observed during so long a period, and to become the subject of such careful pathological research. The facts also show how much caution is needed before assuming a simultaneous failure of vitality on the part both of the muscles and the motor nerves.

A degeneration of the nerves involves also that of the muscles, and the coincidence of the two should only suggest that the former is primary, when there is conclusive proof of simultaneous affection, which is not easily obtained.

The distribution of the symptoms in the muscles supplied from the medulla oblongata also corresponds to that in muscular dystrophy rather than in known central affections. A striking feature of this is the escape of the tongue and larynx, and the moderate degree of weakness of the lips and palate. In the cases I have here described the variation in the degree of this weakness at different periods was as marked as that of some of the eyeball muscles. The absence of perfect bilateral symmetry was as marked in the masseters in one case as in the eyeball muscles. In maladies which present such a marked difference as exists between myasthenia and myodystrophy (if I may be allowed to yield to the suggestion of analogy, and use a word which may be new), it is not to be expected that any close correspondence should be observed.

But the ophthalmoplegia, from its resemblance to the nuclear form, may be regarded as suggestive of central disease. It is important, therefore, to note the special features to which I have called attention. Future careful observations may increase or diminish their significance. In its irregular distribution and variations, it presents some correspondence to the features of the weakness in the muscles supplied from the medulla in myasthenia compared with that in central disease. It is, moreover, important to remember that we know no reason why the eyeball muscles should not suffer in a widespread muscular malady.

The information afforded by the microscope regarding the nature of the disease is purely negative. The latest methods of research disclose no structural change. This can surprise no one who has considered carefully the features of the malady. Where there is the capacity for normal action, although in diminished degree, normal structure would be anticipated, and an undue quickness of exhaustion would not be expected to be accompanied by visible alterations. The ability for sustained exertion depends on the capacity for immediate renewal of the elements lost in function, a quick renewal by vital metabolism. The exhaustibility in myasthenia must depend upon defective capacity for this prompt vital nutrition, on a too tardy renewal of the molecules to permit exertion to be sustained. When we remember how far below discernment, or any promise of future discernment, the molecules of living tissue are, it will be realized how vast may be the imperfection of their nutrition, which can only be revealed by its functional effects. Hence we are only likely to obtain any pathological facts regarding the seat of the disease when local changes proceed far beyond the characteristic functional impairment and involve atrophic degeneration. Atrophy of a few muscles has been noted in rare cases, irregular in distribution, but as yet they have afforded no reasons for regarding the malady as other than muscular.

If present facts only enable us to regard myasthenia as a nutritional disorder, impairing the vital processes in the muscle, we should remember that this is hardly more than a statement of the obvious symptoms in pathological terms. It is only more by its implied negation of other morbid processes. The cause of this nutritional incapacity is, so far as we can yet see, the great problem of the disease, and it is the same, whether the malady is regarded as muscular or neural.

The theory has been put forward and advocated that the impairment of function and vital nutrition can be best explained by ascribing it to a toxic agent. The theory is indefinite, but is apparently based on the mysterious selective action of toxins, on the symmetry of their influence, and on the theory that the effects of fatigue are due to the production in the muscles of a toxic material. But when full weight is given to all these facts, its amount is very small. The argument is purely one of analogy, a proverbial pitfall in reasoning. All that it amounts to is that toxic influences may cause symptoms resembling those of myasthenia in some superficial characters. No one has yet suggested that muscular dystrophy has this origin, although it resembles myasthenia in some important features, among them in the symmetry on which so much weight is laid. The symmetry of the action of toxic agents depends on nutritional susceptibility and proves no more than this. It is very difficult for any one who has watched cases of myasthenia during years to conceive that the condition is due to a toxic agent, in the absence of any conceivable source for such an influence. The persistence of the symptoms, their slight inexplicable variations in detail and degree, make it difficult, at present, to go beyond the obvious fact of an imperfection in the vital nutritional power, which seems to be a defect of life, with little tendency to progress. We know, indeed, that many morbid states which have like manifestations may be brought about by divers causes, but where facts are few the need is all the greater for careful scrutiny of the evidence on which theories are ostensibly based.

In recorded cases little benefit has seemed to result from any method of treatment. But in Cases II and III here described the effect of the hypodermic injection of strychnine seemed distinct. Especially in Case II its influence has been marked and sustained, and, in the opinion of the patient, her friends, and her immediate medical adviser, admits of no doubt.

NOTE.—If myasthenia is regarded as due to an impairment of the lower motor neuron, we must look for the origin of the feebleness and quick exhaustion of the motor impulses to the source of these. Since the nerve fibrillae traverse the motor cells without interruption, that source must be in the extremity of the dendrites (the cell having only a nutritional influence). But this fails to explain the "myasthenic electrical reaction," for which a neural cause can only be conceived as impairment of the nerve endings on the muscular fibres. But these depend for the integrity of their nutrition on the cells, and their pathology is still an unknown subject so far as any primary changes are concerned. It is by the muscles that the symptoms must be directly produced, and reasons for looking beyond them are as yet wanting.

REFERENCE.

[1] Contrib. Pepper Laboratory, Philadelphia, 1900.

PHYSICAL CULTURE IN AMERICA.—A Bill has recently been introduced into the United States Senate which provides for the creation of a department of physical culture, whose head is to be a member of the Cabinet. For each State a Commissioner of Physical Culture, at a salary of £800, is to prepare plans for playgrounds, gymnasia, parks, public baths, and other facilities for physical culture compatible with public health, and to have general charge of such matters within the State limits.

A Clinical Lecture

ON A CASE OF

TRAUMATIC EPILEPSY WITH ADHESION OF SKIN TO BRAIN:

TREATED BY INSERTION OF GOLD FOIL.

Given in the Liverpool Royal Infirmary.

By RUSHTON PARKER, M.B., B.S., F.R.C.S.,
Professor of Surgery in University College, Liverpool.

[Abstract.]

The man before you, J. E. W., aged 38, who has come to show himself at my request, has, as you may perceive, every appearance of health, intelligence, and vivacity, confirmed by the expression of his own feelings to the same effect. But he has been very different at various times in the last eighteen years, and so recently as seven weeks ago he was admitted into my ward suffering from fits and a drowsy, vacant manner, then of four days' duration. His history is as follows:

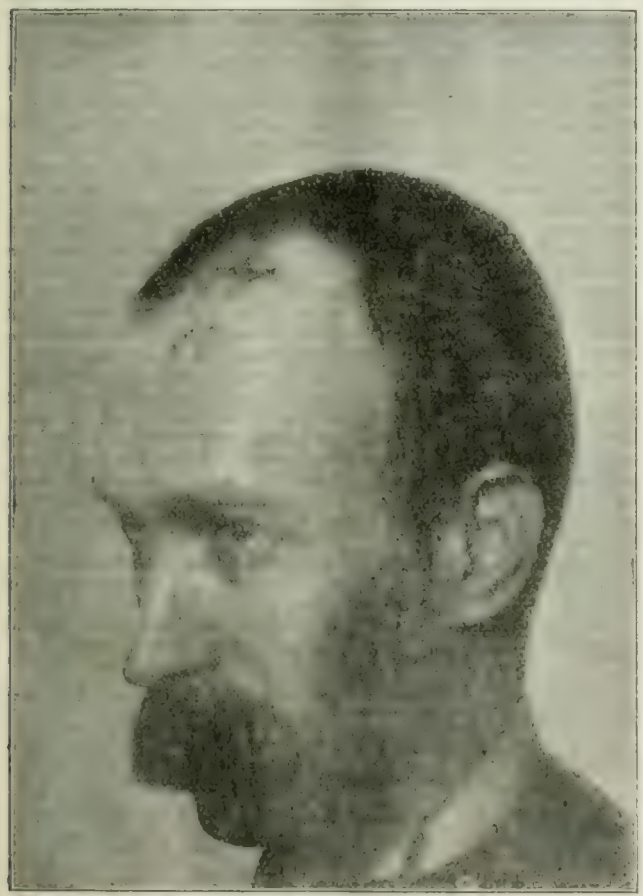


Fig. 1.—J. E. W., November 13th, 1895; cystic pulsating scar (traumatic encephalocele) before operation, same day.

History.

In 1884 he fell off a truck on the Festiniog and Portmadoc narrow-gauge railway, striking in his fall a projecting point of stone, and sustaining a compound depressed fracture of the left fronto-parietal region. He was treated by Dr. Roberts, of Blaenau-Festiniog, by trephining, with removal of the fractured pieces and trephined disc. He remained insensible a fortnight, and under treatment for ten months, during part of which he had paralysis of the right arm and leg and right side of the face. He got well, and went to work as a tailor in the same locality.

Three or four years later he had some fits, accompanied by violent twitching, and in one of them he dislocated his jaw. After this he was quite well until 1894, when fits came on again, and he was admitted into the National Hospital for the Paralysed and Epileptic under the care of Dr. Ramskill. Mr. Victor Horsley also saw him, and the fits passed off without operative interference.

On November 1st, 1895, he was admitted into this infirmary, under my care, on account of a return of his fits. He had only one fit after admission, however, and I thought operation unnecessary as far as the fits were concerned. But as there was a translucent cystic condition of the scar over a gap in the bone at the seat of former injury (Fig. 1), situated about or near the left half of the coronal suture, an operation was performed by me on November 13th, 1895, to deal with the local condition, which looked unsafe. The thin scar was excised and the integuments were loosened from the bone and sewn together over the aperture. The wound healed quickly, and he left hospital after nine days, apparently perfectly well, with a firm thick covering over the gap.

No further illness occurred until December 16th, 1901, when a fit came on, attended, according to his wife's description, by twitching of the arms and trunk, and dislocation of the jaw, which was reduced by a doctor. The fits were repeated several



Fig. 2.—J. E. W., February 6th, 1902; non-pulsating scar after insertion of gold foil.

times the same and following three days, after which he came again to this infirmary. The seat of injury in the left forehead, an old depressed scar, pulsated slightly and was soft to the touch, yielding on pressure. When interrogated by me on December 20th he had a dull and vacant expression, which increased with efforts at thought. So he was sent at once to bed, where he was kept under observation for a few days, during which the fits were repeated with increasing frequency. When spoken to he answered rationally for a few moments, and then quickly became dull and confused; slow to under-

stand questions and to frame answers. In some of the fits observed, the arms and head moved, but not the legs. He bit his tongue, but did not pass urine or faeces. The duration of the fits was from two to five minutes. In one fit, on December 22nd, movements of both legs took place. At a visit on December 23rd, while saying a few words about his case, I laid my finger lightly on the scar over the pulsating gap, on which he immediately turned his head and eyes to the right, becoming instantly unconscious, twitching his right lower lip and his fingers, but not otherwise moving either arm or leg. On December 24th at 9.30 a.m., he had a fit, in which he foamed at the mouth and bit his tongue. Other fits occurred every ten or fifteen minutes during the rest of the morning. The same morning, while his head was being shaved and otherwise prepared for operation, a gurgling cry prolonged into a moan accompanied the fits then and afterwards.

Operation.

Operation was undertaken the same afternoon with a semicircular flap including the old scar, which was found adherent directly to the brain and dissected off it. The dura mater was found turned out along the margins of the bone aperture, adhering to it and to the outer surface by scar tissue. This was all stripped with a raspatory, and also freed from the inner table for some distance all round the aperture, and laid down on the exposed brain, leaving a central portion uncovered. The hole in the bone was oval, measuring 1 in. or less in one direction and more in the other. On the exposed brain and dura mater, passing between the latter and the skull, were laid pieces of stiffish goldfoil, cut from Ash's No. 60 (a piece about 4 in. square that weighed ½ oz.). It was found impossible to pass in a single oval piece a little larger than the bone aperture with anything approaching smoothness or neatness, so one smaller piece that broke off was laid on as well as could be done, followed by two more pieces, all by this time thoroughly crumpled. The skin flap was closed down by continuous mattress suture, without attempt at ligature of the numerous vessels, that now bled again on removing the compression forceps which had been applied to the cut edges. Finally, all was covered up under cyanide gauze and capelline bandage.

After-History.

He slept well the next night, but had a fit early the next morning. During the day he was at first depressed, then excited, and towards night became delirious and hysterical, and did not sleep. On December 26th he was very excited, and persisted in sitting up in bed, but slept well at night. On December 27th he was also excited, and only partially rational. Some diet which had been withheld was supplied to him this day, as he was hungry. The dressings also were loose, and so were changed, and the wound was found adhering throughout, and free from redness or swelling at the edges. On December 28th he had had another very good night, and was perfectly quiet and rational. On December 30th he was sitting up in bed reading and taking an intelligent interest in what went on around him. The stitches were removed on January 1st, 1902, and the wound was found firmly healed throughout. He now said that he "never felt better in his life." No pulsation could be noticed over the gap in the skull, either now or at any time since this operation. The clearness of his recollections, and the quickness and certainty of his perceptions and replies, were quite noteworthy. In every way he appeared in excellent health and spirits, and no fit has occurred since the one noticed the day after operation.

Remarks.

On the day of his last admission this patient looked like one stupefied by alcohol, and his dull, hesitating manner led me to make inquiries about his habits. His wife was with him, and supported his own statement that, as a matter of fact, he did not drink alcohol. I made further inquiries as to whether or no he was out of work, in view of some possible motive other than the necessity of illness, and found that he had a good and regular occupation, which was only interrupted by the fits. It was evident that he was genuinely in need of assistance, as the history shows. But at his previous stay in this hospital I was not so fully persuaded of the genuineness of his case. The history of previous recent fits had then a certain vagueness about it, and the one fit reported after his admission was insufficiently corroborated for my own satisfaction. The operation then performed was not undertaken on account of the alleged fits, but simply to protect him against injurious consequences, in case the thin protruding scar should give way and cerebral fluid escape in the absence of immediate surgical attention. If it had not been for the cystic distension of the scar, I should not have touched him; and I concluded that Mr. Horsley had refrained from interference for a similar reason—namely, that there seemed no occasion to do so for the convulsions' sake. When, therefore, the man left hospital shortly afterwards, to all appearance perfectly well and free from the repetition of any sort of fit, the impression left upon my mind was that before the operation he had probably exaggerated his own condition and requirements; had even been actuated by indolence, or perhaps malingering. I had not then sufficiently informed myself of the absence of all possible motive on his part, as the pathological evidences, partly second-hand, were both scanty and transitory. This time the condition was more marked, and the analysis of his symptoms and motives placed their genuineness beyond all question for both occasions. The time, in fact, had arrived when interference was really called for.

It is possible that the operation undertaken in 1895 may have unexpectedly served the purpose of removing his susceptibility to the fits, and of postponing for more than six years the necessity for interference so obvious on the last occasion.

As to pulsation,[1] when the skull is opened the brain pulsates at the orifice, unless its own substance or the dura mater be resistant enough to prevent it. For instance, a cerebral tumour which I removed in 1889 showed no pulsation when exposed through a large trephine hole.[2] The growth was a gumma, adhering inseparably to the dura mater, and firm enough to resist the vascular expansion of the brain at each beat of the heart. But the moment the tumour was removed the exposed brain pulsated, and pulsation has continued to the present time through the unossified hole in the skull, the movement being imparted to the integument (that forms the only covering), to a visible extent, but without raising the parts appreciably from the level of the bone. When the patient coughs, however, the encephalon balloons the skin out, raising it about half an inch from the cranial level.[3] In other cases of cranial operation, whether for compound fracture, or in trephining for other purpose, pulsation occurs on removal of portions of the bony case, and continues as long as the coverings remain unossified, even when the bone fragments are replaced. The pulsation gets fainter as ossification proceeds, and usually ceases when the latter is completed.

In the present instance the gold foil appears stiff enough to resist the pulsation that naturally occurs where continuity of the bony case may be interrupted.

The accompanying photographs show the seat of injury as it appeared before my first operation and after the last.

NOTES AND REFERENCE.

[1] Written April 6th on preparing this report for the JOURNAL. [2] BRITISH MEDICAL JOURNAL, November 30th, 1889. [3] Strange to say, this patient called upon me the following morning. I had not seen him since December, 1890, but found him in good health, and with clear recollection of past events.

A CASE OF COMPLETE AND TEMPORARY PARALYSIS OF THE LIMBS IN A CHILD.

PROBABLY A CASE OF RECOVERY FROM THE INITIAL STAGE OF ACUTE ANTERIOR POLIOMYELITIS.

BY JUDSON S. BURY, M.D.LOND., F.R.C.P.,

Physician to the Manchester Royal Infirmary.

IN a few cases of infantile paralysis the part of the limb which is permanently paralysed is the only part that was affected at the onset of the disease, but as a rule such a correspondence is lacking, the initial loss of power being much greater in extent than the permanent paralysis. Thus at first both legs may be affected, while the final paralysis is limited to a group of muscles in one leg; or permanent atrophy of the shoulder muscles of one arm has been preceded by com-

plete paralysis of both arms, with weakness of some of the neck muscles. Indeed, in some cases where the final paralysis is limited to two or three muscles, the original paralysis was almost universal, affecting all the limbs and many of the neck and trunk muscles.

This want of correspondence in the distribution of motor weakness at different stages of the disease is one of the striking features of infantile paralysis. A consideration of the complete return of motor power in parts that were profoundly paralysed would lead one to assume that in some cases the wave of recovery would spread to every part that was initially affected, yet as a matter of fact this rarely occurs. In nearly every case of acute anterior poliomyelitis some muscles are left permanently, even if only slightly, weak.

As an apparent exception to this rule, the following case is worthy of record:

A girl, aged 9 years, was admitted under my care at the Manchester Royal Infirmary on January 20th this year. Her mother told me that on January 13th the child was "shaky and cold," that on the 15th she was shivering, and her skin was very hot. On the 16th it was noticed that her legs seemed to fail her. On the 17th she was unable to get out of bed; at breakfast time she could use her hands, but a few hours later she was unable to move them. On the 19th she was very feverish, and on the 20th, the day of admission, her temperature was 103° F. On this day I saw her for the first time. She was lying in bed, unable to move any part of her body except the head: this she could raise from the pillow, and move from side to side. She was unable to raise either side of her body from the bed, nor could she move any part of her arms or legs; her limbs were completely and universally paralysed. She had no pain, and no alteration in cutaneous sensibility could be detected. None of the cranial nerves were affected. The knee-jerks were absent, and no wrist-jerk could be obtained. The action of the bladder seemed to be normal.

The possibility of diphtheria being the cause of the paralysis was considered, but there was no history of sore throat, nor were any cases of infectious disease known to exist in the neighbourhood of the child's home. The fauces had a healthy appearance, and the urine was free from albumen.

On the 21st, the day after admission to hospital, the temperature was normal and the child could feebly draw up her legs in bed and could feebly move her arms; she could also very slightly raise her body from the bed. The improvement progressed rapidly, so that on the 27th, a week after admission, the paralysis of the arms had almost entirely disappeared; the legs, too, were much stronger, and when her body was supported the patient could walk a few steps. She was also just able to sit up in bed. A few days later she could walk without assistance, the flexors of the ankles being, however, still weak. She left the hospital on February 9th quite recovered from the paralysis, and the knee-jerks, which were feebly obtained a few days previously, were quite normal.

As to the site of the lesion in this case, the flaccid paralysis and the loss of the deep reflexes point to an affection of the lower neurons for the limbs and trunk. The absence of sensory and of all other symptoms than paralysis indicates that the motor path was alone at fault. Which part of the lower neuron was affected? Was it the nerve cell or its axon? Was the case one of anterior poliomyelitis or one of peripheral neuritis? It is certain that instances of purely motor peripheral neuritis do occur, and in the present case the complete recovery speaks more for a peripheral than a central disorder. Still such great rapidity in the disappearance of symptoms as occurred in this case is probably as rare in neuritis as in poliomyelitis. Then again multiple neuritis in the child, apart from diphtheria, is rare, whereas anterior poliomyelitis is common. In favour of the latter condition, too, may be mentioned the completeness of the palsy.

Just as difficult to settle as the site of the lesion, if not more so, is its nature. Obviously there was a profound, if only a transitory, disturbance of the functions of the parts attacked. The action of some poison seems to be the simplest explanation. Yet such speedy destruction or elimination of the poison as must have occurred in the case related is very remarkable.

Evidence is accumulating that many disorders of the central as well as of the peripheral nervous system are initiated by the presence of a toxin, the product of micro-organisms, which circulates in the blood and, according to its nature, selects for its attack certain definite parts of the nervous system.

Suggestive in this respect are the characters and the distribution of the early lesions in infantile paralysis, together with the etiology of the disease and its occasional occurrence in large epidemics. Moreover, in a few instances micro-organisms have been found. Thus, Schultze detected the Jäger-Weichselbaum's diplococcus in the cerebro-spinal fluid obtained by lumbar puncture in an early case of infantile paralysis. Chapin, too, in a case which terminated fatally, found diplococci in the anterior horn which presented the characteristic histological changes of acute anterior poliomyelitis. Dercum has also recorded a case of infantile paralysis in which the fluid obtained by lumbar puncture showed diplococci which stained with gentian violet, and also by Gram's method. They resembled, both as regards their structure and their affinity to certain stains, the diplococci of Sternberg.

Experiments on animals have shown that various forms of myelitis can be produced by the injection of bacteria or their toxins into the blood. Thus Marinesco has produced poliomyelitis in animals by injecting micro-organisms into the blood vessels which directly supply the spinal cord. He has also set up changes like those of acute anterior poliomyelitis by the injection of streptococci and of the influenza bacillus within the spinal dura mater. Other investigators, too, have produced in animals spinal lesions resembling those of acute poliomyelitis by the injection of various bacteria; of these may be mentioned the typhoid, influenza, and diphtheria bacilli, also the streptococci of erysipelas, and the bacterium coli.

Hence, it is not unlikely that infantile paralysis may be set up by the action of a toxin which is produced by micro-organisms, and which circulates in the blood. The infective agent may find its way into the system through the gastro-intestinal tract, or possibly by the nasal mucous membrane, or even, as suggested by Schultze, through the middle ear.

In the case which I have related no facts were obtained which threw any light either on the nature or on the mode of entry of a supposed infectious agent. If we assume that a toxin did attack the lower neurons of the parts paralysed, the rapid disappearance of the paralysis would suggest that the toxin was speedily destroyed or rendered innocuous, or quickly eliminated from the system.

BIBLIOGRAPHY.

Chapin, Abstr. *Neurol. Centralbl.*, August, 1901. Dercum, *Journal of Nervous and Mental Diseases*, 1900. Marinesco, *Nouv. Icon. de la Salpet.*, 1901. Schultze, *Lehrbuch der Nervenkrankheiten*, 1902; *Münch. med. Woch.*, 1898.

CASE OF SPORADIC CRETINISM, IN WHICH A RELAPSE OCCURRED OWING TO OMISSION OF THYROID EXTRACT.*

By ARTHUR HALL, M.A., M.B., M.R.C.P.,

Physician, Sheffield Royal Hospital; Professor of Pathology and Joint Lecturer on Clinical Medicine, University College, Sheffield.

THE following case emphasizes the fact that relapses may and do occur in cases of sporadic cretinism, if the treatment by thyroid gland substance be omitted, and that it is of absolute importance that cretins should be kept carefully under observation if the results of treatment are not to be spoiled:

History.—A. R., a boy, aged 15 months, was sent up to me at the Sheffield Royal Hospital in February, 1896, by Dr. J. H. Wilson, of Rotherham. At birth he was not noticeably different from other children, but a few months old he was found to have a "goitre." This was treated—how I do not know—and it disappeared when he was six months old. The parents date the change in his condition from that time.

State on Examination.—He was continually crying with a harsh cry, moving his head restlessly, and always pulling faces. Skin dry, with fine branny desquamation on the forehead and elbows. Circumference of head 18 in.; hair dark and scanty; complexion pasty; anterior fontanelle widely open, posterior slightly; eyes [illegible] opening of eyes narrow; pupils large; slight internal strabismus; nose broad, depressed bridge; nostrils wide, sniffles; mouth large, two lower incisors and upper [illegible]; skin [illegible] very [illegible]; large umbilical hernia; scrotum pendulous; legs very thick, skin loose, and thrown into very loose folds; feet thick and broad; height [illegible] in.; weight 18 lb. 10 oz.; temperature 97°.

* Read at the meeting of the Yorkshire Branch of the British Medical Association.

Treatment.—The child had only just been weaned, and was put on to thyroid at once. A liquid extract of thyroid was first given, but this did not seem to agree, so it was altered to the solid extract in the form of powdered tabloids. Unfortunately, I have lost the record of the amount then given.

Progress.—On March 14th, 1896, that is, one month later, there was a general improvement, especially less puffiness and swelling of the skin, and a brighter mental condition. The child could not sit up or in any way support itself. The parents now took it home, and it continued to take thyroid tabloids daily to the extent of about 7½ gr.



Fig. 1.—February, 1896; before treatment.

In July, 1896, the improvement was very great, the hair had grown luxuriantly, the face had become quite intelligent, but the child was still very weak and could not stand at all.

In October, 1896, I saw the child again and have made the following note: He is now a bright merry boy, always laughing and playing, and is able to stand when holding on to a chair for support.



Fig. 2.—November, 1896; after treatment.

I showed the case to the Sheffield Medico-Chirurgical Society at that time, and [illegible] that it would be necessary to continue the thyroid [illegible] all through the child's life, or it possibly the thyroid might [illegible]

Progress.—[illegible] Later, June, 1901, I have the following note. The parents left off [illegible] and the child [illegible] steadily gone backwards. In April of the same year I advised them to recommence the thyroid, which [illegible] and during the [illegible] to the end of May when [illegible] time. It also [illegible] tried to speak [illegible]

From [illegible] I have spoken of the child [illegible] February of [illegible] to [illegible] and looking up my old case-books, I came across a reference to it, and wrote to the parents asking them to let me see it again. I was greatly disappointed to find that they had given up giving the thyroid in 1900, as they thought it was making the child weaker, and instead of coming to the hospital to see me, had given up the treatment entirely. There was every probability that the child was getting too much thyroid after the symptoms had gone and that, as the parents said, it really did make it weak.

Present State.—The child is now (March 17th, 1902) seven years old; it weighs 53 lbs. Height 38 in. The weight is in excess of the average weight of a child of seven, as given by Roch, namely, 48.9 lbs. The general measurements of the head, body, and limbs, are also abnormally large, and the general appearance of the child is gross. The hair is dark, scanty, and coarse. The face large, heavy and dull, very pasty and swollen. Lips thick. The teeth short, and are imperfectly developed. The skin is very rough and dry. The external auditory meatus runs in the wrong direction. The breathing is noisy, and there is some snuffling. The limbs are gross and coarse with considerable thickening of the sub-



Fig. 3.—March, 1902; after leaving off treatment for two years.

cutaneous tissues. The hands are particularly striking, their breadth and size almost suggesting acromegaly. The knee-jerks are well marked on both sides. There are pads above each clavicle, and I think I can feel the very slight remains of a thyroid. His mental condition is dull and slow, he is very affectionate and manageable, speaks but little and more often makes strange grunting noises. He occasionally breaks into a broad smile, which comes rather late after the event causing it, and remains for some time. His movements are all very slow, he can walk, but is soon tired and easily trips over any obstacle. He eats and sleeps well, and passes everything under him.

Measurements.—Head: circumference, 21 in.; transverse, 11½ in.; posterior, 13 in. Circumference of arm, 8 in.; of forearm, 8¼ in.; of calf, 10 in.; of chest, 24½; of neck, 14 in.

The case very well illustrates the fact that if we are to succeed in this condition it is necessary that the patients should be closely watched for a very long period. Even in a case like this where the relatives of the patient are intelligent people, and where the importance of continued treatment is impressed on them over and over again, there is the danger of valuable time being lost and the child gradually getting back into its former condition, without the parents who see it day by day noticing the change. I am particularly sorry that this occurred in the present instance, as the case was a most promising one, and as there seemed every reason to hope that the child would gain an amount of mental improvement greater than has usually been the case where the cretin has got into years before the treatment was begun. The child is now less the cretin with its ill-developed frame, and more of the child with myxœdema, and I have considerable hopes that with judicious treatment and careful watching it will yet develop into a fairly useful member of society.

As regards the amount of thyroid to be administered, one can only judge by trying carefully whilst the child is under

observation in the hospital, but as soon as the immediate symptoms have subsided it will be probably only necessary to give very small quantitities two or three times a week; and as the drug is cheap and easily obtainable, it is not a great matter if he has to continue it all his life. In the early days of thyroid administration a mistake was made on the side of giving too much rather than too little. It seemed such a harmless thing to give, but, as we know now, it is by no means the innocuous preparation one then imagined. I suppose we have all seen cases in which it has produced distinctly unpleasant symptoms, certainly I have on more than one occasion, and I always give strict injunctions to patients when ordering it for them.

But besides myxoedema in adults and infants, there are certain other conditions in which the administration of thyroid is more or less beneficial. So far as my own experience goes, they may be divided into four: (1) Psoriasis, (2) ichthyosis, (3) obesity, (4) goitre. As regards psoriasis, I happened to be visiting Edinburgh at the time that Dr. Byrom Bramwell was treating his case of psoriasis, on the strength of which he suggested the use of thyroid in these cases. Since then I have systematically tried it in every case that I have seen at the Skin Department of the Sheffield Royal Hospital and in privat. Of these a certain very small percentage benefited markedly, and in one case the patient was rapidly cured of four attacks during the last few years by thyroid alone, without any other treatment, local or general. Seeing the great convenience of such a treatment, if successful, I make it a rule in every case to try thyroid extract alone for a short time if the patient consents, and if the result is negative at the end of that time, I give it up entirely and commence local treatment. It was a curious accident that one of the first cases on which it was tried should have been one of the very few that did respond. I am not aware that there is any means by which one can tell which cases will and which will not be benefited. In ichthyosis, thyroid is distinctly of use, but in my experience the effect soon wears off if it is discontinued. As regards its use in obesity, one must remember that this may arise from widely different causes, not all of which are likely to be amenable to any one form of treatment, but I can certainly recall three cases in which the diminution in weight on thyroid alone, without any dieting, was very marked. One man was so stout that he was unable to work, and could hardly get about in comfort, and in a few weeks he got down to quite a reasonable weight, which he has maintained ever since. As regards the value of thyroid in goitre, my experience is very limited, as such cases do not come under the physician in hospital practice. I happened to be treating a patient for psoriasis who had a large goitre, and after she had been taking thyroid for about a fortnight, I asked her how she was, and she said her rash was no better, but that her neck was getting smaller, and that she was able to fasten the collar of her dress, which she had not been able to do for years. I measured the neck regularly during the next few weeks, and it certainly decreased in diameter, but I unfortunately lost sight of her.

NOTE.—April 4th, 1902. The child is now in hospital, and taking thyroid extract. He is daily becoming brighter and less swollen.

MYXOEDEMA IN MOTHER AND CHILD.

BY S. W. MACILWAINE, L.R.C.P., M.R.C.S.,
Redhill.

THE occurrence of myxoedema in mother and daughter may be a coincidence, but it seems to me very possibly to show an inherited susceptibility of the thyroid to toxic influences. Mrs. G. had till 1895 practically never known a day's illness; she was then seized with a very severe and persistent attack, of which diarrhoea and vomiting were at first the prominent symptoms and later phlebitis. Removal from Ealing to Malvern led to improvement, but a return to Ealing brought on recurrence of the symptoms. The impression was that the severe toxic condition which undoubtedly existed arose from some sanitary defect in the house at Ealing, and so it was finally given up and the patient removed to Croydon. Before removal tachycardia and palpitation had become established as the leading troubles; the thyroid was noticed to be much enlarged, indeed its immediate removal was at one time urged. In Croydon, however, the symptoms slowly improved under palliative treatment; the diagnosis was then Graves's disease. The whole illness, till comparative health was restored, lasted about three years—1895-98—but ever since then severe palpitation has given much trouble. The thyroid is hard and enlarged on one side, the hair has fallen out to a considerable extent and has quite changed its texture; the skin has never been moist with perspiration except just at the nape of the neck, and has become harsh, especially in the palms of the hands, where it has often been so severely cracked as to lead to bleeding. Since taking small doses of thyroid for three months, all these symptoms have so rapidly improved as to leave no doubt that the case was one of myxoedema.

In 1899 Mrs. G.'s first child, a girl, was born. Up to a year old the child was perfectly healthy; she was exceptionally forward in walking and talking. When just a year old, and on a visit to London, she was seized with "dysenteric diarrhoea," large quantities of blood being passed. The attack began with drowsiness and feverishness, several other children in the neighbourhood suffered similarly at the same time, and as influenza was epidemic it was suggested as a probable cause. The child wasted with startling rapidity, and nearly died of exhaustion. It was removed to Malvern as a last resource, and immediately began to improve; but for three months there were recurrent attacks of jaundice, and the child was so weak as to be unable to sit up. From this time flesh was put on again, but there was a palpable alteration in the child, she was unable to speak or walk, and the whole appearance was strange. From a bright, nice-looking child she became a typical cretin, as the patient was pronounced to be by Mr. Charters Symonds in January, 1902.

The change since then on thyroid is just such a dramatic occurrence as Osler describes. In six weeks from the commencement of treatment the child was reduced to not much more than half its previous bulk, walking was resumed after two years' interval, but the reawakening of intelligence, with a corresponding change of expression, and the resumption of speech, were the most striking and the most gratifying features of the recovery.

Nine or ten years ago I recorded two cases of myxoedema in adults, the one in a man in whom the establishment of the myxoedematous state was subsequent to and apparently a direct consequence of a severe influenza. In the other, severe and continued haemorrhage at and after confinement established a profound state of anaemia, and the symptoms of myxoedema were gradually grafted on to those of anaemia; the cirrhosis of the thyroid apparently resulting from the toxic state of the blood associated with the anaemia.

In all these four cases the myxoedematous state was clearly secondary to some pre-existing toxic condition: it was an incidental symptom-group, not a primary disease. They emphasize the fact that both scientifically and practically it is inadvisable to attempt to localize diseases instead of tracing them to their causes. In the case of Mrs. G., for instance, although looking back all her ailments have been due to an original toxaemia, the diagnosis has passed through "dysenteric diarrhoea," "phlebitis," "Graves's disease," and "myxoedema." Early recognition and, at least in some cases, prevention—as, for instance, in the anaemic case above-mentioned—would be more probable in cases of myxoedema if we recognized that the detection of "symptom-groups" is not any more the making of a diagnosis, properly so-called, than the now generally discredited method of naming symptoms apart from their causes.

THE DIAZO-REACTION AS A METHOD OF DIAGNOSIS IN CLINICAL MEDICINE.

BY H. W. SYERS, M.A., M.D.CANTAB.,
Physician to Out-patients, Great Northern Central Hospital.

THE actual value of a clinical test depends upon its applicability to every-day work. Should it prove to be a method which can be easily employed in routine practice, and if it be granted that the results obtained are reliable, then can there be no doubt that the test has come to stay.

Much has been written of late upon the value of the diazo-reaction as a test for enteric fever, but it still seems that opinions are by no means unanimous as to the worth of the test in the diagnosis of this disease; and it has certainly been proved that the reaction occurs in maladies other than enteric fever, of which diseases tuberculosis is the most important. Acting on the above principles, I have examined the urine in 125 cases of all kinds and descriptions for the diazo-reaction. The cases have not been selected in any way, but the process has been applied in the out-patient room and the result noted.

Of these 125 cases in which the urine was examined, 5 only gave a positive reaction. In 120 instances no result whatever was obtained. Amongst those patients whose urine gave a negative result were instances of diseases of the lung of various kinds—phthisis, heart disease, gastric ulcer, bronchitis, etc.

The 5 cases were classified as follows: One was a case of acute tonsillitis, another of lobular pneumonia, two were cases of enteric fever in an early stage, and one was suffering from acute tuberculosis. The last patient was thought at first to have enteric fever, and this from a general consideration of history and symptoms. The occurrence of a positive reaction with the colour test not unnaturally tended to strongly strengthen this view of the nature of the case.

Nevertheless, the event proved that the diagnosis was incorrect. Thus the diazo-reaction broke down just at the very point when it would be of the greatest possible use. The extreme difficulty, even the impossibility, of differentiating typhoid fever from tuberculosis is generally admitted, and it is unfortunate that this test, so promising in many ways, should fail us in making a very important and difficult diagnosis.

Three other cases of enteric fever were carefully tested, but they all gave negative results. These cases were all in a more or less advanced stage of convalescence, which does not, however, render the occurrence of the reaction in any degree unlikely, for many cases are recorded in which the result was positive months after the attack of enteric fever had been recovered from.

I have also, subsequent to the above observations, made many examinations of the urine of patients suffering from typhoid fever, for the purpose of finding the diazo-reaction. Speaking generally, I have found that at some period of the fever the result was nearly always positive, and this usually at an advanced stage of the malady—that is to say, at the end of the second or early in the third week. Positive results were always most freely obtained when the temperature was high and the symptoms severe; in other words, they were always most obvious in well-marked and anxious cases.

The result of my observations, so far as regards enteric fever, is that the diazo-reaction is of little or no use in a practical sense. And this because it does not occur at a stage of the malady at which alone difficulties can really arise—the early stage. Further, the liability of a positive reaction to recur in cases of tuberculosis is a most serious drawback, and one which alone would tend to render the test valueless.

As regards the 125 cases, there was not once a positive reaction in the very numerous instances of gout and anaemia, and the same applies to diabetes.

It has been stated that in phthisis the reaction only shows itself in those patients in whom the malady is far advanced, and that, therefore, the fact of its occurrence should be regarded as a danger signal.

My experience of the diazo-reaction in phthisis is not large, but I have had the opportunity of applying the test in very advanced cases of the disease. My results do not in any way agree with those which would mark the diazo-reaction either as of usual occurrence in the later phases of the malady or, when it does occur, as being of any special significance. In ordinary cases of this description the result was negative, and when the reaction was positive there was no reason whatever to suppose that the case offered any special feature of gravity beyond that which is usual at the stage at which the affection had arrived.

It is worthy of note, too, in this connexion, that the case referred to above of acute tuberculosis, which was at first thought to be one of enteric fever, although showing a well-marked positive reaction, yet some months later was in no worse condition, the disease not having made rapid progress.

My experience, then, of the diazo-reaction is that from a strictly practical point of view it is of very little value. When the result is positive in enteric fever the malady is so far advanced that there can be no possibility of error as regards the diagnosis. In the very early stage, when alone there may be some little difficulty in determining the nature of the malady, the test usually gives negative results, and even if this is not the case the positive reaction by no means excludes the possibility of the case being one of tuberculosis.

In my judgement far too much importance is at the present time attached to laboratory tests in clinical medicine. A reversion to the old-fashioned but sound, though laborious, manner of acquiring a knowledge of the symptoms and physical signs of disease is greatly to be wished, for it is by the cultivation of the senses at the bedside and in the dead-house, and in this way only, that a real and satisfactory knowledge of medicine can be obtained.

THREE CASES OF CEREBRO-SPINAL FEVER TREATED WITH ANTIPYRIN.

By MAJOR E. CARRICK FREEMAN, R.A.M.C.,
Hospital for Prisoners of War, Ports Island, Bermuda.

By the kind permission of the Senior Medical Officer of Bermuda, I am enabled to publish the following cases of infective meningitis in the hope that further trial may be given to the treatment of this very fatal disease by antipyrin.

The disease broke out under the following circumstances: The transport *Montrose* left Durban for Bermuda on August 11th, 1901, having on board a detachment of 2nd Royal Warwickshire Regiment and Boer prisoners of war, of whom, including some embarked at Capetown, there were nearly 1,000. The *Montrose* is a large roomy ship with particularly airy troop decks, the height between decks being greater than usual, and she is furnished with large portways for cattle opening outward on each deck, which were kept open the greater part of the voyage. The prisoners of war embarked at Durban were recently captured, many of them emaciated and debilitated from the hardships of the field; their clothes were dirty, and scabies and pediculosis very prevalent. Old men and young boys were included, and all were suffering from mental depression, natural under the circumstances. The Capetown contingent, having been some time at Green Point, were in much better condition.

Measles broke out at the commencement of the voyage, as well as pneumonia of a particularly virulent type (39 cases with 13 deaths); influenza also ran through the ship. None of the troops, it may be mentioned, contracted pneumonia, and only one measles.

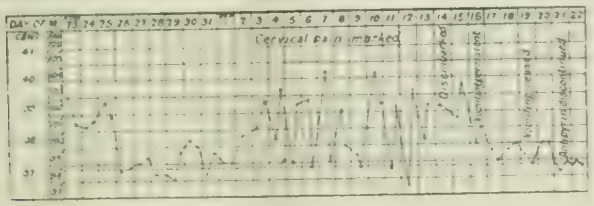
The weather was wet and cold from Durban half way to St. Vincent, afterwards mild and occasionally hot. The prisoners were not overcrowded, having more space than would be assigned to troops on a transport, but they stayed below as much as possible, and being accustomed to the veld felt the confinement of the ship a good deal. They were well fed, and suffered little from sea-sickness.

The first case of infective meningitis occurred on August 19th, and was rapidly fatal, the patient being brought into hospital in a comatose condition. The next case—that of J. de C., described below—was on August 23d. The third and fourth cases were among the patients isolated for measles, and both died on September 1st, after two and three days' illness. The fifth and sixth cases, H. J. C. and N. de B., were admitted on August 31st, and their cases are given in detail. No further cases occurred, and on September 1st the *Montrose* reached St. Vincent, between which port and Bermuda there was but little sickness of any kind.

The first, third, and fourth cases were treated on ordinary lines, and proved rapidly fatal; the remaining three cases were treated from the outset with antipyrin, and of these two, as will be seen from the following notes, recovered.

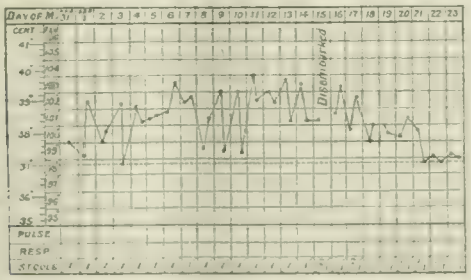
CASE 1.—J. de C. (Transvaaler), aged 19, was admitted to hospital on the ss. *Montrose*, August 23rd, in a semi-comatose condition, continually crying out, and complaining of intense pain about the nape of the neck. Temperature, 103°. Antipyrin, gr. x, was ordered at once, and to be continued thrice daily. By the 26th the temperature had fallen almost to

normal, pain disappeared and the patient apparently convalescent. Antipyrin was stopped on 28th, but recommenced on September 3rd, the patient having relapsed with a temperature of 102.8°, and intense cervical pain. The pain rapidly diminished under this treatment, and the temperature pursued an irregular course, with a maximum of 104.4° on September 6th and 9th. On September 14th, on the arrival of the *Montrose* at Bermuda, the patient was transferred to the hospital for prisoners of war, Ports Island. Although every care was taken, he relapsed after transfer, complaining of cervical pain; vomiting also supervened, and was very troublesome. The temperature becoming normal on September 21st, antipyrin was discontinued and champagne given. He now improved steadily, vomiting ceased, and appetite returned, and he was able to sit up. The bowels acted on alternate days with an occasional purgative. On October 3rd he complained of inability to pass his urine, and a catheter was used until the 11th, when the power of micturition



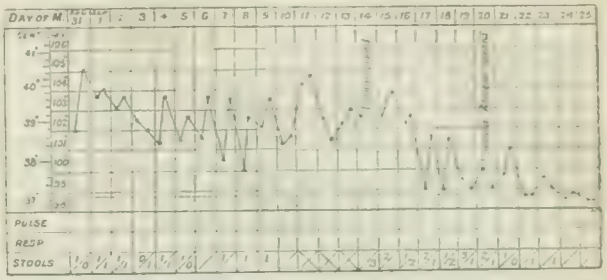
suddenly returned. On the 12th he again complained of intense pain in the neck, and consequent insomnia, lying with his head depressed and turned to the left, and groaning constantly; these symptoms were at once relieved by antipyrin and an icebag. On the 16th some constipation set in, which was with difficulty relieved by purgatives and enemata. On September 30th he complained for the first time of general headache, and he again had an attack of "cerebral" vomiting. Symptoms were not improved by sodium bromide, but relieved by antipyrin. His temperature now continued normal, his appetite good, he slept fairly well, and had occasional attacks of vomiting, occasional cephalalgia, occasional exacerbations of cervical pain, until his death, which occurred suddenly without rigor or convulsion, on November 21st, the ninety-first day of his illness. No necropsy was permitted. Throughout the case there was no inequality of pupils. Rigidity and stiffness of the cervical muscles was very marked, also photophobia and partial ptosis of the right eyelid.

CASE II.—H. J. C. (Transvaaler), aged 13, was admitted to hospital on the ss. *Montrose* on August 31st in a semi-comatose condition, constantly crying out for water, and complaining of pain in the back of the head and neck. The temperature was 100°, reaching 102.6° next day. Antipyrin gr. v ter die was ordered and continued steadily throughout the case. The temperature pursued an irregular course, ultimately falling by lysis; the "hydrocephalic cry" was most marked; restlessness and photophobia in a less degree; the neck was stiff and tender. He remained in a condi-



tion of semistupor until after transfer to Ports Island Hospital on September 14th. All cervical pain having disappeared, antipyrin was discontinued on September 21st. The patient was thin, weak, and anaemic, but made an uninterrupted recovery, rapidly putting on flesh. He was discharged from the hospital on October 19th, his mental faculties appearing in no ways impaired. He had, however, well-marked strabismus. The bowels acted regularly throughout; there was no inequality of the pupils.

CASE III.—N. de B. (Transvaaler), aged 15, was also admitted on August 31st in a semicomatose state complaining of pain in the head and neck. His temperature was 102°, reaching 105° in the evening. Calomel was given and antipyrin gr. v ter die ordered and continued throughout the case. Patient was very restless, complaining of the light, and when not asleep constantly crying out "Doctor, doctor," or "Water, water." Cervical rigidity was well marked. On September 6th the left parotid was swollen and tender, and two days later the right was in the same condition. The patient became extremely weak, and from September 10th to 13th all evacuations were involuntary. On the 14th he was transferred to Ports Island, being very restless, constantly crying out. Temperature 104.6°. On September 18th two large boils on the back were incised. On September 20th, fluctuation being distinct, both parotids were opened, and a large quantity of pus evacuated, and the abscesses drained. The temperature fell to 99°. On the 21st there was slight rise of temperature and some vomiting. On the 24th the patient, although very deaf, seemed for the first time to understand what was said to him, and from this point onward began to make steady progress. On October 4th a large gluteal abscess was opened. On October 15th he had a relapse, his temperature rising to 104°, to 105°, and pain in the neck returning. Antipyrin, which had been discontinued since September 22nd, was ordered and continued until September 26th, by which time he was again convalescent. Recovery was now uninterrupted, and the patient discharged from hospital on December 11th. There was no inequality of pupils; there was well-marked squint during convalescence, but it disappeared before the patient left hospital.



To sum up: Of the 6 cases of infective meningitis on the ss. *Montrose*, 3 were treated in the ordinary way and died; 3 were treated with antipyrin, and of these 2 recovered; and 1 lived ninety days. The outbreak was not confined to one part of the ship; 2 cases were from the upper, and 2 from the lower troop deck, and 2 from the infectious ward, which was aft near the hospital. The causation of infective meningitis or cerebro-spinal fever is still uncertain, but the modern view that it may be due to infection of the meninges by different pathogenic germs receives support from the outbreak under consideration when measles, pneumonia, and influenza were all present, and from the occurrence of parotid and other abscesses in the case of J. de C. It is also confirmed by the case of an orderly (St. John Ambulance Brigade), who, being in good health, scrubbed out a ward in one of the hospital buildings in Bloemfontein, which had been long and closely occupied with enteric cases, and died in three or four days with all the symptoms of acute cerebral meningitis.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

MALIGNANT SMALL-POX FATAL WITHIN SIX HOURS.

ON April 8th I was called about 8 A.M. to visit a boy, aged 10 weeks, and I saw the child within half an hour. The case seemed a very peculiar one. The whole face was covered with a subcutaneous haemorrhagic rash or purpura. But besides this there was a rash slightly elevated on the surface which closely resembled that of an ordinary case of measles, and though that disease occurred to my mind I could at once see, from the dusky skin and extreme prostration of the child, that the disease was not measles but something of a far more serious character. Beneath the jaw and around the neck were some half-dozen well-marked red patches, giving an appearance as if produced by touching the surface with the top of the finger dipped in blood. There were, as well, some six or eight similar spots on the buttocks, which were also covered with a subcutaneous mottling similar to that on the face. The rest of the body at that time, though of an ashy pale colour, showed no rash or any kind. The temperature was 101°. The child was partly unconscious, and groaned as if in pain.

I concluded that the case was one of malignant small-pox, and I informed the relatives to that effect; but on this my first visit I was not without some doubt. I asked my partner Dr. Hine to visit the case, and though he suspected small-pox he could not pronounce definitely. I then sent a note to the medical officer of health for this district to inform him of the case, and asked him to examine the child. He went directly, and after his visit he informed me that he thought the case an extraordinary one, and that he would not then wish to decide whether it was small-pox or not. As it was the first case of suspected small-pox occurring in the district,

he telegraphed for Dr. Seaton, the medical officer of health to the Surrey County Council, to come and see the case. Dr. Seaton, however, was unable to come. I again visited the case in the afternoon, when the medical officer of health was also present, but the child died before 12 o'clock noon. The rash that in the morning was confined to the face and buttocks was now spread all over the body and limbs. The lower half of the abdomen, the buttocks, and upper third of the thighs presented one uniform blood-red surface producing a distinct contrast to the dusky subcutaneous rash over the rest of the body. The case on my second visit presented symptoms which corresponded as closely as possible to the description given in standard works of medicine of purpura variolosa or malignant small-pox. Dr. C. E. Tanner, the medical officer of health, and I, on this our second visit, concluded that without doubt the case was one of malignant small-pox, and I certified the death accordingly.

This child was quite well on the previous day. It became restless during the night. The rash was first noticed at 7 in the morning. It was dead at noon. The source or cause of the disease in this case has not up to the present been traced. I might mention that neither this child nor an elder one in the family had been vaccinated, as the parents had objections. What seems of most interest in this case is its rapid fatality and the difficulty in diagnosing the disease on its first appearance.

Farnham, Surrey. E. R. COFFEY, L.R.C.P., L.R.C.S.

A CASE OF LOCAL HYPERIDROSIS.

WHILE vaccinating a young lady recently she called my attention to a peculiar perspiration which had broken out in the opposite hand during the operation. On examining it I found beads of perspiration lying along, and limited to the lines of distribution of the superficial palmar branch of the ulnar nerve—namely, along the cuticle over the lower third of the ulnar margin of the fifth metacarpal bone, the ulnar and radial sides of the little finger, and the ulnar side of the ring finger. The rest of the cuticle was perfectly dry and quite natural in appearance, nor was there any other abnormality to be made out in connexion with the nerve. The patient said that this always took place whenever she became excited, or sat by the fire, or attempted any needlework; the perspiration becoming sometimes so severe as to necessitate her laying aside her work. She had come to me several weeks previously, complaining of nervous debility and indigestion, and while stating her case had mentioned this phenomenon of perspiration, when I was struck with the accuracy with which she marked out the course of this branch of the ulnar.

A case of local hyperidrosis of such remarkably defined limits is sufficiently unusual and interesting to be worthy of record.

Liverpool. WM. BRAMWELL, M.A., M.D., B.Ch.Dub.

SURVIVAL OF A PREMATURE CHILD WEIGHING LESS THAN TWO POUNDS.

IN December, 1898, I attended a lady in her third confinement who was prematurely delivered of a female child (6½ months) weighing less than 2 lb. I had been engaged to attend this lady in March, 1899, but was hastily summoned in the middle of the night of December 19th, 1898, and arrived at my patient's house just in time to deliver the child. As the nurse engaged was at a distance there was no one to help me, and I had to do the best I could single-handed. The mother showing symptoms of flooding, I separated the child as quickly as possible, placed it in a warm flannel, and gave my whole attention to the mother. After delivery of the placenta and checking of haemorrhage I looked at the child, which gave a faint cry. By this time a middle-aged and sensible woman had arrived on the scene. Having no incubator I determined to try what could be done to save the life of the little one. I therefore ordered it to be wrapped in cotton-wool and placed in a box inside the fender. The following morning, the nurse having arrived, I instructed her to anoint the child all over with warm linseed oil, and replace it in the cotton wool and box in the fender, having first weighed the child in the presence of the father, nurse, and a sister of the mother, when it scaled less than 2 lb.

On the second day I ordered the nurse to try to feed the child by dipping a feather into warm, sweetened milk, and letting the child take it in drops. The little thing was too weak to suck, and the mother had no milk. It opened its mouth like a young bird, and took a few drops of milk dropped from the feather several times a day. This treatment was continued for seventeen days (when the child began to suck from a small bottle), the child being kept rolled in cotton wool in a box inside the fender, a good fire being constantly kept up. At the end of the month the nurse made a long jacket of cotton wool with sleeves, this being the first garment the child had worn. At the end of the first week it scaled just 2 lb., and it then gradually increased in weight; the inunction with oil was continued. The child continued to thrive until in November, 1899—eleven months after birth, when the family left England—it was as healthy and as well developed as an ordinary infant of that age.

I have just received a photograph of the child taken at 3 years of age—a pretty child, healthy and well grown, and, the mother writes, perfectly well and strong.

This case shows what may be done in such emergencies without an incubator and with a little perseverance.

THOMAS W. SHEPHERD, L.R.C.S. and L.M., L.S.A.
Launceston, Cornwall.

CASE OF NON-DEVELOPMENT OF THE LARGE INTESTINE AND THE GREATER PART OF THE ILEUM.

ON January 13th, 1902, an infant was sent into the Lowestoft Hospital by one of my colleagues, Dr. W. L. Bell, with the following history:

Since the child was born two days previously it had passed nothing by the bowel, but was continually vomiting up dark-coloured fluid.

I found some degree of collapse, but there was very little distension of the abdomen. On making an examination in the anal region I passed my little finger into a *cul-de-sac* extending inwards for about 1½ in., without, however, detecting any bulging suggestive of bowel distended with meconium. Under these circumstances I felt that a search in the direction of the anal *cul-de-sac* would be attended with much difficulty and loss of time, so I determined to do a left inguinal colotomy. This I proceeded to do with the assistance of Dr. H. M. Evans and Dr. Tyson.

I found what should have been descending colon without much difficulty, but, on bringing the gut up to the wound, I found instead an impervious fibrous cord a little more than ¼ in. thick, attached by a mesentery in the usual way. I traced this up as far as I was able, and, finding it continued in this condition up to the transverse colon, I quickly sewed up the wound, and performed a right inguinal colotomy. Here, again, I came upon undeveloped bowel, with a minute enlargement representing the caecum, and a diminutive worm-like appendix attached to it. On following up the small intestine the gut was found of the same undeveloped character until about its junction with the jejunum, where it passed insensibly, without any stricture, into healthy bowel distended with meconium. I stitched this part to the abdominal wound, opened the gut, and relieved the distension, but the child died the next morning from shock. It would have hardly been possible for the result to be otherwise, seeing that so large an area of the bowel was involved.

I have read and heard of many varieties of imperforate anus, and absence of the rectum has been comparatively frequently observed, but I do not remember to have seen such an extensive abnormality noted as in the present case. An interesting fact is that two other children previously born by the same mother were subjects of imperforate anus, with the ordinary anatomical relations generally found in such cases.

MALCOLM L. HEPBURN, M.D., F.R.C.S.,
Surgeon to the Lowestoft Hospital.

OBSERVATIONS ON VELD SORES.

IN common with many more medical men engaged in the present campaign I have been interested in the subject of veld sores, and sometimes amused at the innumerable conclusions and theories advanced by different writers. One observer stated that their occurrence must be connected with horses, as he had only seen them on mounted troops. Having

seen service with infantry as well as horsemen I can state that they are not uncommon among the former, though more frequent in mounted men. Having had occasionally also to attend the enemy in the field, I can also state that the Boers suffer very much from veld sores.

My experience is that troops do not develop veld sores in the early days of their campaigning in South Africa. There is always some primary abrasion of the skin, and they are much more frequent on the left or "reins hand" than on the right.

Mr. Evenden, warrant officer of our field hospital (the 13th Brigade) has advanced a rather ingenious theory. The reason why the hands (and especially the left, which in riding is more exposed) are most subject to abrasions of the epidermis is due to the effects of the sun's rays. He had noticed whilst assisting at *x*-ray work at home that the ultra-violet rays had such an effect on the epidermis as to cause similar sores to form after a slight abrasion. After a year's campaigning, during which I have been on trek the whole time in the Transvaal and Free State, it is only recently that I developed a veld sore. It commenced by merely having a small piece of epidermis rubbed off the back of the left hand by contact with a button when mounting. A little serum oozed out during the first day, and gradually, without any treatment (other than washing with soap and water), it healed under a dry scab. When this was removed a pink surface of tender new epidermis remained. From observation of others I have noticed that pus often forms underneath the scab, which when rubbed off or removed leaves an ulcer.

The best treatment seems to be to wash clean when an abrasion is first noticed and dress with a piece of dry boric lint. Unless the sore is covered it seldom heals kindly. Whether the rays of the sun have the effect of making the exposed parts of the skin more liable to the development of these sores or not is difficult to say. But such a theory would explain why the back of the left hand in mounted men is most subject, this being the only part of the body directly exposed to the sun's rays.

J. S. PURDY.
Surgeon-Captain, 6th N.Z.M.R., Plumer's Force, S.A.
Wakkerstroom.

TREATMENT OF ACUTE PERITONITIS.

WITH reference to communications on this subject which have appeared recently in the BRITISH MEDICAL JOURNAL and elsewhere I may be excused in proposing what may prove an additional aid in the treatment of such cases.

After operation for acute peritonitis, undoubtedly one of the greatest after-dangers is the extreme collapse which so often sets in during the first few succeeding hours. One is much impressed by the extraordinary effect such peritonitis has on the circulation, and by the hitherto rather unsatisfactory remedies employed on that account, which seem to have strikingly little influence in a bad case. In considering these, it has occurred to me that the use of adrenalin ought to prove a valuable adjunct in counteracting this too often fatal condition of collapse. By producing contraction of the abdominal visceral vessels this ought to be overcome, assuming that other factors—for example, absorption of septic material from the newly-cleansed peritoneal cavity and bowel—are done away with. Adrenalin should act more thoroughly and permanently than infusion of saline solution, which is probably the most potent remedy in use at present. Judging from its action in other parts of the body, a weak solution of the extract used with swabs or irrigator ought to bring about the desired effect.

If meteorism be due chiefly to disordered circulation in the intestine this plan should help in a degree which infusion of salt solution or evacuation of the bowel by incision cannot approach. In this way the patient may be made comfortable more speedily.

Perhaps the action of the adrenalin may prove very evanescent; but this would depend on the amount left in the abdomen, strength of the solution, etc. It might be possible to repeat the dose through a drainage tube or by other means. Possibly it may be found to do harm by interfering with the absorptive and recuperative powers of the peritoneum, but experimental pathology ought to elucidate this point.

I have not had an opportunity of testing this suggestion since it occurred to me a few weeks ago. I make it, however, in the hope that it may prove of value in this too fatal class of case, as a means of helping to tide the patient over the first few critical hours after operation.

Of course, this treatment should be carried out in conjunction with the administration of strychnine or camphor, etc., and the other remedies mentioned above.

H. M. W. GRAY.
Aberdeen.

KELOID FOLLOWING VACCINATION.

THE photograph accompanying this short account of a case of keloid occurring as a result of vaccination may be interesting.

The patient was a prisoner on board the transport *Kildonan*, and first came to me complaining of pain caused by any movement of the deltoid, especially in "squeegeing" the deck. On examination the man showed normal old vaccination scars, the result of the operation when a child. He was revaccinated



on entering the army about three years ago, which was followed by a "swelling." This was removed by "cutting out." It recurred, and in the accompanying photograph one can see the condition fairly well. Beside those which are well marked and prominent on the arm two others will be noticed, one in the interdigital cleft, between the thumb and index finger, and a second on the back of the pinna of the left ear. I tried flexible collodion, as recommended by Da Costa, but without, as far as I could see, any appreciable alteration in the condition.

L. LAMMING BURTON,
M.D.Brux., F.R.C.S.Edin.
Longton.

VASCULAR SARCOMATA.

As I have seen in the Glasgow Eye Infirmary during the past eight years at least 10 cases of vascular sarcoma of different kinds, I have been much interested in Dr. Beatson's paper in the BRITISH MEDICAL JOURNAL of January 18th. To me the striking clinical feature of his case is that a growth of such size and of so malignant looking structure and connexions should have remained purely local for so long a period, and should not have recurred after operation. This surely opens up a large question as to the direct cause of metastasis and local extension, and gives rise to some doubts as to the nature of the tumour. My own experience of such structures has been as follows. Of 10 cases, 4 recovered, and were traced for over two years. Two cases were last seen alive and well a few months after the eye was removed, and 4 (young children) died at various dates after the operation, from four months on. Six of the cases were under 2 years of age, one was 3, one 7, one 27, and one 49 years of age. Only two of the ten were males. The younger children all presented a fairly healthy appearance until late stages were attained. Local recurrence

took place in all the four which died. In only one that I know of did metastasis occur, in one a cerebral growth had formed, probably by extrusion from the orbit, and in one the submaxillary glands were enlarged. As regards the structure of the growth, it is interesting to observe that in all the cases of young children the growth was round-celled, whilst in the two adults the growth was spindle-celled. The form of the blood vessels and the completeness of the vessel wall varied a good deal. In two the structures were almost identical in appearances with that shown in Dr. Fortune's photomicrographs, in two the vessel wall was thicker and better defined, and in three it was less distinct. In no case was there absolutely no lining membrane to the tubule, but in one case the tubules were lined with columnar epithelium, and had a granular appearance. Lastly, in the case of the adult aged 49 years, the structure was that of columns of spindle cells deposited mostly transversely to the columns, between which the blood vessels lay. The class of tumours "vascular sarcoma" has been dealt with at some length in H. Knapp's *Die Intraocularen Geschwülste*, 1868, where the appearances are figured and a case is cited. Fuchs's *Das Sarcom des Uvealtractus*, 1888, also describes this or a somewhat similar growth as a "cavernous sarcoma." I would myself be inclined to term some of the growths cavernous angiosarcoma, leaving others as angiosarcoma.

Leslie Buchanan, M.D.,
Surgeon and Pathologist to the Glasgow Eye Infirmary.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ANCOATS HOSPITAL, MANCHESTER.

CASE OF PERFORATING WOUND OF THE STOMACH: LAPAROTOMY: RECOVERY.

(Under the care of Peter Tytler, M.D., C.M.Aberd., Senior Surgeon to the Hospital.)

[Reported by Samuel K. Hutton, M.B. Ch.B.Vict., House-Surgeon to the Hospital.]

History and State on Examination. The patient, a lad, aged 17 years, was admitted on October 26th, 1901, suffering from a bullet wound midway between the ensiform cartilage and the umbilicus, and slightly to the left of the middle line. No exit wound was visible.

The injury had been accidentally inflicted with a revolver held against the pit of the stomach.

The patient's temperature on admission was 96.4° F. He was immediately anaesthetized with chloroform, and Dr. Tytler operated as follows:

Operation. A vertical incision in the middle line, with the bullet wound as its centre, exposed a perforating wound in the anterior wall of the stomach. The lips of the wound were brought firmly into apposition by a suture through the whole thickness of the stomach wall, and closed by a row of Lembert sutures. The lesser sac of peritoneum was then opened by an incision half an inch below the lower limit of the stomach, and the blood with which the cavity was filled was washed out with hot saline solution, and the whole packed with carefully sterilized artificial sponges. A corresponding wound in the posterior wall of the stomach was then exposed, and treated in a similar manner to the anterior. The stomach was fortunately empty. The lesser sac having been again flushed out with hot saline solution was closed by sutures, a gauze drain being introduced. The incision in the abdominal wall was then closed, the original bullet track being first excised.

Progress. For some hours after the operation the patient's condition was critical, and enemata of beef-tea and brandy were employed at frequent intervals. Normal urine was passed twelve hours after the operation, and the bowels acted an hour later. Twenty-four hours after the operation 35 oz. of normal saline solution were transfused into a vein. From this time sips of whisky and water were given by the mouth, feeding being maintained by means of nutrient enemata. Restlessness, which was a distressing feature for the first forty-eight hours, was met by hypodermic injections of morphine gr. $\frac{1}{8}$, with strychnine gr. $\frac{1}{30}$. On the third day (October 28th) sterilized lemon water, in sips, and Brand's essence were given by the mouth. On the fourth day barley water was given by the mouth in sips, and salol gr. v was ordered every three hours. On the fifth day raw beef-juice and white of egg were given by the mouth, the maximum quantity administered at one time being one teaspoonful. On the seventh day the temperature, which had varied since the operation from 99° F. to 100.8° F., returned to normal. On the eighth day calves' foot jelly and sterilized sugar water were added to the list of substances given by the mouth. On the tenth day sterilized milk, in tablespoonful doses, was given for the first time. On the twelfth day the rectal feeding, which had been successfully carried out since the operation, was discontinued. The various nutrient substances given from time to time by enema were sugar-water, peptonized milk, egg, beef-tea, and Brand's essence of beef. For four weeks after cessation of rectal feeding the bowel failed to evacuate its contents without the use of copious enemata of soap and water. From the twelfth day onward fluid nourishment was given by the mouth alone, with no bad symptom. The salol was diminished to gr. v night and morning. Solid food (minced chicken) was given for the first time on the eighteenth day after operation. The wound was left untouched for four days after operation. After this period the gauze drain was removed. A discharge of pus continued from the track, however, and this did not cease until a portion of sponge had come away. The patient finally left the hospital well and strong on January 4th, 1902, having eaten a heavy dinner of roast beef and plum pudding on Christmas Day without discomfort.

LIGHTBURN JOINT HOSPITAL, SHETTLESTON, LANARKSHIRE.

CASE OF ENTERIC FEVER: PERFORATION (?): RECOVERY.

(By Charles Porter, M.B., B.Sc., M.R.C.P.Edin., late Physician-Superintendent to the Hospital.)

Although there are several well-authenticated cases of recovery after perforation of the bowel—Murchison[1] gives details of six in his own experience and refers to others described by well-known observers—it is essential that every care should be taken in arriving at a diagnosis before claiming a recovery; and although the occurrence of this complication is in this case not certain, yet a consideration of the probabilities of the case seems to justify this conclusion.

A. B., a male, aged 11, was admitted to the hospital on November 22nd, 1901, notified as suffering from enteric fever. The history given was that the boy had been complaining of feeling out of sorts, of headache, and of cough since November 13th, and the condition on admission suggested that he was probably in the latter half of the second week of his illness. He was a little stupid and a little deaf; the pupils were dilated and the tongue dry and glazed; the abdomen was slightly full, and there were a few rose spots; there was no abdominal tenderness, and the spleen could not be felt. Two days later (November 24th) Widal's reaction was obtained, the serum being diluted 1 in 30.

The day following admission the bowels moved twice and the motions were quite typical; the boy had been delirious during the night. On the third day after admission there was a tendency to diarrhoea, but the stools showed no curds. The pulse varied up to 120 per minute, and the temperature was 102° F. Milk diet was continued, and salol gr. v. every four hours was ordered. Two days later (November 26th) there was considerable improvement; the pulse was still rapid, but from now till November 30th the temperature, which had been ranging between 101° and 104° F., began to show a downward tendency.

On November 30th diarrhoea had recommenced, and bismuth subnit. gr. x by mouth, and an enema of starch and Dover's powder gr. v were given after each stool. Two days later the diarrhoea was very much lessened, and on December 3rd it was noted that the patient was brighter, the tongue was moist, and the pulse slower. The temperature was swinging between 99° and 101° F. Improvement continued, and on the morning of December 6th, 2 weeks after admission, and the twenty-fourth day of the disease, the temperature was normal (98° F.) for the first time, pulse 104, respirations 32 per minute. That evening the temperature rose to 102° F., but the boy was quite comfortable. Next morning the same conditions were noted: at night there was a further rise to 103.4°, pulse 128, respirations 32 per minute. There had been two loose motions during the day, but otherwise there was nothing complained of. In the early hours of the following morning, the boy suddenly complained of severe abdominal pain and of an urgent desire to go to stool, but there was no action of the bowels.

[1] Murchison, *On Continued Fevers*. Cayley. Third edition, pp. 571 and 572, 580 and 581.

When seen at 9 a.m. the condition was as follows: The eyes were sunken, the face was very pale, the nose pinched, and the skin around the mouth was of a dirty bluish tint; the respirations were 36 per minute, shallow and costal; the abdomen was motionless, tense, and very tender, but not at that time much more distended than before; the liver dullness was unaltered; the pulse was rapid, small, and wiry. The complaints of pain were unceasing, and the desire to go to stool still urgently present; there was still, however, no passage. Hot fomentations were applied to the abdomen, and tincture of belladonna mx with chlorodyne mv given whenever pain was complained of. No definite conclusion as to the cause of these symptoms was arrived at, although naturally perforation was suspected, and as the hours of the morning passed, it became more and more impossible to doubt that that accident had occurred. The distension steadily increased, there was agonizing pain and tenderness, the legs were drawn up, the pulse was rapid and small, and the face was pinched and pale, and clammy with perspiration. Priapism, which had been a feature in perforation in two boys of the same age a short time before, was markedly present. The question of operation was considered, but, on account of the difficulty of making adequate arrangements, had reluctantly to be abandoned. In the evening the temperature was 98.8° F., the pulse 104, the respirations thoracic and 32 per minute; the bowels did not move all day. During the night vomiting commenced and continued at intervals, and the following morning the abdominal distension was much more marked. Below the seventh rib, in the nipple line, there was no trace of hepatic dullness; the pulse and temperature were much the same as before, but, as a result probably of the sedatives, pain was no longer so severe. The bowels were still confined.

On December 9th and 10th, the third and fourth days after the appearance of the symptoms, it was noted that the distension had increased, and that the face was more pinched and worn, the eyes being deeply sunken and dark ringed. Thirst was very intense, but there was almost continuous vomiting, a grass green fluid being ejected in mouthfuls. Nourishment was given in the form of enemata. On the 10th the temperature showed a rise to 101.2° F. and the bowels moved twice.

On December 11th the boy was looking very ill, but was quite sensible. The quantity vomited was very great and presented the same characters as before. Respirations were sighing; the pulse was rapid and thready, and it did not seem likely that he would last much longer. The abdomen was less distended and tense and tender, and there was no pain except on percussing for the liver dullness, which was present only as far as the sixth rib; below this the note was quite tympanitic. Next day the condition was much the same; the bowels moved four times. On the morning of December 13th he was looking better, vomiting was much less frequent, there was no pain and no tenderness on palpating the abdomen, which was comparatively soft.

On December 14th the improvement of the previous day was continued, the abdominal wall offered practically no resistance to palpation; an absolutely dull note from the liver was obtained at the sixth rib, below the seventh, there was still tympanites. The boy complained of nothing; there had been no sickness since the previous evening. The bowels moved three times; the motions being small, dark, and fluid.

Up till December 19th there was no change; fever disappeared on the 14th, and the temperature remained near normal; the pulse kept over 100, and there was still some abdominal distension. That day, December 19th, there was a slight return of pain, and peristalsis of the large and small intestine was very distinctly visible through the thin abdominal wall. The bowels were confined, and next morning an enema was administered as the pain was still present; the boy looked far from well, but improvement followed the passage of a very constipated motion.

From now till December 29th there was nothing to note, saving that tympanites continued. The temperature and pulse were normal, the liver dullness was still obscured. On December 30th there was a return of abdominal pain, with increased distension and tympanites, but relief followed the administration of an enema. Till January 3rd the condition of the bowels was not satisfactory, and enemata daily were recommended with good results.

On January 6th, 1902, the fifty-fifth day of the disease, and four weeks after the appearance of these symptoms, a very distinct improvement was noted; the tympanites was less, there was no tenderness and no visible peristalsis, and the lower border of the liver was at the costal edge. Soon the general condition improved also, the pulse became slower and fuller, the pinched, anxious look left the face, and the boy began to clamour for food. On January 9th he was allowed chicken for the first time.

REMARKS.—Peritonitis apart from perforation, or severe meteorism, might have caused such a series of symptoms; but the former is rare, and the latter, though a well-known complication of enteric fever, does not frequently appear with marked suddenness in the fourth week of illness. Perforation, on the other hand, does occur with suddenness, and more commonly in the fourth week than in any other. In addition, the appearance of the patient, the pain, the vomiting, the increasing distension of the abdomen, and the progressive disappearance of the liver dullness, forced one to conclude that the bowel had ruptured. When the patient, instead of dying in the course of a day or two, survived more than a week, then one began to think that possibly a piece of bowel had been incarcerated in some internal hernial opening, and had in a few days escaped. The vomiting might have resulted from partial strangulation; the abdominal discomfort, the distended intestine, and the visible and irregular peristalsis which persisted for some time might have been due to the resulting injury to the gut, although adhesions in the neighbourhood of a healed perforation, binding down the bowel and interrupting its regular movement, could also be held responsible for such a disturbance. Intussusception, and lastly constipation, fell to be considered as possibilities; but, with the exception, perhaps, of the tenesmus, there was nothing pointing definitely to the former as a cause, and there was little or nothing to be said in favour of the latter. The suddenness with which the symptoms appeared, the associated collapse, and, in addition, the fact that the bowels moved five times the day before the onset almost put constipation out of account. True, there was no motion for two days after the symptoms did appear, but afterwards there were one, two, or three stools in the twenty-four hours, except when all signs of acuteness had passed away, and enemata had to be given. It cannot sufficiently be regretted that surgical assistance was not called in, but operation was at the time out of the question.

ST. BARTHOLOMEW'S HOSPITAL, ROCHESTER.

CASE OF OMENTAL CYST COMMUNICATING WITH THE STOMACH, FOLLOWING INJURY.

(Reported by HAROLD H. COTMAN, L.S.A., House-Surgeon).

F. P., aged 21, was sent to the hospital on December 23rd, 1901, said to be suffering from strangulated bowel.

History.—On September 21st, the patient received a severe blow in the abdomen from the shaft of a cart, while riding a bicycle. This accident kept him away from work for five weeks. He then returned to work, but sometimes complained of "a lump in his stomach." Nothing further was noticed till December 1st, when he suffered from acute rheumatism (third attack). He remained under treatment, but from December 18th until the day of admission (December 23rd), the bowels were never moved, and he was therefore sent to hospital.

State on Admission.—The patient was very thin and very sunken about the eyes, and somewhat collapsed. The abdomen was distended, and to the right and 1 inch above the umbilicus was an oval slightly resonant swelling, fairly freely movable. The heart sounds were abnormal, there being a double aortic and a mitral murmur. The urine contained a fair quantity of albumen. The patient was anaesthetized with ether, and under the anaesthetic the swelling to the right disappeared, but a definite dull area appeared in the left hypochondriac region, slightly movable, and apparently somewhat near the surface of the abdomen. There was nothing to be felt *per rectum*. A catheter was passed, and about 1 oz. of albuminous urine was drawn off. There was evidently no obstruction of the bowels, and as the nature of the swelling was very doubtful, it was decided not to operate, and the patient was sent back to bed. On examining the abdomen that night we were surprised to find that the swelling, which was now definitely to the left of the middle line, was pulsating with a true expansile pulsation, and a doubtful diagnosis of abdominal aneurysm was made. The patient was given castor oil ℥j, and the bowels moved well next day. On December 25th the patient vomited three times; the tumour, which still lay to the left but could be pushed to the right, was still pulsating and seemed larger, but varied in size from time to time: it was never smaller than an orange. The urine was passed normally and in normal quantity. The temperature never rose above 99.2°, and was usually normal, as were the pulse and respirations. The patient was kept on a milk diet. On December 28th the tumour was clearly increasing in size. On December 31st the patient vomited once, and the tumour was larger but had less pulsation. On January 2nd the tumour was much larger, with less pulsation, and he had a very bad day owing to the vomiting, which took place eight times, and on each occasion the quantity ejected was large in amount, the vomit being like that of a dilated stomach. On January 4th it was decided to explore, owing to the persistent vomiting.

Operation.—The patient was anaesthetized, and an incision of about 6 in. was made in the middle line, with the umbilicus as mid-point. A large tumour presented which pulsated freely. On examining it, it turned out to be stomach pulled down with the omentum curled up under it. On putting the hand into the abdomen a definite tumour with well-marked free borders was felt. The stomach was then pulled up into its normal position and an attempt made to free the tumour, but in so doing it was ruptured, and a lot of clear fluid escaped.

The fluid was glairy and of an acid smell, resembling vomit. As the tumour was emptying a few small pieces were seen to come away, resembling gastric contents. An examination was therefore made to see if there was a fistulous opening between the stomach and the tumour, and on the posterior wall of the stomach about the middle of the surface and 2 in. from the pylorus was found an irregular slit-like opening, the diameter of a sixpence, and parallel with the long axis of the stomach, which opened into and communicated with the tumour. Its edges were rounded and smooth, and easily admitted the tip of the finger. The opening in the stomach was closed by Lembert sutures, the edges having been freshened. This was accomplished with great difficulty owing to the friability of the tissue. The tumour was then explored and found to be a blood cyst between the layers of the omentum into the lesser peritoneal cavity. As the patient was becoming collapsed, there being a good deal of bleeding from the cyst wall, the abdomen was well flushed with saline solution, and it was decided to pack the cyst and tie the walls of it up to the abdominal wound. This was done, and the wound closed, a large plug being left in the cyst. The patient was put back to bed and rallied fairly well, but died at 2.45 next morning.

Necropsy.—The cyst was fully examined and found to be of a size to take the closed fist. The walls were thick and deeply pigmented. The other abdominal viscera were healthy, but vegetations were found in the aortic valves, and the strong pulsations of the aorta were no doubt due to the existing valvular defects.

Remarks.—Two theories as to the causation of this remarkable condition may be suggested. One is that a previous gastric ulcer existed, and that perforation of the stomach occurred from this cause, resulting in a peritoneal cyst instead of diffuse peritonitis; the other is that when the injury occurred one of the vessels in the wall of the stomach was ruptured and a blood cyst formed, and that subsequently, owing to the damaged condition of the viscus at this spot, that its coats were eroded and a communication was set up between the stomach and the cyst. The entire absence of any symptoms pointing to previous gastric ulceration are in favour of the latter theory, and whatever may have been the reason of its existence, the presence of a cyst of this nature is, so far as I have been able to ascertain, quite unique.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor T. R. Fraser, M.D., President, in the Chair.

Wednesday, May 7th, 1902.

Gastro-enterostomy for Pyloric Stenosis.

Mr. F. M. Caird read a paper entitled Gastro-enterostomy: Twenty-one Cases, performed for Intrinsic Stenosis of the Pylorus. Attention was drawn to the similarity between the symptoms and indications requiring gastrostomy and gastro-enterostomy. Where there was difficulty in the inward passage of food, vomiting, progressive emaciation, anaemia, and subnormal temperature, the operation could not long be without incurring grave risk. It had been objected to that gastro-enterostomy as practised in cases of malignant disease was an operation of grave risk; that it did not prolong the patient's life, and was of doubtful value. This view was controverted, and it was maintained that even were life not prolonged, the patient at least did not die of starvation, had less discomfort and pain, and did not of necessity face an ordeal of high mortality. It had, indeed, been found a matter of experience that as a result of the operation there was such a great gain in weight and bodily health that even in undoubtedly malignant cases there might arise a question as to the diagnosis. Moreover, in many of the cases the tumour had entirely disappeared. Of the 21 cases, 20 were recommended as cancer, 1 was said to be innocent, due to gastric ulcer, and proved to be so. In every case save one a palpable tumour could be felt, and in all it was found at operation. The chief symptoms were vomiting, emaciation, little or no free hydrochloric acid after a test meal, and other associated signs. Mr. Caird favoured the retrocolic operation of v. Hacker, but could not be certain that it made much difference whether one used the anterior or posterior method, or whether the food current were isoperistaltic or antiperistaltic. It was largely a matter of convenience depending on the amount of disease and the mobility of the gastric organ, but he rather favoured a posterior gastro-jejunostomy as close to the duodenum as convenient, reserving the anterior operation for the more complicated cases. No special preparation of the patient prior to operation was advocated. The stomach was not washed out where the patient was unaccustomed to lavage, and very weak on account of the tendency to syncope and prostration. After operation the patient was given teaspoonfuls of warm water and milk at night if the general condition were good. A small dose of morphine was given for sleeplessness or pain. On the following morning, if there were eructations, tendency to vomit, sickness, or a rising pulse, the stomach was washed out. The great value of this after-treatment in all cases of gastric surgery was indicated. It frequently checked sickness at once, and always did good, although here again one had to be prepared for an occasional dangerous syncope. Attention was drawn to the character, source, and quantity of the material evacuated. If the pulse did not fall after washing out, then about 30 oz. of saline solution was transfused, and always with benefit. Among the twenty cases four were fatal. The symptoms, causes, and treatment of the *circulus vitiosus* were discussed; but no example of this condition had occurred. One male patient died from pleurisy, broncho-pneumonia, and congestion of the kidneys. The abdomen and field of operation were found normal. One woman died within forty-eight hours, apparently from sheer weakness. Another died from leakage. The disease had been so far advanced that the stitches were unfortunately planted in diseased tissues. The fourth was a case of peritonitis, probably from aërial infection. Symptoms were very obscure, and at the necropsy there was found a purulent layer between the anterior parietal peritoneum and the anterior aspect of the omentum. The wound and field of operation were intact and healthy. Of the 17 cases who survived the operation 6 were known to be dead; 3 died from extension of the disease, 2 died from sudden cardiac failure, 1 died of phthisis; 8 were alive six years, two years, and for lesser periods; 3 had been lost sight of and were probably dead. At the time of operation all the patients were extremely emaciated. After it they gained flesh rapidly, and in many cases the tumour seemed to shrink and was no longer palpable. One case, operated on in 1896, had been reopened for a ventral hernia at the cicratrix, and no trace of tumour or glands could be discovered. A second case operated on in 1900, had also been subjected to a second operation on account of the appearance of a few nodules in the cicatrix. The abdomen was healthy and the tumour had almost gone. The nodules showed typical carcinomatous structure. The question might be raised whether these cases which had survived, say, six months were really cases of malignant disease. There could be no doubt that the diagnosis between simple inflammatory hyperplasias which simulated cancer and true cancer was extremely difficult, yet it would be extraordinary were able physicians so frequently in error. Again, one must remember the cases of slow growing gastric carcinoma reported by Stendel and others, where after an exploratory laparotomy alone the patient survived for several years. The great and rapid improvement in the health of the patients under review, however, could only be ascribed to the gastro-jejunostomy, and not to the mere exploration, and therefore encouraged one strongly to give the patient at least the advantage of a probable palliation, and not to relegate him to the class of hopeless incurables.

Mr. Caird's paper was spoken to by Professor Chiene and Mr. Alexis Thomson; and Mr. Caird replied.

Cyto-diagnosis in Pleural Effusions.

Dr. G. Lovell Gulland read a paper on this subject, and illustrated it with a microscopic demonstration. In purulent effusions it was in almost all cases the organism which should be sought microscopically or by culture. The precise appearance of the cells in the effusion was a matter of secondary importance. It was in serous effusions that the cells were of importance. Recently the tendency had been steadily growing to regard all serous pleurisies as tuberculous. Since the

recognition of the importance of early diagnosis of the tubercle of the lungs, this question had aroused even greater interest than before, because not only was the immediate treatment necessarily different according as one regarded a pleurisy as tuberculous, or as idiopathic and harmless, but in many cases the whole future life of the patient would or ought to be coloured by the decision arrived at. Apart from those cases in which tubercle of the lung had already been diagnosed, there were many cases in which the lungs gave no help. The case might really be phthisical, but the physical signs were so slight as to pass undetected, and if it were the more seriously diseased lung whose pleura was attacked, the effusion might conceal the disease. For similar reasons tubercle bacilli might be sought for in vain in the sputum. The injection of tuberculin for diagnostic purposes was also useless, for almost all these cases were associated with fever, so that a rise of temperature could not be regarded as a reaction of the injection. The serum diagnosis of tubercle had been found to be quite useless for practical purposes, whether it were applied to the serum of the blood or to the pleural exudate. Nor did the morphological examination of the blood give much help. The differential leucocyte count had not yet been found to give any definite indication. In the absence of general indications the fluid drawn off by puncture fell to be examined, and the obvious thing was to search for organisms. But since the fluid was strongly bactericidal, it was not proper to say that all effusions in which organisms could not be found were tuberculous. It was nevertheless true that in undoubtedly tuberculous cases it was only very rarely possible to demonstrate tubercle bacilli either microscopically or by culture. This might be because very few bacilli were present, because they were destroyed or rendered incapable of growth by the fluid, or because the effusion was caused by the toxins rather than by the organism itself. Yet such a fluid injected intraperitoneally in the guinea-pig caused tuberculosis. Chemical examination of the fluid gave no assistance, and attention had now been turned to the cells in it. Since Widal and Ravant in France, and Wolff in Germany published papers on this subject in 1900, numerous communications had appeared, especially in France. The fluid should be drawn off by means of an aseptic syringe of sufficient size, and should be examined microscopically to gauge the number of cells present. If there were a large number present, the fluid need not be centrifuged. Too large a drop should not be used on the films. The cover glass films might be fixed by any of the methods in use for blood films. Dr. Gulland had generally used the formalin alcohol method. The triacid stain was not very serviceable, and those he had found most useful were eosin and methylene blue, either a saturated watery solution or Loeffler's and Jenner's stain. Leishman's stain and eosin and haematoxylin were less useful, as they did not bring out the polymorphonuclear cells. The cells found in exudates might be classed according as they were derived from the blood or tissues. Shreds of fibrin were, of course, sometimes found, but were easily recognized. Cells from the blood were red blood corpuscles, and of leucocytes the polymorphonuclear neutrophiles and the lymphocytes of various sizes. The red corpuscles showed no change of importance. The polymorphonuclear neutrophiles might exactly resemble those seen in the blood, and usually did so in fresh effusions. When the fluid had been in the pleural cavity for some time degenerative changes took place, scarcely from want of nourishment, but due partly to toxic influences and to want of oxygen, and might be classified according as they affected the cell body and granules and the nucleus. In the cell body they were (1) simple dissolution, (2) fatty degeneration, and (3) glycogenic degeneration. As to the nucleus, it might simply lose its power of taking up basic stains; but by far the most common change was to find it losing the intranuclear network and staining deeply and homogeneously. The lymphocytes were usually exactly like those in the blood, the small size being in the largest proportion. The only cells from the tissues which appeared in ordinary effusions were the endothelial cells from the surface of the pleura. The general views on the whole matter might now be summarized: (1) Tuberculous effusions. The picture differed according to whether the effusion was examined during the first three days or later. At first the cells seemed to be mainly polymorphonuclear, but by the third day these had been replaced by lymphocytes, so that the microscopic picture of an established tuberculous pleurisy consisted of lymphocytes, red blood corpuscles, a few polymorphs in some cases, and sometimes a few endothelial cells. The lymphocytes and red blood corpuscles were present in nearly equal numbers, and the lymphocytes ought to be at least half of the true cellular elements, while in most cases they reached four-fifths, or even more. (2) Effusions due to the pneumococcus and streptococcus. There was a great preponderance of polymorphonuclears at all stages, unaltered or degenerated as the case might be, and often numerous endothelial cells. Red cells might also be present. The more acute the case, and the more likely to go on to empyema, the more polymorphs would as a rule be present. (3) Oedematous effusions. The cells were almost always few in number, and mainly endothelial in clumps. The same held true of fluid drawn from tissue oedemas in heart cases. In the case of a pulmonary apoplexy in a lung whose pleura already contained fluid, the polymorphs appeared in the fluid at the same time as blood in the sputum. (4) Malignant pleurisies. Generally speaking, cells of the malignant growth would be found in the fluid often in great numbers, often swollen and oedematous. Sometimes the pleural effusion might not be due to malignant infection of the pleura, but to incidental bacterial infection. (5) Pericardial and peritoneal effusions. Of these our knowledge was very limited. Pericardial effusions were not often examined, because not drawn off. Ascitic fluids were frequent enough, but ascites might be caused by so many different conditions, that it had not yet been possible to reduce the appearances found to any definite rule. Cyto-diagnosis could be of value only when associated with the minutest investigation in every other direction.

CASES, ETC.

Dr. NORMAN WALKER showed four patients treated by various methods of phototherapy.—Mr. ALEXIS THOMSON showed a patient after removal of hyperostosis of upper jaw and malar bone of the left side. The condition was congenital, but the increase in size of the jaw had been greater since the girl was struck by a stone some years previously. The bony excretion was removed by an incision much the same as that employed in removing the upper jaw. The bone was found to be very soft, and cut like hard cheese.—Dr. MCBRIDE showed a girl the bridge of whose nose had been restored by paraffin injection.—Mr. H. J. STILES showed: (1) A boy after operation for large intradural abscess following middle ear disease; (2) a child after treatment of congenital dislocation of hip by Lorenz's method. A skiagraph by Dr. Rainy was also shown.—Dr. ALEXANDER BRUCE showed: (1) A woman suffering from complete paralysis of conjugate deviation of both eyes to the left, with almost complete retention of such movements to the right. There was slight left facial paralysis. The condition resulted from a fall. The lesion necessarily was of the sixth nucleus. Convergence of the eyes was retained. (2) A woman with spasm of convergence. She had got run down in health, and suffered from dimness of vision. At first the spasm occurred only once in a few days, but latterly became more frequent, and then remained permanently when she looked at a near object. The condition of spasm of convergence could not be unlocked until light was excluded from the eye. (3 and 4) A girl of 12, and a boy of 9, brother and sister, suffering from spastic paralysis following whooping-cough.—Mr. COTTERILL showed (1) a woman with multiple scirrhus treated by oöphorectomy and x rays. The right mamma was removed in June, 1900, but the growth recurred in the cicatrix as numerous nodules. The left mamma was also the seat of cancer, as were the glands in the left axilla and neck. As removal was out of the question, oöphorectomy was performed. Great improvement took place during four months, when menstruation recurred and the tumour began to grow afresh. X rays for five minutes every second day had had an excellent effect on the nodules of the right side. (2) A child with multiple tuberculous arthritis.—Dr. W. G. SYM showed a girl who had double vision when looking to the right, and especially when looking down and to the right. A spasmodic contraction of the right inferior rectus was the only condition which could give rise to such an affection.—Mr. C. W. CATHCART showed a stretcher adaptable to the Trendelenburg position.—Card specimens were shown by Drs. MELVILLE DUNLOP, STUART MCDONALD, G. LOVELL GULLAND, and Mr. CAIRD.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

PATHOLOGICAL SECTION.

Professor E. J. MCWEENEY, M.D., President, in the Chair.

Friday, May 2nd, 1902.

DISEASED VERTEBRAE.

THE report of the Reference Committee on the specimens of diseased vertebrae exhibited at a previous meeting by Dr. Doyle, stated that the inflammation which had been present in the vertebrae had caused the absorption of a large portion of the transverse ligament of the atlas, but that neither tuberculous disease nor suppurative inflammation had occurred.

CASE OF CONTINUED FEVER DUE TO THE BACILLUS ENTERITIDIS OF GAERTNER.

Dr. CRAIG and Professor WHITE read a paper on this subject. Dr. Craig said the patient was an unmarried man, aged 22, of temperate and regular habits.

About September 18th, 1901, he complained of not feeling well, and on the 24th he had shiverings, and during the next few days vomited several times, had slight diarrhoea, but felt no pain. On the 30th he came under Dr. Craig's notice. His temperature was 103°, pulse 100, respirations 24; his tongue was furred with a creamy matter, though clean at the tip and along the margins. When protruded it was seen to be ataxic; he was covered on the front and back of the trunk with rose spots, and was suffering from diarrhoea, the stools being thin and yellowish. Typhoid fever was diagnosed, and the man was admitted to hospital. The following day the temperature was 104°, his cerebration was slow, he was disinclined to talk, lay on his back, had an eruption of herpes labialis, and in the evening the temperature reached 104.6°. The rash became darker. Sir John Moore saw him in consultation, and recommended his removal from the ward, as he looked on the case as one of typhus. Professor White examined the blood serum, and found that Widal's reaction took place with a 1 in 25 dilution. During the following days his condition became worse, the diarrhoea more frequent, still neither pain nor tympany; his spleen was distinctly enlarged. He now refused nourishment, became wildly delirious, having to be held down; he passed his faeces and urine under him unconsciously. He was given black coffee and injections of strychnine, but no alcohol. He died on the eleventh day after admission to hospital.

The necropsy revealed an enlarged spleen and a condition of inflammation of the mucous membrane throughout the length of the small intestine, but no enlargement or ulceration of Peyer's patches.

Professor A. H. WHITE, Honorary Secretary of the Section, said the small intestine did not present the ordinary lesions of typhoid fever; the whole mucous membrane was inflamed. The spleen was enlarged, and from it he obtained a pure culture of an organism which, though at first sight appeared to be the typhoid bacillus, he now considers to belong to the B. enteritidis group. The organism was a motile bacillus, which was decolorised by Gram, and did not liquefy gelatine nor coagulate milk; it fermented glucose but not glycerine. These and other points Professor White demonstrated by the exhibition of about twenty different cultures on various media of this organism and similar cultures of the typhoid bacillus, bacillus coli, and two known varieties of the B. enteritidis kindly given him by Professor O'Sullivan. Unfortunately, he had not immunized an animal against this organism, but hoped to do so in order to determine, if possible, to which of the varieties of the B. enteritidis group this organism belonged. In this connexion it should be noted that the blood serum from some typhoid patients gave a clumping reaction with this organism at low dilutions only, while the serum of this patient gave a reaction with typhoid bacilli at 1 in 25, but not at 1 in 50. Professor White then recounted a number of outbreaks of serious illness following on the eating of meat containing these organisms, in many of which deaths resulted, and gave more especially an abstract of Durham's work on the subject. He looked on the present case as one not of typhoid fever, but of fever due to a bacillus having all the morphological, cultural, and pathogenic characters of the B. enteritidis, and suggested that possibly some of the milder and shorter cases of fever might be due to this or some similar organism.

The PRESIDENT said the case related in its clinical aspects had a striking resemblance to a series of 6 or 8 cases brought forward by Chiari, at the International Medical Congress, Moscow, in which there were no typhoid lesions, but in which splenic puncture obtained micro-organisms which gave typhoid infection. He looked on the case as one of typhoid septicaemia due to an aberrant bacillus.

Dr. BEWLEY said the absence of ulceration in Peyer's patches did not exclude typhoid fever. Mann had drawn attention to this fact. Was it characteristic of Gaertner's bacillus not to cause ulceration?

Professor WHITE considered the Gaertner group of micro-organisms as distinct organisms, not aberrant forms. If this theory were accepted, then the case was not one of typhoid fever. The organism found was, he believed, undoubtedly a B. enteritidis.

SARCOMATOUS OSTEO-CHONDROMA OF FEMUR REMOVED BY DISARTICULATION AT HIP.

Professor C. Y. PEARSON (Cork) then exhibited a specimen and related the case. The patient was a farmer, aged 57, married, with a good family history. He had always been healthy.

About eight years ago he had a fall from a ladder, a distance of 11 ft., and landed on his feet. About two years after this he noticed a small swelling on the front of his thigh at the lower part. This was about the size of a marble, hard, and unaccompanied by pain. It gradually increased in size, and in another two years it was of such a size that he had to get his trousers enlarged for it. On August 17th, 1901, he was again admitted to the North Infirmary. The tumour had by this time assumed large dimensions, and was causing severe pain. It was of almost stony hardness, and measured 31 in. in circumference at its widest part. The skin over it presented numerous dilated veins, and a cutaneous eruption of a lichenous character. The leg was much swollen and oedematous. There were two glands in the groin of stony hardness, and about the size of a walnut. Operation performed August 22nd. The femoral vessels were exposed by anterior vertical incision, and ligatured above and below the glands, which were then excised. The amputation was then completed by a socket-shaped incision, all vessels clamped as divided, no tourniquet or digital pressure being employed. The patient made a good recovery, but returned in April, 1902, ailing with severe abdominal pain, and was found to have a tumour with communicated impulse in the epigastrium; behind was a large gland with secondary deposit; also an enlarged gland near the external iliac.

The tumour was a periosteal osteo-chondroma, sections of which showed ossification in the cartilage and the sarcomatous tissues. A section of one of the glands showed large cells, with active nuclei resembling squamous epithelium, but believed to be cartilage cells.

ADENOMA OF BREAST.

Professor C. YELVERTON PEARSON also showed a breast with large encapsuled tumour, which he had removed from a girl, aged 18. It had commenced five months previous to removal, and had rapidly increased. There was no enlargement of the axillary glands, but marked engorgement of the veins. Microscopic examination showed it to be a papillomatous form of adenoma, with penetration of the acini.

PATHOLOGICAL SOCIETY OF LONDON.

W. WATSON CHEYNE, C.B., F.R.S., President, in the Chair.

Tuesday, May 20th, 1902.

THE INFECTIVE LESIONS OF THE TONGUE, STOMACH, AND INTESTINE IN ANAEMIA (25 CASES).

DR. WILLIAM HUNTER made a communication upon the infective lesions of the tongue, stomach and intestine in Addison's anaemia ("idiopathic," "primary," "pernicious anaemia") based on 25 cases with 7 necropsies; and demonstrated by lantern slides, naked-eye specimens, and cultures the infective lesions he had found in the 7 cases examined.

Present Observations.

The observations now recorded had been made on 25 well-marked cases of Addison's anaemia, which had come under Dr. Hunter's notice during the past two years. They had been of the following character: (1) Special observations on the mode of onset, naked-eye characters and appearances of the glossitis found in every case, without exception, and never observed in any other conditions; (2) complete necropsy of 7 cases; (3) complete analyses of the liver, spleen, and kidney in these 7 cases, confirming the diagnosis during life, with control analyses in 4 cases 1 of health, 1 of profound septico-pyaemia, and 2 of cancer of the stomach; (4) histological examination of the whole digestive tract from the tongue downwards in these 7 cases; (5) Control observations and histological investigations of the same tract in twelve other diseases, most of them characterized by more or less severe oral sepsis, namely, health, septicaemia, septico-pyaemia, cirrhosis of liver, emphysema, mitral disease, cancer of stomach, cancer of tongue, gastric ulcer, gastric catarrh, tuberculous disease; (6) the histological examination had been of the following kind: The tissues had been hardened in alcohol, formalin, or Müller and formalin; imbedded in paraffin blocks, cut in serial sections—fixed on slides, stained and mounted without any manipulation of the sections themselves. The actual pieces of tissue so cut had been 100, and the number of sections stained for organisms and examined had been:

In the six cases of pernicious anaemia	880
In the control observations	265
Total	1,145

(7) The tissues specially examined, exclusive of blood and heart had been the following:

	No. of Sections.		No. of Sections.
Stomach	317	Liver	84
Tongue	278	Spleen	79
Intestine	—	Kidney	62
Duodenum		Lymph glands (gastric and mesenteric)	34
Jejunum			
Ileum...	211	Bone marrow... ...	10
Caecum		Gums and antrum ...	35
Sigmoid flexure ...			
Rectum			

(8) Bacteriological examination of (1) the vomit, (2) the spleen, (3) the bile, (4) the tongue—severally or combined, in 7 cases of pernicious anaemia some 250 cultures have been made.

1.—*Introductory.*

The observations now recorded were an extension of those described recently. (*Lancet*, January, 1900; and *Pernicious Anaemia*, 1901.) The general character and scope of these might conveniently be described in the words of Professor Grawitz, of Berlin, in a recent paper on the subject. (Zur Frage der enterogenen Enstehung schwerer Anämien." *Berl. klin. Woch.*, June, 1901.)

The subject of the origin of pernicious anaemia has been recently enriched by observations of W. Hunter, who in a series of such cases has found severe inflammations of the mucosa of the mouth and of the gums, and has brought these inflammations into etiological relationship with pernicious anaemia. As is known, W. Hunter was the first to draw attention to the destruction of corpuscles caused in the portal circulation by the absorption of toxic products from the intestine: and as a sequel and outcome of this view he considers that the poisons (that is, infective organisms) produced in connexion with severe stomatitis are swallowed, infect the stomach and intestine (mucosa), become absorbed and act destructively on the blood corpuscles. These infective processes he considers explain the occurrence of the fever symptoms met with in pernicious anaemia, as also the atrophy of gastric and intestinal glands met with in many cases of pernicious anaemia. Hunter accordingly defines pernicious anaemia as a chronic infective disease, caused by infection of certain parts of the digestive tract, especially the mouth, also the stomach and intestine; and he goes so far with this thought as to recommend in treatment the use of antistreptococcus serum along with local treatment of the mouth, stomach, and intestine.

In these terms Professor Grawitz had summarized with sufficient clearness the results of one portion of the work he referred to—namely, that portion dealing with one of the two important infective factors which I conceive are concerned in the etiology of this form of anaemia, namely, the septic factor. The evidence on which my conclusions regarding this factor were based was of three kinds: (1) The prevalence of conditions of stomatitis and gingivitis and other septic troubles in connexion with the mouth (conditions for which I sought and subsequently designated by a suitably short title of "Oral Sepsis") (Oral Sepsis as a Cause of Disease, BRITISH MEDICAL JOURNAL, June, 1900). These conditions had either been altogether overlooked, or had not had any importance attached to them. As Professor Grawitz stated:

My own experience is that no general significance can be attached to these mouth inflammations in this relation, since in the relatively large number of cases which have come under my notice I have not met with a single case in which there has been any noteworthy *primary* stomatitis. On the other hand, *secondary* stomatitis with severe haemorrhages into the gums can arise in pernicious anaemia as the result of the general cachaemia prevailing. (1901).

(2) The existence of a condition not before described—namely, a subacute infective gastritis as a common result of long-continued oral sepsis set up by the continued influx of pus organisms into the stomach—a real septic catarrh which I have designated "septic gastritis." (3) The occasional presence of similar infective lesions in the mucosa of certain parts of the intestinal canal, probably having a similar origin—"septic enteritis." These by themselves, however severe they might be, were not sufficient to cause pernicious anaemia; but they constituted, in my judgement, a most important etiological factor in the development of the disease. They created lesions of the mucosa in the alimentary canal favourable to any subsequent infection to which the tract might be exposed. Evidence of such subsequent infection he found in a peculiar form of glossitis in every case that has come under my observation from 1888 onwards. This condition so obscure and apparently of so little consequence, that in the records of 250 cases there were only some 20 references to anything being wrong with the tongue—had in all cases been regarded, like other conditions of the tongue, as merely symptomatic of stomach disorder. In my experience, however, it presented such characters in respect of mode of onset, relation to onset of the anaemia, clinical features and (as observed during life) pathological features as well, that I was led to the conclusion that we had in it to do not with an ordinary superficial glossitis, but with a glossitis of a special character, depending on some deep-seated infection of the tongue itself. In connexion with the etiology of this form of anaemia, there was, in short, evidence of a double infective process: (1) A specific infection, of which the chief evidence was a glossitis: (2) a septic infection of mouth, stomach, and intestine, of which the chief evidences during life were varying degrees of "oral sepsis" and "septic gastritis," the latter recognizable during life by the vomit and various symptoms of oral, gastric, and intestinal disturbance, and after death the conditions of gastritis, gastric atrophy, intestinal atrophy, erosions, or ulcers now and again found in the disease.

Diagnosis.

The diagnosis of the 25 cases was based during life upon: (1) the mode of onset; (2) the presence of the severest blood changes in association with the four characteristic groups of symptoms (*a*) anaemia, (*b*) haemolytic, (*c*) oral, gastric, and intestinal, (*d*) toxic, described in my recent work. In no case was the diagnosis based upon the results of blood examination alone. In addition to the 25 cases included in my list I have had 10 other cases in which the diagnosis of pernicious anaemia has on various grounds been rejected. The diagnosis was confirmed in all cases (7 in number) in which a necropsy was obtained.

General Etiology.

As regards general etiology. All the 25 cases—19 men and 6 women—dealt with conform in all respects to Addison's original account. In all cases the anaemia appeared to arise "without discoverable cause." In none of them was there anything as regards (*a*) station of life (17 private patients and 8 hospital patients), poverty, character or amount of food, or surroundings, sufficient to explain the anaemia. In none of the six women did pregnancy or puerperal condition play any part. In no case was there any previous loss of blood; in no case among those included was there any real ground to suspect malignancy (2 cases of this kind he had excluded), and in none of the 6 cases examined *post mortem* was there any trace of malignant disease. In all cases gastric and intestinal symptoms were present at some time or other; sometimes later on in the disease of a severe character. But in no case were these of a character or intensity to account for the onset of such intense anaemia as was found in all cases. Lastly, in this connexion—in all cases observed during life and after death—certain lesions presently to be described were found in the mouth, tongue, stomach, or intestine, singly or combined. But in no single case were these either in character or intensity in any way adequate to account for the anaemia, by any interference with nutrition they may have been capable of causing. In short all the cases might have been described in Addison's own words:

As occurring without any recognizable cause whatever ... cases where there had been no previous loss of [illegible] chlorosis, no purpura, no renal, splen[illegible] or malignant disease ... apart from the usual causes or concomitants of the anaemic state.

On the other hand, to not one of the cases here described could Biermer's etiological definition of this disease—which had formed the basis of all German work from his time (1879) up to the present date (1891)—be applied:

It was found amongst poor people, especially among women, in whom in addition to poverty, puerperal conditions appear to be favouring causes. Insufficient and unsuitable feeding, unhealthy surroundings, chronic discharges—especially persistent diarrhoea—sometimes also haemorrh[illegible] common v[illegible]ording to [illegible] with or without gastric disturbance. A spontaneous origin without clear etiology was the exception.

It was the last sentence that had influenced from first to last all subsequent German work, as the following extracts would show: Eichhorst (1878), the author of one of the first monographs on the disease, which would always remain a standard work on the disease: Ehrlich and Lazarus (1900), to the former of whom they owed such studies regarding the blood changes in this disease that the name suggested by the latest German observers for the disease was Biermer-Ehrlich anaemia: and Schaumann, the observer to whose exhaustive studies on bothriocephalus anaemia (1894-1901), the

subject of Biermer's anaemia (progressive pernicious anaemia) owes (according to Ehrlich) any elucidation it had received among German writers. Thus Eichhorst (1878 and 1891):

The chief merit of Biermer's work—the great and invaluable service he has rendered—is that it brought together into one common group and under one title a number of different forms of anaemia possessing certain characteristic features in common (1878, p. 31). One cannot emphasize too much Biermer's statement, "A perfectly spontaneous origin without clear etiology is one of the rarities." It is therefore clear that from the etiological standpoint there are as many forms of progressive pernicious anaemia to be distinguished as there are causes to be found. It is absolutely necessary that we should hold fast to this statement if we desire to be clear as to the degree and character of the services Biermer has rendered to the subject (p. 31). It is a fact that progressive pernicious anaemia attacks especially poor, overworked people. I have not found a case in the literature where the disease has attacked a person living in good circumstances of life (1878, p. 30). One has to distinguish between primary, essential, idiopathic forms (the smaller group) and secondary deuteropathic, and symptomatic forms (the larger group) (1878 and 1891) ..... In the latter a feature is the gross disproportion between the causes and the effects.....in short, a kind of predisposition is essential to the development of the disease (1891).

Professor Grawitz: *Klinische Pathologie des Blutes*, 1896.

Progressive Pernicious Anaemia, Essential Anaemia, Severe Primary Anaemia. The condition now to be described under the above names was clinically and anatomically first described by Biermer in 1868, and thereby introduced into pathology. The fame of having firmly grasped and defined with greatest clearness the whole, essential symptom complex of these diseases, and having made it known to the medical world belongs to Biermer (p. 85). Professor Birch-Hirschfeld (1892) has in a precise way grouped together all severe anaemic conditions irrespective of their etiological origin ..... whether caused by repeated haemorrhages, gastric and intestinal disturbances, intestinal parasites, pregnancy and puerperal infectious processes, syphilis, malaria, idiopathic or cryptogenetic infection or auto-intoxication—under the name of pernicious anaemia. According to Birch-Hirschfeld, there is no reason on the grounds of etiology for separating from the above group and entitling as "true" pernicious anaemia those cases in which no cause is discoverable, since by this criterion the diagnosis can only first be made *post mortem* (p. 88).

Professor Ehrlich and Dr. Lazarus (*Die Anaemie*, Part II, 1900).

The famous address by Biermer in 1872, in which the name "progressive pernicious anaemia" was first used, forms the starting point for our description of the disease..... Under this symptom complex Biermer thus groups together essential, idiopathic, primary conditions of anaemia with those of known etiology and pronounced secondary character; at least, he specially mentions in some cases an organic disease—follicular ulcers of colon—as the starting point of the disease. All subsequent works dealing with progressive pernicious anaemia, as also those which deny to this particular condition the right to be dealt with in a special chapter of pathology, are based, directly or indirectly, consciously or unconsciously, on Biermer's publication. The essential changes which define progressive pernicious anaemia are blood changes. Ehrlich has the credit of having in the clearest manner and from the widest point of view pointed out their diagnostic significance. According to Ehrlich the blood of typical cases of pernicious anaemia differs from that of simple anaemia in showing, more or less numerously, red corpuscles which exceed the normal in size; whereas in simple anaemia only red corpuscles are met with whose diameter is normal or smaller than usual. The appearance of megalocytes in the blood, as also the appearance of their nucleated precursors the megaloblasts, shows that the regeneration of the blood is no longer following its usual physiological course—it is following a type never found under normal circumstances in adults, a type resembling that found in embryonic life (p. 91). These distinctions are so important and far-reaching, that it becomes necessary to separate the megalocytic and megaloblastic anaemias from the normocytic and normoblastic, even if this division does not correspond clinically with Biermer's division of pernicious anaemia from other forms of anaemia. We come, then, to the result that we are here concerned with those conditions characterized by the features described by Biermer and Ehrlich. But we must continuously keep in mind that we have not to speak of a disease *sui generis*, but a frequently occurring group of symptoms met with in very different conditions of disease (p. 92).

Under the head of causes and origin of the disease, the group of factors, twelve in number, which are considered responsible for the secondary forms of the disease is dealt with at length.

Of these forms, the one which in its etiology, if not also in its pathogenesis is fully explained is bothriocephalus anaemia. The bothriocephalus anaemia is progressive pernicious anaemia with a known etiology.

Yet a few sentences later he has to make the important admission:

We must accept that in the behaviour or the characters of the parasite there is a something special which transforms it from a comparatively harmless inhabitant of the intestine into a highly dangerous disease producer. The bothriocephalus, under certain conditions not yet fully ascertained, is able to produce an anaemia which presents a complete picture of the Biermer-Ehrlich anaemia.

And then he adds:

Unfortunately one must at the present moment admit that our knowledge of bothriocephalus anaemia [illegible] our entire positive knowledge of the etiology of progressive pernicious anaemia (p. 99).

Then follows briefly:

After all these cases have been dealt with we have still to deal with [illegible] in which not a single point can be got out of [illegible] light on the origin of the disease, in which [illegible] nor necropsy reveals any changes in the organs to which the severe disease can be referred, "primary," "essential," "cryptogenetic," anaemia (p. 107).

It might be thought that this last-mentioned group was of a single nature. But not even this was conceded. The emphatic conclusion was expressed:

It is not to be doubted that even among these are many forms differing entirely from one another in their origin and pathogenesis.

Schaumann, "Pernicious Anaemia in the Light of a Modern Toxic Hypothesis" (*Volkmann's Sammlung klinischer Vorträge*, No. 287, December, 1900):

As regards the term "pernicious anaemia," I hold the same views as Immermann, Quincke, Lichtheim, Müller, and the other authors who consider that the disease is not an etiological unity, but only a symptomatic group, which can be produced by causes of all kinds. I regard, therefore, as pernicious anaemia not only the so-called idiopathic, or primary, or, better, cryptogenetic cases where the disease develops without any recognizable cause, and apparently spontaneously, but also those in which a definite etiological cause for the anaemia is to be found. Among such cases are the following: (1) Intestinal parasites; (2) gastro-intestinal disturbances of all kinds; (3) pregnancy and puerperium; (4) repeated haemorrhages; (5) infective processes (syphilis, malaria, enteric fever; (6) intoxications (carbonic oxide poisoning). If I have to define my position in a few words—I consider that we must regard as pernicious anaemia those cases of severe anaemia which correspond to the clinical picture described by Biermer, and possess the blood condition described by Ehrlich, irrespective whether such cases occur in individuals previously healthy, or in those already affected with disease, and irrespective whether the anaemia runs a fatal course or not (p. 233).

Dr. Hunter went on to say: On the other hand, if I were to describe my own opinion, as the result of fifteen years' close investigation of this anaemia, as to the nature of anaemia, I could paraphrase Eichhorst's statement and say, "The chief merit of Addison's work—the great and valuable work he rendered—is that his description separated from the common group of anaemias one which he thought to be an altogether special form." "A remarkable form of anaemia."..... "this very remarkable disease"....."this form of anaemia." Such are the forms in which the eminent physician, speaking towards the end of a life exceptionally rich in clinical and pathological experience, speaks of the anaemia he has in his mind. And the chief demerit of Biermer's work from the etiological point of view is that he did precisely what Eichhorst describes—namely, group together under one name anaemias having a widely different etiology. If for the word "anaemia," in the words of Addison above quoted, be substituted the words "infective disease," the qualifying terms he uses would express adequately the conclusions I have come to with regard to the real nature of this disease. It is a remarkable infective disease, with obscure but definite antecedent history, obscure but definite mode of origin, obscure but definite infective lesions, and definite clinical features and course. As regards the etiological and diagnostic significance of the blood changes to which, following Ehrlich's teaching, an overwhelming importance has been attached during the past ten years, my own conclusion is that the essential changes which define "pernicious" anaemia are *not* the blood changes alone, but these in association with a definite group of clinical features. The appearance of megalocytes, or their nucleated precursors the megaloblasts, is *not* distinctive of Addison's anaemia—primary pernicious anaemia. They are found in other forms of anaemia totally distinct from Addison's anaemia, particularly in forms of anaemia associated with sepsis which I am in the habit of designating "septic anaemia." Their appearance in the blood shows that the regeneration of the blood is no longer following its usual physiological course, is following a type never found under normal circumstances in adults; but that is not the result of any primary change in the character of the blood formation—any reversion to an embryonic type but solely of an excessive and for a long time well-sustained effort on the part of the blood-forming tissues to compensate the excessive haemolysis continuously going on. The distinction between normocytic and normoblastic anaemias on the one side, and megalocytic and megaloblastic anaemias on the other, by no means corresponds with the groups of ordinary anaemia and pernicious anaemia respectively. On the contrary, I have no hesitation in excluding from the group of Addison's (primary "pernicious") anaemia, cases showing "megaloblastic degeneration" of the blood corpuscles, if other characteristic clinical features, for example, haemolytic changes in the urine, be absent. Conversely many cases of true Addison's anaemia during periods of quiescence show no megaloblastic changes in the blood, the blood in all respects being perfectly normal. Nevertheless a few weeks' relapse of the disease with its characteristic haemolytic changes will immediately cause the reappearance of all the usual blood changes, including megalo-

blasts. As the final outcome of my work on this disease, I cannot then in any degree admit that in the condition I have been accustomed to regard and entitle "pernicious anaemia," I am dealing with the form of anaemia as understood etiologically by Biermer and by the observers referred to, nor do I in any degree admit that in this anaemia we have merely to do with a frequently occurring group of symptoms met with in very different conditions of disease—not with a disease *sui generis*. My own conclusion is that in it we have to do with a disease *sui generis*—a definite, specific, infective disease, with a very definite group of clinical features and a very definite and constant group of pathological changes associated with it. These changes are of two kinds—(1) infective lesions in the mucosa of the alimentary tract; (2) distintive pigment changes in the liver and kidneys the result of the haemolysis caused by the infection underlying the disease (See analyses). If the term "pernicious anaemia" is to be used in the sense above indicated by German observers, and as denoting a whole multifarious group of anaemic conditions, I have no other choice in justice to the conclusions arrived at regarding the unity of this condition than to keep for it the name that will associate it with its first describer, namely, "Addison's anaemia," since, as was fully admitted by Professor Eichhorst in 1878, Addison was the first to describe the disease. He wrote:

We come to the result that this (the primary) form of pernicious anaemia was first described in England both in the form of individual cases and as a definite clinical disease.

ANALYSES.

Pernicious Anaemia.

	Liver.	Kidney.	Spleen.
Case 1 (1900)	0.360	0.033	0.069
Case 2 (1900)	0.240	0.042	0.094
Case 3 (1900)	0.363	0.133	0.141
Case 4 (1901)	0.114	0.055	0.111
Case 5 (1901)	0.292	0.013	0.275
Case 6 (1902)	0.140	0.256	0.099
Case 7 (1902)	0.385	0.031	0.090
Average	0.270	0.090	—
Total	0.360		0.125

Result.—In all cases the percentage in *Liver* alone exceeds that in spleen

Normal.

Liver.	Kidney.	Spleen.
0.080	0.004	0.090
Total 0.084		

Septic Anaemia.

Liver.	Kidney.	Spleen.
0.069	0.014	0.105
Total 0.083		

Cancer.

Liver.	Kidney.	Spleen.
0.123	0.022	1.330
0.022	0.003	0.013
Total 0.083		0.671

Result.—In all cases the average percentage in *Spleen* exceeds that in liver and kidney combined.

THE KNEE-JOINTS FROM A CASE OF HAEMOPHILIA.

Mr. A. LUCAS exhibited these specimens, which came from a boy who was accidentally drowned. The joints contained a blood-stained fluid, and presented deep erosions of the articular cartilage and a certain degree of lipping. The same exhibitor recorded also a case of congenital stricture of the small intestine midway between the stomach and caecum.

HYDATIDS OF THE GALL BLADDER.

The report of the Committee appointed to consider Mr. McGavin's specimen of hydatids of the gall bladder, exhibited at a meeting of the Society in October, 1901, was presented. The Committee was of opinion that the sac in question was not the gall bladder, but a cyst formed probably in the connective tissue about this viscus, since the wall presented no trace of mucosa or muscle fibre; the gall bladder was not seen at the time of the operation, but this the Committee thought possibly due to its compressed and atrophied remains having escaped recognition.

The other communications on the list were taken as read, the latter part of the meeting being devoted to the annual official business of balloting for the officers of the ensuing session and receiving the report of the Council.

ELECTION OF OFFICERS.

For the ensuing session, the Right Hon. the Lord Lister, F.R.S., was elected President (subject to his willingness on his return); Mr. R. J. Godlee, Professor W. D. Halliburton, F.R.S., Professor E. Klein, F.R.S., and Dr. F.W. Pavy, F.R.S., were elected Vice-Presidents; Dr. Sidney Coupland, Treasurer; Dr. H. Morley Fletcher, Mr. H. G. R. Foulerton, Dr. T. Grigor Brodie, and Dr. A. E. Garrod, Secretaries of the Sections of Morbid Anatomy, Bacteriology, Experimental Pathology, and Chemical Pathology respectively; Mr. S. G. Shattock, General Secretary; the new members of Council elected were Dr. R. Crawford, Dr. J. Fawcett, Dr. L. Freyberger, Dr. S. H. Habershon, Dr. R. T. Hewlett, and Dr. J. R. Bradford, F.R.S.

LIVERPOOL MEDICAL INSTITUTION.

RUSHTON PARKER, B.S., F.R.C.S., President, in the Chair.

Thursday, April 24th, 1902.

TENOTOMY OF TENDO ACHILLIS.

MR. THELWALL THOMAS read a note on the value of tenotomy of the tendo Achillis in complicated fractures of the lower extremity. He had practised it with success in fractures above the condyles of the femur, oblique fractures of the tibia, and in fractures of the tibia and fibula immediately above the ankle-joint. He thought this simple proceeding was apt to be lost sight of in the prevailing rage for "screws" and "wires." Fractures that united with any degree of deformity distorted the line of weight bearing in the limb, and altered the relative position of the joints to this axis, and until met by a new development of bony trabeculae the limb was very much disabled. He considered it essential that every fracture ought to be accurately reduced soon after the injury, and less trust be placed in pads for pressing fragments into position during consolidation. Tenotomy enabled this to be readily carried out in the above-mentioned fractures, where extreme flexion would otherwise be necessary, and the need for more serious operations would become less frequent, and tedious convalescence materially diminished. The use of *x* rays would help to verify the position if any doubt might exist.

The PRESIDENT said that it was evident that tenotomy of the tendo Achillis must be good sometimes under certain conditions of manipulatition and manipulative skill, but that the necessary relaxation of the calf muscles, in cases in which the first adjustment was difficult, could generally be effected by bending the limb freely at the seat of fracture, and so without much force permitting the broken fragments to be put easily into apposition. Linear traction in such cases, if employed before adjustment, necessarily failed by locking the fragments in a bad position.

Mr. R. W. MURRAY said that under ordinary treatment an oblique fracture of the lower end of the tibia reduced a labourer's wage-earning capacity by at least 50 per cent. There was extreme difficulty, not only in reducing the fracture, but also in maintaining correct apposition, even when the site of fracture was exposed by a free incision under an anaesthetic. On these grounds he strongly advocated wiring or screwing in these fractures, whether simple or compound.

Sir WILLIAM BANKS and Mr. F. T. PAUL also spoke; and Mr. THOMAS replied.

OPERATIONS FOR HERNIA.

Mr. G. P. NEWBOLT read a paper based upon 120 consecutive operations for hernia, radical and strangulated. There were 77 operations for radical cure and 43 for strangulation, in most of which a radical operation was also performed. The radical operations consisted of 70 inguinal, 2 femoral, 3 umbilical, 2 ventral, and there was 1 death from simple pneumonia in a child, aged 19 months. Of the 43 cases of strangulation, 28 were inguinal, 11 femoral, and 4 umbilical. Ten of these died, that was, 6 inguinal, 2 femoral, and 2 umbilical. Altogether 114 patients were operated upon, 97 operations being done on males and 23 on females. Out of 13 cases of femoral hernia only 1 occurred in a male, and out of 98 inguinal only 5 occurred in females and 2 were strangulated. The youngest patient operated upon was 2 months, and the oldest was 78 years old. There were two cases of strangulation in young children. The subject of radical operation in children was dealt with, and the procedure was advised in those cases in which treatment by trusses was not likely to be properly carried out. The difficulty in separating the sac from the cord in small babies was commented upon. In large hernias in elderly men the operation of removal of the testis and cord with entire closure of the canal and ring was recommended. Mr. Newbolt usually performed Macewen's operations, using silk or kangaroo tendon for ligatures. The question of the taxis was dealt with, and also some points in connexion with reduction in mass. Trusses were generally advised after operation, except in congenital cases. Two cases of inflammatory trouble after the removal of big masses of omentum were narrated, both terminating favourably. In 4 cases of strangulation, out of 43 the intestine was resected and there were three recoveries. Murphy's button was used in each instance, and the operation was done through the herniotomy wound. Eucaine was of service in 1 case in which the patient was so ill that a general anaesthetic was thought to be inadvisable. The deep epigastric artery was divided accidentally in one instance and secured after some trouble. The vermiform appendix was found strangulated in the hernial sac in a case of femoral hernia and was removed. Eight out of the 10 deaths occurred in cases which had been strangulated over 72 hours, and they were chiefly due to enteritis and peritonitis. The dark colour of the urine due to the presence of indican was alluded to in cases of strangulated bowel.

The PRESIDENT said that after performing the operation nearly 600 times, he found herniotomy a subject full of practical interest, and often of novelty. In children, irrespective of station, he was in favour of early operation for radical cure. The more he performed it the more he was satisfied that it was both effectual and right, and his late experience simply confirmed his views expressed in the BRITISH MEDICAL JOURNAL in 1893 and 1895. Macewen's operation was absolutely satisfactory in almost all cases in children. Suppuration in a packed and granulating case did not in his opinion specially favour a radical cure. In the matter of gangrenous gut no fixed rule of procedure could be claimed as preferable; successes and failures had resulted severally from all. The cases must be dealt with, as in many surgical emergencies, according to the circumstances as ascertained at the time.

Mr. K. W. MONSARRAT considered that much of the ingenuity devoted to the invention of new methods of treatment of the hernial sac in radical cure was wasted. The interposition of a muscular barrier was the essential factor. This principle was acted upon in the prevention of hernia through the abdominal wall. It was applied in its simplest form to the cure of umbilical rupture, and was made available in inguinal herniae by Bassini's operation.

Mr. DOUGLAS CRAWFORD advocated radical cure in children of the hospital class. He practised a modified Macewen, but he was satisfied with his results with Bassini's operation. With gangrene of the gut he preferred the establishment of an artificial anus and subsequent repair.

Messrs. F. T. PAUL, E. G. HAMILTON, and DAMER HARRISSON also spoke; and Mr. NEWBOLT replied.

LOOSE CARTILAGINOUS BODIES IN KNEE-JOINT.

Sir WILLIAM BANKS showed a collection of loose cartilaginous bodies removed from the knee-joint of a woman, aged 26. They were over 40 in number, and varied from the size of a bean to that of small shot. There was a history of two falls upon the knee, the first eight years previously and the second four. After the latter there was always weakness and pain in the joint, and recently when walking the patient had been seized with sudden and violent pain, while she was compelled to clutch any support at hand to prevent falling. The knee was then semiflexed. Several loose bodies could be felt in the articulation, which contained a good deal of fluid and was painful and useless. A semilunar incision was made above the knee, and the flap, including the patella, thrown down. The whole joint thus thoroughly displayed was cleared, partly by forceps and partly by means of a strong stream of water, which flushed every pocket in it. The quadriceps tendon and muscles were brought together by deep sutures, and perfect primary union was obtained. The patient, who had only left hospital three weeks previously, had perfect movement of the joint.

PARTIAL REMOVAL OF THYROID GLAND.

Sir WILLIAM BANKS also showed one half of an enlarged parenchymatous thyroid gland removed from a girl aged 18, with whose respiration it had begun to interfere. At the removal it was found that the trachea was flattened from side to side. The patient was shown with the view of illustrating the effect of removal of one half of an enlarged gland upon the remaining half—namely, atrophy. He advocated cleaning the isthmus first of all, ligature thereof, followed by division, and then removal of the half gland by dissection from the middle line outwards. He considered this an infinitely safer and easier method of procedure than beginning to remove the gland from the outer margin.

ADENOMA OF PROSTATE.

Sir WILLIAM BANKS also showed a number of crushed stones and a large adenoma of the prostate, removed from a gentleman aged 76, with an enormously enlarged prostate, who had not passed any water for fifteen years, except through a small catheter. The operation consisted of a median cystotomy, with crushing of some half dozen stones. He believed this form of lithotrity through a median perineal incision would be the future operation for lithotomy in old men.

CASES.

Sir WILLIAM BANKS showed: (1) Two female patients from whom half the thyroid had been removed for parenchymatous goitres, causing pressure symptoms. He stated that a median incision with dissection outwards was the most suitable method to pursue. (2) A patient from whose knee-joint he had removed several foreign bodies, with an excellent result.—Dr. FRANK H. BARENDT showed 2 cases of prurigo.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—At a meeting held on May 9th, Mr. LENNOX BROWNE, Vice-President, in the chair, Dr. WYATT WINGRAVE read notes of a case of otomycosis (aspergillus niger), and showed a microscopical specimen of the fungus.—Mr. MAYO COLLIER exhibited a man, aged 63, suffering from chorea of the larynx of twelve months' duration, preceded by similar twitchings of the face muscles. The CHAIRMAN suggested that it was a case of reflex irritation, and probably due to the lingual varix which was present. Mr. MAYO COLLIER thought this might be so, and said he would cauterize the part, and report the result at a future meeting.—Mr. MAYO COLLIER read further notes of a case of optic neuritis and mastoid disease, reporting almost complete recovery. The further progress of the case had confirmed Dr. Hawthorne's diagnosis of thrombosis of the cavernous sinus. Mr. Mayo Collier also read further notes of a case of epilepsy and tinnitus, and reported that since recovery from the surgical procedure which he had adopted, namely, the clearing out of the contents of both tympanic cavities, together with both drumheads, there had been no fit for eleven months.—Dr. P. H. ABERCROMBIE showed a case of left frontal sinus disease of thirteen years' duration, with frequent attacks of excruciating pain and great tenderness over the right frontal sinus, which latter, on exploration, was found to be healthy. Operation three months ago had resulted in a cure. He also showed two new instruments (one Dr. Jakins's and the other his own) adapted to the enlargement of the fronto-nasal canal.—The CHAIRMAN showed a man, aged 22, the subject, since 4

years of age, of suppurative median otitis in the left ear. There was granulation tissue to be observed springing from the anterior and superior part of the tympanic cavity. The case was shown as one in which removal of the granulations and cauterizing was proposed, because their site, together with the complete absence of symptoms, was favourable to such a procedure, in spite of the advice laid down by high authorities that the presence of such granulation tissue was an indication for the immediate performance of a radical mastoid operation. The discussion on Dr. Dundas Grant's paper on the diagnosis and treatment of the various forms of nerve deafness read at the last meeting was resumed by Dr. GREVILLE MACDONALD, Dr. ATWOOD THORNE, Dr. WINGRAVE, Mr. NOURSE, and Mr. LENNOX BROWNE. Dr. DUNDAS GRANT briefly replied.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting held on April 24th, Dr. HARRISON, President, who was in the chair, announced that, as Dr. Unna's oration at the annual meeting would deal with the subject of eczema, it would be interesting if members brought forward carefully selected cases to illustrate the subject. The President then read notes giving the termination of a case that he reported to the Society in February, 1901. At that time he considered the case to be one of senile syphilis. The man gradually failed, and at last died of cardiac failure. The growth proved to be a round-celled sarcoma. There was no evidence clinically of sarcoma of internal organs. The President considered the probability of this being a case of primary sarcoma of the skin. Some fine drawings and microscopic specimens, illustrating the case, were exhibited. The President was asked to allow the former to be reproduced in the *Transactions*, and gave his consent. The following cases were shown:

Dr. N. MEACHEN (for Dr. ABRAHAM): (1) A case for diagnosis. This was recognized as an instance of the white spot dermatosis, described by Dr. Westbury from one of Unna's cases, and alluded to in the *Journal* for this month. On the arms of the case shown were minute, white, atrophic spots, each surrounded by an extremely narrow erythematous border. This was not present in Unna's case. (2) A case of erythema following vaccination in a man, who also showed lichen planus, of long standing, on the legs. (3) A case of melaena, affecting nearly the whole of a baby's face.—Dr. ED. STAINER showed: (1) A case of hyperkeratosis of the palms and soles in a girl aged 15, no cause for which could be discovered. (2) A child showing multiple acanthomata on the face and hands.—Dr. GRAHAM LITTLE showed: (1) A baby suffering from congenital syphilis, complicated by eczema. (2) A woman suffering from syphilis who had developed an intense iodide eruption.—Dr. A. EDDOWES showed: (1) A case of healed lupus treated by complete excision. (2) Hydroa vacciniforme affecting face and hands of a child. The eruption had recurred three years in succession. A microscopic specimen from the case was exhibited.—Dr. W. WARDE (for Dr. ABRAHAM) showed a case of thrombotic lupus. The patient, a woman, had thirty-six years previously had many scrofulous ulcers. All healed save one, and that remained infiltrated. One year ago patient had an attack of erysipelas, and some months after the face became covered by an eruption of small lupus nodules.—Mr. G. PERNET showed sections from a case of yaws stained by Pappenheim's method to demonstrate plasma cells.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting held at Leeds on May 9th, Dr. S. BUCKLEY, President, in the chair, Professor C. J. WRIGHT (Leeds) showed a series of plaster casts illustrating the effects of birth moulding in various presentations upon the shape and diameters of the fetal head. The positions shown were (1) occipito-anterior vertex; (2) occipito-posterior vertex; (3) head following pelvic presentation; (4) face; (5) brow; (6) vertex after delivery through flattened pelvis. The models were obtained from Berlin for teaching purposes.—Dr. J. B. HELLIER (Leeds) showed a proliferating polycystic tumour of doubtful nature growing from near the ovary. The cyst walls were very thin, and contained clear limpid fluid.—Dr. J. E. GEMMELL (Liverpool) showed a specimen of tubal abortion.—Mr. H. LITTLEWOOD (Leeds) a pair of dense solid ovarian tumours, and other specimens.—Dr. H. BRIGGS (Liverpool) (1) a large double pyosalpinx: (2) a pedunculated subperitoneal uterine fibroid which had undergone strangulation.—Dr. A. E. WEAR (Leeds) a placenta with extremely marked calcareous degeneration.—Dr. W. MURRAY CAIRNS (Liverpool) related a case in which he had performed craniotomy and cranioclasm for face presentation with impaction in a contracted pelvis.

The patient was pregnant for the tenth time, six of the previous labours having been difficult and instrumental. Dr. Cairns saw the case when labour had been in progress for thirteen hours. The os was fully dilated, the face presenting and the head impacted at the brim. The liquor amnii had already drained away. The forceps was applied and failed, and version was found impossible. The head was perforated through the anterior fontanelle, and extraction completed with the cranioclast.

Dr. Cairns was of opinion that with the modern technique of Caesarean section, the treatment he had resorted to in this case would only be justifiable in very exceptional cases. Dr. Murray Cairns also mentioned a case of intrauterine strangulation.

An extremely neurotic patient, aged 32, in her first pregnancy, suffered great discomfort from the tumultuous movements of the fetus *in utero*. The symptom was alleviated somewhat by potassium bromide. For several days before premature labour came on at the eighth month the movements had ceased to be felt. The fetus, when delivered, had evidently been dead some days. The cord was very short, [illegible] round the child's neck. The skin of the neck was marked by the pressure of the constricting cord.

The cases were discussed by Dr. W. J. SINCLAIR, Mr. G. ROPER, Dr. BRIGGS, Dr. GEMMELL, and Dr. BRAITHWAITE, and Dr. CAIRNS replied.—Dr. J. B. HELLIER (Leeds) reported a case of vaginal hysterectomy in which secondary haemorrhage occurred on the fifteenth day, and which was treated by abdominal section.

The patient, a multipara, aged 51, was found to have early cancer of the cervix uteri. The growth was limited to the cervix, and had not broken down much. The uterus was removed per vaginam, the operation being easy and not prolonged. The uterus being readily brought down and the broad ligaments easy of access the method of ligature was chosen. Silk was used, and the ligament tied in three portions on each side. The vagina was packed with gauze. Progress was good until the fourteenth day, when the last ligature came away, and there was trifling bleeding. On the fifteenth day violent secondary arterial haemorrhage came on which could not be controlled by vaginal packing. The patient, who was almost pulseless, was placed in the Trendelenburg position and the abdomen opened. A portion of omentum was found adherent to the seat of operation. On separating adhesions much blood and a little seropurulent discharge welled up. By means of Doyen's retractor and the electric light the bleeding point was seen to be a branch of the right ovarian artery. The vessel was tied, and a gauze drain passed from the pelvis into the vagina. The patient rallied, and made a good recovery.

The case was discussed by Dr. W. J. SINCLAIR, Dr. H. BRIGGS, Dr. BRAITHWAITE, Mr. H. LITTLEWOOD, and Mr. S. RUMBOLL; and Dr. HELLIER replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.—At a meeting held on May 7th, Dr. ASHBY, Past-President, who was in the chair, showed a medulla, containing a softened patch from a case in which death was caused by respiratory paralysis.—Mr. MONTGOMERY showed a specimen of prostatic adenomata removed by suprapubic incision after the manner of so-called complete prostatectomy. The exact position of this operation was discussed.—Dr. MOORE described stenosis and obliteration of the large hepatic veins, and showed specimens.—Mr. SMITH and Dr. FINNEY mentioned a case of contusion of the abdomen, resulting in rupture of the intestine, and showed the specimens.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on May 2nd, Mr. MCADAM ECCLES, Vice-President, in the chair, Mr. STEPHEN PAGET read a paper entitled Notes on a Case of Empyema, where washing out the Cavity was followed by Epileptiform Convulsions and Death. He referred also to other similar cases.—Dr. SEYMOUR TAYLOR read a paper on gall stones and their medical treatment, followed by Mr. BIDWELL with a paper on gall stones and their surgical treatment. Mr. ALBAN DORAN advocated the employment of prolonged incisions in operation on these cases. Dr. O. GRÜNBAUM commented on the comparative uselessness of oil in the treatment of gall stones. He pointed out that an examination of the blood may prove of great value in the diagnosis of the presence of pus in the gall bladder. Mr. RICKARD LLOYD related particulars of two cases that had lately been under his care.—Mr. JOHN R. LUNN read a paper on a case of strangulated femoral hernia treated by herniotomy and followed by death in seven hours from collapse following the perforation of an ulcer just above the seat of strangulation. Dr. SEYMOUR TAYLOR and Mr. STEPHEN PAGET commented upon the case.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on April 16th, Mr. E. C. KINGDON, President, in the chair, Dr. WOODS (Ilkeston) showed a patient with lupus vulgaris, who ten years ago was treated with injections of Koch's tuberculin. The disease was arrested for a time, but remained

uncured.—Dr. W. E. TRESIDDER showed a case of epithelioma of the cervix uteri, which had been treated with *x* rays, under which all signs of the disease had disappeared. A microscopic section of a portion of the growth removed before treatment was commenced confirmed the diagnosis. The case was discussed by the PRESIDENT, Mr. A. R. ANDERSON, Dr. JACOB, and Dr. BOLTON.—Mr. A. R. ANDERSON read a paper entitled the Surgical Treatment of a Gastric Ulcer. After some observations on the question of diagnosis, Mr. Anderson confined his remarks to the treatment of (*a*) non-perforated ulcers, and (*b*) haemorrhage. Statistics were put forward showing the probable mortality from ulceration and haemorrhage under medical treatment, and, whilst advocating preliminary treatment by medical measures in all cases, it was urged that earlier recourse should be had to surgical operation. In regard to the question of haemorrhage, the anatomy of the arterial supply of the stomach was first demonstrated, and then the surgical measures for the arrest of bleeding were described.

BIRKENHEAD MEDICAL SOCIETY.—At the annual meeting held on May 9th, Dr. PINKERTON, President, in the chair. Dr. HARRINGTON showed a patient with a displacement of the heart. The apex beat was in the seventh interspace, midway between the posterior axillary line and the spinal column. There was a complete absence of cardiac dullness in the front of the chest. There was no history of pleurisy, nor of overstrain, to account for the displacement. The PRESIDENT, Dr. LAMBERT, Dr. PEARSON, Dr. DIXON, and Dr. BRIEN commented upon the case.—The PRESIDENT showed a small calculus removed from a child, aged 5 years, during the operation of circumcision. The calculus was lodged between the prepuce and the glans penis. Also the stomach of an infant, aged 6 weeks; the pyloric orifice of which was so much thickened and contracted that a probe could only be passed through it by exercising considerable pressure. During life the child had vomited almost all its food.—Dr. WHITE showed a specimen of imperfect closure of the foramen ovale.—The SECRETARY showed a similar specimen. The following officers and members of committee were elected for the ensuing year:—*President:* Dr. H. Laird Pearson. *Vice-President:* Dr. E. H. Brien. *Librarian:* Dr. S. Wilkinson. *Treasurer:* Dr. W. R. Floyd. *Secretary:* Dr. J. H. Fardon. *Committee:* Dr. W. R. Dalzell, Dr. A. W. Pierce, Dr. R. O. Morris, Dr. W. Johnstone, Dr. W. Leask.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—At a meeting on May 1st, Mr. S. LORD showed a case of nervous disease. The patient, a woman aged 37, had suffered from tuberculous adenitis and ulceration of the face. The present illness, which began in October, 1901, was characterized by ataxia of the lower limbs, with exaggerated reflexes, and no loss of power. About December girdle pain came on, and lasted two months, and there was also incontinence of urine for about six weeks. There was no tender spot over the spine. The case was probably one of tuberculous pachymeningitis of the cord in the course of which there had been a localized acute attack of myelitis. Mr. W. ATKIN THOMPSON had seen a similar case in which the necropsy revealed caries of the body of one vertebra.—Dr. W. J. KERR showed the kidneys from a boy aged 1 year and 10 months. Both were enlarged and cystic, the left extremely so. There had been no noticeable abnormality in the quantity of urine during life. Respiratory movements had been much embarrassed by the size of the left kidney. Dr. Kerr also read notes of a case of extensive diabetic gangrene in a girl aged 2½ years. The child was not known to be ill when the gangrene appeared in the left leg in the course of the night, and in the morning extended from the foot to the knee. The right foot and hip became affected the following day. The temperature rose to 107° just before death. Mr. W. ATKIN THOMPSON read notes of 3 cases: (1) Ludwig's angina, treated by free incision, with good recovery; (2) sublingual abscess; (3) surgical emphysema as a complication of measles, and extending from the neck over the chest and abdominal walls.

THE Court of Directors of the Bank of England have granted a donation of £100 to the Middlesex Hospital in response to the appeal for £70,000.

REVIEWS.

ANATOMY AND EMBRYOLOGY.

THE *Topographical Atlas of the Spinal Cord*,[1] prepared by Dr. ALEXANDER BRUCE, consists of a series of photographs of sections of the cord from a young adult female, the last of five subjects completely examined, and the only one found to be free from any abnormal or morbid condition. The sections in each series have been subjected to a uniform enlargement, and are beautifully reproduced in photogravure. The cord, which had been removed twenty-four hours after death in a good state of preservation, was placed in Weigert's chrome-alum-copper solution, and the staining methods used were Ford Robertson's modification of Heller's method for the myelin sheaths, and toluidin blue for the nerve cells. The whole cord was cut in series, each tenth section stained, and from the whole sections that most typical of the segment from which it came is here reproduced. There is an introduction of thirteen pages summarizing the main anatomical facts to be observed in the plates, and each plate is faced by a brief description of each section, Dr. Bruce having advisedly refrained from defacing the plates by lines or marks. There are two series of sections—one to demonstrate the arrangement of the nerve cells (with a magnification of twenty diameters), and the other the shape of the grey matter characteristic of each segment (with a magnification of ten diameters). The author's aim has been "to provide representations of sections regarded as typical of each of its segments with a view to determine (*a*) the relative arrangement of the grey and white matter, and especially the form of the anterior cornu characteristic of each segment; (*b*) the distribution of the motor nerve cells and the relation of the distribution and number of these cells to the conformation of the anterior cornu: and (*c*) other features which may serve for the identification of any segment in which the form of the anterior cornu is not sufficiently distinctive for that purpose." In this modest aim the author has been successful. The normal standards thus provided should, as the author hopes, serve by reason of readiness of reference for the identification of segments submitted to examination, and will be of use as a basis for comparison with pathological conditions. As an accurate and beautiful representation of the internal structure of the spinal cord of a healthy normal individual this *Atlas* is of great value. It might, we think, be still further enhanced in value by longitudinal diagrams of the cord showing the continuity of cell columns and tracts from segment to segment.

Dr. KEITH'S book on *Human Morphology and Embryology*,[2] like many first editions, contains some statements which it would be difficult to verify, and some slight slips of the pen, which will, no doubt, be corrected in the second edition; but of its utility to the student who takes an interest in his work there can be no question, for it consists of a series of short sketches of the developmental history of the majority of the organs of the body and of the relationship of those organs to similar structures in other animals, and in the course of these sketches attention is drawn to malformations which may be produced by the arrest or modification of ordinary developmental phenomena. It is questionable whether the grouping of the sections which Dr. Keith has adopted is the one best adapted to his purpose; but the book is evidently based upon a series of lectures delivered to senior students, and this probably accounts for the fact that the complicated development of the face is dealt with in the first chapter, whilst the evolution of the embryo itself is only casually mentioned in the sixth. Nevertheless, it seems a little strange that the account of the formation of the teeth, which are modified portions of skin, should precede that of the skin itself. Numerous diagrams greatly facilitate the comprehension of the text, though the latter is exceedingly clear and direct. We have much pleasure in congratulating Dr. Keith upon having produced an interesting book which goes far towards satisfying a long-

[1] *A Topographical Atlas of the Spinal Cord.* By Alexander Bruce M.A., M.D., F.R.C.P.E., F.R.S.E., Lecturer on Neurology and Practice of Medicine, Surgeons' Hall, Edinburgh; Assistant Physician, Royal Infirmary, Edinburgh. London: Williams and Norgate. 1901. (Super. roy. 8vo; 32 plates with letterpress. 42s.)

[2] *Human Embryology and Morphology.* By Arthur Keith, M.D., F.R.C.S. London: Edward Arnold. 1902. (Demy 8vo, pp. 324, Figs. 252. 12s. 6d.)

felt want, and which will be appreciated by all intelligent students who wish thoroughly to understand the body with which they have to deal.

The second volume of *Studies in Anatomy from the Anatomical Department of the Owens College*,[3] which is edited by Professor A. H. YOUNG, contains five communications, and represents only part of the original work which has been carried out in the Anatomical Department of the Owens College, under Professor Young's supervision, since the publication of the first volume. Of the five articles contained in the present volume two are by Professor Young, one upon Abnormalities of the Middle Sacral Artery and their Morphological Significance, and the other upon The Development and Structure of the Placenta. One—The Development and Morphology of the Vascular System in Mammals—is by Professor Young in conjunction with Dr. Robinson. Two—Observations upon the Development of the Segmentation Cavity, the Archenteron, the Germinal Layers, and the Amnion in Mammals, and The Nutritive Importance of the Yolk Sac, are by Dr. Robinson, and one—The Pelvic Diaphragm—is by Dr. Peter Thompson. Three of the articles have not been published previously; the others have appeared either in the *Quarterly Journal of Microscopical Science*, or in the *Journal of Anatomy and Physiology*. They all maintain the high standard of the work which has previously proceeded from Professor Young's department, they bear internal evidence that they are the result of prolonged and careful investigation, and they show that the Owens College, in anatomy as in other subjects, is not only advancing medical education by its teaching, but is also well in the forefront of those institutions which are encouraging their teachers to conduct investigations in all subjects which appertain to their departments.

The second volume of the *Manual of Practical Anatomy*,[4] designed by the late Professor Hughes, deals with the abdomen and the thorax, and deviates considerably from the volume which preceded it. The first volume was essentially a book which explained to the student the steps of his dissection; the present volume is much more descriptive and less practical; fewer details are given with regard to the method of dissection, and the dissections themselves are not, in our opinion, so well arranged as in Volume I, nor are the figures which accompany them designed in accordance with the method of dissection adopted; for example, the student is instructed to dissect the ischio-rectal portion of the perineum whilst the body is in the prone position, whilst the plates which illustrate this part of his work are drawings of dissections made in the lithotomy posture; and it is certainly not conducive to the thorough comprehension of so important a surgical region as the perineum to defer the dissection of its urethral section until the dissection of the external generative organs and the contents of the abdomen is completed. Similar objections may be urged against the methods of dissection adopted to display the various parts of the walls and contents of the thorax, for the student is advised to complete the dissection of the intercostal vessels and nerves, the sympathetic cords, the splanchnic nerves, and the azygos veins, before his attention has been drawn to the arrangement of the pleurae and the folds of the pleural membrane; and it is perfectly impossible for him to make the dissections to expose the vessels and nerves without destroying the relations of the parts which he is called upon to investigate at a later period. Some of the plates in the volume and many of the figures are excellent, but to other figures this praise cannot be extended. It is unfortunate that so many illustrations have been introduced from the works of older authors, such as Figs. 195, 223, and 232, which depict organs in positions which cannot be recognized as normal at the present day. Some of the new diagrams are certainly misleading; amongst those open to this accusation may be cited Fig. 129, which represents a very unusual bend on the transverse colon; Fig. 177, which shows the right semilunar ganglion and the abdominal part of the great splanchnic nerve lying between the mesial border of the inferior vena cava and the coeliac axis, and Fig. 237, which depicts the plane of separation between the superior and posterior mediastina as running downwards and backwards from the second costal cartilage to the upper border of the fifth dorsal vertebra.

The diagrams in Dr. HOLMES'S little *Outline of Anatomy*[5] might easily be improved, and some of the expressions, such as "clean off" the brachial artery, sound strange to English ears; nevertheless, every junior medical student would be wise to obtain the book, for in it he will find outlined the amount of work he may expect to do each day on any given "part." The author presumes that each "part" will be completed and revised in twenty-eight working days, and in the course of his descriptions of the way in which the work of each day is to be proceeded with he gives many valuable hints as to the methods of study to be adopted.

THE LIVER AND BILIARY DUCTS.

A NEW volume on the *Surgery of the Liver and Bile Ducts*,[6] by Professor TERRIER and M. AUVRAY, contains chapters dealing with injuries of the liver, foreign bodies in the liver, injuries of the bile ducts and gall bladder, movable liver, and tumours of the liver, gall bladder, and bile ducts. Each section deals with its subject in the following order: A brief historical review is first given, and then the etiology, pathogeny, and pathological anatomy, the symptomatology, diagnosis, and treatment are considered. The discussions throughout are full, and in the case of operative methods are most elaborate and complete. Wounds of the liver should be dealt with by the surgeon as early as possible. As a rule diagnosis is easy; but in not a few cases the cardinal symptom—general collapse from haemorrhage—is absent, or delayed in its onset. If the abdomen be opened, and the wound be on the anterior margin or under surface, it can be readily exposed; if on the upper surface the suspensory ligament must be divided, as suggested by Hahn, and the liver pulled downwards. Stitches or packing, or both combined, the application of styptics, thermo-cauterization by hot air or steam, may all be used for arresting the haemorrhage. A table of all recorded cases of injuries of the liver treated by operation is given. In rupture of the hepatic duct the authors recommend drainage; when the common duct is wounded it should be divided, the ends closed by ligature or suture, and a cholecyst-enterostomy performed. Movable liver may be congenital, due to absence of the ligaments of support, or acquired, being then a part only of the general sinking of the viscera. The subject of tumours of the liver is exhaustively considered. It is rarely possible for surgery to avail anything in the treatment of hepatic tumours. In cases of pedunculated growths, or of carcinoma spreading from the gall bladder, arising as the result of prolonged gall-stone irritation, success may be achieved. But the aggregate of all such cases is but small in comparison with the number of growths to which the liver is subject. We have nothing but praise both for the matter and the method of this book. It deals with only a small portion of the subject of surgery in relation to the liver and bile passages, but the authors will, it is hoped, complete the subject in future volumes. The usual errors in the matter of English names are to be observed. Wickham and Arbuthnot are quoted for Legg and Lane.

The German edition of Professor KEHR'S work[7] on the differential diagnosis of the separate forms of gall-stone disease was reviewed in the BRITISH MEDICAL JOURNAL of November 4th, 1899. It is therefore only necessary, in noticing the translation made by Dr. W. W. Seymour, to refer to those features which have been added. Professor Kehr, whose ex-

[3] *Studies in Anatomy from the Anatomical Department of the Owens College, Manchester*. Vol. ii. Manchester: J. E. Cornish. 1900 (Demy 8vo, pp. 227; 8 plates; 11 figures. 10s.)

[4] *A Manual of Practical Anatomy*. By the late Professor A. W. Hughes, M.B., M.C., F.R.C.S. Edited and completed by A. Keith, M.D., F.R.C.S. Part II. London: J. and A. Churchill. 1902. (Demy 8vo, pp. 308, with 4 plates and 151 figs. 8s. 6d.)

[5] *Outlines of Anatomy*. By E. W. Holmes, M.D. Second Edition. Lancaster, Pa: New Era Printing Company. 1902. (Fcap. 8vo, pp. 185; 10 diagrams. Dols. 5.)

[6] *Chirurgie du Foie et des Voies Biliaires*. Par F. Terrier, Professeur à la Faculté de Medicene de Paris, et M. Auvray, Chirurgien des Hopitaux de Paris. Paris: Felix Alcan. 1901. (Demy 8vo, pp. 318; 50 figures. Frs 10.)

[7] *Introduction to the Differential Diagnosis of the Separate Forms of Gall-Stone Disease*. By Professor Hans Kehr. Halberstadt. Authorized translation by W. W. Seymour, A.B., M.D., formerly Professor of Gynecology in the University of Vermont, etc. London: H. Kimpton. 1901 (Demy 8vo, pp. 370. 9s.

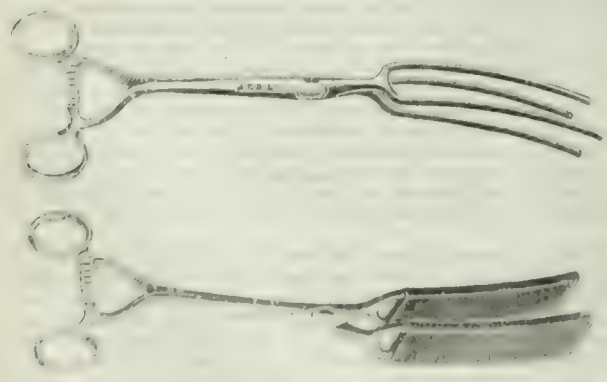
perience in the surgery of the gall bladder is unrivalled, has brought his statistics up to November, 1900. In all he has operated upon 547 patients. Of these patients 422 suffered from gall stones. In 204 cholecystotomy was performed, with a fatal result in 4 cases; in 121 cholecystectomy, with a fatal result in 4; and in 97 choledochotomy, with a fatal result in 0. In the last 35 cases of choledochotomy no death has occurred. In 125 cases complicated by malignant disease of the liver or pancreas, or in which diffuse purulent cholangitis existed, the mortality was 47 per cent. As his experience increases, Professor Kehr is more and more inclined to the performance of cholecystectomy in combination with drainage of the hepatic duct. He believes that it is only by such radical measures that we can avoid with certainty true and false recurrences. We cannot praise the translation; it is full of grammatical mistakes, and the English is atrocious.

Dr. KEAY has been a personal sufferer from gall stones, and, being convinced that more can be done by medical treatment than by surgical, he has been impelled to put his experience at the service of others in a volume which he has entitled the *Medical Treatment of Gall Stones*.[1] The first 93 pages of this small work deal with the formation and migration of gall stones, the morbid conditions associated with gall stones, and their symptoms and diagnosis, the pages 94 to 126 being alone conceded to the question of treatment. From the author's account of his symptoms his can hardly be considered a satisfactory case, for he tells us that when he ceases his regular potations of Contrexéville water he suffers "some slight threatenings of a return of the old disease."

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Liver Clamp.—Mr. BERTRAM C. STEVENS, M.D., M.S.Durh., F.R.C.S.Eng. (Swinton, Rotherham) sends a description of a clamp designed primarily to control haemorrhage while a wedge-shaped piece of liver is being excised. The idea and the instrument are both novel—the outcome of practical experience—for hitherto the liver has been compressed by the assistant's fingers. Since both hands are necessarily occupied, an instrument which will free the assistant so as to be of use otherwise, and which is so made as to fulfil its purpose without damage to the liver, should be of advantage. The clamps are 11 in. long with a strong ratchet catch and locked joint; they are made of the best tempered steel and plated. Each blade is made of two prongs, over which is stretched a wide piece of thin rubber tubing; this makes each blade $\frac{3}{4}$ in. wide, and so a broad smooth surface is applied to the liver, which will not slip. Bearing in mind the thinner anterior border of the liver, the blades have been so adjusted as to compress equally the area of liver it is resolved upon to remove. The clamps can also be used in gastrectomy, pylorectomy, or enterectomy, when it might be advantageous to have the blades made a little narrower. In any case, it is argued that haemorrhage will be efficiently controlled, and that no injury to the compressed tissue will ensue. This instrument is made by Messrs. Reynolds and Branson, Limited, Briggate, Leeds.



[1] *The Medical Treatment of Gall Stones.* By J. H. Keay, M.A., M.D. London: Robinson. 1902. (Cr. 8vo, pp. 126, fig. 1. 3s.)

MEDICINAL AND DIETETIC PREPARATIONS.

Purgatin and Triferrin.—Purgatin (anthrapurpurin acetate) is a synthetic preparation with a similar constitution to some of the active constituents of such well-known drugs as senna, cascara sagrada, rhubarb, etc. Thus, being an oxyanthraquinone derivative, it is closely related to emodin or trioxymethyl-anthraquinone, and to chrysophanic acid or di-oxymethyl-anthraquinone. We must say that we deprecate its title, which savours of the "patent medicine" type. Purgatin is a yellow micro-crystalline powder which is soluble in most organic liquids but insoluble in water; it is tasteless, and therefore best prescribed in the form of powders. In small doses ($7\frac{1}{2}$ to 15 gr.) it is said to act as a mild laxative, and in large doses (30 gr. or more) as a drastic purgative. It is claimed to be particularly efficacious in the habitual chronic constipation of persons suffering from neurasthenia, hypochondria, and haemorrhoids. Patients taking it pass anthrapurpurin in the urine, which is consequently coloured red. Triferrin (paranucleinate of iron) contains 22 per cent. of iron and $2\frac{1}{2}$ per cent. of phosphorus in organic combination. It is a brown powder practically insoluble in water, and may be conveniently prescribed in powders or cachets. It is said to be useful in anaemia, chlorosis, etc., and to be very easily tolerated; the haemoglobin content of the blood is said to be raised under its use, and the quantity of iron in the liver trebled. The usual dose is 5 gr. three times daily. Mr. B. Kühn (36, St. Mary-at-Hill, E.C.) is the agent for the supply of these preparations.

Dormiol.—This is the name given to a substance which has lately received a good deal of attention as a hypnotic. It is produced, under suitable conditions, from amylene hydrate (dimethyl-ethyl-carbinol) and chloral, and from its chemical constitution may be called dimethyl-ethyl-carbinol-chloral; this title, however, is so cumbrous that the adoption of the fancy title "dormiol" seems to be admissible. Dormiol is supplied in the form of a 50 per cent. aqueous solution, and also in capsules containing $7\frac{1}{2}$ minims of the pure substance. The solution is a colourless liquid; when diluted with water its taste is not objectionable, and, as the maximum dose made up to an ounce with water forms a clear solution on shaking, this seems to be the best method of administration: the capsules have the advantage of portability, but when rapid action is desired an aqueous solution is to be preferred. Reports as to the action of the drug are to the effect that it is a good hypnotic, and, as usual, it is said that its use gives rise to no unpleasant after-effects, an assertion which must be accepted with caution; it is also said to be rapid in its action. The ordinary dose is 15 minims of the 50 per cent. solution or one capsule. The samples examined were supplied by Messrs. Zimmerman (St. Mary-at-Hill, E.C.).

BEQUESTS TO HOSPITALS. Under the will of the late Mrs. Disney Thorp, of Cheltenham, who was a native of Leeds, £5,000 has been bequeathed to the Cheltenham Hospital and £1,000 to the Leeds Infirmary. Under the will of the late Mr. Thomas Henry Downing, of Knighton, Leicester, a sum of £500 has been bequeathed to the Leicester General Infirmary.

THE OLDEST PRACTITIONER IN THE UNITED STATES.—Dr. O. R. Skinner, of Freehold, New Jersey, recently celebrated his 93rd birthday. He served as surgeon during the Civil War. He is (according to *American Medicine*) probably the oldest physician in active practice in the United States. He answers promptly every call made for his services, and is kept busy with professional duties.

THE REPORT OF THE INDIAN PLAGUE COMMISSION.

(Concluded from page 1220).

MEASURES TO PREVENT THE SPREAD OF PLAGUE FROM INFECTED PLACES OR COUNTRIES TO FOREIGN COUNTRIES OR OTHER PLACES IN INDIA.

This is discussed under four headings: (1) Prevention of spread of plague by sea, (2) measures taken at the places of arrival of ships from infected ports, (3) measures to prevent the spread of plague through India by railway, and (4) measures to prevent it spreading in India by means of communication other than by sea or railway.

1. *Sea Traffic.*

The only way in which plague seems likely to be conveyed to any European or distant country from India is by sea traffic from its numerous ports. Medical inspection of outward bound vessels was begun at Bombay and Karachi early in 1897, no vessel being allowed to leave until all on board had been medically examined, and any plague patients removed.

Similar regulations were extended to other ports. Later on, in accordance with the views of the Venice Convention, medical examination of crews and passengers was made before embarkation, but the details varied in accordance with the prevalence or non-prevalence of the disease in the port. Clothing and bedding of crews and deck passengers from infected areas are disinfected on shore before vessels leave Bombay, Karachi, and Calcutta. Major Crimmin reports the method of examination at Bombay, thus:

I will divide vessels into two classes, first, those bound for Indian ports, and, second, those bound for ports out of India. The crews and passengers bound for Indian ports may be examined on board according to the present regulations, but the majority of them are examined on shore. For instance, in the case of the Shepherd Company, who run 35 coasting passenger ships in the week, all the crew and passengers are examined in sheds on shore before they go on board. If a ship is bound for a port out of India, the crew are brought on shore from such vessels for examination in accordance with the Venice Convention. The passengers for such vessels are also examined on shore before they go on board. When there are large numbers of native passengers they are tallen into a line in batches of 100 or 200, according to the size of the examination shed. They open their body clothing, and a medical officer feels each man's chest with both hands, which enables him to detect any increase of temperature. The superficial glands in the neck, armpits, and groins are then examined. The tongue and eyes are looked at. If he is found to be suffering from a rise of temperature or marked enlargement or tenderness of any of the glands, he is sent to a place set apart for such cases, to undergo a more rigorous examination. His temperature is taken with a Hicks 1⅓ minute thermometer in the armpit, and if he is found suffering from a marked rise of temperature, or enlarged tender glands, he is rejected. The crew are examined in precisely the same way as passengers..... If ships are bound for ports out of India the crew are invariably examined on shore to meet the letter of the Venice Convention. In the case of vessels which are in dock, and which do not want to go to the inconvenience of bringing their crew on shore after they go into the stream, such crews are examined on shore the day before the vessel sails. We again examine such crews on the day of sailing and as near as possible to the time of departure, after which no loading of cargo or communication with the shore is allowed. We carry out this second examination for two reasons. First, for our own reputation, and to do the best we possibly can to keep plague off ships; and, secondly, to meet the wording of the Official Bill of Health, which states that the vessel, with so many crew, and so many passengers, is at the time of sailing free from plague and certain other infectious diseases..... At the examinations for plague, if we find any person suffering from a marked rise of temperature, they are detained until such time as the temperature goes down to normal, or until we are certain that the fever from which they are suffering is not that due to plague. We go so far as to take out natives with chronic enlargement of the glands of the groin, more especially on ships bound for foreign ports. We do this in the interests of the ship, and often at the request of the captain. Because if such a person with enlarged glands was unfortunate enough to be suffering from fever on his arrival at a foreign port from Bombay, it is possible that the health officer would class him as a plague case, or return him as a suspicious case.

When the medical examination is complete passengers are passed down a gangway to the ship in dock, and the vessel is then moved off the dock wall until she can be taken out. If a vessel is in the stream the passengers are conveyed direct, and she goes to sea at once. The vessel herself is also overhauled and sanitary requirements insisted on. The disinfection of baggage appears also to be well carried out. Facts show that the measures taken have been most effective.

At Aden, the Report states, quarantine has been imposed against Bombay and Karachi, the period being fifteen days for vessels in which a case had occurred, and eight days where there had been no case but where the vessel did not carry a medical officer. Plague-free ships carrying a medical officer are allowed free communication. The rules in force at Aden are most useful in saving delay at ports of arrival.

The Commission hold that there is no evidence that plague-infected rats have ever carried plague from one country to another, and that fumigation of holds and ships in order to destroy rats is unnecessary and impracticable. Here, however, there are certain plain facts which we venture to think might well be emphasized. Rats are easily attacked by plague; they easily infect each other; they abound on shipboard; and when ships are in port they easily find their way to land. These things being so, every practicable precaution should be taken, notwithstanding any absence of actual evidence of conveyance of infection by rats on shipboard.

Rags are the only kind of dangerous merchandise, and their exportation from an infected district should be prohibited.

The pilgrim traffic to sacred places in the Hedjaz is under careful supervision, and was entirely suspended from the whole of India for some time, the suspension being continued in the case of Bombay, which has been continuously infected. The ports of Karachi and Chittagong have, however, been available since the pilgrimage of 1898, though even as to them every endeavour has been made to dissuade intending pilgrims. The result is that in 1898 only two vessels left India, one with 200 and the other with 708 passengers going to the Hedjaz. Since Karachi became infected no more pilgrims have sailed from it. Two vessels left Chittagong in January and February, 1899, with a total of 1,270 pilgrims. Pilgrim vessels are quarantined for fifteen days at Camaran. The measures as to pilgrims go even further than the Venice Convention requires.

2. *Measures Taken at the Place of Arrival of Ships from Infected Ports.*

Though the British and Indian Governments are opposed to quarantine, yet, in order to prevent foreign countries imposing it against known infected Indian ports, vessels from Bombay to Calcutta, Madras, Karachi, and Rangoon had quarantine imposed in October, 1896. In December, 1896, vessels from Karachi to the other three ports were also subjected to quarantine, and later on, the regulations were extended to a number of minor ports with a view to their own protection. The Venice Convention of 1897, however, made quarantine unnecessary, and certain regulations have been substituted.

At Bombay, vessels arriving from non-infected ports are boarded by a pilot, whose inquiry decides whether the health officer shall be sent for. All vessels from infected ports are inspected by the health officer and dealt with according to whether they are regarded as infected, suspected, or healthy. Persons under observation are detained in camp for ten days or less, but if any case occurs among them, a further detention for ten days is required. The medical officer may allow persons under observation to go home under conditions of surveillance. Difficulties with regard to subsequent identification have been largely removed by photography, although there is always an unreliable residuum. Examination of passengers from infected ports at Bombay has been very onerous, involving between January 1st, 1897, and March 15th, 1899, over 51,000 vessels, with crews and passengers numbering over 900,000. About 5 per cent. of these were segregated, and up to December, 1898, only 48 cases of plague developed among them. Among 70,000 persons examined in 16 months at Karachi only one was found suffering from plague, but owing to stringency of regulations during part of the time, 35,000 were detained in camp, and among these 5 cases occurred. The Commission are of opinion that the results do not compensate for the labour and expense involved in examining passengers who arrive at one infected port from another, and that, if nothing is found wrong on healthy or suspected ships, free pratique should at once be given, while, as to infected ships, the sick should be landed and isolated, the luggage and vessel disinfected, and the other passengers kept under observation at home for a period not exceeding ten days.

3. *Measures to Prevent the Spread of Plague from one Part of India to Another by Railway.*

Such measures were undertaken on an elaborate scale, and on

certain occasions included even a system of detention camps, or the stoppage of all booking of passengers from infected places. As a rule, however, medical examination of passengers, including temperature observations, were regarded as sufficient, and Sir Andrew Wingate thought that this gave even better results than detention camps. He held that the work was valuable, not only for the cases actually ascertained, but also as a means of preventing sick people from attempting to leave infected areas. The Commissioners on the other hand, have had regard to the great expense involved, and the inconvenience to the public, and also the large staff required to carry out the work—a staff which they think might have been better employed in other plague measures. Their conclusions are as follow:

(1) That, while the spread of plague has taken place in a very large number of cases along the railway line, the number of cases of plague detected among travellers, under the different systems adopted, has not been large;

(2) That any system of land quarantine imposed with the object of detaining all passengers from infected areas, either at a point where the infected and uninfected areas join, or at differing places within the uninfected area, results in great hardship to the travelling public, and has not been found in practice to prevent the spread of plague;

(3) That in the special instance of Sibi, the objections to such a system are, owing to the fact that the traffic inwards is concentrated and easily controlled, not so great as elsewhere, while it is very important to take every precaution to prevent plague passing over the North-West Frontier of India;

(4) That any system of medical examination on railways which falls short of keeping travellers under detention for the ordinary period of incubation must be defective as a measure for stopping all infected persons;

(5) That, considering the small results attained by medical examination on railways, it is not necessary or expedient to maintain so many places for examination as hitherto: two of us, Dr. Wright and Dr. Ruffer, are of opinion that it would be well altogether to abandon medical examination on railways, except on the confines of important unaffected areas which communicate with an infected area by only one line of railway;

(6) That it appears to be unnecessary to medically examine people travelling between places within an infected area:

(7) That it may be a wise precaution, in cases where large concourses of people from infected areas are expected to go to a place for a religious festival or similar gathering, to prohibit their travelling:

(8) That the disinfection of the personal effects of travellers by railway should not be attempted because—

(a) disinfection, if carried out at all, should be thorough, and would then cause an amount of delay and inconvenience which will not be justified by the results; and

(b) people when themselves travelling can evade the disinfection of their personal effects by dispatching them by goods train. The disinfection of articles sent by goods train would be an impossible task.

4. *Measures to Prevent the Spread of Plague by Means of Communication in India other than by Sea or by Railway.*

This section is concerned almost entirely with the system of cordons round villages. It is not surprising to be told that in the great majority of cases these were not found efficacious. The cordoned inhabitants circumvented the guards and patrols, and crept through fields and hedges at night. Guards themselves were sometimes found off duty or asleep, and some were liable to bribery if awake. The measure, however, may have been useful as a moral deterrent, but the countless paths and tracks of the plains of India were great obstacles to success, though in certain cases rivers formed useful barriers.

General Remarks on Plague Measures.

This, the last division of Chapter VI, is of much interest as summing up the opinions or conclusions of the Commission regarding the immense amount of detail already reported. They point out that for sixty years plague had been unknown in the plains of India, and that the outbreak of 1836 was purely local. Since then there has been a fundamental change in the conditions of life in India, and in its relation to the rest of the world. Steamers now arrive daily at its chief ports, and within it there are many railways. Since 1896 every possible measure for the prevention or abatement of plague has been applied and tested. It was impossible to foresee the result of each step taken, and it is not surprising that labour and expense have sometimes been incurred without any commensurate good result. Yet the fertility of resource and the unceasing vigilance of local governments and administrations; the zeal and devotion of officers civil, medical, military, and subordinate and also of unofficial helpers; and lastly the patience and fortitude of the great mass of the people, have filled the Commission with admiration.

Old methods of treating epidemic diseases, such as quarantine, cordons, and segregation, are being gradually given up in favour of notification, isolation, disinfection, and inoculation. The Commissioners hold that, "If every case of plague could be isolated at once, and if the personal effects, clothes, and house of a patient were disinfected, and further, if all plague-infected rats were removed and burnt, and the houses in which these had been found were disinfected, and, finally, if the healthy persons who are exposed to infection would be inoculated, the ravages of plague would be minimized." Yet the sorrowful conclusion is reached that even with the best measures rigidly applied, danger from plague will still subsist in India, and that the fact must be faced that "there are no means of stamping out the present epidemic of plague." An all-important question is that of funds and staff, and the Commission say "it appears certain that the resources of the Government would be insufficient to provide establishments for the area already infected in India, even if the whole of the Army, Civil, Medical, and Police establishments were employed solely on plague duties."

The measures recommended are subdivided according as they apply to small populations of 2,000 to 3,000 people or to larger places. For large places the means are disinfection, inoculation, isolation of the sick, and evacuation of specially infected quarters. In large towns segregation of contacts and general eviction of the inhabitants are held to have done harm and to have resulted in the flight of many infected people into other areas, with consequent spread of the disease. The only satisfactory isolation is in hospital, but where this is impossible it is no reason for neglecting to attempt it at the patient's house, where it is to be supplemented by disinfection. In large towns, advantage should be taken of the great seasonal variations to exercise special vigour when the disease is at a minimum.

In villages on the other hand the chief measure must be evacuation, and the President holds that this should be conjoined with opening up of the houses to admit sunlight and air wherever this is required. Chemical disinfection of villages soon loses its value in badly infected districts owing to the want of staff. Even evacuation where there is an insufficient staff is an imperfect measure because plague infected clothes and other articles are likely to be carried into camp. Where agriculture is the chief industry, evicted people are not likely to disperse to previously uninfected places. Evacuation is limited by climatic conditions and is usually hopeless during the rains. But surely, where evacuation can be carried out, the Report minimizes its value in describing it as "only a cumbersome method of committing to the slow operations of Nature the work of disinfection which might be efficiently carried out much more quickly by artificial means." The complete temporary desertion of a town or village, and the temporary establishment of the community in a new environment, appear to us to involve a good deal more, as a hygienic measure, than chemical disinfection carried out even in the most thorough fashion known to modern sanitary science and practice.

Much, it is pointed out, can be done in the way of inoculation, even with a small staff, for a properly trained assistant-surgeon can quickly do a whole village. Inoculation, however, is not in every case a certain preventive. The President's statement of the measures applicable at the beginning and at later stages of an outbreak in large and small places respectively has already been referred to.

The attitude of the people towards plague measures has to be kept in view. Coercion is not a practical policy, but persuasion and the demonstration of the utility of certain measures can do much. Notwithstanding oriental fatalism natives can be got to defend their lives against disease, but they object to precautions which they do not understand. Their understanding, however, is being improved. Many agricultural populations now appreciate the good effects of evacuation. Chemical disinfection is strongly objected to by natives, but might be less so if it were better carried out and with less damage to the goods of the people, who are afraid of the force and violence involved in the burning of clothes, the digging up of floors, and the breaking up of furniture and crockery. Vaccination against small-pox has

familiarized the natives with inoculative methods, but in the case of plague they have to be told that it is not a certain prophylactic. Evacuation is now believed in by the natives in many places, at least in agricultural populations, and "in some parts of India the natives evacuate their villages spontaneously on the appearance of plague or the discovery of dead rats."

The dark picture of the impossibility of stamping out the present epidemic is relieved by a recollection of the fact that in past times plague has disappeared spontaneously both in Europe and in India. Its extinction now, however, may possibly be slower than formerly because it is known to travel along the lines of human communication, and such communication is now much fuller and more frequent than in previous epidemics. If plague should continue to spread the possible staff for combating it will become proportionately smaller, and the natives themselves should be educated to use the available protective measures by providing practical illustrations of their value. Along with all this the President strongly holds that there should be strenuous efforts for the general improvement of the sanitary condition of life in India.

CHAPTER VII.

RECOMMENDATIONS REGARDING THE ORGANIZATION OF THE SANITARY DEPARTMENT IN INDIA.

After briefly stating the existing arrangements, the Commission urge that the present organization is defective in important particulars. Sanitary Commissioners are appointed only for a term of from four to seven years from among members of the India Medical Service who may not necessarily have had any apprenticeship in the Sanitary Department, and as to whom there is no guarantee of a special knowledge of sanitary science. The Health Department in towns like Calcutta and Bombay is not sufficiently strong in medical officers even for duty in ordinary times, and they are not sufficiently independent in position. Excepting in the Bombay Presidency, the civil surgeon has ordinarily to advise within his district on sanitary matters, and his duties are otherwise so multifarious as not to leave him leisure to pay proper attention to sanitation: even then he has no power to carry out such recommendations as he may make, and his work at headquarters prevents him from travelling about his district. Nor is there at present any agency for bacteriological work. The Commission recommend that an Imperial Sanitary Department be established, and that there should be immediately brought on to the permanent staff of the Department the European medical officers at present serving the municipalities, the health officers of the large ports, the sanitary commissioners and deputy sanitary commissioners of the different provinces, the bacteriologists at present employed by the Indian Government, the civil surgeons and their assistants in so far as they perform sanitary duties, and the staff of the Vaccination Department. The administrative department thus constituted would urgently require strengthening by the addition of a number of medical officers of health, the appointment of chemical examiners, assistant surgeons qualified in hygiene, and assistant surgeons as superintendents of vaccination. As concerns the duties of a medical officer of health, sanitary control over lodging-houses and over the erection of houses is important, and also the collection and scrutiny of death reports and the advising with regard to measures for combating plague and other infectious diseases. Plague operations should be definitely removed from the hands of civil officers and given over to medical officers, though the veto of the civil administration might have to be used where political and financial considerations would be involved. The Commission believe that the inutility of the methods of disinfection used and the technical errors committed would not have occurred under medical supervision. From these conclusions Messrs. Hewett and Cumine dissent. They think there are often reasons for placing a civil officer rather than a medical officer in charge of plague operations.

The necessity for establishing bacteriological laboratories is next adverted to. Vaccines and therapeutic serum should be manufactured in a central institute of public health situated for climatic reasons in the Hills, in a place easily accessible by rail. The President, holding as he does that insanitary conditions urgently call for improvement, holds also that the teaching in public health should be improved and extended by utilization for these purposes of public health laboratories, by the restriction of teaching appointments to men specially qualified, and by requiring all candidates for medical degrees or licences to go through a laboratory course of practical instruction as well as a course of systematic lectures.

Concerning the organization of the Sanitary Department, it is recommended that all its members should be borne on one list; that all appointments should be made by the head of the department, subject to the approval of the local government; and that the whole staff should be under the head of the department, and that if necessary one or more inspecting medical officers should be appointed to assist him. Messrs. Hewett and Cumine dissent from the recommendation that all members of the department should be directly under the order of the head. They hold that the powers of the local government should not be curtailed, as this would result in undue and ineffective centralization. It is also recommended that the head of the sanitary service should occupy the position of Sanitary Commissioner to the Government of India, and the majority of the members think that this office should not be held in conjunction with the Director-Generalship to the Indian Medical Service, but that he should have an adequate medical and clerical staff to enable him to carry out his duties in all matters relating to public health.

Here Messrs. Hewett and Cumine hold that the present union of the two offices is economical and that this should not be overlooked. The fourth recommendation is that the head of the sanitary department should be made a secretary to Government, so that absolutely independent advice may be placed directly before the Government, and that too much weight should not be given to the possibilities of administrative difficulties. Once more Messrs. Hewett and Cumine dissent. If this position of Secretary to Government is not sanctioned the President considers that the head of the Sanitary Department should at least have the right whenever he deems it expedient, personally to submit his proposals and explain his views to the member of the Viceroy Council dealing with public health.

In concluding this notice of a very voluminous report, we desire to express our admiration not only of the great zeal and industry which the Commission have brought to bear on the investigation of a subject whose every aspect bristles with doubts and difficulties, but also of the painstaking clearness which distinguishes all the elaborate divisions and subdivisions of the Report. It will indeed be impossible in the future for any one to write informedly on the subject of plague and its prevention without making himself acquainted with the work of the Royal Commission. In a recent article[1] we have insisted on the importance of the Government bringing into operation some such system of sanitary administration in India as is set forth in Chapter VII of the Report, and we need only repeat here our belief in the imminent necessity for a large measure of reform being undertaken with the least possible delay.

AN APPEAL.

WE have received an appeal on behalf of the family of the late Lieutenant-Colonel James FitzGerald Brodie, M.D., R.A.M.C., from Colonel George H. Leake, R.A.M.C., Principal Medical Officer, Thames District (42, The Common, Woolwich).

Colonel Leake writes as follows: Lieutenant-Colonel J. F. Brodie, R.A.M.C., died recently in the Thames District, leaving his widow and three children totally unprovided for. As the pension they will receive amounts to about £100, and as there is no other source of income except Lieutenant-Colonel Brodie's brother, who is not in a position to materially help them, I venture to make this appeal to my brother officers in the R.A.M.C. and my *confrères* in the medical profession, in the hope that they will contribute towards the support and education of the children. I think you will agree with me when I say that the case is a most deserving one, not only because the family was suddenly reduced to a condition of considerable distress—being, it might be said,

[1] BRITISH MEDICAL JOURNAL, April 5th, 1902, p. 847.

without the necessaries of life—but also because the deceased officer was one of the kindest and most benevolent of men, and one who himself was ever ready to assist a sorrowing fellow creature: but for this great generosity of character I dare say there would be no necessity for this appeal. Of the three children, one is so deaf that he will never be able to support himself, and the other two—a girl and a boy—are too young and inexperienced to think about it. I propose acknowledging the receipt of any sums remitted to me in the BRITISH MEDICAL JOURNAL.

THE CASE OF DR. W. T. LAW.

THE following resolutions were passed at the meeting at the King's Hall, Holborn Restaurant, in sympathy with Dr. W. T. Law, and in the promotion of a fund to defray his expenses, in addition to those published in the BRITISH MEDICAL JOURNAL of May 17th:

That this meeting expresses its thanks to Dr. Paramore for his active efforts in initiating this movement for the payment of Dr. Law's expenses, and congratulates him on the measure of success already obtained.

That the President of the Royal College of Physicians of London, the President of the Royal College of Surgeons of England, the Master of the Society of Apothecaries, and the Editors of the metropolitan medical journals be requested to act with Dr. Paramore as trustees of the fund now being raised at his instance for the payment of Dr. Law's heavy expenses in respect of his defence in the case of Forsyth v. Law.

The last motion was proposed from the chair by Dr. GLOVER, and the gentlemen named therein have agreed to act as proposed.

The meeting was brought to a close with resolutions of thanks to Dr. Glover for presiding, and to the proprietors of the Holborn Restaurant for generously granting the use of the King's Hall without payment.

Telegrams and letters regretting absence were read from Professor Drummond (Newcastle), Dr. Colbourne (Beckenham), Dr. W. S. Playfair, and many others, including Captain Jessel, M.P., the son of the late Sir George Jessel.

Letters were also read from medical men from all parts of the country who know Dr. Law, bearing testimony to the high esteem in which he is held by his professional brethren.

Subscriptions should be sent to Dr. Paramore, 2, Gordon Square, London, W.C., cheques and postal orders payable to "Law" Fund and crossed London County Bank, Holborn, W.C. The following subscriptions have already been received:

LIST OF SUBSCRIPTIONS TO THE "LAW" FUND.

	£	s.	d.
Theodore Williams, M.D.		0	6
R. A. Gibbons, M.D.	20	0	0
A Friend	20	0	0
C. J. Cullingworth, M.D.	5	5	0
Dr. Radcliffe Crocker	1	1	0
[illegible], M.R.C.S.	0	10	6
[illegible], M.D.	0	10	6
[illegible], V.D.	1	1	0
Edwin [illegible]ngs, M.D.	2	2	0
P. Wharton Hood, M.D.	10	10	0
John Abercrombie, M.D.	1	0	0
Holland Cotton, M.D.	3	3	0
Sir T. Lauder Brunton, M.D., LL.D., F.R.S.	2	2	0
William Ewart, M.D.	2	2	0
Henry Juler, F.R.C.S.	2	2	0
F. A. E. S.	0	10	6
J. J. [illegible]well, L.R.C.P.	0	10	6
J. H. Garrett, M.D.	1	1	0
F. H. Parsons, M.D.	1	1	0
Danford Thomas, M.D.		1	
Jam[illegible] M[illegible]		1	
E. S[illegible] M[illegible]			
Alb[illegible]			
W. H. Jalland, F.R.C.			
Marmaduke Prickett, M.D.			
A. Richard Barn[illegible]			
Philip Henry [illegible], M.D., F.R.S.	2	2	0
H. G. Howse, M.S., Pres. R.C.S. Eng.	3	3	0
William Bezly Thorne, M.D.			
Edward George Younger, M.D.	1	1	0
W. S. A. Griffith, M.D.	2	2	0
Samuel Wreford, M.R.C.			6
Frank Arglen, M.R.C.P.			6
John Marshall, M.R.C.S.		0	5
Samuel Woodcock, M.D.		1	1
Stanley Smith, M.D.		1	1
H. Ambrose Ledlard, M.D.		1	1
J.P. (Wigan)		1	1
A. B. Dublin, M.D.			2
W. A. Bond, M.A., M.D.		1	1
Clement Godson, M.D.		1	1
H. E. Watts, L.R.C.P.		0	10
M. J. Anderson, L.R.C.P.		0	10
C. J. Ogle, M.R.C.S.		1	1
R. R. Alexander, M.D.		1	1
A. Cummings Air, L.R.C.P.		1	1
Sir Henry Thompson, Bart.		10	10
H. B. Collins, M.R.C.S.		0	5
David Bower, M.D. (for Self and Dr. Norton)		1	1
Herbert C. Burton, M.D.		1	1
R. S. Armstrong, M.R.C.S.			1
[illegible] Faithfull			
[illegible] Eastes, M.B., F.R.C.S.			
[illegible] Allport, M.R.C.S.		0	10
W. Heath Strange, M.D.		0	10
[illegible]kins, M.D.		1	1
[illegible] Col. R. Bloomfield [illegible]lly, C.B., M.A., M.D.			
Herbert Tilley, M.D., F.R.C.S.		1	1
William Domett Stone, M.D.			
C. Monds Gibson, M.R.C.S.			
David Ferrier, M.D., F.R.S.		1	1
Frederick Roberts, M.D.		1	1
George Spear, M.R.C.S.			
Herbert J. Capon, M.D.	1	1	0
Albert Carless, M.B., F.R.C.S.	1	1	0
Professor A. R. Simpson, M.D., F.R.S. (Edinburgh)	2	2	0
G. Abbott, L.R.C.P.	0	5	0
Professor John Chiene, M.D., F.R.S. (Edinburgh)	2	2	0
William Allingham, F.R.C.S.	2	2	0
Sir Anderson Critchett, F.R.C.S.	2	2	0
J. Blumfeld, M.D.	0	10	0
J. J. Macwhirter Dunbar, M.D.	1	1	0
W. B.	1	1	0
John Langton, F.R.C.S.	2	2	0
John Joseph Ayre, M.R.C.S.	1	1	0
Adolphus E. Bridger, M.D.	2	2	0
Sidney J. Allden, M.D.	1	1	0
Edmund Baines, M.B.	0	5	0
J. Ford Anderson, M.D.	1	1	0
Berkeley J. Acheson, L.R.C.P.	0	10	6
James Arthur, L.R.C.P.	0	10	0
Boughton Addy, M.D.	0	10	0
Edmund Owen, M.B., F.R.C.S.	1	1	0
William Bruce Clarke, M.A., M.B., F.R.C.S.	2	2	0
Walter Robert Awdry, M.D.	0	10	0
Lewis Lewis, M.D.	0	5	0
Sir George Plunkett O'Farrell, M.D. (Dublin)	1	1	0
George A. Mason, M.A., M.B.	1	1	0
W. S. Wyman, M.D., F.R.C.S.	1	1	0
W. J. Walsham, M.B., F.R.C.S.	2	2	0
Robert Beattie, M.D.	1	1	0
Thomas Stevenson, M.D., F.R.S.	1	1	0
Sir Felix Semon, M.D., F.R.C.P.	2	2	0
H. Sauer, M.D.	5	0	0
Robert Liveing, M.A., M.D.	1	1	0
J. Hughlings Jackson, M.D., F.R.S.	1	1	0
Sir Thomas Smith, Bart., K.C.V.O.	3	3	0
Arthur H. W. Clemow, M.D.	1	1	0
Nathaniel P. Blaker, M.R.C.S.	1	0	0
Gould May, M.A., M.D.	1	1	0
Clinton Thomas Dent, F.R.C.S.	1	1	0
T. B. (Violet)	2	2	0
Sir Dyce Duckworth, M.D., LL.D.	1	1	0
Samuel Gee, M.D.	2	2	0
John Tweedy, F.R.C.S.	3	3	0
A. L. Mackenzie, L.R.C.P.	1	1	0
George Vivian Poore, M.D., F.R.C.P.	2	2	0
Winfred Benthall, M.A., M.B.	1	1	0
Christopher Heath, F.R.C.S.	1	1	0
H. T. Butlin, D.C.L., F.R.C.S.	2	2	0
A. R. Hamilton Bland, M.D.	1	1	0
J. Walton Browne, M.D. (Belfast)	1	1	0
J. Brisbane, M.D.	1	1	0
Edward Unwin Berry, M.R.C.P.	2	2	0
M. C. Corner, L.S.A., J.P.	0	10	6
John Kennedy, L.R.C.P. (for self and Mr. W. Hutchins)	1	1	0
William Hugh Fenton, M.A., M.D.	1	1	0
R. R. Giddings, M.B., C.M.	0	10	6
John Deane, L.R.C.P.	1	1	0
Sir George A. Pilkington, M.R.C.S.	3	3	0
J. N. Gardiner, M.B.	0	10	6
Victor A. H. Horsley, M.B., F.R.S.	5	5	0
Sir William Selby Church	2	2	0
Ernest Henry Crisp, L.R.C.P., M.R.C.S.	0	10	6
[illegible] Hessenauer, L.R.C.P.	0	7	6
[illegible] W. Now, M.R.C.S.	1	1	0
Henry Angell Lane, L.R.C.P.	1	0	0
Charles Stirling Saunder, L.R.C.P.	0	10	6
William Hodgson Pywell, L.R.C.P.	0	10	6
Edmund John Macgrath, M.R.C.S. (for self and Friend	1	0	0
W. D. Halliburton, M.D., F.R.S.	1	1	0
J. M. Bolton, M.R.C.S.	0	3	0
William Frederick Brock, M.R.C.S.	1	1	0
Thomas Sheldon, M.D.	0	10	6
Edwin Smith, M.D.	0	10	6
Howard Douglas Stewart, L.R.C.P.	1	1	0
A. F. Millar, L.R.C.P.	0	2	6
John Anderson, C.I.E., M.D.	1	1	0
Robert Francis Tomlin, M.R.C.S.	1	1	0
Arthur Clarke, M.R.C.S.	0	10	6
W. N. Thompson, Esq.	5	0	0
Mrs. Thomas Cooke	0	10	6
Mathew Coates, M.D.	1	1	0
F. R. Walters, M.D.	1	1	0
Louis Colborne, M.D.	1	1	0
Archibald Dunbar Walker, M.D.	2	2	0
Walter Gilson Walford, M.D.	1	0	0
J. F. J. Sykes, M.D., D.Sc.	1	1	0
William B. Lamb, M.B.	1	1	0
Edmund J. Spitta, L.R.C.P., M.R.C.S.	1	1	0
O. H. Chapman, M.B., C.M.	0	5	0
George Duncan Whyte, M.B.	1	0	0
John Irwin Palmer, M.R.C.S.	1	1	0
Coxhead Cook, L.S.A., etc.	1	1	0
Samuel Lloyd, M.D.	1	1	0
Heywood Smith, M.D.	1	1	0
A. E. H. Cornelius Hallen, M.D.	0	10	6
John Rees Gabe, M.D.	1	1	0
W. E. Wyllys, L.R.C.P.	1	1	0
Henry Humphreys, M.A., M.D.	0	5	0
Thomas J. Vallance, M.D., F.R.C.S.	1	1	0
Thomas Albert Carter, M.D.	1	1	0
Joseph Pearce B. Wills, M.D.	0	10	6
Thomas Kilner Clarke, M.A., M.D.	0	10	6
E. Muirhead Little, F.R.C.S.	0	10	6
J. Fenn Clark, M.R.C.S.	1	1	0
John Edward Shaw, M.B., C.M. (Clifton)	3	3	0
Wm. Borwick Robertson, M.D.	1	1	0
Frederick Bagshaw, M.A., M.D., F.R.C.P.	5	5	0
Deputy Surgeon-General Cayley, C.M.G., F.R.C.S.	1	1	0
W. S. Playfair, M.D., LL.D.	2	2	0
Patrick Watson Williams, M.D.	1	1	0
Charles Calthrop Mitchinson, M.R.C.S.	0	10	0
Edward Nettleship, F.R.C.S.	1	0	0
Cholmondeley Webb, M.R.C.S.	0	5	0
John Alexander Cooksey, M.R.C.P.	2	2	0
Edmund Carver, M.A., M.D.	0	10	0
A. L. Willcox, L.R.C.P.	1	1	0
R.B.M.	1	1	0
A. E. Carver, M.R.C.S., L.R.C.P.	0	5	0
Anonymous	0	8	0
Charles Renner, M.D.	1	1	0
L.A.B.	0	10	0
Arthur William Dingley, M.D.	0	10	6
Captain Jessel, M.P.	2	2	0
George Borlase Hicks, L.R.C.P.	1	1	0
Carol Luther Batteson, M.R.C.S.	0	10	6
Edward Croft Watts, M.D.	0	5	0
A. M. Daldy, M.D., F.R.C.S.	1	1	0
Edgecombe Venning, F.R.C.S., late 1st Life Guards	1	1	0
Onslow Arthur Wickham, L.R.C.P.	1	1	0
A. F. Dimmock, M.D.	0	7	6
J. W. Draper, L.R.C.P.	0	2	6

	£	s.	d.
W. Hoston Date, M.R.C.S.	0	5	0
Richard Crossley, M.R.C.S.	0	5	0
John Branson, M.R.C.P. ...	0	10	6
James Jackson, M.R.C.P....	0	10	6
Samuel Clewin Griffith, M.D.	1	1	0
Mrs. Alice Drysdale Vickery, L.R.C.P	1	1	0
Frederick W. H. Hutchinson, M.A., B.C.	4	4	0
Arthur Herbert Dodd, L.R.C.P.	1	1	0
William Campbell, M.R.C.S.	0	10	6
Roger Duke, M.R.C.S. ...	0	10	6
Sidney Parsons, M.R.C.S...	0	10	6
David Duke, M.R.C.S. ...	0	10	0
Thomas Morton, M.D. ...	1	1	0
Leonard Arthur Bidwell, F.R.C.S.	1	1	0
Sidney R. Phillips, M.D. ...	1	1	0
Surgeon-Major H. De Tatham, M.D.	3	3	0
One Who Read the Case ...	0	2	6
William Francis Roe, L.R.C.P.	0	5	0
J. P. Daniel, M.R.C.S. ...	1	1	0
Thomas James Walker, M.D.	2	2	0
John Walters, M.B.	0	10	0
E. F. Drake-Brockman, F.R.C.S.	1	1	0
Arthur H. Downs, M.D. ...	0	10	0
H. M. Tickell, M.A., M.D...	2	2	0
Scanes Spicer, M.D. ...	2	2	0
Ivor Lloyd Tuckett, L.R.C.P.	1	0	0
E. G. Cameron, L.R.C.P ...	0	10	6
Professor David Drummond, M.A., M.D.	1	0	0
Robert Bruce Duncan, M.D.	1	0	0
Frederick Morrish Pierce, M.D.	0	10	6
John Mills Thorne, M.R.C.S.	0	10	0
William Miller Crowfoot, M.B., F.R.C.S., J.P. ...	1	1	0
William Dingley, M.R.C.S.	1	1	0
J. Grey Glover, M.D., J.P...	2	2	0
G. N.	0	10	6
John Padman, M.R.C.S. ...	2	2	0
Walter William Hunt Tate, M.D.	2	2	0
James Oliver, M.D., F.R.S.	2	2	0
Henry Eugene Tracey, M.D., M.R.C.S.	0	7	6
Guy E. M. Wood, M.B., M.R.C.S.	0	10	6
William J. Cropley Swift, M.R.C.S.	0	10	6
Professor Sims Woodhead, M.D., F.R.S.E. ...	1	1	0
George Garlick, M.D. ...	0	5	0
Thomas B. Crosby, M.D., Alderman	1	1	0
Frederick S. Palmer, M.D.,	1	1	0
John N. Winter, M.R.C.S.	0	10	6
R. A. Salmen, Esq. ...	0	10	6
Richard Wheeler, L.R.C.P.	0	10	6
Leicester Medical Union, James Peacock, M.B., B.S.	2	2	0
Thomas Trollope, M.D. ...	1	1	0
E. H. Addenbrooke, M.R.C.S	0	10	0
T. G. Vawdrey, L.R.C.P. ...	0	10	6
Henry Du Cane, M.B. ...	1	1	0
R. B Traver Smith, M.D.	1	1	0
Ormrod and Dudgeon, L.R.C.P.	1	1	0
James Frederick Goodhart, LL.D., M.D.... ...	5	5	0
Wallis Mason, M.D. ...	0	10	6
Herbert R. Spencer, M.D.	1	1	0
Bertram Goddard, L.R.C.P.	0	10	6
John Matheson, M.A., M.D.	1	1	0
Professor Clifford Allbutt, M.D., F.R.S.	2	2	0
William Berry Kellock, F.R.C.S.	1	1	0
George Wight, M.B., M.C.	1	1	0
G. Johnson, Esq.	0	10	0
J. P. Westrup, M.R.C.S. ...	0	2	6
John Thompson, M.D. ...	1	1	0
Wm. Erasmus Paramore, B.A.	1	1	0
R. Horace Paramore, M.B.	1	1	0
Richard Paramore, M.D. ...	2	2	0
George Beatson, B.A., M.D., Glasgow	2	2	0
Peter Horrocks, M.D. ...	1	1	0
W. M. Bristow, M.R.C.S. ...	0	5	0
Thomas Jago, M.R.C.S. ...	0	10	6
George Thorpe, M.R.C.S....	0	10	6

THE MEDICAL DEFENCE UNION.

ANNUAL MEETING.

THE annual general meeting of the Medical Defence Union was held at registered offices, 4, Trafalgar Square, W.C., on May 15th, when the chair was taken by Mr. M. A. MESSITER.

Annual Report.

The annual report and statement of accounts for the year 1901 was presented. The report stated that a very large number of important cases had been dealt with by the legal adviser, Mr. Hempson, and by the Executive. In only one action at law had there been an adverse verdict against the member defended by the Society, and that case illustrated the dangers run by medical superintendents who may have in the exercise of their duties to report unfavourably upon any of the nursing staff of their hospitals or infirmaries. It must be always recognized that although such communication to an official superior authority was necessarily in itself privileged, yet in writing out the report, unless great care was exercised, some unguarded expression might be seized upon later by the solicitors of the person reported upon as showing evidence of express malice which might in an action override the privilege, and be held as sufficient to justify the question of damages being left to a jury. The case referred to was that of "Martin *v.* Allen," in which at the first trial the jury disagreed, but the result of the second trial was a verdict against the member of the Medical Defence Union, Dr. Allen. From the report of the case it was clear it was an action of a somewhat technical character, and one in which one jury might decide one way and another jury in a contrary direction. Many hundreds of cases had been dealt with by the Council and the Executive during the year, over 1,000 having passed through the hands of the general secretary. At the instigation of the Medical Defence Union during the past year matters of great interest had been dealt with by the General Medical Council: and it was satisfactory to be able to report that in the case of Dr. Irvine, of Birmingham, since his resignation from the Consultative Institute of that city it had been found impossible by the governing body of that institution to obtain the services of any other medical practitioner, and after a series of attempts on the part of Mr. A. Chamberlain and others interested to resuscitate the institute, "it died of inanition and marasmus, mourned only by its foster parents." Had the institute been a success in Birmingham, no doubt similar associations would have been formed elsewhere, greatly to the detriment of consultants and practitioners generally, and not to the welfare of the provident class of patients. The scheme of the institute was against all professional decorum, and could only have been carried through by a system of wholesale advertisement and canvassing. The report said that it was the desire of the Council of the Union to act not only for the benefit of their members by taking up matters like that, but for the whole body of the profession. It was satisfactory to note that their action in that case had brought a large accession of members. The Council had acted upon the resolution of the General Medical Council strongly disapproving of medical practitioners associating themselves with Medical Aid Associations which systematically practised canvassing and advertising for the purpose of procuring patients, and had brought the Rendall or Great Yarmouth case before the General Medical Council in November last. The case was still *sub judice*, inasmuch as Dr. Rendall was to appear again before the General Medical Council in May, but the result of the finding of the Council in the case must be most important to the whole body of practitioners in Great Britain. For many years the profession had in various cities and towns been exploited by trading companies under the name of "Medical Aid Societies" for the purpose of pecuniary gain to the said societies. These companies could only make themselves known to the public they desired to attract by canvassing systematically and by advertising, greatly to the detriment of local practitioners who had not considered it wise or professional to associate themselves with the companies by accepting appointments as medical officers. In some cases where all the local practitioners refused to accept office in the Medical Aid Society outside medical men were brought in, and the whole district canvassed on their behalf by the company's agents. Canvassing from door to door at houses irrespective of the pecuniary position of their residents took place, and the patients who had been accustomed and could well afford to pay a decent fee for medical attendance, were beguiled into leaving their own doctors to become members of the Medical Aid Company. The system, alike injurious to the public and to the profession, had grown to large dimensions, but the result of the Great Yarmouth case had proved that by boldly attacking the system in the manner followed by the council of the Union its weakness had been shown. Since the decision of the General Medical Council medical practitioners holding these appointments had resigned wholesale, and the Medical Aid Societies would find it extremely difficult, if not impossible, to obtain men to fill the vacancies. The Council of the Union thoroughly agreed with the editorial published in the BRITISH MEDICAL JOURNAL on this case, and would spare no pains to promote honourable practice, and to bring offenders before the General Medical Council. According to the report, however, the Council of the Medical Defence Union is convinced that when the Great Yarmouth case is finally concluded there will be little or no necessity to have recourse to the professional tribunal again. Canvassing and advertising for patients, whether done in the interests of a company or the personal interests of a medical practitioner holding a private club, must be stopped at all costs, as against public policy and professional morality. In several cases valuable information of important matters of interest to the profession had been rendered to the Union by coroners in various districts, and in other cases important information had been accorded to these Crown officers by the Union. Questions as to the meaning and interpretation of the many Acts of Parliament affecting the medical profession often came before the General Secretary of the Union, and it was the wish and desire of the Council that from the officers of the Union members should be able to obtain expert

information upon all matters which involved professional principles. The Union was a bureau of useful knowledge, and those subscribing should seek such information upon all points involving difficulty in their practice. It was to the advantage of the members if they realized that they could obtain aid, advice, and assistance upon other matters which did not necessarily involve recourse to operation of law.

Solicitor's Report.

The Solicitor to the Medical Defence Union, Mr. Hempson, commenced his report by observing that the wider recognition accorded to the benefits resulting from combined medical defence in the Colonies and in the United States of America was still extending, and that welcome growth resulted in the discomfort of those who in times past had been enabled to victimize medical men by extortion of compensation under threats of action which, in other words, amounted to "blackmail." The legal expenses had been unusually heavy, amounting to £1,384 3s. 5d.; this was due to the Union having to defend a variety of important actions in the High Court against impecunious persons from whom, although the Union had been successful, it was impossible to recover one penny of the costs thus incurred. It was the impecunious litigant that the medical man had most to fear, and against whose attacks combined medical defence was particularly directed. Suitors falling within that category had nothing to lose, and if by chance they proved successful, everything to gain. The experience of Mr. Hempson pointed to the conclusion that of all professional men the medical man was the one almost invariably selected for speculative actions. The explanation might be due to the ease with which the decision or treatment of a medical man could be impeached owing to there being no actually fixed science in medicine or surgery, and to the further fact that proverbially "doctors differ." Mr. Hempson recorded that he found a very general recognition and a most deep and warm appreciation by the members of the Union of the fact that in their defence they felt they had the support and countenance of an association composed of members of their own profession, whereby a degree of comfort and relief from anxiety was conferred which could not be over-estimated. The roll of members of the Union might be taken approximately as 5,000, representing less than one-seventh of the registered medical profession in the United Kingdom. The other defence associations might possibly account for about 1,500, leaving upwards of 28,000 members of the profession either too indifferent to their own interests or too confident in their own security to avail themselves of the benefits accruing from combined medical defence. Experience, however, proved that, whether it were general practitioner or consultant, no immunity prevailed from the risks and dangers incurred, and the bitter experience of the indifferent or over-confident practitioner involved in litigation which he had personally and unaided to defend should serve as a sufficient warning to all other members of the profession thus uninsured. In 1901 there were 146 cases referred to Mr. Hempson, of which one only resulted in an adverse verdict for the member defended—namely, that of "Martin *v.* Allen," already commented upon. Libel and slander actions were numerically and in point of expense the class of action which had occasioned more work than any other. Of the 146 cases, 46 were included in that category, and the report showed that the members concerned had been extricated from the various positions in which they were placed without loss of honour or repute. The defence of members of the Union in actions either threatened or brought against them for malpraxis represented 21 cases; 74 related to actions taken or defended on behalf of members in other and general circumstances, and 10 cases were concerned with the prosecution of unqualified practitioners and the suppression of unqualified practice. In the course of his report Mr. Hempson commented on cases arising out of the Diseases Notification Act and the Lunacy Act. He also discussed the question of the present requirements in connexion with the certification of death and various matters arising out of the Superannuation Act and the compensating provisions of the Local Government Acts.

Finance. The credit balance amounted to £1,131, and the report of the assets and liabilities of the Union was eminently satisfactory. The amount of the guarantee fund available if called up was £7 046. The number of new members for last year was 442, and the total number upon the register of the Union was 4,847.

The Chairman moved the following resolution:

That the report of the Council for the year 1901, now formally presented, and which has been circulated to all members of the Union, be received, adopted, and entered upon the minutes.

He said that the Medical Defence Union was now well consolidated and thoroughly well established. There were many at that meeting who knew that it had not been always in that condition. It had begun with small things, and as the work progressed it had been found better to move the Medical Defence Union up to London. The Union had passed through troublous times, but those times had been thoroughly outlived and the Medical Defence Union had become a power. Its functions were not only to look after the interests of the profession, but to serve as an office for advice. Perhaps most of its work was advisory. The officials were continually being asked about little difficulties which could hardly be brought before the Council. Experience had shown that the Union was a powerful source of strength to its members when occasion required that assistance should be afforded. In a case lately decided it had been said of the Union that it not only protected its members but it put the fear of God into those who opposed it. He did not know if that was exactly the case, but he certainly agreed with their solicitor, Mr. Hempson, who declared that, at any rate, it put the fear of gaol into them. It would be seen from the report that the financial position was absolutely a good one. The proof of the vitality of the Union was seen in the fact that it ended the twelve months with over £1,000 in hand. Though the year had been quiet the work done had been very important. Referring to the case of Dr. Law he said that Dr. Law had had an action brought against him which had been denounced by the judge as a ridiculous charge, but Dr. Law had found he had to pay after winning the action £700 for costs.

Mr. A. C. Roper, in seconding the resolution, said that two years ago he found very few men who knew of the Union, but lately nearly every one he met had already become a member, so that he could only get a man here and there to join.

Mr. J. T. Macnamara raised the question as to what constituted infamous conduct in a professional respect. He drew from his pocket a monthly magazine which he said was issued by a "Settlement," and he proceeded to read extracts from it, which he said amounted to unprofessional conduct. He wanted to know if there were not some means of stopping the practice of advertising in the manner he quoted.

Dr. Dickinson said that he also wished to bring before the notice of the Union a society advertising in a parish magazine a well-known medical firm as being willing to take adults for one penny a week and families for twopence a week. Ladies went from door to door asking people to belong to it.

The Chairman said that the Medical Defence Union was not formed to supply policemen; it could only deal with cases brought before them by their members.

Mr. Macnamara asked whether it was proper professional conduct for the medical superintendent of an infirmary under the Poor Law who was paid to devote the whole of his time to the Poor-law Service to go outside and see the patients of other practitioners for a fee.

The Chairman said the best course to pursue would be for a report to be laid before the Board concerned. Ethically, of course, a medical man who acted thus was doing wrong.

The resolution adopting the report was then formally put to the meeting and carried unanimously.

Mr. T. G. Alderton then moved the following:

That the accounts as audited by Mr. Hardy, F.C.A., the Company's auditor, be received, adopted, and entered upon the minutes.

This was seconded by Dr. M. Beverley, and carried unanimously.

Dr. J. S. Ferris then moved the following:

That the sum of £100 be allotted *pro rata* to the provincial members of the Council as payment of their railway fares when attending Council meetings.

This was duly seconded and carried unanimously.

Mr. P. Rose proposed that Dr. Macnamara should be elected to a seat on the Council.

This was seconded by Mr. R. F. Tomlin, and the Chairman

stated that Dr. MACNAMARA would be elected a Vice-President and sit on the Council.

Dr. Elliston, J.P., Dr. Roche Lynch, and Dr. Victor Jaynes were re-elected members of the Council.

Dr. H. W. LANGLEY BROWNE proposed and Dr. W. RIGDEN seconded the following:

That Mr. Hardy, F.C.A., of Bream's Buildings, Chancery Lane, E.C., be, and hereby is, appointed auditor for the year at a remuneration of 50 guineas, and that his duties shall include a monthly inspection of the books of the Union, especially in relation to arrears of subscription.

This was put to the meeting and carried unanimously.

Dr. W. S. A. GRIFFITH proposed a vote of thanks to the Chairman, which was carried by acclamation.

Dr. STAMFORD FELCE moved a vote of thanks to the Solicitor, Mr. W. E. Hempson, and to the General Secretary, Dr. A. G. Bateman.

Dr. BEVERLEY, in seconding this motion, pointed out that much could be done by medical men combining together in their districts, and quoted what had been done at Norwich.

Dr. C. H. WISE supported the resolution, and said that men in his neighbourhood near Walthamstow were resigning their appointments in connexion with the Medical Aid Societies which touted for patients.

Dr. BATEMAN and Mr. HEMPSON having suitably replied, the proceedings came to an end.

THE PREVENTION OF CONSUMPTION.

NORFOLK.

FOR the past twelve months the guardians of the Walsingham Union have had the consumptive patients under open-air treatment in shelters erected in the workhouse grounds. Dr. C. E. Gooderson Bateman, who has had charge of these patients, has recently reported that although the patients, with the exception of two, have been suffering from an advanced form of phthisis, the results have been satisfactory, and justified the expense incurred. The patients, however, get rapidly worse again when they return to their homes, where they do not get sufficient nourishment. What is urgently needed is a sanatorium for the poorer classes in Norfolk.

GLASGOW.

The first annual general meeting of the Glasgow and District Branch of the National Association was held on the afternoon of May 8th, Lord Provost Chisholm presiding. The report of the Council of the Branch showed that energetic measures were being taken to carry out the important purposes of the Association. The Council had been divided into three Committees, which had dealt with the work under the headings of "general business and finance," "education," and "treatment." In connection with the question of finance, the Branch had made a satisfactory beginning. There were 101 life members, 155 honorary members, and 200 ordinary members, making a total of 456. Moreover, there was a balance at the credit of the Branch amounting to £951, this balance being principally accounted for, however, by the handsome subscription of £500 received from the City Corporation. The second Committee was entrusted with the duty of spreading throughout the community knowledge regarding the dangers of and the method of preventing consumption. This was being done by the circulation of leaflets, and it was proposed to organize public meetings in the different districts of the city. The Committee dealing with treatment had addressed themselves to co-operate with the infirmaries and public dispensaries with a view to improving and extending the provision for the treatment of consumption at these institutions. They had also resolved to proceed with the erection and equipment, on the most modern principles, of a sanatorium where patients of the artizan and working classes, particularly those in the early stages of the disease, might be received, and for this purpose a suitable site on elevated ground in the neighbourhood of Glasgow had been chosen, and the scheme would be submitted to a public meeting of the citizens at an early date.

The adoption of the report was proposed by the Lord Provost and seconded by Dr. Dougan. Some discussion followed which emphasized the fact that the work of the Branch was not by any means in competition with any existing agencies, in particular with Mr. Quarrier's Homes, Mr. Quarrier himself being a Vice-President of the Branch. Dr. Ebenezer Duncan, while approving of increased facilities for the treatment of consumption at the infirmaries, and of the erection of a sanatorium, urged the necessity for the Corporation undertaking the treatment of at least the advanced cases.

The various office-bearers were reappointed, with the addition of Lord Overtoun, Mr. Nathaniel Dunlop, and Mr. John S. Templeton as trustees.

CONTRACT MEDICAL PRACTICE.

THE COVENTRY PUBLIC MEDICAL SERVICE.

DR. W. RICHARDSON RICE (Honorary Secretary of the Coventry Public Medical Service) writes: As this organization has now been in existence for ten years, we are in a position to lay before the profession the result of our work in the interest of reform in medical contract work. As a result of this strong combination in the profession, we may pride ourselves on the fact that Coventry has taken the foremost position in this pioneer work. Built upon the ashes of medical aid associations, it may now be regarded as the largest existing organization under professional control. The recent decision of the General Medical Council on the question of Medical Aid Associations appears to render some agency of this kind a necessity to medical men. Each city or town should absorb in a service under its own control the bulk of those patients or those suitable for club or dispensary treatment. Many problems affecting the profession may, under these conditions, attain a certain measure of solution. In our experience there is no necessity to admit the lay element on the committee of management. Co-operative societies, trades unions, and other kindred combinations have attained an extraordinary measure of success under the management of working men, so-called. Why should not medical men possess the necessary business talent to develop a working scheme capable of protecting their own interests? Our service has now enrolled 10,000 members under a wage limit. Our gross receipts for the year amounted to £1,986 17s. 6d. We paid to our chemists £456 4s. 2d., and the medical officers, after deducting all working expenses, were paid £1,238 15s. 6d. We have some slight expense in organizing our scientific branch, some of our work being thus carried on in the interest of medical progress. We have had during the year ten meetings, at which there were addresses and discussions of great value to the profession. Amongst those taking part were Dr. Malins, Dr. Rickards, Mr. G. Heaton, and Mr. Hall-Edwards of Birmingham, Dr. Sequeira and Dr. Hemington Pegler of London, and Mr. J. E. Swindlehurst, City Engineer of Coventry. We thus combine together in our service the scientific and commercial interests of the profession. During the year 2,684 new members joined, mostly of the labouring class, and our collections showed an increase over previous years of £150 19s. 8d.

THE EPIDEMIC OF SMALL-POX.

SMALL-POX IN SOUTH WALES.

THERE are no fresh cases at Aberdare, and the three cases in the hospital are progressing favourably.

Abergavenny is now reported free from small-pox. The outbreak started from a tramp at the workhouse, and all the 7 cases occurred in that institution. They were at once removed to the Infectious Diseases Hospital, and no fresh cases have developed. All the inmates of the workhouse were revaccinated as soon as possible.

At Swansea several fresh cases have developed. In connexion with two of these a legal point of considerable interest has been raised. Small-pox developed in two children at Swansea. Offers to remove the cases to the Infectious Diseases Hospital were made in the ordinary way, but were refused by the father of the children. On May 12th an order for removal under Section CXXIV of the Public Health Act was applied for, and the medical officer of health (Dr. E. Davies) gave evidence that the two patients were suffering from small-pox and were without proper isolation accommodation, and that it would be impossible to isolate them properly without risk to the other inmates (6 in all). A magistrate's order for

removal was made, but the father remained obdurate. On the morning of May 14th it was found that the servant girl in the house was also suffering from the disease. This patient the next day elected to go to the hospital, and was removed. On May 18th it was found that Mrs. M., the mother of the two children, had also contracted the disease. On May 18th the elder of the two children died. The child (about 3 years old) had a severe form of the disease, and as her father was an antivaccinationist neither of the children had been vaccinated. The younger infant had a milder attack, and is recovering. The mother has also decided to remain at home, and not go to the isolation hospital.

SCOTLAND.

Twenty-two cases of small-pox were intimated to the Local Government Board for Scotland for the period from May 1st to May 15th inclusive; of these 18 occurred in Lanarkshire, 2 in Renfrewshire, and one each in Forfarshire and Roxburghshire.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Presentation of Books, etc.

Presented by the AUTHORS:

Andrews, Staff Surgeon D. W. Public Health Laboratory Work. 1901.
Carr, T. Blackpool as a Health Resort. 1901.
Danvers, H. (Florence). Spring Catarrh of the Eye. 1901.
H.M. Chief Inspector of Factories. Supplement to the Annual Report for 1900.
Keen, W. W. Misstatements of Antivivisectionists. 20 pp. 1901.
———— Our Recent Debts to Vivisection. 17 pp. 1885.
———— The Progress of Surgery as influenced by Vivisection. 1901.
Lane, W. Arbuthnot. Fractures—Cleft Palate, etc. 1900.
Leftwich, R. W. On the Preservation of the Hair. 1901.
Osler, Wm. Principles and Practice of Medicine. 4th Edition. 1901.
Thresh, J. C. Report on the Water Supply of the County of Essex. 1901.

Presented by WALTER BUCHANAN, Esq., M.R.C.S. (Chatham),

Twelve bound volumes of the *Lancet* and BRITISH MEDICAL JOURNAL.

Presented by W. G. V. LUSH, Esq., M.D. (Weymouth).

Provincial Medical Journal and Transactions. 1833-1853.

Presented by the MEDICAL OFFICER to L.G.B.:

Dr Fletcher's Reports on Gildersome and Romney Marsh. 1901.
Dr. Sweeting's Report on Weymouth and Melcombe. 1901.
Dr. Sweeting's Report on Milton. 1901.
Dr. Theodore Thompson's Report on Diphtheria at Prestwich. 1901.
Dr. Wheaton's Report on Llandilofawr. 1901.
Dr. Wheaton's Report on Strood Rural District. 1901.

Presented by the Editor of the BRITISH MEDICAL JOURNAL:

Cheyne and Burghard. Manual of Surgical Treatment. Part V. 1901.
Commission de la Tuberculose. Paris. 1900.
Encyclopedia Medica. Vol. 8. 1901.
Fenwick, E. H. Operative and Inoperative Tumours of Urinary Bladder. 1901.
Gray's Anatomy. 15th Edition. 1901.
Heath, C. Manual of Minor Surgery and Bandaging. 12th Edition.
Hingnes (the late Professor A. W.). Practical Anatomy. Part I. 1901.
Index Catalogue to the Library of the Surgeon-General, Washington. Vol. 6. 1901. 2 Series.
Moscow International Medical Congress Transactions. Vols. 1, 2, 4, 5, 6, 7. 1901.
Palmer, Margaret. Lessons on Massage. 1901.
Pearson, Karl. National Life from the Standpoint of Science. 1901.
Polaillon. Affections Chirurgicales du Tronc. II. 1901.
Poland, John. Retrospect of Surgery during the Past Century. 1901.
Robson and Moynihan. Surgical Diseases of Stomach. 1901.
Rose and Carless. Manual of Surgery. 4th Edition. 1901.
Sabouraud. Les Maladies du Cuir Chevelu. 1. Les Maladies Séborrhéiques.
Sutton, J. B. Tumours Innocent and Malignant. New Edition. 1901.
Treves, Sir F., and Keith, T. A. Surgical Applied Anatomy. New Edition. 1901.
And other volumes.

Calendars, Transactions, and Reports have been received from the following Bodies:

American Otological Society Transactions. Vol. 7-4. 1901.
Belfast, Queen's College Calendar. 1902.
[illegible] 1902.
[illegible] Hospital Medical and Surgical Reports. 1901.
[illegible] Calendar. 1902.
[illegible] Transactions. Vol. 34. 1901.
[illegible] Proceedings. Vol. 7. 1901.
[illegible] Calendar. 1902.
[illegible] Society Transactions. Vol. [illegible] 1901.
[illegible] on Bubonic Plague. 1901.4
International Medical Congress of Australasia. Transactions. Sy[illegible]
[illegible]
King's College Calendar. 1902.
Liverpool University College Calendar. 1902.
London County Council Asylums Committee Reports. 1889-1900.
Massachusetts State Board of Health Report. Vol. 32. 1901.
Michigan State Board of Health Reports. 1900.
Moscow International Medical Congress Transactions. Vols. 1, 2, 4, 5, 6, and 7.
New York State Board of Health Report. 1899.
Ophthalmological Society, United Kingdom, Transactions. Vol. 21. 1901.
Psychical Research Society Proceedings. Vol. 16. 1901.
Punjab University Calendar. 1902.
Royal College of Surgeons Calendar. 1901.
Sheffield University Calendar. 1902.
Thompson-Yates Laboratory Reports. Vol. 3. 1901.
University College, London, Calendar. 1902.

BOOKS NEEDED TO COMPLETE SERIES:

The Librarian will be glad to receive any of the following volumes which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
American Dermatological Association. Transactions. Vols. 5, 7, 8, and 11.
American Journal of the Medical Sciences. New series, vols. 4, 5, 1842-43; vols. 14, 15, 1847-48; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-65; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1-9.
American Laryngological Association. Transactions. Vols. 1-6, 8-9.
American Medical Association. Transactions 1-28, 30, 31.
American Otological Society. Transactions. Vol. 3, part 2, 1883.
American Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Annals of Surgery. Vols. 1-11; 13-16; and 26-27.
Archives Générales de Médecine. 1831-39 inclusive; 1846-1855 inclusive; 1857-64 inclusive; 1871.
Archives of Ophthalmology. Vols. 1-3, 6, 7, 14-21.
Archives of Otology. Vols. 1-7, and 20, 21, 22.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Laffan, 1879. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. 1891, January-July 1892, January, September, and May, 1897.
———— für Bakteriologie. Bound volumes prior to 1899.
———— für klinische Medicin. 1880-1883; all 1888, 1891, No. 26; 1892, No. 17.
———— für medicinischen Wissenschaften. Vols. 1-19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10.
Congrès Internat. d'Obstétrique et de Gynécologie. 1, Bruxelles, 1802; 3, Amsterdam, 1899.
Connecticut State Board of Health Report. Vol. xi. 1887-8.
Denman. Midwifery. 1801.
Dermatological Congress. Paris, 1889; Vienna, 1892.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1-10, 13-28, 35-40.
Edinburgh Medical and Surgical Journal. Vols. 67-82. 1847-1855.
Edinburgh Obstetrical Society. Transactions. Vols. 5 and 22.
Fothergill. Midwifery. (Recent).
Gale. Surgery. 1563.
Glasgow Medical Journal. 1833-1868.
———— Pathological Society. Transactions. Vols. 1 and 2.
Hare. Therapeutics. Vols. 3-4.
Hunterian Transactions containing 76th Report.
Indian Census Report. 1881.
———— Medical Gazette. 1866-1884.
International Congress of Hygiene. Congresses 1 to 6.
International Ophthalmological Congress. Transactions of 5th, New York, 1876.
Johns Hopkins Hospital Bulletin. Vols. 1 10.
Journal of Laryngology. Vols. 1-9.
Lancet, 1850, vol. 2, pages 425-6, and August 23rd, 1851.
Larrey (J.). Mémoires de Chirurgie Militaire et Campagnes. Tomes 3, 4, 5. 1812-17.
Ophthalmic Review, January, 1882.
Poliatschek. Therapeutische Leistungen des Jahres. 1894, 1895, 1899, 1900.
Provincial Medical and Surgical Journal. 1840. Being the first 52 numbers before October 2nd, 1841.
Recueil d'Ophtalmologie. 1891, Jan.-June; 1892, December.
Registrar-General's Annual Summary of Weekly Returns. 1866-73, 1876, 1880, 1887.
Revue Générale d'Ophtalmologie. Prior to 1888, and 1891-92.
Semaine Médicale. Prior to 1890, and title and index to year 1892.
South African Medical Journal. February, April, 1895. And Titles for vols. 2 and 4.
Starling. Physiology.
Turner (D). Art of Surgery. Vol. 2. 1725.
University College Hospital Reports. Before 1877 and 1892-93.
Virchow's Archiv. Any vols. prior to 151.
Wiener klinische Wochenschrift. Nos. 5 and 6. 1899. Titles 1892 and 1888.
Willcock. Laws of the Medical Profession. 1836.

Applications for duplicates from medical societies forming libraries may be addressed to the Librarian, 429, Strand.

BARRY CORONATION CELEBRATION.—At a meeting of the Barry District Council on May 12th, it was decided to expend £14,000 in the erection of a hospital for the town as a recognition of the Coronation, and also to give £1,000 towards defraying the debt on the Jubilee Nurses' Home. The scheme will, however, first be submitted to a ratepayers' meeting.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 24TH, 1902.

THE REORGANIZATION OF THE ASSOCIATION.

IN this issue of the BRITISH MEDICAL JOURNAL are published (p. 1297) the report of the Committee appointed at Cheltenham to prepare new articles and by-laws, a draft of articles and by-laws prepared accordingly, and the notice of extraordinary general meetings for the consideration thereof, to be held on June 18th and July 9th. These announcements definitely mark the conclusion of the long process of investigation and discussion which was entered upon when the annual general meeting of 1900 adopted the proposals of Mr. Victor Horsley as to the appointment of a Constitution Committee. During the period of nearly two years which has elapsed since the passing of those resolutions, the Committee thereby brought into existence and its successor the smaller Committee appointed at Cheltenham, have been engaged in the fullest and most painstaking consideration of the changes in the organization of the Association which lapse of time, rapid growth, and greatly increased powers and responsibilities have rendered necessary or desirable. Never before, we apprehend, in its history, and rarely perhaps in that of any similar society, have the principles and practice of its administration been subjected to a scrutiny so close and so sustained. Whatever view may be taken of the principles of the scheme of reorganization, every member of the Association will, we feel sure, concur in the opinion that the gentlemen who have served on both the Committees above referred to, and have thus been engaged throughout so long a time on this laborious task, may fairly be considered to have acquired a special knowledge of the matter, and that the fruits of their deliberations are entitled to a corresponding degree of attention and respect.

No novelty in principle will of course be looked for in the Articles of Association and By-laws now issued, regard being had to the instructions given to the Committee under whose supervision they have been prepared. As the Committee states in the report accompanying the draft, its duty has been confined to securing the incorporation in clauses suitable for adoption as permanent regulations, of the principles which, as enunciated in the two Reports of the Constitution Committee, have already been considered by the Branches and approved by the annual meeting at Cheltenham.

These principles, though doubtless familiar to most members, may perhaps with advantage be briefly recited here. They include the adoption of a unit of local organization (the Division) more suitable than the average Branch for the various purposes which such a unit should fulfil; the enrolment of all members in the local bodies, both Divisions and Branches, and the adoption of a uniform and inclusive subscription for all Association purposes, both local and general; certain changes in the composition, mode of election to, and duration of membership of the Council, intended to keep it more closely in touch with the feeling of the Association; and, further, to facilitate the ascertainment and declaration of the true wishes of the Association on the broader issues of its government and policy, the institution of a new representative body, based on the Divisions as constituencies, to which the powers hitherto exercised by general meetings should as far as possible be transferred; and the provision of a Referendum, an appeal from the decisions of both general and representative meetings to the general body of members at the instance of the Council, when the latter body as the executive shall be of opinion that the wishes of the Association are imperfectly apprehended or incorrectly construed by the legislative body. Of these proposals, it is sufficient now to say that they are all to be found in the draft Articles and By-laws now published. In matters of detail, the exercise of a wider discretion has devolved upon the Drafting Committee, and various problems of interpretation must have presented themselves in the translation into legal regulations of the recommendations of the Constitution Committee, that Committee, being one of investigation simply, and chiefly concerned with laying down the broad lines on which reorganization should be carried out. Accordingly in its recommendations details were not minutely set forth except where necessary to make clear what was intended. The Articles and By-laws now submitted to the judgement of the Association appear, so far as we can form an opinion, to be in fact a translation into legal form of those recommendations which the Association has already approved.

The Committee, acting, as will be seen from the Report, on the advice of counsel, and, after careful consideration, has decided that the vote of the general meeting on June 18th shall be taken on the proposed Articles and By-laws as a whole, the notice convening the meeting being so framed as to exclude amendments. It will be remembered that on the last occasion when the Association was invited to consider new Articles of Association, those prepared under the direction of the Council and submitted to the extraordinary general meeting at Exeter Hall on July 18th, 1900, the same course was taken by the Council in convening the meeting. Strong feeling was at that time aroused by this action, and it is probable that many voted against the scheme then presented on this ground alone. The circumstances under which the present scheme is brought forward are however essentially different. The regulations proposed for adoption two years ago contained new principles on which the opinion of the Association as a whole had not previously been ascertained, although it was generally recognized that some change was necessary. The new Articles of 1900 having been drafted by the Council after careful consideration, and the matter being considered urgent, it was not thought necessary to incur

the delay that would have been caused by the submission of the proposals for preliminary consideration and amendment by the Branches or a general meeting, but the scheme as a whole was submitted for a final Aye or No vote ten days after the draft had first appeared. In contrast, we have in this instance the almost tedious process by which the present plan of reorganization has reached the form of Articles and By-laws; the decision of a general meeting at Ipswich to appoint a Committee of Investigation; the mode of appointment, half by the meeting and half by the Council, in order to secure a Committee in which all sections of the Association might have confidence; the discussion and approval by the Branches of the general principle of reorganization recommended by the Committee, the further discussion, amendment in detail, and consequent approval by the general meeting at Cheltenham; and finally the appointment of a Committee for carrying the scheme into effect by the preparation of the required Articles and By-laws. The Committee, therefore, for the reasons assigned in their report (p. 1297) have come to the conclusion that the matter has now been brought to a point where a definite decision must finally be made, and advise the Association that a clear Aye or No vote upon the acceptance of the new Articles and By-laws should now be taken.

PLAGUE AND SANITATION IN INDIA.

IN a recent speech at Jullundur, the Lieutenant-Governor of the Punjab is reported to have stated that during the week ending March 15th 20,610 cases and 14,936 deaths from plague had occurred in the province; while from October 1st, 1901, to the present time, more than 100,000 people had died in the same area from the disease. This official statement as to the prevalence of plague in the Punjab, which constitutes barely a fourth of the whole of India, coupled with a perusal of the analysis of the report of the Plague Commission, which has appeared in this and the last three numbers of the BRITISH MEDICAL JOURNAL, affords material for the greatest anxiety regarding the public health of our great dependency. On the one hand, we have an official admission that, in one province at least, the disease incidence is enormous and unprecedented—what it is for the whole of India at the present time we do not know—and, on the other, we have the deliberately-expressed opinion of the Royal Commissioners that "there are no means of stamping out the present epidemic of plague." It is needless to say that this is a very serious state of affairs, and in view of the constant menace which the widespread prevalence of plague in India offers to Europe and other parts of the world, is a matter which closely concerns both the profession and the public.

Although the Plague Commissioners are unable to lay down any precise or promising means of stamping out the disease, their report presents very important evidence as to what are the conditions existing in India which have conduced to the present lamentable state of the public health and tend to favour its continuance. These are overcrowding, insanitary conditions, and absence of ventilation in the native dwellings, coupled with an imperfect sanitary supervision of both towns and villages. Any amelioration of the domiciliary conditions can only be secured by time, and must be the gradual result of improvements in sanitary administration.

We have already[1] in a previous article touched upon this question, and pointed out what appear to be the main defects of the present sanitary service in that country, and the lines on which reform must be worked out. The more the matter is looked into the clearer it becomes that sanitary administration, outside the larger towns, practically does not exist in India at all, and even in the towns and cities is greatly neutralized by the passive obstruction and half-heartedness of interested members of municipal Boards, venality of subordinates, undermanning of European sanitary *personnel*, and inadequate public health legislation.

In the Mofussil there is absolutely no sanitary control or organization; certainly there are sanitary commissioners, but they are in charge of districts so large that they can do no more than periodically visit each place in the area, say once in two years, and, controlling no staff or *cadres* for sanitary purposes, exercise no executive powers to carry out what they deem to be necessary. The duties of these officials consists mainly of making visits of inspection, writing reports, and submitting recommendations to their provincial Governments for the carrying out of which neither organization exists, nor official on whom responsibility rests. Even the Sanitary Commissioners themselves have not always appeared to be selected upon any system or principle as to their fitness by virtue either of special knowledge of or training in sanitation.

It appears to us that the time has come for a complete revision of the system of sanitary administration in India. The first reform should be on the lines of a resolution passed at a meeting of the Burmah Branch of the Association at Rangoon on February 3rd last which "desires respectfully to draw the attention of the authorities to the fact that medicine and sanitary science are not represented on the Council of the Viceroy of India or on that of the Lieutenant-Governor of Burmah, while engineering, law, commerce, etc., are directly represented. In the interests of the public health, this Branch of the Association is of opinion that medicine and sanitary science should also be directly represented on the Council." With this view we entirely concur, and until such representatives, themselves competent sanitarians, are on the Councils of the Governor-General and Lieutenant-Governors of provinces, sanitation in India can never be on a satisfactory basis.

But reform must not stop there; a further change must be by the formation of a sanitary service for India, working from a central bureau in Simla under the sanitary member of Council through the sanitary members of provincial councils, who themselves through their own provincial Governments will be responsible to the central sanitary secretariat in Simla. Such a sanitary service would embrace not only health officers of cities, towns, and districts, but also port sanitary officers, bacteriologists, chemical examiners, vaccination officers, and statistical registrars of births and deaths, and should be recruited not only from the Indian Medical Service, but also from the Royal Army

[1] BRITISH MEDICAL JOURNAL, April 5th, 1902, p. 847.

Medical Corps and the civil medical professions of both India and the empire. The selection of officers for such a service would have to be based exclusively on their fitness for and training in sanitary work. The subordinate appointments would naturally be filled by Indians, with a small percentage of Europeans. Conceived on these lines, the sanitary service of India would cover the whole land, taking co-ordinate action, supervising and carrying out practical sanitation both in the large towns and smaller villages. In both, the need of organized work is urgent. Under careful administration the beneficent influence of such an official sanitary service would be felt within a few years, and many of the conditions, both of Indian urban and rural life which the Plague Commissioners so graphically describe, would gradually disappear.

On no other lines can sanitation be expected to advance in India; the people are incapable of evolving a better state of things themselves; it must be gently and gradually brought home to them that for their own sakes the old order of things must give way to something newer and better. To some these proposals may suggest a sure and certain way of rousing such discontent among the native masses that riot and unrest must follow. We think not. Signs are not wanting that the terrible incidence of plague is impressing the native masses of India with the need of sanitary reform. They are incapable of working it out for and by themselves; they look, and rightly look, to the Sircar to show them how to purge the Augean stable. It will be a difficult and troublesome task, but not less possible than it is necessary. We have accomplished much in India, but the greatest feat is still to be done, and that is to make her people live under wholesome conditions.

Behind any sanitary organization there must be law and power to carry out reforms when needed and feasible. This will mean a health Act for the whole land; not an elaborate or complex Act, but none the less a sanitary legislative effort, with compulsory clauses for the control of buildings, streets, disposal of refuse, destruction of insanitary areas, and the protection of food and milk supplies. Local loans and money grants will be required, for underlying the whole question is the real poverty of the people; but the situation in India is so grave and the outlook so ominous that an organized attempt to improve the condition of things is a matter of urgency.

STUDIES IN ADVERTISEMENT.

If the number of quack advertisements appearing in the press may be taken as a measure of the intelligence of its readers, the British public fully deserves Carlyle's description of it as "mostly fools." From the regularity of the appearance of these advertisements, it is clear that not in vain is the snare set; yet so sorry a thing is the snare that one wonders how the silliest bird can allow itself to be caught. Evidently the fowlers well know how gullible a prey they have to deal with.

To any philosopher who, in his pride of intellect, holds a lofty view of human reason, a study of advertisements may be commended as a corrective. Let him take the current number of the *Strand Magazine* and go through the seventy-two pages of advertisements; they will afford him reading which, if not edifying, will be instructive. Leaving aside announcements of instantaneous cures for neuralgia and toothache, hair restorers, and other comparatively harmless things of the kind, we come to a truly "marvellous" powder, recommended by "Sir Spencer Wells, M.D., Professor Lawson Tait, M.D.," and others, which is declared to be "the only one perfect remedy for the eradication of constipation, indigestion, torpid liver, derangements of the stomach and kidneys with their concomitant evils, gout, rheumatism, lumbago, diabetes, Bright's disease," etc. The inventor of this panacea might, like Lord Clive, stand astonished at his own moderation in cutting short his catalogue, for he might just as well have included cancer, consumption, and all the other ailments in the *Nomenclature* of the College of Physicians. The powder apparently does not confine its beneficial activity to medical disorders, since it is claimed for it that it can eradicate a torpid liver; it may therefore be inferred that it makes surgery superfluous. *O grande puissance de l'orviétan!* Next we come to certain "dyspepsia tablets" which it is said "promptly relieve and cure all forms of indigestion." The vendor here takes the gentle and, *ex hypothesi*, simple reader into his confidence, saying, with engaging frankness, that the tablets "digest the food whether the stomach works or not, and that's the whole secret." Here, again, we cannot help being struck by the moderation of the advertiser; it would have been just as easy and not more untrue to say that his tablets digest the food whether there is a stomach or not. Then we have a gentleman who undertakes to reduce fat people at the rate of seven pounds a week. It is promised that the treatment, the effect of which is noticeable within twenty-four hours, will make the patient happy. It cost George the Third on one occasion £10 to make a man happy, as is recorded in that homely monarch's account book; but this benevolent person undertakes to do the thing much more cheaply—to himself at any rate. We then meet under the heading "Free to the Ruptured," the advertisement of a Dr. W. S. Rice, who publishes a letter from a grateful patient "to show that rupture can be cured." We hear more of this philanthropist in a recent issue of *Truth*, in which his *modus operandi* is described as an illustration of the superior skill of the Yankee in the advertising business. A gentleman having written to him and received an answer did not proceed to a "deal." Dr. Rice did not drop him, however, but wrote again and yet again urging the merits of his truss. "If," he says, "I were making trusses just to sell as a money-maker I would get up something about five shillings and claim it as a sure cure. It would be necessary for me to be a first-class liar, of course, and I wouldn't know what such a thing as conscience is, but it costs a lot of money to make my truss." It would be more interesting to know what it costs to make a first-class liar; the rates differ, we presume, according to the paper in which the products of his art appear.

Another American invention is an "ideal sight restorer" about which little is said but much implied, as we are assured that "glasses render defective vision chronic." After this we are scarcely startled by the announcement that Dr. —, Fort Wayne, Ind., U.S.A., has "surely discovered the elixir of life." This "famous doctor scientist" calmly states that he is "able with the aid of a mysterious

compound, known only to himself, produced as a result of the years he has spent in searching for this life-giving boon, to cure any and every disease that is known to the human body." Here at any rate is a man who has the courage of his claims. We read further, "To the doctor all systems are alike and equally affected by this great 'Elixir of Life.'" We have no difficulty in believing both these statements to be absolutely true. After the elixir of life a "perfected electro-galvanic belt" recommended to sufferers from "exhausted nerve force," etc., and even a contrivance —whether it is a medicine or a machine is not clear—for producing "perfect curves" in women, are comparatively unexciting. Soon we come upon a more questionable "marvel," a "whirling spray douche" which every woman should know about and as to which she may get full particulars and invaluable directions by sending a stamp for "illustrated book—SEALED."

Passing on, we find a Chicago gentleman who promises you a superb muscular development and vigorous health—if you will practise the system of "physiological exercise" which is taught by post only. From Chicago, too, comes a little instrument which can be carried in the pocket and with which "you are master of disease—without doctor or medicine." In reading these statements one feels a faint curiosity as to the health of the quack medicine vendors themselves; what diseases do they die of?

We have chosen only a few of the more blatant advertisements from a single issue of a magazine; extracts could be multiplied indefinitely. They remind one of the cynical lesson which experience had taught Autolycus—"Ha! ha! what a fool Honesty is! And, Trust, his sworn brother, a very simple gentleman!" In this industry of exploiting the gullibility of the public as in other lines of commercial enterprise the New World is far in advance of the Old. If we may parody the words of the Roman satirist, *Quidquid America mendax audet in*—advertising, might well be used as a standard of comparison for what may euphemistically be called statements made with intent to deceive. Is this ignoble trading on human folly altogether beyond the reach of the law? We fear it is. The only hope lies in the spread of knowledge among the people. When they are able to appreciate the claims of the quack medicine man at their true worth, his occupation will be gone and the sum of human lying will be considerably reduced.

HOUSING OF THE WORKING CLASSES.

THE Joint Committee on the Housing of the Working Classes, of which Lord Camperdown is Chairman, and to whose appointment and terms of reference attention was called in the columns of the BRITISH MEDICAL JOURNAL on March 15th, p. 670, has held two meetings. Mr. C. E. Troup, C.B., of the Home Office, explained to the Committee some of the ingenious methods whereby railway and other companies have succeeded in driving a coach and four through the intentions of the Standing Orders of Parliament, in the matter of rehousing dishoused workmen, and the model clauses whereby endeavour has been made to give effect to these intentions.

This is no new experience. The Royal Commission on the Housing of the Working Classes in 1889 reported that the evidence was unanimous that the Standing Orders were either evaded or insufficient, and showed that rehousing obligations were habitually disregarded by companies, that the information vouchsafed by the promoters of private Bills was often grossly incorrect, and that the Standing Orders then in force were in fact a dead letter. Emendations have been made in the Standing Orders and model clauses in accordance with recommendations of the Commissioners and accumulating experience by the Home Office of the wiles of companies. Nevertheless, there are still holes in the net, and of these Mr. Troup gave the Committee a few engaging illustrations.

Thus the Standing Orders say where a company takes more than twenty houses in any local area inhabited by persons of the working class they shall provide some rehousing accommodation to the satisfaction of the Secretary of State. Companies accordingly found it convenient to take nineteen houses or fewer, or fewer than twenty in any one local area, though more than twenty in all; they also made arrangements with the landlords whereby the houses on a given day were tenantless. Moreover, it appears that companies have in some cases by private treaty acquired land occupied, or formerly occupied, by persons of the working class, but without disclosing such purchase in application to Parliament, although in the case of railway companies at any rate it had been assumed that such procedure was impossible. Further the term "house" was found to have an elastic signification; indeed, in one instance a company proposed to count as one house a model dwelling containing sixteen tenements. A definition of the term "house" has, however, now been adopted which will exclude the repetition of this particular form of evasion.

Yet another trick practised even by an authority like the School Board has been to take fewer than twenty houses in any one year, but considerably more than twenty over a series of years. The School Board was, however, by an Act passed in 1899 compelled to make up for its misdeeds of the previous five years and precluded from following a similarly lax policy in future.

A further question has arisen before Lord Camperdown's Committee, and will no doubt occasion considerable discussion. This is, given the desirability, at any rate in London with its house famine, of requiring companies seeking compulsory powers of dishousing to make good, in some degree, the deficiency their action occasions, what is to be the *locus* of the accommodation to be provided. Is it to be adjacent to the area of the displacement? Is rehousing on the spot to be insisted upon irrespective of the value of the land? Or should accommodation on the outskirts of London, where land is relatively cheap, be accepted in lieu? This opens an enormous problem. Improved locomotion and the peripheral expansion of London is the ideal of many reformers, impressed as they are with the increasing difficulty of using central land in London for housing the poor at rents both payable and paying. At the same time, the process must be gradual to avoid hardship, and the claims of those whose occupation necessitates residence near their work must not be lost sight of. We shall await with interest the results at which Lord Camperdown's Committee will arrive on these and cognate questions.

THE STATISTICAL STUDY OF BIOLOGICAL PROBLEMS.

THE appearance of a new quarterly journal, *Biometrika*[1], for the statistical study of biological problems is further evidence of the important position which mathematics is beginning to take in biology. Already it is recognized that the higher branches of physics cannot be properly understood without the use of advanced mathematics, and important investigations and discoveries in physics depend upon their use. It will soon be true, as stated by Professor Karl Pearson, F.R.S.—who along with Professor Weldon, F.R.S., and Mr. Devonport edits the new journal for the Syndic of the Cambridge University Press—that mathematical knowledge will be as much a part of the biologist's equipment as to-day of the physicist's. In biology as well as in physics it is necessary to be quantitatively exact and so drop *nomina quae carent rebus*. Professor Karl Pearson argues that the whole problem of evolution is a problem in vital statistics—a problem of longevity, of fertility, of health, and of disease, and "it is as impossible for the evolutionist to proceed without statistics, as it would be for the Registrar-General to discuss the national mortality without an enumeration of the population, a classification of deaths, and a knowledge of statistical theory." Mr. Francis Galton, F.R.S., states that the new methods involved in the application to biology of the modern methods of statistics, occupy an altogether higher plane than that in which ordinary statistics and simple averages move and have their being. It is unfortunate, but true, that the arithmetic they require is laborious, and the mathematical investigations on which the arithmetic rests are difficult reading even for experts. Nothwithstanding these technical objections the study is one which has already succeeded to such an extent, and offers so much promise of further success, as to deserve the enthusiastic pursuit to which a few have devoted themselves. As medicine in its widest sense is a branch of biology, biometrical science appeals to the medical investigator on many points. The first three numbers of *Biometrika* contains illustrations of this fact. The first number contains a paper by Miss Mary Beeton and Professor Karl Pearson on "The Inheritance of the Duration of Life, and on the Intensity of Natural Selection in Man," and although the available data are on a small scale, and a plea is entered for their collection on a much larger scale, the authors are able to formulate the conclusions that the elder members of a family live sensibly longer than the younger; and that the expectation of life is seriously modified by either the ages at death of relatives or their percentages, and can be quantitatively determined as soon as the latter are known. In the second number Professor Pearson gives a short note on "the changes of expectation of life in man during a period of *circa* 2,000 years." The curve of expectation of life in England in 1871-80 is compared with a curve based on the ages at death of 141 Egyptian mummies, concerning whom these particulars are known. If the comparison is to be trusted, the improvement in modern times is most striking. That a man of 25 years old to-day lives on an average fifteen more years than a man of the same age did 2,000 years ago is evidence either that man is constitutionally fitter to survive to-day, or that he is mentally fitter, that is, better able to organize his civic surroundings. Professor Pearson does not, however, state how his Egyptian life table has been formed. Presumably it must have been based upon deaths alone, without reference to the population out of which they occurred. A life table thus constructed is trustworthy if the population among which the deaths occur is stationary, if the births and deaths are equal, and if there is no disturbing migration for a century, conditions never in practice fulfilled. For a similar reason the earlier English life tables of Drs. Halley and Price were untrustworthy. We congratulate the Cambridge University Press on the publication of this new and handsome quarterly, which will, we believe, do great service in advancing the science of biology, and aid in elucidating many problems of medicine which lend themselves to investigation by modern statistical methods.

[1] Cambridge: University Press. London: C. J. Clay and Sons. Subscription, 30s.; single numbers, 10s.

POST-GRADUATE CLINICAL STUDY IN LONDON.

FOR some years past, as our readers are aware, the medical schools of nine of the eleven general hospitals in London have combined with considerable success to make their clinical resources available for the needs of medical men who may desire what is commonly called a post-graduate course. Many members of the profession, especially from the British Colonies and from America, have taken advantage of these courses in the past, but it is now considered that the scheme should be extended. All the institutions recognized by the London University as places for medical education have been invited to join, and the invitation has, we are informed, with few exceptions been accepted. It is considered probable that those who join the courses will have at their disposal all the clinical resources of the nine out of the eleven general hospitals and the following special hospitals: The Great Ormond Street Hospital for Sick Children, the Brompton Hospital for Diseases of the Chest, the Queen Square National Hospital for the Paralyzed and Epileptic, and the Royal London Ophthalmic Hospital, City Road (late Moorfields). The arrangements will, it is hoped, be completed by next autumn. Further particulars can be obtained from the Hon. Secretary, Metropolitan Schools of Medicine, West Wing Examination Hall, Victoria Embankment, London, W.C. We are asked to state that it has been decided to open the practice of the Tottenham Hospital to qualified medical practitioners for post-graduate study and clinical work. The hospital, which is now authorized by the University of London to give certificates of post-graduate study for its M.D. and M.S. degrees, is on the High Road, South Tottenham, a few minutes' walk from the South Tottenham Station of the Midland Railway, and the Seven Sisters and Tottenham Hale Stations on the Great Eastern Railway. It can also be reached by tramcars from various parts of north-east London. The hospital was established in 1867. The population of the districts around has increased enormously. The hospital now contains 73 beds; during 1901 713 in-patients and nearly 15,000 new out-patients were treated. Facilities for clinical study will be afforded in the following departments: Medicine, Surgery, Gynaecology, Diseases of the Ear, Throat, and Nose, Diseases of the Eye, Diseases of the Skin, and clinical lectures open to all medical practitioners will be delivered from time to time. Further particulars can be obtained from the Dean of the North-East London Post-Graduate College, Dr. A. J. Whiting, 142, Harley Street, W.

THE JOINT COMMITTEE AND THE LONDON WATER BOARD.

THE Joint Committee of the Lords and Commons over which Lord Balfour of Burleigh presides has further distinguished itself by the singularity of its procedure. On May 10th we drew attention to the fact that the Committee, after having decided to delete the representatives of the metropolitan borough councils from the unwieldy Board proposed in the Bill, yet proceeded to hear evidence from a formidable array of metropolitan mayors as to the necessity for retaining the representatives of the borough councils whose services it had agreed to dispense with. The effect of this mayoral procession upon the minds and even the order of the Joint Committee has been profound. Whereas by a majority the Committee decided to delete borough members of the Board, it has now, by an equality of votes on the question that the Committee should adhere

to its previous decision, decided not to delete them. On a well-known rule of procedure in the House of Lords, equality of voting results in a negative decision; but we have yet to learn on what rule of procedure in any rational assembly, when a previous decision is again brought under review, the question put should be in the form "to adhere to the previous decision," rather than in the form "that the previous resolution be rescinded." A decision which is determined, not by a majority of votes, but by an equality, and that equality counting as aye or no by the mode in which the Chairman determines to accept a motion, reduces the procedure to the level of comic opera. It is idle, but interesting, to speculate what would happen to the "adhering resolution" if it were now solemnly proposed to adhere to it, and the voting were again equal. This vacillation has seriously compromised the credit of the Committee and the chances of the Bill; and, though the Committee has now proceeded to the terms of purchase, these fundamental questions as to the composition of the water authority will again come under critical review.

PUBLIC VACCINATION IN THE ISLE OF WIGHT.

THE Isle of Wight guardians have had under consideration various questions relating to the cost of public vaccination. After lengthened discussion at a recent meeting they adopted a resolution "that a list of all those who have refunded to our clerk the amounts charged for their re-vaccination by the public vaccinators shall be laid before the guardians this day month." This sufficiently indicates the attitude taken by the majority, but it is so far to their credit that they refused to follow one member who wished them to petition Government to introduce a measure to disfranchise for three years any person earning over £1 per week who permits himself or any of his family to be vaccinated at the public expense. Though this sapient proposal was rejected, the decision even regarding it was by no means unanimous, the vote being 12 to 21. Throughout the discussion (as recorded in a local newspaper) there is evidence of the great difficulty that Poor-law guardians appear to have in considering a question from other than a Poor-law standpoint. They fail to see that the prevention of small-pox is a public health function, and that an individual is doing a public service in preventing himself from becoming a small-pox hospital patient, or a centre of infection to others. There is no more reason why vaccination done by a public vaccinator should be regarded as pauperizing the individual operated on than there would be to look similarly on the sending of a child to a Board school. If a man chooses to educate his family otherwise well and good; he takes no benefit from the school-rate of which he is compelled to pay his share. But there is nothing, either legally or morally, to compel him to educate his family elsewhere than at a Board school. So it is with vaccination. One man may prefer to go to his medical attendant and pay for the operation. That, however, does not relieve him from the assessment levied by the guardians, and another man may legitimately refuse to be assessed for vaccination, and at the same time to pay for it in his own family. The chairman of the guardians, we are glad to note, reasoned with the Board in a thoroughly sensible way on this matter. He made one observation also which bears upon a point frequently discussed in the BRITISH MEDICAL JOURNAL. He said that Government had refused to provide private practitioners with vaccine lymph, and that it was only by going to the public vaccinator that the use of Government lymph could be obtained. Until the central authority undertakes the supervision of lymph production by private persons, it is easy to see that, rightly or wrongly, many people may feel more confidence in going to a public vaccinator than to their own medical attendant. We hardly feel it necessary to comment on charges made by some of the Isle of Wight guardians to the effect that their public vaccinators, or some of them, had endeavoured to vaccinate as many persons as possible at their own homes, rather than at consulting rooms, so as to obtain five-shilling instead of half-crown fees. The careful performance of the vaccine operation with every aseptic precaution, and the subsequent inspection, and the responsibility, are surely worth five shillings. Besides, if the surgeries of medical men were to become crowded every night during times of small-pox prevalence by people wanting vaccination and returning for inspection, the system would obviously be open to the same sort of criticism as was levelled against vaccination stations, and as has led to their practical abandonment. We do not here discuss whether the allegations of evil results were well founded or not. All we desire to point out is that the same system would to some extent be revived by such attendances at the consulting rooms of public vaccinators.

PROFESSOR BOTTINI'S JUBILEE.

THIS year Professor Bottini celebrates the twenty-fifth anniversary of his appointment to the Chair of Surgery in the University of Pavia. The Italian Society of Surgery is preparing to do honour to the occasion at its forthcoming meeting in October. In the meantime, the students of Pavia have taken the opportunity of showing their respect for their distinguished professor. At a meeting at which the Rector of the University, Senator Professor Golgi, and all the professors of the Medical Faculty with the Syndic of Pavia and other notabilities were present, the students presented Professor Bottini with an address composed by Professor Rossi, of Pavia, and inscribed on vellum. It runs as follows:

Henrico Bottini
chirurgicae disciplinae in Italia principi
Athenaei ticinensis lumini ac decori
Antonii Scarpa et Aloisii Porta successori
dignissimo
cujus nomen ars sectionis maxime ad colli deformitates
et ad ischurias prostaticas sanandas
ab eo adhibita summoque ingenio atque
studio perfecta
una cum patriae gloria in omnes cultarum
gentium nationes
propagavit et nobilissimum reddidit
anno XXV ex quo tantos magister docere
coepit
eius discipuli hygiae laurea proximi donandi
hoc honoris documentum
grati animi magnaeque admirationis causa
gratulantes ovantes
DD. — DD. — DD.
Paviae die III m. Maii
a. MCMII.

THE RELATION OF BIOLOGY TO MEDICINE.

PROFESSOR J. ROSE BRADFORD, F.R.S., gave an address on this subject to the Medical Society of University College, London, on May 21st. There were, he said, at least three points of view from which biology in relation to medicine might be considered: First, in regard to its educational value; secondly, in relation to practice; and thirdly, with reference to research in medicine. Biology offered special advantages to the practitioner and to the medical student, because it enabled them to form a better idea of the complexity of living structures than could the more technical branches of study more immediately related to the practice of medicine. The elucidation of the phenomena of phagocytosis and chemiotaxis was due very largely to biologists. Chemiotaxis had become of cardinal importance in pathology with reference to inflammation and to a number of other problems connected with the infection. Some people were apt to forget that the working out of the

malaria problem and the relationship of the mosquito to the organism of malaria was after all not worked out first of all in human malaria, but was investigated in the malaria of birds. In connexion with flagellate organisms biology had shown that in the animal kingdom there might be apparently closely-allied forms, the one benign and the other malignant. Recently similar observations had been obtained showing the same conclusion in the human subject. In regard to the relation of biology to practice, the number of diseases now known to be definitely due either to animal or vegetable organism was daily increasing. The present close relation between biology and pathology could not fail to become closer. Some morbid conditions were caused by poisons, others by toxi-chemical substances produced in the organism itself, others by disturbed metabolism, but after allowing for these it might be stated broadly that there were not very many diseases to which the human frame was liable which could not be either directly correlated to the presence of a parasite, or at any rate where there was a shrewd suspicion that there was very probably a parasite. The number of diseases dependent on parasites, and therefore dependent on a proper knowledge of biology for their elucidation, was ever increasing. Whatever the nature of cancer might be, a great amount of light would be thrown on the question by the researches of the pure biologist. Another biological doctrine of great interest to the human pathologist was the question of variation and the influence of environment. There could be scarcely any subject of more importance to the human race than adequate and sound knowledge of such an important factor as heredity.

GUY'S HOSPITAL.

The annual report for 1901, published by order of the Governors, furnishes evidence of sustained activity in all departments of the hospital. The patients increased, and the important works of renovation and building undertaken since 1896 are approaching completion, but the treasurer bewails the marked difficulty experienced in enlisting financial support. Of the 5,313 surgical in-patients during 1901 the average mean residence was 18.5 days, as compared with an average of 25 days only 10 years ago. Formerly, in-patients, when able, had to provide themselves with soap, towel, comb, brushes, and a change of body linen, for the washing of which they were responsible; now, at the request of the Council of King Edward's Hospital Fund, all these wants are supplied by the hospital, but at an additional annual expenditure of nearly £500. The report of the out-patient visitor shows that, as a whole, those who come to Guy's Hospital are very poor; many, in fact, are in extreme want, and, whenever possible, they are recommended to the care of such outside nursing and philanthropic agencies as may be available. The finance of the hospital shows a grave condition of affairs. The expenditure in 1901 exceeded the income by about £27,000, which sum was obtained by realising £20,000 worth of Re-endowment Fund securities, and by utilizing the cash balances in hand on January 1st, 1901. The Governors state that they "regard themselves as under a sacred obligation to restore this £20,000 to the Re-endowment Fund at the earliest possible moment. It is a matter of extreme regret to them that the irresistible pressure of events, and the failure to secure adequate public support, left them no alternative but to take this step. In addition to this overdraft on capital account, the hospital was at the close of last year in debt to its bankers and others to the extent of £36,000. A statement so lamentable as the foregoing is without parallel in the history of Guy's Hospital." The Governors, however, animated by the desire to render the hospital adequately and completely equipped in accordance with modern requirements, have by constant appeals for aid enabled it to do a vaster work than ever it has done before, notwithstanding the recent fall in value of the founder's endowments. But they emphatically state that "a stage has been reached when things must take a backward course unless a full and prompt response be received to their present appeal." Assistance may be given in one or more of three forms, namely (1) by a donation to the Renovation and Building Fund; (2) by a donation or bequest to the Re-endowment Fund; and (3) by an annual subscription or donation to the Sustentation Fund.

THE BRISBANE HOSPITAL.

THE fifty-third annual report of the Brisbane Hospital is a document which reflects considerable credit on those who have prepared and issued it, setting forth, as it does, in a most lucid way the progress and position of the institution, both as to its general economy and to the large amount of medical work which was dealt with during the year 1901. We regret to find that the treasurer, like many other hospital treasurers, has to record an increasing adverse balance. A table gives details of the average expenditure per bed, and shows a a reduction from £76 12s. 8¾d. to £71 10s. 1½d., and an increase in the average number of beds occupied from 184 to 214. In spite of the financial embarrassments, at least two projects of much importance were carried out during the year. In the first place a convalescent home was acquired at Sandgate capable of accommodating twenty patients. It was occupied in December, and the Committee state that it has fully justified their anticipations. In the second place important improvements have been made in the operating rooms; two anterooms have been added, the one for anaesthetic administration, the other for sterilizers, etc. In addition, entirely new furniture has been bought for the theatre in place of an equipment which is described as "time honoured." The Committee also record their intention of proceeding with some much-needed improvements in the laundry and kitchen, although they have no adequate means for the work, relying on the conviction that the bounty of the public will keep pace with the exigencies of the charity. The total number of in-patients during the year was 3,398, and the statistical report of diseases shows that much care has been expended on compiling it. There are several points of interest in this report a few only of which can be noticed. Of all conditions treated typhoid fever heads the list, with a mortality of 14 in 151 cases: there were 31 cases of appendicitis with 2 deaths, and it is somewhat remarkable to find no record of operations for this condition: of 23 cases of operation for carcinoma of various regions 3 only are recorded as cured, and that, of course, at a period when the ultimate results cannot be predicted. This record reflects the experience of many that, in spite of the warnings of the profession, most cases of carcinoma still present themselves too late for successful treatment. The operative work of the hospital covers a wide field of general and special work, and of the latter we note especially the large amount for which the ophthalmic department is responsible.

ROYAL COLLEGE OF SURGEONS IN IRELAND: ANNUAL DINNER.

THE annual dinner of the Royal College of Surgeons in Ireland was held in the College on Saturday, May 10th. The President (Mr. T. Myles) occupied the chair. One hundred and twelve Fellows and guests were present, among the latter being the Lord Lieutenant of Ireland, the Lord Chancellor, the President of the Royal College of Physicians of Ireland (Sir C. J. Nixon), the Solicitor-General for Ireland, Sir Howard Grubb, F.R.S., Surgeon-General Taylor, C.B., Director-General R.A.M.S., Sir George Duffey, Sir J. W. Moore, Dr. James Little, Surgeon-General Preston, P.M.O., Professor Whitla (Belfast), Surgeon-Captain Crean, V.C., etc. The toasts of "The King," "The Queen, The Prince and Princess of Wales and other mem-

bers of the Royal Family," having been loyally honoured the President gave the toast of "His Excellency The Lord Lieutenant of Ireland," who, in reply, stated that it was only a few months since he had had the honour of being present at a dinner in the College on the occasion of the return from the seat of war of Lord Iveagh's Hospital Corps headed by Sir William Thomson. On every occasion on which they had met of late in the College some allusion had been made to militant surgery rather than to the work of civil surgeons. He wished to join his testimony to that of those present to the great services and distinguished gallantry which the College had known so well to reward that evening. No episode had pleased him more during his stay in Ireland than to see the President deliver so well earned a reward to the gallant Mr. Crean who had been presented with the Honorary Fellowship of the College. The story of Mr. Crean's deeds sent a thrill through their hearts and was worthy of the emulation of all young Irishmen. Sir Charles Cameron, C.B., proposed the toast of "The Navy and Army," which was responded to by the Director-General, R.A.M.S., and Colonel Hope, C.B. The President then proposed the health of "Our Latest Honorary Fellow." The distinction that had been conferred that evening on Surgeon-Captain Crean had in the past, with only one exception been confined to men who had won distinction in scientific research. The previous exception was in the case of the much-lamented Surgeon Parke; but again they had departed from the usual rule in order to do honour to Surgeon Crean. The object of an honorary distinction of the kind was to set an example to those yet to come that they might strive to emulate the conduct of the men so marked out for honour. The College felt that no better example of fearless devotion to duty could be found than was recorded of Surgeon-Captain Crean. There was an example of heroic devotion to duty lately in the case of Dr. William Smyth, of Burtonport. Surgeon-Captain Crean had got his opportunity, not on the lonely shores of the Atlantic but on the battlefields of South Africa, and the manner in which he had behaved was creditable to himself and a source of pride to his fellow countrymen. Surgeon-Captain Crean, V.C., responded in a speech which was characterized by eloquence and modesty. The proceedings terminated with the toasts of "The Guests" and "The President."

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election of members of Council will take place at the College on Thursday, July 3rd, at 2 p.m. Candidates' forms may be obtained on application to the secretary, and must be returned not later than Monday, June 9th. The voting papers will be sent by post to Fellows with registered addresses in the United Kingdom on Monday, June 23rd. There will be four vacancies. Mr. Reginald Harrison, Mr. Marsh, and Mr. Hardie retire, having served eight years, and the fourth vacancy is made by the death of Sir William MacCormac. It will be filled by the candidate of the four successful ones who obtains the fewest votes, and he will be a substitute member until 1907. The late President remained on the Council in 1899 according to charter, being in the chair at the time. This place therefore is considered to be held for eight years, that is to 1907. A list of the Council, giving the terms served by each member and an analysis of the proportional representation of metropolitan and provincial surgeons is published at page 1314. Mr. Harrison and Mr. Hardie will not offer themselves for re-election. Mr. Bland Sutton is, we are informed, a candidate.

THE REGISTRATION OF DISEASE.

THE March number of the *Dublin Journal of Medical Science* contains an interesting sketch of the above subject, by Dr. Ninian McI. Falkiner, the Medical Superintendent of Statistics in the Office of the Registrar-General for Ireland. He first of all summarizes a series of attempts made in England to secure the registration and notification of sickness, doing justice to the pioneer efforts of Rumsey, Benjamin Ward Richardson, Ransome and others, as well as of the British Medical Association. It was at its meeting in Dublin in 1868 that the Association adopted the form proposed by a committee of the Association for the uniform registration of disease; and in 1874 the Association presented a petition to the House of Commons for a national system of registration of disease. Although these efforts failed in their direct object, they undoubtedly paved the way for the Infectious Disease (Notification) Act.

OBSESSIONS.

OBSESSIONS play a more important part in life and conduct than is usually supposed, and especially is this the case in the large class of persons designated as neurotic or psychopathic. Careful observation will reveal the fact that impulsive tendencies and fixed ideas, often of strange character and obscure origin, play a potent part in influencing their moods and conduct. In an interesting article in the *Archives de Neurologie* for April, Dr. F. L. Arnaud discusses from a medico-psychological standpoint the subject of "obsessions," and states at the outset that obsessions can develop only on a morbid cerebral basis, most frequently a basis of defective volition (*aboulia*), whether congenital or acquired, as the result of disease. Every one, for example, has some conception or mental image of hydrophobia, and entertains a natural and legitimate fear of a mad dog, but the healthy mind does not continually brood or dwell on the idea of contracting hydrophobia. Such a phenomenon, a morbid fear recurring with distressing persistence, constitutes an obsession. Some persons exhibit similar morbid fears of becoming infected with some loathsome disease, such as syphilis, even when they have run no risks of catching it—a form of obsession known as syphilophobia. Many other kinds of such "nosophobia" are well known to the alienist. Dr. Arnaud attempts to explain the nature and origin of obsessions. The experiments of Bechterew and Mislawski (1886) showed that excitation of certain areas of the cerebral cortex in the carnivora will produce vasomotor changes, acceleration or modification of the heart beat, and visceral movements—in a word, somatic disturbances, which in their co-ordinated totality have long been designated by the epithet "emotional." There is psychological and pathological evidence to show that in man such emotional reactions may be aroused by visual, auditory, tactile, and other stimuli, as also by memories of bygone experiences. In some persons such emotional responses may be provoked in great intensity and with unusual facility, whereas other individuals exhibit but little emotion even under the most exciting circumstances. The author points out that individuals who are the most prone to obsessions belong usually to the former class, and he adopts as his basis of subdivision the theory of emotion advocated by Lange and James, and now widely accepted, that the somatic and visceral disturbances which form the basis of the emotion secondarily arouse in the mind the consciousness or experience of the emotion in question. Some people react more than others in this respect. Obsessions may often take the form of theological and metaphysical scruples, doubts, and perpetual questionings on the Creation, on angels, on free will, predestination, etc. An interesting case, reported by Séglas, is quoted of a patient with recurrent obsessions of suicide, in whom each attack was preceded by a period of vague unrest and mental distress. Dr. Arnaud concludes that obsessions are not purely intellectual or purely emotional in origin, but complex phenomena. "Among patients with obsessions, whatever may be the intensity of the malady, a lesion or defect of volition (*aboulia*) is always met with. It pre exists, and in fact, predisposes to obses-

sion." If these observations are correct, it will be seen that a field exists for early diagnosis, and for education and training, so that obsessions and impulses of a dangerous or objectionable nature may be selected and dealt with in their incipient stages, so as to be nipped in the bud, as it were.

THE MEDICAL TREATMENT OF MOVABLE KIDNEY.

DR. SIGVARD MADSEN, of Bergen, contributes to the *Nordiskt Medicinskt Arkiv*, April 30th, 1902, an interesting article on the subject of moveable kidney from the point of view of the physician. He is of opinion that the condition should be considered present in every case where in the horizontal position the kidney can be felt bimanually on deep inspiration. On this basis of diagnosis he has studied 100 cases of the condition in different grades. He divides them into two classes, the one in which only a portion of the kidney is palpable, the other in which the whole organ can be grasped by the hands. Of the hundred cases 2 were men, 39 married women and 59 unmarried women. Of the married women 76 per cent. fell into the second class, 23 per cent. into the first, while 57 per cent. only of the unmarried women had the deformity in the greater degree. It was most common between the ages of 20 and 50, and the right kidney was most frequently affected. The most common accompanying symptom was nervous dyspepsia; this was of no constant type, in some there was hyperacidity in others deficient acid secretion. In many there was some prolapse of the stomach and intestines, but no constant ratio between this and the renal prolapse was found. Symptoms referable to pressure of the dislocated kidney were rare, and, as a rule, the urine was normal. In none were there symptoms of strangulation, such as have been described by Dietl and others. In regard to the etiology, Dr. Madsen does not think that "tight-lacing" has any influence, nor was he able to connect the condition with prolapse or other abnormality of the uterus. The theory which ascribes it to wasting of the perirenal fat does not explain the great preponderance of female cases. In most cases it can only be ascribed to a congenital disposition giving rise to weakness of the muscular and ligamentous attachments of the abdomen, and to abnormalities in the position of the kidneys and their relationships to neighbouring organs. In some cases frequent pregnancies appear to have brought about the same state of affairs. Dr. Madsen thinks the condition is most common in a type of individual of slight build, long narrow chest, flabby muscles, and general want of tone. For treatment he relies first on improving this general low state of health, and pays special attention to the dyspepsia which is almost invariably present. Secondly, he recommends the efficient support of the abdominal muscles by circular flannel bandages, and has also obtained good results in bad cases from abdominal massage. In none did he consider that surgical interference was called for.

ANTIRABIC INOCULATIONS IN NEW YORK.

IN the *New York Medical News* of April 5th Dr. G. Gibier Rambaud, Director of the New York Pasteur Institute, says that during the years 1900 and 1901, 750 patients were received at the New York Pasteur Institute. Of these, 513 were bitten by dogs which were found not to be rabid for at least one week after the accident, and did not receive the Pasteur treatment, 237 received the treatment. Six patients were treated at the St. Louis Pasteur Institute, which was opened in December, 1900, to work in co-operation with the New York Institute, under the direction of Dr. C. Fisch. Of these 243 persons, 3 died, 2 within fifteen days after the treatment, and are not included in the statistics, so that there were 241 persons treated, with 1 death, or a mortality of 0·41 per cent. Of these 241 persons treated, 33 were bitten on the head, 162 on the hands, and 46 on other parts of the body. In 88 cases the animal having inflicted the wounds was proved rabid by experimental inoculation, or by having caused the death of other persons or animals which it had bitten. In 60 cases the animal was declared rabid by veterinary examination. In 93 cases the animal had disappeared or had been killed after having acted in such a manner as to lead one to suspect hydrophobia. Patients are admitted for treatment only when there is strong evidence that the animal which bit them was rabid, and that in about 90 of the aforementioned 93 cases the animal had shown nearly all the clinical symptoms of rabies before disappearing or being killed. Of the 241 persons treated, 81 were children under 16 years of age, 129 men, and 31 women. In 220 cases the wounds were inflicted by dogs, in 13 cases by cats, in 2 by a cow, and in 2 by a calf. One hundred and sixty-five persons came to receive the treatment during the first week after having been bitten, 37 during the second week, 21 during the third week, 9 during the fourth week, 4 during the fifth week, 4 during the eighth week, and 1 during the sixteenth week. Among the 1,608 cases treated since the opening of the New York Pasteur Institute in 1890, there have been 4 in which untoward symptoms could be traced to the treatment; 3 had a partial paralysis of the lower limbs, lasting from one to three weeks, and which, in two cases, was evidently brought on by undue exposure to cold. One had facial paralysis lasting about four weeks, and due to the same cause; the patient was exposed to a cold draught after taking a very hot bath. It is known that exposure to cold may often bring on suddenly the symptoms of rabies in persons or animals being in the latent period of incubation. These four cases made uneventful recoveries. The New York experience is thus similar to that of all the other antirabic institutes. Briefly stated, this is to the effect that the antirabic vaccinations may cause slight nervous disturbances in neurasthenic and hysterical persons: these disturbances, however, have never been serious, and they are extremely rare.

EUCALYPTUS IN THE TREATMENT OF DIABETES.

NEW remedies for diabetes are not uncommon: but none of them has so far stood the test of experience. Nevertheless a suggestion which we owe to the late Mr. James Dick, the Glasgow millionaire, and to Mr. A. G. Faulds, of the Glasgow Royal Infirmary, is one which should be tried by those who have opportunities of treating diabetic patients. The origin of the suggestion as told by Mr. Faulds is that some years ago Mr. Dick was travelling in New Zealand, and knowing that an old schoolmate of his was in the country, he determined to hunt him up. After considerable journeying he found his old friend, and a most agreeable interview followed. During this meeting the settler complained that his health had failed some years after he had settled in New Zealand, and that the doctors had treated him for diabetes with but little effect. One day, however, having contracted a horrible cold or influenza, a neighbouring old native lady informed him that if he went to a certain eucalyptus tree and gathered some of the fresh leaves, and partook of an infusion of them twice or three times daily, it would cure his influenza. The patient acted upon this advice at the earliest opportunity. He made an infusion of the fresh leaves, and took a small teacupful night and morning, with the result that it not only cured his influenza, but caused his diabetes also to vanish with all its symptoms. Mr. Faulds has endeavoured to test this remedy in the following manner: He obtained some of the dried leaves of eucalyptus globulus of which an infusion was made in a teapot by taking one tablespoonful of the broken leaves, about 60 gr. in weight, and adding 6 oz. of water, allowing it to infuse for half-an-hour, and then adding a little saccharin. This quantity was given twice daily, and the remedy has been tried upon 46 cases, in 15 of which Mr. Faulds reports total disappearance of the

disease, and so far as can yet be judged a complete cure. The substitution of eucalyptus oil and eucalyptol was followed by no effect at all upon the sugar, and Mr. Faulds is unable to indicate to what constituent in the chemical composition of the infusion the therapeutic effect is due.

THE CARNEGIE TRUST.

At a recent meeting of the Executive Committee of this Trust, which was held under the presidency of the Earl of Elgin, it was announced that for the present University session there were in Edinburgh 535 male and 68 female Carnegie students; in Glasgow, 442 male and 25 female; in Aberdeen, 219 male and 41 female; and in St. Andrews, 82 male and 64 female students. Included in these figures were 242 new students. The sums at present available at the Scottish Universities from the Trust are: in Edinburgh, £5,207; in Glasgow, £3,334; in Aberdeen, £2,543; and in St. Andrews, £934. It is intended that a visitation of the Universities shall be made by Lord Elgin and Sir Henry Roscoe, with the Secretary of the Trust, in order to gain further information in regard to the statements of need recently sent in by the different Universities.

A MACE FOR THE UNIVERSITY OF LONDON.

The retiring Vice-Chancellor, Sir Henry Roscoe, has presented to the University a mace, designed upon ancient examples with certain modern evolutions. It is the work of Messrs. Ramsden and Carr, of Battersea, and is made ntirely of hand-beaten, wrought, and *repoussé* silver, gilt, ith panels of translucent champ-levé enamel. The head is surmounted by a royal crown, the orb of which is of lapis lazuli, guarded by protecting bands of wrought metal. Inside the crown are the Royal Arms with the letters "E.R. VII." Below the crown are figures kneeling and holding shields, on which are portrayed the arms and badge of the University, and the dates of its foundation (1836) and its reorganization (1900). These kneeling figures further illustrate the triumph of light and education over darkness and ignorance, represented by a knot of struggling figures, around which swirl bands of wrought metal, typifying the rush and whirl of the present day. The shaft is of great length, divided into five parts by knots, and is overlaid with cables of twisted silver. At the foot knob letters set forth the gift of the mace. The finial is completed by a solid spike for resting on the floor. The mace when not in use in enclosed in an open box. It was officially employed for the first time at the recent presentation for degrees, when it was carried in the Chancellor's procession, and reposed before him during the presentation ceremony.

The next session of the General Medical Council will commence on Tuesday next, May 27th, at 2 p.m., under the presidency of Sir William Turner, K.C.B.

A scientific Commission consisting of Dr. G. C. Low, Dr. C. Christy, and Dr. Castelani has been sent to Uganda by the Royal Society for the purpose of investigating sleeping sickness. To Dr. Low and Dr. Christy is entrusted the parasitological part of the investigation, while Dr. Castelani is the bacteriologist of the expedition.

Professor Rudolf Virchow is now going through a "cure" at Teplitz-Schonau, where he is under the care of Dr. Hirsch. He is able to walk about with support, sometimes using only one crutch. He is regaining power over the injured limb, being able to lift the left leg so as to place it across the right knee. His general condition is also much improved.

Dr. Abraham Jacobi of New York has resigned the chair of Diseases of Children in the Medical Department of Columbia University, which he had held for thirty-two years. The resignation will take effect in June, the end of the present term. Dr. Jacobi became a Lecturer on Infantile Pathology at the College of Physicians and Surgeons in 1857. In 1865 he was appointed Professor of Diseases of Children in the University of New York, but resigned five years later, and was appointed to the same chair in the College of Physicians and Surgeons.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Sanitary Condition of the Houses of Parliament.—A discussion was raised on the vote for £43,500 for the Houses of Parliament buildings last week, and several references were made to the ventilation and sanitary condition of the Houses. Mr. Gibson Bowles thought there was a risk of neglect as to sanitation, and suggested that, after the precedent of the Royal parks, a "Ranger of the House of Commons" might be useful. He also expressed doubt as to the propriety of making the intake for fresh air for the Chamber in the Clock Tower, instead of, as at present, from a position just above the level of the river. In illustrating the conflict of authorities as regards the dusting of the Chamber, Mr. Dillon said that the Committee last year found that one authority was responsible for dusting the table and sweeping the floor, another for dusting the benches, and a third for the gallerles; and it was a matter of dispute for years as to whose duty it was to dust under the benches, and consequently for a long time this necessary duty was undone. Dr. Farquharson said the recently appointed Committee on Ventilation were doing their duty thoroughly, and hoped they would not be restricted as to expenditure. Thus assured, the Committee passed on to other matters, such as improved accommodation for smokers, and the vote was agreed to.

The Speed of Motor Cars.—On Thursday in last week Dr. Farquharson called the attention of the Home Secretary to the excessive speed at which motor cars were driven in and around London, and suggested that the police should be instructed to enforce the law on the point of speed and that motor cars should be distinctly numbered for the purposes of identification. The Home Secretary in reply said, that strict orders had been given to the police in respect to the infringement of the law by motor cars and that prosecution would follow in all cases where possible. There was, however, very great difficulty in estimating correctly or even approximately the pace at which a car travelled. As regards the numbering of the cars the Home Office had no power, and if any authority existed it resided in the Local Government Board, but it was very doubtful if there was any power under present legislation.

Enteric Fever at St. Helena.—Shortly before the House rose a question was put on the paper as to the occurrence of an epidemic of enteric fever in the garrison at St. Helena, caused by a failure of the water supply and by deficiency in the supply of milk and other necessaries. The War Office has issued an official statement to the effect that on May 9th there were 98 cases of enteric fever among the garrison at St. Helena; that no report had reached the Secretary of State of failure of the water supply or deficiency in the milk supply or other necessaries; that supplies of tinned milk and medical comforts had always been available; and that every possible precaution was being taken.

An amalgamation of all the medical societies of Moscow has recently taken place. The new body thus formed is in organic connexion with the University of Moscow, and is under the official control of the Minister of Education. On the Council of the new Association, each of the component societies is represented by two members who are elected for three years.

British Medical Association.

REPORT OF COMMITTEE APPOINTED TO PREPARE NEW ARTICLES OF ASSOCIATION AND BY-LAWS.

In the Annual General Meeting of the Association, held at Cheltenham, on August 1st, 1901, it was resolved:—

(*a*) That the Scheme of Reorganization of the Association, recommended by the Constitution Committee appointed in the Annual Meeting at Ipswich on August 1st, 1900, be, subject to certain amendments, approved and adopted.

(*b*) That a Committee be appointed, not exceeding eleven in number, to arrange for carrying the said Scheme into effect by the preparation of the requisite Articles and By-laws.

(*c*) That the appointment of the above Committee be referred to the Council.

The Council accordingly appointed for this purpose the following Committee:—The President and the President-elect *ex officio*, Dr. J. Roberts Thomson, President of Council; Mr. Andrew Clark, Treasurer; Professor J. W. Byers, Dr. Alfred Cox, Mr. Victor Horsley, F.R.S.; Dr. C. H. Milburn, Mr. Edmund Owen, Dr. A. Brown Ritchie, Mr. T. Jenner Verrall, Mr. J. S. Whitaker, and Dr. S. Woodcock.

Mr. Andrew Clark was appointed Chairman of the Committee, which has held five meetings, to deal with the matters arising out of its instructions, as stated above in resolution (*b*), and new Articles of Association and By-laws prepared in conformity with the said instructions are presented herewith.

The accompanying Articles and By-laws have been drafted by Mr. W. E. Hempson, the Solicitor to the Association, under instructions from and in conference with the Committee, the existing regulations of the Association being taken as a basis, such alterations and modifications being introduced as were necessary to carry out the recommendations of the Constitution Committee as amended by the Association in General Meeting at Cheltenham. The draft thus prepared has been submitted to Counsel—Mr. F. B. Palmer—who has previously advised the Association in kindred matters, and, as settled by him, has been finally approved by the Committee as giving expression to those provisions which the Committee was instructed to give effect to.

It seems to the Committee proper that reference should here be made to the further question which it has fully considered, namely, the form of notice by which the Extraordinary General Meeting, to adopt or otherwise the proposed new Articles and By-laws, should be convened. The question which has arisen is whether the notice should be so framed as to permit or not to permit of amendments being raised at and considered by the meeting, and the opinion of Counsel has been taken thereon. The Committee has particularly considered, and asked Counsel to advise, whether any distinction could be made between two classes of amendments which appeared to the Committee to stand in somewhat different positions; namely, on the one hand, those which affected the fundamental principles of the Scheme of Reorganization recommended by the Constitution Committee; and, on the other hand, those affecting merely certain details of the Scheme. It appears to the Committee that to invite or permit amendments of the former class would be contrary to the intention of the Association as expressed at Cheltenham in the instructions to the Committee appointed to draft the new Articles and By-laws.

In arriving at this conclusion regard was also had to the previous history of the Scheme of Reorganization which is now presented in its final form of Articles of Association and By-laws. It will be remembered that the original Scheme was the outcome of the prolonged deliberations of a Committee specially appointed, in part by a General Meeting, and in part by the Council of the Association, for the purpose of considering what changes were required in the constitution of the Association. The recommendations of this Committee were submitted on two occasions to the judgement of the Association, first in February, 1901, in the form of a Provisional Report to the Branches, and secondly, in July, 1901, with certain slight modifications in point of detail, in the form of a Final Report to the Association in General Meeting. A considerable majority of the Branches, both within and without the United Kingdom, approved the main principles of the Scheme as set forth in the Provisional Report, and these principles, and, with but few exceptions, the details of the recommendations contained in the Final Report were approved and adopted by the Annual General Meeting at Cheltenham.

Regard being had to all these circumstances, it is felt that the proper course to adopt is to take the definite decision of the Association, in the affirmative or negative simply, on the Scheme as a whole.

It has been necessary, however, in drafting the regulations which are now presented, to elaborate certain matters in greater detail than is given in the recommendations of the Constitution Committee, which dealt rather with general principles of reorganization: and on one or two points relating solely to the Colonial Branches it will be found that details have been modified in accordance with the general wishes expressed in the replies of those Branches. There are in consequence certain particulars of minor importance in the accompanying draft Articles and By-laws which have not previously been considered by the Association, and on which amendments might, in principle, be considered more admissible. The Committee therefore inquired of Counsel as to the practicability of providing that amendments should be permitted on these matters, and the following is a copy of his opinion thereupon:—

> "As to amendments of the proposed new Articles and By-laws. It is possible to frame the notice convening the Meeting in such terms that every amendment whatsoever shall be admissible, but if amendments are to be allowed, it is very difficult if not impracticable to provide that only amendments of a specified character shall be admissible. It seems to me that two alternatives are open for adoption, viz.:—(*a*) Call the Meeting to adopt the new Regulations as having been prepared by the Committee after long deliberation, in which case it may be that the amendments would not be allowable: or (*b*) Call the Meeting to approve of them with or without modification, and then to adopt them in the form approved. I should have thought (*a*) the best, for a General Meeting is not a good instrument for settling a complicated code of Regulations and By-laws. However, if (*b*) is preferred, it seems to me that the Meeting must be given a free hand."

In view of this Opinion, and seeing that the matters of detail above specially referred to are of relatively small importance, and such as could, if desired, be easily amended in the future by the Association, the former alternative (*a*) as stated by Counsel appears to be more consistent with the instructions to the Committee, and more correctly in accord with established practice, and for these reasons has been decided by the Committee to be adopted.

ANDREW CLARK.
May 9th, 1902. *Chairman of Committee.*

NOTICE OF SPECIAL BUSINESS.

NOTICE is hereby given that an Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 18th day of June, 1902, at 2 o'clock in the afternoon, for the purpose of considering, and if thought fit passing, the subjoined resolution, that is to say:

> "That the draft new regulations submitted to this meeting, and for the purpose of identification initialled by the Chairman thereof, which regulations have been prepared under the direction of the Committee appointed for the purpose by the Council in pursuance of resolutions passed at the Annual General Meeting of the Association at Cheltenham in 1901, be, and the same are hereby adopted as the regulations of the Association to the exclusion of and in substitution for all the existing regulations of the Association."

And Notice is hereby also given that a further Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 9th day of July, 1902, at 2 o'clock in the afternoon, for the pur-

pose of receiving a Report of the proceedings had at the first above-mentioned Meeting, and of considering, and if thought fit passing, a resolution confirming as a special resolution the resolution above set forth. But if the same shall not have been passed by the requisite majority at the said first-mentioned Meeting, due notice will be given to the Members that the Meeting on the 9th day of July, 1902, above mentioned will not be held.

A copy of the proposed new regulations can be seen at the Office of the Association at any time during business hours, and a copy will be found printed in the JOURNAL of the Association of the 24th day of May, 1902.

Dated the 22nd day of May, 1902.

By Order.

FRANCIS FOWKE, *General Secretary.*

ARTICLES OF ASSOCIATION OF THE BRITISH MEDICAL ASSOCIATION.

I. INTERPRETATION.

In these presents, unless there be something in the subject or context inconsistent therewith, the words and expressions following shall have the meanings hereinafter assigned to them, respectively:—

"The Association" means the above-named Association.

"The Regulations" means the regulations contained in these Articles of Association, with such, if any, modifications as may from time to time be made therein.

"The By-laws" means the By-laws set forth in the Schedule hereto or other the By-laws for the time being of the Company in force.

"The Council" means the Council hereinafter mentioned.

"The Journal" means the journal to be published as hereinafter provided.

"Division" and "Branch" mean respectively a division and branch constituted as hereinafter provided.

"Existing" means existing at the time when these regulations come into operation.

Words importing singular number include the plural and *vice versa.*

Words importing the masculine gender include the feminine gender.

II. MEMBERSHIP.

The existing Members of the Association are those whose names are entered in the Register of Members of the Association as Members at the time when these Regulations come into operation, and subsequent Members shall be those persons who, being eligible, shall, after the date when these Regulations come into operation, be duly elected in such manner and upon such conditions as may be prescribed from time to time by the By-laws.

III. ELIGIBILITY.

Any Medical Practitioner registered in the United Kingdom under the Medical Acts, and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws.

Every Member, whether one of the existing Members or a subsequently elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

IV. RECOGNIZED LOCAL BODIES, DIVISIONS, AND BRANCHES.

For the better attainment of the objects of the Association the Members thereof shall be formed into separate Local Bodies styled Divisions and Branches.

A Division shall comprise such body of Members as the Association shall in the manner prescribed by its By-laws recognize and declare to be a Division, and a Branch shall be such Division, or such group of Divisions, as the Association shall in like manner recognize and declare to be a Branch. Each Division shall have a local area to be fixed from time to time by or in accordance with the provisions contained in the By-laws. Every Member whose registered address in the books of the Association is for the time being situated within the area of any Division shall, *ipso facto*, be an Ordinary Member of that Division and of no other, and every Ordinary Member of a Division shall, *ipso facto*, be an Ordinary Member of the Branch which comprises that Division and of no other.

Every Division shall appoint from time to time and shall at all times have a Division Secretary, and every Branch shall from time to time appoint and at all times have a Branch Secretary, and each Division and Branch shall give to the General Secretary notice of every such appointment and of the Appointee's address. Every such Secretary must be a Member of the Division or Branch appointing him.

V. CONSTITUTION AND GOVERNMENT OF DIVISIONS AND BRANCHES.

Subject to the Regulations for the time being, Divisions and Branches shall be so constituted, managed, and governed, and shall have such powers, rights, and privileges, and shall be under such obligations, as shall be prescribed by or in accordance with the By-laws. And the By-laws may provide for contributions, grants, and subscriptions out of the general funds of the Association to Branches, and may impose on the Members of any Division or Branch such obligations towards the Association and the Division and Branch respectively as may seem expedient, and may empower any Division or Branch to make any Rules in relation to the affairs thereof, and to vary and repeal any such Rules.

VI. EXTRAORDINARY MEMBERS.

Subject to the By-laws any Division or Branch may elect Extraordinary Members, whether as Associate or Complimentary Members. An Extraordinary Member shall not take part in any vote of the Division or Branch, but otherwise shall enjoy such privileges, and be subject to such obligations, as may respectively be conferred and imposed upon him by or in accordance with the By-laws.

VII. SUBSCRIPTION.

As from the 1st January, 1903, and except as hereinafter mentioned, every Member shall pay to the Association an Annual Subscription of twenty-five shillings, or of such greater amount, not exceeding thirty shillings, as the Council may from time to time in accordance with the By-laws determine, and the said subscription shall be considered due in advance on the 1st January in each year. In the case of a Member admitted after the 1st July in any year the subscription for that year shall be one-half the current annual subscription, and shall be due in advance on the day of election. The subscription shall be paid by each Member to such officer of the Association, or of any recognized Local Body thereof, as may be appointed by the By-laws of the Association for the time being to receive the same. Each year's subscription shall entitle the Member to all privileges of Membership of the Association, including that of receiving the Journal for the current year, and to the ordinary privileges, as defined by the Regulations for the time being, of Membership of that Division and of that Branch of which he is an Ordinary Member.

VIII. ARREARS OF SUBSCRIPTION.

Any Member whose subscription shall not have been paid on or before the 31st December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of Membership, and at the end of the succeeding year, if the arrears be still unpaid, he shall, *ipso facto*, cease to be a Member. No Member shall (except in case of his death or expulsion, or of his ceasing to be a Member under the previous provisions of this Article) cease to be a Member without having given previous notice, in writing, of his intention in that behalf on or before the 1st December in the current year to the Secretary of the Association and having paid all arrears of subscription (if any) due from him.

IX. RE-ELECTION OF FORMER MEMBERS.

No person who shall have been a Member of the Association and ceased to be such shall be eligible for re-election until he shall have paid all arrears of subscription (if any) due from him to the Association at the date when his former Membership ceased, and no person whose former Membership shall have been forfeited under the provisions of Articles XLII, XLIII, and XLIV, or any of them shall be eligible for re-election by any Branch Council without the sanction previously obtained of the Council of the Association.

X. HONORARY MEMBERS.

Eminent Members of the Medical Profession wherever residing, persons distinguished in the Sanitary or Allied Sciences, and persons who may have rendered distinguished service to the Association or who in the opinion of the Council will confer honour on or advance the interests of the Association, may be elected Honorary Members by the Association in General Meeting on the recommendation of the Council. Honorary Members shall have none of the liabilities of Members as regards subscriptions, and shall not be entitled to any vote, but shall have the privilege of attending the Annual General Meeting and such other privileges as may be conferred upon them. Every Honorary Member shall cease to be such Member upon a resolution of the Council to that effect passed by a two-thirds majority of those present and confirmed by a General Meeting.

XI. PUBLICATIONS.

A Journal, under the title of the British Medical Journal, shall be published weekly in London by the Association, and shall be conducted by a paid Editor, who shall be responsible for all that appears therein, except such matters as are inserted in accordance with the Regulations and By-laws of the Association or by direction of the Council. The Editor shall be subject to the control of the Council.

XII. ANNUAL GENERAL MEETING.

A General Meeting shall be held once in the year 1903 and in each subsequent year at such time as shall be fixed by the Council, and at such place as may be prescribed by the Association in General Meeting, and, if no time is so fixed, a General Meeting shall be held on the 20th October, or, if that day be on a Sunday, on the 21st, and shall, if no place is so prescribed, be held at the registered offices of the Association, or at such other place as the Council may prescribe.

XIII. MEETINGS, ORDINARY AND EXTRAORDINARY.

All General Meetings other than the Annual General Meeting shall be called Extraordinary General Meetings.

XIV. EXTRAORDINARY GENERAL MEETING.

The Council may, whenever it thinks fit, and it shall, upon a requisition made in writing as hereinafter provided by any 100 or more Members, convene an Extraordinary General Meeting for the purpose of transacting any such business as by Statute, or by the Regulations of the Association, is appointed to be transacted by a General Meeting.

XV. REQUISITION FOR EXTRAORDINARY GENERAL MEETING.

Any requisition made by Members shall express the object of the Meeting proposed to be called, such object being to transact some business which by Statute or by the Regulations of the Association is required to be transacted by a General Meeting, and the said requisition shall be left at the registered offices of the Association.

XVI. CONVENING EXTRAORDINARY GENERAL MEETING UPON REQUISITION.

Upon the receipt of such a requisition the Council shall forthwith proceed to convene a General Meeting, and if it do not do so within twenty-one days from the leaving of the requisition, any 100 Members may themselves convene a Meeting for the object specified in the requisition.

XVII. NOTICE OF MEETINGS.

Seven days' notice at the least of the holding of a General Meeting, specifying the place, the day, and the hour of meeting, and in the case of special business, the nature of such business, shall be given to the Members in the manner prescribed by the regulations of the Association, but the non-receipt of such notice by or accidental omission to give such notice to any Member shall not invalidate the proceedings at any General Meeting. Where it is proposed to pass a Special Resolution, the two requisite Meetings may be convened by one and the same notice, and it shall be no objection to such notice that it only convenes the Second Meeting, contingently on the Resolution being passed by the requisite majority at the First Meeting, or that it does not specify the day for the Second Meeting otherwise than by stating that the same will be held at an interval of 14 clear days from the day on which the First Meeting is concluded.

XVIII. BUSINESS OF ANNUAL GENERAL MEETING.

(A.) *Internal Affairs.*

The business of an Annual General Meeting shall be to do all or any of the things following:

(A.) Transact such business relating to the internal affairs of the Association as by Statute, or by the Regulations of the Association for the time being shall be appointed to be so transacted, which shall include electing Officers, viz.:—President, Vice-Presidents, and Treasurer, electing Honorary Members when recommended by the Council, appointing a place at which the next Annual General Meeting shall be held, considering the Annual Financial Statement and Balance Sheet presented by the Council, appointing an Auditor and fixing his remuneration as required by Statute.

(B.) *Scientific Proceedings.*

(B.) Receive such addresses, and such other communications, and discuss such matters pertaining to the Medical and Allied Sciences as the Council shall have arranged to be received or discussed by the Members assembled in General Meeting or in such Sectional Meetings as the Council may think proper to arrange.

XIX. PROCEDURE—ANNUAL GENERAL MEETINGS.

The Council shall arrange the order of business of an Annual General Meeting, and shall fix the times at which matters described under the heads (A) and (B) of the last preceding Article shall respectively be considered. At the expiration of the time appropriated for the transaction of any particular business, any portion of such business remaining for consideration shall be adjourned by the Chairman without discussion to such time as may have been appointed by the meeting for the resumed consideration of business of that description. This regulation shall not be understood to apply to Sectional Meetings.

The Council shall appoint for the Annual General Meeting the Presidents and other Officers of Sections, and shall select the Readers of Addresses.

XX. CHAIRMAN.

The President of the Association, if present, shall preside as Chairman at the opening of every Annual General Meeting, during the election of Officers and Honorary Members, and during the reading of addresses. In the absence of the President, the Chairman of Council shall preside, and in his absence, a Chairman shall be appointed by the Meeting. At Annual General Meetings, during the consideration of business other than that hereinbefore described, and at Extraordinary General Meetings the Chairman of Council shall preside, and in his absence a Chairman shall be appointed by the Meeting.

XXI. SPECIAL BUSINESS OF GENERAL MEETINGS.

Special business includes all business discussed or transacted at Extraordinary Meetings, and also all business discussed or transacted at Annual General Meetings, except the ordinary business referred to in Article XVIII. No business shall be discussed or transacted in any General Meeting as special business, except such business as by Statute must be dealt with by Special Resolution, as defined in the Companies Act, 1862, and such business as the Regulations or By-laws of the Association may at any time expressly require to be dealt with in General Meetings.

XXII. Referendum on Resolution of General Meeting.

(1) Within seven days after each General Meeting of the Association the Council shall hold a Meeting to consider the resolutions passed at such General Meeting, except those referred to in paragraph (6) of this Article, and until such Meeting of the Council is held the operation of the resolutions, except as aforesaid, passed at such General Meeting shall be suspended. The said Meeting of the Council may be convened by a Notice served before or after such General Meeting or during the progress thereof.

(2) As regards each resolution to be considered at such meeting of the Council, it shall rest with the Council at such Meeting to approve of such resolution, or, on the ground that it does not properly represent the wishes of the Association, to determine on a Referendum.

(3) If at such meeting the Council approves of any such resolution as aforesaid, or does not determine on a Referendum, the resolution shall at once come into operation; and if such meeting is not held, the resolutions shall come into operation at the expiration of the seven days aforesaid.

(4) If at such meeting the Council determines on a Referendum, then the Council shall, within four months after such determination, refer the resolution, accompanied by such observations as the Council may think desirable, to the consideration of Special Meetings of all the Divisions convened at the instance of the Council.

(5) Where any resolution is thus referred, it shall not be valid and binding as a decision of the Association unless and until it is approved by a majority of the aggregate votes given thereon throughout the Association in the said Special Meetings of the Divisions, and the Divisions shall respectively be bound to hold Meetings accordingly, and to certify to the Council the result of the voting thereat upon the resolution.

(6) The foregoing provisions as to a Referendum shall not apply to a resolution capable of being confirmed as a special resolution, or to a resolution confirming as a Special Resolution a resolution previously passed, or to an extraordinary resolution, or to any resolution relating solely to the procedure of the meeting.

XXIII. Quorum.

Except as hereinafter provided in this Article no business shall be transacted in any General Meeting unless there be present the number of Members required by the By-laws to form a quorum, which number shall be not less than one hundred, and unless and until otherwise determined the quorum shall be 100 Members. If within one hour from the time appointed for the meeting a quorum of Members be not present, the meeting, if convened upon the requisition of Members shall be dissolved. In any other case it shall stand adjourned to the same day in the following week at the same time and place, and if at such adjourned meeting a quorum be not present those present shall be deemed to be a quorum.

XXIV. Adjournment of Meetings.

The Chairman of any General Meeting may, with the consent of the Meeting, adjourn any business from time to time and from place to place; but no business shall be transacted at any adjourned Meeting other than the business left unfinished at the Meeting from which the adjournment took place.

XXV. Voting at General Meetings.

At a General Meeting, unless a poll is demanded in writing by at least five Members, a declaration by the Chairman that a Resolution has been carried, or carried by a particular majority, or lost or not carried by a particular majority, and an entry to that effect in the book of proceedings of the Association shall be sufficient evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against any such Resolution. If a poll be demanded by five Members or more, the same shall be taken in such manner and either at once or after an interval or adjournment, as the Chairman directs, and the result of such poll shall be deemed to be the Resolution of the Association in General Meeting. On a show of hands every Member present in person shall have one vote, and upon a poll every Member present in person shall have one vote. Votes must be given personally. In case of an equality of votes at any General Meeting, the Chairman shall have a second or casting vote.

XXVI. Representative Meetings.

Every Division shall be entitled at least once in each year to elect a Representative, or if the Regulations and By-laws of the Association so provide, to combine with another Division, or with other Divisions, in electing a Representative. The Representatives so elected together with the Members of the Council shall be entitled to take part in all Representative Meetings. No Member of the Association who is not a Representative of a Division or group of Divisions or a Member of the Council shall be entitled to take part in any Representative Meeting. The first Representative Meeting shall be held in the year 1903.

XXVII. Election of Representatives.

Representatives of Divisions shall be elected by Constituencies formed as follows, each such Constituency being entitled to elect one Representatives:—Any Division having not less than 50 Members may form one Constituency, and every Division having less than 50 Members shall be grouped by the Council with another Division or with other Divisions to form a Constituency having not less than 50 Members. In no case shall the total number of Constituencies formed throughout the Association exceeds 300, and the final delimitation of such Constituencies shall rest with the Council. In the case of a Constituency formed within the United Kingdom, the Representative shall be elected by a General Meeting of Members of the Constituency held not more than 3 months nor less than 3 weeks before the Annual Representative Meeting, and in the case of a Constituency not formed within the United Kingdom, the Representative shall be elected either in manner aforesaid or by voting papers sent to each Member of the Constituency as the said Constituency may decide. Such Meeting shall be convened, or such voting papers dispatched by the Secretary of the Constituency, who, in the case of a Constituency composed of more than one Division, shall be chosen by the Secretaries of those Divisions, and if they cannot agree by the Council. The Secretary of each Constituency shall inform, not less than 14 days before the Representative Meeting, the General Secretary of the name and address of the Representative elected by such Constituency, and the General Secretary shall issue to such Representative a ticket of admission to the Meeting.

XXVIII. Annual Representative Meeting.

A Representative Meeting styled the Annual Representative Meeting, shall be convened in the year 1903, and in each subsequent year, by the Council at the same place, and to commence on the same day, but at a later hour than the Annual General Meeting, or to commence on the day following the day of commencement of the Annual General Meeting. The Annual Representative Meeting may adjourn from day to day until the completion of its business, or until the expiration of four days from the first day of its Meeting, whichever shall first occur, and shall then be dissolved *ipso facto*.

XXIX. Special Representative Meetings.

Representative Meetings other than the Annual Representative Meeting shall be styled Special Representative Meetings, and may be convened at any time after the 1st January, 1903, by the Council, of its own motion or on requisition of not less than three Constituencies, shall be so convened for the purpose of transacting any business which, by the Regulations, may be transacted thereby.

At least fourteen days' notice of such Meeting shall be given in the Journal.

A Special Representative Meeting may be adjourned, but so that such Meeting shall not be continued by adjournment for more than two days.

XXX. Provision of Substitutes for Representatives.

In the event of a Representative of any Constituency being unable or unwilling to attend a Representative Meeting, the said Constituency shall have power to select a Representative to act at the said Meeting in his stead.

XXXI. BUSINESS OF ANNUAL REPRESENTATIVE MEETING.

The business of the Annual Representative Meeting shall be to elect a Representative of a Division as the Chairman of Representative Meetings for the year; to elect such other Officers and such Members of Committees as by the Regulation or By-laws for the time being may be appointed to be so elected; to consider Reports of the Council, Reports of Committees instructed to report to such Meeting, and motions relating to the adoption of such Reports in whole or in part; to make new By-laws and alter and repeal existing By-laws, subject to the Regulations for the time being; and to consider any resolution relating to the honour and interests of the Medical Profession or of the Association which shall have been adopted by any Division or Branch and submitted through the Journal for the consideration of all the Divisions not less than three months previously.

XXXII. BUSINESS OF SPECIAL REPRESENTATIVE MEETINGS.

The business of a Special Representative Meeting shall be to make any new By-law or alter or repeal any existing By-law subject to the Regulations for the time being, and to deal with any other matter of special urgency which may be brought by not less than three Constituencies before such Meeting, or which shall have been submitted by the Council to the Divisions for the purpose of decision by the said Meeting. No business shall be dealt with by a Special Representative Meeting other than that for which it is specifically convened.

XXXIII. CHAIRMAN OF REPRESENTATIVE MEETINGS.

The Chairman of Representative Meetings, when present, shall preside over each Representative Meeting convened during his term of Office. In his absence the Meeting shall appoint a Chairman.

XXXIV. BY-LAWS RELATING TO REPRESENTATIVE MEETINGS.

Subject to the Regulations of the Association for the time being, the provisions as to the mode of election of Representatives, as to the convening and time and place of Representative Meetings, and as to the procedure and mode of voting in such Meetings, shall be as prescribed by the By-laws.

XXXV. POWERS OF REPRESENTATIVE MEETINGS AND REFERENDUM.

A Resolution of any Representative Meeting (not being a Resolution inconsistent with any provisions of the Companies Acts or of the Memorandum or Articles of Association) which affects the funds of the Association, or relates to the By-laws or to the policy of the Association in matters affecting the honour or interests of the Medical Profession, and is carried by a majority of two-thirds of the votes given thereon, or which relates to any other business prescribed by the Regulations or By-laws to be dealt with by such meeting, and is carried by a simple majority, shall be deemed to be a decision of the Association, and to have the same force and validity as a Resolution (other than a Special Resolution as defined by the Companies Act, 1862) of the Association in General Meeting.

Nevertheless the provisions of Article XXII hereof shall *mutatis mutandis* apply to a resolution passed at a representative meeting.

XXXVI. OFFICERS.

There shall be the following Officers of the Association, namely, a President, a President-elect, a Past-President, Vice-Presidents, a Chairman of Representative Meetings, a Chairman of Council, a Treasurer, an Editor of the Journal, and a General Secretary. The Officers aforesaid for the time being other than the Chairman of Council, the Editor of the Journal, and the General Secretary, shall hold office for such period and shall have and enjoy such duties, powers, and privileges as shall be determined from time to time by the Association in its By-laws.

XXXVII. OFFICERS (*continued*).

The Chairman of Council shall be elected by the Council from its own number, and shall hold office for such period and discharge such duties as shall be determined by the Council. The Editor of the Journal and the General Secretary shall respectively be elected by the Council and shall hold office for such period and have and enjoy such duties, powers, and privileges (save in so far as the said duties, powers, and privileges are defined by these Articles) and shall receive such emoluments as shall be determined from time to time by the Council.

XXXVIII. COMPOSITION OF COUNCIL.

The Council shall consist of the President of the Association, the President-elect, the Past-President, Chairman of Representative Meetings (if any), and Treasurer, *ex officio*, and of such other Members appointed in such manner and holding office for such periods as the Association by the By-laws may from time to time prescribe.

XXXIX. POWERS OF COUNCIL.

It shall be the duty of the Council to carry into execution resolutions passed by a General Meeting or a Representative Meeting, subject nevertheless to the provisions of Articles XXII and XXXV, and generally to conduct the business of the Association in accordance with the Regulations and By-laws, but no By-law shall invalidate any prior act of the Council which would have been valid had such By-law not been made.

XL. APPOINTMENT OF DEPUTIES.

In the event of the incapacity, resignation, or death of any officer whose election is required to be made by the Association in its Annual General or Annual Representative Meeting, the Council may appoint any Member of the Association to fill such vacancy until the next Annual Meeting.

XLI. COMMITTEES.

Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws, or as the Council, subject to the provisions of the By-laws, may think proper. The President of the Association and the Chairman of Council shall be, *ex officio*, Members of all Committees of the Association.

XLII. FORFEITURE OF MEMBERSHIP.

Any Member of the Association who (*a*) shall have been convicted in a Court of Justice of any felony or misdemeanour, or (*b*) whose name shall have been erased from the Medical Register under Section 29 of the Medical Act, 1858, or (*c*) who shall have forfeited by misconduct the Medical Qualification by virtue of which he became eligible for membership in pursuance of the provisions of Articles II and III shall, *ipso facto*, cease to be a Member of the Association.

XLIII. EXPULSION BY THE ASSOCIATION.

Any Member of the Association whose conduct shall, upon due inquiry, be deemed to be detrimental to the honour and interests of the Medical Profession, or calculated to bring the Profession into disrepute, may be expelled from Membership by such body or bodies appointed for the purpose and in such manner as may be prescribed by the Regulations of the Association for the time being.

XLIV. EXPULSION OF MEMBERS.

(*a*) *By the Council of the Association.*

The Council shall have power on the representation of any Branch and after due inquiry, of which the Member involved shall have received not less than fourteen days' notice, finally to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII.

(*b.*) *By Branches out of the United Kingdom.*

Each Branch out of the United Kingdom having a Membership of not less than 30 shall have power, on the representation of any two Members of such Branch and after due inquiry, at a Special Meeting convened at not less than one month's notice to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII.

(*c.*) *Majority Necessary.*

A majority of two-thirds of those present and voting whether in the Council or in a Branch Meeting shall be required for the purpose of exercising the powers conferred by the last two preceding Clauses.

(d) Liability after Expulsion.

When a Member is expelled he shall *ipso facto* cease to be a Member, but shall be liable to pay to the Association all sums due from him to the Association or any Division or Branch thereof, at the time of his expulsion.

(e) Resignation when Inquiry Pending.

No Member in regard to whom a representation as aforesaid has been made, or whose conduct is under investigation, or is the subject of inquiry by the Council or by a Branch shall be capable of effectively resigning his membership of the Association until the decision of the Council or Branch be made known.

XLV. TRAVELLING EXPENSES.

The first-class travelling expenses within the United Kingdom of Members of Council and Representatives of Divisions attending the Annual Representative Meeting shall be defrayed out of the general funds of the Association. Attendance of Representatives of Divisions for this purpose shall be construed to mean attendance at each daily Session of the Annual Representative Meeting, and at each daily Session of the Annual General Meeting, when business described under the head (A) is being transacted, unless the Council shall be satisfied that good cause existed for absence from any particular Session or Sessions. The first-class travelling expenses within the United Kingdom of all Members attending Meetings of Council or of Committees shall be paid by the Association. The Council shall determine what shall be considered an attendance for the purpose of this Clause.

XLVI. NOTICES.

A Notice may be served by the Association upon any Member, either personally or by sending it through the post, in a prepaid letter addressed to such Member at his registered place of abode, or by publication of such Notice in the Journal, and sending a copy of the Journal containing such Notice to such Member, prepaid and addressed, as above mentioned. A notice may be served by the Association on any Division or Branch, by serving the same as aforesaid on the Secretary of such Division or Branch, and if there be none, then upon any two Members of such Division or Branch. Any Notice, if served by post, shall be deemed to have been served on the day following that on which the letter, or a copy of the Journal containing the same, is posted, and in proving such service it shall be sufficient to prove that the letter, or a copy of the Journal containing the Notice, was properly addressed and put into the Post Office.

XLVII. BY-LAWS.

Save so far as determined by Statute, or by the Regulations for the time being of the Association, the Constitution and mode of government of the Association the rights and obligations of every Member and separate body of Members thereof, the duties, powers, and privileges of all Officers, and of all Councils, Committees, and governing and administrative bodies, both of the Association and of every Division and Branch, shall be such as may from time to time be prescribed and determined by or in accordance with By-laws from time to time made by a Representative Meeting and new By-laws may be made and By-laws may be altered or repealed at any time by a Representative Meeting, provided that every such proposed new By-law amendment or repeal shall have been approved and brought before the Meeting, either by the Council or by a Division, and that notice thereof shall have been given through the Journal not less than three months before the Annual Representative Meeting, or one month before a Special Representative Meeting as the case may be. The first By-laws shall be in the terms set forth in the Schedule hereto, and such By-laws shall come into operation when these Regulations come into operation, and shall take effect as if made under the foregoing provisions of this Article.

XLVIII. BINDING FORCE OF BY-LAWS.

The By-laws so made and for the time being in force shall be binding on the Members with reference to whom they are made.

XLIX. NUMBER OF MEMBERS.

The number of Members of the Association is unlimited.

THE SCHEDULE ABOVE REFERRED TO:
BY-LAWS OF THE BRITISH MEDICAL ASSOCIATION.

ELECTION OF MEMBERS.

1. *Application.*

EVERY candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

2. *Election by a Branch Council.*

Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Branch Council at any meeting thereof held not less than one month after the date of the said notice.

3. *Election by the Council of the Association.*

Every candidate whose place of residence is not included in the area of any Branch shall forward his application to the General Secretary of the Association, together with a statement signed by three Members of the Association that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

DIVISIONS AND BRANCHES.

4. *Formation.*

It shall rest with the Council from time to time to determine, recognize, and declare by resolution published in the Journal what bodies of Members shall be Divisions, and what Divisions and groups of Divisions shall be Branches of the Association, and what shall be the local area of each division, and accordingly the Council shall have full power from time to time to amalgamate, subdivide, and modify Divisions and Branches and the local areas thereof. Nevertheless, not less than one calendar month's notice in all cases shall be given to any existing Division or Branch in whose boundaries or area any change is proposed.

5. *Determination of Boundaries.*

In determining the boundaries or area of Divisions and Branches, the Council shall have regard primarily to the expressed wishes of the existing local bodies concerned, and to the facilities of communication in each district by railway and otherwise, and the opportunities thus afforded to Members of local bodies for meeting to transact the business thereof; and, secondarily, to the expediency of making the boundaries of such bodies coincide with those of Parliamentary Contituencies, Counties, or other public administrative divisions of the country.

6. *Management of Divisions.*

Any Executive Committee or Council appointed to manage the affairs of any Division shall include, *ex officio*, the Member who for the time being represents the Division in Representative Meetings; and the Council of any Division which is not in itself a Branch shall also include, as *ex officio* Members thereof, the Members of the Branch Council elected by such Division.

7. *Management of Branches.*

The management of the affairs of each Branch shall be vested in a Branch Council, of which the Members of the Council of the Association elected by the Branch shall be Members *ex officio*. In the case of a Branch comprising more than one Division, each Division shall be entitled to elect a Member or Members of the Branch Council, and the number

of Members to be elected by each Division shall be as nearly as possible proportional to the membership of such Division. In addition to the Members so elected, the Branch Council may have as *ex officio* Members thereof such Officers of the Branch as the Branch may think desirable.

8. *Reports by Divisions and Branches.*

Every Division shall furnish annually to the Branch Council during the month of January, and every Branch shall furnish to the Council of the Association not later than the 15th March, a Report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe.

9. *Extraordinary Members—"Associate," "Complimentary."*

Extraordinary Members shall be either Associate or Complimentary Members. Any Division or Branch may elect any Ordinary Member of any other Division or Branch as an Associate Member, and any Division or Branch not in the United Kingdom may elect as a Complimentary Member any qualified Medical Practitioner resident within the area thereof, but not eligible by birth or qualification for Membership of the Association. Divisions or Branches may by their local Rules confer on Extraordinary Members such privileges other than that of voting, and impose such conditions of election as they may think desirable, subject to the sanction of the Council.

10. *Autonomy.*

(*a*) At any time before the 1st January, 1903, the Council may, in relation to any Division or Branch, make such Rules as the Council may think expedient, and may repeal and alter same.

(*b*) At any time after the 1st January, 1903 (subject to the Regulations and By-laws of the Association), each Division and each Branch shall be free to govern itself in such manner as it shall think fit, and for that purpose to make from time to time such Rules as it think fit, and to repeal or alter the same as and when it shall consider it expedient.

(*c*) The Rules so made and for the time being in force shall be binding on the Members constituting the Division or Branch in reference to which they are made.

11. *Rules.*

The Rules made by Divisions and Branches shall be submitted for approval to the Council, and shall not come into operation unless and until they are approved by such Council.

SUBSCRIPTION.

12. *Amount.*

The Council, in exercising the power conferred upon it by Article VII, shall insert a notice in the Journal not later than the first Saturday in November of any year to increase the annual subscription to such amount, not exceeding 30s., as it may think necessary or desirable, such increase of subscription to take effect on the first day of January following.

13. *To whom paid.*

Subscriptions shall be paid by all Members to the General Secretary at the registered office of the Association, or, in the case of Members residing out of the United Kingdom, to such persons (if any) as the General Secretary may authorize to receive subscriptions on his behalf, of which authorization notice shall be given to all Members concerned.

14. *Extra Subscription to Divisions and Branches.*

It shall be competent for any Division or Branch offering special privileges to its Members to require a special subscription from those Members who avail themselves of such special privileges, and it shall likewise be competent for any Division or Branch to charge such special subscription, as it may think proper, to its Extraordinary Members; but no Ordinary Member of any Division or Branch shall be called upon to pay any further subscription than that paid to the Association as a condition of enjoying any ordinary privilege of Membership of such Division or Branch.

15. *Grant to Branches.*

As from the 1st January, 1903, the Treasurer of the Association shall annually pay or allow to the Treasurer of each Branch the sum of 4s. for each Member of the said Branch who has paid to the Association the full current annual subscription for that year, and the sum of 2s. for each Member elected after the 1st July, who has paid to the Association half the current annual subscription.

16. *Branch Subscription.*

Out of the moneys received in accordance with the last preceding By-law, the Branch shall defray all its expenses, and shall also pay to each Division of the Branch such sum per Member as the Branch Council may consider necessary to defray the expenses of the Division.

REPRESENTATIVE MEETINGS.

17. *Order of Business.*

The first daily session of the Annual Representative Meeting shall be held not later than two hours after the time fixed for the commencement of the Annual General Meeting. The first business of such session shall be to elect the Chairman of Representative Meetings. The next business shall be to determine the order in which the various matters placed upon the Agenda of the said Meeting shall be taken. The minutes of each Representative Meeting shall be forwarded by the Chairman thereof to the Council.

18. *Voting.*

In any Representative Meeting, Representatives of Divisions only shall be entitled to vote. Voting shall be, as a rule, by show of hands, unless before such vote is taken a majority of those present determine that the vote shall be taken by card, in which case every Representative shall record as many votes as there are Members in the Constituency which he represents. In voting upon any matter upon which a Constituency has passed a Resolution within the three months immediately preceding such Meeting, the Representative of that Constituency shall be under obligation to vote in accordance with such Resolution. When the vote is taken by show of hands the Chairman shall, in the case of an equality of votes, have a second or casting vote.

19. *Quorum.*

No business shall be transacted at any Representative Meeting unless there be present at least one-half the number of Representatives appointed to attend such Meeting.

COUNCIL.

20. *Composition and Powers.*

(*a.*) The Council holding office at the date when these Regulations and By-laws come into operation shall continue to hold office as such until and including the first day of the Annual General Meeting of 1902, and, until that date, shall be deemed to be the Council referred to in these Regulations and By-laws.

(*b.*) After such last-mentioned day, and until and including the first day of the Annual General Meeting of 1903, the Council shall be constituted as prescribed in By-law 17 of the By-laws of the Association heretofore in force, and the Officers of the Association named in the said By-law as Members of the Council, *ex officio*, together with such Members as may have been, or may hereafter be, duly elected by Branches in the manner prescribed in the said By-law to be their Representatives on the Council for the year 1902-1903, shall, from the first to the second of the dates hereinbefore mentioned, be deemed collectively to be the Council referred to in these Regulations and By-laws.

(*c.*) After the first day of the Annual General Meeting of 1903 the Council shall be composed of the Officers and ex-Officer named as Members of the Council, *ex officio*, in Article XXXVIII of the foregoing Regulations, together with the Members duly elected or appointed by the Branches and other bodies authorized by the By-laws to elect or appoint Members of the Council, and of one Member each elected by the Members of the Association attached to the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service respectively, in such manner as may be determined by the said Services respectively, subject to the sanction of the Council, and of Members annually co-opted by the Council in manner hereinafter provided.

21. *Branch Representation.*

Any Branch, or group of Branches, having an aggregate

membership of not less than 200 may elect one Member of Council, and any Branch or group of Branches having an aggregate membership of not less than 400 may elect two Members of Council, and an additional member for each complete 600 Members in excess of 400 Branches in the United Kingdom having less than 200 Members shall be grouped for this purpose with neighbouring Branches, unless in the opinion of the Council the special conditions of any such Branch justify the grant of separate representation. The grouping of Branches not within the United Kingdom for the purpose of electing Members of Council shall be determined by the Council, provided that the total number of Members of Council whom such Branches are entitled to elect shall not be less in proportion to the total membership thereof than those elected by the Branches in the United Kingdom.

22. *Election of Representative Members of Council by Branches.*

The elective Members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors in writing to the Secretary of the Branch on or before an appointed day of which not less then fourteen days' notice has been given in the Journal.

23. *Term of Office of Branch Representatives (United Kingdom).*

Each Member of Council elected by a Branch in the United Kingdom shall be elected for one year, and at the end of that time shall be eligible for re-election unless he have served as such Member of Council for eight years successively, in which case he shall for one year be ineligible for election as such Member of Council.

24. *Term of Office of Members elected by Branches, not within the United Kingdom, or by the Services.*

Each Member of Council elected by a Branch not in the United Kingdom, or by the Royal Navy Medical Service, the Army Medical Service, or the Indian Medical Service, shall be elected for such period, not exceeding three years, as the electing Branch or Body may determine, and at the expiration of such period shall be eligible for re-election, provided that no such Member shall be re-elected so as to make his period of continuous service as a representative Member of Council exceed eight years.

25. *Qualification.*

No person shall be eligible for election as a Member of Council by a Branch in the United Kingdom unless at the time of his election he shall be a Member of such Branch. The eligibility for election as a Member of Council by a Branch not in the United Kingdom, shall be such as may be determined by the Rules of the said Branch.

26. *Election Return.*

The return of the election of each elective Member of Council shall be communicated in writing to the Secretary of the Association by the President or Secretary of the Branch by which he is elected not less than fourteen days prior to the Annual General Meeting of the Association.

27. *Powers of Incomplete Council.*

In default of and until election of a Member or Members by any Branch or other Body authorized to elect, or so far as such election shall not be complete, all the powers conferred on the Council shall belong to and be exercised by the *ex officio* Members thereof alone, or by the *ex officio* Members and such other Members of the Council as may have been duly elected by any Branch or Branches or other Bodies authorized to elect.

28. *Vacancies.*

Any casual vacancy occurring in the Council, not less than four months before the Annual General Meeting, may be filled up by any Branch or Body the representation of which may have become vacant, and such election shall be conducted in the same manner as the Annual Election. Any person so chosen shall retain his office so long only as the Member in respect of whom such casual vacancy may have occurred would have retained the same.

29. *Co-opted Members.*

The Council shall have power each year to add to its own number Members in the proportion of one for every complete ten representative Members elected to serve on the Council for that year. Each such co-opted Member shall vacate such office at the close of the last meeting of the Council for the year, but shall be eligible for reappointment, unless he shall have been appointed in each of the last five years, in which case he shall be ineligible for the ensuing twelve months.

30. *Council Proceedings.*

The Council shall meet not less than four times a year, and shall be presided over by the Chairman of the Council, or in his absence by a Chairman to be appointed by the meeting. Its meetings shall be held at such time and place as the Council shall appoint. Fifteen Members shall form a quorum.

31. *Special Meeting.*

The Chairman of Council may, if he think fit, and shall, upon receiving a requisition signed by not less than fifteen Members of the Council and specifying the business for which a Special Meeting is required, call together a Special Meeting thereof. No business shall be transacted at a Special Meeting other than that for which such Meeting is called.

32. *Reports.*

The Council shall annually prepare a Balance Sheet and Financial Statement of the Association for the past year, to be presented to the Annual General Meeting of the Association, and an Estimate of the probable income and expenditure of the Association for the coming year, and a Report of the general state and proceedings of the Association for the past year to be presented to the Annual Representative Meeting. A copy of such Statement, Estimate and Report shall be sent to the Secretary of every Branch and Division and published in the Journal not less than two months before the Annual Meeting.

33. *General Powers.*

The Council shall, in addition to the powers and authorities by the Articles and By-laws expressly conferred on it, exercise all such powers and do all such acts or things as may be exercised or done by the Association, and are not by Statute or by the Articles or By-laws expressly directed or required to be exercised or done by the Association in General Meeting or by a Representative Meeting, subject nevertheless to the provisions of the Statutes and to the Regulations and By-laws of the Association and to the instructions contained in those Resolutions of General or Representative Meeting which by the Articles are declared to be deemed decisions of the Association.

OFFICERS.

34. *President, President-elect, and Past-President.*

The President of the Association shall be elected annually at the Annual General Meeting and shall enter upon the duties of his office at the next Annual Meeting, and until then shall bear the title of President-Elect. At the expiration of his year of office as President he shall be designated Past-President and shall hold office as such for one year.

35. *Treasurer.*

The Treasurer shall be elected by the Annual General Meeting and shall hold office for three years. He shall receive the subscriptions and other moneys payable to the Association and discharge all accounts which have been ordered by the Council to be paid.

36. *Vice-Presidents.*

The Council shall have power to nominate for election by the Annual General Meeting those Members who by their services to the Association are in the opinion of the Council worthy of election as Vice-Presidents. Such election shall be for life unless any appointment shall be subsequently cancelled by a vote of the Association in General Meeting assembled on a motion brought forward by the Council. No special privilege shall attach to the office of Vice President.

37. COMMITTEES.

Subject to the regulations and By-laws of the Association, the Council and the Representative Meeting shall respectively have power to appoint Committees with such powers as may to them seem necessary or convenient, and to fix the quorum thereof, and lay down Rules for regulating the proceedings of such Committees.

38. *Committees of Council.*

Every Committee is to conform to such rules, whether general or special, as the body appointing it may make in regard thereto.

39. *Standing Committees.*

Nevertheless, there shall be Standing Committees as follow:

(1) *Journal and Finance.*

A Journal and Finance Committee not exceeding fifteen in number (five to form a quorum) shall be appointed by the Council, which shall, *inter alia*, examine into the general working of the Office and of the Journal, and certify the quarterly accounts prior to their being presented to the Council.

(2) *Premises and Library.*

A Premises and Library Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall be referred all matters connected with the Library and its management, as well as the management of the House Property of the Association.

(3) *Public Health.*

A Public Health Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall specially be referred all questions relating to the Public Health Service, the Poor Law Medical Service, and the Vaccination Service.

(4) *Colonial.*

A Colonial Committee not exceeding nine in number (three to form a quorum) shall be appointed, to which shall be referred all questions specially relating to the Branches not in the United Kingdom. Of such Committee five members shall be appointed by the Representatives of these Branches on the Council, and two by the Council.

(5) *Naval and Military.*

A Royal Naval and Military Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council to which shall be referred all matters relating to the Royal Navy Medical Service, the Army Medical Service, the Indian Medical Service, and the Medical Organization of the Auxiliary Forces. Such Committee to include the Representative Members of these Services who are on the Council.

(6) *Medico-Political.*

A Medico-Political Committee shall be appointed consisting of sixteen members (seven to form a quorum) which shall deal with all matters involving the public relations of the profession not specially referred to other Committees, and shall be composed of the Chairman of Representative Meeting, the Treasurer, *ex officio*, and twelve other Members, all of whom shall be appointed by the Council until the first Representative Meeting, and thereafter six of such Members shall be appointed by the Council, and six by the Representative Meeting. Such Committee to report to the Council and to the Representative Meeting, to act under the Council, and to have the services of a salaried officer.

(7) *Ethical.*

An Ethical Committee shall be appointed consisting of twelve members (five to form a quorum) which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by Members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of professional conduct. Until the first Representative Meeting such Committee shall be appointed by the Council, and thereafter five members of such Committee shall be appointed by the Council and five by the Representative Meeting. This Committee shall have the services of a salaried officer.

(8) *Organization.*

An Organization Committee shall be appointed by the Council, not exceeding nine in number (three to form a quorum), which, subject to the directions of the Council, shall deal with all questions of the boundaries or area of Divisions and Branches, and the Rules thereof other than those relating to ethical matters, and advise the Council thereon, and shall exercise such powers as may be conferred upon it by the Council in advising and assisting Divisions or Branches in the strengthening of their organization. This Committee shall have power to add to its number, for special purposes, a limited number of members specially qualified to assist in its work. This Committee shall have the services of a salaried officer.

40. *Chairman of Committees.*

Each Standing Committee shall appoint from its own number a member of Council as Chairman.

41. *Officers of Committees.*

Any salaried officers to assist Committees numbered 6, 7, or 8 in By-law 39, shall be appointed by the Council, and shall receive such remuneration as the Council may from time to time determine.

42. *Omission to give Notice.*

The accidental omission to give any notice required by the By-laws is not to invalidate the proceedings.

43. *Interpretation.*

In these By-laws the expression "the By-laws" means the By-laws of the Association for the time being in force.

THE NEW OPERATING DEPARTMENT AT THE LONDON HOSPITAL.

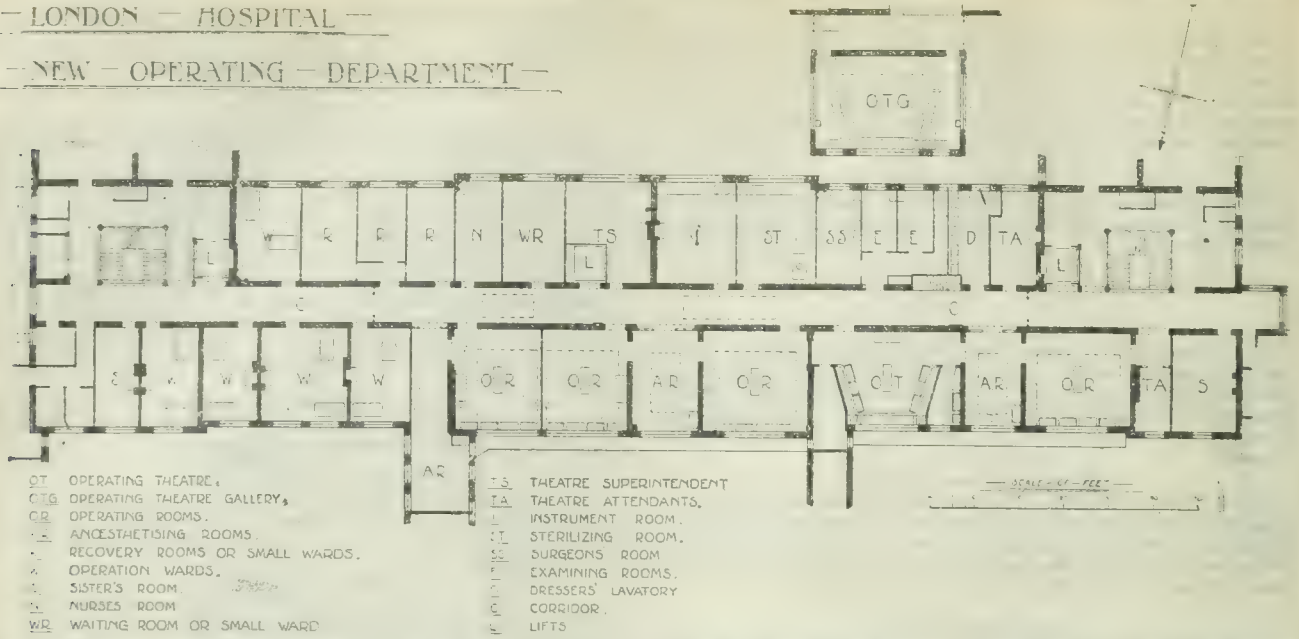
ON May 22nd the Lord Mayor of London opened a new Operating Theatre Department at the London Hospital. Some three years ago a gentleman, while being taken round the wards of the London Hospital by the Chairman of the House Committee, the Hon. Sydney Holland, noticed some of the patients sitting in red dressing gowns, and on enquiry was told they were waiting their turn for operation, but that, owing to the fact that there was only one operating theatre available, it was quite likely that they would be disappointed and would have to wait until the following week. Struck by the unnecessary suffering this involved, he asked what it would cost to provide a sufficient number of operating theatres, and was told £13,000. This sum he generously and at once gave attaching only two conditions to his gift, first that it should be open to all denominations, and secondly, that his name should be kept secret. The striking necessity for this addition is shown by the great increase in the number of major operations performed at the hospital.

In 1881	420
1891	1,144
1901	2,711

The new operating department, which has just been completed (with the exception of the eastern end, which is in course of erection) was privately inspected by their Royal Highnesses the Prince and Princess of Wales on March 20th. It is situated on the third floor of the old front block of the hospital, on the site formed by demolishing the old attics, together with the previously existing operating and clinical theatres. The new department consists of a theatre, four operating rooms, and three anaesthetising rooms, all facing north with large windows and top lights. In addition there are four recovery rooms, or small wards, five operation wards, two sisters' room, nurses' room, waiting room, theatre superintendent's room, two attendants' rooms, instrument and sterilizing rooms, surgeons' room, two examining rooms, with lavatory and dressers' lavatory. There will be some more small wards on the fourth floor at the east end when this is completed. A wide central corridor runs the whole length of the block, and the department is approached by the new east and west main staircases which are at the ends of

— LONDON — HOSPITAL —

— NEW — OPERATING — DEPARTMENT —



the front block, and by the new east, west, and central lifts. The operating theatre has a marble gallery for students, fitted with teak seats and gun-metal rails, and approached on two sides by separate staircases from the central corridor. A sink room is provided under the gallery. The whole of the floors in the theatre, operating, and anaesthetising rooms and central corridors, instrument and sterilising rooms, and dressers' lavatory are in marble mosaic, and the walls and ceilings are lined with opalite. All angles are rounded. The doors are polished oak with swing hinges, separate entrance and exits are provided for each operating room and for the theatre. The fittings in the theatre and operating rooms consist of plain glazed sinks with special combination spray and douche fittings, and wastes discharging into floor channels. The slabs between the sinks are of marmorite, on special brackets. A marble slab is provided for the sterilizers. The anaesthetising rooms have similar sinks and fittings. The surgeons' and dressers' lavatories are fitted both with ordinary lavatory basins and Shanks's flushing rim basins, the latter having spray and douche fittings.

The hot water to the theatre and operating rooms and anaesthetising rooms is supplied from a separate and duplicate apparatus in the basement, and is all boiled. Each day's cold water supply, after having been boiled, is cooled in special in special apparatus. In the sterilizing room there is a Manlove and Alliott's steam disinfector for dressings, coats, etc. Special attention has been given to the supply of filtered air, and to the warming and ventilation of the theatre, operating rooms, and anaesthetising rooms. The air to supply these rooms is led to the basement from the garden by means of a glazed tunnel. It is then driven by means of a large electric fan through a canvas water screen and cotton-wool filters. After this it passes into the heating chamber, and is warmed by steam coils. The warm and cold fresh air is conducted in separate iron tubes to the theatre and operating rooms and anaesthetising rooms. The temperature and amount of air passing into any room is regulated by a small lever handle on the wall of each rooms. The vitiated air is drawn out of the rooms by electric fans in the gables of the roofs. The fans are controlled by switches in each room. The filtering and heating chambers have glazed walls, and all the apparatus is specially arranged so that every part is easily accessible for inspection and cleaning. The whole of the air in the rooms can be changed every few minutes if desired. The other rooms in the department are warmed either by open fireplaces or hot water coils. A balcony is provided to enable the outside of the large windows to be cleaned without difficulty or danger. The whole of the department is lighted by electricity. Each operating table is lighted by a cluster of five lamps. In addition there are four balanced pendants with handles, so that they can be held over the tables if required. Near the head of the table is a pendant carrying a box fitted with regulating resistances, plugs for surgical motors, cauteries, hand lamps, cystoscopes, etc. Three emergency lamps are fixed under this fitting for use in case of a breakdown in the main supply. This fitting is supplied from a battery of accumulators charged by a motor generator which is driven by the current from the borough council's mains. The buildings and fittings have been executed in accordance with the designs and under the superintendence of Mr. Rowland Plumbe, F.R.I.B.A., the architect to the hospital.

Convalescent Home for Epileptic Patients.—It is with much pleasure that we are able to record the generous gift of £3,500, by an anonymous donor, to the National Society for the Employment of Epileptics, being the entire estimated cost of erecting at Chalfont St. Peter a special convalescent home for epileptic persons who, when recovering from serious illness, are excluded from all the ordinary convalescent homes throughout the country. As far as we are aware the only one at present available for such persons is that at East Finchley, connected with the National Hospital for the Paralysed and Epileptic, and that is not meant for epileptics who are recovering from other acute disease, but for those recovering from severe epileptic states. The contemplated home, which will be in connexion with the epileptic colony at Chalfont, will provide accommodation for 24 male patients.

The Executive Committee of the Duke of Abercorn's Fund for the Relief of Sick and Wounded Officers have presented their second report dealing with the year 1901. Applications for relief have been less numerous, but at the seventy-one meetings of the Executive Committee 70 cases in need of medical care, and 79 surgical cases were considered and approved. Officers of the regular army, of the Royal Marines, of the Imperial Yeomanry, and the Colonial forces have been benefited by the fund, the benefits of which have also been extended to include army nurses invalided home. The services of Dr. Donald W. Hood and of Mr. John H. Morgan are the subject of special encomiums in the report, and these are also extended to Dr. A. Elliot, Dr. George Johnston, and Mr. T. H. Kellock, who supplied their places during the summer, and also to Mr. Mackenzie Davidson for examining several patients by the *x* rays. Thanks are also given to many persons who have offered private hospitality to convalescents. The Committee appeals for further financial help, as occasions for its operations must continue under the most favourable circumstances for many months to come.

THE PHYSIOLOGICAL LABORATORIES OF THE UNIVERSITY OF LONDON.

Two courses on advanced physiology are now in progress in the advanced physiological laboratories of the University of London at South Kensington. The courses are being given by Dr. Waller, on Tuesdays, at 5 p.m., on the Signs of Life, and by Dr. Leonard Hill, on Wednesdays, at the same hour, on the Physiology of Respiration.

Dr. WALLER, who is the manager of the laboratories for this year, at the opening of his course gave the following account of the aims with which they have been established:

"The aim and purpose of these lectures is extremely simple. By the liberality of the Senate of the University, seconded by the liberality of one of its distinguished graduates, the teachers and students of physiology separately working in the many scattered Colleges of the University are enabled to bring to the University, as to a focus, the best they have to bring.

"I shall not take upon myself to utter any forecast of the fate of this effort towards concentration, nor attempt to justify our undertaking by any high-flown anticipations. All that I venture to say—on behalf of my colleagues as well as on my own behalf—is that we believe that in physiology as in other subjects, there exist in this great metropolis, scattered—I had almost said lost—in the several colleges that now form part of the University, the elements which collectively constitute a university school of learning.

"And if I might venture to characterize by one word what to my mind is the most essential mark of a teacher of university rank, I should say that it is that such a teacher should be an active student—not merely a learned man, but a learning man.

"And that leads me to what we hope is to be the keynote and dominant colour of these lectures—namely, that they are especially to belong to what may be termed the growing surface of our knowledge. Each one of us is to bring here the knowledge that he has himself gathered at first hand in the particular garden that he has chosen to work in, and of such knowledge it is an infallible characteristic that it is unsatisfied, incomplete—an evergreen surface, a surface of encroachment.

"And so this talking room rests upon a foundation of working rooms, and these in turn ultimately rest upon our working rooms scattered throughout the colleges of the University of London, at University College, at King's College, at the London medical colleges, and at the colleges for women.

"Another point: A critic, a friendly critic, in the days when these lectures were first talked of, wanted to know to whom they were to be given, urged indeed that in this great scattered University of London there are not a dozen students requiring or caring for advanced lectures in physiology; he said that we should have to lecture to each other. I hope we shall lecture to each other and be each other's pupils. Looking to this list, I think I may say that during the last twenty years I have been the pupil of every one of my present colleagues, and I hope I have not finished learning from them; and I am very sure that if this laboratory fulfils its true function, we, the professed teachers, will receive as well as give instruction from and to the students and frequenters of the laboratory."

LITERARY NOTES.

DR. HENRI TOLLIN, Pastor of the French Reformed Church at Madgeburg, who recently died at the age of 69, made some notable contributions to the history of medicine. Among them were researches on Michael Servetus, the Spanish physician who discovered the pulmonary circulation and who was burnt as a heretic by Calvin, and on the history of physiology. These papers were published in *Virchow's Archiv*. In recognition of his services in the elucidation of the history of medicine, the University of Jena conferred on M. Tollin the honorary degree of Doctor of Medicine.

The proprietor of the *Gaceta Medica Catalana* recently received the sum of 75 pesetas from an anonymous subscriber who said he had defrauded the journal of that amount, representing over seven years' subscription. In acknowledging the receipt of the "conscience money," the proprietor takes occasion to express the wish that "as this conduct ennobles rather than debases, the sender may make himself known in order that he may be praised for the nobility of his act."

The *Revue d'Hygiène et de Médecine Infantiles* is the title of a new periodical, devoted to the hygienic and medical care of infants, founded by Dr. H. de Rothschild, who is also its editor. In 1896 Dr. de Rothschild established on a site belonging to the Hôpital Rothschild a special institution for infants known as "La Polyclinique H. de Rothschild." The scope of the institution has undergone considerable expansion, and the "Polyclinique" now includes orthopaedic, radiographic, oto-rhinological, ophthalmic, and neurological departments. The "Polyclinique" has thus become a centre for the study of children's diseases in Paris. The *Revue d'Hygiène et de Médecine Infantiles* is intended to be its official organ in which the work done by the staff will be recorded. It is published by Octave Doin, Place de l'Odéon, and is to appear every two months. The first number contains a paper on the Treatment of Pulmonary Tuberculosis, by Dr. A. Josias; a most interesting contribution, with illustrations, on the Venous Dystrophies of Hereditary Syphilis, by Dr. E. Fournier; and A Study of the Milk Trade, by Dr. H. de Rothschild, together with abstracts and reviews and a copious bibliographical index of current paediatric literature. The new review promises to be one of the most valuable of existing periodicals dealing with the important branch of medical science which it has taken for its province.

In a paper published in a recent number of the American *Geological Magazine* Dr. C. I. Forsyth Major reviews the statement made by Darwin in the *Descent of Man* as to the probability that horns of all kinds, and canine tusks even when they are equally developed in the two sexes, were primarily acquired by the male in order to conquer other males, and have been transferred more or less completely to the female. Darwin's inference did not rest upon paleontological evidence, and Dr. Major therefore reviews the evolution of the families of *Cervidæ*, *Giraffidæ*, *Bovidæ*, and *Suidæ*, with the general conclusion that Darwin's inference was correct. He concludes with the suggestive remark:

> In our species the modern aspirations of women are to all appearances incipient signs of the same natural law. Physical and mental characters of man, originally acquired in the struggles of the males, are apparently being slowly transferred to women. They only require time for their full evolution.

The woman with the mental characters of man, whom accordingly in the fullness of our masculine conceit we call strong-minded, must be accepted, if not altogether with delight, at any rate with the fortitude enjoined by philosophy in face of the inevitable. But if evolving woman is not satisfied with the strong mind of man, and must needs take unto herself his physical characters also, what is to become of the human race? Most men are like Sir Hugh Evans in the *Merry Wives of Windsor*, and "like not when a 'oman has a great peart." Unless, therefore, the mental and physical characters of woman can be transferred to man, woman will have to continue her evolution without his help.

In the *University of Pennsylvania Medical Bulletin* for March, Professor Roswell Park discourses on Student Life in the Middle Ages. He describes the hardships of even the wealthy student's life in the days when there were no glass windows and no fires anywhere but in the kitchen, and when, in the smaller university towns, even the food supply would often run short. The mediaeval student's amusements were mainly dancing, fighting, and drinking. The discipline was severe enough in theory, though in practice it was probably very often relaxed. Dr. Roswell Park, indeed, says that the penalties inflicted for the gravest outrages and immoralities were, for the greater part, puerile in the extreme. "In most serious cases excommunication or imprisonment were the penalties." If Dr. Roswell Park thinks that excommunication in the Middle Ages was a "puerile" punishment, he must have curious views on penal discipline. Even the "imprisonment" of those days, as we may learn from Villon, who had tasted its horrors, seem to modern humanitarians a barbarous penalty. At Tübingen, in 1481, the medical student's day was arranged as follows: In the morning he studied Galen's *Ars Medicinalis*, and in the afternoon Avicenna on *Fever*. During the second year, in the forenoon he studied Avicenna's *Anatomy and Physiology*, and in the afternoon the ninth book of Rhazes on *Local Pathology*. The forenoons of his third year

were spent on the *Aphorisms* of Hippocrates, and in the afternoon he again studied Galen. If any textbook on surgery at all were used it was usually that of Avicenna. Some time was also given to the writings of some or the other Arabian physicians.

In the *Maryland Medical Journal* for March Dr. William Sydney Thayer gives an interesting account of Laënnec, the discoverer of auscultation. René Théophile Hyacinthe Laënnec was born at Quimper, in Lower Brittany, in 1781. His father was an advocate, a man of considerable education and scholarly tendencies. In early childhood René was placed under the care of an uncle, a priest, who gave him a good grounding in the classics. Later he was placed under the charge of another uncle, a Professor of Medicine in the Faculty of Nantes. Under his guidance he began the study of medicine, and soon made his mark as a man of unusual ability. For a time, in 1799, he was attached to the medical department of the army. In 1800 he went to Paris, where he was a favourite pupil of Corvisart. Laënnec early attained distinction. In three years as a student he drew up minute histories of nearly 400 cases of disease, observations which were the basis of all his future work. In 1804 he took his Doctor's degree, his inaugural thesis being entitled Propositions sur la Doctrine d'Hippocrate appliquée à la Médecine Pratique. Bayle said, of this publication, that it proved Laënnec to be no less skilled in his knowledge of the Greek language than deeply read in the writings of the Father of Physic. After graduation, for five years he conducted, as chief editor, the *Journal de Médecine*, and for two years lectured on pathological anatomy. For many years Laënnec devoted himself especially to pathological anatomy, bringing together numbers of careful and accurate scientific observations. He was one of the first to appreciate the fact that the clinical comprehension of disease could rest only upon a thorough knowledge of the nature of the changes present, and that such knowledge could be gained only by careful and continued study of *post-mortem* appearances, and by comparing these with accurately-recorded clinical observations. While Laënnec is especially known for his remarkable discovery, Dr. Thayer thinks that even had he not discovered the stethoscope, the records of his clinical and pathological studies, and the scientific influence which he exerted on those about him could not have failed to leave a strong mark upon the history of medicine. One day, while walking across the courtyard of the Louvre, Laënnec is said to have seen some children playing about a long beam. One would place his ear at the end of the beam and listen while another tapped lightly at the other end, the sound being, of course, well transmitted through the solid body. Several days later the idea came to him which led to the great discovery of his life. It may be interesting to give the history of the first application of the stethoscope in Laënnec's own words:

> I was consulted in 1816 by a young person who presented the general symptoms of disease of the heart, with whom the application of the hand and percussion gavelittle result on account of her *embonpoint*. The age and sex of the patient rendering impossible the method of examination of which I have spoken (direct auscultation), I happened to remember a well known acoustic phenomenon. If one places the ear at the extremity of a beam one hears very distinctly the tap of a pin which is made at the other end. It occurred to me that one might perhaps make use of this property of bodies in the case with which I was concerned. Taking a sheet of paper, I made a tightly-rolled cylinder, one end of which I placed upon the precordial region, and, putting my ear to the other end, I was as much surprised as gratified to hear the beats of the heart much more clearly and distinctly than I had ever heard them by the immediate application of the ear. . . . It occurred to me, incidentally, that this manner of examination might become a useful method, applicable not only to the study of the beats of the heart, but also to that of all movements which might produce sound in the thoracic cavity; that it might, therefore, be of value in the exploration of respiration, voice sounds, *râles*, and, perhaps, of the fluctuations of an effusion of fluid in the pleura or pericardium. With this conviction I began immediately at the Necker Hospital, to the staff of which he had been appointed in 1816] a series of observations, which I have continued ever since. As a result I have discovered new and positive signs which are, for the most part, easily comprehend, and capable of rendering the diagnosis of almost all diseases of the lungs, pleura, and heart more certain and perhaps more circumstantial than surgical diagnoses established by the aid of a sound or the introduction of a finger.

In May, 1816, Laënnec gave his first public demonstration of the stethoscope. His first stethoscope was turned in wood in the form of a straight cylinder, one and a-third inches in diameter and 12 in. long, with a bore one-third of an inch in diameter, extending quite through it. The tube was divided into two parts in the middle, so that it might, if necessary, be taken apart. In some instances, however, in listening to the heart sounds, he used a solid wooden instrument. In 1819 he published the first edition of his famous work, entitled *De l'Auscultation Médiate; ou, Traité du Diagnostic des Maladies des Poumons et du Coeur, fondé Principalement sur ce nouveau Moyen d'Exploration*. Laënnec's reputation as a pathologist, a clinician, and teacher rapidly increased, but his industry and enthusiasm led him to work far beyond the limits of his physical strength: and in 1820, broken down in health, he was compelled to leave Paris for his home in Brittany. After two years he returned to Paris, and in 1823 he succeeded his master, Corvisart, as professor of clinical medicine. Both as a teacher and as a physician he rose to the height of fame. His delicate constitution, however, could not stand the strain of the work which he did, and in 1826 he died of pulmonary tuberculosis at the age of 45. Laënnec was a man of independent disposition, often refusing the calls of the rich, while his charity placed him always at the service of the poor. Although slight in stature, he was yet very fond of outdoor exercises and field sports, and took particular pleasure in referring to his strength and prowess in these pursuits. This innocent vainglory would seem to have been almost the only weakness in his character.

THE PLAGUE.

Prevalence of the Disease.

India.

THE plague returns for the week ending April 26th show 17,302 deaths from the disease, against 10,412 during the previous week, and 4,093 in the corresponding week of last year.

In Bombay City the plague deaths for the week ending April 26th numbered 589, against 658 during the previous week: in the Bombay Presidency (exclusive of the City of Bombay), 1,673, against 2,045; in Calcutta, 577, against 588; Bengal (exclusive of the metropolis), 553, against 760; in the North-West Provinces and Oudh, 866, against 773; in the Punjab 12,321, against 14,145.

Eastern Bengal has until the other day shown a clean bill of health as regards plague; but recently cases of plague have been reported in the neighbourhood of Goalando, a railway junction: and from Buzitpur also, a village in Mymensingh, the largest and most important district in East Bengal.

Cape of Good Hope.

From Port Elizabeth alone are any cases of plague reported in Cape Colony. At Port Elizabeth during the week ending April 26th 3 fresh cases of plague were admitted into hospital, all being European males. At the end of the week in question 6 persons were under treatment at the Plague Hospital, Port Elizabeth. One suspect only was admitted during the week, and 12 contacts. The total cases to date in the Cape since the first outbreak of the disease amount to 889, of which number 226 were Europeans, with 75 (33.2) deaths; 456 were coloured persons, with 260 (57.0) deaths; and 207 were natives, with 92 (44.4) deaths.

Egypt.

During the week ending May 11th, the total number of fresh cases of plague in Egypt numbered 29, and the deaths from the disease 12. The fresh cases and deaths were reported as follows: Alexandria, 1 case, 1 death; Deshneh, 4 cases, 2 deaths; Tala, 1 case, 2 deaths; Maghagha, 3 cases, 1 death; Toukh, 10 cases, 2 deaths; Shebin-el-Koum, 1 case, 1 death; Ashmoun, 1 case, 1 death; Samalout, 7 cases, 2 deaths; Menouf, 1 case.

The Director-General, Sanitary Department, reports that cases of plague have occurred at Kolosneh, in the Markuz of Samalout; at Minieh Moudirieh, near Maghagah; at Shebin-el-Koum, Syaffa, Tant-el-Ghezireh, Bir-el-Shems, and Kair-el-Faraniech. All these are villages in the Mondiriehs of Gahonbieh and Menoufieh.

A telegram dated Cairo, May 10th, states that there have been 58 cases of plague and 35 deaths during the two weeks ending May 17th. No cases of plague have occurred in Cairo, and a very few in Alexandria. From April, 1901, to May 17th, 1902, the total number of cases of plague has been 601, and the number of deaths from the disease 359.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting namely, June 18th and October 1st.

Election of Members.

Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual meeting and dinner will be held on June 18th. Further particulars will be announced shortly.—HENRY BETHAM ROBINSON, J. W. WASHBOURN, M.D., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—A meeting of this District will be held at the Metropolitan Ear, Nose, and Throat Hospital, Grafton Street, W. (near Gower Street Station), on Thursday, May 29th, at 4.30 p.m., Mr. Aird Jolly, L.R.C.P., Vice-President, in the chair. Agenda: Annual election of officers and District Committee. Dr. Jobson Horne: A Lantern Demonstration of New Growths in the Upper Air Passages. Dr. Hemington Pegler, Mr. Lake, and Mr. Chaldecott: Short Papers. Dr. Frederick Spicer: Clinical Cases. Tea and coffee at 4.15 p.m.—THOMAS DUTTON, 7, Manchester Square, W., Honorary Secretary.

ABERDEEN, BANFF, AND KINCARDINE, AND NORTHERN COUNTIES OF SCOTLAND BRANCHES.—There will be a joint meeting of these two Branches at Elgin on June 11th. Further particulars will be sent each member by circular. As this is the first joint meeting the Branches have had for a number of years, the Secretaries hope there will be a full attendance of members. Arrangements are being made for a golf match between the two Branches. Members of either Branch wishing to play might kindly send in their names to the Secretaries—J. F. CHRISTIE, Aberdeen, or J. MUNRO MOIR, Inverness.

MIDLAND BRANCH.—*Preliminary Notice:* The annual meeting of this Branch will be held at Lincoln on Thursday, June 12th. Any member having a motion to bring forward, or communication to make, is requested to inform the Secretary of his District or the Secretary of the Branch, Dr. FRANK POPE, 4, Prebend Street, Leicester, without delay.

SOUTH MIDLAND BRANCH.—The forty-seventh annual meeting of this Branch will be held on Thursday, June 12th, at the Bedford County Hospital, Bedford, at 2 o'clock, under the presidency of Mr. Gifford Nash. Gentlemen are invited to introduce new members, and any one wishing to read papers or cases is requested to communicate with the Honorary Secretary without delay. The President requests the pleasure of the members' company at luncheon in the Hospital at 1 o'clock, and will be obliged by the favour of a reply, addressed to himself, not later than June 7th. Agenda: Discussion, the Open-air Treatment of Consumption, with special reference to the Nordrach System; to be opened by Dr. Hartley. Dr. Brand: Pemphigus Foliaceus in an Infant. Interesting pathological specimens from the Bedford Hospital Museum will be shown.—E. HARRIES JONES, Northampton, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The twenty-ninth annual general meeting of this Branch will be held at the North Stafford Hotel, Stoke-upon-Trent, on Thursday, June 5th, at 3.30 p.m., when an Address will be delivered by the President-elect, Dr. W. Hind. Agenda: Minutes of the last annual general meeting. Introduction of the new President. Election of new member. Correspondence. Address by the President. Report of the Council and Ethical Committee. The financial statement. To decide the place of holding the next annual meeting. Election of Officers and Council for the ensuing year. Members have the privilege of introducing friends. Dinner at 6 p.m.; charge 5s.—G. PETGRAVE JOHNSON, Stoke-upon-Trent, Honorary General Secretary.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.—The annual general meeting of this Branch will be held at the Denny Cottage Hospital on Thursday, June 5th, at 2.15 p.m. The election of office-bearers for the next year will take place. Dr. Joss will deliver his Presidential Address, and show cases of clinical interest.—J. E. MOORHOUSE, Glebe Avenue, Stirling, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at the City of London Asylum, Dartford, on Friday, June 13th, at 2.15 p.m., Dr. Ernest White in the chair. Agenda: Minutes of previous meeting. Election of Honorary Secretary for the ensuing year. Dr. Beresford will show some cases of adenoma sebaceum. Dr. Arthur Patterson will contribute Notes on the After-effects in a Case of Revaccination. Dr. Ernest White will show a series of cases of General Paralysis of the Insane. Members desirous of reading papers or of bringing forward any business are requested to communicate with the Honorary Secretary without delay.—LUXFORD COOPER, 19, Victoria Street, Rochester, Honorary Secretary.

SHROPSHIRE AND MID WALES BRANCH.—A meeting of this Branch will be held at the Salop Infirmary, on Tuesday, May 27th, at 3 p.m. The President, Dr. George Whitwell, will take the chair. Agenda: Election of Branch Representative on the Parliamentary Bills Committee. Election of Branch Representative on the Council of the Association. Election of new members of the Branch. Dr. Alfred Eddowes will read a paper on Acne. Mr. Russ Wood will read a short paper on Diseases of the Accessory Sinuses of the Nose. Dr. T. Law Webb will read a note on the Diagnosis of Hodgkin's Disease from Tuberculous or Syphilitic Enlargements of the Lymph Glands and from Leukaemia. The President will show a specimen of Ovarian Tumour. Dr. F. Edge will show a case of Extra-uterine Pregnancy at or near term successfully removed. Dr. Charles Gwynn will read notes on a case of Appendicitis. Dr. E. W. Cooke will read an account of a case of Anthrax at present under treatment. Dr. Cecil Salt will exhibit the new *X*-Ray Apparatus recently presented to the Infirmary. It is hoped that members will bring to the meeting any case suitable for examination by these rays or by the fluorescent screen. By the invitation of the President, members will partake of tea at the Infirmary after the meeting.—HAROLD H. B. MACLEOD, College Hill, Shrewsbury, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Thursday, June 19th, at 3.30 p.m., in the Medical Institute, Edmund Street, Birmingham. The meeting will be followed by the annual dinner to be held the same day at 6.30 p.m. in the Grand Hotel, Birmingham, Chairman, Dr. Henry Malet, President-elect of the Branch.—J. T. J. MORRISON, F.R.C.S.; T. STACEY WILSON, M.D., Birmingham, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Birkenhead on Thursday, June 19th. Members wishing to read papers, show cases or specimens, etc., should communicate with the Honorary Secretary. The ordinary meeting of the Branch will be held during the first or second week of June to receive the report of the Subcommittee appointed at the last special meeting of the Branch. T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THE annual meeting of this District was held in the Board Room of Tottenham Hospital, N., on May 14th, Dr. HOOPER MAY, Vice-President, in the chair. Tea and coffee were kindly provided by the hospital authorities.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The officers and district committee for the session 1902-03 were elected as follows:—*Vice-President:* Wm. Wynn Westcott, M.B. *Representative on Branch Council:* H. J. Macevoy, M.D. *Honorary Secretary:* J. Dysart McCaw, M.D. *District Committee:* A. W. George, M.D.; Frank Greaves, M.R.C.S., L.S.A.; Arthur Greenwood, L.R.C.P., M.R.C.S.; W. Winslow Hall, M.D.; H. J. Macevoy, M.D.; E. Hooper May, M.D.; Thomas Morton, M.D.; R. F. Tomlin, M.R.C.S., L.S.A.; and Hugh Woods, M.D.

Sterility.—Dr. ADDINSELL read a paper on sterility. He referred to the writings of Dr. Matthews Duncan as the great classic on this subject, and quoted statistics which showed that of over 4,000 marriages 15 per cent. were sterile. He enumerated the many conditions usually associated with sterility, and pointed out the fact that, owing to our admitted ignorance of some of the laws governing fertility over which we could not hope to exercise any control, there was a tendency to regard many cases as hopelessly sterile in which appropriate treatment of a physical defect might convert a sterile into a fertile woman. He discussed the etiological factors, and dwelt at length upon gonorrhoea as a more important factor than had hitherto been recognized. He quoted Dr. Drummond Robinson's paper on vaginal discharges in girls, in which a large percentage were found to have by bacteriological examination a bacillus not to be distinguished from the gonococcus. Dr. Addinsell quoted many instances in which a careful inquiry elicited a history of vaginal discharges—sometimes slight, sometimes severe—soon after marriage, which was unheeded at the time, and mentioned that whilst a severe attack of gonorrhoea would probably or possibly give rise to a pyosalpinx, a mild attack might be only sufficient to cause a modified salpingitis but enough to close the uterus end of the Fallopian tube, which would be a certain barrier to the meeting of the ovum and the spermatozoon. He believed that a large percentage of sterile women were the sufferers from a defect that might be cured and in support of that view quoted his own experience of 84 women whom he had treated for sterility, 61 had since given birth to a living

child, 22 remained at this moment sterile. The ages of these women varied from 24 to 44, the length of time married from three to twenty-two years. He gave a description of several cases and the treatment he had followed. The paper was discussed by Dr. HOOPER MAY, Dr. WYNN WESTCOTT, Dr. TOMLIN, Dr. ARTHUR E. GILES, and Dr. MURRAY LESLIE; and Dr. ADDINSELL replied. On the motion of Dr. ARTHUR GREENWOOD a cordial vote of thanks was passed to Dr. Addinsell.

Cases.—The medical staff of the hospital showed some interesting cases.

Votes of Thanks.—Dr. THOMAS MORTON moved and Mr. FRANK GREAVES seconded a hearty vote of thanks to the retiring Vice-President (Dr. Hooper May), as well as to the Medical Staff and the Governors of the Hospital for their kind hospitality.

CORRESPONDENCE.

ARMY MEDICAL RESEARCH.

SIR,—Whilst we admire the foresight of our American cousins for equipping their army in the Philippines with men and materials for research observation upon the prevalent diseases, and whilst we read with pleasure and profit the interesting pamphlets dealing with these research observations, which have been published from time to time, we can but lament that no similar measures were taken by our own War Office during the warfare with the rebellious Boers. The recent discussions and the concomitant differences of expressed opinions on the questions relating to the spread of enteric fever and of dysentery tend to show how valuable the services of an expert commission might have been.

A report on the pathology, etc., of the epidemic of yellow fever at Lisbon (Parliamentary paper, 1859) contains an introductory letter by the author, who subscribes himself as "Robt. D. Lyons, late Pathologist-in-Chief in the Crimea, etc." It would seem from this, Sir, that the welfare of our soldiers in the past was not solely cared for by attending to them when already sick or wounded, as would seem to have been the case in South Africa. It would also appear that the appointment of special workers whose field of battle is behind the fighting line, so far as bullets are concerned, would be no innovation, even in the most jealously conservative of War Departments.

Possibly more than one of your readers would be interested in learning more about this old appointment if a correspondent can be found to give the information.—I am, etc.,

HERBERT E. DURHAM.

Kuala Lumpur, Federated Malay States, April 14th.

ON THE CAUSAL RELATIONSHIP BETWEEN "GROUND-ITCH" AND THE PRESENCE OF THE LARVAE OF ANKYLOSTOMA IN THE SOIL.

SIR,—In the BRITISH MEDICAL JOURNAL of March 29th I notice a letter from Dr. W. E. Lloyd Elliott, late of Assam, criticizing my paper, which appeared under the above heading in the JOURNAL for January 25th. Dr. Elliott appears partially convinced, but doubts my conclusions for the following reasons:

1. The ankylostomal larvae have not yet been demonstrated in the lesions of the disease.

2. No experiment was reported as having been made with a pure culture of the larvae.

3. His own observations do not show "ground-itch" and "anaemia of coolies" to be coextensive.

4. The testimony of laymen and native doctors appears to show that the disease occurs in other than faecally-infected localities.

At present no one has demonstrated the presence of the larvae in the lesions of ground-itch, and this point I admit is the weakest in my arguments. Lack of apparatus prevented my completing the microscopical investigation of the disease, but I hope this season to rectify that omission. On the other hand, I think it extremely unlikely that the larvae will be found in the lesions of the disease, because it frequently occurs that irritation is not produced until, perhaps, twenty-four hours after exposure to infection.

My own idea is that the passage of the ankylostomal larvae through the skin would not, in the case of a pure (?) or nearly pure culture, be followed by anything beyond a slight burning and itching. This is what Professor Sandwith described as having occurred in the case of Dr. Looss at Cairo.

In my experiments I endeavoured as far as possible to imitate natural conditions as they occurred. Any one who has examined a culture of ankylostomal larvae with the microscope would probably doubt, I think, the possibility of obtaining a pure culture of these organisms, free from contamination by millions of bacteria, etc.

As regards his own observations respecting ground itch as related to the prevalence or absence of "anaemia of coolies," I think Dr. Elliott is entirely wrong in attributing the latter condition to a greater amount of infection by the ankylostoma. I note that he uses the terms anaemia and ankylostomiasis interchangeably. In my experience ankylostomal infection is practically universal among coolies in Assam, but anaemia is dependent upon totally different causes. I pointed out in my paper that among some 300 coolies whose stools I examined microscopically, only one showed freedom from infection by the uncinaria. Since writing that article I have examined a number of other cases with the like result. The coolies that I examined were many of them entirely free from anaemia (to naked-eye inspection). I find that the exhibition of thymol will always bring to light some few worms from the healthiest of coolies; and among some thirty necropsies peformed by me I have not found a single case free of the parasite.

Anaemia is more dependent upon conditions of work, wages, and the presence of malaria than upon the ankylostoma duodenale. I have seen the change of a manager do far more to eradicate anaemia from a garden in one year than three years of drastic thymol treatment had previously effected.

The evidence which Dr. Elliott quotes regarding the occurrence of the disease among the rural population is, I am afraid, not trustworthy. He has surely met with a number of Europeans who talk of suffering from "water sores" after snipe shooting, or walking through bheels. I have seen frequent cases of intertriginous eczema occurring among both Europeans and natives which the sufferers themselves confused with "ground-itch." It is this former disease which is found occasionally among the rural population of both Assam and Bengal. It appears to be caused by the irritation produced by decomposing perspiration between the clefts of the toes, but it is quite distinct from true "ground-itch." The former condition is usually one which recurs yearly in individuals who are liable to its attacks. It is fairly common among the rural population of Kachar when they are engaged in planting out dhan—an occupation which involves standing for hours in a mixture of earth and water, often raised to a considerable temperature by the sun's heat.

I think there is little question that the occurrence of the disease is coextensive with the presence of ankylostomal infection, not necessarily anaemia, by any means. It will generally be found that the prevalence of the affection depends upon the amount of faecal infection of the soil in any given area, and faecal infection of the soil in Assam always ensures the presence of the ankylostomal larvae.—I am, etc.,

CHAS. A. BENTLEY, M.B.EDIN.,
Medical Officer Empire of India and Ceylon Tea Company.

Borjulie, Assam.

THE COAGULATING POWER OF THE BLOOD IN PLAGUE.

SIR,—"There is nothing new under the sun," and Dr. Alice M. Corthorn's interesting observations on the non-coagulability of the blood in virulent plague were anticipated some two hundred and twenty years ago by James Cooke, of Warwick, who wrote in his *Marrow of Physick*[1] concerning the disease: "There's . . . . a dropping or plenteous flux of blood out of the nostrils or womb, which doth not usually clotter."

Of recent writers, Dr. J. F. Payne[2] writes: "No recent observations on the condition of the blood [in plague] are recorded, but the French physicians in Egypt in 1835-36, a time when bleeding was customary, made some analyses, from which it appears that the blood coagulated imperfectly, and never formed a buffy coat": while Dr. Patrick Manson, in

[1] Mellificium Chirurgiae or Marrow of Surgery. By James Cooke, of Warwick, Practitioner in Physick and Chirurgery. Fourth Edition. London. 1685. *Marrow of Physic*, p. 534.

[2] *A System of Medicine.* Edited by T. C. Allbutt. Vol. I, 1899, p. 923.

his work on *Tropical Diseases*,[2] speaking of the pathology of plague, says: "The right side of the heart and great veins are usually distended with feebly coagulated or fluid blood."

That the incoagulability of the blood in plague and the absence of buffy coat remarked by the French observer mentioned above, is not an inherent quality of the disease, but rather an index to the malignity of the particular attack, is shown by Sydenham, who records two cases at the commencement and end of the great plague of 1665 (he ignobly fled from London during its height). In the first, he says "that drops of blood issued from the nostrils a little before death, that the blood [from venesection] when in the basins and when cooled was like the blood of pleurisy;" and in the second: "I immediately ordered free bleeding.....the blood upon cooling had the pus-like surface of pleurisy."[4]

The fact is that in certain microbial diseases, more especially plague, small-pox, measles, and scarlatina, there is a particular malignant form in which the bacterial toxins dissolve the colouring matter out of the blood cells, and at the same time render the blood incoagulable. This type of disease was indicated by our ancestors with the adjective "black" (sometimes "putrid")—for example, "black death," "black small-pox," "black measles," etc. Of these, haemorrhage from mucous membranes and extravasation of blood beneath the skin in petechiae were constant symptoms, and almost invariably preluded a fatal conclusion. They were accompanied by the same fluidity of blood as Dr. Alice M. Corthorn notes. For example, Fagge[5] quotes Marson as writing of haemorrhagic small-pox that "the blood in this variety of small-pox is poisoned from the very first, and is rendered very fluid and watery:" and the same thing is shown by the uncontrollable haemorrhage and extravasations.—I am, etc.,

Exeter, May 10th. WILLIAM SYKES, M.D., F.S.A.

INTERNAL DERANGEMENT OF THE KNEE-JOINT.

SIR,—I have read with much pleasure Mr. Mayo Robson's very interesting and instructive paper upon this subject. His results are excellent, but I fear we cannot always expect to obtain similar immunity from septicity or other complication. In fact, it is well known that a stiff joint, or even the loss of a leg, or possibly loss of a life may follow an operation which involves opening the knee-joint. Such untoward results should, of course, be very rare, but Mr. Robson appears to admit their possibility when he states that by opening the joint we may remedy the disorder "with *almost* absolute certainty and safety" (the italics are mine).

I do not wish to criticise Mr. Mayo Robson's line of treatment. On the contrary, it was probably the only perfectly satisfactory course he could have adopted in dealing with men whose occupations would have continued to subject them to the same kind of accident in the future, if he had tried a less radical treatment. My object in writing is to refer to the possibility of curing this disorder (in people engaged in less violent occupations than mining) without a cutting operation, and to point out a plan of procedure in treatment by manipulations which I have found to ensure a greater degree of success than Mr. Robson assumes possible.

I have from time to time recorded cases which I have cured by manipulations, and have given the subsequent history of these patients, showing that the results have been permanent. William Hey and Samuel Smith of Leeds, and Hey's grandson Samuel Hey, Sir Astley Cooper, Sir Benjamin Brodie, and later Sir James Paget, succeeded in curing these cases by manipulations. They certainly met with some relapses, and it was to prevent such relapses that I devised the plan which may be shortly described as follows:

1. Complete reduction by a variety of gentle manipulations.
2. Repetition of the movements, and also massage, daily for a few days, and less often for two or three weeks.
3. The avoidance of any apparatus which interferes with flexion and extension of the joint.

Since I have carried out this plan of treatment I have had practically no relapses. I am, etc.,

Queen Anne Street, W., May 15th. NOBLE SMITH.

THERAPEUTIC VALUE OF VEGETABLE DIET.

SIR,—Under the above heading in the EPITOME of the BRITISH MEDICAL JOURNAL of May 17th, notice is taken of a paper by L. Kuttner on the respective merits of vegetarianism and mixed diets, as well as of one by J. Hoppe on the value of albumen preparations as foods. That may be taken as an indication that in future the EPITOME will contain notices of any observations which are made upon the important subject of diet. In this country we are sadly behind in the study of diet. America in that, as in other things, is taking the lead. Her latest work gives an account of the diet of "fruitarians," that is, of those who live on fruit and nuts alone, and the results are somewhat startling.

The observer admits that the "fruitarians," whose dietaries he examined, were healthy and vigorous, in spite of the fact that they were eating much less food than the minimum standard limit. L. Kuttner admits that "impartial investigation has proved that, given judicious choice and preparation, strict vegetarianism is not only sufficient to maintain condition but even to increase weight," and that "it is followed by brilliant results in dyspepsia and intestinal affections of nervous origin, particularly to be recommended in idiopathic neuralgias, as well as those having a gouty basis; useful in the treatment of headaches, and other disorders dependent on constipation in neurasthenic, hysterical, and epileptic patients;" further, he says: "as the pulse-rate is diminished under a vegetable diet it is to be recommended in conditions of abnormal irritability of the heart (arising from emotion, excessive muscular action, sexual excitement, etc.), and in exophthalmic goitre."

From a study of these extracts it is evident that according to L. Kuttner vegetarianism is of therapeutic value in the majority of ills that flesh is heir to. If he is correct in his statements, and I believe he is, is it not time that dietetics was added to the long list of subjects in the medical curriculum, some of which are of infinitely less importance to the general practitioner?

But if L. Kuttner has found vegetarianism so useful, while prescribing a dietary so abundant and recommending so many meals he would, I feel sure, find it still more useful by prescribing fewer, and smaller, and simpler meals.

For those who have a tendency to corpulence, and in severe gastric disorders, he prescribes five meals daily. Let us suppose that the meals are taken between 8 a.m. and 8 p.m.; the patients are eating, say, every two and a-half hours. The particulars of the dietary may be seen on p. 70 of the EPITOME.[1] Any two of the five meals recommended would be quite enough for any hard-working peasant for the whole day, and any one of sedentary occupation who ate what L. Kuttner recommends daily for a few years would run great risk, not only of becoming corpulent, but of suffering from severe gastric disorders. According to my experience, vegetarians are apt to err (more especially when beginning that diet) by eating too much as well as too often, and I trust that any one who may feel inclined to try vegetarian diet as a therapeutic agent in any of the many diseases for the cure of which it is recommended by L. Kuttner will avoid the common error of overloading the stomach, as well as of giving it no rest.—I am, etc.,

Denholm, Hawick, May 17th. JOHN HADDON, M.D.

INSTRUCTION IN ELEMENTARY HYGIENE IN CONCENTRATION CAMPS.

SIR,—Since taking over the chief charge of all the concentration camps in this colony a month ago, Dr. Pratt Yule, the health officer here, has made an excellent suggestion to me—which is that the medical officers in our various camps in this colony should start teaching classes in elementary hygiene, anatomy, physiology, surgery, etc., and that the

[1] BRITISH MEDICAL JOURNAL, May 17th.

[2] *Tropical Diseases*. By Patrick Manson. 1898. Sect. i, chap. viii, p. 161.

[4] *Sydenham's Works*. Sydenham Society's translation (Medical Observations), vol. i, pp. 113, 115. Sydenham perfectly understood the nature of the buffed and cupped blood of pleurisy. He writes of it (*Works*, ii, 246): "Its upper layer looks like true pus. Yet it is no true pus notwithstanding. It is fibre.....It is probably neither more nor less than the fibres of the blood depressed by precipitation of their natural red investment, and coagulated by the contact of the cold atmosphere into a whitish membrane."

[5] Fagge and Pye-Smith's *Principles and Practice of Medicine*, 2nd edition, 1888, vol. i, p. 230.

matrons of hospitals should give instruction in their part of the work. This instruction will be given to the many Boer females who are at present employed as assistant nurses in our camps and hospitals, some of whom are found very capable, and who will no doubt turn out eventually very useful nurses. It is further proposed to hold an examination at a given period after instruction, and to give certificates to those who are considered qualified.

I am already informed that there will be no lack of women to attend these classes: in fact, there are many very anxious to do so. The instruction will be first of all delivered by means of lectures by the medical officers and matrons. To enable these to be more effective they must be illustrated by diagrams, etc. My point in writing to you is to ask if any of your readers will put me in the way of obtaining these, and inform me through you, or directly, where I can obtain them; also of any books which I can obtain which will be useful and elementary enough for my purpose in these subjects.

The wards in the camps are sadly in need of pictures to brighten them. If your readers are disposed to send me any prints, etc., I shall be glad to distribute them. They are very difficult to obtain here.—I am, etc.,

JAMES S. WILKINS, Col. I.M.S.,
Chief Superintendent Refugee Camps, O.R.C.

Bloemfontein, April 26th.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: WILLIAM H. NORMAN, Staff Surgeon, to the *Ariadne*, June 5th; GEORGE T. BROATCH, M.B., Staff Surgeon, to the *Caledonia*, May 14th; REGINALD T. A. LEVINGE, Staff Surgeon, and JOHN W. CRAIG, Surgeon, to the *Northampton*, for the *Calliope*, June 5th; JONATHAN SHAND, Staff Surgeon, to the *Boscawen*, for the *Agincourt*, June 5th; CHARLES J. E. COCK, Surgeon, to the *Vivid*, for Pembroke Dockyard, June 1st; THOMAS T. JEANS, M.B., and ROBERT H. MORNEMENT, Surgeons, to the *Ariadne*, June 5th.

CABINS FOR NAVAL OFFICERS.

R.N. writes: In the new regulations for the Royal Navy Medical Service it is stated that a "special" cabin will be provided in future for the senior medical officer of each ship. The humour of the word "special" is however only too apparent to those already conversant with naval matters. I have only recently made a point of visiting several new large ships, not yet in commission, with a view to see what kind of accommodation was about to be provided. The result of my observations were, that invariably the fleet surgeon's cabin was about the smallest and most uncomfortable one that could possibly be selected on the main deck. As this officer is generally from fifteen to twenty-five years' service it is no small source of irritation to him to see officers with less seniority than himself occupying better cabins. Until this and some other minor points are remedied, I do not see any prospect of the navy becoming a popular career for medical men.

ARMY MEDICAL SERVICE.

SUPERNUMERARY SURGEON-MAJOR W. C. BEEVOR, M.B., C.M.G., Scots Guards, is to be Surgeon-Major, on augmentation, May 3rd. He was appointed to the Scots Guards, November 9th, 1898, and was seconded for service with the South African Constabulary, January 22nd, 1901.

ROYAL ARMY MEDICAL CORPS.

COLONEL H. COMERFORD, M.D., retires on retired pay, May 17th. He entered the service as Assistant Surgeon, March 31st, 1866; became Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1878; Brigade Surgeon, April 5th, 1892; and Surgeon-Colonel, July 6th, 1896. He was in the Zulu war in 1879, and was at the battle of Ulundi, receiving a medal with clasp, and in the Boer war of 1881, including the defence of Pretoria, for which he was mentioned in dispatches.

Lieutenant-Colonel W. S. PRATT, M.B., is granted the temporary rank of Colonel whilst acting as Principal Medical Officer at Gibraltar, March 27th, 1902.

Captain J. WEREORD, Medical Officer of a Volunteer Battery in South Africa, is, on relinquishing his temporary commission, granted the honorary rank of Captain in the army, and retains his uniform, August 28th, 1901.

Lieutenant-Colonel C. H. SWAYNE, D.S.O., who is serving in the Bengal Command, is appointed Principal Medical Officer, Peshawur, from April 1st.

Colonel R. H. QUILL has been selected for appointment as Principal Medical Officer, South-Eastern District.

Colonel R. BLOOD has been appointed Principal Medical Officer, Belfast District.

Brigade-Surgeon RICHARD WILLIAM BERKELEY died at Fleet, Hampshire, on May 14th, aged 67, suddenly. He was the second son of the late Rev. M. J. Berkeley, F.R.S., and was appointed Assistant Surgeon, April 22nd, 1858; Surgeon, March 1st, 1873; Surgeon Major, April 1st, 1873; and Brigade Surgeon, September 9th, 1885. He retired from the service, May 6th, 1890.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Colonel W. McWatters	Nova Scotia	Portsmouth.
Lieutenant-Colonel W. B. Slaughter	Bengal	,,
,, H. Grier	Curragh	Dublin.
,, E. North	Chatham	Shoeburyness.
,, A. Asbury	York	Strensall.
,, G. J. Coates, M.D.	Bengal	South Africa.
,, G. F. Trewman, M.B.	,,	Home District.
,, J. E. Nicholson, Reserve)	South Africa	Dublin.
Major A. Dodd	Aldershot	Home District.
,, R. J. A. Durant	Madras	Devonport.
,, M. O'D. Braddell, M.B.	Sheerness	South Africa.
,, D. R. Hamilton, M.B.	East'n District	,,
,, F. J. Greig	Dover	Aldershot.
,, F. A. Saw, M.B.	South Africa	Home District.
,, J. Donaldson	Madras	South Africa.
,, C. W. Allport, M.D.	South Africa	Aldershot.
,, A. Wright	Devonport	Antigua.
,, C. W. R. Healey	South Africa	Madras.
Captain R. J. W. Mawhinny	,,	Punjab.
,, N. Marder	Dover	Netley.
,, H. C. French	Bombay	South Africa.
,, E. W. P. V. Marriott	,,	Aldershot.
,, E. T. Inkson, V.C.	South Africa	,,
Lieutenant L. F. F. Winslow	Home District	,,
,, T. B. Unwin, M.B.	South Africa	,,

Lieutenant-Colonel E. A. H. Roe, M.B., retired pay, has assumed medical charge of troops at Belfast.

The undermentioned retired medical officers temporarily employed have been transferred as stated:—Lieutenant-Colonel P. J. M'Quaid, from Exeter to Dublin; Lieutenant-Colonel J. E. Nicholson, from South Africa to Dublin; Major P. Connolly to Maidstone.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. HAMILTON, M.D., Bengal Establishment, is appointed Principal Medical Officer, Derajat District.

Lieutenant-Colonel W. A. MAWSON, Bengal Establishment, is appointed Principal Medical Officer, Malakand Force.

The King has approved of the following admissions to the Indian Medical Service, dated June 27th, 1901: GODFREY E. CHARLES, ANDERSON G. M'KENDRICK, OWEN ST. J. MOSES, JOHN W. LITTLE, FRED. W. SUMNER, HAROLD R. NUTT, JOHN A. BARNES, WILLIAM D. RITCHIE, NORMAN E. H. SCOTT, JOHN K. S. FLEMING, EVELYN C. HEPPER, CHARLES E. SOUTHON, GEORGE FOWLER, JAMES HUSBAND, HENRY B. FOSTER, GEORGE B. BUTT, GEORGE C. L. KERANS, CHRISTOPHER B. MCCONAGHY, HENRY W. ILLINS, EDWARD W. BROWNE, JOHN B. CHRISTIAN, ANDREW MURPHY, FREDERIC T. THOMPSON, LAWRENCE P. BRASSEY, COLIN F. MARR, SATIS BOSE, PATRICK L. O'NEILL.

Colonel J. T. B. BOOKEY, C.B., Bengal Establishment, has been appointed Principal Medical Officer, Punjab Frontier District.

An examination for nineteen appointments in the Indian Medical Service is to be held in London on August 20th and following days. Particulars may be obtained from the Military Secretary, India Office, London, S.W.

VOLUNTEER MEDICAL SERVICE.

THE following is a copy of a letter which has been addressed to the Secretary of State for War on behalf of the Volunteer Medical Association. The letter of April 3rd from the War Secretary referred to in the first paragraph was published in the BRITISH MEDICAL JOURNAL of April 19th, page 1001:

Sir,—I have the honour to acknowledge the receipt of your letter dated April 3rd, 1902, which has been under the consideration of the Council of this Association, by whom I am desired to thank you for the same in submitting the following comments:

1. There is no inclination to drop the word "Brigade" in the title "Brigade-Surgeon-Lieutenant-Colonel."

2. The rank of Colonel should be granted after twenty-four years' service.

3. All Brigade Surgeons should be seconded.

4. This Council did not recommend the introduction of additional examinations for promotion.

5. Brigade bearer companies should be all made companies of the Royal Army Medical Corps (Volunteers) permanently attached to brigades, and the officers to have the same rank and titles as those of the R.A.M.C. (Volunteers), the objection hitherto held to such companies becoming companies of the (then) Volunteer Medical Staff Corps being met by their permanent attachment to brigades.

6. The new title and ranks granted to the Volunteer Medical Staff Corps were publicly announced to be in recognition of the services of its members in South Africa, and this affords an additional reason for the same recognition being given to the brigade bearer company.

7. The Council note that no answer has been made to their suggestion that effect should be given to the recommendation of the War Office Departmental Committee of November, 1887, on Volunteer Medical Organization, and which was approved of by the then Secretary of State for War, to the effect: "It came out in evidence that the medical officers of the Volunteer force wish to be placed on precisely the same footing as other officers of the Volunteers regarding the distribution of honours and rewards. We submit this for your favourable consideration."

The Council feel strongly that this should have effect given to it, and they would respectfully submit that the present time would be particularly appropriate for doing so.

8. The Council note, with much satisfaction, the desire of the War Office

that regimental stretcher bearers should be instructed by their medical officers, and they suggest that effect should be given to this by a clause in the Volunteer regulations.

I have the honour to be, Sir,
Your obedient servant,
JOHN J. DE ZOUCHE MARSHALL,
Surgeon-Major A.M.R.,
Honorary Secretary, Volunteer Medical Association.
20, Hanover Square, London, W.

May 15th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

THE undermentioned officers, on having relinquished their temporary commissions for service in South Africa, are granted honorary rank in the army, with permission to wear the uniform of the corps:

To be Honorary Major: Major H. WRIGHT, February 14th, 1901.

To be Honorary Captains: Captains C. E. DOUGLAS, M.B., March 27th, 1901; G. G. OAKLEY, October 7th, 1901; C. A. MCMUNN, M.D., November 18th, 1900; G. BLACK, January 17th, 1901; S. LINTON, M.B., February 27th, 1902; F. W. GRANT, M.D., February 23rd, 1901; E. J. G. BERKLEY, April 9th, 1901; R. POLLOCK, February 16th, 1901.

To be Honorary Lieutenants: Lieutenants J. W. SMITH, M.B., November 6th, 1900; R. W. MICHELL, M.B., July 7th, 1901; J. C. TAYLOR, M.B., December 21st, 1901; J. K. TOMORY, M.B., August 14th, 1901; A. H. MCDOUGALD, August 22nd, 1901: J. C. G. MACNAB, M.B., March 27th, 1901; W. MACRAE TAYLOR, M.B., November 29th, 1901.

ROYAL GARRISON ARTILLERY (VOLUNTEER)

SURGEON-LIEUTENANT T. CAMERON, M.B., 2nd East Riding of Yorkshire, resigns his commission, May 21st.

ROYAL ENGINEER (VOLUNTEERS).

SURGEON-LIEUTENANT A. S. WOHLMANN, M.D., 1st Devon and Somerset, resigns his commission, May 21st.

MR. EDWARD G. STOCKER is appointed Surgeon-Lieutenant in the same corps, May 21st.

IMPERIAL YEOMANRY.

SURGEON-LIEUTENANT-COLONEL J. J. SAVILLE, North Somerset, resigns his commission, retaining his rank and uniform, May 21st.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT F. H. ALLFREY, M.B., 2nd Cadet Battalion the King's (Liverpool Regiment), resigns his commission, May 21st.

Surgeon-Lieutenant J. CHESTNUTT, 2nd Volunteer Battalion the East Yorkshire Regiment, is promoted to be Surgeon-Captain, May 21st.

Messrs. RHYS D. MORGAN, and FREDERICK H. GERVIS, are appointed Surgeon-Lieutenants, in the 3rd Volunteer Battalion the Welsh Regiment and the 17th (North) Middlesex respectively, May 21st.

VOLUNTEER INFANTRY BRIGADE.

SURGEON-LIEUTENANT-COLONEL D. THOMSON, M.D., 3rd Volunteer Battalion the Bedfordshire Regiment, to be Brigade-Surgeon-Lieutenant-Colonel while holding the appointment of Senior Medical Officer to the Bedford Brigade, May 21st.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

SURGEON-CAPTAIN E. F. BINDLOSS, from the 1st (Herefordshire) Volunteer Battalion the Bedfordshire Regiment, to be Surgeon-Captain, Bedford Brigade, and to command under Paragraph 55a Volunteer Regulations, May 21st.

Messrs. DAVID J. KELLY, M.B., and RODERICK MCK. GRANT, M.B., are appointed Surgeon-Lieutenants in the Seaforth and Cameron Brigade, May 3rd.

VOLUNTEER MEDICAL ASSOCIATION.

WE are asked to state that the annual competition for the Ambulance Challenge Shield of this Association will take place at the Guildhall, London, E.C., and not at Wellington Barracks as previously announced. The date remains unaltered (Saturday, June 7th, at 3 P.M.). We are also asked to state that the Honorary Secretary is making arrangements, by the kindness of the Commanding Officer, Lieutenant-Colonel J. Edward Squire, M.D., V.D., for the lodging and board of provincial squads at headquarters of the London Companies, R.A.M.C.V., Calthorpe Street, Gray's Inn Road, W.C. By the regulations (Rule 1) last year's winners are debarred from competing this year.

AN ACKNOWLEDGEMENT.

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from Sir George Duffey, Professor Ogston, Mr. W. Garton, Dr. Hepenstal Ormsby, Dr. G. T. Beatson (Glasgow), Dr. James Taylor (Chester), Major C. R. Johnston, I.M.S., Captain and Mrs. C. E. Gray-Stalkartt, Miss Furness, Mrs. Stocker, Dr. and Mrs. Dallas Pratt, "A Well-wisher," "A Sympathizer," Civil Surgeons (attached to R.A.M.C.), H. Cooly, E. Lynch, and G. P. Meldon, Surgeon-General G. H. Evatt, Deputy-Surgeon-General Kilkelly, and the following officers of the R.A.M.C.: Lieutenant-Colonels R. D. Hodson, H. Grier, Adye Curran, McGann, N. Alcock, W. R. G. Hinds, A. Anderson, J. B. Kelly, A. W. P. Inman, C. White, J. W. Belcher, H. Hathaway, Latchford, J. G. Williamson, G. Coutts, Steele, Le Mottée, Surgeon-Major E. J. Hunter, Majors L. Way, D. M. Saunders, Captains Hopkins, J. Davies, Lieutenant F. Bruce.

The Fund now amounts to £175.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Garden Terrace, W.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Colonel R. Exham, C.M.G.	1	0	0
Lieutenant-Colonel R. J. L. Fayle, D.S.O.	1	0	0
Captain J. Stuart Gallie	0	10	6
Major H. E. Cree	0	5	0
Major G. Scott	0	5	0
Previously acknowledged	80	9	6
Total ...	£89	10	0

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE CASE OF MR. C. A. BYNOE.

MR. E. W. EMTAGE (Holsworthy) writes: I was glad to see your article in the BRITISH MEDICAL JOURNAL a few weeks ago on the case of Mr. C. A. Bynoe, and subsequently the letters of one or two sympathisers; for I think it is a case that deserves the sympathy of the profession, even more than the case of Dr. Anderson, seeing that the injury inflicted on Mr. Bynoe has been so much greater. Mr. Bynoe, having apparently exhausted every means in his power of proving his innocence to the world at large and his profession in particular, by trying to get the case reconsidered in the light of the fresh evidence which he can now produce, and having been met at every turn by the blank *non possumus* of the law, I think that at least the General Medical Council might give him an impartial hearing, and if satisfied of his innocence by the evidence which he can lay before them, restore him to the *Register*, and thus in some small degree repair the injury which has been and still is being inflicted on an innocent man.

AN OLD MEMBER writes: I think our noble profession is indebted to you for introducing this terribly sad case for ventilation in the columns of the BRITISH MEDICAL JOURNAL. Law and commerce have hopelessly failed to distribute either justice or equity. The utter helplessness of the law has already called forth loud cries from the lay press for a court of criminal appeal. Let us hope that our Parliamentary Bills Committee may do something toward it before long. The Bank of England, the custodian of our great commercial interests, has taken shelter under legal technicalities, and flatly refuses to compensate a man who, through their negligence, was incarcerated as a convict; not that any money can ever compensate such a great wrong. Surely the General Medical Council can do something. It can, if it will, hear Mr. Bynoe, and convince itself of his guilt or innocence, and act accordingly. One can have little doubt as to the result. Mr. C. A. Bynoe's name must reappear in the next issue of the *Register*.

A BARRISTER, who writes on the same subject, has omitted to enclose his card.

MEDICAL ADVERTISING.

SUNDERLAND.—Descriptive articles of the various sanatoria opened for the treatment of phthisis seem at this stage of the development of the system to be almost inevitable. Articles praising various foreign establishments of this kind have appeared in periodicals of the highest class, and much general interest is taken in the matter. The novelty will very soon have disappeared, and newspaper writers will look elsewhere for attractive subjects for their pens.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

MR. E. G. BROWNE, M.B., has been elected Sir Thomas Adams Professor of Arabic in succession to the late Professor Rieu.

The University of Adelaide, Australia, has been added to the list of recognized schools of medicine for the purposes of the regulations for the M.B. degree.

Mr. W. B. Hardy, F.R.S., and Mr. F. G. Hopkins, M.B., have been appointed Examiners for the Gedge Prize in Physiology; and Mr. A. T. Shipley has been appointed a Member of the Council of the Marine Biological Association.

The Thurston Prize at Caius College will be awarded this year to that member of the College, being of not more than fifteen years' standing, who shall within the last three years have published the best original investigations in Physiology, Pathology, or Practical Medicine. Candidates are to send their publications to the Master of the College by September 30th, 1902. The value of the prize, which is triennial, is £54.

ROYAL UNIVERSITY OF IRELAND.

AT a meeting of Senate held on Thursday, May 15th, the Rev. Dr. Hamilton (President of Queen's College, Belfast) moved, and the Most Rev. Dr. Healy (Clonfert) seconded a vote of condolence on the death of the Most Honourable the Marquess of Dufferin and Ava, K.P., Chancellor of the University, which was unanimously agreed to.

The results of the Spring Medical Examinations were presented and approved, and the following exhibitions were awarded:—Second Examination in Medicine: O'Connell Sullivan, Catholic University School of Medicine, Second Class Exhibit, £15. Third Examination in Medicine: William M. Crofton, B.A., Catholic University School of Medicine, First Class Exhibit, £30; Denis J. Keane, Catholic University School of Medi-

cine, Second Class Exhibit, £20. M.B., B.Ch., B.A.O. Degrees Examination: Walter Phillips, B.A., Queen's College, Belfast, First Class Exhibit, £40; John Armstrong, Queen's College, Belfast, Second Class Exhibit, £25.

The report of the Medical Committee in reference to the appointment of extern examiners was referred back for further consideration.

On the afternoon of Thursday, May 15th, a meeting of the University was held, Sir Thomas Moffett presiding as Pro-Vice-Chancellor, when the following degrees were conferred:—M.D.: E. H. Grills, H. J. Monypeny, Isabel A. Tate. M.Ch.: R. S. Ryce, B.A., M.D. M.B., B.Ch., B.A.O.: W. Phillips, B.A., John Armstrong, A. L. Black, B.A., S. R. Hunter, B.A., C. F. White, D. R. Campbell, B.A., John Clements, A. W. Hamilton, J. P. Higgins, M.A., J. L. Lunham. M. J. Macauley, F. H. M'Caughey, E. J. M'Kenna, F. C. Mann, L. T. Moore, W. F. O'Connor, Patrick O'Doherty, John J. Hare, F. W. Stewart, B.A., William A. Stoops, B.A., W. J. Thompson.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE COMING COUNCIL ELECTION.

THE Council is at present constituted as follows:

President.

Mr. Howse; C, (1) 1889, (2) 1897.

Vice-Presidents.

Mr. Jessop; C, (1) 1891, (2) 1899; Mr. Howard Marsh; C, (1) 1892 (substitute), (2) 1894.

Other Members of Council.

Mr Bryant; C, (1) 1880, (2) 1888, (3) 1896; P, 1890-92.
Sir William Mac Cormac, Bart. (deceased); C, (1) 1883, (2) 1891*; P 1896 to 1901 inclusive.
Mr. R. Harrison; C, (1) 1886, (2) 1894.
Mr. A. Willett; C, (1) 1887, (2) 1895.
Mr. Pick; C, (1) 1888, (2) 1896.
Mr. Langton, C, (1) 1890, (2) 1898.
Mr. H. Morris; C, (1) 1893 (substitute), (2) 1898.
Mr. J. Tweedy; C, (1) 1892, (2) 1900 (substitute for Mr. Davies-Colley till 1904).
Mr. J. Ward Cousins; C, (1) 1895 (substitute), (2) 1897 (substitute), (3) 1900.
Mr. R. C. Lucas; C, 1901.
Mr. Mayo Robson; C, (1) 1893, (2) 1901.
Mr. J. Hardie; C, 1894.
Mr. Alfred Cooper; C, (1) 1895 (substitute), (2) 1900.
Mr. H. T. Butlin; C, 1895.
Sir Frederick Treves; C, 1895.
Mr. Edmund Owen; C, 1897.
Mr. Godlee, C, 1897.
Mr. Watson Cheyne, C.B.; C, 1897 (substitute), (2) 1901.
Mr. Richardson Cross, C, 1901.
Mr. H. W. Page, C, 1899.
Mr. Pearce Gould, C, 1900.

The following list shows the proportional representation of Metropolitan medical schools, of special hospitals in London, and of the Provinces.

St. Bartholomew's	4
Guy's	3
King's College	1
London	1
Middlesex	1
St. George's	1
St. Mary's	2
St. Thomas's	1†
University College	2
Total number attached to London schools	17
Members attached to special hospitals in London	2
Provincial members	5‡
Total	24

* A member of Council who is President at the time when he has served eight years does not retire.

† Deceased. ‡ Leeds 2, Manchester 1, Bristol 1, Southsea 1.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,648 births and 4,919 deaths were registered during the week ending Saturday last, May 17th. The annual rate of mortality in these towns, which had been 16.6 and 17.2 per 1,000 in the two preceding weeks, further rose last week to 17.3 per 1,000. Among these large towns the death-rates ranged from 7.2 in Walthamstow, 8.0 in Warrington, 8.3 in Hornsey, 9.4 in Devonport, 10.3 in Hastings and in Kingston Norton, 11.0 in Bournemouth, and 11.3 in Aston Manor, to 23.5 in Bolton, 23.7 in South Shields, 23.9 in Manchester, 24.0 in St. Helens, 25.7 in Middlesbrough, 26.3 in Wigan, 26.4 in Sunderland, and 20.7 in Bootle. In London the rate of mortality was 16.2 per 1,000, while it averaged 17.7 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal zymotic diseases in the seventy-six towns was 1.8 per 1,000; in London this rate was equal to 2.0 per 1,000, while it averaged 1.7 in the seventy-five other large towns, among which the highest zymotic death rates were 4.0 in West Bromwich and in South Shields, 4.2 in Gateshead, 4.6 in Barrow-in-Furness, 4.0 in Sunderland, and 6.2 in St. Helens. Measles caused a death-rate of 1.8 in Bury and in Rhondda, 1.9 in Bradford, 2.4 in St. Helens, 2.5 in Bournemouth, in Rochdale and in Sunderland, and 3.6 in Barrow-in-Furness; scarlet fever of 1.0 in South Shields, 1.5 in Bolton, 1.6 in West Bromwich and 1.8 in Smethwick; whooping-cough of 1.2 in Walsall and in St Helens, 1.6 in West Bromwich, 1.7 in Bootle, 1.9 in Wallasey, 2.0 in Tynemouth, 2.1 in South Shields, and 2.8 in Gateshead; "fever" of 2.2 in Merthyr Tydfil; diarrhoea of 1.2 in Northampton, and 1.5 in Merthyr Tydfil. The mortality from diphtheria showed no marked excess in any of the large towns. Of the 48 fatal cases of small-pox registered last week, 37 belonged to London, 6 to West Ham, and 1 each to Hornsey, Tottenham, Leyton, Birmingham, and Newcastle. The number of small-pox patients in the Metropolitan Asylums Hospitals at the end of the week was 1,360, against 1,515, 1,442, and 1,419 at end of the three preceding weeks; 233 new cases were admitted during the week, against 367, 250, and 248 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,188, 2,222, and 2,212 respectively on the three preceding Saturdays, had further declined to 2,207 on Saturday, May 17th; 270 new cases were admitted during the week, against 283, 258, and 256 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 17th, 990 births and 628 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.1, 18.9, and 18.1 per 1,000 in the three preceding weeks, rose again last week to 19.4 per 1,000, and was 2.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.2 in Leith and 15.3 in Edinburgh to 21.6 in Glasgow and 25.0 in Perth. The zymotic death-rates in these towns averaged 2.3 per 1,000, the highest rates being recorded in Paisley and Perth. The 322 deaths registered in Glasgow included 4 from measles, 4 from diphtheria, 10 from whooping-cough, 2 from "fever," and 11 from diarrhoea. Six fatal cases of measles, 5 of whooping-cough, and 3 of diarrhoea were recorded in Edinburgh.

THE REMOVAL OF SMALL-POX PATIENTS.

IN the BRITISH MEDICAL JOURNAL of May 10th, p. 1187, there was published a report of a case in which an application was made to the Divisional Court on Friday, May 2nd, on behalf of one Quelch, to quash an order for the removal of a patient suffering from small-pox. The *causa causans* of the application was that Mr. Quelch had been summoned for obstructing the removal of his son, while Mrs. Quelch was also summoned for obstructing the removal of her husband, who became infected at a later date. These summons came on for hearing before the Croydon Bench on Saturday, May 3rd. A report of the proceedings, which was published in the *Croydon Guardian* of May 10th, throws much light upon methods of those who are opposed to the proper administration of the law of public health. It having been ruled by the Bench that the validity of the order could not be called in question, the defendants pleaded not guilty. The inspector of nuisances for the Croydon District Council was called to prove that in trying to execute the order every obstacle was put in his way. In cross-examination on the part of the defendants he was asked, apparently without any foundation in fact, "whether he had not gone round and told tradesmen not to supply the defendants with any goods!" Mr. Quelch gave evidence on his own behalf. He said that he kept a chain on his door all the year round as a protection against burglars. His medical attendant, "Dr." Allinson, ex L.R.C.P.Edin., was also called to prove that precautions had been taken by the defendant to ensure isolation. He was of opinion that the patient was better off at home than at any hospital. He also said it would have been harmful to have removed him. In the event the Bench fined Mr. Quelch £5, Mrs. Quelch £3, and allowed the prosecutor £6 4s. in respect of costs.

PAROCHIAL MEDICAL OFFICERS IN SCOTLAND.

P. M. O. E. asks if a parochial medical officer in Scotland is expected to attend emergency cases of midwifery occurring in his district without special fee, when there exists no private arrangement with the District Board to the contrary or to that effect, and when there is provision in the neighbouring poorhouse for such cases and a separate salary allowed to another medical officer for this poorhouse work.

**** The parochial medical officer in Scotland is bound to attend all cases, whether they are emergency cases or not, when requested to do so by the inspector of poor, and unless there is some special arrangement he must do so without receiving any extra fee. If called suddenly to some emergency case he might decline to attend unless he got an order from the inspector of poor; it might, however, not be advisable for him to decline: he might consider it better to attend to the case and then to bring the special circumstances under the notice of his Board. Naturally he would order the removal of a midwifery case to the poorhouse for treatment.

VACCINATION IN SCOTLAND.

WITH reference to the answer in the BRITISH MEDICAL JOURNAL of May 10th, p. 1188, to the query: Is a Private Practitioner in Scotland bound to Grant a Certificate of Successful Vaccination if his Fee is Unpaid? a Correspondent writes: Let me point out that the form sent to a public vaccinator in Scotland provides for that functionary certifying insusceptibility on the ground of previous vaccination, that is, if he is satisfied it has been done; therefore the law provides for the contingency, and no private practitioner can be compelled to certify if his fee remain unpaid. I have already pointed this out to one of our county sheriffs, who thanked me and said he noticed the correctness of the point I drew his attention to.

**** No doubt the law provides for the contingency if the public vaccinator is satisfied that the vaccination has been successful, but he is not bound to grant a certificate unless he is satisfied; thus he may find himself not in a position to grant the necessary certificate.

OBITUARY.

WILLIAM MILLER ORD, M.D., F.R.C.P.LOND.,

Consulting Physician to St. Thomas's Hospital.

IT is with great regret that we record the death of Dr. Ord, which occurred on Wednesday, May 14th, at the house of his son, Dr. William Wallis Ord, the Hall, Salisbury, after a lengthy illness.

Dr. Ord's health began to fail some three years ago, after repeated attacks of influenza; but although suffering much from neuralgia, he with great courage held on to his practice. His health and strength, however, steadily declined, until about two years ago, when he relinquished all active work and sought repose in the secluded village of Hurstbourne Tarrant, near Andover. Here, surrounded by his books which he loved so well, he sought to pass the evening of his days. And he might, one could well have supposed, have looked forward to many years' enjoyment of a country life for which he yearned. But it was ordained otherwise. Some weeks ago brain failure began to manifest itself, and he was removed to the residence of his son at Salisbury, where he passed away peacefully, surrounded by his family.



Dr. Ord was the eldest son of the late Mr. Ord, of Streatham, a general practitioner, who was widely esteemed by a large circle of friends and patients. He was educated at King's College, London, where he showed more than average ability, and gave promise of the brilliant future which was before him. His great aptitude for classics apparently destined him for a career at Oxford. He, however, matriculated at the London University, where he took honours in the various examinations, culminating in the degree of M.B. in 1857. Meanwhile, entering St. Thomas's Hospital, he carried all before him, and gained numerous prizes and distinctions, amongst them being the Cheselden Medal in Surgery, a prize of which he was justly proud. After his student's career he was elected House-Surgeon, and subsequently Surgical Registrar to St. Thomas's. The hospital at that time was about to be removed to its temporary abode in the Surrey Gardens, Kennington. Various circumstances at this period—the late Fifties—compelled him to go into general practice with his father at Streatham. Mr. Ord, sen., was getting on in years, and required his son's assistance. Besides, there was no immediate prospect of a vacancy on the medical staff at St. Thomas's.

The few years of general practice which he spent in this suburb of London were of inestimable advantage to him. He quickly attached to himself a large circle of patients, who welcomed his genial manner, and recognized that they had amongst them a practitioner of no ordinary ability. Whilst still bearing the burden of a heavy general practice, which laid the foundations of his subsequent physician's career, he was appointed Lecturer on Zoology at St. Thomas's Hospital. It will always be a mystery and a marvel how he found time, on the one hand, to attend to the numerous clients who sought his aid night and day, and, on the other hand, to prepare his lectures on zoology, which were models of style—concise and lucid.

In 1869 he became a Member of the Royal College of Physicians of London and two years subsequently when the new hospital was opened on its present site he was elected Assistant Physician to St. Thomas's Hospital. The authorities of the Medical School, recognizing that they had amongst them a man of rare ability and of remarkable energy and perseverance, asked him to fill in succession the posts of Lecturer on Physiology, and finally that of Medicine, on the death of the late Dr. Murchison.

St. Thomas's Hospital at this period, at least so far as the School was concerned, was emerging from the depression from which it had long suffered during its temporary abode in Surrey Gardens, and it was evident that, the tide of success having begun to flow, a strong man was required to fill the post of Dean. Dr. Ord was elected by his colleagues to this onerous position, and it may safely be affirmed that the rise of the School to a point of eminence which it had probably never before reached was in no small measure due to Ord's guiding influence. Students were attracted from all centres; from the older Universities of Oxford and Cambridge, as well as from the medical schools of the provinces; and at the period when Dr. Ord was at the helm, St. Thomas's School of Medicine possessed a number of students which was exceeded by only one other hospital in London.

Notwithstanding the exacting cares of the Deansbip, and of an increasing private practice, he found time to preside over the deliberations of the school staff, and to visit his wards with a regularity and a punctuality which excited the admiration of all who knew of the many demands on his time.

In 1875 he was elected to the Fellowship of the Royal College of Physicians, and in 1877 he succeeded to the post of Physician to St. Thomas's. Dr. Murchison's sudden death soon afterwards left a great void at the hospital. One of the greatest clinical teachers that London has ever known was suddenly called away by death, and it was felt by every one

who was associated with St. Thomas's that it would require a man of extraordinary talent to fill the gap which had thus occurred. Ord saw his great opportunity, and immediately came to the front as a clinical teacher. Students surrounded the beds whenever he visited his wards, and they one and all felt, when they were listening to his close reasoning and accurate deductions over a difficult case, that they were being taught by a man who was a master of the science and of the practice of physic. At this time he was also lecturing on medicine, sharing the chair with his brilliant colleague the late Dr. Bristowe.

Few people, except those who were related to him, or intimate with his method of work, were cognizant of the extreme care with which his lectures on medicine were prepared. Possessing a well-stocked library, and endowed with a marvellous energy in reading available authorities, he worked every night with splendid perseverance at the preparation of these lectures. Synopses of his discourses were carefully prepared, and sparing no expense Ord had them printed in numbers sufficient so that each member of his class should have one of these much-prized documents. In the lecture room he enlarged upon these notes with telling effect, using the language of an educated and refined man with occasional embellishments from some classical author.

This busy life at St. Thomas's he pursued for fifteen or sixteen years. He relinquished the Chair of Medicine in 1894, but still continued to teach in the wards until 1898, when he resigned the post of Physician to the hospital, and was at once appointed to the honourable office of Consulting Physician. Although at this date his active career at the hospital had come to an end, he still retained his love for his old school and his admiration for its ancient traditions.

Dr. Ord was in his day one of the best known physicians practising in London. Essentially an enlightened and highly-educated man—educated in the broadest sense of the word—he was consequently a man of many parts. Few men possessed his all-round general knowledge. Without being a classical scholar in the specialist sense, he could yet read his Ovid with ease, or he could put his finger immediately on some quotation from Horace or Virgil which exactly fitted the subject under discussion.

His memory was prodigious; nothing that he had carefully read appeared to be forgotten. Then, again, his knowledge of biology was both varied and extensive. Those who had enjoyed the treat of a walk with him along some secluded Surrey lane, or over a breezy down, were one and all impressed by his wonderful knowledge of the habitat and characteristics of every plant in the hedgerow, and the history of every fossil found in the chalk. He knew of the folk-lore attaching to every bloom, and seed, and root: and he was cognizant of the use of every wood and every berry in the arts and manufactures. Nor was his knowledge restricted to botany. He could give an intelligent deciphering of the geological writing on the hills; and his description of a plain or valley in its primaeval days was a vivid recalling of the past, a work of restoration as it were, based on an accurate knowledge of the geology of the district. Here his wide reading also came in. He was no mean zoologist, and the examination of a fossil Echinoderm, or of one of the Tetrabranchiata did not stop at the geological stratum in which it was discovered, or at the period in which it lived; but any peculiarity of its structure or adaptation was demonstrated or explained.

Of Dr. Ord's abilities as a physician it might be thought presumptuous for the writer to offer any opinion; yet no one saw more of the inner professional work and study of Ord than he.

In the early Seventies Gull produced his remarkable paper on The Cretinoid Condition Supervening in Adult Life in Women. Now, it is possible that a disease which to-day we all know and recognize might still be unknown to the majority of the profession, had not Ord possessed the clinical opportunities in the wards at St. Thomas's, and the zeal and genius to work out the pathology and symptoms of this disease, as well as to give it a nomenclature (myxoedema). His subsequent riper knowledge allowed him to supplement his earlier communications to the profession by a splendid lecture before the Royal College of Physicians (Bradshaw Lecture, 1898) on Myxoedema and Allied Conditions.

Another notable contribution to medical literature and knowledge was his address before the British Medical Association on the subject of Neurotic Dystrophies. The writer has often had to advise his succeeding generations of house physicians, when we were puzzled by some painful joint lesion, or by some skin eruption or visceral disturbance, which may have complicated some obscure nerve disorder, to read this address carefully; and many a time has he been thanked for this reference, and thanked as warmly as if he himself had penned the masterly contribution to our clinical knowledge.

Another remarkable work of Ord is The Influence of Colloids upon Crystalline Forms and Cohesion. The varying forms of crystals which fall in urinary sediments, even in the same individual, were fully explained by Ord's experiments, the presence or absence of albumen or mucus being the determining factor. Hence he showed how the ordinary octo-

hedral crystal of an oxalate might become dumb-bell shaped in an albuminous or colloidal fluid, but not otherwise.

I could have written much more fully on the charming personal characteristics of my friend; but they are known and estimated by his large circle of friends and acquaintances. I could have written a much more detailed description of his clinical and his scientific work, but this will be known and accurately gauged by the still wider circle of the medical profession. He was a man whom we can ill spare at the present moment. S. T.

MAJOR GREENWOOD (SEN.), M.D.ST.ANDREWS, M.R.C.S., L.S.A.

ON May 14th, after a lingering illness, passed away Dr. Major Greenwood, sen., one of the oldest practitioners in the North-east of London.

Dr. Greenwood was born in November, 1829, and commenced his professional studies as an apprentice to one of the old apothecaries. He entered as a student of the London Hospital in 1849, and later held the office of House-Surgeon there. In 1853 he was appointed District Medical Officer and Public Vaccinator to the parish of St. Leonard, Shoreditch, and settled down to practise in Queen's Road, Dalston. In spite of heavy professional work he graduated as M.D.St.Andrews in 1862, and continued in the active practice of his profession for nearly half a century, only retiring in 1900. He was a man of retiring disposition, and went but little into society, but his kindly manners and courteous bearing gained him the esteem and respect of those he came in contact with. All the time he could spare from his profession he devoted to music, which was his only recreation. He has gone to his rest after a well-spent life for which the world is the better. Many of his former patients in different parts of the world will learn with regret that their old doctor is no more. Four of his sons are members of the medical profession.

WE regret to record the death of Mr. A. BRAXTON HICKS, Coroner for the South-Western District of London and the Kingston Division of Surrey, which took place on May 17th after a few days' illness from pneumonia. He was the son of the late Dr. J. Braxton Hicks, the well-known obstetrician, and was called to the bar in 1875. He was appointed Coroner seventeen years ago, but had previously served as Deputy Coroner. Though a member of the legal profession Mr. Braxton Hicks took great interest in medical questions affecting his office, and for a time served on the Joint Committee of the British Medical Association and the Coroners Society, of which he was Honorary Secretary. The funeral at Norwood Cemetery on May 21st was attended by many colleagues and friends.

DR. FERDINAND TRAUTMANN, the distinguished German otologist, whose death was announced in a recent issue of the BRITISH MEDICAL JOURNAL, was born in 1833, and received his medical education in the Friedrich-Wilhelm Military Medical College, Berlin. After graduation he served as a medical officer, becoming Staff Surgeon in 1859, and Staff Surgeon-Major in 1864. He served in the Austro-Prussian war of 1866, and in the Franco-German war of 1870-71. He remained on the active list till 1887, when he retired with the rank of Surgeon-General. While still in the service he began to give special attention to ear diseases, and qualified as *Privat-docent* of that subject in the University of Berlin in 1876. In 1888 he became Professor Extraordinary of Otology at Berlin, and when an aural department was founded in the Charité Hospital in 1893 he was appointed its head. He was the author of numerous papers on subjects connected with his special province of practice, in which he was recognized throughout the medical world as a high authority.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Friedrich Leopold Goltz, Professor of Physiology in the University of Strassburg, aged 68; Dr. Nicholas Kalindéro, Professor of Medicine in the University of Bucharest; Dr. Isaak Tschazkin, one of the most popular physicians of Odessa, author of works on diseases of the lungs, and of a Russian translation of Virchow's *Cellularpathologie*; and Dr. Alexander Raszlfetoff, sometime Professor of Surgery in the University of Moscow, aged 76.

MEDICAL NEWS.

THE prizes at the Charing Cross Hospital Medical School will be distributed on Wednesday, June 11th, at 3.30 p.m., by Sir Frederick Treves, K.C.V.O.

THE President, Council, and Professors of University College, London, will give a *conversazione* on Thursday, June 19th.

THE annual dinner of the Ophthalmological Society of the United Kingdom will take place at the Trocadero Restaurant on Friday, June 13th, at 7.30 p.m.

THE Council of the Sanitary Institute will give a Coronation dinner at the Midland Grand Hotel, St. Pancras, on Monday, June 2nd. The chair will be taken by the Duke of Northumberland, K.G., Vice-President, at 7.30 p.m.

BEQUEST AND DONATION.—The Board of Management of the Norfolk and Norwich Hospital have received a donation of £100 from Sir Reginal Beauchamp for the purpose of endowing a bed in memory of his parents.

WEST LONDON HOSPITAL DINNER.—The "Past and Present" West London Hospital Dinner will be held at the Trocadero Restaurant on Wednesday, June 11th, not on July 11th, as stated in the BRITISH MEDICAL JOURNAL of May 17th. The dinner will take place at 7.30 p.m., and Mr. Percy Dunn will preside.

IMPERIAL YEOMANRY HOSPITAL.—We are asked to state that the anniversary dinner of the members of the Imperial Yeomanry Field Hospital and Bearer Company in commemoration of their capture at Roodewal will be held at the Criterion Restaurant on June 7th. Further particulars can be obtained from the Secretary, Mr. Oliver Williams, 116, Victoria Street, Westminster, S.W.

DEATH UNDER CHLOROFORM AT SWANSEA.—On May 16th a death occurred under chloroform at the Swansea Hospital. The patient was a man, aged 42, a dock labourer, and the operation was for fracture of the arm. The man struggled a great deal, and death was stated to be due to heart failure. The man was stated at the inquest to have undergone several previous operations for a badly-united fracture.

A MEETING of the Otological Society of the United Kingdom will be held on Saturday, May 31st, at 11 a.m., in the anatomical department of the medical school of Trinity College, Dublin, by the kind permission of the Rev. the Provost. Communications will be made by Dr. Macnaughton-Jones, Professor Cunningham, Professor Coffey, Professor Birmingham, Dr. Dempsey, Professor Urban Pritchard, Mr. Arthur H. Cheatle, and Dr. Jobson Horne.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The annual meeting of this Association was held in the rooms of the Royal Medical and Chirurgical Society on May 20th, under the presidency of Professor Sims Woodhead, of Cambridge. According to the twenty-sixth annual report, which was presented to the meeting and adopted, the membership of the Association had risen to 520, and in addition there were now 436 student-associates. It was pointed out that nothing influenced public opinion on the temperance question more than the example, attitude, and advice of the medical profession. During the previous year meetings had been held in order to direct the attention of medical students to the importance of the objects of the Association; such meetings were held at the London Hospital, at Guy's Hospital, at St. Thomas's Hospital, and in Edinburgh and Glasgow. It was intimated that some 200 medical practitioners—British, Russian, and Swedish—had already signed an international manifesto against the use of alcohol—it is to be presumed as a beverage. Professor Sims Woodhead, the President of the Association, delivered an address on alcohol as a cause of fatty degeneration of the heart.

LIFE-SAVING SOCIETY.—From the annual report of the Life Saving Society for 1901 we learn that, as compared with the previous year, there has been an increase of 60 per cent. in the number of candidates who have passed the tests for rescuing those in danger of drowning. Instruction is now afforded in many schools and educational institutions; the London School Board alone provided instruction in swimming and life saving during the past season to 12,555 pupils in its evening continuation schools. The Prince of Wales has shown his appreciation of the work of the Society by presenting a silver cup, to be competed for at Highgate on June 28th.

MEDICAL VACANCIES.

The following vacancies are announced:

BANBURY: HORTON INFIRMARY.—House-Surgeon and Dispenser. Salary, £80 per annum, with board and lodging. Applications to Mr. C. H. Davids, Honorary Secretary, 21, Marlborough-Road, Banbury.

BARBADOES GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £200 per annum, with unfurnished house. If resident in England passage paid to Barbadoes and (after three years' appointment) back. Applications to Mr. W. E. Sargant, School Registrar of St. Bartholomew's Hospital, by June 10th.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Appointment for six months. Honorarium at the rate of £25 each quarter, with apartments, board, and washing. Applications to the Treasurer, Bridewell Hospital, New Bridge Street, E.C., by June 2nd.

BIRMINGHAM GENERAL DISPENSARY.—Resident locums for two or three months. Terms 4 guineas per week, with furnished apartments. Applications to the Secretary by May 28th.

BIRMINGHAM GENERAL HOSPITAL.—(1) Resident Medical Officer. Salary, £70 per annum. (2) Two House-Surgeons. Appointments for six months. Salary, £50. (3) Aural Surgeon and Laryngologist. Residence, board, and washing provided for (1) and (2). Applications to the House-Governor by May 31st.

BRADFORD ROYAL INFIRMARY.—Junior House Surgeon; unmarried. Salary, £80 per annum, with board and residence. Applications, endorsed "Junior House-Surgeon," to be sent to the Secretary.

BURY ST. EDMUNDS: SUFFOLK GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary by May 26th.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second Assistant Physician. Applications to the Secretary by June 7th.

CANCER HOSPITAL, Fulham Road, S.W.—Junior House-Surgeon. Appointment for six months, but eligible for re-election. Salary at the rate of £70 per annum, with board and residence. Applications to the Secretary by May 26th.

CANTERBURY: CITY AND COUNTY OF CANTERBURY BOROUGH ASYLUM.—Medical Superintendent. Salary, £350 per annum with unfurnished house, washing, etc. Applications to the Clerk to the Committee of Visitors, Town Clerk's Office, 15, Burgate Street, Canterbury, by May 30th.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £60 per annum, with board and lodging. Applications to the Secretary by May 30th.

CARDIFF UNION.—Assistant Medical Officer for the Workhouse; unmarried. Salary, £120 per annum, with rations, apartments, attendance, and washing. Applications to the Clerk, Union Offices, Queen's Chambers, Cardiff.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications to the Honorary Secretary by June 6th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House Physicians. Appointments for six months. Salary at the rate of £30 per annum, with board, washing, and residence. Applications to the Secretary by May 29th.

COLOMBO MUNICIPALITY. Medical Officer of Health. Appointment for five years, with option of re-engagement. Salary, £400 for first three years, and £500 for the last two years. First class passage provided. Applications to Dr. Perry, care of British Medical Association, 429, Strand.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer; unmarried, under 32 years of age. Salary, £110 per annum, with board and lodging. Applications, on forms provided, to be addressed to the Chairman of the Selection Committee by May 30th.

DOWN COUNTY INFIRMARY.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to Dr Tate, Downpatrick, by June 5th.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Salary at the rate of £40 per annum, with residence, board, and washing. Applications to the Secretary by June 5th.

DURHAM COUNTY ASYLUM, Winterton, Ferry Hill.—(1) Junior Assistant Medical Officer; salary, £150 per annum, rising to £180. (2) Locum Tenens; 4 guineas a week. Apartments, board, laundry, and attendance. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physician. Board, residence, etc., provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by June 14th.

GAINSBOROUGH PARISH COUNCIL. Medical Officer for the Southern Division. Salary at the rate of £160 per annum up till February, 1903, increasing afterwards to £150. Applications to the Clerk of the Parish Council, Poolewe, by June 2nd.

GRAVESEND HOSPITAL. House-Surgeon. Salary, £80 per annum, with board and residence. Applications to the Honorary Secretary, 146, Milton Road, Gravesend, by June 2nd.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling Scholarship of the value of £100. Applications to the Dean, Guy's Hospital, S.E., by June 1st.

HAVERSTOCK HILL AND MALDEN ROAD PROVIDENT DISPENSARY, 132, Malden Road, N.W.—Medical Officer. Applications to the Honorary Secretary by June 1st.

HEREFORD COUNTY AND CITY ASYLUM.—(1) Senior Assistant Medical Officer, not over 30 years of age. Salary, £150 per annum. (2) Junior Assistant Medical Officer, not over 28 years of age. Salary, £100 per annum. Board, lodging, and washing provided in each case. Applications to the Medical Superintendent.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Clinical Pathologist and Bacteriologist; non-resident. Honorarium 50 guineas. (2) House Physician; unmarried. Appointment for six months. Salary, £20, washing allowance £2 10s., with board and residence. Applications on forms provided to be sent to the Secretary by June 8th.

HOSPITAL FOR WOMEN, Soho Square, W.—(1) Honorary Assistant Anæsthetist. (2) House Physician. Appointment for six months. Salary, £30. Applications to the Secretary by May 31st.

HULL ROYAL INFIRMARY. Casualty Officer. Salary, £90 per annum, with board and lodging. Applications to the Chairman, House Committee, by June 5th.

HULME DISPENSARY, Manchester. Honorary Physician. Applications to the Secretary of the Medical Committee by June 2nd.

KENT COUNTY ASYLUM, Barming Heath.—Fourth Assistant Medical Officer and Pathologist; unmarried, and not over 30 years of age. Salary, £175 per annum, rising to £210, with furnished quarters, etc. Applications to Dr. F. Pritchard Davies, Superintendent.

KESTREVEN COUNTY ASYLUM.—Assistant Medical Officer for the new Asylum near Bleaford; unmarried. Salary, £125 per annum, with board, etc. Applications to the Medical Superintendent, Asylum, Grantham.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Junior Assistant Medical Officer, unmarried, and not over 30 years of age. Initial salary, £150 per annum, with furnished apartments, board, washing, and attendance. Applications to the Medical Superintendent.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Honorary Treasurer by June 7th.

LONDON SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—(1) Lecturer on Forensic Medicine. (2) Lecturer on Toxicology. (3) Curator of School Museum. The Lectureships may be held by the same Lecturer. Applications to the Secretary by May 30th.

LONDON TEMPERANCE HOSPITAL, N.W.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of 50 guineas per annum, with board, residence, and washing. Applications to the Secretary by May 26th.

LONDON THROAT HOSPITAL, Great Portland Street, W.—Non-resident House-Surgeon. Honorarium at the rate of £25 per annum. Applications to Dr. E. F. Potter, Honorary Secretary, Medical Committee, before June 7th.

MACCLESFIELD: CHESHIRE COUNTY ASYLUM.—Temporary Assistant Medical Officer. Salary, £1 4s. per week. Applications to the Medical Superintendent.

METROPOLITAN ASYLUMS BOARD.—Male Assistant Medical Officers (Class II) for the fever and small-pox hospitals. Salary, £180 per annum, rising to £240. Board, lodging, attendance, and washing provided in each case. Candidates must be unmarried, and not to exceed 35 years of age. Applications, on forms provided, to be sent to the offices of the Board, Embankment, E.C., by May 29th.

MOUNT VERNON HOSPITAL FOR CONSUMPTION, Hampstead.—(1) Physician (Senior Assistant Physician is a candidate, and if elected there will be a vacancy of an Assistant Physician); (2) Two Clinical Assistants for the Out patient Department, Fitzroy Square. Honorarium, £25. Applications to the Secretary, 41, Fitzroy Square, W., by May 31st.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—(1) House-Physician; (2) House-Surgeon; (3) Clinical Assistant for Out-patient Department; (4) Qualified Medical Woman to take charge of Roentgen Ray Department. Applications to the Secretary by May 28th.

NORTHAMPTON GENERAL INFIRMARY.—Assistant House Surgeon: unmarried, and not under 22 years of age. Salary, £75 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by June 4th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. Appointments for six months. Junior Officer eligible for senior post. Salary at the rate of £50 per annum each with board, residence, and washing. (3) Second Honorary Anæsthetist. Applications to the Secretary by May 26th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Second Assistant House-Surgeon. Appointment for six months. Honorarium, £20. Applications to the Secretary by June 3rd.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried. Salary, £100 per annum, increasing £10 yearly with furnished apartments, etc. Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not exceeding 30 years of age. Salary, £125 per annum, and £50 in lieu of rations, with furnished apartments, etc. Applications to the Resident Medical Superintendent by June 11th.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Appointment for six months, but eligible for re-election. Salary at the rate of £80 per annum, with board and residence. Applications to the House-Governor by May 30th.

RICHMOND UNION.—Medical Officer and Public Vaccinator for the Barnes Union. salary, £70 per annum and fees; and Medical Officer of the Children's Home, Barnes, salray, £30 per annum. Not more than 45 years of age. Applications to the Clerk to the Guardians, 17, The Green, Richmond, Surrey, by June 3rd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Hunterian Professors. (2) Erasmus Wilson Lecturer. (3) Arris and Gale Lecturer. For the ensuing year. Applications to the Secretary by June 2nd.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—(1) Assistant Obstetric Physician, must be F. or M.R.C.P.Lond. (2) Resident Medical Officer. Applications to the Secretary by May 27th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants. Appointments for six months. Applications to the Secretary by May 31st.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—(1) Surgeon to in-patients at the Branch Hospital, Royal Victoria and Albert Docks. (2) Honorary Anæsthetist at the Dreadnought Hospital, Greenwich. Applications to the Secretary by May 26th.

SCHOOL BOARD FOR LONDON.—Assistant in the Medical Officer's Department: must be registered. Salary, £250 per annum. Applications, on forms provided, and marked outside "Application for post of Assistant Medical Officer," to be sent to the Clerk of the Board by June 7th.

SOCIETY OF APOTHECARIES OF LONDON, Blackfriars.—(1) Examiner in Medicine. (2) Examiner in Midwifery. Applications to the Clerk by June 2nd.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer; unmarried, not over 30 years of age. Salary, £150 per annum, with furnished apartments, board, etc. Applications to the Medical Superintendent by June 10th.

STAFFORD: STAFFORDSHIRE GENERAL HOSPITAL. Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the House-Surgeon by May 29th.

THROAT HOSPITAL, Golden Square, W.—Junior House Surgeon. Salary, £100 per annum, with lunch daily. Applications to the Secretary-Superintendent by June 6th.

TORQUAY: TORBAY HOSPITAL.—House Surgeon. Salary, £100 per annum, £5 for nurses' lectures, with residence, board, and washing. Applications to the Secretary by May 31st.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon; unmarried. Salary, £100 per annum, increasing £10 yearly, with board and apartments. Applications to the Secretary, 4, Parkvedras Terrace, Truro.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, S.W.—House-Surgeon. Appointment for six months. Honorarium, £25, with board and lodging. Applications to the Secretary by May 31st.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) House-Physician. (2) House-Surgeon. Appointments for six months. Board and lodging provided. Applications to the Secretary-Superintendent by June 10th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) House-Physician (2) House-Surgeon. Salary, £100 per annum each, with food, lodging, and washing. Applications to the House-Governor by May 27th.

MEDICAL APPOINTMENTS.

BAILEY, E. C., M.B., B.S.Durh., appointed Certifying Factory Surgeon for the Crowe District of Cheshire.

BELL, K. de Risley, M.D.Brux., M.R.C.S., L.R.C.P.Lond., appointed Certifying Factory Surgeon for the Uppingham District of Rutland.

BLACK, A. L., B.A., M.B., B.Ch., B.A.O., appointed House-Surgeon to the Royal Victoria Hospital, Belfast.

BOOTH, George, M.D.Durh., appointed Honorary Physician to the Chesterfield and North Derbyshire Hospital.

BOTHWELL, G. Granville, M.B., C.M.Aberd., late Senior Resident Surgeon Memorial Hospital, Bulawayo, appointed Resident Surgeon to the Bonsor Gold Mining Company, Selukwe, Rhodesia, South Africa.

BRAND, W. H. Edw., L.R.C.P., L.R.C.S.Edin., appointed House Surgeon to the Northern Infirmary, Inverness.

BROOK, T. S., M.R.C.S., L.R.C.P.Lond., appointed District Medical Officer of the Petersfield Union.

COOKMAN, Rowland H., M.D., etc., appointed Medical Officer to Bedford Rural District Council's Isolation Hospital. (Correction.)

DAVIDSON, Norman, M.B., Ch.B.Aberd., appointed Medical Officer of Health to the Peterborough Town Council.

DUNNE, P. J., M.B., B.Ch.R.U.I., appointed Second Resident Medical Officer of the South Dublin Union Workhouse.

FINLAY, Hunter, M.D., of Anaesthetist to Hospital, N.S.W., appointed Medical Officer to the Gearring, District Hospital at Mulwarrie, West Australia.

FREMANTLE, Francis E., M.B., Ch.B.Oxon., appointed County Medical Officer of Health to the Herts County Council.

GLANVILLE, E. M., M.B., B.S.Edin., appointed Second Assistant Medical Superintendent of the Paddington Parish Infirmary.

GRACE, A. H., L.S.A., appointed Certifying Factory Surgeon for the Chipping Sodbury District of Gloucestershire.

HARVEY, Frank M.R.C.S.Eng., reappointed Medical Officer of Health to the Padstow (Cornwall) Port Sanitary Authority.

HEFFERNAN, P., L.R.C.P., L.R.C.S.Edin., appointed Assistant Medical Officer to the Clonmel Asylum, *vice* E. J. Cummins, L.R.C.P., L.R.C.S.Edin.

HEWITSON, William Andrew, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer to the Workhouse, District Medical Officer, and Public Vaccinator by the Easington Board of Guardians; also Medical Officer to the Infectious Diseases Hospital, Thorp, near Easington, by the Rural District Council of Easington, *vice* Donald Wingate, M.B., C.M., deceased.

LAMBERT, R. A., M.D.Edin., appointed District Medical Officer of the Wantage Union.

MACDONALD, T. J., L.S.A., appointed District Medical Officer of the Malling Union.

MICHELL, J. C., M.R.C.S.Eng., L.S.A., appointed Certifying Factory Surgeon for the Lynton District of Devonshire.

PURNELL, Richard, M.D.Dub., reappointed Medical Officer of Health for the City of Wells.

RADCLIFFE, P. A. H., M.B., Ch.B.Vict., appointed Assistant Medical Officer to the Leeds Union Infirmary.

RICHARDS, R. W., M.D.Lond., appointed Certifying Factory Surgeon for the Dolgelly District of the County of Merioneth.

RICHARDSON, Wm. P., M.B., C.M.Edin., appointed District Medical Officer of the Towcester Union, and Certifying Factory Surgeon for the Blisworth District of Northamptonshire.

SHAW, James, M.D.Glas., appointed Certifying Factory Surgeon for the Aylesbury District of Bucks.

THOMSON, W. Ernest, M.A., M.D., appointed a Surgeon to the Glasgow Eye Infirmary.

TURNER, A. F., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Tewkesbury Corporation.

TYNDALL, Francis, L.R.C.P.Lond., M.R.C.S.Eng., appointed Certifying Factory Surgeon for the Westhoughton District of Lancashire.

WILLIAMS, Chisholm, F.R.C.S.Edin., appointed in charge of the Electrotherapeutic Department, West London Hospital.

WORRALL, E. S., M.R.C.S., L.R.C.P.Lond., appointed in charge of the Radiographic Department, University College Hospital, London.

WORTHINGTON, S., M.D.Lond., appointed Honorary Physician to the Chesterfield and North Derbyshire Hospital.

YOUNG, John C., M.R.C.S., L.R.C.P.Lond., appointed Assistant Medical Officer to the Birmingham Parish Infirmary.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m. Annual Conversazione. Reception by the President. 8.45 p.m.: Oration: Dr. Stephen Mackenzie: The Powers of Natural Resistance or the Personal Factor in Diseases of Microbic Origin.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Communications by Mr. J. Sefton Sowill and Mr. Kenneth W. Goadby. Paper: Mr. J. H. Targett: Some Growths about the Jaws.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Mr. T. J. Tonkin: Some General and Etiological Details concerning Leprosy in the Sudan. Mr. Jonathan Hutchinson: Leprosy in Natal and Cape Colony.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Waller: The Signs of Life.

WEDNESDAY.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Leonard Hill: The Physiology of Respiration.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m.—Demonstration of Hare-lip and its Treatment.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C. Tuesday, 3.30 p.m. Lecture on Some Spinal Mysteries.

West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows:—Monday: Rickets, its Manifestation and Treatment. Tuesday: Mania. Wednesday: Surgical Anatomy. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Small-pox and Vaccination.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstration on Tuberculides of the Skin.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BURROWS.—On May 9th, at The Haven, Harrow-on-the-Hill, the wife of Harold Burrows, M.B., F.R.C.S., of a son.

LE RICHE.—On Thursday, May 15th, at Wenonah House, Marine Parade, Worthing, the wife of Philip John Le Riche, M.R.C.S., L.R.C.P., L.S.A., of a daughter.

SINCLAIR.—At 5, Walker Street, Edinburgh, on May 18th, the wife of Arthur H. H. Sinclair, M.D., F.R.C.S.Edin., of a son.

MARRIAGE.

BRYETT—LEONARD.—On April 29th, at Holy Trinity Church, Winchester, by the Rev. Allan Gunn, Rector, assisted by the Rev. J. F. Matthews Duncan, William Robert Bryett, B.A., M.D.Lond., second son of Lewis Bryett, to Mary Elizabeth, daughter of his Honour the late Judge Leonard, of Kerrfield, Winchester, and Queen's Fort, Tuam, Ireland.

DEATHS.

GREENWOOD.—On May 14th, at his residence, 67, Kingsland Road, N.E., Major Greenwood, Senior, M.D., late of 26, Queen's Road, Dalston, in his 73rd year.

ORD.—On May 14th, at the residence of his son, The Hall, Salisbury, William Miller Ord, M.D., F.R.C.P., aged 67.

PITT.—On May 17th, at Wellesbourne, Richard Pitt, M.B.C.S., L.S.A., in his 84th year.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

G. W. S. is desirous of finding an instructress to teach a young lady, who is partially deaf, lip-reading. Can any member tell him whether any institution or agency supplies teachers?

J. E. St. G. Q. asks for advice in the treatment of a crack in the lip which, although small, occasions much worry. The patient is middle-aged, healthy; the cut is clean, and there is no induration.

PIPECLAY.

DR. HENTON WHITE (Edgbaston) writes: Is any return published giving the mortality from phthisis and other respiratory diseases in the different regiments? I want to ascertain the respiratory mortality in regiments such as the Coldstream Guards, who habitually use pipeclay to clean their tunics. This necessitates the frequent inhalation of the dust in fine powder. I am informed the tunics are pipeclayed every evening.

*** Our correspondent would probably get the information he requires by writing to Brigade-Surgeon-Lieutenant-Colonel Harrison, Guards Hospital, Rochester Row. A medical officer of long experience tells us he never had any reason to suspect that pipeclay was deleterious.

A MILITARY MEDICAL LIBRARY.

TOUT OU RIEN asks to be recommended works on the following subjects:

1. Epidemiology.
2. Laws and Customs of War in Relation to Sick and Wounded.
3. Medical History of Important Campaigns.

*** 1. *Epidemiology.*—(*a*) There are many instructive papers in the appendices to the Blue Books (Annual Reports, Army Medical Department, published yearly). (*b*) The reports of the Sanitary Commissioner with the Government of India also gives much information. (*c*) The annual reports of the Medical Officer, Local Government Board, London, which should be supplied to all military hospital libraries, also contain a fund of information. (*d*) The *Proceedings* of the Epidemiological Society of London also are very instructive on these matters.

2. *Laws and Customs of War in Relation to Sick and Wounded.*—(*a*) The actual rules of the Geneva Convention are to be found at p. 886, *Appendix Official Manual of Military Law*, War Office 1899. (*b*) Chapter xiv of the same book deal with the customs of war and is useful reading. (*c*) *Twiss on the Law of Nations* is a valuable book. (*d*) General order No. 100 of the *American Military Code* deals with this matter to a certain extent. (*e*) *The Life of Henri Dunant*, the founder of the Red Cross Movement, and Sir John Furley's book on the same organization are also worth reading. We shall hope to see a professor of medical military history and organization appointed at the Staff College for medical officers in London. At present no regular handbook exists officially sanctioned and easily obtained by any medical officer of the army. The professor we refer to above must compile the book.

3. *Medical History of Important Campaigns.*—(*a*) The Blue Books of the Crimean campaigns are an inexhaustible source of information as to the sufferings of a badly-equipped army in a practically sedentary campaign. These Blue Books need to be summarized by the professor we above refer to, and a manual of medical history written. The report of Lord Morley's Committee of 1883 is also important, and the recent Blue Books as to South African experiences. (*b*) Baron Larrey's *Memoirs* deal with French experiences in the Napoleonic wars. (*c*) Exhaustive reports of the war of the secession in the United States of America are available in the publications of the Medical Department, U.S. Army. The history of the Walcheren expedition would be interesting reading. Jackson's work on military medical matters are also full of interest. The Blue Books of the Army Medical Department for past years also have important scattered papers on these matters.

LETTERS, NOTES, Etc.

WE would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided. Correspondents are asked to write upon one side of the paper only.

ADVERTISEMENTS: A PROTEST.

ALPHA writes: Permit me to recommend every member of the Association to examine the advertisement pages of papers before permitting them to be placed upon his waiting-room table. I am an aural surgeon, and yesterday discovered "Drouet's" advertisement in the *Daily Telegraph* upon mine. Needless to say the paper has been discontinued.

VACCINATION AND THE "ENCYCLOPÆDIA BRITANNICA."

MR. J. R. JOHNSON (Richmond, Surrey), writes: It is to be hoped that the article upon "Vaccination" in the forthcoming tenth edition of the *Encyclopædia Britannica* will be more in accordance with accepted opinions than that of the ninth edition. It is difficult to understand why the authorities should have chosen an avowed antivaccinist to contribute the article to so important a work.

ARE SAFETY MATCHES POISONOUS?

MR. E. G. CLAYTON, F.I.C., (Chemical Laboratory, 32, Holborn Viaduct, London, E.C.) writes with reference to a paragraph under this heading published in the BRITISH MEDICAL JOURNAL, May 3rd: For some years I have devoted considerable attention to the chemistry and technology of matches, and since 1898 I have been afforded exceptional opportunities of studying phosphorus sesquisulphide, not only in the laboratory, but also on a commercial scale. Although the term "safety matches" is generally applied specifically to matches containing neither phosphorus nor any compound of phosphorus, and striking only on a rubber containing red or amorphous phosphorus, it would seem that the writer of the article refers under this name to "strike-anywhere" matches in which sesquisulphide of phosphorus is present instead of phosphorus. (In two places, by the way, the sesquisulphide is alluded to inadvertently as "sesquichloride.") On the question of toxicity it may be recalled that Lemoine, the French chemist, who first described this compound of phosphorus, Sevène and Cahen, the experts to whom is due its application in the production of matches, and Courtois-Suffit, the medical authority who has made a special study of the hygienic conditions existing in French match factories, agreed in considering phosphorus sesquisulphide a harmless body. Sevène and Cahen daily administered to guinea-pigs ½ gr. of sesquisulphide without toxic symptoms appearing, although ¼ gr. of phosphorus was rapidly fatal. Other experiments, such as the consumption by themselves of dry match-heads containing the compound, were carried out by the inventors, without any ill-effects being experienced. These earlier results seem to be confirmed in the main by the experiments cited in the BRITISH MEDICAL JOURNAL. My experience of phosphorus sesquisulphide has extended over three years. During this period I have experimented with the body under most various conditions, personally made up hundreds of compositions containing it (working on a considerable scale and in an atmosphere by no means free from the characteristic odour of the compound), and have repeatedly been present at its use on a manufacturing scale. In no circumstances have I observed the slightest evil effects on operatives or myself. Moreover, phosphorus sesquisulphide has been used in French match factories from the latter portion of 1898 to the present time, and elsewhere for long periods, with, as far as I am aware, absolute freedom from untoward influence on the health of the workers. Mörner's results with Mitscherlich's test for free phosphorus (not "free sulphur") quoted by the writer of the article, differ from my own. Specimens of well-made commercial sesquisulphide examined by me have given completely negative reactions with this test. The discrepancy may be due to differences in the degree of purity of the samples tested. That all commercial phosphorus sesquisulphide (at any rate, in the past) has not been of one standard of purity analysis has convinced me, and no doubt some samples of the cruder and less carefully prepared substance, made in the earlier days of its production on a manufacturing scale, yielded reactions for free yellow phosphorus with a test which, it must be remembered, is so delicate, that one part of phosphorus in 100,000 is stated to be discovered by it. But from the negative results already alluded to, it is my opinion that there is not the smallest necessity that carefully-made and properly-refined phosphorus sesquisulphide should give any reaction with Mitscherlich's test. Other facts indicate the absence of free phosphorus from commercial sesquisulphide of good quality, but they are omitted because this letter has exceeded its intended limits.

"*" Mr. Clayton's letter lends additional weight to these results of Santesson's experiments (BRITISH MEDICAL JOURNAL, May 3rd, p. 1106), which demonstrated the apparent harmlessness of phosphorus sesquisulphide. As Mr. Clayton shows, however, these simply confirmed the observations of the earlier workers, Sevène and Cahen. Still, Santesson's experiments were made because in 1901, in the Carrlinsk Institut, Stockholm, severely toxic symptoms had been produced in rabbits after the administration of some phosphorus sesquisulphide. He obtained a sample of this substance from a large match factory, and also employed "match heads," but with both obtained negative results. Allowing that the pure sesquisulphide can, as Mr. Clayton says, be obtained as a commercial product, it would still be interesting to know in what form the compound is absorbed and excreted, and whether its inhalation affects the rapidity of these process in the body. In the human experiments with "match heads" and phosphorus sesquisulphide, some data as to the phosphorus excretion in the urine and faeces, together with the precise extent of the urinary acidity, would be of value in regard to the cumulative effects. In Mörner's earlier experiments the rabbits died from acute acid intoxication, and he suggests that in the body the P_4S_3 is oxidized to phosphoric and sulphuric acids. If so, although this compound is less harmful than the free yellow phosphorus, in view of the large number of matches used, the point is worthy of further investigation.

COMMUNICATIONS, LETTERS, ETC., have been received from:
A Professor A. Adamkiewicz, Vienna; Professor T. Clifford Allbutt, Cambridge; Mr. G. P. Ashmore, Hove; Alpha; Dr. T. Askin, Alderton. **B** C. A. Bentley, M.B., Borjulie; Dr. W. Bain, Harrogate; Barrister; Bachelor; Mr. L. A. Bidwell, London; Mr. H. E. Belcher, West Bridgford. **C** Dr. W. Collier, Oxford; Mr. J. Court, Staveley: Captain R.E.; Dr. E. W. Carlier, Birmingham; Mr. E. R. Coffey, Farnham; Dr. E. O. Croft, Leeds; Mr L. Cooper, Rochester; J. Cullen, M.B., London. **D** Dr. A. Duke, London; Mr. J. W. Draper, Huddersfield; Messrs. Down Brothers, London; Disgusted. **E** E.C.; W. McA. Eccles, M.B., London; E. W. S.; Dr. J. Edmunds, Brighton: Mr. E. W. Emtage, Bradworthy. **F** Dr. W. T. Freeman, Reading; Dr. R. Farrar, London; F.R.C.P. (Ealing). **G** J. Gilroy, M.B., Ecclefechan; Mr. H. Gilford, Reading; Mr. J. Galloway, London. **H** Dr. D. B. Hart, Edinburgh; Dr. T. A. Helme, Manchester; Mr. F. A. Humphry, Crowborough; Dr. J. Highet, Workington Dr. J. Haddon, Hawick; Dr. W. J. Horne, London. **J** Mr. J. R. Johnson, Richmond, Surrey; Dr. E. Jepson, Durham; J. G. B.; E. H. Jones, M.B., Northampton. **L** Mr. J. S. Lobb, London; Mr. S. G. Longworth, Melton; Colonel G. H. Leake, Woolwich. **M** Mr. J. J. de Z. Marshall, Teddington; Mr. J. H. Mummery, London; Dr. J. E. Moorhouse, Stirling; Mr. C. Morris, Ramsgate **N** Dr. A. J. Neale, Sydney, N.S.W. **O** Old Member. **P** P. O. B.; Mr. F. S. Pearse, Limerick; Paratus; Practitioner. **Q** Mr. J. E. St G. Queely, London. **R** R. N.; Dr. K. Renshaw, Ashton-on-Mersey; Mr. R. Robinson, Birmingham; Referee of Twenty Years' Standing; Rusticus; Dr. H. C. Rose, London; Mr. J. Robertson, Edinburgh; Mr. A. Robinson, London. **S** E. J. Sidebotham, M.B., Manchester; Mr. E. N. Smith, London; Dr. W. Sneguireff, Moscow; Miss H. W. Stanley, Birmingham H. R. D. Spitta, M.B., London; E. A. Saunders, M.B., London; Dr. J. P. Stewart, London; S. Stephenson, M.B., London; Dr. G. H. Savage, Nashville, Tenn. **T** W. Turner, M.B., London; Dr. S. Taylor, London; H. P. Taylor, M.B., Mid Yell; Thames Valley; Trente et Quatre. **U** Mr. A. M. Upton. **V** Velox. **W** Mr. E. W. Wallis, London; Mr. S. W. Wilson, Dublin; Dr. F. Willcocks, London; A. Wauchope, M.B., Glasgow; Dr. H. White, Birmingham; Mr. H. R. Walker, London. **X** X. Y. Z. **Y** A. Young, M.B., Glasgow. **Z** Dr. T. Zanggar, Zurich, etc.

BOOKS, Etc., RECEIVED.

Essentials of Histology. By E. A. Schäfer, LL.D., F.R.S. Sixth edition. London: Longmans, Green, and Co. 1902. 9s.

Saunders's Yearbook of Medicine and Surgery. Under the General Editing Charge of George M. Gould, M.D. Vols. I and II (Medicine and Surgery). London and Philadelphia: W. B. Saunders and Co. 1902. 26s.

Clinical Methods. By Robert Hutchison, M.D., M.R.C.P., and Harry Rainy, M.A., F.R.C.P.Edin., F.R.S.E. New and Enlarged Edition. London: Cassell and Co., Limited. 1902. 10s. 6d.

A Text Book of Medical Jurisprudence, Toxicology, and Public Health. By John Glaister, M.D., D.P.H.Camb., F.R.S.E. Edinburgh: E. and S. Livingstone. 1902. 15s.

The Pharmacology of Pseudaconitine and Japaconitine Considered in Relation to that of Aconitine. By J. Theodore Cash, M.D., F.R.S., and Wyndham R. Dunstan, M.A., F.R.S. London: Dulau and Co. 1902. 3s

The Pharmacology of Pyraconitine and Methyl-Benzaconine Considered in Relation to their Chemical Constitution. By J. Theodore Cash, M.D., F.R.S., and Wyndham R. Dunstan, M.A., F.R.S. London: Dulau and Co. 1902. 1s.

Practitioner's Handbook of Diseases of the Ear and Naso-Pharynx. By R. Macnaughton-Jones, M.D., W. R. H. Stewart, F.R.C.S.Edin., William Milligan, M.D., Herbert Tilley, M.D., Ambrose Birmingham, M.D., and Robert Dwyer Joyce, F.R.C.S.I. Sixth edition. London: Dangerous Trades. By Thomas Oliver, M.A., M.D., F.R.C.P. London: John Murray. 1902. 25s.

Hints to Meteorological Observers. By William Marriott, F.R.Met. Soc. Fifth edition. London: Edward Stanford. 1902. 1s. 6d.

Die Krankheiten der Verdauungsorgane im Kindesalter. Von Dr. Ernst Schreiber. Würzburg: A. Stuber's Verlag. 1902. M. 7.40.

Nurse's Report Book. By C. M. Löhr. Fourth edition. Potter's Bar: Published by the Author. 6d.

Die Kunst der Juno Lucina in Rom. Von Professor Dr. G. Emilio Curàtulo. Berlin: August Hirschwald. 1902. M.9.

Diät und Nahrungsmittel. Von Dr. med. Alex. Haig. Berlin: Otto Salle. 1902. M.1.

Baillière, Tindall, and Cox. 1902. 10s. 6d.

Diagnosis by Means of the Blood. By Robert Lincoln Watkins, M.D. London: The Physicians Book Publishing Co. 1902. Dols. 5.

North London or University College Hospital: Report of the Surgical Registrar for 1899. London: Jas. Truscott and Son. 1901.

Lights and Shadows in a Hospital. By Alice Terton. London: Methuen and Co. 1902. 3s. 6d.

Science in the Daily Meal. By Albert Broadbent, F.R.H.S. Third edition. London: Thomas Burleigh. 1903. 6d.

The Way of Escape. By Graham Travers. London: William Blackwood and Sons. 1902. 6s.

Laboratory Work with Mosquitoes. By William N. Berkeley, A.B., M.D. New York: Pediatrics Laboratory. 1902.

Mentioned in Despatches. London: The "Army and Navy Gazette" Office. 1902. 1s.

Philadelphia Hospital Reports. Vol. iv, 1900. Edited by Roland G. Curtin, M.D., and Daniel E. Hughes, M.D. Philadelphia: Maurice H. Power. 1901.

On a Possible Stridulating Organ in the Mosquito (Anopheles Maculipennis, Meig.). By A. E. Shipley, M.A., and Edwin Wilson, F.E.S. Edinburgh: Robert Grant and Son. London: Williams and Norgate. 1902. 1s. 6d.

A Hero of Donegal. A Memoir of Dr. William Smyth, of Burtonport. By Frederick Douglas How. London: Isbister and Co., Limited. 1902. 2s. 6d

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	1	17	6
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restantes* addressed either in initials or numbers.

Remarks
ON THE
REMOVAL OF PROSTATIC ADENOMATA.

By SIR WILLIAM THOMSON, C.B.,
Honorary Surgeon to H.M. the King; Surgeon, Richmond Hospital, Dublin, etc.

THE remarkable series of operations for the removal of prostatic obstruction which Mr. P. J. Freyer has published in the BRITISH MEDICAL JOURNAL has aroused much interest in the subject. That interest has never been absolutely dead, nor indeed could it be in the presence of a widespread and distressing malady. The variety of methods of relief proposed in recent years shows sufficiently the earnest efforts made in this direction by surgeons everywhere. Yet it must be admitted that none of these plans has taken firm hold. The trial of them has been fitful. Here and there a small group of cases has been recorded, but the majority of surgeons have held aloof, while some others have declared the operation too dangerous to be generally adopted. McGill's early efforts in this country, brilliant and suggestive as they were, were marred in their development by his regretted death. It is not improbable that had he lived the operation which he practised would have been so modified by his experience as to have gained for it the widest acceptance. He saw, at all events, what was the true principle to be followed—a direct attack upon the obstruction, and not by the circuitous route of mutilating castration. That important principle has been followed by others, especially by Fuller, Belfield, Robson, Nicoll, and Moullin. But Mr. Freyer has given new life to the surgery of this region by the emphasis with which he has formulated his views, and by showing by his remarkable successes that it is possible to remove even the largest obstructions with a high degree of safety.

History of a Case.

In these circumstances, it may be interesting to place on record the short history of a case, in which, following Mr. Freyer, I successfully removed a prostatic obstruction some weeks ago. The patient was a gentleman aged 66, who for nearly fifteen years had suffered from frequent micturition, and who consulted me first about four years ago. Since that time he had been obliged to use the catheter two or three times a day, and on the occasions when he tried to empty the bladder without it the effort was prolonged and painful. The residual urine was from 3 to 4 oz. The prostate could be distinctly defined by the finger, the left lobe being the larger. He frequently inquired if an operation could relieve him, but I pointed out that while he could use the catheter I should not recommend one. Later on unilateral vasectomy was performed in London without benefit. Meanwhile the difficulty of catheterization increased. Quite recently he had a sharp attack of cystitis, and his general condition became so serious that I advised him to submit to removal of the obstruction by direct operation. He readily assented, being almost worn out mentally and physically. Assisted by Sir Thornley Stoker, Mr. Harvey, and Dr. Coleman, I opened the bladder above the pubes on February 15th. Two smooth lateral lobes were found projecting well into the bladder, with the catheter lying between. There was no middle lobe. The mass was lifted well up by two fingers of the left hand in the rectum; and the covering mucous membrane on the left side was divided so as to admit the finger tip. Keeping the nail close upon the mass it was slowly separated from its outer covering and the urethra, and extracted. This took about twenty-five minutes. The right lobe was removed in the same way in ten minutes. Each mass came out unbroken, and enclosed in a thin, white fibrous capsule. The bleeding on the left side was sharp, but was controlled by sponge pressure and hot boric lotion. Then a large drainage tube was placed in the bladder. No sutures or ligatures were used even in the external wound. The temperature rose to 100° on the second day; afterwards it remained normal. On the twenty-seventh day 7 oz. of urine were passed per urethram. He left bed in four weeks. He can now hold urine for four hours in the daytime and for six hours at night, and he passes it in a normal stream, with full force. He describes himself as a new man. Dr. H. C. Earl has furnished a report on the specimens, as follows:

> Microscopically the two tumours show a very similar structure. The glands are large and numerous, some being dilated into small cysts. There is no doubt that a hyperplasia of the glands has occurred. The tissue in which the glands lie is chiefly smooth muscle, with only a very small admixture of fibrous connective tissue. The dimensions are: Right, length 1½ in., width 1¼ in., circumference 3 in.; Left, length 2¼ in., width 1½ in., circumference 3½ in. Total weight about 7 drachms.

An interesting circumstance in the case was that the patient suffered intensely from pruritus ani. He had been twice operated on with the actual cautery by different surgeons. Another had stretched his sphincter so as to produce incontinence of faeces for a time. None of these procedures had given relief. I suggested to him that he might also be relieved of this trouble by the removal of the prostatic obstruction. For three weeks there was absolutely no pruritus. Then there was a slight return, but his present condition even in this respect is entirely satisfactory.

The Mystery of the Capsules.

In the controversy which arose on the publication of Mr. Freyer's lectures the statement that he had removed the prostate in its capsule was challenged. Some writers appeared to think only of the covering or sheath supplied by the recto-vesical fascia, and it was pointed out that if this were opened up or removed urinary extravasation must follow. Mr. Freyer of course never suggested that he did anything of the kind, but he adopted the term used by Sir Henry Thompson—"proper capsule"—to describe a structure distinct from the covering provided by the recto-vesical fascia. It is important to repeat his words here: "The proper capsule, which cannot be regarded as a mere offshoot from any adjacent fascia, but is a special envelope belonging to the prostate itself, although thin, is firm in texture, and defines clearly the form and limits of the prostate here."[1]

We have thus far got two capsules mentioned in the dispute; but the confusion is hardly lessened when a third is described by Mr. Cuthbert Wallace.[2] He uses the term "capsule" in reference to an entirely different structure from either of those that I have referred to. Mr. Wallace's paper is a most valuable contribution. Starting from the point that the enlargement of the gland is produced by adenomatous growth, he proceeds to show that, at all events in some cases, the mass which is enucleated is not the entire prostate, but that that structure is left behind, thinned out by the intraglandular pressure of the adenoma, and can be so recognized *post mortem*. It is a little unfortunate that he applies the word "capsule" to this flattened covering of prostatic tissue, because it is "capsulating" in form only, due to pathological causes, and is not anatomical.

It is well, however, to note that the term "capsule" has been employed in reference to three different things, and it is necessary to make clear about which of them we are speaking. The first is the "proper capsule" (Thompson), indicated by Mr. Freyer; the second the layer of thinned prostate which remains in certain cases when a large adenoma is enucleated (Wallace); the third formed by the normal reflexion of the recto-vesical fascia.

Is it Possible to Remove the Entire Prostate?

Behind all this conflict of view, however, lie the questions whether in this and similar operations the prostate as a whole is removed, or indeed can be removed, or whether the part extirpated by the surgeon is only an adenomatous tumour developed within the gland; this last, squeezed out of normal shape into a thin covering by intraglandular pressure, being left behind.

I have read the letters published in the JOURNAL in criticism of Mr. Freyer's claim that he has removed several complete prostates. Regarding them merely as divergences of opinion they are somewhat startling, coming as they do from surgeons of high position and large experience. For the writers are by no means unanimous as to what they have done, or what they believe to be possible in operations for removal of prostatic obstruction. Mr. Mayo Robson says: "Even if it were possible to take away the entire prostate it would be unnecessary and undesirable, seeing that a removal of all the hypertrophies effects a cure of the disease." The implication

is plain that it is not possible to remove the prostate as a whole.

But it is somewhat confusing to find in the same letter these statements: "If Mr. Freyer will take the trouble to examine the specimens in the Leeds Pathological Museum, he will see that all the members of the staff have been performing enucleation of the prostate for years." Clearly one or other of these statements must be incorrect. Mr. Bruce Clarke has on "several occasions removed the whole prostate." Mr. James H. Nicoll says: "I have in my possession several complete prostates which I have removed by operation." Mr. A. R. Anderson: "For years past, when operating for prostatic enlargement, I have extirpated the gland completely." Samuel Alexander of New York,[3] in describing his operation through the perineum, says: "The fibrous sheath of the prostate covering its posterior and inferior surface is broken into by the finger and the capsule entered: the entire prostate is shelled out from within its sheath by digital dissection." A. B. Johnson, J. Rogers, and Willie Meyer also declare that they have removed "the entire prostate."

There can be no doubt about the meaning of these phrases; but do they really represent what has been done, and have all these gentlemen and many others who need not be quoted been under a delusion as to what they did accomplish?

On the other hand, there is a strong body of opinion that removal of the entire prostate is impossible. Belfield is obviously in some doubt, for in a footnote[4] he says: "The obvious etymological inaccuracy of this term (prostatectomy) is still of slight moment, since the real 'prostatectomy'—extirpation of the entire prostate—is as yet a rare experiment." Cuthbert Wallace[5] says that the facts "leave no reasonable doubt that the so-called total prostatectomy is nothing more than the removal of adenomatous masses." Mr. E. Taylor is of opinion that Mr. Freyer has "done nothing more than remove encapsuled prostatic growths. A total extirpation would of necessity involve the removal of the prostatic urethra, to which there adhered in these cases a varying amount of prostatic tissue and which remained connected with the common ejaculatory ducts."[6] Mr. Buckston Browne is "satisfied that it is impossible to entirely remove the prostate and at the same time leave intact the prostatic veins and capsule, urethra, and seminal ducts."[7] To this side, also, must be added the testimony of Mr. Mayo Robson, who declares extirpation of the prostate, including its "capsule," to be impracticable from an anatomical point of view.[8]

It will be seen that these propositions are somewhat abstract, for in no case is it stated that, so far as the result of an operation is concerned, a subsequent examination of the parts has been made. This will no doubt be done in some fatal case in which the entire prostate is supposed to have been removed, and it will then be known whether this has been really effected. The evidence as to the impossibility of removing the gland is based upon the inspection of cases in the *post-mortem* room, no operation having been attempted while the individual was living. Sometimes preserved specimens have been examined, and sometimes normal prostates. Some experimenters have declared that their efforts to extirpate the gland have entirely failed, others have succeeded[9]; and Belfield quotes Vignard as declaring that experimenting on the cadaver he has "in six out of ten cases enucleated the entire prostate—hypertrophied or otherwise—with reasonable ease."[10] The entanglement is not much cleared by these reports. It may be observed, however, that so far as facility of removal goes, we are not comparing like conditions. A normal prostate would certainly be more difficult to remove than an enlarged one, even in the dead body; and certainly we do not find in hardened jar specimens the conditions met with in dealing with a prostatic obstruction in the living.

The conflict of testimony is not a little perplexing. The opposition is based mainly upon the relation of the normal parts, but it is necessary to take into consideration also the influence of pathological changes which may make possible to the surgeon what is impossible in the view of the anatomist. Some of the opponents lay down certain conditions which they hold must attend extirpation of the entire prostate, namely, the concurrent removal of the seminal ducts and the prostatic urethra. Accepting this as correct then, it may be truly claimed that the prostate can be completely enucleated, because in several reported cases the urethra and ducts have been so removed, and I understand that Mr. Freyer has deliberately taken away the urethra in some instances without detriment to the patients.

The controversy, however, has not much practical interest beyond emphasizing the importance of accuracy in the use of terms and in the description of operative procedures. To the patient, at all events, it is not of much moment whether we really do a prostatectomy or only remove adenomata. What he suffers from is the mechanical obstruction caused by the tumour, and he will not worry about fine distinctions of term if the surgeon can restore to him the functional ease of former days. In my own case I removed two adenomatous tumours, leaving behind, I believe, a layer of prostatic tissue representing the gland proper, but squeezed out of recognition by the pressure of the pathological growth. I have examined my patient quite recently, and nothing can be felt in the rectum to indicate a prostate at all, while the bladder function is as good as it was twenty years ago.

But whatever difference of view there may be upon the points to which I have alluded, there ought to be none upon the fact that Mr. Freyer has established the operation upon a stronger and wider basis than it has ever occupied, and that his advocacy marks a distinct advance in the surgery of the prostate.

REFERENCES.

[1] Sir Henry Thompson, *Diseases of the Prostate*, p. 3. [2] BRITISH MEDICAL JOURNAL, March 29th, 1902, p. 765. [3] *Medical Record*, December, 1896. [4] *Internat. Journal of the Medical Sciences*, 1890, vol. c, p. 445. [5] BRITISH MEDICAL JOURNAL, March 29th, 1902. [6] Ibid., p. 774. [7] BRITISH MEDICAL JOURNAL, August 17th, 1901, p. 434. [8] Ibid., August 10th, 1901, p. 383. [9] Roberts, BRITISH MEDICAL JOURNAL, March 29th, 1902, p. 769. [10] *Internat. Journal of the Medical Sciences*, 1890, vol. c, p. 449.

CHRONIC HYPERTROPHY OF THE PROSTATE: FREYER'S OPERATION: RECOVERY.

BY LIEUTENANT-COLONEL JOHN SMYTH, M.D., I.M.S.,
Superintendent, Victoria Hospital, Bangalore.

CHRONIC enlargement of the prostate is rare in Southern India as compared with its prevalence in Europe. But that it does occur amongst Southern Indians is undoubted, and two or three cases of partial extirpation with great relief to the sufferers are on record.

I do not recollect reading of a case of total extirpation of the prostate in India, though doubtless the operation has been performed. The extremely unsatisfactory methods of dealing with chronic enlargements of the prostate hitherto in vogue have doubtless deterred most of us from attempts at a radical cure by extirpation. My own solitary case of partial extirpation died some weeks after the operation, having gained very little benefit from the operation.

The new operation recently devised by Freyer has revived the subject of radical cure of this affection, and his success seems to open up great possibilities for the future. I have called Freyer's operation a new one, notwithstanding the recent discussions in the BRITISH MEDICAL JOURNAL on the subject. I think any one who has performed his operation would do so. I have gone through the literature of the radical cure of the chronic enlargement of the prostate, all, I think, except that which is supposed to contain the statement that the operation now performed by Freyer was done years ago by a French surgeon. I shall be glad if any reader of this note will point out where the description of the operation by this French surgeon is to be found. Till I see this description I must agree with those who believe that Freyer's procedure is a new one.

As this operation is still, so to speak, under trial, I think it would be well if every surgeon who undertakes it published his cases, so that some idea of the mortality attending it may be formed. The operation is itself extremely simple, the removal of the gland is thorough; nevertheless, if it is accompanied by as high a mortality as the old method it will have to be set aside, and surgeons must still cast about for a method of treating this disease, a disease fraught with such misery to its victims. For this reason I now publish a case in which Freyer's operation was performed by me.

History.—The patient was a male Hindu, aged 60, a sturdy farmer. Twenty years before admission to hospital he had had gonorrhœa. Three years ago he was in the Bowring Hospital, Bangalore, for inability to pass his urine freely, but got no better. He was admitted under my care into the Victoria Hospital, Bangalore, on January 4th, 1902, in great distress. He said that for the past twelve months he had to pass water every half-hour in the knee-elbow position, with much straining.

State on Examination.—No stricture was found, but the prostate was considerably enlarged. Residual cloudy urine measured 4 oz. Cystoscopic examination showed that the lateral lobes of the prostate projected into the bladder with a groove between them, while from the lower commissure of this groove sprang a pedunculated globular tumour, about half an inch in diameter, which moved about freely in the water with which the bladder was distended.

Operation.—On January 18th I performed the enucleation. The bladder was opened without difficulty, but I noted that the vesical incision bled more than usual. I then caught up the mucous membrane on the ridge of the right lobe, and snipped off a fold, so as to leave a button-hole large enough to admit the tip of the forefinger. Through this opening, which proved very dilatable, I enucleated first the right and then the left lobe, using the left forefinger only as the enucleator, while the right fingers in the rectum assisted. The only difficulty experienced was when the anterior or upper ends of the prostate near the triangular ligament came to be enucleated; the finger seemed barely long enough to accomplish this part of the process. The small tumour seen with cystoscope came away with the right lobe. The bleeding by now had become very free. I washed out the bladder with hot boric lotion, inserted a drainage tube through the suprapubic opening, washed out the bladder again as some bleeding seemed still to be going on, and sent the patient to bed. There was no shock, and the operation lasted less than half an hour. About an hour or so afterwards, when I was engaged on another operation, I was sent for, as haemorrhage had again set in. I found blood flowing pretty freely from the wound, but on inserting my finger into the bladder wound, and pulling up the viscus, the bleeding stopped. I then inserted a Fergusson's speculum and examined the site of the enucleation wound. It was not bleeding. The blood was coming up slowly outside the speculum from the anterior aspect of the suprapubic wound on the bladder. I tied in a large-sized (1 in. diameter) Fergusson's speculum, which was firmly grasped by the bladder wound, and the bleeding at once ceased. Through this speculum a clear view of the base of the bladder was obtainable. The patient lost a lot of blood, and was quite blanched, but soon rallied. I removed the speculum in six hours, and reinserted the drainage tube.

Progress.—The bladder was irrigated daily with boric lotion for a fortnight or so. The wound was completely closed by February 11th. By February 26th he could retain his urine for four hours. There was ½ oz. of clear residual urine. When the lobes of the enucleated prostate were placed in position the transverse measurement was 2⅝ in. The weight was 1 oz. 5 dr. and 35 gr.

This prostate was, therefore, not a very much enlarged organ; still, it rendered life a burden, and the result of the operation was most gratifying, the patient leaving hospital for his duties in the fields strong and happy. It should be a rule never to allow these patients to leave the table till bleeding from every source has ceased.

The bleeding in this case had nothing to do with the enucleation. It was from the enormously thickened wall of the bladder at the anterior or lower extremity of the suprapubic wound. In another case I should be inclined to control the margins of this wound by passing a thick silk ligature through them, so that they could at any time be readily drawn to the surface and their condition examined.

I examined the prostatic site per rectum before the patient was discharged from hospital. There was quite a mass of indurated tissue. It felt, in fact, as if the prostate were still there, but mis-shapen. That it was not there, nor any tissue of any considerable thickness, was quite certain after the enucleation was completed, for with one finger in the bladder and the other in the rectum I palpated the site most carefully. I suppose the thickening I have described as felt by rectum just before the discharge was merely cicatricial tissue.

FURTHER REMARKS ON MYASTHENIA.

By SIR WILLIAM R. GOWERS, M.D., F.R.S.,
Consulting Physician to University College Hospital; Physician to the National Hospital for the Paralysed and Epileptic.

To the three cases of myasthenia and ophthalmoplegia published in the BRITISH MEDICAL JOURNAL for May 24th, I am able to add a fourth. The patient was first seen more than two years ago, but I have been able to make a careful examination since the preceding article has been in print.

CASE IV.

A girl, now aged 14, was 12 when I first saw her. Her family is "nervous," but free from definite disease, either insanity or epilepsy. Healthy in early childhood, the symptoms of weakness began gradually at about 8 years of age, and were ascribed to an attack of influenza some time before, but without evidence of a causal relation. The symptoms had slowly increased up to the time I first saw her, and have since undergone little change.

She is a tall girl, with conspicuous ptosis and consequent backward carriage of the head. The edge of the right lid is opposite the middle of the pupil, of the left rather lower. There is no elevation of the lids voluntarily or on attempting to look up. The orbicularis on each side contracts well and firmly (two years before the contraction of the right was less strong than the left). The frontales act well. The lower part of the face is much weaker on the right side than on the left, but there is no "nasal smile." The naso-labial furrow curves round the corner of the mouth in the same way on each side, but is much slighter on the right. The lips seem a little weak, but she can just whistle with an effort. Articulation is curiously slow and laboured; the only consonant distinctly imperfect is *b*. The tongue is protruded straight and appears normal. The voice is nasal; the palate raised but little, and liquids, when being swallowed, have occasionally regurgitated through the nose during the last six months. There has been throughout slight weakness of the adductors of the vocal cords (Sir F. Semon). The masseters contract firmly, but the right distinctly less than the left, just as the right side of the face moves less. No evidence of exhaustibility can be obtained, but she habitually masticates imperfectly.

The movement of the eyes upwards is defective. Two years ago hardly any movement was perceived, and still there is very little in the right, and in the left only about a quarter of the normal. Movement downwards is fair, but hardly normal. The same is the case with each of the lateral movements, and they are the same in the two eyes. In spite of the fair action of each internal rectus with the opposite external rectus, convergence is absent. On an attempt, the right eye remains in the mid position, and there is only a doubtful, very slight movement of the left eye. Yet accommodation seems good: she can read the smallest test type at 9 inches and there is not definite myopia. The pupils are large and act well to light. The discs are normal.

The hands are very weak. The grasp is R. 2, L. 0 K°. In each the fingers can only be quite extended when the hand is in a line with the forearm, not when the wrist is over-extended (just as in Case 1). The general weakness of the hand is greater on the left side, as the grasp shows, and the muscles on this side are generally thinner than on the right, without definite local wasting. Excitability by the isolated faradic shocks is considerably less in the left hand than on the right. (The girl's distressing nervous sensitiveness made impossible any further electrical testing, or an attempt to obtain the myasthenic reaction.)

There is no distinct weakness of the legs: she can walk two or three miles, and has a firm seat on horseback. The knee-jerks are good and equal, but quickly diminish on repetition, until there is hardly any movement on the tenth successive tap. After a few seconds' rest it is as energetic as at first.

She has lately had two convulsive attacks at eight weeks interval, commencing with deviation of the head and eyes to the left, followed by general tonic and clonic spasm, equal on the two sides. The onset of each was attended by an indescribable feeling in the head and a visual sensation of a flame-like light in front of whatever she was looking at. During the interval she has had some typical minor attacks consisting in a momentary sense of strangeness and mental confusion.

On the whole, there has been little change during the last two years. An attempt was made to give strychnine by hypodermic injection, and it seemed to do good, but the injections caused so much emotional distress that they were discontinued.

REMARKS.

The case is of interest as presenting, like the others, ophthalmoplegia in addition to fairly typical symptoms of myasthenia, and in the fact that the peculiar "nasal smile" was not present. It is also of interest as one of those in which there is a marked difference between the two sides, especially in the face and hands, and in the association of slight atrophy of the muscles, and a diminution of electrical excitability, with the greater weakness of the left hand.

The impaired movement of the eyes resembles that in the

three other cases in being greatest in the upward movement. Of especial importance is the absence of the ability to converge the eyes in spite of the fair action of the internal recti on lateral movements. It is difficult to understand this symptom except on the assumption of a central affection. It may be compared with the fact that in Case I the left eye at one time only moved outwards when tested separately, not with the right eye, and also with the fact that in Case II the eyelids, which could not be raised voluntarily, were sometimes over elevated under the influence of interested attention.

Lastly, the development of epilepsy in a subject of myasthenia is very unusual. I have not met with any recorded instance. It is the more remarkable on account of the absence of any inherited tendency. Its rarity deprives it of much significance, since such cases of epilepsy developing *de novo* at this time of life are not unusual. Few diseases are mutually exclusive, and the attacks in this case may perhaps be associated with the extreme nervous sensitiveness rather than with the condition of myasthenia.

It is customary to include among collected cases of myasthenia a case described by Wilks in the *Guy's Hospital Reports* for 1877 (vol. xxii, third series, p. 54). There seems to me no justification for its inclusion. The patient died from bulbar symptoms, and apparently paralysis of the respiratory muscles or larynx—"quite unable to cough"—of three days' duration, after slight symptoms of general and bulbar character lasting a month. Their feature was slowness, as if due to "lethargy from want of will." There was slight strabismus, but no mention is made of ptosis. No morbid change was found. The case seems to resemble diphtherial paralysis more than myasthenia. There is no evidence that preceding sore throat was inquired for.

FURTHER REMARKS ON FINSEN'S LIGHT AND *X*-RAY TREATMENT IN LUPUS AND RODENT ULCER.

BY

MALCOLM MORRIS, F.R.C.S.Edin., Surgeon, Skin Department, St. Mary's Hospital;

and

S. ERNEST DORE, M.B.Cantab., Clinical Assistant, Skin Department, St. Mary's Hospital.

In the British Medical Journal of February 9th, 1901, p. 326, we gave an account of our experience of Finsen's method up to that date. It may be useful if we now give a further record of our experience—now extending over two years—of its utility and its limitations. Such a report is likely to be more valuable owing to the fact that there has of late been a tendency to exaggerate the possibilities of the light treatment, and to employ it to the exclusion of all other older and well-tried methods. It is only by a plain statement of facts that we can enable those who have no personal experience of the treatment to estimate it at its true value, and assign to it its proper place in the therapeutics of the diseases in question.

We may, therefore, say at once that although in our opinion the results we have obtained have fully justified the employment of the treatment, and in some cases no other treatment could have produced such good results, we do not regard it as the only method to be used in all cases, nor advocate it indiscriminately to the exclusion of other methods. But when used judiciously, and combined, if necessary, with other means, we may perhaps claim for it the first place in the treatment of the majority of cases of lupus vulgaris. In regard to cosmetic effects it certainly stands first, while in reliability it yields to none, practically all the cases we have had under treatment have made a steady improvement. In regard to permanency of results, however, we are inclined to reserve our opinion as to its superiority over other forms of treatment. That relapses have been common in our experience when the disease has not been entirely eradicated is only too true. The patient must be kept under constant supervision, and the recurrent nodules treated without delay as they make their appearance. These relapses are due largely to the fact that it is difficult to be certain when the part has had sufficient treatment for the disease to be completely extirpated.

If it were not for this constant supervision and repetition of the treatment, the disease would soon regain its hold, and a still more extended experience is necessary before we can say that phototherapy is more permanent in its results than other measures. On the other hand the fact that applications of the light rays can be made over and over again without injuring the tissues and with improvement rather than deterioration of the scar is in itself a strong argument in favour of this form of treatment both for lupus and rodent ulcer, and as long as the patient is kept under observation and recurrent disease dealt with immediately on its appearance, the intervals between the recurrences become longer and longer, so that eventually a time may be reached when the disease is entirely eradicated.

Another point of importance is the fact that this treatment makes evident disease which was hitherto unsuspected, enabling the disease to be more thoroughly treated than by other methods. This may also account in part for the great length of treatment required.

Disadvantages of the Light Treatment.

The disadvantages of Finsen's method are now well known, the chief being the tediousness and length of time, the small area that can be treated at a time, the elaborate and expensive apparatus, and the large staff of attendants required. The French lamp of Lortet and Genoud, in which the rays are not concentrated but in which the patient is brought close to the source of light before it diverges, does away with most of these disadvantages. The rays, however, do not penetrate in the same way as when they are brought to a focus, and their action is too superficial. For this reason this lamp and the Danish lamp with water-cooled iron electrodes have been discarded in Copenhagen. We have found the French lamp of service in cases in which the lupus is superficial, and in extensive cases as a preliminary to treatment with the Finsen lamp, but not as a substitute for the latter. In the new Finsen lamp the principle is the same as in the old one, but it is modified in such a way as to make it applicable to one patient at a time, and the cost is thereby much reduced.

The *X* Rays.

Although we have found the *x* rays very useful as an adjunct to the light rays, we do not, except in certain cases, regard them as an adequate substitute. We have treated many cases with the *x* rays alone, and have formed the conclusion that in the majority of cases Finsen's method is more reliable, and apparently gives more permanent results. The effects can more easily be controlled, and the scar is better, for although a very good scar may result from the *x*-ray treatment, it seems to have more tendency to contract, perhaps varying with the severity and depth of the reaction.

This was well shown in one of our cases in which both methods were applied to different parts of the skin. The scar resulting from the *x*-ray treatment was more discoloured, denser, less supple, and more tense than the other, which was so fine and smooth as almost to resemble normal skin.

There also appeared to be a greater tendency to relapse in the scar, although the total number of applications was certainly less than that of the light. Although a larger area may be treated with *x* rays than by Finsen's method, it is not advisable to expose too large an area at once on account of the severity of the reaction; and for permanent or at all events rapid results, a reaction seems to be necessary. Pressure is of course not required in the treatment with *x* rays. The *x* rays seem to have a slight selective action on diseased tissues, but the healthy skin is also affected. Like the violet rays, they cause pigmentation and softening of scar tissue. They differ from the latter in their physical properties, in the fact that they cause loss instead of growth of hair, are not bactericidal, and in many other ways.

Advantages of X Rays.

In ulcerating cases the *x* rays are effective in so far that the ulcerations heal rapidly. In one of our cases a small ulcerating surface, which resisted treatment by Finsen's light, rapidly healed after a few exposures of *x* rays. For mucous membranes inaccessible to the light the *x* rays are very useful, and may be combined with Finsen's treatment in other parts. Notwithstanding the much greater penetrating power of the

x rays, they seem to have a special affinity in their action for the cutaneous or mucous surfaces. Where the mucous membranes could be exposed directly to the action of the rays, we have had better results than when it was attempted to treat them through the skin. Thus in treating the nasal mucous membranes, it is better to use a speculum and to direct the rays into the cavity, than to trust to penetration through the external skin or cartilage. If the latter course be adopted, there is not only little effect on the mucous membrane, but there is danger of setting up too severe a reaction in the overlying skin.

Disadvantages of the X Rays.

When the *x* rays were first used as a therapeutic agent great stress was rightly laid on the danger of causing acute dermatitis and necrosing ulcerations, of which several instances occurred from giving long exposures with low tubes. Now, however, by giving short exposures and by avoiding the use of very low tubes, this danger has been, to a large extent, eliminated. Although owing to the large number of factors to be taken into consideration it is still much more difficult to estimate the dosage of *x* rays than it is in the case of the violet rays, we have found that by observation when similar conditions can as nearly as possible be arranged, the effects we endeavour to produce can be obtained.

DIFFERENCES IN THE TWO REACTIONS.

In our first paper[1] we emphasized the importance of striving to obtain a reaction after every application of Finsen's rays, and we are still of the opinion that good reactions are productive of better results; when there is no reaction there is comparatively little benefit. In most of our cases the severity of the reaction has remained the same with continued treatment, but in some the reactions have become more severe, in others less so.

With regard to the *x* rays, there has been much difference of opinion as to the necessity of producing an inflammatory reaction. Our own view is that the therapeutic effect, as in the case of the violet rays, is much greater when a reaction occurs. In ulcerating cases reaction as a rule does not occur so readily as in the unbroken skin, and may not come on until healing has taken place and new epidermis formed. It may be mentioned that a part previously treated with *x* rays seems to give more severe reactions with Finsen's treatment, but the converse does not hold good.

The reaction produced by the light rays is fairly uniform in its time of onset, intensity, and duration, depending upon certain conditions which were dealt with in a previous paper.[2] It comes on a short time after exposure to the light, causes a more or less circumscribed and comparatively superficial inflammation with the formation of blebs and serous crusts.

On the other hand, owing to the difficulty of accurately estimating the dosage, the reaction from the *x* rays is much more variable. There may be no inflammatory phenomena with ordinary short exposures, or the reaction may vary from a slight transient erythema to a deep-seated suppurative inflammation of long duration; the necrosis of tissues which has occurred in a few cases has already been referred to.

The time of onset and severity of reaction vary within wide limits. With daily exposures of ten minutes, with the anticathode at a distance of about 5 in. from the patient's skin, some reaction is generally manifested after eight or nine applications, but varies from two or three to fifteen and more, its onset being more or less gradual, and usually indicated by some redness or soreness of the part. It often comes on two or three days after the cessation of treatment, but may be delayed for a considerable time, and make its appearance with but little warning. Many factors are concerned in its production, such as the duration of the exposure and the interval between them, the distance of the tube from the patient, the kind of tube employed, and the degree of exhaustion of its vacuum, the strength of the current, the nature of the coil and interrupter used, the peculiarities of the patient's skin, etc., so that results apply only to a given set of apparatus worked under similar conditions for each application. By keeping a daily record of the above data it is not difficult to estimate the effect that will be produced. We have obtained our results with an electric supply from 200-volt circuit, a 12-in. coil, and a mercury jet interrupter. The conditions have been varied considerably in many cases, but as a rule have been as follows: Time of exposure, ten minutes daily; distance of anticathode from patient, about 5 in.; tube giving a spark gap (point + plate −) of about 7 in.; volume, about 3½ amperes.

The conditions which hinder reaction from the ultra-violet rays also seem to apply, although to a less degree, to the reaction from the *x* rays, for, in spite of the greater penetration of the latter, they seem to have a special action on the cutaneous tissues. Contrary to expectation, several very hyperaemic cases have reacted strongly to the ultra-violet rays, and these cases also seem to react more quickly and severely to *x* rays.

The reaction from the *x* rays is as a rule more severe than that caused by the ultra-violet rays; it is deeper, more painful, and usually suppurative. Its onset is delayed; the effect of the rays being cumulative, it lasts longer than the Finsen reaction—a fortnight or three weeks—and the action goes on for some time after cessation of the treatment.

Treatment of Rodent Ulcer.

Even very extensive ulcerations of the rodent type rapidly heal by granulation under treatment by *x* rays and are replaced by a healthy scar tissue, and in such cases, especially if inoperable, there can be no doubt as to the advantage of employing this method of treatment. The characteristic rolled, indurated edge of a rodent is not so easily dealt with, and it may be necessary to push the treatment until a moderate reaction is set up before this will disappear. Another way of attaining the same object is to treat this resistant edge by Finsen's method or by the cautery or surgical procedures before employing the *x* rays. In small non-ulcerating rodents Finsen's treatment seems to give more rapid results than the *x* rays, partly, perhaps, by causing a mechanical removal of the growth. In larger rodents, whether ulcerating or not, Finsen's treatment is not applicable, as it is impossible, on account of the small area treated at a time, to keep pace with the spreading margin.

With regard to recurrences, the same applies in this case as in the treatment of lupus; undoubtedly they do occur, but are easily dealt with. It is most important to continue the treatment until every particle of the disease as far as can be seen and felt is eradicated, or, if possible, to continue the applications for a short time after apparent cure. It may be mentioned that in rodent as in lupus Finsen's treatment reveals the whole extent of the disease, which is often greater than was apparent before treatment, and thus enables the growth to be more thoroughly dealt with.

CASES.

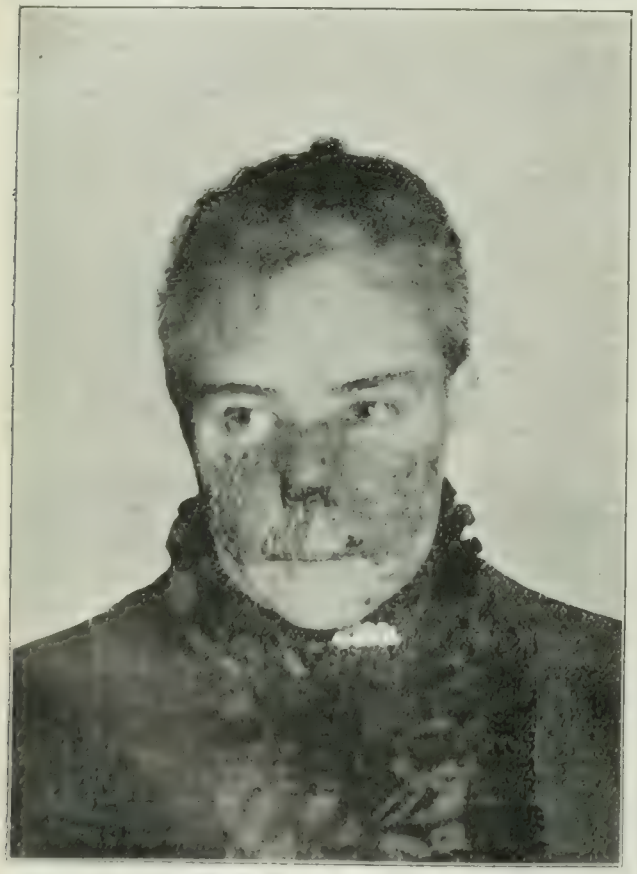
The following are notes of the further course of cases related in the report published in the BRITISH MEDICAL JOURNAL of February 9th, 1901. The numbers correspond to those used to denote the cases in that paper:

Lupus Vulgaris.

CASE I.—A woman, aged 33. This patient has now been under treatment for nearly two years, and has had nearly 500 applications of light and 174 of Roentgen rays. A few nodules still crop up if treatment is discontinued for long, but this is scarcely to be wondered at when the duration, extent, and aggressive character of the lupus in the first place is considered. The improvement she has made is very great. She had previously had almost every other form of treatment, and although she has never before been under constant treatment for such a long period it may fairly be said that nothing else could have produced such a result. The right cheek is now apparently quite free of disease, and the skin is so pale and smooth that without close inspection it might easily be supposed that it had never been affected. The left side of the face is not quite so good, and has a somewhat mottled look produced by white scar and patches of pigmentation. On examination with the diascope a few brownish infiltrations can be detected here and there, but the skin is, except for the pigmentation, on the whole pale, smooth, and supple to the touch, unlike ordinary cicatricial tissue. On the upper lip and a small area on the left cheek, where *x* rays have been used, the scar is [illegible] and coarser than on the parts treated with light rays; the disease has also relapsed somewhat in these [illegible] number of applications of *x* rays have [illegible] mucous membrane of the nose, also treated with *x* rays, [illegible] sound. It may be mentioned that the growth of hair on the cheeks not diseased has been somewhat accelerated, and they are now covered with a very fine downy growth.

CASE II.—Man, aged 40. When this case was reported before, the improvement was very marked: on account, however, of the great extent and aggressiveness of the disease it was found difficult to keep pace with the rapidly-recurring nodules with only one hour's treatment daily, and the patient was unable to give more. At the end of May, 1901, when

had had 223 applications, he was unable to continue the treatment owing to pressure of work. At this time the skin of the cheeks presented a fine smooth pigmented scar tissue with no active disease in the central parts. At the margin of the patch, however, on the cheeks, under the chin, and on the neck, the nodules reappeared as fast as they were treated, and the disease was only just kept in check by the single daily applications. The left ear, which from being enormously oedematous and swollen had become somewhat smaller from treatment, was again increasing in size. At the beginning of November the disease had gone back considerably, although the benefit he had derived was still very evident. The disease was active at the edges of the diseased area, and there were a few apparently fresh, rather prominent, and infiltrated nodules near the nose, at the inner margin of the patch. In other parts, also, the lupus showed signs of becoming more active. He was given urea, grs. xxx, t.d.s., and was advised to have *x* rays, as this would take less time, and enable a larger area to be treated. After he had had three or four exposures he stopped in order to have an operation on his ear, which was now of great size. On January 6th he came back, having had the lower swollen part of his ear excised. Unfortunately the lupus of the face had gone back very much during the interval, and again became thick and infiltrated. At the peripheral parts especially the nodules were large and prominent, and the disease had encroached on the healthy skin of the cheek on either side of the nose. He began daily applications of Finsen again, at the same time going on with the urea, which he thought had done him good.



Case I: Before treatment.

CASE III.—Man aged 22, was one in which the whole of the central part of the face was affected—the lower parts of the nose had been previously destroyed by the disease; both cheeks were studded with large, deep-seated nodules. The worst feature of the case, however, was the extensive and intractable ulceration of the mucous membranes of both lips and the inside of the mouth. The upper lip was infiltrated with lupus, being greatly thickened and oedematous, and the whole lip protruded. Under treatment with light the disease on the cheeks was very much benefited; the ulcers also, instead of being foul and covered with crusts, became clean and less ragged. After 164 exposures there were still a few scattered pale nodules embedded in the scar, especially at the edges of the patch on the cheeks, but they were very small and superficial, and although they disappeared for a time after treatment, they soon cropped up again. The ulcerations about the mouth [illegible] shallower, but failed to heal up completely, and soon became worse if treatment was discontinued. On May 7th, the light treatment was stopped and [illegible] exposures to each corner of the mouth were [illegible] and when the inflammation subsided the [illegible] When he had had twenty applications [illegible] up much reduced. The [illegible] At the present [illegible] which have had no treatment for eight months, there is some relapse. The nodules in the scar at the periphery of the patch, which were never entirely eradicated, have become large and prominent again, and a few fresh ones have formed.

CASE IV.—An unmarried lady, aged 24 years.

Family History good; she has four brothers and sisters, all of them in good health: no history of consumption.

Personal History.—Her general health has always been very good.

History of Present Condition.—Her disease began when she was 3 years of age; it followed an injury which caused a slight wound on the chin that did not heal. The patch was about the size of a sixpenny piece at first, and has since continued to spread very gradually.

Present Condition.—There is a more or less circular patch of a brownish-red colour, situated on the extremity of the chin a little to the left of the middle line. It measures about 1½ in. either way. There is a uniform, diffuse, dark brown infiltration of the skin, slightly raised above the surface, with a well-defined but somewhat irregular outline. The surrounding skin is quite healthy, and there are no outlying nodules. She is a tall, healthy-looking girl, with a soft skin of fair complexion and a bright colour. Light treatment for one hour daily was commenced on January 2nd. January 7th. The patch has now been treated all over, and is blistered and sore, so that treatment had to be discontinued for a time. The reactions have been good. January 14th. The diseased area is now sufficiently healed to begin treatment again; it looks paler, but this is partly



Case I: After treatment.

due to partially detached epidermis. January 30th. The affected part is now very sore, and the granulomatous infiltration is obscured by blebs and crusts. A rest was given to allow healing to take place. February 4th. The inflammation has subsided and the part has healed up. It has a pale pink colour instead of being of a dark brownish red. Scarcely any lupus can be seen, but it is partly hidden by loose macerated epidermis. February 19th. No nodules can be seen on pressure in the upper part of the diseased surface, but one or two are still visible at the lower part. February 26th. The upper half of the patch presents a pale red, healthy surface. There are still some distinct nodules in the lower part, especially round the edge. March 15th. Only one distinct lupous nodule is now visible. March 23rd. No disease can be seen, but it is difficult to be certain that there is none left on account of the soft opaque epidermis overlying the diseased part. March 30th. Treatment discontinued. April 23rd. She has had no treatment since March 30th. There is still a little thickening and redness of the skin over the patch, but no granulomatous tissue can be seen on pressure with a glass. February 11th, 1902. The originally diseased area is covered with smooth white skin, which without very close inspection could not be distinguished from the normal. There is no disease left and no disfigurement.

CASE V.—Boy, aged 12 years.

Family History.—Father and mother and a sister in good health.
Personal History.—Has always been in the best of health.
History of Present Condition.—The disease began five years ago from a "small scratch" on the face; this did not heal, and was followed by a small shiny red spot. It was not treated until three years ago, when it was cauterized once or twice a week for two or three months. After this he had it excised five times in all, but it recurred very soon after each operation. The last operation was performed about five weeks ago, and almost directly after the wound had healed two small brown spots appeared.
Present Condition.—There is a small linear scar, about ¾ in. long, situated on the left cheek between the angle of the jaw and the corner of the mouth (about 1½ in. from the latter). At the upper end of this there are two small lupus nodules embedded in the scar tissue; they are in close proximity, and each is about 3 mm. in diameter. As far as can be seen the remainder of the scar is healthy. October 26th, 1900. Treated with light for fifty minutes. October 27th. Two small blebs with some surrounding hyperæmia have appeared at the site of the spot treated yesterday. The place is also slightly tender. October 29th. The two small blisters have coalesced to form one large one, the lupoid nodules cannot be distinguished on account of the blister. November 3rd. The area is covered with a layer of loose skin on removal of which the nodules can be seen. To-day is the fifth of treatment.



Case VII: Before treatment.

November 6th. The spot is not very sore, on removal of the scab a pit is seen in the position of one of the nodules, the other cannot be seen. November 8th. The spot is too sore for treatment to be continued. November 10th. The soreness has abated, but the crust is still too adherent to be removed. November 13th. The crust was able to be taken off with forceps and treatment continued. November 15th. To-day is the eighth day of treatment. The crust was removed with difficulty. The spot was too inflamed and swollen to be able to distinguish any lupoid tissue. Treatment postponed. December 12th. The scar is softer and more even. The nodules are apparently more superficial, and another one which was not visible before can now be seen to the inner side of the other two. The two deep-seated nodules that were so obvious at the commencement of treatment have joined to form one pale superficial one with indefinite outlines. January 9th, 1901. With ordinary observation no disease is visible, but with firm pressure with a glass two indistinct faintly discoloured spots can just be made out. Treated again to-day for an hour. January 11th. Has had three more consecutive applications. The part is now inflamed and covered by a scab. He has had eleven applications altogether. Treatment discontinued. May 7th, 1902. No recurrence.

CASE VI.—Female, aged 10.
Family History.—Father and mother living and healthy, also three brothers and three sisters. One brother died of rheumatic fever. No skin disease or consumption in the family.
Personal History.—She has always been healthy, and has only been laid up for an attack of scarlet fever and of influenza.
History of Present Condition.—When she was 7 years of age, just after she had had influenza, a small red spot the size of a pin's head formed on the left cheek, near the nose. This gradually increased in size, and became slightly raised above the surface. When she was 10 years of age, and the spot was about as large as a threepenny piece, she went to [illegible] hospital, where it was operated upon with the cautery. The disease was destroyed, leaving a slight scar. This remained healthy for two years, but when she was 10 the disease came back again. For the last three years she has used an ointment, and the disease has been alternately better and worse. The patch is now considerably larger than it was two years ago.
Present Condition.—There is a small, nearly circular patch of lupus vulgaris on the left side of the face near the ala of the nose. It is about the size of a sixpenny-piece (¾ in. by ¾ in.). It is raised and thick, and consists of infiltrated lupoid tissue, giving a brown colour on pressure. The edge is even and well defined, and there is no disease elsewhere. March 14th. Treated by light for one hour. The whole lesion can just be covered by the compressing glass at one sitting. March 22nd. Has now had seven consecutive applications (with the exception of Sunday). There has been



Case VII: After treatment.

practically no reaction, and the part is not sore. The absence of reaction is unusual, and may be accounted for by the depth and [illegible] of the infiltration. March 27th. To-day is the ninth application. The area is less elevated. The surface is red, except where it is covered with a whitish film of softened epidermis, which is removed with difficulty. There is still very little reaction. April 3rd. The area is now red and discharging, and is somewhat sore and tender. April 22nd. Very little lupus can now be seen. At one end a brownish nodule is visible. April 27th. Has only had a few applications during the last three weeks. She has now had twenty-four altogether. May 8th. It was found necessary to give a few more applications, the disease not yet having been entirely eradicated. May 15th. There was a little haemorrhage into the part at the last sitting. The area is sore, and [illegible] is covered with crusts. Treatment discontinued. May 24th. The crusts have now come off so that the part can be examined. There is a small, faint, [illegible] at the outer and upper edge of the [illegible] otherwise no disease can be made out. She has had twenty-nine applications altogether. June 1st. Patient was seen by Mr. Morris, who pronounced her free from disease. In August a small pustule appeared in the centre of original site of disease. This was touched with pure carbolic acid. There is practically no scar, but a slight reddening.

CASE VII.—Married woman, aged 32.
Family History.—Her father and mother are dead; the former died of

asthma. She has one brother and he is quite healthy. There is no consumption or other disease in the family.

Personal History.—She has always enjoyed very good health, and has never been laid up by a serious illness.

History of Present Condition.—The disease began on the left cheek when she was 16 years of age. She remembers it first as a small red patch which gradually increased in size. Ten years ago it was scraped, and two years ago it was again scraped and cauterized. In spite of the operations the disease has never been completely eradicated, and since the last scraping it has been a good deal worse.

Present Condition.—There is a triangular-shaped patch of lupus on the left cheek, the base of the triangle being uppermost, and represented by a line drawn from the lobe of the ear to the lowest point of the ala of the nose. From this base line the patch gradually tapers almost to a point, terminating at the lower edge of the jaw. Transversely the diseased area measures about 1½ in. and the same vertically. The patch presents a dark-brown, scaly, slightly-projecting surface. It is infiltrated with the disease, which is confluent except at the upper edge, where there are some discrete nodules. There is no visible scarring, but the characters of the disease are partly obscured by large scales. There are no satellite nodules and no disease elsewhere. March 22nd, 1901. Began light treatment, one hour daily. March 26th. Severe reactions have occurred and the part is sore and covered with large blisters. April 23rd. There is less thickening of the affected skin, and it is paler in colour. May 9th. The whole area is inflamed and discharging so that the granulomatous tissue is hidden. June 15th. She is making a steady improvement. Most of the infiltration has disappeared. July 21st. Has had a fortnight's rest. The patch is rather red, and very little "apple-jelly" can be seen. August 13th. Treatment postponed for summer vacation. September 10th. Still further improvement, but one or two small superficial nodules remain. She has had eighty-eight applications altogether. October 15th. She is now only coming for treatment occasionally having three or four consecutive applications and then an interval of a fortnight or so. December 21st. One or two nodules still crop up occasionally after treatment has been stopped for any considerable period. They appear in the scar, which takes the form of a vertical ridge with lines radiating from it. This scar, which is rather dense, was not apparent at the commencement of treatment, being hidden by the lupoid infiltration. January 14th, 1902. There is now a smooth shiny scar with a small doubtful nodule in one part of it. This was treated to-day. There is also a small scaly spot, brown in colour but leaving no stain on deep pressure in the healthy skin just below the main patch. As this has been present for some time it was thought advisable to give it an application of the light.

Rodent Ulcer.

CASE I.—Man, aged 45. In this case the small rodent situated on the right cheek, which disappeared after seven applications of the light, the last being on July 6th, 1900, relapsed after an interval of about a year. He returned on September 11th, 1901. At the upper and inner margin of the scar there was a small raised growth the size of a pea, the top was flat and slightly depressed in the centre, while the edge was rounded and hard. This was the site of the original trouble, and the only part that had any suspicion of induration when the light treatment was stopped. The remainder of the scar was quite healthy. He had noticed the occurrence for some months, and it was gradually getting larger; it was very slight at first, and he cannot remember when he first noticed it. It was decided to treat the lesion with *x* rays, and he began with this treatment on September 11th. The face was covered in the usual way with a lead mask, a small hole having been cut out corresponding to the position of the growth. The primary current was one of 4 or 4½ ampères. The tube gave a spark of 8 in. and was placed at a distance of 4 in. (= 6 in. from anticathode) from the patient. Daily exposures of twelve minutes were given. After the third application (September 13th) there was some diminution in the irritation and the growth seemed to be slightly softer. After the fourth (September 16th) the lesion was flatter and less indurated, but there was no redness of the skin. After the fifth a small crust formed on the summit of the wart-like growth. The flattening and softening were more noticeable. After the sixth there was practically no induration, the crust came off easily leaving a glazed slightly red surface. After the seventh (September 23rd) another small crust had formed, and remained until the treatment was discontinued on September 23rd after he had had ten applications. On September 27th the crust was easily detached and revealed a smooth red surface, with no elevation or depression of the epidermis and no underlying or surrounding induration.

CASE II.—Mrs. B., aged 36. This patient was under treatment from [illegible] to June 6th, 1900, for a small rodent of the right cheek in the malar region. When she had had nine applications of the light the infiltration had broken down to form a circular ulcer which healed leaving a healthy scar. On December 10th, 1901, she returned for treatment. There were two points of recurrence, one was a raised, warty-looking growth, the size of a pea, at the upper and outer edge of the scar, and a linear, slightly raised, shiny, translucent [illegible] corresponding with the inner border of the scar, the rest of which was to all appearances sound. She says the spots formed very gradually, but she cannot give the exact time of recurrence. Light treatment was resumed on January 13th. The area treated broke down as before to form a punched out ulcer. She is still under treatment.

Lupus Erythematosus.

Married woman, aged 44. This patient, who had very extensive lupus erythematosus affecting the upper and lower lips, chin, and skin of the [illegible] derived great benefit from the treatment, the diseased portion being replaced by a very fine white scar, resembling the normal skin. Unfortunately, however, she was only able to have treatment intermittently, so that the disease was never entirely eradicated; and in some parts recently, on the skin of the lips and chin—the disease began to [illegible] cessation of treatment. She stopped having [illegible] one hundred applications of light, the [illegible] proved.

REFERENCES

[1] Loc. cit. [2] Loc. cit.

THE THERAPEUTIC EMPLOYMENT OF *X* RAYS.

BY G. H. LANCASHIRE, M.R.C.S.ENG., L.R.C.P.LOND., M.D.BRUX.,

Assistant Physician to the Manchester and Salford Hospital for Skin Diseases.

THE physical treatment of certain skin diseases being a subject which is now arousing much interest, I purpose shortly summarizing here the results I have obtained during the past twelve months with the *x*-ray tube.

There are many physical phenomena associated with a Crookes's tube in action, but the deeply interesting question as to which of these phenomena is the curative factor will not be discussed in this paper. Be this as it may, the evidence collected up to the present time, both from this country and abroad, may be said to have fairly established the *x*-ray apparatus as a curative instrument of the first importance in the treatment of certain diseases. The list of these diseases has been as yet by no means determined, but would appear to be extending.

The successful employment of the *x*-ray apparatus for curative purposes calls for considerable experience in its management. The treatment is not to be indiscriminately resorted to for all cases, or in all stages of disease; moreover, as in most other "treatments," the method of application is half the battle. Passing by the question of the supposed directly bactericidal effects of the *x*-ray tube—a now fairly disproved hypothesis—can any broad theory be advanced which shall explain the lines on which the cure of disease by this method proceeds? It would appear reasonable to conclude, in the present state of our knowledge, that the good effects of the "raying" are due to the mechanical stimulation of normal cell activity, whereby morbid tissue is either thrown off or absorbed by the healthy. In other words the process partakes of the nature of an inflammation. It is the control of this inflammatory reaction, as far as possible, which calls for the nicest judgement.

Hitherto one of the chief bugbears of *x*-ray work has been what is known as *x*-ray dermatitis, meaning by this an intense and long-persisting aggravation of the normal reaction. The avoidance of this calamity in itself demands no little foresight and experience, and even despite the greatest precautions the trouble will occasionally occur. The difficulty is sometimes increased by the long incubation period, so to speak, of the dermatitis, which may develop its full intensity even so late as a fortnight after the last exposure.

In certain individuals there would appear to be some idiosyncrasy which renders them prone to excessive reactions of this type; on the other hand, with others it is remarkable how long they may be exposed to the tube without appreciable reaction. The occurrence of *x*-ray dermatitis may probably be best avoided by keeping the tube at a fair distance (8 or 9 in.) from the skin, and by ensuring short exposures (ten to fifteen minutes) and periodic rests from treatment. The moment the reaction appears to be too severe (which may be suspected if the redness of the unbroken skin becomes too vivid, or if increasing discomfort be complained of) the treatment should be at once suspended. I have found simple dressings of linimentum calcis relieve the pain in this condition as well as anything.

After the dermatitis has once healed there would appear to be some immunity against further outbreaks of excessive reaction, an immunity not to be explained by the increased precautions one would naturally take to avoid a recurrence. The apparatus I employed was modelled on the plan recommended by Schiff and Freund, whose methods I had the advantage of studying in Vienna in the autumn of 1900. Briefly, this apparatus consisted of a resistance board so arranged as to bring the main supply (at 100 volts) down to 12 volts; a mercury break, which could be regulated so as to give a wide range of alternations. As a rule, the apparatus was worked at the rate of 600 interruptions to the minute; about 4 or 5 amperes were used. The coil was capable of giving a 12" spark in air.

Next as regards the tube. Personally, I prefer this to be fairly "soft," and one giving plenty of green fluorescence.

The "zone" round such a tube in action can be felt by the hand to be in a high state of activity, and even at a distance of several inches a distinct "brushing" sensation can be felt. Tubes which have become too "hard" by prolonged use should be temporarily discarded.

The mask is an important item. It should consist of fairly stout lead sheeting, with an aperture in it so arranged as to allow the rays to play upon the diseased part. Tinfoil is sometimes used for making the mask, but it is not to be relied upon. I have seen dermatitis occur under a mask of this description.

Another important point is the condition of the diseased surface. This should be as clean as possible, and all loose scabs and débris removed. Under no circumstances should the parts be covered by ointments containing metallic bases—these in themselves forming formidable masks. I have found a thin smearing of zinc ointment upon a glass plate give a very decided skiagraph.

Turning now to the question of exposure. As mentioned above the distance from the anti-anode to the skin should be about 8 in., and the correct position of the tube is of course important. During the first week or two exposures may be given daily. Afterwards, on the first suggestion of reaction, the patient will only require to sit three times a week—an obvious advantage. In the intervals between the exposures a dressing of moist boracic lint often adds to the patient's comfort and presents none of the disadvantages of some ointments referred to above. It is not wise to attempt the raying of too large a surface at each sitting, and it is always better to devote alternate days to the treatment of two adjacent surfaces, such as the chin and the cheek, rather than to attempt to cover the whole surface each time.

I will now mention the various kinds of skin trouble, for the relief of which by this treatment I have had personal experience. I am much indebted to my colleague, Dr. Brooke, for permission to utilize some of his private cases, the treatment of which with the *x*-ray apparatus I had undertaken when working with him, as material for the following observations. Other material was found at the Hospital for Skin Diseases, where both my colleagues, Dr. Brooke and Dr. Wild, have for some time had patients under this treatment, a couple of *x*-ray apparatus being constantly in use for this purpose.

Hypertrichosis.

Hitherto one has only been able to cope with cases of this affection which were amenable to electrolysis: and indeed, for most cases which present themselves for relief, I believe this still to be the best and speediest method. But there remains a class of cases in which one could obviously not employ the needle, by reason of the unmanageable extent of the trouble. It is in this class, to which formerly one has been compelled to deny relief, that one may look hopefully to the *x*-ray tube for help. My own experience of this field has been limited, but I can point to at least one case in which the treatment has been highly successful so far, and in which I confidently expect a permanent cure. The patient referred to is a blonde in whose cheeks, upper lip, chin, and infra-maxillary regions a multiplicity of thick reddish hairs were conspicuous, while over all there was spread a coarse under-growth of shorter hairs, the latter condition being obviously irremediable by means of the needle. After a course of treatment extending over some eight months, but with frequent (and sometimes long) intervals in order to allow reaction to subside—though these were in no way ever excessive—the skin is now absolutely smooth and more delicate in texture than formerly. I am continuing the exposures in this case, but with lessening frequency, and so far there is no vestige of a return of the trouble. Schiff has had many of these cases to deal with, and recommends that the treatment be extended over a period of eighteen months in all. The hairs are of course got rid of in a very much shorter space of time, but Schiff insists upon an "after-treatment" if the cure is to be permanent. Moreover, the actual number of sittings is not so large as might be thought. They are merely distributed through a long period.

I have placed the consideration of this condition first, because one is dealing here with healthy skin and can consequently better trace the sequence of events on exposure to the tube. These events are, according to Freund:

1. Pigmentation.
2. Erythema.
3. Inflammatory exudation.
4. Loosening of hairs.
5. Loss of pigment in dark hairs.
6. Subjective symptoms—itching and feeling of tension.

I can fully corroborate the appearance of these signs and symptoms, though by no means in the order quoted above. I should certainly place the erythema first, the pigmentation appearing at a much later date. This pigmentation varies immensely in different people, and is apt at times to cause some alarm on the patient's part, though I have never seen the discoloration last for long. The case above quoted, for instance, has for a long time past been quite free from all traces of pigment, although of course the exposures have been continued. From what I have seen I would unhesitatingly recommend the judicious employment of this method of treatment for exaggerated forms of hirsuties of the class referred to above.

Coccogenic Sycosis.

I have seen several obstinate cases of this affection clear up remarkably well after repeated exposures to the tube. In each case where benefit has accrued there has been first an obvious reaction—a mild dermatitis. It is possible that this inflammatory reaction has proved inimical to the pus organisms. Be this as it may, one has observed the pustules dry up and form scabs, which in due time separate leaving sound skin. It is not necessary that the exposures be pushed to the stage of epilation in order to secure these effects. I am unable to say as yet from personal experience how far these effects are permanent.

Lupus Vulgaris.

In dealing with this disease my experience has been in the main confined to long-standing and severe cases. It is, I believe, in widespread and extensive cases that the use of the *x*-ray tube is more especially indicated. Cases of less extent, more especially those in which individual nodules or colonies of nodules stand out in isolated patches, can be, I believe, more speedily dealt with by "Finsen's" apparatus. On the other hand, most cases of ulcerated lupus call for *x*-ray treatment, at least in the first instance.

In dealing with lupus by this method, it is often especially difficult to foretell the extent of the reaction by reason of the disguise the surface wears. If there be healthy skin included within the area of the mask aperture, its condition, of course, affords a valuable index of the stage reached by the treatment. How far should the treatment be pushed? I believe that one can obtain the best results by keeping the reaction within bounds, although I have seen cases where without much warning a mass of morbid tissue has broken down, and where the pain incident to this accident may conceivably have been atoned for by the vast improvement seen on healing. Nevertheless, I believe the object should be to avoid excessive reaction of this kind where possible, seeing that we can get good results comparatively painlessly. I have observed the naked-eye appearances during the treatment of a patch of lupus to be briefly as follows:

The first visible change is an apparent exaggeration of the disease. Any isolated nodules which may happen to be present stand out more prominently and become of a darker hue. Lesions in which the nodules have become fused together get more lumpy and raised and also darker. There is now a feeling of tension in the part, and some itching or slight burning may be complained of. Later on some desquamation occurs. Presuming that appropriate periods of rest are given when the engorgement of the lesions has reached this stage, and that ulceration has been avoided, the subsequent progress is marked by gradually-increasing pallor and softening of the diseased skin. Absorption of the morbid tissue is evidently slowly proceeding, though it may take months before this is finally effected.

It is often a most important matter to decide in a given case what is the maximum number of exposures which ought to be given, or rather what is the longest interval which can be allowed between the sittings? No rule can be laid down on this point which shall apply to all cases, though I believe one is rather more apt to over-do than to under-do the number of exposures. Sometimes exposures of twice or thrice a week would seem to do as well as daily sittings. Whatever

be the process started by the raying, it is certainly a persistent one, and I have several times been struck by the improvement which has been maintained in patients who for holiday purposes or the like have been several weeks away from treatment.

The softening of the skin referred to above is often the first indication of absorption, and may be the first good sign noticed. This was markedly so in a case of mine—that of a middle-aged married lady whose face had been for long hide-bound in an expressionless mask of lupus non-exedens. This patient told me, long before any visible sign of improvement was present, that the skin felt more flexible round the mouth. Later on, as improvement became manifest, it was interesting to observe a gradual return of the normal lines of the features with increasing command of expression. When I last saw this case, early in the present year, a complete cure seemed to be not far off. The nose, lips, and cheeks were free from disease, and mere remnants of the trouble were left in broken streaks on the forehead and over the angles of the jaws. In this case, be it remarked, the reaction had at no time been excessive, and the removal of the disease had been brought about without any ulceration. The softness and healthy appearance of the skin marking the site of former disease is quite remarkable, and there is no treatment which could better have given such complete absence of scarring.

Cases of lupus of the face and neck are often seen where, as the result of disease and of frequent scraping operations, large hypertrophic scars are left which are almost as unsightly as the remaining disease. Such cases are eminently suitable for this treatment, whereby not only the active disease is overcome but the accompanying scars are softened and much improved in appearance.

The great drawback to the application of this method for lupus is, of course, the time and patience required on the patient's part. The treatment is not to be recommended in all cases, even of extensive disease.

I would summarize the cases of lupus suitable for *x*-ray treatment as being: (1) Cases of disease in prominent parts, such as the face, where the mischief is too extensive for Finsen's method; (2) some ulcerated cases; (3) cases associated with unsightly scars; (4) some cases of disease of mucous membrane.

Rodent Ulcer.

If it were only for the results achieved in dealing with this distressing disease, the *x*-ray treatment deserves special recognition. Instances of its successful employment in this field are multiplying on all hands, and my own experience has been equally gratifying. One may roughly divide rodent ulcers into two broad groups clinically—the ulcerated and the non-ulcerated. I believe the former class responds more readily to the treatment, although I have seen excellent results with the latter, which I shall describe later. I shall describe first the course of events in a typical ulcerated rodent as I have almost uniformly observed them in cases where the malady has not covered any very large area or extended deeply to underlying structures.

After two or three weeks treatment one can invariably detect some softening in the hard collar-like crater of the ulcer, and there will probably be slight erythema of the skin around coinciding with the mask aperture. Coincident with these changes one can observe the surface of the ulcer alter its appearance. The characteristic waxy pale-red colour gives place to a deeper tint, and soon becomes dark red. At the same time the smoothness disappears, and one can detect small granulations springing up from the surface. These granulations multiply apace, and after a time raise the base of the ulcer flush with the surrounding skin. In one case, that of an old but vigorous man of over 70, who had a rodent ulcer on the nose the size of a shilling piece, these granulations proliferated with extraordinary rapidity, and soon formed a table-land raised one sixteenth of an inch above the surface, requiring restraint with copper sulphate. While the granulations are forming the border undergoes still further softening and thinning, and finally appears no thicker than normal skin, while a thin blue epithelial lip is seen to be spreading from it over the surface of the ulcer. We thus come to deal with what is apparently a simple healthy ulcer, from which all the characteristics of malignancy have disappeared, and this ulcer gradually heals in the ordinary way. The resulting scar is marvellously smooth and supple. It may occasionally happen that during the healing process the reaction becomes too strong. In two recent cases of this kind I have seen the newly-formed tissue break down again with distressing rapidity. The treatment was in both instances immediately suspended, and in one of them, when last seen, there was very evident healing again going on, while there was no suggestion of rodent ulcer to the naked eye. The other case was particularly interesting. There had been for some time a thick scab on the deepest part of the ulcer (which involved the upper lip and nasal orifice), and this I had not disturbed, though now I wish I had done so. It was under this scab that the breaking-down process first began, and on removing it I found a considerable quantity of pent-up discharge. This must have been rich in putrefying organisms, and could not but have proved deleterious to the granulation tissue. I am not without hope that this case, which up to the time of the relapse had healed in fully two-thirds of its extent, will in due time recover lost ground.

I have seen only one case—a very long-standing and extensive ulcer—which showed no apparent response whatever to the treatment. The non-ulcerated class of rodent ulcers are by no means insignificant in numbers, and not infrequently remain unrecognized until they have made considerable headway. They are characterized by the pale worm-like ridges, hard to the touch, which mark the advancing border of the disease, which proceeds in slowly-extending waves—their track shown by pale scar tissue more or less distinct.

Cases of this kind which I have observed have shown the usual reaction after a time. The ridges have first shown softening, sometimes being slowly absorbed without ulceration. Generally, however, they have broken down. The ulceration then marks out peculiarly well the sinuous lines which form the site of the thickened epithelium. Elsewhere the scar tissue becomes softer and redder, and finally the patches and streaks of ulceration heal in the ordinary manner.

It still remains to be seen if the "cures" of rodent ulcer by this method will stand the test of time. The treatment is of too recent introduction for anything definitely to be said on this point. I can only remark that two cases of mine, which were discharged from treatment four and six months ago respectively, are still free from visible recurrence. It would probably be a wise precaution in all cases to continue the exposures for a time after apparent cure.

THE CURATIVE EFFECT OF THE *X* RAYS ON CALLOUS SINUSES OF THE ABDOMINAL WALL.

By D. BERRY HART, M.D.,
Gynaecologist to the Royal Infirmary, Edinburgh, etc.

PERSISTENT sinuses of the abdominal wall where no foreign body is present are a great annoyance both to operator and patient. In two cases I have found these heal with marvellous rapidity after a few exposures to the *x* rays, and thus think the experience worth recording for further trial. The fact of this action was stumbled on by accident as follows:

A patient, Mrs. S., was sent me from Singapore by Dr. Leask with a persistent sinus in the abdominal wall, after an incision in the right iliac fossa to evacuate bloody fluid of unknown origin. This sinus was 5 to 6 in. long, and ran from near the anterior iliac spine downwards and inwards to the uterus. It had existed for several months. In order, if possible, to see how it ran, I asked Dr. Dawson Turner, of the Edinburgh Infirmary Electrical Department, to take an *x*-ray photograph (a probe being placed in the sinus and one in the uterus). This did not help one much topographically as to the sinus, but I was struck with the almost magical cicatrization of the sinus after plugging with iodoform gauze for several weeks had failed.

In a second case of more marked sinus persisting for some months in a case of operations for extraperitoneal gestation where fetal bones had been retained for five years,[1] the patient was sent out well but with a narrow sinus into the shrunk sac. This did not heal as I had hoped and the patient was again sent into Ward XXXVI with a sinus admitting the

index finger. In my absence Dr. Milne Murray ordered the application of the *x* rays and a cure was effected after three exposures. I have since learned indirectly that this sinus has reopened a little. It is possible there may be some bone present.

It seems to me advisable, therefore, to record these two cases so that a further trial may be given to a form of treatment now available in most large hospitals.

REFERENCE.

[1] *Journal of Obstetrics and Gynaecology of the British Empire*, No. 2, 1902.

CASE OF SARCOMA OF THE FACE.

By REGINALD J. GLADSTONE, M.D., F.R.C.S.,

Senior Demonstrator of Anatomy, Middlesex Hospital.

[In the following case a sarcoma of the face had extended from the antrum through the orbital cavity and sphenoidal fissure, and had exerted pressure on the temporo-sphenoidal lobe of the brain.]

It is rarely possible at a necropsy to obtain a satisfactory knowledge of the extent and character of malignant tumours of the face. The case which I now describe occurred in a female subject, aged 67, received at the Anatomical Department of the Middlesex Hospital. On inquiry I obtained the following particulars of her history:



Fig. 1.—Case of sarcoma of the face. Surface view.

Y. Z., aged 67, a widow, employed as a needlewoman, occasionally intemperate, had suffered previously from bronchitis, ophthalmia, and aortic disease. She had been ailing for four months previous to admission with pain in the left side of the face, and some loss of flesh, and had also noticed a swelling in the same region for about three months. On examination there was found a painful swelling, with redness, on the left side of the face below the orbit. Inside the mouth there was another swelling, which was commencing to fungate. Subsequently the growth grew with great rapidity, ulcerating through the skin, and nearly filling the mouth. The left side of the face increased to an enormous size, and she finally died on August 10th, 1901, of exhaustion.

From the above account, which was kindly given me by the resident medical officer of the infirmary in which the woman died, it appears that the symptoms were chiefly local, and that there were no obvious signs of pressure on the brain. The external appearance of the growth is well seen in the accompanying photograph (Fig. 1), which was taken after death. It will be noticed that the whole of the infraorbital part of the face on the left side, more especially in the region of the malar bone, is enormously enlarged, and that the growth has ulcerated through the skin in three separate places. On examining the eye the lower lid was found to be infiltrated with the growth and the eyeball pushed upwards and inwards.

The angle of the mouth was drawn downwards and outwards, and on examining the interior of the mouth it was found that a fungating mass of the growth had extended through the palate and had filled the whole of the upper part of the buccal cavity. On making a sagittal section through the frozen head, and removing the left side of the vault of the skull and the left cerebral hemisphere (Fig. 2), it was seen that the growth had extended backwards through the sphenoidal fissure into the middle cerebral fossa, forming a tumour there about the size of a walnut, which was beginning to fungate, and had pressed upon the temporal pole of the left cerebral hemisphere, indenting it, but not growing into it or causing any apparent injury to the brain substance.

On removing the roof of the orbital cavity the tumour was found to occupy the outer and posterior part of the fossa, having apparently reached it by growing upwards from the antrum through the orbital plate of the maxilla. The eyeball was displaced upwards and inwards, and the tumour was found to have grown backwards through the sphenoidal fissure below the lachrymal, frontal, and fourth cranial nerves, and the origins of the levator palpebrae and superior rectus muscles.

On examining the part exposed by the antero-posterior section of the head (Fig. 2), the growth was seen to have involved the greater part of the left nasal fossa, and also the sphenoidal air sinuses. The lateral mass of the ethmoid and the inferior turbinate bone were seen to be entirely replaced by the tumour, which had grown inwards from the maxillary sinus, and had pushed the nasal septum over to the right. That part of the tumour which had extended into the upper part of the mouth was also exposed by this section, and is well seen in the accompanying photograph.

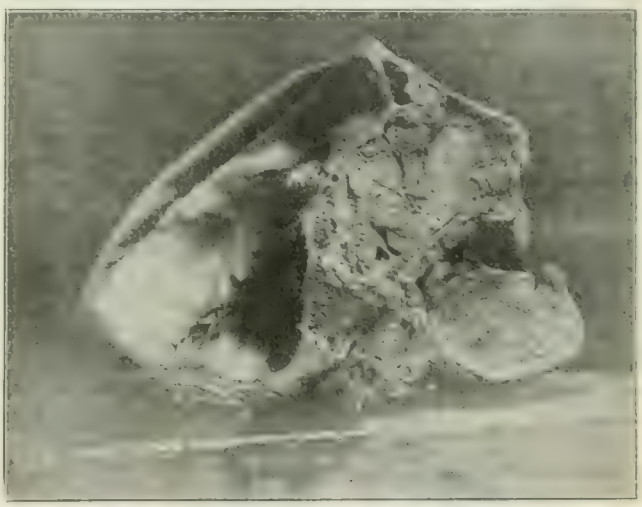


Fig. 2.—Sagittal section of head. A. Part of tumour which had grown backwards through the sphenoidal fissure.

A horizontal section through the most prominent part of the swelling showed that the tumour had broken down in the region of the antrum, the space being occupied by a loose blood clot. The tumour had the appearance of having originated at this spot, and of having spread from it to the regions mentioned above, and also into the spheno-maxillary and temporo-zygomatic regions.

The growth was very vascular, and composed chiefly of spindle and ovoid cells with large oval nuclei. The cells were packed close together, with little intercellular substance, and were contained in spaces the walls of which appear to have been formed by the connective tissue of the part which the tumour was invading.

CANCER IN ONTARIO.—Cancer statistics in Ontario show an increase of 100 per cent. in the mortality between the years 1891 and 1900. The numbers of deaths for the past ten years, beginning with 1891 were: 579, 676, 678, 621, 620, 731, 927, 975, 1,041, 1,055.

PRESENTATION.—At a recent meeting of the Municipal Technical Institute Ambulance Class of Belfast, Dr. J. D. Williamson was presented with an address and a smoker's silver set by its members in appreciation of his valuable services as honorary lecturer.

A PLEA FOR THE ADOPTION OF A MORE ACCURATE AND SCIENTIFIC METHOD IN THE INVESTIGATION AND TREATMENT OF LATERAL CURVATURE OF THE SPINE,

WITH DESCRIPTION OF A SIMPLE FORM OF GAUGE.

By ARCHIBALD YOUNG, B.Sc., M.B., C.M.,
Surgeon, Central Dispensary, Glasgow; Extra-Honorary Surgeon, Royal Hospital for Sick Children, Glasgow; Senior Extra-Assistant Surgeon, Royal Infirmary, Glasgow; etc.

IN December, 1901, I brought before the Glasgow Medico-Chirurgical Society "a simple gauge for investigation of spinal and other variations in symmetry; specially useful in registering amplitude of variation of the curves in cases of lateral curvatures, with alterations in position and posture of body." Especially, I pleaded for the adoption of a more rational and scientific investigation of cases of skoliosis than is customary in this country, particularly that large class of cases which, in the classification of Henle and Drehmann in the recent *Handbuch der praktischen Chirurgie*, is entitled Die habituelle Skoliose.[1]

The necessity for some radical change in our methods was brought home to me during the summer semester of 1899 by a most brilliant and instructive demonstration on the subject of skoliosis which I witnessed in the surgical clinic of von Mikulicz at Breslau. He laid great stress on the value of careful measurements and the advantage of having a reliable skoliosometer. He demonstrated the use of the instrument designed by himself,[2] and though I was not satisfied with its special recording arrangement, it fully convinced me of the value of some such instrument. My instrument, formed to some extent on the plan of von Mikulicz's skoliosometer but without his special recording arrangement, was made for me in November, 1899, by Messrs. Dobie, Glasgow. It consists

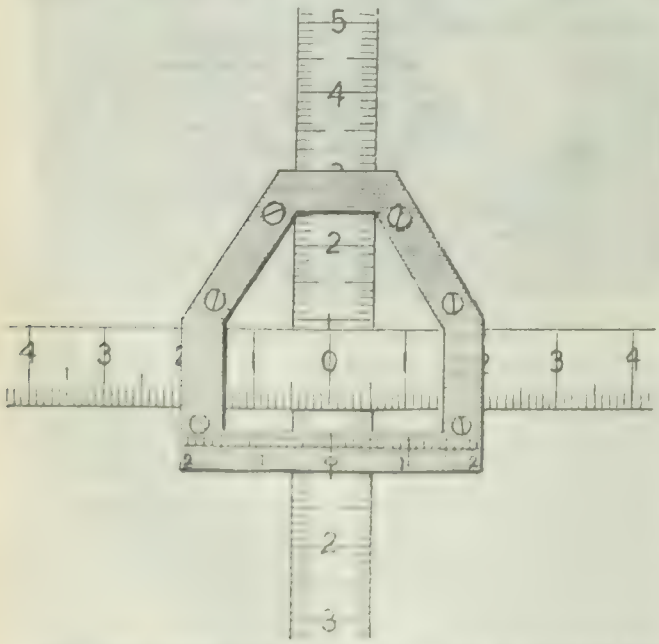


Fig. 1.—Skoliosometer—central frame, and width of transverse and vertical limbs, actual size; thickness of brass central frame 2.5 mm.

of two limbs graduated on the metrical scale, and fixed by an accurately adjusted central frame exactly at right angles to each other. Both limbs slide freely in the central frame, and each is graduated in both directions from zero at its mid-point. One I have had graduated up to 30 cm., the other up to 50 cm., in both directions, the shorter limb being, as a rule employed for horizontal or transverse readings, the longer for vertical ones. If required they can be transposed, not by turning the whole instrument through an angle of 90°, but by withdrawing the limbs from the grooves and transposing them. The lower edge of the central frame is graduated for a special object, and it is found more convenient to keep it horizontal. The frame is of brass, light but strong, composed of two thin* skeleton pieces firmly rivetted together, and grooved for the reception of the two limbs of the instrument. The limbs are of thin, flexible, but resilient steel 1 cm. in width, and can be easily adapted to the contour of the body.

In von Mikulicz's skoliosometer there is, in addition to the equivalent of the instrument just described, an arrangement at the lower end of the vertical limb for attaching an indicator working through 180 degrees, the graduated plate being of semicircular form. When in use this plate is fixed by a strap around the pelvis, midway between the iliac crests and trochanters. The idea is so to apply it that it shall correspond as accurately as possible with the position and axis of the sacrum. The indicator is pivotted on this so as to move freely to either side. The readings obtained are expressed in + or − numbers, according as the digression is to right or left.

To this arrangement my great objection is that the fixation of the sacral plate cannot be accomplished accurately with any constancy, and any error is, considering the smallness of the arc, by no means negligible. Besides, a mere number conveys to my mind by no means all that I want. I prefer to have a permanent record of the actual curve outline for primary as well as future guidance.

Dispensing with the special dial and indicator I choose two points, which, for the individual at least, are fixed—namely, the highest palpable cervical spinous process, usually that of the axis† or of the third cervical vertebra and the third or fourth sacral spine. The vertical limb is laid along a line joining these two. This may be taken as a constant, no matter what the variations of the primary and compensatory curves, and it seems to me that it is preferable to choose this, disregarding at once its digression from the vertical—instead of attempting, as in von Mikulicz's original instrument, to obtain an arbitrary vertical.

The tips of the spinous processes having been outlined in ink or pencil on the skin, readings + or −, that is, right or left, may be taken at different levels on the horizontal or transverse limb, and recorded, in diagram form, on paper, the + or − distances being properly correlated to their respective levels. For this purpose it is convenient to employ ruled "sectional" paper, marked in centimetre and millimetre squares, the actual recording being thereby much facilitated.

What is actually done then is to draw to scale, in the simplest and most primitive manner, the actual outline of the curves. Where the amplitude of the curve is less than half the width of the vertical limb from the ideal vertical, where therefore the convexity of the curve would be covered by the vertical limb, the reading should be taken from the graduated lower margin of the central frame.

The first record, so as to obtain for the particular case the nearest approach to the normal physiological relation, would be taken with the patient suspended, and all factors likely to affect the spinal condition as far as possible eliminated; this would form the starting point. The next record would be taken with the patient standing squarely on both feet. Variations would be noted also with altered position of feet; also in standing on one foot, alternately right and left.

Then the changes induced by various sitting or semi-recumbent postures should be recorded, and particularly the effects of adoption of special habitual postures or attitudes connected with occupations—for example, sewing, writing, carrying various loads, and so on—all these, or those of importance at least, ought to be noted.

Finally, and this is of paramount importance, the variations induced by bringing into play different muscles or groups of muscles, both resisted and unresisted, in lifting weights, raising and extending limbs, bending or straighten-

* The central brass frame is so thin that it does not appreciably interfere with close application of the apparatus to the surface of the skin. Its thickness is only 2.5 mm.

† Although the spine of the axis is bifid, this is not appreciable from the skin surface, and can be neglected.

ing the back, etc., ought to be carefully studied and recorded. Those especially having any clear etiological bearing on the particular case, or giving any aid in suggestion of suitable treatment—indicating, say, the muscles or groups of muscles calling for special attention by massage or resisted exercises—should be preserved for future reference and comparison in estimating the progress of the case, and the effect, beneficial or otherwise, of the line of treatment adopted.

In his original paper von Mikulicz expresses very clearly the object before his mind in devising and applying the skoliosometer; they may well be quoted here.

I have the conviction that, in regard to the treatment of skoliosis, we shall first be able to arrive at a clear determination of reliable and generally applicable rules, when we have the means of making clear the value of any method we recommend by numerical proofs.

His object was

to devise and construct an apparatus for measurement which should be able to express in figures the most important alterations in form in skoliosis, and should make known to the surgeon himself any minute changes for the better or for the worse.

The main difference between his method and that I suggest is that, where he was satisfied with figures expressing the deviation from the normal figures, as I have shown, not always reliable, and in my view unsatisfactory, as failing to give a clear picture of affairs—I prefer to adopt the simple plan of a readily made drawing to scale (or actual life-size if preferred) of the actual curve outlines.

This gauge can be employed, also, in estimating and recording rapidly other forms of asymmetry as well as spinal. It will be found of service in the investigation of fractures and dislocations, in comparative measurements of opposite sides of the thorax or abdomen, as in cases of thoracic or abdominal tumours, or any unilateral thoracic bulgings, from pleural collections, contraction changes following these, unequal muscular development, etc.

One of the most important of the uses to which such an instrument might be put would be in obtaining a reliable register of chest measurement and expansion for recruit examination and insurance work. Regarding the former, it is freely admitted that present methods are very imperfect, and certainly highly unsatisfactory. In some future paper I hope to take occasion to amplify this. Meanwhile, I merely mention that such an instrument as this would be found of considerable service. Lastly, the instrument I have described is of use in craniometric work.

REFERENCES.

[1] *Handbuch der prak. Chir.*, Lieferung 19 (II, Bogen 6). [2] *Centralbl. für Chir.* May 10th, 1883.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TWO CASES OF BUBONIC PLAGUE OCCURRING ON BOARD SHIP.

CASE I.—A coal trimmer, reported ill on July 7th, 1901, complaining of swelling in the groin. I found an enlarged gland on the left side, about the size of a marble, hard, but with no surrounding induration, and little pain. The temperature and pulse were normal. There was no history of venereal disease, and I examined the foot and leg but found no sore. No severe constitutional symptoms appeared up to July 12th, when I found the gland had increased to about the size of a hen's egg, was uniformly hard, but without induration. On the right side were two enlarged inguinal glands. The temperature was 101°, and the pulse good, but rather frequent. I now concluded that I was dealing with a mild case of plague and had the man isolated, confined to bed, and put on strychnine. On July 14th, the conjunctivae were suffused. On July 16th a femoral gland on the left side was enlarged. On arriving at Marseilles I had a consultation with the health authorities, who confirmed the diagnosis of plague. On July 17th, the glands first affected were reduced in size, while a gland in the right popliteal space was enlarged. The temperature was 100°. On July 18th the temperature was 100.4° to 101°. The femoral gland had increased in size. From July 19th to the 22nd, the patient gradually improved. On arrival at Plymouth the diagnosis was again confirmed.

CASE II.—An assistant baker, reported ill on July 17th (five days after the isolation of the first case). I found the conjunctivae suffused and slight swelling of the axillary glands on both sides, and of the submaxillary of the left side. There was a healed burn on the right hand. The pulse and temperature were normal, though the cutaneous surface was intensely hot. He was isolated and confined to bed as a second case of plague. On July 18th the femoral glands of both sides were enlarged, but without pain or induration. From July 19th to 22nd the patient's condition gradually improved. On arrival at Plymouth, after consultation with the health authorities, who confirmed the diagnosis, he, with the first patient, was removed to the hulk.

Tissue from glands of Case I was submitted for bacteriological examination at Plymouth with a positive result; a later examination, however, by Dr. Klein gave a negative one. I concluded from this that Dr. Klein's examination had been made at too late a date, for it must be remembered that both cases were convalescent on arrival at Plymouth, and that the bacillus disappears from the blood and later from the gland tissue during convalescence.

The ship was, I believe, infected at Fremantle, as plague was existent within 20 miles when we called on June 18th. The man reporting ill on July 7th gives an incubation period of nineteen days, or allowing 24 hours before I saw him, eighteen, which is the period the French recognize. From my experience of examining for plague in India, however, I believe most cases do occur within a ten days' incubation period. The second patient probably contracted the disease from the first (although the communication between the two was very slight) as we were twenty-four days out from Fremantle when he became ill. No dead rats were found on board the ship. The primary infection of the inguinal followed by enlargement of the femoral and popliteal glands in the first case was unusual. No rise of temperature was recorded during the second patient's illness, though the skin was most abnormally hot. Both cases were of the type pestis ambulans.

Effective isolation was difficult to procure on board. I put my patients in the afterpart of the ship, and prevented any communication by means of a barrier on contiguous part of deck, at which a sentry was placed, who also removed used utensils from the disinfectant and kept blankets, covering, doors and ventilation inlets damp with carbolic lotion. No further cases occurred among the ship's company.

H. NORMAN BARNETT,
Late Medical Officer P. and O. and Orient Services.
Knock, co. Down.

SUSPECTED RUPTURE OF THE LUNG FROM VIOLENCE WITHOUT FURTHER INJURY.

I WAS called to see a child, aged 8, by its father, who explained that the child had been playing with a relative, who had placed his hands under her arms and had suddenly raised her from the ground. The child immediately cried out, complaining of "something having given way" and of great pain in the right side. She had been in perfect health up to the the time of the accident. I found her lying more or less collapsed, pale, and with a small, rapid pulse. The temperature, two hours after the accident, was a little over 100°. She was sweating and appeared very frightened, and complained of severe pain in the right side. I could detect nothing abnormal in the chest, though the breathing was very rapid and rather shallow. There was no fracture of any of the ribs, but the pain appeared to be localized around the sixth and seventh ribs in the axillary line on the right side.

On the next day the temperature had risen to 103°; the pulse was still small and rapid; the pain in the side continued, being worse during inspiration, and she had developed a slight, harsh cough. I thought I detected over the site of pain a small area of slightly increased resonance. There had been no bloody expectoration, nor was there any dullness between the posterior wall and the diaphragm to suggest haemorrhage having taken place. During the next few days slight friction developed at the site of the pain, which had much decreased. The temperature ranged between 102° and 103°; after the first week it gradually fell to normal, the fric-

tion rub and pain disappearing, and the child recovering completely.

In this case the only obtainable facts were: (*a*) The history of the accident; (*b*) the collapsed condition of the child; (*c*) the severe localized pain and sweating; (*d*) the development of a short, harsh cough; (*e*) and the further development of a slight friction rub, with a few fine crepitations over the site of pain.

I think it is conceivable that there was a small rupture of the right lung in its inferior lobe, but not producing sufficient haemorrhage to give bloody expectoration or haemothorax, the blood possibly being infiltrated into the loose tissue of the lung; and should this infiltration have given rise to any dullness, that it was more than masked by a small localized pneumothorax.

Sheffield. WALTER P. COCKLE, B.A., M.D. B.Ch.Dub.

QUININE IN BLACKWATER FEVER.

DURING a residence of three years in the Dooars, Bengal, 9 cases of blackwater fever came under my care; 8 occurred in Europeans, 1 having a second attack; the other case was in a Bengali; 3 of the Europeans died, 1 from a cause not connected with this complaint. With the exception of 1 fatal case they were all treated with quinine bihydrochloride hypodermically, in doses of from 2 to 3 gr. In no case did the colour of the urine become darker after its use.

The theory that quinine causes haemoglobinuria needs careful investigation. It should be remembered that in malarial districts Europeans are continually subject to attacks of malaria, and are in the habit of taking quinine in varying doses of from 5 to 30 gr. daily for periods of a few days to a few weeks. Thus, when cases of blackwater fever occur, it is the rule rather than the exception to find that quinine had been taken previous to the attack.

I believe I am correct in stating that blackwater fever, although common in the Dooars and Terai, and occasionally to be met with in a few other localities, is unknown in the majority of notoriously malarial districts of India, in all of which there must be a large consumption of quinine. It is a matter of daily observation that some of the most marked cases of blood destruction are to be seen in intense cases of anaemia due to malaria in coolies who have not had quinine or any other treatment. Such cases do not present "blackwater" symptoms, and quinine treatment does not, in my experience, produce them.

It is further noticeable that, after giving some 500 hypodermic injections of quinine, usually the bihydrochloride, in 3-gr. doses for adults and proportionately less for children, in various malarial conditions, I have never met with a case of haemoglobinuria consecutive to its use.

H. M. DOWLER, L.R.C.P.Lond., M.R.C.S.Eng.

Koppa, Kadur District, North Mysore, India.

ILEO-CAECAL INTUSSUSCEPTION WITH RETROGRADE INTUSSUSCEPTION OF THE DESCENDING COLON IN AN INFANT: OPERATION: RECOVERY.

THE following case is of interest on account of (1) the rarity of secondary retrograde intussusception demonstrated during life; (2) the early age at which operation was successfully undertaken.

C. S., aged 4 months, who had always been a perfectly healthy breast-fed child, was seized on August 17th, 1901, with an attack of vomiting and severe diarrhoea which became dysenteric in character. Under the care of Dr. McDonald the vomiting at once yielded to bismuth and resorcin, but the diarrhoea continued, and on August 18th, about 5 p.m., a tumour could be made out. Enemata were freely administered but without benefit. Until 11.30 p.m. on August 18th the child appeared fairly strong, but from that time symptoms of severe collapse set in, and when I saw him at 5 a.m. on August 19th he was apparently dying; his eyes were sunken, his respiration feeble, and his pulse almost uncountable. Operation appeared almost hopeless, but his mother decided in favour of an effort to save his life. He was anaesthetized by Mr. R. J. Johnstone, and I opened the abdomen by a 2½-in. incision through the middle of the left rectus. The sigmoid and descending colon containing the intussuscepted mass were without difficulty drawn into the wound when a retrograde intussusception of the lower end of the descending colon about the junction with the sigmoid was at once demonstrated. It was about 2½ in. in length, and was easily and rapidly reduced. The primary intussusception was then reduced by the method recommended by Hutchinson and Barker—two fingers of the right hand in the abdomen, the left hand on the anterior abdominal wall.

The last piece, however, required to be brought out through the wound, and gently compressed by a hot towel, when complete reduction was easily effected. The wound was rapidly sutured and dressed, and the child was returned to his mother 35 minutes after leaving her. There was little or no shock; he quickly rallied, and was at once put to the breast, which he now eagerly took for the first time since the onset of his illness. The bowels acted three hours after operation. Peristalsis was controlled by the administration of tr. camph. co. and small doses of Dover's powder. Recovery was uneventful, and he is now quite well and strong. No operative attempt was made to prevent recurrence, as this would have prolonged the operation, and rapidity appeared to be absolutely essential to success.

To Dr. McDonald's early and accurate diagnosis the life the child is mainly due.

A. B. MITCHELL, M.B., F.R.C.S.I.,
Surgeon, Royal Victoria Hospital, Belfast.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LEEDS CITY FEVER HOSPITALS.

CASE OF TYPHOID FEVER, WITH PERFORATION DURING RELAPSE: DEATH.

(Reported by E. S. G. FOWLER, M.R.C.S., L.R.C.P., Assistant Medical Officer to the Hospital.)

W. B., aged 19, male, was sent into the hospital about the sixteenth day of the disease.

Previous History.—The attack commenced gradually with headache and pain in the back, shivering, and vomiting. There was no diarrhoea. The patient took to bed on January 8th, 1902. He was a hawker by trade, and had been considerably exposed.

Condition on Admission.—The patient was anaemic and looked rather ill, but complained of nothing. His temperature was 100°, his pulse 80, and his respirations 24. His mind was quite clear. The tongue was rather furred, but moist and cleaning. The rash was well marked on abdomen and chest. The abdomen was not tender or distended. The spleen dullness was increased, but, beyond a sense of resistance in the neighbourhood, it could not be felt. The heart sounds were regular and clear, but not strong. The chest movement was good; the percussion note was moderately full. There were a few dry sounds at the bases behind; there was slight cough, and the voice was husky, probably due to a (trade) laryngitis. The stools were formed (requiring enema every other morning). The urine gave Ehrlich's reaction.

Progress.—The temperature for the next four days fell typically, and on the fourth morning (January 25th) was normal. The pulse, never higher than 96, was 80 on that morning; the respirations were 20. It was therefore apparently an ordinary case of typhoid progressing favourably.

Relapse.—On the twenty-fifth evening the temperature rose to 100°, the pulse was 100, and the respirations 26. From that date the patient had a typical relapse. The temperature continued to rise until on January 31st it was 104°. This was maintained, with slight remissions, until the evening of February 3rd, and reductions due to spongings. On the morning of February 4th it fell to 102.5°, and came down gradually until 6th. The pulse and respirations, on the other hand, rose on the 5th and 6th, when fresh spots appeared and the spleen was felt. On February 4th, for the first time during the illness, the patient had four loose actions with some curds in them. The diet since admission had con-

sisted solely of two-thirds milk and one-third water, except that it was modified by the addition of a little lime water. There were five large loose actions on the 5th, the last containing about 1 oz. of bright blood (all food was stopped and only ice given). There was complaint of slight abdominal pain, which, however, was relieved by ice poultice. Opium was given by the mouth and bowel for diarrhoea. The abdomen was quite soft on the evening of the 5th. The patient passed a fairly good night. On February 6th, at 10 a.m., the pulse was 130 and the respirations 44 and entirely thoracic. The abdomen was tense and tympanitic. Diarrhoea continued. Perforation was diagnosed. Death occurred about two and a-half hours later, and was preceded by an attack of vomiting (thirteenth day of relapse).

Necropsy.—The bowel for the lower 5 ft. or 6 ft. of the ileum was intensely injected, as was also the omentum and parietal wall of the abdomen. A perforation was found 11½ in. from the ileo-caecal valve. The interior of the gut was marked by several deep ulcers both above and below that which had given way. A little faecal material was found above the perforation, but apparently death had followed too rapidly after the occurrence of perforation to allow of the formation of pus, or even of matting together of neighbouring coils of intestine.

REMARKS.—The only reasons for recording the above case are—first, that it seems to be one of the rarer conditions; and, secondly, as emphasizing the number and severity of relapses of this season's cases.

NORTH RIDING INFIRMARY, MIDDLESBROUGH.

CASE OF OESOPHAGOTOMY FOR A FOREIGN BODY.

(Reported by J. R. RONALD MCCRINDLE, M.B., C.M., Surgeon to the Infirmary.)

H. S., a boy aged 16, was admitted to the North Riding Infirmary on August 19th, 1900.

History.—He stated that while playing with a young sister, with a tie clip between his teeth, it slipped down his throat. After several attempts at home to dislodge it by inducing vomiting without result, he was brought to the infirmary. I was in the institution at the time and was asked to see him.

State on Examination.—He was complaining of pain in the throat at a point about 1½ in. above the interclavicular notch, and the part was painful on pressure. I passed a bougie down the oesophagus, which on being withdrawn caught on a foreign body. As attempts by the mouth failed to remove the clip, which gave the feeling of being fixed, I decided to use the *x* rays, and by this means the clip was distinctly made out about 1 in. above the edge of the sternum and lying obliquely from left to right. The spot was marked on the skin.

Operation.—When the patient was anaesthetized and the surface of the neck prepared, the usual incision for oesophagotomy was made on the left side, extending from the level of the thyroid cartilage to about ½ in. above the sterno-clavicular joint. After cutting through the platysma and fascia, the parts were separated with a director, the omo-hyoid drawn outwards, and the sterno-hyoid and thyro-hyoids inwards. The main vessels and trachea having been drawn apart, the upper end of the clip could be felt by pressure applied on the right side of the oesophagus. I made a small incision on this, and the portion which protruded having a ring end, a silkworm suture was passed through it, and the opening enlarged sufficiently to deliver the clip, between the teeth of which was a portion of mucous membrane, showing that the clip had evidently been forced open by the contractions of the oesophagus during the act of vomiting, and which, no doubt, had closed on the mucous membrane, and rendered the attempts at removal by the mouth futile. There was practically no haemorrhage. During the operation the patient vomited, some of the stomach contents escaping by the incision. I decided to close the opening in the oesophagus, and, after having thoroughly cleansed the parts soiled by the vomit, by means of syringing with weak perchloride lotion and careful swabbing, I brought the edges of the incision together with catgut sutures. The upper region of incision in the neck was closed with interrupted catgut sutures, and the skin wound with silkworm gut. An opening about ½ in. was left at the lowest part, through which I introduced a small rubber drainage tube up to where the incision in oesophagus had been made. The usual sterilized dressings were applied.

Progress.—The boy vomited four or five times after having been taken back to the ward, but only a small quantity of bile-stained mucus each time. On the following day the wound was dressed, and only a small amount of oozing had occurred. The dressings were again removed on the fourth day, when there was some rather offensive discharge, due probably to contamination of the wound at the time of operation, when the patient vomited. The wound was syringed with weak iodine lotion, and the dressings changed every four hours. The temperature was normal on the seventh day, the highest point reached having been 100.6°. On this day, as there was practically no discharge, the tube was removed and a small gauze drain inserted. The discharge decreased, and the drain was removed on the eleventh day. From this time the boy continuously improved. He was fed *per rectum* until the eleventh day, when he was given a teaspoonful of bovinine in a small quantity of port wine by the mouth every four hours. Prior to this he had been allowed only sips of water. None of the fluid escaped by the opening for drainage. The quantity of food by the mouth was gradually increased, and all rectal feeding discontinued by the fifteenth day. When discharged well on September 9th he was taking ordinary food of rather soft consistence.

BRISTOL ROYAL INFIRMARY.

CASES IN WHICH HEMIPLEGIA WAS THE CHIEF SYMPTOM.

(Under the care of HENRY WALDO, M.D., M.R.C.P., Physician to the Infirmary.)

CASE I.—A male patient, aged 77, was picked up in the street with considerable loss of power on the right side, including the face and tongue. Motor aphasia was also present. He was not unconscious, although his intellect was clouded. There was no evidence of cardiac hypertrophy, and the sounds were clear. The radial artery was a little thickened only, and the tension natural. The temperature was subnormal on admission. The fundus oculi was healthy. The knee-jerks were exaggerated, especially on the affected side. The superficial plantar reflex gave a distinct extensor type on the right side and a flexor on the left side. There was a total absence of albumen in the urine. It was impossible to ascertain whether there had been any premonitory symptoms, and indeed the hemiplegia may have been of old standing; but against this supposition there was an absence of rigidity. The diagnosis was atheromatous thrombosis. There was no sign of any improvement in the paralysis.

CASE II.—A male patient, aged 30, an outdoor labourer, married for nine years, with two children, was walking along on April 2nd, 1902, after a good breakfast and feeling perfectly well when suddenly a feeling of dizziness came over him, and he appealed for asssistance or would have fallen. He did not lose consciousness nor was there any convulsion, and upon admission within a few hours of the attack it was found that he had partial left hemiplegia, the seventh and ninth nerves being also effected. He was quite sober, and related the mode of attack. There was no sign of cardiac disease and no thickness of the radial arteries, which were of fair tension. He said that he had had epistaxis often during the last few years, and that he had gonorrhoea lately, but there was no evidence of syphilis. The knee-jerks were exaggerated, especially the left, and the superficial plantar reflex gave the flexor type. There was a total absence of albumen in the urine. Within a week he had completely recovered from the paralysis: the dynamometer showing the grasp of the affected (left) hand at 130 lb. and the other (right) 140 lb. The diagnosis was doubtful. Potassium iodide was prescribed, but the onset was too sudden, one would think, for specific arteritis, or rather, as Gowers would say, for a gumma occluding the entrance to the middle cerebral artery. It has been said that there is a possibility of a transient albuminuria being actually induced by the apoplectic state owing to the profound vaso-motor disturbances, but in the above two cases it was at any rate not so.

CASE III.—A female patient, aged 48, married, with one child, awoke after a good night perfectly conscious, but with difficulty of speech, and upon trying to get up fell down half a dozen times. There was moderate loss of power in the right leg, and absolute loss of power in the right arm. There was total absence of facial palsy, and the tongue came out

straight. There was no sensory affection, and no convulsions. No difficulty of micturition. Knee-jerks a little exaggerated and equal. Plantar reflexes active, and of the flexor type. There were no premonitory signs excepting slight deafness, which continues. The patient had been in the habit of getting out of bed two or three times each night for some years to micturate. Twelve years ago she was said to have had a bad kidney attack, and was in bed for three months. She appears to have had eclampsia at her child's birth, and was warned by her doctor not to again become pregnant. A sister who sometimes slept with her told me that her limbs were always very jerking during sleep. The urine contained albumen persistently in small quantity, but there was no evidence of cardiac hypertrophy, and the arteries seemed natural. Within three weeks of the attack this patient had completely recovered, being able to pour out tea and do her hair as usual. The treatment consisted of a placebo.

The diagnosis was undoubtedly uraemic hemiplegia, which Osler says depends upon a localized or diffused oedema of the brain, which may simulate almost every form of organic paralysis of cerebral origin. But the recovery in the second case I have reported was as good and as quick, and depended, most probably, upon rapid re-establishment of the collateral circulation, the anatomical conditions of which certainly vary in different individuals. Or was the second case one of what is called "functional paralysis"?

WEST HAM HOSPITAL.

A REMARKABLE CASE OF CUT-THROAT WITH RECOVERY.

(Under the care of Dr. GROGONO, Senior Surgeon to the Hospital.)

[Reported by S. HALBREICH, M.D., M.R.C.S., L.R.C.P.Lond., late Senior House-Surgeon to the Hospital,]

A. B., aged 34, who had been at the war as a volunteer, was brought into the hospital on October 21st, 1901, with cut throat, having attempted suicide with a razor. The external wound extended almost transversely from one angle of the jaw to the other, the left having three, the right end two tails. The cut went right through the thyro-hyoid membrane, separating the left tip of the hyoid bone, thus severing the larynx from the floor of the mouth. No large vessels were injured.

Immediately after arrival Dr. Grogono stitched the larynx to the base of the oral cavity with catgut, and closed the external wound with silk sutures, no anaesthetic being resorted to for want of time. Patient was then treated in the ordinary way, his bed end being raised. He was able to swallow a fair amount of fluid food without any great difficulty from the second day. On account of slow suppuration setting in and sloughing of the edges of the wound the stitches gave way, the catgut sutures appeared loose externally, and were removed on October 28th. A direct but small communication resulted between pharynx and external surface, and a small amount of mucus appeared at the right side of the wound. Cough was troublesome all the time, but respiration was hardly impeded at all; the pulse was of fair strength; the temperature about normal, never reaching over 100 F. As the purulent discharge continued the danger of the larynx with the trachea suddenly sinking down and so asphyxiating the patient seemed imminent, a preventive tracheotomy was accordingly thought advisable.

On October 31st I operated on the patient, first performing the high tracheotomy, which was rather difficult, on account of the trachea and larynx having sunk down into the neck, and having no hold on the floor of the mouth; then I secured the larynx to the structures above by strong silk ligatures, and closed the external wound with a sort of quill suture, using india-rubber tubing instead of quills. Chloroform was administered at first by the mouth, and partly by the upper wound, then after tracheotomy by way of the tracheotomy wound, but the narcosis could not be kept deep, on account of the difficulty of administering the anaesthetic. The patient was then treated in the tent bed with inhalations of moist vapour and sodium bicarbonate. A good deal of discharge from the wound, and especially from the tube, followed, the latter consisting of mucus and pus, gradually increasing in quantity, and occasionally streaked with blood. The temperature rose occasionally to 101° F.; the pulse became weaker, although it was never very feeble; cough was troublesome. In short, the whole symptoms indicated septic pneumonia. After treatment with inhalation of terebene, carbolic acid, and tincture of benzoin, and the administration of senega and creosote by the mouth, the process gradually subsided. The wound of the neck became cleaner, and, after removal of the stitches on November 12th, slowly healed. The patient afterwards improved daily. On November 16th he was able to sit up in a chair for a short time. He took fluid nourishment without any difficulty from the second day after the tracheotomy, he was on fish diet for the first time on November 19th, and he improved generally so far as to be up and about on ordinary diet soon after. He had lost his voice after operation, but it gradually became stronger and more distinct. He suffered from attacks of great depression, with sleeplessness, and, as his state became more and more melancholic, he was removed into the West Ham Infirmary on December 9th, perfectly cured as far as the surgical condition was concerned, except for the wearing of the tracheotomy tube. On closing the tube with the finger, he had, however, a great struggle for breath, although a fair amount of air seemed to pass through the larynx.

I take this opportunity of thanking Dr. Grogono for his help and advice, and for his kind permission to publish the case.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, May 27th, 1902.

ETIOLOGY OF LEPROSY IN THE SOUDAN.

DR. T. J. TONKIN (late Medical Officer, Hausa Association, Central Soudan Expedition, 1893-4-5) in this paper described what he considered to be important etiological factors concerned in the maintenance of leprosy in the Soudan. After defining the particular leper area referred to, and mentioning the extent to which the disease prevailed there, he described what he believed to be the ordinary course of contagion in the Soudan. He was satisfied that it was a process of mediate contagion in which clothes played the part of vehicles. The customs of the Soudanese lend themselves to this. Clothes were hardly ever washed; the native cloth was woven in narrow strips, which were subsequently sewn together to make a piece. Cloth made in this way would not stand much washing. Rich men bought their clothes new, and when they became soiled, sold or gave them away; thus any one robe might have an almost unlimited number of owners, any of whom might have suffered from leprosy. Natives would knowingly buy robes that had been worn by mutilated lepers. They would wear them all day, and roll about at night with nothing between the prominences of their bodies and hard matted surfaces but these leprous garments. This explained the fact that those prominences (in the Soudan at least) showed the first sign of the disease. The bite of the mosquito, or the scratching occasioned by the irritation of body lice, probably provided in most cases the abrasion through which the bacillus made its way from the follicular and glandular depressions of the skin to its recesses. When tissues of sufficiently low vitality were thus invaded, a more or less severe attack of the disorder would probably follow. The predisposition to leprosy might be accounted for on the consideration that in every leper field in the world, if the average diet of the affected classes were tabulated, it would in each case present a lack of a sufficient quantity of nitrogenous elements. Similarly the well-known weakness of the peripheral tissues exhibited by low-class members of most tropical races; the readiness with which to take the native Indian for example ulcers followed quite insignificant injuries to the skin, were probably due to this inadequacy of the native's diet. That this deficiency in nitrogenous food was the only factor involved was not, however, suggested by the writer; other adverse influences which might be required to break down the resistance offered to the bacillus by the tissues of a particular individual were provided by the ordinary accidents of that individual's life.

LEPROSY IN CAPE COLONY AND NATAL.

Mr. JONATHAN HUTCHINSON read a paper based on the experience gained during a tour in Cape Colony and Natal in the months of December, January, February, and March ultimo, with the object of investigating the prevalence and distribution of leprosy in South Africa, and more especially as to its connexion or otherwise with the Cape fish-curing trade. The conclusions arrived at were that leprosy was almost unknown in South Africa before the Dutch occupation; before the first cases the Dutch had brought over Malays from Java to establish a fish factory at Capetown; salt fish with rice was the staple food of the Dutch farmers and their Hottentot slaves at the time that leprosy was first observed; the first cases were Dutch farmers living twenty miles inland from Capetown, who had almost certainly not been exposed to contagion; since the first cases were observed the disease had gradually spread from around Capetown over almost the whole of what is now British territory, including the Free State and the Transvaal, and recently it had crossed the Drakensberg and advanced into Natal; of late the Bantu races (Kaffirs) had been affected; the disease had prevailed but very slightly in towns and had affected chiefly agricultural labourers; the male sex had suffered disproportionately (3 to 2); the disease was unequally distributed and quite without the development of any special centres; throughout Cape Colony the use as food of a badly-cured salt fish had prevailed, especially among the agricultural and mining populations; in Cape Colony a very large majority of cases were apparently *de novo* cases; in the Kaffir kraals of Natal there was reason to believe that the disease was communicated from person to person, especially to young children; and the rarity and extreme irregularity with which such communication occurred suggested that it was not by inhalation or by any sort of skin inoculation. It was suggested that the mode of communication was by eating food direct from a leper's hand contaminated by secretions containing the living bacillus. This it is proposed to call "commensal communication." It seemed probable that in Cape Colony *de novo* production of the disease by the use of salt fish had been the common cause of the disease, whilst in Natal, commensal communication had been more frequent. The introduction of the disease into the Kaffir kraals of Natal had always been made by some native who, having been at work in Cape Colony, had there acquired the disease, either by commensal communication or more probably by eating salt fish. The two hypotheses of fish production and commensal communication taken together were held satisfactorily to explain several difficulties which had hitherto been felt in reference to leprosy—for instance, the non-occurrence of spreading in well-civilized communities and its irregularity and uncertainty, even amongst the most careless; the frequency with which young children suffered; the universally observed but varying disproportion of the sexes; the scattered distribution of the disease without (in the case of South Africa) any foci of great prevalence.

The discussion on these papers was adjourned to the next meeting.

CLINICAL SOCIETY OF LONDON.

HOWARD MARSH, F.R.C.S., President, in the Chair.

Friday, May 23rd, 1902.

INHERITANCE OF RECURRENT ATTACKS OF JAUNDICE AND OF ABDOMINAL CRISES WITH HEPATO-SPLENOMEGALY.

SIR THOMAS BARLOW, Bart., and Dr. H. BATTY SHAW contributed this paper. The observations giving rise to it were made upon two patients, A. W., aged 19½, and Mrs. W., his mother, aged 47.

A.W., when born, was noticed to be a very delicate child, pale and waxy looking. At 5 years of age he was jaundiced for the first time, and since then there had been attacks of semi-jaundice lasting three or four days, accompanied by pain in the upper part of the abdomen. [illegible] last six years he had been troubled with [illegible] which only healed when he was confined to bed for some days. [illegible] sion to University College Hospital in 1901. He was under the [illegible] and yellow. The liver was [illegible] enlarged, the spleen very considerably, reaching 2 in. below the level of the umbilicus; there were [illegible] tion of the left ventricle: the stools, repeatedly examined, were always found to be brown in colour, the urine often was high coloured, no bile could be demonstrated, but urobilin was easily detected spectroscopically. Examination of the blood showed signs of some secondary anaemia. The temperature rose a little, but was never more than 99.6. The boy was again admitted in May, 1901; there was no change in the size of the spleen, but a slight reduction of the liver dullness below the right costal margin. A few [illegible] were noted in the blood, poikilocytosis, nucleated [illegible] were met with, and during the earlier part of the [illegible] leucocytes numbered 14,000 per cubic [illegible]. [illegible]'s brothers or sisters suffered from attacks [illegible] had jaundice once in childhood. Mrs. W. [illegible] jaundice when about 5 years old, and had since [illegible] the jaundice there were pains in the upper [illegible]. She had one attack whilst pregnant with the child [illegible] above described; there was no elevation of temperature [illegible] ember of last year; the liver was considerably [illegible] the spleen too; the patient had an indolent ulcer on [illegible] dating from before marriage. Urobilin and bile [illegible] the urine in specimens examined in the attack in [illegible]. The examination of the blood showed the same characters as [illegible] son except that there were no nucleated red corpuscles. Both [illegible] had always resided in England. There was no evidence in either case of septic infection; both mother and son were very temperate; during infancy a little brandy was given to the son daily for about a year.

Very similar attacks occurring in three generations had been described by Dr. Claude Wilson; and Dr. Finlayson had called attention to the occurrence in several collateral members of a family. The special points to be noted in the two cases now recorded were (1) the chronicity of the affection, lasting in the son at least fourteen years and being probably congenital, and in the mother for a much longer period; (2) the occurrence of indolent ulcers in both cases; (3) the jaundice was always slightly present and underwent periodic intensification, and was then associated with pain in the liver or spleen or in both; (4) Mrs. W. would appear to be a case of Hanot's cirrhosis of the liver, whilst her son's could not but be considered as an earlier incomplete stage possibly of the same malady; (5) finally, attention was called to the extremely guarded prognostic view to be held in such cases. Mrs. W. had grown to maturity and had had a family of several children, and but for the disturbance caused by the periodic attacks of jaundice and abdominal pain was able to enjoy life. Two of the boys described by Dr. Wilson were under the observation of one of the authors, and they appeared a few months ago to have lost all signs of the affection.

Dr. ROLLESTON discussed the relation of these cases to Hanot's hypertrophic cirrhosis with chronic jaundice on the one hand, and to splenic anaemia of adults on the other. Boinet had described a family in which some members had well-developed hypertrophic cirrhosis, while others, though without any symptoms of that disease, had enlarged spleens or were in a latent stage of hypertrophic cirrhosis; possibly the author's cases were of this nature. On the other hand splenic anaemia of adults, if prolonged, might terminate with cirrhosis of the liver as a result of poisons manufactured in the spleen: this condition, called Banti's disease, was closely allied to Hanot's cirrhosis. It would appear that the authors' cases had much in common with those two conditions. As to the nature of the jaundice, it would be interesting to know whether the authors regarded it as due to exacerbations of a morbid process in the spleen, which periodically became latent from temporary immunity, or whether it had a mechanical origin, and was due to torsion of the lesser omentum induced by the enlarged spleen.

Dr. HERBERT FRENCH said that in two points he thought the cases did not resemble those of splenic anaemia. First, there were no haemorrhages; secondly, in the different counts of the blood leucocytes there was an increase of the small leucocytes to 10 per cent. only, not to 30 or 40 per cent., as was usually the case.

Dr. BATTY SHAW, in reply, said that as to these two points they were unable to examine the serum of the patient's blood, so that they did not know if it contained urobilin or bile. Probably both the boy and his mother had bile in their blood. As to the small leucocytes, their number on some occasions rose nearly to 40 per cent.

LUMBAR COLOTOMY FOR COLITIS.

The subsequent history of 3 cases of colitis on whom right lumbar colotomy was performed several years ago was given by Dr. W. HALE WHITE and Mr. C. H. GOLDING-BIRD. In all the cases the artificial anus was subsequently closed. Two of the cases (one membranous colitis and one chronic dysentery) were perfectly cured, remaining so after the artificial anus was closed. In the third (membranous colitis) complete

relief was given, the patient remaining well for eighteen months after closure of the wound; she then relapsed, and was not now materially benefited. The points to which the authors particularly directed attention were: First, that the operation was in some cases curative, acting by giving rest to the diseased colon. Secondly, that the artificial anus should be left open for a considerable time, in their cases one year, a year and a-half, and two years and a-half were the periods, and the authors were of opinion that in a severe case ten years would not be too long. Lastly, reasons were given for always preferring a right lumbar colotomy to a caecotomy. Irrigation was harmful rather than beneficial.

Dr. PERCY KIDD asked if irrigations always proved harmful in these cases; lately he had tried injections of nitrate of silver, which had to be abandoned; but injections of boric acid had done good. The patient subsequently had sudden haemorrhage, and died suddenly. The cases often seemed to him to go to the bad rather quickly.

Mr. A. BARKER said that if the ileum was anastomosed to the sigmoid flexure there would be a great risk of regurgitation of fluid contents upwards. He described the case of an elderly female patient with a huge abscess of the side, full of faeces and gas, which ended in a ghastly opening into the caecum due to sloughing. He anastomosed the lower piece of the ileum to the colon, but the faecal fistula persisted. At a second operation he closed the ileum and the colon, and the patient recovered.

Dr. S. COUPLAND asked if right lumbar colotomy could be managed satisfactorily in the insane. Dysentery was very prevalent in big asylums, and accounted for 10 per cent. of the deaths therein. The cases were often greatly prolonged, sometimes lasting for years, with relapse after apparent recovery, and they were the despair of the medical superintendents.

Dr. NORMAN DALTON suggested that it might be better to open the ileum rather than the colon in such cases. He related the case of a man from Johannesberg who had had dysentery in South Africa and had undergone colotomy. He proved to have a great hernia of the posterior wall of the bowel, which prevented anything passing from the upper to the lower gut. The man was treated with injections, and recovered. Mr. Burghard had operated, and found it was the ileum which had been opened, and which he was able to close far more easily than he could have closed an opening in the colon. Often, too, the caecum was much diseased, and ileotomy would prevent faecal matter from entering the caecum, whereas colotomy would not have that result.

Mr. MONIER WILLIAMS related the case of a gentleman who passed twenty haemorrhagic stools a day, and became greatly emaciated. Right colotomy or caecotomy was performed, and the patient improved; but the skin became ulcerated by the liquid faeces, and was difficult to heal. He ultimately recovered. During his illness irrigation of the bowel twice or thrice weekly with solution of boric acid did much good.

Mr. GOLDING-BIRD, in reply, said that his objection to antiseptic irrigation was applicable to membranous colitis; in ulcerative colitis such irrigations were beneficial, probably, indeed, indispensable. In Mr. Barker's operation the ileum was probably anastomosed into the transverse colon. In answer to Dr. Coupland, Mr. Golding-Bird said that he would be prepared to colotomize any insane patients, the after-treatment, of course, falling upon Dr. Coupland.

Dr. HALE WHITE said that an anastomosis of the ileum with the sigmoid would in many instances not get below the seat of disease. After Mr. Monier-Williams's experience, one might well fight shy of opening the caecum.

GENERAL MEETING.

The late Dr. W. M. Ord. The PRESIDENT alluded very feelingly to the death of Dr. Ord, who had, he thought, done more for the Society than any one except the founders. He had served the Society in many offices, and was devoted to its interests. He had been a member of five Committees that had reported to the Society, and was Chairman of the Myxoedema Committee. In fact, he suggested the name myxoedema by which the disease was now known throughout the world. He belonged to the best type of clinical physician, inasmuch as he was first an enthusiastic physiologist and pathologist.—Dr. GLOVER proposed that a vote of condolence with Mrs. Ord and the family should be adopted. This was carried unanimously.

Report of Council.—The report of Council read by the SENIOR SECRETARY described the continued prosperity of the Society, and announced that authors of papers read before the Society would in future be permitted to publish them afterwards in the medical journals, due acknowledgement being made of the fact that the papers had previously been read at the Society.

Treasurer's Report.—This was read by Dr. FREDERICK TAYLOR, the Treasurer, and showed that the Society's invested funds amounted to £640.

Votes of Thanks to the retiring officers and Council were adopted. That to the retiring Secretary, Dr. Percy Kidd, was especially hearty, and Dr. KIDD replied.

Election of Officers.—The balloting list recommended by the Council was adopted *nem. con.* The President will again be Mr. Howard Marsh, and the Treasurer Dr. Frederick Taylor. The Honorary Secretaries will be Mr. Anthony A. Bowlby, C. M. G., and Dr. William Pasteur.

EDINBURGH OBSTETRICAL SOCIETY.

JAMES RITCHIE, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, May 14th, 1902.

THE DEVELOPMENT OF THE AMNION AND CORD.

DR. D. BERRY HART read a paper in which he pointed out that the usual account of the human amnion developing as in the chick fell to the ground when one noted that the amnion did not cover the human cord, and also that practically there was no allantois to moor the embryo to the chorion after it had been separated off by the hypothetical folds. Peter's embryo, the earliest known, was then described, as well as a similar one in Dr. Berry Hart's possession. The development of the amnion was traced from specimens of the work of His, Sellenka, Graf Spee, Keibel, Mall, and Minot, and from these considerations he urged—(1) That the amnion was formed by the central breaking down of an ectodermic plug as in the guinea-pig (so-called inversion of the membranes), that really the human amniotic cavity was not formed by folds; (2) it was formed early in development and prior to the development of the coelom.

The paper, which was illustrated by diagrams, was discussed by Professor A. R. SIMPSON and Dr. J. W. BALLANTYNE; and Dr. BERRY HART replied.

ACUTE PYELITIS IN INFANCY.

The PRESIDENT presented a communication on a case of this kind. The clinical history showed previous good health, except constipation with discomfort during defaecation; a rigor and then the child manifestly ill. The points that guided to a diagnosis were the great variations in temperature, discomfort on movement, and the apparent integrity of other systems. The urine, which was very acid, contained pus and bacteria, and there was no frequency of nor pain during micturition. The etiology was next discussed. The various causes of pyelitis were referred to, and it was indicated that in infancy the cause was the bacterium coli commune. The source of infection and the suitable nidus were briefly spoken of. The treatment suggested was to render the urine neutral, induce a copious flow, and to exercise general care.

Dr. JOHN THOMSON read a paper entitled Notes on the Symptoms and Treatment of Acute Pyelitis in Infants. Since Dr. Emmet Holt's paper on three cases of this malady in 1894 Dr. Thomson had seen 8 cases. The patients were all girls, whose ages varied from 7½ to 20 months. Undiagnosed, it was an alarming illness; but, under proper treatment, it was a very curable one. Many of the cases hitherto published had been in infants under 2 years, but the disease occurred not uncommonly in older children also, and presented very similar symptoms in them. In almost all the published cases the patients had been girls, but Emmet Holt had described a well-marked case in a boy of 14 months. It was of the utmost importance to examine the urine in all acute feverish conditions in infancy. Dr. Thomson gave a general outline of the symptoms observed in his 8 cases. In all the children but one there had been troublesome constipation; in some occasional attacks of diarrhoea occurred. In several, glycerine injections or suppositories had been used for a prolonged

period. In five, at least, there was a history either of soreness about the anus, or pain during defaecation, or blood had been seen in the motions. In several of the cases there was a history of predisposing illness—scurvy and influenza. They had all been artificially fed. The symptoms began rather suddenly with a rapid rise of temperature, with severe chill or rigor. In none of his 8 cases was there a convulsion. Two or three cases had delirium, two had squinting, two or three had vomiting. The temperature was frequently over 104°, and was more or less remittent. There was extreme restlessness and distress, but this was not constant. The appetite was often well maintained, and consequently the emaciation, though steady, was not very rapid. The symptoms pointing to urinary disturbance were often slight and equivocal. In 5 of the cases there was a history of screaming, apparently due to colic; in 4 cases either uneasiness or actual pain on micturition; in 2 cases there was vulvitis, and in 5 excoriation or fissure of the anus; there was tenderness over the kidney in 2 cases. The urine was always acid, generally extremely so, once fetid; albumen always present in small amount, but not much more than might be accounted for by the pus cells; there were no tube casts; pus was always present in considerable amount; blood was never seen save in one scorbutic case; bacteria were always present in the freshly-passed urine; culture gave pure growths of bacillus coli communis; no crystals were found at the time of the illness. In regard to the etiology, the author said that the pathogenic organism was the bacillus coli communis first described by Escherich. In face of the great preponderance of females, probably the organism entered from outside up the urethra. Scorbutus and influenza, etc., might lower the vitality of the kidney. The diagnostic points were pus, bacilli, and high fever, and the absence of other causes of these conditions. Rigors in an infant, if malaria were excluded, pointed almost certainly to pyelitis. Under proper treatment the cases improved very rapidly, but it was usually several weeks before the pus disappeared from the urine. In the way of treatment, alkalies should be given to render the urine neutral, diluents, antiseptics in addition to the alkaline treatment (salol seemed better than urotropine), antipyretics were generally quite unnecessary. Dr. Thomson said the main conclusions of his paper might thus be stated: 1. In infant girls acute pyelitis was not rarely set up by the passage of the bacillus coli into the urinary tract. 2. The presence of the disease was sufficient to occasion very high fever, extreme distress, and a copious deposit of pus and bacteria in acid urine. 3. Unlike any other disease (except malaria) it frequently caused rigors even in young babies. 4. The presence of anal excoriations had probably an important etiological significance in these cases. 5. The prognosis was altogether favourable, although complete recovery was sometimes delayed for weeks. 6. The only essential treatment consisted in the thorough and long-continued neutralization of the urine.

The papers were discussed by Drs. J. W. BALLANTYNE, HAIG FERGUSON, FORDYCE, KEPPIE PATERSON, and CHURCH; and the authors replied.

SPECIMENS.

Professor A. R. SIMPSON showed: (1) Anencephalus fetus with spina bifida and exomphalos; (2) dermoid and three solid fibromata of ovary; (3) tumour of ovary with hydatids inside; and (4) Bossi's cervical dilator.—Dr. D. BERRY HART showed: (1) Uterus with cervical cancer removed by vaginal hysterectomy; (2) double hydrosalpinx and matted ovaries; and (3) cystic ovarian tumour (malignant); microscopical specimens of (1) and (3) were shown.—Dr. HAULTAIN showed: (1) An ovarian cyst, with double pyosalpinx, which had ruptured into the intestine; (2) probable ovarian pregnancy; (3) uterus removed for adeno-sarcoma; and (4) monster, with fused bodies, two heads, four legs, three arms, and with two hands on one arm.—Dr. FORDYCE showed a fibroma of the ovary.

HARVEIAN SOCIETY OF LONDON.

CLINICAL EVENING.

W. WATSON CHEYNE, C.B., F.R.C.S., President, in the Chair.

Thursday, May 22nd, 1902.

INJECTIONS OF PARAFFIN FOR COSMETIC PURPOSES.

THE PRESIDENT showed a boy, the subject of congenital syphilis, who had suffered from necrosis of the nasal bones, and the bridge of whose nose he reproduced by the injection of paraffin having a melting point of 120° F. at the first injection. For the second, after a week's interval, having read of an injection by another surgeon with paraffin having a melting point of 104° F., he used such paraffin. After the two injections the point of the nose, which had been held down during the operation, remained depressed, and a presentable organ resulted. The operation was difficult on account of the rapid freezing of the paraffin immediately it touched the tissues. One objection to the paraffin at 104° F. was that it had a tendency to run into the space between the eyes, above the bridge of the nose. No inflammatory reaction had followed the injection. Greater improvement was possible, but the skin was at present stretched to its limit.

Dr. LEONARD HILL thought cosmetic operations such as the present were justifiable, provided there was no risk of complications. He instanced several operations that had been done on the Continent in which the paraffin had travelled into other parts subsequently. In one case shown before a meeting of the British Medical Association the results were splendid, but later on some of the material escaped into the eyelids, and twelve months after the operation the eyes were completely closed by the escaped wax.

The PRESIDENT, in reply, said his injecting needle went practically down to the remains of the nasal bones. He used an ordinary serum syringe. The great point was to have the hot water quite close to the patient's face, so that there was no time for the paraffin to cool. No pain was complained of during the injection.

EARLY MITRAL CONSTRICTION.

Dr. A. MORISON showed a boy, aged 11 years, the subject of early mitral constriction, showing the triple rhythm. The boy had acute rheumatism two years ago, and had had two attacks of chorea. He showed the usual phenomena of an ordinary mitral case. He did not think the triple rhythm could be regarded as diagnostic of the condition. The triple rub could be originated in pericarditic conditions, and under those circumstances the second sound might be spurious. Dr. Morison gave a review of the various theories held—namely, by Sansom, Stacey Wilson, and others—and stated that in his view the triple rhythm was very much a matter of rate. If a patient with mitral disease and a triple rhythm was sat up in bed, and the pulse-rate thereby quickened, the triple character of the beat vanished. When the patient lay down and the pulse-rate slowed there was a quadruplication of sounds. He had verified that by sphygmographic tracings. In mitral cases one could sometimes, by the help of digitalis, produce quadruplication simply by slowing the heart.

Dr. SUTHERLAND would have thought the irregularity would have been more pronounced when the pulse-rate was increased than when it was slowed. He could recall only one case—that of a woman aged 60, in which there was quadruplication of the heart sounds, and in that case he thought the innervation of the heart was at fault. An important diagnostic point, in his view, was the duplication of the second sound. If Dr. Morison had a case of slightly accentuated first sound, and definite reduplication of the second sound, would he be prepared to diagnose mitral stenosis from those sounds alone? His own view was that, if those two signs were present, the case was very likely one of mitral stenosis. In his experience, also, especially in children, the typical dilatation of the mitral orifice was more likely to be accompanied by irregularity of the heart's action than stenosis.

Dr. MORISON replied.

TORSION OF THE TESTICLE.

Mr. JAFFREY read notes of a case of torsion of the testicle, and showed the specimen. The textbooks mentioned that torsion of the testicle most frequently occurred in undescended testes, but in the present case the testicle was completely descended. The patient, an errand boy, aged 15, came to the hospital with an ordinary hydrocele of the tunica vaginalis. The swelling was of the size of a hen's egg. When riding a bicycle he fell over the handle and struck his hydrocele, which caused him much pain. A week later he again fell off his bicycle and struck the same part, causing him extreme pain, which brought him to the hospital. Haematocele was diagnosed. On operating, Mr. Jaffrey found no haematocele, the swelling being more or less due to the

oedema of the scrotum. The testicle was enlarged, very hard, and black. On careful examination it was found that the testicle, instead of being attached to the posterior wall of the tunica vaginalis, had a mesentery of its own attached to the lower end of the epididymis. It was twisted three half-turns inwards. As it was a useless testicle, he removed it. He referred to descriptions of the condition in the *Lancet* of November 18th, 1893, and July 30th, 1892.

CONGENITAL STENOSIS OF THE PYLORUS.

Dr. CAUTLEY showed a specimen of congenital hypertrophic stenosis of the pylorus. He said the disease was rare, and was but seldom diagnosed during life. He had seen 2 cases when he read his paper before the Royal Medical and Chirurgical Society three years ago, and collected 18 others. Since then about 50 cases had been recorded. The infant was 2 months old, the age at which such subjects usually died, and the stomach was decidedly large for that age. The pylorus, instead of being a thin ring, was $\frac{3}{4}$ in. long, and consisted of dense muscular tissue. Before it was laid open it formed a very definite tumour, in shape like the last joint of the little finger. From the stomach side it was funnel-shaped, the funnel being closed largely by a fold of mucous membrane. After death the constriction was so pronounced that only a fine probe could be passed and no fluid could be squeezed from the stomach through the orifice. The child was apparently born healthy, at full term, and seemed normal. After a period varying from a few days to weeks it started vomiting, but it was a regurgitant vomit; two or three meals would perhaps be kept down, and then a very large quantity would be brought back. The appetite seemed unaffected. The tongue was clean, and might remain so throughout the whole illness. The breath was not sour. Constipation was often but not invariably present, and was often noticed at birth. Occasionally there was diarrhoea. No bile was found in the vomit. Towards the last such infants got very marasmic, and died practically from starvation.

Dr. SUTHERLAND and the PRESIDENT discussed the specimen; and Dr. CAUTLEY replied.

SOUTHERN BRANCH OF THE BRITISH MEDICAL ASSOCIATION: SOUTH-EAST HANTS DISTRICT.

A. LLOYD OWEN, M.D., President, in the Chair.

Tuesday, May 20th, 1902.

CLINICAL CASES.

MR. CHILDE showed two cases of oesophageal stricture, also two cases of excision of the breast by Halsted's method, and subsequently made some remarks upon the operation. Mr. Childe likewise showed a case of hernia operated upon for radical cure by a curved incision, and a case of excision of the floor of mouth and part of the lower jaw for epithelioma.—Dr. L. MAYBURY showed a case of hemiplegia, with paralysis of the third nerve.—Dr. MCELDOWNEY showed a case of rheumatism, complicated with osseous nodular swellings.—Dr. J. WARD COUSINS showed a case of double hare-lip and cleft palate after operation, and also a case of excision of part of the tongue for malignant disease.

PATHOLOGICAL SPECIMENS.

Dr. J. G. BLACKMAN exhibited a uvula on the tip of which a papilloma had developed, also a large mucous polypus removed from the cervix uteri. Dr. L. MAYBURY exhibited a silver ring which he had removed from the root of the penis, also a double inguinal hernia; also a gastrostomized stomach for oesophageal cancer; and a fetal monstrosity with degeneration of the placenta; he also showed a bullet wound of the skull. Dr. MCELDOWNEY read notes of a case of Hodgkin's disease, and exhibited the spleen and other organs implicated.

ENCYSTED SEROUS PARAMETRITIS.

Mr. HENRY RUNDLE gave notes of a case of encysted serous parametritis with large effusion, resembling an ovarian cyst. Laparotomy was performed, the peritoneum and abdominal wall stitched together, a large drainage tube introduced, and the cavity washed out with a solution of sulphurous acid. The patient was discharged practically well, a sinus with a little discharge of serum remaining. A month afterwards fatal faecal extravasation occurred into the cyst cavity from an opening in the small intestine. This had probably been produced by the effusion of inflammatory material around the bowel, causing constriction, and the gut gave way in a weakened spot.

ADRENALIN IN HAEMATURIA.

Mr. RUNDLE also reported the case of a man suffering from severe haematuria, probably prostatic in origin. Various astringents were tried without relief. After three injections of adrenalin chloride solution, the urine became clear, and continued so. He considered it worthy of further trial in similar cases. Dr. C. Knott had written concerning this treatment, and instanced a case recently under his care which was benefited thereby.

DERMATOLOGICAL SOCIETY OF LONDON.—At a meeting on Wednesday, May 14th, Dr. PRINGLE presented a man, aged 84, who showed multiple patches of epitheliomatous change in the skin. They occurred on the face and other positions, and one such area had been removed years ago from the right cheek, and the scar had remained sound. The skin showed marked senile atrophy, and numerous warty overgrowths of the type known as senile or seborrhoeic were also present. The members who discussed the case were agreed that the epithet "seborrhoeic" as applied to these warts implied an unwarrantable assumption of their etiology.—Dr. PRINGLE also showed a young woman who was the subject of acanthosis nigricans. An almost uniformly warty growth on the lips had been present since birth. It could be seen that there was already slight pigmentation and rugose thickening of the skin of the neck and axilla, and it was reported that there was considerable wart-like hypertrophy of the skin in the neighbourhood of the anus and vulva.—Dr. COLCOTT FOX showed an elderly woman who had suffered from large tumours on the forehead and scalp for three years. The right temple and the right side of the scalp were obscured by the presence of numerous coalescing bluish-pink tumours varying in size from that of a bean to that of a walnut. The aspect of the mass of overgrowth suggested serious malignant disease. Dr. Fox drew attention to a few smaller lesions on other parts of the body, which were ordinary examples of molluscum contagiosum, and showed that even the large tumours possessed the characteristic appearance and contents of the disease. A group of 3 cases of "ringed eruptions" and hyperkeratosis eccentrica was presented for comparing the appearances of these very rare and still unexplained maladies. The case of hyperkeratosis eccentrica was the example of the disease already shown and reported by Dr. Galloway. It was the first case of this disease identified in this country. It was immediately conceded that this disease, affecting the epithelial tissues mainly, was quite different in its characters from the ringed eruptions also shown. A second case of the malady had now been observed by Dr. Perry at Guy's Hospital. Dr. RADCLIFFE CROCKER showed one of the cases of ringed eruption, describing it as the malady which he recognized as "granuloma annulare." In this patient, a young man, the eruption produced characteristic circinate outlines on the backs of both hands surrounding the metacarpophalangeal joint of the right index finger and on the outer side of the left index finger. The margin showed the elevated smooth outline of diseased tissue, enclosing an area of skin more pigmented than the surrounding skin and with slight signs of atrophy. With this was compared the case of a young lad, previously shown and reported by Dr. Galloway under the name of "ringed eruption of the extremities" or "lichen annularis." In this case the hands were also affected, the eruption being curiously symmetrical, and one or two nodules were observed on the left pinna.—Dr. GALLOWAY showed the histological structure of his case, and the opinion of the Society was that these two cases, being diseases specially involving the cutis vera, were clearly distinct from the case of hyperkeratosis eccentrica. And most of the members concluded that the 2 cases of ringed eruptions were examples of the same malady, and hoped that a further comparison of Dr. Crocker's and Dr. Galloway's cases might throw some

light on the etiology of this rare condition.—Dr. LEE DICKINSON and Dr. GRAHAM LITTLE gave an account of a case of lymph-adenoma, in which flattened tumours had occurred, involving the true skin. The histological character of the cutaneous growths were exactly similar to that of lymphatic gland. A discussion ensued as to the exact nature of the growths in the skin.—A child was shown on whose back were numerous finger-nail sized patches of pigmentation. Dr. WHITFIELD, who showed the case for Dr. G. F. STILL, remarked that it was difficult to obtain a definite history of the onset of the lesions, which had produced the pigmentation. Factitious urticaria could not be elicited, and the exact nature of the lesion had not yet been ascertained. It appeared probable that the case was a mild one of urticaria pigmentosa.—Mr. MALCOLM MORRIS showed 2 cases of naevus, with special reference to treatment in private patients.—Cases of importance were also shown by Drs. J. H. SEQUEIRA and Dr. GRAHAM LITTLE.

REVIEWS.

HYGIENE AND PUBLIC HEALTH.

THE conditions in the flax mills in Great Britain were materially improved some years ago by special rules requiring localized fan ventilation in the processes of roughing, sorting, and hackling the flax, and a limitation on the amount of artificial humidity permissible in the wet spinning rooms. These rules were the outcome of a report made in 1894 by Mr. E. H. Osborn, one of H.M.'s Inspectors of Factories. Little having been done in Belgium in improving the conditions of work, a considerable press agitation was started, directed mainly against the injurious effects on the health of the women employed in the wet spinning rooms. The medical inspectors were deputed by the Government in 1897 to go fully into the question of the alleged injury to health, and to take time for the work (the inquiry lasted about five years), so that it should not be necessary to have to cover the ground a second time. The report now issued [1] deals with the subject from end to end. The problem was to determine, in an industry in which there was no special trade disease such as work in lead induces, what amount of sickness there was among the workers in the various branches, whether this was greater than in other trades, and if so, what were the factors causing the work to be injurious. The occupation selected for detailed comparison was rag-picking. The total number of persons employed in the flax industry in Belgium is 12,275, and of this number 71.61 per cent. are females. In the case of all of these their state of health was considered (the conclusions are set out in tabular form) according to age and sex, influence of the age at which work was commenced, of the duration of employment, and of the precise occupation. The illnesses from which the *personnel* suffered at one time or another were classified in the same way. As their basis for the classification of the state of the health of the workers into "good," "fair," and "bad," the medical inspectors relied on the following points: Measurement (1) of the height; (2) of the muscular force by means of a dynamometer; (3) of the respiratory capacity by a spirometer; and (4) of the arterial tension. There are some sensible remarks as to the difficulty of carrying out on factory premises anything like an examination such as is possible in the out-patient room of a hospital. The result showed that in the case of the females the order in which the processes could be ranked from the most injurious to the least injurious was (1) carding, (2) wet spinning, (3) preparing, and (4) reeling. In the case of the males the order was (1) hackling (in which process no females are employed), (2) carding, (3) wet spinning, (4) preparing and drying. With the exception of wet spinning and drying the cause of the ill-health is the flax dust, the injurious qualities of which are attributed to the large amount of silica which it contains, to the micro-organisms present in it from the process of "retting," and to the angular particles of vegetable tissue. The average number of mineral particles found in the air of these rooms at the level of the workers' faces varied from 16 to 23 millions per cubic metre as compared with 6 millions in the outside air. Chronic bronchitis, bronchiectasis, and asthma, rather than true fibroid phthisis, are set up from the inhalation of the dust. The excessive humidity and high temperature are the cause of the ill-health resulting from employment in the wet spinning rooms. The report details the physiological reasons why high temperature, combined with excessive humidity, should injuriously affect the health, and stress is laid on the interference thus caused in the normal glycogenic, thermogenetic, antitoxic, and haematopoietic functions of the liver. The recommendations of the report are that the age of commencing work should be raised, that in the hand hackling and carding rooms localized mechanical ventilation should be required, that in machine hackling the speed of the machines should be limited, and that in these rooms and in the preparing rooms there should be general mechanical ventilation. It is further recommended that for the wet spinning rooms, in addition to mechanical ventilation, the age of commencing work should be increased by at least one year (at present it is 12), that the duration of work should be shortened, that the troughs should be hermetically closed as far as possible, that modified splashboards should be obligatory, that the water should be able to flow rapidly from the floors, that steam pipes should be covered with non-conducting material, and that cloak rooms should be provided for the use of the workers. The report is a valuable statistical inquiry, and good illustrations of the processes and of the cutaneous lesions found are given.

The value and utility to the non-medical *personnel* of the army of Major FREEMAN'S *Sanitation of British Troops in India* [2] is obvious, as the author treats the theories and facts which form the basis of modern sanitation in a simple and lucid way. It does not appeal to the army medical officer, as the subject is necessarily handled in a superficial manner. The volume is really a second edition, the new matter being contained in two appendices, one dealing with the nature and prevention of malaria, the other embodying the results of the writer's experiences in the present South African war. Both these short chapters are admirable, and likely to be of the greatest value to all officers, non-commissioned officers, and men. It is a pity that the author has not rewritten the other chapters, or at least personally verified some of the statements to which he gives prominence. Thus we should like to know what truth there is in the alleged inhibitive action of Ghadialli's micrococcus on the enteric bacillus. So, too, mineral waters which have been bottled for twenty-four hours are said to be quite safe owing to the germicidal action of the carbon dioxide on all microbes; this is a statement which is not in accordance with our experiences. In speaking of the suggested use of sodium bisulphate for the purification of water, the author says that this salt would be more palatable than potassium permanganate. It is evident that the author knows little practically or theoretically of sodium bisulphate or its acidity. Loose statements, such as these, are blemishes which should be rectified before another edition is issued, as otherwise what should be a useful means of disseminating sound knowledge among a class difficult to reach will be apt to fall into disrepute.

The volume entitled *Hygiene for Students* [3] is really a fourth edition, greatly enlarged and improved, of a work originally called the *Principles of Hygiene*. Dr. WILLOUGHBY has written it to meet the requirements of the student preparing for the examinations of the Science and Art Department, the certificate of the Sanitary Institute, and for diplomas in Public Health. Sanitary law is not touched upon, but the reader is referred to the *Health Officer's Pocket-book* (by the same author) for a *précis* of this subject. The subject matter of Dr. Willoughby's books is well and clearly expressed, and treated with scientific accuracy. In the present work the chapters on vital statistics, dietetics, school hygiene, and preventable diseases are so good that the others appear somewhat poor by comparison. The book will well meet the re-

[1] *Les Filatures de Lin. Etude d'Hygiène Professionelle: Rapport d'Enquête Presenté à M. le Ministre de l'Industrie et du Travail.* Par le Dr. D. Gilbert, Inspecteur Médecin du Travail à l'Administration Centrale. Brussels: J. Lebègue et Cie. 1902. (Roy. 8vo, pp. 464; 19 plates. Frs 5.)

[2] *The Sanitation of British Troops in India.* By Major E. C. Freeman, R.A.M.C. Second Edition. London: Rebman, Limited. 1901. (Cr. 8vo, pp. 127. 2s. 6d.)

[3] *Hygiene for Students.* By Edward F. Willoughby, M.D., D.P.H. Lond. London: Macmillan and Co. 1901. (Crown 8vo, pp. 563. 4s. 6d.)

quirements of the examinations of the Science and Art Department and of those for the certificate of practical sanitary science of the Sanitary Institute. It may also be read with advantage by those preparing for Diplomas in Public Health, although for these examinations other more comprehensive works will have to be consulted.

Mr. WOOD'S *Sanitary Engineering*,[4] a new volume of Griffin's series of scientific textbooks, is excellent. It is suitable chiefly for district and borough surveyors, but there is little doubt that medical officers of health and sanitary inspectors, as well as intelligent members of local authorities, will find it very useful. The general get-up of the book is good, and it is liberally and well illustrated. The variety of subjects dealt with may be judged from the titles of its chief chapters: Hydraulics, Earth Pressure and Retaining Walls, Power, House Drainage, Land Drainage, Sewers, Separate System Sewage Pumping, Sewer Ventilation, Drainage Areas, Sewers, Trade Refuse and River Pollution, Sewage Disposal, Bacteriolysis, Sludge Disposal, Refuse Disposal, Chimneys, and Foundations.

NOTES ON BOOKS.

DR. R. R. v. LIMBECK'S work on the *Clinical Pathology of the Blood*,[5] a review of the first German edition of which was published in the BRITISH MEDICAL JOURNAL of May 21st, 1892, p. 1084, has been translated, from the second German edition, by Drs. A. LATHAM and J. NACHBAR for the New Sydenham Society. It remains, as was pointed out in our former review, in great part an epitome, with comments, of the work of others, but it is full of information. It is unfortunately very poor in illustrations and would be of distinctly more value if coloured representation of blood preparations could be added.

The fourth volume of the *Philadelphia Hospital Reports*[6] contains many contributions of scientific interest, including one by Dr. R. G. Curtin on the relation of herpes zoster to internal inflammations, one by Dr. H. W. Stelwagen on the treatment of ringworm of the scalp; a valuable paper on syphilis of the nervous system by Dr. C. K. Mills; one including three years' statistics of cases of typhoid fever treated in the hospital by Dr. H. B. Allyn; and some of therapeutic interest.

The *Report of the Surgical Registrar of the University College Hospital*[7] for 1899, like its predecessors, is crammed full of clinical and pathological facts (mostly in tabulated form), with a minimum of interstitial matter. It is to be hoped that it, with them, will prove greatly fruitful when used in the way of reference, for the reports indicate a vast amount of tedious labour gone through by successive registrars.

The nineteenth volume of the *Transactions of the Royal Academy of Medicine in Ireland* for 1901,[8] which is edited by Mr. JOHN B. STOREY, contains many valuable papers on medicine, surgery, obstetrics, pathology, and State medicine, most of which, however, have already appeared in abstract in our columns from time to time. The volume will doubtless be prized by many as a permanent record of the full papers and the discussions on them, with, in addition, the illustrations accompanying them that could not be reproduced with the ordinary periodical reports.

[4] *Sanitary Engineering: A Practical Manual of Town Drainage and Sewage and Refuse Disposal.* By Francis Wood, A.M.Inst.C.E. London: C. Griffin and Co. 1902. 8vo, pp. 316. 3s. 6d.)

[5] *Handbuch der klinischen Hämatologie.* By Rud. R. v. Limbeck. Translated [illegible] by A. Latham, M.A., M.R.C.P. and [illegible] by A. Nachbar, M.D. London: New Sydenham Society. (The [illegible] 21s. Agent: Mr H. [illegible] pp. 446.)

[6] *Philadelphia Hospital Reports*, volume IV, 1900. Edited by R. G. Curtin, M.D., and D. C. Hughes, M.D. Philadelphia: M. H. Power. 1901. (Demy 8vo, pp. 334).

[7] London: James Truscott and Sons. 1901. (Demy 8vo, pp. 320.)

[8] Dublin: Fannin and Co. 1901. (Demy 8vo, pp. 436.)

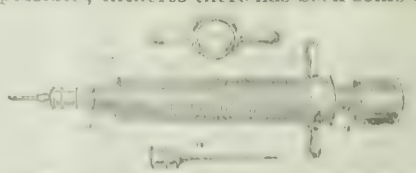
DR. FERNIE'S *Kitchen Physic*[9] is a readable little book, containing a great amount of information, some practical and of every-day use, and some of more interest from the archaeological standpoint. Indeed, the principal criticism which we have to make is that it would have added to the usefulness of the book had the writer, who has evidently made a hobby of the subject and has laid under contribution all sorts of sources of information, given a little more guidance to his readers as to the relative utility of the recipes which he offers. The absence of this sometimes gives an impression that the author is a little credulous as to the influence of articles of diet. It is interesting to learn that the early form of plum pudding, which does not appear in cookery books prior to 1675, was a semi-fluid "plum porridge." The index is inconvenient, as the entries are grouped under the headings of the morbid conditions for which they may be considered especially appropriate, and this renders it difficult to find a reference to any particular article of diet.

In the *Transactions* of the Tuberculosis Commission[10] of Hamburg for the year 1901, we find a number of papers by well-known writers, many of which have already been published *in extenso* in various German medical journals. Some of these papers deal with the theoretical side of the tuberculosis question, some combine the theoretical with the practical, and others discuss matters which are wholly practical. Of the former, we take exception to a few which appear to have but one aim, namely, to quarrel with generally-accepted views. In these we object to the "I told you so, years ago," tone which characterizes the majority of the writings of their particular authors. On the other hand, among the second class there are a few papers, notably those of Weicker and Petruschky, and some remarks in a discussion by Nourney, on the value of tuberculin, which are interesting and very instructive. Brunzlow's paper on the same subject belongs to the purely practical, and is, unfortunately, less convincingly given and of less intrinsic importance. The editor has compiled the work satisfactorily, but in his paper he exhibits an ungraceful bitterness towards Virchow and Koch which is as unjustifiable as it is regrettable.

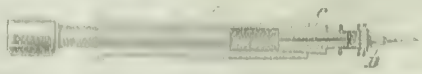
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

An Aseptic Syringe.—Lieutenant-Colonel F. J. LAMBKIN, R.A.M.C. (Capetown, South Africa), writes: In carrying out the intramuscular treatment of syphilis, I have always considered it of extreme importance that the syringe used be as aseptic as possible; hitherto there has been some difficulty in



The B. W. and Co. all-glass aseptic hypodermic syringe.



The B. W. and Co. all-glass septic hypodermic syringe. Sectional view.

[9] *Kitchen Physic.* By W. T. Fernie, M.D. Bristol: J. Wright and Co.; Bristol and London: Simpkin, Marshall, and Co. 1901. (Crown 8vo, pp. [illegible])

[10] *Verhandlungen der allseitigen Tuberculose-Commission der Gesellschaft deutscher Naturforscher und Aerzte in Hamburg, 1901.* Herausgegeben von Ferd. Huoppe. (Transactions of the German Permanent Tuberculosis Commission of the Society of German Scientists and Medical Practitioners in Hamburg, 1901. Edited by Ferd. Huoppe). Berlin: Aug. Hirschwald. 1902. (8vo, pp. 156. 3s. 7d.)

insuring this, owing to the presence of leather or rubber in the syringes preventing them being boiled. Messrs. Burroughs and Wellcome and Co., of London, have now at my suggestion made a syringe which has the advantage that it is made throughout of glass, and that there is a total absence of leather or rubber which are liable to be affected by boiling.

Abdominal Belts.—We have have received an assortment of surgical appliances made by Mr. Vincent Wood, including several types of abdominal or supporting belts, all of which are evidently well and strongly made, and apply pressure in the proper axis. The same maker also sends examples of the cuirass and electric brace, intended to prevent ill habits of stooping; they are capable of being made as comfortable to wear as any such appliances can be, and of exerting a proper corrective force. The materials used in the manufacture of these articles is of high quality, the style and finish is all that could be desired, and the price is moderate.

VACCINATING INSTRUMENTS.

Dr. H. Cooper Rose (Maida Hill, W.) writes: I have read with some interest the description given by Dr. J. Wilson in the British Medical Journal of May 24th of his new aseptic vaccinator, but I cannot for the life of me discover where the "improvement" comes in over the instrument I introduced in 1871, and which has been so extensively used not only in this country, but also in India and the Colonies ever since that period. Dr. Wilson "finds fault with the point of the popular Cooper Rose instrument on account of its not being readily cleansed." In the first place, if the instrument is properly used it is impossible for it to become foul. The skin of the arm being properly prepared and slightly tensed by the thumb and finger placed under the arm, the rapidity with which the half-circle rotary movement is made precludes the possibility of either needles or the cap being infected.

The object being simply to remove the epidermis and expose the cutis vera to the influence of the virus, the needles should be short, projecting only the one-thirty-second of an inch, and it is found in practice that if bleeding takes place at all it is not until a few seconds after the instrument is removed, and such bleeding should be stopped before the virus is applied, and which should be gently rubbed in. From time to time the needles may be passed through a clean handkerchief or other soft material stretched between the fingers, and any particles of epidermis be wiped from the end of the cap. If further "cleansing" should be deemed desirable, what can be easier than holding the needles for a moment in a flame, or placing the needles and cap in a disinfecting solution?

The instrument I have has been in constant use for over 31 years, and is as good now as when I first received it, and has never had need of the slightest alteration or addition. In my own extensive practice, and in that of scores of friends, I have never found or heard of a septic case arising from its use.

MEDICINAL AND DIETETIC PREPARATIONS.

Levurine.—This product, which is derived from the yeast of beer by a secret process, has of late been employed to some extent in cases of infection by the staphylococcus pyogenes. Thus it is said to have given satisfactory results in treating acute abscesses, boils, carbuncles, osteo-myelitis, etc. Levurine is a coarse brown powder with a characteristic yeasty odour: on treatment with water, part seems to dissolve, and the rest remains as a pale, easily-diffusible precipitate. The ordinary dose is from one to three teaspoonfuls, though much larger doses may be given. It may be administered mixed with water or beer, or in cachets; we should recommend the last method. M. Couturieux (Paris) is the maker of Levurine, and Messrs. Roberts and Co. (76, New Bond Street, W.) are the agents for this country.

Elixir of the Glycerophosphates of Calcium and Sodium.—This is an elegant and agreeably-flavoured elixir prepared by the same firm. Each fluid ounce contains 8 gr. of sodium glycerophosphate and 4 gr. of the corresponding calcium salt. The dose is from 1 to 4 fluid drachms.

Arrhenal (Disodium-methyl Arseniate).—This is a new arsenic compound which M. Gautier has lately introduced into medicine. It is a colourless crystalline substance, soluble in water, and chemically allied to sodium cacodylate, which is sodium-dimethyl arseniate. It is said to be a valuable remedy in the treatment of pernicious anaemia and pulmonary tuberculosis, and to be capable of being administered by the mouth without giving rise to any unpleasant consequences such as follow the use of sodium cacodylate; in this respect it possesses advantages over the latter, which can only be administered hypodermically. The hypodermic dose of arrhenal is 5 to 10 centigrams (⅛ to 1½ gr.). Messrs. Squire and Sons (413, Oxford Street, W.), to whom we are indebted for our sample, dispense the drug in the following forms: Globules (½ gr. in each), elixir (½ gr. in 1 fluid drachm), and injection (½ gr. in 10 minims).

GENERAL COUNCIL

MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1902.

NOTES.

The seventy-fourth session of the General Medical Council was opened on Tuesday, May 26th, by the customary address from the President, Sir William Turner. Judging from this address, the most important subjects to come before the Council will be the report of the Financial Relations Committee, which is to contain proposals for providing an increase in the income of the Council, the report of the Public Health Committee on the practical work to be required for the D.P.H., the reports of the Inspector and Visitors of Examinations, and certain disciplinary cases. Judging by the amount of business got through by the Council at the time we go to press, it seems somewhat sanguine to expect that the work of the session can be satisfactorily concluded by the end of the week, as the President hoped.

Preliminary Examinations.—The request of the Council of the British Medical Association that the General Medical Council should receive a deputation to lay before it certain opinions and suggestions with regard to preliminary education led to a curious explosion of feeling from certain members of the Education Committee, who appeared to think that there was a desire to slight the work done by that committee. The request for an interview was accompanied by the report published at page 1351, and the Executive Committee, which had had the application before it, recommended that the deputation should not be received, and appended a comment which was certainly not conciliatory. In the end a resolution instructing the Education Committee to receive the deputation on behalf of the Council was passed without a division, and it was even said that the report of the Executive Committee contained nothing opposed to the adoption of this course. This being so it seems a pity that the Executive Committee did not make it clear in the first instance; it would have been at least a more gracious method of procedure than that adopted. From some remarks made by Dr. MacAlister it would appear that the Education Committee of the General Medical Council has some information as to the effect of the present standard of preliminary examination not hitherto made public, and we may therefore hope that the interview which is to take place on Saturday may lead not only to some profitable discussion, but also to the publication of some information of general interest.

Penal and Disciplinary Bill.—The President stated that no progress had been made in Parliament with this Bill, and expressed the opinion that it had no chance of getting a hearing unless the Government would take more interest in it. He did not, however, state what steps he was taking with the object of arousing the interest of the Government, by which we presume is to be understood the Duke of Devonshire (President of the Privy Council) and Sir John Gorst (Vice-President). It seems somewhat strange that a body like the General Medical Council, created by statute, and required by statute to exercise certain duties, should have so much difficulty in securing the support of the Parliamentary spokesmen of the Privy Council for a non-contentious Bill, the object of which is to correct anomalies which hamper it in the exercise of those duties, and should even fail to obtain, as appears to have been the case this year, the introduction of the Bill into Parliament.

"Chronic" Students.—Mr. Ball explained to the Council a scheme designed to stop those students who are well known under the name of "chronics" from coming up again and again for examination. Mr. Ball cherishes the hope that if all the licensing bodies would agree to adopt cumulative periods of reference, that is to say, if on the first occasion a man was rejected at an examination he were referred

for six months, on the second occasion for twelve months, and on the third for a longer period—a very great step would be made towards the desirable result of eliminating "the chronic" student. This plan seems to have suggested itself to Mr. Ball after observing the following somewhat enigmatic sentence in a footnote to the entry of the Conjoint Board in Ireland in Table (*a*). The note has disappeared from the minutes, but it read thus: "Candidates who presented themselves in all the subjects, but who omitted some, are included in above" table. To the dull Saxon intelligence this read like a bull, but apparently what was meant to be conveyed was that men who took up several subjects and passed in some but failed in one or more, were returned both as having passed and as having been rejected in the examination. Mr. Ball explained that this came about through the repeated appearances of the "chronic" at the same examination. The Council accepted the resolution proposed by Mr. Ball, and it is devoutly to be hoped that the fuller information to be supplied to the Council of the numerous failures of the "chronic" may result in convincing some of these gentlemen that they have mistaken their vocation.

REPORT OF PROCEEDINGS.

Tuesday, May 27th, 1902.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

THE seventy-fourth session of the General Medical Council was commenced on Tuesday, May 27th, at the offices of the Council, 299, Oxford Street.

PRESIDENT'S ADDRESS.

Inspection and Visitation of Examinations.

GENTLEMEN,—During the present session the reports of the Inspector and Visitors on the Final Examinations held by the University of Dublin, by the Conjoint Board of the three medical and surgical corporations in Scotland, and by the Royal University of Ireland, will be submitted to you. In accordance with the provisions of the Medical Act (1886), these reports have been forwarded to the respective examining authorities for any observations which they may desire to make. The reports and observations have been considered by the Examination Committee, who will report thereon to the Council. It is satisfactory to read that the Visitor and Inspector report in each case that the examination is "sufficient," and to observe that their criticisms refer to questions of detail.

The scheme of inspection during the present year of the Final Examinations of the English Universities and the Irish Corporations has been arranged, and members of the Council have consented to act as Visitors along with the Inspector.

Arrangements are also being made in accordance with the resolution of the Council (Minutes, February 26th, 1902) for a visitation of the next examination in chemistry, physics, and biology of the Conjoint Examining Board of the Royal College of Physicians of London and the Royal College of Surgeons of England. By a further resolution the Council empowered your President and Treasurers to arrange for a suitable remuneration to the gentlemen who are to act as Visitors of this examination. It would appear that it will be necessary to obtain the sanction of the Privy Council as to the amount of this remuneration.

The Council by its resolution of February 26th has also intimated that it is desirable to have the examinations in chemistry, physics, and biology, conducted by the licensing bodies generally, visited and reported on. No visitation of the examinations in the ancillary fundamental sciences on which a medical education is based has been made since physics and biology became a compulsory part of the curriculum of study required by all the medical authorities, and it does not appear that a visitation of the examinations in chemistry has been made since the medical and surgical corporations in the United Kingdom were reported on in 1881-82.

The Midwives Bill.

Since the special meeting of the Council in February, the Bill for "the better training of Midwives and to regulate their practice" has passed the second reading in the House of Commons and was referred to the Grand Committee on Law with certain additional members. The Bill was discussed by the Committee at considerable length, and amendments prepared in consultation with the Midwives Bill Committee of the Council were moved by Sir John Batty Tuke, as also amendments by other members. The Bill has, however, passed the Committee with but little change from the form in which it was introduced into the House. The Grand Committee will report on the Bill on June 6th, and it will probably be read a third time on June 13th.

Penal and Disciplinary Bill.

No progress has been made in Parliament with the Penal and Disciplinary Bill prepared by the Council some time ago, and read for a first time during two sessions. Owing to the pressure on the time of Parliament by the introduction of measures of more general scope and interest, there seems but little hope of making progress with the Bill until the Government is prepared to take a more active interest in it. I may state that the University of Birmingham has, since the Bill was drafted, intimated its concurrence with the proposed legislation.

Finance.

The Council will receive during the session reports from its own Committees on various questions which have from time to time been referred to them. The Financial Relations Committee will make suggestions to provide for an increase in the income of the Council. Since a maximum registration fee of £5 was fixed by the Act of 1858, not only has the number of members of Council been materially increased by the direct representatives elected by the profession and by additional members chosen by the universities, but the duties to be discharged by the Council have also multiplied. Although the value of the assets of the Council has materially increased through the rise in value of its property in Oxford Street and Hanover Square its income has not improved, and under present arrangements does not meet the expenditure. The Financial Relations Committee will therefore submit proposals for your consideration.

Regulations for the D.P.H.

The Public Health Committee will again report on the question of the amount of outdoor or practical sanitary work to be done, and on the distribution of the time to be given by candidates for a registrable diploma in public health.

Penal and Disciplinary Cases.

I regret to say that the business of a penal and disciplinary character demanding the attention of the Council is more than usually heavy, chiefly on account of the convictions in the criminal courts of registered medical practitioners which have been reported to us. Two new cases, in which serious breaches of professional conduct are alleged to have been committed, will also require to be investigated. It is gratifying to find that no registered practitioner is to be charged with the offence of covering, and no new case of a practitioner associating himself with Medical Aid Societies which systematically canvass for patients will have to be considered.

The Addendum to the British Pharmacopœia.

A special Indian edition of the *Addendum* to the *British Pharmacopœia* has been prepared and published, and the Government of India has purchased the greater part of the first issue of 4,000 copies. We have been requested by the Privy Council to send a delegate to an International Congress to be held in Brussels on the subject of a proposed *International Pharmacopœia* limited to drugs of a drastic nature. At the May session held in 1900 I was authorized to appoint one or more members to act as delegates, and the Chairman of the Pharmacopœia Committee has, at my request, kindly consented to represent the Council.

Foreign List.

As a result of the extension of Part II of the Medical Act (1886) to Italy, a list of foreign practitioners appears for the first time in the *Medical Register*; the name and qualification of one practitioner are enrolled in the published volume, and a second practitioner has subsequently been registered.

Duration of Session.

In view of the fact that a special session of the Council has already been held this year, the Council will no doubt desire, if possible, to complete its work by the end of the week.

At the conclusion of the address a vote of thanks was adopted to the President.

BUSINESS COMMITTEE.

On the motion of Dr. NORMAN MOORE, seconded by Dr. PAYNE, it was agreed that Dr. MacAlister, Mr. Bryant, Dr. Bruce, and Sir Christopher Nixon should constitute the Business Committee.

STATISTICAL TABLES.

The following yearly tables for 1901 were presented:

Table (*a*) showing results of professional examinations held in 1901 for qualifications granted under the Medical Act. Owing to the diversity of the requirements as to examination of the different bodies this table is exceedingly complicated.

The following extracts will be read with interest:

CONJOINT EXAMINING BOARDS.

	England.		Scotland.		Ireland.	
	Rejected.	Passed.	Rejected.	Passed.	Rejected.	Passed.
First Examination ...	119	201	63	72	71	114
Second Examination ...	174	291	97	90	46	64
Third Examination ...		—	44	93	66	54
Final Examination ...	[illegible]	481	190	172	72	63

APOTHECARIES.

The Apothecaries' Society of London.—Seventeen out of 47 candidates were rejected at the First Examination (biology, chemistry, and materia medica), and 44 out of 99 at the Second Examination (anatomy and physiology). At the Final Examination of 189 candidates in surgery 76 were rejected, and of 309 candidates in medicine, 105. The number of diplomas granted by the Society was 92.

The Apothecaries' Hall of Ireland appears to have given its licence under the new conditions to 1 person only, and to have rejected 3 at the Final Examination. It appears to have given its licence under the old conditions to 7 persons, and to have rejected 1. All the candidates were already on the *Register*.

UNIVERSITIES.

The following statistics, extracted from Table (*a*) give the number of rejected and successful candidates at the Final Examination or examinations for the Bachelor's degrees in Medicine and Surgery:

	Rejected.	Passed.
English Universities.		
Oxford, M.B., B.Ch.	15	33
Cambridge, M.B., B.C. { Part I	82	85
{ Part II	39	58
Durham { M.B. (new)	9	28
{ M.B. (old)	4	7
{ B.S.	12	27
London { M.B.	83	128
{ B.S.	25	33
Victoria, M.B., Ch.B. { Part I	35	64
{ Part II	34	78
Birmingham, M.B., Ch.B.	14	25*
Scottish Universities.		
Edinburgh { M.B., C.M. (old)	16	12
{ M.B., Ch.B. (new)	36	181
Aberdeen, M.B., Ch.B. (new) { Third examination	14	46
{ Final	20	49
Glasgow { M.B., C.M.	4	6
{ M.B., Ch.B.	37	101
Irish Universities.		
Dublin, M.B., B.Ch., B.A.O.	91†	39†
Royal, of Ireland, M.B., B.Ch., B.A.O.	18	48

* One candidate, having passed 1st, 2nd, and 3rd examinations at Durham University, was admitted to Final. The rest were qualified men admitted to Final Examination under special Ordinance.

† These figures are only approximations.

Table (*b*) shows the results of examinations for qualifications in Sanitary Science, Public Health, or State Medicine.

	First Examination.		Final Examination.	
	Rejected.	Passed.	Rejected.	Passed.
Conjoint Board, England	[illegible]	57	24	50
,, Scotland	1	16	—	18
,, Ireland	[illegible]	21	3	14
University of Oxford	1	5	3	4
,, Cambridge	14	51	11	43
,, Durham (B.Hy.)... ...	—	—	—	4
,, ,, (D.P.H.) ...	—	—	3	1
Victoria University	2	5	1	4
University of Birmingham	[illegible]	4	—	[illegible]
University of Edinburgh (B.Sc.) ...	1	1	1	7
,, Aberdeen	0	9	0	10
,, St. Andrews	—	2	—	3
University of Dublin	0	1	0	1

The University of Glasgow and the Royal University of Ireland held no examinations during 1901. The University of London granted the degree of M.D. (State Medicine) to 1 candidate out of 4. The University of Durham granted the degree of D.Hy. to the only candidate for that degree.

Table (*c*) shows the results of examinations held for qualifications under the Dentists' Act.

Table (*d*), showing results of preliminary examinations in 1901. This table is designed to show the name of the examining body and of the examination, the highest percentage of marks obtained by any candidate, the lowest percentage obtained by any candidate who passed, the total number of candidates who passed or did not pass, and the percentage of rejections, and whether examination papers had been sent. The information under the head of percentage of marks is very fragmentary, and is not here reproduced, and the statistics of the principal examinations only are here given; the examination papers were sent in all cases.

	No. of Candidates		Percentage of Rejections.
	Passed.	Rejected	
University of Oxford:			
Junior Local Examination	3,128	1,651	34.5
Senior Local Examination	1,322	664	33.4
University of Cambridge:			
Junior Local Examination	5,605	2,602	31.7
Senior Local Examination	1,622	[illegible]	29.2
Oxford and Cambridge Schools Examination:			
Higher Certificate	1,040	1,110	51.6
Lower Certificate	498	502	50.2
University of Durham:			
Certificate of Proficiency Examination	13	[illegible]	68.3
University of London:			
Matriculation Examination	2,101	2,044	49.3
Victoria University:			
Preliminary Examination	371	366	49.6
University of Birmingham:			
Matriculation Examination	51	26	34.2
University of Edinburgh:			
Medical Preliminary Examination ...	142	157	52.5
University of Aberdeen:			
Medical Preliminary Examination ...	60	44	42.3
University of Glasgow:			
Medical Preliminary Examination ...	81	132	61.9
University of St. Andrews:			
Medical Preliminary Examination ...	9	9	50.0
University of Dublin:			
Public Entrance Examination	233	29	11.6
Royal University of Ireland:			
Matriculation Examination	684	276	28.8
Royal Colleges of Physicians and Surgeons in Ireland	91	93	50.5
College of Preceptors:			
Examination for First Class Certificate	105	480	71.1
Educational Institute of Scotland ...	230	142	38.2
Inter. Education Board of Ireland:			
Junior Grade Examination	2,645	1,635	38.5
Middle Grade Examination ...	918	[illegible]	27.7
Senior Grade Examination ...	502	11	18.8
Central Welsh Board:			
Senior Certificate Examination... ...	483	[illegible]	[illegible]

Table (*e*) gave the statements of the medical authorities as to the exemptions granted by them in any part of their examinations during the year 1901.

No Exemptions.

The "Summary of the Answers" states that the following bodies granted no exemptions during 1901:

The Royal College of Physicians of London (under the old Regulations).
The Royal College of Surgeons of England (under the old Regulations).
The University of Oxford.
The University of Cambridge.
The University of London.
The Victoria University.
The University of Birmingham.
*The Royal College of Physicians of Edinburgh.
*The Royal College of Surgeons of Edinburgh.
*The Faculty of Physicians and Surgeons of Glasgow.
The University of Aberdeen.
The University of Glasgow.
The University of St. Andrews.
The Apothecaries Hall of Dublin.
The Royal University of Ireland.

* So far as the separate qualifications of these bodies are concerned.

The *University of Durham* has hitherto exempted candidates who hold a qualification from a recognized Licensing Board in the United Kingdom from examination in Elementary Anatomy and Biology, and six candidates were so exempted during 1901, but the regulation permitting this has now been removed from the Calendar of the University.

The *University of Edinburgh* only grants exemptions in the subjects of the First Professional Examination, namely, Botany, Chemistry, Physics, and Zoology, and only under certain specified conditions. During the year 1901 exemptions were granted to 11 candidates.

The *University of Dublin* exempted two candidates from the written part of the M.B. Examination in various specified subjects on the ground that they were registered medical practitioners of not less than five years' standing. One candidate who had obtained a prize in Botany and Zoology in the Arts School was exempted from these subjects.

Conjoint Board in England.

The statistics of exemptions submitted by this Board are shown in the following table:

Students from Universities of	Exempted from First and Second Examinations during the year 1901	Exempted from Future First Examination.	Exempted from Chemistry only.	Exempted from Biology only.
London	57	54	4	5
Cambridge	62	19	2	1
Oxford	15	2	—	—
Durham	10	1	1	—
Victoria	11	1	—	2
Edinburgh	7	1	—	—
Glasgow	3	—	—	—
Aberdeen	2	—	—	—
Dublin (Royal University)	1	1	—	—
New Zealand	3	6	—	—
Toronto	—	—	—	—
Toronto (Trinity)	8	—	—	—
McG[illegible] (Montreal)	1	—	—	—
Kingston (Queen's)	2	—	—	—
London, Ontario (Western)	2	—	—	—
Ceylon	—	—	—	—
Bombay	—	—	—	—
Melbourne	—	1	—	—
Berne	—	—	—	—
Greifswald	1	—	—	—
Jefferson Medical College	1	—	—	—
San Francisco (Cooper Medical College)	1	—	—	—
Pennsylvania	3	—	—	—
Zurich	—	—	—	—
	—	—	—	8

Conjoint Board in Scotland.

The fol[illegible]ry of the exemptio[illegible]

Fir[illegible]				
[illegible]mination	...	...	...	3
[illegible]nly ...	...	...	...	—
...	...	...	...	1
[illegible]owing only	...	...	...	1
[illegible]	...	...	...	—
[illegible]	...	...	...	1
[illegible]	...	...	...	—
[illegible]	...	...	...	4
F[illegible] [illegible]on	...	...	—	46
[illegible]	...	...	...	1
[illegible] only	...	...	...	10
Total exemptions from entire examinations	...			180

The exemptions were granted to students from British or foreign corporations, colleges, or universities. The largest number of exemptions from entire examinations granted to the students of any one body was to those of the Apothecaries' Society of London (32).

Conjoint Board in Ireland.

This Board exempted 3 candidates from examination in certain subjects. In one instance the candidate had passed in these subjects at the Royal College of Surgeons in Ireland. In the two others the exemptions were in respect of the medical qualification of Grant Medical College, Bombay.

Society of Apothecaries of London.

This Society does not grant exemptions from any part of the Final Examination. The subjoined list shows the number of candidates admitted to the Final Examination during the year 1901 who were exempted at the Primary Examination from one or more subjects in which they had already satisfied the following Examining Bodies, being, with two exceptions, either British Medical Corporations or British, Canadian, or foreign Universities:

Conjoint Board England	58
University of London	13
University of Cambridge	9
University of Victoria	8
University of Durham	2
University of Edinburgh	3
University of Aberdeen	1
University of Dublin	1
Royal University of Ireland	1
Triple Board of Edinburgh	4
Pharmaceutical Society, London	1
University of McGill	2
University of Toronto	1
Medical College, Calcutta	1
University of Geneva	1
University of Königsberg	1

Table (*f*) showed the results of a competition held on February 3rd, 1902, for commissions in the medical staff of the Royal Navy.

Table (*g*) showed the results of a competition held in August, 1901, for commissions in the Indian Medical Service.

The tables were directed to be entered on the minutes, and votes of thanks to the Director-General R.N. and to the Under-Secretary of State for India were adopted.

Mr. Brown having been informed by Mr. Bryant that nothing had been done in regard to a motion on the question of the tables which had been proposed by Dr. Bruce and seconded by himself at the last November session of the Council, moved:

That Table (e relating to exemptions be referred back to the Examination Committee for further consideration and report.

Mr. George Jackson seconded.

Mr. Ball called attention to the large number of rejections which occurred in the examinations of the Conjoint Boards of Ireland and Scotland. These were to a certain extent made up of men who had been rejected over and over again, and figured as a rejection each time. In order to estimate the real value of the figures it was desirable to know the number of men who passed or failed at their first trial and the number of those who came up time after time, and with this object he had drafted a motion which he read to the Council.

The President pointed out that this was not an amendment to Mr. Brown's motion, and that it should appear as a notice of motion on the agenda.

Mr. Victor Horsley was glad to see Table (*e*) on the minutes, as he had moved for it. The report was, however, not complete. The exemptions asked for included those in any part of the examinations. That information was demanded in that manner so as to include the higher examinations, as well as the pass examinations, and to bring the action of the Council into line with the Medical Acts, which distinctly said that the Council had to do with the higher examinations, which position the Council had steadfastly refused to accept. A complete return would have been of value to the profession. There was one statement which had always amused him, and he asked Mr. Ball if necessary to correct him. It was said that for the Fellowship of the College of Surgeons of Ireland some gentlemen had been exempted from the first examination because the Queen did Ireland the honour of visiting the country.

The motion was then put and adopted.

The Apothecaries Society of London.

Moved by Sir Hugh Beevor, seconded by Dr. Little, and resolved:

That Mr. Francis James Steward, M.B., M.S., F.R.C.S., be appointed an Assistant Examiner in Surgery to the Apothecaries Society of London for a period of four years, *vice* Mr. L. A. Dunn, who retires by rotation.

THE MIDWIVES BILL.

The next business was the following notice of motion by Mr. GEORGE BROWN:

That in the opinion of this Council the Midwives Bill, as amended by the House of Commons Grand Committee on Law, does not contain the safeguards necessary to protect the public against the practice of midwifery by ignorant and incompetent persons.

In this connexion the PRESIDENT asked Sir John Williams, Chairman of the Committee to which the Midwives Bill was referred by the Council at its special meeting in February, whether he had any report to make with regard to the proceedings of the Committee, but Sir John Williams replied in the negative.

The PRESIDENT observed that he had the minutes of the Committee before him, but they were not confirmed, and the question was how far they should be before the Council prior to the consideration of Mr. Brown's motion.

Mr. VICTOR HORSLEY thought the minutes should be read; and he was surprised that Sir John Williams had no report to make, as it would have saved the time of the Council.

Mr. GEO. BROWN asked leave to defer his motion until the report of the Midwives Bill Committee was received. He suggested that in the meantime the Committee could meet and confirm the minutes and draw up a report, or if not a unanimous report, then a majority and minority report, which could be signed and submitted to the Council.

This was seconded by Mr. JACKSON and carried.

DENTAL BUSINESS.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, a report from the Executive Committee on the dental business transacted since the November session of the Council was received and entered on the minutes.

REPORTS OF COMMITTEES.

The PRESIDENT stated that he hoped the report from the Financial Relations Committee would be ready by Friday.

After some discussion it was agreed that the consideration of the report of the Committee on the Prevention of Personation should be taken later in the session.

PRELIMINARY GENERAL EDUCATION.

The REGISTRAR reported that the next business was to receive the following report from the Executive Committee:

"*Report by the Executive Committee on certain communications from the British Medical Association in regard to a proposed deputation on the subject of preliminary general education.*

"The Committee on May 26th, 1902, received the following communications from the British Medical Association requesting the Council to receive a deputation on the subject of the preliminary general education of the medical profession.

(*a*)

"British Medical Association,
"General Secretary's Office,
"429, Strand, London, W.C.,
"May 5th, 1902.

"Dear Sir,—At a meeting of the Council of the British Medical Association, held on Wednesday, the 16th day of April last, a report was presented on the preliminary general education of the medical profession, and it was resolved that the General Medical Council be requested to receive a deputation on the subject.

"I shall be glad if you will let me know when it will be convenient for the General Medical Council to receive the deputation.

"I am,
"Yours faithfully,
"FRANCIS FOWKE.

"The Registrar,
"General Medical Council."

(*b*)

"British Medical Association,
"General Secretary's Office,
"429, Strand, London, W.C.,
"May 26th, 1902.

"Dear Sir,—In reference to my letters of the 5th and 22nd inst., I forward to you herewith a copy of the report that it is the desire of the deputation from the Council of the Association to present to the General Medical Council.

"I am,
"Yours faithfully,
"FRANCIS FOWKE,
"General Secretary.

"H. E. Allen, Esq., Registrar,
"General Medical Council."

[The report referred to in this letter is published as page 1351.]

"It was resolved:

"In view of the facts (1) that the subject of the preliminary general education of medical students has for some years been under the careful consideration of the General Medical Council: (2) that important steps have recently been taken by the Council with the object of raising the standard of such education; (3) that the new regulations on this behalf came into force on January 1st, 1902: and (4) that there has not yet been sufficient time for these important changes to produce their full effect, the Executive Committee are of opinion that it would not be opportune to reopen the whole question at the present time, and are unable to recommend that the suggested deputation should be received by the General Medical Council.

"As, however, it would appear from the conclusions of the Preliminary Education Committee of the British Medical Association that that body is unaware of the various reports and resolutions adopted by the Council since 1898, the Executive Committee recommend that copies of these should be forwarded to the Council of the British Medical Association for their information."

Mr. VICTOR HORSLEY thought that the report from the Executive Committee was most unfortunately worded, and was written in absolute ignorance of the facts of the case with which it purported to deal. He therefore proposed that the Council should receive a deputation from the Council of the British Medical Association on the subject of the preliminary and general education of medical students.

Sir CHRISTOPHER NIXON expressed his willingness to second the motion if Mr. Horsley would ask that such a deputation should be received by the Education Committee and not by the Council.

Mr. VICTOR HORSLEY was quite prepared to do this, especially as it would save the time of the Council.

The PRESIDENT wished to point out as a matter of order that, although the Council had before it the report of the Executive Committee, no resolution had been moved as to whether such report should be received and entered on the minutes.

Sir JOHN BATTY TUKE then moved and Mr. BROWN seconded:

That the report of the Executive Committee should be received and entered on the minutes.

Mr. VICTOR HORSLEY moved as an amendment:

That the words: "As, however, it would appear from the conclusions of the Preliminary Education Committee of the British Medical Association that that body is unaware of the various reports and resolutions adopted by the Council since 1898, the Executive Committee recommend that copies of these should be forwarded to the Council of the British Medical Association for their information," should be omitted.

That paragraph was not true, and he wished that nothing should go on the minutes which could not be substantiated. As it was a paragraph which had been put in by the drafter of the resolution as expressing some feeling, and as it did not relate to the matter which was addressed to the Council by the British Medical Association he thought it might very well be left out.

Dr. MACALISTER pointed out that the words used in the resolution were "it would appear from the conclusions of the Preliminary Education Committee." The conclusions there referred to were those stated in No. 4 of the report, "That since the above date," 1898, "practically no progress has been made in the direction of adequately raising the standard of the examinations recognized by the General Medical Council." All the reports and the resolutions adopted by the Council since 1898 were in the direction of progress, and considerable progress had been made in raising the standard of education. They were now working under a new scheme, which came into operation on January 1st, 1902, but all those matters appeared to be ignored on the face of the document sent to the Council.

Mr. VICTOR HORSLEY said that after that statement he must devote a little time to explain his point. He was only going to speak on the amendment which he had just moved. This matter was brought before the Council of the British Medical Association by the practitioners in the West of England, who passed resolutions which were practically the resolutions before the Council. He was appointed much against his will upon the Committee of the Council of the Association to deal with this matter, and from his own personal knowledge he knew that that Committee was acquainted with every single fact in all their reports. It had carried out a most minute study of the question, and to say that they were unaware of the various reports and resolutions was almost an insult to their intelligence. The Committee had to address not the

General Medical Council, but the members of the Association who had not gone into the subject. He considered that in the general statement it had made the Committee was absolutely correct. As Dr. MacAlister had only taken exception to No. 4 he would only deal with No. 4. What were the facts? The facts were that a large number of preliminary examinations were accepted by the Council at the present moment only one of which had it extirpated from its list; and that was a very wretched examination. Could that be called progress? That was his first point. His second point was that the Education Committee had employed experts on education. Those who had read the reports of the debates in the Council and who had also read the reports of those experts to the Education Committee considered that the Council had derived little or no assistance from those experts. That was a matter on which members of the profession in the West of England were just as much entitled to form their own opinion as the members of the Executive Committee. A further point was that the standard was not actually raised. What proof was there that the standard was raised at all? There was none. Were not therefore these gentlemen perfectly justified in saying that practically no progress had been made in raising the standard when they knew perfectly well that only one third-rate examination had been done away with, and there was no evidence of any raising of the standard from that moment? He thought they were more than justified in what they had said and therefore that this sentence in the Executive Committee's report ought not to be passed. It was adopted in ignorance of the fact that the gentlemen in question were as absolutely acquainted with every detail of the question as the members of the Executive Committee, and, therefore, he moved the amendment to leave out what was practically a comment in the resolution of the Executive Committee.

The PRESIDENT inquired if any one seconded Mr. Victor Horsley's amendment, to which Mr. JACKSON replied in the affirmative.

Mr. BROWN rose to a point of order. He wished to point out that by entering the report on the minutes the Council was not pledged to the terms of it. If it were, then he should ask not to have his name put down as supporting the reception of the report. He thought the deputation ought to be received. He wanted it placed on the minutes in all its "barefacedness" as a record of what had taken place with regard to the subject of preliminary education between the Council and a body representing the whole of the medical practitioners.

Sir JOHN BATTY TUKE said they had only got Mr. Victor Horsley's word for saying that the Committee in question had fully understood the subject, because there was internal evidence not only from the general tone of the document but from its terminology, that on the subject with which they were dealing they were in a most extraordinary state of ignorance. Those gentlemen had ignored the history of the Council for the last 40 years. They had ignored the fact that the Council when it was initiated found that preliminary education was little or nothing. Gradually that state of things had been altered, and at last steps had been taken which would, he believed, produce very important results. These gentlemen had not been able to extract from the various reports which they had studied so carefully that the Education Committee and the Council had found it impossible to raise the standard of education higher than it was without so depleting the profession as to do a serious injury to the public. That was the main point, and it was ignored in the statement. These gentlemen had come forward with abstract ideas but had not considered concrete facts—a knowledge of which the Council had gained during the many years it had studied the subject. It had taken every means to arrive at a proper conclusion. It had consulted educationalists and the highest officials and authorities. In his opinion the Council had gone as far as the inchoate condition of secondary education would permit. He held that the action of this Committee had reflected very seriously on the work of the Council. This work had been done (he said it with all deference) with thought, consideration and full care, but it was necessary to wait patiently for three, four, or five years to see what the result would be of the improved methods which the Council had put in force this year. Further, it would be necessary to wait for some years the result of the Bill which was at the present moment before Parliament, and which, in whatever form it passed—and he hoped it would pass in a changed form—would do a good deal of good to secondary education. It was a matter that could not be forced. It depended entirely on the general condition of education. His feeling was that the British Medical Association had ignored entirely the main, important, and leading facts in coming to the conclusion which it had done. He therefore begged to move the rejection of the amendment.

Dr. ATTHILL stated that the Executive Committee came to the conclusion to insert the particular paragraph unanimously, and they did so with due consideration. He could say, speaking of Ireland, that the standard of examination there had within the last twelve months been raised to a considerable extent. He thought that the gentlemen who made the requisition to the Council were not fully aware of the facts. He had no objection whatever to the deputation being received by the Education Committee.

Dr. MCVAIL pointed out that the report of the Executive Committee would be bound up with their papers as public minutes. The proper course to adopt was, after it was entered on the minutes, for Mr. Horsley to move that the Council disapprove of the particular paragraph. Mr. Horsley's motion was, in effect, a vote of censure on the Executive Committee, but it did not quite appear as that. It was a strong thing to refuse to enter on the minutes a report that had been carefully drawn up by a Committee, and in particular the Executive Committee. He thought it should be entered on the minutes, and Mr. Horsley could express his dissent by a special resolution.

Mr. VICTOR HORSLEY was quite prepared to withdraw his amendment on the point of form raised by Dr. McVail. It had not occurred to him that the reports of the Executive Committee would be bound up with the public minutes. He thought his amendment was fairly open to be challenged on that ground, and therefore he was quite ready to withdraw it; but if he did he must reply to Sir John Tuke's speech; he did not want more than a minute.

The PRESIDENT said the position was that Mr. Horsley proposed to withdraw his amendment. What was the view of his seconder?

Mr. JACKSON replied that he agreed.

The PRESIDENT inquired if the Council agreed to allow Mr. Horsley and Mr. Jackson to withdraw their amendment.

(The Council consented.)

The PRESIDENT stated that the amendment was withdrawn.

Mr. VICTOR HORSLEY asked to be allowed to say a word in explanation.

The PRESIDENT pointed out that the amendment was withdrawn.

Mr. VICTOR HORSLEY said that Sir John Tuke had referred in his speech to certain statements resting only on his (Mr. Horsley's) word. He wished for a minute to give an explanation.

The PRESIDENT considered the matter was finished.

Mr. VICTOR HORSLEY said if that were so he would ask Sir John Tuke to repeat what he had said before the next annual meeting of the British Medical Association, and then he would answer it.

The PRESIDENT said that the resolution then before them was that the report of the Executive Committee be received and entered on the minutes.

Dr. MACALISTER, as a member of the Executive Committee, would like to say that Mr. Horsley's account of their proceedings, and the results of their proceedings, was one he could not for a moment accept, and he asked the Council not to accept it. The standard of examination had been raised very much indeed, as any member of the Committee who so glibly talked about raising the standard could ascertain if he inquired of the Deans of schools and members of Examining Boards. He had a document in his hand which showed that with regard to the new examination for medical students introduced by the College of Preceptors, out of 47 candidates only 6 had fulfilled the necessary requirements. When people talked about no adequate steps having been taken they were talking about things they could not know about.

The PRESIDENT then put the resolution that the report of

the Executive Committee be received and entered on the minutes. (This was agreed to.) He said their next business was the motion moved by Mr. Victor Horsley, seconded by Sir Christopher Nixon:

That the Education Committee receive on behalf of the Council a deputation from the Council of the British Medical Association on the subject of the preliminary general education of medical students.

Mr. VICTOR HORSLEY said he was sure he had been rendering a public service by bringing the resolution before the Council, because it had extracted very useful information. What Dr. MacAlister had told them was not to be found in the various reports and resolutions adopted by the Council. He had told them it was private knowledge in his hands.

Dr. MACALISTER said that was not the case.

Mr. VICTOR HORSLEY understood that was the statement.

Dr. MACALISTER understood it was published already.

Mr. VICTOR HORSLEY said he was referring to the words which Dr. MacAlister had used, that certain information in the hands of the Education Committee could not be published.

Dr. MACALISTER replied that he did not say that.

Mr. VICTOR HORSLEY said that the the Education Committee had told them again and again, and he was speaking within the memory of the Council, that they were in possession of specific knowledge which was not given to the public. That had been repeatedly said in the Council. Dr. MacAlister had also told them of a certain examination which had recently been held with certain results. He was sorry that had never appeared in the reports or resolutions. If the Council had these gentlemen before them and told them what they (the Council) knew, that would be doing a service both to the general public and to the profession. That was the object of these gentlemen in asking the Council to receive them. They wanted to be instructed. It was not to be supposed for a moment that they pooh-poohed all that the Education Committee had done, or that they were not grateful for the work it had done. They were grateful. They said they did not see the fruit of the tree. Dr. MacAlister had said that he did, and that he had plucked it. If that were so, let him hand over some to these gentlemen. They wished to tell the Council what their theory was respecting the standard of education among the members of the profession. If the Council said it was impossible to do more thon had been done, let that be said. But to say that the Council would not receive them because they did not know—what they did know a great deal better than Dr. MacAlister thought—was absurd. He asked the Council to receive the deputation. It would not take the Education Committee more than perhaps an hour and a-half, but it would be a very agreeable and interesting conversation, and when it was published it would be, if Dr. MacAlister remained in his present communicative turn of mind, extremely instructive to the world at large.

Sir CHRISTOPHER NIXON, in seconding the motion, wished his position to be made quite clear. He quite adopted in every way the action of the Education Committee, of which he was a member. He thought they had gone as far as they could go at the present moment in raising the standard of preliminary education. In seconding the motion he did not mean to imply that he agreed with all the observations that had been made by the Committee of the British Medical Association because he thought they were wrong in many of the facts, but he thought that if an influential body representing the profession applied to the Council to receive a deputation it was very scant courtesy to refuse to accede to that request. To accept the deputation would not occasion any additional expense to the members of the Council and it would have the advantage that they could show the members of the deputation that the Education Committee and the Council had taken all such steps as could be taken in order to raise the standard of preliminary education gradually, not to an impossible standard but to the standard it had attained under the present conditions.

Sir JOHN TUKE said he would have been quite willing to accede to the suggestion of the proposed deputation if it had not given its reasons beforehand, but those reasons were so opposed to the action of the Council that it seemed to him perfectly impossible to receive the deputation on the grounds they themselves put forward. They had suggested schemes that had been debated over and over again in the Council, and which the Council had very carefully considered. Thus the report said:

(*d*) That the present system of multiple Examining Boards is most undesirable, and that it is essential in order to secure uniformity of standard that the Medical Acts should be amended so that the General Medical Council should be empowered to appoint a single Examining Board, which should hold its examinations as often as necessary, at multiple centres simultaneously.

This predicated a change in the Medical Acts. No Government would sanction such a course. It would simply say, "You must work with what you have already got." Then in Clause C the report spoke of Greek and Physical Science being compulsory. He understood that the University of London was at the present moment going to exclude Latin. He thought he would have a certain amount of sympathy from some members of the Council who, after reading the report, would understand why he felt rather hurt. The Education Committee had given every information that it was necessary for the public to know. Everything had been done as openly as possible, and nothing had been kept back. For his own part he regarded the resolution as a vote of want of confidence in the Committee, which he thought was not justified, and he asked the Council to reject it.

Sir CHRISTOPHER NIXON, as a member of the Committee, objected to the vote being described in that manner, and he did not regard it as such.

Mr. VICTOR HORSLEY also disclaimed any such intention.

Dr. WINDLE said he would not support a resolution which was a vote of censure upon the Committee, and would regret if such a construction were placed upon his words: at the same time he would regret if the Council did not accept the resolution put forward by Mr. Victor Horsley. Sir John Batty Tuke should rather congratulate himself on having a chance of dispelling the ignorance which existed with regard to this subject. It was obvious that the public did not understand the present drift of educational matters; but he did not complain, because it was a condition in which 99 per cent. of the inhabitants of this country were. The gist of the matter was that the Council could not screw up the examinations too far in advance of the schools. As far as his experience went a point had now been reached at which any further screwing up would be disastrous. He hoped that in a very few years' time it would be found that educational matters had moved forward to such an extent that a considerable advance in the direction desired might be made. If the suggestion for a special examining body were adopted it would add one more to the preliminary examination, of which at the present time there was a surfeit in the country. There was certainly an idea in the mind of the profession that the preliminary medical education of the medical student was inadequate; and there was a similar idea in the minds of persons who were concerned with other professions. All admitted that this state of affairs was not satisfactory, but the desired result could only be obtained by gradually increasing the teaching powers of the schools. He believed the screwing-up process was now being carried on, although not quite so rapidly as could be wished, and considered that it was desirable to wait until the result was seen. He quite agreed that these were matters which should be laid before this body by these gentlemen; it would give great satisfaction to them and through them to the profession at large, and would thus tend to dispel the feeling which, as he had stated, undoubtedly existed.

Dr. PAYNE thought the point to be remembered was that the raising of the standard of the examination was a very complicated question. It depended on the previous standard; it depended on the number and character of the schools, and of the educational facilities in the country: it depended on the age up to which preliminary education could be carried on, and that depended on the amount of money which parents were able to spend on their sons' education. All these complicated matters could not be got rid of by an expression of opinion on one side. Therefore as a member of the Executive Committee he thought it would be a very good thing that the deputation should be received.

Mr. TOMES thought that even although this particular Committee of the British Medical Association was labouring under mistakes, and even although they sent in documents with which the General Medical Council did not agree, yet it was hardly the right position for the Council to assume to refuse

a deputation which was headed by the President of the largest medical association in the world, its President-elect, its President of Council, and by its Treasurer. He thought that if there were any need to stretch a point to receive such a deputation, the Council should do so rather than interpose difficulties.

Mr. BRYANT pointed out that by the report of the Executive Committee, at the suggestion of Sir Christopher Nixon, it was left entirely at the option of the Council to receive the deputation or not.

The PRESIDENT was glad that Mr. Bryant had mentioned this fact. The Executive Committee thought the Education Committee might wish the Council to receive the deputation. He pointed out that the Council had from time to time asked the Committee of its own body which was concerned with a particular subject on which a deputation wished to be heard to receive deputations, so that Mr. Victor Horsley's motion was in no way inconsistent with the resolution which the Executive Committee had come to.

The motion was then put and agreed to.

Dr. ATTHILL thought the number of the deputation should be limited.

On the suggestion of Sir WILLIAM GAIRDNER, the time for receiving the deputation was left for arrangement between the Registrar of the General Medical Council and the General Secretary of the British Medical Association.

The Council then went into *camera* and subsequently adjourned.

Wednesday, May 28th, 1902.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

THE MINUTES.

The minutes of the previous day's proceedings were read.

Dr. MCVAIL thought that the reference to Mr. Horsley's amendment (No. 12) might be withdrawn from the minutes.

The PRESIDENT said the matter was put to the Council, and the Council's permission was definitely asked that it should be withdrawn, and that was granted. Therefore it was an act of the Council.

Dr. MCVAIL still considered that no good purpose would be served by allowing it to remain on the minutes.

The PRESIDENT remarked, amidst laughter, that he was not prepared to say there might not be a good many of their minutes which served no good purpose; but, seeing that this was the definite act of the Council, he thought it must remain on the agenda paper.

The minutes were then confirmed.

DISCIPLINARY CASES.

The Council then proceeded to the consideration of the case of Dr. Marcus Robert Phipps Dorman, of Norfolk Crescent, Hyde Park, registered as M.D.Univ. Camb., and possessing other registered qualifications, charged with infamous conduct in a professional respect when attending a married lady. The case was heard *in camerâ*.

On the readmission of strangers,

The PRESIDENT said: Dr. Dorman, the Council has carefully deliberated on your case, and it has instructed me to announce to you the resolution at which it has arrived:

That the Council do now judge Dr. Marcus Robert Phipps Dorman to have been guilty of infamous conduct in a professional respect, and do direct the Registrar to erase the name of Dr. Marcus Robert Phipps Dorman from the *Register*.

That is the decision of the Council.

The PRESIDENT stated that the next business was the consideration of the case of John Flanagan, of Patrick's Terrace, Castlerae, co. Roscommon, registered as Lic. R. Coll. Phys. Edin. 1900, Lic. R. Coll. Surg. Edin. 1900, Lic. Fac. Phys. Surg. Glasg. 1900, who has been summoned to appear before the Council on conviction for felony.

Mr. WINTERBOTHAM (the Solicitor) said that John Flanagan had been convicted in November, 1901, of feloniously unlawfully and maliciously casting and throwing upon Bernard Phillips a corrosive fluid with intent to burn him, and that he was sentenced to twelve months' hard labour. Notice had been sent to the accused, but no answer had been received. He had, however, that morning received a letter from the solicitor who appeared for the accused at the trial, asking that the matter might be postponed till a future date, when the accused could attend. The solicitor stated that he had every reason to believe that the accused would be released in a short time as a widely signed memorial had been sent on his behalf to the authorities.

The PRESIDENT said that the case had now been brought before the Council by their solicitors. He would put the resolution to the Council: "That John Flanagan, having been proved to have been convicted of misdemeanour, the Registrar be directed to erase his name from the *Medical Register*."

Strangers were directed to withdraw. On their readmission,

The PRESIDENT announced that the Council had resolved:

That John Flanagan, having been proved to have been convicted of felony, the Registrar be directed to erase his name from the *Medical Register*.

The case of Edward Thomas Ffrench (registered as French), of Glasson, co. Westmeath, registered as Lic. 1862, Lic. Midwif. 1863, Fell. 1874, R. Coll. Surg. Irel., Lic. Med. Univ. Dubl. 1863, who had been summoned to appear before the Council on conviction for felony was next taken.

Mr. WINTERBOTHAM stated that the accused was on July 1st, 1901, found guilty of manslaughter, and sentenced to be detained in penal servitude for the term of his natural life.

Strangers were directed to withdraw; on their readmission,

The PRESIDENT announced that the Council had resolved:

That Edward Thomas Ffrench, having been proved to have been convicted of felony, the Registrar be directed to erase his name from the *Medical Register*.

The Council then proceeded to the consideration of the case of Samuel Marston, dentist, registered as of No. 282, Belgrave Gate, Leicester, "in practice before July 22nd, 1878," who had been summoned to appear before the Council on conviction for felony.

Mr. WINTERBOTHAM said the accused was convicted of bigamy and sentenced to imprisonment and hard labour for a period of 18 months. All the proper notices had been served. Until a few moments ago there was no communication of any sort from the accused, but a document had been handed to the President signed by the brother, who asked to be allowed to make an application on behalf of the accused.

The SOLICITOR then, at the request of the PRESIDENT, read the document, in which the brother asked that the case might be postponed until January 3rd, so that the accused might then attend to be censured for his past conduct, and to be cautioned as to his future conduct.

The PRESIDENT stated that that was the only document tha had been forwarded to the Council.

Strangers were directed to withdraw. On their readmission,

The PRESIDENT announced that the Council had resolved:

That Samuel Marston, having been proved to have been convicted of felony, the Registrar be directed to erase his name from the *Dentists' Register*.

RESULTS OF PROFESSIONAL EXAMINATIONS.

Mr. BALL moved:

That it be referred to the Examination Committee to report whether it is desirable to obtain from the various licensing bodies the following additional information for use in the preparation of the annual Table (*a*) showing results of professional examinations:

1. That where credit is allowed for a single subject or group of subjects only at any examination, the number of students who pass or are rejected in such portion of the examination should be furnished separately from the list of those who pass or are rejected for the entire examination.

2. That in addition to giving a return of the candidates rejected at any examination, the number of such candidates who have been previously rejected upon one or more occasions for the same examination be indicated with the number of such previous rejections in each case.

He said that with regard to 1, the importance of it was that it would render the table a more accurate record than it was at present. The candidates who obtained the credit for one portion of the examination but who were rejected on other portions of the examination appeared as having passed or been rejected for the same examination.

The PRESIDENT remarked that that was not the case in the Edinburgh University.

Mr. BALL said it was the case in the Irish Universities.

The PRESIDENT said that in his University a man was not

returned as passing unless he passed the whole examination.

Mr. BALL pointed out that in the figures given to him that was not the case, because credit was sometimes given to a man who only passed one portion of an examination. In several of the preliminary examinations in Ireland a man was given credit if he passed a portion of the examination. He was then returned as having passed that portion, and when he passed the whole examination he was returned as having passed the whole. He thought the present system of returns was not correct. Part 1 of the resolution stood on an entirely different basis. Of the very large proportion of rejections which came mainly from the Conjoint Boards of Scotland and Ireland, over 50 per cent. contained the names of a great number of candidates who had been repeatedly rejected, and consequently it was difficult to form an estimate of what proportion of the candidates who presented themselves for examination had passed on the first trial. It was not beyond the bounds of possibility that some scheme might be devised which would tend to stop the chronic student at an early part of his career, and with a view to elaborate some such scheme he thought it was desirable for the Council to be in possession of facts as to the proportion of those who had been rejected previously on one or more than one occasion. The sort of scheme that was in his mind was a cumulative period of reference. If all the licensing bodies would agree that a man rejected on the first trial at any examination was referred for six months, on the second examination for twelve months, and on the third rejection for the same examination for a longer period, a very great step would be made.

Mr. VICTOR HORSLEY seconded the resolution. He thought it was most desirable that the table should be complete. He thought all agreed upon that, and that it was not necessary to trouble the Examination Committee. He suggested whether it would not be possible for Mr. Ball to alter the resolution so as to read:

That the Registrar be requested to obtain from the various licensing bodies, etc.

Mr. BALL was quite prepared to accept that.

Mr. VICTOR HORSLEY said that the matter of the chronic student was one of immense importance to the public, and on that ground also he ventured to second the resolution.

Dr. MACALISTER hoped that some pains would be taken to make the question clear, because he confessed that he could not follow it. He thought that difficulties might arise in the interpretation of the resolution.

Dr. HERON WATSON thought it would be well that some definite scheme should be drawn out so as not to let the different bodies interpret it according to their own reading.

Dr. ATTHILL suggested that the Registrar should be instructed to inform the various bodies that no candidate's name must be submitted to them who had not completed his full examination.

Sir CHRISTOPHER NIXON thought the question raised by Mr. Ball was very important, the question, that was, of uniformity in conducting examinations with regard to groups of subjects. There was no doubt that some members reached the profession who were not a credit to it and who got through their examinations piecemeal.

Dr. NORMAN MOORE thought that the Council ought to have all the information it could get on this subject. There could be no objection on the part of a qualified body to answer the questions.

After some further discussion, in the course of which Dr. MCVAIL suggested that the difficulty would be met by expunging the word "separately," and putting in "in addition to."

The PRESIDENT remarked that the motion if sent as it stood would be differently interpreted by different bodies; it required redrafting. He then put the first part of the resolution, and it was adopted.

With regard to the second part of the resolution,

Dr. BENNETT thought the difficulty would be met by introducing the words, "or parts of an examination" after the word "examination."

The PRESIDENT said he would put No. 2 to the Council.

Mr. VICTOR HORSLEY inquired if that was as amended by Dr. Bennett.

The PRESIDENT pointed out that Dr. Bennett's amendment went beyond what Mr. Ball proposed, and he must put Mr. Ball's motion, and, if that were passed, Dr. Bennett could propose an amendment.

Mr. VICTOR HORSLEY said that under those circumstances he must withdraw from seconding Mr. Ball's motion.

Dr. NORMAN MOORE agreed to second Mr. Ball's resolution.

Dr. BENNETT proposed as an amendment the addition of the words "or parts of an examination."

Mr. VICTOR HORSLEY seconded.

Mr. BALL suggested that the difficulty might be got over by adding the words "rejected in any subject at an examination."

After some further discussion,

The PRESIDENT put the resolution in the words used by Mr. Ball in his original motion, and it was carried.

The Council then adjourned.

PRELIMINARY GENERAL EDUCATION.

REPORT OF A COMMITTEE OF THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

THE following report of a Committee appointed to consider the question of preliminary education of medical students in the United Kingdom, was adopted by the Council of the British Medical Association at its last meeting, and a deputation in support of the recommendations it contains will be received by the Education Committee of the General Medical Council this day (Saturday).

REPORT.

The Committee has come to the following conclusions:

1. That it is essential, in the interests both of the public and of the profession, that there should be an adequate guarantee that every registered medical practitioner has received a liberal education such as would entitle him to be regarded as a member of a learned profession.

2. That at present, with the existing requirements of the General Medical Council and with the variations in the scope and standard of the various Preliminary Examinations for Medical Students, there is no such adequate guarantee.

3. That the General Medical Council, by its action in 1898, recognized that the minimum standard of general education was too low, and expressed its desire that it should be raised considerably, mentioning a standard of requirement represented by the Senior Local Examinations of the several Universities.

4. That since the above date practically no progress has been made in the direction of adequately raising the standard of the Examinations recognized by the General Medical Council.

5. That the Committee is of opinion that the time has come for the British Medical Association to take up this important subject, and to use its power and influence towards obtaining the needed reform. With this view the Committee makes the following recommendations:

(*a*) That it is undesirable that any one should be registered as a medical student until he or she has attained the age of seventeen.

(*b*) That the standard of the Examination in preliminary general education required by the General Medical Council should be suitable for candidates of seventeen years of age, and not lower than that required at present for the Oxford or Cambridge Senior Local Examinations.

(*c*) That the Examination should include a Pass and an Honours Division as in the University Local Examinations, the subjects for the Pass to comprise at least Latin, Mathematics (comprising Arithmetic, Algebra, and Geometry); English Grammar, Literature, and Essay writing; History; Geography; and either French or German; the Honours Division to include Greek and Physical Science as compulsory subjects.

(*d*) That the present system of multiple Examining Boards is most undesirable, and that it is essential in order to secure uniformity of standard that the Medical Acts

should be amended so that the General Medical Council should be empowered to appoint a single Examining Board, which should hold its examinations, as often as necessary, at multiple centres simultaneously.

6. That a copy of this report be forwarded to the General Medical Council, and that the General Medical Council be asked to receive a deputation from the Council of the British Medical Association in order to confer with them on this important matter.

MEDICAL LEGISLATION IN NEW ZEALAND.

IT not infrequently happens that in the matter of legislative reform the colonies of the British Empire are able to go to greater lengths than the mother country, where ancient prejudice and a rooted dislike to change often bar the way to progress. A favourable instance of this desire for reform, which is fraught with considerable interest to the medical profession in New Zealand, is now before us in the form of a draft Bill to amend and consolidate the law in that colony relating to medical practitioners. This measure, which was drafted in 1901 by Dr. Graham Campbell, Secretary to the New Zealand Branch of the British Medical Association, and which has, we believe, the approval of the Council of that Branch, was introduced, with one or two amendments, to the New Zealand Parliament in October, 1901, by the Hon. Sir J. G. Ward, Minister of Public Health. After it was read a first time the session came to an end, but we understand that it is to be reintroduced when the Parliament reopens in June of the present year.

Shortly, the new measure repeals the existing Medical Act for New Zealand which was passed in 1869, and places a medical practitioner in that colony in a position very similar to that which he occupies in this country. But it does more, for it contains a number of clauses which, if introduced into our own Medical Acts, would effect a number of reforms for which there has long been a demand. In these circumstances, a short description of the Bill and a few comments upon it in the light of our own Medical Acts may be found interesting.

Existing Legislation.

The effect of the New Zealand Medical Act, 1869, is as follows: There is no Medical Board for the control of medical education. In lieu thereof the Registrar-General of Births, etc., and nine district registrars are empowered to receive notices of intended applications from persons desirous of registering their qualifications as medical practitioners. Such notices are advertised for a month, and objections thereto may be filed by any person or persons, or the registrars may decline to register on their own account. Judicial power to hear such objections is given to the registrars, and there is an appeal to the Supreme Court. The list of qualifications entitling applicants to registration includes all the qualifications which confer the right to registration in England; but there is also provision for registration of foreign diplomas on evidence of three years' course of study at a recognized school of medicine in the country where the diploma has been granted, and where that diploma was obtained after due examination. We understand that objections are frequently raised to the registration of foreign diplomas. The privileges of registered practitioners in New Zealand are substantially the same as those of registered practitioners in England. Unregistered practitioners cannot sue for fees. The Act contains a section similar to Section XL of the Medical Act, 1858, which penalizes the unauthorized use of any title implying that the person using it is registered.

The chief defects of the existing law seem to be:

1. The absence of a Medical Board or Council.

2. The absence of a clause dealing with infamous conduct in a professional respect.

3. The provision which enables the owner of a foreign diploma to be registered when his period of study has been only *three* years.

4. The absence of a clause 'prohibiting' practice by unregistered persons.

5. The absence of any provision whereby, in case any registered practitioner is deprived of the diploma or degree which entitled him to be registered, that qualification may be removed from the *Register*.

Formation of a Colonial Council.

In the following summary of the proposed measure, which is to be called "The Medical Practitioners' Act, 1902," we shall deal with the more important clauses, showing how the New Zealand Legislature proposes to remedy the above defects.

It is provided by Clause 3 that all persons who at the time of the Act coming into force are on the New Zealand *Medical Register*, and all persons who are to be registered under its provisions are to be a body corporate, under the name of "The Association of Registered Medical Practitioners of New Zealand," which may hold land, etc., and may sue and be sued. This clause was added to the Bill at the instance of the Minister of Public Health. Why this title was adopted we have no means of knowing. In the original Bill it was proposed to incorporate the New Zealand Branch of the British Medical Association.

Clauses 4 to 13 relate to the establishment of a New Zealand Medical Council, which is to form a Committee of Management of the Association above referred to, and which is to be vested with powers somewhat similar to the General Medical Council in England. The Council is to consist of four medical practitioners appointed by the Governor to represent four districts into which the colony is to be divided for the purposes of the Act, namely, Auckland, Wellington, Canterbury, and Otago. In addition to these there will be four members elected by the registered medical practitioners in each of the above districts. Members so elected are to hold office for three years. Any member who fails to attend four meetings of the Council in succession without excuse thereby vacates his office. Provision is made in a later clause for payment of fees and travelling expenses to members of the Council who do not reside within the city where the meetings are held. The President of the Council is to be elected by the Council. At its meetings four members will form a quorum. The Council is to have power to appoint an Executive Committee of not less than three.

Persons to be entitled to Register.

Clauses 14-21, which provide for the keeping of a *Register*, are very similar to the corresponding provisions of the English Medical Act of 1858. The *Register* is to be kept under the supervision of the Council. All who were registered under the old Act are entitled to have their names entered upon it.

The second schedule to the Bill enumerates the "qualifications for registration." The applicant must be:

1. A graduate in Medicine and Surgery of the New Zealand University; or

2. Registered on the *Register* kept in accordance with the provisions of the Acts regulating the registration of medical practitioners in the United Kingdom; or

3. Eligible for registration on such last-mentioned *Register*; or

4. The holder of a foreign diploma, granted after a course of not less than *five* years study of the subjects pertaining to a medical or surgical degree or licence.

Hence, even in the case of a foreign degree, the applicant for registration must have at least a five-year qualification. This is an improvement upon the Act of 1869, which conferred the right to be registered on the holder of a foreign diploma who had undergone a *three*-year course.

Removals from the "Register."

To assist the Registrar as much as possible it is provided that every registrar of births and deaths must forward to him notice of the death of any registered medical practitioner which has come to his knowledge. The *Register* is to be published each year in the *New Zealand Gazette*.

Clause 19 provides that if any of the said corporations or universities at any time exercise any powers which they may possess of writing off from the list of such corporation or university the name of any one of their members, the Council may, if it sees fit, order the Registrar to erase from the *Register* the qualification or qualifications derived from such corporation or university, in respect of which such member was registered, and the Registrar shall note the same therein.

This clause is practically identical with Section XXVIII of the Medical Act, 1858; but the proviso to Section XXVIII, which prevents the name of a person being erased on the

ground of his having adopted any theory of medicine or surgery, is absent.

Clause 20 provides (in effect) that if any registered practitioner is found guilty of infamous conduct in a professional respect by a majority of the members of the Council, *or if he is convicted of any offence which renders him unfit to be on the Register*, the Council may *with the consent of the Governor* order his name to be erased.

Several points arise in connexion with this clause. In the first place, a disciplinary jurisdiction is given to the proposed Medical Council. Under the Act of 1869 (Section XXI) the Registrar-General only had power to remove from the *Register* the name of any practitioner found guilty of felony or misdemeanour in any part of the British dominions. The British General Medical Council has a similar power, but it is proposed in the colony to leave it to the Medical Board to say what offences shall be considered sufficient to justify erasure from the *Register*. The fact that the consent of the Governor must be obtained before a man is removed for infamous conduct places a check upon the powers of the Council, but it will no doubt increase the probability of the clause becoming law. The corresponding provision in the Medical Act, 1858, has been held to extend to conduct of which a practitioner was guilty before registration.[1] If the same construction is adopted in New Zealand the Council may purge their *Register* at once.

Disabilities of Unregistered Persons.

In the Act of 1869 it was provided that every medical practitioner could sue for fees; Clause 22 of the Bill under notice provides that no one but a registered medical practitioner can sue. It is substantially the same as Section VI of the Medical Act, 1886.

By Clause 23, unregistered persons are debarred from holding appointments in *inter alia* "any steamer or ship, or in any hospital, infirmary, dispensary, or lying-in hospital." In the Act of 1869 similar provision was limited to appointments in institutions supported wholly or in part by public funds in consonance with the principle of preventing unqualified practice, a principle which is very clearly laid down in Clause 25 (which we shall next consider); the above clause is to extend to all hospitals.

Clause 25 provides as follows:

(1) No person shall practise medicine, or surgery, or midwifery, or the administration of any medical treatment, unless he has obtained from the Council a certificate which shall then be in force to the effect that he is on the *Register* as a duly qualified medical practitioner.

(2) Any person who offends against this provision commits an offence, and is liable to a penalty not exceeding *fifty* pounds.

This clause, which is entirely new, places an absolute restriction upon unqualified practice. It embodies a principle which has long been contended for without avail in this country. We trust that it may become part of the law in New Zealand. If so, the Mother of Parliaments may be induced to follow the example of her daughter. We cannot, however, overlook the fact that, although it is a simple matter to frame a clause of this kind, the proper enforcement of the law is by no means easy. For instance, how is the word "practise" to be defined? It would probably be well to add the words "for gain."

Annual Registration Fee.

Clause 26, which provides for an annual registration fee, reads as follows:

26 (1). On the application of any medical practitioner whose name is on the register as such, and upon payment of a fee of *one pound*, the Registrar shall issue to the applicant a certificate under the seal of the Association accordingly.

(2) Such certificate shall be in force until the tenth day of January next after the issue thereof.

The new measure contains the usual clauses imposing penalties upon any one who falsifies the *Register*, or who fraudulently procures himself to be registered.

Assumption of Medical Titles.

Clauses 29 and 30, which relate to the improper use of medical titles are as follows:

29. Every person commits an offence, and is liable to a penalty not exceeding *fifty* pounds, or to imprisonment for any term not exceeding *twelve* months, who, not being duly registered, takes or uses—

(1) The name or title of physician, doctor of medicine, licentiate, bachelor, or master in medicine or surgery, surgeon, general practitioner, medical practitioner, medical specialist, medical dispenser, apothecary, aurist, oculist, ophthalmist, accoucheur, medico-herbalist, medico-electrician, or any of these or the like titles, with any added words variations, or designations: or

(2) Any title, style, addition, or description, directly or indirectly implying that he is possessed of any degree in or licence to practise medicine, or surgery, or midwifery; or, in fact, possessed of the skill necessary for the practice of medicine, or surgery, or midwifery, or any branch of medicine or surgery, or the performance of any operation in surgery or midwifery, or the administration of any medical treatment.

30. For the purposes of this Act—

(1) The words "title," "name," "style," "addition," or "description" include any title, addition to a name, designation or description, whether expressed in words or by letters, or partly in one way and partly in another;

(2) A person shall be deemed to take and use a title, name, style, or description who advertises, exhibits, or holds out, or is party to the exhibition, advertisement, or holding out of any title, name, or description of or concerning any institution, company, association, body, place, or premises whereby it is directly or indirectly expressed or implied that medicine or surgery, or any branch of medicine or surgery, is practised there, or who carries on or is party to the carrying on by or at any such institution, or under or in connexion with such institution, company, association, body, place, or premises, the practice of medicine or surgery or any branch of medicine or surgery.

Section XXIII of the present New Zealand Medical Act is identical with Section XL of our Act of 1858, which imposes a penalty for falsely pretending to be a registered person. It will be seen that Subsection (11) of Clause 29 (*supra*) goes much further. It does more than prevent the use of a medical title implying that the person using the same is entitled to be registered. In effect, it makes any one who unlawfully uses a medical title guilty of attempting to obtain money by false pretences. Having regard to the very wide definition clause (Subsection 11 of Clause 30), it will be very difficult for any unregistered person to get together a connexion.

The remaining clauses of the Bill (31-37) relate to the institution of proceedings and the administration of the funds of the Association.

We shall watch the career of the measure with considerable interest, especially as it was drafted by the Secretary of the New Zealand Branch of the British Medical Association, and may therefore be taken to embody the earnest desires of medical practitioners in the colony.

[1] Reg. v. Gen. Med. Council, 3 E. and E., 525.

NOVA ET VETERA.

FOOD AND COOKERY IN AN EARLY STAGE OF CIVILIZATION.

THE hunter is generally regarded as a primitive and therefore low type of humanity; and a good deal might with truth be said as to the low physical and intellectual development of certain hunting tribes. But this is often explicable by the scarcity and uncertainty of their food supply. Many of the Amerindians, however (to use a newly-coined and convenient American appellation) are men of splendid physique and not despicable intellect. The same may be said of the ordinary upper-class Englishman, the so-called sportsman, the "barbarian" of Matthew Arnold. A report on the Food of the Aborigines of North Queensland: its Search, Capture, and Preparation, just issued by the Brisbane Government, is worth reading in this connexion. This is another of the extremely valuable contributions to the ethnography of the aborigines of North, or rather of North-eastern, Queensland, which we owe to the enlightened diligence of Mr. Roth. Much assistance has been rendered to him, and is therein acknowledged, by Colonial botanists and others; but the amount of his personal labour must have been great, too great, perhaps, to be fully appreciated by those who have never come into contact with uncivilized races. Great tact, moreover, and genuine kindness and sympathy, are required for dealing satisfactorily with investigations of this kind among people naturally shy and suspicious.

The portion of Queensland which formed the area of these researches is wholly tropical and wholly within the region of summer rains, but it varies greatly in surface and in other characters, ranging from the low-level plains and mangrove swamps of the east coast to mountain ranges of 3,000 to 5,000 ft. high, and to river courses or chains of pools traversing an inland and comparatively dry tableland. On the coast and on some of the hills vegetation is luxuriant; but on the tablelands the general aspect of things is, we believe, more typically Australian; and here severe droughts may occur.

To this variety may be partly due the extraordinary length of the list of foods which Mr. Roth gives: it is evident that more of them belong to the maritime districts than to the interior.

The copious employment of water in the preparation of many foods shows that at some periods of the year or in some districts fresh water is abundant, while the several ways in which the "blackfellow" knows how to provide himself with a potable liquid, where a white man would not suspect its existence, testify to the occasional severity of drought; even on the coast wells have to be dug at times. An instance is quoted (from Leichart) in which blackfellows "fenced a water-hole round with branches to prevent the sand from filling it up." This was an unusual instance of forethought; some obscure inglorious Prometheus must have had a hand in it.

In the Pennefather River district water is got from trees or else by sinking (boring). "This is done in some likely spot, for example wherever the pandanus grows in plenty, by driving a spear some 3 or 4 feet down into the ground, and seeing whether the extremity is moist or not; if the quest be successful a bunch of dried grass will then be rammed down. The grass acts as a strainer to the débris, and thus permits of the water being sucked up by means of a reed."

The melalencoe is the tree whence water is most usually derived. "The butt of this tea tree is ordinarily circular in section, but here and there one may be found more or less lozenge-shaped, owing to a lateral bulge. From the bases of these bulges, when cut, a pint or two of water is obtainable, of a saltish taste. Whether these bulges ..... are pathological or not I am unable to decide."

The Sterculia rupestris affords a mucilaginous sweet liquid. The natives, herein again showing forethought, "cut holes in the soft trunk, where the water lodges and rots them to its centre, thus forming artificial reservoirs, which can be subsequently tapped a foot or two below the old cuts."

It is a melancholy consideration that for want of this kind of knowledge many a white man, explorer or other wanderer, has perished in the Australian wildernesses, whilst the despised blackfellow, possessing it, might be living in comparative comfort close at hand. Again, the blackfellow, as a rule, has a rudimentary knowledge of the apparent movements of the heavenly bodies, whereas the ordinary white man is entirely ignorant about them, and, though nominally educated, may and sometimes does perish, riding to his death in a circle, because he cannot distinguish east from west.

Cannibalism is dealt with in another of Mr. Roth's papers. It is not quite extinct, cropping up now and then, here and there, in an irregular fashion. But, though cannibals, these people are not "raw devourers," with a singular exception in the case of the entrails of some animals. The "nombrils" of the deer were in great favour with our ancestors. Regulations of taboo, as to who shall not eat with whom, or of what foods, are evidently fewer or less strict than among savages whose food is more abundant and easy of acquisition. Here life is too difficult. Hence, perhaps, it comes that some kinds of clay are recognized as edible; kaolin, indeed, is esteemed a delicacy, and strange to say, is eaten baked.

Yet the enormous number of known alimentary substances, animal and more especially vegetable, is quite surprising. Upwards of 240 plants are mentioned whose roots, bark, fruits, or flowers (the last for their honey) are employed as such, and upwards of 90 molluscs. This last item one does not wonder at: probably few tasty molluscs are really unwholesome; but the vegetable products are selected from a class many of which are poisonous, others inedible, and others, again, unwholesome in a crude state, or forbiddingly distasteful—often both. Yet the discrimination has been made and the knowledge handed down. Thus, in the case of the Barringtonia racemosa, the fruit is eaten, the bark is used for medicine, the stems for poisoning fish. And this by a "savage"; the British workman hardly knows of more than a score of foods; and those neither he nor his wife, as a rule, knows how to cook.

The processes of preparation are in many cases long and troublesome, in the case of roots and tubers especially; the object is usually to get rid of a disagreeable flavour; but the result seems often to be the production of a soft, moist, starchy mass, which can be baked among ashes. Some of these processes would be greatly simplified, of course, if the blackfellow had any knowledge of the potter's art. He has a wooden bowl; but his chief implements are a trough of bark and a porous bag of some kind, in which the material can be placed for soaking. A carefully-made hole in the ground may serve instead of a mortar or basin.

In the case of the Eleusine Egyptica, for instance, the seed is threshed out of the grass in such a hole by the feet of a woman; it is winnowed in a current of air, ground on a stone, moistened and baked as a cake in the embers. Several other seeds are also, after grinding, made into cakes; but the Oryza sativa (wild rice) seems to be the only cereal among them.

Many of the roots eaten are extremely hard, and probably would be scarcely amenable, even to the fine masticatory apparatus of the blackfellow, but for the pounding and roasting to which they are subjected. In one or two instances fruits are kept, as we keep medlars, until a certain amount of molecular or chemical change has taken place: but, as a rule, these people prefer their food fresh, and they never keep a sweet liquid long enough to ferment.

Ants are eaten, but are sometimes previously treated with water, perhaps to remove excess of formic acid. Snakes, of course, are a favourite, and, it is said by those who have made the experiment, an excellent food. Large fish, turtles, and dugongs are often betrayed to the harpoon of the blackfellow by the remora or sucker-fish, which is caught and kept in a trough of water for the purpose. Crocodiles are speared or caught with a noose of lawyer-cane. The courage and dexterity displayed in combating these formidable creatures are remarkable. Some curious facts come out with regard to the modes of hunting and cooking the kangaroo. The strong odour of the blackfellow, often a great disadvantage in hunting animals of acute smell, is by him turned to use. "To make the marsupial approach into closer quarters..... the hunter (standing to leeward) will throw a spare spear well over its head into the ground beyond. This spear, having been well smeared with the sweat from under the armpits or crutch, is fully charged with the concentrated essence of humanity; the wind carries the scent and drives the kangaroo from apparent into real danger." The large kangaroo is cooked whole by packing the body inside as well as outside with hot stones.

On the whole, one is more struck by the versatile cleverness of these poor despised folk and their skilful adaptation of means to ends than by their deficiencies. They compare favourably, as Huxley said, with the denizens of our slums. The local differences in their habits, varying with various external conditions, show that they are not stolidly conservative, but capable of progress and development. Our civilization kills them; but why may they not be allowed to develop their own and live on, as the gypsies have lived on among ourselves?

A Campaign against Mosquitos in New Jersey.—A campaign against mosquitos has been commenced in Elizabeth, New Jersey. Every effort will be made to destroy the pest and the larvae. The last Legislature had passed a Bill authorizing the State Entomologist to expend 10,000 dollars in this work, but no appropriation was made for it. Governor Murphy, however, has offered to advance the money for the work out of his emergency fund.

We are asked to announce that the provincial meeting of the Society for the Study of Disease in Children will be held at the Pendlebury Children's Hospital, Manchester, on Friday, June 20th, at 4 p.m. The members and their friends will dine at the Queen's Hotel, and on the following day an excursion into Derbyshire has been so arranged that members will be able to return to town the same night, and those who intend to be present are requested to communicate with Dr. George Carpenter, Welbeck Street, W., as soon as possible. The annual general meeting of the Society will be held at the Hotel Cecil on July 16th, at 6.45 p.m., and will be followed by dinner at 7.30 p.m.

The annual banquet of the Coroners' Society of England and Wales will take place at the Holborn Restaurant on Thursday, June 5th.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 31ST, 1902.

THE PRELIMINARY EDUCATION OF MEDICAL STUDENTS.

THE Report of the Committee appointed by the Council of the British Medical Association last year to consider the subject of preliminary general education is published at p. 1351. It is an important document, deserving of careful attention. It was adopted by the Council of the Association at its last meeting without amendment but led to a heated debate when it came before the General Medical Council on the first day of the present session.

It cannot be contended that the present condition of affairs is altogether satisfactory, or that the profession as a whole occupies the position or exercises the weight and influence in the country absolutely, or as compared with the other learned professions which it ought to do. Whatever other reasons there may be, many thoughtful men have long been of opinion that one chief reason is that the standard of general education required from those desirous of entering the profession is too low, and that any progress towards a better state of things must begin with a considerable raising of that standard. While saying this, we are quite aware that a large percentage of intending medical students voluntarily pass one of the examinations of the higher or "senior" standard, and that during the last twenty years the proportion entered on the *Students' Register* on the higher certificates has risen from 20 per cent. to 50 per cent. of the total number. The important question, however, remains whether the time has not come for an effort to be made to hasten this spontaneous movement upwards. Indeed this very movement itself is evidence that it is not only desirable but possible to take such action.

In the year 1898, out of those (being one half of the total) who took one or other of the "junior" standard examinations recognized by the General Medical Council, no less than 80 per cent. chose the very lowest of these examinations. It was in the same year (1898) that the General Medical Council made what appeared to be a serious effort towards "raising considerably the standard of general education in Arts, which it requires of students intending to prepare themselves for the medical profession," to quote from the letter addressed by the Education Committee of the General Medical Council to forty-four "bodies and persons connected with general and medical education in the United Kingdom." The principal object of the letter was to ascertain the views of the educational authorities on the practicability of raising the standard of preliminary educato the level of the Senior Local Examinations of the Universities.

The replies received to this letter were, on the whole, such as to encourage the General Medical Council to continue its efforts to raise the standard to the level which it had in view. They brought out clearly that there was an overwhelming preponderance of opinion among educational authorities to the effect that (1) the minimum standard was too low, and that (2) the lowest age at which students could usefully begin their medical studies was 17 years; it appeared further that (3) the multiplicity and complexity of the various standards rendered any action very difficult.

The next step is a good illustration of the value of the Branch organization of the Association. At the annual meeting of the South-Western Branch at Torquay in 1900, Mr. Karkeek, the President of the Branch, spoke in his address[1] upon "the important question of the education of the intending medical student prior to beginning his medical studies." It was a thoughtful address, full of pregnant suggestion, dwelling particularly on the advantages of a classical education, and on the drawbacks of beginning scientific studies at too early an age; and contended that "the doctor, even in the slums, must be an educated gentleman." Mr. Karkeek was of opinion that if, by raising the standard of the preliminary examination, the number of medical students should be somewhat diminished, it would be "a very desirable result, for we are everywhere too thick upon the ground." This address aroused an interest in the subject in the Branch and in the following year resolutions were brought forward at a meeting of the Branch by Dr. Gordon, of Exeter, in favour of the British Medical Association taking up the subject and formulating certain definite proposals. These resolutions were unanimously adopted, and the representatives of the Branch on the Council were requested to bring them before the Council at the earliest possible date.

The result of this was that the Council of the Association at its meeting on October 23rd, 1901, appointed a Committee to consider the whole subject of preliminary general education, and referred to it the resolutions from the South-Western Branch. The report of this Committee expresses the opinion that the time has come for the British Medical Association to take up this important subject, and to use its influence to obtain the needed reforms. The report indicates, under four headings, the lines upon which reform should run. Should these recomendations be ultimately carried into effect, the result, put shortly, would be that no intending medical student could be registered as such under the age of 17, and until he had passed an examination of a standard not under that of the Senior Local Examinations of the Universities, such examination to comprise a Pass and an Honours Division, and to be conducted by a single Examining Board appointed by the General Medical Council.

The question of the minimum age for registration governs the whole scheme, and is therefore put first. Apart

[1] BRITISH MEDICAL JOURNAL, July 21st, 1900, p. 145.

from the matter of preliminary education there is, we think, a pretty general consensus of opinion that there is nothing to be gained, and a good deal to be lost, by the average student beginning his medical studies proper under the age of 17. The Principal of Cheltenham College, in his reply to the letter of the Education Committee of the General Medical Council, said "the real effect would be that boys, who now qualify for registration at 16 or thereabouts, would remain at school for another year and pass the Higher Standard. They would then be kept in touch with school discipline just at the time of their lives when it is most formative, as initiating them in the bearing of responsibility for good order and government; and the effect would, in my judgement, be that they would be more developed and steadier in character, when they entered upon hospital work." The joint Board of Examiners of the Scottish Universities in their reply made the following remarks: "As things are now the general education of the medical student ends at a point very considerably lower than that at which the Arts student is held qualified to begin his University course; and that cannot be considered satisfactory or sufficient for future medical practitioners..... Any sharp boy of 15 years can gain the Lower Certificate of the Educational Department, and the professors of the scientific subjects taken at the early part of the course complain that they have in their classes too many quite young lads with ill-trained unfilled minds, unable to take in scientific ideas and to respond to the teaching they receive. Many of the medical students are mere boys, and boys are not fit recipients of medical education. The Board suggests to the Council that they should allow no student to go on the *Medical [Student's] Register* till he is past 17 years of age." "The proposal that in the Preliminary Examination there should be an Honours as well as a Pass Division may, if carried out prove a useful lever towards gradually raising the standard still higher. The clever boys would no doubt go in for honours in this examination, and the medical schools might be expected to establish prizes or exhibitions in order to attract such students. To compete for the best-educated students would certainly be a more laudable ambition than, owing to the various recognized examinations differing so much in standard, practically to compete for the worst educated.

The fourth recommendation made by the Committee is that the preliminary examination should be of a uniform standard, and conducted by a single Examining Board. The Committee considered that if this change were not introduced, the task of raising the standard to the desired level would be attended by great and possibly insuperable difficulties. A striking object lesson in these difficulties is afforded by the whole history of the action of the Education Committee of the General Medical Council, the replies to its letter, and the subsequent calling in of three educational experts or consultants to assist the Committee in their perplexities. The arguments in favour of such a plan were admirably stated and analysed by Dr. Gordon in a paper read at a meeting of the South-Western Branch of the British Medical Association.[2]

The recent controversy between the General Medical Council and the Royal Colleges in England proves that the object sought can be attained only by new legislation to amend the Medical Acts, since at the present time the Council has no power to enforce the registration of students in the *Student's Register*. An amending Bill, to have any reasonable prospect of passing through the House of Commons, must have the support of the Government—should, in fact, be a Government measure, for it is hardly possible to hope that such a Bill would be accepted as non-contentious, since it would trench to some extent on the prerogative of the Universities. The first step, therefore, is to convince the General Medical Council, for without its active support it seems improbable that the Government would take the matter up. The Council appears to be persuaded that it is desirable to further raise the standard of preliminary education, but not that it is expedient to do so at the present time. If it can be shown, as we believe it can, that there is a strong body of professional opinion supporting this proposal, the hands of those members of the General Medical Council who earnestly desire to raise the standard will be materially strengthened. The proposal of the Committee to establish a single Examining Board in preliminary subjects goes beyond anything to which the Council is as yet committed, but it would be a long step towards that one-portal system which for two generations has been the dream and the aspiration of medical reformers.

Should this levelling up in general education become an accomplished fact, the present generation of medical men will have left a valuable legacy to their successors, by rendering them better fitted to cope with the many problems of the future—medical problems, medico-social problems, medico-ethical problems—enabling them to approach the consideration of these in that broad, tolerant, cultivated spirit which is the fruit that ripens out of the flower of a liberal education, and out of that alone.

In accordance with the concluding recommendation of the Committee, the Council of the British Medical Association has nominated a deputation which will be received by the Education Committee of the General Medical Council this day (Saturday).

[2] BRITISH MEDICAL JOURNAL, November 2nd, 1901, p. 1327.

THE SALE OF PERNICIOUS LITERATURE.

THE letter which appeared in a recent issue of the *Times* above the signatures of the Committee of the Headmasters' Conference will have caused no surprise to persons of observation. One of the most striking phenomena of the present day is the amazing amount of trivial literature—if the latter word is permissible in this connexion—which is proffered to the public on every hand. The multiplication of the rudimentary means of education has at least ensured an ability to read in the case of every one who is able to run. Education in the knowledge of what it is best or even good—to read is still for the most part sadly to seek. The result is an abundant output of what is intended to secure a sale by exciting a superficial interest and causing what passes for amusement. Success on these lines has been great enough to beget keen competition; and competition has been attended by a resultant "cutting" in prices with an accompanying deterioration of style, matter, and effect. That so much of

these ephemeral publications comprises a merely coarse and vulgar form of so-called amusement is bad enough, since it not only bespeaks and ensures a form of debased taste in the reader, but unfits the flabby brain for higher efforts in directions which might be really useful. Too often, however, there are also allusions, implications, innuendoes more evil because more suggestive than plain coarseness, and vulgar chiefly in the sense that they presume a common knowledge of indecencies all the more dangerous because they are presented ostentatiously veiled. The prurience thus excited is not seldom pandered to by adjacent advertisements of the worst type; and to crown all, this mass of literary poison is proffered at the lowest price, and freely displayed for sale under conditions of time and place which peculiarly tempt the average purchaser. When journeying on pleasure bent, or while staying at some holiday resort, most travellers devote themselves to that class of reading ordinarily known as "light." Indeed, the mere purchase of a railway ticket would seem to be regarded by not a few persons as equivalent to the acquisition of an indulgence.

It is at least suggestive to note how many persons when on a railway journey, for example, will buy and read papers and periodicals which they would not think of taking into their homes, placing upon their own tables, or handing over to their children. Yet this practice, and this example, does not a little to make possible and profitable the production of a type of printed matter which is presented in a form that makes it specially attractive to youth and adolescence, and which is obtainable by the young with a facility until lately unexampled.

Another serious result of this literary sewage is the extent to which it prepares the ground for the pamphlets of the advertising quack. Its readers of both sexes are invited wholesale to procure the more putrid compilations of harpies who excite curiosity by blazonings about "nervous debility," "loss of manhood," "what every man (or woman) ought to know," and the like; and who minister to the fears which a perusal of their pages is too often successful in begetting. Were it possible to compute the total result of the mischief thus produced among the youth of this country in a single year, the picture would be not a little startling.

The evil at which we have glanced is no new thing, as everybody knows; nor does it stand alone. But the extent to which it has spread, and the facility with which it has come to operate in recent times, do seem to call for special measures. No class of society and no age is exempt from it. But, bad as the "daring" novel may be the average schoolboy and the young workwoman are able every day and almost anywhere to buy much which is no whit less baneful at less than a tithe of the cost of its cheapest edition, and to obtain with it hints as to a progress to depths yet more abysmal. Bradfield, Eton, Haileybury, Marlborough, Rugby, Tonbridge, and Westminster are fit types of the great English schools in which the character of Englishmen is mainly formed for good or ill. None too soon have their headmasters spoken out, for themselves and for their colleagues, on a subject which we as a nation prefer not to drag into the foreground of public discussion, save under the pressure of more than common urgency.

To what extent the borough and county councils, to which the headmasters intend to appeal, are possessed of powers adequate to deal practically with an admitted and growing evil of this kind may perhaps be questioned. The matter, however, is of not less than national importance; and if, by influence exerted through these channels, and brought to bear upon the adult public at large, who cannot be held as altogether blameless, measures of effective regulation be secured, a protection real and far-reaching in its effects will have been achieved for the youth of all classes.

THE INFLUENCE OF PREVIOUS VACCINATION IN CASES OF SMALL-POX.

THE establishment of a causal relationship between two phenomena or sets of phenomena is always difficult. It is particularly difficult in biological, including medical, problems in which many complex factors may be involved. The application of the theory of correlation enables some approach to a solution of the given problem to be secured in a large number of instances. In investigating the causal connexion between two phenomena on the basis of the theory of correlation, it is necessary that each of the phenomena should be capable of an arithmetical statement. If the two quantities are then found to fluctuate in sympathy with each other, so that an increase or decrease of one occurs, along with an increase or decrease or its inverse of the other, and the greater or less the magnitude of the fluctuation in the one, the greater or less the magnitude of the fluctuation in the other, then the two quantities are correlated. This correlation can be measured arithmetically, and in Part III of *Biometrika*, the new journal for the statistical study of biological problems, Mr. W. R. Macdonnell, LL.D., investigates the influence of the degree of effectiveness of vaccination in small-pox on these lines. He adopts Professor Karl Pearson's method of finding the correlation coefficients and other constants of characters not quantitatively measurable, and investigates by these means the correlation—first, between degree of effective vaccination and (1) strength to resist small-pox and (2) type of disease; and secondly, between type of disease and (1) degree of foveation, (2) scar area, and (3) number of scars.

The details of the investigation and the statement of results are only to be appreciated by expert mathematicians, and are too technical for detailed summary in the BRITISH MEDICAL JOURNAL. It is interesting to note that calculations based on experience of small-pox epidemics at Leicester, Gloucester, and London in two epidemics, all show a coefficient of correlation (0.6) which appears to be fairly constant for small-pox epidemics. Dr. Macdonnell shows that the correlation of foveation and size of scar with severity of attack is only moderate, but that there is very considerable correlation indeed in all the recent epidemics, not only between recovery from, but between the severity of, the attack and the existence of the scar. He has been unable so far, however, to find statistics from which he might deduce the correlation between presence of scar and habit of life—nourishment and cleanliness—of the attacked. On the last point he asks in relation to the metropolitan epidemic of small-pox for further details regarding the social rank and occupation of the

patients. We sincerely hope these data will be available, as it is commonly asserted that excessive prevalence of small-pox in a given district is consequent upon the state of nutrition or evil conditions of life to which the population of the district in question is exposed to a preponderating extent. So far as such conditions, by conducing to overcrowding and free personal contact, favour personal infection, some weight attaches to the contention. Beyond this there is no known ground for the contention that defective sanitation is provocative of small-pox.

The smallness of the correlation between the amount of foveation and the area of scar and the protection from small-pox in recent epidemics investigated by Dr. Macdonnell is not altogether surprising. With modern antiseptic methods of conducting the operation of vaccination it is likely that the correlation will become even less marked, as cicatrization is probably consequent, to some degree as yet undetermined, on inflammatory changes not indispensable to vaccination. Hence the importance of securing, as advocated on other occasions in these columns, a permanent official record of the amount of vaccination (that is, the number and area of the true vaccinal vesicles) produced on every child who is submitted to primary vaccination. This will be practicable only when the general practitioner who has vaccinated his private patient is remunerated for the certificate of vaccination (quality and quantity) which he should be asked to supply.

VOLUNTARY MEDICAL AID DURING THE WAR.

The report by the Central British Red Cross Committee on Voluntary Organizations in Aid of the Sick and Wounded during the South African War,[1] just presented to the Secretary of State for War by the Chairman, Lord Knutsford, is a volume which ought to find a place in every reference library, on account of the plans of hospital ships and trains, and the lists of furniture and equipment which it contains. The opening pages give an account of the Central British Red Cross Committee, which was constituted only about six months before the outbreak of the war. This chapter is followed by another on the work of the National Aid Society, and accounts are next given of the work of the Red Cross Commissioners and of the St. John Ambulance Association and Brigade in South Africa. A full description is given of the hospital ship the *Princess of Wales*, and is illustrated by photographs and plans showing the general arrangements of the ship and details of fittings. A full description is also given of the "Princess Christian" Hospital Train, and here again plans and dimensions are set out. Plans are also given of the huts for the Princess Christian Hospital. These detailed plans and sections are, as the preface explains, intended to serve as a guide for organizers of voluntary aid in the future. The account given of the other hospitals is very brief.

THE *ENCYCLOPÆDIA BRITANNICA.*

The second of the new volumes of the *Encyclopædia Britannica*, being vol. xxvi of the completed work, was published on May 30th. It extends from "Austria-Hungary" to "Chicacole." It contains only three articles of direct medical interest, namely, Bacteriology, Beri-beri, and Cancer. General Bacteriology is dealt with by Dr. H. Marshall Ward, Professor of Botany in the University of Cambridge, and Dr. Robert Muir, Professor of Pathology in the University of Glasgow, gives an admirable summary of what is known about disease-producing micro-organisms. The subject is dealt with under three heads: (1) The methods employed in the study of these pathogenic agents; (2) the modes of action of bacteria and the effects produced by them; and (3) the facts and theories with regard to immunity against bacterial disease. A perusal of this article may be recommended to the busy practitioner who has no time to study monographs or special papers as a means of self-orientation in regard to the mighty maze of bacteriology. The article of Beri-Beri by Dr. Arthur Shadwell is naturally founded on the work of Dr. Patrick Manson, who, by the way, has received from the author or the printer the honour of knighthood—an omen, it is to be hoped of the bestowal by the proper authority, of a titular distinction to which no one can have a better claim than the "onlie true begetter" of the mosquito theory of the origin of malaria, a brilliant hypothesis which is big with promise of results of the most far-reaching importance for human progress. "Cancer" is briefly treated of by Dr. Shadwell, who "in view of the wide hold obtained nowadays by popular fallacies through the agency of elementary education and a cheap press," does not think it superfluous to inform the readers of the *Encyclopædia* that "there are no reasons whatever for supposing that tomatoes have anything whatever to do with cancer." A clear account of the pathology of cancer would have been useful in exploding some popular fallacies of greater importance in regard to the futility of remedies and methods of treatment freely advertised as "cures;" but on this essential point there is not a word. Mr. Edward Clodd contributes a short memoir of Karl Ernst von Baer, the founder of the science of comparative embryology. In a carefully compiled article on Charity and Charities, Mr. C. S. Loch brings a powerful indictment against hospitals, which he says have created a new class of mendicants. Hospitals are described as "large isolated relief stations which are creating a new kind of pauperism." If patients are able to pay, the general practitioner is defrauded; if the hospital itself charges a fee the evil is still greater. Mr. Loch acquits the medical staff of hospitals of deliberate wrong-doing only on the ground of what theologians would call their "invincible ignorance" of the fundamental principles of alms-giving. Hospital governors are equally untrained, and so reform cannot be looked for from them. The stepping-stones to this desired end are "the definite limitation of cases according to some standard of effectual work, association with general charity, trained almonership and inquiry and a just regard for the interests of general practitioners." The historical part of the articles on Basutoland and Bechuanaland is from the pen of Dr. Alfred Hillier, a recognized authority on South African affairs. In regard to the whole volume we can only repeat what was said in substance of the first. It is a veritable mine of accurate information *de omnibus rebus et quibusdam aliis* conveyed for the most part in an interesting and lucid manner. The work reflects the highest credit on all concerned in its production.

THE MATRICULATION EXAMINATION OF THE UNIVERSITY OF LONDON.

At a meeting of the Faculty of Medicine held at the University on Friday, May 23rd, Mr. Butlin, the Dean of the Faculty, in the chair, the new regulations lately adopted by the Senate for the conduct of the matriculation examination, to which attention has already been drawn in the British Medical Journal, were under consideration. Under these regulations, in addition to English and elementary mathematics, which must be taken by all students entering for the matriculation examination, there is a large number of optional subjects of which three must be chosen, one of the three being either Latin or a branch of elementary science. A proposal had been made that the

[1] London: Printed for His Majesty's Stationery Office by Harrison and Sons, St. Martin's Lane, Printers-in-Ordinary to His Majesty. 1902.

Senate should publish in the *Calendar* "advice to students as to the optional subjects they should select, having in view the Faculty in which they intend to proceed to a degree." The Faculty of Medicine was asked whether it desired to indicate the optional subjects which should be selected by a student intending to proceed to a degree in Medicine. The following resolution was passed:

In the opinion of the Faculty of Medicine it is undesirable that any official advice should be published in the *Calendar* of the University as to the optional subjects which should be taken at the matriculation examination by intending undergraduates in Medicine.

LUNACY LEGISLATION.

IN the address which Sir James Crichton-Browne gave to the annual meeting of the Association of Asylum Workers (see page 1367), he, as President, reviewed those points in promised lunacy legislation which most concerned his hearers. With his usual ability he contrived to weave into the general texture of his discourse one prominent strand—true economy. He had no difficulty in demonstrating that an assured pension scheme was an important element of economy, as tending to preserve to the use of the asylum the knowledge and formed character of good attendants. It has been more than once been urged in the BRITISH MEDICAL JOURNAL that it is indeed bad business to go to the trouble and risk of breaking in new officers only to lose them when they have learned their work. Sir James, in showing the economy of having the best machinery for treating insanity, took up the cudgels for the Lunacy Commissioners, who have been charged with causing extravagant demands to be made on ratepayers by their requirements. He said that, while the Commissioners have no direct control over asylum expenditure, they have frequently repressed lavish tendencies in local authorities. It occurs to us that they have no control over a most important factor of economy—the choice of an architect. It is quite easy to repress undue use of ornamental and costly materials, but wastefulness in these things is as nothing to the present and future loss both in capital expenditure and in economical working that may be quite unsuspectedly involved by the adoption of inefficient plans. Finally, Sir James Crichton-Browne looked forward into the dim future, to the time when common sense in lunacy administration would eventually lead to economy in red tape and other matters. He especially alluded to increased freedom in the treatment of various phases of the disease. We know that two solid concessions in this direction have already been granted by the Lord Chancellor on medical representations. We are promised that both the man who is threatened with an attack and the man who cannot look properly after himself by reason of failure of full intellectual development shall receive protection, though neither may be able to qualify for that protection by being completely certifiable. It remains to ask for yet more. What possible justification of a practical nature can be advanced in these days for the wearisome and unnecessary clerical formalities surrounding rate-paid patients? The immense interest shown in asylum affairs by visiting committees and the pressure on available space in asylums both tend to the discharge of patients at the earliest moment of safety. Here a great economical reform is possible. With private patients the case is very different. All safeguards should be kept up as much for the safety of the custodians as for that of the patients.

A MIDDLESEX SMALL-POX HOSPITAL.

IT is questionable whether there is any piece of land within the boundaries of the County of Middlesex that could be proposed for a small-pox hospital without being objected to on some ground or the other by some person or other. A temporary hospital is being erected at Hanworth on the riverside for the use of the urban districts of Hampton, Teddington, and Hampton Wick. Its erection formed the subject of a recent question in Parliament, and Mr. Long's reply was that as the cost was not to be defrayed out of borrowed money he had no authority to intervene, though he had instructed a full official report to be prepared for his information. He has now stated that this report is to the effect that there is no fear of pollution of the sources of supply of the water companies, provided that the cesspools are emptied regularly, and their contents not allowed to overflow or soak away into the soil. In a letter to the *Times* of May 19th, a local resident argues against the scheme on three grounds: (1) That it is within 200 yards of the parish boundary of a riverside village; (2) that its rainfall and drainage will enter the Thames a short distance above the intake of three water companies, the Southwark and Vauxhall, the West Middlesex, and the Grand Junction, and (3) that it is only about a quarter of a mile from Kempton Park racecourse, to which tens of thousands of people resort at frequent intervals from all parts. As to the first objection, the question of a parish boundary is of no consequence, but the fact that there is a village of 500 people within about 500 yards is more to the point. When small-pox comes to be treated in the hospital we would strongly advise the villagers to see to their vaccination, as if they do not there can be no guarantee that under certain conditions they may not be infected by the disease, either aërially or by indirect contact. The second objection is supported by the statement that the hospital rainfall and drainage "would threaten the water supply of an enormous population with a taint that might have a very far-reaching and disastrous effect." We are not aware that there ever has been the slightest reason to suppose that the poison of small-pox is conveyable by water supply, and all that is known of the disease is opposed to any such view. Naturally the very idea of drinking water having any relationship to the sewage from a small-pox hospital may cause a feeling of disgust to any one who bears it in mind. But the fact is that this feeling might already exist on a much broader basis. The use of Thames water, which must always be open to pollution from human sources, is sentimentally at least most objectionable, and from the point of view of the spread of infectious disease the question of enteric fever is much more pertinent than that of small-pox. But the small-pox hospital sewage would as a matter of course be duly treated before discharge into the river. The third objection, concerning Kempton racecourse, is by no means so easily disposed of. Judging from the steadily accumulating experience as to the aërial convection of small-pox, there seems reasonable ground for supposing that under a favourable combination of circumstances, the disease might be spread in this way, and so might set up small-pox in almost any part of the country. No doubt the risk is greatly lessened by the shortness of the visit which people pay to a racecourse, as compared with continuous residence in the neighbourhood of a small-pox hospital, but on the other hand the number of persons exposed might be very great. The combination of favouring circumstances would probably include a rising epidemic, an appreciable number of acute cases in the hospitals, and suitable atmospheric conditions. As we have said at the beginning, however, it is doubtful if any place in Middlesex would be free from objection. If vaccination and revaccination were used to their fullest extent there would practically be no need for small-pox hospitals, but so long as the population of this country is so incompletely protected against the disease every prudent individual will see to it that he and those for whom he is responsible are rendered small-pox-proof by vaccination duly renewed, and thus they may, if they be so minded, safely attend Kempton races, or, for that matter, set up their permanent abode next door to the largest small-pox hospital they can find in England.

RECORD-BEATING IN TWIN SEPARATION.

Dr. Chapot-Prevost, of Rio de Janeiro, proclaims[1] that he has done in the field of teratological surgery a deed doughtier than the feat recorded by M. Doyen. The European operator has been far from reticent. His separation of Radica-Doodica, followed by the saving of Radica, was described very fully by himself in serials, medical and other. The details, as far as they merited record, were published in the British Medical Journal for February 22nd, pp. 465-66. Chapot-Prévost now declares that his case was graver and his operation far more difficult. The publication of his claim was, all must admit, a legitimate step under the circumstances. He remains, he insists, the champion twin separator; the record has not been broken. As was explained in our notice of M. Doyen's case, Dr. Chapot-Prévost operated on Rosalina-Maria, the Brazilian twins, in May, 1900. The cavities of the pleura, pericardium, and peritoneum communicated with the corresponding serous cavity in the opposite twin. Dr. Chapot-Prévost closed the abdominal wall with great care. Maria died on the eighth day. Rosalina is now, at least according to her portrait published by M. Chapot-Prévost, in excellent health. We must now pause and explain that M. Doyen noted this case and gave full credit to the Brazilian surgeon, whilst M. Chapot-Prévost frankly praises the French operator for his feat, and admits the dangers due to Doodica's peritonitis. It is as a piece of modern teratological surgery that he claims his operation as more difficult than that undertaken by M. Doyen. Being clearly a man of business, M. Chapot-Prévost divides his claim into sub-claims distinctly headed. First, his patients had already undergone an unsuccessful tentative operation. Secondly, the circumference of the area of union was in his case 16 in., in Doyen's only 11 in. Thirdly, he had to divide a regular bridge of liver 3 in. long and 3 in. thick; the tissue was not fibrous or membranous, but soft and pliable. The line of hepatic union in Doyen's case was a membranous band not 3 in. long and not 2 in. deep in vertical measurement. Fourthly, the rest of the area of union involved open canals between the pleura and pericardia of the twins. Their treatment on the operating table took up a long time. The bridge of liver, real hepatic tissue in this case, was unsuited for Doyen's haemostatic forceps. Future operators must bear this in mind. Vascular membrane and soft gland tissue are two different things. Fifthly, in Rosalina the heart was on the right, in Maria to the left. In Doyen's case the heart was normally situated in both sisters. In conclusion, he operated on thorocopagous twins, whilst M. Doyen separated xiphopagous twins. Such is M. Chapot-Prévost's claim, and from a teratological point of view he holds the record. Still, as far as risk and results are concerned, he and M. Doyen may divide the crown. Each saved one life: one had dangerous healthy structures to divide, the other operated when a perilous complication existed.

THE HUSK OF THE COFFEE BEAN IN MALARIAL FEVERS.

Professor Thorpe, Principal Chemist, Government Laboratory, London, has been good enough to forward to us a translation of a report which he has received through official channels from the British Legation, Bogota, Columbia, by Dr. L. Restrepo, of Medellin, on the use of the husk of the coffee bean in malarial and other fevers. He states that he was led to the use of this material by the experience that crushed coffee in the husk as distinct from the husked bean proved efficacious in several cases of malaria which had resisted treatment with quinine. His prescription is as follows: Coffee husk, 30 grams; water, 400 grams; boil for five minutes and strain; a small cupful six times a day. In addition to malarial fevers, cases of influenza and chronic dysentery are stated to have benefited by this treatment, and the malarial cases are said to have recovered without complications and with freedom from the prostration which usually accompanies attacks. Dr. Restrepo is anxious that analysis of the husk should be undertaken to discover to what principle it owes the medicinal properties he describes. Preparations of unroasted coffee have long been used in malaria, notably by the Dutch in their East Indian possessions, and other parts of the plant are also active, but the therapeutic use of the husk is a new suggestion. As a rule the beans are far inferior to quinine in malaria, and it appears on the face of it unlikely that the husk contains any active substance peculiar to itself. The uniformly good results which Dr. Restrepo has obtained by the preparation he describes, entirely justify, however, his suggestion that chemical investigation of this part of the plant should be undertaken.

[1] *Gazette Médicale de Paris*, May 10th.

A CITY WITHOUT DOCTORS.

"Doctor" Dowie, who gives himself out to be a new avatar of the Prophet Elijah, is said to be busily at work founding a city which he calls Zion, 42 miles north of Chicago. The Chicago city assessors refused to let his several million dollars' worth of property go free of taxes, so "Elijah" had himself borne away from them to a place where only the State tax-gatherer will trouble him. Among the conditions of a lease of his land in Zion City are that no person shall sell liquors, tobacco, oysters, or drugs. It is further provided that no one living thereon should practise medicine, surgery, or dentistry. The believer in medicine may call in a doctor from the outer world, and may use drugs if he buys them outside the land of the prophet.

THE PERILS OF PARADOX.

There are many well-known aphorisms, dealing for the most part with the moral order of things, which have become commonplace and threadbare from constant usage, but possess a certain freshness when applied to matters physical, although they may lose in the transition some of their value as epitomes of truth. Of this sort are such expressions as "Sweet are the uses of adversity," "*Moniti meliora sequamur*," "This trouble will be for your good," etc. Teachers of morality are even fond of affirming the chastening effect of body illnesses upon character, and though we, as physicians, may "hae oor doots" about it, it is not our present purpose to controvert this proposition, but to raise a mild protest against its extension to the domain of pure pathology. Professor Osler, whose brilliant and facile pen is never long idle, not long ago took for his text "the advantages of a trace of albumen and a few tube casts in the urine of certain men above 50 years of age;" giving, in illustration, persons rejected on these grounds by life-insurance companies who had enjoyed many subsequent years of health. He said he wished to emphasize the importance of basing a judgement less on the urine than on the general condition of the patient, and he proceeded to describe in picturesque style the perilous career of the business man who "takes plenty of good food three times a day, with two or three glasses of spirits, and smokes six or ten cigars daily." He gave particular instances of "a man nearly 60 who had been very careless in his habits of eating and drinking;" of another, "a hard worker and a high liver," and of a third "a very hard worker and a pretty steady drinker to his 45th year," and pointed out how in all these cases the discovery of albumen and tube casts in the urine acted as a salutary warning, brought about a reformation of habits, and was followed by many years of healthy activity. While it is perfectly well known on this side the Atlantic that the extensive use of alcohol irritates the kidneys and gives rise to the appear-

ance of albuminuria and tube casts which disappear when the cause is removed, we do not see that the insurance examiners were wrong in rejecting these cases, or that the presence of albuminuria and casts would have been any advantage to these persons if they had remained undiscovered or had not been regarded seriously. The teaching of Professor Osler tends to minimize the importance of this discovery, and to make it less effectual upon future generations of sinners. We are quite aware that this is not his intention, but the title of his paper is paradoxical and misleading. No one more than ourselves would insist upon the inadequacy of a trace of albumen and a few casts obtained by the centrifuge as a basis for a diagnosis of chronic Bright's disease, and we quite agree with Professor Osler that they may indicate only the need for more careful habits; but while their discovery may thus prove of great service in affording a needful warning, we are unable to admit that their presence can under any circumstances be rightly described as an advantage.

PERFORATION OF UTERUS OR CATHETERISM OF TUBE?

A WOUND in the uterine wall may prove deadly under many circumstances, whilst it is well known, especially in out-patient practice, that the sound, even when introduced with skill and gentleness, may slip beyond the uterus, passing upwards for several inches, whilst no ill-consequences follow. Most authorities teach that the uterine walls are perforated in such a case, but a different theory is gaining ground. For long it has been admitted that a sound may slip into the Fallopian tube. Matthews Duncan and Bischoff have verified catheterism of the tube after death. Boursier succeeded in passing the sound repeatedly up the left tube in one case, and defined on palpation the dragging of the left appendages caused by the introduction of the stiff metallic instrument. We believe that catheterism of the tube was verified during an abdominal section a few years ago, but the reference is not at hand. Machenhauer of Darmstadt publishes a very instructive case of catheterism of the tube, as defined at least by palpation.[1] His patient was 40 years old, and had borne three children; the youngest had reached the age of 7. She was examined, as there was suspicion of an extrauterine pregnancy on account of recent irregularity in the catamenia, nausea, and abdominal swelling. To the right of the uterus lay a soft elastic tumour as big as a lemon. Stress was laid on the fact that strong arterial pulsation could be felt under the tumour, a point held by many to be indicative of a fetal sac. Machenhauer admitted that he suspected tubal gestation. He, nevertheless, ventured to pass the sound, having made every preparation for an operation if necessary. The uterine cavity measured nearly 4 in., and when the point of the sound was directed against the right cornu it passed easily and without encountering any resistance for 2⅜ in., to the right and a little backwards. This manœuvre was repeated several times until a few days later when an operation was undertaken, and no haemorrhage or reaction followed the passage of the sound. When the abdomen was opened the right tube as well as its fellow and the ovaries were found quite normal, the uterus bore numerous small fibroids and its serous surface showed no trace of a perforation. The swelling was a broad ligament cyst, easily removed. This experience naturally leads Machenhauer to doubt about perforation of the uterus by the sound unless it can be demonstrated. If, as in his own case, no evidence of a sound can be detected in the uterine wall, the chances are that the suspected perforation was in reality passage of the sound into the Fallopian tube. There is no evidence that the tubes are more patulous in the puerperium than in the non-gravid uterus, and as the uterine walls are certainly softened before involution has set in, it is most likely that when th e sound passes far beyond the limits of the uterine cavity perforation has occurred. The question deserves the con sideration of the obstetrician and the medical jurist for many reasons.

[1] *Centralbl. f. Gynäk.*, May 17th, p. 582.

POPPY CULTIVATION IN INDIA.

THE Society for the Suppression of the Opium Trade in India has recently issued a rejoinder addressed by the Society to the Secretary of State for India on the above subject. The sum and substance of this rejoinder is an accusation that the Governments of Great Britain and India have broken faith. The Society alleges that the Governments have given promises from time to time that the area of the poppy cultivation is to be diminished. To this Lord George Hamilton, the present Secretary of State for India, replies that "he cannot admit that there is any pledge of this kind which is operative at the present time, or binding on the Government of India." Around these apparently opposite statements the battle rages, and it is difficult to find a way out of the difficulty. The misconception seems to have arisen from the fact that owing to an over-supply of opium on the market during the year 1888 the Indian Government limited the area of the cu tivation of the poppy. During the following seven years also, owing to bad seasons and poor fields the production of opium fell off greatly. This diminution was by some interpreted to mean that the Government of India was from humanitarian motives limiting the production of the poppy and the sale of opium. The facts seem to be that the diminution was due to commercial reasons merely; and that as soon as the causes of the limited output ceased the "normal" quantity was produced and exported. The Indian Government determined in 1894-95 that "the area of cultivation be fixed as far as possible to produce 54,000 chests per annum." "This was," the Society says, "a much higher standard than that of the seven preceding years." Yet, in view of the reasons noted above for the diminished output during these seven years, it scarcely appears logical to conclude that the Government has in any way broken faith by fixing a standard based on an average production. Seeing that the net opium revenue has fallen from £6,977,949 in 1889-90 to £2,674,828 in 1899-1900, the Government cannot be held culpable of the infamy of which the Society for the Suppression of the Opium Trade seems to consider it guilty. The real reason for the diminution is admitted by the Society to be increased cultivation of the poppy in China; yet Britain is accused of poisoning China. The high Chinese officials are also stated by the Society to deplore the havoc being wrought in China by opium. It is a fact, however, that many of these would-be humanitarian mandarins are themselves extensive cultivators of opium, and wish by every means in their power to stop the importation of India opium, so that they may have a monopoly of the home-grown (Chinese) article themselves. The same reason urges the mandarin to call aloud for protective tariffs. The Chinese are probably quite able to take care of themselves; but the result will not be that which the Society affects to desire--the suppression of the consumption of opium by the Chinese.

ACETONURIA AND FAT.

THE causes of acetonuria are not very well understood, but until recently it was generally believed that the amount varied directly with the proportion of albuminous food. The correctness of this view has, however, recently been impugned by the researches of Geelmuyden, Waldvogel, Schwartz, and Hagenberg, which all tend to show that its source is more probably to be found in fatty food. Dr. Karl Grube has endeavoured to test the accuracy of this opinion in cases of diabetes with acetonuria, and has

published[1] notes of 7 cases in which the amount of acetone in the urine rose and fell with the quantity of butter or cream in the diet, while it was noticeable that the fat of ham or bacon did not have the same effect and could be used to replace the butter or cream withdrawn from the diet. In view of the probable relation of beta-oxybutyric acid to diabetic coma, these observations suggest the desirability of limiting the amount of butter and cream in the diet of diabetic patients whose urine contains acetone, substituting for it the fat of ham or bacon.

LEPROSY IN THE UNITED STATES.

THE report of a Commission of Surgeons of the Marine Hospital Service, appointed to investigate the origin and prevalence of leprosy in the United States, has recently been presented to Congress. The report shows that there are 278 cases of leprosy in the United States, distributed among the several States as follows: Alabama, 1; California, 24; Florida, 24; Georgia, 1; Illinois, 5; Iowa, 1; Louisiana, 155; Maryland, 1; Massachusetts, 2; Minnesota, 20; Mississippi, 5; Missouri, 5; Montana, 1; Nevada, 1; New York, 7; North Dakota, 16; Oregon, 1; Pennsylvania, 1; South Dakota, 1; Texas, 3; Wisconsin, 3. Of the total number, 176 are males and 102 are females; 145 American born, 120 foreign born, the birthplaces of the remainder being undetermined. Of the 155 cases reported from Louisiana, 101 are in Orleans County and 37 are in the leper home at Iberville. Of the 7 cases in New York, 4 are in King's County and 3 are in New York City. It was stated to the Commission that 186 of the cases were contracted in the United States, but the opinion expressed by the Commission is that some of the cases were imported from abroad. The Commission states that the disease is transmitted from one person to another within the United States, such conveyance being most noticeable in the States on the Gulf Coast. The belief is expressed that the disease is most frequently contracted through inhalation of dust from places inhabited by lepers. Many of the patients are at large. At present only 72 are provided for by the States or cities in which they reside, and many, if not all, of those now at large would be willing to be cared for by the public if proper isolation hospitals existed for their treatment and comfort. The Commission recommends the establishment of a retreat for lepers, and expressed the opinion that it should be in the arid belt of the south-west, or in the similar region further north, or on an island in the Gulf of Mexico, or on the Pacific Coast. The Commission expresses the opinion that the figures given do not represent the total number of lepers in the United States, because the loathsome character of the disease causes persons so affected to conceal the fact as long as possible.

R.A.M.C. MEMORIAL FUND.

WE understand that a proposal has been made to form a fund for perpetuating the memory of distinguished officers of the Royal Army Medical Corps by some memorial to be placed in the headquarters mess or otherwise. Such memorials have in the past been few in number, but it is believed that now, as the Corps is established as such, combined action for the purpose of instituting such memorial, and, in connexion with the same object, of making a historical record of the Army Medical Service since its earliest dates will appeal to the *esprit de corps* of all its officers. The project has the approval of the Director-General, Surgeon-General W. Taylor, C.B., who has issued a circular upon the subject. In this it is pointed out that although the natural centre for this work will in future be the Medical Staff College in London, through which every officer will have to pass more than once in his career, and which from its position in the metropolis will be easily accessible to all, there is nothing to prevent the Committee which should be formed selecting other spots for special memorials, if the locality should have been particularly identified with the career of the officer who is considered worthy of the distinction. In order to carry out the scheme it is suggested that a small annual subscription be given by each officer, say the same amount that is subscribed to the annual dinner and to the band funds. By this means a fund would be accumulated. Should it be necessary to create any large memorial to a specially distinguished officer additional subscriptions might be asked for, while under ordinary circumstances the fund would provide the main standby of the scheme. It is proposed that the fund should be administered by a large and influential committee of the Corps, which would decide questions as to the execution of the object of the scheme.

[1] *Zeitschrift fuer diaetetische und physikalische Therapie*, 1902-1903, Band vi. Heft 2.

THE STUDY OF MEDICAL HISTORY.

IN a note published under this heading in the BRITISH MEDICAL JOURNAL of March 15th some account was given of the provision made in various universities and medical schools for the study of medical history. In reference to that paragraph Docent Dr. Max Neuburger, of Vienna, has called our attention to the omission of any mention of what is being done in Austria and Germany. In regard to Austria, he points out that for half a century lectures on the subject have been delivered in the University of Vienna, first by Professor Romeo Seligmann, and later by Professor Theodor Puschmann, who died about two years ago. Professor Puschmann's chair still remains vacant, but since his death lectures on medical history have been delivered by Dr. von Töply and Dr. Max Neuburger. In Germany Professor Pagel lectures on the subject in the University of Berlin, and Professor Helferich in the University of Würzburg. Dr. Burnside Foster, editor of the *St. Paul Medical Journal*, has also written to point out that for the last five years he has given a course of lectures on medical history to fourth-year students in the University of Minnesota.

THE REGISTRATION OF NURSES IN AMERICA.

THE New York State Nurses' Association is now fully organized, and, at a meeting recently held in Albany, Miss Isabel Merritt was elected President. The Association will now consider seriously the expediency of pressing for legislation making the registration of nurses compulsory. It is intended to place training schools for nurses under the supervision of the regents, establishing thereby a more uniform basis of nursing education in the State, and eventually making nursing a recognized profession. The practical result of registration will, it is held, be the protection of the public against impostors, and a gradual raising of the standard of admission to training schools, with a more carefully prepared curriculum both of theoretical and practical instruction. The nurses of Illinois and New Jersey have already formed an organization for this purpose, and a movement in the same direction has been set on foot in Colorado, North Carolina, Pennsylvania, and Massachusetts.

THE VACANT CORONERSHIPS OF LONDON AND SURREY.

THE late Mr. Braxton Hicks was coroner for the South-Western District of the county of London, and for the Kingston Division of the county of Surrey. The salary of the former was £1,040 per annum, and of the latter a little over £300. Formerly the London district was part of the Surrey one, but when the Local Government Act created the new county of London, the late coroner retained his jurisdiction over the area to which he had previously been elected. With regard to the future it appears that the arrangements to be made for the South-Western District will come before the Control Committee of the London County Council, and we understand that the

Committee will take into consideration the advisability of dividing the district and apportioning each division to an already existing coroner. Should this take place no further election for coroner will be required, but in the meanwhile there are already, we are informed, many candidates in the field. Amongst those who are likely to come forward are Dr. Ambrose (Coroner for Essex), Dr. Bateman (Deputy-Coroner for St. Albans District), Dr. Beardmore, Dr. Bryce, Dr. Freyberger, Dr. Major Greenwood, Dr. Guthrie, Dr. Houchin (Deputy-Coroner for East London), Dr. Bernard O'Connor, Dr. Oddie, Dr. Oswald (Deputy-Coroner West London and the Kingston District of Surrey), Dr. W. R. Smith (late Medical Officer of the London School Board), and Dr. M. H. Taylor (Deputy-Coroner for the South-Western District.) Mr. Hodgkinson, solicitor, and now Coroner for the Eastern District of Middlesex, and Mr. Troutbeck, Coroner for Westminster, are also candidates.

THE MEDICAL SOCIETY'S CONVERSAZIONE.

THE annual conversazione of the Medical Society of London was held at 11, Chandos Street on the evening of May 26th. The rooms of the Society were prettily decorated with palms and flowering plants. The Fellows and the other guests were received by the President, Dr. W. H. Allchin, who was supported by the two Honorary Secretaries, Dr. A. F. Voelcker and Mr. Jonathan Hutchinson, jun. After an interval, which was spent in inspecting an interesting collection of fifty etchings and drawings of London and its vicinity, which had been arranged in an ante-room, and included specimens of the art of Mr. James MacNeill Whistler, Sir F. Seymour Haden, and Turner, the annual oration was delivered by Dr. Stephen Mackenzie on the Power of Natural Resistance or the Personal Factor in Diseases of Microbic Origin. The address, which was listened to with much attention and obvious interest, included reference to the resistance factor in influenza, tuberculosis, rheumatism, and appendicitis. A vote of thanks to the orator was proposed by Dr. Sidney Coupland, seconded in a humorous speech by Mr. Bland-Sutton, and appropriately acknowledged. The rest of the evening was devoted to social intercourse, with smoking and light refreshments. Music was provided by the Bijou orchestra. About 150 Fellows and guests took part in this successful conversazione.

MR. ALBAN DORAN will deliver the Harveian Lectures of the Harveian Society next November. He has chosen for his subject, Uterine Fibroids considered from a Clinical and Surgical Standpoint.

DR. D. C. REES, Senior Government Plague Medical Officer, Cape Colony, and formerly Medical Superintendent of the London School of Tropical Medicine, has been appointed Medical Inspector on the staff of the Medical Officer of Health for Cape Colony.

THE Usher Institute of Public Health will be formally presented to the University of Edinburgh by the donor, Sir John Usher, of Norton and Wells, at a meeting to be held in the theatre of the Institute at 4.30 p.m. on June 11th.

THE Surgeon-General of the United States Marine Hospital Service has commissioned Professor George E. Beyer, Professor of Entomology at Tulane University; Dr. Oliver L. Pothier, of the New Orleans Charity Hospital; and Dr. Parker, of the United States Marine Hospital Service, to make an inquiry into the relation of the mosquito to yellow fever. The Commission, which sailed recently from New Orleans for Vera Cruz, expects to continue its investigations there during the entire summer.

THE Royal Society has made a grant of £600 out of the sum it receives annually from the Government towards the expenses of the Commission which, as we announced last week, is proceeding to Uganda for the purpose of investigating sleeping sickness. It is stated that the disease appears to be spreading eastward to the great lakes.

THE Bowman Lecture of the Ophthalmological Society of the United Kingdom will be delivered by Professor E. E. Fuchs of Vienna on Friday, June 13th, at 4.30 p.m., at 11, Chandos Street, Cavendish Square, W.: and in the evening the members of the Society and their friends will dine together at the Trocadero Restaurant. Dr. David Little, the President, will occupy the chair. Tickets may be obtained from the Secretaries, Dr. Aldren Turner (13, Queen Anne Street, W.), and Mr. S. Stephenson (33, Welbeck Street, W.).

DR. TEMPEST ANDERSON, of York, and Dr. Flett, Assistant in Geology and Lecturer on Petrology in the University of Edinburgh, left Southampton on Wednesday to investigate the effects of the recent volcanic eruptions in the West Indies. Dr. Tempest Anderson will study the topographical results and will take photographs, while Dr. Flett will devote himself to petrological questions. The expedition will first visit St. Vincent to examine the Soufrière, and will afterwards go on to Martinique for the purpose of comparative study. The Government Grant Committee of the Royal Society has voted £300 towards the expenses of the Commission, and the excess will, we believe, be defrayed by Dr. Anderson himself.

WE are informed that Mr. Marsh, alone of the three out-going candidates, intends to offer himself for re-election to the Council of the Royal College of Surgeons of England. As a distinguished Surgeon to St. Bartholomew's Hospital he is sure to be well supported. Besides Mr. Bland-Sutton, Mr. John Hammond Morgan, C.V.O., M.A Oxon., Surgeon to Charing Cross Hospital, is a candidate for election. His Fellowship dates from 1876, his Membership from 1872. He has special claims as representing the Charing Cross Medical School, no member of which is on the Council, and as Examiner in Surgery to the University of Oxford. Mr. Morgan will no doubt receive strong support, as he is personally popular and is professionally well known for his work in the surgery of the urinary tract.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

Vaccination.—On Tuesday evening, on the vote for the salaries and expenses of the Local Government Board, some interesting questions were raised. Mr. Broadhurst (Leicester) was anxious that the Board should lay down further regulations as to the charges for vaccination, and should prevent wealthy persons from throwing the charge for vaccination on the rates. In reply, Mr. Long said that when the last Vaccination Act was passed there was no special experience as to how it would work, and he thought it quite possible that he might have to reconsider certain payments in connexion with vaccination; the matter was, in fact, under the consideration of the Board at the present time. Mr. Bayley (Derbyshire, Chesterfield) asked for further information as to Dr. Monckton Copeman's experiments, which he described as having consisted in taking virus from a small-pox patient to inoculate monkeys and afterwards vaccinating children with lymph taken from the monkeys. He had no doubt that the lymph was issued with the Government guarantee that it was pure vaccine, and

he wished to know whether the parents of the children had been asked to give permission for these experiments, and where the children resided. Mr. Long said that the experiments had had nothing to do with the Government lymph, and that he had already fully explained that the experiments made by Dr. Copeman had nothing to do with the department. Many scientific men were employed by Government departments, and some of these gentlemen conducted for the public benefit experiments on their own account. He was assured that in this instance the experiments as to the production of lymph—not, indeed, in the remarkable manner suggested by Mr. Bayley—were of the highest scientific value. The lymph was not conveyed directly to the human being, but was passed through the calf. He could not say where the children resided, but he assumed that the parents knew that Dr. Copeman vaccinated himself first with the lymph and satisfied himself that it was not likely to produce injury.

The Conscientious Objector.—Mr. Broadhurst was also anxious that the Local Government Board should send a circular to magistrates calling their attention to the fact that they had no right to cross-examine persons who declared in Court that they had a conscientious objection to vaccination on the ground that it was detrimental to the health of their children. Mr. Long said that the Home Office had never issued circulars telling magistrates how to administer the law, and added that he could not take so novel and undesirable a course.

Barrack Schools.—In the course of the same discussion Mr. Flower expressed the opinion that the Local Government Board had embarked upon an unwise policy with regard to children under the Poor Law; although the barrack-school system was to be discontinued there was a dangerous tendency on the part of the Board to sanction the erection of large and costly buildings for Poor-law children. He regarded the "village communities" as nothing more or less than the revival of the condemned barrack schools under another name; they were large communities in which the children lived together and differed altogether from the "cottage-home" system under which the children were distributed among ordinary homes, each living as a member of the family and associating in school and at play with the other children of the locality. Mr. Long said that the difficulty was to find homes for the children, and added the opinion that the barrack-school system possessed certain advantages as was shown by the results. It was not possible to force on Boards of Guardians a new system until it was proved that the old system had broken down. The Local Government Board therefore was not departing from the rules laid down by his predecessor, and nothing would be done to encourage large collections of children in new schools.

Rabies and the Muzzling Order. The discussion on the salary of the President of the Board of Agriculture ranged over nearly as wide fields as the industry which he represents, and touched several points of medical interest. Muzzled dogs, as usual, came in for more than their fair share of popular sympathy, and Colonel Lockwood made a good-humoured if audacious attempt to gain exemption for the pets of his fair clients. But Mr. Hanbury, in reply, told the House that the conditions under which partial relaxation of the restrictions were occasionally allowed had been flagrantly violated, and that the mere certificate of a foreign veterinary surgeon could have little real bearing on a disease of long incubation like hydrophobia. The long retention of the muzzling order in certain districts, which he much regretted, was due to the lingering of the disease, owing perhaps to the difficulty of enforcing the Order strictly in sparsely populated districts. He was not in favour of exemption even for sheep dogs, and in the event of an outbreak of rabies would not hesitate to issue a muzzling order without exemptions of any kind, for no loophole should be left for the spread of a disease so terrible as rabies. The country was now free from the disease, with the exception of Carmarthen and of districts around Plymouth. He added the welcome suggestion that instead of adding to the cases for exceptional legislation, he was rather more inclined to abolish them altogether, and to make all members of the canine fraternity equal in the eyes of the law, thus not only rigidly enforcing but even extending the excellent regulations so persistently and bravely carried out by his predecessor, Mr. Long, in face of much opposition and abuse, which have been so brilliantly successful.

Swine Fever and Foot and Mouth Disease.—Mr. Lambert, who introduced the subject of anthrax, lamented its increase, and gave one crucial instance somewhat on the lines of Pasteur's classical observations where crass and dogged ignorance had sacrificed some human lives. Mr. Hanbury, whilst confirming the somewhat defiant lack of knowledge which prevailed, hoped to remove it in part by sowing the country districts with leaflets and invoking the aid of local associations and the Press. Further, in response to a suggestion by Dr. Farquharson, he agreed to consult his scientific advisers as to the alleged superior merits of cremation as against burial in quicklime when dealing with the carcasses of animals suffering from this virulent malady. It is satisfactory to note that there is substantial diminution in swine fever, but surely it is something of an opprobrium to veterinarians that on an average £38,000 a year is spent in vain efforts to stamp out this pest. Some members were in doubt whether it might not spring up spontaneously, but Mr. Hanbury was most emphatic in stating that his professional advisers gave no encouragement to this idea, which is, however, widely prevalent among farmers, who believe that outbreaks are due to the use of particular kinds of pig wash. Whilst repudiating, however, the full extent of his inference, the President was bound to admit that occasional and sudden upblazes of a smouldering focus of infection had apparently followed the unrestricted appearance of this special form of dietary on the victim's *menu*. The general impression left by the debate was that we are still groping in the dark, and that what Mr. John Ellis once called "a stream of facts," must flow from the scientific to the lay mind. It is satisfactory to note that Mr. Hanbury is fully alive to the necessity for more study and experiment to guide him and his staff towards some effective means of coping with one of the black spots in our agricultural life. Finally there was some talk about foot-and-mouth disease, and doubts were expressed whether the recent outbreaks in Canterbury and Guernsey which have caused Argentina to close her ports against us are true examples of the disease. It was also asked how cattle came to be affected in the Channel Islands, where importation is strictly prohibited. We await with some interest the explanation of this mysterious occurrence.

Milk and Butter.—Sir Edward Strachey drew attention in the same discussion to the present working of the Food and Drugs Act, 1899, on the ground mainly that a great deal of milk was now being sold in London to which a large quantity of separated milk had been added; the fluid was afterwards coloured to give the impression that it was full of cream. There were also complaints that a great deal of butter adulterated with margarine was being sold. The subject of "milk-blended" butter was also mentioned by Mr. Wharton. Mr. Hanbury, in reply, said that in certain parts of the country the Act had not been efficiently carried out. The Act was comparatively new, but if local authorities did not use their powers, he was not unwilling to use those of the Board of Agriculture to protect consumers from adulteration, and in the interests of honest traders. He was opposed to the use of preservatives for butter and milk, and was able to say that the milk standard was working well; it was true that it was a low standard, but he saw no possibility of raising it at present.

Uncertified Deaths in Scotland. The Lord Advocate has informed Mr. Weir that the number of uncertified deaths in 1900 in each of the Highland crofting counties was as follows: Shetland 224, Orkney 80, Caithness 51, Sutherland 104, Ross and Cromarty 420, Inverness 425, and Argyll 175. He added that the number of interments without the production of a medical certificate could not be ascertained without special legislation, which he was not prepared to promise.

THE NEW CHAIR OF PUBLIC HEALTH IN THE UNIVERSITY OF EDINBURGH.

THE inaugural address in connexion with the new Chair of Public Health and Sanitary Science in the University of Edinburgh was given on May 22nd in the Materia Medica Class Room. In the absence of the Vice-Chancellor, the DEAN OF THE FACULTY OF MEDICINE (Professor A. R. Simpson) presided. Several members of the Medical Faculty accompanied the first Professor of Public Health (Dr. Hunter Stewart) to the rostrum, and there was a large attendance of students. The Dean briefly introduced the new Professor, who referred to the foundation of the Chair as having been due in the first instance to the initiation and beneficence (he left £5,000) of Mr. A. L. Bruce (a personal friend of M. Pasteur), and later to the beneficence of Mrs. Bruce and her family, and of Messrs. William Younger and Co., and finally to Sir John Usher, who completed the endowment by the generous gift of £8,000.

Professor HUNTER STEWART then gave a brief survey of the development of the science of preventive medicine, and inquired what share the Edinburgh School had had in that development. Two hundred years ago medical science was directed entirely to the cure of disease. Its study had certainly shared in the great revival consequent on the appearance of the *Novum Organum*, so soon to be followed by the works of Harvey, Boyle, and Sydenham, but the great impulse, amounting almost to a re-creation, which the study of medicine received from Sydenham was entirely on its curative side. The idea of prevention of epidemics appeared to be excluded from Sydenham's views. The next great agency in preparing the way for the birth of preventive medicine was the teaching of Boerhaave at Leyden, which exerted a great influence on medical science in Great Britain during the first half of the eighteenth century and beyond it. Boerhaave was a pupil of Pitcairn, one of the first professors of medicine in Edinburgh University, when that distinguished man was a Professor of Medicine in the University of Leyden. The writings of Richard Mead, another pupil of Pitcairn, were in many points much in advance of Sydenham. In his essay on poisons, he distinguished between the action of such poisons as carbonic acid and laurel water and that of the poison in hydrophobia. In the former the action was immediate while in the other it was delayed for days. The existence of a latent period in certain diseases was still further demonstrated when inoculation against small-pox was introduced in 1722, as here the time that elapsed between the inoculation and the appearance of the local and constitutional symptoms could be carefully observed. Mead, in his essay on small-pox, pointed out that the Chinese inoculated in the inside of the nostrils, and that this method was attended with symptoms of great severity, a point of some interest at the present day, as the inoculation of the bacillus of plague inside the nostril of an animal had been followed as a means of exalting the virulence of that micro-organism. The works referred to might be taken to represent the high-water mark of medical thought on disease and its prevention during the later half of the seventeenth and the earlier half of the eighteenth centuries. Though he had taken Sydenham as the representative of the former, it would be wrong to suppose that his views were generally received at once; their influence was, indeed, most felt in the next century. On the other hand, the views of Boerhaave, Mead, and Huxham met with early acceptance, though they continued to exert great influence in the second half of the eighteenth century. Briefly stated, at the middle of the eighteenth century Sydenham's doctrine of epidemic constitution continued to oppose itself to any idea of preventive measures. The conception of contagion was still quite vague; by some it was considered as probably self-propagative, having analogies with yeast; while others—and that the greater number—looked upon it as a volatile saline substance, the result of putrefaction either inside the body or outside of it. In 1731 there began to be published the *Medical Essays and Observations*, by a Society in Edinburgh, which contained an account of accurate daily meteorological observations, together with the diseases that had been observed in and around the metropolis by the members of the Society. The troubles in connexion with the Jacobite rebellion of 1745 caused a temporary suspension of the work of the Society, which, however, was resumed in quieter times, and the Association itself became the Royal Society of Edinburgh. The work of Blane in the Navy was referred to as complementary to the work of Lind. In 1796, the year after Blane's appointment to the Medical Board of the Navy, lemon juice was ordered to be used as an anti-scorbutic. This was forty years after Lind had shown the urgent necessity for it. By his subsequent writings on the comparative health of the Navy and of the population of England at different periods, he almost founded a new branch of professional teaching; and his whole work led Simon to consider him worthy to be ranked along with Mead, Pringle, and Lind, as one of the most effective of the early promoters of preventive medicine. Among the pioneers of hospital isolation the chief place belonged to John Haygarth, who studied medicine in Edinburgh for two years, and, like his friend Dr. Percival, had been greatly influenced by Cullen and the other teachers of the Edinburgh School. His work was chiefly done as a practitioner in Chester, and in close relation with his friend Percival in Manchester and Currie in Liverpool—all Edinburgh students, and all deeply interested in the question of preventive medicine. In 1784 he published his *Inquiry how to prevent the Small-pox*, in which is combated the idea that during epidemics of small-pox the whole atmosphere was contaminated, and insisted that the great means of spread was contact with the sick or with articles which had been directly infected by the sick, and that the distance at which the sick could infect the sound was relatively small. The provision of an isolation room in boarding schools, which was considered to be quite a modern idea, was insisted on by Haygarth more than a hundred years ago; but Haygarth's rules to prevent infective fevers had been but little improved up to the present time. They included payment for early notification of cases among the poor, removal to hospital of the patient in a conveyance reserved for the purpose, and specially constructed so as to be readily cleansed, and cleansing and disinfecting of the rooms from which the patient was removed, and also the washing of infected clothes. Haygarth's work was most laborious, and it was not too much to say of him and his associates that they were the first to show how infectious diseases could best be prevented in a general community. In the first half of the nineteenth century, but specially in the later half, discoveries were made which opened up new lines of investigation, and led, in the hands of Pasteur and others, to applications of the preventive method that had not been dreamed of before. The nineteenth century, that opened with the introduction of vaccination against small-pox, had seen a great advance in the department of preventive medicine; still it was fitting that we should recall the great work done in the eighteenth century by those who laid the foundations of this branch of medical science.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE nineteenth annual meeting of this Society was held at 11, Chandos Street, W., on May 15th, under the presidency of Dr. DE HAVILLAND HALL, Chairman of the Executive Committee, who said that the new business had been exceedingly good. There had been 133 proposals against 114 in the previous year, and 28 proposals for additional benefits against 22. Though the members had increased the sickness claims had been fewer than in the previous year—£7,829 10s. as against £8,250. In the annuity fund there was a small increase, and a small decrease in the life assurance fund. As the members were aware, the Society was doing no further business in these two branches, but the Rock Life Assurance Co. allowed a rebate of 5 per cent. to members of the Society who effected assurances with them. He thought that taking out in this or some other life assurance company an annuity payable at the age of 65 was a preferable way of meeting a difficulty rather than extending their sickness limit beyond the age of 65, as had been suggested; an annuity payable at 65 would be a certainty, whereas sickness allowances after that age must necessarily be altogether uncertain. During the year the management expenses had been less than 5 per cent. of the premium income as against 10 per cent. which was

allowed by the rules. Over £1,000 had been put by for the Management Reserve Fund, and the large increase of £1,346 4s. 6d. had been made in the investment Reserve Fund, which now stood at £7,979 9s. 3d. The total funds of the Society had also grown considerably, namely, from £143,552 11s. 3d. to £154,353 17s. 3d., an increase during the past twelve months of upwards of £10,000. The votes of the Society in connexion with the Royal Medical Benevolent College had this year been given to Gerald MacNaught, the son of a deceased member. He had great pleasure in announcing that Sir William Church, President of the Royal College of Physicians, had consented to act as arbitrator should they elect him. The BRITISH MEDICAL JOURNAL and the *Medical Press and Circular*, as in past years, had given them most valuable assistance, and the *Medical Examiner*, under the editorship of the Secretary had also been of service in making known the advantages of the Society. The record of Committee attendances would show how well the affairs of the Society were looked after by the members of the Committee. In Mr. Harber, who he was glad to see was present, the Society had an excellent man of business, and he felt that as long as he audited the accounts the financial condition of the Society would be well looked after; lastly he wished to express, on behalf of the Committee, their high appreciation of the manner in which the secretarial work had been done.

A motion proposed by Dr. R. J. BRYDEN and seconded by Dr. N. BATEMAN that the report of the Committee and the audited accounts for the year ending 31st, 1901, be received and adopted, was carried, and the officers for the ensuing year were elected.

Dr. ST. C. B. SHADWELL proposed a vote of thanks to the Chairman. As a member of the Executive Committee for one year, he had had the pleasure of seeing the way in which Dr. Hall had conducted the business at the monthly meetings and he was sure that every member of the Society must feel much obliged to Dr. Hall for what he had done, and be pleased on that occasion to express their confidence in him and thank him for the trouble he had taken.

Mr. BRINDLEY JAMES, in seconding the motion, spoke of the valuable help and assistance which Dr. Hall had rendered to the Society. The motion was carried with acclamation, and suitably acknowledged by the CHAIRMAN.

THE REGISTRATION OF SICK NURSES.

THE schemes and proposals for the registration of sick nurses demand most serious consideration by the medical profession. The subject is one of such vital importance, in which so many interests are involved, which is so complicated, and bristles with so many difficulties, that it is well to attempt a general survey of the present position.

THE TRAINING OF NURSES.

The growth of the trained nurse is of such recent date that this generation is fully acquainted with the general process by which she has reached the present phase of her evolution. As in the case of so many English institutions, each stage has been determined by the necessities of the moment and not by rule or system. The result is a lack of organization and control. The profession of nursing was quickly seized on by women as offering an honourable and remunerative employment. All ranks pressed into its service; from being the work of the uneducated and ignorant it became the occupation of the well-born and cultivated. With the advent of the gentlewoman came the corresponding improvement in the course of instruction, an improvement which was made necessary and at the same time possible by the immense advances in medicine and surgery. The probationer in preparing for her certificate is now required not only to make herself acquainted with the practical duties of a nurse, but to learn some elementary anatomy, physiology, and hygiene. Her progress in this theoretical knowledge is tested from time to time by examinations conducted in the nursing school. There is still a wide difference of opinion as to the amount of theory to be included in the course. Some of the teachers, with a zeal which has outrun discretion, have so assimilated their lectures for nurses to those for medical students that their pupils may almost be excused if they have shown a disposition to act as though held responsible for treatment, or have used their imperfect knowledge to criticize the line of treatment adopted by the medical attendant. It is partly to this misdirected energy that we owe our present perplexities; we have at times to deal with a hybrid race, neither doctor nor nurse.

When we review the varied conditions under which women acquire their training, in the well-appointed hospitals of the metropolis or of the advanced provincial town, or in the small hospital of 100 or less beds, in the workhouse infirmary, or in the nursing home, all of which profess to train and certify the nurse, we cannot wonder that the results are unequal. There is no central authority to decide what is to be taught or how it is to be taught; there is no independent examining body to distinguish one certificate from another. Many are valueless in themselves, and yet are potent for evil both to the public and the so-called nurse. As the number of those who seek admission into the recognized training schools is out of all proportion to the number of vacancies, the disappointed ones, not discriminating between school and school, may find a refuge in the wards of a small hospital, or among the private patients in a nursing home, and then go forth to compete with the fully-trained nurse.

THE ROYAL BRITISH NURSES' ASSOCIATION.

Efforts have been made in the past to organize nurses, the most notable being that which brought into existence the Royal British Nurses' Association, an association of trained nurses and medical men having for its object the registration of the nurse members, and the improvement of their condition and status.

It was founded in 1887 by a few matrons who had been endeavouring by means of the Hospitals Association to arrive at a working basis on this question. Shortly after it was founded, H.R.H. the Princess Christian became President, and during its first deliberations was most diligent in watching the progress of events. The registration of trained nurses was put in the forefront of its objects, together with schemes "for the purposes of the improvement of the profession of nurses and of the promotion of their efficiency and usefulness, and of assisting them with various benevolent schemes." There was much difference of opinion as to admitting members of the medical profession to membership, the alternative proposition being to form an advisory and consultative group; in the end, those who opposed medical membership were out-voted. Those who questioned the wisdom of admitting the medical profession to membership of the Association felt that in so doing they were consulting the best interest of the nurses. It is a well-known fact that when men and women meet on any consultative body, the women rarely take their full share in the consultation, and, bearing in mind the relative positions of doctor and nurse, it was thought that free discussion among the rank and file would be impossible. The result seems to have proved that these fears were well grounded. The reports of the proceedings of the Association show that the conduct of affairs is largely in the hands of the medical members, the medical Secretary presents the report, most of the speeches are made by the same members, the discussion on the Midwives Bill is conducted by the doctors; the nurses are practically silent. Whilst admitting that the medical members were actuated by the single desire to promote the interests of the nurses by thus joining hands with them, it seems that their position on the Council has had the effect of putting the nurses out of the active management of their own affairs.

The government of the Association is in the hands of the Council; this body consists of the honorary officers, 19 *ex officio* matrons, and 90 elected members (30 medical men, 30 matrons and superintendents of nurses, and 30 sisters and nurses). The Council is elected by the members at the annual meeting by means of voting papers, containing a list suggested by the Executive Committee; this latter body conducts the business of the Association, and is nominated by the Council. It consists of 30 members, in equal proportions. In about two years, or perhaps less, after the founding of the Association, a *Register* was opened on which free registration was offered to all the existing members; a fee of 10s. 6d. was charged to all outside the Association who might wish to

register. This *Register* was printed and sold by the Association.

We are informed that the opinion of many on the Executive Committee was that the question of registration was forced on before the principle was understood or accepted; but the progressive and impetuous section bore down all opposition. When the charter was granted in 1893 the *Register* ceased to be called a *Register*; it was called instead a *List*: nurses who wish to be placed on the *List* being required to become members of the Association. The conditions are the same as those drafted for the original register—three years' training in a recognized hospital or infirmary, of which not less than a year is to be spent in a general hospital of 40 or more beds." The Registration Board, formed by direction of the charter, and the Executive Committee has power to remove the name of any nurse from the *List* when, after due inquiry and opportunity given to the nurse to appear in person, or by an agent, the governing body is satisfied of her unworthiness. The nurse has the right of appeal to the Council at its next meeting. The roll of membership includes a very small section of the whole body of nurses, and the *List* has not found general acceptance with them.

The Matrons' Council.

The Matrons' Council was the result of a cleavage in the Royal British Nurses' Association during a stormy period of its existence. It is not necessary for our purpose to go into the merits of the quarrel; the history of the Association affords evidence that it was not a peaceful body, and that it has not won the confidence of the nurses at large. The object of the Matrons' Council of Great Britain and Ireland, to give its full title, "was to enable members to take counsel together on matters affecting their profession; to bring about a uniform system of education, examination, certification, and State registration, and to hold conferences to discuss subjects of professional and general interest." The results of these discussions are, as occasion offers, cast into resolutions which are forwarded to the authority it is hoped to influence or educate. Membership is open to past or present matrons of hospitals or infirmaries, and all trained superintendents of nursing institutions. It meets at St. Bartholomew's Hospital, the matron of which is the President, and the governing body consists of three Vice-Chairmen and four Councillors.

At the annual meeting held on January 30th this year, the subjects discussed were: Nursing in the navy, the Midwives Bill, and the formation of a society of trained nurses to advocate compulsory registration. The list of matrons who are members does not include any of the representatives of the large nurse-training schools of London, with the exception of St. Bartholomew's Hospital.

The Observation Committee.

The Observation Committee, founded about the same time as the Royal British Nurses' Association, was a representative committee, and any hospital which joined it sent a lay member of the governing body, one of the medical staff, and the matron to occupy seats on it. Its objects were to watch the movements then taking place among the nurses, but its existence was shortlived, for in 1893 or 1894 it seems to have come to an end. This is to be regretted. It was a carefully composed and representative body, and through it the matrons might have been able to make their influence felt. The question of registration, however, is after all not the chief concern of the hospitals, though it is a pity that great training schools should meet it with "*non possumus*."

Sectional Committee on Nursing.

Another body called the Sectional Committee on Nursing meets at the Midwives' Institute, where nurses are able to discuss questions of interest in them.

Society for the State Registration of Trained Nurses.

It is thus made evident that hitherto all attempts towards registration are purely voluntary. A Society for the State Registration of Trained Nurses has recently been formed by the Matrons' Council; its object is to promote a Bill in Parliament to provide for the legal registration of trained nurses, and a public meeting has been called at Morley Hall, George Street, Hanover Square, on May 30th.

Directories.

In addition to the *List* of the Royal British Nurses' Association, an *Official Directory* is published by Sir Henry Burdett, whose connexion with the National Pension Fund places him in communication with a large number of nurses, and a *Nursing Directory* is issued under the direction of the Matrons' Council. None of these directories, however, is complete, and it is certain that none of the proprietors can exercise any effective supervision over the names placed on the lists.

Periodicals.

Nurses' opinions are represented by the *Nurses' Journal* (monthly), the organ of the Royal British Nurses' Association; *Nursing Notes* (monthly), the organ of the Midwives' Institute, workhouse nursing, massage, and general nursing; the *Nursing Record* (weekly), the organ of the Matrons' Council, and the *Nursing Mirror* (weekly), being the nursing section of the *Hospital*.

We have said enough to show how chaotic is the present state of nursing. It is to be hoped that some sort of order and organization may before long be evolved from this chaos; such evolution would be of great benefit not to the nursing world alone, but to the public generally, and to the profession of medicine in particular.

THE ASSOCIATION OF ASYLUM WORKERS.

The annual meeting of this useful Association, founded in 1895 to improve the status of asylum nurses and attendants, and thereby to secure more adequate care for insane patients, was held at the rooms of the Medical Society of London, on May 22nd, under the presidency of Sir James Crichton-Browne. There was a large and influential attendance, including many medical officers and chaplains of asylums, and a good representation of the rank and file in asylum service. Dr. Sidney Coupland, one of the Lunacy Commissioners, and Mr. Prout Webb, K.C., who is investigating lunacy arrangements for our Australian Colonies, were also present. The appointment of the president, vice-president, executive committee and officers having been made for the ensuing year, the annual report for 1901 was presented by the honorary secretary (Dr. Shuttleworth). The satisfactory increase in the number of members, from 2,868 in 1900 to 4,116 in 1901, was noted, and the plan of local organization recently adopted credited with this rapid expansion of the Association. It was claimed that *Asylum News*, the monthly journal of the Association, exercised a wholesome influence both educationally and socially amongst asylum workers, and its popularity was evidenced by the ready assent that had been given to an increase of subscription in order to maintain it in its present extended form.

The President, in an interesting address, made a point of the value of cultivating a taste for literature and of the jaded mind of the asylum worker being refreshed by judicious novel-reading, the novels to be preferred for such recreative purposes being those "entirely free from insanity and idiocy, a proviso that would, perhaps, exclude most modern works." The importance of assured and adequate superannuation allowances for workers in public asylums was insisted on from the point of view of the benefit which would accrue therefrom to the interests of the insane, and of a true economy in asylum administration. The treatment under private care of certain incipient cases of insanity was referred to with approval, and it was pointed out how much the success of such treatment depended on the proper training and qualifications of the nurses employed. It was with a view of promoting such training and encouraging asylum workers to equip themselves for any professional calls which might be made upon them that this Association was established, and the President strongly urged that in these days "mental nurses should be learned in all the wisdom of the hospital nurse, and should add to it a special insight and dexterity of their own." He concluded by moving the adoption of the annual report.

Dr. Hyslop having seconded the adoption of the report, together with a code of rules which had been submitted, and the motion having been accepted unanimously, the business of the meeting concluded by the distribution of medals awarded by the Association for long and meritorious asylum

service. The recipients of the two gold medals were Mr. W. Hope, now inspector at Colney Hatch Asylum, after thirty-six and a-half years' service, and Miss M. Riches, now head nurse at Heigham Hall, Norwich, after thirty-five and a half years' service; and of the two silver medals, Mr. C. Walker, charge attendant at Caterham Asylum (twenty-eight and a-quarter years), and Miss A. Garry, now chief nurse, Gloucester County Asylum (twenty-eight and a-half years' service).

On the motion of Dr. Oscar Woods, President of the Medico-Psychological Association, a hearty vote of thanks was accorded to Sir James Crichton-Browne for his address.

THE MIDWIVES BILL.

We learn from the *Midland Medical Journal* that the following objections to the Midwives Bill have been prepared by the Executive Committee of the Birmingham and District General Medical Practitioners' Union:

1. The Bill does not provide any remedy for the existing evils on which legislation is founded—namely, the dirty and ignorant midwife, who will still exist and will not be penalized.
2. In the formation of the Midwives Board, representatives from different parts of England and Wales should be chosen, because the conditions of practice of midwives are not the same in different parts of the country.
3. The General Medical Council, which is the governing body of the medical profession, ought to have control of the Midwives Board.
4. The midwife is not put under the control of the local county councils; the system of local licensing should be reintroduced as in the Bill of 1900.
5. No statutory right should be given to the certificates of the Obstetrical Society to entitle the holders thereof to registration. The practices of many of the holders of this certificate have not been conducive to the public welfare.
6. It is retrogressive legislation, and repeals the Medical Act of 1886 by legalizing an inferior order of medical practitioners.

The medical men in the Small Heath Ward have sent a petition to the Right Hon. Jesse Collings, M.P., praying him to give voice to the above objections when the Bill comes on for report.

THE EPIDEMIC OF SMALL-POX.

A "Scheme" to Recover Vaccination Fees.

Still another Board of Guardians seems determined to advertise its incapacity to get outside the four corners of the Poor Law, even when engaged in the administration of an Act of Parliament which has no kind of relationship thereto.

At a recent meeting of the South Stoneham Guardians Mr. P. B. Hayward is reported as having expressed the opinion "that some steps should be taken in order to show up people who had been revaccinated at the public expense when they were well able to pay for it. He had heard that some Boards had decided to publish in their half-yearly returns the names of persons who had been so vaccinated..... He asked the clerk whether they would be justified in adopting the course he had suggested. The clerk replied in the affirmative, and Mr. Hayward moved that the names of persons who had been revaccinated at the public expense during the last six months be published in the Board's report." This was duly seconded, and then the Rev. G. Hughes said that the people had been revaccinated for the public safety, and that it was unfair to publish their names as if they were coming on the rates; and Mr. Morton thought that there was reason to be thankful that so many people had been revaccinated. Mr. Wood, however, held that many people who could well afford to pay would be ashamed to see their names on the list; and Mr. Hayward's motion was carried by 11 votes to 7.

That a man should pay rates, and, simply because he has the means, should besides pay in the case of himself and his family for the very service which is the subject of rating, is not logical. Many a person who pays a road rate and a water rate and a police rate could also quite well afford to maintain the highway in front of his own property, and to procure a private water supply, or police protection, or other public service provided in civilized communities, and charged for by way of assessment. No reasonable being, however, would expect him to do so, and why the protection of the individual and the public against the spread of small-pox should be placed in a different category is not clear.

As we pointed out last week with reference to the Isle of Wight guardians, if a man who pays the education rate chooses in addition to educate his children at his own private cost, that is well and good. But if he prefers to send them to a Board school no one has any right to complain, and an attempt by the School Board to attach a public stigma to such conduct would be utterly indefensible.

The action of the South Stoneham Guardians is indeed another illustration of the desirability of vaccination administration being taken entirely out of the hands of the Poor-law authorities. What exactly may be the legal value of the ruling of the clerk to the South Stoneham Guardians we do not pretend to say, but the advertising of the names in question, if it be intended to suggest that the acceptance of public vaccination is at all equivalent to pauperization, seems to us rather a doubtful proceeding.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of the Society was held at 11, Chandos Street, on May 21st, at 5 p.m., the President (Mr. Christopher Heath), in the chair. From the report read by the Secretary it appeared that 35 new members were elected during 1901, 14 had died and 2 elections had been declared void, 299 members were on the books at the end of the year, an increase of 19. Six fresh applications for grants had been received from widows and grants given, 2 had died, leaving 51 widows in receipt of grants. Three orphans had been elected, 2 had become ineligible, 14 still remained for assistance. The receipts available for grants and expenses had been £3,409 7s. 6d., and the grants and expenses £3,397 6s. 2d. A donation of £200 had been received from the executors of Miss C. A. Birch. During the year Mr. J. R. Upton resigned the office of honorary solicitor, which had been successively held by his father and grandfather. The directors passed a cordial vote of thanks to Mr. Upton for his long and valuable services, and since had heard of his death with great regret.

Mr. H. G. Gudor was elected an honorary member. Mr. Gudor's family have acted as brokers since the foundation of the Society, and had always given their services gratis.

A vote of thanks to the editors of the medical journals for their ready help in making known the objects of the Society was passed.

The following were elected to fill the vacancies in the Court of Directors: Mr. Debenham, Mr. Crozier, Dr. Constable, Dr. Pope, Dr. de H. Hall, Mr. Canton, Dr. Crabb, Mr. Kiallmark, and Dr. Scanes Spicer.

A letter was read from Dr. Robert Barnes enclosing a donation of £100, and a cordial vote of thanks was accorded him.

A vote of thanks to the Chairman closed the business of the meeting.

CONTRACT MEDICAL PRACTICE.

Birmingham District.

We learn from the *Midland Medical Journal* that the following notice has been issued to medical practitioners in the Birmingham District:

The Birmingham and District General Medical Practitioners' Union emphatically condemns the canvassing which is reported to be still going on in the district in connexion with various medical aid associations and private medical clubs; it desires to draw the attention of medical practitioners generally to the fact that the General Medical Council has passed a resolution strongly disapproving of such canvassing; and the Council of the Union recommends all medical practitioners in Birmingham and district to refuse to accept new members of medical aid clubs, and invites each medical practitioner to state in writing (on the enclosed postcard) whether he agrees to have the recommendation carried out.

THE PLAGUE.

Prevalence of the Disease.

India.

During the week ending May 3rd the deaths from plague in India numbered 15,748, against 17,302 in the week preceding. In the City of Bombay the deaths during the week ending May 3rd amounted to 486 against 580 during the week ending April 26th. Although declining, plague is not disappearing so rapidly as in former years, and the week in question shows 75 more deaths than during the corresponding week of 1901.

In the Bombay Provinces, exclusive of the city itself, the decline is more

marked, 930 persons only dying of plague during the week ending May 3rd, compared with 1,673 during the previous week.

In Calcutta the deaths from plague during the week ending May 3rd numbered 441, against 577 during the week ending April 26th; in Bengal Districts 473, against 553; in the North-West Provinces and Oudh, 718, against 806; in the Punjab 12,334, against 12,311.

In all the great districts where plague prevails there is a decrease in the deaths from the scourge, except in the Punjab; here, however, the increase is confined to one district only—namely, Gujranwala. The most seriously affected districts are Jullundur, 868 deaths during the week ending May 3rd; Sialkot, 2,011 deaths; Ludhiana, 2,942; Lahore, 467; Umballa, 905; Ferozepur, 613; Patiala, 1,796; Nabha, 729 deaths.

CAPE OF GOOD HOPE.

At Port Elizabeth alone are cases of plague met with in South Africa. During the week ending May 3rd no fresh cases of plague occurred there, nor were there any deaths from the disease. Six persons, 5 of them European (4 men, 1 woman) remained under treatment in the Plague Hospital at Port Elizabeth. No "contacts" or "suspects" were under observation on May 3rd.

The total cases to date amounted to 889, the deaths to 427, giving a rate of mortality per cent. of 48.

HONG KONG.

During the week ending May 17th 31 fresh cases of plague occurred in Hong Kong, against 24 during the previous week. The deaths from plague numbered 34, against 10 during the previous week. The returns so far show a marked diminution, compared with previous years. Keen and strict attention is being paid to every precautionary detail against plague in Hong Kong, and under the alert supervision of Dr. Clark, the Medical Officer of Health, and Professor Simpson it is to be hoped a means of limiting the serious nature of the epidemics in Hong Kong will be devised.

MADAGASCAR.

A telegram dated Paris, May 27th, announces that 8 cases of plague have occurred at Mojunga. Since May 19th 4 deaths have occurred there. The neighbouring ports have been informed of the outbreak of the disease in Madagascar.

LITERARY NOTES.

THE May number of the *Appointments Gazette* issued by the Cambridge University Appointments Board has just reached us, and we expected to find in it some discussion of the effect of recent changes on the Royal Army Medical Corps as a career. In this, however, we have been disappointed. We hope that such an article may appear in an early number of the *Gazette*, as it would be interesting and instructive to know the impression which has been produced in Cambridge.

The Colorado State Medical Society offers a prize of 25 dollars (£5) for the best essay on the dangers of self-drugging with proprietary medicines. The essay is intended for circulation among the laity. The competition is open to all. Essays which must be typewritten in the English language, must contain not more than 3,000 words, and must be submitted before June 15th, 1902. Each essay must be designated by a motto, and accompanied by a sealed envelope, bearing the same motto, and enclosing the name and address of the author. Essays should be sent to the Literature Committee, Dr. C. A. Graham, Secretary, Stedman Block, Denver, Colorado.

A German translation by Dr. Wallach of Dr. Mott's *Lectures on the Pathology of the Nervous System* has been issued by J. F. Bergmann, of Wiesbaden. Professor L. Edinger, of Frankfort-on-the-Main, contributes an appreciative "foreword." The lectures were delivered before the Royal College of Physicians of London on June 19th, 21st, 26th, 28th, 1900, and published in the BRITISH MEDICAL JOURNAL of June 23rd and 30th, and July 7th and 14th of the same year.

At a meeting of the New York Academy of Medicine, held about a year ago, Dr. Charles L. Dana, one of the Vice-Presidents, presented a series of photographs of the statues and temples of Aesculapius, the divine patron among the Greeks of Medicine and Healing. Some time ago he was asked where a copy of the portrait of Aesculapius could be found. His interest in the subject was thus aroused, and resulted in the collection presented to the Academy. It included photographs of all the types in which artists had created Aesculapius's features. The best statue of Aesculapius from an artistic standpoint was found in Melos, not far from where the statue of the Venus de Milo was unearthed. This, he said, deserved to be called the Aesculapius de Milo, and was of the very best art. If not Phidian, it was the creation of a disciple who was very near Phidias. The type had been repeated with shades of difference a number of times. The next best statue of Aesculapius was that of Myron, in the museum of Florence. This was also an excellent work of art, artistically only a little lower than the Phidian types. A third group of Aesculapian reproductions was found at Epidaurus near the Temple of Aesculapius. Most of these were bas-reliefs. A fourth series of portrait statues of Aesculapius were late Greek or Roman in origin, and were of a distinctly lower order of art. In the later statues the godlike calm of the countenance of the God of Medicine was replaced by the sorrowful, troubled features of the human physician, anxious about his patients. Many of the Roman statues of Aesculapius resembled Roman emperors, and it was not always easy to distinguish them.

EXPERIMENTS ON LIVING ANIMALS.

THE annual return for England and Scotland shows that during 1901 257 licensees performed 11,645 experiments, being 806 more than in 1900. Of these experiments, 9,596 were inoculations or similar proceedings, whereof 2,636 were for testing antitoxins and 2,085 for investigations directed by the Local Government Board, county councils, and municipal corporations, more than half being for the testing of milk.

The question of pain could arise only in 669 experiments (those under Certificate B), in which the animal was allowed to recover from an initial operation performed under anaesthetics. "In no case," says Professor Thane, the inspector, "has a cutting operation more severe than a superficial venesection been allowed to be performed without anaesthetics."

The parts of the report which will have most interest for our readers are the concluding paragraphs dealing with irregularities committed by licensees:

"The instances of irregularity are only three in number: two of these are very slight, and were clearly the result of misapprehension, while the third was due to inadvertence. They are as follows:

"In one case a licensee holding the certificate dispensing with the use of anaesthetics, fearing that some pain might be caused to the animal, administered an anaesthetic before making an injection. It has been pointed out to the licensee that the Act requires a different certificate (B) when an anaesthetic is used, and the animal is allowed to recover therefrom, from that (A) authorizing experiments to be performed entirely without anaesthetics.

"A licensee, holding the special certificates (B + EE) for performing certain experiments on dogs, performed similar experiments on rabbits, although these animals were not specified on his certificate (B). He had not observed the notice on the certificate (B) that the animals on which the experiments will be performed are to be named, and was under the impression that he might perform under this certificate experiments on any animals other than those for which additional special certificates are prescribed. The licensee has been cautioned.

"A licensee performed certain experiments for which a certificate (B) was necessary. It appeared that he possessed the certificate, which was duly signed, but had not been submitted to the Secretary of State. The Act requires that a copy of every certificate shall be forwarded by the applicant to the Secretary of State, and the certificate is not available until one week after a copy has been so forwarded. In this case the licence was revoked."

In Ireland ten licensees performed 237 experiments.

This report extending to 54 folio pages, giving every kind of detail with regard to licensees, is a monumental record of how the State may hamper science, and how jealously the grandmother of Parliaments protects the liberty of guinea-pigs to the detriment of the overburdened taxpayer.

THE ABUSE OF COCAINE IN KENTUCKY.—The Kentucky State Board of Pharmacy has recently called the attention of druggists to the Pharmacy Law as amended March 17th, 1902, by which the sale of cocaine, abortifacients, and poisons is severely restricted. The Board emphatically expresses its determination to stamp out the cocaine evil.

IT is announced that Professors Victor C. Vaughan and Frederick G. Novy, of the Medical College of the University of Michigan, will shortly proceed to India, where they will investigate tropical dysentery.

"CURES" FOR ALCOHOLISM.

A SORRY ADVOCATE.

THE *Windsor Magazine* recently published an article bearing the title "Is there a Cure for Drunkenness? An Interview with Canon Fleming." Canon Fleming's connexion with the Keeley secret treatment of inebriety is well known, and in the article in question he expresses his opinion about the treatment in terms of unqualified approval. Not long ago we endeavoured to indicate the kinds of evidence which the medical profession will require from those who attempt to testify to the value of certain kinds of treatment, but we are obliged to own that Canon Fleming is of no help to us in the matter. On the contrary, he seems to us to make the confusion worse confounded. Here is a sample of Canon Fleming's evidence in support of his case for the Keeley remedy:

I have seen men start perfect wrecks, and go out at the end with their bleared eyes bright, their will power restored, their manhood brought back.

There is no doubt that this kind of evidence, which may perhaps justly be called picturesque rather than accurate, makes an appeal to many unthinking people, and that in proportion as it does so it may be said to harm their chances of forming a well-balanced opinion on the question based on definite facts. If it were not for this, there seems to be no reason why the advocates of secret remedies should not be as graphic in their descriptions as they please; and it is only in view of the extreme seriousness of the method they employ to many persons whose ignorance places them practically in their hands that we are justified in asking advocates like Canon Fleming to weigh their words. Now the phrase "perfect wrecks" does not seem to us a particularly accurate or helpful description of any group of patients, especially when used wholesale in the plural. And it is not a term that applies to the generality of curable alcoholic patients at all. "Bleared eyes" are not difficult to brighten by means of rest, food, and suitable medicines. They are not in any case a symptom peculiar to alcoholism and many things besides the Keeley remedies may cure them. Another case described by Canon Fleming had "bloodshot eyes and an angry and resentful air," but we have seen confirmed teetotallers before now with similar symptoms.

If this is the best kind of evidence that can be brought as to the value of the Keeley remedy, we can only say that we do not think that any one is justified in accepting results based on such facts.

As regards the permanency of the cure, Canon Fleming is quoted as follows:

Does the cure last? I have carefully kept track of it for nine years, and have seen the cases from the beginning permanently remain steady.

This is a sample of another form of loose and inaccurate statement calculated to confuse the mind of the casual reader. It should be stated to what cases allusion is here made. It cannot be to the 90 per cent. claimed as cured as soon as their few weeks' treatment is accomplished, some of whom break down later; and if it be to those who are known to Canon Fleming to have "remained steady" for the whole nine years, it seems to us that some of or so many of the whole number, if less encouraging, would at any rate have been nearer to the truth. And every inquirer has a right to know, and ought to be told the exact facts.

Canon Fleming describes how on one occasion the late Sir Andrew Clark remonstrated with him for encouraging a secret remedy. His reply to Sir Andrew Clark was:

From your point of view your objection may be very well. I can quite understand that doctors should be bound by the rules of their profession which compel them to discountenance secret remedies, but I am a free lance, and the rules of your medical profession do not bind me. I want to find out, first of all, if this treatment is really the good thing it professes to be, and I shall be quite ready to discuss its secret nature afterwards. Besides, supposing it is secret now, no good thing can be secret for ever. I am not sure that your medical rule for preventing men benefiting by their discoveries is not against the law of patents. Had it been in force in the Middle Ages, we should have lost many of the great discoveries that have come down to us to-day, for men would have had no incentive to investigation.

These views, together with the reduction of scientific investigations to the level of mere paying investments, are not altogether the ordinary views even of the man in the street. But they are, perhaps, the logical outcome of the "free-lance" position. The world has decided that the "free-lance" system in medicine is not good enough for the treatment even of the lower animals; and a very short study of the rivalries, counter-accusations, and trade jealousies of the vendors of secret remedies would surely tend to clear the minds of the most prejudiced advocates of the system as applied to men and women. For when the rules of the medical profession are considered in detail, it is evident that they are made entirely in the interests of the people whom that profession exists to serve, and are only founded on that "sanctified common sense" which is the leaven of all civilized human intercourse.

"THE KEELEY CURE."

To the Editor of the BRITISH MEDICAL JOURNAL.

SIR,—I have read the interesting editorials concerning cures for alcoholism in the BRITISH MEDICAL JOURNAL of February 1st and 8th.

One of the earliest visitors to Keeley Institute from Syracuse was a prominent and brilliant lawyer. On his return from Dwight he went about the city proclaiming, what very few of his acquaintances suspected, that he had been a drunkard for years, and that he had been entirely and permanently cured by Keeley. By his earnest and eloquent advocacy of the successful treatment he induced several habitual drinkers of alcoholic beverages, who had graduated from the stage of so-called moderation, to make a trial of the double chloride of gold. After the return of these drinkers a Keeley association was organized, and held enthusiastic meetings glorifying the inventor of the cure. It was noticed, however, that the number attending these meetings became less and less, and that at the end of a month or so the club room was abandoned.

The lawyer frankly gave the details of his experience to all inquirers and to many who did not inquire. When he first arrived at the institute Keeley asked him if he had in his satchel any whisky or brandy. The answer was, "I have both." "Give them to me," responded the doctor. "I wish you to keep on drinking as usual, but I will empty your bottles and fill them with a pure article." The bottles were filled and refilled by Keeley as fast as emptied.

The craving for drink disappeared in a short time, but the orders of the doctor to keep on drinking were strictly followed, notwithstanding that the nausea which attended every swallow became so severe that the very thought of the accustomed intoxicant excited it. The patients who after a longer or shorter period were dismissed from the institute were exhorted to continue taking a certain liquid tonic which Keeley furnished, to avoid visiting saloons, and to abstain entirely from even tasting an intoxicating beverage. Keeley forewarned them that a return to their drinking habits within a week would be fatal, and that if the resumption did not take place till after a month's abstinence, their condition would be worse than before the treatment commenced. Not a few heeded the admonition, and their reformation has continued with scarcely a lapse up to the present time.

Public opinion here was not unanimous regarding the efficacy of the treatment. Like the Athenians on Mars Hill some cautious people doubted, and decided to watch and wait. One prominent clergyman proclaimed from his pulpit that these gold cures were hardly less miraculous than those performed by the Great Physician nineteen hundred years ago. And he did not warmly commend those physicians who had some lack of confidence in Keeley, quoting for their consideration the grateful statement of the restored blind man: whether he be a sinner I know not, but this thing I know that whereas I was born blind now I see.

But the eminent attorney himself after a few short months, fell from grace, and returned to the institute for treatment. Recovery took place again and again, but at last the ruin was irremediable.

That a double chloride of gold—if there be such an aurous salt—was the sole or chief drug employed by Keeley or his disciples to produce certain conditions is open to very grave suspicions. Why did he demand that the lawyer should surrender the whisky and brandy in his possession, and drink a *pure* article which he claimed to possess? The attorney might have told him, but curiously enough he did not, that his own whisky and brandy were the very best which money could buy in any market. But the shrewd Keeley knew that neither these nor their combination with the gold chloride would remove the craving nor produce the desirable nausea. "A

sensation," as Hayden calls it, "akin to sea-sickness"—he must add to the *pure* substitute increasing quantities of apomorphine or some other nauseant which would cause an abhorrence delightfully overwhelming. That the frequent hypodermic use of strychnine with some other tonic—auriferous or not—kept up the strength of the patients during their three weeks' treatment at the institute is highly probable. That the disgust at the very thought of whisky was not permanent is evident from the fact that when one of the reformed alcoholics ventured into a saloon and tasted an intoxicating liquor not the slightest nausea ensued, and the lost crave soon returned.

The teaching of a prominent chemist and peripatetic lecturer in this country—that the daily use of intoxicating beverages in moderation is harmless and beneficial—appears to be unwise and unsafe, to say the least. Every one of the hundreds of thousands who has become an inebriate, and has suffered or is now suffering from alcoholism, was once a moderate drinker.

Unquestionably, the only certain preventive of this terrible disease is early and persistent total abstinence.—Respectfully,

February 18th. H. D. DIDAMA.

SOME EXPERIENCES.

We have received the following letter from the licensee of a well-known retreat for inebriety which may be of interest to some of our readers:

To the Editor of the BRITISH MEDICAL JOURNAL.

SIR,—Having read with great interest the articles lately appearing in your paper on the subject of secret cures for inebriety, may I give you a short summary of my experience as to the results of these so-called cures?

My attention was first called to them twenty-five years ago when I received a letter asking me to try on my patients a preparation, one of the chief ingredients of which was cinchona. The writer of the letter said he would supply me with the preparation (as much as was required) on condition that I should give him a testimonial. This matter I refused to have anything to do with. The next instance of the kind came from Germany. I wrote, in answer to an advertisement, asking the cost of this vaunted cure, and received an answer enclosing testimonials, and saying there was a case containing eight bottles lying at the London Docks. These bottles, marked from one to eight, were to be taken in rotation as directed. I wrote saying that the patient could not afford the necessary £1 8s., and must therefore give up the hope of a cure. To this I received an answer saying that the writer had in some instances found four bottles of his preparation to have the desired effect, and that if I would forward 14s. he would send me the bottles. To this letter I sent no reply. The next cure which came under my notice was from Shropshire. I answered an advertisement, and said the case was a very severe one, and had already been under the "Gold" cure without having received any benefit. To this I received a letter condemning the "Gold" cure as not only of no use but absolutely injurious to the patient. The writer added that his cure was not in any way harmful, and had very seldom been known to fail, but that a large fee was required for the treatment.

I have had many patients under my care the friends of whom have spent many pounds in the purchase of so-called remedies which can be given without the patient's knowledge, but I have never heard of one case having received any benefit whatever. I will give particulars of two cases which came under my immediate notice:

The first was that of a lady whose friends, after having tried several of the specifics I have mentioned, decided to place her under the "Gold" cure in London. She remained under treatment there for a month, and at the expiration of that time the friends wrote asking whether she was cured, and whether an extra fortnight would at all add to the benefit she had received. They replied that she was quite cured and that extra time was not necessary. On leaving, the lady was told that she must remain a total abstainer, for that, if she ever touched stimulants after their treatment, she would become insane. At the end of three weeks she commenced to drink again, and was then placed under my care

The second case—told to me by the lady superintendent of one of the British Women's Temperance Homes—was that of the wife of a small shopkeeper in Liverpool. About four years ago he saw an advertisement in one of the Liverpool papers guaranteeing a cure in extreme cases of inebriety. He applied personally, and ascertained that the fees would be seven guineas, and, although it was a great tax upon his limited resources, he decided to give his wife the benefit of the treatment, the only difficulty being the carrying out of the same, as it consisted of giving the patient so many drops of the mixture every two hours, night and day, for three weeks. As it was impossible for the husband to carry this out himself, he consulted the Lady Superintendent of the Home mentioned, asking her whether she would undertake to see that the instructions were strictly carried out. This she consented to do, the matron taking charge of the case during the night and herself during the day. At the end of time the cure was considered complete, and the patient returned home looking much improved by the judicious feeding and abstinence from stimulants. On the third day after her return the Lady Superintendent visited her, and found her in a most deplorable state of drunkenness. The lady called upon the proprietor of the so-called remedy for an explanation, telling him the condition in which she found the poor woman. The only reply she received was that when the patient had finished with the treatment she was perfectly cured, and that if she had carried out his instructions by refraining from drink all would have been well. She having failed to do this, he held himself perfectly free from blame.

These two cases are fair instances of the results of these patent cures, and no doubt hundreds of others could be produced.

I think the two great attractions of these cures are, first, their secrecy and avoidance of exposure; and secondly, the short period of time represented as necessary for their working. Still, it ought to be self-evident to any one that the Government, backed by medical testimony, would not pass the various Inebriety Bills, which detain the patient from one year to three, if the disease could possibly be cured in three or four weeks.—I remain, yours very truly,

HY. M. RILEY.

Melbourne House, Leicester, March 10th, 1902.

HOW TO BE HAPPY THOUGH A DOCTOR.

[FROM A CORRESPONDENT.]

THERE are those who when asked to select the most eligible, satisfactory, and enjoyable position in the whole range of medical practice have chosen the life of a country doctor in what the advertising agents call "a pleasant neighbourhood." He must, of course, occupy a first-rate position; his emoluments must be sufficient to enable him to live in a good house, to hold his own in entertaining and in general social life, to educate his children fashionably and well, and to take a sufficient holiday every year in Scotland or in some accredited health resort. Under those circumstances, if he steers clear of politics and does not trouble himself too much with local affairs, his lines will be cast in pleasant places. If he is a sportsman and a good shot he will find his place at the cover side or on the river bank, and if golf flings its seductive spell over him, he will never be without the chance of joining a good team for a foursome. Far happier is his lot on the average than that of the London consultant, who may fail outright, or drop out of the course on the way to the goal, or when success is attained, can only hold his own in the face of the strenuous competition of modern times by equally strenuous exertion. Witness the lives of Paget, and Gull, and Jenner, and Clark—the enormous amount of work they did—from fifteen to sixteen hours a day, the limited amount of play they got, the worries and anxieties, and weight of responsibility which pressed so heavily even on their broad backs. Delightful lives, no doubt, full of scientific charms and varied human interest, and with the all-pervading sense of growing contact with Nature and her mysterious ways, and the continuous attempt to alleviate human suffering and to lengthen and better human life. Too often these brilliant careers are prematurely cut short by the effects of overwork; and looking back over the last forty years, sad memories arise of those who have fallen on the field of battle with their faces towards the common foe—Anstie, Callender, Durham, Fagge, Mason Bruce, Murchison, Maunder Bruce—many of them taken away in their prime, after a long, patient, heroic struggle with some recognized disease. But what must be the life of the successful general practitioner in London? One continuous rush and hurry from morning till night, and not even stopping then. Broken meals, interrupted sleep, the vagaries of fashionable ladies, and the irritating obstinacy of sceptical men. Quackery of all kinds, Christian Science and similar abominations transferring the coin which ought to flow into his coffers to the insatiable maw of some unscrupulous American quack; the pressure of younger and smarter rivals, possibly more up to date, talking glibly about the last-arrived bacillus, and run by some fashionable nurse

or some section of the smart set. From these evils the country doctor is happily free. The squire has not time to think about his health; the parson is orthodox and believes in vaccination, and the farmer has profound faith in medicine, and shakes up his 8-ounce mixture three times a day with cheerful optimism. Under these conditions Dr. Fergusson, of Banff, a well-known and widely consulted Scotch physician, did well to take advantage of his position as President of the Northern Branch of the British Medical Association, to read a very interesting paper entitled How to be Happy though a Doctor.

After some general preliminary observations he settled down to close quarters with his subject, and gave some sound sensible advice to young fellows about to enter practice, starting thus: "My first advice is to become assistant for a few years before starting on your own account; the time thus spent you will never regret in after-life. We all make mistakes, and continue to do so more or less through our professional life; but beginners are naturally more liable to such, and being associated with a more experienced practitioner with whom they can talk over their cases."

In the numerous obituary notices of Dr. Barclay of Banff, that most admirable type of the best class of general practitioner, special mention was made of the careful training he gave to his assistants, and the immense advantage they derived from continuous contact with his large and varied practice, and the resources of his well-stored mind. There can hardly be a reader of this article who does not remember the day when he stood on the brink, waiting to take the first plunge into family practice. How little help the hospital work and the varied handbooks seemed to give when he was thrown on his own resources, and obliged to diagnose diseases at those early stages which he had never seen—to disentangle more especially the Gordian knots of eruptive disease when it first begins, and when it is perhaps of vital importance to a school or large community that the doctor should be able to hang out the danger flag when the first pimple or timid appearance of some confusing rash requires an instant and dogmatic opinion.

Dr. Fergusson said very briefly that the best student does not necessarily make the best practitioner: "in fact frequently a mediocre student will outstrip his cleverer class fellows in the battle of life, because of his common sense." Then, again, it is most important to be quiet and gentle and sympathetic, and although people sometimes sneer at the phrase "a good bedside manner," fortunes are often made by it. Not one of the least charms of that most delightful of men, the late Warburton Begbie, was the genial and friendly tone he always assumed when talking to his hospital patients. "My dear man," and "my good woman," were favourite phrases of his, and nothing made him so angry as any roughness or offhand discourtesy on the part of students to those whom they were attending. It would not require a long acquaintance with outpatient departments to know that there is still urgent need for his teaching.

Then Dr. Fergusson advised the student to make a careful individual study of his hospital cases, aiming rather at knowing and following a few thoroughly than at vaguely wandering over the superficial surface of a great many; and here let me lament the want in London of what has been so thoroughly developed in Edinburgh—the dispensary system, by which the student, under the superintendence of his physician, attends people at their own homes. Surely there can be no better training for family practice than this. Next, Dr. Fergusson directed very special attention to the necessity of careful attention to personal appearance—to clean hands, a well-shaven chin, a smart and carefully brushed coat. As a farmer once remarked to him, "Yon man may be clever, but he's liker a rat-catcher than a doctor. I widna hae that man seen about ma toon."

The next important point was to be extremely reticent, not to blab about patients and yield to the temptation of satisfying the curiosity of friends and other patients about the ailments of their neighbours. Then, Dr. Fergusson said, beware of drink, [illegible] country districts; the temptation might be almost overwhelming in cold, bleak, wet weather when exhausted by insufficient rest and irregular meals and anxiety and worry, to seek refuge in a cheery glass which farmers, the most hospitable of beings, were always ready to offer. Then a thoroughly good "tip" was, "more especially in a county practice to look before you, and give directions to those in charge of the patient what to do should certain symptoms arise suddenly or during the night. By doing this you will often save yourself a long drive. Read your medical journals carefully and thoroughly, and keep abreast with the times so as to be able to stand up to the 'laity,' who dearly love a smattering of matters medical, and will like to argue out matters with you point by point." The old mystery days are over, and patients like to talk about their disease, for to be the proud possessor of a mysterious group of symptoms is often a claim to social distinction—as George Eliot talks in *Middlemarch* of a certain lady who was regarded with respectful awe by her neighbours because her case puzzled the doctors.

Be respectful to new remedies, but not over-credulous as to their effects; remember idiosyncrasy, the right recognition of which gives the reputation so valuable to the practitioner, that "Dr. So-and-so thoroughly understands my constitution." Dosage, often a weak point, should be studied by the young doctors, who should beware of polypharmacy; for what would be thought of a prescription for pneumonia quoted by Dr. Fergusson, which contained tartar emetic, antipyrin, and aconite? More especially when dealing with children an effort should be made to concoct elegant mixtures, which are both palatable—and this is all-important in children's diseases—and pleasing to the eye, remembering also to give very precise directions as to how and when they should be given.

Dr. Fergusson told a good story about Sir James Simpson, who used to run particular drugs very hotly for a time, dropping them no less abruptly when they had had their day. "A friend of his butler's had been consulting the great physician and reformer, and showed the butler the prescription, who read it and said, 'Oh aye, they're a' getting that the day.'"

Next followed some excellent and practical hints on diagnosis, treatment, and prognosis, and some amusing instances of domestic diagnosis were given. "I recollect one man telling me that he had 'mineralogy' in his leg, another that he was suffering from 'darachie,' meaning, of course, diarrhoea; a woman told me that a certain doctor said that she was suffering from 'depapacy o' the bleed o' her heart'; but the best of all—it can hardly be beaten for racy pungency—was a man who consulted the late Dr. Manson, of Banff, for diarrhoea, and after the doctor had prescribed for him and given him directions about diet, etc., said, 'But, doctor, fat is't that's the matter wi' me?' Dr. M. said, 'Who, its what we call diarrhoea.' He replied, 'Weel, I dinna ken fat you doctors ca' it, but I ken weel eneuch that the sneck o' my airse is nae workin' richt.'"

With this I must leave Dr. Fergusson, thanking him for much wisdom and humour conveyed in terse and happy phraseology, and wishing that other experienced county doctors would go and do likewise.

There can be little doubt that the position of the doctor has vastly improved of late years. My lamented friend, Milner Fothergill, whose warm heart and genial humour endeared him to his friends, once summed up the situation when he said that the social standing of his professional brethren was "anomalous," and that their wives were social pariahs. Allowing for a certain measure of exaggeration in this *obiter dictum*, there is so far a modicum of truth that in London the medical profession does not assert itself so successfully socially as in Edinburgh or in Dublin, partly because they have not the time, nor perhaps the inclination, to struggle against the forces of aristocracy, snobocracy, and plutocracy, which regulate in the great capital of the world the relative position of "*les couches sociales*." And in the country districts (in England, at all events) doctors used to be classed with tradesmen and shopkeepers and had to be kept in their proper place, lest their despised presence should taint the atmosphere which aërated the blue blood of what Lord John Manners in his never-to-be-forgotten verses called "our old nobility." As Lady Chettam in *Middlemarch* said: "For my part I like a medical man more on a footing with the servants; they are often all the cleverer."

These are old-fashioned views, happily, and the doctor has now become an important integral and indispensable factor

in the social life of the country for various obvious reasons:

First, because he is himself better educated, at public school or university, where perhaps he has rubbed shoulders with squire or parson, or their sons, and is recognized as a cultured gentleman who, without being shoppy, can expound the mysteries of his craft, and keep on the crest of the wave of modern science; who can advise Lady Bountiful about her cottage hospital, or her district nurse, and what are the best and the most economical diets for convalescence, and as sanitary science is in the air, both above and below ground; and as there is a boom in bacilli, he can work cordially with the medical officer of health, and help him to popularize his views, and circumvent the conscientious objector; above all, because the taint of retail counter practice is now in great measure removed with the stupid old custom of payment not by results but by the haphazard supply of an 8-oz. mixture, and that the open surgery is no longer a place where you can buy a cake of soap or a toothbrush, as well as a colocynth pill or a black draught. For be it remembered that the superior position of the "G.P.s" in Scotland and Ireland is largely due, not only to the fact that they have had a university training and hold university degrees, but because their practice is exclusively a prescribing one, and that the chemist there respects his calling too much to convert his shop into a consulting room. In these days it is increasingly difficult to know what to do with our boys, but the notable shrinkage in the number of medical students requires some notice. This year there was a marked decrease, and perhaps we need not regret the smaller number of competitors for the dry loaves and somewhat attenuated fishes of professional life. For when we reflect on the appalling number of doctors in England, in London, in Scotland, in Ireland, we shall see how keen must be the struggle for existence. The reasons for this partial boycotting of the *Medical Register* are not far to seek.

First, the rigidity of the preliminary examination screwed up as we think it, far too tight by pedantic examiners, and,

Secondly, the added fifth year, which prolongs the agony of the student and his long-suffering father, and will eventually make the medical profession a close borough for rich and well-to-do people.

Thirdly, the feeling which unhappily lingers on in country districts that a doctor, however capable and well-educated he may be, is inferior socially to his brother who has gone into the Church, or his father who owns a bit of land.

And, fourthly, and finally, the incessant worries and anxieties of practice, the irregular hours, the long and too often unnecessary drives, the slanders and backbiting, and sometimes unprofessional rivalries of ordinary rural or village life; and when you have to deal with the smart set, happily indigenous to London and non-existent elsewhere, their vagaries and absurdities, and insolence, and parasitic exactions, going in furiously for Christian Science one year, and for homœopathy the next, or treating all their friends out of some popular manual or according to a prescription they have received from Dr. So-and-so; and spreading, with the aid of ministers of the gospel, an injudicious mixture of stale and often-refuted calumnies about vivisection, vaccination, and whatever else may chance to be the Society shibboleth of the hour.

THE PREVENTION OF CONSUMPTION.

BOURNEMOUTH.

National Sanatorium for Consumption.—The report presented to the annual general meeting of governors of this institution showed a deficiency for the year of £431, which was attributed mainly to a falling-off in donations and to special expenses connected with carrying out the open-air treatment. The number of patients treated during the year was 267, including 61 patients continuing from 1901. The average stay of each patient in the sanatorium was 12.15 weeks; and of the patients under full open-air treatment 27·5 per cent. had apparent arrest of disease on discharge, 46 per cent. were improved, 12 per cent. were not improved; 2 patients (1.19 per cent.) died in the sanatorium, and 6 patients (7.5 per cent.) died after having left. Inquiry as to the condition on March 31st, 1902, of those patients discharged during the previous year showed that in the great proportion of those discharged as improved the improvement has been maintained. The Committee make a special appeal for funds, not only to meet the deficiency on the year's working, but also for carrying out the proposed extension of the building, for which a sum of £1,200 is required.

British Medical Association.

NOTICE OF SPECIAL BUSINESS.

NOTICE is hereby given that an Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 18th day of June, 1902, at 2 o'clock in the afternoon, for the purpose of considering, and if thought fit passing, the subjoined resolution, that is to say:

"That the draft new regulations submitted to this meeting, and for the purpose of identification initialled by the Chairman thereof, which regulations have been prepared under the direction of the Committee appointed for the purpose by the Council in pursuance of resolutions passed at the Annual General Meeting of the Association at Cheltenham in 1901, be, and the same are hereby adopted as the regulations of the Association to the exclusion of and in substitution for all the existing regulations of the Association."

And Notice is hereby also given that a further Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 9th day of July, 1902, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings had at the first above-mentioned Meeting, and of considering, and if thought fit passing, a resolution confirming as a special resolution the resolution above set forth. But if the same shall not have been passed by the requisite majority at the said first-mentioned Meeting, due notice will be given to the Members that the Meeting on the 9th day of July, 1902, above mentioned will not be held.

A copy of the proposed new regulations can be seen at the Office of the Association at any time during business hours, and a copy will be found printed in the JOURNAL of the Association of the 24th day of May, 1902.

Dated the 22nd day of May, 1902.

By Order,

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 9th day of July, at 3 o'clock in the afternoon, immediately on the conclusion of the Extraordinary General Meeting at Exeter Hall.

May, 1902. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 18th and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Hotel Cecil on Wednesday, June 18th, at 6 p.m., and will be followed by the annual dinner at 7 p.m. The attention of members is drawn to the fact that this is the fiftieth anniversary, and it is hoped that a large number will be present to celebrate this event.—HENRY BETHAM ROBINSON, 1, Upper Wimpole Street, W.; J. W. WASHBOURN, M.D., C.M.G., 6, Cavendish Place, W., Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Birkenhead on Thursday, June 19th. Members wishing to read papers, show cases or specimens, etc., should communicate with the Honorary Secretary. The ordinary meeting of the Branch will be held during the first or second week of June to receive the report of the Subcommittee appointed at the last special meeting of the Branch. T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The twenty-ninth annual general meeting of this Branch will be held at the North Stafford Hotel, Stoke-upon-Trent, on Thursday, June 5th, at 3.30 p.m., when an Address will be delivered by the President-elect, Dr. W. Hind. Agenda: Minutes of the last annual general meeting. Introduction of the new President. Election of new member. Correspondence. Address by the President. Report of the Council and Ethical Committee. The financial statement. To decide the place of holding the next annual meeting. Election of Officers and Council for the ensuing year. Members have the privilege of introducing friends. Dinner at 6 p.m.; charge 5s.—G. PETGRAVE JOHNSON, Stoke-upon-Trent, Honorary General Secretary.

SOUTH EASTERN BRANCH.—The annual meeting of this Branch will be held at Ramsgate on Friday, June 20th, Dr. Halstead, President-elect, in the chair.—T. JENNER VERRALL, 97, Montpellier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at the City of London Asylum, Dartford, on Friday, June 13th, at 3.15 p.m., Dr. Ernest White in the chair. Agenda: Minutes of previous meeting. Election of Honorary Secretary for the ensuing year. Dr. Beresford will show some cases of adenoma sebaceum. Dr. Arthur Patterson will contribute Notes on the After-effects in a Case of Revaccination. Dr. Ernest White will show a series of cases of General Paralysis of the Insane. Members desirous of reading papers or of bringing forward any business are requested to communicate with the Honorary Secretary without delay.—LUDFORD COOPER, 19, Victoria Street, Rochester, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Thursday, June 19th, at 3.30 p.m., in the Medical Institute, Edmund Street, Birmingham. The meeting will be followed by the annual dinner to be held the same day at 6.30 p.m. in the Grand Hotel, Birmingham, Chairman, Dr. Henry Malet, President-elect of the Branch.—J. T. J. MORRISON, F.R.C.S.; T. STACEY WILSON, M.D., Birmingham, Honorary Secretaries.

EDINBURGH (FIFE AND LOTHIAN) BRANCH. The annual meeting of this Branch will be held on June 18th.—JAMES HODSDON, NORMAN WALKER, Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE, AND NORTHERN COUNTIES OF SCOTLAND BRANCHES.—There will be a joint meeting of these two Branches at Elgin on June 11th. Further particulars will be sent each member by circular. As this is the first joint meeting the Branches have had for a number of years, the Secretaries hope there will be a full attendance of members. Arrangements are being made for a golf match between the two Branches. Members of either Branch wishing to play might kindly send in their names to the Secretaries—J. F. CHRISTIE, Aberdeen, or J. MUNRO MOIR, Inverness.

MIDLAND BRANCH.—*Preliminary Notice:* The annual meeting of this Branch will be held at Lincoln on Thursday, June 12th. Any member having a motion to bring forward, or communication to make, is requested to inform the Secretary of his District or the Secretary of the Branch, Dr. FRANK POPE, 4, Prebend Street, Leicester, without delay.

SOUTH MIDLAND BRANCH.—The forty-seventh annual meeting of this Branch will be held on Thursday, June 12th, at the Bedford County Hospital, Bedford, at 2 o'clock, under the presidency of Mr. Gifford Nash. Gentlemen are invited to introduce new members, and any one wishing to read papers or cases is requested to communicate with the Honorary Secretary without delay. The President requests the pleasure of the members' company at luncheon in the Hospital at 1 o'clock, and will be obliged by the favour of a reply, addressed to himself, not later than June 7th. Agenda: Discussion, the Open air Treatment of Consumption, with special reference to the Nordrach System; to be opened by Dr. Hartley. Dr. Brand: Pemphigus Foliaceus in an Infant. Interesting pathological specimens from the Bedford Hospital Museum will be shown.—E. HARRIES JONES, Northampton, Honorary Secretary.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.—The annual general meeting of this Branch will be held at the Denny Cottage Hospital on Thursday, June 5th, at 2.15 p.m. The election of office-bearers for the next year will take place. Dr. Joss will deliver his Presidential Address, and show cases of clinical interest.—J. E. MOORHOUSE, Glebe Avenue, Stirling, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

ANNUAL MEETING.

THE annual meeting of this District was held at Bethlem Royal Hospital on Friday, May 23rd, at 4 p.m., Dr. THEO. B. HYSLOP, Vice-President of the District, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The election of officers for the ensuing year then took place, and the following gentlemen were appointed:—*Vice-President of the District:* Dr. Theo. B. Hyslop. *Representative on the Council of the Branch:* Dr. J. W. J. Oswald. *Honorary Secretary:* Dr. Maurice Craig. *Committee:* Dr. J. H. Bryant, Mr. R. Capes, Dr. Cooper Cripps, Dr. F. H. Edwards, Mr. H. H. Norton, Mr. C. Sangster, Mr. H. Taylor, and Mr. Bramley Taylor.

Votes of Thanks.—Votes of thanks to the retiring officers were adopted.

Communications.—Dr. THEO. B. HYSLOP read a paper on delusions in the insane. The following gentlemen joined in the discussion which followed: Dr. MAURICE CRAIG, Dr. HERBERT TAYLOR, and Dr. W. B. STODDART; Dr. HYSLOP then replied. Dr. OSWALD proposed a vote of thanks to Dr. Hyslop for his interesting paper; this was seconded by Mr. CHAS. SANGSTER, and carried unanimously.—Cases of interest from the wards of the hospital were then shown by the staff of the hospital, and the meeting adjourned.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

THE spring half-yearly ordinary meeting of the District was held in the Medical Library, 5, Pembroke Road, Portsmouth, on Tuesday, May 20th; Dr. A. LLOYD OWEN occupied the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—Fleet Surgeon W. G. K. Barnes was elected a member of the Branch and District.

Annual Report.—The accounts for the past year were adopted. The report of the Honorary Librarian was presented and adopted.

Election of Officers.—The following officers were elected:—*President:* Dr. A. Lloyd Owen. *Vice-Presidents:* Drs. Tallis and Fraser. *Representatives on the Branch Council:* Dr. C. C. Claremont, Mr. C. P. Childe. *Council:* Drs. McEldowney, L. Maybury, Aston Key, Mead, Ruel, Weston. *Library Council (additional).*—Mr. Childe, Drs. E. W. Phillips, Cole Baker, B. Wright. *Honorary Librarian:* Dr. F. Lord.

[The further proceedings are reported at p. 1340.]

EAST ANGLIAN BRANCH.

Wage Limit in Club Practice.—At the annual general meeting of this Branch held at Bury St. Edmunds on June 28th, 1901, a report of which appeared in the BRITISH MEDICAL JOURNAL of July 13th, 1901, p. 114, a discussion took place on a letter from the General Secretary of the Association on the question of "wage limit" as applied to clubs, provident dispensaries, societies, etc. The following resolution was passed *nem. con.*:

That circulars be issued to the members of the East Anglian Branch of the British Medical Association, and that a subcommittee be appointed to prepare a series of questions to be submitted to members on the question of a wage limit, such Committee to consist of Mr. Moxon, Mr. Whitaker, and Mr. Ballance.

The following are the questions with a summary of the replies received:

1. Do you consider that in the district in which you practise, the medical aid given through clubs is abused by persons availing themselves of it, whose means and social position are above that suitable for attendance at club rates?

2. If so: Are you in favour of the adoption for your district of a wage or income limit, enabling medical men to decline attendance at club rates on patients whose means are above the said limit?
3. Do you approve of the general principle of adopting such a limit?

	Yes.	No.
131 answers were given to Question 1 ...	114 ...	17
126 " " " " 2 ...	115 ...	11
132 " " " " 3 ...	127 ...	5

133 cards were returned out of 340 sent out to members of the East Anglian Branch. In some cases only one or two of the questions were answered, but in the great majority all three were replied to. One member did not consider that the question could be answered by a plain "yes" or "no," and so refused to answer them at all. One member thought that a minimum club fee limit was more urgently needed than a wage limit. One member stated that a general wage limit would be of no avail while hospital surgeons flagrantly undersold and disparaged their professional colleagues. Three or four members wished all contract practice abolished, and that practitioners should be paid solely for work done.

NORTH OF ENGLAND BRANCH.

THE spring meeting of this Branch was held at the Hydropathic, Hexham. There were twenty-one members present.

The Honorary Secretary (Dr. Beattie).—Dr. W. MEARNS (President) explained to the meeting that the Honorary Secretary (Dr. T. Beattie) had been compelled by the state of his health to go to Switzerland, from whence he had written resigning his office on the ground that his absence might be prolonged.—The resignation was not accepted by the meeting. Dr. Beattie being urged to continue in office, and a cordial vote of thanks was passed to him for his past services, and trusting that his health would soon be restored.

Representative on Central Council.—Dr. Alfred Cox (Gateshead) was appointed Acting Honorary Secretary in Dr. Beattie's absence, and was also appointed as representative on the Council of the Association, *vice* Dr Beattie, resigned.

An Old Member.—Dr. J. W. Eastwood, late of Dimsdale, now of Oxford, wrote resigning his membership of the Branch after a period of thirty-four years.—The Secretary was requested to convey the regret of the Branch at the enforced separation after such a long membership.

New Members.—Dr. Kershaw (Dimsdale), Dr. W. Hay (Sutherland), and Dr. A. Galloway (South Shields) were elected members of the Branch.

Specimens.—Dr. JAMES MURPHY showed three specimens of hydrocele.—Mr. RUTHERFORD MORISON showed a beautiful collection of specimens illustrative of various points in surgical pathology. The specimens had been prepared by Mr. G. G. Turner from cases operated on by Mr. Morison. The specimens were as follow: (1) Cyst of epididymis; (2) duct carcinoma of breast; (3) part of liver, gall bladder, and cystic duct, with gall stones in bladder and duct, removed from a fatal case of chorea; (4) hydatid cysts; (5) calculus hydronephrosis; (6) vesical calculi, which had undergone spontaneous fracture; (7) piece of catheter taken from male bladder encrusted with phosphatic accretions; (8) stone from kidney which had been photographed before operation by *x* rays; (9) duodenum with ruptured ulcer. In this case Mr. Morison mentioned that, as he often found, contrary to the ordinary textbook statements, the stomach wall was thickened and contracted: (10) two appendices, one with enterolith the other with suppuration; (11) two cases of malignant rectum. The PRESIDENT, Dr. MURPHY, Dr. J. DRUMMOND and Mr. W. G. RICHARDSON commented on the various specimens, and the thanks of the meeting were offered to Mr. Morison for the trouble he had taken in getting together such a beautiful and instructive set of specimens.

Removal of Meckel's Diverticulum.—Mr. A. M. MARTIN showed a Meckel's diverticulum removed for acute inflammation. The case was operated on under the belief that it was one of appendicitis, and Mr. Martin believed it to be unique, as he knew of no published case of the diverticulum being removed for acute inflammation.

Operation on Mouth for Malignant Disease.—Mr. MARTIN also showed a very extensive removal of floor of the mouth, part of jaw bone, tongue, and both lips for malignant disease.

Suprapubic Lithotomy.—Dr. WOODMAN showed a vesical calculus of cylindrical shape removed suprapubically from a girl.

Dinner and Vote of Thanks.—All the members present afterwards dined together at the Royal Hotel where, by the kindness of Drs. Stewart and Woodman, of Hexham, wine was provided for all present. The PRESIDENT, in proposing their health, thanked them, not only for their hospitality, but for all the trouble they had taken in arranging for a very pleasant meeting.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE spring meeting of this Branch was held at Bridgend on April 25th, Dr. FIDDIAN, President, in the chair.

New Members.—The following gentlemen were elected members of the Branch: Messrs. John Jones (Clydach), David Phillips (Llandilo), John Owen (Cwm Twrch), Nicholas Kirkby (Aberdare), James Garman (Aberdare), Charles Richardson White, Pierce Nagle-Creagh, M. Halpenny, C. E. Cochrane, and D. A. Hughes.

Sanatoria for Consumptives.—On the motion of the PRESIDENT it was unanimously resolved:

That in the opinion of this meeting of the South Wales and Monmouthshire Branch the provision of sanatoria for the less well-to-do tuberculous patients of South Wales is a pressing necessity. As individual members of the medical profession we are prepared to co-operate with all classes of the community in such a movement.

Communications.—The following papers were read and discussed: Dr. ARNALLT JONES: Advantages of dilating bag of Champetier de Ribes.—Dr. B. M. LEWIS: Notes on a case of criminal abortion, with specimen.—Mr. W. F. BROOK: Intubation *v.* tracheotomy in diphtheria.—Dr. W. M. STEVENS: Remarks on differential diagnosis in continued pyrexia.—Mr. LYNN THOMAS, C.B.: Notes on 70 cases of operation for inguinal hernia (Kocher-Bassini method).

DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held at Wimborne on May 21st, under the presidency of Mr. WILLIAM ERNEST GOOD. There were present twenty-eight other members and visitors.

Vote of Thanks to Retiring President.—A vote of thanks was accorded to the retiring President, Mr. William Ernest Good, for his services during his term of office.

Votes of Condolence.—Votes of condolence were passed to the relatives of deceased members, Dr. Charles Knight Hitchcock of Bournemouth and Mr. Walter Wyke Smith of Wimborne.

Branch Council.—The following gentlemen were elected to fill the vacancies in the Branch Council: Mr. William Ernest Good (Dorchester), Dr. James Macpherson Lawrie (Weymouth), and Dr. John Flasby Lawrance Whittingdale (Sherborne).

Representation on Association Council and Parliamentary Bills Committee.—Mr. C. H. Watts Parkinson was re-elected the representative of the Branch on the Council of the Association and on the Parliamentary Bills Committee.

New Members.—Drs. John Findley and George Arthur Rorie, of the Dorset County Asylum; Dr. Archibald Richard Paterson, of Parkstone, and Dr. Thomas Henry Wells, of Weymouth, were elected members of the Branch.

Tuberculosis Committee.—The report of the Tuberculosis Committee was received and adopted.

Summer Meeting.—It was resolved that the summer meeting should be held at Christchurch.

Address.—An address was given by the PRESIDENT on the Professional Outlook from a Financial Point of View. A vote of thanks was passed to him.

Communications.—Dr. LE FLEMING: (1) Haematoma of vulva after delivery, (2) primipara with mitral stenosis; Dr. RAMSEY: A case of large neuroma; patient and specimen were shown; Dr. ALDERSON: Specimen of fracture of neck of humerus; Dr. MORRICE: Specimen of ossification of eye.

Luncheon and Dinner took place at the Griffin Hotel.

BRITISH GUIANA BRANCH.

THE second quarterly meeting of this Branch was held at the Public Hospital, Georgetown, on April 17th, Dr. L. J. VEENDAM, President, in the chair. Eight members attended.

Communications.—Dr. Q. B. DE FREITAS, Honorary Secretary, read notes of two cases of enteric fever that had been under his care in the French wards; one of them, in a child

aged 12, had been fatal from perforation and peritonitis. He had brought these two cases before the meeting in the hope of eliciting the opinion of the members as to the prevalence of this disease in the Colony, which had been open to doubt by some. The PRESIDENT opened the discussion by stating that he had seen a case in a European lady. Several other members stated that they had met with typical cases in private practice, but that its diagnosis was very difficult owing to the peculiar conditions of medical practice in the colony. The specimen of ulcerated bowel from the fatal case was shown at the meeting.

Vote of Thanks.—A vote of thanks was passed to the Honorary Secretary for bringing these cases to the notice of the meeting.

SPECIAL CORRESPONDENCE.

PARIS.

The Fêtes in Celebration of the Centenary of the Internat.—Formation of a Committee to Help Medical Students left Destitute by the Martinique Disaster.—Commemoration Medallion for Professor Brouardel.

THE fêtes in celebration of the centenary of the foundation of the Internat in the Paris Hospital took place on Saturday and Sunday, May 24th and 25th. The inaugural meeting took place on Saturday afternoon, and by 2 p.m. the large hall in the Trocadéro was filled to overflowing. M. Waldeck-Rousseau, the Prime Minister, occupied the chair, and in addition to the representative of the President of the French Republic and medical celebrities, there were present—M. Mourier, the Director of the Assistance Publique; M. Gréard, Vice-Rector of the Académie; M. de Selves, the Prefect of the Department of the Seine; M. Lépine, the Prefect of Police; M. Decrais, the Minister for the Colonies; M. Veber, the President of the Conseil Général; M. Escudier, the President of the Municipal Council, etc. M. Mourier, Professors Brouardel and Debove, the Dean of the Faculty of Medicine, in turn spoke of the disinterestedness and devotion of the students who compete so keenly for the post of resident in the civil hospitals in Paris, where for four years they live and take care of the poor of the city. Dr. Ziembricki, of Lemberg, Austria, spoke for the former internes of foreign nationality—nearly 200 in all, or 5 per cent. of the total number. In a very eloquent speech he drew attention to the scientific hospitality of France, who threw open her doors to foreign students. In the evening a dinner was held in the Palais d'Orsay Hôtel, with Professor Brouardel in the chair; more than 700 present and past internes being present.

On Sunday morning, at 11 a.m., a solemn mass was celebrated in the Cathedral at Notre Dame for the repose of the souls of deceased *internes*. At 2 p.m. in the large Cour d'Honneur of the Hôtel Dieu Hospital was unveiled the monument to the memory of those *internes* who have died victims of their professional duty. The sculptor, Denys Puech, who generously gave this work of his chisel, has represented in high relief the operation of tracheotomy, so many of the residents having contracted diphtheria before the introduction of the serum treatment. A Sister of Mercy stands at the head of the bed on which a child is lying; the operator and two assistants complete the group. Below is the inscription:

A LEURS CAMARADES
MORTS VICTIMES DE LEUR DÉVOUEMENT
Les internes en médecine des hopitaux civils de Paris.
1802-1902.

Then follow in letters of gold the names of those who have died on the field of honour. There are some forty names, all that are known, but many are lost, as the archives of the Assistance Publique were burnt in 1871. Professor Guyon, in the name of the Committee of the Fêtes, handed over this beautiful and simple monument to the administration of the Assistance Publique. In the evening a brilliant *soirée de gala* took place at the Opéra Comique; the programme included the second act of Molière's *Le Médecin malgre Lui*, and the verses of Edmond Haraucourt, recited by M. Mounet-Sully and Mme. Segond-Weber, of the Comédie Française. A review, *Fac secundum artem*, by MM. Wendel and Paqui, a former *interne*, brought down the house.

The terrible catastrophe which destroyed St. Pierre has left destitute a number of students who came from the island of Martinique to study medicine in Paris. A committee has been formed to help them by obtaining from the authorities free admission to the University and the practical classes, but it will in many cases be necessary to provide entirely for them till the termination of their student career in Paris.

The friends and pupils of Professor Brouardel are offering him a commemorative medallion on the occasion of his retiring from the position of Dean of the Faculty of Medicine. The medal, which has just been struck in the Mint, is the work of the sculptor, Roty; the obverse represents the portrait of Professor Brouardel, with below a small bas-relief showing Hygeia seated before the ancient colonnade of the Faculty of Medicine, which has been preserved and incorporated in the new buildings. The reverse represents in an allegory two female figures—Science, torch in hand, lifting the veil from Truth—with below the inscription: "A Paul Brouardel, Professeur de Médecine Légale, Doyen de la Faculté de Médecine de Paris, fevrier 1887—décembre 1001, Président du Comité Consultatif d'Hygiène de France. Publica privatis semper praetulit."

DUBLIN.

The Royal College of Surgeons in Ireland: Election of Officers and Examiners.—The Royal Zoological Society of Ireland.

THE election of President, Vice-President, and nineteen members of Council of the Royal College of Surgeons in Ireland takes place on Monday, June 2nd. Mr. Myles then terminates his two years' term of office as President, and will be succeeded by Mr. L. H. Ormsby, who has been Vice-President for a similar period of time. The candidates for the Vice-Presidency are Mr. J. J. Cranny, Surgeon to Jervis Street Hospital, and Mr. Arthur Chance, Surgeon to the Mater Misericordiae Hospital. Of the present Council, six members do not seek re-election. Professor Wm. Stoker, Professor Conway Dwyer, and Mr. R. Lane-Joynt are candidates for the Examinerships in Surgery, Mr. Maxwell has been appointed Examiner in Ophthalmology, and Mr. McArdle has not entered his name on the list. For the six vacancies thus created, nine gentlemen submit their names to the electorate of Fellows: Mr. Myles, the outgoing President; Mr. Porter Newell, Dispensary Medical Officer; Mr. Thomas Donnelly, Dispensary Medical Officer; Mr. McFeely, Surgeon to Mercer's Hospital; Mr. J. D. Hillis, Surgeon to the Throat and Ear Hospital; Mr. A. J. Blaney, Assistant Surgeon, Mater Misericordiae Hospital; Mr. William Taylor, Surgeon to the Meath Hospital; Mr. Henry Oulton, Dispensary Medical Officer; and Mr. T. O'Connell Redmond. The paucity of hospital surgeons in the list of candidates may perhaps be accounted for by the fact that the Council recently decided to appoint four Examiners in Surgery, instead of two as heretofore, and the date of election for these examinerships so happens that the defeated candidates for them could not appear on the list of candidates for the Council. In addition to the three members of the present Council who seek to become Surgical Examiners, Mr. H. Gray Croly and Mr. Tobin, the late examiners, are candidates, as are also Mr. Gordon, Surgeon to the Adelaide Hospital; Mr. Edward Taylor, Surgeon to Dun's Hospital; and Mr. A. Mitchell, Surgeon to the Royal Victoria Hospital, Belfast.

Professor Cunningham, F.R.S., is to be congratulated on the success which his exertions command as Secretary of the Royal Zoological Society of Ireland. On Tuesday, May 20th, the Lord Lieutenant of Ireland formally opened the Roberts House for Carnivora in the Dublin Gardens. Lord Roberts has been President of the Society for five years, and Professor Cunningham and the Council were not slow to take advantage of the popularity of the President by perpetuating his name in a manner which will much contribute to the success of the Gardens. At the opening ceremony the Secretary said: "The new lion house has assumed form, and has been dedicated to the purpose for which it is intended because Lord Roberts restored the prestige of the British lion." The Roberts House is built on the model of the Carnivora House in Berlin, and

contains ten roomy dens and three outside cages. It was stated that in the old house 217 lion cubs had been born, and that close on £5,000 realized by their sale. One lioness contributed 55 cubs, and earned £1,400 thereby for the Society.

SYDNEY.

The Bubonic Plague.—The Australian Natives' Association.—A Warning.

SINCE my last letter we have once again been visited by a rather severe and extensive epidemic of the plague. Nearly one hundred cases have occurred in Sydney and suburbs, of which some 27 have proved fatal, and there are about 36 now under treatment at the Coast Hospital, Little Bay, a part of which has been used on this occasion as a plague hospital. In spite of determined efforts to get rid of the rats by traps and poison, they are still very numerous in various parts of the city and suburbs, and every now and again a rat infected with the plague bacilli has been discovered in some new quarter of the city even before a case of plague in a human being has been notified. It seems almost incredible that, notwithstanding the warnings which have been reiterated so often about the danger of having rats on the premises, so much carelessness and negligence of simple sanitary precautions prevails, and so few serious attempts are made to eradicate the rats. Fortunately during the last few days there have been no new cases reported, and Dr. Ashburton Thompson, the principal Government Medical Officer, is hopeful that as in the former epidemic, with the advent of the winter weather the epidemic may subside. Still, as he points out, the discovery of plague-infected rats is a signal of the constant danger of new cases occurring amongst human beings.

At the annual meeting of the New South Wales Branch of the British Medical Association, Dr. Foreman, the retiring President, delivered an excellent address on the policy of the Branch. We are just now engaged in a warfare against the Australian Natives' Association, which threatens us with all sorts of evils if we do not bow down to them and attend their members at contract rates. A special meeting of the New South Wales Branch was held last month to discuss the whole question of contract medical attendance on the members of this organization, and amidst much enthusiasm at a very largely-attended meeting, a resolution was unanimously carried which amounts to a definite refusal on our part to attend the members of the Australian Natives' Association at contract rates under any circumstances. This Society, which seeks to embrace in its fold all and sundry of native-born Australians, is a political organization, and seeks to use its medical benefits as a means of attracting members to it. It has been in existence in Victoria for some years, and seems to have the profession in that State completely under its thumb. No medical man can make a practice in a country town in that State unless he chooses to become the slave of the Australian Natives' Association and attend at club rates its members, including bank managers, mining directors, solicitors, farmers, squatters, etc., in fact all the people who can really afford to pay ordinary medical fees. We have some woful letters from medical men in Victoria, telling us of the tyrannical exactions of the Association there, and heartily approving of the action of the New South Wales Branch in the stand they have taken against this huge sweating institution. In consequence of our refusal to attend them in New South Wales, the Association is not flourishing as its energetic officials would like, and now they are endeavouring to form an alliance with the Friendly Societies and urging the latter bodies to take up their cause against the British Medical Association. We hope, however, that the legitimate Friendly Societies will see that such a move can do them no good, and would only tend to strengthen this body as a serious rival to them.

The profession in New South Wales is well organized, and the time has come when the British Medical Association must allow its influence to be felt as a body, and impress the general public with the fact that it is an important and well organized body, and not an insignificant section of the profession, as we have been represented to be. Out of a total about 700 medical men in this State, 425 are now members of the Branch, and we are making an effort to secure as members of the Association every reputable member of the profession in the State.

I would warn medical men against buying a practice anywhere in New South Wales without first making very careful enquiries about it. We have a "black list," and if a medical man were to purchase the practice of one on this list, he would find himself in an awkward predicament on arrival here, as it would mean either that he would have to give up the practice and probably sacrifice his capital, or else be tabooed by the profession here. Any medical man who contemplates coming to New South Wales to practise should first communicate with the honorary secretary of the New South Wales Branch of the British Medical Association, who will always advise him as to the position of matters in this State.

MELBOURNE.

The New Fever Hospital. The Women's Hospital. Death of Dr. Snowball.—The Drought and the Price of Food.

THE new Fever Hospital, which is a fine architectural building erected on the banks of the river Yarra a few miles outside of Melbourne, is to be formally opened in about two months. The Government has undertaken to obtain the necessary furniture to equip the hospital. The establishment of this special hospital will materially relieve the congested state of the wards of the Melbourne Hospital, for at present it is the only institute which admits scarlet fever, measles, and diphtheria.

The difficulty with the resident staff still continues at the Women's Hospital. The only applicant for the resident midwifery appointment was a lady doctor. She was elected at the remuneration of £250 a year. The resident on the gynaecological side, who is the senior officer and only gets £50 a year, has refused to act as *locum* when his colleague takes a few hours off. The Committee is in a dilemma, and blames the Medical Students' Society for boycotting the institution. It also threatens to close the institute to students. The difficulty may possibly be ended by the Committee reinstating the dismissed residents and permitting them to resign.

I am more than sorry to have to record the death, at the age of 47 years, of Dr. W. Snowball, who for twenty-four years was the senior medical officer on the honorary staff of the Melbourne Children's Hospital. Dr. Snowball was a native of Melbourne, and took his M.B. degree at the Melbourne University in 1875. He then proceeded to England, where he spent two years in studying the diseases of children. On his return to Melbourne he became associated with the Children's Hospital, and he has during his whole life enthusiastically identified himself with it. About a year ago his health began to fail from heart disease, and he was compelled to withdraw from practice. He held a number of representative appointments. He was physically a big man, and was always kind and gentle to his little patients. He had strong humane and personal affections, and was sympathetic to all sorrow. His death has brought grief to all who knew him.

The outlook for the approaching winter in this State, and probably in the whole Commonwealth, is bad. Prices for food of all kinds are going up. The terrible drought which has devastated the whole of the Australian continent for the last eight years is given as an explanation for the scarcity of meat. The quantity of stock which has succumbed is appalling. Queensland has lost at least three quarters of its whole stock of sheep, and New South Wales has suffered equally severely. Vegetables are also scarce and rising in value—potatoes £5 per ton and onions up to £8. Flour has jumped to £9 10s. per ton, and the 4 lb. loaf of bread is 6d. Butter is now 1s. 6d. per pound, and there is a scarcity even at that price. The cry is for rain.

HONG KONG.

Report on the Sanitary Condition of the Colony in Reference to Bubonic Plague: Measures Recommended to Prevent the Annual Recurrence of the Epidemic. Recent Cholera and Plague.

PROFESSOR W. J. SIMPSON has submitted a second memorandum to the Government with reference to the sanitary condition of Hong Kong and setting forth what reforms seem to him

necessary. Most of the suggestions made in his first memorandum in January have been carried out.

The report begins by pointing out that between the new year and the date of the last return of persons from the tombs festival in April the colony in Hong Kong runs greatest risk of infected persons, infected clothes and infected rats being brought into the colony from infected villages on the mainland.

One of the circumstances that tend to keep up the recurrence of plague is this intimate intercourse with infected areas; another is that Hong Kong is a great emporium with hongs and godowns filled with stores and infested with rats susceptible to the disease; a third is the poor class of people of which the greater part of Hong Kong consists; and a fourth is the conditions under which a large portion of this class live. It is essentially a labouring class, floating in its character and non-residential, mostly consisting of mates with their wives and families, in the villages of China, and, like all people of this class in Eastern towns, living under very insanitary conditions.

In the earlier years of the colony a type of building was permitted, with the result that in some of the older parts of the city the number of persons per acre is enormous; for example, in No. 5 District there is over 840 persons per acre, "which is more than three times the worst and most crowded area of Calcutta." "It is possible to erect high buildings which are sanitary, but in Hong Kong the buildings are insanitary in structure and design, and also high." In these insanitary houses and in the godowns rats abound, and to them is due the epidemicity of plague in Hong Kong. Professor Simpson notes the attempts made by the Government to bring about a better state of matters, and in reference to the work of the medical officer of health, says:

Scarcely more than six years have elapsed since the appointment of a medical officer of health, and during this period, especially since the passing of the Insanitary Properties Ordinance of 1899, much has been done to open up and endeavour to make habitable a very large number of the worst houses. Dr. Clark's work and that of the Sanitary Board in this respect are worthy of the highest commendation, and it is a matter of surprise to me the large number of improvements that have been effected in so short a time. But notwithstanding the activity of the medical officer of health, who is untiring in his devotion, his labours are not so productive of benefit as the conditions require, because, even with the existing Ordinances, there is neither the power nor the organization to remedy the past or prevent insanitary dwellings and insanitary areas being constructed in the future. Moreover, to prevent further overcrowding it is essential to raise the existing minimum of superficial area and cubic space permitted for each person and to spread out the population.

It is suggested that a bulletin setting forth the number of cases occurring in the cities and towns in South China be obtained from Europeans in charge of customs stations or medical missionaries. The inspection of junks and river steamers during the earlier months of the year is recommended, also the systematic destruction of rats on incoming steamers and junks from the Chinese coast from infected ports which go to the wharves or into the docks. But

the defence against the importation of plague being weak, it is all-important that the defence against its spread in the town shall be particularly strong in order that full control over the disease may be obtained. This cannot be said to have been the case hitherto, for there exists no special and separate organization for that purpose.

Professor Simpson calls attention to the fact that crowds of emigrants for Singapore, etc., coming from the country districts—between New Year and May stay for a few nights in Hong Kong, and that no supervision is taken over the lodgings in which they reside, nor over their state of health while in Hong Kong, and suggests that compulsory notification of all cases of sickness, whether infectious or not, among those emigrants, should be notified by the emigrant-house keeper. In fact, the medical and police supervision of the emigrants should be so thorough, that each man can be traced to his lodging-house, and his state of health known during his residence in the Colony.

The early discovery of plague cases is one of the requisites necessary for dealing with the disease. Plague, with millions of minute and invisible microbes capable of self-multiplication, is more formidable than an army, even with smokeless powder, and it is as essential, when dealing with plague, to have the earliest possible intelligence of its several movements as it is for a general in the field to know the exact and, if possible, the intended movements of the enemy he has met.

The present system of notification, though applicable to European countries, is of little value in a place like Hong Kong. The ordinances of Hong Kong impose notification of infectious diseases on medical men, lodging-house keepers, and on householders.

[illegible] Europeans [illegible] which may occur [illegible] Chinese or other [illegible] so far as [illegible] are placed in a dead letter [illegible] reporting [illegible] Hong Kong the cases are found dead in the street or floating in the harbour. In 1899 no less than 56 per cent. in 1899 40 per cent., and in 1900 37 per cent. were thus found, even though special constables were employed. Until this is put a stop to there is no chance of plague being effectually dealt with.

To abate this serious trouble Professor Simpson suggests that the responsibility for these cases being found in the streets or harbour be thrown on the Chinese themselves.

I would recommend that the City of Victoria and Kankou be divided into districts and subdistricts, and each subdistrict into streets, and if there is a long street, subdivide this again. Then let each householder be served with a notice pointing out the importance to his own welfare of the plague being prevented and the necessity of his complying with the law and notifying to the central sanitary office, or office of the medical officer in the district, or the police office, any case of sickness or death in his house, and also warning him that in the event of a dead body being found in his street, not only he, but all the householders in that street, will be subjected to a fine, which will be placed in a common fund to defray the expenses of providing watchmen, blocking up the street, and of taking other measures to prevent the spread of plague.

The circulation of literature dealing with plague and printed in Chinese would also be a great help in gaining the intelligent co-operation of the Chinese.

For the purpose of locating plague the daily examination of the rats bacteriologically gives most valuable information, and it is all-important that this information should be promptly acted upon. It is important to thoroughly grasp the fact that plague spreads slowly at first, whether among rats or human beings. When an epidemic once gets beyond a certain stage none of the measures which were useful at the beginning will influence the duration of its destructiveness. Measures, such as the evacuation of a whole block, on account of rat or human plague will prove successful if applied promptly and at an early stage, but cannot be recommended later on because of their impracticability.

Later vacating the house is the chief measure, and, when this is done promptly, it has been ascertained that the number of contacts falling ill afterwards forms but a small percentage.

The system until lately practised of vacating a floor for six hours only during the fumigation should, therefore, be replaced by a complete vacation of the building in all cases.

Before the house is reoccupied, a thorough inspection should be made as to rat-runs, etc., and the authorities should have power to declare a house unfit for human habitation, and have power to prevent it being used as such. Professor Simpson recommends that a special plague department be instituted, and gives a summary of the duties which should be assigned to it. The great defects of the "cubicle system" of houses in Hong Kong is referred to, and further building ordinances are necessary before these can be remedied.

Excellent plans of improved Chinese houses have been prepared by the present Director of Public Works, and by one or two of the local architects. No cubicles should be allowed in new houses unless each cubicle is provided by a window. In old houses the cubicles should be gradually eliminated, except, perhaps, in top storeys, where skylights and special arrangements for ventilation can be introduced. To prevent overcrowding, the superficial area or floor area should be raised from 30 to 50 ft. per head.

In conclusion, Professor Simpson states that the details of the measures he suggests "can only be properly considered and efficiently carried out by an administrative President of the Sanitary Board, whose whole time is devoted to this work, and whose title might be 'Sanitary Commissioner for the Colony.'" A preliminary report on the sanitary condition of Hong Kong has been submitted by Mr. Chadwick to the Government.

The returns of cases of cholera to April 15th was 106 cases, of which 97 proved fatal. No cases have so far occurred among Europeans in Hong Kong, though in Canton there have been several sad deaths among the foreign community. There is no doubt that the great scarcity of rain in South China is the cause of the outbreak, and for many months the wells in Canton have been almost dry. In Hong Kong the water supply, though greatly limited in quantity, has been of good quality; many of the poor people, however, have been forced to obtain water from the nullahs. Rain has fallen recently, and though not in sufficient quantity to make any perceptible addition to the reservoirs, still there is every indication that the rainy season has set in. The present outbreak of cholera is one of the most serious that has occurred in the Colony. Concealment of cases by the Chinese prevents, as a rule, early treatment and the rate of mortality is nearly 91 per cent. The number of cases of bubonic plague reported to April 22nd was 18 cases and 18 deaths, as compared with 115 cases and 100 deaths during the corresponding period last year. But though the number is small, it has to be borne in mind that the season has been quite exceptionally dry, and it is too soon to assume that Hong Kong will escape this year. Every effort is being put forth to trace the houses where dead rats with plague bacillus have been found, and to carry out disinfection in these premises. As Indian doctors were not

available, the Hong Kong Government have appointed six Japanese doctors, who are expected in a short time. It is understood that Professor Simpson will remain in the Colony till August.

INDIA.

The Medical Services in India.—The Progress of the Plague.—New Laboratories for Calcutta.

On the appearance of the report of the Committee on Reorganization of the Army Medical Service some months ago, I specially criticized the long series of examinations, and the ambiguity as to the pension to officers after twenty years' service who failed to pass them. The recent Warrant has materially altered these recommendations by reducing the number of examinations and retaining the pension of £1 a day after twenty years' service. As, moreover, the scale of pay has been raised, the Warrant is a distinct advance in the right direction. The most important point remaining to be settled is the extension of the increased pay to India, and until this is done, and the Indian Government is compelled to carry out fully both the letter and the spirit of the new Warrant, recruits will not be forthcoming in sufficient numbers to allow of the *personnel* of the service being increased up to the point which will allow of adequate study and other leave being granted, and contentment being once more restored to the service. Further, as a result of the increase of the pay of the Royal Army Medical Corps, including the allowances for charges of hospitals, the pay of the Indian Medical Service will have to be substantially increased to bring it sufficiently over that of the home service to compensate for continuous service in India, and the rapidly vanishing emoluments of private practice. I mentioned some months ago that commissions in the Indian Medical Service had been offered to no fewer than twenty-six plague medical officers. These men had lived for from one to three years in India in daily contact with officers of the Indian Medical Service, and consequently were in a most exceptionally favourable position to judge of the attractions of the Indian Service. Many of them appreciated the various advantages of life in India, and were looking out for permanent employment here. Yet we find that for one reason or other (in some cases on account of being over the age limit), only three out of the twenty-six selected men have accepted commissions without examination in the Indian Medical Service. This is as striking confirmation of the steadily-increasing unpopularity of the service, to which I have often previously referred, as could possibly be imagined, and ought to convince the responsible authorities that there is no time to be lost if the breakdown of the Army Medical Service is not to be repeated in a more acute way in the case of its Indian sister. The question of the amalgamation of the two branches of the medical services in India, and its separation from the home service is still being discussed, and is believed to find favour in some quarters. The advantages claimed for this scheme are that it would enable all army medical officers to get operative experience during a turn in the civil branch. I have previously pointed out the disorganization of civil medical work which such a plan would produce, while I am also convinced that it would remove the last attraction of the Indian Medical Service by greatly reducing the proportion of officers who could get permanent civil work. If any alteration is required, it is the entire separation of the civil from the military branch, which would doubtless have been carried out long ago but for the expense involved.

During the last month the weekly death-rate from plague has fallen from 26,000 to 17,000, as compared with 4,000 at the same time last year. The most marked feature of the recent seasonal increase has been the extraordinary virulence of the disease in the Punjab, where the mortality has run up to over 16,000 a week as compared with 500 last year. On the other hand, the figures for the districts of Bengal are equally remarkable in the other direction, especially as regards Behar, for while last year the mortality ran up during April to nearly 8,000 a week, and a more severe outbreak was anticipated this year, yet at the present time the weekly death-rate is only about 500, and a month ago, when at its height it did not reach 2,000. Truly, the vagaries of plague are past finding out. In the largest towns—Calcutta and Bombay—the disease appears to have settled down to a steady mortality each year during its seasonal incidence, and the figures for the last two years do not differ widely in either case, the highest weekly total being somewhat less than last year, but this is counteracted by the somewhat longer period for which the disease has prevailed. The case mortality has been extremely high in Calcutta this year as compared with last, so that there is no evidence of any decrease in virulence to draw hope from.

Money has at last been found for the long-projected laboratories at the Medical College in Calcutta, and work at the building is being commenced. It will be a large, three-storied, L-shaped block, on a very similar plan to the chemical laboratory, and will contain the physiology, pathology, and bacteriological departments. A whole-time physiologist, in addition to the present pathologist, will eventually be appointed. It is expected that the buildings will be finished in about eighteen months time, and it is to be hoped that they will be liberally equipped, as there is no place in the world which presents such a wealth of material for the investigation of tropical diseases as the Calcutta hospitals; the greater part has run to waste owing to the pathologist having been until recently also resident physician, and having consequently no time for research work, being constantly liable to be called to the wards at any minute day and night. The credit for pushing on this laboratory is due to Surgeon-General Franklin.

CORRESPONDENCE.

INTERNAL DERANGEMENT OF THE KNEE-JOINT.

SIR,—I have read Mr. Noble Smith's commentary on the long and instructive series of cases, operated on by Mr. Mayo Robson for internal derangement of the knee-joint, and published in the BRITISH MEDICAL JOURNAL of April 12th, 1902. I also express my high appreciation of the whole series, but omit here any allusion to the removal of loose bodies, confining my remarks to the cases of injury to the semilunar cartilages.

Under this head I note with interest Mr. Robson's reference to a few in which the external cartilage was involved. This exception I myself met with for the first time recently, and operated on four days after the appearance of Mr. Robson's paper. All my previous cases, one so late as a fortnight before it, had reference to the internal cartilage.

I notice also that the date of Mr. Robson's first operation for the purpose is February, 1888. My first was performed on June 27th, 1894, no previous opportunity having presented itself; but I was well aware of the work performed by Mr. Annandale in Edinburgh, and so clearly described by him in the JOURNAL of April 18th, 1885, and February 12th, 1887, on which latter occasion he quoted 7 cases of operation on torn or displaced semilunar cartilages.

It appears to me to be only due to Mr. Annandale to give him the credit that I presume he is entitled to for having made known to surgeons the striking success that attends the method in question that of opening the knee-joint at the level of the semilunar cartilage supposed to be affected, and stitching down in place the torn fragment, or what generally is more practicable, cutting it away. It sometimes happens that the injured portion of cartilage presents the moment the joint is opened at its level, as well stated by Mr. Annandale; at others a search has to be made. In only one suspected case have I failed to find definite laceration or fracture of the cartilage with the folding that so plainly accounts for the patient's disablement. On that occasion, though operating on the inner side, and from thence fairly inspecting the whole joint, it is just possible that I ought to have attacked the outer side. I cannot say now. All I know is that in every other case the disablement was abolished and the joint restored to healthy use and strength. In the one case perfectly harmless and rapidly-successful healing took place, but the further result has, with the patient, been lost sight of, and not successfully traced so far.

The operations performed by Mr. Annandale, by Mr. Mayo Robson, by myself and colleagues, and by other surgeons, have been in selected cases, in some of which simpler pallia-

tive methods have proved insufficient: in others of which to attempt any milder treatment would be obvious waste of time and violation of common sense. In my patients, the first was a coal miner, others working men of various kinds: the last case a working man who was perfectly unaware of having injured his knee at any time, the need for operation being recognized by the disabling symptoms and the associated synovitis; one was a clerk; another a woman, a hospital nurse. So it is plain that the condition may occur quite easily "in people engaged in less violent occupations than mining."

When Mr. Noble Smith refers "to the possibility of curing this disorder without a cutting operation" he is only repeating what every one knows and has taken for granted since the days of Hey, if not before. The cases requiring operation are such as neither Mr. Noble Smith nor any one else can do any good to by manipulations or movements, and demand the strictest attention to the requirements of antisepticism.

I now beg to express my heartiest thanks to Mr. Annandale for the practical lesson derived from his most valuable communications under the dates I have mentioned.—I am, etc.,

RUSHTON PARKER, M.B., B.S., F.R.C.S.,
Professor of Surgery in University College; Surgeon to the Royal
May 26th. [illegible] Infirmary, Liverpool.

ON THE USE OF THE TERM "BLASTOMA."

SIR,—In the report of the meeting of the Pathological Society of London of April 29th given in the issue of the BRITISH MEDICAL JOURNAL for May 3rd, which has just come to hand, I note that, following Dr. C. P. White, the term "blastoma" is employed to indicate the group of tumours formed of "indifferent cells" which eventually give rise to both connective tissue (sarcomatous) and epithelial (carcinomatous) elements—the carcino-sarcomas. If I remember aright Dr. White first employed the term as thus defined in his article upon the definition, terminology, and classification of tumours in the *Journal of Pathology*, vol. vi, 1899, p. 220. In his interesting Erasmus Wilson lectures delivered in February last he again urged the employment of the term in this same sense, and in both articles states that he owes it to Dr. Herbert Snow, who in November, 1895,[1] proposed its use to indicate a somewhat similar group of new growths. What Snow suggested was that one variety of "round-celled sarcoma" should be given this name, forms of "congenital cancer, so to speak," arising in such parts and in such circumstances "as to leave no doubt as to their origin from unobliterated rudiments of fetal structures." Under this title, according to him, would be grouped "many lesions occurring for the most part in childhood or early youth—the ovary, palate, mediastinum, bladder, prostate, etc.," and "consisting wholly, or almost so, of rounded cells."

It will be seen, in the first place, that Dr. White in seizing upon Dr. Snow's term, employs it in a different sense. Snow's definition is vague, and his classification, I fear, cannot stand. There would thus be at least a plausible excuse for the appropriation, were it not that years prior to White and several years also prior to Snow this term had been introduced in a more definite sense and by a very prominent pathologist—in fact, by no less an authority than Professor E. Klebs, in the second volume of his frequently-quoted *Allgemeine Pathologie*, published at Jena in 1889. For some 330 pages in his treatment of the subject of tumours he consistently employs the term, and so important is his work that there is no excuse for overlooking his usage thereof, or for employing it, without acknowledgement, in a sense different to that laid down by him.

Briefly, Klebs objected to confining the term "neoplasia" to tumour growths on the ground that simple hyperplasia is also neoplasia. For "neoplasia" and "neoplasm" he substituted "blastosis" and "blastoma," and he classified tumours into the two great groups of the Blastomata, or tumours proper, subdivided into typical and atypical, and the Teratoblastomata or Teratomata, the products of fetal implantation.

I am to a certain extent personally interested in this matter, because in recent articles (as, for instance, in my address upon the causation of cancerous and other new growths, published in the JOURNAL last year), reverting to Klebs's classification, I have used the term blastoma in the sense indicated by him. A little consideration will show that it is essential to possess some word to designate every-day tumours as distinct from the peculiar group of the teratomata, and that this term blastoma is quite the most suitable for the purpose. I had imagined that Klebs's work was so well known that it was unnecessary to indicate the origin of the word. Evidently, this was a mistake; but evidently, also, when it has been given so clear a meaning, there is no justification for seeking to send it into more active circulation with a new and restricted significance. Priority demands that in the absence of urgent cause it be employed as originally understood, and that Dr. White select some other term for the group of cases of carcinoma sarcomatodes.—I am, etc.,

Montreal, May 15th. J. GEORGE ADAMI.

[1] *Trans. Path. Soc. Lond.*, xlvii, 1896, p. 230.

THE CONSTITUTION OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—I was sorry to find that the Council are proposing to adopt the same tactics at the forthcoming extraordinary meeting as they unfortunately did some two years since. It seems strange that we are called upon to swallow the whole box of pills set before us; it would be so much nicer and far more gentle to let us have the option of taking one or more at a time and rejecting those we do not like.

We are of course, aware that the subjects have been thoroughly gone into by a very painstaking Committee, and we are also aware that *that Committee were divided on many crucial points*. I do not take much notice of the deliberations at Cheltenham, because there was really little opportunity given for any opposition to the new Constitution.—I am, etc.,

Cardiff, May 26th. T. GARRETT HORDER.

THE ANNUAL MEETING AT MANCHESTER: SECTION OF ETHICS.

SIR,—I desire to make use of the columns of the BRITISH MEDICAL JOURNAL for the purpose of drawing the attention of the members of the Association to the Ethical Section at the forthcoming annual meeting.

A considerable number of circulars have been sent out inviting the co-operation of members in making the Section a success either by the reading of papers or the proposal of resolutions. I regret that so far the replies have been rather disappointing. It is certain that many members have not been directly approached who might reasonably expect to have been. Such omission is not intentional, and I shall be glad to hear from any one who is desirous of placing his views on any medico-political or medico-ethical subject before the Section.

It is proposed to devote one session to the discussion of contract practice. This is the most important question before the profession at the present time, and it is hoped that papers dealing with its many aspects will be forthcoming. Probably another session will be devoted to the question of hospital reform. A third question of importance that ought to be discussed is the Vaccination Act, while Mr. Victor Horsley will open a discussion on the organization of a political bureau in the Association. Other subjects of perhaps minor importance will also be brought forward.

The Section ought to appeal more especially to those members of the profession who are engaged in general practice, inasmuch as the various subjects to be brought forward are intimately concerned with their material interests. It is expected, therefore, that it will be an unqualified success not only as regards the papers read before it, but also as regards the attendance and the thoroughness with which the subjects are discussed. I am, etc.,

SAMUEL CRAWSHAW, M.B.,
Honorary Secretary to the Ethical Section.
Trafalgar Square, Ashton-under-Lyne.

NOTES ON CEREBRO-SPINAL MENINGITIS.

SIR,—The last sentence in Major Freeman's paper in the BRITISH MEDICAL JOURNAL of May 24th is the culminating point in compelling the writer to forward some suggestions. Major Freeman writes that a perfectly healthy man scrubs out a ward which has been continuously used for enteric cases; within the next four days the man dies of cerebro-spinal meningitis. Taking this statement alone, does not the

idea at once enter many minds that some if not many of these so-called enterics have been in reality cases of cerebro-spinal meningitis?

It is not only Major Freeman's paper which has called forth these notes. Accustomed as we are in Great Britain to hold two fixed ideas as to cerebro-spinal meningitis, it is not wonderful that we fail to recognize it. It is regarded as an uncommon disease and a fatal disease. In the writer's belief it is neither. "While serving with the Ashanti Field Force we saw 80 cases of it, which we reported in the *Journal of Tropical Medicine*, and we saw cases of every degree—from those who died within forty-eight hours of onset, screaming with cephalic pain and showing marked retraction of the head, to others merely showing slight *malaise*—and in every one of these cases, and in no one of 40 others examined for control purposes, blood films made during life showed polynuclear leucocytosis and diplococci. These diplococci were taken several times also with every aseptic precaution and cultures made, and it was then decided that the microbes belonged to the Weichselbaum group."[1]

Recently paper after paper has appeared in the JOURNAL recording cases of enteric, or of malaria, or some other named disease with attempts to explain why these cases were not quite in line with the others of the same name.

If, in the next patient showing doubtful signs of enteric or "Pretoria fever" or malaria with, for example, headache, fever, *malaise*, giddiness, and possibly abdominal instead of head symptoms, a simple blood examination be made, this may throw light. If possible, cultivate from the blood—if not, make from it a methylene blue-stained slide (coverslip not essential) and hunt for a diplococcus. It may be intracellular—in the cerebro-spinal fluid it fairly often is. It answers to the textbook descriptions (for example, Muir and Ritchie), and the leucocytosis is often extreme in the early stages. If the patient dies, examine the meninges for meningitis and the cerebro-spinal fluid for diplococci.

With regard to the relapses described in several of the papers lately written, in our cases by far the best treatment for them was to keep the patients in the open-air before the time the relapse was expected, and from thence onward.

Unfortunately the writer has now no opportunity to examine such cases, but hopes that to some few at least of our puzzled brethren, who cannot induce a disease to declare itself as either malaria or enteric, this method may bring help.

The writer would most thankfully examine any (fixed) slides which any worker would be kind enough to forward.—I am, etc.,

MARY HAMILTON WILLIAMS.

89, Ashted Row, Birmingham, May 27th.

THE ABOLITION OF ENTERIC IN ARMIES.

SIR,—Absence from England has prevented me replying to certain correspondence which has appeared in the BRITISH MEDICAL JOURNAL since December last bearing upon (1) the paper I read at Cheltenham on the theory of airborne typhoid in armies, (2) the scheme I proposed in July last for the abolition of typhoid in armies.

In this interval various instances have been recorded to establish either the relative importance of air or water as avenues of typhoid to man, and strong support has been given to my scheme for the abolition of enteric in armies by the papers of Dr. Childs and Surgeon-General Evatt in laying stress on various points of that scheme. If you will allow me I will later deal with certain points in this correspondence. At present I desire to confine my remarks to the subject treated in your leading article (May 3rd), and subsequently (May 10th) on the prevention of enteric fever in moving columns.

The scheme which I proposed in July last for the prevention of enteric in armies is now practically adopted for the army in South Africa. It has already been put in action largely at fixed camps with the result that the Principal Medical Officer reports the enteric of the past winter came "mostly from the columns," which were left unprotected by this scheme.

On May 6th Mr. Brodrick stated that a scheme was being prepared to ensure the soldier on the march being supplied with a sufficient quantity of "safe" water. In other words, the whole army in South Africa will shortly come under the scheme I proposed in July last. This scheme I outlined in the *Standard* (September 10th, 1900), published in July, 1901, and elaborated in every essential military detail in my lecture before the Royal United Service Institution in November last.

For this reform—the greatest sanitary reform ever carried out for the army—the country is indebted largely to the military and lay press, which has reviewed and urged the adoption of my scheme since July last, and some as far back as September, 1900, when almost every one regarded the scheme as utopian. However what was utopian yesterday, and declared by Lord Stanley only in August last in the House of Commons to be "entirely impracticable" will be in the "regulations" to-morrow.

In this connexion, Sir, you observe in your article in the JOURNAL of May 10th: "We cannot help feeling that a great many lives have been sacrificed owing to the failure to make such inquiries, and to devise at an early date some such schemes as those which are now in force or shortly to be put into force."

This, of course, is all quite true; but would it not have been fairer to have drawn attention to this scheme in the early stages of the war? After all, Mr. Brodrick is not a sanitarian, and must act on the advice of his Medical Board, and as the Medical Board was not prepared to urge this scheme in August last, he had to wait for the advice of the new Advisory Board at the close of the year.

Whether the scheme now in preparation by the War Office will satisfy the eight conditions I have regarded as essential remains to be seen. I am not excusing in any way the War Office from blame in the delay shown in adopting this scheme, which I regard as most serious, but I do not think the BRITISH MEDICAL JOURNAL has the least right in this case to cast the first stone.—I am, etc.,

Belsize Square, N.W., May 27th. LEIGH CANNEY.

*** The publication of this letter must not be interpreted as an acceptance of Dr. Leigh Canney's assertion that it is his scheme which is being put in force in South Africa. In the present crowded state of our columns we cannot undertake to find space for further lengthy letters on the general subject.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

A CORRESPONDENT writes: In the BRITISH MEDICAL JOURNAL of May 3rd a comparison is made between the latest regulations for the Royal Navy Medical Service and the last Royal Warrant, Army Medical Service; but institute a comparison of what was *wanted* for the navy and what has been *done*, and it will then be seen how wofully these new regulations fall short of the necessities of the situation.

We have somewhat condensed our correspondent's communication.

Medical Director-General.—Pay increased by £400 a year.

(1) He should have been given more personal influence and placed in a position to *appoint* instead of *nominating* medical officers for the approval of the Board of Admiralty.

We fear Lord Selborne's recently expressed views do not encourage the hope that such a change in Admiralty procedure would be entertained by the Board.

(2) *Deputy Director-General.*—To be taken from Inspectors-General. The *Assistants to the Director-General* to be more senior medical officers than at present, with special rates of pay; these appointments should have a definite time limit.

Inspectors-General.—Pay, with new charge pay, increased by £400 a year. (1) Their numbers should be six, instead of a possible five as at present, one to be appointed to the medical department, and another to Malta Hospital. (2) They should be considered and treated as P.M.O.'s of their port. (3) They should be empowered to award minor punishments when necessary to members of the sick berth staff at their hospitals. (4) They should be allowed a boat for official purposes.

Deputy Inspectors-General.—These officers have received no benefit from the regulations. (1) They should have charge pay when in charge of hospitals or of divisions of the larger hospitals, as, indeed, should all medical officers similarly situated. Our correspondent thus concurs with the views we expressed in the JOURNAL of May 3rd, as officers of the R.A.M.C. have such charge pay. (2) Deputy inspectors-general in the principal home hospitals should be released from alternate day duty, as officers of their seniority in other branches of the service have no such restrictions as to their leave. (3) Their number should be increased to 15, as arranged two years ago.

Fleet Surgeons.—Pay increased by 2s. a day, consequently a fleet surgeon of eight years' service, if in a flagship with an allowance of 5s. a

[1] *Journal of Tropical Medicine*, November and December, 1900, Notes on Cerebro-Spinal Meningitis, by E. G. Hamilton Williams, M.R.C.S., D.P.H., and Mary Hamilton Williams, M.B., B.S.Lond., D.P.H.Cantab., Special Medical Officers to the Ashanti Field Force.

would receive 41s. a day, the pay of a deputy-inspector-general being 42s. a day.

1. Promotion to this rank should be made at the end of sixteen or eighteen years in the service, in order to attain it nearer to the age of other naval officers of similar relative rank.

2. Special cabins are again promised, the failure to carry out former similar promises has led to many retirements.

3. These officers should have, when serving afloat, two surgeons to relieve them from day-and-day-about duty, if only one surgeon is borne in the ship.

4. Their relative rank with lieutenant-colonels, R.A.M.C., should be adjusted, as at present all are junior to those army medical officers.

Staff-Surgeons.—Pay increased by 3s. a day; (1) Promotion to this rank should be at the end of eight or ten years in the service in order to secure that relative rank nearer the age of other naval officers of the same rank; (2) some seniority should be given to surgeons passing their examinations for promotion so this rank with distinction, as in the R.A.M.C.

Surgeons.—Pay increased by 3s. 6d. a day: (1) All supernumerary surgeons to be employed at the larger naval hospitals, which are generally under-officered; (2) all junior surgeons on leaving Haslar course of instruction to be sent early to sea instead of to the naval dépôts at the home ports for odd work and to their great discontent.

General Subjects.—(1) An increase in the number of honorary physicians and honorary surgeons to the King; (2) more study leave, especially after foreign service; (3) a definite roster for all officers for foreign sea and home service; (4) a proper Admiralty regulation establishing medical guard, and excluding fleet surgeons from this duty, which should not be left optional with the senior naval officer present; (5) acting appointments to be made when vacancies occur, instead of junior officers being employed "in lieu," thus having increased duties and responsibilities without any pay for the same; (6) additional pay for all specialists who are doing these duties satisfactorily.

Our correspondent submits a comparison of old and new naval medical establishments, showing a remarkable reduction in relation to naval strength; also of half-pay time, but also a consequent very small reserve, the object of half-pay in former days.

	1859.		1901.	
Naval strength	52,859		110,640	
Inspectors-General	7	5*	5	2*
Deputy Inspectors-General	18	11*	13	11*
Fleet and Staff Surgeons ...	321	227*	185	173*
Surgeons	271	255*	264	255*
	617	418	467	441†

* On full pay.

† Some of the junior officers not appearing "on full pay" may be on full-pay leave, unknown in 1859.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Henry E. South, Staff Surgeon, and Henry C. Adams, Surgeon, to the *London*, June 2nd; Edward P. Mourilyan, M.B., Staff Surgeon, to the *Retribution*, June 5th; Horace Elliott, M.D., Staff Surgeon, to the *Severn*, June 5th; Anthony Kidd, Fleet Surgeon, to the *Collingwood*, June 1st; Alexander Maclean, M.B., Staff Surgeon, to the *Penguin*, June 1st, and on recommissioning, undated; Robert Hill, Staff Surgeon, to the *Tribune*, June 5th, and on recommissioning, undated; Edward F. Power, Surgeon, to the *Pactolus*, June 5th; Herbert W. B. Shewell, M.A., M.B., Surgeon, to the *Surprise*, May 26th.

ARMY MEDICAL STAFF.

Surgeon-General A. F. Preston, M.B., K.H.P., retires on retired pay, May 23rd. Appointed Assistant Surgeon, September 30th, 1863, he became Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; Brigade-Surgeon, November 30th, 1886; Surgeon-Colonel, March 28th, 1892; and Surgeon-Major-General, March 30th, 1895. Surgeon-General Preston has seen service successively in India with the 27th Foot, with Royal Artillery in Bengal, with the Army Service Corps in Ireland and Bombay, was for a short time on half pay at Dover, Bombay, Portsmouth, Ireland, Hong Kong, and again in Ireland. Pending the arrival of Surgeon-General Taylor, Surgeon-General Preston acted as Director-General, Army Medical Service. His war record is confined to the Afghan war in 1879-80, in which he was at the battle of Maiwand (severely wounded), at the action of Girishk, and the siege of Kandahar (mentioned in dispatches, medal, and promoted to be Surgeon-Major, with the relative rank of Lieutenant-Colonel).

ROYAL ARMY MEDICAL CORPS.

Surgeon-Colonel Samuel Archer died recently at Rapallo, Italy, aged 68 years. He joined the army as Assistant Surgeon, August 5th, 1858; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1879; Brigade-Surgeon, October 16th, 1887; and Surgeon-Colonel, November 23rd, 1889. He retired from the service July 9th, 1895. He was attached to the 101st Fusiliers with the Ensoifzai Field Force on the North-West Frontier of India in 1863, and was at the storming of the Conical Hill and the destruction of Umbeylah (medal with clasp); with the Nile Expedition in 1884-85 in charge of the Field Hospital at Korti (medal with clasp and Khedive's bronze star); and with the Soudan Frontier Field Force in 1885-6 in medical charge at Wady Halfa and on the line of communications at Akasheh.

APPOINTMENT OF EXAMINERS.

The list of examiners for the Entrance Examination is not yet complete, but the following have already accepted appointment: Dr. E. Markham Skerritt (Bristol) and Dr. Craig (Dublin) in Medicine, and Sir William Thomson, C.B. (Dublin) and Professor Chiene, C.B. (Edinburgh) in Surgery.

THE INDIAN MEDICAL SERVICE.

Appointment of Examiners.

The Secretary of State for India has appointed the following gentlemen to be Examiners for the Indian Medical Service:

Professor Clifford Allbutt, M.D., F.R.S., in Medicine and Therapeutics.

Mr. Howard Marsh, F.R.C.S., in Surgery and Diseases of the Eye.

Professor D. J. Cunningham, M.D., F.R.S., in Surgical Anatomy and Physiology.

Professor R. Calder Leith, M.A., B.Sc., F.R.C.P.E., in Pathology and Bacteriology.

Dr. R. Milne Murray, M.A., F.R.C.P.E., F.R.S.E., in Midwifery, Diseases of Women and Children.

Professor Ralph Stockman, M.D., F.R.C.P., F.R.S.E., in Chemistry, Pharmacy, Botany, and Zoology.

INDIAN MEDICAL SERVICE.

The undermentioned Lieutenants, posted to the commands noted, reported their arrival at Bombay on the dates specified: November 1st, 1901, G. E. Charles, Bengal. November 25th, 1901, A. G. McKendrick, Bengal. November 1st, 1901, O. St. J. Moses, Bengal; F. W. Sumner, Punjab; January 25th, 1902, H. R. Nutt, Punjab. November 1st, 1901, W. D. Ritchie, Bengal; N. E. H. Scott, Punjab; J. K. S. Fleming, Punjab; C. E. Southon, Punjab. August 30th, 1901, G. Fowler, Bengal. January 25th, 1902, H. B. Foster, Punjab. November 1st, 1901, G. B. Butt, Punjab; G. C. L. Kerans, Punjab; C. B. McConaghy, Bombay; H. W. Illins, Punjab; E. W. Browne, Punjab; J. B. Christian, Bombay; A. Murphy, Bombay F. T. Thompson, Punjab; L. P. Brassey, Madras; C. F. Marr, Madras.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Surgeon-Lieutenant H. Fox, M.B., from the 2nd Hampshire Royal Garrison Artillery (Volunteers), to be Lieutenant, and to be seconded for service in South Africa, May 28th.

ROYAL GARRISON ARTILLERY (VOLUNTEER).

Surgeon-Captains A. M. Archer, M.D., and R. L. Jones, 1st Cheshire and Carnarvonshire, are promoted to be Surgeon-Majors, May 28th.

Surgeon-Lieutenants E. N. Close, 1st Hampshire, is promoted to be Surgeon-Captain, May 28th.

VOLUNTEER RIFLES.

Surgeon-Lieutenants W. Thompson, 2nd Volunteer Battalion the Prince Albert's (Somersetshire Light Infantry), and J. E. B. Wells, 1st (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment, are promoted to be Surgeon-Captains, May 28th.

Mr. Charles R. Browne, M.D., is appointed Surgeon-Lieutenant in the 3rd Volunteer Battalion the Gloucestershire Regiment, May 28th.

Surgeon-Captain E. Lee, 1st Volunteer Battalion the King's Own (Yorkshire Light Infantry), is promoted to be Surgeon-Major, May 28th.

Surgeon-Lieutenant J. Ratcliff-Gaylard, 2nd Volunteer Battalion the Manchester Regiment, resigns his commission, May 28th.

Surgeon-Lieutenants J. G. Fraser, M.B., and J. J. R. Macleod, M.B., to be supernumerary while serving with the Bearer Company of the 5th London Volunteer Infantry Brigade, May 28th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Lieutenant C. E. Preston, M.B., the Manchester Companies, resigns his commission, May 28th.

THE DIRECTOR-GENERAL AND THE WAR OFFICE COUNCIL.

A Surgeon-General draws attention to the fact that in a late pictorial representation of the War Office Council in an illustrated contemporary the Director-General A.M.S. is conspicuous by his absence. He asks, Does this imply that he only attends when sanitary questions are under discussion?

*** We do not know, but as an official member of the body we imagine he can always attend. We know that the absence of the Director-General from the picture in question has been freely remarked on in clubs and elsewhere where military men do congregate.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

We are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Lieutenant Langford Lloyd	0	10	0
Major F. Smith	0	5	0
Captain G. A. T. Bray	0	10	0
Previously acknowledged	89	10	0
Total ...	£90	15	0

AN ACKNOWLEDGEMENT.

Surgeon-General H. S. Muir begs to acknowledge with thanks donations towards the "Y Fund" from Professor and Mrs. A. E. Wright, Staff-Surgeon Thomas, R.N.; "F. E.," Dr. E. Baxter Forman, Dr. Kerr, Dr. Fuller England, Dr. R. C. Brown (Preston), Mr. J. R. Preston (Fleet

wood), "A Well Wisher" (through Mrs. C. White), Mrs. Dallas Edge, Mrs. J. Irwin, Mrs. H. Stokes, Surgeon-General Preston and the following officers R.A.M.C: Colonel W. T. Martin, Lieutenant-Colonels E. M. Wilson, Pratt, Bedford, J. G. MacNeece, R. Vacy Ash, N. McCreery, G. T. Trewman, H. H. Stokes; Majors Horrocks, Cree, Elkington, Birt, James; Captains Carlyon, J. Clarke (M.); Lieutenant W. M. Power.

The Fund now amounts to £198.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Garden Terrace, W.

MEDICO-LEGAL AND MEDICO-ETHICAL.

"QUALIFIED TO PRACTISE DENTISTRY."

AN unregistered and unqualified person practising as a dentist at Cardiff has been convicted under Section III of the Dentists Act upon an issue of considerable importance, which does not appear to have been raised in any previous case. The case was heard by the stipendiary magistrate, who inflicted the full penalty of £20, with £7 costs, and declined to state a case for a higher court. The Dentists Act contains the words "implying that he is registered under the Act, or that he is *a person specially qualified to practise dentistry*." The prosecution urged that his advertisements implied that he claimed to be specially qualified, that is to say, to be specially competent, whilst the defence attempted to show that the words in the Act were of limited and technical and not of general applicability—that is to say, that they meant a claim to the possession of a "qualification" in the sense of a diploma which has not been or perhaps could not be registered. The magistrate adopted the view that these words must be read in a general sense, and that the advertisements infringed them in making claims of special skill. Unfortunately the Medical Acts do not contain any similar phrase, the Dentists Act being in this, as in some other respects, rather stronger than the Medical Acts upon which, after experience of their shortcomings, it was modelled. The police stated that the man had been convicted of a similar offence in 1895, but we are under the impression that the issue then raised was not quite the same.

MEDICAL PRACTICE IN CEYLON.

WE have received from Dr. Vanderstraaten, of Beliatta, Ceylon, a letter dated April 12th, in which he expresses his disagreement with the statement in the BRITISH MEDICAL JOURNAL of March 15th, p. 691, that his ineffectual endeavours to get the Ceylon Branch to take up the question of registration would seem to indicate that there were local difficulties of which we knew nothing, and says that a committee appointed by the Ceylon Branch to consider a resolution of his with reference to irregular practice, adopted unanimously at a Branch meeting on July 31st, 1898, never met. He fears our expression of opinion that it would not be reasonable to seek to apply the rules as to qualified and unqualified practice which are framed for the stage of civilization met with in Europe to every British colony and dependency will encourage the majority of those qualified medical men who now "cover" unqualified practitioners of medicine to do so to a greater extent. He is confident that an ordinance may be worded to meet the conditions which obtain in Ceylon as readily as Acts are framed to regulate medical practice in the self-governing colonies.

We have already in the note referred to expressed our sympathy with the desire to see a system of medical registration adopted in all Crown colonies which must be precedent to the regulation of medical practice; but we recognize the undesirability and even impossibility in India and Ceylon of attempting to interfere with the *vederales* or hereditary native practitioners by legal process. The Council of the Association has recently called the attention of the Colonial Branches and those of India and Ceylon to this question of registration and other questions which it is most important should be the subjects of legislation, and which the respective Branches, with their knowledge of local circumstances, are in a position to shape. The pages of the JOURNAL are as fully open to members of the Association in one part of the empire as another, but we venture to think that the class of grievances to which our correspondent refers are more properly subjects for submission to the Council, which is able to deal with them after communication with the Branches in the Colonies from which they come than for discussion in the columns of the JOURNAL.

THE CASE OF MR. C. A. BYNOE.

VINDEX writes: The case of Mr. C. A. Bynoe must excite considerable sympathy from members of our profession, as he is the victim of a terrible mistake. Would it not be possible to open a fund on his behalf? Could not the case be brought before the House of Commons by a medical M.P.? The action of the Bank of England authorities in this case is one deserving of the gravest censure. That they take refuge behind a thickset hedge of legal quibbles reflects but little credit to them. Perhaps the reason of this may be that they are the Government bankers, and therefore "sans peur et sans reproche!" But surely such a case as this cries for revision just as much as that of Captain Dreyfus. If a mistake has been made surely it can be rectified. The jury described their verdict as "a miscarriage of justice," but the Bank of England authorities will not admit themselves in the wrong.

INTERPRETATION OF PARTNERSHIP DEED.

A CORRESPONDENT sends us some clauses taken from his deed of partnership, and asks an opinion as to their interpretation with regard to the following point: His partner has bought a sixth share of the practice, and has the option, under certain conditions, of purchasing a further share up to one-third. If the value of the practice at the time of the exercise is more or less than £——, the original value, on what basis would the value of the additional shares be determined?

*** According to the clauses submitted, the price of the additional share is to be two years' purchase, calculated on an average of net profits from the commencement of the partnership up to the last general annual account. But our correspondent would do well to consult a solicitor and place the whole deed before him, as the above clauses are somewhat involved, so that their intention is not quite clear.

MEDICAL ADVERTISING.

A CORRESPONDENT sends us the following cutting from the *Dundee Advertiser*, which speaks for itself:

DR. R. MILLER,
M.A., M.B., C.M.(Glasg.), D.P.H.(Camb.),
PHYSICIAN, SURGEON AND OCULIST, DUNDEE.
RESIDENCE—ELMBANK VILLA, FAIRMUIR (Car Terminus). At Home—9 a.m., 12.30, 5, 8.30 p.m. Telephone 1546.
OFFICE—80, NETHERGATE (Opposite the Steeple). Consulting Hours—9.30 a.m., 1.30 to 3, 6 to 8 p.m. Telephone 01945.
Also by Appointment.

*** A good many examples of gross advertising have been sent to us recently from Scotland, and we think more notice of these professional irregularities should be taken by the Scottish Universities, whose graduates are the chief offenders.

DISGUSTED.—Our correspondent writes commenting very strongly upon a paragraph which appears in the *North Bucks Advertiser*, reporting an operation upon a local clergyman by a well-known London specialist, assisted by two local medical practitioners.

*** We deprecate the publication of such paragraphs most earnestly, but there is nothing to suggest that the gentlemen concerned have been in any way responsible for this announcement, which is unfortunately of a kind with which we are quite familiar as appearing in connexion with illnesses of almost all prominent persons. We therefore do not think it fair to endorse the censure he would bestow upon the gentlemen whose names appear in this paragraph unless it could be shown—which we do not believe—that they had any responsibility for its publication.

FALSE REPORTS.

THAMES VALLEY complains that he is persecuted by the circulation of false rumours such as that when he first came into the district he was not going to practise, that he was a specialist and practised in town, and now that he is leaving the district. He says that he cannot get at the source of these reports, and asks whether he would be justified in having a paragraph inserted in the local newspaper to contradict them.

*** We should advise our correspondent to endeavour to contradict the reports in question through his friends, and he might in addition write a brief letter to the editor of the local newspaper asking to be allowed to contradict the rumour that he was about to leave the district, but a paid advertisement is not to be recommended.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Examinations for Medical and Surgical Degrees.—The first examination for the degree of M.B. will commence on June 9th, and the second examination on June 12th. The third examination, Part I (new regulations) will begin on June 9th. The certificates of candidates must be sent to the Registrary on or before Wednesday, June 4th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen have passed the First Professional Examination for the Diploma of Fellow:

P. E. H. Adams, B.A Oxford, Oxford University and London Hospital; R. Aird, M.B., Ch.B.Aberd., Aberdeen University; G. Arthur, M.B., Ch.B.Glas., Glasgow University and King's College, London; J. G. Atkinson and T. Bates, St. Bartholomew's Hospital; A. J. Blaxland, University College, London; F. Barnes and J. H. Clatworthy, Guy's Hospital; F. Coleman, M.R.C.S.Eng., L.R.C.P.Lond., Charing Cross, King's College, and St. Bartholomew's Hospitals; A. W. D. Coventon, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; H. T. Doble, M.R.C.S.Eng., L.R.C.P.Lond., St. Mary's and King's College Hospitals; R. Felton, Guy's Hospital; C. I. Graham, M.R.C.S.Eng., L.R.C.P.Lond., St. Marr's Hospital; P. M. Heath, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., University College, London; H. T. Hicks, M.R.C.S.Eng., L.R.C.P.Lond., Guy's Hospital; E. C. Hughes, B.A.Camb., Cambridge University and Guy's Hospital; F. A. Jeans, B.A.Camb., Cambridge University and King's College Hospital; J. F. Jennings, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., St. Bartholomew's and King's College Hospitals; W. Low, Bd.Camb., Cambridge University and London Hospital; T. Lyle, Queen's College, Belfast; D. J. McGavin, M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Birmingham University; J. C. Marshall, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., St. Bartholomew's Hospital; W. M. Mollison, B.A.Camb., Guy's Hospital; S. A. Owen, B.A.Camb., Cambridge University and King's College, London; C. B. Shuttle-

worth, M D., C.M.Toronto, M.R.C.S.Eng., L.R.C.P.Lond., Trinity College, Toronto, and King's College, London; R. A. Stoney, M.B., B.Ch., B.A Dub., Trinity College, Dublin; C. B. Thomson, M.R.C.S. Eng., L.R.C.P.Lond., Guy's Hospital; W. T. Thomson, Otago University and King's College. London; F. E. Taylor, M.A., M.B., M.Sc.Vict., M.R.C.S.Eng., L.R.C.P.Lond., Yorkshire College, Leeds and King's College, London; G. A. Thomas, Yorkshire College, Leeds; T. Walker, M.R C S.Eng., L R.C.P.Lond., Owens College, Manchester; C. G. R. Wood, M.R.C.S.Eng., L.R.C.P.Lond., and J. B. V. Watts, University College, Bristol; K. S. Wise, and E. E. Young, M.D., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., St. Bartholomew's Hospital.

One hundred and twenty-three candidates presented themselves for this examination, of whom the above 35 passed, while 88 were referred back to their professional studies for six months.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

AT a meeting of the College held on May 16th, the following gentlemen, having passed the necessary examinations, were admitted Fellows of the College:

W. J. Barclay, M.B., Ch.B.; F. W. Collinson, M.D., M.R C.S.Eng.; D. Ewart, M.B., Ch.B.; W. Ewart, M.B., Ch.B.; C. Forsyth, M.B., Ch.B.; H. A. J. Gidney, L.S.A.; J. Holroyde, L.S.A., M.R.C.S.Eng.; J. Jeffrey, M.B., Ch.B.; T. D. Luke, M.B., Ch.B.; C. H. L. Palk, M.B., C.M.; and C. H. J. Watson, M.B. Ch.B.

At the same meeting the medal and set of books forming the "Bathgate Memorial Prize," presented to the College by Colonel William Lorimer Bathgate in memory of his late father William McPhune Bathgate, Fellow of the College, was awarded to Miss Charlotte Rose Greenfield, for the highest marks obtained in competitive examination in Materia Medica and Therapeutics.

CONJOINT BOARD OF SCOTLAND.

THE following medical practitioners, having passed the necessary examinations, have been admitted Diplomates in Public Health: P. Aitken, G. E. Brooke, W. F. Brown, D. Fletcher, H. J. L. Loudon, N. Macvicar, W. Russell, A. Watt, F. M. Willcox.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, May, 1902.—The following candidates passed in:

Surgery.—F. G. Bennett (Sections I and II), Cambridge and University College Hospital; J. C. O. Bradbury (Sections I and II), Cambridge and Guy's Hospital; G. F. G. De Laubenque, Middlesex Hospital; H. F. B. Roberts (Sections I and II), St. Bartholomew's Hospital; B. Rowlands, St. Bartholomew's Hospital; P. P. Tobit (Section II), King's College Hospital.

Medicine.—J. H. Clements, Birmingham and University College Hospital; E. Gray, London Hospital; W. P. A. Hardwicke, Durham; G. A. Jones (Sections I and II), St. George's Hospital; F. I. M. Jupe, Cambridge; E. J. Miller, King's College Hospital; H. F. B. Roberts (Sections I and II), St. Bartholomew's Hospital; F. H. Rotherham, London Hospital; C. M. Woods (Section I), Charing Cross Hospital.

Forensic Medicine.—E. Gray, London Hospital; G. A. Jones, St. George's Hospital; F. I. M. Jupe, Cambridge; E. J. Miller, King's College Hospital; F. H. Rotherham, London Hospital; C. M. Woods, Charing Cross Hospital.

Midwifery.—G. A. Crowe, London and Westminster Hospitals; G. A. Jones, St. George's Hospital; F. H. Hand, St. Mary's Hospital.

The diploma of the Society was granted to J. H. Clements, W. P. A. Hardwicke, F. I. M. Jupe, G. F. G. de Laubenque, B. Rowlands, and P. P. Tobit.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE ANNUAL REPORT OF THE REGISTRAR-GENERAL FOR ENGLAND AND WALES.

THE sixty-third annual report of the Registrar-General on the births, marriages, and deaths registered in England and Wales during 1900 has just been published. The principal statistical facts have already been dealt with in a more general form in the quarterly returns relating to that year, but the report now issued contains much additional information relating to the causes of death, the detailed analysis of which allows of a better appreciation of the significance of the various death-rates.

MARRIAGE-RATE.

The number of persons married during 1900 was 514,960, being equal to 16 per 1,000 of the estimated population, against 16.2 and 16.4 in the two preceding years; with these two exceptions, the marriage-rate of 1900 has not been exceeded since 1876.

BIRTH-RATE.

The births registered in England and Wales during the year under notice numbered 927,002, and were equal to an annual rate of 28.7 per 1,000 of the estimated population. This is the lowest rate on record since the establishment of civil registration in 1837, and is 1.3 per 1,000 below the average rate in the ten years 1890-1899; the decline in the birth-rate has been continuous since 1895, when it was 30.2 per 1,000. The lowest birth-rates were recorded in the agricultural counties of Rutland, Sussex, Westmorland, Dorset, and Hereford, while the mining or manufacturing counties of Northumberland, Monmouth, Stafford, and Durham had the highest rates. There were 1,033 male births to 1,000 female births, the average proportion in the ten preceding years having been 1036 to 1,000.

DEATH-RATE.

The 587,830 deaths registered in England and Wales during the year 1900 were equal to an annual rate of 18.2 per 1,000, against 17.4, 17.5, and 18.2 in the three preceding years; the mean rate in the ten years 1890-1899 was 18.3 per 1,000. The death-rates in the various counties ranged from 13.7 in Rutland, 14.5 in Middlesex, 14.6 in Surrey, and 14.8 in Wiltshire and in Dorsetshire to 19.6 in Warwickshire, 19.8 in the North Riding of Yorkshire, 20.5 in Staffordshire, and 21.3 in Lancashire. With regard to the mortality at different ages, precise information is not available, as the process of abstracting the ages of the people as returned at the recent census is not yet completed. For the purpose of calculating death-rates at various age-periods it has, therefore, been necessary to assume to the same age-constitution in 1900 as in 1901, although probably the age-constitution has undergone material change. Speaking generally, however, it appears that the mortality of males under 20 years of age and of females under 35 years of age was lower in 1900 than in recent previous years, and that above these ages the mortality was higher. The proportion of deaths among infants under 1 year of age to registered births was equal to 154 per 1,000, against an average proportion of 153 in the ten preceding years. The rates of mortality in the group of districts taken to represent the urban population was 18.9 per 1,000, and in the remaining, and chiefly rural, districts, 16.6 per 1,000; both the urban and the rural rates were slightly below the average.

ZYMOTIC DISEASES.

With reference to the causes of death in England and Wales during the year under notice that the aggregate mortality from the principal zymotic diseases was below the average in the ten preceding years; the deaths from small-pox, from diphtheria, from influenza, and from diarrhoea, showed an excess, while those from measles, scarlet fever, whooping-cough, and enteric fever, showed a decline. The number of deaths from small-pox in 1900 was 85, against 25, 253, and 174 in the three preceding years; of these 85 deaths, 22 were of persons belonging to Liverpool, and 22 belonging to Hull. The fatal cases of influenza numbered 16,245, against 10,405 and 12,417 in the two preceding years; the rate of mortality from this disease, which was higher in the provinces than in London, exceeded that recorded in any year since 1892. Hydrophobia did not appear as the cause of a single death, either in 1900 or 1899; in the ten years immediately preceding these the deaths from this cause amounted to 104.

CONSTITUTIONAL DISEASES.

The mortality from alcoholism during the year under notice was equal to a rate of 132 per million among males, and 95 per million among females, both of which are the highest rates hitherto recorded. The deaths referred to cancer have shown a continued increase during recent years; in 1900 the death-rate from this disease among males was 16 per cent., and among females 10 per cent., in excess of the decennial average, and in each case exceeded the highest previously recorded. The mortality from pulmonary phthisis was considerably lower than in the ten preceding years, the decrease amounting to 2 per cent. among males and 12 per cent. among females.

INADEQUATE CERTIFICATION.

The causes of 23,172, or nearly 4 per cent., of the deaths during 1900 were stated so indefinitely as to be practically useless for statistical purposes. Such cases would have been much more numerous but for the inquiries which are systematically addressed to medical practitioners with reference to certificates in which the cause of death is not definitely described. During the course of the year 3,900 replies were received to these inquiries, resulting in most cases in a more

accurate classification of the causes of death. For instance, 736 deaths from cancer, 450 from intemperance, 151 from puerperal fever, and 150 from venereal diseases were classified as such, instead of under such vague headings as tumour, disease of liver, dropsy, ovarian disease, etc.

COUNTY MEDICAL OFFICERS OF SCOTLAND AND CONSULTING PRACTICE.

THE County Council of Caithness having recently appointed a medical officer of health, proposed, with the approval of the Secretary of Scotland, to allow their medical officer to engage in "consulting practice," a very elastic phrase which, as far as we are aware, has no legal definition. At a recent meeting of the Caithness County Council the following letter from the Secretary of the Local Government Board was read:

Local Government Board,
Edinburgh, May 7th, 1902.

Sir,—The Local Government Board have now had under consideration your letter of March 12th to the Secretary for Scotland regarding your proposal to allow the newly-appointed medical officer of health for the county, Dr. Dick, to engage in consulting practice, together with your letter of 9th ultimo. I am now directed to inform you that the Secretary for Scotland sees no exceptional circumstances in case which warrant his allowing the medical officer of health to take consulting practice, and that therefore the salary paid to Dr. Dick cannot be sanctioned to rank as a claim against the sanitary officer's grant.

I am, Sir, your obedient servant,
G. FALCONER STEWART.

The County Clerk of Caithness, Thurso.

The object of allowing county medical officers of health to engage in consulting practice is apparently to get medical officers at small salaries and to hold out the right of consulting practice as a bait. If this view is correct the Secretary for Scotland is to be congratulated on refusing to permit this system to be established. There can be no objection to one or more local authorities joining together and by that means providing a suitable salary. Section xv of the Public Health (Scotland) Act (1897) provides that every medical officer of health shall receive a "proper salary or remuneration." We have every hope that Lord Balfour of Burleigh, the Secretary for Scotland, who evidently holds enlightened views on this question, will insist that effect is given to this in future appointments.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,474 births and 4,757 deaths were registered during the week ending Saturday last, May 24th. The annual rate of mortality in these towns, which had been 17.2 and 17.3 per 1,000 in the two preceding weeks, declined again last week to 16.7 per 1,000. The rates in the several towns ranged from 8.2 in Smethwick, 9.1 in Croydon, 9.2 in Reading, 9.5 in East Ham, 10.3 in Walthamstow, 11.2 in Rotherham, 11.3 in Bootle, and 11.4 in Newport (Mon.) to 22.1 in Gateshead, 22.5 in Hanley, 23.0 in Liverpool, 23.9 in Burnley, 24.1 in Barrow-in-Furness, 24.2 in Rochdale, 24.4 in Merthyr Tydfil, and 26.4 in Oldham. In London the rate of mortality was 16.4 per 1,000, while it averaged 16.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal zymotic diseases last week in the seventy-six large towns averaged 1.0 per 1,000, and corresponded with the rate recorded in London; in the other towns the zymotic death-rates ranged upwards to 3.8 in Liverpool, 3.9 in Bradford, 4.0 in Tynemouth, 4.2 in Burnley, 5.1 in Wigan, 5.9 in Tottenham, and 9.0 in Barrow-in-Furness. Measles caused a death-rate of 1.0 in Plymouth and in Oldham, 2.4 in Southampton and in Grimsby, 2.5 in Bournemouth, 2.7 in Rhondda, 2.8 in Bradford, and 5.4 in Barrow-in-Furness; scarlet fever of 1.2 in Walsall, 1.3 in Aston Manor, and 1.5 in Bolton; whooping-cough of 1.2 in Liverpool, 1.7 in Bolton, 2.0 in South Shields, 3.0 in Tynemouth, and 3.6 in Barrow-in-Furness; "fever" of 1.5 in East Ham; and diarrhœa of 1.7 in Wigan. The mortality from diphtheria showed no marked excess in any of the large towns. Of the 47 fatal cases of small-pox registered last week, 24 belonged to London, 8 to Tottenham, 8 to West Ham, 2 to East Ham, 2 to Swansea, and 1 each to Leyton, Birmingham, and Tynemouth. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 1,515, 1,442, 1,410 and 1,360 on the four preceding Saturdays, had further declined to 1,344 on Saturday, May 24th; 307 new cases were admitted last week, against 250, 248, and 233 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital at the end of the week was 2,231, against 2,222, 2,212, and 2,207 at the end of the three preceding weeks; 280 new cases were admitted during the week, against 258, 256, and 270 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 24th, 980 births and 656 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.1 and 19.4 per 1,000 in the two preceding weeks, further rose last week to 20.3 per 1,000, and was 3.6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 9.3 in Leith and 14.1 in Perth, to 22.4 in Paisley and 22.5 in Glasgow. The zymotic death-rates in these towns averaged 1.7 per 1,000, the highest rates being recorded in Greenock and Perth. The 336 deaths registered in Glasgow included 1 from small-pox, 2 from measles, 3 from scarlet fever, 5 from whooping-cough, and 7 from diarrhœa. Five fatal cases of measles were recorded in Edinburgh; 3 of measles and 2 of whooping-cough in Dundee; 5 of whooping-cough and 3 of diarrhœa in Aberdeen; 3 of measles in Paisley; 3 of diarrhœa in Greenock; and 3 of measles in Perth.

SANITARY INSPECTORS AND GENERAL PRACTITIONERS.

G. P. asks for an expression of opinion on two incidents: (1) He notified a case of diphtheria. The father would have been content to have the child treated at home. The house is described, perhaps a trifle vaguely, as "a roomy and convenient one," and the patient's room as "well isolated." We are not told who nursed the boy, but it seems that the mother is employed in the clothing trade at home. The sanitary inspector, it appears, when he inspected the premises after notification, tried to persuade the parents to send the lad to the infectious diseases hospital. He seems then to have resorted to indirect compulsion by informing the firms with whom other members of the family worked of the existence of the case at their home. These firms, not unnaturally, declined to allow them to continue in their employment. The patient was then sent to hospital. Unless a diphtheria patient has not only a separate room but also a nurse not mixing with the rest of the family, the difficulties in the way of preventing a further spread of the disease may be serious, and the nature of the mother's employment would make a very complete isolation (a thing very difficult to secure at any time in a working man's house) a matter of the first importance. We are therefore not prepared to say that the warning to the employers was unnecessary.

(2) In another house, where our correspondent had certified diphtheria, the same inspector visited, and "took swabs from the throats of several other members of the family." This seems hardly one of the ordinary duties of a nuisance inspector. If it was done with the consent of the parents we cannot say that it was exactly illegal. The result of the culture seems to have suggested a doubt as to the condition of another member of the family, and the nuisance inspector, ignoring "G. P.", is said to have asked the mother to send the child to the medical officer of health for further examination. This was done, and the child afterwards sent to the isolation hospital. We certainly think it would have been more courteous to have sent the suspected patient to his own medical adviser. We cannot suppose it was simply to save the authority the notification fee that this was not done, and we think "G. P." might with advantage draw the medical officer's attention to the circumstance. Sanitary inspectors are sometimes disposed to take action which comes more properly within the sphere of the medical officer of health.

VACCINATION IN SCOTLAND.

WE have received a further letter from the "Correspondent in Shetland" whose question was referred to in the BRITISH MEDICAL JOURNAL of May 10th, p. 1188. He states that the Local Government Board in Scotland recently insisted on the parish council appointing a public vaccinator, and carrying out the rules regarding vaccination defaulters which the council has persistently refused to do on the score of expense to the ratepayers. Our correspondent considers that he is justified in refusing to oblige the parish council without fee in order to save it from carrying out its duty in the matter.

*** We sympathize with our correspondent. It is quite evident that the parish council is shirking its duty. It is really a question between it and the Local Government Board.

OBITUARY.

ON Wednesday, May 21st, during the passage of the London and North-Western Railway Company's steamer *Scotia* from Holyhead to Dublin a gentleman was seen to jump overboard and disappear. The gentleman who met his death in this regrettable manner was a young medical man, Dr. WILLIAM HEALY, of 54, Gower Street, London. Dr. Healy was a native of Downpatrick, co. Down, where his father is a Justice of the Peace and a County Councillor, and for him and his family the greatest sympathy is felt in their sad bereavement. Dr. Healy obtained the degrees of M.B., B.Ch., and B.A.O. from the Royal University of Ireland in 1880. He studied in the Queen's College, Cork, and in the Carmichael College and the Royal College of Surgeons in Ireland. Since 1894 he had practised in London, at first in Chenies Street and subsequently in Gower Street. It is stated that Dr. Healy, who was accompanied by his brother, who is a barrister, was crossing to Ireland for a holiday, as he had been previously overworked.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. von Keczmarczki, Professor of Obstetrics and Gynaecology in the University of Buda-Pesth, aged 60; Dr. Guido von Torok, Surgeon to the Sophien-Spital, Vienna, aged 52; Dr. Skrzeczka, Professor of Forensic Medicine in the University of Berlin, and an official in the Medical Department of the Prussian Cultus-Ministerium, aged 70; Dr. Franz Scholz, sometime Physician to the General Hospital, Vienna

author of *Mental Diseases in Criminals* and other works, aged 82; and Dr. Louis Secrétan, Extraordinary Professor in the University of Lausanne, aged 49.

MEDICAL NEWS.

The Board of Agriculture has issued an order applicable to certain parts of Devonshire and Cornwall directing the muzzling of dogs and other precautions against the spread of rabies.

The annual meeting of the Dublin Branch of the National Association for the Prevention of Tuberculosis will be held in the Royal College of Physicians of Ireland on Monday, June 9th.

The installation meeting of the Middlesex Hospital Lodge, No. 2,843, was held at the Freemasons' Hall on May 15th, 1902, when Brother William Duncan, M.D., was installed Worshipful Master for the ensuing year.

Canadian Medical Association.—The annual meeting of the Canadian Medical Association will be held in Montreal on September 16th, 17th and 18th, 1902, under the presidency of Dr. Francis J. Shepherd. Professor William Osler, of Johns Hopkins University, Baltimore, will deliver the address in medicine, and that in surgery will be delivered by Dr. John Stewart, of Halifax, Nova Scotia. A very large attendance is expected.

Tuberculosis Research in Canada.—According to *American Medicine* the Bacteriological Station at Outremont, near Montreal, which has been maintained by the Government for the past three years for scientific observations for tuberculous cattle, is to be closed. Dr. Higgins, the bacteriologist in charge, will be transferred to the cattle quarantine staff at Ottawa, where these investigations will be held in future. It is reported that the future work will also include researches respecting tuberculosis in human beings.

The King and the Princess Louise, Duchess of Argyll, have consented to be patrons of the International Congress for the Protection of Children, which, as already announced, will be held in the Guildhall, London, from July 15th to July 18th. Previous congresses have been held in Paris, Florence, and Buda-Pesth. As already stated, the Congress will this year have three Sections—medical, legislative, and educational and philanthropic. Sir James Crichton-Browne will preside over the first and Lord Cross over the second. The Secretary of the Congress is Mr. W. Gibson Lewis, Assistant Secretary to the Central Committee of Poor-law Conferences, 8, Wells Street, Gray's Inn Road, W.C.

The Sale of Poisons.—The annual dinner of the members of the Pharmaceutical Society and their friends was held on May 27th, at the Hôtel Métropole, under the chairmanship of Mr. G. T. W. Newsholme, who, in proposing "The Houses of Parliament," commented on the need of legislation in regard to pharmacy not only in the interests of the chemist, but also of the public. He particularly emphasized the necessity for the better regulation of the sale of poisons. The Government had received from the Society a draft of a new Pharmacy Bill. It was presented eighteen months ago, but was delayed in consequence of an inquiry having been instituted. He nevertheless urged all pharmacists to bring their influence to bear on members of Parliament in their district to help forward the Bill.

National Health Society.—On May 24th, at a meeting of this Society, which was held in Grosvenor House, Her Royal Highness Princess Christian presented the diplomas, medals, and certificates of the Society to successful candidates. The Earl of Derby, President of the Council, was in the chair, and among others present were the Bishop of Stepney, Sir William Church, Sir Frederick Treves, the Rev. Prebendary Ridgeway, Dr. Farquharson, and Professor Ray Lankester. The Chairman, in the course of some opening remarks, said that beyond the general objects of the Society, the organization of meetings to spread a knowledge of the principles of health, the holding of classes, the circulation of leaflets, and the instruction in the laws of health given in schools, there yet remained a great deal for the Society to do in the poorer neighbourhoods in spreading a knowledge of hygiene, and teaching men and women how to combat dirt and disease.

Livingstone College Commemoration Day.—At the Commemoration Day proceedings at Livingstone College, Leyton, the Principal, Dr. C. F. Harford, stated that 131 students had passed through the course of training provided there; of these, 35 were in Africa, 36 in Asia, 42 were at home either on furlough or not yet gone abroad, and the rest were scattered through America, Australia, and the islands of the Pacific. The reports received from their former students showed that the knowledge they had gained in the College had enabled many to escape infection, although living in highly malarious districts.

The Male Inebriate.—We referred some time ago to the report on this subject of the Special Committee of the Surrey Quarter Sessions, and pointed out that an extremely small proportion of male inebriates had been committed to the Royal Victoria Homes at Brentrey under the Inebriates Acts. The matter has again been under the consideration of the Surrey County Council, and it was stated that, owing to the small number of men admitted, the finances of the Homes were in a serious condition, a deficit of £3,000 having been recorded. It appears that during the past year there have been 171 persons admitted, but of these only 38 were men; of the 133 women, 75 were married, 44 were unmarried, and 14 were widows; 28 of the women were under 30 years of age and 3 of the men. The Board of Management expressed the opinion that a period of detention for two years should be tried in a few cases, but that as a rule three years was not too long, and might even be insufficient to reform habits which had existed for half a lifetime.

British Dental Association.—The annual meeting of the British Dental Association began on May 22nd at Shrewsbury, when a valedictory address was delivered by the retiring President, Mr. S. J. Hutchinson, after which Mr. W. E. Harding was formally inducted as President for the year. According to the report of the Honorary Treasurer, the membership of the Society was now 1,205. In the course of his address, the newly-elected President referred to the relation of dentistry to military efficiency in the present war. The breakdown of so many men in South Africa through preventable disease of the teeth had at length induced the War Office to send out a number of dentists, but far too few to cope with the immense amount of work required. The rejection, too, of so many recruits on account of defective teeth led naturally to the consideration of the teeth of school children. The mass of the children of the poor attending elementary schools had their teeth absolutely neglected, and he could see no way of dealing with them except by the aid of the State.

Chelsea Clinical Society.—The annual dinner of the Chelsea Clinical Society was held at the Criterion Restaurant, Piccadilly Circus, on May 22nd. The President of the Society, Dr. Charles A. Morris, who was in the chair, in proposing the toast of "The Chelsea Clinical Society," gave a short history of its growth, and congratulated the members on the success of the debates held at the different meetings. At the annual debate of the Society, which had for its subject cancer, seventy-five members were present. Dr. C. C. Gibbes (President-elect) replied. The next toast was that of "Kindred Societies," proposed by Professor Hewlett, and acknowledged by Mr. D'Arcy Power, who gave a short historical account of the rise and progress of the medical societies. Dr. Foster Palmer spoke to the toast of "The Visitors," which was replied to by the Rev. A. Myers and the Rev. Dr. Collisson. Dr. W. Ewart, in a eulogistic speech, gave the toast of "The President," which was suitably acknowledged. In the absence of Dr. J. H. Dauber, Mr. Albert proposed "The Officers of the Society," which was responded to by Dr. Barry Ball, one of the Vice-Presidents. Dr. Stoddart, Mr. Percy French, and Dr. W. L. R. Fleming contributed to the entertainment of the evening by singing, and Dr. G. Herschell's dexterity in card tricks was much appreciated. The evening terminated with a neatly worded speech by Dr. Vincent Dickinson on the medical press.

MEDICAL VACANCIES.

The following vacancies are announced:

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—Resident Surgeon; unmarried. Salary, £80 per annum, increasing to £100, with board and furnished apartments. Applications to the Secretary.

BARBADOES GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £200 per annum, with unfurnished house. If resident in England passage paid to Barbadoes and (after three years' appointment) back. Applications to Mr. W. E. Sargant, School Registrar of St. Bartholomew's Hospital, by June 10th.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Appointment for six months. Honorarium at the rate of £25 each quarter, with apartments, board, and washing. Applications to the Treasurer, Bridewell Hospital, New Bridge Street, E.C., by June 9th.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Applications to the Secretary of the Medical Committee by June 9th.

BOOTLE BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum, with board, lodging, and laundry. Applications to the Secretary.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Second House-Surgeon and Anæsthetist, unmarried, and under 30 years of age. Salary, £70 per annum, with board and residence. Applications to the Secretary by June 18th.

BRISTOL CITY LUNATIC ASYLUM.—Medical Assistant; unmarried. Salary, £140 per annum, increasing to £160, with furnished apartments, board, and washing. Applications marked "Medical Assistant," to be sent to the Clerk to the Visiting Committee, The Council House, Bristol, by June 13th.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second Assistant Physician. Applications to the Secretary by June 7th.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications to the Honorary Secretary by June 6th.

DOWN COUNTY INFIRMARY.—House-Surgeon; unmarried. Salary, £60 per annum, with board and residence. Applications to Dr. Tate, Downpatrick, by June 5th.

DUDLEY: GUEST HOSPITAL.—Assistant House Surgeon. Appointment for six months. Salary at the rate of £40 per annum, with residence, board, and washing. Applications to the Secretary by June 5th.

DURHAM COUNTY ASYLUM, Winterton, Ferry Hill.—Third Assistant Medical Officer. Salary, £150 per annum, rising to £180, with apartments, board, laundry, and attendance. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physician. Board, residence, etc., provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by June 14th.

GAIRLOCH PARISH COUNCIL.—Medical Officer for the Southern Division. Salary at the rate of £100 per annum up till February, 1903, increasing afterwards to £150. Applications to the Clerk of the Parish Council, Poolewe, by June 2nd.

GLASGOW: ST. MUNGO'S COLLEGE.—Norman Chair of Physiology. Applications to the Secretary, 30, West Regent Street, Glasgow, by June 30th.

GRAVESEND HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary, 146, Milton Road, Gravesend, by June 2nd.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Clinical Pathologist and Bacteriologist; non-resident. Honorarium 50 guineas. (2) House-Physician; unmarried. Appointment for six months. Salary, £20, washing allowance £3 10s., with board and residence. Applications on forms provided to be sent to the Secretary by June 4th.

HULL ROYAL INFIRMARY.—Casualty Officer. Salary, £60 per annum, with board and lodging. Applications to the Chairman, House Committee, by June 5th.

HULME DISPENSARY, Manchester.—Honorary Physician. Applications to the Secretary of the Medical Committee by June 2nd.

KESTEVEN COUNTY ASYLUM.—Assistant Medical Officer for the new asylum near Stenford; unmarried. Salary, £150 per annum, with board, etc. Applications to the Medical Superintendent, Asylum, Grantham.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Junior Assistant Medical Officer, unmarried, and not over 30 years of age. Initial salary, £130 per annum, with furnished apartments, board, washing, and attendance. Applications to the Medical Superintendent.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Honorary Treasurer by June 7th.

LONDON HOSPITAL, Whitechapel, E.—Surgeon. Applications to the House-Governor by May 31st.

LONDON TEMPERANCE HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Board, residence, and washing provided, and honorarium at the rate of 30 guineas per annum. Applications to the Secretary by June 10th.

LONDON THROAT HOSPITAL, Great Portland Street, W.—Non-resident House-Surgeon. Honorarium at the rate of £25 per annum. Applications to Dr. E. F. Potter, Honorary Secretary, Medical Committee, before June 7th.

NORTHAMPTON GENERAL INFIRMARY.—Assistant House Surgeon; unmarried, and not under 22 years of age. Salary, £75 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by June 4th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Second Assistant House-Surgeon. Appointment for six months. Honorarium, £20. Applications to the Secretary by June 3rd.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried. Salary, £100 per annum, increasing £10 yearly, with furnished apartments, etc. Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not exceeding 30 years of age. Salary, £125 per annum, and £50 in lieu of rations, with furnished apartments, etc. Applications to the Resident Medical Superintendent by June 11th.

PLAISTOW: ST. MARY'S HOSPITAL FOR SICK CHILDREN.—(1) Resident Medical Officer. Salary, £100 per annum. (2) Assistant Resident Medical Officer. Salary, £80 per annum. Board, residence, and laundry provided in each case. Applications to the Secretary by June 7th.

RICHMOND UNION.—Medical Officer and Public Vaccinator for the Barnes Union, salary, £70 per annum and fees; and Medical Officer of the Children's Home, Barnes, salary, £45 per annum. Not more than 45 years of age. Applications to the Clerk to the Guardians, 17, The Green, Richmond, Surrey, by June 3rd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Hunterian Professors. (2) Erasmus Wilson Lecturer. (3) Arris and Gale Lecturer. For the ensuing year. Applications to the Secretary by June 2nd.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried. Salary, £150 per annum to commence, with board, lodging, and washing. Applications to Dr. Finch.

SCHOOL BOARD FOR LONDON.—Assistant in the Medical Officer's Department: must be registered. Salary, £250 per annum. Applications, on forms provided, and marked outside "Application for post of Assistant Medical Officer," to be sent to the Clerk of the Board by June 7th.

SOCIETY OF APOTHECARIES OF LONDON, Blackfriars.—(1) Examiner in Medicine. (2) Examiner in Midwifery. Applications to the Clerk by June 2nd.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer; unmarried, not over 30 years of age. Salary, £150 per annum, with furnished apartments, board, etc. Applications to the Medical Superintendent by June 10th.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £150 per annum, rising to £200, with furnished apartments, board, etc. Applications to the Medical Superintendent.

SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary, £75 per annum, with board, apartments, washing, and attendance. Applications to the Secretary by June 9th.

THROAT HOSPITAL, Golden Square, W.—Junior House Surgeon. Salary, £100 per annum, with lunch daily. Applications to the Secretary-Superintendent by June 6th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) House-Physician. (2) House-Surgeon. Appointments for six months. Board and lodging provided. Applications to the Secretary-Superintendent by June 10th.

WILTS COUNTY ASYLUM, Devizes.—Assistant Medical Officer; unmarried, and under 30 years of age. Salary, £160 per annum, rising to £190, with board, residence, attendance, and washing. Applications to the Medical Superintendent.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, with board, lodging, and washing. Applications to the House-Governor by June 6th.

MEDICAL APPOINTMENTS.

BRIDGER, J. F. E., M.R.C.S., L.R.C.P. Lond., appointed Civil Surgeon to the troops and Boer prisoners stationed at Antigua.

BROWN, Major F. Harold, M.D., I.M.S., appointed Clinical Assistant to the Chelsea Hospital for Women.

GOODMAN, Godfrey, L.R.C.P., L.R.C.S.Irel., reappointed Medical Officer to the Brigg Rural District Council.

GREENE, Clayton W. H., B.A., M.B., B.C.Cantab., F.R.C.S.Eng., appointed Surgical Registrar to St. Mary's Hospital, Paddington.

HARDING, Norman E., M.B., Ch.B.Edin. appointed locum Assistant Medical Officer to the Durham County Asylum.

JONES, Owen C., M.B.Oxon., M.R.C.S.Eng., appointed Certifying Factory Surgeon for the Ilfracombe District of Devonshire.

KENDALL, H. W. Martindale, M.R.C.S.Eng., appointed Ophthalmic Surgeon to the Wellington Hospital, N.W.

LEONARD, F. C., M.D., appointed Clinical Assistant to the Chelsea Hospital for Women.

LOW, V. Warren, M.D., B.S., F.R.C.S., appointed Surgeon to the Out-patients, St. Mary's Hospital, Paddington.

MILNER, Ernest Arthur, M.B., C.M.Edin., appointed Medical Officer of Health for Lostwithiel.

POTTS, Geo., L.R.C.P. and S., appointed House-Surgeon, Kent County Ophthalmic Hospital, Maidstone.

PROVIS, F. Lionel, M.R.C.S., L.R.C.P., appointed Registrar to the Chelsea Hospital for Women.

SCOTT, John Geddes, M.R.C.S., L.R.C.P. Lond., appointed Medical Officer to the Western Telegraph Company, Madeira, *vice* F. J. Hicks, M.A., M.B.Oxon., resigned.

TAUNTON, E., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Medical Officer to the St. Pancras Workhouse.

TAYLOR, John Mearns, M.B., C.M.Edin., appointed Medical Officer and Public Vaccinator to Skelmorlie District, Largs Parish; also Medical Officer and Public Vaccinator to the Inverness District, Inverness Parish Council.

DIARY FOR NEXT WEEK.

TUESDAY.

British Balneological and Climatological Society, 20, Hanover Square, W., 5 p.m.—General Meeting. Election of Officers, Council, etc.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Waller: The Signs of Life.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Drs. Lewers, Arnold Lea, and Williamson. Mr. Mayo Robson will read notes of a case of Primary Ovarian Gestation, showing the specimen. Mr Alban Doran will read a paper on Pregnancy after Removal of Both Ovaries for Cystic Tumour.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Leonard Hill: The Physiology of Respiration.

THURSDAY.

North-East London Clinical Society, Tottenham Hospital, 4 p.m.—Clinical Cases will be shown.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—The President (Mr. Herbert Jackson) on the Sources of Phosphorescence.

FRIDAY.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith Road, W., 9 p.m.—Cases will be shown by Dr. Seymour Taylor, Dr. A. Saunders, Dr. Reddard, Dr. G. P. Shuter, Mr. J. R. Lunn.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Dermatological Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Congenital Heart Disease.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstration of Selected Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C. Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, throat.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Lecture on Disseminated Sclerosis.

West London Hospital, Hammersmith Road, W. Lectures will be delivered at 5 p.m. as follows:—Monday: Discharge from the Ear, its Causes and Treatment. Tuesday: Malignant Disease of the Uterus. Wednesday: Surgical Anatomy. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Small-pox and Vaccination.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstration on a Case of Raynaud's Disease with Sclerodermia, with some other illustrative cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BARCLAY-SMITH.—On the 18th inst., at 57, Glisson Road, Cambridge, the wife of E. Barclay-Smith, M.D., of a daughter.

BOWEN [illegible].—On May 24th, at Pendinas, St. Asaph, North Wales, the wife of W. L. Bowen, M.R.C.S.Eng., L.R.C.P. Lond., of a son.

CARLIER.—On Monday, May 26th, at 19 Elvetham Road, Edgbaston, Birmingham, the wife of Professor E. Wace Carlier, M.D., F.R.S.E., of a son.

CHARLTON.—On May 22nd, at Glendarroch, Lenton, Nottingham, the wife of Alfred Charlton, M.B., C.M., of a daughter.

GOADBY.—On May 16th, at The Mall, Wanstead, Essex, the wife of Kenneth W. Goadby, D.P.H. Camb., L.D.S.Eng., of a son.

JEBB-SCOTT.—On May 16th, at "Beaufort," Malvern, the wife of Sidney Jebb-Scott, M.A., F.R.G.S., of a son.

MURRAY.—At Apsley, Stockport, on the 24th inst., the wife of Robert A. Murray, M.D., of a son.

DEATHS.

BODINGTON.—On May 9th, in Paris, George Fowler Bodington, M.D. Durh., F.R.C.S.Eng., M.R.C.P., late Superintendent of the Government Asylum, British Columbia, aged 73.

LANGLEY-MILLS.—At Southsea, May 18th, the wife of Major Langley-Mills, R.A.M.C.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. P. S. wishes to hear of a winter resort in the British Isles suitable for asthma, and asks whether Glengariff would be beneficial.

T. Q. asks whether any savage nation uses or ever did use any part of the human cadaver for the purpose of poisoning their arrows, or where he might find information on the subject?

INCOME TAX.

R. R. writes: I have a resident patient who pays me 4 guineas a week; this covers board and residence, wine, medicine, and all necessary expenses, including a fortnight at the seaside each year. What amount ought I to return as profit from this source? Is it to be returned as derived from the exercise of my profession?

*** This is a somewhat difficult question to answer, as the actual profit made must depend upon the style of living. Our correspondent must be the best judge whether at the end of the year, after all expenses have been paid, he has banked £25, £50, or £75 by reason of having a resident patient. He should take into consideration not merely out-of-pocket expenses incurred for the patient, but proportion of rent, wear and tear of furniture, etc. See *Income Tax: How to get it Refunded*, page 18 (London: Income-Tax Repayment Agency, 6, Chichester Road, W.).

ANSWERS.

ICE CREAMS.

E. C.—Glasgow and Liverpool obtained special powers for regulating the manufacture and sale of ice creams a few years ago, and a number of English towns under local Acts have since obtained similar powers, and it is now not uncommon for model clauses dealing with the matter to be embodied in omnibus bills.

LIGHT TREATMENT OF LUPUS.

J. G. B. (Broseley) writes to ask what length of time a patient suffering from lupus vulgaris would have to stay in hospital for the purpose of undergoing the light treatment; also where he could get reports as to results.

*** It is impossible to give an opinion as to the probable duration of treatment in any case in which the extent and special character of the disease are unknown. For facts from which such a conclusion might be drawn and for an account of results our correspondent may refer to the BRITISH MEDICAL JOURNAL of September 30th, 1899, p. 825; May 5th, 1900, p. 1082 and 1083; June 30th, 1900, p. 1595; July 7th, 1900, p. 33; February 9th, 1901, p. 326; September 28th, 1901, p. 849; January 4th, 1902, p. 44, and p. 1324 of this issue.

AN OBSCURE CASE OF MOMENTARY ATTACKS OF UNCONSCIOUSNESS.

KAMPFER invites suggestions as to the diagnosis and treatment of the following case: A gentleman, aged 56, has—at irregular intervals, varying from five to fourteen weeks—sudden attacks of unconsciousness lasting a minute or less. One attack is usually followed by others of a similar character, but of diminishing severity, the later ones being merely a sensation of faintness, without loss of consciousness. The whole series of attacks lasts from twenty-four to thirty-six hours. There is no warning of the onset of the initial attack. Water is passed unconsciously. There is occasional slight twitching of the hands and clenching of the teeth, but the tongue has never been bitten. Sometimes there is vomiting. After the attacks are over, the patient feels perfectly well, and remains so in the intervals. The patient lives a very healthy life in a salubrious country district. He takes plenty of outdoor exercise, and is particularly well developed muscularly. He has no business anxieties, having retired, though he still does a certain amount of brain work without the least sense of fatigue. There are no heart murmurs or evidence of dilatation. Nothing abnormal in fundus, never any headache, no ear trouble. Gastric and alvine functions perfect; urine often examined normal. During his life, the patient has had a few definite attacks of gout, but not for the past two or three years. Light wines and moderate smoking were given up six months ago. The seizures commenced about eighteen months ago. A year previous to that, patient had a fall from a horse, followed by evidence of slight concussion. The attacks have been variously explained by different authorities as due to heart trouble, and also as gouty explosions, and appropriate treatment to suit the separate theories has been rigorously carried out. No treatment has been of avail in stopping the attacks. They are no worse and no better than at their commencement.

*** The attacks from which the patient suffers are almost certainly epileptic in their nature. The involuntary micturition is not usually associated with minor attacks, but is in itself evidence of their organic nature. The fall from the horse probably indicated an early attack. The fact that the heart is healthy would negative cardiac faintness, and also if the attacks occur while the patient is recumbent. The condition under any treatment would probably prove somewhat intractable; perhaps potassium bromide with small doses of potassium iodide and the tincture of belladonna, would give as satisfactory results as any method.

LETTERS, NOTES, Etc.

PROCESSES OF INFECTION AND PROTECTION.

WE have received a further letter from Dr. Edmunds with regard to this subject, but owing to the pressure of other matter we are unable to find space for it.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Mr. G. Abbott, Tunbridge Wells; Mr. G. P. Ashmore, Hove; A. P. S.; Mr F. Addiscott, London; Alpha. **B** Mr. J. A. Bell, Gloucester; Mr. W. L'H. Blenkarne, Worthing; Miss M. Breay, London; Dr. J. G. Blackman, Portsmouth; "Bibby's Quarterly," Editor of, Liverpool; Messrs. Burroughs, Wellcome, and Co., London; Mr. J. B. Blackett, London; Dr. G. Belleri, Bologna; Dr. C. A. Beck, Langsett; Mr. L. A. Bidwell, London. **C** Dr. A. J. Campbell, Duns A. Cox, M.B., Gateshead; Dr. A. Craigmile, London; Dr. M. Craig, London; Mr. C. R. Crawford, Pembury; Mr. R. W. Cameron, Wolverhampton; C. W. Cathcart, M.B., Edinburgh; Dr. L. Canney, London; S. Crawshaw, M.B., Ashton under-Lyne; Mr. F. W. Collingwood, London; Messrs. C. J. Clay and Sons, London. **D** Lieutenant-Colonel O. T. Duke, London; Messrs. Down Bros., London; Mr. H. Dickinson, London; D. J. M.; Mr. C. H. Duncan, Philadelphia; Dr. T. Dutton, London. **F** Dr. S. Floersheim, New York; Dr. A. R. Friel, Waterford; Dr. T. Fisher, Clifton. **G** Dr. J. Galloway, London; A. Gregor, M.B., Sutton-on-Trent; Mr. E. J. Grove, York; Mr. P. J. Glenton, London; Messrs. C. Griffin and Co., London. **H** Mr. D. Harrisson, Liverpool; Dr. W. W. Herbert, Denbigh; Dr. S. H. Habershon, London; Mr. T. G. Horder, Cardiff; H. O. M.; N. B. Harman, M.B., London; Dr. J. Highet, Workington. **I** Mr. W. Irving, Christchurch, N.Z. **J** Mr. F. Jaffrey, London; T. L. Jackson, M.B., Cheadle. **K** Dr. T. L. Kennish, Winslow; Mr. H. Kershaw, Pudsey; Mr. H. W. M. Kendall, Wellington, N.Z.; Messrs. Krohne and Sesemann, London. **L** Dr. C. Lockyer, London; London Diplomate; Dr. W. V. Lush, Weymouth; Mr. T. Laffan, Cashel. **M** Mr. J. J. de Z. Marshall, London; Mr. G. Y. Myrtle, Harrogate; Dr. B. Morris, London; Matasilite; Messrs. Meister, Lucius, and Brüning, London. **N** Mr. E. C. Nangle, London; Mr. M. J. Nolan, Downpatrick; B. H. Nicholson, M.B., Colchester. **O** Dr. A. Ogston, Aberdeen; Overworked; Omega. **P** Perplexed; Mr. P. S. Pearse, Limerick; Dr. M. Prickett, London; Mr. E. J. Pritchard, London; R. Parker, M.B., Liverpool; Dr. E. F. Potter, London; Dr. J. E. Paul, London; Dr. E. L. Pritchard, London. **Q** Quixote. **R** Dr. J. J. Ridge, Enfield; Mr. D. C. Rees, Port Elizabeth; Rusticus; Dr. H. B. Robinson, London. **S** Sphenoid; Messrs. W. B. Saunders and Co., London; Mr. L. W. Sterne, London; Dr. L. Shaw, London; Mr. J. G. Scott, Funchal; H. R. Sedgwick, M.B., Kingston-on-Thames; Mr. H. H. Swanzy, Kimberley; Mr. E. Steiger, London; Dr. A. Sellers, Prestwich; Dr. J. P. Stewart, London; Mr. D. Spillan, London; Mrs. Shrewsbury, Maidenhead. **T** Mr. A. T. Todd-White, Leytonstone; Dr. W. Thomson, Hammam R'Irha; Dr. E. Trevithick, Cheltenham; Dr. W. A. Turner, London; Dr. J. C. Thresh, London. **V** Vindex; Mr. S. Vines, Mossley. **W** Dr. F. Willcocks, London; Mr. J. T. Williams, Barrow-in-Furness; Mrs. H. Williams, M.B., Birmingham.

BOOKS, Etc., RECEIVED.

A Manual of Practical Anatomy. By the late Professor Alfred W. Hughes, M.B. Edited and completed by Arthur Keith, M.D. Part III. The Head, Neck, and Central Nervous System. London: J. and A. Churchill. 1902. 10s. 6d.	A Textbook of Physics. By R. A. Lehfeldt, D.Sc. London: Edward Arnold. 6s.
	Physiology for Beginners. By Leonard Hill, M.B., F.R.S. London: Edward Arnold. 1902. 1s.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	1 17 6
A page	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Observations
ON
TUBERCULIN AS A REMEDY IN TUBERCULOSIS OF THE LUNGS.

BY W. CAMAC WILKINSON, B.A.SYD., M.D.LOND., M.R.C.P.,

Lecturer in Medicine, late Lecturer in Pathology, University of Sydney; Honorary Physician, Prince Alfred Hospital, Sydney.

TUBERCULOSIS of the lungs is the commonest and deadliest disease that afflicts mankind, especially in civilized communities. It is so common, because for generations the very nature of the disease has deceived and disarmed mankind, and even nowadays, in spite of the certain knowledge of its infectious nature, methods of prevention that are generally adopted in plague and similar diseases are neglected or applied in a perfunctory fashion.

EARLY DIAGNOSIS.

It is so deadly because in the majority of cases the disease is well established before it is recognized. Turban tells us that, of 418 cases, only 11 came for treatment within a month of the appearance of the first symptoms, 103 within six months, and the majority—305—only after six months had elapsed. In the first group (11) permanent results were obtained in 72.7 per cent., in the second group (103) in 67 per cent., and in the majority (305) only in 40.2 per cent. How important early diagnosis is, and how rare. Whatever method of treatment we practise—whether rational, specific, or other—early diagnosis is the key to high success. Twenty years ago the early diagnosis of pulmonary tuberculosis was at most guesswork. Some correct diagnoses were made, but many mistakes. Cases of actual disease were overlooked, and healthy lungs were pronounced to be weak. After Koch's discovery in 1882 the test of tests was the demonstration of tubercle bacilli in the expectoration by certain stains. For many years this test dominated everything. Progress in knowledge has deprived even this test of most of its value. Valuable in certain cases in which the physical signs are absent or misleading, and in mild cases of mixed or concurrent infection, notably in influenza and pneumonococcal and streptococcal infections: the discovery of tubercle bacilli in sputum by certain stains too often fails when it is most wanted. It fails as a test in early diagnosis, because the presence of tubercle bacilli in the sputum is itself a sign that disintegration of tissue has occurred. The great lesson of the last decade has been the paramount importance of detecting pulmonary tuberculosis in the first stage before tubercle bacilli escape into the air passages by the disintegration of the superficial tuberculous lesion, while, in fact, the tuberculous formation is still closed, or, in other words, shut off from the external world, represented by the air passages.

MIXED, SECONDARY, AND CONCURRENT INFECTION.

Moreover, Koch and his pupils have taught us that in the great majority of cases the tubercle bacilli play a relatively subordinate part in the severer forms characterized by fever, sweating, and wasting. By the light of Koch's methods as applied by Kitasato and Pfeiffer we have been guided to a clearer and a truer understanding of the variable picture that pulmonary tuberculosis presents to us in its manifold stages and phases. I admit that among English authorities there is still a strong tendency to look askance at, if not to disregard and belittle, the modern view of mixed infection, secondary infection, and concurrent infection. The term "mixed infection"—so full of light and meaning—was first used by Koch's distinguished colleagues, Ehrlich and Brieger, in 1882, in describing a case of typhaid fever complicated with malignant oedema, but Koch himself was the first to recognize the condition in pulmonary tuberculosis. In his own monumental work upon the etiology of tuberculosis one reads thus:

> The combination of bacilli and micrococci as they appear in this disease belongs to the mixed infections, the existence of which appears to by no means rare.

In this case the infection was rather a concurrent than a mixed infection. An ulcer in the mouth was the source of a coccal infection in a case of miliary tuberculosis running a rapidly fatal course.

The part of infection, independent of the tubercle bacillus—sometimes mixed, sometimes secondary, sometimes concurrent occurring in any stage of tuberculosis of the lungs, may defy exact measurement by clinical methods, but nowadays it is hardly possible to overrate its importance when bacteriological methods are called to our assistance. Diagnosis, prognosis, and even treatment, demand a careful differentiation of the elements constituting these other infections. A careful analysis of these elements by recent methods is an important, perhaps a most instructive, basis of classification. Physical signs may mislead us in diagnosis and prognosis: symptoms may help us to distinguish the acute, the subacute, and the chronic—the treatment varying accordingly—but a discrimination of cases by the resources of bacteriological science gives us a basis at once definite and trustworthy. The full meaning and importance of mixed infection did not develop until the genius of Koch, which had guided and inspired the investigations that culminated in the production of the diphtheria antitoxin, proposed a new method of treating tuberculosis on an equally scientific basis.

TREATMENT BY TUBERCULIN.

The treatment of tuberculosis with tuberculin is specific. It is of no avail except for tuberculous diseases, and if other complicating conditions exist—if other micro-organisms are associated with tubercle bacilli in the morbid process—tuberculin may fail absolutely to arrest or modify the morbid process; indeed, tuberculin may then do harm, and perhaps even hasten a fatal issue. I fear that many men have learnt to their cost, and at their patient's expense, that tuberculin may be powerful for harm and powerless for good when the chief cause of the symptoms is not the tuberculous process at all, but the various infectious processes that may be quite beyond the physician's range of vision. Tuberculin treatment aims at a progressive process of active immunization, radically different from the passive process, in which antitoxic serum is supplied ready made. The passive process of immunization may be exploited with impunity and under any conditions. Active immunization, on the other hand, makes a larger demand upon the energy of the tissue cells, and requires that the cells and tissues should be in a relatively healthy state. In the presence of various micro-organisms, such as streptococci, the energy of the cells may be so depressed that active immunization by means of tuberculin cannot be expected. Tuberculin treatment, therefore, has limits unknown in the antitoxin treatment of diphtheria. The failure of tuberculin in 1891 was due to a disregard of the limitations and restrictions laid down by Koch himself, and to a general ignorance of the rôle of mixed infection in pulmonary tuberculosis. It was not that Koch's announcement was premature; it was rather that medical men, by a bitter experience, discovered themselves exploiting a remedy without having had the training essential to success. Failure in their hands was a foregone conclusion, and tuberculin as a remedy for tuberculosis had a mere mockery of a trial. The key to successful treatment with tuberculin is a proper selection of cases by means of bacteriological methods, or, these failing, by a judicious use of tuberculin itself as a diagnostic agent. There is, indeed, no royal road to success in the treatment of pulmonary tuberculosis, either by specific, rational, or other methods. Each case requires skill, judgement, experience, and in no small degree, patience; and, after all, the best and most conscientious efforts may be baffled by the intervention of conditions that can be neither foreseen nor prevented.

Indispensable to success is a thorough knowledge of the variable, complex, and treacherous condition—mixed infection. This mixed infection may even parade itself in the garb, and trappings of health. As a rule fever is the danger signal, and strongly suggests a secondary or mixed infection. Yet, in spite of the existence of fever, there may be no mixed infection, as in acute tuberculosis and in those rare forms of acute gelatinous caseous pneumonia which Fraenkel and Troje have have so well described. On the other hand fever may be absent, and yet mixed infection, with all its evils and dangers, may be imminent. Nothing short of a careful and thorough examination of the sputum by the methods of

Pfeiffer and Kitasato gives us unimpeachable evidence of the presence or absence of a mixed infection. Such an examination should and must go hand in hand with specific treatment. Other methods of treatment may be independent of this fundamental knowledge, but in tuberculin treatment an analysis of the infectious processes at work is indispensable. It is impossible to judge fairly the merits of tuberculin treatment, if we disregard the element of mixed infection. Mixed infection made shipwreck of the tuberculin treatment in 1891. By a fatal fortuitous coincidence tuberculin as a remedy for tuberculosis was tried when influenza raged in Europe as a violent epidemic. Altogether, apart from tuberculin treatment, the high rate of mortality from pulmonary tuberculosis in the influenza years proves that influenza was a very dangerous mixed infection in tuberculous disease of the lungs. If perchance tuberculin had been used, the tuberculin was blamed. Tuberculin has been condemned mainly, if not entirely, on the investigations of ten years ago. It was not known then that, although tuberculin might fail and even do harm when influenza or other infection complicated the tuberculous process, tuberculin might do nothing but good when such complications were absent. I was fortunate enough to use tuberculin in some cases before influenza invaded Australia, and my limited experience seemed to prove the undoubted value of tuberculin, if it were used under conditions prescribed by Koch himself. But while tuberculin can and does act favourably upon the uncomplicated tuberculous process, it may do nothing but harm in the presence of a mixed infection. Close upon five years ago I used these words:

> Pulmonary tuberculosis, as we see it, is rarely a simple process of uncomplicated tuberculosis. It is a process variable in its nature, in its clinical manifestations, in its morbid anatomy, and in its cause; and these variations depend on the virulence of the tubercle bacilli, the state of the tissue, and especially on the number and character of the organisms that complicate the simple process due to the action of the tubercle bacilli. Now these variations, in their manifold clinical phases, have been analysed by the more exact methods of scientific inquiry, and in consequence method and clearness replace the confusion and vagueness that characterized our hitherto conception of the disease. (*Australian Medical Gazette*, August 20th, 1897, p. 401.)

The phases and stages of pulmonary tuberculosis largely depend upon the manifold combinations embraced in mixed infection. Let me say, too, that certain infections of the lungs that have nothing to do with the tubercle bacillus may simulate tuberculosis of the lungs. This is especially true of influenza and of infections due to streptococci or pneumonococci. Such cases cannot be benefited by tuberculin. Two striking cases in my own experience are worth recording. I made a necropsy on a man who died of some obscure septic process. The sole obvious lesion was a small abscess the size of a hazel nut in the apex of the lung. The pus yielded in the smear a streptococcus, and in the growth on agar a pure culture of streptococcus longissimus. From the spleen, which was swollen and engorged, I obtained a pure culture of the same organism. Is there room for doubt that the primary infection attacked the lung?

Even more pertinent is the second case of a brilliant young medical man who fell a victim to his excessive loyalty to duty. He consulted me once and once only for chest trouble with cough and expectoration. For some time he had had irregular fever, sometimes as high as 101° or 102°. Physical signs were practically negative; at most there were some suspicious auscultatory signs at the right apex. The sputum contained no tubercle bacilli, but I obtained therefrom an absolutely pure culture of streptococcus longus. I was inclined to the view that he was suffering from a mixed infection of tubercle bacilli and streptococci.

Cases enough are recorded in which the tubercle bacilli do not get into the expectoration in these mixed infections. As the fever persisted an injection of tuberculin could not be given. If it had been given it might have been held responsible for the sad issue of the case. In spite of my advice this man continued at his post for some weeks during as bad a bout of cold, rainy weather as I have ever known in Sydney. Then he went to the country for some weeks. He returned to town and was carefully tended by his regular physician. I saw him but once, a month before he went to the country. He developed septic endocarditis and died in the course of some months. Surely this was a case of primary infection of the lungs, with streptococci which spread thence to the endocardium by the pulmonary veins. Is it not possible that in many cases of cryptogenetic infective endocarditis the infective agents enter the system by the air passages? I know of no record of a similar history and nature. Thus septic infection of the lungs may simulate pulmonary tuberculosis. Far more frequently these infections supervene upon the primary tuberculous process. Streptococci, diplococci, staphylococci, and micrococci tetrageni are ever at hand to complicate the tuberculous process. Influenza bacilli, bacilli pyocyanei, and the bacilli pseudo-diphtheriae may also complicate. In 1899 I isolated pure cultures of the influenza bacilli from 6 cases of pulmonary tuberculosis. This year I have examined no fewer than 9 cases of so-called influenza, and in 8 cases obtained a pure cultivation of a streptococcus, in 1 case of a diplococcus lanceolatus. There has been, according to my investigations, no true influenza in the recent epidemic. One may call it influenza from its clinical characters, but the frequent complication of true croupous pneumonia that was observed is fair clinical proof that influenza bacilli have not complicated the process. Thus acute, and especially chronic, bronchitis may be due to concurrent infection of the bronchial passage causing apical catarrh, and this primary infection of the bronchial mucous membrane may lead to a mixed infection in the localized tuberculous lesion. In mixed infection the streptococci are intimately and inseparably associated with tubercle bacilli in the tuberculous lesion, as Spengler and others have shown both by special examination of the sputum and by examination of the diseased tissues in fatal cases. The tuberculous lesion has of course disintegrated, and tubercle bacilli are also found in the sputum. A mixed infection may cause only mild symptoms, especially if there is much fibrosis of the lungs, or may suddenly cause the signs and symptoms of acute phthisis with broncho-pneumonic exudation. This is important, and teaches a further lesson. Streptococci and pneumococci may attack a tuberculous as well as a healthy lung, but in both the fatal disease is the same. Is it right merely because tubercle bacilli are found in the sputum to make the diagnosis of acute tuberculosis? This is often done, especially during streptococcal and pneumococcal epidemics.

Those who see only tubercle bacilli in the sputum may err egregiously in diagnosis. Haemorrhage may complicate a pure tuberculosis or a mixed infection, and may thus be either the first sign of a simple uncomplicated tuberculosis of the lungs, in which the haemorrhage may be even a favourable sign, or the early symptom of a form of acute phthisis due to mixed infection and running a rapidly fatal course. As a rule the supervention of the mixed infection leads to wasting, loss of appetite, and sweating, accompanied by fever of varying degrees. The clinical picture changes when a mixed infection is superadded to the chronic tuberculous process. Then the tuberculous lesion may extend rapidly and soften; tubercle bacilli may be numerous or scanty in the sputum; the expectoration is greatly increased and swarms with other and various organisms. Kitasato's or Pfeiffer's method readily evolves order out of the chaos of this flora.

In 1891 the effects of the mixed infection of various sorts—influenzal, streptococcal, diplococcal—were ascribed to tuberculin. The lesions to which Virchow specially directed attention in fatal cases that had been treated with tuberculin were actually the lesions that commonly occur in severe secondary infections when no tuberculin has been used. The simple oft-recorded fact that death occurred within a few days or weeks of the injection with tuberculin in 1891 proves incontestably that tuberculin was used in hopeless and totally unsuitable cases. Thus the brilliant success of the few were placed in total eclipse by the disasters that followed the rash and indiscriminate use of the remedy by the many. Ten years of patient work and careful observation have hardly succeeded in rehabilitating tuberculin among the useful remedies for tuberculosis. Professor v. Schroeder told the Congress in London in so many words that the work upon tuberculin as a remedy in tuberculosis would have to be done all over again.

Those who use tuberculin must above everything beware of mixed infections. There is no time to discuss the question of mixed infection. Those who use bacteriological methods to their full extent will be convinced in less than a year of

the supreme importance of the condition. Those who disregard the lessons taught plainly by the best bacteriologists will hardly listen to any arguments of mine. "They have Moses and the Prophets; let them hear them." My own experience in 1891 told me that in tuberculin we possessed a specific remedy of great value in suitable cases. My first experiments were made upon patients who were living in a country sanatorium and were free from fever. But the general wave of condemnation overwhelmed me in its flood, and it was practically impossible to persuade any one to undergo specific treatment, at any rate until all other methods and remedies had hopelessly failed. Then unfortunately the stage for tuberculin treatment had long passed. Tuberculin was condemned in the *post-mortem* room, was condemned by many after a hasty and illogical trial, and nowadays is especially condemned by medical men, who have had no experience with it, and the laity, whose ignorance is quite excusable. "Tuberculin treatment has been abandoned in Europe," so said an authority at a recent meeting in Sydney. Gratuitous assertion should have no weight in the balance against extended experience. I do not wish to escape criticism, but I have a right to demand a careful statement of facts and statistics from the experience of those who have used other methods of treatment. I challenge those who believe in the rational system of treatment to compare their results with the results of scientific treatment in competent hands. The immense value of tuberculin as a diagnostic agent has been proved in animals. In animals, also, the curative value of tuberculin in its various forms has been proved by Kitasato, Pfuhl, Spengler, and Beck. These experiments show that even the old tuberculin, which was hastily condemned, not only as useless but harmful, has a decided effect in checking the progress of tuberculous formations, and in causing in them those very changes that are recognized as positive signs of the regression of the morbid process. In guinea-pigs inoculated with virulent tubercle bacilli an ulcer that persists till death forms in the second week at the seat of inoculation, and the animal dies in eight to eleven weeks. In guinea-pigs treated with tuberculin the ulcer healed, and the animals lived five, six, seven, and nine months after infection, though the control animals died in six, seven, eight, and eleven weeks. Kitasato writes:

> I was able to convince myself with the greatest certainty that even tuberculosis of the lungs had been influenced in a decidedly favourable way by the tuberculin treatment.

He adds:

> In the case of those guinea-pigs, 5 in number, that are still alive seven months after infection, the inoculation ulcer is at length completely healed, the lymphatic glands, previously swollen, are no longer to be felt, the animals have steadily increased in weight, and have in all respects the appearance of healthy animals.

Moreover, these animals were again inoculated by Koch. The second inoculation ran the following course. Some days after inoculation the tissue round the seat of inoculation was swollen and indurated. In a week this infiltrated part was detached by spontaneous necrosis, and exposed a fresh-looking granulated surface. This ulcer was fully healed within twelve days from the date of inoculation, an event that never occurs under ordinary conditions. The second infection had no further effect. These results were repeated by Spengler. But the use of tuberculin as a remedy has passed the experimental stage, and various observers, notably Rembold, Krause, Petruschsky, Spengler, and Turban speak very favourably of tuberculin, and do not record a single case of generalized tuberculosis after its use. Rembold began as a sceptic but his own results converted him. He waited for six years before he collected his evidence upon the value of the old tuberculin. Out of 70 cases, 27 were cases of mixed infection; of the remaining 43, 16 were in an early stage, 15 of moderate degree, and 12 in an advanced stage: of the 12 advanced cases, 2 were improved at the end of six years; the rest died. Of the 15 cases of moderate intensity, 8 were alive at the end of six years; all of them improved. One case was cured. Of the 16 cases in the early stage one died four years after treatment. The rest were alive; 3 greatly improved, 12 permanently healed, 75 per cent cured. In these cases judgement was withheld till six years after the treatment.

Krause gives a full account of the treatment of 27 cases treated with old tuberculin; 12 cases were temporarily healed, 13 improved, 1 lately under treatment *in statu quo*, and 1 was made worse by injudicious use of the remedy. Krause says: "We come to the conclusion that tuberculin rightly used would have given exclusively favourable results."

Still more important are the records of Turban, who is one of the first authorities in Europe upon pulmonary tuberculosis and sanatorium treatment. Turban's classification of the stages of pulmonary tuberculosis is now largely followed. He recognises three stages.

It may be useful to give the basis of Turban's classification and the physical signs of the stages as given in Hans Weicker's *Beiträge zur Frage der Volksheilstätten*, p. 22.

(*a*) Turban treated 21 cases in Stage III with tuberculin: In 8 there was tuberculous laryngitis; 9 cases survived five years, 3 more remained alive for four years; only 5 out of 21 died within two years—25 per cent.; only 1 died of miliary tuberculosis, and that six and a-half years after treatment; none died of haemorrhage. Hence tuberculin does not increase risk of haemorrhage nor of generalized tuberculosis. Three were quite well six years after—in all, 5 were well. Tubercle bacilli disappeared from the sputum in 4 cases. Of cases treated in other ways—that is, without tuberculin—61 out of 84 died—5 from haemoptysis, 3 from tuberculous meningitis; 41 out of 84 died in less than two years—nearly 50 per cent. Compare this with 25 per cent. under tuberculin treatment.

(*b*) Forty-eight cases in Stage II were treated with tuberculin: 9 died withing two years of treatment, 3 in three years and more, 16 were alive six years after treatment, 5 more five years after treatment, 3 more four years after treatment—in all, 36 were alive. Thus, of 48 cases, 36 were alive and 12 dead. Of 152 cases treated in the ordinary way, 45 were dead and 107 alive, but the figures show greatly in favour of tuberculin treatment, because of the 107 a great number (49) had been under treatment not more than one or two years.

(*c*) 20 cases in Stage I were treated with tuberculin. Tubercle bacilli present in sputum in 17. All were well; 10 of them 6 years after treatment, 2 more 5 years after, 1 more 4 years after, 3 three years after, 2 two years after, and 1 one year after treatment. In all the tubercle bacilli disappeared from the sputum. The 3 cases giving no tubercle bacilli in sputum had to pass through the ordeal of the tuberculin reaction. On the other hand, 57 cases, in which tubercle bacilli were not found in sputum were treated in ordinary ways. They were not subjected to tuberculin test. Of the remaining 22 cases there was one death, and in 2 cases tubercle bacilli were still present in expectoration. Turban himself says: "Now, if we compare the results of early cases in which tubercle bacilli were found in the sputum, the result is substantially in favour of tuberculin treatment (wesentlich zu Gunsten der Tuberculin-behandlung). Of the 86 cases with tubercle bacilli in sputum that were treated with tuberculin, 45, that is, 52.0 per cent., yielded a permanent result; of the 241 cases with tubercle bacilli in sputum that received no tuberculin, 95, that is, 39.4 per

Turban's Classification.

	Pathological.	Percussion.	Auscultation.	
			Breath Sounds.	*Râles.*
Stage I.	Bronchitis, peribronchitis. Scattered foci in one apex. No or little expectoration; generally no tubercle bacilli in sputum.	Normal to slight want of resonance over area of one lobe or over half of both lobes at most	Over one or both apices harsh or weak vesiculo-bronchial to broncho-vesicular.	None or crackling, fine or medium over area of altered resonance.
Stage II.	Bronchitis, peribronchitis, infiltration of slight degree over both supraclavicular and supraspinous fossae or infiltration of one lobe without other foci.	Decided localized dullness over one lobe, or medium dullness over half of two lobes.	Harsh to broncho-vesicular breathing over the dull areas.	*Râles* of medium quality.
Stage III.	All cases more advanced than Stage II.	Pronounced dullness. Tympanitic note and variations of pitch. Cracked-pot sound.	Bronchial or amphoric.	Coarse metallic *râles.*

Cases between I. and II. marked I.—II.
Cases between II. and III. marked II.—III.

cent. gave a permanent result. Still more distinctly does the effect of the tuberculin show itself if we ask how many of these cases are now free from tubercle bacilli in sputm. Of the 86 tuberculin patients 41 are now free from bacilli = 47 per cent. Of the 241 not treated with tuberculin only 66, = 27.4 per cent.

These are very weighty words from an independent observer. Thus, with tuberculin in the hands of Turban, permanent results are obtained in a much greater proportion of cases, and tubercle bacilli far more often disappear from the sputum.

CASES TREATED WITH TUBERCULIN.

I may now approach the consideration of the cases which I have myself treated with tuberculin. I have used TR chiefly, but I have also used the old tuberculin (TA) alone or alternately with TR. It is impossible to give an impression of the results of treatment by mere groups and tables. Personal experience has a value of its own that cannot be disregarded, and my personal experience in a large number of cases tells me that tuberculin, properly used, has a very high value in the treatment of pulmonary tuberculosis. I have carefully watched the effects week by week for nearly five years, and I assert that while the degree of improvement varies and the duration of the improvement varies even more, gradual improvement is the almost invariable rule. I have treated nearly 70 cases, and I do not remember a single instance in which there was no improvement, provided, of course, there was no mixed infection. Such uniform improvement under the tuberculin treatment must be due to the tuberculin, for tuberculin was the only uniform remedy. By improvement I mean that the cough grows less and less and ceases; the sputum diminishes in quantity, becomes, if yellow at first, opaque, white, and then clear and frothy, and finally ceases. In all cases in Stage I the tubercle bacilli, if found before treatment began, disappeared from the sputum during treatment, and later there was no sputum.

In many cases in Stage II tubercle bacilli disappeared from the sputum for months or years, or altogether. I never stopped treatment on account of haemoptysis; and, though there were many cases of severe haemorrhage at one time or other, haemoptysis was extremely rare after treatment. The effect of tuberculin treatment in cases of haemoptysis is worthy of close attention, because if tuberculin had the effect, once attributed to it, of causing rapid and extensive softening, it should surely increase the tendency to haemorrhage. My experience is that it does the very reverse, and that in a striking manner. The rapid and extensive softening, if it has been observed, has been due to mixed infection, not to tuberculin. Mixed infection may certainly cause haemorrhage. Tuberculin treatment, then, is specially indicated in cases of haemoptysis, checking the haemorrhage and preventing its recurrence. Like many other observers, I have never seen any evidence in favour of the idea that tuberculin may mobilize a dangerous enemy peacefully sleeping. In no instance did tuberculous meningitis supervene. If, then, tuberculin does not favour haemorrhage, but rather checks it; if tuberculin checks and may completely arrest the cough; if tuberculin does not mobilize tubercle bacilli; if tuberculin diminishes expectoration instead of increasing it, and causes tubercle bacilli to disappear from the sputum, indicating most surely that, so far from favouring disintegration, it favours a healing process; if under or after tuberculin treatment patients invariably gain in weight and strength, beyond a doubt all the dangers that were held to be associated with tuberculin treatment vanish into mist. They were ghosts and shadows, unreal and unsubstantial, which no rational being need fear. I can vouch for improvement in all cases, provided there is no mixed infection. In many cases other physicians have witnessed the effects of the improvement, and admitted the improvement. I have not yet seen a case of pure tuberculosis that did not improve greatly. I do not pay much heed to a country practitioner who saw one of my cases more than two years after treatment. He found that the patient had a chronic abscess, no doubt tuberculous. The abscess was opened. A mixed infection occurred in the wound, and death was the ultimate result. The medical man attributed the abscess and fatal result to the use of tuberculin. Yet this patient under tuberculin treatment lost his cough, the tubercle bacilli disappeared from his sputum, and the sputum practically ceased. If he had had more tuberculin his life might have been saved.

I have never said that one course of treatment for a few months will absolutely and permanently arrest a disease that has been silently destroying the lung for many months, may be even years. In some of my cases I have given seven courses. I often combine the old tuberculin with the new, add I have given as much as seven-tenths of a gram of old tuberculin in a single dose—seven times the dose Koch originally recommended. The patient is alive nevertheless, and the better for the dose. It is by dint of repeated attacks with tuberculin that even in relatively advanced cases we may hope to bring about marked improvement.

If we have learnt anything in the last few years concerning the results of treatment of pulmonary tuberculosis, we have learnt to give up speaking of cure, unless we have at least watched the case for several years after treatment without witnessing any recurrence of the disease. Koch has continually urged that relapses occur often, and that relapses can be treated as the original attack with tuberculin alike with satisfactory results. Even cases in the first stage may require more than one course. Let me give one striking example:

Mr. E., about 47, gave an ominous family history. Four brothers, one after the other, had succumbed to the disease. They had been under various physicians for treatment. They had been sent to the country and treated in the usual way, but it was of no avail. The last survivor, having seen the failure of ordinary methods, came to me when the fatal disease showed itself, in him as in his brothers, by cough and expectoration and general loss of health and weight. I examined him, and found well-marked physical signs of an early stage. There was expectoration; but, although I examined many times in different ways, I did not find a single tubercle bacillus. I therefore advised a test injection of old tuberculin; 0.001 gr. raised the temperature to 103°, and increased the cough and expectoration. All doubt was at an end. He went under a course of treatment with Tuberculin R. up to 20 m. The patient proved to be very sensitive to the action of tuberculin, and the course occupied five or six months. During it the patient had severe attacks of gastritis and enteritis, with diarrhoea. At one time his weight fell considerably, but ultimately the result was satisfactory; the cough hardly troubled him, the expectoration ceased, and he felt greatly improved. The improvement continued for a few months, and then the old symptoms began to reassert themselves. I gave him a second course. The second course he took very well. In two months one was able to give him the full dose. Again the improvement was very marked. Some months afterwards I saw him, and he seemed in perfect health, and has remained so ever since. His weight (originally 11 st. 6 lb.) reached 12 st. 4½ lb. He told me that in the same time from the beginning of their illness his brothers had succumbed to the disease. The treatment was carried out while the patient continued at his business, though he lived out of town. The second course hardly even upset him. Surely some change had been wrought in his system that he bore the second course so easily.

To summarize an experience extending over a period of five years, 12 cases in Stage I permanently improved—one after two courses, 23 cases in Stage II, all temporarily improved. One had a relapse and developed a tuberculous abscess about hip, which was opened. Naturally mixed infection might be expected, and death occurred nearly two years after treatment. Another, aged 57, always delicate and poor eater, was extremely cachetic pulse 124 to 130, vomiting, diarrhoea, and some discoloration of skin; symptoms improving with tabloids of suprarenal; perhaps tuberculous disease of adrenals, had two courses with tuberculin reaction, improved under both, but several months after second course developed coma and died. She never had fever temperature, generally normal or subnormal. A third case had a relapse with mixed infection; could not afford to come to Sydney from Wollongong for treatment. He developed influenza (bacilli isolated), but recovered. Later developed another mixed infection, and died in 1901, four years after treatment; 14 others are in relatively good health, can do ordinary work; 3 have had two courses, 1 has had six courses, and 1 seven courses in various combinations; in all 3 deaths out of 23. In those in first and second stage 3 deaths out of 35 (8.6 per cent.). In third stage

9 deaths out of 16; in all 12 deaths out of 50. Twelve cases were partially treated, but in 9 obstinate mixed infection interfered, and 3 were not able to remain in Sydney. All these cases were in the third stage, and treatment did neither harm nor good.

I regret that owing to prejudice many cases have come under my notice which were far too advanced for specific treatment. For two or three years no one in the first stage would submit to treatment. The tuberculin treatment was thus at the outset placed at a great disadvantage. Yet I can show results that will bear comparison with those obtained by other methods.

SUMMARY OF CONVICTIONS.

Though Koch has not put it in our power to work miracles, he has discovered a method of treating pulmonary tuberculosis in the early stages with eminent success. His method alone rests on a scientific basis. The last word has not been said on any method of treatment, least of all upon the tuberculin treatment. Philip of Edinburgh speaks in high praise of it. Is it the truth to say, then, that the treatment has been abandoned? It is difficult beyond ordinary comprehension to give a right value to the effect of any method of treatment in a disease that runs such a variable course as pulmonary tuberculosis. It is constantly asserted that pulmonary tuberculosis is curable; it is certainly true that we fail more often than we succeed in curing it. A dangerous and most misleading doctrine it is for patients and physicians alike that pulmonary tuberculosis is curable in all its stages. No doubt, in many cases, pulmonary tuberculosis is cured by Nature's own mysterious ways, but man has still to learn how best to imitate and help Nature. Healed tuberculosis is a common *post-mortem* condition, but in most of these cases there has been no history or evidence of tuberculous disease of the lungs. Tubercle bacilli are often missed in the lesions. Even if proved to be present, they may be dead and perhaps were never alive in the tissue. Conditions of cicatrization without caseation do not necessarily depend on tuberculosis. Irritants, especially of dust particles, broncho-pneumonia, and moreover, as Birch-Hirschfeld and others have proved, the arrested developments of terminal bronchioles may lead to the production of dense fibrous areas, quite independent of tuberculous changes. We are deceiving ourselves if we measure the curability of tuberculosis of the lungs by these interesting anatomical curiosities of the mortuary. The practical physician wishes rather to know how often tuberculosis of the lungs that is recognized by signs and symptoms during life is and may be cured by man's various resources. At the very threshold we are met with the difficulty of determining *a priori* the usual or standard course the disease runs. Measles, scarlet fever, diphtheria, typhoid fever, and the like run a fairly typical course and come to an end in a few weeks. We may therefore roughly measure the effect of treatment, notably in diphtheria. Yet even some distinguished authorities still refuse to believe that antitoxin treatment is the ideal treatment. How, then, can we expect unanimity regarding the effects of various methods of treatment in a disease like tuberculosis of the lungs that presents infinite variety, and lasts, not a few weeks, but months and years, and even a lifetime? Some tell us that the primary lesion is in the bronchial glands—some say in the lymphatics, some say in the bronchial mucous membrane (Virchow, Birch-Hirschfeld), some even that the tubercle bacilli enter the lungs by the vessels (Aufrecht). Some believe that the infective agent reaches the lungs by the alimentary tract (tonsils) whence via the lymphatics the apex of the lungs is invaded. The majority hold that infection occurs by the inhalation of tubercle bacilli that may be arrested in the bronchial mucous membrane or may pass through the uninjured mucous membrane into the bronchial glands. Wandering through this maze of discrepant opinions we may realize the intricacy and subtlety of the great problem that is crying out for a speedy solution in the name of suffering humanity. The disease may exist for months and years without arresting the attention of patient or physician—it may become quiescent at any time—it may relapse after months or years—it may reach a serious stage, involving the greater part of a lobe, and then end in perfect restoration of health. In spite of treatment of any and every kind, the disease may never relent. The victim knows no respite till death. Without any treatment the disease may come to a standstill, and never again disturb the health. The most affectionate regard for logic may not restrain us from attributing success to our own small efforts and failures to the vagaries of the disease. Our memories seize fast hold of successes; we leave others to record our failures, or leave them unrecorded. Let us adopt what measures we may, more or less failure is the rule, and yet we place a high value on many of our methods. In no other disease is it so difficult to estimate fairly the effect of treatment upon the course of the disease as it is in pulmonary tuberculosis. One sees cases of pulmonary tuberculosis even complicated with tuberculous ulceration of the larynx or epiglottis get well of themselves without any special treatment, without sanatorium treatment, without injections of any sort, without local applications.

The best results of sanatorium treatment do not present such a satisfactory picture of success that we should rest satisfied. Analyse the statistics of Weicker's sanatorium or Engelmann's more extensive analysis of the results in German sanatoria. We shall have to travel far before we can be satisfied. To paraphrase Lord Rosebery's epigram: The physician who is satisfied with sanatorium treatment is lost. The rational method of Brehmer was sound as far as it went, though often laborious and tedious in practice, but no other method was possible in his day. Sanatorium treatment holds out much hope of success, especially in the early stages of the disease; but surely any method that fails in at least 50 per cent. of the cases does not satisfy the conditions of an ideal method. The plague, dreadful as it is, is more merciful; it kills quickly, but it hardly kills 50 per cent. of its victims. The results of sanatorium treatment disclosed in Weicker's careful table show that there is plenty of room for improvement. Of 881 cases, 209 had no sputum. Of the remaining 672, only 243 had tubercle bacilli in the sputum; that is to say, 72 per cent. had no tubercle bacilli in the discharges from the lung; 72 per cent. were cases of closed tuberculosis. If no tubercle bacilli were found in the sputum tuberculin was used as a routine method of diagnosis. Thus early cases were selected.

	Results.		Per cent.			Per cent.
1900 ...	Cured	0				
	Improved ...	740 ...	84.0 ...	Able to work ...	645 ...	72.9
	Unimproved ..	110 ...	12.5 ...	Partially	82 ...	9.3
	Worse	27 ...	3.1 ...	Not able to work	154 ...	17.4
	Dead	4 ...	0.4			
1899 ...	Able to work ...	523 = 63.0 per cent. compared with 72.9 per cent.				
	Partially ...	42 = 5.1	,,	,,	,,	9.3 ,,
	Not able to work	181 = 21.8	,,	,,	,,	18.7 ,,
	Dead	84 = 10.1	,,	,,	,,	0.4 ,,
1898 ...	Able to work ...	268 = 45.6 per cent.				
	Dead	194 = 33.0 ,,				
1897 ...	Able to work ...	167 = 41.6 ,,				
	Dead	170 = 42.3 ,,				
1896 ...	Able to work ...	43 = 24.2 ,,				
	Dead	111 = 63.3 ,,				

Of cases treated in his sanatorium—carefully selected cases—the mortality had risen from 0.4 per cent. to 63.3 per cent. in the four years from 1896 to 1900. In the course of four years over 60 per cent. are dead; in the course of three years 43 per cent.; in the course of two years 33 per cent. Sanatorium treatment at its best falls far short of the ideal. May not tuberculin be the means of greatly increasing the value of sanatoria by establishing permanent arrest of the disease? But sanatorium treatment, whatever its success in selected cases may be, is an absolute impossibility in the vast majority of cases. It is a utopian idea that we can deal with pulmonary tuberculosis by means of sanatoria. Pulmonary tuberculosis is essentially the poor man's disease, and sanatorium treatment can hardly be brought to bear upon the very fringe of the disease. The system cannot be applied when and where it is most needed. To the well-to-do it offers fair prospects and sometimes even splendid results, if tuberculin is recognized as an indispensable weapon in arresting tuberculosis of the lungs in an early stage. To the poor and needy sanatorium treatment is not only costly but entails such sacrifices that those who enjoy the relatively good health that is not uncommon in the early stages of the disease will hardly be persuaded to seek the sanatorium. Sanatorium treatment, therefore, is no ideal plan for the majority. Further, in treating other infectious diseases—small-pox, plague, even leprosy, we do not lose sight of measures of prophylaxis. In treating pulmonary tuberculosis prophylaxis

hardly appeals to us. Yet it is more important in tuberculosis than in leprosy. From a hygienic standpoint we cannot be satisfied with any method of treatment that ignores the purpose of prevention. Can we say too often that the best treatment of pulmonary tuberculosis is its prevention? Now, all the results of sanatorium treatment show that as a measure of prophylaxis sanatorium treatment largely fails. It is stated that sanatorium treatment does not cause tubercle bacilli to disappear from the sputum in more than 20 per cent. of the cases; 80 per cent. of the infectious cases leave the sanatoria as foci of infection. The best training and the best regulations cannot remove the danger, though they minimize it. Such persons are all the more dangerous if they expel tubercle bacilli from their lungs when they think themselves cured. No doubt on an ideal plan those who leave sanatoria, as those who enter, should not discharge infectious sputum, but, as matters are, many enter and leave sanatoria with tubercle bacilli in their sputum, especially in the case of the sanatoria for the better classes. In this respect, then, sanatoria are not of the same public service as hospitals for consumption. On the other hand, evidence shows that tuberculin treatment has this great advantage, that in a far greater number of cases tubercle bacilli disappear from the sputum. Of cases treated by Turban with tuberculin, only 1 out of 20 had tubercle bacilli in sputum at end of treatment. Of similar cases treated in other ways, 7 out of 21 had tubercle bacilli at end of treatment. Accordingly, as a measure of prophylaxis tuberculin should be used in all sanatoria.

Tuberculin treatment can be carried on without loss of employment. For the poor, therefore, who have to earn their daily bread the treatment may well be recommended. The majority of my early cases have suited themselves, and many of them have hardly lost a day's work. Although the treatment has involved many thousands of injections, there has never been even a small accident not even a small skin abscess. This is surely the best testimony of the care with which the preparations are made and dispatched.

Estimation of the Effect of Tuberculin.

Space will not allow me to do more than mention the latest development in the matter of specific treatment. Koch has at length devised a means of estimating the effect of tuberculin treatment. The object of treatment is to immunize the tissues against the tubercle bacilli and its toxins. In most other diseases immunity is brought about by the formation of certain specific protective substances that reach the blood and lead to the phenomenon of agglutination. The agglutination phenomenon is probably a more or less accurate measure of the degree of acquired immunity. In tuberculosis, as a rule, such agglutinative properties generally fail to develop, and accordingly the disease does not naturally produce its own proper remedy. But in animals by various methods immunizing substances can be artificially elaborated, so that the agglutinating power may be raised from 1 in 10 to 1 in 1,500 in goats and 1 in 3,500 in donkeys. Similarly Koch has found that by the use of various forms of tuberculin in human beings the agglutinative substances can be increased so that the power of agglutination is raised from 1 in 10 to 1 in 50, 1 in 100, even 1 in 175, 1 in 200, 1 in 250, even 1 in 300. Agglutination, valueless as an aid in diagnosis, is likely to be very valuable as a gauge of success in tuberculin treatment.

Thus there is absolute scientific proof that tuberculin of various forms used in various ways—by subcutaneous and even intravenous injection—does lead to the production of protective or immunizing substances in the blood. To quote Koch's own words:

> That in phthisical persons the appearance of the power of agglutination is bound up with the formation of protective substances we think may be deduced from the fact that the state of health visibly improves from the moment the serum has acquired agglutinating properties. The appetite returns, and correspondingly the weight increases, often to a considerable degree; night sweats cease; *rales* greatly diminish, and also the amount of sputum. In many patients the sputum ceases altogether, and therewith, of course, tubercle bacilli disappear. The most striking phenomenon in this regard was the state of the temperature. In such patients, who had no high temperature, we have never seen, after the reaction had passed away, any rise of temperature that could have been regarded as the result of these reactions. On the contrary, we have regularly observed that in phthisical patients with fever, moderate and medium degrees of fever have been favourably influenced by the reactions. At first a fall of temperature, only transient, occurred on the third or fourth day after the reaction, at the very time when the process of immunization sets in. The temperature then remains low for several days but again gradually rises. If again a powerful reaction is produced the temperature again falls, and the fall is more persistent than after the previous reaction. By repeated reactions such rises of temperature can be permanently arrested. In individual cases we have succeeded even in causing high fever of a pronounced hectic type to disappear; therefore, the condition of fever is now no longer a contraindication as was the case in the use of the old tuberculin. We have only excluded from treatment such cases as are in too weak a state, or those in whom the destruction of lung is so extensive that improvement is out of the question.

All these results were shown in cases of phthisis in the second and third stages.

The time will come when it will be generally admitted that Koch has not only taught us all we know of the etiology of pulmonary and other forms of tuberculosis, but has found also a remedy which in skilled hands will prove an inestimable boon to the large section of humanity afflicted with pulmonary tuberculosis.

THE ADMINISTRATIVE CONTROL OF THE TUBERCULOUS DISEASES.

By H. COOPER PATTIN, D.M.Cantab., D.P.H.,
Medical Officer of Health, Norwich.

The British Congress on Tuberculosis, which was held last year in London, will be memorable for more than the dicta of Professors Koch and Brouardel. It will be memorable as the first organized effort made in these islands to bring clearly into focus the magnitude of the task which lies before the community in the campaign it is urged to wage against the tuberculous diseases. Professors Koch and Brouardel committed themselves to statements each of which requires for its confirmation fuller and clearer evidence than the Professors themselves furnished. Koch says that bovine and human tuberculosis are not transmissible reciprocally, and Brouardel that alcoholism is the most potent factor in the propagation of tuberculosis. Neither of these gentlemen provides us with adequate proof of the truth of his proposition. On the other hand, the facts brought to the knowledge of the Congress in its various sections provide us with only too much evidence of the need of a national and systemic campaign against the tuberculoses; and even there we did not get all the facts.

The Congress, with a judgement with which I do not quarrel, in so far as it prevented attention being diverted from the most common and dangerous of the tuberculoses, practically confined itself to debating and resolving how best to deal with the tuberculosis which affects the lungs, and is commonly called phthisis. Of this form of tuberculosis over 40,000 persons are certified to die every year. It is reasonable to assume that for every person dying from this disease there will be at any given time ten times as many living with the disease in a slighter or severer form. Nearly half a million persons are, upon this computation, actually suffering from tuberculosis of the lungs in some stage. But this figure does not represent the total number of those who are the victims of the tubercle bacillus.

The Primary Site of Infection.

In the district with which I am associated officially nearly two out of every five deaths certified to be due to the tuberculoses are caused by forms of the disease other than phthisis. It is my belief that closer investigation into the true antecedents to death would heighten the proportion of the deaths due to non pulmonary forms of tuberculosis. In my opinion, too, pulmonary tuberculosis is the primary lesion much more rarely than commonly is assumed to be the case. I believe this to be true of those who die of phthisis. My experience in dispensary and general practice before taking up municipal work led me to form this opinion. In fact, I came to the conclusion that phthisis is rather evidence of the development of the disease than of its invasion. It can be affirmed safely that if a victim of any other type of tuberculous disease live long enough the lungs are certain to become implicated, which implication, in many instances, masks the original seat of infection. My personal experience being limited to a little over 1,000 cases, inclusive of all kinds of tuberculosis, I am not entitled to dogmatize upon the matter, and can only express the hope that my *confrères* who are in practice, and in particular those

who have opportunities for performing necropsies, will make careful and systematic investigations into the origin of such cases of phthisis as come under their observation. If they do not find a large proportion in which the lung mischief is really a secondary indication of the general ailment, I shall be considerably indebted as well as surprised. Every physician can recall cases in which he has felt certain in his own mind that a patient was in the incipient stage of tuberculosis, and in which the most exhaustive examination of the lungs has failed to reveal the faintest symptom of their implication; in fact, he will have been obliged to say that they are unaffected. And yet, in a few weeks' or months' time he will have been only too certain that the lungs have been infected. What is the explanation? That the mischief has begun, as such *post-mortem* information as I have at my command tends to show that it most commonly does begin, in adolescents and adults, that the mischief has developed in the glands about the "roots" of the lungs—perhaps lain quiescent there for years—and then has subsequently invaded the pulmonary tissues. What is actually the mode of entrance into these glands would be too speculative a topic for me to discuss here.

I do not for a moment deny direct inhalation, but I am satisfied that to say, as Professor Koch said in the course of his address to the London Congress, that "in by far the majority of cases of tuberculosis the disease has its seat in the lungs, *and has also begun there*" (the italics are mine) is assuming a little too much. At any rate, the fullest clinical and *post-mortem* evidence should be furnished. Professor Koch went on logically enough: "From this fact is is justly concluded that the germs of the disease, that is, the tubercle bacilli, must have got into the lungs by inhalation." If the premiss be admitted the conclusion cannot be denied.

What is certain is the fact that one type of tuberculosis, the intestinal, affects children chiefly, and them at the milk-feeding ages particularly; and that in these cases it is very difficult to believe—not so much that the tuberculosis is not due to inhalation as that it can be directly due to inhalation into the lungs. Even in those cases of tuberculosis where the active seat of the mischief is in the lungs, it is a fact that tuberculosis of any part of the windpipe is rarely a primary affection, being indeed almost invariably secondary to lung trouble, and generally attributed to the passage from the lungs of bacillus-bearing sputum. The accidental conditions which furnish a suitable nidus for the development of the tubercle bacilli in the lungs may reasonably be expected to prevail and at times to be even aggravated in the windpipe.

These favouring conditions are local patches of congestion and abrasions of the protective epithelium, such as accompany bronchitis, whooping-cough, measles, small-pox, and typhoid. In the latter case the state of acute general debility would naturally affect the resistance of all the tissues and organs of the body. The broad fact remains that primary tuberculosis of the greater air passages, as contradistinguished from the pulmonary tissues, commonly is regarded as and accounted a rarity.

However, these are points of more immediate interest to pathologists than to practitioners, and I will content myself, for the present, with repeating that very much fuller clinical and *post-mortem* evidence is wanted to justify the current ascription of the primary tuberculosis to the lung tissues, even in cases of undoubted phthisis.

Intimation of Pulmonary Tuberculosis to the Sanitary Authority

Taking all the known facts and factors into consideration, we have to consider if it be possible to exercise a State control of and over the tuberculous diseases. At the British Congress on Tuberculosis the State Medicine Section practically confined its attention to the notification of phthisis and the provision of sanatoria for the phthisical. The discussions on meat and milk supplies, doubtless in consequence of Professor Koch's address, lacked actuality, and either erred on the side of over-emphasis or were perfunctory. It seemed to me that too much stress was laid upon the pulmonary type of tuberculosis, an insufficient amount of attention being thus paid to the other types. In speaking in the discussion upon notification, I referred to a paper which I had communicated to the International Congress of Hygiene and Demography at Buda-Pesth in 1894, on The Tuberculoses in England and Wales, in which the obligatory notification of all the tuberculous diseases had been advocated—a position the propriety of which subsequent experience and more extended observation has strengthened and confirmed. To confine ourselves, therefore, as the Section did, to recommending voluntary notification of phthisis, seemed and seems to be a very milk-and-watery proceeding. It amounts at most to a possibility of obtaining a knowledge of some of the houses in which there are cases of pulmonary tuberculosis, but promises only a very ineffective semblance of control. The limited utility of voluntary notification is dependent upon this possible knowledge of house infection. Wherever a case of phthisis has been notified steps can be taken to secure disinfection of the dwelling before a new person or family inhabits it, or after a death has occurred. The addresses of fatal cases can be obtained easily, whether notified previously or not, from the weekly returns sent in to the medical officer of health by the district registrars. In my own district 95 per cent. of the dwellings in which deaths from phthisis took place last year were disinfected without any previous notification of this disease. The medical officer of health can inform himself of the existence of tuberculous disease in dwellings by desiring his district inspectors to inquire upon their house-to-house visits if there is any one suffering from "consumption" in the dwelling, and by further directing them to communicate the addresses of such to himself. If the health department number among its health officers a lady inspector or inspectors the information is likely to be more complete, as these officials are granted freer access to the interiors of the dwellings, and commonly get on more friendly terms with the occupants. Under any system of voluntary notification the information is bound to be of so partial a character as leads me at any rate to dispense with it very cheerfully. Many medical men, for example, do not consider themselves entitled to divulge the condition of their patients even to the medical officer of health unless they have the legal warrant for doing so that is provided by an Act of Parliament which makes notification obligatory. Many patients for the like reason assume a corresponding attitude; and generally it may be said that voluntary notification is of small account in attempting to control the tuberculoses. Of course I know that experienced medical officers of health think that valuable educational work is effected by distributing handbills or cards containing directions for dealing with the spittle of the phthisical, their sleeping accommodation, etc. But really any medical man who neglects to give the necessary directions damns himself *ipso facto* as incompetent if not worse; and for outcome of the British Congress all the newspapers have been propagating accurate information respecting the danger of spittle, and especially of tuberculous sputum.

I attach more importance to systematic instruction in all the schools of the kingdom concerning the means of infection with consumption than to distributing cards to the phthisical. Not that I wish to discourage the latter. A clearly printed code of directions as to the mode in which one may avoid infection and lessen its danger cannot do harm to any one, and may do good to many. If it do this to one person the practice will be justified. The valuable information which may be obtained through notification is that which relates to the house conditions and home and workshop surroundings of the patient. A mode in which a medical officer of health can acquire reliable information as to house infection with tuberculosis is to obtain from the medical officers of the union infirmary in his district a list of the home addresses of all pauper phthisical patients who are admitted to the wards of the infirmary. It is a fairly common practice for a poor person to gain admission to the union infirmary during an acute attack of the disease, and then, in the fateful hopefulness which is such a pathetic characteristic of the consumptive, to go out again on recovering his average healthfulness. If the home address of such a one be communicated to the health officer, the dwelling or sometimes the workplace can be cleansed and disinfected before the return of the patient, various sanitary defects be remedied, and the friends provided with instructions as to the bedroom accommodation, the measures to be adopted for preventing the possible propagation of the disease through spittle, etc. The corresponding information might be furnished very properly by the house-physicians of all public hospitals respecting phthisical

patients who may attend the out-patient rooms as well as of those admitted to the wards. In these and other ways it is possible even now for a medical officer of health to inform himself of the whereabouts of a good deal of tuberculous mischief; and I am pretty well satisfied that the principal sources of danger are aggregated in the affected person's work-place and dwelling.

Intestinal Tuberculosis.

So far I have been referring to the pulmonary type of tuberculosis—that at present (and I cannot say improperly) appropriating the attention of the public eye and ear. The intestinal type of tuberculosis, at any rate in children, hitherto has been attributed, in the main, to the consumption of the milk of tuberculous cattle. It has been my belief for years, and one which I stated in the paper already mentioned at Buda-Pesth in 1894, that too much influence has been attributed to infection of the milk from the udder of the cow, to the dairy, in fact, and too little to the dwelling; for it is my belief that a good deal of the infection of milk with tubercle bacilli takes place after the milk has left the cow and has come into the dwelling. Taking note of the fact that the children of the poor, those amongst whom intestinal tuberculosis is most prevalent, are precisely those children who get, as food, relatively the least amount of milk, I have long been unable to accept the doctrine that the mischief was due entirely to tuberculous disease in the cows.

Another feature of such milk as the children of the poor obtain is its relative poorness in natural fat. Now it is a matter of common knowledge that fats have an exceptional food value in the feeding of the tuberculous and those predisposed to tuberculous disease; as is witnessed by the tons of cod-liver oil which have been poured down human throats, and by the suet dumplings, etc., which enter into the dietary of consumptives, I am told, in German sanatoria.

I stated in my Buda-Pesth paper what I hold still—that besides infection of the milk, whether by the cow or in the home, the relative absence of fats in the food of poor class children, and the stale, used-up atmosphere of many of their homes, as well as the frequently sunless character of these latter, constituted important factors in predisposing the children reared in such habitations to fall victims to this disease. It is easy to realize (given the presence, from whatever source, of tubercle bacilli in the dwelling) how the infection of milk may occur, for such milk as the poor buy is left frequently in a basin or other uncovered vessel, and exposed to facile contamination within the actual living room.

I remember, when we had a medical meeting in the County of Norfolk to consider the desirability of forming a branch of the National Society for the Prevention of Tuberculosis, stating then that I thought too much attention was being deflected from the possibility of milk infection within the home to the probability of milk infection at the dairy, and going on to predict that if—as I hoped would be the case—every tuberculous cow in the kingdom were got rid of, there would still be found a large amount of intestinal tuberculosis among children. I went on to urge what I urge here: the importance of protecting milk from becoming infected after it has reached the dwelling. Milk can easily be protected by keeping it in a clean covered vessel and sterilizing it by repeated heating nearly to the boiling point.

In any attempt at a State control of the tuberculoses types other than the phthisical cannot be overlooked. For it will not be disputed that any localized discharges, etc., from such persons are likely to be carriers of the bacilli, and therefore potential agents in propagating the tuberculous ailments. Taking all which facts into consideration, it will be seen that to confine oneself to voluntary notification of the pulmonary type of tuberculosis is to play but not to cope with the problem before us.

Compulsory Notification of all Tuberculous Diseases.

Now, it seems to me that to set out upon a national campaign against the tubercle bacillus and all his works, as we are supposed to be setting out, without first informing ourselves of his whereabouts and numbers, is on a footing of practical folly with the conduct of a general who should set out to fight human foes without first learning the numbers and disposition of the enemy. To secure this indispensable information, if we are not to make "much ado about nothing," it will be necessary to make the notification of all types of tuberculosis disease obligatory. This was the course I urged in 1894 at the Buda-Pesth Congress: Non-compliance with the requirements of the law to expose the offenders to the infliction of penalties and all the undesirable publicity which accompanies prosecution. It is not necessary to pass an entirely new Act of Parliament to secure compulsory notification of the tuberculous diseases. A single clause could be added to the Infectious Diseases Notification Act, stating that on and after a certain date its provisions, penalties, etc., shall apply to the tuberculous diseases; or, if what in my part of the country is known as "The Sanitary Yamen"—the Local Government Board—could be prodded into taking the initiative, some, possibly many, sanitary authorities would add tuberculous phthisis, at any rate, to their lists of diseases notifiable compulsorily. The existing legal machinery would supply all necessary powers to enforce the notification.

I know very well the arguments that are used against obligatory notification. They amount in substance pretty much to the following contentions:

1. That "public opinion" is not "ripe" for it.
2. That notifications in consequence would be incomplete, and that the sufferers themselves would object to have their infirmity made known even to health authorities.
3. That the visitation of the premises, etc., by the medical officer of health and the issuing of instructions by him would lead to "disturbance" of the confidential relations subsisting between practitioners and patients.
4. That the inherent difficulties of diagnosis would make it difficult to arrive at such a positive opinion as would justify notification in many cases.
5. And finally, that compulsory notification, with its consequential administrative measures, would constitute an unwarrantable and unendurable interference with the liberty of the subject.

Let us give for a few moments the fullest importance which can be attributed reasonably to these objections, and then weigh them against the advantages to the commonwealth which may be looked for if notification of the tuberculoses be made obligatory.

For the sake of brevity I hereinafter confine my observations to the pulmonary type of tuberculosis. To begin then with:

1. The objection that "public opinion" is not "ripe." It is not an *ad captandum* reply to say "How do you know?" to the propounders of this most hoary of objections, in the special circumstances. As a matter of fact they do not know, and with the assurance born of ignorance assert implicitly that their own opinion of the ripeness or immaturity of "public opinion" corresponds with fact. I dispute the proposition *in toto*, and all the more strenuously because I have left the political nursery too long to be frightened by such a bogey. "Public opinion" upon a matter of this kind would be the most fallacious of guides, and the public has the sense to know it. If the objectors to obligatory notification believe that the public puts not its trust in experts they may have some grounds for waiting for the precious opinion to become, in their own opinion, riper. But I affirm that the public puts quite pathetic trust in the dicta of experts; for example, note how "public opinion" accepted the vapourings of our Pall-Mallian experts over the duration and character of the Boer war on its outbreak, if you want a crucial illustration of its value. Any way, I am quite satisfied that if the Council of the College of Physicians would make of itself "a motley to the view," and walk in procession clad in academicals and preceded by the beadle, etc., to Whitehall and there affirm, *coram populo*, that obligatory notification of tuberculosis was desirable, it would be found that "public opinion" was what gardeners call "rotten ripe." I, who have seen the inhabitants of a cathedral city accept cheerfully the proposal to schedule diarrhœa among its notifiable diseases, simply because the medical officer of health said that the suggestion of the Local Government Board that local authorities should do so was in the special circumstances it was at the time of the cholera scare really a sensible suggestion I who have seen this feel that I was born too near a wood to be affrighted at such an owlet as is "public opinion," in any stage of ripeness, upon such a matter as the value of obligatory notification in a national campaign against the tuberculoses. The next objection:

2. Is that notification, if obligatory, would be incomplete, inasmuch as some doctors and many patients would object to

notify the fact of the existence of tuberculous disease, even to the health authorities. Granted, and to the full; but it should be obvious that with voluntary notification the incompleteness must be to this as is the waist to the little finger. With the law to help us to do our duty, I fancy the doctors would not hanker after the publicity of magisterial proceedings, and would notify with zealousness. Nor do I fancy that any would-be lay evader of the legal precept would care to have his or her state made a matter of notoriety as the injudicious alternative to notifying quietly the facts to a discreet medical health officer. And if a medical officer of health be not discreet, then that of itself is good ground for getting rid of him, as being palpably unfitted for his office.

3. It is predicted that the notification to the medical officer of health of the affected dwelling, and the possible visit from that officer, with the issue by him of a card of instructions, would disturb the "confidential" relations which exist between the practitioner and the patient. This objection is but a tissue of hypotheses. First of all, it is pretty certain that the medical officer of health would neither wish nor be able to visit every notified dwelling; and it is more certain that, being a discreet man, he would not wish to see every patient. His main purpose would be fulfilled when the abode of every sufferer was registered, and a card of instructions delivered, these latter giving special directions as to notifying (under penalty) removal, so as to facilitate disinfection of the dwelling before it could be occupied by another. In fact, I should be perfectly satisfied with a notification couched in the most general terms—for example, "I certify that in such and such a dwelling there is a case of tuberculosis. (Signed) Hippocrates Galen, M.D.," etc. The mention of the name of the patient being voluntary, the notification of the dwelling (the really important matter) being obligatory. Then the medical officer of health, either in person or through a staid and discreet male or female inspector, would learn whether the sufferer laboured in any workshop, etc.: and where, so as to insure that he took all the due precautions there, leave the printed official directions as to notifying removal, etc., and, like the Arab, "silently steal away." Objection 3, in short, is only a "bogey," born of misapprehension, prejudice, and fear.

4. The inherent difficulties of diagnosis, etc. Well I know from practical experience what these amount to, and am not affrighted; but, to calm the Galenic breast, I should be satisfied to claim notification of such cases only as could be shown by bacteriological examination of the expectoration or of any other secretion or excretion to be giving out bacilli. (Such bacteriological examination to be performed at the expense of the public.) I fancy that, under these circumstances, few capable practitioners would remain for very lengthy periods in "honest doubt."

5. That compulsory notification, with its consequential administrative measures, would constitute an unwarrantable and unendurable interference with the liberty of the subject. This is the crowning and coping objection! It would rather constitute a warrantable and endurable interference with the liberty of the bad subject to endanger his neighbour which he at present selfishly abuses. If the purport of notification be explained clearly it is difficult to see how any valid ground of objection can be raised to its enforcement. Nay, I go further, and without citing the experience of New York and South Australia, where notification of pulmonary tuberculosis is compulsory, will affirm that no intelligent democracy of Anglo-Saxon origin will suffer for much longer the claims of the whole community to be protected from danger, to be overridden by the sentimental praters about liberty of the subject, when such liberty means a licence to endanger. The immediately practicable administrative measures are those detailed—information as to presence of the disease in dwelling and workshop, directions as to treatment of discharges, disinfection after death or removal, etc.

Administrative Preventive Measures.

Administrative steps which I should like to see taken would be a legal requirement that no consumptive person should be permitted to land from a ship without notification of his destination being sent to the medical officer of health by the ship's doctor. A notification that tuberculous passengers had been borne would, of course, be required by the port sanitary authority, so that the cabin which had been used by the consumptive could be disinfected before it was occupied by another person. Similar notification should be required from the friends when known consumptives proposed to stay at health resorts, etc., the object being in all cases to secure disinfection of the dwelling or part of a dwelling occupied by the tuberculous before another person inhabited it.

Severe penalties against spitting upon the floor, etc., of railway carriages would be requisite to prevent infection of these by consumptives in transit. (One hopes the day will yet dawn in England when either plain wood or washable leather will constitute the upholstering of our railway carriages: at present they are constructed apparently with the special intention of being exceptionally capable disseminators of disease). Bear in mind our definition of a consumptive, namely, a person who is giving out in any secretion or excretion tubercle bacilli. The suggested measures would constitute no intolerable burden upon any decent citizens. The private practitioner would see that his patient was provided with a spittle bottle and the public officer would supervise the disinfection of the dwelling. Either of these could, and both probably would, give suitable directions about the treatment of the sputum, the one to protect his patient from reinfecting himself, the other to protect the public from a preventable affliction. It is only by means such as these that any rational as well as national campaign can be waged against the tuberculoses.

Of course one expects and would like to see other measures taken concurrently with notification—namely, the provision of sanatoria for the recuperative treatment of the victims of tuberculous diseases. In process of time one reasonably can expect every sanitary authority to possess its sanatorium for consumptives, or to be a contributor with other authorities to the maintenance of one. The fact that the German insurance societies find it pays them to pay for the treatment of their tuberculous members in such sanatoria may be expected to weigh with the purse-preservative instincts of ratepayers. For, although it would carry us too far afield to enter upon the computation here, I am disposed to affirm that the British ratepayer would be astonished if he knew how much the tuberculous diseases are costing the country at the present moment in union infirmaries, and through needless loss of labour, time, etc. Indeed, it is probable that the erection and maintenance of sanatoria will prove a direct, as it unquestionably will prove an indirect, economy. Admission to any sanatorium would, of course, carry with it notification to the district sanitary authority of the house from which the inmate came, so that its disinfection and improvement could be taken in hand before the possibly cured ex-inmate again returned.

A side issue, which inevitably will assume greater proportions as time progresses, is the housing question as affected by any attempt at the administrative control of the tuberculoses. It will not be enough to disinfect the inside of affected dwellings. Local authorities will have to face, and their medical officers be prepared to advise, condemnation of many dwellings, not so much on account of size, probably, as because of deficient sunlight and the absence of sufficient space to provide a free currency for the air, and therefore for adequate ventilation. The occurrence of tuberculosis in a dwelling so situated will increase enormously the moral claim to have it proclaimed unfitted for human habitation. But to carry the required weight it is all-important that the notification of the tuberculosis shall be obligatory. To the lay mind an infectious disease which is notified in accordance with an Act of Parliament only is really serious.

Conclusions.

In conclusion, before setting out upon an attempt to control the tuberculoses, we need:

1. Reliable information as to their whereabouts, which, in my judgement, can be acquired by obligatory notification only.

2. Rigorous adoption of consequential administrative measures as to destruction of sputum, etc., and disinfection and improvement of affected dwellings, and sometimes their condemnation and removal.

3. Provision of sanatoria for recuperative treatment either by sanitary authorities singly or conjointly.

4. Instruction in all elementary schools in the means of

propagation, and the methods of prevention, in dealing with tuberculous diseases.

With the adoption of the above measures we may hope greatly to diminish the untimely yield of human lives which is now garnered annually by the tubercle bacillus; to say nothing of the lessening of the pain and misery which too often make those who should be healthy and useful members of our national family pathetically hopeless and practically dangerous.

ON A MODEL SANATORIUM FOR CONSUMPTIVES.

By Sir LAUDER BRUNTON, M.D., F.R.S.,
Physician to St. Bartholomew's Hospital.

While on my holiday in August last year I took the opportunity of visiting various health resorts. Amongst others I went to Nordrach and to Wehrawald. Nordrach has now become a household word, but I had never heard of Wehrawald until I met my old friend, Professor Baümler, at the house of Dr. Fraenkel in Badenweiler. Professor Baümler insisted that I must by all means visit Wehrawald, which is a new sanatorium for consumptives, because it exhibits the most perfect model yet built of what such a sanatorium ought to be. Wehrawald is situated in southern Baden, and is most easily reached from London by taking train to Basel and thence to Wehr, from which a carriage takes one in about two hours or two hours and a-half to the sanatorium, a journey of



General view.

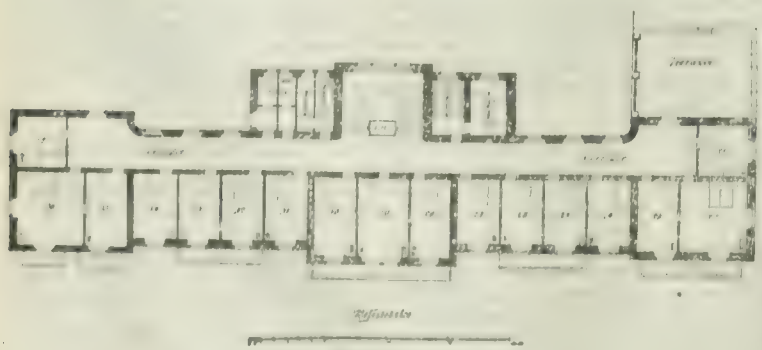
about twenty-five hours in all from London. The drive from Wehr through the Wehrathal is exceedingly beautiful, the valley, or rather gorge, being so narrow that in some places the carriage road is built out into the stream, which completely fills up the whole distance between the precipitous sides of the gorge. The banks are so steep that on looking at them one wonders how any trees can find a place, and yet the sides of the gorge are covered with pines on both sides up to the top.

As we near the sanatorium the valley opens out into an oval basin which has apparently been the bed of an ancient lake, and right in front we can see the sanatorium on a jutting projection from the hillside, with pines above, pines below, and pines on each side of it. It faces south, looking down into the open basin I have just mentioned, and is in full sunshine the greater part of the day, while the hills behind shelter it from the northerly winds. Below the sanatorium and a little to one side of it lies the village of Todtmoos, with a hydropathic establishment, and above it a small pilgrimage church. The sanatorium lies 2,824 ft. above the sea level and the site has been made for it on the slope of the hill by cutting the ground away behind and building it up in front. The sanatorium itself consists of three parts—a central building, 5 stories high, for the reception of patients, and two side wings projecting backwards at either end. Both these wings are only 1 story high, so that they do not interfere with a free current of air round the main building.

The western wing is devoted to medical, surgical, and hydrotherapeutic examination and treatment. The eastern wing contains the administrative offices, dining room, kitchen, scullery, and servants' hall. The dining room is a large, well-lighted, airy room, 52 ft. long, 32½ ft. wide, and 18 ft. high; it is ventilated by means of an electric fan on the roof. On one side are large windows looking into the forest, and the opposite wall is almost completely covered with mirrors, so that wherever a patient sits he almost seems to himself to be dining in the open air. The central building, which faces due south, is 197 ft. long, and in front of the ground floor is a verandah 263 ft. long, the ends of which bend forward to the south, and afford protection from winds—east, west, or north. On the verandah are numerous deck chairs, in which the patients lie enjoying the sunshine and fresh air. It is supported by a series of arches which form a long vaulted passage running the whole length of the verandah, and freely open to the air, so as to provide a convenient walk for the patients in bad weather. At the east end of the verandah is the doctor's house, and at the west end a small pavilion. These protect the verandah itself still further from easterly or westerly winds. In front of the building is a terrace, on which there are two buildings, each about 50 ft. long, in which the patients may lie instead of in the verandah.

Footpaths lead in every direction through the pine woods at the back of the house, with numerous benches on which the patients may rest when tired, and here and there in the woods are also small pavilions where in favourable weather patients may lie the greater part of the day.

The entrance for people arriving in a carriage is at the east side of the building, but for those who are living in the sanatorium there is an entrance from the verandah which opens into the hall. From the eastern entrance one passes into a corridor which runs along the back of the main building and up the western wing, but the eastern wing is entirely separated by doors, so that no smell can come from the kitchens or dining-room into the main building, and there is a separate corridor for service connecting the kitchens with the stairs, so that meals may be carried to patients in their own rooms without coming through the main corridor. Along the front of the building, in succession from east to west, are a reading-room, a library, a drawing-room, the entrance hall, and ladies' and gentlemen's cloakrooms, where warm wraps can be conveniently kept for any change of weather, and where boots or shoes can be at once changed without the trouble of a patient going up to his or her own room. Each patient has a separate division, so that there can be no possibility of infection through clothing. In the western wing are baths and douches for ladies and gentlemen, an operating-room, waiting-room, consulting-room, dispensary, and a laboratory where sputa can be examined, or other chemical and microscopical investigations can be made.



First floor.

As the side wings are only one story high the first and succeeding floors have no wings. They are devoted entirely to bedrooms, all of which face the south with the exception of two in each story, the one of which faces east and the other west.

None of them face north, and nearly all of them have got balconies, some of which are so large that the bed can be wheeled out upon it, and thus patients who are very ill can get fresh air and sunshine without being moved from their beds. The other balconies, which are smaller, are adapted for couches. While outside the patients can be protected from glare or from wind by a sort of sun blind which can be put up or removed at pleasure. All the rooms have electric light, and are warmed by steam pipes. They are protected from draughts by having double doors, above which are glass ventilators. Opposite to these and above the windows are other ventilators, so that a free circulation of air can be easily maintained.

One of the two most remarkable things about the sanatorium, and in which it differs from others, is the extreme care to prevent infection, which is shown not only in the general arrangement of the building itself, but in every detail of structure and furniture. The other is the extraordinary manner in which this principle has been carried out without detriment to beauty or comfort. There is not an angle or corner in the whole building; all are carefully rounded off so that there can be no lurking place for microbes. The seats of the chairs can all be taken out and disinfected, and every cushion, mattress, and coverlet can also be disinfected. Every room is as free from the risk of harbouring microbes as the most thoroughly antiseptic operating theatre, and even the cups, knives, and forks have been specially made so that they can be most effectively cleaned, and no microbe can find a lurking place in them. The floors, which are made of plaster, are covered with linoleum which can be washed with antiseptics, and the walls are covered for a great part of their height with a specially-made washable material called "Salubra." The remaining part of the wall and the ceiling is painted in oil. Linoleum usually has a hard, cold appearance, but here it is of a rich red colour, and has the appearance of a warm carpet. The "Salubra" is in various tints, and in one room especially it is pale blue, and looks as if the wall were covered with blue satin, while the ceiling has garlands of flowers painted in Italian fashion on a cream-coloured ground. The combination of this with the dark red of the linoleum produces a most pleasing effect. Pictures are banished from the walls on account of the dust they might gather, but yet one does not miss them. The whole of each room can be readily disinfected in a very short time by washing with an antiseptic solution.

The plan of the sanatorium was drawn by Dr. Turban of Davos, it was built by Mr. Gros of Zürich and fitted up by Mr. O. Hüglin, Freiburg-i-B.

In visiting this establishment one does not get at all the feeling of being in a hospital, or even in a sanatorium, but rather of being in some palatial hotel, where everything is arranged to please the eye, and to minister to the comfort of the visitor. One would imagine that it would be impossible to provide such accommodation at anything but a prohibitive price, yet at present the charges are 8s. 6d. a day for feeding, medical attendance, heating, and lighting. The rooms are from 2s. to 6s. extra, and there is an entrance fee of £1. It seemed to me that this price was likely to be raised as soon as the establishment was filled, but I was informed that this was not the intention, but rather that, on the contrary, the profits from the establishment were to be devoted—in part at least—to reducing prices to these who were not well off. On going from this establishment to Nordrach I was greatly struck with the comparative simplicity of the arrangements there, and the results which Dr. Walther has had show very clearly that success in the treatment of consumption depends more on the doctor who regulates the treatment than on the place where it is carried out. Yet at the same time, as an ideal sanatorium for consumption, I cannot but corroborate my friend's (Professor Baümler) dictum that Wehrawald is the most perfect sanatorium at present in existence.

DONATIONS FOR THE TREATMENT AND INVESTIGATION OF CANCER.—Mr. Timothy Bean has sent to the Treasurers of the Middlesex Hospital the sum of £1,050 for the endowment of a bed in its cancer wing, and Lieutenant-Colonel Windsor-Clive has sent an additional donation of £50 towards the fund for the investigation of cancer.

THE TECHNIQUE OF THE INTRATRACHEAL "DIRECT" METHOD OF TREATMENT OF PHTHISIS.

BY COLIN CAMPBELL, L.R.C.P.I., M.R.C.S.ENG.
Southport.

SINCE the publication in the BRITISH MEDICAL JOURNAL of February 22nd of a favourable article on the Treatment of Phthisis by the Intratracheal Injection of Izal, which I had the honour of bringing under the notice of the British Congress on Tuberculosis last summer, I have received a large number of letters requesting usually "full" or "further" particulars. As some letters have been received from gentlemen who are engaged in the open-air cure, it may be inferred that the 20 per cent. of "cures" with which Professor Koch credits that method is beginning in England to be regarded as hardly satisfactory.

The matters on which further information is desired may be classed under the following heads.

Materia Medica.

The most frequent request has been for "a formula." Ten years ago I had one which I thought all-sufficient; now I employ a score. Supposing the case to be of pulmonary tuberculosis, I give two formulae which I often use concurrently, or give No. 1 for the first week.

(1) ℞ Thymol 5j;
Salol 5ij;
Menthol 5j;
Glycerini (Price's Redest.) 3v.

Mix in a 6-oz. bottle, and dissolve in a water bath. Inject from 5ij to 5xij twice daily at a temperature of 140° F.

(2) ℞ Medicinal izal 5iij;
Menthol 5ij;
Glycerini (Price's Redest.) 3v.

Mix, and inject as previous.

I would not, however, administer izal in this strength at first, but would rather establish a toleration of the method with a weaker emulsion.

According to Professor Delépine's experiments, izal diluted 125 times exterminates the tubercle bacillus in an equal quantity of sputum, if thoroughly mixed, and I have shown elsewhere[1] how the admixture is obtained—(1) by the dehydrating power of the solvent glycerine, and (2) by the action of respiration.

Instruments.

The instruments required are an intratracheal syringe and a laryngoscope. The syringe I now use is a great improvement on the glass-barrelled instrument which I exhibited at the Congress last year—the great fault of which was an occasional smash at the moment of injection. This lands the contents backwards over the face and into the eyes of the operator. The one I now use is all metal, and is made, like the old one, by Messrs. W. Wood and Son, Cross Street, Manchester; its capacity is 60 minims.

The laryngeal mirrors in ordinary use are most dangerous. With the exception of a recent wound, there is no part of the human body more open to septic germs than the throat, yet the ordinary mirror cannot be sterilized. Boiling cracks the mercury, it cannot even be "wiped" clean—as the glass mirror cannot be removed from its metal frame. The reflectors I use are of plated metal. They are made by Messrs. Weiss and Son, Oxford Street. Mr. Weiss tells me that the idea is not new, but that metal, as a reflector, has gone out of use for many years. There is one metal handle and three different sized reflectors fitting in a ball-and-socket joint like a dentist's mirror.

Modus Operandi.

I would here restate a question asked in many forms: Is there not produced by sending fluid down the windpipe, intense (1) irritation, (2) coughing, (3) choking, and how can this be avoided?

That none of these unpleasant consequences need occur I have many times publicly demonstrated. The last occasion was before the Tuberculosis Congress, and I hope to be allowed to again do so during the coming annual meeting of the British Medical Association at Manchester. If a beginner be accustomed to the use of the laryngoscope he should not have much difficulty; if not, he must be prepared for some

mishaps, until by patience and constant practice on willing patients he acquires dexterity and rapidity.

The laryngoscope should be used at first to make certain that the dose intended for the lungs does not find its way into the stomach, and there produce very unpleasant consequences. It is almost incredible, yet absolutely true, that the lungs will easily tolerate single doses, say, of izal, creosol compounds, or menthol, which the stomach would either at once reject, or accept to the exclusion of food.

The patient sits upright in front of the operator, with his mouth on a slightly higher plane; for this purpose chairs which can be elevated or lowered are desirable. Next the patient draws his own tongue forwards and downwards with his right forefinger and thumb, covered with a clean handkerchief or paper "tongue cloth." Then the operator, with the aid of his laryngeal mirror, guides the nozzle of his syringe along the curve of the palate, without touching it, over the tip of the epiglottis, then it is brought down rapidly, and the injection delivered. If properly done the horizontal part of the nozzle of the syringe will rest on the tongue, whilst its curve will hold the epiglottis and thus prevent spasm.

The injection is best delivered at the beginning of inspiration.

Duration of Treatment.

Obviously this must depend on a variety of circumstances—the primary factor being the extent of the disease. If the infection be recent and the digestion and general health still fairly good, one may expect a rapid "cure." The following case may be mentioned as a recent example.

In August last year I was called to see Mrs. H. M., aged 27, who had been confined about six weeks before. I found her in the last stage of phthisis with extensive tuberculous ulceration of the larynx—too far gone to attempt anything more than palliative treatment. She died about a month later, and her infant soon followed her with symptoms of general tuberculous infection. I only mention her as the probable source of infection in her husband's case, whom I saw at the same time.

H. M., aged 28. He had slept with his wife up to her confinement. He had always been very strong until about four months ago; since when he had lost 8 lbs. in weight, and now found that his work as a grocer's assistant tired him very much and put him out of breath. He had had a slight attack of haemoptysis in June. He had cough, not much expectoration, temperature 99·8° to 100°, pulse 90°, the only other appreciable physical sign being a prolonged and intensified expiratory murmur. I told him I thought he had become infected with tuberculosis, and advised intratracheal "disinfection" of his lungs with izal, etc. To this he did not at once assent, but within three or four days he had a second attack of haemoptysis, which quickly decided him to submit to this method of treatment. Previous to beginning, the sputum was examined and found to contain tubercle bacilli. He commenced treatment in the second week of August, 1891, and finished January 11th, 1902. For the first four months he had one sitting a day; for the last month three a week. He readily took 2 oz. of solution (equal to quite 1 drachm of pure izal *oil*) at each sitting. During the entire period of treatment (except whilst resting after haemoptysis) he worked on an average twelve hours a day, and walked three miles to and from his work, yet gained 11 lb. His gain has been maintained, and he reports himself as still "perfectly well and free from cough" on May 2nd.

I hope the details I have here given will help many practitioners to commence a method of treatment which is simple and effective and which goes to the root of the evil by destroying the tubercle bacillus in its nest. I hope soon to publish some more statistics.

Reference.
Transactions, British Congress on Tuberculosis.

ARSENICAL BEER POISONING AT THE HALIFAX UNION POOR LAW HOSPITAL.

By J. F. WOODYATT, M.R.C.S., L.R.C.P.,
Principal Medical Officer.

Since the new Halifax Union Poor-law Hospital was opened in September, 1901, I have had under my care two advanced cases of arsenical beer poisoning and my colleague, Mr. Shaw, has had two other cases of the same nature. The hospital is large and takes patients from a district having a population about 200,000; so that there cannot be any severe epidemic here as was found in other places some fifteen months ago. The two advanced cases were well marked, and must have had a considerable amount of the poison whatever may have been its origin. The brewers have been most careful as to their brewing materials sending them to various chemists and the reports, I am told, were always good. Recently some samples of beer were taken, and Mr. Allen, of Sheffield, found considerable amounts of arsenic present. Yet on inquiry of the other medical men in Halifax I find that, with one or two exceptions, they have no cases in spite of being on a careful look-out.

At an inquest held here recently on an old man who was supposed to have died of arsenical poisoning, Mr. Allen, the analytical chemist, said that $\frac{1}{10}$ gr. of arsenic per gallon of beer was something we should not make a fuss about. Other chemists, he said, would pass $\frac{2}{10}$ gr. per gallon. If this amount of arsenic is allowed, it would be detected in the tissues after death, from whatever cause, in a habitual beer-drinker; and in the case in question a very minute trace of arsenic was found in the tissues after death. The analyst, speaking of the tissues sent him (parts of the stomach, liver, and kidney), said: "Taking first the whole, I found a doubtful indication of arsenic representing not more than $\frac{1}{10}$ gr. of arsenic." He did not say how little it might have been, but on being asked by the coroner if it was arsenic, he said it was arsenic, but in his opinion it had no definite significance.

If brewers are to be allowed a certain amount of arsenic in their beer, the fact that we find it in the tissues after death does not help us to come to a conclusion as to the cause of death in doubtful cases. And during life there are cases amongst the patients of medical men who have had some considerable experience of these cases which will tax his power of diagnosis to the utmost.

The cases in the hospital are fairly typical. Dr. Reynolds, of Manchester, very kindly came over to see them, and his opinion was that they were arsenical beer poisoning cases without doubt.

Case I.—A man admitted November 14th, 1901, gave a history of beer drinking, and stated that he had been ill six weeks. He was unable to walk, was very anaemic, and had considerable general oedema. His voice was very husky, and he showed general pigmentation, especially down the centre of the back. There was complete loss of power in the legs. The knees were bent and the toes pointed, and the reflexes were absent. He has made considerable improvement. He can straighten his knees and move his feet a little. There is only slight oedema, but some keratosis of the feet remains.

Case II.—A male, admitted January 15th, 1902, had been ill a few weeks, but not laid up. He gave a history of beer drinking. The pigmentation was so marked that he looked like a mulatto. The voice was husky and there was much bronchitis, but no other signs of arsenic poisoning. The reflexes were present, his walk was natural, and there was no tenderness of the calf muscles. The patient died of acute croupous pneumonia, and necropsy showed old-standing aortic disease and cardiac hypertrophy with granular kidneys.

Case III.—A female, admitted October 7th, 1901, had been ill three weeks with loss of power in the legs. There was a history of beer drinking, and she presented marked pigmentation of the back and shoulders. She was unable to walk; there was foot drop and the calves were tender on pressure. The reflexes were absent. She has much improved, but still has foot drop and the reflexes are absent, though she is able to walk.

Case IV.—A female, admitted October 29th, 1901, gave a history of beer drinking and recent diarrhoea. The only symptom was marked and typical pigmentation with keratosis. She has improved much. The keratosis has gone, but the pigmentation still present, though to a less marked degree.

I am told by those who are trying to trace the origin of the arsenic, that they are of opinion that it gets into the beer from the anthracite coal used in malting.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

FOREIGN BODIES IN THE WINDPIPE.

In the British Medical Journal of April 26th there is an interesting case of a young woman who coughed up a ragged crown of a tooth which had been in her windpipe or bronchus for fifteen months, causing uncontrollable coughing and much haemoptysis. The tooth had slipped into the windpipe when the patient was under chloroform for the extraction of nearly all her teeth. A similar accident happened to my son when walking through a swampy bit of ground in the Bahamas. He climbed a sapodilla tree to get some of the fruit. He felt that he had swallowed a seed of the fruit he was eating. On reaching home he was seized with violent coughing, which he ascribed to a bad wetting in the swamps. This continued for

five months, and his general health was getting so much affected that his friends thought he was going into consumption, till one day, on stooping down to untie his shoe, he coughed up a sapodilla seed. This seed was of an irregular ovoid form, ⅝ in. long and half as much in breadth. It was beginning to swell, and would probably soon have got so large as not to be able to get through the glottis. The coughing at once stopped, and he speedily recovered his health. No doubt had he at any time inverted his body the stone, which is a very smooth one, would have escaped at once. The case of M. Brunel, the younger, was published many years ago. He had let a shilling somehow pass into his windpipe. It gave so much trouble, that a surgeon was on the point of opening the larynx for its extraction when Brunel suggested to invert him. This was done, and the coin immediately fell out.

Shortly after this I happened to be with Dr. James Duncan, one of our first surgeons in Edinburgh, when a sailor from Leith was brought in. He also had let a shilling pass into his windpipe. We resolved to invert him, but Dr. Duncan was prepared to open the larynx in case the coin should stick in the glottis and cause suffocation. On turning him up, however, it at once dropped to the ground.

Currie, Midlothian. GEORGE S. KEITH.

THE INFLUENCE OF NASAL OBSTRUCTION UPON THE DEVELOPMENT OF THE TEETH AND PALATE.

THERE can be no doubt of the correctness of Mr. A. L. Whitehead's statement[1] to the effect that nasal obstruction is capable of producing deformity of the maxilla. One may, indeed, go further, and say that, provided it occurs sufficiently early in life, and lasts sufficiently long, it is bound to do so. The resulting deformity constitutes a distinct pathological entity, and I suggest that it should be known as the mouth-breather's jaw.

Mr. Whitehead refers to the hard palate as being high in these cases. I have endeavoured, though in vain, to ascertain whether in them it lies high in relation to the base of the skull; but that it is not high in the sense of the arch being high I can assert from measurements I have taken. The fact is the narrowness of these palates gives them a false appearance of height.

Regarding the pathology of the mouth-breather's jaw: there are, as Mr. A. L. Whitehead observes, several causative agencies at work, but I will refer to one of them only. If, as Mr. Mayo Collier asserts, there is in the mouth-breather a reduction of atmospheric pressure in the nasal cavities, there can be little doubt that such reduction must seriously interfere with the development of the maxilla—not, I would suggest, by causing the palate to be driven upwards, but rather by inducing a negative pressure within the antrum, and so preventing that ample expansion of it which is essential to the proper development of the maxilla. I do not think it is adequately realized what a large portion of the maxilla is made up of the antrum.

I may mention here that of many hundreds of skulls which I have examined in the museum of the Royal College of Surgeons of England, I have not come across a single unmistakeable instance of a mouth-breather's jaw, while there are hundreds of thousands- (I write this deliberately)—of such jaws, among the present inhabitants of London. *O tempora, O mores!*

London, W. HARRY CAMPBELL.

PEMPHIGUS FOLIACEUS IN AN INFANT.

As this is a very rare and fatal form of pemphigus, the following notes may prove of interest:

On February 10th, 1902, I delivered a young woman, aged 21, of a male child. On February 15th, or five days after birth, blebs appeared on the face and neck of the infant, then in two or three days on the abdomen and thighs, until the body was covered with the exception of the palms and soles. The blebs varied in size, from ¼ in. on the face and neck to 3 in. on the abdomen. They were flaccid and flat, and the contents on escaping were turbid. After the rupture of the blebs large inflamed excoriated surfaces were left, covered with thin flakes, under the surface of which there was an offensive secretion. The mucous membrane of the mouth became attacked and the child was unable to swallow. The child looked exactly as if the skin had been carefully removed, having the same appearance as raw meat. It died on February 25th, on the tenth day after the appearance of the blebs. There were no signs of congenital syphilis, and I did not see the father, nor could I get any information of the state of his health except that he was said to be suffering from consumption. The mother was perfectly healthy in every way and made an uninterrupted recovery. As regards treatment, the child was well nursed and carefully bathed and the blebs on rupturing were dressed with vaseline. The mother was not able to suckle him, and he was therefore fed on milk and barley water. He was given a simple mixture containing a little tinct. camph. co., as he seemed to suffer a good deal of pain and cried nearly the whole night.

Northampton. G. H. BRAND, M.D., L.R.C.P.

[1] BRITISH MEDICAL JOURNAL, April 19th, 1902, p. 949, *et seq.*

WIDAL'S REACTION IN A CASE WITH URIC ACID CALCULUS.

THE discussion at the Clinical Society on March 14th, 1902, emphasizes the need for the collection of all available evidence as to the validity of Widal's reaction. As to its negative value there is no doubt. Nearly all cases of enteric give a Widal reaction, but the evidence is strong, and was supported on all hands at the Clinical Society that other conditions than enteric will produce agglutinative reaction in enteric cultures. I may, therefore, add one more instance in which Widal's reaction was obtained which was not enteric fever. The case has a further interest, for it illustrates the difficulty, now well recognized, in distinguishing between appendicitis and right-sided renal colic. A middle-aged woman passed a small stone from the bladder fifteen years ago; about 1880 she began to have attacks of typical recurrent appendicitis. The second attack occurred during the eighth month of pregnancy, and, though very severe, did not interrupt pregnancy, but subsided, and a normal delivery occurred. A third attack induced her to submit to operation. Mr. Makins operated on her at St. Thomas's Hospital, found three concretions that had escaped from an ulcerated appendix. This had sloughed into an abscess cavity, which he thought had probably been previously found and evacuated into the bowel. He resected the remainder of the appendix, and she made an excellent recovery. While convalescent she passed another stone from the bladder; this was in 1898. In 1901 she had a return of symptoms, which might have been either renal colic, appendicular, or possibly mild enteric. Enteric being prevalent in the neighbourhood, I had the blood examined by the authorities of the Jenner Institute, who reported "slight Widal reaction," but I was not informed what dilution was used. I was unable to obtain Ehrlich's reaction in the urine, and beyond the ordinary febrile changes in the urine there was no morbid change. Two days later the temperature fell, and she became apparently well. Mucus in excess and a trace of albumen appeared in the urine, and five days later she passed a large uric-acid stone, a month later another, and a month later than that a third.

She may have had enteric fever antecedent to 1887, but she has certainly not had it since, and I can get no history supporting the supposition that she has ever had enteric in her lifetime.

Westerham. ARTHUR MAUDE, M.R.C.S., L.R.C.P.

GONORRHOEAL SYNOVITIS IN AN INFANT SUFFERING FROM OPHTHALMIA NEONATORUM.

ON March 10th I confined Mrs. X. of a seemingly healthy child. On March 12th the mother drew my attention to a discharge from the child's eyes. She stated that she herself had suffered for several months from a discharge from the vagina. Later the husband admitted that six months previously he had had gonorrhoea. The ophthalmia was a very severe one. It was treated by syringing with 1 in 5,000 biniodide lotion every two hours night and day. When 15 days old the child developed a well-marked synovitis of the right knee. The case was undoubtedly one of gonorrhoeal rheumatism.

Gonorrhoeal rheumatism is very rare in infants. Clement Lucas in 1885[1] first drew attention to the possibility of gonor-

[1] BRITISH MEDICAL JOURNAL, 1885, vol. i, p. 429.

rhoea becoming generalized in infants. In the same year Zatvornitski[2] described a case of rheumatism in an infant with ophthalmia neonatorum. In 1898 Heiman, in the New York *Medical Record*, mentions the case of an infant in which he found gonococci in the affected wrist. Clement Lucas in 1899 read a paper before the Royal Medical and Chirurgical Society, stating that he had collected 23 cases of gonorrhoeal rheumatism in infants with gonorrhoeal ophthalmia. He noted that the condition was quite a transient one, with no tendency to ankylosis.

R. W. INNES SMITH,
Sheffield. M.B.Edin., L.R.C.P.Lond.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HOSPITAL FOR WOMEN, SOHO SQUARE.

A CASE OF ARTIFICIAL ANUS FOLLOWING STRANGULATION OF A VENTRAL HERNIA SUCCESSFULLY TREATED BY RESECTION OF SMALL INTESTINE AND IMPLANTATION OF THE ILEUM INTO THE CAECUM.

(Under the care of Mr. DOUGLAS DREW.)

[For the notes of this case we are indebted to Mr. DODSON, House-Surgeon.]

History.—J. C., aged 46, was admitted on December 16th, 1901, with an artificial anus in the scar of an old laparotomy wound, which had been performed for an ovarian cyst in 1892. The ventral hernia which formed after the operation caused no trouble until February, 1901, when it became painful, and severe vomiting occurred. It was "put back," but a few days later "something gave way," and a motion came away. From this date until admission there had been a continuous discharge of fluid faeces, and with the exception of three or four occasions, no faeces had passed per rectum since February, 1901.

Condition on Admission.—The patient was in a very emaciated, feeble condition, she having restricted her diet owing to pain in the abdomen which followed the taking of food, and which persisted until relieved by a flow of intestinal contents from the fistula. The reaction of the discharge was alkaline and produced acute dermatitis, which subsided under boracic fomentations.

Operation.—The operation was deferred until February 8th, 1902, in order to improve the condition of the patient, and to get rid of the dermatitis. On February 8th, 1902, the fistula was closed by dissecting up the skin around it, and suturing it over the opening. The skin was then disinfected, and the abdomen opened in the middle line above and below the fistula, a portion of the abdominal wall being removed around the fistula, to avoid any escape of the contents of the bowel. After separating numerous adhesions, the affected coil of intestine was isolated and withdrawn from the abdomen. The vermiform appendix was firmly adherent to the mass, so it was amputated at its base by the "cuff method." It was at once obvious that any attempt to separate the matted coil of intestine would result in so much damage to its coats that sloughing would have ensued, so the whole coil was excised by clamping the bowel above and below, and removing the intervening portion by dividing the mesentery close to the intestine. The lower end of the divided bowel was situated 3 in. above the ileo-caecal valve, so it was decided to close the lower end of the ileum, and to implant the upper end into the caecum. This was done by a double row of continuous sutures, the first through the mucous coat, and the second through the serous coat, the edges being turned in. The anastomosis was effected by means of a Murphy button, a longitudinal incision being made in the caecum for the reception of the lower half of the button. After the junction was completed, the aperture in the mesentery was sutured, and the abdominal wall was closed by a layer of sutures including the whole thickness.

After-History.—There was some shock after the operation, and slight vomiting occurred during recovery from the anaesthetic, but it did not recur. On the second day after the operation the temperature rose to 101.2°. The wound looked well, and there was no distension and no vomiting. Flatus was passed freely. Nothing but a little water was given by the mouth during the first four days. Nutrient enemata were administered at regular intervals. On the eighth day the stitches were removed, and the wound appeared to be healed, but on the eleventh day a series of abscesses had formed in the track of the stitches; these were opened up and some separation occurred in the edges of the skin. On the tenth day pain and swelling appeared in the left parotid, and this increased in spite of fomentations until the fifteenth day, when the swelling was incised and pus evacuated. On February 28th the parotid abscess was still causing trouble, and a further incision was necessitated. At this time there only remained a small sinus in the abdominal wall, which discharged a little pus. By March 12th the condition of the patient had much improved, but the abscess in the parotid was still discharging profusely. The button was removed from the rectum on the thirty-second day. The abdominal wound was completely healed on March 30th, and patient allowed to get up every day; the parotid abscess is not yet quite healed.

Remarks by Mr. Drew.—In this case we had to deal with the distressing condition of the whole of the intestinal contents being discharged through the abdominal wall, a condition which resulted from a large defect in the wall of the bowel and the formation of a spur which prevented any of the contents of the bowel passing beyond the opening. An attempt might have been made to remedy the condition by the method of destroying the spur by Dupuytren's clamp and then closing the fistula. But inasmuch as this method is uncertain and there is a great risk of fatal peritonitis supervening, I preferred to adopt the more modern method of resection. In resecting the bowel I followed the well-established rule of removing enough to ensure that healthy portions were brought together; this involved the removal of 16 in. As there only remained 3 in. of the ileum between the point of section and the ileo-caecal valve, I chose to re-establish the continuity by the method of implantation and closure of the lower end of the divided bowel, rather than by end-to-end anastomosis, a procedure which was, I believe, first advocated by Kocher as giving much better results than the end-to-end method. Owing to to the difficulties of the early stages of the operation in separating the coil of intestine I was enforced to perform the anastomosis by means of Murphy's button instead of by the preferable method of direct suture, which would have taken too long considering the enfeebled condition of the patient. Perhaps the most interesting feature of the case was the occurrence of the parotitis. It developed on the tenth day, two days after the removal of the silkworm-gut sutures. At the time of their removal, there was not the least evidence of irritation about them. I believe the series of stitch abscesses was produced by the portions of the sutures in contact with the skin becoming infected from it owing to the impossibility of rendering the skin aseptic at the time of the operation, and when withdrawn through the abdominal wall, the track was infected by them. If not due to this cause I am at a loss to know to what to attribute it, as the deeper parts of the wound ran a perfectly aseptic course: in fact the convalescence was perfect until this complication arose, and it is well recognized that, when it arises as a complication of an abdominal case, it is the result of sepsis. As is usual when suppuration occurs in the gland the constitutional symptoms were very severe; in fact the condition of the patient was very critical, and the successful issue was largely determined by the care and attention bestowed upon the patient by the house surgeon, Mr. Dodson, to whom I feel much indebted.

[2] *Lancet*, 1885, vol. II, p. 449

A NEW surgical building for Johns Hopkins University, Baltimore, is to be erected at a cost of £20,000.

THE late Madame Obrikossoff has bequeathed the sum of 100,000 roubles for the erection of a model lying-in hospital in Moscow.

REVIEWS.

LABORATORY HANDBOOKS.

THE main portion of this textbook, published under the title *Practical Histology*,[1] has been transferred from the well-known *Practical Physiology and Histology* of Foster and Langley. To this Professor LANGLEY has added a number of more advanced exercises, and brought the whole thoroughly up to date. He states in the preface that the methods given have all been tried sufficiently often to allow some confidence that the student who follows the directions will not fail of a good result. We have tested some of the new methods here given, we have found the directions remarkably clear and exact, and have had no difficulty in obtaining the results described. The book is a purely practical one; it gives little or no systematic description of organs and tissue, and no figures. This latter point is of some importance, for in a histology class there is in the drawings of some students a tendency to copy those in his textbook, and not to draw from his own preparations. If teachers use this book in their own practical classes they will have to exercise a certain amount of selection: to carry out all the exercises in their entirety would entail more time than most students, certainly most medical students, can afford to give to the subject. To any one who intends to take up histology seriously and thoroughly we can recommend no better book; it will also prove of invaluable assistance to teachers.

Professor STIRLING has enlarged and revised his *Outlines Practical Physiology*[2] until it takes the form of a portly volume. As a catalogue of lecture experiments, and a laboratory reference book of methods, the work is of value to teachers of physiology, but considering the numerous claims which other branches of medical science make upon the medical student, it seems hardly possible that he should master so wide a field, and it may therefore be undesirable that he should attempt to do so. The clearness of the descriptions and the excellence of the tracings and figures make the book of value to the student who consults it for any particular exercise.

Professor SCHÄFER, in his *Directions for Class Work in Practical Physiology*,[3] gives clear and simple instructions dealing only with such elementary exercises as can readily be worked out by a large class. He excludes all problems which the average medical student cannot be expected to investigate for himself. The directions are based upon the experience of many years in University College, London, and upon the course of study which was first instituted by Sir John Burdon Sanderson. Fifty-eight out of the 80 pages are devoted to the study of muscle-nerve experiments. It would be well if more time were devoted in physiological classes to the mechanism of the circulation, to respiration, metabolism, etc., subjects which are of far greater practical importance to the medical student. Unfortunately it is very difficult to devise many suitable experiments on these subjects for class work.

Dr. CHARLES WOLF'S *Laboratory Handbook of Urine Analysis and Physiological Chemistry*[4] will prove useful also to the student outside the laboratory. The exercises designed for practical work in physiological chemistry are well arranged to give instructions in the elements of the subject, while at the same time the matter is put in a readable form. The methods of examining the urine are very fully described, and there are at the end of the book, some extensive tables drawn up to assist in urinary diagnosis. The illustrations are useful and well executed.

[1] *Practical Histology.* By J. N. Langley, M.A., Sc.D., F.R.S., Deputy Professor of Physiology, University of Cambridge. London: Macmillan and Co. 1901. (Crown 8vo, pp. 348. 6s.)

[2] *Outlines of Practical Physiology.* By Professor W. Stirling, M.D., Sc.D. 4th edition. London: C. Griffin and Co. 1902. (Demy 8vo, pp. 648. 465 illustrations. 15s.)

[3] *Directions for Class Work in Practical Physiology.* By Professor E. A. Schäfer, LL.D., F.R.S. London: Longmans, Green, and Co. 1901. (Cr 8vo, pp. 80; 45 illustrations. 3s.)

[4] *A Laboratory Handbook of Urine Analysis and Physiological Chemistry.* By Charles G. Z. Wolf, B.A., M.D., Instructor in Physiological Chemistry, Cornell University Medical College, New York. Philadelphia and London: W. B. Saunders and Co. 1901. (Cr. 8vo, pp. 204. 5s.)

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1902.

NOTES.

THE summer session of the General Medical Council came to an end on Tuesday afternoon, June 3rd. It thus extended for two days beyond the period anticipated by the President in his introductory address. The session has been one of more than ordinary interest, as will be gathered from the detailed reports contained in the following pages. We refer elsewhere to the prolonged debates upon the financial position of the Council in its relation to the Branches, and upon the proposals made to equalize income and expenditure.

Medical Aid Societies. The case of Mr. Rendall, late medical officer to a Medical Aid Company at Great Yarmouth, which attracted so much attention at the meeting of the Council last November, was brought to a satisfactory conclusion. Mr. Rendall informed the Council that his connexion with the Society had been entirely and completely severed since Lady Day last, and he expressed his regret, and promised that in future he would have no connexion in any way whatever with Medical Aid Societies. Under these circumstances the Council decided to proceed no further with the charge proved against Mr. Rendall, but the action taken in November has had the desired result, not only in this particular instance but in many other parts of the country. The Council is to be very much congratulated upon the strong stand which it made in this test case, and it is to be hoped that the full significance of the course it has taken will be appreciated by the members of the medical profession and also by the Medical Aid Societies.

Inspection of Final Examinations. The reports of the visitation and inspection of the final examinations of the Conjoint Board of Scotland, of the Royal University of Ireland, and of the University of Dublin, were before the Council during the present session, and afford proof of the value of the systematic discharge of this duty imposed upon the Council by Act of Parliament. The Royal University of Ireland received almost unqualified praise, but the report on the University of Dublin appears to have contained matter of so inflammable a nature that it was considered advisable to discuss it *in camerâ*. Inasmuch as the announcement made by by the President was to the effect that the Visitor and Inspector would be instructed to complete their inspection of the final examination of the University next November, it is safe to assume that the inspection previously carried out was not deemed satisfactory. The report upon the Conjoint Board of Scotland was critical, and the concluding paragraph referred to an incident the account of which, given in the report, we are unable, owing to pressure on our space to print in full. Briefly stated, the facts are that the examiners in one subject differed in their estimate of a candidate's capabilities, one being prepared to give him marks which would have ensured his passing in the subject, while the other took a different view. Eventually the stricter examiner persuaded his colleague to sign the paper showing that the candidate had failed to obtain the requisite number of marks. This would not necessarily have involved his rejection in the whole examination, as he might have made up the deficiency in other subjects. As a matter of fact he did not, and when the case came before the whole Board of Examiners, it was resolved to examine the candidate again. This was done, and he was passed. This action was defended on the ground that a by-law authorizes the whole Board of Examiners in the case of a difference of opinion between individual examiners in any subject to re-examine the candidate, but, as Sir Hector Cameron pointed out, the by-law did not apply in this case, because the examiners who had at first differed in opinion, subsequently agreed that the candidate was not worthy of pass marks. It appears clear, therefore, that an irregularity was committed.

The Prevention of Personation.—Personation, which has

been shown to be a real danger, was again considered in an adjourned discussion upon the report of the Persona tion Committee brought up by Mr. Horsley, and some progress was made towards arriving at a decision upon the matter, which has dragged on now for some years. The Council has decided that all applications for restoration to the *Register* or for registration under exceptional circumstances must be accompanied by a statutory declaration establishing the identity of the applicant. This principle having been established, Mr. Horsley undertook that the Committee would bring up a final report at the next meeting of the Council.

The D.P.H. Diploma.—The regulations for the curriculum to be followed by candidates for the diplomas in Public Health adopted by the Council in December, 1900, have been revised during the present session. The most important modification is with regard to the regulation that candidates should have been associated for a period of six months "day by day" in the duties—routine and special—of public health administration. As was pointed out by many medical officers of health in the BRITISH MEDICAL JOURNAL at the time this regulation was made, it was one which could not be carried out under the conditions of work of medical officers of health. The Council has now substituted for the words "day by day" the more elastic phrase, "been diligently engaged in acquiring a practical knowledge" of the duties of public health administration. The requirements with regard to the attendance on the practice of a hospital for infectious diseases were defined by the acceptance of an amendment moved by Dr. Norman Moore, who pointed out that in London a difficulty had arisen owing to the fact that the Metropolitan Asylums Board had declined to give permission for instruction in matters other than clinical work. Discussion, however, brought out that by the phrase "methods of administration," the Council did not intend what is ordinarily understood as hospital administration, but rather such duties as fall to the resident medical officer with regard to the admission and discharge of patients and the prevention of the dissemination of infection. With this explanation, which was embodied in the addition to the regulation, this difficulty may be considered to be at an end.

REPORT OF PROCEEDINGS.

Thursday, May 29th, 1902.

SIR WILLIAM TURNER, K.C.B., President, in the Chair.

The minutes of the previous day's proceedings were confirmed.

THE CASE OF DR. TYNDALE WATSON.

The Council then proceeded to the consideration of the case of Dr. William Tyndale Watson, registered as M.R.C.S.Eng., 1861, M.D.Dubl., 1867, but stated to possess the further unregistered qualifications of M.D.Oxon, Dip. State Med. Dubl., who had been summoned to appear before the Council on conviction for misdemeanour.

Mr. Muir Mackenzie appeared as adviser to the General Medical Council. Mr. A. A. Strong represented Dr. Watson.

The Council's SOLICITOR read the notices which had been served and the formal certificate of conviction that William Tyndale Watson was in due form of law convicted on his own confession on a certain indictment against him for that he did unlawfully and indecently assault Ruby Lilian Deller, and was on December 16th, 1901, ordered to be imprisoned without hard labour in Pentonville Prison twenty-nine days, to be computed from November 18th, 1901.

Evidence to character was given by Mr. Joseph Howard, M.P. for the Tottenham Division, Dr. Vivian Poore, the Rev. T. C. Howell, Vicar of Holy Trinity, Tottenham, and Dr. Gilbart Smith, who had all known Dr. Watson for many years. Dr. Gilbart Smith said that ten years ago he had attended Dr. Watson, who was suffering from neurosis following influenza and melancholia. Dr. Watson was taking hypodermic injections, and was suffering from prostatic trouble. Dr. Watson's brother had been under control for mental disorder. Dr. Wood, of Enfield, also gave evidence to character, and read a letter dated May 27th, 1902, signed by several medical men practising in Tottenham, testifying to the great estimation in which Dr. Watson had been held in Tottenham for the past thirty years.

Dr. DOUGLAS WATSON, M.R.C.S., L.R.C.P., son of Dr. Watson, gave evidence to the effect that ten years ago he and his brother had a very great deal of trouble in looking after their father. On several occasions they had to see that he did not take chloroform or opiates, and after his brother's death three years ago their father broke down again for a short time, and then they had the same trouble and anxiety. Just previous to the occurrence in question his father was not nearly so well: he was sleeping very badly, and was in a very neurotic condition.

In answer to Mr. MUIR MACKENZIE, Mr. STRONG said that Dr. Watson was there to answer any questions the Council might wish to ask. At the same time he was in a very bad condition of health, and was only there so as to show no disrespect to the Council.

In answer to Mr. JACKSON, the Witness said that his father was more or less under the influence of morphine immediately preceding the act of which he was accused. His father had told him that after the family had gone to bed he had on several occasions to come downstairs, being unable to sleep, and had taken something, and then gone back to bed again. He also suffered very much from constipation and piles. He was never able to take a full dose; he would take a small dose and that would leave him in a very irritable condition. He suffered very much indeed from constipation; sometimes his bowels did not act for a week.

In answer to Mr. MUIR MACKENZIE, the Witness said he was present when Dr. Watson was charged at the police-court, and he heard all the depositions. It was true that at the police-court the suggestion was that the offence had occurred in the case of three or four girls, but the occurrence took place at the same time, the three or four girls going to the surgery together. It was at one time, and not at different times.

Mr. STRONG then addressed the Council. He said that Dr. Watson was born in Ireland sixty-three years ago. He was educated privately, and in due course proceeded to Trinity College, Dublin. In 1861 he took his degree in Arts at Trinity College, Dublin; subsequently he took the degrees of M.B. and M.D. at Trinity College, and M.D. at Oxford. Shortly afterwards he settled at Tottenham in practice, and until the lamentable episode which had been referred to, Dr. Watson had remained in Tottenham. In 1873 he was appointed Medical Officer of Health and subsequently Physician at the Tottenham Dispensary. Subsequently he received an honorary diploma of Public Health in consideration of his services from the University of Dublin. He took the diploma of M.R.C.S.Eng. in 1861. It was ten years since ago Dr. Watson's troubles first began when his nervous system broke down on account of his having a haunting fear that he had brain disease. After that he took into partnership his son—since deceased—who had gone through his medical curriculum with credit and success at the University College Hospital, but who unfortunately contracted consumption and shortly afterwards died leaving a widow, for whom Dr. Watson had to make provision by the payment of a considerable sum of money. All this increased Dr. Watson's troubles. The entire practice then, which had been an increasing one, was thrown on his hands, and unfortunately he tried to get some strength from taking morphine and chloroform. In addition to that he was suffering from nervous prostration, habitual constipation, and piles, and enlargement of the prostate gland. Those who knew Dr. Watson always thought there must have been some reason why he slipped from the paths of virtue, as undoubtedly he did. Complaints were made with regard to other girls, but there was nothing in that. There was only one case dealt with, and to that he pleaded guilty of committing an indecent assault. When Dr. Watson heard there was a warrant for his arrest, he, being in Devonshire on a short holiday, came up at once and surrendered himself. From the first he never attempted to deny his fault. To any friends who spoke to him about the matter he admitted that he had sinned, but he did not add to that the sin of telling a lie. When the case came before the Recorder of London, the Recorder, who was one of the greatest criminal judges and at the same time a man of the world, after hearing all the evidence, directed the case to stand to the following sessions. It was one of those extraordinary cases which gentlemen of the medical profession would perhaps be able to explain, but to the

majority of individuals it was a mystery. At the following session the Recorder, after having heard the evidence as to character, passed a sentence which meant practically that Dr. Watson went free. He had thus had his punishment, having been detained in Holloway between the two sessions. But the punishment which he had thus received was absolutely nothing to the punishment he had suffered in many other ways. He had found his practice absolutely gone—he sold it for a mere song; he found that his friends, except the band of friends who knew him so well and who knew the beauty of his life for so many years, had left him; his health had gone and his money had gone. Although he had had a large practice he had not been able to save money. He never saved money—he never could. He attended many a man for nothing. He at once left the practice and went away to a place where he hoped to remain for the rest of his days. He was quite secluded, and he had ceased all connexion with the profession which he once loved so much. If ever there was a case in which the Council ought to show mercy it was the case then before them. He had been married for thirty-five years to a true-hearted woman who had stuck to him through thick and thin and had believed in him through all this trouble. He had one son in practice, he had another in South Africa, another an engineer in the Midlands, and another one a schoolmaster, and he had grown-up daughters. For the sake of all those innocent persons, for the sake of the many years in which Dr. Watson had gone on quietly, doing his duty to his fellows without ever having committed any fault, he asked the Council not to strike that which would be the greatest blow of all—namely, to strike him off the *Register*. That was the only thing left to him, and he entreated the Council in this case to exercise its mercy.

Strangers were directed to withdraw.

On their readmission,

The PRESIDENT: Dr. Watson, the Council has carefully deliberated on your case, and the resolution adopted is:

That, having heard evidence bearing on the state of your mental and physical health, the Council does not see fit to remove your name from the *Medical Register*.

MEDICAL AID SOCIETIES: THE CASE OF MR. RENDALL.

The Council then proceeded with the adjourned consideration of the case of Mr. Robert Rendall.

The SOLICITOR, in stating the position of the case against Mr. Robert Rendall, which was heard in November last, said the charge was:

That you have been guilty of infamous conduct in a professional respect, particulars of which are that you have accepted and continue to hold the appointment of Medical Officer to the Liverpool Victoria Legal Friendly Society at Great Yarmouth, a Society which systematically practises canvassing for the purpose of procuring patients, and that you have approved or acquiesced in such canvassing.

At the conclusion of the deliberations of the Council on the case, the President had stated that the Council had come to the conclusion that the facts alleged against him in the notice had been proved to the satisfaction of the Council, but adjourned the further consideration of the charge until this session. Notice had been given to Mr. Rendall to attend, and he had received from Mr. Rendall the following communication:

"19, St. Peter's Road, Great Yarmouth.
"May 13th, 1902.

"Dear Sir,—

"I beg to lay before the General Medical Council the following statement, namely: That I sent in my resignation as Medical Officer of the National Medical Aid Company and as Medical Referee to the Liverpool Victoria Legal Friendly Society on December 24th, 1901, and my connexion with them has been entirely and completely severed since Lady Day, March 25th last.

"I enclose the acknowledgement of my resignation sent me on January 3rd, 1902, by the Secretary of the National Medical Aid Company.

"Under these circumstances will you kindly let me know if it is necessary for me to attend on the 29th inst.

"Yours obediently,
"R. RENDALL.

"W. H. Winterbotham, Esq.,
"Solicitor to the General Medical Council."

He informed Mr. Rendall it was necessary that he should appear, and he was present. The enclosure referred to in Mr. Rendall's letter was as follows:

"The National Medical Aid Company, Limited.
"Registered Offices: 80 and 80A, Fleet Street,
"London, E.C.,
"January 3rd, 1902.

"Dear Sir,—

"I beg to acknowledge receipt of your letter of the 24th ult., which was read to the Directors at their last meeting, and I beg to inform you that your resignation as Medical Officer of the Company at Great Yarmouth contained therein has been accepted, and will come into effect on March 24th next.

"By order of the Board,
"E. T. HARWOOD, Secretary.

"Dr. R. Rendall,
"19, St. Peter's Road,
"Great Yarmouth."

Mr. RENDALL, in reply to the PRESIDENT, expressed his regret, and hoped the Council would overlook the matter. He further promised in future to have no connexion with Medical Aid Societies in any way whatever.

Dr. BATEMAN, replying to the President, said that he had nothing to ask Mr. Rendall.

Strangers were directed to withdraw; on readmission,

The PRESIDENT, adressing Mr. Rendall, said: I am instructed to communicate to you the decision at which the Council has arrived:

That having considered the facts and evidence submitted by you in relation to your action since the last session, the Council has resolved to proceed no further with the charge proved against you.

APPLICATION FOR REGISTRATION.

Moved by Dr. MACALISTER, seconded by Mr. BRYANT, and resolved:

That the recommendation of the English Branch Council that Mr. Abiathar Wall, L.S.A.Lond., 1871, L.R.C.P.Ed., 1872, M.R.C.S.Eng., 1872, a medical practitioner entitled to be registered under the Medical Act (1858), but who neglected to effect such registration until after the "appointed day" (June 30th, 1887), under the Medical Act (1886) be registered, be received, entered on the minutes, and adopted.

THE DEPUTATION FROM THE BRITISH MEDICAL ASSOCIATION.

The PRESIDENT incidentally observed that he hoped the Branch Councils would speedily select their representatives for an important meeting of the Education Committee on Saturday.

Mr. VICTOR HORSLEY took it that that meant the reception of the deputation from the British Medical Association. He wished to point out that it was settled by the Council that the Education Committee and the British Medical Association should arrange the most convenient time for holding this conference. He had been informed that the General Secretary of the British Medical Association had received a letter from the Registrar of the Council stating that the conference would be held at 12 o'clock on Saturday next: that was a settlement of the matter in a very absolute way on the part of the Education Committee—he meant it was a settlement on one side. The letter further went on to say that it was understood that the Council would rise on Saturday, which no doubt was the cause of the action of the Education Committee. This was not at all certain, and he did not see how it was possible to do so. He desired, further, to point out that the Education Committee must have forgotten that the Council met at 1 o'clock on Saturday, and therefore there was really no time between 12 and 1 o'clock for a conference on such an important subject.

Sir JOHN BATTY TUKE said the Education Committee had taken the latest period possible in order to give the fullest time for summoning the deputation, and in fixing Saturday were actuated by the strongest desire to meet the views of the deputation.

THE CASE OF MR. WILLIAM PARK.

The Council then proceeded to the consideration of the case of William Park, registered as of Gartlea House, Airdrie, M.B., Mast. Surg. 1897, Univ. Glasg., who had been summoned to appear before the Council on a charge "of infamous conduct in a professional respect" when attending a married lady.

Mr. Muir Mackenzie attended as legal assessor. Mr. Winterbotham attended as Solicitor to the Council. Mr. Newson, instructed by Mr. Watson, appeared for the husband. Mr. Montagu Shearman, instructed by Messrs. Platts and Taylor, appeared for Mr. Park.

Mr. MONTAGU SHEARMAN applied for a postponement of the

hearing, on the ground that Mr. Park had accepted an engagement as ship's doctor, and was unable to be present to meet the charge, as his ship would not return before July next.

The application was opposed by Mr. Newson.

On the advice of Mr. Muir Mackenzie, the Council refused the application.

Mr. Montagu Shearman then applied that the case should be heard *in camerâ*.

On the advice of the President, which he gave from information he had received, the Council acceded to the application.

Strangers were directed to withdraw. On readmission,

The President stated that the judgement of the Council was:

That William Park has been guilty of infamous conduct in a professional respect, and they have directed the Registrar to erase his name from the *Register*.

The Council then adjourned.

Friday, May 30th, 1902.

Sir William Turner, K.C.B., President, in the Chair.

The minutes of the last meeting were read, and, as amended, were confirmed.

Reappointment of Committees.

The Council then proceeded to reappoint Committees as follows:

Pharmacopoeia Committee

Dr. MacAlister (Chairman), Dr. Norman Moore, Dr. Atthill, Sir George Philipson, Sir John Tuke, Mr. Tichborne, Dr. Payne, and Dr. McVail.

Finance Committee.

Dr. Pye-Smith, Dr. Bennett, Mr. Bryant, and Dr. Heron Watson.

Dental Committee.

The President (Chairman), Mr. Bryant, Dr. Atthill, Dr. Heron Watson, and Mr. Tomes.

Examination Committee.

Nominated by:

English Branch Council.	Scottish Branch Council.	Irish Branch Council.
Mr. Bryant	Dr. Heron Watson	Mr. Ball
Mr. Young	Dr. McVail	Dr. Little
Dr. Windle	Dr. Finlay	Sir Wm. Thomson

Education Committee.

Nominated by:

English Branch Council.	Scottish Branch Council.	Irish Branch Council.
Dr. Payne	Sir John Tuke	Sir C. Nixon
Dr. MacAlister	Dr. Mackay	Dr. Bennett
Dr. Norman Moore	Sir Wm. Gairdner	Sir Wm. Thomson

Public Health Committee.

Nominated by:

English Branch Council.	Scottish Branch Council.	Irish Branch Council.
Mr. Jackson	Sir H. Cameron	Mr. Ball
Sir George Philipson	Dr. McVail	Mr. Tichborne
Mr. Power	Dr. Bruce	Dr. Bennett

Dental Education and Examination Committee.

Mr. Bryant, Dr. Finlay, Dr. Bennett, Mr. Brown, Mr. Ball, Sir Hector Cameron, Mr. Tomes.

Students' Registration Committee.

Sir Hugh Beevor, Sir Hector Cameron, Dr. MacAlister, Dr. Bennett, Sir John Tuke, Sir William Thomson.

FINANCE.

Report of the Financial Relations Committee.

Members.

Sir W. Turner, *Chairman*; Mr. Bryant, Mr. Tomes, Mr. Horsley, Dr. Bruce, Dr. Atthill, Dr. Heron Watson, and Sir Christopher Nixon.

I.—*Reference to the Committee.*

On June 11th, 1901, the General Medical Council resolved (Minutes, vol. xxxviii, p. 76):

That a Committee be appointed to consider what amendments, if any, to the Medical Acts are necessary in order that the relations between the Council and the Branch Councils may be readjusted, and how the financial position of the Council may be placed on a satisfactory basis, and be instructed to report to the next session of the Council.

At the final meeting of the Committee all the members were present.

II.—*Narrative.*

The appointment of the Committee on the Financial Relations of the General Medical Council arose under the following circumstances:

The condition of the finances of the Council in 1898 was regarded by some members of the Council as unsatisfactory, but the matter was not considered by the Council to be pressing until the following year (1899), when the financial position of the Irish Branch Council rendered it advisable that legal advice should be sought concerning the relation of the Council to the Branch Councils in respect of the immediate difficulty (Minutes, xxxvi, p. 90). The discussion of the subject was carried on *in camerâ* (Minutes, xxxvi, p. 162), but it was finally resolved that a Special Finance Committee should be appointed to consider the whole question of the funds of the Council (Minutes, xxxvi, pp. 162, 163). The Report of this Committee was also discussed *in camerâ*, and cannot therefore be here referred to (Minutes, xxxvii, p. 57), but the Council resolved to contribute, for the year 1900, £500 to meet the expenses of the Irish Branch (Minutes, xxxvii, p. 66).

In view of the continued unsatisfactory financial position of the Council it was resolved on May 31st, 1900, on the motion of Mr. Horsley, seconded by Dr. Bruce, that the Special Finance Committee should be reappointed to report on the financial position of the Council and its Branches, the relations of income and expenditure of those bodies, and to propose measures for placing "the Council's finances on a satisfactory basis." (Minutes, xxxvii, p. 87.)

The report of this Committee stands in the minutes (Minutes, xxxvii, Appendix xxiii), but was not regarded as adequate, and the public discussion of it on December 5th, 1900, was adjourned to the next session. (Minutes, xxxvii, p. 151.) On the same date it was resolved to obtain a report from a financial expert on the subject. (Minutes, xxxvii, p. 152.) The latter report was discussed on June 7th, 1901, with the adjourned discussion of the Special Committee's report. Although the adjourned discussion was continued *in camerâ* (Minutes, xxxviii, p. 57), the report of Mr. Frere, the financial expert, stands in the minutes. (Minutes, xxxviii, Appendix vi.)

The result of the consideration of these reports was that the report of the Special Finance Committee was not accepted, and that, on the motion of Mr. Horsley, seconded by Dr. Pettigrew, the present Committee was appointed, the reference to which is given above.

The Committee presented an interim report to the winter session of the Council, 1901, and has held four meetings, namely, November 27th, 1901, February 25th and 26th, and May 27th, 1902.

III.—*General Consideration of the Subject.*

In the course of the discussions referred to in the narrative, the following points became clear:

(*a*) That the financial position of the Council and its Branches is unsatisfactory, and calls for consideration and decided action on the part of the Council.

(*b*) That the deficit on the Council's income and expenditure account, on the average of the last seven years, amounts to fully £1,200 per annum.

(*c*) That this state of the Council's affairs is due to the special constitution, the small income, and the work of the Council and Branch Councils as determined by the Medical Acts 1858-1886, and that it cannot be met by such economies as are proposed in the reports of the Finance and Special Finance Committees referred to in the narrative.

(*d*) That to readjust permanently the relations between the Council and the Branch Councils it will be necessary to obtain certain amendments of the Medical Acts 1858-1886.

It will render the situation of the Council plainer to first submit the general conclusion arrived at by Mr. Tomes from an examination of the original state of the finance of the General Medical Council, and the effect thereupon of the

forty-two years which have elapsed since the initiatory payments of registration fees began in 1858.

During the first few years after the institution of the *Register* large sums were received in the form of £2 registration fees paid by those entitled to admission to the *Register*, and these payments in diminishing amounts continued over a good many subsequent years. An investigation of the accounts[1] shows that there was received from such £2 registration fees £35,000 in round numbers. The interest actually received upon such part of this sum as was not devoted to current expenditure but was invested, has during the whole period since the Council was instituted, amounted to £40,485 in round numbers, so that the initial receipts and the interest received amount together to £75,485. In addition a sum of about £3,600 has been derived from profit upon the issues of the *Pharmacopœia*. But the present assets do not materially exceed £41,500, so that the whole of the *Pharmacopœia* profits, the current registration fees, and in addition, some £3,400 derived from interest, have been expended. From this it follows that throughout the whole period of the Council's work the current £5 registration fees have failed to meet the expenditure by something like £900 a year, although it is possible that there may be individual years or even periods when the above-mentioned fees were adequate, if the receipts were large and the expenditure happened to be small.

This aspect of the matter, the insufficiency of the £5 registration fees to pay their way unaided, even over the whole period which embraces many favourable years, is of vital importance to a full recognition of the fact that the present deficiency of resources is inherent in the limitations contained in the Medical Act, 1858.

It ought in this connexion to be remembered that the Act in question was, by reason of the circumstances surrounding its inception, tentative, and it is not surprising, therefore, to find that after an experience of over forty years some of its provisions have proved to be inadequate.

It will now be readily understood that the Council is at present dependent on the surplusage of fees remaining as accumulations of the income of the English and Scottish Branch Councils, and that these assets are rapidly diminishing, since the work of the Council causes at the present time an annual deficit of over £1,200.[2] The Irish asset of this kind has already been exhausted.

The assets of the General Medical Council consist in brief of the *Pharmacopœia*[3]: of the difference between the actual value of the freehold premises and the amount for which they are mortgaged to the English Branch, and of the present value of the sinking fund. The assets of the English Branch consist of the mortgage on the present premises of the Council, which stood in the last balance-sheet at £25,764, and of an investment—that is, £9,149 in Consuls (taken at 90). The assets of the Scottish Branch consist of £4,770 in Consols (taken at 90). There is thus, taking the investments together, a sum of about £13,919 in the form of liquid assets, available at any moment. In addition to such available assets, the Council possesses house property (that is, No. 299, Oxford Street and No. 16, Hanover Square) which represents in actual cost £25,764, and which probably stands for a considerably larger sum if the asset be realized.

The foregoing represents the whole resources of the Council. As regards its financial stability, it is clear that in the year 1901 the deficit was £1,509; at this rate, and that of the annual deficit shown in Mr. Frere's report (Min. xxxviii, App. vi) for the preceding three years, all the liquid assets will be exhausted in eight or nine years, and it will then become necessary to commence to realize the value of the premises.

Since, therefore, the efficient work of the Council will cease from lack of resources, within the forthcoming decade, a complete scheme of financial reform must be adopted at the earliest possible date, and from what has been already said it is obvious that such a scheme requires fresh legislation for its execution.

IV.—*Scheme of Readjustment of the Financial Relations of the Council and Branch Councils and of Reform of the Finances of the Council.*

Any scheme of financial reform must fulfil the following conditions:

1. Provisions of sufficient revenue for the execution of the duties of the Council;

2. Provision of a central administration for the income and expenditure of the Council and Branch Councils.

The details of such a scheme consequently may be most conveniently considered under the headings of (1) revenue, (2) administration.

(A) *Revenue.*

The revenue of the General Medical Council is at present provided under Sections XIII and XV of the Medical Act 1858, which enact that the bulk of the income—namely, fees paid for registration, is to be paid to the Branch Councils, and that the Council is to obtain its chief supplies by requiring contributions from the Branch Councils by a percentage rate on all moneys received, that is, in effect at a rate proportionate to the registrations effected at each Council's office.

The income of the Branch Councils is derived from only two sources—namely, the fees for registration and the interest on the accumulation, if any, of income (that is, original registration fees) before referred to.

The latter amounts in the case of the English Branch Council to about one-third, of the Scottish Branch Council to about one-twentieth of the first-named source. The Irish Branch Council now has only the registration fees as its source of income, which has to be supplemented by an annual grant from the funds of the General Medical Council.

Hence the reliable revenue is the amount of the annual registration fees, plus the rent of the Hanover Square property—namely, £250 per annum, less income tax. The amount of the annual registration fees varies, and in the year 1901[4] only amounted to £7,060, whereas the restricted expenditure of the Council for the same year amounted to £10,065.

The essential source of the Council's revenue being thus inadequate it is essential that a revision of the system of registration fees be instituted, as it is needless to take into consideration the only remaining alternative of assistance from the Imperial Treasury.

The system of registration fees at the present time includes an initial registration fee of £5, and small fees for subsequent additional registrations, but there is no fee charged for the entries on the *Students' Register*.

There are three courses of revision possible if a larger revenue is to be secured; to raise the initial registration fee for practitioners, to substitute a small annual registration fee for an initial payment, or to institute a students' registration fee.

Objections can be readily raised against each of these propositions, but at this point only one primary consideration can be discussed, namely, how far would the instituting a registration fee for students, or the raising of the initial registration fee for practitioners, or the payment of an annual registration fee, reasonably satisfy the requirement of an adequate revenue.

Undoubtedly an annual fee from each registered medical practitioner would provide a large revenue, but the Committee is of opinion that the provision of an addition to the annual revenue can at present be best created by adopting the institution of a students' registration fee, and by raising the fee for the initial registration of practitioners. The Committee estimates that if the latter fee be raised from £5 to £7,

[1] The last balance sheet is that for 1901. The succeeding figures, therefore, relate to the accounts up to December 31st, 1901.

[2] The deficit for 1901 was £1,509.

[3] The receipts and expenditure upon former editions of the *Pharmacopœia* cannot now be ascertained with exactitude, as although at times statements have been prepared, the accounts have not been kept entirely separate from the general expenses of the Council. So far as can be ascertained up to the year 1880 there was a small balance of profit amounting to £80, from 1880 to 1885 a profit of £350, and from 1885 to 1898 a profit of £2,000. So far the new edition of 1898 shows a better result, there being an apparent profit of £800, whilst unsold copies are in hand to the approximate value of £400. Thus, over the whole period from 1858 to the present time the *Pharmacopœia* has yielded about £3,600, or about £90 a year. Although for the reasons above stated these figures must not be taken as exact, it is probable that the error is not large enough to be material.

[4] Naturally in taking any one year the incidence of special economies or expenditure must be remembered. Thus the Council restricted its expenditure on certain of its duties, and thereby effected a saving during 1901 of about £450, and on the other hand in the same year had to meet extra expenditure (for the election of direct representatives and inspection of examinations) amounting to about £950.

and if a fee of £1 be charged for a student's registration, the resultant addition to the Council's revenue per annum will amount to somewhat over £4,000. Such an increase of the resources of the Council would at least save it from the bankruptcy with which in a few years' time it will be threatened if action is not soon taken to place the accounts on a stable basis.

(B) *Administration.*

The present system of administration of the funds of the Council and Branch Councils is very cumbersome and unbusiness-like. It has, in fact, led to the embarrassment and insolvency of the Irish Branch Council.

To effect the necessary reforms in this particular all that is needful is to reverse the present system, and to provide that all moneys paid into the offices of the Branch Councils shall be forwarded forthwith to the General Medical Council, and that all accumulations of income by the Branch Councils shall be transferred to the account of the General Medical Council.

It would further be necessary to provide that all needful expenditure, either on behalf of the General Medical Council or the Branch Councils should be defrayed by the General Medical Council.

Such financial reforms would in no wise interfere with the registration rights of the Branch Councils.

To carry out a scheme of this nature amendment of the Medical Acts would be necessary.

V.—*Suggested Amendments to the Medical Acts.*

Those sections of the Medical Acts which would require amending may be first taken, the requisite alterations being set opposite to each, after which the new sections needful will be indicated.

(*a*) *Alteration of Sections of Existing Acts.*

The Committee recommended the following alterations:

Appointments of Registrars and Other Officers.—That Section x of the Medical Act, 1858, be altered to read as follows: "The General Council shall appoint a Registrar, and also a Registrar for each Branch Council on the nomination of each Branch Council respectively. The General Council shall appoint all clerks and servants for the purposes of the Act. The General Council shall appoint a Treasurer or Treasurers."

Appointment of Registrars and Other Officers by Branch Councils.—That Section XI of the Medical Act, 1858, should be repealed *in toto*.

Expenses of the Council.—That Section XIII of the Medical Act, 1858, be altered to read "all moneys payable to the respective Branch Councils shall be paid forthwith to the account of the General Council. All expenses of the General and Branch Councils shall be defrayed out of the funds of the General Council."

Fee for Registration.—That Section XV of the Medical Act, 1858, and Sections XI and XII of the Medical Act, 1886, be altered by substituting in each case £7 for £5.

Accounts to be Published.—That Section XLIV of the Medical Act, 1858, be amended to refer only to the Treasurer or Treasurers of the General Council.

Expenses of Election of Direct Representatives.—That Section VIII, Subsection (7) of the Medical Act, 1886, be altered to provide that "the expenses attending the election of a Direct Representative shall be defrayed as part of the expenses of the General Council."

(*b*) *Provision of New Sections.*

In addition to the foregoing amendments of Sections of the existing Acts, new provisions would be necessary for the establishment of the students' registration fee and to authorize the transfer of the accumulated income of the English and Scottish Branch Councils to the General Medical Council. The first would properly follow Section XV, Medical Act, 1858.

Section XVI.

On and after the appointed day every student whose name is placed on the *Students' Register* shall pay on such registration the sum of one pound.

A new section would also be necessary to transfer the accounts of the Branch Councils as follows:

Section ( ).

On the appointed day the Treasurers of the Branch Councils shall transfer to the account of the General Medical Council all moneys funded or otherwise standing in the accounts of the respective Branch Councils.

Recommendations.

1. That the principles of amendment of the financial position of the Council embodied in the report of the Financial Relations Committee be approved.

2. That the Financial Relations Committee be reappointed, with instructions to draft, with the assistance of the legal advisers of the Council, a Medical Acts Amendment Bill, carrying out the principles of financial reform approved by the Council.

3. That such draft Bill be considered at the next session of the Council.

WM. TURNER,
May 27th, 1902. Chairman of Committee.

Note by Mr. Horsley.

The foregoing report is the report of the Committee as a whole.

I desire to record my belief that a complete solution of the financial difficulties of the Council is only to be secured by the institution of an annual registration fee, and by extensive reform of the Medical Acts. VICTOR HORSLEY.

Note by Dr. Heron Watson.

Supplementary to the report of the Special Committee of the General Medical Council appointed to consider "the financial relations of the Council."

In circumstances such as those which present themselves to the General Medical Council, where, in the matter of finance, a deficit either exists or is imminent, the great general principle should not be lost sight of, as equally applicable to an individual or a public body, namely, to curtail expenditure to such a point as shall prevent matters becoming more embarrassed, and then, when an assured solvency has been reached, to determine if the expenditure in the past, whether in whole or in detail, was either necessary or beneficial, and then conclude whether it is to be continued, and how it may be best met.

1. Such a line of action on the part of the Special Committee appointed by the General Medical Council to consider the financial relations of the Council and to suggest some measure of relief seems to me to be hardly met by the proposal that the initial registration fee for practitioners should be raised or that an additional charge should be imposed upon the somewhat slender income of the great mass of practitioners whose names appear upon the *Medical Register*, as such a measure will most certainly risk the opposition of the medical profession, and would tend to render the General Medical Council unpopular.

2. A self-imposed restriction upon the faculty of much speaking on the members of the Council, with a commensurate shortening of the meetings, a greater number of hours devoted to the actual business of the Council and its Committees, implying, if need be, morning, afternoon, and evening sittings, might well be adopted as a preliminary tentative measure, and should this increase in the number of hours prove insufficient, the withdrawal of all fees for attendance upon the meetings while only travelling and hotel expenses be continued might most reasonably be adopted.

Certainly it appears to me that some such self-denying regulation should be passed so as to manifest to the medical profession that what is done by the Council is due to a single-minded determination to confer benefits and not to bind burdens upon the profession at large.

3. So far as I have considered this matter, and it is no new question to me, I am strongly impressed with the feeling that any further pecuniary burdens imposed by this Council, for the performance of its duties, upon the medical profession, will be regarded as a grievance likely to be resisted at every point, more especially where this additional impost can only be obtained by the introduction in Parliament of an amendment to the Medical Acts.

4. In such circumstances it may be well carefully to consider whether before such a tribunal as the Houses of Parliament the medical practitioner upon the *Register* on the one hand or the General Medical Council on the other be the more likely to obtain support, such as will be required to meet successfully the exigencies of such a conflict.

PATRICK HERON WATSON.

I concur generally with Dr. Heron Watson's note.

WM. BRUCE.

DISCUSSION OF THE REPORT OF THE FINANCIAL RELATIONS COMMITTEE.

The PRESIDENT reminded the Council that the resolution by

which the Committee was appointed had been moved by Mr. Victor Horsley and seconded by Dr. Pettigrew. Dr. Pettigrew was no longer a member of the Council, and he would therefore ask Mr. Victor Horsley to take charge of the Report.

Mr. VICTOR HORSLEY said that he was in a difficulty. He had appended to the report a note to preserve his political consistency on the question. He had always held, and still held, that an annual registration fee was the proper way for the Council to meet its financial difficulties; but in the Committee a vote was taken practically definitely upon this subject, and he found himself in a minority of one, and therefore, in order to further the progress of the business before the Council, namely, an attempt to put the finances of the Council on a more substantial footing, he waived his personal feeling with the reservation that he might put them in the note at the end of the report. With that explanation he ventured to ask the Council to accept the report as a step forward in financial reform. He believed the Council was prepared to consider fully any proposal which had a reasonable hope of success. In saying that he wished to direct attention to a most important point in the note by Dr. Heron Watson because it raised a question which really was scarcely before the Committee. The reference to the Committee instructed it to consider how the finances of the Council might be regulated, and Dr. Heron Watson thought a more fundamental step should be taken in the diminution of expenditure and the cutting down of salaries and so forth which in his opinion would meet the present deficit. Mr. Horsley believed that the members of the Committee were not satisfied that the present deficit could be met in this manner and they certainly were not satisfied that, however reasonable it might be in a private individual to cut down expenditure in the manner suggested, it would not be reasonable for the Council to take that step at this juncture considering the work which it was expected to do under the Acts of Parliament. What course, then, could the Committee pursue fairly except first to consider how much money roughly speaking was required to balance the accounts; and, secondly, in what way could the additional money be collected? The Committee had come to the conclusion that the sum, roughly speaking, and, putting it at the lowest, was about £10,000. Further, the Committee was convinced that if there was a small increase of initial registration fee as at present imposed upon practitioners, and if in addition to that a totally new fee —a registration fee for students—were imposed, that this aggregate sum of £10,000 could reasonably be collected. That was the first point. Therefore, in this report the first principle for increasing the income was to raise the initial registration fee of practitioners from £5 to £7, and the imposition of a registration fee for students of £1. In introducing the report he was not called upon to account to the Council of what was in the mind of the Committee in advising these distinct modes of raising the income; the members of the Committee would, of course, speak for themselves. With regard to the second question—namely, the mode in which the expenditure and income of the Council should be conducted, the report introduced a very sweeping reform in the financial control of the business of the Council. At present the Council was in the most anomalous position, thrust upon it by the Medical Act of 1858, that, although it had to conduct really the whole of the business, whether initiated in the Council itself or in its Branches, it nevertheless had actually no reliable income above a few hundred pounds. Its income only reached it through the Branches. The report asked the Council to abolish this system altogether, and to provide that the income, as it was paid into the Branch offices, should be at once sent to the General Medical Council so as to centralize the aggregation of the income. It followed as a matter of course that the expenditure must similarly be controlled from the centre. The Council would then be in the position, in which it ought to have been placed by the Act of 1858, of receiving its income and controlling its expenditure. There was an annexe to this part of the subject to which he desired to refer. Members of Council would have given particular attention to the difficulties of the financial position of the Irish Branch, and would remember that sums of money standing to the credit of the English Branch and the Scotch Branch had always been a source of mystery. It was only a few years ago that they learnt that these were accumulations of income that the Branch Councils had no legal right whatever to hold. The report proposed that the English Branch Council and the Scottish Branch Council should hand over those accumulated funds to the account of the general fund: in that way the finances would be centralized as they ought to be, and would be in the hands of the General Medical Council. These might be characterized as sweeping reforms of administration, but he believed they would recommend themselves to members of Council, and he earnestly hoped that that part of the report would be accepted without hesitation, especially as it involved no particular difficulty in carrying it out. The alteration in the sources of income, it must be admitted, was very difficult to carry out, because it involved an amendment of the Medical Act. The amendments which were necessary in the Medical Act were not many, and some were merely verbal alterations.

At the suggestion of the PRESIDENT before going into the recommendations Mr. VICTOR HORSLEY moved, and Sir CHRISTOPHER NIXON seconded, that the report be received and entered on the minutes.

The PRESIDENT stated that he had been informed there were one or two members of the Council who desired to append their names to the note by Dr. Heron Watson.

Dr. BRUCE wished to have his name added as he concurred generally in it.

Dr. ATTHILL concurred in everything except the point as to the discontinuance of the payment of members of the Council.

After some further conversation, the PRESIDENT put the motion that the report be received and entered on the minutes with the addition of the name of Dr. Bruce to the note by Dr. Heron Watson.

Mr. VICTOR HORSLEY formally moved the first recommendation,

That the principles of amendment of the financial position of the Council embodied in the report of the Financial Relations Committee be approved.

Sir CHRISTOPHER NIXON seconded.

Mr. VICTOR HORSLEY, at the suggestion of the PRESIDENT, referred the Council to Section IV of the report (scheme of readjustment of the financial relations of the Council and Branch Councils, etc.)

The PRESIDENT thought it advisable to divide the subject matter into two questions: first, revenue; and, secondly, administration; and to deal with them in that order; and therefore he invited the Council to discuss the matter in the first instance from the point of view of revenue.

Dr. NORMAN MOORE asked if the Council had power under its present statutes to compel students to register; if it had not the fee would be an uncertain source of revenue. The proper recommendation would be to get an Act of Parliament to compel students to register. If students were to be registered, there must be some advantage either to them or to the public, or to both. What would be the advantage to the students? None. It would not secure that the student studied for any longer period of time. It was not clear what the advantage to the public would be; and yet the House of Commons, by whom this would have to be discussed, was a body which, on most occasions, he hoped, considered the advantage to the public of any privilege which was asked to be given to a particular section of the community. Therefore it seemed to him that in relying upon that as a source of revenue the Committee was relying on what it was improbable would be obtained. He would even go further and say that it would be most unjustifiable to turn a voluntary registration, whatever its benefit, into a means of increasing the income of the Council. With regard to the question of charging a larger fee to practitioners on registration, the charge of the *Register* was the most important function of the Council, and the one by which it did most service, and a reasonably useful service to the public. The Act entitled the Council to charge a fee when the name was placed upon the *Register*. His own belief was that if the fee were increased there would be no difficulty in obtaining it. But before asking leave to charge a larger fee it would have to be made clear to Parliament that the Council was going to do more useful work, and that it used in the thriftiest possible manner the funds it now had. He thought that would lead to an elaborate criticism of the way

in which the Council spent its money. It would be said, Is it worth while to buy more of this thing? That was the way the public would look at it. He thought the answer the Council would reasonably get from the House of Commons would be a reference to the well-known maxim, *parsimonia est magnum vectigal*.

Dr. WINDLE said that if the registration of students was not made compulsory the calculation of income based upon that assumption was exceedingly doubtful. He understood that it was the intention of the Committee that such a clause should be inserted in the Bill, and he wanted to know whether that was in any way included in the report.

Dr. ATTHILL pointed out that the report recommended that a Bill should be drafted and laid before the Council next November. To have inserted a clause making registration compulsory would be perfectly absurd; and nothing surprised him so much as Dr. Norman Moore's remark on the subject. There had been a difference of opinion between Dr. Norman Moore's body and the General Medical Council about registration, but that was settled, and under those circumstances his observations that registration did no good either to the student or to the public seemed to him unusual. In his opinion registration before the commencement of medical study was absolutely essential. The Council should fix an age before which a man should not commence his medical studies, and that he should complete the full term of years which the Council considered necessary for his medical education. This principle was most essential to the profession at large, as tending to improve its status.

Dr. MCVAIL did not think that Parliament would sanction a proposal to make students' registration compulsory, with the object of charging a fee for the registration. This was not a question of the utility of registration to the student and to the profession, but as to whether the student should not be registered in order to tax him. For once he wished to disassociate himself from Dr. Norman Moore, whose speech implied that the Council did its work in such a way that Parliament would not buy any more of the stuff. The General Medical Council from its beginning down to the present time had done its work on the whole admirably, and the long, elaborate, and admirable reports on every subject which its volumes contained would bear comparison with the annual report of any body in the United Kingdom. All that was done by a body of men who met only for a few days. He thought, considering the numerous interests, and sometimes conflicting interests, represented, it was wonderful the manner in which the Council had been able to harmonize the endeavours of all the men and different institutions in every part of the country for the general good of the profession and the public was wonderful. He would not have the slightest hesitation in going to Parliament to ask for an increase of the fee for entering a name on the *Medical Register* so far as the quality of the work of the Council in the past was concerned. He did not think the Council could be charged with wasting its time. Was there any reason to go to Parliament? The Act specified that the members of the Council were to be paid fees, and that their amount was to be fixed by the Privy Council after consultation with the Council. The Act imposed upon the Council the printing of the *Registers* and many other duties; it had imposed seven new members on the Council since the Act of 1858 was passed, and the difference between twenty-six members as it then was, and thirty-one members as now, would account for the financial difficulties of the Council. That, in his opinion, was a very good reason why the Government should increase the revenue of the Council if the Council asked it. Again, the Act of 1858 empowered, but did not compel, the Council to visit examinations; but the Act of 1886 compelled the Council to visit examinations, and he never understood why the Council, when that Act was on its way, did not represent to the Government that, if inspection were made compulsory, funds should be provided. The Council, therefore, had strong grounds for going to the Government if it found that its work could not be done without more money, and most emphatically it could not be done without an increase of funds. He would not seek to obtain the money by taxing the medical student, because he was already taxed sufficiently; but it was quite another question when he was about to enter the profession. He did not know whether there were any other, and if so what, methods of increasing the funds: but undoubtedly the increase of the registration fee was by far the simplest, and the one most likely to recommend itself to the Government, because the fee was already in existence.

Sir CHRISTOPHER NIXON did not think it right that a member of the Council should say that Parliament would be likely to ask if the Council sought powers to obtain more funds for carrying out its work that the public probably had enough of the stuff done by the Council. It was an extremely regrettable thing that an observation of that kind, adversely criticizing the action of the Council, should be made without any justification. So far as he could see, having been a member of the Council for some years, he did not know of any body that was more impartial, which had a higher object, than the General Medical Council. He had always had that feeling in view in supporting the Council in its work in regard to the medical curriculum. The question for the Council to consider was this: Was the work which had been done useful, and was it work which ought to be maintained? He thought the Act of Parliament had settled that. The Council was established to supervise the medical curriculum, and to maintain it, and during the past years it had done a considerable amount to raise the status of the medical profession. It was certainly the intention of the Legislature that that work should be continued in the interests of the public and in the interests of the State. It must equally be felt that the Council must have sufficient funds for carrying out the work; and the attempt made by the Finance Committee to suggest in what reasonable way the Council provide itself with those funds was a step in the right direction. Dr. Norman Moore had stated that he did not see any great use in the registration of medical students, but Dr. Atthill pointed out that the Council attached great importance to the registration of medical students. By seeking compulsory registration of students, the Council was going a long way towards securing a uniform curriculum. That was shown in the contention that had arisen between the two Royal Colleges and this Council. If there were advantages in connexion with the registration of medical students it must not be forgotten that the Council incurred expense in carrying out the registration, and that its resources diminishing. Therefore, if it undertook to do the work which entailed expense that was a reason for asking Parliament for the imposition of a small registration fee of, say, 10s. or £1. He had had a conversation with an influential member of Parliament, and had ascertained that there would be no difficulty in getting a moderate additional registration fee and that Parliament would be disposed to make the fee for medical registration £10, and he did not think that there would be any hardship in raising the fee from £5 to £10. He strongly objected to the suggestion that the members of the Council should work without any fee. Most of the members who came from either Scotland or Ireland came at a very considerable sacrifice of income; it was not alone the time, but the break in practice.

Sir JOHN BATTY TUKE thought Sir Christopher Nixon had missed one important point in discussing the question of registration of students. If made compulsory by an Act of Parliament it would confer a right on the Council to lay down conditions of registration. Although that was a consummation most devoutly to be wished, no one who knew the conditions and feeling amongst the various colleges, universities, and corporations, could help recognizing the amount of opposition it would encounter. In his opinion the possibility of obtaining compulsory registration of students was extremely remote. Something like thirteen years ago, very soon after he came on the Council, he saw that it was gradually slipping into financial difficulties; that the income would in a comparatively short time fall short of the expenditure. He brought the question before the Council, and it was very fully discussed on two occasions. The remedy which appeared to him then as the only one likely to have any effect was the reduction of the fees of members. He still held to that view, and thought the Council would be in a much more dignified position if the members rendered their services to the profession without remuneration. The further suggestion he made at that time was that the Council, if it objected to the reduction of fees, should work for a longer number of hours in the day. What would be the state of the case if they

went to Parliament? They would show then that the great mass of the expenditure, or a large proportion of the expenditure, was on fees paid to members. What would be the first question asked by Parliament? "How long do you work? Do you work four hours a day?" Rightly or wrongly, the average number would say, "Of course we work eight, nine, or ten hours, and why can't you?" It would be useless to reply that the nature of the work and the difficulties they met in doing it were peculiar. The first thing that would be said would be "You must not ask the profession to make a further sacrifice; try and make some sacrifice yourself." He was in entire accord with Dr. Heron Watson's remarks in his note. It might be possible for the Council to obtain money from the Consolidated Fund, as the Incorporated Law Society did, but that would involve a vote of the House of Commons, and in the discussion of that the whole action of the Council might be raked up. He was unwilling to place the Council more directly under the influence of the House of Commons than it was, and he felt sure it would be better in all their interests to adopt the suggestions of Dr. Heron Watson.

Sir CHRISTOPHER NIXON inquired if it was possible for any member of Council who did not choose to take his fees not to do so.

Dr. HERON WATSON inquired if Sir Christopher Nixon could imagine such a superior person existing.

Dr. BRUCE was of opinion that radical reform was required, and that the Council should go to Parliament. It was plain that practically all the work had to be done by the General Medical Council and not by the Branches. Therefore the money should come direct to the Council to be spent by the Council. He agreed, however, that the Council would have to wait a very long time before it got an Act of Parliament, and might be met with the remark that it was not doing sufficient work with the money it already had. He thought with Dr. Heron Watson that they should consider in what way economies could be made. If it could be determined that a meeting of the Council should not extend beyond one week one of the gravest difficulties would be done away with. The Committees might be asked to meet on the Saturday previous, or even sooner, and could then prepare the work thoroughly for the Council.

Mr. GEORGE BROWN was of opinion that the size of the Council should be reduced by the reduction of the representatives of those bodies which had been merged. He could not see any adequate reason why, taking the English Conjoint Board, for instance, the Colleges of Physicians and Surgeons, which really made one body, should be continued to be represented by separate members.

Dr. NORMAN MOORE, on a point of order, said this was not a fact; the College of Physicians was merged with no other body.

Mr. GEORGE BROWN contended that for the purposes of registration they were. He did not think sufficient ground had been made out for the imposition of a students' registration fee; but an increase of the initial fee for registration would conduce to the correctness of the *Register*, which was still very incorrect in many particulars.

The PRESIDENT observed that the Council had been discussing the question of revenue, but he put it to the Council that the question of revenue had been discussed sufficiently, and that it should now pass on to that of administration, which was of enormous importance.

Mr. GEORGE JACKSON pointed out that he had a motion on the programme of business in relation to revenue, and asked if it should be taken now.

The PRESIDENT said there were two principles embodied in the report for increasing the revenue: Mr. Victor Horsley had a special note as to one, and Dr. Heron Watson had a note as to another. The question was how to get the opinion of the Council on the matter. He thought he should have to ask Dr. Heron Watson to formulate an amendment, so as to bring the matter to an issue.

Dr. MACALISTER was of opinion that the principles should be put forward one by one, and a division taken upon them.

After some further conversation as to the course of procedure to be adopted, it was decided that the question of administration should be proceeded with.

Mr. VICTOR HORSLEY read the recommendation as to administration (IV (B)). The proposed change did not encroach upon the authority and rights of the Branch Councils. If any objection could be made to it from a constitutional point of view it was that it would permit a Branch Council to spend money and then send in the bills to the General Medical Council to pay. The Committee thought, and he agreed, that this was no real objection. The General Medical Council must entrust certain matters to the Branch Councils, and that involved the expenditure of money in some way. Moreover, if either of the other two Branch Councils was dissatisfied with the expenditure of any given Branch it would have its remedy in a discussion at the next meeting of the General Medical Council. He did not see any objection to the adoption of this scheme, which would undoubtedly lead to a more careful method of carrying out the work. He need not labour the position of the Irish Branch, which was due to the construction of the Medical Act. A system under which a Branch was to hand over a sum of unknown magnitude to a central council, and at the same time to rely for meeting that sum on a casual income derived from registration fees which might chance to come into the office was obviously a bad one. The result was that the fund provided by the Act of 1858 was wholly insufficient for the conduct of the work of the Branch.

The PRESIDENT pointed out that the recommendation amounted to a transference from the Branch Councils to the General Medical Council of the funds now held by the Branch Councils. That involved an Act of Parliament.

Dr. BRUCE, speaking as a Scottish member, did not think that there could be any doubt as to the propriety of the proposal for getting in the money and controlling the expenditure.

Dr. MCVAIL suggested that the matter should be referred to the Branches for report.

The PRESIDENT's impression was that that was done two or three years ago.

Dr. PAYNE did not see how individual members could express an opinion on the subject, and it might, therefore, be well that the question of the relation of the finances of the Branch Councils to the General Medical Council generally should be referred to the Branches definitely for report.

Dr. LITTLE considered that an unnecessary cumbrous proceeding, as it would cost the Irish Branch some £40 to hold a meeting. He was sure, speaking for himself and Dr. Bennett, that they were perfectly willing to hand over the funds at their disposal.

Dr. ATTHILL and Mr. TICHBORNE also objected to a reference to the Branches.

After some conversation Dr. HERON WATSON moved, and Dr. BRUCE seconded, the following amendment:

That before the Council commits itself to the principle that further legislation is necessary for the continued solvency of the Council, the Financial Relations Committee be requested to report on the economies which it may be possible to effect in the expenditure of the Council and its Branches in the direction of the abandonment of fees, and an increase in the time expended in the work of the Council and of its Committees on each day of session.

Dr. MCVAIL said that two propositions were embodied in the amendment. It was one thing to abandon fees, but quite another thing to commit oneself to doing more work on Committees.

Dr. LITTLE suggested the substitution of the words "in general relation to the fees and work of the Council," after the words "expenditure of the Council."

Dr. HERON WATSON did not think those words gave the same precision to the amendment as the original words, and might place the Committee in the position of saying, a year hence, when the time for their report came, that they did not know what the Council meant. He preferred the terms which he had already expressed.

Dr. BENNETT would oppose a proposal to give up the idea of fresh legislation because it would be impossible without it to change the mode of assessment of income. The Irish Branch could not go on without some fresh assessment, because it would be bankrupt.

Sir WILLIAM THOMSON objected to vote on the amendment without hearing in a more argumentative manner the points in favour of it. He objected to being asked to vote on an amendment which had simply been read without its being discussed.

Dr. Heron Watson said that if members of the Council had read his note to the report of the Committee there would have been no difficulty in understanding his amendment. He did not wish to take up the time of the Council by unnecessary talk, and he thought it would be better if members would circumcise their tongues and their thoughts, and devote more time to the work of the Council, which would thereby be rendered more efficient.

The amendment was then put, when 11 voted for and 14 against.

At the request of Sir Hugh Beevor the names and numbers were taken down, when it appeared that 11 voted for, 14 against, 5 did not vote, and 1 was absent.

Dr. Norman Moore then moved, and Dr. Bruce seconded, as an amendment:

That before the Council commits itself to the principle that further legislation is necessary to the continued solvency of the Council, the Financial Relations Committee be requested to report on the economies which it may be possible to effect in the expenditure of the Council and its Branches in general in relation to the fees and work of the Council.

Mr. Victor Horsley, on a point of order, submitted that that was precisely what the Special Finance Committee reported on eighteen months ago. That was before Dr. Norman Moore became a member of the Council, but he would find the report in the Minutes, vol. xxxvii.

The amendment was then put and declared lost.

The President then said that the resolution before the Council was:

That the Council approve the principle of the following proposals for fresh legislation contained in the report of the Financial Relations Committee.

(1) That a fee of £1 be charged for registration in the *Students' Register*.

(2) That the initial registration fee for practitioners be raised from £5 to £7.

Mr. Jackson desired to move his resolution as an amendment to No. 2.

Mr. Victor Horsley was extremely anxious to second it, but he could not second an amendment to a proposition of which he was the proposer, and he desired to withdraw from moving the main question if somebody else would propose it.

Dr. Atthill undertook to move the original resolution, which was seconded by Sir Christopher Nixon.

Dr. Macalister pointed out that it was clear from the paragraph to the report headed "Provision of New Sections" that it was proposed to introduce the *Students' Register* into the new Bill. It had never appeared in any statute before, and it was therefore plain that statutory authority would be required to make the students' registration fee compulsory.

Dr. Windle thought that there was a good deal to be said in favour of making a student's registration compulsory, but the point ought to be made clear.

Mr. Victor Horsley said there was a misapprehension. The Committee did not resolve that the registration fee should be compulsory. The Council might establish a registration fee without making it compulsory, but the Committee did not raise the great question of compulsory registration. All the Committee asked was the establishment of a registration fee. He suggested that the question of compulsory registration of students ought not to have come up until the Bill was on the table. It was surely not in order to discuss a matter that was not contained in the report of the Committee.

Dr. Windle, with deference to Mr. Victor Horsley, thought the question of compulsory registration was wrapped up in the whole matter. He did not see how the Council could vote on the question unless compulsory registration of students were included, otherwise the Council would be voting on a source of income which it could not rely upon. It was perfectly possible for anybody to declare, as certain bodies had declared that it would no longer require registration as a condition precedent to granting its diploma, and if that was done by any considerable number of bodies then the income from that source would entirely disappear or would seriously diminish.

Sir Christopher Nixon could not conceive the idea of charging a fee to students without its being compulsory.

Dr. McVail entirely approved of the compulsory registration of students in itself as a principle, but he distinctly objected to bringing that into operation merely as a method of taxing students in order to supply the Council with funds.

Dr. Atthill thought the two fees were really on the same footing; both would have be paid by the parent or guardian.

Dr. Norman Moore was of opinion that the Council ought not to be committed to something which was entirely separate from what was contained in the report, which would be the case if Mr. Victor Horsley's proposition were adopted.

Dr. Little said that one of the duties imposed on the Council was the supervision of medical education, and he thought the debate had abundantly shown that unless the Council could register medical students and determine the age at which they commenced their work, the foundation of medical education would be cut away, and he did not think there could be a more legitimate way of improving the Council's finances than imposing a registration fee upon the student.

Mr. Victor Horsley observed that if the debate was to be continued an amendment to the resolution should be moved, but he could not conceive its being in order to discuss a matter which was not referred to in the resolution before the Council.

After some further discussion, the President put the motion, which was carried as follows:

That the Council approves in principle of the following proposals for fresh legislation contained in the report of the Financial Relations Committee:

(1) That a fee of £1 be charged for registration in the *Students' Register*.

On the requisition of Dr. Watson, the names and numbers were taken down, when it appeared that 13 voted for and 12 against; three did not vote and 3 were absent.

It was moved by Dr. Atthill, and seconded by Sir Christopher Nixon:

(2) That the initial fee for registration be raised from £5 to £7.

Mr. Jackson moved as an amendment:

That in the opinion of this Council it is desirable that an annual licensing fee of 10s. be substituted for the present registration fee of £5; the annual fee not to be paid for ten years after registration by those who have already paid the £5 registration fee.

He said that it was obvious that the Council had to do a great deal of extra work, and that its income must be increased by some means. During the last five years the average number registered was about 1,290. Taking that number for the ten years that would give 12,900 names added to the *Register*. Deducting about 900 for deaths, etc., that would leave 12,000 of ten years' standing who would not pay the fee. That would be equal to £6,000. Taking the whole number on the *Register* as 37,000, the income would be about £18,500 less £6,000, which would give an ample income of at least £10,000. He had spoken to many medical men in the country about this proposal, and he had found that the majority approved. He did not think that medical practitioners as a whole would object to it when they saw the benefits to be derived from it.

Mr. Victor Horsley seconded for the same reasons. He desired to point out that if the Council went to Parliament, as it must, Parliament would very justly ask for a *quid pro quo* for any advantages demanded on behalf of the profession. Between the public and the profession there must be a compromise of some kind, and if the Council asked the Government for increased advantages in one direction it ought to be prepared to give something in the other.

Sir Christopher Nixon strongly opposed the amendment, as there would be an immense difficulty in collecting the tax. A large majority would be opposed to an annual registration fee, and would get up an agitation which would defeat any measure brought into Parliament.

Dr. Heron Watson was of opinion that the adoption of such a means of increasing its funds would degrade the Council in the eyes of the profession.

Sir William Thomson was once of opinion that such a method as was suggested in the resolution would prevent the approaching bankruptcy, but after considering the matter he had come to the conclusion that to place an annual fee on the members of the profession was not practicable. The whole thing, to his mind, was fraught with difficulty. He was in favour of the proposal that an increased payment should be

made at the entry into the profession, and that it should be at once raised to 10 guineas.

Dr. BRUCE thought an annual registration fee was not a practicable way of getting funds. On logical grounds there were objections to it. If every member of the profession were to be charged a guinea for being on the *Register*, the Council must consist of direct representatives, and nothing but direct representatives.

Dr. MACALISTER thought the Council was very much indebted to Dr. Bruce for pointing out what was wrapped up in this resolution, just as compulsory registration of students was wrapped up in the first one. Immediately the cry that representation should go with taxation would be raised, and in Parliament the principle would have to be threshed out and settled, and the entire constitution of the Council would have to be remodelled.

Mr. JACKSON in reply said he did not consider the proposal undignified; it was already adopted by lawyers. As to the question of direct representation, he reminded the Council that the profession was already taxed, and that argument could have no bearing on the matter.

The amendment was then put and declared lost. The names and numbers were taken down, when 3 voted for, 22 against, 8 did not vote, and 3 were absent.

The PRESIDENT stated that the next motion was that the initial registration fee for practitioners be raised from £5 to £7. To this the following amendment had been handed in, proposed by Sir WILLIAM THOMSON, seconded by Dr. WINDLE:

That the registration fee be raised from £5 to a sum not exceeding £10.

He would put the amendment first.

The amendment was then put and carried; 17 voted for, 8 against, 3 did not vote, and 3 were absent.

The amendment was then put as a substantive motion, and carried by 18 to 6; 4 did not vote, and 3 were absent.

The PRESIDENT said that the next motion was:

(3) That the financial administration of the funds should be remodelled so far as the mutual relations of the Council and its Branch Councils are concerned.

This was agreed to without a division.

REAPPOINTMENT OF FINANCIAL RELATIONS COMMITTEE.

Mr. VICTOR HORSLEY moved:

That the Financial Relations Committee be reappointed, with instructions to draft, with the assistance of the legal advisers of the Council, a Medical Acts Amendment Bill, carrying out the principles of financial reform approved by the Council, and embodied in the suggested amendments to the Medical Acts on pp. 15-17 of the report of the Financial Relations Committee.

He urged the recommendation in general terms because it was obvious the Council might, as it had done, alter the principle conveyed by the report, and come to a different conclusion. In order to give effect to that it was necessary to have a draft Bill constructed, and in that draft Bill would be dealt with one or two important questions which he need not specify, but which were held to be necessary to fulfil the principles of the report.

The PRESIDENT pointed out that the Committee would have to act in accordance with the motion.

Mr. VICTOR HORSLEY agreed it would become an instruction to the Committee. It would be open to any one to move the inclusion of a clause for the compulsory registration of students in the Bill when it came before the Council: the Committee was to be limited to the principle embodied in the report.

Sir CHRISTOPHER NIXON seconded the motion.

Mr. GEO. BROWN suggested that as they had one or two Bills going forward they should all be embodied in one omnibus Bill.

Dr. MCVAIL understood that the Scottish Branch Council, if these proposals were adopted, would lose all its power, that all its money would go the General Medical Council, and that it would be unable to do anything except so far as the General Medical Council allowed, it would in fact become a local Committee of the General Medical Council, which at present it was not. He for one held himself entirely free to reconsider the whole question.

Dr. ATTHILL hoped the Council would authorize the Committee to draft the Bill, which could be amended in November.

The PRESIDENT stated he had been asked what the suggested Bill should cover. He should hold, as a matter of order, that the Financial Relations Committee, in drafting the Medical Acts (Amendment) Bill must go precisely on what was laid down for its guidance in the report.

Dr. MCVAIL pointed out that nothing whatever had been done with regard to the matter under the head "Alteration of Sections of Existing Acts," in the report.

Mr. VICTOR HORSLEY, on a point of order, said the report as a whole should be read to the Council, otherwise there would be parts which the Council had not approved, and there must be a report at the end of the proceedings that the report as amended be approved.

Dr. MCVAIL observed that it was a bigger question than he imagined when the debate began, and it was one which could not be settled without the consent of the various colleges and universities of Scotland.

The PRESIDENT read the resolutions which had been adopted by the Council, and said in his opinion No. 2 covered the principles of the report and nothing else.

Dr. MCVAIL found it necessary to vote against the motion instead of merely abstaining from doing so as the Council had decided that the Branch Councils were to be remodelled.

After some further conversation the debate was adjourned.

The Council then adjourned.

Saturday, May 31st, 1902.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

The minutes of the previous day's proceedings as amended were confirmed.

REAPPOINTMENT OF FINANCIAL RELATIONS COMMITTEE.

The Council then proceeded with the adjourned discussion of the motion for the reappointment of the Financial Relations Committee.

Dr. LITTLE had drafted an amendment which he thought would meet the position in which the Council at the present moment was. It was most anxious to economize, and various members had drafted resolutions with a view to carrying that economy into effect. The most sanguine estimate of any of these suggestions would be that the Council might save perhaps £200; but the fact remained that it actually spent £200 in discussing that saving. That was a most disastrous state of affairs. There could hardly be any arrangement proposed which would not be open to some objection. It seemed to him that the Council was very much in the position of the sailors who determined it would be better to wreck the ship because they were not allowed to paint it in the way they wanted to. He therefore proposed:

That the present discussion be adjourned, and the President be requested and empowered to make such provisional arrangements for the next meeting of the Council, and generally for carrying on the business of the Council in the interval, as may appear to him most conducive to economy, and that any Standing Orders which might interfere with such provisional arrangements be and hereby are suspended until the next meeting.

Dr. BRUCE seconded.

The PRESIDENT thought that the first part of the motion was in order, but he scarcely knew what to say with regard to the second part.

Sir WILLIAM THOMSON was afraid that Dr. Little was trying to practise a joke at the expense of the Council. No matter how benign the President might be, surely the Council was not going to hand over to one individual the whole process of their business during the next six or twelve months without taking a vote on the question itself.

Mr. BRYANT, as Treasurer of the Council, asked himself where his place was under the terms of such a resolution. If it was to the advantage of the Council that the Treasurer should resign his position, then he was in the hands of the Council. But he doubted whether the Council would see things in that light. He should like to remind the Council of the position two years ago; the Finance Committee then brought up some suggestions with regard to economy, which were burked by the Council, and were not even put into type.

Dr. MACALISTER proposed to vote against the amendment,

not because he was not a friend of economy, but because the Council was capable of arranging its own business.

The PRESIDENT then put the amendment, when two voted in favour of it. He declared the amendment lost.

The PRESIDENT stated that the original motion was then again before the Council.

Sir JOHN TUKE wished in a few words to state the reasons which induced him to vote against the motion. He held that if the motion were adopted it would postpone indefinitely the question of fiscal reform. If a draft Bill were prepared and placed in the hands of the Council, it would lead to a series of academic debates which would waste time and lead to nothing. But even supposing a Bill were agreed to by the Council, what would its fate be? It could only go forward as a private member's Bill, and any one who knew anything about such matters knew the fortune which generally awaited such a Bill in the House of Commons. Year after year it would appear in the notices of motion and year after year it would drop. Such a Bill would be very seriously opposed from many quarters, and that would mean that year after year the Council would have a Bill before the House with which no progress would be made. It would be a waste of time; if this motion were adopted it would postpone anything like economy in the Council. There was another aspect of the matter. Did the motion as it stood really cover what was intended? Was there nothing behind the motion? It might be argued that the provisions of the proposed Bill were limited by the Council. It might be so so far as the Council was concerned, but had they any assurance that the Bill, if it ever came before Parliament, would remain the Bill of the Council? Had they any assurance that it would not be indefinitely extended? For his own part it seemed to him very much as if it were a lever for the upsetting of the existing Medical Act and for getting a new Medical Act. He believed it was possible if a draft Bill passed the Council that before it was actually submitted to Parliament it would strongly resemble Disraeli's Reform Bill of 1867, which, when it reached the House of Lords, was commented on by the Duke of Buccleuch, who said that except for the word "whereas" there was nothing in the Bill that was original. If the Council wanted to save money they must begin from within.

Dr. MACKAY thought it a pity to oppose two policies which were quite compatible with one another. He considered it just and right that the Council should carefully consider what economies could be practised, and that it might be possible to meet the wishes of both parties if the following words were added to Mr. Victor Horsley's motion:

That it also be remitted to the Committee to consider what economies in the expenditure of the Council it would be possible to effect.

Dr. FINLAY supported this view. It seemed to him that the Council ought to go forward with the measure now. There was no doubt that considerable economies might be practised in different ways other than those already referred to by members of the Council. It was true that they might be small, but in the aggregate they came to a considerable sum.

Mr. VICTOR HORSLEY suggested that Dr. Mackay's proposal would come better as a substantive motion. He thought it was a very important point, but that it was really a rider and not an amendment.

Dr. PYE-SMITH said he did not agree with increasing the registration fee. He thought that the debates of the Council should be made shorter, and to that end that its numbers should be smaller. The number of its members was increasing and must increase.

After some discussion, Mr. VICTOR HORSLEY said in order to save time he was prepared to accept the amendment; and Sir CHRISTOPHER NIXON, as seconder, also agreed.

Dr. NORMAN MOORE then moved the previous question.

The PRESIDENT pointed out that the question was whether the Council was willing that Mr. Horsley and Sir C. Nixon should be allowed to accept the proposed amendment.

Mr. VICTOR HORSLEY said that after what Dr. N. Moore had done he must be allowed to explain his motives and the motives of Sir C. Nixon in accepting the amendment. They both felt that it was really no amendment. It was a subject which the members had discussed on the previous day, and rejected in one form; but he was quite willing to see it revived in its present form. The Committee was ready and anxious to look into the question of the economies which could be practised with advantage to the work of the Council, and to recommend them to the Council at the next session. But if its conduct, which was only actuated by a desire to economize, was to be followed by what Dr. Norman Moore suggested was going to be his action, then words in the English language totally failed him at that moment to describe his conduct. At any rate that would not in the least degree influence Sir Christopher Nixon and himself. They were anxious for economy, and, if the other members of the Committee were equally willing, they would undertake the work, which was all done two years ago, do it over again, and bring up additional suggestions with regard to economy if necessary.

Sir CHRISTOPHER NIXON was thoroughly in accord with what had fallen from Mr. Horsley. He desired to point out that if the motion was carried it would economize time, as it would obviate the discussion of a motion which stood in Dr. Atthill's name.

The PRESIDENT pointed out that the position of matters was that the Council had a motion before it. They also had a proposal in the form of an amendment that certain words be added to the motion, and Mr. Horsley and Sir Christopher Nixon agreed to accept the addition of these words. Therefore there was no amendment before the Council.

Dr. ATTHILL moved that the Council do proceed to vote on the motion.

Mr. TOMES seconded.

The PRESIDENT inquired if the Council agreed that the words as proposed by Dr. Mackay should be added to the original motion.

The Council consented.

The PRESIDENT put the motion as moved by Dr. Atthill and seconded by Mr. Tomes that the Council should now proceed to vote on the motion, and declared this carried.

The Council then proceeded to vote on the motion as proposed by Mr. Horsley with the addition of the words proposed by Dr. Mackay, when 21 voted for and 4 against. Mr. HORSLEY requested that the names should be taken, when 20 voted for, 4 against, 6 did not vote, and 1 was absent

The PRESIDENT here stated that Mr. Allen, the Registrar, had been suddenly called away on account of the illness of his wife, and Dr. MacAlister would act as Registrar for the time being. Mr. Allen had had to discharge his duties that week under very trying circumstances.

Mr. HORSLEY proposed, Sir C. NIXON seconded, and it was agreed, that the report of the Committee be presented at the November session of the Council.

Dr. ATTHILL then asked the Council's permission to withdraw the motion standing in his name. This was given.

REPORT OF THE FINANCE COMMITTEE ON INCOME AND EXPENDITURE.

The Finance Committee reported that

	£ s. d.
The income of the General and Branch Councils for the year ending December 31st, 1901, was	8,557 0 7
Expenditure for the same period was	10,065 12 7
Deficit on the year's working	£1,508 12 0

The receipts from fees showed a decrease of £79 48., the English Branch having received £6 78. 6d. less than in the previous year, the Irish Branch £105 158. less, and the Scottish Branch £32 188. 6d. more. The report pointed out that a further falling-off in the general amount received from these fees must be anticipated in the near future, for the number of students registered in the last three periods of six years (which is the average time taken to complete the curriculum) is as follows:

Years.	Students.	Average per Annum.	Decrease in Average.
1884-1889	11,631	1,938	—
1890-1895	11,178	1,863	75
1896-1901	9,575	1,596	267

That is to say, that the average number of students registered in the last period of six years is 267 per annum less than the number registered in the previous similar period, and the effect must appear before very long in the receipts from fees.

A statement of the expenditure of the General Council compared with former years showed:

(a) A decrease of £430 10s. in fees to the General Council, the sessions having been three days shorter than in 1900.

(b) A decrease of £164 10s. in various Committee fees, the cost of extraordinary meetings having been exceptionally high in 1900.
(c) An increase of £47 16s. 2d. in the printing of *Registers* to which the attention of the Stationery Office has been called, and a reduction is expected this year.
(d) An increase of £55 19s. 9d. in house expenses, being the cost of the electric fan in the Council Chamber.
(e) A decrease of £263 17s. 2d. in law expenses.
(f) An increase of £315 13s. 10d. for inspection of examinations, a new cycle having been begun.
(g) An increase of £57 17s. 7d. in miscellaneous expenses, caused by the fee paid to Mr. Frere for his report on finance.

The summary of the results is as follows: The income of the General and Branch Councils in 1901 was £100 8s. less, and the expenditure £370 12s. 11d. more, than in 1900.

The *Pharmacopoeia* being excluded, the expenditure of the General and Branch Councils for 1901 has exceeded the income by £1,508 12s., as against the average excess for the past seven years of £1,201 19s. 1d. The percentage rate is 93.51 as against the average for the same period of 91.80. In the past year the elections are responsible for a large part of the deficit, but no great reduction in expenditure can be anticipated for the present year on account of the expense of the extraordinary meeting of the Council in February and the cost that will be incurred in the inspection of primary as well as of final examinations.

The Irish Branch began the present year with a cash balance of £408. Assuming its receipts from fees to be about the same as before—say £800—it ought to be able to meet its expenses without the aid this year of a grant from the General Medical Council, whose expenditure will therefore benefit by this reduction. The Irish Branch will, it is hoped, be able to effect some reduction in its office expenses in the immediate future.

The assets of the Branch Councils have decreased by £1,008 12s. during the past year.

The receipts and expenditure in connexion with the *Pharmacopoeia* show that the debit balance of £288 8s. 7d. brought forward at the close of 1900, which was the first year in which this account was kept separate, has been reduced to £112 13s. 4d., and the sale of the stock in hand, together with the profit on the sale of the Government of India edition of the *Addendum*, should turn this into a credit balance at the end of the present year.

Dental Finance.

The receipts of the dental fund were £365 5s. 9d. more than its expenditure, and its assets are therefore increased by this amount.

Sinking Fund.

Mr. Tomes brought before the Committee the following statement:

The complications introduced into the finance of the Council by the wording of the Act render it indispensable, in order to get a clear idea of the matter, to consider it in its effect upon the finances regarded as one whole, and upon them regarded from the point of view of the independent funds of the several Branches.

1. Taking the funds as one undivided whole.

The general idea of a sinking fund is the setting aside of money annually in sufficient amount to make good in a given period of years the depreciation of a wasting security. But the freehold of the premises is not a wasting security; on the contrary, it will almost surely have largely increased in value before the expiration of the term, and, indeed, is probably now worth considerably more than the cost price at which it stands in the accounts. A sinking fund in any ordinary acceptation of the term is not at all called for and is inappropriate.

2. Taking the funds of the Branches as having independent existence.

The English Branch.—It was urged in favour of a sinking fund that by this means in fifty years the General Medical Council would be placed in possession of the freehold unencumbered by a mortgage, while the funds of the English Branch would be retained intact by the repayment of its mortgage. This is, however, quite fallacious. In order that it may have the money wherewith to pay the annual premium, the Council has to call upon the Branches for a larger annual contribution than would otherwise suffice in the proportion of their percentage shares. Under the rates shown on the last balance sheet, the English Branch is called upon for an additional £121 in round numbers. On a 2½ per cent. table, and taking Consols at par so as to be on the safe side, this amounts in fifty years to no less than £11,800, so that out of the £25,000 which it is then to receive the English Branch will have provided no less than £11,800, or in other words will receive net £13,200 in discharge of its £25,000. If there were no sinking fund at all this asset of the English Branch would be as good at the end of fifty years as it is now; by the establishment of the sinking fund it loses £11,800. This is such a shockingly bad bargain that nothing more need be said from the point of view of the interests of the English Branch except that, so long as the Irish Branch does not really contribute its quota, but has to be subsidized out of the funds of the other Branches, the figures would work out even worse than these.

The Scottish Branch.—The rate of extra contribution called for from the Scottish Branch is about £72 per annum, or on the same tables, nearly £7,000 in the entire period—considerably more than their present assets. But at the end of the period they will experience some advantage in no longer being called upon for their contribution towards the mortgage interest, at present some £240 per annum, as there will be no rent to pay in this or any other form.

The Irish Branch.—Their nominal contribution to the sinking fund is about £21 per annum, or a total of £2,000 in round numbers; but, as already remarked, this seems likely not to be really provided by them, but out of the subsidies which they receive.

General Considerations.—The real effect of the sinking fund, as was pointed out by Mr. Tomes, and subsequently fully endorsed by Mr. Frere's report, is a gradual transference of the assets of the Branches to the General Medical Council, to the extent of £25,000. This is not provided for under the Act, and may be *ultra vires*, but it is not worth while to labour this point. What is of more practical importance is that by the sinking fund the Council of to-day, in face of an annual deficit of from £1,200 to £1,500 a year, not likely to be less for some years to come, is setting aside a sum of money for the betterment of the Council in a remote future. That, in fact, taking the Council and its Branches, as a whole, it may actually be placed in a better position than it is at present by the receipt of a lump sum of £25,000.

Conclusions.—Eliminating all the confusion arising from the system of accounts dictated by the Act, the common-sense issue amounts to this: Is it the business of the Council of to-day, with financial difficulties in full sight, and with an income inadequate, and likely to be still more inadequate, to be making provision, not out of its surplus but as an addition to its deficits, for the Council of 50 years hence?

Mr. BRYANT proposed:

That the report of the Finance Committee on Income and Expenditure for the year 1901 be received and entered upon the minutes.

Dr. PYE-SMITH seconded, and it was carried.

Dr. BENNETT moved:

That the Irish Branch Council be requested to make such arrangements in regard to the work of the office of the Branch as would be necessary to conform with the recommendations of the Finance Committee.

The PRESIDENT did not think there was any necessity for the motion. It was a matter which lay in the hands of the Branch Council. At the present moment it was the administrator of its own funds.

Mr. TOMES presumed that the Council had read that part of the report which dealt with the sinking fund. The Finance Committee arrived at no conclusion upon it, and therefore it rested with the Council, without any recommendation from the Finance Committee, to deal with the question. He had put into the report practically all that he had to say upon the subject. The point he wished to emphasize was that by the sinking fund they not merely placed the Council forty-eight years hence in possession of the freehold of the premises, but in possession of a clear £25,000. He submitted that, with the Council in sight of financial difficulties, it was not part of the Council's business to make the Council forty-eight years hence a present of £25,000. They would have to hand over to them, unless they previously sold it, the freehold of their premises, which had increased in value, and which, by that time, would have greatly increased in value, but he did not think they should also present them with £25,000.

Dr. Atthill seconded. He thought it was an unwise thing to commence the fund, and that it ought not to be carried on.

Mr. Bryant said he would regret its withdrawal. The payment to the sinking fund amounted to £215 a year, and he, as Treasurer, thought it his duty to look ahead as well as to the present. It was true that the financial difficulties had not decreased since the sinking fund was started. It was commenced under very excellent advice, and it was done with the sanction of all the Branches. Under those circumstances the Council ought to think a good deal before attempting to undo what had been done.

Sir William Thomson understood that the measure was determined upon some years ago after consideration and upon special expert advice. Now it was proposed that that should be wiped out and that something else should be done. That was the effect of the motion before the Council. He did not say for a moment that that advice was not good, but, if he might respectfully say so, it was lay advice.

Mr. Tomes did not think any expert opinion was taken.

Dr. Bruce thought Sir William Thomson was mistaken. The Council had advice about the measure, but that advice was that it was a piece of bad financing.

Sir William Thomson said he had merely accepted what the Treasurer had stated—that it was done upon expert advice.

Mr. Victor Horsley thought that Sir William Thomson misunderstood the Treasurer. As far as he recollected, the sinking fund was not founded on any expert advice. It was practically the Council which proposed the establishment of it, and then the advice of actuaries was taken as to which of two methods was the better to adopt. The sinking fund was established by the Treasurer, but at the time the Treasurer did not appreciate fully the financial position. Mr. Bryant would remember that he (Mr. Horsley) had raised the financial question for several years. Why they should go on paying £215 a year for the benefit of a future generation he could not understand.

Dr. MacAlister stated that he was opposed to the institution of the sinking fund at first, and it was postponed once or twice, but he thought it was justifiable, because the Council had borrowed money from the Branch Councils, and was bound to pay it back at some time or other.

Dr. Atthill inquired where the money for this sinking fund was to come from, seeing that the expenditure was already excessive.

Mr. Tichborne wished to know what the Council would lose if the sinking fund were now discontinued.

Dr. MacAlister stated that if the payment to the sinking fund were given up, the Council would get back what it had paid less the first year's payment, and less, also, a small percentage for commission. The Council had paid £645, and would get back roughly £430, less the commission.

The President then put the following motion, which was carried.

That the payment to the sinking fund be discontinued, and that the necessary steps be taken in accordance with the agreement with the Alliance Insurance Company for obtaining the refunding of the proportion of the payments made by the Council which is recoverable.

Visitation of Examinations.

Mr. Bryant proposed:

That, subject to the approval of the Privy Council, the remuneration of the persons appointed to visit the Primary Examination of the Examining Board of the Royal Colleges in England be at the rate of £5 5s. a day with travelling and hotel expenses.

The fee was based on the practice of the Council in the Visitors' Examination at the Apothecaries' Hall, and would, he believed, be acceptable to the Visitors.

Dr. N. Moore was willing to second the resolution, but thought that leave should be given to charge the fee instead of having again and again to appeal to the Privy Council.

The President thought it would be well to make it more general.

The resolution was put to the Council and carried.

The Prevention of Personation.

The Council then proceeded to deal with the further consideration of the report of the Committee on the Prevention of Personation.

Mr. V. Horsley said that what the Council was asked to do now was to approve virtually of the report of 1899. In December, 1901, the Council resolved that the report of the Personation Committee with the proposed regulations should be sent to the Branch Registrars for their comments which were to be sent to the Personation Committee. These comments had been considered by the Personation Committee. The Committee was in a little difficulty because the comments by the Branch Registrars were, as a matter of fact, not on the minutes, although the previous comments by the Branch Registrars were. The question was whether they ought not to be put on the minutes. If they were there were several serious corrections to be made.

It was moved by Mr. Brown, seconded by Dr. Bruce, and resolved:

That the "detailed comments by the Branch Registrars on the regulations respecting registration proposed by the Personation Committee" be entered as an appendix to the minutes.

On the motion of Mr. Victor Horsley, seconded by Dr. Windle, the Council went into Committee of the whole Council.

Mr. Victor Horsley proposed:

That all forms of application for registration, duly signed and presented, shall be preserved by the Registrar of the Branch Council to whom they may be presented, in such manner as to be easily accessible for reference.

He proposed that this regulation should take the place of the regulation which was adopted by the Council in Committee on November 30th, 1901, which was as follows: "All forms of application for registration, duly signed and presented, shall be bound, indexed, and preserved by the Registrar of the Branch Council to whom they may be presented."

The President remarked that it was the duty of a Committee to bring up a report in a form which would enable the Council to discuss it with a proper appreciation of what it was that they had to discuss. He had given this matter very careful consideration. It was his duty as President to put a series of proposals one after the other to the Council, but he confessed that at that moment he did not see how they were going to deal with the matter.

Mr. Horsley could not see the difficulty. As regards the duty of the Committee and its method of reporting to the Council, he pointed out that the Committee had simply done what the Council had directed it to do and had done it under protest. If the Council now found itself in the position of not understanding the subject the Council only had itself to thank. This was not a new discussion, but an adjourned discussion, and was in perfect order.

Dr. MacAlister could not help thinking that as the report was referred back to the Committee for the purpose of getting detailed comments from the Branch Registrars it would have helped the Council had the Committee reported either that they stuck to their former report, or that they had modified their former report in consequence of the comments, or that they entirely disagreed with the comments. As a matter of fact they did not point out and the Council did not know whether the comments of the Registrars had had any effect.

Sir John Tuke wished to say, as a member of the Committee, that the Committee went through the comments of the Registrars and made such alterations as brought the measure into harmony with those comments.

Mr. V. Horsley stated that the Committee had before them the feeling of the Council expressed in its previous debate, which was more important than the comments of the Registrars.

The proposed regulation was then put by the President to the Council and carried.

Mr. V. Horsley then proposed

That no certificate of registration of any name on the *Medical* or *Dentists' Register* shall be given, except to a registered medical or dental practitioner, whose name does not appear in the current printed issue of the respective *Register*.

The practice which prevailed at the present moment was extremely dangerous. Anybody could walk into the office and by putting down a nominal fee could obtain a certificate of registration. This had led to the robbery of practitioners by unqualified persons getting into their houses by means of such certificates.

Sir C. Nixon seconded.

Sir JOHN TUKE thought that Mr. Horsley was not correct as to people being able to obtain certificates so easily. There was a statutory declaration, which a man had, of course, to swear to.

Mr. HORSLEY said there was no hindrance in the way of forgery, and what had been done was this: Supposing a man named Thomas Smith wished to personate a practitioner of the name of William Brown; he came into the office, filled up an application form in the name of William Brown; the Registrar, seeing that William Brown's name was on the *Register* would thereupon fill up a certificate and give it to the person applying for it.

Sir JOHN TUKE again referred to the fact of the statutory declaration.

The PRESIDENT then put the proposed regulation to the Council, when 9 voted in favour of it and 14 against.

The PRESIDENT declared the motion lost, and the Council shortly afterwards adjourned.

Monday, June 2nd, 1902.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

The minutes of the previous meeting were read and, as amended, confirmed.

THE REGISTRAR.

The PRESIDENT announced that owing to the death of Mrs. Allen, the Registrar had been excused from further attendance this session, and Dr. MacAlister had undertaken to conduct the business on his behalf.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, it was resolved that the Council should convey their sympathies to Mr. Allen in his bereavement through a letter by the President.

VISITATION AND INSPECTION OF EXAMINATIONS.

The PRESIDENT thought it desirable to take the reports of the Examination Committee on the Scottish Conjoint Board and the Royal University of Ireland, and the report of the Public Health Committee at once.

Mr. VICTOR HORSLEY, recognizing that these reports were of more importance than the Personation Committee's report, said he was sure it would be the pleasure of the Personation Committee that they should be taken first, and therefore he desired to postpone the Personation Committee's report.

This course was adopted.

The Conjoint Board in Scotland.

Mr. BRYANT moved, and Dr. NORMAN MOORE seconded:

That the report by the Examination Committee on the Visitation and Inspection of the Final Examinations of the Scottish Conjoint Board be received and entered on the minutes.

REPORT.

The Visitor and Inspector of the Scottish Triple Conjoint Board of Scotland, having declared the Final Examinations for the Triple Qualification "to be sufficient," the Committee of Management of the Conjoint Board express their gratification at the general tenour of the report, although on certain matters of detail it was critical. The Examination Committee is satisfied with these conclusions.

It is pointed out in the remarks by the body inspected, that this Committee of Management of the triple Board has, since the date of the last inspection, discontinued—what this Council then condemned—the method of allowing candidates to enter for the final examination in divisions or single subjects, although it is still necessarily permitted in the case of candidates who passed the second examination of the Board before August, 1896. It will be satisfactory to this Council when the practice has been entirely discontinued by those bodies who still permit it.

The Visitor and Inspector point out at page 8 of their Report that in the Edinburgh written examination, as soon as the candidates took their seats, three sets of printed questions were given to each, namely, one in Medicine, one in Therapeutics, and one in Surgery and Surgical Anatomy; and that four hours were allowed to write answers to the eleven questions assigned, the candidates using their own discretion in apportioning the time amongst the three papers. The Committee is, however, informed that this practice is not always followed.

At page 18 of the same report it was recorded that at the Glasgow written examination, instead of three papers of questions in two or more different subjects being given out simultaneously, they were given out singly, and a definite time was allotted for each paper. This Committee suggests that the practice in Glasgow should be adopted at the examination in Edinburgh.

At neither examination was the average time (half an hour) recommended by this Council for answering each question allowed. In such important subjects as medicine, surgery, and midwifery, the full time of half an hour should be allowed for the answering of each question, although in less important subjects the rule possibly need not be so binding.

The clinical examinations in Edinburgh and Glasgow, including the examination of patients and the chemical and microscopical examination of urine and other specimens, were approved by the Visitor and Inspector, and it is clear to this Committee that upon the whole they were well arranged. Failure in clinical medicine or surgery excludes from the oral examinations in the same and allied [illegible].

In Edinburgh each candidate in medicine was examined on two patients by one or other of the two examiners, and where doubt existed the candidate was given a third patient. In surgery, however, each candidate was required to examine one patient only, and was directed to mark on patient the lines of incision for two operations. The candidate was subsequently examined upon the clinical case and also [illegible] assigned operations for about twenty minutes, and later on [illegible] names, uses, and modes of employment of surgical instruments [illegible].

At Glasgow the clinical examination in medicine [illegible] the one at Edinburgh in a written report of one case being [illegible] from each candidate, and in the examination being conducted [illegible] out in the presence of and by both of the examiners (page [illegible]) each candidate took notes of one case, for which he was allowed [illegible] minutes, and was orally examined upon two others; he was likewise [illegible] in surgical anatomy and the uses and application of splints and instruments. The examination was pronounced by the Visitor and Inspector to be an excellent one, but this Committee is of opinion that ten minutes for examining and reporting a clinical case is quite inadequate.

The Examination Committee would suggest that the Board of Management should arrange that in future every candidate at this clinical examination should be examined on at least three patients, and that two examiners should together throughout conduct the clinical examination. To test a candidate in clinical surgery upon one case is insufficient.

The Visitor and Inspector state that "the plan of sending a schedule round with the candidate at each part of the examination," which contains not only the subjects upon which the candidate has been examined, but also the number of marks gained by him at each preceding part of the examination, is not a good one. This Committee regards such a schedule, which carries out the first purpose, to be an essential aid to the examiners, but can see no good result to be gained by the second purpose, for by such an arrangement a too sympathetic examiner may be induced, in order to enable a candidate to pass, to give marks in excess of those he would have given when estimating only the value of the part of the examination in which he was concerned.

The absence of an examination in operative surgery is in the opinion of this Committee greatly to be regretted. It is said to arise from difficulties connected with the working of the Anatomy Act.

The history of the oral examination of one candidate in surgery, as described in pages 16 and 17 of the Report, and commented upon by the body inspected on page 41, is regrettable. This Committee trusts that such an occurrence has been exceptional. The marks decided on by the two examiners engaged at the time should be arrived at with judicial care, and given as their final judgement. It is to be regretted that the Visitor and Inspector were both absent at the re-examination of this candidate.

Mr. VICTOR HORSLEY called attention to the use by the Visitor and Inspector of the word "sufficient." That word always seemed to him to be a very improper word for a Visitor and Inspector to use, as the Council was the only body which should declare the examination to be "sufficient," and alone had the responsibility of doing so. He wished to know definitely what was in Dr. Payne's mind by using the word because his report was contradictory; it first told the Council that the examination was "sufficient," and then it went on to say that the arrangement of the system of marking on which the sufficiency of an examination necessarily depended might with advantage be revised.

The PRESIDENT pointed out that the word "sufficient" was taken from Section III of the Medical Act of 1886, and he presumed that the Inspector and Visitor, in using the word "sufficiency" or "insufficiency," as the case might be, used it in the sense of that particular Act.

Dr. PAYNE thought it was the Inspector and Visitor's particular duty to use the word "sufficient" or "insufficient," and he could not understand how Mr. Horsley should think it was not. If it was not so, then he, Dr. Payne, was mistaken, and the directions to the Visitor and Inspector should be more carefully drawn up as to what they should state.

Sir WILLIAM THOMSON thought Mr. Horsley too particular in trying to lay down definitely what "sufficient" meant, and that the explanation given by Dr. Payne was ample. The word was simply taken from the Act of Parliament, because no examination was perfect, and it was simply an indication that the examination was "sufficient" in the mind of the Visitor.

Mr. VICTOR HORSLEY observed that the Examination Committee had said that it was inadequate.

The motion was then put and carried. The report was then adopted, and, at the suggestion of Dr. MACALISTER, a copy was directed to be sent to the various bodies concerned.

The Royal University of Ireland.

Mr. BRYANT moved and Dr. NORMAN MOORE seconded:

That the report by the Examination Committee on the Visitation and Inspection of the Final Examination of the Royal University of Ireland be received and entered on the minutes.

REPORT.

The Visitor and Inspector were of opinion that all the arrangements made for the Final Examination were excellent. There were 35 candidates, including one woman, and 13 examiners drawn from many different quarters.

"At the clinical, oral, and practical examinations the candidates are known by their names: but in marking the answers to the written examination, and at the final meeting of all the examiners to determine the result of the examination, the numbers only of the candidates are before the examiners."

In the written examination the questions given were numerous and sound—about six in each subject; all had to be attempted, and plenty of time was allowed for each paper. The Visitor and Inspector were well satisfied with the marks that had been awarded by the examiners to the papers, and were gratified to observe that the majority of the candidates showed an ability to write prescriptions, in full Latin, with accuracy as to dosage, and with a grammatical correctness which is, unfortunately, far from being general at final examinations elsewhere.

The clinical examinations are held in the medical and surgical wards of the general hospitals of Dublin. Candidates are divided into groups of twelve.

In medicine two only of the three examiners take part in the examination.

Each examiner had charge of six candidates in one ward, and each candidate was in the first instance required to write, on a form supplied, a report of one case. He was subsequently examined on a second and third case by one examiner, and on two or three other cases by the second. On the reported case the candidate was interrogated by the examiner, and in most cases required to repeat his physical examination of the patient before the examiner to demonstrate to him the signs elicited, and to explain their significance.

The examination was evidently a good one, although care is wanted to prevent a candidate being examined by the second examiner on cases of the same disease as he had been examined on previously by the first.

The clinical laboratory work was well arranged and carried out.

In surgery the clinical examinations were essentially good and practical; and there were said to have been an ample number of suitable cases. But no written report of a case was required, as in the medical clinical examination, but each candidate was examined on two cases by one examiner. It is not quite clear to this Committee why more than two cases were not utilized: it would seem only to be right to raise this part of the examination to the level of that of medicine, in marks as well as in cases.

The examination on ophthalmology was all that could be wished. That on operative surgery was well conducted.

The oral examinations were well reported upon by the Visitor and Inspector, and particularly the one on pathology. This Committee would have been pleased to know whether pathological specimens were utilized freely in the medical and surgical examinations.

The Visitor and Inspector call attention to the fact that in the last report (vol. xxx, Appendix VIII, p. 62) it was suggested that the examination in clinical medicine might be conducted with more efficiency and with less delay by an alteration in the details of the examination, and that the remarks made in that report appear still to hold good. They suggest some arrangements by which these changes might be effected, and the Examination Committee trust that the authorities of the University will take them into early consideration. With respect to the surgical examination, they call the attention of this Committee to the fact that the recommendation of the General Medical Council that "a candidate should not be orally examined except in the presence of two examiners," is not observed. They close their carefully-worded report by stating their opinion that the final examinations in medicine, surgery, and midwifery of the Royal University of Ireland are "sufficient."

The remarks of the body inspected are quite satisfactory to this Committee. They agreed to recommend "That in future the clinical examinations in medicine should be conducted by three examiners in medicine instead of by two only, as heretofore;" that the recommendation of the General Medical Council, "A candidate should not be orally examined except in the presence of two examiners" be extended to the oral examination in surgery, and from the tone of their remarks are prepared to consider carefully the other criticisms contained in the report of the Visitor and Inspector.

The Committee of the body inspected recognize the strict and thorough character of the inspection, and express their appreciation of the courtesy shown by the Visitor and the Inspector.

The Examination Committee are pleased with this appreciation of the work, which has been evidently well done, and recognize in these periodical visitations a power which cannot prove otherwise than good in the influence of this Council.

Dr. MCVAIL, as a Visitor, said he regarded the work which had been done with great pleasure. It was one of the most admirable examinations that he had any knowledge of and in every respect was most thorough, even, and fairly conducted; he could not conceive an examination more efficiently conducted both in the interests of the University, of the students, and of the public. Any man who got the diploma of the Royal University was certainly a man who had been effectually taught and examined.

Sir CHRISTOPHER NIXON acknowledged the extreme courtesy of the Visitor and Inspector in going through the details of the examination. At the Royal University they were always anxious to comply with the requirements of the General Medical Council, and with regard to the defects in the clinical examination pointed out by the Inspector they had made arrangements to remedy it, and the suggestions, therefore, of the Inspector as to a sufficiency of time being given to the candidate would be attended to.

The motion was then agreed to, and the report was adopted.

The University of Dublin.

The Council then proceeded to receive a statement from the Examination Committee in regard to the inspection in 1901 of the examinations of the University of Dublin.

At the instance of the PRESIDENT this was taken *in camerâ*, and strangers were directed to withdraw. On their re-admission,

The PRESIDENT stated that the Council had authorized the Visitor and Inspector of the Final Examination of the University of Dublin to complete their inspection at the November examination.

The Apothecaries' Hall, Dublin.

Mr. TICHBORNE asked leave to offer an explanation in connexion with No. 6 of the Executive Committee's minute of May 26th, 1902, which was as follows:

The following communication from the Apothecaries' Hall, Dublin, in regard to candidates expected to present themselves at the examinations, held in April, 1902, which examinations could not be inspected owing to the omission of the Hall to send information in time as required by the Committee's resolution of February 21st, 1898 (Minutes, vol. xxxv, p. 235):—

Apothecaries' Hall of Ireland,
40, Mary Street, Dublin,
April 21st, 1902.

Dear Sir,—in answer to yours of the 17th inst., I replied that there would be no Final this month, nor until July next. I have now merely to repeat such.

There are this week two candidates for chemistry and one for physiology and anatomy on Wednesday and Thursday.

Faithfully yours,
ROBERT MONTGOMERY, M.R.C.S., Secretary.

H. E. Allen, Esq., General Medical Council.

The Registrar informed the Committee that as only one day's notice had been received as to the holding of this examination, it was impossible to arrange for the attendance of the Inspector, and the Registrar was directed to call the attention of the Apothecaries' Hall, Dublin, to the resolution of the Committee of February 21st, 1898, and to point out the grave inconvenience caused to the Council in the performance of its statutory duty of inspection by the recurrence of such irregularities; and further

That it will be the duty of the Council to report to the Privy Council the reasons which have led to the omission of the inspections in April, 1902.

The explanation simply amounted to this, that the Apothecaries' Hall were led astray by the wording of the order, and also by the wording of the communications which they had received. He need not say that they had the greatest respect for all the wishes of the Council.

The PRESIDENT said his recollection was that the Apothecaries' Hall had to give a fortnight's notice prior to their examination, and if they had done that the Council would have had no fault to find with them; but if they only gave two or three days' notice it was of course impossible at all times to arrange for inspection. That was the sole point between the Council and the Apothecaries' Hall. If the latter had made up their minds to give the Council timely notice, there would have been no trouble.

Further, in reply to Mr. GEORGE BROWN, the PRESIDENT said there was no report on the Apothecaries' Hall examinations, Dublin, and he thought the explanation of Mr. Tichborne was satisfactory.

EXECUTIVE COMMITTEE.

The PRESIDENT announced that as the result of the voting [*in camerâ*] the Executive Committee had been found to be constituted as follows:

The President *(ex officio)*.
English Branch: Mr. Bryant, Dr. Payne, Dr. MacAlister, and Dr. Pye-Smith.
Scottish Branch: Dr. Heron Watson and Sir William Gairdner.
Irish Branch: Dr. Atthill and Sir Christopher Nixon.

Report of Students' Registration Committee in Exceptional Cases.

Sir HUGH BEEVOR, in bringing forward this report, called attention to:

An application to be registered and antedated under exceptional circumstances on behalf of T. T. O'Farrell, who had passed the Preliminary Examination of the Irish Conjoint Board and had begun medical study at Stonyhurst College in September, 1901, requesting that he might be allowed to register and antedate to the time of commencement of medical study.

The Committee resolved:

That Mr. O'Farrell be informed that Stonyhurst College has not been approved by the Council as a place for the commencement of medical study.

He moved that the report be received and entered on the minutes and approved.

Dr. MACALISTER seconded.

Dr. NORMAN MOORE understood that the Council now adopted the course of receiving an application from a school; formerly it used only to receive it from the licensing body. He thought the case pointed to by Sir Hugh Beevor was an injustice to the student, and although technically right, was not a proper answer on the part of the Council, because it had not taken any special pains to satisfy itself about the efficiency of this college. Stonyhurst College was not a medical school, and it was dealt with on a totally different footing; but it had been inspected by a Fellow of the Royal College of Surgeons on two occasions, and he knew from his information that it was an institution thoroughly equipped and provided with the necessary teachers for the commencement of medical studies. He therefore moved:

That the report of the Students' Registration Committee be received, entered in the minutes, and approved, with the exception that the resolution appended to paragraph 7, page 9, should be amended so as to read as follows:

That Mr. O'Farrell be informed that the Council will make inquiry, and that if it should find that Stonyhurst College is provided with the laboratory appliances and teachers necessary for the efficient commencement of medical study, his application will be acceded to.

Sir CHRISTOPHER NIXON, in seconding the amendment, pointed out that the Council did not commit itself to a recognition of Stonyhurst College by acceding to it. He thought that it would be very hard on the applicant not to allow him to register, because from all he (Sir Christopher Nixon) had heard, Stonyhurst had the necessary appliances for teaching biology, physics, and chemistry.

Dr. NORMAN MOORE, replying to Sir William Thomson, said he meant by "inquiry" that the Council should write to the College for information on the subject.

Sir HUGH BEEVOR, in reply, said that the College, although a famous one, was not known as a scientific institution, and therefore it did not seem to be open to the Committee to adopt any other course than that recommended in the report.

Dr. WINDLE strongly opposed the amendment, because it was trying by a side wind to override a resolution which the Council had arrived at, and, if it were acceded to, the Council would in process of time be led into the inspection and possible recognition of every one of these schools.

The amendment was then put and declared lost, and the original motion on being put was adopted.

PENAL CASES COMMITTEE.

The PRESIDENT announced that as the result of the voting this Committee had been found to be constituted as follows:

The President (*ex-officio*).
English Branch: Mr. Bryant, Mr. Tomes, Mr. Horsley, and Dr. Windle.
Scottish Branch: Dr. Heron Watson and Dr. Bruce.
Irish Branch: Sir Christopher Nixon, and Sir William Thomson.

PUBLIC HEALTH COMMITTEE.

Dr. BRUCE moved, and Sir HECTOR CAMERON seconded, that the report of the Committee be received and entered on the minutes.

The following summary was appended by the Committee to its report:

SUMMARY.

1. In the opinion of the Committee, at least three months thorough training in outdoor work should be absolutely insisted upon, apart from all other kind of teaching.

2. That the medical officer of health should be required to certify that the student has had sufficient opportunities for acquiring a thorough training in practical sanitary work, and that to his knowledge the pupil has honestly taken advantage of his opportunities.

3. A course of lectures on the principles and practice of hygiene, vital statistics and sanitary law may be substituted for the remaining three months of the six presently set aside for outdoor work, but this is merely in the nature of an option, and is not meant to interfere with the present rule as to outdoor work where the medical officer of health conjoins it with teaching.

Dr. Bruce said the first part of the report was simply historical, and referred the Council to the following statement:

It seems to the Committee that, given sufficient safeguards, it is quite possible to maintain the diploma as implying distinctive proficiency in the knowledge and practice of public health.

As regards laboratory work, although at the outset there was a distinct feeling on the part of some of the universities to hold that study previous to acquiring a medical degree ought to be taken into account, yet there seems to be now no demand for any such relaxation.

On the one hand the sciences of animal chemistry and bacteriology are constantly progressing and requiring fresh attention and investigation, while on the other the manipulative skill needed in both these cases cannot be too much exercised and improved.

The Committee have ascertained, as regards outdoor work, that a period of more than three months under present circumstances is impossible to secure in many cases. They consider, therefore, that it is imperatively necessary that the student should give during this period his whole time and attention sedulously to his duties.

On the other hand it seems to the Committee that if the period of training be reduced to three months, the balance of the six months should be allotted to classes in sanitary law, vital statistics and practical demonstrations in sanitary engineering.

Of the advantages to be derived from such a systematic course, there can, the Committee consider, be very little doubt. The principles underlying sanitary law, vital statistics and hygiene, require to be stated and explained. On the other hand, demonstrations in connexion with arrangements for dealing with sewerage, the nature and use of disinfectants, the sanitary principles in the construction of dwelling houses, the mechanism and use of refuse destructors and the storage and filtration of water supplies, with a moderate amount of knowledge of engineering methods, would prove of the greatest advantage to the student of public health.

He first asked the Committee to receive the report. This was seconded by Sir HECTOR CAMERON, and agreed to.

Dr. BRUCE moved:

That the first part of Regulation 3 for Diplomas in Public Health be altered so as to read as follows: (3) Every candidate shall have produced evidence that, after obtaining a registrable qualification, he has during six months (of which at least three months shall be distinct and separate from the period of laboratory instruction required under Rule 2) been diligently engaged in acquiring a practical knowledge of the duties, routine and special, of public health administration.

He pointed out that the Committee had substituted for the phrase "day by day" the words "been diligently engaged in acquiring a practical knowledge."

Dr. NORMAN MOORE seconded.

The PRESIDENT observed that the diploma was originally intended to be an honour of a distinctively high character.

Sir JOHN TUKE wished to point out that the period originally provided by the framers of the regulation was twelve months, but, as far as he could understand, the Council had been very gradually whittling down the qualification for the one diploma over which it had definite and distinct control, and which was said to be an Honours diploma. To this he would be no party, and should therefore vote against the resolution.

Dr. MACALISTER understood that the Committee arrived at its decision after a great deal of care, and it was inserted in order that members of the army and the Colonial Service might be allowed to complete their studies in nine months.

It was moved by Dr. BRUCE, and seconded by Mr. TICHBORNE:

That the proviso at the top of page 17 of the Public Health Committee's report be adopted as follows: "Provided that the period of six months may be reduced to a period of three months (which shall be distinct and separate from the period of laboratory instruction required under Rule 2) in the case of any candidate who produces evidence that, after obtaining a registrable qualification, he has during three months attended a course or courses of instruction in sanitary law, sanitary engineering, vital statistics, and other subjects bearing on public health administration, given by a teacher in the department of public health of a recognized medical school."

Dr. MCVAIL held that the reduction of the course of study to nine months was quite wrong, as it was simply whittling down the course of study for the diploma to that period.

Dr. MACALISTER observed that the reduction of the course from twelve to nine months had already been effected, and all bodies throughout the kingdom had framed their regulations accordingly, and therefore it was too late to alter it.

Dr. BRUCE pointed out that medical officers of health were not their own masters; they were in the hands of the local authority, and if they asked for a longer period the local authorities might turn round and say: "We bargained for the whole of your time, and we object to your doing this." Having some knowledge on the subject he might say that medical officers of health considered three months would be ample, and he begged to assure both Sir John Tuke and Dr. McVail that there was no process of whittling down as had been suggested. The Committee had not departed one iota from the position which the Council had taken up in regard to the matter.

The motion, with the proviso, was then put and adopted.

Dr. BRUCE moved, and Mr. TICHBORNE seconded:

Provided also that a registered practitioner of not less than five years' standing may be exempted on cause shown from the regulations as to outdoor work if he produces evidence that he has acted for at least six months as a bona fide medical officer of health, or if he belongs to His Majesty's service in the navy or army, the Indian Medical Service, or the public service in any of the Colonies.

Dr. MCVAIL observed that he should have liked to second the motion, but to his knowledge the Council never exempted the medical officers of the army although they did exempt bona fide medical officers of health.

Dr. MACALISTER thought it a very extraordinary proposal. He had looked through the whole of the preamble, which was very carefully drawn and very full, and there was not a single word leading up to it. If any man intended to pass from the army or navy into the Civil Service it would be very unwise of him not to take advantage of this cheap way of obtaining the diploma, and in that way it was clearly a whittling down of the qualification.

Sir HECTOR CAMERON pointed out that the exemption only applied to those who were serving abroad.

Dr. BRUCE, with the permission of his seconder and the Council, withdrew the resolution.

Dr. BENNETT said he could not agree to recommendation No. 4, which was:

Every candidate shall have produced evidence that, after obtaining a registrable qualification, he has attended during three months the practice of a hospital for infectious diseases at which opportunities are afforded for the study of methods of administration.

In Ireland there was no possibility of a man taking such a course as was suggested at the fever hospital, and he was sure that the authorities of the fever hospital were not prepared as teachers to give it; they had no qualification as such. This recommendation would be simply a deadlock and would never be made use of; therefore it was an absurdity. He moved that the recommendation should stop at the words "infectious diseases."

Dr. NORMAN MOORE seconded. In London it was extremely difficult to obtain instruction in the administration of a fever hospital. The matter had been brought before the College of Physicians and it had been referred to a committee which was to draw up a report on the subject to be addressed to the General Medical Council. Practically over a large part of the teaching area in London the student was obliged to go somewhere else to be taught administration or thorough certificates could not be given.

Sir CHRISTOPHER NIXON said that the intention of a regulation of this character was that the student should have an opportunity of studying administration. The question, for instance, as to how disinfection was to be employed and what was to be done with the clothes of the patient, was not merely financial but administrative work necessary in the case of infectious diseases, and he did not know how such administrative knowledge was to be obtained.

Dr. MACALISTER said this was put in because medical officers of health had now in many parts of the country, in addition to their sanitary work, the supervision of the local hospital which was under their charge, and it was important they should have some knowledge of administrative work. With regard to the difficulties which had been suggested, inquiries had been made on the subject, and it had been ascertained that an application had been made to the Metropolitan Asylums Board to make arrangements for such instruction, and that Board had replied that it could only make arrangements for clinical instruction.

Dr. BRUCE recognized that it was important that a medical officer should have knowledge of administrative work. His own experience was that hospital authorities were very chary of giving instruction to a medical man in such work, but, at the same time, he thought it was very necessary knowledge.

Dr. MCVAIL stated that this was one of the points which the late Sir Richard Thorne-Thorne insisted upon most emphatically, because a man was not properly qualified to enter into this work unless he had had instruction in the administrative work of a hospital. The subject was discussed very fully two or three years ago, and he hoped there was no chance whatever of its being withdrawn.

Mr. GEORGE BRUCE considered it most important that medical officers of health, especially in large towns, should be well versed in this kind of work to enable them to perform their functions properly.

The PRESIDENT stated that a modification of the motion proposed by Dr. BENNETT, and seconded by Dr. NORMAN MOORE, had been placed into his hands as follows:

That in Regulation 4 all the words after the words "infectious diseases" be omitted, and that the regulation should read as follows: "Every candidate shall have produced evidence that after obtaining a registrable qualification, he has attended during three months the practice of a hospital for infectious diseases in view of the acquisition of a knowledge of methods of administration."

Dr. MACALISTER moved as an amendment:

That Regulation 4 be adhered to.

Dr. MCVAIL seconded.

The PRESIDENT considered the best course to adopt would be to take Dr. MacAlister's amendment as the substantive motion, and to take Dr. Bennett's proposal as an amendment; this was assented to.

The amendment was then put and declared to be lost.

The motion that Regulation 4 be adhered to was then put and carried.

The Council then adjourned.

Tuesday, June 3rd, 1902.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

The minutes of the meeting on the previous day were confirmed as amended.

REPORT OF THE PERSONATION COMMITTEE.

Mr. VICTOR HORSLEY moved, Dr. WINDLE seconded, and it was agreed to that the Council do go into Committee of the whole Council to consider the report of the Personation Committee.

Mr. HORSLEY then moved that "all applications for restoration to the *Medical* or *Dentists' Register*, or for registration under exceptional circumstances, shall be accompanied by a statutory declaration drawn in the terms stated in the forms included in the accompanying schedules." If this were approved it would conclude the regulations about which there had been any dispute. The Committee in its report indicated that there were several minor matters which required settling. For instance, there was a difference between the Medical Act and the Dentists Act, inasmuch as in the latter Act if a man's name lapsed from the *Register* on account of want of memory on his own part, or change of address, the Registrar was empowered to write to him by registered letter to inquire the circumstances. That power was not given under the Medical Act, and the Committee thought that if this power were inserted it would secure that the *Register* should be kept much more accurately than at present. He suggested that if this motion were agreed to the matter might stop there this session. The Committee could then bring up a document next session setting out clearly and categorically all the proposed changes.

Mr. TOMES seconded.

Mr. BROWN appealed to Mr. Horsley not to ask for a decision on such an important regulation to be taken then. The resolution raised many important points, and he thought that there was no general agreement as to the practicability of the suggestion made. He suggested to Mr. Horsley that, as the matter must come up next session before the full Council, they should adjourn the further consideration of the report until then.

Dr. MACALISTER thought a decision should be come to upon the point, because it was a cardinal one, and if it were agreed to a great many things would follow consequently. He called the attention of the Committee of the Council to what their Registrar (Mr. Allen) had to say upon the subject:

I am of opinion that in the interests of practitioners whose names have been removed from the *Register* for the trifling omission of not keeping the office properly advised as to their addresses, they should not have the path back to the *Register* made too difficult. The absence of a man's name from the *Register* frequently only becomes known to him at the last moment when he is intending to take up an appointment, or to certify a death, or to give medical evidence, and time may not allow for the obtaining of a certificate of identity signed by two medical practitioners or by two magistrates. Above all, I would respectfully submit that it is most important that the delegation of power to the Branch Registrars to restore names and report their action to the Executive Committee, which was found necessary in 1887, should be retained, seeing that, if a meeting of the Committee is to be waited for, the unfortunate practitioner might be penalized by being retained in the category of illegal practitioners for an unnecessary period of some months.

Those were the remarks of a man who by his statutory duties was specially made cognizant of the practical difficulties that arose in such cases. He thought it was extremely important to give the greatest weight to practical experience in this matter, and not to think that by making the restoration to the *Register* too difficult they were taking a practical step in the right direction.

Mr. VICTOR HORSLEY, in reply, stated that the Committee had gone into the whole subject in their report. The Scottish Registrar did not see any difficulty in the proposed change, and the Irish Registrar only partly felt the difficulty. The Committee thought that a little more care should be exercised in the question of restoration to the *Register*. The Committee also felt that legally the power under which the Registrar of England had been acting was not given him by Section XIV of the Act. When these regulations were brought forward next session the Council would have the opportunity of discussing the question over again, and therefore he thought it would save time if they were passed in Committee now, and the further discussion postponed till next session. The resolution was then put, when 12 voted in favour of it and 5 against, the PRESIDENT declaring it carried.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the Council resumed.

Dr. MACALISTER read the report of the Committee of the whole Council, which consisted of the resolutions which had been adopted in Committee.

Mr. VICTOR HORSLEY proposed, Mr. TOMES seconded, and it was resolved:

That the Personation Committee shall prepare for the November session a complete report on the whole subject, and submit a series of recommendations on which a decision of the Council be taken, and that the report be in the hands of members of Council a fortnight before the meeting.

On the motion of Dr. NORMAN MOORE, seconded by Sir JOHN WILLIAMS, Dr. Finlay was added to the Committee in the place of Professor Reid, retired.

THE DIPLOMA IN PUBLIC HEALTH.

Dr. MACALISTER moved and Mr. TICHBORNE seconded:

That the printed resolutions and rules as amended yesterday be adopted by the Council:

PUBLIC HEALTH.

Resolutions and Rules, adopted by the General Medical Council on December 5th, 1900, and June 3rd, 1902, for Diplomas in Public Health. To come into force on June 3rd, 1902.

I. The Council, having regard to the terms of Section XVIII of the Local Government Act, 1888, and of Section LIV of the Local Government (Scotland) Act, 1889; and observing that under those sections special privilege is to be accorded to the holders of the diplomas granted under Section XXI of the Medical Act (1886), and therein described as Diplomas in Sanitary Science, Public Health, or State Medicine, thinks it essential to declare, with regard to its own future action under Section XXI of the Medical Act (1886), that it will not consider diplomas to "deserve recognition in the *Medical Register*" unless they have been granted under such conditions of education and examination as to ensure (in the judgement of the Council) the possession of a distinctively high proficiency, scientific and practical, in all branches of study which concern the public health; and the Council in forming its judgement on such conditions of education and examination will expect the following rules to have been observed:

1. A period of not less than twelve months shall have elapsed between the attainment of a registrable qualification in medicine, surgery, and midwifery, and the admission of the candidate to any examination or any part thereof for a Diploma in Sanitary Science, Public Health, or State Medicine.

2. Every candidate shall have produced evidence that, after obtaining a registrable qualification, he has during six months received practical instruction in a laboratory or laboratories, British or foreign, approved by the Licensing Body granting the diploma, in which chemistry, bacteriology, and the pathology of the diseases of animals transmissible to man are taught.

3. Every candidate shall have produced evidence that, after obtaining a registrable qualification, he has, during six months (of which at least three months shall be distinct and separate from the period of laboratory instruction required under Rule 2) been diligently engaged in acquiring a practical knowledge of the duties—routine and special—of public health administration, under the supervision of

(*a*) In England and Wales, the medical officer of health of a county or of a single sanitary district having a population of not fewer than 50,000, or a medical officer of health devoting his whole time to public health work; or

(*b*) In Scotland, a medical officer of health of a county or counties, or of one or more sanitary districts having a population of not fewer than 30,000; or

(*c*) In Ireland a medical superintendent officer of health of a district or districts having a population of not fewer than 30,000; or

(*d*) A medical officer of health who is also a teacher in the Department of Public Health of a recognized medical school.

*** The certificate of an assistant medical officer of health of a county or of a single sanitary district having a population of not fewer than 50,000 may be accepted as evidence under Rule 3, provided the medical officer of health of the county or district in question permits the assistant officer to give the necessary instruc[illegible]

*** Provided that the period of six months may be reduced to a period of three months (which shall be distinct and separate from the period of laboratory instruction required under Rule 2), in the case of any candidate who produces evidence that, after obtaining a registrable qualification, he has during three months attended a course or courses of instruction in sanitary law, sanitary engineering, vital statistics, and other subjects bearing on public health administration, given by a teacher in the Department of Public Health of a recognized medical school.

4. Every candidate shall have produced evidence that, after obtaining a registrable qualification, he has attended during three months the practice of a hospital for infectious diseases at which opportunities are afforded for the study of methods of administration.

5. The examination shall have been conducted by examiners specially qualified; it shall have extended over not less than four days, one of which shall have been devoted to practical work in a laboratory, and one to practical examination in, and reporting on, subjects which fall within the special outdoor duties of a medical officer of health.

*** The rules as to study shall not apply to

Medical practitioners registered, or entitled to be registered, on or before January 1st, 1880.

II. The Council shall, from time to time, appoint an inspector or inspectors of examinations in public health, with special instructions to report to the Council whether the examining of each licensing body does or does not afford evidence, on the part of candidates passing such examination of a distinctively high proficiency, scientific and practical in each and all of the branches of study which concern the public health.

Dr. NORMAN MOORE thought the Council was under a slight misapprehension with regard to No. 4; every effort had been made in London to obtain instruction in the only institutions available, but these efforts had not been successful. If this resolution were carried it would for the time it was in force stop candidates from studying in London for these diplomas. The Colleges were absolutely in the power of the Council in this matter. The only desire of the Colleges was to have the Council's regulations carried out in the fullest possible way, but with this regulation they would be absolutely unworkable. He moved the addition to Regulation 4 of the words:

The study of the methods of administration shall include the methods of dealing with patients at their admission and discharge, as well as in the wards of the hospital, that was to say, administrative work in connexion with the admission and discharge of patients, and disinfection.

He had drafted these words with the assistance of Dr. MacAlister in order to make the regulation workable, which at present it was not, as it would prevent the Royal Colleges from granting the diplomas to candidates who studied in London; that did not not seem reasonable.

Dr. BENNETT seconded the amendment.

Mr. GEO. BROWN desired to know if efforts had been made to induce the authorities of the London Fever Hospital to give facilities for instruction. It was a large hospital, admirably adapted for the teaching of medical men who desired to take a diploma in public health.

Sir HECTOR CAMERON did not think it was meant that the students should look into the accounts of the hospital. What was meant was that the form of administration which dealt with the two matters Dr. Norman Moore had referred to, and also such regulation as would prevent a patient who was admitted to fever hospital suffering from enteric fever contracting scarlet fever.

Dr. MACALISTER was of opinion that the amendment contained the essence and gist of the whole matter. If it were adopted the candidate would be able to obtain information on those details which it was important he should have in order to become a thoroughly efficient medical officer of health. The Metropolitan Asylums Board, in refusing facilities for the study of administration, had acted under a misapprehension.

Dr. MCVAIL did not see why the health diplomas all over the country should be vitiated because London had not facility for studying the subject. He could not agree with the amendment even although it had the approval of Dr. MacAlister.

Sir CHRISTOPHER NIXON thought the wording of the regulation was not clear. If words were inserted to show that it referred to the reception and discharge of patients, Dr. Norman Moore would obtain all he asked for and the Council's regulation would be perfect.

After some further discussion as to the meaning of the regulation, the amendment was modified as follows:

That there should be added to Paragraph 4 as a note the following:—"The methods of administration shall include the methods of dealin

with patients at their admission and discharge, as well as in the wards, and the medical superintendence of the hospital."

The amendment was agreed to.

Dr. MCVAIL moved as an amendment that the amendment just carried be referred back to the Public Health Committee for consideration and report at the next session of the Council. The matter was discussed at the Council two or three years ago, and the regulation was carried by a very large majority. Now that state was upset by fifteen members, the Council consisting of thirty-one. Some of the members were new members who did not know the long and troublesome history of this matter. He thought that in the absence of the Chairman of the Committee, Mr. Power, and as the resolution was now a binding resolution on the Council, and as it was not objected to by the deputation of Teachers of Public Health who came to the Public Health Committee six months ago, the Council should pause.

Mr. BALL seconded the amendment.

Dr. NORMAN MOORE pointed out that what the Council had just done was not a change. Every licensing body was free to add as much as it liked. He felt such respect for a deliberate decision of the Council that he would not try in any way to upset it, and he did not believe for one moment in moving his resolution that he was doing so. He was only offering a workable explanation of the somewhat difficult matter, and he was extremely glad the Council had taken the view it had.

The PRESIDENT put Dr. McVail's amendment to the Council and declared it lost. Dr. McVail asked for the names and numbers, when 7 voted for, 14 against; 4 did not vote, and 6 were absent.

Dr. MACALISTER moved, Dr. NORMAN MOORE seconded, and it was agreed, that the rules and resolutions for the Diploma in Public Health as amended, be adopted by the Council and come into force as from that day.

Dr. MCVAIL asked for the names and numbers, when 17 voted for, 6 against, 2 did not vote, and 6 were absent.

PRELIMINARY EXAMINATIONS IN SCOTLAND.

Sir JOHN TUKE moved that the report of the Education Committee be received, entered on the minutes, and approved.

Dr. MACALISTER seconded, and this was agreed to.

REPORT.

The report stated that in response to an inquiry from Mr. James Robertson, Secretary of the Conjoint Board in Scotland, the Registrar had stated: "(1) That a candidate for registration cannot pass part of his preliminary examination at one of the Scottish Universities and the remaining part at the Educational Institute of Scotland; nor (2) can he pass part of the required subjects at the leaving certificate examination and the remainder part at the Institute. The examination of the Educational Institute of Scotland is considered by this Council to be a junior examination, and cannot be accepted unless it is complete in itself. On the other hand, the lower grade leaving certificates of the Scotch Education Department are considered to be of a higher standard than the junior examinations recognized by the Council. Hence the required subjects may be passed at two examinations. The first-class certificates of the College of Preceptors are in the same category." The Committee expressed the opinion that apart from the question whether in any case it is desirable to encourage students to pass their preliminary examinations in piecemeal fashion before different educational bodies, they felt that they were not in a position to report that the Institute's examination was equivalent in scope and standard to the lower grade leaving certificate examinations. They were of opinion that the answer forwarded to Mr Robertson by the Registrar correctly expressed the purport of the Council's regulations, and they had at present no information which would justify them in proposing that the regulations should be modified in the direction suggested in Mr. Robertson's letters.

PRELIMINARY EDUCATION: THE DEPUTATION FROM THE BRITISH MEDICAL ASSOCIATION.

Sir JOHN TUKE wished to obtain from the Council some instructions as to how he, as Chairman of the Education Committee, was to present to the Council the general result of the interview which the Education Committee had on Saturday last with the representatives of the British Medical Association.[1] The Education Committee met the deputation, and the deputation laid their views very fully before the Committee. Their statements covered a great deal of ground, and were in many respects highly argumentative; so much so that it was impossible for the Committee to answer them in detail. He undertook to send a report in answer to the views of the deputation as soon as possible, and he proposed to draft a report and send a copy of it to the members of the Education Committee for their remarks, but he wished to know if the Council desired that the reply should be submitted to the Council itself before being forwarded to the British Medical Association.

[1] A report of the interview is published at p. 1[illegible]

Dr. MACALISTER thought it would be a pity to defer their answer to the deputation, who laid their views moderately before the Education Committee. He thought an answer might be framed by Sir John Tuke, giving them the information that they asked for which was practically matter of fact. He thought that could be done long before November, and it could be submitted to the Council when it met in November. He thought that was the most courteous way of dealing with the deputation; the Committee could give the information which was desired on behalf of the Council.

Dr. HERON WATSON thought it would save time if this course was adopted.

The PRESIDENT agreed that the Education Committee should send their reply to the British Medical Association.

Dr. PAYNE did not quite understand whether the Education Committee was to meet on the subject before sending in the reply. He did not think it would be satisfactory to reply to the views of the deputation without a meeting of the Education Committee.

Dr. MACALISTER pointed out that what had been done in cases of a similar nature was that a draft had been prepared and circulated among the members of the Committee.

Sir JOHN TUKE did not think the deputation expected an answer before next November.

The PRESIDENT expressed the view that under the circumstances the best way would be to leave it to the Education Committee to do what they thought right in the matter.

REPORT OF THE PHARMACOPOEIA COMMITTEE.

Dr. MACALISTER moved, and Dr. PAYNE seconded, and it was agreed, that the report of the Pharmacopoeia Committee be received and entered on the minutes.

REPORT.

The report stated that 32,086 copies of the *British Pharmacopœia, 1898*, and 3[illegible]4 of the *Indian and Colonial Addendum, 1900*, had been disposed of. That the Government of India edition of the *Addendum* had been prepared for the press by the Chairman, Dr. MacAlister, and that of this edition the 3,500 copies ordered by the Indian Government had been delivered and paid for, and that 112 other copies had been disposed of. The Committee recommended the preparation during the summer of a further issue of 1,500 copies of the *British Pharmacopœia, 1898*. The Committee further stated that since the last report two meetings of the conference with representatives of the Pharmaceutical Societies of Great Britain and of Ireland had been held, at which useful discussions had taken place as to the preliminary researches which were necessary in preparation for the next *Pharmacopœia*. The conference had also had before it a series of reports containing the results of a minute and exhaustive inquiry into the solubilities of the chemical substances included in the *Pharmacopœia*. This inquiry had been conducted by Professor Greenish under the direction of the Research Committee of the Pharmaceutical Society of Great Britain in the laboratories of the Society. In order to ascertain the purity of the drugs under examination, it had been necessary to scrutinize afresh the chemical tests given for them in the *Pharmacopœia*. This scrutiny had led to suggestions for the improvement of these tests, which promised to be of great value in relation to pharmaceutical chemistry, and would certainly call for the fullest consideration in the revision of the *Pharmacopœia*. Similar researches were in progress in relation to the percentage of ash which should be yielded by good specimens of the official vegetable drugs; and here again collateral inquiries had been instituted bearing on the identification of the vegetable drugs and of their powders. As a contribution towards the expenses of these inquiries and to express the Committee's appreciation of the services rendered by the Pharmaceutical Society of Great Britain and its officers, the Committee recommended that a grant of £100 should be made to the Society. The Committee also recommended that a sum of £50 should be placed at its disposal to defray the cost of a digest of the criticisms and researches bearing on the *Pharmacopœia* published since 1898.

The PRESIDENT thought it should be made clear that the two sums referred to in the report, of £100 and £50 respectively, were to be paid out of the Pharmacopoeia Fund.

Dr. MACALISTER agreed, and moved the adoption of the several recommendations contained in the report, and they were carried.

THE MIDWIVES BILL.

Sir JOHN WILLIAMS moved, Mr. BROWN seconded, and it was agreed, that the report of the Midwives Bill Committee be received and entered on the minutes.

REPORT.

Present: Sir John Williams, in the chair; Mr. Horsley, Mr. Brown, Sir Christopher Nixon, Dr. MacAlister.

The Committee at its meeting to-day agreed to submit to the Council as its report the resolutions at which it arrived on March 10th, 1902, as embodied in the following minutes of the sitting:

Monday, March 10th, 1902.

Present: Sir John Williams, in the chair; Mr. Horsley, Mr. Brown; H. E. Allen, Registrar.

(1) Sir John Williams, at the request of the Committee, took the chair.

(2) Read: The request made by the General Medical Council on Tuesday, February 25th, 1902—namely:

"That in the event of the Midwives Bill, at present before the House of Commons, passing the second reading, Sir John Tuke be requested to communicate the resolutions of the Council on the subject to the Grand Committee on Law."

(3) Clauses 1 and 2 of the Council's resolutions were adhered to, and, after discussion, it was resolved:

"(3) That any measure which proposes merely to protect the title of 'midwife,' however defined, and does not make illegal and penal the unlicensed practice of midwifery for gain, cannot be regarded as offering a sufficient safeguard in the interest of the public health in the present Bill."

(4) Clause 3 of the Bill was then considered, and it was agreed to leave out the words on page 2, lines 4 and 5, from "from" to "certificate."

(5) After discussion it was carried that the words "Incorporated Midwives' Institute" should be omitted, and "Royal British Nurses" be substituted in Clause 4.

(6) In Subsection 2 of Clause 4 it was carried that Sir John Tuke be requested to press for the omission of the word "persons," and the substitution of the words "Registered Medical Practitioners."

(7) In line 31 of the same Clause it was agreed to press for the omission of the words "the Privy Council after consultation with."

(8) In Clause 10, pp. 5 and 6, it was agreed to press for the omission of the first two paragraphs in favour of the following amendment of which Sir John Tuke had given notice:—

"No woman shall hold herself out as a practising midwife in any county or county borough without having previously obtained from the local supervising authority a licence enabling her to practise therein, which licence shall be granted on proof by the woman that her name is on the Midwives' Roll. The licence shall remain in force till the 31st day of December following, and shall be revocable at any time by the local supervising authority in case the holder be proved to the satisfaction of the Central Midwives' Board to have infringed any of the regulations framed under this Act. The licence shall be issued on payment of a fee of one shilling; it shall only be available in the county in which it is issued, and it shall be renewed annually on the 1st day of January."

(9) It was agreed that Sir John Tuke shall be requested to press for the insertion in the present Bill of Clause 9 in the Bill of 1898, which provided for the appointment of medical officers of health as the local supervising authorities. (See Bill in Minutes, vol. xxxv, p. 30.)

(10) Amendments, of which Dr. Ambrose, M.P., had given notice, were considered. So far as they did not cover the same points as those provided for in Sir John Tuke's amendments, it was agreed to leave them in his hands.

Dr. MACALISTER wished to liberate his conscience, and pointed out that when a meeting of the Committee was summoned he was very ill, and not able to attend, or he should strongly have protested against more being done than was entrusted to the Committee to do—namely, watch the legislation, and keep the Council informed of the progress made on the subject. He certainly should vote against the report being adopted, and particularly he objected to the fifth clause. He was desirous it should be known that that was not carrying out any resolution of the Council, and any authority which might seem to attach to the act of the Committee was a personal one, and not of the Council.

Mr. GEORGE BROWN thought that under those circumstances Dr. MacAlister should have put a note to the report stating that he did not agree with the particular paragraph.

The PRESIDENT said that Dr. MacAlister was not present on the occasion.

Dr. NORMAN MOORE wished to know if any resolution was to be passed as to the report. He understood it was not approved in any way.

The PRESIDENT agreed, and said it had simply been received and entered on the minutes as a result of what had taken place.

Dr. NORMAN MOORE wished to associate himself with the opinion expressed by Dr. MacAlister.

Mr. GEORGE JACKSON moved, and Mr. BRYANT seconded:

That the report of the Midwives Bill Committee, with the exception of Paragraph 5, be approved.

Dr. MACALISTER did not approve. If the report stood, it was a monument of how not to do it, and it was far better to let the thing stand by itself. He would vote against the motion.

Sir CHRISTOPHER NIXON thought the Council would be exhibiting its weakness if it took any steps in connexion with the Bill now before Parliament. When the matter was before the Committee there was a general consensus of opinion that it was too late to take action with regard to it and that the only way out of the difficulty was to present the last minutes of the Committee to the Council.

The motion was put, and lost.

Mr. GEORGE BROWN moved:

That in the opinion of this Council the Midwives Bill, as amended by the House of Commons Grand Committee on Law, does not contain the safeguards necessary to protect the public against the practice of midwifery by ignorant and incompetent persons.

He did not propose to discuss it at length as, having regard to what had gone before, their minds were fully made up on the question. Still he thought the Council should have a voice in a matter which affected the public, and in a lesser degree the whole of the medical profession. In the Bill there was no provision for ensuring that the persons who would be entitled to be registered under it should be educated in any sense; the simple fact of the possession of a certificate to the effect that they had acted as midwives entitled them to go upon the register.

The PRESIDENT pointed out that the Bill was not for the registration of midwives.

Mr. GEORGE BROWN observed that it provided certification, which was the same thing. The Bill made it penal to adopt the title of midwife, but did not make it penal to practise midwifery, therefore any one would be entitled to practise midwifery the same as before. It also gave a legal status to the certificate issued by the Obstetrical Society and kindred institutions, and therefore was in no way a protection to the public.

Mr. TOMES, on a point of order, asked if this question was covered by the motion.

After some conversation as to the position taken up by the Council with respect to previous Bills and to the present Bill,

The PRESIDENT remarked that the objections which the Council took to the present Bill on February 25th remained in it after it had passed the Grand Committee on Law. The only change was that it gave a statutory right to the General Medical Council to be consulted by the Privy Council before the rules were approved; therefore there had been a certain concession to the representation of the General Medical Council.

Mr. GEORGE JACKSON, in seconding the motion, said the cardinal objection was that there were a great many lives lost through women practising midwifery without proper medical supervision, and in the Bill as at present framed there was no safeguard to protect the public. He thought the women should be under the control of a medical practitioner, which could only be obtained by having a service somewhat analogous to the Poor Law.

Sir WM. GAIRDNER said his opinion on this subject was, to a great extent, that of Sir John Batty Tuke. He then read out a resolution which he had thought would give expression to his view, but after consideration he had decided to redraft it as follows:

That in consideration of the fact that the Midwives Bill at present in Parliament as amended by the Grand Committee on Law does not embody the principles unanimously approved by the General Medical Council on April 6th, 1898, and directed to be forwarded to the Lord President of the Privy Council, the General Medical Council hereby resolves that it would not be in accordance with the public interest that the latter part of Clause 3 of the Bill should remain as part of the statute in the event of its passing the remaining stages in the House of Commons.

Mr. GEORGE BROWN having declined to withdraw his motion in favour of Sir William Gairdner's,

The PRESIDENT ruled that it was not an amendment to Mr. George Brown's motion, which was then put and carried, 13 voted for and 5 against. He further pointed out that Sir William Gairdner by the second part of his resolution was opening up an entirely new question, namely, that of entirely divorcing the Council from the consideration of any rules which were to be framed in regard to the Midwives Board. The motion was not seconded, and the matter accordingly dropped.

DENTAL DEGREE OF THE UNIVERSITY OF BIRMINGHAM.

The Dental Education and Examination Committee reported

That they recommend that, as an application has now been made by Mr Harold Round, Lic. Den. Surg. R. Coll. Surg. Eng., May [illegible], for the registration of his degree of Bachelor of Dental Surgery of the University of Birmingham, dated July 6th, 1901, the General Medical Council should make an order for the registration in the Dentists' Register of the degree of Bachelor of Dental Surgery of the University of Birmingham, as an addi-

tional diploma, granted in respect of a higher degree of knowledge than is required to obtain a certificate of fitness under the Act (Section XI (6) of the Dentists' Act, 1878).

Moved by Mr. Bryant, seconded by Mr. Tomes, and resolved:

That the report of the Dental Education and Examination Committee be received, entered on the minutes, and the recommendation contained therein adopted.

The Employment of Unqualified Pharmaceutical Assistants by Medical Men.

On the motion of Dr. MacAlister, seconded by Mr. George Brown, the following correspondence addressed to the Scottish Branch Council which had been referred by it to the General Medical Council was entered on the minutes:

"The Glasgow Southern Medical Society,
"1, Berlin Terrace, Pollokshields, Glagow,
"April 18th, 1902.

"Dear Sir,—I enclose a formal protest from the above Society against the edict recently issued by the General Medical Council.

"I am,
"Yours truly,
"John Fraser Orr, M.D.,
"Secretary.

"James Robertson, Esq.,
"Registrar of Scottish Branch of the General Council of Medical
"Education and Registration."

"The Glasgow Southern Medical Society,
"Glasgow, April 18th, 1902.

"James Robertson, Esq.,
"*Registrar of Scottish Branch of the General Council of Medical Education and Registration.*

"Sir,—We, the undersigned, in name and on behalf of the Glasgow Southern Medical Society, hereby protest against the notice of the General Medical Council to registered medical practitioners published in the *Glasgow Herald* of December 14th, 1901, as being unwarrantable, oppressive, and vexatious.

"Signed on behalf of the Glasgow Southern Medical Society,
"John Stewart, President.
"D. MacGilvray, Vice-President.
"Thos. Forrest, Treasurer.
"John Fraser Orr, Secretary.
"And. Wauchope.
"James Forrester.
"Lachlan Burges."

"Copy.
"54, George Square,
"Edinburgh.
"April 22nd, 1902.

"Dear Sir,—I have to acknowledge receipt of your letter of 18th inst., and the formal protest therein specified, which I will submit to the first meeting of the Scottish Branch Medical Council.

"Yours faithfully,
"(Signed) James Robertson.

"John Fraser Orr, Esq., M.D.,
"Secretary,
"The Glasgow Southern Medical Society,
"1, Berlin Terrace,
"Pollokshields, Glasgow."

Vote of Thanks to the President.

On the motion of Mr. Bryant, seconded by Sir Christopher Nixon, a vote of thanks was accorded to the President for his courtesy in the chair, for which he expressed his thanks.

The minutes of the day's meeting were read and confirmed, and the proceedings terminated.

THE ROYAL MEDICAL BENEVOLENT FUND OF IRELAND.

The annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held in the Royal College of Physicians of Ireland on June 2nd, Dr. Walter G. Smith, ex-President of the College, in the chair.

The sixtieth annual report stated that His Majesty the King had become patron of the Society. The chief change in the Executive was the resignation of Dr. Atthill, who had been replaced by Dr. R. F. Tobin. In the County Monaghan Branch Dr. McMorran, of Castleblaney, had succeeded Dr. John Wilson as Honorary Secretary. Dr. Stafford Cox, of Dundalk, was appointed Co-Secretary with Dr. Byrne, of Drogheda for the County Louth. Dr. Gilcriest, of Sligo, and Dr. Frazer, of Ballymote, had taken the place of Dr. Laird in the County of Sligo.

The total amount of grants paid during the year was £1,330, eing an increase of £210 on the previous year. The County Antrim Branch subscribed £160 18s. 10d., which sum included a donation from the students of Queen's College, Belfast, and £6 10s. 6d. collected at the annual dinner of the Ulster Medical Society. The Central Treasurer received £159 19s., and as this amount represented the Dublin contribution, the Belfast Branch held premier place. Some of the counties subscribed sums that were altogether insignificant, as may be judged from the fact that the total Branch subscriptions did not reach more than about £450.

Of the 84 applications considered by the Central Committee 73 were from widows, 7 from orphans, and 4 from medical men themselves.

The report was adopted on the motion of Sir P. C. Smyly, seconded by Sir Thornley Stoker.

THE CASE OF DR. W. T. LAW.

We have received, with a letter from Dr. Paramore, inviting even small donations, a further list of subscriptions to the Law Fund, of which the President of the Royal College of Physicians of London, the President of the Royal College of Surgeons of England, and the Master of the Society of Apothecaries are trustees. Postal orders and cheques should be made payable to the Law Fund, and crossed "London and County Bank, Holborn, W.C.," and may be sent to Dr. Paramore, 2, Gordon Square, W.C. The following are the additional subscriptions:

	£	s.	d.
Sir Samuel Wilks, Bart., M.D., F.R.S.	2	2	0
J. Arthur Browne, B.A., M.B.	1	1	0
C. J. Rayley Owen, M.R.C.S.	1	1	0
F. Everard Row, L.R.C.P.	0	10	6
W. Adams Frost, F.R.C.S.	2	2	0
T. Browne O'Connor, L.S.A.	0	10	6
Rowland Thurnam, M.D., for self and Dr. H. J. Trenchard, Nordrach Sanatorium	2	2	0
George Frederick Hugill, L.R.C.P.	0	10	6
James Clifton, M.R.C.S.	0	5	0
Denver W. Fellows Latham, L.R.C.P.	0	10	6
Owen Bowen, M.R.C.S.	0	5	0
John Hopper Baker, M.D.	0	10	6
Henry C. Martin, M.D.	3	3	0
Fitzgerald Isdell, M.A., M.D.	0	10	6
J. Bland-Sutton, F.R.C.S.	2	2	0
Malcolm Morris, F.R.C.S.	1	1	0
A. J. A Peters, L.R.C.P.	0	5	0
James Bremner, M.B., C.M.	0	10	6
An ounce of help is worth a ton of pity	1	1	0
Surtees Sumner, M.D.	0	10	6
Philip Frank, M.D.	2	2	0
J. Stacey Wilson, M.D.	0	10	6
Thomas Marshall, M.A., M.D.	0	10	6
William Ambrose Greet, M.R.C.S.	0	10	6
F.S.	0	2	6
William Travers, M.D., F.R.C.S.	1	1	■

THE PLAGUE.

Prevalence of the Disease.

India.

The deaths from plague during the week ending May 10th numbered 11,612. This indicates a satisfactory decrease compared with the previous week, when the numbers were 15,718. In the city of Bombay during the week ending May 10th the deaths numbered 301 against 486 in the previous week; in the Bombay Districts 583 against 930; in Calcutta 280 against 141; in Bengal districts 330 against 473; in the North-West Provinces and Oudh 401 against 718; in Kashmir (Jamma) 212 against 108; and in the Punjab 9,102 against 12,334. The total number of deaths from plague in India is still a long way above those reported during the corresponding week of 1901, when they numbered 2,592.

Egypt.

During the week ending May 18th, 20 fresh cases of plague were reported in Egypt and 26 deaths from the disease. The principal towns and districts in which the cases and deaths from plague occurred during the week were as follows:—Alexandria, 1 case; Tala, 1 case, 1 death; Maghagha, 1 cases, 2 deaths; Tonkh, 2 cases, 4 deaths; Samalouh, 2 cases, 6 deaths; Menouf, 5 cases, 5 deaths; Beni-Mazar, 1 case; Damietta, 1 case, 2 deaths; Achmoun, 3 cases, 2 deaths; Damanhour, 1 case, 4 deaths.

On May 18th, 51 cases of plague remained under treatment. All the fresh cases and deaths occurred amongst natives. The appearance of plague at Damietta is amongst boatmen and their families engaged on trading vessels between that port and the Syrian Coast. Only 3 cases in all have been found, and it is expected that the steps taken to limit the spread of the disease in the town will be successful.

Cape of Good Hope.

Two fresh cases of plague occurred at Port Elizabeth during the week ending May 10th, and 3 deaths from the disease; 6 cases remained under treatment on May 10th; 27 "contacts" were admitted during the week, and but 1 "suspect."

Hong Kong.

During the week ending May 31st, 52 fresh cases of plague were reported in Hong Kong and 50 deaths from the disease.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 7TH, 1902.

THE DEFECTIVE STANDARD OF PRELIMINARY GENERAL EDUCATION.

THE report of the Committee of the Council of the British Medical Association on the measures necessary for raising the standard of preliminary education for medical students, which was published in the BRITISH MEDICAL JOURNAL of May 31st, page 1351, was formally presented to the Education Committee of the Council on Saturday, May 31st, by a deputation headed by the President of the Association, Dr. G. B. Ferguson, of Cheltenham. The shortness of the notice given to the Association as to the date of reception prevented many members of the deputation from attending, but the presentation of the subject was not allowed to suffer on this account, as will be seen from the full report published at page 1435.

The deputation was introduced by Mr. Victor Horsley, who said that the Council of the British Medical Association felt that the time had come when the standard of preliminary education for medical students should be raised to an adequate level by the General Medical Council without waiting for any further general raising of the standard of secondary education throughout the country. Dr. Ferguson pointed out some of the advantages of an honours division in an examination in preliminary education, and Dr. Deas traced the history of the movement within the Association from its origin in the South-Western Branch, laying special stress on the fact that the age limit and examination standard now asked for were actually lower than those which the Education Committee themselves suggested for adoption in 1898. Dr. Gordon, who followed, criticized the report of the experts as to the age at which students should be permitted to commence their medical studies, and the standard of examination they should be required to pass, showing that the conclusion reached by the experts was not in accordance with their premisses. Mr. Jones Morris gave a striking account of the development of secondary education in Wales, and argued that, if the General Medical Council did not at once proceed to raise the standard of preliminary general education for the profession, that standard would actually fall below the level reached by a large proportion of the middle class—including the tradesman class—in the Principality. The deputation received no immediate reply, but an assurance was given that a reasoned answer would be returned in writing after the Education Committee had had an opportunity of carefully considering the report and speeches.

There can be no doubt that the progress and prestige of the medical profession are intimately bound up with the general education of its members. Many are aware that the present standard of preliminary general education is lamentably low, but probably few realize the very grave position into which matters have unhappily been allowed to drift. In the regulations for the Cambridge Local Examinations to be held in December, 1902, it is expressly stated that the requirements are identical for the medical student and the veterinary student, whilst those for a pharmaceutical chemist fall very little behind. That Mr. Jones Morris could show that, under the present system of education in Wales, a medical man there may soon be demonstrably worse educated than his grocer, reveals a state of affairs which cannot possibly be permitted to continue. Not only does this mean that a "learned profession" is in danger of becoming a "skilled trade," but that the prestige and influence necessary to medical men for the due discharge of public functions of the highest importance are in danger of passing away. From a public, therefore, as well as from a professional, point of view something must be done, and that without unnecessary loss of time.

It is encouraging to find indications that the General Medical Council is in sympathy in this matter with the great mass of the profession, and the attentive courtesy with which the deputation was received must be fully recognized. That the Council itself in 1898 desired an even higher standard than that which the Association now asks for is indicated by the letter sent in November, 1898, by the Chairman of the Education Committee to various educational authorities in the United Kingdom. Had it not been for an unfortunate misinterpretation of certain answers to this letter, and for the confused and contradictory report of three "educational experts" consulted, there seems no reason to doubt that adequate steps would ere now have been taken by the General Medical Council to remedy a state of affairs which it recognized to be unsatisfactory.

The misinterpretation of certain answers from the educational authorities appears to be due to the fact that the standards vary in different parts of the kingdom. In order to arrive at a correct interpretation of the various opinions, the answers from England, Scotland and Ireland have to be considered separately because the standards referred to in the letter of the Chairman of the Education Committee are absolutely different in the three countries. When the answers from each country are considered by themselves, a striking unanimity is found amongst the authorities. In England the very great majority advocated the adoption of the standard of the Senior University Local Examinations, that is, a standard suitable to boys of 17. In Ireland several writers went out of their way to suggest the adoption of the standard of the Middle Grade Intermediate Examination; also a standard suitable to boys of 17. In Scotland the Conjoint Board of Examiners of the Scottish Universities recommended that no boy should be allowed to go on the *Medical Register* until he had attained the age of 17.

The report of the "educational experts" was a most un-

satisfactory document. To arrive at a minimum age limit for registration one of them proceeded as follows: Having been "led to understand" that the age at which "the professional training of a medical student should terminate" should be about 22, he "assumed" that it should be 21½. Although the medical curriculum is fixed at five years, he calculated it at 5½ years. Then as 21½ — 5½ = 16 he concluded that "general education should be considered to terminate at or about 16." The real question to be determined, however, is not the age at which the medical curriculum should end, but the age at which a boy or girl is fit to leave school and begin the study of such a subject as medicine. Few people will say that this age should be less than 17. Having in this way made 16 the age for leaving school, the experts proceeded to advise a higher standard of marks being required in certain junior examinations. In this they were absolutely at variance with the principles which they had themselves laid down. No increased standard of marks can make the standard of a paper set for, say, a boy of 14 suitable to, say, a boy of 16, for whom a quite different type of questions is necessary.

Some fear has been expressed that to raise the standard of examination to that suitable to the age of 17 might seriously deplete the profession. Of this there is no evidence, and those educational authorities who expressed an opinion on the subject almost all believed that few students would be excluded by the higher standard. One eminent lay authority added that the exclusion of these few would be a gain to the profession.

It is earnestly to be hoped that the reply of the Education Committee may not be long postponed. It would be a great convenience to those who have devoted so much time and thought to this question on behalf of the Association if this reply could be in the possession of the Association before its annual meeting at the end of next month. That difficulties will have to be encountered in carrying out the necessary measures is of course inevitable, but when the General Medical Council and the British Medical Association have the same great fundamental object in common—namely, the advancement of the profession to the high position of influence in which it can best serve the Empire, whose health is in its hands—it is surely to be hoped that differences which can be arranged in amicable discussion will not be allowed to prevent a reform which at the present moment is urgently called for.

THE FINANCES OF THE GENERAL MEDICAL COUNCIL.

THE prolonged debates during the recent session of the General Medical Council on its financial position have been of more than ordinary interest, inasmuch as the proposals made to avert the threatened bankruptcy involved matters affecting the interest of every member of the profession. The report of the Special Financial Relations Committee, which dealt with the general position of the Council, and contained an admirable historical discussion of its finances since its foundation, due, as we gather, largely to the pen of Mr. Tomes, together with the report of the ordinary Finance Committee on the income and expenditure of the Council for the current year, have afforded a tolerably complete exposition of the present state of its affairs. Owing to the circumstance that in the past year the sessions were shorter than in the previous year, a decrease of about £600 in fees paid is shown; there was a further decrease of £439 in legal expenses. Notwithstanding that there was this saving of over £1,000, the excess of expenditure over income was no less than £1,508. The Financial Relations Committee—the report of which was taken charge of by Mr. Horsley—arrived at the conclusion that no practicable economies short of crippling the useful work of the Council would suffice to place its finances in a satisfactory condition, and that some addition to its income must also be sought. It was shown that the income derived from the present registration fee of £5, taking even the whole period since 1858, had been quite inadequate to meet the expenses, and that the deficiency has, in fact, amounted to an average of nearly £900 a year. Hence the solvency of the Council has been in reality dependent upon the large amount received in the first instance in £2 fees from persons who in 1858 were entitled to register, and from the interest received from the unexpended portion of these fees. But as the interest upon this reserve—if such it may be called—has not sufficed, the sum has been diminishing, and is now dwindling with rapidity. The inadequacy of income derived from the £5 fees will be felt more and more year by year. An analysis of the accounts for the past year in this relation reveals a fact which was not mentioned in the report, but which is of importance. Had the members of the Council during 1901 received no fees, but only their travelling and hotel expenses, the amount received from registration fees during the year would still not have sufficed to meet the expenditure. Had the members received neither fees nor travelling expenses, the registration fees would have sufficed, though with no great margin. This emphasizes the contention of the Committee that practicable economies will not prove an adequate remedy in face of the exhaustion of the reserve.

On the other hand, a certain decrease in receipts from registration fees within the next few years is foretold from the fact that there has been a serious diminution in the number of persons seeking to enter the profession, as shown by entries in the *Students' Register*. The figures for the five years 1890-1895 show an average decrease as compared with the previous quinquennium in the number registered each year of 67, and those for the five years 1896-1901 show an average decrease of no less than 267. As in this last period most of those still *in statu pupillari* are included, it appears that the number of medical students at the present time is less, as compared with a period seven or eight years ago, by over 1,000. This decrease will begin to be felt almost immediately in a diminution in the amount received from the registration of those who succeed in qualifying.

The Financial Relations Committee proposed that if the Council endorsed in general terms the principles of its report it should be reappointed with a view to draft such alterations in the law as would be needed to give them effect. To this the Council finally agreed, though with the addendum that the Committee should report also upon the economies which could be practised.

The Committee considered that the only sources of

increased revenue would be either an increase in the amount of the registration fee, or the imposition of a fee for students' registration, or both. Mr. Horsley added a third proposition, which was the imposition of an annual fee on registered practitioners. A resolution in this sense was moved by Mr. Jackson, and seconded by Mr. Horsley. The resolution proposed an annual fee of 10s. in place of the payment of a single lump sum, those who had already paid the lump sum being exempt for a period of ten years. This was intended as a measure of equalization, although the proposed exemption was not the exact financial equivalent of the annual payments. The motion was, however, negatived, and the Council adopted the proposals of the Committee.

An alteration in the registration fee will need the sanction of Parliament as the fee is fixed by statute. The adoption of a fee for students' registration, which is at present effected by the Council at considerable cost and without any return, would not necessarily involve any legislation, though it would render it desirable that students' registration should be made compulsory if any assured income is to be derived from this source, for it seems almost too much to hope that all the corporations would unite to require students to register, and thus render such registration in practice compulsory. In other professions in which any form of registration exists an annual fee is imposed, sometimes, as in the case of solicitors, a heavy one. Even if the initial registration were doubled it would still remain, taking into account the age at which registration is usually effected and the long expectation of life thereby implied, the equivalent of a very small annual payment. The majority of the Council appeared to think that, while the imposition of any annual payment would be exceedingly unpopular with the profession, this view of the matter would commend itself to the profession, and an increase in the initial fee, which would only concern them if perchance as parents of those newly qualified they had to help to provide it, would not meet with much opposition.

The difficulty of procuring any attention on the part of the Legislature to any measure which is not taken up by the Government, and the unwillingness of many members to bring any Medical Bill before a Parliament which has shown that, at present at all events, it is unsympathetic to the profession, was urged by Sir John Tuke and others. Expression was given to this unwillingness by Dr. Heron Watson in an amendment that before entertaining legislative measures, all fees to members of the Council should be abolished, and by Dr. Norman Moore that further reports should be made on economies, but these amendments were lost. On the motion of Mr. Tomes, the payments to the sinking fund were discontinued, and a return of such part of the sums already paid to the insurance company as are returnable is to be required. The reasons for its abandonment are given at length in a very able addendum made by Mr. Tomes to the report of the Finance Committee; they amount in effect to the proof that the sinking fund is merely a means of enriching the Council some fifty years hence by setting aside annual sums which, as the Council has no surplus, merely increase its deficits. This will make an annual saving of over £200, and will bring back a capital sum approaching £400 into the coffers of the Council. The further report of the Financial Relations Committee, which will, we presume, be ready for the next session of the Council, will be awaited with interest.

THE MIDWIVES BILL.

BEFORE this issue of the BRITISH MEDICAL JOURNAL is in the hands of many of our readers the fate of the Midwives Bill will have been determined by the debate in the House of Commons on the report stage, which was fixed by the promoters for Friday, June 6th. We publish elsewhere a full report of the proceedings at the interview which a deputation, representing the Council of the British Medical Association, had with the Home Secretary on Tuesday, June 3rd. It had originally been arranged that the deputation should meet the Home Secretary on May 30th, but as the alteration in the order of business in the House of Commons led to the Home Office vote being put down for discussion on that day, Mr. Ritchie found it necessary to postpone the reception of the deputation until Tuesday last. The reply of Mr. Ritchie was considered to be most unsatisfactory, inasmuch as, while insisting upon the fact that the Bill was a private member's measure, he expressed a decided opinion that it should be accepted as an instalment of legislation generally admitted to be desirable. Although he admitted that the Bill was an imperfect measure, he yet declined to introduce or support any amendments to render it genuinely effective. The deputation gathered, not only from the remarks made to it by Mr. Ritchie, but also by a closely similar speech which he delivered in the House of Commons on the second reading, that he was in fact friendly to the Bill, and that the attitude of the Government was one of something more than benevolent neutrality. Under these circumstances, and since Mr. Ritchie, as a spokesman of the Government, has declined to use his influence to render the Bill really operative in the direction of saving life and assisting poor women in labour, it has been considered essential that amendments directed to remedy some of the more glaring defects of the Bill should be brought before the House of Commons on the report stage. We understand that several members of Parliament have undertaken that these matters shall be adequately presented to the House. The amendments of which notice has been given now cover five pages of the orders.

NEW PUBLIC HEALTH LABORATORIES OF OWENS COLLEGE.

ON May 22nd the new Public Health Laboratories which have been built at 1, Stanley Grove, by the Owens College, Manchester, under the direction of Professor Delépine, were informally opened. The laboratories, not being quite completed, will be opened publicly later on in the year, but as the accommodation at the College had become quite inadequate, it had become necessary to begin work. The laboratories consist of a bacteriological research room 30 ft. by 30 ft. A class room of the same size to accommodate sixteen medical men studying bacteriology in preparation for the Public Health diplomas, and a chemical room about 60 ft. by 20 ft. to accommodate the same class. This room is also suitable for research. There is in addition a large library 60 ft. by 20 ft. in which between twelve and fifteen hundred volumes relating to pathology and public health are already housed. Large preparation and engine rooms have also been provided as well as two animal houses, one experimental room specially intended for cancer work in connexion with the Cancer Hospital, a histological and experimental room, with photographic annexe, and the usual dependencies. The laboratories stand in their own grounds of about one acre. A meeting of the North Western Branch

of the Incorporated Society of Medical Officers of Health was held in the new laboratories on May 22nd, when Professor Delépine gave a short account of the work done since 1892 in his department at Owens College which has led to this development. The hearty co-operation of all the medical officers of health present was promised. We are informed that already some seventy health authorities are connected with the department. At the request of Professor Delépine the Council of the College has appointed an Advisory Committee, which includes representatives of the Council and Senate of the College, and of the chief sanitary authorities in Lancashire and Cheshire as well as of several distinguished men.

THE ANNUAL MEETING AT MANCHESTER: REDUCED RAILWAY FARES.

On the occasion of the forthcoming annual meeting at Manchester, the railway companies throughout Great Britain and Ireland have again agreed to issue tickets at reduced fares to members of the Association and their friends. Return tickets will be granted at a single fare and a quarter from all stations throughout the United Kingdom on production of a certificate duly signed. These can be obtained on application to the General Secretary of the British Medical Association, 429, Strand, W.C. Members residing in country districts or other places where through bookings to Manchester are not usually in force will do well to notify the station master of the station from which they will start a day or two beforehand that they may require tickets to Manchester, and so avoid any possibility of delay or inconvenience. Members should bear in mind that the reduced fares will only be granted on production of a voucher, and that a separate voucher is necessary for each passenger. The vouchers can only be obtained from the General Secretary of the Association. The reduced fares will be available from July 26th to August 5th, both days inclusive.

THE UNIVERSITY OF LONDON.

We understand that the Senate acting in accordance with the view expressed by the Medical Faculty, to which we referred last week, has decided not to offer to intending matriculants any advice as to which of the numerous optional subjects candidates should select having regard to their future careers. In this case the view of the Medical Faculty appears to have influenced those of other Faculties, and the Senate has decided in no case to give such advice to any matriculant, whatever Faculty he may be seeking to enter. It is a matter of surprise that at the very time when the British Medical Association and the General Medical Council are seeking to raise the standard of the entrance examination for medical students the Senate, on the advice of its Academic Council, should be restricting the requirements of University matriculants and even abolishing Latin as a compulsory subject. Not many years ago a visitation of the University of London medical examinations by the General Medical Council resulted in a very severe criticism of the defective knowledge of Latin displayed by candidates for the M.D. degree in their prescriptions. In the near future the entire innocence of the classics which will be permissible in the case of London medical graduates will probably evoke still more unfavourable comment or else be the beginning of a revolution in the art of prescribing.

THE HONG KONG COLLEGE OF MEDICINE FOR CHINESE.

On the departure of the Hon. T. Stewart Lockhart, C.M.G., Colonial Secretary of Hong Kong, to take up the post of Commissioner at Wei-hai-Wei, an address was presented to him by the staff and students of the College of Medicine for Chinese, of which institution Mr. Lockhart is Rector. His Excellency the Officer Administrating the Government Major-General W. J. Gascoigne, presided, and amongst those present were Dr. Francis Clark (Dean of the College), Hon. Dr. Ho Kai, Drs. Thomson, MacLean, Pearce, Gibson, Noble, and many other friends and supporters of the College. The Dean read an address, in which he stated that "the aim of their work in the College had been to spread the little knowledge that we have been privileged to acquire in our island home among our native fellow citizens in this far-off Colony, and we think we may fairly claim that our roll of students and of diplomats bears ample evidence that our labours have not been in vain." Dr. Kwan-King-Leong, and Mr. Ho Ko Tsun, on behalf of past and present students of the College, testified to the good work the College was doing, and the important part Mr. Lockhart had played in furthering its aims and object. Mr. Lockhart, in thanking the meeting, said "that the institution had had its struggles, that an endowment had been denied hitherto, but he was glad to be able to state that the Government had at last recognized the value of the College, and in this year's Estimates was inserted a sum which would give a slight honorarium to those engaged in the prosecution of the work of the College. The College was fulfilling a very great want in the Colony." The College of Medicine was instituted in the year 1887, by the exertions of Dr. Manson, C.M.G., and Mr. James Cantlie, the former being the first Dean of the College, and the latter, who afterwards succeeded Dr. Manson as Dean, the first Secretary. To Dr. J. C. Thomson of Hong Kong, however, was due the credit of having kept the College together. His devotion to the work of the College under discouragements and extraordinary difficulties redound to his credit, and now that the College has been recognized by the Government of Hong Kong, its future is assured. If Britain is to "wake up" in Far Eastern affairs, in no department can more be done than in educating the Chinese in the liberal profession of medicine; and if Britain does not see to it she will find that Germany or Japan will be taking up the work, and in China as well as in Japan there will be a German-speaking medical profession instead of an English.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS) IN MANCHESTER.

This corps has just completed its annual encampment at Woolwich, a place selected this year for the first time on the suggestion of Sir Evelyn Wood as being one of the few military stations affording the necessary facilities for training such a corps as this—that is to say, a military hospital in which members may gain instruction in the work of hospital orderlies, an Army Service Corps School for the instruction of the transport members, and a large common, adequate for instruction in field training. The camp was pitched at Shooter's Hill, near to the Herbert Hospital, by no means an ideal camping ground, as the soil is an outcrop of the London clay. In the prevalent wet weather the surface dried slowly, and on several days was a veritable quagmire. In spite of these disadvantages the camp proved very successful. It began on May 17th, when 24 officers and over 600 men, with horses and ambulances, were conveyed from Manchester by two special trains, Lieutenant-Colonel W. Coates being in command, with Major J. J. Kent Fairclough second in command, and Captain H. D. Mason, R.A.M.C., as Adjutant. On the following day a special church parade was held in camp, the service being conducted by the Rev. Canon Escreet, Vicar of Woolwich. The routine work of the camp was as follows: One company attended the Herbert Hospital each day for instruction, whilst the remaining companies, in addition to the ordinary drills of the corps—with

stretchers, ambulance wagons, etc.—were exercised successively in the pitching of bearer company and field hospital encampments, the formation of collecting and dressing stations, and the digging of field kitchens. For this instruction the full equipment of a bearer company and a field hospital, with tents and all medical and surgical supplies, had been issued. Another useful feature was the establishment of a marquee of a general hospital, complete as on active service, the demonstration of which proved of great interest. The horses were picketed close to the camp, so that the transport members could undertake their entire care and management—a most valuable part of their training. On May 22nd the corps had the honour of being inspected by the Director-General A.M.S., Surgeon-General W. Taylor, C.B., who was accompanied by Colonel G. D. N. Leake, P.M.O. Woolwich District; Lieutenant-Colonel E. M. Wilson, C.M.G., D.S.O.: and other officers of the R.A.M.C. After the inspection the Director-General addressed the corps, his remarks being appreciative and cheering. The general officer commanding at Woolwich (Sir J. F. Maurice, K.C.B.) visited the camp on several occasions, and watched the men at work. The greater number returned to Manchester on May 25th, after remaining eight days in camp. Seven officers and 70 men remained for a week's further training. This corps is just now in a most flourishing state, and its success during the last few years must be attributed to the great energy and organizing power of the present commanding officer (Lieutenant-Colonel Coates). When the urgent call for assistance for the medical service in the South African campaign came, 120 of the 200 members volunteered for service. During the war the Manchester Companies have supplied over 180 men for service with the R.A.M.C. in South Africa, whilst a number of their transport members have joined the Imperial Yeomanry and other mounted units. In consequence, the authorities sanctioned the addition of four new companies to the original two, thus increasing the strength from 200 to 600. Further, during the last two years, the transport sections, consisting of 1 officer and 240 non-commissioned officers and men, have been organized, so that the corps is now 840 strong—larger than many infantry battalions. There are still about 100 men on service in South Africa in addition to the above.

THE AMBULANCE ARRANGEMENTS AT THE CORONATION CELEBRATION.

THE ambulance arrangements for the troops and for the public on the day of the Coronation and for the procession on the following day are not yet published, but they will be similar to those at the Diamond Jubilee, and on an equally complete scale. The troops will be provided for by the Royal Army Medical Corps (regulars, militia, and volunteers) assisted by the Volunteer Infantry Brigade Bearer Companies, and it is understood that in order to give all units of the Royal Army Medical Corps (Volunteers) an opportunity of being represented on the occasion, a proportionate number of men will be drawn from all divisions and companies of the Corps throughout the kingdom. Provision will be made not only for ambulance duty on the line of route, but also for medical attendance on the troops in the camps and temporary quarters in London during the week. The arrangements for the ambulance assistance for the crowds which will assemble to witness the processions are being organized by the police authorities, as on the occasion of the Jubilee. Ambulance stations, each in charge of a medical man, will be posted at frequent intervals along the route—generally in rear of the crowd, and stretcher detachments from the St. John Ambulance Brigade and other ambulance organizations will be distributed throughout the whole length of the route. Horse ambulances and wheeled litters will be placed at suitable points in case of necessity, and nurses will be in attendance. In addition to the St. John Ambulance Brigade the police authorities will have the assistance of those men of the R.A.M.C. (Volunteers) and Volunteer Brigade Bearer Companies who have not been called upon for duty with troops, and whose services have been placed at the disposal of the police by the commanding officers. The details of both the military and the police ambulance arrangements will probably be published shortly, and until these official announcements are issued, it is only possible to give a general sketch of the probable arrangements.

A MUNICIPAL BIBLIOGRAPHY.

IT was, we believe, Dr. Billings, of New York, who once hazarded the prophecy that, at the present rate of growth of medical literature, in the course of a few years all those who were not engaged in writing medical works would be occupied in compiling medical bibliographies. Mr. Brooks's valuable compendium, entitled *Municipal Affairs*,[1] indicates that the growth of municipal literature is not less luxuriant. Our rising rates remind us that many who would repudiate the impeachment of Socialism are yet disposed to regard not unfavourably nowadays the doing by public bodies that which formerly was done by private enterprise, or left undone. Perhaps it is in regard to sanitary matters more especially that this municipalization process is going ahead most strikingly. The loans sanctioned by the Local Government Board for sanitary purposes amounted in 1871 to £267,562, and in 1899 to no less than £10,026,336. The same tendency is to be observed in varying degrees all over the civilized world. All this implies that a large army of experts and publicists is daily putting pen to paper in codifying, recording, and developing municipal activity. The area is so vast, the detail so complex, that knowledge of this sort is knowledge of where knowledge is; it is this sort of knowledge that Mr. Brooks's work claims to supply. He surveys municipal literature from China to Peru: you may find from him how to understand the essence of "Bossism" as carried to a fine art in the States, or how the town of Kelso disposes of its garbage. We have tested the work in several details and with satisfactory results. In closing it a final thought haunts us: How is the disposal of literary refuse and effete material to be provided for? Perhaps some much-tried bibliographer will in mercy give this question a thought alike from the municipal and the medical point of view.

A PROPOSED PSYCHO-PHYSICAL LABORATORY AT WASHINGTON.

DR. ARTHUR MACDONALD of Washington suggests that a psycho-physical laboratory should be established in Washington. He points out that the purpose of such a laboratory is to gather sociological or pathological data, as found especially in children, and in criminal, pauper, and defective classes, and in hospitals. In addition to these more special data may be gathered with the help of laboratory instruments of precision, and such experiments or measurements may be made as are generally considered of value not only by psycho-physicists and anthropologists, but by physiological and pathological specialists. The study of man, says Dr. Macdonald, to be of most utility, must be directed first to the causes of crime, pauperism, alcoholism, and other forms of abnormality. "To do this the individuals themselves must be studied. As the seeds of evil are usually sown in childhood and youth, it is here that all investigation should commence, for there is little

[1] *Municipal Affairs: A Bibliography of the World's M...* By Robert C. Brooks. Second edition. London: P. S. King and Son. Demy 8vo, pp. 354. 6s.)

hope of making the world better if we do not see the causes of social evils at their beginnings."

THE CHAMBERLEN FAMILY.

To obstetricians the family of the Chamberlens will always be an object of interest in connexion with the invention of the midwifery forceps; and in 1882 Dr. Aveling laid the profession under a debt of gratitude by reason of his skilful unravelling of much that was historically obscure in the lives of the three Peters (the elder, the younger, and the third), the two Hughs (the elder and the younger), and of Paul, and John, and Thomas Chamberlen. To the third Peter, who lived between 1601 and 1683, is usually ascribed the invention of the forceps, although there is good reason to believe that the honour belonged to his grandfather; whether, however, this be so or not, there can be no doubt that he had no lack of ideas, and that his mind was full of inventions. He had also fourteen sons and four daughters. One of the best known of his inventions was that for propelling carriages by wind. He travelled in various European countries endeavouring to obtain patents for this and other inventions, and Johan Scharffenberg[1] has recently been investigating the archives of Sweden and Denmark, in order to search for traces of his presence in these lands. As the result of his search, Scharffenberg has discovered that Chamberlen obtained a patent, dated August 18th, 1669, from the Swedish Government, and that in it he is named, along with Charles Howard, the English Ambassador at Stockholm. It is probable that he personally visited Sweden. A similar patent was obtained from Denmark in 1670 (July 7th), and Scharffenberg thinks that the Thomas Chamberlen, an Englishman, who died in Denmark in 1671, was a son of Peter Chamberlen. Since Chamberlen would appear to have lived in Holland for some years between 1663 and 1669, it is suggested that the archives of the Netherlands should be searched for records of him and his wind-driven carriages. Scharffenberg is quite of opinion that the third Peter Chamberlen suffered from mania, and he makes the diagnosis of *paranoia inventoria et religiosa* on the ground that he (Chamberlen) had formed the fantastic conception of the possibility of a union of the Jewish religion with all the Christian sects into one single church. Scharffenberg makes a further contribution to the history of the Chamberlen family in the discovery that several other descendants besides those usually enumerated were enrolled as students at the University of Leyden; among these is a David in 1613, and a Nathaniel in 1628. The latter would appear to have been a son of the second Peter Chamberlen. It is quite possible that further search in the Dutch archives may unearth additional details regarding the Chamberlens, and it is also just possible that in this way some new information regarding the invention of the forceps may be forthcoming, for it is believed by some (including the writer in the *Dictionary of National Biography*[2]) that, after all, the instrument may have been obtained by purchase from some obscure and forgotten practitioner. Certainly the Chamberlens treated their knowledge (however acquired) in a very commercial spirit.

THE SANITARY INSTITUTE CORONATION DINNER.

THE Sanitary Institute Coronation Dinner was held in the Venetian Room of the Midland Grand Hotel on June 2nd, under the chairmanship of the Duke of Northumberland, Vice-President of the Institution. Mr. H. Ward, Chairman of the Technical Education Committee of the London County Council, in proposing "The Navy, Army, and Auxiliary Forces," said that it was owing to the strength of the navy that England had not been interfered with in the course of the war. Sir Henry Norbury, K.C.B. (Director-General, R.N.), in replying to the toast, said that the navy owed much to the Sanitary Institute, because the efficiency of the navy depended on the sanitary condition of the ships and the health of the crews. Surgeon-General W. Taylor, C.B. (Director-General, A.M.S.), also responded to the toast, and said that he hoped in the future instead of adverse criticism the Army Medical Department would have the cordial co-operation of institutions like the Sanitary Institute, which could do so much to help them. Those who had been responsible for the sanitation of the army abroad had worked well and done wonders. Mr. E. Barnes (Mayor of St. Pancras) proposed "The Houses of Parliament," and said that one of the duties of municipalities was to improve the health of the inhabitants, and at the very root of that came sanitation. He was proud of the Health Department of St. Pancras. They had no fewer than 24 officers, and the department cost them £40,000 a year. Sir Francis Powell, M.P., in responding to the toast, said that Parliament was anxious to co-operate with sanitary institutions. In commenting on the question of the housing of the poor, he observed that there was without doubt overcrowding in some districts, but in the city of Leeds at the date of the last census there were upwards of 3,500 uninhabited houses. The Duke of Northumberland proposed "The Sanitary Institute." He said that he had visited the museum of the institution, and thought it was distressing to see a museum full of interesting objects set out comparatively speaking to so little advantage. If there was more space they could display more exhibits, and towards providing a better habitation for the unique collection the sum of £8,000 had been raised. Concerning the housing of the working classes, he did not consider that Leeds was an example of all the towns in the United Kingdom. He said the public were always imagining that new legislation was going to do what they wanted, and in respect to the housing of the working classes there was too great a tendency of that kind. The law did not enable authorities to do all that they might want to do, but far more could be done for the housing of the poor in the towns if local authorities would only put the law into operation and do all that it empowered them to carry out. Everything that was possible under the law as it existed should be carried out, and after that Parliament might be asked for more power. With regard to the water question, there was some danger in people imagining that legislation which was good for one part of the country must be necessarily good for the other part of the country. He gave as an instance an account of the meeting of all the authorities in the county of Northumberland to consider the water question. A gentleman got up and told them that he had a farm two miles from any water and forty miles from any water company, and stated that the most important matter before the meeting was how to bring the water to his farm. He wished to warn the members of the Institute against relying too much upon county councils doing the work in regard to water supply, and placing themselves in the position of water companies. He thought it would be better to persuade the county councils to seek out other bodies to become the water suppliers to those districts where water was so much wanted. The toast was acknowledged by Mr. A. Wynter Blyth (Chairman of Council), who said that the Institute numbered 2,000 members, and probably in a few months would reach a total of 3,000. It occupied a unique place among societies. It was at once an educational, an examinational, and a scientific society. Every year visitors from all quarters of the globe travelled to their museum. They saw things there which instructed them, and they carried to the different parts of the world the knowledge they acquired. It was to their shame that so important a collection was kept in so mean a building in an obscure side street. It deserved better accommodation, and the

[1] *Norsk. Mag. f. Lægevidensk.*, lxiii, p. 410, April, 1902.
[2] Article, Peter Chamberlen, vol. x, p. 14.

Institute appealed to the English-speaking peoples throughout the world for funds. The Institute carried on a national work, and was the only place in the British Isles that could compare with the great Continental schools in regard to the technical and practical study of diseases of animals. Mr. Blyth concluded his remarks by a reference to the able work performed by Mr. E. White Wallis, the Secretary of the Institute. Professor Corfield proposed a vote of thanks to the Chairman, and the Duke of Northumberland replied briefly.

THE CAMPAIGN AGAINST FOG.

IF any justification were needed for Mr. Ernest Hart's persistent warfare against London fog and smoke, it will be found in the evidence lately given by Mr. Haldane before the Ventilation Committee of the House of Commons Committee. This able observer, speaking with the full authority of his distinguished position, said: "With regard to the importance of excluding fog, I would point out that the air during a London fog is extremely impure. Chemically the impurities are, of course, derived chiefly from the combustion of fuel coal. The proportion of carbonic acid was found by Dr. Russell to rise as high as 16 volumes per 10,000, in a bad London fog—the carbonic acid by itself." Is that generally known—the large increase of carbonic dioxide in a fog? "I think very few people seem to know it." That is enough to asphyxiate you straight off, 16 in 10,000. It is very unpleasant air. "What is the limit of carbonic dioxide in 10,000 of air? In air vitiated by respiration I suppose the ordinary accepted limit is 2 volumes." So it now turns out that our old enemy, in addition to containing "irritating particulate impurities, containing, as they do, not only water, but tarry matters and sulphuric acid," is impregnated with carbonic acid in sufficient quantity not only to make life inconvenient and uncomfortable, but even to endanger its very continuance. We are glad to see that the crusade in which Mr. Hart was so interested has been taken up by the capable hands of Sir William Richmond, and we cordially wish him every success in his useful task.

SIR CHARLES TUPPER.

SIR CHARLES TUPPER, Bart., G.C.M.G., the sole survivor of the "Fathers of Confederation" in Canada, has received an invitation to the Coronation, and, though verging on 82, he is expected to be present at the historic ceremony. Sir Charles, who is a native of Nova Scotia, is an M.D. of, we believe, Edinburgh, though comparatively early in his career he abandoned medicine for politics. He became a member of the Legislature of his native province nearly half a century ago, eventually becoming its Premier. As the delegate of Nova Scotia he attended all the preliminary federal conferences, and was present at the final conference in London in 1866, when the union of the British North American Colonies was accomplished and the Dominion of Canada came into existence. After holding office for several years under Sir John Macdonald, he came to London in 1884 as High Commissioner. At the beginning of 1896 he became the Conservative Premier of the Dominion, but in June of the same year his party was defeated at the polls, and he retired from office. His son, Sir Charles H. Tupper, who was at one time Attorney-General for Canada, received the honour of K.C.M.G. for his services as one of the British Agents at the Paris Tribunal of Arbitration in 1892.

THE LEAGUE OF MERCY.

THE first ceremony at Marlborough House since their Royal Highnesses the Prince and Princesses of Wales have entered into possession there took place last Monday afternoon, when the Prince and Princess, whose keen interest in all that concerns the welfare of the metropolitan hospitals is well known, entertained a large company of ladies and gentlemen engaged in the work of the League of Mercy at a garden party. The League, although it has only been in operation for some three years, has already contributed through the King's Fund £14,000 to the London hospitals. We are glad to observe that among the guests who had the honour of invitation to Marlborough House in recognition of their services to the League there were the following members of the medical profession: Dr. James Harper (who received the Order), Dr. Clement Godson, Mr. Herbert Allingham, Dr. Lenton Heath, Dr. Greenwell Lax, Dr. Maitland Coffin, Dr. Salter, Dr. Williamson, Dr. Thompson, Dr. Ligertwood, Dr. Beaumont, Dr. George Wilks, Dr. F. Hewkley, Dr. Beville, and Dr. F. A. Warner. The company were presented to their Royal Highnesses by the Hon. Secretaries of the League, Lord Wolverton, Dr. W. J. Collins, and Mr. J. Harrison.

THE EGYPTIAN MEDICAL CONGRESS.

THE chief features in the scientific programme of the first Egyptian Medical Congress which is to be held at Cairo at the end of the present year have already been published in the BRITISH MEDICAL JOURNAL. The Organizing Committee has arranged a series of excursions to places of interest for the benefit of Congressists who do not grudge what Mr. Montagu Tigg might have called the ridiculous amount of 98 francs 50 centimes (about £3 17s.). This includes carriages, donkeys, guides, going up the Pyramids, etc. The following is the programme:—First day, morning: Visits to the Citadel, Mosques of the Sultans Hasan and Mohammed Ali. Afternoon: Old Cairo, the Copt Church, the island of Rhodes (where it is believed that Moses was found among the bulrushes), the Mosque of Amron (where, if the day happens to be a Friday, visitors can be present at the prayer of the Dervishes). Second day: Pyramids of Ghizeh, the Sphinx, the Temple of the Sphinx, in which the excursionists will take luncheon, and various tombs. On returning to Cairo the party will visit the Egyptian Museum. Third day: Matariel (the Virgin's tree), Heliopolis, the Obelisk, the Ostrich Park; in the afternoon an expedition on donkeys will be made to the tombs of the Khalifs and the petrified forest, the party returning by the Mokattam, where, it is said, the finest panorama in Egypt can be seen. Fourth day: There will be an excursion to the Sakkara (15 miles on the Nile) to Bedrachen, thence on donkey back to Memphis and to the pyramids of Sakkara. The tombs of the sacred ox Apis, of Mira and of Ti will be visited. It is expected that the principal shipping companies carrying passengers to Egypt will grant a reduction on their ordinary fares to members of the Congress. For Upper Egypt Messrs. Thomas Cook and Co. have, we understand, granted a reduction of 50 per cent. on their ordinary tariffs. Tourist steamers starting on December 30th on a trip lasting three weeks will take members of the Congress for £9; the express boats starting on December 27th and 30th on a trip lasting nineteen days will take them for £11 10s., including stay in the hotels at Luxor and Assouan. For Congressists who wish to make the journey more rapidly, the following programme has been drawn up, the journey to Luxor and Assouan being made by rail instead of by the Nile: Leave Cairo at 6.30 p.m., arrive at Luxor the next morning at 8.30. First day: Excursion to Thebes, visit to the Courts of the Kings, Nein-el-Bakri, Rameses, the Colossi, Medinet Abou, the tomb of Queen Hatasou. Second day: Temple of Carnac and of Luxor at 11.20 a.m., after which leave for Assouan, which is reached at 6.30 p.m. Third and fourth days: Excursion to Ohile, the dam and the First Cataract. Expedition on donkey back to the sanatoria, and round the Elephantine island in boats. The travellers will stay in the Hotel de Carnac at Luxor, and in the Grand Hotel or the Hotel de la Cataracte at Assouan. Price, including first-class railway fares, two days' stay at Luxor and two at

Assouan, and all expenses, about 126 francs 75 centimes (a little over £5). If the traveller prefers to travel second class the expense will be reduced to about £3 12s. The same privileges will be granted to ladies accompanying members of the Congress.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.

Some seventy members and guests were present at the dinner of this Association, at the Café Royal, London, on May 29th. The President of the Association, Dr. Frederick A. Palmer, occupied the chair, and was supported by Sir William Selby Church, Bart., President of the Royal College of Physicians; Sir George Hare Philipson, President of the University of Durham College of Medicine; Dr. James Little, Ex-President, Royal Academy of Medicine, Ireland; Surgeon-General Taylor, Director-General, Army Medical Department; Professor Wynter Blyth, President of the Society of Medical Officers of Health; Sir James Crichton-Browne; Dr. Allchin, President of the Medical Society of London; and Dr. Burton Brown, Master of the Apothecaries' Society. After the usual loyal toasts the President gave that of "The Navy, Army, and Reserve Forces," to which Surgeon-General Taylor replied. Sir James Crichton-Browne proposed "The University of Durham" in eloquent terms, and Sir George Hare Philipson replied. The toast of "The Durham University Medical Graduates' Association" was proposed by Dr. William Travers; and Dr. T. Outterson Wood, Honorary Secretary for the south, in reply, congratulated the Association upon its rapidly-increasing number of members—now reaching nearly 500—and also upon the highly satisfactory condition of its finances. Dr. A. H. Robinson proposed the Health of "The Guests," and Sir William Selby Church, Bart., replied. Dr. Allchin proposed the Health of "The President" in felicitous terms, and congratulated him upon the dignity, eloquence, and urbanity with which he had presided. The musical arrangements, under the management of Mr. Arthur E. Godfrey, were admirably carried out, and added greatly to the enjoyment of the evening. The next annual meeting will be held at Durham University, and the annual dinner will be given in the fine old Hall of University College, Durham, in September next.

THE LATE DR. E. LONG FOX.

A meeting was held on May 29th (in response to a circular letter issued by the Dean of Bristol) in the Cathedral Chapter House to consider the advisability of starting a fund to raise some memorial in memory of the late Dr. Edward Long Fox. The Right Hon. Lewis Fry was in the chair, and a resolution in favour of placing a tablet in the cathedral and founding an annual lectureship at University College, Bristol, on some subject connected with medical science was carried. It was also decided that, should the response to the appeal for subscriptions allow it, support should be given to a medical student who expresses his intention of devoting his time to missionary work. Mr. W. W. Asquith and Dr. E. Markham Skerritt were appointed secretaries.

THE ETIOLOGY OF LEPROSY.

The discussion on leprosy, which was opened at the meeting of the Royal Medical and Chirurgical Society on May 27th, will be resumed on Tuesday next, June 10th, when it is expected that Dr. Hansen of Bergen, the discoverer of the leprosy bacillus, will be present and take part in the debate. The whole of the last meeting was occupied by the reading of papers by Dr. Tonkin, late medical officer of the Hausa Association, Central Soudan Expedition, 1893-5, and Mr. Jonathan Hutchinson, who stated the conclusions to which he had been brought by his recent visit to Cape Colony and Natal. Dr. Tonkin, it will be remembered, expressed the view that in the Soudan the disease was communicated through the skin usually by means of clothes which had been worn by lepers. Mr. Hutchinson also, we understand, accepts the bacillus as the essential agent in the production of the leprosy, but holds that the disease is commonly communicated by food contaminated by a leper; to this condition he would apply the term "commensal communication." Both authors, while regarding the disease as under certain conditions communicable, believe that diet plays an important part in producing a predisposition. Thus Dr. Tonkin believes that a diet poor in nitrogenous elements, and consisting chiefly of vegetables, is an important predisposing cause, while Mr. Hutchinson considers not only that an insufficient diet consisting largely of badly-cured fish may be a predisposing cause, but also that the disease may in this way be produced *de novo*.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

We are informed that by the invitation of the Lord Mayor a public meeting will be held at the Mansion House on Monday, July 14th, at 4 p.m., when an appeal is to be made for funds to enable the Board of Management to carry out certain structural alterations and extensions of the National Hospital for the Paralysed and Epileptic, Queen Square, London. These are rendered imperative if the institution is to keep abreast of the times, and to place at the service of the patients all the advantages that the latest developments of science have supplied, and that are being utilized at all modern hospitals. One of the most urgent needs with which the Board of Management is confronted is additional space for the accommodation of an adequate staff of nurses to carry out the work of the hospital, and if there were no other reasons for appealing for funds, this alone should be sufficient, and should readily enlist the sympathy of the charitable public. None of our charities deals with a more distressing class of sufferers than that treated at the National Hospital, and anything that can be done to render the treatment of such patients more efficient deserves the help of the general public and of the medical profession. We trust, therefore, that the Lord Mayor will be well supported on the occasion of the meeting, and that the appeal will meet with the generous response that it merits.

SEGREGATION OF LEPERS IN GUAM.

A number of cases of leprosy have, according to the New York *Medical Record*, been found among the natives of Guam, or Guahan, the southernmost and largest of the islands of the Ladrone Archipelago in the Pacific, and steps have been taken by the medical authorities of the United States Navy for their segregation. The establishment of a permanent colony on thirty acres of ground on Tumon Bay Beach, within reach of Agana, the chief town of Guam, by a fairly good road, is intended. Steps have already been taken to acquire this ground, and plans are being prepared for the necessary buildings. It is understood that the nursing of the unfortunates will be undertaken by a Catholic religious organization. The report says: "It appears that during the interregnum immediately following the withdrawal of the Spanish Government from this island, the lepers gradually slipped out of the Asan Hospital, being received and cared for by the kindhearted people of the village, who are loath to betray them. When the last inmate died it was generally asserted that the disease was practically extinct. Several reported cases proved, upon examination, not to be leprosy, and such search as was feasible failed to discover any until now. It is believed that no material harm in the way of

dissemination has resulted from this recent lack of segregation."

THE KING'S SANATORIUM.

IT will be remembered that the competitors for the prizes, which are of the money value of £500, £200, and £100 respectively, were required to place their essays and plans for the erection of a sanatorium in England for tuberculosis in the hands of the Advisory Committee not later than April 15th. We understand that the number of competitors has been so large that the Committee has not yet finished the task of examining the essays and plans. It is not probable that the decision can be reached for some time to come, but it is hoped that an announcement will be made before the end of next month.

THE Huxley Lecture at Charing Cross Hospital will be delivered this year by Dr. William H. Welch of Johns Hopkins University, Baltimore.

THE Court of Governors of Owens College, Manchester, decided at a meeting on Wednesday last to apply for a charter for an independent University in Manchester, which it is proposed to call the Victoria University of Manchester.

DR. R. F. QUINTON, Medical Officer of Parkhurst Prison, has been appointed Governor and Medical Officer of Holloway Prison in the room of Colonel Milman, retired. Holloway Prison is in future, we understand, to be used for females only; all the male prisoners confined there will shortly be removed to Brixton Prison.

THE Senckenberg Institute at Frankfort-on-the-Main is to be transformed into a University. In addition to faculties of medicine and natural science, chairs of history, philosophy, and German language and literature are to be founded. It is estimated that the cost of the creation of the University will be covered by a fund amounting to some 2,000,000 marks which is available for the purpose.

A BILL providing for the retirement of Dr. Sternberg, Surgeon-General of the Medical Corps of the United States Army, with the rank and pay of major-general, has been favourably reported to the Senate by the Committee on Military Affairs. Dr. Sternberg's friends and admirers intend to give expression to their appreciation of his long and faithful services to his country and to the medical profession by a banquet in his honour, which is to take place in New York on June 13th.

OWING to the great demands made upon space this week by the reports of the deputations of the British Medical Association to the Home Secretary as to the Midwives Bill, and to the Education Committee of the General Medical Council as to preliminary general education, and by the reports of the prolonged session of that Council, it has been found impossible to insert many of the communications with which we have been honoured by correspondents.

SIR JOSEPH DALTON HOOKER, G.C.S.I., C.B., who has just been appointed a Foreign Knight of the famous Prussian *Ordre Pour le Mérite* for Science and Arts, will enter upon his 86th year within four days of the Coronation. Sir Joseph, who is recognized as one of the greatest living botanists, is a member of the medical profession, having taken the M.D. degree at the University of Glasgow in 1839. Like his friend Huxley, he served for some years as a medical officer in the Royal Navy. He was Director of the Royal Gardens at Kew from 1865 to 1885, and was President of the Royal Society from 1872 to 1877. *Ad multos annos!*

THE task of forming a Ministry in France, which is rendered necessary by the resignation of M. Waldeck-Rousseau is, it is said, not unlikely to be entrusted to Dr. Justin Louis Emile Combes, a leading member of the Radical party. Dr. Combes, who is a member of the medical profession, is described as a Progressist Republican. He was born at Roquecourbe (Tarn), September 6th, 1835. Elected Senator in 1885, he became Vice-President of the Senate in in 1893, and again after his re-election in 1894. He holds the degree of Doctor in two faculties—Medicine and Literature. Dr. Combes has distinguished himself in philosophy and historical research. His most important work is *The Psychology of St. Thomas Aquinas*. He is a frequent contributor on philosophical and social problems to the *Revue Contemporaine*.

MR. JORDAN LLOYD, of Birmingham, will offer himself as a candidate for the Council of the College of Surgeons of England in July. Mr. Lloyd's Fellowship dates from 1880, his Membership from 1878. He is well known as Surgeon to the General Hospital, Birmingham. He has written on several departments of surgery, and is the author of a well-known monograph on Injury to the Pancreas; a Cause of Effusions into the Lesser Peritoneal Cavity, which was read at the Nottingham meeting of the Association in 1892, and published in the BRITISH MEDICAL JOURNAL, vol. ii, 1892, p. 1051. It is a treatise of the highest order, sound anatomically and surgically, and written in the spirit of the great clinical teachers who flourished in the United Kingdom in the middle of the nineteenth century. Mr. Jordan Lloyd would be a worthy representative of the only English provincial school not at present represented on the Council. Mr. Oliver Pemberton was the last representative of Birmingham.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Home Office Vote occupied the first Friday under the new rules given to public business, and counted half a day of the twenty-three days allotted to estimates. The discussion was full of interest, and touched on many questions of importance as regards public health and factory legislation. Sir Charles Dilke, in the opening speech, called attention to the great increase of accidents in rural districts, to which the inspectors had called attention as due to the facilities afforded by electricity for the development of local manufacturing industries. The local authorities in rural districts were, he said, reluctant to enforce the provisions of the Factories Acts, and this pointed to the need for peripatetic inspectors and an increase in the staff of female inspectors. He also dwelt on the necessity for stricter supervision in the fish preserving and the fruit preserving trades. The match trade showed a slight increase in the necrosis in connexion with the boxing of dry matches, and more care or new rules were necessary. The carrying of heavy weights by young women workers, which, on medical grounds, was a serious matter, had been repeatedly referred to by the inspectors, and the right honourable baronet urged the adoption of rules for other hardware industries similar to those which worked so well in the pen trade.

Lead Poisoning, of course, came up in the course of the debate, and Mr. Coghill pointed out with satisfaction that whereas the china and earthenware trade supplied in 1899 249 cases of plumbism, and 200 in 1900, these cases numbered only 106 in 1901. This showed that in this trade the danger was being reduced to the smallest possible point. He criticized the Home Office for not waiting to see the results of the rules of 1898 before issuing the special rules of two years ago. House painters, the hon. member contended, were in more danger than pottery workers, and he went on to deplore the bad state of the trade in the Potteries, where low prices ruled and

foreign competition was very keen; and said he had received a letter stating that this was due in no small degree to the Government regulations. Mr. Tennant, who followed, inquired, amid laughter, if the hon. member for Stoke had not heard of a recent meeting of pottery manufacturers round the flowing bowl, when they boasted that there was no trade like theirs, and that they were beating the foreigner out of the market. He said the whole of the complaints from the Potteries found their answer in the report of Lord James of Hereford, which advised the manufacturers to put their house in order. After urging the need for more protection for persons engaged in laundries, and the desirability of discouraging the employment of young persons at night on electric generating stations, he pointed out the great need for issuing as soon as possible a standard of suitable and sufficient sanitary accommodation in factories and workshops. The Home Secretary said, as regards lead poisoning, the operation of the law was leading to very satisfactory results. The number of cases had been reduced from 457 some years ago to 165 in 1901. Exemption had been asked for by 33 manufacturers, and he believed that applications were coming in from 66 more, so that there were nearly 100 manufacturers who had seen their way to do something in connexion with this subject for the sake of other advantages which were offered to them.

The Work of the Home Office had, Mr. Asquith pointed out greatly increased during the last ten years: then the vote for the department amounted to £91,000, now it was £152,000. Of this increase only £6,000 was due to expenses in the Home Office itself, and the rest was largely devoted to the work of inspection of factories, in which there had been an increase of expenditure of over 100 per cent. In 1892 there were only 59 inspectors and no women inspectors, now there were 141 inspectors, 7 of whom were ladies and 34 assistants. The magisterial side of the enforcement of the Factory Laws was not so satisfactory and there was great need of more uniformity in this respect. Mr. Ritchie, in the course of his reply, dwelt on the great burden of work undertaken of late years by his department and contended that the great duty of supervising industries and inspecting them had been accomplished without any injury to trade and with great advantage to both employers and employed. He hoped to be able later on to deal with the work in laundries, and he hoped to deal steadily with questions of sanitation and hours of labour. The Department was alive to the evil of excessive weight carrying by females, and as regards the match trade the cases of necrosis had gone down from 21 in 1898 to 8 in 1899, 3 in 1900, and 4 in 1901. The revival spoken of by Sir Charles Dilke really was only an increase from 3 to 4.

Vivisection. Towards the end of Friday's sitting last week the Home Secretary was urged to increased the number of inspectors under the Vivisection Act. Mr. Weir, who introduced the subject, contended that two inspectors could not possibly look after the work of 200 licensed vivisectors. Colonel Lockwood supported this view, and urged that the experiments should be done in the presence of inspectors who understood the public sentiment on this question. The inspectors at present were too few. Mr. Swift MacNeill also supported this view, but the Home Secretary said that it would be quite impossible to ensure that an inspector should be present at all experiments. That would require an army of inspectors. He admitted that it might be necessary to increase their number. He defended the conditions under which the certificates were issued, and said all possible means were taken to avoid causing animals unnecessary pain; the inspectors were most humane men, and so generally were the operators. The discussion then closed, and Mr. Weir's amendment to reduce the vote was withdrawn. On Monday the subject was revived by a series of questions in the name of Mr. Banbury. The Home Secretary said that very few of the experiments under the certificates indicated (A and A + E and A + F and B and B + E E) or under the licenses alone, had been witnessed by an inspector. But a very large proportion of the animals experimented upon had been seen and carefully examined by the inspectors, and in no case had they found that an animal had been unnecessarily kept alive in pain. The licensee was of course responsible for carrying out the conditions of his licence and certificates and the additional "guarantees," if that word was accepted, were that the inspectors could judge whether the licensee was in the habit of obeying the conditions by the number of cases which they saw, and in which they found the animals in a proper state, and by the fact that whenever they found an experiment going on the provisions of the law with regard to anaesthesia were obeyed. Further "guarantees" lay in the character of the persons to whom licences were granted, and the eminent persons who recommended them, and the fact that such experiments must be performed in registered places, which were under the control of responsible authorities, and that all applications were carefully scrutinized before registration was granted. Mr. Banbury has since introduced a Bill to amend the Act.

The Conscientious Objector to Vaccination had several champions in the course of the Home Office vote, who complained of the refusal of certificates by magistrates. Mr. Soames contended that magistrates were not carrying out the law in refusing to grant certificates, and asked the Home Secretary to issue a circular on the matter. Sir James Joicey complained that in some districts it was impossible to induce the magistrates to grant certificates. Mr. C. R. Spencer argued that the charge for the certificate amounted to a fine. The Home Secretary said the law required a fee of 1s. to be paid for a certificate of exemption. It would be impossible for any Home Secretary to tell magistrates that they must be satisfied with the conscientious nature of an applicant's objection to vaccination when, as a fact, they were not satisfied. He would not issue any circular; the law left it to the magistrate's discretion, and he had no right to interfere.

Corporal Punishment on the "Britannia."—Mr. Corrie Grant elicited an interesting reply from the Admiralty on this subject last week. He had been informed that cadets on the *Britannia* training ship were strapped down and beaten with a cane for some offences. In the answer printed it is stated that the corporal punishment of cadets in the *Britannia*, which consists of caning as ordinarily practised in public schools, rests with the commanding officer. It is inflicted on rare occasions for serious offences such as the use of obscene language or grave insubordination, and invariably takes place in the presence of the executive officer and medical officer of the ship. For similar grave offences or for serious cases of untruthfulness, cadets are sometimes kept apart from other cadets, but not in solitary confinement, as that term is generally understood.

The Hospitals (Contributions) Bill.—Under this title the President of the Local Government Board has introduced a Bill of two clauses to empower county councils and other local authorities to make contributions to hospitals. The text of the Bill states that the contributions may be either donations or subscriptions, and the payment shall be out of the county fund as for general county expenses, and in the case of other local authorities out of the fund or rate for the general purposes of public health. The term "public hospital" is defined as any hospital, infirmary, or other institution for the care and treatment of persons suffering from any bodily injury, infirmity, or illness, or any mental infirmity, not carried on for purposes of private profit or gain, and supported wholly or in part by endowments or voluntary contributions.

The Midwives Bill. Members have received a good deal of literature respecting this Bill during the past week and there is evidence that new interest has been stirred up among them in consequence of letters received from medical constituents. The Coombe Hospital, Dublin, has issued a circular showing its claims to have its midwifery licence recognised and the Obstetrical Society of London has issued a statement of its position. Mr. T. P. O'Connor has put down a large number of amendments to the Bill, and the Irish members are generally alive to the importance of protecting the interests of Irish obstetric hospitals. The discussion on the Report stage is fixed for Friday, after we go to press, but the prospects of the Bill passing in a single day are certainly much more doubtful than at any time since the Committee stage.

PRELIMINARY EDUCATION OF MEDICAL STUDENTS.

DEPUTATION FROM THE BRITISH MEDICAL ASSOCIATION TO THE EDUCATION COMMITTEE OF THE GENERAL MEDICAL COUNCIL.

A DEPUTATION of the Council of the British Medical Association to present the report of the Committee appointed by the Council of the British Medical Association to consider the question of the preliminary education of medical students in the United Kingdom was received by the Education Committee of the General Medical Council, at the offices of the Council on Saturday, May 31st.

The report was published in the BRITISH MEDICAL JOURNAL of May 31st, p. 1351.

The members of the Council present were: Sir John Batty Tuke (in the chair), Dr. Norman Moore, Dr. Payne, Dr. MacAlister, Sir William Gairdner, Dr. Bennett, Sir Christopher Nixon, Sir William Thomson, Dr. Mackay, and Sir William Turner.

The CHAIRMAN: Gentlemen,—Before we begin I wish to say that when I suggested this hour for the meeting there was a reasonable belief that the business of the Council would be finished to-day, but it is not so I am sorry to say. I suggested this hour as the latest time at which it would be convenient and possible for the members of the Council to meet the deputation.

Mr. VICTOR HORSLEY: Before I introduce the deputation to the Education Committee, acting on behalf of the Council of the Association, may I formally ask permission for the official reporter of the Association to take notes?

The CHAIRMAN: Certainly.

Mr. VICTOR HORSLEY: Sir, I have the honour to introduce to you the following deputation:—Dr. G. B. Ferguson, President of the British Medical Association; Mr. Andrew Clark, Treasurer of the British Medical Association: Mr. Cantlie (London), Dr. Maury Deas (Exeter), Dr. Gordon (Exeter), Mr. Jones Morris (Portmadoc, North Wales), Mr. Verrall (Brighton), Dr. Dawson Williams (London), Mr. Francis Fowke, the General Secretary; and Mr. Guy Elliston, the Assistant Secretary. The object of the deputation is to offer for your consideration the report of the Preliminary Education Committee of the Council of the British Medical Association. That report has already been before you, and it is not necessary for me in any way to deal with it. I only beg in introducing these gentlemen here to personally express my satisfaction that what I myself said in the Council will be substantiated by the facts that they have to lay before you. The point of greatest interest to the Association is the actual standard of medical education that is to be fixed ultimately by the Council. The feeling of the British Medical Association is that the standard should be fixed, and that we should not wait for the secondary education of the country to be brought up to any theoretical level not yet ascertained. That is, I think, the chief dividing line of opinion on this subject. Then, in pursuance of this point, the deputation is extremely anxious to hear from the Education Committee evidence that the standard has been raised and is being raised; that information, I am sure, will afford the greatest satisfaction to the profession; and, lastly, the deputation is here also to suggest to the General Medical Council the desirability of rendering the examinations of medical education really uniform. This report deals with the preliminary examination only, but it is of course the foundation stone of general uniformity in examinations thoughout the country conducted for the education of the medical practitioner. I must allude to the fact that, owing to the extreme shortness of the notice, Dr. Roberts Thomson, the President of the Council of the Association; Dr. Philip, of Edinburgh; Dr. Pope, of Leicester; Mr. Haslam, of Birmingham; Dr. Markham Skerritt, of Bristol; and Sir John Moore, of Dublin, are unfortunately unable to be present. Dr. Bridgwater and Mr. Macnamara, Mr. Jessop of Leeds, and Mr. Whitehead, the President-elect of the Association, are also unable to come on account of professional engagements. Sir John Moore's letter, which is the only one which it seems necessary to read, is as follows:

May 30th, 1902.

Dear Mr. Fowke,—I have to-day received your two letters relative to the deputation on preliminary education to the Education Committee of the General Medical Council. It is a matter of much regret to me that I can not arrange to take part in the deputation owing to my professional engagements for to-morrow. On reading through the report of the discussion which took place at the General Medical Council on the report of the Executive Committee, I observe that Sir John Batty Tuke conveyed to the Council that the British Medical Association recommended that Greek and physical science should be compulsory subjects at the Preliminary Examination. I feel sure that Dr. Maury Deas will point out to Sir John his mistake. The subjects in question are to be compulsory only for Honours, and it is quite right that they should be so. While I agree with Dr. Atthill that much has been done lately to raise the standard of the Preliminary Examination held by the Irish Royal College, yet I consider (and so does he, if I mistake not) that the existing state of things is far from satisfactory, and that what is wanted is a one-portal preliminary examination in Arts. Sir John Tuke's contention that no Government would sanction a change in the Medical Acts cannot be accepted unchallenged. The General Medical Council is always pleading *non possumus*. Things are very different in 1902 compared with 1858 and even with 1886.

Yours faithfully,

JOHN WILLIAM MOORE.

That is the only letter containing any expression of opinion on the subject which the deputation has to lay before you. I beg leave, therefore, to introduce the deputation.

The CHAIRMAN: It may save time if I say that I have not read the reports of the meetings in the newspapers, but that statement of Sir John Moore's as to what I said about Greek and physical science is an error. I never made that remark.

Dr. G. B. FERGUSON (President of the British Medical Association) said: I rise to offer a few remarks, not as an expert in this matter, but as occupying a certain position in the Association. I may mention that, although I am only an *ex-officio* member of the Committee, I attended the last meeting, and I was very much struck with the large amount of knowledge of the history of the subject shown by the members who were present. I desire, also, to say that that Committee did not wish to show the least antagonism to the General Medical Council or the Education Committee of the Council. They did not even wish to suggest anything to the Council. They only wished, as representing a very large body of medical practitioners, to let the Education Committee of the Council know that they were also studying the subject and studying it very attentively. They thought there would be no harm done in bringing their conclusions before the Council, and they hoped at the same time that they would derive valuable information from what they would hear from the Council. It was felt that the Council represented the medical schools and Government, and in a less degree the profession, and that the Association represent exclusively the profession. The chief objects that were brought before the Committee of the Association were the advisability, if possible without altering the Act of Parliament, or if that were impossible by procuring a slight alteration of that Act, to establish a single Board of preliminary education. It was thought that as long as there were so many different examinations, it would be very difficult to raise the standard to a sufficiently high level; and it was thought also that it was important to have an Honours division in the Preliminary Examination. For my own part I must say that I think it would be very difficult indeed for medical men to obtain any suitable standard unless they had some knowledge of physical science. It is hardly to be expected that that could be asked of the rank and file of the profession, but it certainly could be asked of those who intended to be in the Honours division. There can be no doubt also that under similar circumstances it would be an exceedingly excellent thing to add Greek and put that into the Honours list also. The deputation does not wish to suggest that steps were not being taken as rapidly as possible to raise the standard, but on the other hand, as we ourselves have no definite knowledge on the subject, we were very anxious to know what was being done.

Dr. MAURY DEAS said: The difficulty in approaching this subject is that it is such a very large one, and very difficult to compress into a small compass. I should like the Education Committee of the General Medical Council to understand how this question first came before the British Medical Association. It originated in the South-Western Branch of the Association, where, two years ago or so, great interest was excited by an address given by the President of the Branch, and the matter was taken up rather warmly by the Branch. Dr. Gordon, who has made this subject a subject of special study, formulated certain resolutions which were brought before the South-Western Branch and accepted by them, and afterwards published a valuable paper in the BRITISH MEDICAL JOURNAL.

I, as one of the representative members of the South-Western Branch on the Council of the British Medical Association, was asked to take these resolutions up to the Council of the Association. I brought them forward at the Council meeting in last October, and a Committee was appointed to consider the whole subject of preliminary education. The result is this report, which has been placed before the General Medical Council. The first two conclusions in the report are obvious:

1. That it is essential in the interests both of the public and of the profession that there should be an adequate guarantee that every registered medical practitioner has received a liberal education, such as would entitle him to be regarded as a member of a learned profession.

2. That at present with the existing requirements of the General Medical Council, and with the variations in the scope and standard of the various preliminary examinations for medical students there is no such adequate guarantee.

I think I may take it that we all agree with these propositions: the state of things as regards the general preliminary education of the medical profession. A large number of those who enter the medical profession, an increasingly large number, take the higher standards—they are not required to do so, but they take the higher standards that are offered. During the last twenty years there has been a gradual evolution going on so that the number of those who take these higher standards voluntarily has risen from 20 per cent. to 50 per cent. But while that is very satisfactory, there is another 50 per cent. who only pass examinations of less satisfactory standards. There is, I think, too large a residuum of badly-educated men in the profession, and too large a residuum of badly-educated aspirants who obtain admission through the lower grade of examinations; I do not think that is fair to the other members who take the higher grade examinations. About three or four years ago a great deal of satisfaction was caused in the profession by the steps which the General Medical Council announced that it was about to take to raise considerably the standard of general education, when the age of 18 was mentioned as that at which students should commence their medical education, and when it was suggested that the standard of preliminary examination should be that of the senior local examinations or the higher grade examinations. The point was that all aspirants to the medical profession should have passed such an examination as would entitle them to be members of an educated profession, and until you have a high standard like that it seems to me it is mere tinkering to try to improve the scale and the standard of the lower examinations. The result of that decision come to by the General Medical Council was pointed out in a letter sent to the educational authorities. The replies to that letter were, I think, encouraging, and those who have gone into the subject feel somewhat surprised that since then so little has been done to carry out the avowed intention of the General Medical Council at that time. We of course recognize that the General Medical Council and its Education Committee are working, and have been working, very hard, and that they have done a great deal; but we think that they have not acted up to the idea that the standard should be raised to the level mentioned, and that the age should be raised. The General Medical Council, instead of raising the age to 18, as it had contemplated, has fixed 16 as the age at which students may be registered to commence their medical studies. Instead of anything being done to raise the standard of examinations to anything approaching that of the senior examinations or of the higher grade examinations, I think the most that has been done, which no doubt is considerable, has been to eliminate one very low grade examination and to raise, or to endeavour to raise, the standard of some of the junior examinations. But we feel that that process of endeavouring to raise the standard of existing examinations is not satisfactory, and we are here really to invite the General Medical Council to go back to its expressed intentions of 1898. Really these recommendations that we have made now are hardly up to what the General Medical Council expressed its intention of endeavouring to adopt at the time. We have mentioned 17 as the age for medical students to be registered, and that seems a fair compromise; it is above 16 and under 18. Our report says:

(b) That the standard of the examination in preliminary general education required by the General Medical Council should be suitable for candidates of 17 years of age, and not lower than that required at present for the Oxford and Cambridge Senior Local Examinations.

That also was the point aimed at by the General Medical Council. I am aware of the steps that were taken by the General Medical Council in calling in the professional experts and asking their opinion. I do not find that their opinion was very satisfactory, as I think it was rather contradictory. I do not myself see that the General Medical Council need have been diverted thereby from the important step which it had inaugurated.

Dr. GORDON said: As representing the South-Western Branch, which first brought this matter up before the British Medical Association, I would like to say that when we came here our intention was that this deputation should wait upon the General Medical Council with no adverse feeling, but with a very strong feeling that the General Medical Council has at heart the interests of the profession, and is doing its utmost to push forward all that appertains to what is set forth in these resolutions. At the same time we feel that the Council's intentions are expressed in the letter to the educational authorities of the United Kingdom, to which Dr. Maury Deas has alluded; but the admirable idea that they then had of raising the standard has been departed from on the advice of certain experts. We have thus been led to consider the advice which those experts gave, and to my mind their advice was most unsatisfactory. With regard to the statement that has been made that there is an impression in the West of England that the standard of preliminary general education is too low, that is not an impression, it is a conviction. Not only do we think it extremely low, but we think that at present no adequate steps are being taken to raise it. It has been said that we must wait until the general standard of education rises throughout the country. We belong to a learned profession, and a learned profession should relatively be better educated than those which we are apt to consider the unlearned. I should be sorry to say anything that is detrimental to other callings, but I think it is right to consider that the medical profession should be better educated than veterinary surgeons and chemists; and yet in the regulations of the Cambridge Local Examination a couple of years since it will be found that the standard required—the regulations which were imposed upon veterinary students—were the same as the regulations imposed upon medical students, and that the requirements for chemists were certainly not very far below those for our own profession. Then it has been said that we are ignorant of all that has been done by the General Medical Council. If we were so ignorant we could not take such an interest in the question; but I fail to see any proof of our ignorance, and I would ask those who have made the statement in some measure to substantiate it. With regard to the raising of the standard to that of the junior local examinations, I would like to say that although that plan was adopted on the advice of the experts, the advice of the experts was absolutely contradictory of their own expressed opinions. They say, or one of them says, that by merely raising the standard of working of a paper intended for a boy of 14, a true standard for a boy the age of 16 is not obtained because the boy's mind at those ages is undergoing extremely rapid development. A boy of 16 must be examined on a paper set for that age and not for 14, for no amount of extra marking of a paper for the age of 14 would make the paper a true test of a boy's capacity at the age of 16. One examination, that of the College of Preceptors, has been instanced as high on the ground of the number of rejections. May I take a list of figures published in the minutes of the General Medical Council, and point out that on exactly the same lines I can show that the hitherto faulty examination of the Royal Colleges of Physicians and Surgeons in Ireland is a superior examination to the matriculation of the University of London because the percentage of rejections at the former is slightly higher. The percentage of rejections in any given examinations depends very largely on the type of persons who present themselves. It has also been objected that our resolutions, if carried into effect, would have the effect of depleting the profession to a serious degree, and that this is shown by the answers from the educational bodies from all parts of the United Kingdom. That, I contend, is based upon a mistake. The letter which was sent to the educational bodies in all parts of the United Kingdom asked a question which in itself was a mistake, that is to say, those who wrote that letter were unfortunately not

aware of the fact that the Higher Grade Examinations in Scotland and the Senior Grade Examinations in Ireland are of a totally different standard to the Senior Local Examinations of the Universities of Oxford and Cambridge in England, and consequently the answers from Scotland and Ireland do not apply. The only answers which can guide us are those received from England. I have carefully gone over the answers which were received from the various bodies in England, and while a considerable number do not commit themselves to the very speculative opinion that the profession would be depleted, there are a certain number which definitely do give an opinion on the subject. Two authorities only—Owens College, Manchester, and University College, London—think the profession might thus be depleted. The Secretary of the Head Masters' Conference thinks that it will not; the Universities of Durham, Cambridge, and London, and Victoria University say it will not affect them at all. Yorkshire College, Leeds, is of the same opinion. The principal of the Merchant Venturers' College, Bristol, is of the same opinion, and says that the persons so excluded would be mainly those of small intelligence. The principal of Cheltenham College says that the percentage of exclusions would be a gain to the medical profession. The head master of the City of London School says that very few would be excluded; and the secretary of the Teachers' Guild says that the percentage would not be large. With regard to the age limit, the General Medical Council has recently taken a very decided retrograde step—it has placed its sanction upon boys beginning their studies for the medical profession at a time when they unquestionably ought to be at school. I have spoken to a very large number of laymen who are quite capable of forming opinions on the subject without at all telling them the *pros* and *cons* or what had gone before, and they have stated at once that 18 would be a proper age at which to commence medical study. We want to be moderate, and have agreed, as representing the British Medical Association, that the standard of age should be 17. That suggestion of the age of 17 has not, in fact, originated with us. It came from an educational body whose opinion is entitled to the very highest possible respect. It emanates from the Conjoint Board of Examiners of the Scottish Universities. They propose the very resolution which we submit to you. Lastly, the set of reasons given by the experts upon which they based this recommendation to make the age 16 is, I think, most extraordinary. First of all, they suppose that the age at which a boy's parents should expect him to be qualified to practise medicine is 22. That is beginning at the wrong end. The question is not what the boy's parents expect, but what the English public expect of their doctors. The question is, At what age should a boy begin his medical studies in order to qualify himself to be such a man as the British public expect afterwards? The experts, after assuming the age for qualification to be 22, nevertheless say, Let us take 21½ years, which they were not justified in doing. Then they say, the curriculum is five years; it is usually five and a half years. So in that absolutely forced manner, by taking 5½ from 21½, they arrived at this age of 16; that is an absolutely unjustifiable way of arriving at the age of 16, and we say that the age which they ought to have recommended, even on the lines of their own report, was 17.

Mr. JONES MORRIS said: I represent at this deputation a small country which has had for the last six or seven years the benefit of organized secondary education. Since we have had for Wales the Welsh Intermediate Act over one hundred secondary schools have been established in the principality. In my own county, Carnarvon, eight have been established. The education given therein is regulated by the Welsh Central Board which has established a leaving school examination. I am informed that the senior leaving school examination is in its merits as difficult as any of the senior local examinations in any part of the United Kingdom. We have in our schools somewhere about 6,000 boys and girls. Even at the present time with only six or seven years registration we have from 1,000 to 1,500 students going up for this senior leaving examination. In passing I may say that at the recent examination of the University of London among those who received the highest honours for the M.B. were two students who received their preliminary education in general knowledge, through the intermediate schools of Wales and through the University Colleges of Wales. Although perhaps it would not be a complete proof considering the smallness of the number, yet it shows that those who have had a thorough preliminary education may be expected also to show themselves proficient in their medical studies. What I hold is this: You demand that the 6,000 people who will be the great middle class of the population of Wales should be thoroughly trained and educated, and according to the severe senior local examinations they can be, because by our system of scholarship they enter our intermediate schools at 13, and they leave at 16 or 17 with this certificate. I therefore say that as these students are leaving every year, if the medical profession, which is to lead, and ought to lead, in all matters of public benefit, is not up to the same standard of education as the general public, it will be most disastrous and detrimental to the profession itself. A great deal may be learnt from the experience of Wales in the establishment of Secondary Schools in England. England will then have a standard of education amongst its population, and it will be most detrimental to the medical profession if it is allowed to be in any way below it. Therefore I think that now is the proper time to deal with the question. I know full well that the General Medical Council feels that the standard of education of the profession should be raised. I hope that it will now work and act up to the requirements of the present advanced demands of the age. I happen to have been educated in the Liverpool Institute—one of the best institutions perhaps in the United Kingdom—and I do not think any man should enter into the medical profession unless he has passed through the seventh or the higher standard of that and kindred institutions. Therefore, when we lay down those kind of grounds for the teaching of our future practitioners, I think we do not ask one whit too much of you to put your wisdom and knowledge into practical use for the profession.

Mr. ANDREW CLARK (Treasurer of the British Medical Association) said that he would not take up the time of the Committee by adding anything to what had been said by the previous speakers.

Mr. VERRALL (Brighton) said: I am very much in the same position as Mr. Clark. I simply endorse the observations of the previous speakers, more especially on the question, not only of raising the standard of preliminary education, but of what commends itself to all reasonable men, making it universal. After the observations of the previous speakers, especially of Dr. Maury Deas and Dr. Gordon, I think our views must be very well in the possession of the Committee, and I do not think I need add anything.

The CHAIRMAN: Gentlemen, on behalf of the Education Committee, and I may say on the part of the General Medical Council, we beg to thank you for your attendance, and for the very earnest way with which the cause has been advocated. I can only assure you that in that cause we are entirely at one with you. A large number of questions have been raised. The statements are highly argumentative. You can hardly expect every member of the Committee to answer the various propositions and statements that have been made, but I suggest to you that the very highest form of courtesy will be for us to prepare a reasoned answer to your speeches founded, of course, on the shorthand notes which have been taken for us. It is far too complex a question to answer straight away. Certain statements have been made which require to be looked into, and we really have to think over seriously the criticisms which you have brought forward. I therefore hope you will regard it as satisfactory if we undertake at as early a period as possible to return to you a reasoned answer to the speeches that have been made.

Dr. FERGUSON said: I desire, in conclusion, on behalf of my colleagues to thank you most kindly for the attentive hearing which you have given to the various arguments which we have brought forward, and to say that we feel perfectly certain that everything which has been brought forward has been apprehended, and that your answer will be at any rate the result of perfect and full knowledge of both sides of the question.

Dr. MAURY DEAS May I ask that the reasoned answer which

will be sent should not be confined alone to replying to the speeches which have been made to-day, but to this report of the Committee which has been submitted? I know, speaking for myself, that I have not made all the statements that I should like to have made in many ways.

The Chairman: I beg to assure you that that shall be done.

THE MIDWIVES BILL.

Deputation from the British Medical Association to the Home Secretary.

On Tuesday, June 3rd, a deputation of the Council of the British Medical Association, consisting of Dr. Roberts Thomson (President of Council), Mr. Victor Horsley, Dr. T. Arthur Helme, Dr. Dawson Williams, Mr. Fowke (General Secretary), and Mr. Elliston (Assistant Secretary), waited upon the Home Secretary in his private room at the House of Commons, for the purpose of laying before him the views of the British Medical Association with reference to the Midwives Bill at present before the House of Commons. Mr. Ritchie was accompanied by Mr. Jesse Collings, Under Secretary.

The deputation was introduced by Mr. Norval Helme, M.P.

Dr. Roberts Thomson said: In the first place, I wish on behalf of my Council to thank you very sincrely for your kindness in receiving us this afternoon. I do not propose to enter into any of the special questions which will be brought before your notice by my colleagues. The point which I should wish to make is this—that the attitude of the profession and of the Association which we represent—an Association numbering over 18,000 members—has been very much misunderstood, and in some quarters one might even say misrepresented. It is not accurate to say, as has been said, that we object to legislation on this matter. What we object to is legislation which we think will not deal satisfactorily with the evils which exist. As a matter of fact we think that every lying-in woman should in her time of trouble have the assistance of a properly qualified medical practitioner. We are not satisfied in our own homes under such conditions to be put off with the services of an unqualified midwife, and what is not good enough for our own homes is not good enough for other homes, however poor they may be. It is, however, recognized that that is an ideal that cannot be realized now, and possibly never can be reached; but we do feel that though the midwife is here, and is likely to stay, it is very important that in any legislation dealing with this question the dangers which follow the work of untrained and ignorant women should be dealt with. We fear that that can hardly be said to be the case in the present Bill as it stands. That is a subject which will be dealt with by my colleagues. I wish, however, to remove this feeling which does exist, and to say that we are not moved, as has been stated, by any sordid feeling that the creation by the Legislature of this class of midwives would affect the work of medical men. That is not the point which affects us. We wish to see such modifications as will protect the public health, and will remove the dangers which surround the matter. That is really our feeling and our attitude with regard to this Bill.

Dr. Helme: With your permission I should like to preface my remarks by still further emphasizing one or two of the observations which have fallen from Dr. Roberts Thomson. The Association is actuated by the principle that has always actuated it, a desire to promote the good of the public, and not any narrow advantage of any particular or small professional class. We come as representatives of some 18,000 colleagues who practise medicine. The profession has perhaps been a little taunted on the diversity of opinion which has been expressed with regard to the methods by which it has been proposed to put an end to the terrible evils which we all recognize as existing in connexion with childbirth among the poor. The statement that the medical profession is hopelessly disunited in its opinion is hardly correct. We all agree that these evils do exist. There is a difference of opinion as to what may be the best method of dealing with those evils. Some of us who have given thought to the subject think that the State which is so willing to provide free education and free vaccination is wealthy enough to provide free and fully qualified assistance, but others who take an equally conscientious view of the subject think that by the registration of midwives the desired end may be attained. But there is absolute unanimity among the profession that the registration of midwives without sufficient control would accentuate the present evils, and this, we submit, is what the present Bill provides. Practically it provides no medical control of the midwives, and the machinery of the present Bill is so cumbersome as to be inoperative. The next point I would like to emphasize is this—the somewhat startling omission of a most important clause that existed in the Bill of 1900—a clause which prevented the practice of unregistered midwives. The sole object of this Bill is to protect the parturient poor from those ignorant—the words "dirty and unclean" had been used, and I may therefore say—those unclean and ignorant midwives who practise among the poor to their detriment. This Bill leaves those women to continue the practice to which we supposed it was the object of the Bill to put an end. If the object of the Bill is to protect the poor against that class of midwife who is the cause of the loss of so many valuable lives and so much permanent suffering among the working population—if that is the object of the Bill—the omission of this clause renders the Bill useless and defeats its object. The next point is the entire absence from the Bill of any statutory penalty for malpractices or misconduct, including in the term misconduct the neglect to send for efficient medical aid when danger or necessity arises. In the present Bill there is no compulsion upon a midwife to send for help. She may if she chooses attend a difficult and an abnormal case, she may continue to attend a case after danger or disease has arisen. We suggest, Sir, that in order to strengthen the hands of those who will administer this there should be statutory penalties in the Bill. It is suggested that the Midwives Board which would be constituted under the Bill should frame rules dealing with these matters, and should have power to inflict punishment. Hence the importance of a proper constitution of the Midwives Board, and the importance of local supervision, and also the extent of the penal powers of the Board and its means of enforcing its rulings. In all those points the Bill is lamentably deficient. First, with regard to the constitution of the Midwives Board, the Association has come, after careful thought, to the conclusion that it will be wise and right to urge upon the Government the importance of recognizing that the Midwives Board should be representative; that those who compose the Board should be drawn from different parts of the kingdom. The habits of life and the characteristics of practice vary so widely in different parts of the kingdom that the British Medical Association would urge that the Midwives Board should be made representative of different localities. Then with regard to the means of control and the extent of control of this Board over its midwives. Under the present Bill, the county council is the administrative authority; it may depute its powers to the district council, and it may again depute its powers to a local committee; but if any poor midwife practising in some out-of-the way corner some slum in Manchester or any other populous district should do what she ought not to do, attend some case which she is unfit to attend, what does this Bill offer in the way of control? The matter would be reported to the local committee, the local committee would hold a preliminary inquiry, and if it found a *primâ facie* case it would report the matter to the Central Board in London, which, under the present Bill, would probably be constituted of London men alone. Then the Central Board in London would sit in judgement upon a midwife in some slum away in the North of England, and would not even have the power to enforce the attendance of the midwife or of witnesses. The machinery provided for controlling the midwife is forgotten most lamentably. Then it seems that the Midwives Board would have a great deal of power. For instance, it would have the power of removing midwives from the roll, and no power short of this. I venture to say that a Board of Midwives sitting in London would hesitate very seriously to inflict such a punishment upon a poor midwife whose livelihood depended upon her work; the Midwives Board would hesitate to use that power unless it was supported by the statute. So far, Sir, for the local

control. The local supervision, as I say in our opinion lamentably fails. We would suggest that every local authority should appoint a representative committee of medical men in the district to administer the details of the Act, and further, that this local committee should have more power. According to Clause 9 of the present Bill, all that a midwife has to do is to give notice in writing of her intention to practise to the medical supervising authority, and the Association suggests that Clause 11 of the Bill of 1900 should be substituted. It required that the midwives should have a licence given by the local supervising authority, this licence to be revocable and to be renewable annually. The clause contained a penalty with respect to any midwife practising without a licence. There is a very important omission from this Bill with regard to the inspection of lying-in homes. This is in many parts of the country really a matter of very great importance. Lying-in homes ostensibly for the reception of women in childbirth do exist and are used for unlawful purposes, and we felt we should not be doing right unless we urged upon the Government the importance and necessity of those homes being subject to inspection. Another point upon which the Association feels strongly is the necessity of demanding a certificate of good character from midwives. It is known to myself personally that women of immoral character and women of bad repute avail themselves of lectures upon midwifery and certificates granted by institutions for immoral purposes so that they may perform illegal operations. Another point we wish to emphasize is the inadvisability of the insertion of the certificate issued by the Obstetrical Society of London into the statute. The Obstetrical Society of London, of which I am a member, is absolutely a private society, and we feel that the mention of its certificate will limit the power of the Midwives Board and tend to reduce the proper standard of the training of midwives.

Mr. Victor Horsley: Mr. Ritchie, the object of the British Medical Association in this matter has been consistent throughout a period of something like fifteen years. The British Medical Association was the first to prepare a Bill dealing with this subject, and since that it has devoted a large amount of time to the consideration of the matter, and has formulated two or three forms of Bills. The last form I believe has been handed in to you, Sir. The object of the Association as regards the prevention and the spread of disease by untrained women has also been consistently the same throughout, but the Association now feels in the acceptance of the Bill brought forward there is likely to be placed upon the Statute Book a statute which in nowise fulfils its intended object or the objects for which it was apparently brought forward by its original promoters. It has been suggested that in this respect there is a conflict of opinion in the profession. Sir, I have the opportunity of speaking from the point of view of a member of the General Medical Council as well as from the point of view of a member of the Council of the British Medical Association, and I can assure you that between those two great central bodies professionally there is no matter of difference whatever. The General Medical Council considers it to be an absolutely vital point that the prevention of practice for gain should be included in any Bill brought forward for the purposes already detailed, and I should like to draw your attention to the fact that the Lord President of the Privy Council, who hitherto has apparently had most control of this subject on behalf of the Government, expressed himself clearly on this point in 1898. He said that it was desirable that before a Bill was introduced the promoters of the measure should come to some definite understanding with the medical profession, as represented by the General Medical Council, and then he went on to say that the Bill should be introduced in a manner which would receive the support of the General Medical Council. Well now, Sir, what are the facts? A Bill was introduced last session which was more or less in accord with the pronouncements of the General Medical Council, and in accord also with the conclusions arrived at by the British Medical Association, and both the General Medical Council and the British Medical Association gave their support to the chief principle embodied in that Bill, because they thought that it was an honourable attempt to check the evils which are affecting the public so gravely. But the General Medical Council and the British Medical Association think very differently of the present Bill before the House, as they recognize that it is nothing but the institution of a title, and their professional experience on that point shows them the mere dealing with the title is of no value whatever, and they therefore ask you to give the medical profession a statement of the position of the Government in regard to this very vexed question. In relation to this particular point, I may mention that though the Lord President of the Privy Council received deputations from promoters of the previous Bills, he could not find time to receive a deputation from the British Medical Association, and, therefore, Sir, the British Medical Association I conceive, is indebted to you as being the first Minister who has heard such a large professional Association on this very important question. The conclusions of the Association and of the General Medical Council on the point that practice for gain by an untrained person must be stopped, have been so far entirely thrown over. The Lord President of the Privy Council no longer apparently lends his support to the consideration of that point, and if we are to understand that the Government is, perhaps not by official diction, but is in effect supporting the present Bill now before the House, then the Association ventures to ask the Government to insert a clause relating to this question of practice for gain. Sir, the Association does not emphasize the necessity for this change without good reason. It has been officially stated—the Association may be wrong—that there is no protection of technical knowledge in this country or in the Statute Book, especially in relation to medical subjects—that is an entire mistake. As long ago as 1815 the Society of Apothecaries obtained an Act by which the protection of medical knowledge is secured only to trained and qualified persons. Numerous prosecutions have been conducted under that Act, and successfully conducted. The Solicitors Act, we know, provides absolute protection for their technical knowledge. The Medical Act, which has again been specifically called in question, gives the same protection. That has been secured under Section XL of that Act. The British Medical Association feels that the proper observance and fulfilment of a clause dealing with this subject is absolutely essential for this Bill in order that the poor may be protected; and may I point out also that such a clause in nowise prevents a woman in labour being assisted by a neighbour in remote country districts? In a previous debate in the House of Commons it was advanced by Colonel Milward that such women would be absolutely without help until a medical officer of the district could arrive. There is no question that the proposals of the Association and of the General Medical Council would in nowise interfere with such assistance. I will not occupy your time further, Sir. I have dealt with the point which the Association feels to be really critical, namely, that the Government, if it lends any support to this Bill now before the House, will be placing upon the Statute Book an Act which in nowise meets the difficulty which is brought forward; and with regard to the mere protection of title, they are confident that it will only, as Dr. Helme has said, accentuate the present evils.

Mr. Norval Helme, M.P.: That is the case, Mr. Ritchie.

The Home Secretary: I need hardly say that I entirely acquit you gentlemen, and the profession to which you belong, of being moved in any way by sordid motives. I have not heard that the allegation has been made, but if it has been made it is one which, of course, I do not agree with at all. At the same time, I do not think from the observations that have been made that the position of the Government is quite understood with regard to this Bill. As you know, it is not a Government Bill; it is a private member's Bill, and it is of course the duty of the Government to have regard to the terms of private member's Bills, but not in the direction which you gentlemen seem to point to. It is not part of the duty of the Government in considering a private member's Bill to consider whether or not it goes to the full extent that some persons would desire. What we have to consider in connexion with a private member's Bill mainly is whether the provisions in the Bill are themselves objectionable, and so objectionable as to render it necessary for the Government

to take steps with regard to them. But it certainly is no part of the obligation of the Government to say, "This Bill, while fairly good in itself and doing some amount of good, does not do as much good as it ought to do, and therefore we intend to put down amendments which will make it a complete and satisfactory solution of the problem with which it proposes to deal." That is no part of the duty of the Government. No one can doubt that the existing state of things is not satisfactory. There is nothing whatever in the present law, as far as I understand, to prevent any persons calling themselves midwives and practising as midwives, being totally ignorant of the duties appertaining to that position; nothing, so far as I know, which would give any sort of guidance to a person wanting such services, as to whether or not there is any qualification at all required. So that I think that so far as the Bill does provide that hereafter, after the Bill comes into force, any one requiring the service of a midwife can ascertain whether or not the person that she calls in is certificated, and is, prima facie, at any rate capable of performing some of the duties of the position—so far as the Bill provides for that, no one can deny that that is a beneficial advance, and the Bill is something in advance of the existing state of the law, namely, that persons will not be able in the future to call in those midwives unless they have a certificate; so that any desiring the services of a midwife will be able to assure themselves at any rate of that. But you, gentlemen, have said that the Bill ought to go very much further. I do not now propose to deal with the question of the constitution of the Midwives Board, and I do not propose to touch upon small details which have been alluded to, but I imagine that all those matters have been brought before the Committee to which the Bill was referred. The Bill was referred to a Grand Committee or Standing Committee, and upon that Committee there were gentlemen representing the profession, and I have no doubt that every one of those points was very carefully considered and very completely discussed; but the Committee did not see fit to amend the Bill in the direction in which you, gentlemen, desire. But you want the Government now practically to take the Bill in hand, and to see that certain provisions are inserted in the Bill, and one of those provisions, as far as I understand, is a clause by which untrained persons would be entirely stopped from acting as midwives. That is a proposition which I understand was in the Bill of 1900, and it was to that proposition, perhaps, more than any other that the Home Office felt itself bound to take exception, and it did so for very obvious and, I think, sufficient reasons. The proposal would have made it a penal offence, a criminal offence, for a person who was not sufficiently qualified to have practised. But, putting aside for the moment the strong objection in principle which can be found against that proposal—that there was no precedent for it whatever in the existing law, there is no precedent that I know of which makes the want of professional knowledge a criminal offence. It is quite true that there are provisions in the existing law which in one way or another punish persons who profess to be what they are not, and who have not got proper professional knowledge, but I am informed that there is no precedent whatever for making such a thing a criminal offence, as it was suggested should be done by the clause in the Bill of 1900, and I do not think for one moment Parliament would listen to any such proposition. What would be the condition of things? Any poor woman who required help at that very trying period, and who called in the assistance of some persons who were in the habit of rendering such assistance at times of that kind would be unable to receive that assistance, because the persons who would be called in, and who might be perfectly qualified for rendering such assistance as might be necessary on that particular occasion, would be liable not only to a fine, but to imprisonment, for having come in at a trying moment to assist a woman who was in great need. I am perfectly certain that a proposal of that kind would never for a moment hold water in the House of Commons, but would be without hesitation or doubt rejected. I need not touch upon the other points of the Bill, such as the composition of the Midwives Board. I understand that objections were raised on the second reading to the constitution of the Board, and especially to the representation of one particular Society upon it. That was threshed out, I understand, before the Grand Committee, and the Grand Committee did not adopt the views which you, gentlemen, then expressed, and it would be quite impossible for the Government, even if it approved of the alterations which you suggest, to use its party majority for the purpose of carrying through the House of Commons measures in a private Bill which had been before the Grand Committee, and which had been rejected by that Committee. I do not know what is likely to happen when the Bill comes before the House of Commons. I suspect that if there were any very strong and powerful opposition to the Bill it would not stand very much chance of passing into law, but I hope that in the desire to recast this Bill and to model it into such shape as you would desire it to assume as a perfect Bill carrying out the views you have expressed in their entirety, in endeavouring to do that, I think you ought very carefully to consider whether, although this Bill does not go all the length which you think it ought to go, your objection to the partial character of the Bill is sufficiently strong to justify you in taking measures to prevent the passing of the Bill which, although not by any means a complete Bill from your point of view, yet does make a certain advance in the direction which you desire. These great changes cannot be made in a moment, and I do not at all deny that the time may arrive when a measure of a much more drastic character than this will be justifiable, but I am sure the chances of it being brought about will be greatly assisted by the passing of a moderate measure such as this at the present time. We have to proceed by steps in matters of this kind, and I think it would be a mistake for us not to take this step as, in my opinion, it would lead up probably in the end to dealing with the matter in a way much more satisfactory to you and to the profession to which you belong. I am afraid, gentlemen, I cannot say anything more than that I shall pay some attention to the Bill as it passes through the House. Remember that although the Bill is not what you desire, that still it may eventually become law; but I do not shut my eyes to the probability that if there is very strong opposition from your point of view to the Bill, it may not become law.

Mr. NORVAL HELME, M.P.: On behalf of the deputation, Sir, I beg to thank you for having received them.

THE JUBILEE OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

[FROM A CORRESPONDENT.]

THE approaching annual meeting of the Branch will be held at the Hotel Cecil on Wednesday, June 18th, under the chairmanship of Mr. Howard Marsh, who will then become the President of the Branch, and will deliver the presidential address. The date of the meeting is the same as that of the extraordinary general meeting of the Association called for the consideration of the new regulations, at 2 p.m. The Branch meeting will take place at 6 o'clock, the dinner at 7. As this will be the fiftieth annual meeting of the Branch, it may be profitable to revert to its formation and to notice some of the work undertaken by it, especially in its earlier years:

The formation of the Branch was decided on at a meeting held in Great Queen Street on November 26th, 1852, under the presidency of Dr. (afterwards Sir John) Forbes, and the rules were passed and the first officers and Council elected at a meeting at the Hanover Square Rooms on January 11th, 1853.

The Association was then styled the Provincial Medical and Surgical Association, and its journal was published until the end of 1852 at Worcester under the title of the *Provincial Medical and Surgical Journal*; but the annual meeting then resolved that it should for the future be published in London. Dr. W. H. Ranking (Norwich), and Mr. J. H. Walsh (Worcester), were the editors of the volume for 1852, which contained 684 pages and an index. The volume for 1853 was entitled the "Association Medical Journal," and was edited

by Sir (at that time Dr.) John Rose Cormack; and in bulk it was a great advance upon the preceding volume. It contained 1,154 pages and an index; the size of the pages, too, was increased to that of the pages of the BRITISH MEDICAL JOURNAL of to-day. It was when this transference of the editorship and printing of the JOURNAL to London was about to take place that the Metropolitan Counties Branch was formed, although the members of the Provincial Association then resident in and near London did not exceed sixty.

The first president of the newly-constituted Branch was Sir John Forbes, M.D., Physician to Her Majesty's Household and to Prince Albert and several other members of the Royal Family, Consulting Physician to the Hospital for Consumption and Diseases of the Chest, and Editor of the *Cyclopædia of Practical Medicine*, and of the *British and Foreign Medical Review*. Other officers were a president-elect, treasurer, secretary, and council. In 1859 two vice-presidents were appointed, and in 1878 their number was increased to four. Several well-known members of the profession are reported as having attended the preliminary meeting on November 26th, 1852, all of whom have since died except the veteran, Sir Henry Thompson. Sir John Rose Cormack, Sir B. W. Richardson (then residing at Mortlake), Dr. Tuke (Chiswick), Mr. John Propert (father of J. Lumsden Propert, now lately deceased), and Dr. Conolly (Hanwell) were there; and Sir B. W. Richardson stated some thirty years subsequently to the writer of these lines that they were at a loss for a name for the Branch (not desiring to call it the London Branch since it included surrounding districts), when, as some of them were walking together, they saw the name "Metropolitan Counties" written up over certain offices, and they determined to adopt that title as the name of the Branch. Mr. John Propert was the second president. The following early presidents still survive:—Mr. John Birkett (1860), Sir E. H. Sieveking (1865), Dr. Robert Barnes (1875), and Mr. Jonathan Hutchinson (1876).

The first treasurer was Mr. Joseph Toynbee, who was succeeded by Dr. Edwin Lankester in 1859, by Mr. Robert Dunn in 1866, by Dr. Walter Dickson in 1878, by Mr. Septimus W. Sibley in 1885, and in 1892 by the present treasurer, Mr. George Eastes.

The duties of the office of Secretary were first entrusted to Dr. T. Ogier Ward, who, acting upon a suggestion of Sir J. R. Cormack, convened the preliminary meeting. In 1857 Dr. A. P. Stewart was associated in the office with Dr. Ward; and in 1859, on Dr. Ward's retirement, Dr. Alexander Henry was elected Secretary. In 1874 Dr. Stewart retired from office, and Dr. Robert Farquharson, M.P., served until 1877, when he also retired and Dr. W. C. Grigg was elected in his place. Dr. Henry held office until 1886, that is, for more than twenty-six years, when illness compelled him to retire. The Branch recognizing the valuable nature of his services, presented him with certain books chosen by himself and a cheque for £286.

Mr. G. Eastes took Dr. Henry's place, and Mr. Noble Smith succeeded Dr. Grigg in 1887. Since that date Dr. Crocker, Mr. Andrew Clark, Dr. Isambard Owen, and the present holders of the office, Mr. H. B. Robinson and Dr. Washbourn, have been successively elected.

The Branch numbered 70 members in its first year, 200 in 1865, 400 in 1872, 600 in 1874, 800 in 1879, and 1,000 in 1887. The "attached" members of the Branch in 1895, when the Association last held its annual meeting in London, reached their highest number (1,255); since then they have diminished, until now they stand at less than 1,100. But, although the Branch has recently failed to grow, the "unattached" members of the Association residing within its area have constantly increased. At first, nearly all the members of the Association in the Branch were "attached:" in 1886 the "attached" were 913, the unattached 847; but at Christmas last (1901), when the "attached" members of the Branch were 1,085, the "unattached" were as many as 1,660. This fact probably indicates the prevalence of an opinion that there are in the present day no "burning questions" agitating the profession in respect of which medical men will much advance their interests by combination, and that all they desire from the Association is the weekly copy of the BRITISH MEDICAL JOURNAL. Should, however, the proposed constitution for the Association be passed, these "unattached" members being added to the Branch will give it a preponderance in numbers over all other Branches.

The subjects in which the Branch took an active—often an initiative—part were medical reform (before the principal Medical Act was passed, and since then whilst amending Acts have been under consideration), public vaccination (before and after the passing of the Vaccination Act in 1853, the Consolidating Act of 1867, and the various amending Acts), sanitary organization (both before and after the passing of the Public Health Act in 1872), the medical services of the army and navy (from 1855 to the present year), the medical relief of the sick poor, provident dispensaries, hospital management, midwives, legislation for habitual drunkards, the Cruelty to Animals Act, 1876, and medical education.

It was not at first "thought desirable to make the promotion of medical knowledge and the reading and discussion of papers an object of the Branch, it being felt that this duty was already performed to as great an extent as was consistent with the comfort and convenience of the members by the numerous societies already existing," in London. Occasionally, however, papers on strictly medical subjects were read before the whole Branch. In 1878 district societies for the suburbs in North, East, South, and West London were formed for the discussion of professional subjects. These district societies must each hold at least three meetings in the year. There was also for a short time a district society for Hertfordshire, but it does not now exist.

The Parliamentary Bills Committee of the Association was originated in the Metropolitan Counties Branch in 1864, when a Committee of the Branch was appointed to watch the progress of all Bills introduced into Parliament affecting the medical profession. Already in 1868 that Committee had done such good service that it became, with some modification, a Committee of the whole Association.

Three annual meetings of the Association have taken place in London—namely, in 1862, when Sir G. Burrows presided; in 1873, when Sir W. Fergusson was President; and in 1895, under the presidency of Sir J. Russell Reynolds. Until 1884 each President of the Branch in turn usually entertained the members at a *conversazione*; but the number of members had meanwhile grown to such large dimensions, and the consequent expense of their adequate entertainment had become so great, that it was in that year unanimously resolved to be "undesirable that any future President of the Branch should publicly entertain at his own expense all the members of the Branch." The annual subscription of the members to the Branch funds was at the same time raised from 2s. 6d. to 4s., in order to provide a surplus which might permit the Branch to hold a *conversazione* about every other year. These biennial social functions have generally take place in May at South Kensington, either at the Victoria and Albert Museum, or in the Museum of Natural History.

THE STATE REGISTRATION OF TRAINED NURSES.

AN Association entitled the Society for the State Registration of Trained Nurses was formed on the morning of May 30th. It consists of 461 trained nurses, under the presidency of Miss Louisa Stevenson, of the Board of Management of the Royal Infirmary of Edinburgh. The object of the Society is to obtain by Act of Parliament the registration of trained nurses.

In the afternoon of the same day a meeting was held at 26, George Street, Hanover Square, London, to hear addresses on the subject. The chair was taken by Miss ISLA STEWART, President of the Matrons' Council of Great Britain and Ireland.

Miss ISLA STEWART read a letter from Miss Stevenson, in which she urged that no woman should be entitled to call herself a nurse who was not a trained nurse and registered as such. Miss Stewart pointed out that among nurses there was no unity, no standard of efficiency, and no uniform curriculum of training. Nurses were simply scattered units throughout the country without any power of working together. Trained nurses must feel acutely the injustice of being put on the same level with a so-called nurse who had had six months' training in a private

nursing home. The need of registration was so pressing that the Matrons' Association of Great Britain and Ireland had secured the formation of the Society for the State Registration of Trained Nurses, with the one aim of obtaining a Bill in Parliament for that purpose. Registration would give nurses a possibility of inculcating and enforcing an ethical standard of conduct for nurses. An examining body would be instituted, and it would be possible to expel from the ranks of registered nurses those who did not act honourably.

Miss Mollett, President of the League of Royal South Hants Nurses, quoted the opinion of Sir Henry Acland in favour of registration of nurses, and referred to Sir James Paget's view that it was only a question of time for registration to be granted.

Mrs. Groves, of the League of St. Bartholomew's Hospital Nurses, and Miss Mary Burr, Honorary Secretary, League of St. John's House Nurses, also addressed the meeting.

Mrs. Bedford Fenwick, President of the International Council of Nurses, said that she had worked for the State registration of trained nurses for the last fifteen years, and had been during the whole of that time constantly disappointed. She was opposed to nurses being what she termed "done for." She advocated the plan of nurses doing things for themselves. There was a great difficulty in doing this because such a large number of people from the very kindest motives would insist on taking away from the nurses any opportunity of coming forward and speaking for themselves. There were 80,000 nurses in the kingdom. She was sorry to see so few present. Directly the State registration of trained nurses was advocated, the question was asked if the majority of the nurses concerned wished for it, and Mrs. Fenwick's answer to that was that the nurses had not been allowed to consider the matter and express an opinion. The subject had been discussed for the last thirty-five years and had made great progress. The movement had lived through the phase when a few said it was a good thing. Then a few nurses had said they would hold a meeting and form a society. That meeting was held fifteen years ago, and they got a Royal Charter to help forward registration. Then all those who had advocated registration in theory began to be afraid of it in practice. The result was that the Society settled itself down into dabbling in philanthropy. The committees of the large hospitals came forward and voted against State registration. They went before the Privy Council, and stated that the nurses did not wish it, but the nurses had never been consulted. Nevertheless the committees of the large hospitals, the medical staffs, and, she was sorry to say, many of the matrons, ranged themselves against the professional interests of the trained nurses. The committees of the great hospitals met together and formed committees to oppose registration. She did not know whether the expenses were paid out of their own pockets or whether the subscribers to the hospitals paid. These committees tried to "snuff out" the trained nurses. Mrs. Fenwick said that she swept aside the whole of that opposition as fictitious, because the committees did it without consulting the nurses. The nurses at the present meeting formed a very little and a very poor Society, but they were convinced that registration of the trained nurses was a question involving the protection of the sick and the poor of all classes. Whether that Society would be able to effect its object she did not know, but it was for the good of their patients that they were working for registration. It was an industrial question and one which touched the pockets of many people. So far the large hospitals had absolute control over the nurses at the training schools, and the nurses had never been in a position to state their opinion concerning their own affairs. The women in the training schools for nurses had their human rights just as much as any other human being. They ought to have power to have some form of self-government, some form of representation. State registration meant the enfranchisement of trained nurses, and that carried with it an immense responsibility. It was the duty of the State to provide safeguards, and an Act should be passed to form a general nursing council which should have power over matters connected with nursing. In regard to the committees of the large hospitals they must widen out their sphere of influence, and help in arranging for the constitution of the general nursing council for the registration of nurses.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

The forty-ninth annual general meeting of the governors of this College was held at 37, Soho Square, on May 30th. The chair was occupied by Dr. Holman, the Treasurer; and among those present were Sir Joseph Fayrer, the Rev. E. W. Northey, Sir William S. Church, Dr. Stamford Felce, Dr. John Galton, Mr. Reginal Harrison, Mr. Kiallmark, Sir Richard Douglas Powell, Dr. Sansom, the Rev. T. N. Hart Smith, Headmaster of the School; Colonel Gordon Watson, Dr. Latham, Mr. Vardon, Dr. Baines, Dr. Needham, Mr. Propert, and Mr. J. Bernard Lamb, the Secretary.

Election of Pensioners and Scholars.

At the opening of the proceedings, Mr. Lamb announced that the following candidates for Pensionerships, Foundation Scholarships, and Morgan Annuities had attained the largest number of votes, and were therefore submitted for election:

Pensioners.

1.	Owen, Fanny E.	10,937
2.	Sheppard, Margaret M.	9,347
3.	Jones, Caroline M.	9,319
4.	Johnson, Charlotte	7,492
5.	Matthews, Lucy E.	4,939
6.	Wilson, Fanny W.	4,339
7.	Nolan, Sarah	3,295

Foundation Scholars.

1.	Corry, Wilfred L.	8,710
2.	MacNaught, Gerald K.	8,165
3.	Wallington, William T. K.	8,048
4.	Cowan, John A.	7,325
5.	Leigh, Reginald H.	5,025
6.	Sewart, John H.	4,483

Morgan Annuitants.

1.	Rymer, Matilda S.	7,649
2.	Thackthwaite, Emma	3,718
3.	Wilcocks, Ann	3,578

The late Mr. Lumsden Propert.

In proposing the adoption of the report for the year 1901, Dr. Holman made sympathetic reference to the loss which had been sustained by the death of Mr. John Lumsden Propert who had been closely associated with the College and had taken an unwearied interest in its welfare both as a member of Council and as a trustee to numerous funds, since the death in 1867 of his father who founded the institution. He announced that Mr. W. A. Propert had been elected to the vacancy on the Council caused by his father's death, and that thus the name of Propert would be continued to the third generation in connexion with the government of the College. He moved, and his proposal was seconded by Sir Joseph Fayrer, and carried unanimously, that a vote of condolence with the late Mr. John Propert's family be recorded in the minutes and a copy thereof forwarded to Mrs. Propert.

Finance.

In referring to the financial position of the College, Dr. Holman congratulated the Governors on the fact that whereas the year 1900 ended with a debt to the bankers of £2,500, that debt at the end of 1901 had been reduced to £400. The income and expenditure account showed a surplus of £1,773 18s. 11d. of receipts over payments. This gratifying result was mainly attributable to the success of the festival dinner, presided over by the Earl of Rosebery, at which £4,000 was collected, including an anonymous donation of one thousand guineas.

The sum left by the late Mr. John France to the Pension Fund for the benefit of aged and necessitous members of the medical profession had been dealt with by the Council on the same lines as the Pugh and other pensions, and like them would be distributed in yearly amounts of £30. Mr. France had shown his confidence in the Council, of which body he had been a member since the foundation of the College, by entrusting to them the election of the "France" Pensioners. In addition to the £10,000 left to found these pensions, he had also given to the College ten presentations to St. Anne's Schools which had cost £12,000.

The School.

An important clause of the report dealt with a decision arrived at by the Council to increase the school fees. For

many years the sons of medical men had only been charged £60 a year, but it was found impossible to continue for this fee the high-class education now provided, except at an annually recurring loss. It was accordingly proposed to raise the fee for sons of medical men to 65 guineas; for other boys to increase it from £70 to 75 guineas: and for day scholars from £20 to 25 guineas. The increase would not apply to boys already in the school up to and including May 1st. Dr. Holman pointed out that no other school of a similar standing to Epsom College gave anything like such a complete education for the fees charged, and although it would have been justifiable to make the fees generally higher, the Council felt that as so many boys were drawn from the ranks of the profession, it was desirable to keep the fees as low as possible. He referred to the resignation of Dr. Rowton, who had been a master at the College for thirty years, and reported that in recognition of his long services the Council had presented him with an honorarium of 100 guineas, and they had also subscribed individually towards the purchase of a tea and coffee service in further token of their appreciation of his unselfish devotion to the school. Dr. Holman concluded his remarks with a warm acknowledgement of the services rendered to the College by all who were concerned with its work and management.

Dr. WINSLOW took exception to the style and title of the institution, but it was pointed out that to drop the word "benevolent" as he suggested might endanger the chance of bequests, and for this and other cogent reasons, it was a change which, though desirable from some points of view, would not at present be prudent.

The TREASURER observed that as soon as the income of the charitable side of the work was assured the alteration of the title could be made without putting the College to any expense.

The report was not further criticized, and was unanimously adopted.

Dr. John H. Galton was elected a Vice-President of the College.

A vote of thanks to Dr. Holman ended the proceedings.

The number of boys at present in the school reaches the large total of 242, made up of the following classes:

Foundation scholars	48
Council Exhibitioners	8
Other boarders in the College	136
Boarders in Masters' houses	38
Day boys	12
	242

LITERARY NOTES.

A *Handbook on Medical Ethics*, by Dr. Robert Saundby, Professor of Medicine in the University of Birmingham, is now in the press, and will shortly be published by Messrs. John Wright and Co., of Bristol.

In the *Revue Scientifique* of May 31st Professor Charles Richet, the well-known physiologist, announces that he has been compelled to resign the editorship of that justly-popular periodical, which he has held for twenty-five years.

The *Archivio di Patologia e Clinica Infantile* is the title of a new periodical founded and edited by Professor Tommaso Guida, of Naples. It is devoted, as its title imports, to diseases of children, and it is to appear every two months.

Messrs. J. and A. Churchill will shortly publish a seventh edition of *The Diseases of Children* by Dr. Goodhart and Dr. Still. This edition will contain about one hundred pages more than the previous one, while the page is also enlarged to the library form. The same firm will shortly have ready a second edition of *A Manual of Bacteriology* by Dr. Hewlett. This edition is much enlarged and contains many new illustrations. Messrs. Churchill also announce a fourth edition of vol. ii of Fagge's *Textbook of Medicine* under the editorship, as hitherto, of Dr. Pye-Smith, F.R.S.; a second series of *Clinical Lectures* on surgical subjects by Mr. Christopher Heath; and a new work by Dr. A. T. Schofield, entitled, *The Force of Mind or the Mental Factor in Medicine*.

Two of Dr. Alexander Haig's books, *Uric Acid as a Factor in the Causation of Disease* and *Diet and Food in Relation to Strength, Power of Endurance, Training, and Athletics*, have recently achieved the honour of translation into German. Dr. Max Bircher-Benner, of Zurich, has produced an authorized version of the former from the fifth English edition; and Herr Hans Knoch has translated the latter from the third English edition. Both translations are published by Otto Salle, of Berlin.

The *American Electrotherapeutic and X-Ray Era* for March has, as we learn from the New York *Medical Journal*, unearthed the following passage, which seems to be an adumbration of Roentgen's great discovery, from Vol. XXXI of the *Wiener Zeitschrift fur Kunst, Literatur, Theatur, und Mode* for November 23rd, 1846:

> The Human Body Transparent! The Greek physiologist Eseltja has, according to the *Athenæum*, made the announcement that he has succeeded, with the aid of the electric light, in seeing though the human body. He asserts that he has watched the disease processes in the intestines, also the digestive process, the circulation of the blood, and the movement of the nerves. If this "Anthroposcope," as he calls it, is more than a cheap advertisement, the old proverb, which says that no one can see into the heart of man, has been set at naught.

One would like to know something more of this forgotten physiologist, and his equally forgotten discovery. The name "Eseltja" as a Greek patronymic, "surprise by himself," as Count Smorltork would say; but far be it from us to deny the gentleman's existence on such *a priori* grounds.

In *Knowledge* for June Sir Samuel Wilks returns to the interesting discussion as to how far Fahrenheit was indebted to Newton for his scale. He says:

> It is true that neither in Fahrenheit's biography, or, indeed, in any work of the time, is there any distinct account of the *rationale* of his scale: for had it been otherwise an explanation of it would have appeared in works of chemistry, the authors of which profess ignorance of its meaning. It is clear, therefore, that what is known can only be gathered by inference from writers who have interested themselves in the matter: and these, as far as my reading has gone, have attributed to Newton the origin of the scale. It seems a most remarkable coincidence that these two men should both have started from the same point between freezing and boiling, and adopted the same number, from perfectly independent considerations. It would be remarkable, too, if Fahrenheit had never seen or heard of Newton's instrument, invented a few years before. We have only to multiply Newton's figures by eight to obtain Fahrenheit's scale. The scale of the latter, in his first constructed thermometer, was plus 00 and minus 90, but it is not clear how this could have assisted in the framing of his subsequent scale, as the numbers did not refer to freezing or boiling points. That thermometer, as is known, he discarded, and then made another, taking for his fixed point the temperature of the human body. This was Newton's method, by which he had worked. It seems to be correctly said that Newton was in doubt as to a fixed point for boiling, for he speaks of boiling and violent boiling as if they implied different degrees of heat. Newton's paper appeared in the *Philosophical Transactions for 1701*, and, although anonymous, has always been attributed to our great philosopher. It is so said by Brewster, by Kelvin, by Renou, and others.

We have received the issue for April, 1902, of *Al-Tib al-Hadisse*, an Egyptian medical journal published in Arabic for the benefit of native medical men and chemists. It is edited by Dr. Alfred Eid, one of the most enterprising of the foreign practitioners in Cairo. The modern generation of native practitioners is trained upon European lines in the Government Medical School at Cairo, and has in general a fair acquaintanceship with the English and French languages. The periodical under notice will however be no doubt of much service to such of the older men who are not too case-hardened to take advantage of it. The April number contains an account of Professor Calmette's work on the antivenenes and several useful summaries of recent therapeutics.

In the June number of the *Nineteenth Century and After*, Miss M. F. Johnston replies to the champions who entered the lists in defence of the hospital nurses whom she attacked with more vigour than discrimination in the April number of the same review. Internal evidence seemed to lend colour to the suspicion that she had had some unsatisfactory personal experience of the nursing vocation, and that her sweeping charges were inspired by the *spretae injuria formae*. We are informed, however, that she is a journalist, and we shall therefore not be far wrong in assuming that the leading motive of her article was the wish to say something sensational. In this she certainly succeeded, and doubtless both she and the "able editor" with whom she was able to "place" her "stuff" are satisfied with the result of the transaction. Miss Johnston may perhaps remember what Burke said as to the folly of drawing an indictment against a whole nation; it is equally foolish to draw an indictment against a whole profession. Yet this is just what she has done. And she is very indignant with Miss Isla Stewart for protesting against her "attempt to disparage a whole profession." Miss

Johnston, however, has the redeeming vice of inconsistency, for a little further on she says: "That there are a very large number of hardworking devoted women among the nurses of our great hospitals and nursing institutions is too obvious a fact to need any statement." Her charges, therefore, reduce themselves to the truism that the nursing body contains within itself a certain proportion of undesirable members. Precisely the same thing could be said of women journalists. Miss Johnston makes no attempt to answer Mr. Sydney Holland and her other critics. She defends her position by quoting a few instances of "callousness" and questionable conduct on the part of trained nurses. Assuming them to be true, they are not edifying, but in any case they are altogether exceptional. Miss Johnston can know little of nursing or nurses at first hand. We should recommend her to turn her attention to the treatment of nurses in private houses by fretful and exacting patients, and by inconsiderate relatives, We can assnre her she would soon find materials for a much more sensational picture of a nurse's life, which would have the advantage of being strictly true.

In the same number of the *Nineteenth Century and After* the question of the modern trained nurse is dealt with by Miss Lucy M. Rae, Lady Superintendent, Coventry and Warwickshire Hospital, and Mrs. Alec Warde. The former appears to consider that Miss Johnston's statement are in the main truthful. Miss Rae, therefore, believing trained nurses to be callous persons who rack the nerves of their patients by telling them horrible tales of the hospitals, make advances to their male patients, and try to get them to make their wills in their favour, thinks it all comes "from unrefined environment and lack of domestic training, all of which are due to the neglect of parents in the early lives of their children." Three years of training cannot eradicate faults of 21 years' standing. "The mixed class in the nursing profession is to a large extent responsible for the bad qualities of which Miss Johnston writes." The low-class nurses cannot live up to the high standard of the houses to which they are sent; they are not "fitted to cope with the situation that the mind of a real gentlewoman would accept with perfect ease." The moral of which is that "the profession should be composed of educated gentlewomen only; women whose environment has taught them the importance of gentle manners and soft-toned speech in the presence of sickness." We are sorry to say that our own experience has been that "educated gentlewomen" are by no means uniformly gentle in manners or soft-toned in speech, and that in nursing they sometimes fail precisely because they are so anxious to secure recognition of the fact that they are "gentlewomen" that they are apt to forget that they are women. Miss Rae holds that it is the duty of the public to see that nurses are trained in a proper manner and to "institute organization suitable to the needs of a refined class of women." We venture to think that the public will be willing to do without refinement if it can get efficiency, honesty, good nature, and readiness to oblige. Mrs. Alec Warde also thinks that "we, the public, have ourselves in great measure to blame that the nurse is often far removed from the traditional ministering angel." Artemus Ward said, "We are governed too much"; Mrs. Warde says in effect, "We are nursed too much!" Instead of looking after our sick ourselves in slight illnesses, we call in a nurse and establish her in the household as an autocrat. This is done in order to shuffle responsibility off our own shoulders. There is doubtless a certain measure of truth here, but the remedy suggested, that "mother, wife, or sister" should "make a point of being constantly in the sick room.....of seeing the chart, and all the records kept of food, temperature, etc.....of always being present when the nurse gives the doctor her report and when he gives his orders, and of seeing that these orders are carried out" would often lead to disaster. A nurse may be too despotic in her little kingdom, but after all despotism is better than anarchy.

In an article entitled "Schools for Statesmen," which appears in the June number of the *Fortnightly Review*, Mr. T. H. S. Escott, dealing with the secret of the "peculiar influence" exercised by Delane, the famous editor of the *Times*, gives the following as an illustration of his methods. We give the story as it is told by Mr. Escott, leaving him the full responsibility for the statements:

Thus the winter season of 1856 he chanced to meet, at a London dinner-table, Sir Andrew Clark; casually remarked the great medicine man: "Lord Lytton wanted to know to-day my opinion on a tropical climate"; the next morning the *Times* was "in a position to announce" that Lord Lytton had been offered and accepted the Viceroyship of India.

Mr. Escott adds that this is "a fair specimen of the manner in which the early and exclusive information of such journalistic value often finds its way into print." A man, as Falstaff says, must labour in his vocation, and Delane no doubt considered that he was doing his duty in picking up unconsidered trifles of information. But the story, whether true or not, may serve to point the moral, that physicians whose counsel is sought by members of which are called the "governing classes" cannot keep their lips too tightly sealed as to matters apparently the most trivial which they may learn in their professional capacity. Casual remarks dropped at the dinner-table in the presence of those who have ears to hear might conceivably have most serious consequences, not only for individuals but for nations.

NOVA ET VETERA.

THE TRIUMPH OF WORK.

In the *Archives Générales de Médécine* for January, Professor P. Tillaux gives an interesting account of the famous French surgeon, Velpeau. He was the son of a blacksmith, and was born in 1795 at Breche, a small village of the Indre-et-Loire Department between Tours and Le Mans. There was no school in the village, and he learnt nothing in his childhood but some fragments of the gospels got by heart in serving mass. At 11 he was taught to read and write, and got some elementary notions of mathematics. His father, who practised a little in the veterinary line, when he saw that his son could read, bought one or two popular books on the subject which he made the boy read to him in the evening. About this time Velpeau suffered from an affection of the leg, which lasted two years and was probably an osteomyelitis. The bonesetter was called in, but did no good, and Velpeau having tried all the plasters and ointments in his veterinary books set to work to study medicinal plants. This gained for him such a reputation that people came to consult him from the neighbouring villages. His knowledge not being equal to the demands made upon him, he bought popular books of medicine. In this way he reached the age of 20, blowing the bellows in the forge, shoeing horses, and physicking the country folks. Fortunately for his patients and himself his career as an unqualified practitioner came to a sudden end. Being called upon to treat an idiot girl, he bethought himself that he had read that idiocy could be cured with black hellebore. Accordingly he prescribed a maceration of the roots of that plant, which made the girl so ill that the local doctor (M. Bodin) was called. The doctor spoke his mind somewhat freely to the young bonesetter, but promised to say nothing more about the affair on condition that Velpeau gave up the practice of medicine. M. Bodin could have had no idea at the time that one day his own grandson would be house-surgeon to the quack whom he so justly reprimanded. Some time afterwards Velpeau attracted the notice of a local magnate who allowed him to share the lessons of his children's tutor. He made such progress that the gentleman interceded for him with Dr. Bodin, and the end of the matter was that Velpeau at the age of 21 was introduced to Dr. Gouraud, senior surgeon of the Tours Hospital. It is a curious coincidence that Dr. Gouraud's grandson, now physician to the Charité, was also afterwards house-surgeon to Velpeau. The young blacksmith had a rough time of it at first, but his indefatigable application won the regard of his chief, who introduced him to Bretonneau, who offered him the post of resident pupil in the hospital. As a preliminary to taking his doctor's degree Velpeau had to pass examinations in Arts and in Science, while doing his hospital work. At the age of 25 he went to Paris, with £16, all his savings, in his pocket. When his money was all but exhausted, Bretonneau gave him an introduction to Jules Cloquet, Lecturer on Anatomy at the Faculty of Medicine. Cloquet appointed him his assistant, and recommended pupils to him. At the end of his first year Velpeau gained the Grand Prix of the Ecole Pratique in Anatomy and Physiology, and in the following year he was

appointed Demonstrator. In 1823 he took his doctor's degree, the subject of his thesis being a refutation of the system of Broussais. In 1824 he gained by competition the title of *professeur agrégé*. The thesis which he presented was in Latin, and dealt with the following questions:

An Tuberculorum crudorum in pulmonibus { certa diagnosis? / possibilis curatio?

His conclusions are interesting:

1. Ergo certa diagnosis tuberculorum crudorum in pulmonibus potest haberi.
2. Ergo possibilis crudorum in pulmonibus tuberculorum curatio.

We are unfortunately unable to say whether he says anything about the open-air treatment.

Some time afterwards he became surgeon to the hospitals. In 1832 he was elected a member of the Academy of Medicine, and in 1834 he was appointed Professor of Clinical Surgery. In 1843 he became a member of the Institute, thus having mounted all the way from the forge to the top of the scientific ladder in less than thirty years. Few men have illustrated better than Velpeau the truth of the Roman poet's saying that *omnia vincit labor improbus*. In addition to his constant labours as teacher and as surgeon he published a vast number of books, including a treatise on surgical anatomy (1825), of which several editions appeared; a treatise of midwifery in two volumes (1829); a treatise of operative surgery in four volumes (1832); a folio volume on human embryology, with plates (1833): a complete treatise of midwifery in two volumes (1835); and a treatise on diseases of the breast and mammary region embodying personal observations gathered during twenty years, issued in 1854 and reprinted in 1858. Besides these works he wrote separate papers to a number sufficient to make from ten to fifteen volumes.

He was not brilliant as a professor; but, nevertheless, students attended his lectures on account of the clearness of his expositions and the good sense of his teaching. As an operator he was safe but not brilliant. He was a clinician of the first order, and is said to have initiated the method of diagnosis by exclusion. He was a model of punctuality, having never during more than 30 years missed his visit to the Charité at the same hour. He led a life of extraordinary austerity, avoiding society and all amusements till within a few years of his death. He had only one passion—a love of puns—but that was a monomania. Like Bacon, Velpeau would sacrifice almost anything for a pun, and he was not particular about its quality.

His death, which took place at the age of 72, was directly due to his devotion to duty. While ill with pneumonia he insisted on going to the Hospital, in spite of all advice, because one of his house surgeons was going to operate, and he was anxious to be there to help him. He was one of the last, and also one of the best, of the surgeons of the old French school. A man of inflexible uprightness, unsparing of himself as he was of others, he lived for his work and died in harness.

MEDICAL MEMBERS OF THE FRENCH CHAMBER OF DEPUTIES.

AMONG the members of the newly-elected French Chamber of Deputies are 56 medical men. The total number of Deputies being 591, the percentage of medical members is therefore nearly 9.5. The following is a list of the doctors who now have a seat in the Chamber. The names printed in italics are those of new members:

Drs. Amodru (Etampes), Aubry (Constantine); Bachimont (Nogent-sur-Seine), Barrois (Lille), Baudon (Beauvais), *Bichon* (Angers), Borne (Montbéliard), Bourgeois (La Roche-sur-Yon), Boutard (Saint-Yrieix); *Cachet* (Domfront), Cazauvieilh (Bordeaux), *Cazeneuve* (Lyon), Chambige (Clermont-Ferrand), Chapuis (Toul), Chautemps (Bonneville), *Chevalier* (Charolles), Clament (Bergerac), *Clément* (Martinique); Dasque (Tarbes), David (Châteauroux), *Dèche* (Marmande), Defontaine (Avesnes), Delarue (Gannat), Delbet (Coulommiers), Devins (Brioude), Dron (Lille), Dubief (Mâcon), Dubois (Paris), Dubuisson (Châteaulin); Empereur (Moutiers); Gacon (La Palisse); Herbet (Bourg); Isambard (Evreux); Lachaud (Brive), de Lanessan (Lyon), Levraud (Paris), *Loque* (Orange); De Mahy (Réunion), *Marot* (Ruffec), Merlon (Auxerre), *Mestier* (Saint-Denis), *Michel* (Yssingeaux); Pourteyron (Ribérac); Rey (Cahors), *Rouby* (Tulle); *Sabaterie* (Ambert), Sarrazin (Sarlat), Simyan (Mâcon), *Streuoi* (Nontron); *Thivrier* (Montluçon), Turigny (Nevers); *Vacherie* (Bellac), Vaillant (Paris), Vazeille (Montargis), Vigné (Lodève), Villejean (Tonnerre).

THE FUND FOR THE FAMILY OF THE LATE DR. WILLIAM SMYTH.

DR. CALWELL, 1, College Square North, Belfast, Honorary Secretary Belfast Committee, begs to acknowledge, with thanks, the receipt of 9 guineas from the Editor of the *Australasian Medical Gazette*, of Sydney, Australia, for the Dr. William Smyth Fund, being the amount raised through the columns of that journal. As already announced, the fund is closed.

We have received the following letter of thanks to the profession from Mrs. Smyth.

Rosline Lodge, Burtonport, co. Donegal,
June 3rd, 1902.

SIR,—Would you kindly allow me the courtesy of the columns of the BRITISH MEDICAL JOURNAL to enable me to thank the medical profession for their great kindness to me in connexion with Dr. Smyth's death. My heart is too full of gratitude for me adequately to express my feelings, and I can only say that I will never forget the generosity of my husband's colleagues in the affliction which so suddenly came upon us.

I use the columns of the BRITISH MEDICAL JOURNAL as the most effective way of reaching the medical profession.—I am, Sir, yours faithfully,

G. M. SMYTH.

British Medical Association.

NOTICE OF SPECIAL BUSINESS.

NOTICE is hereby given that an Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 18th day of June, 1902, at 2 o'clock in the afternoon, for the purpose of considering, and if thought fit passing, the subjoined resolution, that is to say:

"That the draft new regulations submitted to this meeting, and for the purpose of identification initialled by the Chairman thereof, which regulations have been prepared under the direction of the Committee appointed for the purpose by the Council in pursuance of resolutions passed at the Annual General Meeting of the Association at Cheltenham in 1901, be, and the same are hereby adopted as the regulations of the Association to the exclusion of and in substitution for all the existing regulations of the Association."

And Notice is hereby also given that a further Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 9th day of July, 1902, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings had at the first above-mentioned Meeting, and of considering, and if thought fit passing, a resolution confirming as a special resolution the resolution above set forth. But if the same shall not have been passed by the requisite majority at the said first-mentioned Meeting, due notice will be given to the Members that the Meeting on the 9th day of July, 1902, above mentioned will not be held.

A copy of the proposed new regulations can be seen at the Office of the Association at any time during business hours, and a copy will be found printed in the JOURNAL of the Association of the 24th day of May, 1902.

Dated the 22nd day of May, 1902.

By Order,

FRANCIS FOWKE, *General Secretary*.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 9th day of July, at **3** o'clock in the afternoon, immediately on the conclusion of the Extraordinary General Meeting at Exeter Hall.

May, 1902. FRANCIS FOWKE, *General Secretary*.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 18th and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Hotel Cecil on Wednesday, June 18th, at 6 p.m., and will be followed by the annual dinner at 7 p.m. The attention of members is drawn to the fact that this is the fiftieth anniversary, and it is hoped that a large number will be present to celebrate this event.—HENRY BELHAM ROBINSON, 1, Upper Wimpole Street, W.; J. W. WASHBOURN, M.D., C.M.G., 6, Cavendish Place, W., Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Birkenhead on Thursday, June 19th. Members wishing to read papers, show cases or specimens, etc., should communicate with the Honorary Secretary, T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester.

SOUTH EASTERN BRANCH.—The annual meeting will be held at the Granville Hotel, Ramsgate, on Friday, June 20th, at 2.30 p.m. The President-elect (Dr. Hal-tead) invites and hopes to have as many members as possible to luncheon at the hotel at 1.30 p.m. Dinner at the same place at 6 p.m.; 5s. per head (wine supplied by the local members). As many members of the Branch, especially from outlying districts, may find a difficulty in obtaining a suitable train to return home the same night, the President-elect will be most glad if any such will accept his offer of hospitality at the Granville Hotel for bed and breakfast. If more applications for these shall be received than can be accommodated, the order of priority of application will be followed.—T. JENNER VERRALL, 97, Montpellier Road, Brighton, Honorary Secretary.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at the City of London Asylum, Dartford, on Friday, June 13th, at 3.15 p.m.; Dr. Ernest White in the chair. Agenda: Minutes of previous meeting. Election of Honorary Secretary for the ensuing year. Dr. Wilfred Wardle, Assistant Physician to the Hospital for Diseases of the Skin, Blackfriars, will read a paper on Impetigo. Dr. Beresford will show some cases of Adenoma Sebaceum. Dr. Arthur Patterson will contribute Notes on the After Effects in a Case of Revaccination. The Chairman having kindly invited members to lunch between the meeting and the Honorary Secretary will be pleased to hear from those gentlemen who intend availing themselves of this kind invitation.—LUDLOW COOPER, 12, Victoria Street, Rochester, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH. The annual general meeting of the Branch will be held on Thursday, June 19th, at 3 p.m., in the Medical Institute, Edmund Street, Birmingham. The meeting will be followed by the annual dinner to be held the same day at 6.30 p.m. in the Grand Hotel, Lionel Street, Chairman, Dr. Henry Malet, President elect of the Branch. J. J. MORRISON, F.R.C.S.; T. STACEY WILSON, M.D., Birmingham, Honorary Secretaries.

EDINBURGH (CITY AND LOTHIAN) BRANCH.—The annual meeting of this Branch will be held on Tuesday, June 17th. JAMES HOLDEN, NORMAN WALKER, Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE AND NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of these two Branches will be held in Aberdeen on June 18th. Further particulars will be sent to the members in due course. As this is the first meeting of the Branches it is hoped there will be a full attendance. The annual golf match between the two Branches will be played for. Members of other Branches wishing to play might kindly send in their names to the Secretaries. J. F. CHRISTIE, Aberdeen, or J. MUNRO MOIR, Inverness.

SOUTH MIDLAND BRANCH.—The forty-fourth annual meeting of this Branch will be held on Thursday, June 19th, at the Bedford County Hospital, Bedford, at 3 o'clock, under the presidency of Mr. Clifford Nash. Gentlemen are invited to introduce new members, and any one wishing to read papers or cases is requested to communicate with the Honorary Secretary without delay. The President requests the pleasure of the members' company at luncheon in the Hospital at 1 o'clock, and will be obliged by the favour of a reply, addressed to himself, not later than June 7th. Agenda: Discussion, the Open-air Treatment of Consumption, with special reference to the Nordrach System; to be opened by Dr. Hartley. Dr. Brand: Pemphigus Foliaceus in an Infant. Interesting pathological specimens from the Bedford Hospital Museum will be shown.—E. HARRIES JONES, Northampton, Honorary Secretary.

EAST ANGLIAN BRANCH.—*Preliminary Notice:* The annual general meeting of this Branch will take place at Great Yarmouth on Thursday, July 10th, under the Presidency of Mr. W. E. Wyllys. The presentations to Dr. Barnes and Dr. Beverley will take place at this meeting. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting will communicate at once with Dr. Ballance, Norwich. Members desirous of nominating candidates for election as officers of the Branch, under By-law 9, must send their nomination to Dr. Nicholson so as to reach him not later than June 13th. Members who have not yet paid their subscriptions for the current year will oblige by sending them to one of the Honorary Secretaries—B. H. NICHOLSON, Colchester; H. A. BALLANCE, Norwich; FRANCIS WARD, Ipswich.

SOUTH-WESTERN BRANCH.—The sixty-third annual meeting of this Branch will be held on Wednesday, June 18th, in the Board room of the Royal Devon and Exeter Hospital at 3 p.m., when Mr. G. Thom will resign the chair to Mr. J. Delpratt Harris, who will deliver his inaugural address. The report of the Branch Council for the year 1901-02 will be presented to the meeting, and the officers of the Branch, and representatives on the Central Council, and on the Parliamentary Bills Committee, be elected for the year 1902-03. After the meeting the President has kindly arranged visits to the new wards of the Royal Devon and Exeter Hospital, and West of England Eye Infirmary, the Cathedral, Cathedral Library, where documents of great interest can be examined, the Guildhall, the city muniments, and the septic tank system. Luncheon, by kind invitation of the President-elect, will take place from 12.30 to 2.30 p.m. at 45, West Southernhay, and the annual dinner will be held at Pople's New London Hotel at 6.30 p.m. Tickets (exclusive of wine), 6s. The Honorary Secretary will be obliged if those members who purpose attending the dinner will inform him on or before June 14th, and at the same time forward 5s., the amount of the dinner ticket.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Guildhall, Lincoln, on Thursday, June 12th, at 2.15 p.m. Mr. T. P. Greenwood, President-elect, will preside. Agenda: Minutes, report of Branch Council, election of representatives of Branch on General Council, election of representatives of Branch on Parliamentary Bills Committee, election of Branch Council and officers, election of President-elect for 1902-3. Papers—Address by the new President: The Results of the Public Health Acts on the Health of the Rural Population during the last Twenty-five Years. Dr. E. A. Lawrie (late of Hyderabad): The Administration of Chloroform. Dr. G. M. Lowe: The Influence of Roentgen Rays in the Treatment of Lupus and other Skin Affections. Dr. Pope and other members of Branch Council: The Effect of the Proposed New Rules and By-laws on the Organization and Area of the Branch. Expressions of opinions as to what should be the new divisions in this Branch area are requested. Members are requested to bring cases and specimens for exhibition. Luncheon will be provided by the President-elect at the Albion Hotel at 1 p.m. The annual dinner will be held at the Albion Hotel at 6 p.m. Tickets 7s. 6d., exclusive of wine.—FRANK M. POPE, M.D., 4, Prebend Street, Leicester, Honorary Secretary and Treasurer.

DUNDEE AND DISTRICT BRANCH.

THE annual business meeting of this Branch was held in the Dundee Royal Infirmary on May 30th, Dr. C. TEMPLEMAN, President, in the chair. There was a large attendance.

Presentation of Reports.—The report of the Treasurer, and that of the representative of the Branch of the Association Council were presented.

Election of Officers.—The following gentlemen were elected officers for 1903: *President:* J. A. Dewar, M.D., Arbroath; *President-elect:* E. Waymouth Reid, M.D., Dundee. *Vice-Presidents:* G. O. C. Mackness, M.D., Broughty Ferry; J. K. Tulloch, M.B., Dundee. *Councillors:* W. Barron, M.D.; Letham; T. F. Macfarlane, M.B., Dundee; G. P. Crare, M.B., Coupar Angus; H. E. Fraser, M.D., Dundee. *Honorary* kin, M.B., Forfar; W. Kinnear, M.D., Dundee. *Honorary Treasurer* Secretary: R. C. Buist, M.D., Dundee. *Representative on* D. M. Greig, F.R.C.S.Ed., Dundee. *Representative on Council and Parliamentary Bills Committee of the Association:* R. C. Buist.

Constitution of General Medical Council. The Branch proved generally of the suggestion that the Scottish Branch take common action for the amendment of the constitution and powers of the General Medical Council.

School Board Medical Officers. It was resolved that in view of the prevalence of ringworm and other contagious and infective disorders it was desirable that the School Boards should have the services of special medical officers, and the Council was instructed to take steps towards this.

Midwives Bill.—The Secretary was instructed to write to the local members of Parliament regarding the Midwives Bill as follows:

166, Nethergate, Dundee,
May 31st, 1902.

Dear Sir,—By a unanimous vote of the Dundee and District Branch of the British Medical Association I have been instructed to draw your attention to the following points regarding the Midwives Bill, which comes up on the report stage this week. The matter concerns us in so far as any Bill prepared for Scotland will follow the lines of the English Act more or less closely.

The present Midwives Bill does not prohibit practice by unregistered midwives, and affords no penalty but disregistration for malpractice by registered midwives.

Without these provisoes it would not avoid the damage to mothers which it is professedly designed to avoid, and it would constitute so serious a public danger that the Branch would urge you to use every effort to secure its amendment on the report stage, or failing this, its postponement to another session.

N.B.—During the year 1901-2, nine women who had recently borne children were admitted to Dundee Royal Infirmary suffering from some form of septic poisoning. Seven of them died, usually within a few days of admission. In most of the cases it was possible to trace the illness to the ignorant practice of untrained or to the presumptuous actions of trained midwives.

I am, yours sincerely,
R. C. BUIST.

New Members.—D. Wardrop, M.B. (Alyth), was elected a member of the Association and Branch as from July 1st.

DUNDEE AND DISTRICT, EDINBURGH (FIFE AND LOTHIANS), AND PERTHSHIRE BRANCHES.

Conjoint Meeting.—After the annual business meeting of the Dundee and District Branch, a conjoint meeting of the above Branches was held, with Dr. TEMPLEMAN in the chair. The meeting took the form of a Clinical Congress.

Communications.—The following cases were shown:—Dr. R. C. BUIST: Cases after symphysiotomy.—Dr. A. MCGILLIVRAY: (1) Pulsating exophthalmos after ligature of internal carotid arteries; (2) extensive wound of eyeball, complete recovery of vision; (3) case with overaction of the oblique muscles.—Dr. H. E. FRASER: Cases of rodent ulcer and of lupus under phototherapy.—Dr. A. K. TRAILL: An unusual form of dermatitis.—Dr. W. E. FOGGIE: (1) Spasmus nutans; (2) congenital diplegia.—Dr. A. M. STALKER: (1) Senile chorea; (2) purpura haemorrhagica.—Dr. J. MACKIE WHYTE: (1) Lymphangiectasis; (2) hypertrophic osteo-arthropathy; (3) combined sclerosis of the spinal cord; (4) locomotor ataxia with marked gastric crises; (5) case of recovery from peripheral neuritis. Dr. G. T. GUILD: (1) Multiple papillomata of larynx; (2) specific disease in pharynx, fissure in tongue; (3) septic thrombosis following middle-ear disease, ligature of the internal jugular vein.—Dr. J. S. Y. ROGERS: Ununited fracture of the neck of femur.

Museum.—The following preparations were exhibited:—Mr. D. M. GREIG: Series of surgical preparations. Pathological specimens from the Museum of the University College, Dundee.

Card Specimens.—Professor MACEWEN: (1) Mass of tuberculous glands removed from right side of neck by operation. (2) Sarcomatous tumour of kidney from child, aged 4 years. (3) Cyst-like tumour in muscles of thigh; the wall of the cyst is composed mainly of bone, the contents mainly of altered blood. (4) Gall stones from two cases; removed by operation. (5) Actinomycosis (human, liver); (6) Cystic transformation of kidney. Intraparietal myoma uteri (Professor KYNOCH). Myomata uteri with polypoid myomatous tumour filling cavity (Professor KYNOCH). Intraparietal myoma (Dr. BUIST). Large multiple uterine myomata; weight 13 lb. (Dr. BUIST). Large intraparietal myoma uteri with marked increase in size of uterine cavity; weight about 12 lb. (Professor KYNOCH). Large uterine myomata with peculiar relations (Dr. E. THOMSON). Large myoma uteri; elongation of uterine cavity (Dr. BUIST). Myoma removed three months after delivery (Professor MACEWEN). Large myoma uteri; dilated vascular spaces; thrombosis (Professor MACEWEN). Large myoma projecting from uterine wall. (Dr. BUIST.) Polypoid myoma from cervix uteri. (Dr. BUIST.) Cystic myoma. (Dr. BUIST.) Multiple myomata of uterus with calcification. (Dr. BUIST.) Myomata uteri with calcification, cancer of body of uterus. (Dr. SANDEMAN.)—Dr. SANDEMAN (East Parochial Hospital): (1) Bones from case of osteomalacia. (2) Renal calculi from same case. (3) Cretaceous mass expectorated by phthisical patient. (4) Prostatic calculi. (5) Fibromyoma of small intestine. (6) Extreme duodenal stenosis from cicatrization of ulcer. (7) Cystic vermiform appendix. (8) Various forms of gall stones. (9) Cancer of first part of ascending colon, adhesion of upper part of ascending colon, perforation.—Mr. ANDREW SPREULL, F.R.C.V.S., and Mr. JAS. PEDDIE, F.R.C.V.S.: (1) Tuberculosis, lung, horse. (2) Cystic adenoma, skin, dog. (3) Urethral calculus, horse (cast). (4) Horse balls. (5) Mitral valve with three cusps, heart, cow.—Mr. J. BAXTER, A.S.I. (Slaughter House, Dundee): (1) Muscle of leg of cow, "quarter-evil;" (2) liver, distoma hepaticum, cow; (3) pulmonary distomatosis, cow: (4) strongylosis, lung of sheep; (5) strongylosis, lung of pig; (6) nodular necrosis, liver, cow; (7) actinomycosis, tongue, cow; (8) cysticercus liver, pig.—Dr. JAMES GRAY and W. A. DICKSON: Slides to illustrate the teaching of surgical anatomy.—New Sydenham Society: Plates from new Atlas in Aid of Diagnosis, exhibited by Dr. R. C. BUIST, Honorary Local Secretary.

Series of Specimens Illustrating some of the Affections of the Heart.—Dr. FRASER: Congenital Affections: Aortic and mitral lesions, infant, 4 days; defect in interventricular septum, stenosis pulmonary artery, ductus arteriosus, young child, general tuberculosis; defect in interventricular septum, etc.; abnormality of pulmonary valve; fenestration of pulmonary and aortic cusps.—Affections probably congenital: Tricuspid and aortic stenosis, chronic mitral endocarditis; mitral and tricuspid stenosis.—Ruptures: Aneurysm of heart, rupture of l.v.; rupture of aorta.—Thrombosis: Globular thrombosis, r.a.; globular thrombosis, l.a.; thrombosis, l.a., softening; thrombi, l.v., softening.—Hypertrophy and Dilatation: Hypertrophy of left ventricle, chronic Bright's disease; hypertrophy and dilatation of right ventricle, chronic bronchitis. Endocarditis: Ulcerative endocarditis, aortic and mitral, with ruptured valvular aneurysms; ulcerative endocarditis, aortic and mitral, with rupture of valvular aneurysm; ulcerative aortic endocarditis, penetration of pars membranacea; acute aortic endocarditis, with deformity of cusps; acute and chronic mitral endocarditis; chronic mitral endocarditis, hypertrophy; chronic mitral endocarditis, thrombosis; chronic mitral endocarditis, "button-hole mitral."—Dr. GEO. A. GIBSON (Edinburgh): Rabbit's heart, showing successive stages of infective endocarditis.

Tea.—By the courtesy of the Directors of the Royal Infirmary tea was served at the conclusion of the Congress.

Dinner.—In the evening sixty members and guests dined in the Royal Hotel. The toast list included "The King," proposed by the CHAIRMAN; "The British Medical Association," proposed by Professor WAYMOUTH REID, and responded to by Dr. ARGYLL ROBERTSON, President of the Edinburgh Branch; and "The Chairman," proposed by Lord Provost HUNTER.

BATH AND BRISTOL BRANCH.

A MEETING of this Branch was held at University College, Bristol, on Wednesday, May 28th, Dr. CAREY COOMBS in the chair. Twenty-five members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Annual Meeting of Branch.—The date of the annual meeting of the Branch was fixed for Wednesday, June 18th.

New Members.—C. W. Edwards, F.R.C.S.Edin., M.R.C.S., L.R.C.P. (Wincanton); G. Dundas Edwards, M.R.C.S., L.R.C.P.; Frank F. Bond, M.R.C.S., L.R.C.P. (Trowbridge).

Communications.—Dr. WATSON WILLIAMS read a paper on diplococcal bronchitis, which was discussed by Drs. CAREY COOMBS, NEWMAN NEILD, and T. FISHER.—Dr. E. W. HEY GROVES read an account of a successful case of excision of a chronic gastric ulcer, which was discussed by Drs. WALDO, FRITH, Messrs. LACE, MORTON, and Dr. MARKHAM SKERRITT.—Mr. C. H. WALKER read notes, illustrated by numerous diagrams, of a case of detachment of retina.—Mr. C. A. MORTON showed a patient on whom he had successfully operated for cerebellar abscess, and described the case and operation; Drs. FRITH and MARKHAM SKERRITT commented upon the case.—Dr. MICHELL CLARKE and Mr. MORTON described the symptoms and operation in a patient, who was exhibited to the meeting, from whom Mr. Morton had removed a glioma of the motor area of the cortex cerebri.—Dr. MICHELL CLARKE showed lantern slides and microscopic specimens of a case of

sclerotic atrophy of cerebrum and cerebellum; Drs. Waldo, Fisher, and Stack discussed the case.

SYDNEY AND NEW SOUTH WALES BRANCH.

The annual meeting of this Branch was held at the Royal Society's Room, Sydney, on April 4th, Dr. Foreman, President, in the chair. Forty-seven members and one visitor were present.

Confirmation of Minutes.—The minutes of the previous meetings were read and confirmed.

New Members.—The President announced the election of the following gentlemen: Dr. R. T. Michell (Wee Waa), Dr. C. C. Cocks (Wentworth), Dr. Louis Vallie (Inverell), Dr. E. B. Bardsley (Waverley), Dr. H. M. Anderson (Sydney Hospital), Dr. G. S. Samuelson (Armidale), Dr. Margaret M. White (Children's Hospital, Adelaide), Dr. R. L. Davies (Children's Hospital).

Scrutineers.—The President appointed Drs. Sawkins and MacPherson as scrutineers, and Drs. Stokes and Corlette as assistants.

Report of Council and Statement of Accounts.—The Council's report was taken as read. Dr. Jamieson moved the adoption of the report, which was carried unanimously. Dr. Crago moved the adoption of the statement of accounts, which was adopted.

President's Address.—The President delivered an address.—The Hon. Dr. MacLaurin proposed a vote of thanks to the President for his address.—Dr. Wm. Chisholm seconded the vote of thanks.

Branch Representatives at Annual Meeting.—Dr. Crago proposed that Sir James Graham, Drs. E. J. Jenkins and Jarvie Hood represent the Branch at the annual meeting of the Home Association at Manchester.

Demonstration.—Dr. Hankins gave a demonstration of phonating apparatus, and exhibited three patients.

Election of Officers.—The President announced the result of the election: *President:* Dr. G. E. Rennie. *Vice-President:* Dr. Brady. *Councillors:* Drs. Hankins, Foreman, Crago, Worrall, Fiaschi, Beeston, Dick, Newmarch, Hinder, MacCormick, Jamieson, and Pockley. *Auditors:* Drs. F. W. Hall and F. J. Sawkins.

Vote of Thanks.—A vote of thanks was accorded to the Scrutineers.

BRITISH MEDICAL ASSOCIATION.

SEVENTIETH ANNUAL MEETING.

The seventieth annual meeting of the British Medical Association will be held at Manchester on Tuesday, Wednesday, Thursday, and Friday, July 29th, 30th, 31st, and August 1st, 1902.

ANNUAL EXHIBITION.

Chairman: Dr. Woodcock.

Secretary: Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester.

Telegraphic Address: Annually Manchester.

Telephone No.: 2376 Manchester.

The Annual Exhibition in connexion with the above meeting will be held in the Drill Hall, Burlington Street, Manchester, on July 28th, 29th, 30th, 31st, and August 1st, and will comprise the following Sections:

A. Foods and Drugs, including Prepared Foods, Chemical and Pharmaceutical Preparations, Antiseptic Dressings, etc.

B. Medical and Surgical Instruments and Appliances, Books, Diagrams, Charts, etc.

C. Sanitary and Ambulance Appliances, Consulting-room Fittings and Furniture.

The Drill Hall affords excellent accommodation for the purposes of the Exhibition, the dimensions of the main building being 169 ft. long by 85 ft. wide, and affording a total floor space area of about 14,500 sq. ft. The Hall is situated well within 300 yards of the Owens College, where the Sectional, business, and other meetings of the Association are to be held.

The Committee have also had placed at their disposal ample space for the erection of large marquee, etc., for the accommodation of exhibits of carriages, etc., and also for motor cars, on trial and for sale, suitable for the use of medical men for professional and other purposes.

Arrangements are also being made on Exhibition premises for lounge and smoking room, writing room, ladies' tea and retiring room, lavatories, cloak room, etc.

Exhibitors in Sections A, B, and C (other than members of the Association) will be charged for table space at prices from 5s. and upwards per square foot according to position.

Tables 3 ft. 6 in. wide will be provided, the central tables 7 ft. wide, being divided by partitions carried to the height of 3 ft. 6 in. into two tables of 3 ft. 6 in. wide.

In Section C, floor space will be provided at prices from 6d. to 1s. 6d. per square foot according to position. On floor space no erection, stands, or tables for the display of goods will be allowed, but exhibitors may at their own cost put down a platform in height not exceeding 6 in. from floor.

Electric current and gas supply can be arranged for if due notice is given to Secretary by exhibitors requiring same. The use of spirit lamps, etc., will not be allowed in the building.

Plan of hall, particulars, and regulations will be ready on April 15th, after which date they may be obtained upon application being made to the Honorary Secretary for the Exhibition.

Copies of prospectus and regulations in full can be obtained upon application.

A catalogue, giving short description of exhibits, and of which 2,000 copies will be printed, will be distributed free to members of the Association attending the meeting. Applications for advertisements in the same should be made at an early date.

Communications on all general matters connected with the exhibition and all applications for space should be addressed to the Honorary Secretary, Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester, to whom all cheques are to be made payable. Telegraphic address, Annually, Manchester.

Space will, as far as possible, be allotted as it is applied for, and all applications will be dealt with in the order in which they are received.

Exhibits will only be received conditionally upon the regulations and conditions being strictly complied with; and, further, that in any question that arises the decision of the Honorary Secretary shall be final and binding upon all parties.

An official Guidebook will be presented to members, which will consist of 300 pages (cloth bound) illustrated with upwards of 80 half-tone engravings specially prepared for the work. In addition to description of the Owens College, Medical School, and the usual maps, plans, etc., it will contain about twenty special articles written by experts on the history, antiquities, churches, hospitals, charities, public buildings, parks, manufactures, etc., and also an account of the Manchester Ship Canal. 3,000 copies will be printed and a selected number of advertisements will be admitted. Prospectuses giving full particulars may be obtained from the Exhibition Secretary.

SPECIAL CORRESPONDENCE.

SOUTH WALES.

Coronation Commemoration at Cardiff and the Seamen's Hospital.—Welsh University Offices.—Hydrophobia and Rabies in South Wales. Small-pox in South Wales.

A meeting was held on May 29th at the Cardiff Exchange to consider means of permanently commemorating the Coronation. In the circular convening the meeting it was suggested that a fund should be formed to support beds at the Cardiff Infirmary and the Seamen's Hospital. After a good deal of discussion as to the relative merits and need for support of these two institutions, it was decided that a Committee be formed to raise a fund annually, and that one-half shall be devoted to the Cardiff Infirmary and the other to the new Seamen's Hospital. At a meeting of the Building Committee of the Cardiff Seamen's Hospital on May 30th it was decided to invite the Marquess of Bute to lay the memorial stone of

the new hospital on such date as would be suitable to him in August next.

At the annual extra-collegiate meeting of the Court of the University at Shrewsbury on May 30th, the location of the Welsh University offices was finally settled. There were a considerable number of applications for the honour from different towns in Wales. After a good deal of discussion it was ultimately decided that the generous offer of the Cardiff Corporation be accepted. The offices will therefore be in future permanently established in Cardiff. The offer of Cardiff consisted of a free site and £6,000 towards the building fund.

A case of hydrophobia at Garnant in East Carmarthenshire has caused considerable public interest in the locality owing to one or two special features. The patient, 63 years of age, and a well-known man in the district, was bitten as long ago as August, 1900, by a fox terrier. The bite was a severe one, and on the exposed hand. The patient went to the Pasteur Institute in Paris, returning after nineteen days' treatment. He returned feeling quite well, and remained so until May 26th, 1902, when he complained of pain in his right arm. Symptoms of hydrophobia rapidly set in, and he died on May 28th. The fox terrier had shown some symptoms of rabies, and was at once shot after the patient had been bitten. A dog shot a Carmarthen about three weeks ago has been since certified by the Board of Agriculture to have been suffering from rabies. This animal had bitten a little girl and subsequently a man before it was shot. Both persons were sent to Paris for treatment.

Cases of small-pox still continue to be notified in Glamorganshire. In Swansea the epidemic continues, with a few fresh cases from time to time. During the week ending May 31st, 6 fresh cases were notified. The 2 last cases were from the central part of the town. During the week 1 small-pox case died in the isolation hospital. At Ystalyfera, near Swansea, where a small epidemic took place some months ago, 3 fresh cases were notified on May 29th. On May 11th, 3 colliers visited Swansea and put up at a public house near the centre of the town. All 3 of them subsequently developed small-pox at Ystalyfera. Owing to the previous outbreak the Pontardawe District Council has erected a substantial temporary small-pox hospital, which is now available for these patients, and for others should further cases develop. At Maesteg a case of small-pox has been notified during the past week. The patient is a young child.

CORRESPONDENCE.

THE MATRICULATION EXAMINATION OF THE UNIVERSITY OF LONDON.

SIR,—In an editorial annotation, appearing on page 1358 of the BRITISH MEDICAL JOURNAL of May 31st, you state quite correctly that the Faculty of Medicine of the University of London had passed a resolution at their meeting on May 23rd to the effect that, "in the opinion of the Faculty of Medicine it was undesirable that any official advice should be published in the calendar of the University as to the optional subjects which should be taken at the Matriculation Examination by intending undergraduates in medicine." You omit, however, to state that this decision was by no means unanimously arrived at. At the meeting in question of the Faculty I proposed, and Mr. Langton seconded, an amendment to the effect that intending undergraduates in medicine should be advised to select French, German, and one of the following subjects: Elementary chemistry, physics or biology as the three optional subjects for examination. Unfortunately, this amendment was lost on a division by, I think, 25 to 12 votes, which shows that, at any rate, a full third of those members of the Faculty present did not approve of the question laid by the Senate before the Faculty being simply answered in the negative by the latter.

The subject of the preliminary education of the future medical man is one of such great importance that I trust you will allow me to state that I much regret the decision of the majority and to give my reasons.

With great respect for the judgement of those dissenting from me, I must confess that, in my humble opinion, a very real need was sacrificed by this decision to theoretical notions about the liberty of the individual, and an excellent opportunity of improving the preliminary education of intending members of the medical profession was lost. The proposer of the resolution dwelt in his speech on the undesirability of fettering intending candidates in their choice of subjects, and spoke against premature over-specialization. I venture to think that these dangers do not apply to the question at issue. It is a fact, I believe, that very few of those who select medicine as their career clearly know what this decision means and how best to achieve their purpose; and it is not only they who are ignorant in these respects, but in the majority of cases their parents and guardians as well.

What is more natural under such circumstances than that they should apply for counsel and advice to those who are in the midst of an active medical career, and who from the positions they have attained themselves would naturally be supposed to be best qualified in advising the intending undergraduate how to prepare himself for his future career—that is to say, to the Faculty of Medicine of the University of London? I cannot help regretting that such an obvious responsibility should have been declined by the body concerned.

Hitherto, the preliminary education of future members of the profession has been almost everywhere and almost exclusively conducted on classical lines. I have myself enjoyed a very strict classical education, and I am the last to underrate the advantages which a study of Greek and Latin offers for the logical training of the mind. But, Sir, even a good thing may be bought at too dear a price, and it is, to my mind, a very serious question whether (1) the study of the dead languages in its present preponderant form is indispensable for such a logical training, and whether (2) some of it might not be replaced with advantage by the study of subjects more cognate to the medical man's future career—such as (*a*) the study of the two languages which, in conjunction with English, are the languages of culture of our own times, and (*b*) the study of those natural sciences with which our own science is intimately and indissolubly connected. The study of Greek and Latin at the high schools of this and other countries is, so far as I am able to judge from experience in my own and in the younger generation, so very much limited to the formal aspects of these subjects that, with some rare exceptions, the scholars do grasp but little of the beauties of the literary productions which they study, and in nine cases out of ten they no sooner enter upon their actual professional career, than the subjects to which they have devoted eight or nine of their most valuable years of development are completely thrown aside never to be resumed again. Meanwhile, those subjects which are of real and lasting importance (as we see more from day to day) for a medical career, namely, the study of modern languages and of natural sciences, are either entirely omitted, or relegated to an absolutely subordinate and insignificant corner in the scholar's plan of lessons. Only too late, and with sincere regret, does the majority of our profession realize how much more valuable it would have been for them had their preliminary training been moving on these modern lines. I do not think for a moment that one can speak of such a modern education as representing over-specialization. Surely no more liberal education can be given to a man than to prepare him for the battle of life in whatsoever sphere he may afterwards work by a knowledge of the three great languages of modern culture, and by thorough study of those natural sciences which constitute the signature of the progress of our own times.

The future of scientific medicine is, I venture to think, more intimately connected with physiological chemistry than with any amount of knowledge of Greek and Latin, and without wishing to detract from the value of our study of the latter, I think that a modern faculty of medicine of a modern university should have assisted by giving advice to that effect to those who wish to prepare themselves in the most useful manner for their future medical career.

The question has an even broader and more far-reaching aspect. I cannot help thinking that if the Faculty of Medicine of the University of London had decided in the sense of my amendment, a very important and most desirable impetus would have been given concerning the direction of higher preliminary education in general in this country.

Whilst reiterating my regret that such an occasion should have been lost, I wish to express a pious hope that the decision of the Faculty may not be final, and that an opportunity may be found at which it could be amended in the sense of my suggestion.—I am, etc.,

Wimpole Street, W., June 2nd. FELIX SEMON.

EDUCATION IN ENGLISH SCHOOLS.

SIR,—I should like to allude to a few defects, as my experience goes, in our upper class schools. I can hardly think my experience is unique. It seems to me that there is too marked a division between the classical and the modern sides. If I keep a boy on the classical side he learns no German, and if I put him on the modern side he learns no Greek. Now when a parent does not know what a boy is going to be, he wants generally to educate him well all round, so that when he begins to specialize he can carry on the sort of education best suited to his future career.

I would like to see modern learning—French, German, and science—levelled up, while classical learning is not neglected. Suppose a boy was put on the modern side, and at 18 years of age decided to enter the medical profession, for want of Greek he could not take, I think, the M.D. degree, and if he wished to do so would have to begin Greek.

It seems to me that nearly all through his school days he ought to have been taught Latin and Greek, French and German. He could surely have spared an hour a day each for French and German out of the many he has to devote to classical languages, so that at, say, 17 or 18, when he begins to specialize, he would not have to start some language from the beginning.

If he went into commerce, he could then drop the classics more or less and continue modern languages; whereas if he went into one of the learned professions he could devote more time to Latin and Greek, with the advantage of knowing something of two useful modern languages. The teaching of French on the classical side is a sort of farce, and German does not seem to be possible at all.

Surely few will argue that German is useless to a medical man. French and German might be learned perfectly, whereas Greek and Latin are very rarely known anything like perfectly. I do not want them abolished even for the sake of knowing one's own language, but that these dead tongues should crush out modern knowledge is in my opinion a huge mistake, and public opinion should be brought to bear on the ultra-classical conservatism of our public schools, or some of them at least. Can any one tell me of a public school where French and German are taught adequately on the classical side or Greek and Latin adequately on the modern side?—I am, etc.,

May 13th. A FATHER OF PUBLIC SCHOOL BOYS.

THE MIDWIVES BILL, 1902.

SIR,—A letter which has recently appeared in the *Manchester Guardian* on the Midwives Bill, 1902, appears to me to deserve some attention from the medical profession, not on account of the personal influence of the individual writer, but because it throws some light on certain motives and influences at work of which the Bill is largely the resultant. The writer gives expression to the opinions of a whole class of active social and political workers. She is one of the most energetic and eloquent advocates of the claims of women to receive at least due recognition in the administrative work of our social and political system. The opinions of this influential class of women have been imprinted on several of the Midwives Bills, but never so strongly and characteristically as on the measure now before Parliament. Its predecessors have fared badly, but the omens are all in favour of the present Bill passing into law, and yet it is, in my humble opinion, about the weakest and worst of the series. With a superficial aspect of strength and completeness, it contains such defects that unless it is amended with a strong hand in a sense directly opposed to that of the Midwives Institute, it will be disastrous in its effects upon the helpless class for whose protection legislation is required, and it will justify the worst fears, prophecies, and objections of that portion of the medical profession who have perversely opposed all legislation for a considerable portion of a generation, and are largely responsible for the present unhappy position of the question.

In the letter referred to, the objection is raised that the Bill makes no provision for the training of midwives, although it is designated "a Bill to secure the better training of midwives." This is surely a misapprehension. The Bill provides for the formation of a Central Midwives Board, part of whose function would be to lay down rules and fix a standard of examination. As far as training is concerned, private enterprise would do all that might be necessary. Even already the training and coaching of midwife pupils for examination has reached the proportions of a considerable industry, and we may anticipate with confidence that this enterprise will develop and improve in character under the control of a properly-constituted authority. We have the analogy of the development of medical education and examination under the control of the General Council of Medical Education. The great hospitals, which furnish an essential portion of medical education, are "supported by voluntary contributions." The State does nothing directly to assist medical education in this country, and indirectly it only raises difficulties and imposes burdens. Still we make some progress. It is only natural that the women actively interested in social questions should plead as they do for the assisted education of the most ignorant class of midwives, who are numerically insignificant, and in pity for these they would perpetuate the worse defects of the present system. It would surely be better in the cause of humanity to fix our attention steadily on the victims, and anticipate with satisfaction the time when the most ignorant class of midwives will disappear under the administration of effective legislation and the workings of ordinary competition.

But, besides being a measure for securing the better training of midwives, the Bill is intended "to regulate their practice"; and it is just here where it so signally fails to satisfy the reasonable anticipations of those who, from the most intimate knowledge, most deplore the present state of things. And one of the most depressing circumstances connected with the weaknesses of the Bill is that the medical profession appears to have completely lost any influence to mould it into a better form. There has probably not been in recent times an episode more humiliating to the medical profession than the second reading of this Bill. Its accredited representatives in Parliament put forth their best efforts to have the Bill rejected on account of its defects. Sir John Batty Tuke, the representative of the great medical school of the North, whose constituents have no appreciable grievance and allege none, opposed the Bill on grounds that ought to have appealed to statesmen; yet it passed the second reading by a vast majority. Efforts at amendment were made by medical members during the Committee stage, but the Bill emerged practically as it entered. The question naturally arises, What has brought about such a deplorable condition of affairs when those who are best able to give advice in the interests of the community are not listened to by the promoters of the Bill or by Parliament? A glance at the history of the agitation for and against legislation for the last ten or twelve years furnishes the explanation. That portion of the medical profession who have been most prominent and active in the discussion of this important social question have taken up an absolutely impracticable position. The original agitators in this part of the country were so shortsighted as to endeavour to obstruct all legislation whatever. They spoke and acted as if they seriously believed they could abolish midwives by Act of Parliament, and that the medical profession had sufficient influence to get such a measure passed into law. The present and recent agitators have so far modified their aims that they propose to abolish not midwives but the term "midwife" by Act of Parliament, and to make the public adopt the expression "obstetric nurse." They concede that the old social functionary under the new name may, for the convenience of members of the medical profession, occasionally "do some midwifery." The reason for this extraordinary position appears to be that some leaders among the opponents of effective legislation are really still so misguided as to act on the conviction that every woman in her confinement has a right to the services of a legally qualified medical practitioner, for a consideration, to come from somewhere; and their arguments

in support of this impossible position are stuffed with contradictions and false analogies drawn from the social ameliorations introduced by the State for its own protection.

While this heartless and unpatriotic resistance has been maintained, the reports of innumerable inquests pointing to pitiful domestic tragedies, the scandals arising throughout the country owing to incidents due to the ignorance and presumption of the existing order of midwives, have so revolted the public conscience, especially that of men and women possessing great social and political influence, that they have turned for advice from the body of the medical profession to the comparatively few whom they know to be disinterested and well acquainted with the problems to be solved, and they have brought all their influence to bear in favour of legislation, regardless of the misdirected outcries of a section of the profession whom they believe to be unreasonable and selfish. But the philanthropists and the champions of the emancipation of women have gone too far. There would have been some hope for the evolution of a fairly satisfactory condition of things if the General Medical Council had been required under the Act to constitute the Central Midwives Board and to exercise a general control over the results of its deliberations. As far as the midwives question is concerned, the General Medical Council has only itself to thank for the slight that the Bill proposes to put upon it. The Council is essentially a judicial body, from whose judgements the individual member of the medical profession has no appeal, and yet it allowed itself a few years ago, under pressure from the antimidwife agitators, to pass a discreditable resolution, threatening to brand as infamous the action of certain members of their profession who were only doing their best to ameliorate the deplorable condition of things by diminishing the ignorance of midwives, until suitable legislation would relieve them of their thankless task. The aggrieved and resentful instructor or examiner of midwives might now be excused for saying, "Serve the General Medical Council right." But that is not a becoming attitude for statesmen. The episode is not sufficient reason for placing the formation of the Central Midwives Board in the hands of the Lord President of the Council. The proceedings of the General Medical Council are at least public, and the members are more or less amenable to public and professional opinion. The method of forming the Midwives Board proposed in the Bill, and defended by its promoters, leaves the nominations to social and political intrigue. If the arrangements in the first instance were left to the General Medical Council there would be some reason to hope for a gradual evolution and improvement such as has characterized the history of medical education during the last half century. But with a Midwives Board originating as proposed, and performing the functions of regulating, supervising, and restricting the practice of midwives indirectly through a local authority which has only power to exercise "general supervision," there is too much reason to fear that the new order of things will lead to even more malpractice and misery than we have to deplore at the present time. The Bill provides absolutely no machinery by which special control can be exercised under a local committee or authority. "To investigate charges of malpractice," etc., is part of the duty of the local authority, but who is to take the initiative? We may presume that the machinery is to be set in motion by gossip or by the coroner. The certainty of a tragedy just past or the possibility of an action for slander in the immediate future—such are the obvious influences for and against the actual application in everyday life of the provisions of this feeble measure. It is to be nobody's business to take the initial steps, and from letters and speeches of its active supporters we get a hint of the spirit in which we may expect the law to be too frequently administered. For example, the writer in the *Manchester Guardian* speaks of midwives as having received such thorough training that they would not require "the insulting supervision contemplated by the Bill." She also speaks of "the proposed measure of supervision and espionage." She appears to forget that the medical profession, with its long, difficult and expensive training, which produces a strong professional feeling and opinion, in itself a controlling influence, is placed under the supervision and control of the General Medical Council. Even the examiners in medicine of the various universities and licensing bodies are subject to the inspection of "visitors" from the General Medical Council but they do not resent the "espionage." They assent and, heartily co-operate for the sake of efficiency.

And what, after all, will the training of the most "highly qualified" of midwives amount to that their friends should resist supervision? The longest term of training that I have seen anywhere proposed in this country is three months. As matters stand at present there is no entrance examination; the pupils may be stupid or illiterate; they may never have nursed a case of any kind, and the examiners may be benevolent. Such a woman, with an untrained intellect, gets a certificate at the end of three months, and it is suggested that she should consider supervision as "espionage" and "insulting." In a fully trained nurse we require a record of three years' training and apprenticeship and evidence of intelligence and good character, and yet we do not expect her to act on her own respensibility. We cannot make a professional person of even the best material in three months. What, then, can we expect of the average individual? And yet under this Bill it is proposed to place the midwife in a position of almost absolute independence. We might as well place the inspector of nuisances in a position independent of his medical officer of health, and affect to believe we were doing our best for the public safety from zymotic disease.

Some considerable number of years ago I was one of a local group who took part publicly in advocating the education, examination, registration, and *control* of midwives, but the methods of controversy of the "abolitionists" became such as to make it impossible for disinterested members of the medical profession who had also the misfortune to be specialists in midwifery and diseases of women to continue to take part in the proceedings of certain medical organizations. For my own part I resolved to endeavour, according to my opportunities and to the best of my judgement, to improve the standard of midwifery practice by women in this part of the country, and to wait for the legislation which appeared to be inevitable and even then impending. And now I must confess that the Bill as it stands at present after passing through the Grand Committee is on its demerits a bitter disappointment. It must be so to all who are interested in its provisions on purely public grounds, and have nothing to fear or hope for from its administration as an Act. Yet the Bill could be easily made a good and effective measure; it is its weakness in some important points which promises sterility or positive injury to the public welfare. If there were some provision for the systematic supervision and control of such ill-equipped and non-professional privileged persons as our midwives are always likely to remain there would be some reason to hope for progressive evolution. Why should we not imitate the Prussian methods in the phases suitable to our social system? For the greater part of a century German midwives have been systematically trained under discipline, examined as to competence, and controlled in their practice by State medical officials. The minimum period of training at the present time is six months, and this time must be spent within one of the lying-in hospitals (*Hebammen-anstalt*) assigned for the purpose. The German midwife must master an official manual, and she must, if so required, return from time to time to be instructed in the newer developments of midwifery practice. To quote the introduction to an official manual: "The Government, therefore, places the midwives under the strictest supervision, and directs that their practice be continually kept under observation by the medical practitioners, especially by the district medical officer (*Bezirksarzt*).....In order to assist the memory it is necessary that the midwife keep a register in a tabular form of all the cases she has attended. The more carefully, orderly, and truthfully these tabular lists are kept, the more confidence will the doctors, especially the district medical officer, whose duty it is to examine these registers, have in the midwife."

It would be easy to modify even this Bill in the direction of firmness and efficiency offered for imitation, *mutatis mutandis*, by the German practice. But if the promoters of the Bill will not introduce a definite statement providing for the appointment of a medical executive officer under each local authority, and will not place upon the General Medical Council the duty of forming the Central Midwives Board without insisting upon the representation on it of certain

mushroom institutions and of decaying medical corporations it would be better to wait for a process of evolution and the development of such general interest in the subject that a Midwives Bill might become a Government measure and be made strong and effective in its provisions.—I am, etc.,

Manchester, June 4th. W. J. SINCLAIR, M.D.

THE CONSTITUTION OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—May I have space for a word of protest, so that I may clear myself, as a member of the Association, of all complicity in one proposal of the new Articles of Association? I allude to the voting power of representatives under By-law 18.

To illustrate its working and my objections to it, I will suppose that, in a Division of 50 members, a meeting is called to vote upon a given question; that 27 attend, of whom eventually 13 vote *pro* and 12 *con.*, while 2 are neutral. The facts here—the plain unvarnished truth, and all of it, without fake or figment—are that in that Division 13 members (being a majority not even of the meeting, much less of the Division, but only of the actual voters) have gone for the proposal; that, regarding the other 37, we learn from the meeting only that 12 of them are opposed to it; while the remaining 23, present or absent, have reduced themselves (for our purpose) to ciphers by sinking their votes.

In this view of the situation I contend that the representative has here no right, though the by-law may give him the unrighteous power, to record more than 13 votes, and that to propose, as does this Article, that he shall record 50 votes is to ordain that he shall, for the ends of truth and justice, register a lie, and shall turn the whole voting business into a prodigious Gilbertian farce. That it is indeed a lie is proved by the fact that 12 of the 50 did actually vote the other way, and the farce is in the suggestion to count the 23 absentees, of whose views nothing is known, as being to a man of the mind of the majority of the meeting, and in the blind, unreasoning exclusion of the easy possibility that, had the 23 attended and voted, that Divisional representative might have had a mandate just the other way. Let me say that I have been in keen sympathy with this endeavour to revise and democratize our Association and am favourably inclined on the whole to the rest of the new scheme; but, rather than the Association should stultify itself before the world by such a ridiculous burlesque of the most important and fundamental business of its whole administration, whose one aim is purely ethical to weigh truly and fairly the mind and will of members, so far as these shall take the trouble to have any and to make them known, for the others do not count rather than this I hope the whole scheme will be rejected and referred back to the Committee.—I am, etc.,

Goxhill, Lincs., June 2nd. THOMAS M. WATT.

THE RECONSTITUTION REPORT.

SIR,—I am very glad that Mr. Garrett Horder has called attention to the "procedure" adopted by the "authorities" with regard to the "report." If accepted the whole constitution of the Association is revolutionised, and all of us who have taken a *real* part in attempting to reform the Association know perfectly well that progress will be so checked that we shall be put back at least a quarter of a century. We have but one course, namely, to reject the report, and I wish to say to your readers that a meeting will be held the night before the statutory meeting at a convenient place in London, and it is to be hoped all members who do not wish for the disruption of the British Medical Association will make it their duty to attend and give advice as to how best we can check the passing of the report.

Don't let us be misled by the cry, "You must have this or reform is hopeless." There are far simpler methods of altering the way of the Association than these drastic proposals—far safer, and far less costly. I will simply call attention to one proposal—raising the subscription to 25s.—4s. of which is to go to the Branches to be frittered away, I suppose, in useless district meetings—the Association as such is simply *in statu quo* as to income.—I am, etc.,

Old Trafford, June 3rd. JAS. BRADLEY BUTLERLEY.

PENAL DISFRANCHISEMENTS OF THE MEDICAL PROFESSION IN IRELAND.

SIR,—The Irish Local Government Board has just issued an order excluding the bulk of the medical profession in Ireland from all share in county government. Considering that these councils have now to do with grave educational matters and that the clergy of all denominations have already been excluded, the effect will prove most serious to the country at large. If it be the fact, which is very doubtful however, that they have the law on their side, every effort should be made to amend the law so as to remove this penal disfranchisement from the medical profession and this serious loss from the public.

The Poor-law medical officers against whom this order is directed number a moiety of the entire profession in Ireland. They are neither paid, appointed, nor dismissed by the county council, and they absolutely discharge no duty for them whatever. The county councils simply collect and disburse the funds which find their way into the pockets of the doctors, and it is simply inconceivable that the doctors should be held to be their officers in any sense of the word. When this Local Government Act first came into force the Central Board issued an order declaring Poor-law medical officers ineligible for county councillorships. Now they adopt the converse rule, and declare county councillors to be ineligible to be or continue to be Poor-law medical officers. This looks as if the Central Board were not sure of their ground; but, sure or not, the amending Bill, of which the Government has given notice, will afford an opportunity for removing this disability from the profession. I call on the British Medical Association to take this matter in hand. That body has got a Parliamentary Bills Committee; I trust that body will do its duty in this matter; and I hope, too, that the various medical M.P.'s will prove true to their profession.

Some time ago a singular clause was slipped into an Irish Act under which Poor-law medical officers should obey any order that the Central Board might issue, and it is possible that it is under this singular order, and not under the rest of the Local Government Act, that the Central Board is moving. Very curious that none of our associations so much as even noticed this clause when it was being slipped through. Irish dispensary doctors and all medical sanitary officers are secured fixity of tenure by the Medical Charities Act and Act of 1878, and are consequently not dismissable save for sufficient grounds. The Local Government Order of May 31rd, 1900, makes these officers dismissable on the joint motion of a central and local Board; but the legality of that rule can, at most, only apply to subsequent appointments.—I am, etc.,

Cashel, May 26th. THOMAS LAFFAN.

A NATIONAL HOSPITAL FUND.

SIR,—I notice in the press that efforts are being made to obtain contributions from provincial centres to the King's *London* Hospital Fund in honour of the Coronation. May I point out that inasmuch as our Sovereign is not King of London only, and the provincial hospitals are quite as much in need of funds as the London hospitals, it would be preferable to collect for a National Hospital Fund rather than a purely metropolitan one?—I am, etc.,

Manchester, May 30th. G. A. WRIGHT.

AGE INCIDENCE OF SMALL-POX.

SIR,—In the BRITISH MEDICAL JOURNAL for April 26th, p. 1012, Dr. Acland's address on Vaccination and Commonsense there printed refers to a diagram on the following page as showing that "the *number* of deaths in every 100 children under 10 years of age increased in direct proportion to the neglect of infant vaccination" in the six epidemics. This is a misreading of the diagram, not unnatural, considering the manner in which the diagram is constructed. This misreading perpetuates a mistake into which the Royal Commission on Vaccination fell, and though it is pleasant to err in good company, I assume that the majority of the medical profession are not desirous to maintain what is called the age-incidence argument by fallacious readings of figures.

What the diagram really does show is that the *proportion* of children's deaths to total deaths increases progressively in

the towns arranged in what is said to be the ascending order of their neglect of vaccination. This is quite a different thing from saying that the number of deaths in every 100 children increased in similar proportions, as you will see if you will be so good as to allow me to arrange the two sets of figures side by side:

	Proportion of Children's Deaths to Total Deaths.	Deaths in Every 100 Children Attacked.
Warrington	22.58	21.53
Sheffield	25.60	22.03
London	36.82	18.71
Dewsbury	51.82	26.02
Gloucester	64.52	39.66
Leicester	71.43*	13.76

*66.60 omitting cases complicated by scarlet fever.

The contrast between these two columns of figures is easy to explain. In comparing children's deaths with the total deaths in different towns you are comparing conditions in which there are two varying factors in every instance—the children's deaths and the adults' deaths. Vital statisticians are agreed that this is not permissible. I quote Dr. Newsholme's paragraph headed "Fallacies arising from stating deaths in proportion to total deaths":

"They present themselves under two heads. The deaths at one age are stated in proportion to the total deaths at all ages; or the deaths from one cause are stated in proportion to the total deaths from all causes. In both cases the same fallacy is involved. A relationship is attempted to be established *between two factors, both of which are variable* in value. An alteration in the total deaths on one hand, or in the deaths at one group of ages or from one cause on the other hand, might equally affect the proportion between the two, though the conclusions to be drawn in the two cases would by no means be necessarily identical."

The Royal Commissioners did not make quite the same mistake as Dr. Acland. Their table, from which the diagram has been constructed, only represents itself to be a table of "proportions of children s deaths to total deaths," which it is; but they did draw the wrong conclusions, as Dr. Newsholme shows they were liable to do. They drew the conclusion that the variations were to be accounted for by the *protection of the children* in the better-vaccinated towns. They did not compare the proportions with the actual figures in their possession, otherwise they would have observed that in Leicester, with a population three times as great as Warrington, the number of children's cases was not twice as many as the children's cases in Warrington; and that the deaths of children in Leicester were less than 14 per 100, as compared with over 21 per 100 in Warrington. An even more striking difference in the adult fatality brought the numbers of adult deaths and infant deaths near enough to each other to make the city in which the infant fatality was lowest show the highest "proportion of children's deaths to total deaths."

I am aware that in spite of this demonstration as to what I consider the misleading tendency of the table and diagram some think the argument from proportions as stated by the Commissioners still to hold good; and the Jenner Society loves to give a very black appearance in the diagram to Leicester where there were only 21 deaths altogether. There can be no question, however, that Dr. Acland's deduction is erroneous. To the perpetuation of such errors the circulation of this very doubtful controversial diagram tends.—I am, etc.,

Chester Terrace, N.W., May 29th. ALEX. PAUL.

THE DIAZO-REACTION.

SIR,—The paper by Dr. H. W. Syers in the BRITISH MEDICAL JOURNAL for May 24th on The Diazo-Reaction as a Method of Diagnosis in Clinical Medicine raises the hope that further experience may be forthcoming as to the value of a test whose reputation is at present somewhat dubious.

My own acquaintance with it is much more limited than that possessed by Dr. Syers. I have used it now for some years, but chiefly in cases which have come presenting few or no symptoms beyond pyrexia, and as a rule with a history of illness dating back only a very few days. In such cases the test has seemed to me to have considerable value. A negative result, of course, leaves the question of diagnosis unanswered; but a positive result, while in no way definitely solving the problem, gives me at least a presumption in favour of typhoid fever.

I can recall not more than three such cases in which the illness turned out to be something else; and one of these I am inclined to think was really typhoid fever, though the blood examined at the beginning of convalescence did not give the Widal reaction.

In these early cases to which I am alluding the reaction has often been only slightly marked at first, and has gradually become more intense during the next few days. By this time the diagnosis is assured, so that I have usually ceased to employ the test further; in the few cases where I have used it in convalescence the result has always been negative.

Dr. Syers very rightly lays stress on the need for attention to symptoms and physical signs. But in the first week of typhoid fever these are not apt to be prodigal of their disclosures, and any method of observation which affords a further clue at such a time must be welcome. The evidence of a positive diazo-reaction is certainly not in itself convincing; but I think that, at any rate, it makes an additional unit in the sum of probabilities on which a diagnosis has often to be based.—I am, etc.,

Wolverhampton, May 24th. R. W. CAMERON.

THE *ENCYCLOPÆDIA BRITANNICA*.

SIR,—With reference to your comment on the article on cancer in the *Encyclopædia Britannica*, may I point out in justice to the editors that the scheme includes an article by eminent authorities on Pathology, which will appear in due course? I purposely abstained from entering into the highly technical details of the pathology of cancer because I felt that it would be better dealt with in that article as a purely technical subject by some one far more competent than myself. My contribution was intended for the general reader, and aimed at supplying such information as he would naturally look for, without encroaching on the more specialized provinces of other writers.—I am, etc.,

Savile Club, Piccadilly, W., June 3rd. A. SHADWELL.

OBITUARY.

GEORGE FOWLER BODINGTON, M.D. DURH., M.D. GIESSEN, M.R.C.P. LOND., F.R.C.S. ENG.

WE greatly regret to have to record the death, in his 73rd year, of Dr. George Fowler Bodington, which occurred recently in Paris, where he had made his home since his retirement.

The eldest son of Mr. George Bodington, surgeon, of Sutton Coldfield, of whose work as a pioneer in the outdoor treatment of tuberculosis Sir Walter Foster has recently reminded us, George Fowler Bodington was educated for the medical profession at Queen's College, Birmingham.

After taking the membership of the Royal College of Surgeons, and holding the post of House-Surgeon at Queen's Hospital, Birmingham, he visited as a ship's surgeon Natal and India. He spent some time practising his profession in the back settlements of Pietermaritzburg, where his fees were paid him in elephants' tusks, of which he brought away some hundreds of pounds' worth as the fruits of about eight months' work. At that time the elephant still roamed the forests of Natal: life there suited Bodington's hardy frame and adventurous disposition, and perhaps he may have sometimes regretted that he did not stay where he would have been certain to have made his mark. However, he returned to England, married, and settled in practice at Kenilworth in partnership with the late William Bodington, F.R.C.S., his uncle. In 1866 he moved to Middlesbrough-on-Tees and to Saltburn, where he remained until called to take the management of a prosperous private asylum established by his father at Sutton Coldfield, near Birmingham. Brought into

contact with the vivid medical life of that great city, Dr. Bodington became an active member of its various medical societies, and afterwards bore a leading part in establishing the Birmingham Medical Institute, of which he was one of the early Presidents; he was also President of the Birmingham and Midland Counties Branch of the British Medical Association in 1876.

He was at this time full of activity, taking an immense interest in all that made for social and political progress, and in particular he associated himself with the late Mr. Dalrymple in the movement to obtain legislation for the care and control of inebriates. But meanwhile two events happened of considerable importance: he lost his first wife and married again, while the asylum, owing to the falling in of the lease, had to be transferred to Ashwood House, Kingswinford, in Staffordshire. Unfortunately, the second Mrs. Bodington never enjoyed good health at Kingswinford, and after several years of trial, Dr. Bodington decided to sell the asylum and seek elsewhere, in a more congenial climate, a home for his family. After wandering for a year or two, he settled eventually in British Columbia, where he purchased a farm and carried on medical practice, but it is doubtful whether these ventures were altogether successful. The advance of civilisation in these western regions rendered a large lunatic asylum a necessity of the Province, and of this Dr. Bodington was appointed Medical Superintendent in 1895. His success in this work is well attested by the following extract from the report of his successor:—

It was apparent that to bring about the required changes would entail an immense amount of work, and Dr. Bodington felt constrained, through the advance of years, to relinquish the labour to younger hands, and seek well-earned rest and retirement in the land of his birth, surrounded by the members of his family and his friends. In this connection I can truthfully testify that no greater general sorrow has been witnessed throughout the institution than that occasioned by the departure of the one who had taken the helm at a very trying time, and had safely piloted the hospital through some difficult passages, giving to it his best energy and utmost attention, though never in robust health, and having already arrived at that period of life when men hope to be able to forget labour and worry. Dr. Bodington's resignation was accepted by the Government, who voted him a retiring allowance for his faithful services, which terminated on February 28th, after six years of most arduous toil, during the greater part of which he was alone in the charge of the institution.

He came to England last year to visit his relations and to renew acquaintance with old friends, and he eventually settled in Paris, where his eldest son, Mr. Oliver Bodington, occupies an important position in Anglo-American legal and commercial circles. His death occurred after a very short illness, but his state of health had not been satisfactory for some time past.

Dr. Bodington was a man of magnificent physique and fine presence, a delightful companion, and an enthusiastic man of letters. His second wife died some years ago, but he has left a large family of children settled in Europe and Canada.

ARTHUR STRANGE, M.D.EDIN.,

Superintendent, Shropshire and Montgomeryshire County Asylum.

WE regret to announce the death of Dr. Arthur Strange, for many years Superintendent of the Salop and Montgomery County Lunatic Asylum, Bicton Heath, near Shrewsbury, which took place on Sunday, May 11th. The news of his decease was received with great regret by a large number of the inhabitants of Shrewsbury and surrounding districts, especially by his professional colleagues, by whom he was held in the greatest esteem. It had been noticed by many that during the past few months Dr. Strange had not been in his usual health, and the great strain attendant upon a widespread epidemic of influenza amongst the asylum inmates, accompanied by a heavy mortality, accelerated the end. Although acutely ill for only three weeks, his strength had been steadily declining, and his illness culminated eventually in an attack of meningitis. At first there seemed to be reasonable hope of his recovery; but it was otherwise ordained, and, notwithstanding the unremitting care of several of his asylum colleagues and others on the staff of the Salop Infirmary, urgent symptoms supervened and he passed peacefully away.

Dr. Strange was son of the late Dr. Strange, of Worcester, a past President of the British Medical Association. He studied at Edinburgh University, graduating M.D. in 1867. At an early stage of his career he decided to make lunacy his special study. His first professional appointment was that of Medical Officer at Colney Hatch Lunatic Asylum, and he was then successively appointed to similar positions at Gloucester and Chester. Dr. Strange came to the Salop and Montgomery Asylum in 1872, when he succeeded Dr. H. Rooke Ley as Medical Superintendent. At that time there were 514 patients in the Asylum, that number had increased to 858 last year. His thirty years' experience of mental diseases had acquired for him a great reputation in cases of lunacy, and his evidence has on many occasions guided and assisted the verdicts of juries in his own and adjoining counties, as well as built up for him a widespread consulting practice in his own special department. On many occasions his opinion has been asked by the Home Office in dealing with criminal cases.

His close attention to his duties and the admirable manner in which they were carried out caused him to be held in the highest esteem by his Committee of Management, and his utter disregard of self and his neglecting to take a much-needed rest had been the cause of ill-health on many occasions. It was at the earnest request of his Visiting Committee that, just previous to his last illness, he had decided to take a much-needed three months' holiday.

His uniform kindness to all with whom he came in contact, especially to those of his patients who were able to appreciate it, endeared him to all, and it is felt that an almost irreparable loss has been sustained by his death.

As an old member of the Association he took an active part in the amalgamation of the two Branches formerly in existence in Shrewsbury, and in 1882 he took office with Dr. Edward Carlton as joint Honorary Secretary. He was elected to the Council of the Branch in 1885, and ultimately represented the Branch in the Central Council, where his opinions had just weight. Latterly, his numerous professional engagements had prevented his regular attendance at the Branch meetings.

The funeral took place on May 15th at Oxon Church, adjoining the Asylum, where his life-work was done. In the presence of a large gathering of sorrowing relatives and friends, the remains were borne to their last resting place by male attendants from the asylum, followed by mourners, friends, and the asylum staff and nearly every member of the profession in the district. Of a retiring and reserved nature, only those who knew him best could thoroughly appreciate his kindness of heart and the vein of humour which was ever present beneath the surface. His hospitality was proverbial and he was always one of the first to show kindness to any new members of the profession who came into the district.

In Dr. Strange the medical profession in Shropshire loses a sincere friend, a man who can be ill spared at the present moment. He leaves behind him a widow and seven children to mourn his loss. His eldest son, Mr. Ernest Strange, is a student of the University of London, and is completing his education at Guy's Hospital.

JOHN SELL EDMUND COTMAN, M.R.C.P., L.R.C.S.EDIN., L.S.A.

DR. J. S. E. COTMAN, who has been for long widely known as an influential member of the Common Council of the City of London, died suddenly while away from home on May 26th. He left his house in the Minories, E.C., at 2.30 p.m. on his bicycle, and at 5 p.m. was found dead by the roadside at Langdon Hills, Essex, 20 miles away. His machine was found standing against a hedge, and the appearances indicated that he had laid down and suddenly expired. The medical evidence at the inquest went to show that death was due to syncope from over-exertion.

Dr. Cotman was born in 1848 at Thorpe, near Norwich. His father was Mr. John C. Cotman, who afterwards became Professor of Drawing at King's College, and his grandfather was the well-known artist, John Sell Cotman. Dr. Cotman received his early education at the Norwich Grammar School. Before commencing his professional studies he spent several years in South Africa. He then entered at Charing Cross Hospital. He took the qualifications of L.R.C.P.Edin. and L.S.A. in 1879; L.R.C.S.Edin. and L.M. in 1880, and M.R.C.P.Edin. in 1882. Shortly after qualification he commenced practice in the Minories, and with that district he maintained close pro-

fessional associations to the last. He was for a time President of the Hunterian Society, and was Medical Officer to the Trinity House, Surgeon to the General Steam Navigation Company, District Medical Officer to the London County Council, and Medical Officer to the Midland Railway Friendly Society.

For twenty-five years he was an able and popular member of the Common Council (at the time of his death he was one of the members for the Ward of Portsoken), and as such was instrumental in bringing about many reforms in the City; he was largely responsible for the schemes for widening the main lines of traffic in the City, and for opening and beautifying the City recreation grounds. A year ago he was elected Chairman of the Port of London Sanitary Committee. He was much interested also in several philanthropic enterprises. He was a Governor of the Sir John Cass Charity, Chairman of the Charity Committee of the Aldgate Freedom Foundation, and also a Trustee of the St. Botolph, Aldgate, School. The elder of Dr. Cotman's sons is himself a qualified medical practitioner, and at present the resident medical officer at St. Bartholomew's Hospital, Rochester. With his son-in-law, Dr. W. J. McCullock Ettles, he had been in partnership for the previous twelve years. Great sympathy is felt with his relatives in their loss.

THERE has recently passed away in his fifty-fourth year one who, although not actually in the medical profession, was yet for many years intimately associated with many of its members—Mr. JAMES WILLIAM GROVES, formerly of King's College, London. Mr. Groves entered as a student at St. Bartholomew's Hospital in the year 1870. In the early Seventies Mr. Groves founded the Medical Microscopical Society, a society of medical students interested in microscopical work in connection with medicine. The Society, some of whose members are now well known, met at St. Bartholomew's or at the Westminster Ophthalmic Hospital, the president, we believe, being Mr. Morrant Baker, Lecturer on Physiology at St. Bartholomew's. The Society lived only a few years—indeed, the need for such a body vanished as histology was more systematically taught in the schools. In 1885 Mr. Groves was appointed Curator of the Pathological Museum at King's College, and in 1887 he succeeded the late Professor Bentley as Professor of Botany in King's College. This appointment he resigned in 1892. He subsequently travelled a good deal, and devoted his leisure mostly to photography and country pursuits. Mr. Groves was twice married, and his second wife survives him. He was a careful student of Nature, a good friend, and an amiable companion.

WE regret to announce the death of Professor ADOLF KUSSMAUL, the eminent German clinician, who died at Heidelberg, on May 27th, from the effects of an attack of asthma. He was born at Graben, near Karlsruhe, in 1822, and studied at Heidelberg, where he was appointed Professor of Internal Medicine in 1857. Two years later he accepted a call to the corresponding chair at Erlangen. In 1863 he migrated to Freiburg, and in 1876 he accepted a call to Strassburg where he remained till his retirement in 1889. Professor Kussmaul was the author of several important works. We hope to give a fuller account of his career in a later issue.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Arsène Victor Pigeolet, Emeritus Professor of the University of Brussels, Member of the Belgian Academy of Medicine and of the Belgian Senate, aged 87; Dr. G. B. Méran, one of the founders, and for some years editor in chief, of the *Union Médicale de la Gironde*, aged 81; Dr. Lyman Beecher Todd, of Lexington, Kentucky, who was one of the medical attendants at the death-bed of President Lincoln, who was related to him by marriage, aged 70; Dr. Marie E. Zakrzewska, one of the pioneer medical women of Boston, U.S.A., and foundress of the New England Hospital for Women and Children, aged 73; Professor Carl Böhm von Böhmersheim, Director of the Vienna General Hospital, and author of various papers on surgical and gynaecological subjects, aged 74; Dr. Polaillon, Surgeon to the Hôtel Dieu, Professeur Agrégé in the Paris Faculty of Medicine, Member of the Académie de Médecine, and author of several monographs on operative surgery and various points of surgical pathology, aged 66; Dr. Émile Baudron, Obstetric Physician to the Paris hospitals, aged 38; and Dr. J. Falret, Specialist in Mental Diseases to the Paris hospitals.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE NEW REGULATIONS OF THE ROYAL NAVY MEDICAL SERVICE.

WE have received a lengthy communication from "Olim," a former naval medical officer, relative to these regulations, treating especially of the post-graduate hospital courses now sanctioned, and instruction and research in tropical diseases; he also urges the necessity of a fuller recognition by the Admiralty of the professional status of medical officers in the Navy in order to attract well-qualified men in sufficient number. "Olim" deprecates the phrase "should the exigencies of the service permit" regulating study leave, and urges that a post-graduate course should be compulsory for all medical officers when they return from three years or more of foreign service. According to the regulations "every medical officer is required to undergo a post-graduate course of three months once in every eight years (should the exigencies of the service permit), and this as far as possible during his period of service as surgeon, staff-surgeon, and fleet surgeon."

To secure this amount of post-graduate instruction, one-twelfth of the surgeons, one-eighth of the staff surgeons, and about one-ninth of the fleet surgeons, on an average, would require three months' leave for study each year. According to present numbers, this would mean the granting of study leave to some 44 medical officers each year, or 11 each three months. However desirable the further amount of post-graduate instruction advocated by our correspondent might be, we fear that for a time the present undermanned naval medical establishment will not even permit of the post-graduate instruction specified in the regulations being granted. The present authorized establishment of surgeons, staff-surgeons, and fleet surgeons is 502, but there are but 450 at this date, excluding 9 surgeons under instruction on entry, it remains therefore to be seen how soon the requisite number of surgeons can be recruited to permit of the proposed amount of study leave being granted. Our correspondent considers that "there is a great future in store for the naval medical service if properly organized and constituted, so that it can take its proper part in a work of so much importance to a world-wide Power as the subject of tropical diseases. Much work has been done—and is now being done—by other services in this matter, which may still be said to be in its infancy, but no service in the whole world possesses such advantages for the observation and collection of facts as would be in the hands of the naval medical service if only it were duly equipped for the work ..... If the naval medical service is to become really efficient and do good work for the betterment of medical knowledge, thus becoming deservedly popular and also self-respecting, it must be reorganised on such lines as will lead it on eventually to its rightful and proper position as the leading authority in the world on tropical medicine. This high position should naturally belong to the medical service of the greatest navy in the world, and could be attained without much difficulty. Let the younger men really have something tangible to work at, and drop all the meteorological copy from the ship's log, etc., that at present cumbers their journals, and makes the compilation of these records a most wearisome burden."

We concur in advocating that naval medical officers should be encouraged, and efficiently equipped for research in the diseases of warm climates. Gipps, Dalton, and others have proved their ability for such work, and we understand that in one or more cases necessary equipment has been supplied by the Medical Director-General; but there is room for further outfits for fleets, and hospitals at home and abroad, which might be accessible for ships' medical officers desirous of prosecuting research.

In the BRITISH MEDICAL JOURNAL of May 3rd, p. 1122, we advocated the grant of additional pay for specialists in bacteriology, etc., in the navy as is granted in the army. In the same issue (p. 1123) "M.B., R.N." dwelt on the deficient supply of medicines, etc., in the navy. We are, however, informed that the supply has been recently revised, brought up to date, and that the new scale will shortly be issued to the fleet; indeed, some few ships have already received the new supplies.

"R.N." writes: Mr. Cantlie, in the JOURNAL of May 10th, p. 1182, in comparing the navy and army pay of medical officers, omitted the 10s. a day charge pay of inspectors-general, which makes their pay £1,482 10s., with residence, and not £1,300, as given.

MENTIONED IN DESPATCHES.

WE have much pleasure in drawing attention to the handy little volume, *Mentioned in Despatches* (*Army and Navy Gazette* Office, 1902. Demy 8vo, pp. 1154, 1s.), which affords ready information concerning officers and men who have distinguished themselves in the South African campaign and have received honours up to May 8th, 1902. The gallant men mentioned are, of course, very numerous, but not more than would be expected from the great numbers employed and the many actions of the war. We naturally turn to the distinctions earned by members of the medical services—naval, military, and civil—as follows:

Naval.—Two D.S.O.s.

Military and Civil.—Six V.C.s, one K.C.B. (Sir William Mac Cormac), twenty C.B.s, two K.C.M.G.s, forty-seven C.M.G.s, and thirty-seven D.S.O.s. Thirty-eight non-commissioned officers and men of the medical branch have received distinguished conduct medals, and one a bar for a medal already won. Forty-eight nursing sisters and [illegible] ladies received Royal Red Crosses. Besides the above honours, a number of officers and men of the Royal Army Medical Corps have received steps in substantive rank as special promotion. There are no doubt many others fully

deserving who have neither been mentioned nor received any reward; their merits were unfortunately unobserved, and therefore unrecorded and unrewarded. But such is the fortune of war.

ROYAL ARMY MEDICAL CORPS EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

LIEUTENANT-COLONEL R.A.M.C., lately home from India, wishes to exchange abroad, preferably Madras command. Address No. 2750, office of BRITISH MEDICAL JOURNAL.

ROYAL ARMY MEDICAL CORPS.

MAJOR C. G. WOODS, M.D., retires from the service, receiving a gratuity. He was appointed Surgeon-Captain, August 1st, 1885, and Surgeon-Major, May 18th, 1898. He served with the Hazara Expedition in 1888, receiving the Frontier medal with clasp, and in the South African war in 1899-1901; he took part in the defence of Ladysmith, and was slightly wounded in the engagement of January 6th, 1900.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN W. A. DINGLE, M.D., is promoted to be Surgeon-Major.

THE NEW WARRANT AND REGULATION.

OSTRACISED enumerated the causes which have hitherto rendered the Army Medical Service unpopular, and hopes the new warrant will remove such as insufficient pay, promotion by seniority only, grudging of honours and rewards, etc., but points out that undermanning and the tacit encouragement of social ostracism do not seem to be grappled with.

INDIAN MEDICAL SERVICE.

COLONEL J. T. B. BOOKEY, C.B., Bengal Establishment, is appointed Principal Medical Officer Punjab Frontier Force and Frontier District.

The undermentioned Lieutenants, on arrival from England, are posted as follows: R. L. HAGGER, to Deesa District; R. M. CARTER, to Poona District; T. G. F. PATERSON, to Poona District; Dr. G. R. S. BAKER, to Sangor (Bengal Command); R. M. BARROW, to Quetta District; L. P. FARRELL, to Poona District.

Captain WILLIAM CARR, M.B., Bengal Establishment, died at Meerut on May 5th, from the result of an accident, aged 32. While engaged bottling whisky from a cask, a severe explosion occurred, it is stated, through some one striking a light to see if the cask was empty. Captain Carr was so seriously burnt that he was removed to the hospital, and succumbed to his injuries. He was appointed Surgeon-Lieutenant, January 29th, 1895, and became Surgeon-Captain three years later. He was in the campaign on the North-West Frontier of India in 1897, including the defence of the Malakand, was mentioned in dispatches, and received a medal with two clasps.

IMPERIAL YEOMANRY IN SOUTH AFRICA.

MR. R. J. MCCLELLAND, M.B., to be Medical Officer, 32nd Battalion, with the temporary rank of Captain.

Mr. R. MURPHY, L.R.C.P., to be Medical Officer, 38th Battalion, with the temporary rank of Captain in the army.

IMPERIAL YEOMANRY.

SURGEON-LIEUTENANT-COLONEL W. W. WINGATE-SAUL, M.D., and Surgeon-Lieutenant L. G. S. MOLLOY, M.D., Duke of Lancaster's Own, resign their commissions, and receive new commissions subject to the Military and Yeomanry Act, 1901, retaining their present rank and seniority.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAIN J. W. T. GILBERT, 1st Cinque Ports, is promoted to be Surgeon-Major.

Mr. M. B. HAY is appointed Surgeon-Lieutenant in the 2nd Devonshire.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN J. ANDERSON, M.B., 8th Volunteer Battalion the Royal Scots (Lothian Regiment) resigns his commission, and is appointed Captain.

Surgeon-Captain D. STEWART, 1st Volunteer Battalion the Northumberland Fusiliers, is promoted to be Surgeon-Major.

Surgeon-Lieutenant D. G. CAMPBELL, M.B., 3rd (Morayshire) Volunteer Battalion the Seaforth Highlanders, is promoted to be Surgeon-Captain.

Surgeon-Lieutenant T. J. BURTON, M.D., 1st Dumbartonshire, is promoted to be Surgeon-Captain.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

SURGEON-CAPTAIN W. N. EVANS, from the 1st Volunteer Battalion the Duke of Cambridge's Own (Middlesex Regiment), to be Surgeon-Captain in the 1st London, and to command under para. 55a Volunteer Regulations.

AN ACKNOWLEDGEMENT

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from Dr. Molloy (Blackpool), Rigby (Preston), J. Gordon Black (Harrogate), Elliston (Ipswich), Colonel Warburton C.M.G. (retired), and the following officers R.A.M.C.: Colonels J. McNeill and Lyle; Lieutenant-Colonel Kenny, C.B. White, J. Bolge, C. K. Powell, Penton, Donovan, Ward, Nichols, and Hughes; Majors Salvage Cockerill, J. D. Alexander, Barnett Wilson, E. M. Hassard, Coleman, Cottell, J. M. Irwin; Captain H. O. Reilly.

The Fund now amounts to £224.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Garden Terrace, W.

THE APPEAL FOR THE FAMILY OF THE LATE LIEUTENANT-COLONEL BRODIE, R.A.M.C.

ON behalf of the widow and orphans of Lieutenant-Colonel J. F. Brodie, R.A.M.C., for whom an appeal was made in the BRITISH MEDICAL JOURNAL of the 24th May, Colonel Leake begs to acknowledge, with many thanks, the following contributions and to express his cordial appreciation of the kind words of sympathy which accompanied them:—

	£	s.	d.
Surgeon-General A. Keogh, A.M.S.	5	0	0
Dr. G. F. Hugill (Balham)	1	1	0
Lieutenant-Colonel A. Lang Browne, R.A.M.C. ...	1	1	0
Lieutenant-Colonel Mick Bourke, R.A.M.C. ...	1	1	0
Lieutenant-Colonel F. T. Wilkinson, R.A.M.C. ...	1	1	0
Lieutenant-Colonel E. A. Mapleton, R.A.M.C. ...	5	5	0
Colonel J. M'Namara, R.A.M.C.	1	0	0
Colonel G. Leake, R.A.M.C.	5	5	0
"K. W. M."	1	1	0
Total	£21	15	0

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Major I. W. Bullen	0	10	0
Colonel M. D. O'Connell...	1	1	0
Lieutenant-Colonel R. P. Hetherington	0	10	0
Previously acknowledged	90	15	0
Total ...	£92	16	0

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Radcliffe Travelling Fellowship.—Mr. Herbert S. French, B.M., Christ Church, and Mr. Arthur J. Jex-Blake, B.M., Magdalen College, have been elected to Radcliffe Travelling Fellowships.

UNIVERSITY OF CAMBRIDGE.

Reader in Chemical Physiology.—The General Board proposes that Mr. F. G. Hopkins shall be appointed Reader in Chemical Physiology, and Emmanuel College, of which he is a member, has spontaneously offered to contribute £100 a year to his stipend. It is probable that the proposal will be adopted, for Mr. Hopkins, in the position of University Lecturer, has performed services to the University and to science which amply justify his promotion to the higher rank.

Honorary Degrees.—Honorary doctorates will on June 10th be conferred on a number of distinguished visitors, among whom are Principal Rücker and Sir Harry Hamilton Johnston.

Degrees.—At the congregation on May 26th the following medical and surgical degrees were conferred:—*M.B.*: H. T. Hodgkin, King's; A. de W. Snowden, Christ's; F. E. Wood, Downing. *B.C.*: H. T. Hodgkin, King's; F. D. Nicholson, King's; G. E. St. C. Stockwell, King's; C. V. Bulstrode, Trinity; G. E. Loveday, Caius; R. Spearman, Caius; R. Spearman, Caius; A. de W. Snowden, Christ's; H. O. Butler, Emmanuel; W. W. Jondwine, Selwyn Hostel.

Examiners.—The following are the examiners for the Third M.B. Examination Part II in the ensuing academical year. Medicine: Dr. Isambard Owen, Dr. Humphry, Dr. Greenfield. Surgery: Mr. Clinton Dent, Professor E. Ward, Mr. Edmund Owen. Midwifery: Dr. Handfield-Jones, Dr. Herman.

Dr. Chase, President of Queens', has been elected Vice-Chancellor for the ensuing year.

Mr. L. Doncaster, King's, has been appointed Assistant to the Superintendent of the Museum of Zoology.

UNIVERSITY OF LONDON.

M.B.—Examination.—The following candidates have satisfied the Examiners:

First Division. W. F. Fedden, St. George's Hospital; P. G. Harvey, St. Bartholomew's Hospital.

Second Division. O. L. Addison, University College; F. C. E. Atkinson, St. George's Hospital; T. Aubrey, University College, Bristol, and St. Bartholomew's Hospital; E. W. Bain, London Hospital; H. Barber, Owens College and Guy's Hospital; P. J. Cammidge, St. Bartholomew's Hospital; E. P. Chennells, University College; E. M. Clarke, London Hospital; H. A. Colwell, St. Bartholomew's Hospital; Agnes Emma Dunnett, London (Royal Free Hospital) School of Medicine for Women; Erle Evans, London (Royal Free Hospital) School of Medicine for Women; J. Evans, Guy's Hospital; E. F. Fisher, London Hospital; D. Forsyth, Guy's Hospital; J. G. French, St. Mary's Hospital; F. G. Gibson, Guy's Hospital; A. D. Hamilton, University College, Liverpool, and St. Thomas's Hospital; A. C. Haslam, St. Thomas's Hospital; S. Hodgson, Guy's Hospital;

N. N. A. Houghton, Guy's Hospital; F. M. Howell, St. Bartholomew's Hospital; W. H. Jones, London Hospital; F. S. Longmead, St. Mary's Hospital; W. S. Page, St Mary's Hospital; R. Phillips, Middlesex Hospital; H. D. Pollard, London Hospital; D. T. Price, St. Mary's Hospital and Bristol Medical School; M. J. Rees Guy's Hospital; P. Savill, University College; Emily Gertrude Stuart London (Royal Free Hospital) School of Medicine for Women: G. O. Taylor, London Hospital; V. G. Ward, St. Bartholomew's Hospital: Lucy Wellburn, London (Royal Free Hospital) School of Medicine for Women.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary Examinations and having conformed to the By-laws, have been admitted Members of the College:

J. Acomb, Yorkshire College and General Infirmary, Leeds; C. U. Aitchison, Oxford University and London Hospital; E. G. Allport, Melbourne University and Guy's Hospital; E. W. Alment and A. M. Amsler, St. Bartholomew's Hospital; J. V. Arkle, University of New Zealand and st. Thomas's Hospital; J. H. Ashton, Owens College and Royal Infirmary, Manchester and Edinburgh; S. M. Banham, University College Hospital; J. Barnicot and G. D. Barton, B.A.Camb., Cambridge University and St. Thomas's Hospital; E. Bayley, Charing Cross Hospital; J. M. Bennion, Cambridge University and St. Bartholomew's Hospital: W. Benton, L.S.A.Lond., Charing Cross Hospital and London Hospital; E. Bigg, B.A.Camb., Cambridge University and Guy's Hospital; T. H. Bishop, Edinburgh and Durham University; C. E. Blackstone, Middlesex Hospital; A. de V. Blathwayt and F. E. Bolton, University College Hospital; F. J. Borrie, University of New Zealand and Middlesex Hospital; L. Bousfield, B.A.Camb., and C. V. Bulstrode, B.A.Camb., Cambridge University and London Hospital; G. L. Bunting, Oxford University and Westminster Hospital; P. Burnett, M.D., C.M.McGill, McGill University, Montreal and St. Mary's Hospital; H. H. Butcher and J. Corbin, St. Bartholomew's Hospital; M. W. Cohen, B.A.Lond, Guy's Hospital; H. A. Cutler, B.A.Camb, and H. Davies-Colley, B.A.Camb., Cambridge University and Guy's Hospital; O. J. S. Damian, St. George's Hospital: A. De Morgan, St. Mary's Hospital; A. Donald, M.B., M.S., D.P.H., Glasgow University and King's College Hospital; H. R. Dutton, Middlesex Hospital; J. Evans, Guy's Hospital; E. L. Farncomb, B.A.Oxon., Oxford University and St. Bartholomew's Hospital; T. B. Fawley, University College, Sheffield, Yorkshire College and General Infirmary, Leeds, and Guy's Hospital; W. S. Fox, M.A.Camb., Cambridge University and St. George's Hospital; C. E. Gaitskell, Guy's Hospital; L. U. Geraty, St. Bartholomew's Hospital, University Colleges, Dublin and Sheffield; T. Gibson, St. Thomas's Hospital; D. Gray, Charing Cross Hospital; W. H. Gray, London Hospital; G. W. Greene, B.A.Camb., Cambridge University and London Hospital; R. Griffith, Cambridge University and London Hospital; W. Hackney, M.D., C.M. Trinity, Toronto, London, Ontario and University College Hospital; A. R. Hall, M.D.McGill, McGill University, Montreal, and University College Hospital; L. F. Hanbury, St. Thomas's Hospital; J. J. Hanley, Cork, Massachusetts, and Boston Universities; G. F. J. Harkness, University College Hospital; W. H. Harwood-Yarrod, B.Sc.Lond., St. Thomas's Hospital; J. G. Higgins, St. Mungo's College, Glasgow; W. G. Hopkins, St. Mary's Hospital; N. N. A. Houghton, Guy's Hospital; J. L. Howard, M.D., Cooper Medical College, Vienna, and St. Mary's Hospital; T. Howell, University College, Cardiff, and St. Bartholomew's Hospital; G. W. Howland, B.A., M.B.Toronto; A. R. F. Hubbard, Charing Cross Hospital; G. F. Humphrey and P. D. Hunter, Guy's Hospital; O. Jevers, St Mary's Hospital; J. Jenkins, University College, Cardiff, and University College Hospital; C. P. Johns, B.A., M.B., Queen's University, Kingston, Canada, and University College Hospital; E. A. Jones, M.B Toronto, University College and Middlesex Hospital; G. H. Kirby, Mason College, Queen's and General Hospitals, Birmingham; R. H. Lee, King's College Hospital; A. Levey, B.A., M.D., C.M., McGill, McGill University, Montreal; G. E. Loveday, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; G. H. Low, St. Bartholomew's Hospital; J. K. Lund, Mason College, Queen's and General Hospitals, Birmingham, and Owens College and Royal Infirmary, Manchester; J. McBryde, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; F. W. Marlow, M.D., C.M., Trinity, Toronto, and University College Hospital; G. Maw, University College Hospital; A. G. H. Michel, Charing Cross Hospital; W. P. Miles, St. Bartholomew's Hospital; F. Morgan, Westminster Hospital; R. M. Nanji, L.M.S.Bombay, Grant Medical College, Bombay; A. C. Nash, Guy's Hospital; C. L. Nedwell, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; J. H. Neil, M.B., Ch.B., New Zealand; A. C. Osburn, Guy's Hospital; L. J. Paton, B.A., B.C., M.B.Camb., Glasgow and Cambridge Universities and St. Mary's Hospital; D. Pennington, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; E. McL. Perkins, London Hospital; W. Pettigrew, University College Hospital and University College, Sheffield; D. J. Phillips, M.D., C.M.Canada, McGill University, Montreal, and London Hospital; L. Pick, St. George's Hospital; A. F. Pilkington, St. Mary's Hospital; C. J. Pinching, B.A.Oxon., Oxford University and Guy's Hospital; A. K. H. Pollock, St. Bartholomew's Hospital; R. M. Ranking, Cambridge University and St. Bartholomew's Hospital; H. G. Rashleigh, Guy's Hospital; G. A. K. H. Reed, St. George's Hospital; O. W. Richards, M.A.Oxon., Oxford University and Guy's Hospital; J. Riddell, M.B., B.S.Melb., Melbourne University and King's College Hospital; H. N. Robson, St. Thomas's Hospital; C. W. Rowntree, L.S.A.Lond., Middlesex Hospital; A. R. Schofield, London Hospital; C. N. Sears, St. Thomas's Hospital; W. M. Shand, M.B., Ch.B.New Zealand, St. Bartholomew's and Charing Cross Hospital: H. F. Skrimshire, Cambridge University and Charing Cross Hospital; H. J. Slade, St. Bartholomew's Hospital; F. W. Smith, Guy's Hospital; R. H. N. Smith, London Hospital; J. A. Smyth, University College Hospital; R. A. S. Sunderland, St. Bartholomew's Hospital; J. Templeton, St Mary's Hospital; W. E. J. Tuohy, Guy's Hospital; G. de B. Turtle, Cambridge University, King's College Hospital, and Royal Infirmary, Newcastle; H. Upcott, St. Thomas's Hospital; A. B. Waller and G. S. Ward, London Hospital; N. E. Waterfield, St. Bartholomew's Hospital; E. C. Whitehead, Westminster Hospital; O. T. Williams, B.Sc.Lond., University College, Liverpool; R. C. Wilmot, St. Bartholomew's Hospital; H. P. Wiltshire, B.A.Camb., Cambridge University and Guy's Hospital; W. W. Wingate Saul, M.A.Camb., Cambridge University and St. Bartholomew's Hospital; G. T. Wrench, Guy's Hospital; J. H. Wroughton, St. Bartholomew's Hospital; B. Yule, University College Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following is the result of the elections of the Royal College of Surgeons in Ireland, held on Monday, June 2nd:

President—Mr. L. H. Ormsby.
Vice-President—Mr. Arthur Chance.
Secretary—Sir Charles A. Cameron, C.B.

Council (19).	Votes Received.		Votes Received.
Mr. E. H. Bennett	204	Mr. T. Myles	208
Sir P. C. Smyly	198	Mr. J. Lentaigne	210
Mr. H. R. Swanzy	206	Mr. T. Donnelly	139
Sir William Thomson, C.B. ...	212	Mr. F. T. P. Newell	156
Mr. Austin Meldon	214	Mr. R. H. Woods	184
Sir C. A. Cameron, C.B. ...	227	Mr. R. B. McCausland... ...	198
Mr. R. D. Purefoy	166	Mr. J. D. McFeely	130
Mr. H. G. Sherlock	192	Mr. William Taylor	146
Mr. C. B. Ball	193	Mr. H. W. Oulton	134
Mr. J. B. Story	208		

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9,118 births and 4,710 deaths were registered during the week ending Saturday last, May 31st. The annual rate of mortality in these towns, which had been 17.3 and 16.7 per 1,000 in the two preceding weeks, further declined to 16.5 per 1,000 last week. The rates in the several towns ranged from 6.5 in Wallasey, 7.3 in Smethwick, 7.5 in Handsworth, 7.6 in Hornsey, 8.3 in Newport (Mon.), 9 in East Ham, and 9.9 in Willesden, to 22.0 in Liverpool, 23 in Salford, 23.5 in Middlesbrough, 23.9 in Burnley, 24.2 in Rochdale, 24.6 in Burton-on-Trent, 25.7 in Oldham, and 25.9 in Barrow-in-Furness. In London the death-rate was 16.6 per 1,000, while it averaged 16.5 in the seventy-five other large towns. The mean death-rate from the principal zymotic diseases in the seventy-six large towns was 1.8 per 1,000; in London this death-rate was equal to 2.3 per 1,000, while it averaged 1.6 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.2 in Burnley, 3.4 in Middlesbrough, 3.5 in Sunderland, 3.7 in Rochdale, 3.9 in Tottenham, 4 in South Shields, and 8 in Barrow-in-Furness. Measles caused a death-rate of 1.7 in Bournemouth, 1.8 in Derby, in Bury, and in Sunderland, 2 in Stockton-on-Tees, 3.1 in Rochdale, and 5.4 in Barrow-in-Furness; scarlet fever of 2.1 in Burnley; diphtheria of 1.1 in Middlesbrough and 1.2 in St. Helens; whooping-cough of 1.4 in Birkenhead, 1.6 in West Hartlepool, 1.8 in Barrow-in-Furness, and 3.5 in South Shields; and "fever" of 1.1 in Middlesbrough. Of the 59 fatal cases of small-pox registered last week among persons belonging to these large towns, 48 belonged to London, 7 to Tottenham, and 4 to West Ham. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 1,410, 1,360, and 1,344 on the three preceding Saturdays, had further declined to 1,274 on Saturday, May 31st; 251 new cases were admitted during the week, against 248, 233, and 307 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of last week was 2,266, against 2,212, 2,202, and 2,236 at the end of the three preceding weeks; 319 new cases were admitted during the week, against 256, 270, and 280 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 31st, 956 births and 624 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.1, 19.4, and 20.3 per 1,000 in the three preceding weeks, declined again last week to 19.3 per 1,000, but was 2.8 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 15.2 in Leith and 15.9 in Greenock, to 21.1 in Paisley and 25 in Perth. The zymotic death-rate in these towns averaged 1.8 per 1,000, the highest rates being 2 in Leith and 2.1 in Glasgow. The 307 deaths registered in Glasgow included 8 from measles, 14 from whooping-cough, 2 from "fever," and 6 from diarrhœa. Two fatal cases of measles, 3 of diphtheria, 2 of whooping-cough and 2 of diarrhœa were recorded in Edinburgh: 2 deaths from whooping-cough and 3 from diarrhœa occurred in Dundee; 2 from whooping-cough in Aberdeen; 2 from diarrhœa in Paisley; and 2 from whooping-cough in Leith.

VACCINATION INSTRUMENTS.

SCARIFIER writes: I should be glad to have the opinion of some public vaccinators on the relative advantages of the different vaccination instruments, and which kind meets with the most general approval of the Local Government Board inspectors. Are the needle scarifiers, used in conjunction with the spatula (as the Cooper Rose), generally

considered as satisfactory as the simple vaccinator, such as Stevens's? Weir's vaccinator looks a satisfactory instrument. I have been accustomed for some time to use the charged pin-point; but now, with a vaccination appointment in view, think of adopting other methods.

MEDICO-LEGAL AND MEDICO-ETHICAL.

From communications which we have received recently it appears to be necessary to repeat that we cannot undertake to express any opinion upon medico-ethical cases submitted to us unless we have before us statements by both parties to the controversy.

MEDICAL ETIQUETTE.

Member.—If B. understood that he was acting as A.'s substitute, he should have refused to have continued in attendance. If, however, we may assume that the patient desired to change her medical attendant, it was B.'s duty to see that a courteous letter was written informing A. of the change.

An Old Member.—To refuse to meet another practitioner in consultation is a grave matter, and our correspondent must accept the consequences. In our opinion the reason alleged is insufficient, as we think that medical men should set aside their personal feelings under circumstances such as those described by our correspondent.

CHARGES FOR REPETITION OF MEDICINES.

"Alpha" asks whether any difference is to be made between fees paid for medicine and advice, and those paid for medicines repeated only. Are the former professional fees, and the latter payments for medicines sold to patients?

*** They are both usually regarded as professional fees, as each repetition ought only to be dispensed on the advice of the medical attendant.

BOOKKEEPING.

A Correspondent inquires what is the usual arrangement as regards bookkeeping and sending out of bills (where no bookkeeper is employed) in the case of two partners with equal shares in the practice, the books being kept at the surgery, which is part of the senior's house.

*** It is a very general custom in the profession in the case of partnerships for each partner to book the attendances on his own patients, and in due course to send out bills to the same. This system has much to recommend it, as it often happens that only the medical attendant himself knows what fees may be fitly charged without giving dissatisfaction to the patient.

MEDICAL NEWS.

The annual banquet of the Association of British Postal Medical Officers will be held in the Whitehall Rooms, Hôtel Métropole, on July 17th, at 7.30 p.m.

The Italian Ophthalmological Association will hold its sixteenth annual congress at Florence on October 12th and four following days.

A Bill authorizing the Boston Institute of Osteopathy to confer the degree of Doctor of Osteopathy has been defeated in the Massachusetts Legislature by 63 votes to 50.

We are informed that Hon. Dr. Lim Boon Keng, M.B., of Edinburgh University, arrived in London on Friday, May 30th, on board the P. and O. ss. *Ceylon*, as one of the Volunteers from Singapore. This fine body of men are the first Volunteers to arrive in this country in connexion with the Coronation contingent.

An anonymous donor, connected with Hampshire, has undertaken to defray the entire cost (estimated at £4,000) of the building and equipment of a home to accommodate twenty-four patients (who are to be chosen from Hampshire candidates) at Chalfont St. Peter, in connexion with the National Society for the Employment of Epileptics.

Presentation.—Dr. Richard U. Wallace, of Stamford Hill, was recently presented with an illuminated address and a cheque for £700 by his professional brethren and lay friends on the occasion of his returning to practice in Hackney. The presentation was made by Mr. Frederick Snowden, and Dr. Daly said that the medical men in Hackney had found Dr. Wallace an honourable colleague. The Mayor of Hackney said that all classes in the borough had the most kindly feelings towards Dr. Wallace.

A Congress of Midwives.—Italian midwives recently held their fifth National Congress at Genoa under the presidency of Signora Brigiano. Among the members of the medical profession present were Professor L. M. Bossi, Senator Edoardo Maragliano, and Professor Canalis. Professor Bossi, in his introductory address, dealt with the problem of foundlings, legitimate and illegitimate, in their relation to the mission of the midwife. The subjects discussed were connected with the progress of the obstetric art and the means of improving the moral and material status of midwives. It was decided that the next meeting of the Congress should be held at Naples in 1904.

The Belgian Academy of Medicine has taken the initiative in making arrangements for the holding of an international conference for the unification of the formulae of heroic medicaments. The conference will meet at Brussels on September 15th. The following nations have expressed their agreement with the proposal that all civilized countries should come to an understanding as to the establishment of a uniform standard of composition for heroic medicaments in international use: Germany, Great Britain, Austria-Hungary, France, Italy, Spain, Portugal, Holland, the United States, Russia, Denmark, Sweden and Norway, Switzerland, Turkey, Greece, Servia, Bulgaria.

An Obstetrical and Gynaecological Reunion.—Arrangements have now been completed for holding the reunion of obstetricians and gynaecologists of the Empire on June 24th, to which reference was made in the British Medical Journal of April 19th, 1902, page 982. A reception by Sir John Williams, Bart.; Dr. Peter Horrocks (President of the Obstetrical Society of London), and Dr. Halliday Croom (President of the British Gynaecological Society), will be held at 20, Hanover Square, at 4 p.m., to which all medical practitioners interested in these subjects are invited, and a dinner, to which all such are invited, will take place at the Whitehall Rooms of the Hôtel Métropole at 7 for 7.30 p.m. Further particulars appear in our advertisement columns.

South African Civil Surgeons' Dinner.—The South African Civil Surgeons' dinner will take place at the Hotel Cecil on Monday, June 9th, at 7.30 p.m. It is particularly requested that all civilian medical men who have served during the recent war in South Africa will endeavour to be present. Medals and orders may be worn. Sir Frederick Treves will be in the chair, and the Director-General and Deputy Director-General of the R.A.M.C. will be the principal guests. There will be only two toasts, those of "The King" and "The Imperial Forces," so as to leave ample time for the chief object of the evening—the renewal of South African friendships and memories. Tickets, price 10s. 6d. each, may be obtained at the door, but the Honorary Secretaries will be glad to be informed beforehand (by letter addressed to them at the College, St. Bartholomew's Hospital, S.E.) of those who intend to join in the dinner.

MEDICAL VACANCIES.

The following vacancies are announced:

BANBURY: HORTON INFIRMARY.—House-Surgeon and Dispenser. Salary, £80 annum, with board and lodging. Applications to the Honorary Secretary, 21, Marlborough Road, Banbury.

BARBADOES GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £200 annum, with unfurnished house. If resident in England passage paid to Barbadoes and (after three years' appointment) back. Applications to Mr. W. E. Sargant, School Registrar of St. Bartholomew's Hospital, by June 10th.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Appointment for six months. Honorarium at the rate of £25 each quarter, with apartments, board, and washing. Applications to the Treasurer, Bridewell Hospital, New Bridge Street, E.C., by June 9th.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Applications to the Secretary of the Medical Committee by June 9th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House Surgeon. Salary, £60 per annum, with furnished apartments, etc. Applications to the Assistant Secretary, 18, Queen's Road, Brighton, by June 17th.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Second House Surgeon and Anæsthetist, unmarried, and under 31 years of age. Salary, £70 per annum, with board and residence. Applications to the Secretary by June 16th.

BRISTOL CITY LUNATIC ASYLUM.—Medical Assistant; unmarried. Salary, £140 per annum, increasing to £160, with furnished apartments, board and washing. Applications marked "Medical Assistant," to be sent to the Clerk to the Visiting Committee, The Council House, Bristol, by June 13th.

CENTRAL LONDON SICK ASYLUM DISTRICT. Assistant Medical Officer, for duty at Cleveland Street or Hendon. Salary, £120 per annum, with board and residence at Hendon. Applications to the Clerk, Cleveland Street, W.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Second House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board, washing, and residence. Applications to the secretary by July 2nd.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physician. Board, residence, etc., provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by June 14th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer. Salary, and board, residence, and laundry. Applications to the Secretary by July 5th

FULHAM PARISH INFIRMARY.—(1) Second Assistant Medical Officer. Appointment for six months. Salary at the rate of £50 per annum. (2) Locum Tenens for ten weeks. Remuneration 4 guineas per week. Board, furnished apartments, and washing provided in each case. Applications to the Medical Superintendent of the Infirmary, St. Dunstan's Road, Hammersmith, W., for (1) by June 10th.

GLASGOW: ST. MUNGO'S COLLEGE.—Notman Chair of Physiology. Applications to the Secretary, 91, West Regent Street, Glasgow, by June 30th.

HEREFORD COUNTY AND CITY ASYLUM.—(1) Senior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £150 per annum. (2) Junior Assistant Medical Officer; not over 25 years of age. Salary, £100 per annum. Board, lodging, and washing provided in each case. Applications to the Medical Superintendent.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY.—Honorary Medical Officer for Branch Dispensary Balls Pond Road. Applications to the Secretary, Holloway Dispensary, Palmer Place, Holloway Road, N.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL, Church Street, Kensington, W.—Resident Medical Officer; unmarried and under 35 years of age. Salary, £100 per annum, with furnished apartments, board, etc. Applications to the Honorary Secretary by June 18th.

LONDON HOSPITAL, Whitechapel, E.—(1) Assistant Surgeon. (2) Surgical Registrar, salary, £100 per annum. Applications to the House-Governor by June 27th.

LONDON TEMPERANCE HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Board, residence, and washing provided, and honorarium at the rate of 50 guineas per annum. Applications to the Secretary by June 10th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Assistant Physician. Applications to the Secretary by June 11th.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer, unmarried. Salary, £150 per annum, rising to £200, with board, furnished apartments, and washing. Applications to the Medical Superintendent by June 21st.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Second Assistant House-Surgeon. Appointment for six months. Honorarium, £20. Applications to the Secretary by June 17th.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried. Salary, £100 per annum, increasing by £10 yearly, with furnished apartments, etc. Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

OMAGH DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not exceeding 30 years of age. Salary, £125 per annum, and £50 in lieu of rations, with furnished apartments, etc. Applications to the Resident Medical Superintendent by June 11th.

ROYAL DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Lecturer on Dental Anatomy. Applications to the Dean by June 19th.

ROYAL EAR HOSPITAL, Soho, W.—House-Surgeon; non-resident. Small honorarium given. Applications to the Honorary Secretary, Medical Board, by June 28th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, W.—Resident Medical Officer. Salary, £150 per annum, with furnished apartments, etc. Applications to the Secretary by June 10th

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried. Salary, £150 per annum to commence, with board, lodging, and washing. Applications to Dr. Finch.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM, Bicton Heath, near Shrewsbury.—Medical Superintendent; not exceeding 45 years of age. Salary, £650 per annum, with unfurnished house, etc. Applications, on forms provided, to be sent to W. Baxter, Clerk to the Committee of Visitors, Shirehall, Shrewsbury, by June 30th.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer; unmarried, not over 30 years of age. Salary, £150 per annum, with furnished apartments, board, etc. Applications to the Medical Superintendent by June 10th.

STAFFORDSHIRE GENERAL INFIRMARY.—(1) House Surgeon. Salary, £120 per annum, with board, lodging, and washing. Applications to the Secretary by June 11th. (2) Assistant House-Surgeon. Salary £80 per annum, with board, lodging, and washing. Applications to the House Surgeon.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £150 per annum, rising to £220, with furnished apartments, board, etc. Applications to the Medical Superintendent.

SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary, £75 per annum, with board, apartments, washing, and attendance. Applications to the Secretary by June 9th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) House-Physician. (2) House-Surgeon. Appointments for six months. Board and lodging provided. Applications to the Secretary-Superintendent by June 18th.

WILTS COUNTY ASYLUM, Devizes.—Assistant Medical Officer; unmarried, and under 30 years of age. Salary, £160 per annum, rising to £190, with board, residence, attendance, and washing. Applications to the Medical Superintendent.

MEDICAL APPOINTMENTS.

ARNOLD, M. B., M.B., Ch.B.Vict., appointed House-Physician to the Manchester Royal Infirmary.

CLAREMONT, Claude C., M.D., appointed Physician to the Royal Portsmouth and Gosport Hospital, *vice* J. Watson, M.D., appointed Consulting Physician.

COLLIN, Thomas S., L.S.A., appointed District Medical Officer of the Howden Union.

CULMER, Ptolemy Augustus, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Medical Officer and Public Vaccinator to No. 3 District Kyomii Union.

COWDEN, W. J., M.D.R.U.I., M.Ch., appointed Certifying Factory Surgeon for the Dromore District, County Down.

EYRE, J. W. H., M.D., appointed Bacteriologist to Guy's Hospital.

FLOYER, Frederick Anthony, B.A., M.B.Camb., M.R.C.S.Eng., L.S.A.Lond., Civil Surgeon attached to Connaught Hospital, Aldershot, appointed a Government Medical Officer British Central Africa to proceed to Zomba, B.C.A.

GOWLAND, W. P., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Manchester Royal Infirmary.

GREAVES, R. H., B.S., M.B., appointed Medical Officer for Third District and Public Vaccinator for First District of Ecclesall Bierlow Union.

GREEN, Reginald, M.D., B.S., D.Hy.Durh., M.O.H. Gateshead, C.B., appointed Medical Officer of Health and Medical Officer to Fever Hospitals of the Kings Norton and Northfield Urban District Council.

HEWITT, F. W., M.A., M.D.Cantab., appointed Physician-Anaesthetist to St. George's Hospital

JELLY, G. Aubrey, F.R.C.S.Edin., L.R.C.P.Lond., appointed Assistant Surgical Officer of the Manchester Royal Infirmary

LAMB, William, M.D., C.M.Edin., M.R.C.P.Lond., appointed Honorary Surgeon to the Birmingham and Midland Ear and Throat Hospital, *vice* Charles Warden, M.D., resigned.

MAHOMET, Archibald, M.B., Ch.B.Aberd., appointed House Surgeon to the Paddington Green Children's Hospital.

MEADE, J. Noonan, appointed Medical Officer and Public Vaccinator for Lybster, Caithness

MILLER, G. Victor, M.D., appointed Consulting Ophthalmic and Aural Surgeon to the Stockton and Thornaby Hospital.

MITCHELL, J. E., M.B.Durh., appointed District Medical Officer of the Tynemouth Union.

MOORHEAD, T. Gillman, M.B., B.Ch.T.C.D., L.M.Rotunda, appointed Assistant Physician to Sir Patrick Dun's Hospital, Dublin.

PASMORE, Edwin Stephen, M.D.Lond., appointed Medical Superintendent to the Croydon Borough Lunatic Asylum, Warlingham.

SHORLAND, George, M.R.C.S., L.R.C.P.Lond., appointed District Medical Officer of the Westbury Union.

THACKRAY, C., M.R.C.S., L.R.C.P.Lond., appointed First Assistant Medical Officer to the Bethnal Green Infirmary.

WATTS-SILVESTER, Thomas Henry E., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Medical Superintendent of the Brentford Union Infirmary.

WILSON, S. M., M.B., B.Ch.Vict., appointed House Surgeon to the Manchester Royal Infirmary.

WILSON, Geoffrey E., B.C.Camb., appointed House-Physician to the Paddington Green Children's Hospital.

WORTHINGTON, Sidney, M.D.Lond., F.R.C.S.Eng., appointed H.M. Certifying Factory Surgeon for the Chesterfield District.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been selected as House-Officers from Tuesday, June 3rd, 1902:

House-Physicians.—H. W. Sinclair, M.B.Lond., L.R.C.P., M.R.C.S.; K. E. Crompton, B.A., M.B.Cantab.

Assistant House-Physicians.—A. D. Hamilton, M.B.Lond., L.R.C.P., M.R.C.S.; C. H. Sedgwick, B.A., B.C.Cantab.

Obstetric House-Physicians.—(Senior) T. D. Miller, L.R.C.P., M.R.C.S.; (Junior) R. E. Roberts, M.B., B.Sc.Lond.

Several other gentlemen have received an extension of their appointments.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Adjourned discussion on Some Cases of Tuberculous Disease treated by Tuberculin in the Soudan; and Leprosy in Natal and Cape Colony. Mr. Hastings Gilford: An Account of a Disease which is characterized by Conspicuous Delay in the Processes of Growth and Development—Afelciosis.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Waller: The Signs of Life.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Leonard Hill: The Physiology of Respiration.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Dr. Herbert Snow: Is there Any real Deciduoma Malignum? Instruments and specimens will be shown by Dr Heywood Smith and others.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Cases and specimens by M. T. Yarr, J. H. Parsons, L. Buchanan, S. Mayou, A. Lawson, and W. T. H. Spicer. Papers.—W. C. Rockliffe: (1) Further Note on a Case of Secondary Carcinoma affecting both Eyes; (2) Notes on a Case of Leprous Ulcer of the Cornea. A. Bronner: Note on Two Families with Congenital Microphthalmos and Cataract. Leslie Buchanan: Keratitis. Evidence of Proliferation of the Cornea Corpuscles. H. Herbert: Colloid Degeneration of the Conjunctiva.

FRIDAY.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 4.30 p.m.—Bowman Lecture. Professor Fuchs (Vienna): On Keratitis.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Bronchiectasis.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstration of Selected Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C. Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical; Thursday, surgical; Friday, eye.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Lecture on Anterior Poliomyelitis.

West London Hospital, Hammersmith Road, W. Lectures will be delivered at 5 p.m. as follows:—Monday: Treatment of Injuries. Tuesday: The Diseases of the Uterus. Dysmenorrhœa and Sterility. Wednesday: Dementia and Paralytic Dementia. Thursday: Medical Anatomy and Physical Diagnosis. Friday: Chronic Poisoning by Minute Doses of Lead and Arsenic.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstrations.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

COPEMAN.—On June 1st, 1902, at 57, Redcliffe Gardens, S.W., the wife of Sydney Monckton Copeman, M.D., F.R.C.P., of a daughter.

HEWETSON.—At 85, Edmund Street, Birmingham, on May 27th, to the wife of John T. Hewetson, M.D., F.R.C.S.Eng., a son.

MURRAY.—At Ravenscourt Park Crescent, Llandrindod Wells, on the 2nd inst., the wife of John Murray, M.B., C.M.Glasg., of a son.

WOODS.—On May 28th, at 39, Merrion Square, Dublin, the wife of Robert H. Woods, M.B., F.R.C.S.I., of a son.

WREFORD.—On June 3rd, at West End Lane, West Hampstead, the wife of John Wreford, M.B., B.Hy., M.R.C.S., L.R.C.P., of a son

MARRIAGES.

CODD—LEESON.—On the 3rd instant, at Sutton Coldfield, [illegible] by the Rev. John Codd (father of the bridegroom), assisted by Rev. W. E. [illegible], R. S. Armahr, B.A., John Alfred Codd, M.D., B.Sc.Lond., of Wolverhampton, Honorary Assistant Physician Wolverhampton General Hospital, to [illegible], daughter of Mrs. Leeson, of Sutton Coldfield, and the late J. H. Leeson, of Moseley, Birmingham.

LEWIS—SEATON TAYLOR.—On June 3rd, at St George's [illegible], by the Rev. Lewis, Vicar of Ford, Shrewsbury, father of the bridegroom, assisted by the Rev. W. A. Carroll, Vicar of the Parish, Cecil Ernest Mayer Lewis, M.B., B.Ch.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., to Blanche Helen, younger daughter of F. Seaton-Taylor, Esq., Littlecourt, Bickley.

M'NEILL—DUFFEY.—June 3rd, at Christ Church, Leeson Park, by the Rev. A. L. Elliott, M.A., Rector of Killiney, cousin of the bridegroom, and the Rev. Charles Dowse, M.A., Rector of the Parish, John Theodore M'Neill, Barrister-at-Law, second son of John M'Neill, Highfield Road, Rathgar, to Esther Frances, second daughter of Sir George Duffey, M.D., President of the Royal College of Physicians, Ireland, 36, Fitzwilliam Place, Dublin, and niece of Sir Charles Cameron, Baronet, D.L., Balcluitha, Greenock.

DEATHS.

GARDINER.—At Parker Cottage, University [illegible], on May 22nd, Duncan Forbes Gardiner, M.B. and C.M., The Hermitage, Ranmoor, near Sheffield.

LOCKHART-GILLESPIE.—At 12, Walker Street, Edinburgh, on May 29th, Marjorie Edith, aged 9 months, daughter of A. Lockhart-Gillespie, M.B., F.R.C.P.E.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

QUERIES.

M. O. H. asks for opinions as to the best portable spraying disinfecting apparatus for use by sanitary inspectors.

RUSTICUS has a patient aged 50 who complains of coldness of the testes, especially on waking in the morning, followed by pain in the lower abdomen and loins. The patient is probably gouty, but our correspondent would like suggestions as to the cause of the condition.

ANOPHELES asks by what means (other than operative) can the prepuce be kept back and prevented from slipping forward and covering the glans penis. Has any simple appliance, which could be worn without discomfort or inconvenience, been made for this purpose?

*** The prepuce can be kept back by tying a piece of lint round the penis behind the corona.

THE PREVENTION OF PUERPERAL FEVER.

YOUNGSTER has just had a case of puerperal fever, and would like the advice of some of the more experienced members of the profession as to what measures he ought to adopt to prevent the spread of the disease, especially with regard to quarantine. Whilst attending this case he renounced midwifery practice altogether. The woman recovered, and he has finished the attendance.

MOSQUITOS AT MALTA.

STAFF SURGEON J. H. WHELAN, R.N. (H.M.S. *Hood*, at Malta), writes: I have killed the enclosed at Sliema, in the island of Malta. Are they *Anopheles?* It is generally believed that no *Anopheles* are to be found in Malta. Besides these there is a small species of a "daddy longlegs," with the wing markings of *Anopheles claviger*, which has the night habits of a mosquito, but no proboscis, and is frequently in the company of the mosquitos I send.

*** We have referred the specimens to Dr. C. W. Daniels, Medical Superintendent of the London School of Tropical Medicine, who writes: I have examined the insects from Malta, and can find no *Anopheles*. I sent them to Mr. Theobold, who identifies the mosquitos as *Culex epaithipalpi* (Rondani), a common Malta *Culex*, and the other insects as *Tipulidae*, not a mosquito. The English common representative of these is the "daddy longlegs."

ANSWERS.

LITERATURE OF ASTHMA.

SPHENOID would find a useful article on asthma and hay fever in Professor Clifford Allbutt's *System of Medicine*, vol. v, p. 286, and a good bibliography at p. 310.

BERI-BERI.

F. M. V. might consult Dr. Manson's articles in Allbutt's *System of Medicine*, vol. ii, and in Davidson's *Diseases of Warm Climates*, and Pekelharing and Winkler's work on Beri-Beri either in the original or Cantlie's translation. Malcolmson's book, though old, gives a good account of the disease. In German Scheube's *Die Beri-Beri Krankheit* and Grim's *Beri-Beri* should be consulted. The number of articles on the disease in periodical literature and Government reports is very large. Scheube's book contains a bibliography.

COST OF ERECTION OF SANATORIA.

EXECUTOR.—The size of a sanatorium which can be built for a given sum [illegible] depend to a large extent upon the material used in its construction. The new sanatorium erected in Sherwood Forest for Nottingham cost £—, but with the cost of electric lighting, furnishing, and laying out the grounds the total cost was £— (exclusive of site which was given). It is constructed of a portable building company of wood and iron on a brick foundation, accommodates twenty four patients, and we believe proved quite satisfactory. Broadly speaking, the cost may range between £— and £— per bed, according to the material used in the construction of the building.

LETTERS, NOTES, ETC.

CORRECTION.

IN reference to the notice of Mr. Vincent Wood's abdominal belts in the BRITISH MEDICAL JOURNAL of May 31st, 1902, p. 1343, the words "electric brace" should have been "Erectus brace."

MEDICAL REFEREES TO THE PRUDENTIAL ASSURANCE COMPANY, LIMITED.

REFEREE OF TWENTY YEARS' STANDING writes: Is it not an opportune time that the medical referees of the above company should respectfully draw the attention of the managers and directors to the small and inadequate fee paid for examinations and reports on industrial cases, while most other companies (who have not got into the millions capital) are paying double the fee? As a referee of many years' standing I feel sure the matter would have the best attention, and be treated in a most courteous way (as everything is always so treated by the company) if the fact is made known that every expense connected with the profession has advanced considerably, and the industrial fees remain the same, and far too low. What say other referees?

ABSENCE OF THUMBS.

DR. REGINALD FARRAR (Chiswick) writes: It may interest your correspondent, Mr. Alan Murdoch, to learn that congenital absence of thumbs, usually accompanied by congenital deficiency of the radius, is a well-recognized and relatively not uncommon deformity. In one of the first labours that I attended when a student, the baby was born without thumbs, and with the radii deficient. I exhibited the case at the Abernethian Society of St. Bartholomew's Hospital, and it was published, with one or two similar cases, by Mr. R. W. Parker, of the East London Children's Hospital, but unfortunately I cannot find the reference. Radiography would probably show the radii to be deficient in Mr. Murdoch's case.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Anopheles; A. K. C.; A.M.S., Director-General of, London; Professor T. Clifford Allbutt, Cambridge; Dr. E. W. Adams, Sheffield. **B** Miss M. Breay, London; B. D.; Rev. C. Barker, Hugglescote; Mr. A. E. Bodington, Purley; Mr. J. Batterson, London; Dr. W. Bramwell, Liverpool; Beginner; Dr. A. Bronner, Bradford; Mr. L. A. Bidwell, London. **C** Mr. H. W. Carson, London; Country Practitioner; Mr. J. Court, Staveley; Dr. J. B. Coumbe, Lowestoft; Mr. F. W. Collingwood, London; Messrs. J. and A. Churchill, London; Cantab.; Dr. J. M. Clarke, Clifton; Mr. D. Cannon, London; Country Doctor. **D** R. H. D. Duckworth, M.B., Ballybrophy; Dr. J. M. Day, Dublin; Dr. F. H. Daly, London; Mr. J. Donald, Dumfries; Mr. H. B. Dismorr, London. **E** Dr. A. Eid, Cairo; Executor; Enquirer; E. H. Edwards, M.B., Edinburgh. **F** Dr. J. Fairgrieve, Burbage; Dr. W. T. Fernie, Richmond, Surrey. **G** G.W.R.; Dr. E. A. Gates, London; H. M. Gay, M.B., Southampton; Messrs. R. W. Greef and Co., London; Dr. J. Galloway, London; Mr. J. George, London; Messrs. W. Green and Sons, Edinburgh. **H** Mr. M. C. V. Hertz, London; Dr. J. Highet, Workington. **I** Isolated; Inquirer. **J** Mr. P. Jahn, London; Dr. W. A. Jamieson, Edinburgh. **K** Dr. G. H. Keay, London; Ket; Mr. M. Koettlitz, Dover. **M** Mr. J. J. de Z. Marshall, London; Mr. F. O. Melhado, London; M.O.H.; Maltova Food Company, Manager of, Leeds; Mr. H. H. B. Macleod, Shrewsbury; Mr. H. May, Birmingham; M.B.Camb.; Dr. R.W. Marsden, Manchester; Messrs. S. Maw, Son and Sons, London; Mr. G. O. Moorhead, Warm Baths; M.D.; Moses; A. MacLennan, M.B., Glasgow; Dr. H. Malet, Birmingham; Medicus Mantrain Limited, Manager of, London. **N** N. F. R.; B. S. Nicholson, M.B., Newmains. **O** D. J. O'Connor, M.B., Cork. **P** Mr. A. Paul, London; Mr. L. Powne, Crediton; L. C. C. Phillips, M.B., Cairo; Dr. F. M. Pope, Leicester; Mr. A. W. Prichard, [illegible]; P. V.; Dr. T. D. Poole, Wolverhampton; Pax; Dr. R. Paramore, London. **R** Mr. W. E. Rhodes, Manchester; Retired; Dr. W. B. Ransom, Nottingham; R. F.; A. W. Russell, M.B., Glasgow. **S** S. Stephenson, M.B., London; Dr. G. C. Steele-Perkins, London; G. K. Smiley, M.B., Londonderry; A. A. S. Skirving, C.M.G., M.B., Edinburgh; [illegible] Sadler, East Meon; Dr. A. Sellers, Manchester; Miss H. Shelson, Richmond, Surrey; Mr. E. N. Smith, London; Searcher; Dr. A. Smart, Edinburgh; Mr. G. M. Smith, Clifton; J. W. Smith, M.B., Manchester; Dr. J. H. Swanton, London; Dr. H. Snow, London; Dr. P. C. Smith, London; Dr. W. H. B. Stoddart, London; Dr. A. Shadwell, London; L. R. Sutherland, M.B., Dundee. **T** Mr. A. T. Todd-White, Leytonstone; Mr. M. A. Teale, Leeds. **W** Mr. W. B. Warde, Tunbridge Wells; Dr. H. White, Birmingham; Dr. E. F. Willoughby, London; Dr. F. H. Worswick, Manchester; G. A. Wright, M.B., Manchester; Mr. V. Wood, London; Mr. H. R. Walker, London; O. R. M. Wood, M.B.; Woolbit; Dr. F. Willcocks, London; Mr. J. T. Williams, Barrow-in-Furness; Dr. J. S. Wilson, Walsall; Mr. T. M. Watt, Goxhill; E. Whichello, M.B., Birmingham; Messrs. W. Wesley and Son, London. **X** X. Y. Z. **Y** Youngster.

BOOKS, ETC., RECEIVED.

Gibson and Russell's Physical Diagnosis. Third edition, revised and rewritten by Francis D. Boyd, C.M.G., M.D., F.R.C.P. Edin., Edinburgh and London: Young J. Pentland. 1902.

The Gouty at Aix-les Bains. By Leon Blanc, M.D. Paris. London: J. and A. Churchill. 1902. 1s.

The Causation and Prevention of Malarial Fevers. By Captain S. P. James, M.B. Lond., I.M.S. Simla: Government Central Printing Office. 1902.

The Earth in Relation to the Preservation and Destruction of Contagia. By George Vivian Poore, M.D. Lond., F.R.C.P. London: Longmans, Green and Co. 1902. 5s.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
Each additional line ...	...	...	...	0 0 6
A whole column ...	...	...	...	4 17 6
A page	..	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post-Office to receive letters at *Poste Restante* addressed either in initials or numbers.

SCIENTIFIC GRANTS COMMITTEE

OF THE

British Medical Association.

REPORT LXVIII.

THE RELATION OF PURIN BODIES TO CERTAIN METABOLIC DISORDERS.

BY I. WALKER HALL, M.B.,

Assistant Lecturer in Pathology, Owens College, Manchester.

(From the Physiological Laboratories of Owens College, Leipzig and Stockholm.)

PART I.—THE ESTIMATION OF PURIN BODIES IN FOODSTUFFS.

UNDER the term "purin" all the substances that contain the nucleus C_5N_4 may be included. Those that specially relate to the human organism are hypoxanthin $C_5H_4N_4O$, xanthin $C_5H_4N_4O_2$, uric acid $C_5H_4N_4O_3$, guanin $C_5H_5N_5O$, adenin $C_5H_5N_5$, and the methyl-xanthins. Hypoxanthin, xanthin, and uric acid are respectively known as mono- di- and tri-oxy-purin. They exist as "free" substances in partial solution, or are "bound" together with the other constituents of nuclein, from which they may be obtained as cleavage products. Together with creatin and other nitrogenous bodies they are generally known as the "extractives." Existent textbooks and handbooks regard them as possessing little value as food, and class them as "waste products," in that while they yield no energy to the body they require considerable metabolic efforts for their excretion. Precise information concerning their quantity and properties is difficult of access[1]. Many clinicians, however, consider them harmful in certain metabolic disorders, and a theory exists which indicates these bodies as the exciting cause of some nephritic inflammations.

The quantitative relation which obtains between the purins contained in the food and those excreted in the urine has been recently worked out by Burian and Schur[2], Loewi[3], and others. By the use of purin-free foods they ascertained the average amounts of urinary purin in various individuals, and attributed such quantity to an "endogenous" origin. The addition of certain foods of a known purin holding (per cent.) to the previous diet led to an increased egestion of urinary purins, and permitted the ascription of the difference in the two values to an exogenous or food-purin origin. But this difference was not equal to the amount of purin present in the food, and it thus appeared that only a definite percentage of the food purin passed through the body unaltered—at all events as regards its nitrogen holding—and the remainder was probably excreted as allantoin, oxaluric acid, or urea. This quantity varied within about 10 per cent. in different individuals. In Part II. I hope to confirm some of these results, also to indicate some additional factors and to treat in detail of the rôle of the faeces in regard to the metabolism of purins.

A knowledge of the quantities of the exogenous purins, must, therefore, be of clinical use, for were such determinations made, the physician could regulate at will the nuclein metabolism of his patients. In addition, the existent records of uric-acid excretion in health and disease are merely those from a uric acid of mixed origin (endogenous plus exogenous). Such figures state neither the quantity of uric acid directly due to the cleavage of cell-nucleins, nor indicate the percentage decomposition of the ingested purin by the metabolic organs. Hence, until new determinations have been made of the urinary uric acid which individually accompanies a purin-free diet, and there exist exact estimations of the purin-contents of purin-rich foods, we are much in the dark as to the meaning of increases or decreases in uric acid excretion and of their definite relations with disease. But uric acid is only one of the purin bodies present in the urine, and it is incorrect to regard it as the alone end-product of nuclein metabolism. The associated mono- and di-oxy purins hypoxanthin and xanthin should be equally included and the total urinary purins always determined.

Further to their importance in metabolism the question of the toxicity of the purin bodies is of interest. They exert no immediate action, but in long continued small doses are not entirely harmless. Other workers are now engaged upon this subject, and their results may shed further light upon a difficult question, but already Kolisch, Dostal[4] and Croftan[5] have produced lesions of the renal cells and arterioles by the injection of certain purin bodies in animals, and my own experiments of daily injection of hypoxanthin into rabbits for two months resulted in the appearance of distinct degenerative changes in the liver and alterations in the constituents of the bone marrow.[6]

Some old estimations of hypoxanthin and xanthin in muscles exist, but the methods by which they were obtained could scarcely be expected to yield accurate results. Offer and Rosenqvist[7], at von Noorden's suggestion, extracted and estimated the purins of white and red meats, but they examined only a few varieties, and their methods, although simple and expeditious, would only extract and precipitate the "unbound" purins.[8] Burian and Schur[9] give the results of their analyses of a few foods, but their object was primarily to find purin-free foods, and later to employ the foods which were richest in purin bodies.

The following estimations were therefore made with the view to their practical use in regard to dietaries (particularly those in relation to metabolic disorders), and also to provide extended data for experiments in normal and abnormal metabolism. The conclusions of these later observations will be stated in another paper.

The considerations and investigations which led to the selection of the method employed are given elsewhere.[10] It will be sufficient to indicate that the extraction and estimation of the purins gave an error of only + 1 to − 1 per cent. The details were mainly those used by Burian and Schur,[9] but several important modifications were introduced. In each case 100 to 250 grams of the raw substance were taken, boiled for 12 to 24 hours in acid solution in a special apparatus, and the albumins and acid removed. The purins were then precipitated by ammoniacal silver nitrate solution, and after certain precautions their nitrogen estimated by Kjeldahl's method. From the original filtrate the soluble proteids, albumoses and peptones (which hinder the purin precipitation or form weak compounds with them) were removed, and the remaining purins were precipitated and their nitrogen holding added to that of the first precipitate. With the vegetables and beverages the same method was not applicable. These were boiled in acid solution for twelve hours, and after removal of the albumins the filtrate was precipitated by excess of copper sulphate and sodium bisulphite. The precipitate, after well washing, was decomposed by SH_2, the copper sulphide removed, and the resultant filtrate freed from SH_2, precipitated by ammoniacal silver nitrate, and its nitrogen estimated. (See Tables on p. 1642.)

Milk, butter, eggs and cheese should be placed under the heading of animal foods, but they are best estimated by the method which was employed for vegetables, and so may be considered as a separate class. Eggs contain neither free purin nor purin-yielding substance. Butter and cheese are derivates from milk, and so may hold "traces" of nuclein bodies. The percentages of casein and water vary in different samples of butter, and the same remark may be applied to cheese. When the curd is present, any xanthin present in the milk will pass into the slightly acid whey, just as the process of churning or separation assists their removal from the butter. Hence only minute traces can remain in these two substances. In milk, Petren[11] was unable to find any purin bodies, but Burian and Schur[12] by complete removal of all the albuminous bodies found 0.0014 gram purin N. per litre. An estimation of my own yielded 0.0020 gram purin N. per litre. These four articles of diet form together our most valuable means of withholding purin substances from the body, and yet allow the provision of a diet at once digestible, easily absorbed, and capable of maintaining nitrogenous equilibrium.

It may appear that owing to the different varieties of cattle and their altered foods during the several seasons, the above estimations are only valid for the particular samples examined. They may, however, be taken as representing a general working average, as the figures stated are from meats purchased at

different times of the year, and from such widely different sources as Manchester, Leipzig, and Stockholm. Senator[13] considers that cooking alters the proportions of the purin bodies, but the observations of Rosenqvist, which I have repeated, show that little effect is produced. If it were customary to eat meat minus the gravy produced during the process, the objection would deserve further discussion, but as not only the gravy obtained from the meat, but also an additional purin contribution from some fashionable meat extract is served, it is probable that much more purin is taken with the cooked meat than exists in the freshly killed muscles.

The Quantities of Purins in Meats, Vegetables, and Beverages.

	Percentage of Purin Nitrogen.	Average Per Cent. Purin Nitrogen.	Calculated as Purin Bodies.	Undried Purins — As Grams per Kilo.	Undried Purins — As Grains per Lb.
Fish—					
Cod	0.0219 0.0247	0.0233	0.0582	0.582	4.074
Plaice	0.0334 0.0302	0.0318	0.0795	0.795	5.565
Halibut	0.0405 0.0412	0.0408	0.1020	1.020	7.140
Salmon	0.0482 0.0450	0.0466	0.1165	1.165	8.155
Meats—					
Tripe	0.0235 0.0224	0.0229	0.0572	0.572	4.007
Mutton:					
Australian	0.0365	0.0386	0.0965	0.965	6.755
English	0.0411				
Veal:					
Loin	0.0454 0.0481	0.0465	0.1162	1.162	8.137
Neck	0.0300				
Pork:					
Loin	0.0485 0.0257	0.0485 0.0227	0.1212 0.0567	1.212 0.567	8.487 3.969
Neck	0.0198				
Ham (fat)	0.0505 0.0419	0.0462	0.1155	1.155	8.085
Beef:					
Ribs	0.0455	0.0455	0.1137	1.137	7.959
Sirloin	0.0506 0.0538	0.0522	0.1305	1.305	9.135
Steak	0.0826	0.0826	0.2065	2.065	14.455
Liver	0.1125 0.1078	0.1101	0.2752	2.752	19.264
Sweetbread (thymus)	0.4025	0.4025	1.0063	10.063	70.431
Chicken	0.0495 0.0546 0.0512	0.0518	0.1295	1.295	9.065
Turkey	0.0504	0.0504	0.1260	1.260	8.820
Rabbit	0.0395 0.0456	0.0380	0.0970	0.970	6.314

Vegetables and Beverages.

	Quantity Used for Estimations.	Purin Nitrogen Per Cent.	Calculated as Purin Bodies.	Grams Per Kilo.	Grains Per Lb.
Cereals—					
Bread (white)	500 grams	No trace			
Oatmeal	250 grams	0.0212 0.0210	0.0530	0.530	3.4563
Rice	500 grams	No trace			
Pulses—					
Peameal	500 grams	0.0156	0.0390	0.390	2.5413
Beans (haricot)		0.0278 0.0247 0.0250	0.0637	0.637	4.1601
Roots and Tubers—					
Potatoes	1,000 grams	0.0008	0.0020	0.020	0.1303
Onions	250 grams	0.0091 0.0040	0.0163	0.163	0.0630
Tapioca	250 grams	No trace			
Green Vegetables—					
Cabbage	Large head				
Cauliflower	"				
Asparagus (cooked)					1.1050

	Quantity Used for Estimations.	Purin Nitrogen per Cent.	Calculated as Purin Bodies.	Purin, Grams Per Litre.	Purin, Grains Per Pint.
Beers—					
Lager beer	1,000 c.cm.	0.0050 0.0053	0.0125	0.1250	1.0955
Lager drink	"	0.0020 0.0021	0.0050	0.0500	0.1533
Pale ale	"	0.0059 0.0056	0.0155	0.1450	1.2708
Porter	"	0.0060 0.0062	0.0145	0.1550	1.3578
Wines—					
Claret	500 c.cm.	No trace	—	—	—
Volnay	"	"	—	—	—
Sherry	"	"	—	—	—
Port (Commendador)	"	"	—	—	—

Although certain differences occur in the percentage contents of fish and meats, little variations exist between those known as the red and white meats. The glandular organs yield large amounts of purins.[14]

Amongst vegetables the somewhat high percentages of beans, peas, and oatmeal will be noticed. Their significance will be dealt with in the second part under "metabolism." The alloxur bodies of asparagus had been previously pointed out by Jerome,[15] who observed an increased uric acid excretion after the addition of asparagus to his diet. By the Krüger-Wulff method he found 0.0854 gram of alloxur bodies in 500 grams of asparagus (0.0068 per cent. purin-N.).

The presence of purin bodies in beers is probably due to the yeasting and processes of manufacture. At room or body temperature guanin and hypoxanthin readily split off from yeast when in slightly acid solution, and the precaution of "fining" does not entirely remove the "yeast" itself. The avoidance of fermented liquors in gout, etc., is generally prescribed, and perhaps to their purin contents may be attributed some of the harmful effects in such diseases, for it is not impossible that the purins play a part in the production of the lesions usually met with in beer drinkers.

References.

[1] A full summary may now be found in the *Thesis* Purin Bodies, Walker Hall, 1902. [2] *Arch. f. d. ges. Phys.*, s. 239, 1901, and s. 309, 1900. [3] *Arch. f. exp. Path. und Pharm.*, s. 159, 1901. [4] *Wien. klin. Woch.*, 1895. [5] *Journal of Amer. Med. Sci.*, p. 502, 1900. [6] Walker Hall, *Arch. f. exp. Path. und. Pharm.*, 1902. [7] *Berl. klin. Woch.*, 44, 45, 49, 1899. [8] *Vide Thesis* Purin Bodies, p. 25, 1902. [9] *Arch. f. d. ges. Phys.*, 1901. [10] *Zeit. f. phys. Chemie.*, 1902. [11] *Skand. Arch. f. Phys.*, s. 412, 1899; and *Arch. f. exp. Path.*, s. 269, 1300. [12] *Arch. f. d. ges. Phys.*, 1900. [13] *Berl. klin. Woch.*, No. 45, 1899. [14] Estimations of "free" and "bound" purins will be published later. [15] *Journ. of Phys.*, 1898-99.

Part II.—The Exogenous Purin in Normal Metabolism.

(From the Carolinska Institutet, Stockholm.)

A study of the normal metabolism of purin bodies must precede any observations under abnormal conditions. The work of Burian and Schur[1] requires confirmation by as many workers as possible, and may with advantage be extended to include the other foodstuffs whose purin contents have now been estimated.[2] In addition, the faeces might be examined as to their relations with the ingested and the urinary purins. Weintraud,[3] Umber,[4] Petrén,[5] and Parker[6] have already investigated the faecal purins from the standpoint of their origin, and Parker has shown how they vary with different diets, but as their source is not precisely defined, the results obtained are inapplicable to the subject here in view. Since this portion of the work was concluded, Krüger[7] has published observations upon a case in which a mixed diet was alone taken. His figures will be considered at a later stage, when I hope to make a detailed communication on the relation of the faecal purins to the following results. (As they do not materially affect the present issue they are here omitted.)

TABLE I.

1901.	Urine. c.cm.	Total Nitrogen.	Total Purin Nitrogen.	Uric Acid Nitrogen.	Xanthin Bases Nitrogen.	P_2O_5	Remarks.
Oct. 9	1,260	21.8232	0.3769	—	—	—	
,, 10	995	16.2486	0.2739	—	—	—	Usual mixed food, with tea and coffee.
,, 11	1,215	18.4294	0.3472	—	—	—	
,, 12	1,010	17.5210	0.2208	—	—	—	
,, 13	1,170	20.2132	0.1611	0.1454	0.0157	2.6208	Purin-free fixed diet.
,, 14	1,125	20.4975	0.1668	0.1380	0.0228	2.4712	
,, 15	1,255	23.5683	0.2650*	0.2190*	0.0460	3.7650	Purin-free fixed diet, *plus* 450 grams chicken.
,, 16	1,110	20.4680	0.1708	0.1435	0.0353	3.3858	Purin-free diet.
,, 17	1,085	19.4215	0.1560	0.1280	0.0280	3.3743	Purin-free diet.
,, 18	1,415	23.7294	0.2489*	0.1995*	0.0494	3.8771	Purin-free diet, *plus* 530 grams plaice.
,, 19	1,140	19.6536	0.1753	0.1644	0.0111	2.9153	Purin-free diet.
,, 20	1,010	18.2966	0.1636	0.1250	0.0386	2.6260	Purin-free diet.
,, 21	1,860	22.4680	0.2480*	0.2108*	0.0372	5.9520	Purin-free diet, *plus* 400 grams beef.
,, 22	1,450	18.2990	0.1898	0.1565	0.0333	2.4460	Purin-free diet.
,, 23	900	16.8940	0.1660	0.1270	0.0390	2.5475	Purin-free diet.
,, 24	1,150	17.2368	0.1857*	0.1391*	0.0466	2.8980	Purin-free diet, *plus* 408 grams beans.
,, 25	1,260	17.4630	0.1563	0.1261	0.0302	2.7468	Purin-free diet.
,, 26	1,150	17.8542	0.1654	0.1220	0.0434	2.6532	Purin-free diet.
,, 27	2,680	21.8025	0.2218*	0.1761*	0.0457	3.0784	Purin-free diet, *plus* 1,700 c.cm. lager beer.
,, 28	1,100	19.7281	—	0.1224	—	2.7546	Purin-free diet.
,, 29	1,030	17.8625	0.1645	0.1250	0.0895	2.6150	Purin-free diet.
,, 30	1,120	21.5621	0.2475*	0.2038*	0.0437	3.5430	Usual mixed food.

Neither tea nor coffee was taken during the experiment. * = Uriate deposit in urine.

The subject of experiment: W. H., 33 years old; weight, 70 kilos (11 st. 5 lb.). Urine free from albumen and sugar. The twenty-four hours' collection was taken to and from 8 a.m. During the experiment ten hours' laboratory work was performed and a walk of four English miles taken each day. The total nitrogen was estimated by Kjeldahl's method, the total purin bodies by Arnstein's modification of Camerer's process, the uric acid by Hopkins's ammonium chloride method, and the xanthin bases calculated by difference. The phosphates were determined by titration against uranium nitrate with cochineal as indicator.

To obtain an average endogenous purin excretion an eight-days' experiment was made upon a fixed purin-free diet, consisting of milk, butter, bread, eggs, and cheese—no coffee or tea. The individual quantities were varied so as to gradually decrease the nitrogen from 22 to 17 grams and inversely increase the carbohydrates from 2,631 to 3,053 calories. The total urinary purin ranged from 0.1560 to 0.1655 purin-nitrogen, an average of 0.1625 purin-N.

Table I shows the results of the main experiment. Except when mentioned, only a fixed purin-free diet was taken. That the effect of the purin-rich food might be at once evident, the principal meal was taken at 7.45 a.m., when the larger portion of the food was eaten. A light lunch preceded the next meal at 4 p.m., when the remaining purin-rich food was consumed. Bed, 10 p.m. The meats were weighed raw, then steaked with fat sufficient for the purpose, and every particle of gravy, etc., preserved.

In reviewing the results obtained, the large purin excretion (with mixed diet) at the commencement and close of the experiment will be observed, and also that on those days upon which the purin-free diet was taken, the total urinary purin excretion approached the average of 0.1625 N. But when the chicken, plaice, beef, etc., were added, the urinary purin was at once increased. During the whole period the "bases" remained practically stationary, and the increase in the total purin excretion was entirely due to an increase in the uric acid.

The total urinary purin-N. during the forty-eight hours following the ingestion of 450 grams of chicken was 0.4448. The endogenous purin for two days (namely, the purin excreted on purin-free food) was $0.1625 \times 2 = 0.3250$. Hence the difference of 0.1198 was derived from the purin bodies contained in the chicken. These would equal (*vide* Part I) 0.2200 purin-N., so that 54.4 per cent. of the food purin appeared in the urine as increased or exogenous purin within forty-eight hours. Similarly, 537 grams of plaice contain 0.707 purin-N. (*vide* Part I), and the total urinary purin during the succeeding forty-eight hours was 0.4244 N. This *minus* 0.3250 endogenous purin (0.1625×2) leaves 0.0994, or 58.7 per cent. of exogenous origin. Again, 400 grams of beef contain 0.2400 purin-N.; the total urinary purin was 0.4378; this, less 0.3250 endogenous purin, equals 0.1138 purin-N., or 47.4 per cent. of the beef purin appeared in the urine as exogenous purin.

It thus appears probable, that allowing for the variations which occur in different animals, as well as in separate species, the system excretes in the urine (within 48 hours) about one-half of the fish, fowl, or beef purins contained in the food. These figures confirm the results of Burian and Schur[7] as regards the metabolism of beef purins, and indicate that the purins or alloxur bodies of fish and fowl flesh undergo similar chemical or vito-chemical changes during their passage through the human body.

TABLE II.—*W. H.; 70 Kilos: Health Normal: Urine Free from Albumen and Sugar.*

—	Urine.	Total Purin Nitrogen.	Uric Acid Nitrogen	Remarks.
1901.	c.cm.			
Oct. 23	900	0.1660	0.1270	—
,, 24	1,150	0.1857	0.1391	408 grams dried beans.
,, 25	1,260	0.1563	0.1261	—

TABLE III.—*N.; 49 Kilos: Healthy: Urine Normal.*

—	Urine.	Total Purin Nitrogen.	Uric Acid Nitrogen	Remarks.
1901.	c.cm.			
Oct. 22	960	0.1478	0.1180	Purin-free diet.
,, 23	700	0.1504	0.1290	,, ,,
,, 24	670	0.1589	0.1348	75 to 90 grams of beans.
,, 25	560	0.1095	0.0979	Purin-free diet
,, 26	1,310	0.2315	0.1985	Usual mixed diet, with tea and coffee.

TABLE IV.—*M.; 22 Kilos; aged 7 Years: Healthy: Urine Normal.*

—	Urine.	Total Purin Nitrogen.	Uric Acid Nitrogen	Remarks.
1901.	c.cm.			
Oct. 22	[illegible]	0.1274	0.1113	Purin-free diet.
,, 23	530	0.1177	0.1027	,, ,,
,, 24	570	0.1355	0.1177	120 grams of beans.
,, 25	650	0.1072	0.0920	Purin-free diet.
,, 26	510	0.1570	0.1314	Usual mixed diet.

Although it is customary to regard vegetables as comparatively harmless in gout and nephritis, it is noteworthy that Camerer[8] found increased urinary alloxuric (purin) nitrogen after a vegetable diet. Von Noorden[9] states that patients on a diet of beans, asparagus, and sauerkraut excrete almost the

same quantity of uric acid as with a meat diet, and Douglas[11] found that with a diet rich in peas, beans, and lentils, the output of uric acid was 0.702 gram, as compared with 0.675 on ordinary diet. Haig[12] has recently called attention to the effect of asparagus in increasing his uric acid output. This he strangely enough ascribes to the large amount of asparagin it contains.

It will be evident from a reference to the estimations of the vegetable purins contained in Part I, and a glance at the results of the preceding experiment that certain vegetables contain considerable quantities of purin bodies, and so provide "exogenous" purin. That such an inference might be supported by experimental evidence, additional observations were made.

Dry haricot beans, after weighing, were allowed to soak in water for twelve hours, then boiled and reweighed. All three subjects of experiment ate from the same lot of beans and at the same time; otherwise, during the experiment, the food consisted solely of eggs, milk, cheese, bread, butter, sugar, and rice. Tables II, III, and IV (p. 1463) give the results obtained.

In each case there was a distinct increase in the urinary purin on the day when the beans were eaten. As Rubner and others have pointed out the small absorption of the proteids of the pulses it was in this case absolutely necessary to estimate the faecal purins. On the day in question the faeces from W. H. yielded 0.0407 N. as exogenous purin-N. Now 408 grams of haricot beans contain 0,0920 purin-N (*vide* Part I), therefore, 0.0513 purin-N. was absorbed. The increase of the urinary purin over the normal endogenous factor (0.1625 N.) was 0.0232, and thus represented 45.5 per cent. of the food purin-N. It was impossible to obtain the faeces from M and N., so that a precise calculation cannot be made. But if the absorption was at all approximate to that of W. H. there would be an absorbed amount of bean-purin 0.0162 N., an increase of 0.0090 N. above the average normal endogenous quantity of 0.1250 N., and thus an exogenous urinary purin of 56.2 per cent. With M. there was an increase of 0.0180 N. absorbed, giving an exogenous urinary purin of 55 per cent.

Thus these observations demonstrate both the presence of purin bodies in the pulses and their relation with the functional excretions. It is, therefore, apparent that in the formation of dietaries, particularly in regard to metabolic disorders, the purin contents of foodstuffs should be considered equally with their proteid percentage.

As I have elsewhere given a summary of the action of alcohol on the formation and excretion of uric acid,[13] it is here only necessary to state that in the human body the elimination of uric acid is generally diminished after taking alcohol. Rosenfeld,[14] however, had a patient whose uric acid rose considerably after a single bottle of beer, and it is common knowledge that gout is more frequent in countries where fermented drinks are taken than in those in which distilled spirits are consumed.

On a day when no laboratory work was undertaken and purin-free food was eaten I drank 1½ litre of lager beer. The urine for the following twenty-four hours amounted to 2,080 c.cm. It contained 18.2640 total N., 0.2218 total purin-N., and 0.1761 uric acid N. In the 1,700 c.cm. of beer there would be 0 090 purin-N. (*vide* Part I), and my endogenous purin quotient was 0.1625. The difference of 0.0593 might thus be attributed to substances present in the beer. The experiment, however, was not entirely free from objections. The quantity of fluid was greater than the daily average of 1,000 cc.m. of milk, and Laquer[15] has shown that after 1½ to 1½ litre of water the alloxur-N. may be increased. In addition, it is contrary to my usual custom to take alcoholic beverages, and so any effects would be more pronounced; thus, although the general depression of nervous and metabolic functions might diminish the purin excretion the dilatation of the smaller arterioles might assist the removal of an abnormal amount of undecomposed tri-oxypurin. The experiment was therefore repeated in the following manner: To one litre of lager beer 1 c.cm. H_2SO_4 was added, the alcohol distilled off, the remainder evaporated to 500 c.cm., and then neutralized. The whole was drunk at 9 a.m. on the day of the experiment, and a purin-free diet observed during the several preceding and following days. An increase of 0.0175 purin-N. was obtained. As each litre of beer contains 0.05 purin-N. this quantity would represent 35 per cent. of the beer purins appearing as urinary purins. The results of the second experiment show that the first yielded, through adverse conditions, too high an amount. The low percentage obtained in the second experiment led to an inquiry as to the form in which the purin bodies exist in beer, and further estimations were made, from which it was ascertained that each litre contained 0.0327 free purin-N.

As the addition of foods containing known quantities of purin bodies to a purin-free diet results in an increased egestion of urinary purin, varying with the nature of the food, and perhaps also with the individual, the question naturally occurs, what becomes of the balance which is not excreted as urinary purin? As the work which attempts to solve this problem is fully cited in another place,[16] it may be shortly answered by the statement that the present condition of our knowledge appears to warrant the assumption that the "purin" first oxidized to tri-oxypurin is later decomposed by the liver (perhaps to a slight extent also by the general tissues) and finally excreted as urea, or the intermediate substances, allantoin and oxaluric acid.

From the action of the body in regard to the exogenous purin it has been argued that of the purin of endogenous formation only a certain percentage is excreted as such in the urine, the remainder undergoing decomposition into urea or bodies intermediate. If from the experimental data obtained these inferences are correct, then it is obvious that the balance normally maintained between the amount of purin destroyed and the quantity excreted in an unaltered condition will depend upon the integrity of the metabolic and excretory organs. Any alteration in their functional capacity will be at once reflected in a changed purin elimination. Whether retention of purin bodies is sufficient to account for any lesions with which their non-oxidation or non-excretion may be associated is another question? When the results of similar experiments under abnormal metabolic conditions are available the relation of cause and effect may be more evident than it is at the present moment.

The precise quantities of exogenous purin taken with the food and excreted in the urine may now be somewhat easily ascertained. A knowledge of the normal and abnormal individual reactions towards purin substances permits to a certain degree the measurement of the personal metabolism of purin bodies, and thus the clinician may increase or decrease the purin-rich foods according to the activity manifested by his patient during the several stages of disease or convalescence. Another point in relation to this activity is the rate of purin elimination. Some of my experiments indicate that a fairly constant period obtains for the excretion of "free" purins, and that this is much extended before the "bound" purins appear. The subject will be more fully dealt with in a later communication.

The exogenous "purin" can thus be easily controlled, but of the endogenous purin as yet little is definitely known. That it bears a somewhat close relation to the body weight I have elsewhere shown.[16] Leucocytic destruction probably only slightly affects its quantity. There is a certain amount of evidence which points to its variation with nitrogenous excretion, and it may perhaps be taken as an index of the functional activities of the body. The last word, however, has not been said upon this subject.

REFERENCES.

[1] *Arch. f. ges. Phys.*, Bd. lxxx, 1900. [2] *Vide*, Part I., BRITISH MEDICAL JOURNAL, p. 1461. [3] *Centralbl. f. inn. Med.*, s. 18, 1895. [4] *Zeit. f. klin. Med.*, s. 174, 1896. [5] *Skand. Arch. f. Phys.*, s. 315, 1898. [6] *Amer. Journ. Phys.*, p. 37, 1901. [7] *Zeit. f. phys. Chemie.*, April, 1902. [8] Loc. cit. [9] *Zeit. f. Biol.*, 1897 and 1897. [10] *Verhand. f. Cong. inn. Med.*, s. 424, 1896. [11] *Edin. Med. Journal*, p. 12, 1900. [12] BRITISH MEDICAL JOURNAL, ii, 1901, p. 1078. [13] Walker Hall, Purin Bodies, *Dissert.*, 1902. [14] *Verhand. f. Cong. inn. Med.*, s. 721, 1896. [15] *Verh. f. Cong. inn. Med.*, 1896. [16] *Dissert.*, Purin Bodies, 1902.

REPORT LXIX.

THE OEDEMA OF ANAEMIA.

By THOMAS HOUSTON, B.A., M.D.,

Assistant to the Pathologist of the Royal Victoria Hospital, Belfast; Research Scholar of the British Medical Association (1901).

IN the BRITISH MEDICAL JOURNAL of June 15th, 1901, I endeavoured to show that, by taking into consideration the dilution of the blood that may occur in typhoid fever, a satis-

factory explanation of the behaviour of the different varieties of leucocytes in this disease could be given. That a hydraemic plethora occurs in certain anaemic conditions appears quite clear from the observation of Professor Lorrain Smith on chlorosis and pernicious anaemia.[1] The importance of the disturbance of balance in fluid exchange between the blood and the tissues in the various forms of anaemia suggests that some light would be thrown on the allied conditions of oedema and dropsy if the occurrence of these conditions were studied in definite relationship to the various changes in the blood. In the following paper I have endeavoured, by means of the observations to be detailed, to contrast the oedema and dropsy which occurs in Bright's disease with that which frequently accompanies various forms of anaemia, such as chlorosis, pernicious anaemia, splenic anaemia, or anaemia of haemorrhage.

The systemic study of the gain or loss in weight in such conditions has been singularly neglected by investigators who are interested in the diseases which show oedema or anaemia. It is, however, a fact of common observation that patients suffering from such anaemic conditions as chlorosis and pernicious anaemia do not appear to lose weight in proportion to the severity of the disease. The observations which follow seem to furnish an explanation of this phenomenon and show that a gain of weight in an anaemic patient is by no means necessarily an indication that the patient is improving. In fact, it will be seen that in many cases of anaemia an initial loss of weight seems an essential part of the patient's progress towards recovery.

OEDEMA OF RENAL DISEASE.

Before taking up the study of the oedema associated with anaemia or changes in the blood I wish to introduce a few cases illustrating the well established fact that the oedema of Bright's disease comes and goes without simultaneous changes in the blood of the kind noticed in cases of anaemia. These cases are merely sufficient to serve as illustrations. The changes in the blood which occur in Bright's disease and in heart disease of various forms merit separate investigation.

NOTE.—The following contractions will be used for convenience in the tables given:

R. C. = red corpuscles per cubic millimetre.
W. C. = white corpuscles per cubic millimetre.
Hb. = percentage of haemoglobin compared with average normal.
Lymph. = percentage of lymphocytes (small and large varieties) in differential count.
Pmn. = percentage of polymorpho-nuclear leucocytes in differential count.
E. L. = percentage of eosinophile leucocytes in differential count.
N. B. = normoblasts } Number found in counting 500 leucocytes.
M. B. = megaloblasts }
Wt. = Weight taken in the same clothes in the case of each patient and at the same time of day.

I.—*J. R. Acute Bright's Disease: Anasarca well marked.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
November 27 ...	4,440,000	8,200	80	44.8	52.4	12 11
December 4 ...	4,100,000	9,100	79	46.4	46.4	12 8
December 20 ...	4,600,000	12,000	82	43.2	54.4	9 5

Here, although the patient has lost 3 st. 6 lb., there is hardly any effect produced on the blood. The haemoglobin seems at first to fall a little and afterwards rise a little, while the patient was losing weight or getting rid of his anasarca.

II.—*J. McC. Kidney Disease with Dropsy.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
November 8, 1901	3,900,000	13,000	74	45.3	53.3	10 10½
November 14, 1901	3,820,000	8,500	74	25.6	70.8	10 5
November 22, 1901	3,400,000	8,500	69	41.6	56.8	10 0
November 29, 1901	3,850,000	8,100	67	38.6	60.4	10 6½

From November 8th, 1901, to November 22nd, 1901, the patient lost 10½ lb., while his haemoglobin fell from 74 to 69 per cent. He then had a slight relapse, becoming more oedematous and putting on 6½ lb. in weight; his haemoglobin was then found to be 67 per cent. This case would seem to show that the anaemia may bear a relation to the duration of the disease but not to the oedema formation.

III.—*G. L. Second Attack of Chronic Bright's Disease, Oedema, and Psoriasis.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	E. L.	Wt.
							st. lb.
March 15, 1902	4,320,000	7,300	87.2	39.6	60	0.4	10 2
March 20, 1902	4,200,000	10,100	86.9	47.6	46.4	6.0	10 10
March 26, 1902	4,550,000	12,100	87.2	[illegible]	[illegible]	4.8	10 9½
April 6, 1902	4,540,000	9,100	87.2	36.8	56.8	6.4	10 10

This patient did not improve while in hospital, and left more oedematous than he was on admission. While in hospital he developed an attack of psoriasis, and it is interesting to note that during this period his blood showed an increase of eosinophile leucocytes. His haemoglobin was practically constant during his stay in hospital, although on one occasion he gained 8 lb. in five days.

IV.—*W. McF., aged 39. Bright's Disease with Mitral Systolic Murmur; considerable Oedema.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
February 22, 1902	4,700,000	8,500	98.75	35.2	64.8	10 12
February 27, 1902	4,980,000	8,700	98.75	53.2	46.4	10 2½

In this case the patient lost 9½ lb. in five days yet no alteration could be detected in his haemoglobin.

The only deduction that can be drawn from these figures is that the condition of the blood as far as its haemoglobin percentage is concerned bears little or no direct relation to the extent of the oedema. There must be no doubt changes in the blood during oedema formation, but these changes are of such a transient nature owing to the blood's remarkable power of correcting any tendency to dilution, that they are hard to detect by the methods at our disposal.

During the time I have been making observations on this subject, I have not yet had the opportunity of observing in this manner any cases of Bright's disease with profound anaemia. The usual hospital case of chronic parenchymatous nephritis has, as a rule, little anaemia. Some cases of nephritis are profoundly anaemic, but this may not be due merely to kidney inadequacy, but possibly the result of the action of some blood poison of which the anaemia and nephritis are the symptoms, for example, lead poisoning.

CHLOROSIS.

I.—*McR. Chlorosis complicated with Gastritis.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn	Wt.
						st. lb.
September 10, 1900	4,375,000	5,500	56	39.4	56.4	7 0
September 29, 1900	4,340,000	14,000	52	30.4	66.0	7 4

This patient had a troublesome gastritis—notice the leucocytosis in the second observation—and did not improve during the period of observation. The point to be noted about this case is that, without any clinical improvement or improvement in the condition of the blood, she gained 4 lb.

II.—*D. Severe Chlorosis. This Patient was kept without Iron during the Period of Observation.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
September 25, 1900	2,080,000	[illegible]	[illegible]	43	[illegible]	8 8½
October 10, 1900	1,750,000	3,700	—15	52	46	9 4

This patient made no improvement while kept without iron, as the above figures show: (1) the red corpuscles are lower; (2) the percentage of lymphocytes is higher: (3) the haemoglobin is marked under 15 per cent., but with such low percentages of haemoglobin it is difficult to be accurate; (4) her clinical condition was worse. In spite of all these points, showing that her condition was not improved, she had gained 9¾ lb. in weight.

III.—*McD. Also kept without Iron during the Period of Observation.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
September 25, 1900	3,980,000	4,000	64	42.6	54.2	7 11¼
October 12, 1900	3,075,000	5,000	56	44.0	54.0	8 1½

This case did not improve while iron was withheld, but still her weight rose 3¾ lb.

IV.—*R. Severe Chlorosis: Oedema of Feet and Ankles.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
February 24, 1901	1,800,000	6,400	16.4	—	—	7 10
March 12, 1901	2,320,000	4,000	24.0	27	73	7 5¼

This patient rapidly improved under iron and rest, and although her haemoglobin rises from 16 to 24 per cent., she loses 4¾ lb. in weight.

V.—This loss of weight that appears usually to occur in chlorosis when the case is improving, does not, however, continue throughout the cure of the case.

R. C.—Chlorosis: Oedema of Ankles.

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
August 24, 1901	4,930,000	7,400	53	56.4	43.6	9 10½
August 29, 1901	Oedema of ankles disappearing.					9 6
August 30, 1901	5,380,000	7,750	59	52.4	44.8	9 7
September 1, 1901	5,000,000	6,000	64	31.6	66.4	9 7
September 6, 1901	5,280,000	5,000	70	31.6	[illegible]	9 10

This loss of weight here continued only for the first five days, and after this time the patient began to gain in weight. During the whole period the haemoglobin steadily increased. Since the blood in chlorosis is diluted, we may presume that in the cure of the case the loss of weight is due to the loss of fluid from the blood and tissues. The loss of fluid from the tissues is the first evident change, and therefore the oedema and puffiness first disappear. There is no doubt a continual loss of fluid during the cure, but this is masked by the fact that owing to the improved conditions of nutrition the tissues gain in weight. It thus seems evident that the gain in weight in the case of chlorotics is only an apparent one, due to the increase of fluid in the blood and tissues.

VI. *A. M. Chlorosis.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
October 11, 1901	1,580,000	6,000	7	50.8	47.6	0 0¼
October 16, 1901						9 7
October 22, 1901	4,500,000	6,300	38.9	45	52	9 0¼
October 27, 1901	[illegible]	[illegible]	41.9	43.6	55.2	9 10

This is a similar case. It may be noted here that the changes occurring in the blood in chlorosis during the cure are the following: (1) A gradual rise of haemoglobin throughout the cure; (2) a more sudden rise in corpuscles (this appears to be due to the concentration of corpuscles still poor in haemoglobin by the withdrawal of the excessive fluid); (3) a decrease in the percentage of lymphocytes; (4) an increase in the percentage of polymorpho-nuclear leucocytes; (5) an initial loss of weight (no doubt due to the loss of fluid from the tissues and blood) with a subsequent gain in weight.

VII.—*M. K. Chlorosis.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
September 28, 1901	Not weighed on admission to hospital.					
						st. lb.
October 1, 1901	2,640,000	4,600	29.96	30	68.4	8 6
October 5, 1901	2,300,000	6,000	29.96	30	68	8 6
October 8, 1901	2,780,000	8,600	30	30	68	8 6
October 12, 1901	3,020,000	8,100	31.4	30.4	68	8 7
October 17, 1901	3,680,000	7,000	40.4	24.8	74.4	8 8

This case is noteworthy because of its slow progress at first. The weight was unfortunately not taken on admission to hospital (during this period there may have been some loss of weight). From the 1st to 9th inst. the weight remained absolutely stationary, and during this period no improvement could be detected in the blood. The patient after this began to gain in weight and rapidly improved. Here, evidently, the loss of fluid was very gradual and the tissue gain occurring as the result of rest and iron treatment prevented the gradual loss from being apparent in the weighing.

VIII.—*B. K. Chlorosis (Oedema of Ankles). Second Attack.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
November 30, 1901	2,450,000	5,500	24.6	32.4	64	7 10
December 6, 1901	Oedema of ankles disappearing.					7 6⅞
December 14, 1901	4,100,000	8,000	69	11.0	74.8	7 4
December 21, 1901	No examination of the blood.					7 5½
December 27, 1901	No examination of the blood.					7 10⅜

This was a case of severe chlorosis with well-marked haemic murmurs and *bruit de diable*. There was oedema of the ankles. The rapid rise of haemoglobin from 24 per cent. to 69 per cent. in fourteen days is remarkable. During this period the patient lost 6½ lb. in weight.

IX.—*V. J. Chlorosis.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
January 1st, 1902	2,950,000	5,000	24.6	29.6	69.6	—
January 9th, 1902	2,440,000	5,600	29.6	27.2	72.0	8 6¾
January 15th, 1902	2,850,000	5,600	30.0	26.4	73.2	8 2
January 21st, 1902	3,520,000	6,000	34.5	25.9	73.6	8 8
January 28th, 1902	4,180,000	6,600	39.5	30.0	69.0	8 10

This patient was not weighed until she was nine days in hospital. She was kept fourteen days without iron. It was found by weighing the patient daily after the 9th instant that from the 9th to the 15th she lost 4¾ lb. Her weight, however, fluctuated somewhat between these dates. Her haemoglobin, it will be noted rises very slowly at first. It may be noticed in this, as in other cases, the corpuscles rise more quickly than the haemoglobin.

X.—*F. O'N., age 20. Chlorosis: Cardiac Murmurs: Oedema of Ankles.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
February 15th, 1902	No examination of blood on this date.					9 3
February 18th, 1902	3,100,000	6,500	34.5	31.6	68.4	8 13½
February 22nd, 1902	3,800,000	7,000	35.5	29.6	68.0	9 0
March 1st, 1902	3,700,000	8,800	36.0	44.8	54.0	9 10 oz.
March 15th, 1902	4,120,000	8,400	69 1	44.8	54.8	9 3½

This case also shows an initial loss of weight with a subsequent gain while the haemoglobin was steadily improving.

From the above 10 cases of chlorosis it will be seen that an average case will lose about 4 lb. in weight before beginning to gain after treatment has begun. Suppose, for example, we have a chlorotic of 100 lb. weight with 50 per cent. of haemoglobin. [Taking the blood in the normal person as about one-twentieth of the body weight (*Transactions of the Pathological Society of London*. Vol. li. Part iii. 1900.)]. This theoretical case may be supposed to have double the normal quantity of blood, that is about 10 lb. weight of blood, and that in improving from 50 per cent. to 100 per cent. such a patient would lose 5 lb. of fluid from the blood, or 1 lb. for every 10 per cent. of improvement in the haemoglobin. When we consider this theoretical example and the figures given above from the actual weights of chlorotic patients, it is quite clear that a good part of the fluid weight lost must be fluid in the tissues. This view is strengthened by the fact that chlorotic patients as they improve first lose any oedema that may be present about the ankles, and finally that flabby appearance so characteristic of the disease which is due to the presence of fluid in the lymph spaces of the tissues.

SPLENIC ANAEMIA.

I have made observations of other cases of anaemia with the object of determining if this initial loss of weight when the patient was improving was confined to chlorotics. The condition known as splenic anaemia may be defined as a markedly chlorotic condition of the blood with an enlarged spleen. I have made a series of observations on a case conforming to this type.

O.—Splenic Anaemia: Profound Anaemia with History of Haematemesis, and very much Enlarged Spleen: Haemic Murmurs.

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	Wt.
						st. lb.
September 14, 1901	1,300,000	2,500	—16	45.0	53.6	7 12½
September 24, 1901	1,350,000	2,000	—16	46.6	53.3	8 0*
October 3, 1901	1,325,000	2,000	—16	46 0	54.0	7 3
October 23, 1901	1,740,000	3,000	32	38 8	60 0	7 6
November 9, 1901	4,020,000	3,000	55	30.8	68.4	7 13
November 20, 1901	3,740,000	2,400	49	37 3	61.6	8 1
November 30, 1901	4,170,000	3,000	81	26.8	71.6	8 6
December 31, 1901	4,110,000	3,200	73	32.4	66.8	9 4
February 4, 1902	5,030,000	4,000	98	34.0	62.4	9 12

* 300 oz. of urine in 48 hours.

The quantity of urine in this patient's case was carefully estimated every twenty-four hours. During the first fourteen days in hospital he passed from 40 to 50 oz. of urine in the twenty-four hours. The quantity never exceeded 50 oz. It was noted that during this period the patient was not improving; he was, indeed, supposed to be gradually dying in spite of treatment by rest and arsenic. On the 24th the patient was weighed with some difficulty on account of his great weakness, and found to have gained 1½ lb. since admission. On the 28th and 29th the patient was apparently moribund. During these two critical days he passed over 300 oz. of urine, and had some diarrhoea and melaena. From this date he began gradually to improve. The patient himself dates his improvement from the time he passed this large quantity of urine. He was weighed again on the 3rd, and found to have lost 11 lb. in weight. This loss of weight was no doubt due to the loss of fluid by the kidneys and bowel. After this critical period of his illness during which he lost 11 lb. in weight he began steadily to increase in weight, and at the same time his haemoglobin gradually rose. It is interesting to note in this case that the haemoglobin increased inversely as the percentage of lymphocytes, and directly as the percentage of polymorphonuclear leucocytes.[2]

In the first three blood determinations the haemoglobin was found to be slightly under 16 per cent. No increase of haemoglobin was detected immediately after the loss of fluid. Possibly the haemoglobin was somewhat improved, but it cannot have been much. This would lead us to infer that the great loss of fluid came indirectly, at least, through the blood from the waterlogged tissues, and by its removal made it possible for the blood to concentrate, and so improve. In chlorosis, as we have seen the more gradual loss of fluid is accompanied by a gradual improvement in the blood. From this we would infer that in these cases of anaemia in which the blood is diluted the first change necessary to allow the blood to concentrate is that the tissues should get rid of their excess of fluid by the kidney or otherwise. We might also infer that the oedema and flabbiness of the tissues in such conditions is the result of the diluted condition of the blood. It seems at first difficult to understand why the draining off by the kidneys of such a large quantity of fluid should not have a very decided and immediate effect on the haemoglobin value of the blood, but we must consider that any attempt on the part of the blood to correct its dilution by getting rid of fluid by means of the kidney or otherwise may almost immediately cause an increased flow of lymph from the oedematous tissues into the blood, and thus we can explain how in this case the blood showed little immediate sign of concentration.

PERNICIOUS ANAEMIA.

Pernicious anaemia is another condition in which the blood may become diluted, and observations of the weight and haemoglobin in such cases form an interesting series.

I.—*M. Pernicious Anaemia.*

				st. lb.
a.	21.1.00.	... Hb. = 31 per cent.	... Wt. =	9 8
b.	10.2.00.	... Hb. = 71 ..	... Wt. =	9 9
c.	28.2.00.	... Hb. = 62 ..	... Wt. =	10 0
d.	20.4.00.	... Hb. = 73 ..	... Wt. =	10 0½
e.	13.6.00.	... Hb. = 57 ..	... Wt. =	9 13
f.	21.6.00.	... Hb. = 65 ..	... Wt. =	9 7
g.	3.7.00.	... Hb. = 59 ..	... Wt. =	9 12

In this case of pernicious anaemia the figures are taken from my note-book before this method of comparing the weight and the haemoglobin value of the blood had occurred to me.

From *a* to *b* we notice that although the patient rises from 31 per cent. to 71 per cent. of haemoglobin, he only gains 1 lb. in weight. This would probably have been explained had more observations between January 21st and February 10th been made, as it is more than likely that the patient would first have been found to lose weight and then to gain a little. From *b* to *c* the patient gains 3 lb. in weight, but loses 9 per cent. of haemoglobin. From *e* to *f* he loses weight, but gains in haemoglobin; and from *f* to *g* he gains in weight but loses in haemoglobin. Such results can only be explained on the supposition that there is also in this disease a tendency to dilution of the blood and exudation of plasma into the tissues. No doubt if the disease is progressing there is also a progressive real loss of weight in this as in other fatal diseases, but this real loss of weight may often become masked by the dilution of the blood and accumulation of fluid in the tissues.

Some other examples will make this more clear.

II.—*S. M., age 52. Pernicious Anaemia.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	N. B.	M. B.	Wt.
								st. lb.
Jan. 11, 1902	1,080,000	4,500	20.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Jan. 18, 1902								7 9½
Jan. 25, 1902	890,000	4,200	22.2	[illegible]	[illegible]	12	[illegible]	7 11½
Jan. 27, 1902	Oedema increasing							7 12½

[illegible] leucocytes.

This patient lost ground from admission till her death.

During this time she continued to gain in weight. During the last fourteen days of her life she was not weighed owing to her great weakness, but as she became markedly more oedematous there can be no doubt that her weight still increased. The necropsy showed the pathological condition of liver, bone marrow, and heart usually found in pernicious anaemia.

III.—*M. S. Pernicious Anaemia.*

Date.	R.C.	W. C.	Hb.	Lymph	Pmn.	N. B.	M. B.	Wt.
								st. lb.
Dec. 5, 1901	1,020,000	2,400	26.0	75.0	34.4	2	10	8 11½
Dec. 14, 1901	840,000	2,300	25.0	66.5	32.5	4	18	8 11
Dec. 20, 1901	1,140,000	2,250	25.6	62.5	37.0	6	14	8 11
Dec. 31, 1901	910,000	2,500	25.0	65.6	34.0	4	12	8 11
Jan. 21, 1902	794,000	2,300	23.7	67.5	32.5	2	12	8 9½
Jan 25, 1902	720,000	2,900	22.2	82.8	17.5	0	14	8 9½
Jan. 28, 1902	720,000	4,000	19.75	65.2	34.4	2	8	8 9½
Feb. 4, 1902	630,000	4,250	15.8	64.4	35.2	14	10	8 13½
Feb. 18, 1902	500,000	3,500	15.0	66.0	34.0	54	12	9 11
Feb. 27, 1902	925,000	5,200	25.6	31.0	68.0	4	6	9 9½
March 14, 1902	1,105,000	3,800	29.0	64.0	34 0	—	8	8 7½
March 22. 1902	1,110,000	2,300	28.0	46.0	51.2	2	14	8 7
April 16, 1902	1,230,000	3,700	39.5	52.4	43.6	2	2	9 3

This was a case of pernicious anaemia which for the first two months in hospital responded to no treatment. She was treated for the first month on injections of cacodylate of sodium, and for the second on antistreptoccus serum. Neither treatment seemed to improve her condition. During the first month she very gradually lost in haemoglobin, falling from 26 per cent. to 22 per cent. during this period; she lost only 2 lb. in weight. During the second month she got more quickly worse, her haemoglobin falling from 22 per cent. to 15 per cent. from January 15th to February 18th. During this period it will be noticed that her weight rose from 8 st. 9½ lb. to 9 st. 11 lb.; in other words, while she lost 7.2 per cent. of haemoglobin, she gained 15½ lb. in weight during this time. She became markedly oedematous, and was so weak that it was thought advisable not to give her the usual injection of antistreptococcus serum. In the above table it will be noticed that at this critical period in her illness, when her haemoglobin was lowest and her weight was greatest, a very large number of nucleated blood corpuscles were found on examining her blood films; 66 were found in counting 500 leucocytes. This number, it will be noticed, is very greatly in excess of the nucleated corpuscles found in any of the other examinations. This makes it probable that at the stage when her oedema was greatest and her haemoglobin lowest, there was a "blood crisis" present. After this critical period it will be seen from the table that she rapidly lost weight and gained in haemoglobin. From February 18th to March 14th she lost 15½ lb. in weight and gained 14 per cent. of haemoglobin. From this period on until she left hospital she gained both in weight and in haemoglobin. We may therefore divide the progress of this case into the following stages:

First stage: Gradual gain of weight, with oedema increasing and haemoglobin falling.

Second stage: More rapid loss of weight, with oedema decreasing and haemoglobin rising.

Third stage: Gradual gain in weight, with haemoglobin also improving.

It is evident from the observations made in this case that the weight in a case of pernicious anaemia furnishes no indication of the progress of the case unless it be taken in conjuction with the haemoglobin value of the blood. During the period that this patient was most oedematous and at her worst she had two severe attacks of epistaxis. This was the only period during her stay in hospital that she had any haemorrhage, and it is interesting to note that it occurred during the period in which her haemoglobin was falling most rapidly and in which her oedema was increasing. The explanation of this seems to be that the volume or dilution of her blood was increasing, and that the epistaxis and oedema were merely Nature's method of getting rid of the excess of fluid in the vessels. For more reasons than one this period may be regarded as a critical period of her illness.

IV.—*Mrs. H., age 50. Pernicious Anaemia. Ill since April, 1900. Epistaxis and Haemoptysis: Septic Condition of Mouth and Teeth.*

Date.	R. C.	W. C.	Hb.	Lymph.	Pmn.	N. B.	M. B.	Wt.
								st. lb.
July 12, 1901	810,000	3,900	19.4	56.4	38.0	10	22	7 6½
July 22, 1901	Dropsy and ascites increasing							8 0
July 29, 1901	,,	,,	,,	,,				8 5
Aug. 10, 1901	2,260,000	4,400	46.0	55.6	42.8	—	—	7 5½
Jan. 25, 1902	2,400,000	3,000	49.5	45.6	54.4	—	—	9 4½

This case of pernicious anaemia made a wonderful recovery, and is still alive in fairly good health, that is, having about 50 per cent. of haemoglobin. She is very prone to slight relapses, and at these periods she develops some oedema. She has so far improved under treatment by arsenic. When she came into hospital she was profoundly anaemic, with 19 per cent. of haemoglobin, and up to the 29th little improvement was noted in her clinical condition. During this time it was noted that her oedema and ascites increased. From July 29th she rapidly lost weight and as rapidly improved. On August 10th her haemoglobin was 46 per cent., and her weight 7 st. 7½ lb., that is, practically a stone lighter than on the 29th.

V.—*M. McK., age 46. Pernicious Anaemia: Ill for One Year: Some Oedema: Septic Mouth and Teeth.*

Date.	R. C.	W. C.	Hb.	Lymph	Pmn.	N. B.	M. B.	Wt.
								st. lb.
March 31, 1901	1,000,000	2,000	25.6	32.0	67.0	16	14	7 5
April 16, 1902	963,000	7,300	23.7	18.4	81.2	4	4	7 6½

This patient a few days after admission to hospital became extremely ill, with very high temperature; she was semi-comatose, and had incontinence of urine. During this period she became markedly oedematous, but, owing to her extreme weakness, no observations were made. On the 16th, when she had considerably improved, and the oedema had almost disappeared, her blood was found to be as above. In this case, again, the patient first becomes oedematous and extremely ill, and then improved.

This case is still in hospital and under observation.

From my observations in these cases and from several other cases I have seen, I do not think that oedema is an altogether unfavourable sign. In several cases it would appear that the oedema is the first step towards an improvement of the blood condition. (The oedemas here referred to were all developed in bed.) The patient suffering from pernicious anaemia may get steadily worse for some time, then become oedematous, and then improve.

I made a few observations on another case of pernicious anaemia which present some interesting features in this connexion. This patient was not a hospital patient, and her weight was therefore not observed.

VI. *Mrs. G., aged 42. Ill since Christmas time. No Septic Condition of Mouth or Teeth. Irregular Temperature.*

	R.C.	W.C.	Hb.	Lymph	Pmn	N.B.	M.B.	Remarks.
March 6, 1902	1,170,000	4,200	30	49 2	46.0	2	10	Slight oedema.
April 3, 1902	1,500,000	5,100	33	47.5	51	300	75	Marked oedema.
April 19, 1902	1,560,000	5,000	35	63.2	36.8	16	10	Oedema disappearing.

On March 6th, 1902, I examined this patient's blood, and obtained the figure given above. The case was therefore a typical one of pernicious anaemia. At this time there was a very slight amount of oedema about the ankles. On March 4th her blood was again examined, and her haemoglobin was found very slightly higher. She was at this time very

oedematous, and the abdominal wall greatly distended with oedema, although there did not seem to be much free fluid in the peritoneal cavity. During this time she was passing an average of 40 to 50 oz. of urine in the twenty-four hours, and was very restless and sleepless. Her blood at this period, as seen in the above table, presented a very interesting feature, namely, a blood crisis—the blood films contained a great number of nucleated red corpuscles. Many of their nuclei were bilobed or trilobed as if dividing. It will be remembered that a somewhat similar condition of the blood was found in Case III where she was most oedematous. The presence of a blood crisis is said to be a favourable sign in prognosis. From this period until the present date she made a gradual improvement, and her oedema almost entirely disappeared. From April 8th to the 19th, while her oedema was passing off, she passed from 130 to 150 oz. of urine in the twenty-four hours.

HAEMORRHAGE.

VII.—The next case is one of haemorrhage that presented the clinical appearance of pernicious anaemia, he had, however, bleeding piles and made a remarkable recovery. On admission to hospital his tissues appeared very flabby, although there was but slight evident oedema. He entirely lost this flabby appearance as he improved.

R. B. Bleeding Haemorrhoids.

	R.C.	W.C.	Hb.	Lymph	Pmn.	N.B.	M.B.	Wt.
								st. lb.
Sept. 25	1,680,000	5,000	20	23	76.5	∗	∗	11 10½
Oct. 27	3,100,000	4,100	55	40.6	58.8	0	0	11 4
Nov. 8	4,350,000	5,900	74	34.8	63.6	0	∗	11 ∗

For the first month in hospital this patient lost steadily in weight, falling from 11 st. 10½ lb. to 11 st. 4 lb. At the same time the haemoglobin rose from 20 per cent. to 55 per cent. From the 27th he began to gain slowly in weight while his haemoglobin continued to rise.

This case was undoubtedly one of severe secondary anaemia due to haemorrhage. It has been often contended that severe long continued haemorrhage may produce a blood picture in all respects similar to pernicious anaemia. In this case and in all the others I have examined it was quite possible from the blood to distinguish the two conditions. It is unfortunate that those authorities who make this contention give no accurate details of the blood examination of such secondary anaemias which present all the features of pernicious anaemia.

CONCLUSIONS.

In conclusion, I may sum up the points of interest suggested by these observations:

1. The absence of loss of weight in anaemic conditions, and the fact that the patient seldom seems emaciated is mainly due to the fact that there is abnormal accumulation of fluid in the blood and tissues. If this excess of fluid were deducted it would probably be found that in these, as in other chronic illnesses, there is a progressive loss of weight in proportion to the severity and duration of the disease.

2. In the cure of such anaemic conditions, especially chlorosis, the first stage seems to be the getting rid from the blood and tissues of this excess of fluid.

3. A gain of weight in a case of pernicious anaemia under treatment, and without any improvement in the haemoglobin, is to be regarded as an unfavourable sign, indicating dilution of the blood and consequent escape of serum into the tissues. It may, however, be a critical phase of the disease, and indicate the first step towards concentration of the blood. Immediately after this sudden increase in oedema there is either a marked improvement or the patient dies.

4. The oedema of anaemic conditions seems to result from a hydraemic plethora of the blood, and is somewhat different in origin and nature from the oedema usually found in Bright's disease.

5. Careful observations in the manner indicated of anaemic conditions, namely, a record of the weight and haemoglobin value of the blood may furnish very interesting results. The points to direct attention to are the occurrence of haemorrhages (epistaxes, etc.), oedema, diarrhoea, and profuse sweating. My observations convince me that these symptoms are often the result of dilution of the blood, and may be merely Nature's method of counteracting the excessive and abnormal volume of the blood.

REFERENCES.

[1] *Trans. Path. Soc. Lond.*, vol li, part 3, 1900. [2] See former paper in BRITISH MEDICAL JOURNAL, June 15th, 1901.

REPORT LXX.

ABSTRACT OF A REPORT ON THE FORMATION OF LYMPH BY THE LIVER.*

BY F. A. BAINBRIDGE, M.B., M.R.C.P.,
Junior Demonstrator in Pathology, St. Bartholomew's Hospital.

IN 1899 Asher found that the intravenous injection of ox bile, blood serum, and other substances produced an increased flow of lymph from the thoracic duct: he considered that these substances increased the metabolism of the liver, that the lymph came from the liver, and that it was formed as a result of the increased activity of the liver cells.

In the present research pure taurocholate of soda, pure haemoglobin, and certain ammonium salts have been injected intravenously, and the effects of such injections on the lymph flow have been studied.

RESULTS.

I.—*Taurocholate of Soda.*

Slow injections of small amounts invariably lead to an increased flow of lymph. The flow is doubled or trebled, begins ten to twenty minutes after the injection is begun, reaches its maximum in twenty to thirty minutes, and lasts about two hours. The extra lymph is derived entirely from the liver, since after ligature of the portal lymphatics, injections of bile salt cause no increased flow of lymph.

The lymph contains a slightly-increased percentage of solids, and usually also a small amount of free haemoglobin.

Observations on the blood pressures show no change in the arterial or vena cava pressure; there is a slight rise of portal pressure, but it falls within the limits of a physiological rise accompanying the increased flow of bile also produced by injecting bile salt.

When the bile and lymph are collected simultaneously, the variations in the rate of flow are very similar in the two cases; the most important difference is that the increased bile flow sets in earlier than the increased flow of lymph.

II.—*Haemoglobin.*

The injection of haemoglobin in dilute solution leads to results very similar to those obtained with bile salt, except that the bile becomes more concentrated, though its amount is not as a rule increased.

III.—*Ammonium Salts.*

The salts used were the tartrate, carbonate, and chloride. Intravenous injection sometimes leads to an increased lymph flow, but more often a negative result is obtained. The experimental conditions were so unsatisfactory, and toxic symptoms so prominent in the case of ammonium salts that no conclusion could be drawn from them.

COMMENTARY.

The injection of bile salts (and haemoglobin) does not cause blood-pressure changes similar to those produced by bodies either of the peptone class or of the sugar class; in fact, bile salts differ in very many respects from peptone in their mode of action. Consequently they do not belong to either of Heidenhain's classes of lymphagogues.

On the other hand, bile salts do increase the metabolism of the liver and also the formation of lymph; this increased metabolism does not merely accompany, but is the actual cause of the increased flow of lymph. In this respect Asher's view is fully confirmed, and these bodies constitute a "third" class of lymphagogues.

It is further supposed that this suddenly-increased metabolism leads to the setting free in the liver cells of crystalloid metabolites. These enter the surrounding lymph spaces

* The full text is published in the *Journal of Physiology*.

—probably by diffusion—raise the osmotic pressure of the lymph, and attract water from the blood. In this way the increased lymph flow is accounted for. It is, of course, possible that bile salt (and haemoglobin) stimulate the hepatic capillaries to secrete lymph, after the manner suggested by Heidenhain. But the experiments, though not actually opposed to such a view, do not support it.

REMARKS ON A CASE OF HEREDITARY LOCALIZED OEDEMA PROVING FATAL BY LARYNGEAL OBSTRUCTION.*

By T. WARDROP GRIFFITH, M.D., M.R.C.P.,
Senior Assistant Physician, General Infirmary, Leeds.

During the last sixteen years I have had under my observation from time to time some remarkable cases of localized oedema, and I will give the history of one of the cases which was the most striking I have ever seen, and will append some general considerations on the subject.

History of the Case.

The patient was a young woman, aged 18 years, when she first came under my observation. She was admitted into the infirmary under the care of Dr. Eddison on June 21st, 1886, with great oedema of the right arm and hand, and was suffering from dyspnoea. Her voice was husky, and she had some pain on swallowing. Her tongue was coated, but her general health was good and there was no albuminuria, and it was the difficulty in breathing which determined her admission. On laryngoscopic examination there was found very great oedema of the mucous membrane covering the epiglottis and aryteno-epiglottidean folds, so great as almost entirely to conceal the vocal cords. The question of tracheotomy was considered, as was also that of scarification of the swollen mucosa, but it was deemed safe to wait. By the evening the oedema had entirely disappeared from the larynx, the swelling of the arm rapidly subsided, and she was discharged well at the end of five days.

From the patient and her mother the following interesting history was subsequently elicited. Ever since infancy she had been subject to localized swellings on various parts of the surface of the body. Thus shortly after birth one arm swelled to such an extent that the clothing had to be cut to release it. Very often she used to notice a small rounded swelling like a marble under the skin which would enlarge and become diffuse, so that the skin, say on the back of the hand, would swell enormously, and swellings more or less diffused or localized used to develop with great rapidity on her hands, feet, shoulders, chest, or around the vulva. Sometimes these were attended with slight redness and tickling, and when the vulva was affected, micturition was painful but not difficult. These swellings came on with great frequency, but no periodicity had been noticed. Menstruation had been established at the age of 15, and had always been normal, and apparently without influence on the incidence of the swellings. She was unmarried, but had had one child.

A careful examination of the patient failed to reveal any signs of disease or constitutional disturbance of any kind, except that for many years she had been subject to what she termed bilious attacks.

Her father from his earliest infancy had presented swellings of the same kind. On three occasions these seem to have affected the throat. The first attack of this kind occurred at the age of 21, the second a few years subsequently, and the third attack carried him off at the age of 29. He had come home from his work saying his throat was getting swollen, and his medical man who was sent for went to get something for his relief, but during his absence he suddenly got blue in the face and died asphyxiated.

From 1886 the patient was frequently seen by me at intervals until her death within the last few weeks, and I had frequent opportunities of seeing the remarkable swellings. They were, as she described, diffuse or circumscribed. Usually pale, but sometimes slightly pink, they did not pit on pressure, and I never found that they became vesicular or bullous.

On two occasions the symptoms were rather alarming, and deserve special notice. In July, 1890, she struck her head against the lock of a door, which made her feel sick and caused a small lump on the forehead. Next day the swelling had passed down, affecting the eyelids and the face, and the following morning, when the swelling of the face was beginning to subside, her throat became slightly affected, and felt, she said, as if something were sticking in it. When I saw her, her face was much swollen, the swelling stopped at the margin of the hairy scalp and at the ears, and did not extend on to the neck. In a short time her appearance was again perfectly normal.

In October, 1891, she complained of slight toothache one day, with swelling of the same side of the face. During the night, and especially during the following day, the swelling rapidly increased, and then her voice became affected. At 11 o'clock at night I found her sitting up, in which position the dyspnoea was more tolerable, with her face swollen out of all possible recognition, and presenting the general aspect of a patient with acute renal dropsy of an extreme character. The oedema was practically confined to the face and under aspect of the chin; it was firm, did not pit readily on pressure, and somewhat resembled that of myxoedema, though much more pronounced than anything I have ever seen in that affection. The tongue was swollen, as was also the mucous membrane of the mouth, and the lips were so swollen that the mouth naturally remained slightly open, and the continual escape of the buccal secretion led to a constant necessity for mopping the mouth. The larynx was readily examined, but all that could be seen were three rounded masses, pale, jelly-like, and tense, representing the swollen mucous membrane covering the epiglottis and the two arytenoid cartilages, while the false and true cords were completely concealed. The voice was not much affected. Next day she was much better, the voice was clear and the swelling of the face was manifestly subsiding. The following morning she was perfectly well, nearly all swelling had gone, and the larynx was absolutely normal. A slight feeling of sickness during the night was the only manifestation she had had of general disturbance. The bowels were normal, and there was no alteration in the amount of urine passed.

Some six or seven years ago the patient was married and had three children. Her pregnancies, as on the former occasion, had no influence on the occurrence of the swellings.

The patient was fully alive to the risks attendant on the attacks of swelling in the throat, and the final scene justified her apprehensions. On February 20th, 1902, at 10.30 a.m., she mentioned to her mother that her throat felt swollen, but that the swelling seemed to be passing backwards, and she thought she would soon be all right again. At noon her husband came home from his work, and found her sitting on the floor to all appearance comfortable and free from dyspnoea, and amusing her child, for whom she was just going to spin a humming top. Suddenly she dropped the top, started up, apparently tried to speak, clutched at her own neck, and then at the throat of her husband, which I take to have been a pantomimic action expressive of her distress; got blue in the face, and died almost at once. When I saw her, in about half an hour, the features were livid, the tongue was very slightly protruded between the teeth, and there was some fullness about the neck. Her mother, who had left the room, had again arrived on the scene just at the moment of death, and her first words to me were that her daughter had died in exactly the same way as her father before her.

Necropsy.

The necropsy I made was an incomplete one, but I removed the larynx by cutting widely beyond its limits, and with as little disturbance as possible. The mucous membrane was very oedematous, tense, and pale, and the sides of the laryngeal cavity came in contact with one another a short distance below its superior aperture, and remained so until just below the level of the true cords. A small amount of viscid mucus was found in the cleft between the two opposed mucous surfaces, which may have possibly assisted to a very slight degree in the occlusion, but the oedema was so great that it is not necessary to invoke any such considerations. I

* Read before the Leeds and West Riding Medico-Chirurgical Society.

can readily understand that even with a rapidly increasing oedema placid respiration might go on; but when the occlusion was getting almost complete any sudden inspiratory effort, such as might accompany a sudden turning or change of position on hearing her husband coming, might be the determining factor in causing the occlusion by sucking together the greatly swollen walls of the larynx.

A series of transverse sections of the larynx proved very instructive, for it showed that the oedema affected not only the mucous membrane but the deeper connective tissue, and even the substance of the muscles, which latter condition would, I think, prevent the abductors from causing that physiological enlargement of the aperture during inspiration which is so important in ordinary respiration. The oedematous fluid was purely of the serous variety, untinged with the colouring matter of the blood; and, contrary to what is usually stated to be found in oedema of the larynx, the tissue covering the true vocal cords was decidedly affected.

Commentary.

One of the most valuable contributions to the subject of angeioneurotic oedema was that of Osler in 1888 who emphasized the association with the swellings of symptoms of gastro-intestinal irritation and gave a striking example of the influence of heredity, an influence which had been formerly pointed out by Quincke, Strübing and Falcone, for he was able to trace the disease through five generations in one family, no fewer than 22 members having been affected, and of these 1, if not 2, died of an active oedema of the larynx.

The attention of the profession was, I believe, first called to this affection as a definite entity in 1882 by Quincke who gave it the name of acute circumscribed oedema of the skin. Cases had indeed been formerly described by Sir Thomas Watson, and under the name of fugitive oedema by Laycock, but to Quincke is due the credit of suggesting the view which is now held by most that the oedema depends upon a condition of altered innervation of the part, and Strübing's term of angeioneurotic oedema implies his acceptance of this theory. By some the swellings have been referred to as "ephemeral congestive tumours," the term "wandering oedema" is purely descriptive and embodies no kind of theory, while the least committal of all is employed by Dr. Landon, of Ebling, who describes the condition simply as "a peculiar skin disease." The terms "massive" urticaria (Rapin) or "giant" urticaria (Milton) express a theory as to its causation and relations, which is quite in harmony, of course, either with the views of Quincke and Strübing, or with the view that the condition is due to some kind of toxaemia, and I think there can be little doubt but that the affection really is of the nature of an urticaria or an exudative erythema, for between typical examples of the two affections there is not any sharp line of division.

The influence of the nervous system on the production and determination of the situation of dropsy is far reaching and important. A familiar example is afforded by the classical experiment of Ranvier, which, however, appears to be in antagonism with those of Lower, performed 230 years ago. Ranvier ligatured the chief vein in the limb of a dog without causing oedema, which however promptly developed when the sciatic nerve was cut. Section of the lingual nerve, with irritation of its peripheral portion, according to Cohnheim's experiment, causes oedema of the tongue in the frog. Injury to nerve trunks and cervico-brachial neuralgia has resulted in oedema in the human subject, and Gowers notes the association of trigeminal neuralgia with venous distension on the same side, and with oedema of the scalp. Charcot called attention to the association of oedema with hysterical palsy of a limb, the oedema vanishing with the return of power. The rapid effusion into the joints in tabetic arthropathy is a good example of dropsy due to nervous influence, and especially interesting in this connexion, for in one of Quincke's cases of circumscribed cutaneous oedema repeated effusions occurred into the articulations. Leyden has described oedema as occurring in spinal myelitis, while in alcoholic paralysis it is a familiar phenomenon in the acute stage. The most marked example I have ever seen of dermatographia, which is, of course, a traumatic urticaria, and therefore an oedema, was in an alcoholic subject convalescent from pneumonia. In hemiplegics who from any cause, cardiac or renal, develop dropsy I have repeatedly noticed that the oedema is more marked on the paralysed side. Crocker had a patient in whom urticaria always developed on the advent of a stranger, and as urticaria is clearly vasomotor in origin, this is in harmony with the flushings, pallors, and blushings of mental emotion.

Localized oedema has been frequently noticed in connexion with many conditions. I may mention that found in rheumatoid arthritis, the oedema on the dorsal aspect of the hands in tetany and in rickets, and the whole class of erythemas and oedemas due to certain drugs, such as arsenic, belladonna, and potassium iodide, to the use of which drug Fournier attributes two instances of sudden death from oedema of the larynx: and, as we are here dealing with poisons, I may mention the enormous swelling that occurs in some people from the bites of certain insects, while we know that extensive localized oedema is not uncommon in those the subject of gout, apart, of course, I mean, from that which accompanies obvious articular inflammation.

Dr. Allan Jamieson records an instance of very acute pulmonary oedema in a young woman of 19, coming on with dramatic suddenness on exposure to a chill after exertion, putting her life in imminent danger, but passing off with great rapidity, and which he very correctly, I think, comments on as analogous with the cases described by Quincke.

I am very far from wishing in this paper to enter upon a discussion of the causation of dropsies in general, but in considering the nature of this remarkable form of oedema of which I have given you an example, we must see that, characterized as it is by irregularity of distribution, by possessing at least in its earlier stages a margin which may be singularly abrupt, and by its rapidity of onset and decline, it differs from the dropsies of cardiac and hepatic disease, which are usually regarded as more purely mechanical in causation, and in a lesser degree from the dropsy of renal disease.

I am, however, by no means sure that this so-called angeioneurotic oedema differs *toto coelo* from that of renal or even of cardiac and hepatic disease. The cause of renal dropsy is eminently obscure; the general anasarca, which my surgical colleagues tell me follows sometimes on colossal transfusions, would seem to me to indicate that a hydraemic condition of the blood is favourable to its development, a view which I think is now becoming discarded in favour of that which adopts the term toxaemia as its watchword, and certainly this latter view is strengthened by the analogies of drug dropsies, such as that caused by potassium iodide.

Even the ascites of hepatic disease and the dropsy of cardiac disease are not susceptible of a purely mechanical explanation. Hale White has shown that the recurring ascites of cirrhosis is usually associated with chronic peritonitis, and to this rather than to the liver disease he attributes the effusion. I am not aware that the back pressure of mitral stenosis is less than that occurring in mitral regurgitation. The great hepatic fullness and the tendency to pulmonary haemorrhage would seem to indicate that it is not so; yet dropsy is much more common in mitral regurgitation than in mitral stenosis, and the dropsy of primary cardiac muscular failure such as is seen in alcoholic paralysis seems to be regulated so little by the laws of gravity that its explanation must be different from that which is applicable in cases of valvular disease with failing compensation.

While, therefore, on the one hand, I hold that these cases of localized oedema such as I have described constitute a class sufficiently definite to entitle them to a special description, I cannot but feel, on the other hand, that when the conditions which determine the occurrence of dropsy in rheumatoid arthritis and gout, in association with lesions of the nervous system, under the use of certain drugs, in acute renal disease, or on exposure to cold without evidence of renal involvement, and even that in cases of cardiac and hepatic disease, which is susceptible of a more purely but not as I think of an altogether mechanical explanation, are fully understood, the relationship between this form of dropsy and all the others to which I have referred will be found to be even more intimate than I have ventured to imply.

BIBLIOGRAPHY.

Osler, *International Journal of Medical Sciences*, 1888. Allan Jamieson, *Edinburgh Medical Journal*, 1883. Colcott Fox, Allbutt's *System*, 1899, article Urticaria. Wills and Cooper, *Brain*, 1893. Hale White, Allbutt's *System*, 1897, article Perihepatitis.

MALARIAL AND FILARIAL DISEASES IN BARBADOES, WEST INDIES.[1]

By GEORGE C. LOW, M.A., M.B., C.M.Edin.,
Craggs Scholar, London School of Tropical Medicine.

The analogy between malaria and filariasis is in many ways a close and interesting one, both as far as the tropics are concerned, being very often found coexisting in the same districts, and both being spread from man to man by their own special species of mosquitos. It is, therefore, interesting to be able to point to a tropical island, namely, Barbadoes, in which the former is non-existent, while the latter is extremely prevalent amongst all classes of the community.

The reason for the presence of the one and the absence of the other is supplied by the fact that *Anopheles* mosquitos, the definitive host of the malarial parasite, are not found in the island, whereas *Culex fatigans*, one of the suitable intermediate hosts of filaria nocturna,[2] abounds.

Before considering certain local features of these two infections, a brief description of the physical characters of the island may be given with advantage.

Description of the Island of Barbadoes.

Barbadoes, the most easterly of the Carribean Islands, lies well out in the ocean by itself in latitude 13° 4′ north, and longitude 59° 37′ west, about 100 miles distant from St. Lucia and St. Vincent. It measures 21 miles long by 11 miles broad, and comprises an area of 166 square miles, six-sevenths of which consists of a formation of coral limestone, the remaining one-seventh being formed of different geological strata, namely, the Scotland series, consisting of sandstones and dark clays; and the oceanic series, consisting of white earths and chalks.[3] The surface is more or less flat, the land rising gradually towards the centre of the island into two ridges, one of which running east and west attains a height of 400 feet above sea-level, while the other to the north of this is about 1,000 feet high.

The population of the island numbers 200,000, 30,000 living in Bridgetown, the chief town, and 1,500 in Speightstown, the second town, while the remainder are scattered about in separate huts and hamlets or in small villages.

With the exception of one or two springs, which bubble up and find their way into the sea within a few hundred yards of their origin, there are no rivers, the water supply for the town being obtained by boring into the large subterranean reservoirs of water which exist underneath the coral.

Several ponds and larger collections of water are found at different parts of the island, two such existing at Speightstown and Holetown respectively; three miles south of Bridgetown there is a permanent swamp.

In addition to these there is a creek communication with the harbour, which runs inland for some distance in the centre of the town, and another swamp at the south of the island. The water in the latter disappears during the dry season. After heavy rains, and during the wet season, various collections of water are found in hollows and other situations, chiefly along the coast. The whole island is practically under cultivation, sugar-cane being the staple product. Two seasons may be distinguished—a wet and a dry; the former in summer and autumn, the latter in winter and spring. The average rainfall is about 60 to 70 in. a year.

Malarial Fever.

On arriving in Barbadoes, and talking with the medical men practising in the town and island, all were unanimous in the statement that indigenous malarial fever does not exist in the island. Cases are frequently met with in the General Hospital; all of these come from some of the neighbouring islands where malaria is very common. No one could point to a case which had originated in the island itself.

The interesting question now arises, are any mosquitos of the genus *Anopheles* to be found in Barbadoes or not? As may be gathered from what has been already stated, the features of the island do not lend themselves very readily for the production of suitable breeding places for these insects, with the exception of the swamp at Worthing, three miles south of Bridgetown. This swamp is situated at the foot of some elevated ground quite close to the sea, with which it communicates by a canal, the exit, however, being very often blocked up with sand thrown up by the surf. It covers a considerable area of ground and is divided up into canals and ponds with roads and paths running through it in various directions. The water, especially in the part near the outlet, is slightly brackish, and in parts it is very stagnant, smelling strongly of sulphuretted hydrogen resulting from the decomposition of vegetable material. It is probably fed by springs of water, rain, and other collections which percolate from the neighbouring high ground. The surface of the water at many places is covered with algae of various sorts and other sorts of aquatic vegetation. On looking at it, it certainly appears to be a spot favourable for the development of *Anopheles* larvae, but although larvae of a species of *Culex* and those of dragon-flies and other aquatic insects were always found in abundance, no *Anopheles* larvae could be discovered. Confirmatory evidence of this was found in the fact that people living in the vicinity never suffered from fever, but enjoyed remarkably good health. It is probable from the close similarity of this place to *Anopheles*-infested swamps in the other and neighbouring islands, that such larvae could live here perfectly well; whether they have ever been here and have died out, or whether they have never existed, is a matter of speculation.

An examination of the other swamp at the south end of the island was not very hopeful, as at the time of my visit it had only filled up with water after some very heavy rain, and contained practically no algae or other vegetation; no *Anopheles* larvae were found in it, the only result of my search being a species of *Culex* in small numbers. The creek in the centre of the town is very dirty and muddy, and is really an arm of the sea fed at its upper end by rain and other waters. Several examinations produced no larvae of any sort, the water being probably too dirty for anything to live in. All the various ponds, springs, and other collections of water, though often containing plenty of suitable vegetation, gave similar results; in some, larvae of *Culex* were found, in others nothing.

These observations coincide with the researches of Mr. Lefroy, Entomologist to the Imperial Department of Agriculture, who has also made a systematic search for *Anopheles* larvae with negative result.

The conclusions reached, therefore, bear out that suggested by the epidemiological fact that there is no malarial fever in the island, and once more go to prove that without mosquitos of the genus *Anopheles* no malarial fever can exist.

Filarial Diseases.

In marked contrast to the absence of malaria is the large amount of filarial disease in Barbadoes. This is not to be wondered at when one considers the extraordinary abundance of the common domestic mosquito of those parts, *Culex fatigans*, which acts as an efficient host for the spread of the disease. It is an interesting fact that out of more than 600 blood examinations of people from all parts of the island, only filaria nocturna was found, filaria Demarquaii, which exists in St. Vincent and St. Lucia, and which I lately found in Dominica, never being met with. Although Bridgetown has now a very good water supply, brought in pipes from the centre of the island, where it is pumped up from the subterranean collections of water, yet many tanks exist in the gardens of the large houses for watering purposes, and around the neighbouring huts barrels and tubs of water are kept and left standing for considerable times. In these situations myriads of *Culex fatigans* breed and multiply and eventually may act as propagators of the disease. An examination of the night blood of 600 cases (taken irrespectively of the patients suffering from disease or not) from the General Hospital, Central Almshouse, and from private sources, will show to what extent filariasis prevails in Barbadoes.

The proportion of 14 infected whites out of 39 is manifestly much too high to be regarded as representing the degree of infection in the white population as a whole. Many of these whites for one reason or another were collected in the almshouse at the time of examination, others being more or less selected private cases. The table indicates probably correctly the proportion of the coloured population affected.

The figures referring to white people make clear a point on which sufficient evidence has not been laid before, namely,

that the white person is quite susceptible to filarial disease. This is specially so as regards Barbadoes, where persons, whether resident in the island all their lives, or only visiting it temporarily, often contract the disease; the rich and poor are alike in this respect.

Race.	Number Infected.	Non-Infected.	Infected.
Negroes	401	357	44
Mulattos	160	142	18
Whites	[illegible]	[illegible]	11
Total ...	[illegible]	[illegible]	[illegible]

Equal to 12.66 per cent.

In analysing the table, 27 or 4.5 per cent. of the total number examined, or 35.5 per cent. of the filarial cases, had definite pathological changes indicative of filarial disease such as elephantiasis, chyluria, filarial lymphangitis, etc.; whereas 49 of the filarial cases, or 8.1 per cent. of the total examined, had no symptoms whatever, the diagnosis being come to by the discovery of embryos in the blood. This latter class is a dangerous one as regards the spread of the disease, for it is manifest that unless sleeping under mosquito nets, which if they are negroes they never do, they nightly infect many mosquitos, which in turn infect other people and so spread the disease.

To get some idea of the number of infected mosquitos about, a series of dissections of 100 mosquitos, of the species *Culex fatigans* taken from the wards and corridors of the General Hospital, in which there were cases with embryo circulating in their blood was carried out. Of this number, 23 per cent. were found to be infected with filaria nocturna at various stages of development, and in one mature forms were found in the proboscis, thus showing the danger of being near infected people.

The question arises, What can be done for the prevention of filarial disease? Much has now been done and tried for the destruction of *Anopheles*, the malaria-bearing mosquito. Similar or modified methods should be carried out for all domestic mosquitos. Considering that their breeding places are confined to houses and their vicinity, this should not prove a task at all approaching in magnitude to the draining of large swamps or to treating them in other ways.

Taking Barbadoes as an example, as has already been stated, there is now a perfect water supply, and people can get their water fresh from the standpipes at their doors. Such being the case, old wells ought to be filled up; no water barrels or tubs should be allowed, or if kept they should be emptied every week or so. Tanks and collections of water in gardens should all be periodically treated with kerosene or be furnished with closely-fitting covers to prevent mosquitos getting in.

These methods are simple and inexpensive, and each householder should see that they are applied in his garden and grounds. The difficulty begins when one has to take into account the inability of the negro to grasp anything of a hygienic nature. The only way to get over this would be a system of sanitary inspection by a few competent men. For individual prophylaxis mosquito nets ought always to be used, but many, even educated, people still persist in sleeping without them; of course nothing in this line can be expected of the native population.

If such means were adopted for Barbadoes, the prevalence of filarial disease, which is at present quite alarming, could easily, with little trouble and expense, be greatly diminished, and thus save much suffering, as well as loss of time, hideous deformity, and, doubtless, in not a few instances, loss of life.

NOTE AND REFERENCES.

[1] This paper, forwarded by the Honorary Secretary of the Barbadoes Branch of the British Medical Association in reply to a request for the consideration of the resolutions re filariasis in Barbadoes passed in the Section of Tropical Diseases at the annual meeting at Cheltenham, is published by order of the Council. [2] BRITISH MEDICAL JOURNAL, June 1st, 1901. [3] *The Geology of Barbados*, Harrison and Jukes Brown, 1890.

NOTE ON MEDIA FOR DISTINGUISHING B. COLI, B. TYPHOSUS AND RELATED SPECIES.

BY

ALBERT S. GRÜNBAUM, M.A., M.D.Cantab., F.R.C.P., Ernest Hart Scholar, British Medical Association

AND

EDWARD H. HUME, B.A.Yale., M.D. Johns Hopkins, J. W. [illegible] Fellow, University [illegible] Liverpool.

(From the Thompson Yates Laboratories, Liverpool.)

IN this brief note we take cognizance only of some recently described media and dyes of which we have made and tested several combinations.

During last summer one of us (A. S. G.) made some attempts to improve on the well-known MacConkey's medium (taurocholate-lactose-agar), which is still *facile princeps* of media for this kind of work. The addition of neutral red[1] to the solid medium was tried, and it was found that B. coli could then be easily distinguished by the crimson colour of its colonies. From the time when Rothberger introduced this dye it has been used by several observers in different combinations, but not, so far as we are aware, in lactose-containing media. We see no advantage in the addition of neutral red to glucose media. Lactose, from the fact that B. coli and its congeners are the only members of the group which decompose it with the formation of gas bubbles, we consider to be an essential ingredient of these differential media.

The other of us (E. H. H.) has recently been working with v. Drigalski and Conradi's medium with satisfactory results, but it seemed worth while to try various other combinations.

We may say at once that for ordinary working purposes MacConkey's medium with neutral red seems to give the best results, but for demonstration purposes a medium containing both neutral red and "Krystall-violett"[2] gives very striking and instructive pictures. The medium recommended has the following composition:

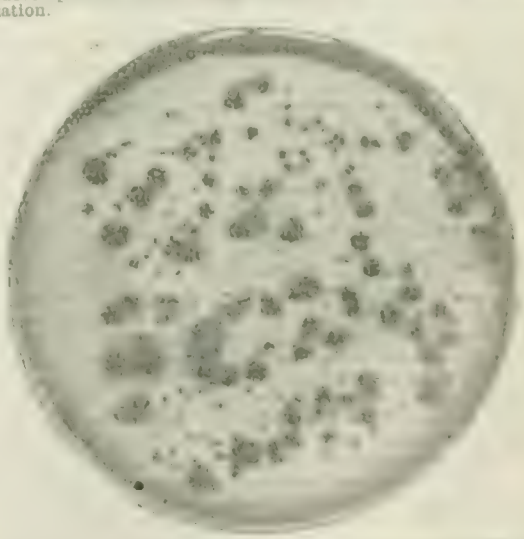
Agar	2 gram.
Peptone	2 ,,
Water	100 c.cm.

made alkaline to the extent of 0.4 c.cm. normal NaOH beyond the neutral (litmus) point.

To this when filtered and sterilized is added:

Sod. taurocholate (from ox bile)	0.5 gram.
Lactose...	1.0 ,,
Half per cent. neutral red solution	1 c.cm.

and the whole heated in the Koch's sterilizer for fifteen minutes. This avoids decomposition of the lactose; and is, nevertheless, sufficient for sterilization.



Petri dish inoculated with bacillus coli (dark colonies) and bacillus typhosus (light colonies); observe darkening of [illegible] around the colon colonies and the lightening of the same around the typhoid colonies.

The superficial inoculation of poured plates gives very good results, but the plates should not be poured until the day on which they are required. Only B. coli and other lactose fermenters (including B. pyogenes fetidus) grow as red colonies, colour the surrounding medium red and produce a

haze; all other similar forms (for example, B. typhosus, B. paracolon, etc.) are white, and colour the surrounding medium an amber or orange tint. These forms (except some strains of B. typhosus) all make milk alkaline finally, and the amber colour is probably due to a similar change.

The chief use of such a medium is, of course, for the examination of faeces, or anything—for example, water—in which the presence of intestinal bacteria is suspected. The taurocholate inhibits the growth of nearly all but intestinal bacteria, and the neutral red at once differentiates B. coli from other forms. We have tested the medium with B. coli, B. typhosus, B. enteritidis, B. pyogenes fetidus, and also with faeces, urine, and water.

"Krystall-violett" was used by v. Drigalski and Conradi for the same purpose—namely, as an inhibiting agent—as sodium taurocholate by MacConkey. We find that a lactose agar to which both neutral red and "Krystall-violett" (1-100,000) have been added, permits of a striking double stain of the colonies; B. coli is red, but B. typhosus (also B. enteritidis Gaertner, and others) are blue to purple. This effect is better seen after forty-eight than after twenty-four hours. The most typical plates are, of course, obtained when a known mixture of two bacteria—for example, B. coli and B. typhosus—is used. Very pretty results are also obtained on slant agar tubes, and neutral red lactose broth is also useful.

The appended photograph (p. 1473) shows well the difference between the (small light) typhoid colonies and the (large dark) colon colonies.

NOTES.

[1] Neutral red or toluylen-red is *as*-dimethyl-diamido-tolu-phenazin. The sample used was obtained from Grübler. [2] "Krystall-violett" is one of the commercial forms of methyl-violet—namely, a methyl-triamido-triphenyl-methane. The particular sample used was kindly sent us by the Höchster Farbwerke.

BIBLIOGRAPHY.

MacConkey, *Thompson Yates Laboratories Report*, vol. iii, Part 1, p. 41, 1901. *Centralbl. f. Bakt.*, vol. xxix, p. 740, 1901. Rothberger, *Centralbl. f. Bakt.*, vol. xxiv, p. 513, 1898. v. Drigalski and Conradi, *Zischr. f. Hygiene*, vol. xxxix, p. 283, 1902. Hume, *Thompson Yates Laboratories Report*, vol. iv, pt. 2, p. 385, 1902.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

GLUCOSE IN URINE OF LOW SPECIFIC GRAVITY.

It used to be the custom with some insurance companies not to require an examination for sugar in the urine unless the specific gravity were high. It is well known that sugar may be present in more than mere traces with a perfectly normal specific gravity, or even with one that is slightly subnormal.

In an insurance case the other day I found the specific gravity of the urine to be barely 1004 when newly passed; it rose to 1007 after it had cooled down. I was astonished to get a very marked reaction with Fehling's solution, so marked that after standing for ten or fifteen minutes there was a copious precipitate of red cupric oxide at the bottom of the tube. I confirmed this result with the safranine test, and then proceeded to the phenylhydrazine hydrochloride method, obtaining plentiful and typical crystals of glucosazone. The urine was unfortunately thrown away without my making a quantitative examination as I had intended, but there was no doubt as to the amount being very considerable. I have once before had a distinct reaction with Fehling's solution in urine with a specific gravity of 1005, but was not able on that occasion to do more than assure myself that the Fehling's solution was in good condition, and had no opportunity of confirming the presence of glucose by other tests.

Cornhill, E.C. S. W. Carruthers, M.D.

The Guy's Hospital Biennial festival of past and present students will take place in the Whitehall Rooms, Hotel Metropole, on Tuesday, July 1st, when the chair will be taken by Dr. A. L. Galabin. Applications for tickets should be made to the Honorary Secretary, Dr. G. Newton Pitt, 15, Portland Place, W.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

STOCKTON HOSPITAL.

CASE OF INTESTINAL OBSTRUCTION: ARTIFICIAL ANUS: SUBSEQUENT SHORT-CIRCUITING OF BOWEL.

(By T. Rudolph Smith, M.B., B.C.Camb., F.R.C.S.Eng.)

History and State on Examination.—M. P., aged 32, female, married, was on November 5th, 1901, rather suddenly seized with griping pain in the abdomen, and vomited. Enemata resulted in the passage of a little flatus only. On November 9th, 1901, when I first saw her, I found her in a very exhausted condition, vomiting brownish fluid frequently. The abdomen was moderately distended, and the bowels could be seen contracting during the attacks of pain. The rectum was empty and dilated; enemata returned unchanged. She was removed to the Stockton Hospital at once for operation.

Previous History.—She had had two difficult labours, terminated by forceps, the children being still born. Subsequently, two years ago, a miscarriage occurred at the third month followed by a pelvic abscess, which discharged for several months by the rectum and then cleared up. Since then she had had occasional attacks of pain with increasing difficulty in getting the bowels to act.

Operation.—Under an anaesthetic (with the assistance of Dr. Talbot) the abdomen was opened in the middle line between the pubes and umbilicus. Distended small intestine presented, and could be traced down into pelvis, where it was bound down in dense cicatricial tissue behind the uterus, which was double the normal size and very hard. Passing up from the pelvis was collapsed small intestine ending in the caecum. Her condition was so critical that the distended small gut was sewn into the abdominal wound and opened at once, a glass tube being tied in.

Progress.—For a time she improved, faeces passing freely by the opening. Then the skin became very sore all over the front of the abdomen from the irritation of the bowel contents. She was in constant pain, and lost ground steadily.

Second Operation.—December 5th, 1901. Under an anaesthetic the abdomen was opened by an incision parallel to and an inch to the right of the artificial anus. The bowel was transversely divided 2 in. above the artificial anus, and the lower cut end invaginated and sewn up. The upper cut end was then sewn into a lateral incision in the ascending colon, about 3 in. from the caecum, continuous silk sutures being used to unite the mucous coats and interrupted sutures the peritoneal coats. The patient was much collapsed all through the operation, requiring several injections of strychnine, and, finally, an intravenous saline injection.

After-Progress.—Flatus passed naturally on the second day, and the bowels acted on the fifth day. Solid food was given on the fourteenth day. The incision healed by first intention, and the skin, which was quite raw all over the abdomen at the time of operation, rapidly recovered its normal condition. In three weeks and a-half the patient returned home.

On February 12th, 1902, she had put on flesh and was free from pain, and was going about as usual. The artificial anus showed no signs of contracting. But it gave no trouble, as there was nothing but a little mucus secreted, from the exposed bowel mucous membrane. The bowels acted naturally three or four times a day; the motions were very soft, but there was no undigested food in them.

Remarks.—The second operation had to be performed under unfavourable conditions, owing to the exhaustion produced by the constant pain following the digestive action of the bowel contents on the skin of the abdomen. To prevent this absolutely became of primary importance, and therefore the bowel was completely divided above the artificial anus in preference to a lateral anastomosis. The importance of completing the operation as quickly as possible made it inadvisable to attempt to estimate accurately the length of bowel short-circuited. But judging from the present looseness of the bowels it was of considerable extent.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, June 10th, 1902.

LEPROSY IN THE SOUDAN, IN CAPE COLONY, AND IN NATAL. DR. G. A. HANSEN (Bergen), in opening the discussion on the two papers read at the last meeting of the Society, expressed his opinion that leprosy was solely contagious. From his first pathological researches he had come to the conclusion that leprosy was a specific disease which should have a specific course. Illustrations were given of foci of the disease, some of which at first sight seemed to favour the old theory of inheritance: but it was pointed out that although the disease occurred in families living together, yet it occurred as frequently in others living together but not related. As to the supposed etiology of leprosy from fish-eating, he thought that leprosy did not occur in many communities where cured fish was an ordinary article of diet. If it were so the leprosy bacillus should have been found in the fish, but that had not been done. In regard to the supposed *de novo* origin, the incubation period was not so long as had been supposed: it was probable that the disease might be existent for several years in a patient but concealed, and hence widespread infection might arise. The disease always spread along the channels of communication between peoples, even among people who ate but little fish—such a channel of communication, for example, as that over the Alps. Although as much fish as ever was being eaten in Norway yet leprosy was disappearing. From the time that isolation of lepers was enforced the diminution might be traced; this diminution in Norway had been to one-fifth. Their way of living was just as it was some fifty years ago. The cause of the spread of the cases there had been uncleanliness, leading by a certain prevalent intimacy of intercourse (as that which required hospitality to share the same bed with a guest) to contagion. Many lepers from Norway emigrated to America but there had been no spread of the disease to the children or grandchildren of these, negativing the hereditary theory. In Bergen very much fish was eaten, both fresh and cured, almost at every meal, yet there was no leprosy.

Dr. GEORGE THIN referred to the admission of Mr. Hutchinson of the contagiousness of leprosy. The case of Dr. Hawtrey Benson was in his opinion a crucial case proving its contagiousness. He showed to the Medical Society of Dublin a case of developed leprosy that had come from the West Indies. Several years after this patient's death his brother showed the disease; the two brothers had occupied the same bed, worn the same clothes, and used the same eating utensils. But this case was not an isolated case; several others were alluded to, proving its contagiousness on intimate association. In relation to the food theory, he had many years ago in China fed a leper on a diet rich in animal food without any amelioration of the disease. In one of the papers the predisposing cause was held to be lack of animal food: in the other it was considered to be due to eating a nitrogenous food. The leprosy bacillus produced so little local irritation that it was possible the actual entry of the bacillus might not attract attention; microscopically, too, there were very few inflammatory signs. It was possible that the entry of the bacilli might be by inhalation, which was supported by the symmetrical distribution of the lesions in some cases. The leprosy bacillus was shown at a Congress in Rome growing in sugar agar; but it was said that the bacilli to give cultivations must be taken during the so-called leprosy fever. As to the *de novo* theory, there were no recorded facts to show that leprosy had developed anywhere without the possibility of contagion, and as lepers had been known longer in Egypt than anywhere else, Africa was the last place to go for *de novo* cases at the present time. The fact that leprosy was not noticed among the natives did not negative its possible existence. How could the disease develop *de novo* without the bacilli developing *de novo?* The fish theory had been investigated by a Commission in India, who concluded that fish was not the cause of leprosy, and that no form of diet had any specific influence. It was to be hoped that even now some measures might be commenced to mitigate the disease of leprosy in India, in the way of segregation especially.

Dr. HANSEN considered that the disease was probably introduced through the skin. There was slow development, but little irritation, and often neglect of his condition on the part of the patient. The antiseptic action of the gastric juice would probably prevent infection through the stomach.

Dr. PATRICK MANSON acknowledged himself as a contagionist. The spread of the disease was comparable to that of tuberculosis, only it was more difficult. The staining characters of the bacilli in each disease were similar; the difficulty in cultivation was great in the case of tubercle and almost insurmountable in the case of leprosy; the channel of introduction of either was obscure. The difficulty in accepting the fish theory was very great—it was not definitely stated, however, whether the fish eaten contained the bacilli or that it merely lowered the bodily resistance. It was allowed that much fish-eating might not be associated with leprosy. It was an acute observation that leprosy was a disease of an intermediate stage of civilization between the savage and the fully civilized man; the same applied to tuberculosis. No reference was made in the first paper as to whether the Soudanese ate fish, fresh or dried—the negroes probably did not use salt fish. The dietetic theories were neither of them conclusive. Beri-beri had itself been attributed to a defect in the nitrogenous elements of food: it was a favourite scapegoat. The two were concurrences, not cause and effect. The occurrence of ainhum had been held to be a manifestation of leprosy, but in his experience this was not so. Was the elimination of a fish diet in Robin Island followed by a greater curability of the disease? In many cases of leprosy which he had seen the first lesion was asymmetrical, and there was no evidence of a constitutional disease. The Principal Medical Officer of Ceylon had recently told him that the Dutch prisoners in Ceylon had succeeded in cultivating the leprosy bacillus in a fish broth: if this were true it was an argument in favour of the fish theory. The germ of disease was probably in the remote geological past, and had been evolved from those times in remote ancestors. The obstacles in the way of ameliorating leprosy in India were almost insuperable from the ignorance of a lay public. The mode of entrance of the leprosy germ, as was suggested in Dr. Tonkin's paper, was very likely by the use of infected clothing and bed linen. But the spread of leprosy probably depended on a multiplication of opportunities, among which by the fortuitous concurrence of certain necessary but rarely recurring conditions the disease alone became implanted. Hence the difficulty of propagation of the disease. It was well known that malarial infection was through the skin, it was probable that the large parasite of ankylostomiasis similarly entered through the skin, and it could easily be understood how that the minute bacillus of leprosy might likewise gain entry through the skin.

Sir WILLIAM R. KYNSEY said the use of dried fish in Ceylon was almost universal both as a staple food and as a condiment. The importation of dried fish into Ceylon was enormous, the greater part going up country. Leprosy was almost unknown inland, but was prevalent in certain foci along the coast, where fresh fish was obtainable. In several instances of single cases of leprosy in a family the patients had been wet-nursed, but he had not been able to ascertain whether the nurses were leprous. It was suggested that the bacilli might be in the milk. In several instances it seemed that leprosy was associated with vaccination.

Dr. HANSEN said that in Norway there was no evidence either of the association of leprosy with vaccination or of the occurrence of leprosy bacilli in human milk.

Sir LAUDER BRUNTON had seen many cases of leprosy at Jerusalem which resembled very much syphilitic cases. It might be possible that in cases of leprosy there might be a mixed infection. It was probable, indeed, that infection depended both on the bacillus and on a special susceptibility; such susceptibility might depend on many factors, of which one not unlikely was imperfect feeding, as in the case of tuberculosis. Professor Unna had found that if any oxidizing substance, such as pyrogallic acid, were applied to a leprous sore it was made much worse, but he also found that this could be counteracted by making the blood less alkaline; therefore it might be that by rendering the blood less alka-

line, not by hydrochloric acid (as Professor Unna found), but by giving nitrogenous food. even if it were only leguminous, the disease might be stayed. The ground nut in the Soudan, one of the legum inosae, might supply the necessary nitrogenous element for the Soudanese. If people ate a great amount of fish they would probably eat less of other food; this fish might act either by replacing flesh food, or by itself giving a substance to the blood, such as trimethylamine present in herring brine, which would favour the growth of the organism.

Dr. T. M. YOUNG had seen much leprosy in Siberia, China, India, and the West Coast of Africa, and had been struck by the active motility of the leprosy bacillus, suggesting a life-history outside the human body, possibly in salted fish. He had not found the leprosy bacillus so numerous in the leprous sores as in the deeper connective tissues. It was probable that the bacillus lived in the living tissues and not in the tissues being cast off. The eating of the different forms of fish did not correspond with the distribution of leprosy.

Dr. G. A. HERON had served on a committee ten years ago with Mr. Hutchinson to consider the findings of the Leprosy Commission. As Mr. Hutchinson had adopted the theory that leprosy was a communicable disease it was surely not necessary to adhere to the fish-eating theory, every part of which was indeed pure theory. The crucial test would be the finding of the leprosy bacilli in dried fish in the laboratory. Alluding to the Report of the Committee on the Leprosy Commission—out of 464 lepers 99 had never tasted fish; 162 lepers in asylums scattered all over India had not eaten fish—some of these came from high up in the Himalayas, and several had never seen fish. Of 200 lepers examined by the Commission 39 habitually, 57 occasionally, 58 seldom, and 46 never ate fish. All the arguments in the paper more strongly supported the contagion theory than the salt fish theory.

Dr. ALFRED HILLIER had seen much leprosy in Africa, both in the south and north. The exclusion of fresh fish as a factor seemed, in his opinion, rather against the fish theory. The fact that a leprous patient said he had never seen a case of the disease before had not much significance, as the malady was easily overlooked and often disregarded. The communicability of leprosy by contaminated food was quite understandable. Eating of salt fish was prevalent in certain parts of the home country, and yet there was no leprosy. Leprosy had all over the world vanished with the spread of sanitary conditions.

Dr. TONKIN and Mr. HUTCHINSON replied.

ATELEIOSIS.

Mr. HASTINGS GILFORD communicated a paper on this subject, a disease characterized by conspicuous delay in the processes of growth and development, which was read by the SENIOR SECRETARY.

OBSTETRICAL SOCIETY OF LONDON.

PETER HORROCKS, M.D., President, in the Chair.

Wednesday, June 4th, 1902.

PREGNANCY AFTER REMOVAL OF BOTH OVARIES FOR CYSTIC TUMOUR.

MR. ALBAN DORAN read a paper on this subject.

A woman, aged 25, after bearing one child, underwent ovariotomy for a multilocular adenomatous cystic tumour of the left ovary. She then bore four more children, and afterwards, when 39 years of age, came under the author's care, and he removed a similar tumour of the right ovary. The base required enucleation, part of the capsule was ligatured like a pedicle with silk, and the greater portion cut away, but in that part no trace of the Fallopian tube could be detected. A small tubercle on the left of the uterus was the sole remnant of the left appendages. After convalescence the period recurred, and continued till the patient became pregnant, and bore a child at term two years after the operation. The period then returned, and ceased abruptly when the patient was 45. The consequent menopause symptoms were distinct, though mild.

The author briefly reviewed a few cases, already reported, where pregnancy ensued after removal of both ovaries for tumour or chronic inflammatory disease. (1) Schatz. Both ovaries removed for cystic tumour; one tube and a piece of ovarian tissue were purposely left behind. Five years later the patient gave birth to a child at term. (2) Stansbury Sutton, Pittsburgh, U.S. Both ovaries removed for cystic disease; right pedicle severed by cautery, left by scissors. Patient twice pregnant afterwards. (3) Gordon, Portland, Maine, U.S. Removed both tubes and ovaries for inflammatory disease; patient delivered of a child two years later. Other reported cases were doubtful. The presence of ovarian tissue was essential in these cases. In the author's case it was probably a detached area lying in the right ovarian ligament; the cyst itself was certainly enucleated entire. The author suspected that the Fallopian tube escaped ligature and removal altogether, the base of the tumour being enucleated from the posterior layer of the broad ligament. The condition after operation would then be as in Schatz's case, the tube remaining entire. It was not absolutely certain, however, that the tube was not included in the ligature, and in part removed. This occurred in Stanbury Sutton's and Gordon's cases, and reference was made to a case where pregnancy occurred after Caesarean section and ligature of both tubes with silkworm gut for "sterilization" (Galabin-Horrocks). The ligature might either loosen or perhaps ulcerate through the tube, that managed to heal behind it without stricture of its canal. The tube might then resume its functions, even if reduced to a stump.

MR. BLAND-SUTTON observed that Mr. Doran's interesting communication really raised two important questions for consideration, namely, the occurrence of pregnancy after double ovariotomy and the effect of a ligature on the continuity of the lumen of a Fallopian tube. Probably no one in England had studied so closely the "fate of the ligature" after successful ovariotomy as Mr. Doran, and he certainly was the first to study the changes which took place in the stump of the pedicle after intraperitoneal ligature. It was now quite certain that when a Fallopian tube was ligatured, in continuity, it did not necessarily permanently obliterate the tubal lumen. In his Caesarean section for pelvic contraction, Mr. Bland-Sutton in 1891 tied the Fallopian tubes with thin silk within an inch of the uterus; this patient had remained sterile. On a subsequent occasion where it was deemed prudent to induce labour for uncontrollable vomiting and epileptic seizures, an attempt was made to sterilize the patient by drawing out each tube and transfixing the mesosalpinx with a needle armed with thin silk, and then tightly tying the tube near its middle. This failed, for the patient quickly conceived again, and had reconceived many times, though her constitutional condition had never allowed a pregnancy to go to term. Since this experience, Mr. Bland-Sutton had always tied the tubes in two places, and exsected a piece of the tube when it was desirable to sterilize a patient. Mr. Doran's suggestion that "the ligature may perhaps ulcerate through the tube, which then healed behind it without stricture of its canal" was probably true, and the following case in a measure supported it. In 1898 Mr. Bland-Sutton removed an ovarian cyst; its very slender pedicle was tied with thin silk. Although recovery was uneventful, the patient complained during many weeks of cramp-like pain on the side from which the cyst had been removed. The pains gradually passed away, and ten months later during menstruation the patient accidentally noticed on her napkin a tiny loop of silk which she saved. This was the loop of silk used to secure the Fallopian tube; it had ulcerated into the tube and had been very slowly conducted into the uterus and so escaped. A silk ligature applied to the cut end of a ureter in the course of a nephrectomy is sometimes conveyed to the bladder in the same manner. Mr. Bland-Sutton was glad to have the opportunity of stating that the opinion he expressed to the Society in 1892 had not been borne out by subsequent experience and it was now abundantly clear to all, that the mere application of a silk ligature to the Fallopian tubes could not be depended upon to permanently obliterate their lumina and thus prove an obstacle to pregnancy.

DR. GALABIN said that he had met with two cases in which the attempt to sterilize by tying the Fallopian tubes had failed, and which were those referred to by the author. In that in which Dr. John Shaw had tied the Fallopian tubes with silk-worm gut in performing Caesarean section, it was certain that the ovum had passed by the tube on which the ligature appeared to remain *in situ*; for on the side on which the ligature had cut through, and the tube was divided, the divided ends were absolutely closed. In the second case, he had himself in performing Caesarean section tied the tubes with kangaroo tendon, and the patient became pregnant again within a year or so. Taught by the experience of these cases, he had since then adopted the plan of cutting a piece out of the tubes between two ligatures, then pulling out the stump

on each side, as far as possible and cutting it off, so that the open lumen was left at the bottom of an inverted cone of cellular tissue. None of the patients so treated had become pregnant again, and he was inclined so far to regard this as a reliable method.

Mr. BUTLER-SMYTHE asked Dr. Herbert Spencer if he could give any information relative to the pregnancies of Mr. Bland-Sutton's patient? She had attended the Samaritan Hospital and stated that subsequent to the operation she had twice miscarried with twins, which rather surprised her, inasmuch as all her previous pregnancies had been single. He also wished to know if the fits had been benefited by the operation.

The PRESIDENT had expected to hear a hot discussion on how pregnancy could have taken place when both ovaries had had been removed. But Mr. Doran had frankly admitted that a piece of ovarian tissue had been left behind at the second operation, so that there was nothing strange about the case. He was surprised to hear Mr. Doran advocate the removal of both ovaries entire, when it was possible to leave a healthy piece. He thought it better to leave some ovary whenever possible.

Dr. AMAND ROUTH thought that sufficient cases could now be collected to explain the occasional occurrence of menstruation and ovulation after double ovariotomy, and he observed that in most of the reported cases a latent period of a few months or ever years elapsed before menstruation again appeared. He thought it likely that a small piece of the hilum of one ovary might be left, containing no Graafian follicles sufficiently developed to come immediately to maturity. He believed that such a piece of ovarian stroma, together with the follicles, became in a few months further developed, and ovulation and menstruation then recurred.

Dr. BOXALL remarked on the impossibility of making absolutely sure that sterility would necessarily result from ligature of the Fallopian tubes. The importance of the question often arose when operation was undertaken and the tubes were at the same time ligatured with the object of rendering the woman sterile; but might also arise when, from disease of the appendages, operation was indicated. For instance, he had recently met with a case in which, owing to long-continued and recurrent attacks of inflammation, it became necessary to urge surgical interference with the appendages. To this procedure objection was raised both by the patient and her husband solely on the ground that complete removal of the appendages would entail sterility. In that event, cohabitation would be forbidden by their Church. Eventually the symptoms became so urgent that operation was rendered imperative. Fortunately it was found possible to retain a healthy part of one ovary, in consequence of which the menses had not been discontinued. And notwithstanding that the greater part of both tubes, as well as one ovary and part of the other were of necessity removed, no occasion arose for the separation, which they both so much dreaded, for it was possible to assure them that impregnation was not, by the operation at any rate, put beyond the bounds of possibility.

The paper was also discussed by Dr. HERBERT SPENCER and Dr. JAPP SINCLAIR.

Mr. ALBAN DORAN, in replying, said he was much interested in the discussion on attempts to sterilize a patient by tying or cutting the Fallopian tubes. He believed that in his own case a trace of healthy (not cystic) ovarian tissue was left in the right ovarian ligament. It was easy to extirpate all ovarian tissue when the ovaries were taken away with the uterus, and not difficult when a pedunculated ovarian cyst was removed, as the ovarian ligament was elongated and very prominent. But when the base of the cyst burrowed and lay close against the uterus, the ovarian ligament could rarely be distinguished. In one case, where Mr. Doran was obliged to remove the uterus with the burrowing adherent tumour, he found on examining the specimen that it would have been practically impossible to leave the round ligament or part of a pedicle without leaving also ovarian tissue, morbid or healthy. As it was with a cystic tumour so it was with inflamed adherent appendages, and so it very often was with an ovary removed to check the growth of a uterine fibroid. In all these cases the operator dared not cut the pedicle sufficiently short to remove all ovarian tissue, for he knew that if he did so the ligature would probably slip. Hence it was not very hard to understand that in some cases menstruation, or even pregnancy, occurred after removal of both ovaries. In his own case the ovarian ligament with some healthy tissue had probably been flattened against the uterus, and had thus escaped the ligature. After-histories of all abdominal operations were valuable, especially as to the fate of ligatures, which were shed sometimes eight or ten years after they had been applied.

PRIMARY OVARIAN GESTATION.

Mr. MAYO ROBSON contributed a short communication on a case of primary ovarian gestation. He pointed out that, though he had operated on about 50 cases of extrauterine gestation, the present specimen was the only one of the series in which he had been able to prove primary ovarian gestation. Doubtless many of the cases described previously as ovarian pregnancy had been of that nature, but this was apparently only the fourth case in which absolute proof had been furnished by showing an early embryo in its membranes, and contained in a sac in the ovary.

Martha C., aged 24, was admitted to the Leeds General Infirmary on April 11th, 1902, in a state of profound collapse. *History:* She stated that on the previous night, six weeks after her last menstrual period and a fortnight after missing her menses, she was seized with a sudden pain in the right side while engaged in blackleading a grate. She became very faint and pallid, and soon vomited. She was put to bed, but the pain continued during the night, and was much worse next morning. The pallor also increased. She was seen by her doctor (Dr. H. Towers), who diagnosed extrauterine gestation, and advised her removal to the infirmary. She said she was a married woman but had never had any children, and her husband had been abroad for some months. On admission the patient was very pale indeed: temperature 95°, pulse 130, respirations 48. She complained of pain on the right of the abdomen, which was distended and did not move on respiration. It was very tense and tender, rendering palpation difficult, but a fluid thrill could be obtained on flicking with the finger. No tumour could be felt. Examined per vaginam, the uterus was found to be fixed, and Douglas's pouch was prominent. There was no history of bloody discharges from the vagina. A diagnosis of ruptured extrauterine gestation was confirmed, and immediate operation advised. The patient was wrapped in warm blankets and taken to the theatre, where she was put upon a heated operating table and anaesthetized with ether. The skin of the abdomen was then quickly washed and purified, and a vertical incision made above the pubes. When the peritoneum was opened there was a sudden gush of blood and clot. The right appendage was at once seized and clamped as bleeding was going on, but before it could be brought to the surface it was necessary to detach the Fallopian tube, which was firmly adherent to the bottom of Douglas's pouch, the ovary projecting above the tube to which it was not adherent in any way. On the top of the ovary there was a firm mass surrounded by clot, and on lifting this from the ovary a cavity was found in the ovary itself, into which the small ovum would easily fit. The left ovary and tube were examined and found to be healthy. The mesometrium was then transfixed, and the tube and ovary removed after ligature.

For the following description of the specimen, which was in the Royal College of Surgeons Museum, thanks were due to Mr. S. G. Shattock:—"The parts removed are those of an ovarian pregnancy. They comprise the fimbriated end of the right Fallopian tube, the ovary and the ovum partly surrounded by and embedded in recent blood clot. Connected with the fimbriated extremity of the tube are two small pedunculated cysts, the larger about half an inch in diameter. The ostium is crossed by a thin membranous band of adhesion beneath which a black bristle has been passed. The tube was firmly adherent to the bottom of Douglas's pouch and quite free of the ovary, the highest part of which projected above its level. At the inner pole of the ovary is a partly collapsed cavity about three-quarters of an inch in diameter. This cavity is widely open through a sharply-defined semicircular rent of recent origin: in the thin summit of the lid-like portion there is a second narrow, less regular slit half an inch in length. Over the cavity in the ovary lay the lens-like recent clot, which is mounted separately in the preparation. The clot is about an inch and a quarter in diameter, and of concavo convex form, in its concavity, partly embedded in it and partly free, there lies a villous chorional sac. The sac has been opened in the right half of the clot and the membranes everted: connected with the everted membranes there is displayed a minute embryo about 4 mm. in length." From the position of the right tube, the fimbriated extremity of which was firmly fixed to the bottom of the pouch of Douglas, leaving the ovary free above it, it seemed probable that the spermatozoa must have reached the right ovary through the healthy left tube.—The case was discussed by the PRESIDENT and Mr. ALBAN DORAN.

SPECIMENS

Dr. ARNOLD W. W. LEA showed a rare type of malignant ovarian

tumour, and Dr. Lockyer brought forward a uterus, which showed rapidly growing epithelioma of the cervix.—Specimens of extrauterine gestation were shown by the President and Dr. Williamson.—Dr. Lewers having demonstrated some sections of cancer of the cervix, in which from four to fifteen years had elapsed without recurrence, the subject was discussed by the President, Dr. William Duncan, Dr. Boxall, and Mr. Mayo Robson.

Epidemiological Society.—At the meeting of this Society, held on May 30th, Mr. Shirley Murphy in the chair, papers were read by Mr. Murphy and Dr. Klein on an obscure case supposed to have been one of haemorrhagic small-pox that occurred in December, 1901, in the person of a nurse from a home near the Strand. Dr. Klein's account of his bacteriological examination of the blood was illustrated by lantern slides. Film specimens, and plate cultures showed: (1) The diplococcus pneumoniae in abundance, and (2) a few individuals or colonies of a new bipolar bacillus morphologically closely resembling that of plague, but differing wholly in the culture appearances, which were not unlike those of Friedländer's bacillus. It was virulent subcutaneously to mice, intraperitoneally only to guinea-pigs, and not at all to rats. From the slime with which it was surrounded he suggested the name of B. myxoides for this hitherto undescribed form. In the absence of any evidence of small-pox infection, he considered the presence of two pathogenic bacteria, indeed, that of the enormous numbers of the D. pneumoniae alone, sufficient to account for all the phenomena of the case. Again, sections of the skin showed haemorrhages into the lymph channels and corium with pneumococci, but no trace of the changes in the epidermis, or of the formation of loculi, characteristic of variola, although the fourth day had been already reached. As a bacteriologist and microscopist only he was by no means inclined to the diagnosis of small-pox.—Sir H. Beevor insisted on the highly insanitary state of the house as a fact in favour of a septic causation. The vaccinations of the other nurses in the house had been performed too late, yet intensely infectious as was haemorrhagic small-pox, no one had been attacked, though many of them had not been vaccinated for fifteen, twenty, or more years.—Dr. Spicer was also doubtful, and called attention to the black vomit, the bloody stools, and vaginal discharge.—Dr. W. H. Hamer, who believed that the case was one of haemorrhagic small-pox, attached little importance to the non-appearance of eruption: and Dr. E. F. Willoughby referred to a case that came under his notice in 1870 or 1871, in which after eight days, during which the attack had been taken for one of acute meningitis, the appearance of a copious eruption was followed by relief of all the symptoms.—Dr. E. W. Goodall saw nothing in the phenomena inconsistent with the diagnosis of haemorrhagic small-pox, but believed that many cases so regarded were simply mixed septic infections.—Dr. Bulstrode thought that this case resembled those of haemorrhagic plague described by Boyden, but Dr. Meredith Richards objected that the distribution of the eruption in three cases of plague that he had seen, was quite different from that in those of haemorrhagic small-pox though in the former death occurred before any adenitis appeared, and in one at least of the latter before the few papules had time to become pustular. The only difficulty to him was that so infectious a disease as haemorrhagic small-pox had not spread.—After some further discussion Dr. Klein replied. He could not accept the view that the haemorrhagic type of small-pox was essentially the product of a mixed infection, though he admitted that a multitude of various bacteria were present in all cases of small-pox: there were malignant fevers due entirely to a mixed infection in which pneumococci predominated. Captain Leonard Rogers, M.D., I.M.S. sent a contribution on an outbreak of syphilis in a small isolated community of Khonds, among whom it appeared to have been introduced about twenty years ago, and to have spread unchecked by medical treatment of any kind, and favoured by the low standard of morals, the overcrowding and want of cleanliness, until, when the famine operations brought this obscure tribe under the notice of the authorities, considerably more than half the population of both sexes and all ages were found to be suffering from the disease and its sequelae in every stage from the primary infection to the remotest tertiary symptoms, and in either the acquired or the congenital forms.

REVIEWS.

PHYSIOLOGY.

Some time ago we were able to speak favourably of the first part of a work on the inorganic salts of the human organism, by Dr. Richard Brasch. The work is completed in a second and third part on *Oxidation Processes and Sources of Energy in the Human Body*.[1] It is a little difficult to see why the main title of the book is applicable here, for the principal materials that are oxidised and undergo metabolism in the body are not inorganic. The subject is treated in a suggestive manner, and the author points out how the modern discoveries of physical chemistry can be applied to the elucidation of metabolic processes, both in health and disease. He seeks to show that the doctrine of conservation of energy can be applied to the problems of chemical changes *intra vitam*, and the exact work of Rubner has certainly done much in this direction already. We think Dr. Brasch goes too far when he assumes that the complex iron-containing organic materials which carry oxygen in the blood can be treated in chemical formulae as though they were simple oxides or hydrates of iron, and in this and in other directions also much more work is necessary before we can see the full bearings of a comparatively new branch of science—physical chemistry—upon the subject of physiological chemistry.

We noticed Dr. Oppenheimer's work on ferments when it originally appeared in German. The translation now before us, which has been ably carried out by Mr. Ainsworth Mitchell,[2] will render it more accessible to English readers. The mass of material treated is immense, and it is only when such a book is consulted that it is possible to realise how numerous ferments are, and for how much they are responsible. As the book is a small one, there is of necessity much compression, so that it will be mainly useful for the numerous references to the extensive literature of the subject which it gives. With few exceptions, these are confined to German writers. The translator has added to the text the results of various investigations which have been made since the German edition appeared. He calls particular attention to the work of Kastle and Loevenhart on the reversible action of enzymes, which was first discovered by Croft Hill in the case of malt diastase. This, as he says, will probably lead Dr. Oppenheimer to modify his assertion that a ferment can never affect a synthetic process. On the subject of blood coagulation there is still only the short paragraph which we noted in our review of the German original. We would suggest both to the author and translator the necessity for expanding this portion of the subject. It is true that our knowledge of this phenomenon is not so exact as would be desired; it is, nevertheless, one of importance, and one which a physiologist will naturally look for in a work upon ferment actions. We imagine that physiologists rather than chemists will be those to whom the book will prove most useful. After reading the book, one cannot help comparing it with that on the same subject from the pen of Professor Reynolds Green. The latter appears to us to be the more complete and more philosophically written of the two. It is certainly much more interesting, and that is a by no means unimportant factor in a textbook.

Dr. Rudolf, who has carried out a series of experimental observations on the influence of gravity on the circulation, and on the causation of chloroform poisoning, has published the results in a small volume, entitled, *Observations on Blood Pressure*.[3] The experiments have been carefully done, and confirm the previous researches of Mr. Leonard Hill, Professor MacWilliam, and others. Dr. Rudolf confirms the opinion of Professor Hobday that hydrocyanic acid in suit-

[1] *Die Anorganischen Salze im Menschlichen Organismus. Zweite und dritte Abtheilung: Die Oxydationsprozesse und die Energetik im Menschlichen Organismus.* Von Dr. Richard Brasch. Wiesbaden: S. F. Bergmann; and Glasgow: F. Bauermeister. 1901. (Royal 8vo, pp. 202. 5s.)

[2] *Ferments and their Actions.* By Carl Oppenheimer, M.D., Ph.D. Translated from the German by C. Ainsworth Mitchell, B.A., F.I.C. London: C. Griffin and Co. 1901. (Crown 8vo, pp. 356. 7s. 6d.)

[3] *Observations on Blood Pressure.* By R. D. Rudolf, M.D., M.R.C.P. University of Toronto Studies. Toronto: University Library. 1901. (Roy. 8vo, pp. 50. 4 illustrations).

able doses stimulates the respiration and heart in cases of chloroform poisoning.

The second volume of what is generally called the American *Textbook of Physiology*[4] has appeared. We had occasion to review the first volume of the present (second) edition about a year ago, and there is now little to add to what was said then. The best American physiologists have collaborated to produce the work before us, and the aim of the book is to cater for the advanced student rather than for the specialist in physiology. The articles are therefore not quite of the same calibre as in the corresponding work produced by British physiologists under the editorship of Professor Schäfer. Nevertheless the American *Textbook* is one of which American physiology may well be proud. The second volume relates almost entirely to the muscular and nervous systems; the only exception to this is the concluding article, an exceedingly interesting and thoughful essay on the Physiology of Reproduction and Heredity, by Dr. F. S. Lee. The authors and titles of the remaining chapters are, Muscle and Nerve, by Professor Warren Lombard; Central Nervous System, by Professor H. H. Donaldson; Vision, by Professor H. P. Bowditch; and the other Special Senses, by Professor Sewall.

Truly of the making of books there is no end; this ancient remark is more true to-day than when it was originally written. Professor RAYMOND'S *Human Physiology*[5] is perhaps an illustration of the fact that a good many unnecessary ones are written. It would be difficult to point out any mistakes in Professor Raymond's work, except a few of a trivial nature, but an ability to make clever compilations from other well-known textbooks is no justification for the appearance of a new one. To any one acquainted with the most widely read of our numerous textbooks on physiology, it is quite easy to trace the sources of Professor Raymond's inspiration. The order in which the subjects are treated, and the sequence of ideas is the same, the only difference is that the statements are paraphrased; every here and there where perhaps it would be difficult to state the facts in other words sentences are transferred bodily, but the author is always careful in such cases to use inverted commas, and acknowledge the source of the quotation. Several of the chapters are nothing more than abstracts of the articles which have appeared in Schäfer's textbook. The fact that this is to a certain extent acknowledged does not interfere with our main argument that such a method of book-making is unjustifiable. It must, of course, be freely admitted that there is no physiologist living who is equally acquainted with all branches of his subject, and when he writes a student's textbook he must therefore borrow, and borrow largely, from the writings of his colleagues. But Professor Raymond borrows skilfully and impartially in all cases. What is true for the text is equally true for the illustrations. Among the large number given we have failed to discover a single one which is original: they have been transferred wholesale from well-known sources, and the fact that they have been carefully selected, and the further fact that due acknowledgement is always made redounds but little in favour of the author. So far as we know, Professor Raymond as an original worker is entirely unknown. He may be an excellent teacher; he is certainly a clever abstractor, but surely no one who is not an actual maker of natural knowledge is justified in becoming a writer of books. Reading between the lines it is quite easy to see that the author has but little real acquaintance with the practical side of his subject: and more than this he is not even familiar with physiological literature except through textbooks. This leads him into curious mistakes: for instance he attributes to Schäfer the work on blood coagulation which we owe to Hammarstein's researches, apparently because an article on that subject has been written by Professor Schäfer in his large textbook; and he gives Chittenden the credit of work on uric acid which was done by Burian and Schur, on the strength of an address on uric acid metabolism recently given by Professor Chittenden to a medical society. We have every desire to be perfectly fair to Professor Raymond, and we admit that he treats the subject of diet and alcohol with great fullness and has evidently carefully studied the writings of Atwater and his colleagues on this branch of the subject. But on the principle that one swallow does not make a summer, so one spark of originality does not excuse the preparation of a book such as this. We have felt it our duty to condemn this book, and can only hope that our remarks may make other authors hesitate when they contemplate the perpetration of similar work. It is to be feared, however, that it is almost hopeless to expect the accomplishment of this wish.

The author of a *Digest of Human Physiology*[6] now before us states in his preface that his work, although "small in bulk, is a perfect store of information in most accessible and comprehensive form." "He heartily commends the work *per se* to the attention of medical and scientific students, and wish (*sic*) that it may speedily become popular." "He does not like to omit the opportunity of expressing his sincere gratitude and warm affection with high esteem encentred in his heart for his uncle." "He has gained his information from leading textbooks and monographs, such as Londois Stirling, Gower, Feriar, Byron Bramwell." The arrangement of the text is that of an examination cram-book. In the text we find such extraordinary statements as the following: "If you shake the arterial blood in the air it becomes venous, because O is given off; therefore it is in the loose combination. This does not occur with venous blood." The unfortunate student who reads this book will learn about oesofagus, monometer fosciculi, congoined roots. He will see a strange figure of an intracardiac pressure curve, and learn many things which are peculiar to the physiology of the author. Allowance might well be made for the errors of the printers in India, but not for the numerous errors in physiological knowledge which must be attributed to Dr. Varis.

Dr. KOBERT has published recently a small volume containing an exact account of the crystalline products which can be prepared from blood.[7] As a reference book for the physiologist and the medical jurist, this work will be of considerable value. Dr. Kobert upholds the view that crystals formed by adding ether to blood consist of arterin, a complex of haemoglobin and stroma. When blood is baked the arterin separates into stroma and oxyhaemoglobin. Arterin crystals are not changed by hydrogen peroxide, but cause decomposition of the peroxide. On the other hand, haemoglobin crystals are changed into methaemoglobin by hydrogen peroxide. He describes the peculiar-shaped arterin (haemoglobin) crystals which have been recently prepared by Schwantke from pigeon's blood. In case of poisoning by potassium chlorate, when the haemoglobin becomes changed into methaemoglobin, Dr. Kobert points out the importance of rendering the methaemoglobin alkaline, for alkaline methaemoglobin easily changes over into oxyhaemoglobin. Alkaline methaemoglobin is of a beautiful red colour. In treating of haematin, Dr. Kobert points out that neutral haematin is red in colour, and that the modern methods of preserving the colour in museum specimens change haemoglobin into neutral haematin. Dr. Kobert is unaware of Haldane's researches which show that photohaemoglobin is the same thing as cyanhaemoglobin. Examining haemin crystals obtained from every kind of blood, vertebrate and invertebrate, the author finds no difference in the shape of the crystals. Haemin can be prepared with chloride, bromide, or iodide, but not with fluoride of sodium. Haemin crystals can be prepared from as little as 0.025 milligram of blood; they can be obtained from the chick embryo on the fourth day of incubation, and from the excreta of flies and mosquitos which have fed on blood. Dr. Kobert gives a list of the reagents which prevent the obtaining of haemin crystals from blood. He obtained the crystals from a corpse 40 years old, but not from mummies.

[4] *A Textbook of Physiology.* Edited by William H. Howell, Professor of Physiology in the Johns Hopkins University, Baltimore. Second Edition. Vol. ii. London and Philadelphia: W. B. Saunders and Co. 1901. (Roy. 8vo, pp. 553. 220 figures. 17s.)

[5] *Human Physiology, prepared with Special Reference to Students of Medicine.* By Joseph Howard Raymond, A.M., M.D., Professor of Physiology and Hygiene in the Long Island College Hospital and Director of Physiology in the Hoagland Laboratory, New York City. Second edition. Philadelphia and London: W. B. Saunders and Co. 1901. (Demy 8vo, pp. 668; 443 illustrations, some in colour, and 4 lithographic plates. 15s.)

[6] *Digest of Human Physiology.* By S. M. Varis, M.B., C.M.Edin. Madras: Addison and Co. 1901. (Demy 8vo, pp. 388, 48 illustrations. Rs. 5.8.)

[7] *Das Wirbeltierblut in Mikrokristello-graphischer Hinsicht.* Von Dr H. U. Kobert. Stuttgart: F. Enke. 1901. (Royal 8vo, pp. 118, 26 illustrations.)

Nencki's acetone and Wachholtz's alcohol methods of preparing haemin are described. Haemochromogen, Dr. Kobert states, cannot be reduced alkaline haematin. Haematin is a ferri-compound and haemochromogen a ferro-compound. Haemochromogen crystals are obtained by adding pyridin to defibrinated blood. The book includes an account of haematoporphyrin, haematoidin. Charcot-Leyden's crystals, Florence's sperma crystals, and some peculiar crystals which are sometimes produced by hardening bodies in formol.

The volume of *Studies in Physiological Chemistry*,[3] edited by Professor CHITTENDEN is one of a series in course of preparation by the Professors of Yale University in connexion with its bicentennial anniversary. It contains twenty-four papers, reprints of the more important studies issued from the Laboratory of Physiological Chemistry of the Sheffield Scientific School of the University during the years 1897-1900. The publication reflects great credit on Professor Chittenden and his coadjutors. The editor is himself the author of a large number of these papers, but other names that figure largely are those of Dr. L. B. Mendel and Dr. Y. Henderson. Professor Chittenden is well known as one of the most fruitful workers on the subject of the proteids and their allies, and the majority of the articles in the publication before us are concerned with this subject. Students of physiological literature will be familiar with all of them; they have been published either in the *American Journal of Physiology* or in the *Journal of Experimental Medicine*. It is, however, convenient to have them collected together in a separate volume, and all will repay careful study. The book furnishes evidence of great activity in Professor Chittenden's laboratory, and we congratulate him on being able to issue such a valuable collection of original memoirs.

Professor HALLIBURTON has added new sections to the fourth edition of his popular class book of *Chemical Physiology*[4] relating to the chemistry of nervous tissues and of the purin compounds, and written an interesting sketch of the difficult subject, "Osmosis." In the section on uric acid a reference to the important work of Burian on the Exogenous and Endogenous formation of Uric Acid has, probably owing to an oversight, been omitted. In the description of Johnson's Method of Estimation of Creatinine the author states that "the method may be hastened by boiling the first filtrate for ten minutes." If this be done, however, will not the filtrate go black from decomposition of the mercurial salt of creatinine?

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Cascara Evacuant.—This is a preparation of cascara sagrada introduced by Messrs. Parke, Davis, and Co. (Queen Victoria Street, E.C.). It is a liquid miscible with water; it contains aromatics, and is rather strongly flavoured. In its preparation they claim to employ an improved process for separating the laxative tasteless glucoside from the bitter principle without using alkalies. If this be really the case, we should think that a more delicately-flavoured article would be more acceptable to those who take the drug regularly. The adult dose is 5 to 20 minims.

GLASGOW SOUTHERN MEDICAL SOCIETY.—At a meeting of this Society on May 29th, Dr. JOHN STEWART, the President, being in the chair, Dr. ARCHIBALD YOUNG gave an interesting address on his experiences as a civil surgeon with the troops in South Africa. He gave a detailed account of numerous surgical cases that came under his treatment. The lecture was illustrated by a large number of lantern slides.

[3] *Studies in Physiological Chemistry.* Edited by R. H. Chittenden, Ph.D. New York: Charles Scribner's Sons; London: Edward Arnold. 1901. (Demy 8vo, pp. 424. 12s.)

[4] *The Essentials of Chemical Physiology.* By Professor W. Halliburton, M.D., F.R.S. Fourth Edition. London: Longmans, Green and Co. 1901. (Demy 8vo, pp. 230, 83 illustrations. 5s.)

THE MIDWIVES BILL.

THE REPORT STAGE IN THE HOUSE OF COMMONS.

THE Midwives Bill, as amended by the Standing Committee, came up on report stage on Friday, June 6th, for consideration. The Parliamentary Order Paper contained nearly seven pages of further amendments, most of which were, however, eventually dropped, and the Bill, with some important changes noted below, was allowed to proceed.

ERASURE OF NAMES FROM REGISTER.

Mr. T. P. O'CONNOR (Scotland Division, Liverpool) moved the insertion of the following new clause:

Where a person whose name is entered on the roll of midwives has, either before or after the passing of this Act, and either before or after her name is so entered on the roll, been convicted either in His Majesty's dominions or elsewhere of an offence which, if committed in England, would be a felony or misdemeanour, or been guilty of any disgraceful conduct in her practice as a midwife, that person shall be liable to have her name erased from the roll. The Midwives Board shall cause inquiry to be made into the case of a person alleged to be liable to have her name erased under this section, and, on proof of such conviction or of such disgraceful conduct, shall cause the name of such person to be erased from the roll.

Mr. HEYWOOD JOHNSTONE, who has charge of the Bill, said he believed the point in view was met in another clause of the Bill, but if the hon member thought the wording of that other clause was not sufficient, he was willing to accept the new clause.

The new clause was therefore agreed to.

INSPECTION OF PREMISES.

Mr. GALLOWAY moved the following new clause:

1. Every council of a county or of a county borough shall inspect or cause to be inspected from time to time any premises wherein any woman receives or proposes to receive as a midwife a pregnant or lying-in woman; and if such premises shall, in the opinion of the council, be fit for the reception of a pregnant or lying-in woman, the council shall issue a certificate to that effect upon payment by the midwife of such fee as may be fixed by the council, and shall enter such premises upon a register to be kept by the council.

2. Any woman, whether certified or licensed under this Act or not, who after the first day of January, one thousand nine hundred and three, shall receive as a midwife a pregnant or lying-in woman in premises which shall not have been certified by the county council or council of a county borough as fit for the reception of such a woman under the provisions of this Act shall be guilty of a misdemeanour, and on conviction on indictment shall be liable at the discretion of the court to a fine not exceeding ten pounds, or to imprisonment for any term not exceeding two months, with or without hard labour, or to both fine and imprisonment, or on summary conviction to a fine not exceeding ten pounds.

Mr. HEYWOOD JOHNSTONE thought that the proposed new clause went beyond the scope of the Bill and was unnecessary.

Mr. T. P. O'CONNOR said he feared that the hon. member in charge of the Bill did not sufficiently realize the importance of the point raised by the amendment. There were in existence many so-called lying-in homes, kept by a woman in concert with a real or bogus doctor, and these places were often very unsuitable for child delivery, and were sometimes used for criminal practices. Surely it was the duty of the county council to inspect such places in order to protect the suffering poor.

Sir WALTER FOSTER said he thought that sooner or later, whether in this Bill or another, the House would find itself compelled to adopt such a clause if this Bill became law. If the lying-in homes were to be officered only by persons registered under this Bill, there would be a smaller guarantee than under the present state of the law for their suitableness and proper management. The Bill created a class of new practitioners, and one of the directions in which some at least of them might seek to make profit or carry on their practice would be by the running of private homes or private hospitals. That was a danger to society. He supported the clause.

Dr. FARQUHARSON said he concurred with the last speaker as to the desirability of some such provision as the clause proposed. They all recognized the importance of sanitary conditions in such cases; but he was not sure whether the some-

what loose wording of the clause would not make the proposed inspection apply to private houses as well as to semi-public homes. That would cause a great deal of inconvenience and expense.

The HOME SECRETARY remarked that when he first saw this clause he thought it hardly came within the title of the Bill. It did not deal with any matter germane to the main object of the measure, which was that every woman who desired to practise as a midwife should obtain a certificate. He rather thought the amendment as it stood would apply even to the private house of any lady who took in a friend for the purpose of confinement and delivery. He asked Mr. Galloway not to press the amendment now, and he (Mr. Ritchie) would consider whether something could be done in another place to meet the point and to secure as far as possible that houses used in a business way for such cases should be suitable for the purpose.

Mr. GALLOWAY said he did not at all intend that his amendment should apply to a private house. If the Home Secretary would undertake in the Upper House to have some words inserted that would meet the point, he would be willing to withdraw the amendment.

The HOME SECRETARY replied that he could not give that pledge, as he could not control or dictate to the Upper House; but he would consider the point and see what could be done. The propopal of the hon. member for Manchester (S.W.) was very wide, and went beyond what that gentleman himself intended.

Mr. GALLOWAY said he thought the best way would be to insert the clause and let it be amended in another place.

Mr. TOMLINSON (Preston) said that there was a very strong feeling in the House on this subject. He hoped that whatever was done, those who watched over the matter would have regard to this evil.

Upon a division the clause was rejected by 98 against 63 votes.

LICENCES BY LOCAL AUTHORITIES.

Mr. T. P. O'CONNOR (Liverpool, Scotland Division) moved that, in place of Clause 9, requiring "notification of practice," the following new clause should be inserted, namely:

No woman shall hold herself out as a practising midwife in any county or county borough without having previously obtained from the local supervising authority a licence enabling her to practise therein, which licence shall be granted on proof by the woman that her name is on the midwives roll. The licence shall remain in force till December 31st following, and shall be revocable at any time by the local supervising authority in case the holder be proved to the satisfaction of the Central Midwives Board to have infringed any of the regulations framed under this Act. The licence shall be issued on payment of a fee of 1s., it shall only be available in the county for which it is issued, and it shall be renewed annually on January 1st.

Mr. O'Connor remarked that he thought stringent licences were quite as necessary in the case of midwives as in the case of vivisectionists. Such licences would act as a great restraint upon malpractices on the part of these women. The shilling charge for each licence was small in proportion to the advantages it would secure, including the advantages gained by those who held them in competition with non-licensed women. There was no branch of medical practice which required closer supervision than that of midwifery.

Mr. HEYWOOD JOHNSTONE said the Bill already provided for practising midwives giving notice in writing, and there was very little difference between notification and licence, except that the former would be more acceptable to those more immediately concerned, and such notice under the Infant Life Protection Act had proved satisfactory.

Dr. THOMPSON (North Monaghan) supported the amendment, remarking that a licence was a much stronger mode of controlling these women than any notice.

Captain NORTON (Newington, W.) said the amendment would make the Bill practically inoperative in some populous districts where a woman would have to take out a licence in each of half-a-dozen different areas.

Dr. AMBROSE (West Mayo) said the woman in such districts might under the Bill be called upon to give half a dozen notices in writing. The licence would be an additional guarantee that the women in question were qualified. Those who objected to this Bill did so because there was nothing in it to prevent any woman practising midwifery, however unqualified.

Upon a division, the clause was rejected by 128 against 59 votes.

PENALTY AND DISQUALIFICATION.

Dr. R. AMBROSE moved an amendment subjecting to a penalty any unlicensed woman who "habitally and for gain" practised midwifery. He said this amendment had been suggested by the British Medical Association. The occurrence of puerperal cases in such an institution as the Rotunda Hospital, Dublin, where the utmost skill and careful antiseptic treatment were practised, showed in what extreme danger women were who were treated at childbirth by inexperienced or incompetent midwives.

Mr. T. P. O'CONNOR said the object of this amendment was not to weaken but to strengthen the Bill. The effect of adopting the amendment would be to remove a great obstacle to the success of the Bill. He had been asked by the British Medical Association to support this amendment. That Association was one of the most powerful and representative medical bodies in the country. He believed also that the General Medical Council—the highest legislative body in the profession—was in favour of it. The training prescribed for midwives would probably be much less than was required of men who practised midwifery. It was therefore all the more important to secure that the art should not be practised to the public danger by women who were not registered; but the Bill proposed to leave incompetent, unlicensed, dirty, and ignorant Sairey Gamps still to practise midwifery just as if there had been no legislation. There was not a single provision or penalty, not one line in the Bill as it was proposed, which would enable the authorities to interfere with any woman, however unfit, who chose to practise midwifery. If the Home Secretary would accept the amendment in principle, its movers would, if necessary, consent to a modification so as to extend the period of grace allowed to women now engaged in the practice of midwifery.

The HOME SECRETARY said the Bill simply proposed to set up a means by which a person requiring the assistance of a midwife might know whether the woman employed was recognized as experienced or competent. The amendment would deprive such persons of the assistance they required unless a certificated woman was at hand and available.

Dr. AMBROSE called attention to the word "habitually" in the amendment.

The HOME SECRETARY said no midwife could be of service unless she had experience, and, if she habitually acted, the chances were greater that she might be competent. Mr. O'Connor had himself voted against this amendment in Committee.

Mr. T. P. O'CONNOR said he was not ashamed of having changed his opinion upon that point.

The HOME SECRETARY said the amendment was rejected in Committee by 25 against 8 votes, and the House was now asked to reverse the Committee's decision in a matter vital to the Bill. He could not support the Bill if this amendment were inserted. They should proceed step by step in such a matter.

Sir WALTER FOSTER said it was a matter of profound disappointment to him that an amendment like this should not be accepted. Every practising midwife of good character, if suitable and competent, could register at once. It was not desired to prevent any woman from rendering assistance to a sister in trouble; but rather to secure that the assistance should be safe, skilful, and competent. Ignorant and incompetent persons should not be allowed with impunity to add to the death-rate.

Mr. JESSE COLLINGS (Birmingham, Bordesley) opposed the amendment; he considered it was a libel to describe as dirty and disreputable the women employed by the wives of agricultural labourers as monthly nurses. The provisions of the amendment would inflict an intolerable hardship, because it would be impossible in humble homes to pay for the services of a trained nurse; the nurse now engaged acted for a few shillings a week not only as nurse but as housekeeper to the family.

Mr. H. C. RICHARDS, K.C. (Finsbury, E.), in supporting the amendment, said there was no reason why women should not

be able, in London and other populous districts, to employ competent and skilled assistance, but some extra allowance or concession might perhaps be made in country districts.

Mr. Heywood Johnstone said the promoters of the Bill might eventually go as far as the amendment proposed; but let there be at least at once a beginning of better things than at present existed. He had no objection to extending the period of grace to existing midwives if that would meet the view of the mover of the amendment.

Mr. T. P. O'Connor asked if the Home Secretary concurred.

The Home Secretary replied that he would undertake to consider the question.

Mr. Johnstone said that instead of leaving the onus upon the Home Secretary, he thought he should himself take the responsibility of moving to amend the amendment by putting in the words "after 1st January, 1910," so as to extend the period of grace.

Mr. E. Wason (Clackmannan) formally moved this amendment to the original amendment.

Sir Walter Foster then said he did not wish to press the Home Secretary, but would like to understand his attitude to the amendment.

The Home Secretary said that he did not intend to oppose it.

The amendment was then agreed to as follows:

1. (1) From and after the first day of January, one thousand nine hundred and ten, no woman shall habitually and for gain attend women in childbirth, or shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is certified under this Act, or is a person specially qualified to practise midwifery, or is recognized by law as a midwife unless she be certified under this Act.

As a consequential amendment, Subsection (6), providing that no woman shall be entitled after January 1st, 1905, to recover any fee or charge for attendance as a midwife unless she was certified under the Act, was omitted.

Mr. Griffith-Boscawen moved an amendment to insert in Clause 2 words requiring that a candidate for certification should produce evidence that she bore a good character. He pointed out that in the case of women who were already in practice this was required, and the same requirement should be made of all women admitted to the roll.

Mr. Heywood Johnstone said that a number of persons of what might be called the better class had obtained certificates, but were not in actual practice, if they had to produce evidence as to character it would discourage them from registering.

Sir Walter Foster observed that there might be black sheep even among the persons referred to by Mr. Johnstone; he thought it very desirable that there should be a certificate of character.

Mr. Griffith-Boscawen did not press the amendment, and it was by leave withdrawn.

Mr. Griffith-Boscawen moved to insert in Clause 2 words providing that persons placed on the roll at the passing of the Act should have been in practice for at least one year.

The amendment was agreed to.

On the motion of Mr. T. P. O'Connor, Clause 2 was amended so as to include the Coombe Lying-in Hospital and the Rotunda Hospital, Dublin, among the bodies the certificates of which should entitle a woman to receive a certificate under the Act.

A further motion by Mr. O'Connor to add to the Midwives Board a person appointed by the Royal British Nurses Association to be a member of that body was also agreed to.

Proposed Extension to Scotland and Ireland.

Mr. Boscawen moved to omit the seventh line of Clause 16, which restricted the Bill to England, so that it might be made applicable also to Scotland and Ireland. There could, he argued, be no good reason for confining the advantages of the Bill to England.

Mr. T. P. O'Connor said he did not think there would be much objection to extending the measure by a future Bill to Ireland, but the constitution of the Board would require separate legislation.

The Solicitor-General for Scotland said the Bill had been drafted throughout with a view to its application in the first instance to England only and many changes would be necessary if it was extended to Scotland.

Mr. Johnstone said that in Scotland there did not exist the same machinery for putting such a Bill into operation, and if it were extended many amendments would have to be introduced and consideration given to what authorities in Scotland could undertake the control of the matter. He trusted that the amendment for extending the measure would not at present be passed.

A division was called, when the amendment was rejected by 237 against 23.

The other amendments were not pressed, and the Bill was ordered for third reading.

CONTRACT MEDICAL PRACTICE.

DISCUSSION AT A MEETING OF THE EAST KENT DISTRICT OF THE SOUTH-EASTERN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The Chairman (Dr. Larking, Folkestone), in opening a discussion on this subject, said that he did not think it necessary to say much, because he had sent out last autumn nearly five hundred copies of his paper to practitioners not only in East Kent, but in various other parts of the country. He was anxious to know the views of the members present on the subject. Nothing serious or radical was contemplated immediately. Some seemed to imagine that a notice should be given to abolish all clubs, but public opinion must be educated, and every one must be convinced that to render professional services for a halfpenny or penny a week was absurd, unjust, and damaging to the members of the medical profession. He deprecated any discussion in regard to the National Deposit Friendly Society at present, although he considered that it was a great improvement on ordinary clubs in that it paid for work actually done, did not encourage malingering, and allowed each member to select his own doctor. He knew that some had a different opinion, but a discussion of that Society would take the meeting away from the proper subject. Some thought its methods were good, others the opposite. Contract practice was not a question of supply and demand. It had been argued that the demand was for contract doctors, and that as the supply of doctors willing to supply that demand was ample, therefore prices were low. But experience all over the country showed that of good qualified assistants, reliable *locum tenentes*, and house-surgeons for country hospitals there was a deficient supply. The profession could not be so much overcrowded if there was this scarcity. The contract system was the result of a miserable tacit acquiescence in an intolerable nuisance, and a want of appreciation of the value of medical services. Most medical men took clubs because it was an old custom, because there was no trouble in collecting the fees, because they were afraid that if they did not some one else would, and because there was no alternative scheme. It was not young practitioners only who accepted these appointments. A large proportion of practitioners all over the country kept them on, knowing that they did not pay, from a morbid fear that it would damage their practice to give them up. He thought this was a false impression. He referred to what had happened at Stockport, an account of which had been given in the British Medical Journal (May 17th, p. 1235). The clubs had refused to increase fees, and the doctors had said, "We will have nothing more to do with you." Consequently there had been no club doctors for some years, and the interesting point was that both the doctors and the clubs liked it much better than the old contract system. Why should members of the medical profession adopt the contract system? Did lawyers accept a penny a week for their services, or did the baker agree to supply bread or the butcher his meat at a shilling a week? The whole system was bad. Before there could be any general agreement on the matter all the facts must be ascertained and set before the members of the profession.

Dr. Selby (Sittingbourne) moved:

That a committee be appointed to investigate the conditions under which contract practice is carried on in this district.

Most of those present were, he said, country practitioners, and

either affected by clubs or had clubs of their own. Clubs varied very considerably: but, though his clubs paid higher fees than many in Kent, yet he would be glad to be rid of them. As to the patient's point of view it was difficult to induce the labouring classes of Kent and other parts where there was a good deal of prosperity to lay by for a rainy day. In his own district there were families whose total earnings amounted to from £3 to £5 a week, but they ate most of it, and if a lock-out came most of them would want assistance from the soup kitchen. Some of them had a certain amount of pride, and did what they could to insure against a rainy day. Medical men insured their lives in the Medical Sickness Society, and these people liked to do the same. The question, therefore, could not be regarded entirely from the point of view as to whether the doctor was making money or not. But a great many people liked to be charitable at the doctor's expense. In the case of the National Deposit Society there was too much clerical work, and the patients who belonged to it were mostly those who could pay very well if they had no club. That was an example of charity at the doctor's expense. The case of persons who had been in a club for a number of years relying upon help if it were required must be considered. Persons who paid a fair and reasonable amount had been in his club fifteen years anticipating that should they be ill they would have the doctor. Some of them had hardly called upon him at all, but they might have a long and serious illness. It would be a serious thing to throw up such a club. It would not be fair, and before doing so it would be right to return two years subscriptions. The resolution suggested that there should be five or six delegates to inquire as to fees paid by the clubs. The difficulty would be to find out those particulars, for in some cases a certain amount of jealousy existed. While he thought that it would be an excellent thing to get rid of clubs he hoped that the Committee would investigate the matter from both sides.

Dr. P. G. LEWIS (Folkestone) seconded.

Dr. GILBERT (Folkestone) questioned whether much good would result. A committee formed in Folkestone in connexion with the British Medical Association to find out how much midwifery work was done by the practitioner and how much by Mrs. Gamp had brought out certain facts, but it had not stopped the work of the Gamps. A scheme had been started to provide trained obstetric nurses to attend confinement cases and look after and wash and dress the baby for eight days for 8s. 6d. Before appointing a committee he would approach the British Medical Association, or failing that, the General Medical Council. The lawyer got 6s. 8d. for a letter, and it was time for the General Medical Council to settle the question what was a fair remuneration for the club to pay the practitioner.

Dr. W. GOSSE (Sittingbourne) did not think the case of the lawyer on all-fours. Medical men must work out their own salvation. It was impossible for the Association or Council to do anything for those who would do nothing for themselves.

Dr. VERNON (Ashford), although he agreed that clubs were a nuisance, still thought that there was a good deal to be said on the other side. The class who were not quite rich enough to pay medical fees, and yet not poor enough to necessitate their obtaining an order for the parish doctor, must be catered for. In regard to men's clubs, the breadwinner needed some means of insuring against sickness, so that he could pay for his doctor's attendance, otherwise he would go to the parish doctor. There was a great danger of abuse occurring in that way—that people who could pay something would thus get medical attendance absolutely for nothing. It was asked, "Why should the charity be at the expense of the medical profession?" but the profession had always been noted for its charity, and ought to carry on the traditions of the past, and be willing to do something for nothing. Some of the better class of clubs paid him 6s. a head a year, and his experience had been that that sum was a fair remuneration for the amount of work. Men did not trouble the doctor or go on the club if they could help it, though women and children would in some cases apply for a bottle of medicine on slight occasions, but as regarded men's clubs he did not think that they ought to be done away with.

Dr. NORTON (Folkestone) did not think it would be possible to do without men's clubs, so that the matter appeared to resolve itself into seeing that the payment was adequate. The committee would do a great deal of good if it worked out that particular point. Clubs could not be abolished, because they had been doing a great deal of good and because there were thousands of men in these clubs who received not only medical attendance, but sickness grants. Many men could not make adequate provision against sickness except in such a way, and it was the business of the doctor to see that his services were adequately paid for by the clubs. He had found some years ago that if he declined a club for the remuneration offered there were others ready and willing to take it at that price. If members of the profession would stand shoulder to shoulder and take care that whatever price was agreed upon was maintained by all, the greater part of the grievance would disappear.

Dr. HAYWARD (Whitstable) had had a good deal to do with men's and children's clubs, and although the remuneration was not adequate, he feared that there would be a good deal of difficulty in obtaining information. A great many club doctors did not belong to the British Medical Association and would be antagonistic.

Dr. RAVEN (Broadstairs) said that there was a marked distinction between the general practitioner to whom clubs were a nuisance and that other class against whom Dr. Larking's thunderbolts were directed, who made a point of advertising for clubs and trying to get people into their clubs. Those were the people to attack. He agreed that clubs were a nuisance, and that as they could not under existing conditions be done away with, the remuneration should be adequate, but it was impossible to stand shoulder to shoulder with men who did all kinds of underhand tricks, who undersold, and employed agents to get men into their clubs. If the British Medical Association were the Association of the whole of the practitioners of England, it would be a different matter.

Mr. VICTOR HORSLEY was glad to take part in the discussion because, unfortunately, cases involving questions of this kind were constantly coming before the General Medical Council, and because he was extremely interested in seeing the British Medical Association made the efficient instrument all wished it to be. The medical profession, speaking broadly, had done, and was doing every day, more charitable work than any other. The public was thus under an obligation to the profession, but so far from acknowledging it, on every possible occasion, even so recently as on the question of the Midwives Bill in the House of Commons, it had sought opportunity to repudiate it. He thought, therefore, that the profession ought to draw in its hand as regards this question of indiscriminate charity. He was convinced that it could take up a reasonable standpoint without in any way losing its reputation for being charitable. The question had been raised whether, if the profession proposed the abolition of clubs, it could properly be accused of striking at the sources of thrift. In no two districts were the conditions alike. In getting to the bottom of this difficult subject information of the kind to be collected by the proposed committee was greatly needed. The same information would have to be collected in other parts of the country. Existing difficulties had arisen because clubs had been organized in two totally different ways: by an individual medical man of a club for himself—the most pernicious form—and by a Friendly Society which wanted the attraction of medical assurance. Like the second, the first must depend principally upon canvass and solicitation. Here came the duty of the General Medical Council. That Council had no *locus standi* from an economic point of view. It had no legal power to discuss the matter of fees. Its powers were very sharply defined by the Medical Acts, and, although there were many questions on which it ought to move, yet this economic question it had no authority to touch. It could not approach the matter from that standpoint, but only on the question of solicitation or canvass. If a medical man had a club of his own, the question of canvassing might be brought home to him, and he might find himself brought up before the General Medical Council, which could deal with the matter from the point of view of infamous conduct. The Council had spoken with no uncertain voice on this question

of practice carried on by canvass. It passed a resolution which was circulated throughout the profession, in which it was clearly indicated that it would regard as infamous conduct the association of a medical practitioner with a club, if patients were brought to him through the club by means of canvassing. If it could be shown that there was canvassing or advertising in connexion with a club, then the General Medical Council could and would take action, but it could have nothing to do with the great public question as to whether the profession was being paid properly for its services. As regarded the question of the organization of clubs by Friendly Societies, a considerable change had come over this particular aspect of the question during the last four years. When the General Medical Council was first approached on the question of medical aid, Dr. Glover and Dr. Bruce suggested that the profession must draw a sharp line of distinction between different Friendly Societies; in other words, that there were respectable Friendly Societies and others with which it was better to have nothing to do. He had always contested this classification, which appeared to him to be erroneous. Friendly Societies were composed of men of commercial instincts, anxious to get all they could and at anybody's expense. They made no secret of this attitude. Another point was whether those Friendly Societies which professed not to carry on medical aid work were qualified to come within the respectable class as defined by Dr. Glover and Dr. Bruce. These societies associated themselves with bodies like the National Medical Aid Society, which was in no sense a philanthropic society, but was merely, as an inquiry before the General Medical Council elicited, a Board of ten or twelve men. There was no question of sharing profits among the members. Not a single Friendly Society could be looked upon as being in this particular sense friendly to the profession; all were hostile, and the profession ought to have nothing to do with them. The manner in which the profession had dealt with the question at Eastbourne and Rotherham showed what could be done in the towns. In a town nothing was easier than for the profession to come together, as was done in the first of those towns. At first two men held out, then one only, and at length all agreed to form a medical assurance for that town, and fixed the amount of the subscriptions to be paid by the members to that assurance or club. Each patient, of course, selected his own medical man. The same thing happened at Rotherham. To break down this concerted action in that town a Medical Aid Society introduced a medical man, but he had since left. It was obvious from these two instances that the profession had a solution of this problem in its own hands. But it was impossible to form a correct judgement on these matters unless the conditions in the given district were known. That information must be brought under the notice of the British Medical Association, and there must be an organization of some kind in the profession which could arrange the foundations of a service of this kind in a town. Take Canterbury for instance: Why should the profession in Canterbury have the labour of forming a service of this kind? Why should not the British Medical Association provide organizing officers to go round the city. The mechanism would have to be much the same in every place, and the best mechanism could always be worked out best by a man who was paid for doing that work. The requirements of success in this method of arranging contract practice was that the association be held answerable for sustaining the service in each town. The scheme of reorganization of the Association accepted at Cheltenham had this fundamental basis of constitution, that the profession in every town should form a division of the Association itself, that each town shall be a nucleus, small it might be, but a genuine homogeneous division of the Association, and that each Division should send a representative to the annual meeting, which would decide the duties and objects of the Association. He hoped that all present would endeavour to attend the extraordinary general meeting of the Association on June 18th, when the new regulations would be submitted. If the Association were thoroughly organized and these medical services formed in every town and district it would be possible to lay down a proper schedule of remuneration.

Dr. Evans (Faversham) said that a public medical service had been organized in Faversham. For twenty years there had been a Provident Dispensary originated and managed by the medical men of the town. The rate of remuneration had been drawn up by the medical men and every medical man had a right to join it and to attend the patients who chose him for their doctor. Each patient or family chose a doctor at the commencement of the year and he received the payment for the year; if the subscriber wished he could change his doctor for another year. No one was admitted as a subscriber without the consent or recommendation of the medical men. There used to be a wage limit, but that had not been adhered to. If improper persons offered themselves, the medical men had the right to refuse to recommend them as members. In towns such a system might be carried out by combination between the medical men or the leading people of the town, but the main point should be that the medical officers had full control. It did not touch the question of men's clubs, but mainly women and children. The men preferred to join benefit societies, but work was a good deal lightened by the organization. The service had its own dispenser. The scheme had worked well.

Dr. Scatliff (Margate) supported the resolution. He thought the suggestion of Mr. Victor Horsley that the British Medical Association should take in hand the work of managing the combination in various towns most valuable. It would be a great help and would ensure that the work was done, more or less, upon a uniform system. If the whole of the medical men could be brought together in that way they would be able to stand together and not be imposed upon as at the present time by so-called charitable people.

The Chairman did not agree with Dr. Gilbert that committees had done no good in Folkestone. Information had been collected and the medical men had been brought together, so that, with one or two possible exceptions, there was no man who was not on good terms with his neighbours. With regard to abolishing clubs, it must be remembered that if the medical attendance part were withdrawn that would not abolish the men's sick pay; when they were ill they would get their sick pay as at present. That would not do away with the clubs altogether; the members would still be able to get medical advice and sick pay, only they would have to pay a little more for the advice than at present.

The resolution was carried unanimously.

On the motion of the Chairman, seconded by Dr. Thornton (Margate), the Committee of Investigation was constituted as follows:—Dr. Gosse (Sittingbourne), Dr. Osborne (Dover), Dr. Prentice (Canterbury), Dr. Larking (Folkestone), Dr. Scatliff (Margate), and Dr. Atkinson (Ashford).

It was agreed, on the proposition of Dr. Tyson (Folkestone):

That a sum not exceeding £10 from the funds of the District be devoted to the expenses of the Committee, and that Dr. Larking's out-of-pocket expenses in bringing forward the subject of contract practice be also defrayed.

Medical Aid in Wandsworth.

In view of the discussion and correspondence which is taking place on the subject of sick clubs, a brief account of an institution which has been in operation for several years in Wandsworth may be found interesting. It is founded on information supplied to us by a medical officer, and appears to exemplify one method by which the difficulty of meeting the requirements of the sick poor may be met, without pauperizing the patient, and with satisfactory remuneration to the medical attendant.

The Wandsworth Medical Aid Society appears to be a sick provident club which was instituted and is controlled by medical men. Each member, whether well or ill, contributes a small weekly sum, which forms a fund for the payment of the expenses of the sick. Members must be persons resident in the neighbourhood who are unable to pay for medical advice in the ordinary manner. Each must pay 1d. a week or 1s. a quarter, but the highest amount payable for any number of children under 12 years of age is 4d. In addition to this 1d. a quarter is paid by each member for working expenses and 1d. is charged for each new card of membership.

In consideration of these payments, the medical attendants administer medical aid to all members requiring it on pre-

sentation of their cards of membership; for this purpose the medical attendants appoint fixed times for the attendance of members at their surgeries, and for receiving applications from those who are unable to attend, and who therefore require to be visited at their own homes. The members make choice of their own medical attendants, who are, however, at liberty to exercise a similar option. Members cannot receive benefit within the first month of their admission, except on the recommendation of one of the medical attendants, and the payment of an entrance fee of 7s. 6d.; if such person has previously been a member of the Society, one quarter's fines and arrears must also be paid.

Any member who may have contracted an illness by his or her own fault is not to be treated for such illness on the terms of the Society, and married women who have not had their confinement conducted by one of the medical staff are ineligible for treatment on the terms of the Society until one month has elapsed from the date of their confinement. A servant is not visited at his master's house. Confinements (£1 1s.), vaccination (2s. 6d.), and certificates (1s.) are extra.

A general committee, consisting of the medical attendants and an equal number of "free members," meets twice a year to receive a financial statement, and to make any alterations which may be necessary in the rules, but the sole control of the affairs of the Society is in the hands of an executive committee consisting of the medical attendants only.

The Society, which has been in existence for twenty years, is self-supporting; no honorary subscriptions or other charitable assistance is received.

The medical staff consists of some fourteen medical men. The number of free members is between 6,000 and 7,000. All payments are made to collectors who receive from 10 per cent. to 12½ per cent. on the gross amount they collect. The balance of the receipts, after deducting expenses—about 84 per cent. of the payments—is divided amongst the medical attendants in proportion to the number of members on each visiting list. A place on the list of medical attendants is open to the partner of any one already on the staff, to the purchaser of the practice of any member of the staff, and to any qualified practitioner in the district who may apply, provided he is proposed and seconded by members of the staff. Such elected member must sign an agreement to abide by the rules therein laid down.

THE PREVENTION OF INDUSTRIAL ACCIDENTS AND DISEASES.*

IN compliance with the wishes of several members of the House of Commons the Chief Inspector of Factories (Dr. Whitelegge) has presented to Parliament his annual report for 1901 at an earlier date than was formerly the case.

ACCIDENTS.

The number of fatal accidents that occurred during 1901 is smaller than on any previous occasion. Non-fatal accidents show an increase, but the increase is small. Some idea may be formed of the magnitude of the operations of the Factory Department of the Home Office when it is known that the number of factories on the register is 97,845, and that of workshops 143,065, excluding docks and warehouses. During last year 83,760 accidents and 936 cases of industrial poisoning were reported. The fatal accidents numbered 1,035, and the non-fatal 82,725, the numbers of the previous year being 1,045 and 77,975 respectively. It is pleasing to observe, since many of the accidents in factories have been and still are caused by imperfect fencing of machinery, that considerable improvements have been introduced in this respect. There is no doubt that workmen by their negligence have often contributed to swell the list of accidents.

THE NEW FACTORY ACT.

The Bill of last year gave power to the Secretary of State to prescribe standards of ventilation for any class of works. There must be no overcrowding, and every room in a factory, workshop, or laundry, must be provided with sufficient means of ventilation. The Home Secretary can determine by Order what is sufficient and suitable sanitary accommodation within the meaning of the Act. A compulsory examination of boilers is now in force. Children are not allowed under any circumstances to clean any place under moving machinery. One of the most important changes introduced by the Act is that which "affects any manufacture, machinery, plant, process, or description of manual labour" certified by the Secretary of State to be dangerous. "In place of the former provisions for the establishment of special rules in particular works, a new power is given to the Secretary of State to make regulations of general application to all premises in which the dangerous work in question is carried on (Secs. 79 to 86). Arbitration is abolished, but a public inquiry may be held, after the regulations have been published in draft; and the final regulations are to be laid before Parliament. It is provided that they may prohibit or limit employment in dangerous work, or the use of any material or process; and may modify any special regulation contained in the Act."

CERTIFYING FACTORY SURGEONS.

At present the number of certifying surgeons is 2,135. During 1901 there occurred 203 vacancies, 47 of which were caused by death, and 156 by resignation.

ANTHRAX.

During 1900 there were 9 cases of anthrax; last year the number rose to 20, a circumstance which showed the necessity for the introduction of special rules as applied principally to hides and skins coming from China and the West Coast of India. In order to facilitate the diagnosis of anthrax, medical practitioners are reminded that the Home Office will always undertake to procure a bacteriological examination of the blood in suspected cases, free of cost.

INDUSTRIAL POISONING.

The two trades most liable to lead poisoning—the manufacture of white lead and of pottery—show a distinct improvement, although in Britain, as in France, there is a marked increase of plumbism in other trades. The lucifer match industry is responsible during 1901 for 4 cases of phosphorus necrosis. Of 12 cases of arsenical poisoning reported to the Home Office last year, 7 occurred in galvanizing works, and were due to arseniuretted hydrogen. Mr. Walmsley (Factory Inspector, Stoke-upon-Trent) deserves special mention. Speaking of the Potteries, he says that plumbism has almost disappeared from those shops in which effective fans and other means have been provided for the removal of lead dust or spray. Washing accommodation, too, has been more ample. The medical examination of the workpeople and suspension of those persons from work who show signs of plumbism have undoubtedly prevented much suffering. During the sitting of the Arbitration Court at Stoke last year, it was stated that some of the pottery manufacturers had been using fritted lead with success. Since then two at least of the firms have returned to the use of raw lead glazes. Many of the difficulties as regards leadless glazes have been overcome, but manufacturers say they have until now been unsuccessful in the application of leadless enamel colours.

Dr. T. Morrison Legge, whose report as usual deals with many matters of medical interest, shows that the decline of industrial lead poisoning still continues: in 1898 the cases numbered 1,278, in 1899 they were 1,258, during 1900 they fell to 1058, and in 1901 they numbered 863. If anything were required to convince employers of the necessity for, and the advantages obtained by, factory legislation, it is statistics such as these. In the pottery trade alone, since public attention has been seriously directed to the question, the number of cases of plumbism has been falling during the last four years, namely from 457, 249, and 200 respectively, to 106 in 1901. This happy circumstance, however, is not observed in all industries wherein lead is used; in electric accumulator works there is an increase. White lead works show fewer cases of plumbism, and when the new stoves are more widely introduced there should be a still further diminution. Dr. Legge deals at considerable length with plumbism in electric accumulator works, and as this is an industry that is likely to undergo great developments in the future it is well to grapple at once with the problems. The reports of the conditions of labour in German electric accumulator works and the rules adopted to prevent plumbism therein form a valuable addition to the medical inspector's report.

* Messrs. Eyre and Spottiswoode, East Harding Street, E.C. Price 4s. 7d.

WOMEN'S LABOUR.

Miss A. M. Anderson, Principal Lady Inspector of Factories, alludes to her visits to France, Germany, and Belgium, whither she had gone to study legislation affecting laundries. The information thus obtained ought to be extremely helpful to the Home Office. Attention is directed by Miss Tracey to the want of adequate dining-room accommodation. Many mess rooms are undoubtedly very comfortless and cold, and anything but attractive places for this purpose. Apart from the question of whether it pays the employers or not, they certainly ought to bestir themselves in this matter. The Industrial Law Committee and Women's Industrial Council are still proving helpful to working women and girls. Miss Squire gives illustrations of the sad effects upon girls of the conditions of life found in cellar workrooms, of the effects of excessive vibration in or about factories, and of a severe form of dermatitis that is occasionally observed in girls employed in limejuice works in washing out the limejuice bottles. The skin becomes inflamed as far up as the elbows. Since a similar form of skin affection has been noticed in girls employed in confectionery works, it is believed that the sugar used is in some way or other the irritant in operation. Miss Anderson draws attention, very properly, to the conditions of employment in brickworks for young girls, and to the enormous weights which girls of tender years are obliged to carry. Girls from 12 to 16 years of age are not fit to be kept carrying 40 lb. weight of moist clay the greater part of the day. The excessive employment of married women in the jute mills of Dundee and its bad effects upon the women themselves and their home life are dealt with by Miss Paterson.

FENCING OF MACHINERY.

Mr. C. R. Pendock, Factory Inspector, presents a report upon the fencing of machinery at the Paris Exhibition. In discussing the question as to whether Continental machines are better fenced or of safer construction than those of English make, he says that he has never seen such a collection of machinery of which it could be truthfully said that the safety and convenience of operatives had been more considered. According to Mr. Pendock our home-made machines are less safe because "our law imposes no obligation on the manufacturer of machinery as distinguished from the user—the manufacturer *may* fence, the user *must*: consequently, the privilege usually falls to the latter," and, as is well known, customers are only too apt to buy cheap and unguarded machinery. Mr. Pendock's report should be read by all who are interested in the subject of Continental superiority of production and competition.

This annual report is a storehouse of most valuable information, and is fresh testimony to the high character of the work which the Home Office is doing. The amount of clerical work imposed upon all the factory inspectors is still far in excess of what it ought to be. A more liberal provision by the Treasury would enable the Factory Department of the Home Office to discharge with greater fullness the many-sided and ever-increasing duties that are being assigned to it.

FESTIVAL DINNER OF THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, LONDON.

THE festival dinner of the Medical Graduates' College and Polyclinic was held on June 5th in the Grand Hall of the Criterion, London, with Mr. H. H. ASQUITH, K.C., M.P., in the chair. The guests numbered about 300, and were received by the President, Sir WILLIAM H. BROADBENT. Amongst those present were Lord Davey, the Archdeacon of London, Sir Alfred C. Lyall, Sir A. Geikie, Mr. B. L. Cohen, M.P., Mr. J. Hall, K.C., Sir Owen Roberts, Mr. D. Coghill, M.P., Sir Joseph Fayrer, Professor C. Allbutt, Dr. J. Gutierrez Ponce (Colombian Minister), Sir J. W. Tyler, Mr. T. P. O'Connor, M.P., Sir W. Pearson, M.P., and Inspector-General Turnbull.

The CHAIRMAN, in proposing the toast of "The London Polyclinic," said that as regarded any profession serious counsel and penetrating criticism could be received with benefit from those outside its own members. To show itself equal to the demands which the public estimate made upon medical men, institutions like the London Polyclinic must be afforded a united and enthusiastic support. The Polyclinic had a twofold object. It was a charitable institution in the best sense of the word, and without coming in the least degree into competition with the hospitals it provided a means by which persons who could not afford to pay the usual consultation fee could be brought by their doctor, and there get in consultation with that doctor the best medical advice that the most skilled members of the profession in London could supply. It thus filled a gap in the machinery of philanthropy. During 1901 very nearly 1,200 patients had received through the Polyclinic this gratuitous consultation and advice. There was another side which was still more important: in all professions the comparison with America, Germany, and most other countries was most unfavourable, owing to the lack of provision for the continuation of education in its technical and applied forms after the ordinary term of academic life had been reached. He considered as a layman and an outsider that there was no profession in which it was more important that facilities should be provided for that after-education than the medical profession, because medicine, which was at the same time a science and an art, was every year receiving vast accumulations from new observations and experiments which must profoundly modify the conception both of the theories and the treatment of disease. Medicine must be progressive from the very necessities of its conditions. If they were to maintain themselves abreast of the scientific pursuit of their own profession in other countries, if they were to cope with disease and with the ordinary incidents encountered in the practice of their profession at home, they must have means and opportunities of adjusting their conceptions according to the altered experience which new facts and new experiments were constantly bringing into view. Even the man in the street could realize what a difference had been made by the researches and investigations and the new conclusions of the last twenty years in such inveterate and familiar diseases as tuberculosis and malaria. When they considered what was going to be done as regarded the theory and the treatment of those two great plagues of humanity, they hoped that a similar voyage of discovery attended with equally fruitful results might be made in regard to that most terrible and most inscrutable physical scourge of humanity—cancer. That could only be attained by the combination of two methods—research and observation. The Polyclinic was still in an embryonic condition, but when it was provided with adequate funds and was able to develop itself on the scale which was essential for its conduct, by laboratories, museums, classes, and lectures, it would afford an admirable theatre for post-graduate research. Not less important was the co-operative study and action of those persons coming together from all kinds of different fields of experience, all animated by a common purpose, a common interest in the scientific side of their profession and a common zeal for investigation on its practical side. On those grounds the Polyclinic was not only entitled to the support which it had from the medical profession, but to support also from the outside public. The Polyclinic had nearly 900 members, and the classes were well attended. He ventured to hope that the result of the meeting that night would be to engender fresh interest in that great work which he believed to be no less advantageous to the medical profession than it was likely to be useful and beneficent to the public.

Sir WILLIAM BROADBENT, responding to the toast, said that the medical student after having passed his examination qualifying for practice, found himself faced with problems in diagnosis and treatment for which his preparation for examination only helped him to a very small degree. The object of the Polyclinic was to afford to those medical men the opportunities of what might be called secondary education.

Dr. THEODORE WILLIAMS also replied to the toast, and as Treasurer to the Polyclinic urged the necessity of assistance towards the funds.

The toast of "The Empire" was proposed by Mr. JONATHAN HUTCHINSON, who said that members of the Polyclinic felt they were doing a duty to the empire in carrying on the work of that institution. Its affairs were not in a flourishing

state, and it needed encouragement in endeavouring to extend its work to the very ends of the earth. The advantages of the Polyclinic were open to medical missionaries.

Mr. ARTHUR LEE, M.P., replied to the toast, and said that he would esteem it a great service to the empire if the Polyclinic could devise some antidote to cancer and consumption, and it was by means of such institutions as the Polyclinic that such a result was most likely to be achieved.

Sir JOHN COCKBURN also acknowledged the toast, and said that the medical profession scattered through the empire required to return constantly to renew its draughts of knowledge at the springs which most plentifully abounded in the mother country. They felt that the Polyclinic was worthy of the support of all, and he most heartily wished it success.

Dr. THEODORE WILLIAMS announced that the donations amounted to over £500.

Sir JAMES CRICHTON-BROWNE, in an eloquent speech, proposed the toast of "The Chairman," and referred to the good work Mr. Asquith had done in legislation concerning dangerous trades.

Mr. ASQUITH replied shortly, and the meeting terminated.

THE PREVENTION OF CONSUMPTION.

DUBLIN.

THE Dublin Branch of the National Association for the Prevention of Tuberculosis held its annual meeting on June 9th in the College of Physicians, Sir Christopher Nixon, the President of the College, being in the chair. There was a large attendance.

The annual report detailed the resolutions adopted at the British Congress on Tuberculosis held in London last July. It referred with regret to the unsuccessful efforts of the Public Health Committee of the Dublin Corporation to promote voluntary notification of phthisis. Only 65 cases had been notified during a period of six months. It was found also that where disinfection of rooms and clothing had been offered by the public health authorities to the relatives of persons who had died of phthisis, only one quarter of the offers had been accepted. The sympathy and activity of the Local Government Board in the movement were referred to. Lectures on the prevention of tuberculosis had been given by Drs. Parsons, Roche, and McWeeney to the teachers in the Training Colleges connected with National Board of Education. The need of a city bacteriological laboratory was touched upon, and the necessity for enforcing rules against spitting in public places was urged. Finally the fact that "there is still no provision in Dublin for the efficient treatment of the very poor who are afflicted with consumption" was forcibly brought out.

The President of the Royal College of Surgeons, in moving the adoption of the report, advocated the compulsory notification of phthisis, the education of the masses of the people as to the means of the prevention of consumption, and the establishment of a bacteriological laboratory for the use of the dispensary medical officers. He feared it was hard to cure consumption in the damp climate of Ireland unless the cases were seen and recognized at the very beginning of the disease.

Mr. William Field, M.P., seconded the motion, and said that in his opinion the slums were the main cause of consumption, and that therefore the housing of the poor was at the bottom of the solution of this question.

Sir John Moore moved:

That this meeting urges our sanitary authorities to (*a*) adopt voluntary notification of consumption; (*b*) arrange for the thorough disinfection of all dwellings occupied by consumptives; (*c*) provide sanatoria for the treatment of mild cases; and (*d*) provide for the isolation of advanced cases of consumption.

If the medical profession were asked they would only be too glad to notify phthisis voluntarily. Sir Charles Cameron had stated that he invited voluntary notifications, but the profession had not received an official intimation. He referred to the work done in Liverpool and Manchester. Dublin was behindhand in the matter.

Mr. O'Brien Furlong, C.B., in seconding the resolution, expressed the opinion that medical men should not be expected to do the work of notification without remuneration. It should be made compulsory.

The Right Hon. Horace Plunkett and Dr. Ninian Falkiner also spoke.

The Chairman, in replying to a vote of thanks, urged that the Corporation with the North and South Dublin Union should strike a rate that would maintain the proposed sanatorium, for which the Sisters of Mercy had offered the site and volunteered to manage.

THE NOTTS SANATORIUM FOR CONSUMPTIVES.

The Notts Sanatorium for the Treatment of Consumption, on Ratcher Hill, Sherwood Forest, was formally opened recently by the Duke of Portland. A large and influential company met the Duke and Duchess in spite of the threatening weather.

Earl Manvers, President of the Nottingham and Notts Association for the Prevention of Consumption, expressed the wish that the institution might have every success. After a short service of dedication by the Bishop of the diocese, the Duke of Portland spoke of the good work already accomplished by the sanatorium since it began to receive patients last February, and asked for generous and cordial support in aid of the maintenance of the institution. He then declared the Sanatorium to be formally opened.

Sir R. Douglas Powell then expressed his pleasure at being present, and his satisfaction at the efficiency of the equipment and administration of the sanatorium. He said that the establishment of such an institution was an object lesson worth many thousands of speeches and leaflets in the work of the prevention of consumption. Not that the building of sanatoria was by any means the only necessary: there was more to be done in course of time. It was most important that something should be done in the way of looking after the patients after they had been discharged from the sanatorium to prevent their relapse.

Dr. Paget Tomlinson, of the Westmorland Sanatorium, spoke of the benefits of such an institution, but said that to complete the scheme there should also be an institution for the treatment of more advanced cases, and a colony for providing the improved patients with some light employment such as market gardening.

The Mayor of Nottingham then proposed, and the Mayor of Mansfield seconded, a vote of thanks to the Duke and Duchess of Portland for their presence and for their interest in the Sanatorium from its commencement.

THE PLAGUE.

INDIA.

THE plague returns for the week ending May 17th show a marked decrease in the number of deaths, which fell to 7,006, against 11,612 during the preceding week, a decrease of over 4,600 in one week. The chief fall has been in the Punjab, where for some months well-nigh two-thirds of the total cases and deaths in India have occurred.

In Bombay city the deaths from plague during the week ending May 17th numbered 300, against 301 during the corresponding week; the deaths from the same cause numbered 280. In the Bombay district, exclusive of the city, there died of plague during the week ending May 17th 429, against 583 during the previous week: in Calcutta [illegible] 280; in Bengal 136 against 337; in the North-West Provinces and Oudh 200 against 401; in the Punjab 5,451 against 9,122.

The trials in connexion with the Pathala plague riots took place during May. The evidence went to show that the house in which Major Hendley and his medical assistant took refuge was set on fire, and that it was only by the individual exertions of Mr. Warburton, the head of the police, that they were not burned or killed. The attack on Major Hendley was made on account of the prevailing belief that he was going to remove the inhabitants of the infected houses and burn them down.

EGYPT

During the week ending May 25th, 28 fresh cases of plague occurred in Egypt, and 16 deaths from the disease. All the new admissions and deaths were natives, and of the deaths 9 occurred out of hospital. The cases and deaths from plague were distributed as follows: Alexandria, 2 fresh cases, 5 deaths: Tala, 1 case, 2 deaths; Achmoun, 9 cases, 1 death; Samalouth, 11 cases, 4 deaths; Beni Mazar, 1 death; Toukh, 2 cases, 2 deaths; Damanhour, 1 death.

The number of cases remaining under treatment on May 25th was 31, the same number as reported last week, May 18th, when the number was printed 52, in place of 31.

Besides the places mentioned, cases of plague were under treatment at Mit-Samamond, Deebneh, Menouf, and Magnagna.

The Sanitary Department during the week ending May 25th disinfected 9,181 rooms, limewashed 1,572 rooms, disinfected 274 sacks of effects, burnt 2,106 sacks rubbish, and killed and burnt 570 rats.

LITERARY NOTES.

WITH reference to a note in the BRITISH MEDICAL JOURNAL of May 31st, p. 1369, upon the May number of the *Appointments Gazette* of the Cambridge University Appointments Board, in which we expressed some disappointment that it contained no discussion of the effects of recent changes on the Royal Army Medical Corps as a career, an esteemed correspondent in Cambridge writes to say that he thinks that no such article can appear for a long time, since Cambridge graduates have not hitherto shown any particular disposition to enter the service. What in the future Cambridge graduates may do time, he thinks, alone can show.

Dr. Arthur Shadwell has written a book entitled *Drink, Temperance, and Legislation*, which is to be published almost immediately by Messrs. Longmans.

The last volume of the *Index Catalogue* of the Library of the Surgeon-General's Office, U.S. Army, second series, vol. vi (G. Hernette), includes 15,589 author titles, representing 5,865 volumes and 14,296 pamphlets. It also contains 5,962 subject titles of separate books and pamphlets and 30,561 titles of articles in periodicals. The Surgeon-General's Library now contains 138,078 bound volumes and 235,127 pamphlets.

Now that people are trying to make believe that the cricket season has arrived, the subject of broken noses comes to be what in the language of the music halls is called "topical." The treatment of broken noses is one of the comparatively few points in which even the most pessimistic students of medical history would admit that the art of healing has made some progress since the days of Hippocrates. Yet, even with all the skill and mechanical appliances available at the present day for dealing with this disfiguring accident, the result is not always satisfactory. What the results were in the time of Hippocrates may perhaps be judged from the following passage which is quoted by Dr. Jonathan Wright in his recently-published work, *The Nose and Throat in the History of Medicine*:

> Those who put great store by a senseless dexterity rejoice to meet with a fracture of the nose in order to apply a bandage. For a day or two the physician takes great pride in himself, and the patient rejoices; but the latter soon tires of wearing the bandage, which is annoying; as for the doctor, it is enough for him to have shown that he understands how to put on various bandages on the nose. Such a bandage does, however, quite the contrary to what is desired; on the one hand, in those in whom the nose had been sunken it becomes markedly more sunken if pressure is exerted over it; on the other hand, those in whom the nose has been dislocated to the right or to the left, either in the cartilaginous or in the upper part, these evidently, far from deriving any advantage from a bandage placed on it, suffer harm from it.

From the asperity of the tone in which the surgeon who attempts to cure broken noses with bandages is referred to, one might almost be led to suppose that the Father of Medicine had, figuratively speaking, had his own august nose put out of joint in connexion with a case of the kind.

The Iron Duke, as is well known, was most punctilious in answering letters, and as he daily received countless communications on all manner of subjects from all sorts and conditions of men, the task was no light one. How precise he was in replying even to correspondents who might well have been treated as impertinent intruders is shown by a letter written by him to a quack medicine dealer, which has lately been made public. It not only bears Wellington's signature, but was written with his own hand:

> Sir,—I have received your letter and the box of salve, etc., which you have sent me. This last will be returned to you by the coach on Monday. I beg you to accept my best thanks for your attention. I think that you and I have some reason to complain of the editors of newspapers. One of them thought proper to publish an account of me that I was affected by a rigidity of the muscles of the face. You have decided that the disease must be tic douloureux, for which you send me your salve as a remedy. I have no disorder in my face. I am affected by the lumbago or rheumatism in my loins, shoulders, neck, and back—a disorder to which many are liable who have passed days and nights exposed to the weather in bad climates. I am attended by the best medical advisers in England, and I must attend to their advice. I cannot make use of salves sent to me by a gentleman, however respectable, of whom I know nothing, and who knows nothing of the case excepting what he reads in the newspapers.

The Duke's orthodoxy in matters medical is only what was to be expected from a man of his good sense. It is almost impossible to conceive of the Iron Duke's face as otherwise than in a state of muscular rigidity. But one may conjecture that the rigidity became a trifle firmer when he set himself to reason with the salve vendor. One hopes that the latter profited by the instruction; we fear however it is more probable that he replied that his nostrum was as potent against lumbago as against tic douloureux.

In the *Polyclinic* for June some interesting facts are given as to the dying out of leprosy in Ireland. Professor Byers, of Belfast, who supplies it, has unearthed the following passage from Dr. Boate's *Natural History of Ireland*. Dr. Boate was struck by the fact that in his time (1652) leprosy had almost ceased to exist in Munster, and the hospitals, which had been so common, "had decayed and come to nothing." He attempts to account for this as follows:

> The cause of this change is not so obscure nor unknown as it is in most other changes of that nature. For that this sickness was so general in Ireland, did not come by any peculiar defect in the land or in the air, but merely through the fault and foul gluttony of the inhabitants in the successive devouring of unwholesome salmons. The common report in Ireland is, that boiled salmons eaten hot out of the kettle in great quantity bring this disease, and used to be the cause why it was so common; and some famous authors have not stuck to relate as much for a truth. But that is a fable, and salmons have not that evil quality, which way soever they be eaten and prepared, but when they are out of season, which is in the later end of the year, after they have cast their spawn; upon which they do not only grow very weak and flaggy, but so unwholesome that over their whole body they break out in very filthy spots, just like a Scaldman's head, so as it would loath any man to see them; nevertheless the Irish, a nation extremely barbarous in all parts of their life, did used to take them in that very season as well as at any other time of the year, and to eat them in very great abundance, as easily they might, every river and rivulet being very full of them, and by that means that horrible disease came to be so common amongst them. But the English, having once gotten command of the whole country into their hands, made very severe laws against the taking of salmons in that unwholesome season, and saw them carefully observed; whereby hindering those barbarians against their will to feed on that poisonous meat, they were the cause that that woful sickness, which used to mightily reign amongst them, has been quite abolished.

Dr. Byers communicates the following account of Dr. Boate which he has received from Dr. Reeves, Bishop of Down and Connor:

> Arnold and Gerhard Boate were two brothers who came to Ireland before the middle of the seventeenth century. They were Dutchmen by birth, and had studied physic at Leyden. The former was a very learned theologian, and several of his letters to Archbishop Usher, and of Usher to him, are printed in the sixteenth volume of Archbishop Usher's works. He lived over eight years in Dublin, and preached there with success. His first letter to Usher is dated Dublin, November 15th, 1639, and his last, April, 1653, from Paris, where most of his letters were written. His brother Gerhard completed from hearsay *Ireland's Natural History*. Writing from Paris, Arnold says: "Although my brother hath been in Ireland and that he hath ended his days there, yet he had both begun and finished the first book of his *Natural History* some years before he went thither, or had any thoughts of doing so; seeing that he began to write that work in the beginning of the year of our Lord 1645, and made an end of it long before the end of the same year; whereas he went not to Ireland until the latter end of the year 1649, and died at Dublin within a very short while after he was arrived there only: on the 10th January, 1649," etc. Previously to his death he had been appointed to the post of State Physician. The work was not printed till 1652, when it was published in London by Samuel Harlit. Chapter XIV., Section 4, treats "Of the Leprosie."

Dr. Reeves adds that Arnold was, long previously, not only dwelling and practising at Dublin, but was Physician-General of the English Forces in Ireland.

We have received the first number of the *Provincial Veterinary Quarterly*, "A Journal of Animal Medicine, Therapeutics, Toxicology, and Clinique," edited by John Howard, M.R.C.V.S., L.H.A.S.S., etc. The journal, which is published at Manchester, is described on the title-page as "devoted to the interests of provincial veterinary surgeons and scientists." The title-page bears the cognizance of a horse's head, with the mysterious motto *Pro bono de Multi, Non pro bono de Pauci*: while underneath is the equally cryptic legend *Juvamus Naturae per Scientiae*. After some cogitation, we have come to the conclusion that the Editor, being a man of humour, has thought it appropriate to decorate the title-page of a veterinary periodical with specimens of dog Latin. If this be the true inwardness of the matter, we can congratulate him on the massive and concrete fashion in which he has carried out his little joke, for his Latin is indeed very dog of very dog. It is the kind of thing that learned doctors of the University of London may be expected to write in future. The Editor himself is responsible for a large part of the contents of the *Provincial Veterinary Quarterly*, and one "Ibid" for most of the remainder. With regard to the latter writer, however, we are not altogether free from a suspicion that he may after all only be that classical wit, the Editor, masquerading in the evidently congenial character of a dog-Latin fancier.

DR. C. C. EASTERBROOK, Senior Assistant Royal Edinburgh Asylum, Morningside, has been appointed Medical Superintendent of the Ayr District Asylum.

THE EPIDEMIC OF SMALL-POX.

SURREY.

DR. SEATON, the Medical Officer of Health for the county of Surrey, in his summary of notification returns, states that 29 cases of small-pox occurred within the administrative county during the month of May. Ten cases were reported about the end of the month at the London County Council Lunatic Asylum at Banstead. A serious outbreak occurred at Long Ditton, where a case, unfortunately mistaken for chicken-pox, gave rise to others. One person reached his home at Chobham, where his attack was immediately recognized by the medical attendant and the medical officer of health, Dr. Hanslow Brind, to be haemorrhagic small-pox, and death occurred in a short time. The medical officer of health had left nothing undone to secure as far as possible the safety of the neighbourhood.

LONDON.

The epidemic in London continues to show signs of diminution. The following table gives for the four weeks ending June 7th the number of cases admitted to the hospitals of the Metropolitan Asylums Board, and the number under treatment on the last day of each week:

Week Ending	Admissions.	Under Treatment.
May 17th	231	1,349
May 24th...	296	1,344
May 31st	233	1,274
June 7th...	176	1,162

The number of admissions for the previous four weeks were 248, 250, 367, and 328 respectively.

ESSEX.

The following table shows the number of cases which have occurred in the four weeks ending June 7th:

Week Ending	Fresh Cases.
May 17th	32
May 24th	51
May 31st	25
June 7th	33

The numbers for the preceding four weeks were 46, 63, 63, and 45.

SCOTLAND.

In the fortnight ending May 31st 18 cases of small-pox were notified to the Local Government Board for Scotland; of these 12 occurred in Lanarkshire, 5 in Fifeshire, and 1 in Renfrewshire.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE CASE OF MR. C. A. BYNOE.

WE have received the following letter from Mr. C. A. Bynoe:

"Dear Sir,—I am very much obliged by your leader on my case in the BRITISH MEDICAL JOURNAL of April 26th last, and for the publication of the subsequent correspondence. It seemed especially opportune because, having set in motion all legal machinery within my reach with the object of getting an open, honest, legal inquiry into my case, and being met by the judgement of the Court of Appeal as set forth by you on April 26th, I applied to the General Medical Council to hear me, and doubtless your JOURNAL has great weight with them.

"In my application to the Council I undertook to prove my entire innocence. I gave instances to show that I was prepared to satisfy them that every point in the evidence which told against me at the trial was false has been proven to be false—some wilfully, some from negligence. I set forth the circumstances of my two actions in the High Court and the judgement of the Court of Appeal, which was that the conviction having once been obtained is absolutely irrevocable (except on a point of law stated by the judge who tries the case to the Court for Crown Cases Reserved, and this is very unusual), even though it be proved and admitted that the evidence on which it was obtained was wilful and malicious perjury, and that no action which impugned the conviction could be maintained in a court of law. The Master of the Rolls said this holds even though the King should grant a free pardon. Pardon does not revoke the conviction. Three years ago a member of Parliament declined to attempt to help with my petition to Parliament because I refused to petition the Home Secretary for pardon, saying I was headstrong in refusing to use the legal means of revoking the conviction. I felt, and still feel, I was right in refusing to ask for a pardon for a crime I had not committed, and which the jury who convicted me had subsequently declared I had not committed.

"I pointed out to the General Medical Council that although the judgement of the Court of Appeal was against me there was a distinct undertone of regret, and the sympathy of the Court was clearly expressed by the Master of the Rolls in his reply to Counsel for the Bank of England when he said, 'You have won on a point of law, Mr. Mathews, and not on the merits of the case.'

"The Executive Committee of the General Medical Council, through their solicitor, suggested to me that if I could obtain some expression of opinion from a judicial mind that my conviction was unsatisfactory it would very materially help them. Of course the judge who tried the case would have been the best, but he died before my release from prison. I knew that Mr. Justice Channell knows more about the case than any other judge, and that he is universally regarded as one of the soundest lawyers and the most careful and cautious judge on the Bench, so I wrote to him laying the position before him, and he replied with the following letter:

1, Bramham Gardens, London, S.W.,
May 21st, 1902.

Dear Sir,—I return the papers you have forwarded me. I hope that the General Medical Council will rehear your case, as you certainly ought to have a rehearing somewhere, and I am afraid the grounds of the decision against you in your action against the Bank of England show that it is quite impossible that you can question the conviction in a court of law. The General Medical Council can, however, I believe, rehear the matter, and, if satisfied that you were not guilty, can restore you to your position in the profession, and practically reinstate you. I have paid great attention to your case from the first, although not personally acquainted with you, owing to my interest in your friend ——. If I were still at the bar I should have some difficulty in expressing a confident opinion as to your guilt or innocence of all complicity in the frauds with which you were charged, and in my present position, as a judge, I should hesitate still more in doing so, because too much weight might possibly be attached to my opinion, but I have no hesitation whatever in stating that in my opinion your conviction has been shown to be unsatisfactory.

At the trial there was very strong evidence against you, but much of it has been displaced. You were convicted on the theory based on the evidence of experts, that you yourself had written the forged documents, and that in my opinion has been absolutely disproved. If you had dictated the documents to the writer of them you would have been as guilty as if you had yourself written them, but I understand that the woman who undoubtedly did write them has always declared that you were not the person who induced her to do it. Then the mistake in the Bank of England evidence was most material and that has been clearly proved, and it helps to show that some of the witnesses who identified you were probably mistaken. Of course there remains against you other evidence of your having had something to do with the matter, but I do not think anyone who knows the facts which have now come out, can say that the conviction is satisfactory or that the case is not one in which a new trial would be granted if there were power to do so in criminal cases. I recognize the difficulty which the Medical Council would have in getting at the necessary evidence in order to arrive at the truth in this very mysterious case, but I should be glad to hear that they were going to make the attempt.

I am, Sir, yours faithfully,
(Signed) ARTHUR M. CHANNELL.

Charles Bynoe, Esq.,
40, Queen Victoria Street, E.C.

The strength of this letter surprises me very much, coming from such a judge, but apparently it was not strong enough for the Executive Committee of the General Medical Council, because they refused to hear me or to submit my application to the Council.

Perhaps they may consider my application for restoration in November, but I see by the standing orders that would be *in camerâ*, and therefore not an open inquiry.

My attention has been drawn to the letter of "Vindex" in your issue of May 31st. I am deeply grateful for such expressions of sympathy, but I do not know for what purpose a fund could be established. There is no point of law to be tested; I have exhausted those. It has been very expensive, although I have always appeared in court in person, and has been done at considerable sacrifice, but every penny of which, I am pleased to say, I have worked for in my practice here at dentistry, notwithstanding the great difficulties of being unregistered. Doubtless you uphold the General Medical Council in their endeavour to establish that "unregistered" is synonymous with "unqualified."

Any attempt at refunding what I have already spent would necessarily be by way of personal gratuity, and would be very distasteful to me.

I shall be very grateful for any help from the profession, but the only way I see in which they can help me at present is by stimulating the Council of the British Medical Association to support my petition to Parliament asking for a new trial or a rehearing, or to move the House in any other way they think better, and to stimulate the General Medical Council to give me open inquiry.

I do not mention any of the circumstances of my case because I believe they are well known, and I fear I must already have incurred your censure by the length of this letter, but I trust the gravity of the case will plead my excuse.

MEDICAL WITNESSES AND THEIR FEES.

A CASE which was heard in the Leeds County Court on May 27th, raised a question of interest to medical men who are subpoenaed to give evidence in Courts of Justice. According to a report which appeared in the *Yorkshire Evening Post*, May 28th, an action was brought by Annie Mercer, the wife of a labourer, against Albert Tetley, a Leeds School Board teacher, to recover £50 damages for alleged assault.

Mr. Arthur Willey, solicitor, appeared for the plaintiff, Mr. J. O. Andrews for the defendant.

According to the plaintiff's case it was alleged that when she went to the school on May 7th with her boy, aged 13, who had been playing truant, she was assaulted by the defendant. Her wrist was sprained and she was bruised in several places. She went to the Leeds Infirmary, and she also attended at the public dispensary. The solicitor for the plaintiff complained that he had been unable to get any information as to his client's injuries from the dispensary, saying that it was "a monstrous thing that this Court should be left to diagnose a case in a question of damages when there are representatives of a public institution here depending upon public contributions for the express purpose of assisting the poor." He said that the gentleman who had attended the case had refused to give evidence unless he was paid one guinea a day for attendance at the Court.

When the gentleman in question (Mr. A. T. Spanton, R.M.O.) was called he declined to be sworn until he had received his fees.

His Honour: You have heard some comments on that matter, and that it presses hardly upon poor people who have not several guineas to put down?

Witness: Yes.

His Honour: And perhaps you have heard other similar comments.

Witness: No, I have heard no other.

His Honour: Then you still persist in your intention of having the money laid down before you give evidence in this poor person's case?—Yes.

His Honour: Then I suppose he can stand down.

Mr. Willey: I would not ask him any question. I hope people won't go to the dispensary.

His Honour: It seems to me an extraordinary line for gentlemen of the medical profession to take up that they should require the money down. They may need it in some cases, but not in all, I am sure. It seems to be a considered line of conduct on the part of the medical officers of this town to decline to give evidence without fees, and I am amazed that it should be so.

Mr. Spanton then left the court.

The defendant was then called, and after hearing further evidence, his Honour found for the defendant, adding that he did not believe the plaintiff's story.

SENSATIONAL SURGERY IN LAY NEWSPAPERS.

A COURSE [illegible] as much concerned because the *Manchester Evening News* has [illegible] paragraph upon a case of brain surgery operated upon by Mr. Rushton Parker, of Liverpool, and published in the BRITISH MEDICAL JOURNAL. The particular point in the case which seems to have attracted our contemporary's attention was the use of a piece of gold foil which was interposed between the brain and the skin flaps. There can be no doubt that such notices in lay newspapers are offensive to the medical profession, and we would again point out that their publication can serve no useful purpose.

A NURSING HOME.

A SHORT time ago our attention was called by a correspondent to an advertisement card issued by a lady keeping a nursing home in London: endorsed in writing on this card, under the heading "Surgeons," were the names of two well-known surgeons in London. On receipt of this communication we communicated with the two gentlemen whose names were endorsed on the card, and they have both informed us that they were unaware of the course taken by the keeper of the home: that they had merely sent cases to the home in the ordinary way; and that they strongly objected to the use made of their names. One of the surgeons concerned instructed his solicitor in the matter: the lady has now signed a letter expressing her regret and apologising, and stating that the mistake was made in all innocence and without appreciating the fact that such use of the name was open to misconstruction.

CERTIFICATION OF THE CAUSE OF DEATH.

MEDICAL PRACTITIONER writes to ask if he is justified in giving a certificate of the cause of death of a child after having seen it once only two days before death, when he found it suffering from tuberculosis.

*** If the medical attendant is quite satisfied that the death was entirely due to natural causes, and in no way caused or accelerated by any injury or neglect, there is nothing in the Registration Acts that prevents him giving a certificate under the circumstances mentioned. In the case referred to an inquest was held, and it appears that the deceased was a child 18 months old, one of seven, the others all living. The deceased had been attended at hospital for two and a-half months, but the inspector of the National Society for Prevention of Cruelty to Children had been visiting the child, as he had received information that it was neglected, and the coroner, who was informed of this after the burial, ordered the body to be exhumed, and held a public inquiry. During the course of the proceedings the coroner suggested that the medical attendant, having only seen the child once during life, should have withheld the certificate pending further inquiries. A necropsy showed that the certificate given was quite correct, and neither the doctor who made the examination nor our correspondent who was present could say that there was any evidence to show that neglect had caused or accelerated the death.

As we have already hinted, our correspondent committed no illegal act in giving the certificate of the cause of death, but we would point out that it is sometimes advisable to withhold it for a time in such a case and to inform the coroner, and, if he decides that an inquest is unnecessary, then the certificate can be given without its being afterwards questioned. Sometimes it may happen that parents take the child when dying to a doctor, in order to get a certificate, having neglected to obtain medical aid until the last moment. By withholding the certificate, for a time opportunity is given to the coroner to make inquiries before burial of the body. We are aware of the duty imposed by law upon medical practitioners who have attended a person during his or her last illness to give a certificate of the cause of death for the use of the registrar, but it has never been legally defined what that "attendance" strictly constitutes. Each case must be considered on its own merits, but in uncertain cases delay in issuing the certificates until inquiries are made is perhaps the wisest course, more especially if the patient is previously unknown to the practitioner.

MEDICAL FEES.

L. B. wishes to know whether it is customary to make a charge for a visit to a person found deceased, and on whom an inquest has been held.

*** If a practitioner is called to visit a patient, and on arrival finds him dead, he is entitled to a fee for his visit. Among the poor, if the practitioner is called to the inquest, he very frequently does not claim the fee, but where the question of poverty does not arise, a fee ought always to be claimed.

FEES FOR VACCINATION.

B. D. asks what is usual as regards fee in the case of a person being vaccinated a second and third time.

*** In the case of public vaccinations no fee is allowed except for successful vaccinations. In private cases it is usual to make some deduction in the fee where the vaccination does not take and the operation is repeated. This deduction varies in different cases, but generally speaking, a charge of half the usual fee each time the operation is repeated would be a fair one.

UNREGISTERED HOSPITAL OFFICER.

X. Y. Z.—The details given are not sufficiently precise, but it is not probable that a charge of "covering" could be sustained. Both persons are probably appointed by the committee of the hospital. There can be little question that such an arrangement as that described is undesirable and improper.

PRESENTATIONS.—The Medical Superintendent of the National Hospital for Consumptives, Newcastle (co. Wicklow), Dr. L. B. H. Steede was recently presented by the past and present patients of the hospital with a set of *entrée* dishes and a revolving dish on the occasion of his marriage. The latter bore an inscription testifying to the skill, gentleness, and kindly attention the patients had received at his hands.—Dr. F. C. Wood of Ripley, Derby, as lecturer to the Ripley Ambulance Class, was presented with a silver-mounted oak inkstand by the members of the class as an acknowledgement of their indebtedness to him.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 14TH, 1902.

THE AMENDED MIDWIVES BILL.

WE publish at page 1480 a report of the proceedings in the House of Commons on the report stage of the Midwives Bill, which will supplement the somewhat scanty details given by most of the daily papers. The Bill passed this stage, and was ordered for third reading, but before this happened the British Medical Association was able to place the views of the profession before the House of Commons so effectively that in spite of the opposition of the Home Office as represented by the Home Secretary, Mr. Ritchie, and the Parliamentary Under-Secretary, Mr. Jesse Collings, the Bill has been very materially modified for the better. The position of the Home Office was indeed so utterly illogical that when the matter was clearly placed before the House its opposition melted away. The Bill is still most defective in many important respects, but some of its most disastrous omissions have been repaired.

To understand the position of affairs when the House met on June 6th we must go back to the interview which a deputation representing the Council of the British Medical Association had with the Home Secretary on June 3rd. A full report of the arguments of the deputation and of Mr. Ritchie's reply was published in the BRITISH MEDICAL JOURNAL of June 6th (p. 1438). Stripped of verbiage and detail, the essential point in this reply was that the Home Secretary, as representing the Government, was strongly in favour of the Bill and as strongly opposed to the reinstatement of the provision contained in the Bill of 1900 and then approved by the Standing Committee on Law, which would render it illegal for any woman to practise as a midwife, or under any colourable imitation of that title, unless she possessed a certificate granted in accordance with the provisions of the Bill. The issue was therefore perfectly plain. The Home Secretary was not only anxious that the Bill should pass, but determined to use all his influence to ensure that its worst features should be retained, although it was clearly pointed out to him that the Act, while establishing a new class of superior midwives, would leave any ignorant dirty woman to make a business of attending poor women in childbirth. While repudiating the suggestion that the Government were responsible for making a private member's Bill effective, he yet adopted and sustained the official Home Office view that it would be contrary to precedent to reinstate in the Bill the provision accepted by its promoters two years ago which would render it effective to remove the evils it professed to remedy. His contention that as the Standing Committee on Law had not this year approved the desired amendment the Home Office would not be justified in supporting it sounded somewhat absurd to those who remembered that this very provision had been approved by a similar Committee two years ago, and had only been dropped by the promoters this year in deference to the avowed opposition of the Home Office. Mr. Ritchie's words, though perfectly courteous in manner, sounded very like a deliberate challenge. We ought, perhaps, to thank him for his almost brutal frankness, for if he made his own attitude sufficiently clear, he pointed equally plainly to the course which he, as an old Parliamentary hand, thought the opponents of the emasculated Bill could alone take. In fact, the Home Secretary told the deputation, almost in so many words, that if they did not like the Bill as it stood they must not look to him for any assistance in making it an effective remedy for the evils which, as he acknowledged in the same breath, it would not remove, and that their only course was to take measures to oppose it on the report stage. The Committee of the Association at once prepared, in accordance with previous reports and decisions of the British Medical Association, a series of amendments which afforded the House of Commons an opportunity of discussing the main points in which the Bill was defective and of remedying on the report stage (the proper constitutional moment for amending a Bill in detail when a Standing Committee has failed to do what is necessary) the numerous imperfections which the Standing Committee on Law had failed to remove. The Association is much indebted to Mr. Horsley, a member of the Committee, for drawing up a long series of notes explaining the meaning and the object of each amendment. These were circulated to members of Parliament, and Dr. Ambrose, Mr. T. P. O'Connor (the member for the Scotland Division of Liverpool), and Mr. Galloway (the member for Manchester S.W.), took charge of the more important of them. That the House of Commons gave an attentive hearing to the arguments advanced, and passed the most essential amendment without a division, was in large measure due to the tact and skill of Mr. O'Connor, who has thus once again shown a real grasp of medical questions affecting the welfare of the people at large, and especially of the poorer classes. In a forcible speech in support of Dr. Ambrose's amendment to insert words forbidding a woman to practise midwifery "habitually and for gain" unless certificated under the Act, he showed that there was not one line in the Bill which would enable the authorities to interfere with any woman, however unfit, who chose to practise midwifery. Whatever differences of opinion may exist as to the successive Midwives Bills, we believe that there is something approaching unanimity on this point. The Committee of the General Medical Council, in its report to the Council last week (Sir John Williams in the chair) reaffirmed the principle "that any measure which proposes merely to protect the title of 'midwife,' however defined, and does not make illegal and penal the unlicensed practise of midwifery for gain, cannot be regarded as offer-

ing a sufficient safeguard in the interests of the public health." Mr. O'Connor and Dr. Ambrose were therefore able to assure the House of Commons that the amendment had the support of the General Medical Council as well as of the British Medical Association. The reasonable nature of this proposal commended it to the House, and the effect was apparent.

The Home Secretary, in his reply to Mr. O'Connor, fell back upon the decision of the Standing Committee this year as his chief justification for resisting the amendment. He besought the House to accept the Bill as it stood as an instalment, a view which was supported by Mr. Heywood Johnstone. The feeling of the House was, however, so clearly against such piecemeal legislation that the Home Secretary and the promoters of the Bill did not venture to take a division, and the amendment was accepted, with the rider that the period of grace to existing midwives should be extended for eight years altogether, a suggestion offered by Mr. O'Connor as a compromise which would not affect the principle at stake.

The House of Commons has thus disagreed with the permanent officials of the Home Office, who appear to have been so imperfectly acquainted with the legislation which Parliament, acting in the interests of the public, has considered necessary for the protection of technical knowledge that they led Mr. Ritchie to believe that there was no precedent. As a matter of fact, the Midwives Bill as it now stands follows the precedent of the Apothecaries Act, which, as is well known, has been exceedingly useful in checking the unqualified practice of incompetent pretenders to technical knowledge.

The provisions in the Bill for maintaining the purity of the roll of midwives to be constituted by it are still imperfect, but they have been strengthened by a new clause carried by Mr. T. P. O'Connor, giving the Midwives Board power to remove the name of a woman convicted of a felony or misdemeanour, or found guilty of disgraceful conduct in her practice as a midwife, and directing the Board to inquire into such cases of alleged misconduct. In view of the fact that the Bill now forbids the practice of a woman not certified under it, this new clause becomes of considerable importance. Another new clause also promoted by the British Medical Association requiring the council of a county or county borough to inspect lying-in homes, led to an interesting discussion. The clause was not accepted as it stood, but the Home Secretary undertook to consider the matter with the view of bringing up a new clause when the Bill reaches the House of Lords. A proposal to replace the system of local notification of the Bill of this year by the local licence prescribed by the Bill of 1900 was rejected, after Mr. Heywood Johnstone had asserted that there was very little difference between the two systems.

The Bill stands for third reading on Friday, June 13th, but the third reading of a Bill is usually little more than a formality, so that the next stage will practically be the second reading in the House of Lords. The Home Secretary undoubtedly gave a pledge in the House of Commons not to oppose the provision introduced into the Bill forbidding the practice of uncertificated midwives, and rendering persons who violated that provision liable to a penalty. But the Bill must be carefully watched in the Upper House, where, of course, amendments of any kind can be introduced. We trust that any changes which may there be made will be in the direction of strengthening the Bill and improving and simplifying the inadequate and cumbersome system of control and supervision.

PROBLEMS CONCERNING THE SERUMTHERAPEUTICS OF PLAGUE.

THE endeavour of the Indian Plague Commissioners, as recorded in the fifth volume of their report, to deal with the serumtherapeutics of plague, suggests a reference to some of the literature which, directly or indirectly, has a bearing on the problems involved in that subject, and has in certain instances appeared too recently to have been available for the Commissioners at the time of writing their report.

It is useful, to begin with, to recall the opinion originally expressed by Yersin himself. Describing[1] the encouraging results he obtained in China when putting his serum to therapeutic use for the first time, he admits that his samples were very weak as compared with diphtherial and tetanus serums, but found that they retained their curative properties for a considerable time after being prepared. He observed that the earlier the patient was treated the better the result, and recognized that the treatment was useless when the pulse and respiration were irregular and the heart weak. The great difficulty in the way of producing an efficient serum was shown by the failure of Symmers[2] when preparing plague serum at Abbasieh for the Egyptian Sanitary Service. His results only reached the limited degree of success he had previously attained in the preparation of serum for cholera and typhoid fever, and would not, in his opinion, be therapeutically useful. Nevertheless, he thought that "probably more severe inoculations and the use of more virulent bacilli for a longer time might afford a more powerful serum." Krumbein, Tavel, and Glücksmann[3] also speak of the great difficulty and length of time involved in the preparation of an efficient serum, but say they have succeeded by treating a horse for a year and a half in raising the strength of the serum to the value $\frac{1}{500}$. It is interesting to note that they found as the serum increased in strength its agglutinating power increased correspondingly. Coming now to the all-important consideration of the choice of substances with which to inoculate animals so as to produce the maximum of immunity, we find Stewart[4] expressing the view that a nucleo-proteid extract of dead microbes confers a less degree of immunity on a horse than does an inoculation of the dead bacilli themselves together with their metabolic products; and, further, that the latter method produces a less powerful serum than inoculation with living organisms. Believers in Lustig's method, relying on statistics showing the therapeutic efficacy of serums prepared in his way, strongly contest this view. If we desire to form an opinion on the point for ourselves, there are several articles dealing with the production of immunity which are more or less suggestive. Emmerich, Löw, and Korschun[5] have developed a theory that the

[1] *Ann. de l'Inst. Pasteur*, 1897, p. 81.
[2] *Centralbl. f. Bakt.*, vol. xxv, 1899, p. 400.
[3] *Centralbl. f. Bakt.*, vol. xxx, 1901, p. 742.
[4] BRITISH MEDICAL JOURNAL, October, 1900, p. 1241.
[5] *Centralbl. f. Bakt.*, vol. xxxi, 1902, p. 1; *Zeit. f. Hyg.*, vol. xxxvi, 1901, p. 9.

essential factor in immunization is the incorporation of bacteriolytic enzymes or "nucleases." These are substances of bacterial origin, and are capable, in minute quantity, of rapidly destroying enormous numbers of bacteria, their action being generally limited to the species of bacteria from which they are derived, but in some cases extending to a variety of other organisms. Thus they believe B. pyocyaneus to give rise to an enzyme possessing the curious property of surviving a heat of 100° C. for two hours, which exerts a strong bactericidal effect upon B. pestis as well as upon many other bacteria. How far these experiments are likely to prove therapeutically useful, it would be rash to say. By way of contrast to the enzyme type of theory may be read A. Fischer's[8] attempt to show the importance for the study of bacteriolysis of considering the action of osmotic forces on the bacterial body. On the question of the production of toxins by living plague bacilli and their value for immunization, there is a contribution by Markl,[7] who obtained by filtration of broth cultures of plague a toxin which had to be kept in the cold, as it was unstable at room temperature. With this he inoculated animals, and found their serum strongly antitoxic. He also prepared a serum by combined inoculation of filtrate and dead bacilli which he considered to be both antitoxic and preventive. Those who doubt whether either preparations of nucleo-proteids or even dead bacilli killed by heat can retain all the requisite factors for inoculation purposes may, if they disapprove of the risks attending inoculations with living bacilli, find some interest in Gabritschewsky's[9] attempt to sterilize agar cultures by transferring the growths to pure glycerine, horses being afterwards inoculated with the material thus obtained.

Reverting to clinical matters, we find that in recent small outbreaks of plague, serum inoculations are thought to have produced useful results. Amongst the patients in Oporto in 1899,[9] those treated with serum prepared by Yersin's method showed a much lower mortality than the untreated. Large doses were given without injurious effect; a combination of subcutaneous (40 c.cm.) and intravenous (20 c.cm.) inoculation was found best. Lignières[10] says the Roux-Yersin serum was found useful in Buenos Aires in 1899-1900, especially when cases were treated early and with large doses. Intravenous inoculation was found the best. Brownlee makes some interesting observations on cases treated at Glasgow in 1900 with Yersin's serum obtained from Paris.[11] He did not find subcutaneous injection of any great curative value. This failure, he thinks, is the result of the lymphatic system exercising a distinct action as a biological filter on the serum. In this way, he thinks, the antitoxic substances of the serum are retained largely in the glands which drain the area into which the injection is given, so that only the more inert portions of the serum reach the general circulation. In one of his cases the inguinal bubo, into the drainage area of which the serum had been injected, showed marked disintegration of contained bacilli. He is therefore inclined to think that subcutaneous injection may be effective for localized but not for general infections. He notes that the intravenous injection of the serum seemed in most cases to produce a marked therapeutic effect, even when given late in the disease. In conclusion, he recommends large initial doses—as much as 60 c.cm.—and the intravenous method.

[8] *Zeit. f. Hyg.*, vol. xxxv, 1900, p. 1.
[7] Tenth International Congress for Hygiene, Paris, 1900.
[8] *Russ. Arch. f. Pathol.*, 1897.
[9] Levin, *Bubonenpesten in Porto*, 1899.
[10] *Ann. de l'Inst. Pasteur*, October, 1901, p. 808.
[11] Corporation of Glasgow, Report on certain cases of Plague occurring in Glasgow in 1900, p. 59.

THE REORGANIZATION OF THE ASSOCIATION.

THE extraordinary general meeting of the British Medical Association to be held at Exeter Hall, Strand, on Wednesday next, June 18th, at 2 p.m., will be an occasion of momentous importance in the history of the Association, and it is therefore to be hoped that there will be a large attendance. The principles upon which the new regulations for the constitution of the Association have been framed were approved by the last annual general meeting at Cheltenham, as embodied in the report of the Special Committee appointed in the previous year. During the discussions at the numerous meetings of this Committee every point was, as may have been seen from the full report published in the BRITISH MEDICAL JOURNAL of February 16th, 1901, fully debated by the members, who represented, so far as we are able to judge, every phase of opinion in the Association. Stated in the broadest terms, the object of the change now recommended to the Association is to improve and extend the local organization of the Association by providing small units of organization, to be called Divisions, to utilize this local organization to provide a means for obtaining an expression of the opinion of the Association at large upon administrative or political questions, and finally, to provide a central organization for carrying out the expressed wishes of the Association, and of exerting more effectually its influence on the Legislature. The scheme of constitution contained in the new regulations is comprehensive and involves a multitude of details upon which it is hardly to be expected that all members of the Association will be agreed, but it is obvious that in a matter of this kind there must be some point of finality, and the Committee have therefore considered it necessary to recommend that the new regulations should be voted upon as a whole. The matter has now passed out of the hands of the Committee and of the Council into those of the Association in general meeting, and that being so, we think that we are justified in saying once more that it is of the utmost importance that as many members as possible should make a point of attending the meeting on Wednesday next. We are informed that the resolution will be moved by Mr. Edmund Owen, Chairman of the Reconstitution Committee, which reported to the annual meeting last year at Cheltenham, and will be seconded by Mr. Andrew Clark, Chairman of the Committee appointed at Cheltenham to draft the new regulations.

THE ROYAL ARMY MEDICAL CORPS IN INDIA.

THROUGH the courtesy of the Director-General Army Medical Service we are enabled to state that the Secretary of State for India has decided to approve an increase to the pay of officers of the Royal Army Medical Corps below the rank of major while serving in India, and also of the issue of charge allowances for senior medical officers of station hospitals there. We have not been able to ascertain the rates which will be paid, but we are informed that it is believed that the increase will be substantial and in proportion to the recent increase in English pay. We trust that this may turn out to be the case, for such an increase of pay in India is an essential step in the rehabilitation of the Army Medical Service, and as a necessary sequel to the recent Royal Warrant. Hitherto the Indian Government has proved obdurate on this point, but it is hoped that having now conceded the principle it will see the justice of making

the increase of pay to the junior ranks and of charge allowance to the seniors commensurate with the increase in the scale of home pay in the recent Royal Warrant, having due regard to the relative value of the rupee and the shilling. We must congratulate the service on the better prospects which appear to be opening before it, and also the British Medical Association on having secured most of the amendments on the original scheme of reform for which it has strenuously contended. We venture, however, to express the hope that the actual rates of increase may be officially stated without delay.

THE ROMANCE OF MEDICINE.

Sir Frederick Treves presided on June 11th at the prize-giving of the Charing Cross Hospital Medical School. The Epsom Scholarship was awarded to Mr. E. H. Hugo, and the Huxley Scholar was declared to be Mr. W. K. Beaman. After Sir F. Treves had distributed the prizes to the successful students he delivered an address, in the course of which he said that never before in the history of medicine had the art of healing reached the state it was in at the present time, not only as regards the character of its scientific work, but also in regard to its influence. For the first time in the history of the country medical men had become factors in the State with great responsibilities, for upon their dicta depended the determination of serious issues concerning public health, epidemics, and water and food supply. It was commonly said that the profession of a medical man was an exceedingly dull calling, but in his opinion it was the profession of romance. The exploits of discoverers of new countries had always been surrounded with a halo of romance, but the discoveries in medicine had not been less romantic. No story of the past could exceed the romance of the history of the work of Pasteur, Lister, and Koch. They had not discovered any new garden of the Hesperides, but they had travelled far into the valley of the shadow of death. The story of Hercules and his struggle with cold death in Hades could be paralleled in the strange annals of the medical profession. He did not think there was anything in the history more dramatic than Laënnec holding on the point of a needle a minute scrap of tissue and saying "I have found the seed of tuberculosis." When Koch looked down the tube of a microscope and demonstrated the bacillus of tuberculosis he was practically reaching one of the limits of philosophic inquiry. Could there be anything more profoundly interesting than the way in which malaria was studied and finally explained? Those who said that medicine was dull must indeed find dullness in strange company when reading of the way in which Dr. Patrick Manson and others carried on their researches. Referring to what was called in books the romance of war, it was difficult to say where that romance was. It might, perhaps, be in the trenches, but Sir Frederick Treves thought it lay behind the firing line in the hospital. He described how in watching the line of column some eight miles in length at the battle of Colenso the greatest amount of interest attached to the four wagons with the bearer companies. No one saw those wagons with the Red Cross flag passing along the sky-line to the fatal field of Colenso without feeling a slight thrill. Sir Frederick concluded his address by pointing out how the medical profession merited the title of a liberal profession because a man might succeed in it without money, without backing, provided he had a stout heart and his diploma. A vote of thanks to the Chairman was moved by Mr. John Morgan, seconded by Sir Joseph Fayrer, and carried with acclamation.

IRISH DISPENSARY DOCTORS' HOLIDAYS

It will be in the recollection of our readers that when the Irish Local Government Board issued amended regulations for the dispensaries under the Local Government (Ireland) Act of 1898 they introduced a clause intended to give each dispensary medical officer four weeks' leave of absence, but so unfortunately worded that when it came to be interpreted by the High Court the judges practically decided that under this rule the guardians, though bound to grant vacation, might limit it to one day if they thought fit. When this judgement was pronounced it was generally understood that the Irish Local Government Board would issue a new rule couched in plain English, but this they have hitherto failed to do. On October 8th, 1901, Dr. Duckworth, one of the medical officers of the Abbeylex Union applied for fourteen days' leave, nominating, as he was bound to do, as his *locum tenens*, a Dr. Mitchell, who was willing to discharge the duties for 3 guineas per week. This application came before the guardians on that date and a discussion ensued, from which it appears that by 22 votes to 5 the guardians, while granting the leave, declined to pay a substitute, on the ground that Dr. Duckworth had taken legal proceedings against the guardians to recover his fees for giving evidence before a court of inquiry in the matter of certain labourers' cottages proposed to be erected in the union. It also came out during the discussion that the other medical officers of the union had each of them obtained their leave by presenting certificates of illness, a questionable proceeding, which we think Dr. Duckworth rightly refused to adopt. On November 16th, 1901, Dr. Duckworth forwarded to the Irish Local Government Board a copy of the decision of the guardians, and asked for redress. Then followed a series of letters between Dr. Duckworth and the Local Government Board, the former demanding his rights in the matter of vacation under the existing sealed order, and the latter putting him off with contradictions and evasions. For instance, in a letter dated March 8th, 1902, the Local Government Board informed Dr. Duckworth that, having complied with the regulations—that is, nominated a *locum tenens* willing to act for a reasonable fee—it was competent for him to proceed on his vacation, leaving the guardians to fix the rate of remuneration, while on April 23rd the same authority informed him he was not entitled to relinquish his duties until the guardians had granted him leave, and the Local Government Board had approved of the arrangements. It may be inconvenient for the Irish Local Government Board either to assert its authority or to admit its error by issuing a new sealed order, but it certainly is not justice to leave matters as they are. That the medical officers of one union should be able to obtain their full four weeks' leave without opposition, while their neighbours in an adjoining union should have to resort to certificates of illness before they can obtain leave, is not creditable to the Government; nor do we understand why dispensary doctors alone, out of all the Poor-law officials medical and lay, should be deemed worthy of annual vacation as a matter of right.

MEDICAL MEN AS WITNESSES.

The case of Mercer *v.* Tetley, a short report of which will be found in another column, raises a point of considerable interest to medical men. An action for damages for assault was brought by a labourer's wife against a School Board teacher. The plaintiff had been attended at the Public Dispensary in Leeds, and in order to prove the damages which she had sustained her solicitor subpoenaed the resident medical officer to attend at the county court to give evidence. He refused to be sworn until his fee of one guinea was paid, and his conduct was subjected to adverse comment both from the plaintiff's solicitor and from the Bench. His Honour said: "It seems to me an extraordinary line for gentlemen of the medical profession to take up that they should require the money down. They may need it in some cases, but not in all, I am sure. It seems to be a considered line of conduct on the part of the medical officers of this town to decline to give evidence

without fees, and I am amazed that it should be so." Before the conclusion of the defendant's case the learned judge found against the plaintiff, stating that he did not believe her. In the light of the decision we are amazed that His Honour should have felt it necessary to make adverse comment upon the refusal of the medical officer to give evidence unless his fee was paid. The medical officer, in all probability, well knew the nature of the claim which was being made. What duty was there cast upon him to lend it support? It is difficult to see how the fact that the witness was the medical officer of a charitable institution had any bearing upon the discussion. Further, we fail to see why there should be any departure from the ordinary rule as to payment of witnesses in the case of medical practitioners. A witness who attends a trial in a civil action in obedience to a subpœna may always object to give evidence unless his expenses are paid. This rule was recognized so long ago as 1844 by Baron Rolfe.[1] As might have been expected, the observations made by Judge Greenhow have been the subject of comment in the press. One correspondent of the *Yorkshire Post* wrote (on May 30th) that "the true reason that there is any difficulty in getting medical men to give evidence is that certain solicitors will not pay them their fees after getting the evidence if they can possibly get out of it." We do not suppose that this reason is a valid one in Yorkshire only. The Board of the Leeds Public Dispensary have published a resolution to the effect that it is undesirable that their resident medical officers should be expected to give their services gratuitously, for the following reasons: (1) That such services can scarcely be regarded as included in the object for which this charity exists: (2) that any attendance in court implies the taking up of valuable time, which should be expended in carrying on the proper work of the institution; (3) that should such services be given gratuitously, it is impossible to estimate to what extent they might encroach upon the time of the medical officers of the institution. They add a rider to the effect that any action which tends to discourage or check "speculative litigation" is desirable in the best interests of the poorer classes. These resolutions will have the entire sympathy of the medical profession.

METROPOLITAN HOSPITAL SUNDAY.

IT is, we conceive, the duty of every Londoner to do all in his power, both in his own person and with all with whom he may have influence, to make the Metropolitan Hospital Sunday this year worthy of the great occasion upon which it falls—the Sunday immediately preceding the Coronation—and worthy of the King who has taken so large and so noble a share in the great work of bringing renewed prosperity to the hospitals of his capital. The King has declared that nothing appeals more deeply to himself than the cause of the hospitals, and both before and since his accession he has given many practical proofs of the sentiment with which he is inspired. The beneficent influence which the visits of the Prince and Princess of Wales to the hospitals, and their enlightened inspection of them, have had on their progress, is marked by the gratifying fact that the Prince's own efforts have, we are assured, resulted in adding something like £20,000 a year to the revenue of the hospitals of London. It is also gratifying to know that the success of the King's Metropolitan Hospital Fund has not been in any way gained at the expense of the Metropolitan Sunday Fund, and that the authorities of the two funds have worked cordially together. Since the institution of the King's Fund the average total receipts of the Metropolitan Hospital Sunday Fund, for each of the five years, 1897 to 1901, has been £48,326, while the largest amount received by the fund in any year previous to this with one exception, when a special effort was made, was £46,035. This fact encourages the hope that, however liberal the contributions may be on Sunday, they will not damage in any way the progress of the King's Hospital Fund. There can be no question that the hospitals have rendered enormous service to the people of London, and that through them an immense saving of life and diminution of suffering have been brought about. Moreover, the admirable work done within their walls has, through the knowledge there gained by students, been spread throughout the British Empire to every quarter of the globe, so that the methods which have been found effectual to save life and diminish suffering in the London hospitals are now being put in practice in country villages, in the mining towns of Australia, in the camps of South Africa, and in the hospitals of our tropical colonies.

[1] 1844, 1 C. and K. 316. [2] See also an article entitled Medical Men as Witnesses, BRITISH MEDICAL JOURNAL, September 10th, 1899, p. 741.

A NATIONAL HOSPITAL FUND.

THE letter from Mr. G. A. Wright of Manchester, published in our columns last week, raises a point which calls for grave consideration and inquiry. He expressed the opinion that, as the Sovereign is not King of London only, and as the provincial hospitals are as much in need of funds as the London, it would be preferable to collect for a national hospital fund in honour of the Coronation rather than one for London only. Mr. Wright's reasoning is hard to refute. King Edward is certainly King of Manchester as much as of London, and it may be true that many provincial hospitals find it as hard to collect funds as do those of the metropolis. On the other hand, we must not forget the magnitude of the task of collecting such a hospital fund as would deserve the name of "national" by being equal to the needs of the hospitals of the three kingdoms. Up to the present time the success of King Edward's Fund lies rather in the region of hope than of experience. It is hoped that the annual expenditure of all the London hospitals will be provided: but we do not as yet see that this has been realized. Even in London we see how difficult it is to distinguish between the worthy and the unworthy claimants to the honourable title of "hospital." In some country districts this difficulty would be still more felt. The Report on the Hospitals of the United Kingdom by Dr. Bristow and Mr. Holmes—published by the Privy Council in 1863—showed that at that time many of the smaller country hospitals were managed under a system which in the language of the report tended "to reduce to the smallest possible amount the good which is done." No doubt much has been changed for the better in the long interval that has elapsed since then: but if a great fund is to be collected and administered for the benefit of the nation, it will require the strictest vigilance to see that it is under a system whereby corresponding advantages are secured for the national health. We are to-day only touching on the fringe of a large subject, and more to elicit the opinions of our readers in town and country than to express any definite judgement of our own.

THE PROPOSED DISRUPTION OF THE VICTORIA UNIVERSITY.

AT a meeting of the governors of the Yorkshire College, Leeds, held on June 5th, it was resolved to petition the King in Council against the dismemberment of Victoria University, and further to resist, if necessity should arise, the proposal of Owens College to carry on the corporate existence of Victoria University in an independent university in Manchester. Colonel Legard informed the meeting that a deputation consisting of the three Lord-Lieutenants of Yorkshire, the Chairmen of the three County Councils, and the Chairmen of the Technical Instruction Committees of the three Ridings recently had an interview with the Lord President of the Council with regard to the threatened dissolution. The Duke of Devon-

shire did not express any very definite opinion, but stated that he was not in favour of the appointment of a Royal Commission; at the same time he added that he would have no objection to a full inquiry into the question being made by the Committee of the Privy Council, before which county councils and other bodies could be represented by counsel.

THE USHER INSTITUTE OF PUBLIC HEALTH, EDINBURGH.

The Usher Institute of Public Health was formally presented to the University of Edinburgh on June 11th by the donor, Sir John Usher, who in a few simple and modest sentences handed over the deed of gift to the Vice-Chancellor, Sir William Muir, who accepted it on behalf of the University, and said they were thankful beyond measure for Sir John's gift. Sir William Turner moved a vote of thanks to the donor, and said that sanitary science and sanitary reform were the product of the Victorian era. He traced the part which the University of Edinburgh had played in this development. He referred to the fact that the first recipient of the then newly-created degrees in Public Health was Dr. James Russell, afterwards Sir James, Convener of the Public Health Committee, and Lord Provost of Edinburgh. Professor Hunter Stewart seconded. Mr. Ian Macpherson presented an address by the Students' Representative Council to Sir John Usher, who replied. After the Benediction, tea was served in the Museum of the Institute. There was a large attendance of the members of the Medical Faculty, Town Council, the medical profession, students, and the public.

KING EDWARD VII CORONATION NATIONAL FUND FOR NURSES IN IRELAND.

At a public meeting held in Dublin on June 10th a resolution was unanimously adopted to the following effect:

That the historic and auspicious event of His Gracious Majesty's Coronation Commemoration in this capital of Dublin and throughout Ireland, be celebrated by founding a fund for the benefit of aged, sick, or disabled certificated female nurses working in Ireland, to be called "King Edward the Seventh's Coronation National Fund for Nurses in Ireland."

Lord Justice Fitzgibbon, in proposing the resolution, spoke of the part played by nurses in the late war. He personally knew the history of fifteen of those who left Ireland to nurse in that war. Eleven were volunteers who joined the Nursing Reserve; ten had survived, and one had laid down her life for her patients. No provision was made by the State or other organization for sick or disabled nurses. It was a poorly paid, hardly worked, and perilous calling. Sir Francis Cruise, M.D., Sir William Thomson, C.B., and Mr. T. Myles, F.R.C.S., all gave the scheme their unqualified support.

FUTURE UNIVERSITY CENTRES IN LONDON.

Professor Starling in the course of the Foundation Day Oration which he delivered on June 5th before the Union Society of University College, London, referred to the development of the University of London, the aim of which was to establish in London a University adapted to the needs of this "monstrous metropolis" and offering to all classes and all creeds of the Empire an education fitting them to take part in the struggle not only for mere existence but also for the persistence of the English race and English ideals. Such an institution must partake of that property which has been attached as a sort of secondary meaning to the word "University," namely, a university of intellectual interest. Opportunities must be afforded for the highest development of the mind in all directions. The fundamental motive must be the love of learning and there must be no forced exclusion of studies which in the opinion of the majority were of slight practical value and of little importance for the common weal. Both teachers and scholars would learn by admixture the various types of thought proper to different types of men, and they would learn to take a part in the united action for the common good which would be their work outside the University as units in the social organism. The essential function of a University was the making of knowledge and the training of men in scientific method in the widest sense of the term. The successful discharge of that function could only be secured by a complete freedom of the University in the management of its own affairs. It could only attain its highest development and usefulness to the community if all kinds of learning were regarded as within its scope; in other words, it must contain many faculties united in one corporation affording to its scholars a place of preparation and intellectual development free from the struggle and parochial dissension in the world outside. The special need for the University in London was due to the growth of science during the last fifty years, and its invasion of almost all walks of life. The first difficulty was the enormous size of London and the relative inaccessibility of its various parts. The best way was to adopt a process of division, so that a complete university centre should be provided in each of the four quarters of London. These centres would be but parts of one university. It would be possible in this way to provide for the training of 10,000 students, each centre would cost about £500,000, and a yearly income of £50,000 was necessary in addition to students' fees. University College could be utilized, and was ready to be made into the first of the centres of the University of London, and towards the necessary sum more than half had already been subscribed. The other three centres were the subject of active consideration, and it was proposed that one should be placed in South Kensington to form the centre for West London. For South London King's College already afforded a nucleus, and it was possible that the excellent institute maintained by the Drapers Company might be utilized as a nucleus for the fourth centre in the East of London.

SOUTH AFRICAN CIVIL SURGEONS DINNER.

Sir Frederick Treves occupied the chair on June 9th at the South African Civil Surgeons' Dinner held at the Hotel Cecil, Strand. The company numbered over 100. In proposing the toast of the "The Imperial Forces," Dr. Conan Doyle said that the greatest Imperial Force in the country was the latent force which constituted a great reserve of power from which every form of activity could be drawn by appealing to the country for it. The Army Medical Department had been starved in time of peace, and when it suddenly found itself face to face with war and was in need of help hundreds of civil surgeons at once sprang to the front. The whole nation was one great unity and one imperial force and each unit in that force realized that his heritage imposed on him a duty and an obligation which must be fulfilled in the hour of stress. When the South African war was viewed in its true focus it would be be recognized how well the professional soldier dealt with novel problems. The war was a very remarkable example of the accommodation of means to an end considering the new conditions, magazine rifles, smokeless powder, and invisible guns. Moreover the foe was so brave, clever, and tenacious, that in order to match such an enemy it was necessary to go back to the ancestors of the Boers who held Spain at bay for fifty years. Whatever the education of the English officers might be, whatever the class from which privates had been drawn, the British army had proved itself an exceedingly effective and adaptable machine when given a practical piece of work to do. Referring to the deep depression which prevailed in the army about the middle of the war, Dr. Conan Doyle said that he had read letters from officers in which they declared that

they prayed every morning that a bullet might end their days. Yet these soldiers struggled on bravely till peace had been secured. After describing the heroism of the rank and file in the face of disease and hunger, Dr. Conan Doyle was loudly cheered when he remarked that in the long record of the British army there had never been a finer example of tenacity and endurance. Surgeon-General Taylor, Director-General of the Army Medical Department, in responding to the toast, said that the help received from the volunteers was the most wonderful thing in the history of the war. He looked on the union of the civil and military portions of the medical profession as one of the best possible auguries of good for the Army Medical Department. Surgeon-General Keogh, in answer to loud and repeated calls for a speech, bluntly told the assembled guests that they had had experience of war and had seen the utility of field hospitals, but they were allowing the years to go by and were doing nothing towards organizing themselves into field hospitals. To organize bearer companies or join volunteer regiments was useless. It was their business to worry out the method of providing means, money, and equipment for field hospitals; the Director-General would provide the necessary training.

EYESIGHT SPECIALISTS AND THE SPECTACLE MAKERS COMPANY.

OUR attention has been drawn to a card issued by a Mr. Hayden, who places after his name the letters "B.O.A. F.S.M.C. (*By Exam.*)," styles himself eyesight specialist, and claims to be a scientifically-trained specialist able to correct defective sight and supply properly-constructed glasses for the cure of visual defects. B.O.A., we believe, stands for "British Optical Association," and F.S.M.C. for "Fellow of the Spectacle Makers Company." The advertiser says: "We are qualified in three ways for the position we occupy. Firstly, by reason of our knowledge, training, and experience. Secondly, by our diplomas which show that we have successfully demonstrated our knowledge of eyework before a competent Board of Examiners. Thirdly, the success we have met with in the treatment of Defective Vision by means of glasses amply proves that we are competent to deal with the most difficult cases where glasses will be of use." In the BRITISH MEDICAL JOURNAL of March 15th a letter was published from the Master of the Worshipful Company of Spectacle Makers, Sir William Hart Dyke, M.P., referring to reports to the effect that candidates for the diploma of the Company are examined in sight-testing, and that the diploma certifies that the holder is competent by virtue of such an examination to undertake cases of refraction. The letter goes on to say most emphatically that the examination does not include sight-testing, and that the holder of the Company's diploma is bound by certain restrictions in reference to spectacle fitting. These conditions are set out in an "agreement" enclosed by the Master, and printed below the letter. We would draw special attention to the conditions numbered 7 and 8; which read as follows: "(7) That he will not publish any advertisement unfair to fellow craftsmen or misleading to the public, and especially will not use or advertise this diploma in any way which would lead the public to infer that it conveys medical qualifications. (8) That he will not use any drug for the purpose of paralysing the accommodation of the eye." It seems to us that Mr. Hayden has violated these conditions, and that the Company should take steps to compel him to work within the limitations imposed upon him when he obtained its diploma. His advertisement is misleading to the public by claiming for the advertiser that he is competent to deal by virtue of his diploma with the treatment of cases of refraction. It is also misleading by implying that all cases of defective vision, including squint, depend upon something which glasses can cure. It is unquestionable that it is impossible to estimate refraction correctly in many cases without the use of atropine, which by the eighth condition of his agreement he is forbidden to apply. He therefore either violates this condition, or he attempts to estimate refraction without paralysing the accommodation, and consequently cannot arrive at correct results. If the Worshipful Company of Spectacle Makers do not interfere in such a case as this, we cannot but regard the disclaimer published by the Master and the agreement which he appended to his letter as possessing little or no practical force or value.

THE CORONERS' SOCIETY OF ENGLAND AND WALES.

THE annual meeting of the Coroners' Society of England and Wales was held at the Holborn Restaurant, London, on Thursday, June 5th, under the presidency of Mr. Henry J. Robinson, Coroner for Lancashire. Special reference was made to the loss the Society had sustained by the death of the Honorary Secretary, Mr. A. Braxton Hicks; and before the usual business was proceeded with a vote of condolence with the widow and family was passed, and a record made in the minutes of the great services he had rendered to the Society and coroners generally. In response to the unanimous request of the Council, repeated at the meeting, Mr. Walter Schröder, Deputy Coroner for Central London, and Honorary Secretary of the London Coroners' Association, consented to become the Honorary Secretary of the Society. Mr. G. Percival Wyatt, Coroner for South London and Surrey, undertook the duties of Honorary Treasurer. At the dinner in the evening, after the usual loyal toasts, Mr. Henry White, Coroner for Winchester and one of the Vice-Presidents of the Society, gave the toast of "The Imperial Forces," and spoke in high praise of the work of the regulars and volunteers in South Africa. Colonel Mitchell, V.D., the senior volunteer officer in the kingdom, responded, and gave some interesting details concerning the volunteer movement and its success. The toast of "The Coroners' Society," proposed by Mr. W. Goldthorpe, Chairman of the County Quarter Sessions, Salford, was acknowledged by the President; and that of "Our Guests," proposed by Mr. S. F. Butcher, Vice-President, was replied to by Dr. Glover, Mr. R. Melville Beachcroft, L.C.C., and Mr. Noel Humphreys, of the General Register Office, Somerset House, who in the course of his speech referred to the question of death certification. Subsequently Mr. J. C. Malcolm, past President, proposed "The Officers of the Society," to which Mr. Walter Schröder and Mr. G. P. Wyatt suitably responded. In addition to those already mentioned, the company included Sir W. H. Hornby, Bart., M.P., Mr. Tuke White, M.P., Mr. Radford, L.C.C., Mr. Thomas Wakley, jun., Dr. Danford Thomas, Mr. Arthur C. Langham, Dr. Waldo, and several of the metropolitan and provincial coroners and deputy coroners.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

THE annual general meeting of the members of this club was held in the Royal British Hotel, Edinburgh, on Friday, June 6th, when the Secretary's and Treasurer's reports were presented. At the eighth annual dinner which followed, Sir Dyce Duckworth, the President of the club, occupied the chair, and sixty-four members were present. The President was supported on the right by the President of the Royal College of Physicians of Edinburgh (Professor T. R. Fraser), and on the left by Dr. James Carmichael of Edinburgh, a fellow-resident of Sir Dyce Duckworth in the Royal Infirmary in 1863. After the loyal and patriotic toasts, that of "The Residency" was given by the President, and was drunk in the loving cup of the club. In giving this toast the President recalled his time as a Resident, and gave many interesting reminiscences of his fellow-residents and of the members of the staff. Dr.

James Carmichael passed round two group photographs of the residents of that day. The toast of "The President" was given by Dr. James Carmichael. Songs and stories helped to make the evening still more enjoyable, and at the end "Auld Lang Syne" was sung.

THE LATE PATRICK THURBURN MANSON, M.B.LOND.

OUR Hong Kong Correspondent writes: On Monday afternoon, May 5th, the remains of the late Dr. Patrick Thurburn Manson were laid to rest in the Happy Valley, Hong Kong. There was a representative gathering of the community and most of the local medical practitioners were present. The pall-bearers were Sir Francis Lovell, Professor W. J. Simpson, Dr. J. M. Atkinson, F.C.M.O., Dr. F. W. Clark, M.O.H., Dr. Rennie, and Dr. Laing. The funeral service was conducted by the Rev. T. W. Pearce. There is a widespread feeling of regret that one whose life seemed to give such promise should have been cut off so early in his career, and much sympathy is felt for his father Dr. Patrick Manson, C.M.G., who is well known in Hong Kong.

ALFRED HUGHES MEMORIAL AT KING'S COLLEGE, LONDON.

IN addition to the memorials which have already been established in Wales to perpetuate the memory of the late Professor Hughes, his colleagues, friends, and students at King's College have also founded in that institution something which will keep him in remembrance. With the sum collected (about £150) a suitable memorial tablet has been erected on the wall of the College Chapel, and the balance has been devoted to the foundation of an annual prize in books or instruments which will be called the Hughes Memorial Prize in Anatomy. The sad facts of Professor Hughes's death from enteric fever, contracted at Pretoria whilst he was engaged in superintending the Welsh Hospital there during the late war, will be fresh in the memory of our readers. Those who knew him need no reminder of his sterling character. Memorials such as those founded in Cardiff and at King's College, will serve to keep his memory green, and to point to those who come after the example of a great teacher and a sympathetic friend. A full list of the subscriptions will be published in the next volume of the *King's College Hospital Reports*.

A NEW RETREAT FOR INEBRIATES.

A PARTY of medical men recently visited by request a home for inebriates, called Victoria House, at Thundersley, near Rayleigh, in Essex, which has been established by the Salvation Army, whose success in reclaiming the flotsam and jetsam of life has been amply demonstrated in the neighbouring industrial and land colony at Hadleigh. The retreat is on the north bank of the Thames, 250 ft. above sea level, thirty-six miles from London, and six miles from Southend-on-Sea. It is easily accessible by the London, Tilbury, and Southend Railway to Benfleet or Leigh stations, or by the Great Eastern Railway to Rayleigh. It is about two and a-half miles distant by road from Rayleigh station. The house, an old Georgian mansion, has been thoroughly renovated, and provides accommodation for twenty-five male patients. The rooms are lofty, bright, and kept very clean. There is a wide balcony and verandah. The house stands in sixteen acres of garden and park. The employment of the inmates (and each will be required to perform a minimum of thirty hours' manual work a week) chiefly consists of gardening, poultry farming, and carpentering. The officers of the home have been carefully selected and special attention has been given to the commissiarat department. Two qualified medical men live just outside the grounds. Recreation is provided for: a selected library with a connexion with Mudie's affords pleasant reading; excursions are organized and bright evenings are arranged. The inmates are expected to attend a place of public worship once a week, two parish churches and several Nonconformist chapels being within easy distance. Although the compulsory powers of a licensed house are in reserve, discipline and restraint are replaced by moral suasion. The charge is £1 a week. Patients are accepted for a term varying from two months to two years, but the longer terms are encouraged as much as possible. A characteristic feature of all the arrangements is their sound common-sense basis. If a tendency to inebriety and lowered self-control can be fostered by depraved surroundings surely tendencies to sobriety and self-mastery may be assisted by surroundings with a high moral tone, and that it may fairly be claimed is furnished in this new retreat.

SANE EPILEPTICS IN WORKHOUSES.

THE statement of the President of the Local Government Board, made in answer to the question put by Mr. Norman, referred to elsewhere, to the effect that fresh legislation in regard to sane epileptics in workhouses is not necessary, does not appear to be altogether satisfactory; possibly the phrasing of Mr. Norman's question was unfortunate. It is doubtful whether the remedy he seems to propose, that is to say, the separation in workhouses of epileptics who for the greater part of the time are sane and well-behaved from hopeless and permanent imbeciles would meet the case. In unions of large size like that at Wolverhampton, the constituency which Mr. Norman represents, it is no doubt possible to make provision in this way. But even in the larger unions it is only doing badly what might be much better done on another system; and in the case of the small unions the numbers are so small that proper classification is impossible, for example, take the case of South Wales. In a paper on this subject read at the South Wales Poor-law Conference last week, it was shown that out of 31 unions 24 had fewer than 5 cases of epilepsy, 2 fewer than 10, and only 5 upwards of 10 cases, the maximum being Swansea with 13. Necessarily dividing these numbers by two for the separation of the sexes, it is at once apparent that proper classification is out of the question in the small workhouses, and we must therefore seek the remedy outside the workhouse. We think the South Wales Poor-law Conference has taken the right course in asking the county councils to see what they can do in the direction of making proper provision: but here comes in the necessity for further legislation. The county councils have no doubt the power to provide for cases suffering from "mental disease," but the opinion of eminent counsel has been taken, and from that opinion it appears that "mental disease" does not include epilepsy, and therefore it is, as the law at present stands, out of the power of the county councils to legally make this provision. We are decidedly of opinion that the Local Government Board should at once take steps to have this question decided; if it does not move then we hope the County Councils Association will promote legislation with a view to giving legal authority to the county councils to make this provision. Not since 1891 has the number of deaths from epilepsy been as high as it appears to have been in the year 1900. Private charity can no doubt do something, but it is rather too much to expect private charity to make proper provision for a disease so prevalent that no fewer than 2,997 deaths were the result of it. Other States have made this provision, and it is time that the authorities here took a broad and statesmanlike view of this question, and carried out the needful alteration of the law.

WEST LONDON HOSPITAL DINNER.

THE dinner of the past and present post-graduate students of the West London Hospital, their teachers and friends, was held in the Balmoral Rooms of the Trocadero Restaurant on the evening of June 11th, under the chairman-

ship of Mr. Percy Dunn, F.R.C.S. Every one present had some personal or sentimental interest in the hospital, from the Chairman, who is its ophthalmic surgeon, to the Toastmaster, who is the senior porter of the hospital. After the loyal toasts had been honoured, the toast of "The Imperial Forces" was proposed in a patriotic speech by Dr. A. P. Beddard, and responded to in felicitous terms by Lieutenant-Colonel E. M. Wilson, R.A.M.C., D.S.O. The toast of "The West London Hospital" was proposed by the Chairman, who in a graphic way traced the early career of the hospital as a teaching institution from its small and very partially successful beginnings to its present flourishing state. This toast was responded to by the Rev. Canon White, a member of the Board of Management, and by Mr. J. G. Pardoe for his fellow past-resident medical officers. "Prosperity to the Post-Graduates" was proposed by the Dean of the College, Mr. L. A. Bidwell, F.R.C.S., who gave some details as to its present position. During the last year a larger number of post-graduates joined the College than in any previous year—close upon 100—and the life members had increased from 24 to 52. Among the new members was a Balaclava hero and the youngest of the recently-revealed V.C.s. Four students had taken the diploma of F.R.C.S.Eng., and others had taken degrees at Durham and obtained commissions in the navy. A new departure had been made by inviting medical men from the outside with special experience to lecture in the College; classes had in this way been started in hygiene and public health. The toast was responded to by Dr. G. A. Garry Simpson, a student of seven years' standing, who dwelt on the enormous advantages to qualified men of attending a post-graduate college, and described in detail the moral, intellectual, and pecuniary advantages which had accrued to him as a result of his connexion with that of West London. The toast of "The Visitors" was proposed by Mr. C. B. Keetley, and responded to by Mr. Howard Marsh; that of "The Chairman," was given by Dr. J. Barry Ball, and duly acknowledged.

SIR FRANCIS LOVELL'S MISSION.

IN the BRITISH MEDICAL JOURNAL of May 17th we referred to a meeting held at Penang, at which Sir Francis Lovell gave an account of his mission to the East on behalf of the London School of Tropical Diseases. We have now received from Hong Kong a report of the proceedings at a meeting held there on May 1st for the same purpose. By the generous hospitality of Dr. F. W. Clark, Medical Officer of Health, Sir Francis Lovell was enabled to meet the leading medical men of Hong Kong. The following guests were invited to meet Sir Francis Lovell: Professor W. J. Simpson, Hon. Dr. Ho Kai, Deputy Inspector-General Drew, R.N., Major Whitty, R.A.M.C., Drs. Atkinson, Hartigan, Rennie, Harston, Thomson, R. Gibson, Swan, Laing, Pearse, Krieg, Kerr, MacLean, Gibson, Mr. A. Cunningham, and the editors of the local papers. Sir Francis Lovell stated that he was thankful for the success which had attended his efforts in obtaining financial support for the institution which he had left London to benefit. Several handsome donations had been made by gentlemen in Bombay and elsewhere, and in Ceylon, the Straits Settlements, and in the Malay States the several Governments had promised the School annual grants-in-aid varying from £100 to £200 for five years. His Excellency Sir Frank Swettenham, Governor of the Straits Settlements and High Commissioner of the Federated Malay States, further decided to place the Directorship of the Kuala Lumpur Medical Research Institute in the hands of the Committee of Management of the London School of Tropical Medicine. This post carries with it an annual salary of £750 with furnished quarters and is tenable for three years; it virtually amounts to a scholarship for students from the London School. On the proposal of Dr. Clark, seconded by Deputy Inspector-General Wright, R.N., a committee was appointed to act in behalf of the School in nominating, consisting of Drs. Ho Kai, Rennie, and Atkinson, with power to add to their number.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SEVEN candidates, besides Mr. Howard Marsh who seeks re-election, will offer themselves for election on Thursday, July 3rd. These candidates, arranged in order of seniority are—Mr. Morgan, Charing Cross Hospital (M.R.C.S. 1872; F.R.C.S. 1876); Mr. Clutton, St. Thomas's (M. 1875, F. 1876), Sir H. Bennett, K.C.V.O., St. George's (M. 1873, F. 1877); Mr. Dent, St. George's (M. 1875, F. 1877); Mr. C. W. Mansell Moullin, London Hospital (M. 1876, F. 1878); Mr. Jordan Lloyd, Birmingham (M. 1878, F. 1880), and Mr. J. Bland-Sutton, Middlesex Hospital (M. 1882, F. 1884).

THE Queen of Holland, whose happy recovery has given satisfaction not only to her own subjects but to all civilized peoples, has lost no time in rewarding those to whose skill and care, under Providence, her restoration to health is due. The following distinctions have been conferred on the physicians who attended Queen Wilhelmina during her illness: Professor Rosenstein has been promoted to be a Commander of the Order of the Lion of the Netherlands, and Professor Kouwer, Dr. Roessingh, and Dr. Pot have been appointed Knights of the same Order.

WE are asked to remind our readers that a reception and dinner of the Obstetricians and Gynaecologists of the Empire will be held on Tuesday, June 24th. The reception will be held at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W., at 4 p.m., by Sir John Williams, Bart., M.D., Dr. Peter Horrocks, President of the Obstetrical Society of London, and Dr. Halliday Croom, President of the British Gynaecological Society. All medical practitioners interested in obstetrics and gynaecology are cordially invited to attend. It is hoped that the occasion will bring together not only the obstetricians and gynaecologists of London, but also many from other parts of Great Britain and Ireland as well as from the Colonies and abroad who may be in London in connection with the Coronation. The dinner will be held on the same evening at 7.30 at the Hôtel Métropole, Northumberland Avenue, under the chairmanship of Sir John Williams. The list of stewards includes most of the leading members of the speciality in the United Kingdom.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Midwives Bill.—When the House met on Friday, June 6th there were nearly seven pages of amendments down to the Midwives Bill, and two Orders before it, in the shape of private Bills that had unexpectedly completed their Committee stage. They were Bills of a non-contentious character, the first dealing with immoral traffic in Scotland, and the second with the rights of graduates of the University of Wales. Even non-contentious Bills sometimes excite a good deal of talk, and it was evident that one of these Bills was to be used as a peg for a debate. Accordingly, Mr. Galloway talked for a good half hour or more on the Scotch Bill, and was followed by others, so that more than an hour and a-half of the five and a-half hours for which the House was to sit was occupied by a Bill against which there was no real opposition. The true inwardness of this procedure was not solely opposition to the Midwives Bill, but a determination by a section of the House to take the utmost care that the Deceased Wife's Sisters Bill, which was sixth in order, should not by any possible chance come on for its Committee stage.

The University of Wales Bill came on as soon as the Scotch Bill was passed; it was read a third time in the course of a few minutes, and the Midwives Bill was reached at last. Mr. T. P. O'Connor, who ably led the opposition, at once moved a new clause on the erasure of names from the Midwives' Roll, drawn on the lines of the Dentists Act. The clause was agreed to and added to the Bill. Mr. Galloway then moved a new clause to give powers to county and borough councils to inspect any premises used for receiving lying-in women. Mr. Heywood Johnstone and the Home Secretary opposed the clause as going beyond the scope of the Bill, while Mr. T. P. O'Connor, Sir Walter Foster, and Dr. Farquharson supported its insertion. On a division the clause was defeated by a majority of 35. Mr. T. P. O'Connor next moved a clause to provide for the issue of an annual licence to the midwife by the county authority. After a short debate the House divided, and the clause was rejected by a majority of 69. Then occurred an incident which set the House in roars of laughter, for Mr. Macdona (Rotherhithe) rose and said: "After voting in the 'No' lobby I went by mistake into the 'Aye' lobby." Mr. Galloway declared that he had counted him among the "Ayes," and so the hon. member appeared to have accomplished the unprecedented feat of voting with splendid impartiality on both sides. How he did so remains a mystery, for the Speaker closed the incident by taking the return of the tellers without further investigation, but the good humour caused by the incident was not lost for the rest of the afternoon. The real amendments now began. It was after 3 o'clock, and nearly six pages of amendments had to be got through. Mr. Griffith-Boscawen declining to move, Dr. Ambrose rose and moved the amendment to insert the words "habitually and for gain," so as to provide that after January, 1905, no woman should habitually and for gain attend women in childbed or use the title of midwife unless certified under the Bill. Mr. T. P. O'Connor supported the amendment, and the Home Secretary opposed it, saying that if the amendment were carried the Bill must be wrecked. Mr. O'Connor offered to compromise by granting a period of grace to women already in practice. Mr. Ritchie declined the offer and the debate went on. It was evident, however, that compromise was in the air. The Home Secretary crossed the floor of the House to confer with Mr. Heywood Johnstone, who finally agreed to accept the amendment to become operative after January 1st, 1910. This compromise Mr. O'Connor accepted on behalf of the opponents of the Bill as a ground for ceasing further opposition. Most of the other amendments were dropped, and after a dilatory motion to extend the Bill to Scotland and Ireland, which was rejected on a division by 237 to 23, the Bill passed the report stage and was ordered for third reading on Friday, June 13th.

The Cremation Bill next came on, and it was soon evident that little progress would be made. Lord Hugh Cecil moved the postponement of Clause 3, which extends the Act to Scotland, but this was rejected by a majority of 187. Next, Mr. Griffith-Boscawen moved that no crematorium should be erected nearer than 500 yards to a dwelling house. This was agreed to, and then the question of erecting a crematorium on the consecrated parts of a cemetery was raised and occupied the remainder of the sitting. The Bill was put down for further consideration on Friday, June 13th.

Uncertified Deaths. Mr. Weir asked the First Lord of the Treasury whether he was aware that of the deaths which occurred in the Highland crofter counties last year no fewer than 1,479 were uncertified, and whether he would consider the expediency of introducing legislation on the subject. The printed reply issued at the end of last week stated that the Government were aware of the facts mentioned, but no pledge could be given at the present time to introduce the necessary legislation.

Epileptics in Workhouses. Mr. Norman asked the President of the Local Government Board whether he proposed to take any action by legislation or otherwise to provide for the separation in workhouses of epileptics of both sexes, who for the greater part of the time were sane and well behaved, from the hopeless and permanent imbeciles. Mr. Long, in his reply, said that Section XXIV of the Lunacy Act, 1890, required that a person should not be allowed to remain in a workhouse as a lunatic unless the medical officer certified that the accommodation in the workhouse was sufficient for his proper care and treatment separate from the inmates of the workhouse who were not lunatics, except where his condition was such that it was not necessary for his convenience or that of the other inmates that he should be kept separate. It followed that any sane epileptic was required to be kept separate from the imbeciles unless the condition of the latter was such that their separation from other inmates was not necessary. It did not at present appear to him that fresh legislation on this subject was requisite. If it should be shown that further regulations were needed he would be ready to consider the matter.

The Cruelty to Animals Bill.—Under this title Mr. Banbury, Colonel Lockwood, Mr. Paulton, and Mr. Swift MacNeill have introduced a Bill to amend the Cruelty to Animals Act, 1876. The Bill consists of 14 clauses and a schedule. On Friday evening last week Colonel Lockwood moved the second reading, and put before the House the main points of the measure as contained in the third clause, which is proposed as a substitute for Section III of the principal Act. Experiments on any living animals calculated to give pain are to be subject to the following conditions: (1) The experiment must be performed with a view to the advancement by new discovery of physiological knowledge, or of knowledge which will be useful for saving or prolonging life, or alleviating suffering; (2) the experiment must be performed by a person holding from the Secretary of State a licence as amended in the Bill; (3) the animal must, prior to the commencement and during the whole course of the experiment, be under the influence of a general anaesthetic of the nature of a respirable drug or gas, such as chloroform or ether, or alcohol, chloroform and ether combined, of sufficient power to prevent the animal feeling pain; (4) the animal must be killed while it is under the influence of such general anaesthetic, and before it recovers therefrom sufficiently to feel pain; (5) the experiment shall not be performed as an illustration of lectures in any medical or surgical school, hospital, college, or elsewhere; (6) the experiment shall not be performed for the purpose of attaining manual skill; (7) the substance known as curare shall not be used or administered for the purpose of or during the experiment; (8) there shall be present during and throughout the whole course of the experiment an inspector appointed under the provisions of this Act. In Clause 4 it is proposed to enact that there shall not be applied to the eye of an animal by way of experiment any matter or substance for the purpose of absorption through the conjunctival membrane. Clause 7 would require a separate licence for every experiment or for every series of experiments comprising more than six; the licence would specify the nature of the experiment and the time and place at which it would be performed. Section 8 would require the licensee to make within seven days a detailed chronological report to the Secretary of State of the description, course, and result of the experiment. Section 9 would provide that the copies of the licence and reports of the licensees should be filed in a place accessible to the public. As a corollary to the provision which would require an inspector to be present at every experiment, Section 8 would authorize the appointment of an army of inspectors. Most of this the gallant Colonel read out to the House, and then asked for a second reading, but his request was met by a prompt "I object," and so the Bill was put down for a later day.

The Temperature in Elementary Schools. On Monday Mr. Wason directed the attention of the Lord Advocate to the advisability of keeping a thermometer in Board Schools so as to ensure a fairly equable temperature. The Lord Advocate's reply said that the maintenance of a fairly equable temperature in schools was a matter always attended to in connexion with the approval of plans, and that the inspectors would call attention to any defect in this respect, and suggest the use of a thermometer where one was not used.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council held at their rooms, 9, Copthall Avenue, E. C., on June 2nd, Dr. Balding in the chair, the Hon. Secretary, Dr. Major Greenwood, reported that he had received an answer from the Lord Chancellor to the memorial of the Association complaining that the Hampstead magistrates refused to visit pauper lunatics in the workhouse till a place had been found for them in the county asylum, compelling the workhouse medical officer to give detention orders not contemplated by the Lunacy Acts. The answer was as follows:

House of Lords, S.W.,
March 5th, 1902.

SIR,—I am directed by the Lord Chancellor to acknowledge the receipt of the letter of the 4th inst., signed by yourself and Mr. Greenwood on behalf of the Poor-law Medical Officers' Association with reference to the practice of dealing with lunatics prevailing at Hampstead.

I am to say that the question will receive his lordship's most careful consideration.

I am, Sir,
Your obedient servant,
(Signed) R. C. NORMAN.

D. B. Balding, Esq., F.R.C.S.

A communication was received from a country member suggesting that there ought to be a revision of the special fees laid down by the Local Government Board for operations, etc. The writer pointed out that no fee at all was allowed for attending to a fracture of the clavicle or patella.

In the discussion that ensued the Chairman pointed out that there was also no fee allowed for the administration of anaesthetics, which was a serious impediment in the way of surgical treatment of the sick poor, especially in country districts. It was most necessary that there should be some machinery for paying an anaesthetist, as a Poor-law medical officer could not operate and give an anaesthetic at the same time, and the fees allowed him were altogether inadequate to allow of his paying for the administration of the necessary anaesthetic.

It was finally resolved that at an early period the attention of the Local Government Board should be drawn to both these deficiencies in the present Poor-law Orders.

THE CASE OF DR. W. T. LAW.

WE are informed by Dr. Paramore that the following additional subscriptions have been received on behalf of this fund:

	£	s.	d.		£	s.	d.
Charters J. Symonds, M.S., F.R.C.S.	2	2	0	Thomas Fawsitt, L.R.C.P., etc.	0	10	6
Frederick P. Weaver, M.D., J.P.	1	1	0	Richard H. Dawson ...	0	5	0
John Brunton, M.B., M.R.C.P.	1	1	0	Ernest Victor Eames, L.R.C.P., etc.	1	1	0
G. B. Mower White, M.B., B.S., F.R.C.S.	1	1	0	Edward R. Denton, M.R.C.P.	0	5	0
J. Carter Webb, M.A., M.B.	1	1	0	Henry George Sworn, M.D.	1	0	0
Fred. George Vicars, M.D.	0	5	0	George Charles Bright, B.A., M.D., Cannes, France	1	1	0
Eliza L. Walker Dunbar, M.D.	1	1	0	Wm. H. Thornhill, B.A., M.D., (Lieut.-Colonel) ...	0	5	0
Wm. Richard Huggard, M.D., F.R.C.P.	2	2	0	Thomas Duncan, M.B., C.M.	0	10	6
John Dacre, L.R.C.P., M.R.C.S.	1	1	0	Samuel Oliver Eades, L.R.C.P. ...	0	5	0
E. G. W.	0	5	0	Joseph Drew, M.B.Lond....	1	1	0
Henry Dawson Farnell, F.R.C.S.	1	1	0	Henry Thomas Sylvester, V.C., M.D. ...	0	10	0
				William Charles Devereux, M.A., M.B. ...	0	5	0

The President of the Royal College of Physicians of London, the President of the Royal College of Surgeons of England, and the Master of the Society of Apothecaries are trustees of the Fund. Postal orders and cheques should be made payable to the Law Fund, and crossed "London and County Bank, Holborn, W.C.," and may be sent to Dr. Paramore, 2, Gordon Square, W.C.

AT the meeting of the Royal Society held on June 5th Professor Rubert Boyce, Professor of Pathology, University College, Liverpool, and Mr. William Bate Hardy, Demonstrator in Physiology at Cambridge, were duly elected Fellows.

THE death-rate of Edinburgh during the month of May was 16.05 per 1,000. The average death-rate in the month of May during the last five years was 19.56 per 1,000. During the month 4 cases of puerperal fever were notified.

British Medical Association.

NOTICE OF SPECIAL BUSINESS.

NOTICE is hereby given that an Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 18th day of June, 1902, at 2 o'clock in the afternoon, for the purpose of considering, and if thought fit passing, the subjoined resolution, that is to say:

"That the draft new regulations submitted to this" "meeting, and for the purpose of identification" "initialled by the Chairman thereof, which regula-" "tions have been prepared under the direction of the" "Committee appointed for the purpose by the Council" "in pursuance of resolutions passed at the Annual" "General Meeting of the Association at Cheltenham" "in 1901, be, and the same are hereby adopted as the" "regulations of the Association to the exclusion of" "and in substitution for all the existing regulations of" "the Association."

And Notice is hereby also given that a further Extraordinar General Meeting of the above-named Association will be hel at the Exeter Hall, Strand, London, on Wednesday, the 9th day of July, 1902, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings had at the first above-mentioned Meeting, and of considering, and if thought fit passing, a resolution confirming as a special resolution the resolution above set forth. But if the same shall not have been passed by the requisite majority at the said first-mentioned Meeting, due notice will be given to the Members that the Meeting on the 9th day of July, 1902, above mentioned will not be held.

A copy of the proposed new regulations can be seen at the Office of the Association at any time during business hours, and a copy will be found printed in the JOURNAL of the Association of the 24th day of May, 1902.

Dated the 22nd day of May, 1902.

By Order,
FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 9th day of July, at 3 o'clock in the afternoon, immediately on the conclusion of the Extraordinary General Meeting at Exeter Hall.

May, 1902. FRANCIS FOWKE *General Secretary.*

THE LIBRARY.

NOTICE is given that the Library will be closed at 2 o'clock on Saturday, June 14th, and will be reopened on Wednesday, July 2nd.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 18th and October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRITISH MEDICAL ASSOCIATION.

SEVENTIETH ANNUAL MEETING.

THE seventieth annual meeting of the British Medical Association will be held at Manchester on Tuesday, Wednesday, Thursday, and Friday, July 29th, 30th, 31st, and August 1st, 1902.

President: GEORGE BAGOT FERGUSON, M.D., Senior Surgeon, Cheltenham Hospital.

President-elect: WALTER WHITEHEAD, F.R.C.S.Edin., F.R.S.E., Consulting Surgeon Manchester Royal Infirmary, Manchester.

President of the Council: JOHN ROBERTS THOMSON, M.D., F.R.C.P.Lond., Consulting Physician to the Royal Victoria Hospital and to the National Sanatorium for Diseases of the Chest, Bournemouth.

Treasurer: ANDREW CLARK, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

An Address in Medicine will be delivered by Sir THOMAS BARLOW, Bart., K.C.V.O., M.D., Physician to His Majesty's Household.

An Address in Obstetrics will be delivered by WILLIAM JAPP SINCLAIR, M.D., Professor of Obstetrics in the Owens College, Manchester.

The scientific business of the meeting will be conducted in seventeen sections, all of which (through the kindness of the Council) will hold their sittings in the theatres and lecture rooms of the Owens College, as follow, namely:

A.—MEDICINE.

Chemistry Theatre (Arts Side) and Ante-room for Cases.

President: Professor JULIUS DRESCHFELD, M.D. *Vice-Presidents:* Professor JOHN DIXON MANN, M.D.; ROBERT CHARLES BROWN, M.B.; GRAHAM STEELL, M.D.; WILMOT PARKER HERRINGHAM, M.D. *Honorary Secretaries:* ARTHUR THOMAS WILKINSON, M.D., 22, St. John Street, Manchester; WILLIAM CALWELL, M.D., 1, College Square North, Belfast; EDWARD MANSFIELD BROCKBANK, M.D., 3, St. Peter's Square, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Causes, Diagnosis, and Principles of Treatment of Dilatation of the Stomach. To be opened by Professor Clifford Allbutt. The following gentlemen will take part in the discussion: Professor Von Noorden (Frankfurt), Dr. Saundby, Dr. Geo. Herschell, Dr. Sidney Martin, Dr. W. Soltau Fenwick, Dr. S. H. Habershon, Dr. T. D. Savill, Dr. James Barr, Dr. Frank M. Pope, Dr. O. J. Kauffmann, Dr. Harry Campbell, and Dr. Wm. Calwell.

Thursday, July 31st. The Differential Diagnosis of Functional and Organic Paralysis. To be opened by Dr. Buzzard. The following gentlemen will take part in the discussion: Dr. J. S. Risien Russell, Dr. E. F. Trevelyan, Dr. Judson Bury, Dr. E. S. Reynolds, Dr. Alex Bruce, Dr. Byrom Bramwell, Dr. T. D. Savill, Dr. Harry Campbell, and Dr. Purves Stewart.

Friday, August 1st. Demonstrations (by medical men) of Clinical Apparatus and Methods of Research, to be given in the room in which the Section meets. Dr. James Mackenzie will demonstrate his Clinical Polygraph and Phlebograph. Dr. Haig will demonstrate his Capillary Dynamometer and Colour Cards for Estimation of the Quality of the Blood. Dr. Geo. Herschell will demonstrate an Instrument for Inflating the Stomach to Facilitate the Determination of its Boundaries.

The following papers have been promised:

BASKES, Sir W. Mitchell, F.R.C.S. A Successful Case of Gastroplication for Dilated [illegible].
BRADSHAW, Thos. R., M.D. Mylopathic Albuminuria.
CAMPBELL, Harry, M.D. Overlooked Cases of Graves's Disease.
GILFORD, Hastings, F.R.C.S. Infantilism and Senilism, with Demonstration of Cases.
HAIG, A., M.D. The Prominent Eye, its Meaning and Clinical Associations.
NOORDEN, Professor Von. The Treatment of Chronic Bright's Disease.
POPE, F. M., M.D. The Treatment of Chorea.
POYNTON, F. John, M.D., and PAINE, A., M.D. Observations upon Certain Forms of Arthritis [illegible].
SCHOFIELD, A. T., M.D. The Mental Factor in Medicine.

B.—SURGERY.

Physiology Theatre (Medical Side) and Ante-room for Cases.

President: JAMES HARDIE, F.R.C.S. *Vice-Presidents:* FREDERICK ARMITAGE SOUTHAM, F.R.C.S.; Professor GEORGE ARTHUR WRIGHT, F.R.C.S.; WILLIAM THORBURN, F.R.C.S. *Honorary Secretaries:* HENRY ALEXIS THOMSON, F.R.C.S.E., 32, Rutland Square, Edinburgh; HERBERT LUND, F.R.C.S., 22, St. John Street, Manchester; JOHN EDWARD PLATT, F.R.C.S., 191, High Street, Oxford Road, Manchester.

The following discussions have been arranged:

1. The Treatment of Inoperable Cancer. To be opened by Mr. Henry Morris, F.R.C.S.

2. The Treatment of Tuberculous Disease of the Testis, Vesiculae Seminales, Prostate, and Bladder. To be opened by Professor Thomas Myles, M.D., F.R.C.S., President of the Royal College of Surgeons in Ireland.

C.—OBSTETRICS AND GYNAECOLOGY.

History Theatre (Arts Side).

President: DAVID LLOYD ROBERTS, M.D. *Vice-Presidents:* SAMUEL BUCKLEY, M.D.; WILLIAM WALTER, M.D.; ARCHIBALD DONALD, M.D.; JAMES HENRY TARGETT, F.R.C.S., *Honorary Secretaries:* THOMAS ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester; ARNOLD WM. WARRINGTON LEA, M.D., 274, Oxford Road, Manchester; WM. EDWARD FOTHERGILL, M.D., 10, St. John Street, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Modern Indications for Caesarean Section. To be opened by Dr. Galabin. The following gentlemen will take part in the discussion: Dr. Munro Kerr, Dr. W. H. C. Newnham, Dr. R. Jardine, and Dr. J. Stuart Nairne.

Friday, August 1st.—The Operative Treatment of Prolapsus Uteri. To be opened by Dr. Berry Hart. The following gentlemen will take part in the discussion: Dr. Munro Kerr, Dr. Macnaughton-Jones, Mr. F. B. Jessett, Dr. G. A. Hawkins-Ambler, Dr. Hellier, Dr. W. H. C. Newnham, Dr. R. Bell, Dr. W. J. Smyly, Dr. F. J. McCann, and Dr. J. Stuart Nairne.

The following papers have been promised:

BELL, R., M.D. Carcinoma, its Pathogenesis and Treatment without Operation.
BISHOP, E. S., F.R.C.S. Operative Methods in Vesico-Vaginal Fistula.
BRIGGS, H., M.B. On the Tests of Malignancy in Ovarian Tumours.
HELLIER, J. B., M.D. (Title not yet received).
JARDINE, R., M.D. The Use of Chlorate of Potassium in Habitual Death of the Fetus in the later Months of Pregnancy.
KERR, J. Munro, M.B. (Title not yet received).
NAIRNE, J. Stuart, F.R.C.S. So-called Neurasthenia, Hysteria, and Abdominal Section.
NICHOLSON, H. O., M.D. Puerperal Eclampsia in the Light of Thyroid Inadequacy and its Treatment by Thyroid Extract.
OLIVER, James, M.R.C.S. A Study of Fertilization with reference to the Occurrence of Ectopic Gestation.
PARSONS, J. Inglis, M.D. The Operative Treatment of Prolapsus Uteri by Injection of the Broad Ligaments, with Notes of 60 to 70 Cases.

D.—PUBLIC MEDICINE.

Greek and Latin Lecture Room (Arts Side).

President: JAMES NIVEN, M.B., *Vice-Presidents:* THOMAS CARLETON RAILTON, M.D.; JOHN MILSON RHODES, M.D.; WILLIAM LESLIE MACKENZIE, M.D., D.P.H.; FRANK DREW HARRIS, M.B., D.P.H. *Honorary Secretaries:* THOMAS WALTER HARROPP GARSTANG, D.P.H., Englefield, Altrincham, Cheshire; W. H. HAMER, M.D., 1A Bramshill Gardens, Dartmouth Park Hill, N.W.; GEORGE NEWMAN, M.D., Town Hall, Finsbury, E.C.

The following discussions have been arranged:

Wednesday, July 30th.

(*a*) The Precise Part played by Vaccination as carried out in this Country in Preventing the Spread of Small-pox, and the Means by which we may hope to secure the Maximum Advantage from Vaccination. To be opened by Dr. Hope. The following gentlemen will take part in the discussion: Dr. Theodore Dyke Acland, Dr. Monckton Copeman, Dr. E. C. Seaton, Dr. E. J. Edwardes, Dr. J. Priestley, Dr. Cooper Pattin, Dr. Gornall, and Dr. J. T. C. Nash.

(*b*) What is the Precise Etiology of "Return Cases" of Scarlet Fever, and how may they be prevented from occurring? Do they materially affect the Usefulness of Isolation Hospitals? To be opened by Dr. Mervyn Gordon and Dr. C. K. Millard. The following gentlemen will take part in the discussion: Dr. Boobbyer, Dr. R. Sydney Marsden, Dr.

Cooper Pattin, Dr. J. T. Neech, Dr. Gornall, and Dr. J. T. C. Nash.

Thursday, July 31st.—

(*c*) By what General Scheme of Action, including Administrative Measures, can the Prevention of Tuberculosis be most efficiently advanced? To be opened by Dr. Robertson and Dr. Newsholme. The following gentlemen will take part in the discussion: Dr. Harold Coates, Dr. Nathan Raw, Dr. Kenwood, Dr. R. Sydney Marsden, Dr. J. Priestley, Dr. J. H. Marsh, Dr. Cooper Pattin, and Dr. J. T. Neech.

(*d*) The Relation of Poverty to Disease. To be opened by Alderman MacDougall of Manchester and Mr. Seebohm Rowntree of York. The following gentlemen will take part in the discussion: Dr. Boobbyer, Dr. A. W. Chapman, Dr. J. H. Marsh, Dr. Berry, and Dr. J. M. Rhodes.

Friday, August 1st.—

The Outbreak of Arsenical Poisoning. To be opened by Dr. C. H. Tattersall. The following gentlemen will take part in the discussion: Dr. E. S. Reynolds, Professor Sheridan Delépine, and Professor Dixon Mann.

The following papers have been promised:

BROWN, Wm., M.D. The Lesions of Bovine Tuberculosis.
FARRAR, R., M.D. Plague as a Soil Infection.
RHODES, J. M., M.D. Infantile Mortality.
YOUNG, Meredith, M.D. The Further Control of Common Lodging Houses.

Arrangements will be made for Lantern Demonstrations in connexion with some of the subjects under discussion.

E.—Psychological Medicine.

Medicine Theatre (Medical Side).

President: GEORGE WM. MOULD, M.R.C.S. *Vice-Presidents:* JUDSON SYKES BURY, M.D.; THOMAS STEELE SHELDON, M.B. *Honorary Secretaries:* JOHN SUTCLIFFE, M.R.C.S., Royal Asylum, Cheadle, Cheshire; ERNEST SEPTIMUS REYNOLDS, M.D., 2, St. Peter's Square, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Treatment and Care of Persons in the Early Stages of Unsoundness of Mind. To be opened by Sir John Sibbald, M.D.

Thursday, July 31st.—The Relation of Functional Neuroses (Hysteria, Neurasthenia, Hypochrondriasis, etc.) to Insanity. To be opened by Dr. T. Clifford Allbutt.

Friday, August 1st.—Syphilis as a Cause of Insanity. To be opened by Dr. Fred. W. Mott.

F.—Physiology and Anatomy.

Optical Room, Physiological Laboratory (Medical Side).

President: Professor WM. STIRLING, M.D., F.R.S.E. *Vice-Presidents:* Professor ALFRED HARRY YOUNG, F.R.C.S.; Professor ARTHUR ROBINSON, M.D.; J. SYDNEY EDKINS, M.B. *Honorary Secretaries:* JAMES ACWORTH MENZIES, M.D., Winter's Buildings, 30, St. Ann Street, Manchester; PETER THOMPSON, M.D., Anatomy Department, Middlesex Hospital, W.

The following discussions have been arranged:

1. The Motor Cortex as exemplified in the Anthropoid Apes. To be opened by Professor C. S. Sherrington and Dr. A. S. Grünbaum.

2. On Intestinal Secretion and the Action of Drugs thereon. To be opened by Mr. J. S. Edkins, M.B. The following gentleman will take part in the discussion: Dr. S. Monckton Copeman.

3. On the Development of the Human Genito-urinary Organs. To be opened by Dr. D. Berry Hart, F.R.C.P.E., F.R.S.E. The following gentlemen will take part in the discussion: Professor A. M. Paterson, Professor J. Symington, Professor A. Robinson, Mr. W. McAdam Eccles, Dr. Arthur Keith, Mr. F. O. Parsons, and Dr. C. Addison.

The following papers have been promised:

BAINBRIDGE, F. A., M.B. The Relation of Metabolism to Lymph Formation.
COPEMAN, S. Monckton, M.D. Experiments on Sex Determination.
PATERSON, A. M., M.D. A Microscopical Demonstration.
STIRLING, W., M.D. (1) Parturition in the Guinea-pig. (2) A Series of Demonstrations on Physiological Subjects of Special Interest to Medical Men.

H.—Pathology.

General Theatre (Medical Side).

President: Professor SHERIDAN DELÉPINE, M.B. *Vice-Presidents:* Professor J. GEORGE ADAMI, M.D.; ROBERT MAGUIRE, M.D.; GEORGE NEWTON PITT, M.D. *Honorary Secretaries:* FREDERICK CRAVEN MOORE, M.D., 96, Mosley Street, Manchester; EDWARD JOHN SIDEBOTHAM, M.B., Erlesdene, Bowdon, Cheshire.

I.—Ophthalmology.

Mathematical Theatre No. I (Arts Side), Dark Room adjoining, namely, No. IV Engineering.

President: DAVID LITTLE, M.D. *Vice-Presidents:* CHARLES EDWARD GLASCOTT, M.D.; WM. THOMAS HOLMES SPICER, F.R.C.S.; ANGUS MCGILLIVRAY, M.D. *Honorary Secretaries:* ALEX HILL GRIFFITH, M.D., 17, St. John Street, Manchester; EDWARD ROBERTS, M.R.C.S., 44, Deansgate Arcade, Deansgate, Manchester; JOHN GRAY CLEGG, M.D., 22, St. John Street, Manchester.

The following discussions have been arranged:

1. The Treatment of Sclero-keratitis. To be opened by Dr. Arthur W. Sandford.

2. Functional Derangements of the Eye (so-called hysterical). To be opened by Mr. R. Marcus Gunn, F.R.C.S.

3. The Rarer Forms of Atrophy of the Optic Nerve. To be opened by Dr. James Taylor.

J.—Diseases of Children.

Gynaecology Theatre, Dark Room and Ante-room adjoining (Medical Side).

President: HENRY ASHBY, M.D. *Vice-Presidents:* JOSHUA JOHN COX, M.D.; HENRY RICHMOND HUTTON, M.B.; JOSEPH COLLIER, F.R.C.S.; BERTRAM MITFORD HERON ROGERS, M.D. *Honorary Secretaries:* RICHARD WALTER MARSDEN, M.D., Taitlands, 4, Swinton Grove, Manchester; JAMES STEWART FOWLER, M.D., 68, Northumberland Street, Edinburgh; JOHN HOWSON RAY, F.R.C.S., 22, St. John Street, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Modification of Milk in the Feeding of Infants. To be opened by Professor T. M. Rotch (Boston, U.S.A.).

Thursday, July 31st.—The Surgery of those Affections of the Central Nervous System which occur more especially in Children. To be opened by Mr. Harold J. Stiles, F.R.C.S.E.

Friday, August 1st.—The Value of Physical Exercises in Diseases of the Respiratory Tract. To be opened by Mr. Wm. Arbuthnot Lane, F.R.C.S.

The following papers have been promised:

FOWLER, J. S., M.D. The Anaemias of Infancy.
EICHHOLZ, A., M.D. The Treatment of Mentally-feeble Children.
THOMSON, John, M.D. The Existence of Co-ordination Neuroses in Early Infancy.
BALLANTYNE, John William, M.D. Foetal Bone Disease. In connection with Dr. Ballantyne's communication, it is proposed to have a demonstration of lantern slides, preparations, etc., illustrating foetal bone disease.

K.—Laryngology.

Old Physics Theatre (No 6) (Arts Side), also Dark Room and Waiting Room adjoining.

President: ALEXANDER HODGKINSON, M.B. *Vice-Presidents:* EDWARD LAW, M.D.; SIEGMUND MORITZ, M.D.; GEORGE WALTER RIDLEY, M.S. *Honorary Secretaries:* EUGENE STEPHEN YONGE, M.D., 3, St. Peter's Square, Manchester; CHARLES J. HEATH, F.R.C.S., 3, Cavendish Place, W.

The following discussions have been arranged:

1. The Diagnosis and Treatment of Foreign Bodies in the Upper Air Passages and Gullet. To be opened by Professor Killian (Freiburg) and Dr. John Macintyre.

2. The Ultimate Results of Radical Operations on the Maxillary and Frontal Sinuses. To be opened by Dr. Lermoyez (Paris) and Dr. Herbert Tilley.

3. A joint discussion with the Section of Otology will take place on The Etiology and Treatment of Ethmoidal and Sphenoidal Suppuration. To be opened by Dr. Grünwald (Munich) and Dr. H. Lambert Lack.

Professor Killian has also kindly promised to give a Practical Demonstration of his Methods of Bronchoscopy and Œsophagoscopy.

L.—Otology.

Old Physics Theatre No V (Arts Side) also Dark Room adjoining.

President: WILLIAM MILLIGAN, M.D. *Vice-Presidents:* FREDERICK JOHN WILLIAM COX, M.D.; RICHARD LAKE, F.R.C.S. *Honorary Secretaries:* ARTHUR HENRY CHEATLE, F.R.C.S., 117, Harley Street, W.; FREDERICK HERBERT WESTMACOTT, F.R.C.S., 8, St. John Street, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Aims and Limitations of Intranasal Surgical Procedures in the Treatment of Chronic Non-Suppurative Middle-Ear Disease, to be opened by Professor Grunert (Ghent), Dr. P. McBride, and Professor W. Okada (Tokio, Japan).

Thursday, July 31st.—A conjoint discussion with the Section of Laryngology on the Etiology and Treatment of Ethmoidal and Sphenoidal Suppuration, introduced by Professor Grünwald (Munich), and Dr. H. Lambert Lack.

Friday, August 1st.—The Indications for and against Ligation of the Internal Jugular Vein in cases of Otitic Pyosepticaemia. To be opened by Professor Dr. V. Urbantschitsch (Vienna) and Mr. Ballance, F.R.C.S.

N.—DERMATOLOGY.

Classics and German Lecture Room (Arts Side), Cases in the Mathematics and German Lecture Room which adjoins.

President: HENRY AMBROSE GRUNDY BROOKE, M.B. *Vice-Presidents:* WILLIAM DALE JAMES, M.R.C.S.; NORMAN WALKER, M.D.; Professor THOMAS CASPAR GILCHRIST, M.R.C.S. *Honorary Secretaries:* GEORGE HERBERT LANCASHIRE, M.D., Winter's Buildings, St. Ann Street, Manchester; ARTHUR WHITFIELD, M.D., 12, Upper Berkeley Street, Portman Square, W.

Wednesday, July 30th, 10 a.m.—Opening by the President. 10.15 a.m. Communication by Professor Neisser (Breslau) on the Significance of Tuberculin in the Diagnosis of Skin Disease. Later, Dr. J. C. Johnston (New York) will give a communication on Melanoma, and Dr. E. Graham Little will speak on Tuberculides.

Thursday, July 31st, 10 a.m.—Dr. L. Freund (Vienna) will read a paper on X-Ray Treatment, High-frequency Method, Light Treatment. To be followed by a discussion in which the following gentlemen will take part: Dr. J. H. Sequeira, Dr. S. E. Dore, Dr. J. M. H. McLeod, and Dr. P. S. Abraham. Later, Dr. J. M. H. Macleod will read a paper on the Histological Changes in the Skin after Exposure to X Rays. Mr. George Pernet will read a paper on Xeroderma Pigmentosa Tumours. Dr. J. H. Sequeira and Dr. H. Balean will give a paper on Lupus Erythematosus. Dr. T. C. Gilchrist will give a demonstration on Blastomycetes.

Friday, August 1st, 10 a.m.—Mr. Malcolm Morris will open a discussion on the Treatment of Psoriasis. The following gentlemen will take part in the discussion: Dr. J. J. Pringle and Dr. P. S. Abraham. Later, Dr. Norman Walker will open a discussion on Seborrhoea. The following gentlemen will take part in the discussion: Dr. J. M. H. Macleod, and Dr. J. J. Pringle. Dr. Willmott Evans will read a paper on the Mode of Action of Arsenic in Diseases of the Skin.

O.—PHARMACOLOGY.

Small Anatomy Theatre and also the Pharmacological Laboratories (Medical Side).

President: NESTOR ISIDORE CHARLES TIRARD, M.D. *Vice-Presidents:* Professor ROBERT BRIGGS WILD, M.D.; HECTOR WILLIAM GAVIN MACKENZIE, M.D. *Honorary Secretaries:* FRANCIS WHITTAKER TUNNICLIFFE, M.D., 6, Devonshire Street, W.; ALBERT HOPKINSON, M.B., Parsonage Nook, Withington, Manchester.

The following discussions have been arranged:

Wednesday, July 30th, 10 a.m. Upon the Undesired and Unexpected Actions of Medicines, including Tolerance and Idiosyncrasy to or Abnormal Results from Ordinary Doses. To be opened by Sir Lauder Brunton, F.R.S.

Thursday, July 31st, 9.30 a.m. The Therapeutic Value of Arsenic and the Justification of its Continued Use in the Light of Recent Observations concerning its Toxic Action. To be opened by Dr. Ralph Stockman.

Friday, August 1st, 10 a.m. The Local and General Treatment of Diphtheria. To be opened by Dr. Tirard.

The following papers have been promised:

CAMPBELL, Colin, M.R.C.S. The Materia Medica of the Intratracheal Treatment of Pulmonary Diseases.
CASH, Professor Theodore. Japaconitin and Pseudoconitin.
DIXON, Walter, M.D. The Question of Injectable Purgatives.
HARPER, Henry, M.D. Urea in the Treatment of Tuberculosis.
LIEBREICH, Professor Oscar (Berlin). (1) The Therapeutic Value of Alkaline Waters of the Vichy Type. (2) Contribution to the Toxicology of Tincture of Cantharides.
MCWALTER, Walter, M.D. Suggested Standards of Pharmacological Preparations.
TUNNICLIFFE, Professor F. W. Synthetic Purgatives: The Purgative Action of Phenolthalein.
WILD, Professor R. B., and PLATT, J. N. The Action of Acid Solutions upon Blood Vessels.
WILSON, A., F.R.C.S. The Law of Dissolution as Illustrated by the Action of Chloroform.

P.—INDUSTRIAL HYGIENE AND DISEASES OF OCCUPATION.

Latin and French Lecture Room (Arts Side).

President: ARTHUR WHITELEGGE, M.D. *Vice-Presidents:* HENRY HAMMOND SMITH, M.R.C.S.; COLIN CAMPBELL, M.R.C.S. *Honorary Secretaries:* WILLIAM FRANCIS DEARDEN, M.R.C.S., D.P.H., Oak Leigh, Crumpsall Park, Manchester; THOMAS MORISON LEGGE, M.D., 2, Mitre Court Buildings, E.C.

The following discussions have been arranged:

Wednesday, July 30th.—The Value of Systematic Medical Examination of Workers in Dangerous Trades—Lead, Mercury, etc. To be opened by Dr. S. King Alcock. The following gentlemen will take part in the discussion: Dr. T. Oliver, M.A., F.R.C.P., Dr. J. F. Arlidge, Dr. W. A. Atkinson, Mr. B. M. Bond, D.P.H., Dr. J. Holmes, Dr. H. S. Purdon, Mr. H. W. Newton, Mr. W. H. Vickery, F.R.C.S., Mr. W. J. Greer, F.R.C.S., D.P.H., Dr. C. A. Gwynne, B.A., and Dr. T. F. Young.

Thursday, July 31st.—The Granting of Certificates of Fitness to Children and Young Persons Employed in Factories and Workshops. To be opened by Dr. C. A. Greaves, LL.B. The following gentlemen will take part in the discussion: Professor C. J. Wright, Dr. J. S. Clayton, Dr. E. Rayner, F.R.C.S., Dr. J. H. Keay, Dr. J. Watson, Mr. W. J. Greer, F.R.C.S., D.P.H., Dr. A. Campbell, F.R.C.S., Dr. J. Holmes, Dr. C. A. Gwynne, B.A., Dr. T. F. Young, Mr. E. Rice-Morgan, Dr. R. Brown, Mr. W. B. Barclay, D.P.H., and Dr. John Hedley.

Friday, August 1st.—The Relation of Phthisis to Factory and Workshop Conditions. To be opened by Mr. J. Niven, M.A., M.B. The following gentlemen will take part in the discussion: Dr. A. Ransome, F.R.C.P., F.R.S., Dr. J. Beatty, D.P.H., Dr. C. Campbell, Dr. H. Coates, D.P.H., Dr. A. Newsholme, F.R.C.P., Dr. J. Robertson, B.Sc., Dr. J. Wheatley, D.P.H., Mr. G. F. McCleary, M.B., D.P.H., Dr. W. M. Robertshaw, Dr. Thos. Harris, F.R.C.A., and Dr. John Hedley.

The following papers have been promised:

CAMPBELL, A., M.D., F.R.C.S. The Value of the Certificate of Fitness for Employment.
DEARDEN, W. F., M.R.C.S., D.P.H. The Injurious Influence of Fast Aniline Black Dyeing Processes.
GWYNNE, C. A., B.A., M.D. Systematic Medical Examination of Workers in Lead Processes.
JOY, J. Holmes, M.A., M.D. Certificates of Fitness.
MCCLEARY, J. F., M.B., D.P.H. Incidence of Phthisis among Laundry-workers.
PURTON, H. S., M.D. Notes on Acne-form Eruption of "Doffers."
ROBERTSHAW, W. M., M.D. Ganister Miner's Disease.
WATTS, Thomas, M.D. Shuttle-threading as a Source of Infection.

Upon the conclusion of the Sectional Meeting on July 30th a visit will be made to Clifton Junction for the purpose of inspecting the works of the Chloride Electrical Storage Company and Messrs. Pilkington's Tile Works. As these firms have kindly offered to provide lunch, and are desirous of forwarding special cards of invitation to those who are able to avail themselves of their hospitality, it is essential that all intending to make the visit should communicate with the local Honorary Secretary of the Section as early as possible, and not later than July 21st.

Q.—ETHICS.

Anatomy Theatre (Medical Side).

President: SAM WOODCOCK, M.D. *Vice-Presidents:* THOMAS GARRETT HORDER, M.R.C.S.; MATTHEW ARDEN MESSITER, M.R.C.S.; ALEXANDER BROWN RITCHIE, M.B.; JAMES SMITH WHITAKER, L.R.C.P. *Honorary Secretaries:* JAMES BRASSEY BRIERLEY, M.D., Alma House, Old Trafford, Manchester; SAMUEL CRAWSHAW, M.B., Trafalgar Square, Ashton-under-Lyne; ALFRED COX, M.B., Cotfield House, Gateshead-on-Tyne.

The following discussions have been arranged:

1. Questions affecting the Relation of the Profession to the General Public, for example, Contract Work, including Club Practice, etc.

2. Questions affecting the Relation of the Profession to Public Institutions, such as Hospitals, Infirmaries, Industrial Appointments, etc.

3. Questions affecting the Relation of the Profession to the Government, both National and Local, for example, Public Appointments under the Public Health, Vaccination, Factory, and other Acts.

4. Questions concerning the General Medical Council, and Future Medical Legislation.

R.—NAVY, ARMY, AND AMBULANCE.

Natural History Lecture Room (Arts Side).

President: Brigade-Surgeon-Lieutenant-Colonel G. S. ELLISTON, M.R.C.S. *Vice-Presidents:* Surgeon-General JOHN BUTLER HAMILTON, M.D. (A.M.S. ret.); Colonel ALEXANDER WILLIAM DUKE, M.D., R.A.M.C.; Fleet-Surgeon GILBERT KIRKER, M.D., R.N. *Honorary Secretaries:* Captain JOHN BENTLY MANN, R.A.M.C. (Vol.), 26, St. John Street, Manchester; Captain WILLIAM BRIDGETT PRITCHARD, R.A.M.C. (Vol.), 272, Oxford Street, Manchester.

The following discussions have been arranged:

Reform in the Army Medical Service. To be opened by Surgeon-General J. B. Hamilton, M.D., A.M.S.

The Position of the Volunteer Regimental Medical Officer. To be opened by Surgeon-Captain A. E. Larking, V.B. Buffs.

The Brigade Medical Unit. To be opened by Brigade-Surgeon-Lieutenant-Colonel P. B. Giles.

The following gentlemen will take part in the discussions: Fleet-Surgeon G. Kirker, R.N., Surgeon-General O'Dwyer, A.M.S., and Surgeon-Captain C. H. Milburn.

The following papers have been promised:

COLBORNE, W. J., Staff-Surgeon, R.N. The Duties of Medical Officers in Connexion with a Naval Action.

HUTTON, Surgeon-Major G. A., Organising Commissioner of the St. John Ambulance Association. Voluntary Aid to the Sick and Wounded in War.

S.—TROPICAL DISEASES.

Botany and Geology Lecture Room (Arts Side).

President: Sir WILLIAM R. KYNSEY, C.M.G. *Vice-Presidents:* Professor RUBERT BOYCE, M.B., F.R.S.; MAX F. SIMON, M.D., C.M.G. *Honorary Secretaries:* BRIAN MELLAND, M.Sc., M.D., Ashley Road, Bowdon, Cheshire; C. W. DANIELS, M.B., Seamen's Hospital, Albert Dock, E.

The President will open the Section with a short address on Wednesday at 10 a.m. The following discussions have been arranged:

Wednesday, July 30th.—Prophylaxis and Treatment of Beri-beri. To be opened by Dr. Patrick Manson, C.M.G.

Thursday, July 31st.—Dysentery. To be opened by Dr. M. F. Simon.

Friday, August 1st.—Yellow Fever. To be opened by Mr. Cantlie.

The following gentlemen have already intimated their intention to take part in the discussions, or have promised papers: Dr. Patrick Manson, Mr. James Cantlie, Major Ross, Dr. M. F. Simon, Dr. Edward Henderson.

Papers have been promised by: Dr. Andrew Duncan, Mr. James Cantlie, Professor Hewlett, Mr. P. W. Bassett-Smith, Dr. J. Galloway, Dr. E. Henderson, Major Buchanan, I.M.S., Dr. Dutton, Dr. Christy, Professor Galli Valerio, Dr. Williamson, and Dr. G. C. Low.

The following papers have been promised:

CHRISTY, C., M.B., C.M. Malaria.

DUTTON, J. E., M.B., Ch.B Viet. A Trypanosome in Man.

MELLAND, Brian, M.D.Lond. Malta Fever in the Canaries.

MELLAND, Chas., M.D., M.R.C.P. The Leucocytes in Malaria.

ROSS, Major R., F.R.C.S. (Title not yet received).

The *Honorary Local Secretaries* are: WILLIAM COATES, Esq., Ingleside, Whalley Range, Manchester; T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester; A. BROWN RITCHIE, M.B., 117, Boston Street, Hulme, Manchester; and JOHN WILLIAM SMITH, Esq., 274, Oxford Road, Manchester.

PROGRAMME OF PROCEEDINGS.

MONDAY, JULY 28TH, 1902.

7.30 p.m.—Official Opening of the Annual Museum and Exhibition by the Right Honourable the Lord Mayor of Manchester, followed by a Musical Programme.

TUESDAY, JULY 29TH, 1902.

9.30 a.m.—Meeting of 1901-1902 Council (Council Chamber, Owens College).

10.30 a.m.—Cathedral Service, by kind permission of the Dean of Manchester. The Sermon will be preached by the Right Rev. Bishop Thornton, D.D., Vicar of Blackburn. At the same time, by kind permission of the Rev. Father Brown, a Roman Catholic Service in the Church of the Holy Name. Preacher, the Rev. Charles Coupe, S.J., M.A.

2 p.m.—First General Meeting (Whitworth Hall, Owens College).

4 p.m.—Garden Party by Mr. and Mrs. Edward Donner, at Oak Mount, Fallowfield.

8.30 p.m.—Adjourned General Meeting from 2.30 P.M. President's Address in Whitworth Hall, Owens College, followed by a soirée in the Owens College, given by the President and Local Executive Committee.

WEDNESDAY, JULY 30TH, 1902.

9.30 a.m.—Meeting of 1902-1903 Council (Council Chamber, Owens College).

10 a.m. to 1 p.m.—Sectional Meetings (Owens College).

1 p.m.—Excursion to Blackpool for limited number.

2.30 p.m.—Second General Meeting (Whitworth Hall, Owens College).

3.30 p.m.—Garden Party by Dr. and Mrs. Mould, Royal Asylum, Cheadle (and Cricket Match).

Garden Party by Mr. and Mrs. H. H. Smith-Carington, at Grange Thorpe, Rusholme.

8.30 p.m.—Address in Medicine, in the Whitworth Hall, Owens College, by Sir Thomas Barlow, Bart., K.C.V.O., M.D., followed by an Open Air Reception and Fête in Whitworth Park, given by the President and Local Executive Committee.

THURSDAY, JULY 31ST, 1902.

9.30 a.m.—Meeting of Council (Council Chamber, Owens College).

10 a.m. to 12.30 p.m.—Sectional Meetings (Owens College).

12.30 p.m.—Address in Obstetrics in the Whitworth Hall, Owens College, by Professor W. J. Sinclair, M.D.

2.30 p.m.—Third General Meeting (Whitworth Hall, Owens College).

3.30 p.m.—Garden Party by Mrs. Rylands, Longford Hall, Stretford (Pastoral Play by Benson's Shakespearean Company).

7.30 p.m.—Annual Dinner of the Association, in Platt Hall Park, Rusholme.

7 p.m. to 11 p.m.—Ladies' Reception and Variety Entertainment at the Prince's Theatre.

FRIDAY, AUGUST 1ST, 1902.

10 a.m. to 1 p.m.—Sectional Meetings (Owens College).

2.30 p.m.—Concluding General Meeting (Whitworth Hall, Owens College).

3.30 p.m.—Garden Party by Dr. and Mrs. Thomas Harris, President Manchester Medical Society, at the Owens College Athletic Ground. (Cricket Match.)

3.30 p.m.—Garden Party by the Mayor of Salford (Alderman Rudman) in Peel Park, Salford.

7.30 p.m.—Lord Mayor's Reception and *Conversazione* in Town Hall.

9.45 p.m.—Reception and Ball in Platt Hall Park by President and Local Executive Committee.

SATURDAY, AUGUST 2ND, 1902.

Excursions.

RECEPTION ROOM.

The Reception Room in connexion with the annual meeting in Manchester will be at the Owens College. It will be formed by the South and North Vestibules and Central Corridor connecting these, together with the considerable suite of rooms adjoining, all situate under the Whitworth Hall. The chief entrance will be on the left of the main entrance to the Owens College. Entering the Reception Room here, the first room on the left is set apart for the Ladies' Reception Room. The second and third rooms are for the distribution of cards of membership, for registration, etc. The fourth room will contain a post office, telegraph and telephone offices; and in the South Vestibule will be an inquiry room. On the opposite side, starting from the original entrance, the first room will be a reading and writing room; the second for foreign guests and interpreters; and the third will be for the Honorary Local Secretaries. On Monday, July 28th, the Reception Room will be open at 12 o'clock, and for the convenience of members requiring information regarding hotels and lodgings it will on this the first night remain open until 10 p.m. On Tuesday the 29th the Reception Room will open at 9 a.m. and close at 7 p.m., and on the following days it will open at 9 o'clock and close at 6 p.m. There will be an inquiry office at the Reception Room at which all

necessary information can be obtained, and members will be directed to the various rooms, etc., at which all necessary tickets can be obtained.

A room for the convenience of foreign guests will adjoin the Reception Room, and here interpreters and others willing to give all information will be found.

It is particularly requested that members on their arrival will at once proceed to the Reception Room at the Owens College and enter their names and addresses, and obtain their tickets and daily journals containing programme, etc., inquire for letters and telegrams, and consult the list of lodgings and hotels.

Only members of the British Medical Association, invited guests, and accredited strangers will be allowed to attend the general meetings or the meetings of Sections. Members and guests will be required to show their cards, which must be obtained and signed for at the Reception Room. Invited guests will be required to show their invitation cards upon entrance to any of the general meetings or meetings of Sections. Members and guests are therefore earnestly enjoined to register their names as soon as possible at the Reception Room, to take care of their cards of admission, and to note that they are not transferable, and if lost cannot be renewed.

Only members and officially invited guests will be admitted to the dinner of the Association.

Tickets for garden parties and other local entertainments, for the excursions, dinner, ball, and soirée may be obtained at the Drill Hall of the 4th V.B.M.R., Burlington Street, where the Exhibition is also held, and can only be given out upon production of card of membership. This building is about two minutes' walk from the Reception Room.

The Ladies' Main Reception and Reading and Writing Room will be the first room on the left in the suite of Reception Rooms at the Owens College, and smaller Reading and Writing Rooms for the convenience of ladies will be provided both on the Arts and the Medical side of the College.

Gentlemen's Smoke Rooms will also be provided both on the Arts and the Medical side of the College.

A Post Office, a Telegraph Office, and also a Telephone Office will be provided in the Reception Room.

Members of the Association who intend visiting Manchester during the annual meeting are particularly requested to fill up the form which will be published later in the centre of the British Medical Journal, and stamp and post it, in order that suitable arrangements may be completed.

Pathological Museum.

The Pathological Museum will be established in the Pathological and Bacteriological Laboratories of the Owens College. It will comprise macroscopical and microscopical specimens, photographs, and appliances adapted for modern research. The specimens will be illustrative of both human and comparative pathology and bacteriology, arranged as far as possible in series depicting the more interesting lesions of various organs, whilst other specimens will be specially illustrative of the subjects dealt with in the work of the sections.

Photographic Exhibition.

It is proposed to hold an exhibition of pictorial photographs (in addition to those sent to the scientific museum) in a suitable room in the Owens College. Members having work, which must be framed or mounted in *passe partout*, should communicate with Mr. Westmacott, Honorary Secretary, Local Entertainments Subcommittee, 8, St. John Street, Manchester, who will give any information on the subject, and who will undertake to receive and hang the photographs, and have them returned to the senders.

Golf.

There will be a Golf Match on Friday, August 1st, at the Manchester Golf Club Links, Trafford Park, between "England and Wales" *versus* "Scotland, Ireland and all other Britons," in addition to which several Golf Clubs will open their links to members for the week.

ANNUAL EXHIBITION.

Chairman: Dr. Woodcock.

Secretary: Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester.

Telegraphic Address: Annually Manchester.

Telephone No.: 2376 Manchester.

The Annual Exhibition in connexion with the above meeting will be held in the Drill Hall, Burlington Street, Manchester, on July 28th, 29th, 30th, 31st, and August 1st, and will comprise the following Sections:

A. Foods and Drugs, including Prepared Foods, Chemical and Pharmaceutical Preparations, Antiseptic Dressings, etc.

B. Medical and Surgical Instruments and Appliances, Books, Diagrams, Charts, etc.

C. Sanitary and Ambulance Appliances, Consulting-room Fittings and Furniture.

The Drill Hall affords excellent accommodation for the purposes of the Exhibition, the dimensions of the main building being 169 ft. long by 85 ft. wide, and affording a total floor space area of about 14,500 sq. ft. The Hall is situated well within 300 yards of the Owens College, where the Sectional, business, and other meetings of the Association are to be held.

The Committee had also had placed at its disposal ample space for the erection of large marquee, etc., for the accommodation of exhibits of carriages, etc., and also for motor cars, on trial and for sale, suitable for the use of medical men for professional and other purposes.

Arrangements are also being made on Exhibition premises for lounge and smoking room, writing room, ladies' tea and retiring room, lavatories, cloak room, etc.

Exhibitors in Sections A, B, and C (other than members of the Association) will be charged for table space at prices from 5s. and upwards per square foot according to position.

Tables 3 ft. 6 in. wide will be provided, the central tables 7 ft. wide, being divided by partitions carried to the height of 3 ft. 6 in. into two tables of 3 ft. 6 in. wide.

In Section C, floor space will be provided at prices from 6d. to 1s. 6d. per square foot according to position. On floor space no erection, stands, or tables for the display of goods will be allowed, but exhibitors may at their own cost put down a platform in height not exceeding 6 in. from floor.

Electric current and gas supply can be arranged for if due notice is given to Secretary by exhibitors requiring same. The use of spirit lamps, etc., will not be allowed in the building.

Plan of hall, particulars, and regulations may be obtained upon application to the Honorary Secretary for the Exhibition.

Copies of prospectus and regulations in full can be obtained upon application.

A catalogue, giving short description of exhibits, and of which 2,000 copies will be printed, will be distributed free to members of the Association attending the meeting. Applications for advertisements in the same should be made at an early date.

Communications on all general matters connected with the exhibition and all applications for space should be addressed to the Honorary Secretary, Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester, to whom all cheques are to be made payable. Telegraphic address, Annually, Manchester.

Space will, as far as possible, be allotted as it is applied for, and all applications will be dealt with in the order in which they are received.

Exhibits will only be received conditionally upon the regulations and conditions being strictly complied with; and, further, that in any question that arises the decision of the Honorary Secretary shall be final and binding upon all parties.

An official Guidebook will be presented to members, which will consist of 300 pages (cloth bound) illustrated with upwards of 80 half-tone engravings specially prepared for the work. In addition to description of the Owens College, Medical School, and the usual maps, plans, etc., it will contain about twenty special articles written by experts on the history, antiquities, churches, hospitals, charities, public buildings, parks, manufactures, etc., and also an account of

the Manchester Ship Canal. 3,000 copies will be printed and a selected number of advertisements will be admitted. Prospectuses giving full particulars may be obtained from the Exhibition Secretary.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held at Carlisle on Friday, June 27th. Members intending to read papers, and gentlemen desirous of joining the Branch are requested to communicate as soon as possible with the Honorary Secretary, W. F. FARQUHARSON, M.D., Garlands, Carlisle.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in the Town Hall, Birkenhead, on Thursday, June 19th, at 1.45 p.m. The chair will be taken by the retiring President, James Corns, M.D. The report of Council and financial statement will be presented, and office-bearers and representatives elected for 1902-3. An inaugural address will be given by the President, A. C. E. Harris, M.B., F.R.C.S.E., entitled, "1874 to 1902: Comments on Time Changes," and the following communications made:—Mr. Damer Harrisson: Extensive Sarcoma of the Neck treated by Operation.—Dr. Henry Briggs: An Inquiry as to the Interpretation of a Peritoneal Crisis in Gynaecology.—Mr. Rushton Parker: Operations for Gastric Ulcer, Acute and Chronic.—Mr. Robert Jones: Some Cases of Perforated Gastric Ulcer treated by Operation.—Dr. Eugene Yonge: Some Cases of Disease of the Nose.—Mr. Thelwall Thomas: Surgical Treatment of the Conditions that cause Sudden Locking of the Knee-joint, with Brief Abstract of Twenty Cases.—Dr. Francis W. Bailey: The Continuous Administration of Nitrous Oxide Gas.—Mr. Colin Campbell will exhibit: (1) A Surgical Bag, (2) Harness for Hernia provided by a Hernia Specialist. Lunch will be provided from 12 to 1.30 in the Town Hall by the President and members residing in Birkenhead, and excursions will be arranged to Port Sunlight (soap works), Bidston Observatory and Lighthouse, etc., the Great Float, etc. At 6.30 members will dine together at the Woodside Hotel. A Council meeting will be held at 1.15 p.m. on the same day.—T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Hotel Cecil on Wednesday, June 18th, at 6 p.m., and will be followed by the annual dinner at 7 p.m. The attention of members is drawn to the fact that this is the fiftieth anniversary, and it is hoped that a large number will be present to celebrate this event.—HENRY BETHAM ROBINSON, 1, Upper Wimpole Street, W.; J. W. WASHBOURN, M.D., C.M.G., 6, Cavendish Place, W., Honorary Secretaries.

SOUTH EASTERN BRANCH.—The annual meeting will be held at the Granville Hotel, Ramsgate, on Friday, June 20th, at 2.30 p.m. The President-elect (Dr. Halstead) invites and hopes to have as many members as possible to luncheon at the hotel at 1.30 p.m. Dinner at the same place at 6 p.m.; 7s. per head (wine supplied by the local members). As many members of the Branch, especially from outlying districts, may find a difficulty in obtaining a suitable train to return home the same night, the President-elect will be most glad if any such will accept his offer of hospitality at the Granville Hotel for bed and breakfast. If more applications for this shall be received than can be accommodated, the order of priority of application will be followed.—T. JENNER VERRALL, 97, Montpellier Road, Brighton, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Thursday, June 19th, at 3.30 p.m., in the Medical Institute, Edmund Street, Birmingham. The meeting will be followed by the annual dinner to be held the same day at 6.30 p.m. in the Grand Hotel, Birmingham, Chairman, Dr. Henry Malet, President-elect of the Branch.—J. T. J. MORRISON, F.R.C.S.; T. STACEY WILSON, M.D., Birmingham Honorary Secretaries.

EDINBURGH (FIFE AND LOTHIANS) BRANCH.—The annual meeting of this Branch will be held on Tuesday, June 17th.—JAMES HODSDON, NORMAN WALKER, Honorary Secretaries.

EAST ANGLIAN BRANCH.—*Preliminary Notice:* The annual general meeting of this Branch will take place at Great Yarmouth on Thursday, July 10th, under the Presidency of Mr. W. E. Wyllys. The presentations to Dr. Barnes and Dr. Beverley will take place at this meeting. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting will communicate at once with Dr. Ballance, Norwich. Members who have not yet paid their subscriptions for the current year will oblige by sending them to one of the Honorary Secretaries—B. H. NICHOLSON, Colchester; H. A. BALLANCE, Norwich; FRANCIS WARD, Ipswich.

SOUTH-WESTERN BRANCH.—The sixty-third annual meeting of this Branch will be held on Wednesday, June 18th, in the Board room of the Royal Devon and Exeter Hospital at 3 p.m., when Mr. G. Thom will resign the chair to Mr. J. Delpratt Harris, who will deliver his inaugural address. The report of the Branch Council for the year 1901-02 will be presented to the meeting, and the officers of the Branch, and representatives on the Central Council, and on the Parliamentary Bills Committee, be elected for the year 1902-03. After the meeting the President has kindly arranged visits to the new wards of the Royal Devon and Exeter Hospital, and West of England Eye Infirmary, the Cathedral, Cathedral Library, where documents of great interest can be examined, the Guildhall, the city muniments, and the septic tank system. Luncheon, by kind invitation of the President-elect, will take place from 12.30 to 2.30 p.m. at 45, West Southernhay, and the annual dinner will be held at Pople's New London Hotel at 6.30 p.m. Ticket [illegible] The Honorary Secretary will be obliged if those [illegible] the dinner will inform him on or [illegible] time forward 6s., the amount of the dinner ticket.—C. YONGE EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT. A MEETING of the District was held at the Calverley Hotel, Tunbridge Wells, on May 21st, Dr. E. A. STARLING in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Place of Next Meeting. The Honorary Secretary was requested to make the necessary arrangements for holding the next meeting of the District at Bexhill early in October.

Midwives Bill.—On the motion of Dr. J. W. BATTERHAM, seconded by Dr. C. H. ALLFREY, it was resolved

That this meeting of the East Sussex District of the British Medical Association fully concurs with the Memorandum of the Council (British Medical Association) on the Midwives Bill, 1902, and requests the Secretary to forward copies of this resolution and the Council's Memorandum to the member of Parliament for Tunbridge Wells asking him to oppose the Bill if the amendments of the memorandum aforesaid are not adopted.

Physiognomy.—Mr. W. ARBUTHNOT LANE read a paper on physiognomy of the race. He considered the several factors which determined the form of the bones of the face, and pointed out how largely they could be influenced by care and attention on the part of those in medical charge. The chief factor was the pressure exerted by the air in its passage to and fro through the naso-pharynx; the other factors were the pressure exerted by the tongue and the accommodation requisite for the full number of teeth. He described the several deviations from the state of complete development that resulted from one or more of these factors being in abeyance, and discussed the manner in which they might be influenced by treatment in their several stages. Mr. Lane exhibited numerous plaster casts showing the faulty development of both upper and lower jaws, and the consequent displacement of the teeth.

Insular Sclerosis.—Dr. E. HORHOUSE read a paper on the early signs of insular sclerosis. He said that he did not speak from the point of view of a neurologist, but from that of a physician in general medical practice. From this standpoint insular sclerosis was of importance for three reasons: (1) Because it was, so far as his experience went, much the commonest of the chronic diseases of the nervous system—much commoner, for example, than tabes dorsalis or paralysis agitans; his records of 4,000 out-patients showed 9 certain and 9 doubtful cases of insular sclerosis, as compared with 5 of tabes and 6 of paralysis agitans; (2) because from the variety of symptoms it might come first under the notice of any medical man, in whatever branch of medicine he was engaged; (3) because it was in the early stages difficult of diagnosis and easily confused with hysteria. He then gave instances of cases, beginning with ocular symptoms and symptoms supposed to be surgical. He ended by giving details of one or two cases which had a very prolonged course of fifteen to twenty years, in which the early symptoms for many years were undoubtedly functional, but which proved in the end to be insular sclerosis, and discussed the point on which Dr. Buzzard had laid stress for the differential diagnosis of hysteria and insular sclerosis.

Hydatid of the Liver.—Mr. J. B. FOOTNER made a few remarks on hydatid tumour of the liver, with notes of a case of suppurating hydatid of the same treated by transpleural and diaphragmatic incision. After alluding to the two forms of echinococcus cysts and to their size and slowness of growth, he went on to point out their dangerous nature, and dwelt on the diagnosis and symptoms; as regards treatment, incision of the cyst and drainage was recommended. The notes of the case of suppurating hydatid cyst of the liver showed that the patient had had jaundice five weeks before admission to the hospital, with pain in the right hypochondrium. The jaundice soon disappeared; a rigor and high temperature followed. The liver was prominent in front and projected

2 in. below the ribs, and there was dullness behind to the angle of the right scapula. Effusion was then noticed in the right pleura. An incision was made into this and turbid fluid evacuated. Then an incision through the diaphragm let out 4 pints of pus. The abscess cavity was washed out and drained. The patient made a good recovery.

Volvulus of Caecum.—Dr. FRANCIS BISSHOPP read a paper on a case of volvulus of the caecum. The patient, a lady aged 52, who had suffered all her life from obstinate constipation, was seized with a sudden pain after the bowels had been relieved with a stronger aperient than usual. This pain was followed by complete obstruction of the bowels (which lasted five days) accompanied by occasional sickness and gradual distension of the lower part of the abdomen below the umbilicus. A definite tumour was then detected in the left iliac region, and an exploratory incision was considered advisable. Mr. Tripp, on opening the abdomen, found the obstruction to be caused by a volvulus of the caecum, which was provided with a congenitally abnormal mesocolon, long enough not only to allow of its intestine undergoing a twist through one complete circle about its own axis, but also to permit the distended loop to take up a position well over in the left iliac fossa. The volvulus was easily untwisted, and the bowels were freely opened six hours after the operation. The patient recovered without a bad symptom. Dr. Bisshopp pointed out the extreme rarity of the condition.

Dinner.—The meeting was attended by 16 members and visitors, and afterwards 13 members and 3 guests dined together at the Calverley Hotel.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE 163rd meeting of this District (annual meeting for 1902) was held at the Kent and Canterbury Hospital on May 22nd, DR. LARKING (Folkestone) in the chair. There were present forty-one members and visitors.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Accounts.—The accounts of the past year, duly audited, were presented and passed.

Election of Honorary Secretary.—Mr. Raven (Broadstairs) was re-elected Honorary Secretary.

Future Meetings in September and in March, 1903.—It was resolved that the meeting next September should take place at Margate, and that the March meeting should be held at Deal. Dr. Nichol (Margate) was appointed Chairman of the September meeting.

Contract Practice.—The CHAIRMAN opened a discussion on this subject, which is reported at p. 1482.

Empyema and its Relation to Pneumonia.—Dr. HARNETT (Margate) read a paper on this subject. He related a case which came under his care after a severe illness of a week's duration. The symptoms were those of pneumonia, but the temperature, instead of falling by crisis, commenced after four days to show marked oscillations. An empyema was suspected and the exploring needle repeatedly used. Matter, however, was not detected, and nine days later the patient began to cough up pus. No improvement followed, and two days subsequently pus was detected far back in the ninth intercostal space. The chest was incised and a drainage tube inserted. The patient rapidly improved, but on the fourth day after the operation severe haemorrhage from the wound occurred, accompanied by haemoptysis. The bleeding was not from the intercostal vessels. For some days the patient was seriously ill, the blood clot in the cavity becoming very foul. Eight days later, when the case was again doing well, a second very severe attack of bleeding, accompanied with haemoptysis, occurred. Although subsequently exceedingly ill, the patient eventually made a complete recovery. Dr. Harnett had been unable to find any reference to the complication of pulmonary haemorrhage after operation upon empyema; in this case he had no doubt that a pulmonary vessel had become eroded. He drew attention to the fact that Fraenkel's pneumococcus was very frequently found in the pus from an empyema. From Netter's observations it seemed clear that in the very great majority of so-called empyemata this organism was present. He suggested that many so-called idiopathic cases really followed a pneumonia which had been overlooked, especially as in his experience lobar pneumonia in children was not uncommonly quite a mild disease. There were no means of anticipating the occurrence of empyema in pneumonia, nor were physical signs alone to be depended on for its detection. The temperature chart afforded the more trustworthy indication. If empyema followed pneumonia a secondary rise of temperature occurred from one to four days after crisis, when the chart showed marked oscillations, such as are usually associated with the presence of pus. On the other hand, there might be no apyrexial interval, the formation of pus being indicated by morning and evening oscillations of temperature. Although it was stated by some that if the pneumococcus was the only organism present aspiration would be sufficient to cure the disease, yet in many cases this would be followed by re-accumulation of pus, and valuable time would be wasted. The wisest plan was to incise and drain as soon as pus was discovered.

Annual Dinner.—In the evening fourteen gentlemen dined at the County Hotel, under the presidency of the Chairman.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.

THE annual general meeting of this Branch was held in the Denny Cottage Hospital on June 5th, under the presidency of Dr. Joss (Denny).

New Member.—Dr. James Robertson (Clackmannan) was elected a member of the Branch.

Financial Report.—The Treasurer's report showed a balance in favour of the Branch of £19 16s. 1d.

Alteration of By-laws.—It was agreed that in future the annual general meeting be held in May, and one other general meeting in October.

Election of Officers.—President: Dr. Smith (Falkirk). *Vice-President:* Dr. Highet (Stirling). *Honorary Treasurer:* Dr. Fergusson (Alloa). *Honorary Secretary:* Dr. Moorhouse (Stirling). *Members of Council:* Dr. Joss (Denny), Dr. W. A. Mackintosh (Stirling), Dr. Stewart (Falkirk), Dr. Strachan (Dollar). *Representative on the Council of the Association and on the Parliamentary Bills Committee:* Dr. W. A. Mackintosh (Stirling).

Presidential Address.—Dr. Joss reviewed the progress of the Branch during the year, and afterwards showed four cases of clinical interest: (1) A girl of 13, with complete recovery after compound depressed fracture of skull, with loss of over 2 oz. of brain matter; (2) a boy of 8, who showed unusually quick and complete recovery after operation for empyema; (3) a boy of 6 recovering from osteomyelitis in both tibiae; (4) an adult some years after excision of the elbow. On the motion of Dr. SMITH, the cordial thanks of the meeting were given to the President for his address.

Tea.—The members were entertained to tea by the kind invitation of the Hospital Committee, and a vote of thanks to the Committee and the Matron of the hospital was carried unanimously.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.

THE last meeting of the session 1901-02 was held at the Metropolitan Ear, Nose, and Throat Hospital, Grafton Street, W., on May 29th, Mr. S. AIRD JOLLY, L.R.C.P., Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the previous meetings were read and confirmed.

Election of Officers.—The following members were unanimously elected for the ensuing year:—*Vice-President:* J. Brindley James, M.R.C.S.Eng., L.R.C.P.I. *Honorary Secretary:* Thomas Dutton, M.D.Univ.Durh., M.R.C.P.Edin. *Representative on the Council of the Branch:* Frederick Spicer, M.D.Univ.Durh., M.R.C.S.Eng. *District Committee:* W. H. Kiallmark, M.R.C.S.Eng.; J. Pickett, M.D.St.And.; S. Aird Jolly, L.R.C.P.Edin.; J. Jackson Clarke, M.B., F.R.C.S.Eng.; E. C. Barnes, M.R.C.S.Eng.; G. Herschell, M.D.Lond.; L. H. Pegler, M.D.Edin.; W. T. Evans, M.B.Edin.; and J. Peake Richards, M.R.C.S.Eng.

Papers, etc. Dr. JOHNSON HORNE gave a lantern demonstration of new growths in the upper air passages; he showed a series of papillomata on the tonsils, uvula, and buccal mucous membrane. A photograph, taken from life, showed a polypus of the vocal cord during the act of phonation. Specimens of pachydermia laryngis were shown and its relation to syphilis, tuberculosis, was dealt with. Fibroma of the ven-

tricle of the larynx and its differential diagnosis from prolapse of the mucous membrane lining that region was demonstrated.—Mr. RICHARD LAKE read a short paper on the indications for the removal of adenoids, and showed some very remarkable specimens recently removed.—Dr. HEMINGTON PEGLER read a paper on abeyance of nasal breathing attributable to functional derangement of the soft palate.—Mr. J. H. CHALDECOTT read an interesting paper on the choice of an anaesthetic for operations upon the ear, nose, and throat. He strongly condemned the use of chloroform in these operations, but unfortunately there was no time to discuss the paper.—Dr. FREDERICK SPICER showed some interesting cases.

Vote of Thanks.—On the motion of Dr. DUTTON, seconded by Mr. PEAKE RICHARDS, a very hearty vote of thanks was passed by acclamation to the members of the staff for providing such an interesting meeting.

Tea.—Tea and coffee and light refreshments were provided for the members.

SPECIAL CORRESPONDENCE.

BELFAST.

Inquiry by the Local Government Board in the Union Workhouse and Infirmary, Belfast.—Small-pox and Typhoid Fever in Belfast.

A SWORN inquiry was held by Dr. Smyth, Medical Inspector to the Local Government Board, recently in the Boardroom of the Union Workhouse, Belfast; the inquiry lasted a week, and was relative to the expenditure on medicines and medical and surgical appliances in the Belfast Workhouse and the several dispensary districts of the Belfast Union during the half-year ending March 31st last. Besides the workhouse proper there is a large infirmary, the largest in Ireland, comprising obstetric, children's, consumptive, lock, and lunatic wards; and a large and well-managed fever hospital. Enormous improvements have been carried out during the last fifteen years: the nursing has been revolutionized; the extent of the reformation may be gauged when it is remembered that over 1,000 patients were formerly nursed by little more than some half-dozen trained nurses; now there are 90; Formerly the name was a by-word, and the place an offence, now, although the occasion for reform is by no means far to seek in many directions, there is a general feeling that it is one of the best-managed and most advanced union infirmaries in Ireland. Both the resident and the visiting staff have been increased, and an energetic attempt made to specialize; consumptive wards have been formed under Dr. Hall, Senior Visiting Physician, and surgical wards under Dr. Lynass, it is earnestly hoped that the guardians will rise to the necessities of the case, and erect a suitable sanatorium for the consumptive cases in the country. For this purpose expensive stone and brick buildings appear unnecessary; a cheaper structure is desirable and quite sufficient. These advances have not been carried out without increased expense; and from the evidence as reported in the daily press, it is clear that there has been a want of control and of individual responsibility. Dr. Lynass, who has charge of the surgical cases, after giving some very satisfactory statistics of surgical work, said he considered the amounts of boracic acid —9 cwt. for the six months—of iodoform, of creolin, of rubber plaster, of absorbent cotton—1,970 lb. in the six months, of bandages—82 new bandages daily—were excessive. There was much evidence of the same nature elicited during the inquiry, practically from all the witnesses. The apothecary stated that 86 cwt. of linseed meal in the six months at 24s. a cwt. was used, and that there was no check on its consumption. Dr. McDonnell, Chairman of the Infirmary Committee, gave evidence as to the large number of "extras," and showed that there was a tendency for such to increase, which was only restrained by a careful scrutiny exercised on all order lists. Dr. Smyth seemed to find considerable fault with a want of due economy in the commissariat of the nurses' home of the infirmary; this formed a bad object lesson for the nurses, and would not make for economical administration throughout the institution. The inquiry shows the necessity of some one responsible individual, analogous to the asylum superintendent.

About a couple of months ago a case of small-pox occurred in the Belfast Gaol; the prisoner had been in Glasgow, where he had contracted the disease. In the early part of May a second case, a woman lately arrived from Liverpool, also developed the disease, and on June 3rd some more cases were reported, one on the County Down side of the river, some in the neighbourhood of the union hospital to which the patients had been removed, and some 14 cases in the union itself. The authorities are taking action; strict precautions as to isolation, disinfection, and vaccination are being enforced. A temporary hospital is being run up as fast as possible in the new Town Fever Hospital grounds. Considerable dissatisfaction has been expressed at the want of preparedness of the authorities. A town fever hospital was advocated ten or twelve years ago; the principle has been approved of by the Council for many years, and yet a temporary structure costing £1,600 has to be erected to meet the demand arising in the initial stages of a threatened small-pox epidemic, with the possibility of further huts as required. A beginning of the promised hospital has not yet ben made. The intercepting hospital on the Twin Island, where any suspected person may be lodged and disinfected, has been opened for use. The Medical Officer of Health also unfortunately reports a rise in the returns of typhoid fever.

SOUTH WALES.

Llanelly Hospital.—Health of the Rhondda District for 1901.

THE annual report of the Llanelly Hospital gives some figures of interest. The hospital is not a large one, only 138 in-patients were treated during the year, but largely owing to the support of the working men of the district it is in a favourable financial position. The total receipts for the year amounted to £1,320 in round numbers, and of this sum the workmen of the town had subscribed £563, while the employers had given £187. The total expenditure for the year was £835. The Chairman explained that about £600 was already in hand towards the erection of an efficient operating theatre, the total cost of which would be about £1,000.

The annual report of Dr. Jenkins, the Medical Officer of Health for the Rhondda Urban District, which has the second largest population of any urban district (Willesden exceeding it by about 1,000 persons), has just been issued. It is an example of very rapid increase of population due to industrial reasons (coal). During the intercensal period of 1881-91 the population increased 58.8 per cent. (32,719 actually), and for the last period 28.7 per cent. (25,384), a greater relative increase than any other district in Wales, with a population above 50,000. The estimated population is about 114,000. The birth-rate for 1901 was high, being 28.5. The death-rate (21.6 per 1,000) was much higher than that for England and Wales. Part of this is to be accounted for by the zymotic death-rate, which unfortunately both in 1901 and to a lesser extent in previous years has been very high. In 1901 it was as high as 5.2. The medical officer of health points to the prevalence during the summer months of diarrhoea, especially in children under 1 year of age, as a chief contributory cause. The death-rate from diphtheria was 1.18 per 1,000, from typhoid fever 0.46, from diarrhoea 2.85, and from scarlet fever 0.37. The mortality from measles (0.02), whooping-cough (0.28), and small-pox (*nil*) was below the average. Diphtheria has been prevalent for years in this district, and in 1901 there were 1,128 cases. The average death-rate per 1,000 for the five years 1896-1900 was 0.97. The case mortality has, however, been steadily diminishing. Owing to the large number of deaths from diarrhoea (327 for 1901), directions for feeding infants and young children have been distributed. Of the total number of deaths, 63 were due to colliery fatalities. The new fever hospital is now in working order.

SMALL-POX AND VACCINATION IN MONTREAL.—Some 300 municipalities of the Province of Quebec have already passed compulsory vaccination by-laws. The City Council of Montreal has decided otherwise, although the Provincial Board of Health has power to pass such an order. Yet the recent outbreak of small-pox in Montreal might be thought a convincing object lesson. Out of 361 patients, only three bore good vaccination marks; 322 of the 361 had never been vaccinated at all. Montreal, however, will have no compulsion.

CORRESPONDENCE.

METROPOLITAN HOSPITAL SUNDAY.

Sir,—Sunday next is the thirtieth anniversary of the institution of "Hospital Sunday" in the metropolis, and collections will then be made in every place of worship in the vast area of London in aid of the hospitals, dispensaries, and convalescent homes, which do so much for the alleviation of the necessities of the suffering poor.

The rapid increase in the population of London intensifies the need for these beneficent institutions, but unfortunately the subscriptions do not sufficiently keep pace with the requirements. Thus the largest and wealthiest City in the world, and the capital of the British Empire, labours under serious disadvantage in dealing with its sick population.

To help to remedy this state of affairs, it is necessary for at least £100,000 to be raised by next Sunday's offertories. Mr. George Herring, who has contributed large amounts in previous years, has now offered either to add one-fourth to the amount raised on Hospital Sunday by the various places of worship, or to give a donation of £10,000. The Council decided to accept the former offer, believing that it would stimulate other donors.

With this munificent proposal it is surely not hopeless to expect to raise the desired sum of £100,000.

The Hospital Sunday Fund neither clashes nor competes with any other organization, except in the friendliest rivalry, and it is hoped that this historic year may be rendered memorable in its annals by an unprecedentedly large collection in aid of His Majesty's suffering poor in London.

Those who may be away from London, or unable to attend their accustomed place of worship on Sunday, are invited to send their contributions direct to me at the Mansion House. —I am, etc.,

Joseph C. Dimsdale,
The Mansion House, London, E.C., June 11th. Lord Mayor.

AGE INCIDENCE OF SMALL-POX AMONGST THE VACCINATED AND UNVACCINATED.

Sir,—I am obliged to Mr. Paul for calling attention to the fact that owing to some ambiguity of the wording, there is a possibility of misunderstanding a sentence in my address on vaccination. This possibility had already been pointed out to me, and the wording of the sentence, though not my meaning, was altered in a reprint of the paper which has been issued.

The sentence as it stood in the original was as follows: "Small-pox used to be a disease of childhood, and is so now where there is a neglect of infant vaccination, as is shown by the next table and diagram, where it will be seen that the number of deaths in every 100 children under 10 years of age increased in direct proportion to the neglect of vaccination." That by "the number of deaths in every 100 children under 10 years of age" is meant "the percentage of deaths borne by children under 10 years of age" is obvious from the context; but as it admits of misinterpretation, I have, in the reprint substituted the following sentence: "Small-pox used to be a disease of childhood, and is so now where there is a neglect of infant vaccination, as is shown by the next table and diagram, where it will be seen that amongst those attacked by small-pox the proportion of cases and deaths borne by children under 10 years of age in the places named increased in direct proportion to the neglect of infant vaccination."

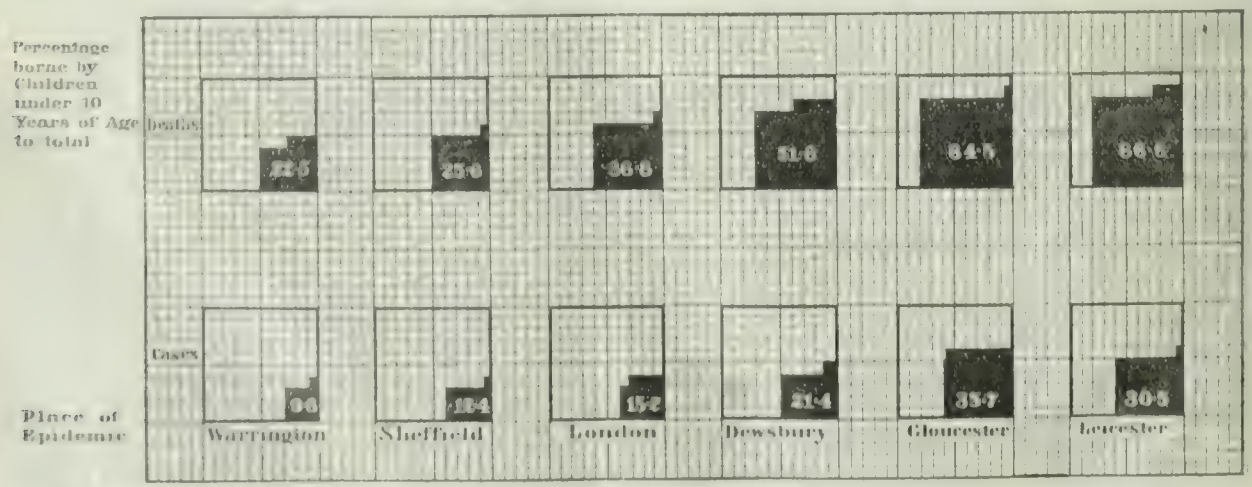
The headings of the Diagram (III) and Table (V), which are given below as they stood, should, I think, have prevented any possibility of misunderstanding the sentence referred to.

Table V.—*Child Mortality from Small-pox in Relation to the Neglect of Vaccination in Six Towns which have recently suffered from Small-pox Epidemics.**

Town.	Date of Epidemic.	Total of Small-pox Deaths.	Percentage of Total Deaths from Small-pox borne by Children under 10 Years of Age.	Vaccination Default.
Warrington	1892-93	62	22.5	Very slight.
Sheffield ...	1887-88	589	25.6	Very slight.
London ...	1892-93	182	36.8	In 1883-91, 10 per cent.
Dewsbury ...	1891-92	110	51.8	In 1882-92, 32.3 per cent.
Gloucester ...	1895-96	434	64.5	In 1885-94, 10.6 to 85.1 per cent.
Leicester ...	1892-93	21	71.4†	In 1883-92, 43.8 to 80.1 per cent.

* Final report of the Royal Commission on Vaccination, pp. 50 and 176.
† Excluding the deaths of 3 patients in a scarlet fever ward in close proximity to the Small-pox Hospital, this proportion would be reduced to 66.6.

Diagram III.—*Showing that the Percentage of Cases and of Deaths from Small-pox occurring in Children under 10 Years of Age varied in the Towns named directly in proportion to the Neglect of Vaccination.*



Date of Epidemic	1892-3	1887-8	1892-3	1891-2	1895-6	1892-3
Dimensions of Epidemic: Cases	661	4677	2353	1042	1970	357
Dimensions of Epidemic: Deaths	62	496	182	110	434	21

Mr. Paul gives a table in which he places the proportion of children's deaths to total deaths from small-pox, and the number of deaths in every hundred children attacked, in parallel columns. His numbers (except in the case of Sheffield and London) agree with those given in the final report R.C.V. paragraphs 204 to 210. The table as printed is obviously incomplete. The deaths in every hundred children attacked, showing the relative proportions amongst the vaccinated and the unvaccinated, should be also given as is done below. It will then be seen how much higher is the percentage amongst the unvaccinated than amongst the vaccinated.

Town and Date of Epidemic.	Percentage of total small-pox deaths borne by children under 10 years of age.	Deaths in every 100 children attacked.		Deaths in every 100 vaccinated children attacked.	Deaths in every 100 unvaccinated children attacked.
		Mr. Paul	R.C.V.		
Warrington, 1892-93 ...	22.5	21.53	—	6.0	37.5
Sheffield, 1877-78 ...	25.6	22.03	(18.24)	1.7	43.9
London, 1892-93 ...	36.8	18.71	(18.05)	0.0	26.7
Dewsbury, 1891-92 ...	51.8	26.02	—	2.2	32.1
Gloucester, 1895-96 ...	64.5	39.66	—	3.8	41.0
Leicester, 1892-93 ...	71.4	13.76	—	0.0	14.0

NOTE.—The numbers given in the final report of the R.C.V. are: For Sheffield—vaccinated: attacks, 353; deaths, 6; unvaccinated: attacks, 228; deaths, 100. For London—vaccinated: attacks, 110; deaths, 0; unvaccinated: attacks, 228; deaths 61.

But the problem, as I understand it, is not as suggested by Mr. Paul, what percentage of deaths occurred amongst the children attacked, in the places named, without any reference to whether they were vaccinated or not; but what proportion of the total deaths from small-pox was borne by children under 10 years of age, and whether that proportion bore any constant relation to the practice or neglect of vaccination.

Mr. Paul quotes Dr. Newsholme to show that the comparison instituted between the relative proportion of children's deaths from small-pox to adult deaths is inadmissible, and, in fact, misleading.

That this is not the case, at any rate in the way suggested by Mr. Paul, will be seen from Dr. Newsholme's letter. It would appear that if the suggested corrections are applied, the proportion of deaths, of children under 10 years of age, in the worst vaccinated towns—Gloucester and Leicester—would be actually greater (as compared with the best vaccinated town, Warrington) than shown on the diagram. This, if I do not mistake him, is hardly the result anticipated by Mr. Paul.—I am etc.,

Bryanston Square, W., June 9th. T. D. ACLAND.

SIR,—Mr. Paul correctly quotes me as objecting to the method of stating the deaths at one age-period in proportion to the total deaths at all ages. The cross references in the paragraph from which the quotation is made show, however, that my objection was to the use of this method as a statement of *death-rates*, which should, whenever practicable, be given as a ratio of the population out of which they occur. In one of these cross references (p. 124, *Vital Statistics*) I distinctly state that the proportion of deaths at one age to deaths from the same disease at all ages gives useful information as to the relative proportion between the two, though it cannot be trusted beyond this. Nothing more is required of it in this instance.

Mr. Paul maintains, however, that the objections defined by me apply to Diagram III in Dr. Acland's paper (p. 1013), which is a graphic representation of data supplied in the final report of the Royal Commission on Vaccination. This diagram gives the cases of or deaths from small-pox in each of six towns in proportion to the total cases of or deaths from small-pox in the same town.

This proportion might represent:

(*a*) A real difference in the age incidence of small-pox in comparable populations; or,

(*b*) A difference which, in part at least, is due to one town having a much higher proportion of children under 10 than the town with which it is compared.

If a town A. has a larger proportion of children under 10 than another town B., then, assuming both A. and B. to be invaded by small-pox, the proportion of attacks of children under 10 will, other things being equal, almost certainly be greater in A. than in B.

Now, if it is desired to know the relative incidence of small-pox upon the juvenile and the adult portion of a population, the most ready and comprehensible plan is to state one in the ratio of the other. The only ground for objecting to this ratio appears to lie in the possibility (*b*). No correction for age-distribution was made in the report of the Royal Commission, and it appeared to be in accordance with probability that such a correction would not materially alter the figures. I have been stimulated by Mr. Paul's quotation from myself to make the necessary calculations for the six towns given in Diagram III and Table V of Dr. Acland's paper, with the following result:

	Percentage Proportion of Total Population under 10 Years of Age at the Census of 1891.	Percentage Proportion of Total Attacks by Small-pox Borne by Children under 10.	
		(*a*) As given on Authority of Report of Royal Commission on Vaccination.	(*b*) As Corrected for Age-Distribution (Warrington Being Taken as a Standard).
	(1)	(2)	(3)
Warrington ...	27.0	9.8	9.8
Sheffield	24.5	12.4	13.9
Gloucester ...	24.2	35.7	39.1
Leicester... ...	24.1	30.5	33.8
London	22.7	15.2	18.4
Dewsbury ...	21.7	21.4	26.7

NOTE.—The last column in this table is to be read thus: If the proportion of children under 10 living in Sheffield had been the same as in Warrington, the attacks of small-pox among children under 10 would have formed 13.9 per cent. of the total attacks from this disease instead of 12.4 per cent. as given in the Royal Commission's Report. And so on for the other towns.

The population figures have been obtained from the census returns for 1891, the date of the enumeration of population which is nearest to the date of the epidemics in these towns. Warrington, having the highest proportion of children under 10, has been taken as a standard, and the proportionate number of cases of small-pox to every 100 cases at all ages has been ascertained on the assumption that each town had the same proportion of children under 10 in its population as Warrington. The original percentages given in the report of the Royal Commission are stated in column 2, the corrected percentages in column 3.

It will be noted that the relative excess of juvenile small-pox in the towns in which Dr. Acland's Table V shows a high rate of vaccination default is rendered higher still by the correction which has been made. It is clear, therefore, that in omitting to make the correction for varying age-distribution the *Royal Commission* and those who have quoted their report on this point *considerably understated the facts, the relative proportion of juvenile small-pox in defaulting towns being higher than they had represented* it.

I am obliged to Mr. Paul for having led me to investigate this point and arrive at this result.

It ought to be scarcely necessary to add that in order that the true significance of the proportions given in the preceding table may be realized, they must be considered in relation with the statistics of the same six towns in which the attack-rate and the fatality (case mortality) from small-pox under and over 10 years of age in vaccinated and unvaccinated respectively are contrasted. It is unnecessary to repeat these

statistics as they have been already given by Dr. Acland. They present an overwhelming case in favour of vaccination. —I am, etc.,

Brighton, June 7th. ARTHUR NEWSHOLME.

MODIFIED SMALL-POX AND THOMSON'S THEORY.

SIR,—In my recent work, *A Concise History of Small-Pox and Vaccination in Europe*, it is stated that our forefathers confused chicken-pox with modified small-pox, and in a parenthesis the further statement is made (page 64) that "Thomson exposed this error." A style may be too condensed and cause misunderstanding. The above statement has been misunderstood, and I should feel obliged for a small space in your columns in order to quote the actual words of Thomson from the *Edinburgh Medical and Surgical Journal*, October, 1818:

In watching the appearances and progress of the eruption in these persons, I was for a considerable time inclined to regard it as chicken pox till, having an opportunity of observing its severity and fatality in those who had not undergone small-pox or chicken-pox, I was compelled to abandon that idea, and to believe that in all the different forms under which the eruption has appeared it could be no other than small-pox.

This seems plain enough. Monro and Bryce also correctly diagnosed where Hennen, Surgeon to the Military Forces of North Britain, was doubtful. Thomson also saw Gibson's 118 cases of small-pox, and writes thus regarding some of Hennen's cases:

.....Had these cases occurred before inoculation was known, no practitioner of experience would, I am convinced, have hesitated in pronouncing them to be distinct and unequivocal cases of chicken-pox.

It is true that, in order to save the credit of vaccination—for Thomson and others persisted in maintaining that once-vaccination conferred as permanent a protection as survived small-pox, while, on the other hand, cases of small-pox in the vaccinated were accumulating under their eyes—Thomson in the same paper timidly and tentatively puts forth the theory that small-pox, chicken-pox, and the new disease—namely, modified small-pox—were etiologically connected; "and my present impression is that it may be that chicken-pox and modified small-pox are one and the same disease." To bolster up this surmise Thomson had to begin by making out that second attacks of small-pox must have been common occurrences, which is not true. But this is another tiger.—I am, etc.,

Springfield Road, N.W., June 8th. EDWARD J. EDWARDES.

THE MATRICULATION EXAMINATION OF THE UNIVERSITY OF LONDON.

SIR,—Sir Felix Semon's letter in the BRITISH MEDICAL JOURNAL of June 7th on the above subject is of great interest, and draws attention to a very important matter.

I agree with him in thinking that official advice by the Faculty of Medicine as to the optional subjects which should be taken at the Matriculation Examination by intending undergraduates in medicine would be very advisable, because the majority of people do not know what is the best course to pursue in this matter.

Sir Felix Semon advises French, German, and either elementary chemistry, physics, or biology, as the three optional subjects; with this I do not entirely agree, thinking that Latin, French, and German should be taken as the three optional subjects, leaving the natural sciences alone at this stage of the candidate's career, as they have to be dealt with for the Preliminary Scientific, for which examination no languages are admissible.

My reasons for electing these three subjects are that those languages are all of the greatest value to the medical student and to the medical man in after-life. We are not considering what are the best subjects for a candidate to take up who intends becoming an undergraduate in any of the other Faculties, but are simply considering what is best for those who are going to enter the medical profession.

I do not in any way underrate the value of a classical education, but we must move with the times, and French and German are of much greater importance to the medical man than Greek. A course of study at Paris, Berlin, Vienna, etc., is invaluable to a man after he has passed his medical examinations before he starts in practice, and such courses cannot be taken out with much benefit without a knowledge of the French and German languages; moreover, the valuable medical literature of the Continent is a closed book to him unless he is conversant with the two principal Continental languages.

It is high time that the medical profession took a definite stand on this matter, and advised parents who intend placing their children in the medical profession to insist that the early and valuable years of their children's lives should be devoted to obtaining a thorough knowledge of these two languages in preference to Greek.

It must be remembered that in the vast majority of cases medical men drop their Greek entirely after the matriculation is passed, and that up to that stage of their career they are too young to be able to appreciate the beauties of Greek authors, and afterwards have to devote their time to their profession and the allied scientific subjects, hence very valuable time is largely wasted which could be much better employed in their becoming proficient in modern languages. —I am, etc.,

Wimpole Street, W., June 9th. GEO. STEELE-PERKINS.

EDUCATION IN ENGLISH SCHOOLS.

SIR,—Two of your correspondents deal with the question of preliminary education for the medical profession. Both are dissatisfied with the system in vogue, but for rather different reasons. Sir Felix Semon advises the cultivation of French, German, and science to the neglect of Latin. "A Father of Public School Boys" wants French, German, Latin, and Greek taught altogether and efficiently. Further, he seems to cast a reasonably wistful glance towards English. Surely the inability of the average schoolboy to speak, read aloud, or write his own language fluently and well, to say nothing of his ignorance of the great English authors, is regrettable in the highest degree, especially amongst those intended for the medical profession, which requires wide sympathies with accuracy of thought and expression before all things.

I have great diffidence in questioning Sir Felix Semon's opinions, but is matriculation, French or German, likely to be of much use in after-life? How much of them will survive five years' medical studies? As a general practitioner and paterfamilias I have found a little Latin and French far more useful than the Greek and German I was weighted with at school, and hardly ever regretted forgetting—German least of all.

Boys cannot absorb an unlimited amount of learning. I have known intellect permanently crippled by a knowledge of three languages. The victim could speak, read, and write English, French, and German; but her mind was full of words. Ideas were at a terrible discount. I believe this danger is fully recognized by French educational authorities.

"A Father" could hardly do better than send his boys intended for the medical profession to Epsom, Nottingham High School, Wiggeston, or some similar school where science is taught well, with what languages may be necessary. I am sure he aims at an impossibility now, unless his boys have extraordinary linguistic abilities, or are prepared to sacrifice other subjects.

Regretting the slight put on Latin and the neglect of English classics by the new curriculum for the matriculation of the London University, I am, etc.,

June 9th. A FATHER OF MEDICAL STUDENTS.

REPORT OF THE REORGANIZATION COMMITTEE.

SIR,—On June 18th—a date memorable to English history—the draft of new articles and by-laws, prepared by the Committee appointed at Cheltenham last year, will be submitted to an extraordinary general meeting at Exeter Hall. It should be specially noted that, as in the case of the Council's scheme submitted about two years ago, it has again been decided that this scheme shall be either adopted or rejected by one single resolution only, and that no proposal for the amendment or modification thereof shall be accepted.

This scheme of the Committee, whilst containing some good features, appears to me quite unworthy of our acceptance. It is, for instance, fatally marred by some serious mercenary proposals, which have evidently been copied from some example of modern trades unionism: the principle of delegation has been fully adopted; the formation of a body of some 300 delegates—or representatives as the Committee now designates them—is prescribed, and this body is to supersede

alike the Council and the members of the Association ordinarily. Such a body seems quite unnecessary, and would be very costly: it is foreign to an Association like our own, the members of which are fully able to attend its periodical general meetings and record their votes personally; it would be degrading to the status of the Council; and, above all, it would be highly derogatory to the whole profession.

At the coming meeting some discussion of this scheme may perhaps be permitted; but previous experience—particularly that at Cheltenham last year as to the use of the "closure," etc.—forbids the hope that much indulgence, or any excess of courtesy, will be extended to any but the supporters of this scheme, whether they be ordinary members or even honoured members of the Council. It is, therefore, very desirable that as many members as can conveniently do so should attend and vote at this meeting, so that the result, whether for or against this disruptive scheme, may be equally weighty and decisive.—I am, etc.,

Swanley, June 8th. JOHN INCE.

FINANCES OF THE GENERAL MEDICAL COUNCIL.

SIR,—It might be thought that men in the rank and file of the medical forces should not touch the powers who direct them—that general practitioners should not venture to suggest points to the General Medical Council, but in a matter so likely to affect those whom the Council professes to protect it might be permissible to notice the methods by which it is proposed to strengthen the present shaky condition of the finances. One plan of improving the exchequer, depleted to the extent of £1,200 a year for the last seven years, is advised by the Council under three divisions: To raise the income at the expense of students, to increase the fee from the practitioner on his registration, and to tax him every year as well. Business men would say that if income cannot be made to meet expense, go for the expense, which does not seem to have occurred to the heads who form the Council. For ways of doing that let me commend the note by Dr. Heron Watson. If appeal be made to the House of Commons it should not be for power to further tax, but to give help and protection from those who would soon place the finances of qualified reliable practitioners in a far worse condition than those of the General Medical Council. As a general practitioner of many years, let me say, sure of the concurrence of the rest of us all through the country, that no attempt to lay more burdens on us will be approved until at least the Council itself shall set about dealing with its own enormous expenditure. There might then be an opportunity for the members of Council themselves also to work on high morals and low fees, as numbers of other doctors are daily doing—a far more dignified procedure than appealing to the House of Commons.—I am, etc.,

Bingley, Yorks, June 9th. JAMES CROCKER.

THE REGISTRATION OF STUDENTS.

SIR,—Kindly permit me to correct an error which has crept into your report of the observations I made at the recent meeting of the General Medical Council. At page 1410 of the BRITISH MEDICAL JOURNAL of June 7th I am reported to have said that "to have inserted a clause making registration of students compulsory would be absurd." What I did say was that to "attach a fee to registration without making it compulsory would be absurd." I hold that the registration of students should be compulsory, and that such is essential if the standard of preliminary education is to be raised. In view, however, of the opposition of the representatives of both the English and Scotch Universities and licensing bodies to it, the proposal to make it compulsory must be withdrawn; indeed, as the Council refuses to admit to the *Students' Register* the names of students who have taken out courses of instruction in chemistry and physics at schools now recognized by the Conjoint Board for England, and which are certain very shortly to be recognized by other licensing bodies, the whole system of voluntary registration of students seems likely shortly to collapse.—I am, etc.,

Dublin, June 9th. LOMBE ATTHILL.

MIDWIVES BILL, 1902.

SIR,—It is not easy to sympathize with Dr. Sinclair because on the fourth page of the latest advertisement issued by the Obstetrical Society his name is found.

This advertisement has been sent to various persons and to members of the House of Commons, so that they may clearly understand that Dr. Sinclair and others were in favour of the Bill.

It appears to me that the earnest female workers in social subjects having taken the Brahmins of the Obstetrical Society for a ride on their backs have returned home with the Brahmins inside and a smile on their faces. I trust that the Brahmins will in future take the result of their efforts as legislators to heart and in future avoid appeals to the ladies and the House of Commons.

It is notorious that the House of Commons invariably produces legislation on such a subject as that with which the Bill deals, which satisfies no one and very often which is of no practical utility at all, as in the present case.—I am, etc.,

Hatfield, June 9th. LOVELL DRAGE.

INTERNAL DERANGEMENT OF THE KNEE-JOINT.

SIR,—I quite agree with Mr. Rushton Parker that cases which cannot be cured by manipulations and movements require operation by opening the joint, and under such circumstances I have removed loose cartilages. But what I venture to urge is that before we condemn the less formidable method as a failure in any particular case a trial should be made of the plan of treatment I referred to in my letter of May 24th, which plan differs from that usually described.

Assuming that the acute symptoms after an accident have passed off, the method of manipulation should be as follows: When the cartilage can be felt protruding above the border of the tibia I have found it desirable to keep up pressure upon the protrusion, while making passive movements of the limb. The patient must allow the joint to be perfectly lax during these movements, and if he cannot accomplish this an anaesthetic will be needed.

The thigh of the patient should rest on the knee of the surgeon, while the leg is flexed and extended alternately; no sudden or rough movement should be used. Pressure on the protrusion may be made with the left thumb, while the ankle is grasped with the right hand and the leg worked like a pump handle but carefully. A slight inclination towards adduction of the leg upon the thigh should be made during these movements to encourage the displaced cartilage or part of a cartilage to recede; also a slight rotatory movement may be imparted occasionally, but this with great gentleness. It is rather a matter of coaxing the parts into position than of forcing them. Force alone is not likely to attain the object, and it may do harm.

When the cartilage does not readily move the surgeon should pull on the leg so as to draw away from the femur, thus giving more space for the cartilage to alter its position. Sometimes a distinct gliding movement or a "click" will be felt with immediate relief to the patient.

Another movement consists in the surgeon placing the patient's ankle on his own right knee and supporting the patient's knee with a hand on each side, then with rapid movements shaking the joint between almost complete extension and very slight flexion.

When an anaesthetic is necessary, the greatest care must be observed to avoid rough movements.

After reduction of the displacement, massage will do good, but massage alone will do nothing toward reducing the displacement.

Pain and irritation indicate that the derangement of the joint persists, and nothing less than replacement will suffice.

The manipulations should be repeated every day for at least a week, and after that at intervals of two or three days for another fortnight or longer. There is generally a tendency to relapse, which gradually subsides with the repeated manipulations.

The records of cases operated upon show that a cartilage (or cartilages) are almost invariably either split, fractured, or extensively torn from their attachments, and I think we may assume that some such condition must have been present in the cases which I have cured by the method above described.—I am, etc.,

Queen Anne Street, W., June 4th. NOBLE SMITH.

ON THE USE OF THE TERM "BLASTOMA."

SIR,—In the BRITISH MEDICAL JOURNAL for May 31st there is a letter from Professor Adami criticising my use of the term "blastoma."

I must confess that I was not aware of the fact that the term had been used by Professor Klebs, and I must thank Professor Adami for calling my attention to it. Since reading his letter I have referred to Klebs's work (*Allgemeine Pathologie*), and I find that Professor Adami's description of Klebs's classification is not quite accurate. Klebs uses the term "blastomata" as a synonym for "true tumours," but he includes under this term many conditions which are not considered tumours at the present day. He divides the blastomata or true tumours into three primary classes. The first class he calls "typical blastomata," and uses the synonym "giant growths" (*Riesenwuchs*). They are those conditions which I called progressive hypertrophy. The second class is that of "atypical blastomata," and includes all the ordinary tumours and also tubercle leprosy, etc. The third primary class is that of the "teratoblastomata', or "teratomata," which, besides dermoids, etc., includes tumours arising from fetal remains, such as those originating in branchial clefts, etc. Thus the term "blastoma" as used by Klebs includes all tumours, progressive hypertrophies, and tubercle, leprosy, etc. I think that no one at the present day would defend this use of the term.

Professor Adami uses the term to designate the ordinary tumours as opposed to the teratomata—a use different to that of Klebs. Professor Adami's classification[1] is one rather of the antecedents of tumour formation than of tumours themselves. As a classification of tumours it is useless owing to the overlapping of the different subdivisions. Carcinoma, for instance, would occur in all the subdivisions of his group "blastomata." He draws too sharp and artificial a line between the teratomata and other tumours. He defines the blastomata as "tumours composed of the products of aberrant growth of cells and tissues of the individual in whom they develop," and the teratomata as "tumours composed of the products of growth of one individual within the tissues of another individual of the same species." He states that ovarian and testicular dermoids probably arise from the germ cells, and he therefore includes them in the teratomata, but what about dermoids in other situations? Are they then blastomata, or do they arise from wandering germ cells? Can Professor Adami tell us at what point an ovarian ovum ceases to belong to the ovary and becomes a separate individual?

Again, in the case of transplantation of tumours from one animal to another, does a tumour which is a blastoma in the first animal become a teratoma in the second? I do not think that any single term is necessary collectively to designate the ordinary tumours as distinct from the teratomata, and, if it were, the term "blastoma" would not be suitable, since this meaning is not implied in it.

The tumours to which I have applied the term "blastoma' are best illustrated by the congenital mixed tumours of the kidney and many parotid growths. These tumours are neither sarcomata nor carcinomata in the accepted meanings of these terms. The fundamental cells of these growths are indifferent cells, and, as proliferation proceeds, some of them become differentiated into epithelial cells, and others into the various forms of connective tissue cells and sometimes into muscle cells.

Now, Sir, in the terms "fibroblast," "erythroblast," etc., the termination *blast* signifies that the cells to which these terms are applied are immature. The term "blast" (βλαστός, germ) without any prefix would naturally signify an undifferentiated cell, that is, one which is not the precursor of any definite kind of cell, but which may become differentiated into any kind of mature cell. We have also the old term "blasterna," which was used to designate the undifferentiated substance from which the cells were supposed to be formed. The natural meaning, therefore, of the term "blastoma" is a tumour, the essential components of which are undifferentiated cells, and it is in this sense that I have used it; and I think that, both by derivation and by analogy with cognate words, I am justified in so using it.

In conclusion, I must apologize to Professor Adami for not having, through an oversight, referred in my lectures to his use of the term "blastoma."—I am, etc.,

Leeds, June 9th. CHARLES POWELL WHITE.

SIR,—In the BRITISH MEDICAL JOURNAL of May 31st, p. 1380, Professor Adami comments, with only partial accuracy, upon my employment of this term. May I, then, proffer a brief explanation of my position in regard to it?

1. Professor Adami cites a brief paper of mine in November, 1895,[1] and on this bases the statement that "Snow's definition is vague, and his classification, I fear, cannot stand." He seems unaware that the paper aforesaid was but a passing and incomplete reference to my article "Blastoma" in *A Treatise on Cancers and the Cancer Process*, published in 1893. If he will kindly take the trouble to consult that work he will find the subject worked out in much greater detail than in the paper quoted, and may possibly find reason to modify his hostile judgement on my conclusions.

2. Any man who endeavours to write a work upon the entire field of malignant diseases will find himself confronted, as I was, by a pathologically extensive, though numerically small, group of cases, which often, but not always, truly cancerous, cannot be included in any of the recognized divisions. All agree in two points: (*a*) They arise from embryonic residua. (*b*) They appear to develop cancerous phenomena from some inherent condition of structure, and so commonly without extraneous cause. There are others which cannot here be mentioned; but these are the essential characteristics of the group. It is impossible to take any general view of "cancer" without recognizing this section, which alone complies with the germ theory of Cohnheim, not applicable to the common forms of malignant tumour. And as a generic name appeared to me a *sine quâ non*, I coined for such abnormal new growths that of blastoma (from βλαστός, germ).

3. I was then wholly unaware that the term had been previously employed by Klebs. As, however, he seems to have done so in a sense exactly the opposite of what the etymology would imply—namely, to designate tumours which are for the most part hypertrophic, and in no way derived from a latent germ, such as a fetal relic—I would still submit that the signification attributed to the term in the above article is the more rational and appropriate.

I am greatly indebted to Dr. C. P. White for having rescued the word from oblivion.—I am, etc.,

Gloucester Place, W., June 2nd. HERBERT SNOW.

THE ABOLITION OF ENTERIC IN ARMIES.

SIR,—Much has been written and said of late with regard to the provision of pure water for armies in the field, with a view to the prevention of enteric. Little or nothing, however, has been heard with regard to the various other measures which are required for coping with this disease; for example, the prevention of personal infection, direct or through bedding, tentage, etc.; prevention of infection from polluted soil and food, through the air, through dust, flies, etc. Much evidence is wanted before conclusions can be rightly formed as to which of the various sources of infection is the chief factor in the production of these epidemics.

It remains to be seen what use the War Office has made of the exceptional opportunities during the late war for deciding these very important questions.

One cannot believe that the provision of "safe water" for soldiers in the field is to be the sole reform for the prevention of enteric and other diseases. It may be predicted with certainty that unless the other paths of infection are blocked epidemics will still prevail.—I am, etc.,

Manchester Square, W., June 5th. CHRISTOPHER CHILDS.

SCARLET FEVER AT SEASIDE HEALTH RESORTS: A SUGGESTION.

SIR,—Last week I was telegraphed for to see my daughter, who had been staying at a large seaside health resort for nine days and was taken with scarlatina. I arrived about 8 p.m., and applied immediately on my arrival at the railway station for a through invalid coach to take her and the rest of the party home next day. I was waiting at the station all next morning till 1 p.m. while the station-master sent telegrams and made

[1] The Causation of Cancerous and Other New Growths. BRITISH MEDICAL JOURNAL, 1901, vol. i, March 16th.

[1] *Trans. Path. Soc. Lond.*, xlvii, 1896, p. 259.

inquiries, but could get no answer. So I had to take the patient to the local isolation hospital. Later the station-master told me that infectious cases were only conveyed in some special form of carriage which could only be obtained from the head dépôt of the company.

It would be a great advantage if every seaside health resort of any importance were to keep at its railway station a special invalid carriage with a bed in it and furniture that could easily be disinfected, with lavatory accommodation, and another compartment for "contacts" or attendants. Then the medical officer of health could advise the scarlatina patient to go home (for home is still the best place for scarlatina patients where there is adequate accommodation for isolation) instead of to the infectious hospital. This would be a great benefit to the health resort, as by removing the case and the "contacts" a focus of infection would be removed, instead of crowding the local isolation hospital.

As far as I could learn the railway company charge about five first-class fares for the use of a through carriage.—I am, etc.,

Stourbridge, June 5th. GEORGE BIRT, M.B.Lond.

THE SPITTING NUISANCE IN THE ELIZABETHAN ERA.

SIR,—As the spitting nuisance is at present so much to the fore it may be interesting to record that it was known in Elizabethan times. Thomas Campion, who afterwards became a physician, gives the following epigram by himself in his *Observations in the Art of English Poesie*, London, 1602, p. 20, to illustrate English trochaic verse:

Lockly spits apace, the rhewme he cals it,
But no drop (though often urgd) he straineth
From his thirstie iawes, yet all the morning,
And all day he spits, in ev'ry corner.
At his meales he spits, at ev'ry meeting,
At the barre he spits before the Fathers,
In the Court he spits before the Graces,
In the Church he spits, thus all prophaning
With that rude disease, that empty spitting:
Yet no cost he spares, he fees the Doctors,
Keepes a strickt diet, precisely useth
Drinks and bathes drying, yet all prevailes not.
'Tis not China (Lockly) Salsa, Guacum,
Nor dry Sassafras can helpe, or ease thee:
'Tis no humor hurts, it is thy humor.

The play on words in the last line consists in the use of the word "humor," first in the restricted sense it bore in the humoral pathology, and then with the more general meaning it acquired of "disposition" and "habit."—I am, etc.,

W. R. B. PRIDEAUX,
Assistant in the Library.

Royal College of Physicians of London, June 4th.

OBITUARY.

JOHN BARCLAY, M.D.ABERD., Banff.

BY the death of Dr. Barclay, which occurred on March 11th, the medical profession in the North of Scotland has lost one of its brightest ornaments, the community of Banff has been deprived of a highly-respected and useful citizen, and countless individuals have been bereaved of one who was, far and beyond all other things, their faithful friend, wise counsellor, and trusted sympathizer.

It is over 20 years since the writer of these notes was privileged to be assistant to Dr. Barclay for the space of two years: during this period he learned to esteem and trust him with a devotion and loyalty which the intervening years have but strengthened.

Dr. Barclay was a great professional power in the North. After a brilliant career at College he graduated M.D. with honours at Aberdeen in 1862. Thereafter he was appointed Assistant Professor in his own University, first to the Chair of Materia Medica and afterwards to that of Medical Jurisprudence. Full of love for his profession, possessed of keen insight and a wonderful power of discrimination, he made ample use of his opportunities and abilities when, a year or two later, he began practice in the town of Banff. He read widely, and was gifted with a wonderful memory, and gave his patients the fullest benefit of the most recent advances in treatment. He tested all new methods, retaining those he found truly useful, and discarding those he discovered to be of little value; and his judgement was seldom at fault. He did not confine himself, however, to following up the work of others—he did much original work himself; and although he seldom published any of his results, he was known by his fellow-practitioners as the originator of new and trustworthy methods and lines of treatment. A midwifery forceps devised by him and bearing his name is a testimony to his inventive genius.

For several years Dr. Barclay acted as Examiner in Medicine, Chemistry, and Medical Jurisprudence in Aberdeen University. More lately he was chosen President of the Aberdeen, Banff, and Kincardine Branch of the British Medical Association.

The medical appointments held by Dr. Barclay were very numerous, including those of Surgeon to the Chalmers Hospital, Certifying Factory Surgeon, and Medical Officer of Health to the Burgh of Banff. He was also a J.P. For several years he was a valued and energetic member of the Banff School Board. He was also an enthusiastic bibliophile, and his library was not only large, but showed taste and discrimination in the selection of its contents.

A man of intense activity and energy, he expected his assistants to work hard also, but he was always appreciative of work well attempted, even if it were not successful, and was always ready with kindly encouragement and counsel in the many difficulties that beset a young beginner in medicine. Altogether, the many men who have successively been assistants to him are unanimous in feeling that one of the greatest privileges of their lives has been that of working under the guidance of such a man; and now that he is gone they feel that the world is so much the poorer, and that they themselves have lost a friend whose place it will be impossible to fill.

A. T.

THE LATE PROFESSOR O'SULLIVAN.—On June 3rd a mural tablet in memory of the late Professor O'Sullivan was unveiled in the North Charitable Infirmary, Cork, by the High Sheriff. The tablet, which is placed in the main entrance hall, consists of a white marble slab on a black marble background, and bears the following inscription: "To the memory of Stephen Sullivan, M.D., M.Ch., F.R.C.S.I., Professor of Surgery, Queen's College, Cork; Senator of the Royal University of Ireland. Born January 8th, 1836; died January 8th, 1900; who for thirty-seven years occupied the positions of House-Surgeon, Extern Surgeon, Intern Surgeon in this hospital, and was chiefly instrumental in introducing into this hospital a system of trained nursing. This tablet is erected by his colleagues of the medical and surgical staff of the North Infirmary in token of their sincere affection and respect for a man of eminent attainments and ability in his profession, of straightforward and unswerving honesty of purpose, of conscientious devotion to duty, of charitable and sympathetic heart."

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL ARMY MEDICAL CORPS.

APPOINTMENT OF EXAMINERS.

THE list of examiners for Commissions in the Royal Army Medical Corps under the new regulations is now complete; it is as follows:

In Medicine.

Dr. Kingston Fowler (London).
Dr. E. Markham Skerritt (Bristol).
Dr. G. S. Middleton (Glasgow).
Dr. James Craig (Dublin).

In Surgery

Sir W. Thomson, C.B. (Dublin)
Professor John Chiene, C.B. (Edinburgh).
Mr. Herbert Page, M.C. Cantab., F.R.C.S. (London).
Mr. Jonathan Hutchinson, jun., F.R.C.S. (London).

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Fleet Surgeon [illegible] Deputy Inspector-General [illegible] Haslar Hospital, June 4th, A. K. SMYLY, M.B., M.Ch., [illegible] to the Royal Naval Hospital for disposal, June 7th; T. W. MAHONY, Surgeon, to the *Wildfire*, for disposal, June 21st; J. FULLERTON and J. G. PEEBLES,

Surgeons, to the *Pembroke*, for disposal, June 21st: L. M. MORRIS, O. MILLS, and N. H. MUMMERY, surgeons, to the *Vivid*, for disposal, June 21st; T. B. SHAW, Surgeon, to the *Resolution*, June 10th.

INDIAN MEDICAL SERVICE.

COLONEL G. C. HALL, Bengal Establishment, is appointed to officiate as Principal Medical Officer, Lahore District.

Lieutenant-Colonel J. P. GREANY, M.D., Bombay Establishment, is appointed to officiate as Principal Medical Officer of Aden District.

ROYAL ARMY MEDICAL CORPS (MILITIA).

LIEUTENANTS G. J. D. DAVIES and S. G. MC ALLUM, M.D., are seconded for service in South Africa, June 11th.

THE FUTURE OF THE R.A.M.C. (MILITIA).

MILITIA writes: I beg to bring to notice the strong feeling existing among the officers of the R.A.M.C. (Militia) in reference to their future as regards military duty and employment.

As civil practitioners who have either given up or lost our civil work, due to our having been embodied for the past three years, and so employed in military duties, we strongly feel—seeing the good work which the officers of the Corps have done, not only at home, but in South Africa, during the war—that we are entitled to generous treatment at the hands of the Government. We desire to be continued in our military duties after disembodiment in such ways as will not interfere with the R.A.M.C. We hold that such duties can be given us at dépôts, station hospitals, small stations, such as dépôts of militia regiments, where the medical duties are in a great number of cases done by civil practitioners and at stations where no military medical officers are employed.

IMPERIAL YEOMANRY.

SURGEON-MAJOR J. T. JACQUES, Leicestershire (Prince Albert's Own) resigns his commission, retaining his rank and uniform, June 11th.

VOLUNTEER ENGINEERS.

MR. WILLIAM H. GALLOWAY is appointed Surgeon-Lieutenant in the 2nd West Riding of Yorkshire (Leeds), June 11th.

VOLUNTEER RIFLES.

MR. JOHN S. S. PERRINS is appointed Surgeon-Lieutenant in the 1st (Exeter and South Devon) Volunteer Battalion the Devonshire Regiment, June 11th.

Surgeon-Lieutenants A. EHRMANN, 22nd Middlesex (Central London Rangers), and C. A. MARRETT, 1st Tower Hamlets, are promoted to be Surgeon-Captains in their respective corps.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

MR. ADAM M. PORTEOUS is appointed Lieutenant in the Woolwich Companies, and to be Transport Officer to the Division, June 11th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

SURGEON-LIEUTENANT H. W. WEBBER, M.D., from 2nd Devonshire Royal Garrison Artillery (Volunteers), is appointed Surgeon-Lieutenant in the Devon Company, and to command under Paragraph 55a, Volunteer Regulations, June 11th.

Surgeon-Captain J. M. H. MARTIN, M.D., from the 1st Volunteer Battalion the East Lancashire Regiment, is appointed Surgeon-Captain, North-East Lancashire Company, and to command under Paragraph 55a, Volunteer Regulations, June 11th.

Surgeon-Captain T. HOLT, M.B., from the 2nd Volunteer Battalion the East Lancashire Regiment, to be Surgeon-Captain in the North-East Lancashire Company, June 11th.

VOLUNTEER MEDICAL ASSOCIATION.

THE Annual Challenge Shield Competition of the Volunteer Medical Association was held on June 7th, by permission of the Lord Mayor, in the Guildhall. A large number of Volunteer medical officers witnessed the competition, and among others present were Brigade-Surgeon-Lieutenant-Colonel Andrew Clark (Chairman of the Association), Brigade-Surgeon-Lieutenant-Colonel W. R. Smith and Brigade-Surgeon-Lieutenant-Colonel M. Baines (Shield Trustees), Inspector-General Turnbull, Surgeon-Lieutenant-Colonel F. W. Humphreys, Mr. P. T. B. Beale, Surgeon-Major Godson, and Surgeon-Captains Swain, Coffin, and M. G. Foster. The examination included stretcher and wagon drill, first aid, bandaging, and anatomy and physiology. The winners of the challenge shield, with four first-class arm badges, were the 5th (Glasgow Highlanders) Volunteer Battalion Highland Light Infantry, with a total of 298½ out of a possible 350 marks, the Queen's Royal West Surrey Regiment came second with a total of 285½ marks; the 1st City of London Rifle Brigade third, with 269½ marks, and the others in order were the 21st Middlesex (Finsbury) V.R.C., the 1st Cadet Battalion, King's Royal Rifles; the 2nd V.B. Royal Fusiliers (City of London Regiment); 1st V.B. Princess of Wales's Own Yorkshire Regiment; the 4th Durham Royal Garrison Artillery (Volunteers), and the 22nd V.D. The Essex Regiment. By the new rule that no member of a winning squad is eligible to compete in the ensuing year the winning squad of the 2nd V.B. Royal Fusiliers of last and several other previous years was excluded. By a carefully devised method of allotting a proportion of the total marks to each of the several portions of each question it was considered that the element of chance was to a very great extent eliminated from the competition. The shield and arm badges were presented amidst loud applause to the best squads by Brigade-Surgeon Lieutenant-Colonel Andrew Clark, V.D., who congratulated the winners on their success and the Honorary Secretary, Surgeon-Major J. J. de Zouche Marshall, on the excellent arrangements that had been made for the competition.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Brigade-Surgeon-Lieutenant-Colonel A. A. Macrobin...	1	0	0
Deputy Inspector-General G. Saunders	1	1	0
Lieutenant-Colonel R. T. Beamish... ...	0	10	0
Brigade-Surgeon S. H. Dickerson	0	10	6
Surgeon-Major-General C. K. Giraud	1	1	0
Lieutenant-Colonel J. I. Routh	1	0	0
Captain Clive S. Robinson	1	1	0
Surgeon Major W. Sharpe	0	10	0
Colonel T. Ligertwood	1	1	0
Lieutenant-Colonel W. W. Pope	1	1	0
Previously acknowledged	92	16	0
Total ...	£101	11	6

THE APPEAL FOR THE FAMILY OF THE LATE LIEUTENANT-COLONEL BRODIE, R.A.M.C.

ON behalf of the widow and orphans of Lieutenant-Colonel J. F. Brodie, R.A.M.C., for whom an appeal was made in the BRITISH MEDICAL JOURNAL of the 24th May, Colonel Leake begs to acknowledge, with many thanks, the following contributions and to express his cordial appreciation of the kind words of sympathy which accompanied them:—

	£	s.	d.
Major J. Hickman	2	2	0
Major Paul Connolly, A.M.S.(R.)	1	0	0
Previously acknowledged	21	15	0
Total to date	£24	17	0

AN ACKNOWLEDGEMENT.

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from Professors Chiene, Fraser, Simpson, Wylie, Drs. Halliday Croom, Heron Watson, Underhill, Ronaldson, Crawford Renton, Hunter, Argyll Robertson, Milne Murray, Blair Cunynghame, Dunsmure, Joseph Bell, Mr. Barclay, Surgeon-Colonel Arnott (the foregoing kindly collected by Mrs. Argyll Robertson), Major and Mrs. Hickman Morgan, Captain and Mrs. W. E. Beyts, Mr. C. Vincent Cotterell, Brigade-Surgeon-Lieutenant-Colonel C. E. Barrison, and the following officers R.A.M.C.:—Colonel W. Allan May, Lieutenant-Colonels Peyton, R. D. Donaldson, R. C. Gunning, Majors R. H. Hall, J. S. Edge, E. C. Freeman, A. T. J. Lilly, Captains H. N. Dunn, P. Evans, L. Addams Williams, Lieutenants L. N. Lloyd, H. M. Nicholls, A. C. Duffey.

The Fund now amounts to £269.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Gardens Terrace, W.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At the Congregation on June 5th the following degrees were conferred:—*M.D.*: H. A. Gaitskell, Clare; H. F. Parker, Emanuel; W. J. Lindsay, Sidney; R. J. Reece, Downing; J. A. Wright, Non-Collegiate. *M.B.*: E. J. Claxton, King's; J. A. Andrews, St. John's; E. R. Clarke, St. John's; A. P. Laycock, St. John's; R. Rolle, Clare; C. H. Glenn, Pembroke; B. B. Sapwell, Corpus; H. O. Butler, Emanuel. *B.C.*: J. F. Alexander, Trinity; J. A. Andrews, St. John's; A. P. Laycock, St. John's; C. de C. Pollier, Clare; B. B. Sapwell, Corpus.

UNIVERSITY OF LONDON.

A MEETING of the Senate was held on May 28th.

Grant from the Technical Education Board.—The scheme for the allocation of the grant of £10,000 a year from the Technical Education Board of the London County Council was finally adopted, the consent of the various institutions concerned having been obtained.

Gilchrist Endowment for Women.—The conditions for the Gilchrist scholarships and studentship for women were approved. A studentship of £100 is tenable for one year by a Graduate of the University who is prepared to take a course of study in an approved institution in preparation for some profession. The holder must have graduated in honours in the University, and must be of not more than three years' standing from first graduation. Applications must be made to the Principal not later than the end of February, accompanied by three testimonials and the names of three references, together with a statement of the profession which the candidate if successful intends to pursue, and of the institution at which she intends to study.

FACULTY OF MEDICINE.

A meeting of the Faculty of Medicine was held at the University on Friday, June 6th, Mr. Butlin, the Dean of the Faculty, presiding.

Proposed Institute of Preliminary and Intermediate Studies.—A report from the Committee on the Proposed Institute of Preliminary and Intermediate Medical Sciences was received and adopted for presentation to the Senate without dissent. The report was in the form of a reply to the Senate in response to a request that it should be furnished with information as to (*a*) the capital outlay, (*b*) the annual cost of maintenance, and (*c*) the accommodation and staff necessary for the proposed Institute of Medical Sciences, with suggestions for the administration of the institute. The Committee in its report dealt with all these points, and submitted two alternative schemes for staffing the institute and remunerating the teachers, one of which they regarded as the ideal if funds were available, and the other which was feasible even if no other source than students' fees were forthcoming for the maintenance of the institute. The report also contained some recommendations with regard to the site of the institute, and concluded by urging the Senate "to make the provision of the proposed Institute of Medical Sciences one of the chief items in the public appeal for funds shortly to be issued by the University."

Regulations for M.B., B.S. Degrees.—The Faculty also considered the regulations proposed by the Board of Advanced Medical Studies for the degrees of M.B., B.S. The three chief changes proposed by the Board are as follows:

(*a*) The M.B., B.S. examinations shall be united so as to form a single entrance to those degrees, both of which shall be conferred on each successful candidate.

(*b*) No separate examination shall be held for honours.

(*c*) The subjects may be divided into two groups, one of which shall comprise surgery and midwifery and diseases of women, and the other medicine, pathology, forensic medicine, and hygiene. Either group may be taken first at the option of the candidate, or the groups may be taken together.

These three proposals were allowed to be sent to the Senate without comment from the Faculty. Some other proposals contained in the Board's report gave rise to a good deal of discussion, more particularly the large number of compulsory lectures required and the shortness of the period of clinical study. On these and some other points the Faculty passed definite resolutions to be forwarded to the Senate.

Regulations for M.D. and M.S. Degrees.—The consideration of the proposed regulations for the degrees of M.S and M.D. was adjourned till the next meeting of the Faculty to be held on Friday, June 20th, at 5 p.m. at the University.

ROYAL COLLEGE OF SURGEONS IN IRELAND

Barker Anatomical Prize for 1903.—A prize of £21 is offered for competition and is open to any student whose name is on the anatomical class list of any school in the United Kingdom. The prize is offered for a dissection of the sole of the foot. The preparation must be sent in by March 31st, 1903, to the Curator, Dr. Arthur H. White, Royal College of Surgeons, Dublin, from whom further particulars can be obtained.

Examiners in Surgery.—At a meeting of the Council of the Royal College of Surgeons in Ireland, held on June 5th, the following were appointed Examiners in Surgery for the ensuing year: Professor Conway Dwyer, Mr. S. T. Gordon, Mr. R. Lane Joynt, and Mr. Edward H. Taylor.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,218 births and 4,569 deaths were registered during the week ending Saturday last, June 7th. The annual rate of mortality in these towns, which had been 17.3, 16.7, and 16.5 per 1,000 in the three preceding weeks, further declined last week to 16.0 per 1,000. The rates in the several towns ranged from 6.6 in Handsworth, 7.6 in Hornsey, 8.5 in East Ham, 8.8 in West Hartlepool, 9.8 in Newport (Mon.), 10.0 in Aston Manor, and 10.2 in Croydon and in Bournemouth to 22.9 in Sunderland, 23.0 in Tynemouth, 23.1 in Gateshead, 24.3 in Preston, 24.4 in Bootle, 24.5 in Oldham, 25.7 in Middlesbrough, and 29.7 in Wigan. In London the rate of mortality was 14.9 per 1,000, while it averaged 16.6 in the seventy-five other large towns. The mean death-rate from the principal zymotic diseases in the seventy-six towns was 1.9 per 1,000; in London this death-rate was equal to 2.1 per 1,000, while it averaged 1.0 in the seventy-five other large towns, among which the highest zymotic death-rates were 3.8 in Newcastle, 4.2 in St. Helens, 4.9 in Sunderland and in Rhondda, 5.4 in Barrow-in-Furness, 6.0 in Tynemouth, and 7.6 in Wigan. Measles caused a death-rate of 1.0 in Plymouth, and in Rochdale, 2.0 in Tottenham, 2.4 in Bradford, 3.0 in Stockton-on-Tees, 3.1 in Rhondda, 3.2 in Sunderland, and 3.4 in Wigan; scarlet fever of 1.1 in Burnley and in Middlesbrough; diphtheria of 1.3 in Rhondda, 1.6 in Grimsby, and 1.7 in Middlesbrough; and whooping-cough of 1.4 in Newcastle, 1.5 in Coventry, 2.5 in South Shields, 2.4 in Wigan, 3.6 in Barrow-in-Furness, and 4.0 in Tynemouth. The mortality from "fever" showed no marked excess in any of the large towns. The 49 fatal cases of small-pox registered last week included 20 which belonged to London, 6 to West Ham, 5 to Swansea, 2 to Croydon, 2 to Willesden, 2 to Tottenham, 2 to East Ham, and 1 to each of nine other towns. The Metropolitan Asylums Hospitals contained 1,102 small-pox patients on Saturday, July 7th, against 1,360, 1,344, and 1,274 on the three preceding Saturdays; 188 new cases were admitted during the week, against 233, 307, and 251 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,207, 2,236, and 2,266 at the end of three preceding weeks, had further risen to 2,314 at the end of last week; 210 new cases were admitted during the week, against 270, 280, and 319 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 7th, 974 births and 623 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.3 and 19.3 per 1,000 in the two preceding weeks, was again 19.3 last week, and was 3.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among the Scotch towns the death-rates ranged from 10.6 in Leith and 15.4 in Dundee to 23.4 in Greenock, and 27.5 in Paisley. The zymotic death-rate in these towns averaged 1.9 per 1,000, the highest rates being recorded in Paisley and Perth. The 308 deaths registered in Glasgow included 7 from measles, 12 from whooping-cough, and 4 from diarrhœa. Four fatal cases of measles and 2 of diarrhœa were recorded in Edinburgh; 2 deaths from measles and 6 from diarrhœa occurred in Dundee; 3 from diarrhœa in Aberdeen; and 7 from measles in Paisley.

DISTRIBUTION OF ANTITOXIN IN NEW YORK.

THE New York State Health Department has announced that it will furnish diphtheria antitoxin, prepared and tested in the laboratory, under the following conditions:—That it is supplied for the treatment or immunization of inmates of State institutions, charitable institutions in the State, or for persons who cannot afford to purchase the remedy, and that it will not be sold under any circumstances. Medical practitioners obtaining the antitoxin must agree to report the results of its use on a form provided by health officers. Those desiring the remedy for use in State institutions must apply to the State Department of Health, Albany, and all others can obtain it from the local health officer of the city, town, or village in which they reside. The department specifies the amount of antitoxin which should be used in mild and severe cases of diphtheria, and for the purpose of immunization.

PAUPER PATIENTS DYING POSSESSED OF MONEY.

A PARISH MEDICAL OFFICER, practising in the remote Highlands of Scotland, brings under our notice an interesting question. It appears that a pauper patient whom he had attended during her last illness was found after death to be possessed of a sum of money; of this money the inspector of poor took possession, and informed the doctor that probably out of it the parish council would pay the woman who had attended the pauper in her last illness and also the funeral expenses. The doctor thinks that he also should be paid for his attendance, and he wrote to the Local Government Board of Scotland on the subject. The secretary of that Board replied, stating "that while there is probably no legal right to a share of the money referred to, the parish council may consider that you have an equitable claim, and I am to suggest an application to them." Our correspondent does not wish to apply to the parish council, as probably not only would he not get any fee, but, knowing the composition of Highland parish councils, he might get snubbed for his trouble. He suggests that an alteration should be made in the law so that parochial medical men may be entitled to the fees out of any money that may be recovered from paupers. This appears to us to be a most reasonable suggestion.

DISTRICT MEDICAL OFFICERS AND FEES FOR CERTIFYING PAUPER LUNATICS.

E. W. H. writes as follows: I am district medical officer, and was requested by the relieving officer who sent me the form to be filled up—to see an alleged lunatic, and fill in the necessary certificates preparatory to his removal to the lunatic asylum. I certified him as insane, but not in a fit state to be removed to an asylum. I am now told that I can have no fee for this, as the man was not brought up before the magistrate. Can I claim one?

*** We are afraid our correspondent cannot claim any fee for this case, as no magistrate appears to have been consulted about it. If this assumption is correct, no magistrate would be authorized to order any fee to be paid. The relieving officer who induced our correspondent to sign the form he supplied ought to have known that it would not carry a fee. The question arises whether the relieving officer himself was not guilty of neglecting the requirements of the Lunacy Act by omitting to bring the case under the notice of a magistrate in order that the magistrate himself might decide as to the proper course to adopt. It would then have been the duty of the magistrate to call a medical practitioner to his assistance. A fee could then have been claimed for the certification of the patient, even if he had been certified as not fit to be removed to an asylum.

DUTIES OF POOR-LAW MEDICAL OFFICERS.

RUSTICUS IN URBE, who is [illegible] by the guardians [illegible] his [illegible] Some

time after he is requested to see the case again, and to fill up a printed document certifying that the boy is feeble-minded and in a fair state of health. He asks what fee is due to him for each visit.

Our correspondent, who is a public vaccinator and Poor-law medical officer, also desires to know whether he is allowed to resign one of the appointments and still keep the other.

*** (1) We are advised that our correspondent cannot claim any special fee simply for his visit to the patient in question, or for his certificate given to the guardians, but if the patient is so far an imbecile as to be properly classed as a pauper lunatic he should be entered as such in the return made to the Lunacy Commissioners at the end of the quarter. Our correspondent would then, by the Lunacy Act. 1890, be able to claim 2s. 6d. for the quarterly visit, and also for any subsequent quarterly visit as long as the patient continued to reside in his district. (2) Our correspondent could resign his appointment as district medical officer at any time without abdicating his position as public vaccinator, but the guardians could at any time, by giving him twenty-eight days' notice, terminate his vaccination contract.

DISPOSAL OF TYPHOID EXCRETA.

H. O. M. asks for advice as to the best way of dealing with excreta from typhoid patients in an isolation hospital where there is no system of drainage and earth closets are used.

*** We think that the excreta of typhoid patients should not be received into an ordinary earth closet, the main principle of which is that its contents are to be kept dry. There is no evidence that the B. typhosus is effectively killed in such a closet. Excreta may, however, be received into sawdust and subsequently burnt in a cremator provided for this purpose. Or a trench may be dug in the grounds and the contents of bedpans systematically buried, the trench being then covered in. Great attention to detail is necessary with all such methods, if the conveyance of infection by soiling and by dust is to be avoided. It is wise to keep the dejecta in contact with an acid solution of perchloride of mercury for at least half an hour before they are emptied from the bedpan. It must also be noted that the urine may be as infective as the faeces, and equally rigid measures are required for it. Our correspondent might consult the two papers by Major H. A. Cummins, R.A.M.C., published in the BRITISH MEDICAL JOURNAL of November 10th, 1900, p. 1369, and April 20th. 1901, p. 904, in which the method of disinfecting excreta by boiling with carbolic acid (used during the South African campaign) was fully described.

PUBLIC VACCINATION.

P. V.—It seems clear that the Vaccination Act, 1898, Section 1, Subsection (2) leaves a public vaccinator no alternative but to vaccinate "if the parent or other person in charge of a child so requires." After the provisions of the Act and Order have been observed we do not think that a public vaccinator can do more than suggest to the parents that the vaccination should be performed by their ordinary medical attendant.

REPORT ON WORKHOUSE INMATES.

L.P. states that he has been requested to examine eighteen inmates of a workhouse of which he is not the medical officer and report as to their condition; he asks what would be a fair charge to make for this duty.

*** L.P. does not state the circumstance under which he had been called on to make a report on the condition of the inmates of a workhouse of which he is not the medical officer. In the absence of information on this point we should think 3s. 6d. a head would be be as much as the guardians would expect to pay.

HOSPITAL AND DISPENSARY MANAGEMENT.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

SIR EDWARD SASSOON presided recently at the festival dinner of the City of London Hospital for Diseases of the Chest at the Hotel Cecil, Strand. Covers were laid for nearly 200 guests. The Committee appeal for £9,000 to reopen 24 of the beds now empty for want of funds, and to provide accommodation for the nurses. The Chairman, in proposing the toast of "The Royal Family," announced that the Duke of Connaught, the President of the hospital, was present at the *matinée* held at Wyndham's Theatre that afternoon in aid of the proposed sanatorium for open-air treatment of phthisis. A telegram was read from Dr. Heron stating that the sum realized by the *matinée* amounted to £630, and later on it was stated that over £2,000 had been contributed to the funds of the institution. In the course of his remarks proposing the toast of "Prosperity to the Hospital," the Chairman observed that before new hospitals for consumption were built it was right that every bed in the present hospitals should be utilized. That, however, required more money and more nurses and [illegible] further expenditure. Mr. J. Benson, L.C.C., proposed "The Committee and Executive Staff," which was responded to by Mr. F. Hyland. The toast of "The Medical Staff" was entrusted to Mr. H. Robertson, M.P., and was replied to by Dr. Glover Lyon. The company separated after a vote of thanks had been accorded to the Chairman on the proposition of Mr. E. E. Cooper.

KASHMIR MISSION HOSPITAL.

FROM the recently issued report of the Kashmir Mission Hospital we learn that during the past year 3,218 operations were performed, with only 7 deaths. There were 1,179 in-patients and 15,988 new out-patients under the same medical supervision (Dr. Ernest Neve and Mr. Arthur Neve, F.R.C.S.); 154 patients were admitted into the Kashmir State Leper Hospital, and during the year a new block was erected to hold five sets of married people.

MEDICAL NEWS.

THE muzzling order has been extended to the administrative county of Carmarthen and the borough of Carmarthen.

THE Royal Dental Hospital of London, Leicester Square, has received the sum of £500 from the Trustees of Smith's (Kensington Estate) Charity.

SUCCESSFUL VACCINATION.—Mr. F. H. Turner, East Bergholt, Suffolk, Public Vaccinator of the Capel District of the Samford Union, has received the Government grant for successful vaccination.

A SUM of £150 has been received by the North-Eastern Hospital for Children, Hackney Road, from the Editor of *Little Folks*, being the fourth instalment towards a sum of £2,000 which is being collected by the readers of the magazine for the endowment of a ward.

MEDICAL LEGISLATORS IN BELGIUM.—The new Belgian Chamber of Deputies contains seven medical members, being an increase of two as compared with the last. The names of the deputies are Drs. Branquart, Cousot, Delbastée, Delporte, Heynen, Pierard, and Terwagne.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—The annual dinner took place at Pagani's Restaurant on Tuesday, June 3rd; the President, Dr. Douglas Kerr (Bath), occupied the chair, and Sir Lauder Brunton, F.R.S., was a guest of the Society. A very successful *conversazione* was held at 20, Hanover Square, on the same evening, at which there was a very large attendance of Fellows and guests. Sir Lauder Brunton gave an address on Some Health Resorts in the Mediterranean, which was illustrated by magic lantern slides. Dr. Ivor Murray proposed, and Dr. Symes Thompson (the President-elect) seconded, a vote of thanks to the lecturer.

THE Provincial Meeting of the Society for the Study of Diseases of Children will be held at the Children's Hospital, Pendlebury, on Saturday, June 21st. Cases will be demonstrated in the wards by the medical staff from 2.30 to 3.30 p.m., and an ordinary meeting will be held at 4 p.m., when clinical papers will be read. The members and their friends will dine together at the Queen's Hotel, Manchester, at 7.30 p.m. On Sunday there will be an excursion into Derbyshire, after which London members will be able to return direct. Further particulars can be obtained from the Honorary Secretary of the Society, Dr. George Carpenter, 12, Welbeck Street, London, W.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERDEEN UNIVERSITY.—Additional Examiner for Graduation in (1) Botany, (2) Chemistry, (3) Medical Jurisprudence and Public Health. Applications to the Secretary of the University Court by June 30th.

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—Resident Surgeon, unmarried. Salary, £80 per annum for first year, increasing to £100, with board and furnished apartments. Applications to the Secretary.

BANBURY: HORTON INFIRMARY.—House Surgeon and Dispenser. Salary, £80 per annum, with board and lodging. Applications to the Honorary Secretary, 31, Marlborough Road, Banbury.

BIRMINGHAM: ROYAL ORTHOPAEDIC AND SPINAL HOSPITAL.—Assistant Surgeon. Applications to the Honorary Secretary to the Medical Committee, 9, Great Charles Street, Birmingham, by June 30th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House Surgeon. Salary, £60 per annum, with furnished apartments, etc. Applications to the Assistant Secretary, 13, Queen's Road, Brighton, by June 17th.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Second House Surgeon and Anaesthetist, unmarried, and under 30 years of age. Salary, £70 per annum, with board and residence. Applications to the Secretary by June 18th.

BRISTOL CITY LUNATIC ASYLUM.—Medical Assistant; unmarried. Salary, £140 per annum, rising to £180, with furnished apartments, board, and washing. Applications marked "Medical Assistant," to be sent to the Clerk to the Visiting Committee, The Council House, Bristol, by June 27th.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—House Surgeon (non-resident). Honorarium at the rate of 40 guineas per annum. Applications to the Secretary.

CHARING CROSS HOSPITAL.—Bacteriologist to the Hospital and Lecturer on Bacteriology to the Medical School. Salary, £100 per annum and share of class fees. Applications to the Secretary by July 9th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Second House-Physician. Appointment for six months. Salary at the rate of £50 per annum, with board, washing, and residence. Applications to the Secretary by July 2nd.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer; unmarried and under 32 years of age. Salary, £110 per annum, with board and lodgings. Applications, on forms provided, to be sent to the Chairman of the Selection Committee by July 11th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer. Salary, and board residence, and laundry. Applications to the Secretary by July 5th

GLASGOW: ST. MUNGO'S COLLEGE.—Notman Chair of Physiology. Applications to the Secretary, 93, West Regent Street, Glasgow, by June 30th.

GREAT NORTHERN CENTRAL HOSPITAL Holloway, N.—Pathologist and Curator. Salary, 50 guineas per annum. Applications to the Secretary by June 16th.

GREENOCK INFIRMARY.—Assistant House-Surgeon. Salary £40 per annum, with board and residence. Applications to the Secretary, 2, Hamilton Street, Greenock, by June 21st.

HARTLEPOOL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, washing, and lodging. Applications to the Assistant Secretary, 9, Albion Terrace, Hartlepool, by June 25th.

HEREFORD COUNTY AND CITY ASYLUM.—(1) Senior Assistant Medical Officer; unmarried. Salary, £150 per annum (2) Junior Assistant Medical Officer; not over 28 years of age. Salary, £100 per annum. Board, lodging, and washing provided in each case. Applications to the Medical Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Appointments for six months. Honorarium £25. Applications to the Secretary by July 1st.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £100 per annum with board and apartments. Applications to the Secretary, 56, Vauxhall Road, Liverpool, by June 20th.

LONDON HOSPITAL, Whitechapel, E.—(1) Assistant Surgeon. (2) Surgical Registrar salary, £100 per annum. Applications to the House-Governor by June 27th.

MANCHESTER ROYAL INFIRMARY.—Assistant Medical Officer to the Convalescent Hospital, Cheadle; unmarried. Appointment for six months. Salary, at the rate of £80 per annum, with board and residence. Applications to the General Superintendent, Royal Infirmary, Manchester, by June 21st.

MOWBRAY, NEAR CAPE TOWN: VALKENBERG ASYLUM.—Assistant Medical Officer; unmarried, and not more than 33 years of age. Appointment for three years. Salary, £300 per annum, with board, lodging, and washing, and free passage each way. Applications to the Agent-General for the Cape of Good Hope, 100, Victoria Street, London, by June 23rd

NORTHAMPTON GENERAL INFIRMARY.—Assistant House-Surgeon; unmarried, and not under 22 years of age. Salary, £75 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by June 24th.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer, unmarried. Salary, £150 per annum, rising to £200, with board, furnished apartments, and washing. Applications to the Medical Superintendent by June 21st.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Second Assistant House-Surgeon. Appointment for six months. Honorarium, £20. Applications to the Secretary, by June 17th

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

ROYAL DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.—Lecturer on Dental Anatomy. Applications to the Dean by June 19th.

ROYAL EAR HOSPITAL, Soho, W.—House-Surgeon; non-resident. Small honorarium given. Applications to the Honorary Secretary, Medical Board, by June 28th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried. Salary, £150 per annum to commence, with board, lodging, and washing. Applications to Dr. Finch.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM, Bicton Heath, near Shrewsbury.—Medical Superintendent; not exceeding 45 years of age. Salary, £650 per annum, with unfurnished house, etc. Applications, on forms provided, to be sent to W. Baxter, Clerk to the Committee of Visitors, Shirehall, Shrewsbury, by June 30th.

SHOREDITCH: PARISH OF ST LEONARD.—Public Vaccinator for the Haggerston District. Applications to the Clerk to the Guardians, 213, Kingsland Road, N.E., by June 20th

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £150 per annum, rising to £200, with furnished apartments, board, etc. Applications to the Medical Superintendent.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) House-Physician. (2) House-Surgeon. Appointments for six months. Board and lodging provided. Applications to the Secretary-Superintendent by June 18th.

WOLVERHAMPTON GENERAL HOSPITAL.—Assistant House-Physician. Appointment for six months Honorarium at the rate of £75 per annum, with board, lodging, and washing. Applications to the House-Governor by June 23rd.

MEDICAL APPOINTMENTS.

BARTON, Geo. Alex. Heaton, M.D Brux., M.R.C.S., L.R.C.P., L.S.A.Lond., appointed Second Anæsthetist to the North-West London Hospital.

BEAN, Harold Knowles, M.D., C.M.Edin., appointed Government Medical Officer and Vaccinator at Wallaend, New South Wales, *vice* J. J. Stapleton, M.D. Edin, deceased.

BROWN, George, M.B., appointed Senior House-Surgeon to the Dunedin Hospital, New Zealand, *vice* Dr. Hall resigned

BROWNE T. R. Beale, M.R.C.S., L.R.C.P., appointed Junior Assistant Medical Officer to the Northampton County Asylum, *vice* F. J. Stuart, M.R.C.S., L.R.C.P.

BUCHANAN, G. Burnside, M.B., C.M., F.F.P.S.G., appointed Assistant Surgeon to the Western Infirmary, Glasgow.

BUTLER, T. Harrison, M.A., M.D.Oxon., M.R.C.S., L.R.C.P., appointed Clinical Assistant to the British Ophthalmic Hospital at Jerusalem.

COLE, Robert H., M.B., LL.B Melb., appointed Coroner for Victoria.

DUNCAN, S. V., M.R.C.S., L.R.C.P Lond., appointed Medical Officer and Public Vaccinator for the District of Kookynie, Western Australia

FARRINGTON, John, M.R.C.S., L.R.C.P.Lond., appointed Provincial Medical Officer, Fiji.

GURDON, E. J., L.R.C.P Edin., M.R.C.S.Eng., appointed Health Officer for Nanntine, Western Australia, *vice* T. B. Beigrave, M.D.Syd., M.R.C.S.Eng., resigned.

JONES, W. E., M.R.C.S., L.R.C.P., appointed Medical Superintendent to Brecon and Radnor Joint Counties Asylum.

GLEGG, Wilfrid, M.D., C.M., M.R.C.P.Edin., appointed Honorary Assistant Surgeon to the Birmingham and Midland Ear and Throat Hospital.

MCCANN, Wm. C., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer or the Longford Dispensary District, *vice* J. J. Yorke, M.B., B.Ch.R.U.I.

MCGEE, William, L.K.Q.C.P.I., appointed Health Officer for Phillip Island and Woolamai, Victoria.

MACQUARIE, Charles N., L.R.C.P., L.R.C.S Edin., appointed Medical Officer of Health for the Shire of Omeo, and Public Vaccinator for the North-Eastern District, Victoria.

MENZIES, F. Norton, M.B., appointed House-Physician to the Hospital for Sick Children, Great Ormond Street.

MORGAN, William E., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Camberwell District of the Camberwell Union, *vice* D. M. Serjeant, M.D.St. And., M.R.C.S., resigned.

MUSGROVE, Charles D., M.D.Edin., appointed Medical Officer of Health for Penarth.

O'BRIEN, Daniel P., F.R.C.S., L.R.C.P.Irel., appointed Visiting Medical Officer to the Meteorpark Orphanage, Stanwell, Rockhampton, Queensland, *vice* D. S. Macdonald, M.B., Ch.M.Edin

SHANASY, Thomas, L.R.C.P., L.R.C.S.Edin., appointed Health Officer for the Shire of Lowan, Victoria.

SLOAN, A. Bannier, Ch.B., M.D Glasg., appointed Assistant Medical Officer to the Fever Hospitals of the Metropolitan Asylums Board.

STEWART, Frederick H., B.A., M.B., B.Ch., B.A.O., appointed Fourth Assistant and Pathologist to the Kent County Lunatic Asylum, Barming Heath.

STUART, F. J., M.R.C.S., L.R.C.P.Lond., appointed Senior Assistant Medical Officer to the Northampton County Asylum.

SYKES, Walter, L.R.C.P.E., L.R.C.S.E., appointed Senior House-Surgeon to the Birmingham and Midland Eye Hospital.

TODD, C. E., M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., appointed Hon. Assistant Surgeon to the Adelaide Hospital, South Australia.

TROTTER, Alexander, M.B., B.Ch.Edin. appointed Resident Surgical Officer to the Birmingham and Midland Eye Hospital.

WILKINSON, G. T., L.R.C.P.Edin., L.R.C.P.I., appointed Medical Officer of Health to the Scalby District Council.

WILKINSON, J., M.D.Edin., D.P.H., appointed Medical Officer of Health to the Droitwich Rural District Council

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. Phear: Bone Marrow in a Case of Suppuration of the Knee Joint, with Secondary Haemorrhage. Mr. H. J. Waring: Neuro-lipomata of the Median Nerve. Dr. Parnell: Chyle Cyst of the Mesentery. Mr. H. S. Pater[illegible] Canal. Dr. C. Riviere: The Meningococcus in a Case [illegible] Posterior Basal Meningitis. Mr. Shattock: Tuberculosis in a Python [illegible] mens.—Mr. Waring: Congenital Lymphangioma of the Face, and Congenital Tumour of the Superior Maxilla.

Royal Statistical Society, 9, Adelphi Terrace, Strand, W.C., 5 p.m.—Mr. T. A. Welton: A Study of Some Portions of the Census of London of 1901.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Waller: The Signs of Life.

WEDNESDAY.

Royal Microscopical Society, 20, Hanover Square, W., 8 p.m.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Leonard Hill: The Physiology of Respiration.

Royal Meteorological Society, 70, Victoria Street, Westminster, S.W., 4.30 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on the Treatment of Pulmonary Tuberculosis.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstration of the Treatment of Tuberculous Disease of Joints.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C. Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medical; Wednesday, surgical. Thursday, surgical; Friday, eye.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Lecture on Surgery of the Nervous System.

West London Hospital, Hammersmith Road, W. Lectures will be delivered at 5 p.m. as follows:—Monday: Urethral Stricture. Tuesday: Heart Murmurs, their Significance and Treatment. Wednesday: Surgical Anatomy. Thursday: Treatment of Injuries. Friday: Disinfection.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstration on Menorrhagia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BARENDT.—June 7th, at 65, Rodney Street, Liverpool, W., the wife of Frank Hugh Barendt, M.D. Lond., F.R.C.S.Eng., a son.

DUNCAN.—On June 4th, at 94, Sidwell Street, Exeter, the wife of Thomas Duncan, M.B., C.M.Edin., of a daughter (stillborn).

EVANS.—On June 6th, 1902, at Berth Ddu, Cottenham Park, Wimbledon, S.W., the wife of David Robert Powell Evans, L.R.C.P., M.R.C.S., L.S.A., of a son (stillborn).

MACKINTOSH.—At Grahamston, Troon, N.B., on June 5th, the wife of Hugh J. Mackintosh, M.B., C.M., of a son.

MCNABB.—On June 4th, at 4, Melden Terrace, South Shields, the wife of Laurence McNabb, M.B., B.S., of a son.

MOYNIHAN.—June 8th, at 5, Woodhouse Square, Leeds, to Mr. and Mrs. B. G. A. Moynihan, a daughter.

THOMAS.—On Sunday, June 8th, at Severn House, Lydney, Gloucestershire, the wife of C. Nelson Thomas, B.A., M.B., B.C., of a son.

MARRIAGES.

ESCOMBE—STEPHENSON.—On June 4th, at St. James's Church, Grimsby, by the Rev. F. Bullock, Vicar, assisted by the Rev. H. F. Wa[illegible], Wilfrid [illegible] M.S.C., L.R.C.P. Lond., third surviving son of the late Rowland [illegible], of Bridgnorth, and 3, East India Avenue, London, to Mildred Isabella, [illegible] G. Stephenson, Esq., M.D., of the Manor House, Grimsby. (South African and New Zealand papers please copy.)

GRIFFITHS—DAVIES.—At Mount Pleasant, Swansea, on June 4th, by the Rev. James Owen and the Rev. C. Griffiths Cornelius A. Griffiths, F.R.C.S., Cardiff, and Lallie, youngest daughter of the late D. R. Davies, of Swansea.

HAMILTON—DARBISHIRE.—On June 4th, at the English Congregational Church, at Penmaenmawr, by the Rev. David Walters, of Headingley, [illegible] assisted by the Rev. S. C. Hart, of Penmaenmawr, Graeme, younger son of Dr. [illegible] Hamilton, of Ashton-under-Lyne, to Mary Lilian, eldest daughter of O. H. Darbishire, of Plasmawr, Penmaenmawr.

HOWIE—DR RUSKIT.—On June 7th, at the Congregational Church, Tynemouth, by the Rev. Robert Howie, D.D., Moderator of the United Free Church of Scotland, father of the bridegroom, assisted by the Rev. E. Duncombe de Ruscit, M.A., of Greenwich, brother of the bride, and the Rev. C. Stanley, North Shields, J. Coulson Howie, M.A., M.D., to Mary Evelyn de Ruscit, M.B., B.S., of Tynemouth.

LAWRIE—KENNEDY.—At St. Andrew's U.F. Church, [illegible], on June 4th, by the Rev. Robert Sanderson, D.D., assisted by the [illegible], Robert Lawrie, M.B., C.M., Kilmarnock, to [illegible], St. Buckingham Terrace. At home [illegible] August

PLAYER—HARDY.—On June 3rd, at St. Barnabas Church, Dulwich, Hugh Bernard, second son of Forster Player, Esq., of Exmouth, Devonshire, to Horatia Daisy, eldest daughter of H. Nelson Hardy, F.R.C.S.Edin., of 125, Dulwich Grove, S.E.

WHITEHEAD—LANDER.—June 7th, at St. Michael's, Headingley, by the Rev. G. H. Lander, assisted by the Rev. A. R. Light, Arthur Longley Whitehead, M.B., B.S., of Park Square, Leeds, to Clara Evelyn Lander, only child of the late P. J. Lander, and niece of T. H. Mussey, of Leeds.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

COTTAGE HOSPITALS AND MEDICAL OFFICERS' DEPUTIES.

PAX asks the following questions: There is a small cottage hospital in a country town where the patients are treated gratuitously by the medical men in the neighbourhood elected by the governors. In the event of one of these gentlemen being absent from home would his *locum tenens* take his place as a matter of course, without consent of the governors?

*** In the absence of a rule having any direct or indirect bearing on this question, we should say that the medical officer's *locum tenens* would be the proper person to take charge of his principal's hospital patients, so long as he continued to act in a similar capacity in respect of the private patients of the practice in which he was temporarily engaged.

LETTERS, NOTES, Etc.

THE MEDICAL GOLF TOURNAMENT.

THE Medical Golf Tournament was held on May 29th on the fine links of the Northwood Golf Club (by kind permission). There was a good entry of 76, almost equally divided between the two handicap classes. In the first division Dr. G. A. Sutherland (in receipt of five strokes from Bogey) returned the good score of "all square," and took the first prize, Dr. Percy Kidd and Dr. Vassie tying for second, with two down. For the best result *v.* Bogey in the last 6 holes, Mr. Percy Furnivall (last year's winner) was a good first with "one up" on the "Colonel." In the second division, so good was the handicapping, that three players (Dr. Seymour Taylor, Dr. Densham, and Dr. G. F. Buzzard) tied all four down, and will play off the tie for first and second place by means of a 9-ball match. Colonel Bogey again acknowledged himself beaten in the last 6 holes, this time by Dr. Andrew at one up. There was a good entry for the Foursomes *v.* Bogey which were won by Dr. Percy Kidd and Dr. [illegible]

"X"-RAY INJURIES.

MAJOR R. LANGLEY MILLS, M.D., R.A.M.C. writes: In an American pamphlet I find the following:

"[illegible] currents induced in the tissues from [illegible] the active vacuum tube. [illegible] of its penetrability). [illegible] then no injuries have [illegible] and could not produce [illegible] in electric burns." If this is correct [illegible] would be no fear in the future of x-ray injuries.

*** This [illegible] burns is frequently put forward but it is not [illegible] competent to form an opinion. On the other hand, the evidence is fairly conclusive that it is the *x* ray alone which is responsible for the *x* ray dermatitis.

ABSENCE OF THUMBS.

DR. J. W. DRAPER (Huddersfield) writes: With reference to the case reported [illegible] MEDICAL JOURNAL of May [illegible] Mr. Murdoch, I have seen one case in which the thumb of the right hand was absent. This was due to maternal impression in the [illegible] hand [illegible] woman. [illegible] of another case in which the same man had asked alms in a similar manner with an exactly similar result.

HAMMAM R'IRHA.

DR. W. [illegible], in praise of [illegible] at an [illegible] Bath; the rainfall [illegible] small, and the hotel accommodation is now satisfactory.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Mr. J. G. Alexander, London; A. B.; Dr. L. Atthill, Kingstown; Dr. T. D. Acland, London; Anterior; Admiralty; Dr. A. J. Adkins, Newcastle-under-Lyme. **B** Dr. J. B. Brierley, Manchester; Mr. E. Bromhall, Rawtenstall; Dr. A. T. Brand, Driffield; Mr. J. Buchanan, Harrogate; G. Birt, M.B., Stourbridge; F. Beach, M.B., Kingston Hill; S. T. Beggs, M.B., Belfast; Mr. L. A. Bidwell, London; Dr. J. Brown, Bacup. **C** Mr. L. Cooper, Rochester; Correspondent; Mr. H. Chisholm, London; Mr. J. Crocker, Bingley; Mr. R. Creasy, Windlesham. **D** Dr. Jennie G. Drennan, St. Thomas, Ont.; Miss L. Dean-Pitt, London; Dr. A. Duke, London; Mr. W. L. B. Davies, St. Asaph; Dr. L. Drage, Hatfield; Dubitans; Dr. A. Dennison, Leeds; Dr. T. Dutton, London; J. G. Duncanson, M.B., Shooters Hill. **E** Dr. E. J. Edwardes, London; Dr. T. W. Eden, London. **F** Father of Medical Students; Featherknowl; Dr. W. F. Farquharson, Carlisle; Dr. H. M. Fletcher, London. **G** Dr. A. W. Gilchrist, Nice; Mr. J. George, London; Dr. A. E. Giles, London. **H** House Surgeon; Mr. J. Hutchinson, jun., London; Dr. J. W. Hamill, Manchester; Dr. D. B. Hart, Edinburgh; Dr. I. W. Hall, Manchester; Dr. J. T. Hewetson, Birmingham; Dr. T. A. Helme, Manchester; Dr. J. Hamilton, London. **I** Ivy Leaf; Dr. J. Ince, Swanley; flex. **J** J. A. W.; Mr. R. J. Jardine, Middlesborough. **K** Mr. F. C. Kempster, London. **L** Dr. A. E. Larking, Folkestone; L.B. **M** R. Miller, M.B., Dundee; Microscope; Miss K. Mann, London; Member British Medical Association; Dr. J. E. Moorhouse, Stirling; F. V. Milward, M.B., Birmingham; Dr. W. Milligan, Manchester; Dr. W. J. C. Merry, Eastbourne; Mr. J. J. de Z. Marshall, Teddington. **N** New-comer. **O** Dr. I. Owen, London; Dr. E. H. L. Oliphant, Glasgow; Obstetrical Society, Secretary of, London. **P** Mr. V. G. Plarr, London; Mr. W. R. B. Prideaux, London; Mr. P. A. Pearcey, Monkwearmouth; P. V., Bingley; Provincial. **R** Dr. M. A. Ruffer, Alexandria; R.A.M.C.; Dr. J. S. R. Russell, London; Rusticus; J. Rigg, M.B., Preston; Mr. T. F. Raven, Broadstairs; Dr. W. Robinson, Sunderland; R.M.O. **S** J. W. Smith, M.B., Manchester; Mrs. G. M. Smyth, Burtonport; Mr. E. N. Smith, London; Surgeon-General; Silverton, C/o; Mr. A. T. Spanton, Leeds; Dr. L. E. Shaw, London; Mr. W. Schroder, London; Dr. G. Steele-Perkins, London; Mr. W. Soper, London; Spes. **T** A. Thomson, M.B., Glasgow; R. T. Thorne, M.B., Woking; Mr. F. H. Turner, East Bergholt; Dr. E. Thompson, M.P., London; A. Thomson, M.B., Glasgow; Mr. A. Thomson, Maidenhead. **U** Mr. H. Urquhart, London. **V** Vindex. **W** Mr. E. Wheal, Oxford; Mr. T. Wilson, Wallsend-on-Tyne; Dr F. J. Waldo, London; Dr. A. O. Ward, London; A. Wauchope, M.B., Glasgow; Dr. F. Willcocks, London; Dr. T. J. Wood, Bradford; Mr. A. T. Wooldridge, Camberley; Mr. W. McC. Wankiyn, London; Dr. C. P. White, Leeds; Mr. H. W. S. Williams, Holywell; Mr. C. G. R. Wood, Shrewsbury. **Y** Mr. H. Young, London.

BOOKS, Etc., RECEIVED.

B. Bradshaw's Dictionary of Bathing Places, etc. London: Kegan Paul, Trench, Trübner, and Co., Ltd. 1902. 2s. 6d.

Manuel Pratique de Bactériologie. Par Dr. Petit et G. Borne. Paris: C. Naud. 1902. Frs. 3.

Intubation du Larynx. Par le Dr. Perez-Avendano. Preface du Dr. Marfan. Paris: C. Naud. 1902. Frs. 4.

The New Volumes of the Encyclopædia Britannica. Tenth Edition. Vol XXV. —A.-Aus. Edinburgh and London: Adam and Charles Black. 1902.

Textbook of Physiological and Pathological Chemistry. By C. Bunge. Second English Edition, translated from Fourth German Edition by F. A. Starling, and edited by E. H. Starling, M.D., F.R.S. London: Kegan Paul, Trench, Trübner, and Co., Ltd. 1902.

Alkoholismus im Kindesalter. Von Professor Dr. Max Kassowitz. London: Williams and Norgate. 1902. 1s.

Neurasthenie und Hysterie bei Kindern. Von Dr. Alfred Saenger. London: Williams and Norgate. 1902. 1s.

Zum Studium der Merkfähigkeit. Von Dr. Aug. Diehl. London: Williams and Norgate. 1902. 1s.

Grundriss der pathologischen Anatomie. Von Professor Dr. Langerhans. London: Williams and Norgate. 1902. 3s.

Der Kampf gegen die Malaria. Von Dr. Johann Krumpholz. Pola: Kleinmayr and Fed. Bamberg in Talbach. 1902.

The Thompson-Yates Laboratories Reports. Edited by Robert Boyce and C. S. Sherrington. Vol. iv. Part ii. 1902. London: Longmans, Green, and Co. 1902.

Art. Treasures. By W. Wedgwood and J. H. Gill. London: Gill and Keigwin. 1902.

Die Aetiologie des akuten Gelenkrheumatismus. Von Dr. A. Menzer. Berlin: August Hirschwald. 1902. M.5.

A First Course of Chemistry (Houristic). By J. H. Leonard. London: John Murray. 1902. 1s. 6d.

Epilepsie. Von W. R. Gowers. Leipzig und Wien: Franz Deuticke. 1902. M.7.

Les Cures de Vichy. Par Dr. Salegnat. Paris: Baillière et Fils. 1902. Frs.2.

Protoplasm. By John W. Hayward, M.D. Bristol: John Wright and Co. 1902. 1s. 6d.

Le Massage pour Tous. Par le Dr. de Frumerie. Paris: Vigot Frères. 1902. Frs.1.

Traité Théorique et Pratique du Massage et de la Gymnastique. Par J. E. Marfort. Deuxième Edition. Paris: Vigot Frères. 1902. Frs. 4.

An Introduction to Physiology. By William Townsend Porter, M.D. Part IV—Physiological Optics. Cambridge, Mass.: The University Press. 1902.

Visual Economics. By H. Magnus, Med. Dr., and H. V. Würdemann, M.D. Milwaukee, Wis., U.S.A.: C. Porth. 1902.

Transactions of the American Orthopædic Association. Fifteenth Session. Vol. XIV. Philadelphia: Published by the Association. 1901.

Operations: Vademecum für dem Praktischen Arzt. Von Dr. Edmund Lesser. Zweite Auflage. London: Williams and Norgate. 1902. 5s.

Versuch einer psychophysiologischen Darstellung des Rekonvaleszenz. Von Dr. F. Storch. London: Williams and Norgate. 1902. 4s.

Principles of Sanitary Science and the Public Health. By W. T. Sedgwick, Ph.D. London and New York: Macmillan and Co. 1902. 12s 6d.

Neurological Technique. By I. Hardcsty, M.D. London: W. Wesley and Son. 1902. 8s.

Ophthalmic Mycology. By G. C. Savage, M.D. Nashville, Tenn.: Published by the Author. 1902.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

				£	s.	d.
Eight lines and under	...	...	...	0	4	0
Each additional line ...	...	...	...	0	0	6
A whole column ...	...	...	...	1	17	6
A page ...	...	...	...	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restantes* addressed either in initials or numbers.

Remarks
ON
SOME CASES IN GENERAL SURGERY.

BY G. B. FERGUSON, M.D.(OXON.), F.R.C.S.ENG.
Senior Surgeon, Cheltenham Hospital; President of the British Medical Association.

I HOPE that the following brief notes of cases, which have been more or less recently under my care in the Cheltenham Hospital, may be considered of sufficient interest to justify their publication.

CASE I.

Gastrostomy for Cancer of the Lower Part of the Oesophagus.

W. D., aged 66, was admitted at the beginning of May, 1901. His appetite had begun to fail one year previously. Vomiting began six months before his admission and had been occasional ever since.

Three months ago he noticed that he was getting thinner. About two months before his admisssion he found that he could no longer swallow solids, and when he was admitted he could hardly swallow liquids. No growth was palpable, though a probang was arrested near the stomach. About two months previously he began to feel a pain in the lower part of his chest, a pain that was always worse at night, but was not made worse by food. For several weeks the little solid food which he had apparently swallowed regurgitated soon afterwards.

Not many days after his admission into the hospital, where he was sent by Dr. Searancke of Mitcheldean, all power of swallowing was lost, and accordingly a Frank's (or Albert's) operation was done. This is too well known to need description, though I may add that I allowed at least 1 in. of the stomach to project through the second skin incision, which was made over the cartilages of the ribs. In this projecting portion a small hole was made, through which a No. 10 indiarubber catheter was passed. The catheter entirely filling the hole there was no leaking of the contents of the stomach. This projection at first of the stomach is distinctly advisable, as great retraction occurs later. No fever or attempted vomiting followed the operation. On the contrary, he improved rapidly and continuously and every two hours enjoyed his meals, which were at first of peptonized milk 1 oz., beef tea ½ oz., and champagne ½ oz.

There is nothing further to remark, save that he put on flesh, returned home in very tolerable comfort and was kept alive, thanks to his gastric fistula, till the progress of the malignant disease destroyed his life eight months afterwards.

We have done one or two previous gastrostomies in the Cheltenham Hospital, but the case narrated is our first fortunate one. The operation is not more difficult than an inguinal colotomy, and would not, I believe, be much less successful, were it only practised, as it too seldom is, before the patient is almost sinking. We must not forget, however, how much greater is the shock resulting from operations on the stomach, which is closely connected with the solar plexus. The inferior mesenteric plexus, with which the descending colon and sigmoid flexure are connected is a nerve centre of vastly less importance. I believe a small gastric opening to be a very important point. At first the catheter should be kept in continuously. Later it should be passed only when needed.

CASE II.

Amputation at Hip-joint: Use of Wyeth's Needles.

H. P., aged 19, sent in by Mr. G. A. Cardew. Here the original disease was a round-celled sarcoma growing from the periosteum of the upper part of the tibia. For it a Stephen Smith's amputation had been done ten months previously, but the disease had returned in the lower part of the femur.

I then advised amputation after Furneaux Jordan's method, through the hip-joint. This was done on May 7th, 1899, and I am mentioning the case chiefly to illustrate the comfort and security afforded by Wyeth's needles. They are a vast improvement on the abdominal tourniquet and rectal lever. These needles, as is well known, are 10 in. long by ⅜ in. in diameter. One of them, entering just below the anterior superior spine of the ilium, is thrust through the superficial structures of the outer and upper part of the thigh at right angles to the latter; the other one, embracing the tendon of the adductor longus, is passed through the skin of the inner part of the thigh, emerging finally below the tuber ischii. Slipping of the elastic bandage, which is applied above these needles, is quite impossible, and consequently little or no blood is lost. In the case referred to I am sure the loss did not exceed 1 oz. Being anxious to secure healing by first intention, and being a Listerian by example and conviction, I practised a plan which I have found to be safe and infallible. I thoroughly washed the large wound with 1 in 20 carbolic lotion, and soon afterwards washed away the latter with 1 in 2,000 sublimate lotion. I have found by comparative experiment that 1 in 40 carbolic lotion, even when followed by sublimate, is a less certain preventive of suppuration than the 1 in 20 lotion is, and I would claim a special virtue for the usage above narrated.

The wound, which was drained for a few days, healed at once, and he left the hospital about five weeks afterwards, in excellent health. But our efforts were of no permanent benefit. There was no local recurrence, but he died about fourteen months later of sarcoma of the lung.

There is no malignancy like that of round-celled sarcoma. I have met with it twice in 76 amputations of the whole breast, and can only add that repeated operations were perfectly futile in both of those cases. The mortality of those 76 Listerian operations was one only, and that patient was a diabetic. Fatal coma supervened soon after the operation. I mention this fact of a low mortality as showing that, whatever may be claimed for asepsis, Listerism is still safe and good. I may here refer to a case of round-celled sarcoma of the upper part of the humerus, seen not long ago by me. Here disarticulation was declined when it might have been helpful, though it was requested when it would have been useless, owing to the extension of the disease to the thorax. The patient, also a young man, went to the Middlesex Hospital, but there also they declined to operate. In three months the tumour was nearly as large as his body. It was soft though brittle, and almost exsanguine, and on one occasion, without serious consequences, he himself pulled away a large portion of the weighty mass. In about four months from its first appearance it destroyed his life.

CASE III.

Removal of Superior Maxilla.

Notwithstanding the foregoing remarks, there are instances in which even round-celled sarcomas have been extirpated with permanently good results. I may cite a case under my own care nine years ago.

J. H., aged 18, suffered from such a growth, originating in the inside of the right superior maxilla. It had penetrated the hard palate and was projecting into the mouth. As a minor measure I completely scooped away the whole of the growth, leaving little more than a shell of bone, and afterwards mopped out the interior of the maxilla with a strong solution of chloride of zinc. Needless to add that the growth soon reappeared. He then desired, and I effected, what I had advised at first, the removal of the whole bone, including the orbital plate.

He made a good recovery, and the point of the case is that he still, after the long period of nine years, remains in excellent health and free from any recurrence. This operation—which, once the division of the bone is begun, cannot be finished too quickly—is to me one of the most repellent in surgery. I have seen a patient die of haemorrhage before it was finished; and in this respect I would bracket it with Kraske's removal of the rectum.

CASE IV.

Acute Appendicitis.

Rose S., aged 15, originally under the care of Dr. Lloyd Davies, was admitted on July 8th, 1899. She became much worse soon after her admission, and accordingly the abdomen was opened in the middle line on July 10th. Some offensive pus escaped at once, but the intestines were all matted together, and it was evident that there was deeper-seated mischief in fact, it could be felt per vaginam. By working mainly with the finger a large and deep collection was

reached, which was found to extend into Douglas's pouch. This collection had probably originated in the neighbourhood of the appendix, which, however, could neither be seen nor felt. The point which is somewhat exceptional is that I determined to drain through the vagina, into which a large tube was passed from above. This tube was retained there for one week. Anterior drainage was also practised.

Her convalescence was somewhat lengthy, as a puncture of the small intestine was made whilst burrowing for the deep-seated pus; and a second and much larger opening resulted from the partial sloughing of the necrotic caecum. The drainage was afterwards supplemented by frequent syringing with boiled boric lotion. Serious and unpromising as her case looked for a long while, it is encouraging to add that within six months her fistula and skin wound had perfectly healed, and she is now in admirable health, and apparently not suffering at all from the former adhesion almost *en masse* of all her bowels. I may add the gratifying fact that all the fecal fistulae I have met with have healed, sooner or later, spontaneously.

CASE V.

Ovariotomy during General Peritonitis due to the Bursting of a Secondary Cyst.

E. B., aged 50, like the last patient, was admitted at first under the care of my colleague, Dr. Trevithick. This patient was married, though childless. She had had a swelling of the lower part of the abdomen for three or four years, but it had grown rapidly during the last six months. The whole abdomen was extremely tender.

She was evidently suffering from peritonitis, and as her temperature was high and she was rapidly becoming weaker the abdomen was opened on April 29th, 1901. The whole abdomen was full of mucoid fluid, from which it was evident that an ovarian cyst had burst. The great omentum was closely adherent to the principal cyst, and it was necessary to divide the former to reach the latter. Even then the mesentery and small intestine and the sigmoid flexure were found to be closely adherent to the tumour. After some delay the intestines were separated from the cyst wall, though not without the sacrifice of much of their peritoneal covering. The main cyst, whose thick contents could not be evacuated by tapping, was removed entire, the peritoneal cavity was flushed with sterilized hot water, a Keith's tube was inserted, and the abdomen was closed in the ordinary way.

The tube was removed on the eighth day, and the patient's subsequent course would have been quite uneventful but for a large faecal fistula which formed after ten days. From the direction of this fistula it was evident that it proceeded from the sigmoid flexure; but, just as in the previous case, it healed up after a few weeks, and the patient is now in perfect health.

Of course the best way in the case of intestine adhering to a cyst is to dissect off the peritoneal covering of the cyst; but, if it be the lower part of the sigmoid flexure or rectum which is adherent, it may be difficult to do this; and it is consequently often omitted, with, perhaps, such a result as the one just described.

CASE VI.

Burst Ovarian Cyst.

M. T., aged 40, was a patient of Dr. Prance, from whose notes I am quoting. She was first seen on November 7th, 1901, when a hard, non-fluctuating tumour was discovered in the hypogastric region. On December 5th the tumour was larger. On January 1st she suffered great pain, and when seen soon afterwards the tumour had disappeared. Ascites supervened, and she was admitted into the hospital on January 14th, 1902. She was not seriously ill at first, though her temperature varied from 100° to 101.5° F., and her pulse remained steady at about 100°. On consultation opinions differed much, but the majority considered the case to be one of peritonitis with effusion, and, as her life was not in danger, it was decided to temporize.

But she got worse instead of better, and so an exploratory operation was done on January 22nd, 1902. By that time the effusion was completely circumscribed, and it was necessary to cut through a layer of lymph half an inch thick before the peritoneal cavity could be reached. The cause of her trouble was then disclosed in a collapsed ovarian cyst, which was forthwith separated and removed. She made a good and quick recovery, but there can be no doubt that it would have been better for her if she had been operated on eighteen days sooner. I was the less inclined myself to hurry on the operation as I have known good recovery to follow the rupture of a parovarian cyst. I was doubtful as to the best course to follow with the great lymph cyst which lined the abdominal walls and covered the intestines, but finding it easily detachable without much bleeding, and fearing that, if left, it might break down into pus, I stripped off all the parietal part and most of that over the intestines. I wish I might elicit an opinion on this practice from one of the great ovariotomists.

CASE VII.

Cyst: probably Pancreatic.

L. G., aged 44, admitted on February 16th, 1902. She had previously enjoyed good health, though she had latterly noticed a swelling in the middle of the abdomen. Recently the swelling had become very tender, and her temperature and pulse had risen. The tumour was central, slightly movable laterally, and distinctly fluctuating. Nothing of it could be felt on vaginal examination. The general impression was in favour of its being a mesenteric cyst.

On operation (February 19th) the cyst, which was as large as a young child's head, was found to lie between the stomach above and the transverse colon below, the mesocolon being incorporated with it, while the omentum was pushed over to the left. Its origin passed upwards and backwards to the spine, and it had evidently originated either in the pancreas or in its immediate vicinity. On tapping, the contents were found to be dark and semipurulent. In consequence of its deep connexions I elected to drain and not to attempt removal. As much of the cyst as possible was accordingly drawn out and fixed externally, and the patient has made a good recovery, though there is still a slight discharge. There is now retraction in the place of protrusion at the site of the incision.

Though albumen was not digested by the discharge from the cyst, I still believe the latter to have originated in the pancreas, a view which is corroborated by the present discharge being distinctly amylolytic and by the microscopic examination of the fluid, in which were found streptococci in abundance, with at least two other kinds of bacteria, probable entrants through the duct of Wirsung. I believe I may congratulate myself on not having attempted removal, as whatever may be the case now, it was certainly true in 1897 that such cysts had been successfully removed 8 times only, whereas 70 cases of drainage had been followed by 65 recoveries.

Mr. Doran's learned and characteristic paper in vol. ii of the BRITISH MEDICAL JOURNAL for 1897 will be found to be a veritable mine of information on the subject.

CASE VIII.

Epithelioma of the Tongue.

My eighth and last case may be very shortly described. J. S., aged 83, admitted on September 14th, 1897, with epithelioma of the left side of the tongue. The latter was split and the left half removed after the admirable method of my friend, Mr. Walter Whitehead. The patient is still living and in excellent health at the age of 88. The truth is, that the aged are extremely good subjects for operative surgery and should not be debarred its benefits. No one radically unsound and deficient in vitality or resisting power ever becomes aged. Thus, nearly all the very old persons I have known operated on for strangulated hernia have recovered, including a patient of my own, aged 91. In selecting these cases for publication I have been at pains to exclude any of ordinary character.

In conclusion I wish to express my obligations to the House-Surgeons, Messrs. Armitage and Curtis, and to the Sisters of Wards 5, 7 and 8 for their unremitting care.

A HOME FOR INDIGENT DOCTORS.—The late Russian Privy Councillor, A. P. Raszffeloff, has bequeathed to the city of Moscow a sum of 8,000,000 roubles for the erection and maintenance of a home for indigent members of the medical profession. It is probable that part of the capital will be applied for the provision of pensions for the widows of medical practitioners.

Observations
ON
THE "OPEN METHOD" OF TREATING EXCEPTIONAL CASES OF SEPTIC ARTHRITIS OF THE KNEE.

BY WALTER WHITEHEAD, F.R.C.S.ED., F.R.S.ED.,
Consulting-Surgeon to the Manchester Royal Infirmary; President-elect of the British Medical Association.

BEYOND the loss of a limb, the risks attending the amputation of a thigh for acute suppurative arthritis are acknowledged to be very great, and it was with the double object of saving the leg and reducing the risks to life that I recently obtained the permission of a patient to substitute the open method, instead of following the hitherto orthodox line of procedure, which in this particular instance would undoubtedly have been the immediate amputation of the thigh.

HISTORY OF CASE.

The patient was the victim of one of those unavoidable misfortunes which occasionally result from opening the knee-joint, notwithstanding the most elaborate and correct aseptic precautions. The only explanation I can suggest for this untoward event is that during the removal of the cartilage I accidentally discovered a small pustule on the opposite side of the joint, which the pressure of my finger had burst during the operation. Whether the septic contents could be held responsible for the after-consequences or not, I am not prepared to say, but that such a contingency might have occurred is well within the bounds of reasonable conjecture.

In this instance, the internal semilunar cartilage had been removed under the most rigid code of aseptic rules, nevertheless within five days it was obvious that something had gone wrong. Local pain and constitutional symptoms developed. Free drainage and irrigation were promptly and systematically conducted, but without lessening in the least the gravity of the symptoms. The condition of the patient became exceedingly critical, a high temperature, 103°, rapid pulse, delirium, and extreme exhaustion contributed convincing evidence that unless prompt measures were immediately adopted the patient would rapidly sink. The patient was given the option of either having his leg amputated or taking the risk of having the joint treated on the open method, original, so far as I am aware, and he chose the latter.

METHOD OF OPERATION.

The details of the operation, which was performed on the fifteenth day after the cartilage was removed, were briefly as follows:

1. A transverse incision was made through the skin over the centre of the patella.
2. The patella was sawn across in a line corresponding with the skin section.
3. The joint was fully flexed and thoroughly opened, and the crucial ligament divided.
4. All exudations on the surfaces and in all the cavities of the joint were carefully scraped away with a surgical spoon, and immediately afterwards all the surfaces were freely swabbed with lint saturated with turpentine.
5. The whole of the exposed surfaces, and every crevice, was gently packed with iodoform gauze.
6. With the joint well flexed (beyond a right angle), layers of wood-wool were so adjusted by bandages that they not only afforded a compact support to the back of the knee, but also acted in firmly retaining the knee in an acutely-flexed position—a position which made it all but impossible for any discharges to accumulate without bringing them in contact with the iodoform gauze packing.

RESULT.

The result was immediate and most striking. All pain disappeared, the temperature fell, the patient had refreshing sleep, the tongue cleaned, the appetite was restored, the delirium subsided, and the patient became hopeful and cheerful.

The dressings were left undisturbed for two days, and when removed the tissues not only looked clean, but healthy granulations were actually visible. Each succeeding day the surface of the joint and the crural pouch were gently syringed with a warm solution of izal and repacked with iodoform gauze, and the dressings reapplied. Similar dressing was repeated daily until the fifth day, when it was observed that the granulations were unduly exuberant and flabby. To repress this tendency, all the exposed surface was covered with strips of oil silk. This was continued for four days, when it was found that the granulations had coalesced into a smooth, compact surface. During the time the oil silk was made use of, the temperature rose at night to 101° F.: nevertheless the general condition of the patient and that of the joint continued to be everything that could be desired. After the oil silk was discontinued, the temperature immediately dropped to normal, leading to the conclusion that the silk had retained beneath it the secretions and affected the temperature.

On the thirtieth day after the original operation and the fifteenth day after the open method was commenced, the leg was straightened and placed on a long back splint, with a footpiece attached, and the limb carefully adjusted so as to check any tendency to either axial rotation or lateral displacement. At the same time the upper fragment of the patella was removed, but the lower portion was left undisturbed as it had mysteriously disappeared among the granulations.

As the granulations advanced the articular cartilage, although it appeared to retain its vitality, gradually melted away by a process, I suppose, of molecular disintegration and gradual absorption. From this point there is little to add; the granulations restored the natural contour of the knee, and when cicatrization had advanced circumferentially quite a third of an inch the whole surface was covered with large layers of cuticle by Thiersch's method.

COMMENTARY.

This case is a forcible illustration of the necessity in all surgical procedures of being guided by those unerring principles which tolerate no departure from the simple common-sense teaching they inculcate. What is true in big matters is equally applicable in small ones and vice versa.

A small abscess is generally opened by a comparatively large incision, whereas a large abscess is not liberated by an incision proportionate to its size, and consequently a sound surgical principle is ignored at the patient's expense.

The essential and tangible advantage of this method of treatment is that it affords the only opportunity of completely evacuating the joint of its deadly contents. By any other plan there is always the risk of a residual ferment being left behind capable of infecting the secretions which so rapidly accumulate.

I am not aware that the knee-joint has ever before been deliberately and successfully laid open in this manner for acute suppurative synovitis. J. L. Petit, however, recommended the practice of freely opening joints when the seat of traumatic suppuration, but the openings were limited to free incisions and did not extend to the complete and continuous exposure of the entire joint cavity. Unfortunately for the progress of surgery, unsatisfactory results followed Petit's practice, owing, as I believe, to the comparatively small openings being frequently plugged with *charpie*, which was introduced immediately after they were made to arrest the haemorrhage, which was an ever-present dread in the minds of surgeons of that time. This unnecessary and absurd precaution naturally aggravated instead of mitigating the very condition which called for this treatment. Pyaemia, which in those days was endemic in Paris, frequently followed the incisions, and naturally contributed to destroy the confidence in Petit's otherwise sound, though inadequate, teachings.

Instances could easily be cited in which knee-joints, after having been torn open by accident, have recovered without suppuration, even in the absence of any special precautions. Other cases have been recorded in which knee-joints have been opened by accident and healed by granulations, and in one case of this kind the patient was subsequently described as being "as well as ever."

There are also numerous other cases on record where cures

have been rapidly effected by incisions into the knee-joint and the evacuation of the contained pus without any further accumulations of pus taking place.

Perhaps it is a little premature to publish a solitary instance of a treatment which, so far as I am aware, is original, but the possibility that, under similar circumstances, a life might be spared or even a limb saved by the early publication of this single case must be my excuse for the course I have taken.

A NEW PRINCIPLE OF CURING CLUB-FOOT IN SEVERE CASES IN CHILDREN A FEW YEARS OLD.

By ALEXANDER OGSTON, M.D., C.M.Aberd., LL.D.Glasg.,
Regius Professor of Surgery, University of Aberdeen; Surgeon-in-Ordinary to H.M. the King in Scotland.

Operating surgeons meet with many cases of club-foot which have either not been treated in the first year or two of life, or in whom the treatment at that age has not been satisfactory. Especially when school life begins to approach, the question of remedying the hideous deformity before the child mixes with other children presses itself upon the parents, and they bring it up for treatment.

Those who have had much experience of cases of this kind will admit that, though a great deal can be done by selecting the proper operation for each, or by combining operations, yet none of our plans of treatment are thoroughly satisfactory; all require great and prolonged care and observation of the patient, and after-operations are frequent. Rectification by tenotomy, myotomy, open incision, cuneiform excision, resection of the cuboid, resection of the astragalus, and supra-malleolar osteotomy is imperfect, whether these be used singly or in combination. Phelps's open incision in some cases, and Lund's excision of the astragalus in others, combined with tenotomy of the tendo Achillis, have in my hands given the best results, although far from ideal ones. The former operation is preferable where the deformity is not of the extremest form, the latter where it is so.

A study of the radiographs of such patients, as well as of those from normal children of a like age, suggests a more perfect method than any of them and a more nearly ideal one. I suppose every surgeon nowadays agrees that the aim of all treatment of club-foot is to restore the bones to as nearly as possible a normal shape and position. This, at least, is my view, and the object of this paper is to show how it can be accomplished in suitable cases better than by any method which I have hitherto seen described and myself put on its trial.

The tarsal bones, which oppose the chief obstacles to the rectification of club-foot, do not complete their ossification for many years. In healthy children they consist of a rounded kernel of bone enclosed in a thick layer of cartilage, whose ossification will eventually complete their external configuration (Fig. 1, p. 1525).

In club-foot their ossification is an even slower process (Fig. 2, p. 1525); and when we excise them, as is done in Lund's excision of the astragalus for club-foot, they are always in children seen to present a thick layer of cartilage surrounding a relatively small, somewhat spherical bony centre (Fig. 3).

If the whole or a considerable part of a tarsal bone be resected for club-foot, that bone, or portion of bone, is lost; it is not restored. But if an incision be made through the soft parts at some suitable spot, and deepened so as to divide the enclosing layer of unossified cartilage, the bony kernel may be partially or completely removed by a Volkmann's sharp spoon, and the bone will be restored by ossification from the shell of cartilage which remains.

A tarsal bone which has in this manner been deprived of its osseous centre is soft and plastic, like a squeezed orange, and very moderate pressure upon it suffices to mould it into any required shape, so that it ceases to offer any notable opposition to the rectification of the deformity of the clubbed foot. And several bones can, by gliding the wound of the soft parts in the required directions, be dealt with in the same way through the one external wound in such a manner that the whole or any required part of their osseous centres can be spooned out where they oppose rectification, until sufficient has been taken away to enable the deformity to be entirely corrected. If this be done with antiseptic precautions, the interior of the scooped out bone is filled by a blood clot, which is, as in a simple fracture, gradually replaced by cartilage which slowly ossifies; and the bone, with all its ligaments and joints, is intact, yet in such a shape that, while perfectly useful, it is accommodated to the form required for the abolition of the deformity.

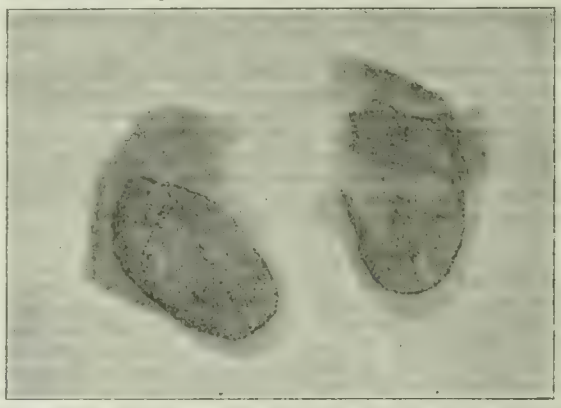


Fig. 3.—Radiograph of two astragali removed by Lund's operation for club-foot.

The only other structure requiring division is the tendo Achillis, which should be cut in the usual way by a tenotome at the same sitting.

The manner in which the operation is performed is as follows. After the usual disinfection an Esmarch's tourniquet is applied to the leg and tenotomy of the tendo Achillis is performed. An incision through the skin is made in a gentle curve beginning in front of the external malleolus and extending forwards, with its convexity towards the sole, until it terminates over the calcaneo-cuboid joint on its dorsal aspect. When its edges are retracted the outline of the astragalus is visible. The soft parts covering it and the cartilaginous shell surrounding its osseous centre are then divided by a shorter incision in the same line as the cutaneous one, the knife being made to sever everything down to the bony kernel. A Volkmann's spoon, slightly curved forwards at its neck, is passed into the wound of the cartilages and the whole bony centre, save the upper part constituting the pulley between the two malleoli, is cautiously scraped out. The feeling conveyed through the spoon at once tells when the cartilage is reached. The foot is now placed in the attitude of rectification, and usually the improvement is very great. If the correction be not sufficient, as will be the case in very severe deformity, it is necessary to apply the same treatment to the cuboid and calcis, which stand in the way. The skin incision is glided over the cuboid till its outline can be seen and felt, and it also is incised and its bony centre completely scraped out, sparing all its cartilaginous shell. The anterior end of the calcis is similarly treated and then the rectification is satisfactory.

Fig. 4 shows the foot before operation.

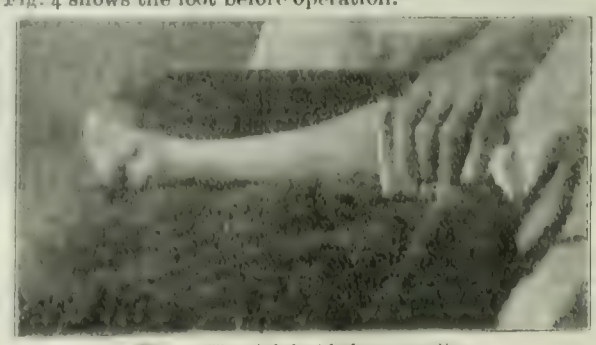


Fig. 4.—The club-foot before operation.



Fig. 1.—Radiograph of a child's tarsus.



Fig. 2.—Radiograph of the tarsus of a child's club foot, aged 4.



Fig. 10.—Radiograph of club-foot after cure.



Fig. 11.—Radiograph of a foot after Lund's operation for excision of the astragalus in club-foot.

Fig. 5 shows the skin incision and the deeper openings through which the three bones have been emptied.

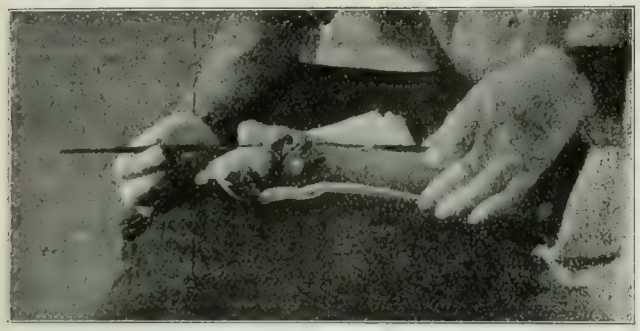


Fig. 5.—The *evidement* completed.

Fig. 6 shows the amount of rectification obtained.



Fig. 6.—The foot rectified.

In Fig. 7 the limb is encased in plaster, with threads to guide the wire saw on its removal. Before this, it seems



Fig. 7.—The plaster fixation.

superfluous to say, the few vessels which bleed have been secured, and the wound closed without drainage by a carefully applied deep and superficial layer-suture. The plaster bandage is best applied without padding or even the protection of more than a single layer of flannel, and even this may often be omitted with advantage. If the upper portion be first applied and the foot portion last, the surgeon's hand can, while the plaster is setting, constrain the foot into the most perfect rectification possible.

The rectification that can be at once obtained is seen in Figs. 8 and 9, which show the same foot before and three months after operation. The patient trod firmly, on a perfectly flat sole, dorsal flexion was easy to some 15 degrees less than a right angle: only the adduction of the metatarsus and toes remained, and for that no remedy has ever been suggested.

Fig. 10, p. 1525, which is a radiograph of the same foot as was shown in Fig. 2, was done four months after the operation, and the re-ossification is spreading from the pulley of the astragalus and is just commencing in its head, while it is well advanced in the cuboid and front of the calcis.

In performing this operation I have been struck with the ease with which satisfactory rectification of bad club-feet can be produced and its perfection afterwards as compared with the methods hitherto in use. It has further the advantage that, as no joint is opened or injured, and the ligaments and other important parts of the foot are not interfered with, perfect motion in all the articulations is obtained. This is not the case in Lund's operation, though it is otherwise a very good one in the worst cases; and its radiograph, given in Fig. 11 (p. 1525) shows how inferior it is in result to the method here proposed, and whose result is seen in Fig. 10.



Fig. 8.—Foot before operation.



Fig. 9.—Foot after operation.

I venture therefore to advise this plan of treating club-foot in bad cases in children of a few years old. From my present experience of it I should say it is applicable at least up to 6 years of age, possibly to a couple of years later. But it is always advisable to take a radiograph of the feet before carrying it into effect, so as to be certified that the state of the bones is such as to ensure a success.

Evidement of a tarsal bone is not new; it was, I think, practised by Sedillot, but the principle of his operation is quite different. He advised scraping out the whole spongy centre of a fully-developed tarsal bone, such as the calcaneum, and leaving its compact shell, for carious disease, and this has nothing in common with the principle of treating club-foot which is here recommended.

SMALL-POX IN THE UNITED STATES. The number of cases of small-pox in the United States officially reported from December 28th, 1901, to May 23rd, 1902, was 34,170, with 1,048 deaths. For the corresponding period of 1901 there were 24,921 cases, with 408 deaths.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—The annual meeting of the Association of Registered Medical Women was held on Tuesday, June 3rd, at 8 p.m. The election of officers for the ensuing session took place as follows:—*President:* Mrs. Stanley Boyd, M.D. *Treasurer:* Mrs. Stanley Boyd, M.D. *Committee:* Mrs. Berry, M.D., Miss Chadburn, M.D., Miss Cock, M.D., Miss Crosfield, M.D., Miss Douie, M.B., Miss Scharlieb, M.S., Miss Sheppard, M.B., Miss C. Sturge, M.D., Miss Webb, M.B.

A Clinical Lecture
ON
GENU VALGUM.

Delivered at the Post-Graduate College and Polyclinic.

BY CHARLES A. MORTON, F.R.C.S.,

Professor of Surgery in University College, Bristol; Surgeon to the Bristol General Hospital and the Hospital for Children and Women.

THE NATURE OF THE BONY DEFORMITY WHICH CAUSES GENU VALGUM.

GENTLEMEN,—In 1897,[1] in the early days of skiagraphy, I had a skiagraph taken of a case of genu valgum in a child, and this showed, as clearly as skiagraphs of only partly-ossified epiphyses can show, that elongation of the internal condyle of the femur and obliquity of the knee-joint, usually described as occurring in this condition, did not exist, but that the deformity was due to curvature of the tibia and fibula.[2] This was entirely at variance with the pathology of the deformity given in all the textbooks of surgery; but after the publication of my communication, Mr. Noble Smith and Mr. Muirhead Little wrote to the BRITISH MEDICAL JOURNAL and stated[3] that they had described such curvatures of the leg bones as I referred to as not uncommon in genu valgum. Mr. Noble Smith pointed out that in 1882, in his book on the surgery of deformities, he had stated that he considered such curvatures, and not elongation of the internal condyle, to be the usual cause of genu valgum; and Mr. Little said[4] that in a monograph on the subject, also published in 1882, he described these curvatures of the leg bones in genu valgum, and that in examining museum specimens of this deformity he had found the elongation of the internal condyle and the curve of the femur described by Macewen were seldom obvious, but that the deformity depended on an inward convexity of the upper end of the tibia and fibula.

I have referred to these books, and also to Macewen's work on genu valgum and other rickety deformities. Mr. Noble Smith seems to have been the first surgeon to publish a correct opinion as to the importance of the curvature of the leg bones in genu valgum, and this opinion was formed from a clinical examination of cases only. Dr. Little and Mr. Muirhead Little state in their joint work on genu valgum "that curvature of the tibia is sometimes a more prominent fact in rickety genu valgum than femoral curvature or inward inclination of the knee-joint." They, however, "refer knock-knee in all its forms primarily to relative or absolute weakness and relaxation of the structures composing and surrounding the knee-joint."

Macewen found deformity in the tibia in 10 per cent. of his cases, but he regarded it as unimportant in the production of genu valgum in the vast majority of cases, and as only requiring osteotomy of the tibia in "very aggravated" ones. He thus describes the tibial deformity: "The tibial shaft is placed at an angle to the head of the bone, the lower part of the limb running outwards." In two instances, he says, he observed a somewhat similar deformity, but it commenced towards the lower portion of the upper third of the tibia, and he remarks that, as the femur was unaffected, they were really not cases of knock-knee at all. Such tibial curves he therefore regarded as having very little, if anything, to do with the production of ordinary genu valgum; and yet it is obvious that, if such curves are at all marked, unless they are compensated for by other pathological changes, they must be a most potent factor in the production of genu valgum.

Macewen's view that genu valgum is due to deformity in the lower end of the femur—chiefly to a curve with the convexity inwards but partly to an elongation of the internal condyle—has been generally accepted. But all Macewen's observations seem to have been made from the clinical examination of cases. Before skiagraphs showed the shape of the bones in genu valgum, it was very difficult to get reliable information as to their exact shape. It is very rarely indeed that the opportunity occurs to make a thorough necropsy of the limb in this deformity. Mikulicz, however, many years ago published an account of the changes in the bones found *post mortem*. Before the days of antiseptic surgery I fear some osteotomies for genu valgum furnished some of these cases, but they were not Mikulicz's own cases I believe. He found an obliquity of the knee-joint from abnormal descent of the internal condyle, due to an increased growth at the lower end of the diaphysis, but he also found deformity of the tibia. The only recent description of the pathology of genu valgum based on necropsies that I can find is one by Professor Symington[6] from the examination of a body in which very marked genu valgum was present, found in the dissecting room. He says the deformity in the tibia contributed more to the production of genu valgum than the deformity in the femur. He described the deformity of the tibia as an excessive growth on the inner side of the upper part of the diaphysis; but from his drawing of the bones I should myself describe it as a curve of the diaphysis outwards, immediately below the head, combined with a general curve of the fibula. He says there was no curve in the femur, and no elongation of the internal condyle, but that here also there was an excessive growth of the lower and inner end of the diaphysis; but he does not figure the whole femur, and he has drawn the lower end at an impossible angle. When the drawing is tilted so that the line of the femur approaches to the normal direction, there certainly then appears to be an obliquity of the lower end of the bone which would partly cause the genu valgum. This incorrect representation of the position of the femur is no doubt made to get the picture on the same plate with another, but, unfortunately, it has been reproduced in this position in a recent book on orthopaedic surgery.

I have already referred to Mr. Muirhead Little's statement that he has examined some museum specimens of genu valgum, and found the leg bones commonly curved but the elongation of the internal condyle not obvious.[7] The pathological examination of cases of genu valgum then, though very rarely made, seems to have invariably shown a deformity of the tibia, but in some cases also in the lower end of the femur.

I soon found that my first result of skiagraphic investigation into the nature of genu valgum was not an exception. Case after case revealed the same condition, and in 1898 I wrote a paper[8] describing this condition more fully, and advocating osteotomy of the tibia rather than of the femur. This operation had, of course, occasionally been done before; but my object in writing this paper was to call attention to the fact that, in children at any rate, curvature of the leg bones was the rule and not the exception, and to advocate osteotomy of the tibia rather than the femur in all these cases. I have now 25 skiagraphs of cases of genu valgum, showing the shape of the bones in more than 40 limbs, and from an examination of these I am able to say that this curve in the tibia and fibula is the essential condition in the production of genu valgum in nearly all cases, that an abnormal descent of the internal condyle is the exception, and that in none of my cases is it present without a deformity of one or both leg bones, and that when present—with the exception of one case—it is clearly a subsidiary cause of the deformity, the latter depending almost entirely on the curvature of the leg bones.

When I published my last paper on the subject I was only able to write about the pathology of genu valgum in children. Since then I have had 4 cases in young people in whom the lower epiphysis of the femur and the upper epiphysis of the tibia were well ossified, and hence the shape of the bones forming the knee-joint could be ascertained more accurately than in children with imperfect ossification of the epiphyses, though these children show the curves of the tibia and fibula perfectly. I have also in my possession a skiagraph of a child old enough to show the outline of the epiphysis quite clearly. Out of these 5 cases, in 3 the knee-joint is perfectly transverse, and the deformity depends entirely on the curvature of the leg bones (Figs. 2 and 6, p. 1530). In one of the others the knee-joint is slightly oblique in one limb from a tilting down of the epiphysis on the inner side by excessive growth of the unossified tissue at the epiphyseal line on the inner side. The epiphyseal portions of both internal condyles are slightly elongated. This is not, however, a cause of the genu valgum, as the elongated condyle is received in a depression on the inner aspect of the

head of the tibia, and, although the elongation of the epiphyseal portion of the condyle is the same on the two sides, on the side on which the tilting of the whole epiphysis is not present the joint is perfectly transverse. The chief deformity in this case lies in the shaft of the tibia (Figs. 9 and 10, p. 1531). In the only other case in which a change in the femur in any way causes the deformity the epiphyseal portions of the condyles are slightly elongated and the tibia pushed out, but the curve in the tibia is as important an element in the case.

In one of the cases in which the knee-joints are transverse, and therefore the deformity cannot be caused by a change in the femur, the epiphyseal portions of the internal condyles are slightly elongated, but as in the case just referred to, they are received in depressions in the head of the tibia, and do not tilt this bone outwards. The deformity depends entirely on the curved condition of the leg bones (Diagram I, A).

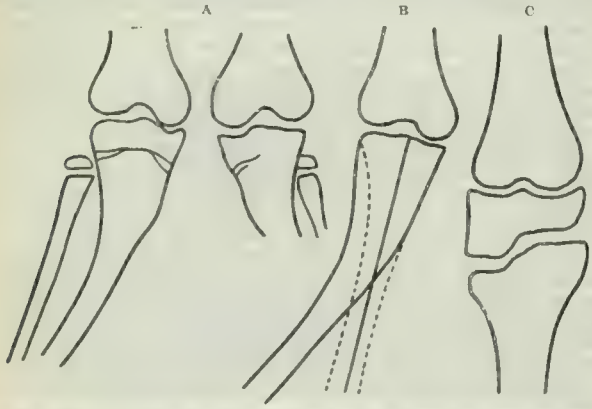


Diagram No. I.—A, diagram made from two skiagraphs, one of both knee-joints and the other of one leg. B, the dotted line shows the small amount of genu valgum a slight elongation of the condyle will produce, if it tilts the tibia outwards. The tibia of shape A, without a depression in inner side of head, is also applied to such a femur.

In these three cases in which the skiagraphs indicate some elongation of the internal condyle, it is clearly the epiphyseal portion of the condyle which is overgrown, and not the lower end of the diaphysis as Mikulicz described. I am inclined to think that it may be really secondary to the tibial curve, for as the result of this curve the weight of the body is taken off the internal condyle and transmitted mainly through the external condyle, and if pressure is removed excessive growth may result. I have here a print of a skiagraph which shows in a most remarkable way the effect of removal of pressure from one condyle as a cause of increased growth. The head of the tibia on one side has become considerably depressed from old necrosis of the bone, and into the hollow thus formed the overgrown condyle of the femur descends (Diagram I, C.

In the cases in which the children were young, and the epiphyses were imperfectly ossified, it is not possible to be absolutely sure of the exact outline of the articular ends; but if we take them as a whole the lower line of diaphyses and the portion of ossified bone in the epiphysis together—we can, I think, form a fairly correct idea of their shape. They do not, I believe, show abnormal descent of the inner condyle or an oblique knee-joint. In three of the skiagraphs taken at this early age the line of the lower end of the diaphysis seems to slope a little obliquely downwards on the inner side;[9] but if the joint were really oblique, then the upper line of the diaphysis of the tibia should slope in the same direction, whereas it does so in only one of these cases. Therefore there is only one such skiagraph which can suggest that any obliquity of the knee-joint is present. But in no fewer than three cases the line of the lower end of the diaphysis of the femur is oblique in the opposite direction, and in one of these the obliquity is present in the same direction in the upper line of the diaphysis of the tibia, and might, therefore, suggest that the knee-joint was oblique in a direction which would tend to correct the genu valgum. But I feel sure we cannot regard the direction of the lower end of the diaphysis alone as an indication of the line of the joint surface; for in several skiagraphs the upper end of the diaphysis of the tibia appears oblique, and in nearly every case in which that obliquity is present the inner end appears higher than the outer, but this cannot indicate that there is an elongation of the inner tuberosity of the tibia as has been suggested.[10] In Diagram 2, Fig. 1, I have drawn a tibia with an elongated inner tuberosity, and in Fig. 2 the tibia of this shape is applied to the lower end of the femur. Now if a skiagraph were taken of this it would show not an oblique but a transverse upper surface of the tibia. An elongated inner tuberosity of the tibia could only appear as an oblique upper line to the tibia if the lower end of the femur were oblique, as in Fig. 3, or if the femoral head could be thrown outwards, as in Fig. 4, or a wedge-shaped space could exist in the joint, which would be impossible.

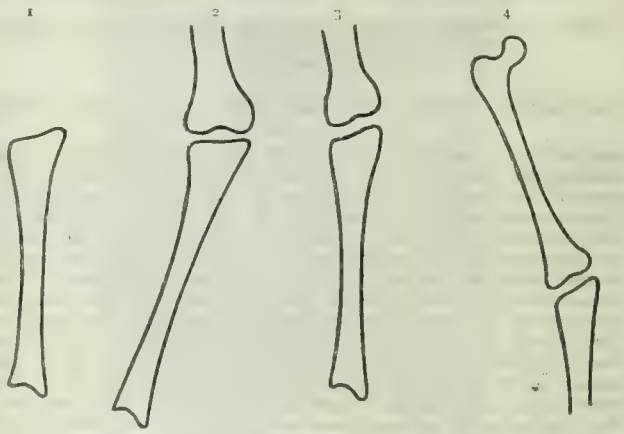


Diagram 2.

I think we must disregard these oblique lines at the lower end of the diaphysis of both the femur and tibia in skiagraphs of imperfectly ossified bones or we may be led into very erroneous conclusions as to the shape of the bones at the knee-joint.

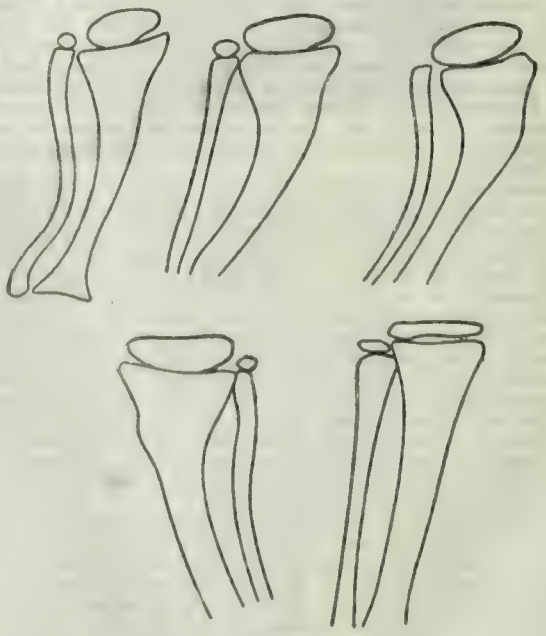


Diagram 3.

The form of curvature in the leg bones varies greatly. I have drawn in Diagram 3 some of the different types of deformity. In some cases the fibula is as much curved, or has

even a sharper curve, than the tibia. In others with marked obliquity of the tibia the fibula is quite straight. There may be very marked, almost angular, curving out of the tibia just below the head, or a gradual curve outwards along the whole bone.

THE OPERATIVE TREATMENT OF THE DEFORMITY.

In connexion with what I have said about the deformity of the bones in genu valgum, I will at once proceed to discuss the operative measures which may be undertaken for its correction, and later on speak of spontaneous rectification of the deformity, the use of splints and irons, and discuss the question of operation.

I do not propose to say anything in this lecture about osteoclasia. I have had no experience of it in the treatment of genu valgum. I will speak only of osteotomy, and this I think should be done on the bones which are deformed and not on the normal, or almost normal, femur. There is no doubt we can get perfectly straight limbs by Macewen's operation on the femur, even though the deformity is wholly in the leg bones. I have done so myself—but we produce an oblique knee-joint (Diagrams 4, C and D), and an oblique knee-joint cannot be a satisfactory position of the joint when the patient is walking about. And not only is the knee-joint made oblique by Macewen's operation, but it is deflected out of the normal line (Diagram 4, D). The weight of the body is usually transmitted in a line passing from the head of the femur through the centre of the knee and ankle-joints.

After Macewen's operation the leg is deflected inwards from this line, unless in putting up the limb after the osteotomy the lower fragment of the femur is displaced outwards. The obliquity of the knee-joint, and the inward deflection of the leg from the normal line of weight transmission I have represented in Diagrams C and B.

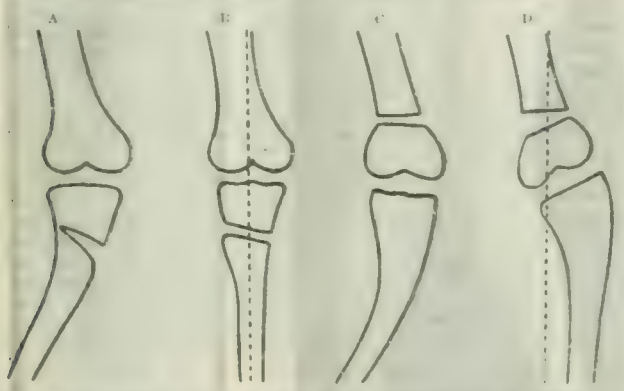
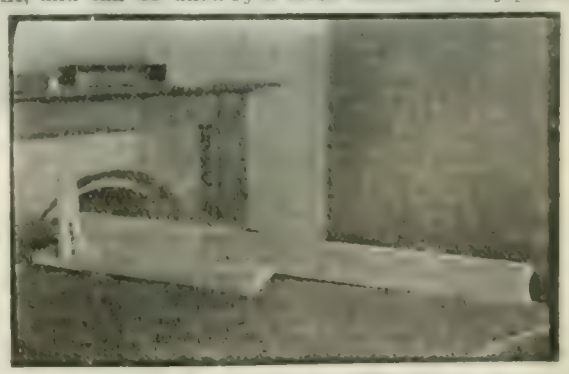


Diagram 4.—A, wedge removed from tibia. B, correction of deformity by bringing sides of wedge space together. C, section of femur in Macewen's operation. D, correction of genu valgum but production of oblique knee-joint. Space left in femur fills up by new bone. Dotted line represents line of normal transmission of weight.

I think, therefore, the best plan is to remove a wedge from the tibia. In some cases I have had also to divide the fibula, but often not, even in cases in which it was much curved. I know that osteotomy of the leg bones has been occasionally performed by surgeons; indeed the earliest operation for genu valgum by Mayer of Würzburg in 1851, was an operation of the same kind as I now practise. But I maintain that it should be the routine operation for these cases, and that a division of the femur should only be practised when a skiagraph shows that a deformity there with marked obliquity of the knee-joint is an essential element in the causation of the genu valgum, and that the tibial deformity is subordinate to this. Such a case I have not myself met with.

I have done osteotomy of the leg bones for genu valgum in 17 limbs in 11 patients. I now propose to give you the result of my experience of this operation. It has been stated that this form of osteotomy is more dangerous than Macewen's, because the vessels in the leg are more likely to be injured than the popliteal vessels, and Mayer did wound the posterior tibial vessels and nerve in one of his cases. Very great care not to injure these vessels and also the anterior tibial artery and nerve should, of course, be exercised in the removal of the wedge. I have not myself wounded any important vessel or nerve, but I admit that the upper third of the tibia is not an easy position to remove bone from, and that undoubtedly Macewen's operation is much easier. The wedge should be removed as high up in the tibia as possible, just below the tubercle, and the breadth of the base of the wedge must depend on the degree of curvature. We should not aim at the removal of a transverse wedge, but of one with the apex directed obliquely upwards, as shown in Diagram 4, A. This allows of a better correction of the deformity. I say "aim at the removal of a wedge directly upwards," because when we get through the compact bones into the soft cancellous structure it is not easy to maintain an exact wedge form if we remove the bones in fragments: and I have never ventured in this position—so near the tibial vessels to cut right through the bone towards the calf or anterior interosseous space. After sawing a wedge in the direction described, out of the compact bone on the inner aspect of the tibia, I have always very cautiously removed the underlying bone in pieces, partly by Adams's saw, and partly by chisel and mallet. In most cases I do not even divide the periosteum on the posterior and external aspect of the bone. A gap more or less wedge-shaped is formed, and, if enough bone has been removed, when the wedge space is closed up by bringing the lower part of the leg downwards, the genu valgum will be corrected (Fig. B). If enough bone has not been removed, another slice can be taken off quite easily, without fear of injury to the underlying structures, for the exact depth of the bone will now be apparent. If rectification of the deformity cannot be obtained because of the curvature of the fibula, that bone must also be divided. In my first operation I did this at the seat of greatest curvature at the middle of the bone, but I found it here so abnormally close to the tibia, and the interosseous space so narrow, I thought the risk of injury to the anterior tibial artery and nerve a serious one, and I have ever since, when it has been necessary to divide the bone, done so where it is more superficial in the lower third; with the exception of an extreme case of genu valgum in which I had considerable difficulty in correcting the deformity, and removed a quarter of an inch from the upper end. In some of my earlier cases I found a tendency for the tibia to bow backwards at the seat of osteotomy. This deformity disappeared very quickly, but it can be entirely prevented by placing a pad under the bones here during the healing of the wound. I have had a special splint made for the operation. It is a combination of a long Liston with a back splint to support the divided leg bones, and one of its great advantages is that it has a travelling footpiece, which allows the foot and leg bones below the seat of osteotomy to be brought well to the normal line of the limb. The footpiece travels across the breadth of the lower end of the back splint, and can be fixed by a screw beneath in any position.



Splint used after operation.

I have been very well satisfied with the results of these operations on the leg bones, and from the lantern slides (Photographs 1 to 11) you can judge for yourselves as to whether the limb can be thus straightened.

I need hardly say that I have had no mortality from the operation, and the wound suppurated in one limb only. I have been able to examine the worst case of genu valgum I

have operated on three years after the operation, and there has been no relapse. One other case I have been able to examine a year after the operation, and two, two years after the operation, and found no relapse. Three cases are quite recent ones. I have found two relapsed cases in young children; the rest I cannot examine.



Fig. 1.—Before operation.



Fig. 2.—Skiagraph showing condition of bones at knee-joint from case shown in Fig. 1.



Fig. 4.—After osteotomy of the right tibia and fibula in case shown in Fig. 1.

SPONTANEOUS RECTIFICATION OF DEFORMITY.

We must recognize the fact that this rickety deformity tends in many instances to become spontaneously corrected during the growth of the bone. I may remind you of an instance of this given by Mr. Edmund Owen in his book on *Surgical Diseases of Children*. He forcibly straightened the bent tibia in one leg and kept the child off her feet for a year. By the end of that time the other leg had grown equally straight. I have lately had a case of the same kind myself. I straightened the limb most deformed by genu valgum, and after three months' rest the other, which was certainly much less deformed than the one on which osteotomy was done, grew quite straight. The patient was 16 years of age. I must say a splint was applied to the limb which grew straight for some weeks while the patient was in bed after the osteotomy, but the limb was constantly rotating in it, and no pressure was maintained and its use was abandoned. The spontaneous straightening of the leg (left) is shown in the two photographs taken before and three months after osteotomy (Figs. 5 and 7).*



Fig. 3.—Skiagraph of leg bones of case shown in Fig. 1.



Fig. 5.—Before operation.

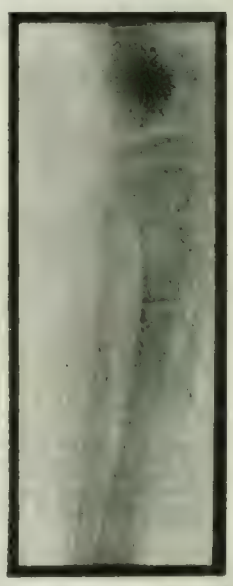


Fig. 6.—Skiagraph of case shown in Fig. 5; two skiagraphs were taken one of his knee and another of leg bones; the prints from these were joined and photographed, and from the negative this picture was made.

Professor Ogston[11] says that in a child 3 years of age with genu valgum, in whom the leg deviated to an angle of 10 degrees from the normal direction, the deformity completely disappeared in eighteen months with no other treatment than the administration of cod-liver oil. Kampe[12] has shown how frequently rickety deformity in the legs undergoes spontaneous cure in children under 6 years of age. I certainly think that the prevention of pressure on the bones by keeping children off their feet must assist the tendency to

* Indeed the same thing is apparent in Fig. 4. In Fig. 11 it appeared so because the girl is evidently leaning over to that side to take the weight off the osteotomized leg. Really the genu valgum in the left leg was increasing.



Fig. 7.—After osteotomy of right tibia in case shown in Fig. 8.



Fig. 8.—Before operation.



Fig. 9.—Skiagraph of case shown in Fig. 8.

spontaneous cure; but there is no doubt that, in spite of continued walking, it sometimes takes place, and any splints or leg irons in use in such cases get more credit than they deserve. We are told by some surgeons of an enormous proportion of cases of genu valgum which they are able to cure by splints or irons whilst the children are running about as usual. I feel sure that in these cases—perhaps not quite as numerous as we are given to suppose—the tendency to spontaneous cure is the important factor, though no doubt the splints and irons support the weak bone and prevent further bending.



Fig. 10.—Skiagraph of leg bones of Case 8.



Fig. 11.—After osteotomy of tibia and fibula in right leg in case shown in Fig. 8.

THE ACTION OF SPLINTS.

I believe that light splints may be used with advantage in order to keep children off their feet and to support the soft and yielding bones, but I have very little faith in splints, as usually applied, to mould the bones into better position. I admit that bones may be thus moulded, for if the bones yield to the pressure brought to bear on them in walking, in the production of genu valgum, certainly they may be moulded straight again by pressure or traction in an opposite direction. As other examples of the way in which soft rickety bones yield to pressure, I may remind you of the deformity of the chest due to respiratory movement, and the distortion of the pelvis from the pressure of the weight of the body transmitted through the pelvis to the femoral heads. But in the great

majority of cases of genu valgum treated by splints in our hospital out-patient rooms, sufficient pressure to mould the bones is not applied; and even in those cases in which it is applied, the bandage and strapping very soon loosen, or the limb rotates just a little, and it is no longer exercised. Even with outside irons and leather bands I doubt very much if sufficient pressure is kept up to mould the bones. Only with the most careful padding with wool or some soft material over the inner aspect of the bone where traction outwards is applied, and over the outer malleolus where the splint will press, would the delicate skin of children stand pressure sufficient for this purpose.

Even with a back splint joined to the outside splint, it is very difficult to prevent some rotation outwards of a genu valgum limb to which considerable pressure is applied to draw the knee outwards, and the least rotation outwards at once lessens the pressure. In order to really mould the bones by means of splints and leg irons much pressure must be used after most careful padding, and the patient must be frequently seen to make sure the limb has not twisted at all, and that the pressure is doing no harm. I do not believe that such pressure can be applied in ordinary out-patient practice, and that it can be maintained while the children are walking about is to my mind incredible. To attach a genu valgum limb to a splint so that it is firmly fixed against it is not sufficient to mould it straight, and the probability is that not many hours after the child has been taken home, especially if it is allowed to run about, the bandage or straps no longer even hold the limb firmly againgst the splint. It must require continuously acting traction outwards against the splint to mould the bones. As I have just said, I do not believe a splint can mould the bone straight whilst children are standing or walking about. A force acting in the form of traction outwards at the knee-joint, which if the ends of the bones were free from pressure might straighten out the curve of the leg bones, would be at once counterbalanced by the pressure on the two ends of the bones from the transmitted weight of the body, for this would be a far greater force than the traction outwards against the splint. Indeed, it seems possible that when the patient is walking about, and the traction outwards cannot straighten out the curve, and this traction is only applied at the knee, it may produce a new curve as represented in Diagram 5, B. But I very much doubt if traction sufficient to mould the bones can be applied whilst the child is walking about. If it can be maintained under such conditions it can certainly act whilst the child is at rest, and so the gradual straightening out of the curve causing the genu valgum and the formation of this new curve would go on alternately, the result would be what I have represented in Diagram 5, C—a partial correction of one curve and the formation of another. The obliquity outwards of the ankle-joint would not be wholly corrected.

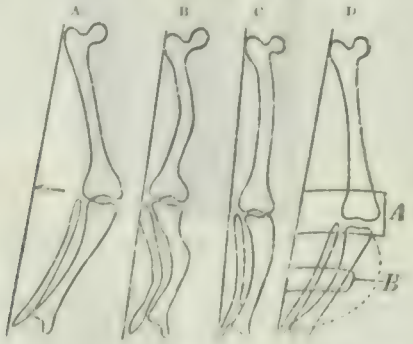


Diagram 5.—A, arrow shows direction of traction outwards towards splint; B, effect if child constantly walking or standing; C, effect with alternating periods on and off feet; D, to illustrate support of the limbs by splint; A, support at knee; B, support for leg.

I think that the application of an outside splint of iron may prevent the increase of genu valgum, even if the child runs about, and that the deformity may undergo spontaneous rectification whilst such apparatus are in use just as it may if no splints are employed. But if such support is given only to the knee, by a bandage or strap passing round the splint and the joint, the leg bones may continue to bend below as shown by the dotted line in Diagram 5, D, and therefore I think the shaft of the tibia, and even the lower end of the femur, should be supported also.

THE QUESTION OF OPERATION.

This has been much debated, and there is a great difference of opinion with regard to the time when this should be done, and as to what cases require it. Some surgeons never operate below a certain age; but do not agree as to what that age should be. Others only operate when a certain degree of genu valgum is present; but here, again, there is no agreement; and one surgeon operates for a few inches less than another. Again, some surgeons have such a strong faith in the value of splint treatment, you would think from what they say there are no cases splints cannot cure, and that all their patients, even with marked deformity, are content to go on year after year, with very gradual improvement. My own feeling s that in severe cases of genu valgum, even in young childre n, if there is reason to think that the stage of softening and yielding of the bones is over, osteotomy may be done, but no doubt the older the child the less the tendency to relapse. Often the parents of children with marked genu valgum are not content to employ splints month after month with a very slow improvement, or perhaps none at all, nor are they willing to keep their children off their feet for months; or, indeed, amongst the poor people, able to do so. They will have their children's legs straightened, even though we point out to them the risk of relapse without the greatest care for years after the operation. In older children, and in young adults in whom the deformity has quite ceased to increase for some time, and in whom the deformity is marked, I should not hesitate to do osteotomy.

NOTES AND REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1897, vol. i, p. 1347. [2] This skiagraph is reproduced in my paper in the BRITISH MEDICAL JOURNAL, 1898, vol. i, p. 1004, Skiagraph No. 1. [3] BRITISH MEDICAL JOURNAL, 1897, vol. i, p. 1514, and vol. ii, p. 53. [4] Loc. cit. [5] *Osteotomy*, Macewen, 1880. [6] *Trans. Royal Academy of Medicine in Ireland*, vol. xiv, 1896, p. 409. [7] BRITISH MEDICAL JOURNAL, 1897, vol. i, p. 1514. [8] Ibid., 1898, vol. i, p. 1003. [9] An illustration of this is given in Skiagraph No. 1 in my paper in the BRITISH MEDICAL JOURNAL, 1898, vol. i, p. 1003. [10] BRITISH MEDICAL JOURNAL, 1897, vol. ii, p. 1638. [11] Ibid., 1888, vol. ii, p. 1148. [12] Bruns, *Beitr. klin. Chir.*, xvi, i, and EPITOME, BRITISH MEDICAL JOURNAL, 1895, vol. ii, par. 383.

SPINA BIFIDA:

ITS OPERATIVE TREATMENT AMONGST OUT-PATIENTS.

BY JAMES H. NICOLL, M.B.,

Extra Surgeon, Children's Hospital; Assistant-Surgeon, Western Infirmary; Consulting Surgeon, Ear Hospital; etc., Glasgow.

ON January 17th, 1902, the two following cases were shown at a meeting of the Glasgow Medico-Chirurgical Society.

CASE I.—G. M., a patient of Dr. Fotheringham, of Motherwell, was brought to the Glasgow Children's Hospital, at the age of 2 months, on August 2nd, 1901. (Fig. 1 is the reproduction of a photograph taken on that date.) The spina bifida appeared to be a pure meningocele, and the child was otherwise healthy.

Operation.—On August 6th, four days later, the tumour was excised in the out-patient clinic, and the child sent home in the care of its mother. The tumour proved to be a pure meningocele.

Progress.—Convalescence was uneventful. The child was nursed throughout by its mother, aided by an aunt, and instructed by the Surgical Sister, who visited the patient daily, dressed the wound on the one occasion on which it was thought advisable, and removed the skin sutures on the eighth day.

The child, now nearly 8 months old, is in perfect health, and was shown to the Society. (Fig. 2 is a reproduction of a photograph taken a month previously, that is, some four and a half months after operation.)

CASE II.—R. B., a patient of Dr. Wm. Ross, Glasgow, was brought to the Children's Hospital, at the age of 3 weeks, on November 17th, 1901. (Fig. 3 is the reproduction of a photograph taken on that date.) The case differed in certain features from the foregoing, and, in demonstrating it to the students, attention was drawn to two points: (*a*) dimpling of the skin and walls of the sac (partly shown in the reproduction), associated with the presence of portions of solid contents amongst the fluid (detected by palpation, and by transmitted light), (*b*) a considerable degree of paraplegia (evidenced by blueness of feet and legs, absence of voluntary movements of lower limbs, and the repeated development of spasticity on the attempt to excite reflex movement).

Operation.—On November 23rd, a week later, the tumour was excised in the out-patient clinic, and the child thereafter sent home in the care of its mother. On opening the sac during the operation there were found four nerve cords coursing over its wall, three on one side and one on the other. Attached to these cords were a number of whitish tumours ranging in size from that of a pinhead to that of a large pea. The nerve

ords were dissected from the sac wall, when it was found impossible for ck of space to replace the attached tumours in the spinal canal. The rgest of the tumours was therefore detached from the cords and re-ved, while the cords were placed in the spinal canal. The muscelo-cial flaps were made specially large, and carefully sutured over the ck of the excised sac, closing it in and forming a posterior wall for the tent spinal canal.



Fig. 1.—G. M., aged 2 months.

Progress.—Convalescence, except for temporary carboluria, was uneventful. The child was nursed throughout by its mother and grandmother, instructed by the Surgical Sister, who visited the patient daily, changed the dressings when necessary, and removed the skin sutures on the sixteenth day. The child is now, some two months after operation, in good health, and was shown to the Society. (Fig. 4 is the reproduction of a photograph taken six weeks after operation.) The flaps have formed a firm closure of the gap in the posterior wall of the spinal canal. A marked improvement has taken place in the condition of the lower limbs. Lividity has disappeared. Spasticity has all but entirely subsided, and voluntary movements have largely established themselves, and are becoming daily more perfect.



Fig. 2.—G. M., aged 6½ months. Photograph taken four and a-half months after excision of the spina bifida.



Fig. 3.—B. B., aged 3 weeks.

Fig. 5 is the reproduction of a photograph of the excised sac. It is shrivelled, and its margins incurled, by the action of preservatives. On the portion of its interior exposed, however, are visible several ragged surfaces left after separation of the nerve cords and tumours. Beside the sac are shown three of the largest of these tumours, which histological examination has proved to be of the nature suggested by the naked-eye characters. Dr. Leslie Buchanan, of the West of Scotland Clinical Research Laboratory, has made and stained sections of one of the tumours, and reports it to be a "false (plexiform) neuroma."



Fig. 4.—B. B., aged 10 weeks, or six weeks after excision of the spina bifida.

Into the general question of the operative treatment of spina bifida it is not necessary here to enter. In two former papers, one based on an experience of forty-six cases treated, I have dealt fully with certain aspects of it. With reference to

treatment, cases of spina bifida may be broadly classified as follows:



Fig. 5.—Excised spina bifida sac, which contained nerve trunks and plexiform neuromata; three of the latter are shown beside the sac. (Case of B. B.)

1. Cases with badly ulcerating or leaking sacs. These, as a rule, die from septic meningitis, whether subjected to treatment or not. I have, however, seen at least two such cases undergo complete cure by shrinkage and cicatrization of the sac, and have had several cases of recovery after prompt excision of a sac ruptured in parturition.



Fig. 6.—Case unsuited for excision, sac extensive and sessile, with adherent spinal cord. Lower limbs rigid, and double club-foot present. Patient treated by injection by the method described.

2. Cases such as Fig. 6, in which the sac is so extensive and so sessile as to render it impossible to obtain flaps sufficiently free to effectually close the large gap. Such cases may be treated by the following methods: (*a*) Injection of Morton's fluid or other irritant, the syringe cannula being inserted through sound skin at least one inch clear of the margin of the tumour, and pushed through the muscles and fascia into the sac, thus avoiding subsequent leakage and permitting of the case being treated as an out-patient; (*b*) introduction of a strip of iodoform or other packing by the same route, the end of the strip being fixed by suture in the muscles and the skin closed by suture over it, and reopened after a week for its withdrawal; (*c*) introduction of a needle for the purpose of tearing and roughening the sac. This method has a limited application in practice.

3. Cases in which the sac contains nerves or spinal cord, but is sufficiently pedunculated to permit of excision. Flaps of skin and flaps of mesoblastic tissues (muscle and fascia—the inclusion of bone is quite unnecessary) are fashioned and raised, and the sac is opened. Should the spinal cord be present all free sac is cut away, and the remainder sutured over the exposed cord and covered in by the flaps of fascia and skin. Where the filum terminale of the cord is present it may sometimes be freed and removed with the sac.[2]

In cases where the sac contains nerves, the methods I have followed have been mainly two: (1) In certain cases it is possible to dissect the nerve cords off the sac, place them in the spinal canal, suture the sac over them, closing in the canal, and covering all with the fascial and skin flaps. (2) Where the nerve strands are numerous this is impossible, and the following plan has proved useful: Raise skin flaps and fascial flaps as usual, open the sac, and explore the interior; excise any portion free from nerve tissue, cut the remainder into ribbons by incisions made from the interior, avoiding the nerve tissue; gently but thoroughly roughen the entire interior including the surface of the nerve bands—with the point of the knife. This has proved efficient in cases where no part of the sac could be either excised or cut into ribbons.[3] Place the emptied and roughened or cut-up sac in the patent spinal canal, and cover in with the fascial and skin flaps.

The following modification of this method has also proved useful: Pack the "slashed" and roughened sac with iodoform or other sterile gauze, and partially suture. At the end of two or three days remove the packing, and complete the operation in the usual way.

The local result of such operation is, necessarily, less satisfactory than that obtained in cases where the conditions permit of a complete excision of the sac. The mortality also is somewhat higher. In two cases paralysis—of a lower limb in one, and of bladder and rectum in the other—has resulted in my hands. On the other hand, the operation has in several cases resulted in the relief of pre-existing paralysis. One is quoted above (Dr. Ross's case), and I have recorded others.

4. Cases of pure meningocele. The sac is simply opened, explored, and cut away. Its neck is closed by ligature or suture, the method depending on the size of the aperture, and covered in by the fascial and skin flaps. Excision in such cases constitutes an easily accomplished radical cure.

In the treatment of hydrocephalus I have employed several methods described in the papers quoted. Of their comparative value I have not yet been able to form an opinion sufficiently decided for publication. They are briefly the following:

a. Drainage of cerebro-spinal fluid at the time of operating for spina bifida. Into the vexed question of the route or routes by which hydrocephalic fluid reaches the sac of a spina bifida it is not necessary to enter here. It is sufficient to restate the fact that in certain cases of spina bifida with hydrocephalus it is possible, by raising the child's head and shoulders after the spina bifida sac has been opened, to drain away as much fluid as may be deemed safe, the amount being judged by the tension of the fontanelle.

b. Continuous drainage by a tube inserted into the spinal canal through the neck of an excised spina bifida sac at the time of operation. In several cases I have kept such a tube draining fluid into the dressings for a week.

c. The establishing of a drainage channel from the spinal canal (at the site of, and during the operation for, spina bifida) into either the peritoneal cavity or the cellular subcutaneous tissue, or both. This may be done by a drain which is absorbable after a time, or by a drain which is removed by secondary operation after a period of weeks or months.

d. Drainage of the cerebral ventricles, either externally or into the meninges.

e. Application of various solutions (chiefly iodine) to the interior of the cerebral ventricles. What experience I have had of this method has impressed me favourably. It is not, however, devoid of risk. The amount and the strength of an injection will depend on the degree of dilution likely to occur internally, that is, on what the operator knows, from previous drainage or otherwise, of the amount of fluid present. In any case, for a first injection something less potent than Morton's fluid should be employed.

To those familiar with the literature of the subject it will be evident that certain of these methods of attempted treatment of hydrocephalus have been already brought forward by others. With reference to method (*c*), since I published it, in July, 1898, I observe that it has been independently published by another surgeon, and may have been so previously. My experience of its effects has not been sufficiently extensive to warrant my putting it forward in other than a tentative way.

Exception has been taken by more than one critic to my formerly-published opinion that "open operation" (that is, excision of spina bifida) "in suitable cases has a mortality little, if at all, higher than has the operation for the radical cure of inguinal hernia." That opinion I believe to be well founded.

The two cases detailed above were treated throughout as out-patients at the Glasgow Children's Hospital: and, without at present submitting a statement of all cases of spina bifida treated by excision, or of all cases of spina bifida and hydrencephalocele treated as out-patients after excision or injection, it may be well to submit here a statement of the cases of spina bifida which I have treated as out-patients after excision at the Glasgow Children's Hospital. These, I find, have numbered nine in all. One of the nine, however, was treated at the time in which I had made it a rule to attempt operative cure in all cases of spina bifida without exception. It was brought, aged 1 week, in January, 1898. Obviously very ill, with temperature 100.4°, the infant had a collapsed and sloughing spina bifida in the dorsal region which was said to have ruptured during birth. This I at once resected under chloroform. The child died on the sixth day after operation, having developed an eruption which was pronounced by a medical man to be chicken-pox, but which, to my mind, was probably due to pyaemia or septicaemia. It is evident that this case with its sloughing sac and developing meningitis should not be placed with the others. Of the 8 cases which were non-septic at the time of operation, 6 are at present alive and well: 1 (J. B.) died as the result of operative preparations; and 1 (H. H.) died of whooping-cough three years after operation. The subjoined is the complete list:

Cases of Excision of Spina Bifida: Treated after Operation as Out-patients at the Children's Hospital, Glasgow.

Name.	Date of Operation.	Age at Operation.	Result.	Present Condition.
c. H. H.	July 3rd,[5] 1896	3 months	Primary healing	Died of whooping cough in 1899.
2. A. McI.	Jany. 6th, 1899	2 weeks	.. ..	Healthy.
3. J. B.	Feby. 3rd, 1899	3 weeks	Died from carbolic acid poisoning on eighth day, at which time wound had healed and sutures been removed	
4. D. H.	June 19th, 1900	7 weeks	Primary healing	Healthy.
5. M. McG.	Aug. 7th, 1900	5 months	.. ..	
6. F. S.	" "	2 months	.. ..	
7. G. M.	Aug. 6th, 1901	2 months	.. ..	
8. B. B.	Nov. 23rd, 1901	3 weeks	.. ..	

NOTE.—Since the foregoing cases were tabulated two further cases (both meningoceles) have been treated as out-patients after excision at the Children's Hospital, Glasgow. Both healed by first intention.

Six of the cases were pure meningoceles. Of these, Case II was one of the largest spina bifida sacs I have seen. The parents were afraid to lift the child for fear of the sac "tearing away," and it was so extensive and thin that I felt constrained to remove it then and there, and did so.

Case VIII contained nerve cords and neuromata, and is detailed above. Case IV, which was a cervical sac, presented the peculiarity that the neck of the sac felt solid, and gentle pinching of the solid part produced smart jerking upward of the lower limbs, after the manner of the wooden figure toy on pulling the string. At the operation the solid portion was found to be a geniculate bend of the spinal cord into the neck of the sac, to cover which specially large flaps had to be dissected up. For a time after operation the jerking of the legs could be excited at the observer's will, but of late the coverings have become more tough. The child has been late in walking, but is now, at the age of nearly two years, commencing to walk, apparently normally (so far as can yet be judged), and is otherwise well.

Case III died of acute gastro-enteritis, produced, apparently, by absorption of carbolic acid. Carbolic acid poisoning has occurred in several of the cases of spina bifida I have seen, though in this one alone with fatal effect. The case is mentioned in the paper of 1899,[4] and the following is the note there:

"On the morning of the operation the child was found to be suffering from carbolic acid poisoning. Its urine was blackish-green when passed, and the child was markedly collapsed, and vomited frequently. In three cases I have seen such symptoms follow the application of carbolic dressings to spina bifida sacs prior to operation: and it seems not improbable that the very thin parietes, bathed on one side by serous fluid, offer conditions under which absorption from the outside may occur with great facility. On the two former occasions on which symptoms of carbolic poisoning were present I deferred operation. On this occasion the child appeared so ill that I thought it better to proceed with the operation in the hope that the evacuation of the contents of the sac might lead to relief of the symptoms. Unfortunately this did not occur. The symptoms persisted, and were aggravated by increase of the vomiting and diarrhoea, with evidence of acute gastro-intestinal irritation, accompanied by subnormal temperatures. The wound, in spite of the child's increasing weakness, healed before death occurred from exhaustion on the eighth day."

Since the date of the foregoing I have seen toxic effects of carbolic acid in several further cases. Indeed, Case VIII was an instance in point. The urine here was blackish-green for three days after operation. In this case no dressing was applied beforehand; the parts were washed, cleansed with turpentine and spirit, and merely sponged with 1 in 40 carbolic lotion just prior to operation. The instruments used were placed in 1 in 60 carbolic lotion, and the dressing was cyanide gauze sparingly moistened with 1 in 40 carbolic lotion. The entire quantity of carbolic acid to be absorbed had been purposely reduced to a minimum, but proved sufficient to affect the urine.

In reviewing a somewhat extensive list of cases of spina bifida, hydrocephalus, and hydrencephalocele treated by operation in hospital and private practice, I am conscious of a growing belief that infants of tender age operated on for these and various other surgical affections fare at least as well in the care of their mothers as in the wards of a hospital, however well-conducted and efficient in the treatment of older beings.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, October 15th, 1898, and *Glasgow Hospital Reports*, vol. ii. 1899. [2] *Glasgow Hospital Reports*, vol. ii. [3] BRITISH MEDICAL JOURNAL, October 15th, 1898 (7 cases since). [4] *Glasgow Hospital Reports*, vol. ii.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ON THE EMPLOYMENT OF ADRENALIN AS AN ADJUNCT TO THE LIGHT TREATMENT OF LUPUS.

WHEN Dr. Takamine delivered his address on adrenalin in Edinburgh, and demonstrated its singular power of blanching a mucous surface, it occurred to me that this property might be utilized in the light treatment of lupus, seeing that the

efficacy of this largely depends on the completeness with which we can render anaemic for the time the part exposed. Finsen has shown that blood circulating over or in the lupus area almost perfectly counteracts the penetration of the ultra-violet rays, and neutralizes their destructive effect on the tubercle bacilli. Pressure, therefore, had to be resorted to so as to drive away the blood—in his lamp exercised by the nurse, who continuously squeezes the part under treatment with a plano-convex lens fixed in a suitable handle; or in the Marshall and Woods by the patient firmly applying the surface to be acted on to the lens itself, which forms an integral portion of the lamp. This no doubt carries out the idea, but as this pressure must from the nature of things be variable, and to some extent intermittent, there is experienced a loss in the continuity of the energy. It stands to reason, therefore, if we can by chemical means obtain the same effect while still exercising pressure, we shall intensify the action of the beams converging on the part. Adrenalin, however, does not whiten the skin to anything like the same degree as it does a mucous surface, still it does occasion a considerable paling of the integument. Since the introduction of a Marshall and Woods lamp to my department in the Royal Infirmary here, I have employed it in several of the cases at present under treatment, and with very satisfactory results. The cases best suited for it seem to be those in which the patch is fairly small and is not ulcerated.

When adrenalin in the 1 in 1000 solution is closely applied by means of a piece of absorbent cotton-wool moistened with it for ten to fifteen minutes to such a patch, the effect produced is a distinct paling of the skin round the lupus spot, but strange to say no great diminution of redness in the lupus area itself, which is still quite conspicuous in the centre of the whitened area.

This corresponds to our experience with the diascope as a means of diagnosis in lupus. The glass when pressed against the lupus patch fails to blanch completely the spot to which it is in apposition, even if very considerable force be used. The lupoma persists in the white environment as a dusky, ill-defined speck, varying in size in individual instances. In the same way pressure in course of treatment does not wholly etiolize the area pressed on, as can be verified by looking at the spot through the crystal lens, yet the effect produced by light on the lupus patch after the employment of adrenalin is certainly greater than in cases where it has not been had recourse to. The reaction is more quickly obtained, the tendency to blister is enhanced, there is more rapid flattening down, and the obliteration of the lupoma is accelerated. Thinking that a still better result might be attained were the affected area brought more nearly into the condition of a mucous surface by thinning down the epidermis or by causing it to exfoliate, the application for several days of pieces of Beiersdorf's salicylic and creosote plaster muslin, a method useful in itself in the treatment of lupus, was tried. Though in this way the part became red all over, swollen, and tender, it could not be perceived that the adrenalin bleached more than if this preliminary measure had not been pursued, and as the process was itself painful, it was abandoned after a fair trial. I am inclined to think that part at least of the good effect of the light treatment is ascribable not merely to its action on the lupus area itself, but also to an influence which it exerts on the surrounding and apparently uninvolved skin.

W. Allan Jamieson, M.D., F.R.C.P.E.,
Physician for Diseases of the Skin, Royal Infirmary, Edinburgh.

MENSTRUATION IN A NEWLY-BORN FEMALE CHILD WITH CONVULSIONS.

The following case which lately came under my observation is unique in my experience, and is, I think, worthy of being placed on record:

On March 24th Mrs. C. was delivered of a healthy-looking female child at full term, and, although nearing 40 years of age, she had a rapid and easy labour. Labour began in the early morning with rupture of the membranes, and during the day progressed slowly. I saw her at about 6 p.m., and did not anticipate that it would end for another five or six hours. However, I was called hurriedly in less than two hours, and before I could reach the house the child was born, and a trained nurse who was in attendance had managed everything well.

On the following morning I saw mother and child at about 10 a.m., and found both in a very satisfactory condition, so that I was somewhat surprised when in about an hour afterwards I received an urgent message to visit again. On arriving I found the child in a peculiar condition. The whole body was more or less livid, but this was more marked at the extremities and about the nose and mouth. Along with this there were general convulsive twitchings of the muscles all over the body, but specially marked in hands and feet and over the face, including the eyeballs. Relaxation occurred at times, and the child's colour improved.

I examined the child carefully, including heart and lungs, and could find nothing abnormal. The temperature in the rectum was normal, but the surface of the body, and especially of the face, hands, and feet, was cold. The child had not been at the breast, and had only had a little sweetened toast water. The bowels had been opened, and urine had been passed. There was no vomiting nor diarrhoea. I prescribed small doses of chloral and bromide. In the evening the child seemed somewhat better, and the convulsive movements were much slighter.

Next morning the improvement was maintained, but it was not free from the convulsive twitchings. A careful examination was again made of the heart and lungs, but again with a negative result. The temperature remained normal in the rectum.

On visiting in the afternoon the nurse called my attention to a discharge of blood on its napkins, and on examination it was seen to be vaginal in origin. As discharge resembling menstruation has occasionally been observed in female children soon after birth, I concluded that this was a case of the kind; and it occurred to me at once that the nervous disturbance from this cause might account for the other peculiar symptoms, and that if so, they would in all probability soon cease. I am glad to say that the further progress of the case confirmed this view. The discharge lasted for three days, and during this times the nervous symptoms gradually subsided and ceased altogether with its cessation. Since then the child has remained perfectly well, and the menstrual discharge has not recurred up till now (May 3rd).

Wm. Frew, M.D.,
Physician, Kilmarnock Infirmary.

A GALL STONE SIMULATING CANCER.

Mr. G., aged 67, of medium stature, anaemic, toothless, jaundiced, badly nourished, and of weak constitution, had on several occasions attacks of haemoptysis and haematemesis. During the last eighteen months he suffered from loss of appetite, vomiting, and severe pain. The attacks were repeated two or three times weekly and extended, sometimes over twenty-four, occasionally even over thirty-six hours. At such times the symptoms simulated intestinal obstruction. On several occasions he brought up large quantities of blood, and his age, cachectic state, and inability to assimilate food indicated the possibility of the disease being cancer. He was treated for the latter by several practitioners without experiencing the least relief or improvement; one eminent physician even suggested an operation for cancer ventriculi.

The first time I saw him I ordered nourishing enemata and slight massage in the gastric region. This treatment seemed to improve his strength and general health, and he felt some relief, the attacks of pain being not quite so severe; but though slighter in intensity they recurred with almost the same frequency as before. After a time his weakness began to increase, and he became gradually reduced practically to a skeleton. There were still repeated attacks of coffee-ground vomiting; no tumour could, however, be detected.

One morning about 4 o'clock I was called in great haste. At the door I was met by his daughter, who informed me that it was too late, as her father was already dead. As I make it my rule to inspect the dead before issuing a certificate, I went into the sick room. I found him lying in a bed surrounded by burning candles and men chanting psalms. To my great surprise and satisfaction I found his pulse still beating, and by means of artificial respiration succeeded in reviving him. On regaining consciousness, he complained of very severe pain in the anal region. On examination, there seemed to be a foreign body obstructing the entrance; it was with great difficulty that by means of the finger I succeeded

in removing the foreign body, which proved to be a gall stone about the size of a large walnut, with corrugated surface, but displaying a polished concavity about half an inch deep and marked with concentric rings on one side. The weight of the stone, which is in my possession, is 259 gr.

Since passing this stone the man has improved rapidly, and has experienced no more attacks of pain or any inconvenience whatsoever.

BERNHARD MORRIS, M.D.(Dorp.), L.R.C.P.&S.E., F.F.P.S.&G.
Commercial Road, E.

MUMPS IN MOTHER AND INFANT.

THE incubation period in contagious parotitis is generally considered to be of long duration. A Committee of the Clinical Society of London reported that it might vary from fourteen to twenty-five days; J. Lewis Smith gives nine to twenty-one days; and Biedert and Demme believed it might be as short as eight days.

The following case is therefore of interest, in that it either still further reduces the incubation period, or involves, as an alternative, the interesting possibility of an antenatal infection:

Mrs. W., aged 24, who had never previously had mumps, was confined with her first child on March 17th last. The child was a well-developed boy, and both progressed uneventfully until the morning of the 23rd, when a well-marked swelling of the child's right submaxillary gland was noticed. This was pointed out to me, but I did not appreciate its significance till the next day, when the mother complained of a painful swelling in her left submaxillary gland, and her temperature rose to 103° F. The right parotid of the child became involved on the second day, and he took the breast with difficulty.

A diagnosis of mumps was made, as there were several cases in the same street. The mother had a great deal of pain and swelling, followed by considerable debility. The child gradually recovered, the glands becoming normal in about three weeks; no swelling of the testicles was observed.

The day before attending the confinement I had seen a case of mumps, and might possibly have conveyed the infection, The mother, however, lived in a densely-populated street, in which mumps was prevalent, and might equally well have become infected before the confinement. Granting the infection of the child occurred at birth the incubation period would be seven days, which is less than in any recorded case, and at least suggests the possibility of an antenatal infection.

Edgbaston. HENTON WHITE, M.D., F.R.C.S.Edin.

THE INCUBATION STAGE OF VARICELLA.

J. T., admitted to hospital on April 29th suffering from diphtheria, developed varicella on May 25th. On careful inquiry we can exclude all sources of infection save the fact that his sister at home was suffering from varicella. He had no visitors during the interval. This would make the incubation stage nearly correspond to Trousseau's limit of twenty-seven days.

JOHN MARSHALL DAY, M.D.,
Resident Medical Officer, Cork Street Hospital, Dublin.

THE OPERATIVE TREATMENT OF BUNIONS.

THREE very troublesome cases of bunions to treat, all in young women, had been under treatment for some time, and I was quite tired of strapping, paints, socks, toe posts, and special boots. They were severe cases, and so persuaded operation. I was extremely surprised at the easy way the metacarpal bones could be exposed and their heads removed; in each case the phalanx above appeared dislocated. My first case was put up in a carefully-adjusted L splint, and was able to walk about the house in fourteen days. The remaining two were treated simply with wool dressing, and with like result. Slight passive motion was commenced on the seventh day, but not pressed, as I expected that walking about as soon as possible would be sufficient to do that.

Both feet were in each case done. The wounds healed by primary union, and all three women are extremely pleased with the result.

Tunbridge Wells. J. THEODORE ABBOTT, F.R.C.S.I., etc.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CO. ANTRIM INFIRMARY, LISBURN.

TWO CASES OF SPINA BIFIDA TREATED SUCCESSFULLY, ONE BY INJECTION OF MORTON'S FLUID AND THE OTHER BY EXCISION.

(Under the care of GEORGE LOMBE ST. GEORGE, M.R.C.P.I., L.R.C.S., Surgeon to the Infirmary.)

CASE I.—R. T., aged 7 days, was admitted to the hospital on October 5th, 1901. She had a spina bifida of the fourth and fifth lumbar vertebrae. The tumour was about the size of a small orange, and covered for about two-thirds by normal skin, but ending for the upper third in a membrane with a distinct margin; this membrane was beginning to show signs of ulceration. The tumour was markedly distended when the child cried or struggled, but there was no paralysis of the lower limbs or distension of the fontanelles.

On October 7th, the tumour having been thoroughly cleansed and made aseptic with sublimate lotion (1 in 2,000), the child having been anaesthetized with chloroform, the base of the tumour was punctured with a fine trocar, and after allowing about two-thirds of the contents to escape a drachm of Morton's fluid was injected slowly through the cannula. On withdrawing the cannula the opening was firmly grasped, and painted over with a solution of iodoform in flexile collodion, in order to close the orifice. The whole tumour sac having been painted with the collodion and iodoform, it was covered with iodoform gauze and absorbent wool. The child seemed to suffer greatly from shock after the operation. The temperature rose to 103°, and remained high for some days. The tumour began to fill again, though the walls seemed much more consolidated after a few days.

On October 21st the tumour was again tapped, and some fluid having been drawn off the sac was injected as before, and painted with the iodoform collodion. The temperature did not rise on this occasion to any appreciable extent, nor did the child seem to suffer so much from shock, but there was great wasting of the limbs and constipation. She was therefore put on cod-liver oil and malt (Kepler) and Mellin's food. Under this form of food she rapidly improved in weight and appearance. The walls of the sac were now becoming shrivelled and more and more consolidated except in the centre, where a small piece of membrane still remained.

On December 21st this piece was carefully dissected round, in the expectation of finding it communicating with the sac itself, but it did not do so. The flaps of skin were therefore closed over the opening, so as to provide a fine covering. The child did well, and made rapid recovery, being shown at the meeting of the North of Ireland Branch of the British Medical Association, in Belfast, on January 23rd, 1902, and was discharged from hospital on February 7th, only a fine cicatrix remaining.

CASE II.—S. L., aged 3 weeks, was admitted to the hospital on October 26th, 1901, suffering from a spina bifida of the seventh cervical vertebra. In this case the tumour was covered by skin completely. As the child was suffering from boils, the operation was deferred for some weeks, to allow of there being no chance of septic infection, as there was no urgency from the state of the tumour.

On November 16th, the child being in good health, the tumour and surrounding skin were thoroughly cleansed and made aseptic, and the child anaesthetized. Two horizontal flaps of skin were carefully raised from the tumour down to the base, the tumour was punctured, and fluid allowed to escape. The base of the tumour was grasped with forceps and ligatured with catgut, and the tumour cut off; the skin flaps were then laid down and closed by a continuous suture of silkworm gut, and all was dressed with iodoform collodion and gauze. The child showed no signs of shock after the operation. The temperature rose on November 19th to 100°, but never again above normal. The wound healed rapidly, and

the child was discharged on December 16th, 1901, and was shown with the previous case at the meeting of the North of Ireland Branch of the British Medical Association, Belfast, on January 23rd, 1902.





The accompanying photographs show the case before and after operation.

REMARKS.—The treatment of cases by Morton's fluid (though in the first case successful) is fraught with great danger, and should be avoided if it is possible to operate by excision. The injection of an irritating fluid into a sac communicating with the spinal canal must lead to serious consequences, as evinced by shock, etc.; whereas excision, with proper aseptic precautions, the position of nerves and their avoidance can be carefully ascertained beforehand. In these two cases the different mode of treatment can be conveniently contrasted and the results compared.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

W. WATSON CHEYNE, C.B., F.R.S., President, in the Chair.

Tuesday, June 17th, 1902.

THE BONE MARROW IN A CASE OF SUPPURATION AND HAEMORRHAGE FROM THE KNEE-JOINT.

DR. A. G. PHEAR read a paper on the histology of the marrow of the femur in a case of suppuration of the knee-joint, followed by profuse secondary haemorrhage. The changes in the medullary tissue were of a double order. There was (1) proliferation of myelocytes and allied cells, similar to that which had been recorded in other cases of infective processes, and constituting the so-called "myelocytic reaction" to infection; (2) proliferation of cells of the erythroblastic type, of special interest when viewed in connexion with the severe haemorrhage that took place some days before death; the characters of the erythroblasts were such as to denote an early stage in their growth. Giant cells were present in considerable number. The proliferation of the cellular constituents of the marrow had advanced to such a degree as to alter its general character; in the place of a tissue consisting almost wholly of fat, there was found an opaque, firm, reddish tissue, containing an insignificant amount of fat, and composed chiefly of the various cells described. Reference was made to recent investigations into the marrow changes attendant on experimentally-induced infection with pyogenic organisms, and stress was laid on the close similarity between the results of experiment and the marrow lesions, which in the present case were found to be clinically associated with suppuration. The importance of such observations, both clinical and experimental, lay in their bearing on the view that the bone marrow was the source of the polymorphonuclear blood corpuscles, and therefore the chief tissue concerned in the leucocytosis that accompanied infective diseases. In answer to the difficulty (of holding the active formation of leucocytes from the myelocytes) arising out of the absence of karyokinetic figures, the author stated that, though not seen by himself, other observers had recorded karyokinesis in similar circumstances; moreover, the material was hardened at so comparatively long a time after death as twenty-four hours.

LIPOMA OF THE MEDIAN NERVE.

Mr. H. J. WARING exhibited this specimen. The patient from whom the specimen was obtained was a man aged 38, who gave the following history of the onset of his disease: He was quite well until June, 1895, when his right forearm and hand were crushed by a heavy bar of wood. No bones were broken, but as a result of the injury the patient was unable to follow his usual occupation for a period of fifteen months. In June, 1896 (one year after the occurrence of the injury), the patient suffered from severe pains in the right hand and stiffness in the right thumb and forefinger. From this date until October, 1900, the changes which were now apparent in the conformation of the limb gradually developed. On one occasion an exploratory incision was made into the soft tissues of the swollen thumb, but according to the statement of the patient no fluid was evacuated. From October, 1900, until April, 1901, when the patient first came under observation, enlargement of the right thumb and forefinger took place rapidly; a swelling appeared in the soft tissues immediately above and on the inner side of the right elbow, whilst attacks of increasingly severe pain occurred along the course of the arm and on the anterior margin of the trapezius muscle on the right side. From the statements made by the patient, these attacks of pain appeared to involve chiefly the median nerve and the region of the brachial plexus. When first seen in April, 1901, the radial side of the right hand and forearm presented the appearances shown in the cast exhibited. The right forefinger and thumb were considerably enlarged and apparently elongated. The extremity of the forefinger was bent upon itself almost at a right angle, so as to lie on the palmar aspect of the distal portions of the middle and ring fingers. Movements in the metacarpo-phalangeal joints were present, but in the interphalangeal

joints they were entirely absent. A soft non-fluctuating swelling occupied the thenar eminence and the radial side of the palm, and extended upwards 2 in. above the level of the wrist. A hard swelling could also be felt in the substance of the biceps muscle a little above the elbow. Attacks of severe pain in the hand and forearm and in the lower part of the right side of the neck kept the patient awake at night. All the electrical reactions were normal, with the exception of the abductor pollicis, in which no reaction could be obtained. The region of the palmar swelling and the palmar aspect of the affected digits were very tender on pressure. Owing to the difficulty in making an exact diagnosis, an exploratory incision was made into the swelling in the biceps muscle. This was found to consist of hard fibrous tissue, probably the remains of a former injury. On account of the attacks of severe pain and the comparative uselessness of the limb, an amputation was performed through the forearm above the level of the swelling. The median nerve was found to be thickened, and had to be drawn downwards in order to make the section through sound tissue. On dissection of the amputated portion of the limb, the enlargement of the palmar aspect of the forefinger and thumb and the radial side of the palm and lower part of the forearm were found to be due to a tumour which occupied the course of the median nerve. The tumour was composed almost entirely of fat, and appeared to consist of two parts—(*a*) a lipoma around but outside the sheath of the trunk of the median nerve and its branches to the thumb and forefinger, and (*b*) a growth of fatty tissue between the individual bundles of nerve fibres within the main nerve sheath. In the thumb the branches of the median nerve were enormously thickened by fatty and fibrous tissue. On the radial side of the index finger and the distal portion of the ulnar side of the same digit a similar thickening was apparent in the nerve branches. A skiagraph revealed considerable enlargement of the phalanges and obliteration of the interphalangeal joints. On histological investigation the median nerve and its branches were found to have a large amount of fatty tissue within the nerve sheath, but the nerve fibres did not appear to have undergone any marked change. No changes were noted in the radial and ulnar arteries. The specimen was an example of a very unusual pathological condition. The injury received in 1895 appeared to have been the starting point in the development of the lipomatous tumour around and in the median nerve and some of its branches. The hypertrophy of the phalanges and the consequent production of the curious deformity of the index finger might be due to altered nervous influences upon the nutrition of the part.

"Chyle" Cyst of Mesentery.

Dr. JOHN FAWCETT recounted the above case. H. T., aged 3 months, was admitted into Guy's Hospital on December 13th, 1901, and died the next day. He had been well till December 11th, when diarrhoea and vomiting commenced and continued. At the necropsy an acute intestinal obstruction was found, due to a cyst which had caused a kinking of the small intestine. The cyst was a unilocular one, the shape of a pear, and measuring 2½ in. by 1¾ in. It was situated at the intestinal border of the mesentery, and a coil of the small intestine was firmly incorporated in its wall. It was distended with a milky fluid. The glands in the mesentery were enlarged. Mr. J. H. Ryffel, who made the analysis of the fluid, reported that it contained coagulable proteids as in lymph, and 7.7 grams per 100 c.cm. of fat. The reaction was alkaline. Sections made from pieces of the cyst wall showed it to be composed of fibrous and muscular tissue. The characters of this cyst, both as regards its position, contents, and structure, were similar in many ways to those described by Eve, Moynihan, and others. The classification previously adopted, based largely upon the contents of the cysts, was not, he thought, satisfactory, the contents being more or less a matter of chance. The most satisfactory plan would be to classify them all as of embryonic origin (as suggested by C. Dowd in the *Annals of Surgery*, vol. xxxii, 1900), arising by sequestration from the intestine or its neighbourhood, some from mesoblastic tissue having fibrous or muscular walls, or both; others from hypoblast as well, and showing epithelial structures. Another case was mentioned of a similar nature, the contents of the cyst proving it to correspond approximately to chyle; the analysis of the contents will be found among the additions to the College of Surgeons' catalogue for the past year, to which museum the specimen was presented by Mr. E. C. Stabb.

Dermoid Cyst of the Inguinal Cord.

Mr. H. S. PATERSON described a specimen of the above kind, which was excised from a man aged 35, the swelling having been supposed to be a hernia. No hernia co-existed. Its contents were of a pultaceous character, but its wall exhibited no epidermal appendages.

The Meningococcus in a Case of Cerebral Tumour simulating Posterior Basal Meningitis.

Dr. C. RIVIERE observed that the case clinically was one in which hydrocephalus was the chief feature, and occurred in an infant who died within 4½ months. At the necropsy a tuberculous mass was found in the brain, and tubercle was disseminated in various organs. The hydrocephalus arose from pressure on the Sylvian aqueduct. The meningococcus was grown from the fluid removed by tapping of the cerebral ventricle to relieve intracranial pressure; it did not precisely correspond with either of the two commonly accepted forms.

Tuberculosis in a Python.

Mr. S. G. SHATTOCK recorded the above specimen. The lesions of unusual character were those of the oesophagus, in the mucosa of which there were a series of oval swellings, each consisting of a compact aggregate of small spherical tubercles. No such lesion was met with in the human subject, in whom tuberculous disease of the oesophagus was known only as a result of direct extension from a neighbouring structure. The peculiar lesions in question were explained by the fact that in ophidia there occurred normally in the mucosa of the oesophagus oval lymphatic nodules or "glands" like those of the intestine; they lay immediately beneath the epithelium, which was of the columnar-celled variety. The author viewed the infection as direct, and due to the consumption of tuberculous food, the main lesion being at the stomach. The food consisted of ducks, and the bacillus was probably avian in source. Acid-fast bacilli were demonstrable in the oesophageal lesions. The author drew attention to the absence of ulceration over the lesions, the infection having occurred between the cells of an intact epithelium. It was not so much that the bacillus had selected the sites as that the sites had selected the bacillus. The process was a transport of bacilli through an intact epithelium by wandering cells like that of inhaled inorganic particles to the bronchial glands. As regarded the temperature, it had long been known that the tubercle bacillus would grow at comparatively low temperatures, and as the python in question had lived in an atmosphere of 70° F., the temperature of the water in its tank being as high even as 80° F., the growth of the bacillus offered no difficulty, although occurring in a "cold-blooded" form.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

DAVID LITTLE, M.D., F.R.C.S.E., President, in the Chair.

Thursday, June 12th, 1902.

Secondary Carcinoma of the Eye.

DR. ROCKLIFFE (Hull) read notes of the termination of his case exhibited to the Society, in July, 1901. The left eye was excised on July 12th, and the specimen and slide kindly mounted and prepared by Mr. Lister, then pathologist of the Royal London Ophthalmic Hospital, showing the cornea healthy with rather shallow A C, and the angle narrowed but not closed, the lens is apparently normal and *in situ*, the vitreous entirely disappeared. Situated at the posterior part, and extending from the optic nerve to the ciliary processes, was a large, flat, unpigmented tumour (which at the optic nerve appeared to be from about 2 to 3 mm. thick, and gradually tapering in thickness as it advanced forward) forming in the choroid, which in the anterior half appeared to split into two portions, the greatest portion being internal to the growth. The retina was completely detached. Microscopically, the growth was seen to be in the choroid, and consisted

of numerous round cells grouped together with connective tissue, which was of a small amount compared with the former. Hardly any pigment cells were discernible except in the anterior half of the choroid, where they lay internal to the new growth, and from which they appeared entirely free. The vessels were few, and entirely confined to the connective tissue network. The optic nerve had also several tumour cells scattered among the fibres. The sclerotic also at the posterior portion was sparsely infiltrated with the same. There were several areas of degeneration in this growth. July 30th, right eye V. $\frac{6}{18}$, detachment increased, shooting pain around eyeball. August 10th, under her local medical attendant, Dr. Morison, with an attack of pleurisy, from which she appeared to recover: later she had stiffness, swelling, and pain in left leg. Under atropine the optic disc was congested, and the whole retina swollen with increased detachment. The patient died on November 30th, the most troublesome symptom having been vomiting and paroxysms of coughing, and her vision had gradually got worse, but she had little or no pain in her head or eye. She had also continual constipation, and was in a comatose condition the last two days of her life. To sum up, it would appear that secondary carcinoma of the eye more usually followed injury to the breast, affecting females rather than males between the ages of 40 and 60, and that the tumour was flat, and consequently the tension not increased, and that the duration of life, although varying after the first symptom of the eye becoming affected, usually did not exceed two years.

Mr. HOLMES SPICER said he had recently seen a patient whose breast was removed two years and a half ago for scirrhus. She had two separate detachments of the retina, but the tension was not raised. The eye was removed, and a flat growth, a metastatic carcinoma, nowhere more than 3 mm. thick, was seen in the choroid, and quite separate from the retina.

Mr. HILL GRIFFITH thought that the flat appearance of these growths was possibly not peculiar to them, for if sarcomata were seen at an early stage, he thought that they also would be flat.

Mr. DEVEREUX MARSHALL thought that the disease was probably not so rare as one would imagine. So often it happened that when a patient was in any advanced stage of cancer the fact that the eye showed signs of failure was not taken much notice of, and doubtless many cases were missed in this way. He quite agreed with Mr. Hill Griffith that in very early cases of sarcoma the growth was flat, and he had seen such, but the whole tendency of these metastatic carcinomata in the eyeball was to extend sideways, and not to grow forwards like a sarcoma, and in this way the two were never really very much alike.

Dr. ROCKLIFFE briefly replied.

LEPROUS ULCER OF CORNEA.

Dr. ROCKLIFFE also read notes of a case of leprous ulcer of cornea in a young man, a native of the West Indies. He exhibited prints of skiagraphs showing the various bone changes taking place in this disease; he also referred to the obstinacy of the corneal ulcer to treatment in spite of frequent galvanocauterization, etc.

DEATH FROM ATROPINE POISONING.

Dr. ROCKLIFFE also read notes of a case of supposed death from atropine poisoning. The patient was a very delicate-looking child, aged 10 months, who had suffered from convulsions most of this time. He first of all put in 3 drops of a 1 per cent. solution of atropine in the eyes, which did not dilate the pupils fully. More atropine was applied, but during the thirty hours which elapsed from the first using of the atropine only 7 drops were used. The temperature rose to 105.6°. The pulse was uncountable, and the respirations 72; the skin was red, and the lips had a quantity of mucus about them. In this state the child died.

BILATERAL CONGENITAL MICROPHTHALMOS.

Dr. BRONNER (Bradford) read notes on two families with bilateral congenital microphthalmos and cataract. In one case the father and four out of eight children were affected; these were numbers 3, 5, 6, and 8. The eyes of the mother were normal. There was no consanguinity or history of syphilis. In the other cases the mother and all the four children were similarly affected. The parentage of the children was somewhat uncertain. The mother of the women was said to have had similar eyes.

Dr. ARGYLL ROBERTSON had once operated on a boy with this condition, the father having similar eyes, and having previously undergone a successful operation for the removal of his cataract. In both fair vision resulted.

Mr. MULES thought that in such cases there was usually congenital syphilis.

Mr. PRIESTLEY SMITH said there was no hard-and-fast line to be drawn between the small eye and the microphthalmic one. If the diminished size was very marked, probably the lens was small and opaque; but if the lens was clear and full sized, then glaucoma was almost certain to result. On the whole, he thought that the former variety were less liable to become blind than the latter.

Mr. FROST thought that those having a congenital coloboma were less liable to glaucoma.

Professor FUCHS had seen but one case. In this a man who had lost an eye from acute blenorrhoea had a child who suffered from microphthalmos on the same size.

Dr. BRONNER replied.

COLLOID DEGENERATION OF THE CONJUNCTIVA.

Major H. HERBERT, I.M.S., described a case of what had been wrongly named "amyloid" or "hyalin" degeneration. Similar changes had been found rarely in the skin of old people, and had been correctly described by dermatologists as "colloid" degeneration. The ocular conjunctivae only were affected, the palpebral portions being occupied by scar tissue from old trachoma; a swollen translucent fold overhung the upper third of each cornea. The change consisted mainly in a swelling and breaking up and rearrangement of white connective tissue fibres (collagen) and also of elastic fibres. In the deeper tissues the new material became moulded into rounded and elliptical blocks, probably by constant stretching and movement of the fold. In the centre of many of these blocks plasma cells were enclosed, more rarely smaller masses of colloid or masses of blood pigment. Other blocks with central cavities represented the remains of blood vessels. On the other hand, other blood vessels had undergone rarefaction of their walls, instead of colloid thickening and occlusion. Many of the blocks had connective tissue cells closely applied to them. Special staining with acid fuchsin and acid orcein showed embedded in many of the blocks the remains of white connective tissue fibres, and in others elastic fibres. But the change was so advanced in the tissue examined that it was only close beneath the epithelium, in a layer of adenoid tissue, that the transition from collagen to colloid could be followed. In this layer a few true hyalin balls were to be found; and both here and in the deeper tissues were many golden pigment granules, the remains of haemorrhages. Here and there some of the deeper colloid had coalesced into large and rather firm opaque waxy masses, 2 or 3 mm. or more in diameter. In the central portions of these masses there were no blood vessels and only the remains of cells, consisting of groups of small particles and larger spheres with some affinity for haematoxylin. There were still a few bands of white connective tissue remaining, but they were degenerating on lines rather apart from the primary colloid change; also some free elastic fibres, mostly clumped near blood vessels. Some of the latter showed basophile degeneration—elacin. The only approach to amyloid reaction found was a faint indigo blue with iodine and sulphuric acid in a few of the blocks; all alike stained pale brown with iodine alone, and none of them gave any trace of pink with methyl and gentian violet.

CARD SPECIMENS.

The following were shown: Major M. T. YARR: Indirect contusion injuries of the left eye, resulting in blindness, following a Mauser bullet wound of both superior maxillary regions.—Mr. J. H. PARSONS: Sections of a case of microphthalmos.—Dr. LESLIE BUCHANAN: Traumatic separation of the ciliary body from the sclera.—Mr. STEPHEN MAYON: (1) Rodent ulcer of the face treated by x rays; (2) case of trachoma treated by x rays.—Mr. ARNOLD LAWSON: Partial embolism of the central artery of the retina in a lad aged 18.—Mr. HOLMES SPICER: (1) Thrombosis of retinal veins, with cystic degeneration of the retina and yellow spot; (2) vessels of new formation on anterior surface of iris.

THE Ninth International Congress against Alcoholism will be held at Bremen in 1903 from April 14th to 19th.

REVIEWS.

MEDICINE IN ART.

DR. PAUL RICHER'S name is familiar to medical readers as that of one of the founders of that treasure house of graphic representations of nervous disorders the *Nouvelle Iconographie de la Salpêtrière*. An artist as well as a physician, he has made a special study of Art in its relation to Medicine, and he has gathered up the fruits of patient and loving labour pursued for many years into a magnificent work recently published in Paris.[1] The story of its origin, as told by the author, is interesting enough to be related here. One day Charcot, who was a man of highly cultivated aesthetic sense and himself no mean artist, being in the church of St. Ambrose at Genoa, had his attention arrested by a painting by Rubens representing an exorcism, which struck him by the absolute truth to Nature of the figure of the woman from whom the devil was being expelled. Every detail might have been taken from the convulsive manifestations with which he was familiar among his patients at the Salpêtrière. From that time the great neurologist, in conjunction with Dr. Richer, who was then his *interne*, began a series of medico-artistic researches on the *grande névrose*, the results of which were afterwards published in a well-known work entitled *Les Démoniaques dans l'Art*. Later they extended their studies to the representations of other diseases, and deformities in general, to be found among the works of great masters. The results of these further investigations were published in a second volume, entitled *Les Malades et les Difformes dans l'Art*.

The main features of these books, together with a vast quantity of new matter from other sources, are incorporated in his new work.[1] Dr. Richer's name stamps it with the authority of an expert in art as well as in medicine. His object has been to show what artists have done in the pourtrayal of diseases and deformities. For this purpose he has examined paintings, statues, and works of art of all kinds, ancient and modern, and has thus collected a large gallery of artistic representations of pathological conditions by artists of all ages. No fewer that 345 of these are reproduced in the volume. It is impossible to do justice to such a work in a brief review, and we can only attempt to give the reader interested in the things of which it treats an idea of the wealth and variety of the material which it contains.

The first chapter deals with demoniacal possession, which, translated into the language of modern medicine, may generally be taken to mean religious emotion manifesting itself through a diseased nervous machinery, or hysteria misinterpreted by theological prepossession. Ecclesiatical history furnishes an abundance of detailed accounts of cases of demoniac possession in which the scientific reader finds phenomena which to him are merely neurotic manifestations described with the accuracy of a clinical report. Dr. Richer shows that they are represented with not less truth in works of art. In miniatures, on ivory plates, tapestries, and bronze bas-reliefs, in frescoes, pictures, and engravings are depicted scenes of exorcism in which the attitudes and contortions of the possessed ones are exactly similar to those now known to us as manifestations of nervous disorder. The earliest representations of demoniac possession found by Dr. Richer date from the fifth and sixth centuries, and belong to the domain of sacred art. In these early paintings possession is depicted in a conventional manner, the evicted fiend being shown in the act of leaving the body of his victim at the command of a saint whom the picture is intended to honour. In these sketches of the evil one, Christian artists would seem to have taken as their model the phantom or *eidolon* by which the Greeks symbolized the soul leaving the body at death. Later the grotesque mediaeval imagination added horns, claws, and a tail to their representations of the devil; he appears also in the shape of strange beasts. Even in the pictures of the great artists of the Renaissance little devils are often seen in a corner of the picture in the act of running away. They are, however, merely accessories, the demoniac being the central figure in the picture. For the pourtrayal of the phenomena of possession the artists of that period went direct to Nature and studied at first hand the scenes of exorcism which were familiar enough at a time when the doctors knew nothing of hysteria and left the victims of the disease to be treated *secundum artem* by the priests. Among the artists who have most closely followed Nature in depicting these scenes, Dr. Richer mentions particularly Domenichino, Andrea del Sarto, and Rubens; others, among whom he specially names Raphael, in painting demoniacs seem to have drawn on their imagination, or, like the author of the famous essay on Chinese metaphysics, studied the manifestations of different diseases and "combined their information."

Ancient art, as is well known, avoided the representation of disease or deformity, except by way of caricature. After a painstaking search among works of art of various kinds—statues, bas-reliefs, painted vases, bronzes, medallions, terra-cottas, and pictures—dating from the earliest period of Greek art to the end of the Roman period, Dr. Meige found only two having relation to medicine. It is noteworthy that in both of these women are shown in hysterical convulsions. One represents a scene of religious "enthusiasm" or delirium during a Dionysiac orgie; the second shows a Maenad in collapse after the crisis of her frenzy. The Christian demoniacs had forerunners of the same morbid type in the possessed of the gods. The nature of hysteria remains essentially the same through all changes of custom and religious belief. The worshippers of Dionysos, the Maenads, Satyrs, and Corybantes displayed convulsive phenomena exactly similar to those of the victims of "demoniacal possession," of St. Vitus's dance in Germany, of the tarantula in Italy, and in modern times are reproduced at revivals and camp meetings. There is in the Louvre Museum an antique bas-relief of a procession of Dionysos which, with some necessary changes in drapery and other details, might pass for a march of latter-day Corybantic Christians.

Dr. Richer devotes a chapter to a study of the grotesque heads so often seen in mediaeval architecture, and he shows that many of them are not, as has been thought by Ruskin and others, mere morbid products of the artist's imagination, but studies from Nature of distortion caused by spasm of the facial muscles in certain nervous conditions. In many of the terra-cotta figures of Greek antiquity found at Smyrna, Myrina, Tanagra, Cyprus, and elsewhere, deformities caused by rickets, acromegaly, obesity, emaciation and other pathological conditions are caricatured with great skill and truth to Nature. Passing over chapters devoted to dwarfs, buffoons and idiots, and on blindness in art, we come to one containing descriptions of famous pictures in which the animal parasites that prey upon mankind play a prominent part. Murillo naturally furnishes the largest number of examples. We have reproductions of his St. Elizabeth of Hungary treating children with ringworm; a woman hunting for pediculi in a boy's head; and a young beggar examining his scanty linen, which is evidently a happy hunting ground for the same parasite. The search for the parasite, which, according to Sir Hugh Evans, is a familiar beast to man and signifies love, is treated with an even cruder realism by Van Ostade.

Leprosy and plague, those formidable shapes which in the Middle Ages darkened the lives of men as with the shadow of the valley of death, have each a long chapter consecrated to their illustration. The interest here, however, is distinctly artistic rather than medical. Leprosy figures chiefly as affording opportunities of showing holy men and women carrying out the gospel precept as to visiting the sick. The ravages of plague are mostly shown in scenes of horror which are probably no more like reality than the conventional representations of battles. In plague pictures St. Roch, with the upper part of his thigh showing the characteristic bubo, is a frequent figure. It is noteworthy that in a picture by Nicholas Poussin of the plague among the Philistines, rats are shown invading the city. This introduction of rats into artistic representations of the plague, which may be noted also in Zumbo's famous wax figures of the plague in the Bargello at Florence, has a significance which has only been fully explained by recent research.

Very quaint are some of the representations of disease and mutilation shown in a chapter bearing the general heading "*Les Infirmes*." A chapter of special interest is that entitled "Patients and Physicians." Here we have reproductions of

[1] *L'Art et la Médecine*. Par Le Dr. Paul Richer, membre de l'Académie de Médecine. 1 vol. quarto, pp. 562. Paris: Gaultier, Magnier et Cie. Price 30 francs.

some classical representations from Pompeii and elsewhere of wounded heroes, with Machaon and other surgeons ministering to them. Among the specimens of mediaeval art are hospital scenes. One by Taddeo di Bartolo, one of the last masters of the Sienna School, shows a hospital interior of the fourteenth century. The composition is somewhat crowded, and the details are not easy to decipher, but amid the variety of ministrations to the sick that are shown, one seems to gather that clinical teaching was not altogether neglected. Another drawing, which represents the Hôtel Dieu in 1510, shows nearly every detail of hospital life—sisters feeding the sick and administering medicine, priests giving the last sacraments, and sisters stitching up corpses in shrouds.

Urinals figure very prominently in these mediaeval pictures, and Dr. Richer has much to say about urologists, vulgarly called by our rude forefathers "pisse-prophets," who professed to be able to read the signs of all diseases in the urine. The Dutch school of painting is most prolific in medical subjects as might be expected from its devotion to the details of ordinary life. Operations by village surgeons, corn-cutting, tooth extraction, bleeding, cupping, are illustrated by Teniers, Van Ostade, Gerard Dow, Van Honthorst, and others, but the painter who seems to have given himself with special devotion to medical subjects is Jan Steen (1626-1679). A favourite subject with him was love-sickness, which Dr. Richer is inclined to interpret as chlorosis. Perhaps the best of the Dutch medical pictures is the dropsical woman by Gerard Dow, now in the Louvre Museum.

The book ends with a chapter on death as pourtrayed in art. Dr. Richer here shows that many great artists, Michael Angelo among them, while depicting with admirable exactness the limpness of dead limbs, have shown prominent venous cords which could be seen only in a living body. Among the recumbent naked statues which form a part of French mediaeval tombs, are shown statues in which the forms and attitudes of death have been faithfully studied; and in some of them varied stages of putrefaction are pourtrayed with ghastly faithfulness. In a picture by John de Valdes Leal (1630 1691) entitled "Finis Gloriae Mundi," now in the Charity Hospital, Seville, two open coffins are represented with their right reverend and noble tenants vested in rich robes, which make the corruption of the corpses more horrible. With unflinching realism the artist has painted the "conqueror worm" battening on his prey, and he has depicted with a scientific accuracy which proves that he painted from Nature, the large coleoptera, which, as Mégnin has shown, play so large a part in the process of putrefaction. This is a striking instance of exact observation in an artist, but it does not by any means stand alone. Dr. Richer shows that in the pourtrayal of the objective phenomena of disease the old masters often anticipated the results of later medical observation.

We have said enough to indicate the character of Dr. Richer's work. Unique as far as we know in conception, it is simply admirable in execution. Art and medicine are made to interpret each other in a manner which renders the book instructive alike to artists and to medical men, while apart from its artistic and scientific value it has much of broadly human interest that appeals to all who agree with Pope that the proper study of mankind is man.

Dr. Richer has added to medical literature a book which may already be regarded as a classic, and his publishers are entitled to the credit of having produced it in a style worthy of its quality.

THE CLIMATE AND BATHS OF GREAT BRITAIN.

The second volume of the *Climates and Baths of Great Britain*[1] completes the work undertaken by the Committee of the Royal Medical and Chirurgical Society in 1889; but it must be noted that Scotland has been omitted, as the Committee failed to secure the necessary local co-operation, whilst Ireland has been included.

One of the most interesting sections of the volume is that on the Climate of London and Middlesex, by Dr. W. Ewart. The medical history of London "is that of a small world, and it illustrates lessons of disease and of hygiene nowhere so easily read." The artificial characters of the climate "are the most distinctive and important. Everything is artificial, from the made ground upon which it is built to its water courses, some of which are turned away from their natural beds, and to the composition of its air, so much altered by smoke-laden fogs and mists that the meteorology of London is one *sui generis*." Under the heading, "Mutual Influences of Mist and of Smoke Accumulation," Dr. Ewart instances the striking drying-up effect resulting from covering the Hampstead fields by the buildings forming Fitzjohn's Avenue, etc. The cutting down of trees, drainage of the soil, and covering of the ground by impervious cement or pavement, have suppressed a great deal of the mist formerly due to surface moisture, and the growth of the town has therefore had some influence in diminishing the fogs for which London is famed. In fact, as the Hon. Rollo Russell remarks, if London were to burn nothing but anthracite and coal gas, its air would probably be clearer than that of the surrounding districts. In Greater London there are districts possessing advantages and disadvantages of various kinds for residential purposes; to the north and south many sites have an altitude of 500 feet; the surface geology, density of the population, kind and height of the buildings, and the views they afford, are amongst the differences often to be noted between neighbouring areas. The index of surface geologies and altitudes will doubtless be appreciated for reference.

Dr. W. Murrell has contributed a report of the East Coast, including notices of many of the most popular summer resorts in Great Britain.

Dr. Horton-Smith has evidently taken much trouble in his description of the midland counties from a climatological point of view, and has drawn attention to places still insufficiently known, as, for instance, Minchinhampton Common and Woburn Sands, the latter on the south-western slopes of pine-clad hills, the former a breezy plateau, with little if any shelter from winds.

The Lake District with its famous holiday resorts has been ably dealt with by Dr. H. L. Brooksbank; and Northumberland, Durham, and Yorkshire by Dr. W. S. Lazarus-Barlow.

The section on North Wales is admirable work by the late Dr. D. J. Leech. In it most important information is to be found regarding the sanitary conditions of the individual health resorts, and for what class of cases and at what time of the year they should be visited. Many of the smaller places such as Pensarn, near Rhyl, and Llanbedrog, near Pwllheli, are noticed, as well as all the well-known towns and villages on the coast resorted to by visitors for health or recreation. In regard to the inland districts, Dr. Leech made some suggestions for the future: "Although at the present time in the inland parts of North Wales there are very few places adapted for the reception of invalids, there can be no doubt that, especially in the eastern portion of the Principality, there are many districts well suited for health resorts. On each side of the wide Valley of the Clwyd are to be found sunny and bracing sites which will no doubt at some time be taken advantage of. On the Denbighshire side the rainfall is heavier than on the Flintshire side, and the plateau in the centre of Flintshire, between Prestatyn and Caerwys, seems to me to offer special advantages for the tonic treatment of convalescents, and probably for sanatoria for phthisis." Dr. Theodore Williams gives an able and comprehensive account of the meteorology of South Wales. In comparing the rainfall with that of London he shows that, whilst the quantity is about 60 per cent. more, the frequency is only 20 per cent. more, and he adds that, if the duration in hours instead of days had been recorded, he would not be surprised to find the hours of rainfall in South Wales were actually fewer than those observed in London. This question will doubtless be investigated now that Dr. Williams has drawn attention to it, and one of the good results of the publication will be to stimulate further research in regard to the differences between the climatic features of different parts of the British Islands.

The mineral springs of Ireland give Dr. Norman Moore relatively little to write about; in fact, he confines himself to a full account of Lisdoonvarna, the reputation of which, he says, has considerably increased during the last fifty years. The largest contribution to the volume is that on Ireland, by Sir J. W. Moore, occupying nearly 200 pages. For medical

[1] *The Climates and Baths of Great Britain.* Vol. II. London: Macmillan and Co. 1902. (Demy 8vo, pp. 644, 7 maps. 12s. 6d.)

visitors to Ireland it will be found most valuable, but the antiquarian and historic allusions are of general interest, and give a character of its own to the author's descriptions.

Altogether we can cordially recommend the book. As a work of reference it should be in the hands not only of medical men, but of all persons interested in the erection of sanatoria and convalescent homes and all those interested in the public health. Dr. Theodore Williams and Dr. Horton-Smith, as Chairman and Secretary, are to be congratulated on having so successfully brought the work of the Committee to its completion.

MEDICAL DICTIONARIES.

MEDICAL dictionaries have many uses. Besides explaining the meaning and teaching us the pronunciation of the mysterious and often barbarous vocables which scientific discovery is almost daily adding to medical terminology, they may serve at a pinch to enable one when harassed by the inquisitive friends of a patient to apply language, in accordance to the maxim attributed to Talleyrand, as a means of disguising thought, and even, on occasion, as a decent covering for ignorance. A famous physician is said to have gratified the inconvenient curiosity of an anxious wife by informing her that her husband was suffering from a "cachexia"; and many obscure conditions might doubtless be explained—to the satisfaction of the patient—by attributing them to "disturbance of the functional equilibration of the neurones." Some one said of German that it was not a language but a jargon; he admitted, however, that those who spoke it seemed to understand each other. Something of the same kind might perhaps be said of the language of medicine, but apparently those who speak the jargon sometimes find a difficulty in understanding each other's meaning. At any rate, from the list of dictionaries here given it would seem that one of the most crying wants of the medical profession at the present day is a guide to the meaning of its own terminology. Of course the constant growth of science brings with it the need of a corresponding increase in its vocabulary. New thoughts and new facts require new words for their expression; and new words as they accumulate need new interpreters. A learned professor of Tübingen, quoted by Sir James Paget, speaking of the progress of knowledge, expressed a fear that the temple of knowledge would fail of being finished for the same reason as did the Tower of Babel—because the workmen did not understand each other's language. It may be the fear of such a consummation that leads to the making of so many dictionaries. In looking at the list of titles given below one thinks of John Abernethy surveying his crowded lecture room on the first day of a winter session, and exclaiming, "God help you, gentlemen! What is to become of you all?" Whatever may be the ultimate destiny of the dictionaries it is plain that they live, for several of them have already gone through many editions.

It would be impossible to review such a mass of lexicographic literature exhaustively. *Non di, non homines, non concessere columnae*; neither gods nor men could stand it, if we did, and our "columns" would assuredly not allow it. Fortunately a short notice will suffice to indicate the distinctive features of each work.

The first edition of Dr. Gould's *Dictionary* was fully reviewed in the BRITISH MEDICAL JOURNAL of September 29th, 1894, when we said:

> The English-speaking part of the medical profession is also to be congratulated on having at last placed in its hands a dictionary fit to compare with the classic work of Littré, to which it is equal in scientific accuracy, and superior both in the amount and in the quality of practical work which it gives to the student.

To that opinion we still adhere. Unlike a textbook, a dictionary is more or less an *objet de luxe*: it is therefore a striking proof of the popularity of Dr. Gould's monumental work that, notwithstanding its high price, it has reached a fifth edition. Most, if not all, of the small defects to which attention was called in our former review have been rectified. If the book still has a fault, it is the somewhat exuberant luxuriance of scientific terms, which adds unnecessarily to the size, while making it less easy for the medical reader to find what he wants. Even in medical terminology there is a tendency to superfluity. A practical joker who should take the trouble to read it through could easily acquire a stock of out-of-the-way words that would puzzle most doctors. How many of us could tell off-hand what is meant by "baunscheidtism," "bulopeithia," "cacesthesis," "dysepulotic," "dysodia," "dystithia," "eedemiomania," "ecphyadectomy," "egregorsis," "ergasiomania," or "maiensiophobia"? And is it really necessary to include such words as "charlatanoid," "disvulnerability" (defined as the power of rapid recovery from wounds said to be a peculiarity of many criminals)? We fail to find "electrocution," which is convenient, if not exactly classical, and is as good English as "charlatanoid"; but in its place we are offered a choice between "electrotisis" and "electrotistis," "electrophony," and "electrothanatosis." As corresponding verbs we have presented to us "electrophonize," "electrothanasize," and "electrothanatose." These vocables are like verbal Frankensteins, put together by some literary resurrection man from *disjecta membra* gathered from the Greek lexicon; has any one of them ever been used in living speech?

The book is an encyclopaedia as well as a dictionary; an extensive, though distinctly peculiar, knowledge of medicine could be got from it. Unlike most dictionaries it can be read, and an intelligent person who should have gone conscientiously through it from cover to cover would in regard to medicine be in the position of Gibbon when he arrived at Oxford, "with a stock of erudition that might have puzzled a doctor and a degree of ignorance of which a schoolboy would have been ashamed." The latter would not, however, be the fault of the dictionary: *la plus belle fille du monde ne peut donner que ce qu'elle a*. Dr. Gould gives what he has, and it must be admitted that it is much. In addition to definitions of countless words, he gives an abundance of helpful illustrations and a wealth of elaborate tables, among which eponymic diseases, positions and presentations of the fetus, expectation of life, parasites, poisons, stains, comparison of thermometers, urinary calculi and sediments, tests, weights and measures may be mentioned as of special value. Everywhere one meets evidence of the desire to be helpful to practitioners. Under the head of "death," for instance, the tests by which the fact of death can be proved are enumerated. The memory can at once be refreshed as to the distribution of arteries and veins and nerves, the arrangement of muscles, the position of ganglia, glands, foramina, the varieties of hernia, motor-points, the varieties of the pelvis, etc., under each of which heads diagrammatic and other illustrations are given. A convenient feature of the book is the information supplied as to various methods of diet and treatment—Graham bread, Kellgrenism, Salisbury system, and many others—for which search may be made in vain in ordinary medical works of reference. Those interested in the seamy side of human nature may also extend their knowledge of the forms of vice invented by the perverted ingenuity of mankind.

We have mentioned only a few points to show the wealth and variety of information contained in this *Dictionary*. And when the vast scale of the work is taken into account the information is wonderfully correct. We can speak as to this with some confidence, as the book has now successfully stood the test of daily use for nearly eight years. The vocabulary of medicine increases so fast that there are of course some omissions: among the more important which we have noted are "cryoscopy" and "urotropin." There has been much discussion in America lately as to the ethics of "division of the fee"; we are rather surprised, therefore, not to find "dichotomy." On the whole, a somewhat minute examination of Dr. Gould's *Dictionary* confirms us in the opinion that, for what may be called general purposes, it is the one best adapted to the needs of the practitioner, if Dr. Gould will allow us to use a word which he stigmatizes as "badly formed."

In the *Students' Medical Dictionary* the same author gives a helping hand to medical students on their first entrance into the forest of terminology. In it are given concise definitions

An Illustrated Dictionary of Medicine, Biology, and Allied Sciences. By George M. Gould, A.M. M.D. Based upon recent scientific literature. Fifth edition, with additions and corrections. Philadelphia, Pa.: Blakiston's Son and Co. 1900. London: Baillière, Tindall, and Cox. Roy. 8vo, pp. 1633. Price 40s. nett.

The Students' Medical Dictionary, including all the words and phrases generally used in medicine, with their proper pronunciation and definitions. Based on recent medical literature. By George M. Gould, A.M., M.D. Eleventh edition, enlarged, with many illustrations. London: H. K. Lewis. 1900.

of the more common words which they are likely to meet with in textbooks and lectures. Students of dentistry and pharmacy will also find the terms of these departments of the art of healing clearly and correctly explained.

The *Pocket Medical Dictionary* by the same author contains brief but sufficient definitions of 30,000 words, and a supplement consisting of tables of arteries, muscles, nerves, a list of diseases, regions, and structures called after their discoverers, thermometric scales, tests, etc., and the doses of official and unofficial drugs in both the English and metric systems, specially compiled by Dr. A. G. Syevens, Lecturer on Physical Diagnosis in the University of Pennsylvania. The book, which is clearly printed and bound with a flexible cover, is admirably suited for its purpose. These two volumes represent successive triturations of the *Illustrated Dictionary*.

The New Sydenham Society's *Lexicon* has not taken quite so long to complete as the dictionary of the Académie Française; still its progress has been slow, the first volume bearing date 1881 and the last 1899. If slow, however, it has been sure, and we can heartily congratulate the Society and those concerned in its production on the excellent result of their labours. The work was originally based on Mayne's *Lexicon*, but the work of Mr. Henry Power and Dr. Leonard W. Sedgwick, who edited the greater part, and of Dr. Dines Parker and Mr. Higgins, who are responsible for the latter part, has practically transformed the work into an original production. It is freer from luxuriances of lexicographic vegetation than any other of its size; the definitions are concise and clear, and under the names of diseases, and such words as "ambulance," there is a brief but sufficient account of the things designated by the terms. The chief fault we have to find with the book is that it is in five volumes, and therefore is somewhat inconvenient for reference. The Society intends to keep the work up-to-date by the occasional issue of appendices. If less useful in some respects to the practitioner than Dr. Gould's work, the New Sydenham Society's *Lexicon* is a scholarly production of which the Society might well be proud.

Dr. Dunglison's *Dictionary* is less encyclopaedic than Dr. Gould's, but it has the advantage of being more manageable in size. The fact that it has passed through so many editions is a sufficient proof that any commendation from us would be superfluous. It is one of the established institutions of our Anglo-Saxon medical literature. It is "got up" in a solid style, well in keeping with its literary character. Just to show that we have looked through the book, however, we venture to mention one or two points which invite comment. Is "ambulo-flatulentus et furiosus," which is explained to be a "term applied to painful mobile and periodical tumours affecting different parts," either a necessity or an ornament of medical speech? A patient who is "flatulentus" is not unlikely to be "furiosus," and he may walk about, but does not the insertion of "terms" of this kind into dictionaries tend to overdistension? Do such words as "anepischesis," "dermapostasis," "diureticoaesthesis," "epiploemphaxis," "hepatoparectama" ever break through the barrier of human teeth, or are they ever seen except in dictionaries? We demur to the etymology of "deontology," which is given as *deonta* what are due, and *logos*, description. A very useful feature of Dunglison's *Dictionary* is a table of weights and measures in which the relative values of the old French and English weights are given. There are also tables of the ancient Greek and Roman weights, and the weights of the Arabs, Greeks, and Latins of the Dark Ages: these are likely to be useful to readers of old medical books.

The compilers of *Lippincott's Dictionary* have made it their aim "to give complete information concerning every medical term which might have a legitimate claim to inclusion, so as to provide for the most extended needs of the student, physician, and special investigator." But they have done more than this, and have given their work something of an encyclopaedic character. Under important organs and tissues is given an outline of their structure and formation; under each drug, its action, therapeutic use, official preparations, and dosage are described; under the chief diseases, a short account of their symptoms, causes, and treatment is given. There are fewer figments of the lexicographic imagination than in some of the dictionaries previously mentioned. The work forms a substantial volume, and is very clearly printed on good paper. A special feature of the work is the careful indication of the pronunciation of words by a convenient system of phonetic notation.

The fact that Dr. Price's revision of Hoblyn's *Dictionary* has reached a thirteenth edition is in itself the best testimony to its value. It is the handiest of all the dictionaries on our list, and it contains sufficient information for the purpose of most medical readers. We can thoroughly recommend it to the student, to the literary worker, and to the general reader who may wish to have at hand a trustworthy authority as to the meaning of medical terms.

It is claimed for Dr. Duane's *Dictionary* that in its compilation practical utility rather than historical tradition has controlled the selection of matter, and we think that on the whole this claim is fully justified. We do indeed find such words as "allotriophagy" which is defined as the eating of substances unfit for food; "haemospasia" which is said to mean withdrawal of blood, and a few others which can scarcely be numbered among the necessary elements of medical speech. It is only fair to say, however, that the work is comparatively unencumbered by the dead and sometimes fossilized remains of extinct words. This circumstance has left more space for the living terminology of modern medicine, and the space thus gained has been utilized by the insertion of much descriptive and explanatory matter, under the more important headings which would be very inadequately represented by a mere definition. There are tables of muscles, arteries, nerves and canals, bacteria, fermentations, and monstrosities which present a great deal of information not readily accessible even in textbooks convenient for immediate reference. There are also well executed coloured plates of casts, malarial plasmodia, staphylococci and streptococci, etc. The book which is of convenient size and handsomely got up evidently fills a place in medical literature, for it has reached a third edition.

Dr. Dorland states that his aim has been to produce, in a work of convenient size, an up-to-date *Illustrated Medical Dictionary* sufficiently full for the varied requirements of medical men. We need say no more than that we think he has succeeded in attaining his modest object, and the fact that a second edition has been called for proves that the work has secured the appreciation which it well deserves. The book contains numerous illustrations, and twenty-four coloured plates of bacilli, cells, pelvic diameters, and fetal heads, etc., which add greatly to its value. It is well printed and attractive in appearance.

A Pocket Medical Dictionary, giving the pronunciation and definition of the principal words used in medicine and the collateral sciences. By George M. Gould, A.M., M.D. Fourth edition, revised and enlarged; London: H. K. Lewis. 1900. (32 mo. 19,000 words; pp. 837. Price 5s. nett.)

The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. Five volumes, crown 4to. Roan back, cloth sides, marbled edges, £3 3s.; or half morocco, cloth sides, gilt top, £3 11s. 6d.

A Dictionary of Medical Sciences. By Robley Dunglison, M.D., LL.D., late Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia, etc. Twenty-first edition, thoroughly revised and greatly enlarged, with the pronunciation, accentuation, and derivation of the terms. By Richard T. Dunglison, A.M., M.D. London: J. and A. Churchill. 1891.

Lippincott's Medical Dictionary, a complete vocabulary of the terms used in medicine and the allied sciences. Prepared on the basis of *Thomas's Complete Medical Dictionary*, by Ryland W. Greeve, A.B.; with the editorial collaboration of John Ashhurst, jun., M.D., LL.D., Barton Professor of Surgery and Professor of Clinical Surgery in the University of Pennsylvania; George A. Piersol, M.D., Professor of Anatomy in the University of Pennsylvania; Joseph P. Remington, Ph.M., F.C.S., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy. London: J. B. Lippincott Co. 1897. (Price 31s. 6d.)

A Dictionary of Terms used in Medicine and the Collateral Sciences. By the late Richard D. Hoblyn, M.A. Oxon. Thirteenth edition, revised throughout, with numerous additions by John A. P. Price, M.D. Oxon., late Physician to the Royal Hospital for Children and Women. London: Whittaker and Co.; George Bell and Sons. 1900. (Price 10s. 6d.)

A Dictionary of Medicine and the Allied Sciences. By Alexander Duane, M.D., Assistant Surgeon to the New York Ophthalmic and Aural Institute; Revisor of Medical Terms for *Webster's International Dictionary*. Third edition, enlarged and thoroughly revised. London: Rebman, Limited. 1900.

The American Illustrated Medical Dictionary, a new and complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, and the kindred branches, with their pronunciation, derivation, and definition, including much collateral information of an encyclopaedic character. By W. A. Newman Dorland, A.M., M.D. With numerous illustrations and 24 coloured plates. Philadelphia and London: W. B. Saunders and Co. 1900.

The two dictionaries compiled by Mr. De Méric, though small, may be useful to English practitioners wholly ignorant of French, and to French practitioners to whom English is an unknown tongue. The author has, on the whole, done his work well, though in some cases the information vouchsafed is hardly such as will satisfy the student thirsting for knowledge. Thus the word "radesyge," which is not English, is explained by the word "radesyge" which is not French. Like other lexicographers Mr. De Méric has been unable to resist the temptation to fill out his pages with words like "sororiation," "diary fever" (which is not, as might be thought by the unwary, a passion for imitating Pepys, but a *fièvre éphémère*) "ethmyphe," "hapanthismus," "leschenema," "mastigosis," "pyniemascia," which we are sure the medical world would willingly let die.

PRACTICAL MEDICINE.

THE first edition of Sir J. SAWYER'S work on *Practical Medicine*[1] was noticed in the BRITISH MEDICAL JOURNAL in 1887. In the present edition there are some omissions as well as additions, and most of the chapters have been carefully revised. The lectures on insomnia, which deal very thoroughly with the subject, were published in the JOURNAL. There is a growing appreciation of the pre-eminent value of full doses of the bromides in this condition, but as Sir J. Sawyer points out, it is necessary to see that the dose is sufficiently large. It would have been desirable to have had Sir J. Sawyer's opinion on the glycerophosphates which have been said to be useful in some obstinate cases of insomnia. Among the various subjects dealt with are gastralgia, constipation, obstruction of the bowels, and haemorrhoids, and the reader will find valuable suggestions with regard to the treatment of all of these conditions. In cases of floating kidney, operation, or even treatment by the pressure of a padded belt is not here regarded with favour, but there are surely some cases in which the abnormality causes so much pain and distress that some decided treatment would appear to be absolutely necessary. On the vexed question of the treatment of eczema Sir J. Sawyer's views as to the value of the oleates are well-known and will be found fully set out here. Altogether this book deserves its name, and is distinctly a useful contribution to practical medicine.

Dr. MURRAY might not inappropriately have taken "Maximes et Pensées" as the sub-title of his most interesting and suggestive *Rough Notes on Remedies*.[2] It is full of aphorisms and pithy sayings, reminding us forcibly of such writers as La Rochefoucauld and Montaigne, with here and there a touch of Vinet and Petit-Senn. "What is described as a typical case exists only in the imagination of the writer of a textbook" is a phrase which will probably meet with favour amongst students, whilst "What may be the right thing for the disease may be the wrong thing for the patient" will probably come as a revelation to those who pin their faith to works on domestic medicine. "Strip him!" is a motto which ought to be engraved on all minds" reminds us of the method of clinical teaching adopted by Sir William Jenner. "There are few remedies which determine the existence of idiosyncrasies in patients more frequently than belladonna" will be confirmed by every therapeutist, who will equally endorse the statement "That to rescue a man from the jaws of death and to give him ten years of fairly good health confers a reputation on anybody." "Each disease varies as much as the human countenance" is one of the gems of the collection. Every chapter contains something bright and original, and the whole book teems with hints and practical information. The old articles have been revised, and some fresh observations have been added on "Rothbury as a health resort." We congratulate the author on his four editions, and trust that his book may long continue to have his revision in succeeding editions.

Dictionary of Medical Terms. By H. De Méric. London: Baillière, Tindall, and Cox. 1899.
Dictionnaire des Termes de Médecine. Français-Anglais. Par H. De Méric. London: Baillière, Tindall, and Cox. 1899.

[1] *Contributions to Practical Medicine.* By Sir James Sawyer, M.D., F.R.C.P. Third Edition. Birmingham: Cornish Bros. 1902. (Crown 8vo, pp. 209. 2s. 6d.)

[2] *Rough Notes on Remedies.* By William Murray, M.D., F.R.C.P. Fourth Edition. London: H. K. Lewis. 1902. (Crown 8vo, pp. 188. 4s.)

MOTOR CARS.

THE new volume of the Badminton Library on *Motors and Motor Driving*[3] amply fulfils the high expectations which an acquaintance with previous works in the series will have raised. A motor car may be kept for pleasure or for business, and in this volume the business aspects of the matter are prominent. The editor is Mr. ALFRED C. HARMSWORTH, and among the contributors are some of the most experienced owners and amateurs. Passing over an interesting short history of the development of the motor car by the Marquis Chasseloup-Laubat, and a rather sketchy article on "the utility of motor vehicles" by the Hon. J. Scott-Montagu, M.P., we come to a very practical chapter by the Editor on "the choice of a motor car," which is founded on personal experience. It deals with all the chief types of cars, but Mr. Harmsworth writes, "my own experience teaches me that in the year 1902 a good petrol engine is infinitely the best for all-round work," although he adds that for a twenty-mile radius round a house in town or country where current can be had the electric car is "not to be excelled." His advice to those who have no personal experience is to choose one of the well-established types of motor, and to defer the actual purchase "until the last possible moment, until by experience and by inquiry real knowledge has been gained." This seems thoroughly sound. The construction of the petrol engine is explained by Mr. R. J. Mecredy, and the methods of ignition by Mr. J. Ernest Hutton in well-illustrated articles, while the Hon. Charles S. Rolls has an excellent chapter on the caprices of the petrol motor, which, in spite of its logical demonstration of how every caprice may be circumvented, may yet well cause the heart of the novice to sink. There are chapters also on the mechanism of steam, and electric cars, and an instructive article on motor-driving, what to do, and what not to do, and how to avoid accidents and diminish the risk of a breakdown. Sir John H. A. Macdonald, Lord Justice Clerk of Scotland, contributes some amusing reminiscences: Lady Jeune writes on dress for ladies, and Baron de Zuylen de Nyevelt on dress for men; Sir David Salomons on the motor stable and its management, and Sir Henry Thompson on motor cars and health. Sir Henry insists on the exhilaration which attends driving on a motor car. The gentle jolting "acts on the liver," while the keen rush through the air has a stimulating effect, beneficial to the enervated or neurasthenic. Moreover, he finds that motor driving is followed by refreshing sleep and tells us that he would have "no hesitation, speaking generally, in regarding daily exercise in a motor car as aiding towards the prevention of insomnia." An appendix contains a note on the law, and a glossary of English, French, and German terms. The book is one which may be strongly recommended to those who are contemplating the purchase of a motor car, while it is certain to be read with interest by all who already possess such a vehicle.

NOTES ON BOOKS.

THE PREVENTION OF TUBERCULOSIS.

M. P. BROUARDEL, who bears one of the most honoured names in the French medical world of to-day, has written a valuable pamphlet on the struggle against tuberculosis.[4] As a sort of headlight, on the title page he has placed the aphorism, "tuberculosis is contagious, preventable, curable." The booklet is professedly a contribution to the education of the general public. M. Brouardel is President of the Polytechnic Association, and as such, in accordance with the recommendations of the Commission on Tuberculosis instituted by the French Minister of the Interior in 1900, he has held a series of conventions of the polytechnic professors of hygiene and of delegates from the different sections, before whom he has placed clearly and simply the principles on which a successful fight against tuberculosis must be based. This information, he suggested to his hearers, should be conveyed by them *viva voce* to their 12,000 pupils.

[3] *Motors and Motor Driving.* By Alfred C. Harmsworth and others. London: Longmans, Green, and Co. 1902. (Cr. 8vo, pp. 476, 156 illustrations.)

[4] *La Lutte contre la Tuberculose.* By Paul Brouardel. Paris: J. B. Baillière et Fils. 1901. (Demy 8vo, pp. 200. Fr. 2.50.)

NOVA ET VETERA.

THE LECTURE THEATRE OF HIPPOCRATES.

Some time ago mention was made in the British Medical Journal of the fact that there is still standing in the island of Cos a plane tree as to which tradition says that under its spreading boughs Hippocrates taught the art of healing more than 2,300 years ago. We then asked if any traveller visiting Cos would inquire about this the oldest and most venerable of all medical schools. This hint has brought us several interesting communications, with photographs of the tree from various points of view, two of which are here reproduced. Staff-Surgeon W. Eames, R.N., writing from Malta, sent a photograph taken on the occasion of a visit made by him to Khos or Cos in 1899 (Fig. 2). He says:

"The island tradition is, as you state, that Hippocrates displayed his art of healing beneath the branches of the tree, which is reverenced and cared for accordingly. As you will see the branches are now supported by stone pillars, which are built up in sections."

Staff-Surgeon C. Mansfield, R.N., kindly sent us an album containing some photographs taken by him at Cos when serving on H.M.S. *Anson*. One of these shows the large branch supported on a strong pillar of stone and plaster.

To Mr. A. von Holbach, of London, we are indebted for some photographs taken by his brother, who is Maritime Inspector of the Greek Islands to the Régie of Tobaccos at Smyrna. The tree, we are informed, is very difficult to take, as the ground is not suited to the proper placing of the camera, and the wide-spreading branches shedding green light obscure the condition of the trunk. Mr. von Holbach states that Hippocrates's plane tree is situated about two minutes' walk from the landing-stage in a small open place bounded on the one side by the entrance to the mediæval castle of Cos and on the other side by a church formerly Christian, now turned into a mosque, and a few coffee houses. Close to the plane tree is a handsome public fountain, the cupola of which is supported by columns. The plane tree grows out of a podium standing as high as the breast and mostly built of antique marble. Several antique sculptures and inscriptions have been utilized in the structure. Built into the podium is a Turkish fountain, now dry, of recent date. The podium was doubtless built to support the trunk of the tree after it had become hollow and weak from age, and is of no great antiquity. The plane itself is very ancient and measures 15 metres (nearly 18 yards) in circumference. The trunk is now hollow, and the large middle branches of the crown are broken away, presumably by storms and the lack of resistance of the hollow trunk. To give the Sultan a practical conception of the great size of the tree, a piece of the largest broken branch was sent to Constantinople. The Sultan attaches great importance to the preservation of the tree, for he is said to have ordered it to be strictly guarded day and night. The lower branches are still well preserved. As they are—especially one of them—very long and spreading in a horizontal direction, they have been shored up with pieces of antique columns (not brick pillars). In course of time the branches, in consequence of the powerful pressure of their own weight, have grown like a cap over the upper ends of the columns. In the proximity of the plane tree is a solid marble seat, which is said to be the chair of Hippocrates. The place is a pleasant one, and to medical visitors in particular it is hallowed by traditions of the Father of Medicine. But there is not, as far as we are aware, any historical evidence that Hippocrates actually taught medicine under the spreading boughs of the tree with which his name is now associated.

Dr. Clapton, formerly physician to St. Thomas's Hospital, whose devotion to archaeology is well known, on reading the paragraph in the Journal, instructed the agents whom he employs for the collection of curiosities in foreign countries to send a representative to Cos to find out all that could be discovered about the tree, and if possible to procure some fragments thereof. In due course Dr. Clapton received a portion of one of the branches of the old tree. Of the plane tree itself Dr. Clapton writes:



Fig. 1.—Hippocrates's plane tree in the Island of Cos.

This tree, the platanus orientalis, is a noble timber tree, a native of the Levant, etc. The Greeks planted these plane trees as being ornamental, no others commanding equal admiration; and it is said that for centuries the youth of Greece assembled under its shade in the groves of Academus to receive lessons in philosophy. In the East it attains an immense size and lives to a great age, greater probably than any other tree. In more than one book there is decribed a plane tree now in the meadow of Buynkdere, on the banks of the Bosphorus, not far from Constantinople, which is 100 st. high, 165 ft. in girth, and 130 ft. in the spread of its branches. It is believed to be more than 2,000 years old. In the streets of Damascus there is a tree which measures upwards of 40 ft. in circumference. Even in this climate it attains a height of 50 or 60 ft., and lives to a great age. With its wide-spreading branches it is considered highly ornamental in our parks and gardens, and in consequence of its bark regularly flaked off in rectangular scales it thrives in the soot-laden atmosphere of London. It flourishes better when growing near some stream, hence in Ecclesiasticus xxiv. 14, it is said that wisdom grew up as a plane tree by the water. It is one of the three trees which are described in Ezekiel as having been in the Garden

of Eden (Bendis, the Tree of Life and Tree of Knowledge of Good and Evil), the others being the cedar and the fir tree. (Ezekiel xxxi, 8, R.V.) Smith, in his book on Bible Plants, states that the Hebrew word *Armón*, which was wrongly translated in the Authorised Version, is now admitted to be the platanus orientalis. It is found in Lebanon, and is also a tree of the plains, growing chiefly by streams and on the banks of Upper Jordan. From the outer coat of its bark falling away yearly, making the trunks appear white, Smith says that it derives its Hebrew name *Armón*, which means naked.

With regard to the remarkable plane tree and the Temple of Æsculapius at Cos, it is interesting to note that St. Paul and St. Luke spent one day in this island (Acts xxi, 1) and Dean Farrar, in his *Life and Work of St. Paul*, remarks that "neither the wines, nor the purple, nor the perfumes of Cos, would have much interest for the little band; but, if opportunity offered, we may be sure that 'the beloved physician' would not miss the opportunity of seeing all that he could of the scientific memorials of the Asclepiads—the great Medical School of the ancient world."

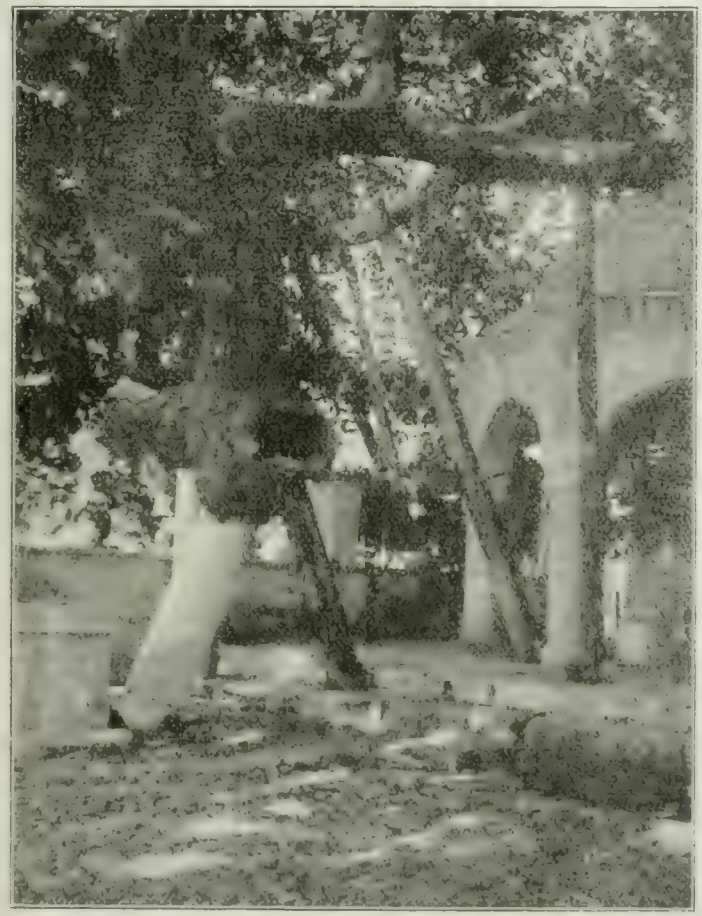


Fig. 2.—Hippocrates's plane tree. (From a photograph by Staff-Surgeon W. Eames, R.N.)

Of the details of the life of Hippocrates very little is known. He was born on the island of Cos in 460 B.C. He was a member of the family of the Asclepiadae, and is believed to have been either nineteenth or seventeenth in direct descent from Asklepios. On the mother's side he is said to have been descended from Herakles. He studied the art of healing first in the famous Asklepeion of his native island and afterwards at Cnidos. He seems to have been as itinerant as Paracelsus in the Middle Ages, or Brown-Séquard (who crossed the Atlantic more than thirty times) in modern times. He practised and taught his art at Athens, and is referred to by Plato as a recognized medical authority, and quoted by Aristotle. He also worked in Thrace, Thessaly, Delos, and in his native Cos. He died at Larissa, in Thessaly, at an advanced age, which is variously estimated from 85 to 109.

In the absence of historical evidence one way or other, one may indulge the fancy that the old man taught his disciples under the plane tree at Cos. Though himself sprung from a family of priest-physicians he broke the chain of tradition and superstition that held medicine in bondage to priestcraft, and taught men to give themselves to the observation of the natural history of disease. His writings show the scorn in which he held the use of amulets and incantations in the treatment of disease, and he insisted on the fact that diseases must from a scientific point of view be looked upon and dealt with as produced by natural causes, and in their evolution subject to the evolution of natural laws. The same practical spirit led him, as Celsus points out, to emancipate medicine from the trammels of speculative philosophy. His aim was to teach physicians to look at facts rather than weave fancies into airy nothings of theory.

In an age when dissection would have been looked upon as an impiety, Hippocrates naturally could know little of anatomy or physiology; his merit is that, in the words of Goethe, he had an eye clear and true for the objective signs of disease. He was, in fact, a clinician of the highest order. He practised succussion for the diagnosis of fluid in the thorax, and immediate auscultation. Laënnec frankly states that it was from Hippocrates he got the idea which led to such far-reaching results. The principle of his practice was, as Sydenham expresses it, "the support of enfeebled and the coercion of outrageous Nature." While using such remedies as were available with boldness, tempered with the caution of experience, he attached the greatest importance to diet and regimen.

We need not enumerate the writings attributed to him, and it would be out of place to enter here on a critical discussion of their authorship. The famous oath which bears his name is believed to be authentic; at any rate, it may safely be taken to represent his idea of the rules that should guide the physician in the practice of his profession. It may not unfitly find a place here:

"I swear by Apollo the Healer, by Asklepios, by Hygiea and Panakeia, by all the Gods and all the Goddesses, taking them to witness that I will keep according to my strength and capacity the following oath and obligation. I will put my master who taught me medicine on the same level as the father who gave me life. I will share what I have with him, and in case of need I will provide for his necessities. I will hold his children for my brothers, and if they wish to learn medicine I will teach them without taking fee or pledge from them. I will impart the precepts, oral instruction, and other teaching to my sons, to those of my master and to the disciples bound to me by covenant and oath according to the medical law, but to none else. I will regulate the way of living for the sick to their advantage according to my power and judgement, and I will refrain myself from all evil and all injustice. I will not give poison to any one if I am asked for it, nor will I make such a suggestion. In like manner I will not give to any woman an abortifacient pessary. I will spend my life and practise my art in innocence and purity. I will not perform the operation of cutting for stone, but will leave that to persons who make it their business. Whatever house I enter I will go into it in order to be of use to sufferers, avoiding every wilful and corrupting misdeed, and especially the seduction of women and of boys, free or slaves. Whatever I may see or hear in the course of my practice, or even outside the line of my professional duty in the lives of men, that ought not to be noised abroad, I will not speak of, considering that such things should be kept secret. If I keep this oath without breaking it may it be given unto me happily to enjoy life and the exercise of my art, ever held in honour among men. If I violate it and become a perjurer may the opposite fate be my lot."

THE BORDERLAND OF QUACKERY.

THE field which the profession of medicine offers—apart from the scientific interest it possesses—as a means of ordinary livelihood is a question of serious and practical interest, not only for those who are bearing the burden of the present day in ministering to the requirements of the sick and the prevention of disease, but also for that large army of young men who are destined to carry on the traditions and work of the healing art. It has a personal application for all who have devoted their lives to medicine, and to many who are considering whether their experience of the rewards which have followed keen and undivided attention to the career they have chosen are sufficiently encouraging to warrant them in calling upon their sons to follow in their footsteps. It is all very well for the scientific enthusiast to preach that medicine is not a money-making profession, and that those who enter its service have no right to anticipate much more than the recompense that comes from work done for work's sake; but this theory, however admirable, is not one which quite covers the area of most men's calculation when considering the utilitarian aspects of life as applied to themselves or their sons, and may therefore, from the point of view of professional inducement, be looked upon as a negligible quantity, except in the case of a quite inconsiderable minority. Nor is it wrong that this should be so; after all, doctors must live like other men, and the reputation they possess for inadequate business capacity is probably not altogether unconnected with a Quixotic sentiment possessed by many that their lives shall be devoted to the cure of disease for the sake of the satisfaction which such work carries with it, and entirely apart from bread-and-butter considerations. This is not a commendable attitude from the point of view either of domestic or political economy. Medicine is not, and never can be, except to a favoured and small minority, a road to wealth, but it ought to provide to all its worthy disciples the means whereby they can maintain themselves in comfort and make reasonable provision for their families.

The question is one of such superlative importance, so far as the future of medicine is concerned, that we feel justified in calling attention to one very active excrescence which derives most, if not all, its sustenance at the expense of what ought to be professional revenue. The word "quackery" bears about it an unpleasant suggestiveness, but no other term expresses so comprehensively the character of the work carried on in that wide field of operations which is beyond the scope of legitimate and scientific practice. With unadulterated quackery our present strictures have nothing to do; it may be left to itself to stew in the juice of its own hollow pretensions, and ultimately to perish as soon as the credulity of its victims has awakened to the fact that they have been duped. Our animadversions are confined to methods of management and systems of practice, many of which cannot be boldly designated quackery, but all of which are more or less questionable, and occupy a sort of no-man's-land, fringed on one boundary by methods unimpeachably orthodox, and on the other by systems of procedure which cannot be too severely censured or too opprobriously denounced. This borderland constitutes a happy hunting-ground for the man of questionable business morality—sometimes, alas! a duly qualified member of the profession—who for the sake of gain is not unwilling even to cast in his lot with the vulgar charlatan, and, if he be a registered practitioner, is not afraid to run the risk of the possibility of penal action by the General Medical Council.

There are many modern methods of treatment which, though no doubt possessed of good and encouraging elements of usefulness in the cure of disease, are as yet so little understood and so imperfectly developed that they afford a deplorably wide margin for the full expansion of the town crier's methods, which are all persuasive in the attractions they offer to those who are likely to lend a willing ear.

ELECTRICAL "CURES."

For the purposes of the borderland practitioner, no therapeutic measure is more useful or more widely adopted than electricity; it is possessed of powers which seem to be well-nigh illimitable; it has already achieved curative credit in connexion with almost every disease under the sun; and it can be so handled as to appeal with all the strong conviction of that insidious suggestion which temporarily benefits those whose nervous decrepitude is oblivious of the stern logic of fact. Such persons rejoice in, and are ready blindly to believe themselves assisted by, a plan of treatment which, no matter how vague and incomprehensible, possesses enough of "the material" to appeal to their receptive sense organs. Thus they find confirmation of the sheafs of unsolicited testimonials from previous grateful recipients of the benefits promised, and ungrudgingly accept from the evidence of their own senses the truth of the assertion that the ozone-scented atmosphere they breathe, the vacuum tubes which immediately become illuminated when approached to their bodies, the coloured lights which play upon the seat of their disease at a becoming distance; the gently soothing tappings of the electric-driven hammers, which are devised to cure their neuralgic miseries; and the crowning glory of the terminal eau-de-cologne spray and luxurious Turkish divan, where the fatigues of the electrical applications are comfortably recovered from, are a well-ordered dispensation of Providence by means of which, under the guiding hand of the borderland specialist, to whom their precious lives have been trusted, they hope to be restored to that fullness of vigour for which they have been panting and perspiring all the days of their lives.

So long as human nature remains what it is, a certain proportion of mankind will continue to flock to any booth whose showman beats the drum and blares the trumpet loudly enough to attract their attention. By extravagant promises he induces them, for a ridiculously small admission fee, to walk in and judge for themselves of the value of the cures which are his possession alone, and which for efficacy and certainty are unsurpassed in all the rest of quackery fair. This is common knowledge, but outside the fair grounds we pass on our way to the sedate abodes of strict professional decorum and etiquette, an intermediate zone—this very borderland with which we are dealing—where booths give way to pretentious houses, and the big drum is replaced by more refined, though more insidious, devices for captivating the credulous. Here, in a neighbourhood associated in the public mind with the practice of medicine, is to be found an elaborate establishment for the cure of "rheumatism, sciatica, neurasthenia, dyspepsia, etc., etc., by high frequency currents, actinic light baths, and nascent ozone." A large capital has been sunk in the foundation of the institution, and it is under the direction of an energetic and enterprising non-medical managing secretary, with an expert electrician as his second in command. It advertises extensively in such medical and other journals as are open to receive its custom, and illustrates the up-to-datedness of its methods by embellishing its advertisements with indifferently executed drawings of a variety of weird-looking instruments which are presumably vacuum electrodes.

It asserts that patients are only received on the authority of their medical attendants, and invites the fullest investigation of its premises by any one who will take the trouble to call. It offers in addition a free supply of its patented unipolar vacuum electrodes to hospitals and public institutions. Now at first sight this all looks very plausible and free from objection, but when it is considered that, up to the present time, little or nothing is definitely known as to the exact value of high frequency currents, and still less—at least among the members of the profession in this country—of the various methods of application of this form of electricity, it is difficult to recognize as quite orthodox a system that boldly professes its singular applicability "for the treatment of rheumatic and gouty conditions," and of various other pathological states too numerous to mention. Moreover, it is hard to understand how, in the present professional lack of knowledge of the subject, medical men can be found who are competent to supervise the treatment or to regulate either the number or duration of the sittings to which it is wise for their patients to subject themselves.

The institution gives, however, a general hint as to this latter point in its scale of charges, which are stated to be one guinea for a single treatment—presumably an experimental trial—or for a course as follows: "Six treatments £5 5s., twelve £10 10s., paid in advance." The same observations apply to the department of this institution's treatment which is concerned with "subjecting the body of the patient to

powerful actinic rays of light" and providing for him "transpiration of ozonized air through the 'pores' of the skin and by inhalation through the lungs." Comparatively little is yet known as to the positive value, except in their local application, of either ozone or light as curative agents, but both the public and the profession are invited to trust blindly to the elaborate promises of this institution that by their combined agency rebellious diseases may be cured and metabolism so influenced as to "bring about the most rapid restoration to health and vigour."

We do not wish to be understood as contending that high frequency currents, or light rays, or ozone are inert and useless in the cure of disease. The excellent work of d'Arsonval, Finsen, and others has clearly indicated that so far as high frequency currents and light rays are concerned we are probably on the threshold of therapeutic measures which will prove of considerable value; but the fringe of quackery is touched when the initial experimental and practical work of such scientists is seized upon by a commercial syndicate and run for the money value that can be got out of the routine or haphazard application of the methods which these eminent men have devised. We doubt whether many men in practice recommend their patients to treatment such as is here offered; if they do they place themselves on the horns of an awkward dilemma, because either they are professing a knowledge which they do not possess by accepting, in accordance with the terms of the institution, the responsibility of controlling a system of cure which is still in its infancy and almost wholly unproved; or they are trusting their patient to the care of a managing secretary and an expert electrician, neither of whom can be expected to have much experience in clinical investigation or to have much practical knowledge of therapeutic reaction. To accept the risks of such a dilemma is as hazardous as it is unnecessary, because well within the pale of professional orthodoxy there dwell many well-known specialists who are devoting their lives to the elucidation and elaboration of the problems which these new agencies of high potential electricity and light rays have brought prominently forward, and to whose charge any practitioner may confidently entrust his patient with the full assurance that every scientific care will be taken to guide the treatment and register the results. Not only so, but from the point of view of worldly self-interest, the fees that must necessarily be paid are retained within the confines of the legitimate profession, and are of valuable consideration to those who are endeavouring, in the proper spirit and on strictly professional lines, to penetrate the secrets of Nature and bring her forces within the scope of practical application as helpful agencies in the cure of disease.

THE VIBRATION "CURE."

In a street in this same neighbourhood is to be found another institute—this time an importation from Germany—which professes through the agency of vibrations produced at the rate of 2,000 or 3,000 a minute by small hammers propelled by an electric motor, to cure almost the whole gamut of disease. The promoters of this system of vibration cure claim "marvellous results in nervous diseases, heart diseases, liver, stomach, and kidney diseases, diabetes, deafness," and many more. They possess branches throughout Germany, France, and Austria, and have recently established institutes in London and New York. The London establishment is under the management of a German graduate in medicine who is prepared to receive and treat whoever comes to him, but who prefers that the patient should remain under the care and direction of his own family attendant. The difficulties in the case of this institution are not so great as in the one previously dealt with, because here a medical man is in charge who may be presumed to know the results obtainable by the system of cure which he practises and who may therefore be credited with the possession of sufficient scientific knowledge to enable him to gauge intelligently the effect of the treatment on each case which he handles. As to the value of the system itself we offer no opinion, but so much is claimed for it that the prudent may be excused if they suspend their judgement. It is, for instance, asserted that by its influence, the secretions of—among other organs—the pancreas and the testicle are markedly increased. How, we would gladly know, are these results ascertained and by what proofs can they be demonstrated? That certain physiological results may be produced by the effect on the peripheral circulation of vibrations rapidly repeated over a period of fifteen or twenty minutes we are not prepared to deny, but that diseases of all kinds and of every organ can by such a process be cured or even modified we do not believe. In the case again of this institution the question may well be asked: why should the public be exploited by such a commercial enterprise at the expense of the profession: and why should doctors employ such agencies when, within the limits of their own profession, they can find opportunities for the application of the same method? Vibration treatment, whatever it may be worth, is available at several of our health resorts: and is also practised, with a full appreciation of its limitations, by those whose work is specially devoted to electro-therapeutics. There is a feature about this institution which is probably not meant to be so widely known as the wonderful cures it effects, but which has an important bearing upon its trustworthiness, and that is the system by which it carries on its operations. Its valuable discoveries are apparently in some way protected by patent, so that in order to practise the "Muschik System," as it is called, recourse must either be had to one of the many institutes it possesses, or a licence must be obtained from the company for the use of its apparatus. This licence is preferably given to medical men, though not confined to them, and an endeavour is being made to establish a vibration institute in every town where a licensee can be found. A moment's consideration will show how subtle a bribe this is to the younger members of our profession, who, in their zeal to get on in the world, may not always be fully alive to the risks they run in accepting such an inviting offer. They are assured that this system is in full operation all over the Continent, and that it is a method of treatment full of fendless possibilities, so that those who are fortunate enough to avail themselves of the present fleeting opportunity for obtaining the licence—for one only will be granted to each town or district of a certain population—have but to wait their time to step in, through the introduction it will give them to large and increasing practice. Even if it be admitted that the system has good in it, is this business method not of itself enough to put such an institution beyond the pale of professional acceptibility, and to justify its relegation to the outer march line of the Borderland?

A NEW FORM OF "CLUB" PRACTICE.

Not far off another establishment, though performing most excellent and commendable service in the facilities it affords for physical culture, lays itself open to serious misinterpretation by the possession of what it is pleased to call a medical department.

This institution aspires to the dignity of a club, whose foreign title may be ascertained by those who are inquisitive on reference to the advertisement hoardings which beautify the various stations of the "Twopenny Tube." With its academy for physical development we are not concerned; indeed we are informed that the various exercises and gymnastics there taught are specially well devised, and that the muscular training provided is carefully regulated and admirably carried out. It may be contended, perhaps, that to undertake the cure of stammering is somewhat beyond the scope of an ordinary gymnasium, but even with that departure from the ordinary curriculum of such an establishment, we are not disposed to find serious fault. When however we discover that this club undertakes, under a separate medical department, "light treatment by electro-chemical light rays," "electro-vibratory treatment," and treatment by "Nauheim, Marienbad, and Karlsbad baths," we feel bound to record our protest, and to ask whether, in this department of its work, this club is not significantly similar to the others we have mentioned?

The light treatment which is practised is recommended "for the cure of rheumatism, lumbago, sciatica, swollen and stiff joints, water on the knee, sprains, golf elbows, tennis legs, etc.; gout, eczema, and all kinds of skin troubles; complexion, kidney, and liver troubles; insomnia, headache, ulcers, neuralgia." Truly a comprehensive list! The apparatus used for the electro-vibratory treatment is "the only one of its kind in the United Kingdom; it is most useful in accelerating results with light treatment in all

the above ailments." The Nauheim, Marienbad, and Karlsbad baths are "the only ones in this country," and "are specially suited for heart diseases and general debility." In addition to all this, the club imports Salso Maggiore waters direct from the springs in hermetically sealed vessels, and advertises them "for use in spraying for post-nasal and chronic throat troubles."

The variety of diseases which it undertakes to deal with is thus fairly extensive, and it would be interesting to know whether, in this case, patients are only admitted on the order of their medical attendant, or whether the two members of our profession whose names appear on the ballotting committee hold themselves in any way responsible for the administration of this department of the club's work. It is of some importance to the profession at large to have information on this point, because, though it is distinctly stated that the medical department is a "branch entirely separate from the club," it is also declared that "it is not necessary to be a member of the club for medical treatment." The clear inference is that a simple formality of a payment of so many guineas entitles any one to avail himself of the opportunities here offered for the cure of most of the ills which flesh is heir to. We again ask: Is it well that syndicates of this kind should enter into competition with individual members of the profession? and can the members of this club complain if their incorporation with a medical department which adopts such advertising methods and claims such extensive powers of cure brings down upon them adverse criticism? What has an academy of physical culture to do with the treatment of disease? There seems to be but one answer—the department exists for the purpose of making money. If this be so, the members, and especially the medical members, of the ballotting committee, all of whom are men of the highest integrity, should pause to consider whether in thus allowing their names to be associated with such questionable practice, they are not unwittingly harming a great profession, and, no doubt unconsciously, encouraging those who live in the borderland.

(To be concluded.)

THE MIDWIVES BILL.

THIRD READING IN THE HOUSE OF COMMONS.

[Special Report.]

The Midwives Bill came up for third reading in the House of Commons on Friday, June 13th.

Mr. Heywood Johnstone (Sussex, Horsham) proposed certain verbal amendments consequent upon changes made on the report stage, especially with reference to extension of the period of grace to be allowed to unregistered midwives.

The Speaker said he had satisfied himself that these amendments did not raise any new point, but were simply consequential, and did no more than give effect to the already expressed intentions of the House.

The amendments in question were therefore agreed to without discussion.

Mr. Griffith-Boscawen (Kent, Tonbridge) said the Bill was an exceptional one in its character, and, as he had always opposed it, he would not like it to pass its third reading without a few remarks. It was a measure contrary to what had been the whole course of legislation upon such matters for many years. The object of Parliament for years past had been, so far as possible, to strengthen the law against quacks and unqualified practitioners. That had been the tendency and object of the Medical Acts. At present under these Acts no doctor might practise midwifery unless he was qualified not only in that branch but also in medicine and surgery. Under this Bill that policy was entirely reversed, and, so far from making the qualifications more strict they made it more easy, and allowed a certain number of practitioners to practise under this Bill, although they were only qualified in midwifery, and whose qualification even in that would, he feared, not be at all high in many cases. At the same time he recognized that there were special reasons why this course should be adopted. In the first place, although the law required high qualifications as necessary for medical men, the fact was that a large proportion of the poorer classes did not resort to the medical profession in ordinary cases of labour. They resorted instead to certain classes of midwives, often very ignorant as well as untrained, unregistered, and unqualified. These had undoubtedly been the cause of inflicting upon the poor a vast amount of unnecessary pain and suffering. The result was that through the carelessness or want of education of these midwives, a great deal of preventable mortality had been caused. The reason why so many poor people did not avail themselves of the services of doctors, but went to these ignorant women instead, was on account of the comparatively high charge made by qualified practitioners. If poor people often could not afford to pay a doctor, and went rather to unqualified women, whose charges of course were much less, there was a great risk that they would still prefer to employ the cheaper of these women, even if they were less qualified. He might venture to point out to the promoters of the Bill that unless the amendment which was inserted last week had been inserted, the Bill would have been practically useless, because it would still leave the unqualified person to continue to practise as before without limit of time. It would simply have set up a separate class of trained or registered midwives, but, just as now, the poorer people did not go to the expense of a doctor, but preferred the cheaper service of a midwife; so if this Bill had passed in the form in which it was originally introduced, the result would doubtless have been that, instead of going to the registered midwives, who would be somewhat more expensive, the poorest class would still have continued indefinitely to resort to unregistered and unqualified women, so that the very evil that it was sought to remedy might have gone on in perpetuity unchecked. Importance must be attached to the amendment introduced last week fixing the year 1910 as the date after which it would not be lawful for any woman habitually and for gain to practise midwifery unless she was registered. It must, however, be pointed out that until that date the Bill would fail very largely to meet the evil that it was designed to remedy; and he could not say that he thought much good was likely to result. He had heard sinister rumours that an attempt would be made in another place (the House of Lords) to remove the essential amendment to which he had referred. He knew that Mr. Collings, who represented the Home Office felt most strongly on the subject, and had spoken strongly against the amendment. He (Mr. Griffith-Boscawen) had read the speech of that right hon. gentleman three or four times since hearing it, and failed to understand the objection he felt. The right hon. gentleman in effect said that if the words of the embodied amendment were inserted it would not only prevent unqualified and unregistered women from nursing a case, but would prevent them from rendering such menial services as washing the children and cleaning the house, or otherwise assisting a female friend in the period of confinement, and, in fact, discharging the domestic duties which at an ordinary time would be discharged by the poor woman herself. He (Mr. Griffith-Boscawen) did not see how that could follow from the words of the amendment, which was framed expressly to meet the case of women who "habitually and for gain" practised midwifery. What was clearly referred to in the Bill was the nursing of a woman during her period of labour, and not merely the discharge of menial functions in the household. If there was any doubt about that, surely it was possible in the other House to insert words to make the meaning clear, namely, that what was aimed at was not to prevent household duties being discharged, but simply to prevent actual professional attendance and nursing being done by an unqualified woman. The Under-Secretary of State for Home Affairs seemed to suggest last week that an agricultural labourer could not or would not pay for the services of a qualified midwife for his wife; but if that really were so what was the use of the Bill? It was important that any legislative provision made should apply to all classes, and he could not anticipate any good result whatever from the Bill unless the penal amendment was retained. (Hear, hear.) He would like to see the Central Midwives Board made a stronger body. He agreed with the hon. member for the Scotland Division of Liverpool that the British Nurses Association should be represented on the Central Board.

Mr. T. P. O'Connor: That was agreed to last week.

Mr. Griffith-Boscawen said he was glad of that, but he had forgotten the fact or overlooked it, because the Bill was

now brought up for third reading without having been reprinted so as to show the changes made in it at the last stage. He thought the local control ought to be stronger, but he was not now going to renew points raised in the Committee stage. He would not vote against the third reading of the Bill after his hon. friend, Mr. Heywood Johnstone, had worked at it for so many years; but the Bill was of a peculiar nature and ought not to be made a precedent. It was only because it dealt with a special set of circumstances that he and others had withdrawn their opposition, but he hoped this sort of departure from past usage would not be repeated. He hoped they would rather go back to the old and proper principle of making all qualifications more strict rather than remove or diminish qualifications, which this Bill undoubtedly did. (Hear, hear.)

Mr. RENSHAW said he feared that the amendment to which reference had been made might cause difficulty in sparse and remote rural districts, where it was almost impossible at short notice to obtain the services of a trained and experienced midwife. Reference had been made to the fact that last week, when this Bill was before the House, Mr. T. P. O'Connor had succeeded in introducing a provision that there should be a representative of the Royal British Nurses Association on the Central Board. He (Mr. Renshaw) thoroughly agreed as to the desirableness of that, and he was glad the proposal had been adopted. He would like now to make a further appeal, namely, that the promoters should also agree in the House of Lords to place upon that Board a representative of the Queen Victoria Jubilee Institute for Nurses. He had received a letter from the Secretary of that institution, which was doing excellent work in every part of the country. It appeared that the institute was engaged in supervising midwives over the whole country. It had between 400 and 500 on its books, and did all it could do to educate and qualify them. He thought steps should be taken to secure the representation of that body.

Mr. E. FLOWER (Bradford) said that as one of the honorary secretaries of the late Queen's Commemoration Fund, which was in aid of that institute, he would like to join in that appeal. The amendment inserted last week did provide in some measure for the admission of a qualified nurses' representative on the Central Board; but in view of the exceptionally valuable work which the institute was doing all over the country, he thought it was right that a representative of the Queen's Nursing Institute should have a seat on the Central Midwives Board. He knew it was too late to give effect to that suggestion in the House of Commons; but he appealed to the sponsor of the Bill to give some expression of encouragement and sympathy, and the hope that elsewhere the Bill might be amended in that direction.

Dr. THOMPSON (North Monaghan) said that before this Bill passed to a third reading he desired to add a few words. There was no doubt that the medical profession were not at at all satisfied with the Bill; but the concessions made by the promoters had modified many of their objections, and they hoped that the discussions which had taken place might in the near future encourage the introduction of an amending Bill. In Ireland they had almost as perfect a system as could be arranged for looking after poor women in their time of distress and labour. They had well-arranged district dispensaries, each under a doctor, and under him there was a nurse. At all these places there was a midwife, but she could not act by herself. The woman in labour called in the doctor, who sent the midwife, and the doctor was therefore in touch with the patient. If the nurse saw anything wrong or unusual she sent for the doctor. A number of persons said that the process of parturition was easy and natural. No doubt it was natural, but it had become almost unnatural in many cases owing to some of the conditions and customs of modern life in our highly-civilized state of society. A great many cases of that sort required the administration of chloroform, and wherever possible a medical man should be called in, so that the poor as well as others might have the right to relief from suffering. He was not sure that the Government were quite in favour of the amendment necessarily introduced into the Bill, for he had heard the Under-Secretary for the Home Department declare that it would be a terrible thing to deprive a sufferer of the help of a handy woman, and that it was necessary to have some one to take care of the children and do the dirty work of the house. But had the right hon. gentleman never heard of antiseptics, and did he not realize that the very thing we wanted to guard patients from was dirt, and the very person who should not do dirty work was the handy woman called in to nurse a patient?

Mr. JESSE COLLINGS: Who is to pay?

Dr. THOMPSON said that point might be met by establishing a proper system of district dispensaries in England as in Ireland, and the cost could be put upon the taxpayers. He had begun his professional career as a general practitioner, and he could testify to the frightful dangers that followed from puerperal fever, and the terrible laceration and other injuries caused by carelessness of a gross character on the part of unqualified midwives. His time had often had to be taken up in trying to remedy evils due to the employment of careless, ignorant, or dirty women. If there was a difficulty in a rich country like England, let it take an example from what had been done in Ireland, and then the medical care of the poor would be improved. There were a great many defects in this Bill, but there were some good things in it. The medical profession was not in general a money-grubbing profession. (Hear, hear.) He could speak for himself, and say that for a thousand patients he attended for pay he had had probably five thousand whom he attended without any fee, and what applied to himself applied to most other doctors except those high up in the profession whose time was so much more valuable. Wherever they saw suffering or trouble they were not slow to try and relieve it as far as they could, taking pay if they could reasonably get it, but without fee in poor cases. (Applause.) He hoped that when this Bill went to the Upper House the penal clause would be left undisturbed. It was absolutely necessary, and he did not think there was a doctor in the three kingdoms who would not support him in saying that in the interests of the poor there was no clause in that Bill so necessary as the penal clause, which would put a term to the practice of unqualified women, who, although they doubtless did their best, were still incapable of properly treating cases of childbirth. He did not wish to say a word to retard the progress of this Bill, and he hoped that if any changes were made in it in the Upper House, it would be only in the direction of improving and strengthening the Bill, so as to make it more effective for the protection of the suffering poor. (Applause.)

Mr. PARKER SMITH said he did not think that the hon. member who had just spoken had said a word too much on behalf of the medical profession. (Hear, hear.) Every one recognized the enormous extent of unselfish, unpaid, devoted service of that profession to the poor. No doubt in the case of students and young doctors the treatment of cases was good for practice and education; but the great bulk of their benevolent free service was rendered from sympathetic motives by men who came into contact with suffering, and who out of the charity and generosity of their natures did not hesitate to give a vast deal of good work without monetary fee. (Applause, and hear, hear.) The general desire was that poor women in labour should get the best and most skilful help available. But how was that to be arranged? We had to deal with facts as we found them, and the fact was that a comparatively small proportion of poor women could afford to employ the assistance of skilled members of the medical profession. No doubt there was a large amount of mischief done by the ignorance and dirt of many midwives. This Bill was an attempt to do as much as could be done at present to improve the status and education of midwives. We must move gradually. He wished we could go farther. He would be delighted if it were possible to go farther in instituting a higher qualification for midwives, but any attempt at once to demand elaborate qualifications would simply make the measure unworkable. We must be satisfied to advance by steps, and he hoped that in the future we might make a further step forward. He did believe, however, that the present Bill was a real step in advance, and, although it would not make the ordinary midwife all that could be desired, it would give the poor some assurance of competence, and would prepare the way for further improvement. The hon. member for Tonbridge (Mr. Griffith-Boscawen) had said that this Bill was contrary to the general tendency of the law. He (Mr Parker

Smith) should rather have said it was exactly in accordance with the tendency of the law to restrict quacks or unqualified medical practitioners. The law in that respect had not been so much to attempt to forbid unauthorized persons as to register those who were competent and authorized, and to take every precaution that these who were not authorized should not be able to pretend that they were authorized or recognized as competent. We could not absolutely and at once prevent unregistered persons from getting employment, or prevent women in labour from seeking advice or help from another woman: but we could make sure that poor women should have means of knowing the facts when they employed some one not recognized by the faculty. He would like at once and completely to stop quacks and unauthorized midwives; but he really was afraid that a Bill to do that would not have much chance of passing through this House. He was exceedingly glad at the introduction of an amendment fixing January, 1910, as the date for the penal clause coming into operation. He heartily supported that, and he would be no party to any attempt to get it taken out of the Bill in any other place. The matter had had to be one of compromise and of doing as much as was possible at a time to improve the status of midwives, whilst at the same time not attempting to do anything impossible. In the discussion last week the general feeling seemed to be in favour of that amendment, and he hoped that the long interval of seven years would allow plenty of time for the women who were now practising so to improve their experience and qualifications as to enable them to be registered and put upon the roll; indeed, it might be worth while to consider in the other House whether it was possible to provide an easy way by which in the interval such women, if of good character, might be put upon the register. They might, perhaps, be allowed some easier way than women who started fresh in the business at a later date. He was glad this Bill was now passing safely through the House of Commons. It had gone through a careful and jealous scrutiny. Sometimes one might have felt inclined to think that some of the professional criticisms upon it were of an interested character; but on the whole, as regarded the feeling of the majority of the medical profession, he agreed with what had been stated by Dr. Thompson. He believed that on the whole the profession had been looking at it simply from a desire to secure what was best for the poor women of this country. Sometimes the doctors had been rather impracticable in asking all at once or too much, and because they could not get all they wanted some of them were disposed to do nothing, but he thought their objections and criticisms had mainly arisen from a desire to do the best they could in the public interest. (Hear, hear.) They acted as a rule from high motives, and where their suggestions were not accepted it was because they asked too much at once. (Hear, hear.)

Sir Walter Foster (Ilkeston) said this Bill was one in which he had taken a benevolent interest for about ten years or more, and he was loth to part with an old friend without saying a few words with reference to the present position. They met a week ago with seven pages of amendments to consider, and apparently with hardly any prospect of the Bill passing through its report stage on that day. Suddenly, and almost unexpectedly, they were all at harmony, and the Bill passed rapidly to its present stage. That singular phenomenon was due to a complete change in the character of the Bill. He hoped the change so made in the Bill would be retained at all costs in its future progress. (Applause.) They did not on that occasion receive any very explicit declaration from the Government of their adhesion to the new principle introduced into the Bill. On the contrary, Mr. Collings had made a speech of considerable fervour defending the position of unqualified practitioners in midwifery, especially in rural districts. He (Sir Walter) had in some respects sympathy with that defence. Any measure that would deprive those somewhat remote localities (in some of which a medical man did not reside) of the assistance of women who had hitherto helped in such cases would be a serious injury to the poorer classes; but he thought the right hon. gentleman had rather exaggerated that point: in the series of years of grace that were to be allowed, there would be ample time to overcome the difficulty. Every suitable and deserving person now practising as a midwife or nurse would have ample time to get on the roll. These women, or many of them, were deserving in many respects. In the course of the debate they had been called dirty, but that word was not meant to be applied in the ordinary acceptation of the term—it was only used in a scientific sense. Many of the menial duties these women were called upon to perform were called for by the poor in a spirit of cleanliness, but duties involving dirty work ought in no case to be done by persons who were brought into direct contact with a patient. The Under-Secretary had been rather unnecessarily indignant at some of the expressions used; but all he (Sir Walter) or his professional friends wanted was that ignorant and untrained persons should not be allowed in the future to perform the most delicate and dangerous work, involving risk to health and life. He wanted to elicit from the Government a pledge that, whatever changes might be made in the Bill in the future, the amendment with reference to practising midwifery habitually and for gain after January, 1910, should not be interfered with, because the whole of the so called compromise rested upon the insertion of those words. He would be sorry if anything were done to interfere with the carrying out of the principle embodied in that amendment when the Bill became an Act of Parliament. What was wanted was not the protection of the medical profession. (Hear, hear.) He disavowed that entirely, but he was anxious to have some security that every woman who performed the functions of a midwife should be a skilful and properly instructed and competent person. He thought the Bill would have to be more or less amended in the future. He was not quite satisfied with the constitution of the Midwives Board. He did not think that the relationship of the county councils to this matter was sufficiently distinct and defined, or that the present form of it would work fairly and without prejudice. He would like to see the medical officer of health in every locality made more directly responsible. Such officers could be made responsible not only to the county council but also to the public. The expense of carrying out this Bill might be considerable, and that would have to be considered by the county councils. He believed now, as he believed two years ago, and as he said on the second reading of the Bill, that this Bill was only part of a much larger measure of legislation that was needed by the country. He did not think it should ever have been left in the hands of a private member. Now that the Home Office had assumed some responsibility for it, he hoped that Department would look after it carefully and see that it was not altered in regard to the points upon which stress had been laid. It should be recognized that this measure dealt with only a small fraction of a great public question. We had some 3,000 or 4,000 midwives in this country, but there were about 80,000 nurses, and they also needed supervision and control—many of them just as much as midwives. (Hear, hear.) He would be glad to see the Home Office rising to the opportunity of action and introducing a measure to supervise the whole of these women who performed delicate duties for the suffering poor, so as to regulate them and ensure proper and capable persons who could be relied upon to look after the poor in their times of trouble and sickness. (Hear, hear, and applause.)

Mr. Banbury (Camberwell, Peckham) said he considered it somewhat doubtful whether the Bill as amended would not create a midwife ring. (Laughter.) On the whole, however, he thought the Bill was a good one, and likely to prove useful.

Mr. T. P. O'Connor (Liverpool) sympathized with the proposal which had been made that a representative of the Jubilee nurses should be added to the governing body. He thought that the governing body might be further improved. To a large extent, the Board was a London Board, and he thought that a change might be made to give a better provincial representation on the Board than existed at present. He also thought that the very important rules regulating the whole practice of midwifery in the country should be subject to the supervision of Parliament by being allowed to lie on the table of the House for thirty or forty days before becoming law. He impressed upon the House the fact that nursing was at the root of this midwifery question, and he hoped that an attempt would be made to assimilate the English system to the Irish system. In Ireland they had almost a perfect system for the care of poor

women, who were entitled without fee to the assistance of the dispensary doctor, aided by a thoroughly trained nurse. The case of village communities ought to be attended to, and he advocated pressure being put upon localities to imitate the example of Ireland in this matter.

Mr. COHEN (Islington, E.) regarded the Bill as a distinct contribution towards the removal of a serious evil in relation to the poorer classes, though there were defects which still remained to be remedied. He hoped the Government would adhere to the compromise arrived at as to the time when midwives would be required to get themselves certified. He should have been glad if the delay had not been so long, but he recognized that it was necessary to allow an adequate interval to these women to adapt themselves to the new conditions.

Mr. COLLINGS (Birmingham, Bordesley), Under-Secretary of State for the Home Department, said it had been suggested that the Government should give a pledge to take charge of the Bill in another place. From the very beginning it had been understood that the Bill was not a Government Bill, but was left entirely in the hands of the House to deal with it as they pleased; and that would be its position also in another place. He meant to vote for the third reading of the Bill for two reasons. In the first place he thought the Bill was a thoroughly good measure, and was a long step in the right direction. It prevented the use of the title "midwife" by persons who were not qualified for the position. In the second place, the promoter of the Bill, his hon. friend the member for the Horsham Division, had conducted it through the House and the Grand Committee in so conciliatory and courteous a manner that it would be ungracious to attempt to spoil his labours. Still he thought the Bill would be a hardship to the large and very deserving class of monthly nurses who attended women of the working classes in childbirth. The averages of these nurses was 7s. or 8s. per week, and for that sum they not only attended to the wife in her confinement, but discharged all the menial domestic duties of the humble household. The women who undertook that kind of nursing were harshly and unjustly treated by the clause which had been introduced. If the Bill had been left as it was originally introduced, charitable people and societies would have supplied trained nurses for the working classes to take the places of the nurses who now attended them; but, as the Bill stood, it was hard on the working classes that the only class of nurse they could afford should be subjected to fines and imprisonment if any of them ever again attended a woman in childbirth. It had been stated that the terms "Sairey Gamp" and "dirty" and "ignorant" had been applied to the class of monthly nurses in a scientific sense, but he did not think that those expressions would be so understood by the public, and he thought they unduly reflected upon those who would be penalized.

Sir F. S. POWELL (Wigan) said he rejoiced that the Bill after many vicissitudes had at length reached a stage where its passing into law might be regarded as a certainty.

Mr. SCHWANN (Manchester) expressed his hope that no obstacle would be interposed in the House of Lords to prevent the measure from becoming law. He congratulated the hon. gentleman in charge of it on the successful issue of his exertions on its behalf.

Mr. HEYWOOD JOHNSTONE, as the promoter of the Bill, expressed the hope that better things would follow as experience and knowledge was gained by the Central Midwives Board which was instituted by the Bill. As regarded the penalizing of unqualified practitioners, they had been invited to throw out some indication of what course might be pursued by the promoters of the Bill with regard to the amendment adopted in the other House. The words inserted were the result of a compromise, and he would not be a party to any attempt to upset that compromise. He would abstain from giving any indication of his opinion as to the retention or omission of those words. Weighty arguments might undoubtedly be used on both sides.

Mr. TOMLINSON (Preston) said he was strongly in favour of the enactment of a Bill of this kind. He hoped care would be taken to ensure that while the measures should be made as efficacious as possible, the poorer classes should be protected from injury. He did not think that any compromise ought to stand in the way of the fullest and fairest consideration.

Lord HUGH CECIL (Greenwich) said he could not gather whether the Under-Secretary (Mr. Collings) spoke on behalf of the Government. That gentleman had made some criticisms of the Bill, but had not explained what attitude the Government would take. Did they propose to make the Bill a Government measure?

Mr. COLLINGS: I thought I was perfectly plain on that point. I said it was not a Government Bill, but from the beginning had been regarded as a Bill in the possession of the House.

Lord HUGH CECIL: Do I understand that the Government do not consider themselves bound by the compromise arrived at?

The HOME SECRETARY (Croydon): I think that was made quite clear when the compromise was arrived at. My position in regard to the matter is this: I prefer the Bill as it was originally; but I very much prefer having the Bill as it stands to not having any Bill at all.

Sir WALTER FOSTER: I specially asked the right hon. gentleman the question, and the answer he made was that he was not opposed to the compromise.

The HOME SECRETARY: When the hon. gentleman asked me that question I was speaking about the position of the Bill as it stood in this House. The hon. gentleman asked me whether I was in favour of or opposed to the amendment which they had inserted, and my reply was that I certainly should not vote against the Bill.

Sir WALTER FOSTER: It was the compromise that I asked about.

The HOME SECRETARY: I meant that I myself would not vote against the Bill; but I certainly decline to be responsible for anything the House of Lords may do. The Peers are beyond my control.

The Bill was then read a third time, without a division.

A NEW CRUELTY TO ANIMALS BILL.

As was stated in our Parliamentary Notes last week, a Bill to amend the Cruelty to Animals Act, 1876—the Act which regulates the practice of experiments on animals—has been introduced into the House of Commons by Mr. Banbury, and supported by Colonel Lockwood, Mr. Paulton, and Mr. MacNeill. Colonel Lockwood moved its second reading on June 6th, but as objection was taken it could not be proceeded with.

Although it is not likely that any progress will be made with the Bill this session, yet as it contains some drastic alterations which would affect the progress of medicine, it seems desirable to compare it with the Act at present in force.

Taking the clauses of the new Bill in order, the following are the changes proposed. Clause 3 (3), refers to experiments calculated to give pain, which would provide that:

> The animal must, prior to the commencement, and thenceforth during the whole course of the experiment be under the influence of a general anaesthetic of the nature of a respirable drug or gas, such as chloroform or ether, or alcohol, chloroform and ether combined, of sufficient power to prevent the animal feeling pain.

This is evidently levelled against the use of morphine or of any drug which can be given by injection: 3 (7) would provide that:

> The substance known as curare shall not be used or administered for the purpose of or during the experiment.

This would be in place of:

> The substance known as urari or curare shall not for the purposes of this Act be deemed to be an anaesthetic

in the present Act. Curare would therefore be completely abolished. Subclause 8 would provide that:

> There shall be present during and throughout the whole course of the experiment an inspector ..... and no such experiment shall at any time be performed or continued save in the presence of such inspector as aforesaid.

The Clause goes on to provide that subsections (3) (4) and (8) (namely, the subsections which refer to anaesthetics, to killing the animal before coming out of the anaesthetic, and to the presence of an inspector)

> shall not apply to an experiment not calculated to give pain from the act or operation by means of which the experiment is initiated.

As to these experiments it is proposed that—

> (a) Directly the animal begins to feel pain it must be placed, and therefore while it suffers or is likely to suffer must be kept under the influence of a general anaesthetic ..... or ..... it must be forthwith killed.

It is difficult to understand what is the exact meaning of the words "not calculated to give pain," do the words apply only to feeding experiments or do they also include experiments by inoculation which are at present included under Certificate A?

Clause 4 of the Bill seeks to enact that—

There shall not be applied to the eye of an animal by way of experiment any matter or substance for the purpose of absorption through the conjunctival membrane.

Section 5 in the present Act which provides special certificates for a dog, cat, horse, ass, or mule, is repealed.

In place of Section 8 of the present Act, which enacts that a licence granted by the Secretary of State may be for such time as he may think fit, and may be revoked by him, and that there may be annexed to such licence any conditions which the Secretary of State may think expedient, the new Bill would provide that for experiments calculated to give pain

(1). No licence granted hereunder shall authorize the performance of more than one experiment to be specified in such licence, or one series of not more than six connected and consecutive experiments of a nature to be so specified;

(2). Every licence granted hereunder shall specify the time and place at which the experiment or series of experiments is or are to be performed.

Section 9 of the present Act directs the licensee from time to time to make reports to the Secretary of State of the result of such experiments; according to Clause 8 of the new Bill

The Secretary of State shall direct every licensee.....to make forthwith a detailed chronological report to him in writing of the description, course, and result of the experiment.....and it shall be transmitted to the Secretary of State within *seven days* after the completion of each experiment.

Clause 9 of the new Bill provides that three copies of every such licence and three copies of every such report shall be filed and deposited in the Libraries of the Houses of Lords and Commons, and in a place accessible to the public.

Clause 10 in the new Bill provides for "a sufficient number of inspectors" in place of "any special inspectors" in the present Act.

We may sum up the changes contemplated in the new Bill as follows:

1. The abolition of all anaesthetics which are not respirable.
2. The abolition of the use of curare.
3. The abolition of the application by way of experiment to the conjunctiva of any matter or substance for absorption.
4. The abolition of all experiments in which the animal is kept alive after an operation under anaesthetics (Certificate B).
5. The abolition of all experiments as an illustration of lectures in a medical school where, as at present, the animals are kept under an anaesthetic during the whole of the experiment, and killed before recovering consciousness (Certificate C).
6. To kill or to administer, and keep under, a respirable anaesthetic every animal which has been subjected to an operation not calculated to give pain, should it begin to suffer pain after the operation (Certificate A).
7. The presence of an inspector during and throughout the whole course of every experiment which is calculated to cause pain, although the animal is under an anaesthetic and is killed before retaining consciousness.
8. No licence to be granted for more than one experiment or for one series of not more than six connected and consecutive experiments.
9. Every licence shall specify the time and place of each experiment or series of experiments.
10. A detailed chronological report of the description, course, and result of each experiment is to be sent to the Secretary of State within *seven days* after the completion of each experiment.

In the above list of changes contemplated by the new Bill, the certificates under which the different operations are at present allowed are placed in parentheses; and it will thus be seen that while Certificate A, which at present allows experiments, such as inoculations, to be performed without anaesthetics, is modified, Certificates B and C would be entirely abolished, and the experiments which are allowed to be performed under them entirely prohibited.

Now what are these experiments which are to be swept away? Under Certificate B the animals are put under an anaesthetic, and while unconscious an operation is performed, the wound is dressed with antiseptic precautions, and the animal is allowed to recover consciousness; the wound as a rule heals by first intention, and in fact, the operation is precisely the same as the surgical operations that thousands of human beings undergo. It is the class of experiments by which the relation of myxoedema to the thyroid gland was substantiated, and by which the functions of the cerebral cortex have been determined; investigations which have been of the greatest practical benefit to suffering mankind. The new Bill will stop all this. By the abolition of Certificate C, all experiments on animals for the illustration of lectures will be prohibited. Under this certificate the animal must be anaesthetized before the operation and must be killed before recovering consciousness, and there is therefore no pain. For the teaching of anatomy it is found necessary to use demonstrations, but with regard to physiology—a most difficult and complex subject—students will, if the Bill is passed, have to learn this subject from diagrams which can never take the place of actual demonstration.

The requirement that an inspector should be present "during and throughout the whole course of the experiment," is nothing more or less than a gratuitous insult to the medical profession.

It is not possible to imagine that "the assent of the Treasury as to number" would be given to the army of inspectors which would be required to "be present throughout and during" 1,176 experiments in one year. The supply of inspectors would be insufficient, and experiments would have to wait till an inspector was disengaged. The limiting of a licence to one experiment or to a series of six, the specification of the time and place of each experiment, and the detailed chronological report to be sent in within seven days, are all vexatious regulations obviously designed to stifle research.

THE DR. WILLIAM THOMSON, OF ANAHILT, MEMORIAL FUND.

Dr. W. Thomson, of Anahilt, co. Down, died from acute pneumonia towards the end of May. Dr. Thomson had been medical officer of the Anahilt Dispensary for upwards of thirty years; he was a Justice of the Peace for the County Down, and was of the most honourable and respected members of the profession. He was popular with all classes of the community, and had been a member of the North of Ireland Branch till 1900. Dr. Thomson was about 62 at the time of his death; he had always been one of the steadiest and hardest of workers as far as his health would allow. Twenty-five years ago he was threatened with consumption, but the claims of a family were paramount with one of his nature, and he braved the risk and survived. His district was extensive but poor, and it may serve as a warning to those who intend competing for places under the Poor-law system in Ireland, that after a long lifetime of service he died unable to leave any provision for his wife or children, with whom much sympathy is felt. So thoroughly is it felt that this was through no fault of his own, and so deep is the respect for his memory, that an effort is being made to raise a fund for the family.

At a meeting held recently at Lisburn, co. Antrim, the following amounts were promised. Further subscriptions will be gratefully received and acknowledged by the Treasurer of the Fund, Dr. James G. Jefferson, 14, Seymour Street, Lisburn, co. Antrim.

	£	s.	d.		£	s.	d.
The Marquis of Downshire	5	5	0	John Alexander, Esq., B.A.	1	1	0
O. B. Graham, Esq., J.P. ...	5	0	0	Major Price, J.P.	2	2	0
Jas. E. Sloan, Esq.	5	0	0	The Misses Thompson ...	2	2	0
Jas. A. McNeill, Esq., M.A.	5	0	0	Robert Dodds, Esq., B.A., J.P.	1	0	0
Jas. W. Alexander, Esq., J.P.	5	0	0	Dr. Boyd, J.P.	5	0	0
A Friend	5	0	0	Dr. Gawn Orr	3	3	0
Rev. Josias Mitchell, B.A.	3	3	0	Dr. Musson, J.P.	1	1	0
Rev. Samuel Graham, M.A.	2	0	0	Dr. St. George	1	0	0
Rev. R. W. Hamilton, M.A.	2	0	0	Dr. W. C. Jones	1	1	0
Rev. J. J. Carlisle Breakey, B.A.	1	1	0	Dr. Campbell, J.P.	1	1	0
Rev. Wm. McNeill, B.A. ...	1	1	0	Dr. M. B. Mackenzie, J.P.	1	1	0
Rev. Wm. Browne, M.A. ...	1	0	0	Dr. Munce	1	1	0
Wm. Sinclair, Esq. ...	2	2	0	Dr. Magill	1	1	0
Wm. Tennent Henry, Esq., C.E., J.P.			0	Jas. G. Jefferson	2	2	0
John Gill, Esq., J.P. ...				John Morton, Esq., J.P. ...	1	1	0
				Dr. W. Calwell, Belfast ...	1	1	0

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 21ST, 1902.

THE ANNUAL MEETING AT MANCHESTER.

AN account of the arrangements made for the annual meeting of the British Medical Association in Manchester at the end of next month, together with particulars of the work to be done in the Sections, as well as of the numerous excursions which have been arranged for Saturday, August 2nd, is published in this issue of the BRITISH MEDICAL JOURNAL.

This will be the fourth occasion on which the annual gathering has taken place in Manchester. The Association held there its fourth anniversary meeting—in 1836—when the veteran, Dr. Edward Holme, F.R.S., was the President. It met there again in 1854, when Mr. W. J. Wilson, Surgeon to the Royal Infirmary, presided; the meeting only occupied two days and there were no Sections. The Association met in Manchester for the third time in 1877, when Dr. Eason Wilkinson, Senior Physician to the Royal Infirmary, was President. The business of the meeting then, as now, occupied four days, and there were six Sections. This year the Association will meet under the presidency of Mr. Walter Whitehead, Consulting Surgeon to the Royal Infirmary, and there will be seventeen Sections. This increase in the number of Sections reflects the growth of medical science and the enormous advances which have been made in its study. These advances, involving immense accumulations of facts, must make for specialization, since no man can hope to master the intricacies of more than one limited field of inquiry; but such meetings as that about to be held in Manchester afford opportunities to specialists not only to discuss questions which are especially interesting them at the moment, but also to bring the latest results of their special inquiries before the general body of the profession, and of indicating their bearing on general medical theory and practice.

Apart from the stated work of the general meetings to which the reports of the Council and Committees will be presented, and at which the Association will have the advantage of hearing addresses from the President-elect (Mr. Whitehead), from Sir Thomas Barlow (in Medicine), and from Professor Sinclair (in Obstetrics), and apart from the rich intellectual bill of fare provided by the Sections for the mornings of Wednesday, Thursday, and Friday, there is much in Manchester to attract the medical pilgrim. The illustrated article published at page 1565 gives a brief account of the medical institutions of the city, which possesses in Owens College one of the most complete and well-appointed medical departments in existence. The Royal Infirmary is an ancient foundation which has rendered great services to the city; it has grown with its growth, and, during the period of nearly a century and a-half which has elapsed since its foundation by Mr. Charles White, its first surgeon, it has numbered among its staff many men who have made memorable contributions to medicine, to surgery, and to public health while ministering to the innumerable generations of patients who have found renewed health within its walls. The Infirmary is shortly to be rebuilt on the commanding site which it now occupies, and it will be safe to prophesy for it a long career of usefulness in the future. St. Mary's Hospital has just been rebuilt, and will be inspected with advantage by those who take an interest in hospital construction, as will also the Eye Hospital, while the system upon which the Children's Hospital is conducted, with an out-patient department in the city and the wards in a fine building on the outskirts, is one which many who have given attention to the needs of sick children believe might be imitated with advantage in other large towns.

It is almost needless to add that the hosts of the Association in Manchester have seized the occasion to show to their guests the proverbial hospitality of the North. The Lord Mayor of Manchester and the Mayor of Salford have both shown their interest in the visit of the Association, and will issue invitations to special entertainments; many private citizens offer invitations which will fill up the spare hours of the afternoons, while the President-elect and local Executive Committee of the profession are prepared to receive a large number of guests on several occasions. Nothing has been left undone by them to make the meeting a success, and it only remains for members of the Association in other localities to respond to the cordiality of the invitation extended by attending the seventieth annual meeting in large numbers. Manchester is itself the centre of populous districts in which many members reside, and it is easily and speedily reached from all parts of the United Kingdom. Moreover, and to conclude, Manchester, though it has the reputation itself of being second only to London in griminess, has, at no great distance, some of the most beautiful scenery and some of the most interesting historical sites in England and Wales. To many of these excursions have been arranged for Saturday, August 2nd, and members on leaving Manchester will be able to choose from a long list of places which they are invited to visit under the guidance of members living in the various localities.

MILITARY AND MEDICAL "ANTECEDENT EDUCATION."

THE report of the Committee on Military Education to the Secretary of State for War, recently issued, contains much of value to those interested in the preliminary general education of medical students. It would be impossible, within the compass of a short article, to do justice to the admirable manner in which the report deals with the "antecedent education" of army candidates, but it will be useful to compare the views of

the Committee on this point with those lately adopted, in reference to preliminary education for medicine, by the Council of the British Medical Association, and laid before the Education Committee of the General Medical Council.

The Military Education Committee recommends that the age for entry at Woolwich be raised from 16 to 17, partly in order to give more time for general education. The Council of the Association recommends that the age for registration of medical students be raised, for the same reason, from 16 to 17.

The Military Education Committee lays down (in Appendix A) an outline of the examination it proposes. It seems well adapted to the age of 17. The Council of the Association recommends that the standard aimed at in the preliminary examination of medical students be such as is suited to candidates of 17.

The Military Education Committee recommends that in the Army examination there should be compulsory subjects and voluntary subjects; that the compulsory subjects should be English (composition, précis, outlines of English history and general geography, with special reference to the British Empire), mathematics (arithmetic, algebra, geometry, trigonometry, mechanics, geometrical drawing, and practical geometry), French or German, and either Latin (including history and geography) or experimental science; and that the voluntary subjects should be experimental science or Latin, German or French, higher mathematics, and Greek. Freehand drawing may also be taken, but is marked much lower. The Council of the Association recommends that in the medical preliminary examination there should be compulsory subjects and voluntary subjects; that the compulsory subjects should be English (grammar, literature, and essay writing), history, geography, mathematics (arithmetic, algebra, and geometry), French or German, and Latin; and that the voluntary subjects be experimental science and Greek.

The Military Education Committee recommends that the existing three separate military preliminary examinations should be reduced to one. The Council of the Association recommends that the numerous existing medical preliminary examinations should be reduced to one.

It will be seen that between these two independent sets of recommendations there is a very striking agreement. The most important difference is the less stress laid on Latin by the Military Education Committee. But this is explained by the difference in the technical requirements of the two professions. Latin is, perhaps fortunately, still technically necessary for medical men, whilst it is not technically necessary for military men. We say, "perhaps fortunately," because the study of classics has been proved by the experience of centuries to be an invaluable means of developing the mind. The history of European civilization leaves no doubt as to its enormous influence on intellectual development. A study of the biographies of remarkable men shows that the large majority of the greatest minds of Europe have been trained by classics. It is a huge mistake to think that a "classical education" means the mere acquisition of two dead languages. It means the study of an incomparable literature, of the foundations of history, of the whole topography of the ancient world, as well as a mental discipline elaborated by long and enlightened use.

The point, however, to which we would now draw attention is this: that, allowing for such differences in subject requirements as the technical necessities of two different professions may properly entail, these two sets of recommendations are practically identical, and it cannot but be an argument in favour of the wisdom and moderation of the proposals made to the General Medical Council by the Council of the British Medical Association that they are in such close accord with the recommendations independently made to the Secretary of State by so distinguished a Committee as that which has just presented its report on military education.

MEDICAL FEES AT ASSIZES AND QUARTER SESSIONS.

At the recent Summer Assizes for the County of Suffolk held at Bury St. Edmunds, some conversation took place with regard to the fees paid to medical witnesses for professional attendance at assizes and quarter sessions. A young man had pleaded guilty to a charge of indecent assault, but the prosecuting counsel drew the attention of the judge to the fact that no medical evidence had been obtained in support of the charge. He stated that after the assault had been committed the police applied to two or three medical men in Bungay to examine the child, but all had declined to undertake the responsibility of assisting the police in their endeavours to establish a case. It was intimated in court that this difficulty had arisen in consequence of the reluctance of the medical men practising at Bungay to subject themselves to the liability of being subsequently compelled, for fees which would be absolutely unremunerative, to attend the assizes and to give professional evidence there in support of the charge against the prisoner.

The judge appears to have been surprised at this statement, and observed that it was important to poor persons to have the advantage of early professional assistance in such cases; the inability to obtain it was prejudicial to the interests of justice. He inquired whether any fee had been tendered by the police for the medical services they required. The reply to this was in the negative, and was followed by the statement that the doctors' experience of similar cases in the past had been to them most unsatisfactory.

We are not surprised to hear that Mr. Justice Kennedy expressed himself rather strongly on this occasion, as the regulations under which medical men are now paid for their attendance in a professional capacity in criminal courts of justice were framed as long ago as February, 1858, by Sir George Grey when Home Secretary, and were even at that time regarded by the medical profession as being the very reverse of liberal. Up to the time when the regulations now in force came into operation the amount of the fees paid for professional evidence in criminal cases varied in different counties, according to local regulations, from two or three guineas a day to as little in some districts as half a guinea. This of course naturally gave rise to great dissatisfaction, such a fee being in reality no remuneration whatever.

Sir George Grey professed to regard this variable rate of payment as objectionable, and appears to have come to the conclusion that one guinea a day would be a

proper fee for these professional services of members of the medical profession, and the result of this was that in those counties where more than the guinea had previously been paid the fee was reduced to this amount. But the fresh regulations did not end here, and some of our readers will be surprised to hear that owing to a special proviso contained therein the system of paying half-guinea fees was allowed to be continued wherever it had previously been in operation. A more unjust and unstatesmanlike proviso it would be difficult to imagine. A further injustice brought into operation by this new code was that medical witnesses who have now to give evidence in more than one case on the same day, no matter how many, can only claim a single guinea for all. Now, it is within our own knowledge that a distance of 50, 60, or 70 miles has had to be traversed to reach an assize court, and this has sometimes necessitated a medical witness leaving home the day before and spending the night at an hotel. To meet this expense 2s. 6d. is allowed if the attendance is at assizes, but 2s. only if at quarter sessions; for what reason this sixpenny difference should have been instituted is far from apparent.

We are glad to find that this illiberal treatment of the medical profession has been brought to notice. Compulsory absence from home for one, two, or three days and perhaps as many nights might be almost ruinous to a medical man not well established in practice. His engagements, perhaps of long standing, would, except under legal compulsion, keep any such man tied to home with no chance of leaving voluntarily even for a few hours. As a contrast to these illiberal fees, for so many years past paid to medical witnesses, the following case is worthy of note. At an assize court in a provincial county town a man was charged with the manslaughter of his wife. The medical witness in this case left his home at 8 a.m. and returned about 8 p.m. His fee was the usual guinea with travelling expenses in addition. In the same case a clerk engaged in a builder's office was called into the witness box and there produced a plan of the room in which the offence was supposed to have been committed. This plan could have been easily designed and completed in an hour. The witness who produced the plan was awarded 2 guineas for it and the evidence given to prove it to be correct, with of course the usual travelling expenses in addition. We quite agree with the learned judge that this question of medical fees deserves consideration, and that something should be done at once in reference to it. The matter has been for some time under the consideration of a joint Committee of the British Medical and of the Police Surgeons Associations, and we understand that Mr. Nelson Hardy, a member of this Committee, will give evidence on its behalf before a Departmental Committee now sitting at the Home Office.

THE ILLNESS OF THE KING.

THE greatest anxiety was caused throughout the country when it became known that the King had begun to suffer from indisposition after the torchlight tattoo held at Aldershot on Saturday evening in most inclement weather. Sir Francis Laking, one of the Physicians-in-Ordinary, at once visited His Majesty, and Sir Thomas Barlow was subsequently called in consultation. The King was sufficiently recovered on June 16th to be able to drive from Aldershot to Windsor, and we understand that His Majesty has since continued to improve, and that his physicians have every confidence that he will shortly be restored to his usual health. In anticipation, however, of the severe strain to which the King will be subjected during the Coronation festivities, His Majesty's medical advisers have recommended him to forego all public engagements during the next few days.

THE ARMY MEDICAL ARRANGEMENTS FOR THE CORONATION.

WE are indebted to the Principal Medical Officer of the Home District, Colonel W. L. Gubbins, R.A.M.C., for particulars of the arrangements made on the occasion of the Coronation. At the Alexandra Palace there will be about 2,400 Colonial troops and native troops, and a remount branch of 800 men, besides various details; three temporary hospitals will be established here providing altogether 52 beds, but serious cases will be transferred—officers to St. Thomas's Home. European non-commissioned officers and men to the Station Hospital, Rochester Row, and native non-commissioned officers and men to the Herbert Hospital Woolwich, where also additional beds are set apart for European non-commissioned officers and men. An invalid railway carriage will be provided, and will be taken through without change from the Alexandra Palace to the hospital selected. For the Indian Contingent there will be a field hospital of 50 beds in the Home Park at Hampton Court, and a small detention hospital at Fulham Palace; sick European officers and men will be transferred to St. Thomas's Home or the Station Hospital, Rochester Row. Further, a field hospital of 50 beds will be established at Hounslow Heath in connexion with a camp to be formed there, while serious cases will be transferred to the station hospital. Infectious cases occurring at Alexandra Palace will be treated at the isolation hospital belonging to the Wood Green District Council, and medical officers are warned that the utmost vigilance is necessary in connexion with the camps both at Alexandra Palace and Hampton Court, since both small-pox and scarlet fever are prevalent in and around the metropolis. A detachment of 13 officers and 370 non-commissioned officers and men of the R.A.M.C. (regulars, militia, and volunteers) will attend for ceremonial purposes. They will be employed in lining the route, and will receive their orders direct from the general officer commanding. The *personnel* engaged on professional work will be distributed in 42 stretcher squads, 18 ambulance stations, 6 dressing stations, and 9 field hospitals. The stretcher squads will be stationed immediately behind the line of troops on either side of the route. Casualties will be removed to the nearest ambulance station, dressing station, or field hospital according to the severity of the case, but grave cases of illness or injury will be sent to the nearest field or civil hospital. The civil hospitals which have engaged to reserve a certain number of beds for casualties of a severe nature among troops are St. George's, Charing Cross, King's College, St. Thomas's, and Westminster on June 26th and 27th, and St. Bartholomew's and Guy's on June 27th. The points for the ambulance stations have been selected after consultation with the Commissioners of the City and Metropolitan Police, and the field hospitals will be located at Kensington Gardens, Hyde Park, Battersea Park, Regent's Park, Lambeth Palace, Surrey Sessions House, Tower Ditch, King's College, St. James's Park, and Hounslow Heath; they will be for the most part manned from the Netley and Woolwich detachments, which will concentrate at Kensington Gardens Camp on June 20th. For military purposes, the route will be divided into sections, and a medical officer will be detailed to superintend each on the day of the Coronation. Three dressing stations will be formed within the precincts of the Abbey. The medical arrangements for the general public are made by

the police authorities, in conjunction with the St. John Ambulance, and their general character has already been indicated.

A MEDICAL ACT FOR CANADA.

Dr. Roddick, M.P., the President of the British Medical Association in 1897 when it met in Montreal, has passed through the Canadian Legislature an Act to establish a General Medical Council for Canada. Though the title of the Bill accurately indicates its immediate purpose, its ultimate objects are more extensive, as reciprocity with England, impossible so long as there is no qualification in Canada which is good for the whole Dominion, is amongst the ends which it is hoped to secure. Up to the present time there have been eight licensing bodies in Canada in the different provinces, but the licence applies only to the province in which it is obtained, whilst the regulations as to curriculum render it impracticable for graduates to obtain a licence in a second province. This has proved a source of grave inconvenience to medical men residing near a boundary, the more so as the law has been rigidly enforced and fines or even imprisonment have been inflicted for transgression of boundaries. Other disabilities are due to the same cause in connexion with the merchant service, and inconvenience was experienced during the late war by the fact that the Canadian surgeons could not be recognized for British hospital work. Under the new Act a central Council will be established, which will institute examinations, and will grant licences to practise which will be valid for the whole country. The curriculum is to be five years, the last year being spent in clinical work, so that the course of study will be brought into conformity with that prescribed in the United Kingdom. As the Act is permissive, it cannot take effect until the consent of the several provincial legislatures has been obtained. This will take time, though steps had previously been taken in order to ascertain the terms upon which they are likely to agree; further, it seems possible that for some time licences good for one province only may continue to be granted. The constitution of the Council will be as follows:—The Governor of each province will nominate a member, each qualifying body (eight in number) will nominate one, each provincial medical council will nominate one, and in addition there will be direct representatives in numbers proportional to the number of medical men in each province. It is estimated that the Council will number thirty-six members: it will include three to be elected by the homœopathic practitioners over the whole Dominion. This was a concession rendered inevitable by the fact that in certain provinces they already possessed rights which could not be overridden, but their proportion will be so small that their influence can hardly be felt where they are in disagreement with their colleagues. It is gratifying to find that, notwithstanding the unfavourable criticism to which our own General Medical Council has at times been subjected, a competent outside observer has thought fit to imitate its constitution and functions pretty closely when initiating a perfectly new body in his own country. There are sundry indications that the doings of our Council have been closely watched, for some of its past and present difficulties will not occur in the Canadian body; the wording of some of the clauses obviously has reference to their prevention. Thus, the Council will have power generally to make regulations, so long as they are not contrary to the spirit of the Act; the powers granted with respect to curriculum, etc., are precise and not vague, and somewhat simpler means are adopted for the correction of the *Register*. The Council also has powers to fix the fees payable for registration and the like. It is provided that a name shall be struck off the *Register* on account of a conviction for an offence indictable under the criminal code, whether committed in Canada or elsewhere; but, in place of the somewhat vague wording of our Act, it is definitely laid down that a purely political offence committed in another country shall not disqualify, and that a name shall not be erased if, in the opinion of the Council, the offence is trivial, nor if, similarly, the circumstances of its committal are such that it is not thought to be sufficient to disqualify for registration. But Dr. Roddick and his advisers do not seem to have been able to hit upon a formula which should improve upon our much-challenged "infamous or disgraceful professional conduct," which they have adopted as one of the grounds upon which a name may be struck off the *Register*. We may congratulate Dr. Roddick upon having drafted and piloted through the legislature a measure in which various conflicting interests had to be conciliated, and which in its general tendencies makes for the realization of the imperial idea.

THE MIDWIVES BILL.

The Midwives Bill was read a third time in the House of Commons on June 13th after a discussion which was more prolonged than usually takes place on this stage. We are glad to note that the references to the profession made by members holding widely different views as to the value of the Bill were all of a sympathetic character, and that the large amount of unpaid work done by the profession in the interests of suffering humanity met with recognition. From the speech of Mr. Jesse Collings, the Under-Secretary of State for the Home Department, it would appear that he has failed to grasp not only the intention of the criticisms to which the Bill has been subjected by the medical profession, but the object with which it was introduced by its promoters. He contended that the untrained, unclean midwife, the very person that the Bill was promoted to extinguish, was harshly treated by the provision, which had been introduced into the Bill on the report stage, forbidding, under penalty, the practice of uncertificated women. The Home Secretary, who was absent during a considerable part of the debate, but was present at its close, was asked pointedly by Lord Hugh Cecil, and afterwards by Sir Walter Foster, to explain the attitude of the Government with regard to this important amendment. No very definite assurance, however, was obtained, the Home Secretary sheltered himself under the academic plea that the action of the House of Peers was beyond his control. As will be seen from the report published at page 1550 the general effect of the conversation which took place was that if in the House of Lords objection is taken to the retention of the words penalizing practice "habitually and for gain," the omission of the provision would not be opposed by the Government. Mr. Heywood Johnstone, indeed, frankly said that he would be no party to any attempt to upset the compromise accepted by Mr. T. P. O'Connor on June 6th, but it must, unfortunately, be recognized that the matter has now passed out of Mr. Johnstone's hands, and that the retention or omission of this essential provision has become practically a Home Office question.

THE LEGEND OF GABRIEL BOUGHTON.

One of the characteristic features of the present age is that the historical critic is abroad, and few even of the most solid-looking facts of history escape the stroke of his destructive hammer. He is by nature an iconoclast, and seems to take a malicious pleasure in smiting into dust the beautiful legends on which the souls of men have been fed for centuries. No hero seems to have done the picturesque deeds or said the fine things with which credulous chroniclers have credited him; indeed, one is tempted to doubt whether anything ever happened in the manner in which it is set down in the annals of nations. One of the latest instances of destructive criticism is that by which Lieutenant-Colonel D. G. Crawford, of the Indian Medical

Service, has shattered the legend of Gabriel Boughton, who has hitherto been regarded as one of the founders of our Indian Empire. Lieutenant-Colonel Crawford has recently contributed an interesting series of notes on the medical officers who served in the East India Company before the formation of its medical service, and in it he related, on the authority of a legion of historians, how Boughton, after curing Shah Jahan's daughter, obtained as a reward for his services permission for the Company to trade with Bengal. The story was current in Bengal within a quarter of a century of Boughton's death. Bruce, in his *Annals of the East India Company*, published in 1710, gives the story as follows: "The surgeons of the English Indiamen had acquired, for their skill in curing the disorders of the principal Mogul officers, a reputation which made them known at court. Assalat Khan, a nobleman of high rank, applied to the Presidency of Surat, to recommend a surgeon to reside at Agra, and they selected Mr. Gabriel Boughton, Surgeon of the Company's ship *Hopewell*, for that duty, who was afterwards appointed Surgeon to the Emperor. His success gave the English an influence in the Mogul's court, which in the sequel we shall find to be the source of the valuable privileges which the London Company acquired in Bengal." The date of Boughton's deputation to Agra is put by Bruce in the year 1644-5. It will be noted that Bruce makes no mention of the accident to the Emperor's daughter. Charles Stewart in his *History of Bengal*, published in 1813, gives the date as 1636, and tells the story of the daughter of Shah Jahan being badly burned in the Emperor's camp in the Dekkan, and cured by Gabriel Boughton, Surgeon of the *Hopewell*. He further states that Boughton asked as his reward liberty for the English to trade in Bengal, that he went overland to Pipli, and there started the first English factory in Bengal with the aid of "an English ship happening to arrive in these parts." Stewart also says that Boughton proceeded to the court of Shah Shuja, the Emperor's son, Viceroy of Bengal, at Rajmahal, and there cured one of the ladies of the harem. Colonel Yule, who devotes a good deal of space to the legend of Gabriel Boughton, says the account given by Stewart is the earliest version of the story that he was able to find. Alexander Dow, in his *History of Hindustan*, published in 1768, gives the story of the accident as occurring in 1643, which is about the time when Gabriel Boughton went to Agra, but does not mention him as having had anything to do with it; on the contrary, he says that the girl was cured by Anitulla, the most famous physician of the age, who was brought express from Lahore for the purpose. The mission of Boughton and the fire accident to the lady appear to have got mixed up and the accident located in a camp in the Dekkan, on account of the obvious improbability of a surgeon from Surat reaching Agra in time to be of any use. What is really known about Boughton is given by Wilson, who says that Gabriel Boughton was sent from Surat to Agra in 1645, at the special request of Assalat Khan, a nobleman at Shah Jahan's Court, acquired great influence by his professional services, and stood high in favour with the Emperor's son, Shah Shuja, whom he accompanied to Bengal when he was appointed Viceroy. The accident to Shah Jahan's daughter, the Princess Jahanara, by her clothes catching fire happened in 1643-4, more than a year before Boughton reached Agra. It is doubtful whether Boughton secured any grant for the English. He is last heard of alive in 1650. On the whole, Lieutenant-Colonel Crawford thinks it probable that Boughton did get a grant, not from Shah Jahan, but from Shah Shuja. But even this is by no means certain. Whether Boughton ever did anything for the Company or not, it is quite certain that they entertained great hopes of his doing so. Yule quotes a letter from the Masulipatam Agency, sending a peshkash, or propitiatory offering, to Boughton, for his favour at Shah Shuja's Court. Whether he succeeded in ingratiating himself with that potentate or not there seems to be no evidence to show. In any case Gabriel Boughton was a man of mark in his day, and it is somewhat surprising that he has not been thought worthy of a niche in our Valhalla of heroes, the *National Dictionary of Biography*.

THE CREMATION BILL.

THIS Bill, which passed its third reading in the House of Commons last week, and has now a very good prospect of becoming an Act, is intended to give local authorities in Great Britain powers to erect and maintain crematoria. This is done by enacting that the powers of a burial authority to provide and maintain burial grounds or cemeteries shall be deemed to extend to and include the provision and maintenance of crematoria. The plans and site of every crematorium will have to be approved by the Local Government Board, and certified as properly equipped. No crematorium will be allowed to be erected within 500 yards of a dwelling house, nor in the consecrated part of a burial ground. The Secretary of State for the Home Department will be responsible for the regulations affecting crematoria and their inspection, and for all the rules as to their use. These rules and regulations will have to be laid before Parliament before coming into operation. There is a penalty not exceeding £50 for carrying out or procuring the cremation of a body except in accordance with the regulations, and a false declaration or false certificate for the purpose of procuring the burning of human remains, will render the author thereof liable to imprisonment with or without hard labour for a period not exceeding two years. The fees for cremation will be under the control of the Local Government Board, and April 1st, 1903, is fixed for the Act to come into operation, while local and personal Acts are repealed after the regulations under this Act come into force. The real object of the Bill is to enable local authorities to erect crematoria without the trouble and expense of obtaining a special Act of Parliament, and to provide that wherever a crematorium is established it shall be properly equipped and carefully regulated and inspected by the inspectors of the Home Department. In the interests of public health the measures may be useful, and it will certainly be valuable in securing that all proper precautions and cares are taken before any human remains are cremated. The Bill was introduced in the House of Lords by Lord Monkswell, and has been piloted through the Commons by Sir Walter Foster.

THE STAGES OF A VEGETARIAN.

A GOOD many Englishmen of the middle-class become impressed at some time or another in their lives by the doctrines of the vegetarians. These doctrines do not appear to make much progress in France, probably because ordinary French cooking makes larger use of "vegetables" and is more varied than English, nor in Scotland, where also the average cooking is more varied and where cereals are presented in more appetizing forms. The ordinary English domestic lunch and dinner is meaty and monotonous—beef succeeds mutton, and mutton beef, roast, baked, or boiled, until the wearied palate is disposed to agree with Keen's footman that "it is 'igh time some noo hanimal was invented." If, at the time of life when gout, or the arthritic pains and acid dyspepsia, which are often so called, begin to disturb the even tenour of digestion, the subject is thrown into the company of an enthusiastic vegetarian, he is very likely to become a convert. Probably at first he adopts a modified diet, that of the "V.E.M.s"—vegetables, eggs, and milk. His meals are light and varied, he eats more vegetables, drinks more fluid, and though he may swallow more food in bulk, yet the previous great excess of proteids in his diet is diminished, and the relief to his overworked emunctories will produce a feeling of well-being which satisfies him that he has found one of the secrets of a happy life. But a

painful disillusionment awaits him. When he begins to talk to his new-found friends of his emancipation, he finds that some of them look upon him with pity and contempt, and that he is regarded as a Mr. Facing-both-ways. He discovers that there are sects among vegetarians, and if he reads their magazines he will find that he, as a "V.E.M.", is scorned by other sects. He will be told that as a consumer of eggs and milk he has no right to the name of vegetarian, and that his proper food is cereals and pulse; porridge, carrot soup, vegetarian cutlets made of mashed peas; and vegetarian steaks of chopped beans will be recommended as agreeable and nourishing staple articles of diet. He may go very far in this way. The hero of an amusing skit written a few years ago by a "V.E.M." held that cooking was "unnatural" gave up all meals, and supported life by munching "poultry meal" which he carried about in a paper bag in his pocket. In the story this misguided man, tempted by a friend, went to an Italian restaurant in the Strand, ate an omelette, and lived happy ever after. Or tired by various sorts of prepared oats, and disappointed in peas "with the wind taken out" he may be led by a study of comparative anatomy, as provided by the magazines of the cult, to imitate the anthropoids on the ground that his dental formula resembles theirs. Then he becomes a fruitarian and lives on nuts and fruit. He will lunch on half a peck of apricots, and dine on a pint of nuts and a bunch of bananas. Other habits of the anthropoids he foregoes; he wears clothes as a concession to the proprieties and the climate, and retains the art of speaking—to convert his fellow men. He is a bore to his friends, an anxiety to his family, and probably spends more time in choosing, talking about, and eating his food than the greatest gourmet alive, but he is the fine flower of vegetarianism.

THE CLASSIFICATION OF DEATHS FROM SMALL-POX IN THE REGISTRAR-GENERAL'S REPORTS.

For many years the Registrar-General has classified deaths from small-pox under three heads—"vaccinated," "not vaccinated," or "no statement made on the point." In making this classification the following footnote has usually been appended: "Only those cases of small-pox are classed as 'vaccinated' or as 'not vaccinated' which are so certified by registered medical men. Cases in which the certifying medical practitioner is unable to certify whether the deceased had or had not been vaccinated, as well as cases in which no mention is made of vaccination on the certificate, and all cases in which the cause of death is not certified by a registered medical practitioner, are included under the heading 'no statement.'" In the weekly return of the deaths in London for the week ending March 22nd of the present year and since that date the deaths from small-pox are no longer subdivided as above, and the following footnote to the table is appended: "The information respecting deaths from small-pox has been modified in view of the difficulty experienced in obtaining full particulars in time for publication in the successive weekly returns." The *Vaccination Inquirer* in an annotation in its issue of April 1st regards this alteration in practice on the part of the Registrar-General as a probable result "of the representations he has received as to the untrustworthiness of this classification, and particularly the question in Parliament, of which Mr. Corrie Grant gave notice on March 20th, and which was put on March 25th." If Mr. Grant's question and the alteration in the entries stand in the relation of cause and effect, we can only say that there has been an almost miraculous expedition in the carrying out of the alteration in question. But this is a matter of minor importance in comparison with the alteration itself. It is evident that a classification which left nearly 70 per cent. of the deaths from small-pox in 1896-7, in a group in which it was undetermined whether the patients had been vaccinated or not, is unsatisfactory and open to serious objection. The fault does not lie altogether with the certifying practitioner who has failed to state whether his patient was vaccinated or not. What is required is a registration of results of vaccination, the register being accessible for information whenever a patient suffers from or dies of small-pox. The step taken by the Registrar-General is satisfactory, because we believe that every death from small-pox in which the necessary details are not given in the death certificate is now being made the subject of special inquiry in order that fairly correct and complete information may be classified. The value of this system has already been shown in the increasing value of the national returns as to puerperal fever, cancer, etc., in which a similar course has been pursued. The weekly return of the Registrar-General for April 12th contains an even more striking instance of the value of the more exact information obtainable by inquiry which cannot be undertaken in time for weekly returns. We have commented on the statistics given in this weekly return as to the 1,015 deaths from small-pox which occurred in London up to April 12th, on page 1050 of the British Medical Journal for April 26th. It is only necessary to note here that the number concerning which it remained doubtful as to whether vaccination had been performed or not was reduced to 83 out of the total 1,015, as compared with the 70 per cent. mentioned above. We sincerely hope that the Registrar-General will bring the valuable results contained in the table referred to above up to date from time to time.

DR. RUFFER'S CHOLERA CAMPAIGN.

The *Egyptian Gazette* announces that at a meeting of the Egyptian Quarantine Board the following resolution was adopted, on the proposal of the Russian Delegate, seconded by the Italian Delegate:

> The Board, taking into consideration the eminent services rendered by its President, Dr. Ruffer, who, with admirable devotion and abnegation, remained at Tor during the whole of this year's quarantine campaign; considering also that it is especially due to his indefatigable energy, his ready judgement, and his incessant care, that the cholera epidemic, which was at the gates of Egypt, was circumscribed at Tor, votes by acclamation thanks to Dr. Ruffer.

The Board also passed a vote of thanks to Dr. Zachariadis Bey, Director, and the staff of the Tor camp, who had been entirely devoted to their work. We are glad to be able to record this hearty recognition of public services rendered to Egypt and through it to the whole of Europe and indeed to every part of the world where commerce penetrates. We hope to publish in an early issue an account of the work done at Tor with such satisfactory results.

EPIDEMIC OF MEASLES IN EDINBURGH.

Our Edinburgh correspondent writes: A widespread epidemic of measles prevails in Edinburgh. Such epidemics often affect the poorer and more crowded parts of the town, but this is not the case in the present instance; all classes are affected; and there would appear to be an unusual number of cases among adults. Although there is always a sort of secondary wave in the measles notifications in May and early June, the amount of measles this summer is unprecedented. Curiously enough, rötheln, which is usually prevalent at this season, does not appear to be epidemic this year. The measles cases are, on the whole, of a benign type, but many are severe. Pulmonary complications are less common than is the case in a spring epidemic, and probably therefore the mortality is not excessive. In the week ending June 14th, indeed, Sir Henry Littlejohn reports only three deaths. Otitis media, however, and discharge from the ear, have been observed in a large number of the cases. Laryngitis in the pre-eruptive stage of the fever has been common, and has led in some instances to the provisional diagnosis of croup, "membranous croup," or "diphtheria croup."

AN INHERITANCE OF CRIME.

MRS. M. J. ANNABLE, State Superintendent of the Rescue Work of the Women's Christian Temperance Union, New York, has prepared some statistics in regard to the descendants of a woman of criminal tendencies. They are published in the *Boston Medical and Surgical Journal* and are stated to have been collected with much care so that they may be relied upon as accurate. The woman in question, whose occupation was keeping a disreputable house, and who was addicted to vicious habits, including excessive indulgence in alcoholic stimulants, died at the age of 51, in 1827. Her descendants have been 800 in number, and of these 700 have been criminals, all of them having been convicted at least once. There have been 342 drunkards, acknowledged by all as such, and 127 immoral women. There were 37 murderers, who have been executed for their crimes. This family has cost the Commonwealth no less than 3,000,000 dollars, this amount having been expended for their trials, maintenance in prisons, and executions.

ROYAL SOCIETY'S *CONVERSAZIONE*.

THE second of the two annual *conversaziones* of the Royal Society was held at Burlington House on the evening of June 18th, the Fellows and guests being received by the President, Sir William Huggins, K.C.B., D.C.L. Out of compliment probably to the ladies invited, the rooms were decorated with palms and foliage trees, variegated shrubs and flowers, with a foreground of ivy. Most of the medical and biological exhibits had already been shown at the *conversazione* held a few weeks ago and then described in the BRITISH MEDICAL JOURNAL. Interesting sketches and photographs illustrating physiography in its broader features were shown by Miss Breton of the cañons, waterfalls, and glaciers of North America; by Mr. Edward Whymper of the Rocky Mountains, and by Professor E. J. Garwood of the Alps and Himalayas. Dr. F. W. Gamble and Mr. Frederick Keeble showed the colour changes in certain crustacea corresponding with the light changes of night and day, and with changes in the illumination of backgrounds; also the movements of crustacea in response to light. Professor W. Ramsay demonstrated an attempt to reproduce an aurora borealis by means of the Krypton spark spectrum. The West Indian Volcanoes Committee of the Royal Society and Mr. Henry Crookes showed specimens of volcanic dust from the West Indies in the neighbourhood of the recent eruptions, of which it is estimated that from two to three million tons fell in seven or eight hours. Mr. E. J. Bles exhibited the living tadpoles of the Cape clawed frog, which are so transparent as not only to show the circulation of the blood under the microscope, but the anatomy of the nerves, blood vessels, muscles, and viscera. Mr. H. G. Plimmer exhibited a valuable series of preparations illustrating the life-history of trypanosma Brucii—the organism of the tsetse-fly disease of South Africa—including the living organism moving actively in fresh blood. Some six different stages in the life-history of this organism were shown. Colonel Bruce and Mr. H. G. Plimmer also showed specimens of the apiosoma bigeminum, the parasite found in the blood of Texas fever of cattle, in the form of small amoeboid bodies within the red blood corpuscles. A lantern demonstration on the early civilization of Egypt was given by Professor Flinders Petrie. Mr. J. Y. Buchanan showed a number of lantern slides illustrating the performance of Mr. Santos Dumont's navigable balloon, and the accident to it on February 14th last. The slides were prepared from negatives taken by Mr. Buchanan in the steam launch belonging to the yacht of the Prince of Monaco, which was always under steam when Mr. Santos Dumont made his flying expeditions across the Bay of Monaco. The slides showed the stages of a successful day's aërial navigation, and the appearance at frequent intervals of the air ship, with M. Santos Dumont on board, on the day of the accident—the pitching of the air ship so that it was often all but vertical, the buckling of the balloon after gas was let out by which the steering apparatus was thrown out of gear, its fall into the sea, the submersion of the framework bearing the motor and the intrepid navigator, its towing by the steam launch, the rescue of M. Santos Dumont, and the recovery of the material of his balloon. Professor E. B. Poulton also gave a lantern demonstration on recent work in regard to protective resemblance and mimicry in insects.

MR. COLERIDGE'S VINDICATION OF HIS HONOUR.

ALL who are interested in the progress of scientific research, and indeed all who have at heart the welfare of mankind, will be gratified by the result of the action Coleridge *v.* Macdonald, a report of which appears at page 1576. It may be hailed as a distinct triumph for the cause of common sense and humanity as against a peculiarly mischievous form of fanaticism. The fact that the jury stopped the case before the cross-examination of Mr. Coleridge was concluded may be taken as proving that his methods of controversy do not find favour in the eyes of the average level-headed Briton, who loves fair play, and hates the discretion of a fighter who, while carefully leaving alone those whom he knows to be well able to take care of themselves, attacks an opponent whom he thinks he can terrify by bluster. Mr. Coleridge's action reminds us of Mr. Winkle, who, as is chronicled in *Pickwick*, in the affray at Ipswich "made a terrific onslaught on a small boy." Mr. Coleridge's explanation of his heroic conduct is that he is disposed "to put up with more from doctors and vivisectors than from parsons who have no personal concern in the controversy." For this, which Sir Toby Belch might well call an "exquisite reason," he brought an action against the Rev. D. Macdonald, who had described his methods of controversy in language virtually the same as has more than once been used in the BRITISH MEDICAL JOURNAL. When it became clear to him that the action was to be defended his courage seemed, like that of Bob Acres, to ooze out of his fingers, and he magnanimously expressed his willingness to consider his honour satisfied with an apology with payment of costs; an offer which he subsequently reduced to a request for a simple apology. It is satisfactory that he was compelled to go into court, where he had to hear the opinion of the jury, which was fully endorsed by the judge, as to the case, and as to his action in bringing it before them. Mr. Coleridge will get little sympathy from the public, whom he has evidently disgusted by his methods of advocating the cause which he professes to have at heart. He may take refuge from a judge and jury, who have shown themselves inappreciative of the injury which his sensitive "honour" has suffered, in the bosom of that tender-hearted sportsman Lord Llangattock, who will doubtless comfort him with a further testimonial to his unswerving accuracy in statement, and to the chivalrous fairness of his methods of controversy. Our own feeling about the action is not so much one of exultation over a fallen foe as of satisfaction that Mr. Coleridge's dastardly policy of seeking to deprive the sick poor of the advantages of the best medical skill in order that a few guinea-pigs may be spared the prick of a needle has suffered a serious public defeat.

THE MEDICAL STAFF COLLEGE.

WE anderstand that it has been definitely decided to proceed with the erection of the Medical Staff College in London for the officers of the Royal Army Medical Corps. The laboratories will be commenced almost immediately. Pending the building of these, the laboratories of the Royal Colleges on the Embankment will, we are informed, be rented, but it is not yet possible to say when work will be actually begun there. This must very largely depend upon affairs in South Africa, and upon questions connected with

the R.A.M.C. establishment. Every endeavour is now being made to complete arrangements, but nothing definite is decided. It seems certain, however, that temporary arrangements must be made in order that the details of post-commission study may be settled, for it must necessarily take some time before the college and laboratories are completed.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THE first dinner given by the Ophthalmological Society of the United Kingdom was held at the Trocadero Restaurant on June 13th. The President of the Society, Dr. David Little, was prevented by illness from occupying the chair, which was taken by Dr. Argyll Robertson. The guest of the evening was Professor E. Fuchs, of Vienna, who had delivered the Bowman Lecture on the afternoon of the same day. The President of the Medical Society of London (Dr. Allchin) proposed the toast of "The Ophthalmological Society," and, in the course of his remarks said that for the past ten years no communication had been received by the Medical Society on the subject of ophthalmology. He thought it would be of benefit if the Medical Society were to hear the views of ophthalmologists on such questions. Dr. Argyll Robertson responded to the toast, and in reply to Dr. Allchin's suggestion stated that the Ophthalmological Society would be glad to welcome any member of the Medical Society to take part in its debates. The toast of "Professor E. Fuchs" was proposed by Sir Anderson Critchett, who said that the Society knew their distinguished guest as a most successful teacher, as a great pathologist, and as a skilful ophthalmic surgeon, who was worthy to come from that home of science and art, the city of Vienna, which had already given to the world such men as Billroth, Nothnagel, and Hebra. Professor Fuchs on rising to respond was received with loud cheers. Speaking in English, he said he did not know what politics Sir A. Critchett held, but he thought he must be a Conservative, because he not only kept up the old English hospitality, but he also conserved the fame and renown of the celebrated name of Critchett. After Professor Fuchs had expressed his appreciation of the way in which England adopted free trade in science and welcomed foreign ideas with abundant hospitality, he concluded his speech by emptying his glass to the success of the Ophthalmological Society. Mr. Swanzy proposed "The Guests," and said that the object of societies was the advancement of medical science; their desire was to hold aloft the lamp of truth, to promote the highest standard of medical honour, and above all things and beyond all things their aim was to promote the welfare of mankind. Sir William Church, President of the Royal College of Physicians of London, in acknowledging this toast, directed his remarks to showing how greatly medicine was indebted to the work of the Ophthalmological Society. He said that every physician must recognize the services rendered by their members. Dr. Landolt, of Paris, who was then called upon, said that the dinner was in honour of a great man, and great men shone like bright lights and attracted students from far and near. No light, however, would shine unless it were kept going, and the light that Bowman lighted was continued by the Ophthalmological Society. After Mr. Priestley Smith had proposed "The Health of the Chairman," which was suitably acknowledged, the company separated.

COLONIES FOR CONSUMPTIVES IN SOUTH AFRICA.

DR. JOHN HALL-EDWARDS, of Birmingham, has recently suggested in a letter to the local press that colonies of consumptives might be established in South Africa, where the patients or colonists would be occupied in outdoor employment of such a nature as would benefit their disease, and would work for the good of the community, and not for personal gain. He suggests that the hospital ships used during the war should be converted to convey the consumptive patients to and from these colonies. The main consideration which has suggested this idea is that the treatment of consumptives in sanatoria in this country cannot be applied indefinitely, and that patients after a few weeks' stay have to return to the impure air of their city dwellings, where their means will not allow them to continue the extra diet, and circumstances prevent them living under the conditions which would ensure the permanence of the cure. Money would of course be required to found such a colony, but in course of time it might become self-supporting.

A TRIPLE JUBILEE.

SIR WILLIAM HINGSTON, Dr. Rottot, and Dr. MacCallum, of Montreal, were recently entertained at a complimentary banquet by the medical profession of that city. The occasion was the celebration of the professional golden jubilee of the three gentlemen. Dr. Rottot, the Dean of the Medical Faculty of Laval, took his doctor's degree in 1847 at the old Medical College of Montreal, which afterwards became Victoria, and is now the Medical Faculty of Laval University. Dr. MacCallum graduated in 1850 at McGill College, where he held the Chair of Obstetrics for a very long time with distinction; at the present time he is an Emeritus Professor in the Faculty. Sir William Hingston graduated in 1851, and at present fills the Chair of Clinical Surgery at Laval. Sir William has been Mayor of Montreal. At the banquet Dr. F. W. Campbell, the Dean of Bishop's College, presided, and about one hundred and fifty of the profession in Montreal were present.

HEMIANAESTHESIA.

THE subject of hemianaesthesia produced by cerebral lesions has been long debated, especially as regards the existence of the so-called *carrefour sensitif* of Charcot in the posterior part of the internal capsule. In the *American Journal of the Medical Sciences* for March, Professors Dercum and Spiller report a case which seems to settle this long-debated question in the affirmative. The *carrefour sensitif*, or pathway of sensibility of the opposite half of the body, as defined by Charcot (1876) and Verger[1] (1900) is situated in the posterior third of the posterior limb of the internal capsule, and in the most inferior portion of the optostriate region. It is now believed that the optic thalamus interrupts the sensory pathway from the fillet to the cortex; at any rate, lesions of the optic thalamus below the *carrefour sensitif* will produce symptoms of hemianaesthesia (Déjerine and Long) by destruction of the thalamo-cortical sensory fibres at their origin. Déjerine and Long,[2] however, believe that in their upward course to the cortex these sensory fibres spread out widely in the internal capsule, not constituting a sensory bundle in the strict sense of the word. The case recorded by Dercum and Spiller shows, however, that a lesion of the posterior third of the hinder segment of the capsule, and including the adjacent part of the lenticular nucleus, causes distinct and permanent hemianaesthesia, and this when the optic thalamus remains intact. A man aged 49 years, free from syphilis, had a sudden attack of unconsciousness and paralysis while at work; on regaining consciousness he found his right arm, right leg, and right side of the face paralysed. Feeling was lost in the affected parts, and speech was impossible. Speech was regained in about two months, and power returned to the arm and leg in the third month. Sensation, however, never returned to the right half of the body, the hemianaesthesia being complete and well defined by the middle line of the body. Right-sided hemianopsia was also present, but there was no impairment of hearing, taste, or smell on the right side. The knee-jerk was exaggerated on

[1] *Archives Générales de Médecine*, 1900.
[2] BRITISH MEDICAL JOURNAL, Sept. 9th, 1899, p. 673.

the right side and there was front-tap contraction. The diagnosis of a lesion in the posterior half of the hinder segment of the left internal capsule and adjacent optic radiations was made. In May, 1900, the patient developed nephritis, and in January, 1901, he had an apoplectic seizure of which he died three days afterwards. The necropsy revealed (in addition to a recent cerebral haemorrhage in the right caudate nucleus) an old haemorrhagic cyst 1 in. by 1¼ in. in size involving the most posterior portion of the internal capsule on the left side, as well as the adjacent parts of the claustrum, lenticular nucleus, and optic radiations. The first segment and the anterior half of the second segment of the capsule were intact, and the optic thalamus was also free. "The pulvinar of the optic thalamus, and the left external geniculate body showed (secondary) atrophic changes attributable to the destruction of the optic radiations." The optic tract on the left side showed some atrophy. The cyst was limited externally (and superiorly) by the cortex of the insula. Some of the descending pyramidal fibres were degenerated in the left peduncle, pons, and bulb. The authors point out that the hemianaesthesia in this case had lasted over eight years, and was intense as compared with the temporary hemiparesis, the latter arising from destruction of a relatively few pyramidal fibres. "The case seems to show that organic hemianaesthesia may be caused by a lesion in the *carrefour sensitif* and lenticular nucleus without implication of the optic thalamus, except such as occurs from secondary degeneration. We emphasize the statment that in this case the inferior and external portion of the thalamus was intact." The pathological teachings of Charcot are thus confirmed by the latest investigation.

PROPOSED MEDICAL SCHOOL FOR THE UNITED STATES NAVY.

SURGEON GENERAL RIXEY of the United States Navy is said to have under consideration the expediency of establishing at the Naval Museum of Hygiene, in Washington, a school for naval medical officers on the lines of the United States Army Medical School, which was founded in 1893. Instruction of young medical officers of the navy in special subjects has in the past, according to the *New York Medical Record*, been given in a short course at the Naval Hospital in Brooklyn; but this course is recognized as being insufficient, and the instruction to be given in the new school—which it is expected will come into operation in the autumn—will be on a much broader basis. Besides giving instruction to newly-appointed medical officers of the navy in the proper performance of their duties, the school will also serve as a place where medical officers of longer service, returned from a tour of sea duty, can refresh their knowledge on special branches and prepare themselves for examinations. It is also understood that Surgeon-General Rixey hopes to establish a school for the instruction of the enlisted men connected with the medical department of the navy, probably at the Navy Yard at Norfolk, Virginia.

SUICIDE IN CHICAGO.

CHICAGO is said to be gaining an unenviable reputation as the "suicide centre" of the United States. The weekly health reports show that for the week ending May 10th, there were 13 cases of suicide in Chicago, and for the week ending on the 17th, there were 14 cases. According to the *Philadelphia Press* (which doubts the increase of population claimed since the official census—an increase of 450,425 in less than two years) these figures give a suicide-rate of one in every 3,350 of population. The rate for the whole United States for the year 1901, was one suicide in every 10,750 of population. Therefore Chicago has three times as many suicides in proportion to the population as the country at large. Its rate is higher than that of any other large city in the world. The Chicago authorities say that the suicides are due to influenza, but there does not appear to be such an increase attributable to this cause in other places. The number of suicides in Chicago is more probably due to the severity of the struggle for existence.

MEDICAL GRADUATION OF FOREIGNERS IN FRANCE.

IN 1897 a circular was issued by the French Minister of Education relative to the granting of medical degree of French faculties to foreigners. It was ordered that after the date of the ordinance foreigners might obtain a degree of Doctor of Medicine which should not carry with it the right to practise medicine within the territory of the French Republic. The number of such degrees granted since that time is given in a recent report as 8, a fact which shows that the purely decorative distinction offered to foreigners by the French faculties is not in great demand.

THE RECONSTITUTION OF THE ASSOCIATION.

THE extraordinary general meeting of the Association to consider the proposed new Constitution was duly held, in accordance with notice given, at Exeter Hall at 2 p.m. on June 18th. About 140 members were present. The resolution to adopt the new Articles and By-laws laid before the meeting was proposed by Mr. Edmund Owen, and seconded by Mr. Andrew Clark. A full discussion ensued, and after a show of hands a poll was demanded and taken. As a result the resolution to adopt the new regulations was declared to be carried by 96 votes to 28, or more than the 3 to 1 majority required by the Companies Acts for the purpose. It is proposed to publish a report of the proceedings in the next issue of the JOURNAL.

SURGEON-GENERAL EVATT has been appointed Principal Medical Officer of the Second Army Corps at Salisbury. The corps is under the command of Sir Evelyn Wood.

THE Linnean Society of London has awarded a gold medal to Professor Rudolf Albert von Kölliker, of Wurzburg, for his zoological researches.

WE learn from the *Deutsche medicinische Wochenschrift* of June 12th, that Professor Virchow, who is still at Teplitz, continues to make steady progress. He is able to take fairly long walks, and there is every prospect of the distinguished pathologist's restoration to full activity at no distant date. To complete his cure he proposes to go later to Harzburg.

AT the urgent request of the French Colony of Cochin China, the Council of the Medical Faculty of the University of Paris has decided to found an Institute of Colonial Medicine. The Governor-General of Cochin, M. Doumer, has granted a subvention of £2,000 a year. Provision will be made for special instruction in tropical diseases, but it is not intended to establish a Chair for the teaching of the subject at present.

WE are glad to see that the Commissioner of Police for the Metropolis has issued a public notice cautioning smokers against the danger of throwing down lighted matches while in the stands or streets during the Coronation festivities. A good many accidents have in the past occurred from this cause, and more than one death has ensued. At the present time, when miles of streets in London are lined with wooden balconies, which will no doubt be crowded on June 27th, the results of a chance fire are terrible to contemplate

THE House of Representatives in Washington is to have a medicine chest in the office of the Sergeant-at-Arms. The resolution introduced last December by Dr. Wilson, of Brooklyn, directing the Sergeant-at-Arms to purchase an emergency case of medicine, and suitable instruments for minor operations for use in case of illness or accident to persons in attendance at the House, was, we learn from the New York *Medical Record*, favourably reported recently by the Committee on Accounts, with an amendment providing that the contents of the case be selected by Representatives Wilson (of New York), Ball (of Delaware), and Showalter (of Pennsylvania), all members of the medical profession. A medicine chest would be a useful thing for our own Parliament; but for the House of Commons, in view of possible "Irish nights," it would have to be supplemented by a case of surgical instruments.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Midwives Bill.—The third reading of this Bill was considered on Friday, June 13th, and agreed to after a discussion which lasted for nearly two hours. Mr. Heywood Johnstone opened the proceedings by moving some verbal amendments by the consent of the House, for it turned out that the principal amendment made on the report stage by the insertion of the words "habitually and for gain" with the date of January, 1910, made the Bill nonsense. So the verbal amendments were necessary to make the Bill carry out the expressed intentions of the House. After this Mr. Griffith-Boscawen criticized the measure at some length. Mr. Renshaw hoped the Bill could be altered in the other House, and Mr. Ernest Flower pleaded for a stronger measure. Dr. Thompson then spoke at some length, and pointed out that the Irish dispensary system was much preferable to the English Poor-law methods and said that the trained midwifery nurses in Ireland were the class of persons wanted in England. He further declared that the Bill as it stood by no means satisfied the medical profession. Mr. Parker Smith, Mr. Banbury, Mr. Cohen, Sir F. Powell and Mr. Schwann also spoke mostly in support of the Bill, while Sir Walter Foster strongly pressed upon the Government the importance of not allowing the Bill to be altered in the Lords so as to interfere with the compromise agreed to at the previous sitting. Mr. T. P. O'Connor took the same line and supported a suggestion that a representative of the Jubilee nurses should be added to the Midwives Board. He also advocated that Parliament should have the rules and regulations made by the Board laid before the House, for consideration if necessary. The doubtful attitude of the Government to the amended Bill was evidently in the minds of many of the speakers, and Mr. Jesse Collings confirmed the misgivings by a speech strongly criticizing the measure, and pointedly referring to it as a private members' Bill, for which the Government were not responsible. This declaration made it evident that the chief amendment secured on June 6th was by no means safe. Lord Hugh Cecil said that the Government, as he understood, did not regard themselves as bound by the compromise. Mr. Ritchie said he thought that was made clear when the compromise was arrived at. Sir Walter Foster then reminded the Home Secretary that he had said he would not oppose the amendment on which the compromise was based, but Mr. Ritchie declined to pledge the Government to resist any alteration of the Bill in this respect in the Upper House. The Bill was then read a third time, but the impression left on those present in the House was that in all probability the legal luminaries in the House of Lords would modify the Bill as regards the insertion of the words "habitually and for gain," and so reduce to naught the compromise on which the report stage was agreed to. In this case the Bill will come back to the Commons, but the chance of rejecting it on this point would not be great. For the present the House of Lords becomes the centre of interest as regards the Bill, and soon after the Coronation its final shape will be there decided.

The Cremation Bill, which stood third on the paper after the Midwives Bill, was reached about seventeen minutes past five, and as there were several amendments down, there seemed little time to consider them before the half hour. Sir Walter Foster, who had charge of the Bill, realized the position and promptly accepted the amendments, which were not unfriendly. Some others were not moved, and so the report stage was finished, and he was able to make an appeal to the House within five minutes of the expiration of the time for the grant of a third reading. The House assented and the Bill was passed. The Lords will now have to consider it in the slightly amended form, and if they do not object to the amendments the Bill will become an Act.

The Sanitation of Reformatories.—On the Home Office vote last week, Mr. Runciman called attention to the insanitary condition of many reformatories and industrial schools. He pointed out that the Home Office inspectors reported strongly against the overcrowding and want of proper sanitation, and that in spite of this the Home Office had not taken steps to remedy the evils. Mr. Goddard also pressed the Home Secretary on this subject, and after some discussion Mr. Ritchie admitted that the sanitary conditions might not be satisfactory in some cases, and promised not only to look into any individual case brought under his notice, but to confer with the inspectors as to the best means of stirring up the managers to remedy the conditions complained of. He said he could refer with great pride to the records of the children who had been brought up in these institutions.

The Sanitation of Factories and Workshops.—On this point Mr. Tennant asked the Home Secretary as to the issue of an order setting forth a standard of sanitary accommodation in factories and workshops, and whether he could lay it on the table of the House. The Home Secretary in his reply stated that the consideration of this matter had necessitated a great deal of inquiry, but the Chief Inspector had now submitted his proposals, and although one or two points still required consideration he hoped to publish the draft order shortly.

Scotch Parochial Medical Officers and their Holidays.—Mr. Weir last week pressed on the attention of the Lord Advocate the expediency of recommending parish councils throughout the Highland crofter counties to make such arrangements as would enable parochial medical officers to obtain an annual holiday. The Lord Advocate replied that this matter was fully considered by the Local Government Board of Scotland in 1900, when their views were stated in their annual report, and the Board did not propose to do more than was there stated.

Vaccination Exemption Certificates.—Mr. C. R. Spencer last week asked the Attorney-General whether his attention had been called to the variety in practice in charging fees for exemption certificates from compulsory vaccination, and to the doubts which existed as to the payment of such fees, and whether he could suggest any method for abolishing such fees. The Secretary of State for the Home Department replied instead of the Attorney-General, and said that the fees referred to varied in different places, but so also and to a greater extent did other fees similarly fixed by tables prepared by local authorities. When the tables were submitted to the Secretary of State every effort was made to secure uniformity, but there was no power to enforce it. Mr. Ritchie said further that he was not aware of any doubt as to the power of the local authorities to fix such fees, but he added that the Northamptonshire Standing Joint Committee had recently submitted a table to the Home Secretary, from which it appeared that they did not desire to change such fees. The matter was under consideration.

The Conscientious Objector in Scotland. Mr. Weir asked the Lord Advocate a few days back whether he would consider the expediency of introducing legislation to extend the conscience clause of the Vaccination Act of 1898 to Scotland. The Lord Advocate said that he saw no reason for introducing legislation of the kind suggested, and he could not undertake to do so.

SEVENTIETH ANNUAL MEETING

OF THE

British Medical Association.

MANCHESTER, 1902.

[FROM A MANCHESTER CORRESPONDENT.]



IT is to be hoped that any one who does not know Manchester, and had formulated the intention of attending the coming meeting of the Association, has not been intimidated by chancing upon the discourse of that great medical orator, Sir James Crichton-Browne, at the recent Sanitary Congress held in the city. "You are smothered," said he, "with the products of combustion all the year round. In winter these settle down on you in fogs grim and horrible, and you must go far afield before you can look on a sheep with a white fleece, or pick a flower or a blade without soiling your fingers. A sable incubus embarrasses your breathing, a hideous scum settles on your skin and clothes, a swart awning offends your vision, a sallow cloud oppresses your spirits." With all due allowance for rhetorical licence (including the picking of flowers in winter), this is surely enough to frighten the bravest, and yet the lines are copied in the light of the fairest of sunsets that ever man saw; and it is in such a guise we hope our visitors will see us in the evenings of late July.

The Manchester man is apt to be somewhat thin-skinned on the subject of Manchester weather. And no wonder: for whenever he strays from home, and his derivation is mentioned, the time-honoured question is sure to crop up, "Does it ever stop raining with you?" This year we trust the question will be absolutely superfluous, though it is, perhaps, too much to hope for such luck as befell Cheltenham last year.

The last Manchester meeting in 1877, with an attendance of over 700, established a record. Its scientific work was divided into six Sections. This year preparations have been made to establish a new record, as will be evident from the programme of the meeting published in the present number of the BRITISH MEDICAL JOURNAL (p. 1570). There are to be seventeen Sections, a larger number than at any previous meeting, and the sectional officers alone number 108.

A most important factor in the success of an annual meeting is the local *Guide*, and great pains have been taken by the Printing and Publishing Subcommittee to render that for Manchester worthy of the occasion. Specially written by authors well fitted to deal with the various subjects, with all illustrations original, and a limited edition issued only to members at the meeting, it should prove a valued souvenir. Though from it the visitor will gain all information on these subjects a preliminary note on some of the medical aspects of Manchester may not be without interest.

THE MEDICAL SCHOOL AND OWENS COLLEGE.

The school has during the past thirty years become a more and more important factor in the city and district. The oldest provincial school of medicine, its present era dates back to 1872, when the Royal Manchester School of Medicine was amalgamated with, and became the medical department of, Owens College. Its steady growth since that time has been ensured both by the ever-increasing facilities provided by the College for acquiring a thoroughly sound scientific training and by the great resources of the district as a field for clinical study. The establishment of the Victoria University Degree in Medicine and Surgery in 1883 has doubtless also become a largely contributory factor. There are now over 400 students of medicine, of whom more than half are studying for the Victoria degrees.

Since the last Manchester meeting the extension of Owens College has practically never ceased, and the coming meeting, large as it is expected to be, will, through the kindness of the Council, find all its Sections amply provided for under its hospitable roof. In 1877 only the buildings on one side of the present front quadrangle were in existence, and the medical school in the rear occupied a block less than one-quarter of its present size. Since then the chemical laboratories, so long directed by Professors Sir Henry Roscoe and Schorlemmer have been largely extended. The Beyer laboratories and theatres for geology, botany, and zoology (the latter destined always to be associated with the name of Milnes Marshall), and the Museum came next; and within the last four years the fine physical laboratories (a special part of which is a memorial to the late Dr. John Hopkinson) have been added. These together provide accommodation for the preliminary scientific training of the medical student which can nowhere be excelled. The quadrangle (Fig. 1) has only been completed in this Jubilee year of the College by the finishing of the Whitworth Hall, an exterior view of which appeared in the BRITISH MEDICAL JOURNAL of March 29th. Its interior, now shown (Fig. 2), will afford a noble room for the delivery of the Presidential and special addresses and for the transaction of the business of the annual meeting.

The medical side of the College, begun in 1873, was doubled in size in 1880, and more than quadrupled in 1894. The latest addition provided a new and complete installation for the departments of Physiology, Pathology and Bacteriology, Toxicology, and Public Health, including two large theatres, of which one (Physiology) is allotted during the meeting to the Surgical Section, the other (Pathology) to the Section of Pathology. The laboratories, spacious, lofty, and well-lighted, are fitted both for the practical training of the student and for research work. One of them—the Histological Laboratory—is here shown (Fig. 3). In the Bacteriological department during the last few years a new sphere of usefulness has arisen in the examination of milk, etc., for the detection of tubercle and other bacilli and the application of diagnostic tests for diphtheria and enteric fever. Undertaken primarily for the Public Health Department of the city, municipal and district authorities over a wide area have availed themselves of it, and the work has increased to such an extent that it has been deemed advisable to remove this branch of the department to new quarters in Stanley Grove. This department also carries out a most useful and satisfactory arrangement whereby morbid products of all kinds submitted by members of the various medical societies are examined and reported on.

In thus noting the varied manifestations of activity on the medical side of the College the Dental curriculum and the special courses in Public Health work for the D.P.H. and in Pharmacology must not be forgotten.

THE MEDICAL CHARITIES.

Turning now to the clinical side of the School, it is to be feared that the visitor who comes expecting to see the latest developments in hospital construction may suffer some disappointment, for in this matter the city has of late years shown no undue haste. The new St. Mary's Hospital for Women in Oxford Street almost alone represents the type of the most modern hospital in Manchester. Though not yet occupied, it will be open for inspection during the meeting, and very soon now the hospital is to be transferred from its old habitat in Quay Street, which has seen so much of progress and good work in this branch of surgery since the days of Charles Clay, the pioneer, in the Forties, of modern ovariotomy.

For long it had been hoped that the new century would see a new Manchester Royal Infirmary. But here the question which has been fought out in so many large centres of popu-

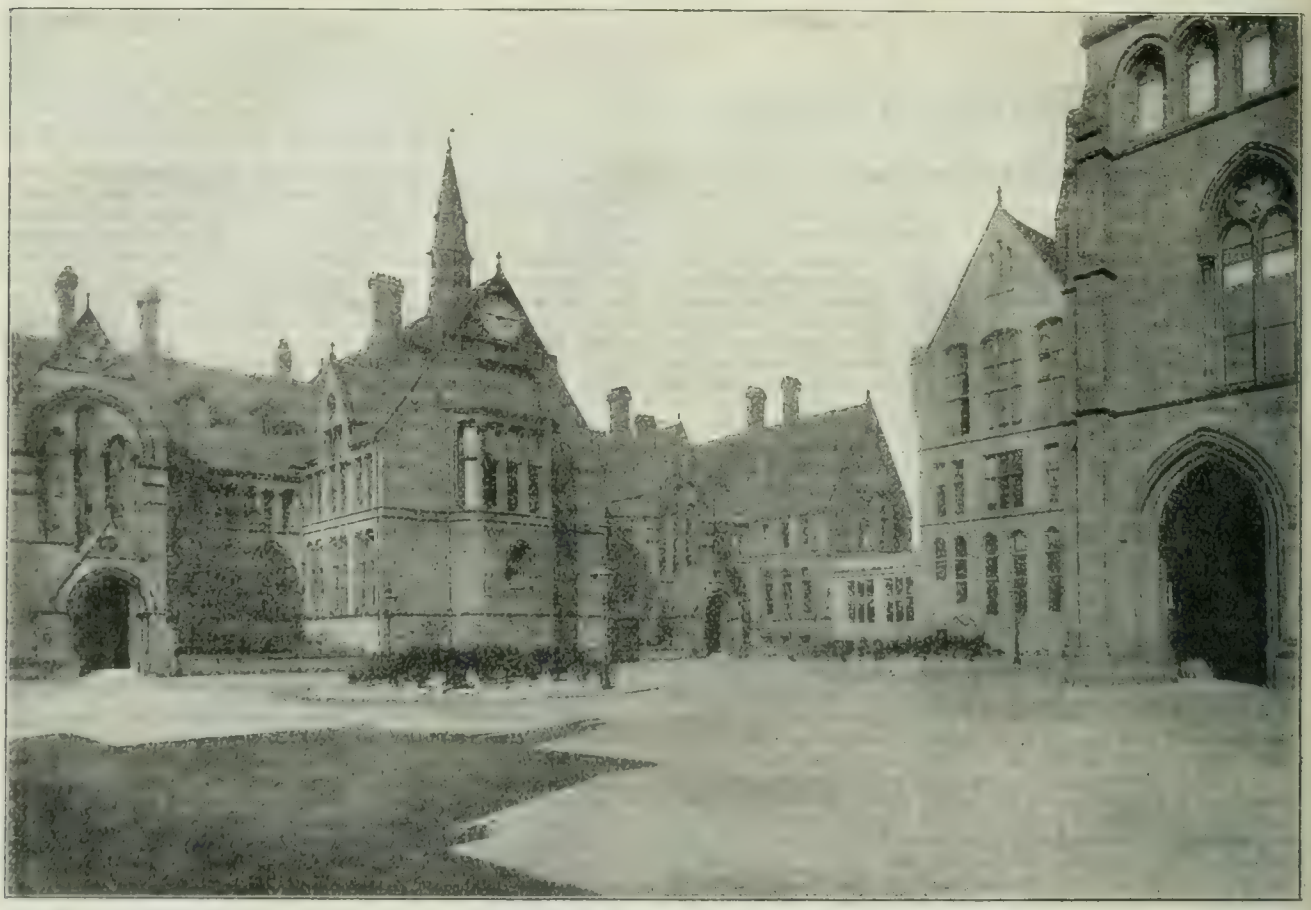


Fig. 1.—The Quadrangle, Owens College.

lation—of rebuilding on the old central site as against a roomier and quieter site in the suburbs—has proved most difficult of settlement, and the battle of the sites, most keenly contested at intervals for twenty years, has delayed the new building thus far. It is now announced that a revised set of plans for rebuilding on the present site will be ready for presentation to the trustees within the next few months, and it is to be hoped that a speedy decision may be arrived at and the work begun forthwith.

The present building (Fig. 4), occupying perhaps the most imposing site in the city, will at once attract the attention of the visitor. Built early in the last century, its interior was remodelled and a new out-patient department and nurses' home added some twenty-five years ago. An additional operating theatre and a clinical laboratory have since been provided. In spite of the drawbacks of accommodation its work has gone on increasing year by year, and has now reached a limit which is only rendered possible by the relief afforded by the Barnes Convalescent Hospital at Cheadle (136 beds). At the infirmary the clinical teaching of the school in medicine and surgery has always been given. For this purpose it is unsurpassed as, in addition to the patients from Manchester itself, cases of interest are sent in for consultation from a wide area, representing a population of several millions.

Salford has its own Royal Hospital with 127 beds, on a fine site overlooking Peel Park; whilst the Ancoats Hospital, which now provides 114 beds, occupies in a densely-populated neighbourhood an increasingly important position as a general hospital.

The Royal Eye Hospital, situated near Owens College, will also attract attention. The good work done here has made it one of the most popular hospitals in the district, for yearly over 25,000 patients come under treatment. The present hospital was opened in 1886, its predecessor in St. John Street being still used as a central out-patient department.

Adjacent to the Eye Hospital is the Stanley Grove Estate—now renamed "Hospital Gardens"—presented in trust to the Owens College some years ago by the trustees of the late Sir Joseph Whitworth as a site for the rebuilding of existing hospitals or the creation of new ones thus increasing and centralizing the clinical side of the medical school. Here will be found the Christie Hospital for Cancer, named after one of the trustees—the late Chancellor R. C. Christie and his wife who were largely instrumental in founding it. Completed two years ago, it comprises wards for operation cases with an excellent theatre, and a separate department used as a home for incurable patients. One of its special objects is "the study of the disease in all its stages with a view to the discovery of its causes and of means of prevention and cure"—a matter so prominently to the fore just now.

In Hospital Gardens will be found the new bacteriological laboratory before mentioned and it is proposed to erect here the new Southern Hospital for Women and Children. When this is done the city will be well equipped with gynaecological beds for, in addition to St. Mary's Hospital, there is the Clinical Hospital for Women and Children in Cheetham Hill Road containing 70 beds, to which a new out-patient department has recently been added. Children are also admirably provided for in the beautiful hospital for Sick Children at Pendlebury with 140 beds, a visit to which will amply repay those interested in hospital matters.

Amongst other special hospitals should be mentioned the Ear Hospital; the Skin Hospital, which has recently been equipped with a complete installation for the Finsen light treatment; and the Hospital for Consumption and Diseases of the Chest at Bowdon. The latter is just now actively mov-

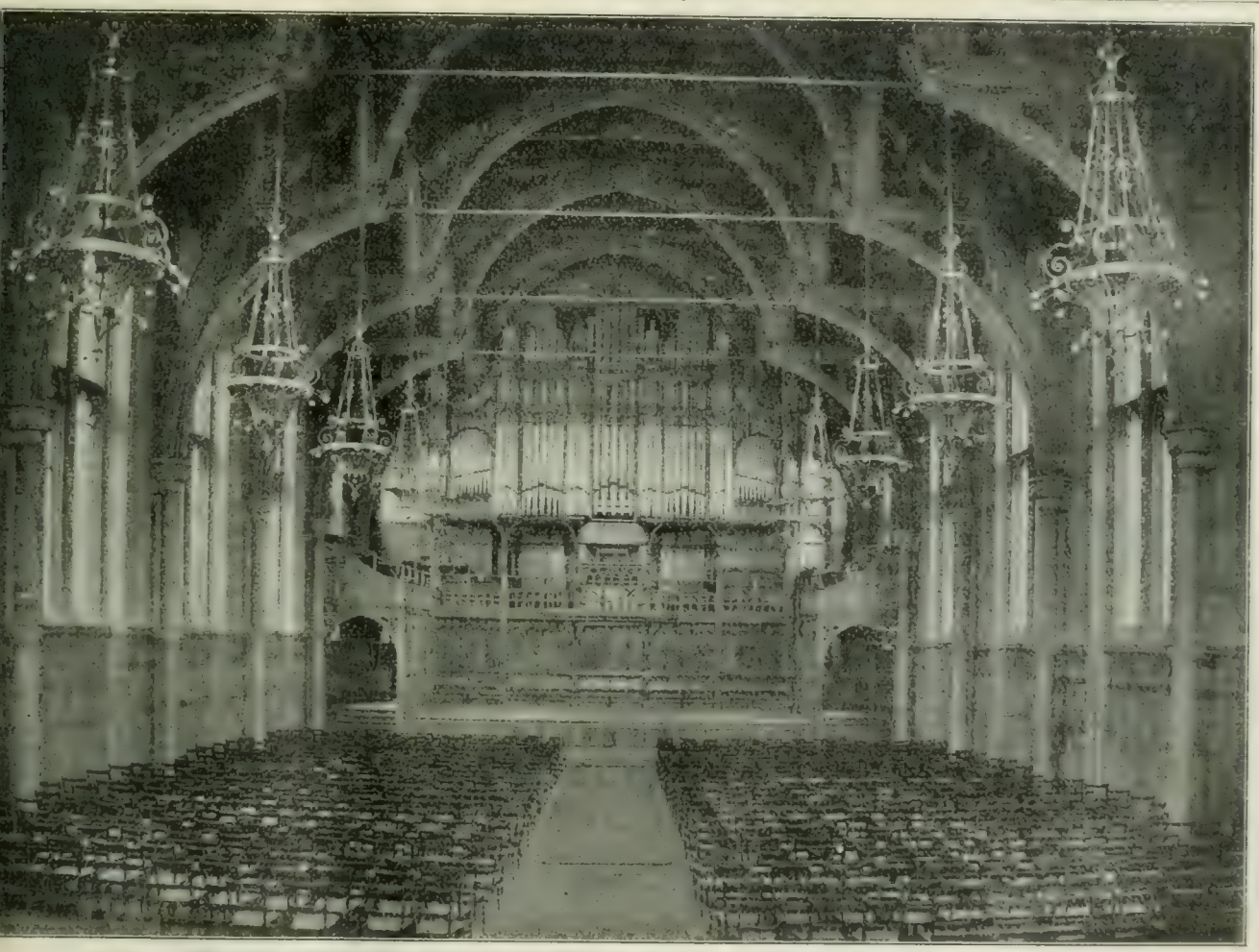


Fig. 2.—The Whitworth Hall, Owens College. (From a photograph by Mr. Chas. Ireland, Manchester.)

ng in the provision of accommodation for open-air treatment f its patients.

Such is the clinical field open to the student of the Manhester School, and to complete the picture it should be noted hat his experience in fevers is gained at the great City Fever Iospital at Monsall, and in mental diseases at Cheadle Royal, branch of the Royal Infirmary.

Visitors interested in the management of Poor-law institutons will find much of value in a visit to the huge infirmaries f the Manchester, Chorlton, and Salford Unions at Crumpsall, Vithington, and Eccles respectively. They should not fail so to see the Cottage Homes of the Chorlton Union at tyal, which embody all the most recent improvements for ie upbringing of children committed to the care of Poor-law iardians.

PROFESSIONAL SOCIETIES.

The senior of the societies is the *Manchester Medical Society*, hich was founded in 1834, and numbers nearly 400 mem-ers. Its headquarters are in the medical side of the Colge, where its chief possession, a library of 26,000 volumes, is oused. In this are included a number of old and rare edical works which the Librarian will show to book-loving sitors, whilst the Society's reading-room, well supplied with reign and home periodicals, will afford a quiet retreat. It ll be noted that the Council of Owens College, together th the President of the Medical Society (Dr. Thomas arris) are giving a Garden Party at Fallowfield on the after-oon of the Friday during the meeting.

The *Pathological Society*, revived in 1885, was originally stituted in 1844, one of the oldest of its kind in the king-m. It is a most popular Society, especially amongst the younger members of the profession, and numbers 457 members.

The *Medico-Ethical Association* is also one of the senior societies, being founded in 1847. As its name implies it is concerned with the discussion of ethical subjects affecting the profession—the discussions being preceded by high tea. Perhaps therefore it may be said to have reached the "Justice" stage of its existence—

> In fair round belly, and good capon lined—
> Full of wise saws and modern instances,
> And so he plays his part—

leaving his junior colleague, the *Medical Guild*, of vigorous and recent growth (1892) to tackle many of the vexing questions which touch the well-being of the medical body politic at the present time. The Guild numbers among its members many ardent professional reformers, and has a mouthpiece in the *Medical Guild Quarterly*.

The *Clinical Society*, with its meetings in the afternoon, plays a useful part in the professional life of the district, as does also the *Therapeutical Society* of later growth, though it appeals to a smaller section of the community. For a long time it has been felt that central premises in the city are needed which would accommodate in common the various societies, but unfortunately there does not appear any immediate prospect of such provision being made.

On the lighter side, there is the *Owens College Medical Social Union* aiming at the promotion of good fellowship and sociability amongst the local profession; the *Medical Cricket Club*, which is to play a match at Cheadle on the Wednesday of the meeting, and the *Medical Golf Tournament*. Ample arrangements have been made with the various clubs in the neigh-



Fig. 3.—Histological Laboratory, Owens College. (From a photograph by Mr. Chas. Ireland, Manchester.)

bourhood for the enjoyment of golfing visitors to the meeting, and a match is to be played at the Manchester Golf Club Links at Old Trafford, when England and Wales will meet "Scotland, Ireland, and all other Britains."

Visits and Excursions.

Due provision has been made for the instruction of visitors in the industrial and commercial pursuits of the district. They will be able to visit the great Manchester warehouses of firms like Phillips, Rylands, and Watts, whose names are almost household words. Examples of the Lancashire cotton mill and of bleaching works will be open for inspection, whilst to those interested in electricity, engineering, and the manufacture of machinery the electrical generating stations of the Corporation and the works of Messrs. Mather and Platt at Salford, Messrs. Platt Brothers at Oldham, and the London and North Western Railway Company at Crewe, will be available. Sanitarians will doubtless wish to see such departments of the City Corporation as the sewage works, abbatoirs, and cold-air stores, also the crematorium and the depôt of the Pure Milk Supply Association. Other attractions will be the well-known manufactory of aërated waters by Messrs. Jewsbury and Brown, and the brewery of Messrs. Groves and Whitnall.

For the public buildings and places of general interest the intending visitor must be referred to the programme now published and to the local *Guide*. One word of advice may be given here. Let him not miss seeing the magnificent new technical school both of Manchester and Salford, and note how the local authorities set out to provide for adequate technical instruction long before the cry of "Wake up, England" had reached its present insistence. He must also see the city's latest treasure the Rylands Library and its old-world foundation, the Chetham College, nor omit a visit to the Port of Manchester and the Ship Canal.

As will be seen by the detailed programme elsewhere, the residents in Manchester are taking care to provide suitable distraction for members after the business of the general and sectional meetings. In addition to numerous garden parties there will be two cricket matches—one on Wednesday afternoon at the Royal Asylum, Cheadle, and the other on Friday afternoon at the Owens College Athletic Ground, Fallowfield, when the match will be between the Owens College Cricket Club and an eleven of the British Medical Association. The local golf clubs have generously arranged to give the privilege of temporary membership to members attending the annual meeting, and an international golf match, "England and Wales *versus* all the other Britains," will be played on Friday, August 1st, on the links of the Manchester Golf Club in Trafford Park. On Tuesday evening a *conversazione* will be given by the President-elect and the Local Executive Committee at the Owens College. On this occasion there will be concerts in the Chemical Theatre, and Professors Stirling, Hickson, and Weiss will give scientific demonstrations; the Biological Museum also will be open, and Mr. W. E. Hoyle, the director, will be present to show the parties round. On Thursday evening, when the annual dinner of the Association takes place, a reception will be held at the Prince's Theatre, where an entertainment will be given. On Friday evening the Lord Mayor will hold a reception at the Town Hall, and a ball will be given in a large marquee to be erected on the Platt Hall Park.



Fig. 4.—Manchester Royal Infirmary.

A glance at the excursion programme will show the visitor how delightfully embarrassing will be his choice, when, in disposing of himself for the Saturday after the meeting he has to decide on the rival merits of the seaside—as at Southport or Colwyn Bay; of lakes and mountains—as Windermere or Llanberis for Snowdon; or of places such as Lancaster, Chester, Conway, and Haddon, where beauty and historic interest are combined. Wherever he goes he may rely on receiving cordial hospitality at the hands of his brethren in the locality.

VISITORS FROM THE COLONIES AND ABROAD.

Amongst those who have intimated their intention to attend the meeting are Professor von Noorden (Frankfurt), Drs. Jules Comby and Lermoyez (Paris), Professor Killian (Freiburg), Dr. L. Grünwald (Munich), Professor Neisser (Breslau), Professor O. Liebreich (Berlin), Dr. D. Glibert (Brussels).

The United States will be represented by Professors Osler and Senn, Drs. Sam Alexander, and Parker Syms, of New York.

Dr. T. G. Roddick and Professor J. G. Adami come as members of the Canadian Branch of the Association.

The Malta Branch will be represented by Inspector-General Griffiths, R.N.

The Malaya Branch by Dr. D. J. Galloway (Singapore).

The Sydney and New South Wales Branch by Sir James Graham, M.D., M.P., Dr. Jarvie Hood, and Dr. E. J. Jenkins (Sydney).

The Natal Branch by Dr. James Hyslop, D.S.O., and Dr. W. H. Addison.

The Cape of Good Hope Branch by Dr. C. McGowan Kitching (President), Dr. Julius Petersen, and Dr. C. C. Elliot.

The South Indian Branch by Lieutenant-Colonel W. A. Lee, M.D., I.M.S., and Captain G. G. Giffard.

The British Guiana Branch by Dr. W. S. Barnes and Dr. C. W. Daniels.

EXCURSIONS.

The following excursions have already been arrangeed by the Excursions Subcommittee.

Manchester, though unable of itself to boast of lovely scenery, is the centre of a very attractive country, and offers many facilities in this direction for the entertainment of visitors. In connexion with the forthcoming visit of the British Medical Association, advantage has been taken of this to arrange a series of excursions to many places of interest in the neighbourhood.

Blackpool.—The first organized excursion will take place on Wednesday, July 30th, when 200 members of the Association will be entertained, by special invitation, by the Mayor and Corporation and the medical profession of Blackpool. It was found impossible to arrange a visit on Saturday, and hence this invitation has been gladly accepted. A special train will be run to Blackpool immediately after the conclusion of the Sectional meetings on July 30th, and luncheon will be served in the train *en route* free of charge. On arrival in the town the guests will have ample opportunities of visiting all the places of interest, and they will be entertained at dinner at a sufficiently early hour to allow those members who wish to attend the Address in Medicine to return to Manchester in time for it.

Northwich will be visited on Friday, August 1st, and full details in connexion with this excursion will be published later. Northwich is the ancient Roman station on the main road from Manchester to Chester. It is now the centre of the

salt industry, and presents many features of exceptional interest. From the constant alteration of the level of the ground due to the removal of the salt on which the town stands, the houses are constantly sinking, and present a novel and very unusual and interesting appearance. In some places there has been a subsidence of more than 40 ft. in ten years, and it is said that there is scarcely a sound house in the town. In one very marked instance the former ground-floor rooms have become the cellars, and the sleeping rooms are now the sitting rooms. On the occasion of the visit of the members of the British Medical Association the salt mines will be illuminated, and the process of the manufacture of salt exhibited.

Southport.—On Saturday, August 2nd, there will be an excursion to Southport, which holds a high place as a health resort for the mildness and salubrity of its climate, and its unique advantages as a winter residence. The excursion will be under the auspices of the members of the medical profession and the Mayor, who have invited 150 members of the Association to be their guests on that day, when an attractive programme will be presented.

Windermere.—The President-elect will entertain 50 of the visitors to the Association at Windermere on Saturday, August 2nd.

Lancaster, the ancient capital of the county, and at one time the seat of the Dukes of Lancaster, is interesting both from its history, situation, and the beautiful country in the immediate neighbourhood. It will be visited under the auspices of the members of the profession in the town, who have undertaken to entertain fifty guests on Saturday, August 2nd.

Chester and North Wales.—On Saturday, August 2nd, there will be an excursion to Chester, limited to 100, organized by the Chester Medical Society. Tickets for this excursion will be 8s. 6d. each, and should be applied for not later than July 31st. A special train will leave Exchange Station, Manchester, at 9.40 a.m., and arrive at Chester at 11 o'clock. Lunch will be served at the Grosvenor Hotel at 1 p.m., and at 3 p.m. a steamer will leave for Iron Bridge. The return train will leave Chester at 8 p.m., and arrive at Manchester at 9.30. On arrival at Chester, brakes will be in readiness to convey the party to the fine old Norman Church of St. John. Canon Scott, the Vicar, has kindly promised to show this interesting building and its adjacent ruins and crypt to the visitors. The Cathedral will next be visited at 11.40, and by kind permission of the Dean (Dr. Derby) the party will be shown over it. The Venerable Edward Barber, Archdeacon of Chester, has kindly promised to give little historical sketches, describing the chief points of interest, and the Precentor and others have kindly promised to assist. A short tour of inspection of the Town Hall will then be made, and by kind permission of the Mayor (Mr. J. G. Frost), the ancient City Charters, Sword and Mace (1668) City Plate, etc., will be seen. Passing thence by the Rows, the Grosvenor Museum will well repay a visit, and the Curator, Mr. R. Newstead, will be prepared to give a brief account of the more important Roman and other remains, and also to explain the Local Natural History Collection, including that illustrating the life history of birds. After lunch, a short walk on the City Walls, and so on to the river, where at 3 o'clock a steamer will convey the party to Iron Bridge, close to Eaton Hall. Here the beautiful surroundings of the Hall and Park may be admired. Tea will be provided in the Gardens at 5 o'clock, and the return journey to Chester will be made at 6 o'clock. As an alternative to the River Expedition, those of the party who prefer it can drive after lunch to Hawarden, and see the fine old Castle, Park, etc. (For this an extra charge of 2s. will be made.)

Colwyn Bay.—The President-Elect with Mr. Mould, and the local members of the medical profession, will entertain 100 members of the Association here, and arrangements are being made by which all the places of interest in the neighbourhood will be visited.

Conway.—Under the auspices of Dr. Pritchard and other gentlemen, a party of 50 will be entertained at Conway. The antient castle, "that incomparable half feudal, half Tudor house, Plas Mawr," and other places of note will be visited.

Llanberis, Snowdon, etc.—Dr. Jones, with other gentlemen, will entertain a party of 100 at Llanberis. Arrangements are being made for the ascent of Snowdon by the mountain railway, and for other rambles. Carnarvon Castle will be visited in the evening, where tea will be served, and the return will be made from that town.

Haddon Hall and Chatsworth.—With the object of allowing visitors to see some Derbyshire scenery and visit Chatsworth, the seat of the Duke of Devonshire, and Haddon Hall, which dates from the twelfth century, it is proposed to hold an excursion, limited to 100 members. The Duke has promised to throw Chatsworth open, and has expressed his intention of entertaining the visitors at lunch.

Lake District.—For those who wish to extend their holidays after the meeting, Messrs. Cook and Son have arranged a very attractive tour in the Lake District to extend over a few days or a week.

Arrangements are already made for the accommodation of at least 700 visitors on the Saturday excursions. Complete details will be published in book form at a later date, when the cost of the various tickets will be given, but in the majority of cases, thanks to the hospitality so generously offered, the expense of these journeys will be a very small item.

ARRANGEMENTS OF SECTIONS AND PROGRAMME OF PROCEEDINGS.

The seventieth annual meeting of the British Medical Association will be held at Manchester on Tuesday, Wednesday, Thursday, and Friday, July 29th, 30th, 31st, and August 1st, 1902.

President: George Bagot Ferguson, M.D., F.R.C.S., Senior Surgeon, Cheltenham Hospital.

President-elect: Walter Whitehead, F.R.C.S. Edin., F.R.S.E., Consulting Surgeon Manchester Royal Infirmary, Manchester.

President of the Council: John Roberts Thomson, M.D., F.R.C.P.Lond., Consulting Physician to the Royal Victoria Hospital and to the National Sanatorium for Diseases of the Chest, Bournemouth.

Treasurer: Andrew Clark, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

An Address in Medicine will be delivered by Sir Thomas Barlow, Bart., K.C.V.O., M.D., Physician to His Majesty's Household.

An Address in Obstetrics will be delivered by William Japp Sinclair, M.D., Professor of Obstetrics in the Owens College, Manchester.

The scientific business of the meeting will be conducted in seventeen Sections, all of which (through the kindness of the Council) will hold their sittings in the theatres and lecture rooms of the Owens College, as follow, namely:

A.—Medicine.

Chemistry Theatre (Arts Side) and Ante-room for Cases.

President: Professor Julius Dreschfeld, M.D. *Vice-Presidents:* Professor John Dixon Mann, M.D.; Robert Charles Brown, M.B.; Graham Steell, M.D.; Wilmot Parker Herringham, M.D. *Honorary Secretaries:* Arthur Thomas Wilkinson, M.D., 22, St. John Street, Manchester; William Calwell, M.D., 1, College Square North, Belfast; Edward Mansfield Brockbank, M.D., 3, St. Peter's Square, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Causes, Diagnosis, and Principles of Treatment of Dilatation of the Stomach. To be opened by Professor Clifford Allbutt. The following gentlemen will take part in the discussion: Professor Von Noorden (Frankfurt), Dr. Saundby, Dr. Geo. Herschell, Dr. Sidney Martin, Dr. W. Soltau Fenwick, Dr. S. H. Habershon, Dr. T. D. Savill, Dr. James Barr, Dr. Frank M. Pope, Dr. O. J. Kauffmann, Dr. Harry Campbell, and Dr. Wm. Calwell.

Thursday, July 31st.—The Differential Diagnosis of Functional and Organic Paralysis. To be opened by Dr. Buzzard. The following gentlemen will take part in the discussion: Dr. J. S. Risien Russell, Dr. E. F. Trevelyan, Dr. Judson Bury, Dr. E. S. Reynolds, Dr. Alex. Bruce, Dr. Byrom Bramwell, Dr. T. D. Savill, Dr. Harry Campbell, and Dr. Purves Stewart.

Friday, August 1st.—Demonstrations (by medical men) of Clinical Apparatus and Methods of Research, to be given in the room in which the Section meets. Dr. James Mackenzie will demonstrate his Clinical Polygraph and Phlebograph. Dr. Haig will demonstrate his Capillary Dynamometer and Colour Cards for Estimation of the Quality of the Blood. Dr. Geo. Herschell will demonstrate an Instrument for Inflating the Stomach to Facilitate the Determination of its Boundaries.

The following papers are announced:

BANKS, Sir W. Mitchell, F.R.C.S. A Successful Case of Gastroplication for Dilated Stomach.
BRADSHAW, Thos. R., M.D. Myelopathic Albumosuria.
CAMPBELL, Harry, M.D. Overlooked Cases of Graves's Disease.
GILFORD, Hastings, F.R.C.S. Infantilism and Senilism, with Demonstration of Cases and Photographs.
HAIG, A., M.D. The Prominent Eye, its Meaning and Clinical Associations.
NOORDEN, Professor Von. The Treatment of Chronic Bright's Disease.
POPE, F. M., M.D. The Treatment of Chorea.
POYNTON, F. John, M.D., and PAINE, A., M.D. Observations upon Certain Forms of Arthritis, with Lantern Slides.
SCHOFIELD, A. T., M.D. The Mental Factor in Medicine.

B.—SURGERY.

Physiology Theatre (Medical Side) and Ante-room for Cases.

President: JAMES HARDIE, F.R.C.S. *Vice-Presidents:* Professor FREDERICK ARMITAGE SOUTHAM, F.R.C.S.; Professor GEORGE ARTHUR WRIGHT, F.R.C.S.; WILLIAM THORBURN, F.R.C.S. *Honorary Secretaries:* HENRY ALEXIS THOMSON, F.R.C.S.E., 32, Rutland Square, Edinburgh; HERBERT LUND, F.R.C.S., 22, St. John Street, Manchester; JOHN EDWARD PLATT, F.R.C.S., 191, High Street, Oxford Road, Manchester.

The following discussions have been arranged:

1. The Treatment of Inoperable Cancer. To be opened by Mr. Henry Morris, F.R.C.S. The following gentlemen will take part in the discussion: Dr. G. T. Beatson, Mr. A. G. R. Foulerton, F.R.C.S., Professor R. B. Wild (with special reference to Treatment by Oöphorectomy, X Rays, Coley's Fluid, and other Drugs), Mr. Hawkins-Ambler, Mr. Thomas Bryant, Mr. J. Paul Bush, Mr. W. McAdam Eccles, Dr. G. Bagot Ferguson, Mr. George Heaton, Mr. Damer Harrisson, Mr. F. B. Jessett, Mr. Jordan Lloyd, Mr. J. D. McFeely, Mr. Mayo Robson, Mr. Charles Ryall, Professor N. Senn, Dr. Herbert Snow, Mr. Noble Smith, Mr. Thomas Sinclair, Mr. J. Lynn Thomas, Mr. Chisholm Williams, Dr. Sinclair White, and Professor F. Valentine (New York).

2. The Treatment of Tuberculous Disease of the Testis, Vesiculae Seminales, Prostate, and Bladder. To be opened by Professor Thomas Myles, M.D., F.R.C.S., President of the Royal College of Surgeons in Ireland. The following gentlemen will take part in the discussion: Mr. J. Paul Bush, Mr. Damer Harrisson, Mr. Jordan Lloyd, Mr. Mansell Moullin, Mr. C. Yelverton Pearson, Mr. Nathan Raw, Professor N. Senn, Professor F. Valentine, Dr. P. J. Freyer, Dr. David Newman, and Dr. Sinclair White.

The following papers are announced:

BRYANT, Thomas, F.R.C.S. The Influence of the X Rays in the Treatment of Inoperable Cancer.
BISHOP, E. Stanmore, F.R.C.S. Methods of Uniting Divided Intestine, with Special Reference to a New Bone Bobbin for that Purpose.
BUSH, J. Paul, M.R.C.S. The Treatment of Deformities of the Face by the Subcutaneous Injection of Paraffin.
CRIPPS, Harrison, F.R.C.S. Results of Operative Treatment in 500 Cases of Rectal Cancer.
DALZIEL, T. K., M.B. Gastro-enterostomy for Simple Pyloric Obstruction.
DOWNIE, J. Walker, M.B. Injection of Paraffin in Nasal Deformities.
ECCLES, W. McAdam, F.R.C.S. The Value of the Imperfectly Descended Testicle.
FREYER, P. J., M.Ch. Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ.
GILFORD, H., F.R.C.S. Three cases of Hour-glass Contraction of the Stomach Treated by Operation.
HUTCHINSON, Jonathan, jun., F.R.C.S. The Operative Treatment of Cancer of the Tongue.
HARRISSON, Damer, F.R.C.S.E. Some Selected Cases of Brain Surgery.
LONGRIDGE, C. T. N., M.D.Vict. The Value of Blood Counts in the Diagnosis of Abdominal Disease.
LYNHAM, B. G. A., F.R.C.S. A Series of Cases Illustrating the Complications of Gall-stone Surgery.
McFEELY, J. D., F.R.C.S.I. Rodent Ulcer.
MORISON, J. Rutherford, F.R.C.S. (Title not communicated.)
NEWMAN, David, M.D. The Treatment of Chronic Cystitis.
NICOLL, J. H., M.B. The Radical Cure of Femoral Hernia.
OWEN, Edmund, F.R.C.S. Chronic Pancreatitis, its Diagnosis and Treatment.
PEARSON, C. Yelverton, F.R.C.S. Some Cases of Trans-sacral Proctectomy with End-to-end Anastomosis of the Lower Ends of the Rectum.
ROBSON, A. W. Mayo, F.R.C.S. (1) Almost Complete Gastrectomy for Sarcoma. (2) A Case of Complete Extirpation of the Urinary Bladder.
RODOCANACHI, A. J., M.D. Radical Cure of Hernia.
SENN, Professor N. (New York). The Treatment of Gunshot Wounds of the Stomach by the Purse-string Suture.
THOMAS, J. Lynn, F.R.C.S. (1) Two Cases of Urethrectomy. (2) Modified Vulliet's Nephropexy Simplified by means of a Swivel Tenotome.
WHITE, Sinclair, F.R.C.S. Excision of Rectal Cancer by the Trans-sacral Route.
VALENTINE, Professor F. (New York). The Diagnosis of Urethral Disease.

C.—OBSTETRICS AND GYNAECOLOGY.

History Theatre (Arts Side).

President: DAVID LLOYD ROBERTS, M.D. *Vice-Presidents:* SAMUEL BUCKLEY, M.D.; WILLIAM WALTER, M.D.; ARCHIBALD DONALD, M.D.; JAMES HENRY TARGETT, F.R.C.S., *Honorary Secretaries:* THOMAS ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester; ARNOLD WM. WARRINGTON LEA, M.D., 274, Oxford Road, Manchester; WM. EDWARD FOTHERGILL, M.D., 10, St. John Street, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Modern Indications for Caesarean Section. To be opened by Dr. Galabin. The following gentlemen will take part in the discussion: Dr. Munro Kerr, Dr. W. H. C. Newnham, Dr. R. Jardine, and Dr. J. Stuart Nairne.

Friday, August 1st.—The Operative Treatment of Prolapsus Uteri. To be opened by Dr. Berry Hart. The following gentlemen will take part in the discussion: Dr. Munro Kerr, Dr. Macnaughton-Jones, Mr. F. B. Jessett, Dr. G. A. Hawkins-Ambler, Dr. Hellier, Dr. W. H. C. Newnham, Dr. R. Bell, Dr. W. J. Smyly, Dr. F. J. McCann, Dr. J. Inglis Parsons, Dr. E. Stanmore Bishop, Dr. J. Tennant, and Dr. J. Stuart Nairne.

The following papers are announced:

BELL, R., M.D. Carcinoma, its Pathogenesis and Treatment without Operation.
BISHOP, E. Stanmore, F.R.C.S. Operative Methods in Vesico-Vaginal Fistula.
BRIGGS, H., M.B. On the Tests of Malignancy in Ovarian Tumours.
HELLIER, J. B., M.D. (Title not yet received).
JARDINE, R., M.D. The Use of Potassium Chlorate in Habitual Death of the Fetus in the later Months of Pregnancy.
KERR, J. Munro, M.B. (Title not yet received).
NAIRNE, J. Stuart, F.R.C.S. So-called Neurasthenia, Hysteria, and Abdominal Section.
NICHOLSON, H. O., M.D. Puerperal Eclampsia in the Light of Thyroid Inadequacy and its Treatment by Thyroid Extract.
OLIVER, James, M.D., F.R.S.E. A Study of Fertilization with reference to the Occurrence of Ectopic Gestation.

D.—PUBLIC MEDICINE.

Greek and Latin Lecture Room (Arts Side).

President: JAMES NIVEN, M.B., *Vice-Presidents:* THOMAS CARLETON RAILTON, M.D.; JOHN MILSON RHODES, M.D.; WILLIAM LESLIE MACKENZIE, M.D., D.P.H.; FRANK DREW HARRIS, M.B., D.P.H. *Honorary Secretaries:* THOMAS WALTER HABROPP GARSTANG, D.P.H., Englefield, Altrincham, Cheshire; W. H. HAMER, M.D., 14 Bramshill Gardens, Dartmouth Park Hill, N.W.; GEORGE NEWMAN, M.D., Town Hall, Finsbury, E.C.

The following discussions have been arranged:

Wednesday, July 30th.—

(*a*) The Precise Part played by Vaccination as carried out in this Country in Preventing the Spread of Small-pox, and the Means by which we may hope to secure the Maximum Advantage from Vaccination. To be opened by Dr. Hope. The following gentlemen will take part in the discussion: Dr. Theodore Dyke Acland, Dr. Monckton Copeman, Dr. E. C. Seaton, Dr. E. J. Edwardes, Dr. J. Priestley, Dr. Cooper Pattin, Dr. Gornall, and Dr. J. T. C. Nash.

(*b*) What is the Precise Etiology of "Return Cases" of Scarlet Fever, and how may they be prevented from occurring? Do they materially affect the Usefulness of Isolation Hospitals? To be opened by Dr. Mervyn Gordon and Dr. C. K. Millard. The following gentlemen will take part in the discussion: Dr. Boobbyer, Dr. R. Sydney Marsden, Dr. Cooper Pattin, Dr. J. T. Neech, Dr. Gornall, and Dr. J. T. C. Nash.

(*c*) By what General Scheme of Action, including Administrative Measures, can the Prevention of Tuberculosis be most efficiently advanced? To be opened by Dr. Robertson and Dr. Newsholme. The following gentlemen will take part in the discussion: Dr. Harold Coates, Dr. Nathan Raw, Dr. Kenwood Dr. R. Sydney Marsden, Dr. J. Priestley, Dr. J. H. Marsh, Dr. Cooper Pattin, and Dr. J. T. Neech.

(*d*) The Relation of Poverty to Disease. To be opened by Alderman MacDougall of Manchester and Mr. Seebohm Rowntree of York. The following gentlemen will take part in the discussion: Dr. Boobbyer, Dr. A. W. Chapman, Dr. J. H. Marsh, Dr. Berry, and Dr. J. M. Rhodes.

Friday, August 1st.—

The Outbreak of Arsenical Poisoning. To be opened by Dr. C. H. Tattersall. The following gentlemen will take part in the discussion: Dr. E. S. Reynolds, Professor Sheridan Delépine, and Professor Dixon Mann.

The following papers are announced:

Brown, Wm., M.D. The Lesions of Bovine Tuberculosis.
Farrar, R., M.D. Plague as a Soil Infection.
Rhodes, J. M., M.D. Infantile Mortality
Young, Meredith, M.D. The Further Control of Common Lodging Houses.

Arrangements will be made for Lantern Demonstrations in connexion with some of the subjects under discussion.

E.—Psychological Medicine.

Medicine Theatre (Medical Side).

President: George Wm. Mould, M.R.C.S. *Vice-Presidents:* Judson Sykes Bury, M.D.; Thomas Steele Sheldon, M.B. *Honorary Secretaries:* John Sutcliffe, M.R.C.S., Royal Asylum, Cheadle, Cheshire; Ernest Septimus Reynolds, M.D., 2, St. Peter's Square, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Treatment and Care of Persons in the Early Stages of Unsoundness of Mind. To be opened by Sir John Sibbald, M.D.

Thursday, July 31st.—The Relation of Functional Neuroses (Hysteria, Neurasthenia, Hypochrondriasis, etc.) to Insanity. To be opened by Dr. T. Clifford Allbutt.

Friday, August 1st. Syphilis as a Cause of Insanity. To be opened by Dr. Fred. W. Mott.

F. Physiology and Anatomy.

Optical Room, Physiological Laboratory (Medical Side).

President: Professor Wm. Stirling, M.D., F.R.S.E. *Vice-Presidents:* Professor Alfred Harry Young, F.R.C.S.; Professor Arthur Robinson, M.D.; J. Sydney Edkins, M.B. *Honorary Secretaries:* James Acworth Menzies, M.D., Winter's Buildings, 30, St. Ann Street, Manchester; Peter Thompson, M.D., Anatomy Department, Middlesex Hospital, W.

The following discussions have been arranged:

1. The Motor Cortex as exemplified in the Anthropoid Apes. To be opened by Professor C. S. Sherrington and Dr. A. S. Grünbaum.

2. On Intestinal Secretion and the Action of Drugs thereon. To be opened by Mr. J. S. Edkins, M.B. The following gentleman will take part in the discussion: Dr. S. Monckton Copeman.

3. On the Development of the Human Genito-urinary Organs. To be opened by Dr. D. Berry Hart, F.R.C.P.E., F.R.S.E. The following gentlemen will take part in the discussion: Professor A. M. Paterson, Professor J. Symington, Professor A. Robinson, Mr. W. McAdam Eccles, Dr. Arthur Keith, Mr. F. O. Parsons, and Dr. C. Addison.

The following papers are announced:

Bainbridge, F. A., M.B. The Relation of Metabolism to Lymph Formation
Copeman, S. Monckton, M.D. Experiments on Sex Determination.
Paterson, A. M., M.D. A Microscopical Demonstration.
Stirling, W., M.D. (1) Parturition in the Guinea-pig. (2) A Series of Demonstrations on Physiological Subjects of Special Interest to Medical Men.

G. Pathology.

General Theatre (Medical Side).

President: Professor Sheridan Delépine, M.B. *Vice-Presidents:* Professor J. George Adami, M.D.; Robert Maguire, M.D.; George Newton Pitt, M.D. *Honorary Secretaries:* Frederick Craven Moore, M.D., 96, Mosley Street, Manchester; Edward John Sidebotham, M.B., Erlesdene, Bowdon, Cheshire.

The following discussions have been arranged:

Wednesday, July 30th.—The Pathology of Nerve Degeneration. To be opened by Fredk. W. Mott, M.D., F.R.S. The following gentlemen will take part in the discussion: Dr. Purves Stewart, Dr. R. Kennedy, Dr. W. B. Warrington, Mr. Thorburn, Dr. Bury, Dr. Reynolds, and Dr. Orr.

Thursday, July 31st.—The Place of Bacteriological Diagnosis in Medicine. To be opened by Professor Sims Woodhead,

Friday, August 1st.—

1. The Relationship of Human and Bovine Tuberculosis. To be opened by Professor D. J. Hamilton.

2. The Pathology of Fetal Bone Disease. To be opened by Dr. J. W. Ballantyne and Dr. W. Stoeltzner, at a joint meeting of this Section with the Section of Diseases of Children.

The following papers and demonstrations are announced:

Eddowes, Alfred, M.D. Carcino-sarcoma of the Skin.
Firth, Professor R. H., Major, R.A.M.C., and Horrocks, W. H., Major, R.A.M.C. The Viability of the Enteric Bacillus in Soils and in Fabrics.
Fisher, Theodore, M.D. (1) A Case of Rheumatic Myocarditis. (2) A Case of Thrombosis of the Cerebral Veins and Sinuses complicating Bronchopneumonia.
Harley, Professor Vaughan, M.D. Low Proteid Metabolism.
Monsarrat, Keith, F.R.C.S., and Warrington, W. B., M.D. Arrested Development of the Olivo-Pontine Cerebellar Complex accompanied by Spina Bifida and other Developmental Peculiarities.
Savage, W. G., M.D. (1) Leucocyte Enumeration for Routine Clinical Work. (2) The Influence of Culture Medium on the Degree of Agglutinative Power.
Warrington, W. B., M.D. The Anatomy of the Nervous System in a Case of African Lethargy.
Watson, Chalmers, M.D. Cinematograph and Lantern Demonstrations on Nervous Diseases in Lower Animals.

H.—Ophthalmology.

Mathematical Theatre No. I (Arts Side), Dark Room adjoining, namely, No. IV Engineering.

President: David Little, M.D. *Vice-Presidents:* Charles Edward Glascott, M.D.; Wm. Thomas Holmes Spicer, F.R.C.S.; Angus McGillivray, M.D. *Honorary Secretaries:* Alex Hill Griffith, M.D., 17, St. John Street, Manchester; Edward Roberts, M.R.C.S., 44, Deansgate Arcade, Deansgate, Manchester; John Gray Clegg, M.D., 22, St. John Street, Manchester.

The following discussions have been arranged:

1. The Treatment of Sclero-keratitis. To be opened by Dr. Arthur W. Sandford.

2. Functional Derangements of the Eye (so-called hysterical). To be opened by Mr. R. Marcus Gunn, F.R.C.S.

3. The Rarer Forms of Atrophy of the Optic Nerve. To be opened by Dr. James Taylor.

The following gentlemen will take part in the discussions: Mr. Charles Blair, Mr. Drake-Brockman, Mr. W. Watson Griffin, Mr. Arnold Lawson, Mr. J. B. Storey.

The following papers are announced:

Hartridge, Gustavus, F.R.C.S. Visual Efficiency after Eye Injuries.
Hern, John, M.D. Cases of Sympathetic Ophthalmia following Extraction of Cataract.
Jessop, W. H. H., F.R.C.S. Glioma simulating Hypopyon.
Lee, Chas. G., M.R.C.S. Cases of Monocular Neuritis.
McKeown, David, M.D. (1) Treatment of Congenitally-displaced Transparent Lenses, and will read a Case. (2) Notes of a Case of Chronic Rodent Ulcer of the Cornea.
Menzies, J. A., M.D. Detachment of Corneal Epithelium.
Parsons, J. Herbert, F.R.C.S. Lesions of the Retina.
Snell, Simeon, F.R.C.S. On a Method of Suturing the Tendons after Enucleation.
Yarr, M. T., Major, R.A.M.C. Indirect Gunshot Injuries of the Eye.

I. Diseases of Children.

Gynæcology Theatre, Dark Room and Ante-room adjoining (Medical Side).

President: Henry Ashby, M.D. *Vice-Presidents:* Joshua John Cox, M.D.; Henry Richmond Hutton, M.B.; Joseph Collier, F.R.C.S.; Bertram Mitford Heron Rogers, M.D. *Honorary Secretaries:* Richard Walter Marsden, M.D., 3, St. Peter's Square, Manchester; James Stewart Fowler, M.D., 68, Northumberland Street, Edinburgh; John Howson Ray, F.R.C.S., 22, St. John Street, Manchester.

The following discussions have been arranged:

Wednesday, July 30th. The Modification of Milk in the Feeding of Infants. To be opened by Professor T. M. Rotch (Professor of Diseases of Children, Harvard University). The following gentlemen will take part in the discussion: Dr. Jules Comby (Paris), Dr. H. de Rothschild (Paris), Dr. W. P. Northup (New York), Dr. Milne Murray, Dr. Geo. Carpenter, Dr. E. Cautley, Dr. J. J. Poynton, and Dr. Eric Pritchard.

Thursday, July 31st.

The Surgery of those Affections of the Central Nervous System which occur more especially in Children. To be opened by Mr. Harold J. Stiles, F.R.C.S.E. The following

gentlemen will take part in the discussion: Professor Wright, Mr. Joseph Collier, Mr. J. Howson Ray, and others.

At 11.30 a.m. in Embden Street Special School, by kind permission of the Manchester School Board, a paper by Dr. Eichholz on the Treatment of Mentally-feeble Children: also paper by Dr. Geo. Shuttleworth.

Friday, August 1st.—

The Value of Physical Exercises in Diseases of the Respiratory Tract. To be opened by Mr. Wm. Arbuthnot Lane, F.R.C.S.

At 11.30 a.m. (conjointly with the Pathological Section) Dr. J. W. Ballantyne will give a demonstration on the Congenital Diseases of Bone, and specimens, photographs, etc., will be described by Dr. W. Stoeltzner (Berlin), Dr. Jules Comby (Paris), and Dr. C. E. S. Flemming.

The following papers are announced:

BALLANTYNE, John William, M.D. Fetal Bone Disease.
COLLIER, Joseph, F.R.C.S. Will show Cases illustrating an Important Point in the After-Treatment of Erasion of the Knee-joint.
FOWLER, J. S., M.D. The Anaemias of Infancy.
MELLAND, C. H., M.D. The Anaemias of Infancy.
RABAGLIATI, A., M.D. A Case of Tuberculous Disease of the Knee-joint in a Child, 4 years old, cured by Monositeisin.
THOMSON, John, M.D. The Existence of Co-ordination Neuroses in Early Infancy.

J.—LARYNGOLOGY.

Old Physics Theatre (No. 6) (Arts Side), also Dark Room and Waiting Room adjoining.

President: ALEXANDER HODGKINSON, M.B. *Vice-Presidents:* EDWARD LAW, M.D.; SIEGMUND MORITZ, M.D.; GEORGE WALTER RIDLEY, M.S. *Honorary Secretaries:* EUGENE STEPHEN YONGE, M.D., 3, St. Peter's Square, Manchester; CHARLES J. HEATH, F.R.C.S., 3, Cavendish Place, W.

The following discussions have been arranged:

1. The Diagnosis and Treatment of Foreign Bodies in the Upper Air Passages and Gullet. To be opened by Professor Killian (Freiburg) and Dr. John Macintyre. The following gentlemen will take part in the discussion; Dr. Barclay Baron, Dr. Walker Downie, Mr. T. Mark Hovell, Dr. S. Marsh, Mr. Thelwall Thomas, Dr. Ernest Waggett, and others.

2. The Ultimate Results of Radical Operations on the Maxillary and Frontal Sinuses. To be opened by Dr. Lermoyez (Paris) and Dr. Herbert Tilley. The following gentlemen will take part in the discussion: Professor Killian, Dr. Barclay Baron, Mr. T. Mark Hovell, Dr. Lambert Lack, Dr. P. McBride, Dr. Arthur Orwin, Dr. Frederick Spicer, Dr. Scanes Spicer, Mr. Thelwall Thomas, Dr. StClair Thomson, Dr. Ernest Waggett, and others.

3. A joint discussion with the Section of Otology will take place on The Etiology and Treatment of Ethmoidal and Sphenoidal Suppuration. To be opened by Dr. Grünwald (Munich) and Dr. H. Lambert Lack. The following gentlemen will take part in the discussion: Dr. Barclay Baron, Dr. N. C. Haring, Mr. T. Mark Hovell, Dr. Samuel Lodge, Dr. P. McBride, Dr. Greville MacDonald, Dr. Frederick Spicer, Dr. Ernest Waggett, Dr. Watson Williams, and others.

The following papers are announced:

GRÜNWALD, L., M.D. On the Present State of the Ozaena Question.
HARING, N. C., M.B. The Correlation of Diagnosis and Treatment in Chronic Laryngitis.
KELLY, A. Brown, M.B. Bromide of Ethyl Anaesthesia in Operations in the Throat.
MACDONALD, Greville, M.D. The Operative Cure of Laryngeal Papilloma.
ONODI, Professor (Buda-Pesth). Demonstration of Photographs of Preparations relating to the Connexion of the Isolated Respiratory Fibres of the Recurrent with the Sympathetic and the Cardiac Nerves.
PEGLER, L. Hemington, M.D. (1) Moure's Operation for Deflected Septum. (2) Functional Abeyance of Nasal Breathing in the Absence of Nasal Obstruction.
SPICER, Scanes, M.D. Paraffin Wax Injections in the Treatment of Saddle-Nose.
THOMSON, StClair, M.D. The Use and Abuse of the Galvano-Cautery.

Professor Killian has also kindly promised to give a Practical Demonstration of his Methods of Bronchoscopy and Œsophagoscopy.

K.—OTOLOGY.

Old Physics Theatre No 1 (Arts Side) also Dark Room adjoining.

President: WILLIAM MILLIGAN, M.D. *Vice-Presidents:* FREDERICK JOHN WILLIAM COX, M.D.; RICHARD LAKE, F.R.C.S. *Honorary Secretaries:* ARTHUR HENRY CHEATLE, F.R.C.S., 117, Harley Street, W.; FREDERIC HIBBERT WESTMACOTT, F.R.C.S., 8, St. John Street, Manchester.

The following discussions have been arranged:

Wednesday, July 30th.—The Aims and Limitations of Intranasal Surgical Procedures in the Treatment of Chronic Non-Suppurative Middle-Ear Disease, to be opened by Dr. Dr. P. McBride and Professor Urban Pritchard. The following gentlemen will take part in the discussion: Dr. Dundas Grant and Dr. P. Watson Williams.

Thursday, July 31st.—A conjoint discussion with the Section of Laryngology on the Etiology and Treatment of Ethmoidal and Sphenoidal Suppuration, introduced by Professor Grünwald (Munich), and Dr. H. Lambert Lack. The following gentlemen will take part in the discussion: Dr. StClair Thomson, Dr. Dundas Grant, Dr. P. Watson Williams, and Dr. Scanes Spicer.

Friday, August 1st.—The Indications for and against Ligation of the Internal Jugular Vein in cases of Otitic Pyosepticaemia. To be opened by Mr. Ballance, F.R.C.S., and Dr. Thomas Barr. The following gentleman will take part in the discussion: Dr. Dundas Grant.

The following papers are announced:

GRANT, Dundas, M.D. Remarks on Cholesteatoma of the Middle Ear.
MCKEOWN, David, M.D. Difficulties and Insufficiency of the Stenosal Theory of Adenoid Deafness.
SPICER, Scanes, M.D. The Rôle of the Alae Nasi in Normal and Impeded Nasal Respiration, with Special Reference to the Management of the Alar Collapse Factor in Nasal Obstruction.
THORNE, Atwood, M.B. The Provision in London for the Education of the Deaf.
WATSON, D. Chalmers, M.B. Observations on the Treatment of Deafness of Middle-ear Origin.

L.—DERMATOLOGY.

Classics and German Lecture Room (Arts Side), Cases in the Mathematics and German Lecture Room which adjoins.

President: HENRY AMBROSE GRUNDY BROOKE, M.B. *Vice-Presidents:* WILLIAM DALE JAMES, M.R.C.S.; NORMAN WALKER, M.D.; Professor THOMAS CASPAR GILCHRIST, M.R.C.S. *Honorary Secretaries:* GEORGE HERBERT LANCASHIRE, M.D., Winter's Buildings, St. Ann Street, Manchester; ARTHUR WHITFIELD, M.D., 12, Upper Berkeley Street, Portman Square, W.

Wednesday, July 30th, 10 a.m.—Opening by the President. 10.15 a.m. Communication by Professor Neisser (Breslau) on the Significance of Tuberculin in the Diagnosis of Skin Disease. Later, Dr. J. C. Johnston (New York) will give a communication on Melanoma, and Dr. E. Graham Little will speak on Tuberculides.

Thursday, July 31st, 10 a.m.—Dr. L. Freund (Vienna) will read a paper on X-Ray Treatment, High-frequency Method, Light Treatment. To be followed by a discussion in which the following gentlemen will take part: Dr. J. H. Sequeira, Dr. S. E. Dore, Dr. J. M. H. McLeod, and Dr. P. S. Abraham. Later, Dr. J. M. H. Macleod will read a paper on the Histological Changes in the Skin after Exposure to X Rays. Mr. George Pernet will read a paper on Xeroderma Pigmentosa Tumours. Dr. J. H. Sequeira and Dr. H. Balean will give a paper on Lupus Erythematosus. Dr. T. C. Gilchrist will give a demonstration on Blastomycetes.

Friday, August 1st, 10 a.m.—Mr. Malcolm Morris will open a discussion on the Treatment of Psoriasis. The following gentlemen will take part in the discussion: Dr. J. J. Pringle and Dr. P. S. Abraham. Later, Dr. Norman Walker will open a discussion on Seborrhœa. The following gentlemen will take part in the discussion: Dr. J. M. H. Macleod and Dr. J. J. Pringle. Dr. Willmott Evans will read a paper on the Mode of Action of Arsenic in Diseases of the Skin.

M.—PHARMACOLOGY.

Small Anatomy Theatre and also the Pharmacological Laboratories (Medical Side).

President: NESTOR ISIDORE CHARLES TIRARD, M.D. *Vice-Presidents:* Professor ROBERT BRIGGS WILD, M.D.; HECTOR WILLIAM GAVIN MACKENZIE, M.D. *Honorary Secretaries:* FRANCIS WHITTAKER TUNNICLIFFE, M.D., 6, Devonshire Street, W.; ALBERT HOPKINSON, M.B., Parsonage Nook, Withington, Manchester.

The following discussions have been arranged:

Wednesday, July 30th, 10 a.m.—Upon the Undesired and Unexpected Actions of Medicines, including Tolerance and Idiosyncrasy to or Abnormal Results from Ordinary Doses. To be opened by Sir Lauder Brunton, F.R.S.

Thursday, July 31st, 9.30 a.m.—The Therapeutic Value of Arsenic and the Justification of its Continued Use in the Light of Recent Observations concerning its Toxic Action. To be opened by Dr. Ralph Stockman.

Friday, August 1st, 10 a.m.—The Local and General Treatment of Diphtheria. To be opened by Dr. Tirard.

The following papers are announced:

CAMPBELL, Colin, M.R.C.S. The Materia Medica of the Intratracheal Treatment of Pulmonary Diseases.
CASH, Professor Theodore. Japacoditin and Pseudoconitin.
DIXON, Walter, M.D. The Question of Injectable Purgatives.
HARPER, Henry, M.D. Urea in the Treatment of Tuberculosis.
LIEBREICH, Professor Oscar (Berlin.) (1) The Therapeutic Value of Alkaline Waters of the Vichy Type. (2) Contribution to the Toxicology of Tincture of Cantharides.
MCWALTER, Walter, M.D. Suggested Standards of Pharmacological Preparations.
TUNNICLIFFE, Professor F. W. Synthetic Purgatives: The Purgative Action of Phenolthalein.
WILD, Professor R. B., and PLATT, J. N. The Action of Acid Solutions upon Blood Vessels.
WILSON, A., F.R.C.S. The Law of Dissolution as Illustrated by the Action of Chloroform.

N.—INDUSTRIAL HYGIENE AND DISEASES OF OCCUPATION.

Latin and French Lecture Room (Arts Side).

President: ARTHUR WHITELEGGE, M.D. *Vice-Presidents:* HENRY HAMMOND SMITH, M.R.C.S.; COLIN CAMPBELL, M.R.C.S. *Honorary Secretaries:* WILLIAM FRANCIS DEARDEN, M.R.C.S., D.P.H., Oak Leigh, Crumpsall Park, Manchester; THOMAS MORISON LEGGE, M.D., 2, Mitre Court Buildings, E.C.

The following discussions have been arranged:

Wednesday, July 30th.—The Value of Systematic Medical Examination of Workers in Dangerous Trades—Lead, Mercury, etc. To be opened by Dr. S. King Alcock. The following gentlemen will take part in the discussion: Dr. T. Oliver, M.A., F.R.C.P., Dr. J. F. Arlidge, Dr. W. A. Atkinson, Mr. B. M. Bond, D.P.H., Dr. J. Holmes, Dr. H. S. Purdon, Mr. H. W. Newton, Mr. W. H. Vickery, F.R.C.S., Mr. W. J. Greer, F.R.C.S., D.P.H., Dr. C. A. Gwynne, B.A., and Dr. T. F. Young.

Thursday, July 31st.—The Granting of Certificates of Fitness to Children and Young Persons Employed in Factories and Workshops. To be opened by Dr. C. A. Greaves, LL.B. The following gentlemen will take part in the discussion: Professor C. J. Wright, Dr. J. S. Clayton, Dr. E. Rayner, F.R.C.S., Dr. J. H. Keay, Dr. J. Watson, Mr. W. J. Greer, F.R.C.S., D.P.H., Dr. A. Campbell, F.R.C.S., Dr. J. Holmes, Dr. C. A. Gwynne, B.A., Dr. T. F. Young, Mr. E. Rice-Morgan, Dr. R. Brown, Mr. W. B. Barclay, D.P.H., and Dr. John Hedley.

Friday, August 1st.—The Relation of Phthisis to Factory and Workshop Conditions. To be opened by Mr. J. Niven, M.A., M.B. The following gentlemen will take part in the discussion: Dr. A. Ransome, F.R.C.P., F.R.S., Dr. J. Beatty, D.P.H., Dr. C. Campbell, Dr. H. Coates, D.P.H., Dr. A. Newsholme, F.R.C.P., Dr. J. Robertson, B.Sc., Dr. J. Wheatley, D.P.H., Mr. G. F. McCleary, M.B., D.P.H., Dr. W. M. Robertshaw, Dr. Thos. Harris, F.R.C.A., and Dr. John Hedley.

The following papers are announced:

CAMPBELL, A., M.D., F.R.C.S. The Value of the Certificate of Fitness for Employment.
DEARDEN, W. F., M.R.C.S., D.P.H. The Injurious Influence of Fast Aniline Black Dyeing Processes.
GWYNNE, C. A., B.A., M.D. Systematic Medical Examination of Workers in Lead Processes.
JOY, J. Holmes, M.A., M.D. Certificates of Fitness.
MCCLEARY, J. F., M.B., D.P.H. Incidence of Phthisis among Laundry-workers.
PURDON, H. S., M.D. Notes on Acneform Eruption of "Doffers."
ROBERTSHAW, W. M., M.D. Canister Miner's Disease.
WATTS, Thomas, M.D. Shuttle-threading as a Source of Infection.

On the conclusion of the Sectional Meeting on July 30th a visit will be made to Clifton Junction for the purpose of inspecting the works of the Chloride Electrical Storage Company and Messrs. Pilkington's Tile Works. As these firms have kindly offered to provide lunch, and are desirous of forwarding special cards of invitation to those who are able to avail themselves of their hospitality, it is essential that all intending to make the visit should communicate with the local Honorary Secretary of the Section as early as possible, and not later than July 21st.

O. ETHICS.

Anatomy Theatre (Medical Side).

President: SAM WOODCOCK, M.D. *Vice-Presidents:* THOMAS GARRETT HORDER, M.R.C.S.; MATTHEW ARDEN MESSITER, M.R.C.S.; ALEXANDER BROWN RITCHIE, M.B.; JAMES SMITH WHITAKER, M.R.C.S. *Honorary Secretaries:* JAMES BRASSEY BRIERLEY, M.D., Alma House, Old Trafford, Manchester; SAMUEL CRAWSHAW, M.B., Trafalgar Square, Ashton-under-Lyne; ALFRED COX, M.B., Cotfield House, Gateshead-on-Tyne.

The following arrangements in this Section have been made:

1. Contract Practice.—Papers will be read as follows: Mr. Alfred Cox, M.B.: Contract Practice—its Financial Aspect. Dr. Richardson Rice: The Coventry Public Medical Service as a Model for the Regulation of Professional Contract Work. Mr. William Muir Smith, M.B.: The Eastbourne Provident Medical Association. Dr. R. R. Rentoul will move a resolution.

2. Hospital Reform.—Papers will be read as follows: Dr. D. E. Anderson (Paris): Reform in Hospital Management. Mr. Elwin H. T. Nash, M.R.C.S.: Hospital Competition and its Effects on Medical Practice.

3. Medical Education.—Dr. William Gordon will read a paper on the Preliminary General Education of Medical Students.

4. Vaccination.—Mr. R. F. Tomlin, M.R.C.S., will read a paper on The Vaccination Acts, 1867-1898. Mr. David Owen, M.R.C.S., will move the following resolution: "That in the opinion of this meeting, seeing that vaccination is made compulsory in the interests of the public health, the parent or guardian of a child should have the right to select any registered medical practitioner who is willing to do so to perform the vaccination, and that the cost of the same should be defrayed by the State at a fixed rate, provided always that the work so done should reach the standard aimed at by the Local Government Board in the case of public vaccinators, and that no work falling short of this standard should be accepted for the purpose of public remuneration."

5. Medical Organization.—Papers will be read as follows: Professor Victor Horsley: The Organization of a Political Bureau in the British Medical Association. Mr. M. A. Messiter, M.R.C.S.: United Action considered Ethically. Mr. J. Smith Whitaker, M.R.C.S.: Medical Organization. Dr. Ed. Jepson: How to form and How to Maintain a Union of Medical Men. Mr. J. H. Hunter: Hints on Local Medical Organization.

6. Miscellaneous.—Mr. Thomas Garrett Horder, M.R.C.S., will read a paper on Quackery in Relation to the State.

The following gentlemen are expected to take part in the discussions: Dr. Robert Saundby; Mr. G. A. Wright, F.R.C.S.; Mr. H. R. Hutton, M.A., M.B.; Mr. Geo. Brown, M.R.C.S.; Mr. A. H. Moxon, M.R.C.S.; Dr. Hamilton A. Ballance; Dr. Buist; Mr. H. Nelson Hardy, F.R.C.S.Edin.; Mr. B. W. Housman, F.R.C.S.; Mr. Fred. E. Wynne, B.A., M.B.; Mr. R. H. Wolstenholme, M.R.C.S.; Dr. Alex. Stewart.

P. NAVY, ARMY, AND AMBULANCE.

Natural History Lecture Room (Arts Side).

President: Brigade-Surgeon-Lieutenant-Colonel G. S. ELLISTON, M.R.C.S. *Vice-Presidents:* Surgeon-General JOHN BUTLER HAMILTON, M.D. (A.M.S. ret.); Colonel ALEXANDER WILLIAM DUKE, M.D., R.A.M.C.; Fleet-Surgeon GILBERT KIRKER, M.D., R.N. *Honorary Secretaries:* Captain JOHN BENTLY MANN, R.A.M.C. (Vol.), 26, St. John Street, Manchester; Captain WILLIAM BRIDGETT PRITCHARD, R.A.M.C. (Vol.), 272, Oxford Street, Manchester.

The following discussions have been arranged:

Reform in the Army Medical Service. To be opened by Surgeon-General J. B. Hamilton, M.D., A.M.S.

The Position of the Volunteer Regimental Medical Officer. To be opened by Surgeon-Captain A. E. Larking, V.B. Buffs.

The Brigade Medical Unit. To be opened by Brigade-Surgeon-Lieutenant-Colonel P. B. Giles.

The following gentlemen will take part in the discussions: Fleet-Surgeon G. Kirker, R.N., Surgeon-General O'Dwyer, A.M.S., and Surgeon-Captain C. H. Milburn.

The following papers are announced:

COLBORNE, W. J., Staff Surgeon, R.N. The Duties of Medical Officers in Connexion with a Naval Action.
HUTTON, Surgeon-Major G. A., Organizing Commissioner of the St. John Ambulance Association. Voluntary Aid to the Sick and Wounded in War.

Q.—TROPICAL DISEASES.

Botany and Geology Lecture Room (Arts Side).

President: Sir WILLIAM R. KYNSEY, C.M.G. *Vice-Presidents:* Professor RUBERT BOYCE, M.B., F.R.S.; MAX F. SIMON, M.D.,

C.M.G. *Honorary Secretaries:* BRIAN MELLAND, M.Sc., M.D., Ashley Road, Bowdon, Cheshire; C. W. DANIELS, M.B., Seamen's Hospital, Albert Dock, E.

The President will open the Section with a short address on Wednesday at 10 a.m. The following discussions have been arranged:

Wednesday, July 30th.—Prophylaxis and Treatment of Beri-beri. To be opened by Dr. Patrick Manson, C.M.G.

Thursday, July 31st.—Dysentery. To be opened by Dr. M. F. Simon.

Friday, August 1st.—Yellow Fever. To be opened by Mr. Cantlie.

The following gentlemen have already intimated their intention to take part in the discussions, or have promised papers: Dr. Patrick Manson, Mr. James Cantlie, Major Ross, Dr. M. F. Simon.

Papers have been promised by: Dr. Andrew Duncan, Mr. James Cantlie, Professor Hewlett, Mr. P. W. Bassett-Smith, Dr. J. Galloway, Dr. E. Henderson, Major Buchanan, I.M.S., Dr. Dutton, Dr. Christy, Professor Galli Valerio, Dr. Williamson, and Dr. G. C. Low.

The following papers are announced:

CHRISTY, C., M.B., C.M. Malaria.
DUTTON, J. E., M.B., Ch.B Vict. A Trypanosome in Man.
MELLAND, Brian, M.D.Lond. Malta Fever in the Canaries.
MELLAND, Chas., M.D., M.R.C.P., The Leucocytes in Malaria.
ROSS, Major R., F.R.C.S. (Title not yet received).

The *Honorary Local Secretaries* are: WILLIAM COATES, Esq., Ingleside, Whalley Range, Manchester; T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester; A. BROWN RITCHIE, M.B., 117, Boston Street, Hulme, Manchester; and JOHN WILLIAM SMITH, Esq., 274, Oxford Road, Manchester.

PROGRAMME OF PROCEEDINGS.

MONDAY, JULY 28TH, 1902.

7.30 p.m.—Official Opening of the Annual Museum and Exhibition by the Right Honourable the Lord Mayor of Manchester, followed by a Musical Programme.

TUESDAY, JULY 29TH, 1902.

9.30 a.m.—Meeting of 1901-1902 Council (Council Chamber, Owens College).
10.30 a.m.—Cathedral Service, by kind permission of the Dean of Manchester. The Sermon will be preached by the Right Rev. Bishop Thornton, D.D., Vicar of Blackburn. At the same time, by kind permission of the Rev. Father Brown, a Roman Catholic Service in the Church of the Holy Name. Preacher, the Rev. Charles Coupe, S.J., M.A.
2 p.m.—First General Meeting (Whitworth Hall, Owens College).
4 p.m.—Garden Party by Mr. and Mrs. Edward Donner, at Oak Mount, Fallowfield.
8.30 p.m.—Adjourned General Meeting from 2 P.M. President's Address in Whitworth Hall, Owens College, followed by a Soirée in the Owens College, given by the President and Local Executive Committee.

WEDNESDAY, JULY 30TH, 1902.

9.30 a.m.—Meeting of 1902-1903 Council (Council Chamber, Owens College).
10 a.m. to 1 p.m.—Sectional Meetings (Owens College).
1 p.m.—Excursion to Blackpool for limited number.
2.30 p.m.—Second General Meeting (Whitworth Hall, Owens College).
3.30 p.m.—Garden Party by Dr. and Mrs. Mould, Royal Asylum, Cheadle (and Cricket Match).
Garden Party by Mr. and Mrs. H. H. Smith-Carington, at Grange Thorpe, Rusholme.
8.30 p.m.—Address in Medicine, in the Whitworth Hall, Owens College, by Sir Thomas Barlow, Bart., K.C.V.O., M.D., followed by an Open Air Reception and Fête in Whitworth Park, given by the President and Local Executive Committee.

THURSDAY, JULY 31ST, 1902.

9.30 a.m.—Meeting of Council (Council Chamber, Owens College).
10 a.m. to 12.30 p.m.—Sectional Meetings (Owens College).
12.30 p.m.—Address in Obstetrics in the Whitworth Hall, Owens College, by Professor W. J. Sinclair, M.D.
2.30 p.m.—Third General Meeting (Whitworth Hall, Owens College).
3.30 p.m.—Garden Party by Mrs. Rylands, Longford Hall, Stretford (Pastoral Play by Benson's Shakespearean Company).
7.30 p.m.—Annual Dinner of the Association, in Platt Hall Park, Rusholme.
7 p.m. to 11 p.m.—Ladies' Reception and Variety Entertainment at the Prince's Theatre.

FRIDAY, AUGUST 1ST, 1902.

10 a.m. to 1 p.m.—Sectional Meetings (Owens College).
2.30 p.m.—Concluding General Meeting (Whitworth Hall, Owens College).
3.30 p.m.—Garden Party by Dr. and Mrs. Thomas Harris, President Manchester Medical Society, at the Owens College Athletic Ground. (Cricket Match.)
3.30 p.m.—Garden Party by the Mayor of Salford (Alderman Rudman) in Peel Park, Salford.
7.30 p.m.—Lord Mayor's Reception and *Conversazione* in Town Hall.
9.45 p.m.—Reception and Ball in Platt Hall Park by President and Local Executive Committee.

SATURDAY, AUGUST 2ND, 1902.
Excursions.

RECEPTION ROOM.

The Reception Room in connexion with the annual meeting in Manchester will be at the Owens College. It will be formed by the South and North Vestibules and Central Corridor connecting these, together with the considerable suite of rooms adjoining, all situate under the Whitworth Hall. The chief entrance will be on the left of the main entrance to the Owens College. Entering the Reception Room here, the first room on the left is set apart for the Ladies' Reception Room. The second and third rooms are for the distribution of cards of membership, for registration, etc. The fourth room will contain a post office, telegraph and telephone offices; and in the South Vestibule will be an inquiry room. On the opposite side, starting from the original entrance, the first room will be a reading and writing room; the second for foreign guests and interpreters; and the third will be for the Honorary Local Secretaries. On Monday, July 28th, the Reception Room will be open at 12 o'clock, and for the convenience of members requiring information regarding hotels and lodgings it will on this the first night remain open until 10 p.m. On Tuesday the 29th the Reception Room will open at 9 a.m. and close at 7 p.m., and on the following days it will open at 9 o'clock and close at 6 p.m. There will be an inquiry office at the Reception Room at which all necessary information can be obtained, and members will be directed to the various rooms, etc., at which all necessary tickets can be obtained.

A room for the convenience of foreign guests will adjoin the Reception Room, and here interpreters and others willing to give all information will be found.

It is particularly requested that members on their arrival will at once proceed to the Reception Room at the Owens College and enter their names and addresses, and obtain their tickets and daily journals containing programme, etc., inquire for letters and telegrams, and consult the list of lodgings and hotels.

Only members of the British Medical Association, invited guests, and accredited strangers will be allowed to attend the general meetings or the meetings of Sections. Members and guests will be required to show their cards, which must be obtained and signed for at the Reception Room. Invited guests will be required to show their invitation cards upon entrance to any of the general meetings or meetings of Sections. Members and guests are therefore earnestly enjoined to register their names as soon as possible at the Reception Room, to take care of their cards of admission, and to note that they are not transferable, and if lost cannot be renewed.

Only members and officially invited guests will be admitted to the dinner of the Association.

Tickets for garden parties and other local entertainments, for the excursions, dinner, ball, and soirée may be obtained at the Drill Hall of the 4th V.B.M.R., Burlington Street, where the Exhibition is also held, and can only be given out upon production of card of membership. This building is about two minutes' walk from the Reception Room.

The Ladies' Main Reception and Reading and Writing Room will be the first room on the left in the suite of Reception Rooms at the Owens College, and smaller Reading and Writing Rooms for the convenience of ladies will be provided both on the Arts and the Medical side of the College.

Gentlemen's Smoke Rooms will also be provided both on the Arts and the Medical side of the College.

A Post Office, a Telegraph Office, and also a Telephone Office will be provided in the Reception Room.

Members of the Association who intend visiting Manchester during the annual meeting are particularly requested to fill up the form which will be published later in the centre of the British Medical Journal, and stamp and post it, in order that suitable arrangements may be completed.

Pathological Museum.

The Pathological Museum will be established in the Pathological and Bacteriological Laboratories of the Owens College. It will comprise macroscopical and microscopical specimens, photographs, and appliances adapted for modern research. The specimens will be illustrative of both human and comparative pathology and bacteriology, arranged as far as possible in series depicting the more interesting lesions of various organs, whilst other specimens will be specially illustrative of the subjects dealt with in the work of the sections.

Photographic Exhibition.

It is proposed to hold an exhibition of pictorial photographs (in addition to those sent to the scientific museum) in a suitable room in the Owens College. Members having work, which must be framed or mounted in *passe partout*, should communicate with Mr. Westmacott, Honorary Secretary, Local Entertainments Subcommittee, 8, St. John Street, Manchester, who will give any information on the subject, and who will undertake to receive and hang the photographs, and have them returned to the senders.

Golf.

There will be a Golf Match on Friday, August 1st, at the Manchester Golf Club Links, Trafford Park, between "England and Wales" *versus* "Scotland, Ireland and all other Britains," in addition to which several Golf Clubs will open their links to members for the week.

ANNUAL EXHIBITION.

Chairman: Dr. Woodcock.

Secretary: Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester.

Telegraphic Address: Annually Manchester.

Telephone No.: 2376 Manchester.

The Annual Exhibition in connexion with the above meeting will be held in the Drill Hall, Burlington Street, Manchester, on July 28th, 29th, 30th, 31st, and August 1st, and will comprise the following Sections:

A. Foods and Drugs, including Prepared Foods, Chemical and Pharmaceutical Preparations, Antiseptic Dressings, etc.

B. Medical and Surgical Instruments and Appliances, Books, Diagrams, Charts, etc.

C. Sanitary and Ambulance Appliances, Consulting-room Fittings and Furniture.

The Drill Hall affords excellent accommodation for the purposes of the Exhibition, the dimensions of the main building being 169 ft. long by 85 ft. wide, and affording a total floor space area of about 14,500 sq. ft. The Hall is situated well within 300 yards of the Owens College, where the Sectional, business, and other meetings of the Association are to be held.

The Committee had also had placed at its disposal ample space for the erection of large marquee, etc., for the accommodation of exhibits of carriages, etc., and also for motor cars, on trial and for sale, suitable for the use of medical men for professional and other purposes.

Arrangements are also being made on Exhibition premises for lounge and smoking room, writing room, ladies' tea and retiring room, lavatories, cloak room, etc.

Exhibitors in Sections A, B, and C (other than members of the Association) will be charged for table space at prices from 5s. and upwards per square foot according to position.

Tables 3 ft. 6 in. wide will be provided, the central tables 7 ft. wide, being divided by partitions carried to the height of 3 ft. 6 in. into two tables of 3 ft. 6 in. wide.

In Section C, floor space will be provided at prices from 6d. to 1s. 6d. per square foot according to position. On floor space no erection, stands, or tables for the display of goods will be allowed, but exhibitors may at their own cost put down a platform in height not exceeding 6 in. from floor.

Electric current and gas supply can be arranged for if due notice is given to Secretary by exhibitors requiring same. The use of spirit lamps, etc., will not be allowed in the building.

Plan of hall, particulars, and regulations may be obtained upon application to the Honorary Secretary for the Exhibition.

Copies of prospectus and regulations in full can be obtained upon application.

A catalogue, giving short description of exhibits, and of which 2,000 copies will be printed, will be distributed free to members of the Association attending the meeting. Applications for advertisements in the same should be made at an early date.

Communications on all general matters connected with the exhibition and all applications for space should be addressed to the Honorary Secretary, Dr. A. Brown Ritchie, 117, Boston Street, Hulme, Manchester, to whom all cheques are to be made payable. Telegraphic address, Annually, Manchester.

Space will, as far as possible, be allotted as it is applied for, and all applications will be dealt with in the order in which they are received.

Exhibits will only be received conditionally upon the regulations and conditions being strictly complied with; and, further, that in any question that arises the decision of the Honorary Secretary shall be final and binding upon all parties.

An official Guidebook will be presented to members, which will consist of 300 pages (cloth bound) illustrated with upwards of 80 half-tone engravings specially prepared for the work. In addition to description of the Owens College, Medical School, and the usual maps, plans, etc., it will contain about twenty special articles written by experts on the history, antiquities, churches, hospitals, charities, public buildings, parks, manufactures, etc., and also an account of the Manchester Ship Canal. 3,000 copies will be printed and a selected number of advertisements will be admitted. Prospectuses giving full particulars may be obtained from the Exhibition Secretary.

ANTIVIVISECTION METHODS.

Coleridge *v.* Macdonald.

On June 18th, before Mr. Justice Grantham and a special jury, the case of Coleridge *v.* Macdonald was heard.

Mr. S. T. Evans, K.C., M.P., and Mr. Anton Bertram appeared for the plaintiff; Mr. Boxall, K.C., and Mr. Hugh Fraser, instructed by Messrs. Hempsons, for the defendant.

According to Mr. Evans's opening statement the action was brought by the Hon. Stephen Coleridge, Honorary Secretary to the National Antivivisection Society, to recover damages for a libel alleged to have been published by the Rev. David Macdonald, in the *Derby Express*, October 28th, 1901, and the *Derby Daily Telegraph*, October 28th, 1901. The following words, which were portion of a letter published in these papers, and signed by the defendant, were complained of:

> The Bishop of Southwell ended his speech on Wednesday with the words: "No chief of the staff could be more vigilant, more prompt, more able, or more practical in policy than their Secretary, Mr. Stephen Coleridge." Some letters in the *Morning Post* during this week may interest your readers as an example of Mr. Coleridge's method of controversy. They may also help the Bishop to understand why men, lovers of animals and lovers of truth, will have nothing to do with his Society. A reference to *Nature* for May 16th and 30th of this year will also help, and the British Medical Journal for June 8th and 22nd should be consulted.

It was also alleged that on November 4th, 1901, the defendant published the following defamatory words of and concerning the plaintiff in the *Derby Express*:

> At the meeting on the 22rd, I heard the speakers for your (meaning the plaintiff's) Society. It seemed to me that in your letters and in their speeches there was a use of the method technically known as "suppression of the true and suggestion of the false." I wrote to the *Derby Express* that people could see in your letters your "method of controversy;" that the "same method" was used by the speakers. Then I named the

method, and gave two examples of its use; and I assert that the use of the method is sufficient to make men who, like myself, claim to be lovers of animals and lovers of truth have nothing to do with your Society.

According to the statement of claim the innuendoes drawn from these statements were that the plaintiff was a person of untruthful character, and that he dishonestly distorted and concealed the truth in his methods of public controversy, and that he was unfit to hold any office of honour or responsibility. Counsel went on to say that to publish such words was to say, in effect, that the plaintiff was a man of such character that no one would have anything to do with a Society of which the plaintiff was secretary. As soon as this letter appeared the plaintiff wrote complaining of the words used, and asking for an apology. He received the following letter from the defendant in reply (which was used as part of the defence to the action):

Sir,—I am sorry that you think I have made a "charge of personal dishonour" upon you, and I deny it. Of you as an individual I know nothing and said nothing. I named you as Secretary. I had read letters in the periodicals named, which are quite accessible to "the people of Derby." (We pay a rate for the purpose of giving ourselves the opportunity of reading *Nature*, and half a dozen of the papers in which your letters appeared.) At the meeting on the card I heard the speakers for your Society. It seemed to me that in your letters and in their speeches there was a use of the method technically known as "suppression of the true and suggestion of the false." I wrote to the *Derby Express* that people could see in your letters your "method of controversy" that the "same method" was used by the speakers. Then I named the method and gave two examples of its use. And I assert that the use of the method is sufficient to make men who, like myself, claim to be lovers of animals and lovers of truth, have nothing to do with your Society.

But since you have misunderstood and in case there may be some man in Derby as there has been in London who thinks that when I object to an argument I mean to charge the arguer with personal dishonour, I am glad to have this opportunity of explaining. I shall ask the Editor of the *Express* to have the kindness to publish your letter and this reply. I do this the more readily because it would be a pity that the people of Derby should not know on the best authority that you came down to face

Your obedient servant,

DAVID MACDONALD.

Counsel, in commenting upon this letter, said that so far from being a withdrawal it was a repetition of the statements complained of. In a letter written on November 13th, 1890, by Messrs. Taylor, Simpson, and Mosley, who were acting as solicitors for the defendant at that time, surprise had been expressed that the plaintiff had elected to attack Mr. Macdonald when far stronger remarks had been made by leading medical men. In reply to this the plaintiff wrote on November 16th, saying:

If anybody else had in fact made far stronger remarks in public, I should certainly bring an action against him if he did not publicly apologize, but I should be inclined to put up with more from doctors and vivisectors than from parsons who have no personal concern in the controversy.

Commenting upon these letters, Counsel said that he did not deny that the matters under discussion were matters of public interest, and that the defendant was entitled to comment upon them. What he did say was that the defendant was not entitled to make personal allegations against Mr. Coleridge with a view to prevent persons having anything to do with his Society. No language of such a kind had ever been used by any medical man. On November 22nd, 1901, the plaintiff's solicitors had made an offer to the effect that no action would be brought on the defendant's publishing an apology and paying the costs up to date. The defendant's solicitors wrote stating that they failed to see that there was any libel in the case. Subsequently, namely on February 13th, 1902, the plaintiff's solicitors wrote to Messrs. Hempsons, who had become solicitors for the defendant, stating that if the defendant was prepared to publish an apology, the plaintiff would be prepared to withdraw his action, and ask nothing for costs.

Counsel suggested that a request that this letter should be shown to Mr. Macdonald had been purposely overlooked by the solicitors, who wrote on the following day to the effect that in their view the letter of November 4th, 1901, afforded a complete refutation of any personal imputation whatsoever. Counsel suggested that the change of solicitors could be explained by the fact that Messrs. Hempsons were well known to be solicitors to the Medical Defence Union, and that this was in effect an attempt to fight out the case for vivisection on the floor of the court.

Mr. Boxall: My friend has no right to make this suggestion unless he can prove it.

Mr. Justice Grantham: It is perfectly immaterial whether the defendant's advisers are or are not [solicitors to the Medical Defence Union. It may be, and I think it very likely, that they are assisting a poor man. The Antivivisection Society are his opponents.

Continuing, Mr. Evans said that the position of the doctors was that, if the plaintiff won, they would not suffer. The only defence to the action was that this was fair comment upon a matter of public interest. He would read a definition of fair comment which was given by Lord Bowen in Merivale *v.* Carson (1887), 20 Q. B. D., at p. 283, where he said:

The criticism is to be "fair," that is, the expression of it is to be fair. The only limitation is upon the mode of expression. In this country a man has a right to hold any opinion he pleases, and to express his opinion, provided that he does not go beyond the limits which the law calls "fair," and, although we cannot find in any decided case an exact and rigid definition of the word "fair," this is because the judges have always preferred to leave the question of what is fair to the jury. The nearest approach, I think, to an exact definition of the word "fair" was given by Lord Tenterden, when he said: "Whatever is fair and can be reasonably said of the works of authors or of themselves, as connected with their works, is not actionable, unless it appears that, under the pretext of criticizing the works, the defendant takes an opportunity of attacking the character of the author; then it will be a libel."

Mr. Coleridge, examined by Mr. Bertram, said that he had been Honorary Secretary of the National Anti-vivisection Society for the last five years. Shortly, he considered that the alleged libels were an imputation upon his personal honour. In cross-examination he said that he had not known the defendant before the letters were published, and that he had never seen him before the trial. He (the Witness) felt very strongly on the subject of vivisection. He did not know that defendant had been invited to the meeting in question. He took every chance he could of writing letters to the papers with reference to the cause which he had at heart. He did not attach any importance to being described as secretary instead of "honorary secretary." It was true that he had taken part in the controversy in the *Morning Post*.

By the Court: Was that about the placing of circulars outside church doors?

The Witness said it was as to whether he had fairly quoted Sir William Church, where he dealt with something Mr. Ruskin had said. He was ashamed of nothing he had written. He had been attacked strongly in *Nature*, but not as strongly as by the defendant. He had taken no proceedings against *Nature*, but had answered the article which appeared there. The defendant was fair in referring to the article in the BRITISH MEDICAL JOURNAL. Mr. Wood was a paid lecturer for the Society. Witness did not know that Mr. Wood said a statement made by Dr. Barwise at a meeting could only be described by a word of three letters. Asked what he complained of in the letter, witness said that he objected to defendant's deduction that he was a liar. He had never made any allegations which he was not prepared to prove.

At this point the foreman of the jury asked whether they were bound to hear any more of the case, as they were already agreed that there should be judgement for the defendant.

Mr. Evans: The jury have not yet had a direction from the Court.

Mr. Justice Grantham: The jury have expressed an opinion, and I agree with them. Mr. Coleridge sends letters to me and to other members of the legal profession every month on the subject of vivisection. He hits hard in controversy, and people who hit hard must not be too thin-skinned. The jury wish to add a rider to the effect that in their opinion this action never ought to have been brought.

Judgement for the defendant with costs.

THE CASE OF DR. W. T. LAW.

DR. PARAMORE, 2, Gordon Square, London, W.C., in sending the subjoined list of subscriptions to this fund, writes to call attention to the importance of the case. He recalls the expression of opinion of the judge and jury to the effect that the case against Dr. Law ought never to have been brought into the Court. The evidence showed, Dr. Paramore adds, that Dr. Law was a benevolent man in the highest and best sense of the term. The numerous subscriptions already received afford evidence of the sympathy which the profession feels with Dr. Law, and Dr. Paramore hopes that many other members of the profession will follow the good example thus set. He writes: "The mental torture, the incessant worry, the indignity, the loss of health, and the general upset which such a trial produces words are inadequate to express."

The trustees of the Fund are the President of the Royal College of Physicians of London, the President of the Royal College of Surgeons of England, and the Master of the Society of Apothecaries. Subscriptions should be sent payable to the Law Fund, London and County Bank, Holborn, W.C., and will be acknowledged by Dr. Paramore. The following are additional subscriptions since the last list:

	£	s.	d.
Charles Higgens, F.R.C.S.	2	2	0
E. J. Day, M.D.	0	2	6
Edmund Hargreaves, M.D.	0	2	6
Richard Deane Sweeting, M.A., M.B.	1	1	0
Rev. Joseph T. Fowler, M.A., D.C.L., M.R.C.S. ...	0	5	0
Charles Martin Row, L.R.C.P.	1	0	0
Charles Albart Foyl, L.R.C.P.	0	10	6
John Noakes Hall, L.R.C.P.	0	5	0
Hugh Jas. Dickey, M.B. ...	0	10	6
Clarence Wm. Haig-Brown, M.D.	1	1	0
George Alexander Gibb, M.B., C.M.	1	1	0
Alfred Pearse Gould, M.S., F.R.C.S.	2	2	0
Gavin Stiell, M.D	1	1	0
William Henry Watts, M.R.C.S.	0	5	0
J. Fuller England, B.A., M.D.	0	5	0
John Campbell Fergusson, M.D.	1	1	0
Alfred N. G. Gibbs, L.R.C.P.	0	10	6
Wilfred Newell Soden, M.D.	0	10	6
William Eager, L.R.C.P. ...	0	10	0
Charles Smyth, L.R.C.P ...	0	10	6
Claud Wilson, M.D.... ...	1	0	0
Thomas Wakefield, M.A., M.B.	0	5	0
Alfred Downing Fripp, C.B., C.V.O., M.S., F.R.C.S.	3	3	0
H. A. Hall, M.R.C.S., L.R.C.P.	0	5	0
R. J. G.	2	2	0
Wm. Cyril Haswell, M.B., B.S	0	3	0
H. J. H....	1	1	0
Charles Henry Wakeham, L.R.C.P.	0	2	6
T. H. D. Idris, J.P.	0	10	6
George Eugene Yarrow, M.D.	0	10	0
Charles John Girling, M.B.	0	5	0
Arthur Robert Graham, M.A., M.B.	0	5	0
David Basil Hewitt, A.B., L.R.C.P.	1	1	0
One Who Wishes He Could Give Ten Times as Much	0	10	6
Arthur F. G. Codd, M.B., F.R.C.S.	1	1	0
Tom Robinson, M.D. ...	1	1	0
Karl Cardwardine Gimson, B.A., M.B.	1	1	0
Edwin Hyla Greves, M.D., M.R.C.P.	0	10	6
William Fairbanks, M.D....	0	5	0
Fredk. Thomas Hindle, L.R.C.P.	0	5	0
Anthony Alfred Henley, L.R.C.P.	1	1	0
Charles Henry Greaves, M.D.	0	10	6
Walter Frost, L.R.C.P. ...	0	10	0
Edgar Elliott, L.R.C.P. ...	1	1	0
Henry Hemsted, M.R.C.S.	0	4	0
James Smyth, L.R.C.P. ...	0	10	6
Samuel Herbert Habershon, M.A., M.D.	2	2	0
Enfield Medico-Ethical Society, per Fred. James Tresilian, M.D.	2	2	0
Josiah Oake Adams, M.D., F.R.C.S	1	1	0
Francis Hepworth, M.R.C.S.	0	10	0
Wm. Bramley Taylor, M.R.C.S.	0	10	0
Frances R. Gibbs, L.R.C.P.	0	3	0
Charles Gaskell Higginson, M.A., L.R.C.P. ...	2	2	0

LITERARY NOTES.

A GERMAN translation of the second edition of Sir William Gowers's classic monograph on *Epilepsy* has just been published by Franz Deuticke, of Leipzig and Vienna. The translator is Dr. Max Weiss, of Vienna.

The *Archivos de Criminologia Medicina Legal y Psiquiatria* is the title of a new monthly periodical devoted, as its title imports, to criminology, forensic medicine, and psychiatry, which has recently come into existence. It is published at Buenos Aires, and is edited by Dr. José Ingegnieros. The contents are varied and remarkably interesting, and the new journal promises to be a valuable addition to current medical literature.

We have received the first number of *The Woman Students' Medical Magazine*, which has just appeared. The editors are G. Haxton Giffen, F.R.C.S.I., D.P.H.Camb., and Violet A. Penrose Coghill, M.B.Edin. The *Magazine*, which is to appear thrice yearly, is published by William Bryce, of Edinburgh. An introductory letter from Dr. Elizabeth Blackwell bids "God speed" to her young *consœurs*, for whom she wishes in the future that satisfaction with a medical career which she herself feels at the end of a long and active medical life. According to the editors the object of the magazine is to stimulate women students to make original observations for themselves, and encourage them to report these observations in a lucid manner to their fellow-students. The contents consist of reports of cases, with a few articles, among which may be mentioned A Medical Study in the University of Calcutta, by Miss Elizabeth M. Cardozo, and one on The Ceylon Medical College, by Miss Claribel F. Van Dort.

At a meeting of representatives of the German medical press, held not long ago, the following regulations for the conduct of scientific controversies were adopted: (1) Every controversy shall be brought to a close by a final reply from the writer who opened the debate; only in exceptional cases shall an opponent be allowed a second reply. (2) A reply may be inserted in small type, and at the end of the journal, even when the article animadverted on was published as an original communication. (3) The editor has the right to send a copy of the criticism to the author of the article attacked, even before its insertion.

Was Napoleon an epileptic? Contradictory statements on the subject are found in memoirs and histories by persons who profess to write with first-hand knowledge or on the strength of unimpeachable documentary evidence. The subject is discussed by M. Proal in a recent issue of the *Archives d'Anthropologie Criminelle*. He quotes two passages from writers in a position to know the facts which appear conclusive. Talleyrand in his *Mémoires* relates the following incident:

> I received an order to accompany him (Napoleon) to Strassburg (September, 1805). A disturbance of health which occurred to the Emperor at the outset of that campaign caused me considerable alarm. On the very day of his departure from Strassburg I had dined with him; on leaving the table he went alone to the apartments of the Empress Josephine: after a few minutes he came out suddenly. I was in the drawing-room: he seized my arm and took me to his room. M. de Rémusat, the first Chamberlain, who had some instructions to ask for and who was afraid he might go away without giving them, entered it at the same time. We were scarcely in the room when the Emperor fell on the floor, having only just time to tell me to shut the door. I tore off his neckcloth, as he looked as if he were choking; he did not vomit, but groaned and foamed at the mouth. M. de Rémusat gave him water, while I drenched him with eau de cologne. He had a kind of convulsions which ceased in a quarter of an hour. We placed him in an armchair, and he began to speak, dressed himself, but enjoined secrecy. Half an hour later he was on the way to Karlrsuhe.

Constant, the Emperor's confidential valet, in his *Mémoires* relates the following incident on the authority of a maid of honour who accompanied the Empress to Aix-la-Chapelle. The scene is said to have occurred on September 10th, 1804:

> It appears that on that night Napoleon had a violent nervous or epileptic attack to which he was liable. He had been indisposed for a long time before Josephine, who occupied the same bedroom, asked for help, but at last, as the illness continued, she wished to have light. Roustan, who always sleeps at the Emperor's door, slept so heavily that she could not awake him. The Prefect's apartment is so far from being luxurious that not even articles for ordinary use are found in it. There was no bell, the valets' rooms were at some distance, and Josephine was obliged to go half-naked and partly open the door of the aide-de-camp on duty in order to get a light. General Rapp, somewhat surprised at this nocturnal visit, gave her a light, and after several hours of suffering the attack subsided. Napoleon forbade Josephine to say a word as to his indisposition. She therefore enjoined secrecy on all the men and women to whom she related the affair this morning. But can it be hoped that a secret will be kept which we ourselves cannot keep? And have we a right to impose on others a discretion in which we ourselves are lacking? The Emperor was rather pale this evening, and somewhat depressed, but no one cared to ask him about his condition.

Before accepting these statements, however, it must be considered that Talleyrand was a liar compared to whom "Paget, M.P." was truth incarnate, while Constant was not exactly a bright ensample of veracity. It is difficult, however, to imagine, even in men who in a general way, like the Reverend Charles Honeyman in *Pendennis*, "would rather lie than not," a motive for lying on this subject.

In the *Caledonian Medical Journal* for April, Dr. H. C. Gillies gives an interesting account of a Gaelic medical manuscript of 1563. The manuscript, which is written on vellum and extends to 69 folios, is in the British Museum. Dr. Gillies says there can be no doubt that the book belonged to the remarkable family of Highland physicians named Beaton, or Macbeth, who are so famous in the medical tradition of the west and north of Scotland. As to the substance of the book, Dr. Gillies, while admitting that science will not gain much by its resuscitation, justly thinks that "it is something to know that among the people whom Lord Macaulay declared to have been utter and unclean savages, their medical practitioners were not mere ignorant or charlatan impostors, but cultured men who for hundreds of years before his time were in full knowledge of most, if not of all, that was best in the medical and philosophical thought of all previous literature and history, and who brought their own intelligent reason and experience into the furthering of their knowledge and usefulness." The language of the manuscript is Gaelic, and, excepting a few insignificant nominal and verbal inflections, it is nearly the language of Argyll and the West at the present day. Dr. Gillies thinks that the author of the work was John Beaton, who took his matter from Latin textbooks of the period, interspersing observations of his own, and in regard to treatment always giving the results of his own practical experience. Dr. Gillies gives

some facsimiles of the manuscript, and copious extracts with translations. Some passages he has traced to their source in the *Rosa Anglica* of John of Gaddesden, and the *Chirurgia Magna* of Guy de Chauliac. A brief history of the Macbeths or Beatons is also given. Dr. Gillies is to be congratulated on a piece of sound critical work, which is of importance in relation to the history of medicine and of interest to all interested in the recent revival of the study of Gaelic literature.

ASSOCIATION INTELLIGENCE.

NOTICE OF SPECIAL BUSINESS.

NOTICE is hereby given that an Extraordinary General Meeting of the British Medical Association has been held at the Exeter Hall, Strand, London, on Wednesday, the 18th day of June, 1902, and the subjoined resolution passed by the requisite majority, that is to say:

"That the draft new regulations submitted to this" "meeting, and for the purpose of identification" "initialled by the Chairman thereof, which regula-" "tions have been prepared under the direction of the" "Committee appointed for the purpose by the Council" "in pursuance of resolutions passed at the Annual" "General Meeting of the Association at Cheltenham" "in 1901, be, and the same are hereby adopted as the" "regulations of the Association to the exclusion of" "and in substitution for all the existing regulations of" "the Association."

And Notice is hereby also given that a further Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 9th day of July, 1902, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings had at the first above-mentioned Meeting, and of considering, and if thought fit passing, a resolution confirming as a special resolution the resolution above set forth.

A copy of the proposed new regulations can be seen at the Office of the Association at any time during business hours, and a copy will be found printed in the JOURNAL of the Association of the 24th day of May, 1902.

Dated the 19th day of June, 1902.

By Order,

FRANCIS FOWKE, *General Secretary.*

A report of the Extraordinary General Meeting of June 18th will be published in the JOURNAL *of the 28th instant, together with the New Regulations.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 9th day of July, at 3 o'clock in the afternoon, immediately on the conclusion of the Extraordinary General Meeting at Exeter Hall.

May, 1902. FRANCIS FOWKE *General Secretary.*

THE LIBRARY.

NOTICE is given that the Library is closed, and will be re-opened on Wednesday, July 2nd.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the latter meeting—namely, October 1st.

ELECTION OF MEMBERS.

Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or any recognized Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The fifty-ninth annual meeting of this Branch will be held at the Lethbridge Arms, Bishop's Lydeard, on Friday, July 4th, at 12.30 p.m., under the presidency of Mr. E. E. Frossard. Business—Minutes, report of Council, Treasurer's report, election of officers, place of next annual meeting, intermediate meetings. President's address: Some Clinical Observations on the Diagnosis of an Empyema from a Secondary Malignant Growth of the Lung. Resolution: The following will be moved by Mr. G. F. Sydenham (Dulverton): "That the annual payment by the Friendly Societies to their medical officers is insufficient, and that 6s. per head per year should be the minimum." Lunch will be served at the Lethbridge Arms at 1.45 p.m. Tickets 3s., exclusive of wine. After lunch the members present will be driven to Cotford Asylum, over which Mr. H. T. S. Aveline, the Medical Superintendent, has kindly offered to show them. They will also be entertained to tea, and the drive afterwards continued to Taunton in time to reach Taunton Station by 5.30 p.m. Members intending to be present at the lunch are requested to give notice to either Mr. Frossard, The Lodge, Bishop's Lydeard, or the Honorary Secretary, on or before Monday, June 30th.—W. B. WINCKWORTH, Taunton, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held in combination with the Reading Branch at the Royal Berkshire Hospital, Reading, at 3.30 p.m. on Thursday, July 3rd. Members willing to show cases, etc. are requested to communicate with the Honorary Secretary without delay.—WILLIAM COLLIER, St. Mary's Entry, Oxford, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held at Carlisle on Friday, June 27th. Order of business: (1) Minutes of last meeting, (2) report of the Council, (3) election of office-bearers, (4) Dr. Ormrod, Workington, will deliver his Presidential Address.—W. F. FARQUHARSON, M.D., Honorary Secretary, Garlands, Carlisle.

EAST ANGLIAN BRANCH.—*Preliminary Notice:* The annual general meeting of this Branch will take place at Great Yarmouth on Thursday, July 10th, under the Presidency of Mr. W. E. Wyllys. The presentations to Dr. Barnes and Dr. Beverley will take place at this meeting. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting will communicate at once with Dr. Ballance, Norwich. Members who have not yet paid their subscriptions for the current year will oblige by sending them to one of the Honorary Secretaries—B. H. NICHOLSON, Colchester; H. A. BALLANCE, Norwich; FRANCIS WARD, Ipswich.

SPECIAL CORRESPONDENCE.

BERLIN.

The Exhibition of Medical Appliances.

A MOST interesting and instructive exhibition has just closed its doors, after having been open for a fortnight—the Ausstellung aerztlicher Lehrmittel (exhibition of material for medical instruction). Everything mercantile had been rigidly excluded; the usual patent mattresses, patent medicines, patent underclothing, dietetic preparations, etc., that seem to wander from one town and one exhibition hall to the other, shone by their absence; and so, though there was little to attract a lay public, the exhibition was of exceptional and concentrated interest to the profession. The opening was quite a solemn function. Professor v. Bergmann made the opening speech, and Dr. Studt, the Prussian Minister of Education, gave a short address in which he announced a Government grant of two gold and two silver medals to be awarded to the best exhibits.

In a former letter (February 15th) I mentioned the seven groups into which the exhibition was to be subdivided. The classification was strictly adhered to, and in the catalogue each group was headed by a concise and able introductory essay. Thus the group of anatomical and pathological preparations was introduced by Professor Hans Virchow's paper on Methods of Preparing Anatomical Specimens, and Professor O. Israel's paper on Methods of Preserving Pathological-Anatomical Specimens; the group of illustrations in tabular form and atlases was headed by an excellent paper on Methods of Graphic Representation, etc.

Among the exhibits a prominent place was taken by the plastic representations and "moulages" in papier maché and plaster, amongst which a part of Professor Lassar's celebrated dermatological collection found a place. The specimens of

the First Anatomical Institute of the Berlin University (Professor Waldeyer) also commanded universal attention. Amongst them was the frozen section of the body of a pregnant woman, a well-known specimen. The microscopic specimens could be examined at stated hours, and wherever necessary explanations were given by experts.

In connexion with the exhibition a series of evening lectures with illustrations were given by von Bergmann, Doyen (Paris), Jolly, von Leyden, Wassermann, O. Liebreich, von Michel, and Olshausen. Amongst men of such note it is difficult to choose one or the other for special mention, but there is no doubt that the kinematoscope, used by Doyen to illustrate operations, and by Jolly to demonstrate the walk of persons suffering from nervous diseases, aroused the greatest interest.

LIVERPOOL.

Maghull Epileptic Home: The Progress of the Institution: Presentation of a First-class Home.

THE Maghull Epileptic Institution has been in existence more than thirteen years, and the annual report shows that it continues to provide for the wants of a large number of patients. During the past year the Committee has acquired suitable land for occupying the male patients at agricultural work, and at the same time considerably to increase the accommodation. Encouraged by the generous offer of Sir Alfred Jones, who promised £1,000 to the home provided a further £9,000 could be raised, the Committee have acquired the Chapel House Estate, comprising 62 acres of land. At the end of December, 1901, there were 70 male and 66 female patients in the homes. The children are under the instruction of a certified schoolmistress, while the older patients are engaged in useful employment about the estate.

The institution was opened in 1889, and in the first year 22 epileptics were treated. Subscriptions only amounted to £57, but there were donations to the extent of £2,332. From that time onwards the usefulness of the institution has been generally recognized. In 1895 the Henry Cox Home was added, and the number of inmates rose to 117; two years later a commodious recreation room was built. Last year Chapel House was included in the institution, and the number of patients increased to 136. This year an important addition has been made in the form of a home for first-class patients, presented by Mr. F. J. Harrison, and known as the Harrison Home.

The presentation of the new building took place on June 14th, when the donor, addressing a large meeting of the subscribers to the institution, said he had great pleasure in tendering it to the Committee, and he hoped it would fill a great need. It was found that the treatment of the institution had been very beneficial to the poorer class of patients, and therefore it was thought desirable to provide a home in which to accommodate first-class or paying patients. He did not know what they would have done without such services as Dr. Alexander had given them; he had never spared himself in his work.

Dr. Alexander, in receiving the Home on behalf of the Committee, said that the gift of Mr. Harrison was a princely one. He thought that institutions like theirs were invaluable. At home, even if attendants were provided, the life of the epileptic was not happy. Either the attendant got the upper hand or else the patient did so, and that was not good. Here they would be amongst their own class, and when they were away from their own home and surroundings he always noticed a remarkable change for the better in them.

HONG KONG.

Heavy Rainfall.—Bubonic Plague.

AFTER months during which hardly a shower fell, a few days continual rainfall has increased the supply of water, so that all immediate wants are supplied. On May 13th and 14th (10 a.m. one day till 10 a.m. the next) 5.78 inches were registered. Altogether in about seven days 12.33 in. fell. This has relieved the anxiety, which was becoming acute.

The total number of cases of bubonic plague to noon May 12th was 103. On an average 5 cases are reported or found daily. The dumping of dead bodies in the streets is still prevalent in spite of every warning. Fortunately a few of the culprits have been found, prosecuted, and convicted, a fine of $100 being imposed. Again house-to-house visitation has been instituted, and seven of the students of the Hong Kong College of Medicine are employed. Every effort is made to trace the early cases, but the co-operation of the Chinese themselves has not yet been gained. Medical inspection of vessels from Macao, Shanghai, Singapore, Manila, and Pakhoi is being enforced.

CORRESPONDENCE.

TREATMENT OF PULMONARY TUBERCULOSIS.

SIR,—The BRITISH MEDICAL JOURNAL of June 7th contains several articles of interest regarding the treatment of pulmonary tuberculosis. The perusal of these suggests a few remarks.

With regard to the paper by Mr. Campbell on the intratracheal method of treatment, there is somehow produced the impression—which its author doubtless does not wish to convey—that the method is recommended as a new departure in treatment. I need hardly remind those who are interested in the matter that the intratracheal method of medication is at least fifteen years old. The only *new* factor in the method, as described in the JOURNAL, is the use of "medicinal izal" as the germicidal agent. Apart from this, the method has been widely tested in the treatment of pulmonary tuberculosis and other affections of the respiratory tract. It was used by me for eight or ten years from 1887 as routine treatment in a large proportion of cases of chronic pulmonary tuberculosis at the out-patient department of the Victoria Hospital for Consumption, Edinburgh, and in selected cases elsewhere. A good many other physicians have, to my knowledge, made trial of the method from time to time.

I agree with Mr. Campbell that the method is easy of application, and seldom accompanied by any distress or inconvenience from the side of the patient. Indeed, so simple is the procedure that, after some years of trial, I ventured to recommend [1] the intratracheal method of medication as a ready means for the introduction of different drugs which the stomach might resent. The suggestion was based on a long series of observations on the effects of the intratracheal injection of various substances, including menthol, thymol, guaiacol, creosote, oil of eucalyptus, terebene, iodoform, balsam of Peru, chloroform, etc. The substances were dissolved in a variety of menstrua; for example, olive oil, castor oil, glycerine, etc. It was in large part as the result of these observations that the late Sir T. Grainger Stewart adopted and recommended the use of intratracheal injections in bronchiectasis.

As to instruments, Mr. Campbell's experience has been unfortunate. I have always made use of a simple glass-barrelled syringe. Although it is impossible to reckon the large number of injections I have personally made, I have not encountered the "occasional smash" which he mentions. And surely Mr. Campbell overstates the case when he says that "the laryngeal mirrors in ordinary use are most dangerous." I cannot believe that this is the experience of laryngologists. As one who makes daily use of the ordinary mirror (holding it desirable to have a look at the larynx in passing a judgement on the chest), I wish to say that I have never yet seen ill effects follow its use. It is assumed of course that suitable cleansing measures are carried out in relation to the mirror before and after use.

What as to results? I confess that, on the whole, these are less encouraging than I thought them during the first year or two that I followed the method. There can be no manner of doubt that not only is the intratracheal introduction easy and commonly unproductive of inconvenience, but the patient experiences definite benefit in many instances. Symptomatically he is relieved sometimes to a remarkable extent. But I doubt if we can speak of cures. It is pleasant to be able to conceive of the method (as Mr. Campbell seems to do) as "going to the root of the evil by destroying the tubercle bacillus in its nest." It is said to be easy to catch a bird by putting salt on his tail.

[1] *Pulmonary Tuberculosis*, 1891.

In fact, although I still use the method for special reasons in individual cases, I have for a number of years discarded the general use of a method which, when we speak of cure, has been tried and found wanting. On the substitution of izal for the other germicidal agents I am not inclined to lay stress.

Will you allow me to add a single word regarding Sir Lauder Brunton's interesting account of the Wehrawald Sanatorium, which he describes as "the most perfect sanatorium at present in existence"? There can be no doubt from Sir Lauder Brunton's description that it is excellently conceived and arranged in many directions. It may surpass many existing sanatoria. But is it wise to label any sanatorium in the way indicated? Is there not a risk of magnifying into essentials points which are really of secondary importance? The outcome of a good deal of experience and observation is that the physiological requirements for a perfect sanatorium are few and simple. If properly comprehended, they are attainable without lavish expenditure. There is a danger lest the principle be lost sight of in the elaboration of details. Even in the description of Wehrawald certain details are stated which are considerably open to question, such as the use of steam pipes for the warming of bedrooms and the use of double doors to protect from draughts. Moreover, I have a distrust of a building for the purpose whose central portion consists of five stories for the reception of patients.—I am, etc.,

Edinburgh, June 11th. R. W. PHILIP.

SIR LAUDER BRUNTON'S MODEL SANATORIUM.

SIR,—In the BRITISH MEDICAL JOURNAL of June 7th Sir Lauder Brunton has given an interesting "travel picture," and described a sanatorium for consumptives built on the usual Continental model. There will seem nothing very novel in this description to those of your readers who are familiar with German medical literature during the last year or two, or, indeed, with English standard works on the subject.

At a time when much serious attention is being devoted to the subject of sanatorium construction, it is a little unfortunate that so eminent a physician should make the unqualified statement that the Wehrawald Sanatorium "exhibits the most perfect model yet built of what such a sanatorium ought to be." If a "palatial hotel" of five stories be the most perfect type of building for a mountainous district, it does not follow that the same would be the best for this country, where level or gently-sloping sites of suitable extent can be obtained. As we cannot obtain sites of 2,824 feet elevation in this country, it would be futile to take as our model sanatorium a building adapted to such a situation.

Five-story buildings are already condemned both in principle and practice by the architects of sanatoria in England and by all modern hospital authorities. Sir Lauder alludes to the care necessary to prevent infection. Surely the most important means to this end is to avoid crowding all the patients together under one roof by dividing the number into convenient units of administration like the wards of a hospital built on modern principles. It goes without saying that a sanatorium should be made bright and homelike, but it is after all a hospital adapted to a particular purpose. The home-feeling can be more easily attained in a series of separate buildings than in a huge block resembling a palatial hotel.

All that Sir Lauder says about verandahs, balconies and sunblinds may be accepted without comment. But one of the most serious defects of his favourite type of building is that the whole of the bedrooms, possibly 80 to 100, are reached, so far as can be judged from the plan, by one staircase with a lift working in the centre. No fire-escape stairs are shown, and even if provided might prove insufficient for emergency. The dangers from fire are much minimised by spreading the bedrooms out on the flat by extending the area, instead of piling them vertically story after story. On hygienic grounds also a lift should always be avoided wherever possible. It is difficult to keep clean and free from infection on account of the continual traffic; anyone who has seen a lift placed in the open well of a staircase is aware of its enormous capacity as a dust-trap.

Sir Lauder says nothing about the sanitary arrangements, which are often notoriously bad in Continental institutions. If the two apartments shown on the small plan, next the linen closet, are intended for w.c.'s their construction is extremely faulty. An improvement on the "model" plan shown would have been to place the bedroom windows and doors and the corridor windows all in one line. Further, a chimney flue is a useful aid to ventilation, and it is an advantage to be able to have a bright fire sometimes. These points are ignored at Wehrawald. The beds are awkwardly placed in a corner, and would be better situated as to ventilation laid across the room. The ends of the corridor east and west should be occupied by windows, and not blocked up by bedrooms. The provision of double doors entails an altogether unnecessary expense. If its object is to exclude noise this can be obviated in other ways, but the suggestion of double doors to prevent draught is rather naïve when the object of the treatment is to harden the patient and accustom him to live in the open air in all weathers. One would think that linoleum laid on a plaster floor would wear out rather quickly, and that in a large up-to-date institution a more permanent material would have been provided.

Undoubtedly one of the problems in sanatorium construction is to find a satisfactory method of treating the inside walls. In this country, at any rate, the air is often highly charged with moisture, which is deposited on the inside walls of the institution. The evils caused by this are not merely theoretical, for the destructive effects of the weather are to be seen on the walls of sanatoria already built. If "Salubra" is as durable and damp-resistent as it is artistic, Sir Lauder will have made a substantial contribution to our knowledge of the subject on which he writes; but it is to be feared that "garlands of flowers on a cream-coloured ground" painted in oils, though doubtless things of beauty, will not be joys for ever to those who have to keep them in repair.—I am, etc.,

June 13th. OBSERVER.

SIR,—The tendency of Sir Lauder Brunton's paper bearing this title must be to send more of our consumptives abroad. No one believes this to be necessary, and many doubt that it is even desirable to cure a patient under climatic conditions differing more widely than is essential from those of the environment in which he is subsequently to live.

Feeling this, I have carefully examined the picturesque view and the plan which illustrate the paper. Is Wehrawald a model sanatorium? To me it appears to have the following rather glaring defects:

1. It stands on an artificially constructed, and therefore limited, site, and apparently for this reason has been built five stories high. It is clearly objectionable to build so high as this, as it makes feeble patients, if occupying rooms in the upper stories, absolutely dependent on the lift, while their balconies, if they have any, are at too giddy a height for comfort.

2. Balconies are evidently a useful, nay an indispensable, adjunct to the bedrooms, and yet they have not been provided for all; this sacrifice having been made, it is clear, merely to secure a little picturesqueness of effect.

3. Similarly the windows along the whole face of the sanatorium, excepting only No. 29, occupy scarcely half the end wall of each room instead of approximately three-fourths, as is desirable.

4. The long corridor lit from the north must be cold, and forms a sharp change when entered from the patients' rooms, lit, as these are, from the south.

5. No arrangements for the nursing staff appear on the first floor, unless a very small room showing two beds for domestic servants (*Dienstboten*) be such.

6. The watercloset shown next the linen closet are not isolated, as they should be, by cross ventilation, from the main corridor.

7. The dining-room has windows on one side only, and none of the light comes from the south. Apparently by way of compensation, or purely for aesthetic effect, the opposite wall has been lined with mirrors, so that "wherever a patient sits he seems to himself to be dining in the open air."

8. The provision of reading and drawing rooms is a very doubtful advantage to patients who ought somehow or other to spend every possible moment in the open air.

9. It is wasteful to occupy any part of the sunny aspect with cloak rooms.

10. The bath rooms for both ladies and gentlemen are placed on the single floor of the western wing. What English lady is so confident of her charms as to prefer running the gauntlet of male bathers in *négligé*?

11. The laboratory in which chemical and bacteriological work is done is placed inside the walls of the sanatorium.

12. The vaulted passage beneath the verandah appears in the sketch too gloomy to make a healthful promenade. Its real object is to support the immense verandah, in which no privacy appears to be obtainable.

One gets the feeling of being "in some palatial hotel," says Sir L. Brunton; and possibly a commercial instinct may be at the bottom of these defects. A round dozen of them will at any rate suffice to show that this "model" sanatorium at Wehrawald is by no means so *mustergültig* as the Germans would have us believe. Curiously enough, a recent German writer selects the Victoria wing at Ventnor as presenting features which he thinks are ideal, notably the provision of a balcony for every room. That we have done, and can do better is the opinion of—

June 9th. VINDEX.

MIDWIVES BILL, 1902.

SIR,—"The Lord preserve me from the presumption of trying to understand him," was the exclamation of an elderly Scotswoman when asked her opinion about the sermon of the strange minister. The incident came into my mind as I read a letter of Dr. Lovell Drage's under the heading Midwives Bill, 1902, in the BRITISH MEDICAL JOURNAL of June 14th. I have only known Dr. Lovell Drage from reading, as one of the medical statesmen who has considerably helped in bringing about the curious existing relations between Parliament and the medical profession on the Midwives Bill. Perhaps it is the want of intimate knowledge of his mode of thought and his style, but I do not clearly understand Dr. Lovell Drage. I take the impression that he has thought it worth while to write a letter in order to censure me personally, because my name appears, without my knowledge or consent, on some "advertisement" issued by the Obstetrical Society of London. I have not tried to exercise any influence in the counsels of the Obstetrical Society with regard to the Midwives Bill, but I suppose one may infer from Dr. Lovell Drage's parable that he believes that they have used their influence to too great an extent through female social workers and the members of Parliament and other public men who are too much under the dominance of women. But where do I come in without the use of violence?

I would not, however, think it worth while to trouble you with a reply to Dr. Lovell Drage's letter, except to finally call attention to the method of controversy which he and his fellow medical statesmen have employed throughout this long dispute. We in Manchester are very familiar with the method; it is simply a method of malignant representation on the part of our opponents, who take absolutely no care to ascertain the position with regard to this question, which has been held from the first by men whom they drag into the public prints and hold up to contempt with a levity which is only equalled by its futility.

If the "Midwives Bill, 1902," passes into law, probably discussion will take another direction, and find in the future fresh subjects connected with the same question. It is devoutly to be hoped, when a few more hundred inquests have produced an agitation to amend and strengthen the Act, that medical statesmanship will be marked by other qualities and produce very different results, as far as the influence of the medical profession is concerned. I am, etc.,

Manchester, June 17th. W. J. SINCLAIR.

AGE-INCIDENCE OF SMALL-POX.

SIR, I am glad Dr. Acland is going to alter his erroneous statement that the number of deaths of children in six towns increased in direct proportion to the neglect of vaccination. But my point was that the diagram which led Dr. Acland into this error tends to lead everybody else to false conclusions. Therefore, I suggested to Dr. Acland, and the profession generally, the abandonment of a false argument. He is right when he says the result is different from what I expected. For the result is the reappearance in your columns of the diagram in question, and the table on which it is founded, and also of a new table, in which Dr. Newsholme simply elaborates the very fallacy which I exposed.

How Dr. Newsholme can construct such diagrams and defend them is simply inexplicable to any student of his book as I may claim to be. The thing which more than once in that book is declared to be "essentially fallacious" is the constitution of ratios between two factors both of which are variable. In his diagram and tables he does nothing else but constitute such ratios and use them for illegitimate comparisons. He takes the children's attacks and deaths as a proportion of the total attacks and deaths, with the object of persuading himself and others that if this proportion varies according to the amount of vaccination default in each town it indicates the greater protection of the children in the better vaccinated places. All I say is (for I do not seek to abuse the hospitality of your columns by airing my opinions on vaccination) that this is a false argument. For it is a truism to say that the deaths of the children might remain exactly the same in two or more towns compared, and yet be entirely divergent as proportions of the total deaths if the adult deaths were not also the same in the different towns. The fallacy lies in attributing to one factor the variation which may belong to either or both. Now, comparing Leicester and Warrington (the extremes on Dr. Newsholme's diagram) we are asked to assume, and if we are not so to assume the diagram has no meaning, that because Leicester's proportion of children's deaths to total deaths was 71 per cent., whereas in Warrington the proportion was only 22.5 per cent., the children of Warrington were better off than the children of Leicester. The fact is that the children in Leicester were better off, and so were the adults. In this case the variation was in both factors. The double variation, really to the advantage of Leicester, alters the proportions to the apparent disadvantage of its children, and here are the facts, which cannot be gainsaid and which speak for themselves:

	Total Population.	Under 10.			Over 10.		
		Cases.	Deaths.	Per cent.	Cases.	Deaths.	Per cent.
Warrington ...	54,084	65	14	21.53	596	48	8.05
Leicester ...	184,547	109	15	13.76	248	6	2.42

These being the facts, I cannot see what is gained by the argument from proportions thus demonstrably false, nor can I understand why Dr. Newsholme is not "stimulated" to make some calculations on what he and other vital statisticians have taught us to be the only true method—the comparison of case-incidence and case-fatality per 10,000 living children and adults separately in the various towns. This has been done for the whole population of four of these towns in the "Dissent" of Dr. Collins and Mr. Picton. Does Dr. Newsholme not like the result?—I am, etc.,

Chester Terrace, N.W., June 18th. ALEX. PAUL.

CYTOLITIC MILK FOR CANCER.

SIR, Immediately upon Dr. Bulloch's paper on the immunity conveyed from one animal to another by means of ingested milk being read at the Pathological Society, it occurred to me that it might be worth while attempting to produce a cytolitic milk for cancer.

I asked Dr. Bulloch whether he intended doing so; on his replying in the negative I decided to carry out the following experiment to disintegrate cancer of the breast, and to inject the expressed cell juice into the vein of a cow. Patients suffering from inoperable cancer of the breast were to be supplied with the milk from this cow.

The disintegrator I intended using was the form designed by Rowland; I therefore made inquiries at the Jenner Institute whether any experiment on the above lines was about to be made. I was told that none of the above nature was under consideration. Through the kindness of the Professor and Demonstrator of Engineering I have been able to have the

necessary disintegrating apparatus fitted up at King's College, and must now seek the collaboration of surgeons in order to obtain a supply of scirrhus of the breast.

Although cancer of the breast is extremely common, nevertheless it is no easy matter to obtain large quantities, because the disease is diagnosed early, and the tumour removed before it has attained any considerable size. If surgeons would wrap the tumours, after removing the skin, in moist cyanide gauze, surround them with mackintosh, and post them to me at King's College, Strand, one difficulty in carrying out the work would be overcome.—I am, etc.,

Wimpole Street, W., June 13th. OTTO GRÜNBAUM.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE DROUET INSTITUTE.

A COMMUNICATION sent to us by a surgeon practising in the West of England shows that the Drouet Institute, which professes to cure deafness, is still pursuing its career in spite of the efforts of our contemporary *Truth* to enlighten the public on the subject. Our correspondent sends us a typewritten letter forwarded to a lady, in which it is stated that the physician, "After a careful study of the particulars of the complaint from which you suffer," has arrived at the following diagnosis: "Post nasal pharyngitis—chronic dry middle otitis (middle otitic and salpyngitic tinnitus) nervous influence." The treatment includes the use of four different preparations: (1) An anticatarrhal paper, which should not irritate the skin, but "acts by progressive absorption"; (2) a snuff; (3) an antinervous sedative; and (4) a boro-salicylic solution to be used as a gargle and for filling the ears. The charges amount to 19s. 6d., but a reduction of 4s. 6d. is made if only one box of papers is ordered. The history of this institute is a good illustration of the credulity of the public, and the ineffective nature of the laws of this country for the regulation of medical practice.

THE OFFICIAL RECEIVER AND MEDICAL FEES.

CORRESPONDENT writes that a patient of his, who owes him a considerable sum, has recently got into difficulties, and has had to meet his creditors before the Official Receiver. At the meeting of creditors that official, in spite of protests from our correspondent, cut down his bill by one-half. He wishes to know what steps he can take to remedy this injustice.

*** From the details furnished by our corresponpent his charges seem to have been very moderate, and the action of the Official Receiver very arbitrary. Where, however, bankruptcy proceedings are being taken, the Official Receiver has a legal discretion to abate the charges of any creditor. But such action is subject to appeal. Where the Official Receiver disallows any claim he is bound to give that creditor notice in writing of the fact before proceeding to distribute the assets of the debtor. The creditor can then appeal to the county court under the jurisdiction of which the bankruptcy proceedings are being taken against the decision of the Official Receiver. Under the circumstances our correspondent would seem to have a good case for an appeal, but before taking any steps he would be wise to consult an experienced solicitor, as in the event of non-success he might incur considerable costs.

PARTNERSHIP TERMS.

LEX asks what are the usual terms of a half-share medical partnership, or where he could get a copy of the usual deed of partnership?

*** The price of a half-share of a medical practice depends on the class of patients, the long-standing of the practice, and character of the vendor. It is not usually less than two years' purchase. Our correspondent will find copies of the usual deeds of partnership, in *Medical Partnerships, Transfers, and Assistantships*, by W. Barnard, M.A., LL.B., and G. B. Stocker (London: Stevens and Sons. 1895. 10s. 6d.).

MEDICAL ADVERTISING.

EDICUS asks to be told the difference between the advertisement from the *Dundee Advertiser* upon which we commented in the BRITISH MEDICAL JOURNAL of May 31st, p. 1783, and the printing of his hours of consultation by a medical practitioner upon his notepaper.

*** We regret that it is necessary to point out to our correspondent that the essence of advertisement is publicity, and that information which is perfectly harmless in itself becomes improper when published in the advertisement columns of a newspaper.

WE have received the following letter from Dr. Miller:

80, Nethergate, Dundee,
June 4th, 1902.

Dear Sir,—It is well your readers should hear the other side of the question as to the newspaper cutting sent you by a correspondent. "Take each man's censure, but reserve thy judgement."

I consider I am quite justified in announcing in the daily press such a decided alteration in the conditions of my professional work. Twelve years have I practised here, and from the very outset have enjoyed a very good income from my profession, and any one with a mere casual acquaintance of me would know I have no need to depend on advertising in any of the forms, subtle or otherwise, too prevalent in the medical world.

I make no complaint regarding the insertion of the cutting, but I hope, in all fairness, you will give a space to my reply.

Yours respectfully,
ROBERT MILLER.

MEDICAL REMUNERATION AND POLICE ORPHANAGES.

A. B.—It is not unusual for medical practitioners to give their services gratuitously to such institutions, but if our correspondent and his colleagues find the demands upon their time are too great it is perfectly reasonable to ask for remuneration.

MEDICAL ETIQUETTE.

DENTAL.—We see no objection to an arrangement under which a medical practitioner occupies the same house and shares consulting rooms with a registered dentist.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Second Examination for Medical and Surgical Degrees.—The following candidates have satisfied the examiners in the subject undernoted:

Part I. Pharmaceutical Chemistry.—H. E. T. Dawes, Joh.; G. B. Fleming, King's; H. A. Hancock, Non Coll.; V. C. Honeybourne, Joh.; R. Mc.C. Linnell, Joh.; C. H. Rippmann, B.A., King's; H. A. Smith, B.A., H. Selw.; F. J. Thornton, Cai.; D. R. P. Walther, Pemb.

Third Examination for Medical and Surgical Degrees. Part I (New Regulations).—The following candidates have satisfied the examiners in the subjects undernoted:

Pharmacology and General Pathology.—H. C. Cameron, B.A., Joh.; H. M. Clarke, B.A., Cla.; E. R. T. Clarkson, M.A., H. Selw.; R. P. Cockin, B.A., Cai.; H. Dodson, B.A., Down.; W. G. P. Ellis, M.A., Cath.; H. Falk, B.A., King's; H. J. Fardon, B.A., Christ's; G. R. Footner, B.A., Pemb.; E. Gardner, B.A., Cai.; C. B. Goulden, B.A., Non Coll.; F. W. Goyder, B.A., Joh.; J. R. C. Greenlees, B.A., Joh.; G. H. Harper-Smith, B.A., Cai.; C. King, B.A., Trin.; G. H. K. Macalister, B.A., Joh.; O. V. Payne, B.A., Joh.; W. H. Robinson, B.A., Down.; C. T. Y. Robson, M.A., Joh.; E. W. Sheaf, B.A., Down.; G. C. E. Simpson, Joh.; G. A. Ticehurst, B.A., Joh.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on June 12th, Mr. H. G. Howse, President, in the chair.

London University Examinations.

It was decided, on the recommendation of the Museum Committee, that specimens from the Museum be lent to the University of London during the year 1902 for purposes of examination.

Appointment of Examiners.

The following appointments were made for the ensuing year:

Elementary Biology.—Herbert Willoughby Lyle, Peter Chalmers Mitchell, Frederick Gymer Parsons, Walter G. Ridewood.

Anatomy.—Christopher Addison, Arthur Keith, Arthur Thomson, Holburt Jacob Waring.

Physiology.—Thomas Grigor Brodie, George Alfred Buckmaster, William Henry Thompson.

As the Members of the Board of Examiners in Anatomy and Physiology for the Fellowship of the College the following appointments were made:

Anatomy.—James Ernest Lane, Berkeley G. A. Moynihan, Frederick Gymer Parsons, Alfred Harry Young.

Physiology.—De Burgh Birch, Leonard Erskine Hill, Edward Waymouth Reid, Ernest Henry Starling.

Midwifery.—George Francis Blacker, William Radford Dakin, William Duncan, James Henry Targett.

Public Health.—Part I: Alexander Grant Russell Foulerton. Part II: Sydney Arthur Monckton Copeman.

Board of Examiners in Dental Surgery.

The resignation of Mr. Morton Smale was accepted, the Council expressing their appreciation of the services rendered by him during his term of office. The vacancy thus occasioned will be filled up at the ordinary meeting of the Council following the quarterly meeting in July.

The General Medical Council.

A letter dated June 6th was read from Mr. Thomas Bryant reporting the proceedings of the General Medical Council at their late session. The best thanks of the Council were given to Mr. Bryant for his services as the representative of the College in the General Medical Council.

"Nomenclature of Disease."

A letter, dated June 9th, was read from the President of the Royal College of Physicians of London asking the President of the Royal College of Surgeons to allow his name to be added to a Committee to be appointed for the purpose of preparing a revised edition of the *Nomenclature of Disease*.

Relation of the London University and the College of Surgeons.

The Council decided to ask the College of Physicians to appoint a committee to act in conjunction with a committee of the Council in order to decide whether or not any practicable scheme could be devised for entering into combination with the University of London for the adoption of a system of common examinations for the M.B. degree of the University and the diploma of L.R.C.P.Lond. and M.R.C.S.Eng. It was arranged that the deputation of Members presenting a petition upon the question of a degree should be received by the Committee appointed by the Council.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,555 births and 4,271 deaths were registered during the week ending Saturday last, June 14th. The annual rate of mortality in these towns, which had been 16.7, 16.5, and 16.0 per 1,000 in the three preceding weeks, further declined last week to 15.0 per 1,000. The rates in the several towns ranged from 6.6 in Coventry, 8.1 in Grimsby, 8.2 in Smethwick, 8.3 in Hornsey, 9.0 in Willesden, 10.2 in Wallasey, and 10.3 in Walthamstow, to 20.3 in Salford, 20.8 in Gateshead, 21.4 in West Bromwich 21.7 in South Shields, 22.0 in Tynemouth, 23.5 in Middlesbrough, and 25.4 in Wigan. In London the rate of mortality was 14.1 per 1,000, while it averaged 15.4 in the seventy-five other large towns. The mean death-rate from the principal zymotic diseases in the seventy-six towns was 1.7 per 1,000; the zymotic death-rate in London was also equal to 1.7 per 1,000, while in the seventy-five other towns the rates ranged upwards to 3.5 in East Ham, 3.7 in Burnley, 4.5 in South Shields, 5.8 in Rhondda, 5.9 in Wigan, 6.4 in Tottenham, and 7.1 in Barrow-in-Furness. Measles caused a death-rate of 1.8 in Derby, 1.9 in Oldham, and 4.5 in Barrow-in-Furness and in Rhondda; scarlet fever of 1.1 in Birmingham and in Burnley, 1.2 in Bolton, and 1.6 in West Bromwich; diphtheria of 1.0 in East Ham, 1.1 in Stockport, and 1.7 in Hanley; whooping-cough of 1.4 in Birkenhead, 1.8 in Norwich and in Barrow-in-Furness, 2.5 in South Shields, and 4.2 in Wigan; "fever" of 1.0 in East Ham; and diarrhoea of 1.1 in Burnley and in Swansea. Of the 45 fatal cases of small-pox registered last week 29 belonged to London, 9 to Tottenham, 2 to West Ham, and 1 each to Hornsey, East Ham, Leyton, Birmingham, and Swansea. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 1,344, 1,274, and 1,162 on the three preceding Saturdays, had further declined to 1,035 on Saturday, the 14th inst.; 157 new cases were admitted during the week, against 307, 251, and 188 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,347, against 2,236, 2,266, and 2,314 at the end of the three preceding weeks; 282 new cases were admitted during the week, against 280, 319, and 310 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, June 14th, 1,016 births and 614 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.3 per 1,000 in each of the two preceding weeks, declined last week to 19.0 per 1,000, but was 4.0 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among the Scotch towns the death-rates ranged from 13.9 in Leith and 14.1 in Perth to 20.3 in Glasgow and 20.5 in Dundee. The zymotic death-rate in these towns averaged 2.1 per 1,000, the highest rates being recorded in Dundee and Greenock. The 303 deaths registered in Glasgow included 10 from measles, 2 from scarlet fever, 2 from diphtheria, 13 from whooping-cough, 2 from "fever," and 9 from diarrhoea. Three fatal cases of measles and 4 of whooping-cough were recorded in Edinburgh; 2 of whooping-cough and 6 of diarrhoea in Dundee; and 2 of whooping-cough in Paisley.

ARSENICAL POISONING COMMISSION.

The Royal Commission on Arsenical Poisoning held a further meeting on June 19th, under the chairmanship of Lord Kelvin. The other Commissioners present were Sir William Hart Dyke, Sir William Church, Professor Thorpe and Dr. Whitelegge. A Mr. Otto Hehner, public analyst, gave evidence that the Society of Public Analysts and the Society of Chemical Industry had appointed a Committee to consider the best method of detecting minute quantities of arsenic and of making an approximate quantitative estimation. He was a member of the Committee and the unanimous conclusion arrived at was in favour of the Marsh Berzelius method. He held that it was desirable to have a method which could detect very minute traces of arsenic even if such were not harmful to human beings. Absolute freedom of beer from arsenic could not be certainly promised, but if a standard prohibiting more than $\frac{1}{14}$th of a grain per gallon were fixed brewers could quite easily keep within that limit. Mr. A. Chapman, consulting chemist, and one of the honorary secretaries of the Society, also advocated that a standard should be fixed at $\frac{1}{14}$ gr. per gallon although the large majority of the beers he had analysed contained less than $\frac{1}{28}$ gr. in the gallon. Professor Sheridan Delépine described experimental investigations he had made in regard to the action of arsenical beer on rats. The presence of small quantities of arsenious acid such as might be due to the use of badly prepared malt, though seldom actively dangerous, was capable of producing injurious effects on ill-fed or weak individuals. Bad feeding and other deteriorating influences were sufficient to account for the special incidence of cases of poisoning among classes of people liable to these influences.

THE DISPOSAL OF TYPHOID EXCRETA.

Surgeon Lieutenant-Colonel P. B. Giles, F.R.C.S., writes with reference to this subject (BRITISH MEDICAL JOURNAL, June 14th, p. 1518): For more than twenty years I have destroyed all the excreta from typhoid or dysenteric patients by burning. I find the most simple method is to line the bedpan with pine sawdust saturated with mercury perchloride and vinegar. Directly the pan is removed cover with an inch of the same. Empty the contents of the pan into an iron pan raised either on bricks or on one of the iron open fire buckets used at railway stations to thaw the water mains, light a fire, clean out the bedpan with paraffin, and pour over the sawdust and excreta and fire it. The bedpan is then thoroughly washed with a solution of mercury perchlori and the fluid poured into an iron bucket of sawdust, which from ti to time is burned on the destructor.

ROYAL NAVY AND ARMY MEDICAL SERVICE

THE UNDERMANNING OF THE ARMY MEDICA SERVICE.

The following is the distribution of medical officers employ on the Active and Reserve Lists, according to the *Army List* June:

Distribution in June Army List.

Ranks.	Home.	South Africa.	Other Foreign Stations.	Not Posted.	Total.	Remark	
						Seconded.	Reserve of
Surgeon-Generals ...	1	2	4	1	8	—	
Colonels	11	5	8	2	26	3	
Lieutenant-Colonels...	75	62	74	2	213	6	
Majors	44	122	108	1	275	2	
Captains	32	107	107	2	248	12	
Lieutenants	21	117	65	3	206	2	
Total...	184	415	366	11	976	25	

The total shows a diminution of 4 from May; the distri tion remains practically unaltered, though there are a more at home and a few less in South Africa and other for stations. The seconded and the reserve employed are altered. The surgeon-generals (excluding the Direc General and his Deputy) have again sunk to 8, so that more steps in this rank are vacant. The number of reti pay officers employed remains at 95. The total numbe commissioned medical officers employed is 1,071; the nun of civil surgeons employed is not shown.

THE ROYAL ARMY MEDICAL CORPS.

Annual Dinner.

The annual dinner of the Royal Army Medical C was held at the Whitehall Rooms, Hôtel Métro London, on Monday evening, June 16th, when chair was taken by the Director-General, Surg General W. Taylor, M.D., C.B. The toasts of King and of the Queen and other members of the R Family were given from the chair. The Chairman tha Lieutenant-Colonel Hector in the name of the Corps for trouble he had taken in organizing the annual dinner, concluded by proposing his health, which was drunk musical honours. Colonel Hector, in reply, said that work had been a source of great pleasure to him, and tha was glad to think that the dinner of the Corps had bec firmly established as an annual institution. The band of Corps played during the evening. The following is a li those who had expressed their intention to be present:

Guests.—Mr. Vesey Holt; Surgeon-General W. R. Hooper, C.S.I., I Medical Service; Mr. T. Wakley, jun., L.R.C.P.; Dr. Dawson William Galloway; Dr. E. A. Perry.

Honorary Members.—Mr. A. D. Fripp, M.B., F.R.S., F.R.C.S., C.B.;

Members.—Lieutenant-Colonel J. Anderson, C.I.E.; Surgeon-Gene F. Bradshaw, C.B.; Lieutenant-Colonel U. J. Bourke; Lieutenant-C W. Baptie, M.B., V.C., C.M.G.; Lieutenant-Colonel D. Bruce, M.B.; tenant-Colonel J. F. Beattie, M.D.; Lieutenant-Colonel A. L. Br M.D.; Lieutenant-Colonel H. L. Baltersby; Lieutenant T. Biggam, Deputy Surgeon-General O. Codrington, M.D.; Surgeon-General R. A. Clark, Bart.; Lieutenant-Colonel T. M. Corker, M.D.; Lieut Colonel J. J. Crean; Major H. A. Cummins, M.D., C.M.G.; Lieut Colonel A. B. Cottell, Lieutenant I. Cotterill; Lieutenant Colonel A. B. Cottell; Lieutenant-Colonel S. H. Carter; Lieutenant-Colon A. Craig; Lieutenant-Colonel A. W. Davies; Lieutenant-C G. Dow, M.D.; Lieutenant-Colonel A. W. Duggan, J. R. Dodd, M.B.; Major A. Dodd; Captain C. W. Duggan, Lieutenant H. E. M. Douglas, V.C., D.S.O.; Lieutenant C P. M. Ellis; Lieutenant-Colonel E. H. Fenn, C.I.E.; Capt S. H. Fuhr, D.S.O.; Colonel W. L. Gubbins, M.B.; Lieut Colonel M. M. Gallwey, Major F. J. Greig, Major W. E. Gray, M.B.; tenant-Colonel H. F. Hensman, C.M.G.; Lieutenant-Colonel F. H M.D.; Lieutenant-Colonel H. W. Hubbard; Lieutenant-Colonel R. D son; Lieutenant-Colonel J. Hector, M.B.; Lieutenant-Colonel L. Hay

M.B.; Lieutenant-Colonel H. G. Hathaway; Major J. Hickman; Lieutenant Colonel F. A. Harris; Captain A. F. Heaton; Surgeon-General Sir H. J. K. Innes, K.C.B., K.H.S.; Captain E. T. Inkson, V.C.; Deputy Surgeon-General J. H. Jeffcoat; Lieutenant-Colonel J. W. Jerome; Lieutenant-Colonel H. E. R. James; Lieutenant-Colonel R. Jennings, M.D.; Lieutenant-Colonel W. Johnston, M.D.; Surgeon-General A. Keogh, M.D., C.B.; Lieutenant-Colonel W. Kier, M.D.; Surgeon-Major C. R. Kilkelly, M.B., C.M.G.; Lieutenant-Colonel H. C. Kirkpatrick; Colonel G. D. N. Leake; Colonel T. Ligertwood, M.D.; Surgeon-General T. Maunsell, C.B.; Brigade-Surgeon C. Mackinnon; Lieutenant-Colonel J. Macartney, M.D.; Lieutenant-Colonel J. W. Morgan; Colonel W. T. Martin, M.B.; Colonel J. Maturin; Colonel J. McNamara, M.D.; Major W. G. Macpherson, M.B.; Major A. H. Morgan, D.S.O.; Major J. C. Morgan; Major T. McCulloch, M.B.; Surgeon-General H. S. Muir, M.D., C.B.; Lieutenant-Colonel E. North; Lieutenant-Colonel J. E. Nicholson; Lieutenant-Colonel H. J. O'Brien, M.B.; Surgeon-General A. F. Preston, M.B., K.H.P.; Lieutenant-Colonel W. W. Pope; Surgeon-Major Allan Perry; Captain A. Pearse; Colonel R. H. Quill, M.B.; Surgeon-General J. B. C. Reade, C.B., K.H.S.; Lieutenant-Colonel J. H. Reynolds, M.B., V.C.; Lieutenant-Colonel S. K. Ray; Lieutenant-Colonel W. F. Ruttledge; Major J. D. T. Reckitt; Surgeon-General P. B. Smith, M.D.; Colonel F. B. Scott, M.D., C.M.G.; Colonel W. F. Stevenson, M.B., C.B.; Major W. F. Skinner, B.M.; Major B. H. Scott; Captain C. T. Samman; Surgeon-General W. Taylor, M.D., C.B., K.H.P.; Lieutenant-Colonel P. B. Tuthill, M.D.; Lieutenant-Colonel G. T. Trewman, M.B.; Lieutenant-Colonel T. H. Treherne; Major G. J. A. Tuke; Lieutenant-Colonel W. Temple, M.B., V.C.; Lieutenant T. B. Unwin, M.B.; Surgeon-General J. Warren; Lieutenant-Colonel E. M. Wilson, C.M.G., D.S.O.; Lieutenant-Colonel E. O. Wight; Brigade-Surgeon T. N. Wright; Major L. Way; Captain E. McK. Williams; Lieutenant J. H. R. Winder, M.D.; and Major M. T. Yarr.

ROYAL ARMY MEDICAL CORPS EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A MAJOR, R.A.M.C., is willing to exchange at once to India. State terms to Pax, care of Messrs. Holt, 3, Whitehall Place, S.W.

THE INDIAN MEDICAL SERVICE.

ANNUAL DINNER.

THE annual dinner of the Indian Medical Service took place at the Café Monico, London, W., on Thursday, June 12th, when the chair was taken by Dr. W. S. Playfair. The invited guests were Sir William Church, Bart., President of the Royal College of Physicians of London; Sir Henry Norbury, K.C.B., Director-General Royal Navy Medical Service; Surgeon-General W. Taylor, C.B., Director-General Army Medical Service; Sir Lauder Brunton, F.R.S.; the President of the Medical Society of London, Dr. Allchin; the Editor of the *Lancet*, Mr. Thomas Wakley, jun., L.R.C.P.; and the Editor of the BRITISH MEDICAL JOURNAL, Dr. Dawson Williams. The members of the service present were as follows:

Surgeon-Generals W. W. Beatson; A. C. De Renzy, C.B.; Sir Joseph Fayrer, Bart., K.C.S.I., F.R.S.; W. R. Hooper, C.S.I.; W. R. Rice, C.S.I.; C. Sibthorpe, C.B.; P. W. Sutherland. Colonels W. E. Cates; H. Cayley, C.M.G.; D. E. Hughes; B. Williams; W. A. S. Wynne. Lieutenant-Colonels M. L. Bartholomeusz; A. Crombie; P. J. Freyer; G. W. D. Gimlette; P. de H. Haig; G. W. A. Harrington; G. W. A. Harris; D. F. Keegan; W. A. Lee; J. B. Lyon, C.I.E.; R. Macdonald; R. Macrae; J. Parker; J. Reid; T. G. Skardon, W. H. Thornhill; J. F. Tuohy; A. H. Williams. Majors A. Alcock; E. H. Brown; J. W. Caldwell; G. Giffard; S. Strickland; J. Lloyd Jones. Captains H. M. Earle; F. A. L. Hammond; S. A. Harris; W. D. Hayward; J. G. Mulbert; E. C. McLeod; C. Milne; Hayward Pinch; G. Tate.

After the usual loyal toasts had been given by the Chairman, that of "The Sister Services" was proposed by Surgeon-General A. C. de Renzy, C.B., and acknowledged by the Director-General of the Army Medical Service, who spoke of the cordial relations which, during his term of service in India, had always existed between his department and the Indian Medical Service.

The toast of "The Guests" was given by Surgeon-General Sir Joseph Fayrer, Bart., and acknowledged by Sir William Church.

The Chairman, in giving the toast of "The Indian Medical Service," recalled the fact that he was the son of a distinguished officer of that service, and had himself served in it for three years, and had only left it owing to a breakdown in his health. He related, amid laughter, how he was responsible for the introduction of the bagpipes into the Indian Army.

"The Health of the Chairman" was proposed by Colonel H. Cayley, C.M.G., and was received with musical honours. The Chairman, in a brief reply, expressed the pleasure with which he renewed old associations, and concluded by proposing the health of the secretary of the dinner, Mr. P. J. Freyer, who, in reply, said that the best reward for the trouble he had had in the matter was the success which had attended these annual gatherings.

SOUTH AFRICAN DISPATCHES.

THE *London Gazette* of June 17th contains dispatches from Lord Roberts and Lord Kitchener respecting the operations in South Africa. Lord Roberts's communication is dated March 1st last, and is in continuation of his dispatch of September 4th, 1901. He now submits additional names of officers and others who rendered specially meritorious service. Among them are the following: Lieutenant-Colonel R. V. Kelly, New South Wales Army Medical Corps; Surgeon-Lieutenant-Colonel E. Fiset, M.D., medical officer Royal Canadian Regiment; Surgeon-Major F. J. Ingoldby, West Australia Medical Staff; Captain D. D. Shanahan, Royal Army Medical Corps; Mr. Purves Stewart, Civil Surgeon, Imperial Yeomanry Hospital; Mr. H. Tener Galbraith, F.R.C.S.E., Civil Surgeon, of Dundee, Natal.

Scottish National Hospital.—Surgeon-Captain R. Stirling, M.D., 4th Volunteer Battalion the Black Watch (Royal Highlanders); Mr. J. M. Cowan, Civil Surgeon; Mr. J. Aitken, Civil Surgeon.

Hospital Ship "Maine."—Major J. Meek, M.D., Royal Army Medical Corps; Mr. G. E. Dodge, B.S., M.D., Civil Surgeon; and Mr. T. W. Hastings, B.A., Civil Surgeon.

Hospital Ship "Princess of Wales."—Major A. H. Morgan, D.S.O., retired Army Medical Staff; Captain A. Pearse, Royal Army Medical Corps.

Lord Kitchener's dispatch is dated Pretoria, April 8th, 1902, and is in continuation of his report dated March 8th. He brings the tale of the operations down to the time of the meeting of the Boer generals to consider the question of laying down their arms. A list of officers recommended follows, the only medical officer among these being Lieutenant-Colonel J. D. Edge, Royal Army Medical Corps.

THE APPEAL FOR THE FAMILY OF THE LATE LIEUTENANT-COLONEL BRODIE, R.A.M.C.

ON behalf of the widow and orphans of Lieutenant-Colonel J. F. Brodie, R.A.M.C., for whom an appeal was made in the BRITISH MEDICAL JOURNAL of the 24th May, Colonel Leake begs to acknowledge, with many thanks, the following contributions and to express his cordial appreciation of the kind words of sympathy which accompanied them:—

	£	s.	d.
Lieutenant-Colonel J. G. Macneece	1	1	0
Lieutenant-Colonel W. W. Kenny	1	1	0
Previously acknowledged	24	15	0
Total to date	£26	17	0

AN ACKNOWLEDGEMENT.

SURGEON-GENERAL H. S. MUIR begs to acknowledge with thanks donations towards the "Y Fund" from the Marchioness of Ripon, Lady Mitchell Banks (who sent kind donations from Lady Tate), "Two Friends," Mr. and Mrs. Wilkinson, Mrs. Illingworth, Mrs. Peirson, Mrs. Whitwell, Mrs. Harris, Mrs. Blood, Mrs. Fleetwood, Dr. and Miss Hake, Mrs. McFee Campbell, Mrs. F. Johnston, Mrs. Barr, Mrs. Wright, Mrs. McAlister, Miss Carter, Mrs. Thirlwall Thomas, Miss Grünbaum, Mrss Burton, Mrs. Withers, Miss Binger, Mrs. Dalzell, Mrs. Stevenson, Mrs. Caton, Mrs. G. Walker, Mrs. H. Nicholls, Miss Abram, Mrs. Cunliffe, Mrs. Gee, Mrs. Westby, Mrs. Robinson, Mrs. Mahler, Mrs. Rankin, Mrs. Graves, Mrs. Brennigan, Mrs. Hornblow, Mrs. Riggs, Mrs. Burrell, T.A.W., C.N.W., M.G.W., Drs. Edgecombe, Bradshaw, Hunt and Murray-Captain and Mrs. Salisbury Sharpe (with kind donations from E. Pandorf, Esq., Mrs. Drabble, Mrs. Covell, Mrs. Carr-Shaw, Mrs. Blindstone), Dr. and Mrs. J. Harper (with kind donations from Drs. Whitley Stokes, Hamilton-Bland, Beauchamp and Walter Tyrrell, Esq.), Surgeon General Sir W. Wilson, K.C.M.G., Lieutenant-Colonel Hensman, C.M.G., and the following officers R.A.M.C.:—Lieutenant-Colonel Murray, Majors Hooper-Pinches, W. Mould, Hickman Morgan, D.S.O., Captains T. C. Lauder, G. Bray, Lieutenant E. McDonnell.

The Fund now amounts to £305.

We are asked to state that the subscriptions have been given in response to an appeal made privately to members of the profession for benevolent aid in a distressing case which has been described in a letter sent to a limited number of medical men. Should any reader desire further particulars, with a view to expressing practical sympathy, a copy of the letter will be forwarded on application to Surgeon-General Muir, 26, Kensington Garden Terrace, W.

MEMORIAL TO THE LATE SURGEON-GENERAL W. NASH.

WE are asked to state that the following subscriptions to the above fund have been received by the Honorary Secretary, Major B. M. Skinner, R.A.M.C., 18, Victoria Street, S.W., since the last notification. Cheques should be made payable to Major B. M. Skinner, R.A.M.C., crossed "Sir C. R. McGrigor and Co., Memorial to Surgeon-General Nash," and addressed to Sir C. R. McGrigor and Co., 25, Charles Street, St. James's Square, S.W.

	£	s.	d.
Surgeon-General J. O'Neil, C.B.	1	0	0
Lieutenant-Colonel A. B. Cottell	1	1	0
Captain T. C. Lauder	0	10	0
Previously acknowledged	101	11	6
Total ...	£104	2	6

The Committee desires to inform intending subscribers that the fund will be closed on August 2nd next.

In the list of subscriptions acknowledged on April 26th, p. 1060, the name of Lieutenant-Colonel J. Lees Hall was incorrectly given as Kall.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAIN J. W. HODGSON, M.B., 1st Devonshire, is promoted to be Surgeon-Major, June 18th.

MEDICAL NEWS.

THE Senate of Göttingen has unanimously decided not to allow women students to matriculate at the University.

MEDICAL MAGISTRATE.—The Lord Chancellor has, on the recommendation of the Lord Lieutenant of London, appointed Dr. W. Gayton, Medical Superintendent of the North-Western Fever Hospital, to the Commission of the Peace for the County of London.

THE INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The annual provincial meeting will be held on Saturday, June 28th, in the Council Chamber, Southend-on-Sea, at 12 at noon, when Dr. J. T. C. Nash will give an address on matters of public-health interest in Southend.

FIELD-MARSHAL LORD ROBERTS, K.G., has consented to preside at the annual distribution of prizes at St. George's Hospital Medical School in October next. It is anticipated that the occasion will see a considerable muster of old St. George's men who have been doing good service in South Africa during the recent campaign.

A LAUDABLE EXAMPLE.—The Fenny Stratford Urban Council are to be congratulated on having passed unanimously a resolution proposed by Surgeon-Lieutenant-Colonel P. B. Giles, F.R.C.S., the Chairman of the Sanitary Committee, to the effect that in cases notified as diphtheria in which swabbings taken by the medical attendant are confirmed by the bacteriologist to the Council a fee of 10s. 6d. shall be paid to the medical attendant.

ANTIRABIC TREATMENT AT BORDEAUX.—The Antirabic Institute of Bordeaux was founded by the Municipality of that city in 1900. In the *Annales de l'Institut Pasteur* of May 25th, the Director, Dr. G. Ferre, gives a brief report of the work done since the establishment of the Institute. From May 19th, 1900, to May 18th, 1901, the number of persons treated was 100. Among the animals which inflicted the bite were 88 dogs, 10 cats, 1 pig and 1 rabbit. There has been no death.

THE ANATOMICAL SOCIETY.—The summer meeting of the Anatomical Society of Great Britain and Ireland will be held at St. Bartholomew's Hospital Medical School, E.C., on Thursday and Friday, July 3rd and 4th, commencing each day at 3 p.m., under the presidency of Mr. C. B. Lockwood, F.R.C.S. The annual dinner of the Society will be held at the Café Royal, Regent Street, W., on Thursday, July 3rd, at 7.30 p.m. Communications should be addressed to the Honorary Secretary, Dr. Peter Thompson, Middlesex Hospital, W.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The French Association for the Advancement of Science will meet this year at Montauban. The proceedings will open on August 7th. The President of Section XII, which is devoted to medicine, is Dr. Bories, of Montauban, who suggests the following subjects for discussion: (1) Wine from a Medical and Hygienic Point of View; (2) the Nature and Treatment of Diabetes Mellitus; (3) the Surgical Treatment of Prostatic Hypertrophy.

THE SPITTING NUISANCE IN NEW YORK.—New York appears to be thoroughly in earnest in its determination to suppress the spitting nuisance. An amended ordinance was adopted by the Health Board of that city a few weeks ago which enacts that spitting upon the sidewalks or upon the floors of public halls of tenement houses, theatres, hotels, or other public buildings, is to be a misdemeanour; the offender will be liable also to pay a penalty of 50 dollars, recoverable in a civil action by the city. Other provisions of the new law enjoin that all tenement owners, hotel men, or theatrical managers shall have printed notices stating the law posted in prominent places, and that they shall supply cuspidors in sufficient numbers.

THE KING'S DINNER TO THE POOR.—We learn that Surgeon-Major J. J. de Zouche Marshall, Honorary Secretary of the Volunteer Medical Association, has obtained the approval of the Lord Mayor of London, of Colonel W. L. Gubbins, R.A.M.C., P.M.O. Home District, and of Brigade-Surgeon-Lieutenant-Colonel Andrew Clark, V.D., Chairman of the Volunteer Medical Association, to a scheme for ensuring the presence at each place at which the King's dinner is given of at least one medical officer and a squad of trained and fully-equipped stretcher-bearers. He hopes also to obtain the co-operation of the ladies of the St. John Ambulance Brigade. Owing to the crowds which will assemble, there can be no doubt that an organization of this kind is most desirable. A circular letter has been addressed to all the volunteer medical officers in London, but should the communication have failed to reach any one of them, he can obtain full particulars from Surgeon-Major J. J. de Zouche Marshall, Shortwood, Teddington, S.W.

ASSOCIATION FOR THE ORAL INSTRUCTION OF THE DEAF AND DUMB.—From the report for 1901 of the Training College for Teachers and School for Children, established in 1872 at 11, Fitzroy Square, W., we learn that Mr. A. H. Cheatle has succeeded Sir William Dalby as Honorary Aural Surgeon to the institution. The practising school has been attended during the past year by 50 pupils (24 girls and 26 boys), and the excellence of the education given is vouched for by the official report of the inspectors of the Board of Education, who remark on the considerable improvement they noticed in the manual instruction imparted. The system pursued is what is known as the "Pure Oral" method of teaching the deaf to speak, all signs and gesture-language being rigorously discarded. The advantage of this system is that it enables those who have been trained in it to take part in conversation with ordinary people, and thus to "mix freely and participate easily in the affairs and interests of their fellows." The pupils are all day scholars, those not residing with their families in London being boarded out with hearing people, so as to avoid forming a class apart, as is the tendency where many deaf pupils are gathered into an institution. The education of deaf children is happily now provided for by law, so that a supply of well-qualified teachers is a national necessity. The voluntary institutions at Fitzroy Square and at Ealing are doing excellent work to supply this want, and are deserving of more liberal public recognition. We regret to see that the finances of the Association are not in as flourishing a condition as could be desired.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERDEEN UNIVERSITY.—Additional Examiner for Graduation in (1) Botany, (2) Chemistry, (3) Medical Jurisprudence and Public Health. Applications to the Secretary of the University Court by June 30th.

BANBURY: HORTON INFIRMARY.—House Surgeon and Dispenser. Salary, £80 per annum, with board and lodging. Applications to the Honorary Secretary, 21, Marlborough Road, Banbury.

BELFAST: QUEEN'S COLLEGES, Ireland.—(1) Dunville Professorship of Physiology, (2) Professorship of Natural History. Applications to the Under Secretary, Dublin Castle, by July 5th.

BEVERLEY: EAST RIDING LUNATIC ASYLUM.—Assistant Medical Officer, unmarried, and between 22 and 28 years of age. Salary, £150 per annum, with board, lodging, and washing. Applications to the Clerk to the Visiting Committe by June 30th.

BEXLEY, KENT: LONDON COUNTY ASYLUM.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications, on forms provided, to be sent to the Clerk of the Asylums Committee, 6, Waterloo Place, London, S.W., by June 24th.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary, £120 per annum, with board, washing and apartments. Applications, endorsed "Assistant Medical Officer," to be sent to the Clerk to the Guardians, 15, Hamilton Square, Birkenhead, by June 23rd.

BIRMINGHAM: ROYAL ORTHOPAEDIC AND SPINAL HOSPITAL.—Assistant Surgeon. Applications to the Honorary Secretary to the Medical Committee, 9, Great Charles Street, Birmingham, by June 30th.

BLACKBURN COUNTY BOROUGH.—Assistant to the Medical Officer of Health, unmarried, and under 25 years of age. Honorarium, £50 per annum, with board and lodging. Applications to Dr. Alfred Greenwood, Medical Officer of Health, 51, Ainsworth Street, Blackburn, by July 1st.

BRISTOL CITY LUNATIC ASYLUM.—Medical Assistant; unmarried. Salary, £140 per annum, rising to £160, with furnished apartments, board, and washing. Applications, marked "Medical Assistant," to be sent to the Clerk to the Visiting Committee, The Council House, Bristol, by June 27th.

CHARING CROSS HOSPITAL.—Bacteriologist to the Hospital and Lecturer on Bacteriology to the Medical School. Salary, £100 per annum and share of class fees. Applications to the Secretary by July 9th.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications to the Honorary Secretary by July 4th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Second House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board, washing, and residence. Applications to the Secretary by July 2nd.

CROYDON BOROUGH HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer. Salary, £100 per annum, with board and residence. Applications, endorsed "Resident Medical Officer," to be sent to Dr. H. Meredith Richards, Town Hall, Croydon, by June 30th.

CROYDON AND WIMBLEDON SMALL-POX HOSPITAL, North Cheam.—Resident Medical Officer. Appointment for six months. Salary, 4 guineas a week, with board and lodging. Applications to Dr. Meredith Richards, Town Hall, Croydon.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer; unmarried and under 32 years of age. Salary, £110 per annum, with board and lodgings. Applications, on forms provided, to be sent to the Chairman of the Selection Committee by July 11th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer. Salary, and board residence, and laundry. Applications to the Secretary by July 5th.

FRENCH HOSPITAL AND DISPENSARY, 179, Shaftesbury Avenue, W.C.—Resident Medical Officer, unmarried, must speak French. Salary, £80 per annum, with full board. Applications to the Secretary.

FULHAM PARISH INFIRMARY, St. Dunstan's Road, W.—Second Assistant Medical Officer. Appointment for six months. Salary, £80 per annum, with board, furnished apartments, and washing. Applications to the Medical Superintendent by June 28th.

GATESHEAD BOROUGH.—Medical Officer of Health. Salary, £350 per annum. To act also as Medical Officer to the Hospital for Infectious Diseases, for which salary of £50 per annum is paid. Applications to the Town Clerk, Town Hall, Gateshead, by June 21st.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Fifth Assistant Medical Officer, unmarried and not over 30 years of age. Salary, £170 per annum, with board, lodging, and washing. Applications to the Medical Superintendent by July 3rd.

GLASGOW: ST. MUNGO'S COLLEGE.—Notman Chair of Physiology. Applications to the Secretary, 93, West Regent Street, Glasgow, by June 30th.

HARTLEPOOL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, washing, and lodging. Applications to the Assistant Secretary, 9, Albion Terrace, Hartlepool, by June 25th.

HEREFORD COUNTY AND CITY ASYLUM.—(1) Senior Assistant Medical Officer; unmarried. Salary, £150 per annum. (2) Junior Assistant Medical Officer; not over 28 years of age. Salary, £100 per annum. Board, lodging, and washing provided in each case. Applications to the Medical Superintendent.

HORTON, EPSOM: LONDON EPILEPTIC COLONY ASYLUM.—Medical Superintendent, not over 40 years of age. Salary, £500 per annum, increasing to £600, with unfurnished house, etc. Applications, on forms provided, to be sent to the Clerk of the Asylums Committee, 6, Waterloo Place, S.W., by July 7th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Appointments for six months. Honorarium £25. Applications to the Secretary by July 1st.

HOSPITAL FOR WOMEN, Soho Square, W.—Registrar. Appointment for twelve months. Honorarium, 25 guineas. Applications to the Secretary by July 7th.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon. Salary, £80 per annum, with board and lodging. Applications to the Chairman, House Committee.

ISLE OF WIGHT UNION.—Medical Officer and Public Vaccinator for the Ryde District. Salary, £100 per annum and fees. Application to the Clerk to the Guardians, Newport, Isle of Wight, by June 30th.

LEEDS: YORKSHIRE COLLEGE.—Junior Demonstrator in the Pathological Department. Salary, £120. Applications to the Secretary of the College by June 30th.

LONDON HOSPITAL, Whitechapel, E.—(1) Assistant Surgeon. (2) Surgical Registrar salary, £100 per annum. Applications to the House-Governor by June 27th.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—House-Surgeon; unmarried. Salary, £120 per annum, with board and residence. Applications to the Secretary by July 7th.

MOWBRAY, NEAR CAPE TOWN: VALKENBERG ASYLUM.—Assistant Medical Officer; unmarried, and not more than 35 years of age. Appointment for three years. Salary, £300 per annum, with board, lodging, and washing, and free passage each way. Applications to the Agent-General for the Cape of Good Hope, 100, Victoria Street, London, by June 23rd.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—House Physician. Salary, £50 a year, with board and residence, or £100 a year and board. Applications to the Chairman of the Board by June 28th.

NEWCASTLE-ON-TYNE: CITY HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer. Salary, £110 per annum, rising to £150, with board, lodging, etc. Applications to the Medical Officer of Health, Town Hall, Newcastle-on-Tyne.

NORTHAMPTON GENERAL INFIRMARY.—Assistant House-Surgeon; unmarried, and not under 22 years of age. Salary, £75 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by June 24th.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Additional Assistant Medical Officer for three months. Salary, 4 guineas a week, with board, lodging, and washing. Applications to the Medical Superintendent.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried. Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc. Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

ROCHFORD UNION.—(1) Medical Officer and Public Vaccinator for the Rochford District. Salary, £74 per annum and fees. (2) Medical Officer of the Workhouse. Salary, £50 per annum and fees. Applications to the Clerk to the Guardians, Southend on Sea, by June 23rd.

ROYAL EAR HOSPITAL, Soho, W.—House-Surgeon; non-resident. Small honorarium given. Applications to the Honorary Secretary, Medical Board, by June 28th.

ST. MARYLEBONE GUARDIANS.—Medical Officer for the Southall Schools. Salary, £100 per annum. Applications to the Clerk to the Board, Guardians' Offices, Northumberland Street, W., by June 30th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer; unmarried. Salary, £150 per annum to commence, with board, lodging, and washing. Applications to Dr. Finch, Salisbury.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM, Bicton Heath, near Shrewsbury.—Medical Superintendent; not exceeding 45 years of age. Salary, £650 per annum, with unfurnished house, etc. Applications, on forms provided, to be sent to W. Baxter, Clerk to the Committee of Visitors, Shirehall, Shrewsbury, by June 30th.

SHREWSBURY: SALOP INFIRMARY.—Assistant House-Surgeon. Appointment for six months, but eligible for re-election. Salary at the rate of £40 per annum, with board and apartments. Applications to the Secretary by July 5th.

SOMERSET AND BATH ASYLUM, Cotford, Taunton.—Assistant Medical Officer, not over 30 years of age, and unmarried. Salary, £150 per annum, with furnished apartments, board, etc. Applications to the Medical Superintendent by July 8th.

THROAT HOSPITAL, Golden Square, W.—(1) Senior House-Surgeon (resident): salary, £50 per annum, with board, lodging, and washing. (2) Junior House-Surgeon (non-resident); salary, £110 per annum and lunch daily. (3) Senior Clinical Assistant. Applications to the Secretary-Superintendent for (1) and (2) by June 23rd and for (3) by July 7th.

WALTHAMSTOW URBAN DISTRICT COUNCIL.—Resident Medical Officer at the Isolation Hospital, Chingford. Salary, £120 per annum, with board and lodging. Applications, on forms provided, to be sent to the Clerk of Council, Town Hall, Walthamstow, by July 8th.

WOLVERHAMPTON GENERAL HOSPITAL.—Assistant House Physician. Appointment for six months. Honorarium at the rate of £75 per annum, with board, lodging, and washing. Applications to the House Governor by June 23rd.

MEDICAL APPOINTMENTS.

ANDREWS, W. H., L.R.C.P., L.R.C.S.Edin., appointed Certifying Factory Surgeon for the Modbury District of Devon.

BRUZAUD, A. S., L.R.C.P.Lond., M.R.C.S Eng., appointed District Medical Officer of the Saddleworth Union.

CALWELL, William, M.D.R.U.I., of Belfast, appointed Honorary Consulting Physician to the County Antrim Infirmary Lisburn.

COAKER, F. W. J., F.R.C.S.Eng., L.R.C.P., appointed Medical Officer of Health to the Bromsgrove Rural District Council and Medical Officer and Public Vaccinator for the Bromsgrove District of the Bromsgrove Union, *vice* R. Wood, M.D St. And., resigned.

COCKILL, W. B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Certifying Factory Surgeon for the Kendal District of Westmorland.

CONNON, Middleton, M.B., C.M., D.P.H., appointed Visiting Surgeon to the Montrose Royal Infirmary.

COOPER, W. H., M.R.C.S., L.R.C.P.Lond., appointed Certifying Factory Surgeon for the Staveley District of Westmorland.

CRUICKSHANK, R. W., M.D., C.M.Aberd., appointed Certifying Factory Surgeon for the Eynsham District of Oxford.

DEMETRIADI, Louis, F.R.C.S.E., L.R.C.P.I., D.P.H., appointed Visiting Surgeon to the Children's Homes, Outlane, under Huddersfield Board of Guardians.

ERCOLE, Quinto, M.D., Ch.D.Bologna, appointed Government Medical Officer and Vaccinator at White Cliffs, New South Wales, *vice* W. H. Gaze, M.R.C.S.Eng., L.R.C.P.Lond., resigned.

EASTERBROOK, O. C., M.A., M.D., M.R.C.P.Edin., appointed Medical Superintendent to the Ayr District Asylum, *vice* C. H. Skae, M.D., resigned.

FORGE, G. B., M.R.C.S., L.R.C.P.Lond., appointed Certifying Factory Surgeon for the Rochford District of Essex.

GARBUTT, Richard H. O., L.R.C.P., L.R.C.S.Edin., appointed Certifying Factory Surgeon for the Tow Law and Stanhope Urban Districts and the Weardale Rural District, co. Durham.

GRIFFIN, Innes, M.R.C.S.Eng., L.S.A., appointed Certifying Factory Surgeon for the Banbury District of Oxford.

HARDENBERG, E. J. P., M.R.C.S.Eng., L.R.C.P.Lond., appointed Senior Resident Medical Officer to the North West London Hospital.

HULBERT, E., M.D.Durh., appointed Resident Medical Officer to the Marylebone General Dispensary, 77, Welbeck Street.

LAMBERT, R. A., M.D.Edin., L.R.C.S., appointed Certifying Factory Surgeon for the East Ilsley District of Berks.

LEON, John T., M.D., B.Sc.Lond., appointed Honorary Assistant Physician to the Royal Portsmouth and Gosport Hospital.

MCCUTCHAN, William A., L.R.C.P. and S.Edin., appointed Assistant Medical Officer to the Cambridgeshire Asylum.

MACKENZIE, Ernest, M.D.Glasg., C.M., appointed Certifying Factory Surgeon for the Cheadle District of Staffs.

MCLEAN, Donald, M.B., appointed Medical Officer of Health for the Shire of Dunmunkle, East Riding, and Public Vaccinator for the North Western of Victoria.

MCNAUGHTON, J. G., M.D., M.R.C.S.Edin., appointed Pathologist to the Clinical Hospital, Manchester.

MALE, Herbert C., M.D., M.R.C.S., appointed an Honorary Medical Officer to the Croydon General Hospital.

PICKERING, G. W., L.R.C.P., L.R.C.S.Edin., appointed Certifying Factory Surgeon for the Haltwhistle District of Northumberland.

STOWE, William Reginald, M.R.C.S.Eng., L.R.C.P.Lond., appointed Public Vaccinator for the District of Palmerston North, New Zealand.

STREET, A. E., M.R.C.S., L.R.C.P.Lond., appointed District Medical Officer of the Ampthill Union.

VAUGHAN, E. F., M.R.C.S., L.R.C.P.L., appointed Assistant Medical Officer to the St. Marylebone Infirmary, Notting Hill.

WAUGH, R. J., M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior Resident Medical Officer to the North-West London Hospital.

WINTERBOTHAM, Rayner, M.R.C.S., L.R.C.P.Lond. appointed Certifying Factory Surgeon for the Brixworth District of Northampton.

WOODHOUSE, Cecil, B.A.Cantab., M.D., appointed Medical Officer and Public Vaccinator for the Esher District of the Kingston Union.

DIARY FOR NEXT WEEK.

MONDAY.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Communications by Mr. Arthur Underwood. Paper by Dr. Sim Wallace. The President will deliver his Valedictory Address.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C. Demonstrations will be given at 4 p.m. as follows:—Monday, skin.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Lecture on Cerebral Infantile Paisies.

West London Hospital, Hammersmith Road, W. Lectures will be delivered at 5 p.m. as follows:—Monday: Ocular Therapeutics. Tuesday: The Preparation and Application of Sutures and Ligatures. Wednesday: Medico-legal Relations of Insanity.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstration on Cirrhosis of the Liver.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

LE FLEMING.—On June 11th, at Wimborne, Dorset, the wife of E. Kaye Le Fleming, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

CROWLEY—PRIESTMAN.—On June 10th, at the Friends' Meeting House, Bradford, Ralph Henry Crowley, M.D., M.R.C.P., IIe, Manningham Lane, Bradford, son of the late Alfred Crowley, of Bramley Oaks, Croydon, to Muriel, eldest daughter of Henry Brady Priestman, J.P., of 7, Fairfield Road, Bradford.

HARVEY—WRIGHT.—On June 17th, at the Parish Church, Birmingham, by the Rev. J. D. McCready, Joseph Frederick Harvey, L.R.C.P.Lond., M.R.C.S.Eng., son of the late Joseph Harvey, of London, to Marion Lucy, only daughter of George Wright, of Leeds.

JACKSON—MILNE.—On June 11th, at the Congregational Church, Cheadle, by the Rev. J. W. Paull, M.A., Thomas Leonard Jackson, M.B., son of the late Thomas Jackson, M.D., of Whitehaven, to Emily Margery, second daughter of James Herbert Milne, of Langlands, Cheadle, Cheshire.

STRACEY—SCOTT.—At St. Giles's Cathedral, Edinburgh, on June 7th, by the Rev. Alexander Neil, of Mayfield Parish Church, Bernard Stracey, M.B., Ch.B.Edin., of Sutton Bonington, Notts, to Jessie Mary, daughter of the late John Scott, solicitor, Blairgowrie, N.B.

WALES—DOWLING.—On June 11th, at All Saints', Marple, by the Rev. S. Hewlett, M.A., and the Rev. R. Adams, M.A., Edward Garness Wales, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., son of Thomas Garness Wales, Downham Market, Norfolk, to Annie, elder daughter of R. J. Dowling, Beech House, Torkington, near Stockport.

WATERS—MOORE.—On June 5th, at St. Andrew's Church, Nottingham, by the Rev. Henry Pearson, M.A., Vicar of St. James's, West Hampstead, assisted by the Rev. Ernest Ives, M.A., Vicar of Emmanuel Church, Nottingham, Avory Clough Waters, M.B., B.S., J.P., of Southend-on-Sea, to Beatrice Hutchwaite, only daughter of Mr. and Mrs Stephen Moore, Mapperley Road, Nottingham.

DEATHS.

WOODHOUSE.—On June 11th, at "Amboise," Rusholme Road, Putney, S.W., Thomas James Woodhouse, M.D.Lond., F.R.C.S., for thirty-six years Medical Officer to the Royal Hospital for Incurables, Putney, in his 83rd year.

SMITH.—On June 8th, at 17, Brock Street, Bath, Alice Maud, the beloved wife of Thomas Wilson Smith, M.D.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

S. R. H. desires to know whether the climate of Auckland, N.Z., would be suitable to a man, aged 50, who has been suffering from emphysema and bronchitis for some years.

PROVINCIAL will be thankful for suggestions concerning the cure of haemorrhoids by electricity, and what treatment is to be preferred taking into consideration time, expense, risk, and probability of, permanent cure.

CHOICE OF AN ANAESTHETIC IN PHTHISIS.

RUSTICUS writes: Is there much risk in giving ether to a patient with a small cavity in the apex of the lung, with cough, and tendency to congestive attacks?

*** The whole question rests upon the following points: (1) The duration of the anaesthesia; (2) whether bronchitis with much expectoration coexists with the apical excavation. In very brief operations ether might be given, but unless the anaesthesia required is brief, that is, less than half an hour, chloroform is safer, as less likely to set up irritation, bronchial catarrh, or bronchitis. It might be well to commence the narcosis with the A.C.E. mixture, and if this is borne, to continue with it. If it causes coughing and cyanosis, chloroform should be substituted for it. If there is bronchitis and expectoration, it would be wiser to give chloroform from the first.

ANSWERS.

ADMIRALTY.—We understand that the right of an Admiralty surgeon and agent to use a cockade in his coachman's hat is not recognized. There appears to be no order on the subject, but the use of the cockade is a matter of custom rather than law.

SPRAY FOR SPRAYING INFECTED ROOMS.

DR. G. A. GARRY SIMPSON (Medical Officer of Health, Acton) writes: With reference to the inquiry by "M.O.H." *re* above, the best spraying apparatus that has come to my notice is that supplied by the London General Disinfectants Company, 82, Peckham Road, Camberwell, S.E. It is cylindrical in shape, about 15 in. high by 4 in. in diameter, and contains about half a gallon of solution; its action is automatic, spraying continuously for 10 minutes after being pumped up. It has also several other small advantages.

AN OBSCURE CASE OF MOMENTARY ATTACKS OF UNCONSCIOUSNESS.

DR M. KORTILITZ (Dover) writes: It may be interesting to "Kamptee" (BRITISH MEDICAL JOURNAL, May 31st, p. 1388) to know that a lady was under my treatment for similar attacks, but of a severer nature, the attacks of unconsciousness lasting for many hours and the prostration for two or three days. The attacks came on at intervals of from four to eight weeks, and were undoubtedly epileptic. She was cured of them simply by dieting and attention to the bowels. I have directed that she shall have a very light and easily-digested diet—such things as the heavier kinds of meat and fish being forbidden as well as pastry, cakes, cheese, vegetables, etc., and alcohol. I say cured, as for the past eighteen months she has been absolutely free from any seizure, and this has not been the case for years previously. She would have been longer better, but that about eighteen months ago she went on a visit, and whilst there was not careful. When I add that she is now enjoying excellent health, is taking no medicine of any sort (except a little cascara), and has just completed her first year, I think "Kamptee" need not despair of curing his patient also.

LETTERS, NOTES, ETC.

"INDEX" AND "TABLE OF CONTENTS."

DR. FRENKEL requests us to point out with regard to the review of his book on *Kitchen Physic*, which appeared in the BRITISH MEDICAL JOURNAL of May 31st, that the complaint as to the index being inconvenient, is met by the simple list of contents supplied. It is true that the list of contents is what is usually termed an index and, conversely, the so-called index might have been more appropriately placed and called a table of contents. But the reviewer ventures to think the transposition inconvenient, and that he will not be the only person who will fail to refer to the virtual index in its unusual place in the book.

DISAPPEARANCE OF LIPOMA DURING EMACIATION OF CANCER.

MR. J. A. BELL (Gloucester) writes: I think the following incident in a case of carcinoma of the liver is interesting. When I first saw the patient about four months ago I found her suffering from jaundice, but without as yet any marked symptoms pointing to malignant disease. On this occasion I happened to notice that she had a large pendulous lipoma growing from her left side, just below the posterior fold of the axilla. I was informed that she had had it for twenty years. She is a woman of 62 years of age. As the case proceeded and the diagnosis of carcinoma became clear this lipoma gradually diminished. Within the last month the tumour in the liver has grown with great rapidity (and now extends down into the right iliac fossa) and the general emaciation has been strikingly rapid. At the same time, the lipoma has rapidly decreased in size until now there is merely a pendulous bag of skin left, containing a few hard nodules about the size of broad beans, which I take to be the remaining fibrous connective tissue after absorption of all the fatty material of the tumour. I have not heard of a similar instance of the inclusion of what may be termed pathological fat in the general disappearance of adipose tissue in the emaciation of malignant disease. Of course, one would naturally expect that such deposits of extraneous fat would be absorbed, and the process may be likened to the considerable diminution in size of the camel's hump during a long desert march. I need hardly say that the friends of the patient (being ignorant people) have a theory of their own that the disappearance of the first lump has in some mysterious way been the cause of the appearance of the other "tumour in a more vital part."

COMMUNICATIONS, LETTERS, ETC., have been received from

A Mr. C. J. Addison, London; Association of Registered Medical Women, Secretary of, London; Academicus; Mrs. E. Garrett Anderson, M.D., London; A. W. Aldridge, M.B., Northfield; H. B. Angus, Newcastle-on-Tyne. **B** Dr. D. B. Birch, Leeds; Dr. C. J. Brockhouse, London; Mr. G. F. Bashford, London; Barrister; Dr. F. C. Batchelor, Dunedin, N.Z.; Dr. E. Blake, London; Mr. J. Bostock, Loughborough; Messrs. T. Butlin and Co., Wellingborough; Mr. L. A. Bidwell, London. **C** Dr. G. Carpenter, London; Mr. E. Camall, London; Mr. J. Court, Staveley; Dr. C. H. Cattle, Nottingham; Mr. J. Clayton, Melbourne; Mr. A. F. Cameron, London; Common Decency; Dr. G. W. Crowe, Worcester. **D** Mr. O. De Wolf, London; Mr. A. Dick-Luckmann, London; Messrs. Down Bros., London; Dr. R. Dudfield, London; Democratus; Dispenser. **E** Mr. J. H. Edwards, Birmingham. **F** W. E. St. L. Finny, M.B., Kingston Hill; Mr. W. E. Fry, Wateringbury; Dr. J. Farrar, Gainsborough; Mr. P. J. Freyer, London; Fellowship; Father; Dr. W. F. Farquharson, Carlisle. **G** Mr. G. Greiner, London; O. Grünbaum, M.B., London; Mr. P. B. Giles, Bletchley; Dr. W. Gayton, London; Mr. N. H. Gandhi, Cambridge; W. S. Griffith, M.B., Milford Haven. **H** Dr. W. D. Halliburton, London; Mr. R. Harrison, London; Dr. M. P. Hannay, Castletown, I. of M.; Mr. W. H. Henshaw, Manchester; Dr. J. Highet, Workington; Dr. T. A. Helme, Manchester; E. M. Hall, M.B., South Shields. **J** Mr. P. Jahn, London; J.; Dr. R. Jones, Woodford Bridge; Miss M. S. Jevons, London; Mr. H. Jones, Hereford; J. F. **L** G. H. Lewis, M.B., Northampton; Dr. J. T. Leon, Southsea; Dr. R. E. Lord, Colwyn Bay. **M** Messrs. S. Maw, Son, and Sons, London; Dr. A. B. MacCullam, Toronto; Mr. W. H. Maxwell, Tunbridge Wells; Dr. A. A. Macfarlane, Sydney, N.S.W.; Maltova Food Co., Manager of, Leeds; M.B., R.N.; Dr. J. J. Macan, Cheam; Dr. F. W. D. McGahen, Littlehampton; H. M. McHoul, M.B., Dundee; Medicus; Mr. J. J. de Z. Marshall, London. **N** Dr. D. Newman, Glasgow; Mr. W. D. Newton, London; Nox. **O** Olim; Odontological Society, Secretary of, London. **P** Dr. E. Pritchard, London; Dr. F. M. Pope, Leicester; Mr. G. H. Pedler, London; Mr. A. Paul, London; Dr. R. Paramore, London. **R** Dr. M. A. Ruffer, Alexandria; Mr. A. E. Reade, London; R. N.; R.A.M.C.; Dr. R. R. Rentoul, Liverpool; Mr. J. T. Rae, London; R.M.W. **S** Dr. P. Stewart, London; Mr. G. A. G. Simpson, London; S. R. H.; F. A. Southam, M.B., Manchester; Mr. W. G. Sargeant, Abertillery; Surgeon-General Retired; Dr. W. Sheen, Cardiff; J. W. Smith, M.B., Manchester; Dr. W. J. Sinclair, Manchester. **T** Mr. M. A. Teale, Leeds; Dr. P. Thomson, London; T. P. Tuckey, M.B., Par Station. **U** Dr. Uchermann, Christiania. **V** Mr. E. D. Vinrace, London. **W** Mr. O. Williams, Glandovey; Dr. A. Whitfield, London; Mr. W. B. Winckworth, Taunton; Mr. W. B. Wardo, Tunbridge Wells; W.; Mr. J. D. Williams, Liverpool; Mr. A. J. Wilson, Calderbank; Mr. J. C. Walker, St. Austell; W. L.; Dr. Wingrave, London.

BOOKS, ETC., RECEIVED.

Lehrbuch der speciellen pathologischen Anatomie. Von Dr. Ernst Ziegler. Zehnte neu bearbeitete Auflage. Jena: Gustav Fischer.

Deaf. Edited by George W. May. Published for the Corporation by the Health Resorts Association. 1902. 1s.

Discurso Academico de Apertura del Año Universitario de 1902. Pronunciado por el Doctor Wenceslao F. Molina. Lima: Libreria de San Pedro. 1902.

Mammalia. By Frank Evers Beddard, M.A. Oxon., F.R.S. London: Macmillan and Co., Ltd. 1902. 17s.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

				£	s.	d.
Eight lines and under	...	...	...	0	4	0
Each additional line ...	...	...	...	0	0	6
A whole column ...	...	...	...	2	17	6
A page ...	...	...	...	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

The Cavendish Lecture

ON

SOME PHASES OF INFLAMMATION OF THE APPENDIX.

Delivered before the West London Medico-Chirurgical Society on June 20th, 1902,

BY SIR FREDERICK TREVES, K.C.V.O., C.B., F.R.C.S.,

Sergeant-Surgeon to His Majesty the King; Surgeon in Ordinary to His Royal Highness the Prince of Wales; Consulting Surgeon to the London Hospital.

THE APPEARING OF APPENDICITIS.

MR. PRESIDENT AND GENTLEMEN,—Among those circumstances which are remarkable in the history of medicine in the closing years of the nineteenth century, few are more curious than the almost abrupt appearance of the disease now known as appendicitis.

Less than twenty years ago this malady was practically unrecognized, it found no accepted place in the systematic manuals of medicine, and its very name had not been called into being.

The title "appendicitis" was proposed by Fitz[1] in a communication published in 1886, and although the term is uncouth and lacking in preciseness, it at once found a place in the clumsy nomenclature of medicine. In spite of many protests from the academically minded, the word has passed into general use, and has received, moreover, the liberal patronage of the lay public. There is a bold aggressive modernness about the name suited to a modern disease, which has become with singular alacrity "understanded of the people," and which has advanced, as regards its affairs, in a distinctly modern manner.

It is needless to say that this clumsily named malady is not a new disease which has just fallen, as a last plague, upon mankind, nor is there evidence to support the suggestion that it has undergone any recent and remarkable recrudescence, or that it has become more frequent in its appearance. It is a modern malady only in the sense that it has been unearthed and brought into the light in recent years. It can be traced back to distant centuries, and there is no reason why the cave man should not have occasionally succumbed to its ill-effects. The disease has been buried until now under a vast heap of confused and confusing clinical fragments, and under much vague verbiage. It passed unrecognized in earlier times under the disguise of such terms as "gastric attack" or "gastric seizure," "paratyphlitis," "cramp of the bowels," "inflammation of the intestines," "iliac phlegmon," and the like. It was the *fons et origo* of many forms of peritonitis, of the peritonitis due to cold, of that heaven-sent peritonitis which was called "idiopathic," and of such inflammations of the great serous membrane as were supposed to follow upon certain eruptive fevers, and even upon alcoholism.

A celebrated monograph upon peritonitis, published in 1887,[2] dealt with no fewer than twenty-six different forms of that disease, but since the long-ignored appendix has advanced into prominence the etiology of peritonitis has become attenuated to very narrow limits. Thus it has come about that a disease which can probably claim to be the most common of the really acute troubles within the abdomen (excluding, perhaps, the complications due to hernia) had yet no coherent existence twenty years ago. It was foreshadowed, but it was "without form and void." Isolated cases were published in no small numbers, to show that the appendix had played the chief part in the tragedy involved. More than this, certain writers drew special attention to the disease of the appendix as a cause of certain inflammatory troubles in the right iliac region. Conspicuous among these authors are Mélier,[3] who wrote in 1827, and John Burne[4] whose monograph was published ten years later.

But these utterances were as the voices of men crying in the wilderness, and had no effect upon the blundering pathology of the time. The caecum was still believed to be the organ primarily affected in these troubles of the iliac fossa, and catarrh of the caput coli was quite a formidable disorder in itself. Typhlitis was indeed the forerunner of appendicitis. Faecal masses and foreign bodies play a great part in the etiology. The rapidity with which the peritoneum can isolate inflammatory effusion and render pus encysted was not understood, and consequently localized iliac abscesses were supposed to occupy the connective tissue of the iliac fossa. This supposition was supported by the erroneous belief that the posterior surface of the caecum was bare of peritoneum.

I think that the writing which did more than any other to force upon the medical world a recognition of the true pathology of pericaecal peritonitis was the monograph of Fitz,[5] published in 1886.

It may be claimed for this communication that it gave the first precise, detailed, and fully demonstrated account of the disease now known as appendicitis.

THE PART PLAYED BY THE PERITONEUM.

In dealing with the pathology of appendicitis it is desirable to appreciate clearly that the clinical phenomena, which are familiar under the name of "an attack of appendicitis," are due to peritonitis in the region of that organ.

The disease is essentially a variety of peritonitis. Its manifestations, its effects, and its possibilities are those only of peritonitis. Whatever may be the antecedent condition, an attack of appendicitis is not in evidence, and, indeed, does not exist until the peritoneum is implicated.

It is needless to say that this peritonitis is induced by inflammatory changes in the appendix itself; and it was to these primary changes, which are antecedent to an attack, that Fitz first proposed to give the name of "appendicitis."

APPENDICITIS WITHOUT SYMPTOMS.

It is interesting to inquire what symptoms, if any, belong to pure appendicitis—to that uncomplicated inflammation of the appendage which precedes the familiar manifestations of an attack, and which are, in other words, preliminary to the peritonitis.

On this subject, three propositions may, I think, be made:

1. Extensive inflammation of the appendix, leading to great thickening of its walls, to widespread ulceration of its mucous membrane, and to some degree even of stenosis, may exist without producing symptoms of any kind. This is illustrated by those cases in which attacks of appendicitis appear without a single preliminary abdominal symptom, and also by those forms of recurring appendicitis in which the patient is entirely free from the least consciousness of trouble in the right iliac fossa during the interval between the attacks. Once in removing a simple ovarian cyst I encountered and excised a much diseased appendix of which neither the patient nor her doctor had had any suspicion, and which had caused the former no appreciable inconvenience. There is a disposition on the part of some writers to assume that no morbid changes can take place in the appendix unless they be accompanied by the phenomena of appendicitis in the sense in which that term is usually employed. Thus Mr. Lockwood, in his excellent work upon the pathology of appendicitis, describes an instance in which "the mucosa of the appendix was destroyed and its lumen obliterated by one attack of appendicitis." The organ was certainly found in the condition named in a patient who had had but one attack of perityphlitis, but it is needless to say that the destruction of the mucosa might have been complete weeks and months before the solitary attack set in, since such process of destruction need not be attended by clinical manifestations of any kind. The onset of the attack indicated not the commencement of the destruction of the mucous lining, but the moment at which the peritoneum became involved in the inflammation.

2. In the second place an acute attack of appendicitis may be preceded by occasions on which the patient has minor seizures of pain in the caecal district which are of short duration and irregular appearance. Such an individual will complain of an occasional sharp pain in the iliac region which may "double him up" and, for a moment, make him feel sick and faint. The peculiarly sensitive may actually vomit. There may be some tenderness manifest. There is no rise of temperature and no notable tympanites, and the episode ends in an hour or so, leaving behind an aching or a vague sense of

weakness or discomfort in the region of the right groin, and often a troublesome constipation. These little disturbances—known sometimes by the quite unsuitable and indeed erroneous title of "appendicular colic"—depend upon changes in the appendix which are short of actual implication of the peritoneum. In a few it is possible that there is a minute infection of the serous membrane and an infinitesimal peritonitis. The most severe represent an outbreak of appendicitis in miniature. These little attacks may become so persistent as to weary the patient and impair his health; and on several occasions I have removed the appendage, although there has never been a definite "attack of appendicitis." The organ on examination has now and then revealed a degree of inflammation and ulceration of its lumen which has been actually in excess of that met with in some cases in which there have been definite attacks of the accepted type. Usually the appendix is found to be of normal aspect, but to have its walls stiff, thickened, and ulcerated. Concretions are common, and in an instance or so I have found the organ adherent.

3. In a third series of examples the patient has an abiding trouble in the right iliac fossa which may continue for months, and may or may not be associated with acknowledged attacks of appendicitis. In examples in which there are no such attacks the condition merits the title of true appendicitis because there can be little doubt but that the symptoms are due to abiding gross changes in the vermiform process which have never spread in an abrupt manner to the peritoneum and so have never produced "an attack of appendicitis." These patients are never well. They are the subjects of unending digestive disturbances, of colics, of constipation, and of occasional severe pains. There is often tenderness in the right iliac fossa with a sense of weight or dragging, pain in the right thigh, and a disposition to walk with the body bent. There need be no rise of temperature.

The condition of the appendix in these cases will vary greatly. It may appear to be normal when viewed externally and to be yet inflamed as to its inner coats, it may contain a concretion, may be twisted or bent upon itself, or clubbed at its extremity. In several of these cases I have been surprised to find the little process full of pus. I cannot avoid the distinct belief that in these and other examples of uncomplicated inflammation of the appendix any advance of symptoms from mere discomfort to acute pain implies an advance of the mischief from the inner coats to the peritoneal surface.

Before leaving this subject I imagine it will be generally allowed that it is not possible (except in gross instances) to predict the state in which the appendix will be found from a mere study of the clinical manifestations. Of the futility of such prophecy I have had many examples.

THE CLASSIFICATION OF APPENDICITIS.

On the subject of the classification of appendicitis from the pathological standpoint, I think very little is to be gained by the elaborate divisions and subdivisions which are affected by many in dealing with this matter.

We are at the present day fairly well informed as to the pathology of inflammation of the intestines and its consequences. The appendix is a portion of the intestinal canal, and it possesses no exclusive pathology of its own. Like the rest of the bowel, its mucous membrane is liable to catarrh, but not to a peculiar catarrh. That catarrh may pass on to ulceration, and the consequences of that ulceration are the same in the appendix as they are in the rest of the intestine. The ulcer may perforate, and the usual results of perforation will follow. The peritonitis induced is in no way a peculiar peritonitis. It may lead to rapid septicæmia or to adhesions of various kinds with possible deformity of the appendix, or it may leave no trace behind. The ulcer may heal and may then lead to stricture of the little process, just as it leads to stricture of the bowel. Both the tube and the intestine may give way behind the narrowed part.

The few peculiarities which can be claimed for the appendix are mainly these. It ends in a blind extremity. It favours the formation of concretions. It is liable to gross disturbances of its blood supply from torsion. Its utter destruction leaves no function impaired.

THE CAUSES OF THE TROUBLE.

Into the etiology of appendicitis I do not propose to enter in any detail. The matter has been elaborately investigated, and it has been clearly shown—amongst other things—that this affection is especially common in the young, and has a remarkable predilection for the male sex—80 per cent. of the collected cases occur in patients under 30 years of age, and 73 per cent. of the whole number in boys and men.

There are three isolated points in connexion with the etiology to which I would like to draw attention.

1. Life in a tropical or a subtropical country has a very marked effect in encouraging appendicitis among Europeans. This may probably be explained, to some extent, by the fact that among the disorders of hot countries intestinal troubles occupy a conspicuous place, and that in such countries methods of living differ notably from those observed in more temperate climates.

2. In female patients the outbreak of an attack of appendicitis is frequently coincident with the menstrual period. This association is far too common to be merely accidental. The appendix and the right ovary are often found in close contact, and may be adherent to one another in uncommon cases. The lymphatics of the two structures are closely allied. It has been shown that certain of the lymphatics from the vermiform process pass through the right broad ligament on their way to the glands about the internal iliac vessels. Clado[7] has twice found infection passing from the appendicular lymph vessels to the utero-ovarian vessels. There can be little doubt that the ovary may be infected from the vermiform process, and it is possible also that the appendix may be infected from the ovary, although this latter method of transmission is, I should imagine, rare.

In removing a diseased appendix in a female subject it is well to examine at the same time the right ovary. This structure, in a certain small proportion of cases, will be found to be the seat of chronic inflammation, or to be adherent, or to be cystic. In some of these instances it may need removal. From a clinical point of view there is always a difficulty in deciding whether the organ principally concerned in the production of the symptoms is the appendix or the ovary. This difficulty is met with in cases in which there is abiding discomfort in or about the right iliac fossa with occasional exacerbations attended with inflammatory symptoms, and possibly associated with the menstrual function. In certain of these examples both organs are found to be concerned. Among cases like these I have met with more than one instance where the ovary alone had been inspected and removed, and where attacks persisted due to unrecognized trouble in a diseased appendix. On the other hand, I have seen several examples in which the appendix had been excised for what was reputed to have been chronic or recurring appendicitis, and in which the symptoms continued after the operation, and were in due course proved to be maintained by chronic ovaritis. These difficulties in differentation do not occur in the ordinary case, which is characterized by definite acute attacks of appendicitis of the classic type. These attacks, as has just been stated, may be coincident with the menstrual period, but in the very great majority of examples of this association the ovary will be found to be perfectly normal.

3. I think it may be safe to state that the most common and the most conspicuous factor in the etiology of an attack of appendicitis is a loaded cæcum. Over and over again in the history of those who have had many attacks exceptional constipation has preceded the outbreak, and many patients have told me that so long as they kept their bowels in order they had little to fear from this particular trouble.

The lodgement of indigestible or ill-digested food in the cæcum is the most common preliminary to an attack. In some cases a considerable quantity of indigestible food has been eaten, and as examples of such food may be cited pine-apple, preserved ginger, nuts, tough meat, lobster, and *hoc genus omne*.

In other cases the patient has his meals at irregular hours, has hurried meals, or bolts his food, or rushes into active work or active exercise immediately after he has eaten. In this category come the campaigning commercial traveller, the eager schoolboy, the "city man" who has his lunch standing, and gorges many things in a few chattering minutes; the

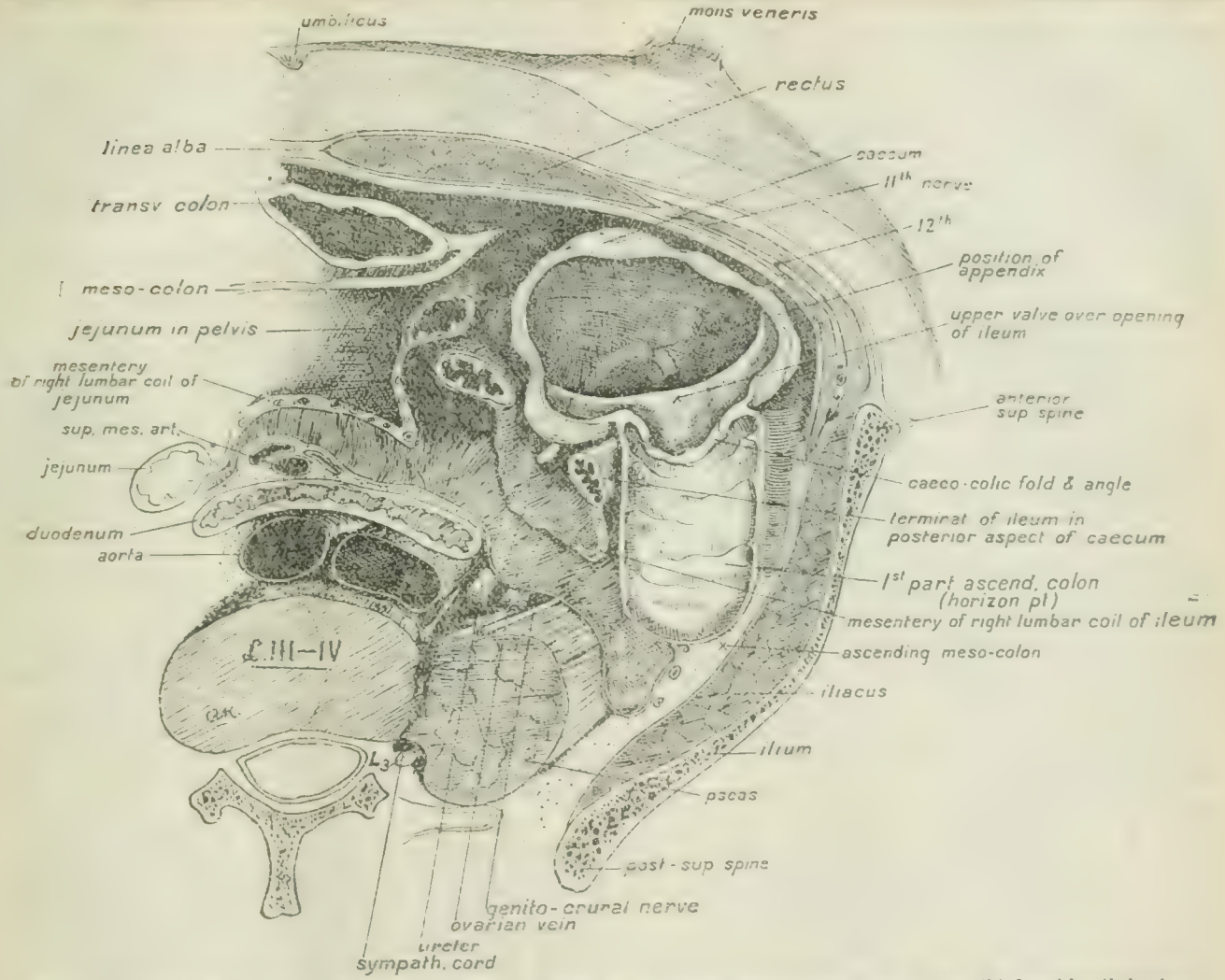


Fig. 1.—Oblique transverse section of female subject through anterior superior spine, umbilicus, and disc between third and fourth lumbar vertebrae. By Dr. Arthur Keith.

neurotic man, who is always in a turmoil, and such a topsy-turvy living individual as the habitually belated journalist.

In other examples the patient has few, if any, masticating teeth, and eats much meat to satisfy the spurious void of the dyspeptic, or he or she (with teeth or without) is a victim to acknowledged indigestion, or belongs to that class of person who is most happy when on a diet revealed to them by a friend. The engorged caecum encourages appendix troubles by becoming the seat of catarrh, by dragging upon the organ, by blocking its orifice, by interfering with its blood supply, by encouraging torsion of the tube itself, and by developing an inflammation of its walls which may spread either directly or through venous and lymphatic channels to the little process. This factor in the etiology is made more vivid by the artificial distension of the caecum in the cadaver. It must be allowed to play some part in the preventive treatment of appendicitis.

I am well aware that in a large proportion of cases the attack appears without any preliminary disturbance, as has just been alluded to, and that the subjects of appendicitis may be careful eaters and have perfect teeth and a perfect digestion. I am aware, also, out of the multitude who have defective teeth, who bolt their food, who regard dyspepsia as a part of their being, or who are habitually constipated, appendicitis occurs in but a trivial proportion.

In spite of the fact that it has been abundantly proved that the swallowing of seeds and small foreign bodies has relatively nothing to do with the production of appendicitis, there are still many who seem to hold that any seed which enters the alimentary canal at once bolts for the appendix, as a hunted rabbit bolts for its burrow; and the upholders of this faith consider that a warning to the patient not to eat seeds embodies the whole duty of man in the matter of appendicitis.

McBURNEY'S POINT.

Time will not permit of any discussion of the familiar clinical manifestations of appendicitis, but I am anxious to draw attention to two matters, namely, to the signification of localized tenderness in appendicitis and to the palpation of the diseased process itself.

Those who are familiar with the literature of this affection will have been impressed with the importance—often so prominent as to be almost absurd—which attaches to tenderness over a certain limited area called McBurney's point. With many, McBurney's point is an inspired sign, a diagnostic talisman, and a key to the whole clinical position. There are numerous writers who regard tenderness at McBurney's point as the principal clinical feature of appendix disease.

If there be tenderness at this spot, then the affection is appendicitis; if much tenderness be not perceived, then there is a strong assumption that no appendicitis is present. The symptom becomes therefore, the very touchstone of the disease. Moreover, it is assumed by many that this tenderness points to the site of the diseased process, or that it at

least indicates the centre of the involved district. In order that Dr. McBurney should not be made answerable for the possible excesses of some of his followers, I quote his own utterances upon the subject. "I believe," he writes,[8] "that in every case (of appendicitis) the seat of greatest pain, determined by the pressure of one finger, has been very exactly between an inch and a half and two inches from the anterior spinous process of the ilium in a straight line drawn from that process to the umbilicus." "The point corresponds very accurately in the living subject to the base of the appendix."[9] He considers tenderness at this spot gives evidence of the disease during the first hours of an attack, and he adds, "no other acute disease presents this feature."

It is needless to say that tenderness in the right iliac fossa is a very conspicuous symptom of appendicitis of all grades. As the "point" under discussion is about the centre of this fossa, it may be the centre of the tender area. Beyond this I do not think the sign is of any clinical value. It does not serve to indicate either the starting point of the disease or even the chief point of the disease (This Dr. McBurney allows). It does not indicate the situation of the diseased appendix, nor does it even correspond in the subject with the base of the appendix. So far from its being peculiar to the disease under notice, tenderness at this point is common in healthy persons and in subjects of colitis, involving the caecum, such tenderness may be quite acute.

In connexion with this subject it appeared to be desirable to ascertain, first, what structures were to be found under the spino-umbilical line; secondly, what difference, if any, the two iliac fossae presented; thirdly, what structures came precisely under the spot known as McBurney's point or Munro's point; and, fourthly, why in healthy individuals tenderness was so common at a certain spot in the right iliac fossa, while no such tenderness was to be noticed in a corresponding place on the left side?

I asked my friend, Dr. Arthur Keith, Lecturer on Anatomy at the London Hospital, kindly to undertake this inquiry, and the result of his elaborate investigation I have now much gratification in presenting.

1. The spino-umbilical line runs from the anterior superior iliac spine to the navel. The point at which it crosses the outer edge of the rectus is called "Munro's point" (Merkel). This line, in the young male adult, measures about 6 in., and Munro's point is, on the average, about 2.6 in. from the iliac spine. The structures which lie below the line are shown in Fig. 1, which represents a section made in the plane of the line in a female subject, aged 55, hardened by formalin. The ureter crosses the spino-umbilical line at the point of junction of its inner and middle-thirds. The genito-crural nerve is close to it (see Fig. 1). The relations are the same on the two sides. The eleventh dorsal nerve enters the sheath of the rectus beneath Munro's point. The skin between the iliac spine and Munro's point is supplied mainly by the lateral cutaneous branch of the eleventh dorsal. Munro's point nearly corresponds to that known as McBurney's, but the former has the advantage of more precise localization.

2. The two iliac fossae present no anatomical differences except that the caecum is found on one side and the sigmoid flexure on the other.

3. The structure, peculiar to the right side, which comes more or less precisely under McBurney's point or Munro's point is the ileo-caecal valve (Fig 2).

This statement is based upon the examination of 50 subjects (40 recorded and figured by Dr. C. Addison[10] and 10 by Dr. Keith in connexion with the present inquiry). In 22 instances the valve was situated under or near Munro's point, in 14 instances above (and on the average external to) that point and in 14 examples below and internal to the point (Fig. 3).

The base or opening of the appendix lies on an average rather more than one inch below the opening of the ileum.

4. There seems to be but little doubt that the right sided tender spot which can be made out in so large a proportion of healthy individuals is represented by the ileo-caecal valve. It must be understood that the tenderness in question is well-defined, is elicited by deep pressure with the finger, and is represented by no corresponding sensitiveness on the left side.

It will be found about the spino-umbilical line and in close proximity to the two "points" which have been referred to in connexion with that line.

Dr. Keith examined the abdomens of 27 healthy medical students to ascertain the relation of this sensitive area to McBurney's or Munro's point. In 11 examples it was situated beneath the line and near to the rectus edge, in 9 it was above the line and in 4 below it. In three of the students no special sensitive spot could be made out on deep pressure (see Fig. 4).

The nerve supply of the ileo-caecal valve is through the eleventh or twelfth dorsal nerves, or through both, and it is probable that, like most orifices in the body, the innervation is elaborate.

As I have already said the tenderness at McBurney's point in some cases of colitis (notably when the trouble is on the right side and chronic) is very marked.

(All the drawings which illustrate this section are made by Dr. Arthur Keith).

A Phantom Appendix.

On palpating the abdomen above the right iliac fossa in a patient suspected of appendicitis an elongated body can occasionally be felt which is often mistaken for a swollen appendix. The little tumour is pipe-like and is either vertical or is more usually placed obliquely. The oblique phantom is always found to be external to the vertical one. Over and over again the discovery has been announced of a diseased appendix lying vertically or obliquely in the iliac fossa. When the part is exposed by operation it may be usually safe to assert that the diseased organ will not be found to occupy the site of the elongated body. Indeed experience induces a great suspicion of the existence of that diseased appendix which is said to be placed vertically or nearly so and which is so readily felt.

This phantom is due without doubt to muscular contraction. This contraction is sometimes in the outer edge of the rectus muscle, sometimes in the fibres of the internal oblique or transversalis muscles.

It must be remembered that the bowel, the parietal muscles over it, and the skin which again covers them are all supplied by the same nerve. Moreover the eleventh dorsal nerve lies just beneath Munro's point and is no doubt capable of being irritated by deep pressure in that region.

The Operative Treatment of Appendicitis.

Time will not permit the discussion of either the prophylactic treatment of this affection or of the medical management of a case during an acute outbreak. It will be impossible to attempt more than a hasty review of the treatment by operation, and such review must naturally arrange itself under two headings—the question of surgical interference during an acute attack, on the one hand, and during the period of quiescence which has followed an attack, on the other.

A perusal of the literature of the subject makes the course which the surgeon should take by no means clear. A right estimate of the value of operation in appendicitis and of the right moment of its application is obscured by conflicting statements, by bewildering statistics, and by contradictory propaganda.

There is, indeed, so great a diversity of opinion among surgeons who are qualified to speak with authority that it is difficult to imagine a mediate line of action which will reconcile extremes and provide grounds for common acceptance. Profuse as are records of a kind, we still lack ample and reliable statistics of the general mortality of the disease, of the results of operation during an attack, and especially of the work of those surgeons who urge that the abdomen should be opened in all non-chronic cases as soon as the diagnosis has been made. The last named operators would justly, in their turn, demand a full return of all cases in which the practice they observe had been ignored. This, again, is not forthcoming.

Hospital statistics are satisfactory only up to a certain point, since they of necessity deal with cases of the most severe type, the cases ill enough to be admitted into the wards. A *précis* of results derived from isolated examples in the various journals is not satisfactory, since it is human to record success and to show little eagerness to acknowledge failure. The best record which could be obtained would be based upon the experience of a number of medical men in large general practice, or upon the systematic records of an

army during times of peace. Some general statistics on these ines have been forthcoming,[11] but when the mortality shown has been low, it has been objected that the cases were not true instances of appendicitis, and when the mortality has been high it has been claimed that the slight cases had been omitted from the record.

As the subect is not yet ripe for dogmatic treatment I have ventured to express no more than the opinions which have been forced upon me by my own experience, with the full knowledge that such opinions are apt to be ill-founded.

OPERATION DURING AN ACUTE ATTACK.

The question of surgical treatment during an acute attack has led to greater differences in practice than has any other matter arising out of the treatment of this disease.

The extremes are represented by those on the one hand who advise abdominal section as soon as the diagnosis is made, and by those on the other hand who would operate only on compulsion, and in the presence of either intensely acute symptoms or the evidence of pus.

The former place the necessity for operating in the same category with the need for interference in strangulated hernia, or perforated ulcer of the stomach, and are particular to claim that a case starting with trifling symptoms may end fatally.

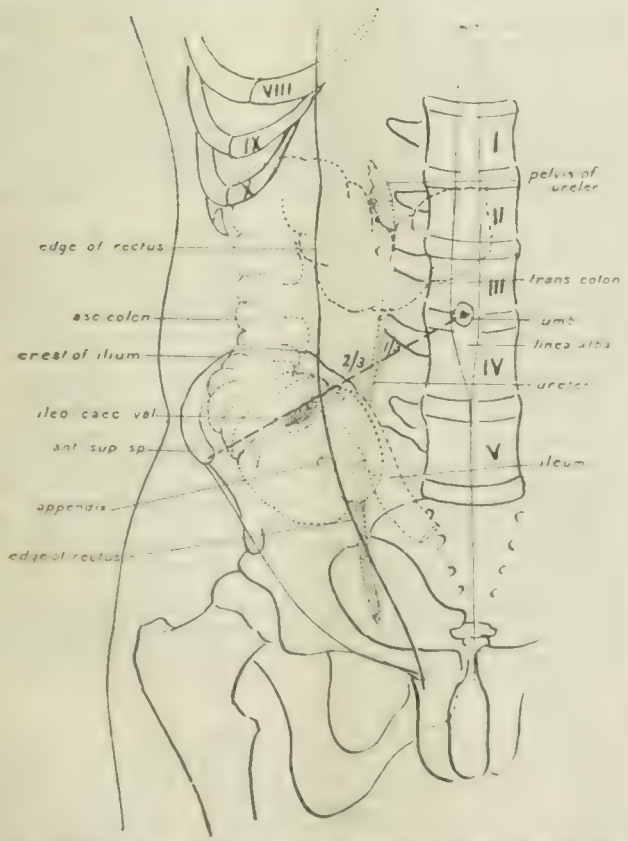


Fig. 2.—Showing the average position of ileo-caecal valve, caecum, appendix, and ureter, on spino-umbilical line. Founded on 50 subjects (40 by Addison, 10 by Keith). By Dr. Arthur Keith.

The latter are occupied with the danger of operating during an attack, with the largeness of the proportion of cases which recover spontaneously, and with the evidence that the diseased appendix is most safely dealt with during the period of quiescence.

In the consideration of this vexed question I would venture to bring forward the following points:

1. In the advocacy of what may be termed indiscriminate operation it is misleading to use the expression "gangrene or rupture of the appendix," "perforation of the appendix," and "appendicitis with acute peritonitis," in exactly the same sense as the terms "gangrene or rupture of the bowel," "perforation of the stomach," and "acute peritonitis" are employed in association with urgent operation.

In every case of acute appendicitis of the accepted type there is acute peritonitis. Limited gangrene of the appendix may be recovered from without operation, and without the formation of an evident abscess, and the same may be said of limited perforation of the process. In a large proportion of examples of acute trouble in this organ there is a perforation although it may be microscopic. I have found a concretion lying outside a ruptured appendix one month after recovery from an acute attack, the affected area having been isolated by adhesions.

I do not wish to minimize the gravity of these lesions, but merely to protest against a course of action being influenced by the misleading use of terms and unjustified analogies.

2. The greater proportion of cases of appendicitis recover spontaneously, and it is probable that the general mortality of the disease—if examples of all grades be included—is not above 5 per cent.

3. Operations carried out during an acute attack are attended with a risk to life which is considerable, and which is probably expressed by a mortality of over 20 per cent. Certain hospital records and collections of cases appear to place the death-rate even higher than this.[12]

4. It must be remembered that relapses may occur after operation carried out during the acute stage. Dr. Mynter incidentally mentions that out of 27 cases so treated there were two relapses. (It is possible, however, that these relapses were due to complications from abscess.)

5. The removal of the appendix during the quiescent period is attended with a very trivial risk, which may be expressed by a mortality of 1 in 500.

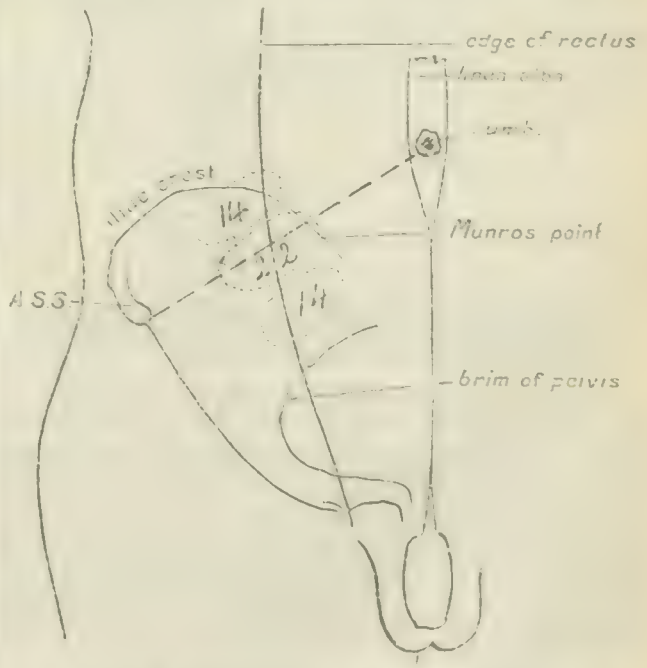


Fig. 3.—Showing diagrammatically the position of the ileo-caecal valve in 50 subjects (hardened by formalin), 40 observed and figured by Addison and 10 by Keith. By Dr. Arthur Keith.

Regarding the above propositions as bases for some sort of definite action in the management of the acute case, it has appeared to me that a reasonable course may be established upon some such lines as the following:

(A) I venture to think that our knowledge of the pathology of the disease and its general mortality will not sanction the practice of opening the abdomen in every case of appendicitis as soon as the diagnosis has been established.

(B) Immediate operation is demanded, at the earliest

possible moment, in all ultra-acute cases. These cases embrace those very hopeless examples which present from the onset the phenomena of intense infection, and in which it is evident that a very large dose of poison has suddenly been introduced into the system. In these examples death may occur in thirty-six or forty-eight hours. In the same category are also included cases in which the symptoms are on a par—as regards acuteness—with the phenomena attending the perforation of an ulcer of the stomach. In spite of expressions to the contrary I do not think that these ultra-acute cases are difficult of recognition.

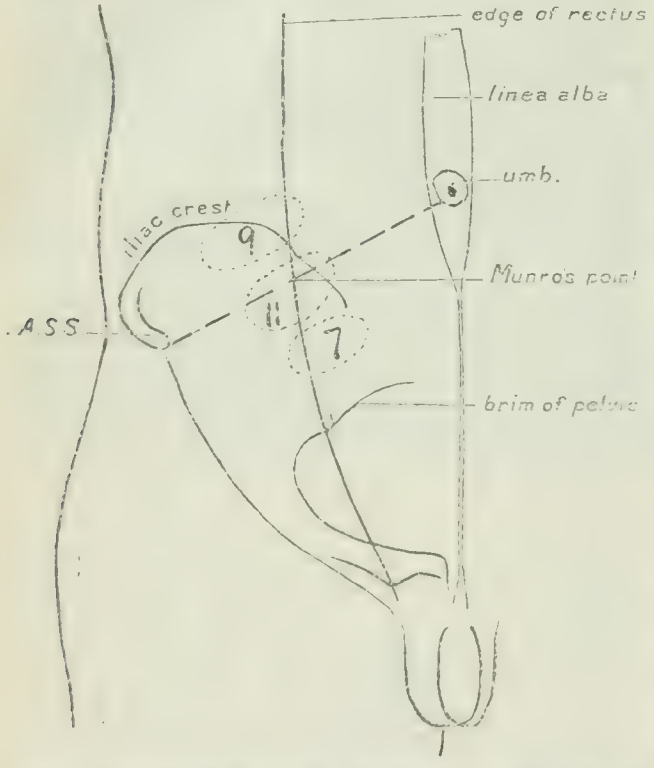


Fig. 4.—Showing diagrammatically the position of the tenderness elicited by deep pressure the in right iliac fossa in 27 students. In the lower group are included 3 students in whom no special tender spot could be recognized. By Dr. Arthur Keith.

(c) Immediate operation is demanded in every example in which there is reasonable suspicion that suppuration has taken place.

(d) In cases outside those above named I venture to think that the question of operation may be kept in abeyance for the first few days of the attack, and may usually be left open for decision until the fifth day or after.

I may lay stress upon the fact that the great majority of cases of appendicitis recover spontaneously without either an operation or the formation of an abscess, that the ultra-acute cases are actually rare, and that, relatively to the whole mass of examples of all degree, suppuration may be said to be uncommon.

OPERATION DURING THE PERIOD OF QUIESCENCE.

In a paper laid before the Royal Medical and Chirurgical Society in September, 1887, I ventured to suggest that cases of recurring appendicitis should be treated by the removal of the appendix during the period of quiescence. My proposal was not very enthusiastically supported, and it is interesting to note that in the debate which followed the reading of the paper one physician of great experience stated that he had seen a good many cases of typhlitis, but that none had gone to a point requiring surgical operation.

Since the discussion took place I have removed the appendix during the quiescent period over one thousand times with two deaths. The very trifling risk attending this measure has led gradually to fewer and fewer restrictions as to the condition under which it should be carried out. I venture to think that when any patient has had one definite attack of appendicitis it is desirable that the appendix should be removed as soon as all active phenomena have vanished. While I cannot agree with Lennander [13] that a recurrence is to be anticipated, at some period or another, in the history of every case, I think that there is no doubt that the balance of probability is in the direction of a second attack.

It is manifest that the risk of the operation is infinitely less than the risk of such attack, and that immunity can be obtained and a weight of doubt removed at a trifling sacrifice. If any attack has been attended by the formation of an abscess which has healed, then the question of removing the appendix may be indefinitely deferred, since by the occurrence of suppuration the patient is—in all but a very small percentage of cases—cured of his trouble. Should there be any recurrence of symptoms after the abscess has closed, then the removal of the appendix is certainly to be advised. Complications arising from the abscess itself may also call for surgical interference.

Some little caution must be exercised in accepting the statement that an abscess has, in any given case, burst into the bowel. In more than one instance the material which has escaped from the rectum, and which has been regarded as pus, has proved to be decomposed and long-retained mucus from a catarrhal colon.

In addition to the cases attended by abscess there are at least two types of appendicitis in which the question of removing the affected organ after the first attack may be reserved for some consideration. A slight or moderate attack of appendicitis in a child, which has definitely followed upon the lodgement of a mass of undigested food in the caecum, may never be repeated if the error in diet be also not repeated.

There are, moreover, cases in adults in which the attack would appear to be led up to by gross deviations from what might be regarded as normal food taking. Among such individuals are those who have no masticating teeth and who "eat anything"; those who habitually bolt their food, eat ravenously, or take irregular meals; those who have a leaning towards a particular kind of indigestible food, or constantly neglect their bowels. If these errors, or any combination of them, be corrected, there may be no repetition of the initial attack.

These examples are not cited as affording definite exceptions to the general rule of operating, but rather as the cases which, in my experience, are most prominent among those in which there is no recurrence after the primary outbreak.

Removal of the appendix is also to be recommended in chronic appendicitis, in those examples in which there are no actual attacks but in which there is abiding discomfort in the right iliac fossa with exacerbations of uneasiness.

In conclusion, it may be in accord with certain signs of the times if it be remarked that the removal of the appendix is not a panacea for all ills, nor even for all those manifold pains which seize upon the lower segment of the abdomen.

REFERENCES.

[1] Fitz, *American Journal of the Medical Sciences*, 1886, p. 323. [2] Spillmann and Ganzinotty, *Dict. Encyclop. des Sciences Méd.*, Paris, 1887. [3] Mélier, *Journ. Gén de Méd. Chir. et. Pharm*, 1827, p. 317. [4] Burne, *Medico-Chirurgical Trans.*, London, 1837. [5] Loc. cit. [6] *Appendicitis, its Pathology and Surgery*, London, 1901. [7] *Comptes Rendus de la Soc. de Biologie*, T. iv., Paris, 1892, p. 133. [8] *New York Medical Journal*, December 21st, 1889, p. 678. [9] *Annals of Surgery*, April, 1891, p. 256. [10] *Journal of Anatomy and Physiology*, April, 1901. [11] Guttman, *Berl. klin. Woch.*, March 16th, 1891. Sahli, *Verhand. des dreizehnten Congres für Innere Med.*, München, 1895. Redvers, *Deut. med. Woch.*, January 29th, 1891. [12] See Dr. Mynter's admirable monograph on *Appendicitis*, Philadelphia, 1900. Out of a total of 115 cases operated upon by the writer at some period during an acute attack 81 recovered and 34 died. [13] *Ueber Appendicitis*, Wien, 1895.

THE ANNUAL TEMPERANCE BREAKFAST.—We are asked to state that the annual temperance breakfast to members of the British Medical Association will be given by the National Temperance League at Manchester on Thursday morning, July 31st, during the annual meeting. Applications for tickets should be made to Mr. J. T. Rae, Secretary, Paternoster House, London, E.C.

A Clinical Lecture

ON

ENTERECTOMY CONTRASTED WITH ARTIFICIAL ANUS.

Delivered at University College Hospital.

BY ARTHUR E. BARKER, F.R.C.S.,

Surgeon to the Hospital: Professor of Surgery, University College.

GENTLEMEN,—While we are considering the case before you now practically convalescent from an anastomosis of colon to colon for inoperable carcinoma of the descending large gut, I should like to review briefly the last twelve cases in which I have removed large portions of the intestine for cancer or for gangrene the result of strangulation. It is an important subject. For it appears probable that a long time will elapse before the danger of delay in cases of strangulation is so fully recognized as to eliminate all necessity of operating for gangrenous gut; and I fear that there is evidence that cancer is on the increase, and that for a long time to come operative surgery will be our only means of coping with the disease. It is, however, cheering to notice that palliative operations for the two conditions just named are giving place to procedures for their radical cure, and that without any increase of mortality if not a considerable lowering of the latter.

A glance at the past will convince any one that gangrenous strangulation treated by artificial anus had a high mortality, to say nothing of the distress and misery associated with discharge of liquid faeces and semi-starvation, if not total starvation. And I fancy that those of us who have performed large numbers of colotomies for malignant strictures must have often felt that the operation was but a sad admission of our powerlessness otherwise to relieve a terrible condition. Colotomy is doubtless a most valuable operation, and in its time remedies an otherwise most distressing state of things besides prolonging life. But it does so often at the expense of considerable discomfort, and leaves the patient with the feeling that the inevitable end must be still kept in view.

The great improvements in Listerism in its highest ideals, together with the better knowledge of the pathology of these two conditions of the intestine, have, however, opened up new vistas of hope for these unfortunates. On the one hand we have learned that primary excision of gangrenous gut is not only justifiable, but, in proper cases, offers the best chance as to life, and on the other, that in neoplasm of the bowel the growth can be freely removed and the continuity of the tube restored with moderate risk and no distressing discharge of faeces on the surface. Further, that in many cases, in which owing to delay the growth has relations which render its removal impossible, the continuity of the bowel can nevertheless be restored by short circuit, and so an artificial anus be avoided, as in the case in this bed.

Many cases besides the one before you illustrating these facts have passed through these wards lately, and I now propose to review briefly the last cases of enterectomy for gangrenous strangulation and growth which I have done and try to learn something from them.

FOUR FATAL CASES.

CASE I.—M., aged 22. Primary resection of 12 in. of ileum for gangrenous inguinal hernia. Stitches tore out of softened gut; not enough resected. Peritonitis.

CASE II.—F., aged 33. Primary resection for gangrenous umbilical hernia. Fat, unhealthy patient. No drainage. Radical cure after resection of 52 in. of small gut. Did well at first; then began to vomit, and continued to do so until death. Junction quite sound. An old fibrous band from umbilicus to colon pressed on distal loop and caused obstruction. No peritonitis.

CASE III.—M., aged 58. Resection of splenic flexure and part of stomach for carcinoma of gut. Very well for five days; then, while sitting up, suddenly had a spasm, grew white, and fell back dead. Junction perfect, and bowels acting. No peritonitis.

CASE IV.—M., aged 38. Heavy drinker. Primary resection of caecum and 54 in. of ileum for gangrenous strangulation. Very foul. Sac most part excised, not all. Radical cure. No shock. Passed flatus. No temperature of note. Delirium tremens third day. Pulse rose, and slight distension. No vomiting. Death seventh day. General peritonitis starting apparently from sac. Junction sound.

Twelve Consecutive Enterectomies.

No.	Sex.	Age.	Form.	Operation.	Result.
1	F.	46	Gangrenous hernia	Excised 18 in.	R.
2	M.	20	Gangrenous inguinal hernia	,, 36 in.	R.
3	F.	39	Femoral hernia, kink and adhesions	,, 37 in.	R.
4	F.	76	Gangrenous internal hernia	,, 66 in.	R.
5	M.	22	Gangrenous inguinal hernia	,, 12 in.	D.
6	F.	33	Gangrenous umbilical hernia	,, 52 in.	D.
7	M.	38	Gangrenous caecum and intestine	,, 60 in.	D.
8	M.	30	Cancer of caecum	,, caecum, colon 6 in., and ileum 6 in.	R.
9	F.	58	Cancer of colon	Excised 5 in.	R.
10	F.	57	Cancer of des. colon	Excised whole descending colon	R.
11	F.	73	Cancer of sigmoid flexure	Excised sigmoid flexure	R.
12	M.	58	Cancer of splenic flexure and stomach	Excised whole transverse colon and part of stomach	D.

The foregoing list includes all the enterectomies consecutively which I have recently done. They show a very great improvement indeed on my earlier cases in every way. This I am inclined to attribute to a variety of causes, but above all to my own fuller realization of the principles which underlie the whole question of enterectomy and of the need of attention to many details in the procedure which had seemed of less weight previously.

It may be noted in passing that in none of this series was Murphy's button employed, nor any other form of junction than the simple suture of the intestine. This seems to me an important step in advance in the performance of enterectomy as well as of gastro-enterostomy. I have used the button largely in both operations formerly with good results in many cases. But I am glad now, on theoretical and practical grounds, to be able to do without it, and feel much safer in thus abandoning it.

It will also be seen that in all cases but two (caeca) an "end-to-end" anastomosis was the form of junction used. And further, that in the six cases of acute strangulation the excision was a primary one without the previous formation of an artificial anus. This may or may not have been the right course to take in these individual cases, but I have had for a long time past a growing feeling that we have not been bold enough in such cases, and that primary enterectomy ought nowadays, with our improved methods, to yield far better results than have been achieved in the past by the formation of an artificial anus and a secondary excision and anastomosis.

It will be seen from the list that all the cases were serious ones, some of them almost desperate. That there should have been four deaths among them is not to be wondered at. But when we examine the causes of death in the three, we get a grain of comfort. In Case I the fatal issue was clearly due to my not having excised enough of the afferent loop. The part stitched was therefore unsound, and gave way. In Case VI, where 52 in. of small intestine were removed for gangrenous umbilical hernia, the obstruction which followed and caused death was found to be due to an old fibrous band which crossed the gut below the anastomosis, the latter being quite sound. Here the cause of death could hardly be attributed to the method employed. The band—an old one—ran from the umbilicus to the transverse colon, and could not be seen at the operation. But afterwards it led to fatal kinking.

In Case XII, in which I had to excise the whole splenic flexure of the colon and with it a portion of the great curvature of the stomach as large as the palm of the hand, involved in carcinoma, the patient was quite cheerful and sitting up on the fifth day, when he suddenly turned white, had a cardiac spasm, and dropped dead. The anastomosis was perfect, and the superficial wound held faultlessly, but a large embolism was found in the pulmonary artery. This terrible accident, so frequent in many even slight surgical

conditions, cannot be forestalled in them any more than in childbed, but can hardly be put down to any particular procedure or surgical condition.

In Case VII, however, I think, the operation was at fault as far as could be seen at the necropsy. This was a very bad case of strangulation of the caecum, and some 4 ft. of small intestine in an inguinal hernia, the chief strangulation being in a pocket at the upper and outer portion of the sac behind the caecum, where a black knuckle was found tightly shut off from the main sac. When the caecum and intestine were excised, this foul infected pocket ought to have been excised completely with the rest of the sac. But this I could only partially carry out, as the pocket really belonged to the peritoneal cavity. As it was, I partially excised it, and closed the sac, doing a radical cure at once. I think that it was from this pocket, which lay partially within the abdomen, that the fatal peritonitis started. The anastomosis was quite sound on the seventh day, when the patient died, and the bowels had been freely moved as well as flatus passed. I now feel that, if I had excised the whole foul pocket, and stuffed the wound with gauze, instead of doing a radical cure of the hernia, the result might have been recovery. But, at all events, this and Case I are the only cases out of the three fatal ones in which the result could be set down to the procedure itself. As the man, by his own account and that of his wife, was habitually a heavy drinker, and had all the signs of delirium tremens on the third day, it is questionable whether he would have recovered in any case.

All the other cases recovered, and had no trouble afterwards. Those that were treated with gauze drainage did not do better than those in which the abdomen was stitched up without any drainage.

Nevertheless, in the four cases that died, one, I feel sure, would have had a better chance had I stuffed the wound with a gauze apron filled with iodoform gauze instead of closing everything and attempting a radical cure. But, as it stands, I venture to think that this list of cases justifies my belief that I can do more for my patients by a freer use of primary excision for gangrenous gut on the one hand, and on the other by excision of growths of the intestine rather than by artificial anus, and all this with but little more risk than the older methods involved, perhaps with less. In inoperable cases of cancer of the intestine the case before you shows what can be done by anastomosis, and how an artificial anus with all its drawbacks can be avoided.

The details of the various procedures by which all this can be done are a long and interesting study into which I cannot go now. They include the treatment of the patient before, during, and after the operation. You can only realize their meaning and importance by careful study of these cases as we prepare them in the wards beforehand, deal with them on the operating table, and treat them subsequently. And this study I very earnestly commend to you, for a mere textbook knowledge will not help you much.

DUODENO CHOLEDOCHOTOMY FOR RETAINED GALL STONES AT THE DUODENAL END OF THE COMMON BILE DUCT.

By HENRY BETHAM ROBINSON, M.S.Lond., F.R.C.S.,
Assistant Surgeon, Surgeon in charge of the Throat Department, and Lecturer on Practical Surgery at St. Thomas's Hospital.

The cases, upon which the above operation was performed and which are described in detail below, belong to a group important both from the clinical aspect and from the point of view of treatment.

The association of jaundice with febrile attacks was brought into prominence by the writings of Charcot, but during recent years we are indebted to Osler [1] especially for further elucidation of this most important subject.

When a stone makes its way, usually from the gall bladder, into the common duct, in the ordinary way it passes on into the duodenum. During its passage there may be a typical attack of biliary colic, pain, some fever, vomiting, and jaundice with its usual accompaniments, bile in the urine, and pale constipated stools; the depth of the jaundice will be dependent on the length of time the stone takes to pass through the duct, and on the associated catarrh of the mucous membrane. With the entry of the stone into the bowel all the above signs disappear and the stone may be sought for and found in the stools. Sometimes the fever instead of being slight and continued may be high and intermittent, accompanied by shivering and sweating.

A stone may remain in the common duct and, if free to move up and down in the duct, may be accompanied by no symptoms if it does not interrupt the normal flow of bile.

At the duodenal end of the common duct, after it has been joined by the pancreatic duct, is a dilatation beneath the mucous membrane of the bowel, the diverticulum of Vater. The opening of this enlargement into the gut is very small, so that there is a tendency for a gall stone to remain lodged in this site, having a certain amount of play, and acting like a "ball valve." Although, as stated above, a gall stone in the common duct, free to move up and down, may have no attendant symptoms, when we have a "ball-valve" stone to deal with, it is always some obstacle to the discharge of bile, and the symptoms presented are rather characteristic.

The jaundice is essentially chronic, and, although never going away, may for some considerable periods be only slight, and without any other symptoms except a little pain or discomfort. From time to time, however, there will be attacks of colicky pain, with chills or rigors, fever, and sweating, succeeded by a much greater intensity of the jaundice; these symptoms after a while pass off, leaving the patient in his former state to await the repetition of another exacerbation of symptoms, which may occur at very varying intervals, sometimes very shortly after, and in others at intervals of several weeks. The fever in these attacks is intermittent in type, with a similar daily rise for some days together, and it may be accompanied by some enlargement of the spleen. A very pointed fact is that, although the patient during such a chronic illness loses weight, he does not necessarily feel ill, and may in the intervals of the attacks go about doing his work.

The onset of these attacks is caused by some temporary impaction of the stone associated with swelling of the mucous membrane; after a certain degree of distension behind, the stone tends to shift its position, and the bile leaks out by the side into the bowel, with subsidence of the symptoms. The associated fever has been considered due either to nerve irritation from the distension or by the absorption of toxins by the altered mucous membrane.

The liver is not much enlarged, but may be tender, and the gall bladder, as a rule, is not enlarged, or, if so, not much, owing to the intermittent escape of the bile. The pain is usually more referred to the epigastrium than over the right hypochondrium.

In establishing the diagnosis the presence of jaundice for some time, varying in its intensity and never very deep, points to a stone, and especially, when the accompanying signs are taken into consideration, to its probable position at the end of the common duct. As the jaundice will be occurring at the period when cancer is also likely, there may be some difficulty in making a decision. In cancer, which is so common about the head of the pancreas, and thus involves the end of the common duct, there is a steadily progressing obstruction; the jaundice tends to slowly increase, is persistent, and of much greater depth of colour, so that the patient may be deeply bronzed; the gall bladder and the liver slowly enlarge; and when there is pain it is more gnawing and stationary rather than acute and paroxysmal. With the tumour there may be some fever, and in some cases it is of the intermittent paroxysmal type before referred to. It must be borne in mind, however, that the latter symptom, as others, may be due to the additional presence of gall stones which is very frequent. Again, the steady loss of weight and strength with the increasing depth of the jaundice are marked, whereas in the case of the stone, although there is generally loss of weight, yet the general health may be very fair and the jaundice slight, except during the paroxysmal attacks. Lastly, the time element will be an important factor between them. Many of the signs suggesting cancer will be present with any other condition producing a steadily progressing obstruction by blocking of the common bile duct as in a gummatous infil-

tration of the structures in the neighbourhood of the head of the pancreas;[2] but although the patient may not lose ground as in cancer, yet the symptoms present will be sufficient to diagnose it from the chronic jaundice due to a "ball-valve" stone.

If in a case diagnosed as stone in the diverticulum of Vater the colicky attacks and jaundice entirely disappear, it may be assumed that the stone has passed into the duodenum and perhaps confirmed by finding it in the stools.

There is one other question that has to be considered in the diagnosis. It has been stated that one of the main symptoms is the occurrence of the paroxysmal intermittent fever during the course of a prolonged jaundice varying much in intensity. This has been considered due to the absorption by the altered mucous membrane of bacteria or their toxins. In some cases there may be destructive changes in the mucous membrane leading to septic thrombosis in the radicles of the portal vein. This will result in enlargement of the liver with scattered abscesses in the distribution of the portal vein, and the symptoms will be those of pyaemia, rigors, high temperature, and sweating. Should such a condition have arisen, the frequent repetition of the rigors without increase of the jaundice, the severe illness of the patient, and the rapidity to a fatal termination would denote the serious lesion that had occurred and warrant a practically hopeless prognosis.

CASE I.—DUODENO-CHOLEDOCHOTOMY: RECOVERY.

History.

J. G., aged 46, a gardener, was admitted into St. Thomas's Hospital in March, 1900, under the care of my colleague Dr. Hector Mackenzie, and gave the following history of his illness.

In December, 1899, he had his first attack of biliary colic without any jaundice. In February, 1900, he had a second attack, accompanied by jaundice. In March he had two separate attacks, each with jaundice; it was during the latter that he was admitted into hospital. During his stay he had an *x*-ray photograph taken, but no shadow suggesting a stone was seen. His jaundice gradually disappeared, and he was discharged on May 5th. He was readmitted on the 23rd, having had another attack of colic, with jaundice. It was noted at this time that the liver dullness began at the fifth rib in the nipple line.

First Operation.

On May 30th the following operation was done by the late Mr. William Anderson. An incision was made parallel to the right costal margin, and a cavity was found in the situation of the gall bladder, leading by a ragged aperture into the gall bladder near its fundus. There were many adhesions, during the breaking down of some of which bile escaped. The great omentum was pulled up and sutured to the left margin of the wound, thus shutting off the general peritoneal cavity. A gauze drain was left in the wound down to the gall bladder. No calculus was found in the gall bladder. Mr. Anderson viewed the case as one of cholecystitis.

The subsequent progress was as follows:

Third day. Tube inserted instead of the plug and much bile escaped.

Tenth day. An attack of follicular tonsillitis.

Sixteenth day. Much less bile from the wound and the tube left out.

Eighteenth day. Small swelling behind the sinus, so this was dilated, but no bile escaped.

Twenty-third day. Stools again clay-coloured and bile pigments in urine.

Twenty-fifth day. Stools normal: bile again coming through the fistula.

Forty-first day. Fistula closed and stools normal.

Fifty-fourth day. Another attack of colic with rigidity of muscles on the right side and a swelling to the inner side of the fistula.

Fifty-fifth day. Sudden discharge of a large quantity of bile.

Sixty-first day. Stools again colourless, urine pigmented and bile escaping through the fistula.

Second Operation.

He was at this time—the beginning of August—transferred to my care. On going into the case I was convinced his condition was due to some blockage in his ducts by a stone which acted like a ball valve, causing intermittent jaundice. On the sixty-fourth day (August 3rd) I explored him, making a vertical incision downwards from the sinus in the linea semilunaris. Very great difficulty was now met with on account of the density of the adhesions about the gall bladder, and from the abnormal position of the omentum. At last the gall bladder was clearly defined and the omentum separated and turned downwards; this made it possible to explore the cystic and common ducts. Neither in the former nor in the latter as far as the duodenum could any stone be felt. The operation up to this time had taken one hour and a-half, and as the man's condition did not allow of its further prolongation, exploration of the lower part of the common duct via the duodenum had to be deferred to another occasion. Owing to the rearrangement of parts it was hoped that no such difficulty would be again experienced. A drainage tube was put in the gall bladder, and the rest of the abdominal wound stitched up.

Sixty-eighth day. Much bile coming through the fistula, and the faeces are clay-coloured. The temperature has not risen above 100° F. since the operation.

Eighty-third day. Tenderness round the wound. Since the last note the same intermittent discharge of bile has continued, with varying colour of the stools, constipation, and pigmentation of the urine.

Eighty-fifth day. A rigor, with increase of temperature and sweating. This strengthened one's suspicion of a stone at the end of the common duct.

After a few days, as he had no further shivering and his jaundice was less and his wound was healed except the fistula, I sent him out of hospital for a short time to recruit for his further operation. He went to the Convalescent Home at Swanley on September 26th, where he remained some weeks, and afterwards to his own home. He put off coming into the hospital until the second week in December.

Third Operation.

On readmission, he stated that while at home he had had occasional rigors and the amount of jaundice had varied; his stools were almost colourless, and he was very constipated unless he took exercise. There was free discharge of bile from the fistula and indications of bile in the urine. His temperature was subnormal, varying one degree between the morning and evening records.

The final operation was performed on December 20th in the late afternoon. His temperature at the time was 98° F., pulse 80. Chloroform was administered, and an attempt was first of all made to wash out the gall bladder through the fistulous opening, but this failed owing to the contraction of the sinus. The opening accordingly was plugged with gauze and the skin cleaned up in the usual way.

A vertical incision, 4 in. long, was made internal to the situation of the fundus of the gall bladder through the rectus muscle, splitting its fibres. It was started an inch and a-half below but was subsequently prolonged up to the costal margin. On opening the peritoneal cavity the adhesions, which caused so much delay at the former operation, were found to have considerably cleared up. The neck of the gall bladder, the cystic duct, the common duct, the duodenum, and the colon were without difficulty defined. The ducts seemed thickened but no stone could be felt; palpation through the duodenum gave some fullness about the end of the common duct suggesting a stone. The colon was packed out of the way with gauze, and the duodenum was also wrapped round and shut off from surrounding structures. A vertical incision was made in the duodenum opposite the common duct opening, and plugs of gauze were placed in its upper and lower ends to prevent leakage. A rounded body could then be felt on the inner wall at the end of the duct, which was cut down upon and a stone was extracted. No stitches were placed in the duct. The plugs were removed from the duodenum, and it was sewn up by a continuous gut suture for the mucous membrane and silk Lembert stitches for the sero-muscular coat. After thoroughly wiping the parts over with normal saline, the abdominal wound was stitched up in layers except at one spot, where a gauze drain came through, the other end of which was placed about the situation of the duodenal wound. A second piece of gauze was pushed along the sinus into the gall bladder. The stone was almost circular, like a marble, ⅝ in. in diameter. It was firm, composed of cholesterine, and of a light yellow colour. Its surface was nearly smooth without any facetting.

December 21st. Feels very comfortable. Temperature 100.2° F. and pulse 92. Small quantities of water given by mouth and rectal feeding. At 8 p.m. his temperature went up to 101.4, but his pulse was 92, he did not feel sick, and he seemed very well.

December 22nd. Very comfortable: pulse 76 and temperature 99.4°. At 8 p.m. temperature 100.8°.

December 23rd. The wound was dressed and the drains were changed. Some clear serum came out from the abdominal wound without any trace of extravasated products. Drains again replaced. Temperature 98.6°. Bovril and milk in teaspoonfuls allowed by mouth. Evening temperature normal.

December 24th. Everything satisfactory.

December 25th. Wound dressed again and very little bile has drained away from the gall bladder. The drains were removed and not replaced: no discharge from the abdominal wound. Enema given and some tinge of bile in the stools. Urine not so dark. Temperature normal.

December 26th. Rise of temperature at night to 99.8° (probably due to Christmas festivities).

December 27th. Temperature normal and afterwards remained so. Bowels opened naturally, and some bile in stools. Jaundice has sensibly diminished and the urine is much lighter. Dressed again and all stitches removed: a little suppuration—about one or two—so a hot boracic fomentation applied. Very slight quantity of bile now coming from the sinus into the gall bladder. Fish given.

January 10th, 1901. Simply a few granulations now from the gall-bladder sinus. The jaundice has almost entirely disappeared and plenty of colour in the stools.

January 16th. Left the hospital quite well.

Since this time I have often seen him. He remains quite well, has no pain and has never had any jaundice or shivering attacks since the operation.

CASE II.—DUODENO-CHOLEDOCHOTOMY: RECOVERY.

Mrs. J. F., aged 43, came to see me in September, 1901, having been sent to me from Durban, Natal, by my friend Dr. J. Rouillard.

History.

She gave the following history of her illness. In January, 1900, she had her first attack of jaundice, with vomiting, great pain in the stomach, pale motions, and dark urine. These symptoms lasted for about four months, and then gradually subsided. She remained well for some months, but in January, 1901, she had a similar attack, with the addition of frequently repeated rigors; the latter lasted for only a few weeks, but all her other symptoms continued. She lost flesh at first, but not recently.

When she came to me there was distinct colouring of the conjunctivae; as she was naturally of colour, the depth of the skin change could not be estimated. The liver was enlarged and tender, but tenderness was particularly marked over the prominent enlarged gall bladder. She had not recently had any pain except on some sudden movement, but there was a general feeling of soreness in the epigastrium and across the back. She had never had malaria. On October 3rd she was admitted into St. Thomas's Hospital under my care. Her temperature that afternoon was 99.8° F., and normal the next morning, but at 4 o'clock it ran up to 103° F. without any rigor, but with sharp pain. The normal was reached in twelve hours, and it remained so for six days, when it suddenly rose again to 103° F. at 4 o'clock on the 11th. Again it dropped below normal by 8 a.m. on the 12th, but rose at 4 p.m. to 107° F., and then, as before, went to normal in the morning. On the 13th and 14th the daily rise was only to

100° F., and on the next two it remained normal. This being the case, I now, on the afternoon of the 16th, operated.

Operation.

An incision was made in the right linea semilunaris, the outer margin of the sheath of the rectus was opened, and the muscle displaced inwards, and then the posterior layer of the sheath with the peritoneum were cut through together. The distended gall bladder immediately came forwards into the wound. Exploration with the finger showed the cystic and common ducts to be distended, and in the latter, just as it was passing behind the first part of the duodenum, was felt a stone.

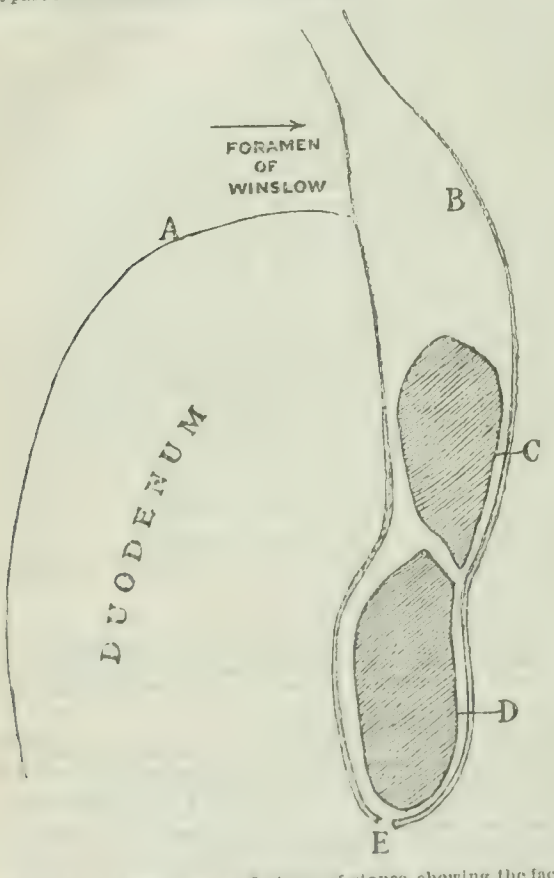


Diagram giving exact size and shape of stones, showing the facets; A, junction of first and second parts of duodenum; B, common duct; C, length ¾ in., diameter, ½ in.; D, length, 1 in., diameter, ⅝ in.; E, opening of duct.

As the size of the gall bladder completely prevented convenient access to the deeper lying structures it was brought up into the wound, packed round with gauze, and tapped, a rubber tube attached to the cannula draining off the bile and preventing any contamination of the peritoneum. The gall bladder in this manner was practically emptied, and proved to contain no stone. The bile was dark-coloured, thick, and mixed with a considerable quantity of mucus. The cannula was now withdrawn, and the small hole in the fundus was stitched over by a couple of Lembert's sutures. Careful exploration could now be made, and the following state of things was revealed. The stone in the common duct which was originally felt was situated just above where the duct passed behind the duodenum; its size distinctly stretched the duct, and the stone itself had very limited play upwards, not moving above the duodenum more than half an inch—that is, not its whole length. On palpating the second part of the duodenum another stone could be felt at the level of the termination of the duct; it seemed fixed so far that its range of movement upwards was practically *nil*. It was evident that the only satisfactory way of removing the lower stone was by opening the duodenum, and this I proceeded to do. Gauze was now packed around the duodenum, and below over the colon, and a vertical incision was made at the level of the common duct opening and at the junction of its anterior and [illegible] a little mucus flexed out, but not any further trouble from [illegible] and deftly inserting pair-forceps at one end below in the bowel, the [illegible] of the wound were now held aside by small retractors, and a perfect [illegible] was seen in the inner wall, just above the position of the papilla. On palpation this proved to be a stone, very fixed as far as its upward movement was concerned. Steadying the stone between the thumb and finger, an incision was made over its lower end cutting through the wall of the gut and duct. Some bile escaped, and the stone presented. The latter was easily drawn out with a pair of forceps. The second stone was then pushed along the duct, seized with forceps, and withdrawn. The duodenum was closed with fine silk, a continuous suture being used for the mucous membrane, and interrupted (Lembert) sutures for the sero-muscular coat; no stitches were put in the duct. The abdominal wall was sewn up in layers, fine silk being used for the peritoneum, fine silkworm gut for the fascia, and horsehair for the skin. A gauze drain, which had been placed on the outer side of the duodenum, was brought out at the upper angle of the wound.

The patient stood the operation very well up to the last ten minutes, when her pulse became very weak, so that it was necessary to infuse her with 2 pints of saline with 1 oz. of brandy. With this there was rapid improvement, especially when she was back in bed with hot bottles and after a hypodermic injection of strychnine.

The accompanying diagram shows the shape of the two stones and their exact size. The adjacent poles were facetted. In structure they were composed of a blackened cortex which very easily split off, while the interior consisted mainly of orange-stained cholesterine. In removing the second stone it was definitely drawn through a narrowed part of the duct situated above the upper end of the lower stone.

After-History.

Three hours after the operation (11 p.m.) the pulse was 108 and stronger. She was allowed to moisten her mouth with warm water, and on account of pain she was given morphine hypodermically.

October 17th. At 8 a.m. her temperature was 97.8°, pulse 96. She was given a teaspoonful of milk and water, but it made her sick; she said, though, she never could take milk. Brand's essence in warm water in teaspoonfuls was substituted, with rectal feeding, both nutrient enemata and suppositories alternately. At 11 p.m. she was not so comfortable owing to slight abdominal distension. As there had been some more vomiting, the Brand's essence was stopped and only warm water given. Pulse 116, temperature 99.2°.

October 18th. No sickness during the night, and slept for about four hours. Pulse 128, temperature 100°. She complained of fullness on the left side over the colon, so at 7 a.m. an enema was given, after which a considerable quantity of flatus was passed, giving great relief and removing the distension. In the evening the wound was dressed, the gauze drain removed, and another put in. There was some tenderness around the umbilicus and over the gall bladder, but there was nothing to suggest any leakage from the intestine. Pulse 124, temperature 101°. The urine now contains no bile.

October 19th. The feeling of sickness, which was constant before the operation, is now lost, and she is able to take barley water and lemon by mouth. Pulse 120, temperature 100°. Plasmon given and drachm doses of sulphate of magnesia three times in the day. At 10 p.m. pulse 124, temperature 100.2°. The bowels have acted three times, giving great relief. The wound was dressed again and quite clean. The abdomen was less tender except over the duodenum, and there was no distension; no vomiting during the past twelve hours.

October 20th. Pulse 110, temperature 99.6°; one action of the bowels during the night, and bile was present. Calves-foot jelly ordered but all food by mouth is distasteful; no vomiting or nausea. At 10 p.m. pulse 122, temperature 100°; one action of the bowels during the day.

October 21st. Pulse 108, temperature 98°. Wound dressed, and on removing the drain a quantity of thin, blood stained pus came away which was rather offensive; there was no trace of food in this nor any gas with it. More inclined to take food. At 11 p.m. pulse 120, temperature 99.6°. Bowels acted once during the past twenty-four hours. Soup and calves-foot jelly taken with relish.

October 22nd. Temperature 99°, pulse 100. Thin purulent discharge from the wound, but no gas. Urine is much lighter in colour and has only a slight trace of bile in it. At 8 p.m. pulse 112, temperature 100°. Rectal feeding stopped.

October 23rd, 8 a.m. temperature 98.4°. Taking plenty of food. 8 p.m. temperature 100°.

October 26th. Progress most satisfactory. Wound still discharging with slight night rises of temperature.

October 30th. Temperature normal since the 26th.

November 1st. She feels very well and has a good appetite: put upon fish diet. There is very little discharge from the wound and it is quite sweet. No tenderness over abdomen.

November 13th. Wound healed. The urine and fæces are quite natural. The patient after leaving the hospital gained flesh rapidly; she felt in perfect health and had a good appetite, having entirely lost her old sensations of nausea and shivering attacks: she has now returned home to South Africa.

On perusing the descriptions of the above two cases, it will be seen that the symptoms correspond closely with the statements made in the opening remarks. The treatment adopted in both of them—removing the stone through the duodenum—was the only one possible, and the cases add two more recorded successes to the few already reported by McBurney, Mayo Robson, Page and others, of this variety of choledochotomy.

REFERENCES

1 Osler, *Johns Hopkins Hospital Reports*, vol. ii, 1890; *Lancet*, May 17th, 1897. 2 BRITISH MEDICAL JOURNAL, 1890, vol. ii, p. 1004.

A CASE OF REMOVAL OF THE GALL BLADDER.

By F. A. SOUTHAM, M.B. OXON., F.R.C.S.ENG.,
Surgeon to the Manchester Royal Infirmary; Professor of Clinic Surgery, Owens College.

CHOLECYSTECTOMY, or removal of the gall bladder, is rarely performed as a primary operation, and it is only in exceptional cases that it is required as a secondary measure, the condition most commonly calling for it being the persistence

of a mucous fistula after cholecystotomy, owing to complete obstruction or obliteration of the cystic duct. In the following case it was performed as a primary operation, partly to prevent the possibility of this result, and partly to rid the patient of a diseased viscus, which henceforth was functionally useless.

The patient, a married female, aged 41 years, with a family of five children, who was seen in consultation with Dr. Case, of Brinscall, gave the following history: In a period of about four years she had suffered from occasional attacks of abdominal pain, most marked in the region of the liver, and she had several times passed gall stones in her motions. The attacks, which had been unaccompanied by jaundice, had latterly become more frequent and more severe, and her general health was in consequence becoming seriously impaired. On examination of the abdomen increased resistance was felt over the gall bladder, which was somewhat enlarged and tender upon pressure. From the history of the passage of gall stones, and the presence of a swelling in the region of the gall bladder, the case was diagnosed as one of distension of the viscus, probably due to blocking of the cystic duct by a gall stone, and an exploratory operation was advised. For this purpose she was admitted into the Manchester Royal Infirmary. On June 4th, 1901, the gall bladder was exposed by an incision in the right linea semilunaris. It was found lying under the cover of the liver, and enlarged to the size of an orange, its wall, which was much thickened and indurated, being of a dull-grey colour.

An aspirator needle was introduced, and between 3 and 4 oz. of a purulent fluid were drawn off. The gall bladder was then opened, and sixty-four calculi, many of which were two or three times the size of a pea, and distinctly facetted, were removed. On attempting to explore the cystic duct, its orifice was found to be completely obliterated, so it was decided to at once proceed to remove the gall bladder, especially as its wall, in addition to being much thickened, was very rigid—in fact, almost of cartilaginous consistence.

This was effected without much difficulty, except at several spots where it was intimately adherent to the liver, small portions of which were also removed. The cystic duct, which was followed up for some distance, and then ligatured and divided, was found to be obliterated as far as it could be traced. The division of the liver substance was attended by free oozing of blood, but this was soon arrested by sponge pressure. The external wound was then closed, except at its centre, where a gauze drain was inserted.

The patient made a good recovery from the operation; on the second day the dressings were stained with bile, the origin of which must have been the divided substance of the liver, for it continued in varying amount for several weeks, and had not entirely ceased when she left the hospital on July 18th. A few days subsequently the wound closed, and since that date it has remained firmly healed, there having been no further escape of bile. At the present time she is in excellent health, having gained considerably in weight, and kept quite free from the attacks of pain from which she had suffered previously to the operation.

THE OPERATION OF JEJUNOSTOMY, WITH A REPORT OF TWO CASES.

By B. G. A. MOYNIHAN, M.S.Lond., F.R.C.S.,

Assistant Surgeon, Leeds General Infirmary; Consulting Surgeon to the Skipton and District Hospital, and to the Mirfield Memorial Hospital.

AN artificial mouth may be made into the intestinal canal at several points—in the oesophagus, the stomach, the duodenum, and the jejunum. The operation in each of these segments of the intestinal canal has its range of usefulness widest in the case of the stomach, most restricted in the case of the oesophagus. The operation of jejunostomy is one which, judging by the reports, or rather by the absence of reports, of cases has almost fallen into disuse among British surgeons. It is certainly one of limited applicability, but the cases in which it might prove of advantage are not so infrequent as the literature would seem to show. It is with the hope of awaking remembrance of the operation, and of describing the method I have adopted that I venture briefly to record the two following cases:

T. L., male, aged 54. Seen March 3rd, 1901, with Dr Sykes, of Cleckheaton. The symptoms were chiefly those of obstruction at the lower end of the oesophagus; a bougie passed 18 in. Hour-glass stomach with a small cardiac complement was diagnosed. On opening the abdomen the stomach was found generally infiltrated with cancer—"leather bottle stomach"—at the cardiac a deep constriction separated off a small pouch from the body of the stomach. Jejunostomy was the only operation possible. Secondary deposits were found in peritoneum and liver. Death April 9th. Food was taken by the new opening in fair quantity.

J. G. Male. Aged 73. Admitted to the infirmary under the care of Mr. Mayo Robson, for whom I acted. The symptoms pointed to cancer of the stomach and a hard rounded mass was felt in the epigastrium. The patient was so ill that I was afraid of giving an anaesthetic, but as all food, even in spoonfuls, was vomited, it was necessary to attempt to give relief. I opened the abdomen, found cancer affecting the whole stomach and large nodules in the liver and peritoneum. Jejunostomy was performed. Food was taken freely, the patient gained in weight about 4 lb., and was greatly relieved by the operation. The operation was performed on June 2nd, death took place on July 31st.

In the first case probably, and in the second certainly, life was prolonged and what is more important, was made tolerable: the agony of thirst and of starvation was banished.

The operation of jejunostomy may be performed in all these conditions necessitating the formation of an abdominal opening for the purpose of feeding the patient, when the stomach is not available. These conditions are:

INDICATIONS FOR OPERATION.

1. Extensive infiltration of the stomach with carcinoma, when there is little or no healthy stomach wall that can be utilized for the purpose of gastrostomy.

2. General cicatricial contraction of the stomach, simple in character, dependent upon the swallowing of caustic fluids.

3. Neumann has suggested that in cases of pronounced hyperchlorhydria jejunostomy should be performed in preference to gastro-enterostomy. He points out that the intensely acid secretion of the stomach passing into the jejunum through the new opening may produce ulceration which will rapidly destroy the intestinal wall and lead to perforation. This is to say a peptic ulcer of the jejunum results, in a manner precisely similar to that occurring when a peptic ulcer of the first portion of the duodenum develops. Peptic ulcer of the jejunum is recorded by Braun, Halm, Kausch, Körte, Steinthal, Hadra and Neumann, and a case has been observed by my friend Mr. W. H. Brown. In four cases the ulcer caused death by perforation, and in all there was a great excess of free hydrochloric acid.

4. Cackovic and others have suggested that in cases of persistent haematemesis, rest might be afforded to the stomach by an artificial mouth in the jejunum. In three cases of chronic haematemesis that I have dealt with by operation, I performed gastro-enterostomy, with complete success, and for such cases in the future I shall certainly advise gastro-enterostomy in preference to any other operative treatment.

MODE OF OPERATING.

Several methods have been recommended and adopted for the performance of jejunostomy; the jejunal loop has been stitched to an abdominal incision, and opened or brought up to the surface by means of a bone plate placed in its lumen. There are only two methods which are likely to survive; of these, one has been suggested by Maydl, and the other is based upon the method of Witzel for gastrostomy. It is the latter which I adopted in my two cases.

Maydl's Method.—Maydl has performed jejunostomy in 22 cases, with four deaths as the result of the operation. After opening the abdomen, the upper part of the jejunum is found, and is cut completely across. The proximal cut end is then implanted into the distal portion a few inches from its divided end, and the latter is stitched to the abdominal wall. The diagram will make the condition of things appreciable.

The method adopted in my own cases was as follows:

The abdomen was opened a little to the left of and above the umbilicus, through the rectus muscle, whose fibres were split. The duodeno-jejunal junction was sought, the jejunum traced downwards for 6 or 8 in., and a loop drawn out of the abdomen. On the side of this loop furthest from the mesentery, a small longitudinal incision was made, opening the bowel, and a piece of drainage tube about the size of a No. 12 catheter was introduced, and fixed by a single catgut stitch, which included the cut edge of the bowel and the side of the tube. The tube was then laid along the bowel upwards towards the duodeno-jejunal flexure. A continuous stitch was

now passed from side to side of the groove made by the tube, so that the tube, when the stitch was tightened, was buried by the overlapping of the edges of the groove. The stitch was begun about $\frac{3}{4}$ in. below the opening in the jejunum, so that any leakage there might be effectually prevented. About 2 in. of the tube was covered by the stitch, which was then

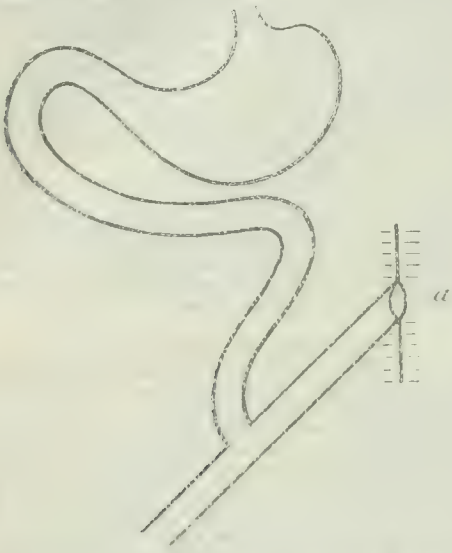


Fig. 1.—Jejunostomy; Maydl's operation, at *a* the jejunum is stitched to the abdominal wall.

tied and cut short. The line of suture in the bowel was then made fast to the anterior abdominal wall by a stitch at each extremity, and the abdominal incision was tightly closed round the tube, which projected for about 10 in.



Fig. 2.—Jejunostomy; showing the tube lying in a groove, on tightening the stitch the tube is buried.

When the patient is fed through such a tube, a funnel is fixed on to the end and food poured in slowly. At the first only 6 oz. are introduced, but after the first few days up to a pint may be given in the space of ten minutes.

The opening in the jejunum is made, therefore, at approximately the point where Schlatter made the oesophago-intestinal anastomosis in his case of complete gastrectomy. It is clear from this case, and well shown by my second case, that enough food can be taken by the jejunum to enable weight to be gained and the general well-being of the patient to improve. If a jejunostomy were performed for any non-malignant condition of the stomach, the probability would be that, as in Schlatter's case, a decided increase in the capacity of the jejunum would be demonstrable, affording a reservoir for the food.

The same variety of food may be given in jejunostomy as in gastrostomy; the staple article of diet should be peptonized milk. In some cases a duodenostomy may be preferred to a gastrostomy. Hartmann has recently reported an example of duodenostomy for a cicatricial narrowing of the stomach following upon the swallowing of a caustic fluid. A duodenal mouth may be considered as more efficient than one opening into the jejunum, in that the food is introduced into the bowel at a point higher than the orifice of the ampulla of Vater.

If a duodenal opening is to be made, the method that I have described is probably better than any other.

LOCALIZED PERITONITIS IN ENTERIC FEVER WITH MARKED SYMPTOMS OF ONSET: LAPAROTOMY: RECOVERY.

BY W. A. MACKAY, M.D.GLASG.,
Southport.

THE early performance of laparotomy in the perforative peritonitis of enteric fever admittedly offers the greatest, and generally the only, chance of recovery. The difficulties in the way of prompt diagnosis are often great. Some of them are exemplified in the following case, where definite symptoms were associated with a very limited lesion.

History.

G. B., aged 44, sickened of enteric fever on October 19th, 1901. The primary attack was mild, the temperature falling under 99° F. on the fourteenth day, and only once exceeding that figure thereafter until the beginning of the fourth week, when a relapse occurred. Widal's reaction was sought at the end of the first week and again at the end of the second. The bacteriologist did not return an account of the dilution used or the time taken to ascertain the reaction. After the first examination the report was "suspicious" after the second "negative." The diagnosis was confirmed at this stage by the presence of blood in the motions. During the relapse the symptoms were not at all severe until November 20th, the thirty-third day counting from the beginning of the illness. At 6 a.m. on this day the patient awoke complaining of pain in the abdomen, but did not summon help until 9 a.m. He was then excited, shivering, and complaining of pain in the abdomen. The expression was anxious and the whole aspect suggested the onset of serious trouble. The temperature was 102° F., the pulse was 100, of fair size and of good tension considering the duration of his illness. After an injection of morphine the pulse fell to 80, and did not exceed 100 until after the operation. Unfortunately the last previous record (70 per minute) was two days before the onset of peritonitis.

Diagnosis.

There was tenderness in the right iliac fossa, and relative rigidity of the right rectus muscle. In the right iliac region there was a distinct area of dullness on light percussion, and this increased in extent during the forenoon. At the operation this was found to be due to the contracted and empty state of the ileum. There was a fair-sized liver dullness.

I thought it probable that an ulcer had ruptured into a part of the peritoneal cavity which was shut off by adhesions, and communicated with Mr. Paul of Liverpool, who saw the patient with me in the afternoon. In the meantime the latter had a small hypodermic of morphine, and was forbidden to swallow anything. Mr. Paul agreed with the presumptive diagnosis as such, and also that the abdomen ought to be opened.

Operation.

This was accordingly done by him at 4.30 p.m. Chloroform was given at first, followed by ether. A median incision was made, and the lower part of the ileum pulled out. No perforation was discovered, but over a thickened and congested Peyer's patch about 6 in. from the ileo-cæcal valve the peritoneum was roughened and there was an inflammatory exudation. No appreciable fluid exudation was present in the peritoneal cavity. The lower part of the ileum was contracted and empty. As viewed from the peritoneal surface there were one or two small reddened portions of bowel evidently

corresponding to affected lymphoid tissue, but the portion through which the inflammation had spread was apparently the only patch of size which was affected by the typhoid process. The patch being thickened, no attempt was made to deal with it, save that it was left under the abdominal wound, which was closed by sutures of silkworm gut passing through all the layers.

After-History.

The progress after operation was uneventful until the stitches were removed at the end of a month. Some difficulty was experienced in removing two of these, and of one a part broke off and was left in the wound. During the following night the patient had a rigor, and the temperature ran up to 103.6°. This was almost certainly due to the onset of a cystitis, which troubled the patient for some time—a lighting-up of a former trouble—and I cannot connect it with the accident in removing the stitch. Later an attempt was made to isolate Eberth's bacillus from the urine: this failed, but B. coli communis was separated. Except for an occasional attack of colic the intestine has not given rise to any trouble since the operation. The patient got up on January 15th, and has now been out and about for several weeks, and attends to a great part of his business as a tailor.

The special interest of the case lies in the diagnosis, the onset of peritonitis being signalled by marked symptoms. The pulse-rate certainly was never high, but in view of the other symptoms—and correctly as I think—stress was not laid on this, otherwise than as a hopeful factor in prognosis. With regard to the vomiting, absolutely nothing was given by the mouth after I saw him at nine until he recovered from the anaesthetic. Vomiting, of course, is not necessarily a symptom of peritonitis. Not to advance cases of an entirely latent character, a short reference may be made to a case where perforation and extreme peritonitis was associated with a minimum of sickness. W. R., aged 13, was admitted to the Glasgow Fever Hospital under my care in November, 1898. He was at the end of the third week of enteric fever, but had only taken to bed five days before admission. One afternoon towards the end of the fourth week he complained of slight abdominal pain. Next morning his temperature dropped to 98.4°, the pulse being 94. This morning he complained of pain in the abdomen and a desire to go to stool. The pain increased when the patient was placed on the bedpan, but lessened after the passage of a small motion.

During the day the face became more and more pinched: the pulse was increased in rate and diminished in quality while the area of liver dullness decreased. There was slight general tenderness of the abdomen and rigidity of the lower part of the right rectus muscle.

During the afternoon he vomited some milk on one occasion only. He generally refused milk after this, and once when he did take it complained of discomfort, but there was no further vomiting.

At the laparotomy a widespread peritonitis and two perforations were found. The patient died about sixteen hours later.

Possibly an earlier laparotomy might have prevented rupture of the ulcers—indeed, a third ulcer on the point of rupture was invaginated, the peritoneal coats being opposed by a continuous Lembert suture. In the first case a count of leucocytes might have helped in the diagnosis.

If patients are to be saved from perforative peritonitis in enteric fever by means of laparotomy, it is certain that many will be operated on in the preperforative stage.

The recovery of my patient in a private house where conveniences for surgical work were limited is an incentive to urge operation in doubtful cases.

PERFORATION OF THE APPENDIX WITHIN A HERNIAL SAC: RESECTION OF THE CAECUM AND ILEO-CAECAL JUNCTION: RECOVERY.

BY J. BASIL HALL, M.A., M.C.CANTAB.,
Surgeon to the Union Hospital, and Honorary Surgeon to the Royal Infirmary, Bradford.

ALTHOUGH a considerable number of cases of inflamed or strangulated herniated appendix have been recorded, the occurrence of actual perforation within a hernial sac is comparatively uncommon. Moreover, in every instance where perforation has occurred the appendix has been the sole occupant of the sac, the general peritoneum being more or less shut off by adhesions at the ring. In the following case the sac contained both caecum and small intestine, and it seems probable that there had been a sudden descent of bowel into an unclosed funicular process, at the mouth of which lay an adherent appendix. This sudden descent tore the appendix from its adhesions, carrying it into the sac, and damaging it sufficiently to produce sloughing and perforation. The history of the case is as follows:

On January 26th, 1901, I saw W. H., aged 23 years, with Dr. Munro, of Bradford. The patient had always had good health, and never suffered from hernia up to five days ago, when he was lifting a sack of flour, and felt a sudden acute pain in the right groin and a sensation of something having given way. He then became conscious of a large scrotal swelling, and went home to bed. He "felt sickly," but there was no vomiting. During the night the swelling disappeared, but on getting up in the morning it came down again. Pain in the scrotum then became severe, and he felt ill and feverish. There was constipation but no vomiting or distension of the abdomen. When seen five days after the accident, he had a right inguinal hernia the size of a small cocoanut. The swelling was tender, the upper half tympanitic, the lower dull on percussion and not translucent. His temperature was 99°. He was removed to the Royal Infirmary. The bowels were emptied by enema and the motions were normal. Next day his temperature rose to 101.4°, but he otherwise seemed well. During the following two days his temperature fell somewhat.

On February 1st, ten days after the accident, I operated under ether. The sac being opened high up, I first exposed the colon, and, finding the rest of the sac shut off by recent lymph and adhesions, I extended my incision downwards and found my way into a mass of lymph, disorganized blood clot, and pus. Buried in this was the caecum and ileo-caecal junction. At the apex of the caecum was a ragged and irregular mass, which proved to be the remains of the appendix. Near to its base was a sloughy opening out of which pus and faecal material oozed. Two small concretions extruded from it whilst it was being examined. The whole of the parts were so infiltrated and softened and so thoroughly septic that I felt that to return them into the abdomen would almost certainly result in peritonitis. I therefore decided to do an enterectomy.

Having placed elastic ligatures on either side I resected the caecum, appendix, and about 1½ in. of ileum, bringing the ends together with a Murphy's button. The ileum being somewhat dilated, the difference in calibre between the two cut ends was insignificant. I had previously noted that the abdominal ring was large enough to allow the button to be replaced through it. The sac was then removed and the ring closed. The patient bore the operation well, there being comparatively little shock. Recovery was uneventful. The wound healed by first intention: the bowels acted spontaneously on the second day, the button being passed on the seventeenth. The scar is sound and the patient wears no truss.

Reporter.	Hernia.	Contents of Sac.	Reference.	Result.
Cruveilhier	?	Perforated appendix	*Anatomie Pathologique*, 1835	?
Annandale	Right femoral	Perforated appendix	*Lancet*, vol. i, 1889	R.
Hall	Right inguinal	Perforated appendix, tuberculous	New York *Medical Journal*, vol. xlii	R.
Davies-Colley ..	Right inguinal	Perforated appendix	*Guy's Hosp. Reports*, vol. xlii	R.
Davies-Colley ...	Right femoral	Perforated appendix	Ibid.	R.
De Morgan	Right inguinal	Perforated appendix	*Path. Soc. Transactions*, vol. xxv	D.
Waring and Eccles...	Right femoral	Perforated appendix	*Bart's. Hosp. Reports*, vol. xxvii	R.
Basil Hall	Right inguinal	Caecum, ileum, and perforated appendix	Present case	R.

Although the sac was obviously a congenital one and the ring large, there was no history of a hernia ever having been present in earlier life. It seems most probable therefore that the neck of the sac had been blocked, prior to the accident, by an adherent appendix. The sudden descent of the hernia, by tearing the adhesions, probably damaged the appendix sufficiently to produce sloughing and ultimate perforation. The adhesions may have been produced by the presence of the concretions. Perforation evidently occurred after the patient entered the hospital, as shown by the onset of fever.

It was most fortunate that the hernia, after reducing itself spontaneously after the accident, descended a second time into the sac, and that no attempt at taxis was subsequently made. It seems to me that in all herniae where there is any suspicion of unusual contents the reduction by taxis is fraught with great danger. Indeed, it is very doubtful, except under conditions where operation is strongly contra-indicated, whether taxis should ever be attempted at all. In cases where a general anaesthetic is undesirable herniotomy

can be easily performed under cocaine; whilst, on the other hand, where the condition of the bowel is probably such as will produce a fatal result, taxis is infinitely more dangerous than herniotomy.

The following list is, I believe, a complete one of all the recorded cases of perforated appendix occurring within a hernial sac. The mortality is at first sight surprisingly small, but it must be remembered that, with the exception of the present example, most of the operations were practically extraperitoneal.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

GENERALIZED VACCINIA.

IN connexion with the report of a case of generalized vaccinia by W. T. Freeman, M.D.,[1] it may be of some interest to record a somewhat similar case of this rare condition which has come under my notice.

On March 24th I revaccinated an able seaman, aged 32, who had previously been revaccinated in 1886, and had five typical foveated marks. The result was four modified vesicles, which were fully developed on the eighth day, and ran a normal course. On April 11th, three weeks from the date of revaccination, he consulted me about a rash which had appeared on the side of his neck, and was rapidly extending. I found numerous large shotty papules on the left side of the neck, some of which were just entering the vesicular stage. There was no trace of any rash in the vicinity of the vaccination marks or in any other part of the body. On April 12th the rash was very profuse, and the entire neck was covered with shotty papules and vesicles showing well-marked umbilication. Two of the vesicles on the back of the neck were of very large size, and closely resembled the vaccination vesicles on the arm, both in appearance and size. There was also on this date a profuse papular rash on both wrists and forearms, the back of the hands, and forehead, similar to that on the neck.

On April 13th the rash on the neck had still further increased, and was now confluent with a good deal of inflammatory reaction. The rash on the wrists was more profuse but remained discrete and exhibited umbilication similar to that on the neck. The glands in both axillae were enlarged and tender. From this date the rash ceased to extend. Vesiculation and maturation took place very rapidly, the process stopping short of the pustular stage, and on April 15th scabbing was well marked on the affected parts. All trace of the eruption had disappeared by April 17th, and was succeeded by a slight branny desquamation lasting a few days. The only symptom complained of was a sensation of heat in the affected parts during the first three days of the eruption. No rise of temperature took place nor were there any constitutional symptoms whatever.

R. W. G. STEWART, M.B., B.Ch., Surgeon R.N.

A NOTE ON PICRIC ACID AND ON POTASSIUM BROMIDE.

IN case my experience in the use of these two drugs would be appreciated I draw attention to them. I believe both have previously been lauded, but there will be no harm in additional testimony.

Picric Acid. A saturated solution of this applied, under oilskin or similar material, on linen cloths will act as a charm in erysipelas, as also in the inflamed and often ulcerated arms to be occasionally met with during vaccination.

Potassium Bromide. In treating alcoholics in all stages, when suffering from sleeplessness, give this in drachm doses with a drop or two of strychnine every two hours, keeping the patient under it until all tremors are lost, reducing the dose gradually; the secret of success in this treatment consists in rousing the patient to take a half-pint of the very best-prepared beef-tea every three or four hours. If this treatment is preceded by a good dose of calomel (some 7 gr. or 10 gr.) and followed by a tonic, it will prove more successful. I have had some ten or more very successful results along the above lines and with no ill-effects.

Tunbridge Wells. ERNEST R. FOTHERGILL.

[1] BRITISH MEDICAL JOURNAL, March 1st.

REMOVAL OF FOREIGN BODIES BY GALL-STONE FORCEPS.

I CAN bear witness to the use of "Lawson Tait's" gall-stone forceps (crocodile mouth) in removing foreign bodies from the larynx and pharynx, as reported in the BRITISH MEDICAL JOURNAL of April 12th by Mr. A. R. Anderson.

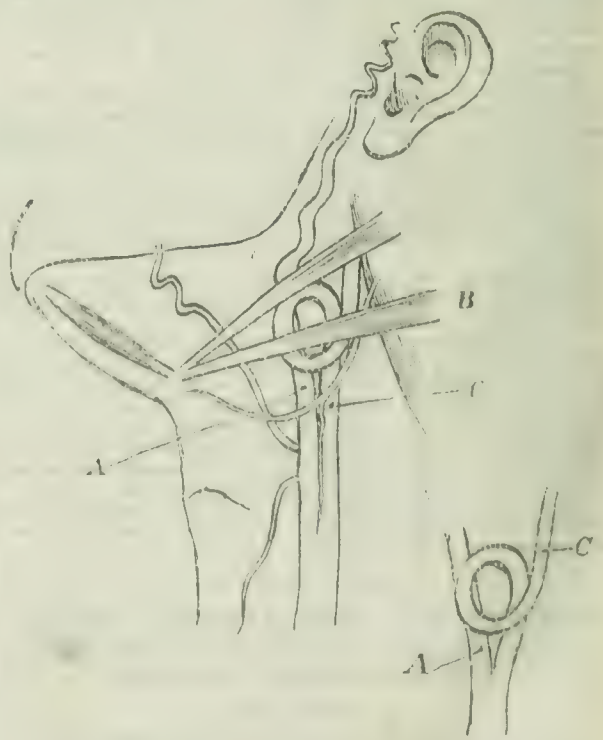
A lady consulted me some few months ago concerning a fish bone which had become embedded low down in the pharynx, much beyond the reach of the finger, the spot being indicated by the patient complaining of a pricking sensation and great difficulty and pain on swallowing, the parts being quite oedematous.

With the aid of the laryngoscope I was able to detect the point of a fish bone. After trying various instruments—which were all unsuccessful—it occurred to me to use the gall-stone forceps, when, with the greatest ease, I removed a fish bone, which had been there quite three weeks. I have also found these forceps useful in removing small stones in nephrolithotomy.

Aberdare. E. J. TREVOR-JONES, M.D.

TORTUOSITY OF INTERNAL CAROTID.

IN the BRITISH MEDICAL JOURNAL for November 23rd, 1901, and January 11th, 1902, cases were reported of the above. Some years ago I found in the dissecting room of the Bristol Medical School a very remarkable twist of the left internal carotid of which I made a rough sketch, here reproduced.



A, external carotid. B, digastric. C, internal carotid.

Nearly all the vessels of the head and neck were tortuous, but in this particular artery, as will be seen, a complete circular coil was formed. The subject was an old man, and, I believe, was certified as having died of kidney disease.

G. MUNRO SMITH, L.R.C.P.Lond., M.R.C.S., Surgeon, Bristol Royal Infirmary.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL VICTORIA HOSPITAL, BELFAST.

CASE OF DILATED STOMACH ENDING FATALLY IN TETANY.

(Under the care of WILLIAM CALWELL, M.D., Physician to the Hospital).

A. T., aged 26, was admitted to hospital on the recommendation of Dr. Duncan, Ballymena, under whose care he had been, on January 11th, 1902, for dilated stomach.

History.—There was a history of stomach trouble in patient's mother and sister. The patient himself had always enjoyed good health except for his stomach; he had been from 11 st. to 12 st. in weight, but on admission he was only 8 st. 2 lb. When about 13 years old he suffered for six months with "heartburn" before meals, which was eased by eating. He then remained perfectly well till 1899. Previous to 1899 he was accustomed to take 8 to 10 pints of beer on a Saturday night, but nothing during the rest of the week; he smoked 5 oz. a week. Some time in 1899 vomiting set in rather suddenly about two hours after meals; he suffered pain, relieved by the vomiting: gradually the symptoms became characteristic of dilatation, the vomiting became less frequent, but larger quantities were brought up, sour, brownish, frothy, etc.

Condition on Admission.—On admission the bowels were very constipated, the tongue had a whitish fur; there was nothing in heart or lungs; the pulse was of low tension (80); a trace of albumen in the urine. In the supine position the lower border of the stomach was sometimes below, sometimes above, the umbilicus; on inflation and on percussion in the erect position after injecting a couple of pints of water it reached to within 2 in. of the pubes, and extended to about the end of the ninth rib on the right side.

Treatment and After-History.—The stomach was washed out; on the evening of the 15th it was washed out and a test breakfast given on the morning of the 16th, which gave, an hour after, free HCl. 38, total acidity 87; total acidity, less combined HCl. (alizarin method) 65; no lactic acid; well-marked biuret reaction for peptone. On the evening of the 16th he complained of being weak; on the 17th he was weaker; his hands were noticed to be in the "accoucheur form," the wrists and elbows were partly flexed, the toes and feet were dorsiflexed. There was some rigidity, there were occasional rapid twitchings or spasms of the muscles generally. The heart was now failing, and patient looked sunken. There was no vomiting or sign of perforation. Urine in quantity was drawn off; strychnine hypodermically, alcohol, and nutrient enemata with external warmth were assiduously employed, but he sank on the morning of the 19th. He was partly conscious up to the last twenty-four hours: the tonic spasm of the muscle disappeared at the last, and his temperature rose rapidly before death. As his stomach had been washed out each day, it was not considered advisable to continue the operation as a form of treatment; he was palpably too weak to entertain the proposition of a gastro-enterostomy.

REMARKS.—The case shows well the insufficiency of ordinary percussion in the supine position, for ascertaining the extent of dilatation, and the necessity for more exact means. Kussmaul in 1869 was the first to give an adequate description of tetany in chronic dilatation of the stomach. As mentioned by Fenwick, up to the beginning of 1900 about 50 cases had been published; and it is now recognized as a clinical entity. The peculiar muscle contraction of the extremities, resembling that of ordinary tetany, is always found; it is the fundamental type, and is generally the first symptom, usually coming on suddenly after vomiting. The duration of an attack varies enormously, and may last from minutes to days. An intermittent form of spasm, or twitching of the muscles or a general epileptoid convulsion, may complicate the ordinary form. The fatality is very high, being about 75 per cent., either by delirium and rapid rise of temperature, or by simple heart failure. Tetanoid convulsions are always fatal. As regards the pathology, the drying of the tissues can hardly be accepted. The absorption of a toxin from the stagnating contents of a stomach is plausible, but the disease generally occurs after an attack of vomiting, or after washing out the stomach; there is little or no absorption from such a stomach, and observers do not agree as to a definite toxin. It is not due to hyperchlorydria, as it occurs in cancer of the stomach. Albuminuria is nearly constant. The disease commonly occurs in the winter months. It is suspected this patient got chilled smoking in the closet. A necropsy was not obtained. Strychnine was used on account of the marked heart failure, when the rigidity and twitching were passing off. Dorsiflexion of the toes is exceptional.

REPORTS OF SOCIETIES.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting held on June 6th, Mr. E. CRESSWELL BABER, President, in the chair, Mr. CHARTERS J. SYMONDS, in opening a discussion on the diagnosis and treatment of malignant stricture of the oesophagus, said that some of the earlier symptoms were often taken for ordinary dyspepsia. The passage of a bougie was the only way to clear up the case; and if a large bougie and no force were used no danger need be feared from its employment. Extra-oesophageal disease rarely gave rise to any serious dysphagia. In regard to spasmodic obstruction—apart from the hysterical form—it had, when marked, an organic cause. Both diagnosis and treatment should be considered with respect to the occurrence of the disease in the upper part of the oesophagus, or the central part or the cardiac end. In the first situation all organic obstruction might be said to be due to malignant disease. In the central part, sarcoma or a myoma might cause fatal obstruction. In the lower end alone simple stenosis might occur, and in this situation cancer of the stomach, causing great reduction in the size of the cavity, might confuse the diagnosis. Mr. Symonds drew special attention to the value of the steel bulb and of the coudé bougie in these cases. As regarded the treatment, provided that fluids and semi-solids could be swallowed and a small bougie passed, it was in his opinion unecessary. If the dysphagia increased, either a tube should be inserted or gastrostomy performed, and this course should also be adopted in those cases where a bougie could not, or only with difficulty, be passed. Lastly, if the patient could not swallow and a bougie could not be passed, immediate mechanical treatment was required. The passage of a bougie with a view to dilating the stricture was highly injurious. In cricoid obstruction, the long rubber tube gave excellent results; failing this, gastrostomy should be performed. In the central portion, the short tube was sometimes of great value, and in disease of the cardiac orifice he considered gastrostomy the best method of treatment when dysphagia became serious.—Dr. H. TILLEY related two cases illustrating the apparent simpleness of the early symptoms of malignant stricture of the oesophagus and suggesting that invaluable information as to the cause of the patient's symptoms might be obtained by the use of the laryngoscope.—Sir FELIX SEMON pointed out the value of laryngeal paralysis and enlargement of the cervical glands as aids to diagnosis. He agreed with the advice which Mr. Symonds had given, namely, in cases where great difficulty was experienced in passing a bougie, to prescribe a night's rest and a dose of opium previous to further attempts. He thought that functional or spasmodic stricture, apart from organic, certainly occurred and that the dangers of chloroform in these cases should not be underrated.—Dr E. CLIFFORD BEALE called attention to the possibility of diagnosing growths of the oesophagus by means of the *x* rays; this method, he thought, gave more information as to the amount of thickening and growth present. He agreed that intrathoracic disease seldom caused pressure.—Mr. H. B. ROBINSON emphasized the importance of the enlargement of the cervical lymphatics to the diagnosis, and illustrated this by a case. He also instanced a case of cystic adenoma of the thyroid which had caused dysphagia by pressure, which was relieved by operation.—Dr. J. DONELAN related a case of malignant stricture of

the oesophagus, situated 16 in. from the teeth, in which a long bougie had been of great use. Its introduction had been considerably aided by the use of cocaine, and he suggested that adrenalin might also be useful.—Dr. DUNDAS GRANT related some of the difficulties he had experienced in these cases.—The PRESIDENT doubted the value of oesophagoscopy from a diagnostic point of view. He had not obtained much assistance from the Roentgen rays. As regards anaesthetics in these cases, he could not help thinking there was some peculiar danger. He asked if Mr. Symonds had any experience of oesophagectomy, and he would be glad to hear a few more particulars about the risks of gastrostomy.—Mr. C. J. SYMONDS, in his reply, said laryngeal paralysis had assisted him in the diagnosis in some cases, but he could not recall any case where enlargement of the cervical lymphatics had helped him. He had had one case of spasm of the sphincter at the lower end of the oesophagus, which might be called spasmodic stricture. He recommended to Dr. Grant the use of the steel bulb, which he had found invaluable. From his experience, he was strongly of opinion that long tubes were inappropriate for disease of the cardiac orifice. He was not prepared to answer the President as to the dangers of gastrostomy, but if performed at an early stage it should involve very little risk.

BRITISH GYNAECOLOGICAL SOCIETY.—At a meeting held on June 12th Dr. HEYWOOD SMITH, a Vice-President, being in the chair, Dr. J. HALLIDAY CROOM (the President) had sent for the consideration of the Fellows: (1) A uterus removed for disease which from microscopical examination was diagnosed to be malignant, but proving to be only recrudescing fibroid; his note suggested that similar cases might account for some alleged cures of cancer by hysterectomy; (2) a uterus and placenta removed, after delivery of a living child, by Caesarean section on arcount of a large fibroid obstructing labour.—Dr. MACNAUGHTON-JONES read notes of a case of albuminuria in which, early in the seventh month, without rupture of the membranes or any laceration of the cervix he had in twenty minutes effected dilatation by means of Professor Bossi's instrument.—Dr. HEYWOOD SMITH showed Kurz's suture forceps, one blade of which acted as needle-holder, the other, on closing the instrument, seized the threaded needle and withdrew it when the blades were separated.—In a paper entitled "Is there any Real Deciduoma Malignum?" Dr. HERBERT SNOW questioned whether the malignant developments immediately following and often unmistakably due to the trauma of parturition showed any title to a special term differentiating them from cancerous new growths in or about the uterus, apart from gestation. The decidua contained no cell elements distinguishable from those of connective tissue, and even if it generated a new growth, such growth could not, by the microscope, be distinguished from sarcoma or myosarcoma. The reference of deciduoma to the chorionic epithelium controverted the views of Saenger, and everything now turned upon the syncytium and the "plasmoidal masses." Photomicrographs were most misleading where malignant cell growth was concerned; a conscientious drawing might convey the truth, but a photomicrograph could not do so. Experts in malignant disease could not accept the differentiation of deciduoma malignum on microscopical evidence; the term was misleading; the disease so-called might occur apart from pregnancy, and there was no proof of the generation of malignant growths from placental structures, whether decidual or chorionic. Clinically the lesions in no way differed from those of uterine carcinoma, sarcoma, or myosarcoma of the uterus under the increased vascular tension of pregnancy. Even in the most acute forms of cancer some time was required for the development of widely sundered metastases, and, from what they knew of malignant disease elsewhere, it is highly improbable that the extensive lesions met with in many cases could have commenced during pregnancy, as cancer is never set up while healthy cell proliferation was going on. The only inference to be drawn was that the malignant development began before conception, and that the phenomena of cancer of the uterine body, always obscure and insidious, were marked by the pregnancy. The practical bearing of the recorded cases had been overlooked. Many were eloquent examples of the futility, and, indeed, of the dangers of the curette in the puerperium. The only valid treatment was complete hysterectomy. The CHAIRMAN was inclined to attribute greater value to photomicrographs than Dr. Snow gave them; a drawing was done with a certain amount of bias, and might accentuate points that a photograph would represent with greater truth. If the disease originated in the decidua, a theoretical distinction might be drawn between it and the malignancy arising in the wall of the uterus. Many cases seemed to have lost ground very rapidly after the use of the curette. Dr. MACNAUGHTON-JONES held that practically they must recognize deciduoma malignum as a malignant disease connected with the products of conception, with characteristic profuse haemorrhage and tendency to necrosis. Whether it approached carcinoma or sarcoma in character was of little importance compared with its early recognition and prompt extirpation. Dr. J. J. MACAN pointed out that, widely as Veit differed from Marchand as to the nature of the disease, they entirely agreed as to its clinical aspect and all its essential microscopic characteristics; in view of the number of recorded cases, it seemed idle to deny the existence of a peculiar form of malignant disease intimately connected with pregnancy, for which, out of the dozen or score of names that had been given to it, chorio-epithelioma malignum, suggested some years ago by Marchand, was now most generally acceptable.

ULSTER MEDICAL SOCIETY.—The annual meeting of this Society was held at Belfast on June 12th; Dr. WHITLA, President, in the chair. Mr. ROBERT CAMPBELL, F.R.C.S., the Secretary, read the report of Council and the Honorary Librarian's report, and the TREASURER read the statement of accounts showing a balance in favour of the Society. These reports were adopted. The meeting then considered the new constitution and rules, revised in consequence of the gift of the Medical Institute to the Society. These had been drawn up by a special Committee, and, with a few minor alterations, were now passed and adopted. The PRESIDENT explained the more important items of the trust deed of the new institute, and nominated as the first seven trustees Drs. Nelson, Dempsey, Shaw, Lindsay, Mitchell, Campbell, and M'Caw. The following office-bearers were then appointed for the ensuing session:—*President:* Dr. John Campbell. *Vice-Presidents:* Dr. Agnew (Lurgan) and Dr. Austin. *Council:* Drs. Morrow, Byers, Robb, Colville, Donnan, and Moore. *Honorary Treasurer:* Dr. McNutty. *Pathological Secretary:* Dr. Lorrain Smith. *Honorary Secretary:* Dr. Thomas Houston, 53, Great Victoria Street, Belfast, to whom all communications should be sent.

REVIEWS.

THE ENCYCLOPAEDIA BRITANNICA.

IN the article on Bacteriology contained in the new volume of the *Encyclopaedia Britannica*,[1] to which we have already briefly referred, Professor Marshall Ward deals with the general scientific aspects of bacterial life and Professor Muir with the action of bacteria as pathogenic agents. In treating the important and obscure question of bacteriological classification Professor Ward points out the futility of hoping to base a rational classification on such properties as liquefaction of gelatine, pigment formation and evolution of carbon dioxide or other gases. Such physiological characteristics as these are too variable and too dependent on the particular nature of the nutritive medium, the age and degree of vitality of the organism, and the conditions of the external environment to be taken as guiding principles in scientific differentiation. Professor Ward attaches much more importance to some of the recent morphological principles of classification which have been brought forward, and exhibits in tabulated form the very original scheme published by Fischer in 1897. But, as he points out, the stress which is laid, in Fischer's method of differentiating bacteria, upon minute differences in the disposition and number of such extremely fragile and evanescent structures as cilia is a serious obstacle to the practical utility of the classification. It is by no means easy to stain these structures satisfactorily, nor is it always convenient to culti-

[1] *The New Volume of the Encyclopaedia Britannica*, vol. ii. Edinburgh and London: Adam and Charles Black. 1902. *Bacteriology*, pp. 51 to 99. By H. Marshall Ward, D.Sc., F.R.S., and Robert Muir, M.D.

vate the organism we wish to examine upon the particular medium favourable to their development or to examine the growth before it has lost its mobility. Professor Muir, after giving a brief and elementary account of bacteriological technique, devotes the rest of his space to the subject of intoxication and immunity. The leading features of Ehrlich's "side-chain" theory of antitoxin formation are very clearly explained, together with the confirmatory evidence derived from experiments with tetanus toxin. There are also short accounts of the phenomena of lysogenesis and agglutination. The article as a whole ought to prove very helpful to persons desirous of obtaining a simple outline of some of the leading problems of bacteriological theory which are being keenly discussed at the present day.

THE COCA LEAF.

An exhaustive account of the coca plant, with which is incorporated an interesting history of the Incas, their customs, and their religious ceremonials—in all of which the coca, their sacred plant, plays a part—has appeared from the pen of an American physician, Dr. GOLDEN MORTIMER.[1] The general tenor of his work is to advocate the claims of the entire coca leaf, both as a medicament and as a means of enabling the individual to undergo extreme exertion with a minimum of distress, properties which have more or less fallen out of sight since the discovery and extensive use of its principal alkaloid, cocaine. The origin of the use of coca is lost in antiquity, but we are told that from time immemorial no Indian has performed the feats of endurance of which they are capable without chewing the coca leaf with some lime or alkaline ash, which probably act by rendering the alkaloids more readily available. It is stated that at the present time the average quantity consumed amounts to 1 or 2 oz. of the dried leaf a head per diem, the quantity served out varying with the severity of the work to be done. This effect of coca chewing has been confirmed by various European and American observers, amongst others by Sir Robert Christison, but the results obtained, though on the whole fully confirmatory of its efficiency, have been somewhat variable. This is not to be wondered at when it is remembered that the Indian is very particular in the choice of his leaves, both as to their sort and their state of preservation. The leaf which he selects is not, it appears, by any means that which is most rich in cocaine. On the contrary, it is comparatively poor in this alkaloid, and is therefore not such as is usually exported. Some uncertainty still prevails with regard to the chemistry of the coca leaf, owing partly to a doubt as to whether some of the alkaloids really exist in the unaltered leaf, or are decomposition products. It appears, however, to be established that, besides the crystallizable cocaine, there are other non-crystallizable alkaloids, some of which are volatile, and that these are more abundant than cocaine itself. It is a leaf, rich in these other alkaloids which is invariably selected with care by the Indians, but the physiological action of these other alkaloids, of which a volatile oily fluid named hygrine is one of the most abundant, has not been worked out. Some of these bases are however, rather intimately related, as cocaine itself readily yields a body of the benzoyl group, benzoyl ecgonine, and conversely cocaine may be derived from benzoyl ecgonine, whilst the oily sticky body so generally found in the leaf may perhaps be identical with the isatropyl cocaine of Liebermann, in which the benzoyl group is replaced by isatropyl. The physiological effects of coca leaf as a cardiac tonic appear to be marked, and to this perhaps its usefulness in mountain sickness may be attributed. It has, it is asserted, the curious property of allaying hunger without the destruction of appetite when the opportunity of taking food occurs. It is also claimed that it purifies the blood by increasing the elimination of waste products. But the investigation of the action of cocaine has so greatly diverted attention from that of the mixed alkaloids, that their action has not been very thoroughly investigated. The dilatation of the pupil which follows chewing any considerable quantity of the leaf may be due to the cocaine which it contains. It is also maintained that the coca leaf has the property of producing its effects without any after-reaction, and that, although the habit of chewing coca is so universal among the Indians, they appear to suffer no harm from its use. The therapeutical effect of the entire leaf well preserved is said to be superior to that of any extract or or other preparation hitherto made from it. In effect it somewhat resembles small doses of opium; it has been used as a sedative to replace bromide; in the debility of fevers it even for a time replaces food which could not be taken. The book, while it contains much entertaining reading, suffers from the fact that the author, in his endeavour to be exhaustive, is often much too discursive. The information on any given subject is often so scattered as to be difficult to find, though this fault is partly remedied by a good and copious index. In its concluding pages the result of a collective investigation into the properties of the coca leaf and its preparations are given. Dr. Mortimer met with disappointment owing to some of those to whom inquiries were addressed never having heard of it or never having used it, some even believing that cocoa was the subject of his investigation. But he got answers of a more precise nature from some 369 correspondents, which are all tabulated, and which appear to establish a definite effect upon the rate of the circulation and a raising of the blood pressure, as well as other therapeutic effects.

[1] *History of Coca, "the Divine Plant" of the Incas.* By W. G. Mortimer, M.D. New York: J. H. Vail and Co. 1901. (Roy. 8vo, pp. 608, 178 illustrations. $5.)

NOTES ON BOOKS.

DR. W. T. BLACK has reprinted in a volume entitled *The Fish River Bush, South Africa, and its Wild Animals*,[2] certain articles contributed by him to the *Edinburgh New Philosophical Journal* in 1853, when he was serving on the eastern frontier of the Cape Colony against the Kaffirs and revolting Hottentots. It has, of course, an additional interest at the present time. The author, then a young man, was evidently not a practised writer; but he managed to convey in a few words a very clear and graphic picture of whatever he wished to describe. The Fish River and its tributaries, alternately stagnant or even putrid, or swollen with liquid reddish mud, the drifts or fords, the vleis: the dense, continuous, sombre, brownish-green bush, the flowers that diversify it in season, are all distinctly brought before the eye. Among the animals described is that singular edentate the aardvark (earth hog); the author made careful dissections of the tongue of this creature, by means of which, well protected with lubricating secretion, it entraps the ants which form its nourishment. The author held strong views as to the powerful action of environment on type, affirming the speedy degeneration or assimilation to the native breeds of well-bred European dogs, sheep, and oxen.

We have received from Mr. H. K. Lewis a *Supplementary Catalogue* of his well-known *Medical and Scientific Library* for 1898-1901,[3] including a classified index of subjects with the names of the authors who have written on them; also a list of new books and new editions published during January, February, and March, 1902, and added to the library. The price of the respective books is in each case appended, and the cost of postage is also contained in the latter list.

HOSPITAL REPORTS.

THE seventh volume of the *King's College Hospital Reports*,[4] which includes a report of the Medical Department of King's College, is edited by Dr. Norman Dalton, Mr. Albert Carless, Dr. John Phillips, and Dr. W. D. Halliburton. It represents the work of fifteen months—from October 1st, 1899, to December 31st, 1900. Among other obituary notices is one of the late Professor Alfred William Hughes. In addition to several papers on single subjects there are well worked up records of the work in some thirteen departments. There are interesting sections at the end of the volume on What Old King's Men are Doing, and a Local Medical Directory.

[2] *The Fish River Bush, South Africa, and its Wild Animals.* By W. T Black, M.R.C.S., L.S.A., Assistant Surgeon, Army Medical Staff. Edinburgh and London: Young J. Pentland. 1901. (Demy 8vo, pp. 5, five full page illustrations. 3s.)

[3] London: H. K. Lewis. 1902. (Demy 8vo, pp. 107. 6d.)

[4] London: Adlard and Son. 1902. Pp. 457.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

AN EMERGENCY DISINFECTOR.

THE numerous recent outbreaks of small-pox in rural districts have led to the erection of a considerable number of temporary isolation hospitals. Under these conditions a difficulty always arises when patients are to be discharged with regard to disinfection: there are objections to the removal of infected clothing, bedding, etc., to a distant disinfection station, even if one exists, whilst the burning of such articles may become a serious source of expense. This difficulty, however, has been surmounted by Dr. Thresh, the medical officer of health to the Essex County Council, who has constructed a portable machine in which the disinfecting agent is current steam saturated with the vapour of formic aldehyde, that can be used either at the patient's house or at the temporary hospital.

We have recently had opportunities of thoroughly examining and testing this emergency disinfector: a high estimate of its value is, we believe, justified by the following summary of the result of our inquiries:

1. *Low Initial Cost.*—A machine provided with a disinfecting chamber large enough for the reception of bed, bedding, and complete set of clothing, etc., can, we are informed, be supplied at a cost of £20 to £25, packed and delivered.

2. *Small Working Expenses.*—If only used occasionally, the cost averages 1s. each time the machine is employed: if, however, it is in constant use, and materials—oil and formalin—are purchased in quantity, the cost should not exceed 6d.

3. *Ease of Transport.*—The machine with all accessories weighs about 2 cwt., and is easily handled and carried about in a hand barrow.

4. *Simplicity of Construction.*—The machine has no complicated parts to get out of order. The only apparent difficulty in connexion with the apparatus is that the means employed for generating steam consists of a petrol blast furnace; but that this difficulty is apparent only is evidenced by the fact that ordinary "unskilled" labour is able to follow the directions issued with the petrol furnace, not only without danger but with perfect results. Dr. Thresh has had one of the machines in ordinary use in his administrative district for many months, and several others have been in use for some weeks in different districts.

5. *Ease of Manipulation of the Machine: Efficiency and Rapidity of the Process of Disinfection.*—By following the simple instructions provided, reliable and concordant results will be obtained. The experience of the past months shows that the disinfection is thorough; and, finally, the actual disinfection and subsequent drying of the suspected materials contained in the disinfecting chamber occupies just over one hour.

6. *Bacteriological Tests.*—It completely satisfies such by sterilizing infected materials, cultures of organisms, etc. (*vide infra*).

7. *Disinfected Articles are Dry and Uninjured.*—In view of the need for a disinfector presenting so many valuable points a brief description of the machine and of the tests we applied may not be without interest to those concerned in safeguarding the public health.

Description.

The disinfector consists of a disinfecting chamber, beneath which is a water reservoir in which the steam is generated, mounted on an iron stand, the source of heat being a petrol furnace (Fig. 1). The disinfecting chamber proper consists of a light framework supporting walls of thin metal lined inside and out with non-conducting materials. The chamber is 5 ft. 6 in. high and 2 ft. 3 in. square, has a false bottom, and at the top a series of bars from which light articles can be suspended, and weighs 150 lb. One side is removable and acts as a door (Fig. 2); it is secured when the chamber is in use by six thumb-screws (weight 33 lb.); at its upper part is an adjustable ventilating grating, which allows egress to the steam. The bottom of the chamber is of steel plate covered with asbestos, and having a ring of perforations near the



Fig. 1.

centre. Under this plate slides an iron vessel, weighing 10 lb., capable of holding about 3 gallons of water, which can be heated by a small oil furnace of great intensity. The whole is placed on a wrought-iron support, weighing 36 lb., leaving just sufficient room for the furnace to go under the boiler. The total weight is 229 lb. = 2 cwt. 5 lb.



Fig. 2.

The machine can be used in the backyard of any cottage, and can be carried about on a handcart, large handles fixed to the lower part of the disinfecting chamber facilitating its re-

moval. The lamp-stand, boiler, etc., all pack inside the disinfecting chamber when not in use.[1]

Method of Use.

To use the machine, the bedding, clothing, etc., are suspended in the disinfecting chamber from the bars at the top, the door is securely fastened by means of the thumb-screws, and the ventilating grating opened. One and a-half gallon of water, to which has been added 8 oz. of formaldehyde solution, are poured into the boiler, which is then placed in position, and the petrol furnace started. In about ten minutes the water boils vigorously, and steam appears at the exit grating, which is then half closed. The steam given off is most pungent, and would help to disinfect the upper part of any room or outhouse in which the machine was being used, although the comfort of the operator would probably lead him to prefer the disinfection to take place in the open air. The temperature inside the machine is fairly uniform, and reaches 99.4° C. to 100° C. from ten to twenty minutes after steam is first seen. The steaming process continues for forty-five minutes, reckoned from the first appearance of steam at the exit, when the boiler containing the water and formaldehyde is removed, and a baffle plate inserted in its place. This permits of very hot air entering through the perforated bottom, and in a few minutes the steam is removed from the machine. If only light goods are being disinfected, a quarter of an hour's drying is sufficient, but in the case of a bed or other bulky article at least half an hour should be allowed.

For leather goods and all materials which cannot be disinfected by steam, the machine can be used for dry disinfection by placing paraformol on the baffle plate under the bottom of the machine, and starting the furnace, when the formaldehyde formed during volatilization passes with the heated air into the machine. The sliding ventilating grating enables the temperature to be sufficiently well regulated and maintained for any length of time.

Experimental Investigation.

The employment of steam saturated with formaldehyde vapour as the disinfecting agent is a new application of this germicide. It is generally understood that during the conversion of formalin (the commercial form of formaldehyde, consisting of a 40 per cent. solution of the gas in water) into current steam, a polymeric form of formic aldehyde—paraformic aldehyde or trioxymethylene—appears in the shape of a white amorphous deposit, which possesses but feeble germicidal powers, and can only be volatilized at extremely high temperatures. Dr. Thresh, however, has practically demonstated that if dilute solutions of formaldehyde in water—for example, 2 per cent.—are employed, this change does not occur; moreover, exact experiments show that with such dilute solutions, fully 80 per cent. of the formaldehyde passes over in the steam. Some of the bacteriological tests applied to the machine are tabulated below, and, in addition to showing the efficacy of the machine as a sterilizer when properly used, also point to the vigorous action of the formaldehyde when carried through the disinfecting chamber by means of the current steam. Further, Experiments 1, 2, and 3 prove that the current steam generated in the machine, when employed for thirty minutes either alone or in conjunction with formaldehyde vapour, or (Experiment 4) current steam alone for forty-five minutes, are not sufficiently reliable disinfecting agents.

In all the following tests the organisms employed were derived from pure cultivations, and, although growing vigorously, were all (with the exception of the B. tuberculosis) highly virulent. Large quantities of the cultivations, in the case of each organism, were smeared on pieces of sterilized cigarette paper, rapidly dried in a sulphuric acid desiccator, then enclosed in small sterile test tubes loosely plugged with cotton-wool. After disinfection these pieces of paper were transferred entire, under aseptic precautions, to tubes or flasks of suitable fluid nutrient media. Careful controls for each organism were made in every experiment. The tuberculous sputum employed as test material was derived from an advanced case of phthisis, and was particularly rich in tubercle bacilli. For the purposes of the experiments small pieces of sterile cotton-wool were saturated with the sputum, or sputum was smeared on sterile cigarette papers; the wool and papers were then dried in the desiccator, and finally enclosed in test tubes, as had been done with the preparations from the cultivations. After removal from the disinfecting chamber these pieces of wool and paper were at once inoculated subcutaneously into guinea-pigs which had previously been tested with tuberculin. Control wool and paper, similarly saturated with the sputum and dried, but not exposed to the disinfector, were inoculated in a similar manner, and in every instance the infected guinea-pigs succumbed from general tuberculosis in from twenty-one to twenty-eight days:

Experiment 1.

Current Steam only, for 30 minutes.
In this experiment the temperature of the interior of the disinfecting chamber never rose above 93.3° C.

Killed:	
Staphylococcus pyogenes aureus	Rolled in 6 folds of blanket and exposed at bottom of chamber
Diplococcus pneumoniae	
B. diphtheriae	
B. dysenteriae	
Streptococcus pyogenes longus	Rolled in 6 folds of blanket and exposed at top of chamber.
Micrococcus melitensis	
B. typhosus	
V. cholerae	
B. mesentericus ruber, vegetative form	
Failed to Kill:	
B. anthracis, vegetative form	In interior of flock bed suspended in centre of chamber.
B. anthracis, spores	
B. mesentericus ruber, spores	

Experiment 2.

Current Steam only, for 30 minutes.
Temperature of interior of disinfector reached 100° C.

Killed:	
B. tuberculosis, cultivation	Rolled in some 20 folds of blanket and exposed at top and at bottom of chamber.
Failed to Kill:	
B. mesentericus, spores	Rolled in 20 folds of blanket, and exposed at top and bottom of chamber.
B. tuberculosis, in tuberculous sputum	

Experiment 3.

Current Steam only, for 45 minutes.
Temperature of interior of disinfector reached 100° C.

Killed:	
B. tuberculosis, cultivation	In the interior of a flock bed.
Failed to Kill:	
B. mesentericus, spores	
B. tuberculosis, in tuberculous sputum	

Experiment 4.

Current Steam saturated with formaldehyde, for 30 minutes.
Temperature of interior of disinfector reached 98.9° C.

Killed:	
Streptococcus pyogenes longus	Rolled in 6 folds of blanket and exposed at bottom of chamber
Diplococcus pneumoniae	
Micrococcus melitensis	
B. dysenteriae	
B. anthracis, vegetative form	
Staphylococcus pyogenes aureus	Rolled in 6 folds of blanket and exposed at top of chamber.
B. diphtheriae	
B. typhosus	
V. cholerae	
B. mesentericus ruber, vegetative form	
B. anthracis, spores	In centre of flock bed.
Failed to Kill:	
B. mesentericus, spores	In centre of flock bed.

Experiment 5.

Current Steam saturated with formaldehyde, for 45 minutes.
Temperature of interior of disinfector reached 100° C.

Killed:	
B. tuberculosis, cultivation	Rolled in 30 folds of blanket and exposed both at top and bottom of chamber.
B. tuberculosis, in tuberculous sputum	
B. mesentericus, spores	

Experiment 6.

Current Steam saturated with formaldehyde for 45 minutes.
Temperature of interior of disinfector reached 100° C.

Killed:	
B. tuberculosis, cultivation	In interior of flock bed.
B. tuberculosis, in tuberculous sputum	
B. mesentericus, spores	

The above series of experiments show that the addition of formalin greatly aids the process of disinfection, and that if the machine is used as directed, even the spores of the most resistant organisms, folded in blankets or enclosed in a rolled flock bed, are invariably destroyed.

To test the drying effect of the machine, clothes, blankets, beds, etc., have been experimented with, being weighed before and after disinfection. In many cases the weight has been less after treatment than before, and in no case is the increase in weight an appreciable quantity, as will be seen from the following figures:

[1] We are informed that a patent has been applied for, and provisional protection obtained, and that the machines will be made by the Thresh's Disinfector Co., Westminster. Machines of any size can be made, providing the furnace and boiler are adapted thereto.

Experiment 7.

Bundle of Blankets.

Weight before treatment	6 lb. 9 oz.
Weight after treatment	6 lb. 10 oz.
Weight after exposure to air for an hour...	6 lb. 5½ oz.

Experiment 8.

Flock Bed.

Weight before treatment	35 lb. 8 oz.
Weight after treatment	35 lb. 12 oz.
Weight after exposure to air for an hour...	35 lb. 8 oz.

Experiment 9.

Flock Bed.

Weight before treatment	38 lb. 14 oz.
Weight after treatment	39 lb. 8 oz.
Weight after exposure to air for an hour (on a wet day)	39 lb.

THE BORDERLAND OF QUACKERY.

(*Concluded from page 1550*).

THE PHYSICO-THERAPEUTIC "CURE."

THE most striking feature about all these institutions is the similarity, not only of their systems of treatment, but also of the formula of their appeal to the public, and to this witness is again borne by another institute, which lays itself out for the "Physico-Therapeutic Treatment of Muscular and Nervous Diseases." In this case the syndicate or proprietor has "been successful in introducing the newest apparatus for the treatment by light, vibrations, ozone, etc." Resident as well as daily patients are received, and light baths, electro-vibrations, and ozone inhalations are supplemented by Swedish movements and massage. "The Institute is under the supervision of a member of the Swedish Medical Association, but"—be it observed—"it is requested that medical men will send full particulars of each case and the treatment they desire to be carried out, and that they retain the general management of their patients." Here we have almost a replica of the others, and again we ask in amazement Where does the medical man come in? and Why should he lend his countenance to the support of such institutions at the expense of his own profession? If laymen will believe in the power of such self-constituted perfect cures they must be left to have their imperfect and wayward judgement corrected by experience. That, in the large majority of cases, they are trusting to a broken reed is their affair and theirs only; so it is their business and theirs only if they do not shrink from submitting themselves to electrical and light applications, which are not always so innocuous as is asserted by those who, for personal gain, so strongly urge their bold adoption. But why should the medical man be so blind to his own interests or so unfaithful to his scientific up-bringing that he assents to, and sometimes even encourages, the patronage of commercial enterprises which obviously reap no small share of the harvest which ought, by all that is right and fair, to belong to him or his brother practitioner in special practice? It needs but one little step further for him to approve of and lend his support to yet another institution, which flourishes in a leading thoroughfare of Mayfair, where, in addition to electrical treatment for the cure of "neurasthenia and functional nervous disorders, gout, rheumatism, sciatica, lumbago, headache—in fact, any and all of the reflex nervous disorders," his patient may have his features painlessly altered until his best friend won't know him; protruding and ill-shaped ears are transformed into the most delicate and perfect shape, noses that are snub and ugly are altered into models of Grecian or Roman symmetry, hollow cheeks are filled out, wrinkles obliterated, and the whole face rendered harmonious, expressive, and beautiful. Even here the usual bait is alluringly dangled below his nose, because the company is good enough to say that it "extends the courtesies of its office to the medical profession of the United Kingdom, where they may bring obstinate cases for treatment by the *x* ray or the transformed spark treatment."

THE HOT-AIR "CURE."

Another system of treatment from which undoubtedly good results have been achieved in various muscular and joint affections is that by means of hot-air baths. Though gas or oil may be used as heating agents for the various apparatuses which are required, electricity is the means to which recourse is most frequently had, and it is for many reasons undoubtedly the best, but some of the systems, which are those most known, are adapted to the public requirements in such a way as to lay them open to the suspicion that they endeavour to ingratiate themselves into general favour by professing to carry on their operations only under the direction of members of the profession; whereas, as a matter of fact, at some at least, the hackneyed assertion that patients are only received under the orders and on the introduction of their medical advisers is more honoured in the breach than in the observance. Even if it were unreservedly true that this rule was scrupulously observed, it may fairly be questioned whether such attempts to create a corner in a process of treatment which is certainly valuable ought to be supported or encouraged by the profession. It will not be denied that the use of such a powerful therapeutic measure demands skilled supervision, nor can it be contended that such supervision is possible except by a man skilled in the management of disease, and with such knowledge of physiology and pathology as enables him properly to appreciate the effect of the means he adopts for the relief or cure of his patient.

The various patentees of these systems are probably excellent electricians, and have full knowledge of how to control and apply the instruments they have devised and which they invite the public to apply to the cure of their ailments; but what means do they possess of gauging the results of their applications except the empirical test of the patient's statement? If they accept patients on their own responsibility, they are, *ipso facto*, tacitly undertaking a duty for which they are not trained.

From the commercial point of view, this may not be to them a matter of much consequence, but from the professional aspect it is obviously undesirable that such an anomalous state of things should be encouraged. If this or any other form of treatment is valuable, it ought to belong to the profession, and so, also, should the emoluments which attach to its usage by the sick public. Any attempt to create a monopoly must be strongly condemned. It is a form of borderland practice which is harmful to the profession. Neither those who encourage nor those who exploit and carry it on have complete enough knowledge of the means adopted on the one hand, and the results to be expected or feared on the other; consequently, the patient may be lulled into false security by irresponsible promises on the part of one party to his safe management, and imperfect knowledge on the part of the other.

How, it may well be asked, is all this to be avoided so long as the apparatus for treatment by super-heated air remains in the hands of a few men who are not members of the profession? The obvious answer is, by declining to send patients for treatment to any institution conducted by laymen. If the specialists to whom we have already referred were properly supported, there would, within a very short time, be no lack of places where the advantages of the method could be obtained under the guidance of a duly qualified and trustworthy member of the profession. Such specialists would then be able to earn a sufficient reward for their labours and both patient and doctor would be assured of a careful and reliable application of methods which are full of promise whenever they are freed from those trammels of commercial enterprise and scientific inaccuracy which at present bar the way to their full development.

A MODERN PENTACLE OF REJUVENESCENCE.

In the March issue of one of our most popular monthly magazines there appears an article under the title of "The New Elixir of Life" which is written for the purpose of enlightening the public about yet another establishment which is, in this case, called a hospital, and which is under the direction of a "Professor of Electricity" whose name is not unfamiliar as a borderland specialist. Reference is made to the article as evidence of the extreme lengths to which electrical treatment is being foisted upon the public and of the unfortunate prominence which the public press is ready to give to the exponents of wonderful cures. The article is illustrated by photographs of various forms of electrical apparatus used by the

"professor," and this is how the modest pretensions of the method are described: "At first it is difficult to realize that one remedy can prove a universal panacea, yet it is not so wonderful when we remember that there is only *one* disease—cell disease; so soon as the ailment can be located it only remains to invent machines which are capable of penetrating to the afflicted parts, and of applying a sufficiency of electric force to assist Nature in growing healthy cells. As Professor Virchow said: 'If the cells of the body can only be kept healthy indefinitely we should never die.'" We are informed that this hospital has succeeded in gaining the patronage of a large number of influential people, and that at one time, if not now, a registered member of the profession was associated with the management, a retired officer of His Majesty's army was the chairman, and an ex-lady superintendent of one of our large hospitals the honorary secretary. Here surely is inducement enough to mislead the guileless sufferer from one or other of the long list of diseases which electricity at this hospital is said to be capable of alleviating—inducement enough—and probably so designed—to even tempt men in practice to avail themselves of this "professor's" services. We refrain from stating his name, lest its mention might serve as an advertisement. His success is but another instance of the carelessness with which we guard our own interests and the indifference which we display towards irregular systems of practice.

DRINK "CURES."

But electricity is not by any means the only lighthouse in the dark and unexplored borderland; there are other havens of promise to which suffering humanity is beckoned with the enticing promise that what all the doctors in the world have failed to accomplish will probably be achieved in this or that home of the latest and most perfect cure.

In a series of articles lately published in the BRITISH MEDICAL JOURNAL on the various specifics for the cure of alcoholism and of drug habits we were able to demonstrate that a long series of institutions were busily employed in this country carrying on work which may be fairly relegated to the borderland with which we are now dealing. Their methods bore, as we pointed out, a strange similarity to one another, and in the case of each institution it based its claim upon the suffrages of the class of suffering humanity to which it appealed on the possession of a remedy or remedies whose nature for prudential reasons could not be disclosed, but which possessed the power of restoring to the victim of drink, morphine, or any other drug mania, his power over himself so completely that after a few months he could be guaranteed to acquire absolute and permanent loathing for the intoxicant which had previously been his master. The nostrum possessed by each was the special plea advocated for its superlative excellence over all other similar institutions, but the *modus operandi* of catching the public was in all alike—the prominence on the board of management of one or more well-known and sometimes distinguished laymen whose zeal in a good cause surpasses their discretion; the publication of a long series of testimonials from those who had been completely cured, and prominently among them a fair sprinkling whose modesty forbade the subscription of their full signature, but added to whose initials the letters M.D., M.R.C.S., or L.R.C.P. denoted the occupation of the testifier, and gave to the institution the assumed recommendation of being approved and patronized by the medical profession; a loudly-voiced assertion that the first and main object in view was a humanitarian desire to eradicate alcoholism, morphinism, cocainism, and all other like scourges with which, in these latter days, the world is becoming so grievously and increasingly afflicted; and a humble intimation that an honorarium of so many guineas was required to cover the cost of maintenance, and to enable the institution to be, as nearly as possible, self-supporting. Our investigations into the working of these drink and drug cure establishments satisfied us that, so far from being in any sense philanthropic, they were highly remunerative to their owners, and that, despite the enormous successes claimed, there was no adequate evidence either of their reliability or permanence; while the fact that each and every one of them, dealt with drugs the names and formulae of which they declined to disclose, was almost enough to place them on the nether side of the borderland country.

EXERCISE "CURES."

There are scattered over London innumerable minor establishments where various forms of massage, passive movements, resistive exercises, and all the other devices for improving muscular tone or restoring nervous vigour are industriously prosecuted. In one street alone there are two exponents of this branch of therapeutics—of whom one bears no less a title than that of a baron of the German Empire—who ply a trade which is evidently flourishing and assuredly remunerative.

In another, a fashionable and elaborate house is occupied by a gentleman whose correct doorplate gives the impression of his being an ordinary member of the profession. His name does not appear on the *Medical Register*, but none the less his fame has grown to such an extent that we are informed by a correspondent that "the carriages of the nobility line the street from 8.30 in the morning till eve." Not far off, yet another brass plate bearing a foreign name, whose owner is widely known as an expert of some system of movements and gymnastics peculiarly his own, is witness to the fact that this department of borderland practice is sufficiently attractive to bring into the English market "professors" from distant lands who, though probably unable to achieve the honour in their own country which is proverbially denied to the prophet, yet find in the wealthy and crowded thoroughfares of Belgravia and Mayfair that recompense which an unappreciative populace has denied to them at home.

X-RAY "CURES."

Lastly, an appreciable proportion of our own chemists, photographers, and instrument makers, most excellent tradesmen all of them, have so far forgotten the limitations of their vocations that they have thought it not unbecoming or improper to invade the borderland by laying themselves out for *x*-ray work and other therapeutic measures with which they have nothing to do and for which, we humbly submit, they are absolutely unqualified. We have no fault to find with this class of person if he merely serves the public by taking skiagraphs. In doing this he is, after the same manner as the ordinary photographer, performing a service which is convenient both for the public and the profession. When, however, this limit is exceeded and he arrogates to himself the skill to diagnose the pathological condition from the pictures he has photographed; or when, worse still, he ventures by means of light rays to cure disease, he is trenching upon ground which does not belong to him, and, like the pirates of old, is concealing his identity under a flag he has no right to fly.

In all these cases, just as in the various electrical institutions with which we have dealt, there is the usual assertion that this particular department has been instituted for the convenience both of doctors and their patients, and that cases are only received "under the direction of a medical man." We are unable to prove positively that this rule is never departed from but we have reasons for being sceptical, and would be interested to know whether the medical man, when there is such a person, is held responsible for fatality when such occurs, as has happened in at least one case of which we have knowledge.

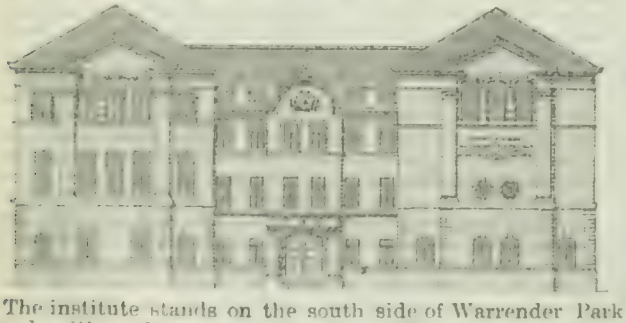
CONCLUSION.

It is indeed high time that medical men should seriously consider these various developments of unqualified practice and take such steps as are necessary to limit the operations of those who find the borderland of quackery such a profitable and pleasant place to live in. We would commend to the serious consideration of every member of the profession the following note of warning contained in an article published in the *Practitioner* of December, 1901: "It is often said that as a profession we are unbusiness-like—oftenest, perhaps, by men of business who have exploited us. There is the risk that we may become the tools and the victims of the capitalist, the company promoter, and the jack-in-office. The movement is perhaps yet in its infancy, and at any rate there is still time for the profession to assert its position. We must insist that if therapeutic institutions are to grow and multiply they shall be conducted on sound medical principles, that such principles shall be supreme, and that in the management of such institutions the medical superintendent shall be the real governor."

THE JOHN USHER INSTITUTE OF PUBLIC HEALTH OF THE UNIVERSITY OF EDINBURGH.

THE late Mr. A. L. Bruce, by a codicil to his will, dated November 27th, 1893, left a legacy of £5,000 to the University of Edinburgh to assist in founding a Chair of Public Health. On the resignation of Sir Douglas Maclagan the University authorities resolved to institute a Chair of Public Health apart from the Chair of Medical Jurisprudence. To further this end Mrs. A. L. Bruce gave £500; Miss A. Blackwood Bruce, £500; other members of the family, £163; Messrs. William Younger and Co., £1,000; and Sir John Usher completed the endowment of the Chair by a gift of £8,000, bringing the total funds up to £15,163. Dr. Charles Hunter Stewart, who had been for many years Assistant to Sir Douglas Maclagan in the department of Medical Jurisprudence and Public Health of the University, was appointed to the new Chair.

The Public Health Laboratory in the University was opened in 1884, and was extended in 1890 to provide further facilities for teaching and research in bacteriology and chemistry in relation to the diagnosis and prevention of infectious diseases. It was soon found that the accommodation at the new University buildings was inadequate for the wants of the new chair. At this stage Sir John Usher again came to the rescue, and generously offered to give £10,000 to build and equip an institute of public health on condition that the University should find the site. At first it was thought that the Institute might be built on ground belonging to the University between the music classroom and the Students' Union, but as the light was defective this idea was abandoned. After consideration a site in Warrender Park Road was selected. The Committee appointed by the University Court to take charge of the building and equipment of the Institute appointed Messrs. Leadbetter and Fairley to be the architects, and these gentlemen, along with Professor Hunter Stewart, visited the Public Health Institutes of England and the Continent. On their return plans were made and submitted to Dr. J. B. Russell, of the Local Government Board for Scotland, who expressed his approval.



The institute stands on the south side of Warrender Park Road, with a frontage to the north. The exterior of the building shows a treatment of the classic Renaissance detail, somewhat resembling the new University buildings in Teviot Place. It is roofed with red Roman tiles, and is rectangular in plan. The building itself is 133 ft. long and 48 ft. broad, while the ground in which it stands is 250 ft. by 110 ft. There are three stories. The front faces the north, the central part is recessed, and the main entrance is the middle of the recess. Over this entrance a centre shield shows the Scottish lion, while on either side are the arms of the Chancellor of the University (the Right. Hon. A. J. Balfour) and the arms of Sir John Usher. Higher still the arms of the University appear. On the front of the west wing is this legend in deeply-incised letters:

University of Edinburgh.
The
John Usher Institute of Public Health
Presented to the University by
Sir John Usher, of Norton and Wells, Baronet.
May, MDCCCCII.

On passing through the revolving door of the main entrance one stands in the handsomely-panelled oak hall, where on the left a bust of the donor, Sir John Usher, has been placed.

For convenience of description it may be well to begin at the basement, entrance to which is obtained by a stair down from the Entrance Hall or by a door at the back.

THE BASEMENT.

At the east end we find an electric motor of 5-horse power for giving high pressure air, and for giving water at a constant pressure. Coal cellar and boilers fill up the space till we come to a chamber in which there is to be placed on a concrete bed rock a large centrifuge worked by a small electric motor. Behind this is an incinerating chamber for the cremation of the bodies of animals used for purposes of investigation or of infective material. Next in order we have staircase and lift, and at the west end a cold room kept cold by Hall's patent carbonic anhydryde refrigerating machine, the pump worked by a second electric motor of 5-horse power supplied from the city main.

THE GROUND FLOOR.

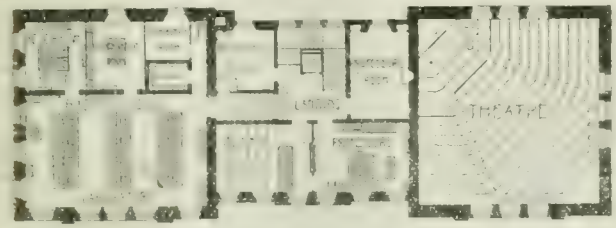
To the left of the entrance hall is a small research room, No. 1, in the centre of which is a table 6 ft. square, and arranged so that one or two students can work at each side. It is provided with gas nozzles, pressure water taps, steam taps, reagent shelves, and ventilating opening in connexion with the fan arrangement afterwards to be referred to. Next to this, in the north-east part, is the Museum, a lofty chamber 40 ft. long and 25 ft. broad, lighted by six large windows and floored with marble mosaic. The Museum is educational. Large cases of Spanish mahogany have been prepared, and several of these are in their places. One at the west end is to contain tubes with permanent cultures of air and water bacteria in stands, and one at the east end tubes containing permanent cultures of pathogenic organisms. Others will show preserved specimens illustrating the diseases of animals communicable to man; apparatus for hygienic investigation, chemical, bacteriological, and meteorological; working models of filter beds and working examples of filtration of water; illustrations of the means taken for the protection of workmen engaged in noxious trades; disinfectants and disinfecting apparatus, etc.

To the immediate right of the entrance hall is a gas analysis and photographic room fitted with work table, sink, etc., and a micro-photographic apparatus laid on a bed-rock of concrete. Beyond this, and still on the north side of the building, is a suite of three rooms, the first an office, for the bacteriological work of the City of Edinburgh. Behind these are two animal cellars and a lavatory. Behind the Museum is the caretaker's house, consisting of parlour, kitchen, and bedroom, with entrance only from the outside at the back.

THE FIRST FLOOR.

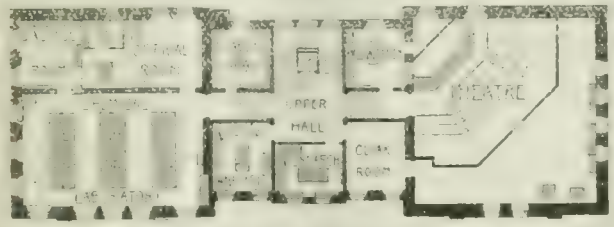
The whole of the west wing of this and the second floor are occupied with the Lecture Theatre, with entrance from the first-floor hall. The rostrum with table in front, fitted with gas nozzles, pressure air-pipe, two circular openings to a flue to the fast fan, and slate and lantern screen behind, occupies the south-east corner, while seats for 274 students are staged on the line of a catenary curve round this. The lecturer's table can be seen with ease from every part of the theatre. The lighting is from side windows and a large cupola. When lantern demonstrations are being given, the whole room can be darkened by blinds controlled at the rostrum. A space for the lantern operator stands high up in the staging. In the middle section of the Institute, and to the back, is a small preparation room with a door leading on to the rostrum; while in the corresponding space in front is a cloak room. Over the entrance hall is research room No. 2, and adjoining it a water analysis room. In the north-east section, over above the Museum is the Chemical Laboratory with three double tables, fitted up for eighteen workers. Each table is supplied with cold water, pressure water, pressure air, steam, gas, and electricity for each worker. The tables have drawers, cupboards, writing slide, and shelves for each student; and all noxious fumes and steam are carried off from each space by flues leading to the exhaust chamber. In the room also is a large fume closet, a steam drying chamber for residues, and a filter chamber. The pressure water waste is by an ingenious

device returned to the pump tank for re-use. Behind the chemical room there is a balance room, with a double glass delivery table so that a dessicator can be passed through without opening the intervening door; an optical room with a dark room in one corner; while behind the water analysis room there is a reading room.



THE SECOND FLOOR.

The theatre in the west wing has already been described. Adjoining it in the front part is the professors' laboratory, fully equipped with tables, sink, water, steam, gas, and electricity, hooded chamber, etc. Next to it, also in the central front portion, is a small class-room for either advanced students or detailed demonstrations. Behind these two rooms there are respectively the professors' retiring room and the assistants' room. In the east wing to the front is the bacteriological laboratory, with three large double tables equipped for twenty-four students. The plan of these tables and their ventilation is the same as in the chemical laboratory. Among the special equipments of this room one



noted a steam jacketed autoclave, a steam jacketed filter apparatus, a stone-topped table for incubators and sterilizer. Behind the bacteriological laboratory there is research room No. 3, an observation room, a disinfection room for experiments and demonstrations with the various disinfectants, an incubation room to be kept at the temperature of the blood by automatic electric hot-water boiler, by which, if the temperature rises above blood heat, the supply of electricity is lessened or cut off, and contrariwise, if it fall below the supply, is increased.

CONSTRUCTION.

In what may be called the attic floor there is a tropical room again for incubation, and there is the 5-horse power electric motor for working the exhaust fan for carrying away noxious fumes from the various laboratory tables. The flues from the tables leading to the exhaust chamber are for some 9 feet covered with asbestos paint, and over that for a similar distance a lining of thick asbestos paper to prevent the risk of fire. On the roof is a platform for any work that may require to be carried on out of doors.

The fittings in the various laboratories and rooms are of teak. The attention that has been given to detail compels admiration. Everything has been done under the eye and direction of Professor Hunter Stewart.

A hand lift runs from basement to second floor. There are three telephones to admit of rapid communication between the different parts of the Institute.

The building throughout is of fireproof construction, the floors having first a bed of concrete on an iron framework, then a large free space with a wooden floor above. The heating is by hot water on the low-pressure plan, and the whole building is lighted by electricity. Electricity from the Corporation mains also supply the four motors already referred to.

It has been said that Sir John Usher offered £10,000 to build and equip the Institute. This sum, we understand, has been very considerably exceeded, and Sir John has generously made up the deficit.

THE MIDWIVES BILL.

SECOND READING IN HOUSE OF LORDS.

[SPECIAL REPORT.]

THE Midwives Bill came up for second reading in the House of Lords on Friday, June 20th.

The DUKE OF NORTHUMBERLAND, in moving the second reading of the Bill, said he believed there was a general consensus of opinion in favour of something being done to remove the evils now existing in connexion with the work of midwives. A similar Bill had been before their lordships' House on a former occasion, and it had a very favourable reception. There were, he believed, between 10,000 and 15,000 women in the country practising as midwives. These women were said to attend about 450,000 cases annually in which doctors were not called in, and yet there was absolutely no qualification test—no guarantee that these women were fitted for the duties they undertook. It had been quite possible for any old drunken hag, with no ideas of cleanliness and no acquaintance with the proper methods of conducting such a business, to advertise herself as a midwife and to carry on that business without let or hindrance. The reports of the coroners' courts furnished a very melancholy but at the same time a very instructive lesson as to the necessity for a Bill of this kind. Perhaps the best proof of that was the fact that, out of about 250 coroners in England and Wales, more than 200 had expressed their strong approval of a Bill of this kind. In the London hospitals puerperal fever was now practically unknown, for it was an absolutely preventable disease, and yet it had been rather on the increase over the country. The present state of things, so far as many midwives were concerned, not only led to deaths but also in other cases to a large amount of suffering and disease, which was especially grievous in the case of poor women who had to work for a livelihood. Similar consequences as to sickness and trouble afflicted the children. He was told it was calculated that 40 per cent. of the blindness treated in blind asylums was due to want of care at childbirth. There was no doubt that in matters of detail the question was fraught with difficulty. He would not ask the House by accepting the second reading to adopt every sentence in the Bill. He frankly admitted that it required careful consideration in detail, and he trusted it would have that consideration at the Committee stage. Meantime, he only asked the House to affirm the principle and main purpose of the Bill. That principle was simply that in order to secure a proper degree of the knowledge and training required by midwives, and also to secure some guarantee of their good character, some kind of certification of midwives should be required. One difficulty which had caused much heartburning in former years was the position of existing midwives, who were more or less fitted by experience for their work in ordinary cases and whose character was above reproach. Their interests wese fairly safeguarded by the Bill, and the difficulty raised upon a former occasion as to the inadequacy of local control had also been met by giving the county councils large powers of supervision.

Lord WELBY said he would not impede the second reading of the Bill, but he thought attention should be given in Committee to the considerable powers suggested for the Board proposed to be created, especially the power of spending public money which had to be furnished by another authority—the rating authority.

The LORD CHANCELLOR (Earl Halsbury) said he thought there were more serious objections to the Bill. At the same time he would not undertake the responsibility of moving its rejection, because there might be circumstances contemplated by the Bill which required regulation. He could not help thinking, however, that the person who devised and drafted the Bill had in his mind the case of large populations, where everybody had within easy reach ample means of calling in surgical assistance, and had entirely omitted to consider the case of country villages, where the getting of a trained nurse easily or at short notice might be practically impossible. He was assured in letters from

magistrates in five counties (Lancashire, Worcestershire, Warwickshire, Sussex, and Surrey) that within their knowledge persons in small villages had to be content at times of childbirth with the services of an untrained woman who was also willing at small pay to act as maid-of-all-work. He was told that the prohibition of such services would cause an inconceivable amount of suffering amongst the very poor. In many cases such persons lived eight or ten miles from any medical man. A lady had also written a letter to him in the same sense—a lady who had herself undergone medical training and got a certificate, not as a means of livelihood but for the purpose of enabling her to assist the poor. His lordship proceeded to read some extracts from the letters to which he had referred. He said that the women who proved useful to the rural poor of their sex in hours of trial and emergency were often respectable widows who, for small pay, were willing to do a greater variety of domestic work than trained nurses would undertake, and such persons ought not to be penalized, nor should the persons employing them be debarred from engaging cheap assistance. The proposed postponement of the operation of the penal clause for eight years was a colourable amendment, because there was little reason to believe that the condition of things would then have much altered so far as existing unregistered midwives were concerned. Whilst not opposing the second reading, he did not wish this Bill to pass even that stage without attention being called to evils that might arise in its application.

The BISHOP OF WINCHESTER said he thought it would be a pity if no voice were heard from the Episcopal Bench on this subject. He said so for two reasons: first, because a large portion of the time of most of the bishops had been spent in exceptionally direct contact with the working classes; and secondly, because of the fact—which to some of the peers might be unfamiliar—of the close connexion which had historically existed between midwives and the whole of the Episcopal Bench. For some centuries no midwife could practise without the direct sanction of the bishop of the diocese. That might sound like a relic of bygone ages; but within the lifetime of some of their lordships episcopal inquiries had been made whether certain midwives had been duly licensed and permitted to practise. He mentioned this simply as showing to how comparatively late a date an ancient custom had survived; but that was a mere curious incident in the story of this matter. Another point of historical interest was that not very long ago no man was under any circumstances allowed in many parts of Europe to be even present at the birth of a child. He (the Bishop) was reading the other day the story of a medical man who put on female dress in order that he might begin to understand the intricacies or mysteries of a subject which had not then entered much, if at all, into the ordinary medical curriculum. He believed that down to the early part of last century—less than a hundred years ago—the subject of midwifery was treated in a much less thorough and responsible manner in the College of Surgeons as regarded curriculum than other branches of surgical science. Matters had now gone to the opposite extreme; not a few of those who opposed this Bill went so far as to speak of the midwife as a person who ought not to exist at all. In his evidence before the Committee on Infant Life Protection a medical man had gone so far as to describe the midwife as an obsolete individual — an anachronism a relic of the dark ages. The pendulum had swung far; but the promoters of this Bill were not taking either of the extreme views. They recognized the necessity there was not only for some guarantee of fitness on the part of the midwife, but also for the means of a ready appeal to a skilled medical man. At the same time they recognized the natural and even the wholesome instinct which led so large a proportion of the mothers of England of the poorer class to prefer the aid of one of their own sex whom they had reason to believe, rightly or wrongly, to be qualified to aid them. He thought he was right in saying it was calculated that about 60 per cent. of the births in England took place without the presence of a medical man. All the more need to provide if possible that the women engaged to attend at such times should have at least some degree of competence for their task and that they should be under some sort of supervision. England was in this, as in some other things, not quite abreast of other countries. In France there was legislation regulating this matter nearly 100 years ago; in Belgium it dated from 1818, in Austria from 1810. England almost alone among the nations of Europe had trusted generally to the good judgement and common-sense of the people without interfering except in cases of extreme wrong. Striking evidence came before the Commission on Infant Life Protection, of which he was a member, showing the mischievous results of incompetence on the part of women called in to assist at times of childbirth. These results had impressed themselves on the minds of the coroners of England, and although the medical profession was not by any means unanimous as to the way in which the the wrong out to be set right, it was, he thought, unanimous. or nearly so, with regard to the existence of a great wrong and widespread evil in this matter. It had been stated in evidence by more than one medical man that from 25 to 30 per cent. of the cases that had to be treated in hospitals for women and children were due to harm caused at childbirth. That was a serious matter, and called for determined intervention. Another point was the case of poor girl-mothers whose circumstances were very different from those of wives, however poor, whose children were born in their own house. Many young women, often more sinned against than sinning, were forced to seek elsewhere for help in the hour of direst need for the birth of a child of shame. Turn to certain newspapers and there might be found half a column of advertisements of homes where such cases were taken, and the announcement generally added that the place was under the supervision of a midwife. That sort of provision was not illegal, and was not even unnecessary; but was there any class of human beings who more needed to be inspected and supervised or guaranteed than those who took part in bringing unwelcome children into the world? Careful precautions ought to be taken to prevent at least the worst forms of evil that might ensue, and he feared often did ensue. Although that was not unimportant, it was not the main reason for this Bill. It was upon far larger grounds that he joined the noble Duke in asking the House to read it a second time. The Lord Chancellor and those correspondents whose letters he had quoted had evidently overlooked the exact terms of the clause imposing restrictions upon women engaged in midwifery. The penal provision was simply directed against those women who after January 1st, 1910, "shall habitually and for gain" attend cases of childbirth. That had nothing to do with cases where a neighbouring mother was called in in a friendly way to give help, but only concerned women who "habitually and for gain" hired their services for work which they were often singularly ill-qualified to do. With regard to the suggestion that villages and rural districts had been overlooked, he might recall the fact that the member in the other House who had chiefly promoted and taken charge of this Bill was the representative of a large constituency of an extremely rural character. If, however, there were any points in the Bill which required amendment to meet rural conditions, they could be amended in Committee. As it was impossible to start the register with a sufficient number of highly-qualified women, it would be necessary at first to admit some less-fully qualified women, who nevertheless did their best, and had some experience, and were of good character. In conclusion, he hoped this Bill when it went into Committee would issue from that stage in something not very different from its present shape. It proposed a reform not very noisy, or showy, or conspicuous, but one sorely needed, and far-reaching in its effects upon the lives of mothers and children in many thousands of homes as well as many who had no homes.

Earl RUSSELL said he thought the purpose of this Bill commanded general support, and he did not gather that even the Lord Chancellor dissented from the principle of the measure. Some amendments might be made in detail, but a great deal would depend upon how the proposed Board carried out its duties. He did not see that the small price which midwives charged for their services need be materially increased by any provision of this Bill. What was wanted in the case of such women was not high surgical training, but cleanly habits, good character, and sufficient knowledge to attend without undue risks upon cases of childbirth. It was important that women should be properly represented upon the Midwives Board.

Two women were proposed to be included in the Board, but there was apparently no reason why there should not be more women upon it. The Bill had met with some opposition from the medical profession, who thought it might give such a status to midwives as to make them in this class of cases competitors of the regular doctor; but he believed that some medical men in poor districts charged only 10s. 6d. in such cases, and he thought that qualified midwives would still be able under the Bill to find employment.

Lord THRING was the next speaker, and was understood to criticize some points in the Bill, but his remarks were entirely inaudible from the press gallery.

Lord BALFOUR OF BURLEIGH said that the previous speaker was under some misapprehension, and seemed to think the Bill would require a midwife, say, in Cornwall, to satisfy a Board in London as to her fitness; but one of the clauses of the Bill expressly provided that part of the function of the Central Board was to appoint times and places for local examinations. The intention of the promoters of the Bill was that women now practising midwifery should be tenderly and not harshly treated. The better a midwife was trained the more likely would she be to see when a case was not taking its normal course and to call in the services of a regular doctor. It was the untrained women who could not detect signs of danger or who were afraid of being themselves called in question if they summoned a doctor.

The DUKE OF NORTHUMBERLAND said he sympathized with the case of poor women in rural districts. The promoters of the Bill would be quite willing to accept any amendments that would carry out the intention that the Bill should not bear harshly on those who carried on their avocation satisfactorily.

The Bill was then read a second time.

INTERNATIONAL CONGRESS ON WORKMEN'S ACCIDENTS AND ASSURANCE.

[FROM A CORRESPONDENT.]

DUSSELDORF, which justly ranks as one of the prettiest of German towns, is this summer the seat of an exhibition of local manufactures, and in consequence is being visited by Congresses of various kinds, national and international. Within the last fortnight, for example, three have been in session there—the Congress of Naval Architects, the Congress for Improving the Houses of the Working Classes, and the Congress on Accidents in Factories and Social Insurance. The President of the last-named Congress is Dr. Bödiker, by whom, not less on account of his geniality and ability than through his having been the head of the State Insurance Department of Germany, the deliberations of the Congress, which began on June 17th and ended on June 24th, were directed in a manner which gave the greatest satisfaction to all. If there is in Germany one man more than another who can be regarded as the pioneer of compulsory assurance for the working man, and has done most to mould public opinion and assist legislation in this particular matter, it is Dr. Bödiker. In addition to being a Doctor of Law of Leipzig University and of Philosophy of Breslau, Dr. Bödiker is a Doctor of Medicine of Göttingen *honoris causâ*.

The meetings were held in the beautiful concert hall of the Tonhalle. At the opening ceremony, Englishmen as at previous Congresses were rather conspicuous by their absence. To support the President there was not a Briton on the platform, although I saw in the room Mr. Schloss, of the Board of Trade; Professor Thomas Oliver, of Newcastle-upon-Tyne, and Sir John Cockburn, M.D., K.C.M.G., formerly Agent-General for South Australia. As the thirteen seats on the platform were occupied by members of the Permanent Committee of the Congress it was clear that not a British member of this Committee was present. Whether Congresses of this particular kind really fulfill the purposes for which they were created there is not the least doubt that the various Continental Governments feel that they ought to be supported, while Great Britain, either through want of information or through indifference, voluntarily places herself in a position not of splendid but of unnecessary and vexatious isolation.

In addition to the Congress the attractions of the exhibition alone ought to have drawn a large number of British people. The writer has seldom seen such an excellent display of sanitary appliances as are used in the various industries. Although the exhibition is spoken of as local, the buildings, the character and variety of the exhibits are of such magnitude as to make it equal to many international exhibitions, from the opportunity being given of comparing products from different countries. The exhibit of appliances for washing in factories and workshops where space is limited, of handcarts fitted with tins for distributing workmen's food warm in the factories, appliances for enabling men to work in dangerous gases—for example, in coal mines after explosions—respirators, eye-guards, ambulances, and surgical appliances for treating all sorts of deformities, deserve special mention; while in the display of the synthetic chemical compounds used in medicine, the stand of the Bayer Company of Elberfeld is an illustration of what Germany is accomplishing through plodding painstaking and through research work carried out in the laboratory.

In opening the Congress, Dr. BÖDIKER, after thanking the Municipality of Düsseldorf, extended a hearty welcome to the representatives of the German Government who were present—Count Posadowsky and the Minister of Commerce, Herr Moeller. In welcoming the delegates from foreign countries, he expressed the hope that the deliberations would be useful. The Congress, he said, was an illustration of the effort civilized nations were making to solve problems that encouraged thrift on the part of workpeople and their means of livelihood after accidents that disqualified them for work. The methods suggested were humane and made for progress, whether through private or State help. In his opinion the insurance of the working classes against illness, injury, and old age was bound to go forward, and although the legislation of Germany and Austria supplied a model each country must solve the problem on its own lines. In this Congress there was no place for the dissemination of utopian ideas; whatever was recommended must rest on a firm basis.

On the day following that upon which Dr. Bödiker gave the presidential address the Congress, in company with the members of the Congress for Improving the Houses of the Working Classes, in all numbering 500 persons, visited Herr Krupp's iron and steel works at Essen, being conveyed thither by a special train and entertained while at Essen by Herr Fried. Krupp. The visit was most interesting and instructive. The greater part of the time was spent in visiting the large number of houses erected for the working men of Essen, homes for men convalescent from injury or sickness, homes for aged couples, aged bachelors and widows buildings that are monuments of the foresight and the consideration for the workpeople on the part of the present Herr Krupp, grandson of the founder of the firm. In these groups of houses, or colonies as they are called, Herr Fried. Krupp takes the greatest interest. Here at Essen the acerbity that exists so often between capital and labour has never shown itself. An air of contentedness without signs of servility is at once apparent. Age and years of hard labour receive here their well-merited reward of leisure and repose, and as the future is provided for through pension funds, the declining years of a man who has passed the sixties are spent in happiness, freed as they are from the uncertanties that beset old age in our own country. If any proof were required of the friendliness that exists between Herr Krupp and his workmen, it is found in the fact that since the works were established one hundred years ago there has never been a strike. The houses with their little gardens are the best type of buildings the writer has ever seen. In one of the colonies there is a large building wherein thirty unmarried men are lodged; for a plain but well-furnished room, with spotless bed linen, the moderate charge of 8s. to 10s. a month is made, the individual being free to get his meals wherever he chooses.

At the luncheon given to the two Congresses, Dr. BÖDIKER, in returning thanks to Herr Krupp for his hospitality, alluded to the fact that the works at Essen were the first to make an adequate attempt in Germany to deal with insurance problems as affecting working men. Fifty years ago Krupp established an insurance system of his own, and, had other large firms in Germany acted in a similarly liberal way, there would have been, according to Dr. Bödiker, little need for compulsory State insurance. As endeavours by individual manufacturers had not been made, it became the duty of the

State to take up the problem and see whether it could be solved. Krupp's action half a century ago formed to some extent the basis of the present law in Germany. The happy relation that existed between capital and labour at Essen did much to disarm socialism. Dr. Bödiker proposed the health of Herr Fried. Krupp, and spoke of him as a real friend to the workpeople, a toast which the large audience drank most enthusiastically.

Space will not permit of making more than the briefest mention of a few out of the many papers that were read at the Congress. Dr. LOUIS PEMACCHI, Director of the Medical Institute for the Injured at Milan, dealt with the necessity of providing special medical education for the treatment of injuries received at work. He discussed at length ambulance work, and expressed the opinion that in Italy the free choice of a surgeon in cases of accident had not been followed by the most satisfactory results, nor did he think that hospital treatment had always been exempt from the same condemnation. Dr. GUSTAVUS A. WEBER, of the United States Department of Labour, in speaking of working men's insurance, mentions that in his own country there was no national or State systems of working men's insurance, or of provision for sick benefits or old-age pensions; employers and the working men themselves had tried to grapple with the problems. There was no Workmen's Compensation Act, such as existed in Germany, Great Britain, or Austria. The liability of employers in the United States was regulated for the most part by common law. In a paper entitled The Establishment of Funds for Maternity in Italy, Mr. HENRI SCODNIK of Naples dealt with the progress of the movement in Milan, Bologna, and Turin. It was recommended that working women should contribute to a compulsory insurance fund, so that for a certain period before and after their confinement they might be able to receive 75 per cent. of their wages.

EDINBURGH HARVEIAN FESTIVAL.

THE oration at the 120th Harveian Festival of the Royal College of Physicians of Edinburgh was given by Dr. KIRK DUNCANSON, the President for the year, on "Harvey: His Life and Times." He traced his early education at home, school, Cambridge, and Padua. The state and influence of Padua at this period was described, and it was pointed out that its agricultural and mercantile prosperity survived the fall of Rome, and continued during the Middle Ages, so that by the end of the fifteenth century these old landed proprietors had become merchant princes, and had built themselves a fine and well-fortified city, on the site of the old Roman town of Patavium. Some of the wealthy citizens became promoters of educational institutions, and the university was founded as early as 1222 by some eminent scholars who had found the University of Bologna too heterogeneous in its teaching to satisfy the more accurate bent of their minds. From that time the new school made steady advance, and the first care of the new rulers of the Venetian Republic, after the Peace of Cambrai, was to confirm the University of Padua in all its ancient privileges, and to encourage students of all nations to visit its schools. By the middle of the sixteenth century the medical school became perhaps the first in Europe. Her students were highly favoured, and were amenable only to the laws of their colleges. At the time of Harvey's studentship the University was at the very zenith of its fame. The buildings of the present University were begun in 1493, and completed in 1550. A great anatomical theatre was opened in 1596; it was capable of seating 300 students. Soon after this several hospitals were established in various parts of the city. In 1545 the first botanical garden in Europe was laid out and planted in Padua. In 1564 the chair of Botany was founded, the first professor being Melchior Wielandt, a native of Königsberg, then reputed the first botanist of Europe. In early life he had been made a prisoner by pirates, and was rescued by Fallopius of Padua, who, recognizing in him a man of science, brought him to Padua, and introduced him to the learned world there. When Harvey studied at Padua the chair of Medicinal Botany was occupied by Prospero Alpino, who was the first to introduce the use of coffee into Europe. Aubrey states that Harvey was wont to drink coffee with his brother Eliab before coffee houses were in vogue in London. Harvey, in his will, made a special reservation of his "coffey-pot." His plate went to his niece Mary West, but the "coffey-pot" to brother Eliab. Prospero Alpino was also the first to observe, teach, and explain the generation of plants by the sexual method.

The most eminent medical professor under whom Harvey studied undoubtedly was Hieronymus Girolamo Fabrizio di Aquapendente. Fabricius succeeded Fallopius in the Chair of Surgery. The fame of Aquapendente attracted students from all quarters, and many of his pupils afterwards became eminent medical men in their own countries. He himself had studied under Vesalius and Fallopius, both of whom had been celebrated for their anatomical researches, more especially with regard to the structure of the heart and blood vessels. Aquapendente continued their researches and demonstrated the valves in the veins. These valves had been observed by Sylvius, Servetus, Eustachius, Paul Sarpi, and others; but neither Fabricius nor any of his predecessors understood their function or real importance. From the year 1574 Aquapendente (so-called from the name of his birthplace) taught and amplified his discovery, and no doubt the instruction Harvey received from him led to the English student's much more important discovery—the circulation of the blood. Aquapendente's fate might well seem to bear out the proverb of a prophet having no honour in his own country, for his important discovery was disputed by his fellow-countrymen not only during his lifetime but for many years after his death. It was left to the unnoticed student from Britain not only to continue his teacher's work, but to carry it to so glorious a conclusion that the fame of the pupil has quite eclipsed that of the master. It would appear that Harvey alone accepted and followed up his master's teaching, and his patience and accuracy were amply rewarded by his great discovery.

Galileo, the creator of experimental science, Professor of Philosophy at Padua for eighteen years, was next referred to. It might reasonably be presumed that Harvey attended his lectures. It was apt to be forgotten that it was to Galileo in 1609 that we owed the microscope. Harvey had left Padua by that time, and we do not find any reference to Harvey using the microscope in any of his researches. In the scanty Italian historical notices of Padua and her University there is no mention of Harvey. Modern Padua, however, makes atonement. Harvey returned to England in 1602. In 1607 he was admitted a Fellow of the College of Physicians of London.

After the accession of James VI of Scotland to the English throne in 1603, the population of London increased with such rapid bounds that the King, in alarm, proposed that a large number of the lowest classes, English as well as Scottish, should be removed from London and taken to the wilds of Scotland, where they could be employed in cultivating the waste lands. The proposed scheme was never carried out. The insufficiently and badly clothed and under-fed crowds lived in miserable hovels in narrow lanes in the heart of the City, or infested the purlieus of the Thames. The sanitary arrangements were hopelessly inadequate. London was seldom free from zymotic diseases of the most virulent type, and finally, in the reign of Charles II, this culminated in the Great Plague. Young Harvey thus must have had ample scope for his talents. In 1609 he was nominated physician to St. Bartholomew's Hospital, and about the same time became Physician Extraordinary to the King. In 1615 he became lecturer on anatomy and surgery to the College of Physicians, and in the following year he expounded his theory on the motion of the heart and blood in animals. His *Anatomical Disquisition* was published in 1628. In 1646, in his 69th year, he retired from public life, but continued his studies, and subsequently in 1651 published his work on *Generation*. At the age of 71 he again visited Italy. He died in his 80th year.

A vote of thanks, on the motion of Dr. JOSEPH BELL, was given to the Orator.

ANNUAL DINNER.

Thereafter the Harveians dined. Sixty-five sat down. Amongst the guests were Sir James Graham, Mayor of Sydney, an Edinburgh medical graduate; the Very Rev. Dean Wilson; and Dr. Crummer, from Nebraska. The Pontifex Max (the Very Rev. Dr. James MacGregor) was represented by Dr. Wallace Williamson; Professor Chiene, C.B., as Vice-President, was Croupier. The loyal and patriotic toasts were

given, then the "Immortal Memory of Harvey," "The Clergy," by Professor CRUM BROWN, responded to by the Rev. Dr. WALLACE WILLIAMSON; "The Guests," by Dr. CRAIG, and responded to by Sir JAMES GRAHAM and the Rev. Dean WILSON; and "The President," by Dr. STRACHAN. "*Floreat Res Medica*" was given from the Chair. Dr. Somerville (Galashiels) was nominated the next Vice-President.

NOVA ET VETERA.

THE EARLY UNIVERSITIES AND MEDICINE AT OXFORD.

By G. B. FERGUSON, M.D.Oxon., F.R.C.S.Eng.,
President of the British Medical Association.

THE first of the mediaeval medical schools was that remarkable one of Salerno, composed as it was of Greek and Latin, Jewish and Saracenic elements, going back to the ninth century or before, and lasting till it was finally suppressed, less than a hundred years ago, by that heartless iconoclast, Napoleon. Salerno granted no degrees, but only a licence to practise, whence it was never accounted a university. It was the Physicians' and Surgeons' College of the early middle ages, and was later incorporated with the University of Naples.

The first true university is held to have been that of Bologna, the School of Popes and Cardinals, which was founded in 1113. For my own part, I grudge it the name of "university," for it was at first and for a long while only a School of Law. Soon after it arose Paris, the great mediaeval School of Divinity, and early rendered additionally illustrious by the philosophical teaching of Abelard. It is the pride of Oxford that soon after the establishment of Paris—or even before it, as the old Oxonians asserted—the monks of Osney and the Augustinian canons of St. Frideswyde (now the Cathedral of Oxford) had founded schools of learning, thereby establishing in practice the university of the future. Vacarius from Bologna and Robert Pullen from Paris taught law and divinity respectively in those early Oxford schools, which became so famed and frequented that when Gerald de Barri (GeraldusCambrensis) paid his well-known visit to Oxford in 1187, he could write of the town as full of doctors, masters, and scholars. But abuses soon arose and serious dissensions between townsfolk and scholars; and deeds of violence on the one side were followed by sanguinary reprisals on the other. In the end, the Bishop of Lincoln interposed and appointed Robert Grosseteste as the first Chancellor in 1214, the year before the signing of Magna Charta; and then the University was formally founded, and the earliest degrees were conferred, the very first, I believe, on Edmund Rich, afterwards Archbishop of Canterbury and finally St. Edmund.

More than 100 years earlier, in the time of William the Conqueror, there was at Oxford, if we can believe the *Anglica Judaica*, a Jewish school of medicine. We owe much to the Jews of those early days. They were brought to England by the Norman monarchs, and brought with them not only trade and commerce, which meant wealth, but brought likewise science and medicine. But for them and their wealth many of the great Norman cathedrals would never have been built. It is a pity that we have no particulars about the old Oxford Medical School, which, so far as I know, acknowledges only one predecessor in Europe and no present competitor (unless it be Montpellier) now that Salerno is gone. The University was founded just thirty five years before the first College. A point of greater interest lies in the fact, narrated in the *Monumenta Franciscana*, that in the year 1251 the first university teacher of medicine was appointed. His name was Stokes, a name of good omen for both medicine and surgery. Stokes was presumably appointed to carry on the Jewish school, and his appointment was a necessity, as in the next reign, of Edward I, the Jews were expelled from England, and never a Jew set foot thereon for nearly 400 years, that is to say, before the time of Cromwell. Stokes was a master (in common parlance Doctor) of Physic, but not a Doctor of Medicine, for the good reason that there was no such thing in his time in Europe; nor was there for about 100 years later, when that degree was first conferred at the newly founded University of Prague. The reasonableness and propriety of exalting the youngest of the faculties to the full dignity of the Doctorate was soon recognized, and Doctorates in Medicine were in due course granted in Italy and in France.

Innovations did not travel rapidly in those days, and it needed yet another 100 years before we can find irrefragable evidence of true Medical Doctors at Oxford. That evidence is in the possession of the Regius Professor, to whom, directly or indirectly I owe the best part of my facts. The first recorded Medical Doctor at Oxford was Thomas Edmonds, date 1449, and after him was John Faceby, Physician to Henry VI, 1451, and next to him Thomas Bloxham, 1455. Seeing how enthusiastic and successful the University of Cambridge has always been in medical matters, I was sadly afraid that it might have been the first to confer Medical Doctorates in England and my fears were alone allayed, when owing to the kindness of Professor Clifford Allbutt, and of the Registrary of the University of Cambridge, I ascertained that Cambridge was indeed well up and close, but still a clear five years behind. It was well that Oxford and Cambridge did bestir themselves, as only twenty years later than Oxford, Glasgow began, first, among Scottish Universities to confer Doctorates in Medicine.

After 1455 the the Oxford Register is missing, and it does not begin again for fifty years, from which date of 1505 it is continuous to the present day. That gap of fifty years, which includes the troublous times of the Wars of the Roses, is most unfortunate, as it covers the period when Linacre was at Oxford. I feel sure that he did take his D.M. degree there and that he lived there, for does not Erasmus write of him from Oxford and tell of his acuteness, profundity, and refinement? We know Linacre's subsequent history: how he went to London and became Physician to Henry VII and Henry VIII, and how, when the Royal College of Physicians was founded by the latter, Linacre became its first President; and how, from that day till this, the majority of its Presidents have been Doctors of Oxford. I fear there can be no doubt that the ancient and active Medical School of Oxford fell into decadence, notwithstanding the medical Professorships founded by Linacre, until, twenty-five years ago, some even wrote of "the lost Medical School." But that which was lost is found, and now advances steadily from strength to strength. I must add, however, that I agree with the late Mr. Cecil Rhodes and think it a great pity that the Oxford School of Medicine is not made more complete—we want Professorships of Surgery, Midwifery—and considering the large funds which will remain in the hands of Mr. Rhodes's trustees I think that the authorities of the Oxford Medical School should approach those trustees, in order that they may carry out the clearly-expressed wishes of the testator.

I will not mourn over the happy time when all English physicians were of Oxford and Cambridge, for the more modern universities have moved quickly with the times, and among their sons have been many who have done honour to their almae matres, who have advanced the bounds of knowledge, and have adorned the very highest positions in medicine and surgery. None the less the charm and glamour of antiquity remain to hallow the old degrees. Is it nothing for the Oxford men of to-day to remember that they are the successors of Linacre and Radcliffe; of Sydenham and Sir Thomas Browne of the *Religio Medici*; of John Mayow, who discovered the existence of oxygen, though he called it nitro-aërial spirit, 100 years before Priestley; of Thomas Willis, whose name lives for ever at the base of the brain, and of many other worthy men, estimable in their day, former Presidents of the Royal College of Physicians, down to Matthew Baillie and to that ancient, born out of his due time, William Alexander Greenhill?

Cambridge can, of course, give a list no less imposing, but having written this narrative from an Oxford point of view and brought it down to the present day, it may here most fitly end.

These inquiries, some of the results of which, at the suggestion of the editor, are set forth above, had their origin in view of an address recently delivered by the writer before the Oxford Medical Graduates' Club.

THE medical students of Paris have decided to form a General Students' Association.

ALFRED HUGHES MEMORIAL.

[From Our Correspondent in Cardiff.]

On June 20th the Alfred Hughes Anatomical Museum at University College, Cardiff, was formally opened in the presence of a large number of those interested in the College and the Memorial. A large number of medical men were also present, including many members of the South Wales Branch of the British Medical Association, who were in Cardiff attending a meeting of the Branch.

The late Professor Hughes was the first occupant of the Chair of Anatomy at University College, Cardiff, and in 1897, on the occasion of removing his own collection, he gave the sum of £350 to be devoted to the purchase of specimens as a nucleus for the Anatomical Museum that he desired to see created in connection with the School of Medicine, Cardiff. He subsequently became Professor of Anatomy at King's College, London. His connection with the Welsh Hospital, and his untimely death from enteric fever on November 3rd, 1900, are too well known to need recapitulation. In the following year a number of his friends and admirers subscribed and handed to the Council of the College the sum of £1,786 to form the basis of a permanent endowment for the development and upkeep of the Anatomical Museum. This sum is available in its entirety for the collection and purchase of specimens, the College providing suitable accommodation. The Council accepted the trust, and resolved that the museum should be called the Alfred Hughes Anatomical Museum.





Of the total collected, a sum of £120 was set apart for the foundation of an Alfred Hughes Medal to be awarded at the end of each summer term to the student who has most distinguished himself in the study of anatomy during the academic year. The medal is designed by Mr. Gescombe John, A.R.A., a former student of the Arts School, Cardiff. The reverse represents the College with wreath and open scroll. The arms of the College are shown on the side of the chair, and the Latin and Welsh mottoes of the institution also appear. On the obverse the inscription is "Alfred William Hughes, magister dilectus pro patria mortuus MDCCCC."

The Anatomical Museum is already one of the best provincial museums in the country, and the interest from the endowment fund will enable it to be enlarged and kept very thoroughly up to date.

The present efficient state of the Museum is due to the ability and indefatigable energy of Dr. Dixon, the present Professor of Anatomy.

At the meeting on June 20th the Museum was opened by Dr. W. T. Edwards, Vice-President of the College. After the Museum had been inspected the company adjourned to the chemical lecture theatre, where a series of short addresses were given, and a vote of thanks passed to those who had taken part in the collection of the endowment fund, or who had otherwise identified themselves with the movement. The medals were also presented.

The first impression was received by Master Myrddin Hughes on behalf of Mrs. Hughes. On the edge of this copy was the inscription, "IN VIRI NOBILIS MEMORIAM PRIMUM EXEMPLAR CONIUGI DIGNISSIMAE AMICI GRATO ANIMO DETULERUNT."

The first award of the medal was made to Mr. Richard Kenneth Shepherd, B.Sc.

LITERARY NOTES.

A German translation of Dr. Charlton Bastian's *Treatise on Aphasia and other Speech Defects*, by Dr. Moritz Urstein of Berlin, has just been issued by W. Engelmann of Leipzig.

To Mr. F. F. Rebman we owe the "only authorized translation from the German" of Dr. Albert Moll's essay, *Christian Science, Medicine, and Occultism*, recently published by Rebman, Limited. During a visit to America in 1898, Dr. Moll was astounded to find the doctrines of Christian Science "spread over the United States to an extent which is scarcely suspected on this side of the ocean." On his return he warned his countrymen that "ere long we should have to combat a new psychical epidemic emanating from America, namely, Christian Science." He pointed out that psychical epidemics naturally find the same fertile ground for development in Germany as in the United States or any other country. The movement, he says, reached Germany through a Miss Schoen, a native of the Rhenish provinces. Her father was a civil servant, who for several years acted as a teacher of the German language and literature at the State University in Minneapolis. The first central station was established in Hanover. Here a sister of Miss Schoen joined her, and the two worked together with a Mrs. Dr. Gunther. About a year and a-half ago a central station was established in Berlin, which is presided over by one of the Misses Schoen, but the other sister frequently makes visitations. There are other central stations in Germany, namely, one in Hamburg, in charge of a Miss Neumann; another in Breslau, under a Miss Vette. Other central stations in Germany are not recognized by the Misses Schoen as genuine. He adds that Christian Science is practised in many German towns and cities. Dr. Moll holds that it is incorrect to speak of Christian Science as faith healing, for he says no treatment by faith or prayer is applied by Mrs. Eddy's disciples. The "active principle" is concentration of thought on the belief that illness is the outcome of sin, and that God who does not desire sin will cure if the patient places his trust in Him alone. The difference between this and faith healing is not apparent, and we may add that Dr. Moll seems to have misapprehended the teaching of Mrs. Eddy, who impresses on her disciples in the strongest possible manner that the object of the concentration of their thought is the non-existence of disease, not its origin, real or supposed. The cures wrought by Christian Science Dr. Moll rightly explains as being the effects of suggestion, and he clearly lays down the necessary limits of its sphere of influence. He discusses the relations of Christian Science to occultism, with which he thinks it is closely connected, but

we need not follow him further. The booklet, though written in a popular style, is well worth reading by medical men.

The true philosophy of Christian Science has been set forth by a learned Indian lady, Pundita Ramabai, who visited New York last year. When informed of the great spread of the Gospel according to Eddy, she (according to an American newspaper) delivered herself to the following effect:

The same philosophy has been taught among my people for 4,000 years. It has wrecked millions of lives, and caused immeasurable suffering and sorrow in my land, for it is based on selfishness and knows no sympathy or compassion. It means just this: the philosophy of nothingness. You are to view the whole universe as nothing but falsehood; you are to think it does not exist; you do not exist; I do not exist; the birds and beasts that you see do not exist. When you realize that you have no personality whatever, then you have attained the highest perfection of what is called "Yoga," and that gives you liberation, and you are liberated from your body, and you become like him without any personality. You draw on the blackboard a zero, you add a zero, multiply by zero, divide by zero, and it equals zero. It is just like that, nothing more.

Only this and nothing more. The doctrine is more tersely expressed in the formula, "Nought is everything, and everything is nought."

In a book entitled *Recollections of Dublin Castle and Dublin Society*, by "A Native," recently published by Messrs. Chatto and Windus, there are some references to the medical profession of Dublin of a past generation. Dr. Nedley, surgeon to the police force, is described as "the gayest, most mercurial, and readiest of humorists," who never failed in a retort. The examples of his wit, given by the author, however, are few in number and disappointing in quality. Again we hear of "that eccentric being—antiquarian, writer, novelist—'W.R.,' afterwards Sir William Wilde," who is said to have "cultivated an Abernethy style to his patients." The following passage refers to some departed worthies:

In the early days of my boyhood there was a far higher type of physician than is now often found. Such was Sir Henry Marsh—of spare, thin figure, his chin and lips of a monastic type, and very much suggesting that finished actor, Mr. Hare. He had lost a couple of fingers in an operation, to be noted by his black glove and ribbon. He was to be seen in his handsome open victoria, drawn by a fiery pair of horses, always driven at full speed, while he lay back wrapped in his cloak. He was described in a local novel as "Sir Humbug Drivequick," which in those dull days was thought a bit of happy satire. His name and writings were well known in the medical world. Stokes was another of this fine old school; his writings and discoveries, as well as those of Graves and Colles, were familiar to the profession. Perhaps the most accomplished and popular was the Surgeon-General, Sir Philip Crampton, whom he knew intimately.

In those days, says the "Native" no physician would have accepted anything short of a baronetcy. Knighthoods were despised and laughed at. It is only in our time that "a shrewd surgeon, Porter," accepted one, and as it was prophesied, the "Sir" was found of professional value, people not caring to distinguish between the two kind of "Sirs." This is either not a general rule or certain classes of London society may be more discriminating. We happen to know of a case in which a wealthy but vulgar materfamilias declined to allow a specialist knight to be called into her child on the ground that "We allus 'ave a bart." The "Native" mentions the fact that in recognition of the loving labour bestowed by Sir Francis Cruise on the investigation of the life of Thomas à Kempis, the city of Kempen in Holland has given his name to a street which is now known to the inhabitants as the "Kruis Strasse."

THE PREVENTION OF CONSUMPTION.

DURHAM.

THE third annual Court of Governors of the Society for the Prevention and Cure of Consumption in the County of Durham was held in the Town Hall, Sunderland, on June 11th to receive the report of the General Committee. As regards prevention the Committee reports that they have endeavoured to educate the public by the distribution of over 2,000 copies of their pamphlet on *Consumption: its Prevention and Cure*; the sanitary authorities of the county have been urged to take steps to stop the ravages of the disease, and lectures have been given to workmen and others. Sunderland and Gateshead have adopted voluntary notification.

As regards the cure of consumption a good year's work has been accomplished in the sanatorium at Horn Hall, the new wing of which will be ready this month, and will increase the accommodation to 29 beds. The patients who have been under treatment in the year have all improved during their stay, although several were rather advanced cases.

Altogether the Committee is to be congratulated on a satisfactory record of work for the year, but as regards finance there is urgent need of further support, as £1,000 is needed to increase the accommodation at Horn Hall to 40 beds.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

THE returns for the week ending May 24th show the number of deaths from plague in India to amount to 5,500 against 7,008 during the previous week. This number is, however, still far above that for the corresponding week of 1901, when the returns showed 1,427 deaths from the disease.

In the city of Bombay, the deaths from plague during the week ending May 24th numbered 101 against 300 during the previous week. In the Bombay Districts, 361 against 429; in Calcutta, 205 against 280: in Bengal, 138 against 136; in the North-West Provinces and Oudh, 210 against 266; in the Punjab, 4,234 against 5,453. In Mysore, the deaths during the week ending May 24th numbered 67, in Kashmir 22, and in Berar 2.

In the Punjab, the chief centres of plague are at Lahore, Sialkot, Gurdaspur, and Jullundur.

EGYPT.

For the weeks ending June 1st and 8th the number of fresh cases of plague in Egypt numbered 14 and 4 respectively. This is a marked diminution upon the two previous weeks, when the numbers stood at 33 and 28.

The deaths from plague during the weeks ending June 1st and 8th numbered 6 and 2 respectively.

These figures show a satisfactory decline of plague, and the list of towns and districts in which plague cases exist is rapidly lessening. On June 1st plague cases in the following numbers existed: At Alexandria, 3; Dechneh, 1; Achmoun, 1; Samalout, 11; Beni-Mazar, 1; Toukh, 11; Konesna, 1; Damanhour, 1; and Damietta, 1. New admissions were registered in Alexandria, 1; Samalout, 2; and Tantah, 1.

The amount of work done by the Sanitary Department may be judged by the fact that during the week ending June 1st, 13,678 rooms were disinfected, 1,552 rooms were limewashed, 55 sacks of effects disinfected, 1,029 sacks of rubbish burnt, and 1,653 rats killed.

CAPE OF GOOD HOPE.

In the weeks ending May 17th and May 24th the fresh cases of plague—all in Port Elizabeth—numbered 2 and 1 respectively. During the week ending May 24th, 2 persons died of plague in Port Elizabeth, and on that date 6 persons remained under treatment.

Since the commencement of the outbreak until May 24th, 807 cases of plague had occurred in Cape Colony, with a mortality-rate of 48.0 per cent.

HONG KONG.

During the week ending June 7th, 53 cases of plague occurred in Hong Kong, and 52 deaths from the disease.

DUNKIRK, FRANCE.

A case of plague was reported on board the ss. *Perth*, which arrived in Dunkirk on June 13th. No further extension of the disease is reported.

SPECIAL CORRESPONDENCE.

SOUTH WALES.

Small-pox at Swansea.—The Compulsory Removal of Small-pox Patients.—Sanatoria for Tuberculous Patients in Cardigan, Carmarthen, and Pembroke.

A FEW cases of small-pox still continue to be notified in Swansea. For the week ending June 7th 4 cases were notified, and 2 fresh cases for the week ending June 21st.

On June 12th the adjourned hearing of a case of alleged obstruction to a magistrate's order for removal of a small-pox patient was decided at Swansea police-court. Some particulars of the case were given in the BRITISH MEDICAL JOURNAL of May 24th. Two young unvaccinated children developed small-pox, and the father, a strong antivaccinator, refused to allow them to be taken to hospital, although a magistrate's order was obtained on the certification of the medical officer of health that they were without proper accommodation, and could not be isolated properly. Several attempts were made to induce the parent to allow the children to be removed, and the obstruction alleged was that the defendant (Mr. Musgrave) took hold of the chief sanitary inspector of Swansea by the shoulder and forced him off the stairs. Three patients were subsequently notified from the same house, and one from next door. The defence, which was conducted by Mr. Schultess Young, rested chiefly on points of law; in particular it was urged that the defendant had never been served with a copy of the magistrate's order for removal, and had had no opportunity to protest against it, and to show what the circumstances were. In

mitigation he also urged that his client "believed he was acting in the best interests of the child." The defendant, called to support this, stated that his medical attendants strongly advised him that it would be fatal to the children to have them removed. He also stated that it had cost him about 80 guineas to have the cases treated at home. The prosecution pointed out that the provisions of the Public Health Act had been fully carried out, and that there was nothing in the Act requiring the serving of notices on all intending obstructionists. The Bench, after some consideration, imposed the maximum penalty of £10.

A general meeting of the joint committee for the counties of Cardigan, Carmarthen, and Pembroke, the three counties which comprise the area of the Western Sub-Branch of the South Wales Branch of the National Association for the Prevention of Consumption, was held at the Guildhall, Carmarthen, on June 14th, when Sir James Drummond, Bart., the Lord-Lieutenant of Carmarthenshire, presided over a representative gathering. An important part of the proceedings was concerned with the establishing of sanatoria. The motion "that one or more sanatoria for the open-air treatment of consumption shall be established within the area of the three counties and one special sanatorium for the treatment of tuberculous diseases of children" was carried unanimously. A sanatorium in each of the three counties was suggested. A site on the Pembrokeshire hills was offered to the Committee by Mr. Colley, of Rhosygilwen. It was decided to appeal to the county councils, boards of guardians, town councils, and urban and rural district councils for contributions for building and maintaining sanatoria, and the precedent of Westmorland was cited. As a further aid it was decided to ask the clergy and ministers of all denominations in the three counties to have special collections on one Sunday in each year in aid of a sanatorium maintenance fund. An appeal was also made for contributions from private sources, and from companies, and societies, and from workmen. It was also resolved that representatives of the intermediate and primary schools should be appointed on the Committee with a view of securing in the schools a definite elementary course of instruction in hygiene, and that the teachers should report to the managers, and through them to the Committee, any cases of suspected tuberculosis amongst the children attending the schools. Proposals to mitigate the spitting nuisance were also adopted.

CHICAGO.

"Office" Practice and Specialism.—Medical Schools in Chicago.—A New Hospital.—Suicide and Influenza.—News.

THE large office building (thirteen stories in height) at 100, State Street, Chicago, may be said to be almost entirely given over to doctors and dentists, there being altogether 222 of the former and 36 of the latter having regular hours therein. As to its tenants, the building is regarded as the most unique in the world. This fact illustrates very well the prevailing custom here of a doctor having either an exclusive office practice, or an office practice quite distinct from a visiting practice. The one may be partly dependent upon the other where the two coexist, yet there is a constant endeavour to adhere to but one plane of work, and in most cases a physician finds that he must either give up riding or else give over his regular office hours. Then specialism is very highly marked here, which makes it possible for a large number to have city office hours, while actually they are suburban residents.

There are no fewer than sixteen medical schools in Chicago having recognition from the State Board of Health. In addition a number have an unrecognized existence. Recently a comparatively new medical school, the Chicago Electric Medical College, has joined forces with a general teaching institution at Valparaiso, Indiana, and purchased the erstwhile Woman's Medical School (North-Western University Woman's Medical School) buildings, the latter passing out of corporate existence. The position in the faculty of Rush Medical College made vacant by the death of Dr. C. Fenger has been filled by the appointment of Dr. Arthur Dean Bevan as Professor of Surgery. Dr. Bevan is a graduate of Rush College, the class of '83. He served in the U.S. Marine Hospital Service from 1883-1888, at which time he became Professor of Anatomy at Rush College. He held this position until 1900, when he was made Professor of Surgical Anatomy and Associate Professor of Surgery. In the competitive examination recently held at the Cook County Hospital there were sixteen candidates from the North-Western University Medical School, thirty from Rush Medical College, and thirteen from the College of Physicians and Surgeons. There were sixteen places of which number North-Western won eight, Rush four, and the Physicians and Surgeons four. North-Western secured the three highest places.

On Sunday, May 25th, the new Catholic Hospital of St. Mary of Nazareth on Division and Leavitt Streets was formally opened and its chapel dedicated. The hospital has only recently been completed at a cost of $250,000, and is one of the best in the city. Dr. A. J. Ochsner is Surgeon-in-Chief, and Dr. Edward Ochsner, Chief Assistant Surgeon. The hospital is designed for both medical and surgical cases, and a dispensary service.

According to two sets of data the average duration of life in Chicago has increased from less than fourteen years to more than thirty-one years in the last third of a century. The statistics showing these facts are from the experience of the life insurance companies, and the records of the city health department. A marked decrease is noticed in the number of deaths from railway and street car accidents in the last six years. This decrease is due to the track elevation of railways and to the fenders on street cars. There has been a decrease of 7 per cent. in the number of deaths from homicide or manslaughter during the last ten years. The number of deaths by suicide, however, shows a marked increase. During the eleven years, 1880 to 1890 inclusive, there were 1,272 suicides in a total of 7,898 violent deaths, or 16 per cent. During the eleven years from 1891 to 1901 there is seen an increase of 30 per cent. in the number of suicides. Related to this fact may be mentioned the great prevalence of influenza in the city since 1889. Some work has been done here with a view towards establishing influenza as a possible cause in the increase of suicide, and the question is to be considered at the meeting of the American Medical Association in June.

The first death of the year by sunstroke was recorded last week (May 18th to 24th), and the influence of the warm weather was shown by the increased mortality among infants. There were 13 cases of small-pox reported during the last week, eight of them coloured and none having been vaccinated. The deaths in the city at this time of the year average 450 to 500 a week.

Dr. Nicholas Senn, of Chicago, was appointed a delegate to the seventh International Conference of the Red Cross—the meeting recently held at St. Petersburg.

The twentieth annual commencement of the College of Physicians and Surgeons, the Medical Department of the University of Illinois, took place recently. The graduating class numbered 191, of whom 15 were women. The annual banquet took place the same evening at the Auditorium Hotel, at which 500 guests were present.

SYDNEY.

Hospital Saturday.—The Bubonic Plague.—The Australian Natives' Association.—Government Support of Hospitals.—Vital Statistics.

THE annual collection in aid of the hospitals in connexion with the Hospital Saturday Fund was taken on Saturday, May 3rd. The amount received at the Bank of New South Wales on the evening of the day of the collection was £3,879 6s. 1d., as compared with £3,875 16s. last year. In addition to the money collected in the streets, industrial collections go on throughout the year, so that the total amount to the credit of the Fund, and available for distribution to the hospitals, reached a total of £4,448 2s. 8d. This result is regarded as very favourable considering the commercial depression arising from the prolonged drought, the plague, and the increased prices of the necessaries of life owing to the tariff imposed by the Federal Government.

The bubonic plague still continues, and rats infected with the plague bacilli are being frequently caught in different parts of the city and suburbs. About a fortnight ago some of the animals at the Zoological Gardens died in rather a sudden and inexplicable manner. Bacteriological investigation

proved them to have died from plague, and the gardens were promptly closed to the general public. The mode of infection of these animals has not been definitely proved, but it is a significant fact that shortly after the gardens were closed, and when the buildings were being put into a thoroughly sanitary state, some dead rats were found in one of the houses. It is presumed that the plague-infected rats gained access to the animals' quarters from the Moore Park "tip." So far in Sydney we have been very fortunate in the fact that none of the medical staff of the Board of Health have become infected with the disease; but in Brisbane, last week, Dr. Wray, the Government health officer, contracted plague, it is said from performing necropsies on plague patients, and died after a few days' illness. A day or two ago, Dr. Maclean, the senior resident medical officer at the Brisbane Hospital, was taken suddenly ill with symptoms which have been proved definitely to be due to plague infection. He is now in a precarious state.

The New South Wales Branch of the British Medical Association has recently been brought prominently before the general public in consequence of the attitude adopted towards the Australian Natives' Association. The latter body has just held their annual session and indulged in unlimited abuse of the profession in general, but specially of the members of the British Medical Association. They have been attempting to excite a quarrel between the recognized Friendly Societies and the profession, but their machinations have to a large extent failed, and the Friendly Societies see that they have nothing to gain, but every thing to lose by supporting the Australian Natives' Association. A determined attempt has been made to compel the Australian Natives' Association to withdraw from the United Friendly Societies Association, and at the annual committee of the Independent Order of Oddfellows, Manchester Unity, it was an instruction to their delegates on the Board of Directors of the Friendly Societies' Association to support any motion to expel any semi-political society from the Association. Another feature in the present "Battle of the Clubs" here is a movement amongst the registered pharmacists in sympathy with the medical men. They also are awaking to the fact that they need to make a stand against the Australian Natives' Association as a medical benefit society. As a remedy for their various troubles the Australian Natives' Association is now taking steps to start an Australian Medical Association. This will be a regular Cave of Adullam, to harbour all the malcontents of the profession. It is said that the Australian Natives' Association will manufacture its own doctors or import them from elsewhere, but any medical man who comes here under a contract with this body will probably have cause to regret his bargain.

On the occasion of opening a new wing of the hospital at Junee, the Premier of this State referred again to the large amount of money contributed by the Government towards the hospitals. He stated that during the year 1900 the total revenue of the hospitals of the State was £191,272, of which the Government contributed £88,683. Of this amount the country hospitals received £42,171: the metropolitan hospitals £29,781; and the Coast Hospital, Little Bay, £16,731.

In the report of the vital statistics of Sydney for the month of April by the Government statistician, it is stated that during the month the births numbered 1,096. This total is 110 greater than the average for this month for the past five years. This record is very favourable, the rate of 2.18 per 1,000 exhibiting an advance on the rate for April during each of the last five years. The deaths numbered 472, or 26 more than the quinquennial average for April, leaving a balance of births over deaths of 624. Amongst persons aged 70 years and upwards there were 52 deaths at the following ages: 35 ranging from 70 to 79, 16 from 80 to 89, and one aged 90.

THE Sixth Congress of Flemish Scientists and Medical Practitioners will be held at Courtrai on September 6th.

A GERMAN Society for the Prevention of Venereal Diseases has been formed on the lines of the similar organization for the repression of tuberculosis and alcoholism. Among those who have taken the initiative in the matter are Professor Lesser and Dr. A. Blaschko of Berlin, Professor Neisser of Breslau, and Professor A. Wolff of Strassburg. The Provisional Secretary is Dr. A. Blaschko.

CORRESPONDENCE.

LONG FOX MEMORIAL.

SIR,—At a meeting in the Chapter House of Bristol Cathedral on May 29th, the following resolution was unanimously adopted:

"That a memorial be established to the late Dr. Edward Long Fox, and that it include: (1) The placing of a tablet in the cathedral; (2) the founding of an annual lecture at University College, Bristol, on some subject connected with medical science, to be called the "Long Fox Lecture"; (3) the partial supporting of a medical missionary student at University College, Bristol, to which the balance of the fund collected will be devoted after providing for (1) and (2)."

We shall be glad to receive any contributions from friends of the late Dr. Fox.—We are, etc.,

W. W. ASQUITH,
34, College Road, Clifton,
E. MARKHAM SKERRITT,
Edgecumbe House, Richmond Hill, Clifton,
Honorary Secretaries.

June 21st.

SIR LAUDER BRUNTON'S MODEL SANATORIUM.

SIR,—I trust the critics of my paper will not be offended if I venture to point out to them that I have not described Wehrawald as the best sanatorium that it is possible to build but only as the best sanatorium that has yet been built. Almost every year we see an Atlantic liner built which surpasses in speed any previous one, and perhaps the next year it is itself surpassed by another. Competition now takes place not merely between rival firms but between rival nations, and I hope that the account I have given of a foreign sanatorium will lead to the erection in England of sanatoria which surpass all others. While my critics have discussed various points about Wehrawald as being imperfect they have not mentioned any single sanatorium to surpass it. If they will show me any other existing sanatorium that is better than Wehrawald I shall be ready to acknowledge and apologize for my error.—I am, etc.,

Cavendish Square, June 23rd. LAUDER BRUNTON.

INTRATRACHEAL INJECTIONS IN PHTHISIS.

SIR,—I confess I am unable to understand Dr. Philip's letter in the BRITISH MEDICAL JOURNAL of June 21st. It was evidently conceived in a moment of deep anxiety; and like a maternal impression—dread fear still haunts him lest any of your readers should also receive from my paper "the impression that the method is recommended as a new departure which its author doubtless did not intend to convey."

Dr. Philip's method is, I suppose, not uncommon amongst critics who, after scanning the last chapter, proceed to condemn a book. He appears to have read only an article of mine which was in reality a postscript to a previous publication, and from this very imperfect acquaintance with his subject he ventures to lay down the law.

I will briefly point out the essential differences between the intrapulmonary methods, of which we have published reports, and the system to which I have called attention. First as to material and bulk injected:

A. Rosenberg (1887) used menthol, olive oil, dose 1 gram; Behag (1888), menthol, olive oil, 1 or 2 drachms; Jameson, Downie, Bramwell (1889), menthol, creosote, or acid carbol, or guaiacol, or ol. eucalypt., olive oil, m 15 to 2 drachms; Grainger Stewart (1892), menthol, guaiacol, olive oil, 1 to 1½ drachms; McNaught (1893), menthol, guaiacol, olive oil, m 30; Campbell (1894), various glycerine solutions, 2 to 4 drachms; Leggat (1902, referring to Edinburgh doses in 1892), 3 to 5 minims; Campbell (1901-2), izal, etc., glycerine, 1 to 3 oz.

I regret to have been unable to trace any published accounts of Dr. Philip's trials of thymol, eucalyptus, terebene, iodoform, balsam of Peru, with castor oil or glycerine and other "germicidal agents." I have not, however, been able to refer to his work on *Pulmonary Tuberculosis*, mentioned in his letter; and most unfortunately an article with the same heading, mentioned as contributed by him (in the *Medical Directory*), seems to have been omitted from the *Encyclopædia Medica*, 1901.

The differences are obvious, but require a word of explanation. I have gone into the question of oil *versus* glycerine very fully elsewhere, and shall be pleased to send any one interested a copy of the paper; the practical difference is that whilst oil blocks the bronchioles and checks expectora-

tion, glycerine increases secretion and promotes free expectoration. The increased dosage practised by me is not merely an increase in bulk, the proportion of active drug or chemical contained being proportionately increased.

And now we come to what Dr. Philip pronounces "the only new factor," namely, the bacillicide, izal, on which, however, he is "not inclined to lay stress"; perhaps he will permit me to do so. Speaking under correction, I do not think that any one of the string of "germicidal agents" mentioned by him has ever been shown to be capable of inhibiting the growth of B. tuberculosis in sputum, whereas Professor Delépine has demonstrated that this power is possessed by izal. What more likely than Dr. Philip's dismal, hopeless story of failure? He was not far wrong when he likened his methods to catching birds by putting salt on their tails!

But despite failure, Dr. Philip will not hear of any attempt at improved methods. He thinks it worth while objecting to a safe syringe because his glass one never smashed! I have administered over 219,000 separate injections, and syringes have broken on four occasions only; but surely precautions against recurrence are wise? And as regards the laryngeal mirror now in use, its safety or danger is not settled because Dr. Philip "cannot believe." The simple question is, can it be sterilized? If not it is a dangerous instrument.

It would be interesting to learn how Dr. Philip effectually sterilizes his glass mirror and its metal frame when he withdraws it from the tuberculous throat; or what he considers "suitable cleansing measures." Doubtless they are thoroughly scientific, as he has "never yet seen any ill-effects follow its use"; but how would he recognize the "ill-effects" if they *were* caused? and, believing his instrument to be above suspicion, would he attribute the "ill-effects" to it? Dr. Philip reasons in a circle.

There are two small matters to which I would like to refer; first, an error in the case mentioned in the JOURNAL of June 7th to which my attention has been called. The quantity of pure izal oil injected per day should have been ℥ss, not ℥j as stated; secondly, in the same article I said I hoped to be allowed to give a demonstration of the introduction of large quantities of fluid at the Manchester meeting. I regret that this will not be allowed.—I am, etc.,

Southport, June 23rd. COLIN CAMPBELL.

AGE-INCIDENCE OF SMALL-POX.

SIR,—Mr. Paul in his letter to the BRITISH MEDICAL JOURNAL of June 21st creates almost hopeless confusion by mixing up two problems, namely, first, the proportion of juvenile to adult small-pox in two towns, and, secondly, the total amount of the disease occurring in these two towns. On the first point he further fails to recognize or to state the fact that the possible fallacies of the first test are checked by the collateral statement of the attack-rate and death-rate from small-pox at each age-period.

I showed in my letter of the 14th inst. that when the necessary corrections for varying age-constitution of the contrasted populations were made, the proportional excess of juvenile small-pox was greater in ill-vaccinated towns than it had been stated in the report of the Royal Commission to be.

Now Mr. Paul argues as if this had some connexion with the size of the epidemic in the contrasted towns. The size of an epidemic depends on a number of factors. If the first cases of small-pox are diagnosed early, if the attendants on these cases are revaccinated, thus forming a ring of protected persons, the epidemic may be small in extent, as has happened in Leicester; though other ill-vaccinated communities like Gloucester have had a calamitous experience. The question as bearing on the influence of vaccination, Is what was the relative experience of vaccinated and unvaccinated during the epidemic? Small-pox, again, is a disease which varies naturally in virulence. In Leicester it was less virulent than in Warrington. But here again, so far as the influence of vaccination is concerned, the question is—What is the experience of vaccinated and unvaccinated respectively?

Mr. Paul's table in his letter of June 21st conceals these points. The following expansion of his table unveils these facts:

Under 10.

	Total Population.	Cases.		Fatality per 100 Cases.	
		Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.
Warrington ...	54,084	33	32	6.0 per cent.	67.5 per cent.
Leicester ...	184,547	2	107	0.0 per cent.	14.0 per cent.

Over 10.

	Cases.		Fatality per 100 Cases.	
	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.
Warrington ..	560	36	6.4 per cent.	33.3 per cent.
Leicester ...	107	51	1.0 per cent.	7.8 per cent.

The table, as now stated, is a compendium of the evidence in favour of vaccination.

(*a*) Leicester is a town in which infantile vaccination has been greatly neglected. In Warrington this neglect is comparatively small. In the former the proportion of the total cases of small-pox under 10 is great; in the latter it is small.

(*b*) Among those attacked, in Warrington the fatality under 10 years of age is eleven times higher among unvaccinated than among vaccinated children, while in Leicester no vaccinated children died and only 2 were attacked. At ages over 10 the fatality in Warrington was five times and in Leicester nearly eight times as great among unvaccinated as among vaccinated.

But "the children in Leicester were better off, and so were the adults," than in Warrington. That is true, if it is meant that out of the total population fewer children and fewer adults were attacked than in Warrington. Even in Leicester an epidemic of small-pox cannot arise without contact with cases of the disease, and while its sanitary and nursing staff are efficiently revaccinated. For what will happen in an unvaccinated community when early cases are unrecognized or not isolated one must refer to places like Gloucester. But in Leicester the same or even greater differences between the fatality among vaccinated and unvaccinated patients respectively are visible, as in Warrington; and this and the attack-rate among vaccinated and unvaccinated respectively *when exposed to infection* constitute the problem when we are dealing with small-pox in relation to vaccination.

Mr. Paul draws my attention to a table in the *Dissent* of Dr. Collins and Mr. Picton, giving the incidence of small-pox to 10,000 of total population in each of four towns. This table, like the one given by Mr. Paul in his last letter, simply begs the point at issue. When the facts in this table are separated—like those relating to Warrington and Leicester above—for vaccinated and unvaccinated respectively, they show very strikingly the protection afforded by vaccination.—I am, etc.,

Brighton, June 23rd. ARTHUR NEWSHOLME.

*** Owing to the numerous calls on our space at the present time it will be impossible to publish further letters on this subject.

HOW TO BE HAPPY THOUGH A DOCTOR.

SIR, The most excellent article on the above-named subject which appeared in the BRITISH MEDICAL JOURNAL for May 31st will have been read with keen interest. The article stands criticism well, and it deserves more than mere reading—it deserves considering.

The subject of happiness is always attractive, and, like lovers' walks, is always found off the main road. But these "heaven draughts" are distributed more by chance than by any aim of humankind. A German philosopher said he never knew of a happy man unless it were Shakespeare when he was writing *A Midsummer Night's Dream*. The very thought of our having to "endure going hence" must mar to some extent our fancied happiness, and cause our "casti-

gated pulse (to) gi'e now and then a wollop"; so Shakespeare says "ripeness is all." Ripeness, of course, means the fullest possible vitality, and is brought about by "the excellency of knowledge," which is "that wisdom giveth life to them that have it."

It is the striving after more "portion," the perpetual building of Towers of Babel after the architecture of the present conceited times, forgetting there is no new thing under the sun, and despising such wisdom as Solomon's, that cause us to lose what happiness is due to us. "Our own felicity we make or mar," and "there is nothing better for a man than to enjoy his portion" are apt quotations yet. As to the happiness of men like Paget, Gull, and Clark, we have evidence sufficient to show that they did not fail to "enjoy their portions." Surely sixteen hours' work a day shows that it was done cheerfully, else it would have killed them. Heaven accepts all work that is done joyfully. Gull was good company and told an excellent tale; Clark, an honest man, complained of being tired often, but showed that he liked playing his part; Paget was not a man to study the tastes and whims of patients, but what was good for them. Are the footprints of these men to be lost sight of because of the rough roads they traversed, or because happiness is thought to lie in smooth paths? These were real men, not ideal men. An ideal man is a hypocrite. Their lives show us that "ripeness is all," and that this is matured by the life-giving "excellency of knowledge," and not by all the calculations, objects, aims, and reasons the human mind can invent. All teaching that would forward ideas of "bedside manners," "kudos," and "success in life" savours of quackery. Each man must prescribe according to his gifts, otherwise he will hinder perfection. Any one with gifts like those of Astley Cooper must not cultivate the behaviour of Abernethy. Some must take by storm, others by marked kindness. It matters not by which way; the cure justifies the wisdom of it.

Worry and anxiety are far more common over the welfare of a practice than over the welfare of patients. Patients are naturally interested in their own welfare, and if we are interested in fees, or in the increasing of a practice, we and the patients have widely distinct interests. Hence the misunderstanding. A practitioner who delights to see his patients improve will prescribe what is best for them, sparing no expense; nay, he will prescribe his own heart: "A merry heart doeth good like a medicine; but a broken spirit dryeth the bones"—surely an excellent "stock" mixture.

Gratitude is the only interest of the profession; but gratitude, like honour, is nothing—vain. If we have no interests we can have no worry; and worry and happiness go badly together. Of course we could not play the game of life without fees; but even a fool knows what is a fair thing. Therefore he who would know "how to be happy though a fellow creature" must fling away ambitions, interests, and worry; must study what he affects; must play his own part (every man ought to know his part) without object or aim (lest he gain nothing but a hypocrite's reward); and trust to the issue over which he himself can have no influence. Thus he starts with that which others think they achieve in the end; and has just the same chances of riches and honour, as well as of being in a better condition for standing prosperity, which is to some harder to bear than adversity. So "go thy way, eat thy bread with joy, and drink thy wine with a merry heart..... Let thy garments be always white, and let thy head lack no ointment" (Solomon).—I am, etc.,

Wolverhampton, June 2nd. DOBSON POOLE.

MATRICULATION EXAMINATION OF THE UNIVERSITY OF LONDON.

SIR,—I have read with interest the various opinions expressed in the BRITISH MEDICAL JOURNAL respecting the new regulations for the matriculation examination of the University of London. Regretting as I did the elimination of Greek, I regret still more that Latin should be an optional subject. I think that an acquaintance with Greek and Latin is desirable, if not necessary, for a full comprehension of the English language, derived as it is in so many instances from those sources, and materially assists in English composition and a complete and varied expression of ideas, while it would reduce the lamentable errors in spelling and construction which are met with in certain preliminary examinations. In the medical profession a knowledge of both Greek and Latin seems necessary for the correct and full appreciation of the many words of Greek and Latin origin, and, as those languages are not likely to be studied in after-life, it is much to be deprecated that they should not be required for matriculation.

With respect to the alternative subjects of modern languages and science, I fully recognize the importance of both, but they can well be taken up more fully after matriculation. A knowledge of the grammar and construction of one or more languages should be required as a basis for the acquisition of a fuller knowledge later. I am certain that a student would sooner acquire French if he were acquainted with Latin.

In the case of science there is ample time to gain knowledge in this branch after matriculation, but, if a student has special aptitude and opportunities in this direction, he should be encouraged to display his knowledge, but not to the exclusion of Latin.

Seeing that the University of London, by its Matriculation Examination, has the power of directing the course of preliminary education, I regret that a knowledge of Latin should be put aside in favour of modern languages and science which can be, and in some cases must be, taken up more fully afterwards.—I am, etc.,

June 17th. A FATHER.

THE M.B. AND B.S. EXAMINATIONS, LONDON.

SIR,—I observe that it is proposed by the Board of Advanced Medical Studies that the above be combined "to form a single entrance to those degrees." Doubtless this will be for the benefit of candidates, but I doubt if it will not lower the present value of these degrees and give their holders no advantage over the ordinary M.B. and Ch.B. of provincial universities, where in general their Ch.B. is not sufficient for election on to a hospital staff, while at the same time the M.B. is reduced in value by having the Ch.B., etc., tacked on to it.—I am, etc.,

June 17th. ACADEMICUS.

THE RECONSTITUTION REPORT.

SIR,—Some members of the Association refused to go to the meeting on Wednesday last because they thought opposition to the report was useless; others absented themselves because they said there was not the smallest chance of such a report being adopted. Both these sections must have been terribly chagrined when they saw the narrow majority by which the report was carried.

It is unfortunate you have not given a detailed account of the special meeting, seeing the time is so short before we shall have to give a final decision upon the proposals.

We were told we ought to accept the scheme, or reform was hopeless, and further, that we had had two years to think it over, and then we were asked, "What are you going to do if you reject our report?" All this was from members of the Committee, for not a single speaker outside was found to support these gentlemen, some of whom, I fear, have an extravagant idea of their own importance. Their assertions also are rather exaggerated, for I find the report is dated June 18th, 1901, that is, well within one year; and as to discussion, up to the special meeting on the 18th, there had been practically none. Certainly not by the general body of members of the Association.

At the Manchester local meeting there were 17 members present out of the district comprising over 600 practitioners, and 2 of the 17 were members of the Committee!

The debate (?) at Cheltenham could hardly be called serious, and if the speeches of the gentlemen at the special meeting on Wednesday, June 18th, congratulating themselves and backing up their report are placed before your readers, they "stand confessed," and the report is doomed. One after the other admitted the report was not perfect, and one at least of them said it was bad, but said, "Let us try it, for anything is better than the present government."

I will not call it a hole-in-the-corner scheme, as Mr. Andrew Clark suggests, I simply say that up to this last special meeting it had evidently not been clearly understood, but there,

its deficiencies and weaknesses are clearly revealed by its own advocates.

The fact is, too much confidence has been placed in the authority of this Committee. Take Mr. Clark's final assertion as to cumulative voting. He said, "If it did not work it could be altered within three months' time." Is this the sort of change we are desirous of adopting? The voting is determined by the proposed 35th Article of Association, therefore, contrary to a by-law, as we all too well know, cannot be altered without a costly and tedious process, and this assertion comes from the Chairman of the Committee entrusted to put the proposals in proper legal shape, and is therefore dangerously misleading.

This No. 35 has a striking significance. It was Rule 35 upon which the Council was so ignominously defeated when they had their scheme before us a couple of years ago, and now we find those men who helped us to throw out that scheme, now urging us to adopt it by their proposal that having passed any resolution by a two-thirds majority, the attenuated Council should have power of throwing it over.

Now these gentlemen say, "What are you going to do?" Surely they are aware of the proposals which have been before the Association for years, many of which are in their present scheme, and if they are not familiar with the reform work which has been already attempted and therefore can have taken no part in it, they are not, I say, entitled to ask us to accept their *ipse dixit*.

When Mr. Horsley at the Edinburgh meeting proposed that the Association should take up medical defence, several of those gentlemen on the Reconstitution Committee opposed the suggestion on the score of expense, and they now ask the Branches to spend about £4,000 a year on work of a very speculative character, and this by increasing the annual subscription to 25s. But this is not all; the Association must pay the delegates and also salaried officials in one or two departments which are to be created, but does not share the increased subscriptions!

Now, the scheme is not only not perfect: it is exceedingly crude and most unstatesman-like, and does not secure to the Association a single advantage other than including every member in the Branches and reducing the number of Vice-Presidents, two of the proposals which have been made again and again; indeed, we are offered changes without progress. I call this agitation, not reform.

I sincerely trust that those interested in the welfare of the Association will shake off their apathy, and make an effort to attend the meeting on July 9th, and throw out this impossible scheme at the third reading. It is especially the duty of those members of the Council to come to the rescue who did not trouble to attend the statutory meeting, and help us to save this great Association from destruction.

It is my intention of again bringing before the annual meeting this year most of the proposals I withdrew at Ipswich in favour of Mr. Horsley's Committee, and I don't doubt the members of the late Reconstitution Committee will be loyal to their protestations of reform and support them, and I am sure the Council will also do all they can in the direction of reasonable reforms, all of which can be brought about by simple alterations of and additions to the By-laws. The £1,000 the Committee has already spent has not been wasted.—I am, etc.,

Old Trafford, June 23rd. JAMES BRASSEY BRIERLEY.

MEDICAL MEN AS WITNESSES.

SIR,—As a relative of Judge Greenhow will you permit me to say a few words in reference to your observations in the BRITISH MEDICAL JOURNAL of June 14th, p. 1494, on this subject?

After stating how, in the case of Mercer *v.* Tetley, the Resident Medical Officer of the Leeds Dispensary was subpoenaed by the plaintiff to give evidence as to injuries stated to have been received by her, your article has some strictures on the judge for the surprise expressed by him at the witness declining to give evidence until his fee was paid, and it ends by quoting a series of resolutions passed by the Board of the Leeds Dispensary, and by saying that "these resolutions will have the entire sympathy of the medical profession."

The resolutions are founded on an absolute error, for the question is not that resident medical officers, or indeed any medical practitioner, should be expected to give their services in court "gratuitously," as the chairman puts it, but whether they may rightly and justly refuse to give them unless they are paid beforehand, not only "conduct money"—that is, expenses in reaching the court, always given, I believe, along with the subpoena—but also the remuneration allowed by the scale of costs in return for their evidence. This they have a *right* to demand, but so have all witnesses; yet none, with the rarest exceptions, enforce the right. If they did, probably no poor litigant, in an employer's liability or compensation case, would recover, certainly not at Leeds.

It is disagreeable to everybody to have to give evidence in court, but it is a duty imposed by law; it may "take up valuable time," as the chairman states, but it is a necessary incident to the position of resident medical officers, a position voluntarily assumed by them, and for which they receive payment; and as for taking up time, the law does not treat the duty of one citizen to give evidence on behalf of another as waste of time.—I am, etc.,

Esher, Surrey, June 18th. H. M. GREENHOW.

MODIFIED SMALL-POX AND THOMSON'S THEORY.

SIR,—In 1820, two years after Dr. Thomson wrote in the *Edinburgh Medical and Surgical Journal* as quoted by Dr. Edwardes, he published "an account of the varioloid epidemic which has lately prevailed in Edinburgh and other parts of Scotland; with observations on the identity of chicken-pox with modified small-pox." Numerous passages could be quoted indicating Dr. Thomson's views, and the following may be given as an example: "After the numerous proofs which I have detailed to you of the coexistence of the vesicular and pustular forms of the present varioloid epidemic in every part of Edinburgh, and of these two forms of the eruption seeming everywhere to have reciprocally reproduced each other, I am at a loss to conceive what other sort of evidence, besides that which I have already adduced, can be required to establish the probability of these two forms of the disease having had a common origin."—I am, etc.,

June 21st. X.

THE REGISTRATION OF SICK NURSES.

SIR,—I am glad to see that the BRITISH MEDICAL JOURNAL is opening its columns to the discussion of this question. Until the present time it has been made a party question, engineered to forward party ambitions, and many who would contribute towards its elucidation hesitate to approach it on account of the personal element which has been imported into it. The matter must be lifted on to a higher plane, and that end may be obtained by the fearless handling of the subject. The very complexity of the nurse's work may cause some to argue that a uniform scheme of training is not possible, and dispose them to vote for the present chaos rather than stiffen the curriculum. On the other hand, the hospital authorities may favour the same chaos from a mistaken idea that registration will interfere with the prestige of the training school. Both these objections can be met, but the first step is amicable conference among the nurses. Few things would be more disastrous than a State-made scheme of registration which would bind the nursing profession in cast-iron bands before it knew its own mind.—I am, etc.,

June 20th. A PAST MATRON.

MIDWIVES BILL, 1902.

SIR,—There are some points in the above which demand attention, even from those who are in favour of establishing an inferior order of midwifery practitioners.

1. The Bill does not make it illegal, nor does it impose a penalty, if a midwife give a medical certificate, or a certificate of the cause of death, or a certificate or "declaration" of stillbirth. Clause 2 simply provides that "the certificate under this Act shall not confer upon any woman any right . . . implying that she is . . . authorized to grant a medical certificate, or any certificate of death or of stillbirth . . . . . ." This is, to a casual reader, a misleading clause, as it might be thought that this Bill imposes a penalty upon a midwife who grants any of the above certificates. It does no such a thing. Surely it would not be too much if the promoters of

the Bill provided a penalty of 40s. upon any midwife so certifying or declaring. At present a midwife can give a certificate or declaration of stillbirth, she being accepted by the burial authorities. In 1889 I collected statistics showing that at 71 Burial Board cemeteries, 6,321 "stillborn" children had been interred in one year. In 1890 Sir C. Cameron, M.P., obtained a Parliamentary return[1] showing that no fewer than 17,335 stillborn children had been interred during one year; and that 4,562 of these have been so interred without a certificate of a medical practitioner. Surely, the advocates of midwives' registration should not encourage this gross state of affairs, especially at a time when criminal abortion and preventives to conception are greatly on the increase.

2. In so far as I can see, no provision is made in the Bill for the payment of even the travelling expenses of members of the Central Midwives Board. Clause 5 provides that 10s. be paid by a midwife for "examination or certificate." The same clause proposes that "all fees paid by midwives in practice at the passing of the Act, and by candidates for examination, shall be paid to the Central Midwives Board." Supposing 10,000 midwives register when the Act passes, and at 10s. each this would give a sum of only £5,000, which when invested might give a yearly income of £300; and supposing about 500 register yearly at 10s. each, this would give an income of £250, or a total income of about £550. This will not allow the Central Midwives Board to pay a secretary, accountant; give a yearly financial statement; publish an annual roll of midwives (Clauses 6 and 7); pay a barrister and solicitor for helping to decide penal cases; rent and taxes of an office in London: and all the other work under Clause 4. No doubt Clause 5 provides that the Central Midwives Board "may"—not shall—apportion any balance against the Central Midwives Board between the county and borough councils. This is not sufficient. A distinct clause should be provided, as is so provided in the Medical Act, 1858, Section XII: "There shall be paid to the members of the councils such fees for attendance and such reasonable travelling expenses as shall from time to time be allowed by the General Medical Council and approved by the Commissioners of Her Majesty's Treasury."

3. It is difficult to follow the proposal by which the powers of the "supervising authority" are to be delegated to other persons. In fact, the Bill reeks with delegation. Clause 17 provides that the powers given to the General Medical Council shall be delegated to the English Branch Council. Clause 8 provides that each county and borough council shall be the "local supervising authority." This will give some 379 authorities! Next, Clause 8 (7) provides that this supervising authority may delegate any of its powers under the Bill to a committee consisting wholly or partially of council members, women being eligible for membership. Further, Clause 9 provides that a county council may delegate all its powers under this Act to "any district council" within its area. There are some 1,403 urban and rural district councils in England and Wales! More delegation still! Clause 9 provides that the district council may again delegate its powers to a further committee, composed wholly or partially of district members; women to be eligible for membership! Now, in the name of common sense, how and by whom will this Act be administered? In so far as I can see the clauses are so drafted that the present committees of lying-in hospitals and midwives societies shall administer the Act.

4. I would suggest that no certificate be given either by the Central Midwives Board or by the examining body to any midwife. Let the fact that her name is on the roll be sufficient. Each year some 500 medical practitioners die, and no one knows or cares where their qualification forms go to, some being illegally sold or used by others. Why perpetuate this mode of encouragement to fraud?—I am, etc.,

Liverpool, June 15th. ROBERT R. RENTOUL.

SIR,—Dr. Sinclair invites me to participate in a mere vulgar brawl. I decline the invitation. I stand absolutely by what I have said and written about midwives' legislation. Dr. Sinclair, in his first letter to you, essentially supports my position with regard to the Bill. I am sorry that I innocently supposed that the members of an executive committee of a society were responsible for its actions. In view of the fact that Dr. Sinclair's name has been used without his knowledge or consent, it should be widely known that the Obstetrical Society has so used the names of eminent personages. One of the reasons which actuated me in removing my name from the Council and the Society some years ago was that I did not choose to have my name connected with transactions over which the Council of which I am a member (to say nothing of the members of the Society) had no practical control. I counsel Dr. Sinclair to pursue the same course. I am quite aware that it is presumptuous on my part to expect so eminent a person to trouble himself with mere detail, but if he were to take the trouble to read the evidence, which I gave before the Select Committee of the House of Commons, the facts connected with stillbirths and puerperal mortality in England and other countries to be found in the return moved for by Lord Grimston and printed June 21st, 1893, a return for which Dr. Rentoul and I were responsible, or in fact any of my writings or speeches on the subject, I am quite sure that he would at least acquit me of the charge of having taken no pains to master a subject the details of which I have at my fingers' ends.

At all events we have arrived at the same practical conclusion as to the value of the legislation at present proposed. Unfortunately he has allowed the use of his name in support of legislation the propriety of which he does not admit.

In conclusion I must regret to note that a professor of Owens College shows a wilful disregard of the first principles of scientific truth. I venture to state that no professor of Owens College twenty odd years ago when I knew it could have written a letter such as Dr. Sinclair has written, and I sincerely hope that the Owens College of old days has not deteriorated since it has become an integral part of a great university. Dr. Sinclair is announced to deliver an oration at the next annual meeting; surely if the members of the British Medical Association are forced to submit to an additional tax on their powers of patience, the Council might have taken the trouble to select a person whose methods of thought are more in accordance with those in vogue amongst educated people.—I am, etc.

Hatfield, June 21st. LOVELL DRAGE.

[1] Stillborn Interments, July 21st, 1891, 2,352.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE ROYAL NAVY MEDICAL SERVICE.

THE session of special instruction at the Royal Naval Hospital, Haslar, terminated on June 20th, when the following surgeons received appointments to H.M. ships.

Two prizes—the gold medal and microscope—were awarded to Surgeon Oswald Mills, R.N., late of St. Thomas's Hospital, and one the silver medal and ten pounds worth of books—to Surgeon Leslie M. Morris, R.N., late of St. Bartholomew's Hospital.

Surgeons in Order of Seniority.

Name.	Marks.	Name.	Marks.
Oswald Mills	5,562	John Fullarton, M.B.	4,245
Leslie M. Morris	5,185	William N. L. Cherry	3,863
Alexander K. Smith-Shand, M.B.	4,321	John G. Peebles, M.B	3,790
Norman H. Mummery	4,278	Thomas W. Myles, B.A., M.B.	3,786
		Elijah R. G. Thomas	3,444

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned qualified candidates have been appointed Surgeons in his Majesty's Fleet, dated June 9th: CHARLES A. PHIPPS, WILLIAM R. HARRISON, CHARLES K. BUSHE, B.A., M.D.; REGINALD L. JONES, B.A.; WALTER G. EDWARDS, FRANK E. BOLTON, ROBERT H. ATKINS, B.A., M.B.; STANLEY S. H. SHANNON, JAMES A. THOMPSON, B.A., M.B.; VAUGHAN BATESON, CHARLES J. O'CONNELL.

Inspector-General WILLIAM HENRY SLOGGETT died at Paignton on June 10th, aged 81. He entered the Royal Navy as Surgeon, April 2nd, 1842, and became Staff Surgeon, November 22nd, 1861; Fleet Surgeon, August 12th, 1865; Deputy Inspector-General, February 21st, 1874; and Honorary Inspector-General, March 25th, 1887; he retired from the service, January 1st, 1873.

The following appointments have been made at the Admiralty: WILLIAM M. LORY, Fleet Surgeon, to the *Vernon*, for the *Devastation*, June 12th; FREDERICK W. PARKER, Staff Surgeon, to the *Wildfire*, for the *Immortalité*, June 12th; GEORGE HEWLETT, M.B., Staff Surgeon, to the *Excellent*, for the *Hero*, June 12th; HAROLD R. OSBORNE, Staff Surgeon, to the *Excellent*, for the *Cambridge*, for the *Conqueror*, June 12th; HENRY J. HADDEN, B.A., M.B., Staff Surgeon, to the *Excellent*, for the *Narcissus*, June 12th; BASSETT C. E. F. GUNN, Staff Surgeon, to the *Wildfire*, for the *Edinburgh*, lent, June 12th; CHARLES R. SHEWARD, M.B., Surgeon, to the *Australia*, for the *Spanker*, June 12th; G. A. TAYLOR, B.A., M.B., Surgeon, to the *Pembroke*, for the *Sheldrake*, June

12th; Alfred Woollcombe, Surgeon, to the *Vivid*, for the *Sharpshooter*, June 12th; William P. Walker, Surgeon, to the *Melampus*, for the *Skipjack*, June 12th; William E. Ruttledge, Surgeon, to the *Anson*, for the *Speedwell*, June 12th; Ernest F. Ellis, Surgeon, to the *Duke of Wellington*, for the *Seagull*, June 12th; Shirley H. Birt, Surgeon, to the *Resolution*, for the *Renard*, June 17th; Harold G. T. Major, Surgeon, to the *Galatea*, for the *Alarm*, June 17th; William R. Trythall, Surgeon, to the *Severn*, for the *Circe*, June 17th; John C. G. Reed, Surgeon, to the *Severn*, for the *Onyx*, June 17th; Frank H. Nimmo, to the *Revenge*, for the *Leda*, June 17th; Arthur S. G. Bell, Surgeon, to the *Pomone*, additional, on recommissioning, June 13th: Douglas V. Lowndes, Surgeon, to the *Hannibal*, July 1st; Robert Bentham, Deputy Inspector-General to Plymouth Hospital, July 3rd; Theodore Marles Thomas, Surgeon, to the *Australia*, June 23rd.

The undermentioned have been entered as Surgeons, and appointed to the *Duke of Wellington*, additional, for Haslar Hospital, June 9th: Charles A. G. Phipps, William R. Harrison, Charles K. Buche, B.A., M.D., Reginald L. Jones, Walter G. Edwards, Frank E. Bolton, Stanley H. Shannon, James A. Thompson, B.A., M.B., Vaughan Bateson, Charles J. O'Connell, Robert H. Atkins, B.A., M.B.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Surgeon-General G. J. H. Evatt, M.D.	Devonport	Salisbury.
Colonel W. B. Slaughter	Portsmouth	Salisbury Pl'n.
Lieutenant-Colonel P. M. Ellis	Bengal	Colchester.
,, T. M. Corker, M.D.	Punjab	Woolwich.
,, R. Jennings, M.D.	South Africa	Chatham
,, J. H. A. Rhodes	Punjab	South Africa.
,, H. W. Hubbard	Bengal	Aldershot.
,, F. P. Nichols, M.B.	Madras	Lichfield.
,, J. E. Nicholson, retired pay	Dublin.	Belfast.
Major W. G. Macpherson, M.B.	War Office	Home District.
,, R. Crofts, D.S.O.	—	Sierra Leone.
,, S. C. Philson	Australia	Home District.
,, F. J. W. Stoney	Jamaica	Dublin.
,, T. McCulloch, M.B.	Punjab	War Office.
Captain E. McK. Williams	Aldershot	Bulford.
,, L. A. Mitchell, M.B.	China	Aldershot.
,, C. O'C. Hodgens	South Africa	Dover
Lieutenant O. Challis	,,	Aldershot.
,, J. F. Whelan, M.B.	,,	,,
,, A. R. C. Parsons	Crete	Malta.
,, W. C. Stevenson, M.B.	Aldershot	Dublin.
,, L. Cotterill	,,	Bulford Camp.
,, B. A. Craig	,,	Chester.

The undermentioned Lieutenant-Colonels have been granted increased pay under Article 365 of the Royal Warrant: J. J. Routh, H. Grier, H. R. Whitehead, O. E. P. Lloyd, V.C., J. G. MacNeece, C. Seymour, M.B., G. W. Robinson, and C. B. Hill.

ROYAL ARMY MEDICAL CORPS.

Colonel J. Maturin, F.R.C.S.I., is placed on retired pay, June 6th. He entered the service as Assistant Surgeon, September 30th, 1864; became Surgeon, February 4th, 1877; Surgeon-Major, September 30th 1876; Brigade-Surgeon, September 11th, 1890; and Surgeon-Colonel, October 3rd, 1895. He was in the Ashanti war in 1873-4, receiving the medal.

Lieutenant-Colonel B. M. Blennerhassett, C.M.G., is promoted to be Colonel on augmentation, April 1st. He was appointed Assistant Surgeon, March 30th, 1872; Surgeon, March 1st, 1873; Surgeon-Major, March 30th, 1884; granted the rank of Lieutenant-Colonel, March 30th, 1892; and made Brigade-Surgeon-Lieutenant-Colonel, July 4th, 1896. He was with the Ashanti expedition in 1895-6, for which he was honourably mentioned, received a star, and was appointed a Companion of the Order of St. Michael and St. George.

Lieutenant-Colonel W. B. Slaughter is also promoted to be Colonel, on augmentation, April 1st. He was made Brigade-Surgeon-Lieutenant-Colonel, July 6th, 1896, otherwise his commissions are simultaneous with those of Colonel Blennerhassett. Colonel Slaughter served in the Afghan war in 1878-80 (medal), and in the campaign on the North-West Frontier of India in 1897-98 (medal with clasp).

Major F. J. W. Stoney is placed on temporary half-pay on account of ill-health, May 19th. He was appointed Surgeon-Captain, August 1st, 1885, and Surgeon-Major twelve years thereafter.

An Army Order (No. 127) has been issued containing amendments to the regulations for examinations for the promotion of officers in the Royal Army Medical Corps.

THE PAY OF THE R.A.M.C. IN INDIA.

Justice writes: The Indian Government has missed a great opportunity of putting themselves right with the R.A.M.C., and, through them, with the whole profession of medicine. For year after year they have secured (for India) the services of officers of the R.A.M.C., and refused to pay them the just and legal wage laid down by the English War Minister for these duties. These troubles as to pay with the Indian Government are not of yesterday. They date back to 1858. In that year Sidney Herbert's Warrant raised the pay of the Army Medical Service. No corresponding increase took place in India, and it was not until 1864 that at length the legal pay was granted to the Medical Service. But each succeeding decade produced, as it will produce, a reconsideration of the pay of the medical officers, and in each case the Indian Government stood out against the increase, and at present all the majors, lieutenant-colonels, and brigade-surgeon-lieutenant-colonels, are paid as in 1864, that is, on the pay-rate of the warrant of 1858. This implies each year a considerable financial loss. For Indian pay is no more "fluke" or chance-quantity. It is built up of definite factors as clear and distinct as the pay-rate of medical officers in the tropical colonies under the War Office. It is actually a consolidation of the English pay, *plus* tentage—that is, lodging allowance—*plus* horse allowance, *plus* "batta" or ration money, and one or two minor sums, and the pity is that it is "consolidated" so that the ordinary observer is unable to tell where he is being underpaid. Very few medical officers have taken the trouble to find this out. It is the English pay factor that is defective, as the Indian Government declines to recognize the pay warrants of the English War Minister.

The present compromise scheme will apparently raise somewhat the pay of the lieutenant and captain grades; but the pay of the majors, lieutenant-colonels, and senior lieutenant-colonels, formerly called brigade-surgeons, will remain with the English pay factor as in the year 1858. How utterly unjust all this is. What the R.A.M.C. need is justice. Justice before everything, and this it has not received for forty years of Indian military administration. A service like the R.A.M.C. moves strictly on a legal basis and by regulation. These regulations, once laid down, should never be departed from without due notice to all concerned, and to ignore this surely results in trouble, and will always do so. Until the Indian pay of the R.A.M.C. is clearly laid down and the basis of it made evident to every officer the R.A.M.C. will be justly dissatisfied. The grant of charge pay follows, of course, the English regulation of the new Medical Warrant, but it in no way affects the pay question. It is the pay question which remains now, as heretofore, the real crux of the R.A.M.C., and the opposing forces are the Simla governing party and the Indian Council at Whitehall. The aim should be to place representatives of the medical services on both these bodies. Until this is done injustices will be sure to continue.

ROYAL ARMY MEDICAL CORPS (MILITIA).

The undermentioned gentlemen are appointed Lieutenants, dated June 18th: Charles R. Tichborne, Richard Le Q. Worsley, James C. Furness.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant-Colonel J. J. Saville, having resigned his Volunteer appointment, ceases to belong to the Army Medical Reserve of Officers, June 14th.

Surgeon-Captains W. B. Macdonald, M.B., and W. B. Mackey, M.B., are promoted to be Surgeon-Majors.

INDIAN MEDICAL SERVICE.

The undermentioned Majors, having completed twenty years' full pay service, are promoted to be Lieutenant-Colonels, dated April 1st:—*Bengal:* R. H. Charles, M.D., G. Duncan, M.B., W. A. Sykes, M.B., D.S.O. *Madras:* E. W. Reilly, J. Scott, M.B. *Bombay:* R. W. S. Lyons, M.D., J. P. Barry, M.B., A. V. Anderson, M.B.

The undermentioned Captains, having completed twelve years' full pay service, are promoted to be Majors, from March 31st:—*Bengal:* A. J. McNab, H. Smith, M.D., C. N. C. Wimberley, M.B., E. W. Hore, M.B. *Madras:* W. D. Sutherland, M.B., P. Carr-White, E. H. Wright, W. Molesworth, M.B., C. F. Fearnside, M.B., C. A. Johnston, M.B., G. G. Gifford. *Bombay:* J. Jackson, M.B., A. Street, M.B., J. B. Jameson, M.B.

Lieutenant-Colonel C. W. Owen, C.I.E., C.M.G., Bengal Establishment, retires from the service from March 15th. (This supersedes that of the retirement of Lieutenant-Colonel "William" Owen, made in the *Gazette* of March 25th, and quoted in the British Medical Journal of April 5th.) Lieutenant-Colonel C. W. Owen joined the department as Surgeon, September 30th, 1870, and became Surgeon-Lieutenant-Colonel, September 30th, 1896. He was in the Afghan war in 1879-80, including the action of Charasiah, the cavalry action in Chardeh Valley (slightly wounded), and the operations round Kabul in December, 1879 (mentioned in despatches, medal with two clasps). He was also in the Egyptian war in 1882, and was at the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star).

Lieutenant-Colonel J. Young, M.B., Bengal Establishment, retires from the service from March 31st. He was appointed Assistant-Surgeon, March 30th, 1872, and became Brigade-Surgeon-Lieutenant-Colonel, October 24th, 1897. He was with the Burmese expedition in 1885-6, and has the Frontier medal with clasp.

IMPERIAL YEOMANRY IN SOUTH AFRICA.

Temporary Captain J. E. Williams, medical officer 34th Battalion, resigns his commission.

IMPERIAL YEOMANRY.

Surgeon-Lieutenant W. W. Nuttall, Leicestershire (Prince Albert's Own), resigns his commission, and receives a new commission subject to the Militia and Yeomanry Act, 1901, retaining his present rank and seniority.

RIFLES (VOLUNTEERS).

Mr. William R. Smith, M.D., is appointed Surgeon-Lieutenant in the 1st Nottinghamshire (Robin Hood), June 18th.

Mr. Henry J. Taylor is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Loyal North Lancashire Regiment, June 18th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

Surgeon-Captain A. W. Dalby, from the 3rd Volunteer Battalion the Somerset Light Infantry, to be Surgeon-Captain in the Gloucester and Somerset Company, and to command under Para. 55a, Volunteer Regulations, June 18th.

Surgeon-Captain S. S. Hoyland, from the 1st Volunteer Battalion the Suffolk Regiment, to be Surgeon-Major in the Harwich Company, and to command, under Para. 55a, Volunteer Regulations, June 18th.

Surgeon-Lieutenant C. J. Deyns, Home Counties Company, is promoted to be Surgeon-Captain, June 7th.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1902.

SUBSCRIPTIONS to the Association for 1902 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 28TH, 1902.

CANCER IN INDIA.

RECENT theories as to the relationship of race, diet, and the prevalence of malaria to the incidence of cancer have attracted much attention of late, and some of the points raised can, perhaps, be tested better in such a country as India than in Europe. In this connexion two papers on cancerous and other tumours, in Madras and in Kashmir respectively, which appeared in the May number of the *Indian Medical Gazette* are of considerable interest. In the first of these Captain W. J. Niblock tabulates all the cases of carcinoma, sarcoma, and rodent ulcer which have occurred in the Madras General Hospital during the last ten years. The number of cases of cancer alone in natives was 676, and this is sufficient to show that malignant disease is very far from being rare among the indigenous races of the tropics. A remarkable feature of these tables is the great frequency of cancer of the cheek. No fewer than one-third of all the cases of carcinoma occupied this situation, while if cases affecting the cheeks, jaws, and tongue be taken together they formed over half of the total. This is attributed by the author to the common habit among the natives of chewing the betel nut. Epitheliomata of the same parts are also very common in Calcutta, and often involve most of one side of the face before the patients present themselves for treatment. On the other hand, epithelioma of the lip is rare in natives, constituting only about 1 case in 50 as against 1 in 14 in Europeans and Eurasians, due no doubt to the former class not smoking pipes. Carcinoma of the alimentary canal is comparatively rare, except in the rectum, which is also the case in Calcutta, except that there the stomach is not infrequently affected. Another remarkable fact is that out of 201 cases of epithelioma of the penis every one occurred in Hindus, and not one in Mohammedans; circumcision among the latter no doubt saves them from chronic forms of irritation to a large extent. This fact has also been noted in Calcutta, where cancer of this organ in Hindus is the form of the disease most frequently met with. Further, sarcomata affect the lower extremity very much more frequently in Hindus, who often go about barefooted, than in Mohammedans who more frequently wear shoes.

Turning to the percentage of cases in proportion to the total admissions occurring in the different races, we find that both carcinoma and sarcoma are more frequently met with in Hindus (1.98 and 0.67 per cent. respectively) than in Mohammedans (1.76 and 0.49 per cent. respectively). Next come Europeans, with 1.16 and 0.89, and lastly Eurasians with 0.34 and 0.05 per cent. respectively. If, however, epithelioma of the penis be omitted, then Mohammedans are found to suffer in greater proportion than Hindus from cancerous disease. It was not found possible to classify the Hindus according to the different castes, and all that the author can say is that the highest class of Brahmins do undoubtedly suffer from cancer and other forms of malignant disease not at all rarely. Another curious point is that 46 cases of cancer of the uterus and 5 of the vulva or vagina all occurred among Hindus, and none among Mohammedans.

Although these figures present many points of interest, they cannot be said to throw much light on the influence of diet on cancerous and sarcomatous disease, for the incidence of these diseases in the beef-eating Mohammedans does not differ very widely from that among the Hindus, who abhor the flesh of the sacred cow. The presence or absence of any form of chronic irritation of the part affected appears to exert a preponderating influence in predisposing to the disease, if not in exciting it. This is also well shown by a fact recorded in the other paper on tumours in Kashmir by Dr. E. F. Neve, namely, that three out of every four cases of epithelioma treated in the Mission Hospital belonged to the class he calls "Kangri-burn cancer," which is an epithelioma situated on the thigh or abdomen due to the irritation produced by a portable charcoal fire basket carried under the clothing in contact with the body for the sake of warmth during the winter months in the elevated and northernly vale of Kashmir.

The question of the alleged antagonism between cancer and malaria is not touched on in these papers, nor is it easy to get very definite figures bearing on the point owing to the absence of any registration of deaths worthy of the name even in the large Presidency towns, although a praiseworthy effort is now being made in Bombay to remedy this defect. All that can be said is that malignant disease in both its principal forms is a very common disease in Bengal, which is one of the most malarious parts of India, while attacks of malaria have occurred during the progress of cancerous disease, and are far from exercising a retarding effect on the process. The idea that malaria is opposed to cancer is certainly not widely, if at all, accepted in malarious Bengal.

THE PHILOSOPHY OF HERBERT SPENCER.

THE writings of Mr. Spencer exercise an influence in so many different directions and are so intimately associated with current speculative thinking, that it is difficult to view his work as a whole in its proper perspective and estimate impartially the position it is likely to occupy in the future as a permanent contribution to philosophic thought.

Many students, old and young, have been grateful to Mr. Howard Collins for his *Epitome of the Synthetic Philosophy of Herbert Spencer*,[1] and will be glad to know that he has thoroughly revised the text for a new edition so as to incorporate the additions which Mr. Spencer has made to

[1] *Epitome of the Synthetic Philosophy of Herbert Spencer*. By F. Howard Collins. With a Preface by Herbert Spencer. Fifth edition. London: Williams and Norgate. 1901. (Demy 8vo, pp. 602. 21s.)

portions of his philosophy since 1897. The Epitome is very clear and complete, and may be thoroughly recommended to any reader who will bear in mind Mr. Spencer's advice not to read too much at a time. The subject matter is too condensed to be assimilated without much reflection, and, if possible, should be supplemented by reference to the original.

It will help us to appreciate the value of Mr. Spencer's work the better if we recognize that it is to be judged by three distinct criteria, which are separated from one another by important differences in the scope of philosophy and in the functions it may serve. There are, to begin with, certain fundamental laws of knowledge and reality which are true for all time and have been recognized, with varying degrees of adequacy and inadequacy, by the great thinkers of all ages ever since the dawn of speculative thought. But though philosophy is thus universal in its import, it is, in the second place, necessary that every new epoch in intellectual progress shall have a philosophy of its own, remodelled for it afresh, in a form designed to meet the needs of its new discoveries, by correlating the principles underlying new departures in ethics, sociology, and physical science, and systematizing them anew. In the third place, the natural sciences, absorbed as they necessarily are in the minutiae of specialized research, need a philosophy devoted exclusively to themselves, which shall keep pace with their advance, and constantly hold before them the light of guiding principles, bringing their results to a general focus and indicating the direction towards which future efforts should converge.

Mr. Spencer's philosophy must be judged by each of the three criteria indicated by these considerations. Adopting the first, we must ask what are his positive contributions to a theory of knowledge as compared with those of Plato and Aristotle, Kant and Hegel, what new light does he throw on our views of an objective world in comparison with the doctrines of the old Atomists and of Leibnitz, Herbart, and Lotze, and how does the negative aspect of his belief stand in relation to the Greek sceptics, to Hume, and to the modern German agnostics and pessimists? Applying the second criterion, we have to consider how far has Mr. Spencer succeeded in bringing into harmony the many divergent tendencies of modern thought, in correlating the doctrine of evolution with the demand for a stability of ethical principles and a security of social organizations, and in showing how what is of value in the beliefs, morals, literature, and art of past generations can be preserved and enhanced by the wider principles of thought which are the vehicle of modern science. And by the test of our third criterion we must inquire, Has Mr. Spencer laid a substantial and sufficient foundation for the superstructure of the natural sciences, and are his principles adapted to provide fruitful working hypotheses for the guidance of future research?

It is important to realize that these three criteria are different, and that the value of Mr. Spencer's work as estimated by any one of them does not necessarily hold good for the others. Into the first two we cannot enter further here. As regards the third, it may very appropriately be said that scientists cannot too often be reminded of the high value of Mr. Spencer's writings as an antidote to the biassed and shortsighted habit of thinking which an exclusive specialization is apt to engender. We may take as an illustration a subject of increasing importance both to physiology and pathology—the structure of protoplasm. An enormous amount of laborious research has been undertaken with the object of demonstrating the finer details in the structure of the cell. The result is we are confronted with a number of conflicting theories, each supported by authorities of undoubted eminence and accuracy, and, the wider our acquaintance with them, the greater becomes our difficulty in forming a positive opinion. In such a juncture Mr. Spencer's hypothesis of "physiological units" is undoubtedly of service in helping to clear the ground. His postulate of these "units" as an actuating principle of vitality, standing intermediately between the cell and the chemical molecule, simpler than the former and more complex than the latter, enables us to recognize a common ground for reconciliation amongst biologists who are apparently in a state of hopeless discord about discrepancies of minutiae. We can see, for instance, that Altmann's "granules," Arnold's "plasmosomes," and the "fibrils" and "microsomes" of various authors really represent different endeavours to find a morphological expression for a "physiological unit," which they all, whether consciously or implicitly, postulate in common.

Nor is this all. "Physiological unity" is but one of very many considerations out of which Mr. Spencer's principles of biology are constructed; by studying the work as a whole we learn not only the significance but the limitations of this particular conception. Thus the philosophy of the sciences which is a true interpretation of their data serves a double purpose. It shows us the part which particular principles play in its general scheme, and exposes that scheme as a whole for scrutiny before the cold light of reason. It is by a combined estimation of the justification of a principle as an integral part of the general scheme, and of the claims of that scheme upon our approbation as a completed whole, that we can arrive at an appreciation of what is of ultimate value in the acquisitions of science.

THE MIDWIVES BILL IN THE HOUSE OF LORDS.

The Midwives Bill was read a second time in the House of Lords on Friday, June 20th. There was an unusually large attendance, and the speakers who took part in the debate, which lasted about an hour, were all in favour of the measure, unless the Lord Chancellor is to be considered an exception.

As will be seen from the report published at page 1611, he intervened early in the debate to express the opinion that the Bill as it stood would produce great hardship in the remoter rural districts by preventing untrained women who now give assistance at childbirth, and act as "maids-of-all-work" afterwards—washing the baby and keeping the cottage tidy—from continuing their beneficent occupation. He fortified himself by reading to the House extracts from the letters of a lady, unnamed, and of a number of magistrates in certain counties which he specified. We have heard before of multiple letter writers in connexion with another agitation, but this is the first occasion on which we

have known their effusions to be quoted as serious arguments by a member of the Government speaking from his place in Parliament. The Lord Chancellor shook his head like Lord Burleigh and looked unutterable things, appearing anxious to convey the impression that the British Constitution is in danger, but the plain English of the whole seems to be that he has accepted the Home Office objection to the provision which forbids uncertificated women to practise as midwives habitually and for gain. The Peers generally did not seem to take so serious a view of the situation, and the Bishop of Winchester's speech was in the main a plea for the Bill as it stood, since he insisted upon the need for a minimum training for women practising as midwives as the essential justification for any legislation. Incidentally he referred to the large number of lying-in homes, which appealed especially to unmarried mothers, and urged that the women who conducted such homes should have some training and should be placed under some supervision.

This is a point to which the British Medical Association has all along called attention. In 1900, and again this year, when the Bill was in the House of Commons, a clause was presented to provide that all lying-in homes should be periodically inspected by the county councils. In the discussion in the House of Commons, on June 6th, on this clause, opinion was generally in its favour, and the Home Secretary promised to consider the matter with a view to the introduction of an amended clause in the Upper House. We hope that the Bishop of Winchester, who seems to be fully alive to the evils of the present want of system, may see his way to press upon the House of Lords the importance of inserting the clause in the Bill. As an ardent supporter of the Bill his lordship may be indisposed to do anything which would endanger its enactment; but from the tone of the discussion in the Lower House it seems highly improbable that the Commons would disagree with the Lords' amendments on this score. The Duke of Northumberland, who is in charge of the Bill, made a spirited reply to the Lord Chancellor, though he promised that the promoters would be ready to consider any amendments which, without weakening the Bill, would prevent it from bearing harshly on those who carried out their avocation satisfactorily.

It is pretty clear, however, that a determined attempt will be made to induce the House of Lords to accept the Home Office view that, at whatever cost of life and suffering to the mothers of the poorer classes, there must be free trade for dirty and incompetent midwives. If this view prevails against the common sense of men of all classes, from the occupants of the Episcopal Bench downwards, who are really acquainted with the needs of the poor, then we can only express the hope that the House of Commons may disagree. The responsibility for wrecking the Bill would then rest with the Lord Chancellor and the Home Office, and not with the critics of the Bill as it stands.

THE DEATH OF DR. WASHBOURN, C.M.G.

IT is with the most sincere regret that we record the death of Dr. John Wychenford Washbourn, C.M.G., Physician to Guy's Hospital and to the London Fever Hospital, and one of the Honorary Secretaries of the Metropolitan Counties Branch of the British Medical Association. Dr. Washbourn was also joint lecturer on Physiology and Lecturer on Bacteriology in the Medical School of Guy's Hospital, and was especially known to the profession for his researches into the bacteriology of epidemic diseases. His death at the early age of 39 is a great loss to epidemiological science. He brought to its study a philosophic breadth of view, a judicial temper of mind, and a practical acquaintance with the details of bacteriology and administration which seemed to contain the promise that he would unravel some of the complex problems which it presents. He took a strong interest in the British Medical Association, and we are indebted to his co-secretary for the following brief note: "All members of the Metropolitan Counties Branch will be deeply shocked to hear of the death of Dr. Washbourn, their Junior Honorary Secretary for the past four years. Although latterly, owing to his services in South Africa and his illness, he had been unable to take any active part in the work of the Branch, during the early part of his term of office he had proved himself a valuable colleague ready to enter into any work for the benefit and prosperity of the Branch. Only two days before his death he was re-elected, and in the immediate future his active help and co-operation had been hoped for in dealing with the great changes that are likely to occur." Dr. Washbourn was appointed Physician to the Imperial Yeomanry Hospital at its formation, and served with it at Deelfontein, and afterwards at Pretoria. He returned home less than a year ago, and appeared to be in his usual health, which was never very robust during the winter. He suffered, however, from a severe attack of influenza complicated with pneumonia a few months ago, and never recovered his strength. He died at Tunbridge Wells on June 20th. We shall hope to publish a more adequate account of Dr. Washbourn's career in an early issue.

THE UNIVERSITY OF LONDON.

IN proposing the toast of King's College at the forty-second annual dinner of that institution, the Bishop of London announced that the Council of the College had decided by twenty-two votes to two that every religious test as qualification for office, position, or membership in or under the Council or College, other than in the faculty of the clergy, should cease to exist. We cordially congratulate the Council on their decision. It was at one time asserted that the governing body of King's College was prepared to forego professional requirements for office rather than elect to office a person who was not a member of the Church of England: and not very long since an eminent divine was prepared to maintain that pathology, for example, was one thing when taught by a professor who professed "the doctrines and duties of Christianity as the same are inculcated by the United Church of England and Ireland," and quite another thing when expounded by one not so professing. The College received a hint from the Grants Committee under the last Liberal Government that their ecclesiastical exclusiveness could not continue, or else public money would not be readily granted to their school. The authorities of King's College have now wisely decided to yield to the spirit of the times, the exigencies of the University of London Act, and the necessities of the situation. Their former rival of heterodox or agnostic reputation has recently appealed successfully for public support at the same time that it is nominally throwing itself into the arms of the University of London. Concentration and amalgamation are the order of the day in the academic world, at any rate of the metropolis, though disruption is threatening the Victoria University of the north. The medical schools are showing signs of similar approximation and unification in regard to subjects of preliminary and intermediate study. We are told that already the cumbersome arrangements of the statutes framed under the University Act of 1898 are beginning to exhibit signs of stress and friction, and it is clear that

ere long some more workable means for providing for the proper relations of the University and its constituent colleges will have to be devised.

CONVERSAZIONE AT UNIVERSITY COLLEGE, LONDON.

The President, Council, and Professors of University College, London, entertained a large company at a *conversazione* held on June 19th at the College. The guests were received in the beautiful Flaxman Gallery by Lord Reay, Professor G. Carey Foster (Principal of the College), Professor E. A. Gardner, Professor E. H. Starling, and Professor J. Rose Bradford. A crowded audience was attracted by Professor J. A. Fleming's demonstration of wireless telegraphy. Two graves of the first Egyptian dynasty exhibited by Professor Flinders Petrie excited considerable interest. A selection of pictures, engravings, and etchings from the Vaughan bequest was arranged by Professor F. Brown in the Women's Common Room, the etchings by Claude and by Rembrandt, together with the engravings by Vandyke, being especially admired. Professor Ramsay exhibited an "attempt to reproduce the aurora borealis." The aurora viewed through a spectroscope exhibits a spectrum identical with that of krypton, one of the recently discovered gases of the atmosphere. The complete apparatus for spectroscopy with which Mr. Bailey's laboratory is provided include a large Rowland concave grating (10 ft. focus), spectroscope, and a large prism apparatus. The great value of this spectroscope lies in the fact that the spectrum obtained enables investigation to be carried on with mathematical accuracy. It appears that this instrument is the only one of the kind open to all students in this country for the purpose of study. In the mechanical engineering department a working model of the turbines used in the *Viper* were shown. The band of the Grenadier Guards played under the portico, and the night being fine and warm, most of the guests did not leave until "God Save the King" was played about midnight.

MR. HERBERT SPENCER'S LAST WORDS.

For Mr. Herbert Spencer as a man we have the highest reverence, and as a philosopher we regard him with respect albeit his philosophy is already like Hamlet's proverb, "something musty." But we cannot say that we find Mr. Spencer's utterances on medical matters particularly enlightening. He has in a somewhat marked degree what he himself would call the antimedical bias, and this feeling, remarkable in a philosopher, has brought him in a scientific sense acquainted with some strange bedfellows. He has an almost fanatical objection to State interference in any form. This feeling finds curious expression in his recently published book entitled *Facts and Comments*, which, we gather from the preface, may be regarded as containing his last words. Among the subjects touched upon in this volume is sanitation, which he appears to regard as a system built on fallacious beliefs supported by facts dishonestly collected and maintained by a bureaucracy which has an interest in keeping up the delusions. The "sanitary class" is placed by Mr. Spencer in the same category as the military class and the State Church, which, it is suggested, exist solely for the benefit of officers of the army and navy and of the clergy. The sanitary delusion is, we are further asked to believe, also fostered by manufacturers and surveyors, who pocket "illegitimate commissions." On the subject of vaccination, again, Mr. Spencer's views do not strike us as in a scientific sense edifying. For no apparent reason, unless it be his antimedical bias, he seems to dislike vaccination without caring to declare himself an "antivaxer." He quotes the expression of "a distinguished physiologist" who once was rash enough to deliver himself in Mr. Spencer's presence of the remarkable dictum that "when once you interfere with the order of Nature there is no knowing where the results will end." From the distinguished biologist there immediately escaped an expression of vexation at his lack of reticence, for he saw the various uses which Mr. Herbert Spencer might make of the admission. The picture of the philosopher as "a chiel amang ye takin' notes," and lying in wait for "admissions" of which he can make use, is not altogether a pleasant one. But let us see what Mr. Spencer makes of this particular "admission." He argues that if vaccination produces immunity against small-pox it must produce further changes in the constitution, for "the interference with the order of Nature has various sequences other than that counted upon." So strong is Mr. Spencer in this conviction that with somewhat unphilosophic emphasis he declares that "the assumption that vaccination changes the constitution in relation to small-pox, and does not otherwise change it, is sheer folly." May we respectfully suggest that even granting Mr. Spencer's assumption—for it is nothing more—to be true, it by no means follows that his further assumption that the constitutional change is necessarily bad is also true? A dose of castor oil causes an "interference with the order of Nature"; and who knows where it may end? As examples of the evil effects of vaccination Mr. Spencer points to measles, which, on very insufficient grounds as we venture to submit, he says is a severer disease than it used to be. Against this we may put the fact that scarlet fever is a much milder disease than it used to be, and claim this as a result of vaccination. Mr. Spencer seems to be ignorant of the epidemiological law that infectious diseases go through periodical phases of severity or mildness, of which science is just beginning to be able to trace the curve without understanding the influences by which it is controlled. Mr. Spencer further finds a proof of the deteriorating effects of vaccination in influenza, of which he says: "Sixty years ago, when at long intervals an epidemic occurred, it seized but few, was not severe, and left no serious sequelae," whereas "now it is permanently established, affects multitudes in extreme forms, and often leaves damaged constitutions." His inference is that "the disease is the same, but there is less ability to withstand it." Here again we have a sweeping conclusion based on a mere assumption. If Mr. Spencer had closely studied the history of influenza he would have found that centuries before Jenner was born, it was "permanently established," that is to say, its invasions extended over several years at a time; and so serious a scourge was it that instances are on record in which it swept away all the inhabitants of a place which it visited. As for sequelae, sixty years ago they were not understood; the effects of influenza constitute a new chapter in pathology. Mr. Spencer sees "evidence of a general relative debility," which, it is implied, is a consequence of vaccination; but he is silent as to the increase in the average length of human life which has taken place during the last fifty years, and which might with better right be claimed as a result of vaccination. We are sorry to have to speak thus of a man who has all his life been a devoted seeker after truth, but we feel bound to protest against utterances which, coming from Mr. Herbert Spencer, will be received by many as having an importance to which in themselves they are not in the least entitled.

NEW BUILDINGS OF CHARING CROSS HOSPITAL.

The foundation stone of an important addition to the Charing Cross Hospital was laid on June 20th, with Masonic honours, by H.R.H. the Duke of Connaught as Grand Master of English Freemasons. His Royal Highness was formally received by the President of the hospital, H.R.H. Princess Louise, Duchess of Argyll, and by a deputation of Grand Lodge officers, including the Earl of Warwick, Deputy Grand Master. The Grand Master, accompanied by the grand officers in attendance, all wearing full Masonic clothing, without jewels, entered the pavilion constructed for the ceremonial in the fol-

lowing order:—Deputy Grand Director of Ceremonies, Three Masters of Lodges bearing the cornucopia and ewers with wine and oil, two Grand Deacons, the Grand Superintendent of Works with the mallet, President of the Board of Benevolence, Grand Secretary with the plate, President of the Board of General Purposes, Grand Registrar bearing the great seal, Grand Treasurer bearing a phial containing coin to be deposited in the stone, Junior Grand Warden with the plumb rule, Senior Grand Warden with the level, Grand Chaplain bearing the sacred law on a cushion, Deputy Grand Master with the square, two Grand Deacons, Grand Sword Bearer and the Most Worshipful the Grand Master, H.R.H. The Duke of Connaught followed by two Senior Grand Deacons. Princess Louise, as President of the hospital, then requested the Grand Master to lay the foundation stone in Masonic form. The Grand Master in proceeding to comply with the request of Her Royal Highness said: "Men and Brethren here assembled to behold this ceremony,—Be it known unto you that we be the lawful Masons, true and faithful to the laws of our country, and engaged by solemn obligations to erect handsome buildings to be serviceable to the brethren—and to fear God, the Great Architect of the Universe.....We are assembled here to-day, in the presence of you all, to erect this building for the relief of pain and suffering, to the honour and glory of the Most High, which we pray God may prosper as it seems good to Him." After the Grand Chaplain had offered prayer the bed of the stone was prepared with cement, a phial containing coins being introduced, and the stone was lowered with three distinct stops. The Duke tested the stone with plumb-rule, level, and square and giving three knocks with the mallet (which was used by Charles II. in laying the foundation stone of St. Paul's Cathedral) said: "I find this stone to be plumb, level, and square, and I declare it to be duly prepared and truly laid, and that the craftsmen have worked well." The Grand Master next strewed corn on the stone as an emblem of plenty and abundance, poured out wine as an emblem of joy and gladness, sprinkled oil on the stone as an emblem of peace and unanimity, and wished prosperity, happiness, and good will among those who would assemble in the building. The treasurer of the hospital, Mr. G. J. Drummond, then moved a vote of thanks to His Royal Highness for attending, and explained that among the buildings which were now about to be provided were a much-needed casualty and out-patient department, isolation wards, and wards for special diseases, a new nurses' home which was almost completed, and new surgical wards, one of which he requested His Royal Highness to name in commemoration of that day, adding that a sum of £80,000 was required to complete the work. After Sir Joseph Fayrer had seconded the resolution, which was carried with much cheering, the Grand Master, in replying, referred to the pleasure it had given him to lay, with full Masonic honours, this foundation stone, to the close connexion between his family and the hospital, especially to the presidency of his Royal Sister the Princess Louise, and to the deep interest His Majesty the King took in the hospitals of the metropolis. He expressed the hope that when the extension was completed Charing Cross Hospital would be one of the finest and most complete of that splendid group of hospitals, of which they were all so proud, in the city of London. His Royal Highness then added that he would be glad if one of the new wards were named the "Alfred Ward" in memory of his brother; but, after receiving a private intimation from the Princess Louise, he said he understood there was already a ward in the hospital bearing that name, and that Her Royal Highness, the President of the hospital, had therefore suggested the name of "The Duke of Edinburgh Ward," but, with the concurrence of all present, he would ask that the name given be the "Louise Ward," a decision which was received with acclamation. Most of the members of the hospital staff were present in Masonic costume, and there was a large attendance of the friends of the hospital, who witnessed the Masonic ritual, which is but rarely seen, with much interest.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

IN its report for 1901 the Manchester and Salford Sanitary Association, which is now in the fiftieth year of its existence, shows that it continues to do useful work in hygienic reform. Among the subjects which have been engaging its attention during the past year are the provision of public laundries for the lower classes, with a view to diminishing the uncleanliness which leads to the spread of skin diseases; the suppression of the smoke nuisance, the contamination of sewers with explosive chemicals, the dangers of badly-constructed lamps or oils of low flash-point as productive of lamp accidents, and the dissemination of knowledge concerning elementary principles of health by systematic teaching in schools and courses of public lectures. In dealing with smoke nuisances the Society works in co-operation with the Smoke Abatement League, and has been endeavouring to lessen the destruction of vegetation attributable to sulphuric acid fumes by supporting the Alkali Works Amendment Bill, which is intended to remove an ambiguity in the Act of 1881. According to that Act, the total acidity of gases escaping into the chimney of sulphuric acid works must not exceed 4gr. of sulphuric anhydride per cubic foot, but it is not clearly specified that the samples to be tested must be obtained before the gases have actually escaped into the chimney and thereby become diluted with fumes from furnaces, boilers, and other sources. The amended clause would remove this ambiguity, and consequently render impossible the laxity of interpretation of which certain manufacturers have recently availed themselves. The chemical contamination of sewers, emanating chiefly from Miles Platting, has led to a series of explosions, and is the subject of a strongly-worded protest signed by Professor Dixon Mann and other members of the Association. The Association is assisted in its work by the Ladies Public Health Society, members of which have inspected 30,364 houses in the course of the year, and reported 1,500 cases of insanitary conditions. The appendix to the report includes a useful pamphlet setting forth some of the statistical evidence in favour of vaccination.

APPENDICITIS IN BRITISH COLUMBIA.

ALTHOUGH it may be difficult to find any points of novelty or of special importance in the numerous additions that have recently been made to the literature of appendicitis, a paper[1] on this subject by Dr. T. C. Davie, of Victoria, B.C., appears on several grounds to claim notice, as apart from the views expressed by the author, it has some incidental notes of interest, as it was read at the first meeting of the newly formed British Columbia Medical Association, and seems to be the first paper that has been published on the subject of appendicitis in this portion of the Dominion. Dr. Davie, who is evidently an enthusiast on this subject, insists strongly on the necessity of operative intervention both in desperate and almost hopeless cases of general septic peritonitis, as well as in those mild forms of appendicitis which are usually classed as medical cases. He holds with Osler that "there is no medical treatment of this affection," and condemns the expectant plan, which he designates as one of "waiting to see what will turn up in the shape of catastrophe." Early operation, which is held to mean successful operation, is indicated, in his opinion, not only in cases of acute perforation and in cases of circumscribed abscess, but also in non-perforating and in

[1] *Dominion Medical Monthly and Ontario Medical Journal*, No. 5, 1901.

interim cases. In support of these views the author gives a table of 109 operations for appendicitis in its different forms, showing 99 recoveries and 6 deaths. Most of this paper is taken up by a free and vigorous criticism of the opinions on this subject held by Sir Frederick Treves. Surgeons in this country will hear with surprise and perhaps with some dismay that Dr. Davie has been astounded at the views expressed by this eminent authority on points relating to appendicitis, and that it has never been his fortune to read articles from the pen of an able writer so opposed to his own personal experience. Among the many questions on which, according to the author, Sir Frederick Treves lays himself open to adverse criticism is that of the treatment of mild cases. The statement of the English surgeon that the great majority of cases of perityphlitis call for no operative intervention is opposed by Dr. Davie, who holds that most surgeons on the North American Continent will agree with him that the safest rule to follow is to operate in all distinct cases.

HYGIENE IN JOHANNESBURG.

THE first report which we have seen from Dr. Porter, the recently-appointed Health Officer for Johannesburg, deals with the bread supply of that town. Out of a large number of samples which were examined for him by Mr. Pakes, Government Analyst at Pretoria, over 65 per cent. contained alum, many had an excess of acid, and others were both sour and badly baked. On investigating the conditions under which the bread was made, Dr. Porter found that the structural condition of the bake-houses was as a rule fairly good, but that the water supply was in several instances open to suspicion. In ten cases it was derived from shallow wells, which are naturally very liable to pollution, and it is thought that "this fact may be responsible for some of the many unexplained cases of typhoid which arise." As a result of the report, the Public Health Committee are taking steps to ensure an improvement in the quality of the bread and the conditions of the water supply. The general drainage of Johannesburg is also in need of thorough reorganization. It is estimated that the provision of a permanent sewerage system will probably occupy from four to five years, and that about three years must elapse, subsequent to its commencement, before any part of it can be used. A temporary scheme has therefore been drawn up by Dr. Porter with a view to meeting the more pressing sanitary requirements whilst the permanent system is in course of construction. The provisional measures suggested, which should effect important improvements in the present unsatisfactory methods of dealing with slop water and other liquid refuse, would involve a cost of about £50,000, and would be completed in nine months, but could not be incorporated as part of the permanent drainage system. With regard to sewage purification, Dr. Porter recommends the adoption of sedimentation tanks and bacterial contact beds such as he has observed in successful operation in Manchester, Leeds, and other English towns. There is an immense amount of work to be done in other directions, including the inspection of water supplies, of places where trades are carried on, and of the Kaffir and Coolie compounds. In addition a code of by-laws has to be drawn up, so that the task before the energetic medical officer of health is no light one. From his past record we have no doubt that he will prove equal to the occasion, and that eventually Johannesburg, which enjoys a magnificent climate, will become one of the healthiest cities in the world.

MEDICAL FEES AND THE COUNTY COURTS.

THE injustice to which medical practitioners are subject owing to conflicting decisions of county court judges is very considerable. Not long ago Judge Emden at the Brompton County Court refused to allow more than one guinea for putting up a Colles's fracture, where the operation was performed at a public restaurant after 11 p.m. for the wife of a wealthy City merchant. His decision appeared to have been based on the amount (£1) allowed by the Local Government Board to a Poor-law medical officer for similar service to a pauper. In the *Daily Mail* of June 21st a case is reported from Leeds, where the county court judge allowed ten guineas for the amputation of a finger, and expressed his opinion that the charge was perfectly reasonable. It would be obviously unjust to take the scale of fees allowed by the Local Government Board in the Poor-law medical service as a criterion. The fee allowed under this scale is £2, but it must be remembered that this scale of fees represents extras which may be claimed by Poor-law medical officers for certain special services to paupers within their districts, for whose general attendance they already receive a salary. Under such circumstances to compare the case of a pauper with that of the wife of a city merchant is hardly in agreement with the principles of equity. In that case the practitioner claimed 5 guineas, or five times the Local Government Board fee. It is to be noted that the charge considered reasonable by the Leeds county court judge was also five times that on the Local Government Board scale. Both claimants were practitioners in a large town, so that the conditions under which they practised were probably not dissimilar. It is a great hardship that a metropolitan practitioner should be deprived of four-fifths of what, in the light of the Leeds decision, may be regarded as his reasonable charges.

EXCAVATIONS IN THE ISLAND OF COS.

DR. RUDOLF HERZOG, *privat docent* of Archaeology in the University of Tübingen, and Professor Vosseler, Lecturer in the Technical High School of Stuttgart, intend to proceed to the island of Cos in July with the object of making excavations on a large scale. In 1808 and 1900 Dr. Herzog made a large collection of inscriptions there, and fixed on a number of sites for excavation. Funds have now been provided by the Imperial German Archaeological Institute, the Order of the Knights of St. John who held sway over the island for centuries in the Middle Ages, and the Royal Wurtemberg Government for an expedition of archaeological and historical research throughout the island. One of the main objects of the excavations is to discover and lay bare the most famous shrine in the island, the Asclepeion. It is hoped that the labours of Dr. Herzog and his colleagues may result in the discovery of remains of the Cos medical school and of information relative to Hippocrates, who was born in that island and learnt and taught his profession there. One thinks of him as a man of the type of Chaucer's physicians, of whom he says, "And gladly would he learn and gladly teach."

ANTIRABIC TREATMENT IN TUNIS.

IN the *Annales de l'Institut Pasteur* of May 25th, Dr. A. Loir contributes a report of the working of the Antirabic Institute at Tunis, opened on June 15th, 1894, of which he is director. Rabies has always been very prevalent in Tunisia, as may be gathered from the large number of remedies in general use and the many superstitious beliefs which the people hold regarding the disease. Among the remedies used by the native physicians are the head of the dog which inflicted the bite carbonized, pulverized, and taken in vinegar and camel's dung. The most popular method of treatment is the following: Twenty-three days after the bite the patient is made to swallow broth made of the flesh of a lamb a year old, and an amount equal to the weight of a grain of corn of a coleopterous insect possessing blister-properties, and known as *dzermouth*. The patient soon passes blood in the urine, and in this the Arabs profess to find seven little worms believed to be the

embryos of dogs engendered in the human body by the virus. These once got rid of, recovery takes place. Among the 827 patients treated at the Institute from June 15th, 1894, to June 15th, 1901, there were 287 of French nationality, of whom 88 were soldiers: 161 were Italians, 30 Maltese, 218 Arab men and 42 Arab women, 1 Greek, and 6 Spaniards. The animals which inflicted the bites were in 762 cases dogs, in 39 cats, in 2 jackals, in 2 donkeys, in 2 horses, and in 1 a mule. In 19 cases the bite was inflicted by a human being. Dr. Loir suggests that the large number of cases in which the virus was inoculated from a human source may be explained by the customs of one part of the Tunisian population, the Sicilians, who make it a practice to visit dying persons and kiss them, while loading them with commissions for the other world. Deducting 3 cases, in 2 of which the patient died during the treatment, while in the other death occurred ten days after it, the total number of deaths was 3, a mortality of 0.36 per cent.

THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

IN consequence of the discoveries with regard to the presence of trypanosoma in the blood of human beings, discoveries which were made as the result of researches by the expedition of the School of Tropical Medicine which visited the Gambia in the summer and autumn of last year, another expedition, the eighth, will be organized this year in order to investigate the subject more fully. Since the return of last year's expedition a special study of trypanosoma has been carried on in the laboratory of the Liverpool School, and the Committee hope that the new expedition which will start in July will lead to a further extension of knowledge. The expedition will, as at present organized, consist of Dr. J. Everett Dutton, Walter Myers Fellow in the School, and Dr. J. L. Todd, of McGill University, Montreal, who has been working for a long time in connexion with the School. Its principal object will be to investigate the condition under which trypanosoma occurs in both Europeans and natives, and its distribution, also to ascertain how it is conveyed from man to man, whether by a biting insect or by other means. In addition, the expedition will continue to prosecute the researches into malaria, which have been carried on by the School since its opening. Free passages for the members of the expedition have been placed at the disposal of the School by the Chairman, Sir Alfred L. Jones, K.C.M.G.

THE HEALTH OF MELBOURNE.

THE report in regard to the health, cleanliness, and general sanitary state of the City of Melbourne for the year 1901 states that the sanitary condition of the city is satisfactory. The population as enumerated at the census on March 31st, 1901, was 68,374, considerably fewer than the estimates of the years just preceding. The deaths during the year were 1,075, an increase on the low mortality of the previous year, giving a death-rate of 15.7 per 1,000. Comparison with previous reports shows that there has been a great reduction in the death-rate during the last decennial period. Compared with London and other large English towns, Melbourne shows a much smaller general mortality, a smaller infant mortality, and a smaller diphtheria mortality. The chief cause of mortality is again tuberculosis, and although there has been a diminution in the death-rate from this disease in recent years, it has not been great or continuous. Active measures for the prevention of tuberculosis have been adopted in the city for the past year, and now that arrangements have been made for the notification by general hospitals of cases of tuberculosis, which attend as out-patients, more cases come under the notice of the medical officer of health and his assistants. In almost all cases steps are taken for cleansing and disinfecting the rooms and the clothing of such patients. The deaths from epidemic diseases were few, but diarrhoeal diseases were very prevalent in the summer months (December, January, February) and caused many deaths, especially amongst the young children.

COTTAGE NURSES.

THE annual conference of the Cottage Nurses' Association was held on June 13th. These nurses are trained on the Holt-Ockley system, the peculiarity of which is that the nurses are expected to undertake the care of the cottage as well as of the patient. They are drawn from the ranks of the peasantry, and are trained at various centres in cottage nursing and in the principles of domestic management. The training in no sense is equivalent to that given in a hospital, as the nurses have no clinical instruction except in maternity work. This class of nurse certainly fills a gap in supplying the needs of the village sick poor, many of whose ailments are of the simplest, requiring only such nursing as can be furnished by the cottage nurse, and it therefore seems a pity that the scheme cannot be strengthened by some linked system which would bring the hospital-trained nurse to the assistance of the cottage nurse when the case is such as to require skilled nursing.

THE SCANDINAVIAN MEDICAL CONGRESS.

THE fourth Scandinavian Medical Congress (for Internal Medicine) will be held at Helsingfors in July next (from 4th to 6th). It will probably be the last meeting of the kind in Finland. Russian medical men will take part in the proceedings. There will be discussions on the Syphilitic Affections of the Heart, introduced by Professor J. W. Runeberg and H. Quensel; and on the Etiology of Nephritis, introduced by P. F. Holst and Professor Israel-Rosenthal. The following papers will be read: On the Infectiousness of Discharged Scarlet Fever Patients (P. Aaser); On the Splitting up of Neutral Fats in the Stomach (M. Bjorkston); On some not unimportant Conditions in Testing for Albumin by Heat and Acid (R. Ekstrom); On the Deformities of the Thorax in Syringomyelia, with demonstration of patients (I. Hagelstam); On the Influence of Morphine on the secretion of Hydrochloric Acid in the Stomach (H. Holsti); On Diet in Nephritis (H. Koster); Polyarthritis Villosa Infectiosa (Levison); On the Clinical Value of the Examination of the Gastric Juice in Children in the First Year of Life (A. H. Meyer); On the Sources of Oxalic Acid Formation in the Organism (E. Rosenquist); On the Frequency of Inequality of the Pupils and its Significance (O. Schaumann); Demonstration of a Case of Idiopathic Dilatation of the Oesophagus without Stenosis (R. Sievers); The Therapeutic Effects of Tesla Currents (Stenbeck); Contribution to the Pathology of the Sympathetic (Vetlesen). The subscription is 10 kroner. Members travel half-price on the Swedish State railways; at reduced fares on steamers to Finland; and without payment on the Finland railways. The Secretary-General is Dr. H. Koster, Gotenborg (Gothenburg), Sweden.

THE ANNUAL MEETING GOLF MATCH, 1902.

WE are asked to remind those among our readers who are golfers that an international golf match will be played on Friday, August 1st, on the links of the Manchester Golf Club in Trafford Park. The match will be England and Wales v. All the other Britains, residence (not birth) being the qualification. The names of the players entering will be drawn on the day before the match, which will be played under club handicap. The names of intending players may be sent to Dr. Alexander Stewart, 12, Eccles Old Road, Pendleton, Manchester, or to any of the following: London and the South of England—Dr. Dawson Williams, at this office;

Ireland—Professor Symington, Queen's College, Belfast, or Professor W. H. Thompson, Trinity College, Dublin; Scotland, India, and the British countries beyond the seas—Dr. Norman Walker, 5, Manor Place, Edinburgh.

THE ILLNESS OF THE KING.

THE fact that the King had become seriously ill on Monday evening, that his illness was due to appendicitis, and that an operation had become imperatively necessary, became known about midday on Tuesday. His Majesty had suffered much pain during the night, and the consultation at which the operation was decided upon took place at 10 a.m., and was attended by Lord Lister, Sir Thomas Smith, Sir Francis Laking, Sir Thomas Barlow, and Sir Frederick Treves. The operation was performed by Sir Frederick Treves shortly after midday. A large abscess was evacuated, and the King's progress has subsequently been as satisfactory as could be expected. By a sad coincidence we publish in this issue of the JOURNAL the Cavendish Lecture given last week before the West London Medico-Chirurgical Society by Sir Frederick Treves, who took for his subject "Some Phases of Inflammation of the Appendix." In it he discussed the indications for operation, and observed that "immediate operation is demanded in every example in which there is reasonable suspicion that suppuration has taken place." In this opinion all surgeons will concur. The condition is grave, and, as the bulletin issued on Tuesday evening states, it will be some days before it will be possible to say that the King is out of danger. The operation was performed by a surgeon whose experience in this particular affection is probably unrivalled; and, with regard to the future, it is reassuring to read Sir Frederick Treves's opinion, expressed in his lecture, that "by the occurrence of suppuration the patient is, in all but a very small percentage of cases, cured of his trouble."

WE understand that Major Ronald Ross, F.R.S., has decided not to take up the duties of the office at the Jenner Institute of Preventive Medicine, London, to which he was recently appointed.

IT should have been stated that the illustration published in the BRITISH MEDICAL JOURNAL of June 21st, p. 1546, of the plane tree in the Island of Cos, under the branches of which Hippocrates is traditionally believed to have taught the art of healing, was reproduced from a photograph kindly supplied by Dr. Clapton. We take this opportunity of correcting an absurd misprint of "Bendis" for "besides," which occurs in a note quoted from Dr. Clapton in the first line of the first column of page 1547 of the same issue.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Midwives Bill in the Lords. The promoters of the Midwives Bill have lost no time in pressing the measure on in the Upper House. The Duke of Northumberland, who has taken charge of the Bill, took the first opportunity on Friday last of moving the second reading, which he did in an earnest speech, recommending the second reading as an acceptance of the principle of the Bill, and admitting that the details would require careful consideration. Lord Welby, who followed, very naturally criticized the financial proposals of the measure, and pointed out that the expenses of the administration of the Midwives Board might cause a considerable charge on the county councils. The Lord Chancellor took even a more critical attitude, saying that he was not prepared to take the responsibility of rejecting the Bill, as there might be some reasons for legislation. He strongly argued the case of women who acted as midwives in rural districts, where, he said, trained nurses were out of the question. His speech pointed unmistakeably to a good deal of amendment in the Committee stage, and amendment in a direction adverse to the compromise on which the Bill passed the Commons. The Bishop of Winchester, who followed, recalled the old connexion between midwives and bishops, as no woman could at one time practise as a midwife without the sanction of the bishop of the diocese. He did not argue for a return to these methods, but he strongly supported the Bill as a means of educating women for midwifery work. Lord Thring, in a speech which it was difficult to hear, expressed the opinion that the Bill required amendment in many directions; and after speeches from Earl Russell and Lord Balfour the Bill was read a second time without a division. The Bill was referred to a Committee of the whole House to sit on July 4th. This will be the occasion for considering the amendments indicated in the course of the debate and any other amendments to be moved on behalf of the members of the profession who are not satisfied with the Bill.

The Cruelty to Animals Bill.—This Bill, which embodies the view of the antivivisectionist school, has been put down from day to day of late, but has not had a chance of getting a second reading. Its only chance would be the accident of no one being present to object when it is called after midnight; but a good watch has been kept, and its promoters are not sanguine of snatching a second reading for a Bill of so contentious a nature. Even if it reached the Committee stage by accident, it could not pass this session.

The Cremation Bill was considered in the House of Lords on Friday last, and the amendments made in the Commons were mostly accepted. Lord Monkswell took exception to the amendment which ordered that no crematorium should be erected nearer than 500 yards to a dwelling house, and moved to restore the former limit of 200 yards. Lord Belper agreed with this view, and the old limit was restored. Some other small and mainly drafting amendments were made, and the Bill will now come before the Commons when the Lords amendments will most probably be agreed to and the Bill pass into law.

The Hospitals (Contributions) Bill has been put down more than once lately among the list of Government Bills for second reading, but so far has not come on. As the Bill raises the question of taking the ratepayers' money for the support of hospitals, and would be the first step towards the municipalization of medical charities, it must of necessity be discussed, and will probably be opposed. Some members view the principle of giving money raised by rates to charities not managed by local authorities with great distrust, and others regard any fresh burdens on the rates raised by local authorities with natural disfavour.

Gratuities to Wounded and Disabled Officers.—In answer to Mr. Allhusen, Mr. Brodrick stated last week that gratuities were granted to all officers who had been very severely wounded, and 835 gratuities had been paid, amounting to £110,000. Two hundred and two officers had been awarded pensions of the yearly value of £14,000. Details of the gratuities and pensions were still coming in. In answer to a further question inquiring whether officers invalided, by disease contracted on active service who had suffered after their return to this country from serious after-effects, would be helped to meet the heavy expenses entailed by twelve or eighteen months of illness, the Secretary of State for War said various concessions in regard to the medical treatment of officers had been granted under Army Order 216 of 1901. It was difficult to fix general rules as to compensating officers for the after-effects of disease, but any cases of the kind referred to would be specially considered.

British Medical Association.

EXTRAORDINARY GENERAL MEETING.

AN extraordinary general meeting of the British Medical Association was held at Exeter Hall, Strand, London, on Wednesday, June 18th.

Dr. G. B. FERGUSON, President of the Association, was in the chair.

The following members of the Association registered their names as being present:

Auld, A. G., M.D., London
Armour, Donald, M.B., London
Atkinson, T. R., M.R.C.S., London

Bagley, S., L.R.C.P.I., Manchester
Ballance, H. A., M.S., Norwich
Ballance, H. S., M.D., Weston-super-Mare
Barnes, E. G., M.D., Eye
Barratt, J. O. W., M.D., London
Bateman, A. G., M.B., London
Beadles, H., M.R.C.S., London
Beverley, Michael, M.D., Norwich
Biernacki, John, M.D., London
Booth, William G., L.R.C.P.I., Manchester
Brierley, J. Brassey, M.D.Edin., Old Trafford
Brown, Thomas L., M.R.C.S., London
Browne, H. Langley, M.B., West Bromwich
Buckell, Francis J., M.B., London
Butlin, Henry T., F.R.C.S., London

Cave, Edward J., M.D., Bath
Clark, Andrew, F.R.C.S., London
Clarke, R. H., M.B., London
Cole, Robert H., M.D., London
Collingwood, Fredk. W., L.R.C.P., London
Cousins, J. Ward, M.D., Portsmouth
Cox, Alfred, M.B., Gateshead
Crawshaw, Samuel, M.B., Ashton-under-Lyne
Creasy, L. E., M.R.C.S., London
Curtis, Henry J., F.R.C.S., London
Collins, H. Beale, M.R.C.S., Kingston-on-Thames

Delaney, R. A., L.R.C.P., Gravesend
Douglas, W., M.D., London
Drage, Lovell, M.D., Hatfield
Drake-Brockman, Lieut.-Col. E. F., F.R.C.S., London
Durham, F., M.B., London
Dyson, William, M.D., Sheffield

Eastes, George, M.B., London
Elliston, William A., M.D., Ipswich

Felce, Stamford, M.R.C.P., London
Felkin, R. W., L.R.C.P., London
Ferguson, G. Bagot, M.D., Cheltenham
Ferris, J. S., M.B., Uxbridge
Fletcher, John, M.B., London
Fowler, J. F. S., M.B., London
Freeland, E. H., F.R.C.S., London
Furber, Edward P., M.R.C.S., Oxted

Gallie, W. M., M.B., London
Galton, John H., M.D., London
Garstang, T. W. H., M.R.C.S., Altrincham
Goff, Bruce, M.D., Bothwell
Gooding, C. G., M.B., London
Gosse, William, M.D., Sittingbourne
Greenwood, Arthur, L.S.A., London
Greenwood, Major, M.D., London
Groves, J., M.D., Carisbrooke

Hall, F. de H., M.D., London
Hall, W. W., M.D., London
Hallwright, M., M.R.C.S., Birmingham
Halstead, G. E., M.D., Ramsgate
Hamilton, Surgeon-General J. B., M.D., London
Hardy, H. Nelson, F.R.C.S.Edin., London
Harman, W. M., M.D. Winchester
Hart, F. Lorimer, M.B., Sydenham
Hay, E., M.B., London
Hill, J. H., M.D., London
Hockridge, T. G., M.D., London
Holman, C., M.D., London
Horder, T. Garrett, M.R.C.S., Cardiff
Horsley, Victor, F.R.C.S., London
Humphreys, F. R., M.R.C.S., London
Hunter, J. H., M.D., South Shields

Ince, J., Lieutenant-Colonel (ret.), I.M.S., M.D., Swanley
Ingram, P. R., M.B., London

James, J. Brindley, M.R.C.S., London
Jones, Evan, M.R.C.S., Aberdare

Kiallmark, H. W., Surgeon-Lieutenant-Colonel, London
Kinsey, R. H., M.R.C.S., Bedford

Lamb, William H., M.B., London
Larking, Arthur E., M.D., Folkestone
Lattey, Walter, M.D., Reading

McCarthy, J. McC., M.D., Salop
McCaw, J. Dysart, M.D., London
MacIlwaine, S. W., M.R.C.S., Redhill
Mackenzie, Stephen, F.R.C.P., London
Macnamara, N. C., F.R.C.S., London
Manning, H. J., M.R.C.S., Salisbury
Mayo, Alfred C., M.R.C.S., Great Yarmouth
Meadows, A. H., L.R.C.P., Great Yarmouth
Messiter, M. A., M.R.C.S., Dudley
Middlemist, R. R., M.R.C.S., London
Morton, C. J., M.D., Walthamstow
Moxon, A. H., M.R.C.S., Great Yarmouth

O'Connor, B., M.D., London
O'Sullivan, D. A., L.R.C.P.Edin., London
Owen, Edmund, M.B., London

Paine, W. H., L.R.C.P., Wood Green, N.
Parker, James, M.D., Plaistow
Parkinson, C. H. W., M.R.C.S., Wimborne
Parsons, Charles, M.D., Dover
Paterson, H. J., M.B., London
Poole, Surgeon-Major G. K., (ret.) I.M.S., M.D., Norwood
Porter, Mrs. Agatha, L.R.C.P.Edin., London

Raven, Hugh M., M.R.C.S., London
Raven, T. F., L.R.C.P., Broadstairs
Rayner, Edwin, M.D., Stockport
Richards, J. P., M.R.C.S., Ealing
Robinson, H. Betham, M.S., London
Rodocanachi, A. J., M.D., West Didsbury
Rose, Percy, L.R.C.P., London

Scudamore, C. G. C., L.R.C.P., Croydon
Shadwell, St. Clair B., M.D., Walthamstow
Shaw, R. H., M.B., Great Yarmouth
Shuttleworth, G. E., M.D., Richmond, Surrey
Sibley, W. K., M.D., London
Sibthorpe, Surgeon-General C. B., I.M.S., London
Smith, Solomon C., M.D., Walton-on-Thames
Smith, W. M., M.B., Eastbourne
Staunton, H. F., M.B., Wood Green, N.
Stear, Henry, M.R.C.S., Saffron Walden
Stephens, J. E. H., L.R.C.P., Wood Green, N.
Swain, Edward, M.R.C.S., Hampton Hill
Taylor, Wm. C., M.B., London
Thomas, G. Danford, M.D., London
Thomson, J. Roberts, M.D., Bournemouth
Tomes, C. S., F.R.S., London
Tomlin, R. F., M.R.C.S., Wood Green

Vance, Wm. J., L.R.C.P., Woolwich
Verrall, T. J., M.R.C.S., Brighton

Walker, A. H., M.R.C.S., Cranleigh
Wallace, F., L.R.C.P., Upper Clapton
Watkins, A. M., L.R.C.P., Whitchurch
Wellington, R. H., M.R.C.S., London
Welsford, A. G., M.D., Bexhill
Wethered, F. J., M.D., London
Whitaker, J. Smith, M.R.C.S., Great Yarmouth
Whitehead, Walter, F.R.C.S.Edin., Manchester
Williams, A. D., M.B., Hampton Hill
Williams, Dawson, M.D., London
Woodcock, S., M.D., Old Trafford
Wyllys, H. J. M., F.R.C.S., Great Yarmouth
Wyllys, W. G., L.R.C.P.Edin., Great Yarmouth

Youatt, Leonard, M.B., Prescot

The CHAIRMAN: Gentlemen, I think I must first call upon the General Secretary to read the notice convening the meeting.

The GENERAL SECRETARY read the following

NOTICE OF SPECIAL BUSINESS.

NOTICE is hereby given that an Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 18th day of June, 1902, at 2 o'clock in the afternoon, for the purpose of considering, and if thought fit passing, the subjoined resolution, that is to say:

> "That the draft new regulations submitted to this Meeting, and for the purpose of identification initialled by the Chairman thereof, which regulations have been prepared under the direction of the Committee appointed for the purpose by the Council in pursuance of resolutions passed at the Annual General Meeting of the Association at Cheltenham in 1901, be, and the same are hereby adopted as the regulations of the Association to the exclusion of and in substitution for all the existing regulations of the Association."

And notice is hereby also given that a further Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 9th of July, 1902, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the Proceedings had at the first above-mentioned Meeting, and of considering, and if thought fit, passing, a resolution confirming as a special resolution the resolution above set forth. But if the same shall not have been passed by the requisite majority at the said first-mentioned Meeting, due notice will be given to the Members that the Meeting on the 9th day of July, 1902, above-mentioned will not be held.

A copy of the proposed new regulations can be seen at the Office of the Association at any time during business hours, and a copy will be found printed in the JOURNAL of the Association of the 24th day of May 1902.

Dated the 22nd day of May, 1902,
By Order,
FRANCIS FOWKE, *General Secretary*

LETTERS OF APOLOGY.

The GENERAL SECRETARY: I have received letters of apology from Dr. Gordon of Exeter, and Dr. Markham Skerritt of Bristol (who states that he regrets that he is not able to be present in consequence of the annual meeting of the Branch), and Mr. George Brown.

The CHAIRMAN: Gentlemen, we are met together this afternoon in extraordinary general meeting to consider a special resolution. You know the history of this matter: how for a long time past there has been a demand for reform: and you will remember how, just two years ago (less one month) a meeting was held in this hall to consider certain proposals of reform which did not commend themselves to the required majority of three-quarters. However, the matter was not allowed to rest. At the Ipswich meeting the cry for reform again went up, and a Committee was appointed to study the matter and to make proposals. That Committee devoted a very large amount of attention to the subject; there were numerous meetings, there were numerous conferences, and there was correspondence to a degree which those who are uninitiated have got no idea of; but eventually a number of proposals were put forward, and those proposals were sent round to all the Branches, and were accepted by a majority of them. After that, proposals came before the last annual meeting, and they were put before one of the most determined and most unanimous meetings that I ever knew, and they were certainly accepted by at least three-fourths of that meeting. After that, another Committee was appointed to put the matter into legal shape as Articles and By-laws, and that has been done after a vast deal of trouble, with the assistance of the solicitor to the Association, and that eminent company lawyer, Mr. Beaufort Palmer. Now, gentlemen, the last stage has arrived, and it is for you to pro-

nounce whether you will accept these Articles and By-laws as the Articles and By-laws of the Association. I do not want to go very much further into this matter, as the whole thing will be explained by others, but I think I may remind you, as a fact, that they have already been practically twice over accepted. I should like to mention another point, gentlemen, and it is this; that although my own feeling is that I sincerely hope you will put an end to this long discussion, and, at any rate, give these new rules a trial, I wish particularly to say that it is my duty to be absolutely impartial in thismatter, and I am fully determined that the opponents of this scheme shall at least have an equal right of speech with those who advocate it. I will, however, just once more say that we must remember that this matter has been discussed for something like two years. Nineteen meetings have been devoted to the discussion of this matter by different Committees and that at least £1,000 of the money of the Association has been already expended upon it. For my own part, I do not see anything specially revolutionary in the proposals. It seems to me we shall have our general meeting just as before. The only thing is it will be more formal than formerly. Most of the functions of the general meeting will be relegated to the representative meeting. It is quite possible that at the representative meeting we shall not find many of those able gentlemen who have often taken up a great deal of our time at the general meeting, and who have often brought forward propositions which have not always received a seconder; but I venture to say that, if those gentlemen do appear as representatives of the Association hereafter, they will be listened to with that deference they have not often received in the past, and they will vote with the solid number of their constituency behind them. The Council of the Association will be hardly altered; it will be still the Executive of the Association. The only difference will be that it will not be able to disregard the findings of a general or representative meeting. The Vice-Presidents will be left out in the cold, and lose their votes, but inasmuch as the Council will have a large power of pre-emption—namely, one-tenth—it is certain that all the most zealous and working members of the Vice-Presidents will be co-opted. I do not think there is anything else that I wish to say at the present time, but I would add that I do hope you will give a patient hearing to the opponents of the scheme. It is impossible in a case of this kind, which is very complicated, and where the whole thing hangs together like a chain, for any amendment to be accepted; but I sincerely hope that you will hear the criticisms and listen to them and be influenced by them. There is one other thing that I wish to say, and that is this I sincerely hope, having nothing else before us on the present occasion, there being no subsequent meeting, no garden parties or anything of that sort, that we shall be able to thresh out the subject and to conclude without a vote of closure. I will begin by calling on Mr. Edmund Owen.

Mr. Edmund Owen: Is it your wish, gentlemen, that I should read the motion that I am about to propose, or will you take it as read. [Take it as read.] Gentlemen, the Chairman was kind enough to ask for your patient hearing for the opponents of the scheme, but he said not a word for me who is introducing the scheme for your favourable reception. That was an omission.

The Chairman: *Cela va sans dire.*

Mr. Edmund Owen: Gentlemen, I am not going into the origin of this movement, as to who found out that there was a feeling of dissatisfaction in the Association generally; all I can say is it was not I who made the discovery, but it was a feeling that was held very widely through the ranks of the British Medical Association. At the meeting at Ipswich about two years ago, Mr. Victor Horsley, in a manly, straightforward way, said he should move for the appointment of a big Committee to consider this question, and if possible to devise a new scheme of organization of the Association. The Committee was appointed; twenty-six members were placed on the Committee. I knew nothing about it, but a few days afterwards I received a letter from the General Secretary saying that a Canadian friend of mine, with more zeal than discretion—I think it was Dr. Cameron, of Toronto—was anxious I should be on the Committee, and I consented, little knowing what I should be let in for. But as I look back, it is with feelings of gratitude and the greatest delight, for my association with that hard-working Committee was very gratifying to me. When we got to the meeting I was appointed Chairman, and never did ignorance receive so great a compliment or so large a surprise. I found there were two strong parties on the Committee, what I may call the old conservative party and the new democratic party, and I thought it was impossible ever to get a unanimous report from the Committee. No words than I can use will sufficiently express the high opinion I formed of the conservative party in the way in which they shook off their shackles, or of the democratic party in the way in which they abated some of their claims, and the way in which these two parties came down into the middle of the committee room and agreed upon issuing a unanimous report to the Branches. Gentlemen, there were many meetings held, and every point was discussed as far as I could see from beginning to end and back again. One of the instructions to the Committee was that the Committee was to report on February 1st, and was bound to do so, but there were certain legal points to be considered, and that delayed our making the report, but on January 29th the Committee through its chairman issued a letter which was published in the Journal for every member to read, and which was sent to every Branch Council asking the different secretaries to summon a meeting of their Branch, so that all our recommendations, when they appeared, should be considered. The Committee said it would be very grateful for criticism of its Report, and any amendments they might suggest would be gratefully received and considered. The Branches did consider the Report, and they sent in recommendations and criticisms of the Report, which were most carefully considered. Some of the recommendations had already been considered in the Committee, and on February 13th our Report was sent out, and in due course its adoption was moved at Cheltenham. I might say that it was accepted with boisterous satisfaction so far as I could see; at any rate, it was accepted. But the Cheltenham meeting advised certain modifications in the Report. They practically said, "We like your Report, take it back and make some slight alterations in it, and we will probably accept it." Now, gentlemen, here we are to-day asking you to accept it. Does the Committee think that the Report is perfect? Does the constitutional element and the big Committee think it is perfect? No. The constitutional element would say, "We should have liked certain points dropped, but, however, we think it is as good as a report can be." Ask the democratic party. Are they satisfied? No; they were a little bit conciliatory, as they always have been, much to their credit. Does the Chairman think the Report is perfect? The Chairman offers you this Report with mixed feelings. First of all a feeling of entire satisfaction with the Report as far as it goes. Secondly, with sorrow in connexion with one important element, and that is the treatment of the Vice-Presidents. Now, when a man had rendered great service to this Association he was made a Vice-President, and we have now got very nearly twenty Vice-Presidents. The Vice-Presidents will continue still to be Vice-Presidents of the British Medical Association, but they will not after this have a seat upon the Council. Well, it does seem a little bit hard that men who have served the Association so well in the past, and have a right to come to the Council should now be excluded. The question has been discussed not in the Committee but outside the Committee, and somebody arguing against the retention of these excellent gentlemen, the Vice-Presidents, was met by this argument: "Well, but they very rarely come." Now, gentlemen, it is a very poor recommendation for the non-retention of Vice-Presidents upon the Council that they very rarely come. It is altogether out of keeping with the spirit of modern times. The Council is a most important body, and a member of the Association should not be permitted to be elected on the Council unless he can attend it, and he should be very careful to do his work when he is on the Council. So I say I am very sorry that is my only regret, it is a sincere regret, and it is a regret which permeated the Constitution Committee, that we should have to deal so ruthlessly with that excellent body known as the Vice-Presidents. Is the Report perfect? No, I do not suppose the Report is perfect for a moment. But it will become per-

fect in the experience which will be gained in the working of it. That is the point. You will not refuse it because you feel it is not perfect, but you will see how it works out. We are here to-day because we must have a three-fourths majority of a general meeting as provided by the Board of Trade. You can put any question on this matter to the solicitor, who, I am glad to say, is on the platform. Under the Companies Act we are bound to have this extraordinary meeting, and the resolution must be passed by a three-fourths majority. It may be difficult, but I hope we shall have the three fourths majority. We are bound to vote, and then we are bound to have another meeting under the Companies Act to confirm what is done in this meeting. Now the recommendations are divided into two parts—the Articles and the By-laws. The Articles are very difficult to alter; but the By-laws can be modified as time goes on. Now there has been appearing in the BRITISH MEDICAL JOURNAL lately letters of which I am bound to take notice. If I pay no heed to them they will say "You take no notice of these gentlemen who have been writing about the Constitution Committee in the BRITISH MEDICAL JOURNAL lately." The first gentleman who writes is Mr. Garrett Horder. He says: "I was sorry to find that the Council are proposing to adopt the same tactics at the forthcoming extraordinary meeting as they unfortunately did some two years since." Gentlemen, never was a more incorrect statement made in the BRITISH MEDICAL JOURNAL. The Council, forsooth, are doing something they ought not to have done. The Council have no more to do with this meeting than the Strand Board of Works. I think such ignorance on the part of a man writing on this question is lamentable—and when it is used as an argument against the conduct of the Constitution Committee and of the Council, it is culpable. Gentlemen, I hold no brief for the Council of the British Medical Association; I do not know who are on the Council, but I know that the members of the Council are honourable men; they are gentlemen who have done enormous service to the British Medical Association: and I resent any innuendo of that sort—that the Council are doing what a body of gentlemen ought not to do. It is because the Council has managed the Association with such great care and skill and success that the British Medical Association is as big as it is now, and is calling out for a new constitution. I think, indeed, that this is the greatest compliment to the work of the Council in the past—that the Association is now wanting an enlarged constitution. Then Mr. Horder says, "We are, of course, aware that the subjects have been thoroughly gone into by a very painstaking Committee." I am not going to accept on the part of my Committee any commendations from Mr. Horder while that stands to the effect that the Council has been acting badly. He says, "And we are also aware that that Committee were divided on many crucial points"—that is an argument for our passing this resolution to-day. Of course the Committee were divided. Did Mr. Horder think, with Dr. Roberts Thomson, Dr. Elliston, and Mr. Andrew Clark on the one side, and Mr. Victor Horsley and Mr. Whitaker on the other side, that there should be agreement on such a crucial point? What Mr. Horder should have said was that it was the most delightful thing that with these two bodies in the Constitution Committee there should have been such an agreement. That is an argument that the Constitution Committee's Report should be passed to-day, and not an innuendo against the passing of the Report. Now I leave Mr. Horder, because I think Mr. Horder has drawn very wrong conclusions, and he has been dealing with innuendoes. Now it is really a relief to leave that letter and go to a straight hitter like Dr. Brassey Brierley. When a man hits straight he must not be surprised if he gets a knock back again. Now I will ask you to listen carefully to Dr. Brassey Brierley's letter. He says: "I am very glad that Mr. Garrett Horder has called attention to the 'procedure' adopted by the 'authorities,'" and he puts "authorities" in inverted commas. He knows perfectly well the Council has nothing to do with this meeting, but he does not say what he should have said: "What a mistake Mr Horder has made." He is rejoicing, and in his joy he forgets to do what is right. He says I am very glad that Mr. Garrett Horder has called attention to the "procedure" adopted by the "authorities" with regard to the "Report." "If accepted, the whole constitution of the Association is revolutionized." Of course it is. I was wondering if I understood the meaning of the word "to revolutionize," because it seemed a terrible word to put in the letter. I looked it up in Webster, and found that the meaning of the word "to revolutionize" was "to effect an entire change of government." Well, that is just what we meant to do; and, if this is done, we shall effect an entire change in the government, "and all of us who have taken a *real* part in attempting to reform the Association know perfectly well that progress will be so checked that we shall be put back at least a quarter of a century." Why? Simply because Dr. Brassey Brierley knows it. "We have but one course, namely, to reject the Report." Why? Why reject the Report? Why not accept the Report and see how it works out? That is what I want you to keep in mind. Pass it, and see how it works out. "We have but one course, namely, to reject the Report; and I wish to say to your readers that a meeting will be held the night before the statutory meeting at a convenient place in London, and it is to be hoped all members who do not wish for the disruption of the British Medical Association will make it their duty to attend and give advice as to how best we can check the passing of the Report." Dr. Brassey Brierley is from Manchester. He has tried his arts upon the hard-headed Lancastrians, and can make no impression at all; so he says he will come down to London where the weak Southerners are, and see what he can do with them. I do not know who attended this midnight meeting.

Dr. O'SULLIVAN: Mr. Chairman, with all due respect, I rise to a point of order.

Dr. BRASSEY BRIERLEY: I rise to order, Sir.

Dr. O'SULLIVAN: I anticipated Dr. Brassey Brierley. I contend this is not fair play. I appeal to the amity of the meeting, and I put it to you, Sir, as to whether the criticism of various letters that have appeared in the JOURNAL should be treated in this matter—and I must say in the disrespectful manner—in which they are being treated by this gentleman.

Dr. BRASSEY BRIERLEY: Hear, hear. But I rise from a different point of view. If you allow Mr. Owen to complete his criticisms, then, Sir, I must ask you to let me have a special moment or two to reply to him apart from my speech.

A MEMBER: You had better leave out the personal element altogether.

Dr. O'SULLIVAN: I would ask for your ruling, Sir, on the point of order as to whether this gentleman is justified in dealing with these letters in this way.

The CHAIRMAN: I think Mr. Owen is in order; but I beg of him to leave the subject and pass on.

Mr. EDMUND OWEN: I suppose I must not withdraw what I have said? (Cries of "Certainly not." "Go on.") Now, gentlemen, I will come to a letter which I criticize with the greatest possible satisfaction, and that is a letter from Surgeon-Major Ince. I will not read it, but I may say he objects to the fact of there not being amendments allowed to-day. I am very sorry there cannot be amendments. The matter had been discussed from beginning to end, and it is now your duty to receive the report or reject it as a whole. ("No, no.") Yes, I think so, and it will be put to you. This Constitution Committee's Report is really like a stone wall; if we pull out one stone the others will come tumbling down. Are we to attain no finality in connexion with these proceedings? Are you going to call for amendments and have it all over again? We have a very great desire of finality. I am not trying to force upon you the reception of this Report, but I am extremely anxious to get it out of the way. Surgeon-Major Ince objects to the commercialism in the Report. He strongly objects to the question of delegates, and so on. I strongly object to anything like a spirit of commercialism in our dealing with patients, but there are other questions in our profession than that of dealing with patients. We have matters of business to attend to, and we have cases of organization; and if we can learn something in the way of proper business-like methods from other organizations, I do not see why we should refuse to learn them. He says: "It is foreign to an Association like our own, the members of which are fully able to attend its periodical general meetings and record

their votes personally," and that that should be done by representative meeting. Now, gentlemen, that is just the point. It is impossible that all members of the British Medical Association can attend the meetings, and it is for this very reason that the question of representatives has presented itself to the Constitution Committee. Gentlemen, I will not take up any more of your time, but I simply say this, that my opinion is (and I say it with modesty and I much regret if I have hurt anybody's feelings) that if this Constitution Committee's Report is passed, it will add to the happiness, to the efficiency, and the prosperity of the British Medical Association.

Mr. Andrew Clark: Mr. President and gentlemen, when I was asked to second this resolution I accepted the duty of doing so with a good deal of reluctance, because I feel that in a public meeting like this I am unable to say exactly what I should like to say; but I shall endeavour to express my meaning as well as I can, and I might begin by saying that I am afraid I shall have to say something that Mr. Owen has said before, and, seeing that a good many members have come in since he began, perhaps he will excuse me if I do so. I should like, first of all, to call attention to this fact, that this is the second time within two years that we have met in this room to adopt new Articles and By-laws for the government of the Association. I think it is well known that a very large number of members—indeed, I think, all the members who have considered the matter at all—felt, and the Council as well as themselves, that the constitution that we have at the present time is one that might well be extended; and, the Council thinking so, two years ago proposed the new set of Articles and By-laws which were objected to by that meeting; and which, therefore, left us as we were before. That being so, as Mr. Owen told you, Mr. Victor Horsley, at the following annual meeting at Ipswich, proposed that a new Committee should be formed to go into the whole subject. That Committee was not a Committee nominated by Mr. Victor Horsley, and it was not a Committee nominated by reformers; but it was nominated equally by the Council and the meeting of some reformers in the summer. I do not know who they were. Indeed, perhaps it is difficult to say who are the reformers and who are the conservatives. My name has been mentioned as a conservative; and I must claim to be, to some extent, one of those who do not wish to see the constitution of the Association upset. I believe that this new constitution, as we propose it should be carried out now, will not revolutionize the Association in every sense. It will revolutionize it in a certain way, but it will revolutionize it in a way we desire. I was sorry, as Mr. Owen said, that the Vice-Presidents were treated, as has been expressed, shabbily, but still there it is; but the principle of co-option seem to me to give the Council the power, which I am certain they will exercise, of not treating the Vice-Presidents, or any others who have worked for the Association, in a shabby way. As I say, the previous set of Articles and By-laws was proposed entirely by the Council, but these are proposed by the representative committee appointed half by the annual meeting at Ipswich and half by the Council. After that Committee was appointed it held a great many meetings. They were not short meetings, but meetings which extended from half-past one to six or half-past six in the afternoon. It formulated a scheme, and that scheme was sent out to every Branch, and every Branch, I think, considered it, at any rate pretty nearly every Branch made some comments upon it, and the Committee met after that, received the comments of the Branches, and discussed all those comments and modified the scheme considerably in view of the wishes of the Branches. Having modified it to meet the views of the members as far as they could, they presented it to the General Meeting at Cheltenham, and, as your President has told us, it was carried apparently with acclamation at the general meeting. The outcome of that was the appointment of another Committee, which that meeting did not attempt to appoint, but asked the Council to consider who would best form that Committee, and it is that Committee, of which I have the honour of being chairman, which gives me the position of seconding this resolution to day, and it is that Committee which has drawn these By-laws which they now ask you to accept. I need not read the names of that Committee; they are all before you, and nobody can say that that Committee is not a committee that was not carefully selected, not from the Council, but partly from the Council and partly from outside the Council of those who have shown an interest in the Association, some possibly from the conservative point of view, and others from, perhaps, a reformer's point of view. This second Committee held a considerable number of meetings—I think five meetings. Not only did it hold those five meetings as a Committee, but a Subcommittee met, and the Committee met again and considered the suggestions of the Subcommittee and the views of individual members, and after the Articles and By-laws had been, so to speak, settled—had been, in fact, settled by counsel—the Committee were not satisfied, and no fewer than three times they referred it back to Mr. Beaufort Palmer, and finally a subcommittee interviewed Mr. Beaufort Palmer with a view of settling the matter connected with the Referendum which we could not satisfactorily agree to, but which, I believe, eventually the whole of this Sucommittee has agreed to. So you see this set of Articles and By-laws cannot be said to be a hole-and-corner arrangement. It cannot be said to be a Council scheme, and it certainly cannot be said to be a hurried scheme, for it has taken some two years to consider; and it is not an ill-considered scheme. In the opinion of some it may, perhaps, be a scheme that could be improved upon; but, on the other hand, in the opinion of those eleven gentlemen, it is the scheme which they recommend you to try. There is one point that I should like to lay a little more stress upon than the proposer did; and that is with regard to the alteration of any of these Articles and By-laws should it be necessary. A By-law, as any one who has read this will see, is altered with comparative ease. An Article involves a considerable amount of difficulty to alter; and, therefore, a good many of the Articles and By-laws, as they are in the present constitution, have been transposed. Those matters that we thought might require to be altered have been made into By-laws, and other things that were originally By-laws, which we felt everybody would agree to, have been made into Articles. You will find that most of these doubtful points which I have heard spoken of are By-laws, and, at any time, therefore, with three months' notice, they can be altered to meet the requirements. Again, I say that we eleven members of the Committee have worked out this into what we believe to be a workable scheme for the Association, and we hope, at any rate, that you will try it. I do not say that the eleven of us agree, or did agree, at any rate, to every part of it; and I daresay there are some parts of it now which some of us think might be improved: but what we feel is this, that we, as representatives of the Association, have produced a scheme that is a-give-and-take on both sides. As Mr. Owen told you both the radical part and the conservative part of the Committee gave way on many points in order to produce this scheme, and I feel quite certain that eleven of us, considering it in the way in which we did, would be much more likely to produce a scheme satisfactory to the greatest number than a general meeting of this kind. I may just make one or two remarks on the objections that have been printed in the Journal. Mr. Owen has already done that, but I think I should like to add a little to it, not repeating what he has said. I was going to make certain comments on Mr. Garrett Horder's letter, but the fallacies in that letter have already been pointed out, so that I need say no more about that. But nothing has been said about the second letter—that is, with regard to the plan of voting. Now, that plan of the cumulative voting, I think, caused the Committee several afternoons' stormy discussion. I do not know how many times it was brought up, and every shade of opinion was expressed upon it. Eventually we came to the conclusion that is printed here, which amounts to this, that the voting shall be in the ordinary way, unless before the vote is taken a certain number of members require it to be taken by card, and then it is to be done in the way that the writer in this letter, Mr. Watt, objects to so much. Well, I do not think there is any absolutely perfect system of voting. I think that we should, in this instance at any rate, take the view of the majority of that Committee, and for the time being agree to it. If we find it does not work it will be very easy, on three months' notice, to alter it, and alter the plan of voting to a fairer way. I have given the matter a great deal of consideration, and I feel that whatever we do we cannot have an

absolutely fair way of voting. Then there is a point in Surgeon-Major Ince's letter that struck me as regards that. He speaks as well as Mr. Watt about the voting. He says that members are fully able to attend the periodical meetings and record their votes.

Surgeon-Major INCE: Hear, hear.

Mr. ANDREW CLARK: Yes; he says "Hear, hear" now; but nobody else says "Hear, hear," and those who do attend the general meeting know how difficult it is for doctors, of all people in the world, to get to the general meeting. The object is to give everybody an opportunity of expressing their opinion. How it will act we shall see. A great many people think it will act very well. It is to give every member of the British Medical Association an opportunity of expressing an opinion that this system of voting is introduced, and this Association has been cut up into small Divisions so that everybody may if he likes attend the meeting of his Division. I will not detain you much longer, but there is one point in Dr. Brassey Brierley's letter I should like to call attention to. It struck me in reading it. I hope I shall not be saying anything out of order if I draw attention to it, or offend him or Dr. O'Sullivan. All we have to consider in this letter is Dr. Brassey Brierley's opinion. He does not give us any reason except one. He says, "I will simply call attention to one proposal—raising the subscription to 25s." With regard to that, I should like to say that we are not really raising the subscription at all. The subscription to the Association is a guinea, and the subscription in the majority of the Branches is 4s. That is a different thing. Of course many members think you should not make membership of the Branches compulsory. That may be right or wrong. Nearly all the Branches have a subscription varying from 2s. 6d. to 5s., so it will only make a difference of a shilling or two to anybody. Then he goes on to say that the 4s. to the Branches is to be frittered away and spent in useless District meetings. The meetings in Manchester may be useless District meetings.

Dr. O'SULLIVAN: Order, sir.

Mr. ANDREW CLARK: Well, I will say in some places. I venture to think in the Metropolitan Branch the District meetings are not useless. We have four Districts, and they have useful and important meetings: and I hope that nobody will think that the District meetings are useless meetings. I think now I have said enough; and I hope that the members of the Association here present will so vote as to carry this resolution by the necessary majority, and let us, at any rate, try the work of the Committee which has now sat for close upon two years to discuss it. I beg to second the resolution, and I hope you will adopt it..

Dr. BRASSEY BRIERLEY: Mr. President, ladies, and gentlemen, I feel highly flattered, more especially at the criticism of the two former speakers on my communications to the JOURNAL. I had not the smallest conception that I was such an important element in this Association. I acquit Mr. Owen of any intention of being personal. Mr. Owen attempted to point out some fallacies in my letter. It is my pleasure and my duty to point out the fallacies in the proposal which he is now here to champion. Now, in the first place, gentlemen, with regard to the finances. I take that first, because reference has been made to that. You propose to raise the subscription to the Association to £1 5s. The subscription to the Branch to which I belong is 2s. 6d. We are told the subscription to others is 5s. Now, gentlemen, supposing the average is 2s. 6d., taking it in round numbers there are 20,000 members, because we have nearly that, that is nearly an addition to the income of the Association of £4,000 a year. Now, there is no proposal whatever on this scheme as to how this money should be spent; it may or may not be frittered away in District meetings. That bring me at once to the so-called delegate meetings. Gentlemen, we are altogether using a fancy term in calling it a representative meeting. Call a spade a spade.

The PRESIDENT: Call them representative meetings, not delegate meetings.

Dr. BRASSEY BRIERLEY: Then if I must call them representative meetings, very well; but it is a distinction without the smallest difference. We are to have a meeting of 300 gentlemen; they are to be sent to London, not at the cost of the Branches, mark you, gentlemen, who get this 4s., but at the cost of the Association. Gentlemen, bear that in mind. What do they do when they get here? They vote. How do they vote, gentlemen? Precisely the same as a machine. Mark you, they are picked men sent here to vote, and to argue why they vote. But, gentlemen, having submitted the argument, where are they? They have to record their votes precisely as they have been told to record them. Remember that, gentlemen. That, to my mind, is not liberty. What is the effect of their speeches when they come with their votes already recorded? Suppose they convince the opposition—suppose they convince a representative from another district that he is absolutely wrong and they are right? What is the result? The opponent who is convinced can only vote precisely as he has been told before he started. Gentlemen, to my mind it is ridiculous. Why should we go to the expense of bringing these gentlemen to London? Why not say: "We have had a meeting, and the vote is so-and-so," and send it under cover to the Secretary. (Hear, hear.) Now, gentlemen, finance is really my pet question. I want to point out this. I am not going to be ranged amongst these obstructionists. I want to tell this meeting that in 1898 I brought the matter of subscriptions before the Council till it was thrown out. At Ipswich I brought a series of resolutions forward for approval by the Council before submitting them to the general meeting at Ipswich. Then Mr. Victor Horsley came on to the scene, and said a Committee would be the better plan. I at once consented, and withdrew the whole of my proposals. Now, gentlemen, many of those proposals are included in the proposals in this Report; but the chief things are not. You do not touch finance; you leave the Journal and Finance Committee as it was. The JOURNAL should have nothing whatever to do with finance. That, to my mind, is one of the greatest flaws in the whole working of this British Medical Association. Gentlemen, I wish to say that I am not here to condemn the principles upon which the British Medical Association is established; but I am here to say that the work of the Association has not been carried out as it should have been by us Councillors, or we Councillors. That is my point. Gentlemen, a great deal has been said about the annual meeting being a fortuitous conglomeration of atoms. I do not know who is the author of that phrase, but it means that the annual meeting is not representative. Gentlemen, the attendance at the annual meeting averages the aggregate attendances at all the Branch meetings. Is that an argument for doing away with the annual meetings, or not? The average attendance at the annual meeting, I say, equals the whole of the attendance at the Branch meetings throughout the country, and is it not reasonable to expect that members coming to general meetings at their own expense year after year will be more likely to discuss the affairs of the Association, and bring them to an issue, better than those gentlemen who are paid to go to an annual meeting which is nothing more or less than a picnic? We have an invitation to a picnic tomorrow in the Lancashire and Cheshire Branch. My contention is that the meetings of the Branches are nothing but picnics. They are not scientific meetings. I say the money has been absolutely frittered away. The annual meetings in the Branches are nothing but picnics. Do away with your picnics at the ordinary annual meetings, and then you will get something towards reform. Now, gentlemen, for the Referendum, and to go back to the whole position, What is the meaning of the Referendum? It is about the grossest insult to the delegate meeting that you can possibly conceive. The delegate meeting can pass no resolution altering anything except by a three-fourths majority, and yet your handful of Councillors may take four months to think about it before taking any action, and then they may go through the machinery of submitting the whole thing to the whole of the Branches again—an interminable work, without any result. That is what has been done in the past, and what will happen if this Report is adopted. Now, with regard to representation. That is altogether wholly out of touch with modern notions. We are to have a representative for every 200: we are to have a second representative for 400; but over that you must have 600 members before you can have another representative. The thing is unequal. Gentlemen, that would justify some things that we see on the other side of the Irish

Channel with regard to Parliamentary representation and about which so much has been said. Now, gentlemen, it has been said that this Report has been twice adopted, not only by an overwhelming majority at Cheltenham, but in the heartiest possible fashion. Well, gentleman, if in the charming atmosphere, and the unending hospitality that was offered us there, we did not pass something that was brought forward and supported by the then President, I should certainly have been astonished. Indeed, gentlemen, I believe if the President had said, "Now, gentlemen, we will take this course; stand on your heads," you would have done it. I certainly trust that for the good of the British Medical Association this Report will not be adopted. I sincerely believe that what I wrote is true. It is my conviction. I have followed the work of the Association for more than a quarter of a century. I have done some little from time to time; and I foresee that if this be adopted we are not advancing, but we are receding.

Dr. Garrett Horder: Mr. President, ladies, and gentlemen, before we go any further I wish to put this question, whether it is absolutely illegal for any member present here to-day to move an amendment to any of these Articles proposed in the scheme? That is the important point.

The Chairman: I am afraid it is absolutely illegal in consequence of the Companies law. If amendments were to be put, it would have to be expressed in the notice. The notice having been drawn up in the manner in which it is, it is absolutely impossible for a single amendment to be put.

A Member: Why not propose the adjournment of the meeting?

Dr. Garrett Horder: No, I shall not do that. I will not detain the meeting long; but I am exceedingly sorry—I was never more sorry in my life—that I should have ruffled the temper of our very able and worthy, kind and courteous gentleman who presided over our Committee, that has dealt with this matter. I was not aware that I had said anything uncourteous, or that I had said anything that was untrue. I was not aware that I had said anything outside the pale of politeness, or anything else, and I was rather astonished that a humble member hailing from the small village of Cardiff should have had so much prominence given to him to-day by the gentleman who has introduced the resolution. But I do feel that what I said in that letter is absolutely the feeling of a large number of members of this Association. Although there are many excellent proposals and recommendations in the Report, yet we do feel that there are things—I will not say, as has been said, that they are democratic, but they are completely revolutionary. I, for one, do most strongly object to those representatives—so strongly that I am not sure whether I shall not oppose the scheme as a whole. I feel, and I know that not only a great many members of the Association, but a great many members who helped to draw up this report believed at the time they drew it that it was absolutely unnecessary. We have our representatives on the Council, we have our Council meetings, and we have our annual meetings. As I have argued from time to time, not only at meetings but in the press, provided the Council make better arrangements at the annual meeting for the carrying on of the business, they would always have a much better attendance, and the business would be conducted in a better and more able way. We have from time to time made suggestions to the Council with regard to the business of the annual meeting; but year by year the whole thing has been conducted in exactly the same way. Picnics without number, garden parties endless—in fact the whole thing, as Dr. Brassey Briefly said, really resolves itself into a gigantic picnic. Now if the time of the annual meeting taken up by the picnics were devoted to the ordinary business of the annual meeting, then it would be better attended, and the business would be better conducted, and there would be no occasion whatever to have a set of men who are going to be sent up to those annual meetings to vote on questions which they are told to vote on, and about which perhaps they know very little indeed. If men feel keenly on the subjects to be brought up at the annual meeting, surely they will go to the annual meeting, and if the Council who wish for reform, as they have said in times past, but which they have shown little inclination to grant, were to make better arrangements for the annual meeting, it will become a matter of much more business-like arrangement than it has been in the past. A strong point against the whole of this scheme is the representation. I think myself that there is no necessity, as I said before, for a third set to interfere with the arrangements of our business. If we have not faith in the members of our Council let us by all means get fresh members, send up fresh members, and also let us have from the large body, that august body, consisting, as you know, of a very large proportion of gentlemen who have devoted from time to time a good deal of their money as past Presidents, but who, I maintain, are not entitled to the honour of a seat on the Council for the rest of their natural life—I have always felt that—by all means let there be Vice-Presidents as members of the Council for a limited time, but because a gentleman has had the high honour of being elected to the position of President of the British Medical Association it does not seem to me reasonable that he should be an official member of the Council for the rest of his natural life. I think with regard to that point that the Report has gone in the right direction. If the Council had, as was proposed some years ago by a gentleman now deceased from its body, a proper Executive Committee who were paid for the services they rendered, and they were to meet at frequent intervals, as directors of large companies meet, we should have the business of the Association done far better than it has been done in the past; but it is physically and morally impossible for any member of the Council to grasp the whole of the questions that come up at the quarterly meetings. They have not the time, and I am sure they have not the inclination at times. I feel certain that it is perfectly impossible for them to give their proper attention to the work if the Council only meet once a quarter. If you had an Executive Committee of twelve or fourteen members, and they were paid to do the work, and quarterly meetings of the larger body, then you would be carrying out the work better than it has been in the past. But I object to the representative meetings. They are not wanted, and I think they are an expensive luxury, and I do most strongly feel that it will only add confusion. I cannot agree to the suggestion of the proposer and seconder of the resolution to give this matter a trial, because it is a leap in the dark, and, I am afraid, a very fatal leap indeed.

Dr. Ward Cousins: Mr. President, ladies and gentlemen, I want to say a few words to-day, because this, to my mind, is certainly the most important meeting of the British Medical Association that has ever been held in my experience. We are here to-day, I should say at the utmost, and I have endeavoured to count those in the room, 150 gentlemen, and we absolutely represent nearly 19,000 gentlemen scattered over the world. The propositions in the Report which is to be submitted to you will bring about a great change in our constitution, and that matter is entirely in your hands to-day. You must remember the extreme importance of the position that we occupy. We are going to reorganize the Association, and radically reorganize it, that is to say, 150 gentlemen acting for the rest of this great Association, which is extended all over the world. Now, for myself, I feel my responsibility, and I hope every one here to-day feels the same. I hope you have carefully studied this reorganization scheme. I wish at once to tell you that I think the whole basis of the changes proposed are in the representative meeting. The Articles and By-laws are really very little altered. Something has been said about Vice-Presidents being knocked out, but, after all, that is a very small matter. The Articles and By-laws are a little changed, but the whole revolutionary tendency of this scheme is in the representative meeting. Now, my position is this, and I say to you, if you really think, after studying the whole of this scheme, that it will add to the power or that it will add to the usefulness, or that it will add to the prosperity and the harmony of the Association, then I hope you will adopt it. But if, on the other hand, you can detect in this scheme elements of dangerous explosives, which may lead to disintegration and disturbance, I hope you will reject it. Now, I will tell you what my view about it is as regards the delegation. I was a member of the first Committee, but I was not a member of the second Committee; therefore I can speak rather freely to-day. As regards the

question of delegation, within certain limits I am not sure that after all it would not assist the work of the annual meeting—I am not sure that it would not; in fact, I think delegation in a sense, if it came up to what I think would be normal delegation in this scheme, I should support it. But the area of the Branches in this scheme is to be left unchanged. Every Branch of the Association is to be divided up into Divisions, and those Divisions are to be so constructed that the members can readily attend them. There are to be at least 300.

A MEMBER: Not more than 300.

Dr. WARD COUSINS: Well, not more than 300. Now, I will ask you what the impression upon our finances would be. This in itself is a most serious matter, and there may be more than one. Who can say how many of these representative meetings are going to be held in the course of a year? We say one at the annual meeting. I do not think that the expenses of a certain body of gentlemen should be paid, and all the rest of the members should find their way to the annual meeting at their own expense. Dr. Brown and Dr. Jones are going with third-class tickets because they are not delegates, but Dr. Robinson, who is a delegate, will have first-class travelling expenses paid to the annual meeting.

A MEMBER: He will go third and pocket the difference.

Dr. WARD COUSINS: I do not think delegates should be paid first-class expenses or paid, as Dr. Brassey Brierley has said, for attending at the annual meeting for their enjoyment. Why, it would be preposterous to think of it. But I should like to add this further, that you are going to pay the expenses of the members of the Council and the Vice-Presidents as long as they are members of the Council, and you are going to pay all the members of the Committees. Just fancy what this will be as regards the funds of the Association; it will be an enormous sum in the course of the year.

Dr. LORIMER HART: On the point of order, Sir, might I ask what scheme Dr. Ward Cousins is dealing with?

Dr. WARD COUSINS: I am speaking of the expenses of delegation and the payment of committees and members of Council. But it does not stop there. Look at the expense of the representative meeting alone. You would have all the expenses of these meetings, you would have all the expenses of the committees, you would have the reports and resolutions, and they would have to be scattered through the JOURNAL throughout the length and breadth of the British Isles. Do you know what the expense of the addition of one page to the JOURNAL is? One page of the JOURNAL would cost £90 a week. It would be absurd to throw away our money on matters which not one member in ten takes the least interest in. I think I have said enough about finance. I will now tell you that for years I have been studying what after all is the vital centre of the Association. Twenty-five years ago I studied this point. Where is the vital centre, the force of the whole Association? After a considerable amount of inquiry I found it was in the Council, and I found it was also in a Committee of the Council, namely, the Journal and Finance Committee. That was the discovery I made. Now, let me say this, that this scheme thoroughly revolutionizes the power of the Council and dislocates the vital centre altogether. The vital centre will be in the representative body; they will have all the powers—the power of making by-laws, the power of considering every question that can possibly come before the Association, every question of etiquette, every question that touches the Association in any direction, either political or social, or the By-laws; in fact, everything may be considered by this meeting, and the consequence is it will have all the powers. How is this power to be exercised? Is it to be exercised in the old-fashioned normal way of the delegate voting, with one vote for each delegate? No. I say the form of voting advocated in this scheme is not worthy of the British Medical Association. The delegate is a mere machine, as Dr. Brassey Brierley has told you. He goes up simply to vote the decision that his constituency has told him to do. I belong to a constituency which no doubt wil be a Division of the British Medical Association. It has been a division of the Branch ever since the Branch started. It consists of 120 members. We had a special meeting to consider some great question agitating the members of the profession, such as the Midwives Bill or Medical Defence. We never had more than twenty members there. Supposing we had a meeting to elect a delegate and send him up to vote, and supposing at that meeting 11 gentlemen were in favour and 9 against it, what power would he have? He would go to the representative meeting, and have the power of voting for not only the 11 and the 9 gentlemen who sent him, but also for the other 100 who were not present. Is this a form of voting worthy of the British Medical Association? No. I say it is absurd. This sort of voting may suit a trades-union, where it is merely a question of money and time, but it will not suit the educated gentlemen, the members of a distinguished profession like the British Medical Association. At all events, one thing is certain, that within our ranks we have men of every party, men of every sentiment, men of every shade of opinion and every political tendency; and I say we ought to have only the old-fashioned and honest form of voting by majority, for that alone will sustain the power, the honour, and the moral spirit of the British Medical Association.

Dr. ALFRED COX: Mr. President, ladies and gentlemen, as a member who had the honour of serving on both Committees which have considered this matter, I begin to feel it is about time that the other side of the question had a little hearing. We have heard various travesties of what terrible things are going to happen if this scheme is passed, and I must say I hardly recognized our scheme when I heard it from the mouths of Dr. Brassey Brierley and of Dr. Ward Cousins. I would like to put it to you as a plain member of the Association and as one very anxious for the success of the Association sees it. The great objection that has been raised this afternoon seems to me to be to the question of representative meeting. I am almost afraid to confess it, but that is the part of the scheme which most appeals to me. I have never yet met with a member of the Association who is satisfied with its present form of government. We have had the annual meetings praised by Dr. Brassey Brierley in one breath and condemned in the next; we have been told of the grand work of the men who go there and pay their own expenses, and in the next breath he has told us it is one round of picnics.

Dr. BRASSEY BRIERLEY: I rise to a point of order, sir. That phrase is not mine at all.

Dr. ALFRED COX: Well, it was words to that effect. The annual meeting in my view (and I have attended a few) is, from a representative view at any rate, a failure. There is no one who has seriously taken into account the medico-political work of the Association who thinks that any good solid work can be done by that fortuitous meeting of members who may happen at that particular time to be able to get to the meeting. Those attending annual meetings have to sacrifice a good deal to get there. We have to make it—most of us—part of our holiday, and if we want to attend the annual meeting we have to stick in and work at a time when many of us would rather be roaming in the fields, or fishing, or down at the seaside, or something of that kind. But we have felt—more particularly lately, I should say—our weakness as an Association, as a body of organized medical men. Those of us who have seen the way in which the Government has treated the medical profession in recent years with scorn and contumely, those of us who have followed the course of this almost interminable question of midwives, have seen the enormous difficulties of finding out what the profession says on the question. We do not know yet what the profession means, and the profession does not know yet what the organized feeling of the profession is on that question. There is no means of getting to know, and we are never likely to know through our present arrangements at our annual meeting. Those of you who are not so enamoured with the present Constitution as to think it perfect—and, as I say, I have not met one who is satisfied with it yet—ask yourselves what are we to do now? We are not going to stop as we are now. Even the members who proposed the scheme felt that when the scheme was brought up two years ago. The scheme brought up then was rejected, and the next best thing that occurred to us was to appoint as far as possible a representative committee of the Association. Those committees may not have been perfect, but I think every man will admit that we have done hard work, and that we have done our best. We bring forward a scheme which none of us claims to be perfect. We have had to compromise on the matter. Every practical scheme, I suppose, must be a compromise. What I should like to put to the meeting is this—

and this is the crucial question to my mind—If you reject this scheme to-day, what are you going to do? Personally, I am not an old man, but I should like to see something done before I die. I am sick of this "wait a little longer." I have gained a new definition of what a reformer is to-day from the speeches of Dr. Brassey Brierley and from his letters—or rather, what a reformer is not. A man is a reformer as long as he talks at large, but as soon as he gives his adherence to a practical scheme he is not a reformer. I have left the ranks of reformers, although I always had the opinion that I was a bit of a red-hot one up till now. I have given up that, and I adhere to this scheme because I think it is the best we can offer, and I ask you, if you reject it, what you are going to do in its place? I wish now to make an admission. I came to Exeter Hall when the Council brought forward its last scheme full of wrath at the idea that they would not give us an opportunity of moving an amendment. Gentlemen, I believe now it was the only thing they could do. I have seen the working of these things and it was the only thing they could do. That scheme was produced after only ten days' notice, and we had to take it or leave it. But this time we have had two years to consider it, and it has been drawn up formally by the Committee and submitted to the Branches. That is a very different state of things. But, gentlemen, leaving those differences out of consideration, I say that a scheme like this which has been formulated after very careful legal advice must be taken or left as it is. You cannot start making amendments to it. What would become of it? You would have a fine hotch-potch when you had finished with it. Gentlemen, those of you who have examined the practical work in the way of formulating this scheme must see that the only thing to do is to formulate your scheme as carefully as possible, and then ask the members to take it or leave it. Again, I ask you, gentlemen, what are you going to do if you reject it? I do not think you will reject it. I am sure the members in this room are generally satisfied that this Committee has done its best. I know it is a question, but at any rate I think so. Think of the composition of these Committees. When I first went to this Committee I saw men like Mr. Victor Horsley, Dr. Ward Cousins, Dr. Brown Ritchie, and Mr. Andrew Clark, and members like myself and several members—of the "old gang," I was going to say, but I will not be disrespectful—members who began to think that the British Medical Association had done very well for them, and it was best to leave it alone. We threshed out questions of the most burning character, meeting after meeting, and we formulated this scheme, which is a system of give-and-take, and as an ex reformer I beg to say that a very great deal of credit is due to the older members of the Council for the handsome way in which they have compromised this matter. I wish to say that nothing could have been finer than the way in which they gave in to the arguments which were adduced to show that the Association wanted something, and to show that this was the best thing we could produce. As far as the district from which I come is concerned, and for which I am acting as Secretary, I can honestly say we have done our level best to ascertain the wishes of the members. We have divided the two large counties Northumberland and Durham into district meetings as nearly as possible to what we thought would be done if this scheme was passed. We did not have large meetings, and in all probability when this scheme is passed we shall not have large meetings. The profession has to be trained. It has to be trained to look after its own business. It does not know how to do that yet.

A MEMBER: Trades-unionism.

Dr. ALFRED COX: It is all very well to talk about trades-unionism, but they can give us a good many points. We should not have been in the difficulty we are in now if we had taken the example of trades-unionism a little earlier. We have ascertained the opinion of my Branch, and, gentlemen, I am bound to say, it is open to no contradiction, that the whole of those two counties went almost unanimously in favour of this new scheme. I think probably that is the experience of most members, and the experience of most secretaries of Branches. The point of representation is the only point I wish to address myself to, and I will very briefly finish. That seems to me to be the only practical method of ascertaining the wishes of the profession. I have asked men who object to it if they can suggest any other way. I have never had any satisfactory answer yet. I say the Council at present is not representative, and I wish to lay stress on the distinction made by Mr. Whitaker at Ipswich—a distinction I think which ought to be very carefully made between the executive body and the representative body. The Council is, or ought to be, an executive body, and the annual meeting of representatives must be a representative body. We have not a body of that kind at present. Gentlemen, I do earnestly put it to members who have come here perhaps with a fairly open mind, and who may have been led this way or that by what they have heard—everybody has not read through this scheme I am sure: but I ask you to look upon the alternative of passing this, and I ask you what is going to happen? I will tell you—and I am as certain of this as I can be of almost anything—if this scheme is rejected the Association will say "Oh, we have had enough of this," and good-bye to any reform. Gentlemen, I am certain of it. I do sincerely hope that those of you who are going to vote against this scheme will ask yourselves the question, What will be the result?

Dr. BERNARD O'CONNOR: I rise merely for the purpose of putting a question to you, but I will make one or two observations and conclude with the question. I may say at the outset that in a general way I am in favour of many of the points put forward in this scheme. I have carefully read through the whole of the Sections as published in a recent number of the BRITISH MEDICAL JOURNAL. One or two members have favoured us with arguments in favour of the exclusion of amendments to-day, but you, Mr. Chairman, have gone a little further, for you have told us that it would be illegal to allow any amendment, or rather that it would be illegal to accept any amendment. Of course that may be an expression of opinion of your own, but there is really nothing in the Companies Act which says anything of the kind, and the opinion which is reproduced in a recent number of the JOURNAL, an opinion I believe expressed by Mr. Beaufort Palmer, is exceedingly clear, in fact nothing could be clearer than the terms contained in his opinion. It says:

> It is possible to frame the notice convening the meeting in such terms that every amendment whatsoever shall be admissible, but if amendments are to be allowed, it is very difficult if not impracticable to provide that only amendments of a specified character shall be admissible. It seems to me that two alternatives are open for adoption, namely: (*a*) Call the meeting to adopt the new regulations as having been prepared by the Committee after long deliberation, in which case it may be that the amendments would not be allowable; or (*b*) call the meeting to approve of them with or without modification, and then to adopt them in the form approved. I should have thought (*a*) the best, for a general meeting is not a good instrument for settling a complicated code of regulations and by-laws. However, if (*b*) is preferred, it seems to me that the meeting must be given a free hand.

Mr. Palmer does not go beyond that, so I submit it is totally beside the point for any one to recommend, whether it is the Committee or not, the exclusion of any amendment. Another thing is that in a recent number it is very clearly, very truthfully, plainly, and shortly stated by the JOURNAL itself that the matter is now out of the hands of the Committee, and is now in the hands of the members of the Association. Clearly, if the members assembled to-day here were in favour of receiving amendments, I do not know of any ground—certainly there is no legal ground—which would take from them their rights. But on the other hand, if the majority are opposed to amendments, then of course we must submit to the decision of the majority, and we must accept the new By-laws and the Articles or reject them in their entirely. Now this brings me to the question which I want to put, and the question is this, whether there was any reason for excluding from the Association any ready means of expelling members living in Scotland. Of course, if there was, well and good: but if there was not, then I think that the wording of one of the By-laws is somewhat unfortunate. I do not say whether there was or not, but assuming for example it was not intended by the Committee to enable members living under Scotch law to have the privilege of doing things for which they could not be expelled whereas if they lived in England or elsewhere they would be expelled. It is Article No. 42 headed "Forfeiture of Membership." If it were contended that sufficient power has been reserved by the following sections—that is to say, 43 and 44, and the subsections under 44, then perhaps it might be a sufficient answer; but that would not remove altogether a certain amount of difficulty which might be raised by the presence

here of 42. The wording of Article 42 is: "Any member of the Association who (*a*) shall have been convicted in a court of justice of any felony or misdemeanour, or (*b*) whose name shall have been erased from the *Medical Register*, under Section XXIX of the Medical Act, 1858, or (*c*) who shall have forfeited by misconduct the medical qualification by virtue of which he became eligible for membership in pursuance of the provisions of Articles II and III shall *ipso facto* cease to be a member of the Association." Now as far as that section stands, nothing could be better, and really nothing could be more of a model than that is as far as language is concerned; but if you analyse it, what it really means is this, that as far as England, Wales, and Ireland, and any place other than Scotland are concerned, any member who shall have been convicted in a court of justice of any felony or misdemeanour shall be liable to be expelled; and secondly, you cannot expel under (*b*) a member until his name has been removed from the *Medical Register* by the General Medical Council. Now, I want to know, Mr. Chairman, whether that first portion, the first two lines at all events, as far as the word "misdemeanour," was worded intentionally for the purpose of excluding Scotland; because, suppose a man living in Scotland has done something which, in the minds of the members of the profession he ought not to have done, he clearly could not be proceeded against under the first two lines, which seems to me rather a pity. The words are "felony or misdemeanour." Those terms do not apply in Scotland at all. You cannot indict a man for felony or misdemeanour in Scotland. I am assuming that members are in possession of the actual facts, and there is the fact that you cannot proceed against a man by way of indictment under Scotch law, and charge him with being guilty of misdemeanour or felony. The terms do not apply; you must use other words. It is idle to point this out if we are not to have amendments. I only refer to this as rather a difficulty that we are in. (Interruption.) My remarks have not been long, and I will conclude them in a minute if members will bear with me. If you were to say that a person had been guilty of conduct which if committed in England would have been a felony or misdemeanour, and so on, I could have understood it, but it does not say so, and it seems to me it is just possible that at some future time difficulty will arise under that. However, I simply say that I regret very much if the majority here are opposed to amendments, but we must accept the decision of the majority. I repeat that I regret it, and I think it is a matter of regret that many points similar to these are in their present shape in these By-laws and regulations.

The CHAIRMAN: I have given this matter considerable attention, and I have looked at some of the original authorities to find out about it. What I make out is that a notice might have been issued to admit amendments, but it was not. It was actually framed to exclude them. I am also advised that I have no power to go beyond that. Having so decided the matter I will stick to it. With regard to this small legal point that has been brought up I will ask the Solicitor to reply to it.

The SOLICITOR (Mr. Hempson): It seems to me, Sir, a very small point indeed

Dr. O'CONNOR: It is a very important point.

A MEMBER: Never mind that.

The CHAIRMAN: The meeting does not care about it being answered.

Mr. WHITAKER: I had not intended to speak at so early a stage; in fact, I hoped it would not be necessary for me to speak at all. I think there are plenty of gentlemen here who desire to speak and who have not spoken. I, for one, who have been instrumental in bringing forward this scheme, hope that everyone will have a full opportunity of expressing their opinion upon it. I should like to deal with some points which have been raised by the previous speakers which have not yet received attention. With regard to the point mentioned by the last speaker I should like to say this. Of course I speak as a member of the Committee which was a Committee of laymen. The last speaker we all know is a barrister and familiar with the law, but on these legal points we had to rely on the advice of our legal advisers. The Association has a very able solicitor as we are all aware, and these Articles and By-laws have been through the hands of a gentleman who I suppose is recognized as the greatest living authority on company law. I do not see how, as a Committee, we could have been expected to do more than that. This brings me to the main point I want to refer to on the question of amendments. If hereafter on this or any other point amendments appear necessary, I think you will consult the interests of the Association, and I think you will carry out the wishes of the members most thoroughly, by allowing such amendments to be carried out at leisure, when the Association will have an opportunity of considering them, rather than that amendments should be considered in a meeting like this, where none of us can weigh them and judge of the full effect of them properly. That, to my mind, brushing aside all technicalities, is the practicable, reasonable, and fair objection to having amendments moved in a meeting like this. Now, gentlemen, I would ask you to consider this point. As Dr. Ward Cousins said, we are here something like 150 gentlemen who are going to legislate, or refuse to legislate, on behalf of the members of the British Medical Association, which consists of some 19 000 gentlemen scattered throughout the world. It is a great responsibility to change the constitution of that Association. But, gentlemen, there is an equal responsibility, after the time and care and expenditure that this scheme has involved, in rejecting it, and perhaps postponing indefinitely medical reform. Dr. Brassey Brierley says, "No, no," that we should not be postponing things indefinitely; but surely there must be a finality somewhere. The Association cannot go on perpetually considering schemes for reform of its constitution. What I ask you to consider is the two alternatives. You think perhaps that there are many points in this scheme which would be better amended. Perhaps many of us think so. I do not mind confessing there are many small points I would like to see amended myself. I was a member of the Committee which was able to come to this agreement. It was fully impressed upon us that if we did not produce a unanimous report there would be no likelihood of the Association accepting either the one report or the other. The essential thing we had to do was to come to some conclusion which was acceptable to the twenty-six of us, and therefore those who desired a radical scheme of reform gave way to the more conservative members; and the more conservative members, with a frankness and generosity that I can never pay a sufficient tribute to, conceded things which to their mind were somewhat dangerous in order that a practical scheme might be evolved. All the members acted in what they believed to be for the good of the Association, and I ask you, gentlemen, to consider the matter from the same point of view. Some of you object to some points of the scheme. If you examine the scheme carefully, you will find that you have as full power by future amendments under the scheme as you could possibly have had under the existing constitution of the Association. That is the point I want to press upon your minds. You do not deprive yourselves of all power of future amendment by carrying this scheme. Now, about the question of representative meeting which has caused so much discussion. Is anybody satisfied with the general meetings of the Association as at present conducted? You have to consider this, gentlemen; do not fall between two stools. It is quite possible that you may reject this to day by the action of a number of gentlemen present, no two of whom are agreed among themselves as to what they want. That is the danger we are in. Those of you who would like to see the Council made more powerful under this scheme, those of you who would like to see the Council more powerful than under the present constitution, ask yourselves: Are you likely to get from the Association a new constitution giving the Council greater powers than it possesses under this scheme? Ask yourselves that question. Those of you who, like Dr. Brassey Brierley, would like to see the general meetings more powerful, and who have such full confidence in general meetings of the Association, and would like to see the general meetings remain all-powerful, ask yourselves, Is that state of things likely long to satisfy the Association? Contrast the position between the general meeting and the representative meeting. I know some of you perhaps think that the Council is all-powerful in the Association at present, and that under the present existing state of things the general meetings are not all-powerful. There is no question about

that. We have it now on good authority that if a resolution is placed on the agenda of a general meeting and passed by a general meeting the Council cannot refuse to act upon it. Then the question is, Do you prefer that the Council shall be under the control of general meetings in that way, or under the control of representative bodies such as is now proposed? Just consider the effect of a general meeting. We belong to a profession which is peculiarly restricted in its opportunities for attending meetings. No profession is exposed to such difficulties with regard to leaving their work as medical men. It is not a question of who chooses to attend a general meeting, it is a question of who can attend. I know lots of friends of my own who would like to be present here to-day, but they could not possible come. I have had a letter from a gentleman who was a member of the Committee—Dr. Gordon, of Exeter—who says that he has a patient dangerously ill, and that he cannot possible attend to-day, much as he would like to have done so. The question of attending general meetings is not within our own power to decide; it depends upon the condition and exigencies of the occasion. But if in each district you choose a man whose circumstances permit him to attend meetings, and in whom you have confidence you can, without any great tax on your own time, attend a meeting for instructing that man held in your own town or district, and you can express to that man your wishes. Then on the matter of delegation and on the question of instruction to to the delegates. You do not find in this scheme such a cut-and-dried mechanical system as some speakers have alleged. The delegate is not bound hand and foot. There is no reason why he should be in the way some members suggested. All that is said in the scheme is that the representatives should be under the obligation to vote in accordance with the resolutions which have been passed by his constituents. But it has left to those constituents to decide what resolutions it should pass. I have myself attended a delegate meeting held in Manchester two years ago as a representative of the Yarmouth medical practitioners, and on some points that came before the meeting I had definite and precise instructions which my fellow practitioners desired me to represent as their wishes, but on other points it was left to my discretion to vote in accordance with what I knew to be their general feeling. That, I think, is the best way in which you can arrive at the true opinion of an Association like this. But a man who goes to a general meeting goes as representing nobody but himself, and it is a pure accident who is able to go and who is not able to go. As to the matter of the financial condition of the Association, which was referred to by Dr. Brassey Brierley, and as to the point in regard to the Journal and Finance Committee—that the JOURNAL ought not to be mixed up with finance—if it is the opinion of the Association that the JOURNAL should not be mixed up with finance, then if the Association wish it, you have the power to deal with that matter in your own hands under the scheme. By-law 39 says that there shall be certain Committees appointed: "(1) Journal and Finance. A Journal and Finance Committee not exceeding 15 in number (5 to form a quorum) shall be appointed by the Council, which shall, *inter alia*, examine into the general working of the office and of the JOURNAL, and certify the quarterly accounts prior to their being presented to the Council." If Dr. Brassey Brierley is able to persuade the Manchester Division or his brother practitioners at Manchester that it is desirable that the work of managing the JOURNAL should be divorced from the general management of the finance of the Association, no doubt he or some other representatives of Manchester will be sent up on the representative meeting so instructed in order that the By-laws may be altered in accordance with their wish, and if it is the opinion of the Association that the JOURNAL should be divorced from finance in that way, that will be carried. But I do not think Dr. Brassey Brierley should come up here and ask us to reject this scheme because his particular view as to the management of the JOURNAL does not happen to be embodied in the provision we have laid before you.

Dr. BRASSEY BRIERLEY: I beg to rise to a point of order. I have the profoundest respect for the Chair, and you have ruled, sir, that I must either support or reject the scheme. Am I to come in here and sit still, and not advise as to what should or should not be done?

Mr. WHITAKER: We are much obliged to Dr. Brassey Brierley, I am sure, for his advice, and it is equally open to me to urge upon you that you should not accept that advice. Gentlemen, I would only say one word in conclusion, I ask you to accept this scheme, not only as affecting the members of the Association, but for its effect on the fortunes of the medical profession. I do not see how any medical practitioner can help but feel profound regret and pain at his perfectly impotent position in the face of public bodies at present. A great measure has recently gone through the House of Commons, I will not say whether wisely or otherwise, and the voice of the medical profession has been absolutely ignored on that question, and I say that is greatly through our own fault, because we have no efficient instrument for representing the voice of the medical profession, and we hope if you carry this scheme that the British Medical Association can be converted into a body worthy and capable of representing the medical profession throughout the British Empire.

Dr. O'SULLIVAN: Mr. Chairman, ladies, and gentlemen, I will only detain you a very short time. I would like to commence by alluding to almost the very last thing said by the previous speaker, if I am in order, that it was through our own faults and our own inertia that the misfortunes of our profession are mainly due. He was alluding to a circumstance which occurred only last week about the way the representatives of the profession have been treated in Parliament. Now, I attended for hours about three or four weeks ago. I went down there when there was a Committee of the House of Commons sitting and we had not a single authorized representative there. I do not know whether Mr. Victor Horsley attended in an authorized capacity or not, but Dr. Holman, myself, and he were the only three medical men there, and on the former occasion the only gentleman interested in the medical profession who was there was the Editor of the JOURNAL; but as to there being a representative of the medical profession or the British Medical Association there was nothing. However, I pass that by. Now, without wishing to create any trouble or confusion, I regard the position of the various gentlemen of the Committee that have spoken to be mainly of apologists for their position and nothing else. They have begged the question. We have been referred by Mr. Whitaker and Dr. Cox to the all powerful "we." It is a case of "we." It is not a case of "I," it is "we." Behind the speaker is an unknown quantity represented by "we." Now to hark back to the commencement of the proceedings, when it was introduced by a gentleman whom I certainly do not know very well except by reputation. I do not think that his speech was characterized by that moderation in his allusion to the northern and other portions of the Association in a manner that we might have expected of him. He talked of the "northern hard heads" and the "southern soft heads." I have lived for thirty years in the north, and I have always been in the habit of paying the very greatest respect to the southerner in every possible way. Although I am not now living in the county in which I used to live, I hope next month you will all be received there, and I will leave you to judge then from the manner in which you are received of their honour and hospitality. Now, gentlemen, it is all very well to take up the letter of a man which is written in all earnestness, and to criticize it in a carping spirit; but I venture to say that such a thing reflects no honour on the individual. But, gentlemen, the person who wrote that letter did not write it simply for the 150 gentlemen who are present in this room to read, but for all the 19,000 members of the profession. I ask you, Is a person who writes his honest thoughts for the benefit of the profession to be held up to public ridicule at a meeting and be termed a northern hard head? That was the impression created in my mind from the carping way in which Mr. Edmund Owen dealt with this matter. Now Dr. Brassey Brierley a few moments ago appealed to your Chairman and said by your Articles I cannot come here and vote against any one of these Articles and By-laws, but I must do it in its entirety. You have not allowed us to formulate any amendments, and we are in the position that we have nothing to do here but say Yes or No. Is that the position in which a man called upon to criticize a thing which I have heard described as revolutionary to the whole British Medical

Association should be placed in? Dr. Ward Cousins prided himself upon being a member of the Association for twenty-five years. I have been a member for over thirty years, and I know that we in the north are all proud of the Association, and work very hard in its favour, and any of us that express our ideas by letters in the press have the very best interests of the Association at heart. Now Dr. Bernard O'Connor hit the nail on the head when he pointed out the particular By-law to show you that amendments are necessary. If we are not allowed to move those amendments, what are we to do? We are making ourselves the laughing-stock of people outside. I will not take up your time. I am entirely in accord with 99 per cent. of that which is contained in this scheme, but I am not in accord with a few things. However, I am placed in the position that I must submit in accordance with your decision, and if we discover any amendments which are necessary that they should afterwards be brought up. I am totally against the system of delegation or representation. I am against it because in my opinion it would involve the Association in an expense that you have no conception of at the present moment. Now, gentlemen, I have liberated my mind. (Cries of "Vote, vote.")

The CHAIRMAN: I should like to say one word. I think the common-sense view of the matter is that you should pass the resolution if you feel inclined to first of all, and that you should reform the whole business afterwards. The machinery is provided perfectly. If you will pass it first you can reform it as much as you like afterwards as far as the By-laws are concerned. (Cries of "Vote, vote.") Do not let us be in too much of a hurry.

Dr. LORIMER HART: Mr. Chairman, ladies and gentlemen, as one of the old reformers, or more recent ones, I congratulate the Committee on the result of the conclusion of their labours. One cannot but see that it will produce such a reform in the Association that it will result in a marked improvement in the government of the Association. I am one of those, however, who feel the thing has been done in such a way either by the Committee or those who have dominated this Committee, if it is possible that they could have been dominated, that they have adopted the method of the Association two years ago. We are sitting now in general meeting of the Association with all the rights of the general meeting, but those rights have been overridden. I say that this general meeting should have had the power of moving amendments—not small ones like those which have been pointed out, but many others that might have been raised; at least it might have given those who are strongly in favour of this report a more pleasant way of accepting the proposition than throwing them at us in a way which is repulsive. I do feel that those who have any doubts about the way in which it has been brought up will vote in favour of it because I was very much surprised that even a member of the Council such as Dr. Ward Cousins should speak against it. I was very surprised to see the way which the wind blew to-day. We have had the two extremes, but I think you, as sensible men, will adopt this, and even do evil that good may come. I think the method has been very bad, but it remains a fact, as I have said: and I am strongly in favour of supporting the whole thing as it stands. (Loud cries of "Vote, vote.")

The CHAIRMAN: Gentlemen, I think after all this discussion both sides must have pretty well said their say, and I think, considering that the numbers here are not very large, we shall very speedily be able to come to a decision by a show of hands. I think I may therefore ask those who are in favour of the resolution to hold up their right hand.

84 voted in favour of the resolution, and 27 against.

The CHAIRMAN: The resolution is carried.

Some general discussion then took place as to whether the resolution had been carried.

The CHAIRMAN: There seems to be some little difficulty, and it is absolutely impossible for us to be certain. The numbers are very close, and there must be a poll. I have a requisition in my hand for a poll. Being in the chair I have the power of saying there shall be a poll, and I decide that there shall be one. The poll will be held in the room upstairs.

The members then proceeded to a room upstairs, where the poll was taken. Upon their return,

The CHAIRMAN: There was a little doubt as to whether we have to take into consideration the number in the room or only the number voting; there is no doubt that we must consider only the number voting. So all doubt is now dispelled. The poll has been taken, and the numbers are 96 for and 28 against, which practically means that there is a majority of 3 to 1. The resolution is carried.

ARTICLES OF ASSOCIATION OF THE BRITISH MEDICAL ASSOCIATION.

I. INTERPRETATION.

In these presents, unless there be something in the subject or context inconsistent therewith, the words and expressions following shall have the meanings hereinafter assigned to them, respectively:—

"The Association" means the above-named Association.

"The Regulations" means the regulations contained in these Articles of Association, with such, if any, modifications as may from time to time be made therein.

"The By-laws" means the By-laws set forth in the Schedule hereto or other the By-laws for the time being of the Company in force.

"The Council" means the Council hereinafter mentioned.

"The Journal" means the journal to be published as hereinafter provided.

"Division" and "Branch" mean respectively a division and branch constituted as hereinafter provided.

"Existing" means existing at the time when these regulations come into operation.

Words importing singular number include the plural and *vice versâ*.

Words importing the masculine gender include the feminine gender.

II. MEMBERSHIP.

The existing Members of the Association are those whose names are entered in the Register of Members of the Association as Members at the time when these Regulations come into operation, and subsequent Members shall be those persons who, being eligible, shall, after the date when these Regulations come into operation, be duly elected in such manner and upon such conditions as may be prescribed from time to time by the By-laws.

III. ELIGIBILITY.

Any Medical Practitioner registered in the United Kingdom under the Medical Acts, and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws.

Every Member, whether one of the existing Members or a subsequently elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

IV. RECOGNIZED LOCAL BODIES, DIVISIONS, AND BRANCHES.

For the better attainment of the objects of the Association the Members thereof shall be formed into separate Local Bodies styled Divisions and Branches.

A Division shall comprise such body of Members as the Association shall in the manner prescribed by its By-laws recognize and declare to be a Division, and a Branch shall be such Division, or such group of Divisions,

as the Association shall in like manner recognize and declare to be a Branch. Each Division shall have a local area to be fixed from time to time by or in accordance with the provisions contained in the By-laws. Every Member whose registered address in the books of the Association is for the time being situated within the area of any Division shall, *ipso facto*, be an Ordinary Member of that Division and of no other, and every Ordinary Member of a Division shall, *ipso facto*, be an Ordinary Member of the Branch which comprises that Division and of no other.

Every Division shall appoint from time to time and shall at all times have a Division Secretary, and every Branch shall from time to time appoint and at all times have a Branch Secretary, and each Division and Branch shall give to the General Secretary notice of every such appointment and of the Appointee's address. Every such Secretary must be a Member of the Division or Branch appointing him.

V. Constitution and Government of Divisions and Branches.

Subject to the Regulations for the time being, Divisions and Branches shall be so constituted, managed, and governed, and shall have such powers, rights, and privileges, and shall be under such obligations, as shall be prescribed by or in accordance with the By-laws. And the By-laws may provide for contributions, grants, and subscriptions out of the general funds of the Association to Branches, and may impose on the Members of any Division or Branch such obligations towards the Association and the Division and Branch respectively as may seem expedient, and may empower any Division or Branch to make any Rules in relation to the affairs thereof, and to vary and repeal any such Rules.

VI. Extraordinary Members.

Subject to the By-laws any Division or Branch may elect Extraordinary Members, whether as Associate or Complimentary Members. An Extraordinary Member shall not take part in any vote of the Division or Branch, but otherwise shall enjoy such privileges, and be subject to such obligations, as may respectively be conferred and imposed upon him by or in accordance with the By-laws.

VII. Subscription.

As from the 1st January, 1903, and except as hereinafter mentioned, every Member shall pay to the Association an Annual Subscription of twenty-five shillings, or of such greater amount, not exceeding thirty shillings, as the Council may from time to time in accordance with the By-laws determine, and the said subscription shall be considered due in advance on the 1st January in each year. In the case of a Member admitted after the 1st July in any year the subscription for that year shall be one-half the current annual subscription, and shall be due in advance on the day of election. The subscription shall be paid by each Member to such officer of the Association, or of any recognized Local Body thereof, as may be appointed by the By-laws of the Association for the time being to receive the same. Each year's subscription shall entitle the Member to all privileges of Membership of the Association, including that of receiving the Journal for the current year, and to the ordinary privileges, as defined by the Regulations for the time being, of Membership of that Division and of that Branch of which he is an Ordinary Member.

VIII. Arrears of Subscription.

Any Member whose subscription shall not have been paid on or before the 31st December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of Membership, and at the end of the succeeding year, if the arrears be still unpaid, he shall, *ipso facto*, cease to be a Member. No Member shall (except in case of his death or expulsion, or of his ceasing to be a Member under the previous provisions of this Article) cease to be a Member without having given previous notice, in writing, of his intention in that behalf on or before the 1st December in the current year to the Secretary of the Association and having paid all arrears of subscription (if any) due from him.

IX. Re-election of Former Members.

No person who shall have been a Member of the Association and ceased to be such shall be eligible for re-election until he shall have paid all arrears of subscription (if any) due from him to the Association at the date when his former Membership ceased, and no person whose former Membership shall have been forfeited under the provisions of Articles XLII, XLIII, and XLIV, or any of them shall be eligible for re-election by any Branch Council without the sanction previously obtained of the Council of the Association.

X. Honorary Members.

Eminent Members of the Medical Profession wherever residing, persons distinguished in the Sanitary or Allied Sciences, and persons who may have rendered distinguished service to the Association or who in the opinion of the Council will confer honour on or advance the interests of the Association, may be elected Honorary Members by the Association in General Meeting on the recommendation of the Council. Honorary Members shall have none of the liabilities of Members as regards subscriptions, and shall not be entitled to any vote, but shall have the privilege of attending the Annual General Meeting and such other privileges as may be conferred upon them. Every Honorary Member shall cease to be such Member upon a resolution of the Council to that effect passed by a two-thirds majority of those present and confirmed by a General Meeting.

XI. Publications.

A Journal, under the title of the British Medical Journal, shall be published weekly in London by the Association, and shall be conducted by a paid Editor, who shall be responsible for all that appears therein, except such matters as are inserted in accordance with the Regulations and By-laws of the Association or by direction of the Council. The Editor shall be subject to the control of the Council.

XII. Annual General Meeting.

A General Meeting shall be held once in the year 1903 and in each subsequent year at such time as shall be fixed by the Council, and at such place as may be prescribed by the Association in General Meeting, and, if no time is so fixed, a General Meeting shall be held on the 20th October, or, if that day be on a Sunday, on the 21st, and shall, if no place is so prescribed, be held at the registered offices of the Association, or at such other place as the Council may prescribe.

XIII. Meetings, Ordinary and Extraordinary.

All General Meetings other than the Annual General Meeting shall be called Extraordinary General Meetings.

XIV. Extraordinary General Meeting.

The Council may, whenever it thinks fit, and it shall, upon a requisition made in writing as hereinafter provided by any 100 or more Members, convene an Extraordinary General Meeting for the purpose of transacting any such business as by Statute, or by the Regulations of the Association, is appointed to be transacted by a General Meeting.

XV. Requisition for Extraordinary General Meeting.

Any requisition made by Members shall express the object of the Meeting proposed to be called, such object being to transact some business which by Statute or by the Regulations of the Association is required to be transacted by a General Meeting, and the said requisition shall be left at the registered offices of the Association.

XVI. Convening Extraordinary General Meeting upon Requisition.

Upon the receipt of such a requisition the Council shall forthwith proceed to convene a General Meeting, and if it do not do so within twenty-one days from the leaving of the requisition, any 100 Members may themselves convene a Meeting for the object specified in the requisition.

XVII. Notice of Meetings.

Seven days' notice at the least of the holding of a General Meeting, specifying the place, the day, and the hour of meet-

ing, and in the case of special business, the nature of such business, shall be given to the Members in the manner prescribed by the regulations of the Association, but the non-receipt of such notice by or accidental omission to give such notice to any Member shall not invalidate the proceedings at any General Meeting. Where it is proposed to pass a Special Resolution, the two requisite Meetings may be convened by one and the same notice, and it shall be no objection to such notice that it only convenes the Second Meeting, contingently on the Resolution being passed by the requisite majority at the First Meeting, or that it does not specify the day for the Second Meeting otherwise than by stating that the same will be held at an interval of 14 clear days from the day on which the First Meeting is concluded.

XVIII. BUSINESS OF ANNUAL GENERAL MEETING.

(A.) *Internal Affairs.*

The business of an Annual General Meeting shall be to do all or any of the things following:

(A.) Transact such business relating to the internal affairs of the Association as by Statute, or by the Regulations of the Association for the time being shall be appointed to be so transacted, which shall include electing Officers, viz.:—President, Vice-Presidents, and Treasurer, electing Honorary Members when recommended by the Council, appointing a place at which the next Annual General Meeting shall be held, considering the Annual Financial Statement and Balance Sheet presented by the Council, appointing an Auditor and fixing his remuneration as required by Statute.

(B.) *Scientific Proceedings.*

(B.) Receive such addresses, and such other communications, and discuss such matters pertaining to the Medical and Allied Sciences as the Council shall have arranged to be received or discussed by the Members assembled in General Meeting or in such Sectional Meetings as the Council may think proper to arrange.

XIX. PROCEDURE—ANNUAL GENERAL MEETINGS.

The Council shall arrange the order of business of an Annual General Meeting, and shall fix the times at which matters described under the heads (A) and (B) of the last preceding Article shall respectively be considered. At the expiration of the time appropriated for the transaction of any particular business, any portion of such business remaining for consideration shall be adjourned by the Chairman without discussion to such time as may have been appointed by the meeting for the resumed consideration of business of that description. This regulation shall not be understood to apply to Sectional Meetings.

The Council shall appoint for the Annual General Meeting the Presidents and other Officers of Sections, and shall select the Readers of Addresses.

XX. CHAIRMAN.

The President of the Association, if present, shall preside as Chairman at the opening of every Annual General Meeting, during the election of Officers and Honorary Members, and during the reading of addresses. In the absence of the President, the Chairman of Council shall preside, and in his absence, a Chairman shall be appointed by the Meeting. At Annual General Meetings, during the consideration of business other than that hereinbefore described, and at Extraordinary General Meetings the Chairman of Council shall preside, and in his absence a Chairman shall be appointed by the Meeting.

XXI. SPECIAL BUSINESS OF GENERAL MEETINGS.

Special business includes all business discussed or transacted at Extraordinary Meetings, and also all business discussed or transacted at Annual General Meetings, except the ordinary business referred to in Article XVIII. No business shall be discussed or transacted in any General Meeting as special business, except such business as by Statute must be dealt with by Special Resolution, as defined in the Companies Act, 1862, and such business as the Regulations or By-laws of the Association may at any time expressly require to be dealt with in General Meetings.

XXII. REFERENDUM ON RESOLUTION OF GENERAL MEETING.

(1) Within seven days after each General Meeting of the Association the Council shall hold a Meeting to consider the resolutions passed at such General Meeting, except those referred to in paragraph (6) of this Article, and until such Meeting of the Council is held the operation of the resolutions, except as aforesaid, passed at such General Meeting shall be suspended. The said Meeting of the Council may be convened by a Notice served before or after such General Meeting or during the progress thereof.

(2) As regards each resolution to be considered at such meeting of the Council, it shall rest with the Council at such Meeting to approve of such resolution, or, on the ground that it does not properly represent the wishes of the Association, to determine on a Referendum.

(3) If at such meeting the Council approves of any such resolution as aforesaid, or does not determine on a Referendum, the resolution shall at once come into operation; and if such meeting is not held, the resolutions shall come into operation at the expiration of the seven days aforesaid.

(4) If at such meeting the Council determines on a Referendum, then the Council shall, within four months after such determination, refer the resolution, accompanied by such observations as the Council may think desirable, to the consideration of Special Meetings of all the Divisions convened at the instance of the Council.

(5) Where any resolution is thus referred, it shall not be valid and binding as a decision of the Association unless and until it is approved by a majority of the aggregate votes given thereon throughout the Association in the said Special Meetings of the Divisions, and the Divisions shall respectively be bound to hold Meetings accordingly, and to certify to the Council the result of the voting thereat upon the resolution.

(6) The foregoing provisions as to a Referendum shall not apply to a resolution capable of being confirmed as a special resolution, or to a resolution confirming as a Special Resolution a resolution previously passed, or to an extraordinary resolution, or to any resolution relating solely to the procedure of the meeting.

XXIII. QUORUM.

Except as hereinafter provided in this Article no business shall be transacted in any General Meeting unless there be present the number of Members required by the By-laws to form a quorum, which number shall be not less than one hundred, and unless and until otherwise determined the quorum shall be 100 Members. If within one hour from the time appointed for the meeting a quorum of Members be not present, the meeting, if convened upon the requisition of Members shall be dissolved. In any other case it shall stand adjourned to the same day in the following week at the same time and place, and if at such adjourned meeting a quorum be not present those present shall be deemed to be a quorum.

XXIV. ADJOURNMENT OF MEETINGS.

The Chairman of any General Meeting may, with the consent of the Meeting, adjourn any business from time to time and from place to place; but no business shall be transacted at any adjourned Meeting other than the business left unfinished at the Meeting from which the adjournment took place.

XXV. VOTING AT GENERAL MEETINGS.

At a General Meeting, unless a poll is demanded in writing by at least five Members, a declaration by the Chairman that a Resolution has been carried, or carried by a particular majority, or lost or not carried by a particular majority, and an entry to that effect in the book of proceedings of the Association shall be sufficient evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against any such Resolution. If a poll be demanded by five Members or more, the same shall be taken in such manner and either at once or after an interval or adjournment, as the Chairman directs, and the result of such poll shall be deemed to be the Resolution of the Association in General Meeting. On a show of hands every Member present in person shall have one vote, and upon a poll every Member present in person shall have one vote. Votes must be given personally.

In case of an equality of votes at any General Meeting, the Chairman shall have a second or casting vote.

XXVI. REPRESENTATIVE MEETINGS.

Every Division shall be entitled at least once in each year to elect a Representative, or if the Regulations and By-laws of the Association so provide, to combine with another Division, or with other Divisions, in electing a Representative. The Representatives so elected together with the Members of the Council shall be entitled to take part in all Representative Meetings. No Member of the Association who is not a Representative of a Division or group of Divisions or a Member of the Council shall be entitled to take part in any Representative Meeting. The first Representative Meeting shall be held in the year 1903.

XXVII. ELECTION OF REPRESENTATIVES.

Representatives of Divisions shall be elected by Constituencies formed as follows, each such Constituency being entitled to elect one Representatives:—Any Division having not less than 50 Members may form one Constituency, and every Division having less than 50 Members shall be grouped by the Council with another Division or with other Divisions to form a Constituency having not less than 50 Members. In no case shall the total number of Constituencies formed throughout the Association exceeds 300, and the final delimitation of such Constituencies shall rest with the Council. In the case of a Constituency formed within the United Kingdom, the Representative shall be elected by a General Meeting of Members of the Constituency held not more than 3 months nor less than 3 weeks before the Annual Representative Meeting, and in the case of a Constituency not formed within the United Kingdom, the Representative shall be elected either in manner aforesaid or by voting papers sent to each Member of the Constituency as the said Constituency may decide. Such Meeting shall be convened, or such voting papers dispatched by the Secretary of the Constituency, who, in the case of a Constituency composed of more than one Division, shall be chosen by the Secretaries of those Divis ons, and if they cannot agree by the Council. The Secretary of each Constituency shall inform, not less than 14 days before the Representative Meeting, the General Secretary of the name and address of the Representative elected by such Constituency, and the General Secretary shall issue to such Representative a ticket of admission to the Meeting.

XXVIII. ANNUAL REPRESENTATIVE MEETING.

A Representative Meeting styled the Annual Representative Meeting, shall be convened in the year 1903, and in each subsequent year, by the Council at the same place, and to commence on the same day, but at a later hour than the Annual General Meeting, or to commence on the day following the day of commencement of the Annual General Meeting. The Annual Representative Meeting may adjourn from day to day until the completion of it business, or until the expiration of four days from the first day of its Meeting, whichever shall first occur, and shall then be dissolved *ipso facto*.

XXIX. SPECIAL REPRESENTATIVE MEETINGS.

Representative Meetings other than the Annual Representative Meeting shall be styled Special Representative Meetings, and may be convened at any time after the 1st January, 1903, by the Council, of its own motion or on requisition of not less than three Constituencies, shall be so convened for the purpose of transacting any business which, by the Regulations, may be transacted thereby.

At least fourteen days' notice of such Meeting shall be given in the Journal.

A Special Representative Meeting may be adjourned, but so that such Meeting shall not be continued by adjournment for more than two days.

XXX. PROVISION OF SUBSTITUTES FOR REPRESENTATIVES.

In the event of a Representative of any Constituency being unable or unwilling to attend a Representative Meeting, the said Constituency shall have power to select a Representative to act at the said Meeting in his stead.

XXXI. BUSINESS OF ANNUAL REPRESENTATIVE MEETING.

The business of the Annual Representative Meeting shall be to elect a Representative of a Division as the Chairman of Representative Meetings for the year; to elect such other Officers and such Members of Committees as by the Regulation or By-laws for the time being may be appointed to be so elected; to consider Reports of the Council, Reports of Committees instructed to report to such Meeting, and motions relating to the adoption of such Reports in whole or in part; to make new By-laws and alter and repeal existing By-laws, subject to the Regulations for the time being; and to consider any resolution relating to the honour and interests of the Medical Profession or of the Association which shall have been adopted by any Division or Branch and submitted through the Journal for the consideration of all the Divisions not less than three months previously.

XXXII. BUSINESS OF SPECIAL REPRESENTATIVE MEETINGS.

The business of a Special Representative Meeting shall be to make any new By-law or alter or repeal any existing By-law subject to the Regulations for the time being, and to deal with any other matter of special urgency which may be brought by not less than three Constituencies before such Meeting, or which shall have been submitted by the Council to the Divisions for the purpose of decision by the said Meeting. No business shall be dealt with by a Special Representative Meeting other than that for which it is specifically convened.

XXXIII. CHAIRMAN OF REPRESENTATIVE MEETINGS.

The Chairman of Representative Meetings, when present, shall preside over each Representative Meeting convened during his term of Office. In his absence the Meeting shall appoint a Chairman.

XXXIV. BY-LAWS RELATING TO REPRESENTATIVE MEETINGS.

Subject to the Regulations of the Association for the time being, the provisions as to the mode of election of Representatives, as to the convening and time and place of Representative Meetings, and as to the procedure and mode of voting in such Meetings, shall be as prescribed by the By-laws.

XXXV. POWERS OF REPRESENTATIVE MEETINGS AND REFERENDUM.

A Resolution of any Representative Meeting (not being a Resolution inconsistent with any provisions of the Companies Acts or of the Memorandum or Articles of Association) which affects the funds of the Association, or relates to the By-laws or to the policy of the Association in matters affecting the honour or interests of the Medical Profession, and is carried by a majority of two-thirds of the votes given thereon, or which relates to any other business prescribed by the Regulations or By-laws to be dealt with by such meeting, and is carried by a simple majority, shall be deemed to be a decision of the Association, and to have the same force and validity as a Resolution (other than a Special Resolution as defined by the Companies Act, 1862) of the Association in General Meeting.

Nevertheless the provisions of Article XXII hereof shall *mutatis mutandis* apply to a resolution passed at a representative meeting.

XXXVI. OFFICERS.

There shall be the following Officers of the Association, namely, a President, a President-elect, a Past-President, Vice-Presidents, a Chairman of Representative Meetings, a Chairman of Council, a Treasurer, an Editor of the Journal, and a General Secretary. The Officers aforesaid for the time being other than the Chairman of Council, the Editor of the Journal, and the General Secretary, shall hold office for such period and shall have and enjoy such duties, powers, and privileges as shall be determined from time to time by the Association in its By-laws.

XXXVII. OFFICERS (*continued*).

The Chairman of Council shall be elected by the Council from its own number, and shall hold office for such period and discharge such duties as shall be determined by the Council. The Editor of the Journal and the General Secretary shall respectively be elected by the Council and shall hold office for such period and have and enjoy such duties, powers,

and privileges (save in so far as the said duties, powers, and privileges are defined by these Articles) and shall receive such emoluments as shall be determined from time to time by the Council.

XXXVIII. COMPOSITION OF COUNCIL.

The Council shall consist of the President of the Association, the President-elect, the Past-President, Chairman of Representative Meetings (if any), and Treasurer, *ex officio*, and of such other Members appointed in such manner and holding office for such periods as the Association by the By-laws may from time to time prescribe.

XXXIX. POWERS OF COUNCIL.

It shall be the duty of the Council to carry into execution resolutions passed by a General Meeting or a Representative Meeting, subject nevertheless to the provisions of Articles XXII and XXXV, and generally to conduct the business of the Association in accordance with the Regulations and By-laws, but no By-law shall invalidate any prior act of the Council which would have been valid had such By-law not been made.

XL. APPOINTMENT OF DEPUTIES.

In the event of the incapacity, resignation, or death of any officer whose election is required to be made by the Association in its Annual General or Annual Representative Meeting, the Council may appoint any Member of the Association to fill such vacancy until the next Annual Meeting.

XLI. COMMITTEES.

Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws, or as the Council, subject to the provisions of the By-laws, may think proper. The President of the Association and the Chairman of Council shall be, *ex officio*, Members of all Committees of the Association.

XLII. FORFEITURE OF MEMBERSHIP.

Any Member of the Association who (*a*) shall have been convicted in a Court of Justice of any felony or misdemeanour, or (*b*) whose name shall have been erased from the Medical Register under Section 29 of the Medical Act, 1858, or (*c*) who shall have forfeited by misconduct the Medical Qualification by virtue of which he became eligible for membership in pursuance of the provisions of Articles II and III shall, *ipso facto*, cease to be a Member of the Association.

XLIII. EXPULSION BY THE ASSOCIATION.

Any Member of the Association whose conduct shall, upon due inquiry, be deemed to be detrimental to the honour and interests of the Medical Profession, or calculated to bring the Profession into disrepute, may be expelled from Membership by such body or bodies appointed for the purpose and in such manner as may be prescribed by the Regulations of the Association for the time being.

XLIV. EXPULSION OF MEMBERS.

(*a*) *By the Council of the Association.*

The Council shall have power on the representation of any Branch and after due inquiry, of which the Member involved shall have received not less than fourteen days' notice, finally to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII.

(*b.*) *By Branches out of the United Kingdom.*

Each Branch out of the United Kingdom having a Membership of not less than 30 shall have power, on the representation of any two Members of such Branch and after due inquiry, at a Special Meeting convened at not less than one month's notice to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII.

(*c.*) *Majority Necessary.*

A majority of two-thirds of those present and voting whether in the Council or in a Branch Meeting shall be required for the purpose of exercising the powers conferred by the last two preceding Clauses.

(*d*) *Liability after Expulsion.*

When a Member is expelled he shall *ipso facto* cease to be a Member, but shall be liable to pay to the Association all sums due from him to the Association or any Division or Branch thereof, at the time of his expulsion.

(*e*) *Resignation when Inquiry Pending.*

No Member in regard to whom a representation as aforesaid has been made, or whose conduct is under investigation, or is the subject of inquiry by the Council or by a Branch shall be capable of effectively resigning his membership of the Association until the decision of the Council or Branch be made known.

XLV. TRAVELLING EXPENSES.

The first-class travelling expenses within the United Kingdom of Members of Council and Representatives of Divisions attending the Annual Representative Meeting shall be defrayed out of the general funds of the Association. Attendance of Representatives of Divisions for this purpose shall be construed to mean attendance at each daily Session of the Annual Representative Meeting, and at each daily Session of the Annual General Meeting, when business described under the head (A) is being transacted, unless the Council shall be satisfied that good cause existed for absence from any particular Session or Sessions. The first-class travelling expenses within the United Kingdom of all Members attending Meetings of Council or of Committees shall be paid by the Association. The Council shall determine what shall be considered an attendance for the purpose of this Clause.

XLVI. NOTICES.

A Notice may be served by the Association upon any Member, either personally or by sending it through the post, in a prepaid letter addressed to such Member at his registered place of abode, or by publication of such Notice in the Journal, and sending a copy of the Journal containing such Notice to such Member, prepaid and addressed, as above mentioned. A notice may be served by the Association on any Division or Branch, by serving the same as aforesaid on the Secretary of such Division or Branch, and if there be none, then upon any two Members of such Division or Branch. Any Notice, if served by post, shall be deemed to have been served on the day following that on which the letter, or a copy of the Journal containing the same, is posted, and in proving such service it shall be sufficient to prove that the letter, or a copy of the Journal containing the Notice, was properly addressed and put into the Post Office.

XLVII. BY-LAWS.

Save so far as determined by Statute, or by the Regulations for the time being of the Association, the Constitution and mode of government of the Association the rights and obligations of every Member and separate body of Members thereof, the duties, powers, and privileges of all Officers, and of all Councils, Committees, and governing and administrative bodies, both of the Association and of every Division and Branch, shall be such as may from time to time be prescribed and determined by or in accordance with By-laws from time to time made by a Representative Meeting and new By-laws may be made and By-laws may be altered or repealed at any time by a Representative Meeting, provided that every such proposed new By-law amendment or repeal shall have been approved and brought before the Meeting, either by the Council or by a Division, and that notice thereof shall have been given through the Journal not less than three months before the Annual Representative Meeting, or one month before a Special Representative Meeting as the case may be. The first By-laws shall be in the terms set forth in the Schedule hereto, and such By-laws shall come into operation when these Regulations come into operation, and shall take effect as if made under the foregoing provisions of this Article.

XLVIII. BINDING FORCE OF BY-LAWS.

The By-laws so made and for the time being in force shall be binding on the Members with reference to whom they are made.

XLIX. NUMBER OF MEMBERS.

The number of Members of the Association is unlimited.

THE SCHEDULE ABOVE REFERRED TO:

BY-LAWS OF THE BRITISH MEDICAL ASSOCIATION.

ELECTION OF MEMBERS.

1. *Application.*

EVERY candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

2. *Election by a Branch Council.*

Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Branch Council at any meeting thereof held not less than one month after the date of the said notice.

3. *Election by the Council of the Association.*

Every candidate whose place of residence is not included in the area of any Branch shall forward his application to the General Secretary of the Association, together with a statement signed by three Members of the Association that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

DIVISIONS AND BRANCHES.

4. *Formation.*

It shall rest with the Council from time to time to determine, recognize, and declare by resolution published in the Journal what bodies of Members shall be Divisions, and what Divisions and groups of Divisions shall be Branches of the Association, and what shall be the local area of each division, and accordingly the Council shall have full power from time to time to amalgamate, subdivide, and modify Divisions and Branches and the local areas thereof. Nevertheless, not less than one calendar month's notice in all cases shall be given to any existing Division or Branch in whose boundaries or area any change is proposed.

5. *Determination of Boundaries.*

In determining the boundaries or area of Divisions and Branches, the Council shall have regard primarily to the expressed wishes of the existing local bodies concerned, and to the facilities of communication in each district by railway and otherwise, and the opportunities thus afforded to Members of local bodies for meeting to transact the business thereof; and, secondarily, to the expediency of making the boundaries of such bodies coincide with those of Parliamentary Contituencies, Counties, or other public administrative divisions of the country.

6. *Management of Divisions.*

Any Executive Committee or Council appointed to manage the affairs of any Division shall include, *ex officio*, the Member who for the time being represents the Division in Representative Meetings; and the Council of any Division which is not in itself a Branch shall also include, as *ex officio* Members thereof, the Members of the Branch Council elected by such Division.

7. *Management of Branches.*

The management of the affairs of each Branch shall be vested in a Branch Council, of which the Members of the Council of the Association elected by the Branch shall be Members *ex officio*. In the case of a Branch comprising more than one Division, each Division shall be entitled to elect a Member or Members of the Branch Council, and the number of Members to be elected by each Division shall be as nearly as possible proportional to the membership of such Division. In addition to the Members so elected, the Branch Council may have as *ex officio* Members thereof such Officers of the Branch as the Branch may think desirable.

8. *Reports by Divisions and Branches.*

Every Division shall furnish annually to the Branch Council during the month of January, and every Branch shall furnish to the Council of the Association not later than the 15th March, a Report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe.

9. *Extraordinary Members—"Associate," "Complimentary."*

Extraordinary Members shall be either Associate or Complimentary Members. Any Division or Branch may elect any Ordinary Member of any other Division or Branch as an Associate Member, and any Division or Branch not in the United Kingdom may elect as a Complimentary Member any qualified Medical Practitioner resident within the area thereof, but not eligible by birth or qualification for Membership of the Association. Divisions or Branches may by their local Rules confer on Extraordinary Members such privileges other than that of voting, and impose such conditions of election as they may think desirable, subject to the sanction of the Council.

10. *Autonomy.*

(*a*) At any time before the 1st January, 1903, the Council may, in relation to any Division or Branch, make such Rules as the Council may think expedient, and may repeal and alter same.

(*b*) At any time after the 1st January, 1903 (subject to the Regulations and By laws of the Association), each Division and each Branch shall be free to govern itself in such manner as it shall think fit, and for that purpose to make from time to time such Rules as it think fit, and to repeal or alter the same as and when it shall consider it expedient.

(*c*) The Rules so made and for the time being in force shall be binding on the Members constituting the Division or Branch in reference to which they are made.

11. *Rules.*

The Rules made by Divisions and Branches shall be submitted for approval to the Council, and shall not come into operation unless and until they are approved by such Council.

SUBSCRIPTION.

12. *Amount.*

The Council, in exercising the power conferred upon it by Article VII, shall insert a notice in the Journal not later than the first Saturday in November of any year to increase the annual subscription to such amount, not exceeding 30s., as it may think necessary or desirable, such increase of subscription to take effect on the first day of January following.

13. *To whom paid.*

Subscriptions shall be paid by all Members to the General Secretary at the registered office of the Association, or, in the case of Members residing out of the United Kingdom, to such persons (if any) as the General Secretary may authorize to receive subscriptions on his behalf, of which authorization notice shall be given to all Members concerned.

14. *Extra Subscription to Divisions and Branches.*

It shall be competent for any Division or Branch offering special privileges to its Members to require a special subscription from those Members who avail themselves of such special privileges, and it shall likewise be competent for any Division or Branch to charge such special subscription, as it may think proper, to its Extraordinary Members; but no Ordinary Member of any Division or Branch shall be called upon to pay any further subscription than that paid to the Association as a condition of enjoying any ordinary privilege of Membership of such Division or Branch.

15. *Grant to Branches.*

As from the 1st January, 1903 the Treasurer of the Association shall annually pay or allow to the Treasurer of each

Branch the sum of 4s. for each Member of the said Branch who has paid to the Association the full current annual subscription for that year, and the sum of 2s. for each Member elected after the 1st July, who has paid to the Association half the current annual subscription.

16. *Branch Subscription.*

Out of the moneys received in accordance with the last preceding By-law, the Branch shall defray all its expenses, and shall also pay to each Division of the Branch such sum per Member as the Branch Council may consider necessary to defray the expenses of the Division.

REPRESENTATIVE MEETINGS.

17. *Order of Business.*

The first daily session of the Annual Representative Meeting shall be held not later than two hours after the time fixed for the commencement of the Annual General Meeting. The first business of such session shall be to elect the Chairman of Representative Meetings. The next business shall be to determine the order in which the various matters placed upon the Agenda of the said Meeting shall be taken. The minutes of each Representative Meeting shall be forwarded by the Chairman thereof to the Council.

18. *Voting.*

In any Representative Meeting, Representatives of Divisions only shall be entitled to vote. Voting shall be, as a rule, by show of hands, unless before such vote is taken a majority of those present determine that the vote shall be taken by card, in which case every Representative shall record as many votes as there are Members in the Constituency which he represents. In voting upon any matter upon which a Constituency has passed a Resolution within the three months immediately preceding such Meeting, the Representative of that Constituency shall be under obligation to vote in accordance with such Resolution. When the vote is taken by show of hands the Chairman shall, in the case of an equality of votes, have a second or casting vote.

19. *Quorum.*

No business shall be transacted at any Representative Meeting unless there be present at least one-half the number of Representatives appointed to attend such Meeting.

COUNCIL.

20. *Composition and Powers.*

(*a.*) The Council holding office at the date when these Regulations and By-laws come into operation shall continue to hold office as such until and including the first day of the Annual General Meeting of 1902, and, until that date, shall be deemed to be the Council referred to in these Regulations and By-laws.

(*b.*) After such last-mentioned day, and until and including the first day of the Annual General Meeting of 1903, the Council shall be constituted as prescribed in By-law 17 of the By-laws of the Association heretofore in force, and the Officers of the Association named in the said By-law as Members of th Council, *ex officio*, together with such Members as may have been, or may hereafter be, duly elected by Branches in the manner prescribed in the said By-law to be their Representatives on the Council for the year 1902-1903, shall, from the first to the second of the dates hereinbefore mentioned, be deemed collectively to be the Council referred to in these Regulations and By-laws.

(*c.*) After the first day of the Annual General Meeting of 1903 the Council shall be composed of the Officers and ex-Officer named as Members of the Council, *ex officio*, in Article XXXVIII of the foregoing Regulations, together with the Members duly elected or appointed by the Branches and other bodies authorized by the By-laws to elect or appoint Members of the Council, and of one Member each elected by the Members of the Association attached to the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service respectively, in such manner as may be determined by the said Services respectively, subject to the sanction of the Council, and of Members annually co-opted by the Council in manner hereinafter provided.

21. *Branch Representation.*

Any Branch, or group of Branches, having an aggregate membership of not less than 200 may elect one Member of Council, and any Branch or group of Branches having an aggregate membership of not less than 400 may elect two Members of Council, and an additional member for each complete 600 Members in excess of 400 Branches in the United Kingdom having less than 200 Members shall be grouped for this purpose with neighbouring Branches, unless in the opinion of the Council the special conditions of any such Branch justify the grant of separate representation. The grouping of Branches not within the United Kingdom for the purpose of electing Members of Council shall be determined by the Council, provided that the total number of Members of Council whom such Branches are entitled to elect shall not be less in proportion to the total membership thereof than those elected by the Branches in the United Kingdom.

22. *Election of Representative Members of Council by Branches.*

The elective Members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors in writing to the Secretary of the Branch on or before an appointed day of which not less then fourteen days' notice has been given in the Journal.

23. *Term of Office of Branch Representatives (United Kingdom).*

Each Member of Council elected by a Branch in the United Kingdom shall be elected for one year, and at the end of that time shall be eligible for re-election unless he have served as such Member of Council for eight years successively, in which case he shall for one year be ineligible for election as such Member of Council.

24. *Term of Office of Members elected by Branches, not within the United Kingdom, or by the Services.*

Each Member of Council elected by a Branch not in the United Kingdom, or by the Royal Navy Medical Service, the Army Medical Service, or the Indian Medical Service, shall be elected for such period, not exceeding three years, as the electing Branch or Body may determine, and at the expiration of such period shall be eligible for re-election, provided that no such Member shall be re-elected so as to make his period of continuous service as a representative Member of Council exceed eight years.

25. *Qualification.*

No person shall be eligible for election as a Member of Council by a Branch in the United Kingdom unless at the time of his election he shall be a Member of such Branch. The eligibility for election as a Member of Council by a Branch not in the United Kingdom, shall be such as may be determined by the Rules of the said Branch.

26. *Election Return.*

The return of the election of each elective Member of Council shall be communicated in writing to the Secretary of the Association by the President or Secretary of the Branch by which he is elected not less than fourteen days prior to the Annual General Meeting of the Association.

27. *Powers of Incomplete Council.*

In default of and until election of a Member or Members by any Branch or other Body authorized to elect, or so far as such election shall not be complete, all the powers conferred on the Council shall belong to and be exercised by the *ex officio* Members thereof alone, or by the *ex officio* Members and such other Members of the Council as may have been duly elected by any Branch or Branches or other Bodies authorized to elect.

28. *Vacancies.*

Any casual vacancy occurring in the Council, not less than four months before the Annual General Meeting, may be filled up by any Branch or Body the representation of which may have become vacant, and such election shall be conducted in the same manner as the Annual Election. Any person so

chosen shall retain his office so long only as the Member in respect of whom such casual vacancy may have occurred would have retained the same.

29. *Co-opted Members.*

The Council shall have power each year to add to its own number Members in the proportion of one for every complete ten representative Members elected to serve on the Council for that year. Each such co-opted Member shall vacate such office at the close of the last meeting of the Council for the year, but shall be eligible for reappointment, unless he shall have been appointed in each of the last five years, in which case he shall be ineligible for the ensuing twelve months.

30. *Council Proceedings.*

The Council shall meet not less than four times a year, and shall be presided over by the Chairman of the Council, or in his absence by a Chairman to be appointed by the meeting. Its meetings shall be held at such time and place as the Council shall appoint. Fifteen Members shall form a quorum.

31. *Special Meeting.*

The Chairman of Council may, if he think fit, and shall, upon receiving a requisition signed by not less than fifteen Members of the Council and specifying the business for which a Special Meeting is required, call together a Special Meeting thereof. No business shall be transacted at a Special Meeting other than that for which such Meeting is called.

32. *Reports.*

The Council shall annually prepare a Balance Sheet and Financial Statement of the Association for the past year, to be presented to the Annual General Meeting of the Association, and an Estimate of the probable income and expenditure of the Association for the coming year, and a Report of the general state and proceedings of the Association for the past year to be presented to the Annual Representative Meeting. A copy of such Statement, Estimate and Report shall be sent to the Secretary of every Branch and Division and published in the Journal not less than two months before the Annual Meeting.

33. *General Powers.*

The Council shall, in addition to the powers and authorities by the Articles and By-laws expressly conferred on it, exercise all such powers and do all such acts or things as may be exercised or done by the Association, and are not by Statute or by the Articles or By-laws expressly directed or required to be exercised or done by the Association in General Meeting or by a Representative Meeting, subject nevertheless to the provisions of the Statutes and to the Regulations and By-laws of the Association and to the instructions contained in those Resolutions of General or Representative Meeting which by the Articles are declared to be deemed decisions of the Association.

OFFICERS.

34. *President, President-elect, and Past-President.*

The President of the Association shall be elected annually at the Annual General Meeting and shall enter upon the duties of his office at the next Annual Meeting, and until then shall bear the title of President-Elect. At the expiration of his year of office as President he shall be designated Past-President and shall hold office as such for one year.

35. *Treasurer.*

The Treasurer shall be elected by the Annual General Meeting and shall hold office for three years. He shall receive the subscriptions and other moneys payable to the Association and discharge all accounts which have been ordered by the Council to be paid.

36. *Vice-Presidents.*

The Council shall have power to nominate for election by the Annual General Meeting those Members who by their services to the Association are in the opinion of the Council worthy of election as Vice-Presidents. Such election shall be for life unless any appointment shall be subsequently cancelled by a vote of the Association in General Meeting assembled on a motion brought forward by the Council. No special privilege shall attach to the office of Vice-President.

37. COMMITTEES.

Subject to the regulations and By-laws of the Association, the Council and the Representative Meeting shall respectively have power to appoint Committees with such powers as may to them seem necessary or convenient, and to fix the quorum thereof, and lay down Rules for regulating the proceedings of such Committees.

38. *Committees of Council.*

Every Committee is to conform to such rules, whether general or special, as the body appointing it may make in regard thereto.

39. *Standing Committees.*

Nevertheless, there shall be Standing Committees as follow:

(1) *Journal and Finance.*

A Journal and Finance Committee not exceeding fifteen in number (five to form a quorum) shall be appointed by the Council, which shall, *inter alia*, examine into the general working of the Office and of the Journal, and certify the quarterly accounts prior to their being presented to the Council.

(2) *Premises and Library.*

A Premises and Library Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall be referred all matters connected with the Library and its management, as well as the management of the House Property of the Association.

(3) *Public Health.*

A Public Health Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall specially be referred all questions relating to the Public Health Service, the Poor Law Medical Service, and the Vaccination Service.

(4) *Colonial.*

A Colonial Committee not exceeding nine in number (three to form a quorum) shall be appointed, to which shall be referred all questions specially relating to the Branches not in the United Kingdom. Of such Committee five members shall be appointed by the Representatives of these Branches on the Council, and two by the Council.

(5) *Naval and Military.*

A Royal Naval and Military Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council to which shall be referred all matters relating to the Royal Navy Medical Service, the Army Medical Service, the Indian Medical Service, and the Medical Organization of the Auxiliary Forces. Such Committee to include the Representative Members of these Services who are on the Council.

(6) *Medico-Political.*

A Medico-Political Committee shall be appointed consisting of sixteen members (seven to form a quorum) which shall deal with all matters involving the public relations of the profession not specially referred to other Committees, and shall be composed of the Chairman of Representative Meeting, the Treasurer, *ex officio*, and twelve other Members, all of whom shall be appointed by the Council until the first Representative Meeting, and thereafter six of such Members shall be appointed by the Council, and six by the Representative Meeting. Such Committee to report to the Council and to the Representative Meeting, to act under the Council, and to have the services of a salaried officer.

(7) *Ethical.*

An Ethical Committee shall be appointed consisting of twelve members (five to form a quorum) which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by Members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of professional conduct. Until the first Representative Meeting such Com-

mittee shall be appointed by the Council, and thereafter five members of such Committee shall be appointed by the Council and five by the Representative Meeting. This Committee shall have the services of a salaried officer.

(8) *Organization.*

An Organization Committee shall be appointed by the Council, not exceeding nine in number (three to form a quorum), which, subject to the directions of the Council, shall deal with all questions of the boundaries or area of Divisions and Branches, and the Rules thereof other than those relating to ethical matters, and advise the Council thereon, and shall exercise such powers as may be conferred upon it by the Council in advising and assisting Divisions or Branches in the strengthening of their organization. This Committee shall have power to add to its number, for special purposes, a limited number of members specially qualified to assist in its work. This Committee shall have the services of a salaried officer.

40. *Chairman of Committees.*

Each Standing Committee shall appoint from its own number a member of Council as Chairman.

41. *Officers of Committees.*

Any salaried officers to assist Committees numbered 6, 7, or 8 in By-law 39, shall be appointed by the Council, and shall receive such remuneration as the Council may from time to time determine.

42. *Omission to give Notice.*

The accidental omission to give any notice required by the By-laws is not to invalidate the proceedings.

43. *Interpretation.*

In these By-laws the expression "the By-laws" means the By-laws of the Association for the time being in force.

ASSOCIATION INTELLIGENCE.

NOTICE OF SPECIAL BUSINESS.

NOTICE is hereby given that an Extraordinary General Meeting of the British Medical Association has been held at the Exeter Hall, Strand, London, on Wednesday, the 18th day of June, 1902, and the subjoined resolution passed by the requisite majority, that is to say:

"That the draft new regulations submitted to this" "meeting, and for the purpose of identification" "initialled by the Chairman thereof, which regula-" "tions have been prepared under the direction of the" "Committee appointed for the purpose by the Council" "in pursuance of resolutions passed at the Annual" "General Meeting of the Association at Cheltenham" "in 1901, be, and the same are hereby adopted as the" "regulations of the Association to the exclusion of" "and in substitution for all the existing regulations of" "the Association."

And Notice is hereby also given that a further Extraordinary General Meeting of the above-named Association will be held at the Exeter Hall, Strand, London, on Wednesday, the 9th day of July, 1902, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings had at the first above-mentioned Meeting, and of considering, and if thought fit passing, a resolution confirming as a special resolution the resolution above set forth.

A copy of the proposed new regulations can be seen at the Office of the Association at any time during business hours, and a copy will be found printed at page 1643 of this JOURNAL.

Dated the 19th day of June, 1902.

By Order,

FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1902.

MEETINGS of the Council will be held on July 9th and October 22nd. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the latter meeting—namely, October 1st.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association at 429, Strand (corner of Agar Street), London, on Wednesday, the 9th day of July, at **3** o'clock in the afternoon, immediately on the conclusion of the Extraordinary General Meeting at Exeter Hall.

May, 1902. FRANCIS FOWKE *General Secretary.*

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The fifty-ninth annual meeting of this Branch will be held at the Lethbridge Arms, Bishop's Lydeard, on Friday, July 4th, at 12.30 p.m., under the presidency of Mr. E. E. Frossard. Business—Minutes, report of Council, Treasurer's report, election of officers, place of next annual meeting, intermediate meetings. President's address: Some Clinical Observations on the Diagnosis of an Empyema from a Secondary Malignant Growth of the Lung. Resolution: The following will be moved by Mr. G. F. Sydenham (Dulverton): "That the annual payment by the Friendly Societies to their medical officers is insufficient, and that 6s. per head per year should be the minimum." Lunch will be served at the Lethbridge Arms at 1.45 p.m. Tickets 3s., exclusive of wine. After lunch the members present will be driven to Cotford Asylum, over which Mr. H. T. S. Aveline, the Medical Superintendent, has kindly offered to show them. They will also be entertained to tea, and the drive afterwards continued to Taunton in time to reach Taunton Station by 5.30 p.m. Members intending to be present at the lunch are requested to give notice to either Mr. Frossard, The Lodge, Bishop's Lydeard, or the Honorary Secretary, on or before Monday, June 30th.—W. B. WINCKWORTH, Taunton, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held in combination with the Reading Branch at the Royal Berkshire Hospital, Reading, at 3.30 p.m. on Thursday, July 3rd. Members willing to show cases, etc. are requested to communicate with the Honorary Secretary without delay.—WILLIAM COLLIER, St. Mary's Entry, Oxford, Honorary Secretary.

EAST ANGLIAN BRANCH.—*Preliminary Notice:* The annual general meeting of this Branch will take place at Great Yarmouth on Thursday, July 10th, under the Presidency of Mr. W. E. Wyllys. The presentations to Dr. Barnes and Dr. Beverley will take place at this meeting. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting will communicate at once with Dr. Ballance, Norwich. Members who have not yet paid their subscriptions for the current year will oblige by sending them to one of the Honorary Secretaries—B. H. NICHOLSON, Colchester; H. A. BALLANCE, Norwich; FRANCIS WARD, Ipswich.

SHROPSHIRE AND MID-WALES BRANCH.—The next meeting of the Clinical and Pathological Section of this Branch will be held at 5 p.m. on Tuesday, July 1st, at the Salop Infirmary. It is hoped that every member will endeavour to attend this meeting.—HAROLD H. B. MACLEOD and LEONARD J. GODSON, Shrewsbury, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.

A SPECIAL meeting of this Branch was held in the Memorial Hall, Manchester, on March 26th, "To consider a pamphlet recently issued reflecting seriously upon the Lancashire and Cheshire Branch, and signed by three members of that Branch." The chair was taken by JAMES CORNS, M.D. (the President), there being 110 members present.

The Manchester Maternity Hospital and the Association.—It was proposed by Dr. WOLSTENHOLME, and seconded by Dr. Dr. JOHN BROWN:

That this meeting of the Lancashire and Cheshire Branch condemns the circular report signed by Drs. Sinclair, Scott, and Stallard, issued to the Committee of the Manchester Maternity Hospital, and supplied to each member of the Central Council of the British Medical Association, as an unfair and discourteous report, reflecting on the honour and status of this Branch, and considers that it deserves the strongest censure.

—On the proposition of Mr. COLIN CAMPBELL, the following rider was added to the resolution:

That a small committee be formed to consider and draw up a reply to the statements contained in the pamphlet, and to send the reply to the Central Council of the Association.

—The following amendment was moved by Dr. WOODCOCK and seconded by Mr. WALTER WHITEHEAD:

That the consideration of this report be postponed until after the annual meeting in Manchester.

On the amendment being put to the meeting it was declared by the PRESIDENT to be lost. The original resolution was then put to the meeting and carried by a very large majority. —It was proposed by Mr. COLIN CAMPBELL, seconded by Dr. JOHN BROWN, and resolved:

That the Committee consist of Dr. Helme, Dr. Barr, Dr. Rayner, and Mr. Colin Campbell, with power to add to their number.

A general meeting of this Branch was held in the Memorial Hall, Manchester, on June 4th, 1902, "To receive the report of the Committee appointed to draft a reply to the pamphlet issued by Drs. Sinclair, Scott, and Stallard." The chair was taken by the President, JAMES CORNS, M.D.

Resolution.—It was moved by Dr. JAMES BARR, seconded by Dr. RAYNER, and resolved:

That the report of the Committee appointed to draft a reply to the pamphlet issued by Drs. Sinclair, Scott, and Stallard be adopted and entered on the minutes.

REPLY TO PAMPHLET.

The Committee met three times, and at the first meeting Dr. A. Brown Ritchie and Dr. R. H. Wolstenholme were added to it. The following is the reply drawn up by the Committee to the pamphlet issued by Drs. Sinclair, Scott, and Stallard:

The pamphlet issued by Drs. Sinclair, Scott, and Stallard is entitled a "Report of the Medical Committee to the Committee of Management of the Manchester Southern Hospital for Women and Children and Maternity Hospital, on the resolution of the Council of the British Medical Association, dated October 31st, 1901."

The pamphlet in question is the reply of the Committee of the Manchester Maternity Hospital to the Council of the British Medical Association. It is issued in the form of a "Report of the Medical Committee to the Committee of Management," and is signed by Drs. Sinclair, Scott, and Stallard, and a copy was sent to each member of the Council of the Association

The Council of the Association wrote on January 16th, 1901, to the Manchester Maternity Hospital, objecting to the words of its midwifery certificate, and also to the fact that the lectures of the staff were advertised in the lay press (page 8). The Committee replied defending their certificate and asking what alternative the Council suggested in place of advertising (page 8). This letter, dated June 17th, 1901, was replied to by the Council, July 15th, 1901, who adhered to their previous opinions. Notwithstanding this, the lectures continued to be advertised as usual. At the next meeting of the Council the matter again came up for discussion, and after full consideration a letter was directed to be sent to each member of the staff of the hospital, pointing out objections to the advertisements, and asking them to "use your influence to obtain the cessation of their appearance."

The previous history of the subject is (*a*) that the Lancashire and Cheshire Branch in 1894 expressed its disapproval of lectures to pupil midwives, and described the position of the lecturers on the Council of the Branch as "anomalous," and on March 9th in that year the Branch appointed a Committee to oppose the formation of a legalized order of midwifery practitioners, etc.; and (*b*) that the annual meeting of the Association in 1899 at Portsmouth condemned the action of those members who continued to give similar lectures and dispose of "diplomas."

In our reply to the pamphlet it will be necessary to go through its pages seriatim.

Page 2. It is asserted that the present interference is due to a "small group of local enemies of the hospital, whose object cannot be to attain to and enforce a high standard of professional conduct. It is a matter of local notoriety that their object is to thwart and embarrass the institution as a whole, and especially in its work of training pupil midwives and monthly nurses." There is no evidence of any desire to injure the hospital or the individual members of the staff, or to prevent the training of monthly nurses (BRITISH MEDICAL JOURNAL, March 17th, 1894). The whole object was, and is, to restrict the lecturing and the training to the education of midwifery nurses, and not of independent midwifery practitioners; nor was the Manchester Maternity Hospital the only institution at which these lectures were given, to which objection was taken.

Page 3. It is suggested that the advertisement was inserted periodically by the "matron" as a matter of routine, which appears to us to be unchivalrous and disingenuous. With regard to the suggestion that the expressed opinion of the Council "was only due to the exigencies of a political contest," it is enough to say that locally the signatories to the complaint which led to the expression of opinion were divided in their votes, some supporting the candidate who has since that time nominated one of the signatories to the pamphlet complained of for the honour of delivering the Address on Obstetrics at the annual meeting of the Association. The Central Council took no part whatever in the election to the General Medical Council.

Page 4. We consider that the letter to the Council of the Association, signed by 14 local members, calling attention to the advertisements, was justified, and we approve the action of the Council in requesting their discontinuance.

Page 9. In discussing the nature and value of the certificate which the Manchester Maternity Hospital issues, the following paragraph appears: "It must be obvious even to the most prejudiced that such value as attaches to this certificate depends entirely upon what medical practitioners think the opinion of the medical staff is worth, when they have occasion to obtain testimony as to the fitness of some holder of the certificate for the work of an obstetric nurse or midwife." This may be clever, but it certainly only tends to confuse the issue to suggest that medical men may have occasion to recommend midwives; it shows, however, the point of view of the authors of the pamphlet and the object of their midwifery lectures.

Page 10. The authors repeat their assertion that those who object to advertisements in the lay press, as well as to the lectures on midwifery to midwives, are actuated by animosity against the hospital and its staff. They go on to say that "the weight of professional opinion" behind them is a "negligeable quantity," and characterize the utterance of their opinions as "the continuous and slanderous misrepresentation of the hospital." With regard to the weight of opinion, it has been shown that the Lancashire and Cheshire Branch in 1894 practically took up the same position after a discussion, in which two at least of the signatories of this pamphlet had spoken, and a resolution to the same effect was passed by the Association in 1899; so that, although those who continued to give these lectures after the clear expression of opinion of their fellow-members of the British Medical Association, may claim not to have broken the laws of their country, they cannot deny that they have been acting in opposition to the pronounced wishes of the profession.

Page 11. This page witnesses the commencement of an attack on the character and status of the Lancashire and Cheshire Branch. It asserts that the motives for obstructing legislation on the midwives question "are unquestionably the fear of competition and the subsequent loss of some portion of the emoluments of obstetric practice." This statement hardly agrees with that on page 9, where the medical practitioner is supposed to be considering the value of the Manchester maternity certificate before recommending a midwife. But even if it were entirely true—which it most certainly is not—it is merely a *tu quoque* argument, and comes with bad grace from men who have been accused of obtaining, directly or indirectly, considerable emoluments from the training of midwives. With regard to the general question of the education and registration of the midwife, the profession certainly in Lancashire was almost unanimous in favour of the registration of trained midwifery nurses, the whole contention being the difference between the independent midwife who does no nursing, and the midwifery "nurse," who might occasionally do some "midwifery." If, as requested, the lecturers had restricted themselves to the training of midwifery nurses, the question would have ultimately settled itself.

Page 13. The attack on the Lancashire and Cheshire Branch is continued on this page and page 18, and is full of inaccuracies and invective. "A certain class of medical practitioners, chiefly members of the Lancashire and Cheshire Branch, continued to agitate against every improvement in the education and status of midwives." This is not true. There may have been individuals, but certainly nothing by which they could be said to form a class. "They formed a 'committee' within the Branch." It is not quite apparent how a committee could have been formed outside the Branch, but what happened was that a committee on the registration of midwives was appointed by the Branch, March 9th, 1894, and its expenses were voted by it, May 11th, 1894. It is not true to say that some of the members of this Committee, having changed their opinions, were "hounded" out of it by vituperation and insult. It is not true to say that the Lancashire and Cheshire Branch is reduced to a "state of dilapidation" through the action, wise or unwise, of this Committee. On the contrary, this Branch was never in so good a numerical or financial condition. During the last ten years there has been a steady increase in its membership, and it is now the largest Branch in the Association. It includes amongst its members all the leading men in the two counties. Men of all shades of opinion attend its meetings, which are better attended than those of any other Branch, and there is perfect freedom of discussion on all subjects.

It is not true that a representative of this Branch on the Central Council holds his position there by a total of less than thirty votes, nor is it possible for any of the authors of the pamphlet to have any knowledge of the internal affairs of the Council of the Branch except upon hearsay.

It is not true to say that "the rump of the Committee next emerged in the guise of a majority of the Manchester Medical Guild."

The Committee of the Branch and the Medical Guild were never allied. The work of the Committee was specific—with reference to midwives. That of the Guild was general medical politics. The Committee consisted of 70 members. The Guild of upwards of 200. Never more than 20 of the former joined the latter, but not as members of that Committee.

On the same page they characterize the Branch of which they are members as a "sort of cockpit of medical politics; moderate and disinterested men avoided its meetings." The assertion in the former of these clauses is untrue and insulting to those who were actively engaging in opposing "diplomas" for midwives, and the second clause is fallacious, implying that all "moderate, etc., men avoided its meetings." Its meetings were always well attended, and it is an insult to insinuate that all those who were present were not moderate and not disinterested. The authors would have done well in being more certain of their facts, and more careful in their mode of expression when speaking of fellow members of the same Branch.

On page 15 it is again asserted that the action of those who object to the lecturing of midwives, and of advertising the lectures in lay papers is "aimed at frustrating the work of the Maternity Hospital." This could only be true if the entire work of the hospital consisted in the manufacturing of midwives. It is generally thought that the work of a maternity hospital has to do with the delivery of parturient women.

On page 16 reference is made to a resolution passed by the Council of the Medical Guild to the effect that lectures on midwifery as distinct from midwifery nursing, to midwives as distinguished from monthly nurses, ought to be discountenanced by the profession. The writers of the pamphlet observe that this resolution objects to the work of instruction done at the hospital.

In reply, it is only necessary to say that the resolution is in keeping with that passed by the annual meeting at Portsmouth in 1899, and was intended if possible to restrain the action of those members of the Association who were desirous of continuing these lectures. It must be remarked that if any members of the Association are to be allowed to disregard the expressed wishes of the Association, the same permission must be extended to all.

The attack on the Council of the Medical Guild has been declared by that body to be inaccurate and misleading, and it is asserted that the statement that "the members of the staff of the Maternity Hospital resigned their membership of the Medical Guild" is inaccurate, so far as one of the signatories is concerned. It is noteworthy that one of the original founders of the Southern Hospital, of which the Maternity is a branch, was the first president of the Medical Guild, and is now one of its vice-presidents, and that he has publicly expressed his disapproval of the pamphlet under criticism.

With reference to the offensive remarks on pages 17 and 18, it need only be repeated that the action which was taken was not "hatched" by a

"policy of spite" either against individuals or a hospital, but was taken with the view of enforcing, through the action of the proper authority, namely, the Council of the Association, obedience to the expressed wishes of its members.

—It was moved by Dr. WALKER (Southport), seconded by Dr. DAVIES (Liverpool), and resolved:

That a copy of the report be sent to the Council of the Association and to each member of that Council.

—It was moved by Dr. J. BROWN (Bacup), seconded by Dr. THORP (Todmorden), and resolved:

That the best thanks of this meeting be accorded to the Committee for the able and dignified report drawn up by them.

METROPOLITAN COUNTIES BRANCH.

THE fiftieth annual general meeting of this Branch was held at the Hotel Cecil on June 18th, the PRESIDENT, Dr. Stephen Mackenzie, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Report of Council.—The report of the retiring Council was received and adopted. The work during the past year had been uneventful, but to the regret of all, two past Presidents, Sir William MacCormac and Dr. Ord, had died. Attention was also drawn to the fact that the new rule passed at the last annual meeting, whereby ordinary members of the Branch Council could not hold office for more than three consecutive years, takes effect this year.

Treasurer's Report.—The report of the Treasurer was read and adopted, and a very hearty vote of thanks was passed to Mr. Eastes for his services.

Election of Officers.—President-elect: to enter on office as President of the Branch at the annual general meeting of 1903 (Law 8): Henry W. Kiallmark *Vice-Presidents:* Hugh R. Kerr, Stephen Mackenzie, M.D.; *T. Morton, M.D.; *Isambard Owen, M.D. *Treasurer:* *George Eastes, M.B. *Honorary Secretaries:* *H. Betham Robinson, M.S.; *J. W. Washbourn, M.D., C.M.G. *Council:* *†Frederick Eve, *†George Rowell, *†Frederick Wallace, *‡F. Foord Caiger, M.D.; *‡Andrew Clark, *‡Ernest Clarke, *‡F. R. Humphreys, *‡Samuel Osborn, *‡R. Jocelyn Swan, *‡G. E. Twynam, §J. H. Bryant, M.D.; §H. A. Caley, M.D.; §Jonathan Hutchinson, jun.; §S. Aird Jolly, §James S. Sequeira, §F. J. Smith, M.D.; §F. J. Wethered, M.D.; §Hugh Woods, M.D. *Representatives on Council of Association:* *H. Radcliffe Crocker, M.D.; *George Eastes, M.B.; *Major Greenwood, M.D.; *Victor Horsley, F.R.S.; *C. S. Tomes, F.R.S. *Representatives on Parliamentary Bills Committee:* *George Brown, *Major Greenwood, M.D.; *Victor Horsley, F.R.S.; *Dawson Williams, M.D. *Members of Ethical Committee of the Branch:* The following were elected to serve for three years, in accordance with Law 20: Dr. Thomas Morton, Dr. St. Clair Shadwell, Dr. C. H. Wise.

Votes of Thanks.—Votes of thanks were passed to the retiring President, Vice-Presidents, and members of Council, and duly acknowledged.

Installation of the President.—The incoming President, Mr. Howard Marsh, was inducted into the chair and delivered his address, for which he also received a hearty vote of thanks.

Annual Dinner.—The annual dinner took place afterwards, the President, Mr. Howard Marsh, being in the chair, and supported by Dr. Stephen Mackenzie, Mr. Andrew Clark, Mr. Kiallmark, and others. Among the guests present were the President of the Association, the President of Council, Mr. Fowke, and Dr. Leigh Canney. After the loyal toasts given by the CHAIRMAN, Mr. ANDREW CLARK proposed "The Imperial Forces," which was replied to by Lieutenant-Colonel KIALLMARK. "The British Medical Association" was proposed by Mr. HOWARD MARSH, and was responded to by the PRESIDENT. Dr. ROBERTS THOMSON, the President of Council, next gave "The Metropolitan Counties Branch," to which the PRESIDENT, Mr. Howard Marsh, replied. Dr. STEPHEN MACKENZIE then proposed "The Visitors," coupling with the toast the name of Dr. Leigh Canney; and lastly Dr. LEONARD SEDGWICK humorously gave "The Hon. Secs.," which was responded to by Mr. BETHAM ROBINSON. Several songs were sung by Mr. Oswald, and a very pleasant evening was spent, the attendance being much larger than in past years, owing no doubt to the auspicious occasion which the members present had met to celebrate.

* Filled the same office during the past year.
† Have served for two years.
‡ Have served for one year.
§ New members.

EDINBURGH BRANCH.

THE twenty-seventh annual meeting of this Branch was held in the Royal College of Physicians on June 17th, Dr. ARGYLL ROBERTSON, President of the Branch, in the chair.

Confirmation of Minutes.—The minutes of the previous ordinary and special meetings were read and approved.

New Members.—The following were duly admitted members of the Branch: W. A. J. Alexander, M.B. (Edinburgh); H. G. Brown, M.B. (Edinburgh); Michael Dewar, M.D. (Edinburgh); A. M. Easterbrook, M.B. (Gorebridge); W. E. Henderson, M.B. (Kirkcaldy); T. D. Luke, M.B. (Edinburgh); W. T. Ritchie, M.D. (Edinburgh); G. F. Barbour Simpson, M.B. (Edinburgh); H. Sloman, M.R.C.S.Eng. (Elie); G. Thyne, M.B. (Edinburgh).

Honorary Secretary's Report.—The SENIOR SECRETARY reported that during the year two members had died, two had resigned, and twenty new members had been elected. There were now 258 members of the Branch.

Treasurer's Report.—The TREASURER reported that the funds of the Branch amounted £118 0s 4d. In addition to the ten guineas voted by the Branch he had received from members of the Branch additional sums which enabled him to forward to the Secretary of the Smyth of Arranmore Fund £24 16s. 6d.

Election of Officers.—Dr. Spence (Burntisland), was elected a vice-president. Drs. Matheson Cullen (Edinburgh), Ballantyne (Dalkeith), and John Macdonald (Cupar), were elected to vacancies on the Council, and the other officials were re-elected.

Vote of Thanks.—A vote of thanks to Dr. George Gibson, the retiring vice-president, was proposed by Dr. PHILIP, and carried by acclamation.

Direct Representation on General Medical Council.—A letter from the Secretary of the Glasgow and West of Scotland Branch enclosing copies of resolutions adopted by that Branch was read. Moved by Dr. GEORGE GIBSON, seconded by Dr. R. SPENCE, and resolved:

That the Branch thanks the Council of the Glasgow and West of Scotland Branch for their courtesy in forwarding copies of its resolution regarding a proposed Bill dealing with increased direct representation on and penal powers possessed by the General Medical Council, but until the Council of the British Medical Association brings forward the said Bill it deprecates any action in the matter.

The Secretary was instructed to forward the resolution to the Secretary of the Glasgow and West of Scotland Branch.

SOUTH-WESTERN BRANCH.

THE sixty-third annual meeting of this Branch was held at the Royal Devon and Exeter Hospital on June 18th, previous to which the members were hospitably entertained at luncheon by the President-elect, Mr. J. Delpratt Harris. The PRESIDENT, Mr. G. Thom, was in the chair, and supported by fifty-three members.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

President's Address.—Mr THOM resigned the chair to the PRESIDENT-ELECT, who delivered his inaugural address, in which he dealt at length with the questions of infantile life: the need of women of a higher type of intelligence and education to fill the post of domestic nurses; and the necessity for the careful education of children by school teachers who should be better acquainted with the general ailments and peculiarities of habit incidental to childhood.—Mr. KARKEEK proposed, and Dr. ALEXANDER seconded, that a very hearty vote of thanks be accorded to Mr. Harris for his interesting and practical address, which was carried by acclamation.

Election of a Vice-President.—Dr. WOODMAN proposed, and Dr. SOMER seconded, a vote of thanks to Mr. Thom at the end of his year of office, and that he be elected a Vice-President of the Branch, which was carried unanimously.

Report of Branch Council.—The report of the Branch Council for the year 1901-2 was then read by the HONORARY SECRETARY. Dr. JACKSON proposed and Dr. WOODMAN seconded that the report be adopted, and this was carried unanimously.

Election of Officers.—Dr. MONTGOMERIE proposed and Dr. ODELL seconded that Drs. P. M. Deas and E. L. Fox be re-elected representatives of the Branch on the Central Council of the Association and the Parliamentary Bills Committee. This was carried unanimously.—Dr. WOODMAN then proposed that Mr. G. Young Eales be re-elected Honorary Secretary and Treasurer, which was also carried unanimously.

Visits of Inspection.—After the meeting the President kindly arranged visits of inspection to the Septic Tank System, the New Wards of the Royal Devon and Exeter Hospital, the West of England Eye Infirmary, the Cathedral, the Cathedral Library, the Guildhall and City Muniments.

Annual Dinner.—Thirty-one members and guests dined together in the evening at the New London Hotel, the PRESIDENT, Mr. Harris, in the chair. Before the introduction of the toast list, the HONORARY SECRETARY asked leave to move that the thanks of the members present be given to Dr. Deas for the admirable manner in which he brought the resolutions of the Branch on the preliminary education of medical students before the Council of the Association, thereby securing the appointment of the deputation which had recently waited on the Education Committee of the General Medical Council. —This was seconded by Dr. W. GORDON, and carried by acclamation.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A BUSINESS meeting of this Branch was held at Elgin on June 11th, on the occasion of the joint meeting with the Northern Counties Branch. Dr. FERGUSSON, Banff, President, was in the chair, and there were twenty members present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

New Members.—J. L. Dickie, M.B., Kintore, and Alex. Wood, M.A., M.B., Longside, were admitted members of the Branch.

Branch Representatives.—Professor D. W. Finlay was re-elected representative of the Branch on the Council of the British Medical Association, and Professor Alex. Ogston was re-elected representative of the Branch on the Parliamentary Bills Committee.

Increased Direct Representation on General Medical Council. A letter from the Glasgow Branch was read anent increased direct representation on, and modification of the penal powers of, the General Medical Council. Discussion on this letter was postponed till the business meeting in November.

A JOINT meeting of this Branch with the Northern Counties Branch was held at Elgin on Wednesday, June 11th, 1902.

Golf Match.—A golf match between the Branches was played at Lossiemouth, with the following result:

A. B. and K. Branch.	*Holes.*	*N. C. Branch.*	*Holes.*
G. Rose (Aberdeen)	0	K. Gillies (Tain)	4
J. S. Riddell (Aberdeen) ...	7	F. Gourlay (Elgin)	0
R. G. McKerron (Aberdeen) ...	4	J. Adam (Forres)	0
H. M. W. Gray (Aberdeen) ...	2	J. Taylor (Elgin)	0
J. Marnoch (Aberdeen)	4	G. Wilson (Nairn)	0
	17		4

Majority for A. B. and K. Branch, 13 holes.

Excursion.—A number of the members drove to Gordon Castle.

Dinner. At 4 p.m. 46 members sat down to dinner at the Station Hotel, Elgin, under the chairmanship of Dr. Ogilvie Grant (Inverness), President of the Northern Counties Branch. Dr. Fergusson, President of the Aberdeen, Banff, and Kincardine Branch, was Croupier. After dinner the loyal toasts were honoured, and songs and recitations were given by members of both Branches.

Joint Business Meeting in October.—On the motion of Dr. BRUCE (Dingwall), the Secretaries were instructed to try to arrange a joint business meeting at Aberdeen in October.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

THE annual meeting of this Branch was held at Elgin on June 11th; Dr. ADAM, President, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

New Members.—Dr. Nicoll (Bura), Dr. Gillies (Tain), and Dr. MacDonald (Beauly) were elected members of the Branch.

Election of Officers.—The following gentlemen were elected officers for the ensuing year: *President:* Dr. Ogilvie Grant (Inverness). *President-elect:* Dr. Tregelles Fox (Strathpeffer). *Vice-Presidents:* Dr. Adam (Dingwall), Dr. Murray (Inverness). *Honorary Secretary and Treasurer:* Dr. J. Munro Moir (Inverness). *Council:* Dr. Bruce (Dingwall), Dr. Fortescue Fox (Strathpeffer), Dr. Forsyth (Inverness), Dr. Pender-Smith (Dingwall). *Representative on Council and Parliamentary Bills Committee:* Dr. Murray (Inverness).

Next Meeting.—It was resolved to hold the next annual meeting at Strathpeffer.

SOUTH MIDLAND BRANCH.

THE forty-seventh annual meeting of this Branch was held at the Bedford County Hospital, Bedford, on June 12th, under the presidency of Mr. GIFFORD NASH, Senior Surgeon to the hospital.

Luncheon.—Previous to the meeting the President entertained the members and visitors, fifty-seven in all, to an excellent luncheon.

Minutes and Report of Committee of Management.—The meeting commenced at 2.30 with the reading of the minutes of the autumnal meeting and the report of the Committee of Management, which were adopted.

New Members.—The following were elected members of the Association and Branch: W. R. Cazenove (Northampton), E. J. Woolley (Wellingborough). Branch only: J. S. Baker (Aylesbury), G. C. Wilkin (Blakesley), S. C. H. Moberly (Winslow), S. J. Ross (Bedford). W. A. Sharpin (Bedford), Digby White (Newport Pagnell), G. C. Bull (Turvey).

Committee of Management.—The following were elected to the Committee of Management: For Northants: Messrs. Percival, Hichens, Dryland. For Beds: Mr. G. Robinson. For Bucks: Mr. W. H. Bull.

Annual Meeting.—Circulars announcing the meeting of an Ethical Section at the annual meeting at Manchester were distributed among the members.

State Vaccination by Private Practitioners.—A proposal by Mr. W. H. BULL:

> That the resolution *re* State vaccination by private practitioners, as recently adopted by the Lancashire and Cheshire Branch, and already notified in the BRITISH MEDICAL JOURNAL, March 22nd, 1902, p. 746, be adopted by this Branch,

was rejected by 17 votes to 13.

Pathological Specimens.—Dr. MAJOR then called the attention of the meeting to valuable pathological specimens which were exhibited in an adjoining room, and advised all present to examine them.

The Kettering Medical Aid Association.—A statement by Mr. Dryland, of Kettering, to the effect that the Medical Aid Association in that town had been finally quashed by the united efforts of the medical men, was received with applause.

President's Address.—The PRESIDENT delivered a most able address on the distribution of cancer in North Beds, based on statistics of all cases occurring during the last ten years. He considered various theories of the cause of cancer, favouring particularly the infectious or parasitic theory, basing his conclusions on (1) the discovery of various parasites in the tissues, (2) inoculation, (3) infection of persons attending to cancer cases, (4) recurrence of the disease in families. He also dealt with the question of geographical distribution, and found that the disease was less common in urban districts than in the country, but differing from the result arrived at by the Birmingham and Midland Counties Branch in finding fewer cases in the vicinity of streams and rivers. In conclusion, Mr. Nash submitted that the rational method of treatment was an antiseptic one, great care being taken to disinfect rooms, etc., where cancer cases had undergone treatment.

The Open-air Treatment of Consumption.—A discussion on the open-air treatment of consumption, with special reference to the Nordrach system, was opened by Dr. HARTLEY (Bedford), who read a paper on the treatment as applied to cases treated at home, maintaining that it was possible to employ the Nordrach system efficiently at patient's own houses. Several members took part in the discussion, including Dr. HICHENS (Northampton), who gave some personal reminiscences of Nordrach, illustrated by photographs and sketches, and urged the importance of regulating exercise by the state of the patient's body temperature, which was best taken in the rectum; and

also emphasized that the gain in weight during the treatment should be due not only to fat but also to muscular development. This could only be gained by judicious exercise.

Pemphigus Foliaceus.—Dr. BRAND (Northampton) read notes of a case of pemphigus foliaceus in an infant.

Votes of Thanks.—The meeting terminated with a vote of thanks to the President and to the readers of papers.

MIDLAND BRANCH.

THE annual meeting of this Branch was held at the Guildhall, Lincoln, on June 12th, the PRESIDENT, Mr. T. P. Greenwood, in the chair.

Report of Council.—The Council reported a balance in hand of £192 8s. 11d. on January 1st, 1902.

Allocation of Funds.—On the recommendation of the Council the two following resolutions were passed unanimously:

That the amount of £200, now on deposit at the bank, be given to Mr. C. Douglas and Drs. Carline and Pope, to use the same in defraying the expenses of the next general meeting of the Association which shall be held within the area of the Branch, or for such other purpose as shall seem to them desirable. That the sum of £5 be given to Mr. E. M. Wrench for the entertainment at tea of the excursion party from Manchester to Haddon Hall.

Votes of Thanks.—The usual votes of thanks to officers were passed.

Election of Officers.—The following elections were made:—*Representatives on Council of Association:* Dr. Handford, Dr. Pope. *Representatives on Parliamentary Bills Committee:* Dr. Carline, Dr. Pope. *Members of Branch Council:* Leicestershire—Mr. Franklin, Dr. J. C. Burkitt; Lincolnshire—Dr. Carline, Dr. Harrison; Nottinghamshire—Dr. Broadbent, Mr. C. J. Palmer; Derbyshire—Dr. Cassidi, Dr. Bryson. *Secretaries of Districts:* Lincolnshire—Dr. Sympson; Nottinghamshire—Dr. Laws; Derbyshire—Mr. Southern; Leicestershire, and *Honorary Secretary and Treasurer of the Branch:* Dr. Frank Pope. *Vice-Presidents:* Nottinghamshire—Dr. Mutch; Leicestershire—Dr. J. Horron-Davis.—Dr. POPE, on behalf of the Derbyshire members, proposed, and Dr. HANDFORD seconded, that Mr. C. H. Hough be President-elect for 1902-3. This was carried by acclamation.

Communications.—The PRESIDENT read an address on The Results of the Public Health Acts on the Health of the Rural Population during the last Twenty-five Years.—Dr. E. A. LAWRIE (late of Hyderabad) read a paper on The Administration of Chloroform.—Dr. LOWE presented a communication on the influence of the Roentgen rays on certain skin affections (new apparatus shown).—Dr. JACOB showed a case of syphilitic hyperplasia of skin of face, and another of rodent ulcer of back of neck treated by *x* rays.—Dr. RINGROSE showed photographs of sporadic cretin, and others.

The Reorganization of the Branch.—A discussion afterwards took place on the most advisable method of dividing the Branch into Divisions under the new Reorganization scheme if carried, and it was resolved to hold a meeting at Stamford on the invitation of the President in September or October to decide these points.

BATH AND BRISTOL BRANCH.

THE annual meeting was held at Bristol on June 18th; Dr. G. C. TAYLER, President, in the chair. Thirty-one members were present.

Induction of New President.—Dr. Tayler resigned the chair to Dr. H. WALDO, who delivered the presidential address on the discovery of the tubercle bacillus and its results. A vote of thanks to the President for his interesting and valuable address was moved by Dr. SHINGLETON SMITH, seconded by Mr. C. E. S. FLEMMING, and carried by acclamation.

Report of Council.—Dr. MICHELL CLARKE, honorary secretary for the Bristol District, read the report of the Council, which stated that the financial position of the Branch was sound, and that the meetings had been well attended. The Council regretted to record the loss of three members by death, amongst them Dr. A. E. Aust Lawrence, the President-elect. The Branch had never before been so unfortunate as to lose its President-elect by death, and in this case they especially lamented the loss of one who would have filled the presidential chair with credit to himself and with honour to the Branch. Dr. A. E. Aust Lawrence was a constant attendant at the meetings and a frequent contributor to discussions which dealt with his particular branch of the healing art. He also read a number of papers, and these were invariably characterized by great ability and by practical good sense. They were always to the point, and were listened to with much appreciation by the other members, who frequently derived help from them in their work; Dr. Lawrence's genial presence and cheery greetings would be greatly missed, and the Branch was the poorer by the loss of one who was not only a thorough master of his subject but respected for the integrity of his character. The Branch had also lost by death one of its oldest and most distinguished members in Dr. E. Long Fox, a former President, and also President of the Association at the meeting in Bristol in 1894. Dr. Long Fox very regularly attended the meetings of the Branch until shortly before his death, and constantly debated any subject of medical interest that might be under discussion. His wide experience, extensive reading, and knowledge of medicine, made his contributions of great weight and interest, and they were always expressed in well chosen words. The great respect in which Dr. Fox was held, his long and honourable career in his profession, and his constant efforts for the benefit of this Branch, made his loss the more deeply felt. The Council regretted also to report the death of another distinguished member of the same family, Dr. B. Bonville Fox, who died at a much earlier age than his brother, after a long and painful illness patiently borne. Dr. Bonville Fox was greatly esteemed in the Branch, had acted several times upon the Council, and was eminent in his speciality. He was a good speaker, and his observations always held the attention of the meeting. The balance sheet for the last year was as follows: Total receipts, £91 3s. 1d.; total expenditure, £50 12s. 7d.; balance, £40 10s. 6d. The Council recommended that a sum of £10 10s. should be given to the Medical Benevolent Fund, and one of £5 5s. to Epsom College. During the past year the supply of clinical cases and pathological material had been abundant, and the papers read at the meetings had been of quite the usual interest and value. —A discussion on the inflammatory diseases of the female pelvic organs was opened by Mr. FLEMMING in a very able manner.—The following gentlemen had been elected to fill the vacancies on the Council: Bath: Mr. Curd, Drs. Bannatyne and Wilson Smith, and Mr. Scott. Bristol: Drs. Shingleton Smith, Harrison, Mr. Bush, C.M.G., Drs. R. G. P. Lansdown and Parker. The Branch had lost nine members through resignation, and gained eleven new members during the year. —On the motion of Dr. SHAW, seconded by Mr. FENDICK, it was resolved unanimously:

That the report and financial statement now read be received and adopted.

Election of Officers.—Dr. Barclay J. Baron was appointed President-elect; Dr. E. J. Cave and Dr. E. Markham Skerritt, representatives of the Bath and Bristol Sections respectively on the Council of the Association; Dr. A. J. Harrison, representative of the Branch on the Parliamentary Bills Committee.

Vote of Thanks.—A vote of thanks to the Retiring President, Dr. G. C. Tayler, for his able and courteous conduct in the chair during the past year was proposed by Dr. MARKHAM SKERRITT, seconded by Dr. PARKER, and carried by acclamation; and a vote of thanks to the Council and Honorary Secretaries for their services during the year, with a request to the lattter to continue in office was proposed by Dr. SYMES, seconded by Dr. R. G. P. LANSDOWN and carried unanimously.

Annual Dinner.—Forty-three members and visitors afterwards dined together at the Clifton Down Hotel.

SYDNEY AND NEW SOUTH WALES BRANCH.

A GENERAL meeting of this Branch was held at the Royal Society's Room, Sydney, on April 25th, Dr. BRADY, Vice-President, in the chair. There were sixty-three members present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Members.—The CHAIRMAN announced the election of the following gentlemen as members of the Branch: Drs. G. E. Miles, R. D. Heggaton, D. Kerr, J. J. O'Keefe, H. M. C.

Dalton, M. H. Atock, H. Armstrong, A. E. Perkins, H. Blaxland, W. R. Sharp, A. A. King, N. J. Dunlop, and Professor Welsh.

Recognition of Branch as a Public Body.—The HONORARY SECRETARY announced that the Council were arranging to have the Branch recognized as a public body at *levées* and public functions, and that it was intended to hold a *conversazione* at the Great Hall of the University at an early date.

Communications.—Dr. SCOT SKIRVING read a paper on the diagnosis of erythromelalgia and Raynaud's disease; patient exhibited.—Mr. NEWMARCH read some notes on a case of Raynaud's disease, and exhibited the patient. A discussion ensued, in which Drs. MILLS and FIASCHI took part. Dr. SCOT SKIRVING replied.—Dr. MAITLAND read a paper on the advantage of obtaining urine separately from each kidney in diagnosis of urinary disease, and the methods of so doing.—Drs. HINDER, BOWKER, WORRALL, BARRINGTON, FIASCHI, and BRADY discussed the paper. Dr. MAITLAND replied.

MALTA AND MEDITERRANEAN BRANCH.

A GENERAL meeting of this Branch was held on May 30th at Valetta under the presidency of Surgeon-General T. O'FARRELL, R.A.M.C. There were present twelve other members and visitors.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Communications.—Dr. THEM. ZAMMIT read notes of a case of leprosy treated with Dr. Carrasquilla's serum.

The patient was about 32 when she came under his notice; she had been married fourteen years, and up to her seventh year of married life she enjoyed perfect health. At the seventh year of marriage she had her fourth child, and the first symptoms appeared when this child was 1 year old. The case was of the nodular variety, and when Dr. Zammit first saw her she had a typical leonine face, numerous nodosities on the arms and legs, and large patches of discoloration of the skin, and anaesthesia. The case was under the treatment of Dr. E. Meli of Valetta, who, having got a supply of the serum, asked Dr. Zammit if he was willing to make the injections. Dr. Zammit began the treatment at once, and injected eleven doses, about 10 c.cm. each, with an average interval of ten days. The injections were made with all antiseptic precautions, alternately at each side of the abdominal walls. No untoward effects were observed, no local action, nor skin eruption up to the eleventh injection. The patient became cheerful, and her aspect improved and lost its leonine character. After the eleventh injection the patient failed to make an appearance for about a month. When she came back she had a swollen red face; the nodosities all over the limbs were swollen to the size of a pigeon's egg, and the legs had the appearance of bags full of nuts. She said that the night after the last injection she had a long shiver, and felt hot and dizzy. She remained feverish for several days, with loss of appetite and general *malaise*, all the nodules on her body increasing in size. No pain or swelling was observed at the point of injection, and therefore an infection caused by the puncture of the syringe can be excluded. This strong reaction was not dissimilar to that observed after the injection of tuberculin in tuberculous patients, though Dr. Zammit could not understand why it occurred after the eleventh injection. About two months after this occurrence a marked improvement occurred. All the nodosities of the skin disappeared completely, and the dark patches and the anaesthetic areas faded away. The face assumed its normal aspect, and even the eyebrows covered themselves again with healthy hair. The improvement was so marked that he did not think of further injections. The woman, who had not borne children for the last six years, became pregnant again, and she gave birth to a fine healthy boy which she suckled. This pregnancy did not, however, improve the health of the mother, for when she was last seen, a few days before the date of the meeting, she had a few small nodules on the face and on one of the legs two ulcerations of a suspicious nature remained after a bruise she had sustained. The patient was most probably under the influence of the toxic products of Hansen's bacillus once more.

Dr. Zammit thought the case worth notice on account of the improvement following so markedly after the injections that it amounted almost to a cure. It should, he said, be borne in mind that the patient continued to lead the same old life amidst infected surroundings, with hard work and poor food. He believed that had she been treated in a sanatorium the improvement should have been permanent. He had seen many cases of leprosy treated with the ordinary drugs, but none had he seen improve so steadily as the case described.—A discussion followed in which Surgeon-General O'FARRELL, Lieutenant-Colonel SWABY, R.A.M.C., Major O'CONNOLL, R.A.M.C., Surgeon-Captain SAMUT, R.M.R., and Lieutenant KENNEDY, R.A.M.C., joined.—Dr. ZAMMIT then replied.

Resignation of the Honorary Secretary.—Lieutenant-Colonel MANCHÉ (Honorary Secretary) explained that he was sorry he could not find sufficient time to continue in office, and therefore begged leave to resign.—Major O'CONNOLL rose to express his regret that the Honorary Secretary had come to this conclusion. He eulogized Dr. Manché for his energy in connexion with the Branch for the last fourteen years, and asked that a hearty vote of thanks be passed to Dr. Manché for his long and eminent services.—Surgeon-General O'FARRELL, in seconding the motion, reviewed the good services rendered by Dr. Manché to the Branch since 1888, when the Branch was founded, and assured the retiring Secretary that he carried away with him the gratitude of all the members of the Branch.—The vote was passed by all members present with hearty applause.

Election of Honorary Secretary.—Lieutenant-Colonel MANCHÉ thanked the meeting for their kind demonstration of goodwill towards him, and proposed as a new Honorary Secretary Themistocles Zammit, M.D., of the Public Health Department.—Major O'CONNOLL seconded the proposal, and the candidate was unanimously elected Honorary Secretary and Treasurer of the Branch.

Auditing of Accounts.—Two members were then appointed to audit the books of the Branch before being handed over to the new Secretary.

The meeting was then adjourned *sine die*.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

THE annual meeting of this Branch was held at the Hereford Infirmary on June 6th.

Election of Officers.—The following gentlemen were elected officers for the ensuing year: *President:* Dr. Pope (Kington). *President-elect:* Dr. Walpole-Simmons (Worcester). *Council:* Re-elected. *Honorary Secretaries:* Dr. G. W. Crowe (Worcester), Mr. E. Du Buisson (Hereford). *Representative on Council:* Dr. G. W. Crowe. *Parliamentary Bills Committee:* Dr. H. E. Dixey.

New Members.—The following gentlemen were elected members of the Branch: W. G. Bennett (Worcester), Gilbert Wm. Charsley, M.B. (Malvern), H. Allan Watson, M.B. (Worcester).

Communications.—The PRESIDENT (Dr. Pope) gave an account of a trip to the baths of Rhenish Prussia.—Mr. GOSTLING read a short paper on the surgical treatment of retroversion of the uterus.—Messrs. DU BUISSON and MORRIS exhibited pathological specimens.

OBITUARY.

WILLIAM DALE JAMES, M.R.C.S.,

Medical Officer, Skin Department, Sheffield Royal Infirmary.

MR. DALE JAMES, of Sheffield, passed away on June 16th, at the age of 52. His life was a fine record of a noble and manly struggle against physical conditions which would have sapped the energies and daunted the spirit of most.

William Dale James was a Cornishman, having been born at Penzance. He however, received his education at the Wesley College, Sheffield, of which institution his father, the Rev. Dr. James, was at one time governor. Dr. Dyson, Senior Physician to the Royal Infirmary, was his schoolfellow, always after his warm friend, his colleague at the Infirmary, and his medical attendant to the last. His medical education was received entirely at the Sheffield Medical School and General (now Royal) Infirmary in the days when the late Dr. Bartolomé, Dr. Elam, Dr. Frank Smith, Mr. W. Favell, and Mr. Jonathan Barber were taking an active part in teaching. After obtaining his diplomas in 1871 he became House-Surgeon at the Truro Infirmary and the Hull Dispensary.

He settled in Sheffield about twenty-six years ago, and became Medical Officer and Public Vaccinator to the Ecclesall Union. He was for many years Surgeon to the Engineer Volunteers, and Surgeon to the Children's Hospital. Throughout his life he suffered from psoriasis in a very severe form, with intervals only of comparative freedom. It was this circumstance that led him to take an interest in and to specially study diseases of the skin. Ten or fifteen years ago he decided to adopt dermatology as a speciality. For the purpose of extending his knowledge of the subject he visited various clinics, amongst others that of Professor Unna in Hamburg. He quickly acquired a reputation for his skill in the treatment of skin diseases, and when in 1893 it was decided to form a Skin Department at the Royal Infirmary, Mr. James

was elected Medical Officer, and continued to occupy that appointment to the time of his death. He was Vice-President to the Dermatology Section at the forthcoming meeting of the British Medical Association at Manchester. About ten years ago he was President of the Sheffield Medico-Chirurgical Society, and he always took a lively interest in the work of that Society. At one time he was a Lecturer at the Medical School.

Mr. James was a man of unusual literary ability. He wrote with ease and in an excellent style. When the *Quarterly Medical Journal* was started ten years ago under the editorship of Mr. Simeon Snell, Mr. James became one of the assistant editors. His literary ability was of distinct service to that journal in its early days. He was a frequent contributor to its pages as well as to other medical journals, but his literary interests were wide and by no means confined to medicine. He was widely and well read, an excellent reviewer and descriptive writer, and contributed from time to time holiday papers to the local press on his native county, Cornwall. Of these it has been said, "Several of these papers were models of their kind." Those who knew him best are convinced that his literary abilities were such that, but for the physical conditions which so heavily handicapped him, he might well have filled a no mean position in the field of letters.

Mr. James was valued and esteemed by a large circle of friends for his sterling qualities, honesty of purpose, and real goodfellowship. He shone particularly as a letter writer; he had a ready wit and rare descriptive powers, and those of his friends who have preserved his correspondence treasure it highly. He was however, more than this, for he could use his pencil as well as his pen, and many a social dinner will be remembered for the *menus*, with his sketches representing the speakers or guests in some fantastic way, and not infrequently with an apt inclusion of some medical foible or instrument. Some of these especially were of high merit. His presence at any party was sufficient to ensure a merry evening; his wit was ready and apt; he was a good conversationalist, brilliant in repartee, and a splendid storyteller. It will fall to the lot of few to leave more kindly memories behind them than he. The great feature of his life, however, and the characteristic for which he will be longest remembered by his intimates, is the nobility with which he bore a life of suffering. He had frequently recurring attacks of illness which, if not always enough to lay him aside completely, were more than sufficient to have disheartened most men, and the intervals of comparative health were by no means long; nevertheless he bore it all with a brightness, fortitude, and equanimity which won the admiration of his friends. The jest and pleasant remark never failed, were the suffering ever so great. This cheerfulness was all the more remarkable when he must have been aware—if he had only allowed himself to realize it—that for many years past he was the subject of a disease which must ultimately prove fatal. In spite of failing health he continued as steadily as possible at his professional duties. In August last he passed a holiday in Ireland. Shortly after his return, however, it was apparent to himself and friends that his condition was rapidly becoming worse. At intervals he was enabled to do a little work. In the early part of the present year he went to the Isle of Wight, with the hope that the change of air and scene would bring about some improvement; but he returned after some weeks with his health more broken, and he was compelled to relinquish his practice. For many years he had suffered from diabetes, but death was due to phthisis. He leaves a widow and two sons.

He was laid to rest on June 10th, in the presence of just such a gathering as he himself would have wished. His old friends were there, so were his infirmary colleagues, together with the Chairman and other members of the Board of Management; the profession was well represented, and there were also many of his old patients of both sexes.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Adolphe Schuermans, Ophthalmic Surgeon to the Hôpital Saint Jean, Brussels; Dr. Jean Joseph Melitor, of Arlon, Belgium, Corresponding Member of the Belgian Academy of Medicine, aged 98; Dr. M. Tichomiroff, Professor of Anatomy in the University of Kieff; and Professor Ferdinand Sommer, sometime Director of the Anatomical Institute of the University of Greifswald, aged 74.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

FIRST M.B. EXAMINATION.—The following candidates have passed this examination in the subjects undernoted:

Anatomy and Physiology.—H. A. Barnes, Keble; A. W. Brodribb, University; R. A. Chisolm, Wadham; D. Haldenstein-Davis, Balliol; J. Freeman, University; G. E. Friend, Keble; R. C. Jewesbury, Christ Church; E. L. Kennaway, New; W. H. Lee, Balliol; H. Souttar, Queen's; H. G. Spurrell, Merton; H. C. Squires, Hertford; W. D. Sturrock, Magdalen; H. L. Tidy, New.

Organic Chemistry.—N. Flower, Exeter; H. Frankish, Worcester; S. Hartill, New; G. Johnson, Magdalen; B. Klein, Corpus Christi.

Materia Medica and Pharmacy.—B. E. A. Batt, Trinity; C. Beards, Jesus; H. B. Billups, Worcester; R. A. Chisolm, Wadham; E. E. Cockayne, Balliol; G. H. Crosfield, University; C. G. Douglas, Magdalen; J. Galloway, Magdalen; J. Harley, Trinity; T. Henderson, University; C. P. de L. Pereira, Keble; C. F. Ryder, Magdalen; J. H. Thomas, Trinity; H. W. Thompson, Worcester; A. P. Yonge, Exeter.

SECOND M.B. EXAMINATION.—The following candidates have passed this examination in the subjects under noted:

Pathology.—G. J. Hindley, Christ Church; A. C. Le Rossignol, Exeter; W. B. Prowse, Pembroke; C. J. Singer, Magdalen.

Medicine, Surgery, and Midwifery.—C. W. Aitchison, Balliol; A. E. Boycott, Magdalen; O. Hildesheim, Magdalen; S. Mostyn, Exeter; S. G. Scott, Magdalen; A. T. Waterhouse, Balliol; C. E. A. Wilson, Christ Church.

UNIVERSITY OF CAMBRIDGE.

Second Examination for Medical and Surgical Degrees.—The following candidates have satisfied the examiners in the subjects undernoted:

Part II. Human Anatomy and Physiology.—E. D. Anderson, B.A., Pemb.; E. L. Atkin, Cai.; A. S. B. Bankart, B.A., Trin.; S. Barradell-Smith, B.A., Joh.; E. Bell, B.A., Cla.; H. A. Browning, B.A., Joh.; A. D. Brunwin, B.A., Trin.; A. S. Burgess, B.A., Cai.; G. H. U. Corbett, B.A., King's; R. M. Courtauld, B.A., Pemb.; G. L. Cox, B.A., Christ's; H. F. Curl, B.A., Christ's; L. G. Davies, B.A., Trin.; H. S. Dickson, B.A., Christ's; A. H. Fardon, B.A., Christ's; G. S. Haynes, King's; T. W. S. Hills, B.A., Down.; G. Holroyd, B.A., Christ's; W. G. Howarth, B.A., King's; C. L. Isaac, B.A., Joh.; C. S. Lee, Cai.; A. S. Littlejohns, B.A., Cai; M. McPherson, B.A., Cla.; W. P. Morgan, M.A., Cla.; W. H. Newton, B.A., Emm.; W. H. Orton, B.A., Trin.; H. B. Owen, Cai.; P. R. Parkinson, B.A., Cai.; F. Shingleton Smith, B.A., King's; K. S. Sing, B.A., Pemb.; E. C. Sparrow, B.A., Trin.; C. M. Stevenson, B.A., Joh.; R. S. Taylor, B.A., Down.; F. J. Thornton, Cai.; F. C. Trapnell, B.A., King's; A. Wilkin, B.A., King's.

First Examination for Medical and Surgical Degrees.—The following candidates have satisfied the examiners in the subjects undernoted:

Part II: Elementary Biology.—P. H. Bahr, Trin.; C. T. V. Benson, King's; H. Bowring, King's; J. R. C. Canney, Christ's; R. S. Carey, Corp. Chr.; W. J. Carr, Trin.; S. P. Chan, Cai.; R. C. Chance, Trin.; H. Chapple, Joh.; L. Colledge, Cai.; G. G. Collett, Trin.; H. F. S. Collier, Pemb.; R. M. Collinge, Cai.; H. M. McC. Coombs, Emm.; A. J. W. Cunningham, Trin.; L. T. Dean, Sid. Suss.; H. Dearden, Cai.; M. Donaldson, Trin.; W. H. F. Eales, Emm.; F. S. Eschwege, Christ's; A. W. Ewing, Christ's; A. Fergusson, Joh.; N. M. Fergusson, Magd.; L. A. Fothergill, Emm.; H. G. Frean, Joh.; D. J. Freyer, Trin.; H. D. Gillies, Cai.; C. B. Hawthorne, Cla.; T. R. Hodgson, Christ's; G. Hoffmann, Cai.; G. N. Humphreys, Cath.; B. E. Ingleby, Cai.; G. James, Joh.; W. M. Jeffreys, B.A., Trin.; N. W. Jenkin, Christ's; W. F. Jones, King's; A. R. Jordan, Cla.; J. L. Joyce, King's; H. F. Lester, Pemb.; R. L. Ley, Pemb.; H. N. Little, Cai.; R. S. Lound, H. Selw.; M. F. J. McDonnell, Joh.; C. Mackenzie, Emm.; R. G. Markham, Cai.; L. Meakin, Trin.; L. Nicholls, Noncoll.; W. Oats, Cai.; R. Parker, Christ's; W. G. Parkinson, Emm.; B. A. I. Peters, Jes.; F. S. Poole, Sid. Suss.; A. V. Poyser, Magd.; R. C. Priest, Cai.; K. D. Pringle, Cai.; J. H. Roberts, B.A., Emm.; C. F. Searle, Pemb.; S. E. T. Shann, Cai.; L. W. Sharp, Cai.; G. L. Siddle, Cai.; A. L. H. Smith, Cai.; F. H. Smith, Christ's; H. C. Snell, Cai.; R. M. Soames, Trin.; F. A. Stockdale, Magd.; E. R. Stone, Emm.; A. C. Tait, Sid. Suss.; C. H. S. Taylor, Cai.; O. Teichmann, B.A., Cai.; G. K. Thorpe, Cla.; C. St.A. Vivian, Cai.; G. Walker, Trin.; V. T. P. Webster, Emm.; J. N. Wheeler, Christ's; T. M. O. Williams, Christ's; W. H. Winter, Cai.; S. Wood, Christ's.

Part I.—Chemistry and Physics.—P. H. Bahr, Trin.; C. T. V. Benson, King's; H. S. Berry, Cla.; T. R. H. Blake, Pemb.; D. W. Bull, B.A., Cai.; L. S. T. Burrell, Trin.; H. J. B. Cane, Cai.; J. R. C. Canney, Christ's; W. J. Carr, Trin.; S. P. Chan, Cai.; F. Clayton, Trin.; H. N. Coleman, Christ's; H. F. S. Collier, Pemb.; R. M. Collinge, Cai.; D. Cotterill, Christ's; A. J. W. Cunningham, Trin.; L. T. Dean, Sid. Suss.; H. Dearden, Cai.; G. H. Dunn, Pemb.; W. H. F. Eales, Emm.; A. Fergusson, Joh.; C. L. Fordo, Cla.; J. C. Fox, Trin.; H. G. Frean, Joh.; D. J. Freyer, Trin.; T. S. Gibson, Emm.; H. D. Gillies, Cai.; W. Harmens, Trin.; H. A. Holt, Trin.; G. A. F. Heyworth, Trin.; C. J. R. Hoffmeister, Cai.; F. H. Holl, Trin.; H. E. Humphreys, Cai.; C. H. T. Ilott, B.A., Cai.; B. E. Ingleby, Cai.; W. F. Jones, King's; H. N. Little, Cai.; R. S. Lound, H. Selw.; M. F. J. McDonnell, Joh.; C. Mackenzie, Emm.; A. G. M. Mainwaring, Trin.; D. C. Master, Cai.; A. H. Moore, Trin.; A. Morgan, Corp. Chr.; L. Nicholls, Noncoll.; B. K. Nutman, Jes.; W. G. Parkinson, Emm.; B. A. I. Peters,

Jes.; F. S. Poole, Sid. Suss.; R. C. Priest, Cai.; C. E. Redman, Pemb.; L. W. Sharp, Cai.; G. L. Siddle, Cai.; O. R. Smale, Cai.; F. H. Smith, Christ's; E. R. Stone, Emm.; C. H. S. Taylor, Cai.; C. Tylor, Cai.; C. St. A. Vivian, Cai.; R. R. Walker, Joh.; R. W. S. Walker, Trin.; H. K. Waller, Trin.; J. F. Windsor, H. Selw.; T. N. Wood, Pemb.; S. Wood, Christ's.

UNIVERSITY OF DUBLIN.

FINAL EXAMINATION IN MEDICINE.—The following candidates have satisfied the Examiners:

J. S. Joly, J. A. Valentine, R. P. Beatty, H. Townshend, M.D., E. B. Booth, W. R. H. Smith, C. M. Benson, J. E. Johnston, R. F. Steel, W. Benson, H. F. Johns, J. S. Wilson, G. R. Harman, W. A. G. Cluffe, G. H. Keene.

M.B. Degree.—The following candidates have satisfied the Examiners: W. H. Peale, M.R.C.S. Eng.; W. Taylor, F.R.C.S.I.; H. L. Thurnell, M.R.C.S.Eng.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, June, 1902.—The following candidates passed in:

Surgery.—E. W. C. Bradfield (Section I), St. Mary's Hospital; H. B. Drake (Section I), St. George's Hospital; G. W. C. Hollist (Sections I and II), Guy's Hospital; G. J. Humphreys (Sections I and II), St. Bartholomew's Hospital; E. Osborne (Section II), Birmingham; F. H. Rotherham (Sections I and II), London Hospital; E. M. Stacy (Sections I and II), Royal Free Hospital; C. J. Taylor (Sections I and II), Bristol; W. P. Taylor, Sheffield and Bristol; J. Vaillant (Sections I and II), Paris; F. W. B. Young (Sections I and II), Leeds and Liverpool.

Medicine.—W. Ball (Section I), Westminster Hospital; T. G. Longstaff (Section I), Oxford and St. Thomas's Hospital; A. Mooney (Section I), Royal Free Hospital; C. C. Morgan (Section I), St. Bartholomew's Hospital; E. C. Pratt, Birmingham; E. M. Stacy (Sections I and II), Royal Free Hospital.

Forensic Medicine.—W. Ball, Westminster Hospital; J. C. S. Dunn, St. Bartholomew's Hospital; T. G. Longstaff, Oxford and St. Thomas's Hospital; S. J. Meredith, Birmingham and London Hospital; A. Mooney, Royal Free Hospital; E. C. Pratt, Birmingham; E. M. Stacy, Royal Free Hospital.

Midwifery.—L. Courtauld, Cambridge and Middlesex Hospital; H. E. Darlington, Birmingham; H. B. Drake, St. George's Hospital; E. Gray, London Hospital; B. Hirsch, Berlin; T. G. Longstaff, Oxford and St. Thomas's Hospital; E. M. Stacy, Royal Free Hospital; H. S. Tumber, Sheffield; P. L. Vawdrey, St. Bartholomew's Hospital.

The diploma of the Society was granted to H. E. Darlington, E. Osborne, E. C. Pratt, F. H. Rotherham, E. M. Stacy, C. J. Taylor, and W. P. Taylor.

MEDICO-LEGAL AND MEDICO-ETHICAL.

DOCTORS' CARRIAGES AT FUNERALS.

J. F. asks the following question: When a medical man attends the funeral of a patient should his carriage precede the hearse or follow the other carriages in the procession?

"*" It would be quite out of place for a doctor's carriage to precede the hearse. If this is correct it necessarily follows that his carriage, if properly at the funeral, must follow in the procession.

CONTESTS FOR CLUB APPOINTMENTS.

ANNULARE writes: A. and B. are candidates for an appointment to a friendly society, and after a close contest A. is elected. After some years A. sells his practice to C. Is it against etiquette for B. to allow himself to be nominated against C. in the vacancy occurring in this appointment by the retirement of A.?

"*" If this appointment is thrown open to competition, B. may properly allow himself to be nominated as a candidate.

SEASIDE HOMES FOR CONSUMPTIVES.

A CORRESPONDENT practising in the Midlands writes to us to state that he recently advised a patient to go to the Sandgate Homes for the Reception of Phthisical Patients on the Open air Treatment. His patient has written to him expressing dissatisfaction with the Home, and adding the opinion that it is not what the prospectus led him to expect.

"*" We observe on the postcard advertisement issued last April the statement: "We have had over 2,000 phthisical patients in our Homes since 1875 from the Brompton Hospital for Consumption and other metropolitan and provincial hospitals, but they were not then treated in separate Homes as they now are." We have made inquiries, and are informed that the Brompton Hospital for Consumption did for some years send patients to Beach Rocks Home, Sandgate, but when that Home was closed or changed the Committee of the hospital came to the decision that no more should be sent there or to any of the Homes offered by Mr. John James Jones and his friends. This decision has, we are informed, been carried out for the last two and a-half years. We observe from the pamphlet giving particulars of the Homes on the open-air treatment of consumption and other diseases of the chest at Sandgate that patients must make application and transmit payment in full to Mr. J. J. Jones, M.C.C., of Sandgate, Kent. We think that any of our readers who may be thinking of sending patients to these Homes should make inquiry as to their mode of administration and fitness.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ARSENICAL POISONING COMMISSION.

A FURTHER sitting of the Royal Commission on Arsenical Poisoning was held on June 20th. Lord Kelvin presided, and the other Commissioners present were Sir William Hart Dyke, M.P., Sir William Church, Professor Thorpe, and Dr. Whitelegge. Mr. Arthur Ling, F.I.C., gave evidence in regard to experiments for testing malting fuel, and said he had never met with a sample of malting fuel free from arsenic in the course of a very large experience, and that unless some official means were taken to control the purity of beer and materials, he was afraid after a time matters would relapse and become lax. Mr. E. S. Beaven, who stated that he had been engaged in the malting industry for twenty-five years, laid stress on the fact that in the large proportion of cases samples of malt were absolutely free from, or contained but the merest traces of, arsenic. In response to a question by Lord Kelvin, he admitted that malt might be dried without allowing the products of combustion to come into direct contact with it, but under the present system a special flavour was imparted to the malt.

MEDICAL NEWS.

MEDICAL MAGISTRATE.—Dr. C. T. Brookhouse, of Wickham Road, Brockley, S.E., has been placed on the Commission of the Peace for the County of London.

IT is proposed to found a History of Medicine Club in Vienna. Drs. Max Neuburger and Robert, Ritter von Töply are taking the initiative in the matter.

THE Archduke Carl Theodore of Bavaria who, as is well known, is a distinguished ophthalmic surgeon, recently performed his four-thousandth operation for cataract.

THE statutes of the National Union of Mutual Help Societies and Friendly Associations of Teachers, Male and Female, founded to aid in the campaign against tuberculosis, have been approved by the French Minister of the Interior.

MESSRS. RAPHAEL TUCK AND SONS, LTD., Raphael House, Moorfields, E.C., announce that they propose to present 1,000 portraits of the King and Queen to 500 of the hospitals in London and the provinces. The portraits will be allotted in rotation as applications are received from the secretaries.

THE third International Congress of Medical Officers of Life Assurance Companies will be held in Paris in May, 1903, under the presidency of Professor Brouardel. The Vice-presidents are Professor Landouzy, Dr. Peyrot, and Dr. Lereboullet of Paris, and Dr. Poels of Brussels. The General Secretary is Dr. Armand Siredey, 80, Rue Taitbout, Paris, to whom all communications on the subject of the Congress should be addressed.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.—The annual meeting and dinner of this Association will take place at the Trocadero, Piccadilly, W., on Tuesday, July 8th. Dr. Farquharson, M.P., President of the Association, will take the chair at the dinner at 7 p.m. Any Poor-law medical officer wishing to be present is requested to communicate with the Honorary Secretary, Dr. M. Greenwood, 243, Hackney Road, N.E.

UNITED STATES ARMY NURSE CORPS. It is announced by the *New York Medical Record* that the War Department of the United States has issued an order prescribing the duties and status of the Army Nurses Corps. The pay and allowance of a nurse on active service is to be 40 dollars (£8) a month when on duty in the United States and abroad. Chief nurses get 5 dollars (£1) extra, but when they have five or more nurses under them they get 10 dollars (£2) extra, and 25 dollars (£5) extra when they have ten or more subordinates. The uniform of the Army Nurse Corps will consist of a waist and skirt of suitable white material, adjustable white cuffs, bishop collar, white apron, and cap. The badge of the corps is the cross of the Medical Department, in green enamel, with gilt edge, pinned on the left side of the collar of the uniform or on a corresponding part of her dress when she is not in uniform. After appointment, nurses serve for at least three months in the United States, during which period they will receive special instruction in army nursing. The appointment of an army nurse will be for three years, two of which will usually be passed in service in the island possessions of the United States.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERDEEN UNIVERSITY.—Additional Examiner for Graduation in (1) Botany, (2) Chemistry, (3) Medical Jurisprudence and Public Health. Applications to the Secretary of the University Court by June 30th.

BANBURY: HORTON INFIRMARY.—House Surgeon and Dispenser. Salary, £80 per annum, with board and lodging. Applications to the Honorary Secretary, 21, Marlborough Road, Banbury.

BELFAST: MATER INFIRMORUM HOSPITAL.—(1) Resident Physician, (2) Resident Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and lodging. Applications to the Honorary Secretary, 17, Crumlin Road, Belfast, by July 23rd.

BELFAST: QUEEN'S COLLEGES, Ireland.—(1) Dunville Professorship of Physiology, (2) Professorship of Natural History. Applications to the Under Secretary, Dublin Castle, by July 5th.

EVERLEY: EAST RIDING LUNATIC ASYLUM.—Assistant Medical Officer, unmarried, and between 22 and 28 years of age. Salary, £150 per annum, with board, lodging, and washing. Applications to the Clerk to the Visiting Committe by June 30th.

BIRMINGHAM: ROYAL ORTHOPAEDIC AND SPINAL HOSPITAL.—Assistant Surgeon. Applications to the Honorary Secretary to the Medical Committee, 9, Great Charles Street, Birmingham, by June 30th.

BIRMINGHAM PARISH.—District Medical Officer. Salary to commence at £350, rising to £400 per annum. Applications on forms provided to be sent to the Clerk, Parish Offices, Edmund Street, Birmingham, by July 7th.

BLACKBURN COUNTY BOROUGH.—Assistant to the Medical Officer of Health, unmarried, and under 35 years of years of age. Honorarium, £50 per annum, with board and lodging. Applications to Dr. Alfred Greenwood, Medical Officer of Health, 51, Ainsworth Street, Blackburn, by July 1st.

CHARING CROSS HOSPITAL.—Bacteriologist to the Hospital and Lecturer on Bacteriology to the Medical School. Salary, £100 per annum and share of class fees. Applications to the Secretary by July 9th.

CHORLEY: RAWCLIFFE HOSPITAL.—House Surgeon. Salary, £100 per annum, with board and lodging. Applications to the Honorary Secretary by July 4th.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road.—House-Surgeon, non-resident. Honorarium at the rate of 40 guineas a year. Applications to the Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Second House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board, washing, and residence. Applications to the Secretary by July 2nd.

CROYDON BOROUGH HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer. Salary, £160 per annum, with board and residence. Applications, endorsed "Resident Medical Officer," to be sent to Dr. H. Meredith Richards, Town Hall, Croydon, by June 30th.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer; unmarried and under 32 years of age. Salary, £110 per annum, with board and lodgings. Application on forms provided, to be sent to the Chairman of the Selection Committee by July 11th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer. Salary, and board residence, and laundry. Applications to the Secretary by July 5th

EDINBURGH ROYAL ASYLUM.—Assistant Physician. Applications to Dr. Clouston.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Fifth Assistant Medical Officer, unmarried and not over 30 years of age. Salary, £170 per annum, with board, lodging, and washing. Applications to the Medical Superintendent by July 3rd.

GLASGOW: ST. MUNGO'S COLLEGE.—Notman Chair of Physiology. Applications to the Secretary, 93, West Regent Street, Glasgow, by June 30th.

HEREFORD COUNTY AND CITY ASYLUM.—(1) Senior Assistant Medical Officer; unmarried. Salary, £150 per annum. (2) Junior Assistant Medical Officer; not over 28 years of age. Salary, £100 per annum. Board, lodging, and washing provided in each case. Applications to the Medical Superintendent.

HORTON, EPSOM: LONDON EPILEPTIC COLONY ASYLUM.—Medical Superintendent, not over 40 years of age. Salary, £500 per annum, increasing to £600, with unfurnished house, etc. Applications, on forms provided to be sent to the Clerk of the Asylums Committee, 6, Waterloo Place, S.W., by July 7th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Appointments for six months. Honorarium £25. Applications to the Secretary by July 1st.

HOSPITAL FOR WOMEN, Soho Square, W.—Registrar. Appointment for twelve months. Honorarium 25 guineas. Applications to the Secretary by July 7th.

ISLE OF WIGHT UNION.—Medical Officer and Public Vaccinator for the Ryde District. Salary, £100 per annum and fees. Application to the Clerk to the Guardians, Newport, Isle of Wight, by June 10th.

LEEDS: YORKSHIRE COLLEGE.—Junior Demonstrator in the Pathological Department. Salary, £120. Applications to the Secretary of the College by June 30th.

LEITH HOSPITAL.—Two Assistant Physicians. Applications to the Secretary, 33, Bernard Street, Leith.

LIVERPOOL INFECTIOUS DISEASES HOSPITALS.—Two Assistant Resident Medical Officers, unmarried, and not exceeding 28 years of age. Salary, £120 per annum, each with board, washing, and lodging. Applications endorsed "Assistant Resident Medical Officer," to be sent to the Town Clerk, Municipal Offices, Liverpool, by July 28th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Honorary Treasurer, Myrtle Street, Liverpool.

LONDON COUNTY ASYLUM, Colney Hatch, N.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications on forms provided to be sent to the Clerk of the Asylums Committee, 6, Waterloo Place, S.W., by July 3rd.

LONDON HOSPITAL, Whitechapel, E.—(1) Assistant Surgeon. (2) Surgical Registrar salary, £100 per annum. Applications to the House-Governor by June 27th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Assistant Demonstrator of Anatomy. Salary, £90 a year. Application to the Warden, by July 14th.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—House-Surgeon; unmarried. Salary, £120 per annum, with board and residence. Applications to the Secretary by July 7th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—House Physician. Salary, £50 per annum, with board and residence, or £100 per annum with board. Applications to the Chairman of the Board by July 10th.

NEWCASTLE-ON-TYNE: CITY HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer. Salary, £100 per annum, rising to £150, with board, lodging, etc. Applications to the Medical Officer of Health Town Hall, Newcastle-on-Tyne.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Second Assistant House-Surgeon. Appointment for six months. Honorarium, £20, with board, lodging, and washing. Applications to the Secretary by July 1st.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon; unmarried. Salary, £160 per annum, increasing £10 yearly, with furnished apartments, etc. Applications to the Secretary, Mr. M. I. Preston, Journal Chambers, Nottingham.

ROYAL EYE HOSPITAL, Southwark.—House-Surgeon. Remuneration, 50 guineas per annum, with board and lodging. Applications to the Secretary by July 14th.

ST. MARYLEBONE GUARDIANS.—Medical Officer for the Southall Schools. Salary, £100 per annum. Applications to the Clerk to the Board, Guardians' Offices, Northumberland Street, W., by June 30th.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM, Bicton Heath, near Shrewsbury.—Medical Superintendent; not exceeding 45 years of age. Salary, £650 per annum, with unfurnished house, etc. Applications, on forms provided, to be sent to W. Baxter, Clerk to the Committee of Visitors, Shirehall, Shrewsbury, by June 30th.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—Surgeon to Out-patients at the Branch Hospital, Royal Victoria and Albert Docks. Applications to the Secretary by July 5th.

SHREWSBURY: SALOP INFIRMARY.—Assistant House-Surgeon. Appointment for six months, but eligible for re-election. Salary at the rate of £40 per annum, with board and apartments. Applications to the Secretary by July 5th.

SOMERSET AND BATH ASYLUM, Cotford, Taunton.—Assistant Medical Officer, not over 30 years of age, and unmarried. Salary, £150 per annum, with furnished apartments, board, etc. Applications to the Medical Superintendent by July 8th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the House-Surgeon by July 9th.

THROAT HOSPITAL, Golden Square, W.—(1) Senior House-Surgeon (resident); salary, £50 per annum, with board, lodging, and washing. (2) Junior House Surgeon (non-resident); salary, £100 per annum and lunch daily. (3) Senior Clinical Assistant. Applications to the Secretary-Superintendent for (1) and (2) by June 23rd and for (3) by July 7th.

WALTHAMSTOW URBAN DISTRICT COUNCIL.—Resident Medical Officer at the Isolation Hospital, Chingford. Salary, £120 per annum, with board and lodging. Applications, on forms provided, to be sent to the Clerk of Council, Town Hall, Walthamstow, by July 8th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £50 per annum, with board, lodging, washing, and attendance. Applications to the Honorary Secretary, Churchill House, West Bromwich.

WOLVERHAMPTON GENERAL HOSPITAL.—Assistant House-Physician. Appointment for six months. Honorarium at the rate of £75 per annum, with board, lodging, and washing. Applications to the House Governor by June 30th.

MEDICAL APPOINTMENTS.

COLQUHOUN, J. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the South Side of Garioch Parish.

CROCKER, J. M., M.R.C.S., L.R.C.P.Lond., appointed Certifying Factory Surgeon for the Bingley District of Yorks.

DALY, Ramsay, M.D., B.S., appointed Clinical Assistant to the Chelsea Hospital for Women.

HENEGHAN, P. J., L.R.C.S.I., L.A.H.Dub., appointed Certifying Factory Surgeon for the Foxford District of County Mayo.

HIBBERT, Charles Henry, L.R.C.P. L.R.C.S.E., L.F.P. and S.G., appointed Medical Officer of Health for the Urban District of Compstall (Cheshire).

HIGHET, H. Campbell, M.D.Glasg., D.P.H. Lond., appointed Physician to H.B.M. Legation, Bangkok, Siam, *vice* P. A. Nightingale, M.D.Edin., resigned.

HORNE, Maynard, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed Assistant Anæsthetist to the Hospital for Women, Soho Square, W.

LEE, Rowland, M.B., Ch.B.Lond., appointed Assistant Medical Officer to the Cardiff Union Workhouse *vice* Campbell Jenkins, L.R.C.P., L.R.C.S.Edin.

MCGAVIN, Lawrie Hugh, F.R.C.S.Eng., appointed Surgeon to In Patients at the Branch Hospital of the Seamen's Hospital Society, Royal Albert Dock.

MERCIER, C. Jerome, M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Medical Officer to the St Mary's Hospital for Sick Children, Plaistow, *vice* Mr. Arthur E. Whitehead, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., resigned.

MURISON, Patrick, M.B., C.M.Edin., D.P.H.Camb., appointed Medical Officer of Health for the Corporation of Durban, Natal.

NANGLE, E. C., L.S., B.A., appointed Clinical Assistant to the Chelsea Hospital for Women.

ST. LEGER, Robert A., M.B.Edin., appointed Honorary Physician to the New Somerset Hospital, Capetown.

SHAW, Cecil E., M.D., M.Ch., R.U.I., appointed Honorary Consulting Ophthalmic Surgeon to the County Antrim Infirmary, Lisburn.

SKRIMSHIRE, Henry F., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Resident Medical Officer to the St. Mary's Hospital for Sick Children, Plaistow, *vice* S. E. Johnston, M.B., C.M.Edin., resigned.

STEELE, Kenneth, M.R.C.S., L.R.C.P., appointed Anæsthetist to the Seamen's Hospital Society, with duties at the Dreadnaught Hospital, Greenwich.

THORNTON, F. B., M.B., B.S.Lond., appointed Medical Officer to the Post Office at Derby, and Medical Referee for the Board of Education at the Derby Centre.

DIARY FOR NEXT WEEK.

TUESDAY.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Waller: The Signs of Life.

WEDNESDAY.

University of London Physiological Laboratories, South Kensington, 5 p.m.—Dr. Leonard Hill: The Physiology of Respiration.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Mr. Doran and others. Short communication on a case of puerperal eclampsia, with necropsy and remarks by Dr. R. H. Bell. Papers:—Mr. John W. Taylor: (1) Complete Inversion of Uterus requiring Operation; (2) Ovarian Tumour Obstructing Delivery; Vaginal Ovariotomy.

THURSDAY.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Pathological Demonstration.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Tuberculous Peritonitis: Surgical Treatment.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C. Demonstrations will be given at 4 p.m. as follows:—Monday, skin; Tuesday, medicine; Wednesday, surgical; Thursday, surgical; Friday, ear.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Lecture on Muscular Movements.

Westminster Hospital, S.W., Tuesday, 4.30 p.m.—Demonstrations.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

GIFFORD.—At Brierley Hill, Staffs, on the 18th inst., the wife of G. Keith Gifford, M.D., of a daughter.

MARRIAGE.

PENDLEBURY—HEWETT.—On the 17th inst., at St. Jude's, Southsea, by the Rev. Canon Blumenfeld, of Halsall, Honorary Chaplain to the King, and the Rev. Canon Blake Vicar and Rural Dean, Dr. Pendlebury, of Knowsley House, Ormskirk, Lancs, to Eva Stuart, youngest daughter of the late General W. Selwood Hewett, Bombay Staff Corps. Indian and Argentine papers please copy.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

REFRACTION.

NOX asks to be recommended a book suitable for a general practitioner wishing to undertake the examination of eyes and the prescribing of suitable spectacles, etc.

*** Swanzy's *Diseases of the Eye* (London: Lewis, 12s. 6d.) would probably meet our correspondent's requirements. One of the best books solely on refraction which is not too elaborate is that by Stanford Morton. (London: Lewis, 3s. 6d.)

ANSWERS.

FLEET-SURGEON C. BUCHANAN HAMILTON, R.N., writes in reply to "S.R.H.," to express the opinion that the climate of Auckland, New Zealand, is well suited to patients with delicacy of the lungs, but otherwise in good health.

IRISH HOME FOR DEFECTIVE CHILD.

SURGEON-GENERAL (retired).—Our correspondent might address an inquiry to the Stewart Institution for Idiotic and Imbecile Children near Dublin. Pupils are admitted either free by election or on payment of £50 a year. The Secretary is Mr. W. McO'Neil, 40, Molesworth Street, Dublin.

LETTERS, NOTES, Etc.

ABSENCE OF TEETH.

DR. W. HERBERT GREGORY (Beverley) writes: While doing dispensary work as a student in Edinburgh in 1891, I came across a curious case of absence of teeth. The patient, a man aged 56, had symptoms of early phthisis, and having read that some French writers describe a pink line close to the gum as a minor symptom of this disease, I proceeded to look for it. The man's mouth was absolutely devoid of teeth, and I found, on closely cross-questioning his wife and himself, that he had never had any teeth till the age of 54. In that year his wife presented him with a child, and (probably in honour of this event) his upper right canine suddenly made its appearance. It, however, disappeared a year later, and there had been no sign of another tooth since. I could trace no hereditary absence of teeth in any other members of his family, and the patient had no recollection of any serious disease of childhood which might have affected the germs of (possible) temporary teeth.

THE PATHOLOGY OF URIC ACID.

DR. J. CUTHBERTSON WALKER (St. Austell, Cornwall) writes: The writer of the article in the BRITISH MEDICAL JOURNAL of June 14th on the purin bodies in food and urine ends with the significant statement that the last word has not been said on this subject. No doubt the careful analysis of foods for uric acid or its equivalents is a matter of much consequence, and if the conclusions come to in Dr. Hall's article in this regard are confirmed they may prove of great value. But in regard to the conclusions which the writer draws from analyses of the urine of various individuals experimented on, it is clear from Haig's work that these are of no value. This is unfortunate, as Dr. Hall has spent time and trouble on them. Haig (*Uric Acid as a Factor in the Causation of Disease*, 5th edition) has shown that a person on what is called "ordinary mixed diet," will, after being put on a strict uric-acid-free diet, go on excreting an excess of uric acid for weeks and months, because he has a store of uric acid in his liver, spleen, and elsewhere which is only slowly excreted. Hence it is useless to experiment on an individual who may one day excrete a larger excess of uric acid and the next day very little, such fluctuations being dependent on various causes, such as heat and cold, alkalinity or acidity of food, and other causes. Any one who studies Haig's book will see that the curves he gives prove most conclusively that on ordinary mixed diet uric acid is stored in the body. All my information on this subject is drawn from Haig's work, and no one who wishes to do good work on uric acid can afford to ignore it. Dr. Hall's sole reference to Haig is a remark in reference to the article on the Human Body as an Analytical Machine, published in the JOURNAL some months ago. I think Dr. Hall cannot have read that article very carefully.

COMMUNICATIONS, LETTERS, ETC., have been received from

A Annulare; Messrs. Allen and Hanburys, London; Dr. H. M. de Alexander, Aberdeen. **B** Dr. H. C. Bastian, London; Mr. J. W. Bannister, London; Mr. E. T. Burton, Birmingham; Mr. F. Bartlett, Lymington; Dr. G. G. Bantock, London; Mr. F. W. Bailey, Liverpool. **D** D. H. F.; Dr. A. Duke, London; Dr. L. Drage, Hatfield. **E** Exercise. **F** F.R.C.S.I.; Dr. W. T. Freeman, Reading; Dr. W. Fearnley, Harrogate. **G** Mr. H. M. Greenhow, Esher; Dr. W. H. Gregory, Beverley; G. P.; Messrs. C. Griffin and Co., London; **H** Dr. H. Hart, London; Dr. D. Hutchinson, Lowestoft; Dr. H. C. Highet, Bangkok. **I** Ignoramus. **J** Dr. H. L. Jones, Manchester; Dr. R. Jones, Woodford Bridge; J. P. **K** Dr. C. Lockyer, London. **L** Lift. **M** H. C. Miller, M.B., San Remo; Mr. T. I. Mills, Easingwold; Dr. A. Y. Massey, Benguella; Dr. Mullick, Calcutta. **N** Non-combatant. **O** Mr. G. S. O'Rorke, Nottingham. **P** Dr. W. G. Parkinson, Doncaster; Planter; Dr. W. R. Parker, Kendal. **R** Dr. R. Row, Bombay; Mr. J. T. Rae, London; Mr. O. Richards, London; Reform; Dr. W. Robertson, Durban; F. A. Rouget, M.B., Port Louis. **S** S. A.; Surgeon-General; Dr. E. M. Skerritt, Clifton; Dr. A. Stanley, Shanghai; Sir J. Sawyer, M.D., Birmingham. **T** J. H. Thornton, M.B., Hove. **W** Mr. S. Walker, Middlesbrough; Dr. F. Willcocks, London; Mr. O. Williams, Glandovey; A. Wauchope, M.B., Glasgow. **Z** Zephyr.

BOOKS, Etc., RECEIVED.

Atlas and Epitome of Otology. By Gustav Brühl, M.D., with the collaboration of Professor Dr. A. Politzer. Authorized translation from the German, edited by S. MacCuen Smith, M.D. Philadelphia and London: W. B. Saunders and Co. 1902.

Morphinism and Narcomanias from Other Drugs. By T. D. Crothers, M.D. Philadelphia and London: W. B. Saunders and Co. 1902.

Trades Waste: Its Treatment and Utilization. By W. Naylor. London: Charles Griffin and Co., Limited. 1902. 21s.

The Sanitary Inspector's Guide. By Henry Lemmon-Cannon. London: P. S. King and Son. 1902. 3s 6d.

Heresies. By H. Croft Hiller. Vol. v. London: Grant Richards. 1902. 10s.

Medical Lectures and Aphorisms. By Samuel Gee, M.D. London: Smith, Elder and Co. 1902. 6s.

Analysis of 155 Cases of Tabes. By Byrom Bramwell, M.D., F.R.C.P.E., F.R.S.E. Reprinted from "Brain" Spring Number, Part xcvii. London: John Bale, Sons, and Danielsson, Limited. 1902.

Introduction à l'Etude de la Figure Humaine. Par le Docteur Paul Richer. Paris: Gaultier, Magnier et Cie. Fr. 10.

Notes on Optics. By A. S. Percival, M.A., M.B. London: Simpkin, Marshall, Hamilton, Kent, and Co., Ltd. 1902. 1s.

Lehrbuch der Haut-und Geschlechtskrankheiten. Von Prof. Dr. J. H. Rille. Erste Abteilung. Jena: Gustav Fischer. 1902. M.4.50.

The Transactions of the Society of Anæsthetists. Vol. iv. London: The Medical Publishing Co., Ltd. 1902.

Der Hitzschlag auf Märschen. Von Dr. A. Hiller. Berlin: August Hirschwald. 1902. M.7.

Manual of Bacteriological Technique and Special Bacteriology. By Thomas Bowhill, F.R.C.V.S., F.R.P.S. Second Edition. Edinburgh: Oliver and Boyd. London: Simpkin, Marshall, and Co., Ltd. 1902. 21s.

Childhood Society. Vol. i. The Proceedings of the Society for the year 1901. Published by the Society. 1902. 2s. 6d.

Clouds and Weather Signs. By Commander D. Wilson Barker, R.N.R. London: Office of "Knowledge." 1s.

Sewage Works Analyses. By Gilbert J. Fowler, M.Sc.(Vict.), F.I.C. London: P. S. King and Son. New York: John Wiley and Sons. 1902. 6s.

The Human Body. By Buel P. Colton. London: The Scientific Press. 5s.

Intermediate French Grammar. By G. H. Clarke, M.A., and L. R. Tarqueray, B. ès L. London: John Murray. 1902. 3s. 6d.

Les Dilatations de l'Estomac. Par Maurice Soupault. Paris: J. B. Baillière et Fils. 1902. Fr. 1.50.

A Practical Manual of Insanity. By Daniel R. Brower, A.M., M.D., LL.D., and Henry M. Bannister, A.M., M.D. Philadelphia and London: W. B. Saunders and Co. 1902.

Practical Methods of Urine-Analysis for Chemists and Druggists. Second and enlarged edition. London: The "Chemist and Druggist" Office. 1902. 2s. 6d.

Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1901. By the Medical and Surgical Registrars. London: C. Skipper and East. 1902.

The Neuroses of the Genito-Urinary System in the Male with Sterility and Impotence. By Dr. R. Ultzmann. Second Edition Revised. Philadelphia: F. A. Davis Co. 1902. $1.00.

The Schott Methods of the Treatment of Chronic Diseases of the Heart. By W. Bezly Thorne, M.D., M.R.C.P. Fourth Edition. London: J. and A. Churchill. 1902. 6s.

Die specielle Chirurgie in 60 Vorlesungen. Von Dr. Edmund Leser. Fünfte vermehrte und verbesserte Auflage. Jena: Gustav Fischer. 1902.

Tuberculosis as a Disease of the Masses and How to Combat it. Prize Essay by S. A. Knopf, M.D. Adapted for use in England by J. M. Barbour, M.B. London: Rebman, Ltd. 1902. 1s.

Les Difformités Acquises de l'Appareil Locomoteur pendant l'Enfance et l'Adolescence. Par le Dr. E. Kirmisson. Paris: Masson et Cie. 1902. Fr. 15.

Practical Spanish. By Fernando de Arteaga y Pereira. Two vols. Part I.: Nouns, Adjectives, Pronouns. Part II: Verbs, etc. London: John Murray. 1902. Two Parts, 7s. 6d.

A Lady Nurse of the Times. By Frederick James Gant, F.R.C.S. London: Elliot Stock. 1902. 1s.

Hygiene: A Manual of Personal and Public Health. By Arthur Newsholme, M.D., F.R.C.P.Lond. New Edition. London: Geo. Gill and Sons, Ltd. 1902. 4s. 6d.

The Roll-call of Westminster Abbey. By Mrs. A. Murray Smith. London: Smith, Elder, and Co. 1902. 6s.

Drink, Temperance, and Legislation. By Arthur Shadwell, M.A., M.D.Oxon. London: Longmans, Green, and Co. 1902. 5s.

Indstilling fra Beri-beri Komiteen. Kristiania: Marius Staunnes. 1902.

Des Kindesernährung, Ernährungsstörungen und Ernährungstherapie. Von Prof. A. Czerny und Dr. A. Keller. Dritte und Vierte Abteilung. Leipzig und Wien: Franz Deuticke. 1902. M.4.50.

Clinical Lectures on Surgical Subjects delivered in University College Hospital. By Christopher Heath. Second Series. London: J. and A. Churchill. 1902. 6s.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
Each additional line ...	...	...	...	0 0 6
A whole column ...	...	...	...	2 17 6
A page ...	...	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post-Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) Multiple Myeloma.

E. WIELAND of Basel (*Virchow's Archiv*, October 11th, 1901) describes at great length 5 cases of this condition, chiefly from the histological standpoint. Three of them he published in 1893. The fourth case was in a woman of 61, who had stabbing pains in the back, but no obvious symptoms of bone disease. No albumen was found in the urine, and the author believes there was no albumose. Small tumour masses were were found in the bones of the skull, the ribs, and the sternum, and in the upper part of one humerus and one femur. They partly involved the dura mater, but in all other parts did not transgress the limits of the bones. No local primary growth was found. Histologically, the masses were of the connective tissue type, highly cellular, consisting of numerous small round cells and a smaller number of large, mostly mononuclear, giant cells, and a delicate intercellular substance, forming a fine network in which the cells lay singly. In spite of the obvious structural differences between these masses and normal marrow, the author is of opinion that there are close relations between them, and considers that the presence of mononuclear giant cells in the tumours is strongly in favour of this view. In the other new case (a woman aged 54) no clinical history was obtainable. The *post-mortem* examination showed that the osseous system was beset with circumscribed tumours, which, unlike those in the preceding case, had in many places broken through the compact bone and were proliferating in the surrounding tissues. Wieland's 5 cases all showed slight histological differences, but agreed in the main. The structure of the tumours was fundamentally the same, namely, round cells surrounded by a connective tissue reticulum and resembled most closely the normal reticulated tissue found in lymphatic glands, as well as in the spleen, the bone marrow, and other adenoid tissues. The author is inclined to designate them as lymphosarcomata. This condition has no specially characteristic symptomatology. Albumosuria is not a constant accompaniment of multiple bone tumours, and there is nothing characteristic in the bone pains. They are always marked by profound anæmia, which is probably connected with interference with the blood-forming functions of the marrow, and there is generally fever towards the close. The author points out that under the term multiple myeloma three distinct affections of the bones are included, and he proposes that it should be used in future in its strict anatomical sense, to designate circumscribed lymphatic deposits in the marrow, their structure being strictly homologous to that of the tissues among which they lie. They may, however, break through the bone into the neighbouring tissues, but they never produce metastases. The term lymphosarcoma he would apply to sharply circumscribed new formations, consisting mostly of round cells, and differing as regards the cell form and the intercellular substance from the normal marrow. These tumours may remain within the normal limits of the bones or may proliferate into adjacent parts, but metastases in distinct organs are exceptional. A third class comprises cases of alveolar sarcoma, endothelioma and perithelioma described by Kahler, Marchwald, and others.

(2) Sitophobia: Its Pathogenesis and Treatment.

RUATA (*Gaz. Med. Lombard.*, November 10th, 1901) investigated the gastric condition of 20 insane patients who manifested sitophobia (aversion to food). In depressed psychical states in which the brain was anæmic there was deficiency or even absence of hydrochloric acid; but in conditions of mental agitation or exaltation the hydrochloric acid was in excess. He believes that a vicious circle exists, the condition of the nervous system affecting the stomach, and the abnormal digestive products in the stomach in turn bringing about a neurocerebral auto-intoxication. In melancholia an atonic dilatation of the stomach is constant; and regular washing out with a soda solution improves its condition and its functions. Just as in simple neurasthenia the patient is exaggeratedly affected by his gastric disturabances, so in the insane the mental condition is benefited by the local improvement. In addition to washing out, Ruata administers hydrochloric acid. This treatment increases the inorganic acids (free and combined), and improves the tone of the stomach; but in a few cases, even where the digestion was greatly improved and the insanity cured, no inorganic acid was to be detected in the gastric juice.

(3) Sudden Onset of Typhoid Fever.

WORMSER (*Thèse de Paris*, 1901) has collected a series of cases of typhoid, showing an abrupt invasion. That this occurs has been admitted for some time, especially on the authority of Wunderlich. Still the fact is not so familiar that additional cases are without interest. The patient may be apparently quite well the day before, or even the same day, following his usual occupations. He may be suddenly attacked with extreme pyrexia not unlike pneumonia. It comes on apparently without cause or warning, and usually with rigor, either a very severe single one, or else weaker and repeated, the temperature rising rapidly, attaining 39° or 40° C. Headache of a severe kind is usually present, and is very suggestive of influenza. In other cases severe colic, vague abdominal pain with loss of appetite, and intense prostration, may constitute a special variety. In such cases there is generally nausea or vomiting. In another variety intense giddiness may be the prevailing symptom. The writer even refers to some observations by Maurice Raynaud, in which violent rheumatic pains were present, and Widal describes a somewhat similar case in which there were severe pains in the knee-joint. It must be borne in mind that in children the onset of typhoid is often extremely rapid, with nausea, vomiting, with intense pyrexia and distress. It seems that cases of typhoid showing abrupt onset are met with in persons who have been run down, or who have come through some severe crisis or trying emotion. Thus it may be met with among soldiers after a forced march. Another interesting fact in connection with such cases is the early appearance of the serum reaction. Generally speaking this does not manifest itself till near the end of the first week, but in abrupt cases it may be present on the third day. The prognosis in such cases is not as yet fully established. In some instances the cases have rapidly become fatal, but in others, again, complete recovery has been known.

SURGERY.

(4) Perineal Prostatectomy.

ALBARRAN (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 33, 1901) holds that suprapubic prostatectomy in cases of hyperstrophy of the prostate is a grave and often an unsuccessful operation. The mortality is from 10 to 15 per cent., and it is very frequently followed, after a short interval of relief, by a return of the troublesome symptoms. This surgeon is a strong advocate of the perineal operation, which, he holds, may be performed in a large proportion of cases of enlarged prostate, the only contra-indications being very advanced age, freedom from difficulty in catheterism, the existence of extensive periprostatic or perivesical abscesses, serious lesions involving both kidneys, and advanced urinary cachexia. This operation, it is asserted, is not a dangerous one, and is followed by brilliant therapeutical results. A full description is given of the author's method, which consists in breaking down and removing bit by bit the enlarged prostate, the capsule being left, and by leaving for a time an open perineal wound. The author has performed this operation on 18 patients without a single fatal result. Of these 18 patients 8, he states, have been completely cured, and are now able to micturate freely, the urine being clear and limpid, and the general condition quite sound. Of the other patients, 1 has been lost sight of, 3 still retain an open sinus in the perineum, and 4 have not been long under observation since the date of the operation. In the successful cases it may be noted the longest interval since the date of operation does not exceed six months.

(5) Combined Empyema of the Cavities of the Face.

P. Braunschweig (*Münch. med. Woch.*, July 16th, 1901) records a very instructive case of combined facial empyema. He gives a clear account of the pathology of abscess of the antrum of Highmore, of the frontal and ethmoidal sinus cells, and of the orbital cavity: and the connection of these processes with some pathological conditions of the orbit. The history of the case is as follows: A student, aged 22, gave a good past history, with the exception of an attack of tonsillar diphtheria at the age of 5, and of a fall on to his nose, the exact effect of which was unknown. This fall occurred also at the age of 5 years. In January, 1889, a swelling was noted at the upper and inner angle of the right eye. This was incised and pus evacuated. In December, 1891, a new swelling appeared in the same situation. The opinion of Professor Pagenstecher was that there was hydrops of the right frontal sinus. Fluid was evacuated by puncture, and the condition gave no trouble until August, 1900. After a severe cold, the upper and inner angle of the right eye again became swollen and very painful: pressure on this swelling caused sticky fluid to flow from the nose or through this organ into the fauces. The fluid soon contained purulent masses, which chiefly found their way into the fauces. The right half of the frontal region became the seat of pain, but no fever or general *malaise* was noted. In November, 1900, he consulted Braunschweig, who found that the right frontal region was more prominent than the left; the central part of the prominence was rounded, was dark-red in colour, and the skin was definitely swollen. The right eye was slightly depressed and displaced outwards. Double vision was present on looking to the left or upwards. There was, further, very slight exophthalmos. The upper eyelid was swollen, the palpebral opening smaller than on the left side. The bony edge of the orbit, from the site of the insertion of the lig. canthi intern. was swollen and nodular. In no part was the edge sharply defined. External to the supraorbital notch was an elastic swelling, with well-defined margin, which included the upper inner end of the roof of the orbit. By electrical illumination there was lessened reflex of the right side of the frontal bone, but the maxillary antra transmitted about the same quantity of light. The nose was normal. On November 23rd, under chloroform, an incision was made from the inner end of the superciliary arch to the temple for about 1 inch in length; and a second nearly vertical incision of the same length was made from the inner end of the superciliary arch upwards. After the periosteum had been incised and separated, the triangular flap was turned. A small chisel was used to remove the outer table of the frontal bone, to the extent of ¾ inch diameter. The bone was very thin and easily perforated. The mucous membrane adherent and the piece of removed bone was dark-red in colour and thickened. From the sinus flowed yellow, homogeneous tenacious pus. In order to get a better command of the field of operation, the whole of the anterior wall of the right frontal sinus was removed, the pus was evacuated, and the mucosa, etc., thoroughly scraped with a sharp spoon. A bendable sound was then introduced to explore the walls. It was found that although no communication between the left and right sinus existed, the septum had been deviated to the left for about half an inch. The ethmoidal cells, which were filled with pus, were next cleared out, and then attention was paid to the orbital part of the empyema. Under the periosteum of the roof of the orbit rather internal to the middle line, was a roughened portion of bone, which surrounded a perforation of the size of a pencil. The affected bone was cut away with bone forceps, and in the neighbourhood of the lachrymal bone some bare bone was also removed. The bony wound was smoothed down, a drainage tube inserted through the nose into the cavity, and the wound firmly bandaged. The subsequent course was uneventful, and the wound healed soundly in three weeks. After four months there was slight sinking in of the right frontal region, but not sufficient to be deforming or even very noticeable. The eyebrow grew slowly and covered the horizontal scar. Braunschweig discusses the various methods of operative treatment suggested for empyema of the cavities of the face, and concludes by remarking that, although not fitted for all diseases of the sinuses, Kuhnt's operation appealed to him as an exceptionally good one for empyema with orbital complications.

(6) The Importance of Testing the Functional Capacity of the Kidneys in Abdominal Surgery.

Caspar (*Centralbl. f. Chir.*, No. 44, 1901) insists on the importance, especially with regard to the diagnosis of obscure morbid conditions of the abdomen, of investigating the relative functional capacities of the kidneys. The method of research followed by the author and his colleague, Richter, consists in a comparison of two separate specimens of urine taken at the same time by ureteral catheterism, one from the right the other from the left kidney. The comparative examination of the two specimens is directed to three points: the proportion of urea in each, also of sugar artificially produced by phloridzin injection, and the freezing point of the urine in each specimen. If both kidneys are sound the results of the examination of the two specimens will coincide; if one kidney be diseased they will invariably be less evident in the specimen of urine taken from the affected organ, which contains smaller quantities of urea and sugar and freezes at a lower point. The diagnostic value of ureteral catheterism and investigation of the relative functional capacities of the two kidneys was proved in the author's practice by the following cases: (1) one of unilateral renal lithiasis in which the side of the affected organ would not be precisely determined in any other way, (2 and 3) cases of tumour in the lumbar regions, each of which was thus proved to be perirenal, and not to involve the corresponding kidney. In the fourth case the method enabled the author to clear up the differential diagnosis between renal tumour and perityphlitic abscess. In one instance it helped to prove that colic of uncertain origin was due to biliary and not to renal disease. In three cases of nephralgia similating renal colic the author was able by means of his method of investigation to make out that renal calculi were not present.

MIDWIFERY AND DISEASES OF WOMEN.

(7) Treatment of Uterine Inversion by Anterior Colpo-hysterotomy.

Gayet (*Lyon Méd.*, November 17th, 1901) records the following case: A seamstress, 24 years of age, was admitted into hospital with a history of hæmorrhage and progressive loss of strength dating from a confinement thirteen months before. On examination a large rounded tumour was found filling the vagina, easily mobile, firm, and elastic in consistence. Above, it was tightly embraced by the cervix, and bimanual examination proved the absence of the uterus from its normal position. The surface of the tumour was red with a few white patches, and the slightest touch caused hæmorrhage. Attempts at reposition made for six days were all futile. The patient was therefore anæsthetised, the anterior lip of the cervix seized with a volsella, and a semicircular incision made into the anterior *cul de sac* at its point of junction with the cervix. The bladder was carefully separated, the peritoneum opened, and the absence of adhesions confirmed. The anterior wall of the uterus was then incised in the median line to the fundus by means of scissors, and the inversion easily reduced. Deep chromic gut sutures and superficial catgut were applied, the whole uterine wound closed, and a strip of gauze placed in the vesico-uterine peritoneal pouch. Pyrexia and vomiting occurred for a week after the operation, but convalescence was afterwards rapid. A month after operation the cervix was normal, the anterior *cul de sac* cicatrised, and the uterus almost vertical. The anterior operation is, according to Gayet, far easier than the posterior. This is the 14th recorded case of colpo-hysterotomy for inverted uterus, with only one failure and no death. In a young woman, therefore, where taxis has failed, this operation seems indicated rather than hysterectomy.

(8) Primary Adeno-Carcinoma of Fallopian Tube.

Elizabeth Herdon (*Bull. Johns Hopkins Hospital*, October, 1901) adds one more case of this disease to medical literature but a few months after Le Count's report on the "Genesis of Carcinoma of

the Fallopian Tube in Hyperplastic Salpingitis" (EPITOME, November 23rd, 1901). Hurdon's case was under Howard Kelly, and the patient consulted him for the usual cause—sanious vaginal discharge. She was 63 years old, an unusually advanced age for cancer of the tube, though in Pawlik and Nowy's case the patient was 70. Hurdon's patient had borne four children to term, and had been in good health until about nine months previously, when she suffered from typhoid fever, after which she became subject to an almost constant sanious vaginal discharge, with frequent fever. There was an irregular soft mass of the size of a tangerine orange on the left side of the uterus. Pyosalpinx was diagnosed, and Kelly removed by abdominal section the uterus, right tube, and the left appendages, which included the tumour. The right ovary, small and perfectly normal, was not removed. The tumour adhered to the sigmoid flexure, which was torn through to the mucous membrane during separation and repaired. Recovery was speedy. The disease lay in the right tube, which was about 5½ inches long, the middle and outer portions were greatly dilated. The tube contained a granular friable mass, consisting of finely-branched papillary outgrowths, which had coalesced to a great extent, forming a more or less homogenous mass. The growths sprang from the mucous membrane lining the inferior part and the outer third of the tube. The ovary was slightly enlarged and contained a few cysts and the broad ligament was infiltrated. The papillary growth was truly cancerous and and had invaded the muscular coat in parts, and it was traced with ease to the branched folds of the mucosa. The ovary was invaded at a point where it touched the tube, the uterus and right tube were healthy. The after-history is instructive. Two years and one month after the first operation abdominal section was once more performed as the patient suffered from a feeling of discomfort in the hypogastrium. Two small masses, proved to be cancerous on microscopic examination, were dissected out of the stump of the left broad ligament and the back of the bladder—a few smaller deposits on the adjacent peritoneum could not be removed. One year after the operation the patient appeared to be in good health.

(9) Painful Conditions Mistaken for Tubal Pregnancy.

DIRNER (*Centralbl. f. Gynäk.*, No. 45, 1901) operated on a primipara, aged 27, for suspected extrauterine pregnancy, the patient suffering unbearable pain. He found pregnancy in one horn of a uterus bicornis duplex. The uterine wall seemed very thin and likely to rupture, therefore Dirner performed supravaginal amputation. In a discussion on this case Tauffer related how a pregnant woman, aged 36, suffered from severe pain in the left side of the pelvis. Suddenly an attack of acute anæmia with evidence of peritonitis occurred. Extrauterine pregnancy with hæmatoma was suspected. Abdominal section was performed. In the anterior wall was a subserous myoma inflamed, posteriorly a second growth of that class was found projecting from the posterior wall and imbedded in inflammatory exudation. The sudden attack was due to impaction of the posterior growth in the pelvis. It was removed, and the pregnancy continued uninterrupted.

THERAPEUTICS.

(10) Inoculation against Malaria.

PHILALETHES KUHN, medical officer to the German colonial troops in South West Africa (*Archiv für Schiffs und Tropen Hygiene*, November, 1901) narrates how he was led to employ a method of inoculation against malaria. Since the year 1899 he has held the opinion that malaria and horse sickness are but very narrowly separated from one another; and finally, for the purposes of his experiment, he held them as one and the same disease. He has employed the curative serum for horse sickness in the treatment of malaria, and claims that it has an influence on the latter and can cure it. With regard to the intimate relation of the two diseases, he points out that neither is immediately infectious, that both appear with the rains and cease with the cold season, that mosquitos probably play a similar part in both, and that in certain of their clinical symptoms the two diseases resemble each other. To the objection that there are countries severely malarious without any horse sickness being present, he replies by suggesting that minute investigation would perhaps elicit the fact that horse sickness either prevails everywhere in tropical malarial countries, or has yielded to the gradual "salting process." He began his inoculations with this serum in January, 1899. Between that date and April 20 white men suffering from unmistakable malaria were inoculated. During the inoculation they took no quinine. The inoculation was made in the forearm with a Pravaz syringe of 1 or more c.cm. of the serum. Following it appeared a slight swelling, somewhat painful, but disappearing entirely after a few days. Shortly after in many cases urticaria appeared for a short time. All forms of malarial fever were found to be influenced by it: thus in all cases the cold sensations of the first stage are diminished in intensity, a strong rigor being represented by a mere feeling of cold. The effects differed in accordance with the fact as to whether the patient had had previously much malarial fever or not. With the natives and old residents the inoculations in many cases stopped the attack at once: with newly-arrived immigrants who had never had malaria and with children, after the inoculation there were on an average four or five attacks, the last always being the weakest. Between these two classes remained those white settlers who had already had malaria: here usually one to three attacks followed the inoculation. Again it was found that relapses occurred more seldom if the fever treated were quotidian or tropical malarial fever than if it were tertian or quartan: and, finally, the time of inoculation was important, as quicker results obtained if it were done during the attack than during the intermission. Kuhn claims that his method of inoculation acts as a substitute for quinine, and that thus the avoidance of exciting "blackwater fever" will be caused, for the writer agrees with Koch as to the part played by quinine in the latter disease; that it obviates the occurrence of relapses; and, finally, that it prevents therefore any fresh infections.

(11) A New Valerian Preparation.

H. KIONKA and A. LIEBRECHT (*Deut. med. Woch.*, December 5th, 1901) record the results of their studies with valerian and its various preparations. They found that the uncertainty of the action of this drug depends on the instability of the preparations, and that definite trains of symptoms follow the use of freshly-made infusion from fresh leaves. As this would be a bar to the general use of the drug, they sought for a stable preparation, and found one in valerianate of diaethyl. amid. ($CH_3CH_2CH_2CH_2N(C_2H_5)_2$). This preparation is gained as a colourless fluid, with a peculiar odour and a strongly burning taste. It evaporates at 210° C. In frogs it produced in doses of gr.⅛ to gr.½ general paralysis, which followed a short interval of mental excitement. In larger doses the heart became involved. In rabbits 3¾ grs. for an animal weighing 4½ lbs. produced great mental excitement, which is associated with a depression of the reflex action. The next symptoms noticed are twitchings and clonic (never tonic) spasms, and the heart beat becomes stormy. The animal dies before a general paralysis develops. Cats and dogs behave like the rabbits towards the drug. Kionka and Liebrecht point out that, contrary to the usually accepted idea that the psychical excitement produced by valerian is due to the smell, they were able to show that this has nothing at all to do with it. Believing that the above-named preparation is well suited for therapeutic use, they employed it in a series of cases. The strong burning sensation left in the mouth when taken in a concentrated form, and the still more objectionable odour of the dregs left in the glass or spoon, caused them to seek a better method of administration. They caused gelatine capsules to be made, containing 1½ gr. of the drug mixed with mutton fat, under the name of "valyl," and report that 2, 3, or even 6, capsules, taken three times a day produce no bad effects, while in hysteria, neurasthenia, neuroses of a traumatic nature, neuralgias, anomalies of menstruation, and distressing nervous symptoms at the menopause, the drug was capable of acting very well. They strongly recommend the use of valyl in these and like conditions, and express the hope that much of the lost reputation for valerian may be regained by means of this combination.

(12) Carbonate of Creosote in Pneumonia. L. Weber (*N. Y. Med. Rec.*, November 2nd, 1901) reports certain new and striking results in the treatment of pneumonia with carbonate of creosote, and gives the details of 9 cases treated with uniformly good results (3 private and 6 hospital cases). They included males aged 24, 28, and two of 47 years, and females aged 12, 21, 32, 34, and 40 years. The pneumonia was of the lobar type, and affected one or both bases, but in one or two instances it was diffuse, and lobular in distribution. The average dose was 60grs. of the carbonate of creosote per diem, after the administration of which the temperature always subsided and kept low, and the patients also said they felt much better generally. There was never observed any symptoms of gastro-intestinal irritation or depression, and of the 9 patients 8 recovered completely. The ninth also recovered, but died at a later period of cardiac and hepatic complications which had already existed. The author concludes that the remarkable effects obtained were attributable not to the antipyretic or bactericidal properties of the drug, but suggests that its action must be antidotal to the toxins of pneumonia. The dietary and nursing of the patients was as usual, but directly the patients were treated with the carbonate of creosote improvement began to show itself so strikingly that all anxiety could be put aside from the prognosis. These observations show that in the drug mentioned we have almost a specific remedy for lobar pneumonia.

(13) Ammonia-ichthyol in Skin Diseases. Hodara (*Monats. f. prakt. Dermat.*, 1901, Bd. xxxii, No. 12) recommends ammonia-ichthyol in the following cases: Furunculosis, impetigo contagiosa, folliculitis of the scalp, impetiginous eczema, herpes genitalis, and sycosis barbæ. The drug is applied as a thick ointment; this soon dries like a varnish. It is reapplied daily. Under this pustules soon dry up and boils soften and open. The treatment is said not to cause secondary dermatitis.

PATHOLOGY.

(14) The Relations between the Freezing Point of Blood and Nervous Disturbances.

A. Bickel (*Deut. med. Woch.*, No. 36) deals in minute detail with the investigations into the relations between the alterations of the freezing point of the blood and certain disturbances of the nervous system, including uræmia. He recites the conclusions of Münzer's work, which he considers has been sufficiently controlled to be accepted. Sodium chloride, when injected into the animal body in sufficient quantity, produces a general decrease of the blood pressure, until immediately before death, when a sudden rapid rise takes place. The pulse becomes arrhythmic, and later much slowed. This is due to a stimulation of the vagus. Other nerve stimulations occur in the form of tonic and clonic spasms, often with preceding fibrillary muscular twitchings, tremors of the extremities, and nystagmus. The sensibility is diminished, while the reflex phenomena are excited. Consciousness is maintained for a long time. Bickel, while agreeing with these conclusions, points out that they are seen when the rate of injection is medium. If the intravenous injection be carried out very slowly, as he shows in a series of experiments on rabbits and dogs, these changes of the nervous system are not seen, but the animal dies after a single "terminal" attack of convulsions. He finds that the freezing point of the blood can be lowered even by 0.52° C., without producing any effect on the nervous system. Lindemann attempted to explain the pathology of uræmia by assuming that salts were retained in the blood, and believed to have an index of this factor in the osmotic pressure. He argued against any specific toxæmic property of the salt molecule thus retained. In this argument Bickel finds an insuperable objection, in the fact that in experiments on dogs and rabbits, when the kidneys are removed and an artificial uræmia is induced, the lowering of the freezing point from normal until the death of the animal does not exceed 0.12° C., while in his experiments with saline injections he found a lowering of from 0.28° to 0.52° C. up to the time when the first symptom of nervous disturbance occurred. In summing up he states that, first, the mode and intensity of the nervous stimulant appearances of chloride of sodium depend to a great extent on the rapidity of the injection; secondly, as in insufficiency of the kidneys the molecular concentration of the blood only increases gradually, injections of saline fluid, which should imitate the physical conditions occurring in insufficiency of the kidneys, may only be carried out as slowly as the technique of the procedure allows; thirdly, since under the conditions of saline injections formulated in No. 2, lowering of the freezing point of blood is greater than that in experiments on animals producing artificial uræmia, that the pathology of uræmia cannot be explained as corresponding to the experiments with saline injections; fourthly, that the raising of the osmotic pressure of the blood inside wide limits, or a certain degree of the raising of the same, cannot be taken as an index of nervous disturbances; and, fifthly, the concentration of the blood noted in uræmia is only to be explained by indicating that certain substances are abnormally retained in the blood, but that a dependence of the nervous stimulation appearances on the heightened concentration of the blood does not exist. Beckel gives full details of his experiments, and discusses their meaning at length.

(15) The Pathology of Bacteria. Nakanishi (*Centralb. f. Bakt.*, Bd. xxx, No. 3, 4, 5 and 6) has conducted an extensive series of researches on the structure of bacteria. For the purpose he has made use of Bizzozero's methods of staining, that is to say, by dissolving various aniline dyes in ascitic fluid. Of these Nakanishi has found methylene blue the most satisfactory, but has also used neutral red, dahlia and others—all in concentrated solutions. In his experience all bacteria in their fresh state can be stained by this method, even the otherwise resistant tubercle bacillus, in a very short time. The staining is not diffuse as with the ordinary methods, but a fine differentiation is obtained, that is to say, the different parts of the smallest organisms, such as secretion products, are in different degrees marked out by the stain. All bacteria in their young state and under favourable circumstances are short uninucleated cells. The membrane of bacterial cells appears microscopically as a thin smooth structureless skin. In some cases a gelatinous covering outside the cell membrane is noticeable, it does not belong to the cell proper but is a secretion product. Cytoplasm constitutes the greater part of the cell mass, and is in two not well differentiated layers, a deeply stained ectoplasm, and a lighter or colourless endoplasm. In the centre of the cell is a nucleus usually round or oval and deeply stained. Division of this nucleus precedes division of the cell body as in higher animal and plant organisms. In spore formation the cytoplasm in the neighbourhood of an axially-lying nucleus first become remarkably clear, and then developed an oval speck which grows, and by membrane development exhibits a characteristic refractive appearance and a difficulty in staining. In reality, spore formation appears to be an intracellular encapsulation of the nucleus and the thickening of the perinuclear cytoplasm. The spores have always a central nucleus. When the spore buds the membranous covering splits, sometimes in a polar direction. Leucocytes stain well by this method, but living leucocytes do not. Red cells often show degenerative changes when stained with these solutions. All the varieties of malarial parasites are well shown.

(16) Experiments on Agglutination. Harrison (*Centralb. f. Bakt.*, July 31st, 1901) has conducted several series of experiments to test Nicolle's hypothesis that agglutination in Widal's and similar tests consists in the coagulation and conlescence of the external layers of the agglutinable microbes under the influence of the agglutinating serum. He used pyocyanase to dissolve the external layers of the bacilli with which he experimented, and by killing the bacilli with thymol and careful washing was able to show that the agglutinating substance exists entirely in the outer layers of the bacilli, and that the remaining nuclear substance, when these are destroyed, is incapable of giving a positive reaction, even with very powerful serum.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(17) Acute Articular Rheumatism of Contagious Nature.

G. B. ALLARIA (*Riv. Crit. di Clin. Med.*, November 23rd, 1901) relates a small epidemic of this kind. The primary case, a girl of 16, had had two previous attacks, one of which affected the mitral valve. Her sister had had an attack beginning one day after her second attack, and now in the third attack (a classical acute articular rheumatism) the same sister nursed her and developed the disease herself for the second time. A friend who came in to see the second case herself developed acute articular rheumatism. All three cases began with severe tonsillitis. Three successive nurses whose duty it was to paint the throat of the primary case were attacked within a short time, the last of them having simply tonsillitis without articular symptoms. In the three original cases the tonsillitis was bacteriologically examined, and two micro-organisms were found. One was a staphylococcus, non-pathogenic to a guinea-pig. The other was a very small coccus, usually arranged in pairs or in short chains of 4-8, staining deeply by Gram's method, growing readily on agar with blood, but not so well on simple agar. This closely resembles Meyer's streptodiplococcus. A 48 hours culture injected in dose of 1 c.cm. had no local action: the guinea-pigs languished, and four or five days later very painful swellings of various joints appeared, followed by recovery. Some of the animals were killed and examined; the joints were found full of limpid serous fluid, which under the microscope was found to be slightly corpuscular. No organisms could be found microscopically, but the cocci were cultivated from the exudation.

(18) Gastric Disorders and Eczema.

MANY French clinicians regard eczema as being due to internal causes among which digestive functions play an extremely important *rôle*. Meynet has made a series of investigations into the chemical characters of the gastric contents in such cases (*Thèse de Lyon*, 1901), with a view to finding additional evidence in support of this proposition. In almost all cases he finds disordered absorption and deficient motility. The gastric juice also shows hypoacidity, hydrochloric acid being reduced in amount. In many instances there is dilatation, while absorption is considerably prolonged. Abnormal fermentations were a striking feature in his cases, producing excess of lactic, butyric, and acetic acids. The prevalence of such gastric disturbances the author considers should be borne in mind in all cases of eczema, in order that general treatment may be employed as well as the local methods indicated for the skin. This also points to the importance of dietary, not only to reduce the tendency to abnormal fermentation, but also to obviate any arthritic complication, for as is well known eczematous conditions often accompany gouty symptoms. It is quite possible also that certain individual peculiarities of digestion or absorption may have to be counteracted, as there is a certain amount of evidence to show that the ingestion of certain articles of food, such as game, spiced, and very salt articles of diet, etc., may be the immediate cause of an attack of eczema.

(19) Follicular Tonsillitis.

WESTHEIMER (*Jahr. f. Kinderheilk.*, April, 1901) reviews the opinions of medical authors on the subject of follicular tonsillitis from 1875, when Friedreich first declared it to be an acute infectious disease, up to the present day, when many authorities advocate isolation of the sick and fix the incubation period at four days. The infectiousness of the disease seems to be now quite established; and the experience of numerous epidemics shows that there is a definite period of incubation. The exciting agent is a pyogenic coccus which, localised in the tonsils, exercises a general effect on the system, or, emigrating from them, causes neighbouring abscesses or infection of the general circulation. The commonest complication is bronchitis, but pneumonia and pleurisy may also arise. True nephritis occurred 38 times among 1,261 cases in the Leipzig clinic. Parotitis, orchitis, or ovaritis are mentioned. Invasion of the blood stream results in pyæmia or septicæmia, otitis media or osteomyelitis, and puerperal fever has been traced to the same cause. Then there are all the rheumatic manifestations, namely joint effusions, heart affections, chorea, and erythema. Finally there is a scarlatina-like rash which disappears in twenty-four hours, is patchy not general, and is not followed by desquamation. Associated with this is extreme irritability of the nerves to the vessels of the skin, the slightest irritation by pressure producing marked vascular dilatation. Among children the age most frequently affected is 3 years, but it often occurs in babies. In them its acute onset may cause convulsions, hence the fauces should always be examined in infantile eclampsia. Follicular tonsillitis is thus a definite acute infectious disease, with an incubation of about four days, it requires isolation and five days quarantine. Relapses are frequent, and are not wholly prevented by tonsillectomy. The best treatment is rest in bed, cold fluid diet, ice locally outside, and the insufflation on to the tonsils of boracic acid sweetened with saccharin as recommended by Escherich.

(20) Diabetes Insipidus due to Syphilis.

M. VON ZEISSL (*Wien. med. Presse*, August 11th, 1901) states that diabetes insipidus is a comparatively rare complication of syphilis, though a whole series of cases have been reported in which it occurred both in the congenital and acquired variety. A woman, aged 46, contracted syphilis in 1892. Shortly afterwards she had peritonitis, and was treated by mercurial inunctions and later by injections. In 1894 she was again ordered mercurial inunctions followed by a course of iodides for gummatous syphilides of the face. From 1894 to March 27th, 1901, she received no treatment, although troubled with superficial erosions of the tongue. In January, 1901, there was an eruption of gummatous syphilides on the back, and simultaneously great polyuria and thirst, which made a good night's rest impossible. There were occasional headaches and some amnesia. The urine contained a trace of albumen, but no sugar, and had a specific gravity of 1008. The sediment contained pavement epithelium and some lymphocytes. The total daily quantity was 9·68 pints. The treatment consisted of an intramuscular injection of 0·03 gram (about ½ gr.) of imidosuccinate of mercury, and iodide of potassium in pills internally. On March 31st, 1901, the gummata and the lingual lesions were healing rapidly. Simultaneously the thirst diminished, the amount of urine fell to 6 pints, and the general health improved. A second mercurial injection of 0·04 gram (rather less than ⅔ gr.) of the imidosuccinate was given on March 31st. On April 8th the daily amount of urine had fallen to 3½ pints, and the thirst was less. The sores on the tongue had healed. On April 8th, owing to an attack of dyspepsia, the iodide was omitted, and no further mercurial injection was given until April 13th. During this week the thirst again became intolerable, and the daily amount of urine rose to 10½ pints. On July 4th, after continuous treatment, there was very little thirst, and the daily quantity of urine was only 52½ ounces. A connection between the polyuria and polydipsia and the syphilis was rendered almost certain by the results of treatment, and the prognosis was, therefore, favourable. It is uncertain whether the polyuria in syphilitic cases is due to cerebral or renal lesions. The writer prefers the imidosuccinate of mercury to other salts for intramuscular injections, because it is not precipitated by cocaine. The solution he employs is imidosuccinate of mercury 5.0 gram, cocaine 3.0 gram, and distilled water 100.0 gram. He begins with a dose of 0.03 gram of the imidosuccinate, five days later injects 0.04 gram, and eight days later 0.05 gram (about ⅔ gr.). The last-named amount is then injected every week, unless it causes diarrhœa. The addition of cocaine renders the injections much less painful than those of perchloride of mercury.

SURGERY.

(21) Treatment of Appendicitis.

BIRDSALL (*Jahr. f. Kinderheilk.*, November 1901) discusses the choice of operative

or medical measures in perityphlitis and gives his views on the practical execution of each method. He rejects the plan of indiscriminate operation in every case as unnecessary and frequently maiming the patient with a ventral hernia. The appendix is probably subject to many affections not of a surgical nature. In structure it resembles the tonsil, being largely composed of adenoid tissue, and therefore, probably, like it, liable to the inflammations of influenza, rheumatism, angina and pneumonia. The neighbouring cæcum may be full of virulent bacillus coli and decomposing contents, which threaten the safety of the appendix. Inflammations in this region were formerly treated by pugatives and, according to Biedert, with a lower death-rate than that of recent years in which aperients have been discountenanced. Several authorities however, have recently (February, 1901) strongly recommended a return to purgatives in appendicitis (Robin and Lanceraux); so does Rose, who contends that the walls of the cæcum being already paralysed by the disease, medicines cannot stimulate them to contract, and so rupture any projecting adhesions that may exist. And Bourget advocates the use of enemas of two pints of warm water containing one drachm of ichthyol twice a day. The question, whether to use opium or evacuants in appendicitis, and, indeed, in peritonitis generally, Biedert answers by advising the use of both. Begin with castor oil or a large injection, and after the preliminary clearance keep the patient under opium, ridding the bowels from time to time by enemas. Introduce as little food beyond water as will sustain the strength until dangerous symptoms abate, giving, for example, Biedert's cream mixture, broths, or very dilute milk only. Ice is applied locally. So much for the medical treatment. When the case is at the outset one of fulminating peritonitis, there must be no hesitation in operating by the median incision, with perhaps other counter-openings for irrigation and drainage. So, also, if the symptoms never abate, but steadily increase and become serious, the surgeon must be called in. Thirdly, if acute symptoms subside, but then a relapse occurs, there is one symptom which is a most certain indication for immediate operation—namely, return of the vomiting. The pulse-rate is often deceptive, and may have fallen to below 90, and the temperature be reduced, but the real signal of a serious spread of the disease is this reappearance of vomiting. Finally, definite signs of a pus collection always point to immediate incision. The operation that Biedert extols is that of Rosenberger, who by it has obtained remarkable results. Out of 45 cases, 25 recovered under his medical treatment, while 20 he operated on. Of the latter, only 4 died, and these had general peritonitis before operation, and were practically hopeless from the first. Rosenberger's incision is made over the tumour, or at McBurney's point parallel to Poupart. The incision is from 1 to 2½ inches long, according to the depth of the fat layer. After using the knife half way through, the finger is substituted, and made to bore down to the peritoneum. After opening this with the director or with the finger, either the latter or a pair of blunt forceps is worked in towards the site of the appendix. When a cavity is entered, the finger is to be directed downwards to feel if the abscess extends into the pelvis. Pus or fæces usually escape, but sometimes only clear serum, yet even then the immediate improvement is most striking. One or two drainage tubes are inserted, and iodoform gauze is packed round them. No search is made for the appendix, which he removes at a subsequent operation in the cold stage. The first time Biedert tried this operation, the empty cæcum, lying stretched over the abscess, was opened into. This was remedied by suture, and the patient recovered. In cases where difficulty is experienced in finding a cavity, Biedert advises that the wound be enlarged outwards, and search for the pus made from there, instead of forcing an entrance at the original spot, and so risking injury to the cæcum.

---

(22) Twenty Years of Renal Surgery.

Krönlein and Wyss (*Beit. zur klin. Chir.*, vol. xxxii, Part 1, December, 1901) devote nearly 250 pages to a valuable report of renal surgery in the Zurich Surgical Clinique between 1881 and 1901. A fine series of coloured drawings of diseased kidneys accompanies the report. The bare statistics can alone be quoted. The series of operations are thus classified: (1) Movable kidney, 18 cases, all in women, 18 of the kidneys on the right side, 1 on the left (bilateral), 3 not operated upon; 15 recovered out of 16 operations: the fatal case was a nephrectomy; of the 15 nephropexies, 2 were done as the conclusion of an exploratory operation, and nephrotomy was also performed in 2 others. (2) Malignant tumours 15, 11 in men, 4 in women; 11 right, 4 left; 11 operated upon and 4 unoperated; 1 nephrostomy recovered; 10 nephrectomies, with 1 death. (3) Cystic tumours 2, both in women, 1 right and 1 left; 2 nephrectomies, both recovered. (4) Echinococcus of kidney 1, in a male (right kidney), unsuccessfully treated by incision and drainage. (5) Hydronephrosis 10, 2 in men and 8 in women: 6 right, 4 left, 1 no operation; 4 nephrectomy (1 death), 1 incision and drainage alone; 4 nephropexy, including 1 incision and drainage as well. (6) Tuberculous kidney 35 cases, 12 in men, 23 in women; 21 right, 14 left (only 1 described as bilateral); 9 cases no operation; 21 nephrectomies with 2 deaths (3 were partial extirpations); incision and drainage 2, with 1 death; nephropexy and incision 3, with 1 death; 20 of the total 26 operations reported as "cured," 4 having died, the remaining 2 apparently deriving no benefit from the operation. (7) Pyonephrosis 7 cases, all in women, 6 right, 1 left; 4 nephrectomies (1 death), 3 incision and drainage in 1 case with nephropexy; all recovered. (8) Calculus 7 cases, 2 in men, 5 in women, 3 right, 4 left: 1 no operation, 2 nephrectomies (1 death), 3 nephro-lithotomies, 1 exploratory incision (1 death). (9) Disease of ureter 3, 1 in a man, 2 in women, 2 right, 1 left; 3 nephrectomies, 1 death. (10) Injuries of the kidney 14, 12 in men, 2 in women, 8 right, 6 left (1 bilateral included): 9 no operation (3 deaths), 1 suture of renal wound, 2 nephropexies, 2 exploratory operations (1 death).

---

(23) Suture of Wound of the Heart.

Fontan (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 37, 1901), who reported in May, 1900, a successful case of suturing of a wound in the heart, publishes a second case, also successful, of a like kind. The patient, a soldier, who had been stabbed in the chest in a quarrel, was operated on about two hours after the receipt of the injury. There was no external bleeding and no signs of effusion into the left pleural cavity, but the patient was in a condition of extreme collapse with a rapid and almost imperceptible pulse. The symptoms indicated hæmorrhage limited to the pericardial sac and causing compression of the heart. A flap consisting of soft parts and the anterior portions of the fourth, fifth and sixth ribs with their cartilages, was turned upwards in the anterior axillary line. A vertical wound in the pericardium 12 mm. in length, was then exposed. After this had been extended upwards and downwards by scissors, and its margins held apart, a penetrating wound, about 8 mm. in length, was found in the wall of the left ventricle. This was closed by a continuous suture of catgut and all hæmorrhage arrested. In spite of an attack of pulmonary embolism and pneumonia, and of subsequent empyema on the left side of the chest, the patient ultimately made a good recovery. This, the author stated, is the fifth instance of successful suturing of a cardiac wound, but the list of recorded cases given in his paper is far from complete.

MIDWIFERY AND DISEASES OF WOMEN.

(24) Subcutaneous Emphysema produced by Labour Pains.

Székely (*Pest. med.-chir Presse*, October 6th, 1901) reports the following case: A primipara, aged 29, was said to have suffered from cough, pleurodynia, and occasional hæmoptysis 18 months before delivery. The last menstrual period was on September 1st. She had coughed during the early part of pregnancy, but for some time before labour commenced had been in good health. With the onset of pains on June 2nd, the cough reappeared. On June 4th the os was fully dilated, and the pains were extremely strong. At 4 A.M., during one of these, the right side of the neck and face became suddenly swollen, and the right eye was closed by the enormous eyelid. Until the birth of an unusually well-developed male child at 1 P.M., the

subcutaneous swelling steadily increased. On the third day of the puerperium the patient's face was greatly swollen, and the circumference of the head was double the normal. The skin of the neck, chest, back, and right arm was enormously distended, and the swelling was continued over the abdomen as far as the pubes. The swelling affected the right side more than the left. The skin was of a normal colour, and felt like an air cushion. There was crepitation, but no heat or tenderness. Recovery was complicated by a gangrenous vaginitis, which resulted in a vesico-vaginal fistula. The face regained its normal outlines in a week, and the whole of the subcutaneous air was absorbed within 3 weeks. The heart was normal and no disease could be detected in the lungs. The woman was well developed and well nourished, and the pelvic measurements were normal. The cause of the emphysema was probably rigidity of the soft parts combined with an abnormally large child. These factors possibly acted on a lung already weakened by bronchitis or pleurisy. There were no grounds for assuming that tuberculosis was present. Subcutaneous emphysema is a rare complication of labour. Klots has collected 38 cases, of which 93.93 per cent. occurred in primiparæ. The air always appears in the first instance under the skin of the neck, to which it spreads from the anterior mediastinum, which it reaches in turn from the suptured subpleural vesicles. Predisposing causes are contracted pelves, rigidity of the soft parts, or abnormal development of the fœtus on the one hand, and disease of the lungs, especially tuberculosis and pleurisy, on the other. Emphysema may occur, however, with perfectly healthy thoracic organs. The enormous development of the emphysema in the writer's case was due to the time which elapsed between its appearance and delivery. To prevent the further entrance of air labour should be terminated as quickly as possible.

(25) Puerperal Gangrene.

HAGEMEYER (*Wien. klin. Rundsch.*, September 29th, 1901) reports the case of a woman, aged 40, who had suffered from cardiac symptoms for eight years, since an attack of influenza During the fourth pregnancy she had an attack of right hemiplegia and aphasia, from which she recovered completely in five days. Nine days after a premature labour in the seventh month the right leg became weak and anæsthetic. There was great pain, but no swelling or discoloration of the skin. Complete recovery followed with rubbing and the application of heat. In the fifth pregnancy there was copious hæmorrhage, and a fortnight later she was delivered of a living 8 months child. On the ninth day there was a sudden sensation of tiredness in the left leg, which rapidly became completely anæsthetic and cold below the knee. There was neither pain nor swelling until the evening, when the leg was raised. The next day some blue patches of discoloration appeared on the dorsum of the foot, and somewhat later the toes became dry and horny. Five days after the first appearance of symptoms the toes were dry and waxy, and the foot and the lower part of the leg were of a bluish-brown colour, and covered with scattered bullæ. About 1½ inch below the knee was a well-marked line of demarcation. Movement and sensation were completely abolished. Eight days after the first symptoms the leg was amputated at the junction of the lower and middle thirds of the thigh. The divided vessels were healthy. The wound healed by first intention, and the patient recovered. The popliteal artery contained a dry adherent fibrinous mass which completely occluded its lumen just before the bifurcation into the anterior and posterior tibial arteries. Every artery in the leg was thrombosed, and the veins also contained thrombi, which, however, were not adherent, and were probably secondary. The pulse was small, frequent, and irregular, and the cardiac dulness was enlarged to the right. At the apex, which was in the fifth intercostal space slightly outside the nipple line, was a systolic murmur, which was also heard in the third left interspace. The character of the pulse and the irregular action of the heart pointed to the presence of advanced myocardiac degeneration, and the systolic murmur was probably due to secondary mitral regurgitation. Probably a thrombosis formed in the left ventricle and produced embolism of the popliteal artery. Doubtless the hemiplegia in the preceding pregnancy was due to cerebral embolism, and it is probable that the *post-partum* anæsthesia and weakness in the right leg was also caused by temporary or incomplete obliteration of the popliteal artery. Puerperal gangrene is rare, and not more than 21 cases have been reported. Of these, 3 were complicated by endocarditis, which in 2 cases apparently arose during the puerperium, but in the third had existed as mitral regurgitation for years. In these embolism was probably the exciting cause of the gangrene. In 2 cases Raynaud's disease was probably present. Excessive hæmorrhage, or coagulability of the blood, sluggish circulation, and the immobility of the leg muscles during the lying-in period are predisposing causes, and may produce thrombosis either in the heart or vessels In most cases both arteries and veins have been thrombosed. Gangrene may also be due to phlegmasia alba dolens, especially the septic variety. In many many, however, the etiology has been obscure. The prognosis is fairly good in the dry forms, but is bad in the moist and septic cases. In the dry variety amputation may be deferred until a line of demarcation has formed; in the septic, moist, and spreading form, accompanied by pyrexia and a frequent pulse, it should be performed immediately well above the disease.

(26) Labour Impeded by Ovarian Tumour.

SEMON, of Danzig (*Monats. f. Geb. u. Gyn.*, October, 1901) removed a large sarcoma of the ovary which absolutely prevented labour. The uterus was first tilted out of the abdominal cavity and afterwards replaced. Cæsarean section was not performed. Half-an-hour later labour took place spontaneously. The opposite ovary was not removed. One year and a-half later the patient was in good health. Reposition or pushing up the tumour without operation is dangerous, and may cause torsion of the pedicle, bleeding or rupture of the cyst with consequent peritonitis. Any purely obstetrical operation, before the obstacle caused by the ovarian tumour has been overcome, is objectionable. Cæsarean section is too extreme a measure when the tumour is easily removable. Tapping of a cyst, even if clearly parovarian, is inadvisable; it may set up peritonitis. In one case under Semon, a tumour was detected in the pelvis in the third month of pregnancy, and abdominal section was performed in the sixth month. It proved to be a prolapsed kidney, which was removed. Puncture would have been useless in such a case.

THERAPEUTICS.

(27) The Light Treatment.

S. BANG (*Berl. klin. Woch.*, December 9th, 1901) attempts to unravel the tangled state of light therapy, and to separate what is actually known from that what is unknown. He deals exclusively with light rays, and leaves heat rays entirely out of the argument. The local effect of light rays, as applied in treatment, depends on the action of ultra-violet rays, which are most readily obtained from an electric brush light. This effect is evidenced by a hyperæmia which lasts for a very long time after the influence of the light has been removed. He speaks, further, of a so-called "latent hyperæmia," by which he wishes to express that condition of skin which follows months after the treatment has been applied, and which is recognised by a distinct redness appearing after a very slight stimulation. The actual changes consist in a dilatation of the cutaneous vessels, exudation, and local leucocytosis. Later a pigment is locally deposited, probably from the red blood corpuscles, which acts as a bar against any further effect of the ultra-violet rays. Dealing with the general action of the light, he finds that our knowledge is extremely limited in this direction. It is nevertheless certain "that the light is of importance for our health and power of resistance." Turning to the bactericidal action of the light, he believes that we are treading on firmer ground. He finds that apart from the strength and quality of the light, one has to take into account the absorption of the rays, and he shows that when passed through 1 c.cm. of a light veal broth the rays lose 700 times as much as they do when passing through a like column of distilled water. Comparing the electric light with sunlight, he finds that while the latter takes 1½ hour to sterilise a certain surface growth of staphylococcus aureus, the 30

ampère lamp, at a distance of 60 cm (= 23½ inches) completes the action in 4½ minutes. The light-resisting capability of different bacteria varies considerably, and tubercle bacilli may be classified under the more resistant micro-organisms. He divides the treatment in two classes—a positive and a negative. The latter depends upon the assumption that certain rays exert a harmful effect, and the treatment consists in applying a light freed from these harmful rays. Finsen introduced such a treatment for variola. In speaking of the positive light treatment, he finds himself hemmed in on all sides by a large amount of charlatanism. But there is a considerable amount of genuine action which is due to the local and general application of light rays. One of the most important details in Finsen's method is the compression. Against the suggestion that the mechanical action of this, and not the light at all, is responsible for the beneficial effect, he quoted a case of lupus which was successfully treated by applications of only 5 minutes duration each. The effect of the treatment on lupus in Copenhagen is striking. Only 11 out of 640 cases failed to respond. In conclusion he describes a new lamp which he has introduced, which acts, bactericidally, more than 60 times as powerfully as the instruments hitherto in use.

(28) The Roentgen Rays in Diseases of the Hair.

Ed. Schiff (*Wien. med. Blätt.*, October 3rd, 1901) has obtained good results in the treatment of, amongst other conditions, hypertrichosis, sycosis, favus, tinea tonsurans, folliculitis, furunculosis, acne, lupus vulgaris and erythematodes, psoriasis, nævus, and telangiectasis. In hypertrichosis the rays should be applied several times after every hair has been shed, in order to prevent relapses. The writer has had cases under observation for more than three years in which no relapse has occurred. Before the hair is shed it turns white. In all other conditions where epilation is desirable the rays are the quickest and least troublesome form of treatment. No dressings are required, and no pain is experienced. Thus in favus and sycosis the hairs act as foreign bodies, and maintain and prolong the folliculitis. In favus the whole scalp is exposed to the rays, which are discontinued immediately on the appearance of any hyperæmia beyond that due to the disease. Seven to 11 applications are usually sufficient to loosen the hairs and to produce complete baldness. Redness and all abnormal symptoms disappear in from ten to seventeen days. The rays, however, have some action beyond that due to thorough epilation, since before the hair is shed, after for instance four or five applications, the scalp, formerly covered with pustules and sores, becomes dry, and all new formation of pustules ceases. The same is true of sycosis, which often yields to the rays after resisting other forms of treatment for years. The treatment is discontinued after complete baldness is attained, so that the root sheaths are uninjured and the hair begins to grow again in a fortnight. No relapses of favus have occurred in the writer's practice, though they have in two instances of sycosis, two and four months respectively, after the suspension of treatment. If inflammatory reaction is to be avoided, as in epilation, the strength of the current should not exceed 2 ampères, and the E.M.F. 12 volts: the tube should not be nearer to the skin than 8 or 10 inches, and the duration of the application should not exceed ten minutes. If an inflammatory reaction is desired, as in the treatment of lupus, the strength of the current and the E.M.F. should be increased to 3½ ampères and 12¾ volts respectively, and the tube approached to within 4 inches of the skin. Parts in which the action of the rays is undesirable should be covered with a mask of lead foil. "Hard" (that is highly evacuated) tubes are invariably employed by Schiff, since "soft" tubes, although more active, are liable to produce undesirable and unexpected reaction.

(29) The Treatment of Pyrexia in Phthisis.

F. Köhler (*Münch. med. Woch.*, December 10th, 1901) considers that it is not only unwise, but also at times impossible, to reduce the fever of pulmonary tuberculosis by Brehmer-Dettweiler principles, which depend upon the effect of absolute rest in bed and reduced dietary. He finds that the general and local condition of the patient is frequently damaged by this procedure, and even when combined with hydro-therapeutics the results are disappointing. It is very rarely possible, however, to check pyrexia quickly and for good by medicines, but he contends that by a careful administration of antipyretics—among which he mentions pyramidon, a dimethyl-amido-antipyrin, as being especially valuable—the temperature curve can be regulated so that the patient can be allowed to be out of doors and to take exercise. In this way one gains an advantage for the patient, in that the general strength is maintained, the mental depression of lying in bed is excluded, and the dietetic therapy—good feeding, and even over-feeding—can be immediately proceeded with. Köhler states that he intends to report fully at a later date on the action and value of pyramidon.

PATHOLOGY.

(30) The Nature of the Cancerous Process.

Park (*Buffalo Med. Journ.*, July, 1901) considers all the older etiological theories of carcinoma as unsatisfactory. Colnheim's theory only explains the occurrence of certain cells in unusual situations, not the peculiar properties of the cells of malignant tumours. Irritation and trauma have relation to tumour growth only in the same way as they are related to, for instance, tuberculous disease; they lower the resistance of tissues to malignant infection. The adverse opinions of many writers on the parasitic theory may be explained by the fact that for the most part the study of fresh and still living tissues has been neglected, and attention has been directed to sections of hardened and dead structures. In favour of the parasitic origin are: the infectious nature of analogous tumour-forms in plants and animals; the many analogies between tumours and infectious granulation-tissue tumours, the formation of metastases, and the local infectivity. Against the view that the cell inclusions in cancer are due to cell degenerations is that fact that similar forms have not been found in normal tissues or in benign growths: that they have not been produced in cells artifically, and that very similar forms are found after inoculation with cancer material. When these forms are examined under the microscope in still living cancer tissue they are seen to possess amœboid movement. In the cancer laboratory of the University of Buffalo Park has found in almost all malignant growths organisms which are pathogenic to animals, but which have not produced definite carcinoma. The many negative results of the attempt to produce cancer by transplantation of cancer tissue or inoculation with cultures of the parasites, are explained by our knowledge of the great delicacy of the parasites for whose culture the usual bacteriological methods are inadequate. Park has found best the method of Gaylord and Clewes; small collodion-sacs are filled with culture or fresh tissue juice and placed in the peritoneal cavity of an animal. This is followed by increase in virulence in the cultures and when inoculated into a second animal an acute hæmatogenous infection follows with the formation of nodules in different parts of the body which have often the exact characters of an adeno-carcinoma. Without entering into a description of the parasites observed, the life-history of which has not yet been sufficiently studied, Park considers that they are in all probability identical with the "young forms" described by Schüller, and of protozoan nature.

(31) Anopheles in a Region from which Malaria has Disappeared.

Sergent (*Ann. de l'Inst. Pasteur.* October 25th, 1901) has found *Anopheles* in large numbers along the banks of the Essonne, where malaria was once common, but from which it has now disappeared. Larvæ were in the low-lying country near the river, and often in the artificial reservoirs. He discusses the question of the cause of the disappearance of malaria coexistent with the persistence of the specific mosquitos. He considers it due to the following causes acting simultaneously: Drainage and planting of the river banks, improved hygiene, and, to a certain extent, the use of quinine. He looks upon the presence of *Anopheles* as a danger to the inhabitants, soldiers and others coming from malarious districts, and infected with the hæmamœba might distribute the latter by infecting the *Anopheles*.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(32) The Bicycle in its Relation to Medicine.

EM. REBUSCHINI (*Gaz. Med. di Torino*, December 5th and 12th, 1901) holds that the advocates and the opponents of the bicycle have both been guilty of exaggeration. He considers its effect in six directions. (1) Respiratory: The old stooping position, still retained by racers, undoubtedly hampers deep respiration. The correct position almost an upright one—on the other hand, favours the full expansion of the lungs and gradually increases their capacity and their power of calm and regular breathing under exertion. Cycling must be prohibited in acute affections of the lungs, but it is useful in those who have a "tendency" to colds and laryngitis, and in sound persons with hereditary tuberculous tendency. It is useful in certain forms of chronic bronchitis, and especially so for the adhesions of pleurisy and in cases of healed tuberculous trouble. (2) Heart: The pulse may be raised to 150 or 200 per minute, and the arterial pressure increased to 20 or 22 cm., as a direct result of the powerful muscular exertion. Cycling produces a temporary acute dilatation of the heart, which by excess may become chronic. One must recognise a special tendency in cycling to lead its votaries unconsciously into excess; and it is the abuse, not the use, which is harmful. The author defines moderate use as a speed of not more than ten miles per hour, a daily total of not more than forty miles on the level, and avoidance of long or steep ascents, not too high a gearing. The rational use of the bicycle never caused heart disease: it must be forbidden to severe cases, but may be allowed under careful supervision in some slight cases (for example, young people whose myocardium and arteries are unaffected). More experience is needed as to the "dosage" of cycling which is beneficial in such cases, and one must recollect that for many individuals abstinence is easier than moderation. (3) Locomotive system: Cycling uses almost all the muscles of the body, but principally those of the lower limbs (and more especially the extensors); the more practised the rider, the less exercise the trunk and arm muscles get. It is therefore inferior as an exercise to rowing. It is useful in gouty arthritis, in arthritis deformans, in old sprains, and in muscular atrophy following myositis or exhausting disease. (4) Nervous system: Bicycling tends to exercise equally the functions of both cerebral hemispheres, primarily through the motor centres, but thereby probably induces a better general nutrition and development of the right hemisphere. Cycling is specially fitted for the treatment of the impulsive temperament, because of the cerebral inhibitions in which it educates the individual; and this is most so in the young, in whom the brain is still easily impressible. It is also fitted to restore the circulatory balance between the hemispheres after it has been disturbed by prolonged intellectual work. The exaltations of sensibility, of circulation, and of muscular work produce a certain excitation of brain activity, if the exercise be brief and moderate, but an exhaustion of the brain with prolonged exercise. In neurasthenics and in hypochondriacs it is very beneficial, and is also useful in infantile paralyses, hysterical paralyses, and amyotrophies. (5) Digestive system: All are agreed as to the benefit to be got from the bicycle in dyspepsia and in gastro-intestinal atony. In nervous dyspepsia Fürbringer believes that it is superior to all other forms of treatment. Like all other forms of exercise, it renders metabolism more active, and is thus good in diseases of defective nutrition, such as anæmia, gout, rheumatism, and even obesity (for obese patients find cycling less difficult and fatiguing than pedestrian exercise). (6) Gynæcology: In regard to women cycling the author points out that it is here specially a question of use or abuse. The upright position is essential, for the inclined one both renders the respiration largely diaphragmatic and lessens the slope of the pelvic inlet, and consequently subjects the pelvic contents to pressure and displacement. It also hinders the return of blood from the pelvic organs. The suggestion that hypertrophy of the iliac and psoas muscles may occur (thus forming an obstacle in labour) is untenable. The bicycle is contraindicated during menstruation, during pregnancy (unless with great moderation during the early months), in metrorrhagia, leucorrhœa, or any inflammatory condition of the pelvic organs. In amenorrhœa and dysmenorrhœa, apart from such conditions, and in displacements it is recommended by Fauquez, but must be used with caution. It is almost indispensable for girls who are a mere bundle of nerves ready to explode at the least provocation.

(33) The so-called "Fatty Heart."

C. HIRSCH (*Münch. med. Woch.*, November 19th, 1901) gives an account of the present-day teaching of the conditions generally known as "fatty heart." He quotes Stokes in order to clear up many points, notably those of the question whether true fatty degeneration of the cardiac muscle produces the symptoms which commonly are believed to be due to fatty heart, and whether fatty infiltration of and fat deposit around the organ produce these symptoms. He advises others interested in this subject to read Stokes in the original, as few authors have been so mutilated as he by those who cull from his pages, or make quotations to suit their new ideas. Summing up the doctrine of the condition he states: (1) There is no such disease *sui generis* as fatty heart. Leyden expressed the condition well in describing it as "heart complaints of fat people." (2) The heart complaints are of various kinds and depend on various causes. (3) When appearances of heart weakness occur in young, muscularly weak, fat subjects (under 40 years of age), these may be explained by a disproportion between body mass and heart power; at the same time one must realise the coronary sclerosis, and severe functional disturbances may be causal. (4) When dealing with muscular fat people with insufficiency of the heart muscle, one should in the first place seek for anatomical or severe functional changes. These are usually arterial sclerosis, kidney changes, changes in the splanchnic vessels, and chronic myocarditis.

(34) The Behaviour of Epinephrin to Fehling's Solution and other Characteristics of this Substance.

J. ABEL (*Johns Hopkins Hosp. Bull.*, November, 1901) gives a detailed account of the chemical characteristics of epinephrin, the constituent of the suprarenal gland which causes increase of the blood pressure. Epinephrin in its native state easily reduces silver nitrate and other metallic salts, but fails to reduce Fehling's solution. On being treated with hydrogen sulphide, or with hydrochloric acid and tin, in the proper medium, or on saponification of its benzoyl or acetyl derivatives in the autoclave, it becomes an energetic reducing agent for alkaline copper solution and causes an abundant precipitation of cuprous oxide in the boiling mixture. The commercial preparation adrenalin also reduces copper sulphate. Adrenalin is very probably a mixture of native and reduced epinephrin. Many other details as to the chemical properties of epinephrin are given by Abel. It has long been known that aqueous or dilute alcoholic extracts of the suprarenal gland give a pure emerald green colour with ferric chloride. When this test is made with pure epinephrin, or with one of its salts, it is found that the colour persists for a very brief period only; but the addition of potassium benzene thiosulphonate fixes the emerald green colour which appears on the subsequent addition of ferric chloride. A colorimetric quantitative method for the estimation of epinephrin may be based on this reaction.

SURGERY.

(35) The Treatment of Chronic Blennorrhagic Prostatitis.

CARLE (*Lyon Méd.*, December 1st and 8th, 1901) has had uniformly good results from the treatment of chronic blennorhagic prostatitis by means of massage and caustics. Before the institution of the treatment, care has been taken to prove that the prostate was really involved: (1) The olivary bougie was used to investigate the calbre of the urethra and the sensibility of its mucous membrane: (2) rectal examina-

tion showed the sensibility, volume, and consistence of the prostate; and (3) the discharge was examined macroscopically and microscopically after washing out the bladder and urethra, when it was found to contain cylindrical epithelial cells, *débris* of spermatozoa, starch crystals, and microbes. In addition to these signs obtained by examination, local or radiating pains were sometimes present. With a history of recent gonorrhœa and persistent acute symptoms, it was found best to adopt a sedative and decongestive plan of treatment for a time before having recourse to massage. Rest, a light diet, aperients, and small enemata of hot water and of glycerine, with sedative suppositories if necessary, and the internal administration of salol and sodium bicarbonate were the measures adopted to diminish the acuteness. The prostatic inflammation being chronic, the following treatment was employed: (1) The patient is made to urinate, and a large vesical injection of weak potassium permanganate is afterwards given, a portion of the solution being left in the bladder: (2) if on the passage of a bougie any narrowing of the membranous urethra be discovered, the stricture is dilated, and the median lobe of the prostate is gently massaged by means of the sound; (3) the patient is then told to evacuate the fluid left in the bladder, and the rectal massage is begun; for this purpose the patient lies in dorsal decubitus, with the legs and thighs slightly flexed and separated; the operator uses his right forefinger, and massages the gland gently from periphery to centre for 3 to 5 minutes; the massage is useful to evacuate the retained prostatic discharge, to relieve venous congestion, and increase the circulatory activity; (4) lavage is again practised to get rid of the prostatic secretion from the urethra; (5) by means of Guyon's hollow olivary sound and syringe, 10 or 12 drops of a solution of silver nitrate are applied to the prostate. The strength of the solution should be gradually increased from 1 in 100 to 1 in 20. Of 17 patients treated in this way by Carle, 2 were cured by two applications, 3 by three, 2 by four, 1 by five, 4 by six, 2 by nine, and in 1 patient ten applications were necessary.

(36) The Treatment of Cystitis by the Curette.

PARASCANDOLO AND MARCHESE (*Wien. med. Woch.*, October 5th, 12th, 19th, and 26th, 1901) have experimented on dogs as to the value of curetting the bladder in cystitis. The presence of pathogenic bacteria is insufficient to produce cystitis; the mucous membrane must first be damaged by retention of urine, catheterism, vesical calculi, or the injection of irritating chemicals such as turpentine, silver nitrate, ammonia, or cantharides. The only known exceptions are the proteus vulgaris and the gonococcus, which may produce cystitis even with an intact vesical mucosa. Decomposition of urine is not a necessary result of cystitis, and in the most violent inflammation due to the staphylococcus and streptococcus pyogenes, or the B. typhosus and B. coli, no decomposition of urea occurs, and the reaction of the urine remains acid. According to Melchior, micro-organisms may enter the bladder (1) through the urethra, (2) from neighbouring organs, (3) from the kidney, and (4) through the circulation. Hæmatogenous infection is practically limited to tuberculosis. In acute cystitis, the changes are usually most marked on the trigone, but in the chronic form the whole mucous membrane may undergo fungous hypertrophy, and be covered with tenaceous mucus or a membranous exudation. The writers produced cystitis in dogs by causing retention through ligature of the penis, and then injecting into the bladder pure cultures of the staphylococcus, streptococcus, bacillus coli, or proteus vulgaris. In another case decomposed human urine was injected before ligation of the penis. In other cases, again, the vesical mucosa was first damaged by the injection of silver nitrate or turpentine. Finally, a jagged stone was introduced into the bladder by suprapubic cystotomy, and pus containing the staphylococcus aureus was injected some weeks later. After the resulting cystitis had become chronic the bladder of all ten animals was scraped by a sharp spoon after suprapubic cystotomy in the dogs, in bitches by introducing a slender Recamier's uterine curette through the urethra. First the posterior wall, then, in order, the superior, the anterior, and inferior walls were thoroughly scraped. The bladder was irrigated with eight and a half pints of normal saline solution, and after all hæmorrhage had ceased the wounds were sutured. Hæmorrhage was excessive in only 1 of the 10 cases; it was easily arrested by a few drops of a ferripyrin solution. The animals were kept under observation for long after the operation which was followed by no rise of temperature or other trouble. Eight were practically cured; the symptoms of cystitis disappeared, and the urine became clear, though a few organisms were obtained in cultures from it. In the remaining 2 all symptoms of cystitis, such as frequency of micturition, disappeared permanently, and the animals regained their normal health, though the urine remained turbid and still contained traces of albumen, pus, and ammonia. The cystitis had previously been very severe, and the urine contained 10 per cent. albumen due to pus, and both cocci and the proteus vulgaris. *Curettement* of the bladder in man has been practised by Cumbston and others with great success. After disinfection of the external parts the bladder is irrigated with a 3 per cent. solution of boracic acid, and then emptied completely. In the female *curettement* may be performed successfully *per urethram* if the disease is limited to the seat of election—that is, to the trigone, the orifices of the ureters, and the neck of the bladder; in all other cases and in the male suprapubic cystotomy is necessary. One or two fingers are introduced into the vagina or rectum and hold the posterior vesical wall firmly while it is being scraped; the bladder is then usually irrigated before scraping the anterior wall, which is prevented from yielding before the curette by the pubes. To scrape the lateral and superior vesical walls satisfactorily is more difficult owing to their mobility, but these parts are usually less affected in chronic cystitis. All detritus is removed by irrigation with normal saline solution; if much hæmorrhage results a 4 per cent. solution of antipyrin or a concentrated ferripyrin solution speedily arrests it. The wound is sutured, and a catheter is introduced and left in for at least ten days. Cumbston has performed this operation in 10 cases; it is usually followed by no pyrexia or other unpleasant sequela. The results as regards the local lesions are excellent even in tuberculous cystitis. It is naturally indicated only after all other measures, including the injection of 10 to 30 minims of a strong solution (2 to 10 per cent.) of silver nitrate or 4 c.cm. of a 1 in 4,000 to 1 in 500 solution of perchloride of mercury have failed.

MIDWIFERY AND DISEASES OF WOMEN.

(37) Colibacillary Infection after Hysterectomy.

VAUTRIN of Nancy (*Rev. de Gynéc. et de Chir. Abd.*, November-December, 1901) writes a graphic and instructive report of three cases of fatal infection from the bacillus coli communis after hysterectomy. The operation involved the entire removal of the uterus, the closure of the vagina from above, and abdominal drainage. The first patient, aged 44, died on the twelfth day; the second, aged 47, on the eleventh; and the third, aged 49, on the seventh. Milder cases of this form of infection are not rare, the pulse becomes quick, the temperature rises, there is slight tympanites without tenderness, dry tongue, and often jaundice. After a day or two fœtid diarrhœa sets in, and the patient recovers. In these cases the loose stools are found full of colonies of the bacillus coli, whilst that germ is not to be detected in blood taken from the basilic vein. In bad cases, like the three reported by Vautrin, fever sets in early, but as in streptococcus infection the pulse rises proportionately much higher than the temperature, and soon assumes a very unfavourable character in every respect. Distension of the abdomen seems never absent, but it is not so extreme as in septic peritonitis, and flatus may pass in considerable quantities; indeed, the tympanites often subsides before death. Vomiting is very marked from the beginning, when it soon becomes bilious to near the end, when it usually grows faculent. Loss of appetite is complete and thirst intense. Deglutition becomes painful, as the œsophagus participates in the inflammatory changes which attack the gastro-intestinal

tract. The tendency to suppression of urine is very strong, and the scanty renal secretion becomes charged with bile pigment and globules of pus. Diarrhœa is the rule, and it causes improvement in the purely abdominal symptoms, but its onset implies infection of the blood, hence the meaning of collapse and death in cases incorrectly diagnosed as "septic peritonitis" after flatus has passed, distension subsided and free action of the bowels established. In all Vautrin's cases blood drawn during life from the basilic vein was found to contain the bacillus coli. There is often a total absence of any sign of peritonitis in these cases, but the whole gastro-intestinal tract is in a state of congestion, with patches of ecchymosis, and ulceration of Peyer's patches is not unknown. It was distinct in Vaudrin's second case. Naphthol and purgatives are good prophylactics in the preparation of patients for abdominal operations; the former not only destroys the bacillus, but also suppresses fermentations. When infection has set in after operation a purgative is indicated, to be assisted by enemata if necessary. Injections of saline solution are needed, but they are often inefficacious in bad cases; and Vautrin hopes for the discovery of an antitoxin which will counteract bacillus coli infection as Marmorek's serum acts on the streptococcus.

(38) Pelvic Exostosis: Face Presentation: Facial Paralysis.

GRÖNÉ (*Centralbl. f. Gynäk.*, No. 45, 1901) reports a labour in a primipara, aged 38, delivered at about term. The presentation was facial; the line of the face ran in the right oblique diameter, the left eye lay to the right and somewhat forward, the right eye to the left, the mouth and chin to the left and forwards. Labour proceeded slowly, and the child was delivered spontaneously at the end of about thirty-six hours. The child breathed at once, but there was a big swelling on its face, reaching from the mouth to the eyes. Next day the swelling had diminished, then left facial paralysis was detected. There was lagophthalmia of the left eye. The upper and lower branches of the facial were both involved; no paralysis of the soft palate or uvula could be defined. The skin of the face was not contused. The paralysis slowly disappeared, and no trace of it remained at the end of twelve days. On examining the mother a big, smooth exostosis was detected behind the symphysis to the right of the middle line. Its greatest diameter was vertical. There was no narrowing of the pelvis in any other direction, and the new growth had proved sufficient to arrest but not prevent spontaneous delivery, and had undoubtedly caused the complication from which the fœtus suffered.

(39) Double Ovariotomy in Pregnancy: One Pedicle Twisted.

LOWENBERG (*Centralbl. f. Gynäk.*, No. 51, 1901) relates a very marked case. The patient was 26, and had been delivered with forceps in October, 1897, when no tumour was detected. The period was seen for the last time on August 10th, 1901. Attacks of vomiting began on October 1st, and lasted for several days. There was a tumour, which did not fluctuate, in the right side of the abdomen, reaching to the umbilicus, and a tense cyst filled Douglas's pouch. The body of the uterus could not be defined separately. Milk exuded from the nipples on pressure. The operation was performed on October 4th. The intestines were distended with gas, but no signs of peritonitis were present, though there was a little free serum. A livid dermoid tumour of the right ovary was exposed; its pedicle was twisted to the right. The uterus was deflected to the left, whilst its long axis was exaggerated by traction; it had reached the tenth week of pregnancy. The left tumour was drawn out of Douglas's pouch; it was also in part dermoid. The operator purposely left a piece of normal ovarian tissue behind, with the tube and mesosalpinx intact. This piece did not contain a corpus luteum of pregnancy, nor could any be detected in connection with either of the tumours. On the thirty-fourth day after the operation the patient was in good health, and no symptoms of abortion had been observed. There is, however, no further history of the course of the pregnancy.

THERAPEUTICS.

(40) Disinfection against Mosquitos with Formaldehyde and Sulphur Dioxide.

M. J. ROSENAU, Passed Assistant Surgeon, Director of the Hygienic Laboratory, U.S. Marine Hospital Service, Washington (*Bulletin*, No. 6, of the Hygienic Laboratory, September, 1991), has made an elaborate investigation on this subject. The following is a summary of his conclusions: Formaldehyde gas is a feeble insecticide. Mosquitos may live in a very weak atmosphere of the gas overnight. It will kill them, however, if it is brought in direct contact in the strength and time prescribed for bacterial disinfection. For this purpose any of the accepted methods for evolving the gas is applicable, but the methods which liberate a large volume in a short time are more certain than the slower ones. Direct contact between the insects and the gas is much more difficult to obtain in ordinary room disinfection against mosquitos than against germs, because the sense of self-protection helps the former to escape from the effects of the irritating gas. They hide in the folds of towels, bedding, clothing, hangings, fabrics, and out-of-the-way places where the formaldehyde gas does not penetrate in sufficient strength to kill them. The gas is polymerised and deposited as paraform in the meshes of fabrics, which prevents its penetration, and large quantities are lost by being absorbed by the organic matter of fabrics, especially woollens. In Rosenau's tests, whenever the insects were given favourable hiding places, such as in crumpled paper or in towelling, they quickly took advantage of the best place for themselves, and thus escaped destruction. There is a striking analogy between the strength of the gas and the time of exposure necessary to penetrate the fabrics in order to kill mosquitos, and the strength and time necessary to penetrate in order to kill the spores of bacteria. Mosquitos have a lively instinct in finding cracks or chinks where fresh air may be entering the room, or where the gas is so diluted that they escape destruction. They are able to escape through incredibly small openings. Some of the smaller varieties, such as the stegomyia fasciata, can get through a wire screen having twelve meshes to the inch. Therefore, formaldehyde gas cannot be trusted to kill all the mosquitos in a room which cannot be tightly sealed. It is concluded, that to succeed in killing all the mosquitos in a closed space with formaldehyde gas, the following definite requirements are essential: A very large volume of the gas must be liberated quickly, so that it may diffuse to all portions of the space in sufficient concentration. The room must have all the cracks and chinks, where the insects may breathe the fresh air, carefully sealed by pasting strips of paper over them. The room must not contain heavy folds of drapery, clothing, bedding, or fabrics in heaps, or so disposed that the insects may hide away from the full effects of the gas. Sulphur dioxide is unexcelled as an insecticide. Very dilute atmospheres of the gas quickly kill mosquitos. It is quite as efficacious for this purpose when dry as when moist, where the dry gas has practically no power against bacteria. Unlike formaldehyde, it has surprising powers of penetrating through clothing and fabrics, killing the mosquitos even when hidden under four layers of towelling in one hour's time, and with very dilute proportions. This substance, which has so long been disparaged as a disinfectant because it fails to kill spores, must now, Rosenau holds, be considered as holding the first rank in disinfection against yellow fever, malaria, filariasis, and other insect-borne diseases.

(41) The Treatment of "Surgical" Tuberculosis.

INQUIRING into the subject of the comparative effects of operative and sanatorial treatment for surgical tuberculosis, Sprengel (*Berl. klin. Woch.*, December 23rd, 1901) finds that a large field is open for the rearrangement of cases which will benefit by one or both these means. In some countries, notably in France, Denmark, Austria, and Holland, the patients are kept under treatment in sanatoria for a long time, while in Italy, America, Germany, and England the length of the course does not depend upon the progress of the case, but averages about six weeks. Cazin has shown that the beneficial effects of the sanatorial treatment of superficial tuberculous lesions varies

according to the length of the treatment, and that forty days stay in the institutes produces only 27 per cent. of "cures." Sprengel deduces that a six weeks treatment of surgical tuberculosis is very unlikely to produce any "cures" at all. He discusses fully the conditions of practice in the seaside institutes in Germany, and offers some suggestions in respect to making this form of treatment more valuable. Given a sufficiently long course, there are many forms of tuberculosis which can be amply coped with by sanatorium treatment. On the other hand, the pure "hospital" (surgical) treatment, if carried out conservatively, yields such excellent results in a large number of cases, that it would be obviously short-sighted to attempt to deal with these cases by climatotherapy. In some cases a combination will be found of great value. He classifies the former as follows: Group A.—Slight cases, which can be cured ready by surgical treatment: (1) Glandular tuberculosis; (2) tuberculosis of long bones, including metacarpal and phalangic bones, with or without fistulæ; (3) tuberculous disease of the knee-joints and foot-joints in children and quite young adults (with or without fistulæ); (4) tuberculous disease of flat bones, except spine, in children; (5) tuberculous disease of face and cranial bones. Group B.—Cases which are not certainly cured by surgical means, or if so cured, leave much disorder of function: (1) Spondylitis; (2) closed hip-joint disease: (3) closed tuberculous disease of joints of upper extremity. Group C.—Cases which can only be cured by operations which produce crippling: (1) Bone and joint tuberculosis of elder individuals; (2) open forms of tuberculous disease of bones and joints in children. Group D.—Incurable cases: (1) Hip disease in persons over 25 years; (2) open spondylitis; and (3) the majority of the cases of multiple tuberculosis (?) Sprengel advises, within certain limits, that cases belonging to the Groups A and C should be treated in hospital, while those belonging to B should be treated in sanatoria, and those of D in infirmaries. The greater part of this excellent paper deals with subjects which are practically only referable to the conditions in Germany, and which have, at present, but little importance for England.

(42) Aspirin in Children's Diseases.

Landau and Schudmak (reprint from *Die Heilkunde*, October, 1901) have employed aspirin, which is the acetic acid ester of salicylic acid, in various children's diseases. Owing to the fact that it is not absorbed until decomposed by the alkaline secretion of the small intestine, it enters the circulation slowly and uniformly. The system is, therefore, never suddenly flooded with salicylic acid, and the tinnitus and extensive leucocytosis which follow the exhibition of sodium salicylate are not produced. Although the leucocytosis, which depends on profuse sweating, is regarded by some as beneficial, the writers consider that it should be avoided as much as possible, since it increases the coagulability of the blood, and consequently the danger of thrombosis, in a disease in which this complication is already not uncommon. The value of aspirin in rheumatism is already generally recognised; the writers, therefore, report more especially on its action in other diseases. Excellent results as regards the rapidity of absorption of the fluid and the fall of the temperature were obtained in pleurisy with effusion, and in a case of pericarditis complicating mitral regurgitation. The doses employed were from 0.3 to 0.5 gram (about 4½ to 7½ gr.) in children of from 5 to 9 years of age. It is also an excellent and certain antipyretic, and may succeed where other drugs, such as citrophen and lactophenin, have failed; it was employed for this purpose in typhoid fever and cerebral concussion. Its action is slower but more prolonged than that of other antipyretics. In whooping-cough the attacks occasionally became less frequent during the administration of aspirin, which, however, is not, as claimed by some, an anticonvulsive specific.

PATHOLOGY.

(43) The Inoculability of Herbivora by Human Tuberculosis.

Arloing (*Lyon Méd.*, December 1st, 1901) cites his own experience in disproof of Koch's assertion that cows, sheep, donkeys, and goats, cannot be tuberculised by bacilli of human origin. He had notes of seven successful inoculations of tuberculous bacilli of man into the jugular veins of goats, and three into those of donkeys before the London Congress met, and since the meeting has made further experiments. On August 3rd a potato culture of human bacilli was emulsified with 12 c.cm. of bouillon, which was afterwards filtered through linen. With this emulsion the following inoculations were made: (1) A milch calf and a heifer 18 months old were inoculated with 2 c.cm. into the jugular vein. Tuberculin had given no reaction in either case: (2) two sheep, 2 c.cm. into the jugular; (3) one kid, 1 c.cm. into the jugular: (4) two rabbits, ¼ c.cm. into the auricular vein: (5) two rabbits, ½ c.cm. into the peritoneum; (6) two guinea-pigs, ½ c.cm. into the connective tissue of the thigh. All the animals were affected by the inoculation. The temperature was raised in every case, and remained above normal in the sheep, the calf, and the kid. After a few days the calf and the heifer were troubled with a dry cough, and after five weeks both reacted strongly to the tuberculin test. The calf died from accidental inoculation with anthrax. The sheep, the kid, and the rabbits in which the inoculation had been made into the auricular vein wasted rapidly and died within two months. The other two rabbits and the guinea-pigs were killed, and the heifer was still alive though obviously suffering from pulmonary tuberculosis. The rabbits and guinea-pigs showed the classical signs of tubercle. In the calf the lesions were found confined to the thorax. The lungs of the calf, the sheep, and the kid were found studded with tuberculous granulations, which were situated especially under the pleura. The bronchial and œsophageal glands were swollen. The material from the lungs reduced to pulp in the fresh state and inoculated into guinea-pigs caused typical tuberculosis.

(44) Bacteriology of Normal Lungs.

Boni (*Deut. Arch. f. klin. Med.*, Bd. lxix, Heft 5 and 6) has bacteriologically examined the lungs of certain healthy animals, human lungs being rarely available for the purpose. He found the lungs of animals in the laboratory (guinea-pigs) almost always sterile: in some cases, however, some organisms were present, and, in a few cases, the pneumococcus. The lungs of freshly-killed animals in the slaughterhouse in most cases contained organisms, including the following pathogenic types: Diplococcus pneumoniæ, streptococcus pyogenes, Friedländer's pneumobacillus, staphylococcus pyogenes aureus, the first being the most common (25 per cent.). From these results he concludes that the normal lungs of healthy men must in most cases contain a varying number of bacteria, the pneumococcus predominating. All the pathogenic bacteria found were possessed of only a small degree of virulence. The bacillus tuberculosis was not found in healthy animals.

(45) Acromegaly without Hypophyseal Enlargement.

Israel (*Virch. Arch.*, vol. clxiv, 344) relates a case of acromegaly under observation for three years in Gerhardt's clinic who died from gradually increasing mental and bodily feebleness and emaciation. The necropsy showed the body of a man of a very coarse type. His age was 51. The hypophysis was not larger than normal, and showed neither macroscopic nor microscopic changes from the normal. The stoutness of the skeleton, especially of the femora and of the bones of the hands, was most remarkable. There were numerous supracartilaginous exostoses, and periosteal and parosteal hyperostoses. The author gives the measurements of the cranium in detail, it had a capacity of 1,700 c.cm. The sutures were persistent, with the exception of the frontal. The coarseness of the skeleton was dependent on the over-production of compact bony structure. The soft parts did not show the changes which are usually described in acromegaly. The normal state of the hypophysis is especially to be remarked, the clinical signs being all characteristic; the thyroid gland was small, and there were no remains of the thymus.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(46) A Symptom of Cancer.

ALTHOUGH he finds that a small angiomatous growth frequently occurs in the skin of patients suffering from cancer, Leser (*Münch. med. Woch.*, December 17th, 1901) states that he has not come across any literary notice of it. Freund and Hollander, it is true, recount the existence of such growths in the skin, but appear to lay but little stress on the occurrence. In many cases of carcinoma, he (Leser) found that a number of raised spots were present in the skin, chiefly of the trunk. These spots vary in size from that of the head of a pin to that of a lentil. They are bluish red or bright red in colour, and do not fade on pressure. Their structure is that of angiomata. In order to ascertain the clinical importance of these spots, he and his assistant Müller inquired, from a material of 50 cases, first, whether the appearance of the spots is a usual accompaniment of carcinoma: secondly, whether they occur in either healthy subjects or in patients suffering from diseases other than cancer: and thirdly, whether their appearance is of diagnostic value. Of the 50 cases of carcinoma examined, in only 1 (a case of cancer of the oesophagus) were these angiomata absent. In 1 case the number of spots was 76, while the average of the 49 cases was 15. The first question was therefore answered by "Yes." In order to settle the second question, they examined 300 cases of surgical and other medical diseases, and found the angiomata only in subjects of advanced age in a few cases. He concludes from these observations, that they do not occur in healthy subjects or persons suffering from other diseases in early or middle life, and never, even in old age, in large numbers; and further that when found, in large numbers in youngish or middle-aged subjects, there is every reason to suspect carcinoma. The detection of a number of small angiomata in the skin of apparently healthy subjects may point to a beginning carcinoma. The abdomen appears to be the favourite seat of the spots in carcinoma uteri, and in other cancers the skin superficial to the seat of disease appears to be chiefly attacked. They do not appear to have any direct relation with the cancerous growth, nor are they influenced by changes in the vessels in the growth. Further investigations are needed to decide: (1) Whether the angiomata are present before the first symptom of a carcinoma is manifested, and increase in number as the growth develops: (2) whether they are present in those cases, as congenital abnormalities, in which a suitable soil for the cause of cancer exists: (3) whether they are to be regarded as results of the malignant tumour: or (4) whether they are merely frequent accompaniments of the disease. It is further necessary to investigate the point if they accompany other forms of malignant disease beside carcinoma, for example, sarcoma. He points out how important it may be to have this sign in making the early diagnosis of cancer.

(47) Pseudo-Epilepsy and Pseudo-Appendicitis.

BESSON publishes several observations (*Arch. de Méd. et de Chir. Prat.*, December 10th, 1901) of pseudo-epilepsy and pseudo-appendicitis due to intestinal paralysis. In the first series he records the case of a patient, aged 35, having epileptiform attacks without any apparent cause, and occurring every week. The existence of taenia was suspected, and the diagnosis was confirmed shortly by the appearance of segments. A vermifuge was administered, the parasite was expelled, and the attacks ceased. The existence of such cases has been denied by many observers, but there can be little doubt as to their occurrence. At first sight, epilepsy due to intestinal parasites has all the appearances of the genuine condition, but close observation serves to demonstrate certain differences. The aura is much more prolonged, and enables the patient to take every precaution. The accidents so common in ordinary epilepsy are rare, and even when they do occur are comparatively slight. The actual seizure does not seem to differ, but the comatose period seems to be much longer, lasting sometimes five or six hours. The remissions are also long; in fact there may be a period of years between two attacks. The crises sometimes bear direct relationship to the reformation of the parasite. An important point is the uselessness of antiepileptic treatment. In fact bromide in some instances increases the frequency of the attacks. As another instance of the imitation of an important disease by intestinal parasites, the writer quotes cases where appendicitis has been simulated, and in which anthelmintic treatment has caused disappearance of all the symptoms of inflammation of the appendix. At the same time he is careful to urge the importance of care in diagnosis, as it is obvious that a fatal mistake could be very easily made.

(48) The Pupillary Changes in Aortic Aneurysms.

IN a paper recently read before the Société Médicale des Hôpitaux de Paris, Babinski gave his reasons for dissenting from the view that the changes in size of the pupil, seen in cases of aortic aneurysm, are invariably due to irritation or paralysis of the sympathetic nerve. Two cases which he had observed had caused him to attribute the pupillary changes to disease of the central nervous system. In the first case, a prostitute, 41 years of age, was shown by examination to be suffering from a cone-shaped dilatation of the aorta, with the base of the cone below joined to the base of the heart. The right pupil was much smaller than the left. Both pupils reacted to accommodation, neither to light. The reflex of the tendo Achillis was absent on both sides. There was no history of pains in the limbs, nor was Romberg's sign present. In the second case, a woman, aged 49, suffered from great dyspnoea. Examination showed the presence of a large aneurysmal pouch immediately above the heart. The only notable circumstances in the previous history were the deaths of two children within three months of birth. The left pupil was much dilated, and contracted well to accommodation but very feebly to light. The right pupil was normal. The right Achilles reflex was abolished, the left very weak. There were no other objective signs. Now, it had never been shown that paralysis of the sympathetic, however complete, could give rise to abolition of the light reflex as observed in these two cases. According to Babinski, Charpentier, and others, abolition of the light reflex when permanent and not associated with lesions of the globe of the eye or with paralysis of the third nerve, was an indication of lesions of the central nervous system, almost always of syphilitic origin, and was an early symptom of tabes or of general paralysis. The combination of aortic aneurysm and confirmed tabes had often been noted, and Babinski believed that in the two cases recorded, the presence of the aneurysm and the change of the pupils were only connected by being due to a common cause, syphilis.

SURGERY.

(49) Modern Bullet Wounds.

W. JOHNSTON (*Edin. Med. Journ.*, October, 1901) discusses this subject as the result of experience in Maritzburg Base Hospital. The article is useful for comparison with reports already published. With one or two exceptions it may be said to confirm these. Patients compared the sensation of being hit to a blow of a brick or crowbar, and the statement also that a wounded man may go on without knowing he was hit was not borne out. The appearance of the wounds varied with the range, velocity, angle, and the part struck. At a medium range, through soft parts, the entrance wound resembled a small circular bruise, showing inverted ragged edges. These may be raised and approximated. If struck at an angle the wound is oval. The exit wound is little larger, and has star-shaped everted edges. In the sole of the foot it may be difficult to find. The devitalised edges, when kept aseptic, become dry and black, resembling vaccination scabs. If bone is struck the bullet must necessarily be more or less distorted (?), and the exit naturally large, and of these there may be more than one. Fragmentation was greater at a short range, and when the shaft was struck. At longer ranges, say 1,000 yards, and when the bone was struck nearer its ends, drilling was more common. Not a single amputation was

required as the result of a Mauser bullet. The writer saw evidence that the temperature of a bullet can be raised high enough to cause blistering of the skin, but is uncertain whether this is sufficient to kill micro-organisms. The heat is probably obtained both in the passage through the barrel and through the air. Small bullets do not carry in portions of clothing, and, except at long ranges, rarely become impacted. For the ordinary wound a dry boric dressing cannot be beaten, the part, if possible, being first washed with an antiseptic. For shell or larger ones irrigation should be done, and from the entrance wound, since foreign bodies are generally carried in nearly to the exit wound. Free drainage from the latter by means of gauze wrung out of iodoform emulsion is recommended. Aseptic wounds were the rule at first, later the exception. Why, exactly, the writer is uncertain. In many cases more harm than good is done by attempts to remove bullets or fragments; but pain, sepsis, or interference with the function of any organ are indications for extraction. The use of the *x* rays is urged in preference to exploration. A strong protest (with which most surgeons who have seen service in Africa will agree) is made against early exploration by enlarging the wound, especially of entrance. This favours sepsis, and fragments are often removed which should not be. Where this had been done (and no bullet or foreign body found) acute osteomyelitis of the femur at the seat of fracture followed, while the *x* rays showed the bullet far from the wound, surrounded by healthy tissues. The best extractor is a long, curved, toothed dressing forceps. In injuries of the head conservative treatment does not apply. Here all wounds should be explored, and if a fracture be discovered dealt with at once. Penetrating wounds of the thorax may produce little or no effects, while a merely glancing wound occasionally results in such a serious condition as empyema. In intestinal wounds the writer, as might be expected, emphasizes the fact that a number of cases recover without operation, and in general recommends expectant treatment. At the same time, he qualifies this by the remark, "if, however, the small intestine has been cut, the symptoms are definite and call for immediate operation." Joint wounds of the elbow and knee were frequent. The majority recover with complete mobility, but early passive movement must be enforced. The value of a hypodermic injection of morphine on the field in lessening shock is great.

(50) Ileus from Embolism of the Superior Mesenteric Artery.

BONZKEY (*Beit. z. klin. Chir.*, vol. xxxi, Part 3, 1901) publishes an important case where acute intestinal obstruction occurred in a man who was the subject of mitral obstruction and insufficiency, not discovered, it appears, till after death. The patient, a workman, aged 54, was seized four days before admission with intense hypogastric pain. He had previously been in excellent health. Next night bloody stools were passed, with severe pain but no vomiting; on the second day distension set in with vomiting; these symptoms increased till he became collapsed, and was admitted. Tympanites was marked; there was a dull spot, unaffected by position, in the ileo-caecal region. The vomiting became faecal; there was no retching. An enema, applied with every precaution, came away almost clear in a few minutes. No external hernia could be detected. Intussusception was suspected on account of the blood in the motions before the obstruction became complete. Réczey, of Buda-Pesth, operated. Dyspnoea was so acute that local cocaine anaesthesia was employed instead of chloroform or ether. An incision was made over the dull area, much as in an operation for diseased appendix. A coil of small intestine adhered to the parietes. It tore very easily and a quantity of fluid faeces escaped; the rent was sutured. Numerous coils were exposed by prolongation of the incision; they were livid blue and very lacerable, even when gently moved in the search for the source of the obstruction, which proved fruitless. It was impossible to resect the almost gangrenous intestine, and an artificial anus was made in the abdominal incision. The patient lived for about twenty-four hours. Not only was there no intussusception, but the cause of the widespread gangrene could not be detected at the operation. At the necropsy the cardiac lesion was detected. Nearly 7 feet of small intestine, from the ileo-caecal valve upwards, were deep purple through haemorrhagic infarction. There was also universal peritonitis, and at length the source of the fatal malady was detected. A dry brownish-red embolon 2 inches in length obstructed the superior mesenteric artery 3 inches from the aorta. The large intestine was but little affected. Borzeky sums up the literature of the subject, including Deckart's 46 cases of thrombosis and embolism of the mesenteric vessels (*Mittheil. aus der Grenze. der Med. u. Chir.*, vol. v, 1899), and adding a few more. In 14 out of 49 the patient passed for a time bloody stools; in the remainder obstruction was complete from the first; on that account Nothnagel defines two varieties of thrombosis and embolism of the mesenteric vessels. The clinical distinction is of great importance.

(51) Use of Omentum to Repair Gall Bladder.

ENDERLEN AND JUSTI (*Deut. Zeits. f. Chir.*, October, 1901) have conducted experimental researches which show that Mayo Robson's plan of making use of the omentum to cover a wound of the gall bladder is an excellent practice, the ultimate results being more favourable as to restoration of the wound to a normal histological condition than was once supposed. The mucosa of the gall bladder is completely restored. Healing is impeded if the damage to the tissues around the wound be free, and if the discharge and contents of the gall bladder cannot escape. The epithelium of the repaired mucosa is low at first, and only slowly assumes the high cylindrical type. The muscular coat is not so freely regenerated. An area of transplanted omentum will fill in a defect in the gall bladder completely. The omental tissue soon shows infiltration with connective tissue, which involves ultimate shrinking. On the inner surface of the transplanted omentum an epithelium soon develops. The shrinking of the omentum and the action of the muscular coat of the gall bladder ultimately reduces the gap to very small proportions. Enderlen and Justi, however, believe that transplantation of omentum is rarely necessary in gall-bladder surgery. Small wounds heal well after simple suture; ideal cholecystotomy is allowable in some cases where the incision is long; but when the gall bladder is badly lacerated, as after the extraction of big calculi, its removal is the safest course to pursue.

MIDWIFERY AND DISEASES OF WOMEN.

(52) Simultaneous Tubal and Uterine Pregnancy.

THE *Centralbl. f. Gynäk.*, No. 2, 1902, reports two cases published in Russian journals in 1901. Kochanoff, of Astrakhan, observed this condition in a woman, aged 31, a 5-para. Her previous pregnancies and labours had been normal. Two months after missing a period she fainted, and there was bleeding from the genitals. A tumour developed, rising above the pubes. About the end of the third month Kochanoff diagnosed tubal abortion at the second month, with escape of the ovum into the peritoneal cavity. An operation was performed which confirmed the diagnosis, but the uterus was also found pregnant, apparently about the fourth month. Probably the pregnancies were simultaneous. Twenty-three days after the removal of the tubal sac the patient aborted; the uterine ovum had, according to appearances, reached the fourth month of development. Recovery was speedy. Warnek operated on a woman, aged 34, who had been eight times pregnant, including four abortions. Violent abdominal pains set in twenty-five days after a period, and lasted for a few days, then steady, though slight, haemorrhage from the vagina was observed, and lumbar pains occurred. The uterus then felt enlarged and tender, the appendages thickened. Three weeks later free uterine haemorrhage set in, with severe abdominal pain. The left tube was then found to bulge downwards into Douglas's pouch. The bleeding went on for a month, and could only be stopped, it is stated, by hydrastinin. At the beginning of the fourth month the uterus was yet larger, and now there was a tumour on the right (*sic*) side of the pelvis. About a fortnight later fetal

movements and *ballottement* were detected; the head could be felt through the anterior vaginal vault. The gradual development of the pregnancy did not make its nature clearer, so a few weeks later an exploratory operation was performed. The uterus was pregnant, and the gestation had reached the sixth month. There was a very evident tubal abortion on the left side. It is not stated whether the tubal sac was removed, but it is noted that the patient was delivered at term of a healthy boy. Warnek also notes that the uterine pregnancy was not interrupted by the tubal abortion followed by six weeks bleeding, nor by frequent hot irrigations, and strong doses of ergot, ergotin, hydrastis, and hydrastinin, nor by the exploratory operation.

(53) Puerperal Embolism.

VOIGT (*Centralbl. f. Gynäk.*, No. 2, 1902) reports 3 cases of which 2 recovered: (1) Patient, 39, a 4-para, went into a hospital at Dresden for flooding in the eighth month of pregnancy. Placenta praevia was detected, and the finger could be passed into the os. No pains were present, and it was believed that rest would be sufficient to stop the haemorrhage; but for five days flooding continued so that it was determined to bring on labour, especially as the os had become wider. The placenta (central) was broken through with two fingers, version practised, and one foot drawn down. The flooding at once ceased and strong pains set in; at the end of three quarters of an hour the child, slightly asphyxiated, was delivered. The uterus contracted well. Within an hour after delivery a marked attack of embolism occurred with characteristic pulse and dyspnoea. Stimulants were used, and the symptoms subsided in nineteen hours. On the fourth day another attack occurred, a pulmonary infarct developed, with haemoptysis. On the tenth the symptoms recurred; the bloody sputum contained elastic fibre. The dyspnoea and weak pulse did not subside entirely till the twenty-fourth day, and the patient was not discharged till the thirty-seventh. (2) In the second case the forceps, turning, and craniotomy were practised. One hour and a half after delivery an attack of embolism occurred; it subsided in twenty hours, but another attack took place on the second day. (3) In this case there was nothing more than lingering labour from uterine inertia, and delivery was spontaneous. An attack occurred seven hours later; it was temporarily relieved by stimulants, but within four hours another attack set in and proved fatal.

(54) Symphysiotomy and Caesarean Section.

A. MARTIN reports the following case (*Deut. med. Woch.*, October 17th, 1901): A girl, aged 19, was admitted into hospital on April 13th, 1901. She was within two weeks of "full time." Martin had determined that her pelvis was contracted from the following measurements: Dist. spin. il., 10½ inches; dist. crest. il., 11¾ inches; dist. troch., 12½ inches; rt. trans, 8¾ inches; lft. transv., 8¾ inches; ext. conjug., 7¼ inches; diag. conj., 4½ inches; circumf. pelv., 34 inches. Labour began on the morning of April 28th, with a first vertex presentation. After twelve hours the bag of membranes appeared at the vulva; the os was fully dilated, but the head had not engaged the brim of the pelvis. Early in the afternoon of the following day the temperature of the mother rose to 101.8°, and the fetal heart-rate quickened to 180. The head was still above the brim. All manual attempts to incite it to engage failed, and the forceps also failed. Martin, therefore, proceeded to divide the symphysis pubis, which was easily accomplished. The forceps were applied, but in spite of 1¼ inch separation of the symphysis, and loud cracking noises at the sacro-iliac synchondroses, the head could not be brought down. In order to save the child he therefore performed Caesarean section. The uterus was brought out of the abdominal wound in a few minutes, and Martin incised the fundus transversely between the tubes. A male fetus was delivered without much difficulty, the placenta—which was attached to the fundus—was removed, the uterus was examined and found intact, and the fundus closed with continuous catgut sutures. The symphysiotomy wound was attended to after the laparotomy wound was closed. He contented himself with two strong ligatures through the periosteum, and the usual skin sutures. The fetus was much asphyxiated, and although a few spontaneous respiratory movements followed artificial respiration, he could not be restored. He weighed 8 lb. 4 oz. The skull showed excessive ossification, want of moulding, and measured transversely 2 and 2½ inches, and 14½ inches in circumference. The mother recovered well. In discussing the case, Martin considers that this case can serve as a lesson that unless the head has entered the pelvis symphysiotomy is useless. He further calls attention to the advantages of incision of the uterus through the fundus in Caesarean section, instead of the usual anterior wall incision.

THERAPEUTICS.

(55) The Action of Mercury on Syphilitic Tissues.

JUSTUS of Buda-Pesth has latterly given his attention to this subject (*Arch. f. Derm. und Syph.*, vol lvii, 1901; reprint pp. 18, with 3 plates). He excised papules and portions of condylomata from patients before and in various stages of the mercurial treatment, and microscopically examined them with a view to following the involution processes. It is well known how papules and other manifestations of the secondary period disappear under mercury. The infiltrations of the corium which is made up of a number of cells of varying origin and importance diminishes under the effect of the drug, and finally practically disappears. He found that the plasma cells, which make up a great part of the new growth, got rid of their granules, which were taken up by the lymph spaces and subsequently carried away. The cells themselves then became altered in appearance, and finally became narrow connective tissue cells provided with an elongated nucleus. (This supports Unna's view that plasma cells are modified connective tissue cells, a conclusion which has been denied by Von Marschalko). The perithelial and endothelial cells of the vessels undergo similar involution changes, becoming paler and smaller, until they have attained their normal size and appearance. That these changes are due to the mercury seems undoubted, and they occur not only when mercury is introduced into the circulation, per os or otherwise, but also when locally applied in the form of plasters, and so forth. The point which the author set himself to clear up was the demonstration of the mercury in the tissues, that is, in the cells of the infiltration. After a good deal of groping, he found the following method answer. The excised bits of skin were placed in a fairly concentrated zinc chloride solution for a few days, and were then transferred to water charged with sulphuretted hydrogen gas. (This was prepared by passing the gas into the water for some hours). The bits of skin were next placed in increasingly strong alcohol, embedded, and section cut. Macroscopically the small pieces of skin exhibited a brownish tint. In the sections a low power showed the mercury sulphide not only in the tissue spaces, but also in the cells, especially in the plasma cells. The sulphide deposits could not be dissolved out, even after treating for twenty-four hours with nitric acid. Justus arrives at the following conclusions. The mercury is carried to the syphilitic lesions by the blood stream. This is proved by the presence of mercury sulphide in the walls of the capillary and smaller arterial vessels. The mercury is also deposited in the plasma cells, but the latter part with it, as is shown by the presence of the granules in quantity in the lymphatic spaces. The mercury is stored up in the cells as an albuminate as is well known. As to the effects of mercury on the blood elements the author has shown that part of the red corpuscles (erythrocytes) break down, the mercury forming a compound with the haemoglobin, which is washed out, leaving behind the mere shell or shadow of the blood corpuscle. The corpuscles which are thus affected are no doubt influenced by the syphilitic virus and less resistant. As to the tissue cells which have been shown in the afore-mentioned observations to undergo changes, they were no doubt affected by the syphilitic poison and in an unhealthy condition. The mercury combines with their albuminates, forming compounds that are soluble in the tissue and blood and fluids, and are thus eliminated.

(56) Subcutaneous Injections of Gelatine for Haemoptysis.

FOLLOWING Curschmann's recommendations, A. Hammelbacher and O. Pischinger (*Münch. med. Woch.*, December 10th, 1901) have employed subcutaneous injections of gelatine in cases of phthisical haemoptysis. They were very careful to employ neutralised solution (2½ per cent.), and to observe extreme aseptic and antiseptic precautions. The solution, after being sterilised, was cooled to 40° C. (=104° F.), and from 50 to 150 cm. was injected in equal parts into the subcutaneous tissue of each side of the thorax. There was little pain at the time, but later on severe stretching pain was complained of. The characteristic taste—like sealing-wax and like india-rubber—was noted. This lasted longer after the first than after the subsequent injections. The injections were completed in from five to ten minutes. In 2 cases the particulars of which are fully detailed, and in 2 others which are just mentioned, the result of the injections was satisfactory, and they feel justified in advising this means of combatting with haemoptysis in phthisis.

(57) Curdled Milk in the Feeding of Infants.

SIEGERT (*Münch. med. Woch.*, July 16th, 1901) recommends for infant feeding the use of whole milk curdled by runnet. The method of preparing this is as follows: The milk is first sterilized or in certain cases used fresh; it is distributed into bottles containing about 7 ounces; to each is added a small quantity, as much as will stand on the end of a knife, of v. Dungern's pegnin, which is a sterilized ferment combined with milk sugar. It is not necessary to measure the quantity of this with exactness. After shaking once the bottles are placed in warm water, 40° C., for ten minutes. Afterwards water, cream, yolk of egg, etc., may be added according to indications, and the bottle is well shaken in order to divide up the coagulum into small particles. From three to three hours and a-half should intervene between the feedings and the amount used should not exceed a quart in the twenty-four hours before the infant is 8 months old.

(58) The Treatment of High Blood-Pressure in Renal Disease.

CARTER, in a research on the conditions of blood pressure in renal disease (*Amer. Jour. of the Med. Sci.*, December, 1901) has been able to establish certain important practical conclusions as follows regarding treatment: (*a*) When the blood pressure is high, as in chronic nephritis, and accompanied by symptoms of uraemia, the best treatment is venesection to the extent of withdrawing 5 to 8 ounces of blood, following by saline infusion of 1,400 to 1,500 c.cm. of hot normal saline solution. (*b*) Sodium nitrite in full doses (3 grs. every four or five hours) should be given in combination with the above. (*c*) The combined treatment as above indicated is almost invariably marked by improvement. (*d*) The average mean blood pressure in chronic nephritis is 62 mm. of mercury higher than that of acute nephritis. (*e*) The blood pressure in acute nephritis is about the same as in health; and when the pressure rises to the extent of 60 mm. higher than in health, the presence of chronic nephritis, or other cause of increased blood pressure, may be suspected. (*f*) Symptoms of arterio-sclerosis are often clinically combined with high blood pressure, and the combined treatment (with venesection, saline transfusion, and administration of nitrites) is thus also indicated as specially valuable in averting threatened cerebral haemorrhage, which is a common sequel in arterio-sclerosis.

(59) Treatment of Chorea by Lumbar Puncture.

JEMMA (*Gazz. d. Osped.*, December 1st, 1901) recommends the use of this treatment in severe and intractable cases of chorea. He records two cases, implicating speech and deglutition, with movements so severe and incessant that sleep was impossible. In the first case (aged 10) lumbar puncture, with removal of 20 c.cm. of cerebro-spinal fluid, was followed by an immediate improvement lasting ten days. The symptoms then recurred with such severity as to require a second puncture, by which another rapid improvement was obtained, and by the administration of arsenic in large doses a cure was effected. In the second case (aged 11) puncture with withdrawal of 25 c.cm. of fluid caused almost immediate relief. Arsenic was begun at once, and though after seven days there was some increase in the symptoms, yet cure was effected without a second puncture.

PATHOLOGY.

(60) Structure, Growth, and Histogenesis of Carcinoma of the Skin.

PETERSEN (*Beitragez. Centralbl. f. Chir.*, No. 29. 1901) has used the method of modelling from serial sections in the study of carcinoma of the skin. The sections are enlarged by the use of the drawing prism, and the enlargements modelled in wax and superimposed serially. This method of study had led him to the following conclusions: Two forms of carcinoma should be distinguished in relation to starting point and development, the unicentric and the multicentric, the whole growth originating from one centre in the one case and from more than one in the other. In both there is encroachment, but in the second there is coalescence of the various parts. The epithelial masses growing from one centre form for the most part one stem, from which branches and columns proceed in all directions. The so-called alveoli are sections of these columns; isolated alveoli, entirely surrounded by connective tissue, are rare, and are not to be found in some growths. In regard to histogenesis, the method of modelling permits a study of the growing edge and of small early centres. It appears to show convincingly that the epithelium undergoes carcinomatous changes without any previous modifications in the connective tissue around.

(61) Influence of Formic Aldehyde upon the Metabolism of Children.

TUNNICLIFFE AND ROSENHEIM (*Journ. of Hyg.*, July, 1901) reviewing the literature dealing with formic aldehyde in its chemical action upon proteids, its influence upon digestions *in vitro*, and in experiments upon animals, consider that without observations upon man no conclusions can be drawn as to the effect of small quantities in food, since all previous experiments have been conducted with two strong solutions or without attention to physiological sequence. Experiments upon animals tend to show that moderate dosing has little, if any, effect upon growth, weight, or health. In a series of metabolic experiments lasting twenty-eight days (the first and last week being regarded respectively as "fore" and "after" periods) formic aldehyde was administered in known quantities during the intermediate fortnight. In Observation I, on a healthy boy, there was no appreciable influence upon proteid metabolism or fat assimilation, and only a tendency to stimulation of phosphorus metabolism. The body weight slightly increased, owing to a retention of water in the body rather than to any increased flesh formation or fat retention. In Observation II, on a healthy boy, a slightly beneficial effect upon proteid assimilation, with a tendency to lessen phosphorus assimilation, but without effect upon fat assimilation, was noted, and the body weight increased owing to retention of water in the body rather than to actual growth. In Observation III, on a delicate girl, nitrogenous metabolism appeared unaffected, while the increased amount of phosphorus excreted pointed to a stimulating action of formic aldehyde upon intestinal secretion and to an increased splitting up of lecithin. Fat assimilation was lessened probably from interference with the fat-splitting enzyme of the pancreas, and although the body weight increased this was not due to retention of water in the body, since the opposite occurred. The authors conclude that in healthy children dilute formic aldehyde given with food (1 in 9,000) produces a retention of water in the body, but has no appreciable effect on nitrogen or phosphorus metabolism or fat assimilation, though a tendency in larger doses to diminish phosphorus and fat assimilation, referable to an influence upon pancreatic digestion, is inferred. In a delicate child no retention of water in the body results, and there is a diminution in nitrogen phosphorus and fat assimilation, with intestinal irritation, referable to interference with pancreatic digestion. In all the cases the excretion of lecithin was diminished, and no intestinal antiseptic action was noticed, while the general health remained constant.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(62) Recurrent Epistaxis with Multiple Teleangiectasis of the Skin.

Osler (*Johns Hopkins Hosp. Bull.*, November, 1901) states that the association of epistaxis with multiple teleangiectasis of the skin and mucous membranes is of extreme rarity, only one reference having been found in a search through medical literature—namely, a case recorded by Rendu (*Gaz. des Hôp.*, 1896) of a man, aged 52, afflicted with the above symptoms. A hereditary vascular anomaly seems to have been present in this case, the patient's father having suffered frequently from melaena and his mother and brother from recurrent epistaxis. Of the three follow-cases reported by Osler, two belong to a family in which epistaxis was present in seven members. Both these patients had epistaxis from childhood, as well as numerous small angiomata on the skin of the face, nose (inside), and within the lips and cheeks and on the tongue. The third patient had epistaxis to an excessive degree, and had teleangiectases all over the body and in the mucous membranes. Case I.—Man, aged 57, seaman, had almost daily attacks from his tenth year. His brother is the next case. One sister had epistaxis from nose and mouth since childhood. Patient's habits sober. Eventually he became anaemic and his ankles swelled. The blood showed 15 to 20 per cent. of haemoglobin. Many dilated venules present on his ears, nose, cheeks, and tongue. Urine, specific gravity 1010, no albumen or casts. Case II.—Man, aged 55, brother of the above. He began to bleed from the nose in childhood: latterly the bleeding has been less severe. Has the same physical vascular anomalies as his brother. Pale and anaemic, the haemoglobin being 75 per cent. of the normal. He is a drunkard. Died at the age of 55 of cancer of the stomach, dilated venules being also present in that organ. Case III.—Man, aged 49, had recurrent epistaxis since the tenth year. Has multiple teleangiectases of skin and mucous membranes of nose and mouth. No "bleeders" in the family, and none of its members have had serious attacks of epistaxis. Takes alcohol in moderation, and is free from syphilis. Is anaemic, the haemoglobin amounting to 38 per cent. of the normal. A few teleangiectases are also present on the scalp, tongue, back, chest, and abdomen, while the arms and legs are perfectly free.

(63) Cyclical Albuminuria.

P. Edel (*Münch. med. Woch.*, Nos. 46 and 47, 1901) has carefully observed the phases of cyclical albuminuria in 3 cases, and from the study of these cases has drawn certain conclusions. The patients all presented the same clinical picture of nervous, weakly, non-resistant body habit, without any organic lesion save that producing the albuminuria, which varied according to the position (standing and lying), and had its maximum intensity during the forenoon. He found that after the "midday" dinner (taken at various hours) the albuminuria disappeared, to reappear again in the evening. He caused the meal to be passed over, and no diminution of the albuminuria took place. He next employed a diuretic (potassium acetate), and observed the effect in conjunction with fasting. The urine became alkaline and free from albumen. The quantity of urine appeared to have a direct connection with the presence or absence of albumen. In free diuresis the urine was pale, and there was no albumen, while when the urine was sparse the colour was dark, and albumen was found usually up to 0.4 per cent. The effect of hot baths was relatively the same. Turning his attention to the pulse, he found that in the morning, while the patients were getting up, and especially during washing, the pulse was very small, but this change was not to be noted during the same movements in the afternoon or evening. The pulse volume, representing the amount of resistance in the arteries, was directly in proportion to the amount of albumen secreted at the time by the kidneys. Turning this to therapeutic use, he watched the effect of marching, in soldierly fashion, up hill, and even up mountain. Carrying this out, short of fatigue, he succeeded in producing a secretion of pale urine, free from albumen. The *rationale* of this treatment lay in the calling forth of systematic exercise on the part of the heart. He obtained good results when he ordered a very nourishing and sustaining diet in concert with mountain climbing, and claims that after a time these results were permanent. In connexion with this subject, he mentions that the same procedure has proved beneficial in certain cases of true nephritis, although he adds that he has only been able to observe the effect during a relatively short period.

(64) Destruction by the Pancreas of a Substance which Hinders Glycolysis.

Lépine and Boulud (*Lyon Médical*, No. 1, 1902) have extracted from the urine in diabetes and in pneumonia a crystallisable substance which causes glycosuria when injected under the skin of a guinea-pig, or introduced into the jugular vein of a dog. When a small quantity of this substance was mixed with normal defibrinated dog's blood, and the mixture kept at a temperature of 38° to 39° C. for one hour, it was found that the blood had only lost very little of its reducing power, and very little of its fermentable sugar, whilst with normal blood under the same conditions there was a marked diminution of the reducing power, and a complete, or almost complete, disappearance of the fermentable sugar. To a litre of defibrinated normal dog's blood was added a little of this substance obtained from the urine of a pneumonic patient. This blood was then passed through a large piece of isolated dog's pancreas. The blood collected from the chief vein, immediately after its passage through the pancreas, was found to have recovered its glycolytic or sugar-destroying power. It was thus shown that (1) a crystallisable substance can be extracted from the urine in various diseases (diabetes and other affections) which has the power of hindering glycolysis (or sugar destruction); (2) this substance is destroyed in its passage through the vessels of the living pancreas; (3) therefore, in addition to its other functions, the pancreas has an important antitoxic action.

(65) The Diazo-Reaction in Pulmonary Tuberculosis.

A. Blad and P. Videbeck (*Zeitschrift für Tuberkulose*, November, 1901) were induced to investigate the occurrence of the diazo-reaction in the urine of consumptive patients by the writings of Michaelis. The latter found the reaction constantly or occasionally positive in 75 out of the 106 cases examined, and always negative in the remaining 31 cases. He concluded that a positive reaction indicates a bad prognosis, and suggests that the patient should not be selected for sanatorium treatment. Lorentz at the Halila Sanatorium came to similar conclusions to those of Michaelis. The observations of the present authors are likewise confirmatory. Their tabulated results show that in general the reaction is negative in cases which clinically appear favourable, or, if positive, is weak and inconstant. On the other hand, it was found positive and strongly or fairly strongly marked with remarkable regularity in bad cases. In several instances, however, the positive reaction could not be obtained on the last days preceding death.

SURGERY.

(66) Chronic Intussusception.

Quadflieg (*Münch. med. Woch.*, July 2nd, 1901) reports a case of chronic intussusception of the ileum and caecum which ran a very unusual course. The patient, who was 20 years of age, was admitted into hospital on August 6th, 1900. His history was that on the night of May 24th, 1900, he suddenly awoke with excruciating pain in his abdomen. The pain got less after drinking some tea, but only to a slight degree, and he therefore applied for medical relief, which was given in the form of medicines and a dietary. The effect of these on the pain was fairly marked. A few days later he began eating everything again, and the pain and cramp in the abdomen returned at once. Vomiting set in. Later on he became better and could enjoy light food, but the pain, etc., returned from time to time. He was able to work during the intervals. After an acute attack he was examined by a medical practitioner, who diagnosed either a

renal or an intestinal tumour. On admission, nothing more could be made out than that there was a freely movable tumour about the size of a man's fist, situated below the umbilicus: it was tender on handling; after inflation *per rectum* the tumour was no longer palpable. The urine was natural and so were the motions. The patient at the time had no pain, and ate well. The diagnosis lay between a wandering left kidney and an intestinal growth. On August 8th he was operated on. At first the left kidney was cut down upon; but, as this organ was found to be natural and in its proper position, the wound was closed and the abdomen opened in the middle line, below the umbilicus. The tumour, which was easily found, proved to be an invagination of the ileum and caecum into the ascending and part of the transverse colon. The bowel was reduced all but $7\frac{3}{4}$ inches, which had to be resected. The resected part consisted of 2 inches of ileum and $5\frac{3}{4}$ inches of caecum. The whole was swollen, and an ulcer was found in the caecum. The patient made an uneventful recovery. Quadflieg points out that the cause of the condition remains absolutely unknown. The diagnosis was extremely difficult, and, in the absence of the usual symptoms, the tumour, which felt like a kidney, did not suggest an invagination.

(67) Grafting the Divided Ureter.

Brin (*Rev. de Gynéc. et de Chir. Abd.*, September-October, 1901) publishes some experiences in the management of the surgically or accidentally divided ureter. He had made a uretero cutaneous and a uretero-vesical graft successively, and, it appears, successfully, on the same subject. The cutaneous graft is serviceable in the course of a severe operation on a weak subject, but a ureter discharging on the surface is a grave infirmity. When the ureter has been cut too short to be grafted on to the bladder, it may conveniently be implanted in the intestine; there seems no fear, Brin declares, of ascending infection. Vesical anastomosis is preferable when the ureter is of sufficient length to make it practicable, and is certainly more surgical than nephrectomy, but it is difficult to effect. In two cases Brin split the layers of the bladder around the incision made to introduce the cut end of the ureter. Then he sutured the edge of the cut end to the vesical mucous membrane, and, lastly, fixed the wall of the ureter by suture to the outer wall of the bladder. No cicatricial stricture, no evidence of dilated ureter, or hydronephrosis resulted.

(68) Chronic Otitis Media and its Treatment.

Hellat (*Vratch*, August 27th, 1901) calls attention to the fact that purulent otitis media is not so severe in Russia, and does not so often become chronic as in Western Europe. Purulent chronic otitis with cholesteatoma is never seen in Russia; certain forms of perforations (marginal) and extensive bony caries are very rarely seen. Mastoiditis is not infrequent, but intracranial complications are rare. The majority of Russian practitioners use irrigation in suppurating otitis, but the writer thinks that this method of treatment is open to several objections. He recommends a careful cleaning of the middle ear by the dry method; he uses small swabs of cotton wool twisted upon the ends of wooden holders; after use the end of the stick is broken and fresh wool applied. After cleansing, boracic acid powder is blown into the ear. The only cases to which this method is not applicable are those in which the pus is very thick and tenacious; syringing is here necessary before drying. Chronic cases that are not amenable to conservative treatment require removal of the granulations or of the ossicles. The best operation is Stacke's, but the author has somewhat simplified it. A semicircular incision encircles the base of the auricle, the periosteum is elevated up to the external auditory meatus, a blunt dissection is made of the canal, and the latter is displaced forwards. The lateral wall of the attic and of the mastoid cavity is then removed with a chisel; a bent probe is alone used as a guide to the antrum; the remains of the tympanic membrane, together with the ossicles and granulations, are then removed. The writer does not recommend any plastic operation on the cartilaginous meatus.

(69) Foreign Body in the Stomach.

Tuffier (*Bull. et Mém. de la Soc. de Chirurg.*, No. 36, 1901) reports a case in which Kallionzis of Athens successfully removed by gastrotomy a fork between 8 and 9 inches in length, which had remained in the stomach of a young man seventy-eight days without causing any troublesome symptoms. Attention was directed in the comment on this report to the frequent absence in such cases of pain and serious symptoms, and to the necessity, notwithstanding this tolerance of a large foreign body by the stomach, of prompt surgical intervention for the removal of such body; the external incision to be made directly over a projecting part, if such can be felt, and in the middle line when there is no external indication of its presence. The mortality of gastrotomy for the removal of foreign body, which, according to recent statistics, is calculated to be 20 per cent., may, it is held, be reduced in future practice by early diagnosis and immediate operative treatment. In the discussion reference was made to a remarkable case published by Le Dentu in 1889, in which a wooden spoon measuring about 11 inches in length, supposed to have been swallowed by a young man, was found after an interval of twenty-three hours lying loose in the abdominal cavity. The stomach was opened in the first place, but no traces of irritation set up by this body, nor any perforation, could be found during the operation. In a subsequent meeting of the Société de Chirurgie Le Dentu dealt at some length with the criticisms on the report of his case, and gave his own interpretation of what at the former meeting had been designated as the mysterious passage of the foreign body.

MIDWIFERY AND DISEASES OF WOMEN.

(70) Placenta Praevia.

Drejer (*Norsk. Mag. f. Laegevidensk*, lxii, 1332, December, 1901) gives details of 49 cases of placenta praevia occurring in his practice. Nine were in primiparae and the remainder in multiparae. The treatment is specially considered. Ten cases were treated by plugging the vagina; this method is of no value as a haemostatic, gives no appreciable aid in the dilatation of the cervix, and is accompanied by a very great mortality and morbidity; it is both highly dangerous and inefficacious. Rupturing the membranes may be of use in a few cases of the lateral variety and early in labour. Forceps are rarely called for, and the treatment usually consists in version either internal or by Braxton Hicks's method. Drejer considers that the advantages of the latter form of version are very great, and that with it the danger of maternal death from haemorrhage is practically *nil*, although he admits that the risks to the infant are considerable. In his 49 cases there were two deaths, or 4.08 per cent.; these were both from sepsis, probably due to previous plugging of the vagina. Besides these cases there were four others that showed sepsis in the puerperium, and in three of these the vagina had been plugged. The total morbidity, therefore, was 12.25 per cent. The insertion of the placenta was marginal in 18, lateral in 16, and central in 15 out of the 49 cases. Of the infants, 39 were born alive, but of these 13 only lived some hours, so that 26 alone remained alive; 12 were dead born (2 macerated). Full details are given of each case, and the contribution covers 90 pages.

(71) Ovarian Tumour arising in Adrenal Remains.

Pick (*Beit. z. Gynäk. u. Geburtsh.*, Festschrift Professor Dr. L. Landau, 1901), has written a long and valuable essay on Marchand's adrenal relics and the new growths which arise from them, in relation to researches on ovarian tumours rich in glycogen. It is of special interest in respect to Dr. A. E. Eastwood's communication on the occurrence of pelvic tumours arising in adrenal remains read at a meeting of the Pathological Society of London on January 7th (British Medical Journal, January 11th, p. 80). Ludwig Pick's article is largely based on a case where Theodore Landau operated on a woman, aged 51, with prolapse of the posterior vaginal wall and a pelvic tumour to the right of the uterus, of the size of a fist. A vaginal operation, including removal of the uterus, was performed. The tumour, which was very firm and had been diagnosed as a fibroid of the broad ligament, was encapsuled in that fold. It was made up of numerous small

cysts, some very minute, with a central cavity produced by disintegration of tissue. A remarkable spherical body, a new growth in the corresponding ovary, was in a state of necrosis. The opposite ovary was normal. The microscopic appearances of the tumour are minutely described, and Pick concludes that it arose from a Marchand's accessory adrenal in the hilum of the ovary.

(72) Treatment of Repeated Abortions and Premature Labours.

R. LOMER (*Zeits. f. Geburtsh. u. Gynäk.*, xlvi, 306, 1901) speaks highly of the treatment of cases of repeated abortions and the premature birth of dead infants with potassium iodide. Not only would he give the drug in all instances of suspected syphilis (when it is always "better to ask little and treat actively"), but also in the cases of maternal kidney disease with haemorrhages into the placenta. Further, he would give the iodide also in cases of endometritis in which there was anaemia and a brownish discharge during pregnancy; he would then combine it with Blaud's pill. The two drugs ought to be given during the whole course of the pregnancy. Several illustrative cases are described in which the habit of aborting or of giving birth to dead fetuses seems to have been checked by the iodide and Blaud's pill. The iodide acts as a specific in the syphilitic cases; it has a good influence upon the pregnancy nephritis: and it is a resorbent in the endometritis cases. It prevents the rupture of the vessels in the placenta.

(73) Decapitated Fetus and Rupture of the Uterus.

DURLACHER (*Deut. med. Woch.*, November 7th, 1901) reports a case of difficult labour, illustrative of the disastrous effects of applying a wrong treatment. A primipara was taken in labour on November 7th, 1900, at 2 A.M., and on the 9th, at 1 A.M., he was asked to go to her assistance, with the remark that two practitioners were already there. The fetus itself was born, but not the fetal head. The history given on arrival by the practitioner in charge was that the membranes had ruptured in the early hours of the 7th, but no presentation could be felt. On the 8th the vertex was felt above the brim. Attempts were made to deliver the fetus with forceps. As this failed, at 7 P.M. version was performed, the fetus still being alive, and as the head would not follow such forcible traction was employed that it tore off and remained in the uterus. The nurse stated at a later date that after two hours of unavailing manipulation the practitioner decapitated the fetus. Durlacher found the patient with an anxious expression, extreme pallor of face, and some cyanosis of lips, dyspnoea, vomiting, and yawning. The abdomen was very tumid. The pulse was thready. On examination he found the stump of the neck, the chin and the face of the fetus inside the uterus, while the vault of the skull protruded through a rupture of that organ. There was much blood clot in the vagina. The placenta was still slightly adherent to the fundus. This was removed without difficulty, and an attempt was made to bring down the head with a blunt hook introduced into the mouth, but the jaw gave way. As a last resort he performed laparotomy. He had to wait, as the patient was in a very collapsed condition, and indeed he believed that she was dying. A few hours later—twenty-nine hours after the rupture of the uterus—he performed the operation, but she sank and died a few minutes after its completion. The fetal skull gave the following measurements: Long. diameter, 3 ins.: the largest transverse diameter, 2⅝ ins.: the small transverse diameter, 2⅛ ins. The pelvic measurements were: Dist. spin. ill., 6·6 ins.; dist. crest. ill., 6·4 ins.; diag. conjug., 2·7 ins.: conjug. vera, 2¼ ins. The fetal skull was very hard and allowed of little moulding. Durlacher considers that although a true conjugate of 2¼ ins. allows at times of a spontaneous birth, the condition of the patient rendered it dangerous to wait for Nature to help the patient. He puts aside the question of application of forceps as wrong treatment, and he also considers that version was attended with too great a risk of rupture to be justifiable. The correct procedure, he says, without doubt, was craniotomy, for the surroundings and the length of time that labour had already lasted almost robbed Caesarean section of its chance of obtaining a live child and still preserving the life of the mother. Discussing the case at the stage after version been performed, he says that a short attempt with forceps to deliver the after-coming head would have been justifiable, and this failing, craniotomy should be then performed. Criticising his own procedure, he states that he felt impelled to make a desperate attempt by performing laparotomy, even under the most adverse circumstances, although he realised that the attempt was little likely to be attended with success.

THERAPEUTICS.

(74) Injection of Antitetanus Serum into the Cerebro-spinal Cavity.

THE results of injections of antitetanus serum, whether subcutaneous, intravenous, subdural, or even intracerebral have not been encouraging. Impressed by the ease and efficacy of cocainization by lumbar puncture, D'Ancona (*Gaz. d. Osped.*, November 24th, 1901) carried out a similar procedure in 2 severe cases of tetanus. After chloroforming the patient and rendering the skin aseptic, a needle was inserted and cerebro-spinal fluid allowed to flow (about 8 c.cm.), then 10 c.cm. of Erba's antitetanus serum were injected. In the first case four injections were made on the thirteenth, fifteenth, nineteenth, and twenty-second days from the first appearance of symptoms, the scar of the infecting wound being excised on the nineteenth day. In the second case there were also four injections—on the fifth, eighth, ninth, and twelfth days from the appearance of symptoms, the wound being opened on the fifth day and a fragment of maize stalk removed. This was introduced under the skin of a rabbit, and produced death from tetanus. In both cases the symptoms increased in severity for a short time after the first injection. In every case (even in the later injections) the cerebro-spinal fluid withdrawn was clear, limpid, and not stained with blood.

(75) Treatment of the Primary Chancre.

FEDERN (*Wien. med. Presse*, December 15th, 1901) shows that syphilis may follow not only the indurated chancre, but that it usually appears after all superficial sores, whether hard or soft, with no or but slight secretion. It may exceptionally follow a freely suppurating soft chancre, especially if the process be superficial. If the suppurative process penetrates deeply no general syphilis usually appears, especially if suppurating bubos result. It is probable that the soft and hard sores are due to distinct organisms, but that the two are frequently inoculated simultaneously. The varying subsequent course of the disease may depend on mutual antagonism between the two. Although this theory does not explain the occasional appearance of syphilis after a suppurating soft chancre, the general rarity of syphilitic symptoms after phagedaenic chancres with suppurating bubos suggested to the writer that it would be rational to inoculate every scantily secreting chancre, especially if indurated with material from a freely suppurating soft sore. The probable result would be the production of bubonic abscesses and the destruction of the syphilitic virus. Since the contagion of the soft chancre advances and reaches the glands more rapidly than does that of the hard, there would be more chance of success than is the case with treatment by caustics or excision. The treatment has not yet been put into practice.

(76) Oil of Cade Baths in Psoriasis.

BALZER (*Bull. Gen. de Therap.*, November 23rd, 1901) uses the following formula: Oil of cade, 50 grams; fluid extract of quillaia, 10 grams; one yolk of egg; distilled water, 250 grams. The yolk of egg is placed in a mortar, and the oil of cade gradually added. From time to time several drops of extract of quillaia are added. When the oil is emulsionised the water is added. When used, a little warm water is added, and the whole put into the bath. The bath should last from half an hour to an hour, and should be accompanied by slight friction on the patches of psoriasis. The baths are repeated daily, or every other day. This treatment is suitable both for hospital and private cases, and can be used in all varieties of psoriasis. It may also be used as an adjuvant to ordinary treatment by chrysophanic acid, oil of cade, or pyrogallic acid. Balzer claims good results in chronic cases with thickening

of the skin. These results were compared at the St. Louis Hospital at Paris with other methods.

(77) Poisoning by Acetanilid.

BROWN (*Amer. Journ. of the Med. Sci.*, December, 1901) records the symptoms of poisoning by acetanilid, and gives a long account of the blood changes and other symptoms. A typical case is cited of a man, aged 37, who had taken a dose of 60 grains of the drug, which had been dispensed in 6 powders for headache. The symptoms which followed were slight delirium, headache, and pain in the left side of the abdomen (descending colon). Temperature 100.2° F., pulse 78, marked constipation, jaundice, nausea, and vomiting. Calomel was given in small doses and followed by salts, after which copious and bloody stools were passed. Urine was strongly alkaline, dark red, specific gravity 1016, with abundance of albumen. Granular epithelial casts were also present, but there was no biliary colouring matter. The spectroscope showed the presence of haematoporphyrin. Next day there was marked suppression of urine, only 150 c.cm. being obtained. Milk given by the mouth was repeatedly vomited up. Intense prostration with low delirium followed, the pupils were dilated and sluggish, the temperature fell to subnormal, and there was unconsciousness of surroundings. There was alternate constipation and diarrhœa, and 48 hours before death the faeces constantly showed blood pigment, blood clots, and corpuscles. The skin was very jaundiced, and large shreds of mucous membrane were passed *per rectum*. The rectal temperature sank to 99.5°, and he died on the seventh day after admission. Saline injections *per rectum* were well retained only in the early stages. The blood showed destruction of red corpuscles, poikilocytosis, as in pernicious anaemia, and an increase of nucleated red cells. Haemoglobin was 40.35, and 32 per cent. of normal on successive days. No lesions could be detected in the alimentary canal sufficient to account for the profuse haemorrhage. Dark-green mucus was found but no haemorrhagic spots.

PATHOLOGY.

(78) The Forensic Importance of the Freezing Point of Blood in Death from Drowning.

CARRARA (*Arch. Ital. de Biol.*, Tome XXXV, Fasc. 3, 1901) refers to the experiments of Brouardel and Vibert, Paltauf, and others, who have calculated the extent of dilution undergone by the blood owing to the inrush of water into the lungs and stomach during immersion. The degree of dilution of the blood is usually greater in the left heart than in the right, and the amount of added water may equal one-third of the total quantity of blood in the body. Hitherto all methods employed for these calculations have been defective. Some have estimated the solid residue in the right and left halves of the heart of animals before and after drowning. Others have counted the red corpuscles in a given quantity of blood, but the experimental error is great when the corpuscles are altered by putrefaction and inhibition. The writer claims that the most exact method is that of cryoscopy of the blood—that is, the determination of its freezing point (EPITOME, July 6th, 1901, par. 16), which varies, as in all solutions, with the osmotic pressure, and therefore with the molecular concentration. He determined the cryoscopic value of dog's blood first under normal conditions, then, in order: after drowning in fresh water, after death other than drowning, and after drowning in sea water; in each case the freezing point of the blood in the right ventricle was compared with that in the left. Cryoscopy was also compared with other physical methods of examination; the density, the percentage of haemoglobin, the ratio of the total solid residue to the quantity of water, the residue after incineration, and the percentage of iron. The specific gravity of the blood is lowered if a large quantity of water enters the circulation, but the same is true of other pathological conditions, such as anaemia, and the physiological limits are very wide (according to Lloyd Jones between 1030 and 1058). Much importance has been attached in the diagnosis of death from drowning to the presence of signs of greater dilution of the blood in the left ventricle than in the right, such as a relative diminution of the solid residue, but if the circulation persists, as occasionally happens, for a few seconds after the blood has become diluted to its maximum capacity, the distinction between the blood in the right ventricle and in the left may disappear. Cryoscopy of the blood in these cases will show with certainty that a liquid has penetrated into the general circulation. If the cryoscopic values of the blood in the right and left heart differ, confirmation is obtained, but this is by no means necessary. The physiological limits of the variations in the freezing point of normal human blood are very narrow between 0.558° and 0.570° C.—and in disease lie between 0.508° and 0.634° C. In the dog the freezing point is about 0.6° C. Any notable deviation from these limits shows that the blood has been diluted. In death from drowning in fresh water the freezing point of dogs' blood fell from normal, in one experiment to 0.30° C., in another to 0.42° C. in the right ventricle, and 0.26° C. in the left. In the second case the results obtained by observation of the density, the percentages of haemoglobin and of water, the solid residue, the red corpuscles, the ash and the iron, all pointed to a considerable dilution of the blood. In animals slaughtered and then immersed in water for several days no penetration of liquid into the circulation takes place. On the contrary, the blood becomes inspissated through evaporation, as in the case when the corpse is exposed to air; the solid residue, ash, etc., increase, and the freezing point rises; for instance, from 0.58° to 0.70° C. In animals drowned in sea water the ordinary methods of examination may show that a liquid has penetrated into the blood, and has diluted it. Cryoscopy, however, indicates clearly whether drowning has occurred in fresh or sea water; in the latter case the freezing point rises instead of falling, as when the medium is fresh water. In a dog drowned in sea water it rose to 1.01° C. in the right ventricle, and 1.23° C. in the left, although analysis showed that the blood had been diluted, and a similar result was obtained in a man accidentally drowned. Thus the freezing point of the diluted blood tends to approach that of the liquid in which death by drowning has occurred. Cryoscopy is at present available as a forensic test only in cases of recent death by drowning, but the writer is now experimenting as to its applicability after the onset of putrefaction.

(79) Intracellular Constituents of the Typhoid Bacillus.

MACFADYEN AND ROWLAND (*Centralbl. f. Bakt.*, December 5th, 1901) publish a first communication on the study of intracellular substances, the typhoid bacillus being the subject of investigation. The intracellular substances were obtained by triturating the bacilli so as to fracture the cell membranes; in the first instance this was done with the admixture of sand, later by carrying out the procedure at the temperature of liquid air, the membranes being thus rendered brittle; after trituration the cell plasma was expressed by pressure in a hydraulic press. This was used for animal experiments. The Widal reaction was obtained with the blood of the treated animals, showing that the material obtained was in reality typhoid cell substance. Injection of the cell plasma conferred protective properties against subsequent lethal doses of the typhoid bacillus for a period of about four weeks; guinea-pigs tolerated large doses of the plasma; it was quickly absorbed when subcutaneously injected without evidence of local irritation. The writers have also endeavoured to demonstrate the production of soluble toxin by the typhoid bacillus; if the symptoms of enteric fever are due to the circulation of a toxin as well as to an infection, the detection of the toxin would mark a great advance in the treatment of the disease by inoculation methods. Attempts to cultivate the bacillus in the fresh juices from various organs were negative, due to an auto-digestion of the juices and its accompanying autolytic processes. Subsequently it was found that on juices obtained by a cold method the bacilli grew well, and the writers are at present engaged in investigating how far the toxicity of the organisms is thereby affected. They state that their object in making the communication is to emphasize the importance of attacking the question of immunity from an intracellular standpoint, both as regards the organism and as regards the soil on which it grows.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(80) The Causation of Cardiac Hypertrophy by Nephritis.

Mayet (*Lyon Méd.*, January 19th, 1902), has observed hypertrophy of the heart directly consecutive to toxic nephritis in two experiments, undertaken to investigate the pathology of cancer. Two rabbits were inoculated with an aqueous extract of macerated human cancer, after being previously treated by subcutaneous injections of cantharidine in oil, in order to determine the localization of the malignant growth by means of a renal lesion. In neither case was any malignant growth found *post mortem*, but in both distinct nephritis as well as marked hypertrophy of the left ventricle was seen. The first rabbit, which weighed 1,885 grams, received in five doses 1½ mg. of cantharidine between May 19th and June 1st, 1895. Albumen was found in the urine soon after the first injection but disappeared again after the third. After a transitory loss of weight, the animal throve until December, when it showed signs of spasmodic paraplegia (due to myelitis caused by cancerous toxins) and died in January, 1896. On examination, the kidneys were increased in size and showed a uniform gray surface on section, there being no sharp distinction between cortex and medulla. The wall of the left ventricle was much thicker than normal, being twice the normal size as seen in other rabbits of similar weight. In the second case, the rabbit was much larger, weighing 3½ kilos. The same dose of cantharidine, 1½ mg., was administered in three injections. The urine contained albumen after the first dose, but not after the third. The animal wasted rapidly and died in a state of profound cachexia. The kidneys were found in the same condition as those of the first animal, and the left ventricular wall was noticeably thickened, though not so much so as in the first case. Thus a diffuse nephritis of toxic origin produced marked enlargement of the left ventricle within a few months in both instances, the duration in the second case being the shorter of the two.

(81) Emulsion Albuminuria.

H. Cramer (*Münch. med. Woch.*, January 21st, 1902) describes a condition of urine which he calls "emulsion albuminuria," which he found in two cases of fatal eclampsia and in one case of fatal uraemia. The clinical histories were those of very severe cases. The urine appeared milky, was acid, and of a yellowish-brown colour. The emulsion did not disappear on filtering nor on centrifugalization. The addition of acid as well as heating did not clear up this condition. Dilution with water and a few drops of acetic acid or liq. potassae, however, cleared the urine of nearly all the cloudiness. Boiling produced a heavy cloud, which interfered with the emulsion. The urine contained no fat (ether-alcohol and osmic acid tests). The addition of pepsin and HCl cleared up the milky emulsion, but HCl alone did not do so. Further chemical analysis showed that the emulsion was probably due to albumen, with some allantoin and uric acid. The microscopic examination revealed small rounded bodies, varying in size, but not unlike cocci, but bacteriological culture showed that they were not micro-organisms. Cramer regards the emulsion of the albumen as the result of an excess of albumen in the small quantity of urine—fluid excreted by the patients suffering from severe eclampsia and uraemia. He suggests that the occurrence may be of considerable prognostic importance.

(82) Neuritis of Tuberculous Origin.

Ferraris (*Rif. Med.*, December 13th and 14th, 1901) reports the case of a woman, aged 28, of neuropathic heredity, who first showed signs of pulmonary phthisis in the winter of 1900. For nearly three months previously she had suffered from constant right intercostal neuralgia. The first symptoms of neuritis set in in the form of weakness and final loss of power and dead feeling in the middle finger of the right hand. In April, 1901, weakness was noted in the legs; by the end of June complete paraplegia had set in. Muscular tremors in the lower limbs gradually spreading upwards, became marked during August, September, and October. At the end of July the legs and the interossei muscles of the hand were much wasted. During the whole course of the disease tingling, especially in the feet and hands, was a noticeable symptom. Tubercle bacilli were found sparsely in the expectoration; there was nothing abnormal in the heart or urine. Tactile sensation was preserved. Tender points over the superficial nerves were present, and the calves were particularly tender. The reflexes were brisk; no clonus. The electrical reactions were normal except in the legs, where reaction of degeneration was present. There was no history of alcoholism. Certain symptoms, for example, anuria, erythema, dermatographia, waves of heat and cold, and anidrosis were probably of hysterical vasomotor origin. Discussing the possibility of the whole being hysterical, the author decides in the negative. Whether in this case the neuritis might possibly be malarial rather than tuberculous is more difficult to decide.

(83) Tuberculosis in the Children of Alcoholic Parents.

Imbault has made a careful study of the frequency of tubercle in children whose parents have been alcoholic (*Thèse de Paris*, 1901). He finds as the result of his observations that not only is tubercle extremely frequent in such cases, but that tuberculous meningitis is one of the most usual manifestations. As a matter of fact, we have very few statistics regarding the comparative frequency of meningitis, but the writer quotes Arrivé's observations on 1,506 children, and in which meningitis occurs about twice as often in hereditary alcoholics as in cases of hereditary tubercle. It has also been found that boys are much more likely to be affected than girls, in the proportion of 2 to 1. The writer's own statistics relating to tuberculous children in general show that, of 100 such cases, 36.49 per cent. were hereditary alcoholics and 41.24 per cent. were hereditarily tuberculous.

SURGERY.

(84) Decortication of the Lung: Pneumectomy.

Picone (*Rif. Med.*, December 24th, 1901) reports the case of a woman, aged 35, admitted into hospital January, 1901, with a left thoracic fistula of two years' duration secondary to empyema after pneumonia. The patient was in a very bad condition, with all the symptoms of acute septicaemia. No tubercle bacilli could be found in the pus. On resecting the second to the eighth rib the lung was seen to be closely applied to the spinal column and almost completely atelectatic; the parietal pleura was enormously thickened. The visceral pleura, which was thickened to about a fingerbreadth, was incised and detached from the lung, but owing to severe haemorrhage and threatened asphyxia the completion of the operation had to be postponed. At the next operation some of the intercostal muscles were removed and more pleura, but again haemorrhage supervened. However, the decortication was completed in successive operations without anaesthesia, and in addition small cavities found in the lung containing caseous detritus were scraped out, and in some cases bits of the lung excised. The patient was very much improved, so that she was able to get up and declared herself cured of all her symptoms. A final operation of a plastic nature was performed so as to cover the large thoracic breach. Unfortunately soon after this uncontrollable diarrhoea set in which assumed a distinctly tuberculous character, to which the patient succumbed.

(85) Wounds of the Liver.

Mercadé (*Rev. de Chir.*, January 10th, 1902) advocates immediate intervention in injury to the liver, and relates 2 cases, adding a copious biography. He successfully operated, applying suture and tampon in a case of stab and in a case where the liver was ruptured by a cart wheel. There was much blood in the abdomen already in both cases, which were operated upon on admission to hospital; delay would have lost both. Mercadé rejects attempts to stop bleeding from a wound in the liver by hot air. Stitching the omentum over the wound or fixing it

into a big laceration to act as a plug is poor surgery. Ligature and forcipressure are impracticable in most cases. The thermocautery has been recommended, but it has only been used twice in reported cases, and is liable to cause secondary haemorrhage. The tampon is of proved value, but further steps are usually needed to save the patient. In superficial and almost inaccessible wounds it is useful. The suture is the best means of arresting the hæmorrhage. It was used in 31 out of 44 cases of incised wounds of the liver (Terrier and Auvray). Provided that the edges of the wound are well approximated, the vatiety of suture is of secondary importance; continuous, interrupted, pursestring, and mattress sutures, have all been employed according to circumstances. Provided that the wound is incised and recent, the suture will stop haemorrhage and allow of repair of the wound even in very bad cases. But in contused wounds the tampon is required. The edges cannot be made to meet; they are broken down and friable; the suture is needed to play a secondary part, as it serves to approximate the severed liver tissue and thus aids cicatrization, which is best hastened and limited. That process is carried on by the embryonic cells in the hepatic parenchyma and the sheath of the vessels (Ludwig Mayer, Virchow, K. Joseph). Drainage of the wound and injection of artificial serum are needed after the application of the sutures and tampon.

(86) Prevention of Stitch Abscess.

MAYLARD (*Annals of Surgery*, January, 1902) holds that in the practice of modern operative surgery there are two, and probably only two, precautions where doubt must always exist as to the certainty on which a perfectly aseptic result may be expected. These two precautions deal with (1) the condition of the surgeon's hands, and (2) the condition of the parts to be operated upon, or, in other words, the state of the skin and deeper tissues. Convinced by the results of experiments that infective microorganisms are derived from the sudoriferous and sebaceous glands of the surgeon's hands, the author advocates a precaution founded on the physiological basis of exciting these glands of the skin to act freely before the commencement of the operation. In the method described in this paper the hands are submerged for from five to ten minutes in water as hot as can be conveniently borne. The soddened surface epithelium having been removed by massage of the hands under water and the use of ordinary soap, the hands are finally rinsed in warm carbolic lotion (1 to 40). In the preparation of the operator's hands "soaking," it is tersely asserted, "is better than soaping." The author's method of sterilizing the skin and deeper tissues of the patient is based on the fact that it is possible to salivate a patient by the inunction of the surface of the abdomen with mercurial ointment. Such a result proves that the agent applied is carried by natural channels—certainly the lymphatics—so as to produce an effect upon a comparatively distant region elsewhere. So long as the agent is kept in contact with the skin, so long will these channels be engaged in transmitting it to other parts. It is inferred that when an operation is performed on parts whose lymphatics contain such a potent bactericidal agent as mercury, this should not only prove destructive to any microorganisms with which it might come into direct contact, but its presence should still further render the normal tissue unfit for the multiplication and development of these bodies. The author describes fully his method of prolonged application of lanolene-oleate of mercury ointment to the skin over the seat of operation, and states that according to the results of careful scientific and clinical investigation, whilst chemical examination failed to afford any positive information, bacteriological investigation proved a material diminution in the number of micro-organisms, and the records of actual practice afforded incontestable proof of the value of the method.

MIDWIFERY AND DISEASES OF WOMEN.

(87) Removal of Ovaries for Double Uterus and Atresia Vaginae.

KREVET (*Zeits. f. Geburtsh. u. Gynäk.*, xlvi, 39, 1901) describes the case of a woman, aged 24, who had never menstruated, but who had had abdominal pains recurring every six or eight weeks since the age of 16. She was a machine worker, and at the age of 20 she got a blow on the right flank while at work. Since then she had suffered much more from abdominal pain, which now recurred every three weeks and lasted some eight days; she was also ill in the intervals. She showed a dermoid cyst of the left eyelid and a split in the lobule of the right ear. The mammae were well developed. In the right inguinal region was a hard swelling, the size of a walnut, tender on pressure. The pelvic measurements and the external genitals were normal; but the urethra was dilated, and the vaginal orifice ended in a shallow cul-de-sac. The hymen was torn and the fossa navicularis was pushed inwards. The bimanual examination, with one finger in the bladder, revealed that the centre of the pelvic cavity was empty; on the right and left were firm structures like enlarged ovaries (the one on the right being tender to touch) which lay near the internal inguinal rings. The abdomen was opened. On the left side a normal ovary and tube and a body exactly resembling a uterus without a cervix were found; the latter was attached to the left side and front of the pelvis about a finger-breadth below the linea innominata. On the right side the parts were matted together and to the omentum by peritonitic adhesions, but a uterus, ovary, and tube could be made out; these were adherent to the omentum and to the caecum. Both ovaries were removed; the left one had normal appearances, but both it and the right contained very few ova; the right one showed fibrous changes and a blood extravasation, also a recent corpus luteum. Krevet comments upon the rarity of the case, it being uncommon to meet with the uterus duplex or didelphys in an adult with no other malformations. The inflammatory changes on the right side were ascribed to the blow.

(88) Vesicular Mole and Bilateral Ovarian Cyst.

BAUMGART (*Centralbl. f. Gynäk.*, No. 4, 1902) dwells on an alleged relation between ovarian cysts and vesicular mole. A patient, aged 22, was delivered, in the second month of her first pregnancy, of a vesicular mole. A few weeks later, after the first period, uterine haemorrhage set in again, then a tumour was detected in the hypogastrium. The patient was thin and sickly, the uterus very bulky, measuring 4½ inches; the os admitted the tip of the finger, and blood came away. There was a movable, cystic tumour of the size of a child's head on each side of the uterus. The curette was used four months after the expulsion of the mole; inflamed mucous tissue and a few isolated, degenerate villi came away. Six weeks later the tumours, two ovarian cysts, were successfully removed. Baumgart quotes several authorities who have described cases where vesicular mole and ovarian cyst, or at least small cystic degeneration of the ovary, have existed in the same subject. Poten (*Monats. f. Geb. u. Gynäk.*, vol. xiv, Part 3) quite recently reported a case very similar to Baumgart's, where two ovarian cysts were removed three weeks after the removal of a vesicular mole. There seems to be something more than coincidence, but no scientific explanation of the relationship has been advanced.

(89) Malignant Polypus (Sarcoma) in Elderly Subject.

MUNDÉ (*Amer. Journ. Obstet.*, January, 1902) examined a patient, aged 56, with prolapse. The uterus was as big as two fists, and the cervix presented at the vulva. There was an unusual amount of bearing-down pain, dysuria, and other discomforts associated with prolapse. A week later the pain increased, and for the first time in nine years haemorrhage from the uterus set in. Mundé found the external os dilated, and detected a polypoid tumour springing from near the fundus. It was very soft, but as it was perfectly free from smell it clearly could not be a sloughing fibroid, and it was too soft for a normal fibroid. It was removed with perfect ease with a large curette, then Mundé decided on taking out the uterus. The new growth extended half an inch into the abdominal wall, and was a very malignant mixed-celled sarcoma, a disease unusual after 50, though carcinoma uteri remains relatively frequent until over ten years later. The patient made a good recovery.

(90) Haemorrhage in Placenta Membranacea.

REIPRECHT (*Centralbl. f. Gynäk.*, No. 3, 1902) exhibited a specimen of this form of placenta at a recent meeting of the Obstetrical Society of Vienna. The patient, 41 years old, had been eleven times pregnant; she was admitted on May 6th under Chrobak into the Vienna Maternity in a state of extreme anaemia. The last period occurred at the end of December, 1900, and flooding set in, persisting in varying degree till admission; it did not yield to any drugs. Abortion was at once induced by a laminaria tent, a tampon introduced into the cervix, and a hystereurynter. As the latter contrivance was expelled, over a pound of clot had to be cleared away before the membranes could be reached. They were ruptured, and an ovum 10½ inches long and 13 ozs. in weight was delivered and the placenta separated manually. Four-fifths of the surface of the membranes were beset with villi, many of which adhered to each other.

(91) Haemorrhage from Gums During Pregnancy.

THOMAS C. SMITH (*Amer. Jour. Obstet.*, January, 1902) was consulted by a patient six months advanced in her fourth pregnancy, on account of repeated bleeding from the gums. The general health was good, and the gums and teeth were in excellent condition. Smith observed the haemorrhage during a visit; on raising the lip blood was seen coming from the margin of the gum and running down the teeth. Whilst looking at the gum he noticed that a few drops of blood would suddenly appear, and it was impossible to say whence it came, as there was no broken surface. Tincture of rhatany was prescribed as a local astringent. The patient was delivered in due time without noteworthy incidents attending the labour, after which the bleeding ceased. Bowen, in a discussion on this case, stated that he had observed a case of fibrous epulis, which returned with each pregnancy and bled freely. It was on the upper jaw, and as large as a partridge's egg.

THERAPEUTICS.

(92) Some New Nutrient Preparations.

S. WEISSBEIN (*Deut. med. Woch.*, January 9th, 1902) points out that chemical foods can be judged by three methods: (1) By chemical analysis; (2) by clinical observation; and (3) by colour analysis. The latter, according to Ehrlich, is capable of demonstrating the different portions of any material by their elective affinity to basic and acid aniline dyes. Instead of using Ehrlich's triacid reagent, Weissbein preferred to use Pappenheim's colour solution. A small quantity of the powder to be examined is brought into a centrifugalizing glass half full of distilled water, ten drops of the colour solution is added, the mixture shaken for two minutes, and centrifugalized. The coloured powder is then examined macroscopically and microscopically. If starch is to be recognized, two drops of tincture of iodine has to be added with distilled water to the powder, the whole shaken, and again centrifugalised. He tested the following preparations in this way. Plasmon, consists of casein, a good preparation. Plasmon cocoa and chocolate contain 20 per cent. of plasmon. Plasmon oats, cocoa, contains casein of plasmon, which is stained pale green; parts of the husks of the oats stained grass and dark green; the cocoa and starch are partly well preserved (stained blue) and partly altered (stained violet), showing a partial conversion into dextrine. Plasmon biscuit and toast also contain portions of husks and altered starch granules. The last thsee preparations are easily digestible on account of the presence of husk particles, and cannot be recommended as nutrient preparations. Palaktogen consists of casein, as is seen by the light green staining. It is an easily digestible good milk preparation. Soson consists of much altered muscle fibres and amorphous masses, which stain red. It is easily digestible and nutritious. "Nachrstoff Heyden" (Heyden's food) consists of vitellin, albumen, and albumose. The particles are stained green. Fersan is said to contain 81.89 per cent. albumen, derived from ox blood. When stained it takes on a dark brown colour. Under the microscope green amorphous masses are seen, representing acid albumen, while the haemoglobin appears as a brownish red substance. Haimose is also a blood preparation and showed similar staining. Krewel's "sanguinal" pills contain haemoglobin (stained reddish brown), and myosin (stained ruby red). There are further starch granules and sugar, the latter forming the coating of the pills. Haematogen cocoa contains haemoglobin (reddish brown), starch, and cocoa granules. The preparation is not to be recommended on account of the addition of starch. Aleuronat contains wheat, stained red, as well as particles of husks, stained green and amorphous masses. The starch is chiefly unaltered. Roborat stains a reddish violet. Under the microscope red amorphous masses are seen, which represent the albumens of rice, wheat, and maize, and a few green particles representing the husks. The starch is partly stained blue and (therefore unaltered) and partly violet (therefore transformed into dextrin). Roborat is a better food than aleuronat on account of the smaller quantity of husk particles.

(93) Therapeutic Effects of Spermine.

G. v. HIRSCH, writing on the Abnormalities of Frequency and Rhythm of the Pulse: its Significance and Treatment (*Trans. of the Nineteenth Congress of Internal Medicine*, held at Berlin, 1901) refers to a case reported by himself (*St. Petersburger med. Woch.*, 1997, No. 7) of marked arrhythmia in an old man, aged 94, and the influence of "sperminum-Poehl" on it. Though the patient experienced slight giddiness (possibly due to sclerosis of the cerebral arteries) after the use of essence of spermine twice daily the arrhythmia became less marked, the legs stronger, and the sense of general health much improved, the patient himself testifying, "These drops have done me no end of good. I feel quite different since I commenced to take them." The treatment has now been continued for three years with the same favourable results. These observations are confirmed by the following reports: Neusser (Vienna) has recommended the essence in 20-drop doses three times a day in myocarditis and idiopathic dilatation of the heart (R. Hitschmann, *Die Therap. an den Wien. Klin.*, 1900, p. 35). Sakrjewski (*Journ. de Méd. de Paris*, 1897, No. 8) records the influence of spermine on the arrhythmia in a case of severe diphtheria. Koshjurin reports the disappearance of angina pectoris of eight years standing after eleven injections of spermine. Roschtschinin used spermine in angina pectoris with the result that the "breast-pang" and oedema disappeared and compensation was effected. Schafranoff reports the disappearance of "breast-pang" in a case of neurasthenia with agorophobia. Phillips records a case of emphysema in a patient, aged 65 years, in which after the injection of spermine the accumulative effects of digitalis disappeared concurrently with the dyspnoeic *râles*; the liver also diminishing in size. Klimontowitsch records the use of spermine in a case of debility after enteric fever, with improvement of pulse tension and disappearance of symptoms of weakness. Nagubnoff used spermine in two cases of heart disease, in both of which arrythmia was a marked symptom, with a result that in each case the pulse became fuller and more regular. Böthlingk noted the disappearance of giddiness and general weakness with improved cardiac action in a case of neurasthenia, aged 68, treated with spermine. Shichareff and von Hübbenet observed that spermine injections in a case of tertiary syphilis produced an increase of blood pressure, with a less frequent, better-volumed pulse. Before treatment the pulse was 106, the blood pressure equalling 132 mm. of mercury. After treatment the pulse sank to 86-90, the blood pressure rising to 180-190 mm. of mercury. He insists on the importance of noting the regulating influence of spermine on the heart's action and also on tissue respiration. Poehl, writing on the production of kinetic energy by oxidation in the tissues (*Compt. Rend. de l'Académie des Sciences*, Paris, April, 1899), points out that it becomes, by oxidation in the tissues, a power to produce not only warmth but also energy, in the shape of osmotic pressure. The heart's action depends on the direct relation of the osmotic tension of the tissue juices in general and of the kidneys in particular. Spermine brings disordered oxidation processes back to the normal, perfects the oxidation of intermediate products of metabolism, and increases the elaboration of uric acid. (The osmotic power of uric acid

is 500 times stronger than that of albumen.) Spermine assists the action of the kidneys and so directly aids the heart's action. Further, by increasing the power of tissue oxidation it again assists the regulation of the heart's action by converting the neurine, xanthin, and other intermediate products of imperfect metabolism from auto-intoxicants into indifferent compounds.

(94) Treatment of Febrile Delirium Tremens by the Cold Bath.

It is well known that febrile delirium tremens has an extremely grave prognosis, at least 50 per cent. dying. It has been supposed that some toxic infection is the cause of this condition, and it has therefore been suggested that we might treat the pyrexic symptom, as is done in other cases, by the direct application of cold. Salvant has recently collected a series of such cases (*Thèse de Paris*, 1901) in which he employed this form of treatment with remarkable success. The following is his method: In the first place every case in which the temperature rises above 39° C. ought to be so treated. The temperature of the baths may be 18° provided the cardiovascular system of the patient will stand it. Should this not be the case, or if any tendency to collapse be manifested, the initial temperature may be 28°, or 25° and then gradually lowered. So soon as the patient has been immersed it is well to give warm and stimulating drinks, while at the same time the head is douched continuously with water taken from the bath. The bath ought to last from five to ten minutes, and should the pulse remain good it may be prolonged from fifteen to twenty at most, but baths of this duration should be reserved for those cases in which the temperature has exceeded 40° C. According to some it is a good plan to give frequent baths even as many as three every hour rather than to prolong each individual bath. It should be continued until the temperature comes down and delirium disappears. It is laid down as a most important rule that these baths should be carried out under the personal supervision of the medical man himself who should carefully watch the pulse, for it must be recognised that the sedative effect does not show itself until the patient is almost reduced to a condition of collapse. On being removed from the bath he must be put into a warm bed and abundance of hot and stimulating, but non-alcoholic, drinks administered. These favour diuresis and renal elimination. After the attack it still remains to treat the patient during convalescence which in itself requires considerable care. In those cases where the temperature does not exceed 30° C. tepid baths (25°) may be used. The contraindications for cold baths are grave cardiac disease, endo-pericarditis, myocarditis, and in all cases that are incapable of reaction. Thus old people and the subjects of arterio-sclerosis, interstitial nephritis, are not good subjects for this method of treatment.

PATHOLOGY.

(95) Diabetes.

At a meeting of the Pathological Society of Philadelphia devoted to the subject of diabetes papers were read by Edsall on the general metabolism, Flexner on the pathology, and Marshall on the urine (*Proceedings*, vol. iv, October, 1901). Edsall pointed out that the real fault is the loss of the normal ability to derive energy from carbohydrate food, and the consequent necessity for vicarious assumption by the proteids and fats of the *rôle* in producing energy normally taken by the carbohydrates. Increase in nitrogen elimination in ordinary diabetes is not due primarily to increase in proteid metabolism, but to proteids taking the place of the carbohydrates; the proteid loss must be compensated for in the food. There is no evidence to show that there is any primary increase in the oxidation of fats. Stored glycogen may almost disappear in diabetes; it is characteristic of true diabetes that the glucose of the blood and urine tend to increase. A large number of conditions may give rise to temporary glycosuria; that which most closely simulates diabetes is alimentary glycosuria. The difference, however, is that alimentary glycosuria occurs only after taking sugars, and ceases when the excess is excreted, while diabetic glycosuria occurs after taking carbohydrates in any form, and often when no carbohydrates are taken, and it is persistent. Both food proteid and body proteid furnish some carbohydrate normally, and this is used in the economy, but in diabetes is more or less completely excreted: probably fats never furnish sugar at all. The power of profitably using carbohydrate is probably never completely lost, but the disability tends to increase. The hunger of diabetes is due to the fact that much of the ingesta is not really food to the patient, and is not used as such; the polyuria is due to the large quantity of fluid necessary to dissolve the sugar, and the excretion of the latter must be looked upon as in reality a fortunate event. In regard to coma, with its approach nitrogen metabolism appears to suffer abnormal excitation; the excretion of sugar may disappear; the coma would appear to be really an intense acid intoxication; beta-oxybutyric acid is the chief agent concerned. With regard to the actual nature of the metabolic disturbance in diabetes there is either a loss of the normal power of destroying the sugars, or a lack of the power of producing glycogen, and indirectly therefore of controlling the amount of sugar passed into the blood. Flexner considered first the experimental evidence of the relation of the pancreas to diabetes: extirpation causes in the dog severe diabetes. He described changes in the pancreas in diabetes in man to show that this organ is intimately concerned in regulating carbohydrate metabolism. It appears to be proved that diabetes may result from failure of a special internal function or secretion of the pancreas. Diabetes may also result from disease of the liver, but glycosuria and not true diabetes is more common. Carbohydrate metabolism is under the control of the nervous system, but there is no reason to believe that this is in any way specific or other than the trophic influence on the organs——for example, pancreas and liver—concerned. It is not proved that there is a form of diabetes which can properly be called renal. Marshall discusses the tests for the detection of glucose; with Fehling, the alkaline phosphates may simulate cuprous oxide, but are characteristically flocculent; he notices the substances capable of reducing cupric oxide, as creatinin, uric acid, etc.; and also the appearance of reducing substances in the urine during the administration of salicylic acid, chloral hydrate, glycerine, chloroform, and other drugs. He speaks favourably of Böttger's test with subnitrate of bismuth, and of the phenylhydrazin and fermentation tests.

(96) The Passage of Pathogenic Germs and their Toxins through the broken Skin.

Dalmasso (*Rif. Med.*, January 13th to 15th, 1902), with the object of testing the above question, shaved the abdomen of rabbits, and after making superficial abrasions rubbed in cultures of various organisms and traced the effects. He found undoubted evidence that certain microbes could pass through the broken skin to internal organs, and so cause death of the animal. In the case of staphylococcus pyog. alb. this took place in three to four days; in staph. pyog. am. three to four days; bacillus coli two to five days; Fraenkel's diplococcus two to three days; pyocyan. two to four days; bacil. charbon two to three days; diphtheria toxin two to four days. General infection was never induced. The germs were never found in the lymphatic glands of the animals killed seven to fifteen days afterwards.

(97) Cryoscopy of Hydrocele Fluid.

Marchetti (*Riv. Critic. di Clin. Med.*, November 30th, 1901) has made a series of cryoscopic examinations of hydrocele fluid. In the 12 cases observed by him the cryoscopic index (that of blood being 0.56°) varied from 0.57° to 0.80°. The freezing point is therefore rather low in the case of hydrocele fluid. The variations do not seem to be correlated with any changes in the quantity, density, or colour of the fluid, nor with any changes in the vaginal sheath; consequently they do not have any special diagnostic value, but they tend to confirm what is already known, namely, that an exaggerated deviation of freezing point in any effusion as compared with the blood points to an inflammatory origin. In practically all the cases in which the vaginal sheath could be seen it was found to be altered in the direction of some chronic inflammatory process. Sugar was found twice in the fluid withdrawn.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(98) The Etiology of Acute Haemorrhagic Encephalitis.

E. Sträussler (*Wien. klin. Woch.*, No. 3, 1902) relates the history of two cases, to prove that acute haemorrhagic encephalitis may be caused by auto-intoxication arising from the intestines. The first was that of a lad, 16 years of age. He was admitted into hospital on March 14th, 1896, with a history that from January he had suffered from sleeplessness, fatigue, delirium, fever, headache, pain in abdomen, and anorexia. He was seen to be restless, there were twitchings of both extremities, he slept very little, and passed everything under him. He was apathetic, and took no notice of anything in the ward. There was some loss of power both in the arms and in the legs. The pulse-rate was 120. The tongue was furred. Urine contained a trace of albumen and a large quantity of acetone. On March 16th he had nine epileptiform attacks, and the temperature rose to 105° F. On March 17th he was found to be hemiplegic and comatose. Death followed early on March 18th. *Post mortem* capillary haemorrhages were found in the frontal and temporo-sphenoidal lobes (cortex), as well as larger haemorrhage in the latter. The liver and kidneys showed parenchymatous degeneration. The intestines contained hard roundish lumps of faeces, with corresponding swelling and redness of the mucosa. In the rectum one scybalum had produced a circular fold of reddened and swollen mucous membrane, which occluded the bowel and so cut off the contracted anal portion from the upper portion of the rectum. The second patient was a 45-years-old woman. Admitted on April 15th, 1901, she gave the impression of an extremely anxious, complaining, excited individual. She had been seized in June, 1900, with fits, which were followed by mental disturbances. The condition improved, but shortly before admission the mental condition of the patient had again become disorganised and the fits had returned. The speech was defective, there being "stumbling" over syllables. The pupils did not react to light. Until June she appeared in fairly good bodily health. On the 7th a subcutaneous haemorrhage was noted in the left groin. Other haemorrhages followed and were distributed over the whole body. There were petechiae and ecchymoses. In the evening she became unconscious, and paralysis of all extremities was detected. She died early next morning. The necropsy revealed small and large patches of cortical softening, atrophy of the brain, chronic internal hydrocephalus, haemorrhages in the subdural spaces and in the cortex, fatty degeneration of the heart muscle, liver, and kidneys, haemorrhages in the intestinal mucosa. In the ascending and transverse colon a fine, pigmented, flat scar, about 10 inches in length, and two smaller ones in the descending and transverse colon, were found. The large intestine was blocked with hardened, ball-like faeces.

(99) The Sequelae of Dysentery.

F. Haasler (*Deut. med. Woch.*, Nos. 2 and 3, 1902) sums up the results of his experience of dysentery at Tientsin, and draws some conclusions. He deals largely with the morbid anatomy of the disease as studied on the *post-mortem* table. In many cases the healing processes in some of the ulcers had advanced far, chiefly when the cause of death was dependent on some intercurrent disease. He lays stress on the power of the intestine to repair wide damage, and points out that the formation of fibrous tissue in the intestine, which may lead to stenosis (circular scars) or contractions (longitudinal scars), may be dealt with with impunity at a later date by the removal of the affected portion of gut. Haemorrhage from the ulcers was found to be a frequent cause of death. The source of the bleeding was not always easy to discover; sometimes many ulcers bled simultaneously, while at other times the bleeding points were found to be in the small vessels lying in the clean base of healing ulcers. In some cases the presence of abscess of the liver appeared to favour the haemorrhages. Overgrowth of the mucous membrane was found in several cases, and the lumen of the bowel in some instances was narrowed. Appendicitis was frequently observed. The ulcers, however, did not usually become very severe and widespread at this situation, but perforation and exudation into the peritoneal surroundings occurred more often in the caecum and ascending colon. Peritonitis may be general or local, and may be due to the spread of the inflammatory process, through the thinned but not perforated intestinal wall. Abscess of the liver generally takes place in the right lobe, and there are free adhesions around. The inflammation appears to be but little severe, and the pus does not contain virulent micro-organisms. Abscess of the spleen and infarct of that organ were also observed. Bronchitis, pleurisy, and empyema were met with. In summing up, he says that enemata should be given with caution or not at all, since the depth of the ulceration holds out a great likelihood of perforation; peritoneal complications (abscess) should only be treated by operation when there is pointing externally; liver and splenic abscesses are, as a rule, inoperable; pleuritis following dysentery may proceed from a subphrenic abscess; the implication of the appendix may give rise to a focus for later attacks of appendicitis: stenosis and kinking of the intestines may be due to fibrous tissue formation in the healed ulcers; encapsuled abscesses in the predilection foci of the peritoneal cavity and in the liver and spleen may be the starting point of further disease processes later on; and the implication of the kidneys and heart is rare after dysentery, as compared with typhoid fever.

(100) The Gastro-Intestinal Origin of Severe Anaemia.

Regarding the essential anaemias in the light of Limbeck's division, of progressive pernicious anaemia, for those necessarily fatal cases, and severe anaemia for those which are curable, F. Perutz (*Münch. med. Woch.*, January 21st, 1902) reports an interesting case, illustrating the influence of gastro-intestinal lesions in the etiology. He discusses the question fully, and deals with some of the recent literature. The patient was in affluent circumstances and followed the profession of cavalry officer. He was 53 years of age, and gave the following history: At the age of 22 he was attacked by severe gastro-enteric catarrh: at the age of 23 he had typhoid: and at the ages of 25 and 27 he was treated in Carlsbad for gastric disturbances and diarrhoea. Between the ages of 33 and 43 he was quartered in a malarial district, and suffered for a time from neuralgia of the trigeminal nerve. The diagnosis of atypical malaria was made because the neuralgia disappeared on treatment with quinine and arsenic. Apart from this, he constantly had gastro-intestinal attacks, for which he was treated at various watering places, without much benefit accruing. During the last few years the symptoms increased, diarrhoea, vomiting, increasing pallor, and extreme weakness being most predominant, and rendered him unfit for service. On examination he was found to be extremely pale and anaemic. All the organs appeared healthy except the digestive tract. The bowels were opened three or four times daily, and contained much undigested food. The urine contained indican, but no albumen or sugar. The blood showed only 50 per cent. of haemoglobin. The condition improved considerably with washing out the stomach twice daily, and the haemoglobin increased to 65 per cent. A few months later he again became very ill. Dyspnoea, palpitation, loss of appetite and weight, and slight oedema showed themselves. Vomiting occurred daily, as did diarrhoea. A systolic murmur appeared at all the cardiac orifices. The urine contained albumen and considerable quantities of indican. The blood showed 20 per cent. haemoglobin and marked poikylocytosis. At first the patient could not stand the washing out of the stomach, but with the help of the introduction of oatmeal this was carried out later, and an improvement took place. Careful dieting with old wine, meat juice, and tea, as stimulants, and forced nutrient dieting, improved the appetite and increased his weight. A trial breakfast carried out after the patient was freed from his symptoms showed a deficiency of HCl (2.87 per cent.), a trace of peptone, and some lactic acid. Egg albumen was not digested. The blood

contained 80 per cent. haemoglobin, the red cells numbered 3,900,000, and there were no poikylocytes. He was then capable of a considerable amount of bodily exertion without fatigue. Perutz points out that the defect in the gastric juice and the small number of red blood cells prevented him from considering the man permanently or completely cured.

SURGERY.

(101) Inguino-Interstitial Hernia.

Berger (*Rev. de Chir.*, No. 1, 1902), in a long and very instructive article, deals with inguino-interstitial hernia and the conditions to be observed in attempts to establish its radical cure by operative treatment. The term inguino-interstitial hernia is restricted in males to congenital hernial protrusion complicated by testicular ectopy, in which this protrusion occurs in the thickness of the abdominal wall, and is enveloped by its musculo-aponeurotic layers. Of this form of hernia there are two main varieties. In one the hernia is altogether intraparietal, in the other it presents a diverticulum protruding through the external inguinal ring, and is therefore both intraparietal and scrotal. The scrotal extension of the sac of this variety is sometimes too small to receive any viscera. In the interval between the external ring which is usually, but not always, closed, and the internal ring which is often displaced upwards and outwards towards the antero-superior spine of the ilium, the intraparietal portion of the hernial sac is spread out between the aponeurosis of the external oblique muscle and the fascia transversalis. A portion of this sac is sometimes covered by bundles of the internal oblique. The position of the testis in the hernial sac varies in different cases. The organ is sometimes absent and the inguino-interstitial hernia is complicated by cryptorchism. In most cases it may be found in the inguinal canal close to the internal ring. When the hernia is both intraparietal and scrotal the testes may occupy the scrotal diverticulum. The organ almost always presents signs of arrested devevelopment and there exists also marked atrophy and decided weakening of the muscular and fibrous layers of the abdominal wall. Inguino-interstitial hernia, like in every respect that observed in the male, may occur in the female. This form of hernia, by reason of its attendant dangers and the impossibility of efficient retention, demands, the author holds, operation for radical cure provided there be no positive contraindications. The sac in such operation should be exposed by an incision, in the direction of its fibres, of the external oblique. The testis should be removed, except in cases in which there are not any signs of arrested development or of atrophy, or in which this organ can be placed in the scrotum and retained there. The surgeon should endeavour to save this organ even under more or less unfavourable conditions in the adolescent and the infant, but in subjects beyond the age of 25 years should perform castration whenever there are difficulties in the way of a satisfactory orchidopexy. A full description is given of the different steps of the operation for radical cure. In many cases there is much difficulty, the author states, in effecting a complete and resistant occlusion of the breach in the abdominal wall. If Bassini's method fails to give a good result, suture of the internal oblique and of the conjoined tendon to Poupart's ligament should be followed by vertical incision of the sheath of the rectus and suturing of the external margin of the gap in the divided sheath to Poupart's ligament along the whole length of the inguinal canal. The wall is further strengthened by stitching the lower margin of the divided aponeuroses of the external oblique to the inner edge of the incision in the sheath of the rectus, and by bringing the outer and upper margin over the lower part of the aponeuroses, and fixing this margin by sutures to the front of Poupart's ligament.

(102) Is Tuberculous Peritonitis to be Treated Surgically?

Fenger (*Annals of Surgery*, December, 1901) is rather sceptical about the unlimited advantages of abdominal surgery, and the surgical treatment of tuberculous peritonitis by incision seems questionable. The difference between abdominal section and puncture, as far as its effect on the exudate is concerned, seems apparent rather than real. Very bad results have followed free excision of tuberculous omentum and diseased glands in cases of tuberculous peritonitis. Serous tuberculous peritonitis, as Borchgrevink has already shown, should be given up by the surgeon and handed back to the physician. The former should be thankful for the legitimate opportunity which misunderstanding has given to medical science to observe by means of abdominal section the course and varieties of tuberculous disease in the great peritoneal cavity. But experience, though it has shown that incision may heal, has not been in the main favourable to the surgical treatment of tuberculous peritonitis.

(103) Early Intervention in Cases of Injury of the Liver.

Mercadé (*Rev. de Chir.*, No. 1, 1902) points out that as more than 50 per cent. of cases of serious hepatic injury prove fatal in consequence of haemorrhage in less than twenty-four hours, it is necessary, when such lesion is indicated, not only to perform laparotomy, but to do this as soon as possible. Two cases are reported in which the author succeeded in arresting profuse bleeding from the wounded liver and in saving his patients. The first of these cases was one of a long and deep wound of the convex surface of the left lobe produced by a stab. Laparotomy was performed one hour and a half after the receipt of the injury, and the wound was closed by sutures and compressed by a large pad of sterilized gauze introduced between the abdominal wall and the surface of the injured liver. The patient, a man aged 38, made a good recovery, and was quite well at the end of the second week. The injury in the second case, which was due to compression of the abdomen, was much more extensive, and, moreover, complicated by partial detachment of the gall bladder. The lacerated wound, which was about 4 inches in length, was transverse, and involved the lower surface of the liver, for the most part the quadrate lobe. Although at first it seemed impossible to gain sufficient access to the wound, the author succeeded in closing it by a continuous suture, but he trusted mainly to large and firm pads of gauze for arresting the haemorrhage. This operation, which was performed after an interval of about two hours and a half, had a very successful result, and the patient, who was a lad 16 years old, was discharged cured at the end of the fifth week.

MIDWIFERY AND DISEASES OF WOMEN.

(104) Puerperal Psychoses.

Meyer, of Siemerling's clinic (*Berl. klin. Woch.*, No. 31, 1901), publishes a contribution based on the study of 1,104 cases of psychoses in female patients admitted to the psychiatic clinic at Tübingen during the years 1894-1901. A classification of the various forms showed that 11 were cases of melancholia, 4 of periodical melancholia, 3 of circular insanity of the maniacal-melancholic form, 5 of paranoia or chronic delusions, 9 of acute mental confusion (*Verwirrtheit*), 4 of katatonia, 2 of hebephrenia, 2 of epilepsy, and 1 of hysteria. Fifty-one patients were instances of puerperal and lactational insanity. Puerperal (septic) infection was clearly established in 5 out of the 51 cases. In 5 patients mastitis was present, in 3 pulmonary phthisis was observed, and in 1 typhoid fever. A hereditary neurotic taint was present in 29 out of the 51 patients, and in the majority of the 51 patients the puerperal or lactational period was only regarded as the exciting cause. In 12 of the patients there had been previous severe mental worry and anxiety, 8 had suffered from destitution and were anaemic, and others were women with excessive and frequent confinements - for example, 1 of 15 deliveries in 23 years after which catatonic melancholia followed. The general conclusion is that there are several forms of the puerperal psychosis, but not a single or all-comprehensive form of "puerperal insanity."

(105) Primary Decidnoma Malignum of Labium and of Vagina.

Weibe (*Centralbl. f. Gynäk.*, No. 52, 1901) in a discussion on a case of uterine syncytioma read by Buschbeck at a meeting of the Dresden Gynaecological Society, declared that quite recently he had operated within two months on two cases of syncytioma in the genital canal below the level of the

uterus, which was not involved. The first patient was aged 46, and had been delivered a seventh time six months before observation. Within fourteen days a swelling developed in the right labium; it was as large as a tangerine orange when examined, and already breaking down on its inner aspect. Eight days after careful excision recurrence occurred, causing death in five weeks. The second patient, aged 39, was delivered of her sixth child half a year before operation. Free sanious discharge had continued for five weeks. A soft mass as big as an orange was detected, attached to the posterior vaginal wall. On moving it free haemorrhage was set up. The tumour was removed by means of the cautery and sharp spoon, then the whole of the vaginal wall was found to be softened and lacerable. Ten days later recurrence was detected, and the patient was on the point of death when the report was published.

(106) Lumbricus and Fever in the Puerperium.

Prentiss (*Amer. Journ. Obstet.*, December, 1901), reports the delivery of a girl, aged 16, at the seventh month, the breech presented and an arm descended and was pushed back. The feet were brought down and the stillborn fetus delivered. Ten minutes later the placenta and membranes were expelled spontaneously, neither the perineum nor the cervix was lacerated and there was but slight haemorrhage before and none after delivery. The temperature rose to 102° on the second day, and the abdomen was tender, not at the hypogastrium, but in the umbilical hypochondriac regions. For nine days fever of an irregularly intermittent character was present (maximum 103 8°) accompanied by tenderness and pains in the upper two-thirds of the abdomen. There were no rigors and no signs of pelvic inflammation, the lochiae were normal throughout. Quinine had no effect and neither malarial parasites, streptococci, nor staphylococci nor leucocytosis could be discovered on due examination of the blood and intrauterine cultures. On the eleventh day a large round worm was passed by the rectum. The fever, pain, and abdominal tenderness disappeared on the next day and did not return. Prentiss believes it reasonable to suppose that the ascaris was the cause of the fever in this case. Polden reported a case of a Hindu woman who passed eighteen round worms in the third week after labour where there had been dysenteric symptoms but no fever. Most authorities disbelieve in "worm fever," but Prentiss quotes several recently reported cases which seem to show that this parasite sometimes sets up febrile cases.

(107) Cornual Pregnancy: Rupture in Fourth Month.

Porter (*Amer. Journ. Obstet.*, November, 1901) operated successfully on a case where the patient was 20 years old, married, and already twice pregnant. A child had been carried to term; the second pregnancy ended in a miscarriage. On this occasion the period ceased after March, 1901; symptoms of threatened abortion set in early in summer, and subsided entirely. There did not seem to be any attacks of sharp pain so frequent, if not constant, in early tubal gestation. On July 12th Porter was called to see her, as severe abdominal pain had set in about sixteen hours previously, with the usual signs of intra-abdominal haemorrhage. There was a slight bloody discharge from the uterus; ruptured ectopic pregnancy had been diagnosed, but it was remarked that the time was rather late for the bursting of a tubal sac. The patient was in a state of collapse and abdominal section was speedily performed. The peritoneal cavity was full of clot, through which a ruptured gestation sac was delivered; the amniotic sac was rent during delivery. An elastic ligature was passed around the sac, after which it was amputated by conical section, the stump closed by deep and superficial catgut stitches, and the ligature removed. The peritoneum was flushed with saline solution; during that process it was noted that the tube and ovary on the side from which the sac had been removed remained intact and attached, as was also the round ligament, to the outside of the stump. The intact cornu was much enlarged and connected by a rather long pedicle with the stump of the sac. The patient recovered without any complications. The fetus was a male about four months, the sac was thick-walled and contained a well developed placenta; it was amputated above the tube and round ligament, so that as a specimen it did not show the essential and diagnostic features of a gestation sac in an ill-developed cornu. No communication between the uterine cavity and that of the fetal sac could be discovered. As the operation had to be speedily performed, owing to the patient's condition, Porter admitted that the diagnosis of interstitial pregnancy suggested itself to his mind, and he did not very closely inspect the pelvic viscera left behind, but the microscope showed that the sac wall was composed of uterine tissue bearing a distinct decidual membrane as is seen in cornual pregnancies whilst in tubal gestation, even when interstitial, that membrane appears to be wanting. The sac, in Porter's case, was in the left cornu.

THERAPEUTICS.

(108) Jez's Antityphoid Extract.

In 1899, Jez described an extract which he made from the internal organs of rabbits, immunized with living cultures of typhoid bacilli, and claimed that this extract could be used as an antitoxin in typhoid fever. That antibodies may be contained in the spleen, thymus, lymphatic glands, and other organs has been proved by Wassermann. G. Markl (*Wien. klin. Woch.*, No. 3, 1902) has investigated the action of the extract, and has compared it with the immune serums already in use. He followed the prescriptions of Jez's, and three days after immunizing the rabbits he killed them, took out the thymus glands, the spleen, the bone medulla, brains, and spinal cords, and pounded them in a solution of sodium chloride, alcohol, glycerine, and carbolic acid, laid the solution aside on ice for twenty-four hours, and then filtered. After criticizing, somewhat severely, Jez's and Walker's experiments, he proceeds to detail his own. As control, he used an extract prepared in the same way from normal rabbits. Using a culture which produced death from peritonitis in twenty-four hours with ½ loop full, he injected 2 loops full as well as 1 c.cm. of the extract of that of the normal rabbits, 0.1 c cm. of the serum of immunised rabbits. In 6 cases with the extract from immunized rabbits, in 3 cases with that of a normal rabbit, the animals died within twenty-four hours; while 1 case, with the extract, and all cases with the serum of immunized rabbits, the animals recovered. With 2 loops of a more virulent culture, he used 2 c.cm. of Jez's extract and 1 c.cm. of a similar extract, but both animals died. With ⅕ of a culture (sixth passage) and 1 c.cm. of extract, as well as with 0.1 c.cm. of serum of immunized rabbits, all animals lived while the control died. Further experiments gave similar results. He concludes that the extract gained from the organs of rabbits immunized against typhoid contains antibodies, which are less powerful than the corresponding immune serums; that these antibodies are specific substances, which are not present in the organs of normal rabbits, and that the action of these substances is not antitoxic but anti-infectious.

(109) Soxhlet's Nutrient Sugar.

Frucht (*Münch. med. Woch.*, January 14th, 1902) details his investigations of the various nutrient preparations for infants. Although the number of such preparations is very large, none of the well-known ones fulfill the conditions required for infant feeding. The objection to Biedert's cream mixture (*Rahmgemenge*) rest on the fact that it has to be obtained from "outside," and therefore, before it can be brought into use in some cases it undergoes some chemical changes. Heubner's milk-lactose solution can be made freshly in the patient's house, but it does not always prove digestible, especially to very young or weakly infants. Soxhlet has introduced a new preparation, which consists of dextrin derived from maltose, without albumen, to which is added a small quantity of acid and also some common salt. The acid is intended to dissolve the calcium salts which are thrown down in the boiling (dissolving) of the powder in milk, and the salt is meant to make up for the poorness of chlorine in cow's milk. Frucht gives the details of several infants—normal and under pathological conditions—fed on Soxhlet's nutrient sugar (*Nachrzucker*). He gave milk (cow's), water, and nutrient sugar in various proportions, and found when two-thirds of a litre of milk and one-third of a litre of water were given, the

quantity of sugar (or sugar and a corresponding quantity of fat) needed to make the milk equivalent to mother's milk is 76.8 grams. This quantity of lactose cannot be digested, but if it is given in the form of Soxhlet's nutrient sugar it is easily assimilated. The preparation is cheap; the milk can be readily prepared at home, since all that is necessary is to obtain good milk in bottles with proper stoppers, to add the quantity of sugar required, and to boil the whole in the bottle, and infants appear to like it. In no case did Frucht observe any ill-effects, such as diarrhoea or excessive production of intestinal flatus, from its use.

(110) Hetol in Phthisis.

E. FRANCK (*Therap. Monats.*, December, 1901) discusses the value of hetol as a remedy for pulmonary tuberculosis. He recounts at some length the reports of Landerer (the introducer, whose views have already been published in the EPITOME of the BRITISH MEDICAL JOURNAL), Ewald, and others. His own cases occurred in his private practice, and number 13. Of these, 5 were complicated (tuberculous laryngitis, etc.), and did not improve at all, while 6 showed "maintained improvement," and 2 are classified under "improvement." It may be stated some of the cases were still under treatment in the current year. Most of them were sent to sanatoria as a supplement to the treatment. In one case the illness is described as "acute beginning tuberculosis, with the character of a miliary tuberculosis." The injections of hetol wrought a rapid change for the better. In another the signs and symptoms appear to have been very slight, and no report of bacilli in the sputum is mentioned. Besides the hetol and open air treatment at Davos, some iron-tropon was used. In a third case no bacilli were found in the sputum. The other cases appear to have been severer cases. He concludes by stating: (1) Hetol treatment offers a great and well-founded prospect of improvement and cure in early uncomplicated cases; and (2) the treatment should be combined with, or followed by, a sanatorium treatment. He believes that open air and overfeeding is not sufficient to cure even uncomplicated phthisis.

(111) Gelatine Injections in Melaena Neonatorum.

HOLTSCHMIDT (*München. med. Woch.*, January 7th, 1902) has tested the efficacy of subcutaneous injections of gelatine for cases of melaena neonatorum. His results justify him in refusing to accept the suggestion that when injected into the intestine the effect is a local one, and therefore the benefit of this form of treatment would depend upon whether the site of the bleeding be sufficiently low down to be reached by the fluid. He treated 5 cases by subcutaneous injections of a 2 per cent. solution. The solution was sterilized by boiling over a water bath, in a bottle, with a cotton-wool plug, for five to six hours; 15 c.cm. (= *circa* 4½ drs.) of this were injected into the subcutaneous tissue of the thorax or thigh. In 3 cases only two injection was needed in 1, two were employed, and in the last case three injections had to be given. In all cases the haemorrhage ceased after the injections. The children all made good recoveries save the last, which was removed from hospital before it was quite well, and the subsequent course was unknown. In no case was there any reaction at the site of injection. Comparing other cases of this condition with these, he finds that whereas the usual mortality is 50 per cent., he is justified in claiming for his 5 recoveries that the gelatine injections had acted in arresting the haemorrhage.

PATHOLOGY.

(112) The Infection of the Peritoneum from the Intestine.

TAVEL (*Corr.-Bl. f. Schweiz. Aerzte*, October 15th, 1901) considers that it has been proved definitely that bacteria can penetrate the unperforated intestinal wall; the most conclusive experiments in this connexion are those of Bönneke and Arnd on the permeability of the intestinal wall of strangulated herniae. The exact conditions under which the outward passage of micro-organisms becomes possible are unknown. It seems certain, however, that the normal intestine is an insuperable obstruction to the passage of bacteria. A variety of lesions—circulatory and nutritive disturbances or injuries of the mucosa—may render the way easy. Even then peritonitis does not result unless the organisms multiply in the peritoneal cavity. The healthy peritoneum absorbs bacteria if they are present in moderate quantities. If, however, the organisms invade the peritoneal cavity in force, or if, owing to the resistance of the peritoneum having been previously lowered by toxic products derived from the intestine, they are able to multiply, peritonitis results. The above views, which are the result of experiments undertaken by the writer in conjunction with Lanz, are confirmed clinically by seven cases here reported, which show conclusively that, on the one hand, peritonitis may be due to the penetration of an unperforated intestine by bacteria; and that, on the other, this penetration is, as a rule, of little importance unless the resistance of the peritoneum has been previously lowered. Intestinal catarrh with normal conditions of circulation may allow the passage of bacteria. In all operations undertaken for peritonitis the peritoneal cavity should be irrigated with a lotion composed of 7½ per mille sodium chloride and 2½ per mille calcined sodic carbonate. This has the advantages of being unirritating, of possessing considerable antiseptic power when employed at a temperature of 104° F., and of having a powerful positive chemiotactic action, by means of which the leucocytes—the chief bulwarks against infection—are attracted. In the same lotion are boiled all the towels, mops, and compresses employed. It is also used at a temperature of 98.6° F. for keeping the peritoneum moist during the operation. It is a great mistake to allow the peritoneum to become dry from exposure to air, since this alone damages it and renders it more liable to infection.

(113) Granular Degeneration of the Erythrocyte.

WHITE AND PEPPER (*Amer. Journ. Med. Sci.*, September, 1901) have studied the degeneration of the red cell in cases of chronic lead poisoning and in experimental lead intoxication in dogs; they have also examined the blood of lead workers without symptoms, and of men exposed to extreme heat. In the latter no granular degeneration of the red cells was found. They found that the characteristic granules were constant in cases of lead poisoning, and appeared very early in cases under the influence of lead salts long before subjective or other objective symptoms can be demonstrated. The granules disappear in cases of chronic lead poisoning as the convalescence is established. Apparently lead does not produce an immunity, as 1 of the cases worked for 24 years, another for 20 years without having pronounced symptoms of lead poisoning, and in both the granules were present in moderate numbers. The granules may be produced experimentally in dogs appearing in a very few days after the beginning of the experiment and increasing as the intoxication becomes severe. The granules in the experimental cases were rather fine and showed a tendency to clump at first; later all varieties appeared. The writers believe the granules to be true degenerations, and to have no relation to nuclear fragmentation or to polychromatophilia.

(114) The Cerebro-spinal Fluid in Meningitis.

WIDAL, Sicard, and others have recently upheld the importance from a diagnostic point of view of a microscopic examination of the cerebro-spinal fluid in meningitis. Milian has supported the view that the discovery of uninuclear leucocytes in the fluid in meningitis points to the tuberculous type of the disease, whereas polynuclear cells indicate an acute inflammation. Marcon-Mutzner (*Arch. Gén. de Méd.*, T. vi, sem. 2, 1901) warns against the acceptance of this opinion in too absolute a fashion; he relates the history of a case which died with symptoms of basal meningitis; fluid drawn by lumbar puncture contained polynuclear leucocytes exclusively, but at the necropsy the condition was shown to be tuberculous. Thus, the presence of polynuclear leucocytes is not conclusive evidence against tuberculosis; nor is the converse true, for the writer relates a case proving that the presence of mononuclear cells is no proof of the presence of tuberculous meningitis. He also disagrees with the opinion that lumbar puncture is a harmless procedure.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(115) Phrenic Paralysis following Diphtheria.

William McKenzie (*Intercolonial Med. Journ.*, November 20th, 1901) reports two cases. In the first, a boy aged 6 years, there was a distinct history of throat affection, which was undoubtedly diphtherial in character. He was treated in the Melbourne Hospital, and four weeks later he came to the out patient department of the Children's Hospital with weakness of the extremities. He was found to be suffering from ordinary post-diphtherial neuritis. He was kept in bed, and ordered quinine and strychnine, and, later, massaged, with such improvement that in about twelve days he was able to walk fairly steadily across the ward. So great was the improvement that his discharge was talked of. Thirteen days after admission—that is, about seventeen days after the paralysis was first noticed—following a dose of medicine, a sudden change in the patient was observed, The face became congested, the expression anxious. The temperature fell. There was dyspnoea, the respirations being of a catchy, embarrassed, shallow nature. The pulse-rate was increased to 100, regular, poor volume and tension, and coldness of the extremities. The clinical picture was not unlike that of a pulmonary embolism. The child was placed in the recumbent position, propped slightly, and ordered strychnine and brandy. Prior to this he could speak well and plainly, but suddenly the speech became merely a monosyllabic whisper. This remained characteristic right through. A more complete examination a few hours afterwards showed an abdomen (which before had been full, and moved freely up and down with the respiratory movements) to be now slightly carinated, and moving in a jerky spasmodic way, the breathing being almost completely thoracic, and little abdominal. There was nothing abnormal to be detected in the heart or lungs beyond a harsh respiratory murmur. During the next few days he rallied somewhat, but the dyspnoea still continued, and about the third day the respirations became increased. The temperature rose slightly; the abdomen became more retracted and immobile; pulse increased in frequency; rhonchi and crepitations, with dull areas, were detected in the chest. Ill-smelling mucus was coughed up, and finally death occurred, apparently from heart failure, six days from the onset of the attack. In the second case, the patient was admitted suffering from an ulcer of the foot, said to have been the result of a broken-down chilblain, but which, in conjunction with other signs, was diagnosed as syphilitic. He was treated with mercury and fomentations, and the ulcer had almost healed. One night, suddenly, a similar crisis occurred as in the preceding case, the clinical features being identical, especially the monosyllabic whispering voice, but in this case, though the bases were congested, and bronchitis and broncho-pneumonic patches were present, they never went on to septic degeneration, probably because the patient did not live long enough. Death occurred suddenly from heart failure on the fifth day. In this case, beyond a loss of patellar reflex, no other evidences of paralysis could be discovered. Here a definite history could not be obtained of diphtheria, although the patient was said to have had a faucitis some three weeks previously, for which he had not been treated. In both these cases the important clinical features were: (1) An enlarged thorax as compared with that of the abdomen, especially of its lower part; (2) abdominal carination; (3) the absence of abdominal movement beyond a jerking effort seen at the upper part, there being no true rise and fall of the abdominal wall: (4) monosyllabic, whispering voice: (5) a comparatively good pulse, regular, fair volume and tension: (6) vomiting at the outset, but not afterwards: (7) the reluctance in taking food, owing to the effort required in deglutition; (8) the fixidity of the eyeballs at the onset of the crisis: (9) the development of pneumonia, and finally death from heart failure. The mechanism of such a condition can, says the author, be easily understood. Although the increased thoracic movement may be sufficient for aëration purposes, still, owing to the non-descent of the diaphragm, some congestion of the bases must be present. A congested base means an irresistent base and an impaired right heart; so that, though at first one had to do with a congestive pneumonia, this latter became inflammatory, and still later septic, death occurring through the circulatory portal.

(116) The Relation between Diabetes Insipidus and Mellitus.

Kuhn publishes the record of a case (*Münch. med. Woch.*, January 21st, 1902) from which he argues that an intimate relationship between the two forms of diabetes exists. The patient was a 58 years old woman. She was treated in hospital in 1899 for empyema following pneumonia. In 1900 (July) she was again admitted into hospital, and suffered an amputation of the left breast for a scirrhus cancer. Subsequently, on two occasions, small portions of infiltrated skin were removed. About the beginning of 1901 she complained of excessive thirst and polyuria. She was admitted into hospital at the end of February on account of these symptoms. The urine had a specific gravity varying between 1002 and 1004, contained no sugar, and was passed in daily quantities varying between 175 and 245 ounces. The diagnosis of diabetes insipidus was then made. She did not improve under treatment. In April she was considerably wasted. The heart was natural, but the beat somewhat rapid (100). She passed about 310 ounces of urine, with a specific gravity of 1006, and no sugar; no albumen, but some indican. On May 3rd she passed 357 ounces of urine (the maximum amount). There was at this time some pyrexia. The quantity of fluid taken in was less than the quantity of urine secreted. A little later the quantity of urine became almost suddenly less and glycosuria appeared. Her general condition rapidly became worse. She slept a great deal, was not clear-minded when awake, and the pyrexia continued. She died on May 28th. The necropsy revealed recurrence of the cancer in the scar of the breast, cancer of various lymphatic glands, cancer of the suprarenal glands, atrophy of the pancreas, small growths in the kidneys, with fatty degeneration (metamorphosis) of the cortex, and growths in the liver. The uterus was absent, and the left ovary and tube, as well as the vagina, which ended in a *cul-de-sac*, alone remained. The patient had denied that any further operation had been performed, but probably the uterus and right appendages had been removed for a new growth, in spite of this statement. Kuhn considers that the change during the last few days of life of the diabetes insipidus into diabetes mellitus is a proof of the close relationship of the two diseases.

(117) The Etiology of Tabes Dorsalis.

Pansini (*Riv. Crit. di Clin. Med.*, January, 1902) reports two cases of tabes in which the etiological factor seemed to be saturnism. One of the cases was marked by an unusual amount of occipital headache and exaggerated Romberg phenomenon. Incidentally the author draws attention to the painlessness of forced extension of the knee in tabes; this, he says, may be an early premonitory symptom. Whilst for the most part accepting the current doctrine with regard to the relation between syphilis and tabes, he points out how extremely rare tertiary manifestations are in the course of tabes, and, although tabes due to saturnism is not generally recognized, seeing how markedly lead attacks the nervous system in its peripheral parts, it does not seem improbable that it might occasionally cause tabes, and he quotes one case with necropsy which supports this contention.

SURGERY.

(118) Stab Wound of the Heart.

George Tully Vaughan (New York *Med. News*, December 7th, 1901) records a case of suture of a stab wound of the heart. The patient, a negro aged 23, was stabbed on October 2nd, 1901. On examination about half or three-quarters of an hour later, the patient was unconscious, but extremely restless, tossing about and talking incoherently. The extremities were cold, and no pulse was perceptible in the radials. A clean-cut wound was seen in the chest, 5 cm. long, extending downward and slightly outward, and completely dividing the

left fifth costal cartilage close to the sternum. The wound gaped so that the pericardium could be seen. The chest wall was hurriedly washed with a solution of bichloride, and enough ether was given to quiet the patient's struggles. The external wound was extended longitudinally above and below, making the total length 15 cm.; the outer flap was dissected back, exposing the ribs, the costal cartilage of the fourth rib was divided, and the fourth and fifth ribs were divided with bone forceps about 7 cm. from the sternum. The muscles of the fifth intercostal space were then divided and the flap of the chest wall turned up, clearly exposing the pericardium and left pleural cavity. An opening about 5 cm. in length was seen in the pericardium and was enlarged below to 7½ cm., revealing an opening in the wall of the left ventricle close to the interventricular septum, from which the blood spurted with each contraction of the heart. The edges were quickly pressed together and held so by a pair of hæmostats grasping each edge until the wound was closed by a continuous suture of silk in a curved needle, making seven stitches which did not include the endocardium. The wound in the heart was 2½ cm. long and shaped like the letter Y with the right branch about half the length of the left. The pericardium and pleural cavities were then emptied of blood and clots, of which there must have been at least 2,000 c.cm., and the pericardium closed with continuous silk sutures. About this time the heart stopped, and neither artificial respiration nor squeezing the heart was able to start it again. The operation lasted less than 15 minutes. Death was caused by haemorrhage. There was not time to inject salt solution into the veins. A table of 26 recorded cases in which a wound of the heart was sutured was given. A study of these cases gives the following results: Recoveries, 9; deaths, 17; mortality, 65.38 per cent. Of the chambers wounded—the left auricle, 1; left ventricle, 12; right ventricle, 8; not given, 5. From this it would seem that the ventricles are far more likely to be wounded than the auricles, in the proportion of at least 75 per cent., and that the left ventricle is most frequently wounded of all the chambers. Of those who recovered, 2 were wounded in the right ventricle and 7 in the left ventricle (including the apex), 2 possibly non-penetrating, and 1 in the apex certainly non penetrating. If from the recoveries are subtracted the 3 cases in one of which the cavity was certainly not opened and the other 2 in which the cavity was probably not opened—if so, the opening must have been very small—the mortality of penetrating wounds of the heart as shown by this table is found to be 76.93 per cent. A review of these cases appears to Vaughan to justify the following conclusions: (1) The time has arrived when a wound of the heart should be operated on with as little hesitation as a wound of the brain, with the expectation under corresponding conditions of getting equally good results. The mortality must inevitably be high—not from the operation, but from the injury—especially if all cases including desperate ones be undertaken. Selection of cases who have survived five or more hours after receiving the wound would give a good percentage of recoveries, but such selection is not to be recommended. (2) In all cases of wounds in the region of the heart, with symptoms threatening life, an exploratory operation should be done by making an osteoplastic flap by dividing the fourth and fifth costal cartilages at their attachments to the sternum and the ribs about one inch external to their attachment to the cartilage, somewhat according to the method of Roberts. This flap turned up as a door on a hinge gives a good view of the pericardium, and can easily be enlarged upward if more room is required. (3) While early and speedy operation is often essential to success, yet the importance of asepsis cannot be too strongly emphasized on account of the great danger of pericarditis and empyema. If there has been much haemorrhage, a quantity of physiological salt solution, approximately equal in amount to the blood lost, should be injected into a vein while the surgeon is operating on the heart, if it has not been done sooner.

(119) Surgery of the Cerebellum.

PIOLLET (*Arch. Provinc. de Chirurg.*, No. 12, 1901) reports two cases of cerebellar surgery under the care of Jaboulay—one of tuberculous deposit in the right lobe not treated by operation; the other of glioma of the left lobe removed by trephining, with marked and persistent improvement. To this paper is appended a table, including, together with these two cases, 48 other records of tumour or tuberculous growth of the cerebellum removed by trephining. The results given in this table are such as to lead to very unfavourable conclusions with regard to surgical interference in cases of cerebellar tumour. In no fewer than 20 cases death was the immediate result of the operation. Improvement is noted in 16 cases, but in many of these was followed by recurrence of the more severe symptoms, and in some by early death. An almost complete cure is recorded in 4 instances, and a rapid and presumably complete cure in only a single case.

(120) Extensive Resection of Small Intestine.

LAUWERS (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 12, 1901-2) adds to a list of collected cases of extensive intestinal resection a case under his own care, in which he removed 36 inches of small intestine, and at the same time, by suturing the duodenal end of the divided small intestine to the sigmoid flexure, excluded 64 inches of the large intestine. During the first six months after the operation there was a tendency to diarrhoea after slight irregularity in diet, but at the present time, after an interval of two years, the patient—a woman aged 67—may be regarded, it is asserted, as radically cured. The operation was performed for the suppression of a fistula consequent on kelotomy for large ventral hernia, and the free removal of intestine was rendered necessary by the close adhesion of a large extent of intestinal coils. In considering the question how much small intestine may be removed with impunity, the author concludes that it is possible, without directly endangering life, to resect half of the small intestine, provided the operation involves a considerable portion or the whole of the ileum. The digestive capacity of the small intestine, it has been proved, gradually diminishes in relation to the approach of this portion of the intestinal canal to the ileo-caecal valve. Although removal of more than 2 metres of small intestine will probably be followed by gastro-intestinal disturbance, such functional troubles, the author states, have never caused death in such instances, and, in cases otherwise favourable, are usually but indications of an intolerance which in course of time may be readily overcome.

MIDWIFERY AND DISEASES OF WOMEN.

(121) The Vomiting of Pregnancy.

CONDAMIN (*Lyon Méd.*, February 2nd, 1902) believes that the vomiting of pregnancy is due to an intoxication of the organism, and that the rational treatment is to rid the organism of toxins. He has had great success during the last few years in many obstinate cases by withholding all food from the stomach for eight or ten days, and by the rectal injection of artificial serum. The following case serves as a good example: A young woman had been unable to retain any nourishment for three weeks, and was sent to hospital (for the induction of abortion) by her medical attendant, who had tried all the usual drug treatment in vain. The patient looked extremely ill, and was unable to stand even with assistance. The temperature was normal and the facies cadaveric. The condition was considered too serious for any uterine interference. Three or four litres of artificial serum were therefore ordered to be given daily *per rectum*. On the second day the urine became much increased in quantity, and the patient took notice of her surroundings. On the eleventh day fluid food was given by the mouth and tolerated perfectly. In other grave cases milk has been given on the fourth or fifth day from the beginning of treatment, but as a rule it was found that gastric toleration was not re-established before the eighth day. The rectal injections generally caused very little disturbance, but if any irritation resulted the addition of a few drops of laudanum to the injection was often enough to allay it. If the injections cannot be retained the serum may be given subcutaneously, but by this means large doses cannot be administered at such short intervals. The method is applicable to both slight and severe cases, and the combination of

rest for the stomach and flushing of the tissues has been found to allay not only the vomiting but also the troublesome pyloric and epigastric spasm. In only one case has Condamin failed to prevent a fatal issue, and here a very acute cerebral oedema was found at the necropsy.

(122) Dystocia from Dropsical Fetus.

Opitz (*Centralbl. f. Gynäk.*, No. 3, 1902) conducted a labour where the mother, aged 32 years, was in her twelfth pregnancy, and suffered from a high degree of anasarca with amaurosis; the urine became almost solid on boiling. This labour was therefore induced prematurely. Hydramnion and, probably, dropsical fetus were diagnosed, but there proved to be very little liquor amnii. Labour lingered for long, the cranioclast was used, but then it was difficult to draw down the arm. That member was torn off directly traction was applied, and the fetus could not be delivered until the abdomen had been opened to let out several pints of ascitic fluid. Flooding followed, ceasing on expression of the enormous, oedematous placenta, which weighed 5 lbs. The puerperium proceeded without interruption, and the albumen gradually disappeared from the urine. The fetus showed very arrested development of the kidneys and bladder, and Opitz compared the dropsy to hydramnion, the fluid secreted and discharged into the amniotic cavity in the latter condition being retained in the tissues in this fetus owing to defective development of the kidneys. Opitz advocates decapitation in a case like the above: in another of the same kind he amputated the already delivered head. The dropsical trunk is more easily managed afterwards. Strassmann, in a discussion on this case, noted how often there was a syphilitic taint, causing nephritis in the developing kidneys; the large placenta in this case was suspicious. Opitz admitted that syphilis existed in many instances, but it was very improbable in his case.

(123) Diabetes in Pregnancy: Large Fetus.

Chambrelent (*L'Obstétrique*, January 15th, 1902) observed dystocia from size of the fetus in two patients where diabetes developed during pregnancy. There was no history of gigantism and no cachexia in either case. In the first patient glycosuria appeared in the fourth, in the second during the sixth month. Appropriate medical treatment proved beneficial to the mothers, but the fetus died shortly before labour in both cases. In both cases it weighed over 11 lbs., and delivery proved very difficult, especially when the shoulders came down. The dystocia was mainly due to the increase in the diameters of the trunk.

(124) Perforation of Intestine in Newborn Infants.

Perret (*L'Obstétrique*, January 15th, 1902) discussed a subject of some interest from several points of view before the Obstetrical Society of Paris last November. A premature infant (stage of pregnancy at birth not noted—its weight is reported as 1,000 grams, or 2 lbs. 3 ozs.) was observed to have a very low temperature (about 93°) shortly after its birth. By artificial means it was kept warm, and the temperature rose above 97°, but it died suddenly when little more than twenty-four hours old. The peritoneal cavity contained a yellowish-green fluid; the peritoneum and intestines were very vascular. Two-fifths of an inch from the caecum a large perforation was detected, whence meconium issued; above it ulceration was observed, proceeding apparently from without inwards. Immediately around the perforation the intestine was thinned, bluish, and deeply injected. The mesenteric glands were swollen, their vessels were engorged, but no special lesion could be discovered. There was no abnormality or disease associated with the cord and its vessels.

(125) Simultaneous Rupture of Double Tubal Pregnancy.

Frederick (*Amer. Journ. Obstet.*, November, 1901) reports that a multipara, aged 38, was seized with symptoms of ruptured tubal pregnancy. There was clinical evidence of rupture ten days previously. The pelvis was found full of clots on both sides, and both tubes were ruptured, being alike the source of haemorrhage. Frederick claims this case as unique; no details further than the above are given.

THERAPEUTICS.

(126) Tuberculin in Phthisis.

J. Petruschky (*Berl. klin. Woch.*, February 3rd, 1902) believes that irreparable harm has been done by the hastened verdict against tuberculin. He regards it as the best form of treatment for early cases of phthisis, but sounds a warning note that it must be properly administered. He complains bitterly that the greater part of the medical profession know practically nothing of the uses of the drug. He advises that the treatment be carried out in stages, and, whenever it be possible, in combination with a short course in a sanatorium. The injections should never produce anything approaching a marked reaction, but should be slowly increased over several courses or stages until large doses are tolerated. Götoch claims that he gets good results by a long-continued course extending over 150 days, but Petruschky prefers to interrupt the course. He reports excellent results in a short and a long series of cases, both of which date sufficiently far back to justify the opinion formed. His cases treated partly (to begin with) by sanatorial methods and partly by tuberculin have, as far as they allow of an opinion up to the present time, given still better results. He states that there is no reason why, with the latter methods of combined treatment, one should not get 100 per cent. of cures in cases of phthisis in the first stage, and 40 to 50 per cent. in the second stage. With care and sufficient knowledge tuberculin can be applied without danger to the patient. He further advises a free use of it as a diagnostic agent, and states that no case of early phthisis without sputum, or with sputum in which no bacilli can be found, should be admitted into a sanatorium before the diagnosis is confirmed by injection.

(127) Gluton.

The value of gelatine as a nutrient substance has been recognized for some time, and its action is known to depend upon its albuminoid constitution. The chief objection to its use is that it cannot be taken in large quantities. To overcome this difficulty H. Brat (*Deut. med. Woch.*, January 9th, 1902) allowed acids to act for some hours on gelatine at a high temperature, the resulting mixture he then neutralised, and, lastly, he evaporated the filtered product to dryness. He thus obtained a whitish yellow powder, which he called "gluton." It appears to be easily soluble in water, and does not become gelatinous even in concentrated solution. It can be taken with other articles of diet, or in the form of drinks with lemon juice and sugar, etc., either cold or warm. A solution of gluton differs from that of gelatine by its reaction with alcohol and with chloride of platinum. Brat found that gluton is sufficiently nutritious to replace albuminous foods such as meat and also carbohydrates. He details the metabolic changes of some patients fed partly with gluton, which clearly show its value as a food. He claims that it has the highest nitrogen value of the modern chemical foods, and at the same time it has a very small "ash" value. It is easily digestible, can be taken in large quantities, and has the same nourishing value as gelatine.

(128) Chloretone.

Cappelletti (*Rif. Med.*, December 3rd, 1901) gives the result of his trial of chloretone as a hypnotic in 25 cases of mental disease. The duration of sleep varied from two to five hours, according to the dose and the condition of the patient; sleep came on in thirty-seven minutes to two and a-half hours, and was tranquil. From 1 to 1½ gram is sufficient as a rule, but in very restless subjects 2 grams may be given. The pulse and respiration did not appear to be notably affected by the drug, and the reawakening was not accompanied by unpleasant symptoms. The digestive system as a rule was unaffected, and the same could be said of the secretions.

(129) Balneotherapy in Skin Diseases.

Weyner (*Balneologische Centralzeitung*, December 2nd, 1901) recommends baths in the treatment of certain skin diseases. In acute eczema he advises a bath of indifferent temperature, because cold water is harmful and warm water dilates the vessels of the inflamed skin. In chronic eczema the best results are

obtained by tar baths. The eczematous products become loosened, the infiltrated skin softens, and the tar is enabled to reach the diseased surface. In psoriasis baths are also useful. In this case the scales are removed by rubbing with potash soap in a warm bath, after which tar, chrysarobin, pyrogallol, or other reducing drugs are applied. The author prefers chrysarobin. Sulphur baths are useful in furunculosis and prurigo. Pemphigus is best treated by opening the bullae, and then employing baths of oak bark twice daily. In ichthyosis, although severe cases are incurable, a normal appearance of the skin may be attained by daily warm baths and rubbing with oil. Baths should be intermittent and not continuous, as the latter cause too much maceration of the skin. Hebra's water bed is of great value in cases of widespread loss of epidermis, such as severe burns, pityriasis rubra, and pemphigus. It eases the pain, and the exudation, instead of accumulating on the skin, is absorbed by the water.

(130) Treatment of Alopecia Areata by X Rays.

HOLZKNECHT (*Wien. klin. Rund.*, October 9th, 1901) reports the case of a successful cure of this disease in four months by *x* rays. The patient, a male aged 18, suffered from several patches for five months. The patches varied in size from a pea to an egg. As a control experiment one patch was not treated by the rays, but an area covering the other patches, together with the healthy scalp, was exposed for a total period of two hours, made up of frequent short exposures. A week after exposure the hair fell off all the exposed parts. In three weeks the alopecia areas became red, the normal areas were bald but not red. In another month there was a growth of new hair on the alopecia spots while the rest of the scalp remained bald. The condition was thus the reverse of that at the beginning of treatment. After four months treatment the whole area exposed was covered with hair; the untreated patch, however, was still bald. This was afterwards cured. The author does not consider the effect due to bactericidal action, as he finds that exposure of bacteria to the strongest rays at a focal 15 cm. for an hour only hinders their growth for a time. The same exposure to the scalp would cause severe ulceration.

(131) Crurin in Gonorrhœa.

E. JACOBI (*Deut. med. Woch.*, December 26th, 1901) has sought for a non-irritating, astringent substance, which is capable of killing gonococci when used as an injection, and found that of all the preparations protargol was the most satisfactory, but had its disadvantages. On being asked to test the action of "crurin," he found that he was dealing with a drug which apparently had all the characteristics desired. Crurin is a rhodonate of chinolin and bismuth, and was so called by Joseph, on account of its action on ulcer of the leg. The original preparation contained starch, but that which is used for gonorrhœal injections does not. The formula is $(C_9H_7N\ HSCN)_3\ Bi(SCN)_3$. The rhodonates act bactericidally, and the bismuth salt astringently. The injection is prepared as follows: 1 gram (15 grs.) of crurin is rubbed briskly up with 5 grams each of water and glycerine. Part of the salt is thus dissolved. Fresh water is slowly added, the mixture being well shaken the while, up to 200 grams (equals a little more than $7\frac{1}{3}$ ounces). The resulting fluid is of a milky turbid nature, and has a nearly white precipitate settling at the bottom. The injection of 8 to 10 c.cm. (equal about $2\frac{1}{4}$ to $2\frac{3}{4}$ ℥) of this suspension is made twice or three times a day, and in certain cases is supplemented with a single daily injection of protargol solution. The treatment must be continued for some time after the last signs of a discharge have disappeared and gradually discontinued. In every case Jacobi considers it necessary to examine the discharge microscopically. He finds that crurin injections rapidly cause the gonococci to disappear, but it is not safe to leave the treatment off as soon as this is gained. In all his cases he was able to convince himself of the efficacy of the preparation as an antibacterial and astringent agent. The injections are much less tedious to carry out than those with protargol, and can be easily completed in three minutes. It is also valuable in gonorrhœal urethritis and cervicitis in the female. In this form of the disease he uses 10 per cent. bougies, made up with ol. cacao.

PATHOLOGY.

(132) Experimental Researches on Tuberculosis in Childhood.

DIEUDONNÉ (*Münch. med. Woch.*, No. 37, 1901) remarks on the varying frequency of tuberculosis at the different ages of childhood. This depends on the difference of the surroundings at the different ages, and the liability to infection changes accordingly. At the age when the children are for the most part either in their cradles or in the arms of their mothers infection with tubercle is rare; as soon as they learn to sit and crawl it becomes common, that is to say as soon as they are in a position to breathe in dust from the floors or to carry dust and dirt on their hands to their mouths. Tuberculous sputum is usually expectorated on to floors and becomes dried and incorporated with the dust. At the time when the child is crawling the nasal and mouth secretions are specially copious and also unless special care is taken small cracks about the lip and the nostrils are commonly present. If the child has a herpes labialis or impetigo or eczema the irritation makes it rub the face continually with the hands and all the dirt on the hands is then well rubbed in also. Tuberculosis which is scrofula is especially a dust disease. It is especially common amongst the poor, whose children are left to crawl all day long on the floors while little care is taken to cleanse the latter. Dieudonné has experimentally investigated the transference of the tubercle bacillus in this way; children from $\frac{3}{4}$ to $2\frac{1}{2}$ years were chosen whose fathers or mothers were the subjects of tuberculosis. The hands and the nose were examined for the bacillus and the pyogenic cocci; the habit of putting the fingers into the nose and many different affections are probably conveyed in this way. The researches gave a positive result, a fact of considerable importance. Feer has invented a useful wooden deck protected at the sides on which a mattress lies covered with a clean sheet, this lies on the floor and the hands, clothes, and toys of the child are kept clean. At least a clean sheet might be fixed on the floor, stretched out and tacked, for a child to crawl on.

(133) Experimental Cholecystitis and Cholangitis.

H. EHRET AND A. STOLZ (*Berl. klin. Woch.*, January 6th, 1902) have made several experiments to explain the sudden occurrence of inflammation in connection with chronic cholelithiasis. They sewed up sterilised hollow glass balls into the gall bladders of dogs. The wounds healed perfectly. About three months after the operation four of the animals were fed with a poor cold food, sometimes containing decomposing meat. The animals began to suffer from diarrhœa, and two of them wasted away and died within three weeks, the *post-mortem* examination showing localised purulent infectious cholecystitis. The other two animals were killed later on, and, though signs of acute inflammation were not present, their gall bladders contained quantities of microbes as well as the glass balls. In a series of six dogs the gall bladders were filled with some very small sterilised lumps of cotton wool. In about seven to nine weeks these little pieces of cotton wool generally find their way into the cystic duct. Eight to ten months after the operation two of the dogs, apparently still in good health, were examined by laparotomy. The gall bladder in each case had thick white walls, and contained thin (watery) bile. One or two lumps of cotton wool were already in the cystic duct. The cotton wool and contents of the gall bladder contained quantities of non-virulent microbes. The other dogs wasted and died eight to sixteen weeks after the operations. In all four of them suppurative cholangitis was found. In one of them there were also numerous pericholangitic abscesses. The gall bladder was affected in all of them, as well as the ducts. The authors point out that, as the illness appeared suddenly long after the operation, it was probably due to auto-infection, very likely from the intestine. They also remind the reader of the temporary increased virulency of coli bacilli occurring with diarrhœa, etc.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(134) The Early Diagnosis of Tuberculosis. A. Moeller (*Münch. med. Woch.*, December 10th, 1901) discusses the present state of our knowledge of the diagnosis of early stages of phthisis. He mentions that where tubercle bacilli are found in an abundance of sputum, one is no longer dealing with early tuberculosis. To be able to obtain the best results from treatment, it is necessary to make the diagnosis in the earliest stages. The sputum is mostly very scanty, and is derived from the upper air passages. Moeller employs a cold water bandage over the loins over night, and in the morning the back and chest are briskly rubbed for a short period with a damp cold towel. This generally produces some pulmonary expectoration. Should there be no tubercle bacilli found he collects the sputum for several days, adds some water to it, and shakes it energetically with shot. After removing the shot, the mixture is subjected to centrifugalization, and from the sediment cover-glass preparations are made. In this way it is frequently possible to discover bacilli which are not to be found in the ordinary way. Still, the absence of bacilli does not necessarily exclude the diagnosis of tuberculosis, and in suspicious cases if this method fails he turns to the tuberculin test. The patient must be free from fever. For some days before the test is applied the temperature is taken every two hours. He uses the old tuberculin, and injects $\frac{1}{10}$ mg. (= $\frac{1}{1\,0\,0\,0}$ gr.) by means of a sterilized glass syringe, provided with a glass piston. He does not regard any rise of temperature as a reaction, unless it reaches $\frac{1}{2}$° C. (= *circa* 1° F.). If a slight rise takes place (for example, $\frac{1}{2}$° C.) he proceeds to inject $\frac{1}{5}$ mg., but if no rise be observed, he injects $\frac{1}{10}$ mg. on the third day. In this way the dose is increased until 10 mg. (= $\frac{1}{1}$ gr.) is reached. He mentions, *en passant*, that for therapeutic purposes he has used old tuberculin, following the same rules, and while he can report a beneficial action in some cases, he has never seen any harm accrue from its application. In conclusion, he reports the results of his investigations with the agglutination test of Arloing and Courmont. He failed to obtain a homogenous culture of tubercle bacillus, but was enabled to apply the test by using a culture prepared by Arloing and Courmont. In some cases he obtained a partial agglutination in the dilution of 1 in 5, but since this is admittedly of no value, and since he obtained without exception negative results with 1 in 10, he concludes the test is valueless.

(135) Examination of the Blood in Phthisis. Appelbaum (*Berl. klin. Woch.*, January 6th, 1902), gives an account of the investigations which he has made on the subject. He chose only cases of pure phthisis without complications. He found that in the first stage two types of patients are met with: First, those who have showed a marked predisposition to the disease for a long time, often having been scrofulous as children. In these there is anaemia preceeding the actual tuberculous infection; secondly, those who show but little early predisposition and who are attacked when apparently well nourished and in good health. Here there are no constant blood changes to be found. In the first-class the blood count on an average show 60 per cent. haemoglobin, 3,800,000 red, 6,500 white corpuscles, and specific gravity 1049. In the second stage there appears at first sight to be a remarkable improvement in the blood, when the average reaches 90-95 per cent. haemoglobin, 5,000,000-5,500,000 red, and 8,000-10,000 white cells, and specific gravity 1058-1060. That the improvement is only apparent Appelbaum attempts to prove by a minute analysis of the condition of such patients. Night sweats and diarrhoea are capable of draining the body of a large amount of fluid and thus reducing the whole quantity of blood. In other words, the anaemia is present under the cover of oligaemia. He found that if the blood was examined immediately after a sufficient intake of fluid the results were very different. Further, the conditions found in the third stage made it very improbable that there should be any real improvement in the second stage. As he says, every one who has examined a body after death in this stage must have noticed the advanced anaemia, and the fact that a hectic flush is seen on the cheeks and the redness of the mucous membranes are only to be explained by the assumption of a poor blood which has lost a large amount of its water. In the third stage the examination showed an average of 40-45 per cent. haemoglobin, 2,000,000-2,500,000 red corpuscles, and specific gravity 1040-1042. The leucocytes, however, are increased even up to 15,000 or 20,000. In this way there may be a proportion of 1 white to 133 red cells. He looks upon this leucocytosis as a last hopeless reaction of the body to throw off the intense effect of the infection. In the second stage there appeared some increase of the number of eosinophile cells. In the last stage the chief change was found in the increase of neutrophile polynuclear cells, which numbered 84-86 per cent. of the leucocytes. Eosinophile cells were sparse, while transition forms were distinctly more numerous.

(136) Lead Colic and Appendicitis. Bernard, in an important monograph on lead colic (*Thèse de Paris*, 1901) points out that there is often some difficulty in the diagnosis of lead colic from appendicitis, and vice versa. In many instances it may be impossible when first called to a case to decide which is in reality the lesion present. The writer refers to a case recorded by Florand, in which the appendix was amputated on account of certain abdominal symptoms suggestive of appendicitis. The following year the patient suffered an attack of an exactly similar nature, and then it was found that he was the subject of lead colic. The inference is that the previous attack was of a similar nature. The author is of opinion that cases presenting symptoms which might be explained on either hypothesis should be safely put to bed and watched, for in twenty-four hours the diagnosis ought to be cleared up. Absence of pain in McBurney's point, the absence of fullness and resistance in the appendicial area, the course of the temperature, and the appearance and character of vomiting should point to a correct diagnosis. The most awkward cases to deal with are those in which there is a distinct history of plumbism, but who actually do suffer from appendicitis due to the most usual cause. There are cases recorded which began as a typical lead colic, and ended fatally some days later with perforated appendicitis. The question is asked if by any chance plumbism might not of itself be the cause of appendicitis.

SURGERY.

(137) Natural Method of Draining the Peritoneal Cavity. John G. Clark (*University of Pennsylvania Med. Bull.*, November, 1901) contributes an elaborate article on this subject. He sums up his conclusions as follows: (1) The peritoneum has an enormous absorbing function, being capable of taking up in an hour 3 to 8 per cent. of the entire body weight. (2) Numbers of solid particles are carried in an incredibly short time from the peritoneal cavity through the diaphragm into the mediastinal lymph vessels and glands, and thence into the blood circulation, by which they are quickly distributed to the abdominal organs and to the bone marrow. (3) The granular bodies are at first largely transported as free bodies, swept along by the lymph currents, but later the leucocytes act as the carriers. (4) There is normally a force in the peritoneal cavity which carries fluids and foreign particles towards the diaphragm, regardless of posture, although gravity may greatly favour or retard the current. (5) After the introduction of micro-organisms into the peritoneal cavity, there is a great decrease in their number within the first hour, both through their intraperitoneal destruction and through their rapid absorption into the general system, where they are dealt with. There is, therefore, no possibility of limiting free infectious matter to any part of the peritoneal cavity by mechanical means. (6) Vigorous streptococci which remain behind, develop, within six hours, a repellent or destructive quality for leucocytes, and the lethal combat is, therefore, inaugurated and well under way before drainage, as ordinarily employed, can

possibly exercise any beneficial action. In many cases, therefore, in which surgical drainage is employed the patient recovers in spite of and not because of it. (7) A moderate amount of even virulent organisms, carried by the blood to the lungs, liver, spleen, kidneys, gastro-intestinal tract and bone marrow, may be destroyed or eliminated without the least harm to the patient, whereas, if the same amount of infectious matter is detained about a surgical field in the abdominal cavity, or stagnates in a dependent pocket, they may generate millions of others, and thus overwhelm the patient. (8) In many cases, therefore, drainage, as ordinarily employed, is superfluous, or even dangerous, and the rational method is to remove all possible débris and infectious matter by thorough irrigation, and then leave one litre of salt solution (0.6 per cent.) in the abdominal cavity, and in order to promote and hasten natural drainage, supplement this by an enema of a litre of salt solution given while the patient is well under anaesthesia and in the Trendelenburg posture. (9) Under this plan the patient is greatly stimulated, shock is minimized or averted, the urinary excretion is greatly increased, and thus toxic matters are more easily eliminated without irritation to the kidneys or bladder, peritoneal infection is quickly eliminated, while yet mimimum in amount, thirst is alleviated or entirely prevented, intestinal peristalsis is promoted, and consequently tympanites is of less frequent occurrence, and the early action of the intestine evacuates infectious matter thrown out into the canal by the blood vessels of the villi. All these factors combine to reduce mortality after abdominal sections, to decrease the pain, discomforts, and complications of the first forty-eight hours, and finally to hasten the recovery of the patient.

(138) Radical Cure of Hernia without Opening the Peritoneal Cavity.

Poullet (*Lyon Méd.*, November 24th, 1901) describes an operation for the radical cure of herniae, which he had performed in more than four hundred cases with most satisfactory results. He contends that since hernia is only an alteration of the abdominal wall, it should be treated without opening the peritoneum, and that to close the hernial tract it is illogical to first enlarge it by incision of the aponeuroses. He attempts, therefore, to close the tract by suture without incision of the peritoneum or of the aponeuroses. Either local anaesthesia by cocaine or general anaesthesia may be employed. An incision through the skin and subcutaneous tissue of 5 or 6 cm. in length is first made by transfixion with a bistoury. The edges of the wound being retracted and any bleeding point seized, the neck of the hernial sac is then isolated by the fingers. The contents of the sac are reduced and prevented from returning by the application of forceps to the neck of the sac. A fine tubular needle is next passed five or six times through the neck immediately below the forceps, and by means of this a thread of steel three-tenths of a millimetre in diameter closes the tract. The ends of this thread are then carried through the structures of the abdominal wall, with the exception of the skin, the left forefinger guiding the needle. The ends of the steel wire are passed several times across the external ring and then twisted, the points being guarded by a small piece of perforated lead. No attempt is made to bring the boundaries of the ring into apposition and secure union, the wire itself acting as the barrier to further descent. The skin wound is sutured in the ordinary way. It has not often been found necessary to confine the patient to bed after this operation. Eighteen to twenty centimetres of the steel wire are used as a rule, and are generally borne without discomfort or even consciousness of a foreign body. Poullet states that with reasonable precautions his operation is absolutely without danger, that it is very seldom ineffective, that it is applicable to any reducible hernia—inguinal, femoral, or umbilical, and lastly, that it gives excellent results in very old patients upon whom the ordinary operations for radical cure could not be undertaken with safety.

(139) Meckel's Diverticulum and Patulous Urachus.

Frederick (*Amer. Journ. Obstet.*, November, 1901), observed these rare conditions, combined, in a sickly boy, aged 8. When about 4 he began to suffer from abdominal pain; the umbilicus and surrounding integuments grew red and then fetid, grumous fluid with some blood escaped. The discharge subsided and returned from time to time. When Frederick examined the boy it had continued for over six months, causing the usual distressing excoriation. A probe could be passed downwards for two inches, towards the base of the bladder. A director was passed into the open urachus which was dissected out. During the excision of the infected umbilicus it was found to be connected with the ileum by a diverticulum, which was also removed. The operation was successful and the boy's health soon began to improve.

(140) Surgical Pneumothorax.

Delagénière (*Arch. Prov. de Chir.*, No. 12, 1901) considers the dangers likely to arise from the occurrence of pneumothorax in the course of an operation on the chest, and publishes six cases showing the advantages that may be derived from the intentional admission of air into a pleural cavity both in exploration and in direct surgical treatment of a pulmonary growth or abscess. Pneumothorax, it is stated, when rapidly produced is dangerous, but not inevitably fatal. When produced slowly it seems to be free from serious risk, and then it is a valuable method of arresting certain forms of pulmonary haemorrhage. Should serious symptoms occur in the production of surgical pneumothorax during an operation on the contents of the chest it is possible to prevent further ingress of air by dragging a portion of the lung into the external wound and fixing it there by sutures. The secondary bad results of pneumothorax such as dyspnoea and a tendency to asphyxia may be overcome by withdrawing, by means of an aspirating syringe, the air from the pleural cavity after the external wound has been closed. The lung at once expands and acquires its normal size, or, at least, the size it presented before the operation. The author concludes that in cases of pulmonary surgery in which the diangosis is obscure, the surgeon should resort to the slow establishment of a pneumothorax and afterwards make a free opening in the chest wall with the object of exploring, and, if necessary, of removing the seat of disease. The operation would be completed by closing the external wound and removing by aspiration the air contained in the pleural cavity.

MIDWIFERY AND DISEASES OF WOMEN.

(141) Rupture of the Uterus.

G. Wiener (*Münch. med. Woch.*, January 7th, 1902) reports and discusses two cases of rupture of the uterus. The first case was that of a 12-para, aged 34 years. The membranes were said to have been ruptured twenty-four hours before assistance was sent for, and on examination a transverse presentation with prolapsed cord was found. The fetal head lay over the left ilium, and the back was towards the mother's anterior abdominal wall. A foot presented at the os. The cord was replaced manually after an anaesthetic had been administered, and the foot was brought down to prevent a second prolapse. The fetal heart became less rapid after a time, and therefore the forceps were applied, and the body was delivered with caution. The head remained at the pelvic inlet. Answering a gentle pressure from without this suddenly followed the rest of the fetus. A profuse haemorrhage took place immediately after the birth in spite of a well-contracted uterus. Manual examination revealed that this issued from a deep tear in the cervix (left side). The depth of the tear was about ½ in., and the upper margin reached about 1 in. above the internal os. The placenta was rapidly removed, and the cavity was packed with iodoform gauze. After some difficulties had been met the patient, who still had a good pulse, was removed to hospital. On arrival, however, blood trickled through the packing, and there was marked tenderness over the left side of the abdomen. The patient appeared very ill. The abdomen was opened, and blood was found in the left parametrium and broad ligament. The uterus was torn through to the extent of about 8 in. The tear was carefully sutured, the vagina and uterus freed from blood clot, and the tear in the cervix was also sutured. Two hot lycol douches were administered, the vagina was loosely packed, and the abdominal wound was closed. The patient made a good recovery, and when last seen was in good health, and

was again pregnant (fourth to fifth month). In this case the tear inside the uterus took place under the gentle pressure, when the head remained above the pelvic brim, and the complete rupture into the peritoneum occurred after removing the patient. The second patient was a 3-para, and was 28 years of age. The membranes ruptured three days before the patient sent for doctor or nurse. On examination a hydrocephalic fetus was found to be presenting by the vertex, but the head was already largely situated to the left side. Version was performed, and the after-coming head was punctured. There was profuse haemorrhage immediately after the birth. The uterus could not be felt through the abdominal wall. On introducing the hand a large tear was found in the left side of the uterus, and the placenta was found in the abdominal cavity. After plugging with aseptic gauze the patient was removed to hospital. She arrived with a thready pulse, about 140, temperature 100.8°, and appeared extremely anaemic. The abdomen was tumid, very tender and dull in the lower regions. On opening the abdomen blood was found in the abdominal cavity. The uterus showed a tear from the insertion of the left tube. The edges of the tear were very friable. The uterus was amputated through the cervix. In the peritoneum was found the gauze plug which had been placed in the uterus before the removal of the patient. The cavity was carefully dried with swabs, the stump and broad ligament (which had been torn) were seen to be free from haemorrhage, and the abdominal wound was closed. The patient made a good recovery, and when seen six months later, was in good health. The stump was freely movable.

(142) Oophorin Tablets for Artificial Menopause.

A. FLOCKEMANN (*Münch. med. Woch.*, November 26th, 1901) has been able to study the effect of ovarian tissue, administered in tablet form, on those symptoms which are due to the removal of both ovaries, in a series of 28 cases, and publishes the results, giving a short account of each case. In 6 cases the symptoms entirely disappeared. In most of these there was flushing, sweating, and giddiness, while mental disturbances of a mild nature were noted in a few. In 4 cases considerable improvement and in 9 others slight improvement was experienced. In one of the last-mentioned group the chief symptoms were mental, and probably were independent of the removal of both appendages undertaken for pyosalpinx; the remaining 8 cases were not influenced by the administration. Each patient received at first 1 or 2 tablets three times a day for one to two weeks. In no case was any ill-effect to be seen. Although the beneficial effect is not constant, the number of good and fair results justify Flockemann in recommending that this treatment should be resorted to. He, however, in view of the distressing sensations complained of by the patients after double oöphorectomy, considers that one should always endeavour to leave some ovarian tissue behind when performing this operation.

(143) Hydrorrhoea Gravidarum.

MUELLER (*Centralbl. f. Gynäk.*, No. 5, 1902) reported two cases at the November meeting of the Munich Gynaecological Society. Through early rupture of the amnion the waters escaped, yet the ovum lived and continued to develop for some time, during which there was permanent watery discharge. In the first case delivery occurred in the sixth month, over eight weeks after the rupture of the membranes: the child was living. The amnion was hardly so wide as the palm of the hand. In the second case the membranes broke nine weeks after the last period. The fluid which was afterwards discharged gradually became fetid. Thirteen weeks after the rupture of the membranes—that is to say, in the fifth month, flooding occurred and labour set in, the breech presenting. Notwithstanding the smallness of the fetus, delivery of the head and placenta was difficult on account of the rigidity of the os. The fetal limbs were distorted by pressure owing to the deficiency of amniotic fluid: the amnion was hardly as big as a hen's egg.

(144) Small-pox and Pregnancy.

AT the November meeting of the Société d'Obstétrique de Paris there was some discussion about the influence of small-pox and other infectious disorders on pregnancy and the fetus. Boissard, in relation to a case where the prevalent disease seems to have affected the ovum, remarked that the fact would demonstrate clinically Charrier's experimental researches, which proved that toxins played a share in the development of malformations and monstrosities. The case in question was reported by Schwab. A young woman suffered from severe confluent small-pox in the fifth month of her fourth pregnancy. She had borne two children, both living, and had once aborted at the fourth month. She was quite free from any morbid taint. At term she was delivered with the aid of the forceps of a child weighing nearly 8 lb.; there was a small red cicatrix on its back, slightly depressed. The placenta was normal. The child's head showed no sign of disease or malformation. When the child was a month old, the mother found that its cap would not fit, and soon it was clear that its head was enlarging. When two months old, the child was vaccinated without success. Schwab examined the head and found that it was clearly hydrocephalic. There was slight exophthalmos, but no motor or sensory lesion. In two months the circumference of the cranium increased rapidly. Schwab performed paracentesis three times with an injection of liquid vaseline holding 1 per cent. of iodine, but the enlargement was increasing when the case was reported, the circumference being at that date 11 inches. The evidence as to the hydrocephalus being due to the small-pox from which the mother suffered was not conclusive, as hydrocephalus is not rare when the mother has had no complications during pregnancy, still it is quite possible in this case that the infectious disorder caused intracranial mischief. The fetus bore a scar at birth, and was incapable of inoculation with vaccine two months later.

THERAPEUTICS.

(145) The X Rays in Lupus Erythematosus.

RICHARD F. WOODS (*Amer. Journ. Med. Sci.*, December, 1901) reports a case of lupus erythematosus entirely cured by the application of the *x* rays. The lesion, which had been steadily growing for four years, was entirely eradicated in five exposures to the rays, each treatment lasting ten minutes. The patient was a woman aged 32. There was no tuberculous history. Four years previously she noticed a small pimple on her face, which she constantly irritated with her finger. It steadily increased in size, giving her some pain, and bleeding freely at times, and especially worried her in cold weather. She had attended several hospitals for two years, and had applied various ointments and taken medicine internally without success. She came under Woods's observation on July 12th, 1901. The growth at that time was about the size of a half-dollar, situated slightly above the angle of the mouth. It was of the discoid form, slightly raised, and of a bright reddish colour. The centre of the growth was partially covered with scales. The erythematous border was sharply bounded by the skin, and was firm to the touch. There was some alteration in the mouths of the sebaceous glands; the follicular orifices were enlarged, gaping, and filled with hardened sebaceous matter. The *x* rays were applied for the first time two days later at the Pennsylvania Hospital. The face was covered with a sheet of lead from which a small V-shaped piece had been removed to expose the growth. This was thought necessary to protect the face from burning. The ordinary Ruhmkorff coil was used, charged from the electric lighting current, and had the strength of about eleven volts. The current was turned on for ten minutes, and the distance between the face and the tube was seven inches. The treatments were continued twice a week. When the patient returned for the second exposure the improvement was remarkable. The entire character of the growth had changed. There was a diminution in the colour and the prominence of the edges. The erythematous halo was fading away, and the raised margins had become level with the sound skin, while the central portion was becoming depressed and atrophic. The improvement continued rapidly, and when the patient returned for the sixth treatment it was found unnecessary to continue. The area of ulceration had entirely healed and was covered with a healthy cicatrix.

(146) The Placenta in Therapeutics.

Brain and ovary, the thyroid and thymus glands, and so forth, have for some time been laid under contribution as therapeutic agents. A more recent development of opotherapy is the exhibition of the placenta. In a paper read before the Paris Société de Biologie on February 1st, Bouchacourt stated it had been scientifically demonstrated that the placenta was an internal secreting gland. Placentophagy is an instinct which exists in all animals, even under domestication. Man alone has usually shown his repugnance and repressed the instinct, but not universally, for among some tribes of Brazil, Asiatic Russia, North America, and the Soudan, the placenta is still eaten. The author also states that it was employed among the ancients and in mediaeval times for various purposes—as an aphrodisiac against sterility, in epilepsy and apoplexy, and, above all, to induce uterine contractions. More recently Iscovesco (1898) has used placental preparations in chronic metritis and in puerperal subinvolution. According to Bouffard (1900) and Regnault (1902) placental substance is of the greatest assistance to the lying-in woman, and is used as a specific in chloro-anaemia. Bouchacourt has found that the substance employed therapeutically stimulated the mammary glands. In 9 cases, 5 of which were contributed by Brindeau, there appeared to be no doubt as to its action in this direction. In a nullipara 14 grams of placental substance (sheep) led to increase in the size of the breasts with colostrorrhoea. In large doses it purges.

(147) Serumtherapy in Chorea.

Ramón Sanquet Farreras (*Archivos de Ginecopatia Obstet. y. Pediatria*, January 25th, 1902) reports a case of chorea treated by Vidal Solares in the Hospital for Poor Children at Barcelona. The patient, a boy 9 years of age, was admitted on October 8th, 1901, and presented all the symptoms of an aggravated case of chorea. The limbs, the trunk, and the facial muscles all acted with great irregularity and violence. The spasmodic contractions of the diaphragm and laryngeal muscles rendered speech almost unintelligible. The heart participated in the universal muscular excitement, there being irregular and violent palpitation. Vomiting was frequent. The urine was loaded with phosphates, and there was an excess of urea. The patient was first treated by injections of artificial serum (*chair*) in doses of 30 c.cm. on alternate days. Of these, he received 10, without the least amelioration in the symptoms being noted. He was then submitted to injections of physiological ox serum in doses of 5 c.cm. daily. A marked and immediate improvement followed, and in a few days (by the middle of November) the dose was increased to 10 c.cm. By the end of December all symptoms had disappeared, and the patient, although seen frequently for some time afterwards, showed no tendency to relapse.

(148) Treatment of Ringworm.

At the ninety-sixth annual meeting of the Medical Society of the State of New York, held at Albany (New York *Med. News*, February 1st, 1902) on January 28th, 29th, and 30th, 1902, G. T. Jackson stated that in the treatment of ringworm of the hairy scalp he has for some years been using a remedy that gives excellent results. He employs goose grease as an excipient. A drachm of iodine is dissolved in an ounce of the goose oil. The remedy is applied twice a day until some irritation is produced, then only once a day. If the reaction is severe, the remedy is stopped for some days. The pain for the application is a little severe at first, but passes off. The first effect of the remedy is to cause the fall of the hair, so that the patch looks like one of alopecia areata. After a time a new growth of hair occurs, and this is the sign of cure. No epilation is needed. The method is extremely simple. If the reaction is severe, salicylated oil may be employed for some time until the inflammatory condition lessens. It takes just three weeks now to cure barber's itch, formerly so obstinate. This is true not only in private practice, but also in hospital practice. Certain rare cases resist even this treatment. For these Jackson recommends ½ to 1 drachm of croton oil to an ounce of sulphur ointment. It is not always easy to get genuine goose grease. There are factitious articles sold under the name that are unsuitable, but "a reliable drug house will furnish it."

PATHOLOGY.

(149) The Pathology of Carcinoma.

H. Ribbert (*Deut. med. Woch.*, November 21st, 1901) is of opinion that carcinomata are not due to a parasite, and gives his reasons for coming to this conclusion. He says that the production of carcinoma is supposed to depend on some stimulus which causes an overgrowth of cells of the epithelium. This stimulus can only call forth changes of a character which are already present, and can never produce new qualities. There is no reason, however, to presuppose that this stimulus takes the form of a parasite. The parasitic theory claims that not only is the growth caused by the organism, but that its further development depends on the continued activity of the same. The process would correspond to a kind of symbiosis, in which the living causal agent can only vegetate in epithelial cells. This would mean that the agent would damage the cells; but how a damaged cell would produce cell proliferation and not degenerative changes he cannot imagine. The term, "carcinomatous degeneration" is clearly a misnomer. He points out that the parasite, once having attacked a cell, must produce its effect on that kind of cell only, and in fact be incapable of existing in any other cell. There would, therefore, have to be as many species of parasites as there are different kind of cells. It is difficult to believe that this can in fact be so. Again, he points out a difficulty for the parasitic theory, by saying that as soon as the original point of infection of the cancerous process is overstepped, all further growth takes place solely from the cells already composing the cancer. According to the theory, other cells of the same histological character would have to be continually infected. He thinks that when the tumour grows in the immediate neighbourhood of cells of the same character, if it depended on a parasitic invasion, these neighbouring cells must, *per necessitate*, be also invaded, but this, in fact, does not take place. He compares the pathological characters of a new growth with those of an inflammatory growth, and claims from the comparison that the former begins as an inflammatory lesion of the connective tissue. Parasites could produce such a lesion, but they could not call forth the cell proliferation, which he explains mechanically. After following Czerny's arguments and attempting to meet them in the light of his non-parasitic ideas, he concludes by disputing Behla's statements that cancer is an infective process, and that the increase of the disease can only be explained in this way, by stating that he doubts whether the increase actually is taking place; he considers that faulty diagnosis without the help of necropsies has much to answer for, and even if there were a real increase, this might be explained by faulty hygienic conditions, etc., without the interpolation of parasites.

(150) The Bacteriology of Dysentery.

Kruse (*Deut. med. Woch.*, 1900, Nos. 23 and 24) has already published bacteriological researches on an epidemic of dysentery at Laar. The bacillus he there described he has found in further cases of the disease at Laar, at Barmen, and in an asylum at Dusseldorf. He has also obtained cultures of the same bacillus from v. Spronck from cases at Utrecht. The bacillus is agglutinated by the serum of dysentery convalescents in a dilution of 50 to 200, control researches with normal serum being negative. The agglutinating property of the serum of convalescents often lasts for many months, varying according to the severity of the attack. Kruse relates how his assistant Stöcker, without coming in contact with fresh dysenteric stools or with any natural means of infection, developed a typical attack of dysentery while working with cultures in the laboratory; his serum also showed agglutinative powers. Comparison with Flexner's and Shiga's bacilli has led him to the opinion that all three are probably varieties of the same species; he does not, on the other hand, think that the dysentery of asylums is the same disease as the so-called acute tropical dysentery. To combat epidemics the writer recommends the usual means of isolation and disinfection; the faeces especially must be carefully treated; drinking water appears to be less important as a vehicle of the disease than cholera.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(151) The Causation of the So-called "Peripheral Reflex Secretion" of the Pancreas.

Bayliss and Starling (*Proc. Roy. Soc.*, January 23rd, 1902) show that the increased flow of pancreatic juice induced by the introduction of acid into the duodenum and jejunum is not due to reflex nervous stimulation. It occurs after extirpation of the solar plexus and destruction of all the nervous filaments passing to an isolated loop of jejunum. It also occurs after intravenous injection of atropine sulphate: it must, therefore, be due to direct excitation of the gland cells by a substance or substances conveyed to the gland by the blood stream. The authors have demonstrated the production of a body which they term secretion when the mucous membrane of the duodenum or jejunum is exposed to the action of 0.4 per cent. HCl. This is split off by the acid from a precursor prosecretion which itself has no action on the pancreatic secretion, while the secretion in minimal doses produces a copious secretion of pancreatic juice. The exact chemical characters of the latter are under investigation. A chemical sympathy between different organs has often been assumed, but this is probably the first instance in which direct experimental proof of such a relationship has been afforded; the authors think it probable that it will prove to be but one of a whole class of similar mechanisms; the discovery of these should have an important influence on therapeutic control of the various chemical functions of the body.

(152) Coelioscopy.

G. Kelling (*Münch. med. Woch.*, January 7th, 1902) deals in a paper with the uses of the oesophagoscope and of the gastroscope, and describes some further modifications of the instruments. Von Mikulicz's instrument was the first introduced, and Kelling has on other occasions advanced the usages and advocated the same. He briefly notes that he has devised an instrument for, or, more correctly speaking, a method of, inspecting the abdominal cavity. The skin and subcutaneous tissue having been rendered anaesthetic (he recommends Schleich's infiltration procedure), a trocar (Fiedler's) is introduced, and through the cannula air is passed through a cotton-wool filter into the cavity. Another trocar is introduced, and through this a cystoscope (Nitze's) is passed. The lamp must remain comparatively cool, and a very small cystoscope is chosen. The liver, gall bladder, stomach, and other organs can be inspected by this method, and palpation through the abdominal walls can be combined with the inspection.

(153) Tuberculous Ulcer of the Stomach.

Tuberculous ulcer is a rare condition of the stomach, but there is evidence to show that it is likely to be one of the terminal complications of general tuberculous disease. This probably accounts for the fact that its symptomatology may be masked by the many other symptoms present. Batsère has collected (*Thèse de Toulouse*, 1901) a series of 35 observations, in which he points out the diagnostic features of gastric tuberculous ulceration. Such ulcers are generally multiple, even numerous. They are situated for the most part close to the pylorus and on the greater curvature. They are round in contrast to the shape met with in the intestine. The symptomatology is extremely variable, at times absent, though occasionally well-marked signs may be present. The most reliable symptoms are pain, vomiting and haematemesis. The former is most frequently absent. It is caused by the ingestion of food as in other cases, and when occurring corresponds with the taking of food. Pain may be extremely severe and lancinating. Usually speaking, it disappears gradually within a couple of hours after taking food, and its most frequent site is the epigastric area. Vomiting frequently follows pain, and when haematemesis occurs it points to a diagnosis. The progress of such ulceration is generally fatally progressive; rarely is there any remission. Some cases at the same time have shown a transitory subsidence of the symptoms, and one is led to suppose that the ulcers have healed. There may then occur a very copious haemorrhage, which generally brings about a fatal termination. The writer is able to record some cases of cure under strict dietary treatment.

(154) The Unequal Growth of Twins.

Bendix (*Jahr. f. Kinderheilk.*, December, 1901) discusses the problem presented to any one who watches the unequal development of twin children under equal dietetic measures and an exactly similar environment. Twins are thus convenient subjects for demonstrating the individual element in the process of growth. A perfect diet according to general principles does not necessarily produce ideal development. Some infants seem to assimilate and thrive upon the most fearful and wonderful methods of feeding, such as coffee and bread, or milk far too diluted and continued for months together. Others waste though receiving food which theory and experience teaches is that most suitable to their age or condition. The development of the child depends, indeed, upon something more than the quantity and quality of its food, that is, upon its natural vitality, or, in other other words, its constitution. Success in rearing delicate children depends upon recognizing the individual capacities of the child, and not blindly limiting one's procedure to those measures successful in ordinary cases. The constitution of a child depends upon the efficiency of its digestive organs, upon the natural vigour of its cell life, and the perfection of metabolism in its whole organism. These functions are further dependent upon the degree of efficiency of the circulation and respiration, upon the amount of muscular exercise, and the influence of light, air, and temperature. Besides these there are, no doubt, other forces at work which cannot be estimated in our calculations on account of their unknown and impalpable nature. Bearing in mind these elements of the constitution, when a rational diet adapted to the age fails in one or two twins, every endeavour must be made to discover which is the weak spot in the organism, even to the extent of experimenting on the state of its metabolism. But it usually comes to the trying of various food mixtures in succession. Some cases will thrive on a food poor in fat but rich in sugar, while others require an excess of fat and reduction of albumen. In yet others the indications are more complicated and hard to find; such cases will be more amenable to treatment after the further development of the science of dietetics. These reflections of the writer were based on his close observation of 11 pairs of twins. Charts and diagrams are furnished to compare their differences in growth. Only 2 sets grew up with equal weights; in the other 9 1 child was more or less left behind the other. Although twins are at birth below the average weight they soon make up the deficiency if they are healthy. The initial weight of the 2 was usually nearly equal: the sex was similar in 9 out of the 11 cases and was female in 7.

SURGERY.

(155) Jejunostomy and Duodenostomy.

Cackovic (*Arch. f. klin. Chir.*, Bd. lxv, Hft. 2) is of opinion that jejunostomy is an operation which presents no technical difficulties, is not more dangerous than other palliative operations, and is capable of prolonging life and of giving relief to the patient who without such surgical treatment would succumb much sooner, and during the brief period of existence would suffer much from pain and discomfort. This operation, the author holds, is indicated: (1) In cases of stenosis of the terminal portion of the oesophagus, in which, by reason of contraction of the stomach, gastrostomy is impracticable; (2) in cases of gastric carcinoma in which a radical or a major palliative operation cannot be performed or is found to be contraindicated: (3) in cases of simple pyloric stricture and cicatricial contraction of the stomach, in which the patient is much exhausted or the stomach is extensively scarred and contracted; (4) in cases of gastric ulcer with frequent haemorrhages, in which medicinal treatment fails to do any good and death from inanition is threatened: (5) in cases of poisoning by caustic fluids, likely to prove fatal through inanition or rupture of the stomach, and also for the results of tissue destruction caused by such poisons when no other operation is practicable; (6) in instances of insuf-

ficiency of suture after operations on the stomach, the results of which insufficiency cannot be removed in any other way; and finally (7) when a radical or a major palliative operation has had no immediate or remote success. In statistical comparison of the results of jejunostomy and gastro-enterostomy Cackovie finds that the mortality from the operation itself is about the same in both, whilst the duration of life in cases in which the patient has recovered from the immediate results of surgical treatment is longer after the former operation. Hartmann (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 39, 1901) reports a case of extreme cicatricial contraction of the stomach caused by hydrochloric acid poisoning, in which, after median laparotomy, the first part of the duodenum was fixed to the external wound and opened. The primary results of this operation were satisfactory, duodenal alimentation having led to an improvement in the general condition of the patient and an increase of weight. Death occurred, however, two months later from suppuration of the stomach, in consequence, the author surmises, of the patient's taking food by the mouth. Duodenostomy, it is held, is not a difficult operation, the pylorus and upper part of the duodenum being so mobile that in most subjects this portion of the intestine can be readily brought into the abdominal wound. The author allows that jejunostomy is applicable to a wider range of cases, but suggests that duodenostomy may be substituted with advantage in a certain number of cases, as, for instance, in inoperable cancer involving the whole of the stomach, but leaving the duodenum free; also in pyloric stenosis caused by corrosive fluids when the whole stomach has been attacked, and when gastro-enterostomy is out of the question. The situation of the intestinal opening above the pancreatic and biliary ducts renders duodenostomy the better operation in cases which do not present any special contra-indication.

(156) Ligature of the Carotid Arteries for Malignant Growths.

AT the ninety-sixth annual meeting of the Medical Society of the State of New York held at Albany (New York *Med. News*, February 1st) on January 28th, 29th, and 30th, A. T. Bristow, of Brooklyn, stated that he had had clinical and surgical experience of 3 cases of inoperable tumours, malignant in character, in the neighbourhood of the throat, in which he tied the carotids in the hope of starving out the malignant neoplasms. In a recent case he tied off the external carotid itself and all of its branches except the submaxillary. This he occluded, in the manner suggested by Wyeth, by the injection of gelatine. No bad results followed, and the tumour at once began to decrease in size, and has given the patient very little discomfort since. In an ordinary thin person there is very little difficulty in reaching and tying off the arteries. In Bristow's last case, however, the patient was a stout man with a short neck, and the difficulties were extreme. The arteries were deep in the tissues and hard to get at. The bifurcation of the common carotid was much higher than usual, and the search for the branches very elusive. Only with great difficulty and very little satisfaction was the operation finally accomplished.

(157) Mechanical versus Suture Methods of Intestinal Approximation.

FRANK (*Ann. of Surg.*, No. 1, 1902) holds that with no other method of intestinal approximation can be obtained all the desired conditions in such ingenious combination as with the mechanical devices of the Murphy type. The chief advantages of such devices are, it is stated, (1) simplicity of application; (2) saving of time; (3) uniform coaptation of the peritoneal surfaces of the entire circumferences of the approximated ends; (4) prevention of bleeding at the seat of approximation; (5) a cicatrix that will not contract to a serious degree: (6) exact juxtaposition of histological structures; (7) minimizing of risk of infection, as no needle is used to carry infection from the intestinal canal into the peritoneal cavity. There is also a reduction of mortality. According to statistics with mechanical methods of the Murphy type, the mortality in gastro-enterostomy for non-malignant disease ranges from 2.5 to 14 per cent., in end-to-end union from 10.5 to 16 per cent.; and is only as high as 33 per cent. in malignant cases. With the suture methods the mortality ranges in gastro-enterostomy from 24.5 to 76.47 per cent., and in end-to-end approximation from 58 to 100 per cent.

(158) Secondary Hydatid Cysts of the Peritoneum.

MARTIN (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 2, 1902) reports a case in support of the disputed view that the peritoneum may become the seat of secondary hydatid cysts in consequence of rupture or leakage of a primary cyst in the liver. The patient, a man, aged 37, who had presented during ten years distinct symptoms of hydatid disease of the liver, in making a violent muscular effort, suddenly felt that something had given way in the upper part of his abdomen. This event was followed, after a brief interval, by acute pains in the back and epigastrium, by nausea and occasional vomiting, and by rapid emaciation. In the course of an operation for removal of the hydatid cyst, the author found indication of a rupture in a solution of the continuity of the proper cyst walls, which was covered simply by peritoneum and adherent viscera. On examination of the abdominal cavity the peritoneum both of the abdomen and the pelvis, and the surfaces of all the viscera and of the omentum and mesentery, were covered with hydatid cysts varying in size from that of a small nut to that of a hen's egg. Broca, in a report on this case, maintains that in opposition to the view that such direct extension of hydatid disease is a biological impossibility, the experience of Martin, together with the results of recent experimental research, prove that hydatid disease may be set up in the peritoneum by direct contact of this membrane with the discharged contents of a hepatic cyst.

MIDWIFERY AND DISEASES OF WOMEN.

(159) The Surgery of Rupture of the Uterus.

TÖRNGREN (*Centralbl. f. Gynäk.*, No. 1, 1902) relates two cases where he operated by different methods for spontaneous rupture of the uterus during delivery. The first patient was 41 and in her seventh pregnancy; two labours had been instrumental. Labour set in at term; it seems to have been mismanaged. Sudden pain and cessation of the uterine contractions occurred fifteen hours after the beginning of labour and about six or seven after rupture of the membranes. Next morning the abdomen was much distended, and the fetal breech could plainly be felt under the parietes. A catheter was passed into the bladder, blood came away, and the tip of the instrument could be felt in the upper part of the vagina. Basiotripsy was practised. As the head was pushed a little up above the brim a considerable amount of blood escaped. The child was easily extracted: the placenta lay in the peritoneal cavity to the right of the uterus. There was a T-shaped laceration, running across the front of the lower segment, with a long vertical prolongation involving the vesico-vaginal wall very extensively. The hand could be passed through this enormous rent into both the peritoneal and the vesical cavities. The transverse as well as the vertical rent was closed by suture from the vaginal side. The abdomen was opened on account of the damage to the bladder. The transverse rent, 3½ in. long, extended into the right broad ligament, and much clot lay between its layers. A piece of sloughy tissue was trimmed away from the torn muscular wall of the uterus; there was fetid air in the peritoneal cavity. The rent in the bladder and muscular coat of the uterus and the torn peritoneum above the part already sewn up from below were united with catgut. Blood and sanious fluid were removed from the peritoneal cavity, and the abdominal wound was closed without drainage. The patient died within twenty-four hours; clot was found in the peritoneal cavity. The second case was in a woman aged 43, pregnant for the twelfth time, and with extreme pendulousness of the abdomen. The pelvis seemed fairly capacious, but the child's head was very large. As the head was badly placed turning was practised. The head could be easily pushed aside, but the operator's left hand proving awkward the right was introduced, then the foot was drawn down. A transverse rupture in the inferior segment was detected during this manipulation, and the fetal head protruded through it. The child (who died in two hours of intracranial

haemorrhage) was extracted and the placenta followed. About seven hours later Törngren opened the abdomen. There was much subperitoneal haemorrhage, even behind the parietes, detaching the peritoneum. The appendages, very vascular, were tied off, a posterior peritoneal flap made on the lower part of the uterus, and then that organ was amputated through its lower segment at the level of the rent, which was 4 in. in length. The peritoneal flap was sewn to the anterior peritoneal coat of the uterus. A piece of iodoform gauze was passed into the lower end of the wound under the detached peritoneum as far as the uterine stump. This extra-peritoneal drainage answered well. The patient made a good recovery.

(160) Entrance of Air into the Veins of the Puerperal Uterus.

F. SENGLER (*Münch. med. Woch.*, February 4th, 1902) reports a case of death from so-called air embolism in parturition. The patient was a 6-para, 42 years old, and gave the history that all her confinements had been in some respects abnormal. The pelvis was a flattened rickety pelvis. She was admitted into hospital (lying-in ward) for her confinement. The fetus presented by the second face presentation. After seventeen hours, during which time the pains were strong, the baby was born, without help, and weighed about 6 lb. The placenta did not follow. After three hours expression was resorted to, both without and with anaesthesia, but to no effect. Haemorrhage became more profuse, and the uterus was found to be atonic. The placenta was, therefore, manually detached. The uterus was douched with a 1 per cent. solution of lycol at 104° F. The haemorrhage continued, and the uterus remained flaccid. Two ergotin injections were given, and, later, an intravenous injection of saline fluid. She became suddenly worse, was restless and dyspnoeic, and the pulse became barely perceptible. The haemorrhage continued, and to arrest this the uterus was plugged with iodoform gauze. In spite of camphor, ether, champagne, etc., she died half an hour after the delivery of the placenta. *Post mortem*, the heart was found to contain frothy blood. The vessels were ligatured before it was removed, and under the touch of the finger it could be recognized that it contained fluid and air. It was tympanitic on percussion. The veins also contained frothy dark blood. The liver was enlarged, and the blood contained in it dark but not frothy. Sengler carefully argues from the result that death must have been due to the entrance of air into the placental spaces, and thence into the veins and right side of the heart.

(161) Hysterical Contraction of the Gravid Uterus.

GUILLERMIN (*L'Obstétrique*, January 15th, 1902) reports the case of a primipara who received a shock, causing great fear, during the fourth pregnancy. Violent abdominal pains set in. The uterus was in a state of tonic contraction, feeling as hard as wood at times the gentlest palpation caused severe pain. The cervix was closed, and there was no vaginal discharge. Threatened abortion was diagnosed, but though opium was given in enemata and morphine hypodermically the pains persisted for several days. Then a neurosis was suspected, and distinct evidence of hysteria was obtained. Tepid baths, bromides, and valerian proved of temporary benefit only. Hypnotic suggestion was at length practised, and the uterine contraction vanished at the first sitting. Under the influence of slight emotion it returned a few days later, but was promptly stopped by a second suggestion. Then there was no further recurrence of the symptom, and four months later the patient gave birth to a healthy male child weighing over 7¾ lb.

(162) Primary Cancer of the Fallopian Tube.

HANNECART (*Journ. de Chir. et Ann. de la Soc. Belge. de Chir.*, No. 7, 1901), reports a case in a multipara, aged 57, the menopause was as late as 55. For one year she felt stabbing pains in the hypogastrium and purulent discharge gave her trouble, which became free and bloody. The general health suffered. A firm, irregular, almost fixed tumour as big as a child's head could be felt to the left and at the level of the fundus of the uterus. It adhered to the peritoneum and great omentum and was successfully removed, the patient recovered. The disease was papillary cancer of the left tube.

THERAPEUTICS.

(163) The Treatment of Cutaneous Epitheliomata.

CHARLES W. ALLEN (New York *Med. Journ.*, November 9th, 1901) says superficial caustics cannot be too strongly condemned in the treatment of cutaneous epitheliomata. A caustic should be chosen which possesses a certain affinity for the structure to be destroyed and which penetrates deeply, following downward the epithelial prolongations. Such a caustic, he believes, we possess in arsenious acid. Sherwell and others allege for the acid nitrate of mercury a 50 per cent. solution this same elective activity in destroying epithelial neoplasms beyond the sphere of its escharotic action. Allen's experience with this acid in epithelioma has been limited, and so far his preference has been for the arsenic. The plan of action which he usually pursues comprises features of several methods which have at different times been advocated by others, and some of his own device. Taking, for example, the ordinary form of epithelioma on the face, the treatment will vary somewhat according to the stage at which it comes under observation, the dimensions it has acquired, and the parts involved. Almost always the border is first to be curetted with the smallest instrument which will do the work. The tissue is peculiarly soft and readily breaks down under the sharp spoon so that the scraping-out process can be done quickly and with surprisingly little pain. If the patient is one who comes for this form of treatment, as many do, because they dread cutting operations, he usually says nothing about what he is doing, and they never look upon it as a surgical procedure. This curettage prepares the way for the quicker and better action of the caustic paste. If the centre is an ulcer covered with a crust, the latter is removed. If the cancerous proliferation projects above the skin level, it can be scraped out in the same manner or not, as the case may be. While the oozing of blood is being checked by pressure, the paste is made as follows: Equal parts, by weight, of arsenious acid and orthoform or, approximately, one part by bulk of white arsenic to two or three parts of orthoform are mixed with just enough water to form a paste of the consistence of butter. This he packs into the peripheral furrow made by the curette, seeing that it penetrates well beneath the skin, if, as often happens, the scraping has caused an undermining. Then, unless the area is too large, that is, much over an inch in diameter, he fills the ulcer cavity level with the skin or, if there is no cavity, places a thick layer of paste over the part to be destroyed. He then spreads a thinner layer upon compressed lint, linen, or cheese-cloth large enough to extend over the surrounding skin for some distance beyond the sore. This varies with the size of the epithelioma, the surrounding induration, the presence of enlarged vessels, the altered appearance of the skin's surface, and other evidences of the penetration of the process beyond the points at which the soft new growth appears to stop. Before applying this outer layer of paste he paints a ring half an inch wide, or wider if there is room, with methylene blue in collodion, to surround the field of operation and protect the skin from irritation. Upon this ring he fastens down the margins of the dressing with several layers of the same paint. If the cancer is one near the eye, and especially if it involves the greater canthus, he seals up the eye with several layers of the blue collodion, over which he places plenty of absorbent cotton, and again several layers of plain collodion. In this way he has been able to eat out the involved skin and deeper tissues to the ciliary border of the lid and at the canthus to the very eye itself without damage to this organ. The reason for employing orthoform to replace the acacia of the Marsden paste is that it relieves to a large degree the pain, and takes away one of the chief objections to the method. Waiving any claim to priority in the use of orthoform in cancer, he has independently found that orthoform in paste form modifies the pain in a decided manner, though it occasionally produces a localized dermatitis, but more especially so when used by itself as an after-dressing. In extensive and deeply-penetrating cancer he at times applies as an after-dressing arsenic in solution varying

from ½ to 1 per cent., at times in association with 3 per cent. strength of methylene blue, which he has long regarded as an excellent dressing for strictly inoperable cases, producing a certain analgesic effect and retarding growth. Although the alcohol in the Czerny-Trunecek solution (R powdered arsenious acid, 1 part; absolute alcohol, 75 parts; distilled water, 75 parts) is in itself somewhat painful, it seems to have the valuable property of dehydrating the epithelial cells so that the arsenic can act more promptly in coagulating their protoplasm. In certain cases of epithelioma of the tip of the nose he has employed the Czerny-Trunecek method after thoroughly curetting, using the 1 in 50 solution subsequently after a thick crust had formed. One chief objection to the method is its long duration. Formerly he employed more than now the Bougard paste, consisting of wheat flour, 60 parts; starch, 60 parts; arsenious acid, 1 part; cinnabar, 5 parts; chloride of ammonium, 5 parts; corrosive sublimate, 0.50 part; solution of zinc chloride, at 52°, 450 parts. The zinc chloride attacks healthy as well as diseased tissue, so that it is best used only where a definite area of sloughing is sought for in situations where there are no large vessels which might be eaten into and cause severe haemorrhage. Also upon such parts as the forehead, where the periosteum and bone lie so close beneath the skin, and, although not involved by the disease, might be acted upon by the zinc, the arsenic alone is better. The duration of the application must vary with circumstances, but should usually be inverse to the strength of the paste. The weaker paste he often leaves on twenty-four hours. If it is desirable on account of deep involvement of parts to make the paste of double arsenical strength, the effect should be observed at the end of eight or ten hours, then continued or not up to twice this length of time. Allen thinks the *x* ray as a means of treatment bids fair to prove quite as effective as caustic applications.

(164) Puro.

L. FÜRST (*Therap. Monats.*, January, 1902) finds that a nutrient preparation which is very rich in albumen may be less valuable than one which combines a moderate percentage of albumen with phosphatic and other salts. In puro he believes that one has a preparation which is valuable as a nutrient (9 to 10 per cent. nitrogen), and at the same time acts as a means of stimulation to the absorption from the digestive tract. Puro is prepared from meat by pressure *in vacuo*, and has the consistence of a syrup. It contains 19 per cent. of bases and 10 per cent. of salts. He reports the trials to which he put the preparation, and concludes that (1) it is well stood by children of all ages, from 8 months onwards; (2) in each case a considerable increase of weight was noted after its use, which he ascribed partly to the albumen and partly to the increased resorbability due to the bases and salts; (3) the general condition was markedly improved in those cases where the little patients were not weighed; (4) subjective and objective improvement followed its use in atony, general weakness, apathy, and psychical depression; (5) chronic conditions—for example, rickets, suspected infiltration of the lungs, infiltration of the glands, respiratory catarrh, neuropathic conditions, cardiac disease, etc.—were not cured, but the general condition of the patients benefited much by the use of puro; (6) in gastric ulcer it proved non-irritant, and indirectly favoured the healing; (7) a marked beneficial influence was seen in chlorotic and anaemic conditions; (8) it proved exceptionally useful in atony of the stomach, anorexia, and dyspepsia; (9) it acted promptly in covering the tissue loss after severe haemorrhage in adults; and (10) it is a valuable means of carrying out rectal feeding, and is non-irritant to the rectum.

(165) Thymus Gland in Rickets.

MENDEL (*Münch. med. Woch.*, January 28th, 1902) quotes Friedleben to show that the function of the thymus gland is intimately associated with a proper development and growth of bone. The symptoms of rickets are in part due to a disturbance of the function of the thymus, and its existence depends on the latter. He points out that the enlargement of the spleen in rickets may be regarded as a vicarious hypertrophy. During the last five years he treated over 100 cases of rickets with thymus. At first he used fresh gland, minced and given as a thick soup, in doses of as many grams as the child was months old. Later he used tabloids. In no case did he meet with any untoward effects of the gland, and he believes it to be absolutely harmless. The symptoms, including the early anaemia, sweating, and restlessness, the bone changes, the nervous symptoms—for example, spasm of the glottis and the splenic enlargement—all gradually diminished and eventually disappeared. The treatment had mostly to be continued for some months, but less energetic treatment rapidly produced an arrest of the disease. He describes the beneficial effects in glowing language.

PATHOLOGY.

(166) Osteotabes Infantum and Rickets.

ACCORDING to Ziegler (*Centralb. f. allgem. Path.*, November 1st, 1901) the distinctions between osteotabes infantum and rickets have not been thoroughly appreciated. From the histological standpoint many things are still uncertain. In bone marrow two distinct tissues are to be noted: the "lymphoid" tissue, or, as Zeigler prefers to call it, "splenoid"; and the fine fibrocellular tissue covering the bony trabeculae, which is a kind of inner periosteum or endosteum, and has to do with the production of blood cells. Osteotabes begins with the destruction of the cells of the splenoid bone marrow; as is the case with rickets, it predominates in the first two years of life. The marrow completely disappears in parts, and in its places remains a soft gelatinous tissue. Later, the spongy bone also diminishes, and lastly also the compact. The condition is one, therefore, of bone degeneration commencing in the marrow. Ziegler believes that the disease is identical with Barlow's disease; of subperiosteal and endosteal haemorrhages he has only seen the latter. The so-called rachitic craniotabes he believes belongs really to this osteotabes infantum. In rickets the inner and outer periosteum are the parts affected; the marrow does not degenerate. In rickets also, in the diaphysis and its extremities, there is a characteristic development of osteoid tissue. The cause of rickets is not, according to Ziegler, to be sought in a deficiency in the calcium salts, it is rather primarily, a disease of the outer and inner periosteum. It is also a different disease from osteotabes. Ziegler has no evidence as to whether both conditions occur together.

(167) The Influence of Mucidine on the Diphtheria Bacillus and its Toxin.

FERNAND ARLOING (*Lyon Méd.*, January 19th, 1902) has recently investigated the action of mucidine—a solution of the mucus of red snails—upon the bacillus of Loeffler. Increasing quantities of mucidine (⅓, ½, 1, and 3 c.cm.) were successively mixed with ¾ c.cm. of a 24-hours bouillon culture of Loeffler's bacillus—a dose sufficient to kill a guinea-pig weighing 450 grams in thirty-six hours. When the mixture was made immediately before the injection no modification of virulence was observed. The cultures and the varying quantities of mucidine were next left in contact for four hours before injection. The two animals, who received ¾ and 1 c.cm. of mucidine respectively, died more slowly than those used in the control experiments, while the two who were inoculated with the larger doses were alive twenty-five days afterwards. Where 5 c.cm. of mucidine were used and the mixture was allowed to stand for eight hours before injection no effect resulted except a chronic oedema at the point of insertion of the needle. Mucidine mixed with the toxin instead of the bacilli had absolutely no effect upon the virulence, however long the mixture had been allowed to stand before its inoculation. After mucidine had been filtered through porcelain, the bacilli mixed with it would not grow even after a prolonged period in the stove. Nor would they grow upon a mixture of ⅔ filtered mucidine with ⅓ bouillon, but with mixtures of equal parts slow growth occurred, and with ⅔ bouillon to ⅓ filtered mucidine no dystrophic action resulted, as shown by the virulence when injected into a guinea-pig after twenty-four hours culture. Mucidine seems, then, to possess a bactericidal but no antitoxic action, and was found to have no bactericidal action until the contact had lasted for at least half an hour to an hour.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(168) Paralysis in Whooping-Cough.

Valentin (*Thèse de Paris*, 1901) records the results of a careful investigation into this condition. Paralyses in whooping-cough are rare, though Sydenham noted that children have difficulty in walking after attacks of pertussis. They affect children, especially between the ages of two and six years inclusive. In a previous *thèse* by Horveno (Epitome, November 4th, 1899, Par. 349) out of 46 cases of paralysis from whooping-cough collected from literature 37 were of cerebral origin. Out of Valentin's 83 collected cases of paralysis 62 were of cerebral origin. The following are the general conclusions reached: (*a*) Of these 62 cases of cerebral paralyses, 40 were cases of hemiplegia (right-sided in 21, left-sided in 15, and not stated in 4), 16 were cases of monoplegia, affecting function of arm, face, leg, speech, or sight, and the rest were paraplegias; (*b*) portal, bulbar, and spinal paralyses were rare, only 4 cases being found; (*c*) as regards age, in 58 out 62 cases the age varied from 1 to 12 years; the largest proportion of paralyses occurred between the second and sixth years; paralyses resulted more frequently in girls than in boys, but no explanation of this could be offered; (*d*) the psychoses (rare) produced by pertussis were delirium and hallucinations, apathy, and imbecility from obscure cerebral lesions, probably of a haemorrhagic and inflammatory nature combined; (*e*) hysterical, epileptiform, and choreiform attacks also resulted; (*f*) the convulsive attacks produced by whooping-cough included eclampsia, cramps, and spasm of the glottis; (*g*) sensory troubles included blindness, deafness, and anaesthesia; (*h*) very rarely disseminated sclerosis and Friedreich's disease followed whooping cough; (*i*) necropsies showed that the cerebro-spinal lesions were small haemorrhages and softenings, produced as the result of violent congestions and increased blood pressure. The prognosis was grave, as only 40 per cent. of the paralyses were recovered from.

(169) Myiasis Intestinalis.

At a meeting of the Vienna Society of Internal Medicine on December 12th, 1901, London (Carlsbad) related two cases observed by himself which up till then he had been prevented from publishing. In 1870-1873, during which he occupied the position of Chief Medical Officer to the Hospital in Jerusalem, under the protection of the Austro-Hungarian Government, he had the opportunity of observing a large number of cases, which presented very much the character of dysentery but in which the symptoms did not always correspond with the standard clinical descriptions of that disease, and in which an extreme obstinacy was a characteristic of the course they pursued. When in 1872, Frerichs, during his travels in the East, came to Jerusalem and visited the hospital, London seized the opportunity of seeking his advice with regard to one of these cases, which happened to be then under his care. The case was that of a priest aged about 30, who was suffering from symptoms presenting all the characteristics of dysentery. These symptoms were obstinate, and did not yield to the usual treatment by laxatives, astringents, quinine, etc. London calls attention to the fact that endemic malaria in Jerusalem presented frequently in its course the characters of enteritis, and, therefore, obstinate cases of so-called dysentery were in such circumstances successfully treated by quinine alone. In this case, however, even this had failed to give relief. Frerichs advised London carefully to examine the dejecta once again, not merely with the naked eye but with the microscope. Frerichs was of opinion that here one had to do with a parasitic disease, perhaps with ankylostoma duodenale, or with other entozoa or their ova. Such cases as these he had met with in the East. He himself undertook the examination in this case, and to London's astonishment he found principally dipterous maggots (larvae), and some larvae of the musca vomitoria (common bluebottle fly). He ordered calomel with santonin, which resulted in the expulsion in the dejecta of large masses of larvae, and in the complete recovery of the patient. Two years later London found larvae in the stools of a cavalry officer of the Turkish garrison in Jerusalem suffering from symptoms of a like dysenteric type. London not being an experienced zoologist consulted the then chief medical officer of the French Hospital so as to determine more definitely the nature of the parasite in question. On careful examination with the microscope he found the maggots to be those of a diptera of the genus, *Anthomya*. Professor Brauer, Director of the Imperial and Royal Court Museum of Natural History, and Professor Csokor at the Imperial and Royal Veterinary Institute, both of Vienna, to whom London described this case and the parasites, both agreed in recognizing them as the larvae of homalomya scalaris. The medical officer of the French Hospital in Jerusalem informed London that since commencing his work in the East some years before he had seen several cases of myiasis occasioned by musca domestica and musca vomitoria, but that he had seen only once in the case of a fellah (peasant) in Bethlehem, which ought to have ended fatally. The officer, aged between 40 and 50, was supposed to have suffered for several months from this disease. He had again and again tried castor oil and laudanum, and, finally, also quinine. When London began to attend him he was greatly reduced in strength. By means of calomel and santonin some quantities of maggots were got rid of, but the patient died of gradual jnanition. No necropsy could be made as the patient was a Mohammedan. With regard to the etiology, London stated that malaria as an epidemic commences in Jerusalem towards the end of summer, like intermittent, remittent, and pernicious fever, dysentery, and occasionally abscess of the liver, and their occurrence coincides with the time when the water in the cisterns is at its lowest. In Jerusalem the inhabitants drink only the rain-water which falls during the winter, and is gathered into cisterns, as the inhabitants of the whole surrounding district have neither spring nor river water. As long as the cisterns remain full the health of the population is comparatively satisfactory. But as soon as the water begins to dry up and the cisterns as well as the ponds present a surface like that of puddles and marshes, the fever and dysentery curve rises sharply. Brauer had received specimens sent to him by London of these parasites found in the cisterns and ponds, and had contributed articles on this subject to the Reports of the Royal Academy of Science. In Jerusalem during the same season, when the cisterns became dry, the endemic mosquitos and other diptera were in the habit of swarming. The close connexion between mosquitos and the production of malaria was now known, and it was also known that a whole collection of diptera, especially *Muscidae* and *Oestridae*, could gain access to the intestinal tract of various domestic animals, and also into that of man, and that this was in direct relation with the season for the swarming of these diptera. Although the swarming time coincided in Jerusalem with the period of least water, it did not necessarily follow that the drinking water was the only source of infection. The local customs of the country materially helped its diffusion in many ways. The population was in general not cleanly, and was not careful as to the quality of their nourishments. They fed on meat, sea fish, cheese, and other articles of food which were often exposed, quite unprotected, to contamination and pollution by flies. They also indulged freely in raw fruit, such as dates, figs, bananas, etc., and in raw vegetables, such as cauliflowers, mushrooms, tomatos, etc., which were known to be hotbeds of breeding places for the development of diptera. London added that if the numbers of cases that had come under his notice might appear to have been few in number, in spite of the favourable conditions for infection, it must be assumed that the diptera themselves either only very rarely could penetrate into the human intestinal tract, or, as he thought more probable, most of those that did penetrate were destroyed by the digestive secretions.

(170) Tuberculosis of the Tonsil.

Labbé and Levy-Sirugue (*Centralbl. f. allgem. Path.*, November 15th, 1901) distinguished three different forms of tonsillar tuberculosis: (1) Irregular superficial ulceration, without atypical

tuberculous course, but in which the discovery of large numbers of the bacillus shows the condition to be tuberculous; (2) the usual type under the form of numerous tubercles with giant cells and caseation; the bacilli in these cases are scanty and difficult to stain; (3) diffuse tuberculous infiltration, characterized by epithelioid cells and numerous bacilli. These conditions are not infrequently combined. With tuberculosis elsewhere the tonsils often show histological peculiarities in the absence of bacilli; round cell nodules, epithelioid cells, scelerosis, which point to an earlier tuberculosis of this organ subsequently healed.

SURGERY.

(171) Brain Tumour Localized by Means of the Roentgen Rays.

AT the February meeting of the Philadelphia College of Physicians (New York *Med. News*, February 15th, 1902), Charles K. Mills and G. E. Pfahler presented a communication which included the report of a case of brain tumour localized clinically and by the Roentgen rays. The clinical diagnosis of a subcortical tumour mainly in the parietal region and extending to the internal capsule was made. Pfahler made skiagraphs of the patient and obtained a shadow which exactly confirmed the clinical localization of the tumour. Operation was followed shortly by death. The necropsy revealed a large fibro-sarcoma in the situation above-mentioned, only a portion of the tumour having been removed at the time of operation. Experiments upon cadavers were then made by Pfahler, the results being extremely satisfactory. Tumours of various sorts were placed within fresh brain substance or brain that had been hardened and after closing the skull skiagraphs were made. The conclusions reached after several series of experiments were as follows: (1) Fibrosarcomata and perhaps other tumours can be photographed in the living subject and their location shown. (2) Other varieties of tumours can be photographed in their most usual locations. (3) Other abnormalities in brain tissue itself can be photographed. This may in certain cases be of value in diagnosing cysts, haemorrhages, etc. (4) The most careful technique and regard for the special conditions in each case must be observed. (5) Shadows obtained in normal portions of the brains studied show that the utmost care in interpreting any shadow obtained is necessary.

(172) Suprapubic Cystoscopy.

KRASKE (*Centralbl. f. Chir.* No. 6, 1902) states that he has recently had two opportunities of making a cystoscopic examination of the bladder through a suprapubic fistula established by ordinary high cystotomy performed in one patient for the removal of a myoma from the posterior wall of the bladder in the other for prostatic retention. The results of this novel method of vesical examination in these two cases, in both of which urethral cystoscopy was impracticable, proved very satisfactory, and the author was so impressed by the facilities thus afforded of gaining a clear and extensive view of the inner surface of the bladder, especially of the fundus and the prostatic portion, that he has been led to advocate a systematic practice of suprapubic cystoscopy, and to devise means for applying it in cases in which the bladder is still intact. This method of cystoscopy, he holds, has certainly many advantages. It permits a good examination of the vesical orifice in cases of prostatic hypertrophy, and affords a clear view of the configuration and extent of the enlarged prostate. Without a clear idea of the condition and size of the hypertrophied gland, and of the mechanism by which micturition is impeded or altogether prevented, the surgeon cannot with full confidence perform Bottini's operation, which, in the author's opinion, is the best method of dealing surgically with prostatic hypertrophy. This operation can thus be performed under the control of the surgeon's eye with more efficiency and safety, and with regard to operations in the interior of the bladder it is evident that the intravesical manipulations can be made more freely and readily when they are controlled by a cystoscope that is unattached to the surgical instrument. There are several methods by which suprapubic cystoscopy may be carried into practice. A fistula established by ordinary puncture of the bladder may be dilated by a laminaria tent, or the cystoscope may be passed at the time of the original puncture through the cannula of a large trocar. The simplest method, the author thinks, is that of using an instrument devised by himself, which consists of a straight cystoscope which is pointed at the end like a trocar, and so makes its own puncture.

(173) The Treatment of Corns.

FREELAND (*Edin. Med. Journ.*, November, 1901) holds that in dealing with corns palliative measures have the common defect that they leave the stratum mucosum—the living, growing layer of the corn—untouched, and that any method of treatment to be curative must ensure the removal of the entire corn, together with any underlying bursa. The author has for some time past practised the full and complete excision of corns, and reports very favourably of the results of such treatment. The skin around the corn having been rendered insensitive by ethyl chloride, and a 5 per cent. solution of cocaine injected into the subcutaneous parts, two hemi-elliptical incisions meeting at their extremities are made through the skin around the circumference of the growth, care being taken that they penetrate well into the subcutaneous tissue. The corn is then dissected out, and the edges of the wound are brought together by one or two fine sutures. It is stated that the chief advantages to be derived from the complete excision of corns are that as a method of treatment it is safe, speedy, and painless, while the results with regard to cure are permanent.

(174) The Treatment of Anal Fissure.

GUSSENBAUER (*Wien. klin. Woch.*, January 9th, 1902) advocates the treatment of anal fissure by stretching the sphincter as being superior to all other methods. Incision, especially if combined with complete division of the sphincter, is a serious operation, in which considerable haemorrhage is unavoidable and there is danger of septic infection. Spasmodic contractions of the sphincter ani are not always removed by simple incision of the fissure, even when prolonged into the submucous tissue and the superficial layers of the muscle. The same applies to cauterization whether or not combined with incision. These measures are painful and if not successful merely prolong the torture. Stretching the sphincter, on the other hand, cures the fissure and the spasm simultaneously within a few days, or at most a week, even in the most obstinate cases. Under deep anaesthesia the two first fingers should be introduced one after the other into the rectum. The fingers are then pulled in opposite directions until the spartically contracted sphincter is so stretched that it remains relaxed for some time. The fissure is unavoidably stretched, but the haemorrhage is usually slight and most often absent. The anus and rectum are irrigated with a salicylic acid lotion and the fissure is covered with iodoform, or plugged with iodoform or dermatol gauze. A dry dressing is placed over all. Pain is present for one or two hours after consciousness is regained, it then ceases entirely and finally, and defaecation is perfectly painless. The fissure heals according to its extent in from a few days to a fortnight. If the fissure is complicated by haemorrhoids, polypoid granulations, or fistula in ano they should receive appropriate treatment by the cautery or otherwise. In such cases the after-treatment is naturally more prolonged. Continence of faeces is invariably regained within a few days. The anaesthesia should be deep since even after the disappearance of the corneal reflex stretching the sphincter may produce sudden spasm of the glottis. Local anaesthesia of the mucous membrane is useless.

MIDWIFERY AND DISEASES OF WOMEN.

(175) Sudden Death in Childbed.

THIS subject was discussed last year at a meeting of the Obstetrical Society of Cologne. Twelve cases occurred in 10,334 labours conducted from 1888 to 1899 inclusive, by the Midwives' Institute in the Rhine City, making a percentage of 0.11. In 2 of the 12 the death was due to pulmonary embolism, a proportion lower than might have been expected. Schiffer (*Monats. f. Geburts u. Gynäk.*, February, 1902, p. 230) related a distinct case of air embolism. The patient, aged 40, terminated her fifteenth

pregnancy spontaneously at the seventh month, after much flooding. The placenta was detached manually. There was atony of the uterus which could not be controlled by ergotin and intra-uterine injections, so the tampon was applied to the uterine cavity. As anaemia was acute autotransfusion of artificial serum was practised. Death occurred suddenly one hour later after restlessness, dyspnoea, and cyanosis. Soon after death the necropsy was undertaken; after tying of the great vessels the heart was removed and carefully opened under water. Bubbles of air escaped when an incision was made into the right side of the heart: the left ventricle was fairly contracted, and contained a little fluid, very pale, and slightly yellow blood. The vena cava inferior contained pale reddish-brown blood full of bubbles. Air was also found in the pelvic veins. The presence of air in the veins is particularly dangerous where acute anaemia exists.

(176) Localized Oedema in Puerperal Infection.

BUDIN (*Bull. de la Soc. d'Obstét. de Paris*, January 16th, 1901) dwells on the frequency of irregular and localized oedema appearing on different parts of the body some time after the advent of puerperal sepsis. The chief importance about this condition seems that it is frequent in the lower extremities, and then may be taken for phlegmasia dolens, though there is no plugging of veins nor deep general oedema of the lower extremity. Budin describes a case where rigors occurred on the fourth day of the puerperium, and the curette was used. In three weeks the right foot became oedematous, and then then the right thigh; the swelling disappeared from the right lower extremity in a very irregular manner. On the fourth week the left foot became swollen; by a week later both feet as well as the legs and thighs were free from swelling, and the patient soon recovered. Perret related in 1901 a case where oedema of the lower extremities commenced just one calendar month after delivery, where septic infection had occurred. The oedema disappeared in a few days. As in Budin's case there was no pain such as is seen in phlegmasia dolens, Budin himself attended a bad case of *post-partum* haemorrhage in a lady who was already reduced by bleeding during labour. Oedema of the lower extremities set in at the end of three weeks. Phlegmasia was suspected, but there was no pain, and the swollen limbs, as in the other cases, could be moved. Budin further dwelt on one instance of this puerperal oedema where deep abscess was suspected. Marked oedema developed in the lower part of the abdomen on the left side and in the upper part of the left thigh in the third week. The patient had suffered from grave septic symptoms during the first few days after labour. Suppuration was suspected, but there was no trace of parametritic exudation, so no operation was performed. The oedema disappeared in a few days, not even an incision had been necessary. Yet the general infection was bad, and the patient, apparently convalescent, died suddenly. Budin concluded with detailing a case where the patient was the wife of a colleague. Oedema in the left groin and thigh occurred some days after the removal of a piece of adherent placenta. The septic symptoms caused by the retained tissue disappeared, yet in a few days the oedema set in. Several colleagues met in consultation, and one, a surgeon, insisted that a pelvic abscess existed needing immediate operation. Bouilly, Landouzy, Maygrier, and Budin, who denied that abscess existed, were called in consultation with the surgeon, but operation was declined. A few days later the oedema had vanished and the patient recovered completely. This case occurred in 1892. Boissard, Maygrier, and Bar joined in an instructive discussion which followed the reading of Budin's paper.

(177) Hysterectomy for Infection from Putrid Fetus.

DEMELIN AND JEANNIN *Bull. de la Soc. d'Obstét. de Paris*, Nos. 5 and 6, 1901) report a case of an eighth labour at term. The patient was 37 years old. The fetus had been dead for some time when extracted, the breech presented, but the neck was torn through during extraction; then the head was delivered with forceps. Much fetid gas and putrid fluid came away; the placenta was decomposed, and after its extraction the uterus was washed out with oxygenated water. On the second day the patient suffered from a rigor, and on the third and fourth more rigors occurred, with bilious vomiting, notwithstanding free curetting after the first attack. Hysterectomy was therefore performed after thorough disinfection of the parts, cleansing of the vagina, and use of the curette. A peritoneal flap was made on the anterior surface of the uterus, which was amputated above the cervix. Catgut ligatures were employed. A strand of gauze was passed from above downwards into the vaginal canal. The gauze was removed on the second day and replaced by a big drainage tube, which did not act well for two days. On the fourth day fever and high pulse abated. On the ninth day the temperature rose; the cause was a stitch abscess in the abdominal wound and a bedsore. Ultimately recovery was perfect.

THERAPEUTICS.

(178) Parachlorphenol and Menthosal in Laryngeal Phthisis.

A. LOGUCKI (*Therap. Monats.*, January, 1902), reports his experience of the treatment of laryngeal phthisis with parachlorphenol. The drug is dissolved in glycerine, making solutions of 5 per cent. and 10 per cent. For inhalations, ½ to ¾ per cent. solutions are used. The number of patients treated was 21, 19 of whom showed tuberculous disease of the larynx. He appends a short clinical summary of each case. In 8 cases "more or less distinct improvement" took place, while in the others, the most that can be said for the treatment is that a slight subjective improvement occasionally was noted. Mostly, the patients complained of a sensation of burning after the larynx was painted, but the laryngeal pain very soon was relieved and swallowing was rendered more easy. The larynges were seen to become paler, and slightly oedematous after each application, and ulcerative patches were rapidly covered over by a whitish deposit. Small exudations on the epiglottis and posterior wall quickly decreased in size, but larger ulcerations showed little disposition toward healing. There was improvement of the local condition even in cases of extensive disease, when this was accompanied by fair general condition, but when there was widespread trouble in the lungs, especially in cases with marked fever, no such improvement was seen. Logucki considers that the results justify a continued use of the drug, especially in early cases. Owing to the unpleasant taste and smell, however, he found that some patients refused to be treated by it. In its stead, he points out that a mixture of parachlorphenol and menthol may be applied, either by painting, by damping, or by inhalating. The mixture is called menthosol, and is said to be endowed with the same local effects as the original drug. It is used in 5, 10, and 15 per cent. solutions. It has no objectionable taste or smell, and is well borne by the patients. This mixture, he says, is worthy of an extensive trial.

(179) Tropococaine Analgesia.

BIER'S discovery of the injection of cocaine into the spinal meninges to produce analgesia has met with but little favour, on account of the disagreeable and dangerous concomitant symptoms. Eucaine and eucaine β were also found to be unsatisfactory. Following up this line of experiment K. Schwarz (*Münch. med. Woch.*, January 28th, 1902) has used injections of tropococaine in 100 cases and reports. He usually employs a solution of 0.05 gram. (gr. ¾) in 1 c.cm. (17 minims) of water, and carries out the injection with a syringe, having a needle with a short point. A few drops of cerebro-spinal fluid are allowed to escape, after the needle is inserted between the fourth and fifth lumbar vertebrae, the patient being in a sitting position, bending well forward. There appears to be no reason why the injection should not be rapidly completed. The patient is then placed in a lying position, with the pelvis well raised, for ten minutes, and then it will be found that the analgesia has developed, and will last from one to two hours. The height of the analgesia varies, but Schwarz succeeded in amputating a breast and clearing out the axilla, and in dissecting out lymphatic glands from the neck painlessly. The list of operations is a fairly representative one of those usually performed on the lower extremities, abdomen, and

thorax. He reports that at first one sees a slight degree of pallor, or even mild cyanosis, but neither were observed in any of the 100 cases in severity as is seen with spinal injections of cocaine. The pulse-rate is generally slowed down. In 2 cases only did he meet with vomiting. In 11 cases, there was headache, but in no case was it very intense. The temperature rose in some cases to about 100.8°, but never higher in aseptic operations. With cocaine injections, 104° is not uncommon. In conclusion Schwarz says that tropococaine is not a harmless drug (in 2 cases he used larger quantities of fluid, with correspondingly severer effects), but that need not be expected of a drug, which is to remove the pain of an operation. The analgesia is complete up to the level of the umbilicus if injected as he advises, and the biggest operations may be performed without producing pain. He prefers tropococaine spinal injections to all other methods of anaesthesia.

(180) Bismutose.

A. Manasse (*Therap. Monats.*, January, 1902) speaks highly of a new bismuth preparation called bismutose. Although he finds tannigen and tannabin very useful as intestinal astringents, he regards the insolubility of both as a great drawback. Bismutose, however, lends itself better to administration to small children, inasmuch as it is readily emulsified in water and in dilute alkalies and acids. It is tasteless, and is not split up by the action of acid-pepsin solutions. He reports that it is always readily taken, either as an emulsion in water simply, or as such with the addition of tea, rice water, "albumen water," calves foot, or as enemata with starch. It is perfectly harmless. Tested in 23 cases, chiefly of cholera nostras, infantile (summer) diarrhoea, and gastro-enteritis, he found it rapid and certain in action. It acts by diminishing the peristaltic movements and limiting the secretion of the intestines. He employed it in doses of from 1 gram (15 gr.) for a 5½ weeks old baby, and 5 grams (given hourly) for an adult, or as an enema in doses of from 3 to 5 or more grams. He states that it is a cheaper preparation than the other astringents in general use.

(181) Toxic Dosage in the Treatment of [illegible].

At the recent annual meeting of the New York State Medical Society (*Boston Med. and Surg. Jour.*, February 13th, 1902) William C. Krauss, of Buffalo, read a paper on this subject. He said that failure in the treatment of nervous disorders often resulted from the use of small and inefficient doses. Thus, the dosage of bichloride of mercury was said to be 2 gr., but to be effective in brain syphilis it was necessary to give the drug hypodermically in doses of 1 gr. or 2 gr. a day. Again, the usual dosage of Fowler's solution was between 1 and 10 minims, yet he had obtained some surprisingly good results in chorea by increasing the dose to 30 or even 60 minims three times a day. In neuralgic and neuritic disorders nitroglycerine should be boldly pushed up to the point necessary to cause a cessation of the pain. This drug has proved in his hands especially satisfactory. If the large doses caused a throbbing headache, it could be easily relieved by the use of the bromides. H. R. Hopkins, of Buffalo, said that during the past year the mortality in severe cases of delirium tremens had been reduced from about 80 per cent. to less than 2 per cent. by first the abstraction of 1 or 2 pints of blood, and then the infusion of double this quantity of normal salt solution.

PATHOLOGY.

(182) The Pus and Blood in Variola.

In the course of an interesting paper on the diagnosis of variola (*Presse Méd.*, No. 12, February 8th), H. Roger, who has had good opportunities of studying the matter during the two years' epidemic in Paris (still going on at the rate of a few cases a week) gives the results of his microscopical examination of the pus and blood. He first refers to the contents of the small-pox pustule. In this he found a larger number of mononuclear cells than is the case in pyaemia, acne vulgaris, and multiform erythema. In the latter conditions staphylococci are found, with polynuclear cells. In variola, however, at any rate in the early stage of the pustule, no microorganisms are present in the pus, but it contains small special elements, roundish and oval, which have been looked upon, and rightly Roger thinks, as the specific agents of the disease. In the case of haemorrhagic variola, the examination of the blood-stained fluids given forth by the patient again shows these small bodies or corpuscles, which are also present in the blood both in the case of haemorrhagic variola and in the early stage of the pustular eruption. As Courmont and Montagnard have pointed out, the leucocytosis of variola is a mononuclear one, but if a special type, that is, a myelocytosis, which may be compared to that observed in lymphadenia, and which has been studied by Weil in Roger's wards. The polynuclear cells are always less numerous than in the normal blood. These vary from 40 to 50 per cent., and in bad cases, especially in the haemorrhagic forms, they may fall to even 20 and even 14 per cent. Of the mononuclear cells the medium sized are the most numerous—30 to 40 per cent. Besides these, there are large mononuclear neutrophiles (2 to 10 per cent.), a few eosinophiles (0.5 to 1 per cent.), and a mononuclear kind of cell, whose non-granular protoplasm has an affinity for nuclear stains (2 to 10 per cent.). There are also transition forms and eosinophiles, which latter may be as numerous as 1.5 to 3 per cent. at first, followed by a diminution in the course of the disease, to again increase during convalescence. During the period of suppuration and when the pustules are drying up a few white cells are found, either mononuclear or polynuclear, and in the basophile granules, but these cells are always few in number. The abnormal cells, abundant at first, persist during the pustulation stage, but gradually diminish in numbers during convalescence. Some are still to be found at the end of forty days. The blood formula of variola is so characteristic as to be of assistance in differentiating it from scarlatina and measles. Varicella, however, shows changes analogous to those found in variola. But this is not to be wondered at, for, according to Roger, the former appears to be due to parasites analogous to those of variola. The author adds that the two diseases differ sufficiently in their clinical characters to offer very little difficulty in arriving at a correct diagnosis.

(183) The Pathological Anatomy of Paralysis Agitans.

Whereas formerly paralysis agitans was generally looked upon as a disease of the spinal cord, the opinion has of late been gaining ground that the changes which have been described in the cord are rather senile in origin than in any way characteristic of this particular disease. Walbaum (*Virch. Archiv*, Bd. clxv, Heft 2) comments on this opinion, and relates a case which, unlike most of those described, exhibited macroscopical changes in the brain in the form of calcified vessels in the grey matter of the central ganglia, whilst the rest of the cerebral vessels were unaffected. Microscopically he found changes in nervous elements, glia, and vessels in complete agreement with those described by the earlier authors, and of late credited to morbus senilis; he is not therefore inclined to agree that they can be looked upon as without a distinct relationship to the disease. He considers his case as a further proof that paralysis agitans is not due to a lesion in the cord, but belongs rather to the class of functional motor neuroses.

(184) Micrococci in Cancer.

Doyen (*Concours Méd.*, January 25th) recently reported to the Paris Academy of Medicine some researches which he has carried out during several years which have led him to the conclusion that a characteristic micrococcus is present in cancerous tumours. He states that he has isolated this organism in pure culture in the form of minute cocci, isolated, in pairs, or in short chains; in older cultures the organisms are larger. He has also found similar cocci in sections of the growths stained with picrocarmine and violet. To the organism he has given the name micrococcus neoformans; in animals, he says, it determines an intense epithelial inflammation followed by formation of adenomata. The subcutaneous injection of sterilized cultures of the organism induce a local reaction in the cancerous growth which he compares to the action of tuberculin on tuberculous foci. The post-operative injection of this liquid has given results satisfactory to Doyen.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(185) Changes in the Fundus in General Diseases.

M. Litten (*Deut. med. Woch.*, January 16th, 1902) deals chiefly with the changes noted by him in the fundus oculi in septicaemia. Twenty-three years ago he described the ophthalmoscopic appearances of 38 fatal cases. His present report agrees in the main with that of the former cases. White spots, occurring as multiple or single foci, of rounded or oval form, are seen quite close to the papilla; these spots are only found in this situation, and never near the macula lutea, and are never arranged as network as in Bright's disease. Beside the white spot, he describes roundish or longish haemorrhage as being found either near the papilla or at a little distance from it. The white spots may occur alone, or the small haemorrhages may occur alone, or there may be very small haemorrhages in the centre of the white spots. The white spots can be seen divided from the vessels by a small strip of normal retina. They develop very rapidly. In one case they were absent at a certain time, and present, fully formed, when the eye was examined half an hour to one hour later. The haemorrhages are not always so rapidly completed, but occasionally Litten noted the perfect development of one after one hour. When examined histologically, the white spots appear to be structureless, but in one preparation Litten could demonstrate fibrin by Wright's method. They are seen always to be situated in the layer of nerve fibres. They are tumour-formed bodies, and he believes that they are caused by exudation of rapidly coagulating lymph. At times they disappear as rapidly as they are formed, which fact speaks for this suggestion. From their microscopical appearance they present no characteristic features. He argues very strongly against the theory that they are varicosities of the nerve fibres, and against the theory that they are produced by embolism of the vessels. The appearance of the typical white spots and haemorrhages has a diagnostic significance. In his earlier communications, Litten believed that they were of prognostic importance, but his later observations have impelled him to relinquish this deduction. An acute illness, in which the spots are seen by opthalmoscopic examination, can be diagnosed as septicaemia. Leukaemia need not enter the list of diseases to be differentiated, since the blood count separates this from others. Malignant endocarditis may offer some difficulties, but nephritis (interstitial) and pernicious anaemia never show the same or even similar ophthalmoscopic appearances. In typhoid, the retinal changes are different (when such occur). The nearest changes to those described are found in tuberculous meningitis and miliary tuberculosis. As a rule, the absence of choroidal tubercles, and the rapid development of spots or haemorrhages will be sufficient to decide for septicaemia, but Litten warns the practitioner to exercise care in deciding between these three diseases.

(186) The Character of the Cerebro-spinal Fluid in Mental Diseases.

Louis Duflos (*Thèse de Paris*, 1901) has an important contribution which attempts to establish the practical value of lumbar puncture and examination of the cerebro-spinal fluid in the differential diagnosis of certain mental affections—especially the alcoholic insanities, subacute varieties of general paralysis, and senile dementia. The procedure has a practical value also in offering relief in cases of tuberculous meningitis attended with convulsions, acute gastric crises of tabetic origin, and threatening apoplexy of Bright's disease. Its value in diagnosis has been maintained by Babinski and Nagrotte, who in a report at the Société Médicale des Hôpitaux in May, 1901, gave an account of 120 cases of nervous disorders — hysteria, tabes dorsalis, general paralysis, polyneuritis, chorea, and epilepsy—showing that lymphocytes were present in the fluid withdrawn in all cases of general paralysis and tabes dorsalis, and that "permanent lymphocytosis, when it was not due to tuberculous meningitis, indicated generally the presence of diffuse syphilis." Duflos points out that patients with delusions and with melancholic or hypochondriacal depression are not suitable for lumbar puncture, as the operation might form the starting point of further delusions. Paranoiacs in the second stage of their disease are also unsuitable subjects. Examination of the fluid examined by lumbar puncture gave the following results in various forms of insanity: In an old man of 70 years with organic dementia the results were negative, as also in two young men who were the subjects of dementia precox. In a chronic melancholiac of alcoholic habits a few scattered lymphocytes were found: in a puerperal woman with depressive delirium and mutism the results were negative, as also in two cases of delusional melancholia. In chronic alcoholic subjects lymphocytes were present in small numbers: but in subacute alcoholism with delirium and hallucinations the proportion of lymphocytes was high. From careful study of 9 cases Duflos concludes that the presence of lymphocytes indicated the occurrence of a chronic or subacute inflammatory process in the cerebro-spinal system, and that the presence of polynuclear leucocytes pointed to an acute inflammatory condition, as in tuberculous meningitis, erysipelas, etc. In general paralysis lymphocytes were seen in abundance, and this served to differentiate this disease from the insanities of chronic alcoholism and some forms of senile dementia, both of which at times closely simulated general paralysis as regards symptoms.

(187) Light as a Factor in the Etiology of Malarial Fever.

A. F. A. King (*Amer. Journ. Med. Sciences*, February, 1902) propounds a new view of the way in which climate modifies the vitality of the organism which causes malaria. That this is most active, and that the fever and other disorders it occasions is most rife in warm countries, is well known; yet he adduces a number of important reasons for doubting whether the higher temperature is really the favouring element in the case. He quotes Manson's work on malarial diseases, who says that the more we know of these diseases the less apparent becomes the *rôle* of temperature *per se* as a pathogenic factor, and the more important the tropical fauna. Celli in his recent work (1900) observes that temperature and malarial fever do not run exactly parallel, and he reproduces a table of Tacchini's covering twelve years from 1871 to 1882 inclusive, regarding fever and weather factors, in which we see "that in the year 1879, when a true malarial pandemic raged, the mean temperature for the months of July and August was the lowest of these years. King is therefore led to suppose that the solar light and not heat is the element which explains the undeniable relation between hot climates and malarial fever. He observes that it is difficult to conceive how external heat can affect the parasite in the human blood since this latter is kept at a fairly constant temperature: but that it is quite intelligible how light should penetrate the skin, and act upon the plasmodium to promote its development, especially in the case of the white races of mankind, whose greater liability to the disease is thus in part explained. He also draws attention to the fact, supported by numerous authors, that paroxysms of intermittent fever will not as a rule take place at night in the dark. Wood (*Practice of Medicine*, vol. i, p. 258) says: "It is worthy of observation that when the anticipating and advancing paroxysm reaches the period of darkness, it is either apt to be arrested in its course, or to leap over the night backward into the evening or forward into the morning." "In places where malarial fever prevails, the disease is increased by bright sunny weather and lessened by clouded skies." King quotes numerous instances and authorities in support of this statement. He draws attention also to the popular tradition that to prevent the occurrence of ague it is advisable to avoid sunlight. Lastly, the malarial parasite is a naked amoeba. Red light promotes the vital activities of amoebae, while violet or purple light restricts them. The colour of the light diffused through blood is necessarily red. This statement is abundantly justified by reference to the experiments of Harrington and Leaming

on the common amoeba proteus. In regard to treatment, it is curious, in connection with the above that prussian blue (an old remedy for ague, and recently methylene blue, seem, so far, to inhibit protoplasmic movement in the malarial parasite as to prevent its sporulation and thus cut short the ague paroxysms. The peculiar bluish fluorescence of quinine is interesting in connexion with its (hitherto enigmatical) curative action.

SURGERY.

(188) Surgical Treatment of Pruritus Vulvae.

Tavel (*Rev. de Chir.*, No. 2, 1902) advocates resection of the internal pudic nerve in the treatment of obstinate vaginismus and pruritus of the vulva, and reports two cases in which he applied this treatment with good results. This method of dealing with painful affections of the external genital organs of the female, though first practised by Simpson, of Edinburgh, forty years ago, has not, it seems, been repeated by other surgeons for vaginismus, although it has occasionally been tried for the relief of certain painful forms of chronic urethro-cystitis. The author discusses at length the surgical anatomy of the internal pudic nerve and its different branches, and describes his method of operating on this nerve. The external incision on either side of the perineum, which is about 4 in. in length, is carried directly from before backwards in the middle of the fossa between the tuberosity of the ischium and the outer margin of the anus. The nerve—the course of which is indicated by the pulsations of the accompanying artery—is carefully separated from this vessel and followed backwards to its trunk. The main divisions supplying the muscles of the vulva and the painful area of integument are divided near their origins and the peripheral portions of the nerve twisted and torn away. In this operation care must be taken to avoid the inferior haemorrhoidal nerve and the anal twigs of the deep perineal branch.

(189) The Operative Treatment of Obturator Hernia.

Gladstone (*Ann. of Surg.*, December) in concluding an interesting report of an instance of double obturator hernia, each hernia of a rare form, observed in dissecting room of the Middlesex Hospital makes a few remarks on the operative treatment of this variety of hernial protrusion. Such treatment, the author points out, may be considered under two heads, namely, the intra-abdominal operation and the extra abdominal operation. In either method the operation would in the first instance be most probably of an exploratory nature. The double hernia described in this paper could, it is stated, have been easily dealt with by the intra-abdominal operation, through a single median incision in the linea alba. If, however, the rupture on either side had been unaccompanied by the other, it could have been reached by a single incision from the exterior; and, although from the depth of the wound and the proximity of the femoral vessels, it would have been more difficult to expose the hernia by this method, the sac and its coverings, or any constriction by the cotylo-pubic band, could most certainly have been treated in a more satisfactory manner than from the inside. This method would also be preferable in a case of strangulated obturator hernia of intestine in which it was necessary to form an artificial anus.

(190) Volvulus of Meckel's Diverticulum and Hernia.

Taylor of Philadelphia (*Bull. Johns Hop. Hosp.*, October, 1901) successfully operated on a case of volvulus of Meckel's diverticulum in a girl, aged 6. Forty-eight hours before the operation she was seized with violent abdominal pain: similar but milder attacks had occurred before, and had always yielded to purgatives. On this occasion nothing passed from the rectum. Abdominal section was performed, and after some trouble from distended intestine, obviated by opening the ileum, a dark-coloured, almost gangrenous tumour was delivered. It proved to be Meckel's diverticulum springing from the ileum, opposite the mesentery, about 14 in. from the caecum. One inch from the ileum the pedicle of the diverticulum had twisted on itself three turns, and was reduced to the thickness of a lead pencil. The distended diverticulum, in shape and size like a potato, lay free in the peritoneal cavity save at its twisted attachment to the bowel. Pressure forceps were applied to the pedicle, which was cut away from the intestines, the wound being invaginated and closed with a double row of Lembert sutures. There were adhesions and patches of lymph over the coils of intestine, which had to be eviscerated freely before the cystic diverticulum could be delivered. The abdominal cavity was flushed with a saline solution, and a small rubber drainage tube introduced. Convalescence was rapid after recovery from the shock. Mitchell, in discussing Taylor's case, mentioned an instance where Halsted operated upon a boy, aged 4 years, for strangulated left inguinal hernia. The rupture had been present for about a year, and on several previous occasions its reduction had proved difficult. The strangulation had shown symptoms for over twenty-four hours, pain was severe, and vomiting had continued for sixteen hours. Halsted, on opening the sac, found a loop of ileum some 3 in. from the caecum, and by its side a Meckel's diverticulum, both constricted at the external ring. The diverticulum measured 2 in. in length, $\frac{3}{4}$ in. in diameter at its base, and $\frac{1}{2}$ in. in diameter at its tip. The distance of its point of origin from the caecum was not determined. The caecum and appendix presented just within the external ring. The diverticulum was excised, the bowel dropped back, and the radical operation for the cure of hernia performed. Recovery was uneventful.

MIDWIFERY AND DISEASES OF WOMEN.

(191) Metritis Dissecans: Abscess of Uterus. Von Franqué (*Sammlung klin. Vorträge*, No. 316, 1901) detected both these conditions in one patient. She had provoked abortion at the second month, and had often been pregnant before. The detached ovum lay in the cervix, and was removed; the uterine wall was scraped with the nail, and the cavity washed out with an injection. The temperature rose, and the patient remained feverish for three weeks; then a tender swelling was detected on the left border of the uterus, simulating a tubal abscess. A week later pus escaped freely from the vagina after a rigor, but the patient continued ill and feverish for six weeks. For nearly as long a space of time she seemed all but well; at length, quite suddenly, a slough of a great part of the inner wall of the uterus came away, just four months after the abortion, and complete recovery ensued. Metritis dissecans is exceedingly rare after abortion. In nearly all cases already published it followed lingering or instrumental labours at or near term. Damage from the fingers or instruments, and, on the other hand, endometritis or other morbid changes during pregnancy, have been noted in many cases. The determining cause is puerperal infection of a uterus with tissues not competent to resist it. The streptococcus is found in the eliminated tissues and in the thrombosed uterine vessels. Beckmann believes that these germs enter the vessels and set up thrombosis, which entails the sloughing which is the essential feature of the disease. The symptoms of metritis dissecans are feverishness after a bad labour, fetid and purulent lochia, and ultimate discharge of more or less of the uterine wall in a state of necrosis. This pathognomonic symptom has been observed as early as the fifth and as late as the forty-seventh day. In Von Franqué's case the slough came away much later. The discharge of the sloughy tissues is generally followed by fall of temperature and recovery, but in 7 cases the sloughing extended through all the coats of the uterus, and the patient died of peritonitis. In 1 case utero-intestinal fistula is recorded. Beckmann rates the mortality at 27.5 per cent. The uterus is nearly always damaged in convalescent cases, its cavity being more or less obliterated. Expectant treatment alone is of avail; uterine injections must be avoided. Abscess of the uterus is also rare, though better known. It may be due to gonorrhoeal or tuberculous infection, but it is usually associated with the puerperium. A wound of the uterine tissues is a very frequent concomitant. The abscess usually lies near the insertion of the Fallopian tubes or along the lateral borders of the uterus, where the big lymphatic vessels

lie. The uterus increases greatly in size. The symptoms of abscess are fever, rigors, sharp abdominal pain, strangury and tenesmus, and enlargement with great tenderness of the uterus. The abscess may form a simple projection from the uterus, but it has often been taken for a separate tumour. Fluctuation cannot be defined. The lochia are fetid. When the abscess opens into the uterine cavity, it may discharge for a long time; but it may burst into an adjacent structure or into the peritoneum. Puerperal abscess of the uterus is a grave affection, about three-quarters of the cases end fatally. When the abscess has burst into the uterus, the cervix will need dilatation, then the opening in the abscess must be dilated and drained. When diagnosis is made before rupture, abdominal section is the right treatment. Incision of the abscess and drainage may be sufficient, but when the abscess is multiple hysterectomy is demanded. In conclusion, care must be taken not to confound metritis dissecans with endometritis dissecans, which is a severe form of membranous dysmenorrhoea.

(192) Tuberculosis of the Cervix Uteri.

ALTERTHUM (*Centralbl. f. Gynäk.*, No. 8, 1902) observed this condition in a very marked form in a woman aged 36, whose father had died of laryngeal phthisis. In youth she had enjoyed good health. The catamenia began at 14 and were regular, lasting three days, free and painless. In 1888 she was delivered spontaneously. In 1896 she aborted at the third month; hypogastric pains followed the miscarriage, and she lay in a hospital for several months, declining any operation. Health had been bad ever since; constipation and painful defaecation caused much suffering. In May, 1901, she aborted at the second month: the pains grew worse, and for eight weeks, until Alterthum examined her, the temperature was high, and free purulent discharge escaped from the vagina. The period was still regular. There was no pulmonary lesion. The cervix was short, the os externum gaped widely. A swelling like a polypus, which bled on touch, was attached to the posterior lip of the cervix. The entire pelvic cavity was filled with tuberous masses varying in consistence; they pressed down into the posterior and lateral fornices; they could not be made out distinct from the uterus. They were firmly attached to the bony walls of the pelvis, and they displaced the rectum considerably to the left. Above the sphincter a constricting ring of deposit was detected, as often noted in parametritis. The above appearances suggested cancer, with old parametritic and perimetritic exudations. Hence the polypoid mass was in part excised and prepared for the microscope. The appearances seen in sections carefully examined showed that the disease was undoubtedly tuberculous. No operation, it appears, was deemed advisable. Alterthum suspects that the tubercle entered the system with some septic germ, no doubt after the first abortion. He dwells on the ring or ferrule of hard deposit round the rectum common in parametritis, but not hitherto observed in tubercle of the cervix.

(193) Simultaneous Pregnancy in Bicornute Uterus.

MAIRE, of Vichy (*Bull. de la Soc. d'Obstét. de Paris*, January 16th, 1902) was consulted in August, 1899, by a primipara, aged 35, who had missed one period. She had married a second time; her present husband had been a widower, and neither had become parents by the first marriage. The vulva was normal: it covered a depression not an inch deep in which coitus took place. The vagina was divided into two by a very stout septum, and examination by the little finger though practicable was painful. Two masses of the size of a fist lay above the pubes. They moved independently: one was very hard the other doughy, so that double uterus, pregnant on one side affected with fibroid on the other, was diagnosed. Maire applied an *écraseur* to the vaginal septum to avoid haemorrhage, which might have caused abortion, and divided it. At the fourth month the patient aborted. The half uterus suspected to be fibromatous proved to be gravid, as it was the half that emptied itself at the abortion. Demelin attended on that occasion. At the seventh month Maire delivered the patient. Contractions were weak, so he emptied the remaining half uterus by aid of the forceps. The child weighed 5½ lb. Then he found that the bodies of the uteri were completely separate, the cervices being distinct but united like the barrels of a fowling piece.

THERAPEUTICS.

(194) Bromeigon.

IN testing the value of the albuminous compounds of bromine (bromeigon, brompeptone), J. Silberstein (*Therap. Monatsh.*, January, 1902) considered that the comparatively small quantity of bromine (11, as against 67.2 per cent. potassium bromide, and 77.6 per cent. sodium bromide) in a bound form might be of distinct advantage from a therapeutic point of view. Five grams (= 1½ dr.) of brompeptone taken internally produced bromine in the urine for over eight hours, while six hours after the same quantity of potassium bromide had been taken the bromine reaction could no longer be obtained. Putting the drugs to a practical test, he found them of value in epilepsy, in acute alcoholism, in the muscular contractures of Jacksonian epilepsy, frequently combined with athetosis. In chorea also he was able to report a satisfactory result. The peptone compound lent itself especially well to those cases in which the ordinary bromides produce dyspeptic symptoms, and was found to produce neither loss of appetite, wasting, nor yet pallor, as the potassium salt so frequently does. Although he does not regard bromides as hypnotics, he finds these preparations useful in sleeplessness, and attributes their results to a sedative effect on the nervous system. The pain due to central nervous affections, as in the irritation of the posterior nerve roots in locomotor ataxy, as well as in neuralgias, accompanied by herpes, he used brompeptone with excellent effect. Bromeigon is best given in powder form (5 grams daily), and brompeptone is best prepared in 20 per cent. solutions in water with or without glycerine, or in enemata. As a sedative, he employs the latter in doses of 2 grams (½ drachm).

(195) The Mode of Action of Narcotics.

MARSHALL (*Med. Chron.*, November, 1901) reviews modern theories on the action of narcotics. There is no real distinction in action between anaesthetics, hypnotics, and narcotics; there are hypnotics and narcotics which act on all kinds of cells, and their action does not essentially differ from that of anaesthetics in general. Various theories have been put forward to explain this general action of anaesthetics and hypnotics. The latest is that suggested by Meyer, and apparently arrived at by him and Overton independently. It is based upon purely chemico physical grounds: the only common factor possessed by the majority of anaesthetics is a comparative insolubility in water and a greater or less solubility in ethereal and fatty acids. If two, such as oil and water, are taken and an indifferent substance be added and the whole shaken, the indifferent substance will be found in the oil and water respectively in proportion to its solubility in each: this proportion is known as the partition coefficient. Meyer supposes that the anaesthetic action of a substance is a function of its solubility in fat-like compounds; it would follow that all chemical indifferent substances soluble in fat-like bodies must be narcotic to living protoplasm in so far as they can diffuse into it; these fat-like bodies preponderate in nerve cells, and in these cells this action must be earliest and most powerful; the relative strength of such narcotics must depend on their partition coefficient in a mixture of fat-like bodies and water. The experiments of Meyer and Baum support these views. Overton also has carried out a large number of experiments with many organic chemical types; according to these the narcotics fall into two groups—the indifferent and the basic, connected by intermediate members. The indifferent narcotics pass over into the lecithin and cholesterin-like constituents of the cell, and thus change the physical condition of this "brain-lipoid;" their power may to a large extent be estimated by their partition coefficient. In agreement with this last fact the narcotic power of substances in homologous series increases rapidly with the length of the carbon chain; the most powerful narcotic substances are those which combine a very slight solubility in water with a very high solubility in ether, olive oil, or

more especially in "brain-lipoid." The organic antiseptics pass in part into the brain-lipoid, and thus agree with the indifferent narcotics, but they also combine with the cell proteids; every grade is found between these. The basic narcotics form combinations with the cell proteids (these narcotics are chiefly the alkaloids, for example, morphine). The "partition-coefficient" theory is insufficient to explain the action of certain classes of narcotics which apparently act not only on the "lipoid" material, but also on the proteid constituents of the cells, ethyl alcohol is an example. Marshall looks upon the partition-coefficient theory as the most reasonable that has yet been offered to explain narcosis, but its limitations should be recognized. In its present form it must be looked upon as a plea for the physical action of the so-called indifferent narcotics. The following table of indifferent substances illustrates the correspondence of partition coefficient with narcotic equivalent, the figures in the first column representing the former, those in the second column the latter:

1. Trional	...	...	4.46	...	0.0018
2. Butyl chloralhydrate	...		1.59	...	0.0020
3. Sulphonal	...	...	1.11	...	0.0060
4. Triacetin	...	...	0.30	...	0.010
5. Chloral hydrate	...	...	0.22	...	0.020
6. Ethyl urethane	...	...	0.14	...	0.040

These are examples taken from a table by Baum. They show a general diminution in hypnotic power corresponding to a diminished partition coefficient.

---

(196) Hygiene of Dairy Produce.

F. LOEFFLER (*Deut. med. Woch.*, Nos. 51 and 52) deals in minute detail with the methods of safeguarding against the noxious effect of altered dairy produce. He includes milk, butter, cheese, butter milk, and whey. He points out that the method of mixing large quantities of milk from various sources is fraught with many dangers, and calls for special treatment. Milk is, as he says, a secretion which can easily be influenced by different kinds of causes. Certain forms of food may be non-poisonous to the cows and yet form poisonous substances in the milk. He deals with Braungart's assertion that summer diarrhoea of children is in great part due to the ingestion of the plant colchicum autumnale, which grows plentifully on chalky soil but leaves the matter as unproved. But it is certain that many forms of food are directly noxious to the milk. The Prussian law has laid down fairly strict rules as to which forms of fodder may not be given to milch cows which are to supply nursery milk. Another danger exists in using the milk taken from cows which are being treated by a variety of drugs. This may occur without any wilful deceit on the part of the owner of the cow. Dealing with infective diseases, he dismisses foot and mouth disease as causing but little danger to human beings who take the milk. The milk should, however, be heated to 85°C., which temperature, according to Uhlenhuth, suffices to kill the micro-organisms of the disease. Mastitis in cows is a grave danger. The milk may produce intestinal inflammatory lesions by the presence of streptococci. The danger is greater than one would imagine, since the milk of a single cow suffering from mastitis may infect very large quantities of milk from other cows. Since the German law forbids the sale of milk obtained from cattle suffering from anthrax, pleuro-pneumonia, cow-pox, and hydrophobia, it is unnecessary to deal with the effect of these diseases on the milk. Tuberculosis of cattle is, however, of great importance, for its distribution in all countries is extremely wide. When the milk is mixed from many cows, and even from many farms, one is almost certain to be able to find tubercle bacilli in it. In butter bacilli are also very frequently present, and also in cheese. Tuberculous disease of the udders of cows affects between 1 and 2 per cent. of all milch cows, while other lesions of the same nature are found in between 40 and 50 per cent., or even higher. The milk of the former certainly contains tubercle bacilli, but, according to Ostertag, the milk of cattle, which react to the tuberculin test but have no disease of the udders, rarely does so, and therefore present no especial danger. Loeffler gives a summary of Koch's statements at the British Congress for Tuberculosis, and absolutely endorses all that he said. He recounts the investigations of Ernst, but finds that the only reply to his circular (sent to medical practitioners and veterinary surgeons in America) of importance was that of Peabody. It appears, from this reply; as if a baby had been directly infected with tuberculosis by the milk of a tuberculous cow, but the subject requires much more exact investigation. On the other hand, Baumgarten reports that twenty years ago an attempt was made to inoculate a medical man who was suffering from an inoperable sarcoma with the bacilli of bovine tuberculosis, by way of experimental treatment. In spite of a considerable quantity of bacilli having been introduced beneath the skin, neither local nor general tuberculosis resulted. He deals in further detail with this question. Milk and its products may be the carriers of other infective organisms; for example, typhoid, diphtheria, and scarlatina. The first-named is frequently carried by milk, while there is some doubt existing as to whether the second disease can be spread by contaminated milk. That scarlatina is at times so caused is proved by English literature. Loeffler will have nothing to do with the addition of chemical reagents, which inhibit the growth of various organisms which may be present in milk. He recommends the coagulation test with alcohol to discover such "doctoring." The only way to deal with infected milk is to heat it. Against so-called "milk dirt" he advises filtration, preferably carried out according to Fliegel. Milk that has been heated to 85° C., and filtered, should be kept at a very low temperature if it has to be sent away to the consumer. The heating need only be kept up for one or two minutes, and is best carried out in a pasteurising apparatus. Cream, too, can be pasteurised without spoiling it, and the butter made from it will be found to be pure and good to taste. There appears to be some difficulty in preparing cheese from pasteurised milk, but Klein contends that even after heating to 90° C. a milk can be turned to cheese, by the addition of a small portion of ripe cheese, in fifteen minutes, and Hamilton states that after heating to 102° C. the addition of sour milk will suffice. Even after all this care has been expended on milk and its products in the dairy the danger is not over. In the household of the consumer it should be again subjected to a temperature of 70° to 85° C. for thirty minutes, and cooled down in the same vessel, which, of course, must be very clean. In the dairy all utensils, etc., must be sterilized with boiling soda solution. Although he says that the subject is not by any means exhausted by his account of it, he claims that with these precautions the risk of harming the whole population, and especially the juvenile portion of it, will be very greatly diminished.

PATHOLOGY.

(197) Tuberculin Test in Tuberculosis of the Bones and Joints.

FRAZIER AND BIGGS (*Univ. of Penn. Med. Bull.*, March, 1901) publish a preliminary report on the use of tuberculin for the recognition of latency or quiescence in surgical tuberculosis. The cases used are grouped into three classes—recovered (no evidence of the disease for periods varying from six months to seven years and a half), quiescent, and active. Slight local irritation was caused in all cases, but no relation was discovered between this and the degree of constitutional reaction. The doses varied from 0.001 gram. to 0.01 gram; there were no signs indicating that the condition of the lesion of active or former disease was affected by the tuberculin. No injurious effects resulted; in 3 of the active cases some benefit appeared to follow the injections. Of the recovered cases 78 per cent. reacted, of the quiescent 100 per cent., of the active 80 per cent. These results are not what were expected. The possible explanations are three either the test is unreliable or the clinical phenomena were misinterpreted, or tuberculous foci were existent elsewhere. The first of these may be ruled out; all clinical evidence has gone to show the reliability of the tuberculin test. It is possible that round about a joint which had for years been the seat of tuberculous disease small islets in which the bacillus is still alive might persist after apparent recovery, and these might account for positive reactions. On the other hand, the third explanation is the most probable. If the tuberculin test is to be relied on in these recovered cases, there was probably a persistent focus somewhere in the lymphatic system.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(198) The Dry Point versus Glycerinated Virus in Vaccination.

AT a recent meeting of the New York Academy of Medicine there was a Symposium on Vaccination (New York *Medical Record*, March 8th). Among the papers read was one on The Dry Point *versus* Glycerinated Vaccine Virus by F. S. Fielder. The paper was based on tests made since December 1st, 1901. He said that glycerinated virus had now largely superseded the older virus on ivory points. Several lots of vaccine were prepared in different ways at the Health Department Laboratory, namely, one lot of points was charged with the serum exuding after simply removing the top of the vesicle. No great difference was observed in these two lots, and what little there was seemed to be in favour of the points charged with the serum obtained after having removed the pulp for the glycerinated vaccine. The glycerinated virus from 21 consecutive calves and the ivory points from the same animals were tested and the results compared. Fourteen ivory points from 8 private manufacturers were also tested. Of the 21 lots of glycerinated vaccine 17 gave perfect results. Of 304 insertions with the dry points from the Health Department animals 95 were successful, or 25 per cent.; while of the 137 insertions made with the dry points of private manufacture, 83, or 60 per cent., were successful; in other words, the 571 insertions made with dry points from all sources gave 168 successful vaccinations, or 33·6 per cent. On the other hand, of the 315 insertions with the glycerinated virus, 296, or 92.9 per cent., were successful. The number of good-sized vesicles was decidedly in favour of the glycerinated virus. Four lots from one private firm gave the following results: Ten insertions, with 7 successes; 9 insertions, with 4 successes; 9 insertions, all of which were successful; and 10 insertions with 7 successes. Another firm which charges points with the pulp from the bottom of the vesicle furnished another series of points. The first lot of these gave 8 insertions with 8 successes, and two other lots also gave very good results, but a third lot, with which 22 insertions were made were all failures. The cases were inspected from 9 to 11 days after vaccination. Of the 62 cases vaccinated with Health Department ivory points, 37 were successful, and none were severe. Of the 44 cases vaccinated with the dry points of private manufacture, 33 were successful, 1 being severe, 3 marked, and 12 showing only moderate constitutional disturbance. Of the 41 cases in which the glycerinated virus was used, in 2 the symptoms were severe, in 6 they were marked, and in 14 were only moderate. The severer constitutional symptoms observed with the glycerinated virus the speaker thought could be partly explained by the fact that large vesicles occur in much larger proportion of the cases than where the dry points are used; moreover, these experiments had been carried out with what is called "green" virus. Of 282 cases vaccinated, 9, or 3.3 per cent., presented eruptions. 5 of these cases occurred in children who had been vaccinated only with ivory points. Most of the rashes were erythematous; one or two were urticarial; all were of a mild type and lasted only a few days. One case presented an eruption resembling varicella quite closely. The eruption was exceedingly discrete, and the lesions very few. Two weeks later the sister of this child was seen, and she presented the typical eruption of varicella, thus settling the diagnosis of the peculiar eruption in the first case. Of 79 cases vaccinated with the ivory points prepared by the Health Department, 62, or 78 per cent., healed promptly, while of 162 cases vaccinated with the glycerinated virus, 108, or 66 per cent., healed promptly. Of those which were slow in healing, 8.8 per cent. belonged to those done with the ivory points of the Health Department, and 17.2 per cent. belonged to the cases vaccinated with the glycerinated virus. It seemed evident from this investigation that the points charged with the serum eluding from the vesicle were weak in vaccine. He could not explain why it was that the ivory points of the private firms gave so much better results than the ivory points charged by the Health Department. He had had as yet no opportunity to test the actual time that ivory points remained potent, but some years ago he had studied this question with regard to the glycerinated virus of the Health Department, and had demonstrated that 100 per cent. of successes could be obtained with this virus after it had been kept for an average period of 7.7 months.

M. J. ROSENAU, Director of the Hygienic Laboratory of the Marine Hospital Service, dealt with the subject from a bacteriological standpoint. He said that human virus, although distinctly more potent in its protecting power, had been almost discarded because of the danger of the transmission of syphilis and other infections of the human family. In 1842 the use of bovine virus had been begun, but many years had elapsed before it became popular. In 1891 Copeland suggested that glycerine be mixed with the vaccine pulp as a sort of preservative. Glycerine could hardly be said to be a bactericide, because it kills bacteria only by a slow process of dehydration, requiring 11 days for streptococci and 20 days for diphtheria bacilli. In diluted form glycerine was well known to be a very favourable culture medium. While glycerine gradually dehydrates and destroys bacteria, it also gradually destroys the potency of the vaccine. The glycerine points do not keep their potency as long as dry points. Rosenau described the bacteriological experiments that had been made with the glycerinated virus, and with glycerine suspensions from the dry points, the colonies being examined and counted on the third day. There were altogether 92 samples obtained in the open market, representing the products of eight different manufacturers. The 41 dry points gave an average of 4,807 colonies per point, while the 51 samples of glycerinated virus gave an average of 2,865 colonies per point, an unnecessarily great contamination for glycerinated virus. Staphylococci, pus cocci, moulds indicating stable contamination, and other impurities were found. The glycerinated virus of some manufacturers was found to contain a great many more colonies than the dry points. Some of the tubes of glycerinated virus contained only a very minute portion of vaccine, while others contained a great deal of vaccine, a fact which might partly explain the figures obtained with this kind of vaccine. The glycerinated virus if placed on the market while "green" would be found to contain a large number of bacteria, while a few months later this same virus would contain a very much smaller number. The speaker said he believed that many of these impurities in glycerinated virus would not exist were it not that the manufacturers placed too much confidence on the preservative methods of glycerine. Pus cocci and staphylococci were found in both the dry and the glycerinated virus. Rosenau said that his opinion, based on the results of this investigation, was that Government control should be exercised.

---

(199) Tetanus and Vaccine Virus.

AT the same meeting of the Academy J. H. Huddleston presented a communication on this subject. He said that no proof had yet been adduced to show that tetanus had ever been inoculated with vaccine. While the calves used by the Health Department were old enough to have been fed on hay before coming to the laboratory, after their arrival they were fed on sterilized milk, so that after coming into the possession of the Health Department there was no danger of their becoming infected with tetanus through hay. It was well known that tetanus bacilli were found in horse manure, but it was not known whether this was so to the same extent with calf manure. He had examined the faeces of 25 calves that had been fed on hay, and by inoculation experiments on animals had demonstrated that in only 2 instances was there infection with tetanus. His studies also pointed to the fact that calves were so little susceptible to tetanus that they would not present any symptoms of this disease, even though the vaccine drawn from the animals were contaminated with tetanus bacilli. Experiments in the laboratory showed that glycerine exerted a distinctly inhibitory in-

fluence on the tetanus germs. Bone points and glycerinated virus might both carry tetanus, and experiments on animals were found not to be quite so delicate as cultural tests in establishing the presence of tetanus. It was found very difficult, however, to detect by cultural experiments the presence of a small contamination with tetanus because of the viscidity of the glycerinated virus. The author pointed out the possibility of contaminating vaccine with tetanus, and at the same time that it practically never occurs. His conclusions may be summarized as follows: (1) The faeces of calves fed on hay may contain tetanus germs; (2) these germs do not develop with glycerinated virus; (3) any form of vaccine virus—dry points of tubes of glycerinated virus—may be infected with tetanus, and may convey it, but no form of vaccine increases the amount; (4) cultural tests for the presence of tetanus germs are somewhat more delicate than animal tests; (5) inoculation by scarification is not a favourable method of inducing tetanus; (6) it is probable that the greatest precaution against the production of infected vaccine virus lies in the maximum of cleanliness observed in a vaccine laboratory.

SURGERY.

(200) Implantation of the Transverse Colon into the Rectum and Anus.

F. DE QUERVAIN (*Rev. Méd. de la Suisse Rom.*, December 20th, 1901) recalls that until recently the formation of an artificial anus was inevitable in extensive resections of the descending colon, the sigmoid flexure, and the upper end of the rectum. In resection of the rectum an abnormally short sigmoid flexure may render suture in the depths of the true pelvis dangerous or impossible. In resection of the rectum with the sigmoid flexure, a faecal fistula can be obviated by none of the usual methods. The rectum may be made to communicate with a segment of intestine beyond the obstruction (entero-proctostomy), though this is a palliative measure, in place only if radical cure is abandoned and the disease left untouched. Kummell, of Hamburg, introduced an important advance when he transplanted the transverse colon to the anus in two cases of resection of the rectum, the sigmoid flexure, and part of the descending colon for extensive tuberculosis of the large intestine, and syphilitic stricture respectively with complete success. The following considerations led him to undertake this operation:—The transverse colon is provided with a well-developed marginal artery, so that its mesentery can be divided without much danger to nutrition. In the rectum and sigmoid flexure the marginal artery is poorly developed, and the chief source of supply is through arteries placed at right angles to the long axis of the intestine. Section of the mesentery is therefore much more likely to produce gangrene in the rectum and sigmoid flexure than in the transverse colon The following case is the first published since Kummell reported his:—A woman, aged 50, was operated on for right inguinal hernia in 1900. On June 29th, 1901, the writer performed a radical cure for a left inguinal hernia, and, as there was prolapse of the uterus and vagina, after median laparotomy fixed the round ligaments of the uterus into the abdominal wound. After suture of the abdominal wound, anterior colporrhaphy and perineoplasty were performed. A small tumour was then felt in Douglas's pouch. As it could not be reached from the vagina the abdominal wound was reopened. A small cancerous stricture of the lower part of the sigmoid flexure, which had involved the mesentery, was found. After resection of the diseased intestine, together with the mesentery, it was found that the remains of the sigmoid flexure were so short that it could not be approximated to the rectum. The transverse colon was, therefore, divided between two ligatures near the splenic flexure, and, after division of the mesentery and gastro-colic ligament to the required extent, was brought down into the true pelvis. The remains of the sigmoid flexure and the descending colon were excluded from the the intestinal tract by closing one end by a double row of sutures and fixing the open end to the abdominal wound. The upper end of the rectum was then freed from its attachments to the sacrum, and a gum-elastic catheter was passed through the anus. To this were attached the ligatured end of the transverse colon and the upper end of the rectum, so that on its withdrawal the rectum was inverted and the end of the colon was brought down within the inverted portion of the rectum. An artificial intussusception was thus produced, and the upper ring of the divided rectum and the lower end of the transverse colon both presented at the anus. After placing a tampon in Douglas's pouch and closing the rest of the abdominal incision, the upper end of the rectum and the lower end of the colon were fixed to the anus by interrupted sutures, and the ligature was removed from the colon. A large tube was placed in the lower end of the transverse colon. Abundant liquid stools were passed from the day of operation. A piece of intestinal wall sloughed and was passed in the stools, and until July 30th faecal matter escaped from the bottom of Douglas's pouch. On October 16th there were renewed colic, tympanites, and constipation, and there was some amount of stricture of the lower end of the transverse colon. As the dilatation of this did not improve the symptoms, on October 20th a second laparotomy was performed. It was then found that almost the whole of the small intestine had slipped behind the vertically-descending "transverse" colon owing to the omission to fix the transverse mesocolon to the posterior abdominal wall, and that they had contracted adhesions to and become kinked in Douglas's pouch. These were separated, the transverse mesocolon was further divided without encroaching on the marginal artery in order to lessen tension, and the excluded descending colon with the remains of the sigmoid flexure were resected. It would have been preferable to do this at at first, but exclusion was chosen as the more rapid method. The fistula closed and complete recovery followed, though the rectum required periodical dilatation, This might have been avoided by resection of the whole rectum except the sphincter ani, and by joining the lower end of the transverse colon directly to the sphincter. The method employed, however, is less complicated and less tedious.

(201) Cyst of Pancreas.

JABOULAY (*Lyon Méd.* February 16th, 1902), operated in June, 1901, on a youth, aged 16. The patient was in good health till March, when he had violent and painful attacks of vomiting, food coming up first, followed by bile. Jaundice and colicky pains were noted at the same time. The symptoms disappeared in June, then in a few days a fixed pain was felt in the epigastrium and left hypochondrium without colic or vomiting. A firm, resistant tumour could be detected, occupying the left hypochondrium and extending to the epigastrium. The patient was aware of the existence of this tumour and insisted that it had developed within a week. Jaboulay made a vertical incision 4 in. long, beginning half-an-inch below the ribs and exposed a cyst. On tapping, 5 pints of a reddish-brown fluid came away. It was very liquid, being free from clots, shreds, or glairiness. The hand passed into the cyst could reach to the bodies of the upper lumbar vertebrae, and the cyst was found to arise from the body of the pancreas. Extirpation was impossible. The cavity was therefore drained. The fluid contained a substance which could be precipitated by alcohol; that substance emulsified fat, converted starch into glucose, and peptonized fibrine. The wall was lined with epithelium. The patient recovered, a little fistulous tract remaining.

MIDWIFERY AND DISEASES OF WOMEN.

(202) Ovarian Pregnancy.

IN discussing the possibility of true ovarian pregnancy, Lawson Tait laid down certain conditions which must be fulfilled before a definite assertion of its presence could be made. Thus both of the Fallopian tubes and one ovary must be found absolutely intact; the other ovary must constitute the gestation cyst, and in the cystic wall there must be found microscopic evidence of ovarian tissue. Condamin (*Lyon Méd.*, March 2nd, 1902) has recently had under his care a case in which these conditions were, he believes, sufficiently fulfilled for the purpose of definite distinction. His patient, who is now 39 years of age, was married at 18, and miscarried six months afterwards. In November, 1893, she ceased menstruating, and during

the following months presented the usual signs of pregnancy. In July, 1894, abdominal and sacral pains occurred and lasted for four days, and the breasts became filled with milk. Menstruation reappeared two months later, and the patient declared that for three years the size of the abdomen progressively diminished. In November, 1901, she suffered from renal colic. When examined at this time the right side of the abdomen was found to be occupied by a hard tumour, which extended to a little above the umbilicus. The cervix uteri was displaced to the left. At the operation, a large white cyst was found, taking origin from behind the right broad ligament. The uterus was displaced to the left, but both it and the two Fallopian tubes were of normal size and appearance. The left ovary was a little enlarged, but healthy. The tumour had to be freed from the appendix and intestines. The pedicle was of moderate size and corresponded to the entrance of the vessels. No trace of a right ovary could be found after removal of the cyst. The patient made a rapid recovery after the operation. The walls of the cyst were uniform, white, and pearly in places. The fetus was well developed and not calcified. The placenta was implanted at the point of entrance of the ovarian veins. The cyst wall was unfortunately not examined histologically until it had been for some time in Müller's fluid. The most that could be said was that it gave the visual and tactile impression of certain ovarian cysts, and it was hardly probable that after seven years' distension unmodified ovarian tissue would be seen.

(203) Primary Cancer of Vagina.

ROGER WILLIAMS (N. Y. *Med. Rec.*, November 30th, 1901) has observed five cases, and his data, derived from patients under treatment at the chief London hospitals, show that only 0.43 per cent. of all cancers in women are of vaginal origin. Some foreign authorities make the percentage as low as 0.38 or as high as 1.6. The earliest age at the onset of the disease was 17, for in Johannovsky's patient, aged 9, the growth was evidently sarcomatous, and in Guersant's, a child only 3 years of age, the nature of the tumour remains doubtful. Cancer of the vagina has commenced to develop after 70. In 76 cases where the age was accurately given the onset of the disease occurred thus: Third decade (20 to 30), 12 cases; fourth, 14 cases; fifth, 12 cases; sixth, 22 cases; seventh, 14 cases; and eighth, 2 cases. Thus most cases arise long after the menopause, and and hence it may be inferred that the origin of the disease has no direct connexion with the incidents of reproductive life. One fourth of the total number of patients have never been pregnant. The disease has often made considerable progress before any indications of its existence are apparent. Of 16 cases in Williams's own list the first symptom was discharge in 9, pain in 3, a lump near the vaginal orifice in 2, retention of urine in 1, and inguinal adenopathy in 1. Williams gives an instructive bibliography, including Bernard's "Epithélioma primitif du Vagin (*Thèse de Paris*, 1895). Hubert Roberts published a case of primary epithelioma of the vagina in 1896 (*Trans. Obstet. Soc. Lond.*, vol. xxxviii, p. 381).

(204) Congenital Anus Vestibularis: Abortion.

ZANDER (*Centralbl. f. Gynäk.*, No. 45, 1901) publishes a case where the rectum opened into the vestibule in a well-developed woman, aged 20. She did not begin to menstruate until 15, but the breasts were large and the muscles firm and strong. After coitus she frequently complained of a desire to pass a motion. The catamenia had been quite regular from their first appearance until about a month before she sought admission into a lying-in hospital on account of uterine haemorrhage, which had continued for a fortnight. On exploration, masses of scybala were detected in the vagina. The labia majora were normal. On parting the nymphae, three instead of two openings were detected. The first, the meatus urinarius, was normal; behind it lay the vaginal introitus, somewhat narrow; and one-fifth of an inch posterior was a wider orifice bounded behind by the posterior commissure. This orifice, representing the anus, was surrounded by wart-like elevations of mucous membrane; resistance, not very strong, was felt on introducing the finger into the rectum. There was a distinct sphincter internus. The septum between the introitus and the vestibular anus was simply the termination of the walls of the vagina and rectum. Traces of a hymen were detected, but behind the vestibule there was no indication of any anus. The vagina above the introitus and all the upper part of the genital tract were normal. Pieces of membrane were found in the uterine cavity and afterwards removed, without difficulty and with good results.

(205) Fetal Inclusion in Ascending Mesocolon.

AHRENS (*Arch. f. klin. Chirurg.*, vol. lxiv, 1901, Part 2) describes how a tumour as big as a man's head was enucleated from the ascending mesocolon of a girl, aged seventeen. It held nearly seven pints of a thick brown fluid. Its walls contained all the component parts of the stomach and intestine with ulceration of the mucosa. The epithelium corresponded to that of the mouth, œsophagus, bronchi and trachea as well as that of the stomach and intestine. The brown fluid contained pepsin and a great deal of blood. Thus the cyst represented a second alimentary canal, quite unconnected with the normal stomach and intestine: septic ulceration followed by haemorrhage had occurred.

THERAPEUTICS.

(206) Buttermilk as an Infant's Food.

TAVARES DE MATTOS (*Jahrbuch für Kinderheilkunde*, January, 1902), of Rotterdam, describes the buttermilk method of infant feeding so largely used in Holland during the last six years in conditions of both health and disease. This food, which is very cheap there, is particularly serviceable for children of the poor, who suffer so much from dyspepsia and who cannot afford a wet nurse, costly cream mixtures, or humanized milks. Further, the composition of human milk appears often not to be the most desirable in dyspeptic states. Buttermilk differs totally from human milk yet it frequently proves curative when the latter fails. Obtained from the dairy it should be a sour fluid, full of finely flocculent suspended curd. It must be boiled at once, but, to prevent wholesale curdling, a level tablespoonful of ground rice or flour to each litre (35 oz.) must be previously mixed with it. The boiling should be done over a slow fire, in an enamelled pot, constant stirring it till it has boiled up three times. Two or three piled up tablespoonfuls of sugar are added to each litre; this must not be milk sugar but cane or beet. Metal spoons must not be used as the lactic acid would act on them. Thus prepared the food has a yellowish colour and sourish sweet taste, and is not more curdled than it was before boiling. The nipple of the bottle must have a large perforation to let the curd through. A number of cases are cited by the author, and afford examples of the curative effect of this food in atrophic infants, in those passing sour stools containing white particles, and in infants with whom human milk disagrees. The effect on the intestines is greater than that on the stomach: for, while it usually stops vomiting, that very symptom may be induced by it or persist under its use to a certain extent, but need not be taken as a contraindication, as it can be checked by bismuth or nitrate of silver. The same applies to slight diarrhoea. The motions change immediately; they become homogenous, less in amount, and more consistent. From being sour their reaction becomes alkaline; this is due to ammonia produced by the bacillus butyricus, which is the most important organism in butter-milk stools. The B. acidi lactici occupies a much more subordinate position. Both these germs are present in unboiled buttermilk. A remarkable improvement in nutrition often occurs at once, even 1 or 1½ lb. being gained in a week. The nutritive value of the food depends on (1) the large amount of sugar administered in an acid medium, which seems to prevent it from fermenting in the gut; (2) the special digestibility of the casein, from its being curdled during the process of agitation in the churn, and thus occurring in a finely comminuted state. The antifermentative action depends probably on the lactic acid—present, indeed, only in very small quantities, but definitely altering the reaction; either this acts by setting loose more HCl, or else it may directly inhibit the B. lactis aërogenes in the upper reaches of the intestine. Lactic acid does not

injure the digestive apparatus and does not cause rickets. The low percentage of fat (½ per cent.) makes it suit dyspeptic states. The starch in the meal that is added is nearly all dextrinized and dissolved. Buttermilk is not a sufficient food for infants under 4 weeks of age; they need more cream. Rickets very often affects buttermilk children to a slight degree, delaying dentition and skull closure. Bad rickets or scurvy rickets are never seen, however. Rickets is so common a disease and depends so much on environment and heredity that it cannot be wholly ascribed to this food. Any way, the children who gain weight also improve in colour and vigour, and are not merely bloated with water or fat. Buttermilk should be got from a reliable firm, as it is liable to be diluted, contaminated, or too sour. It can be made at home at a small outlay on a hand-churn, the milk being left to ripen for twenty-four hours before churning, a little sour milk being previously added to turn it. Sweet buttermilk is not to be used; this has no suspended curd. The quantity taken should be the same as other milk, the caloric value of both being about 700. It should be introduced into the diet gradually, and, after several months' use, left off by small substitutions of sweet milk. Infants relish it, and may soon be allowed to drink of it *ad libitum*, and thrive on it wonderfully. It has been introduced recently at Berlin by Professor Heubner with good results.

(207) Treatment of Acromegaly with Pituitary Bodies.

Sydney Kuh (Reprint from *Jour. Amer. Med. Assoc.*) instances cases indicative of the fact that the pituitary body "in some way exerts an influence" upon development and growth, thus having a functional relationship with the thyroid gland, since extirpation of the latter is followed by enlargement of the former; both contain iodine, and are similarly constructed histologically for the secretion of colloidal material; and while the pituitary body is almost always diseased in myxoedema the thyroid is diseased in acromegaly. Further, exophthalmic goitre and myxoedema have been found associated so often with acromegaly as to make the occurrence more than a mere coincidence. Results of experiments in feeding with powdered pituitary bodies in three cases of acromegaly are given, in the first of which the characteristic symptoms had been slowly progressive for about four years, the patient gradually losing strength and becoming emaciated. Thyroid feeding gave some relief temporarily, but eventually lost its effect, when powdered pituitary bodies were substituted without any change for the better, but on their being suspended for a week the patient begged to be given the powders again, as without them his headache had become much more intense, and repeated withdrawals for short periods gave no evidence of any decided change except an increase in the mental depression during the period of abstinence. In Case II, where symptoms of intense headache and vomiting accompanied the other signs of the disease, directly 5 gr. of powdered pituitary bodies began to be taken three times a day there was no further attack of headache necessitating codeine, though this had been required on five previous occasions, and, after steady improvement with but one attack of headache during a temporary suspension of treatment, the patient was able to work again for more than a year, when she began to suffer from cramps and mental depression, but otherwise remained much the same. In Case III a history of rheumatism and "asthma" with symptoms of vertigo began about four years previously followed latterly by the other characteristic signs of the disease. On 5 gr. of powered pituitary bodies three times a day the headache, "weakness in the bones," vertigo, and hyperidrosis diminished, and ten months later "he felt better than he had been for years." In Cases II and III feeding with pituitary bodies certainly had a beneficial influence on the disease, the effect of suggestion having been carefully considered and eliminated as far as possible, and although organic changes cannot be benefited, there is no doubt that both in these two cases and in a number of others recorded subjective symptoms have obtained distinct relief.

(208) Strychnine Elimination after Nephrectomy.

Metzler and Salant (*Journ. of Exp. Med.*, February, 1902) have pointed out two extremely important principles by their experiments upon nephrectomized rabbits. First, that removal of any organ from the body does not necessarily mean the absolute cessation of the function it performed; the body very rapidly adapts itself to new conditions, and is able, in many cases, to partially or completely compensate for the loss sustained; secondly, that there is no experimental basis for the theoretical assumption that great care is necessary in the administration of poisonous medicines in renal disease lest they accumulate in the blood with fatal effects. They removed the kidneys from rabbits, which are peculiarly sensitive to strychnine, and by Metzler's own methods, injected strychnine at definite intervals. They found that after nephrectomy the minimum toxic and fatal doses are not smaller than in normal animals. In a rabbit without its kidneys, a single toxic dose of strychnine induced only one or more attacks, and the animal soon recovered, retaining, therefore, a toxic dose within its body and yet being unaffected. If numerous subminimal doses were administered at proper intervals thrice the fatal dose of strychnine was retained without producing any reaction. There is no evidence as to the mechanism concerned. In the normal human body it is known that strychnine is not decomposed by the tissues. It is possible that the drug may be excreted by the gastro-intestinal canal when the kidneys are absent: or, in nephrectomized animals, the strychnine may be decomposed within the circulation by the blood, liver, etc., or certain substances may be developed which neutralize its effect upon the nerve centres as in uraemia. Perhaps, also, the conditions of osmosis and absorption are altered and the blood pressure increased, so that the poison does not circulate in the nervous tissues.

PATHOLOGY.

(209) Diseases of Sporozoic Origin.

Bosc (*Arch. de Méd. Expér.*, t. xiii, No. 3) reviews and compares the diseases in which members of the sporozoa group are believed to be causatively concerned—vaccinia, variola in the sheep and the human subject, and cancer. He first describes the cellular inclusions of the variola pustule of the sheep: for their study he has found Ehrlich's triacid stain satisfactory; intercellular bodies of similar characters are also present, and exhibit pseudopodia; neither are satisfactorily differentiated by Gram's method. He has examined ordinary inflammatory lesions without finding any bodies resembling these, and considers that in the various forms a distinct developmental cycle can be traced. He has found some forms of the bodies free in the blood during the course of the disease. With regard to culture no precise results have been obtained, although the persistence of some forms in blood rendered incoagulable by the addition of leech extract has been noted. The bodies found in pustules of vaccinia are in all respects similar to the above. Bosc criticizes the opinion of Borrel that all these intracellular inclusions are modifications of the centrosome appearing in the course of karyokinesis; he relies, in expressing a contrary view, chiefly on the identical appearance of intracellular and extracellular forms which he describes. Bosc has not been able to satisfy himself that the vaccinia bodies exhibit amoeboid movements, nor has he observed any real reproduction or multiplication in attempted cultures, but in fluid blood inseminated certain small refractive bodies are to be found after three or four days in large numbers. In variola pustules corpuscles similar to those of vaccinia are seen; they are to be found also in the blood, the spleen, and the bone marrow, but they are rare, and their staining reactions not characteristic. The researches of Roger are referred to, in the course of which he obtained successive cultures of the corpuscles in fluid blood; these cultures produced septicaemia in the rabbit without pustule formation. Bosc also reviews the researches on the assumed parasite of cancer but does not add any new observations. He recalls his previously published culture researches, in the course of which he observed the development in fluid blood of bodies identical in appearance with the inclusions; subcultures only yielded minute forms, which showed no tendency to develop into the larger bodies.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(210) Banti's Disease.

Senator (*Berl. klin. Woch.*, November 18th, 1901) considers that too little notice has been paid to Banti's and a few other Italian clinicians' descriptions of anaemia splenica, with following cirrhosis of the liver and ascites, both in Germany and other countries. The disease occupies three stages: (1) An anaemic stage, lasting three to five years, and occasionally as long as eleven years; (2) a transition stage, in which the urine becomes sparse, and contains urates, urobilin, and at times traces of bile pigment, and which lasts a few months; and (3) the ascitic stage. The first stage corresponds to the condition formerly described as simple or primary splenic tumour with anaemia, and latterly as pseudo-leukaemia or splenic anaemia. The later stages were formerly classified as cases of cirrhosis mostly corresponding to none of the typical forms—portal, biliary, and hypertrophic icteric of Hanot—or as cirrhosis with splenomegaly or hyperspleno-megaly, cirrhosis with splenic anaemia, or cirrhosis with haemorrhagic diathesis. The splenic enlargement depends on a fibro-adenitis. In the centre of the follicles surrounding the artery is found a zone of overgrown connective tissue. In the first stage the veins show a covering of large cells, giving the appearance of an epithelial canal to the vein. Later the pulp is transformed into fibrous tissue. In the splenic vein and in the portal artery, extending into the substance of the liver, are found plaques corresponding to the atheromatous and sclerotic plaques of the aorta. In the liver, ring-formed cirrhotic changes, starting in the interlobular spaces, around the branches of the portal artery, and spreading into the neighbouring tissue. The splenic juice is found to be completely devoid of nucleated red blood cells. The bone medulla (of the long bones) is fetal in type: it is reddish in colour. There is no enlargement of lymphatic glands, nor are any other organs involved in the process. Banti looks upon the spleen as the seat of origin of disease, and considers that the disease is an infective one. No observer has been successful in discovering a micro-organism in the splenic fluid, but Sippy has produced a rapidly fatal disease in rabbits by injecting the juice taken from the spleen in an atypical case of Banti's disease. In all probability the unknown poison either gains an entrance from without into the blood current and thence into the spleen, or it is built up in an indigenous manner in the form of an autointoxication. Another possibility is that the poison is first developed in the digestive track, for disturbances of digestion, and especially diarrhoea, are frequently noted as early symptoms. The ascites is of particular interest. In one case, in spite of increase of the splenic tumour, a great collection of fluid was found in the abdomen. Within three-quarters of a year about 5½ gallons were drawn off. There was no appreciable change of size of the liver, and no jaundice, and further, following a treatment of good diet – iron, arsenic, and other preparations – no return of fluid occurred in the eight months since the last paracentesis. The ascites, therefore, cannot be due to interstitial hepatitis, and, for many reasons, one can put aside the theory of circulatory stasis, due to the size of the splenic tumour. It must be due to some local cause in the abdominal cavity, which acts with the anaemia and the cirrhosis. Among the striking clinical phenomena the following may be particularly emphasized:—Haemorrhages from the gastro-intestinal track, from the nose, the lungs, the urinary canal, and the mouth and in the skin, icterus, melanoderma (according to Osler), and occasionally pyaemia. The examination of the blood is of great interest in these cases, and Senator gives the "count" of 20 cases. The changes, which vary within certain limits, are (1) decrease of number of red corpuscles; (2) decrease of volume of haemoglobin, which is greater than can be accounted for by the decrease of red cells: and (3) decrease of number of leucocytes, specially showing a want of multinuclear neutrophile leucocytes. These changes he describes as oligocytaemia, oligochromaemia, and possibly leucopenia. He deals briefly with the subjects of the differential diagnosis, prognosis, and treatment, for the details of which, owing to want of space, we must refer our readers to the original article.

(211) Amoebic Dysentery in Children.

S. Amberg (*Johns Hopkins Hosp. Bull.*, Baltimore, December, 1901) reports 5 cases of amoebic dysentery coming under observation at the Johns Hopkins Dispensary during the autumn and winter, 1900-1901, pointing out the infrequency of the disease in children. Two of the 5 cases occurred in members of the same family exposed to the same influences: 2 others were playmates, and had both been drinking gutter water, while a third companion of theirs, whose case is not recorded, was taken ill with similar symptoms. Four of the cases were of a mild type, with scarcely any alteration in pulse and temperature, the number of stools varying from 2 to 6 in twenty-four hours. In one case—a boy aged 5—the symptoms were more severe, the general nutrition being interfered with, and more or less anorexia, increased frequency of pulse and irregular exacerbations of temperature at night, the number of the stools varying from 8 to 15 in twenty-four hours. In the mild cases strikingly little pain and discomfort was complained of, rendering it difficult to enforce the necessarily important rest. Two of the cases had prolapse of the rectum, which was reduced spontaneously. None of the cases showed any affection of the liver, abscess (so common in amoebic dysentery in adults) being rare in children. The faeces were usually alkaline, and varied very much in consistency, being mingled with or followed by blood and mucus, and being very offensive. In 3 of the cases during convalescence the mucoid masses were replaced by stools of gelatinous consistence composed of continuous layers of epithelial cells. The diagnosis was based upon the finding of motile amoebae containing red blood corpuscles, and sometimes in the acid stools they continued to move for two or three hours. Surviving amoebae were stained with toluidin blue by Harris's method, which stains the endosarc blue, leaving the ectosarc free or less deeply stained; but the amoebae are not instantly killed by the stain, as stated by Harris, but were found motile even three or four hours afterwards, the motility varying inversely with the depth of the stain. Methylene blue and neutral red makes a good stain when, as in the former instance, the endosarc takes the stain, while the ectosarc remains free. Charcot-Leyden crystals were present in 4 of the cases, and Lewy insists upon a close relationship existing between them and the eosinophile cells, which latter in these 4 cases were never absent, though their number varied considerably. No conclusion could be drawn as to there being any relationship between the numbers of amoebae, crystals, and eosinophile cells, nor could any be established between the number of crystals and eosinophile cells in the faeces and the number of eosinophile cells in the blood. Pear-shaped monads with a flagellum at each end were found in the same 4 cases, but they were not constant either in occurrence or numbers. In 2 of the cases nucleated red blood corpuscles were seen, and in 4 of the cases there were varying degrees of anaemia from deficiency in haemoglobin, with evidence of leucocytosis in all. The presence of Charcot-Leyden crystals in the passages of a child may point to amoebic dysentery, since the amoebae themselves may only be found after several examinations.

(212) Epilepsy with Dermatalgic Crises.

Féré publishes some curious cases of epilepsy accompanied by intense feeling of itching, burning, and cold appearing suddenly over more or less extensive portions of the cutaneous surfaces (*Arch. de Méd. et de Chir. Prat.*, December 10th, 1901). The same writer has also described a case accompanied by dermatalgia, beginning in the genital region and spreading thence over the whole of the skin. The following is one of his cases: A boy, aged 15, with a marked neuropathic family history, showed at the age of 13 strange attacks of an epileptic character. During a meal or when in school or church he would go through a series of curious gestures or make curious and often inappropriate remarks generally of a disagreeable nature. In the course of a few moments he would resume what he

was about without any consciousness of what he had done, though occasionally he would say that he was impelled in some way to behave in this manner. At the same time he became the subject of facial troubles, which either took the form of sudden and complete amblyopia, disappearing without any pain; at other times a dyschromatopsia of the same duration, during which he lost some colour-sense, green appearing red. There was no accompanying headache under these circumstances either. All the symptoms disappeared under the influence of bromide of strontium. The drug, however, was stopped prematurely, and convulsive seizures appeared. During one such the patient cried out that he was burning. He bent forward, the arms being separated from the trunk, and he complained of severe sensation of heat extending over all the surfaces, including the face and scalp. The sensation was of an agonizing character and the least touch insupportable. Notwithstanding this sensation of heat, the face was pale and the extremities cold. In twenty minutes this curious phenomenon became less marked, and rapidly subsided. Under the influence of gradually-increasing doses of bromide these crises disappeared.

SURGERY.

(213) Formalin as a Disinfectant for the Hands.

Charles P. Noble relates (*Amer. Med.*, December 14th, 1901) what he calls "an unpleasant personal experience." Desiring to improve upon the present methods of hand disinfection, he was led to experiment with formalin solution as a substitute for bichloride of mercury solution. The method of hand disinfection which he had previously employed had been to spend fifteen minutes in scrubbing the hands with soap and hot water and in cleaning the nails. This was followed by an alcohol bath, and after this the hands were put through a saturated solution of permanganate of potash, a saturated solution of oxalic acid, and bichloride solution (1 to 1,000). In the bichloride bath the hands and forearms were immersed and allowed to soak. This method had given very good practical results. The introduction of rubber gloves into surgery caused one unpleasant consequence from the above method of hand disinfection: the sulphur in the gloves and the bichloride solution left upon the hands uniting to make a sulphide of mercury. This caused a black discoloration of the nails. It was principally on this account that it was desired to eliminate the bichloride solution. After having used formalin solution for about a month, a great inflammation appeared at the end of all the fingers, involving the nails. This inflammation was so violent that serum formed under the nails, separating them from the underlying tissue, and it seemed for a time as though all the nails would be exfoliated. Under the influence of rest and elevation of the parts, together with an ointment of ichthyol, the inflammation subsided without suppuration. As a consequence, however, the nails separated on an average for about one-third of their length from the distal extremity, but they are now gradually returning to the normal. The simultaneous involvement of all the finger ends excluded with reasonable certainty ordinary infection as a cause. Gout or other systemic causes could also be excluded. A local irritation was left as the only reasonable explanation. As the use of formalin was the only change in the method of hand disinfection which had been used for years, it was evident that this was the cause of trouble; and on reflection it was recalled that on the two days preceding the attack rubber gloves had been worn during four hours each day in the operating room, and also that on these two days the gloves had been put on filled with a solution of formalin (1 to 500). Noble said his usual practice in putting on gloves was to have them filled with salt solution; but on the two days in question, the operating-room staff being unusually busy, the gloves were filled with formalin solution to avoid taking the nurse away from other duties. The factors concerned in the production of the inflammation were, first, the use of formalin solution, and, secondly, its prolonged contact with the finger ends, there being enough of the solution left inside the gloves to keep the finger ends moistened in the solution while the gloves were worn.

(214) Gonorrhoeal Pelvi-Peritonitis in the Male.

It has been usual to look upon pelvo-peritonitis resulting from gonorrhoea as a disorder affecting the female pelvis. Battez, however, has made a series of observations (*Thèse de Lyon*, 1901) on its occurrence in the male sex. He has collected as many as 30 instances, many of which are from personal observation. This number at the same time proves the relative infrequence of the occurrence of pelvic inflammation in the male. The condition is rarely primary, there being on record only 2 cases of a generalized pelvo-peritonitis due to urethritis alone. It is almost always secondary to gonorrhoeal infection of the bladder and the prostate, but particularly is it the result of epididymitis vesiculitis and differentitis. It appears that pelvo-peritonitis complicating epididymitis is chiefly due to inflammation spreading from the vas deferens rather than inflammation of the other portion of the genital tract. There is even a case on record in which inflammation of the pelvic peritoneum even preceded epididymitis. It is true that the mechanism of the infection is not quite clear. Probably it is due to contiguity, for it is difficult to find the gonococcus present in the inflamed serous membrane. Whether it be due to extension or not two clinical forms may be described—the acute and the subacute. The first is generally benign, but occasionally it may generalize, and so become fatal. But even in benign pelvo-peritonitis the general and local symptoms are very marked. There is intense pain in the inguino-scrotal region spreading subsequently to the iliac fossa. The patient suffers from severe and repeated vomiting, high fever, constipation, diarrhoea, while the pulse and general conditions and the facies complete the picture of peritonitis. Pelvo-peritonitis in the male is characterized, therefore, by its short duration, the intensity of the local and general symptoms, and its relatively favourable prognosis. As a matter of fact, inflammation of the pelvic serous membrane runs a short course. If it be admitted that the gonococcus is the pathogenic agent this may explain the rapid evolution of the condition, the rapidity of reaction of this portion of the peritoneum thus accounting for the relative benignity of a form of inflammation which, under ordinary conditions, is regarded as extremely serious. The writer only quotes four instances in which pelvo-peritonitis has spread and become fatal. It is much more frequent to see cases of the subacute character accompanied by a few general symptoms, and in which rectal examination only can confirm the diagnosis. Such a condition is supposed by the writer to be present in many cases of gonorrhoeal orchiepididymitis, in which the patient complains of vague abdominal pain, together with a general feeling of *malaise*. It may be easy in some instances to diagnose the existence of gonorrhoeal pelvo-peritonitis in which the history points to a preceding discharge or a well-marked epididymitis, but there are cases in which this latter does not exist, and there is little to indicate gonorrhoea. Such cases may be diagnosed as appendicitis, intestinal obstruction, or perforative peritonitis. The value of rectal examination in all such cases is very important, and even should the epididymis be as yet uninflamed such a method of diagnosis may demonstrate the existence of vesiculitis. As regards the treatment the writer advises the internal administration of opium and the application of ice to the abdomen. Leeches may also be of some use.

MIDWIFERY AND DISEASES OF WOMEN.

(215) Rupture of Interstitial Pregnancy: Operation: Recovery.

Lapthorn Smith (*Montreal Med. Journ.*, August, 1901) reports a case of great interest, as the haemorrhage was very severe. The patient was 30; she married at 18; had pelvic inflammation shortly afterwards, and her husband died of tuberculous phthisis. She married again at 22, and was perfectly regular for eight years. Then she had a violent attack of pain, syncope, and the usual signs of internal haemorrhage just six weeks after the last period. The breasts had swollen, and morning sickness had set in. Operation was delayed till the patient was very ill from repeated

attacks of haemorrhage. The abdomen was opened two days less forty minutes from the rupture: then came a gush of bright red blood. Neither tube was ruptured: the right was closed and full of fluid. On drawing up the uterus the source of haemorrhage was traced to a ruptured interstitial or tubo-uterine pregnancy, half-way between the middle line of the fundus and the left cornu. The rent and the cavity were closed with a double layer of catgut stitches; the deeper, which obliterated the cavity, was very firmly tied. The left tube and ovary, on the affected side, were amputated, and a new ostium was made in the right tube. A gallon of fluid blood and clot was removed; some large ovagula lay behind the stomach and under the liver. Then the peritoneum was flushed with a gallon of salt solution. Two quarts were left in the abdomen, and a pint of salt solution thrown up into the rectum every two hours all day. After forty-eight hours the patient rallied, and in three weeks she was convalescent.

(216) Pruritus Vulvae: its Cause and Treatment.

L. Seeligmann (*Deut. med. Woch.*, February 27th) has investigated the condition known as pruritus vulvae bacteriologically. He points out that he has dealt chiefly with those cases in which the primary cause cannot be found, or no layer is present, and therefore with the class generally believed to be a true neurosis, and not with cases of kraurosis vulvae. In the latter, the skin changes are definite, and it has nothing whatsoever to do with pruritus. Seeligmann found a diplococcus in the skin of the vulva of patients suffering from pruritus which has definite characteristics. It is obtained generally in pure culture, but after the cases had been cured, he always failed to cultivate any of the micro-organisms at all. It is like the gonococcus, but differs from it by its behaviour towards Gram's staining, and in culture. It is readily stained by all aniline stains and also by Gram's method. It grows readily on agar-agar, glycerine-agar, bouillon (with unpleasant odour), potato, yeast-bouillon (with a most objectionable odour), and slowly on gelatine. The cultures are easily killed in 5 minutes by 10 per cent. solutions of guaiacol vasogen. Applying this experimental bactericide to practice, he finds the 10 per cent. solutions of guaiacol-vasogen, applied by a pledget of cotton wool to the affected part at night time (the wool is allowed to remain *in situ* all night) are usually sufficient to cure the condition in a few days, but at times it may be necessary to continue the treatment for a longer period, or to use stronger solutions (15 to 20 per cent.). Care must be exercised, if strong solutions are used, that the skin is not irritated too much.

(217) Entero-vaginal Fistula (Sigmoid Flexure).

Frederick (*Amer. Journ. Obstet.*, November, 1901) publishes a full report of a sigmoido-vaginal fistula of remarkably obscure origin. The patient was 32, and the mother of four children. A year after the birth of the last she fell ill for a few days; her doctor found her reduced in flesh and strength, with fever and fetid discharge. Sloughing of the vaginal portion of the cervix was detected, and attributed to malignant disease. Frequent vaginal haemorrhages began a fortnight later, and lasted for nearly a week. The curette brought away soft tissue, and the sound passed freely into the abdominal cavity through the uterus. At the end of three months she was very ill, foul discharge continuing all the time, but then faeces began to pass through the vagina freely after several weeks of obstinate constipation. At the end of three months the patient was restored to health, but the faeces passed entirely through the vagina. Frederick examined the patient, and could find no trace of malignant disease in the neighbourhood of the cervix. The left half of the cervix and uterus were gone, the finger could with ease be passed into the fundus. The bleedings six months previously arose, it was clear, from ulceration into the uterine vessels. Intestinal mucous membrane protruded into the orifice in the vagina. Four inches above the anus there was complete occlusion. Abdominal section was performed. A mass of adherent intestine, tube, and ovary, and inflammatory deposit filled the left side of the pelvis. The sigmoid flexure opened into the vaginal fistula. Three inches of absolutely occluded gut separated it from the occluded upper end of the rectum. The rectum was united by a Murphy's button to the sigmoid flexure. The occluded segment of intestine was sewn over the opening into the vagina, as the broad ligament had been destroyed by sloughing, and no other structure was available. The bowels acted on the fourth day, and the button came away on the eleventh. Perfect restoration to health was the ultimate result of the operation. The cause of the sloughing and fistula was most probably a sigmoid ulcer due to a splinter of bone or other foreign body wounding the mucosa, and setting up an infective inflammatory process which involved the left broad ligament, vagina, and uterus.

THERAPEUTICS.

(218) Treatment of Lupus by Potassium Permanganate.

Dupuy has collected a large number of observations relative to the treatment of lupus by potassium permanganate (*Thèse de Paris*, 1901). This method was first suggested by Butte for the treatment of lupus vulgaris and also erythematosus. Butte applied a dressing consisting of a compress saturated with a lukewarm 2 per cent. solution of potassium permanganate for 12 to 15 minutes daily for about a fortnight, after which the treatment was applied every two days. This treatment was modified in the following manner: A 1 in 50 solution was applied according to the Butte method, while in the case of non-ulcerated lupus a powder was used as giving the best results. The following is the method: The whole surface having been washed either with an ichthyol soap or an emulsion of corrosive sublimate of tincture of benzoin and soap in distilled water, and carefully dried with tampons of absorbent wool, powdered permanganate is spread over the whole of the lupus patch with a spatula. Should the area affected be extensive only a portion is so treated at a time. A piece of dry absorbent wool is then applied, and the whole is left on a quarter of an hour. At the end of this time the wool is removed and the surface washed with boracic lotion and a simple wet dressing applied. Generally a single application of potassium permanganate is sufficient. Usually a small quantity of the powder remains *in situ*, and after a few days it disappears and a red ulcerated surface is left. Three or four days later this latter shows cicatricial changes. Should any of the tubercles still remain a second application may be made. This method is especially indicated in those cases where the surface is vegetating or where there are thick prominent cicatrices and scars. Permanganate in solution is more convenient in cases of lupus erythematosus or when the lupus is slight in amount or showing superficial ulceration. Under such treatment the ulcers cicatrize rapidly, and the tubercles, at first covered by a slight crust, become free and do not project. Unfortunately, where the disease has affected the whole thickness of the skin this method is disappointing. The points in favour of this treatment as carried out by Dupuy and Butte are that it is painless, it is easy and inexpensive in application. The writer maintains that it is more rapid than scraping, and the resulting cicatrices are softer, flatter, and less likely to contract than those following other methods. One disadvantage is that the tissues are considerably stained. The method is not applicable to the treatment of lupus affecting mucous surfaces.

(219) An Artificial Oesophagus.

S. Spiegel (*Berl. klin. Woch.*, February 3rd, 1902) gives suggestions, with diagrams for artificial oesophagus. He finds that the lot of those patients who have stenosis of the swallow is a very sad one, even when gastrotomy has removed the danger of death from starvation. Trendelenburg's case, when the patient had to spit out his food after mastication into a tube and syringe this into his stomach, does not, to Spiegel's mind, open up a pleasant promise for other cases. The difficulty lies in the fact that an ordinary tube becomes blocked from want of peristaltic movement. Spiegel proposes that a tube be introduced into an opening in the cervical portion of the gullet (protected by a rubber diaphragm) and ending in the opening, produced by gastronomy, in the stomach. His tube can be arranged in several ways: (1) It can be provided with a roller, which presses the tube flat when moved downwards, but leaves it uncompressed when

brought back to the upper end; (2) the tube can be supplied with a pouch-like balloon, and this can be pressed on by a lever, so that at each "pressure of the button of the lever," the contents are driven downwards; (3) a clockwork arrangement can be attached to a horizontal roller, provided with a spiral arrangement of pegs. As the roller revolves the pegs press corresponding blocks on to the tube, one after another, so that the tube acquires a peristaltic movement from above downwards, as long as the clockwork is in motion. Spiegel states that the apparatus have been constructed after his models.

(220) Sublamin.

In the January number of the *Therap. Monatsh.* (1902) sublamin is stated to be an antiseptic which is capable of replacing corrosive sublimate. It is a combination of the sulphate of mercury and ethylendiamin, and is made up in pink-coloured tablets by the firm of Schering, and sold in glass tubes containing 20 1-gram tablets. It is non-irritant, as may be seen by the fact that a 2 per cent. solution does not affect the skin of the hands. A 3 per cent. solution is advised for the disinfection of hands after these have been well washed with soap and water.

(221) Shaken Rennet Milk.

Langstein (*Jahrb. f. Kinderheilk.*, January, 1902) gives details of 24 cases fed with shaken rennet milk, most of them dyspeptic infants. The rennet he used is known commercially as "pegnin," in which form it is combined with milk sugar. A very little of this white powder added to each bottle produces coagulation; the bottle is then shaken until the curd is reduced to fine flocculi, resembling the condition of casein coagulated from human milk. These infants owing to improper feeding had got into a chronic dyspeptic state, in which the stomach was so irritable as to totally reject milk. Besides the vomiting there were dyspeptic stools, and the children cried night and day from hunger and colic, and ceased to put on flesh. Almost as soon as this new food was given vomiting ceased and sleep returned, and although the stools improved more gradually weight increased at once, at quite the normal rate of growth. The quantity given was 3 or 4 oz., and the intervals were fairly long, three and a-half or three hours. The milk should be given undiluted for children of all ages, though occasionally it suits better with a little water added. In the ordinary management of dyspepsia in infants, after a few days of an indifferent diet of albumen water or meal foods, the transition to milk is the difficulty. If this is much diluted it may be retained, but its nutritive value is low, and its bulk taxes the powers of the weak intestinal muscles. The advantage of the shaken rennet milk is that the general nutrition improves at once. The mechanically disintegrated casein is not rejected by the stomach, and is easily acted on by the digestive juices and assimilated. Its bulk is small, and gives the digestive tube comparatively easy work and intervals for rest. After a time intestinal digestion recovers its power, and when this has been fully established for some time ordinary milk may be resumed. The rennet milk may usually be taken for a month or two altogether.

PATHOLOGY.

(222) Enteritis with Anaemia Caused by Uncinaria Duodenalis.

J. L. Yates (*Johns Hopkins Hosp. Bull.*, Baltimore, December, 1901) reports the first published occurrence of the disease in Maryland, eight having been reported in the United States of America during the year. Owing to non-diagnosis of the presence of uncinaria duodenalis, its prevalence is greater than generally supposed. The case was that of an English sailor, aged 39, whose only known stop at a tropical port was at Vera Cruz, Mexico, immediately before his arrival in Baltimore and after the onset of symptoms. He had felt ailing for six months, with poor appetite and digestion, and some diarrhoea with colicky pains. Cough and night sweats were absent, but there had been some dyspnoea, which together diarrhoea and abdominal pain had become progressively worse since four weeks before admission to hospital, blood having appeared in the stools, and there was marked loss of weight. On admission physical examination revealed nothing of importance beyond pronounced anaemia with a poor general condition and a dulled mentality; abdominal tenderness was present at some points; the urine had a specific gravity of 1010, no albumen and no casts. The anaemia became more and more profound and the patient's condition progressively worse until death on the eighteenth day after admission. At the necropsy the skin was noticed to have a peculiar yellowish tint, and the conjunctivae and mucous membranes were very anaemic, the body being extremely emaciated. On the surface of the liver were white lines, and microscopically each lobule contained an area of necrosis about the central vein, varying considerably in extent in different lobules. In the spleen pulp eosinophiles were present in great numbers, but no nucleated red corpuscles were seen. Haemorrhagic contents of a mucoid nature were present in the third portion of the duodenum in which a few adult uncinaria were found, and this condition persisted as far as the caecum, but no ulceration was noticed. In the jejunum and ileum the worms were present in large numbers, many having their heads buried in the mucosa, the amount of muco haemorrhagic material being greatest where the worms were most numerous, but none were found in the large intestine. Both male and female parasites contained red blood corpuscles, and the females appeared to exceed the males in number by more than 4 to 1. Ova were found in great profusion in the large and small bowel, and the intestinal contents contained a large number of Charcot-Leyden crystals. The basal portions of the mucosa were infiltrated with eosinophiles, which were present also in the submucosa, and even in fewer numbers in the muscular coats. Comparing the observations of others with his own, the author concludes that the parasite produces in the intestinal canal a substance chemotactic for eosinophilic leucocytes, causing local infiltrations of the intestinal structures with eosinophiles, and at times an accumulation of the latter in the blood. Probably another toxic substance is formed causing haemolysis and tissue degeneration. Thayer, in the discussion, draws attention to the importance of recognizing the eggs of uncinaria duodenalis in the stools, urging the systematic examination of the latter in cases of grave anaemia in regions where the parasite is likely to be present.

(223) The Action of the Serum of Cancer Patients on Yeasts.

In conformity with the ascertained fact that one result of the entrance of organisms into the animal body is the production of a series of substances antagonistic to the organism, the serum of cancerous subjects should exhibit similar substances antagonistic to the yeasts if the disease is due to the latter. Brouha (*Centralbl. f. Bakt.*, December 31st, 1901) has investigated the serum of subjects of the disease as to the presence of specific agglutinin and "*substance sensibilatrice*" for yeast cultures. Of the latter he has employed two common varieties and also the yeast of Sanfelice, those of Plimmer and Leopold and a yeast isolated from an epithelioma. Neither of the two substances was present in the serums examined, that is to say the serums did not exhibit the characteristic action of either when brought in contact with the various strains of yeast. He affirms that it becomes less and less probable that yeasts play any particular part in the production of cancer.

(224) Conjunctival Tuberculosis following a Dog Bite.

Stutzer (*Beitr. z. Augenheilk.*, Heft xxx) relates the case of a 5-year-old child, healthy, and of healthy parents, who received a bite from a dog which caused a lacerated wound of the right lower eyelid. In six weeks it had healed; after three months the lid appeared red and thickened, and the glands in front of the right ear were swollen. At the site of the scar a discharging ulcer developed, and the general condition deteriorated. A piece of the ulcerating tissue was removed for diagnosis: a portion of this was inserted into the anterior chamber of a rabbit, and the rest was used to determine the structure and search for tubercle bacilli. From all three points of view the diagnosis of tuberculosis was confirmed. It was positively stated that the dog had immediately before eaten the placenta of a tuberculous cow.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(225) Diagnosis of Tumours of the Corpus Callosum.

Putnam and Williams (*Journ. of Neur. and Ment. Dis.*, January, 1902), in a lengthy memoir on tumours of the corpus callosum, including records of all the cases (38 in number) known to medical literature, formulate certain valuable conclusions. Three cases were personally observed: (1) Of the 38 cases, 12 showed *post mortem* that the tumour was confined mainly, though not absolutely, to the corpus callosum; (2) there is much likelihood of mistaking the effects of such growths for functional psychoses of various sorts, and still more for the symptoms of general paralysis; (3) perhaps the only symptoms attributable to callosal tumours are mental changes, but as the growth almost invariably invades the neighbouring parts of the hemispheres and presses upon the basal ganglia, collateral symptoms may be set up; (4) the 3 cases personally observed (2 men aged 50 and 56 years, and a woman aged 22 years) showed symptoms in accordance with the locality of the growth and the extent to which cerebral centres were involved. The last case began with headache and vomiting, followed by vertigo and well marked double optic neuritis. Optic atrophy followed, while the other symptoms subsided. Active cerebral symptoms then recurred, the pupils being dilated and unequal, sight lost, right knee-jerk absent, and sensation diminished below the waist line. Marked mental dullness was now noticed. Optic neuritis was temporarily lighted up in both eyes before death, this fact being almost unique. Necropsy showed a tumour 6 × 5 cm. occupying the ventricles and reducing the superjacent corpus callosum to a mere membrane in its middle portion. The prefrontal lobes were also invaded by the growth, especially on the right side. In the first case (man, aged 50) a history of occasional "faints" (probably epileptic attacks) was the earliest symptom. Then followed gradually nervous prostration, irritability and change in character, inability for business, hesitancy and stammering in speech, vague sense of pressure in the head and eyes, and an unusual inclination to lie down and rest. Later there appeared numbness of the right leg and marked mental failure, leading to the suspicion of general paralysis. Remissions occurred, and then followed weakness of the legs, paresis of the right arm, difficulty of speech, tremors of lips and tongue, and eventually coma and death. (Trephining to relieve suspected intracranial pressure met with no permanent benefit.) Necropsy revealed a tumour involving the corpus callosum and left frontal lobe (mesially) and slightly also the right. The basal ganglia were compressed. The tumour tapered off posteriorly, and was absent at the plane of the splenium. In the remaining case obscure mental symptoms existed for a time, and eventually a rapid development of paresis and coma followed, ending in death. Here the tumour was small anteriorly and large in the posterior half of the corpus callosum. (5) The general symptoms (as stated by Bristowe, Bruns, and others) of callosal tumour are slow or rapid mental failure, stupor, and sometimes hallucinatory delirium. Paralysis is of slow onset, and is hemiplegic or diplegic according to degree of lateral growth. Cranial nerve paralysis is usually wanting. A lack of co-ordination and weakness of movement are present. (6) Tumours involving the splenium are more apt to impair leg movements before the arms are affected, the face remaining unaffected.

---

(226) Interlobar Empyema Consecutive to Hepatic Abscess.

Duplant (*Lyon Méd.*, January 26th, 1902) records a case of purulent pleurisy, associated with abscess of the liver and lesions of the large intestine. His patient, a man 35 years of age, an alcoholic with a history of small-pox and of iliac and tibial osteitis during childhood, suffered violent pain in the caecal region of some hours' duration, without shivering or vomiting. Ten days later, on admission into hospital, there was pronounced dyspnoea and bilious vomiting, but no cough. On examination the liver was found large, the edge being four fingerbreadths below the costal margin. Nothing abnormal was found over the left side of the thorax. The dullness extended from the spine of the scapula to the base on the right side behind. In the axillary line the dullness was limited by the fourth space above and in front reached from the liver dullness to the nipple. The temperature oscillated between 38.8° and 39.7°. A series of exploratory punctures were made over the dull area, first space by space up to the fifth behind, then three more through the fifth space, one in the axillary space, a second in the anterior axillary line, and a third within the nipple line. The last exploration only gave issue to a sanguineous, purulent fluid. A crescent-shaped incision was then made, a portion of the fifth rib resected, and a large cavity opened, which was separated by adhesions from the pleural cavity below. In spite of drainage the temperature remained irregular. A second intervention was decided upon, and another large abscess was drained through an incision at the base of the thorax behind. A few days afterwards the patient died from profuse intestinal haemorrhage. At the necropsy large oval swellings, some ulcerated and some greyish in colour, were found studding the whole of the large intestine. Their exact nature was not determined; they did not resemble dysenteric patches, and there was no sign of tubercle. The fatal haemorrhage occurred from an ulcer of the caecal wall. The liver contained a large abscess above and behind. The interlobar abscess cavity, situated at the fissure, had almost closed.

---

(227) Microcephaly.

P. Bull (*Norsk. Mag. f. Laegevidensk.*, lxii, 1230, November, 1901) records a case of microcephaly in a girl, aged 17½ years, in whose family history there was no trace of alcoholism, convulsions, or insanity. During the first years of her life she was bright and intelligent, and knew her letters when 3½ years old. At the age of 7 she had a slight febrile attack lasting eight days, without cerebral symptoms. The same year she was sent to school, and learned as rapidly as the other children. In six months, however, she began to be dull, she had difficulty in walking, and stumbled frequently. From the age of 10 she had great difficulty in pronouncing words, and her vocabulary diminished. During the past fifteen months she had ceased to speak, and for a year has not recognized her relations. For five or six years she has not walked or stood upright without support, and for about the same time there has been shaking of the upper limbs. For about two years the urine and faeces have been passed involuntarily. Menstruation began at the age of 12, and was regular, but ceased a year ago. For about five years she has had an idiotic expression, with an imbecile smile, and has had epileptic attacks, increasing in frequency and averaging in the last year of life several each day. Death occurred as if in sleep. The head only was examined *post mortem*. The brain weighed only 050 grams, of which 20 grams was for the membranes; the latter were not adherent. The vertical measurements of the brain were very small compared with the transverse and antero-posterior; this was specially evident in the temporal lobe. The convolutions were generally narrow, but numerous. The cerebrum entirely covered the cerebellum; its length was 14.5 cm., its breadth 12 cm., and its height 6.2 cm. Its largest horizontal circumference was 44 cm., but round the parietal and temporal lobes it was only 34 cm. The third frontal convolution was poorly developed. The fissure of Sylvius was well marked, and the island of Reil was well covered and had distinct convolutions and sulci. The central ganglia presented the usual appearances. The first convolution passing from the parietal to the occipital lobe was very evident. There was no simian fissure. The parieto-occipital fissure was well marked. The third temporal convolution was situated entirely on the under surface of the temporal lobe. On the median aspect the cuneus and precuneus (or quadrate) lobules were very apparent. On section the cortex was very thin, being in some places only 1 mm. thick. The most remarkable feature in the case was that mental enfeeblement did not show itself

till the age of 7 years. Photographs at the age of 3½ and of 17 years are given, and show a striking difference in physiognomy.

SURGERY.

(228) Treatment of Club-foot.

Lucas-Championnière (*Bull. de l'Acad. de Méd.*, No. 4, 1902) advocates a free and radical operative treatment of both exaggerated and mild forms of talipes varus, the principle of which consists in an extensive removal of bone and the preservation in an intact condition of tendinous and ligamentous structures. Another important element in this novel method of treatment is the disuse of orthopaedic and also of immobilizing appliances. The author holds that as all the bones of the tarsus, in consequence of their malformation and mutual displacement, play the chief part in the production of club foot it is necessary to suppress these structures. Absolute mobility or, as it is called, malleability of the tarsal portion of the foot is thus established, which permits a prompt correction of the form of the limb without the use of any kind of splint, and an early restoration of its function. The operative treatment consists in successive removal through an incision, made along the dorsum of the foot, of the astragalus, the cuboid, the scaphoid, the three cuneiform bones, and in many cases, though not always, of the proximal end of the fifth metatarsal bone. As a rule only the anterior third of the calcaneum is removed, but in extreme cases, it is stated, it will be found necessary to sacrifice the whole of this bone with the exception of a small part corresponding to the insertion of the tendo Achillis. The author has performed tarsectomy in 31 cases, in some on one, in others on both feet; most of these patients were adults and all were disabled by extreme deformity. Some were instances of congenital others instances of acquired club-foot. In the first seven cases the author removed either the astragalus alone or this bone together with the scaphoid and cuboid, but since 1889 he has systematically extirpated all the bones of the tarsus. The results of this treatment, it is asserted, have been excellent, the patients being able to walk well and without the support of any special boot or splint. The foot is arched and solid, the solidity being due, as shown by the *x* rays, not to any regeneration of bone, but to firm fibrous adhesions between the metatarsal bones and the remaining fragment of the calcaneum. There is decided shortening of the foot in these cases, but the form of the extremity, the author states, is good. This method of treating severe club-foot is held to be the most simple one, and the most prompt and efficient in its results. The author regards it as superior to all other operative methods that have hitherto been practised, and anticipates that, when better known to surgeons, it will be widely approved and afford still better results.

(229) "Pulled Elbow."

Denucé (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 1, 1902) discusses the nature of the abnormal condition met with in the injury known as "pulled elbow," and supposed to be due to subluxation of the head of the radius. This injury, which occurs only in infants as a result of forcible traction of the forearm at the wrist, cannot, the author holds, be the result of any displacement of the head of the radius or of fracture, epiphyseal disjunction, or laceration of ligament, as a very simple manipulation suffices for the removal of the lesion and for complete and instantaneous relief. He is of opinion that the offending structure in this injury is that first described by his father under the name of the *ligament carré* of Denucé. This quadrate ligament extends from the lower margin of the lesser sigmoid cavity to the opposed part of the neck of radius, and restricts the movements of this bone in movements of extreme pronation and supination. The author holds that in extreme pronation with extension and abduction of the forearm and downward displacement of the head of the radius, caused by traction on the wrist, the anterior border of the quadrate ligament falls below the anterior border of the orbicular ligament and leaves an interspace through which the lax synovial membrane of the joint protrudes and forms a kind of hernial protrusion, which becomes fixed until the forearm is extended, forcibly supinated, and finally flexed. The exclusive occurrence of this lesion in infants is explained by the supposition that in older subjects the orbicular ligament acquires a closer grip of the neck of the radius, and that the synovial membrane loses its laxity.

(230) "Dislocation" of Goitre.

J. Preindlsberger (*Wien. klin. Woch.*, No. 45) details an operation which he describes as a modification of Wölfler's operation, for the treatment of goitre. The patient was a woman, aged 23 years, who reported a considerable recent growth of her goitre. She complained of difficulty of breathing on quick walking and on climbing up hill. The thyroid gland was found to be enlarged to the size of a child's head. The upper border reached the top of the thyroid cartilage, and the sterno-mastoids were pushed outward as far as a line perpendicularly drawn from the mastoid processes. The gland was divided into three tumours by two grooves. The central portion was more freely movable than either lateral part. The larynx was found to be displaced to the left, and the left posterior wall was protruded into the lumen of the organ below the cords. The patient was subjected to operation under local anaesthesia. The incision was made transversely, with a slight curve directed downwards, and the skin and platysma were divided. Next the accessory thyroid capsule of the right lobe was cut through, the lobe was freed from its surrounding tissues, the superior and inferior thyroid arteries tied, the isthmus was freed from the trachea, and a largish artery in the peritracheal connective tissue tied. The thyroid and cricoid cartilages and the upper rings of the trachea now lay free, after the lobe of the goitre belonging to the isthmus had been extirpated. In the same manner the upper part of the left lobe was freed, the superior thyroid artery tied, the lobe displaced forwards and to the middle line, and the wound was closed except for a space to allow of a gauze drain. The wound healed without difficulty. Later on Preindlsberger was able to determine that the dislocated left lobe was considerably shrunken in size, and the laryngoscopic examination revealed no abnormality. There was, however, some hoarseness of the voice.

(231) Gonorrhoea of the Prostate.

At the recent annual meeting of the Medical Society of the State of New York, John Vanderpoel (*Boston Med. and Surg. Journ.*, February 13th, 1902) was the author of this paper. Concerning the frequency of this affection he said that in 190 dispensary and private cases it was present in 36 or 39.7 per cent. The Thompson two-glass test was not frequently sufficient to detect this disorder. In the great majority of cases the symptoms of posterior urethritis were more or less marked. Rectal exploration and examination of the fluids obtained by massage should be made in order to make the diagnosis. The presence of many leucocytes indicates posterior urethritis and prostatitis. After voiding the urine the meatus should be cleansed with a quarter to a half per cent. solution of protargol, and then with the patient in the horizontal position the anterior urethra should be filled with a half to a three-quarters per cent. solution of cocaine, and then after three or four minutes the protargol should be injected into the bladder by means of a large urethral syringe rather than by the irrigating apparatus. Usually from 200 to 400 grams were employed, and then the patient was allowed to void it. The treatment should be instituted if possible within the first day or two. Instrumental massage was both unnecessary and dangerous; it was far better to use the finger and make the massage light in the acute cases. The author was of the opinion that epididymitis was not more common after such irrigation treatment.

MIDWIFERY AND DISEASES OF WOMEN.

(232) Treatment of Abortion.

The occurrence of an accident in the hands of a general practitioner has induced Sellheim (*Münch. med. Woch.*, March 11th, 1902) to consider the treatment of abortion. The case was that of a woman aged 34, who had had five normal confinements previously. She had a haemorrhage on the fourth month of her sixth pregnancy, and on the third day a practitioner was called in. He

found an offensive discharge and pyrexia (temperature 103° F.). He therefore cleared out the ovum by means of Winter's forceps. In so doing he perforated the uterine wall, and dragged a coil of intestine out at the vulva. On recognizing what had happened he plugged the vagina, and had the patient taken immediately into the hospital. Sellheim discovered at the operation, which he performed, that the uterus had been torn jaggedly, and that the lower end of the descending colon and sigmoid flexure had been detached from the mesentery and opened. The wounded intestines were resected, and the uterus and appendages removed. The patient made a good recovery. Sellheim first depicts the conditions of pregnancy and of abortion in the second, third, fourth, and fifth months, and then proceeds to deal with the practical deductions. He directs his remarks to the general practitioner and not to specialists, and suggests the best methods which the former should adopt in order to incur little risk for the patient. No interference may be undertaken in ordinary cases. This rule admits of exceptions: First, in cases of severe anaemia produced by a profuse haemorrhage, or by long-continued slighter bleeding; secondly, when portions of the ovum are retained; and thirdly, in cases which have become septic. The most rational method of arresting haemorrhage is to remove the ovum completely. If this has left the body of the uterus, and is retained partially or totally in the cervix or vagina, a speculum should be introduced, and if the finger cannot easily complete the removal, ovum forceps may be used. On the other hand, when the ovum is still in the body of the uterus, one or two fingers should be introduced, and while counter-pressure is exercised by the other hand from the abdominal wall, the sac separated completely from the uterine wall. Once it has been separated, it can usually be removed by combined action of the internal finger and expression from without. The whole process can be made more easy if one seizes the anterior lip of the cervix with vulsellum forceps (double-toothed), and administers an anaesthetic. Sellheim urges that the operator must not be disturbed by the haemorrhage, but must rely on the fact that this will cease on completion of the abortion. It may be that the cervix is not permeable for the finger. In this case, he advises thorough plugging of the uterus, cervix, and vagina with sterile iodoform gauze. The cervix must be brought into view with a Sims's speculum, the direction of its canal be ascertained by means of a uterine catheter or sound, and the size of the uterus by bimanual examination and not by the sound. The vagina is to be thoroughly irrigated, cleansed, and dried, and then the strips of gauze introduced with smooth ovum forceps. All one's efforts should be directed toward keeping the ovum intact. At times it may be necessary to substitute a sound for the forceps in packing the uterus. If the ovum is not cast out after twenty-four hours, the plugging is to be removed, the passage again thoroughly disinfected, and a second packing undertaken. The next point which Sellheim raises is, whether small portions of the decidua vera, which may be left behind after the abortion should be removed. He considers that one may leave portions of decidua vera behind, but all else must be cleared out. The diagnosis that the whole contents come away can be made from inspection of the ovum. Failing this, one can be guided by the bleeding. Ordinary lochial discharge follows complete abortion, while severer loss indicates some retention. If one has had the necessity of assisting the removal of the ovum, it is a good plan, on completion of it, once more to introduce the finger and to examine the uterine cavity. In removing the remains of an incomplete abortion, if possible only the fingers should be used; but should instruments be required, these must always be employed under the guidance of the finger in the cavity of the uterus. Only when the uterus is well contracted, and when some time (if possible fourteen days) has elapsed since the actual abortion took place, is it a justifiable procedure to curette the uterus? At times the haemorrhage persists after the completed abortion. In such cases uterine irrigation with chlorine water generally suffices to control this. Failing this procedure, the uterus must be packed. In septic cases, he especially warns against the use of the curette. Ovum forceps may be used with care. He concludes by giving a short description of the instruments to be used in carrying out the treatment of abortion.

(233) "Castration" by Atmokausis.

Ludwig Pincus (Castratio Mulieris Uterina, *Centralbl. f. Gynäk.*, No. 8, 1902) advocates what he terms "uterine castration," a procedure which consists of sterilization by atmocausis, the endometrium being destroyed by scalding steam. His first patient was a phthisical young woman with a bad family history. She had been twice pregnant, and the lung disease increased at each pregnancy; there was also menorrhagia. It was not, Pincus reminds us, on account of the latter symptom that he was induced to interfere, but rather because the phenomena of sexual life were turning the scale against the patient. He preferred atmokausis to any cutting operation. No anaesthetic was necessary. The scalding superheated steam (110° C.) was played into the uterine cavity for forty seconds. The eschar came away in small fragments, and three weeks later atmokausis was again applied, this time for fifty seconds, at the same temperature as before. No local disturbances followed, menstruation never recurred, and the uterus atrophied, its cavity becoming entirely obliterated above the os internum. Menstruation ceased, with but very mild menopause symptoms of the usual character. The effect of this suppression of the genital functions on the patient's general health was eminently satisfactory; the pulmonary symptoms improved steadily. This case occurred in May, 1898. Once more, in September, 1900, Pincus applied atmokausis to the uterus of a patient, with the same aim as in his first attempt. She had been pregnant four times, much to her detriment, for she was subject to albuminuria greatly aggravated during gestation. After all four deliveries flooding had been severe and hard to control. The steam, at 115° C., was turned on for a minute at the first sitting, and three weeks later it was reapplied at 112° for the same length of time. The result was excellent. The uterine cavity was completely closed, and the troubles ceased altogether. The cervical canal remains patent, so it is possible that a cervical menstruation may be established within a few years. Fritsch has observed this phenomenon in several cases where atmocausis was applied for direct therapeutical purposes to the endometrium. It is on Fritsch's researches and experience that Pincus grounds his new procedure. That authority dwells, in his textbook, on obliteration of the uterine cavity as an effect of atmokausis which has been freely used abroad for disease of the endometrium. In such cases when the patient was clearly cured, atmokausis saved her from the necessity of hysterectomy. Fritsch therefore thought that the new therapeutic agent might profitably be used with a physiological aim. In all cases the cavity of the uterus should be explored to make sure that it is not the seat of malignant disease, Fritsch insists that sterilization by atmokausis is alone justifiable when there is, what he terms, a vital indication, as in the cases where he practised it. It is not justifiable merely to prevent conception.

THERAPEUTICS.

(234) Immunization in Hay Fever.

At the last annual meeting of the American Laryngological, Rhinological, and Otological Society, H. Holbrook Curtis, of New York, read a paper on immunization in hay fever (*N. Y. Med. Journ.*, March 8th). He said he had begun his experiments in this field by administering hypodermically a sterilized infusion of roses. After two weeks of this treatment a lady had been able to stand the effect of the odour of roses. He had then treated this neurotic individual by similar preparations of violets and lilies, and with equally good results. He had next noted that other flowers than these could be included in a bouquet without causing the distress formerly experienced. He had next determined to apply this therapeutic principle to hay fever, and as a result there had been placed on the market a preparation of the fluid extract of ragweed with aromatics. With each bottle a printed blank had been sent out with a request for the co-operation of those using the remedy in systematically studying it. At the end of four weeks, after sending it out, reports had been received of 18 complete recoveries, of 4 cases show-

ing considerable improvement, and of 12 cases in which the result had been negative. About 3,000 bottles had been sent out. Many letters were read to show what had been the results, both favourable and otherwise. After studying these reports, and considering his own experience with about 100 cases, he had come to the conclusion that in cases of hay fever due entirely to the ragweed, immunization could be secured in about 60 per cent., but that in cases of mixed infection, with a preponderance of asthmatic symptoms, a nasal spray of suprarenal extract should be employed. H. L. Wagner said that, having heard of Curtis's experiments, he had undertaken the analysis of various extracts of flowers with the object of ascertaining what effect they might have on the serum of the blood. It seemed that the so-called glucosides of the vegetable kingdom formed certain chemical combinations with the albuminoid products of the blood. He did not refer to the serum albumin or the serum globulin. He fully agreed with Grayson that cases of toxic rhinitis often resulted from the formation of certain acid products of fermentation. Just as some persons were peculiarly sensitive to such toxins in the blood, and exhibited this idiosyncrasy by the development of rhinitis, some might be peculiarly sensitive to the glucosides of flowers. He had had patients seized with symptoms of hay fever after riding behind a horse, whether or not the animal had been well groomed. The peculiar smell of the horse was due to hippuric acid, and hence it had occurred to him to try injections of horse urine. Instead of this, however, he decided for various reasons to employ pure hippuric acid. He had used a solution of hippuric acid of the strength of from 3 to 3.5 per cent. One or two cubic centimetres were injected every third or fourth day. One of the persons thus experimented on, after eight or ten weeks of the treatment, was able to drive without having the symptoms formerly observed. This result might possibly have been dependent upon suggestion, yet it was not inconceivable that the glucocides of flowers might combine with the side chains of substances in the blood. N. L. Wilson said that from letters read by Curtis he had been persuaded to give the remedy another trial. He had used it in 8 cases last year, and the only results noted had been the production of nausea and an increase of discomfort. He had been disposed to discard this treatment, not only because of these clinical results, but because one of his patients always had an attack after driving behind a horse, and another patient had hay fever after riding a bicycle on a dusty road. J. A. Stucky, of Lexington, Kentucky, had tried Curtis's preparation, and had forwarded to him the results. In three cases the patients thought they were benefited, but they remarked that the ragweed was less virulent last season. In 8 cases he had been unable to see any appreciable results. Curtis, in reply, said that he believed the most important thing in the treatment of hay fever was the elimination of uric acid, and this was proved by the effect of low diet. He knew several opera singers whose vocal cords were so sensitive to the emanations that if exposed to such emanations in a room they would be unable to sing.

(235) The Use of Brewers' Yeast in Therapeutics.

Durand (*Lyon Médical*, February 9th, 1902) reviews the history of the employment of brewers' yeast as a remedial agent, and discusses the indications for and method of its administration. In 1878 Cassaët and Beylot published satisfactory results from its use in diabetes mellitus. In 1894, Debougy having observed that brewers treated furuncles and anthrax by the internal administration of yeast, gave it to certain diabetics and caused amelioration of the glycosuria. Brocq, two years later, used it with great success for furuncles, impetigo, and acne in children. About the same time Landau used the yeast suspended in beer as an injection for leucorrhoea; he also found it to act satisfactorily when kept in constant contact by means of a tampon in blenorrhagic vaginitis. In 1900, Pierre Marie treated 8 cases of pneumonia by yeast, with remarkable success in the case of an old man. Faisans and others claim to have given yeast with excellent results in influenza and enteric, and Thiercelin has used it for infantile gastro-enteritis and dysenteric enteritis. Durand summarizes the indications for its use as follows: (1) In furunculosis and all suppurative inflammations of the skin, of internal origin, yeast acts as a powerful internal antiseptic; (2) in gastro-intestinal disturbance of infectious origin, it attenuates the virulence of the secretions; (3) locally yeast may be used as an antiseptic lotion for vaginal discharges, for suppurative tonsillitis and for burns, etc. The yeast is best given desiccated, in which state it will keep its action for an indefinite time; it may then be suspended in beef-tea or a gaseous fluid, or compressed, or given in cachets. Three teaspoonfuls in a day form a medium dose. It is well to test the fermenting power of the yeast before using it by suspending it in a solution of sugar for a short time at a temperature of 25° to 35° C.

(236) Dionin.

Very few communications on the clinical uses of dionin have hitherto been published. In the March number of the *Therap. Monats.*, A. Scherer gives his experience of it in cases of tuberculous lung trouble, in which the patients complain of considerable irritating cough and sleeplessness, morning sickness, thoracic pain, etc., caused by the cough. He finds that dionin generally is capable of quieting the cough, and removing the other symptoms, without producing any bad effects, such as are frequently met with in administering morphine. Dionin is a hydrochlorate of ethyl morphine. It is a white, finely crystalline powder, and is freely soluble in water. It has a bitter taste but no odour. Scherer states that an idiosyncrasy against the drug apparently does not occur. Its action is that of a sedative and analgesie. It appears to be less potent than morphine, but in the short accounts of the cases treated by Scherer with dionin it proved itself to be sufficiently sedative to check the irritating cough and pain in the type of case selected. The usual dosage of the powder is ⅓ gr., or it may be given in solution 3 to 5 pro mille, in doses of ½ to 1 drachm twice, thrice, or four times a day. In tablet form it is used in ½-gr. doses.

PATHOLOGY.

(237) A New Trypanosoma.

A note on this subject was read by Lieutenant-Colonel D. Bruce, R.A.M.C., before the Royal Society on February 27th, 1902. He said he had received from South Africa specimens of blood taken from cattle which contained a new species of trypanosoma. This new species could be at once distinguished from the trypanosomas of surra, tsetse fly disease, or rat by its larger size, it being almost twice as large as any of the others. In general appearance it conformed closely to the others in possessing an oval protoplasmic body, a longitudinal fin-like membrane, and a single flagellum. This new trypanosoma was lately discovered by Dr. A. Theiler, who was in charge of the Bacteriological Laboratory of the Medical Officer of Health, Pretoria, Transvaal. Theiler stated that at first he was under the impression that he had merely hit against the familiar trypanosoma of a tsetse-fly disease. He was struck by its larger size, however, and tried a few inoculation experiments. He found that the new trypanosoma only infected cattle. Horses, dogs, goats, rabbits, and guinea-pigs were all immune, neither showing symptoms nor the presence of the parasites in the blood. With the same blood he infected two calves, which showed distinct febrile reaction, and at the same time the parasites appeared in the blood. He found the parasite for the first time in the blood of a young ox which had just recovered from an attack of rinderpest, and since then he had successfully inoculated calves from two other cattle. He described the disease as an acute pernicious anaemia with grave blood changes, a general anaemia without deformation of the elements of the blood, or, lastly, only a slight fever, and that there existed a natural immunity in cattle against this trypanosoma. He was of opinion that this disease was the same as that attributed by Kolle—who studied rinderpest in South Africa with Koch during the last outbreak to bovine malaria. Kolle overlooked the trypanosoma, saw the disease was infectious, and thought he observed endoglobular parasites and pigment in the red blood corpuscles. Bruce proposed that this trypanosoma should be named after the discoverer, "trypanosoma Theileri."

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(238) Atelectasis Pulmonis.

Placzek (*Münch. med. Woch.*, February 18th, 1902) finds that, although in many respects an excellent test, the "floating" test is not always reliable for demonstrating whether a lung has been expanded by air or not. He, therefore, suggests a new test, which can be easily carried out, and which does not interfere with the employment of the "floating" test. This depends on the physiological fact that, once air has entered the alveoli, it cannot completely escape again, and that the intrapleural pressure will be positive if the child has breathed, and negative if it was stillborn. He experimented as follows: after incising the skin from the chin to the nuciform cartilage, he dissected out the trachea carefully and tied it. Next the skin was reflected as far as the axillary line. A trochar and cannula, the latter provided with a stopcock, was then inserted through the third, fourth, or fifth intercostal space, midway between the nipple and axillary lines, the trochar withdrawn as far as to allow the stopcock to be turned off, and then removed. To the free end of the cannula, a tube was attached, which communicated with a mercurial manometer. If the mercury rose when the tap was opened the inference could be made that the child had breathed, while if it remained stationary, the child was stillborn. Placzek found that this occurred regularly in all the cases of dead infants examined by him.

(239) Hepatic Asystoly in Heart Disease.

Alberto (*Rif. Med.*, February 5th to 10th, 1902) discusses at length certain changes in the liver and spleen which may occur in the course, and as the result, of cardiac valvular disease. He does not mean the ordinary secondary hepatic congestion which is commonly seen as a more or less temporary consequence of disturbed circulation in heart lesions, but rather refers to the rarer cases where hepatic symptoms form the chief stress of the disease, and the cardiac lesion on which they depend is only found secondarily. He publishes 8 cases where the liver and spleen were more or less permanently enlarged, with no ascites, only slight perimalleolar oedema, no albumen, but with definite valvular lesion, chiefly mitral. Hepatic pulsation could usually be felt. The hepatic enlargement is not great as a rule, the surface smooth, generally some tenderness on pressure, with occurrence of spontaneous pains, perhaps due to distension of Glisson's capsule. The milder cases of hepatic asystoly with symptoms referable to the liver may be attributed to liver derangement only if examination of the right heart be neglected. On the other hand the abdominal symptoms may be so severe—ascites, caput medusae, enlarged spleen, etc.—as to quite overshadow the slight cardiac symptoms, and yet prove to be the forerunner of general cardiac breakdown. Why some cases of heart disease show symptoms of hepatic asystoly whilst others do not is not clear. Probably acute articular rheumatism and alcoholism play a leading part in predisposing to the particular localization. The prognosis depends chiefly on the condition of the heart, and on the way it responds to such drugs as digitalis.

(240) Neurosis and Appendicitis.

Schauman (*Finska Läkare Handlingar*, p. 55, 1901) considers that there is a distinct connexion between the nervous "diathesis" and appendicitis. Very frequently members of the same family are attacked by appendicitis, and the writer has collected 14 cases in which such has occurred. In 75 cases only one member of a family was affected, but there was marked evidence of family neurotic tendencies. During the last year Schauman has observed in the Helsingfors Hospital 5 cases of serious neurasthenia, in which, as a late complication, attacks of appendicitis occurred. Accompanying the appendicitis there is frequently a muco-membranous entero-colitis, which may be regarded as nervous in organ. In connexion with general neurosis displacements of the abdominal organs are frequently met with. In 50 cases the writer found that in 40 (78.4 per cent.) there was evident gastroptosis, and hence supposes that appendicitis may predisposed by a loss of abdominal tone, producing a gradual or a sudden change in the position of the appendix, and altering its normal structure. From one or other of these the organ loses power of resistance, and infection or retention of faecal matter is favoured. Nothnagel has found the appendix lying in the umbilical region, the left iliac fossa, and the true pelvis, and Siredey and Edebohls have met with nephroptoses when removing this tissue. Appendicitis may be caused by inflammations in neighbouring organs, but those genital affections associated with or dependent upon neurasthenic conditions strongly predispose.

(241) Lingual Varices in Oesophageal Cancer.

Le Francois draws attention to the existence (*Journ. de Méd. et de Chir. Prat.*, November 25th, 1901) of varices at the base of the tongue in oesophageal cancer. Such a varicose condition is by no means rare, and very many causes such as alcoholism, menorrhagia, and certain nervous disorders have been quoted, but the writer, from personal observation, states that he has met with them in several instances in which the diagnosis pointed to malignant disease of the oesophagus. He quotes three cases in which no other sign was present. In one of the patients the varices increased with the spread of the disease to such an extent that it was quite impossible to regard it as a mere coincidence. In the other cases subsequent history proved the correctness of the diagnosis.

SURGERY.

(242) Ligature of the Abdominal Aorta.

Morris (*Ann. Surg.*, February, 1902) publishes a case in which he ligatured the abdominal aorta for aneurysm. This is the fourteenth recorded instance of ligature of this arterial trunk. The author believes that, although all of these 14 cases were fatal, the operation will sooner or later prove successful. Of 10 operations performed before the era of antiseptic methods of surgery, nearly all resulted very speedily in death, whilst in the 4 last cases, all of which were presumably practised under antiseptic or aseptic precautions, 1 patient survived 10r forty-eight days, and another for twenty-nine days. The subject of Morris's case was a coloured woman, 24 years of age, who came under this surgeon's care with a history of aortic disease dating back four months, and well-marked objective symptoms of a large abdominal aneurysm. The plan of the operation, which was performed on May 1st, 1901, was to apply temporary compression of the aorta in order to allow the sac to fill with clots, and then to remove the ligature and allow the circulation to continue in the extremities as before. A 6-inch incision was made from the ensiform cartilage down to the umbilicus. The pulsating tumour, it was found, extended from the coeliac axis to a point below the mesenteric branches. The aorta, at a level about 2 in. below the aneurysm and 1½ in. above the aortic bifurcation, having been isolated from surrounding structures, a small soft rubber catheter was carried around the vessel with the aid of an aneurysm needle threaded with a loop of silk. The loop of catheter surrounding the aorta was then drawn tightly until the circulation in the femoral arteries ceased, and this constricting band was held in place by a long clamp forceps. The operation lasted about half an hour, most of this time having been taken up in controlling haemorrhage from the numerous vessels in the subperitoneal tissues about the aorta. In the course of the twenty-three hours following the operation the aneurysmal tumour rapidly diminished to one-half its previous size. Twenty-seven hours after the operation the author removed the ligature from the aorta by uncoupling the forceps and drawing out the catheter. On the same night the patient, who had previously given every prospect of a successful result, began to develop evidences of intense septicaemia, which terminated in death fifty-three hours after the operation. At the necropsy it was found that the septicaemic infection had been set up by gangrene of small portions of the bowel which had rested in contact with the steel forceps. The aneurysm was found to have been a dissecting one

involving the wall of the aorta from the coeliac axis to the mesenteric vessels.

(243) Transplantation of the Kidney.

E. ULLMANN (*Wien. klin. Woch.*, March 13th, 1902) has succeeded in transplanting kidneys from one dog into another; the kidney thus transplanted retains its functional activity. The technique of the experiments consists in choosing a bed for the kidney (he found the neck the most suitable site) and preparing the same. The carotid artery and the jugular vein were caught up, the peripheral ends tied, and the central ends each provided with protected forceps. They were then divided and prepared for "vessel suture" according to Payr. The vessels were then drawn through small magnesium tubes, the one half of which was smooth, and the other half possessed two grooves. The smooth half was held centrally with forceps, while the vessel was inverted over the other end and fastened by means of a ligature to the centrally-placed groove. The kidney was next removed from another animal, the ureters being dissected out and cut off at some distance, and the renal vessels divided as near as possible to the large vessels. The organ was dipped in warm physiological saline fluid, and then brought to the neck of the prepared animal. The renal vein was drawn over the jugular vein, and tied at the peripheral groove of the tube; the same was done with the renal artery and the carotid; the forceps were first removed from the vein, and then from the artery, and the blood flowed freely through the kidney. Urine soon flowed from the ureter.

(244) Precarpal Amputation.

MORESTIN (*Rev. d' Orthop.*, No. 2, 1902) describes a method of amputation at the hand which on the rare indications for such operations he holds to be far preferable to exarticulation at the wrist on the one side, and to complete intercarpo-metacarpal separation on the other. The method advocated by the author, who has observed its good results in a single case, consists in removal of the metacarpus and of the thumb and fingers, but instead of a long and tedious disarticulation of metacarpal from carpal bones, the proximal ends of the former are sawn through and left attached to the latter. The insertions of the tendons of the radial flexor and extensor muscles are thus preserved and left intact. The stump formed by such method of amputation should, it is asserted, be found a perfect one and capable of doing very good service to the patient, provided it be covered by sound integument, and the wrist and the intercarpal joints be free from adhesions. A prothetic apparatus is likely to be far more useful when attached to such a stump than to a stump formed after amputation through the wrist. The superior advantage of the former stump, however, is almost entirely dependent on the absence of articular stiffness and of adhesions, and on uninterrupted continuity of the tendons attached to the retained bases of the metacarpal bones.

(245) Operative Treatment of Ectopia Vesicae.

SUBBOTIN (*Centralbl. f. Chir.*, No. 51, 1901) describes a new operation for ectopia vesicae, in which an artificial bladder, together with a short urethra, is formed from the anterior and lower part of the rectum. The posterior wall of the gut having been exposed by a posterior median incision over the sacrum, and by removal of the coccyx, is slit in the vertical direction so that the anterior wall is rendered accessible. An opening about an inch and a quarter in length is then made through the anterior wall of the rectum and a free communication thus established between bladder and gut. The margins of this opening are brought together by sutures, and the opening itself covered by a large horseshoe-shaped flap taken from the anterior wall of the rectum, an opening being left below through the external sphincter for the passage of urine. About one-half of the lumen of the lower part of the rectum is thus occupied by the artificially formed sac constituting the new bladder. The opening in front of the extroverted bladder is closed partly by transplantation of the skin of the scrotum, and partly by closed suture of its margins. Subbotin states that he has performed this operation with very good results in two cases of ectopia vesicae.

MIDWIFERY AND DISEASES OF WOMEN.

(246) Chorea Gravidarum.

LEON LAUNAY (*Thèse de Paris*, 1901) refers to the recent views of the pathogenesis of chorea in pregnant women, the observations of Pierre Marie and Gilles de la Tourette having lately given support to the view that chorea gravidarum is a different malady from Sydenham's chorea. The same authors contended that chorea gravidarum is a complex of hysterical phenomena mingled with tics, and that its position as a nosological entity is rendered doubtful, and moreover that its prognosis is different from the chorea of Sydenham. Professor Joffroy has recently (1900) maintained that in pregnant women it is possible and necessary to distinguish between choreiform hysteria and true chorea. On the other hand, Professor Raymond and Pau-Blocq hold that chorea gravidarum is not essentially different from Sydenham's chorea. After a description of the choreiform jerks, etc., Launay notes the frequency of echolalia and coprolalia in the chorea of pregnant women. Cases are cited at length illustrating true chorea gravidarum (15 in all). It is important to recognize that there is a parallel between this disease and hysteria as regards the following symptoms, namely, rachialgia, ovarian hyperaesthesia, globus, and laryngeal (functional) disturbances, and that both the chorea and the hysteria of pregnant women may occur together in subjects with exophthalmic goitre. He concludes (1) that a considerable number of cases published in medical literature as examples of chorea gravidarum belong to hysteria; (2) that others are *maladies des tics*; and (3) that others again are chronic chorea (Sydenham's chorea), lighted up or re-excited by pregnancy. But that after excluding all these forms there remain (4) true and incontestable cases of chorea gravidarum proper (such as those published by Potain, Brouardel, and Germain Sée), and that in essence it is identical with Sydenham's chorea, its peculiar features being due to its occurrence for the first time during pregnancy.

(247) Abortion: Placenta Retained Ten Weeks: No Sepsis.

TISSIER (*Bull. de la Soc. d'Obstét. de Paris*, February 20th, 1902) reports an instructive case of placenta retained after abortion. The patient aborted in the third month of her second pregnancy on December 12th, 1901. She left the lying-in establishment where she had been nursed on the 23rd, and returned to household duties. All went well till February 18th, 1902, except a few shows of blood, but on that date flooding set in, and she was admitted into a hospital. Next day she appeared anaemic, without any rise of temperature. The cervix was completely effaced, and the os externum dilated to the diameter of a two-franc piece. A placenta-like body could be felt lying in the inferior segment, which was much distended. Tissier simply pressed on the uterus from the abdomen and vagina, and the placenta was thus brought away entire. It weighed under 3 oz., and appeared somewhat like a sheep's heart, rather fatty; at certain points it was fibrinous. There was not the slightest odour nor evidence of putrefaction; yet it had lain in the uterus from December 12th to February 19th—that is, for sixty-nine days, and actually within a few hours of ten complete weeks. The uterus contracted well after the extraction of the placenta, nor could any fragments of membrane be felt in its cavity, which was drained after swabbing of the endometrium. Tissier once removed a placenta retained fifty-four days, or nearly eight weeks, after an abortion. It looked like a lamb's brain. Fragments of membrane are not rarely expelled late in the puerperium free from signs of sepsis. Tissier, whilst admitting that the above facts are of importance and interest, is careful to add that, as a rule, retention of placenta, whole or otherwise, is a serious complication of labour or abortion.

(248) Ovariotomy and Ideal Cholecystotomy.

STRASSMANN (*Centralbl. f. Gynäk.*, November 7th, 1901) recently performed ovariotomy in two patients, and also removed calculi from the gall bladder, which was afterwards sewn up ("ideal" cholecystotomy). The first patient was a multipara, aged 42. The ovarian tumour and the distended gall bladder were easily diagnosed. The former was suppurating; after its removal the median incision was prolonged up-

wards, and the distended gall bladder fixed with interrupted sutures to the peritoneum around the upper angle of the wound, and opened. Then a cholesterine calculus as big as a nutmeg was removed. The ducts were free. The wound in the gall bladder was closed with silk sutures, left long, and afterwards removed. Recovery was rapid. In the second case death from recurrence of the ovarian growth occurred, and the state of the gall bladder could be investigated. The patient had a high temperature at the time of the operation, and two papillomatous cysts were removed: one had ruptured. The median incision was prolonged, as in the first case, the gall bladder fixed by a circle of interrupted sutures to the wound, opened, and emptied of twenty-eight facetted calculi. The ducts were then found to be free. Adhesions were broken down, the wound in the gall bladder was closed with silk threads, and afterwards with catgut Lembert suture. A plug of iodoform gauze was placed in the upper angle of the wound. The sutures in the abdominal incision were removed on the tenth, those in the gall bladder on the fourteenth day. Two months after the operation the patient was operated upon by König for intestinal obstruction. Death ensued, adeno-carcinoma had developed in the rectum and also in the liver. The gall bladder was quite healthy and fixed to the parietes. Strassmann insists that the liver, which after death was found to contain enormous masses of metastatic deposit, was quite healthy when he operated; possibly a small cancerous deposit in the rectum was then overlooked, or he inoculated the rectum and liver with morbid growth when emptying from the peritoneal cavity a mass of papilloma which had escaped out of the cyst which had ruptured.

(249) Rupture of Uterus: Hydrocephalic Fetus.

Rudaux (*Comptes Rendus de la Soc. d'Obst. de Gyn. et de Paediat*, January, 1902) reports a case at Beaujon Hospital, under Ribemont-Dessaignes. The patient was a workwoman, aged 36. She had carried three children to term: the children were all reared. Two evenings before admission labour pains came on at the eighth month, but were preceded by spontaneous rupture of the membranes some hours previously. When the pains set in they grew stronger and stronger till the afternoon, when they suddenly ceased. There was flooding, but the patient did not call in a doctor till twenty-four hours later. He found her in a state of collapse, and sent her to the hospital. She was pulseless, with temperature at 94°; the fetus could be felt under the very thin abdominal walls, and the deep laceration was detected anterior to the os externum and to the left, whilst the placenta apparently presented by its edge on the right of the cervix. Thick, syrupy, black fluid, distinctly fetid, escaped from the vagina. Through the left fornix a large hard mass, evidently a deformed foetal head, could be felt in the abdominal cavity. The patient was clearly sinking; subcutaneous injections of caffeine, ether, and artificial serum were administered, and Ribemont-Dessaignes opened the abdominal cavity. The fetus and its appendages lay free in the abdomen to the left of the uterus, and were extracted without trouble, but they were fetid, and as the uterus was being removed the patient died. The fetus was a female, weighing 10 lb.; the occipito-frontal circumference of its cranium was 21½ in. Had the patient applied earlier for relief her life might assuredly have been saved.

THERAPEUTICS.

(250) Small-pox and its Treatment.

At a meeting of the New York County Medical Association on March 17th (New York *Med. Record*, March 29th), S. Dana Hubbard read a paper on this subject. He said that at the present time the indications were that the cause of small-pox would soon be found, and if this were the case it was reasonable to suppose that greater success in the treatment would follow. Early isolawas, of course, most important, and should be the rule in all hospitals; indeed, in these institutions an excellent preventive of contagious disease was the provision of a reception ward, in which all new patients are kept for about two weeks. During this probationary period it was advisable to keep visitors away. In transferring a patient from his home he should be wrapped up, head and ears, in blankets. As neglect and filth usually led to the direst results, any old shed was by no means suitable for a small-pox hospital. The surroundings should be as aseptic as possible. The wards should have a temperature of 70° to 78° F., and should be ventilated in such a way as to avoid draughts. Small-pox rendered the mucous membranes very sensitive to draughts of cold air, and bronchitis and pneumonia were very likely to follow such exposure. Pneumonia was exceedingly fatal in persons sick with small pox. A large loose gown, rubber shoes, rubber gloves, and a cap, constituted the outfit to be worn by a person entering a room occupied by a case of small-pox. The fumigation of the room after the removal of the patient should be done in connexion with moisture, and, if properly done, the fumes at the completion of the process would be so dense in the room that one could not see through them a distance of more than four feet. In regard to treatment, Hubbard said the small-pox patient must be kept scrupulously clean, and the floor must be swept at least once daily after having been sprinkled. The attendants should be clothed in washable goods and canvas shoes, and should change the clothing and wash their hands of patients outside of the sick room. The patient should receive a daily sponging. For the backache of the first few days it was well not to make use of counter irritation, because this caused a profuse eruption to develop in a very uncomfortable situation. The headache could be easily controlled by acetanilide, soda, and caffeine. The thirst should be quenched by the free use of water, lavender water, or ice and lemon juice. After the bathing the application of alcohol was usually refreshing, but if there was much itching it should be avoided, and instead the surface should be well rubbed with carbolized oil of a strength of 5 to 20 per cent. After the bath a pleasant application was a powder composed of subnitrate of bismuth, lycodium, and starch. The water used for bathing a small-pox patient in the stage of suppuration should contain from half a grain to two grains of permanganate of potassium to the ounce. In this stage of the disease it was also advisable to give quinine internally, but these patients would be found unusually sensitive to this drug, so that it must be given in small doses. The treatment of small-pox closely resembled the modern treatment of typhoid fever. In septic cases alcoholic stimulants should be given with a free hand. In this connexion it was well to remember the advice given by a well-known physician regarding the use of whisky in septic cases: "Don't let them die sober." The eyes should be frequently washed with boric acid solution, and if there was much swelling of the lids cold cloths should be applied frequently. A mild alkaline mouth wash should be used to keep the mouth clean, and the tongue cleaned off with celluloid scraper. The skin required constant attention throughout the disease. During the vesicular and pustular stages an effort should be made to prevent rupture of the lesion. Wet applications should be used at first, and later, when the scabs form, oil. Very sick patients should be separated from convalescent ones. Very little had been accomplished even at the present day in preventing pitting. Hubbard was of opinion that if outside infection could be prevented, pitting would not occur. The nearer the approach to asepsis the better would be the result in this respect. The too early removal of the scabs should be prevented. A mixture of boric acid and glycerine applied constantly under a mask had acted very well. After convalescence the body should be thoroughly scrubbed and scraped, and the little pits dug out. The patient should then go to another room and take a bath of bichloride of mercury solution. The following day this bath should be repeated before putting on his own clothes and leaving quarantine.

(251) Tetanus and Quinine Injections.

Moty (*Gazz. des Hôp.*, No. 98, 1901) draws attention to six cases of tetanus in the French colonial army occurring after injection of strong solutions of quinine. The accident is unrecorded following injections of morphine. In a necropsy on a case of intermittent fever who had received numerous injections of 20 per cent. sulphate of quinine solution, he found the alkaloid crystallized out and deposited as a thick mass at the points of injection; in a patient who had re-

ceived only 10 per cent. injections he found no such deposits. Deposits such as these damage the tissues and render them locally vulnerable to the invasion of organism, for instance, the ubiquitous and resistant tetanus bacillus. Dilute solutions are therefore to be preferred to strong solutions, and easily soluble salts to those of low solubility. Neutral muriate of quinine should be chosen for subcutaneous injection, and of a strength not exceeding 10 per cent.

(252) Treatment of Meningitis by Hot Baths and Lumbar Puncture.

Emile Blavot (*Thèse de Paris*, 1902) states that the treatment with hot baths for cerebro-spinal meningitis, recommended by Aufrecht in 1894 (in the form of ten-minute baths at 40°C.), combined with lumbar puncture have proved almost invariably successful in his experience with 9 cases of the disease which presented varying degrees of severity. Aufrecht stated that the hot baths overcame the rigidity of the neck and the strabismus, soothed the patient, and promoted recovery, a fact since comfirmed by Lemberg, Schlesinger, and Barr of Liverpool. The last observer used a higher temperature (95°F., or 44°C.) In grave cases the plan recommended by Netter of the Hôpital Trousseau, namely, prolonged bath for 25 minutes renewed every three or four hours day and night was adopted with success. The patient should be moved to and from the bath on a cloth or blanket supported at the corners, the body and especially the head of the patient not being touched by hand if possible. Infants and grown-up patients stand the treatment equally well. Lumbar puncture is a powerful adjuvant to treatment, as it both diminishes the intracranial pressure and the toxic substances bathing the nervous tissues. Nine patients, varying in age from 2 to 14 years, were treated, 2 being males and the rest females. The author concludes as as follows: (1) The prognosis is good when the continued treatment of hot baths and lumbar puncture is adopted. The baths should be continued till convalescence is fully established; they act as sedatives and promote sweating and diuresis. (2) Lumbar puncture should not be followed by aspiration of the fluid. It may be done daily till examination of the fluid shows a normal appearance microscopically. (3) Besides these main procedures saline transfusion should be practised twice daily, calomel and opiates given internally and an ointment having iodoform or iodol as its base gently applied to the neck.

PATHOLOGY.

(253) The Cause of Cancer.

The etiology of carcinoma has received special attention at the hands of von Leyden and his assistants. One of the latter (Schaudinn) claimed to have discovered an amoeba in the growths examined which he believed was the causal agent. In order to test the truth of this discovery von Leyden entrusted the further investigation to his amanuensis, Feinberg, who now reports the results of his observations (*Deut. med. Woch.*, March 13th, 1902). He succeeded in demonstrating that the bodies endowed with amoeboid movement discovered by Schaudinn were really body cells. He, thereupon, ceased to study the subject by cultural methods, and regarding experiments which attempted to infect animals with carcinoma as misleading, adopted the safer and more scientific method of histological investigation. If cancer is due to a parasite, the parasite must be found in the growth, and therefore it is necessary first of all to recognize it before one proceeds to cultural and inoculation experiments. He described briefly the histological appearances of the cells of carcinomatous tumours and the degeneration forms of the same. Early growths are free from degeneration forms, and are therefore suitable for searching for possible parasites. Sections of very early growths revealed: (1) Polymorphous cells and cell collections, which possess larger and smaller nuclei of varying shapes: (2) cells which correspond with the shape of the nuclei very distinctly; and (3) vacuoles, one might almost say bladders, which are absolutely independent from the cells, and which are situated in the midst of the cell collections. They reveal absolutely no contents even when intensely stained. He was in a position to demonstrate that these vacuoles are organisms, which are so differentiated from the cells or nuclei that one must regard them as organisms independent from the tissues of the body. They present certain characteristics, which suffice to differentiate them from body cells. (1) A double contoured, stout membrane invests them. This stains intensely grey, with orange gentian (plasma-stain). (2) A nuclear body surrounded by a lighter unstainable zone, can be seen when stained by safranin or gentian violet. (3) A zone surrounding the last-mentioned is stained by orange gentian. This, he believes, is radially striated. He argues in detail that these characteristics cannot be found in body cells, although ganglion cells may produce an effect somewhat similar to it, when treated with sublimate. A study of the parasites of cabbage strengthens this assertion. To obtain a clear specimen it is necessary to receive a carcinomatous tumour, directly from the hand of the surgeon, in the operating theatre and to fix it at once. Early mammary growths are best suited, since they need not be altered by the effect of antiseptic fluids and need not be cut into by a knife wet with antiseptics. The fixing is carried out by Flemming's solution of osmic acid, chromic acid, acetic acid and water. The growth is divided into small portions and, after fixing, are washed for twenty-four hours in running water, then hardened in alcohol, commencing in 20 per cent and gradually increasing to pure alcohol, then in alcohol and chloroform and lastly in pure chloroform. The tissue is then embedded in paraffin, with great care, and after section (the sections must not be too thin: he advises 5 to 8 μ) adhered to cover glasses by means of Meyer's glycerine–albumen method. They are then stained as follows: (1) in equal parts of a saturated solution of safranin and aniline water, decolorised in alcohol and washed; (2) in $\frac{1}{2}$ to 1 per cent. solution of gentian violet, washed and dehydrated in alcohol: and (3) in orange-gentian solution (Nawaschin); washed in xylol and mounted in Canada balsam. The preparations show (*a*) the plasma of the cells of the cancer tissue stained grey; (*b*) the nuclei of the tumour cells stained red, and reddish-violet and violet; and (*c*) and all mitobic nuclear particles stained intensely red. Further, (*a*) the double contoured membrane of the organism stained intensely grey; (*β*) the nuclear little body stained bright red to reddish-violet, while the surrounding zone is unstained; and (*γ*) the plasma stained a much paler grey than the plasma of the tumour cells. After examining a variety of these organisms, Feinberg has come to the conclusion that they are sporozoon. He believes that they are causal organisms, although he reserves himself a final conclusion until he has completed his observations and experiments. In theorizing he starts with the fact that as sporozoon they exist in a somewhat altered form to their original form, being encapsuled. They are found in greater numbers in early cases than in later cases. He suggests that their presence calls forth a reactionary attempt on the part of the body to remove the invaders, which takes the form of an enlargement of the cells and multiplication of their nuclei. The cells are, however, incapable of destroying or absorbing the organisms, and merely become massed up in the form of a tumour. To protect themselves the organisms envelop themselves in their capsules. Feinberg considers that in doubtful cases the recognition of these organisms is sufficient to clinch the diagnosis of carcinoma.

(254) The Etiology of Acute Dysentery.

Vedder and Duval (*Journ. Exper. Med.*, February 5th, 1902) have conducted a research to determine whether the organisms described by Shiga in Japan, Flexner in the Philippines, and Kruse in Germany as characteristic of acute dysentery are of the same species, and also to determine the cause of the same disease in the United States. The cases examined were both of the sporadic and the epidemic forms. In both a similar organism was found, corresponding with the bacillus of Shiga in appearances in culture and reaction to dysenteric serums. They do not agree with Kruse that the disease as it appears in asylums for the insane differs from epidemic dysenteries in general. They find that the organisms of Shiga, Flexner, and Kruse are identical, and therefore the cause of the disease would appear to be the same all over the world, whether sporadic, institutional, or epidemic.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(255) Spasm of the Cardiac Orifice of the Stomach.

F. CAHEN (*Münch. med. Woch.*, March 18th, 1902) states that independently of Martin, he conceived the idea of employing retrograde dilatation "without end" for spasmodic stricture of the cardiac orifice of the stomach. His patient was a butcher, aged 35, and had a clean bill of health until the spring of 1900. He was affected by domestic worries at date, and suffered from nervous symptoms. Vomiting of fluids occurred frequently. In the summer he vomited solids as well as fluid food, and this gradually got worse, until in the autumn he was obliged to seek medical advice. The practitioner diagnosed a stricture of the oesophagus and prescribed feeding through the oesophageal tube. On December 2nd he was admitted into hospital. At this time no food was capable of reaching the stomach naturally. The sound met with an obstruction 10½ in. from the teeth. Above the obstruction the gullet was greatly dilated. The oesophageal tube could be passed through the stricture and the gastric juice was found to contain no free hydrochloric acid. As dilatation from the mouth did not help the patient the stomach was opened, after the cardiac end had been examined and found to be free from any detectable pathological change. In opening the stomach a quantity of mucous fluid escaped, so that it was considered inadvisable to attempt to pass the finger into the oesophagus. The wall was brought into contact with the abdominal wound and an oblique fistula established. For a short time further treatment was postponed, because of an attack of pleurisy with effusion. Four weeks later a loop was passed through the fistula and attempts were made to catch an oesophageal sound, which had been passed from the mouth. This was unsuccessful. Cahen, therefore, dilated the opening by means of laminaria tents and, under an anaesthetic, a finger was passed into the stomach through the widely dilated opening, and the end of the oesophageal tube was fixed and ultimately brought out by means of slender forceps. After attaching a thread to the fenestra of the tube, Cahen withdrew the latter, leaving the thread lying with one end protruding from the mouth and the other from the gastric fistula. At first thin and later thick drainage tubes were drawn through the stricture by means of the thread. The dilatation of the oesophagus was washed out frequently, and feeding was carried out partly through the fistula and partly through the larger drainage tube. There was a great improvement in the patient's condition, but the patient was obliged to leave the hospital in February, 1901. In July the fistula gradually closed up, and the patient appeared to be quite well. His old symptoms returned later, but not so severely, and only for a short time. Cahen regards the want of complete success as being due to the comparatively short time during which the patient was under treatment.

(256) The Occurrence of Arsenic in the Animal Organism.

IN 1899 Gautier detected traces of arsenic in the thyroid gland and in other organs of individuals who had not suffered from arsenical poisoning or undergone treatment with arsenic medicinally. Cerny (Hoppe-Seyler's *Zeits. f. phys. Chemie.*, Bd. XXXIV. H. 3 and 4) records the results of the examination for arsenic of the organs of individuals who had not taken this substance either medicinally or in toxic quantity during life. In Cerny's observations the greatest care was taken in the testing of all the reagents used: they were first ascertained to be perfectly free from arsenic. The thyroid gland of 6 individuals was examined. In 3 cases traces of arsenic were found, in 1 case a slight trace, in 2 arsenic was not detected. In 7 other cases both the thyroid gland and the liver were examined for arsenic; a trace was present in the thyroid in 5 of the cases, and in the liver in 4. Cerny points out that the quantity of the arsenic had no relation to the weight of the tissue examined. A trace of arsenic was also found in the thyroid gland of a pig, but arsenic was not detected in 2 other cases; also it was not detected in a sheep's thyroid. The human thymus was examined in 3 cases, but no arsenic was detected. A slight trace of arsenic was found in the thymus of a cow, whilst none was detected in a sheep's thymus: also a trace of arsenic was found in the skin and hair of a dog. Cerny concludes that in the animal organism minimal traces of arsenic may be found, but he believes that it has no function in the organism and is not constantly present.

(257) Primary Tuberculosis of the Muscles.

TUBERCULOSIS of the muscles is a rare affection. Plantard has only been able to collect 22 cases showing the presence of primary tubercle of muscle in which there was no other adjacent lesion (*Thèse de Paris*, 1901). The writer groups tubercle of muscle into three forms: tuberculous tumour, cold abscess, and muscular cirrhosis, the latter being by far the most rare form. It is usually in patients who suffer from tubercle in some other part of the body that muscle tubercle is met with, but the writer points out that it is very rare to meet with a muscular affection in the subjects of pulmonary tuberculosis. Any of the muscles of the trunk, abdomen, or limbs may show tubercle, and it is usually by accident that the patient notices a swelling, as the local symptoms are very slightly marked. Examination reveals that the skin is movable, very rarely oedematous, and that there is no local rise of temperature. The tumour, which the softness of the muscle may often enable the observer to outline, varies in size from that of a filbert to a hen's egg. It frequently happens that every stage in the affection may be noticed in the same individual, as multiplicity is the rule. The tuberculous nodule is hard or elastic, rarely giving a sensation of fluctuation. When tubercle of muscle assumes the form of cold abscess the symptomatology does not greatly differ from that of tuberculosis, in which the case generally ends. Usually fluctuating, sometimes elastic, cold abscess may be extremely hard, especially during contraction of the muscle. It does not retain its original limitations. When pus collects in a subcutaneous cellular tissue the appearance is that of a cold abscess originating in any of the other structures. Symptoms may be singularly inconstant, and the curious indolence which marks the beginning of muscular tubercle may be observed through the evolution of the disease. Pain occurring spontaneously or on pressure has been noticed in some instances. Considered as a local affection primary tuberculosis of muscle is not a serious condition, as it is very accessible for treatment. It is rather in the tendency to a generalized tuberculosis that the prognosis becomes grave, as very often tuberculous myositis develops into pleurisy, tuberculous pericarditis, or peritonitis, or else some joint or bone manifestation of the same specific nature.

SURGERY.

(258) The X-Rays in Malignant Growths.

AT a meeting of the Harvard Medical Society of New York City (*Med. News*, April 5th) William J. Morton read a provisional report of cases with notes on the treatment of malignant growth by the *x* rays. The first case was that of a patient suffering from an epithelioma of the cheek producing great disfigurement and considerable loss of tissue. Before treatment with the *x* rays there was hardening of the tissues for three-quarters of an inch beyond the edge of the ulcer, all of which was softened as the result of about three weeks of treatment with the *x* rays. Sections of the growth at the edges of the ulcer examined by a competent pathologist were shown to be characteristically epitheliomatous. The case was not cured but greatly improved. The second case was a young woman suffering from what proved to be sarcoma of the right elbow. Excision of the joint was practised, but sections of the tissues showed that the process was sarcomatous. The arm was amputated in the upper third. After a few months pains resembling those that first occurred in the left elbow were noticed in the right. A similar swelling of the joint developed. The right arm was submitted to the *x* rays, and after the second treatment the pain com-

pletely disappeared. It had been treated for a month, and the swelling disappeared, and the arm could be used entirely as if nothing were the matter. The patient was able to swing it, lift weights, and do everything as before. Meantime sarcoma had developed in the stump of the amputated arm. This was under treatment with the *x* rays, and though the case was not definitely cured great improvement had been obtained. The third case was that of a patient who suffered from hard tumour of the left breast which developed in the part subsequent to an injury incurred while bicycle riding. The glands were found enlarged in the axillae, and these with the tumour in the breast were removed. Some six months later recurrence took place, and the entire left chest became infiltrated with the neoplasm. There were evidently also metastases to the lungs. The patient complained of intense pain darting to the back. The other breast became brawny, showing the presence of hard nodules, and was evidently involved. Pain was one of the most prominent features in the case. This pain ceased entirely after the first exposure to the *x* rays. The tumour in the left chest had broken down, and an extremely fetid discharge made life additionally uncomfortable for the patient and her friends. The odour of this discharge ceased almost entirely after the first few treatments. In a second case of mammary carcinoma the patient had fallen and hurt herself on the right breast. As the result of two or three applications of the Roentgen rays the acute pain ceased, and the patient's life became much more comfortable. A reduction of over 1 in. in the circumference of the tumour took place within ten days after the institution of the *x*-ray treatment. After treatment for twenty days the size of the growth was reduced, so that it measured only 3½ by 2 in. instead of 5 by 5 in., as formerly. This patient was referred to Morton by Coley, who pronounced the affection a case of typical mammary carcinoma with sternal involvement and absolutely inoperable. In the fifth case the symptoms pointed to the existence of carcinoma of the stomach and there was a distinct tumour present in the epigastric region. One of the main features of the affection was considerable pain, which was lessened after the first application, and after three or four treatments entirely disappeared. The sixth case was a sarcoma of the temporal bone. This had been operated upon and as much as possible of the malignant growth removed. The recurrence was treated as carefully as possible with caustics, but without lasting effect. Coley's fluid was then employed, the tumour was reduced in size, the patient's general condition improved, and for a time the outlook was hopeful. Later, however, the sarcoma recurred and spread beyond its original limits, especially in the bones of the skull, so as to make it entirely inoperable. The patient complained of great pain which was almost intractable to ordinary analgesic remedies. After three treatments with the *x* rays the patient was able to sleep at night and to cut down the dose of morphine usually taken at night to less than one-fourth. In a week the tumour was very much reduced in size and the broken-down tissue on its surface began to dry up and become absorbed. The case was evidently progressing towards cure. The eighth patient suffered from recurrent carcinoma of the breast. When first seen there was a nodular tumour the size of a pigeon egg, extremely hard and fixed to the rib. It had an angular feel and was beginning also to be attached to the skin. The patient had already had three operations for the removal of such nodules. The glands in the axilla were involved and the surgeons insisted on removing the breast and its glandular connexions, but the patient refused it. After three treatments with the *x* rays the nodule in the breast became much less noticeable, its angles became rounded and could scarcely be felt, and the tumour was evidently decreasing in size. The nodule disappeared completely in the course of three weeks. This case was under the care of Coley, who confirmed all that Morton said with regard to it. Morton called special attention to the fact that *x* rays produced almost immediate and complete relief from pain. This pointed to the fact that the nerves of sensation of the part were entirely benumbed. The lowering of the nerve function of sensory nerves probably indicated also that all nervous supply to the part may be similarly affected. The nerves along which trophic muscles travelled to the new growth were rendered incapable of function; hence the retrogression of the new growth itself. Through the nerves a true paresis of all the protoplasm of the part was effected. The action of the *x* rays on micro-organisms would also affect the micro-organism of cancer if it were present. The most important feature of the new growths that are amenable to treatment by the *x* rays was superficiality. If the growth was situated in the skin itself, or if it was not covered by skin because of ulcerative processes, the *x* rays were sure to be useful. There seemed no doubt that epithelioma of the skin can be cured; also broken-down carcinomata of deeper tissue with the portions of the new growth exposed, because of cutaneous sloughing, could be favourably influenced. Superficial sarcomata were also amenable to treatment in this way. Both forms of radiation—that derived from Ruhmkorff coil or from a static machine—might be used for the production of the *x* rays for the cure of cancer. The tube employed for the *x* rays should be Crookes's tube as modified by Jackson. When it was necessary to protect a portion of the exposed surface of the patient from the effect of the rays, Morton used a screen of block silver or block tin, which was not grounded, nor was the patient insulated. Morton preferred the tubes with a high vacuum equal to about a 7-in. air gap. Tubes thus made need not be too strongly actuated. Jackson's modification of Crookes's tube did not deteriorate very rapidly, and would produce its effect for a long time. The *x* rays should be employed in such a way as to produce a decided effect upon the tissues and yet not cause gangrene. If they were used in very strong concentration there was great danger of seriously injuring cutaneous tissues. As the incubation period for gangrene of the skin after *x*-ray exposure was from nine to twenty-one days, there was great uncertainty as to the results. The operator might be accumulating a series of gangrenous processes that would make themselves felt successively some time after the treatments. In discussing the paper Coley said that in one case which he had referred to Morton there was recurrent malignant growth in the bones of the mastoid and temporal regions that made the case absolutely hopeless until the *x* rays were applied. The improvement effected was so great as to constitute a subsidence of all discomforting symptoms. The patient was not cured, but was so much benefited that practically all the annoying symptoms had disappeared, and the disappearance of the tumour gave great hope that even radical cure might possibly result. He had recently seen a case of sarcoma involving the entire front of the abdominal wall from the umbilicus to the pubes. The condition was completely inoperable, and seemed absolutely hopeless. Under the *x*-ray treatment, in Skinner's hands, the tumour decreased very much in size and became much less annoying. This tumour contained a large amount of fibrous tissue, and consequently a slow disappearance might have been expected. In the case of the mammary nodule which disappeared under *x*-ray treatment in Morton's hands, Coley had not a doubt of its malignant character, but he could not obtain the patient's permission to do anything more than remove the nodule. The pathological report after its first removal showed its malignant character. The woman said she would rather die than lose her breast. When it recurred a third time the case seemed hopeless. After scarcely more than a month of treatment no trace of the nodule could be found.

MIDWIFERY AND DISEASES OF WOMEN.

(259) The Toilet of the Newborn Infant. Riva-Rocci (*Gaz. Med. Ital.*, January 30th, 1902) recommends the following routine: (1) Insert the little finger in the mouth as far as the larynx and remove any mucus or foreign body there; (2) with 1 in 5,000 solution of perchloride and a tampon of sterilized wool wipe the outer surface of the eyelids; with a second tampon rapidly moisten the conjunctival sac with a few drops of this solution, and carefully dry the external parts; as a rule no reaction occurs beyond a slight redness for a few hours; (3) with a third tampon cleanse the anterior nares; gonococcus infection here is not uncommon and is very intractable; a nasal douche has been sug-

gested, but has its risks, and the author considers the other method efficient; (4) the bath should be of pure water: alkalies, soaps, and disinfectants are all irritating to the infant's skin; the only addition permissible is Unna's superfatted soap; the bath should be at a temperature of 95° F., so as not to produce cutaneous hyperaemia and consequent nerve symptoms (in one case only is a hotter bath permissible—namely, in an asphyxiated child in whom the ordinary means of stimulating respiration have failed; it should then be given at 100° to 104° F.)—the bath may last ten or fifteen minutes, if needed for cleansing; (5) dry the child with warm cloths, but not too hot, a mistake often made; for rapid drying, sheets of absorbent cotton are excellent; (6) powder the child with a fine absorbent powder, perhaps sterilized; an excellent one is Venetian talc and powdered starch, of each 1½ oz., crystallized carbolic acid ½ gr., essence of lemon ♏x; the whole surface should be evenly powdered, avoiding excess at any part.

(260) Fetus Papyraceus and Twin Pregnancy.

Lichem (*Centralbl. f. Gynäk.*, No. 6, 1902) is able to report two distinct cases where, in one instance the twins were developed from two ova, whilst in the second they were, as is usual, uni-oval. The first patient was 30, and had borne two children. Her mother had given birth to four children, including "pigeon twins" once; the sister twin had married and borne two children separately; the brother twin was the father of two children, not twins. But Lichem's patient herself had borne twins—sex not reported. On the present occasion labour came on at term after a very sick pregnancy. The head of a live fetus presented in the first position; but a tough, oval body like a helmet covered the occiput, and could be traced upwards to the left. This body was easily removed with the finger, and proved to be a fetus papyraceus: its funis, a flat, thin cord, was cut. One hour and a-half later, the living fetus was born; it weighed 7 lb. and measured 19 in. in length. Its placenta followed, showing no trace of any connexion with the fetus papyraceus. There was no fever in the puerperium. On the third day the placenta of the deformed ovum was delivered after a few pains, without any "show." It was shaped like a deltoid muscle, and was tough and light. The chorion and amnion were complete; the funis, 7½ in. long, was twisted and inserted centrally. The fetus was a female, with the skeleton well-formed and the finger-nails already visible. The second patient was 30, and had been five times pregnant, bearing first a child still living, whilst all the remaining pregnancies had ended in the third month for no ascertainable reason. She did not, apparently, belong to a twin-bearing family. She was a robust woman. About the eighth month labour set in, the right hand presented. Behind the transverse presentation a fetus papyraceus was detected, lying against the sacrum on the right. Version was tried, and the breech of the living fetus brought down. Two hours after the beginning of labour the membranes ruptured, ten minutes later the fetus papyraceus was expelled in its amnion: then the breech of the living fetus came down, and delivery was successfully effected. The living child, a female, weighed 5⅔ lb., and measured over 17¾ in. The fetus papyraceus weighed hardly 4 oz., and measured a little over 8 in.: it was a female. The common placenta was expelled a-quarter of an hour after the delivery of the perfect fetus. It weighed nearly 2 lb., and its diameter was over 8½ in. The insertion of the perfect fetus's cord was eccentric, that of the papyraceus fetus's cord was velamentous. There were two amnia and one chorion complete. The substance of the placenta showed numerous infarcts, especially in the portion associated with the imperfect fetus; the vessels of both portions anastomosed.

(261) Intestinal Obstruction in Labour: Fatal Perforation.

Champetier de Ribes and Daniel (*Comptes Rendus de la Soc. d'Obstét. de Gyn. et de Pédiat. de Paris.* December, 1901) sums up the literature of intestinal obstruction in labour. Out of a score of cases the cause of the obstruction was independent of the labour in all but two. Vinay, Gottscheid, and Spencer Wells have reported cases where there was a direct relation. De Ribes and Daniel's case was in a laundress aged 31. She had undergone three years earlier an operation for tubal pregnancy, and becoming pregnant on this occasion she entered hospital before term, as advised when she recovered from the operation. Ten days after admission the uterine contractions began; within a few minutes the patient was seized with a violent pain of another kind in the left side of the abdomen. The temperature was 101°: labour was very easy and spontaneous, and all seemed well. Symptoms of peritonitis set in on the third day, the signs of obstruction reappearing. On the fifth day she died; a coil of sigmoid was seen to be gangrenous; the intestine was pressed on lower down by a pelvic abscess. Purulent and faecal fluid was found in the peritoneal cavity. A strong band of adhesion passed from the fundus to the sigmoid flexure, and there were other bands: they seem to have been stretched or torn during labour, and some faecal matter set up the suppuration. The adhesions, however, were sufficient to obstruct the intestine, the colon sloughed, and general septic peritonitis followed.

THERAPEUTICS.

(262) Treatment of Phthisis with Blue Light.

G. Kaiser (*Wien. klin. Woch.*, No. 7, 1902) writes that his attention was called to the bactericidal action of pure blue light by the fact that he was advised to treat his own hand (which showed a septic ulcer due to infection from a suppurating case) by this method. He made investigations and obtained the following results: (1) Tubercle bacilli in pure culture were killed in thirty minutes by the blue light at a distance of 5 metres, while they survived the equal illumination by an ordinary arc lamp. (2) Tubercle bacilli in pure culture were pasted on a patient's back, and the blue light was directed on to the patient's chest at a distance of 5 metres for thirty minutes; this was repeated for six days. The bacilli were "weakened." (3) Pure culture of tubercle bacilli were illuminated by a light concentrated through a hollow lens containing a solution of alum and methylene blue with ammonia; they were killed. (4) The same lens was used, and the light was split up into the spectral colours by means of a carbon disulphide prism. Cultures lived in red and yellow light, but were killed in from blue-violet to to ultra-violet. (5) A photographic negative with an unused film was pasted on a patient's back in such a way that all light was excluded. The film was illuminated through the patient's body, and a blurred "positive" was obtained. Following these experiments Kaiser tested the blue light on patients. Two cases of advanced phthisis; after six days night sweats ceased and cough became less. After six weeks (up to the present) diminution of bacilli in sputum. A case of tuberculous abscesses in the thigh and knee flexion; all treatment that had been applied before (for three months) failed to do any good. Result of blue light—healing of all abscesses in four weeks. A case of "weeping" eczema in a child of "tuberculous character"; cure in five weeks. He concludes that (1) blue light kills tubercle bacilli; (2) the heat rays are excluded by the hollow lens with cooling arrangement; (3) action of the light is dependent on the distance and intensity of the source of light; (4) the light can pierce the body sufficiently strongly—only the chemical rays do so: (5) pure blue light acts strongly as a resorbing agent; and (6) blue light has a local sedative action if the rays are concentrated, and may even produce anaesthesia.

(263) Hydrastis Canadensis in Goitre.

William Cuthbertson read a paper on goitre before the Chicago Medical Society on March 19th (*Med. News.* April 5th). He said that goitre was a non-inflammatory enlargement of the thyroid body, either general or partial. He divided goitre clinically into (1) vascular; (2) hypertrophic or parenchymatous, (*a*) simple, (*b*) miasmatic, (*c*) exophthalmic; (3) adenomatous cystic; (4) pneumatic; (5) malignant. The goitre of puberty and pregnancy belongs to the vascular and simple hypertrophic types, and formed the principal subject for consideration in the author's paper. The different forms of treatment of the various tumours of the thyroid gland were about as numerous as the writers on the subject. With the exception of the surgical cases, the treatment of

goître seemed to have been purely empirical, no definite classification with its appropriate treatment apparently having been attempted, with the exception of the iodides and iodine having been recognized as a specific. Cuthbertson found in one case that hydrastis canadensis proved efficacious in effecting a cure in a goître of pregnancy, and this led him to the investigations which he had detailed. In each of the 25 cases of goître of puberty and pregnancy which came under his care, a cure was effected in from six weeks to three months by the administration of hydrastis canadensis, three times daily, after eating. He was well aware that some of these cases might have got well without treatment, but he made no selection of them, taking them as they presented themselves. One of the cases which was cured by this means had been treated with iodine and the iodides and with thyroid extract, becoming much worse under both forms of treatment. Immediately on instituting the hydrastis treatment the patient began to improve and was cured in six weeks. He presented hydrastis canadensis as a new and successful remedy in the goître of puberty and pregnancy.

(264) Therapeutic Uses of Arrhenal or Disodic Methyl Arsenite.

GAUTIER (*Compt. Rendus de l'Acad. de Méd.*, February 25th, 1902) has communicated the results of experiments and observations made to ascertain the therapeutic effects of a new organic arsenical compound which obviates the unpleasant effects of the cacodylates and yet secures equal benefit. Such a substance has been found in arrhenal or disodic methyl arsenite. This drug can be given by the mouth or subcutaneously, it has no odour, and is almost tasteless. It does not provoke nausea, eructations, garlic odour of the breath, dyspepsia, or renal trouble (albuminuria), and is thus superior to the cacodylates. The author has extensively used it with successive paludism, tuberculosis, chorea, bronchial asthma, leukaemia, and adenopathies, as well as in skin affections, for which arsenic has hitherto been prescribed. The dose for an adult should not exceed 15 centigrams (or, in rare instances, 20 centigrams) per day. A dose of 2 to 5 centigrams thrice daily gives the maximum action, especially in tuberculosis. Gautier has also given it with success in hepatic congestion and cirrhosis, and in cases of intestinal and pulmonary haemorrhage, but in the latter cases the dose should be small. The method of administration should generally be to give the drug for five to seven days continuously, then it should be stopped for an equal interval, and resumed as before.

(265) Sulphuretted Hydrogen in Rheumatic Heart Disease.

R. BENSEN (*Therap. Monatsh.*, March, 1902) is of opinion that the proper treatment of rheumatic heart affections by means of inhalations of H$_2$S is gradually becoming more definitely recognized. The action of the vapour is that of slowing the pulse. Bensen does not give any clinical details in support of his views, but contents himself with generalized praises of the effects of sulphuretted hydrogen inhalations. He regards the bactericidal action of the vapour as insignificant, and believes that this property is not exercised actually in the living body. His results in Bad Eilsen appear to have been very satisfactory.

(266) Alboferin.

K. FUCHS (*Wien. klin. Woch.*, February 27th, 1902) reports on his experience in 14 cases with a new natural combined preparation of albumen and iron, called alboferin. It contains 90.14 per cent. albumen, 0.68 per cent. iron, and 0.324 per cent. phosphoric acid. It is a brownish, nearly odourless, powder, with a faintly salt taste; it is freely soluble in cold water, producing a solution of neutral reaction, which does not coagulate on heating. It is free from all micro-organisms, and therefore will keep for an unlimited time. Fuchs states that his patients like it, that it does not stain the teeth, that it produces no constipation, no digestive disturbances, and that it increases the appetite. He gives short clinical accounts of all his cases. These consist of 10 cases of chlorosis and 4 of secondary anaemia. In all a marked improvement took place in the course of the treatment, which varied in length from 14 to 55 days. The haemoglobin increased on an average, 33 per cent., while the number of red blood cells and the body weight also increased. He sets a very high therapeutic value on the preparation.

PATHOLOGY.

(267) The Intracellular Bodies of Malignant Tumours.

SANFELICE (*Rif. Med.*, October 12th and 14th, 1901) reviews some the numerous criticisms and researches on the nature of these cellular inclusions. In dealing with the criticisms of Nichols he states that the positive results of inoculation in dogs cannot have been due to coincidence as he has now obtained several such results, details of which are promised; he also thinks that Nichols does not recognise the "true parasitic" forms in cancerous tissue, and that his observations are too few to be trustworthy. With regard to Borrel who considers the cell inclusions only modifications of the centrosome, Sanfelice considers that he has not seen what are spoken of by himself and other as parasites but has criticized certain pseudo-parasitic forms which may or may not be forms of the centrosome. He states that it is useless to attempt to grow parasites from old tumours, they are there only present in the form of fuchsin bodies which are dead or degenerate forms. He considers that Gaylord's opinion that the "parasitic" bodies are protozoa is founded on insufficient data. Sanfelice relies for histological demonstration on Ehrlich's fluid and carbol fuchsine after the use of a mordant such as iodine in an iodide; decolorizing with alcohol leaves the violet in the parasites alone; he discusses their differentiation from wandering mesoblast cells enclosed within epithelium. The typical "parasite" is surrounded by a highly refractile membrane and sometimes outside this a hyaline membrane is also apparent, the latter merely a product of the former; the body may be homogenous and either intensely or faintly or irregularly stained; the more deeply stained portion may take various shapes within the membrane. Sanfelice regards the capsule as the most characteristic portion of the "true parasite."

(268) Affections of the Lymphatic Channels of the Lungs in Chronic Bronchitis.

ALTHOUGH it is well known that the regional lymphatic glands in the course of inflammatory affections of the bronchi react and become enlarged, the condition of the lymphatic vessels in chronic bronchitis is hitherto undescribed. Watanabe (*Virch. Arch.*, Bd. clxv, Heft 1) has investigated 32 cases of chronic bronchitis of different types and severity, and finds that by the naked eye the lymph channels concerned can be seen as fine grey streaks and tracks especially prominently at points of intersection. Microscopically the lymph vessels are seen to participate in the inflammatory process, the fine vessels in the walls of the bronchi to a greater degree than the larger channels. From the periphery to the glands the process decreases in intensity; it is almost always of an acute character, but rarely are there found changes of a chronic character. In cases of simple chronic bronchitis the lymphangitis was least marked, when the bronchitis was complicated without affections, especially broncho-pneumonia, it was much more pronounced and diffuse.

(269) Diabetes with Pancreatic Lesions.

OPIE (*Journ. Exper. Med.*, vol. v., No. 5, p. 527), relates a case of diabetes in a coloured woman, aged 54; the patient was also the subject of advanced pulmonary tuberculosis. The pancreas weighed 80 grams; it was somewhat soft in consistence, there was no general increase in the interstitial tissue, but here and there were patches where the stroma appeared to be increased. The epithelium was found normal throughout the general secretory structure, but the islands of Langerhans showed extensive hyaline degeneration; this change was limited to the islands. The case is considered of much importance by Opie in regard to the etiology of pancreatic diabetes. He points out how extensive lesions of the ordinary secretory structure with escape of the islands of the pancreas are unattended by diabetes, destruction of the whole organ is, however, followed by diabetes, and in this case a lesion confined entirely to the islands of Langerhans was accompanied by the disease. The conclusion is that these particular structures in the organ are related to carbohydrate metabolism.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(270) The Nature and Diagnosis of Acute or Infective Endocarditis.

KELLY (*Univ. Penns. Med. Bull.*, vol. xiv, No. 11, January, 1902) points out the difficulty there is in many cases in sharply separating acute benign endocarditis from ulcerative or infective endocarditis. All cases of acute endocarditis are associated with, if not due to, bacteria, and the same bacteria are found in ulcerative and non-ulcerative cases. Kelly regards acute endocarditis as a single process, due to toxins or bacteria in the blood, with a local lesion in the heart. The heart lesion may be primary or secondary; the intensity and extent of the heart lesion depend upon the virulence of the infecting agent and the resistance of the tissues; the nature of the infecting agent is of less importance than its virulence; the condition may be the result of a mono-infection or of a mixed infection. Three cases of ulcerative endocarditis are recorded and the differential diagnosis discussed. The importance of retinal haemorrhages, embolic phenomena, etc., is pointed out. The author specially emphasizes the diagnostic importance of leucocytosis, of bacteriological examination of the blood, and of a peculiar arrhythmia or instability of the heart. The leucocytosis is usually moderate, 15,000 to 35,000 leucocytes being present in 1 c.mm. of blood. The important point about the leucocytosis is the relative increase of the polymorphonuclear white cells; the leucocytosis is a polymorphonuclear leucocytosis. Bacteriological examination of the blood is sometimes of great value. The blood should be drawn from one of the small veins—preferably of the arm or forearm—under strict aseptic precautions. At least 5 c.cm. of blood must be withdrawn by an aseptic syringe, and before it has had time to clot it should be allowed to flow over the surface of agar or blood serum slants, which should then be placed in the incubator at a temperature of 37° C. In a case recorded by Kelly the blood was found to contain the staphylococcus pyogenes aureus. Taken in connexion with other manifestations of the disease, a peculiar arrhythmia or instability of the heart's action indicates that the septic process has implicated the heart. Whilst the heart is being examined sudden attacks of tachycardia occur; the heart suddenly beats very rapidly—150 per minute or more—and after several minutes the rapid action suddenly ceases.

(271) Psoriasis and Vaccination.

WEINSTEIN (*Wien. med. Woch.*, January 25th, 1902) points to the rarity of the occurrence of psoriasis on vaccination cicatrices, and the still greater rarity of the eruption first beginning in that situation. A soldier, aged 22, was vaccinated with calf lymph in two places on the left arm about the middle of October, 1900. The vaccinia pustules were succeeded by red scars. Early in February, 1901, they became covered with white scales, which became more and more marked until they presented all the characters of psoriasis. For a month the two scars were the only parts affected, but the disease then spread to the left elbow, and from thence to other parts of the body. The writer has collected 24 cases in which psoriasis appeared at varying intervals after vaccination. In most of these the patients were healthy, and no history of previous attacks of psoriasis was obtained. Most authorities deny the possibility of psoriasis being inoculated by vaccination, especially if calf lymph be used. Psoriasis is unknown in calves. Vaccination probably acts therefore as a simple injury. For the occurrence of traumatic psoriasis after the application of iodine, cantharides and other chemical irritants, after thermic stimuli, whether of cold or heat, and after a great variety of mechanical lesions is well known. The regions which are typically affected—the elbows and tuberosities of the tibiae—are exceedingly exposed and liable to injury. Psoriasis also picks out parts habitually exposed to pressure, such as the waist in women, the apex of a scoliotic curvature, or the skin beneath tight garters. It has been known to follow the operation of tattooing, the bite of a horse, and excoriations due to riding.

(272) Leprosy Affecting the Penis.

ROBELIN (*Rev. de Med. Trop.*, December, 1901) has since 1883 had exceptional opportunities in a large number of cases of leprosy in Cuba. They were of all classes, and he found the penis to be affected in a much larger proportion of cases than is usually recognized. Leprosy is supposed to affect the genital organs of man only very rarely. Doubt, however, has been thrown on this view, first by Leopoldo Glück, of the Hospital of Seravejo, who amongst 40 cases of tuberculous anaesthetic leprosy, found 10 cases localized in the glands of the penis. This represents a percentage of 25. Robelin, amongst 300 cases of undoubted leprosy, found 45 with different manifestations of the disease in the glans penis. In none of these 45 cases were the manifestations in the glans penis primary—some other part of the body had always been first invaded. Of these 45 cases, 7 presented erythematous swelling of the glans with small, slightly flattened nodules of infiltration, 10 presented zones of deep infiltration and hyperaesthesia. The rest were the usual lepromata, some with and some without ulceration. In 3 cases the latter had extended so as to open the urethra, and to necessitate surgical intervention. Healing was slow and tedious. Robelin concludes: (1) That leprosy localized in the glans penis is not nearly so uncommon as is generally supposed; (2) that the proportion of cases in which this organ is attacked varies between 15 per cent. and 25 per cent.; (3) that its almost invariably secondary occurrence and peculiarly characteristic appearance make its confusion with syphilis improbable.

(273) Intestinal Putrefaction.

W. BACKMAN (*Zeit. für klin. Med.*, p. 459, 1902) has made a series of extended and careful experiments upon this question. The subjects of the experiment were the author and a healthy woman, and attention was particularly directed to the effects of a varied dietary upon the urinary ethereal sulphates. Carbohydrates were without effect, or nearly so; fats caused a slight increase of putrefactive products. Their quantity was found to have a direct relation with the amount of albumen in the food. No marked difference was observed between animal and vegetable albumens, but an exclusive milk diet led to a definite diminution. When it is necessary, therefore, to relieve the liver from the work of synthesizing indol to indoxyl and indoxyl-sulphate, or to diminish the probability of intestinal auto-intoxication, it is advisable to use a milk diet alone, or a milk and carbohydrate regimen. Only small quantities of fat should be allowed, and meat albumens reduced to a minimum.

SURGERY.

(274) The Use of the X Ray in Cancer.

AT a meeting of the New York Academy of Medicine, held on March 6th, 1902 (*Journ. Amer. Med. Assoc.*, April 12th, 1902), Francis H. Williams, of Boston, said that it was immaterial whether a static machine with large plates was used or a coil for the generation of the *x* ray. There should be an adjustable spark-gap, and the tube-holder should be so arranged as to conveniently focus the rays on the part to be treated. For this purpose he was accustomed to make use of a box painted inside with white lead, having an opening in the bottom for the exit of the rays. By means of a suitable lead screen a cone of rays a little larger than the area to be treated was brought to bear on the diseased part. For the treatment of growths within such cavities as the mouth and vagina, it was desirable to pass the *x* rays through a cylindrical glass speculum passed through the centre of a screen of sheet tin. At first, an exposure of only five or ten minutes should be given, three times a week, but the time of exposure might be gradually increased to twenty minutes or more. The exposures should be especially brief in the case of actively growing tumours. The sound tissues were not affected by the exposures required for this method of treatment. Williams said that a microscopic diagnosis had been made for him in almost every one of his cases, which included epithelioma, rodent ulcer, carcinoma, papilloma of the larynx, spindle cell sarcoma, and kerat-

osis. He thought it probable that most external growths could be made to disappear by the *x* rays, but in the more advanced, though operable, cases one would have to choose between the *x* ray and operation. In the inoperable cases, or where the patient declined operation, the *x* rays should certainly be used. It was worthy of note that a trial of two weeks would ordinarily be sufficient to show whether or not the *x* rays would avail in a given case of epithelioma. So far, every external new growth that he had subjected to the *x* ray had healed or was rapidly improving. He believed this treatment would prove beneficial in certain forms of cancer of the breast, and nodules recurring in the scar of operation were certainly amenable to this new agency. The absence of any dread of operation, the painlessness of the treatment, and the excellent cosmetic effects secured would prove potent factors in bringing many patients under observation at a much earlier stage than heretofore. At the present time, however, the practitioner was not justified in promising a good result from the use of the *x* ray in the deeply-seated growths, and it was his duty to warn his patients of the present narrow limits of this method of treatment. W. J. Morton said that he had found no occasion to employ the aluminium screen, for, while it could not be denied that such a shield cut off the electrostatic field, it was not the electricity but the *x* ray that caused the burns. Neither did he make any effort to insulate the lead plates; instead of this he made use of common tinfoil, which he found exceedingly convenient for the purpose. He had found the medium soft, and the hard vacuum tubes the best class of work, and had learned to divide his cases into four classes, namely: (1) Exterior or superficial; (2) interior growths situated beneath a healthy skin; (3) operable cases; and (4) inoperable cases. A rather soft tube should be used for the treatment of cases of the first class. As regards the operable cases, he did not at present feel disposed to advise the use of the *x* ray in preference to the knife, though he had found carcinoma of the breast, both initial and recurrent, yield well to the *x* ray. He reported, among others, one case, proved by the microscope to be carcinoma of the breast, in which, after three operations, he had made use of the *x* ray, and had apparently effected a cure. A patient was shown who was still undergoing treatment for a large osteosarcoma behind the ear. The young woman had received twenty treatments, and only about one-tenth of the growth now remained. W. B. Coley gave an account of his experience with this treatment. Several cases of sarcoma had shown no permanent improvement, but one case of lymphosarcoma and another recurrent small round-celled sarcoma of the neck had shown marvellous improvement. This was particularly true of the latter case, which was accompanied by a complete history dating back ten years. Charles W. Allen exhibited a case of lupus of twenty years' standing that had been apparently cured by the *x* rays. He said that he had almost invariably noted cessation of pain after the first treatment. Percy Turnure briefly narrated his experience at the Roosevelt Hospital, and showed two patients, one a case of epithelioma of the face, and the other an erythematous lupus of the same region. His results in carcinoma had been discouraging. George C. Hopkins said that he, too, would dissent from the view entertained by Williams concerning the necessity for using the screen. He had treated a very large number of cases, and had never produced an *x*-ray burn. Most of his work had been with recurrences in the line of operation scars, and here he had met with considerable success. He believed that if a static machine and a low vacuum tube were used, there would be little danger of producing *x*-ray burns. H. G. Piffard thought many of the external growths that had been treated with the *x* rays could have been treated just as successfully, and in a much shorter time, by curettage and the application of the galvano-cautery. Williams, in reply, said that as it was possible to produce a dermatitis even when a screen was used, and that it was also possible to produce a severe burn by the brush discharge, it seemed to him wiser to make use of a screen, and so reduce to a minimum the risks of this method of treatment.

(275) Magnesium Foil in the Treatment of Ankylosis of the Patella.

Hübscher (*Corr.-Bl. f. Schweiz. Aerzte*, December 15th, 1901) enumerates the difficulties met with in the treatment of ankylosis of the knee-joint. Unless the ankylosis is bony there is a great tendency to contraction of the flexor muscles, which constantly recurs after the limb is forcibly straightened. To obviate this tendency Bruns has successfully transplanted the flexor tendons to the atrophic quadriceps extensor. His results prove that restoration of the extensors is a necessary forerunner of success. But this is impossible if the patella is ankylosed with the femur, and the first step in such cases should be to free the patella. This is sometimes possible by means of a mallet without incision. If an open operation is performed the chief difficulty is to prevent recurrence. For this purpose Helferich frees a portion of the vastus internus, and interposes it between the patella and the femur; the method has given good results. The writer has successfully substituted magnesium foil for the layer of muscle. A girl had tuberculous arthritis of the right knee. This healed completely, but there were constantly recurring contractures of the flexors, for which the limb was several times straightened under an anæsthetic. When 9 years of age, the leg and thigh deviated from a vertical line by 10° if an elastic extension apparatus was worn, but this increased to 25° if the limb were left to itself. The patella was firmly adherent to the femur. On April 2nd an incision 3 in. long was made along the inner border of the patella, the capsule of the joint was opened, and the cartilaginous and bony adhesions between the femur and patella were divided by the knife and chisel. A piece of magnesium foil, 0.5 mm. thick, was interposed between the patella and the femur, 1 gram of a 5 per cent. iodoform oil was injected into the joint, and the capsule and skin were sutured. The wound was dressed and the limb placed in plaster-of-paris. During the following days there was neither pain or pyrexia. On the fourth day the dressing was removed. The whole joint was enormously distended, and palpation produced emphysematous crepitation. Two sutures were removed, and a quantity of gas escaped. On the tenth day the gas sinus closed spontaneously. On April 16th removable starch splints were substituted for the plaster, and massage of the quadriceps was applied daily, with active and passive movements of the joint. Four weeks later all apparatus was discarded. On October 19th the patella was freely movable, active flexion was possible up to an angle of 40°, and the limb could be extended voluntarily within 10° of the normal. The whole quadriceps muscle participated in extension, and the 30° of free movements allowed of walking with a scarcely perceptible limp. Magnesium foil was first employed by Payr, in the form of tiny tubes, in suture of nerves and arteries. It is absorbable, and in animals may disappear entirely within eighteen days. The process of absorption in man cannot be followed by the Roentgen rays, since magnetium transmits them. The at first sight startling development of gas appears to be innocuous. One grain of magnesium produces about 1 litre of hydrogen; the foil employed in the writer's case weighed about half a gram.

MIDWIFERY AND DISEASES OF WOMEN.

(276) Latent Hæmorrhage in Pregnancy.

Dolléris (*Comptes Rendus de la Soc. d'Obst. de Gyn. et de Pédiat. de Paris*, February, 1902) publishes two cases where no marked symptoms indicated internal bleeding. The first patient was 35 years old, and had not been pregnant for nine years. After much hypogastric pain in the earlier months, she was taken in the seventh with attacks of syncope. The pulse did not exceed 100, and the fainting was attributed to neurosis. The uterus was suspiciously tense. In a few days labour set in. The membranes were ruptured after very slow spontaneous dilatation of the os; 470 gr. of ordinary liquor amnii escaped. Forty-five minutes later a dead and macerated child, weighing 5½ lb., was expelled head first. Hardly was the funis divided than the placenta appeared at the vulva. On extracting it, great quantities of clot and dark fluid blood escaped. The uterus required to be emptied, by the introduction of two fingers, of yet more liquid and clotted blood. The uterine cavity was then washed out with a

1 in 1,000 solution of carbolic acid; the blood was old but not putrid; 500 gr. of serum were transfused. On the fourth day, the lochia being fetid, the curette was used and an antiseptic tampon inserted after intra-uterine injection. The patient's condition at once began to improve, and involution proceeded satisfactorily. Two and a-half pints of blood were shed before labour; there was no evidence of any fresh blood escaping after the pains began. The placenta was examined and the circular sinus found torn through in two places. The sinus, Doléris believed, burst through congestion and not on account of any traumatic influence. The second case was remarkable, and perhaps impossible to explain with precision. A primipara, aged 31, suffered from constipation, and later on, in pregnancy, from unusual distension of the abdomen. In the seventh month an acute attack of pain and collapse, diagnosed as peritonitis following obstruction, occurred. There was no fever, nor any vomiting; the abdominal distension was enormous. Hydramnion with twin pregnancy was suspected. Labour was beginning, the membranes were ruptured artificially on the next day, and 300 gr. of ordinary liquor amnii came away. Within five hours a dead male twin was expelled, a second bag of membranes presented at once and was ruptured, only a little liquor amnii escaped; lastly, a second male twin came way. Each weighed but little over a pound. The placenta, which exceeded a pound in weight, was single, with two amnia. No clots or fluid blood could be found. The patient felt much better but remained distended, the coils of intestine could be seen through the parietes, yet there was no vomiting. After more or less successful attempts to get away flatus and faeces, the patient grew worse, the uterus was found pushed up, and a tense mass bulged into Douglas's pouch. Within three weeks after labour the mass extended to the umbilicus. Doléris did an abdominal section, and discovered a very large pelvic haematocele covered by omentum and adherent coils of intestine. The superficial part of the haematocele formed a kind of fibrinous wall or capsule, covering in clots and liquid blood, about 3¾ pints altogether. There were loculi formed by fibrinous septa, no doubt representing successive haemorrhages, and the blood in one loculus smelt very faecal. The uterus showed no laceration; the left appendages seemed to form a mass rather bulkier than the right, but the operator avoided too much handling and inspection. Drainage through the vagina and through the abdominal wound was established. A faecal fistula developed, and faeces discharged through both drains. Within a month both had closed, and the patient recovered completely. The blood in the cyst contained the bacillus coli in abundance. Six months later the patient was in good health. The uterus was retroverted; the cavity measured a little over 3 in.; it was replaced. The left appendages were enlarged, movable, and painless; there was no trace of any pelvic deposit. Doléris admits that the origin of the three pints of blood shed into the peritoneum remains unsettled. There might have been rupture of a left tubal sac, or of some pelvic vein. There was no evidence of rupture of the uterine walls, or of wound of the uterus inflicted during an illegal operation.

(277) Laceration of Child's Perineum at Birth.

ROYSTER (*Amer. Journ. Obstet.*, March, 1902) reports the repair of a complete laceration of the perineum in a girl aged 9. After birth, her grandfather, an aged physician, brought her into the world. He seems to have mistaken a breech for a vertex presentation, and introduced his finger into the vagina, taking it for the mouth. He exerted traction, and the result was a complete laceration of the infant's perineum. It was determined not to attempt a restoration of the injured parts to their normal position till the child was older. When she had reached the age of 9 there was much scar tissue, the rent extended into the vagina to the depth of ½ in., and the ends of the sphincter were visible on both sides. Royster made the usual raw surface, and took care to expose the free ends of the sphincter; the perineum and the ends of the muscle were brought together by silkworm-gut sutures. The recto-vaginal septum healed, but the sphincter did not, as some faeces passed during the operation, and soiled its exposed raw surfaces. Five months later the sphincter was once more repaired, and the healing was perfect. Royster related a similar case in the practice of R. L. Payne, of Norfolk, Virginia. A midwife, attending a breech case, made frequent attempts to deliver the breech with her fingers, and managed to hook a finger in the anus, tearing the vagina. On the fourth day the surface of the laceration looked unhealthy. Payne used a sharp spoon, and then closed the raw surface with fine silver-wire sutures. No effort was made to suture the rectal tear separately, but the sutures were placed deeply, and good union resulted.

THERAPEUTICS.

(278) Treatment of Phthisis.

IN a communication made to the Académie de Médecine (*Bull. de l'Acad. de Méd.*, No. 3, 1902), Robin and Binet reported the results of a long series of observations in reference to the prophylaxis and treatment of phthisis based on an investigation of its soil. They find that in 92 per cent. of phthisical cases there is a diminution of respiratory capacity either absolute or relative to the height of the patient. The amount of expired air, or, as they put it, pulmonary ventilation, is increased to more than 80 per cent., carbonic acid 64 per cent., while the total amount of oxygen consumed is increased 7 per cent. Oxygen absorbed by the tissues shows an increase of about 90 per cent. in measurements taken in relation to each kilogram of weight and per minute for man. In the case of women, the figures show still further increase. Whether the phthisis be acute or chronic, or the patient be examined at the beginning or near the end of the disease, there is always an increased respiratory interchange in variable proportion. The same writers endeavoured to ascertain if similar increase in respiratory interchange was present in other diseases, but from analyses made in 40 different morbid states it appeared that while a certain number gave increased respiratory changes, on the whole, respiratory chemistry differed considerably from that met with in the case of phthisis. Increased tendency of the organism to fix oxygen and to form carbonic dioxide, that is to say, to undergo composition, constitutes one of the fundamental characteristics of phthisis and of the phthisically inclined patient whatever may be the cause of the predisposition, be it hereditary, alcoholism, or fatigue. The discovery of these two factors characterizes one of the fundamental conditions of such a diathetic state, which has been named organic break up. This shows that these conditions, however dissimilar they may appear, possess an element in common, the intensity of which may be estimated, and which gives to the soil that element or factor in the causation of phthisis which appears likely to be undervalued since the discovery of Koch's bacillus. This discovery shows, moreover, that conditions of pre-tuberculous break up are due to an irritable and augmented vitality rather than to a decreased. This view of the question upsets many of the dominant ideas of prophylaxis and treatment of phthisis, since according to such ideas the outcome of such a system is the employment of certain tonic methods of treatment which have as an effect the stimulation of vitality and organic metabolism, which, properly speaking, is already in a state of super-activity. This view of the question shows, on the other hand, without the intervention of theories and by the simple exposition of factors that the prophylaxis of tuberculosis by means of modifications of soil ought to be in the direction of restraining or diminishing the tendency of the organism to super-excitation and the over-production of carbonic acid. The writers have made a study of a large number of drugs and methods, including cod-liver oil, sodium arseniate, potassium arsenite in small doses, sodium cacodylate, and some others, and which all tend to diminish respiratory interchanges. Arsenical compounds, of whatever character, when used in larger doses seem to exercise rather a stimulating influence on tissue changes. Thus, it appears obvious that the dosage of such drugs should be regulated with care and under no circumstances should it be above a certain amount. Experiments made on the respiration of dry air or damp warm air, cold applied to the surface throw a considerable amount of light on the climatic therapeutics of phthisis. Examination

of the respiratory chemistry enables one to ascertain whether high altitudes or sea air are favourable or the reverse in any given case. Experience has demonstrated to the writers that certain drugs seem quite capable of modifying the soil and careful examination of respiratory interchanges enables it to be ascertained what drugs are likely to prove beneficial and also if any given one has had a good effect or the reverse in a given case. Thus the prophylaxis of tuberculosis must be directed towards modifying the soil as well as attacking the bacillus, and all measures of hygiene, public and private, should include individual investigation in the case of persons likely to show a predisposition. For by such means it may be ascertained whether or not energetic measures are necessary for the prevention of the disease. Lastly, the treatment of phthisis when once established should not consist merely in antibacillary measures, but should include methods calculated to diminish tissue consumption. Not by means of tonics and stimulants but by those tending to reduce the consumption and fixation of oxygen by the tissues; by diet and drugs having the power to attract to themselves the superabundance of oxygeneration.

(279) Urotropin in Diabetic Coma.

Mayer (*Medical Record*, March 8th, 1902) says that of the various hypotheses advanced to account for diabetic coma, that of acid intoxication and that of a specific toxaemia appear most tenable. Coma is generally heralded by Kussmaul's sighing, irregular respiration, cyanosis, sometimes convulsions, and acetone in the breath. The urine contains large quantities of β oxybutyric acid, increased quantities of ammonia, calcium, and magnesia, and Kültz's hyaline cylinders. When a case of coma is aborted Kültz's casts disappear. Herter has recently produced temporary coma in apes by the intravenous injection of β oxybutyric acid. Schwarz in 1900 obtained diminished excretion of acetone and diacetic acid by the administration of glyconic acid, neutralized by bicarbonate of soda. As alkalies (particularly ammonia) are necessary to neutralize the acidity of the tissue fluids, Mayer has used urotropin. A patient, 37 years old, with signs of diabetic coma was given 20 gr. of urotropin, and the dose repeated within half an hour. The next day the patient was able to leave his bed, and Kültz's casts had disappeared from the urine. The urotropin was continued in daily doses of 20 to 60 gr., but had to be left off on account of nocturnal diuresis. Four subsequent attacks were successfully averted. The patient, however, gradually lost weight, and died from asthenia twenty hours after the commencement of the fifth attack. Consciousness was retained until the last. Urotropin in the presence of an acid splits up into ammonia and formaldehyde. The cleavage occurs in the kidney; the ammonia is rapidly absorbed by the kidney veins, and the formaldehyde passes out in the urine.

(280) Drugs which Prevent Tissue Waste.

Soulier (*Lyon Méd.*, March 30th, 1902) divides the drugs which tend to save waste of the tissues into two classes: (1) Anti-destructive drugs, drugs which diminish the process of oxidation and hinder molecular change. These are the "tissue savers" of the clinician, and only exert their influence in cases where oxidation is morbidly increased and molecular change is morbidly accelerated. (2) Drugs of nutritive force, which bring the alimentary reserves into action. To this coffee-kola group Soulier limits the term "tissue savers." In diseases such as tuberculosis, characterized by increased consumption of oxygen and increased production of carbon dioxide, arsenic and cod-liver oil act as tissue savers by limiting metabolism, and hence are anti-destructives. On the other hand, the drugs comprised in the coffee-kola group seem to excite nutrition, and to be themselves oxidizing agents. They are, however, tissue savers, inasmuch as in the absence of the ingestion of food they spare the albuminoids of constitution by stimulating the utilization of any reserve of aliment stored in the organism. It is claimed that by the administration of these so-called tissue-savers the reserve is used with the utmost possible economy, the circulating albumen saving the fixed albumen for a longer time than if the drugs were not given. Dogs rendered susceptible to fatigue by apomorphine were given alcohol, coffee, and kola, but no change in the amount of nitrogen in the urine could be shown as the result of the fatigue, and no diminution in the amount could be attributed to the drugs. The ergograph showed that only kola nut among this group of drugs really increased the resistance of the organism to fatigue. Morel and Flach found that after the administration of kola nut the urea was diminished in quantity, but that the total quantity of the nitrogen of the urine was increased, and this increase of total nitrogen is claimed as evidence of a tissue-saving action, not by means of reduction of tissue change, but by utilization of circulating albumen. The drugs of the coffee-kola group are characterized by the presence of xanthinic alkaloids. The group includes coffee, caffeine, kola, cocoa, tea, and theobromine. According to Soulier, arsenic acts in a similar manner to the drugs of this group, that is, has a defensive rather than an antidestructive influence. It is, he says, a "mobilization" of oxygen. Its mode of action recalls that of the ferments, that is to say, it is catalytic, and it should be considered as a ferment in this sense of the term.

PATHOLOGY.

(281) The Parasitic Bodies in Cancer.

Schüller (*Centralbl. f. Chir.*, 1902, No. 8) answers the criticisms on his researches which have endeavoured to show that the bodies he described as parasites, were either cork cells or some other foreign material. He maintains that these assumptions are unwarranted and erroneous, that they will not explain his descriptions of cultures and sections, and that as a matter of fact he used in his researches stoppers of guttapercha and glass, and methods in which contamination with cork cells were highly improbable. Since the publication of these criticisms, he has used the most scrupulous care to exclude the possibility of such accidental contamination, but in spite of this the forms previously described, large capsulated cells and small spherical "young" forms have been constantly found. He repeats his former view that the large forms represent a resting stage in the life history of the organism, and that the young forms are those that are actively concerned in the cancerous process; they are found both within and between the cells, and the stages of their development into the large forms can be traced. That these young forms are not leucin he holds is proved by his observation of their powers of movement and contraction, and they do not behave as leucin in the presence of alcohol and heat. Lastly, he draws attention to the experimental inoculations and their results, described in his first monograph: the changes produced are there described as of typical carcinomatous character, and this view he reiterates.

(282) Snake Poisons.

At the February meeting of the Philadelphia College of Physicians (New York *Med. News*, February 15th, 1902), S. Weir Mitchell and Simon Flexner read papers on this subject, the former having suggested the experiments, and the latter having carried them out. While not yet completed, Flexner was able to outline some results thus far determined. The research was conducted with a view to interpreting the blood phenomena caused by venoms. Flexner first gave a brief explanation of the principles of bacteriolysis and haemolysis in general, and then detailed the results of their experiments to determine the haemolytic properties of venom. It was found that venous haemolysis takes place to a varying degree as the blood of different animals is susceptible to venom in a varying degree. Venom acts in a maximum way upon one kind of corpuscles. The general conclusions reached were as follows: (1) Venom is a very complex compound, and contains a large number of intermediate bodies, but no complement; (2) if venom contains a nerve poison, that substance unites chemically with nerve cells to produce its effect; (3) the rapid decomposition of bodies dead from venom poisoning is due to the action of the venom upon the blood; the serum complement of the blood is fixed by the venom, and as a consequence the bacteritic quality is lost, the bacteria thus rapidly multiplying when not inhibited by the serum cause hasty decomposition; (4) experiments with antivenin showed it to be a physiological and a chemical antidote to venom.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(283) Albuminous Expectoration following Thoracocentesis.

REISMAN (*Amer. Journ. of Med. Sciences*, April, 1902) quotes a case of the above in a single woman aged 48, who a year previously, at the climacteric, began to suffer with shortness of breath and puffiness of face and neck, with occasional slight cough and periodic intense attacks of dyspnoea and orthopnoea. On examination, there was cyanosis and puffiness of the face with rapid and difficult breathing, and over the inner end of the right clavicle a large hard gland could be felt. The right chest contained fluid and was aspirated, three pints of readily-frothing, yellowish fluid being drawn off. When nearly a quart had been drawn, a dry cough commenced followed by frothy expectoration, the patient becoming dyspnoeic and cyanosed. Morphine gave relief, and during the next six hours she expectorated above 5 oz. of clear amber-coloured fluid with a deep layer of froth. A fortnight later a second aspiration was required, as the chest was again full of fluid, and a large hard gland was noticed above the left clavicle, and sarcoma of the anterior mediastinum was diagnosed. The expectoration in such cases closely resembles the chest fluid, being richly albuminous, viscid, frothy, faintly alkaline, and of an amber colour, and it generally sets in after an interval of from a few minutes to half an hour after paracentesis, though longer intervals are recorded during which the patient experiences temporary relief followed by dyspnoea and a sense of oppression, with physical signs of pulmonary oedema as the expectoration increases. In the majority of instances recorded the amount of fluid aspirated was considerable and the withdrawal rapid. That the condition is due to pulmonary congestion with intense oedema, the time of onset, physical signs, and *post-mortem* evidences go to prove, and the theory of "congestion by recoil" in a lung whose capillaries are altered by pressure so as to become more permeable for the transudation of serum into the air vesicles affords the best explanation of the condition. The treatment consists in counter-irritation, artificial respiration and venesection, and the administration of morphine with atropine for the severe cough: and as a preventive measure aspiration should always be performed slowly, and only a moderate quantity of fluid be removed at any one time, especially where cardiac disease or morbid conditions of the opposite lung, hindering expansion, are predisposing factors.

(284) Lesions of the Stomach due to Contusion.

PINATEL draws attention to certain lesions of the stomach due to traumatism (*Journ. de Méd. et de Chir. Pratiques*, January 25th, 1902) a subject which has not received in the opinion of the writer that attention which it merits. Especially are such lesions important in that they may be the starting point of gastric ulcer, as has been demonstrated by Potain and Duplay. The remarkable point in reference to cases of gastric traumatism is that there may be very grave lesions without the abdominal wall being in any way affected. The writer quotes Thiery as reporting the case of a man who fell from a third story in a sitting posture. There was considerable injury of the pelvis and its floor. The patient was in a very dangerous condition of intense shock, but the only pain of which he complained was in the epigastric area. He died seven hours after the accident, and on necropsy a large rent was found in the stomach, with effusion of its contents into the abdominal cavity. Thus, gastric lesions by *contre coup* must be borne in mind. In the majority of cases, however, it is a question of contusions in the epigastric area, and should the stomach be full there may be serious injury without any external lesion of the abdominal wall. These lesions may vary from simple ecchymosis up to absolute destruction of the wall of the stomach. Pain, nervous shock, bilious or bloody vomiting are the most striking symptoms. The interesting point is the evolution of such symptoms which varies according as there is rapid recovery, a chronic state, or definite complications and consequences. In the first case the symptoms which followed traumatism did not last very long, gradually passing off. For a few days the patient is in a prostate state, without appetite, and showing some gastric intolerance. The general state is unsatisfactory, and the symptoms are those of acute gastritis. Should there be haematemesis the cases, as might be expected, last longer, but even then prognosis may be good. Benign cases are the most common of all. There has been some superficial erosion which heals without leaving bad results, a condition similar to that found in cases of gastric catheterism. In many cases, however, such simple erosion becomes chronic gastric ulcer. The symptoms are more marked, haematemesis is of great frequency, and the disease lasts a considerable time. In the worst cases symptoms of perforation and peritonitis very soon declare themselves. In all cases of gastric traumatism the cases should be carefully observed and kept in bed, and a very limited milk diet is said by the author to be absolutely essential

(285) Syphilis of the Nerve Centres.

ROUX (*Lyon Méd.*, February 16th, 1902) records the following case, the true nature of which was not discovered for some months. A man, 46 years of age, contracted syphilis when 23. When 33 he suffered from glycosuria, but the sugar disappeared from the urine after a season at Vichy. A year later the following note was made: Diabetes mellitus, polysarcia, nervous condition, reflexes present. Ten years later the patient suffered from convulsive vomiting, with loss of consciousness and twitching of the limbs. No paralysis resulted, but motor aphasia gradually became marked. A few months later lightning pains appeared, and progressive amblyopia was noted. The liver was much enlarged, sugar and albumen were found present in the urine from time to time, both diminishing after the administration of iodide. There was no ataxia, static or motor, and no inco-ordination. The deep reflexes were abolished on the right side, diminished on the left. The general condition of the patient was bad; he suffered from insomnia, palpitation, and indigestion. Ophthalmoscopic examination showed separation of both retinae and diplopia. The pupils were equal, and reacted to accommodation and light. The visual field was retracted, and there was a central scotoma for all colours except red. The optical examination of the eyes eliminated diabetic and albuminuric retinitis, and showed a combination of signs considered pathognomonic of syphilis. The patient improved rapidly under treatment by interstitial injections of calomel, the retinal exudate disappeared, the lightning pains ceased, and nutrition benefited. One c.cm. of the following mixture was injected once a week: Calomel, 0.10 eg.; orthoform, 0.10 eg.; liquid vaseline, 2 c.cm. These injections cause stomatitis, but this, according to Roux, is generally of a mild type.

SURGERY.

(286) Pulmonary Embolus after Surgical Operations.

A. OPPENHEIMER (*Berl. klin. Woch.*, February 3rd, 1902) deals with cases of embolism of the lungs in cases of appendicitis following operations. The symptoms in each of the five cases were dyspnoea, a feeling of anxiety, sweating, and rapid heart beat. In four cases the sputum was bloody, while in the fifth the symptoms were so typical that no doubt could be maintained about the diagnosis. The onset in all cases was sudden, and varied between five and thirty days after the operation. The case in which the symptoms occurred thirty days after was particularly instructive. The appendicitis operation wound discharged for a considerable time. The first attack set in with sharp pain and dyspnoea followed. The characteristic sputum soon showed itself. A second attack took place thirteen days later, but with no bloody sputum. All five cases recovered. A sixth case, ending fatally, is also reported. Oppenheimer discusses at some length the pathology of the condition, starting from the occurrence of thrombus. He argues that the thrombus cannot be located in the veins cut or damaged in the operation, as these (veins of the intestines and mesentery)

empty themselves through the superior and inferior mesenteric veins into the portal vein, while a thrombus which is capable of giving rise to a pulmonary embolism must occur in a systemic vein. From this he concludes that the thrombus must be a "compression thrombus." He details the changes in circulation which favour the formation of such a thrombus. He is disinclined to look upon the emboli as depending on some infective organism and believes that mechanical detachment of portions of the clot may explain most cases. With regard to treatment, he relies on sitting his patient up, administering morphine, and waiting. They tend to heal themselves. Digitalis, he says, is dangerous, and quotes Gerhardt in support of this statement. Dry cupping is useful for the pleural pain and feeling of suffocation. Careful nursing and absolute rest must help to ward off subsequent attacks. He exemplifies the ease with which fatal attacks can occur, especially in heavy subjects, by cases. In conclusion, he speaks a few words in favour of general anaesthesia and against the local infiltration methods.

(287) Gastro-enterostomy.

QUÉNU (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 7, 1902) puts on record a case of repeated gastro-enterostomy on the same patient which presents several points of special interest. The patient, a male, aged 29, had during eight years before the first operation, which was performed in July, 1897, suffered from severe gastric troubles caused by cicatricial stenosis of the pylorus and enormous dilatation of the stomach. This operation was followed by complete relief, which, however, did not last long, since after an interval of eighteen months decided symptoms of gastric ulcer were presented. After these symptoms had been removed by rest and medical treatment there was a long period of relief: but in June, 1901, four years after the first gastro-enterostomy, it was found necessary to perform this operation again on account of ulceration of the anastomosed loop of small intestine, this ulceration having involved nearly the whole thickness of this portion of small intestine and the corresponding portion of the abdominal wall. The ulcerated loop of intestine was resected, and then the jejunal end of the divided intestinal canal was sutured to the orifice in the stomach, the margin of which remained sound, and, finally, the duodenal end was implanted into the jejunum. The patient made a speedy recovery and is now quite well. The history of this case, it is pointed out, proves that gastro-enterostomy does not ensure subsequent freedom from gastric ulcer unless the patient be very careful as to diet and submit to proper medical treatment. The rare result of ulceration of the anastomosed loop of intestine is attributed to the fact that the descending limb of the loop constitutes a substituted duodenum, which may be freely exposed to the corrosive action of a hyperacid gastric fluid.

(288) Suture of Arteries.

HUBBARD, of Boston (*Boston Med. and Surg. Journ.*, March 27th, 1902), gives a sketch of the history of suture of blood vessels. Janissowsky proved in 1889 by experiment that large arteries might be tied with good results, thrombosis, and occlusion of the lumen being avoided. Murphy in 1897 introduced the invagination method; Dörpler found that the tunica intima may be included in the sutures with very little fear of thrombosis. Payr devised a mechanical contrivance like Murphy's button, but has not described his experimental results, which he declared to be satisfactory. Twenty recent cases of operations on arteries are collected by Hubbard: (1) Tibial artery wounded during removal of a tumour, catgut sutures, amputation for recurrence a year later, artery slightly narrowed at site of suture (Durante). (2) Axillary artery wounded during amputation of breast, catgut sutures (Durante). (3) Wound in brachial artery 7 mm. long sutured (Rosa). (4) Wound of axillary artery closed with catgut sutures (Heidenhain). (5) Wound of femoral artery sutured (Manteuffel). (6) Common iliac wounded during operation for perityphlitis, silk sutures through all layers (Israel). (7) Embolon in femoral from ulcerative endocarditis; the embolon could not be removed, but the artery was opened and sutured; nineteen days later the patient died from the endocarditis, and a spindle thrombus was found along the opening in the intima (Sabanieff). (8) Wound in popliteal sutured through all the layers, additional stitches through adventitia and connective tissue; amputation later when the artery was found patent but narrowed (Orloff). (9) Resection of femoral artery for traumatic aneurysm; proximal end invaginated into distal; after peeling the adventitia from the former, and after the invagination, it was pulled down over the line of suture and fastened there: the femoral vein was also sutured (Murphy). (10) Wound of femoral artery during an operation, suture with silk through all coats; safety stitch through the adventitia (Lindner). (11) Internal carotid injured during removal of cancerous glands; silk sutures through adventitia and media (Garré). (12) Suture of wound of bracial received on previous day. The pulse and colour returned to the hand, which before had been pulseless and cyanotic (Garré). (13) Arterial suture of brachial for arterio-venous aneurysm; doubtful result (Marchant) (14) Axillary artery sutured with catgut for wound during an operation on the axilla (Richard). (15) Wound of femoral artery; catgut suture through all the coats (Cammagio). (16) Resection of nearly 2 in. of the femoral artery involved in a cancerous growth; invagination of proximal into distal end (Kümmel). (17) Artery (not specified) wounded in neck suicidally; silk sutures through adventitia and media; jugular vein also sutured (Seggel). (18 and 19) Two cases of suture of axillary artery after the invagination method (Pacha). (20) Suture of artery for arterio-venous aneurysm; operator not specified. Hubbard experimented, but not satisfactorily, as he could not work under strict asepsis, an essential in this operation, as any infection about the vessel makes the chance of thrombosis greater. The circulation must be controlled sufficiently far away from the injury to give room to work, especially if a resection has to be done, for an artery when cut across retracts a long way. A continuous suture minimizes the handling, and is in other respects advantageous. After the suture is complete the compression must be taken off the distal side first; the blood will then flow back and test the suture before the vessel bears the full blood pressure after the compression is taken off above the side of suture. In order to make a barrier against sepsis it is good to suture the sheath of the artery.

MIDWIFERY AND DISEASES OF WOMEN.

(289) Complete Absence of Uterus and Vagina: Functional Urethra.

BREITENFELD (*Centralbl. f. Gynäk.*, No. 15, 1902) reports a very marked case of this condition. The patient was aged 21 and had never menstruated. Immediately after the first coitus blood escaped, and the patient was so reduced in strength that she had to keep in bed for several days, and for long afterwards passed bloody urine. The patient was well nourished, rather pale, and with well-developed mammae. The external parts were normal and freely covered with hair, the nymphae and clitoris hypertrophied. Behind the latter lay a cleft about ½ in. long, with numerous small transverse lacerations on its edge. The oiled forefinger, after meeting a little resistance from the sphincter vesicae, entered the cavity of the bladder without causing any pain. There was no incontinence of urine. Posterior to the dilated urethra, which had served as a vagina, was a depression not ⅝ in. deep, which seemed cicatricial at its deepest point. There was on the right and on the left border of this depression a blind canal nearly 1 in. deep. On recto-abdominal palpation no uterus could be felt; at the level of the symphysis a cord was detected corresponding to the right ovarian ligament and running outwards to a flat body, as big as a bean and tender on touch, evidently the rudimentary right ovary. Coitus was not painful, but blood sometimes was found in the urine afterwards.

(290) Stricture of Vagina from Carbolic Acid: Dystocia.

ZANGEMEISTER (*Centralbl. f. Gynäk.*, No. 13, 1902) had great difficulty in delivering a woman, aged 21, in her second confinement. Nearly two years earlier, when the first child was born, the perineum was ruptured, and, acting on a friend's advice, she applied very strong, almost pure, carbolic acid to the outer genitals. Extensive sloughing with suppuration followed. There was

pain on walking and when sitting, but micturition and defaecation were unaffected. The vulva was reduced to an oval ring, tough as cartilage, just admitting two fingers; the deformity of the external parts was extreme, the anus was drawn forward, and the perineum was represented by a small bridge of cicatricial tissue. The ring of scar tissue at the vulva kept the vagina constantly open. The patient was in good health, and the labour pains strong. The head was arrested for several hours by the cicatricial ring, which did not yield in the least, and was at length pushed forwards by the fetal head. At the same time the perineal cicatrix was stretched to an extreme extent, the anterior rectal wall was forced out of the anus, and the bowel was thus placed in danger. Radiating incisions were made, bleeding was very free, the child was delivered with forceps. The perineum was repaired as well as possible, and the vulva gaped less in consequence when the parts healed. In Wyders's case a ruptured perineum had been neglected twelve years before; the vulva had almost closed, and coitus took place through the urethra and a large vesico-vaginal fistula. In Pompe van Meerdervoort's case the labia majora had firmly fused together to the extent of $1\frac{3}{8}$ in., and it was remarkable how conception could have taken place.

(291) Pregnancy in Uterus Bicornis taken for Ectopic Gestation.

TO'TH (*Centralb. f. Gynäk.*, No. 15, 1902) notes a case of much obstetrical interest where a nullipara, aged 21, became gravid, and applied to a doctor, when in the second month, for crampy pains in the abdomen and severe vomiting. The vagina was narrow; in the anterior fornix a cord-like structure could be felt running from the pubes backwards and to the left to its insertion into the cervix. The uterus felt small, bent forwards and to the left: to its right lay a soft, smooth, and moderately movable body, connected, it seemed, with the right cornu. The history implied extra-uterine pregnancy, the local conditions suggested a dermoid tumour. Anterior colpotomy was insufficient to allow of thorough exploration. The abdomen was opened, and then it was found that there was a true uterus bicornis with pregnancy in one cornu. The wounds were closed, and the patient recovered, but abortion occurred on the third day. This case, To'th observes, shows the great disadvantages of colpotomy as compared with abdominal incision.

(292) Racemose Sarcoma of Cervix Uteri.

BACHE MCE. EMMET (*Amer. Journ. Obstet.*, March, 1902) reports a case of the very malignant grape-like sarcoma of the cervix. Spiegelberg first detected this disease in a girl aged 17, it recurred several times and after removal of the uterus proved fatal. Pernice later on discovered that this kind of tumour is made up of embryonic striated muscle-cells. Bache Emmet's case was 19 years old, menstruation was not established till she had reached her seventeenth year. Pain in the left ovarian region had set in two months before examination and there was profuse fetid discharge. Pieces of polypus-like structure kept coming away. On inspection, the vulva was found distended and the vagina packed with the growth. Even under anaesthesia it was hard to define its attachments. It was at length found to spring from the posterior lip of the cervix and a wedge-shaped piece of tissue was cut out, including the attachment of the tumour. Seven months later the growth filled the vagina once more, and high amputation of the cervix was performed. It was then believed that the growth was a simple fibrous polypus as it appeared to be when examined after the first operation. Four months later the discharge again began to appear, followed by pain and profuse bleeding. Janurin had the patient under his care when the disease was advanced. death occurred just five months after the amputation of the cervix and therefore one year after the first surgical proceeding for the patient's relief. The tissue of the tumour examined when the cervix was removed seemed chiefly spindle cells.

(293) Primary Cancer of Vagina.

SADOWSKI (*Monats. f. Geb. u. Gynäk.*, March, 1902) reported at the January meeting of the St. Petersburg Gynaecological Society a genuine case of primary vaginal cancer. It appeared as an ulcer sharply defined from the surrounding healthy tissues on the mucosa of the posterior vaginal fornix; the cervix was healthy. Metastatic deposits were detected on the anterior and lateral aspects of the vaginal mucous membrane, one close to the vulvar cleft. The clearness of the nature of the disease in this case, and of its primary seat and the prominent metastatic deposits were features of considerable interest. Primary cancer of the vagina is very rare, but not very hard to diagnose, as all ulcers of the vagina proper are rare, and a definite ulceration, cancerous in character and not involving the cervix and body of the uterus, will attract the doctor's attention, besides it is a condition which almost suggests its true nature.

THERAPEUTICS.

(294) Spinal Analgesia with Tropococaine.

BIE'S method of producing analgesia by the injection of cocaine into the dural sac has met with much opposition on account of the alarming symptoms which frequently follow. Cocaine-eucaine solutions gave results which were but little better. Neugebauer (reprint from *Wien. klin. Woch.*, 1901, Nos. 50, 51, and 52) adopted the suggestion of using tropococaine, and obtained good results. He uses a needle 7 cm. in length, but states that usually one measuring 6.5 cm. suffices. It is, however, advisable to have one of 8 cm. at hand. Care must be used to prevent the needle from becoming blocked. In one case he resorted to Bie's device, after passing the wire through the needle, and yet no cerebro-spinal fluid escaped. This consists merely in causing the patient to cough. It proved sufficient in this instance. The syringe has a capacity of 2 grams ($=\frac{1}{2}$ drachm). It must be made to take to pieces and to be capable of being boiled. The solution can be freshly made and boiled immediately before use. As a rule Neugebauer placed his patients on their sides and raised the buttocks with a pillow. The skin must be carefully prepared and the needle inserted between the vertebral arches into the medullary canal. This is sometimes very difficult and needs considerable practice. As a rule, when skilfully carried out it is practically painless. The analgesia begins, generally after a minute or so, in the anal region. The nates and the posterior surface of the thighs are next affected. This is not always the case, as is shown by a case of operation for piles, in which no analgesia in this situation could be induced. As a rule, the feet are next affected, so that a sensitive "island" is left. Rarely this island remains sensitive to pain, but usually it becomes analgesic in a short time. The posterior surfaces appear to be more readily effected than the anterior. At times the skin is quite insensible to pain, while handling of the testes or peritoneum was felt as pain. Bones, as a rule, become included in the analgesia. The patients at times complained of feeling of pressure, cramp, and of "pins and needles." Tropococaine is injected in doses varying between 0.0375 gram (= *circa* $\frac{1}{2}$ gr.) to 0.1 gram (= *circa* $1\frac{1}{2}$ gr.). The minimal dose was sufficient to prevent all pain in a woman while a rectal carcinoma was removed per vaginam, the operation lasting one hour. Neugebauer, however, believes that 0.06 gram (= $\frac{9}{10}$ gr.) should be regarded as the maximal dose. The after-effects in two cases were alarming, but this turned out to be due to some carbolic acid which was accidentally placed in the syringe. Following injections up to 0.06, the patients did not complain after the day of operation. On the same day 15 (of 60 patients in all) had headaches, 7 had a rise of temperature, 3 had vomiting, 3 had paralysis of the sphincter ani, and 1 paralysis of the lower extremities. After larger doses the after-effects were more severe. Tropococaine injections into the dural sac in doses from 0.05 to 0.06 gram for adults produces complete analgesia without danger for operations on the lower extremities, the anal, and neighbouring regions. An account of cases is added.

(295) Carbon Monoxide Poisoning and its Nervous Sequelae.

LOUIS LE DOSSEUR (*Thèse de Paris*, 1901) constitutes a valuable study based on a large number of cases of carbon monoxide poisoning (asphyxia with the fumes of burning charcoal), which is a common means of suicide in France. A large number of nervous troubles—some of grave character—follow CO poisoning:

(*a*) The most frequent type includes paralysis of various parts, as noted long ago by Bourdon (1843); these comprise hemiplegia with or without one-sided facial paralysis and in varying degrees, aphasia, paraplegia, and (less frequently) monoplegias (brachial, crural, etc.); (*b*) sensory disturbance in the form of areas of anaesthesia and analgesia are fairly frequent, and neuralgias are less frequent; (*c*) special sensory disturbance may occur as regards sight or hearing; (*d*) trophic troubles are liable to follow in some cases of asphyxia, for example, oedematous patches may develop over the affected peripheral nerve tracts (motor and sensory), eschars may form on various parts of the body, while whitlow, glossy skin, and herpetiform eruptions may also occur; (*e*) glycosuria has been met with fairly frequently in some cases; (*f*) the aphasia which results in association with hemiplegia may vary from slight degrees of stuttering and embarrassment of speech to total (glosso kinaesthetic) aphasia: in the more marked cases word blindness may coexist, and also agraphia; (*g*) for differential diagnosis it is necessary to exclude alcohol, lead, hysteria, and polyneuritis; (*h*) the mental disturbances following asphyxia may assume the form of delirium with excitement (acute or subacute), or of intellectual torpor with vague confusion of ideas; melancholia proper is rare; (*i*) amnesia is usually present on recovery, and when the poisoning was planned with suicidal intent the memory of the latter circumstance is usually blotted out; (*k*) symptoms of extensive cerebral *ramolissement* may develop, in which case the patient tends to pass into a state of dementia; (*l*) necropsy shows that the blood is altered (carboxy-haemoglobin), and that intense capillary congestion, attended frequently with numerous focal haemorrhages, occurs throughout the brain and nervous system generally, and that areas of commencing cerebral softening are numerous. There is acute fatty degeneration of the blood vessels, sometimes vitreous degeneration, and focal destructions of tissue occur in the bulbar and spinal centres resulting in various peripheral palsies. These central lesions account for the peripheral symptoms shown, and according to the gravity of the former is the prognosis.

(296) The Therapeutic Value of Silicate Salts.

SIEGFRIED (*Arch. Internat. d. Pharm. et de Therap.*, vol. ix, p. 225) gives a full account of the physiological action and therapeutic uses of the sodium silicates and fluorides. They have hitherto been little used in therapeutics, but their properties indicate their value in the following conditions. In acid poisoning sodium silicate is much to be preferred to carbonates, which generate carbonic acid and give the stomach wall a protective mucilaginous coating. In acid dyspepsia it is indicated as a table water; in gout it is also of much value. It has been used by Kobert and others in phthisis with the idea of stimulating the development of fibrous tissue by the deposit of silicious matter in the lung. Kobert has administered 15 to 30 gr. doses without bad effects, but he has not arrived at a final opinion as to its exact value. With regard to fluorine compounds, fluoroform has been recently used in acute pneumonia, and other compounds may very probably prove of considerable service in rickets.

(297) The Light Cure in Ozaena.

IGN. DIONISIO (*Gaz. Med. Ital.*, February 6th, 1902) briefly relates his experience with 6 cases of ozaena under treatment by electric light (incandescent). He directs the light by reflectors into the nose, or actually introduces a lamp with a water-jacket into the nostril, or uses a larger lamp in the mouth, illuminating the nose through the transparent facial bones. In every case there has been a noteworthy decrease of the crusts and secretion, and a disappearance of the characteristic fetor. Two cases previously treated by the best means known, who had returned with the usual odour in spite of nasal douches several times a day, are now free of the odour and use no irrigation at all. Dionisio admits frankly that he cannot yet say whether the cure is lasting, but he believes that it is a valuable addition to the therapeutics of ozaena, because present methods are, save in rare cases, mere palliatives.

PATHOLOGY.

(298) Inherited Immunity.

INHERITED immunity may conceivably be either active or passive. Induced by his researches to believe that immunity transmitted to offspring is not really hereditary but acquired by the ovum or fetus in the body of the mother, Dzierjgowsi (*Arch. d. Sci. Biologiques*, Tome viii, No. 5) has carried out further researches to test this belief. The particular form of immunity studied was that to diphtheria toxin, and the material used was the eggs of hens. He found antitoxin demonstrable only in the yolk of the egg, and proved that it is not destroyed by any enzymes making their appearance during the development of the egg, but penetrates into the fetus. In the latter it is confined for the most part to the serum of the blood. In the yolk the antitoxic principles are for the most part localized in the formative portion. The antitoxin can be extracted from the yolk by water and separated by dialysis; it passes unchanged through the Chamberland filter and does not contain phosphorus, and therefore does not belong to Hoppe-Seyler's group of vitelline substances. In all probability it is a globulin, and identical with the substances of globulin nature described by Gross as existing in the yolk. Dzierjgowski arrives at the following conclusions: The albuminoid substances contained in the yolk and endowed with antitoxic properties correspond in character with those of the blood serum. As the antitoxin of the blood can pass into the yolk unchanged, so it can pass from yolk to fetus without modification: it would appear from this that inherited immunity does not depend on a capacity acquired by the embryonic cells to elaborate antitoxin, but simply on the fact that antitoxin passes from the maternal blood to the fetus. In other words, natural immunity is not an active immunity transmitted by the mother and showing itself in a capacity of the cells to manufacture antitoxin, but it is a passive immunity determined by the amount of antitoxin which has passed into the fetus, and which has nothing to do with any activity of the cellular elements of the offspring.

(299) Glycolysis in Drawn Blood.

F. W. PAVY AND R. L. SIAU (*Journ. of Physiology*, No. 6, vol. xxvii) record a number of observations on glycolysis, or the diminution of sugar, in blood withdrawn from the body. It was stated long ago by Bernard that sugar disappeared rapidly from drawn blood. Recently Lépine has attached much importance to this sugar destruction in drawn blood. Lépine thinks that the glycolytic power of diabetic blood is less than that of normal blood, and has based theories as to the causation of diabetes on this difference. Pavy and Siau conclude from their experiments that: (1) The loss of sugar which occurs in dog's blood in the first and second hours after withdrawal from the animal is so insignificant as to render it difficult to see how it can have any physiological bearing; (2) when the time of exposure is increased to four or six hours a more definite loss is met with, but even now it does not amount to anything large; (3) it is a part of Lépine's doctrine that the larger the amount of sugar present the larger is the loss that is found to occur; this receives no support from the experiments of Pavy and Siau; the percentage loss will be influenced by the amount of sugar that happens to be present. Lépine's *pouvoir glycolytique*, which represents the percentage loss, constitutes an expression which may be made to vary at will.

(300) Degeneration of the Islands of Langerhans of the Pancreas in Diabetes Mellitus.

WRIGHT AND JOSLIN (*Journ. Med. Res.*, vol. i, p. 360) have examined the pancreas in 9 cases of diabetes mellitus in order to study the opinion of Opie that, where diabetes is caused by a lesion of the pancreas, the lesion is of such a character as to destroy or injure the islands of Langerhans. In 2 of the 9 cases hyaline changes in these structures were found, the condition consisting in the presence of irregular shaped eosin-staining masses. In one other case there was exudation of fibrin and leucocytes in the connective tissue septa, but no changes in the islands; in the other cases there were no lesions of the gland. They conclude that lesions of the island of Langerhans are important factors in the pathology of diabetes.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(301) Varieties of Adolescent Insanity. Masselon (*Thèse de Paris*, 1902) states that since Kraepelin had called attention (1894) to the unity of a group of mental affections occurring in adolescence (marked by mental enfeeblement, apathy, and aboulia or loss of volition), a critical reconstruction of facts recorded by various observers (Esquirol, Morel, Kahlbaum, Magnan, etc.) has enabled the following four classes of adolescent insanity or dementia praecox to be recognized: (*a*) A simple form without delusions; (*b*) a delusional form also called hebephrenia—marked by excitement intermingled with depressive hallucinations, terror, and confusion of ideas, the symptoms, however, being most fugitive and varying from moment to moment; (*c*) a catatonic form first described by Kahlbaum, and marked by symptoms of stupor, cataleptic postures, speechlessness or verbigeration, and incapacity for attention to surroundings; (*d*) a paranoid form in which sensory disturbances and delusions rapidly developed, and progressive mental enfeeblement made its appearance. Among the commoner physical signs were dilated sluggish pupils, exaggerated knee-jerks, feeble circulation, and some form of autointoxication from the alimentary canal leading to temporary delirium. The age of onset varied from 17 to 25 years in both males and females, but in married women the onset might be a little later (26 to 30 years of age). The percentage of recoveries was low, being 8 per cent. in the delusional or hebephrenic form, and 13 per cent. in the catatonic variety. The causation was obscure, but a hereditary taint (neurotic or insane) could often be traced. (The disease was quite distinct from the general paralysis of adolescents.) Detailed clinical records are given by the author of 13 cases personally observed.

(302) Nervous Disturbances due to Malaria. Schupfer (*Il Policlinico*, N. 5, f. 4, 1902) restates certain conclusions drawn by him from a previous study of the above subject, and then proceeds to describe four additional cases of nerve disturbance of malarial origin. Malarial neuritis presents most of the symptoms familiar in other toxaemic forms of neuritis. In the differential diagnosis the following points are important. In malarial neuritis (1) the course of the disease is intermittent, these intermittences corresponding to the febrile accesses; (2) the tendon reflexes are frequently preserved, and may even be exaggerated; tremor, ataxia, and athetoid movements in the paretic limbs are not uncommon, and at the onset there may be bulbar symptoms; (3) the sensory disturbances are irregular and dissociated, sometimes grouped according to the wearing of gloves or stockings, and frequently suggestive of hysteria; (4) the rarity of complete reaction of degeneration in the paralysed muscles; (5) the frequency of vasomotor and trophic disturbances; (6) the almost constant failure of sphincter trouble. These are the chief directions in which malarial neuritis may be separated from other forms of neuritis. The author proposes to discuss the pathogenesis in a further paper.

(303) Statistics of Pleurisy in Jena. Grober (*Sonder-Abdruck aus Centralbl. f. inn. Med.*, No. 10, 1902) finds that of 1,000 cases of phthisis at all ages 88 were preceded and 68 accompanied by pleurisy. Of the 88 in which pleurisy was a forerunner there was a more or less clear family history of phthisis in 40. In 8, more than ten years elapsed between the pleurisy and the diagnosis of phthisis; in 10 the phthisis immediately followed the pleurisy; the average time between the two was 4.3 years. Thus 8.8 per cent. of all the cases of phthisis were preceded by pleurisy: a percentage sufficiently high to justify Penzoldt's dictum that pleurisy should always raise the suspicion of tuberculosis. In the classification of cases of pleurisy clinical data were alone available, since specific organisms were found in but a fraction of the total number. Of 210 cases of pleurisy the effusion was probably a transudation rather than exudation in 10. Of the remainder, 148 were accompanied by effusion, 52 were "dry." The right side was affected in 101, the left in 92, both sides in 7. Males were affected more often than females (140 to 60). The cases were most numerous in the second and third decades of life; this corresponded to and was consequent on the age incidence of phthisis. More than half the 200 cases were "idiopathic," that is, had no discoverable cause. Of the remainder 21 were certainly and 22 probably tuberculous (together equal 36.5 per cent.), 7 were post-rheumatic, and 8 post-pneumonic, 2 post-influenzal, 12 traumatic, 5 were complicated by morbus cordis, 5 were secondary to neoplasms, and 12 complicated infective diseases.

(304) Localization of the Mental Faculties in the Left Prefrontal Lobe. Phelps (*Amer. Journ. of Med. Sciences*, April, 1902), after reviewing past research, reports in detail 18 additional cases to those already published by him in which traumatic or pathological lesions of the frontal lobes resulted in varying phases of mental derangement. Seeing that the posterior portions of the frontal lobes are known to control special motor functions, mental control becomes localized to the prefrontal region, while the conclusions of previous investigations point to the seat of such control as being in the prefrontal region of the left lobe rather than the right. Also laceration of the left frontal lobe appears to be the only traumatic lesion occasioning direct loss or derangement of intellectual function, and the deeper the laceration the more mental default preponderates over mental aberration; while in recovering cases, where the lesion may be regarded as irritant rather than destructive, mental aberration is more frequently noted than mental default. Three cases reported by other observers are quoted in which extensive destruction of the right frontal lobe occurred without alteration of the mental faculties, while the famous "crowbar case," where the lesion was in the left prefontal region, and a case reported by Obici and Tambroni of glioma of the left prefrontal lobe are referred to as showing mental disturbance. In every instance but 2 out of 295 cases, where the history was verified by necropsy, extensive laceration of the prefrontal region of the left frontal lobe was characterized by abrogation of mental power, while more superficial injury manifested itself by mental aberration. The disturbance of mental faculties seemed to be proportionate to the extent of the lesion rather than to its situation either on the superior or inferior surface of the lobe. In all cases where the laceration was confined to the right lobe the mental faculties were unaffected, and compression or contusion of the left lobe only exceptionally produced specific intellectual disturbance. These inferences are supported by the author's personal observation of 800 cases of intracranial traumatism where more than 300 were verified by operation or at the necropsy, and in those excluded, because thus unverified, the coincidence of symptoms of mental disorder with indications of lesion of the left frontal lobe help to strengthen the inferences founded upon cases verified by necropsy.

SURGERY.

(305) Transplantation of Tendons in Paralytic Deformities. Alessandrini (*Arch. di Ortoped.*, An. 18, Nos. 5-6) publishes 15 cases of paralytic deformity which were successfully treated by him by means of transplantation of tendons. Of the results of the operation in general he speaks very highly. Relapses are rare, and often a second operation completes the cure. In suturing the divided ends he prefers Stecchi's method, consisting of two longitudinal and two transverse sutures. He uses silk for the tendons and hair for the skin sutures. In four of the cases the crural biceps was transplanted into the quadriceps extensor (in one of these the sartorius was also united to the quadriceps, and this gave the best result). This treatment gives good results in contractures consecutive to joint trouble in the knee, as well as in paralytic cases. In three cases the posterior tibial was implanted into the extensor communis. In these operations good often results from the mere suppression of faulty action in a given muscle, apart from the benefit derived from transferring its action in another

direction; and it is obvious that an accurate knowledge of the anatomy and physiology of the muscles concerned is necessary, lest the foot be turned into a useless flabby appendage. The osseous deformity in club-foot never reaches the same degree in the paralytic form that it does in the congenital cases.

(306) Gastrostomy.

DEPAGE (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 11, 1901), though regarding Frank's operation for gastrostomy as on the whole a good one, has, in some cases, been disappointed with its results. The subcutaneous tunnel, he states, soon becomes effaced, and the only safeguard against free discharge of gastric fluid is the small size of the external opening. This failure has led him to devise a further modification of gastrostomy which he has practised with success in one case. The following are the successive steps of this new operation: (1) a vertical incision from 7 to 8 cm. in length above the umbilicus and a little to the left of the median line; (2) a portion of the stomach drawn through this opening is isolated from the peritoneal cavity by a continuous suture fixing the gastric wall to the margins of the parietal peritoneum; (3) a long tongue-shaped flap, with the attached portion upwards, is taken from the whole thickness of the exposed portion of the anterior wall of the stomach; (4) this flap having been turned upwards, the wound in the stomach is closed by a double row of sutures, one row for the mucous the other row for the serous coat, these sutures being continued so as to bring together the margins of the flap along its whole length, so as to convert this flap into a tube; (4) the tube thus formed from the gastric coats is fixed to the superior angle of the external wound, or, if its length permits, it may be drawn through a tunnel of skin and soft parts, and made to emerge near the tip of the xiphoid appendix; (6) finally the wound in the abdominal wall is closed, and a piece of firm tubing is inserted through the long and curved artificial canal into the stomach.

(307) Division of the Sensory Root of the Trigeminus.

SPILLER AND FRAZIER (*Univ. of Pennsylvania Mag.*, No. 10, 1901) discuss, the former from the results of laboratory research the latter from a clinical point of view, the prospects of simple division of the sensory root of the trigeminus in cases of facial neuralgia. Spiller from the results of experiments performed with the object of determining whether or not this sensory root unites after section of its fibres, concludes that further study is necessary before we can be convinced that regeneration of sensory nerve roots in man occurs, and that full restoration of function is possible after division of sensory nerve roots. Even if a partial regeneration of these roots were possible, it does not follow, he suggests, that pain would return after division of the sensory roots of the trigeminal nerve. There might, he thinks, be a partial return of sensation without pain. Frazier, dealing with the practical aspects of this question, states that as a substitute for all operations which depend for their success upon removal of all or a part of the ganglion he would recommend an operation for dividing only the sensory root. If a radical and permanent cure could be thus attained, such limited operation would claim many advantages. It would be attended with a lower mortality than he major operation, and be much less difficult. It would, it is held, be practically complete before the serious and troublesome difficulties common to other operations have been encountered. The integrity of the cavernous sinus is never in danger, and the risk of injuring the sixth nerve may be thus avoided. A brief record is given of a case in which this operation was performed by Frazier, but this is stated to be but a preliminary report, and the interval between the date of treatment and the latest observation is too short to permit of any conclusions as to the value of this procedure beyond its facility of performance and immediate or, as it is here termed, surgical success.

(308) Treatment of Rhinophyma.

P. RUSCH (*Wien. klin. Woch.*, No. 13, 1902) details the various methods of operative treatment which have been employed in the end stages of acne rosacea, with hypertrophy and gross changes in the shape of noses, called by Hebra "rhinophyma." All authors agree that the usual treatment of acne rosacea is useless in these cases. Rusch illustrates his paper by an account of two cases. The first patient was a publican, aged 59. He gave a history of heavy drinking. For the past twelve to fifteen years he had noticed changes in the skin of nose and cheeks. For eight years the nose had steadily grown in size. In the region of the tip of the nose there was a tumour of the size of an apple. It was broad at the base, was nodular, and of a bluish-red colour. On the surface one could see broad, deeply-sunken orifices of follicles, filled with sebum. The whole tumour hung over the upper lip as far as the mouth. The rest of the skin of the face was thickened and discoloured. Rusch removed the tumour by means of curved incisions, corresponding to the shape of the tip of the nose, as well as the parts of growth on the nostrils. The shape of the nose was further remodelled by the actual cautery. Iodoform gauze was applied. Ten days later the scabs produced by the cautery were cast off, and there remained only a small skin wound at the tip of the nose. This was healed by dermatol ointment in two weeks. The remaining granulations were touched with the silver stick, and a smooth, satisfactory scar resulted. The second patient was a labourer, aged 43. He only admitted moderate use of alcohol. A tumour of the size of an orange was situated at the tip of the nose. It consisted of several nodules, and was of dark bluish-red colour. The individual lobes of the tumour hung downwards on to the upper lip, and covered the nostrils laterally. The follicles were enormously dilated, and were mostly plugged. The greater part of the tumour was removed with a broad scalpel, and then the nose was remodelled by means of incisions parallel to the surface. The wounds were dressed with iodoform gauze. Five days later a little more modelling of the tip of the nose had to be carried out. The nose healed up completely in three and a-half weeks, and showed a good plastic result. Rusch briefly discusses the advantages of this procedure over wedge-shaped excision and over extirpation with skin grafting.

MIDWIFERY AND DISEASES OF WOMEN.

(309) Removal of Wandering Spleen in Female Pelvis.

PETERSON (*Amer. Journ. Obstet.*, March, 1902) operated on an extremely corpulent married woman, aged 39, who weighed nearly 300 lb. When 19 years old she had a fall and suffered from abdominal pain ever since, often in severe attacks, which never bore any relation to the menstrual period. A mass was felt reaching from between the umbilicus to the pubes down into the pelvis, and it lay more to the right than the left; the uterus was retroverted. After the curette had been applied to the uterine cavity, when the mass could be felt clearly in the pelvis, an incision was made from the umbilicus to the pubes. A tumour was found lying in the pelvic inlet, its lower end adherent to the vesico-parietal peritoneum, and its lower surface resting on the retroverted uterus. The pedicle was the splenic omentum, so elongated as to save the vessels from tension. It was secured by a catgut chain suture and dropped. A rubber drain was inserted the whole length of the incision after the fascia had been united by a catgut suture. The enormously fat subcutaneous tissue was brought together by interrupted silkworm-gut sutures. When the pedicle was being tied the pulse rose to 160, and then gradually fell to 95. The spleen weighed about 1 lb.; it was nearly 8 in. long and 3½ in. wide. It showed chronic congestion, with slight oedema and degeneration of some of its follicles. There was suppuration along the drainage track in the abdominal incision, otherwise convalescence was uninterrupted.

(310) Triplets from One Ovum.

WALLA (*Centralbl. f. Gynäk.*, No. 15, 1902) read at a recent meeting of the Royal Hungarian Medical Association an undoubted case of unioval triplets. The patient had been three times pregnant, and once more became pregnant during lactation. As the abdomen grew larger, hypogastric pains, anorexia, and debility which had preceded impregnation, became more marked. Abortion occurred; the date of pregnancy could

not be accurately fixed on account of the amenorrhoea during lactation. Pains set in, the waters escaped on the second day, with flooding and the expulsion of three male fetuses, measuring in length 11, 10½, and 7 in. respectively. There was a common placenta and chorion and three separate amniotic cavities. The largest child had the largest amnion, the insertion of its cord was marginal, that of the cords of the two others was velamentous. The cord of the smallest fetus was twisted several turns. Walla also exhibited a preparation showing a triplet pregnancy developed from three separate ova.

(311) Acute Gonorrhoeal Peritonitis.

KOLAMENKIN (*Vestnik Khirurghii*, August, 1901) publishes a genuine case, where an exploratory operation proved speedily fatal, and a bacteriological exploration proved what was the origin of the serous inflammation. A woman aged 34 was admitted into a hospital suffering from all the symptoms of acute general peritonitis. She refused all operative interference at first, but consented three days later. When the abdomen was opened, much serous exudation was detected, and there were false membranes on the intestinal coils and parietal peritoneum. The coils adhered to each other, but not firmly. The caecum and vermiform appendix were intact. In Douglas's pouch lay the ovaries, inflamed and much enlarged. It was thought good to remove them. But at the necropsy, ten hours later, purulent acute inflammation of the peritoneum, bladder, and genital tract were detected. The gonococcus, and no other germ, was detected in pus taken from the cervical canal, the appendages, the bladder, abscesses around the uterus, and the peritoneal cavity itself.

(312) Pyo-Dermatosis Transmitted to Infant.

LOP (*Bull. de la Soc. d'Obstét. de Paris*, February 20th, 1902) delivered a woman, aged 23, of a large male fetus, nearly 11 lb. in weight after considerable difficulty. The mother was a midwife, and the labour was partly conducted by her mother, who was in the same profession, but does not seem to have been overcareful, though Lop found no evidence of infection of the liquor amnii. The child breathed well, but bore on its face several ulcers, certainly not due to any kind of injury during labour. The mother had several patches of impetigo in every stage on her face, and a small abscess lay at the right commissure of the lips: it had broken. Numerous pustules, drying up, lay on the integuments of the thorax. She declared that the rash had appeared fifteen days before delivery after a severe shock, otherwise her health had been very good all through pregnancy. On the second day of the puerperium the child's face was covered with pustules, but it was free from fever, and suckled well. Lop took pus from the pustules and also blood both from the mother and from the fetus, and on bacteriological examination pure staphylococcus cultures were obtained from the maternal pus and blood, whilst the same fluids taken from the fetus were found to contain staphylococci in abundance and streptococci in scanty numbers. The child did well till the fourth day; then fever set in, and death occurred on the seventh. Undoubtedly the child was infected *in utero* by the staphylococcus in the mother's blood.

(313) Lime-tree Bark Pessary Retained Twenty-five Years.

KATZENELSON (*Monats. f. Geb. u. Gyn.*, March, 1902) exhibited at a recent meeting of the St. Petersburg Obstetrical Society an improvised ring pessary removed from a widow, aged 50, who had worn it and apparently forgotten it for twenty-five years. At 20 she bore her only child; five years later she lost her husband, and declared that she never had had sexual intercourse since. When about 35 she was troubled with prolapse, and a village midwife applied an improvised pessary, which gave her no trouble for years. At length, as always occurs when a foreign body is retained in the vagina, free fetid discharge set in. There was no pain during micturition and defaecation. The pessary was encrusted with phosphates; it had to be divided by a wire saw before extraction. It had not caused ulceration nor any other permanent injury. Zitzinsky removed a bark pessary retained in the vagina for a year and a-half. It appears that women in the Novgorod Government are accustomed to make pessaries for the relief of prolapse. A strip of bark is cut from a lime tree; it is softened in water, bent into shape, and smeared with wax. Then it is ready for use.

THERAPEUTICS.

(314) Therapeutic Value of Vegetable Diet.

L. KUTTNER (*Berliner Klinik*, January, 1902) discusses the respective merits of vegetarianism and mixed diets. His conclusions may be summarized as follows: (1) That a mixed meat diet is natural and most suitable to man, because vegetable foods are more bulky, more irritating, and less assimilable; moreover, animal food stuffs produce more heat. (2) Impartial investigation has proved that, given judicious choice and preparation, strict vegetarianism is not only sufficient to maintain condition, but even to increase weight. Successful experiments are, however, few and far between, and the subjects do not as a rule compare favourably with those who eat mixed or animal diets in their power to put on weight and resist disease. (3) That a modified vegetarian diet (that is, one supplemented by such animal products as milk, butter, cheese, honey, and eggs) is suitable (*a*) for corpulent constipated patients deficient in intestinal activity, but it is not to be recommended in the case of young growing people with a tendency to *embonpoint*: (*b*) in certain cases of alcoholism; (*c*) it is followed by brilliant results in dyspepsia and intestinal affections of nervous origin; (*d*) particularly to be recommended in idiopathic neuralgias, as well as those having a gouty basis: (*e*) useful in the treatment of headaches and other disorders dependent on constipation in neurasthenic, hysterical, and epileptic patients; (*f*) as the pulse-rate is diminished under a vegetable diet, it is to be recommended in conditions of abnormal irritability of the heart (arising from emotion, excessive muscular action, sexual excitement, etc.), and in exophthalmic goitre; it is contraindicated in all conditions of heart weakness due to arterio-sclerosis, myocarditis, etc.; (*g*) a marked addition of vegetables to diet should be considered in many cases of insomnia nervosa, urticaria, psoriasis, and occasionally scrofula. (4) That to achieve a favourable result in absorption a reasonable combination of animal and vegetable food stuffs is essential. For all healthy and for most sick persons a mixed diet (different in degree and constitution according to the patient) is to be recommended. (5) As a guide to the arrangement of a suitable modified vegetarian diet the following may be of value: (*a*) In weak broken-down patients with chronic catarrhs or an inclination to ataxy of the stomach, a vegetarian diet must be gradually approached, and must only be maintained temporarily (say for six weeks); (*b*) in gastric neurasthenia, and especially in habitual constipation in patients of good physique, a vegetarian diet may be instituted less gradually, and may be maintained for a longer period. The following may be considered as a suitable arrangement of a lacto-vegetarian diet:—Breakfast: Porridge, cup of sweet milk or cocoa, bread and butter (with any tendency to constipation a fruit jelly, honey, or fresh fruit may be added). Forenoon: A brew of rice, lentils, etc., milk or "kefir," with bread and butter. Lunch: Soup made of fruit, milk, vegetables, or greens; a macedoine of fruit; a bowl of buttermilk; with plenty of green vegetables, which, according to the requirements of the case, may be prepared with more or less butter, and given as a puree, mashed up, or in their ordinary form; egg cakes, pancakes, etc., with, if hungry, raw or cooked fruit. Afternoon: A goodly portion of cooked or raw fruit, with white bread or rusks. With any tendency to formation of acids in the stomach, honey, or fruit jelly may be allowed); a small quantity of milk or a mixture of milk and cream. Evening meal: Several times a week, a brew of barley, rice, tapioca, etc., with milk and butter, baked potatoes, butter, and cheese; on other days, eggs, egg foods, milk, or "kefir." Special indications for this form of diet are a tendency to corpulence, appearance of severe gastric disorders, etc. A written diet (as regards quantity and composition) should invariably be given in each case. General diet tables are useless.

(315) Roborat and other Albumen Preparations.

J. HOPPE (*Münch. med. Woch.*, March 25th, 1902) has tested the value of

albumen preparations as foods. He states that in experimenting with roborat on himself and an attendant they both found that a diet consisting solely of this preparation, with any other food (including alcohol) whatsoever, was not pleasant. The taste of roborat was like that of sand; 100 grams contains 13·33 grams of nitrogen = 83·22 per cent. of albumen. Each of them lived for one day on milk, for three days on roborat, and one day on ordinary fare. Roborat was taken in quantities varying between 100 and 120 grams daily. They did not feel very well during the trial, but were able to work. The results of nitrogen intake and output are tabulated, and show that the two persons used up 95 per cent. and 92 per cent. respectively of the preparation. Like experiments with tropon and plasmon were gone through, which showed that the former was used up to 89 per cent. and 94 per cent. and the latter 91 per cent. and 95 per cent. For rectal feeding tropon was found to be useless. Roborat and plasmon, on the other hand, are absorbable in the form of homogeneous mixtures from the intestine, and experimentally they determined that 25 per cent. and 50 per cent. of the albumen of plasmon can be utilized in this way. In actual sick-room practice one must not expect such quantities to be absorbed. Plasmon, in homogeneous mixture can be used in the form of subcutaneous injections. Hoppe carried out experiments with dogs, and showed that the injection produced no general or local disturbances. However, the fact that none of the albumen preparations are sterile prevented him from experimenting on human beings in this way—that is, on himself. It is claimed for roborat that it causes a smaller manufacture of urea in the organism, and, certain observers being of opinion that a direct connexion exists between urea formation and epilepsy, this preparation, should this contention prove correct, might be of value therapeutically. Hoppe and a colleague experimented on themselves with regard to the urea formation. The preparation period consisted of a three days' ordinary diet and one day milk diet, and the experiment period of roborat (100 to 110 grams), and additional vegetable and other foods, to produce an equivalent of the ordinary diet in the various constituents. It was found that the production of urea was less during the roborat diet period than during the preparation period. The combined roborat diet was well tolerated, both subjects feeling well, with the exception of some slight symptoms of depression in the case of Hoppe's colleague, which he, however, ascribes to a previous alcoholic indiscretion. Hoppe intends to report on his experiments with roborat diet for epilepsy at a later date.

(316) Typhoid Fever in the Tropics and its Treatment with Quinine.

Martin (*Arch. f. "Schiffs- und Tropen-Hygiene,"* March, 1902) writes of tropical typhoid with special reference to its treatment by quinine. He cites Erb's opinion that in this disease the drug was in a sense specific and shortened the course of the fever. Binz holds it directly weakens the specific bacillus and its power of producing the special toxin. Martin narrates his experience gained in Sumatra. The cases of typhoid fever were at first treated with quinine under the idea that they were malarial, this opinion being fortified by the view of Hirsch that typhoid fever is rare in the tropics. Subsequently, however, these cases of "remittent" fever were shown to be enteric. As regards the disease as it appears in Sumatra, Martin found the same causes as in Europe, namely, fouling of the drinking water, the natives and immigrant Chinese being accustomed to defaecate into the streams which afterwards served for the source of drinking water. The Chinese gardeners also favoured human manure, which was emptied into the beds from which the vegetables were raised. Most cases occurred during harvest time. The decade 20 to 30 was the chief age affected. The Chinese were attacked most, then the Javanese, East Indians, and least the Europeans. One attack conferred a relative immunity, but the Chinese not seldom were twice attacked. As regards the clinical forms met with, mild and abortive cases were most met with, ambulatory cases being frequent. In the actual attack, cerebral disturbances as shown by stupor and delirium was rare, and the "typhoid state" was only exceptionally seen. The eruption was infrequent, and chiefly apparent amongst the classes working in dark rooms as tailors or shoemakers. Slight bronchitis was always present, but broncho pneumonia only exceptionally. The spleen was always enlarged. Diarrhoea was frequent and, if complicated with dysentery, most often figured as the cause of death. Heart and lung failure, haemorrhage from or perforation of the intestine seldom acted as such. As complications, abscess in the muscles, or around the rectum, or lastly gangrene of the rectum were noted—the latter being caused by the natives' practice of using wood after the act of defaecation, and so causing lesion and the entrance of pyogenic cocci. Among the usual initial symptoms a peculiar bluish red infection of the face was noticed. As regards the relapses, these were found referable to errors in diet. Oedema of the lower extremities was found to be of the worst prognosis. The treatment with quinine gave remarkable results; it was exhibited in the form of hydrochlorate, in doses twice daily of 15 gr. Martin recommends it to be given on an empty stomach, and to ensure this to give it three to four hours after the last meal, and half to one hour before the next.

(317) Treatment of Asthma.

Benedetto de Luca (*Rif. Med.*, January 7th, 1902), on the hypothesis that asthma depends on an irritated condition of the bulbar vasomotor centres, recommends a simple method by which these may be depressed, and the asthma attack aborted or prevented. This method depends on reflex stimulation through the auriculo-vestibular nerves, and is produced by means of forcible movements of lateral rotation of the head, as, for example, in saying "no." The patient being seated is told to move the head energetically from side to side, first in one direction then in the other, until he becomes giddy and nauseated; he should continue the movements until attempts at vomiting set in, and then after a short rest recommence if necessary. By these movements the endolymph is set in oscillation, and stimulates the labyrinthine nerves, which in turn excite a depressing action on the bulbar centres. By this simple method the author says he has obtained results so encouraging as to urge its application in other cases of asthma. Where, for some reason or other, it is not possible to move the head so vigorously the whole body may be fixed to a rotating table and swung round axially.

PATHOLOGY.

(318) Herpes Zoster.

Van Harlingen (*Amer. Journ. of the Med. Sci.*, January, 1902) concludes from clinical and histological investigation (*a*) that under the term "herpes zoster" is to be understood a specific infectious and probably contagious exanthem. As regards its pathology, since Bärensprung in 1861 developed the idea of its nervous origin, and attributed it to irritation of the spinal ganglia (posterior root) or of the Gasserian ganglion, subsequent authors have held that the trophic condition of the related cutaneous areas became weakened or altered, and a condition of local vulnerability of the skin was thus set up, which under the influence of rubbing, contact, and microbes might develop the characteristic eruption. Barth noted that visceral disease may be followed by herpes in certain related cutaneous areas, an observation subsequently confirmed by Pitres and Vaillard, Potain, Head, and others. (*b*) The *materies morbi* which has a selective action on the posterior spinal root ganglia (and the Gasserian ganglion) is as yet of unknown nature. The author shows from minute clinical inquiries that zoster is characterized by an onset with feelings of lassitude, general *malaise*, chills, febrile temperature, and digestive disturbances. (*c*) Following the above symptoms, in most cases neuralgic pains develop along the affected nerves and the lymphatic glands get enlarged. Some days afterwards the characteristic exanthem appears, the neuralgic pains now usually disappearing. (*d*) Zosteroid eruptions are not infrequently observed in cases of poisoning by coal gas, from arsenic, from shock and injury of nerves, and probably also in hysteria. These, however, are to be distinguished from true herpes zoster. The origin of the disease has not yet been clearly traced, but outbreaks may occur in epidemic form.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(319) Causes and Treatment of Diabetes Mellitus.

CROFTAN (*Amer. Journ. of Med. Sciences*, April, 1902), following upon the investigations of Lépine and others, proves that blood and lymph drawn from the body under antiseptic precautions will gradually destroy their own sugar, the latter destroying a greater quantity in a given time than the former, and further by examining the several constituents of the blood seriatim he concludes that this sugar-destroying agent is not contained in the red corpuscles or serum, but in the white corpuscles or platelets, and being soluble in physiological salt solution it is independent of the life of the cell and is a chemical process due to the action of a "ferment." It was found that scarcely any decrease in the sugar of the blood experimented upon occurred during the first half-hour after removal from the body, but that during the next hour the sugar destruction progressed rapidly, after which time it declined, and stained blood specimens made concurrently showed that the glycolytic action began when degenerative changes in the leucocytes commenced, and the action increased *pari passu* with increasing degeneration, thus proving that degeneration of the white cells or platelets must occur before the ferment manifests itself. During the first half-hour it was found that the sugar in the blood actually increased instead of diminishing, and this fact must be remembered when interpreting the small glycolytic power of the blood during the first half-hour after removal from the body, as during this period fresh sugar is being formed from glycogen, and the white corpuscles are slowly beginning to degenerate, thus liberating the ferment. Experiments to determine the rôle of the pancreas proved that removal of the organ decreased the glycolytic action of the blood, and therefore it is inferred that the ferment has its origin in the pancreas, a supposition that receives further support from the discovery that trypsin in the presence of haemoglobin possesses glycolytic powers, and the ferment liberated by the disintegration of leucocytes (or platelets) possesses so exactly the same properties as trypsin as to be, in the present state of knowledge, indistinguishable. Since reduction of this glycolytic action will lead to hyperglycaemia and glycosuria, the indication in treatment is to increase glycolysis by supplying the ferment. Either the infusion of chyle or blood, or the injection of leucocyte extracts, trypsin, or of vegetable glycolytic ferments should effect this result, and experiments upon animals, from whom the pancreas has been removed, resulted in a decrease of sugar in the urine when lymph from a healthy animal was infused, and a similar result was noted with transfusion of blood. Vegetable ferment injection has not yet been attempted, and the danger attending injections of trypsin or leucocyte extract, owing to the correct dosage not yet being known, render them them at present inapplicable to human subjects, but the infusion of lymph and transfusion of blood should be of value in treatment.

(320) Rhinogenous Frontal Abscess.

ALTHOUGH cerebral abscess is common in connexion with suppurative processes of the auditory apparatus, very few cases have been reported in which the primary lesion is situated in the nose. J. Herzfeld (*Berl. klin. Woch.*, November 25th, 1901) reports such a case. The patient was 20 years of age, and gave a history of a cold in the nose six weeks previously. During the two weeks preceding admission, he had been attacked by left-sided frontal headache. On admission, the mucosa of the nose was swollen, and there was some pus seen in the middle nasal cavities, more marked on the left side. The base and the anterior wall of the frontal sinus were tender when pressed, and extreme tenderness was found over the lateral third of the ciliary portion of the frontal bone. The temperature was raised to 103.6°, and the pulse rate was 86. The diagnosis of frontal sinus suppuration was made, and a treatment of local application of cocaine and cold compresses was adopted. The temperature fell considerably in the course of the next few days, and the pulse-rate also diminished to 50. The appetite was bad, the patient lay in a state of mild stupor, but was capable of being roused. Eight days after admission, some stiffness of the neck, especially of the left side was noticed. Herzfeld, therefore, proceeded to trephine the frontal sinus. After removing the anterior wall, the mucous membrane was incised, and some fetid pus was found. The communication between the sinus and the nose was much narrowed, corresponding to the so-called ductus naso-frontalis. On examining the posterior wall, it was found that the probe perforated it with great ease. The wall, which was very thin, was removed, and the dura mater lying below immediately protruded. Some further portions of bone (supraorbital margin) were removed. Some fetid pus welled up from between the bone and the dura. The membrane was discoloured and there was no pulsation. On incising this, a large quantity of fetid pus escaped. The fistulous passage found in the frontal lobe was widened and the finger was introduced. A large abscess cavity was found in the depth of the lobe, the walls of which were formed by ragged brain tissue, and not by a pyogenic membrane. The finger could be introduced as far as the proximal end of the second phalanx. The abscess was drained with iodoform gauze, and the wound dressed with the same. The after-history was uneventful. At first a great deal of pus was evacuated when the wound was dressed, but after seven days, there was no further discharge, and after five weeks the wound was closed and the patient discharged. His intelligence, memory and general behaviour had become quite normal after the operation. Herzfeld points out that a correct diagnosis in this case, as well as most cases of frontal lobe abscess, is extremely difficult to make.

(321) Meninzeal Forms of Typhoid Fever.

EUGÈNE DABOUT (*Thèse de Paris*. 1901) from a careful investigation of 19 cases of meningeal forms of typhoid fever (including bacteriological examinations by various authorities in 6 instances), comes to the following conclusions: (1) The symptoms of meningeal involvement in typhoid fever are marked cephalalgia and irritability, sometimes the occurrence of epistaxis, muscular and cutaneous hyperkinesis, and hyperaesthesia, and the presence of Kernig's sign; (2) among the nervous phenomena usually present in typhoid fever the symptoms referable to "irritation of the meninges" may occur in three forms, namely, as mere epiphenomena in the course of typhoid fever, as marked symptoms at the onset of the disease, or as predominant and exclusive symptoms due to local meningeal inflammation from the action of Eberth's bacillus; (3) in 6 cases of the last class, collected from medical literature, bacteriological examination of the meninges and of the pus thereon (as well as cultures therefrom), proved the presence of Eberth's typhoid bacillus in every case; (4) Kernig's sign was an especially valuable guide to the presence or absence of meningeal irritation, and examination of the blood serum helped in the diagnosis; lumbar puncture and study of the cerebro-spinal fluid withdrawn was confirmatory; when the meninges were affected the prognosis was grave, owing to the presence of a suppurative (seropurulent) meningitis; (5) there was a special connexion between certain epidemics and the cerebral forms of meningitis in typhoid fever, and the prognosis was grave in proportion; (6) the treatment consisted of warm baths (sponging) at 37° to 38° C., and lumbar puncture to withdraw the cerebro-spinal fluid and relieve the increased intracranial pressure.

(322) Acute Dermatitis Exfoliativa.

E. BRUNSGAARD (*Norsk Mag. f. Laegevidensk.*, lxii, 1074, October, 1901) puts on record a case of acute dermatitis exfoliativa in a male aged 17, which proved fatal in about two months. In the subcutaneous tissue were numerous effusions of blood with bacteria; in some places these were diplococci and streptococci, and in others cocci in groups. The necropsy suggested a general infection. The skin affection gave to the disease its special character, but was not the primary causal condition. That was probably to be looked for in the lungs. Tuberculous cavities were found in these organs, and from them the infection probably arose.

SURGERY.

(323) The Effects of Syphilis.

MATTHES, with the co-operation of Martin, Dörfer, and Knabe (*Münch. med. Woch.*, No. 6 and 7) deal with the fate of syphilitic patients, who have received medical treatment in the clinic at Jena since the year 1860, as far as could be ascertained. The total number of cases treated during the secondary stage was 1,250, and during the tertiary stage 300. Of the former they succeeded in tracing the after-history of 568, and of the latter af 130, making 698 in all. Up to the end of the year 1900, 150 of those treated for "secondaries" and 52 of those treated for "tertiaries" had died. The sexes were equally divided in the number of patients. Dealing with the causes of death, they found that in 150 cases the exact cause was ascertainable; 36 died of phthisis. In dealing closely with this number, they find that, since the general mortality from tuberculosis is put down by Rahts for Germany as representing 32 to 33.35 per cent. of all deaths between the ages of 15 and 60, their figures do not materially differ from these. The same applies to deaths from pneumonia, which occurred in about 5 per cent. of the syphilitic cases. Twenty cases died from diseases of the circulatory apparatus, including 10 from apoplexy, 1 from aortic aneurysm, 3 from dropsy, 1 from cardiac paralysis, and 5 from morbus cordis These diseases accounted for the death of 19.37 per cent. of all the 160 cases, and 20.66 per cent. of the 114 deaths with ascertained causes. They regret that they can find no reliable statistics to compare with these figures, but the relative high value leads them to the conclusion that a certain proportion of these cases died from the indirect effects of syphilis. The greatest interest is centred in diseases of the nervous system. They consider that, as far as tabes dorsalis and general paralysis are concerned, they can safely deal with all the 698 cases, since patients suffering from these diseases find their way inevitably into the hospital or asylum, and therefore can be found. Of the 568 cases treated during the secondary stage, 3 were attacked by locomotor ataxy, of whom 1 died at the age of 47. This represents a percentage for tabes of 0 52, or, if reckoned for males alone, about 1 per cent. Of the 130 cases treated during the tertiary stage 4 manifested tabes dorsalis, of whom 2 died at the ages of 55 and 56 years respectively. This gives a percentage of 3. They remark on the small incidence of tabes in their cases. Five patients who had been treated for secondaries died of general paralysis, and 1 was still suffering from this disease. This gives a mortality-rate of 3.3 per cent. of all deaths, or 4 4 per cent. of the deaths from known causes. Two cases of general paralysis of the insane of the patients treated during the tertiary stage occurred, and both had ended fatally in 1900. They deduce that under the most unfavourable circumstances only 7 per cent. of the males infected with syphilis are attacked with tabes or general paralysis. They deal further with several other statistical results of their investigations, which, however, we cannot report here from want of space. In conclusion they find that, generally speaking, the average of their syphilitic patients' span of life was shortened somewhat, and this less in those cases treated during the secondary than during the tertiary stage. At the same time they point out, since a large number of syphilitics reach an advanced age, one can scarcely be justified in speaking of a probable shortening of life in any individual cases.

(324) The Treatment of Fractures.

ROSSI (*Wien. med. Presse*, January 26th, 1902) has studied the treatment of fractures experimentally in 66 rabbits. Fractures, which were made under ether, were treated (1) by splints, (2) by temporary splints combined with massage, and (3) were left without treatment. The splints were made of mouldable papiermâché and kept in position by rubber strapping. For the application of massage the apparatus was removed daily. The limb was smeared with vaseline and gently rubbed in a centripetal direction, at first above, then below, and finally over the fracture itself, for fifteen minutes every day. The splints were then replaced. On the fourth day passive movements of the joints were employed. From the fifth day onwards, on the first sign of union by callus, the apparatus was reduced to a light posterior splint: and on the seventh or eighth day all apparatus was abandoned. In the cases treated entirely by splints these were retained until union was complete. The untreated cases served merely to decide the relative parts played by movements and massage respectively in Lucas-Championnière's method, and proved the preponderating rôle of massage. In the cases treated by rubbing, the tumefaction at the seat of fracture was at first more pronounced than in those treated by splints alone; the provisional callus, however, in the former became more rapidly firm, so that the abandonment of apparatus on the eighth day was unattended by danger of renewed displacement of the fragments, while in the animals treated by splints alone displacement of the fragment was probable up to the twelfth day. Complete ossification of the callus never occurred in cases treated by splints before the eighteenth day, and complete restitution of function was not attained before the thirtieth day, while in the massaged animals this was the rule on the twentieth day. Animals were killed after the fracture at periods varying from twenty-four hours to thirty-six days, and, after decalcification, sections of the fracture were examined microscopically. The amount of new formation of cartilage in the callus is proportional, not, as Ziegler and others suppose, to the space between the ends of the fragments, but to the amount of movement permitted. Cartilage was found, therefore, most abundantly in the cases treated by massage or left to themselves. This is due to the greater new formation of blood vessels, and the consequent more active circulation and absorption of effusion. The earlier ossification in the massaged compared with the immobilized limbs was fully confirmed, and followed out step by step in histological specimens. The writer concludes that massage and mobilization are indicated in all fractures which are unaccompanied by displacement of the fragments, and in those in which a combination of massage with temporary splints is possible. It is especially suitable for fractures in the neighbourhood of joints, and may often be employed during treatment by extension, when, as is usually the case, the seat of fracture is not completely concealed by apparatus. In all cases of fracture with displacement massage should be employed directly danger of renewed displacement is passed.

MIDWIFERY AND DISEASES OF WOMEN.

(325) Pelvic Cellulitis after Labour: Tubo-parietal Fistula.

HAECKEL (*Monats. f. Geb. u. Gynäk.*, March, 1902) was consulted by a woman aged 35. About five months previously she had been delivered, and a very bad attack of pelvic cellulitis followed, the exudation extending high above the pubes to within a couple of inches of the umbilicus. This exudation had not become absorbed, and there was a fistulous orifice into its substance a little to the left of the middle line, where the patient's family doctor had made an incision. The pelvis was comparatively free from exudation, so that the fundus and appendages were no longer involved in the parametric deposit. Haeckel opened up the fistula, exposing a big cavity full of pus, with extremely thick and tough walls. The exudation then gradually disappeared, and the patient's temperature, which had been high, fell to normal. Eight months later the patient complained of severe pain. A bulky hernia had developed in the old cicatrix, in which now lay a narrow fistulous opening admitting a very fine probe for three inches. Blood issued from this fistula for several days during the period, at other times only a little mucus escaped from its orifice. Haeckel did an exploratory operation, and was surprised to find how completely all trace of the dense walls of the old parametric abscess had vanished. The left Fallopian tube was traced into the fistula, the orifice of which was the tubal ostium. The tube, ovary, and integument around the fistula were excised in one piece. The patient made a good recovery.

(326) Echinococcus Cysts of Uterus.

TOPTH (*Centralbl. f. Gynäk.* No. 11, 1902) performed posterior colpotomy on a woman, aged 23, with a retrouterine tumour of doubtful nature. No fluid came away on puncture, then a wide in-

cision was made and big and little cysts came away. They had developed under the serous coat of the uterus, some had grown on the fundus of the bladder. High up above Douglas's pouch lay a swelling as big as a lemon; it was a big hydatid cyst lying under the serous coat of a coil of small intestine. The cyst was enucleated and then the wound in the serous coat left after the enucleation was closed by a continuous suture. (See also Franta *Kystes Hydatiques pendant la Grossesse, l'Accouchement, et les Suites de Couches*, Prague, 1901).

(327) Recurrent Fibro-sarcoma of Abdominal Wall.

PETERSON (*Amer. Journ. Obstet.*, March, 1902) relates one more case of a kind of growth which Sänger named dermoid tumour of the abdominal wall. It is remarkable for being far more frequent in women than in men, and for its occasionally doubtful character. As a rule it is a pure fibroma, but occasionally it is malignant. Peterson's patient was a widow, aged 53. In 1874 she detected a small swelling in the abdominal parietes on the right side above the groin. At the end of twenty years it had attained the size of a cocoa-nut, and was removed after having been diagnosed as an ovarian cyst. The tumour was reported to be a sarcoma; the peritoneum was not involved. Two years later a small tumour was detected immediately to the inner side of the cicatrix; it grew rapidly until Peterson operated, in November, 1901. It was painless and freely movable, and occupied the entire right lower quarter of the abdominal wall, projecting forwards about 8 in. The tumour adhered at its most prominent point to the integuments, and was specially soft at the site of adhesion. It originated from the fascia (*sic*), of which it involved a wide area; strange to say, the subjacent peritoneum seemed free. The entire mass was enucleated and 2 in. of skin removed on both sides of the incision. Recovery was rapid. The tumour was a degenerating spindle-celled sarcoma.

(328) Congenital Anus Vestibularis: Delivery.

VON BARDELEBEN (*Centralbl. f. Gynäk.*, No. 13, 1902) reports a case of interest in comparison with that recorded by Zander (EPITOME, March 29th, par. 204). He exhibited the patient before the Berlin Obstetrical Society in February. She was 31 years of age, and had a very distinct anus preternaturalis vestibulo-perinealis. He had recently attended her in her confinement. There was high temperature during parturition, the reason of which is not explained, and there is no mention of any accumulation of faeces in the vagina. Owing to the fever and to the arrest of the head, assistance was needed, the axis-traction forceps proved valuable. In order to spare the rectovaginal septum from dangerous tension an incision was made in the right side of the vulva close to its lower end. Childbed progressed normally without any feverish reaction.

(329) Vesicular Mole in Tubal Gestation Sac.

MATVIEFF AND SYKAFF (*Vratsch.* No. 24, 1901) recently exhibited, at a meeting of the Moscow Gynaecological Society, a gravid tube containing a typical hydatidiform mole, there was an accessory ostium and the adjacent ovary contained two corpora lutea in a state of cystic degeneration; the authors contend that this change determined the molar pregnancy. The patient was 32 years of age, and was admitted into hospital on February 21st, 1901, with symptoms of internal haemorrhage. It was her eighth pregnancy: she had aborted three times, and been delivered at term four times. The last period was in the middle of December, 1900; shortly afterwards crampy pains in the abdomen set in, lasting twenty-four hours. A second and shorter attack occurred two weeks later, a third about February 15th, and the last on the 19th. This attack was followed by vertigo and loss of consciousness. There was no bleeding from the vagina. The uterus was somewhat enlarged; on its right lay a somewhat larger, soft, tender mass. Ruptured tube was correctly diagnosed, and abdominal section performed. The patient recovered, and the tube showed the appearances described above.

THERAPEUTICS.

(300) Adrenalin in Intestinal Haemorrhage of Typhoid Fever.

WARREN COLEMAN (*Med. News*, March 29th, 1902) states that adrenalin exerts a similar haemostatic action on the mucous membrane of the alimentary canal to what it exerts on other vascular membranes, but though used for gastric ulcer it has so far not been used in the intestinal haemorrhage of typhoid fever. He cites five cases of enteric fever treated by him during the past two years with adrenalin. Four of the five patients recovered, though in two of them the haemorrhage was very severe. The fifth patient died of toxaemia and exhaustion several days later and not of haemorrhage. Two of the five cases are as follows: Case 1: Man, aged 27 years, had severe intestinal haemorrhage on September 23rd from enteric fever, the patient losing three to four pints of blood. Fifteen grains of adrenalin were given immediately, and the dose was repeated every hour during the night. The temperature was 103° F., and an ice coil was applied on the abdomen. The haemorrhage ceased, no blood being passed next day. Adrenalin in doses of 15 gr. three times a day was now given to prevent recurrence, and no more blood was passed. Case 2: Woman, aged 43 years, had enteric fever with severe intestinal haemorrhage on September 22nd. Adrenalin was given immediately (15 gr. every two hours daily and every four hours nightly). The stools next day were only slightly blood tinged. The drug was now given in the same doses thrice daily. On the third day the stools ceased to exhibit even slight streaks or tints of bloods. The general rule should be, says the author, to keep 5-gr. powders of adrenalin in the sick-room and to give instructions to the nurse to administer one powder at the first sign of blood in the stools, repeating the dose hourly till medical assistance arrives. "In a profound typhoid state the powder may be given suspended in milk or water, or, when nausea follows administration by the mouth, then 10 gr. per rectum may be injected, or Schäffer's suggestion of intravenous injection of 2 or 3 gr. may be adopted." The author also cites a case of purpura haemorrhagica with severe bleeding from the nose, gums, bowels, and extensive subcutaneous extravasations benefited by adrenalin.

(331) Bandaging the Lower Limbs in the Treatment of Cardiac Oedema.

L. FORNACA (*Riv. Crit. di Clin. Med.*, December 14th, 1901) speaks highly of this simple and readily available means of ameliorating the condition of severe cardiac cases. Flannel bandages are used, beginning more firmly at the foot, and proceeding with decreasing pressure to the top of the thigh. The application is for a short time at first, to ascertain the tolerance of the patient, but is repeated for longer periods, and more or less often according to the result obtained. He relates a specially successful case: a woman, aged 38, with mitral incompetence of many years' standing, admitted with severe heart failure. After ten days' rest and treatment, the arrhythmia and the dyspnoea were much less, but the oedema was unaltered (measurement of right thigh 30 in., left, 29 in.) Urine about 28 oz. per diem, specific gravity 1024 to 1028, urea 205 gr., albumen 6 gr. per oz. Bandaging was begun, and next day the urine amounted to 60 oz., on the second day to 67 oz., on the third to 84 oz., on the fourth to 140 oz., dropping later with the disappearance of the oedema to 100, then 80, and finally remaining constant at about 50 oz., with entire absence of albumen and a daily excretion of 275 to 300 gr. of urea. Her general condition also improved greatly, and by using elastic stockings and an appropriate *régime* she was able to keep herself well after her return home. For the success of this treatment it is absolutely necessary that the cardiac muscle should be able to respond to tonic treatment: this method is then a valuable adjuvant. The results are better in mitral cases than in aortic: in cases of severe myocarditis they are slight and transient. The only case in which Fornaca noticed intolerance was a myocarditis, in which the treatment produced temporarily a painful dyspnoea.

(332) Prophylactic Treatment of Diphtheria.

GABRITSCHEWSKY (*Zeit. f. Hyg.*, Bd. xxxvi, p. 45) gives a historical account of the development of the knowledge that not only from cases of diphtheria,

but also from apparent healthy individuals and convalescents, virulent diphtheria bacilli may be obtained from the secretions of the nose and throat. Gabritschewsky has carried out a large number of culture experiments from these secretions. For the differentiation of true diphtheria bacilli the most valuable tests were Neisser's stain, glucose broth of acid reaction, the action of specific serum on the organism and the virulence. The chief difference in bacteriological prophylaxis depends, not on the diagnosis, but on the fact that virulent diphtheria bacilli sometimes persist for many months in the secretion with remarkable obstinacy, and in a state of considerable virulence. Individuals in whom this state of affairs exists must be treated as dangerous sources of infection. Diphtheria cases in hospitals should be carefully examined before discharge, and retained until absence of the bacillus is proved by bacteriological examination. In children's hospitals examination of the secretions should be frequently undertaken, especially of cases of tuberculosis and the infectious fevers.

PATHOLOGY.

(333) The Etiology of Cancer.

The current number of the *Journal of Medical Research* (vol. vii, No. 3, April, 1902), constitutes the annual report of the Cancer Committee to the surgical department of the Harvard Medical School and consists of a series of articles by different investigators. The first is by E. E. Tyzzer on the nature of coccidium infection especially as regards its relation to tumour formation. The livers of seven rabbits infected were examined. The life cycle of the coccidium oviforme is traceable, in one of these it resembles the cell inclusion of cancer. The effect of its presence is seen in degeneration of the epithelial cells of the bile ducts and proliferation of connective tissue and epithelium. The writer thinks the lesion is of the nature of an inflammatory process and sees no analogy between it and cancer either as regards the parasite nor the histological changes. In the second article C. J. White and W. H. Robey write on the subject of molluscum contagiosum. An epitome of the literature of the subject is first given and the authors then describe their own histological investigations. They consider that the so-called molluscum bodies are simply keratin, and that no parasitic body is demonstrable in the tumours; they obtained by bacteriological culture only the staphylococcus epidermidis albus, a normal inhabitant of the deeper layers of the human skin. In the next article Richardson gives the results of culture experiments with carcinomatous material, made by inoculating media with growth reduced to a semifluid pulp by curetting. The results were in all cases negative; the media used included bouillon and agar made from human liver, tartaric-acid-glucose-bouillon, litmus-milk and Dunham's peptone solution. Weis, in the fourth article, described his observations on four different blastomycetes, the blastomyces of Sanfelice isolated from cancer, the blastom. neoformans of Sanfelice isolated from fruit, a blastomyces isolated from milk by Klein, and that isolated by Plimmer from cancer of the breast. He defines the position of these organisms, and places them in the group of torulae, which differ from the saccharomycetes in not producing endospores and in not, as a rule, giving rise to fermentation. The cultural characteristics of these forms are described in detail. Nichols contributes an article on the relation of blastomycetes to cancer, beginning with an epitome of the often told history of the investigations of others. He then describes the lesions which he found following the inoculation of animals with Sanfelice's blastom. neoformans, and the organism of Plimmer. He states that "the distinction between cancer bodies and true blastomycetes is difficult to express in words, but to one who has worked with both the difference is very marked," and considers that the lesions produced in animals by spontaneous infection with blastomycetes are acute inflammations, abscesses or nodules of peculiar granulation tissue, and are not in the least analogous to cancers. The last paper is by R. B. Greenhough, on cell inclusions in cancer and in non-cancerous tissue. In the previous annual report (1900) this writer reported the examination of a series of specimens of carcinoma with the following conclusions: The appearances known as Plimmer's bodies were found in 23 cases of breast cancer, were absent in 3 tumours of the epithelioma type and a case of general peritoneal cancer, and present in an ovarian cancer. In the breast they were more numerous in the periphery of the tumours and in metastases, and in glow-growing and scirrhous tumours, than in rapidly-growing medullary growths. They were not found in areas which had undergone even slight degeneration. Following on these researches Greenhough has examined a large number of sections from tissues normal and pathological by the same methods of fixation and staining. Fifteen epitheliomata gave negative results, as did also two cases of papilloma, one of sarcoma, and tissue from tuberculous lesions, from adenitis, and from pneumonia. Seven specimens of animal tissue were also negative, and the opinion of Borrel, that the cancer inclusion is of the nature of a centrosome was not confirmed. Of other tissues, specimens from non-malignant breast tissue were the most suggestive; in 10 of 30, intracellular structures were found bearing a close resemblance to the cancer "cell inclusion"; these were especially numerous in sections of chronic mastitis. Greenhough believes that a comparison of these with certain appearances seen in lactating breasts indicates that the "cell inclusion" of cancer has its origin in the secretory activity of the cell. It is known that the phenomena of secretion in glandular epithelium are associated with a definite differentiated portion of the cell protoplasm with which the centrosome is probably involved; he considers the "inclusion" is a secretory product, and that there is not evidence that it is of parasitic nature.

(334) Angioma and Cancer.

According to Leser, angiomata of the skin are frequently found in persons suffering from cancer, and he was inclined to attach some importance to this. That such appearances are to be regarded as being in any way connected with malignant disease cannot be accepted without further investigation, and Rosenbaum now publishes the results of his observations (*Münch. med. Woch.*, April 22nd, 1902), which do not agree with Leser's. He examined 400 persons, and gives the results in two tables. He first details the number of patients with and without angiomata, and the maximum, minimum, and average number of the latter, arranged according to the patient's ages in decades. Thus, between the ages of 10 and 20 years, the average number of angiomata was 2; between 20 and 30, 4; between 30 and 40, 7; between 40 and 50, 12½, and so on. The second table is composed in two ages, as it was found that angiomata became common after 30 years of age:

Age.	No. of Persons (Male and Female) Examined.	No. of Cases of Angiomata.		Average No. of Angiomata Found.	Percentage of Cases with Angiomata to Total No.
		Without.	With.		
Years.					
10—30	118	65	53	3	45.7
30—80	282	27	255	13	90.4

Among these 400 patients, 3 were undoubted suffering from carcinoma. One of the three had nine angiomata, none of which were on the abdomen, although the growth was in the stomach; 4 others very probably were suffering from carcinomata; all had some skin angiomata. Rosenbaum's cases between the ages of 30 and 80 gave an average number of 13 angiomata for each patient, although at most only 7 were cancer cases. Leser's cancer patients gave an average of 15. Those patients who had the largest number of angiomata (44, 49, 51, 55, 78, 82, 95, and 127) were not suffering from cancer. Their disease included cardiac, renal, and pulmonary diseases, chronic rheumatism, etc. Angiomata appears to be almost a constant accompaniment of increasing age. A very few exceptions were noted, but one of these was a man aged 42 years, who was suffering from a lymphosarcoma, who showed no angioma of the skin. He concludes by saying that observations on a very large number of patients may lead to different results, but he thinks are unlikely to throw any importance on the appearances of the growths other than they appear in increasing numbers according to age.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(335) The Tuberculin Reaction in Convalescents from Pleurisy with Effusion.

D. ROMANI (*Gaz. degli Osped.*, February 16th, 1902) discusses the great diversity of opinion as to the proportion of acute pleurisies which are tuberculous, and attributes it to the varied methods of the investigation and the unreliability of such a method as examining the effusion for bacteria, the "cyto-diagnosis" of Widal being better. He has used tuberculin injections for diagnostic purposes. He defines positive reaction as one raising the temperature to at least 100.4° F. The author found Koch's tuberculin the most reliable for this purpose, and the injections employed have varied from one-sixtieth to one-twelfth of a grain. In 2 cases the reaction only occurred at the third injection (one-fifteenth of a grain in one case, one-twelfth in the other): the author, therefore, recommends an initial injection of one-twelfth of a grain in adults, made with thorough antisepsis, in the deltoid region. The febrile reaction occurs after eight to sixteen hours (in one case as long as twenty hours), and the temperature is normal again in twelve to thirty-six hours. The injection should not be made till the patient has been apyrectic for several days, and preferably after complete absorption of the effusion. He reports 14 cases. After carefully excluding 4 cases with symptoms of pulmonary tubercle, 3 with tainted personal or family history, and 3 which were not acute in onset, there were 4 cases of classic "pleurisy *a frigore*." All four reacted markedly to tuberculin: in one of them the condition of the left apex became suspicious before she left the hospital. The other ten cases reacted also. It is difficult to see how the pleura can be directly affected from outside, and one must attach great importance in this connexion to the possible presence of minimal and undetectable lesions in the lung or in the cervical, clavicular, mediastinal, or peribronchial glands. The tuberculosis of these glands opens the way to pleural infection, not necessarily by the bacillus of Koch, but by various microbes, very frequently the diplococcus. One can thus explain the reaction occurring in all cases; whether the pleurisy were actually tuberculous or not, there was a latent tuberculous focus to which the reaction was due, a focus which opened the path to the pleura for various germs, which by some predisposing cause (usually a chill) found the soil favourable for their development and effusion. Hence the author considers that every idiopathic pleurisy indicates a latent tuberculosis in the said glands, only detectable by such a delicate diagnostic agent as tuberculin. This explains why pleurisy, even in robust individuals, may end in tuberculosis, or may have no sequelae, according to the better or poorer hygienic environment of the person after the attack.

(336) Diabetes Insipidus and Paralysis of the Bladder.

So little is known of the true pathology of diabetes insipidus that C. POSNER (*Berl. klin. Woch.*, May 12th, 1902) considers that it is of use to publish the history of a case which points to the probability of a nervous origin of the disease. The patient was 48 years of age, and on consulting Posner in 1901 gave a history that for about six years he had passed more urine than normal, and had suffered from excessive thirst. In spring of the same year he had noticed disturbances of digestion. On being examined by his usual medical adviser the latter had been astonished to find a marked globular swelling of the lower part of the abdomen, which proved to be caused by a very distended bladder. At the time of examination he could only pass about one quarter of the urine in his bladder, and the total quantity secreted daily amounted to from 4 to 6 litres (= 7 to 10½ pints). There was a little cystitis, and the urine showed an abnormally low specific gravity (1000-1004). There was nothing abnormal to be found in the urethra, bladder, or prostate; nor were there any symptoms pointing to a gross lesion in the nervous system. The only explanations which he can offer for the paralysis of the bladder are: either that the polyuria caused the paralysis by over-distension, which occasionally occurs in children, but is unlikely to have taken place in this case, and that both polyuria and paralysis were caused by a common cause, a lesion in the central nervous system. In a short note, written after the paper had gone to press, he reports another case, which shows somewhat similar symptoms.

(337) Bilocular Stomach with Extreme Tension of the Cardiac Pouch.

BOUVERET (*Lyon Médical*, March 16th, 1902) records a case in which the dilated cardiac pouch of a bilocular stomach was mistaken first for hydatid cyst of the spleen, and afterwards for dilatation of the whole stomach consequent upon pyloric stenosis. His patient, a woman 45 years of age, had suffered at intervals for fifteen years from pain after food and vomiting. For two years and a-half she had known of the existence of a swelling in the left flank, which enlarged slowly. For eight days she had vomited everything taken. On examination, the left flank was found to be occupied by a large tumour, which caused the abdominal wall to project from the thorax to the iliac crest. Pressure upon the thoracic organs was shown by difficulty of breathing and rapidity of the pulse. The tumour was uniformly dull to percussion, and evidently contained fluid. The tumour was diagnosed as a unilocular hydatid of the spleen, and as it was thought to be on the point of rupture, was tapped. The fluid obtained resembled the vomited matter, was greyish in colour, contained hydrochloric acid, and under the microscope showed the presence of yeast, starch granules, and epithelial cells. The patient improved rapidly after the puncture. The tumour reappeared a month later, and was again confined absolutely to the left side. The use of the stomach tube caused it to disappear, but insufflation reproduced it, the gas passing on into the intestines in a few minutes. The patient declined operation. She was readmitted into hospital some weeks later in a moribund condition, and at the necropsy a bilocular stomach was seen, the mediogastric narrowing allowing very little communication between the two halves of the stomach. Bouveret concludes that the stomach tube should be used before making a definite diagnosis of cystic tumour of the upper part of the abdomen.

(338) Syphilis and Life Assurance.

SALOMONSEN (reported in the *Journ. des Mal. Cut. et Syph.*, March, 1902) criticizes the opinions of Runeberg, given at the Helsingfors Congress in 1898. Runeberg would not pass a subject in whom the initial lesion occurred less than three years before. He would not pass a subject having shown symptoms of vascular syphilis of the heart or nervous system. Syphilis, when cured, might be passed with an increased premium. Salomonsen does not admit that cerebral softening, apoplexy, endocarditis, and nephritis, which often cause the death of old syphilitics, should be attributed to syphilis. But he thinks it best for the patient to be under observation for four or five years after the initial lesion. For the following four or five years he would increase the premium, but if the patient remained well for ten years and has been regularly treated, he may be passed without risk.

(339) Leucocytosis in the Diagnosis of Appendicular Abscesses.

CURSCHMANN (*Wien. klin. Woch.*, December 26th, 1901) has found in 60 cases of appendicitis that the number of white corpuscles in the blood is a reliable indicator of the presence of pus. The physiological number of leucocytes in a c.mm. is from 8,000 to 10,000; if the exudation is serous this number is increased but little, if at all. If, however, there is a tendency to suppuration, or an abscess is already present, the number of leucocytes in the c mm. rises to 20,000 or even 25,000. This leucocytosis is a certain indication of suppuration, and is a more reliable guide than palpation or the state of the pulse and temperature. As the amount of pus increases the leucocytes become correspondingly numerous: after the pus is evacuated, whether by operation or rupture into the intestine, they rapidly sink to normal. If after operation leucocytosis does not diminish it may be assumed that drainage is defective.

SURGERY.

(340) Hernia into the Fossa Duodeno-jejunalis.

BINGEL (*Arch. f. path. Anat.*, Bd. clxvii, H. 1, 1902) summarizes recorded observations on the various forms of retroperitoneal herniae, and records a case of hernia into the duodeno-jejunal fossa which became strangulated. The patient, a man aged 59, was admitted to hospital in a state of collapse; the previous day, without any premonitory signs, he complained of severe abdominal pain, and in the course of the night vomited frequently. On admission the abdomen was rigid, distended, and tympanitic; there was constipation and vomiting, but not faecal. Death occurred twenty hours after admission, the diagnosis being general peritonitis. *Post mortem* the examination of the abdomen revealed the following conditions. On opening the abdomen a large quantity of blood-stained fluid escaped; the large omentum covered the greater part of the intestines; the coils on the right side were distended, infiltrated with blood, and covered with a thin fibrinous deposit. On displacing the omentum, the left side of the cavity was seen to be occupied by a tumour twice the size of a man's head, reaching from the diaphragm to the level of the sacral promontory. The caecum and ascending colon were dragged upwards and attached by old adhesions to the transverse colon, the latter and the descending colon being in their normal situations and attached to the tumour. The tumour was kidney shaped, with its long axis parallel to the vertebral column, its greatest length in this axis being 25 cm., its breadth 15 cm. The tumour consisted of a large peritoneal sac containing numerous coils of intestine and their mesentery; 16 cm. from the ileo-caecal valve the small intestine entered this sac by an opening about the size of a 1-mark piece, situated about the commencement of the root of the mesentery. The duodenum, with the duodeno-jejunal flexure, passed behind the transverse mesocolon at the normal situation. The sac contained fluid, and the coils within were dark red and infiltrated with blood, and contained also blood in their interior. On further examination it was seen that the duodenum passed through the median wall of the sac in its upper third at a point corresponding to the disc between the third and fourth lumbar vertebrae. The wall of the first-mentioned opening was thickened and rigid; the duodenum coursed upwards within the sac for about 5 cm., and then became continuous with the tightly-packed coils which distended the sac. The duodeno-jejunal flexure lay to the median inner side of the sac; in the outer border of the opening were the inferior and superior mesenteric veins. The chief interest in the case lies in the fact that incarceration occurred from the prolapse out of the sac of a coil of gut. This is the way in which Freitz, without being able to record a case, believed that strangulation takes place.

(341) Treatment of Haemorrhoids by High-Frequency Electric Currents.

PISANI (*Ann. di Elettricita Med. e Terapia Fisica*, February, 1902) points out that haemorrhoids are really a local manifestation of a more widespread condition, which can only exceptionally be relieved by drugs. Excision does not get at the cause of the trouble, and is furthermore liable to be followed by a return of the condition, or to lead to cicatricial narrowing of the anal orifice. In the treatment by currents of high frequency and high tension, first recommended by Doumer in 1897, and applied with brilliant success by himself and a number of other French surgeons, we seem to have found a method which is both successful and easy of application. The case recorded by Pisani in the paper now under notice differs but little from others already chronicled, and the result of the treatment seems to have been entirely satisfactory. It consisted in applying to the affected part a metallic electrode connected with an apparatus yielding currents of high frequency and high intensity. At each sitting the electrode was introduced with greater facility, until after the tenth application the local conditions, pain, sense of burning heat, and very large masses of haemorrhoids had completely and finally disappeared. The individual applications were made almost daily, and lasted about five minutes. The treatment was well borne, and did not at any time give rise to the least trouble, the patient generally scarcely feeling the passage of the current. Spasm of the sphincter was relieved after the very first sitting. The above results are of considerable importance, and the personal experience of others in this country affords confirmation of the fact that the therapeutic effects of high-frequency currents thus applied are by no means exaggerated by Pisani and the French observers.

(342) Osteomalacia and Sarcoma.

FELDMANN (*Münch. med. Woch.*, November 12th, 1901) describes a rare case of osteomalacia occurring in a young man. The history given was that as a child he had dwelt in a damp flat, but appeared to have been a healthy child. He is said to have tired very easily when playing with his schoolfellows. At the age of 17 his right knee was noticed to be displaced, as in knock-knee, and an operation was undertaken for the correction of the deformity. After a time the leg was in a position of over-correction, and was so weak that he had to use a stick when walking. Two years later he fell in the street, and was said to have suffered from "inflammation of the spine." Two years later still he was unable to work. In 1895 he fell in his room, and fractured both thighs in two places, and the neck of the right femur was also broken. After being kept at rest in plaster-of-paris bandages for a year, it was found that no firm union had taken place. In October, 1896, he suffered a fracture of the right tibia. At the end of 1896 he had pain in the loins, lasting for ten to twelve weeks, and ending on fourteen calculi being passed. In 1895 he had a right molar tooth (lower) extracted, and in the same place, two years later, a large tumour began to form. Toward the end of 1898 he was seized with pain in the left shoulder, in the left elbow, and in the left upper arm. A tumour developed in the left upper arm. On admission his feet were both rotated outwards, the arches of the feet were exaggerated, and the great and second toes were in a position of flexion. The muscles of the legs were atrophic, and there was no fat to be felt. The condyle of the right tibia was expanded and protruded forwards. Both knees were fixed in extension and enlarged. The line of the joint on the right side was $\frac{1}{8}$ in. in breadth, and much distorted. The patellae were fixed above the joints and to the outer side of the femur. Both thighs were expanded, bent in the upper thirds, and also at a sharp angle in the middle thirds. Very little active, and but little passive, movement of the lower extremities was possible. The pelvis was very markedly flattened; the examination of it caused pain. The thorax was blown out to the front, below, and to the lower side regions. The arch of the ribs overlapped the crests of the pelvis $\frac{1}{4}$ and $\frac{1}{2}$ in. on the right and left sides respectively. The spinal column was curved to the left in the lumbar region, to the right in the dorsal, and forwards in the cervical regions. The upper extremities could only be moved within narrow limits. The scapulae were bent and distorted, the shoulder-joints were both partly ankylosed, the internal condyle of the right humerus was expanded, and had obviously been fractured, and the right ulna and radius were bent. The right upper arm was bent, and a spindle-shaped expansion was seen in the middle of the humerus. The ungual phalanges of the fingers were of "drum-stick" shape. The right half of the lower jaw was transformed into an enormous tumour. Measurements over this from the right to the left maxillary joints showed $9\frac{1}{2}$ in., while the distance between the right lower eyelid to the hyoid bone, taken vertically, was $6\frac{1}{2}$ in. The skin covering showed dilated veins. The right maxillary joint was displaced upwards. The mouth was kept open, and the tongue was pushed backwards and to the left. The buccal surface of the tumour was convex, and the mucous covering eroded. The teeth of the lower jaw protruded into the mouth from the tumour, and were much displaced. The urine contained albumen in small quantities and some blood corpuscles. The patient was still under observation when the case was reported, the tumours still increasing rapidly in size. Feldmann considers the maxillary tumour to be sarcoma rather than a cystic osteoma.

MIDWIFERY AND DISEASES OF WOMEN.

(343) Jaundice in Pregnancy.

IN reporting two cases of jaundice in pregnancy, H. Benedict (*Deut. med.*

Woch., April 17th, 1902) enlarges our knowledge on this subject. The first patient was a woman, who was married at 26 years of age, and who suffered from icterus during her first pregnancy. The child was born at seven months, and died a few days later. It was not jaundiced. The mother recovered from the itching of the skin and the jaundice during her lying-in, but in her second and third pregnancies both jaundice and premature labour again occurred. In her 36th year she became pregnant for the fourth time, and at the fifth month she was admitted into the gynaecological clinic in order that an attempt to prevent a premature labour might be made. The skin was brownish-yellow, dry, and covered with excoriations, the result of scratching. The liver was enlarged, the edge being felt three fingerbreadths below the costal margin. Its surface was smooth, its consistency hard; the spleen, too, was enlarged. There was a systolic murmur heard at the apex and over the pulmonary area. The blood, on being examined, showed 3,800,000 red and 7,000 white corpuscles, and 70 per cent. haemoglobin. The urine was acid and high coloured, 1020; it contained no bile pigments, but a considerable quantity of urobilin. Indican not increased. No glycosuria was produced by taking 100 and 150 grams of dextrose. The stools were coloured, contained fat and hydro-bilirubin. Labour took place in the seventh month, and the fetus, which was not jaundiced, died shortly after the birth. The jaundice began to disappear during the puerperium, but the enlargement of liver and spleen persisted. The patient's sister, at this time was pregnant for the first time and was also jaundiced. Her mother and her elder sister had neither had any such symptoms during a pregnancy, nor was there any other near relation who had similarly suffered. The sister was 25 years of age. On examination, the same clinical picture was found as in the first patient. She however, completed her pregnancy to full time, and was delivered of a living child. In the second pregnancy the itching of the skin again returned, but she aborted in the third month, before the skin became coloured. In discussing the cases, Benedict says that only two forms of jaundice in pregnancy are recognized, the first being caused by compression of the common bile duct by the increasing size of the uterus, and the second by acute yellow atrophy. It was obvious that the two sisters had neither of these forms. It would be conceivable that a gastro-duodenal affection might cause a catarrhal obstruction to the bile ducts, or even that this might be primary, but the slow onset of the icterus after weeks of pruritus speaks against this theory. He offers as a suggestion that there might be some primary parenchymatous changes, or that the liver had taken on a vicarious function, but owns that a certain explanation is impossible. The fact that two sisters were affected was, from the nature of the malady, and from its repetitions, certainly no chance coincidence, but must be explained as a "family" disposition.

---

(344) Pseudo-Cornual Pregnancy: Diagnostic Difficulties.

PAUL BAR (*Bull. de la Soc. d'Obstét. de Paris*, March 20th, 1902) has already dwelt upon irregularity of the form of a uterus in pregnancy, the organ being anatomically normal in development. One cornu seems to bear nearly the whole of the ovum; it then feels very much softer than the rest of the uterus. As in many cases where part of an organ becomes relatively soft, it gives the impression on palpation as though it were movable, and therefore a tumour separate from the uterus. Extrauterine pregnancy has been diagnosed more than once. In two such cases Bar was able to examine the interior of the uterus immediately after labour. In both he discovered that the placenta was inserted on the side which was over-developed and unnaturally soft. Bar observed recently the pregnancy of a woman three years after removal of a cyst of the right broad ligament with the corresponding appendages. He found that the body of the uterus was hard: the left cornu was not only softer, but felt as though separate—indeed, it suggested a gravid tube. As pregnancy advanced this isolation of the left cornu grew more marked, but the body of the uterus also began to soften. The next change was the gradual fusion of the apparently separate parts, which became uniformly soft till at length the whole was recognizable as a regularly globular pregnant uterus. Insertion of the ovum close to the uterine ostium of the tube in a normal uterus is the origin of the noteworthy condition which Bar describes.

---

(345) Extrauterine Pregnancy after Treatment for Sterility by Uterine Drainage.

GILL WYLIE (*Amer. Journ. Obstet.*, April) bravely admits that in 4 cases of sterile women under his treatment in 1900, extrauterine pregnancy followed dilatation of the uterine cavity, curettage, and prolonged use of the hard rubber drainage tube. In one case tubal pregnancy began three months after conclusion of the treatment, in the others about a year elapsed before rupture of the tube recalled the abnormal gestation. In the first 3 cases there was the usual pain, diagnosed in 2, however, as due to inflamed appendix; in all an operation was successfully performed. The fourth was specially remarkable as there had been a previous pregnancy in the opposite tube, for which the patient consulted Gill Wylie. She had borne no child. He examined the pelvis, detected a mass on the right side, operated, and removed an ectopic tubal sac. For a few months afterwards she was kept under treatment for sterility. In June, 1901, her period ceased and haemorrhage occurred. No physical sign of tubal gestation could be accurately defined, but a few weeks later the patient when dining at a restaurant was seized with characteristic symptoms, including haemorrhage. Abdominal section was performed and ectopic gestation detected. Gill Wylie declared that there was no danger in drainage of the uterus by the hard rubber tube: he has employed it for over twenty years and never with any evil result. He takes every precaution against sepsis. The patient is kept quiet for about five days, and there is no more irritation than is caused by the wearing of a hard rubber plate in the mouth. The perils of the old stem pessary are understood and avoided. As a rule, pregnancy perfectly normal in character followed the drainage treatment. G. Harrison and Clement Cleveland, in a discussion on these cases, expressed their objections to this method of treatment of sterility, but considered that it was not necessarily the cause of the tubal pregnancy in all, or even any, of the four patients.

THERAPEUTICS.

(346) Alcohol in Tuberculosis.

THE effect of compresses soaked with alcohol and of inhalations of diluted alcohol in various conditions has attracted the attention of many authors, and given rise to speculations as to its mode of action. St. Mircoli (*Münch. med. Woch.*, March 4th, 1902) has studied the problem. He tested first of all the serum of healthy subjects, of convalescents, and of phthisical patients with regard to its neutralizing dose against the smallest fatal dose (for guinea-pigs) of a watery tuberculin. During these experiments he found that the serum o an alcoholist during an attack of acute alcoholic poisoning possessed a much greater antitoxic power than normal serum. In two other alcoholists he found serum of less antitoxic power; in the one it was still considerably higher than normal; while in the second, a subject suffering from peripheral neuritis, it was less than normal. Italo confirmed these observations in testing the ascitic fluid of patients suffering from alcoholic hepatitis (cirrhosis). Mircoli deduces from these experiments that alcohol can increase the antitoxic activity of serum against protein substances infected by tubercle bacilli (Maragliano's watery tuberculin) if the quality, quantity, or kind of alcohol does not otherwise modify the general condition of the organism; that the organisms of alcoholics are readily benefited by the use of this watery tuberculin; and that during the stage of alcoholic dyscrasia the serum loses its antitoxic power. Turning his attention to the clinical aspect of the question, he inquired how many dock labourers, who indulged in alcohol freely, were affected by phthisis, and how many, who were not in the habit of taking much alcohol, also suffered. He found that, in spite of the effects of alcoholic excess, although the case incidence was not materially altered, the mortality was less among those who drank heavily than in the more moderate. Alcohol under certain circumstances, appears to effect a neutral-

ization of tuberculous poison in the same way as blood serum, but less rapidly and less powerfully; it acts further in producing a localized sclerosis, cutting off the affected area in the lungs. He believes that a plentiful but not exaggerated use of alcohol must be of benefit for pure cases of pulmonary tuberculosis.

---

(347) Misuse of Glasses.

F. C. Holtz, at the annual meeting of the Western Ophthalmologic and Otolaryngologic Association recently held at Chicago (*Amer. Med.*, April 25th) said that glasses are often prescribed when the apparent asthenopia is due to pathological conditions of the conjunctiva, which are overlooked because they are confined to the upper retrotarsal folds, and because these folds are not brought into view by the ordinary method of everting the upper lid. They can, however, easily be exposed by gentle, steady, back pressure applied upon the eyeball, while the everted lid is firmly held against the supraorbital margin. Blepharitic patients, especially when applying themselves to close work, usually complain of blurring of vision and pain in the eyes. In many cases the scales along the lid borders are like fine dust and easily overlooked, and the patient's discomfort is mistaken for accommodative asthenopia. Glasses are prescribed and faithfully worn, but without the expected benefit. The proper treatment of the lid borders quickly relieves the patient, so that he can use his eyes with perfect comfort though the glasses are discarded. In other blepharitic cases the disease is too well marked to be overlooked, but still the oculist prescribes no local treatment because he believes that blepharitis is caused by refraction errors and by clinical facts. Refraction errors are not the cause of the lid disease, but they may sometime aggravate it and render the local treatment less effective. The refraction, therefore, should always be tested, and if the disease does not promptly yield to treatment the ascertained ametropia should be corrected. But neither science nor common sense can approve the prescribing of glasses for slight refraction errors when the apparent asthenopia is plainly due to local or general disorders.

---

(348) Orthoform in Secondary Syphilis.

Orthoform is a drug which has been somewhat neglected of late owing to its tendency to cause certain eruptions when used as a dressing. Dimitroff (*Thèse de Lyons*, 1901) describes a method which is free from such inconveniences. It is especially in dysphagia of secondary syphilis that he has had the best results, though in some cases he admits that he was disappointed. Insufflation of orthoform alleviates, if it does not totally remove, dysphagia in the majority of such cases after a little time, varying from 3 to 15 min. Such alleviations last on an average 24 hours, at the end of which time the pain is apt to reappear, though often to a less marked extent. It may be necessary to repeat the insufflations once or twice every day, and it sometimes happens that only on the second or third application is any good result obtained. The method is quite simple. An ordinary insufflator is used; the back of the throat must be well exposed with the tongue depressor in order to see exactly where the mucous plaques are situated on the tonsils, palate, or pharynx in order that the powder may be applied directly to them. The patients should be advised not to swallow their saliva in order to avoid removing the powder. In about five minutes there is a sensation of tingling and heat, and the throat feels dry, but these symptoms very soon disappear. The writer also recommends orthoform as a very serviceable drug in cases of persistent cephalalgia so frequent in secondary syphilis. He states that he has always had excellent results no matter how intense the pain may have been. He advises beginning with a dose of 1 gram per diem, and should that not be sufficient it may be increased to 2 grams. Should any gastric disturbance appear, a dose of the same quantity of Vichy salt will usually counteract any such symptoms, and thus allow the administration of the drug to be continued. In the opinion of the writer orthoform is much superior to mercury or iodide in the treatment of cephalalgia, cure being more rapid and certain. In fact, the first night after the administration of a dose of orthoform in cachet the cephalalgia may have greatly diminished and may even disappear by the second night. Orthoform is only slightly toxic and no unpleasant results need be feared.

---

(349) Iodo-Ether in Exophthalmic Goitre.

Abadie and Collon (*Revue Neurol.*, January 30th, 1902) report interesting results on the treatment of Graves's disease by the injection of iodo-ether into the enlarged thyroid gland, a plan first recommended by Pitres (at the Medical Congress at Lille in 1899), who stated that of 12 patients so treated 6 were cured and the rest improved. A series of 24 cases have been treated by the authors, and the following conclusions are drawn: (1) To 20 grams of ether are added 4 grams of iodoform, and of the solution 1 c.cm. is injected per dose into the most prominent part of the thyroid gland, carefully avoiding any large vessels; (2) a notable diminution of volume of the thyroid occurs at the time of injection, and among the subjective feelings are a sense of swelling of the neck and slight choking; pinching and darting pains are felt on the side of the neck, jaw, face, and ear, and a short, dry cough may be excited; (3) no inflammation was noticed as a result of injection, and only in one of the 24 cases was there any untoward symptom, namely, fainting; (4) the ages of the 24 patients varied from 15 to 50 years, and the exophthalmic goitre occurred in all degrees of severity; (5) when partial improvement occurred injections were given at intervals of a few days until improvement was complete; such improvement included disappearance of such symptoms as cephalalgia, agitation, emotional irritability, amenorrhoea, polyuria, and neuralgic pains about the eyes; then followed abolition of tachycardia, and anginal attacks, trembling, and exophthalmos; while appetite improved and strength returned, so that work could be resumed by the patient; (6) the general results of treatment were that 12 cases were cured 9 showed notable and permanent improvement, and 3 temporary improvement. The injection was always done under strict antiseptic conditions.

PATHOLOGY.

(350) Virulent Diphtheria Bacilli in Simple Rhinitis.

Neumann (*Centralbl. f. Bakt.*, January 24th, 1902), from a study of 5 cases of nasal diphtheria, concludes that simple rhinitis with virulent diphtheria bacilli is a more frequent affection than is generally supposed. The symptoms of the disease are not uniform; it is often very mild and overlooked. It is not to be distinguished etiologically from rhinitis fibrinosa; the two should be spoken of as nasal diphtheria with and without membrane formation. Both forms are active sources of infection, and all doubtful cases of coryza, those, for instance, that prove obstinate to simple measures, should be investigated for diphtheria bacilli, and this will enable prophylactic serum injections to be given at a favourable stage in some cases. The pseudo-diphtheria bacillus, which is present in most cases, has no influence on the course of the affection.

---

(351) The Differential Diagnosis of the Gonococcus.

It is usually stated that the diagnosis of gonorrhœa rests on three points: The appearance of colonies, the fact that the gonococcus will not grow on simple agar, and that it is decolorized by Gram's method. Wildbolz (*Centralbl. f. Bakt.*, February 14th, 1902) criticizes the second of these supposed characteristics. In examining twenty examples of the organism he has had found that after culture on serum agar for four or five generations it will grow on ordinary agar: in two cases it developed after a single cultivation on serum agar. It is probable that in many cases a positive diagnosis has depended on this supposed impossibility of cultivation on simple agar, but it is probably a fallacious criterion. It has especially been relied on to differentiate between the gonococcus and the meningococcus intracellularis, but this organism also is difficult to cultivate in the first generation on simple agar. Taken in conjunction with the observations of certain other workers, it appears now necessary to admit, not the impossibility but only the difficulty of obtaining cultures of the gonococcus on ordinary media.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(352) Coexistence of Acute Rheumatism and Typhoid Fever.

PEL (*Berl. klin. Woch.*, April 21st, 1902) considers that the majority of cases of enteric fever, which have joint affections as coexisting changes or complications, show no signs in common with true rheumatic disease. The joint changes in question may be typhoid synovitis (arthrotyphus), secondary suppuration (due to pyogenic cocci), and pseudo-rheumatism. True acute rheumatism rarely attacks a patient who is at the same time ill with enteric fever. Pel reports such a case. The patient, a man of 48 years, was taken ill with rheumatic pain in the limbs on October 12th, 1902. The first joint affected was the right hip; later the right wrist and left elbow-joints became swollen and painful. There was fever, sweating, and increased thirst. Other joints became affected during the following days. The heart was not dilated; the first sound at the apex was not clear, but there were no murmurs. There was evident arterial sclerosis. Urine, faint cloud of albumen. The signs disappeared in the course of a few days, and patient felt well during the first half of November. He then began to complain afresh of headache, loss of appetite, and *malaise*. The temperature rose gradually. There was some catarrh of the fauces, the tongue was moist and coated, all joints free. On the 16th the splenic dullness was found to be enlarged. On the 19th rose spots on the abdomen and chest. On the 20th diazo-reaction positive, Widal negative. On the 22nd diffuse bronchitis. On the 23rd acute polyarthritis (both elbows and both wrists). Pel records this as relapse of acute rheumatism in second week of enteric fever. On the 25th and 26th the joint swelling and pain receded (patient had received sodium salicylate), and on the 28th the temperature fell to normal line. No further symptoms occurred, and the patient was discharged well in January. Pel gives his reasons for definitely regarding the multiple arthritis as rheumatic, and also discusses the question of negative Widal's reaction in enteric fever.

(353) Dilution Experiments in Diagnosing Renal Function.

THE determination of the freezing point depression of urine, as described by Korangi, and the phloridzin-sugar estimation (Casper and Richter) both contribute well toward forming an opinion as to the functional capability of the "second" kidney, before the first is removed. G. v. Illyés and G. Kövesi (*Berl. klin. Woch.*, April 14th, 1902) consider that some better methods must be combined with these, and therefore deal with the so-called dilution experiments. This depends on the examination of the urine as collected by ureteral catheterization, and especially of the changes in the urine after the taking in of large quantities of fluid. They report a series of experiments. The patients were carefully examined, the urine tested in the ordinary way; δ was determined, and was found to vary between 0.58° and 0.61°. The ureteral catheters were then passed, and allowed to remain in the organs for a few hours. The urine from each kidney, thus collected, was examined, for quantity, specific gravity, δ, sodium chloride value, nitrogen value, and sugar (phloridzin). The patients then were given 1.8 litre of Salvator water, and the urine from each kidney examined in the same way. With regard to the prolonged ureteral catheterization, they have never seen any harm come of it. They formed the following conclusions. (1) To obtain correct information as to the functional capability of each kidney, it is necessary to collect the secretion by a ureteral catheter remaining in place for a long time. (2) The diagnosis of renal function is rendered more exact by the introduction of the "dilution" experiment, which is all the more called for since no method proposed up to the present is absolutely reliable. (3) The results of the dilution examination in surgical diseases of the kidney, can be classed thus: (*a*) the delay in the appearance of the dilution, (*b*) the difference in the quantity of urine, secreted in the same space of time, and (*c*) the relative constancy of molecular concentration (which is not influenced by a larger intake of fluid, and is evidenced by a limited change of the degree of the freezing point depression) point to a lowering of the function of the kidney.

(354) The Anaemic Form of Gastric Carcinoma.

THIS form of gastric carcinoma was first described by Hayem, the dominant feature being a very profound degree of anaemia giving rise at times to considerable difficulty in diagnosis. P. Blanc has just published several observations which help to throw a light on some of the peculiarities of this condition (*Thèse de Paris*, 1901). The symptoms are not those of a gastric affection but rather resemble pernicious anaemia. This is a fatal error in diagnosis, as it is only early examination of the blood which may enable it to be avoided. Later, when ordinary gastric symptoms such as vomiting, haematemesis, tumour appear, the diagnosis is of course easy. The beginning, therefore, of the disease is absolutely insidious. At the most, some vague gastric pain very slight in degree may be present, but such pain is in itself seldom sufficient to send the patient to seek advice. On the other hand, the symptoms of profound anaemia such as progressive weakness, fainting, ringing in the ears, shortness of breath on the least effort may all be well marked. After any effort, such as going up a ladder, it may be well nigh an impossibility. The patient shows an intense death-like pallor often with a greyish tinge, as in true chlorosis. The mucous membranes are pale and bloodless: the skin may be slightly oedematous with possibly slight puffiness of the face. The evolution of this form of gastric cancer is slow, possibly because the anaemic symptoms are early appreciable, and thus we have a better estimate of the duration of the disease. The case progresses to a fatal issue, but it is a curious fact that surgical intervention is attended with better results in these cases than in any others. Weight may be gained, and appetite and strength return. The anaemia itself improves. In one such case quoted by the writer the patient four months after operation returned to his employment which he had previously been obliged to abandon. What is the explanation of such a congeries of symptoms? It is possible that in some forms of gastric cancer a special toxin is present which has a destructive influence on the blood.

SURGERY.

(355) Disinfection of Hands with Alcohol.

R. SCHAEFFER (*Berl. klin. Woch.*, Nos. 9 and 10, 1902) regards the conclusions drawn by Paul, Sarwey, Krönig, and others, that no means or method exist by which the hands may be rendered even moderately free from micro-organisms as too sweeping, and inquires carefully into the question from a practical point of view. One may attempt to disinfect hands by (1) mechanical means, and (2) chemical solutions. The first method is absolutely untrustworthy. In his investigations with chemicals he classifies the various solutions according to the number of colonies which appear on an agar plate which had been inoculated with the scraping of the skin by a sterile toothpick. In all cases he speaks of "poverty of germs," and not "absence of germs." In the case of disinfection with alcohol he washes his hands for five minutes vigorously in very hot water, with soft soap and a clean nailbrush. The nails are then carefully cleansed with a suitable instrument, and the hand energetically rubbed with a sterile towel. After this he scrubs his hands for three or five minutes in alcohol, changing it once or twice. His experiments give very much better results with this method than with disinfection by other means. Mikulicz's soap spirit gives the next best results, but these when compared with the "alcohol method" may be numerically expressed (average number of colonies) as 3:25 in favour of Schaeffer's method. Lysol (1.75 per cent.), hydrarg. oethylene-diamin (4 per cent.), corrosive sublimate (1 per cent.), chinosol (6 per cent.), lysoform (3.3 per cent.), and Scheich's marble soap gave very unsatisfactory results, the number of the colonies increasing in the order given and being very considerable. The last named gave about the same results

as simple washing in hot water and soap. Inquiring into the method of action of the alcohol, he finds that its bactericidal properties are not marked, as demonstrated by brushing the hands infected with staphylococcus in 150 grams of alcohol, after washing in hot water for one minute, and after the lapse of twelve minutes, testing the filtrate of the alcohol on agar plates. A second method of action depends on the hardening properties of alcohol, while a third rests on its power of dissolving fats and epithelium. Schaeffer states that the chief value of alcohol as a disinfectant for the hands takes place by means of a mechanical cleansing, and not of a chemical change. He believes it to be the best method known up to the present time.

(356) Ureteral Surgery.

Coe (*Amer. Journ. Med. Sci.*, January, 1902) reports two cases of accidental division of a ureter during operation on the pelvic organs in which immediate anastomosis of the severed portions of the duct was successfully performed. In the first case the uretero-ureteral anastomosis was established by the lateral method, the distal end being closed by suture and the open proximal end inserted into the lower portion of the duct through a lateral slit made about one quarter of an inch below the ligature. In the second case direct invagination was made of the proximal into the dilated distal end of the divided ureter. A third case is added in which both ureters were divided and a portion of the vesical trigone removed. Anastomosis of the left ureter with the bladder proved successful, but a large fistula remained involving the entire base of the bladder. This was subsequently treated by a plastic operation with good results. In his comments on these cases the author points out that they serve to illustrate the fact that in complicated cases, especially with intraligamentary tumours, it is sometimes impossible to identify the displaced ureters before they are injured and, therefore, that every cord, adhesion, or supposed blood vessel should be carefully inspected before it is clamped or ligatured, and again after it has been divided. When it is established beyond a doubt by the escape of urine that a ureter has been divided, nothing except a very desperate condition of the patient should deter the surgeon from at once attempting to repair the injury, instead of resorting to the unsurgical makeshift of suturing the end of the ureter to the abdominal wall, or to the serious procedure of removing a healthy kidney under the most unfavourable conditions.

(357) The Condition of the Proximal Segment of the Bowel in Intestinal Stenosis.

Patel (*Rev. de Chir.*, No. 3, 1902) states that the wall of the upper segment of intestine in cases of stenosis is often thickened. The situation, degree, and duration of the stenosis bear no relation to this thickening, which seems to be due to a well-marked morbid condition of the mucous membrane. This morbid change consists in (1) hypertrophy of the muscular elements, the fibres being separated and increased in size and in (2) infiltration of the cellular, subserous, and submucous layers. The change, it is held, is not a physiological one and of the nature of a compensatory muscular hypertrophy, but is a decided lesion of the intestinal coats the starting-point of which is the level of ulcerated mucous membrane. This thickening constitutes an additional obstruction of the intestine, and the portion of intestine thus involved should in any operation either for the removal of the stenosis or for anastomoses be regarded as a part of the disease. In enterectomy it should be removed, and in short-circuiting the surgeon should work on sound intestine beyond the limits of the hypertrophy.

(358) Foreign Bodies Accidentally Left in the Abdominal Cavity.

Schachner (*Ann. Surg.*, November, 1901) publishes brief abstracts of 155 records of the accidental retention of foreign bodies in the abdominal cavity after laparotomy. Of these records 101 were collected by Neugebauer, and 44 more recently by the author of this paper. Accidents of this kind it is held are of frequent occurrence, and are likely to be repeated as long as surgery is practised. The foreign body if of an aseptic character is encapsulated by a fibrous exudate, and subsequently enclosed within adhesions between the different abdominal viscera, or the viscera and the abdominal wall. Spontaneous expulsion of a foreign body takes place through points of least resistance, which are either the alimentary tract or an imperfectly united wound, or, less frequently, through the reopening of an apparently well organised cicatrix. A foreign substance may remain quiescent for years in the abdominal cavity and fail to give any signs of its presence. Symptoms when they occur not infrequently suggest a low and protracted form of sepsis, and, in some cases, indicate the most violent intra-abdominal disturbance. These accidents, which can in some instances be the results of unexpected circumstances, unusual complications, and diverted attention may, the author hopes, be reduced in the future by the observance of the highest degree of simplicity, system, and watchfulness. In other vocations, it is pointed out, it is reasonable to assume that, unless properly prepared one should not act; but in surgery one is occasionally compelled to act, even though it is evident that one is not prepared. In such conditions the results of surgical abstention would be more fatal than an endeavour to make the best of the circumstances.

MIDWIFERY AND DISEASES OF WOMEN.

(359) New Growth in the Uterine Stump after Subtotal Hysterectomy.

Condamin (*Lyon Méd.*, April 13th, 1902) records two cases in which partial hysterectomy for fibroids was followed after a year or more by malignant degeneration of the uterine stump. In the first case his patient was 58 years of age, and had had no children. The fibroid reached to the umbilicus, and caused considerable metrorrhagia. It was removed by Laroyenne's method, the stump being covered by peritoneum. The patient made a quick recovery after the operation, but about a year later she again suffered from metrorrhagia. On examination, a fungous mass was found embedded in the vaginal roof. This spread rapidly to the abdominal scar, and caused death from profound cachexia. In the second case the patient was 40 years of age, and suffered from much loss of blood resulting from multiple fibroid tumours. The same operation was performed. A month later only a narrow fistulous track remained of the abdominal wound, and this soon closed. The loss of blood ceased almost immediately. Three or four years afterwards, during an operation for the radical cure of a hernia, the uterine stump was found to have increased in size, and three months afterwards was found to be fixed by a hard epitheliomatous growth which caused metrorrhagia, rapid cachexia, and death. Péan stated in 1897 that he had seen sarcomatous and epitheliomatous growth in the stump several times. Pozzi has recorded four or five cases of malignant degeneration after partial removal. Condamin believes then, in spite of the good results which Bouilly and others have claimed for the supravaginal operation, that total extirpation should always be undertaken.

(360) Repeated Extrauterine Pregnancy.

W. Philipowicz (*Wien. klin. Woch.*, No. 13, 1902) relates the following clinical history: On May 24th, 1898, the patient, aged 30, was admitted into hospital. The past history revealed what the patient believed to have been an abortion in the third month three months before. There had been a bloody discharge since the severe haemorrhage. On examination a resistance was felt above the symphysis, and chiefly to the right. The cervix was patulous, and the uterus slightly enlarged. There was colostrum in the breasts. On June 4th laparotomy was performed, firm adhesions between the tumour, and the abdominal wall, spleen, and intestines were found. The patient's condition forbade a prolonged operation, and therefore the tumour was opened, and an 8 cm. long fetus (macerated) was removed. The placenta was removed, and the cavity plugged with iodoform gauze. Recovery was uneventful. On December 3rd, 1900, the patient was again admitted. The menses had been regular since her discharge up to two months before. Two weeks previously there had been vomiting and abdominal pain, and complete retention of faeces and flatus had lasted for two days. In the left parametrium a tumour of the size of a fist was felt. The uterus was slightly enlarged, the cervix patulous, and colostrum was discovered in the breasts. A few days later there was moderate haemorrhage from the vagina. Eleven days after admission the patient

agreed to operation. On opening the abdomen fresh and old blood clots were found free in the pelvis. On clearing these out, a tumour of the size of a child's fist was found in the left tube. The tube and tumour were resected, and the sheath of the rectus muscle divided. The wound was closed in three layers. Healing took place by first intention. In the tumour was found a 6 cm. long fetus. The tube was ruptured close to the fimbriated end. The absence of any adhesions in the abdomen when this was opened for the second time is to be regarded as very unusual.

(361) Injections of Perchloride of Mercury in Puerperal Fever.

G. BURZI (*Gaz. degli Osped.*, March 16th, 1902) calls attention to the unsatisfactory results of surgical intervention in puerperal fever, and relates two cases in which, notwithstanding digital scraping and endo-uterine irrigation with 1 per 1,000 lotion of mercury perchloride, the temperature continued to rise, and other untoward symptoms (for example, meteorism, delirium and vomiting) occurred. In both cases the temperature was 105° F., and the pulse was in one case 137, in the other 134. Injections of ½ gr. of perchloride were made twice a day into the gluteal muscles, and the local treatment continued. There was no decided improvement till the fourth day in the one case (temperature 104.5° and pulse 124) and the third day in the other (temperature slightly lower, pulse 122). The improvement then went on rapidly and well, the fever having disappeared at the end of a week from the first injection in each case.

THERAPEUTICS.

(362) The Treatment of Fibrous Stricture of the Oesophagus by Hypodermic Injections of Thiosinamin.

TELEKY (*Wien. klin. Woch.*, February 20th, 1902) quotes Hacker's statistics as to the mortality of fibrous strictures of the oesophagus. Of those cases treated by dilatation alone 55.55 per cent. were fatal; of those treated surgically, mostly by gastrostomy, 40 per cent. This estimate is probably too favourable, since some cases counted as "cured" or "improved" would relapse. The most unsatisfactory cases are those which improve by gradual dilatation only up to a certain point. It is, therefore, obvious that the treatment available hitherto has proved wanting. The writer has employed hypodermic injections of thiosinamin, a drug introduced by Hans von Hebra in 1892, which has the properties of heightening already existing inflammation, and of rendering cicatricial tissue pliant. In a woman with a fibrous oesophageal stricture, which in January, 1899, admitted only a fine catgut sound, dilatation proceeded fairly satisfactorily until July, when a No. 16 bougie of 9½ mm. diameter was passed. Thenceforward no further progress was made. In February, 1900, all attempts at dilatation were, therefore, abandoned, and between February 23rd and March 7th ten injections of half to a whole ordinary hypodermic syringeful of a 15 per cent. alcoholic solution of thiosinamin were given between the scapulae. On March 21st bougies were again introduced. There was then but little difficulty in passing a No. 22 (12⅔ mm. diameter). Oesophagoscopy showed that the previously yellow cicatrix was of a greyish red colour. The woman could swallow well, and up to February, 1902, had had no relapse, and had required no further treatment. An equally good result was obtained in another case of cicatricial stricture in a woman, aged 31, who, as a child, had drunk a solution of potash. In the case of a boy, 28 months old, who had drunk caustic potash six months before, after six injections of two and a half divisions of a hypodermic syringe containing a 15 per cent. solution of thiosinamin, a No. 21 bougie (12⅓ mm. diameter) could be passed, though previously none measuring over 9⅓ mm. in diameter could be inserted. The improvement in swallowing was, however, less marked. In a second boy, aged 3⅓ years, who had drank a solution of caustic potash only six weeks before he came under treatment for oesophageal stricture, the improvement which followed thiosinamin injections soon gave place to deterioration. They were therefore abandoned. Subsequently gastrostomy became necessary. In a man, aged 22, gastrostomy was performed for impermeable oesophageal stricture. Food was given by the fistula immediately after the operation. On the twelfth day, when the wound was firmly united, an unsuccessful attempt was made to pass a fine bougie through the stricture. A single hypodermic injection of 0.045 gram (less than ¾ gr.) was therefore given, in the hope that the stricture would become more distensible. A few hours later the gastric contents escaped through the fistula, there was putrid expectoration, and death occurred on the sixth day after the injection. *Post mortem* it was discovered that the lower edge of the gastric wound had separated from the abdominal wall. The stricture was not fibrous, but due to a carcinoma of the oesophagus at the level of the bifurcation of the trachea, which had perforated the left bronchus. These cases show that the indications for thiosinamin injections are strictly limited. Old standing cicatricial strictures are rendered soft and distensible; more recent cicatrices are softened initially, but, if the treatment is continued, undergo inflammatory swelling, which renders the stricture tighter than before; quite recent cicatrices (as in the case of the gastrostomy wound) become so soft that they break down. It must also be remembered that thiosinamin acts on every cicatrix in the body, and that in old pulmonary tuberculous cicatrices or caries of the bones the process may suddenly become acute. Possibly, also, it may favour metastasis in the case of malignant tumours. Hebra states that it is without action on syphilitic lesions. As a general rule thiosinamin should be avoided in all inflammatory affections until the cicatrix is fully formed; in the case of fibrous strictures of the oesophagus until at least 6 months have elapsed. Gastrostomy is an absolute contraindication. Thiosinamin is usually well borne; if the administration is prolonged it may, however, produce temporary anorexia and depression.

(363) The Gelatine Treatment of Aneurysm.

MANCINI (*Rif. Med.*, May 2nd, 1902) reports 2 cases of aortic aneurysm treated by means of gelatine injections. The first case a man, aged 31, suffered from a fusiform aneurysm of arch of the aorta, and in spite of complete rest in bed for two months with milk diet and antisyphilitic treatment, made no progress. Whereas after forty days of the gelatine treatment unassociated with any other drug, very marked improvement occurred the murmur disappeared, the cough and breathing were also much relieved and the local pain disappeared. At first 5 c.cm. of a carbolized gelatine solution were injected in the gluteal region, but as this gave rise to a good deal of pain, from 20 to 100 c.cm. of a 50 per cent. solution were given in enemata and this without the least inconvenience. The patient was so much improved that he was able to get up and walk about towards the middle of July. On August 10th, however, the anginatous attacks recurred and death occurred on August 30th from rupture of the aneurysm and asphyxia. At the necropsy the large aortic aneurysm contained two large stratified thrombi, the anterior being about 4 cm. thick. There seemed no doubt that a good attempt at cure had been made under the stimulus of the gelatine treatment, but the influences which made for dilatation proved too strong. In the second case—an aneurysm of the ascending aorta—a similar marked improvement followed the use of gelatine, but the improvement was not permanent although a good deal better than on admission.

(364) Iodoline.

JORDAN (*Monats. für prakt. Derm.*, 1901, Bd. iii, p. 610) gives his experiences of iodoline, another substitute for iodides or iodoform. Iodoline is a yellow powder, insoluble in water and alcohol, formed of a mixture of iodol and albumen. There are two forms, one for internal use, containing 9 to 10 per cent. iodol, another for external use containing 36 per cent. iodol. Hitherto the drug has been found useful externally, but internally caused iodism. The author, therefore, uses it one third the strength for internal use. He has tried it in tertiary syphilis in doses of 2 grams given in water or milk; six to ten doses daily were given, representing 1 to 2 grams of iodine. As a rule the drug was well borne, but sometimes temporary iodism and digestive troubles occurred. Iodine appeared in the urine in two or three hours. When used externally no iodine appeared in the urine. Iodoline acted well in penistitis; but, to succeed in tertiary and malignant cases of syphilis, doses of 12 to 20

grams a day must be given. The chief advantage of the drug is said to be the improvement in the general condition. Externally it acts well in gummata, syphilides, and soft chancre. In such cases it should, in the author's opinion, replace iodoform.

PATHOLOGY.

(365) Staphylotoxin.

Neisser and Wechsberg (*Zeit. f. Hygiene*, Bd. xxxvi.) have differentiated two varieties of toxin from staphylococcus culture: a haemolysin which in proportion to the degree of toxicity destroys the red blood cells, and a leucocidin. All the various strains of staphylococcus aureus procured from human lesions produce haemolysin, there are, however, certain forms of aureus which do not, and these differ in cultures from the others. The haemolysin of all strains was capable of neutralization by an artificial antilysin and was therefore identical in character in all. Only two of the staphylococcus albus strains examined produced haemolysin, and this was neutralized by an artificial aureuslysin: this goes to show that the typical staphylococcus aureus and the typical staphylococcus albus produce one and the same form of haemolysin. This haemolysin is characteristic for the staphylococcus and may be called staphylolysin and compared with tetanus toxin and diphtheria toxin. By inoculation with this staphylolysin an antilysin is produced, and it is interesting that the writers found this also in the serum of twenty-one healthy and diseased individuals in varying amount. The second form of toxin produced by the staphylococcus, the leucocidin, exerts the same influence on the white blood cells as the haemolysin does on the red. Those forms of aureus which produced no haemolysin did not produce leucocidin; both are produced by many of the strains, some only produce haemolysin. Of the two forms of albus which produced haemolysin one only produced leucocidin. The staphylococci therefore belong to the class of microbes which produce soluble poisons, and in their case these are two in number, identical throughout a variety of strains but inconstant in amount and proportion.

(366) The Blood in Appendicitis.

J. C. Da Costa, Jun., has collected a series of observations on this now important subject, and the result of his investigations are as follows (*Amer. Journ. Med. Sci.*, November, 1901): (1) The average case of appendicitis before operation shows a loss of about 30 per cent. of haemoglobin, and of more than half a million erythrocytes per cubic millimetre. Occasionally the anaemia is of a grade so high that it appears to constitute in itself a serious complication, and to raise a doubt as to the safety of surgical interference should the latter otherwise be indicated. Doubts on this score, however, have not been justified by the records of the cases included in this series. (2) Moderate leucocytosis may occur both in the absence and in the presence of an abscess and its consequences. It accompanies about 35 per cent. of non-purulent and 90 per cent. of purulent cases. 3. Leucocyte counts ranging between 10,000 and 15,000 or 17,000 cannot be depended upon to reflect the nature of the local lesion, since this degree of increase may be found both in mild catarrhal and in purulent cases. Counts of 20,000 or more almost invariably indicate the presence of pus, gangrene, or general peritonitis, one or all. (4) Leucocytosis may be absent both in trivial, catarrhal, and in fulminant cases, as well as in forms of circumscribed abscess. (5) In operative cases, thorough evacuation of the abscess is followed within a few days by a decline to normal in the number of leucocytes provided that the recovery of the patient is uneventful. Persistence of the leucocytosis after the third or fourth day following the operation may usually be attributed either to undrained pus pockets, to general peritonitis, or to both of these factors. In a patient unmistakably septic absence of leucocytosis should be interpreted as a sign of intense infection, the prognosis of which is more likely grave than favourable. A high leucocytosis in such instances does not necessarily indicate a favourable prognosis, but simply represents an intense affection coupled with normally active resisting powers on the part of the patient. Absence of leucocytosis in a patient with mild, indefinite symptoms is a clinical sign of no tangible value, in so far as it may serve in detecting the presence of pus; since a large abscess, if thoroughly circumscribed, may exist without causing the slightest increase in the number of leucocytes. The writer emphasizes the importance of not being led into the diagnosis of appendicitis in the presence of these blood changes alone, as other conditions—such as ovarian abscess, pyosalpinx, ectopic pregnancy, perinephritic abscess, hepatic abscess, empyema of the gall bladder, and malignant disease of the caecum—have all been known to give difficulty in diagnosis from appendicitis, and in each of these examination of the blood may show similar conditions. The non-occurrence of leucocytes in typhoid fever is, however, of assistance.

(367) Pathogenesis of Exophthalmic Goitre.

Tedeschi (*Gazz. degli Osped.*, April 6th, 1902), experimenting on dogs, finds that if the restiform bodies are injured anteriorly—that is, just behind the acoustic tubercle, most of the symptoms of exophthalmic goitre appear—namely, exophthalmos, enlargement of the palpebral fissure, tachycardia, generalized tremor, and sometimes polyuria, glycosuria, and abundant salivation. In rabbits the pupil dilates, in dogs the early dilatation gradually lessens. The experiments were not decisive as to what happens in regard to the thyroid. The restiform bodies were reached either by exposing the posterior extremity of the cerebellar vermis and raising it, or through the occipito-allantoid membrane and exposure of the commencement of the floor of the fourth ventricle. The lesion of the restiform bodies was produced by a small bladed bistoury.

(368) The Etiology of Acute Haemorrhagic Pancreatitis.

Halsted (*Johns Hopkins Hosp. Bull.*, May-June, 1901) records a case of acute haemorrhagic pancreatitis, and Opie gives details of the *post-mortem* examination and of some experiments undertaken to elucidate the etiology. The subject was a corpulent and robust man, aged 48, whose symptoms were very acute abdominal pain and cyanosis; the pulse was only 92, and there was no great local tenderness on palpation. The diagnosis was gall stones. Death took place in twenty-three hours after operation, at which abundant blood-stained fluid was found in the abdominal cavity, fat necrosis, haemorrhage in the region of the pancreas, and a distended common bile duct. *Post mortem* the pancreas was represented by a blackish swollen mass; the termination of the pancreatic duct united with the common bile duct 10 mm. from the summit of the bile papilla to form the so-called diverticulum of Vater; filling this common diverticulum was a small concretion. In this way the bile and pancreatic ducts formed a continuous channel, and the escape of both secretions was obstructed by this concretion blocking their common outlet into the duodenum. The pancreatic duct was stained bright green with bile, and there had evidently been a regurgitation of bile along it. In a series of 17 cases examined, Opie found that the pancreatic and common bile ducts opened independently into the duodenum in 3, and in the others the diverticulum of Vater varied in size from 1 mm. to 11 mm. The pancreatitis in this case was apparently due to the action of the regurgitated bile. Experimentally it has been shown that a variety of substances injected into the duct of the pancreas cause haemorrhagic inflammation, but how far they can be used to explain the pathogenesis of human cases is doubtful. The suggestion of Hlava that gastric juice may be driven by antiperistaltic action of the intestine into the ducts is not supported by any evidence, and the relation of haemorrhagic pancreatitis to bacterial invasion from the intestine has not been demonstrated. Opie found experimentally that injection of bile into the pancreatic duct of dogs causes a necrotizing haemorrhagic inflammation of the pancreas resembling the human lesion, and, like it, accompanied by fat necrosis. The frequent association of cholelithiasis with haemorrhagic and gangrenous pancreatitis appears to be the result of impaction of gall stones at the orifice of the diverticulum of Vater and the penetration of the bile into the pancreas.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(369) Intermittent Claudication.

OSLER (*Montreal Med. Journ.*, February, 1902) recalls the necropsy upon a case of intermittent lameness in a horse in which "verminous aneurysms of many of the mesenteric vessels and of the iliac arteries" were found, and he quotes a case, reported by Charcot, in a man who was unable to walk for more than a quarter of an hour without being seized with cramps, which passed off after a short rest, only to recur upon exertion. In this case the necropsy showed a traumatic aneurysm of the iliac artery obliterating the lower portion of the vessel, collateral circulation maintaining the nutrition of the limb during rest, but being insufficient for exertion, thus causing a relative ischaemia, cramps, and inability to walk. Erb, in 12 cases recently reported by him, has drawn attention to the association of the symptoms with arterio-sclerosis and calcification of the arteries of the legs. Osler himself recently met with the condition in the two following cases: Case I.—A man, aged 31, complained of severe pain in the upper abdomen with vomiting, which had been present for several months. Six or seven years previously he had had syphilis. The radials were sclerotic, and the aortic second sound accentuated, and an aneurysm of the abdominal aorta was easily felt in the epigastric region. This was treated by the insertion of 10 ft. of wire, through which an electric current was passed, and the patient did well; ten months afterwards remaining free from pain and vomiting, the sac being smaller and the area of pulsation considerably reduced. He stated that after walking a certain distance his legs would "give out completely," and he had to sit down, but after resting a few minutes he could proceed, going very slowly for short distances. There were no cramps, but a sensation of heavy weight in the legs without any sign of paralysis. The femoral arteries and the dorsal arteries of the feet were sclerotic. Here the condition was similar to that producing intermittent claudication in the horse where, as expressed by Burns in 1809, the supply of energy and expenditure do not balance each other. Case II.—A woman, aged 55, who had suffered from dyspnoea for some time, while walking temporarily lost control of her legs, from which she completely recovered, and had no further attack for about eight months, when, after a rapid walk she found, upon attempting to get up after resting, that she could not walk. A feeling of pins and needles, chiefly in the right foot, accompanied this attack, but there was no alteration in colour or size until three weeks later, when the right foot and leg became slightly blue and very painful. No pulsation was felt in either of the dorsal arteries of the feet or in the popliteal arteries, but in the right femoral there was slight pulsation, and in the left this was good. With rest, warmth, and friction to the legs, together with nitroglycerine internally, she greatly improved, but died a few months after leaving hospital. The affection is not always due to simple arterio-sclerosis, but may be due to aneurysm, while Oppenheim has reported cases in nervous individuals where the condition seemed to depend upon vasomotor disturbances.

(370) The Properties of the Walls of Arteries and Veins.

J. A. MACWILLIAM brought a paper dealing with the properties of the arterial and venous walls before the Royal Society (November 21st, 1901). The investigation deals with a very large number of experiments which MacWilliam performed during the last ten years on the vessels of healthy animals, chiefly of the ox, horse, and sheep. The occurrence of *post-mortem* contraction is described; it was found that it may persist over many days; in the case of the horse's carotid kept in olive oil, the condition lasted over a fortnight. The influence of various drugs upon the contraction, and the methods of preventing it or removing it were studied, and very different measurements as to lumen, thickness of wall, etc., were obtained from the same artery in contraction and relaxation. The effects of changes of temperature were studied in various ways by causing strips of the vascular wall to act upon recording levers while the strips were heated in an oil bath. Contracted arteries showed a definite series of changes which disappeared in a definite order, and the general behaviour of the arterial muscle is described as being strikingly similar in its general character to what occurs in the bladder (cat) while its muscle is unquestionably alive. The effects of heat upon saline extracts of contracted and relaxed arteries were examined and compared with the changes shown by the arterial strips. It appears that there is no necessary relation between the phases of shortening and the coagulation of proteids in the arterial wall. MacWilliam considers that *post-mortem* contraction is a true persistent contraction very different in its character from the rigor mortis of skeletal muscle as shown chiefly by (1) the effects of stimulation, (2) sulpho-cyanide, (3) heat, (4) the results of extension of strips of the arterial wall by weights, and (5) the behaviour of the artery when distended by internal pressure. The elasticity of the arterial and venous walls was tested by weighting strips cut transversely and longitudinally from the carotid and other vessels. Relaxed arteries as well as veins gave a maximum elongation with the first addition of weight, while contracted arteries showed increments of length increasing up to a maximum, and then declining, the curve being first convex towards the axis, and then concave, in marked contrast to what is obtained with skeletal muscle and other tissues. When stretched a second time the maximal elongation came at the beginning. The relation of cubic capacity to internal pressure was studied by placing the portion of artery to be examined in an oil plethysmograph, and raising the air pressure in the interior of the artery by means of a system of pressure bottles. Relaxed arteries were found to be most distensible at low pressures: the maximum increase of volume per unit rise of pressure came, as a rule, when the pressure was raised from zero. Contracted arteries showed increasing increments of volume per unit rise of pressure up to a certain maximum, then diminishing increments. Both contracted and relaxed arteries showed increased distensibility when they had already been distended by a previous rise of pressure. The elongation of arteries, when distended by a rise of internal pressure, also varied according to whether the artery was relaxed or contracted, elongation being much greater when the tube was relaxed. With a succession of sudden, brief elevations of pressure within an artery, the pulsatile expansion of the tube was found to be vastly greater in a relaxed artery than in a contracted one. The author thinks that the discordant results obtained by various observers (Marey, Roy, and others) as regards the distensibility of arteries are in a large measure explicable by the presence or absence in varying degree of *post-mortem* contraction in the arteries they used in their experiments.

(371) Ephemeral Mania or Transitory Insanity.

EUGÈNE ALBERT (*Thèse de Paris*, 1901) calls attention to the dictum laid down at the French Congress of Alienists and Neurologists at Angers (1898) that "there did not exist any *délire transitoire* independent of an antecedent pathological condition," and points out that, though generally true, yet occasionally this maxim fails to hold good. Transitory mental troubles and aberrations may be connected with epilepsy and hysteria, menstruation, pregnancy, parturition, lactation, the menopause, alcoholic and other forms of intoxication, emotional and sexual excitement, somnambulism, prolonged insomnia, fatigue and inanition, including shipwreck, shock and railway accidents, and exposure to extreme cold or heat. The occurrence of a vesania transitorial though denied by Foville and Mendel, has been firmly established by the observations of Kraepelin, Krafft-Ebing, Clouston, and others, and cases are now well known of mania transitoria and of raptus melancholicus. Patients who have long been the subject of distressing mental obsessions may break out into transitory aberration or to impulsive forms of insanity. Among the latter class must be included sexual impulses of a morbid cha-

racter (Lombroso, Magnan). Among the impulsive and ephemeral forms are some cases of kleptomania, pyromania (especially at the epoch of puberty), dipsomania, dromomania, or impulses to wander about in an automatic state, with loss of sense of personal identity (especially prone to occur in epileptics), and impulses to homicide and suicide. In the vast majority of these cases, however, inquiry will reveal a pre-existent pathological basis, hereditary or acquired.

SURGERY.

(372) Direct Surgical Intervention in a case of Aneurysm of the Arch of the Aorta.

TUFFIER (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 10, 1902) puts on record a case of a saccular aneurysm of the ascending limb of the aortic arch, which, from its special characters, seemed to indicate direct operative treatment. The patient, a woman, aged 40 years, came under the author's notice suffering from a painful and pulsatile tumour in the third intercostal space close to the right border of the sternum. The pulsations of this tumour, which were intermittent, were not isochronous with the beats of the apex of the heart, but succeeded the cardiac systole. The walls of the swelling were soft and supple, and could be reduced by gentle pressure. After such compression the swelling returned gradually and slowly, and regained its previous volume after two or three pulsations. On palpation the tumour, it could be made out, was in direct contact with the posterior surfaces of the second and third costal cartilages on the right side. On percussion there was found to be absolute dullness over the swelling, which was continuous with the area of cardiac dullness. On auscultation a blowing sound could be heard at each expansion, this sound being most intense at the border of the sternum. There were no auscultatory signs of insufficiency of the aortic orifice, and the beats of the apex of the heart were felt just to the outer side of the nipple. No indications could be made out of any displacement of the transverse part of the arch, or of its large arterial branches. Direct intervention in this case was, in the author's opinion, justified by the results of elaborate clinical and pathological inquiry. Clinical investigation, assisted by radioscopic and sphygmographic researches, proved that the patient was suffering from an aneurysm of the arch of the aorta, and that the tumour was situated on the ascending portion of the vessel between its cardiac origin and the origin of the trunk of the innominate. The aneurysmal swelling, which was of the size of a big fist, and sacciform, projected into the anterior thoracic region, leaving intact the deeper seated veins and nerves. Its orifice of communication with the aortic was relatively small, and its wall was thin and not lined by deposited clot. It had increased rapidly in size in spite of energetic medical treatment. All other parts of the arterial system were free from morbid change. The patient, who was not more than 40, and in perfect general health, was in imminent danger, as ulceration of the skin covering the tumour would have been inevitably followed by rupture of the aneurysmal sac. Careful study of pathological records and of actual specimens showed that there are certain sacciform aneurysms of the arch of the aorta which are situated on the proximal side of the origin of the trunk of the innominate, which are very slightly or not at all adherent, which have a relatively thin pedicle and narrow orifice; and that the coats of the aorta near the aneurysm may present but slight and unimportant atheromatous lesions. In the first stage of the operation performed by the author the sac was exposed by dissecting back a large semilunar flap, the base of which corresponded to the right border of the sternum. This flap comprised, in addition to skin, the subjacent fibres of the pectoralis major. A portion of the third rib was removed, and a portion of the second rib, which was closely adherent to the front of the sac, was simply detached from the rest of this bone. The sac was then very carefully separated from surrounding parts, and its thin pedicle secured by a double catgut ligature close to the aorta. As a result of extreme thinness of the walls of the sac and of close and thick adhesions between the sac and the anterior surface of the aorta near the insertion of the pedicle, the operation seems to have been a very difficult and formidable one. The aneurysmal sac was not removed, as the author, near the completion of so trying an operation, was unwilling to run further risk. This, as is pointed out, was an unfortunate omission, as the patient, who did well for some days after the operation, died on the thirteenth day from secondary haemorrhage, due to gangrene of the sac and infection at the seat of the ligature. At the necropsy it was made out that, although the walls of the main portion of the aneurysmal pouch were extremely thin, the attached portion or pedicle still included three arterial coats which were almost quite sound and favourable to the realization of an effluent and solid occlusion by ligature.

(373) Varicose Veins and Varicose Ulcers.

C. WENZEL (*Berl. klin. Woch.*, February 10th, 1902), having practised Trendelenburg's operation (ligature of the saphenous veins) with very doubtful results for a long time, came on the idea that as long as the smallest radicals of a vein remained, the possibility of a collateral circulation existed, and therefore the procedure would be of little avail. On the other hand, if all the superficial veins are divided, then there is prospect of a complete cure. In order to achieve this, he employed a circular incision, generally at the junction of the lower and middle third of the thigh, carried this carefully and slowly through the integument, in order to avoid wounding veins and nerves, dissected out each vein and venule, and tying them in two places, divided them between the ligatures. The wound was then sutured, and an aseptic dressing applied. He observed rigid aseptic precautions, and succeeded in causing all the wounds to heal by first intention. He states that the ulcers heal rapidly, the enlarged veins diminish in size, the thickened skin becomes pliable, and that the result is lasting. Care must be taken that the healing ulcer, however, does not infect the wound. He further advises a supporting bandage to be worn around the scar for some weeks after the operation, in order to prevent oedema. Comparing his results with those of the longitudinal incision and with those of ointment and bandage treatment, he comes to the conclusion that he is justified in recommending the method as the best, and in fact as the only, radical form of treatment.

(374) Internal Tarsorraphy.

TERSON (*Recueil d'Ophtal.*, December, 1901) showed at a meeting of the Paris Société d'Ophtalmologie an infant affected some years with neuro-paralytic keratitis, with insensibility of cornea. The ulceration of cornea had yielded to tarsorraphy extending from the lachrymal puncta for 4 mm. along the ciliary margins. This partial tarsorraphy, reduced sometimes to a bridge or even a thread, permits of the eye being attended to and operations done if necessary, and does not hinder vision. Terson considers it *l'opération de choix* in keratitis from lagophthalmos and neuro-paralysis. The effect is lasting, and in one case there had been no recurrence of corneal ulceration a year after the operation.

MIDWIFERY AND DISEASES OF WOMEN.

(375) Exophthalmic Goitre: Yielding of Abdominal Wound after Hysterectomy.

BOURSIER (*Revue Mensuelle de Gyn. Obst. et Paed. de Bordeaux*, March, 1902) in association with a case in his own experience, observes that Recours has recently collected in a thesis 62 cases of yielding of the abdominal wound after various operations on the abdominal and pelvic viscera. In one instance, Braquehaye of Tunis removed a pyosalpinx from a patient subject to exophthalmos. The wound yielded, but it is admitted that the accident occurred after the patient had left her bed too early. In Boursier's case the patient was 50 years of age, and subject to exophthalmic goitre. The hands trembled, and there was tachycardia with palpitations, but dysphagia, pain in the neck, and other local symptoms were absent. On the other hand the patient was much troubled by a painful, bleeding fibroid which invaded the broad ligament. Boursier operated on December 18th, removing the uterus with the tumour. Severe dyspnoea set in, with marked rapid and irregular pulse. Under digitalis and morphine these grave symptoms subsided. On December 31st, fourteen

days after the operation, all the sutures were removed. Early on the morning of January 2nd, 1902, the patient had a fit of coughing, and felt the abdominal wound give way, with little pain. Over 2 ft. of small intestine were found under the dressings. The extruded coils were well washed and enveloped in sterilized compresses soaked in warm boric lotion. Two hours later Boursier operated. The divided surfaces of the wound on each side had healed, so that the peritoneum was united to the skin as well as to the aponeurosis, and as the healing in this manner was complete on each side there must have been very weak union of the two sides, which were found difficult to approximate even after careful dissection of the layers. The peritoneum, muscle, and skin were sutured separately. The cardiac symptoms all recurred, but the patient recovered; an abscess developed in the wound at one point, otherwise union was good.

(376) Cancer of Stomach, etc., and Secondary Cancer of Ovaries.

SCHLANGENHAUFER (*Monats. f. Geb. u. Gynäk.*, vol. xv, Supplemental Number) has prepared an instructive series of tables comprising 79 cases (8 under his own observation) of metastatic ovarian malignant disease associated with primary new growths in the stomach, intestines, and other abdominal viscera. The seat of the tumour was the stomach in 61 cases, a portion of intestine in 10, the gall ducts in 7, and the suprarenal capsule in 1. A further analysis of the nature of the tumours showed how the stomach preponderated; the tumour was specified as cancer of stomach in 36 cases, cancer of pylorus in 13, ulcer of stomach presumably malignant in 4, sarcoma of stomach in 3, endothelioma of stomach in 1, chronic gastritis of suspicious character in 1, "tumour of pylorus" in 1, and tumour probably gastric in 1. Tumour of the ileum (malignant adenoma) was noted in 1 case, cancer of the large intestine in 9 (very distinct in 7 of the 9). Cancer of the bile ducts was detected as the primary disease in as many as 7 (8.8 per cent.) of these cases of secondary malignant disease of the ovaries. Turning to the nature of the ovarian tumour, it was some form of carcinoma in 51 (64.5 per cent.), including 2 cases of endothelioma and 2 of ovarian cyst with cancerous degeneration. The 1 case registered as "adenoma" was probably carcinomatous, out of 10 not distinctly certified the majority must have been carcinomatous. There remain but 17 truly sarcomatous, and 2 "myofibromata," hardly malignant and more probably coincidences, are included. Thus as in primary ovarian malignant disease carcinoma greatly exceeds sarcoma in frequency.

(377) Wound and Repair of Ureter in Hysterectomy.

MACKENRODT (*Monats. f. Geb. u. Gynäk.*, April, 1902) demonstrated, before the Berlin Obstetrical Society last December, the ureter and adjacent parts from a patient who died of pneumonia two years after abdominal panhysterectomy for cancer of the ovary and uterus. A piece of the ureter was excised during the operation and the cut ends successfully united. The distant result was instructive as being less satisfactory than might have been expected. Though the canal of the ureter was viable at the point of invagination, a calculus lay just above it and the kidney had undergone atrophy. On that account Mackenredt will in future only unite the ends of a divided ureter when no other resource is possible and will prefer to graft the upper end into the bladder.

(378) Retained Pessary in a Centenarian.

FENOMENOFF (*Monats. f. Geb. u. Gynäk.*, March, 1902), in the course of a discussion on improvised pessaries before a Russian Society, exhibited an appliance of this kind shaped like a hollow ball. It had lain for thirty years in the vagina of a very aged woman, in fact, she was no less than 72 years old when it was introduced. At the age of 102 it was found necessary to remove the pessary, a manœuvre which could not be effected without splitting the perineum.

THERAPEUTICS.

(379) Urotropin in Typhoid Bacteriuria.

E. FUCHS (*Wien. klin. Woch.*, No. 7, 1902) has investigated the action of urotropin in the treatment of urine containing the causal bacteria in typhoid fever. His material consisted of 41 cases of typhoid, of which 14 (=34 per cent.) showed bacteria in the urine. Of these 14 the bacteria could be recognized by microscopical examination in 10, while in the remaining 4 bacteriological cultures had to be made. In 4 cases the bacteria were very sparse, and in all probability were not typhoid bacilli. In 6 the bacteria proved to be B. coli communis, cocci, and other micro-organisms; 4 of these 6 were treated with urotropin without appreciable effect. In only 4 of all the cases—that is, in 9.75 per cent.—was there real typhoid bacteriuria. In 1 fatal case the bacilli appeared during the febrile state, while in the rest they only appeared after the temperature had fallen, or late in convalescence. In 1 case urotropin was given for one day only, and in 2 others for a long period. In all 3 the numbers of bacilli diminished considerably, already on the following day. In the fourth case urotropin does not appear to have been used. Fuchs concludes that urotropin acts beneficially in these true cases of typhoid bacteriuria, and should be given for a considerable time, even during convalescence, until the bacilli have entirely disappeared. He believes that its action is rather inhibitory than antiseptic.

(380) Treatment of Syphilis of the Nervous System.

JOSEPH COLLINS, New York (*Philad. Med. Journ.*, February 8th, 1902) regards tabes dorsalis and general paralysis as syphilitic disease of the nervous system in the narrow sense, that is, as diseases developing on a basis of antecedent syphilis long after all active constitutional syphilitic symptoms have passed away. The successful treatment of cerebro-spinal syphilis depends upon the discrimination between such parasyphilitic diseases as the above and syphilis proper, which is marked by inflammatory, exudative, and hyperplastic changes directly excited by the virus of syphilis. Antisyphilitic treatment in the form of large doses of mercury and iodides does no good in parasyphilitic diseases. The popular belief in the complete curability of syphilis after two and a-half to three years of treatment is not borne out by the author's observations, for "quite one-half of my cases of syphilitic disease of the nervous system gave a history of having been through this kind of treatment, some of them under the care of well-known specialists." For active nervous syphilis daily inunction of mercurial ointment was practised till the system was saturated and ptyalism began. Hypodermic injection of mercurial solutions should be given deeply into the muscles of the hip or buttock, and not into the subcutaneous fat, every alternate day, beginning with $\frac{1}{10}$ gr. of the bichloride or tannate, and rapidly increasing to the point of tolerance. Potassium iodide should be given in 20-gr. doses thrice daily, and increased 10 gr. per dose till cure of symptoms is noticed, when it should be diminished to the original quantity, and taken occasionally every week for life. In the presence of active syphilitic disease cold baths should be avoided, as also fatigue and overwork. Tonics, fresh air, drugs as above should be the main lines of treatment adopted.

(381) Atoxyl.

W. SCHILD (*Berl. klin. Woch.*, March 31st, 1902) gives a short account of the uses and disadvantages of the various preparations of arsenic, and concludes that none have gained a general approval. It therefore appears to be necessary to find some new preparation which will be able to demonstrate all the physiological actions and none of the disadvantageous effects. He turned his attention to a new preparation called atoxyl. It is a met-arsenious anilide, and has the formula $C_6H_5NHAsO_3$, and thus contains 37.69 per cent. As = as much as As_2O_3. It is a white powder, is odourless, and has a slightly salt taste. It is soluble up to 20 per cent. in warm water. The solution changes colour on standing, but the substance does not undergo any decomposition. It proved to be twenty times less poisonous than arsenious acid—that is, forty times less poisonous than its As value would indicate. In dermatological practice Schild used a 20 per cent. solution in warm water (in order to keep the salt completely dissolved), and injected at first $\frac{1}{2}$ gr., then $1\frac{1}{2}$ gr., and so on until 3 gr. were used. At first one day was allowed to intervene between the injections, and later two days. In this way large doses were given without producing local reactions, and without giving rise to un-

pleasant symptoms. The drug was less well tolerated by the mouth. At times a cumulative action was noted, but this was easily dealt with by interrupting the course for a few days. In alopecia areata and dermatitis exfoliativa it exercised no appreciable influence. In one case of xanthoma diabeticum marked improvement took place after four injections, and complete cure after twenty-two. In dermatitis herpetiformis (Duhring) it also acted well. Schild considers that he set it too difficult a task in employing it as the only form of treatment in psoriasis. Still, even without local applications, these cases improved with atoxyl. In lichen ruber a good result was obtained. In summing up his results he finds that fewer injections need to be given to gain good results with atoxyl than with any other form of arsenic, while the absence of local inflammatory reactions is a very great recommendation for its use.

PATHOLOGY.

(382) The Value of the Microscopic Demonstration of Tubercle Bacilli.

Lubarsch (*Deut. Aerzte-Zeit.*, October 15th, 1901) shows that evidence of the unreliable nature of the microscopic test for tubercle bacilli is steadily accumulating. Strauss and Kälble have proved that true tubercle bacilli may occur in the nasal and buccal cavities and in the lymphatic glands of healthy subjects. But every organism which stains by the Ziehl-Neelson method is not the tubercle bacillus. It has long been admitted that this may introduce serious error in examinations of the urine, owing to the acid and alcohol-resisting properties of the smegma bacillus. It is a mistake to suppose that the two can be distinguished by their morphological characters; the tubercle bacillus is exceedingly pleomorphic, and may simulate the usually shorter and thicker smegma bacillus, and pseudo-tubercle bacilli, which include the smegma bacillus, may occur as thin granular rods, indistinguishable from the typical organism of tuberculosis. Though as a rule the pseudo-tubercle bacilli are less resistant to acids and spirit than the genuine organism, this is not true of all varieties. The difficulty is by no means limited to urine analysis. A. Fraenkel stated in 1898 that he had repeatedly found acid-resisting bacilli in the sputum obtained from cases of non-tuberculous pulmonary gangrene, and his observations have since been confirmed by Pappenheim and Lydia Rabinowitsch. The writer now shows that these pseudo-tubercle bacilli may occur in a variety of conditions: (1) Since the sputum contained rods which stained well by the Ziehl-Neelson method, phthisis was diagnosed. As, however, the organisms were unusually short and thick, they were submitted to the test of injection into the peritoneal cavity of guinea-pigs. No tuberculosis developed, and the further course of the disease in the patient also negatived the original diagnosis. (2) A middle-aged man had anorexia, vague gastric pains, cough, and occasional pyrexia. He was anaemic and rapidly emaciated. The sputum contained acid-resisting bacilli, which, however, were innocuous to guinea-pigs. *Post mortem* carcinoma of the stomach with pleural and pulmonary metastases and purulent bronchitis was found. There was no trace of pulmonary tuberculosis or gangrene. The same harmless bacilli were found in the bronchial secretion; attempts to cultivate them failed. (3) In a specimen sent for examination a bronchiectatic cavity in the lower lobe of the lung contained pseudo-tubercle bacilli. Except for old calcareous tuberculous nodules in the bronchial glands there was no trace of tuberculosis and the bronchiectatic cavities were microscopically free from the disease. The injection of the secretion into guinea pigs had a negative result. (4) An abscess which formed near the hip-joint of a child 1 year old contained numerous acid-resisting rods, some of which were morphologically identical with tubercle bacilli, while others were shorter and thicker. All attempts to cultivate them or to infect guinea-pigs with them failed. The rapidity of healing after evacuation of the pus and the subsequent good health of the child likewise made tuberculosis very improbable. (5) A medical man, who as a child had had symptoms of tuberculosis, developed small cystic swellings on the forearm, not unlike furuncles, which contained a yellow cheesy material. In this were numerous acid-resisting organisms, morphologically identical with the tubercle bacillus. Cultivations and injections into guinea-pigs were both negative. An extirpated tumour had the microscopical characters of a typical sebaceous cyst, in the wall of which were nodules containing giant cells, but no true tubercles. The writer claims to have proved conclusively that the second, fourth, and fifth cases were not tuberculous, in spite of the presence of acid-resisting organisms. In the remainder it might be objected that the organisms, though true tubercle bacilli, were attenuated or even dead. Against this assumption is the fact that guinea-pigs are so sensitive to tuberculosis that they may be killed by the injection of fluids in which no tubercle bacilli can be demonstrated microscopically, and it is very unlikely that the organisms in these cases should all have been dead. It follows that in doubtful cases which include all in which an examination of a pathological liquid is likely to be made a bacterioscopic examination, even if the result is positive as regards the presence of acid-resisting organisms, is insufficient on which to base a diagnosis. Since cultures of the true organism only succeed in a minority of cases, the only remaining reliable test is the injection of the fluid into susceptible animals.

(383) Bacteriology of the Venereal Soft Sore.

Up to the present researches have established a probability which approaches a certainty that Ducrey's bacillus is the specific cause of the soft sore. Von Zeissl (*Centralbl. f. Bäkt.*, February 26th, 1902) analyses the researches which have led up to this conclusion. Before the days of bacteriological investigation the soft sore was believed by many to be due to a specific cause. In 1887 Welander described a bacillus in the discharge which he considered characteristic. Ducrey, in 1889, cultivated an organism on its natural medium, the human skin; he obtained secretion for inoculation from three typical venereal ulcers, and carried out three series of inoculations up to the twenty-fifth generation. In the pus from the original ulcers were a variety of organisms, but none constant. In the artificial pustules their number decreased, until at the fifth or sixth generation a product was obtained which was in the highest degree virulent, but from which no cultures were obtained on ordinary media. In this product a certain bacillus was constantly found with the microscope; inoculation on animals was without effect. Later Krefting demonstrated the same bacillus in the secretion from the ulcers, in the pus of bubos, in sections of extirpated sores, and the walls of bubos. Unna obtained similar results and many others confirmed them. Istamoff and Aspianz in 1897 obtained positive culture results on an agar medium made from macerated human skin. Lenglet also cultivated on a similar medium the ulcer being first disinfected with sublimate to destroy the ordinary pus organisms. Besançon and others have obtained pure cultures on the following medium—two parts of agar melted at 50° C. and mixed with one part of blood either from the human subject, the dog, or the rabbit. Inoculations of the organism on the human subject were positive. That it is the specific cause of venereal soft sores is shown (1) by the constancy of its presence; (2) by its exclusive presence in the later generations of the artificially produced sores; (3) by their inclusion in leucocytes in smear preparations and sections; (4) by their presence in certain cases in bubos following the sores; (5) by their absence from other similar ulcerative processes; (6) by the fact that pure cultures produce typical venereal sores in the human subject. It has been shown that the pus of many unopened bubos contains no organisms. Strauss believed that all those giving positive results had been inoculated after opening with the discharge from the sores; but although the pus in these abscesses may be free from organisms, it has been shown by Audry and others that the specific streptobacillus is to be found in the abscess walls in many cases, and in glands inflamed which have not reached the abscess stage. It would appear from a general survey that there are bubos in which the pus is free from micro-organisms, others in which it contains staphylococci, and others in which it contains Ducrey's bacillus. Now that the difficulties of culture have been overcome this question of the infectivity of bubos can be settled.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(384) Causes and Varieties of Chronic Interstitial Pancreatitis.

OPIE (*Amer. Journ. of Med. Sciences*, May, 1902) points out that chronic inflammatory changes in the pancreas are usually secondary either to changes in the neighbouring organs or to irritants or toxic substances reaching the gland through the ducts, lymphatics, or blood vessels, which latter by changes in themselves influencing blood supply and nutrition may operate as a cause, while obstruction of the duct, whether internally from calculi or externally from pressure, produces the same effects. Males are affected more frequently than females in the proportion of about 3 to 2, over two-thirds of the cases occurring between 40 and 60 years of age. Two types are distinguishable: (1) interlobular, where the newly formed connective tissue is between the lobules, the gland being hard and nodular; and (2) interacinar, where the process invades the lobules, separating the acini and implicating the islands of Langerhans, causing the gland to be tough rather than hard. Calculi in the duct of Wirsung or in the common bile duct, and carcinoma invading or compressing the pancreas are the commonest causes of obstruction of its ducts, and cases are reported of such conditions producing chronic interstitial pancreatitis. Ascending infections from the gastro-intestinal tract may affect the ducts, the more especially if they are themselves already in a favourable state for bacterial invasion through retained secretion from pressure, and in such cases persistent vomiting is a frequently associated condition. In those instances where the lesion is referable either to alterations in the blood vessels or to toxic substances brought thereby to the gland, arterial sclerosis and chronic passive congestion are among the former, while tuberculosis, syphilis, and alcohol are most notable among the latter. A chronic diffuse pancreatitis chiefly affecting the interstitial tissue of the gland is an occasional accompaniment of general or local tuberculosis, but alcohol is a more frequent cause, and cases are mentioned bearing upon the association of cirrhosis of the liver with chronic pancreatitis, the two lesions coexisting in about one-fourth of those cases recorded, thus probably explaining the occasional occurrence of diabetes in liver diseases. The interacinar type is usually accompanied by diabetes, and when such is not the case the lesion is found to be very slight in degree, and the islands of Langerhans but little implicated, while in the interlobular variety diabetes occurs only when the lesion is far advanced, and commences to invade the lobular tissue. Proliferation of the interacinar tissue is sometimes coexistent with atrophic hepatic cirrhosis, and a similar lesion accompanies hyaline degeneration of the islands of Langerhans, which latter condition is so generally associated with diabetes.

(385) Paralysis in Pertussis.

SIMONINI (*Rif. Med.*, November 14th, 1901) publishes two cases of cerebral paralysis occurring in children in the course of whooping-cough. The first was a child, aged 5¾ years, suffering from severe whooping-cough, who about the fourth week, after a severe bout of coughing, became comatose, and was afterwards found to be suffering from complete left hemiplegia, with paralysis of the lower facial. There were no sensory disturbances, no pain in the muscles, no reaction of degeneration, and the reflexes were preserved. The second case, a child aged 6½ years, at the end of the third week of a severe attack of whooping-cough, after a fit of coughing, became convulsed, developed right ptosis, slight paralysis of right facial, and paresis of left arm; an hour later deglutition became difficult and speech could not be understood. Next night coma, stertor, and Cheyne-Stokes respiration set in. The pupils were equal and rather small and acted slightly to light. The fluid withdrawn by lumbar puncture was limpid and did not contain any blood or tubercle bacilli. At the necropsy punctiform haemorrhages were found in the median and inferior part of the bulb, and a fairly large haemorrhage in the anterior median line, coming from the left spinal artery, just near its point of origin from the vertebral. Probably these haemorrhages with paralysis occurring in whooping-cough are more due to toxaemia than to any purely mechanical origin, for they may occur when active paroxysms of cough have practically ceased.

(386) Pain in the Toes during Convalescence from Typhoid Fever.

GUNY has made a study of this somewhat unusual phenomenon (*Thèse de Paris*, 1901). Pain is at first slight, but increases in intensity. There may be itching and tingling. Later the patients complain of shooting pains which occur at more frequent intervals as time goes on. At first they are felt during the daytime, but later they are nocturnal as well. There is extreme hyperaesthesia in the toes, to such an extent that contact with the bedclothes is intolerable. As a consequence of this, patients assume curious positions to prevent pressure. Hyperaesthesia becomes more marked, and seems to affect the deeper tissues. The least movement is sufficient to bring about an attack of pain. In 4 cases observed by the writer, the pain was bilateral. Ordinary tegumentary sensations were otherwise unaffected. The incidence of this symptom was practically the same in all the cases, that is to say, from the twenty-fifth to the thirtieth day after the beginning of the disease, and when an apyrexic period had been reached. In one case only were there some sligh initial symptoms before the fever ha completely subsided. In the majorit, of cases pain in the toes disappears, though it may last some weeks. It must, however, be remembered that this symptom may be a prelude to others of a more grave character, among which may be mentioned myelitis and paralytic symptoms. It has been suggested that peripheral arteritis is the cause. Treatment should be directed towards keeping the patient quiet and the parts enveloped in warm sedative materials.

SURGERY.

(387) Extirpation of Long Bones in Osteomyelitis.

IN dealing with the treatment of osteomyelitis and tuberculous diseases of long bones, F. Berndt (*Münch. med. Woch.*, April 1st, 1902) says that any means which can be suggested in the place of amputation should be carefully considered. In his material of osteomyelitis, consisting of 40 cases, the primary focus was always in the bone marrow, which directly contradicts the teacher of Küster. In those cases in which there is no periosteal suppuration, and at most merely oedema of the periosteum, this beginning could be readily demonstrated. There is great tenderness over the epiphyseal line marked pyrexia, drowsiness, and delirium with restlessness. On chiselling through the bone he always has found more or less pus in the medulla, and this mostly contained staphylococci. The treatment of this condition is usually either (1) simple incision, (2) early opening up the bone, and (3) as ultimum refugium, amputation. Berndt considers that in the severer forms one should excise or extirpate the diseased bone, or segment of bone, and thus attempt to preserve a useful limb. This operation is only to be regarded as a substitute for amputation. The periosteum must be kept intact, so that regeneration of bone is possible. To illustrate that this actually takes place he recounts 5 cases of osteo-myelitis treated in this way. Skiagraphs show the bone regeneration very plainly. After the removal of the bone the limb is fixed until there is fair new bone formation, when he employs a plaster-of-paris bandage. Küster stated that regeneration could not be relied on, but Berndt claims that this is an exaggerated fear, and states that in all his cases the regeneration has been completely satisfactory. When the epiphysis is infiltrated with pus, and when there is pus in the joint, the result of extirpation must of necessity be considerable shortening, but the limb will nevertheless be more useful than an amputation stump. He adds a few words on the technique of the operation. In dealing with tuberculous disease of the diaphysis of long bones he appears to be less constantly successful. In spite of the difficulties connected with cases which start as infiltration of the medulla, or extension from a diseased

joint, he has attempted to obtain regeneration even in these cases. In one he ascribes the failure to the fact that he unwisely resorted to a secondary suture in the after-treatment. In other cases regeneration actually took place.

(388) Genu Recurvatum.

Grandi (*Archiv. di Ortoped.*, August 18th, f. 5, 6, 1901) reports 4 cases of this rare deformity following resection of the knee for tuberculous synovitis. Of the deformities likely to occur after resection, flexion is the commonest, and has been attributed to various causes which the author enumerates. In the 4 cases recorded radiography showed a certain increased transparency corresponding to deficiency of calcareous material in the bone uniting the tibia and femur. This deficiency in the quality of the uniting callus may possibly be partly due to the removal of the osseous cartilages, which, according to recent research, play a part in the formation of bone. To avoid deformity after resection the author advises in operation resection in a wedge-shaped manner so as to secure a larger surface of union between the bones. It might also be advisable to lengthen and so weaken the tendons of the flexor muscles. The leg should be put up in slight flexion. As regards the treatment of genu recurvatum in the first case a wedge-shaped piece of bone was removed from the lower end of the femur and the leg straightened; in the other 3 cases, the patients being younger, forcible straightening under anaesthesia was sufficient. The results in each case were good.

(389) Treatment of Urethral Stricture by Electrolysis.

R. Newman (*Journal of Advanced Therapeutics*, January, 1902) states that during the past thirty years he has treated by electrolysis no fewer than 2,000 cases of urethral stricture, with results which lead him to consider it as the method to be adopted par excellence. His own experience is further supported by records of at least 1,500 cases in the practice of others. The armamentarium needed is as follows:—A good battery, the cells of which can be taken up one by one without any breaks in the circuit; a milliampèremeter; suitable electrodes. A correct and exact diagnosis is of first importance. None but organic strictures are suitable, and there should not be other disease of the bladder, prostate, or urethra. Any acute disease inflammation, haemorrhage, or discharge is a contraindication to electrolysis. In treating any particular case, the author first carefully explores the urethra to ascertain the exact size and situation of the trouble. He then selects an electrode about two numbers (French) larger than the stricture, and having seen that the battery is at zero, he connects the positive pole with an indifferent electrode conveniently fixed to the patient, the negative pole being attached to the electrode bougie, which is then carefully passed down to the beginning of the stricture. The current is then gradually turned on, avoiding any production of pain in the patient; about 5 milliampères are usually borne without any discomfort, and this strength should seldom be exceeded, the end of the electrode being gently pressed against the stricture, so as to follow the line of the urethra. In from five to fifteen minutes the electrode will have passed completely through the stricture, and may be passed on into the bladder. It should then be gently withdrawn, the current collector being gently returned to zero as soon as the end of the electrode has repassed the stricture. The patient will probably feel immediate relief, and the operation need not in any way interfere with his ordinary avocations. The *séances* should be repeated at intervals of about a week until a full-sized electrode can be passed without the least force or discomfort. In the author's experience the treatment causes no pain or inconvenience, is devoid of danger, whether from haemorrhage, fever, or other unpleasant complications. It relieves at once, without necessitating any irksome restraint of the patient, and, most important of all, no relapse takes place. Any failures can be traced to either (1) the operator himself, (2) a wrong diagnosis, (3) faulty instruments, (4) meddlesome interference with the patient. It only needs a clear head, steady hand, sensitive fingers, patience, and a small amount of skill and practice in genito-urinary practice.

(390) Hypopyon Keratitis due to Bacterium Coli.

Zur Nedden (*Klin. Monatsbl. f. Augen.*, January, 1902) reports the case of a child in which hypopyon-keratitis developed as the result of injury to the cornea with a table fork. The infiltrated area was scraped, and the pus when examined was found to contain enormous numbers of a particular bacterium whose bacteriological characters showed that it belonged to the colon bacillus group. Inoculation into a rabbit's cornea of a two-days old broth culture caused the development of a similar hypopyon keratitis, from which pure cultures of the same bacillus were made.

MIDWIFERY AND DISEASES OF WOMEN.

(391) Nocturnal Chyluria in Pregnancy.

Meinert (*Centralbl. f. Gyn.*, No. 10, 1902) observed this rare condition in a woman, aged 25. She had been three years married, and her sole previous pregnancy ended normally; though healthy, she was unable to suckle the child. On the present occasion the last period occurred in May, 1900, and fetal movements were felt in October; a week or two later the patient noticed that the urine passed in the day was clear, whilst that passed at night was turbid, a character which increased until in December it appeared like milk. Dysuria set in owing to small shreds which collected and blocked the urethra. On December 22nd complete obstruction occurred. Meinert passed a catheter and drew off urine which bore the external appearances of rich cow's milk, and proved on chemical examination to be highly chylous. Excepting on eight nights—when, for no reason that could be detected, the urine was quite clear—chylous urine was passed at night until spontaneous labour occurred on February 6th, 1901. Between 8 a.m. and half an hour after midnight the urine passed during the latter part of the pregnancy was clear, quite normal, but of low specific gravity, about 1015. From 12.30 a.m. till 8 a.m. the chylous urine was excreted. After delivery the chyluria disappeared suddenly; indeed, the urine was only once absolutely milky (second day of the puerperium), and only once more (seventh day) turbid; on both occasions the urine was passed in the night. There was no milk in the breasts, and the child was sickly and difficult to rear. Both during and after the continuance of the chyluria the patient was in good general health, nor could any visceral affection be detected. In a discussion on this case, Oehme recalled another instance of nocturnal chyluria, which was published in full in the *Deut. Archiv. f. klin. Med.*, vol. xiv, 1874. A man, aged 50, who ultimately died of cancer of the stomach, passed chylous urine from 11 p.m. to the end of the small hours. Neither rest in bed, nor exercise, nor changes of diet had the least effect on the abnormality of the urine, which in the daytime was quite natural in composition. During the administration of tannate of quinine the chyluria disappeared, most likely by coincidence. After death the kidneys were found to be normal, and nothing could be detected which might account for the abnormal composition of the urine.

(392) Heart Disease in Pregnancy, Labour, and the Puerperium.

Christer-Nilsson and Elis (*Hygeia*, vol. lxiii, 1901, p. 345) do not consider that the existence of a physiological cardiac hypertrophy in pregnancy has been proved, though there is strong evidence in favour of the theory. Nor is it quite clear what influence pregnancy has on compensatory hypertrophy and in advanced changes in heart disease. During the period of expulsion there is increased thoracic pressure, so that the danger when heart disease exists should, theoretically, be greatest at that stage of labour. It appears, however, that death is far more frequent during the puerperium. The condition of the tissues of the heart, especially its muscle, is more important than the increase of pressure. The frequency of abortion and premature labour is probably due to increased venosity of the blood. The induction of premature labour or abortion is only justified when failure of compensation is marked. The period of dilatation involves little extra strain on the heart; but when the second stage begins, artificial measures with very careful narcosis are called for. The authors relate a bad case of mitral incompetence in a primipara, aged 26, but instruments were not needed. As often

seems to happen, however, death from failure of compensation occurred in childbed.

(393) Lichen Ruber and Kraurosis Vulvae.

SIMON (*Monatschr. f. Geb. u. Gyn.*, March, 1902) demonstrated before the Obstetrical Society of Berlin last November a somewhat important case of skin disease of the vulva. The patient was 34 years of age, and had been subject to amenorrhoea for eight years. For the last three or four months, during which the patient had been under observation she had suffered from lichen ruber, generally diffused; it involved the vulva. Arsenic was administered, and the skin disease steadily disappeared. Simon emphasizes the fact that as it was in course of disappearance from the vulva it simulated kraurosis vulvae.

(394) Inversion of Uterus and Cervix from Fibroid.

AMANN (*Centralbl. f. Gynäk*, No. 1, 1902) admits that in the majority of cases "total" inversion of the uterus means that the body alone is turned inside out, passing through the canal of the cervix, which remains in place. But he notes that M'Clintock, Fritsch, Schauta, and Küstner have described authentic cases of total inversion strictly so-called, the cervix being involved as well as the body. His own patient was 41, and had borne two children, the youngest was 14 years old. Bearing-down pains had troubled her for several years, and for twelve months the uterus, according to her account, had been down, though she could always push it up. A fortnight before she consulted Amann a fresh prolapse occurred as she was lifting a weight. It grew big, and on inquiry it was found that before the second prolapse progressive emaciation had occurred, with free floodings, fever and rigors. The tumour was as big as a fetal head: it was a sloughing fibromyoma. On careful scrutiny it was found to spring from the fundus, but had contracted an adhesion to the posterior vaginal wall, forming a second pedicle broader than its normal attachment. This tumour had evidently protruded into the vagina for some time. The relation of the uterus to the tumour was not determined without difficulty. A circular groove at the uppermost part of the mass proved to be not the os externum embracing the inserted body, but the os internum, above which lay the everted cervical canal traceable on to the vaginal wall. The bladder was not involved in the displacement of the uterus. The patient was in a septic condition; nevertheless the uterus was amputated with the tumour and the posterior vaginal wall around its second attachment. The patient did better for a short time, but the septic infection ultimately caused her death.

THERAPEUTICS.

(395) Silver Nitrate in Cholelithiasis.

F. EHRLICH (*Münch. med. Woch.*, April 8th, 1902) gets good results by treating cholelithiasis, especially if accompanied by cholangitis and cholecystitis, by washing the stomach out with silver nitrate solution. He regards this drug as a cholagogue. The patient has first to be accustomed to the use of the stomach tube, since the retention of appreciable quantities of silver nitrate would act poisonously. Each washing out lasts about ten or fifteen minutes. The stomach is first washed out with water at 40° to 50° C., until the water returned is clear. Then ½ litre of a 1 per cent. solution of argent. nit. at 40° to 50° C., is poured into the stomach and allowed to remain from one-half to two minutes. Lastly, the stomach is again washed out with hot water until the returned fluid is no longer milky. At times this procedure makes the patient very nervous, but such exhaustion diminishes on subsequent repetitions. After a few washings out a marked swelling of the liver is noted. This is occasionally sufficiently severe to cause a stenosis of the pylorus ventriculi. After a few more washings out, greenish diarrhoeic stools are passed, containing, in cases of cholelithiasis, gall stones. The liver swelling then rapidly disappears. This diarrhoea he calls a bile diarrhoea. To prove that these signs are due to the silver salt, and not to the washing out of the stomach, he employed the drug as an ordinary medicine, and obtained like results, but these were not so complete, nor yet so regular, and therefore he considers that the process of washing the stomach out with the solution is the best method. He gives accounts of some of the best marked cases. In one case he illustrates another value of the swelling of the liver. The diagnosis of cholangitis or cholelithiasis was made, but when the liver swelled up after the stomach had been washed out a tumour in the region of the gall bladder could be felt. This was recognized as a carcinoma and the diagnosis confirmed at the operation.

(396) Possible Dangers in the Use of Lysol.

LINCK (*Arbeiten aus dem pathol. anat. Inst. in Posen*, 1901) has made a series of experiments on rabbits with a view to determining more accurately the toxicity of lysol. He thinks the subject deserving of attention, because, in spite of its supposed non-poisonous character, a few cases occur every year where lysol has been found to produce symptoms of poisoning and even death, either when applied externally, used to irrigate the bowel or wash out the uterus, or taken inadvertently by the mouth. Details are given of a case occurring in Posen, in which 50 c.cm. of undiluted lysol were accidentally included in an enema. Unconsciousness followed, with stertorous breathing, feeble pulse, loss of reflexes, and rigidity of the extremities, and death occurred the same day. Introducing lysol into the large intestine of rabbits, Dr. Linck found that a dose of 0.224 c.cm. per kilo of body weight produced slight clonic convulsions, which were intensified by larger doses. 0.566 c.cm. produced unconsciousness, and 1 c.cm. death. The symptoms depended on the total dose, and did not vary with differences in its concentration. Erosions, more or less extensive, were found in the intestinal mucosa. When the lysol was introduced into the stomach the same effects were produced, but a larger dose was required; 1.16 c.cm. per kilo failed to produce any toxic symptoms, and 1.8 c.cm. was the minimum necessary for a fatal result. Comparing the *post-mortem* appearances found in the patient who died after administration of the enema with those produced in the rabbits experimented upon, it was found that there was a correspondence in the intestinal lesions.

(397) Codeine in States of Melancholia.

JULES CLAUSSE (*Thèse de Paris*, 1902) mentions certain classes of mental and nervous agitation which appear to be particularly benefited by codeine. Codeine phosphate was the substance used, especially with good results, in melancholia with acute feelings of misery, epigastric pains, shallow respiration, feeble secretions, and general bodily depression. Careful observations were made of its effects on 15 patients, namely, 5 males, 4 single and 6 married women. The ages of the patients varied from 19 to 76 years, the following being a few selected cases: Woman, aged 76 years, senile melancholia, treated with marked benefit; man, aged 50 years, melancholia with insomnia, much improved; man, aged 32 years, melancholia with self-accusations, great improvement: man, aged 26 years, melancholia with mutism and delusions of persecution, greatly improved; single woman, aged 29 years, with delusions of persecution, hallucinations of sight and hearing, zoopsia, and hysteria, no effect; man, aged 21 years, hebephrenia (exaltation and mental confusion), with sexual excitement, no improvement. From careful analysis of the cases and results the following conclusions are drawn: (1) Marked improvement follows the treatment with codeine phosphate when there is melancholia with anguish and great moral suffering (*douleur morale*), and corresponding disturbance of general sensibility; (2) such patients were rendered bright, cheerful, and happy, and sleep was obtained; (3) the action of codeine on the bowels was not nearly so constipating as opium or morphine, while the respirations were increased in depth; (4) the dose of the codeine phosphate was 4 to 6 cg. hypodermically, or 6 to 8 by the mouth (excessive dosage produced headache, nausea, vertigo, tachycardia, and myosis of the pupils); (5) the drug was contra-indicated in all cases of intense excitement, including simple mania, as it increased such disorders.

(398) Agurin.

HOLLE (*Münch. med. Woch.*, May 6th, 1902) reports on agurin, which has recently been used in v. Ziemssen's clinic. Agurin is a combination of theobromine and sodium acetate, and contains 60 per cent. of the former, that

is, 10 per cent. more than diuretin. It is much less irritating to the mucous membrane of the stomach than diuretin, and acts as a harmless diuretic salt. It is a white, odourless powder, having an alkaline reaction, and is soluble in water. Clinically, it will be found of great use as a powerful diuretic, given alone or in combination with digitalis; in cases of cardiac affections if complicated with dropsy, where the kidneys are sound; and also in chronic interstitial nephritis. The smallest dose given was 1 gram (= 15 gr.), and the maximum dose may be taken to be 3 grams (= 45 gr.).

PATHOLOGY.

(399) Bacteriological Investigations on Syphilis.

Joseph and Piorkowski (*Centralb. f. Bäkt.*, April 10th, 1902), at a meeting of the Berlin Medical Society, March 5th, gave details of investigations on 22 cases of syphilis at periods varying between five weeks and three and a-half years. Bacilli were sought for in the spermatic fluid; they were not found there microscopically. This fluid was sown on to placental tissue, and in all 22 cases the same bacteriological result was obtained. After about 16 hours droplet-like colonies appeared, gradually becoming more prominent and taking on a greyish colour. The bacilli resemble diphtheria bacilli; they are rods with clubbed ends, and metachromatic bodies were demonstrated by Piorkowski. The colonies degenerate quickly; can be transferred to agar and other media; do not long maintain themselves on these, but can be regenerated by blood serum. In hanging drop auto-agglutination was seen, and agglutination by the serum of a syphilitic individual in a concentration of 1 in 30. Old syphilitic cases gave no results, as did also healthy spermatic fluid, and cases of azoospermia. The bacillus grew with difficulty on placental tissue from syphilitic women. Animal experiments are of no value; small animals do not take the disease, and the pig gives no satisfactory results. A sow inoculated with the bacillus in broth developed an eruption about the anus and in the vagina. Experiments on the human subject are not permissible; the results cannot therefore be corrected in this way, but the repetition of these investigations on a large scale would test the validity of the deductions. Piorkowski gave details of the biological features of the organism; it stains readily with dilute carbol-fuchsin, also by Gram's method, and is not acid-fast. In a discussion which followed the paper Jürgens considered the bacilli shown to be identical with those described by v. Nissen; he believed that the cause of syphilis had several forms according to its stage of development a coccal form, a bacillary form, and a spore form.

(400) The Transformation of Cells.

At the present day the theory of Virchow that carcinomata arise by a transformation of connective tissue cells is generally regarded as obsolete, but Lubarsch (*Arbeiten aus dem pathol.-anat. Inst. in Posen*, 1901) thinks that pathologists have been over-hasty in treating this view as entirely devoid of truth, and believes that the transition of tissue from one type to another, for example, from connective to epithelial, not only is possible, but occurs more frequently than is generally recognized. He examined recently a small primary tumour of the tibia which was essentially epithelial in character, the typical cells being cutical, having a glandular arrangement, and secreting a colloid material which often accumulated into small cysts. He was able, however, to demonstrate conclusively that these cells, although morphologically and functionally epithelial, were derived from the osteoblasts, and therefore calls the tumour an osteoblastic adenoma. This discovery led him to make a minute investigation of various sarcomata of bone, and he was able to find here and there evidence of a similar transformation of osteoblasts into epithelial cells, although the number of the latter cells was not sufficiently large to justify an alteration in the diagnosis. As an instance of metaplasia from flat endothelium to high cylindrical epithelium, he figures some preparations he made from recent vegetations of a mitral valve, where, especially in transverse section, the appearance is very similar to that of intestinal epithelium. Numerous other instances are adduced of various kinds of metaplasia, and it is suggested that this process affords the true explanation of many tumours which, from their abnormality in situation, are usually supposed to have developed from aberrant embryonic tissue.

(401) Tuberculous Infection.

Arnold Heller (*Münch. med. Woch.*, April 15th, 1902) attacks R. Koch's conclusions with regard to the etiology of tuberculosis. With regard to heredity, although he agrees that it is practically unimportant, he relates the story of an outbreak of tuberculosis among the guinea-pigs, which had come from a stock, which were all rendered tuberculous. In spite of great care, many experiment and control animals died of tuberculosis. The exciting cause was discovered to be in some unsound hay, on which the guinea-pigs were fed. These animals had inherited the predisposition, at all events, to the disease. Next, he deals with infection through tuberculous meat and milk. Koch's statement rendered it necessary to report all data, which could have any bearing on the subject. Koch considered primary intestinal tuberculosis in children very rare. Heller found in 714 necropsies, performed on children dead of diphtheria, that 19·6 per cent. showed tuberculous lesions. Of these 140 cases, 30.7 per cent. died of primary tuberculosis of the intestines, mesenteric glands, or both together, while a further 7.1 per cent. died of mesenteric gland tuberculosis accompanying tuberculosis of other organs. "It appears, therefore, on examining suitable material, that primary infection through the intestinal canal is common." Heller, lastly, recounts the case of a man, who attempted to obliterate the marks of tattooing, by inoculating the scars with cow's milk. In the site of these punctures, lupus developed. On microscopical section, the nodules were found to contain numerous typical giant cells, but no tuberculous bacilli were found. He considers, then, that it is premature to relax the rules for avoiding the ingestion of milk, etc., from tuberculous cattle.

(402) Experiments on Immunity.

Ainley Walker (*Journ. Path. and Bact.*, March, 1902) records a study of the behaviour of bacteria grown in their own immune serum and of the changes in the serum produced by such growth. According to the Ehrlich doctrine, the immune body is produced by the action of certain atom groups of the bacterial body; in other words, these groups are attractive to certain cell constituents, and by their action set them free as an immune substance. If, therefore, bacteria be grown in their own immune serum, the bacterial atom groups referred to should show affinity for the immune body and be stimulated to multiply, eventually being liberated as an anti-immune body. This actually occurs, and a bacterium may be immunized in this way against its immune serum, thereby becoming more virulent and less agglutinable. Similarly the serum in which its own bacillus has been grown is rendered less agglutinative and less protective against that bacillus. The atom groups which cause the production of the immune body by their action on cells is the basis of bacterial virulence and of chemiotactic influence. The immune body is not identical in different animals for the same bacterium, but exhibits a specialism to the species.

(403) Changes in the Brain in a Fatal Case of Concussion.

Hauser (*Deut. Arch. f. Klin. Med.*, Band lxv, 433) relates a case of fatal concussion in a patient aged 56, the symptoms gradually increasing in severity up to the sixth day after injury, when death occurred. The blow was in the right temporal region, and caused a fissured fracture extending to the base. There was no haemorrhage of any size, only some haemorrhagic infiltration of the white matter at the point of impact and the point of *contre-coup*: no signs of compression at any point. Throughout an area corresponding to the line between trauma and *contre-coup* there were patches of commencing softening without haemorrhage. Microscopically at these points there was seen to be granular degeneration of the white matter and ganglion cells. In the absence of any compression signs, these changes must have occurred as a direct consequence of the commotio cerebri, involving particularly those parts of the brain lying in the direct line of the force.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(404) Paratyphoid Infection.

BRION AND H. KAYSER (*Münch. med. och.*, April 15th, 1902) report a very teresting condition. A girl, aged 16 ars, was admitted into hospital on tober 31st, 1901. For the last three eeks she had gradually suffered from ss of appetite and stabbing pain the left upper region of the abdomen. he temperature and pulse frequency ere normal, the tongue was moist and rred, the chest natural, the abdomen as not distended, but there was tender- ess in the left upper region. The edge f the liver was felt 1 in. below the stal margin, and the spleen was also nlarged. The gastric juice showed yperacidity. There was a vaginal dis- harge, and on examination this was ound to contain gonococci, while the rifice of the urethra was reddened and wollen, and on pressure pus was dis- harged, and the hymen was ruptured nd much reddened. She denied any nowledge of the cause of these signs. he local condition was treated as gonor- hoea. On November 1st the tempera- ure rose to 104° F. without any pre- iminary rigor. Apyrexia on 4th. She ischarged herself on the 10th, but pplied again for treatment on the 19th. he pains, the vaginal discharge, and he pyrexia were again present. The emperature varied during the following lays, and on the 26th a typical typhoid roseola appeared. There were a few dry bronchi at each base. Urine contained a trace of albumen. No indican or diazo- reaction. The motion (obtained by enema) was brown and formed. A blood ulture showed an organism like the typhosus bacillus, but the serum of the atient did not agglutinate a culture of Eberth's typhoid bacilli, but did aggluti- nate the culture, even in a dilution of 1 in 1,000. The same bacilli were found in a roseola. On November 28th no gono- cocci were found in the vaginal dis- charge, while the bacillus was found. B. coli commune were found in the faeces. On December 3rd fresh rose spots ap- peared. The fever pursued a very irregular course. On December 11th, beside the B. coli commune, the typhoid-like bacilli were found in the faeces. On 25th, fresh crop of rose spots. For the first time a slight indican and clear diazo-reaction was obtained in the urine. On the 3rd the temperature sank to the normal line. On the 7th sudden pain and oedematous swelling of the left ankle, and on the 10th oedematous swelling of the finger-joints. For the rest, she made a good recovery. The temperature had been raised from Octo- ber 30th to November 11th, had again been raised on November 19th until December 4th, and for the third time had been raised from December 18th to January 3rd. In discussing the case the authors deal minutely with the pecu- liarities of the bacillus found; they regard it as bacillus paratyphus of Schottmuller. They do not look on the illness as the result of a mixed infection of gonococci and this bacillus, but rather that it was a separate infection due to the bacillus. Many other points are dealt with in the original paper.

(405) Congenital Dextrocardia.

LUCCHI (*Rif. Med.*, March 21st-22nd, 1902) records a case of congenital dis- placement of the heart, unaccompanied by anomalous position of other viscera. The patient, a man aged 63, had always noticed his heart beating on the right side. He was admitted into hospital in March, 1901, with symptoms of heart failure, and after various ups and downs died of that in December, 1901. On ex- amination there was complete absence of cardiac ictus on the left side; the apex beat was beating in the sixth right intercostal space, and there was a very slight fremitus. The car- diac dullness was difficult to make out: in its long axis it measured 16½ cm., and transversely 18 cm. Below, the cardiac dullness was continuous with that of the liver. There was a harsh systolic murmur at the apex, heard also in the hypochondrium and at the base. There was some evidence of arterio- sclerosis, and albuminuria of slight de- gree was present. No history of pleural effusion, tumour, or other mechanical cause of displacement could be dis- covered. At the necropsy the peri- cardial sac was displaced bodily to the right, and showed no trace of adhesions to surrounding viscera; it contained about 100 c.cm. of fluid. The pleural cavity contained about 500 c.cm. The heart's apex corresponded to the sixth right rib. The long axis of the heart passed from the sternal insertion of the second left costal cartilage to the sternal end of the sixth right costal cartilage. The thoracic aorta was a little displaced to the left. No other anomaly in the heart or vessels was noticed. On open- ing the heart the usual changes seen in atheromatous valvular disease were observed. There was no deviation of the spinal column and no evidence of anomaly in any other viscera. No satis- factory cause for this condition of dextrocardia can be given; probably it is owing to a fetal inversion of the initial curve which takes place in the transformation of the embryonal cardiac tube into the heart as we see it after birth.

(406) Hystero-saturnine Paralysis of the Radial Nerve.

JOSSERAUD showed an unusual case of radial paralysis at a meeting of the Lyons Medical Society (*Lyon Méd.*, December 22nd, 1901). His patient, a man aged 29, had no history of previous illness. While sitting at a meal, he found the extensors of his right arm, suddenly and without warning, para- lysed. A fortnight later, on examina- tion, the motor force of the upper arm was found intact, the forearm pronated, and the wrist flexed. The man was a working printer, and, though no lead line was to be seen on the gums, the slate-coloured patches described by Gubler as occurring in lead-workers were marked on the inside of the cheeks. There were, however, many anomalies in the distribution of the paralysis. In addition to its confine- ment to one side, it differed from typical lead palsy in many other respects. Thus the supinator longus was involved with the other muscles. The grasp was equally feeble with the hand forcibly extended as without. The interosseous muscles were paralysed. There was absolute anaesthesia of the hand and forearm, ending above at a circular line, which at first was situated at the level of the bend of the elbow, and afterwards at the junction of the upper and middle thirds of the fore- arm. The anaesthesia existed to touch, pain, and temperature. The reflexes were not altered, and there was no pain. The patient presented a hystero- genic zone in the right flank, and the field of vision was slightly retracted. A rapid cure was effected by means of the battery. Josseraud believes the case to have been one of toxic hysteria, and compares it to other neuroses with organic origin—for example, nervous asthenia with slight bronchitis, neurotic dyspepsia occurring with gastric ulcer, and the fugitive sensitivo-sensorial anaesthesia seen with cerebral haemor- rhage.

(407) Kernig's Sign in Sciatica.

MAGRI (*Rif. Med.*, April 9th, 1902), in view of the statement made by some authors that Kernig's sign is pathogno- monic of meningitis, reports the case of man suffering from sciatica who pre- sented this sign in a typical way, and yet who had no symptoms of menin- gitis. As the man died soon after admis- sion from a severe attack of typhoid a necropsy was made, and the diagnosis of simple sciatica confirmed. The meninges, beyond being a little hyper- aemic, showed no trace of inflammatory mischief, and the sciatic nerve itself was healthy. The author looks upon Kernig's sign in this case as an example of instinctive protection of the limb so as to avoid pain.

(408) Diagnosis of Pentosuria.

M. BIAL (*Deut. med. Woch.*, April 10th, 1902) considers that the usual test for pentose in urine, which consists in boiling the urine with fuming hydro- chloric acid and orcin for half a minute, when a green colour is developed, which can be shaken out with amyl alcohol, and which gives definite absorption bands in the spectrum, is difficult for the general practitioner to carry out. He, therefore, has devised a simpler means by which pentosuria can easily be dis- tinguished from diabetes. His new test, he says, is much more delicate than the one mentioned above, and is abso- lutely trustworthy. He found that cer- tain oxidizing bodies were capable of in- creasing the power of hydrochloric acid of splitting up pentose. The best suited

of these is perchloride of iron. He therefore has composed a reagent, which contains 1 to 1½ gram of orcin in 500 grams of fuming HCl, and 25 to 30 drops of a 10 per cent. solution of perchloride of iron. About 4 to 5 c.cm. of this reagent is added to 2 to 3 c.cm. of urine in a test-tube, which is closed by a pledget of wool. The mixture is heated until the first bubbles rise. A plentiful green pigment in flakes appears almost immediately or, if small quantities of pentose only are present, the urine becomes green after twenty seconds on cooling. Glucuronic acid can be demonstrated by the same reagent, but larger quantities of perchloride are necessary and the urine has to be boiled for one minute. There is, thus, no possibility of confusion between this body and pentose.

SURGERY.

(409) Traumatic Lesions of Subclavian Vessels.

MATAS (*Journ. Amer. Med. Assoc.*, January 11th, 1902) publishes a personal observation of a case of arterio-venous aneurysm caused by gunshot wound of the right subclavian vessels involving the artery within the scaleni. The following were the stages of an operation performed by the author on the ninth day after injury; section of the clavicle at the junction of the middle and outer thirds; dissection and elevation of osteoplastic flap formed by inner fragment of clavicle disarticulated at sterno clavicular joint, and of integument and sternomastoid muscle; exposure and preparatory control of the venous side of the aneurysm; exploration in search of the innominate artery and provisional loop applied around anomalous subclavian—the right carotid had a separate origin from the arch of the aorta, and there was no innominate; detachment of the subclavian vein from the artery at the point of injury after failure to identify the third portion of this vessel outside of the scalene muscles on account of obscuring mass of exudation; during this stage there was profuse haemorrhage from the artery at the anastomotic orifice, in spite of complete control of the vessel at its origin; the artery was finally tied on each side of the bleeding point, and the venous orifice closed by lateral suture; after the readjustment of the flap and closure and drainage of the wound, the bullet that had caused the injury was extracted by an incision over the anterior edge of the trapezius. This operation, which lasted nearly five hours, and most of which was performed under local anaesthesia, was followed by recovery of the patient with partial loss of hand and forearm from arterial ischaemia. The author, from an analytical study of 17 cases including his own, has been led to certain conclusions with regard to the surgical treatment of arterio-venous aneurysm of the subclavian vessels. In dealing with a case in a very early stage, when the patient has rallied from haemorrhage and shock, he would not invariably follow the rule laid down by Bergmann and Rötter, "that ligature of the artery should be performed as soon as the patient has recovered from shock." Even a reasonable suspicion or positive evidence of an injury to both vessels would not, it is acknowledged, be sufficient to justify neglect of this rule, but the development of positive signs of an established arterio-venous anastomosis would, it is held, justify delay when the patient can be kept under constant observation and intelligent supervision. If the primary haemorrhage be profuse and obstinate; if it tends to recur with the restoration of the circulation after shock; if the haematoma is extensive and progressively increases, then there should be no hesitation as to the urgency of surgical action. If, on the other hand, the primary bleeding is moderate and can be readily controlled by pressure, or ceases spontaneously and completely, and there is no extensive or progressively increasing haematoma, then delay is permissible. A conservative attitude is more than ever justifiable with early development of the signs of an arterio-venous aneurysm provided that the patient can be kept under competent and skilled surgical supervision. The author believes that in all fully-established subclavian arterio-venous aneurysms which are well tolerated and give rise to little disturbance the old rule of non-intervention should be followed. On the other hand, whenever the lesion is not well tolerated and gives rise to serious circulatory or other disturbance, it is justifiable to operate with the view of extirpating the lesions especially when situated in the more accessible third and second divisions of the artery. LEGUEU (*Bull. et Mém. de la Soc. de Chir. de Paris*, No 12, 1902) reports a case of wound of the subclavian artery and the last two cords of the tracheal plexus in the left side, in which, as there was a steadily increasing pulsatile tumour at the seat of injury, he operated on the ninth day. A double ligature was applied to the first part of the artery on each side of a wound that had partially divided the vessel. The injured nerves, though not completely severed, were much torn and bruised. The patient recovered without the occurrence of serious circulatory disturbances in the upper limb, but with persistence of considerable loss both of sensation and of motor function.

(410) Manual Reduction of Luxations without Anaesthesia.

ROLOFF (*Centralbl. f. Chir.*, No. 16, 1902) who has studied the subject of reducing luxations by gentle manual efforts and, at the same time, by dispensing with anaesthetics and instrumental appliances, states that he has succeeded in 10 instances in reducing luxation at the shoulder by the following method. The patient being laid on his back on the ground, the surgeon, placing himself on the injured side, grasps the luxated limb at the hand and begins to extend it slowly and gently. As the energy of the extension is slightly increased the limb is gradually abducted until it is almost vertical, that is to say parallel to the axis of the body. The arm is then slowly lowered whilst pressure is exerted by an assistant on the head of the humerus, which, with the arm fully raised, should be over the glenoid cavity. It is necessary, the author states, whilst extending and abducting the limb, to avoid excessive irregular extension, and thus to avoid setting up muscular spasm. The time taken in reducing luxation of the shoulder by this method varied in the author's cases from seven to thirteen minutes. Most of the patients on whom he has successfully applied this method were, he states, very strong working men. He has treated in a like manner with good results two cases of recent posterior luxation of the forearm.

(411) Bilateral Sympathectomy for Glaucoma.

FALVIS (*Gazz. degli Osped.*, April 6th, 1902) reports the case of a man, aged 57, suffering from chronic glaucoma of the right eye, with neuralgia and almost total blindness. On January 10th, 1901, bilateral resection of superior cervical ganglion was performed. This was followed by contraction of the pupil, congestion of the face, lachrymatous coryza, feeling of weight on the head, diminution of ocular tension, disappearance of orbital neuralgia, and improvement in vision. Unfortunately this improvement was only temporary, and sixty-two days later the blindness and pains returned. When seen on April 3rd vision was completely destroyed, the lens swollen and cataractous, cornea hazy and softened in parts, and haemorrhage into the anterior chamber and vitreous. There was also staphyloma, and the eye had to be enucleated. The left eye remained normal.

(412) Operative Treatment of Typhoid Perforation.

BRUCE (*Canada Lancet*, March 1902) reports a case of successful surgical intervention in a case of typhoid perforation of the bowel. The patient, a male, aged 29, presented symptoms of perforation on the fourteenth day after the onset of the fever. Median laparotomy was performed after an interval of about eighteen hours and a perforation, readily found in the ileum about 10 in. from the caecum, was closed by a double row of Lembert sutures. The peritoneal cavity was flushed out with hot solution and drained by iodoform gauze. The patient ultimately made a good recovery, and when last seen by the author was in excellent health, but convalescence was retarded in consequence of the necessity of performing a second laparotomy for a large subphrenic abscess. This abscess was a posterior one and the pus had evidently accumulated in the retroperitoneal tissues, inflammation having caused adhesion of the opposing layers of the lesser sac of the peritoneum, which formed a very strong barrier against the downward passage of pus into the general peritoneal cavity.

MIDWIFERY AND DISEASES OF WOMEN.

(3) Strangulation of the Uterus in a Ring Pessary.

Wiener (*Münch. med. Woch.*, April 1d, 1902) was called to see a uster, aged 73 years, who complained t she had been unable to pass water for ree days. Eleven days previously she d consulted von Winckel on account a prolapse. The fundus only was in- e the true pelvis, the vagina was ost completely invested and the inal portion of the cervix was much y trophied. Winckel succeeded in xtracting a vulcanite ring pessary rom behind the uterus, the presence of which could not be accounted for by the pa ient. After syringing the vagina out, Winckel kept the uterus in place by a ring pessary with a perforated septum. Th pessary had produced no symptoms fo eight days, after which time, on straining heavily at stool, she noticed th a portion of the prolapse of the kness of a finger again protruded, caused her pain. During the next hours the prolapsed portion became rge as a fist. Wiener found a mass e size of a man's fist protruding from ulva. It was bluish black, and a l opening could be detected in the r part. With difficulty he passed a r at the side of the prolapse, and the pessary with the holes in the m all round the cervix, so that it vident that the cervix had passed igh the central hole of the pessary. hole appeared later, and measured n diameter. Neither reduction nor e passage of a catheter could be out. The patient was anaesthet- and the ary was seized by bone ps and oved; after which, the er was ptied of 700 c.cm. of l urine The protruding mass not be uced, and as it appeared able to empt to save the patient operati, wet applications were ed. H ever, gangrene set in; ervix w therefore removed by lin's ctery. The patient re- ed.

(4) Ovarian Tumour in a Child.

(Mc at *f. Geb. u. Gyn.*, Supple- yaen mber, 1902) reports a suc- cessf otomy performed on a girl, aged tmour was of the size of an egg, unilocular but, as usu he circumstances, dermoid ele th and hair in this case) wer n the wall of the cyst. The ose from the left ovary and ed as a "parovarian cyst wit in its wall." The reasons wh ned "parovarian" are not giv

Quadruplets.

Cl s. *f. Geb. u. Gyn.*, April, 190 ported before the Asso- cia hysicians of Finland a cas et labour. The mother wa nd had been six times pre rst child (vertex pre- sen ivered spontaneously at econd (footling) was delivered by turning and extraction at 7.10 p.m., and the third (footling) was delivered by extraction at 7.15 p.m. A quarter of an hour later the fourth child was expelled with the membranes. The first and second children had a common placenta: the cords ranged from 9⅜ in. to 11⅜ in. The first child was 9½ in. long and weighed 2⅜ lb.; the second 9½ in. and 2½ lb.: the third 14¼ in. and 2⅝ lb.; the fourth 15¼ in. and over 2¼ lbs All lived but one day except the first, who lived eight days. Clopatt reports 3 quadruplet labours out of 1,674.815 births in Finland between 1879 and 1899.

(416) Nephritis and Pregnancy: Dropsical Fetus.

Opitz (*Monats. f. Geb. u. Gyn.*, March, 1902) recently exhibited before a German Society a dropsical fetus from a mother who was subject to oedema, amaurosis, and marked albuminuria. There was hardly any liquor amnii, but the fetus was very ascetic and hydrocephalic and there was distinct hypoplasia of the kidneys. Opitz considered that the absence of liquor amnii was due to scanty excretion from the diseased kidneys, otherwise there would have been hydramnion in this case. Delivery proved very difficult, perforation, craniocl asty, and emptying of the ascitic fluid were found to be necessary.

THERAPEUTICS.

(417) Medicinal Treatment of Tuberculosis.

Although he regards that in the treatment of tuberculosis the following factors must be considered as the chief importance namely, (*a*) open-air life, (*b*) plentiful animal diet, and (*c*) rest E. De Renzi (*Berl. klin. Woch.*, May 5th, 1902) would not like to disregard medicinal treatment altogether. At times one can do much with drugs in conjunction with hygienic-dietetic treatment. The preparations which have given him the best results are ichthyol, ichthoform, and sod. salicyl. The action of ichthyol is said to consist in slowing abnormally increased metabolism, and in conserving the using up of albumen. Some years ago De Renzi tried this drug in phthisis, but, owing to a faulty method of exhibiting it, he did not get good results. His recent experience teaches him that, when employed in severe cases, two marked effects can be noted: First, a distinct diminution of the bronchial secretion takes place, and at the same time the *râles* disappear more or less completely; in other words, the "bronchial catarrh" diminishes or disappears. Secondly, the patient puts on weight. Accompanying this change, a raising of the arterial tension can be ascertained. In considering the mode of action, he expresses the opinion that ichthyol probably owes its effects to complicated chemico-biological processes, and not, as has been suggested, to a pure antiseptic action. He gives it in large doses, and continues it for a long period. Preferring the fluid preparations, he advises one of the following formulae: R Ichthyol. ammon. 6 drachms 25 gr.; aquae destil. 2 oz.; alcohol rect. 2 oz.; syrup. aurant. 1 oz. 6 drachms; syrup. limonis 1 oz. 6 drachms. Or, R Ichthyol. ammon. 6 drachms 25 gr.; elixir simpl. (*Pharm. U.S.A.*) 5 oz. 4 drachms; aquae destil. 2 oz. M.D.S. One teaspoonful in a glassful of water, once or several times a day. As a rule, he prescribed one teaspoonful a day during the first week, two teaspoonfuls a day during the second week, and so on until eight or ten teaspoonfuls were taken during the day; that represents a daily dose of 8 grams (123.2 grs.). At times he finds a mixture of ichthyol in peppermint water and syrup, useful. Notwithstanding the objectionable taste of ichthyol, he usually gets his patients to take one of the foregoing mixtures without complaint, and even has experienced that a patient, finding that the drug was doing him good, has asked for the dose to be increased. As an inhalation, he uses ichthyol on a piece of cotton wool, in a suitable apparatus, and has obtained good results in removing the offensive odour of the sputum in some cases. Ichthoform is a newer preparation, and is a reaction product of ichthyol and formaldehyde, the proper chemical terminology of it being thiohydrocarburic sulphate of formaldehydatum. De Renzi tried in 18 tuberculous subjects in doses of 1 to 3 grams (15 to 45 grs.) daily. He employed it in form of a powder. The effect appears to be like that of ichthyol, and it proved useful in combating diarrhoea and other digestive disturbances. Neither ichthyol nor ichthoform appears to have any influence on the fever, nor are they capable of diminishing the number of bacilli in the sputum. To reduce the temperature in tuberculosis he warmly recommends the use of sodium salicylate in dose of 15 gr., followed immediately by a large glass of water (about 7 to 9 oz.), which will prevent dilatation of peripheral vessels and consequent depression of the heart and changes in the kidneys. He has nothing but good experiences to report of its use. He asserts that he would be pleased if others would test the action of these drugs in phthisis.

(418) The Treatment of Thrush.

Gösz in 1806 and Concetti in 1899 advised and practised cauterization of the buccal mucous membrane by means of nitrate of silver for the cure of thrush. By Audry's advice, Mayoud has treated 23 cases of thrush by this method with excellent results (*Lyon Médical*, April 27th, 1902). At first a 1 per cent. solution of the silver salt was used, but a solution of 3 per cent. was found equally harmless and more efficient. In cases where the thrush was slight in degree but diffuse in distribution, a pencil was covered at one end with cotton wool and dipped in the solution, and then introduced into the child's mouth to be sucked. In severe cases the patches were rubbed with the solution. Neutralization of excess of nitrate by saline solution was found useless. No lesions

of the buccal mucous membrane or digestive trouble followed the use of either the 1 per cent. or the 3 per cent. solution. Occasionally vomiting occurred once after the washing, but the selection of a time (midway between two feedings) for administration was usually enough to prevent this. The cauterization may be repeated every twenty-four hours if necessary but once is generally enough. Thus, out of Mayoud's 23 cases, in 16 one application caused a cure, in 6 two were necessary, and in 1 only had the solution to be used three times. In 3 other cases 5 per cent. protargol solution was substituted for the silver nitrate with equally satisfactory results, but it possessed no advantage over the nitrate. The use of the 3 per cent. silver nitrate seems to be a simple and efficacious remedy for thrush, and to act much more certainly and quickly than the boracic washes in common use.

(419) Abortive Treatment of Boils.

A. Bidder (*Deut. med. Woch.*, May 1st and 8th, 1902) describes his method of dealing with furunculus, by which he includes those boils which consist of several foci of infection, running together and usually going under the name of carbuncle, but which are not produced by the B. anthracis. The method consists of injecting watery solutions of carbolic acid subcutaneously. He inserts his needle, in the case of smaller boils, through the skin at the extreme edge, and in the case of the larger ones (carbuncles) through the hard outer zone, and directs it obliquely towards the indurated tissue. A little of the solution is then injected, and the needle is withdrawn and inserted into another site, where more of the solution is injected, and so on until sufficient has been done; for large boils the whole syringe may be emptied. As a rule, he uses a 2 per cent. solution, and he strongly advises a stout needle. Shortly after the injection and he finds that one usually suffices a fair amount of pain appears, but this passes off after a short time. The ultimate results are very satisfactory, and except in cases in which there was much suppuration very little scarring occurred. He believes that this method is capable of arresting the infective process in any stage; in the early ones the necrosing of the tissues is prevented, and in the later stages further necrosis is avoided, and the tissue which has already died is quickly loosened and cast off. He describes the action of the injections as an almost magical one. He discusses the physiological action without arriving at any definite conclusions, and appends the histories of a few of his cases.

(420) Nucleinate of Iron.

L. Don (*Lyon Méd.*, April 20th, 1902) discusses the action of the iron salt found in the eggs of oviparous animals. Upon this salt, which Bunge has shown to be a nucleinate, the haemoglobin of the chicken depends for its iron. Salkowski has shown, by giving the same quantity of iron as albuminate and as nucleinate to rabbits, that if the number 3 represents the quantity of iron found in the liver of a control animal, 4 will correspond to the amount found in the case of the one treated by albuminate, and 9 in that which has been given the nucleinate. Nucleinate is the only salt of iron which is not transformed into chloride by the action of the gastric juice. The chlorides formed in the case of other salts change into oxides under the influence of the alkaline juices of the duodenum, and as such are absorbed by the leucocytes, which are rich in nucleinic acid, so that finally the iron is stored in the liver, spleen, and bone marrow as nucleinate. When used by the blood this is changed to ammonium ferrate. It is not certain that when iron is given as nucleinate the salt undergoes no change in reaching the liver. It is certain, however, that both the nucleinates are the same, that the one obtained from the liver and the one prepared from caseine by Salkowski's method both have the formula: $C_{40}H_{32}Az_{11}\ 4(Fe_2O_3)\ O_{12}\ (P_2O_5)\ 8(H_2O)$. Clinically, 1 to 2 grams per diem have been taken experimentally without ill effects. The usual dose is 0.50 gram per diem, and with this quantity Klemperer has had excellent results in the treatment of chlorosis.

(421) Potassium Nitrate and Nitrite in Chronic Increase of Arterial Tension.

Lauder Brunton (*Deut. med. Woch.*, April 17th, 1902) deals with the therapy of increased arterial tension. Arteries, which lose their elasticity in old age, offer an increased resistance to the blood stream, and as a result the heart hypertrophies. Both increased resistance and hypertrophy of the heart lead to an increased tension within the arteries. The heart may suffer in response to this—angina pectoris; and the brain may suffer—paralysis—due to rupture of the cerebral vessels and ploughing up of the brain by extravasated blood. When the heart is most attacked, the increased tension can be rapidly reduced by amyl nitrate or nitro-glycerine. But in order to reduce the tension for a sufficiently long time, so that the cerebral vessels may be kept safe, neither of these drugs is of avail. The potassium nitrate (saltpetre), on the other hand, is capable of dealing with the situation. Lauder Brunton relates how he came to the conclusion that this action of decreasing heightened arterial tension is more efficiently carried out by a mixture of the nitrate with the nitrite. He advises the following prescription for cases of arterial decay, with hard pulse, when one wishes to depress the cardiac activity, and to favour the permeability of the arteries: ℞ Potass. bicarb. gr. xxviii, potass. nitrici gr. xviii, sodii nitrosi gr. ivss. Taken in the morning, dissolved in a tumblerful of water. The two salts stimulate the kidneys, and in this way help to get rid of those harmful substances which act directly on the arterial walls, causing constriction.

PATHOLOGY.

(422) Anaesthesin.

C. von Noorden (*Berl. med.* April 28th, 1902) deals with experi carried out with anaesthesin, an ester of para-amido benzoate, w appears to be a white, tasteless, odourless powder. He first inqui to its toxic action, and found rabbits recovered after very large without much disturbance. The used in his experiments were far than the amount, which could be sorbed locally. He employed it cally in doses of 0.3 to 0.5 gram (8 gr.) twice or three times da cases of hyperaesthesia of the m including cases of gastric ulc good results. Given in lozenge the drug acted well in painful tions of the larynx and pharyn he found it more useful than coca that the action lasts longer. sedative against tenesmus and haemorrhoids, he uses suppos containing from 3 to 6 gr. of thesin, and for painful micturi small urethral suppositories In all the cases the drug was He tried it in another condition usually offers considerable in treatment, for certain fo pruritus, and especially in the of diabetes, the drug gave bad sults. For external use, he em ointment made with lard (1 to In no case did he find any un symptoms which could be re the drug. Lastly, he recomm use as a dry powder in the treat badly healing wounds, such as the leg, etc. He says that it is non-irritant when applied to or to an open wound.

(423) The Pathogenesis of Bronchial

Benedetto de Luca (*Riv. d.*, ber 6th to 10th, 1901), after dis the various theories on the abo tion, says that in order to asthmatic attacks the region certain bulbar centres, specia vasomotor, must be excited, th themselves depending essential special excitability of certa centres to various stimuli. asthma attacks neuropaths wh centres are very irritable, neuropaths may be attacked neuropaths the asthmatic atta the clinical equivalent of s neurosis. The essential pa fact in a fit of asthma is the of the bronchial calibre, cau by circulatory disturbance in membrane and partly by sp muscles of the bronchial w complete attack both conditi present. The diaphragmatic secondary result of the dy must be classed with the si of the other accessory muscl tion. The bronchial secreti play any marked part in genesis of asthma, and the to the spirals of Curschma Charcot-Leyden crystals.

BINDING LIST JUN 1 1952

R
31
B93
1902
v.1
cop.2

British medical journal
1902, v.1

Biological
& Medical
Serials

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

STORAGE